



Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement*: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity*: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity*: Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation*: Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted*: Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current*: Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance*: Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage*: Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption*: Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.411 \pm 0.02% (k=2)	403.452 \pm 0.02% (k=2)	403.463 \pm 0.02% (k=2)
Low Range	3.96158 \pm 1.50% (k=2)	3.98747 \pm 1.50% (k=2)	3.99174 \pm 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	113.5 $^{\circ}$ \pm 1 $^{\circ}$
---	-------------------------------------

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	200024.85	-8.32	-0.00
Channel X + Input	20005.36	0.39	0.00
Channel X - Input	-20003.50	2.72	-0.01
Channel Y + Input	200030.06	-2.90	-0.00
Channel Y + Input	20004.14	-0.70	-0.00
Channel Y - Input	-20008.00	-1.63	0.01
Channel Z + Input	200034.52	1.89	0.00
Channel Z + Input	20005.02	0.16	0.00
Channel Z - Input	-20007.28	-0.87	0.00

Low Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	2000.94	0.03	0.00
Channel X + Input	200.94	0.01	0.01
Channel X - Input	-198.93	0.16	-0.08
Channel Y + Input	2000.58	-0.17	-0.01
Channel Y + Input	199.97	-0.81	-0.40
Channel Y - Input	-200.24	-0.99	0.50
Channel Z + Input	2000.83	0.21	0.01
Channel Z + Input	199.97	-0.67	-0.34
Channel Z - Input	-199.90	-0.63	0.32

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	23.26	21.16
	- 200	-21.29	-22.70
Channel Y	200	-27.83	-28.04
	- 200	26.48	26.49
Channel Z	200	-11.47	-11.06
	- 200	9.80	9.70

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	1.92	-3.40
Channel Y	200	8.27	-	3.32
Channel Z	200	9.47	5.42	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15579	16774
Channel Y	16044	14871
Channel Z	16074	16518

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.87	-0.93	1.98	0.46
Channel Y	-0.62	-1.71	0.15	0.38
Channel Z	-0.46	-1.45	0.52	0.39

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **DAE4-690_Mar20**

CALIBRATION CERTIFICATE

Object **DAE4 - SD 000 D04 BM - SN: 690**

Calibration procedure(s) **QA CAL-06.v30
Calibration procedure for the data acquisition electronics (DAE)**

Calibration date: **March 26, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility; environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	03-Sep-19 (No:25949)	Sep-20
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	09-Jan-20 (in house check)	In house check: Jan-21
Calibrator Box V2.1	SE UMS 006 AA 1002	09-Jan-20 (in house check)	In house check: Jan-21

Calibrated by:	Name Eric Hainfeld	Function Laboratory Technician	Signature
Approved by:	Name Sven Kühn	Function Deputy Manager	Signature

Issued: March 26, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement*: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity*: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity*: Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation*: Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted*: Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current*: Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance*: Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage*: Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption*: Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.708 \pm 0.02% (k=2)	404.320 \pm 0.02% (k=2)	405.284 \pm 0.02% (k=2)
Low Range	3.98091 \pm 1.50% (k=2)	3.99691 \pm 1.50% (k=2)	3.93809 \pm 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	34.0 $^{\circ}$ \pm 1 $^{\circ}$
---	------------------------------------

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	200033.46	0.84	0.00
Channel X + Input	20008.04	2.81	0.01
Channel X - Input	-20004.44	1.63	-0.01
Channel Y + Input	200033.01	0.28	0.00
Channel Y + Input	20004.74	-0.31	-0.00
Channel Y - Input	-20006.65	-0.48	0.00
Channel Z + Input	200032.64	-2.81	-0.00
Channel Z + Input	20006.13	1.16	0.01
Channel Z - Input	-20004.98	1.17	-0.01

Low Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	2000.43	-0.43	-0.02
Channel X + Input	200.02	-0.96	-0.48
Channel X - Input	-198.74	0.19	-0.09
Channel Y + Input	2001.49	0.62	0.03
Channel Y + Input	200.61	-0.27	-0.13
Channel Y - Input	-200.64	-1.61	0.81
Channel Z + Input	2001.03	0.27	0.01
Channel Z + Input	200.69	-0.18	-0.09
Channel Z - Input	-199.00	0.18	-0.09

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	14.15	12.87
	-200	-12.83	-14.22
Channel Y	200	2.88	2.89
	-200	-4.30	-4.61
Channel Z	200	0.04	0.39
	-200	-0.98	-1.01

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-2.69	-2.68
Channel Y	200	7.95	-	-0.72
Channel Z	200	6.90	5.66	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16115	16314
Channel Y	16039	16490
Channel Z	16004	15469

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.25	-1.26	1.64	0.55
Channel Y	-0.70	-1.97	1.10	0.51
Channel Z	1.51	-0.80	2.84	0.58

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **EX3-3935_May20**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3935**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7
Calibration procedure for dosimetric E-field probes**

Calibration date: **May 27, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
DAE4	SN: 660	27-Dec-19 (No. DAE4-660_Dec19)	Dec-20
Reference Probe ES3DV2	SN: 3013	31-Dec-19 (No. ES3-3013_Dec19)	Dec-20
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498067	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642UD1700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
			Issued: June 1, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3935

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.49	0.53	0.48	± 10.1 %
DCP (mV) ^B	102.6	103.2	102.3	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	137.0	± 3.3 %	± 4.7 %
		Y	0.0	0.0	1.0		150.1		
		Z	0.0	0.0	1.0		141.6		

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 5).

^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3935**Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	44.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3935

Calibration Parameter Determined in Head Tissue Simulating Media

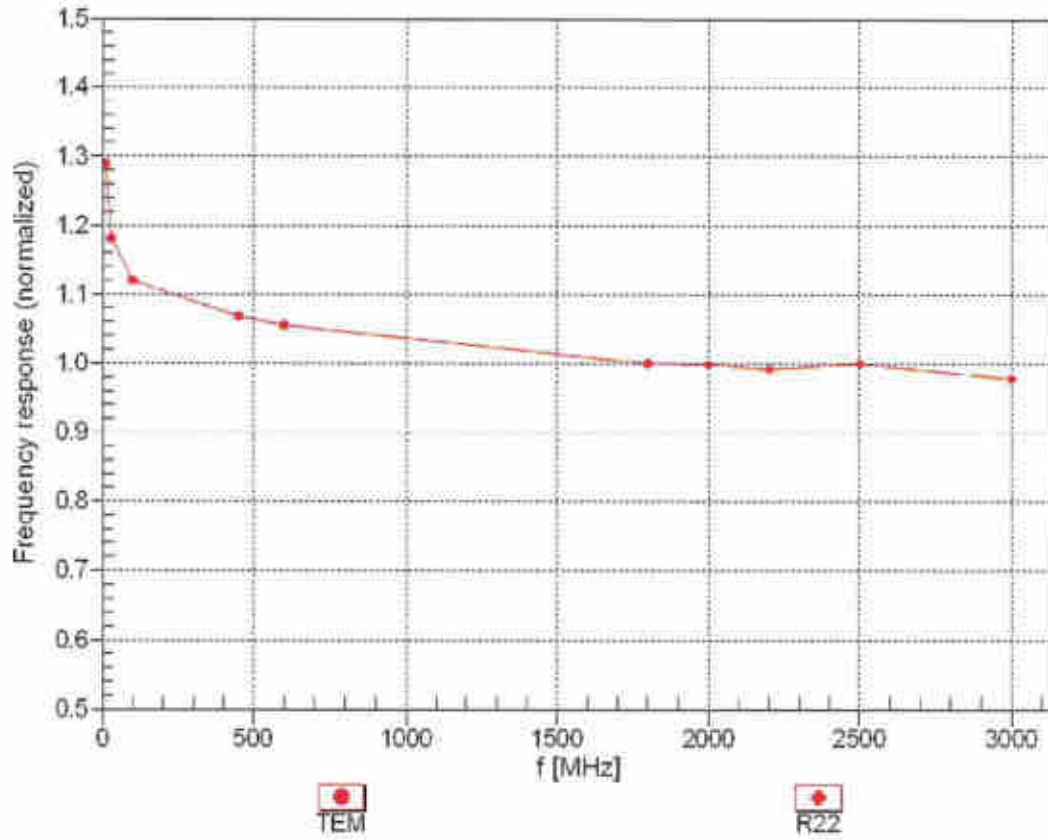
f (MHz) ^c	Relative Permittivity ^f	Conductivity (S/m) ^f	ConvF X	ConvF Y	ConvF Z	Alpha ^g	Depth (mm) ^g	Unc (k=2)
750	41.9	0.89	10.58	10.58	10.58	0.57	0.80	± 12.0 %
835	41.5	0.90	10.31	10.31	10.31	0.38	0.93	± 12.0 %
900	41.5	0.97	10.16	10.16	10.16	0.40	0.88	± 12.0 %
1750	40.1	1.37	8.60	8.60	8.60	0.27	0.86	± 12.0 %
1900	40.0	1.40	8.35	8.35	8.35	0.24	0.86	± 12.0 %
2000	40.0	1.40	8.25	8.25	8.25	0.34	0.86	± 12.0 %
2300	39.5	1.67	7.86	7.86	7.86	0.35	0.90	± 12.0 %
2450	39.2	1.80	7.60	7.60	7.60	0.33	0.90	± 12.0 %
2600	39.0	1.96	7.43	7.43	7.43	0.37	0.90	± 12.0 %
5250	35.9	4.71	5.04	5.04	5.04	0.40	1.80	± 14.0 %
5600	35.5	5.07	4.76	4.76	4.76	0.40	1.80	± 14.0 %
5750	35.4	5.22	4.67	4.67	4.67	0.40	1.80	± 14.0 %

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^f At frequencies up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^g Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

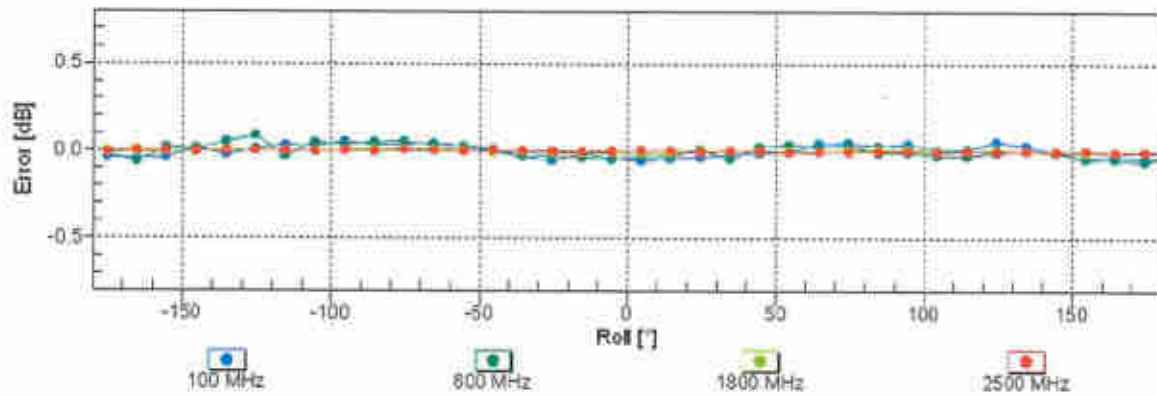
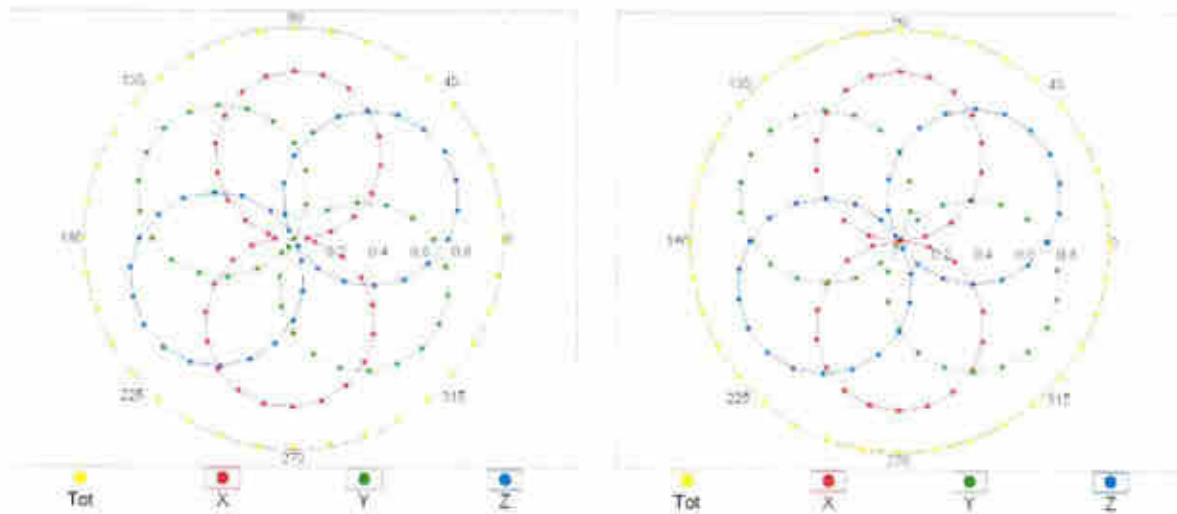


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$

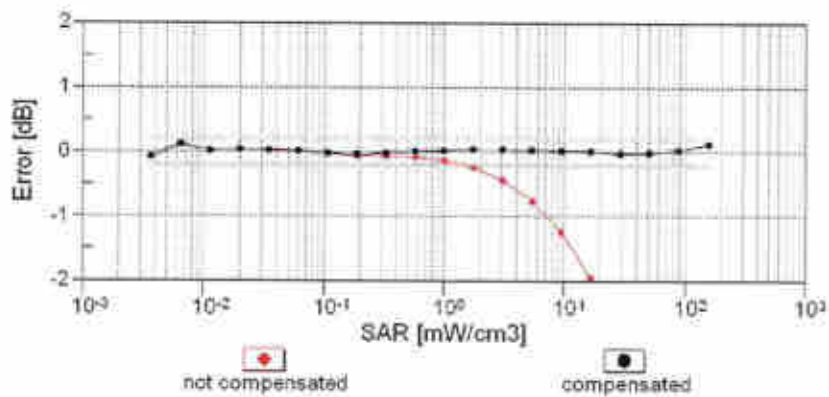
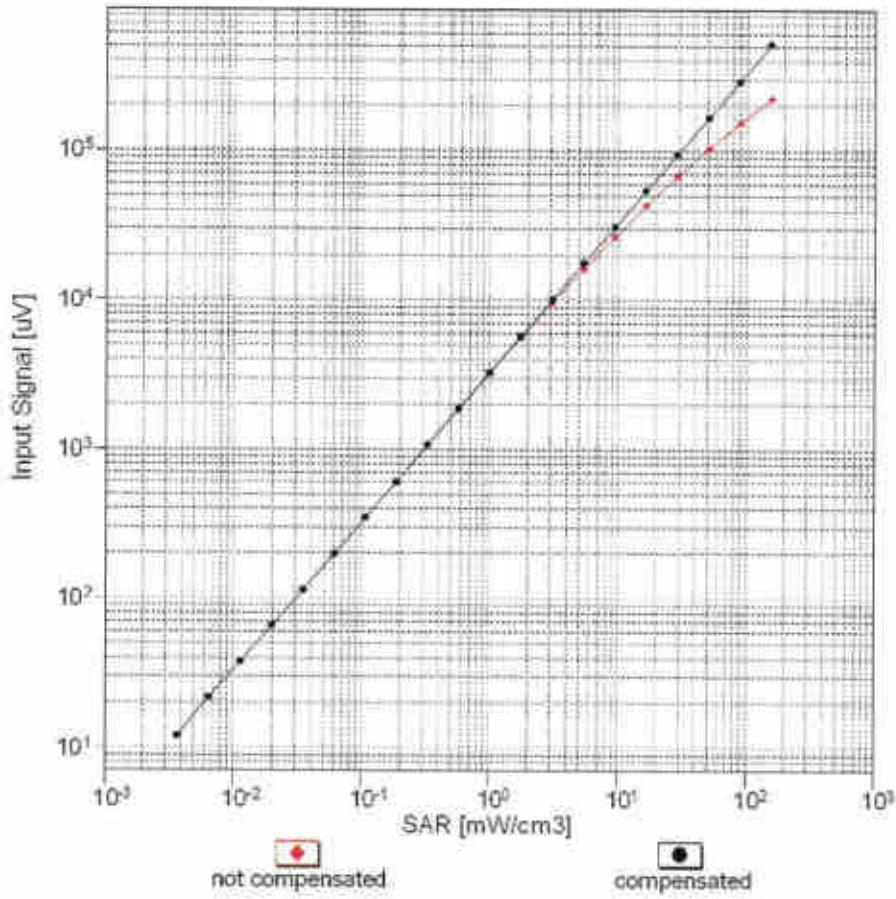
f=600 MHz,TEM

f=1800 MHz,R22



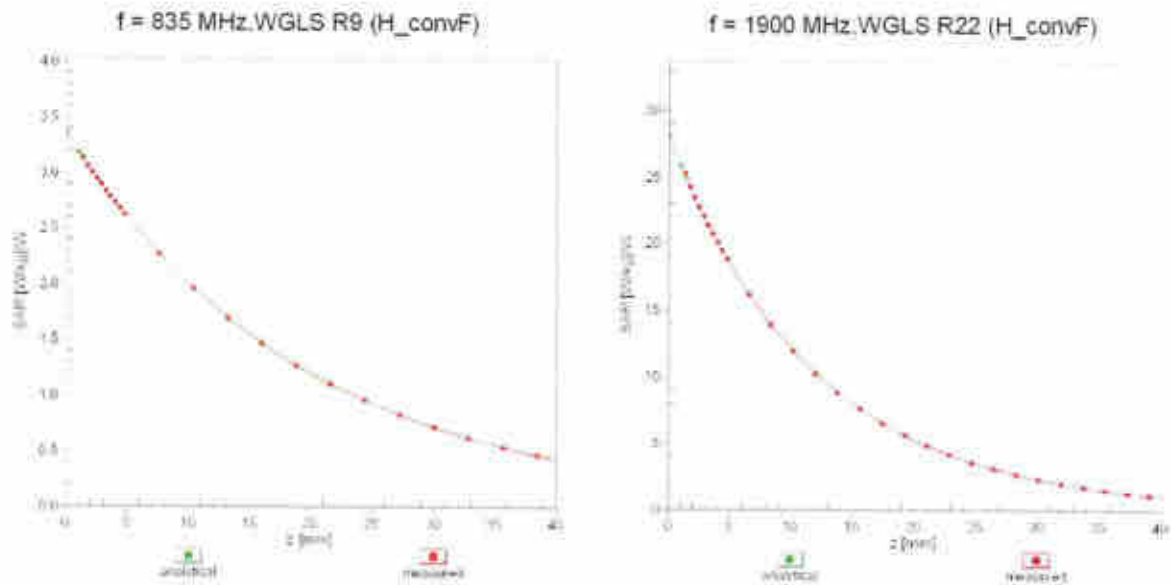
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

Dynamic Range f(SAR_{head}) (TEM cell, f_{eval}= 1900 MHz)

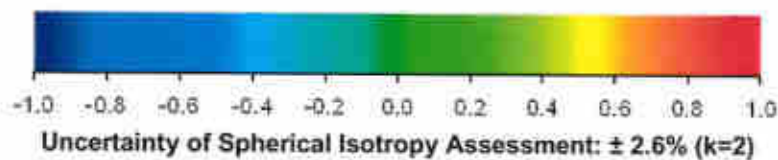
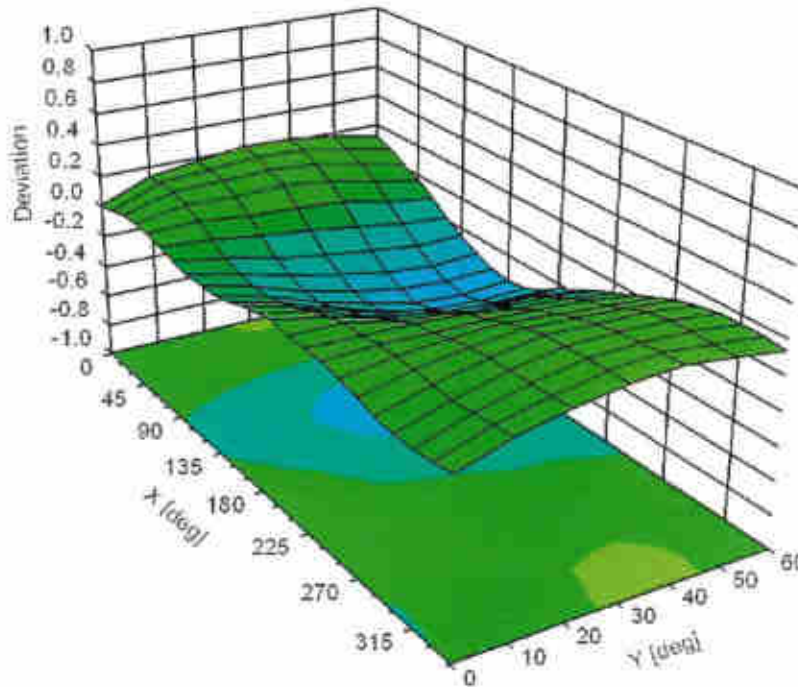


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, ϑ), f = 900 MHz





Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates.

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **EX3-7592_May20**

CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:7592**

Calibration procedure(s): **QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7
Calibration procedure for dosimetric E-field probes**

Calibration date: **May 22, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
DAE4	SN: 660	27-Dec-19 (No. DAE4-660_Dec19)	Dec-20
Reference Probe ES3DV2	SN: 3013	31-Dec-19 (No. ES3-3013_Dec19)	Dec-20
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 27, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: In a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7592

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.66	0.47	0.46	$\pm 10.1\%$
DCP (mV) ^B	98.7	100.2	98.2	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	143.0	$\pm 3.3\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		137.6		
		Z	0.00	0.00	1.00		139.6		
10352-AAA	Pulse Waveform (200Hz, 10%)	X	20.00	96.67	23.94	10.00	60.0	$\pm 3.2\%$	$\pm 9.6\%$
		Y	20.00	95.48	23.94		60.0		
		Z	20.00	95.35	23.55		60.0		
10353-AAA	Pulse Waveform (200Hz, 20%)	X	20.00	98.13	23.72	6.99	80.0	$\pm 1.6\%$	$\pm 9.6\%$
		Y	20.00	96.17	23.28		80.0		
		Z	20.00	99.34	24.32		80.0		
10354-AAA	Pulse Waveform (200Hz, 40%)	X	20.00	103.13	24.87	3.98	95.0	$\pm 1.2\%$	$\pm 9.6\%$
		Y	20.00	100.39	24.05		95.0		
		Z	20.00	107.03	26.46		95.0		
10355-AAA	Pulse Waveform (200Hz, 60%)	X	20.00	109.16	26.39	2.22	120.0	$\pm 1.2\%$	$\pm 9.6\%$
		Y	20.00	106.91	25.85		120.0		
		Z	20.00	115.84	28.99		120.0		
10387-AAA	QPSK Waveform, 1 MHz	X	1.66	64.78	14.38	1.00	150.0	$\pm 1.5\%$	$\pm 9.6\%$
		Y	1.82	65.72	15.24		150.0		
		Z	1.64	65.30	14.64		150.0		
10388-AAA	QPSK Waveform, 10 MHz	X	2.15	66.68	15.00	0.00	150.0	$\pm 1.0\%$	$\pm 9.6\%$
		Y	2.39	68.24	15.90		150.0		
		Z	2.16	67.14	15.34		150.0		
10396-AAA	64-QAM Waveform, 100 kHz	X	2.92	69.89	18.38	3.01	150.0	$\pm 0.7\%$	$\pm 9.6\%$
		Y	3.01	70.02	18.55		150.0		
		Z	2.52	68.22	17.84		150.0		
10399-AAA	64-QAM Waveform, 40 MHz	X	3.50	66.65	15.46	0.00	150.0	$\pm 0.7\%$	$\pm 9.6\%$
		Y	3.65	67.33	15.92		150.0		
		Z	3.49	66.76	15.61		150.0		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.93	65.49	15.38	0.00	150.0	$\pm 1.3\%$	$\pm 9.6\%$
		Y	4.87	65.08	15.27		150.0		
		Z	4.88	65.48	15.46		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 5).

^B Numerical linearization parameter; uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7592

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
X	50.2	372.49	35.00	18.44	0.06	5.10	1.55	0.19	1.01
Y	58.2	434.14	35.52	23.57	0.33	5.10	1.00	0.32	1.01
Z	46.8	350.57	35.76	12.03	0.37	5.09	0.94	0.20	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	9.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7592

Calibration Parameter Determined in Head Tissue Simulating Media

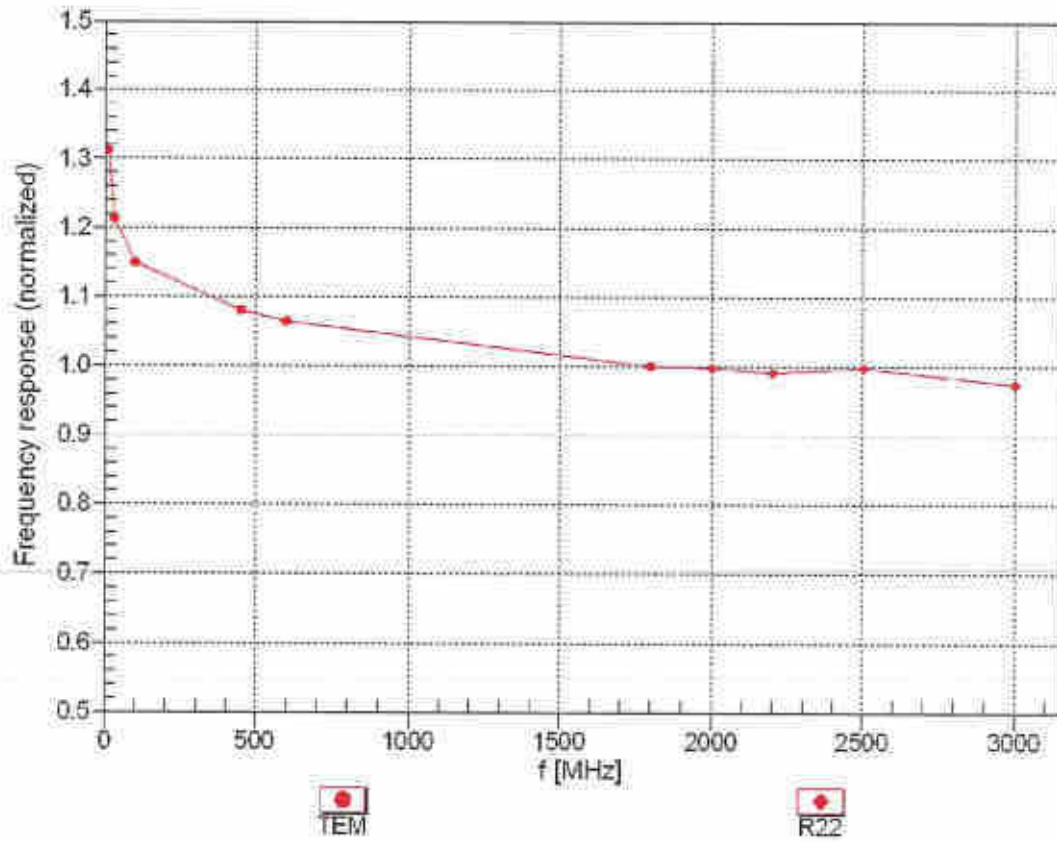
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^D (mm)	Unc (k=2)
750	41.9	0.89	10.31	10.31	10.31	0.49	0.80	± 12.0 %
835	41.5	0.90	10.05	10.05	10.05	0.45	0.85	± 12.0 %
900	41.5	0.97	9.90	9.90	9.90	0.44	0.80	± 12.0 %
1750	40.1	1.37	8.41	8.41	8.41	0.27	0.80	± 12.0 %
1900	40.0	1.40	8.22	8.22	8.22	0.34	0.81	± 12.0 %
2000	40.0	1.40	8.11	8.11	8.11	0.31	0.80	± 12.0 %
2300	39.5	1.67	7.81	7.81	7.81	0.29	0.90	± 12.0 %
2450	39.2	1.80	7.57	7.57	7.57	0.34	0.90	± 12.0 %
2600	39.0	1.96	7.31	7.31	7.31	0.26	1.10	± 12.0 %
3500	37.9	2.91	6.66	6.66	6.66	0.40	1.35	± 14.0 %
3700	37.7	3.12	6.58	6.58	6.58	0.40	1.35	± 14.0 %
3900	37.5	3.32	6.43	6.43	6.43	0.40	1.60	± 14.0 %
4100	37.2	3.53	6.15	6.15	6.15	0.40	1.60	± 14.0 %
4400	36.9	3.84	6.13	6.13	6.13	0.35	1.80	± 14.0 %
4600	36.7	4.04	5.87	5.87	5.87	0.35	1.80	± 14.0 %
4800	36.4	4.25	5.71	5.71	5.71	0.40	1.80	± 14.0 %
4950	36.3	4.40	5.47	5.47	5.47	0.40	1.80	± 14.0 %
5250	35.9	4.71	5.24	5.24	5.24	0.40	1.80	± 14.0 %
5600	35.5	5.07	4.65	4.65	4.65	0.40	1.80	± 14.0 %
5750	35.4	5.22	4.69	4.69	4.69	0.40	1.80	± 14.0 %

^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters;

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

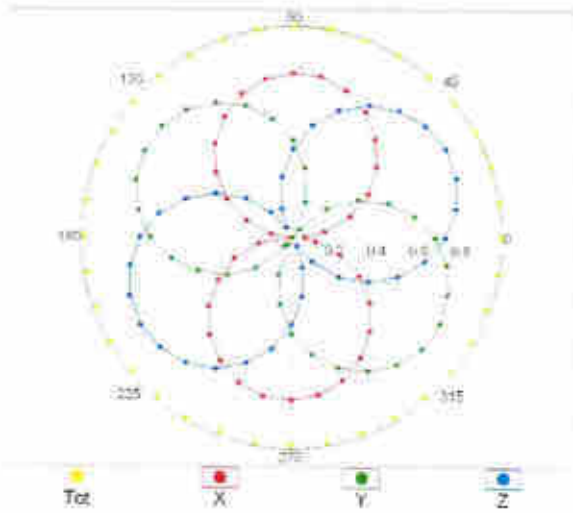
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



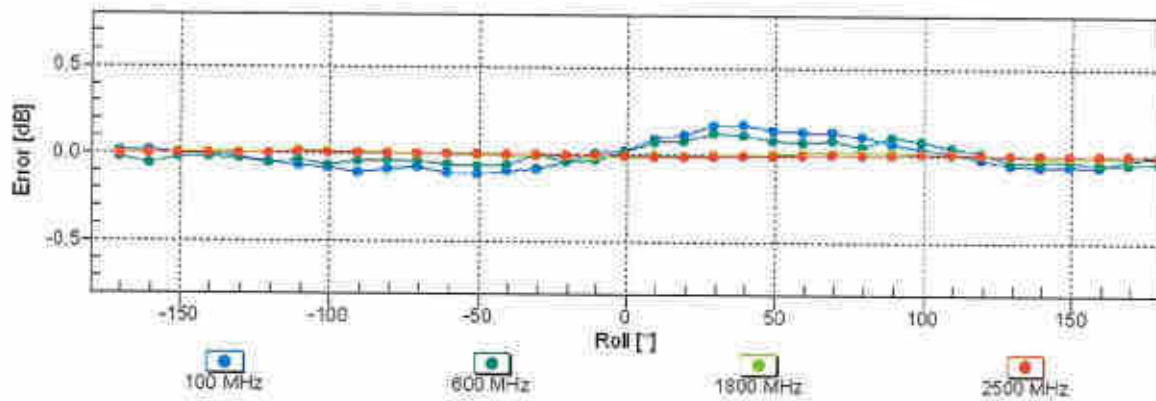
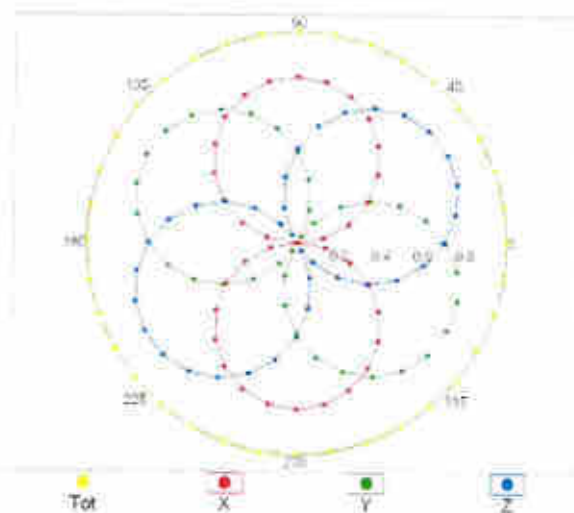
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$

f=600 MHz,TEM

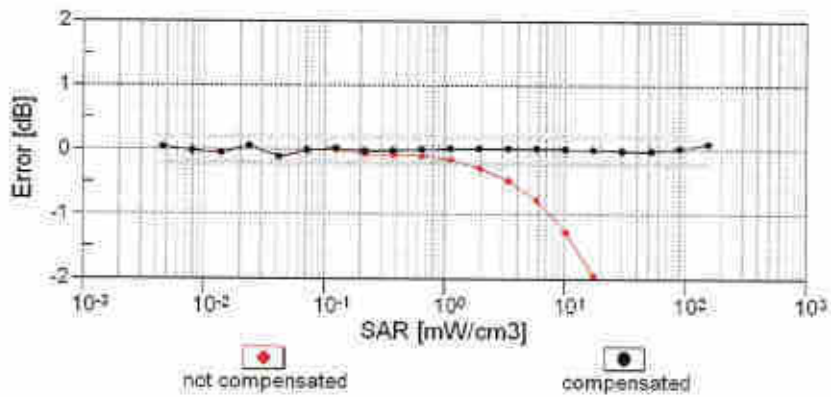
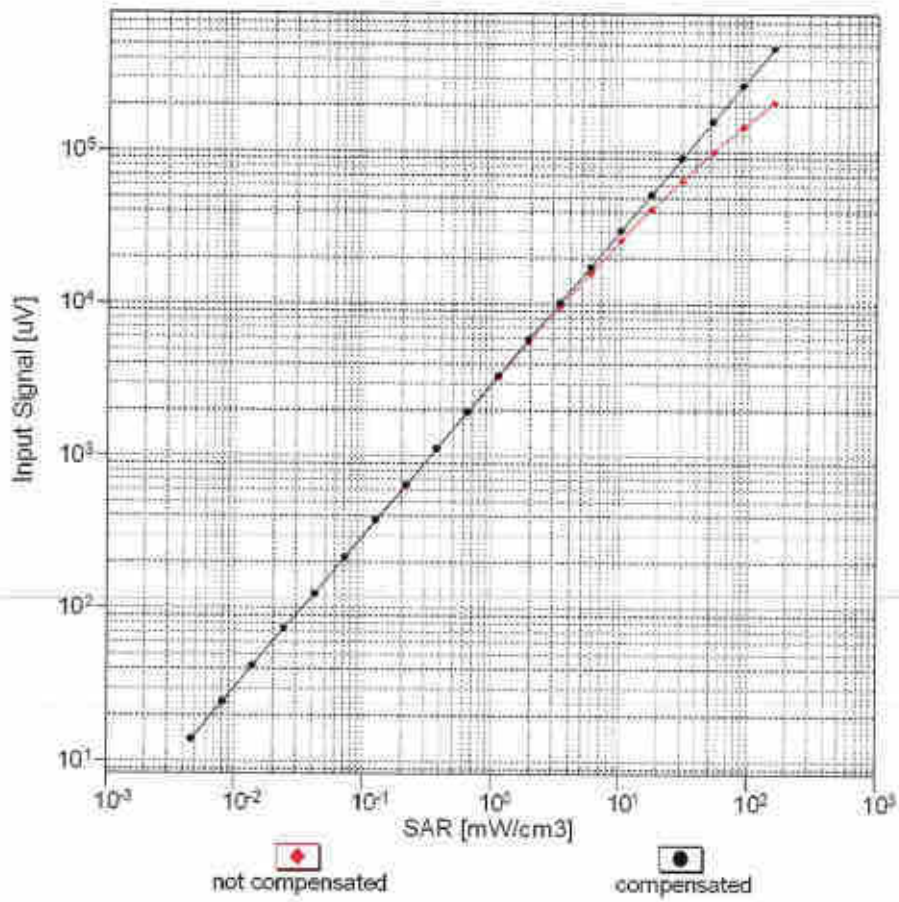


f=1800 MHz,R22



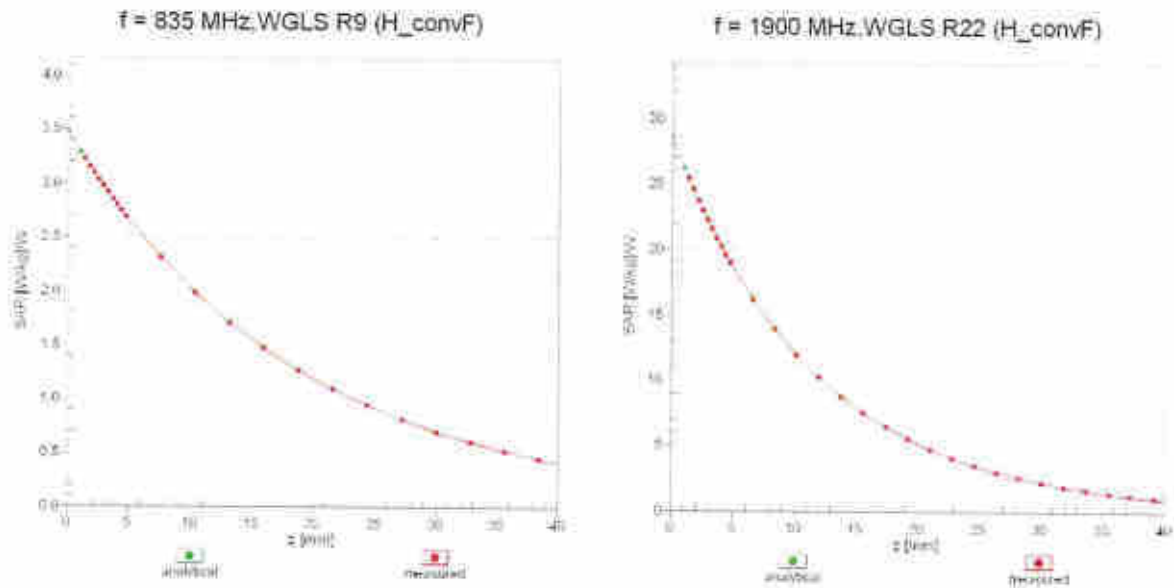
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

Dynamic Range $f(SAR_{head})$ (TEM cell, $f_{eval} = 1900$ MHz)

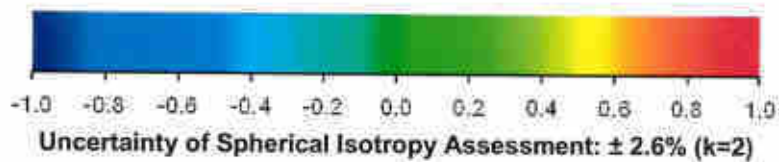
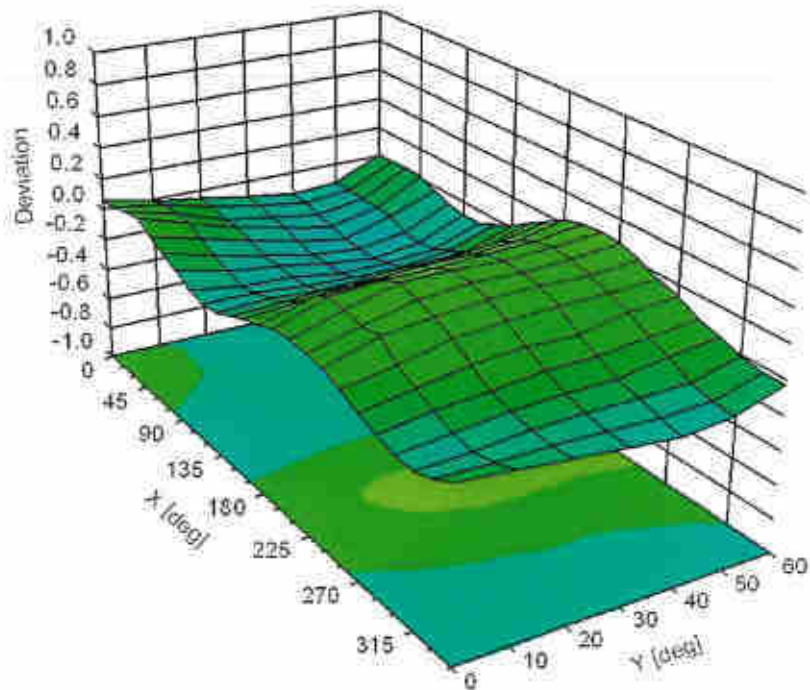


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, ϑ), f = 900 MHz



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^L (k=2)
0		CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %

10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6%
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6%
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6%
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6%
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6%
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6%
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6%
10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6%
10117	CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6%
10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	±9.6%
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6%
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6%
10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6%
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6%
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6%
10145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6%
10146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6%
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6%
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6%
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6%
10151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6%
10152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6%
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6%
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6%
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6%
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6%
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6%
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6%
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6%
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6%
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6%
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.6%
10166	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6%
10167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6%
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6%
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6%
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6%
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6%
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6%
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6%
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6%
10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10185	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6%
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10193	CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6%
10194	CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6%
10195	CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6%
10196	CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6%
10197	CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6%
10198	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6%
10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6%

10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 %
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10245	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	± 9.6 %
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 %
10260	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	± 9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %

10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	±9.6 %
10301	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WiMAX	12.03	±9.6 %
10302	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)	WiMAX	12.57	±9.6 %
10303	AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	±9.6 %
10304	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	11.86	±9.6 %
10305	AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	15.24	±9.6 %
10306	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	14.67	±9.6 %
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC)	WiMAX	14.49	±9.6 %
10308	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX	14.46	±9.6 %
10309	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3)	WiMAX	14.58	±9.6 %
10310	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3)	WiMAX	14.57	±9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	±9.6 %
10313	AAA	IDEN 1:3	IDEN	10.51	±9.6 %
10314	AAA	IDEN 1:6	IDEN	13.48	±9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)	WLAN	1.71	±9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	±9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	±9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	±9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	±9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	±9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	±9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	±9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	±9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	±9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	±9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)	WLAN	8.37	±9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)	WLAN	8.60	±9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)	WLAN	8.53	±9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	±9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	±9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9.6 %
10410	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	±9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)	WLAN	1.54	±9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	±9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	±9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)	WLAN	8.14	±9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)	WLAN	8.19	±9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	±9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	±9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±9.6 %
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	±9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	±9.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.82	±9.6 %
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	±9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	±9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	±9.6 %
10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	±9.6 %
10453	AAD	Validation (Square, 10ms, 1ms)	Test	10.00	±9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)	WLAN	8.63	±9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	±9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	±9.6 %
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	±9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	±9.6 %
10461	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.82	±9.6 %
10462	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.30	±9.6 %

10463	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	±9.6 %
10464	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.82	±9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	±9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	±9.6 %
10467	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.82	±9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	±9.6 %
10469	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	±9.6 %
10470	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.82	±9.6 %
10471	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	±9.6 %
10472	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	±9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.82	±9.6 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	±9.6 %
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	±9.6 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	±9.6 %
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	±9.6 %
10479	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.74	±9.6 %
10480	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.18	±9.6 %
10481	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	±9.6 %
10482	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.71	±9.6 %
10483	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)	LTE-TDD	8.39	±9.6 %
10484	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.47	±9.6 %
10485	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.59	±9.6 %
10486	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.38	±9.6 %
10487	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.60	±9.6 %
10488	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.70	±9.6 %
10489	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	±9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	±9.6 %
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	±9.6 %
10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.41	±9.6 %
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	±9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	±9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.37	±9.6 %
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	±9.6 %
10497	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.67	±9.6 %
10498	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.40	±9.6 %
10499	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.68	±9.6 %
10500	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.67	±9.6 %
10501	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.44	±9.6 %
10502	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.52	±9.6 %
10503	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.72	±9.6 %
10504	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	±9.6 %
10505	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	±9.6 %
10506	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.74	±9.6 %
10507	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.36	±9.6 %
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	±9.6 %
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.99	±9.6 %
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.49	±9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.51	±9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	±9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.42	±9.6 %
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	±9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)	WLAN	1.58	±9.6 %
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WLAN	1.57	±9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	±9.6 %
10518	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	WLAN	8.23	±9.6 %
10519	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)	WLAN	8.39	±9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	±9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	±9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)	WLAN	8.45	±9.6 %
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)	WLAN	8.08	±9.6 %
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)	WLAN	8.27	±9.6 %
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)	WLAN	8.36	±9.6 %
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)	WLAN	8.42	±9.6 %
10527	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)	WLAN	8.21	±9.6 %

10528	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)	WLAN	8.36	±9.6%
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)	WLAN	8.36	±9.6%
10531	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)	WLAN	8.43	±9.6%
10532	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)	WLAN	8.29	±9.6%
10533	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)	WLAN	8.38	±9.6%
10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)	WLAN	8.45	±9.6%
10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)	WLAN	8.45	±9.6%
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)	WLAN	8.32	±9.6%
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)	WLAN	8.44	±9.6%
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)	WLAN	8.54	±9.6%
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)	WLAN	8.39	±9.6%
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)	WLAN	8.46	±9.6%
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)	WLAN	8.65	±9.6%
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)	WLAN	8.65	±9.6%
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)	WLAN	8.47	±9.6%
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)	WLAN	8.55	±9.6%
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)	WLAN	8.35	±9.6%
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)	WLAN	8.49	±9.6%
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)	WLAN	8.37	±9.6%
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)	WLAN	8.38	±9.6%
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)	WLAN	8.50	±9.6%
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)	WLAN	8.42	±9.6%
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)	WLAN	8.45	±9.6%
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)	WLAN	8.48	±9.6%
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)	WLAN	8.47	±9.6%
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)	WLAN	8.50	±9.6%
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)	WLAN	8.52	±9.6%
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)	WLAN	8.61	±9.6%
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)	WLAN	8.73	±9.6%
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)	WLAN	8.56	±9.6%
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)	WLAN	8.69	±9.6%
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)	WLAN	8.77	±9.6%
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)	WLAN	8.25	±9.6%
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.45	±9.6%
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc)	WLAN	8.13	±9.6%
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)	WLAN	8.00	±9.6%
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc)	WLAN	8.37	±9.6%
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8.10	±9.6%
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc)	WLAN	8.30	±9.6%
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)	WLAN	1.99	±9.6%
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)	WLAN	1.99	±9.6%
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)	WLAN	1.98	±9.6%
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)	WLAN	1.98	±9.6%
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	±9.6%
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	±9.6%
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	±9.6%
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	±9.6%
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	±9.6%
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	±9.6%
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	±9.6%
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	±9.6%
10583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	±9.6%
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	±9.6%
10585	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	±9.6%
10586	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	±9.6%
10587	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	±9.6%
10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	±9.6%
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	±9.6%
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	±9.6%
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)	WLAN	8.63	±9.6%
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)	WLAN	8.79	±9.6%
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)	WLAN	8.64	±9.6%
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)	WLAN	8.74	±9.6%
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)	WLAN	8.74	±9.6%

10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)	WLAN	8.82	± 9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)	WLAN	8.94	± 9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)	WLAN	9.03	± 9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)	WLAN	8.94	± 9.6 %
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)	WLAN	8.59	± 9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)	WLAN	8.82	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)	WLAN	8.81	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)	WLAN	8.58	± 9.6 %
10619	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)	WLAN	8.86	± 9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)	WLAN	8.96	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)	WLAN	8.72	± 9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)	WLAN	8.81	± 9.6 %
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)	WLAN	8.83	± 9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)	WLAN	8.80	± 9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)	WLAN	9.11	± 9.6 %
10646	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAE	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAE	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %
10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc dc)	WLAN	9.09	± 9.6 %

10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	±9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	±9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	±9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	±9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	±9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	±9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	±9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	±9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	±9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	±9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	±9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	±9.6 %
10684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	±9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.33	±9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc dc)	WLAN	8.28	±9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc dc)	WLAN	8.45	±9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc dc)	WLAN	8.29	±9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	±9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc dc)	WLAN	8.29	±9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc dc)	WLAN	8.25	±9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc dc)	WLAN	8.29	±9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc dc)	WLAN	8.25	±9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc dc)	WLAN	8.57	±9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	WLAN	8.78	±9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	±9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	±9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	±9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	±9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	±9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc dc)	WLAN	8.86	±9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	±9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	±9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc dc)	WLAN	8.56	±9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	±9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	±9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.32	±9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	±9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc dc)	WLAN	8.33	±9.6 %
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	±9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	±9.6 %
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.67	±9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	±9.6 %
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc dc)	WLAN	8.26	±9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc dc)	WLAN	8.45	±9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.30	±9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc dc)	WLAN	8.48	±9.6 %
10718	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc dc)	WLAN	8.24	±9.6 %
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WLAN	8.81	±9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WLAN	8.87	±9.6 %
10721	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WLAN	8.76	±9.6 %
10722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.55	±9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.70	±9.6 %
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc dc)	WLAN	8.90	±9.6 %
10725	AAA	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	±9.6 %
10726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WLAN	8.72	±9.6 %
10727	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc dc)	WLAN	8.66	±9.6 %
10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc dc)	WLAN	8.65	±9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc dc)	WLAN	8.64	±9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc dc)	WLAN	8.67	±9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	±9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc dc)	WLAN	8.46	±9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc dc)	WLAN	8.40	±9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc dc)	WLAN	8.25	±9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc dc)	WLAN	8.33	±9.6 %

10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc dc)	WLAN	8.27	±9.6%
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	±9.6%
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc dc)	WLAN	8.42	±9.6%
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc dc)	WLAN	8.29	±9.6%
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.48	±9.6%
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.40	±9.6%
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.43	±9.6%
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc dc)	WLAN	8.94	±9.6%
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc dc)	WLAN	9.16	±9.6%
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc dc)	WLAN	8.93	±9.6%
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc dc)	WLAN	9.11	±9.6%
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc dc)	WLAN	9.04	±9.6%
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc dc)	WLAN	8.93	±9.6%
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc dc)	WLAN	8.90	±9.6%
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc dc)	WLAN	8.79	±9.6%
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc dc)	WLAN	8.82	±9.6%
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc dc)	WLAN	8.81	±9.6%
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc dc)	WLAN	9.00	±9.6%
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc dc)	WLAN	8.94	±9.6%
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.64	±9.6%
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	±9.6%
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.77	±9.6%
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	8.69	±9.6%
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	±9.6%
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.49	±9.6%
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	±9.6%
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	±9.6%
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	±9.6%
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	±9.6%
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	±9.6%
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	±9.6%
10767	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6%
10768	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6%
10769	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6%
10770	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6%
10771	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6%
10772	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6%
10773	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	±9.6%
10774	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6%
10775	AAB	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6%
10776	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6%
10777	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6%
10778	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±9.6%
10779	AAB	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	±9.6%
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6%
10781	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6%
10782	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±9.6%
10783	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6%
10784	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±9.6%
10785	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±9.6%
10786	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6%
10787	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±9.6%
10788	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6%
10789	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±9.6%
10790	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6%
10791	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±9.6%
10792	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6%
10793	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6%
10794	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6%
10795	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6%
10796	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6%
10797	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6%
10798	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6%
10799	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6%

10801	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10805	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10806	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10809	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAC	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAC	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10827	AAC	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10828	AAC	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10830	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
10831	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	± 9.6 %
10835	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10860	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAC	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAC	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAC	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10875	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	6.39	± 9.6 %
10877	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %

10886	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10897	AAA	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	± 9.6 %
10898	AAA	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10899	AAA	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10900	AAA	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10901	AAA	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10902	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10903	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10904	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10905	AAA	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10906	AAA	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10907	AAA	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	± 9.6 %
10908	AAA	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10909	AAA	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	± 9.6 %
10910	AAA	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10911	AAA	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10912	AAA	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10913	AAA	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10914	AAA	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	± 9.6 %
10915	AAA	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10916	AAA	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10917	AAA	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10918	AAA	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10919	AAA	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10920	AAA	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10921	AAA	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10922	AAA	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	± 9.6 %
10923	AAA	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10924	AAA	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10925	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	± 9.6 %
10926	AAA	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10927	AAA	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10928	AAA	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10929	AAA	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10930	AAA	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10931	AAA	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10932	AAA	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10933	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10934	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10935	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10936	AAA	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10937	AAA	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	± 9.6 %
10938	AAA	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10939	AAA	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	± 9.6 %
10940	AAA	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	± 9.6 %
10941	AAA	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10942	AAA	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10943	AAA	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	± 9.6 %
10944	AAA	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	± 9.6 %
10945	AAA	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10946	AAA	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10947	AAA	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10948	AAA	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10949	AAA	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10950	AAA	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10951	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	± 9.6 %
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	± 9.6 %
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	± 9.6 %

10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	± 9.6 %
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	± 9.6 %
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	± 9.6 %
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	± 9.6 %
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAA	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %

[‡] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Appendix E. Conducted RF Output Power Table

The detailed power table are shown as follows.



Full Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	128	189	251	128	189	251	128	189
Frequency (MHz)	854.2	836.4	848.8	854.2	836.4	848.8	854.2	836.4
GSM 1 Tx slot	32.17	32.13	32.29	33.50	23.17	23.13	23.29	24.50
GPRS 1 Tx slot	32.15	32.11	32.27	33.50	23.15	23.11	23.27	24.50
GPRS 2 Tx slot	31.55	31.49	31.33	32.50	25.55	25.49	25.33	26.50
GPRS 3 Tx slot	29.70	30.19	30.01	31.00	25.44	25.93	25.75	26.74
GPRS 4 Tx slot	28.44	28.80	28.47	29.50	25.44	25.80	25.47	26.50
EDGE 1 Tx slot	26.12	26.12	26.07	27.00	17.12	17.12	17.07	18.00
EDGE 2 Tx slot	26.09	25.01	25.94	26.50	20.06	20.01	19.94	20.50
EDGE 3 Tx slot	24.13	24.14	24.07	25.00	19.87	19.88	19.81	20.74
EDGE 4 Tx slot	22.97	23.10	22.91	24.00	19.97	20.10	19.91	21.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	512 <td>661 <td>810 <td>512 <td>661 <td>810 <td>512 <td>661 </td></td></td></td></td></td></td>	661 <td>810 <td>512 <td>661 <td>810 <td>512 <td>661 </td></td></td></td></td></td>	810 <td>512 <td>661 <td>810 <td>512 <td>661 </td></td></td></td></td>	512 <td>661 <td>810 <td>512 <td>661 </td></td></td></td>	661 <td>810 <td>512 <td>661 </td></td></td>	810 <td>512 <td>661 </td></td>	512 <td>661 </td>	661
Frequency (MHz)	1557.2	1623	1679.3	1557.2	1623	1679.3	1557.2	1623
GSM 1 Tx slot	29.56	29.91	29.71	30.50	20.56	20.91	20.71	21.50
GPRS 1 Tx slot	29.54	29.89	29.70	30.50	20.54	20.89	20.70	21.50
GPRS 2 Tx slot	29.08	29.23	28.75	30.00	23.08	23.23	22.75	24.00
GPRS 3 Tx slot	27.06	27.45	27.00	28.00	22.80	23.19	22.74	23.74
GPRS 4 Tx slot	25.35	25.48	25.40	26.50	22.25	22.48	22.40	23.50
EDGE 1 Tx slot	25.23	25.59	25.49	26.50	16.23	16.59	16.49	17.50
EDGE 2 Tx slot	24.18	24.50	24.44	25.50	16.18	16.50	16.44	19.50
EDGE 3 Tx slot	22.29	22.62	22.45	23.50	13.03	13.36	13.19	19.24
EDGE 4 Tx slot	21.08	21.52	21.32	22.50	18.08	18.52	18.32	19.50

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
	9282	9600	9638		1312	1413	1513		4132	4432	4233	
TX Channel	9282	9600	9638	1312	1413	1513	4132	4432	4233	9282	9600	9638
Rx Channel	9662	9800	9838	1637	1638	1738	4567	4407	4488	9662	9800	9838
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6	1852.4	1880	1907.6
3GPP Rel 99 AMR 12.2kpps	23.24	23.30	23.30	24.00	23.29	23.25	23.28	24.00	23.15	23.11	23.03	24.00
3GPP Rel 99 RMC 12.2kpps	23.28	23.32	23.31	24.00	23.32	23.33	23.30	24.00	23.17	23.16	23.05	24.00
3GPP Rel 6 HSDPA Subtest-1	22.24	22.26	22.23	23.00	22.27	22.22	22.20	23.00	22.12	22.04	21.95	23.00
3GPP Rel 6 HSDPA Subtest-2	22.23	22.23	22.30	23.00	22.27	22.25	22.21	23.00	22.09	22.06	21.95	23.00
3GPP Rel 6 HSDPA Subtest-3	21.71	21.78	21.74	22.50	21.73	21.73	21.71	22.50	21.62	21.57	21.48	22.50
3GPP Rel 6 HSDPA Subtest-4	21.69	21.75	21.75	22.50	21.76	21.69	21.70	22.50	21.61	21.55	21.45	22.50
3GPP Rel 6 DC-HSDPA Subtest-1	22.22	22.23	22.22	23.00	22.25	22.19	22.19	23.00	22.08	21.98	21.93	23.00
3GPP Rel 6 DC-HSDPA Subtest-2	22.20	22.20	22.28	23.00	22.24	22.22	22.19	23.00	22.03	22.00	21.91	23.00
3GPP Rel 6 DC-HSDPA Subtest-3	21.70	21.76	21.71	22.50	21.72	21.71	21.68	22.50	21.60	21.53	21.42	22.50
3GPP Rel 6 DC-HSDPA Subtest-4	21.68	21.72	21.74	22.50	21.73	21.69	21.69	22.50	21.55	21.49	21.43	22.50
3GPP Rel 6 HSUPA Subtest-1	22.16	22.23	22.18	23.00	22.17	22.14	22.19	23.00	22.06	22.02	21.91	23.00
3GPP Rel 6 HSUPA Subtest-2	20.18	20.22	20.17	21.00	20.16	20.13	20.16	21.00	20.01	20.02	19.95	21.00
3GPP Rel 6 HSUPA Subtest-3	21.21	21.23	21.23	22.00	21.05	21.17	21.17	22.00	21.12	21.03	20.95	22.00
3GPP Rel 6 HSUPA Subtest-4	20.14	20.22	20.24	21.00	20.17	20.17	20.18	21.00	20.03	20.03	19.92	21.00
3GPP Rel 6 HSUPA Subtest-5	22.20	22.20	22.20	23.00	22.20	22.20	22.20	23.00	22.10	22.00	21.90	23.00

Band	CDMA BC0			Tune-up Limit (dBm)	CDMA BC1			Tune-up Limit (dBm)
	1013	384	777		25	800	1175	
TX Channel	1013	384	777	25	800	1175	25	800
Frequency (MHz)	824.7	836.52	848.31	1651.25	1680	1608.75	824.7	836.52
RC1 SOG	23.88	23.79	23.88	25.00	24.20	24.25	24.21	25.00
RC3 SOG	23.89	23.92	23.85	25.00	24.12	24.35	24.25	25.00
RC3 SOG (F-SCH)	23.81	23.80	23.84	25.00	24.12	24.21	24.25	25.00
RC3 SOG2 (F-SCH)	23.79	23.77	23.90	25.00	24.20	24.14	24.23	25.00
RTAP 153.6kpps	23.87	23.98	23.78	25.00	24.14	24.25	24.23	25.00
RE-TAP 409.6kpps	23.88	23.75	23.90	25.00	24.21	24.21	24.25	25.00



Band 2 (1900MHz Band) Part 24E										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.66	22.73	22.57	24	0		
20	QPSK	1	49	22.45	22.48	22.53				
20	QPSK	1	99	22.44	22.48	22.35				
20	QPSK	50	0	21.32	21.50	21.38	23	1		
20	QPSK	50	24	21.44	21.38	21.40				
20	QPSK	50	50	21.32	21.41	21.37				
20	QPSK	100	0	21.35	21.44	21.37	23	1		
20	16QAM	1	0	21.83	21.72	21.67				
20	16QAM	1	49	21.58	21.64	21.65				
20	16QAM	1	99	21.55	21.62	21.38				
20	16QAM	50	0	20.54	20.60	20.58	22	2		
20	16QAM	50	50	20.54	20.61	20.57				
20	16QAM	100	0	20.56	20.51	20.55				
20	64QAM	1	0	20.58	20.58	20.82	22	2		
20	64QAM	1	49	20.62	20.75	20.58				
20	64QAM	1	99	20.58	20.71	20.57				
20	64QAM	50	0	19.75	19.75	19.79	21	3		
20	64QAM	50	24	19.86	19.81	19.89				
20	64QAM	50	50	19.79	19.83	19.85				
20	64QAM	100	0	19.82	19.75	19.76				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.49	22.37	22.81	24	0		
15	QPSK	1	37	22.49	22.50	22.51				
15	QPSK	1	74	22.32	22.49	22.38				
15	QPSK	36	0	21.33	21.33	21.37	23	1		
15	QPSK	36	20	21.45	21.45	21.47				
15	QPSK	36	39	21.37	21.43	21.37				
15	QPSK	75	0	21.38	21.38	21.35	23	1		
15	16QAM	1	0	21.59	21.70	21.72				
15	16QAM	1	37	21.58	21.65	21.67				
15	16QAM	1	74	21.41	21.61	21.47	22	2		
15	16QAM	36	0	20.55	20.55	20.56				
15	16QAM	36	20	20.62	20.65	20.67				
15	16QAM	36	39	20.55	20.60	20.57				
15	16QAM	75	0	20.59	20.59	20.55	22	2		
15	64QAM	1	0	20.73	20.92	20.83				
15	64QAM	1	37	20.67	20.80	20.80				
15	64QAM	1	74	20.49	20.70	20.52	21	3		
15	64QAM	36	0	19.79	19.77	19.81				
15	64QAM	36	20	19.85	19.89	19.89				
15	64QAM	36	39	19.84	19.88	19.84				
15	64QAM	75	0	19.86	19.78	19.78				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.38	22.31	22.75	24	0		
10	QPSK	1	25	22.54	22.59	22.56				
10	QPSK	1	49	22.24	22.32	22.48				
10	QPSK	25	0	21.60	21.40	21.42	23	1		
10	QPSK	25	12	21.55	21.50	21.48				
10	QPSK	25	25	21.40	21.46	21.40				
10	QPSK	50	0	21.47	21.47	21.38	23	1		
10	16QAM	1	0	21.58	21.40	21.84				
10	16QAM	1	25	21.77	21.77	21.76				
10	16QAM	1	49	21.47	21.47	21.65	22	2		
10	16QAM	25	0	20.71	20.57	20.59				
10	16QAM	25	12	20.75	20.67	20.66				
10	16QAM	25	25	20.55	20.66	20.54	22	2		
10	16QAM	50	0	20.68	20.64	20.57				
10	64QAM	1	0	20.76	20.71	21.10	22	2		
10	64QAM	1	25	20.52	21.02	20.94				
10	64QAM	1	49	20.68	20.73	20.73				
10	64QAM	25	0	19.84	19.85	19.82	21	3		
10	64QAM	25	12	20.00	19.95	19.93				
10	64QAM	25	25	19.83	19.85	19.82				
10	64QAM	50	0	19.90	19.92	19.78				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.72	22.56	22.87	24	0		
5	QPSK	1	12	22.72	22.70	22.66				
5	QPSK	1	24	22.54	22.56	22.47				
5	QPSK	12	0	21.88	21.52	21.54	23	1		
5	QPSK	12	7	21.61	21.59	21.51				
5	QPSK	12	13	21.51	21.52	21.41				
5	QPSK	25	0	21.60	21.49	21.80	23	1		
5	16QAM	1	0	21.87	21.77	21.72				
5	16QAM	1	12	21.92	21.87	21.73				
5	16QAM	1	24	21.72	21.74	21.59	23	1		
5	16QAM	12	0	20.98	20.73	20.76				
5	16QAM	12	7	20.86	20.83	20.75				
5	16QAM	12	13	20.75	20.75	20.63	22	2		
5	16QAM	25	0	20.85	20.71	20.68				
5	64QAM	1	0	21.00	20.89	20.86	22	2		
5	64QAM	1	12	21.05	20.88	20.93				
5	64QAM	1	24	20.84	20.85	20.78				
5	64QAM	12	0	20.09	19.98	19.98	21	3		
5	64QAM	12	7	20.04	20.02	19.95				
5	64QAM	12	13	19.93	19.94	19.86				
5	64QAM	25	0	20.01	19.92	19.91				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.54	22.64	22.66	24	0		
3	QPSK	1	8	22.56	22.71	22.61				
3	QPSK	1	14	22.58	22.60	22.45				
3	QPSK	8	0	21.68	21.68	21.68	23	1		
3	QPSK	8	4	21.61	21.60	21.48				
3	QPSK	8	7	21.53	21.53	21.42				
3	QPSK	15	0	21.63	21.57	21.46	23	1		
3	16QAM	1	0	21.95	21.73	21.78				
3	16QAM	1	8	21.98	21.86	21.76				
3	16QAM	1	14	21.76	21.75	21.63	22	2		
3	16QAM	8	0	20.94	20.83	20.76				
3	16QAM	8	4	20.92	20.86	20.77				
3	16QAM	8	7	20.86	20.80	20.70	22	2		
3	16QAM	15	0	20.88	20.81	20.70				
3	64QAM	1	0	21.04	20.94	20.92	22	2		
3	64QAM	1	8	21.09	20.98	20.93				
3	64QAM	1	14	20.90	20.90	20.79				
3	64QAM	8	0	20.11	20.01	19.95	21	3		
3	64QAM	8	4	20.10	20.03	19.97				
3	64QAM	8	7	20.02	20.00	19.87				
3	64QAM	15	0	20.05	20.00	19.91				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	22.67	22.53	22.48	24	0		
1.4	QPSK	1	3	22.70	22.63	22.52				
1.4	QPSK	1	5	22.62	22.57	22.39				
1.4	QPSK	3	0	22.71	22.56	22.47	23	1		
1.4	QPSK	3	1	22.54	22.67	22.47				
1.4	QPSK	3	3	22.66	22.56	22.46				
1.4	QPSK	6	0	21.55	21.49	21.57	23	1		
1.4	16QAM	1	0	21.84	21.77	21.61				
1.4	16QAM	1	3	21.85	21.78	21.68				
1.4	16QAM	1	5	21.76	21.73	21.56	23	1		
1.4	16QAM	3	0	21.60	21.55	21.38				
1.4	16QAM	3	1	21.65	21.63	21.41				
1.4	16QAM	3	3	21.55	21.52	21.35	22	2		
1.4	16QAM	6	0	20.11	20.75	20.84				
1.4	64QAM	1	0	21.02	20.86	20.75	22	2		
1.4	64QAM	1	3	21.02	20.91	20.85				
1.4	64QAM	1	5	20.88	20.89	20.74	22	2		
1.4	64QAM	3	0	20.89	20.75	20.68				
1.4	64QAM	3	1	20.94	20.92	20.70				
1.4	64QAM	3	3	20.90	20.77	20.62	21	3		
1.4	64QAM	6	0	19.99	19.94	19.82				

Band 4 (AWS Band) Part 27L (only on channel required)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.59	22.67	22.52	24	0		
20	QPSK	1	49	22.50	22.51	22.40				
20	QPSK	1	99	22.50	22.56	22.56				
20	QPSK	50	0	21.31	21.47	21.26	23	1		
20	QPSK	50	24	21.46	21.36	21.38				



Band 7 (2600MHz Band) Part 27									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.97	23.22	23.03	24	0	
20	QPSK	1	49	23.02	23.12	23.04			
20	QPSK	1	99	23.12	23.14	23.09			
20	QPSK	50	0	21.75	22.11	21.96	23	1	
20	QPSK	50	24	21.98	22.01	22.03			
20	QPSK	50	50	21.94	21.94	21.82			
20	QPSK	100	0	21.88	21.91	21.91	23	1	
20	16QAM	1	0	22.14	22.15	22.15			
20	16QAM	1	49	22.19	22.27	22.19			
20	16QAM	1	99	22.20	22.30	22.25	22	2	
20	16QAM	50	0	20.96	21.10	21.16			
20	16QAM	50	24	21.16	21.21	21.23			
20	16QAM	50	50	21.14	21.14	21.02	22	2	
20	16QAM	100	0	21.08	21.10	21.12			
20	16QAM	1	0	21.26	21.28	21.32			
20	64QAM	1	49	21.32	21.43	21.35	22	2	
20	64QAM	1	99	21.33	21.47	21.45			
20	64QAM	50	0	20.15	20.31	20.38			
20	64QAM	50	24	20.39	20.44	20.46	21	3	
20	64QAM	50	50	20.39	20.36	20.27			
20	64QAM	100	0	20.32	20.36	20.35			
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.99	23.06	23.07	24	0	
15	QPSK	1	37	23.05	23.14	23.08			
15	QPSK	1	74	23.12	23.16	23.12			
15	QPSK	36	0	21.86	21.94	21.97	23	1	
15	QPSK	36	20	21.98	22.01	22.01			
15	QPSK	36	38	21.97	21.94	21.97			
15	QPSK	75	0	21.93	21.96	21.95	23	1	
15	16QAM	1	0	22.14	22.12	22.12			
15	16QAM	1	37	22.19	22.25	22.17			
15	16QAM	1	74	22.24	22.28	22.24	22	2	
15	16QAM	36	0	21.04	21.11	21.16			
15	16QAM	36	20	21.16	21.19	21.20			
15	16QAM	36	38	21.18	21.17	21.14	22	2	
15	16QAM	75	0	21.13	21.12	21.16			
15	64QAM	1	0	21.27	21.26	21.26			
15	64QAM	1	37	21.28	21.34	21.25	22	2	
15	64QAM	1	74	21.33	21.41	21.41			
15	64QAM	36	0	20.29	20.37	20.41			
15	64QAM	36	20	20.40	20.43	20.45	21	3	
15	64QAM	36	38	20.41	20.42	20.40			
15	64QAM	75	0	20.35	20.41	20.40			
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.97	23.09	23.01	24	0	
10	QPSK	1	25	22.96	23.11	23.01			
10	QPSK	1	49	23.03	23.18	23.11			
10	QPSK	25	0	21.96	21.99	21.96	23	1	
10	QPSK	25	12	21.99	22.02	22.03			
10	QPSK	25	25	21.99	22.04	22.04			
10	QPSK	50	0	21.93	21.97	21.97	23	1	
10	16QAM	1	0	22.17	22.27	22.22			
10	16QAM	1	25	22.20	22.34	22.26			
10	16QAM	1	49	22.24	22.35	22.28	22	2	
10	16QAM	25	0	21.15	21.22	21.15			
10	16QAM	25	12	21.18	21.24	21.23			
10	16QAM	25	25	21.17	21.22	21.21	22	2	
10	16QAM	50	0	21.12	21.18	21.14			
10	64QAM	1	0	21.40	21.49	21.44			
10	64QAM	1	25	21.40	21.52	21.43	22	2	
10	64QAM	1	49	21.44	21.51	21.59			
10	64QAM	25	0	20.38	20.44	20.45			
10	64QAM	25	12	20.42	20.48	20.48	21	3	
10	64QAM	25	25	20.42	20.45	20.44			
10	64QAM	50	0	20.31	20.41	20.36			
Channel									
Frequency (MHz)									
5	QPSK	1	0	23.00	23.09	23.07	24	0	
5	QPSK	1	12	23.06	23.21	23.11			
5	QPSK	1	24	23.05	23.15	23.16			
5	QPSK	12	0	21.96	22.04	21.96	23	1	
5	QPSK	12	7	21.95	22.07	22.05			
5	QPSK	12	13	21.97	22.03	22.05			
5	QPSK	25	0	21.97	22.05	22.03	23	1	
5	16QAM	1	0	22.15	22.25	22.27			
5	16QAM	1	12	22.17	22.33	22.25			
5	16QAM	1	24	22.21	22.32	22.25	22	2	
5	16QAM	12	0	21.18	21.20	21.22			
5	16QAM	12	7	21.22	21.28	21.26			
5	16QAM	12	13	21.15	21.24	21.22	22	2	
5	16QAM	25	0	21.16	21.24	21.19			
5	64QAM	1	0	21.33	21.40	21.37			
5	64QAM	1	12	21.37	21.54	21.38	22	2	
5	64QAM	1	24	21.36	21.46	21.38			
5	64QAM	12	0	20.33	20.42	20.42			
5	64QAM	12	7	20.47	20.51	20.51	21	3	
5	64QAM	12	13	20.41	20.47	20.42			
5	64QAM	25	0	20.37	20.44	20.42			

Band 12 (700MHz Low Band) Part 27F(only on channel required)									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.79	22.96	22.83	24	0	
10	QPSK	1	25	22.82	22.79	22.81			
10	QPSK	1	49	22.86	22.85	22.82			
10	QPSK	25	0	21.84	21.85	21.84	23	1	
10	QPSK	25	12	21.84	21.74	21.82			
10	QPSK	25	25	21.80	21.78	21.76			
10	QPSK	50	0	21.81	21.86	21.74	23	1	
10	16QAM	1	0	22.03	21.97	21.99			
10	16QAM	1	25	21.99	21.99	22.01			
10	16QAM	1	49	22.04	22.04	22.00	22	2	
10	16QAM	25	0	20.82	20.83	20.83			
10	16QAM	25	12	21.06	20.96	21.03			
10	16QAM	25	25	21.00	20.98	20.89	22	2	
10	16QAM	50	0	20.98	20.95	20.94			
10	64QAM	1	0	21.29	21.27	21.25			
10	64QAM	1	25	21.24	21.29	21.21	22	2	
10	64QAM	1	49	21.30	21.27	21.22			
10	64QAM	25	0	20.10	20.09	20.08			
10	64QAM	25	12	20.30	20.19	20.27	21	3	
10	64QAM	25	25	20.20	20.18	20.15			
10	64QAM	50	0	20.20	20.17	20.16			
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.81	22.80	22.79	24	0	
5	QPSK	1	12	22.90	22.91	22.88			
5	QPSK	1	24	22.86	22.83	22.85			
5	QPSK	12	0	21.74	21.75	21.71	23	1	
5	QPSK	12	7	21.85	21.80	21.78			
5	QPSK	12	13	21.79	21.76	21.75			
5	QPSK	25	0	21.77	21.77	21.69	23	1	
5	16QAM	1	0	21.96	21.88	21.90			
5	16QAM	1	12	22.04	21.98	21.99			
5	16QAM	1	24	21.99	21.94	21.97	22	2	
5	16QAM	12	0	21.00	20.96	20.93			
5	16QAM	12	7	21.05	21.01	21.00			
5	16QAM	12	13	21.01	20.99	20.97	22	2	
5	16QAM	25	0	21.03	21.03	20.93			
5	64QAM	1	0	21.12	21.08	21.08			
5	64QAM	1	12	21.15	21.12	21.16	22	2	
5	64QAM	1	24	21.16	21.13	21.14			
5	64QAM	12	0	20.18	20.18	20.14			
5	64QAM	12	7	20.25	20.26	20.25	21	3	
5	64QAM	12	13	20.20	20.20	20.18			
5	64QAM	25	0	20.28	20.24	20.17			
Channel									
Frequency (MHz)									
3	QPSK	1	0	22.96	22.83	22.81	24	0	
3	QPSK	1	8	22.93	22.93	22.92			
3	QPSK	1	14	22.85	22.88	22.81			
3	QPSK	8	0	21.83	21.73	21.72	23	1	
3	QPSK	8	4	21.81	21.83	21.78			
3	QPSK	8	7	21.80	21.78	21.74			
3	QPSK	15	0	21.81	21.78	21.69	23	1	
3	16QAM	1	0	22.08	21.95	21.97			
3	16QAM	1	8	22.16	22.12	22.08			
3	16QAM	1	14	22.04	22.06	21.95	22	2	
3	16QAM	8	0	21.05	20.99	20.98			
3	16QAM	8	4	21.10	21.07	21.05			
3	16QAM	8	7	21.06	21.05	21.01	22	2	
3	16QAM	15	0	21.06	21.05	20.94			
3	64QAM	1	0	21.22	21.11	21.10			
3	64QAM	1	8	21.26	21.22	21.17	22	2	
3	64QAM	1	14	21.19					



Band 17 (700MHz Band) Part 27H(only on channel required)												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)				
Channel												
Frequency (MHz)												
10	QPSK	1	0	22.83	22.91	22.82	24	0				
10	QPSK	1	25	22.84	22.83	22.78						
10	QPSK	1	49	22.84	22.79	22.78						
10	QPSK	1	73	21.70	21.84	21.88						
10	QPSK	25	0	21.83	21.74	21.74	23	1				
10	QPSK	25	25	21.81	21.79	21.80						
10	QPSK	50	0	21.81	21.84	21.72						
10	16QAM	1	0	22.00	21.99	22.09						
10	16QAM	1	25	22.04	22.03	22.00	23	1				
10	16QAM	1	49	22.07	22.01	21.99						
10	16QAM	25	0	20.90	20.93	20.88						
10	16QAM	25	12	21.03	20.95	20.91						
10	16QAM	25	25	21.01	20.96	20.98	22	2				
10	16QAM	50	0	21.00	20.89	20.90						
10	64QAM	1	0	21.33	21.24	21.33						
10	64QAM	1	25	21.31	21.29	21.31						
10	64QAM	1	49	21.27	21.27	21.26	22	2				
10	64QAM	25	0	20.17	20.14	20.16						
10	64QAM	25	12	20.28	20.22	20.17						
10	64QAM	25	25	20.21	20.19	20.21						
10	64QAM	50	0	20.24	20.12	20.15	21	3				
Channel												
Frequency (MHz)												
5	QPSK	1	0	22.80	22.79	22.73			24	0		
5	QPSK	1	12	22.89	22.80	22.82						
5	QPSK	1	24	22.85	22.85	22.78						
5	QPSK	12	0	21.71	21.71	21.67						
5	QPSK	12	7	21.82	21.75	21.75	23	1				
5	QPSK	12	13	21.76	21.77	21.73						
5	QPSK	25	0	21.79	21.71	21.68						
5	16QAM	1	0	21.92	21.90	21.90						
5	16QAM	1	12	21.99	22.03	21.96	23	1				
5	16QAM	1	24	21.99	21.97	21.91						
5	16QAM	12	0	20.94	20.96	20.92						
5	16QAM	12	7	21.03	20.97	20.99						
5	16QAM	12	13	21.02	20.98	20.95	22	2				
5	16QAM	25	0	21.02	20.96	20.99						
5	64QAM	1	0	21.10	21.11	21.06						
5	64QAM	1	12	21.17	21.16	21.12						
5	64QAM	1	24	21.16	21.15	21.09	22	2				
5	64QAM	12	0	20.15	20.15	20.10						
5	64QAM	12	7	20.26	20.18	20.21						
5	64QAM	12	13	20.26	20.22	20.17						
5	64QAM	25	0	20.22	20.15	20.12	21	3				
Channel												
Frequency (MHz)												
5	QPSK	1	0	22.83	22.76	22.69			24	0		
5	QPSK	1	37	22.55	22.46	22.43						
5	QPSK	1	74	22.44	22.41	22.33						
5	QPSK	35	0	21.36	21.52	21.26						
5	QPSK	35	0	20.62	20.49	20.50	23	1				
5	QPSK	35	39	21.38	21.29	21.22						
5	QPSK	75	0	21.36	21.42	21.26						
5	16QAM	1	0	21.63	21.50	21.53						
5	16QAM	1	37	21.70	21.61	21.56	23	1				
5	16QAM	1	74	21.58	21.55	21.46						
5	16QAM	35	0	20.62	20.49	20.50						
5	16QAM	35	20	20.67	20.58	20.52						
5	16QAM	35	39	20.62	20.54	20.50	22	2				
5	16QAM	75	0	20.60	20.53	20.47						
5	64QAM	1	0	20.74	20.59	20.64						
5	64QAM	1	37	20.84	20.78	20.74						
5	64QAM	1	74	20.74	20.68	20.63	22	2				
5	64QAM	35	0	19.81	19.69	19.69						
5	64QAM	35	20	19.86	19.78	19.75						
5	64QAM	35	39	19.81	19.74	19.70						
5	64QAM	75	0	19.82	19.74	19.67	21	3				
Channel												
Frequency (MHz)												
10	QPSK	1	0	22.87	22.78	22.78			24	0		
10	QPSK	1	25	22.46	22.38	22.32						
10	QPSK	1	49	22.43	22.34	22.24						
10	QPSK	25	0	22.42	22.37	22.30						
10	QPSK	25	12	22.49	22.39	22.35	23	1				
10	QPSK	25	25	22.45	22.35	22.29						
10	QPSK	50	0	21.32	21.22	21.15						
10	16QAM	1	0	21.55	21.45	21.40						
10	16QAM	1	25	21.59	21.53	21.44	23	1				
10	16QAM	1	49	21.53	21.43	21.36						
10	16QAM	25	0	21.35	21.26	21.19						
10	16QAM	25	12	21.36	21.29	21.24						
10	16QAM	25	25	21.30	21.24	21.17	22	2				
10	16QAM	50	0	20.61	20.50	20.44						
10	64QAM	1	0	20.73	20.63	20.58						
10	64QAM	1	25	20.76	20.64	20.54						
10	64QAM	1	49	20.70	20.61	20.56	22	2				
10	64QAM	25	0	19.85	19.77	19.72						
10	64QAM	25	12	19.91	19.81	19.77						
10	64QAM	25	25	19.80	19.74	19.69						
10	64QAM	50	0	19.73	19.64	19.61	21	3				
Channel												
Frequency (MHz)												
5	QPSK	1	0	22.63	22.56	22.46			24	0		
5	QPSK	1	12	22.69	22.60	22.50						
5	QPSK	1	24	22.61	22.50	22.41						
5	QPSK	12	0	22.71	22.60	22.55						
5	QPSK	12	13	22.65	22.56	22.46	23	1				
5	QPSK	25	0	21.48	21.43	21.34						
5	16QAM	1	0	21.69	21.68	21.65						
5	16QAM	1	12	21.73	21.71	21.64						
5	16QAM	1	24	21.69	21.62	21.52	23	1				
5	16QAM	12	0	21.56	21.48	21.38						
5	16QAM	12	7	21.58	21.55	21.44						
5	16QAM	12	13	21.50	21.45	21.32						
5	16QAM	25	0	20.76	20.69	20.57	22	2				
5	64QAM	1	0	20.89	20.83	20.84						
5	64QAM	1	12	20.89	20.85	20.83						
5	64QAM	12	0	20.82	20.85	20.76						
5	64QAM	12	0	20.02	20.00	19.93	22	2				
5	64QAM	12	7	20.05	20.04	19.93						
5	64QAM	12	13	19.97	19.97	19.85						
5	64QAM	25	0	19.94	19.86	19.79						
Channel												
Frequency (MHz)												
3	QPSK	1	0	22.47	22.32	22.28	24	0				
3	QPSK	1	8	22.49	22.42	22.44						
3	QPSK	1	14	22.42	22.38	22.31						
3	QPSK	8	0	21.37	21.21	21.24						
3	QPSK	8	4	21.40	21.36	21.24	23	1				
3	QPSK	8	7	21.35	21.30	21.27						
3	QPSK	15	0	21.41	21.28	21.21						
3	16QAM	1	0	21.61	21.43	21.40						
3	16QAM	1	8	21.63	21.57	21.54	23	1				
3	16QAM	1	14	21.53	21.48	21.44						
3	16QAM	8	0	20.58	20.46	20.40						
3	16QAM	8	4	20.60	20.57	20.45						
3	16QAM	8	7	20.55	20.51	20.49	22	2				
3	16QAM	15	0	20.58	20.50	20.43						
3	64QAM	1	0	20.73	20.58	20.61						
3	64QAM	1	8	20.76	20.73	20.70						
3	64QAM	1	14	20.70	20.64	20.54	22	2				
3	64QAM	8	0	19.80	19.67	19.69						
3	64QAM	8	4	19.87	19.77	19.72						
3	64QAM	8	7	19.80	19.72	19.67						
3	64QAM	15	0	19.81	19.72	19.65	21	3				
Channel												
Frequency (MHz)												
1.4	QPSK	1	0	22.30	22.24	22.36			24	0		
1.4	QPSK	1	3	22.54	22.46	22.45						
1.4	QPSK	1	5	22.29	22.16	22.18						
1.4	QPSK	3	0	22.21	22.05	22.03						
1.4	QPSK	3	1	22.28	22.07	22.09	23	1				
1.4	QPSK	3	3	22.14	22.06	22.03						
1.4	QPSK	6	0	21.45	21.33	21.25						
1.4	16QAM	1	0	21.52	21.43	21.41						
1.4	16QAM	1	3	21.72	21.65	21.64	23	1				
1.4	16QAM	1	5	21.45	21.36	21.38						
1.4	16QAM	3	0	21.44	21.22	21.25						
1.4	16QAM	3	1	21.47	21.32	21.29						
1.4	16QAM	3	3	21.34	21.21	21.21	22	2				
1.4	16QAM	6	0	20.64	20.52	20.44						
1.4	64QAM	1	0	20.69	20.69	20.55						
1.4	64QAM	1	3	21.01	20.84	20.91						
1.4	64QAM	1	5	20.86	20.76	20.71	22	2				
1.4	64QAM	3	0	20.66	20.49	20.48						
1.4	64QAM	3	1	20.73	20.58	20.55						
1.4	64QAM	3	3	20.59	20.45	20.46						
1.4	64QAM	6	0	19.87	19.74	19.69	21	3				
Channel												
Frequency (MHz)												
1.4	QPSK	1	0	22.63	22.56	22.46			24	0		
1.4	QPSK	1	3	22.								



Band 38(only on channel required)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq	Power High Ch./Freq	Power High Ch./Freq	Power High Ch./Freq	Power High Ch./Freq	Turn-up limit (dBm)	MPR (dB)
Channel										
20	QPSK	1	0	22.89	22.92	22.74			24	0
20	QPSK	1	99	22.74	22.81	22.82			23	1
20	QPSK	50	0	21.49	21.63	21.43			23	1
20	QPSK	50	24	21.61	21.59	21.65			23	1
20	QPSK	50	50	21.55	21.56	21.54			23	1
20	QPSK	100	0	21.48	21.53	21.43			23	1
20	HQAM	1	49	21.63	21.65	21.65			23	1
20	HQAM	1	99	21.73	21.75	21.74			22	2
20	HQAM	50	0	20.81	20.84	20.84			22	2
20	HQAM	50	24	20.83	20.76	20.78			22	2
20	HQAM	50	50	20.78	20.77	20.77			22	2
20	HQAM	100	0	20.72	20.65	20.67			22	2
20	HQAM	1	0	20.72	20.67	20.70			22	2
20	HQAM	1	49	20.64	20.64	20.70			21	3
20	HQAM	1	99	20.72	20.78	20.79			21	3
20	HQAM	50	0	19.75	19.78	19.82			21	3
20	HQAM	50	24	20.00	19.93	19.94			21	3
20	HQAM	50	50	19.94	19.92	19.96			21	3
20	HQAM	100	0	19.88	19.90	19.94			21	3
Channel										
15	QPSK	1	0	22.71	22.83	22.72			24	0
15	QPSK	1	74	22.69	22.76	22.77			23	1
15	QPSK	36	0	21.48	21.41	21.44			23	1
15	QPSK	36	20	21.51	21.56	21.56			23	1
15	QPSK	36	39	21.51	21.55	21.58			23	1
15	QPSK	75	0	21.50	21.47	21.53			23	1
15	HQAM	1	37	21.56	21.63	21.62			23	1
15	HQAM	1	74	21.70	21.71	21.72			22	2
15	HQAM	36	0	20.60	20.53	20.60			22	2
15	HQAM	36	20	20.72	20.70	20.73			22	2
15	HQAM	36	39	20.69	20.69	20.76			22	2
15	HQAM	75	0	20.68	20.65	20.72			22	2
15	HQAM	1	0	20.64	20.64	20.67			22	2
15	HQAM	1	37	20.62	20.64	20.72			21	3
15	HQAM	1	74	20.70	20.70	20.75			21	3
15	HQAM	36	0	19.90	19.87	19.91			21	3
15	HQAM	36	20	20.01	19.99	20.03			21	3
15	HQAM	36	39	19.95	19.99	20.03			21	3
15	HQAM	75	0	19.96	19.90	19.92			21	3
Channel										
10	QPSK	1	0	22.27	22.58	22.71			24	0
10	QPSK	1	49	22.42	22.74	22.76			23	1
10	QPSK	25	0	21.47	21.45	21.49			23	1
10	QPSK	25	25	21.53	21.57	21.61			23	1
10	QPSK	50	0	21.47	21.48	21.53			23	1
10	HQAM	1	0	21.24	21.57	21.65			23	1
10	HQAM	1	49	21.32	21.67	21.73			22	2
10	HQAM	25	0	20.76	20.77	20.81			22	2
10	HQAM	25	25	20.72	20.70	20.78			22	2
10	HQAM	50	0	20.36	20.68	20.80			22	2
10	HQAM	1	25	20.63	20.68	20.77			21	3
10	HQAM	1	49	20.37	20.74	20.86			21	3
10	HQAM	25	0	19.87	19.88	19.92			21	3
10	HQAM	25	12	19.99	19.99	20.13			21	3
10	HQAM	25	25	19.91	19.96	20.05			21	3
10	HQAM	50	0	19.86	19.91	19.96			21	3
Channel										
5	QPSK	1	0	22.76	22.88	22.69			24	0
5	QPSK	1	12	22.69	22.70	22.76			23	1
5	QPSK	1	24	22.61	22.67	22.73			23	1
5	QPSK	12	0	21.54	21.55	21.70			23	1
5	QPSK	12	7	21.62	21.70	21.76			23	1
5	QPSK	12	13	21.61	21.69	21.73			23	1
5	QPSK	25	0	21.58	21.59	21.69			23	1
5	HQAM	1	0	21.52	21.52	21.67			23	1
5	HQAM	1	12	21.67	21.80	21.84			22	2
5	HQAM	1	24	21.57	21.67	21.72			22	2
5	HQAM	12	0	20.72	20.74	20.89			21	3
5	HQAM	12	7	20.81	20.86	20.93			21	3
5	HQAM	12	13	20.82	20.83	20.92			21	3
5	HQAM	25	0	20.78	20.82	20.92			21	3
5	HQAM	1	0	20.55	20.54	20.68			22	2
5	HQAM	1	12	20.60	20.67	20.75			22	2
5	HQAM	1	24	20.60	20.66	20.72			22	2
5	HQAM	12	0	19.86	19.87	20.09			21	3
5	HQAM	12	7	20.03	20.13	20.15			21	3
5	HQAM	12	13	20.02	20.09	20.14			21	3
5	HQAM	25	0	19.99	19.99	20.13			21	3

Band 41 (2.6G Band)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq	Power High Ch./Freq	Power High Ch./Freq	Power High Ch./Freq	Power High Ch./Freq	Turn-up limit (dBm)	MPR (dB)
Channel										
20	QPSK	1	0	22.84	22.84	22.89	22.84	22.46	24	0
20	QPSK	1	99	22.73	22.72	22.81	22.65	22.88	23	1
20	QPSK	50	0	21.26	21.23	21.56	21.51	21.37	23	1
20	QPSK	50	24	21.38	21.38	21.34	21.43	21.64	23	1
20	QPSK	50	50	21.34	21.29	21.38	21.40	21.38	23	1
20	QPSK	100	0	21.31	21.23	21.49	21.39	21.47	23	1
20	HQAM	1	49	21.38	21.34	21.34	21.34	21.32	23	1
20	HQAM	1	99	21.30	21.34	21.44	21.57	21.54	23	1
20	HQAM	1	99	21.35	21.36	21.25	21.15	21.48	22	2
20	HQAM	50	0	20.12	20.23	20.21	20.25	20.10	22	2
20	HQAM	50	24	20.13	20.08	20.21	20.32	20.27	22	2
20	HQAM	50	50	20.06	20.12	20.18	20.10	20.26	22	2
20	HQAM	100	0	20.03	20.21	20.11	20.22	20.18	22	2
20	HQAM	1	0	20.40	20.32	20.32	20.21	20.29	22	2
20	HQAM	1	49	20.31	20.30	20.42	20.48	20.52	21	3
20	HQAM	1	99	20.23	20.37	20.23	20.06	20.49	21	3
20	HQAM	50	0	19.28	19.33	19.36	19.33	19.38	21	3
20	HQAM	50	24	19.38	19.34	19.47	19.57	19.55	21	3
20	HQAM	50	50	19.36	19.18	19.44	19.39	19.54	21	3
20	HQAM	100	0	19.38	19.34	19.48	19.58	19.54	21	3
Channel										
15	QPSK	1	0	22.72	22.45	22.49	22.72	22.51	24	0
15	QPSK	1	37	22.74	22.65	22.77	22.62	22.76	23	1
15	QPSK	1	74	22.73	22.66	22.84	22.64	22.74	23	1
15	QPSK	36	0	21.31	21.23	21.33	21.48	21.37	23	1
15	QPSK	36	20	21.41	21.32	21.44	21.54	21.48	23	1
15	QPSK	36	39	21.29	21.22	21.42	21.44	21.48	23	1
15	QPSK	75	0	21.36	21.26	21.39	21.49	21.44	23	1
15	HQAM	1	37	21.49	21.14	21.17	21.62	21.20	23	1
15	HQAM	1	74	21.39	21.30	21.36	21.48	21.42	23	1
15	HQAM	1	74	21.41	21.12	21.35	21.31	21.44	22	2
15	HQAM	36	0	20.21	20.22	20.12	20.12	20.00	22	2
15	HQAM	36	20	20.09	20.23	20.08	20.18	20.13	22	2
15	HQAM	36	39	20.21	20.24	20.09	20.10	20.15	22	2
15	HQAM	75	0	20.08	20.12	20.10	20.20	20.14	22	2
15	HQAM	1	0	20.41	20.11	20.12	20.35	20.11	22	2
15	HQAM	1	37	20.34	20.30	20.34	20.30	20.30	22	2
15	HQAM	1	74	20.29	20.08	20.29	20.16	20.42	21	3
15	HQAM	36	0	19.38	19.27	19.37	19.33	19.40	21	3
15	HQAM	36	20	19.43	19.34	19.50	19.55	19.51	21	3
15	HQAM	36	39	19.32	19.29	19.47	19.43	19.53	21	3
15	HQAM	75	0	19.42	19.29	19.42	19.63	19.47	21	3
Channel										
10	QPSK	1	0	22.73	22.74	22.84	22.65	22.76	24	0
10	QPSK	1	49	22.75	22.45	22.61	22.68	22.63	23	1
10	QPSK	25	0	21.50	21.45	21.51	21.65	21.61	23	1
10	QPSK	25	25	21.53	21.43	21.54	21.64	21.58	23	1
10	QPSK	50	0	21.46	21.44	21.52	21.62	21.58	23	1
10	HQAM	1	0	21.50	21.27	21.30	21.45	21.29	23	1
10	HQAM	1	49	21.54	21.51	21.62	21.53	21.64	22	2
10	HQAM	25	0	20.24	20.13	20.21	20.34	20.28	23	1
10	HQAM	25	12	20.28	20.25	20.33	20.46	20.40	22	2
10	HQAM	25	25	20.25	20.13	20.18	20.30	20.25	22	2
10	HQAM	50	0	20.20	20.17	20.25	20.34	20.31	22	2
10	HQAM	1	0	20.66	20.32	20.37	20.50	20.48	22	2
10	HQAM	1	25	20.59	20.56	20.63	20.72	20.68	22	2
10	HQAM	1	49	20.58	20.33	20.46	20.52	20.49	21	3
10	HQAM	25	0	19.54	19.43	19.53	19.65	19.56	21	3
10	HQAM	25	12	19.56	19.54	19.65	19.72	19.66	21	3
10	HQAM	25	25	19.53	19.46	19.55	19.64	19.57	21	3
10	HQAM	50	0	19.44	19.44	19.53	19.62	19.52	21	3
Channel										
5	QPSK	1	0	22.76	22.88	22.69	22.82	22.77	24	0
5	QPSK	1	12	22.72	22.71	22.74	22.62	2		



Reduced Power Mode for Sensor On

GSM850	Burst-Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	
	128	189	251		128	189	251		
TX Channel	128	189	251	128	189	251	128	189	251
Frequency (MHz)	824.2	836.4	848.6	824.2	836.4	848.6	824.2	836.4	848.6
GSM 1 Tx slot	30.18	29.87	29.74	31.50	21.18	20.87	20.74	22.50	22.50
GPRS 1 Tx slot	30.17	29.85	29.73	31.50	21.17	20.85	20.73	22.50	22.50
GPRS 2 Tx slot	29.12	29.21	29.10	30.50	23.12	23.21	23.10	24.50	24.50
GPRS 3 Tx slot	27.98	28.25	27.88	29.00	23.70	23.99	23.82	24.74	24.74
GPRS 4 Tx slot	26.43	26.21	26.14	27.50	23.43	23.21	23.14	24.50	24.50
EDGE 1 Tx slot	24.12	24.24	23.98	25.00	15.12	15.24	14.98	16.00	16.00
EDGE 2 Tx slot	23.95	24.12	23.90	24.50	17.95	18.12	17.90	18.50	18.50
EDGE 3 Tx slot	21.28	21.45	21.20	23.00	17.02	17.19	16.84	18.74	18.74
EDGE 4 Tx slot	20.40	20.51	20.15	22.00	17.40	17.51	17.15	19.00	19.00

GSM1900	Burst-Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	
	512	661	810		512	661	810		
TX Channel	512	661	810	512	661	810	512	661	810
Frequency (MHz)	1927.2	1939	1951.2	1927.2	1939	1951.2	1927.2	1939	1951.2
GSM 1 Tx slot	26.12	26.10	26.05	26.50	17.12	17.10	17.05	17.50	17.50
GPRS 1 Tx slot	26.11	26.09	26.03	26.50	17.11	17.09	17.03	17.50	17.50
GPRS 2 Tx slot	25.58	25.57	25.54	26.00	19.58	19.57	19.54	20.00	20.00
GPRS 3 Tx slot	23.90	23.95	23.87	24.00	19.84	19.89	19.41	19.74	19.74
GPRS 4 Tx slot	21.87	22.12	22.07	22.50	18.87	19.12	19.07	19.50	19.50
EDGE 1 Tx slot	21.83	21.60	21.73	22.50	12.83	12.60	12.73	13.50	13.50
EDGE 2 Tx slot	20.71	20.81	20.64	21.50	14.71	14.81	14.64	15.50	15.50
EDGE 3 Tx slot	18.52	18.70	18.55	19.50	14.26	14.44	14.29	15.24	15.24
EDGE 4 Tx slot	17.50	17.82	17.83	18.50	14.50	14.82	14.63	15.50	15.50

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)			
	Rx Channel	9262	9600		9638	1312	1413		1513		
TX Channel	9262	9600	9638	9262	1312	1413	1513	9262	1312	1413	1513
Rx Channel	9662	9800	9938	9662	1537	1638	1738	9662	1537	1638	1738
Frequency (MHz)	1852.4	1880	1907.6	1852.4	1712.4	1732.6	1752.6	1852.4	1712.4	1732.6	1752.6
3GPP Rel 99 AMR 12.2kpps	16.60	16.71	16.55	17.00	17.10	17.12	17.03	17.50	17.10	17.12	17.03
3GPP Rel 99 RMC 12.2kpps	16.70	16.76	16.77	17.00	17.12	17.15	17.06	17.50	17.12	17.15	17.06
3GPP Rel 6 HSDPA Subtest-1	16.27	16.38	16.12	17.00	16.65	16.70	16.66	17.50	16.65	16.70	16.66
3GPP Rel 6 HSDPA Subtest-2	16.21	16.31	16.17	17.00	16.86	16.69	16.67	17.50	16.86	16.69	16.67
3GPP Rel 6 HSDPA Subtest-3	15.73	15.87	15.81	16.50	16.15	16.36	16.19	17.00	16.15	16.36	16.19
3GPP Rel 6 HSDPA Subtest-4	15.69	15.89	15.69	16.50	16.18	16.22	16.14	17.00	16.18	16.22	16.14
3GPP Rel 6 DC-HSDPA Subtest-1	16.14	16.29	16.21	17.00	16.68	16.72	16.65	17.50	16.68	16.72	16.65
3GPP Rel 6 DC-HSDPA Subtest-2	16.20	16.32	16.23	17.00	16.71	16.82	16.82	17.50	16.71	16.82	16.82
3GPP Rel 6 DC-HSDPA Subtest-3	15.72	15.89	15.79	16.50	16.30	16.22	16.31	17.00	16.30	16.22	16.31
3GPP Rel 6 DC-HSDPA Subtest-4	15.67	15.78	15.69	16.50	16.30	16.08	16.28	17.00	16.30	16.08	16.28
3GPP Rel 6 HSUPA Subtest-1	16.07	16.25	16.19	17.00	16.63	16.53	16.81	17.50	16.63	16.53	16.81
3GPP Rel 6 HSUPA Subtest-2	14.22	14.20	14.16	15.00	14.78	14.52	14.76	15.50	14.78	14.52	14.76
3GPP Rel 6 HSUPA Subtest-3	15.09	15.21	15.24	16.00	15.85	15.84	15.54	16.50	15.85	15.84	15.54
3GPP Rel 6 HSUPA Subtest-4	14.05	14.31	14.29	15.00	14.68	14.61	14.75	15.50	14.68	14.61	14.75
3GPP Rel 6 HSUPA Subtest-5	16.11	16.10	16.28	17.00	16.82	16.78	16.60	17.50	16.82	16.78	16.60

Band	CDMA B00			Tune-up Limit (dBm)	CDMA B01			Tune-up Limit (dBm)			
	1013	384	777		25	600	1175				
TX Channel	1013	384	777	1013	384	777	1013	384	777		
Frequency (MHz)	824.7	836.52	848.31	824.7	836.52	848.31	824.7	836.52	848.31		
RCT S065	22.77	22.70	22.77	24.00	17.75	17.77	17.87	18.50	17.75	17.77	17.87
RCS S065 (F+SCH)	22.89	22.85	22.89	24.00	17.72	17.82	17.83	18.50	17.72	17.82	17.83
RCS S032 (F+SCH)	22.89	22.86	22.93	24.00	17.88	17.91	17.90	18.50	17.88	17.91	17.90
RCS S032 (F+SCH)	22.82	22.84	22.85	24.00	17.57	17.69	17.75	18.50	17.57	17.69	17.75
RTAP 153.6kpps	22.94	23.02	22.89	24.00	17.81	17.86	17.83	18.50	17.81	17.86	17.83
RETPAP 408kpps	22.79	22.71	23.01	24.00	17.79	17.81	17.82	18.50	17.79	17.81	17.82



Reduced Power Mode for Hotspot On

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	30.18	29.87	29.74	31.50	21.18	20.87	20.74	22.50
GPRS 1 Tx slot	30.17	29.85	29.73	31.50	21.17	20.85	20.73	22.50
GPRS 2 Tx slot	29.12	29.21	29.10	30.50	23.12	23.21	23.10	24.50
GPRS 3 Tx slot	27.98	28.25	27.88	29.00	23.70	23.99	23.82	24.74
GPRS 4 Tx slot	26.43	26.21	26.14	27.50	23.43	23.31	23.14	24.50
EDGE 1 Tx slot	24.12	24.24	23.96	26.00	15.12	15.24	14.96	16.00
EDGE 2 Tx slot	23.95	24.12	23.90	24.50	17.95	18.12	17.90	18.50
EDGE 3 Tx slot	21.28	21.45	21.20	23.00	17.02	17.19	16.94	18.74
EDGE 4 Tx slot	20.40	20.51	20.15	22.00	17.40	17.51	17.15	19.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1950.2	1960	1969.8		1950.2	1960	1969.8	
GSM 1 Tx slot	23.60	23.55	23.46	24.00	14.60	14.55	14.49	15.00
GPRS 1 Tx slot	23.59	23.54	23.47	24.00	14.59	14.54	14.47	15.00
GPRS 2 Tx slot	22.95	23.04	22.98	23.50	16.95	17.04	16.98	17.50
GPRS 3 Tx slot	21.07	21.29	21.43	21.50	16.81	17.03	17.17	17.24
GPRS 4 Tx slot	19.31	19.58	19.46	20.00	16.31	16.58	16.46	17.00
EDGE 1 Tx slot	16.23	16.22	16.01	20.00	10.23	10.22	10.01	11.00
EDGE 2 Tx slot	17.73	17.88	17.59	19.00	11.73	11.88	11.59	13.00
EDGE 3 Tx slot	15.71	16.13	16.00	17.00	11.46	11.87	11.74	12.74
EDGE 4 Tx slot	15.01	15.05	15.10	16.00	12.01	12.05	12.10	13.00

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	TX Channel	9262	9600		9638	1312	1413	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1952.4	1980	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 AMR 12.2kbps	14.31	14.23	14.18	15.00	15.03	15.08	15.05	16.50
3GPP Rel 99 RMC 12.2kbps	14.20	14.44	14.34	15.00	15.27	15.35	15.31	16.50
3GPP Rel 6 HSDPA Subtest-1	13.82	13.68	13.64	15.00	14.75	14.76	14.72	16.50
3GPP Rel 6 HSDPA Subtest-2	13.67	13.64	13.70	15.00	14.83	14.70	14.76	16.50
3GPP Rel 6 HSDPA Subtest-3	13.21	13.38	13.21	14.50	14.27	14.11	14.15	16.00
3GPP Rel 6 HSDPA Subtest-4	13.16	13.25	13.37	14.50	14.17	14.30	14.26	16.00
3GPP Rel 6 DC-HSDPA Subtest-1	13.79	13.82	13.84	15.00	14.78	14.81	14.84	16.50
3GPP Rel 6 DC-HSDPA Subtest-2	13.74	13.69	13.70	15.00	14.87	14.82	14.82	16.50
3GPP Rel 6 DC-HSDPA Subtest-3	13.10	13.24	13.18	14.50	14.20	14.28	14.10	16.00
3GPP Rel 6 DC-HSDPA Subtest-4	13.10	13.29	13.19	14.50	14.22	14.10	14.19	16.00
3GPP Rel 6 HSUPA Subtest-1	13.77	13.84	13.69	15.00	14.72	14.74	14.75	16.50
3GPP Rel 6 HSUPA Subtest-2	11.61	11.76	11.67	13.00	12.68	12.69	12.67	14.50
3GPP Rel 6 HSUPA Subtest-3	12.73	12.82	12.74	14.00	13.56	13.65	13.57	15.50
3GPP Rel 6 HSUPA Subtest-4	11.52	11.83	11.81	13.00	12.66	12.74	12.72	14.50
3GPP Rel 6 HSUPA Subtest-5	13.66	13.71	13.66	15.00	14.63	14.77	14.73	16.50

Band	CDMA B00			Tune-up Limit (dBm)	CDMA Bc1			Tune-up Limit (dBm)
	TX Channel	1013	384		777	25	600	
Rx Channel	824.7	836.52	848.31		1851.25	1860	1908.75	
Frequency (MHz)	824.7	836.52	848.31		1851.25	1860	1908.75	
RCS S055	22.82	22.79	22.85	24.00	16.16	16.28	16.17	17.00
RCS S055 (F-SCH)	22.92	23.03	22.95	24.00	16.29	16.37	16.31	17.00
RCS S032 (F-SCH)	22.76	22.81	22.80	24.00	16.16	16.23	16.21	17.00
RCS S032 (F-SCH)	22.88	22.77	22.86	24.00	16.13	16.26	16.15	17.00
RTRP 153.9kbps	22.97	23.04	22.86	24.00	16.22	16.36	16.30	17.00
RETRP 408.6kbps	22.79	22.73	23.01	24.00	16.21	16.21	16.21	17.00



Reduced Power Mode for Handheld

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	512	661	810		512	661	810	
GSM 1900 TX Channel	512	661	810	26.00	18.52	18.73	18.52	20.00
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	27.52	27.73	27.52	26.00	18.52	18.73	18.52	20.00
GPRS 1 Tx slot	27.51	27.72	27.50	26.00	18.51	18.72	18.50	20.00
GPRS 2 Tx slots	27.09	27.10	27.01	28.50	21.09	21.10	21.01	22.50
GPRS 3 Tx slots	25.87	25.53	25.39	28.50	21.81	21.27	21.13	22.24
GPRS 4 Tx slots	23.52	23.57	23.63	26.00	20.52	20.57	20.63	22.00
EDGE 1 Tx slot	23.52	23.85	23.51	26.00	14.52	14.85	14.51	16.00
EDGE 2 Tx slots	22.08	22.09	22.18	24.00	16.08	16.09	16.18	18.00
EDGE 3 Tx slots	20.17	20.21	20.15	22.00	15.91	15.95	15.89	17.74
EDGE 4 Tx slots	19.10	19.05	19.12	21.00	16.10	16.05	16.12	18.00

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	592	860	8538		1312	1413	1513	
3GPP Rel 99 TX Channel	592	860	8538	20.00	17.24	17.32	17.52	21.00
Frequency (MHz)	1852.4	1880	1907.6		1724	1732	1752	
3GPP Rel 99 AMR 12.2Kbps	19.16	19.19	19.20	20.00	20.33	20.37	20.31	21.00
3GPP Rel 99 RMC 12.2Kbps	19.12	19.23	19.20	20.00	20.39	20.41	20.33	21.00
3GPP Rel 6 HSDPA Subtest-1	18.83	18.86	18.88	19.00	20.01	20.04	20.03	21.00
3GPP Rel 6 HSDPA Subtest-2	18.70	18.84	18.95	19.00	20.01	20.03	20.03	21.00
3GPP Rel 6 HSDPA Subtest-3	18.48	18.41	18.46	18.50	20.11	20.02	20.01	20.50
3GPP Rel 6 HSDPA Subtest-4	18.48	18.50	18.44	18.50	20.01	20.03	19.90	20.50
3GPP Rel 6 DC-HSDPA Subtest-1	18.60	18.70	18.72	19.00	19.33	19.13	19.25	21.00
3GPP Rel 6 DC-HSDPA Subtest-2	18.67	18.62	18.70	19.00	19.25	19.17	19.12	21.00
3GPP Rel 6 DC-HSDPA Subtest-3	18.30	18.19	18.33	18.50	18.79	18.68	18.78	20.50
3GPP Rel 6 DC-HSDPA Subtest-4	18.20	18.31	18.30	18.50	18.83	18.59	18.77	20.50
3GPP Rel 6 HSUPA Subtest-1	18.77	18.91	18.71	19.00	18.13	19.20	19.21	21.00
3GPP Rel 6 HSUPA Subtest-2	16.76	16.79	16.87	17.00	17.19	17.01	17.24	19.00
3GPP Rel 6 HSUPA Subtest-3	17.78	17.82	17.70	18.00	18.11	18.21	18.24	20.00
3GPP Rel 6 HSUPA Subtest-4	16.59	16.70	16.76	17.00	17.29	17.20	17.29	19.00
3GPP Rel 6 HSUPA Subtest-5	18.77	18.81	18.57	19.00	19.24	19.11	19.13	21.00

Band	CDMA BC1			Tune-up Limit (dBm)
	25	690	1175	
TX Channel	25 <td>690 <td>1175 <td></td> </td></td>	690 <td>1175 <td></td> </td>	1175 <td></td>	
Frequency (MHz)	1851.25 <td>1880 <td>1908.75 <td></td> </td></td>	1880 <td>1908.75 <td></td> </td>	1908.75 <td></td>	
RC1 SO5	21.32	21.31	21.16	21.50
RC1 SO5	21.24	21.39	21.22	21.50
RC3 SO2 (F-SCH)	21.25	21.31	21.27	21.50
RC3 SO2 (F-SCH)	21.26	21.04	21.18	21.50
RTAP 153 8Kbps	21.28	21.36	21.21	21.50
RTAP 408Kbps	21.26	21.34	21.33	21.50



Band 2 - Body Work

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

Reduced Power Mode for Sensor On / Hotspot On / Handheld On

Band 2 - Hotspot

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

Band 2 - Handheld

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).



Band 4 - Body Worn											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. (MHz)	Power Middle Ch. / Freq. (MHz)	Power High Ch. / Freq. (MHz)	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)											
20	QPSK	1	0	17.33	17.42	17.12	18	0			
20	QPSK	1	49	17.08	17.12	17.04					
20	QPSK	1	99	17.00	17.25	17.00					
20	QPSK	50	0	17.17	17.25	17.06					
20	QPSK	50	24	17.12	17.12	17.10					
20	QPSK	50	50	17.18	17.16	17.04					
20	QPSK	100	0	17.20	17.21	17.03					
20	16QAM	1	0	16.91	16.95	16.84					
20	16QAM	1	49	17.14	17.14	17.03					
20	16QAM	1	99	16.81	16.76	16.79					
Channel											
Frequency (MHz)											
20	16QAM	50	0	16.84	16.82	16.73	18	0			
20	16QAM	50	24	16.82	16.89	16.77					
20	16QAM	50	50	16.83	16.83	16.74					
20	16QAM	100	0	16.87	16.77	16.68					
20	64QAM	1	0	16.91	16.75	16.92					
20	64QAM	1	49	17.17	17.11	16.92					
20	64QAM	1	99	16.76	16.89	16.86					
20	64QAM	50	0	16.80	16.80	16.71					
20	64QAM	50	24	16.92	16.85	16.76					
20	64QAM	50	50	16.84	16.81	16.71					
20	64QAM	100	0	16.84	16.78	16.70					
Channel											
Frequency (MHz)											
15	QPSK	1	0	16.71	16.68	16.61	18	0			
15	QPSK	1	37	16.77	16.83	16.69					
15	QPSK	1	74	16.60	16.62	16.48					
15	QPSK	36	0	16.79	16.81	16.72					
15	QPSK	36	20	16.92	16.86	16.82					
15	QPSK	36	39	16.84	16.83	16.71					
15	QPSK	75	0	16.86	16.85	16.67					
15	16QAM	1	0	17.01	16.96	16.92					
15	16QAM	1	37	17.14	17.07	17.01					
15	16QAM	1	74	16.82	16.82	16.79					
15	16QAM	36	0	16.80	16.84	16.74					
15	16QAM	36	20	16.93	16.87	16.86					
15	16QAM	36	39	16.83	16.87	16.75					
15	16QAM	75	0	16.87	16.82	16.71					
15	64QAM	1	0	16.82	16.86	17.07					
15	64QAM	1	37	17.02	17.16	17.09					
15	64QAM	1	74	16.90	16.71	16.83					
15	64QAM	36	0	16.81	16.82	16.73					
15	64QAM	36	20	16.93	16.88	16.81					
15	64QAM	36	39	16.88	16.82	16.75					
15	64QAM	75	0	16.87	16.81	16.71					
Channel											
Frequency (MHz)											
10	QPSK	1	0	16.53	16.51	16.45	18	0			
10	QPSK	1	25	16.78	16.79	16.68					
10	QPSK	1	49	16.43	16.46	16.32					
10	QPSK	25	0	16.88	16.82	16.77					
10	QPSK	25	12	16.97	16.90	16.80					
10	QPSK	25	25	16.80	16.83	16.69					
10	QPSK	50	0	16.87	16.78	16.75					
10	16QAM	1	0	16.95	16.92	16.80					
10	16QAM	1	25	16.80	16.86	17.10					
10	16QAM	1	49	16.92	16.85	16.72					
10	16QAM	25	0	16.90	16.86	16.79					
10	16QAM	25	12	16.99	16.92	16.86					
10	16QAM	25	25	16.83	16.82	16.73					
10	16QAM	50	0	16.88	16.80	16.77					
10	64QAM	1	0	16.99	16.98	16.94					
10	64QAM	1	25	16.85	16.85	16.82					
10	64QAM	1	49	16.90	17.13	16.98					
10	64QAM	25	0	16.94	16.85	16.80					
10	64QAM	25	12	17.01	16.92	16.87					
10	64QAM	25	25	16.83	16.85	16.66					
10	64QAM	50	0	16.84	16.78	16.74					
Channel											
Frequency (MHz)											
5	QPSK	1	0	16.83	16.76	16.71	18	0			
5	QPSK	1	12	16.91	16.89	16.72					
5	QPSK	1	24	16.70	16.72	16.57					
5	QPSK	12	0	16.98	16.92	16.81					
5	QPSK	12	7	17.00	16.93	16.82					
5	QPSK	12	13	16.90	16.91	16.77					
5	QPSK	25	0	16.94	16.90	16.77					
5	16QAM	1	0	17.18	17.13	17.03					
5	16QAM	1	12	17.17	17.18	17.00					
5	16QAM	1	24	17.07	17.12	16.90					
5	16QAM	12	0	17.02	16.95	16.84					
5	16QAM	12	7	16.98	16.98	16.87					
5	16QAM	12	13	16.94	16.94	16.78					
5	16QAM	25	0	16.97	16.92	16.78					
5	64QAM	1	0	17.15	17.06	16.99					
5	64QAM	1	12	17.16	17.18	16.94					
5	64QAM	1	24	16.97	16.99	16.85					
5	64QAM	12	0	16.99	16.93	16.84					
5	64QAM	12	7	17.00	16.95	16.84					
5	64QAM	12	13	16.91	16.93	16.76					
5	64QAM	25	0	16.96	16.89	16.80					
Channel											
Frequency (MHz)											
3	QPSK	1	0	16.90	16.81	16.76	18	0			
3	QPSK	1	8	16.92	16.93	16.72					
3	QPSK	1	14	16.82	16.83	16.62					
3	QPSK	8	0	16.86	16.84	16.82					
3	QPSK	8	4	17.00	16.98	16.83					
3	QPSK	8	7	16.94	16.95	16.79					
3	QPSK	15	0	16.95	16.91	16.80					
3	16QAM	1	0	17.18	17.16	17.06					
3	16QAM	1	8	16.85	17.12	17.12					
3	16QAM	1	14	17.17	17.10	16.97					
3	16QAM	8	0	17.05	16.99	16.87					
3	16QAM	8	4	17.07	17.02	16.89					
3	16QAM	8	7	16.98	16.95	16.83					
3	16QAM	15	0	16.98	16.95	16.84					
3	64QAM	1	0	17.13	17.12	17.04					
3	64QAM	1	8	17.14	17.17	16.98					
3	64QAM	1	14	17.08	17.10	17.02					
3	64QAM	8	0	16.98	16.96	16.84					
3	64QAM	8	4	17.01	17.04	16.83					
3	64QAM	8	7	16.97	16.97	16.78					
3	64QAM	15	0	16.96	16.93	16.80					
Channel											
Frequency (MHz)											
1.4	QPSK	1	0	16.79	16.79	16.65	18	0			
1.4	QPSK	1	3	16.85	16.85	16.65					
1.4	QPSK	1	5	16.78	16.78	16.64					
1.4	QPSK	3	0	16.87	16.81	16.66					
1.4	QPSK	3	1	16.90	16.90	16.71					
1.4	QPSK	3	3	16.83	16.81	16.65					
1.4	16QAM	1	0	16.90	16.90	16.70					
1.4	16QAM	1	3	17.21	17.18	16.99					
1.4	16QAM	1	5	17.07	17.12	16.97					
1.4	16QAM	3	0	16.93	16.94	16.75					
1.4	16QAM	3	1	17.02	16.94	16.77					
1.4	16QAM	3	3	16.90	16.98	16.72					
1.4	16QAM	6	0	16.97	17.03	16.82					
1.4	64QAM	1	0	17.04	17.11	16.90					
1.4	64QAM	1	3	17.16	17.08	16.97					
1.4	64QAM	1	5	17.04	17.05	16.87					
1.4	64QAM	3	0	16.94	16.99	16.76					
1.4	64QAM	3	1	16.97	17.03	16.80					
1.4	64QAM	3	3	16.91	16.93	16.74					
1.4	64QAM	6	0	16.93	16.88	16.74					

Band 4 - Hotspot											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. (MHz)	Power Middle Ch. / Freq. (MHz)	Power High Ch. / Freq. (MHz)	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)											
20	QPSK	1	0	14.18	14.20	14.08	15.5	0			
20	QPSK	1	49	14.28	14.32	14.14					
20	QPSK	1	99	14.26	14.31	14.09					
20	QPSK	50	0	14.31	14.21	14.40					
20	QPSK	50	24	14.37	14.27	14.20					
20	QPSK	50	50	14.26	14.12	14.17					
20	QPSK	100	0	14.38	14.23	14.22					
20	16QAM	1	0	13.88	14.02	13.91					
20	16QAM	1	49	14.19	14.13	13.92					
20	16QAM	1	99	13.82	13.80	13.77					
Channel											
Frequency (MHz)											
20	16QAM	50	0	13.95	13.89	13.70	15.5	0			
20	16QAM	50	24	13.77	13.89	13.64					
20	16QAM	50	50	13.74	13.77	13.72					
20	16QAM	100	0	13.84	13.89	13.62					
20	64QAM	1	0	13.69	13.78	13.79					
20	64QAM	1	49	14.01	14.00	13.84					
20	64QAM	1	99	13.69	13.50	13.62					



Band 5 - Body Worm & Hotspot										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				2045	2055	2065				
Frequency (MHz)				829	836.5	844				
10	QPSK	1	0	21.28	21.38	21.33				
10	QPSK	1	25	21.24	21.19	21.20				
10	QPSK	1	49	21.25	21.23	21.18	23	0		
10	QPSK	25	0	21.20	21.29	21.27				
10	QPSK	25	12	21.06	21.16	21.21				
10	QPSK	25	25	21.27	21.25	21.20	23	0		
10	QPSK	50	0	21.19	21.22	21.18				
10	16QAM	1	0	21.12	21.18	21.09				
10	16QAM	1	25	21.18	21.21	21.21	23	0		
10	16QAM	1	49	21.04	21.10	21.18				
10	16QAM	25	0	20.89	20.90	20.94				
10	16QAM	25	12	21.04	20.98	20.90				
10	16QAM	25	25	20.98	20.96	20.90	22	1		
10	16QAM	50	0	20.96	20.90	20.81				
10	64QAM	1	0	20.90	21.04	20.90				
10	64QAM	1	25	20.90	21.15	21.19	22	1		
10	64QAM	1	49	20.86	21.21	21.19				
10	64QAM	25	0	20.18	20.10	20.10				
10	64QAM	25	12	20.27	20.20	20.11				
10	64QAM	25	25	20.22	20.15	20.12	21	2		
10	64QAM	50	0	20.18	20.09	19.98				
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				826.5	836.5	846.5				
5	QPSK	1	0	21.44	21.28	21.28				
5	QPSK	1	12	21.45	21.35	21.39	23	0		
5	QPSK	1	24	21.39	21.28	21.25				
5	QPSK	12	0	21.02	21.19	21.09				
5	QPSK	12	7	21.05	21.18	21.13	23	0		
5	QPSK	12	13	21.12	21.13	21.11				
5	QPSK	25	0	21.04	21.14	21.18				
5	16QAM	1	0	21.25	21.13	21.08				
5	16QAM	1	12	21.27	21.21	21.16	23	0		
5	16QAM	1	24	21.25	21.16	21.07				
5	16QAM	12	0	21.06	20.93	20.90				
5	16QAM	12	7	21.08	21.01	20.89	22	1		
5	16QAM	12	13	21.03	20.99	20.89				
5	16QAM	25	0	21.08	20.95	20.87				
5	64QAM	1	0	21.15	21.01	21.01				
5	64QAM	1	12	21.22	21.10	21.14	22	1		
5	64QAM	1	24	21.14	21.09	21.00				
5	64QAM	12	0	20.21	20.10	20.06				
5	64QAM	12	7	20.29	20.19	20.07	21	2		
5	64QAM	12	13	20.23	20.16	20.06				
5	64QAM	25	0	20.23	20.15	20.08				
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				825.5	836.5	847.5				
3	QPSK	1	0	21.48	21.27	21.34				
3	QPSK	1	8	21.49	21.42	21.43	23	0		
3	QPSK	1	14	21.44	21.31	21.29				
3	QPSK	8	0	21.58	21.36	21.44				
3	QPSK	8	4	21.56	21.48	21.46	23	0		
3	QPSK	8	7	21.53	21.45	21.41				
3	QPSK	15	0	21.52	21.43	21.42				
3	16QAM	1	0	21.31	21.13	21.10				
3	16QAM	1	8	21.23	21.23	21.24	23	0		
3	16QAM	1	14	21.23	21.17	21.08				
3	16QAM	8	0	21.11	20.97	21.00				
3	16QAM	8	4	21.13	21.04	21.02				
3	16QAM	8	7	21.06	21.02	20.96	22	1		
3	16QAM	15	0	21.08	20.97	20.95				
3	64QAM	1	0	21.22	21.02	21.07				
3	64QAM	1	8	21.25	21.20	21.14	22	1		
3	64QAM	1	14	21.17	21.11	21.05				
3	64QAM	8	0	20.28	20.10	20.14				
3	64QAM	8	4	20.28	20.21	20.18	21	2		
3	64QAM	8	7	20.24	20.19	20.11				
3	64QAM	15	0	20.25	20.17	20.11				
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				824.7	836.5	848.3				
1.4	QPSK	1	0	21.39	21.25	21.28				
1.4	QPSK	1	3	21.42	21.30	21.32	23	0		
1.4	QPSK	1	5	21.36	21.28	21.22				
1.4	QPSK	3	0	21.39	21.31	21.25				
1.4	QPSK	3	1	21.40	21.33	21.31	23	0		
1.4	QPSK	3	3	21.42	21.29	21.29				
1.4	QPSK	6	0	21.48	21.38	21.35				
1.4	16QAM	1	0	21.21	21.11	21.07	23	0		
1.4	16QAM	1	3	21.29	21.20	21.15				
1.4	16QAM	1	5	21.25	21.09	21.00	23	0		
1.4	16QAM	3	0	21.01	21.11	21.17				
1.4	16QAM	3	1	21.06	21.12	21.13	23	0		
1.4	16QAM	3	3	21.02	21.12	21.16				
1.4	16QAM	6	0	21.06	20.96	20.90	22	1		
1.4	64QAM	1	0	21.14	21.00	21.00				
1.4	64QAM	1	3	21.18	21.08	21.01				
1.4	64QAM	1	5	21.15	21.01	20.98	22	1		
1.4	64QAM	3	0	21.03	20.95	20.87				
1.4	64QAM	3	1	21.08	20.99	20.93	21	2		
1.4	64QAM	3	3	21.02	20.94	20.87				
1.4	64QAM	6	0	20.21	20.10	20.01	21	2		

Band 7 - Body Worm										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				20950	21100	21350				
Frequency (MHz)				2510	2535	2560				
20	QPSK	1	0	15.88	16.01	15.98				
20	QPSK	1	49	15.72	15.72	15.83	16.5	0		
20	QPSK	1	99	15.82	15.83	15.91				
20	QPSK	50	0	15.96	15.89	15.87	16.5	0		
20	QPSK	50	24	15.85	15.87	15.86				
20	QPSK	50	50	15.84	15.86	15.67				
20	QPSK	100	0	15.80	15.85	15.84				
20	16QAM	1	0	15.70	15.64	15.73				
20	16QAM	1	49	15.70	15.71	15.84	16.5	0		
20	16QAM	1	99	15.82	15.80	15.86				
20	16QAM	50	0	15.32	15.42	15.48				
20	16QAM	50	24	15.50	15.51	15.55	16.5	0		
20	16QAM	50	50	15.50	15.53	15.55				
20	16QAM	100	0	15.42	15.43	15.45				
20	64QAM	1	0	15.52	15.49	15.62				
20	64QAM	1	49	15.60	15.60	15.67	16.5	0		
20	64QAM	1	99	15.64	15.69	15.75				
20	64QAM	50	0	15.31	15.42	15.49				
20	64QAM	50	24	15.48	15.49	15.53	16.5	0		
20	64QAM	50	50	15.47	15.50	15.56				
20	64QAM	100	0	15.44	15.44	15.50				
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2507.5	2535	2562.5				
15	QPSK	1	0	15.84	15.40	15.48				
15	QPSK	1	37	15.37	15.44	15.40	16.5	0		
15	QPSK	1	74	15.48	15.52	15.62				
15	QPSK	36	0	15.45	15.46	15.55				
15	QPSK	36	20	15.55	15.53	15.61	16.5	0		
15	QPSK	36	39	15.54	15.56	15.65				
15	QPSK	75	0	15.45	15.47	15.56				
15	16QAM	1	0	15.67	15.70	15.80				
15	16QAM	1	37	15.72	15.75	15.84	16.5	0		
15	16QAM	1	74	15.78	15.79	15.90				
15	16QAM	36	0	15.44	15.44	15.53				
15	16QAM	36	20	15.55	15.53	15.60	16.5	0		
15	16QAM	36	39	15.52	15.54	15.63				
15	16QAM	75	0	15.47	15.49	15.54				
15	64QAM	1	0	15.56	15.56	15.66				
15	64QAM	1	37	15.60	15.64	15.65	16.5	0		
15	64QAM	1	74	15.63	15.67	15.75				
15	64QAM	36	0	15.44	15.46	15.55				
15	64QAM	36	20	15.53	15.55	15.59	16.5	0		
15	64QAM	36	39	15.50	15.53	15.64				
15	64QAM	75	0	15.46	15.46	15.55				
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2505	2535	2565				
10	QPSK	1	0	15.39	15.41	15.45				
10	QPSK	1	25	15.37	15.44	15.51	16.5	0		
10	QPSK	1	49	15.41	15.51	15.56				
10	QPSK	25	0	15.45	15.49	15.59				
10	QPSK	25	12	15.53	15.53	15.66	16.5	0		
10	QPSK	25	25	15.56	15.64	15.64				
10	QPSK	50	0	15.46	15.47	15.49				
10	16QAM	1	0	15.79	15.82	15.87				
10	16QAM	1	25	15.80	15.87	15.87	16.5	0		
10	16QAM									



Band 7 -Handheld									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				2510	2535	2550			
Frequency (MHz)									
20	QPSK	1	0	17.89	17.92	17.83			
20	QPSK	1	49	17.72	17.76	17.83	18.5	0	
20	QPSK	1	99	17.81	17.86	17.72			
20	QPSK	36	0	17.79	17.81	17.86			
20	QPSK	50	24	17.86	17.87	17.55	18.5	0	
20	QPSK	50	50	17.86	17.87	17.68			
20	QPSK	100	0	17.82	17.84	17.62			
20	16QAM	1	0	17.65	17.66	17.74			
20	16QAM	1	49	17.74	17.73	17.83	18.5	0	
20	16QAM	1	99	17.77	17.83	17.87			
20	16QAM	50	0	17.30	17.43	17.51			
20	16QAM	50	24	17.51	17.51	17.57	18.5	0	
20	16QAM	50	50	17.53	17.56	17.54			
20	16QAM	100	0	17.45	17.44	17.48			
20	64QAM	1	0	17.51	17.59	17.69			
20	64QAM	1	49	17.64	17.64	17.74	18.5	0	
20	64QAM	1	99	17.65	17.66	17.71			
20	64QAM	50	0	17.29	17.40	17.49			
20	64QAM	50	24	17.50	17.48	17.52	18.5	0	
20	64QAM	50	50	17.50	17.71	17.54			
20	64QAM	100	0	17.43	17.44	17.47			
Channel				20825	21100	21375			
Frequency (MHz)									
15	QPSK	1	0	17.34	17.38	17.48			
15	QPSK	1	37	17.37	17.41	17.48	18.5	0	
15	QPSK	1	74	17.46	17.51	17.57			
15	QPSK	36	0	17.44	17.45	17.51			
15	QPSK	36	20	17.51	17.52	17.59	18.5	0	
15	QPSK	36	39	17.51	17.56	17.62			
15	QPSK	75	0	17.47	17.45	17.54			
15	16QAM	1	0	17.67	17.70	17.80			
15	16QAM	1	37	17.71	17.79	17.86	18.5	0	
15	16QAM	1	74	17.76	17.71	17.71			
15	16QAM	36	0	17.44	17.47	17.53			
15	16QAM	36	20	17.53	17.53	17.58	18.5	0	
15	16QAM	36	39	17.51	17.51	17.62			
15	16QAM	75	0	17.48	17.47	17.53			
15	64QAM	1	0	17.48	17.56	17.65			
15	64QAM	1	37	17.60	17.60	17.68	18.5	0	
15	64QAM	1	74	17.73	17.67	17.79			
15	64QAM	36	0	17.42	17.47	17.52			
15	64QAM	36	20	17.55	17.51	17.58	18.5	0	
15	64QAM	36	39	17.52	17.52	17.63			
15	64QAM	75	0	17.48	17.47	17.53			
Channel				20800	21100	21400			
Frequency (MHz)									
10	QPSK	1	0	17.39	17.41	17.41			
10	QPSK	1	25	17.37	17.41	17.48	18.5	0	
10	QPSK	1	49	17.46	17.53	17.54			
10	QPSK	25	0	17.46	17.48	17.48			
10	QPSK	25	12	17.49	17.52	17.62	18.5	0	
10	QPSK	25	25	17.47	17.57	17.61			
10	QPSK	50	0	17.42	17.38	17.48			
10	16QAM	1	0	17.74	17.76	17.83			
10	16QAM	1	25	17.73	17.82	17.89	18.5	0	
10	16QAM	1	49	17.83	17.86	17.90			
10	16QAM	25	0	17.50	17.47	17.50			
10	16QAM	25	12	17.49	17.50	17.66	18.5	0	
10	16QAM	25	25	17.48	17.59	17.61			
10	16QAM	50	0	17.42	17.42	17.49			
10	64QAM	1	0	17.68	17.78	17.84			
10	64QAM	1	25	17.67	17.85	17.84	18.5	0	
10	64QAM	1	49	17.79	17.89	17.68			
10	64QAM	25	0	17.49	17.51	17.52			
10	64QAM	25	12	17.51	17.54	17.65	18.5	0	
10	64QAM	25	25	17.50	17.57	17.65			
10	64QAM	50	0	17.42	17.45	17.48			
Channel				20775	21100	21425			
Frequency (MHz)									
5	QPSK	1	0	17.39	17.43	17.50	18.5	0	
5	QPSK	1	12	17.45	17.53	17.55			
5	QPSK	1	24	17.45	17.49	17.57			
5	QPSK	12	0	17.47	17.49	17.60			
5	QPSK	12	7	17.71	17.59	17.66	18.5	0	
5	QPSK	12	13	17.47	17.53	17.60			
5	QPSK	25	0	17.47	17.52	17.63			
5	16QAM	1	0	17.77	17.75	17.87			
5	16QAM	1	12	17.77	17.85	17.71	18.5	0	
5	16QAM	1	24	17.75	17.84	17.71			
5	16QAM	12	0	17.50	17.49	17.65			
5	16QAM	12	7	17.55	17.66	17.71	18.5	0	
5	16QAM	12	13	17.52	17.60	17.61			
5	16QAM	25	0	17.51	17.50	17.66			
5	64QAM	1	0	17.66	17.70	17.77			
5	64QAM	1	12	17.67	17.71	17.76	18.5	0	
5	64QAM	1	24	17.68	17.75	17.80			
5	64QAM	12	0	17.46	17.49	17.62			
5	64QAM	12	7	17.51	17.63	17.68	18.5	0	
5	64QAM	12	13	17.45	17.57	17.60			
5	64QAM	25	0	17.51	17.49	17.62			
Channel				26997	26865	27033			
Frequency (MHz)									
1.4	QPSK	1	0	21.62	21.31	21.23			
1.4	QPSK	1	3	21.66	21.39	21.21	23	0	
1.4	QPSK	1	5	21.57	21.31	21.24			
1.4	QPSK	3	0	21.61	21.37	21.19			
1.4	QPSK	3	1	21.68	21.40	21.21			
1.4	QPSK	3	3	21.63	21.37	21.27			
1.4	QPSK	6	0	21.70	21.42	21.25	23	0	
1.4	16QAM	1	0	21.42	21.15	21.01			
1.4	16QAM	1	3	21.35	21.24	21.08			
1.4	16QAM	1	5	21.45	21.13	21.10	23	0	
1.4	16QAM	3	0	21.23	21.14	21.13			
1.4	16QAM	3	1	21.26	21.00	21.13			
1.4	16QAM	3	3	21.22	21.14	21.07			
1.4	16QAM	6	0	21.28	21.00	20.82	22	1	
1.4	64QAM	1	0	21.37	21.11	21.06			
1.4	64QAM	1	3	21.38	21.12	20.93			
1.4	64QAM	1	5	21.38	21.08	21.03	22	1	
1.4	64QAM	3	0	21.28	20.98	20.99			
1.4	64QAM	3	1	21.30	21.02	20.87			
1.4	64QAM	3	3	21.25	20.98	20.98	21	2	
1.4	64QAM	6	0	20.42	20.11	19.94			

Band 26 -Body Worn & Hotspot									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				26765	26865	26965			
Frequency (MHz)									
15	QPSK	1	0	21.43	21.48	21.41			
15	QPSK	1	37	21.33	21.19	21.16	23	0	
15	QPSK	1	74	21.25	21.13	21.03			
15	QPSK	36	0	21.41	21.43	21.38			
15	QPSK	36	20	21.25	21.32	21.27	23	0	
15	QPSK	36	39	21.38	21.25	21.14			
15	QPSK	75	0	21.10	21.27	21.13			
15	16QAM	1	0	21.41	21.28	21.17			
15	16QAM	1	37	21.29	21.17	21.09	23	0	
15	16QAM	1	74	21.25	21.11	21.20			
15	16QAM	36	0	21.08	20.85	20.80			
15	16QAM	36	20	21.11	20.98	20.90	22	1	
15	16QAM	36	39	21.00	20.88	20.79			
15	16QAM	75	0	21.06	20.92	20.78			
15	64QAM	1	0	21.31	21.17	21.04			
15	64QAM	1	37	21.18	21.05	20.98	22	1	
15	64QAM	1	74	21.08	20.94	20.92			
15	64QAM	36	0	20.29	20.06	20.00			
15	64QAM	36	20	20.31	20.18	20.10	21	2	
15	64QAM	36	39	20.21	20.09	19.99			
15	64QAM	75	0	20.25	20.10	19.99			
Channel				26740	26865	26990			
Frequency (MHz)									
10	QPSK	1	0	21.89	21.42	21.39			
10	QPSK	1	25	21.54					



Band 66-Hotspot									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 132072	Power Middle Ch. / Freq. 132322	Power High Ch. / Freq. 132572	Tune-up limit (dBm)	MPR (dB)	
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
20	QPSK	1	0	14.56	14.58	14.51			
20	QPSK	1	49	14.36	14.40	14.24	16	0	
20	QPSK	1	99	14.36	14.25	14.23			
20	QPSK	50	0	14.42	14.49	14.39			
20	QPSK	50	24	14.25	14.27	14.32	16	0	
20	QPSK	50	50	14.23	14.11	14.03			
20	QPSK	100	0	14.07	14.45	14.05			
20	16QAM	1	0	14.09	14.13	14.34			
20	16QAM	1	49	14.30	14.01	14.26	16	0	
20	16QAM	1	99	14.07	14.05	14.19			
20	16QAM	50	0	14.19	14.40	14.17			
20	16QAM	50	24	14.46	14.19	14.14	16	0	
20	16QAM	50	50	14.39	14.32	14.25			
20	16QAM	100	0	14.22	14.30	14.27			
20	64QAM	1	0	14.20	14.34	14.24			
20	64QAM	1	49	14.57	14.31	14.44	16	0	
20	64QAM	1	99	14.31	14.60	14.41			
20	64QAM	50	0	14.53	14.40	14.45			
20	64QAM	50	24	14.39	14.18	14.26	16	0	
20	64QAM	50	50	14.29	14.39	14.22			
20	64QAM	100	0	14.39	14.27	14.36			
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
15	QPSK	1	0	14.44	14.33	14.29	16	0	
15	QPSK	1	37	14.37	14.19	14.14			
15	QPSK	1	74	14.05	14.03	14.18			
15	QPSK	36	0	14.35	14.33	14.34	16	0	
15	QPSK	36	20	14.46	14.38	14.30			
15	QPSK	36	39	14.54	14.15	14.34			
15	QPSK	75	0	14.44	14.16	14.45			
15	16QAM	1	0	14.43	14.52	14.51	16	0	
15	16QAM	1	37	14.64	14.46	14.33			
15	16QAM	1	74	14.64	14.19	14.30			
15	16QAM	36	0	14.56	14.23	14.27			
15	16QAM	36	20	14.31	14.21	14.29	16	0	
15	16QAM	36	39	14.38	14.20	14.17			
15	16QAM	75	0	14.47	14.33	14.32			
15	64QAM	1	0	14.37	14.67	14.27	16	0	
15	64QAM	1	37	14.67	14.25	14.25			
15	64QAM	1	74	14.64	14.53	14.59			
15	64QAM	36	0	14.61	14.42	14.40	16	0	
15	64QAM	36	20	14.46	14.32	14.30			
15	64QAM	36	39	14.35	14.29	14.44			
15	64QAM	75	0	14.38	14.33	14.19			
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
10	QPSK	1	0	14.55	14.44	14.31	16	0	
10	QPSK	1	25	14.53	14.38	14.16			
10	QPSK	1	49	14.08	14.17	14.25			
10	QPSK	25	0	14.11	14.12	14.16	16	0	
10	QPSK	25	12	14.35	14.10	14.12			
10	QPSK	25	25	14.29	14.14	14.19			
10	QPSK	50	0	14.28	14.13	14.31			
10	16QAM	1	0	14.30	14.35	14.34	16	0	
10	16QAM	1	25	14.42	14.20	14.09			
10	16QAM	1	49	14.51	14.41	14.19			
10	16QAM	25	0	14.28	14.13	14.12	16	0	
10	16QAM	25	12	14.18	14.16	14.14			
10	16QAM	25	25	14.12	14.06	14.18			
10	16QAM	50	0	14.19	14.09	14.09			
10	64QAM	1	0	14.25	14.41	14.18	16	0	
10	64QAM	1	25	14.57	14.25	14.15			
10	64QAM	1	49	14.50	14.35	14.36			
10	64QAM	25	0	14.50	14.22	14.14	16	0	
10	64QAM	25	12	14.29	14.18	14.06			
10	64QAM	25	25	14.21	14.16	14.32			
10	64QAM	50	0	14.12	14.19	14.12			
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
5	QPSK	1	0	14.44	14.50	14.53	16	0	
5	QPSK	1	12	14.32	14.41	14.57			
5	QPSK	1	24	14.41	14.45	14.31			
5	QPSK	12	0	14.16	14.30	14.20	16	0	
5	QPSK	12	7	14.01	14.34	14.13			
5	QPSK	12	13	14.08	14.10	14.02			
5	QPSK	25	0	14.05	14.02	14.17	16	0	
5	16QAM	1	0	14.49	14.20	14.09			
5	16QAM	1	12	14.44	14.43	14.12	16	0	
5	16QAM	1	24	14.38	14.18	14.14			
5	16QAM	12	0	14.12	14.12	14.12			
5	16QAM	12	7	14.13	14.34	14.03	16	0	
5	16QAM	12	13	14.11	14.09	14.07			
5	16QAM	25	0	14.12	14.19	14.06			
5	64QAM	1	0	14.00	14.25	14.14	16	0	
5	64QAM	1	12	14.33	14.47	14.02			
5	64QAM	1	24	14.22	14.21	14.49			
5	64QAM	12	0	14.15	14.33	14.25	16	0	
5	64QAM	12	7	14.15	14.19	14.11			
5	64QAM	12	13	14.08	14.15	14.20			
5	64QAM	25	0	14.18	14.09	14.13			
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
3	QPSK	1	0	14.43	14.34	14.32	16	0	
3	QPSK	1	8	14.45	14.48	14.26			
3	QPSK	1	14	14.43	14.31	14.37			
3	QPSK	8	0	14.20	14.27	14.00	16	0	
3	QPSK	8	4	14.34	14.14	14.10			
3	QPSK	8	7	14.03	14.06	14.07			
3	QPSK	15	0	14.14	14.12	14.03	16	0	
3	16QAM	1	0	14.21	14.18	14.52			
3	16QAM	1	8	14.32	14.19	14.27	16	0	
3	16QAM	1	14	14.20	14.17	14.27			
3	16QAM	8	0	14.13	14.25	14.12	16	0	
3	16QAM	8	4	14.25	14.13	14.11			
3	16QAM	8	7	14.09	14.21	14.02			
3	16QAM	15	0	14.12	14.05	14.13			
3	64QAM	1	0	14.16	14.07	14.03	16	0	
3	64QAM	1	8	14.27	14.22	14.30			
3	64QAM	1	14	14.08	14.45	14.29			
3	64QAM	8	0	14.23	14.13	14.17	16	0	
3	64QAM	8	4	14.26	14.09	14.06			
3	64QAM	8	7	14.02	14.14	14.11			
3	64QAM	15	0	14.26	14.09	14.19			
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
1.4	QPSK	1	0	14.53	14.53	14.25	16	0	
1.4	QPSK	1	3	14.27	14.47	14.52			
1.4	QPSK	1	5	14.40	14.53	14.43			
1.4	QPSK	3	0	14.18	14.34	14.16	16	0	
1.4	QPSK	3	1	14.06	14.30	14.10			
1.4	QPSK	3	3	14.10	14.10	14.02			
1.4	QPSK	6	0	14.09	14.02	14.17	16	0	
1.4	16QAM	1	0	14.38	14.15	14.15			
1.4	16QAM	1	3	14.26	14.42	14.16	16	0	
1.4	16QAM	1	5	14.37	14.21	14.08			
1.4	16QAM	3	0	14.15	14.15	14.27			
1.4	16QAM	3	1	14.02	14.34	14.06			
1.4	16QAM	3	3	14.06	14.12	14.10	16	0	
1.4	16QAM	6	0	14.00	14.15	14.04			
1.4	64QAM	1	0	14.05	14.15	14.10	16	0	
1.4	64QAM	1	3	14.18	14.33	14.12			
1.4	64QAM	1	5	14.21	14.18	14.55			
1.4	64QAM	3	0	14.20	14.35	14.21	16	0	
1.4	64QAM	3	1	14.15	14.17	14.15			
1.4	64QAM	3	3	14.03	14.03	14.13			
1.4	64QAM	6	0	14.16	14.17	14.08	16	0	

Band 66-Handheld									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 132072	Power Middle Ch. / Freq. 132322	Power High Ch. / Freq. 132572	Tune-up limit (dBm)	MPR (dB)	
Channel			Frequency (MHz)			Tune-up limit (dBm)	MPR (dB)		
20	QPSK	1	0	19.71	19.70	19.69			
20	QPSK	1	49	19.50	19.50	19.33	20.5	0	
20	QPSK	1	99	19.45	19.44	19.32			
20	QPSK	50	0	19.68	19.71	19.67			
20	QPSK	50	24	19.62	19.59	19.49	20.5	0	
20	QPSK	50	50	19.50	19.53	19.34			
20	QPSK	100	0	19.49	19.66	19.31			
20	16QAM	1	0	19.61	19.70	19.60			
20	16QAM	1	49	19.38	19.71	19.39	20.5	0	
20	16QAM	1	99	19.52	19.37	19.59			
20	16QAM	50	0	19.59	19.58	19.40			
20	16QAM	50	24	19.70	19.61	19.60	20.5	0	
20	16QAM	50	50	19.54	19.38	19.38			
20	16QAM	100	0	19.50	19.59	19.35			
20	64QAM	1	0	19.54	19.70	19.65			
20	64QAM	1	49	19.75	19.66	19.56	20.5	0	
20	64QAM	1	99	19.40	19.40	19.39			
20	64QAM	50	0	19.59	19.50	19.56			
20	64QAM	50	24	19.68	19.59	19.43	20.5	0	
20	64QAM	50	50	19.47	19.49	19.36			
20	64QAM	100	0	19.47	19.58				



Band 38-Body Worn										
BW MHz	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel				37850	38000	38150				
Frequency MHz										
30	QPSK	1	0	17.83	17.60	17.37				
30	QPSK	1	48	17.88	17.70	17.78	18.5	0		
30	QPSK	1	89	17.89	17.73	17.79				
30	QPSK	50	0	17.48	17.83	17.59				
30	QPSK	50	24	17.89	17.86	17.72	18.5	0		
30	QPSK	50	89	17.82	17.86	17.75				
30	QPSK	100	0	17.51	17.56	17.83				
30	HQAM	1	0	17.68	17.76	17.89				
30	HQAM	1	49	17.89	17.73	17.85	18.5	0		
30	HQAM	1	99	17.78	17.91	17.95				
30	HQAM	50	0	17.48	17.85	17.58				
30	HQAM	50	24	17.70	17.69	17.75	18.5	0		
30	HQAM	50	50	17.64	17.71	17.76				
30	HQAM	100	0	17.50	17.67	17.65				
30	HQAM	1	0	17.52	17.73	17.71				
30	HQAM	1	49	17.48	17.48	17.73	18.5	0		
30	HQAM	1	99	17.62	17.73	17.78				
30	HQAM	50	0	17.42	17.48	17.53				
30	HQAM	50	24	17.55	17.65	17.67	18.5	0		
30	HQAM	50	50	17.60	17.68	17.70				
30	HQAM	100	0	17.82	17.60	17.67				
Channel										
Frequency MHz				2977.5	2995	2912.5	Tune-up limit (dBm)	MPR (dB)		
15	QPSK	1	0	17.36	17.60	17.49				
15	QPSK	1	37	17.59	17.66	17.73	18.5	0		
15	QPSK	1	74	17.85	17.70	17.78				
15	QPSK	36	0	17.61	17.81	17.70	18.5	0		
15	QPSK	36	39	17.89	17.73	17.80				
15	QPSK	75	0	17.66	17.61	17.73				
15	HQAM	1	37	17.73	17.82	17.86	18.5	0		
15	HQAM	1	37	17.61	17.79	17.85				
15	HQAM	36	0	17.55	17.54	17.62				
15	HQAM	36	20	17.68	17.63	17.73	18.5	0		
15	HQAM	36	39	17.52	17.62	17.77				
15	HQAM	1	37	17.52	17.62	17.85	18.5	0		
15	HQAM	1	74	17.67	17.77	17.81				
15	HQAM	36	0	17.59	17.61	17.68				
15	HQAM	36	20	17.69	17.67	17.80	18.5	0		
15	HQAM	36	39	17.64	17.74	17.81				
15	HQAM	75	0	17.65	17.62	17.73				
Channel										
Frequency MHz				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)		
30	QPSK	1	0	17.53	17.61	17.62	18.5	0		
30	QPSK	1	25	17.83	17.58	17.71				
30	QPSK	1	49	17.27	17.68	17.76				
30	QPSK	25	0	17.56	17.56	17.56	18.5	0		
30	QPSK	25	12	17.66	17.64	17.75				
30	QPSK	25	26	17.63	17.66	17.78				
30	QPSK	50	0	17.50	17.58	17.69				
30	HQAM	1	0	17.51	17.72	17.80				
30	HQAM	1	25	17.69	17.74	17.85	18.5	0		
30	HQAM	1	49	17.43	17.77	17.88				
30	HQAM	25	0	17.58	17.56	17.69	18.5	0		
30	HQAM	25	12	17.63	17.69	17.78				
30	HQAM	25	26	17.61	17.61	17.70				
30	HQAM	1	25	17.56	17.59	17.67				
30	HQAM	1	25	17.81	17.60	17.77	18.5	0		
30	HQAM	1	49	17.58	17.74	17.77				
30	HQAM	25	0	17.54	17.52	17.63				
30	HQAM	25	12	17.65	17.68	17.76	18.5	0		
30	HQAM	25	26	17.67	17.69	17.76				
30	HQAM	50	0	17.54	17.52	17.65				
Channel										
Frequency MHz				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)		
5	QPSK	1	0	17.51	17.51	17.88				
5	QPSK	1	12	17.53	17.62	17.72	18.5	0		
5	QPSK	1	24	17.61	17.61	17.71				
5	QPSK	12	0	17.62	17.63	17.79				
5	QPSK	12	7	17.69	17.76	17.84	18.5	0		
5	QPSK	12	13	17.64	17.75	17.84				
5	QPSK	25	0	17.64	17.64	17.81				
5	HQAM	1	0	17.58	17.66	17.81	18.5	0		
5	HQAM	1	12	17.73	17.80	17.92				
5	HQAM	1	24	17.67	17.75	17.88				
5	HQAM	12	0	17.65	17.61	17.78	18.5	0		
5	HQAM	12	7	17.62	17.73	17.84				
5	HQAM	12	13	17.64	17.68	17.82				
5	HQAM	25	0	17.68	17.68	17.83				
5	HQAM	1	0	17.37	17.37	17.55				
5	HQAM	1	12	17.45	17.50	17.60	18.5	0		
5	HQAM	1	24	17.43	17.51	17.60				
5	HQAM	12	0	17.59	17.60	17.77				
5	HQAM	12	7	17.68	17.72	17.84	18.5	0		
5	HQAM	12	13	17.61	17.70	17.81				
5	HQAM	25	0	17.59	17.63	17.78				

Band 38-Hotspot										
BW MHz	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel				37850	38000	38150				
Frequency MHz										
30	QPSK	1	0	14.82	14.88	14.87				
30	QPSK	1	49	14.87	14.91	14.90	15.5	0		
30	QPSK	1	99	14.91	14.92	14.93				
30	QPSK	50	0	14.70	14.77	14.83				
30	QPSK	50	24	14.92	14.90	14.96	15.5	0		
30	QPSK	50	89	14.97	14.92	14.93				
30	QPSK	100	0	14.92	14.88	14.84				
30	HQAM	1	0	14.54	14.62	14.61				
30	HQAM	1	49	14.54	14.53	14.65	15.5	0		
30	HQAM	1	99	14.64	14.67	14.71				
30	HQAM	50	0	14.48	14.44	14.48				
30	HQAM	50	24	14.55	14.52	14.55	15.5	0		
30	HQAM	50	50	14.48	14.54	14.60				
30	HQAM	100	0	14.48	14.44	14.48				
30	HQAM	1	0	14.25	14.27	14.34				
30	HQAM	1	49	14.25	14.32	14.33	15.5	0		
30	HQAM	1	99	14.35	14.40	14.43				
30	HQAM	50	0	14.27	14.31	14.38				
30	HQAM	50	24	14.46	14.45	14.52	15.5	0		
30	HQAM	50	50	14.44	14.48	14.58				
30	HQAM	100	0	14.51	14.49	14.52				
Channel										
Frequency MHz				2977.5	2995	2912.5	Tune-up limit (dBm)	MPR (dB)		
15	QPSK	1	0	14.77	14.84	14.90				
15	QPSK	1	37	14.79	14.90	14.95	15.5	0		
15	QPSK	1	74	14.89	14.81	14.95				
15	QPSK	36	0	14.80	14.75	14.89	15.5	0		
15	QPSK	36	39	14.97	14.92	14.93				
15	QPSK	36	39	14.89	14.92	14.98				
15	QPSK	75	0	14.80	14.89	14.97				
15	HQAM	1	37	14.86	14.91	14.98	15.5	0		
15	HQAM	1	37	14.54	14.58	14.65				
15	HQAM	36	0	14.58	14.55	14.68				
15	HQAM	36	20	14.40	14.35	14.47	15.5	0		
15	HQAM	36	20	14.47	14.50	14.48				
15	HQAM	36	39	14.59	14.48	14.59				
15	HQAM	75	0	14.49	14.43	14.50				
15	HQAM	1	0	14.30	14.32	14.40	15.5	0		
15	HQAM	1	37	14.38	14.38	14.44				
15	HQAM	1	74	14.39	14.37	14.45				
15	HQAM	36	0	14.56	14.51	14.61				
15	HQAM	36	20	14.54	14.55	14.58	15.5	0		
15	HQAM	36	39	14.49	14.52	14.65				
15	HQAM	75	0	14.50	14.45	14.59				
Channel										
Frequency MHz				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)		
30	QPSK	1	0	14.49	14.47	14.84	15.5	0		
30	QPSK	1	25	14.77	14.69	14.93				
30	QPSK	1	49	14.53	14.50	14.96				
30	QPSK	25	0	14.80	14.82	14.98	15.5	0		
30	QPSK	25	12	14.90	14.93	14.94				
30	QPSK	25	26	14.85	14.89	14.96				
30	QPSK	50	0	14.83	14.81	14.89				
30	HQAM	1	0	14.18	14.60	14.87	18.5	0		
30	HQAM	1	25	14.52	14.57	14.67				
30	HQAM	1	49	14.25	14.62	14.88				
30	HQAM	25	0	14.38	14.36	14.43	15.5	0		
30	HQAM	25	12	14.50	14.50	14.58				
30	HQAM	25	26	14.40	14.48	14.58				
30	HQAM	50	0	14.45	14.43	14.49				
30	HQAM	50	12	14.08	14.42	14.48				
30	HQAM	1	25	14.32	14.38	14.45	15.5	0		
30	HQAM	1	49	14.11	14.47	14.93				
30	HQAM	25	0	14.33	14.37	14.48				
30	HQAM	25	12	14.49	14.48	14.58	15.5	0		
30	HQAM	25	26	14.41	14.49	14.59				
30	HQAM	50	0	14.40	14.41					



Band 41-Body Worn											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power Low Media Ch / Freq	Power High Media Ch / Freq	Power Peak Ch / Freq	Power Peak High Ch / Freq	Turn-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490			
Frequency (MHz)											
20	QPSK	1	0	17.91	17.83	17.67	17.85	17.84		18.5	0
20	QPSK	1	49	17.83	17.90	17.86	17.70	17.54			
20	QPSK	1	99	17.96	17.94	17.76	17.59	17.32			
20	QPSK	50	0	17.90	17.86	17.84	17.82	17.81			
20	QPSK	50	24	17.72	17.68	17.86	17.81	17.88		18.5	0
20	QPSK	50	50	17.58	17.58	17.76	17.76	17.84			
20	QPSK	100	0	17.80	17.90	17.82	17.70	17.72			
20	QPSK	100	1	17.70	17.68	17.52	17.58	17.56			
20	16QAM	1	49	17.87	17.85	17.76	17.81	17.72		18.5	0
20	16QAM	1	99	17.88	17.74	17.54	17.37	17.67			
20	16QAM	50	0	17.82	17.60	17.26	17.76	17.64			
20	16QAM	50	24	17.74	17.71	17.79	17.81	17.81		18.5	0
20	16QAM	50	50	17.72	17.60	17.75	17.83	17.79			
20	16QAM	100	0	17.66	17.58	17.70	17.73	17.72			
20	84QAM	1	0	17.54	17.49	17.27	17.29	17.53			
20	84QAM	1	49	17.46	17.63	17.80	17.88	17.84		18.5	0
20	84QAM	1	99	17.42	17.68	17.50	17.97	17.14			
20	84QAM	50	0	17.58	17.53	17.50	17.68	17.58			
20	84QAM	50	24	17.57	17.61	17.73	17.77	17.14		18.5	0
20	84QAM	50	50	17.63	17.52	17.69	17.58	17.74			
20	84QAM	100	0	17.69	17.62	17.73	17.74	17.77			
Channel											
2000	2500	2543	2600	2637	2682	2700	2700	2700	2700		
Frequency (MHz)											
15	QPSK	1	0	17.81	17.36	17.43	17.36	17.52			
15	QPSK	1	37	17.82	17.09	17.66	17.20	17.74		18.5	0
15	QPSK	1	74	17.84	17.39	17.59	17.46	17.72			
15	QPSK	36	0	17.84	17.61	17.69	17.76	17.66			
15	QPSK	36	37	17.72	17.67	17.69	17.62	17.77		18.5	0
15	QPSK	36	74	17.70	17.59	17.78	17.72	17.84			
15	QPSK	75	0	17.70	17.61	17.76	17.77	17.73			
15	16QAM	1	37	17.73	17.64	17.72	17.82	17.80		18.5	0
15	16QAM	1	74	17.76	17.63	17.76	17.76	17.76			
15	16QAM	36	0	17.60	17.58	17.65	17.74	17.57			
15	16QAM	36	20	17.88	17.65	17.77	17.80	17.73		18.5	0
15	16QAM	36	37	17.69	17.62	17.42	17.48	17.67			
15	16QAM	75	0	17.70	17.64	17.78	17.80	17.73			
15	84QAM	1	0	17.52	17.35	17.47	17.49	17.45		18.5	0
15	84QAM	1	37	17.45	17.68	17.66	17.59	17.58			
15	84QAM	1	74	17.44	17.69	17.50	17.33	17.83			
15	84QAM	36	0	17.65	17.63	17.60	17.79	17.55			
15	84QAM	36	20	17.76	17.59	17.80	17.83	17.81		18.5	0
15	84QAM	36	37	17.71	17.62	17.80	17.75	17.86			
15	84QAM	75	0	17.70	17.63	17.70	17.80	17.72			
Channel											
2200	2241	2292	2339	2375	2400	2400	2400	2400	2400		
Frequency (MHz)											
10	QPSK	1	0	17.63	17.61	17.41	17.50	17.48		18.5	0
10	QPSK	1	25	17.68	17.40	17.70	17.74	17.75			
10	QPSK	1	49	17.71	17.42	17.51	17.50	17.50			
10	QPSK	25	0	17.76	17.67	17.71	17.76	17.59			
10	QPSK	25	12	17.79	17.74	17.84	17.86	17.85		18.5	0
10	QPSK	25	25	17.76	17.69	17.76	17.77	17.75			
10	QPSK	50	0	17.71	17.69	17.76	17.80	17.70			
10	16QAM	1	0	17.82	17.49	17.53	17.61	17.57		18.5	0
10	16QAM	1	25	17.79	17.71	17.79	17.83	17.83			
10	16QAM	1	49	17.77	17.53	17.59	17.52	17.54			
10	16QAM	25	0	17.84	17.69	17.76	17.80	17.73		18.5	0
10	16QAM	25	12	17.84	17.77	17.86	17.84	17.76			
10	16QAM	50	0	17.80	17.67	17.75	17.81	17.78			
10	84QAM	1	25	17.87	17.41	17.42	17.48	17.46			
10	84QAM	1	49	17.83	17.38	17.48	17.47	17.47		18.5	0
10	84QAM	25	12	17.80	17.77	17.82	17.75	17.73			
10	84QAM	25	25	17.74	17.66	17.72	17.77	17.73		18.5	0
10	84QAM	50	0	17.67	17.63	17.66	17.76	17.69			
Channel											
39675	40185	40620	41093	41865	41965	41965	41965	41965	41965		
Frequency (MHz)											
5	QPSK	1	0	17.69	17.80	17.70	17.72	17.67		18.5	0
5	QPSK	1	12	17.82	17.57	17.66	17.68	17.78			
5	QPSK	1	24	17.81	17.53	17.65	17.63	17.62			
5	QPSK	12	0	17.75	17.70	17.82	17.85	17.82		18.5	0
5	QPSK	12	7	17.77	17.74	17.82	17.87	17.83			
5	QPSK	12	13	17.77	17.71	17.82	17.85	17.82		18.5	0
5	QPSK	25	0	17.71	17.71	17.79	17.84	17.82			
5	16QAM	1	0	17.67	17.75	17.70	17.84	17.84		18.5	0
5	16QAM	12	0	17.68	17.76	17.80	17.87	17.83			
5	16QAM	12	7	17.78	17.72	17.80	17.83	17.82		18.5	0
5	16QAM	12	13	17.75	17.68	17.78	17.80	17.80			
5	16QAM	25	0	17.77	17.78	17.85	17.86	17.84			
5	16QAM	25	7	17.87	17.63	17.51	17.60	17.61		18.5	0
5	84QAM	1	0	17.57	17.53	17.51	17.60	17.61			
5	84QAM	1	12	17.53	17.51	17.63	17.64	17.63		18.5	0
5	84QAM	1	24	17.56	17.51	17.56	17.54	17.57			
5	84QAM	12	0	17.73	17.67	17.78	17.80	17.81		18.5	0
5	84QAM	12	7	17.76	17.61	17.69	17.86	17.83			
5	84QAM	12	13	17.72	17.68	17.77	17.80	17.79		18.5	0
5	84QAM	25	0	17.70	17.70	17.70	17.81	17.78			

Band 41-Hotspot											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Media Ch / Freq	Power High Media Ch / Freq	Power High Ch / Freq	Power Peak Ch / Freq	Power Peak High Ch / Freq	Turn-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490			
Frequency (MHz)											
20	QPSK	1	0	14.93	14.98	15.08	15.01	14.91		16	0
20	QPSK	1	49	14.92	14.83	14.86	14.85	14.88			
20	QPSK	1	99	14.95	14.92	14.92	14.89	14.82			
20	QPSK	50	0	14.92	14.82	15.03	14.92	14.80			
20	QPSK	50	24	14.76	14.91	15.01	14.96	14.98		16	0
20	QPSK	50	50	14.80	14.83	14.92	14.72	14.98			
20	QPSK	100	0	14.87	14.79	14.99	14.86	14.93			
20	QPSK	100	1	14.80	14.87	14.94	14.40	14.26			
20	16QAM	1	49	14.53	14.51	14.58	14.57	14.57		16	0
20	16QAM	1	99	14.58	14.57	14.38	14.23	14.59			
20	16QAM	50	0	14.40	14.42	14.40	14.33	14.33			
20	16QAM	50	24	14.58	14.54	14.63	14.68	14.68		16	0
20	16QAM	50	50	14.54	14.45	14.59	14.43	14.70			
20	16QAM	100	0	14.50	14.42	14.54	14.40	14.40			
20	84QAM	1	0	14.29	14.20	14.11	14.14	14.18		16	0
20	84QAM	1	49	14.42	14.19	14.29	14.24	14.36			
20	84QAM	1	99	14.30	14.29	14.08	14.14	14.32			
20	84QAM	50	0	14.42	14.38	14.36	14.52	14.46			
20	84QAM	50	24	14.58	14.49	14.56	14.63	14.61		16	0
20	84QAM	50	50	14.50	14.34	14.52	14.40	14.62			
20	84QAM	100	0	14.58	14.48	14.59	14.68	14.67			
Channel											
2000											



Band 41 HPUE -Body Worn

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Power Low Ch / Freq, Power High Ch / Freq, Power Low Ch / Freq, Power High Ch / Freq, Turn-up limit (dBm), MPR (dB). Rows include QPSK, BPSK, and 16QAM at various frequencies and bandwidths.

Band 41 HPUE -Hotspot

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Power Low Ch / Freq, Power High Ch / Freq, Power Low Ch / Freq, Power High Ch / Freq, Turn-up limit (dBm), MPR (dB). Rows include QPSK, BPSK, and 16QAM at various frequencies and bandwidths.

Band 41 HPUE -Handheld

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Power Low Ch / Freq, Power High Ch / Freq, Power Low Ch / Freq, Power High Ch / Freq, Turn-up limit (dBm), MPR (dB). Rows include QPSK, BPSK, and 16QAM at various frequencies and bandwidths.



Band 2 (1900MHz Band) Part 24E									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				18700	18800	18900			
Frequency (MHz)				1860	1880	1900			
20	QPSK	1	0	12.56	12.61	12.47			
20	QPSK	1	49	12.33	12.46	12.40	13.5	0	
20	QPSK	1	99	12.31	12.35	12.24			
20	QPSK	50	0	12.46	12.58	12.43			
20	QPSK	50	24	12.31	12.35	12.35			
20	QPSK	50	50	12.47	12.55	12.45	13.5	0	
20	QPSK	100	0	12.50	12.51	12.45			
20	16QAM	1	0	12.13	12.53	12.45			
20	16QAM	1	49	12.36	12.55	12.49	13.5	0	
20	16QAM	1	99	12.29	12.45	12.29			
20	16QAM	50	0	12.16	12.19	12.17			
20	16QAM	50	24	12.25	12.27	12.31			
20	16QAM	50	50	12.16	12.30	12.17	13.5	0	
20	16QAM	100	0	12.19	12.19	12.14			
20	64QAM	1	0	12.47	12.30	12.40			
20	64QAM	1	49	12.30	12.30	12.17	13.5	0	
20	64QAM	1	99	12.16	12.36	12.13			
20	64QAM	50	0	12.14	12.22	12.18			
20	64QAM	50	24	12.21	12.27	12.28			
20	64QAM	50	50	12.15	12.26	12.19	13.5	0	
20	64QAM	100	0	12.19	12.20	12.14			
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	0	12.11	12.17	12.20			
15	QPSK	1	37	12.12	12.19	12.17	13.5	0	
15	QPSK	1	74	12.01	12.14	11.98			
15	QPSK	36	0	12.18	12.17	12.13			
15	QPSK	36	20	12.26	12.24	12.18			
15	QPSK	36	39	12.19	12.31	12.21	13.5	0	
15	QPSK	75	0	12.21	12.19	12.13			
15	16QAM	1	0	12.47	12.30	12.20			
15	16QAM	1	37	12.42	12.46	12.44	13.5	0	
15	16QAM	1	74	12.27	12.50	12.27			
15	16QAM	36	0	12.15	12.22	12.16			
15	16QAM	36	20	12.21	12.25	12.19			
15	16QAM	36	39	12.18	12.29	12.18	13.5	0	
15	16QAM	75	0	12.21	12.22	12.16			
15	64QAM	1	0	12.31	12.36	12.32			
15	64QAM	1	37	12.21	12.35	12.25	13.5	0	
15	64QAM	1	74	12.10	12.33	12.14			
15	64QAM	36	0	12.16	12.21	12.16			
15	64QAM	36	20	12.19	12.25	12.18			
15	64QAM	36	39	12.16	12.30	12.15	13.5	0	
15	64QAM	75	0	12.20	12.21	12.19			
Channel				18850	18900	19150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1885	1880	1905			
10	QPSK	1	0	11.94	11.93	12.23			
10	QPSK	1	25	12.13	12.20	12.10	13.5	0	
10	QPSK	1	49	11.79	11.92	11.98			
10	QPSK	25	0	12.21	12.19	12.32			
10	QPSK	25	12	12.26	12.27	12.21			
10	QPSK	25	25	12.14	12.26	12.14	13.5	0	
10	QPSK	50	0	12.19	12.16	12.10			
10	16QAM	1	0	12.37	12.37	12.45			
10	16QAM	1	25	12.37	12.47	12.36	13.5	0	
10	16QAM	1	49	12.20	12.35	12.25			
10	16QAM	25	0	12.29	12.20	12.09			
10	16QAM	25	12	12.30	12.30	12.19	13.5	0	
10	16QAM	25	25	12.17	12.29	12.17			
10	16QAM	50	0	12.22	12.21	12.06			
10	64QAM	1	0	12.38	12.29	12.42			
10	64QAM	1	25	12.44	12.46	12.45	13.5	0	
10	64QAM	1	49	12.33	12.44	12.40			
10	64QAM	25	0	12.33	12.22	12.11			
10	64QAM	25	12	12.33	12.30	12.19	13.5	0	
10	64QAM	25	25	12.19	12.23	12.11			
10	64QAM	50	0	12.23	12.16	12.08			
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1862.5	1880	1907.5			
5	QPSK	1	0	12.23	12.13	12.13			
5	QPSK	1	12	12.28	12.26	12.12	13.5	0	
5	QPSK	1	24	12.05	12.11	11.93			
5	QPSK	12	0	12.35	12.30	12.23			
5	QPSK	12	7	12.33	12.32	12.22	13.5	0	
5	QPSK	12	13	12.20	12.29	12.07			
5	16QAM	25	0	12.32	12.29	12.19			
5	16QAM	25	6	12.36	12.44	12.46	13.5	0	
5	16QAM	1	12	12.33	12.41	12.47			
5	16QAM	1	24	12.46	12.43	12.33	13.5	0	
5	16QAM	12	0	12.39	12.33	12.22			
5	16QAM	12	7	12.37	12.35	12.21	13.5	0	
5	16QAM	12	13	12.24	12.31	12.10			
5	16QAM	25	0	12.35	12.31	12.20			
5	16QAM	1	0	12.48	12.40	12.33			
5	64QAM	1	12	12.47	12.31	12.34	13.5	0	
5	64QAM	1	24	12.32	12.35	12.21			
5	64QAM	12	0	12.37	12.30	12.25			
5	64QAM	12	7	12.37	12.32	12.25	13.5	0	
5	64QAM	12	13	12.24	12.20	12.15			
5	64QAM	25	0	12.32	12.31	12.18			
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1851.5	1880	1908.5			
3	QPSK	1	0	12.49	12.16	12.06			
3	QPSK	1	14	12.33	12.33	12.06	13.5	0	
3	QPSK	1	14	12.28	12.22	12.25			
3	QPSK	8	0	12.23	12.26	12.46			
3	QPSK	8	4	12.28	12.22	12.16	13.5	0	
3	QPSK	8	7	12.22	12.23	12.13			
3	QPSK	15	0	12.27	12.23	12.16			
3	16QAM	1	0	12.23	12.50	12.55			
3	16QAM	1	8	12.32	12.24	12.13	13.5	0	
3	16QAM	1	14	12.46	12.43	12.36			
3	16QAM	8	0	12.44	12.29	12.24			
3	16QAM	8	4	12.38	12.32	12.25	13.5	0	
3	16QAM	8	7	12.34	12.28	12.18			
3	16QAM	15	0	12.38	12.24	12.23			
3	64QAM	1	0	12.52	12.38	12.35			
3	64QAM	1	8	12.33	12.50	12.37	13.5	0	
3	64QAM	1	14	12.32	12.35	12.10			
3	64QAM	8	0	12.29	12.44	12.22			
3	64QAM	8	4	12.34	12.35	12.20	13.5	0	
3	64QAM	8	7	12.28	12.36	12.14			
3	64QAM	15	0	12.21	12.28	12.18			
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1860.7	1880	1909.3			
1.4	QPSK	1	0	12.11	12.04	11.92			
1.4	QPSK	1	3	12.11	12.13	11.92	13.5	0	
1.4	QPSK	1	5	12.01	12.03	11.82			
1.4	QPSK	3	0	12.01	12.05	11.92			
1.4	QPSK	3	1	12.16	12.17	11.95			
1.4	QPSK	3	3	12.03	12.10	11.89	13.5	0	
1.4	QPSK	6	0	12.06	12.06	11.97			
1.4	16QAM	1	0	12.38	12.41	12.34			
1.4	16QAM	1	3	12.47	12.51	12.30	13.5	0	
1.4	16QAM	1	5	12.39	12.40	12.21			
1.4	16QAM	3	0	12.17	12.17	12.04			
1.4	16QAM	3	1	12.26	12.26	12.06			
1.4	16QAM	3	3	12.16	12.20	12.02	13.5	0	
1.4	16QAM	6	0	12.15	12.18	12.06			
1.4	16QAM	1	0	12.27	12.27	12.17			
1.4	64QAM	1	3	12.32	12.39	12.16			
1.4	64QAM	1	5	12.24	12.31	12.14	13.5	0	
1.4	64QAM	3	0	12.22	12.24	12.10			
1.4	64QAM	3	1	12.29	12.30	12.10			
1.4	64QAM	3	3	12.27	12.27	12.06	13.5	0	
1.4	64QAM	6	0	12.17	12.12	12.01			

||
||
||



Band 7 (2600MHz Band) Part 27										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel 20625 21100 21350										
Frequency (MHz) 2510 2535 2560										
20	QPSK	1	0	12.28	12.32	12.23				
20	QPSK	1	49	12.23	12.28	12.23		13	0	
20	QPSK	1	99	12.27	12.29	12.26				
20	QPSK	50	0	12.17	12.26	11.89				
20	QPSK	50	24	12.02	11.91	12.24				
20	QPSK	50	50	12.01	12.26	12.26		13	0	
20	QPSK	100	0	12.28	12.30	11.99				
20	16QAM	1	0	12.18	12.16	12.27				
20	16QAM	1	49	11.97	12.01	11.97		13	0	
20	16QAM	1	99	12.23	12.23	12.24				
20	16QAM	50	0	11.77	11.88	11.95				
20	16QAM	50	24	12.02	11.97	12.01				
20	16QAM	50	50	11.96	11.89	11.90		13	0	
20	16QAM	100	0	11.91	11.91	11.92				
20	64QAM	1	0	12.03	11.98	12.06				
20	64QAM	1	49	12.09	12.14	12.07		13	0	
20	64QAM	1	99	12.18	12.12	12.14				
20	64QAM	50	0	11.79	11.90	11.96				
20	64QAM	50	24	11.99	11.97	12.03				
20	64QAM	50	50	11.96	11.89	11.89		13	0	
20	64QAM	100	0	11.92	11.91	11.92				
Channel 20625 21100 21375										
Frequency (MHz) 2567.5 2535 2562.5										
15	QPSK	1	0	11.83	11.86	11.83				
15	QPSK	1	37	11.85	11.90	11.83		13	0	
15	QPSK	1	74	11.93	11.93	11.88				
15	QPSK	36	0	11.89	11.94	11.94				
15	QPSK	36	20	12.02	11.96	11.99				
15	QPSK	36	39	11.99	11.91	11.94		13	0	
15	QPSK	75	0	11.95	11.94	11.96				
15	16QAM	1	0	12.20	12.21	12.19				
15	16QAM	1	37	12.23	11.96	12.18		13	0	
15	16QAM	1	74	12.24	11.98	12.19				
15	16QAM	36	0	11.91	11.96	11.95				
15	16QAM	36	20	12.01	12.00	12.03				
15	16QAM	36	39	12.02	11.94	11.96		13	0	
15	16QAM	75	0	11.97	11.98	11.95				
15	64QAM	1	0	12.06	12.11	12.06				
15	64QAM	1	37	12.12	12.13	12.08		13	0	
15	64QAM	1	74	12.13	12.16	12.07				
15	64QAM	36	0	11.93	11.97	11.96				
15	64QAM	36	20	11.99	11.97	12.02				
15	64QAM	36	39	12.00	11.96	11.97		13	0	
15	64QAM	75	0	11.98	11.97	11.95				
Channel 20625 21100 21400										
Frequency (MHz) 2565 2535 2565										
10	QPSK	1	0	11.85	11.86	11.82				
10	QPSK	1	25	11.83	11.91	11.79		13	0	
10	QPSK	1	49	11.90	11.90	11.85				
10	QPSK	25	0	11.91	11.94	11.92				
10	QPSK	25	12	12.00	11.98	11.98				
10	QPSK	25	25	12.00	11.95	11.96		13	0	
10	QPSK	50	0	11.92	11.89	11.91				
10	16QAM	1	0	12.21	12.00	12.20				
10	16QAM	1	25	12.22	12.19	12.19		13	0	
10	16QAM	1	49	11.91	12.25	12.25				
10	16QAM	25	0	11.96	11.99	11.96				
10	16QAM	25	12	11.99	12.00	12.00				
10	16QAM	25	25	12.02	11.99	11.99		13	0	
10	16QAM	50	0	11.91	11.90	11.91				
10	64QAM	1	0	12.18	12.23	12.15				
10	64QAM	1	25	12.14	12.25	12.18		13	0	
10	64QAM	1	49	11.98	11.99	12.23				
10	64QAM	25	0	11.96	11.98	11.95				
10	64QAM	25	12	12.00	11.98	12.01				
10	64QAM	25	25	12.04	12.00	11.98		13	0	
10	64QAM	50	0	11.89	11.92	11.90				
Channel 20775 21100 21425										
Frequency (MHz) 2562.5 2535 2562.5										
5	QPSK	1	0	11.90	11.89	11.85				
5	QPSK	1	12	11.88	11.97	11.90		13	0	
5	QPSK	1	24	11.92	11.96	11.85				
5	QPSK	12	0	11.95	11.97	11.89				
5	QPSK	12	7	12.03	12.08	11.99		13	0	
5	QPSK	12	13	11.97	12.05	11.95				
5	QPSK	25	0	11.94	11.92	11.93				
5	16QAM	1	0	12.22	12.21	12.17				
5	16QAM	1	12	12.21	12.25	12.19		13	0	
5	16QAM	1	24	12.23	11.94	12.19				
5	16QAM	12	0	11.99	11.97	11.94				
5	16QAM	12	7	12.02	12.12	11.99		13	0	
5	16QAM	12	13	12.03	12.03	11.94				
5	16QAM	25	0	11.99	11.98	11.96				
5	64QAM	1	0	12.15	12.14	12.10				
5	64QAM	1	12	12.17	12.21	12.14		13	0	
5	64QAM	1	24	12.11	12.19	12.11				
5	64QAM	12	0	11.96	11.91	11.92				
5	64QAM	12	7	11.98	12.10	11.98		13	0	
5	64QAM	12	13	12.00	11.99	11.91				
5	64QAM	25	0	11.99	11.95	11.95				

Band 12 (700MHz Low Band) Part 27(only on channel required)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel 704 707.5 711										
Frequency (MHz)										
10	QPSK	1	0	19.74	19.82	19.72				
10	QPSK	1	25	19.73	19.73	19.76		21	0	
10	QPSK	1	49	19.61	19.66	19.77				
10	QPSK	25	0	19.57	19.79	19.84				
10	QPSK	25	12	19.61	19.62	19.58				
10	QPSK	25	25	19.75	19.66	19.69		21	0	
10	QPSK	50	0	19.57	19.72	19.64				
10	16QAM	1	0	19.50	19.50	19.80				
10	16QAM	1	25	19.81	19.79	19.80		21	0	
10	16QAM	1	49	19.41	19.76	19.75				
10	16QAM	25	0	19.45	19.41	19.38				
10	16QAM	25	12	19.62	19.54	19.58				
10	16QAM	25	25	19.49	19.47	19.54		21	0	
10	16QAM	50	0	19.55	19.53	19.51				
10	64QAM	1	0	19.53	19.54	19.58				
10	64QAM	1	25	19.49	19.50	19.51		21	0	
10	64QAM	1	49	19.55	19.50	19.54				
10	64QAM	25	0	19.47	19.43	19.38				
10	64QAM	25	12	19.63	19.53	19.43				
10	64QAM	25	25	19.55	19.51	19.50		21	0	
10	64QAM	50	0	19.54	19.53	19.49				
Channel 23035 23095 23155										
Frequency (MHz) 701.5 707.5 713.5										
5	QPSK	1	0	19.06	19.06	19.03				
5	QPSK	1	12	19.16	19.13	19.06		21	0	
5	QPSK	1	24	19.11	19.09	19.05				
5	QPSK	12	0	19.21	19.16	19.13				
5	QPSK	12	7	19.28	19.22	19.19				
5	QPSK	12	13	19.25	19.18	19.13		21	0	
5	QPSK	25	0	19.21	19.20	19.09				
5	16QAM	1	0	19.46	19.34	19.31				
5	16QAM	1	12	19.40	19.37	19.34		21	0	
5	16QAM	1	24	19.42	19.37	19.33				
5	16QAM	12	0	19.24	19.20	19.15				
5	16QAM	12	7	19.30	19.25	19.22		21	0	
5	16QAM	12	13	19.25	19.22	19.18				
5	16QAM	25	0	19.28	19.20	19.14				
5	64QAM	1	0	19.36	19.26	19.24				
5	64QAM	1	12	19.31	19.31	19.24		21	0	
5	64QAM	1	24	19.36	19.28	19.32				
5	64QAM	12	0	19.21	19.19	19.15				



Band 2 (1900MHz Band) Part 24E										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				1870	1880	1900				
20	QPSK	1	0	10.23	10.35	10.23	11.5	0		
20	QPSK	1	49	10.03	10.19	10.11				
20	QPSK	1	99	10.17	10.12	9.97				
20	QPSK	50	0	10.27	10.21	10.14				
20	QPSK	50	24	9.97	9.83	9.94				
20	QPSK	50	50	10.23	10.28	10.18				
20	QPSK	100	0	10.15	10.19	10.10				
20	16QAM	1	0	10.13	10.14	10.14				
20	16QAM	1	49	10.15	10.15	10.08				
20	16QAM	1	99	10.09	10.09	9.93				
20	16QAM	50	0	9.77	9.80	9.78				
20	16QAM	50	24	9.87	9.88	9.82				
20	16QAM	50	50	9.90	9.90	9.78				
20	16QAM	100	0	9.80	9.79	9.75				
20	64QAM	1	0	9.96	9.96	9.95				
20	64QAM	1	49	9.90	9.81	9.95				
20	64QAM	1	99	9.86	9.91	9.81				
20	64QAM	50	0	9.85	9.79	9.72				
20	64QAM	50	24	9.90	9.81	9.88				
20	64QAM	50	50	9.91	9.84	9.77				
20	64QAM	100	0	9.84	9.76	9.73				
Channel										
Frequency (MHz)				1865	1890	1915				
15	QPSK	1	0	9.84	9.73	9.77	11.5	0		
15	QPSK	1	37	9.81	9.73	9.71				
15	QPSK	1	74	9.58	9.75	9.62				
15	QPSK	36	0	9.69	9.76	9.74				
15	QPSK	36	20	9.75	9.82	9.81				
15	QPSK	36	39	9.73	9.88	9.79				
15	QPSK	75	0	9.76	9.78	9.73				
15	16QAM	1	0	9.95	10.03	10.10				
15	16QAM	1	37	9.98	10.08	10.08				
15	16QAM	1	74	9.88	10.04	9.89				
15	16QAM	36	0	9.71	9.73	9.72				
15	16QAM	36	20	9.77	9.84	9.80				
15	16QAM	36	39	9.68	9.87	9.79				
15	16QAM	75	0	9.74	9.79	9.73				
15	64QAM	1	0	9.86	9.91	9.93				
15	64QAM	1	37	9.79	9.96	9.90				
15	64QAM	1	74	9.71	9.90	9.78				
15	64QAM	36	0	9.71	9.74	9.73				
15	64QAM	36	20	9.79	9.79	9.79				
15	64QAM	36	39	9.85	9.91	9.89				
15	64QAM	75	0	9.74	9.80	9.76				
Channel										
Frequency (MHz)				1855	1880	1905				
10	QPSK	1	0	9.83	9.78	9.81	11.5	0		
10	QPSK	1	25	9.66	9.72	9.74				
10	QPSK	1	49	9.76	9.51	9.67				
10	QPSK	25	0	9.76	9.74	9.74				
10	QPSK	25	12	9.82	9.84	9.82				
10	QPSK	25	25	9.69	9.85	9.74				
10	QPSK	50	0	9.72	9.73	9.68				
10	16QAM	1	0	9.84	9.84	10.17				
10	16QAM	1	25	10.03	10.13	10.07				
10	16QAM	1	49	9.75	9.91	10.01				
10	16QAM	25	0	9.78	9.71	9.72				
10	16QAM	25	12	9.83	9.82	9.82				
10	16QAM	25	25	9.68	9.82	9.79				
10	16QAM	50	0	9.74	9.74	9.68				
10	64QAM	1	0	9.84	9.81	10.19				
10	64QAM	1	25	10.01	10.16	10.08				
10	64QAM	1	49	9.77	9.84	9.78				
10	64QAM	25	0	9.81	9.75	9.71				
10	64QAM	25	12	9.84	9.85	9.82				
10	64QAM	25	25	9.66	9.80	9.75				
10	64QAM	50	0	9.69	9.72	9.70				
Channel										
Frequency (MHz)				1865	1890	1915				
5	QPSK	1	0	9.74	9.72	9.69	11.5	0		
5	QPSK	1	12	9.76	9.84	9.74				
5	QPSK	1	24	9.59	9.71	9.57				
5	QPSK	12	0	9.90	9.89	9.87				
5	QPSK	12	7	9.89	9.86	9.84				
5	QPSK	12	13	9.79	9.86	9.73				
5	QPSK	25	0	9.81	9.84	9.78				
5	16QAM	1	0	10.07	10.00	10.02				
5	16QAM	1	12	10.08	10.09	10.00				
5	16QAM	1	24	9.96	9.98	9.90				
5	16QAM	12	0	9.93	9.89	9.86				
5	16QAM	12	7	9.89	9.86	9.83				
5	16QAM	12	13	9.79	9.90	9.99				
5	16QAM	25	0	9.85	9.85	9.82				
5	64QAM	1	0	10.01	9.93	9.93				
5	64QAM	1	12	10.01	10.08	10.01				
5	64QAM	1	24	9.80	9.89	9.80				
5	64QAM	12	0	9.88	9.88	9.84				
5	64QAM	12	7	9.87	9.86	9.82				
5	64QAM	12	13	9.77	9.84	9.74				
5	64QAM	25	0	9.88	9.84	9.79				
Channel										
Frequency (MHz)				1865	1890	1915				
3	QPSK	1	0	9.58	9.77	9.70	11.5	0		
3	QPSK	1	8	9.68	9.64	9.73				
3	QPSK	1	14	9.75	9.64	9.78				
3	QPSK	8	0	9.56	9.74	9.69				
3	QPSK	8	4	9.84	9.51	9.63				
3	QPSK	8	7	9.78	9.96	9.86				
3	QPSK	15	0	9.60	9.72	9.65				
3	16QAM	1	0	10.02	10.01	10.14				
3	16QAM	1	8	9.73	9.79	9.83				
3	16QAM	1	14	9.92	9.96	10.03				
3	16QAM	8	0	9.71	9.79	9.82				
3	16QAM	8	4	9.71	9.76	9.50				
3	16QAM	8	7	9.78	9.60	9.71				
3	16QAM	15	0	9.81	9.51	9.91				
3	64QAM	1	0	9.98	10.05	9.99				
3	64QAM	1	8	9.97	10.05	9.91				
3	64QAM	1	14	9.93	9.83	9.92				
3	64QAM	8	0	9.88	9.57	9.94				
3	64QAM	8	4	9.82	9.54	9.75				
3	64QAM	8	7	9.50	9.50	9.78				
3	64QAM	15	0	9.92	9.94	9.73				
Channel										
Frequency (MHz)				1867	1890	1919				
1.4	QPSK	1	0	9.82	9.95	9.55	11.5	0		
1.4	QPSK	1	3	9.81	9.89	9.76				
1.4	QPSK	1	5	9.70	9.58	9.74				
1.4	QPSK	3	0	9.84	9.57	9.61				
1.4	QPSK	3	1	9.77	9.85	9.77				
1.4	QPSK	3	3	9.82	9.83	9.74				
1.4	QPSK	6	0	9.84	9.94	9.84				
1.4	16QAM	1	0	9.88	9.73	9.92				
1.4	16QAM	1	3	9.99	9.77	9.91				
1.4	16QAM	1	5	9.99	9.98	9.81				
1.4	16QAM	3	0	9.92	9.72	9.87				
1.4	16QAM	3	1	9.84	9.97	9.85				
1.4	16QAM	3	3	9.77	9.84	9.84				
1.4	16QAM	6	0	9.97	10.01	9.83				
1.4	64QAM	1	0	9.85	9.84	9.69				
1.4	64QAM	1	3	10.03	10.07	9.98				
1.4	64QAM	1	5	9.91	9.73	9.88				
1.4	64QAM	3	0	9.59	9.83	9.93				
1.4	64QAM	3	1	10.04	9.87	9.85				
1.4	64QAM	3	3	9.87	9.80	9.63				
1.4	64QAM	6	0	9.98	9.82	9.76				

Band 4 (AWS Band) Part 27L (only on channel required)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				1720	1732.5	1745				
20	QPSK	1	0	11.33	11.48	11.41	12	0		
20	QPSK	1	49	11.02	11.21	11.27				
20	QPSK	1	99	11.07	11.03	11.32				



Band 7 (2600MHz Band) Part 27									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel 20850 21100 21350									
Frequency (MHz)									
20	QPSK	1	0	9.84	10.03	9.82			
20	QPSK	1	49	9.83	9.85	9.81			11
20	QPSK	1	99	9.92	9.89	9.84			0
20	QPSK	50	0	9.92	10.00	9.92			11
20	QPSK	50	24	9.99	9.95	9.99			0
20	QPSK	50	50	9.83	9.90	9.90			11
20	QPSK	100	0	9.97	9.98	9.93			0
20	16QAM	1	0	9.85	9.86	9.87			11
20	16QAM	1	49	9.90	9.94	9.89			0
20	16QAM	1	99	9.95	9.91	9.91			11
20	16QAM	50	0	9.46	9.57	9.62			11
20	16QAM	50	24	9.69	9.67	9.67			0
20	16QAM	50	50	9.66	9.57	9.55			11
20	16QAM	100	0	9.59	9.58	9.57			0
20	64QAM	1	0	9.72	9.75	9.73			11
20	64QAM	1	49	9.77	9.80	9.74			0
20	64QAM	1	99	9.82	9.81	9.73			11
20	64QAM	50	0	9.47	9.59	9.62			11
20	64QAM	50	24	9.67	9.61	9.63			0
20	64QAM	50	50	9.62	9.55	9.53			11
20	64QAM	100	0	9.58	9.58	9.58			0
Channel 20625 21100 21375									
Frequency (MHz)									
15	QPSK	1	0	9.97	9.91	9.97			11
15	QPSK	1	37	9.76	9.72	9.73			0
15	QPSK	1	74	9.75	9.71	9.70			11
15	QPSK	36	0	9.34	9.47	9.54			11
15	QPSK	36	20	9.66	9.44	9.50			0
15	QPSK	36	39	9.60	9.49	9.32			11
15	QPSK	75	0	9.48	9.35	9.42			11
15	16QAM	1	0	9.83	9.84	9.83			11
15	16QAM	1	37	9.88	9.88	9.84			0
15	16QAM	1	74	9.93	9.91	9.84			11
15	16QAM	36	0	9.57	9.67	9.67			11
15	16QAM	36	20	9.65	9.61	9.64			0
15	16QAM	36	39	9.64	9.56	9.55			11
15	16QAM	75	0	9.62	9.67	9.68			11
15	64QAM	1	0	9.70	9.74	9.67			11
15	64QAM	1	37	9.73	9.77	9.67			0
15	64QAM	1	74	9.79	9.78	9.73			11
15	64QAM	36	0	9.56	9.58	9.60			11
15	64QAM	36	20	9.64	9.61	9.67			0
15	64QAM	36	39	9.64	9.57	9.60			11
15	64QAM	75	0	9.62	9.58	9.64			11
Channel 20800 21100 21400									
Frequency (MHz)									
10	QPSK	1	0	9.50	9.53	9.45			11
10	QPSK	1	25	9.46	9.55	9.47			0
10	QPSK	1	49	9.54	9.59	9.50			11
10	QPSK	25	0	9.62	9.65	9.61			11
10	QPSK	25	12	9.64	9.69	9.60			0
10	QPSK	25	25	9.69	9.67	9.59			11
10	QPSK	50	0	9.81	9.86	9.83			11
10	16QAM	1	0	9.89	9.85	9.84			11
10	16QAM	1	25	9.91	9.96	9.84			0
10	16QAM	1	49	9.95	9.95	9.91			11
10	16QAM	25	0	9.67	9.67	9.63			11
10	16QAM	25	12	9.67	9.71	9.61			0
10	16QAM	25	25	9.71	9.70	9.61			11
10	16QAM	50	0	9.59	9.67	9.53			11
10	64QAM	1	0	9.90	9.92	9.88			11
10	64QAM	1	25	9.98	9.93	9.85			0
10	64QAM	1	49	9.95	9.96	9.90			11
10	64QAM	25	0	9.67	9.70	9.63			11
10	64QAM	25	12	9.66	9.70	9.61			0
10	64QAM	25	25	9.66	9.71	9.61			11
10	64QAM	50	0	9.57	9.55	9.52			11
Channel 20775 21100 21425									
Frequency (MHz)									
5	QPSK	1	0	9.53	9.55	9.52			11
5	QPSK	1	12	9.55	9.55	9.55			0
5	QPSK	1	24	9.59	9.63	9.55			11
5	QPSK	12	0	9.62	9.64	9.62			11
5	QPSK	12	7	9.66	9.74	9.64			0
5	QPSK	12	13	9.66	9.71	9.62			11
5	QPSK	25	0	9.64	9.67	9.67			11
5	16QAM	1	0	9.67	9.65	9.60			11
5	16QAM	1	12	9.92	9.84	9.88			11
5	16QAM	1	24	9.96	9.96	9.91			0
5	16QAM	12	0	9.66	9.67	9.64			11
5	16QAM	12	7	9.69	9.76	9.68			0
5	16QAM	12	13	9.67	9.75	9.65			11
5	16QAM	25	0	9.66	9.68	9.59			11
5	64QAM	1	0	9.76	9.80	9.77			11
5	64QAM	1	12	9.86	9.89	9.83			0
5	64QAM	1	24	9.85	9.85	9.78			11
5	64QAM	12	0	9.65	9.65	9.62			11
5	64QAM	12	7	9.69	9.74	9.66			0
5	64QAM	12	13	9.64	9.71	9.63			11
5	64QAM	25	0	9.68	9.68	9.59			11

Band 12 (700MHz Low Band) Part 27(only on channel required)									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel 704 707.5 711									
Frequency (MHz)									
10	QPSK	1	0	19.74	19.82	19.72			21
10	QPSK	1	25	19.73	19.73	19.76			0
10	QPSK	1	49	19.61	19.66	19.77			21
10	QPSK	25	0	19.57	19.79	19.64			21
10	QPSK	25	12	19.61	19.62	19.58			0
10	QPSK	25	25	19.75	19.66	19.69			21
10	QPSK	50	0	19.57	19.72	19.64			21
10	16QAM	1	0	19.50	19.50	19.80			21
10	16QAM	1	25	19.81	19.79	19.70			0
10	16QAM	1	49	19.55	19.50	19.54			21
10	16QAM	25	0	19.45	19.41	19.38			21
10	16QAM	25	12	19.62	19.54	19.58			0
10	16QAM	25	25	19.49	19.47	19.54			21
10	16QAM	50	0	19.55	19.53	19.51			21
10	64QAM	1	0	19.53	19.54	19.58			21
10	64QAM	1	25	19.49	19.50	19.51			0
10	64QAM	1	49	19.55	19.50	19.54			21
10	64QAM	25	0	19.47	19.43	19.38			21
10	64QAM	25	12	19.63	19.53	19.43			21
10	64QAM	25	25	19.55	19.51	19.50			21
10	64QAM	50	0	19.54	19.53	19.49			21
Channel 23035 23095 23155									
Frequency (MHz)									
5	QPSK	1	0	19.06	19.06	19.03			21
5	QPSK	1	12	19.16	19.13	19.06			0
5	QPSK	1	24	19.11	19.09	19.05			21
5	QPSK	12	0	19.21	19.16	19.13			21
5	QPSK	12	7	19.28	19.22	19.19			0
5	QPSK	12	13	19.25	19.18	19.13			21
5	QPSK	25	0	19.21	19.20	19.09			21
5	16QAM	1	0	19.46	19.34	19.31			21
5	16QAM	1	12	19.40	19.37	19.34			0
5	16QAM	1	24	19.42	19.37	19.33			21
5	16QAM	12	0	19.24	19.20	19.15			21
5	16QAM	12	7	19.30	19.25	19.22			0
5	16QAM	12	13	19.25	19.22	19.18			21
5	16QAM	25	0	19.28	19.20	19.14			21
5	64QAM	1	0	19.36	19.26	19.24			21
5	64QAM	1	12	19.31	19.31	19.24			21
5	64QAM	1	24	19.36	19.28	19.25			21
5	64QAM	12	0	19.21	19.19	19.15			21
5	64QAM	12	7	19.27	19.25	19.19			0
5	64QAM	12	13	19.26	19.19	19.15			21
5	64QAM	25	0	19.28	19.20	19.11			21
Channel 23025 23095 23165									
Frequency (MHz)									
3	QPSK	1	0	19.14	19.19	19.20			21
3	QPSK	1	8	19.32	19.33	19.27			0
3	QPSK	1	14	19.20	19.26	19.16			21
3	QPSK	8	0	19.43	19.31	19.26			21
3	QPSK	8	4	19.42	19.37	19.32			0
3	QPSK	8	7						



Band 2 (1900MHz Band)											
Part 24E											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)											
20	QPSK	1	0	15.69	15.88	15.77	16.5	0			
20	QPSK	1	49	15.58	15.76	15.68					
20	QPSK	1	99	15.52	15.66	15.54					
20	QPSK	50	0	15.67	15.81	15.66	16.5	0			
20	QPSK	50	24	15.78	15.86	15.73					
20	QPSK	50	50	15.66	15.74	15.73					
20	QPSK	100	0	15.72	15.77	15.69	16.5	0			
20	16QAM	1	0	15.73	15.74	15.77					
20	16QAM	1	49	15.68	15.73	15.65					
20	16QAM	1	99	15.58	15.59	15.43	16.5	0			
20	16QAM	50	0	15.37	15.40	15.36					
20	16QAM	50	24	15.50	15.50	15.42					
20	16QAM	50	50	15.39	15.53	15.42	16.5	0			
20	16QAM	100	0	15.41	15.41	15.34					
20	16QAM	100	0	15.86	15.65	15.59					
20	64QAM	1	49	15.56	15.41	15.51	16.5	0			
20	64QAM	1	99	15.46	15.46	15.64					
20	64QAM	50	0	15.38	15.41	15.36					
20	64QAM	50	24	15.48	15.49	15.44	16.5	0			
20	64QAM	50	50	15.39	15.53	15.44					
20	64QAM	100	0	15.42	15.42	15.35					
Channel											
Frequency (MHz)											
15	QPSK	1	0	15.32	15.46	15.47	16.5	0			
15	QPSK	1	37	15.36	15.44	15.37					
15	QPSK	1	74	15.34	15.41	15.22					
15	QPSK	36	0	15.46	15.38	15.48	16.5	0			
15	QPSK	36	20	15.42	15.62	15.50					
15	QPSK	36	39	15.52	15.63	15.57					
15	QPSK	75	0	15.39	15.52	15.48	16.5	0			
15	16QAM	1	0	15.72	15.67	15.63					
15	16QAM	1	37	15.55	15.53	15.48					
15	16QAM	1	74	15.40	15.39	15.32	16.5	0			
15	16QAM	36	0	15.23	15.24	15.30					
15	16QAM	36	20	15.41	15.42	15.27					
15	16QAM	36	39	15.39	15.43	15.23	16.5	0			
15	16QAM	75	0	15.38	15.24	15.32					
15	64QAM	1	0	15.74	15.45	15.49					
15	64QAM	1	37	15.39	15.38	15.44	16.5	0			
15	64QAM	1	74	15.37	15.48	15.50					
15	64QAM	36	0	15.20	15.41	15.32					
15	64QAM	36	20	15.45	15.46	15.33	16.5	0			
15	64QAM	36	39	15.26	15.36	15.36					
15	64QAM	75	0	15.30	15.29	15.19					
Channel											
Frequency (MHz)											
10	QPSK	1	0	15.45	15.66	15.49	16.5	0			
10	QPSK	1	25	15.22	15.47	15.50					
10	QPSK	1	49	15.32	15.37	15.23					
10	QPSK	25	0	15.50	15.52	15.48	16.5	0			
10	QPSK	25	12	15.47	15.60	15.51					
10	QPSK	25	25	15.37	15.55	15.46					
10	QPSK	50	0	15.50	15.54	15.34	16.5	0			
10	16QAM	1	0	15.78	15.68	15.70					
10	16QAM	1	25	15.56	15.53	15.60					
10	16QAM	1	49	15.58	15.49	15.45	16.5	0			
10	16QAM	25	0	15.33	15.35	15.30					
10	16QAM	25	12	15.33	15.40	15.35					
10	16QAM	25	25	15.30	15.41	15.29	16.5	0			
10	16QAM	50	0	15.28	15.39	15.33					
10	64QAM	1	0	15.75	15.63	15.44					
10	64QAM	1	25	15.48	15.32	15.34	16.5	0			
10	64QAM	1	49	15.13	15.44	15.47					
10	64QAM	25	0	15.27	15.19	15.32					
10	64QAM	25	12	15.27	15.46	15.36	16.5	0			
10	64QAM	25	25	15.29	15.51	15.28					
10	64QAM	50	0	15.24	15.40	15.13					
Channel											
Frequency (MHz)											
5	QPSK	1	0	15.42	15.61	15.55	16.5	0			
5	QPSK	1	12	15.44	15.71	15.53					
5	QPSK	1	24	15.50	15.54	15.34					
5	QPSK	12	0	15.82	15.75	15.62	16.5	0			
5	QPSK	12	7	15.75	15.71	15.64					
5	QPSK	12	13	15.64	15.71	15.52					
5	QPSK	25	0	15.73	15.71	15.65	16.5	0			
5	16QAM	1	0	15.77	15.62	15.70					
5	16QAM	1	12	15.77	15.77	15.71					
5	16QAM	1	24	15.71	15.70	15.79	16.5	0			
5	16QAM	12	0	15.80	15.77	15.68					
5	16QAM	12	7	15.77	15.74	15.66					
5	16QAM	12	13	15.69	15.72	15.56	16.5	0			
5	16QAM	25	0	15.73	15.66	15.58					
5	16QAM	25	0	15.70	15.77	15.78					
5	64QAM	1	12	15.70	15.68	15.61	16.5	0			
5	64QAM	1	24	15.69	15.77	15.64					
5	64QAM	12	0	15.77	15.70	15.68					
5	64QAM	12	7	15.77	15.70	15.65	16.5	0			
5	64QAM	12	13	15.66	15.67	15.55					
5	64QAM	25	0	15.74	15.67	15.61					
Channel											
Frequency (MHz)											
3	QPSK	1	0	15.46	15.63	15.57	16.5	0			
3	QPSK	1	14	15.56	15.53	15.37					
3	QPSK	8	0	15.73	15.76	15.58					
3	QPSK	8	4	15.70	15.53	15.68	16.5	0			
3	QPSK	8	7	15.51	15.71	15.45					
3	QPSK	15	0	15.69	15.66	15.60					
3	16QAM	1	0	15.72	15.77	15.68	16.5	0			
3	16QAM	1	8	15.60	15.60	15.68					
3	16QAM	1	14	15.70	15.68	15.76					
3	16QAM	8	0	15.72	15.63	15.64	16.5	0			
3	16QAM	8	4	15.65	15.74	15.52					
3	16QAM	8	7	15.71	15.73	15.43					
3	16QAM	15	0	15.59	15.59	15.54	16.5	0			
3	64QAM	1	0	15.68	15.73	15.68					
3	64QAM	1	14	15.73	15.66	15.66					
3	64QAM	3	0	15.73	15.66	15.66	16.5	0			
3	64QAM	8	0	15.75	15.70	15.58					
3	64QAM	8	4	15.74	15.52	15.49					
3	64QAM	8	7	15.56	15.59	15.61	16.5	0			
3	64QAM	15	0	15.56	15.74	15.55					
Channel											
Frequency (MHz)											
1.4	QPSK	1	0	15.35	15.63	15.31	16.5	0			
1.4	QPSK	1	3	15.41	15.61	15.43					
1.4	QPSK	1	5	15.29	15.32	15.37					
1.4	QPSK	3	0	15.60	15.65	15.56	16.5	0			
1.4	QPSK	3	1	15.70	15.66	15.64					
1.4	QPSK	3	3	15.61	15.70	15.43					
1.4	QPSK	6	0	15.61	15.64	15.64	16.5	0			
1.4	16QAM	1	0	15.79	15.72	15.70					
1.4	16QAM	1	3	15.71	15.79	15.71					
1.4	16QAM	1	5	15.66	15.71	15.70	16.5	0			
1.4	16QAM	3	0	15.63	15.72	15.69					
1.4	16QAM	3	1	15.71	15.55	15.54					
1.4	16QAM	3	1	15.52	15.54	15.50	16.5	0			
1.4	16QAM	6	0	15.57	15.53	15.54					
1.4	16QAM	1	0	15.55	15.68	15.69					
1.4	64QAM	1	3	15.65	15.79	15.76	16.5	0			
1.4	64QAM	1	5	15.65	15.59	15.49					
1.4	64QAM	3	0	15.55	15.59	15.62					
1.4	64QAM	3	1	15.55	15.80	15.82	16.5	0			
1.4	64QAM	3	1	15.57	15.58	15.53					
1.4	64QAM	6	0	15.59	15.61	15.39					

Reduced Power Mode for Handheld on (EN-DC)											
Band 4 (AWS Band)											
Part 27L (only on channel required)											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)											
20	QPSK	1	0	16.29	16.38	16.31	17.5	0			
20	QPSK	1	49	16.27	16.29	16.16					
20	QPSK	1	99	15.84	15.92	15.84					
20	QPSK	50	0	16.30	16.35	16.19	17.5	0			
20	QPSK	50	24	16.16	16.02	16.24					
20	QPSK	50	50	16.32	16.30	16.14					
20	QPSK	100	0	16.27	16.30	16.12	17.5	0			



Band 7 (2600MHz Band) Part 27										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				2050	2100	2150	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2510	2535	2560				
20	QPSK	1	0	16.43	16.50	16.35	17.5	0		
20	QPSK	1	49	16.12	16.16	16.22				
20	QPSK	1	99	16.23	16.22	16.27				
20	QPSK	50	0	16.09	16.42	16.22	17.5	0		
20	QPSK	50	24	16.31	16.25	16.31				
20	QPSK	50	50	16.28	16.28	16.28				
20	QPSK	100	0	16.15	16.21	16.19	17.5	0		
20	16QAM	1	0	16.30	16.27	16.36				
20	16QAM	1	49	16.35	16.36	16.40				
20	16QAM	1	99	16.40	16.41	16.36	17.5	0		
20	16QAM	50	0	15.97	16.05	16.12				
20	16QAM	50	24	16.15	16.12	16.16				
20	16QAM	50	50	16.13	16.13	16.13	17.5	0		
20	16QAM	100	0	16.09	16.04	16.06				
20	64QAM	1	0	16.22	16.22	16.36				
20	64QAM	1	49	16.33	16.29	16.36	17.5	0		
20	64QAM	1	99	16.23	16.41	16.41				
20	64QAM	50	0	15.92	16.03	16.11				
20	64QAM	50	24	16.14	16.10	16.15	17.5	0		
20	64QAM	50	50	16.11	16.13	16.14				
20	64QAM	100	0	16.09	16.05	16.07				
Channel				2082.5	21100	21375	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2597.5	2535	2525.5				
15	QPSK	1	0	15.96	15.97	16.04	17.5	0		
15	QPSK	1	37	15.94	16.01	16.09				
15	QPSK	1	74	16.04	16.09	16.14				
15	QPSK	36	0	16.03	16.06	16.10	17.5	0		
15	QPSK	36	20	16.11	16.12	16.15				
15	QPSK	36	39	16.10	16.13	16.18				
15	QPSK	75	0	16.06	16.04	16.13	17.5	0		
15	16QAM	1	0	16.27	16.25	16.38				
15	16QAM	1	37	16.34	16.35	16.44				
15	16QAM	1	74	16.39	16.40	16.10	17.5	0		
15	16QAM	36	0	16.06	16.06	16.10				
15	16QAM	36	20	16.15	16.10	16.17				
15	16QAM	36	39	16.12	16.15	16.19	17.5	0		
15	16QAM	75	0	16.09	16.07	16.12				
15	64QAM	1	0	16.23	16.27	16.31				
15	64QAM	1	37	16.32	16.28	16.29	17.5	0		
15	64QAM	1	74	16.26	16.39	16.39				
15	64QAM	36	0	16.03	16.04	16.10				
15	64QAM	36	20	16.14	16.11	16.14	17.5	0		
15	64QAM	36	39	16.13	16.15	16.22				
15	64QAM	75	0	16.11	16.07	16.13				
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2505	2535	2565				
10	QPSK	1	0	16.04	16.04	16.05	17.5	0		
10	QPSK	1	25	16.06	16.06	16.08				
10	QPSK	1	49	16.10	16.11	16.16				
10	QPSK	25	0	16.14	16.16	16.19	17.5	0		
10	QPSK	25	12	16.19	16.20	16.25				
10	QPSK	25	25	16.16	16.26	16.21				
10	QPSK	50	0	16.10	16.09	16.10	17.5	0		
10	16QAM	1	0	16.34	16.41	16.42				
10	16QAM	1	25	16.42	16.43	16.46				
10	16QAM	1	49	16.45	16.45	16.36	17.5	0		
10	16QAM	25	0	16.13	16.14	16.14				
10	16QAM	25	12	16.19	16.14	16.23				
10	16QAM	25	25	16.16	16.20	16.26	17.5	0		
10	16QAM	50	0	16.07	16.06	16.05				
10	64QAM	1	0	16.36	16.37	16.38				
10	64QAM	1	25	16.40	16.43	16.45	17.5	0		
10	64QAM	1	49	16.47	16.45	16.43				
10	64QAM	25	0	16.15	16.15	16.14				
10	64QAM	25	12	16.16	16.11	16.24	17.5	0		
10	64QAM	25	25	16.16	16.20	16.23				
10	64QAM	50	0	16.05	16.01	16.04				
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2597.5	2535	2597.5				
5	QPSK	1	0	16.07	16.04	16.15	17.5	0		
5	QPSK	1	12	16.08	16.15	16.21				
5	QPSK	1	24	16.12	16.18	16.20				
5	QPSK	12	0	16.14	16.13	16.23	17.5	0		
5	QPSK	12	7	16.21	16.26	16.28				
5	QPSK	12	13	16.10	16.21	16.22				
5	QPSK	25	0	16.13	16.12	16.24	17.5	0		
5	16QAM	1	0	16.33	16.41	16.36				
5	16QAM	1	12	16.34	16.44	16.41				
5	16QAM	1	24	16.39	16.47	16.36	17.5	0		
5	16QAM	12	0	16.11	16.16	16.25				
5	16QAM	12	7	16.20	16.27	16.30				
5	16QAM	12	13	16.10	16.21	16.26	17.5	0		
5	16QAM	25	0	16.12	16.14	16.22				
5	64QAM	1	0	16.26	16.29	16.40				
5	64QAM	1	12	16.27	16.36	16.41	17.5	0		
5	64QAM	1	24	16.30	16.37	16.38				
5	64QAM	12	0	16.08	16.12	16.18				
5	64QAM	12	7	16.12	16.18	16.35	17.5	0		
5	64QAM	12	13	16.09	16.18	16.18				
5	64QAM	25	0	16.12	16.14	16.21				

Band 66										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1720	1745	1770				
20	QPSK	1	0	15.83	16.15	15.90	17	0		
20	QPSK	1	49	16.03	16.05	15.84				
20	QPSK	1	99	15.79	16.11	15.81				
20	QPSK	50	0	15.98	16.19	16.04	17	0		
20	QPSK	50	24	16.02	15.73	16.02				
20	QPSK	50	50	16.11	16.05	15.98				
20	QPSK	100	0	16.02	16.11	15.95	17	0		
20	16QAM	1	0	16.09	16.13	16.12				
20	16QAM	1	49	16.13	16.13	16.13				
20	16QAM	1	99	16.04	15.85	16.02	17	0		
20	16QAM	50	0	16.01	15.98	15.83				
20	16QAM	50	24	16.14	16.04	15.92				
20	16QAM	50	50	16.00	15.90	15.89	17	0		
20	16QAM	100	0	16.05	15.93	15.82				
20	64QAM	1	0	15.73	15.91	15.84				
20	64QAM	1	49	15.96	15.96	15.98	17	0		
20	64QAM	1	99	15.92	15.82	15.88				
20	64QAM	50	0	16.05	15.98	15.75				
20	64QAM	50	24	16.13	16.00	15.82	17	0		
20	64QAM	50	50	15.99	15.90	15.83				
20	64QAM	100	0	16.06	15.95	15.81				
Channel				132047	132322	132627	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1717.5	1745	1772.5				
15	QPSK	1	0	15.50	15.46	15.49	17	0		
15	QPSK	1	37	15.66	15.79	15.75				
15	QPSK	1	74	15.49	15.46	15.37				
15	QPSK	36	0	16.09	15.73	15.93	17	0		
15	QPSK	36	20	15.95	15.88	16.12				
15	QPSK	36	39	16.04	15.92	15.76				
15	QPSK	75	0	15.78	15.87	15.48	17	0		
15	16QAM	1	0	16.11	16.13	16.35				
15	16QAM	1	37	16.13	16.02	16.13				
15	16QAM	1	74	16.01	15.99	15.86	17	0		
15	16QAM	36	0	15.99	15.83	16.00				
15	16QAM	36	20	15.94	15.72	15.69				
15	16QAM	36	39	15.83	15.77	15.70	17	0		
15	16QAM	75	0	15.99	16.04	15.70				
15	64QAM	1	0	15.79	15.69	15.50				
15	64QAM	1	37	15.89	15.84	15.86	17	0		
15	64QAM	1	74	15.69	15.52	15.84				
15	64QAM	36	0	16.00	15.79	15.59				
15	64QAM	36	20	16.05	16.06	15.75	17	0		
15	64QAM	36	39	15.68	15.85	15.85				
15	64QAM	75	0	16.12	15.65	15.89				
Channel				132022	132322	132627	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1715	1745	1775				
10	QPSK	1	0	15.49	15.48	15.74	17	0		
10	QPSK	1	25	15.83	15.63	15.82				
10	QPSK	1	49	15.55	15.54	15.73				
10	QPSK	25	0	15.99	15.98	15.84	17	0		
10	QPSK	25	12	16.15	15.93	15.83				
10	QPSK	25	25	16.00	15.74	15.68				
10	QPSK	50	0	16.04	15.78	15.91	17	0		
10	16QAM	1	0	15.92	16.02	15.81				
10	16QAM	1	25	16.11	16.14	16.08				
10	16QAM	1	49	15.98	15.75	15.97	17	0		
10	16QAM	25	0	15.71	15.98	15.86				
10	16QAM	25	12	16.09	15.82	15.94				
10	16QAM	25	25	15.93	15.91	15.81	17	0		
10	16QAM	50	0	15.79	15.75	15.86				
10	64QAM	1	0	15.80	15.59	15.58				
10	64QAM	1	25	15						



Band 7 (2600MHz Band)									
Full Power									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	22.86	23.03	22.92	24	0	
20	QPSK	1	49	22.83	22.80	22.72			
20	QPSK	1	99	22.78	22.71	22.57			
20	QPSK	50	0	22.05	22.10	21.98			
20	QPSK	50	24	22.07	21.82	21.88			
20	QPSK	50	50	22.02	21.80	21.79	23	1	
20	QPSK	100	0	21.65	21.77	21.72			
20	16QAM	1	0	22.08	22.00	21.73	23	1	
20	16QAM	1	49	22.08	22.08	22.04			
20	16QAM	1	99	21.97	21.99	21.91			
20	16QAM	50	0	21.01	21.03	20.79			
20	16QAM	50	24	20.98	21.06	20.91			
20	16QAM	50	50	21.04	21.01	20.90	22	2	
20	16QAM	100	0	21.07	20.93	20.65			
20	84QAM	1	0	20.87	20.70	20.69			
20	84QAM	1	49	20.85	20.63	20.60	22	2	
20	84QAM	1	99	21.06	20.87	20.62			
20	84QAM	50	0	19.76	19.49	19.77			
20	84QAM	50	24	19.88	19.79	19.74			
20	84QAM	50	50	19.85	19.85	19.73	21	3	
20	84QAM	100	0	19.81	19.63	19.49			
Channel									
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	0	22.85	22.78	22.84	24	0	
15	QPSK	1	37	22.82	22.64	22.60			
15	QPSK	1	74	22.75	22.50	22.45			
15	QPSK	36	0	22.00	21.86	21.76	23	1	
15	QPSK	36	20	21.95	21.84	21.86			
15	QPSK	36	39	21.80	21.63	21.75			
15	QPSK	75	0	21.75	21.62	21.58			
15	16QAM	1	0	21.81	21.76	21.62			
15	16QAM	1	37	21.89	21.85	21.85	23	1	
15	16QAM	1	74	21.91	21.84	21.75			
15	16QAM	36	0	20.82	20.79	20.74			
15	16QAM	36	20	20.88	20.97	20.83	22	2	
15	16QAM	36	39	20.81	20.76	20.84			
15	16QAM	75	0	20.85	20.91	20.57			
15	84QAM	1	0	20.86	20.55	20.65			
15	84QAM	1	37	20.65	20.54	20.59	22	2	
15	84QAM	1	74	20.94	20.91	20.48			
15	84QAM	36	0	19.56	19.38	19.69			
15	84QAM	36	20	19.66	19.58	19.51	21	3	
15	84QAM	36	39	19.80	19.81	19.58			
15	84QAM	75	0	19.60	19.40	19.28			
Channel									
Frequency (MHz)				2080	2100	2140	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	0	22.73	22.82	22.76	24	0	
10	QPSK	1	25	22.69	22.65	22.66			
10	QPSK	1	49	22.58	22.51	22.45			
10	QPSK	25	0	21.82	22.06	21.77			
10	QPSK	25	12	21.97	21.77	21.82	23	1	
10	QPSK	25	25	21.94	21.56	21.72			
10	QPSK	50	0	21.85	21.88	21.52			
10	16QAM	1	0	21.97	21.83	21.59	23	1	
10	16QAM	1	25	22.04	21.93	21.86			
10	16QAM	1	49	21.80	21.80	21.78			
10	16QAM	25	0	20.89	20.90	20.76			
10	16QAM	25	12	20.82	20.97	20.80	22	2	
10	16QAM	25	25	20.99	20.79	20.69			
10	16QAM	50	0	20.82	20.71	20.45			
10	84QAM	1	0	20.73	20.51	20.58			
10	84QAM	1	25	20.80	20.45	20.50	22	2	
10	84QAM	1	49	20.85	20.73	20.49			
10	84QAM	25	0	19.70	19.78	19.75			
10	84QAM	25	12	19.71	19.69	19.50	21	3	
10	84QAM	25	25	19.84	19.84	19.66			
10	84QAM	50	0	19.74	19.45	19.25			
Channel									
Frequency (MHz)				2077.5	2100	2142.5	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	0	22.88	22.83	22.75	24	0	
5	QPSK	1	12	22.88	22.72	22.73			
5	QPSK	1	24	22.57	22.60	22.43			
5	QPSK	12	0	22.05	22.07	21.83	23	1	
5	QPSK	12	7	21.88	21.78	21.79			
5	QPSK	12	13	21.89	21.81	21.74			
5	QPSK	25	0	21.85	21.76	21.57			
5	16QAM	1	0	22.07	21.95	21.94			
5	16QAM	1	12	21.96	21.87	22.03	23	1	
5	16QAM	1	24	21.80	21.92	21.84			
5	16QAM	12	0	20.98	20.99	20.73			
5	16QAM	12	7	20.77	21.07	20.83	22	2	
5	16QAM	12	13	20.95	20.89	20.90			
5	16QAM	25	0	20.92	20.80	20.60			
5	84QAM	1	0	20.83	20.62	20.62	22	2	
5	84QAM	1	12	20.77	20.67	20.74			
5	84QAM	1	24	21.05	20.80	20.84			
5	84QAM	12	0	19.55	19.42	19.54			
5	84QAM	12	7	19.79	19.58	19.74	21	3	
5	84QAM	12	13	19.72	19.77	19.58			
5	84QAM	25	0	19.64	19.61	19.47			

LTE Inter Band UL CA									
Band 7 (2600MHz Band)									
Hotspot									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	13.81	13.92	13.86	15	0	
20	QPSK	1	49	13.99	13.77	13.60			
20	QPSK	1	99	13.85	13.72	13.52			
20	QPSK	50	0	13.75	13.86	13.81			
20	QPSK	50	24	13.56	13.84	13.71	15	0	
20	QPSK	50	50	13.47	13.57	13.38			
20	QPSK	100	0	13.58	13.75	13.53			
20	16QAM	1	0	13.95	13.80	13.95	15	0	
20	16QAM	1	49	13.99	13.70	13.58			
20	16QAM	1	99	13.81	13.70	13.53			
20	16QAM	50	0	13.52	13.57	13.34			
20	16QAM	50	24	13.39	13.43	13.34	15	0	
20	16QAM	50	50	13.32	13.39	13.08			
20	16QAM	100	0	13.22	13.39	13.28			
20	84QAM	1	0	13.34	13.55	13.46	15	0	
20	84QAM	1	49	13.42	13.70	13.50			
20	84QAM	1	99	13.52	13.71	13.57			
20	84QAM	50	0	13.08	13.25	13.11			
20	84QAM	50	24	13.27	13.41	13.12	15	0	
20	84QAM	50	50	13.16	13.28	13.09			
20	84QAM	100	0	13.05	13.29	13.16			
Channel									
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	0	13.76	13.83	13.64	15	0	
15	QPSK	1	37	13.38	13.78	13.55			
15	QPSK	1	74	13.42	13.68	13.48			
15	QPSK	36	0	13.59	13.64	13.65	15	0	
15	QPSK	36	20	13.48	13.67	13.60			
15	QPSK	36	39	13.37	13.45	13.19			
15	QPSK	75	0	13.58	13.63	13.53			
15	16QAM	1	0	13.43	13.66	13.56			
15	16QAM	1	37	13.47	13.61	13.50	15	0	
15	16QAM	1	74	13.45	13.59	13.42			
15	16QAM	36	0	13.38	13.55	13.18			
15	16QAM	36	20	13.35	13.30	13.20	15	0	
15	16QAM	36	39	13.25	13.36	13.15			
15	16QAM	75	0	13.01	13.26	13.11			
15	84QAM	1	0	13.25	13.51	13.44	15	0	
15	84QAM	1	37	13.29	13.59	13.49			
15	84QAM	1	74	13.46	13.61	13.45			
15	84QAM	36	0	12.92	13.19	12.94			
15	84QAM	36	20	13.13	13.31	13.04	15	0	
15	84QAM	36	39	13.00	13.16	12.89			
15	84QAM	75	0	13.00	13.11	13.03			
Channel									
Frequency (MHz)				2080	2100	2140	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	0	13.75	13.83</				



Band 7 (2600MHz Band) Body Worn								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	15.69	15.73	15.68	16.5	0
20	QPSK	1	49	15.65	15.52	15.58		
20	QPSK	1	99	15.37	15.26	15.51		
20	QPSK	50	0	15.55	15.71	15.61		
20	QPSK	50	24	15.47	15.43	15.61		
20	QPSK	50	50	15.65	15.41	15.68		
20	QPSK	100	0	15.49	15.60	15.41		
20	16QAM	1	0	15.12	15.06	15.30	16.5	0
20	16QAM	1	49	15.32	15.18	15.27		
20	16QAM	1	99	14.98	14.94	15.23		
20	16QAM	50	0	15.04	14.96	15.26		
20	16QAM	50	24	15.19	15.12	15.42		
20	16QAM	50	50	15.32	15.08	15.34		
20	16QAM	100	0	15.26	15.05	15.22		
20	64QAM	1	0	15.55	15.49	15.55	16.5	0
20	64QAM	1	49	15.69	15.46	15.45		
20	64QAM	1	99	15.66	15.57	15.66		
20	64QAM	50	0	15.07	14.93	15.06		
20	64QAM	50	24	15.26	15.13	15.41		
20	64QAM	50	50	15.13	14.97	15.14		
20	64QAM	100	0	15.20	15.04	15.28		
Channel				20925	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	15.64	15.69	15.64	16.5	0
15	QPSK	1	37	15.57	15.45	15.38		
15	QPSK	1	74	15.23	15.31	15.45		
15	QPSK	36	0	15.41	15.57	15.50		
15	QPSK	36	20	15.41	15.28	15.58		
15	QPSK	36	39	15.56	15.29	15.42		
15	QPSK	75	0	15.26	15.55	15.17		
15	16QAM	1	0	14.91	14.94	15.16	16.5	0
15	16QAM	1	37	15.07	14.95	15.03		
15	16QAM	1	74	14.72	14.76	15.06		
15	16QAM	36	0	14.76	14.76	15.20		
15	16QAM	36	20	15.15	14.97	15.24		
15	16QAM	36	39	15.10	15.03	15.10		
15	16QAM	75	0	15.18	14.79	14.99		
15	64QAM	1	0	15.46	15.44	15.31	16.5	0
15	64QAM	1	37	15.47	15.30	15.40		
15	64QAM	1	74	15.35	15.45	15.47		
15	64QAM	36	0	15.02	15.02	14.95		
15	64QAM	36	20	15.01	15.04	15.35		
15	64QAM	36	39	15.00	15.03	15.06		
15	64QAM	75	0	15.04	14.78	15.17		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	15.61	15.60	15.56	16.5	0
10	QPSK	1	25	15.42	15.34	15.41		
10	QPSK	1	49	15.27	15.12	15.37		
10	QPSK	25	0	15.38	15.52	15.58		
10	QPSK	25	12	15.37	15.37	15.39		
10	QPSK	25	25	15.42	15.32	15.50		
10	QPSK	50	0	15.23	15.50	15.29	16.5	0
10	16QAM	1	0	14.94	15.01	15.08		
10	16QAM	1	25	15.09	14.99	15.20		
10	16QAM	1	49	14.75	14.82	15.14		
10	16QAM	25	0	15.10	14.83	15.16		
10	16QAM	25	12	15.14	15.05	15.31		
10	16QAM	25	25	15.28	15.04	15.27		
10	16QAM	50	0	15.03	14.86	15.17	16.5	0
10	64QAM	1	0	15.40	15.26	15.30		
10	64QAM	1	25	15.55	15.22	15.24		
10	64QAM	1	49	15.40	15.52	15.45		
10	64QAM	25	0	14.87	14.91	14.85		
10	64QAM	25	12	15.07	15.03	15.32		
10	64QAM	25	25	14.91	14.92	14.86		
10	64QAM	50	0	15.00	14.82	15.03		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	15.68	15.70	15.55	16.5	0
5	QPSK	1	12	15.44	15.35	15.39		
5	QPSK	1	24	15.33	15.21	15.48		
5	QPSK	12	0	15.56	15.64	15.43		
5	QPSK	12	7	15.49	15.32	15.58		
5	QPSK	12	13	15.47	15.30	15.51		
5	QPSK	25	0	15.49	15.51	15.37	16.5	0
5	16QAM	1	0	15.14	14.86	15.09		
5	16QAM	1	12	15.24	14.96	15.21		
5	16QAM	1	24	14.85	14.89	15.16		
5	16QAM	12	0	14.89	14.87	15.19		
5	16QAM	12	7	15.18	14.92	15.27		
5	16QAM	12	13	15.18	14.88	15.28		
5	16QAM	25	0	15.19	14.95	15.02	16.5	0
5	64QAM	1	0	15.35	15.38	15.34		
5	64QAM	1	12	15.52	15.38	15.33		
5	64QAM	1	24	15.47	15.36	15.47		
5	64QAM	12	0	15.06	15.11	15.12		
5	64QAM	12	7	15.23	15.03	15.39		
5	64QAM	12	13	14.86	15.08	15.09		
5	64QAM	25	0	15.15	14.93	15.15		

Band 7 (2600MHz Band) Handheld								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	18.12	18.22	17.99	19	0
20	QPSK	1	49	17.84	17.85	18.09		
20	QPSK	1	99	17.51	17.73	17.78		
20	QPSK	50	0	17.97	18.15	18.08		
20	QPSK	50	24	17.65	17.81	17.85		
20	QPSK	50	50	17.65	17.73	17.86		
20	QPSK	100	0	17.72	17.85	17.77		
20	16QAM	1	0	17.73	17.65	17.64	19	0
20	16QAM	1	49	17.46	17.38	17.50		
20	16QAM	1	99	17.34	17.30	17.56		
20	16QAM	50	0	17.50	17.45	17.60		
20	16QAM	50	24	17.62	17.45	17.61		
20	16QAM	50	50	17.60	17.53	17.78		
20	16QAM	100	0	17.63	17.44	17.70		
20	64QAM	1	0	18.02	17.92	18.10	19	0
20	64QAM	1	49	18.11	18.08	18.12		
20	64QAM	1	99	18.01	17.96	18.04		
20	64QAM	50	0	17.64	17.42	17.61		
20	64QAM	50	24	17.72	17.64	17.90		
20	64QAM	50	50	17.65	17.53	17.77		
20	64QAM	100	0	17.41	17.42	17.50		
Channel				20925	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	18.01	18.05	17.79	19	0
15	QPSK	1	37	17.65	17.72	17.93		
15	QPSK	1	74	17.79	17.68	17.60		
15	QPSK	36	0	17.67	17.84	17.84		
15	QPSK	36	20	17.68	17.52	17.68		
15	QPSK	36	39	17.66	17.44	17.72		
15	QPSK	75	0	17.42	17.62	17.58	19	0
15	16QAM	1	0	17.44	17.46	17.42		
15	16QAM	1	37	17.20	17.12	17.21		
15	16QAM	1	74	17.19	17.15	17.46		
15	16QAM	36	0	17.24	17.20	17.30		
15	16QAM	36	20	17.44	17.29	17.30		
15	16QAM	36	39	17.37	17.40	17.64		
15	16QAM	75	0	17.43	17.30	17.53		
15	64QAM	1	0	17.74	17.67	17.84	19	0
15	64QAM	1	37	17.67	17.96	18.00		
15	64QAM	1	74	17.71	17.75	17.88		
15	64QAM	36	0	17.38	17.17	17.37		
15	64QAM	36	20	17.41	17.48	17.65		
15	64QAM	36	39	17.56	17.26	17.61		
15	64QAM	75	0	17.26	17.19	17.33		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	18.06	17.81	18.03	19	0
10	QPSK	1	25	17.65	17.86	17.57		
10	QPSK	1	49	17.68	17.57	17.78		
10	QPSK	25	0	17.97	17.99	17.84		
10	QPSK	25	12	17.58	17.74	17.66		
10	QPSK	25	25	17.68	17.73	17.76		
10	QPSK	50	0	17.67	17.66	17.48	19	0
10	16QAM	1	0	17.48	17.39	17.55		
10	16QAM	1	25	17.27	17.32	17.29		
10	16QAM	1	49	17.12	17.47	17.12		
10	16QAM	25	0	17.21	17.48	17.34		
10	16QAM	25	12	17.20	17.39	17.30		
10	16QAM	25	25	17.38	17.55	17.51		
10	16QAM	50	0	17.36	17.52	17.52	19	0
10	64QAM	1	0	17.60	17.78	17.68		
10	64QAM	1	25	17.99	17.82	17.97		
10	64QAM	1	49	17.73	17.83	17.86		
10	64QAM	25	0	17.28	17.31	17.54		
10	64QAM	25	12	17.54	17.74	17.53		
10	64QAM	25	25	17.33	17.54	17.45		
10	64QAM	50	0	17.11	17.31	17.23		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	17.76	17.83	18.06	19	0
5	QPSK	1	12	17.84	18.01	17.63		
5	QPSK	1	24	17.79	17.94	17.94		
5	QPSK	12	0	17.59	17.79	17.70		
5	QPSK	12	7	17.65	17.55	17.76		
5	QPSK	12	13	17.55	17.64	17.78		
5	QPSK	25	0	17.58	17.43	17.55	19	0
5	16QAM	1	0	17.38	17.30	17.34		
5	16QAM	1	12	17.13	17.19	17.45		
5	16QAM	1	24	17.43	17.27	17.60		
5	16QAM	12	0	17.57	17.37	17.43		
5	16QAM	12	7	17.60	17.45	17.56		
5	16QAM	12	13	17.44	17.39	17.54		
5	16QAM	25	0	17.83	17.75	18.07	19	0
5	64QAM	1	0	18.01	18.00	17.90		
5	64QAM	1	12	17.81	17.94	18.03		
5	64QAM							



Full Power		Tune up Power (dBm)						
CA 7C		24						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	23.12	24.00
21100	20902	QPSK	1	0	1	99	23.12	24.00
21350	21152	QPSK	1	0	1	99	23.04	24.00
20850	21048	16QAM	1	99	1	0	22.01	23.00
21100	20902	16QAM	1	0	1	99	22.12	23.00
21350	21152	16QAM	1	0	1	99	22.14	23.00
20850	21048	64QAM	1	99	1	0	21.11	22.00
21100	20902	64QAM	1	0	1	99	21.23	22.00
21350	21152	64QAM	1	0	1	99	21.04	22.00

Full Power		Tune up Power (dBm)						
CA 38C		24						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.77	24.00
37901	38099	QPSK	1	99	1	0	22.56	24.00
38150	37952	QPSK	1	0	1	99	22.74	24.00
37850	38048	16QAM	1	99	1	0	21.65	23.00
37901	38099	16QAM	1	99	1	0	21.55	23.00
38150	37952	16QAM	1	0	1	99	21.45	23.00
37850	38048	64QAM	1	99	1	0	20.45	22.00
37901	38099	64QAM	1	99	1	0	20.55	22.00
38150	37952	64QAM	1	0	1	99	20.54	22.00

Full Power		Tune up Power (dBm)						
CA 41C		24						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.67	24.00
40185	39987	QPSK	1	0	1	99	22.66	24.00
40620	40422	QPSK	1	0	1	99	22.81	24.00
41055	41253	QPSK	1	99	1	0	22.66	24.00
41490	41292	QPSK	1	0	1	99	22.54	24.00
39750	39948	16QAM	1	99	1	0	21.77	23.00
40185	39987	16QAM	1	0	1	99	21.67	23.00
40620	40422	16QAM	1	0	1	99	21.55	23.00
41055	41253	16QAM	1	99	1	0	21.78	23.00
41490	41292	16QAM	1	0	1	99	21.66	23.00
39750	39948	64QAM	1	99	1	0	20.78	22.00
40185	39987	64QAM	1	0	1	99	20.66	22.00
40620	40422	64QAM	1	0	1	99	20.75	22.00
41055	41253	64QAM	1	99	1	0	20.80	22.00
41490	41292	64QAM	1	0	1	99	20.66	22.00

Body Worn		Tune up Power (dBm)						
CA 7C		16.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.58	16.50
21100	20902	QPSK	1	0	1	99	15.67	16.50
21350	21152	QPSK	1	0	1	99	15.38	16.50
20850	21048	16QAM	1	99	1	0	15.66	16.50
21100	20902	16QAM	1	0	1	99	15.45	16.50
21350	21152	16QAM	1	0	1	99	15.69	16.50
20850	21048	64QAM	1	99	1	0	15.34	16.50
21100	20902	64QAM	1	0	1	99	15.56	16.50
21350	21152	64QAM	1	0	1	99	15.58	16.50

Body Worn		Tune up Power (dBm)						
CA 38C		18.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	17.23	18.50
37901	38099	QPSK	1	99	1	0	17.33	18.50
38150	37952	QPSK	1	0	1	99	17.04	18.50
37850	38048	16QAM	1	99	1	0	17.01	18.50
37901	38099	16QAM	1	99	1	0	17.30	18.50
38150	37952	16QAM	1	0	1	99	17.24	18.50
37850	38048	64QAM	1	99	1	0	17.24	18.50
37901	38099	64QAM	1	99	1	0	17.30	18.50
38150	37952	64QAM	1	0	1	99	17.32	18.50

Body Worn		Tune up Power (dBm)						
CA 41C		18.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.21	18.50
40185	39987	QPSK	1	0	1	99	17.26	18.50
40620	40422	QPSK	1	0	1	99	17.42	18.50
41055	41253	QPSK	1	99	1	0	17.26	18.50
41490	41292	QPSK	1	0	1	99	17.27	18.50
39750	39948	16QAM	1	99	1	0	17.39	18.50
40185	39987	16QAM	1	0	1	99	17.11	18.50
40620	40422	16QAM	1	0	1	99	17.37	18.50
41055	41253	16QAM	1	99	1	0	17.20	18.50
41490	41292	16QAM	1	0	1	99	17.04	18.50
39750	39948	64QAM	1	99	1	0	17.39	18.50
40185	39987	64QAM	1	0	1	99	17.05	18.50
40620	40422	64QAM	1	0	1	99	17.06	18.50
41055	41253	64QAM	1	99	1	0	17.27	18.50
41490	41292	64QAM	1	0	1	99	17.13	18.50

Hotspot		Tune up Power (dBm)						
CA 7C		14						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.36	14.00
21100	20902	QPSK	1	0	1	99	13.37	14.00
21350	21152	QPSK	1	0	1	99	13.12	14.00
20850	21048	16QAM	1	99	1	0	13.23	14.00
21100	20902	16QAM	1	0	1	99	13.10	14.00
21350	21152	16QAM	1	0	1	99	13.31	14.00
20850	21048	64QAM	1	99	1	0	13.00	14.00
21100	20902	64QAM	1	0	1	99	13.19	14.00
21350	21152	64QAM	1	0	1	99	13.17	14.00

Hotspot		Tune up Power (dBm)						
CA 38C		15.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	14.33	15.50
37901	38099	QPSK	1	99	1	0	14.55	15.50
38150	37952	QPSK	1	0	1	99	14.28	15.50
37850	38048	16QAM	1	99	1	0	14.08	15.50
37901	38099	16QAM	1	99	1	0	14.32	15.50
38150	37952	16QAM	1	0	1	99	14.48	15.50
37850	38048	64QAM	1	99	1	0	14.54	15.50
37901	38099	64QAM	1	99	1	0	14.51	15.50
38150	37952	64QAM	1	0	1	99	14.50	15.50

Hotspot		Tune up Power (dBm)						
CA 41C		15.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	14.13	15.50
40185	39987	QPSK	1	0	1	99	14.49	15.50
40620	40422	QPSK	1	0	1	99	14.50	15.50
41055	41253	QPSK	1	99	1	0	14.26	15.50
41490	41292	QPSK	1	0	1	99	14.42	15.50
39750	39948	16QAM	1	99	1	0	14.33	15.50
40185	39987	16QAM	1	0	1	99	14.32	15.50
40620	40422	16QAM	1	0	1	99	14.28	15.50
41055	41253	16QAM	1	99	1	0	14.48	15.50
41490	41292	16QAM	1	0	1	99	14.21	15.50
39750	39948	64QAM	1	99	1	0	14.46	15.50
40185	39987	64QAM	1	0	1	99	14.21	15.50
40620	40422	64QAM	1	0	1	99	14.04	15.50
41055	41253	64QAM	1	99	1	0	14.47	15.50
41490	41292	64QAM	1	0	1	99	14.28	15.50

Handheld		Tune up Power (dBm)						
CA 7C		18.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	17.60	18.50
21100	20902	QPSK	1	0	1	99	17.71	18.50
21350	21152	QPSK	1	0	1	99	17.51	18.50
20850	21048	16QAM	1	99	1	0	17.70	18.50
21100	20902	16QAM	1	0	1	99	17.59	18.50
21350	21152	16QAM	1	0	1	99	17.64	18.50
20850	21048	64QAM	1	99	1	0	17.39	18.50
21100	20902	64QAM	1	0	1	99	17.66	18.50
21350	21152	64QAM	1	0	1	99	17.51	18.50

Handheld		Tune up Power (dBm)						
CA 38C		23.5						
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.30	23.50
37901	38099	QPSK	1	99	1	0	22.15	23.50
38150	37952	QPSK	1	0	1	99	22.12	23.50
37850	38048	16QAM	1	99	1	0	21.13	22.50
37901	38099	16QAM	1	99	1	0	21.12	22.50
38150	37952	16QAM	1	0	1	99	20.96	22.50
37850	38048	64QAM	1	99	1	0	19.99	21.50
37901	38099	64QAM						



2CA DL

Configure	CA List	PCC							SCC					Power			
		LTE	BW	UL	UL	Mod.	UL#	UL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA	
		Band	(MHz)	Freq (MHz)	Channel		RB	RB Offset		Band	(MHz)	Freq (MHz)	Channel		Tx Power (dBm)	Tx Power (dBm)	
Inter-Band	CA_4A-5A	Band 4	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525	4xMIMO	22.66	22.67	
		Band 5	10M	836.5	20525	QPSK	1	0	4xMIMO	Band 4	20M	2132.5	2175	4xMIMO	22.55	22.68	
	CA_4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 7	20M	2655	3100	4xMIMO	22.64	22.67	
		Band 7	20M	2535	21100	QPSK	1	0	4xMIMO	Band 4	20M	2132.5	2175	4xMIMO	23.12	23.22	
	CA_4A-12A	Band 4	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 12	10M	737.5	5955	4xMIMO	22.55	22.67	
		Band 12	10M	707.5	23365	QPSK	1	0	4xMIMO	Band 4	20M	2132.5	2175	4xMIMO	22.59	22.96	
	CA_4A-17A	Band 4	10M	1732.5	20175	QPSK	1	0	4xMIMO	Band 17	10M	140	5780	4xMIMO	22.12	22.23	
		Band 17	10M	710	23790	QPSK	1	0	4xMIMO	Band 4	10M	2132.5	2175	4xMIMO	23.04	22.91	
	CA_2A-5A	Band 2	20M	1880	18900	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525	4xMIMO	22.66	22.73	
		Band 5	10M	836.5	20525	QPSK	1	0	4xMIMO	Band 2	20M	1960	900	4xMIMO	22.45	22.68	
	CA_5A-7A	Band 5	10M	836.5	20525	QPSK	1	0	4xMIMO	Band 7	20M	2655	3100	4xMIMO	22.54	22.68	
		Band 7	20M	2535	21100	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525	4xMIMO	23.12	23.22	
	CA_5A-38A	Band 5	10M	836.5	20525	QPSK	1	0	4xMIMO	Band 38	20M	2595	38000	4xMIMO	22.55	22.68	
		Band 38	20M	2595	38000	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525	4xMIMO	22.76	22.87	
	CA_5A-41A	Band 5	10M	836.5	20525	QPSK	1	0	4xMIMO	Band 41	20M	2593	40620	4xMIMO	22.66	22.68	
		Band 41	20M	2593	40620	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525	4xMIMO	22.76	22.89	
CA_26A-41A	Band 26	15M	831.5	20860	QPSK	1	0	4xMIMO	Band 41	20M	2593	40620	4xMIMO	22.65	22.76		
	Band 41	20M	2593	40620	QPSK	1	0	4xMIMO	Band 26	15M	816.5	885	4xMIMO	22.65	22.99		
Intra-Band	Contiguous	CA_7B	Band 7	15M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2654.3	3193	4xMIMO	23.01	23.06
		CA_38C	Band 38	20M	2585.1	37901	QPSK	1	0	4xMIMO	Band 38	20M	2604.9	38999	4xMIMO	22.65	22.87
	Non-Contiguous	CA_66B	Band 66	15M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2164.3	66979	4xMIMO	22.34	22.40
		CA_66C	Band 66	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	20M	2174.8	67084	4xMIMO	22.56	22.72
CA_4A-4A	Band 4	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 4	5M	2152.5	2375	4xMIMO	22.66	22.67		
	CA_41A-41A	Band 41	20M	2593	40620	QPSK	1	0	4xMIMO	Band 41	5M	2687.5	41565	4xMIMO	22.99	22.89	



3CA DL

Configure	PCC										SCC1					SCC2					Power	
	LTE	BW	UL	UL	Mod	UL#	UL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA		
	Band	(MHz)	Freq (MHz)	Channel		RB	RB Offset		Band	(MHz)	Freq (MHz)	Channel		Band	(MHz)	Freq (MHz)	Channel		Tx. Power (dBm)	Tx. Power (dBm)		
Inter-Band	CA_2A-7A-7A	Band 2	20M	1880	1890	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	DM	2687.5	3425	4x4MIMO	22.65	22.73	
		Band 7	20M	2535	2100	QPSK	1	0	4x4MIMO	Band 7	DM	2687.5	3425	4x4MIMO	Band 2	20M	1960	900	4x4MIMO	23.12	23.22	
	CA_2A-7C	Band 2	20M	1880	1890	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	DM	2674.8	3298	4x4MIMO	22.88	22.73	
		Band 7	20M	2535	2100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 2	20M	1960	900	4x4MIMO	22.2	23.22	
	CA_4A-7C	Band 4	20M	1722.5	2015	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	DM	2674.8	3298	4x4MIMO	22.56	22.67	
		Band 7	20M	2535	2100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 4	20M	2122.5	2175	4x4MIMO	23.12	23.22	
	CA_5A-7C	Band 5	10M	836.5	2025	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	DM	2674.8	3298	4x4MIMO	22.65	22.68	
		Band 7	20M	2535	2100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 5	10M	881.5	2025	4x4MIMO	23.09	23.22	
	CA_5A-66A-66A	Band 5	10M	836.5	2025	QPSK	1	0	4x4MIMO	Band 66	20M	2155	6686	4x4MIMO	Band 66	DM	2197.5	6731.1	4x4MIMO	22.65	22.68	
		Band 66	20M	1745	13232	QPSK	1	0	4x4MIMO	Band 66	DM	2197.5	6731.1	4x4MIMO	Band 5	10M	881.5	2025	4x4MIMO	22.65	22.72	
	CA_12A-66A-66A	Band 12	10M	707.5	23095	QPSK	1	0	4x4MIMO	Band 66	20M	2155	6686	4x4MIMO	Band 66	DM	2197.5	6731.1	4x4MIMO	22.89	22.96	
		Band 66	20M	1745	13232	QPSK	1	0	4x4MIMO	Band 66	DM	2197.5	6731.1	4x4MIMO	Band 12	10M	737.5	5095	4x4MIMO	22.65	22.72	
CA_26A-41C	Band 26	15M	831.5	26865	QPSK	1	0	4x4MIMO	Band 41	20M	2593	40620	4x4MIMO	Band 41	DM	2612.8	2791	4x4MIMO	22.65	22.76		
	Band 41	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40818	4x4MIMO	Band 26	15M	876.5	8955	4x4MIMO	22.66	22.89		
Intra-Band	Contiguous	CA_41D	Band 41	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	2791	4x4MIMO	Band 41	20M	2632.8	2989	4x4MIMO	22.77	22.89



SCA DL

Config	PGC										SCC1				SCC2				SCC3				SCC4				Power									
	LTE	BW	UL	UL	Mod.	UL#	UL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA						
	Band (MHz)		Freq (MHz)	Channel		RB	RB Offset		Band (MHz)		Freq (MHz)	Channel		Band (MHz)		Freq (MHz)	Channel		Band (MHz)		Freq (MHz)	Channel		Band (MHz)		Freq (MHz)	Channel		Tx Power (dBm)	Tx Power (dBm)						
Intr-Band	5A_7C_6A_6A	Band 5	10M	836.5	20225	QPSK	1	0	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	20M	2177.5	67111	4x4MIMO	22.66	22.66	
		Band 7	20M	3235	21100	QPSK	1	0	4x4MIMO	Band 7	20M	2654.8	31298	4x4MIMO	Band 5	10M	861.5	3235	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	20M	2177.5	67111	4x4MIMO	23.00	23.22
		Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2177.5	67111	4x4MIMO	Band 5	10M	861.5	2625	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	22.67	22.72



Full Power

n5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				166800	167300	167800			
Frequency (MHz)				834	836.5	839			
20	PI2 BPSK	1	1	22.32	22.31	22.30			
20	PI2 BPSK	1	53	22.13	22.11	22.10	24.0	0.0	
20	PI2 BPSK	1	104	21.93	21.93	21.90			
20	PI2 BPSK	50	0	21.62	21.59	21.58	23.5	0.5	
20	PI2 BPSK	50	28	21.98	22.02	22.03	24.0	0.0	
20	PI2 BPSK	50	58	21.40	21.45	21.50	23.5	0.5	
20	PI2 BPSK	100	0	21.49	21.51	21.49			
20	QPSK	1	1	22.20	22.17	22.14			
20	QPSK	1	53	22.03	22.33	22.23	24.0	0.0	
20	QPSK	1	104	21.87	21.86	21.89			
20	QPSK	50	0	21.13	21.11	21.07	23.0	1.0	
20	QPSK	50	28	22.10	22.11	22.05	24.0	0.0	
20	QPSK	50	58	20.88	20.93	20.95	23.0	1.0	
20	QPSK	100	0	21.10	21.16	21.02			
20	16QAM	1	1	21.06	21.05	21.05	23.0	1.0	
20	64QAM	1	1	19.72	19.74	19.76	21.5	2.5	
20	256QAM	1	1	17.68	17.68	17.72	19.5	4.5	
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				831.5	836.5	841.5			
15	QPSK	1	40	21.97	21.89	21.92	24.0	0.0	
Channel				166800	167300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				829	836.5	844			
10	QPSK	1	28	21.91	21.88	21.88	24.0	0.0	
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	13	21.89	21.89	21.86	24.0	0.0	

n7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				502000	507000	512000			
Frequency (MHz)				2510	2535	2550			
20	PI2 BPSK	1	1	22.19	22.71	22.75			
20	PI2 BPSK	1	53	22.65	22.62	22.61	24.0	0.0	
20	PI2 BPSK	1	104	22.16	22.17	22.22			
20	PI2 BPSK	50	0	22.10	22.08	22.09	23.5	0.5	
20	PI2 BPSK	50	28	22.58	22.55	22.59	24.0	0.0	
20	PI2 BPSK	50	58	21.98	21.95	21.97	23.5	0.5	
20	PI2 BPSK	100	0	22.07	22.04	22.02			
20	QPSK	1	1	22.75	22.76	22.76			
20	QPSK	1	53	22.65	22.77	22.71	24.0	0.0	
20	QPSK	1	104	22.46	22.51	22.46			
20	QPSK	50	0	21.68	21.65	21.69	23.0	1.0	
20	QPSK	50	28	22.65	22.72	22.71	24.0	0.0	
20	QPSK	50	58	21.53	21.55	21.56	23.0	1.0	
20	QPSK	100	0	21.84	21.86	21.85			
20	16QAM	1	1	21.66	21.64	21.59	23.0	1.0	
20	64QAM	1	1	20.09	20.12	20.09	21.5	2.5	
20	256QAM	1	1	18.09	18.13	18.18	19.5	4.5	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	40	22.61	22.63	22.60	24.0	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	28	22.70	22.65	22.65	24.0	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	13	22.67	22.58	22.63	24.0	0.0	

n66									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				344000	349000	354000			
Frequency (MHz)				1720	1745	1770			
20	PI2 BPSK	1	1	22.90	22.91	22.99			
20	PI2 BPSK	1	53	22.67	22.72	22.87	24.0	0.0	
20	PI2 BPSK	1	104	22.70	22.71	22.78			
20	PI2 BPSK	50	0	22.23	22.35	22.32	23.5	0.5	
20	PI2 BPSK	50	28	22.77	22.85	22.78	24.0	0.0	
20	PI2 BPSK	50	58	22.21	22.27	22.15	23.5	0.5	
20	PI2 BPSK	100	0	22.20	22.31	22.23			
20	QPSK	1	1	23.19	23.25	22.85			
20	QPSK	1	53	23.01	23.26	23.00	24.0	0.0	
20	QPSK	1	104	23.10	23.03	22.98			
20	QPSK	50	0	22.00	22.03	22.00	23.0	1.0	
20	QPSK	50	28	22.40	22.96	22.89	24.0	0.0	
20	QPSK	50	58	21.78	21.88	21.93	23.0	1.0	
20	QPSK	100	0	21.87	22.06	22.00			
20	16QAM	1	1	22.00	22.04	21.93	23.0	1.0	
20	64QAM	1	1	21.12	21.27	21.12	21.5	2.5	
20	256QAM	1	1	19.22	19.23	19.20	19.5	4.5	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	40	23.12	23.03	23.00	24.0	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	28	23.02	22.99	23.01	24.0	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	13	23.11	22.89	23.12	24.0	0.0	



n77_FCC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				65000	65000	65000			
Frequency (MHz)				3750	3840	3930			
100	PI/2 BPSK	1	1	23.05	23.21	23.11			
100	PI/2 BPSK	1	137	22.73	22.95	22.80	24.0	0.0	
100	PI/2 BPSK	1	271	22.57	22.99	22.87			
100	PI/2 BPSK	135	0	23.05	23.15	23.01			
100	PI/2 BPSK	135	69	22.80	23.00	22.83	24.0	0.0	
100	PI/2 BPSK	135	138	22.92	23.00	22.81			
100	PI/2 BPSK	270	0	22.60	22.71	22.58	23.5	0.5	
100	QPSK	1	1	23.12	23.20	23.05			
100	QPSK	1	137	23.08	23.23	23.20	24.0	0.0	
100	QPSK	1	271	23.01	23.05	22.90			
100	QPSK	135	0	23.05	23.13	23.02			
100	QPSK	135	69	23.08	23.20	22.95	24.0	0.0	
100	QPSK	135	138	22.90	22.96	22.91			
100	QPSK	270	0	22.28	22.41	22.27	23.0	1.0	
100	16QAM	1	1	22.02	22.20	22.02	23.0	1.0	
100	64QAM	1	1	19.76	19.88	19.75	21.5	2.5	
100	256QAM	1	1	18.61	18.73	18.59	19.5	4.5	

n78_FCC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				65000	65000	65000			
Frequency (MHz)				3750	3750	3750			
100	PI/2 BPSK	1	1		23.11				
100	PI/2 BPSK	1	137		22.94		24.0	0.0	
100	PI/2 BPSK	1	271		22.73				
100	PI/2 BPSK	135	0		23.02				
100	PI/2 BPSK	135	69		22.88		24.0	0.0	
100	PI/2 BPSK	135	138		22.84				
100	PI/2 BPSK	270	0		22.90		23.5	0.5	
100	QPSK	1	1		23.16				
100	QPSK	1	137		22.89		24.0	0.0	
100	QPSK	1	271		22.81				
100	QPSK	135	0		23.15				
100	QPSK	135	69		22.95		24.0	0.0	
100	QPSK	135	138		22.85				
100	QPSK	270	0		22.14		23.0	1.0	
100	16QAM	1	1		22.55		23.0	1.0	
100	64QAM	1	1		18.27		21.5	2.5	
100	256QAM	1	1		18.27		19.5	4.5	
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1	23.13	23.11	23.04	24.0	0.0	
Channel				648334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1	23.09	23.10	23.10	24.0	0.0	
Channel				649668	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3750.02	3750	3760.01			
80	QPSK	1	1	23.09	23.01	23.10	24.0	0.0	
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1	23.04	23.02	23.05	24.0	0.0	
Channel				649000	650000	650000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3760			
40	QPSK	1	1	23.04	23.14	23.10	24.0	0.0	
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1	23.04	23.05	23.04	24.0	0.0	



n5-For Head									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Midline	Power High	Tune-up limit	MPR	
Channel				166800	167300	167800	(dBm)	(dB)	
Frequency (MHz)				834	836.5	839			
20	Pi2 BPSK	1	1	19.59	19.59	19.31			
20	Pi2 BPSK	1	53	19.32	19.38	19.35	20.5	0.0	
20	Pi2 BPSK	1	104	19.31	19.24	19.13			
20	Pi2 BPSK	50	0	19.35	19.30	19.22	20.5	0.0	
20	Pi2 BPSK	50	28	19.27	19.24	19.20	20.5	0.0	
20	Pi2 BPSK	50	56	19.21	19.21	19.15	20.5	0.0	
20	Pi2 BPSK	100	0	19.25	19.27	19.19			
20	QPSK	1	1	19.42	19.57	19.21			
20	QPSK	1	53	19.37	19.56	19.14	20.5	0.0	
20	QPSK	1	104	19.29	19.34	19.05			
20	QPSK	50	0	19.22	19.31	19.26	20.5	0.0	
20	QPSK	50	28	19.32	19.33	19.19	20.5	0.0	
20	QPSK	50	56	19.25	19.22	19.11	20.5	0.0	
20	QPSK	100	0	19.31	19.33	19.22			
20	16QAM	1	1	19.30	19.20	19.29	20.5	0.0	
20	16QAM	1	1	19.59	19.58	19.42	20.5	0.0	
20	256QAM	1	1	19.99	19.99	19.88	19.5	1.0	
Channel				165300	167300	169300	Tune-up limit	MPR	
Frequency (MHz)				831.5	836.5	841.5	(dBm)	(dB)	
15	QPSK	1	40	19.43	19.45	19.55	20.5	0.0	
Channel				165800	167300	168800	Tune-up limit	MPR	
Frequency (MHz)				839	836.5	844	(dBm)	(dB)	
10	QPSK	1	26	19.45	19.55	19.43	20.5	0.0	
Channel				165300	167300	169300	Tune-up limit	MPR	
Frequency (MHz)				826.5	836.5	846.5	(dBm)	(dB)	
5	QPSK	1	13	19.45	19.44	19.32	20.5	0.0	

Reduced Power Mode for Receiver On / Sensor On / Hotspot On / Handheld On (EN-DC)									
n5-Body Worn									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Midline	Power High	Tune-up limit	MPR	
Channel				166800	167300	167800	(dBm)	(dB)	
Frequency (MHz)				834	836.5	839			
20	Pi2 BPSK	1	1	21.17	21.15	21.01			
20	Pi2 BPSK	1	53	21.13	21.12	21.06	22.0	0.0	
20	Pi2 BPSK	1	104	21.11	21.07	20.88			
20	Pi2 BPSK	50	0	21.08	21.06	21.01	22.0	0.0	
20	Pi2 BPSK	50	28	21.02	21.01	20.98	22.0	0.0	
20	Pi2 BPSK	50	56	21.01	20.90	20.85	22.0	0.0	
20	Pi2 BPSK	100	0	21.00	20.99	20.95			
20	QPSK	1	1	21.04	21.19	21.12			
20	QPSK	1	53	21.23	21.47	21.22	22.0	0.0	
20	QPSK	1	104	20.96	20.96	20.93			
20	QPSK	50	0	21.05	21.05	21.03	22.0	0.0	
20	QPSK	50	28	21.07	21.05	20.99	22.0	0.0	
20	QPSK	50	56	20.96	20.98	20.89	22.0	0.0	
20	QPSK	100	0	21.06	21.06	21.03			
20	16QAM	1	1	20.80	21.02	21.48	22.0	0.0	
20	16QAM	1	1	20.72	20.92	21.02	21.5	0.5	
20	256QAM	1	1	18.62	18.65	18.64	19.5	2.5	
Channel				165300	167300	169300	Tune-up limit	MPR	
Frequency (MHz)				831.5	836.5	841.5	(dBm)	(dB)	
15	QPSK	1	40	21.12	21.23	21.22	22.0	0.0	
Channel				165800	167300	168800	Tune-up limit	MPR	
Frequency (MHz)				839	836.5	844	(dBm)	(dB)	
10	QPSK	1	26	21.24	21.13	21.15	22.0	0.0	
Channel				165300	167300	169300	Tune-up limit	MPR	
Frequency (MHz)				826.5	836.5	846.5	(dBm)	(dB)	
5	QPSK	1	13	21.24	21.22	21.25	22.0	0.0	

n5- Hotspot									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Midline	Power High	Tune-up limit	MPR	
Channel				166800	167300	167800	(dBm)	(dB)	
Frequency (MHz)				834	836.5	839			
20	Pi2 BPSK	1	1	19.63	19.63	19.58			
20	Pi2 BPSK	1	53	19.55	19.57	19.55	20.5	0.0	
20	Pi2 BPSK	1	104	19.53	19.43	19.44			
20	Pi2 BPSK	50	0	19.50	19.50	19.47	20.5	0.0	
20	Pi2 BPSK	50	28	19.47	19.48	19.48	20.5	0.0	
20	Pi2 BPSK	50	56	19.45	19.48	19.35	20.5	0.0	
20	Pi2 BPSK	100	0	19.48	19.55	19.47			
20	QPSK	1	1	19.62	19.65	19.64			
20	QPSK	1	53	19.66	19.97	19.52	20.5	0.0	
20	QPSK	1	104	19.50	19.47	19.45			
20	QPSK	50	0	19.60	19.51	19.54	20.5	0.0	
20	QPSK	50	28	19.57	19.61	19.46	20.5	0.0	
20	QPSK	50	56	19.39	19.48	19.41	20.5	0.0	
20	QPSK	100	0	19.47	19.59	19.51			
20	16QAM	1	1	19.11	19.84	19.92	20.5	0.0	
20	16QAM	1	1	19.79	19.57	19.96	20.5	0.0	
20	256QAM	1	1	18.04	18.71	18.72	19.5	1.0	
Channel				165300	167300	169300	Tune-up limit	MPR	
Frequency (MHz)				831.5	836.5	841.5	(dBm)	(dB)	
15	QPSK	1	40	19.87	19.88	19.78	20.5	0.0	
Channel				165800	167300	168800	Tune-up limit	MPR	
Frequency (MHz)				839	836.5	844	(dBm)	(dB)	
10	QPSK	1	26	19.78	19.88	19.91	20.5	0.0	
Channel				165300	167300	169300	Tune-up limit	MPR	
Frequency (MHz)				826.5	836.5	846.5	(dBm)	(dB)	
5	QPSK	1	13	19.89	19.83	19.92	20.5	0.0	



n7_ForHead									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low 505000	Power Middle 507000	Power High 512000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1	14.61	14.73	14.81			
20	PI2 BPSK	1	53	14.59	14.69	14.69	15.5	0.0	
20	PI2 BPSK	1	104	14.66	14.62	14.68			
20	PI2 BPSK	50	0	14.67	14.68	14.60	15.5	0.0	
20	PI2 BPSK	50	28	14.64	14.73	14.64	15.5	0.0	
20	PI2 BPSK	50	55	14.55	14.65	14.64	15.5	0.0	
20	PI2 BPSK	100	0	14.54	14.64	14.59	15.5	0.0	
20	QPSK	1	1	14.64	14.67	14.60			
20	QPSK	1	53	14.65	14.75	14.70	15.5	0.0	
20	QPSK	1	104	14.71	14.68	14.67			
20	QPSK	50	0	14.57	14.61	14.58	15.5	0.0	
20	QPSK	50	28	14.62	14.65	14.58	15.5	0.0	
20	QPSK	50	56	14.60	14.57	14.62	15.5	0.0	
20	QPSK	100	0	14.60	14.60	14.59	15.5	0.0	
20	16QAM	1	1	14.62	14.77	14.75	15.5	0.0	
20	64QAM	1	1	14.76	14.68	14.68	15.5	0.0	
20	256QAM	1	1	14.38	14.50	14.62	15.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	40	14.66	14.65	14.54	15.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	26	14.67	14.54	14.63	15.5	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	13	14.50	14.46	14.60	15.5	0.0	

n7-Body Worn									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low 505000	Power Middle 507000	Power High 512000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1	15.92	15.82	15.99			
20	PI2 BPSK	1	53	15.84	15.87	16.17	16.5	0.0	
20	PI2 BPSK	1	104	15.85	15.90	16.08			
20	PI2 BPSK	50	0	15.89	15.85	15.84	16.5	0.0	
20	PI2 BPSK	50	28	15.76	15.87	15.84	16.5	0.0	
20	PI2 BPSK	50	55	15.79	15.82	16.02	16.5	0.0	
20	PI2 BPSK	100	0	15.74	15.88	15.91	16.5	0.0	
20	QPSK	1	1	15.84	15.91	15.96			
20	QPSK	1	53	16.25	16.40	16.01	16.5	0.0	
20	QPSK	1	104	15.84	15.85	16.09			
20	QPSK	50	0	15.92	15.92	15.88	16.5	0.0	
20	QPSK	50	28	16.11	16.28	15.91	16.5	0.0	
20	QPSK	50	56	16.06	15.90	16.07	16.5	0.0	
20	QPSK	100	0	15.90	16.22	16.04	16.5	0.0	
20	16QAM	1	1	16.11	15.85	16.03	16.5	0.0	
20	64QAM	1	1	16.03	15.99	16.01	16.5	0.0	
20	256QAM	1	1	16.03	15.93	15.97	16.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	40	15.98	15.61	15.77	16.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	26	15.77	15.61	15.84	16.5	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	13	15.63	15.73	15.58	16.5	0.0	

n7-Hotspot									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low 505000	Power Middle 507000	Power High 512000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1	13.82	13.88	13.85			
20	PI2 BPSK	1	53	13.85	13.90	13.92	15.0	0.0	
20	PI2 BPSK	1	104	13.98	13.87	13.91			
20	PI2 BPSK	50	0	13.85	13.83	13.86	15.0	0.0	
20	PI2 BPSK	50	28	13.82	13.85	13.88	15.0	0.0	
20	PI2 BPSK	50	55	13.79	13.82	13.90	15.0	0.0	
20	PI2 BPSK	100	0	13.85	13.87	13.82	15.0	0.0	
20	QPSK	1	1	13.80	13.81	13.91			
20	QPSK	1	53	14.07	14.19	13.92	15.0	0.0	
20	QPSK	1	104	13.85	13.85	13.97			
20	QPSK	50	0	13.87	13.86	13.87	15.0	0.0	
20	QPSK	50	28	13.95	14.07	13.97	15.0	0.0	
20	QPSK	50	56	13.78	13.84	13.83	15.0	0.0	
20	QPSK	100	0	13.43	13.97	13.89	15.0	0.0	
20	16QAM	1	1	13.98	14.11	13.88	15.0	0.0	
20	64QAM	1	1	13.68	13.93	13.99	15.0	0.0	
20	256QAM	1	1	14.17	14.04	13.85	15.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	40	14.05	14.06	14.04	15.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	26	14.07	14.08	14.04	15.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	13	14.05	14.05	14.02	15.0	0.0	



n7-Handheld									
SW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Middle	Power High	Tune-up limit	MPR	
Channel	Frequency (MHz)			505000	507000	512000	(dBm)	(dB)	
20	PI2 BPSK	1	1	17.52	17.45	17.35			
20	PI2 BPSK	1	53	17.41	17.44	17.52	19.0	0.0	
20	PI2 BPSK	1	104	17.38	17.38	17.45			
20	PI2 BPSK	50	0	17.38	17.42	17.36	19.0	0.0	
20	PI2 BPSK	50	28	17.55	17.48	17.49	19.0	0.0	
20	PI2 BPSK	50	55	17.59	17.38	17.51	19.0	0.0	
20	PI2 BPSK	100	0	17.31	17.35	17.36			
20	QPSK	1	1	17.65	17.55	17.45			
20	QPSK	1	53	17.56	17.78	17.64	19.0	0.0	
20	QPSK	1	104	17.47	17.57	17.55			
20	QPSK	50	0	17.46	17.43	17.42	19.0	0.0	
20	QPSK	50	28	17.39	17.63	17.43	19.0	0.0	
20	QPSK	50	56	17.33	17.38	17.50	19.0	0.0	
20	QPSK	100	0	17.45	17.54	17.47	19.0	0.0	
20	16QAM	1	1	17.70	17.54	17.42	19.0	0.0	
20	64QAM	1	1	17.78	17.51	17.58	19.0	0.0	
20	256QAM	1	1	17.65	17.56	17.43	19.0	0.0	
Channel	Frequency (MHz)			20350	50700	51200	Tune-up limit	MPR	
				2507.5	2535	2562.5	(dBm)	(dB)	
15	QPSK	1	40	17.67	17.67	17.56	19.0	0.0	
Channel	Frequency (MHz)			501000	507000	513000	Tune-up limit	MPR	
				2506	2535	2565	(dBm)	(dB)	
10	QPSK	1	26	17.64	17.67	17.58	19.0	0.0	
Channel	Frequency (MHz)			505000	507000	513000	Tune-up limit	MPR	
				2502.5	2535	2567.5	(dBm)	(dB)	
5	QPSK	1	13	17.75	17.75	17.64	19.0	0.0	

n66_For_Head									
Channel	Frequency (MHz)			344000	349000	354000	Tune-up limit	MPR	
				1720	1745	1770	(dBm)	(dB)	
20	PI2 BPSK	1	1	13.49	13.54	13.23			
20	PI2 BPSK	1	53	13.34	13.29	13.19	14.5	0.0	
20	PI2 BPSK	1	104	13.28	13.38	13.20			
20	PI2 BPSK	50	0	13.53	13.40	13.24	14.5	0.0	
20	PI2 BPSK	50	28	13.49	13.36	13.25	14.5	0.0	
20	PI2 BPSK	50	56	13.41	13.26	13.15	14.5	0.0	
20	PI2 BPSK	100	0	13.47	13.37	13.24			
20	QPSK	1	1	13.60	13.54	13.35			
20	QPSK	1	53	13.42	13.70	13.65	14.5	0.0	
20	QPSK	1	104	13.44	13.45	13.55			
20	QPSK	50	0	13.57	13.38	13.21	14.5	0.0	
20	QPSK	50	28	13.45	13.58	13.47	14.5	0.0	
20	QPSK	50	56	13.47	13.33	13.17	14.5	0.0	
20	QPSK	100	0	13.48	13.49	13.23			
20	16QAM	1	1	13.54	13.35	13.13	14.5	0.0	
20	64QAM	1	1	13.46	13.69	13.36	14.5	0.0	
20	256QAM	1	1	13.56	13.56	13.43	14.5	0.0	
Channel	Frequency (MHz)			343500	349000	354500	Tune-up limit	MPR	
				1722.5	1745	1772.5	(dBm)	(dB)	
15	QPSK	1	40	13.45	13.54	13.43	14.5	0.0	
Channel	Frequency (MHz)			343000	349000	355000	Tune-up limit	MPR	
				1715	1745	1775	(dBm)	(dB)	
10	QPSK	1	26	13.44	13.50	14.55	14.5	0.0	
Channel	Frequency (MHz)			342500	349000	355500	Tune-up limit	MPR	
				1712.5	1745	1777.5	(dBm)	(dB)	
5	QPSK	1	13	13.46	13.52	13.55	14.5	0.0	

n66-Body worn									
Channel	Frequency (MHz)			344000	349000	354000	Tune-up limit	MPR	
				1720	1745	1770	(dBm)	(dB)	
20	PI2 BPSK	1	1	14.59	14.55	14.24			
20	PI2 BPSK	1	53	14.35	14.38	14.18	15.5	0.0	
20	PI2 BPSK	1	104	14.37	14.37	14.17			
20	PI2 BPSK	50	0	14.58	14.38	14.06	15.5	0.0	
20	PI2 BPSK	50	28	14.45	14.33	14.25	15.5	0.0	
20	PI2 BPSK	50	56	14.33	14.23	14.05	15.5	0.0	
20	PI2 BPSK	100	0	14.45	14.35	14.26			
20	QPSK	1	1	14.54	14.53	14.76			
20	QPSK	1	53	14.65	14.68	14.58	15.5	0.0	
20	QPSK	1	104	14.40	14.38	14.25			
20	QPSK	50	0	14.35	14.36	13.55	15.5	0.0	
20	QPSK	50	28	14.43	14.51	14.23	15.5	0.0	
20	QPSK	50	56	14.44	14.26	14.21	15.5	0.0	
20	QPSK	100	0	14.46	14.48	14.29			
20	16QAM	1	1	14.25	14.31	14.55	15.5	0.0	
20	64QAM	1	1	14.78	14.68	14.35	15.5	0.0	
20	256QAM	1	1	14.87	14.59	14.39	15.5	0.0	
Channel	Frequency (MHz)			343500	349000	354500	Tune-up limit	MPR	
				1722.5	1745	1772.5	(dBm)	(dB)	
15	QPSK	1	40	14.65	14.76	14.56	15.5	0.0	
Channel	Frequency (MHz)			343000	349000	355000	Tune-up limit	MPR	
				1715	1745	1775	(dBm)	(dB)	
10	QPSK	1	26	14.67	14.55	14.52	15.5	0.0	
Channel	Frequency (MHz)			342500	349000	355500	Tune-up limit	MPR	
				1712.5	1745	1777.5	(dBm)	(dB)	
5	QPSK	1	13	14.67	14.66	14.76	15.5	0.0	



n66-Hotspot										
Channel		344000			349000			354000		
Frequency (MHz)		1750	1745	1770	Tune-up limit (dBm)		MPR (dB)			
20	PV2 BPSK	1	1	13.56	13.49	13.33				
20	PV2 BPSK	1	53	13.32	13.35	13.28	14.5		0.0	
20	PV2 BPSK	1	104	13.35	13.42	13.23				
20	PV2 BPSK	50	0	13.57	13.43	13.29	14.5		0.0	
20	PV2 BPSK	50	28	13.45	13.31	13.28	14.5		0.0	
20	PV2 BPSK	50	56	13.36	13.30	13.18	14.5		0.0	
20	PV2 BPSK	100	0	13.43	13.30	13.08				
20	QPSK	1	1	13.64	13.50	13.32				
20	QPSK	1	53	13.59	13.71	13.56	14.5		0.0	
20	QPSK	1	104	13.42	13.41	13.34				
20	QPSK	50	0	13.52	13.37	13.17	14.5		0.0	
20	QPSK	50	28	13.40	13.06	13.49	14.5		0.0	
20	QPSK	50	56	13.40	13.34	13.20	14.5		0.0	
20	QPSK	100	0	13.51	13.58	13.28	14.5		0.0	
20	8QAM	1	1	13.53	13.53	13.23	14.5		0.0	
20	8QAM	1	1	13.54	13.09	13.38	14.5		0.0	
20	256QAM	1	1	13.45	13.57	13.41	14.5		0.0	
Channel		345000			349000			354000		
Frequency (MHz)		1717.5	1745	1772.5	Tune-up limit (dBm)		MPR (dB)			
15	QPSK	1	40	13.60	13.54	13.55	14.5		0.0	
Channel		343000			349000			355000		
Frequency (MHz)		1715	1745	1775	Tune-up limit (dBm)		MPR (dB)			
10	QPSK	1	26	13.45	13.58	13.55	14.5		0.0	
Channel		342500			349000			355000		
Frequency (MHz)		1712.5	1745	1777.5	Tune-up limit (dBm)		MPR (dB)			
5	QPSK	1	13	13.43	13.53	13.44	14.5		0.0	

n66-Handheld										
Channel		344000			349000			354000		
Frequency (MHz)		1750	1745	1770	Tune-up limit (dBm)		MPR (dB)			
20	PV2 BPSK	1	1	17.86	17.53	17.25				
20	PV2 BPSK	1	53	17.43	17.53	17.28	18.5		0.0	
20	PV2 BPSK	1	104	17.32	17.36	17.20				
20	PV2 BPSK	50	0	17.53	17.38	17.22	18.5		0.0	
20	PV2 BPSK	50	28	17.47	17.26	17.24	18.5		0.0	
20	PV2 BPSK	50	56	17.37	17.28	17.20	18.5		0.0	
20	PV2 BPSK	100	0	17.47	17.20	17.22				
20	QPSK	1	1	17.57	17.47	17.32				
20	QPSK	1	53	17.45	17.61	17.48	18.5		0.0	
20	QPSK	1	104	17.46	17.37	17.34				
20	QPSK	50	0	17.31	17.30	17.19	18.5		0.0	
20	QPSK	50	28	17.50	17.52	17.43	18.5		0.0	
20	QPSK	50	56	17.44	17.29	17.22	18.5		0.0	
20	QPSK	100	0	17.45	17.46	17.34	18.5		0.0	
20	8QAM	1	1	17.54	17.24	17.29	18.5		0.0	
20	8QAM	1	1	17.37	17.36	17.42	18.5		0.0	
20	256QAM	1	1	17.45	17.46	17.48	18.5		0.0	
Channel		345000			349000			354000		
Frequency (MHz)		1717.5	1745	1772.5	Tune-up limit (dBm)		MPR (dB)			
15	QPSK	1	40	17.56	17.45	17.34	18.5		0.0	
Channel		343000			349000			355000		
Frequency (MHz)		1715	1745	1775	Tune-up limit (dBm)		MPR (dB)			
10	QPSK	1	26	17.55	17.43	17.54	18.5		0.0	
Channel		342500			349000			355000		
Frequency (MHz)		1712.5	1745	1777.5	Tune-up limit (dBm)		MPR (dB)			
5	QPSK	1	13	17.28	17.34	17.52	18.5		0.0	



n77_FCC--Body Worn									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	Pi/2 BPSK	1	1	15.90	15.78	15.40	16.5	0.0	
100	Pi/2 BPSK	1	137	15.88	15.69	15.28			
100	Pi/2 BPSK	1	271	15.40	15.31	14.98			
100	Pi/2 BPSK	135	0	15.78	15.68	15.21			
100	Pi/2 BPSK	135	69	15.74	15.57	15.28	16.5	0.0	
100	Pi/2 BPSK	135	138	15.63	15.49	15.10			
100	Pi/2 BPSK	270	0	15.72	15.47	15.22	16.5	0.0	
100	QPSK	1	1	15.85	15.74	15.41			
100	QPSK	1	137	15.93	16.03	15.68	16.5	0.0	
100	QPSK	1	271	15.44	15.38	15.06			
100	QPSK	135	0	15.79	15.57	15.42			
100	QPSK	135	69	15.72	15.98	15.81	16.5	0.0	
100	QPSK	135	138	15.65	15.44	15.30			
100	QPSK	270	0	15.75	15.79	15.30	16.5	0.0	
100	16QAM	1	1	15.82	15.49	15.73	16.5	0.0	
100	64QAM	1	1	15.81	15.85	15.64	16.5	0.0	
100	256QAM	1	1	15.89	15.72	15.67	16.5	0.0	
Channel				649868	656021	662334	Tune-up limit	MPR	
Frequency (MHz)				3745.02	3861.2	3935.01	(dBm)	(dB)	
90	Pi/2 BPSK	1	1	21.20			21.20	0.0	

n77_FCC--Handheld									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	656000	662000			
Frequency (MHz)				3750	3840	3930			
100	Pi/2 BPSK	1	1	17.40	17.28	16.74	18.0	0.0	
100	Pi/2 BPSK	1	137	17.38	17.19	16.04			
100	Pi/2 BPSK	1	271	16.80	16.81	16.32			
100	Pi/2 BPSK	135	0	17.26	17.18	16.60			
100	Pi/2 BPSK	135	69	17.24	17.07	16.56	18.0	0.0	
100	Pi/2 BPSK	135	138	17.13	16.99	16.43			
100	Pi/2 BPSK	270	0	17.22	16.97	16.86	18.0	0.0	
100	QPSK	1	1	17.35	17.24	16.96			
100	QPSK	1	137	17.43	17.96	17.35	18.0	0.0	
100	QPSK	1	271	16.84	16.88	16.88			
100	QPSK	135	0	17.29	17.07	16.92			
100	QPSK	135	69	17.22	17.25	17.36	18.0	0.0	
100	QPSK	135	138	17.15	16.94	16.51			
100	QPSK	270	0	17.25	17.39	17.32	18.0	0.0	
100	16QAM	1	1	17.32	16.99	17.35	18.0	0.0	
100	64QAM	1	1	17.50	17.35	16.88	18.0	0.0	
100	256QAM	1	1	17.55	17.22	17.02	18.0	0.0	
Channel				649868	656021	662334	Tune-up limit	MPR	
Frequency (MHz)				3745.02	3861.2	3935.01	(dBm)	(dB)	
90	Pi/2 BPSK	1	1	21.20			#REF!	0.0	

n78_FCC--Body Worn&Hotspot									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	650000	650000			
Frequency (MHz)				3750	3750	3750			
100	Pi/2 BPSK	1	1		15.84		16.5	0.0	
100	Pi/2 BPSK	1	137		15.89				
100	Pi/2 BPSK	1	271		15.80				
100	Pi/2 BPSK	135	0		15.84				
100	Pi/2 BPSK	135	69		15.89		16.5	0.0	
100	Pi/2 BPSK	135	138		15.88				
100	Pi/2 BPSK	270	0		15.84		16.5	0.0	
100	QPSK	1	1		15.95				
100	QPSK	1	137		15.90		16.5	0.0	
100	QPSK	1	271		15.80				
100	QPSK	135	0		15.81				
100	QPSK	135	69		15.90		16.5	0.0	
100	QPSK	135	138		15.90				
100	QPSK	270	0		15.89		16.5	0.0	
100	16QAM	1	1		15.57		16.5	0.0	
100	64QAM	1	1		15.89		16.5	0.0	
100	256QAM	1	1		15.77		16.5	0.0	
Channel				649868	650000	650334	Tune-up limit	MPR	
Frequency (MHz)				3745.02	3750	3755.01	(dBm)	(dB)	
90	QPSK	1	1	15.78	15.78	15.68	16.5	0.0	
Channel				649334	650000	650668	Tune-up limit	MPR	
Frequency (MHz)				3740.01	3750	3760.02	(dBm)	(dB)	
80	QPSK	1	1	15.89	15.94	15.78	16.5	0.0	
Channel				648668	650000	651334	Tune-up limit	MPR	
Frequency (MHz)				3730.02	3750	3770.01	(dBm)	(dB)	
60	QPSK	1	1	15.79	15.89	15.84	16.5	0.0	
Channel				648334	650000	651668	Tune-up limit	MPR	
Frequency (MHz)				3725.01	3750	3775.02	(dBm)	(dB)	
50	QPSK	1	1	15.90	15.74	15.83	16.5	0.0	
Channel				648000	650000	652000	Tune-up limit	MPR	
Frequency (MHz)				3720	3750	3780	(dBm)	(dB)	
40	QPSK	1	1	15.78	15.90	15.90	16.5	0.0	
Channel				647334	650000	652668	Tune-up limit	MPR	
Frequency (MHz)				3710.01	3750	3790.02	(dBm)	(dB)	
20	QPSK	1	1	15.92	15.66	15.89	16.5	0.0	



n78_FCC-Handheld									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	650000	650000			
Frequency (MHz)				3750	3750	3750			
100	PI/2 BPSK	1	1		17.32				
100	PI/2 BPSK	1	137		17.21		18.0	0.0	
100	PI/2 BPSK	1	271		16.98				
100	PI/2 BPSK	135	0		17.33				
100	PI/2 BPSK	135	69		17.35		18.0	0.0	
100	PI/2 BPSK	135	138		17.20				
100	PI/2 BPSK	270	0		17.32		18.0	0.0	
100	QPSK	1	1		17.45				
100	QPSK	1	137		17.43		18.0	0.0	
100	QPSK	1	271		17.32				
100	QPSK	135	0		17.33				
100	QPSK	135	69		17.16		18.0	0.0	
100	QPSK	135	138		17.21				
100	QPSK	270	0		17.40		18.0	0.0	
100	16QAM	1	1		16.99		18.0	0.0	
100	64QAM	1	1		17.10		18.0	0.0	
100	256QAM	1	1		17.27		18.0	0.0	
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1		17.32	17.34	17.23	18.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3741.01	3750	3759.02			
80	QPSK	1	1		17.22	17.33	17.22	18.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1		17.23	17.35	17.24	18.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1		17.21	17.23	17.14	18.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1		17.34	17.40	17.21	18.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1		17.22	17.34	17.39	18.0	0.0



Conducted Power

		Art 3-6					Art 3-6					Art 3-6					Art 3-6									
2.4GHz WLAN		Default Power (Max Power) A) Head Power table 6 (Standalone) Body Worn Power Table 10 (Standalone) Handheld: Default Power & Power Table 1 (CBS Only)					A) Head Power table 7 (CBS Only) / B) W/WAN/WLAN / G) OBS-W/WAN					Body Worn Power Table 11 (CBS Only) Handheld: Power table 2 (W/WAN/WLAN)					Body Worn Power Table 12 (W/WAN/WLAN) Handheld: Power table 3 (CBS-Only)					Body Worn Power table 13 (CBS-W/WAN) Handheld: Power table 5 (CBS-W/WAN)				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Duty Cycle %					
802.11b Mbps	1	2412	21.54	22.00	20.02	21.00	19.88	19.00	19.88	19.00	19.88	19.00	9.72	10.00							98.20					
	6	2437	20.81	22.00	19.86	21.00	18.76	19.00	19.86	19.00	19.86	19.00	9.68	10.00												
	11	2462	20.98	22.00	19.73	21.00	19.54	19.00	19.54	19.00	19.54	19.00	9.65	10.00												
	1	2412	20.89	22.00		21.00		19.00		19.00		19.00		14.00									98.91			
	6	2437	20.76	22.00		21.00		19.00		19.00		19.00		14.00												
	11	2462	20.49	22.00		21.00		19.00		19.00		19.00		14.00												
802.11n-HT20 MCS0	1	2412	20.50	22.00		21.00		19.00		19.00		19.00		14.00								100.00				
	6	2437	20.60	22.00		21.00		19.00		19.00		19.00		14.00												
	11	2462	20.72	22.00		21.00		19.00		19.00		19.00		14.00												
	1	2412	20.72	22.00		21.00		19.00		19.00		19.00		14.00												
	6	2437	20.77	22.00		21.00		19.00		19.00		19.00		14.00												
	11	2462	20.79	22.00		21.00		19.00		19.00		19.00		14.00												

BT EDR

Mode	Channel	Frequency (MHz)	Average power (dBm)
BT LE	CH10	2402	7.54
	CH19	2440	9.05
BR / EDR	CH39	2441	10.91
	CH78	2480	10.99
Time-up Limit: 11.3 10 10			

BT LE

Mode	Channel	Frequency (MHz)	Average power (dBm)
BT LE	CH10	2402	7.54
	CH19	2440	9.05
CH39	2440	8.54	
Time-up Limit: 10			

BT LE v5.0

Mode	Channel	Frequency (MHz)	Average power (dBm)
BT LE	CH10	2402	6.45
	CH19	2440	8.19
	CH39	2480	8.88
Time-up Limit: 10.00			



Appendix F. Supplemental Tuner Head & Body SAR Results

The results are shown as follows.

