TTL® In Collaboration with speag CALIBRATION LABORATORY

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Client SGS **Certificate No: Z19-60327**

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3923
Calibration Procedure(s)	FF-Z11-004-01 Calibration Procedures for Dosimetric E-field Probes
Calibration date:	October 22, 2019

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	18-Jun-19 (CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101547	18-Jun-19 (CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101548	18-Jun-19 (CTTL, No.J19X05125)	Jun-20
Reference10dBAttenuator	18N50W-10dB	09-Feb-18(CTTL, No.J18X01133)	Feb-20
Reference20dBAttenuator	18N50W-20dB	09-Feb-18(CTTL, No.J18X01132)	Feb-20
Reference Probe EX3DV4	SN 7307	24-May-19(SPEAG,No.EX3-7307_May19/2)	May-20
DAE4	SN 1525	26-Aug-19(SPEAG, No.DAE4-1525_Aug19)	Aug -20
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGeneratorMG3700A	6201052605	18-Jun-19 (CTTL, No.J19X05127)	Jun-20
Network Analyzer E5071C	MY46110673	24-Jan-19 (CTTL, No.J19X00547)	Jan -20

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: October 24, 2019

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,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 θ=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:

a) 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

b) 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

c) 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

d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization θ=0 (f≤900MHz in TEM-cell; f>1800MHz: waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below ConvF).
- *NORM(f)x,y,z = NORMx,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.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep (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.
- *Ax,y,z; Bx,y,z; Cx,y,z;VRx,y,z:*A,B,C 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≤800MHz) and inside waveguide using analytical field distributions based on power measurements for f >800MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,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±50MHz to±100MHz.
- *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 *NORMx* (no uncertainty required).

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Probe EX3DV4

SN: 3923

Calibrated: October 22, 2019

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

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DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3923

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm(μV/(V/m)^2)[A]	0.57	0.46	0.48	±10.0%
DCP(mV)[B]	101.6	103.7	103.8	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	181.3	±2.6%
		Y	0.0	0.0	1.0		164.5	
		Z	0.0	0.0	1.0		166.3	

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 E^2-field uncertainty inside TSL (see Page 5).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainly is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3923

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[G] (mm)	Unct. (k=2)
750	41.9	0.89	10.62	10.62	10.62	0.40	0.80	±12.1%
835	41.5	0.90	10.34	10.34	10.34	0.13	1.48	±12.1%
1450	40.5	1.20	9.20	9.20	9.20	0.10	1.46	±12.1%
1640	40.3	1.29	9.06	9.06	9.06	0.24	0.97	±12.1%
1750	40.1	1.37	8.90	8.90	8.90	0.20	1.14	±12.1%
1900	40.0	1.40	8.64	8.64	8.64	0.26	0.96	±12.1%
2000	40.0	1.40	8.63	8.63	8.63	0.19	1.11	±12.1%
2450	39.2	1.80	7.87	7.87	7.87	0.53	0.74	±12.1%
2600	39.0	1.96	7.74	7.74	7.74	0.47	0.82	±12.1%
5250	35.9	4.71	5.34	5.34	5.34	0.40	1.70	±13.3%
5600	35.5	5.07	4.90	4.90	4.90	0.50	1.20	±13.3%
5750	35.4	5.22	4.83	4.83	4.83	0.45	1.70	±13.3%

[C] Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequency below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ±5%. 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 the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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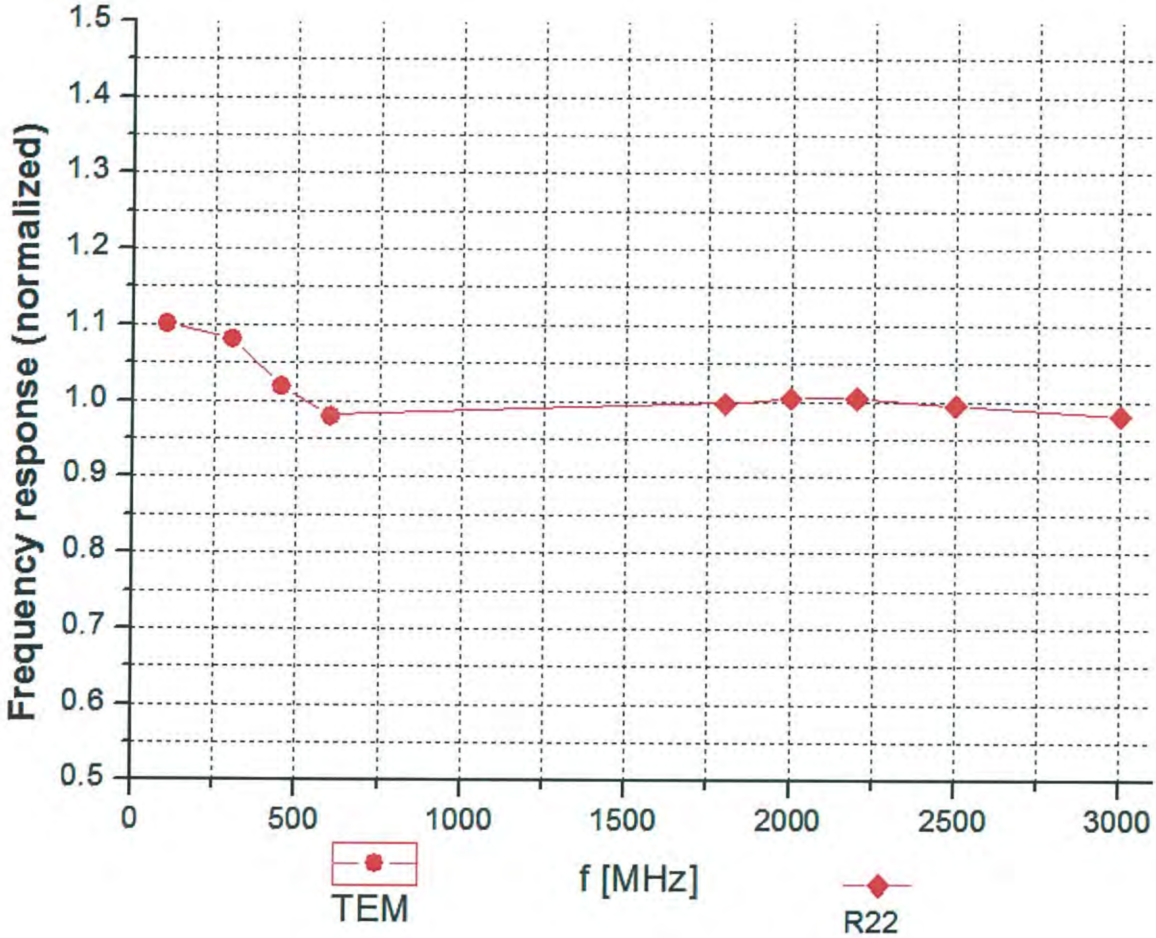
Frequency Response of E-Field
(TEM-Cell: ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ±7.4% (k=2)

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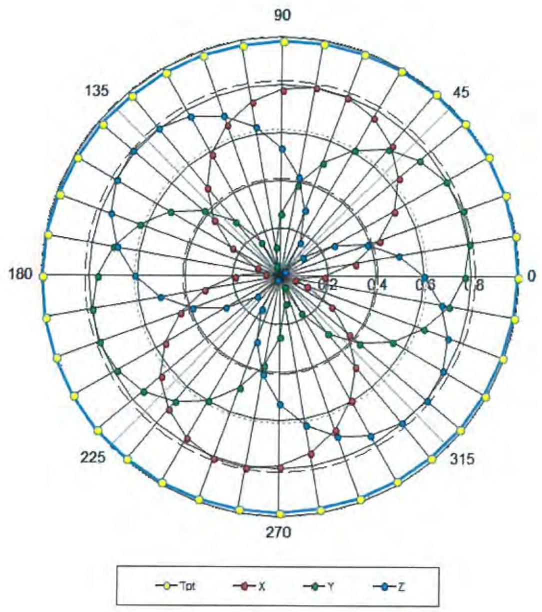
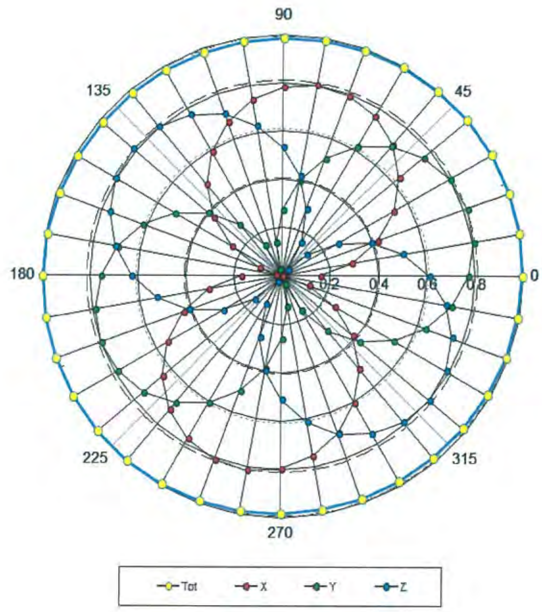
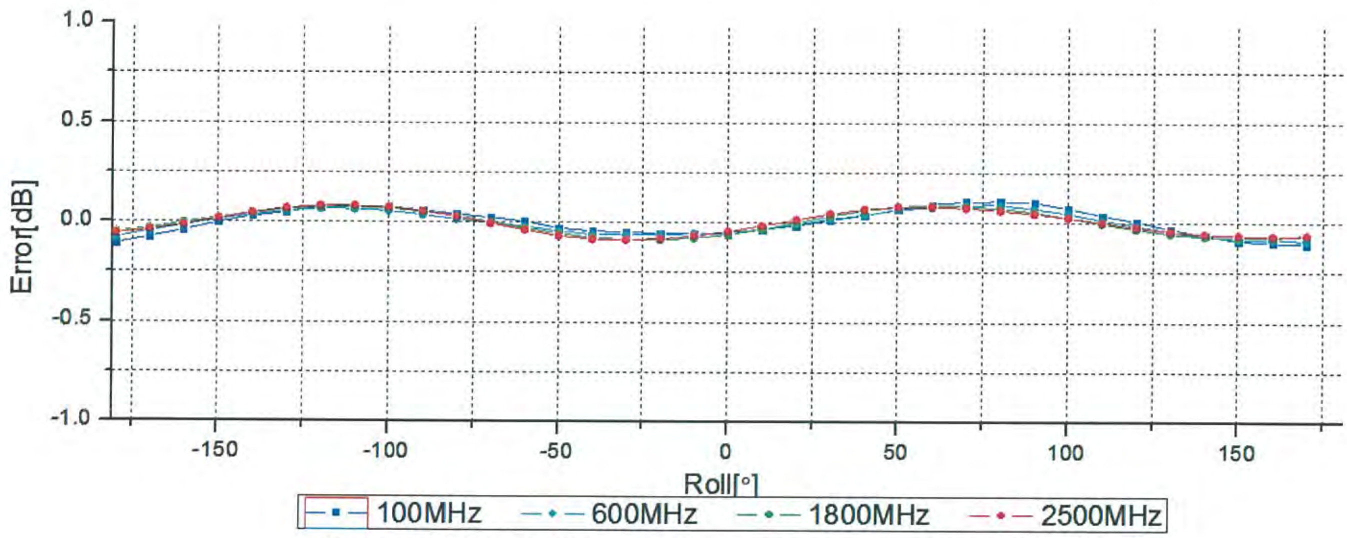
Receiving Pattern (Φ), θ=0°

f=600 MHz, TEM



f=1800 MHz, R22





Uncertainty of Axial Isotropy Assessment: ±1.2% (k=2)

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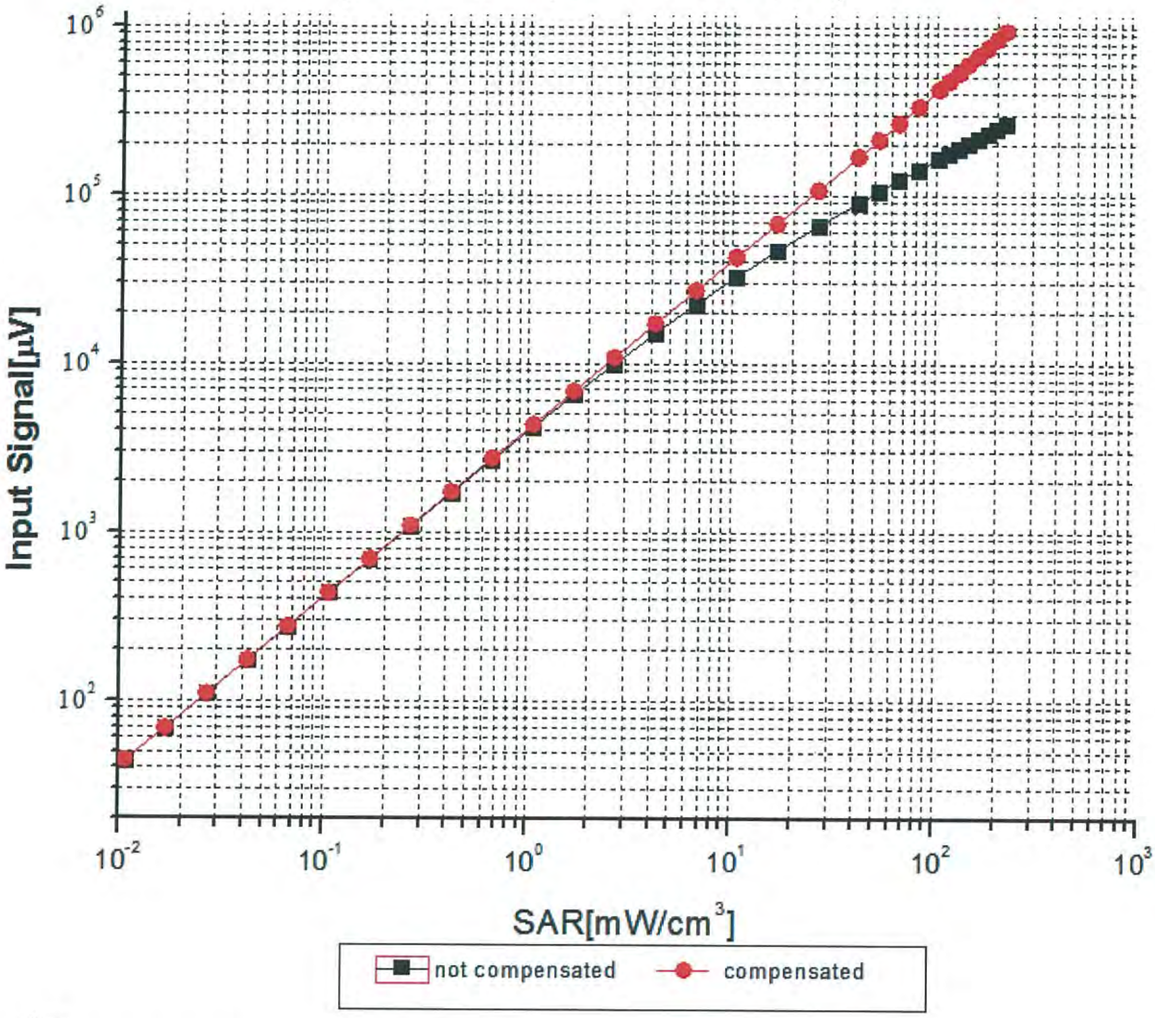
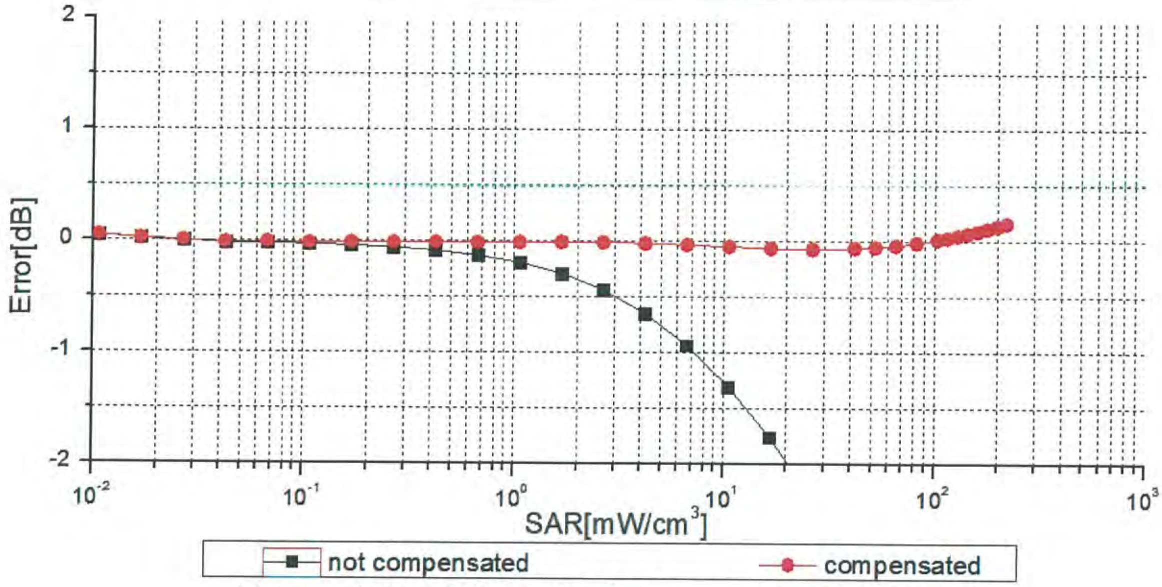
Dynamic Range f(SAR_{head})
(TEM cell, f = 900 MHz)





Uncertainty of Linearity Assessment: ±0.9% (k=2)

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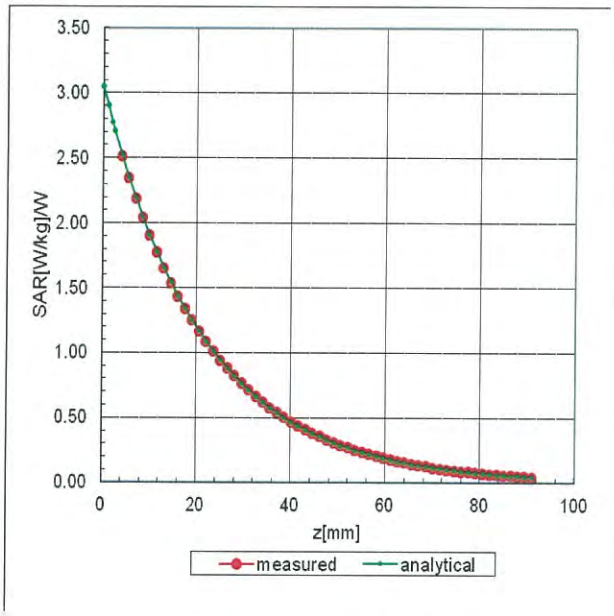
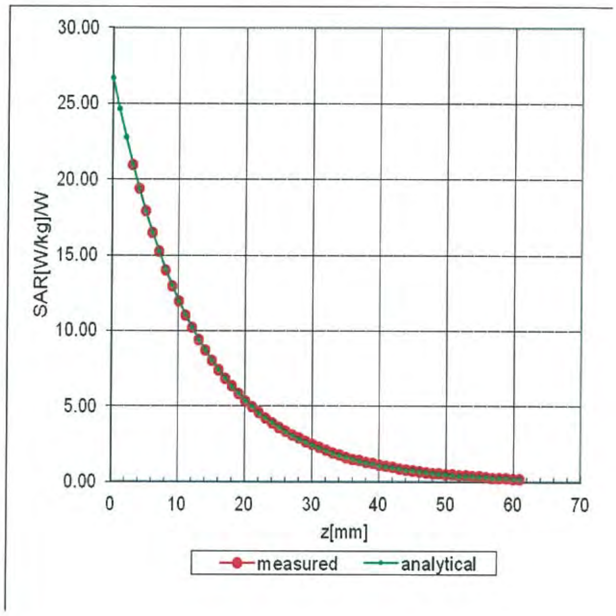
Conversion Factor Assessment

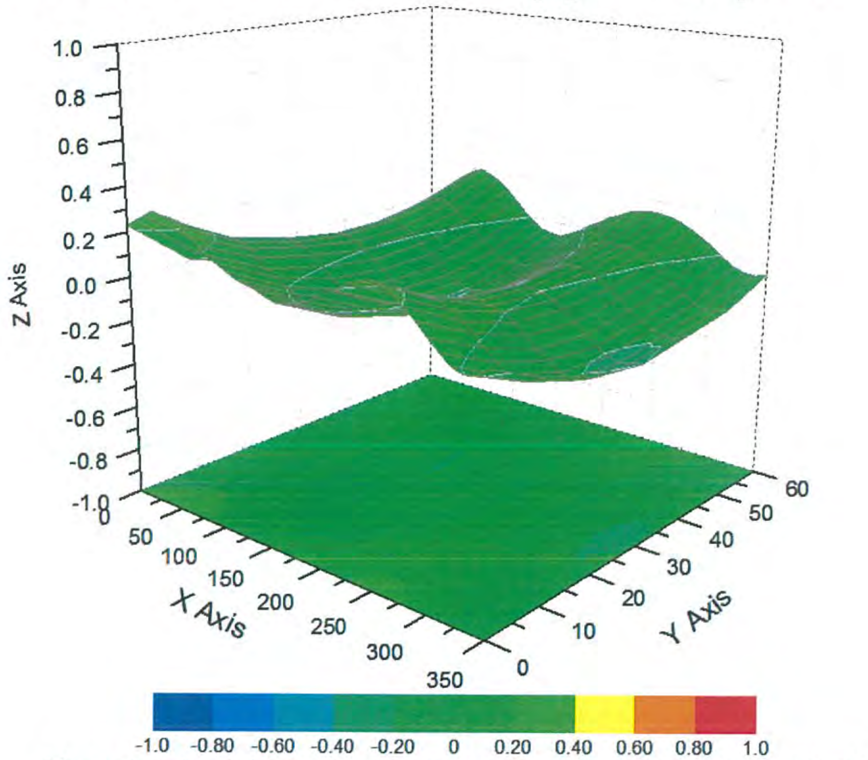
f=750 MHz, WGLS R9(H_convF)



f=1750 MHz, WGLS R22(H_convF)



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: ±3.2% (K=2)

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DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3923

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	26.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

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Client **SGS** **Certificate No: Z20-60146**

CALIBRATION CERTIFICAT

Object	EX3DV4 - SN : 3793
Calibration Procedure(s)	FF-Z11-004-01 Calibration Procedures for Dosimetric E-field Probes
Calibration date:	May 09, 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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101547	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101548	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Reference 10dBAttenuator	18N50W-10dB	10-Feb-20(CTTL, No.J20X00525)	Feb-22
Reference 20dBAttenuator	18N50W-20dB	10-Feb-20(CTTL, No.J20X00526)	Feb-22
Reference Probe EX3DV4	SN 3617	30-Jan-20(SPEAG, No.EX3-3617_Jan20/2)	Jan-21
DAE4	SN 1556	4-Feb-20(SPEAG, No.DAE4-1556_Feb20)	Feb-21
Secondary Standards	**ID #**	**Cal Date(Calibrated by, Certificate No.)**	**Scheduled Calibration**
SignalGenerator MG3700A	6201052605	18-Jun-19(CTTL, No.J19X05127)	Jun-20
Network Analyzer E5071C	MY46110673	10-Feb-20(CTTL, No.J20X00515)	Feb-21

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	林浩
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: May 11, 2020

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,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 θ=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:

a) 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

b) 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

c) 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

d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization θ=0 (f≤900MHz in TEM-cell; f>1800MHz: waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below ConvF).
- *NORM(f)x,y,z = NORMx,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.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep (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.
- *Ax,y,z; Bx,y,z; Cx,y,z; VRx,y,z:*A,B,C 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≤800MHz) and inside waveguide using analytical field distributions based on power measurements for f >800MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,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±50MHz to±100MHz.
- *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 *NORMx* (no uncertainty required).

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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3793

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (*k*=2)
Norm(μV/(V/m)²)[A]	0.49	0.47	0.47	±10.0%
DCP(mV)[B]	101.8	104.6	103.9	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (*k*=2)
0	CW	X	0.0	0.0	1.0	0.00	161.2	±2.0%
		Y	0.0	0.0	1.0		154.8	
		Z	0.0	0.0	1.0		161.8	

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 E^2-field uncertainty inside TSL (see Page 4).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainly is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3793

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[G] (mm)	Unct. (*k*=2)
750	41.9	0.89	9.34	9.34	9.34	0.40	0.80	±12.1%
835	41.5	0.90	9.05	9.05	9.05	0.14	1.28	±12.1%
1750	40.1	1.37	7.81	7.81	7.81	0.24	1.04	±12.1%
1900	40.0	1.40	7.61	7.61	7.61	0.26	1.01	±12.1%
2300	39.5	1.67	7.30	7.30	7.30	0.60	0.69	±12.1%
2450	39.2	1.80	7.06	7.06	7.06	0.40	0.91	±12.1%
2600	39.0	1.96	6.88	6.88	6.88	0.50	0.80	±12.1%
3300	38.2	2.71	6.54	6.54	6.54	0.44	0.93	±13.3%
3500	37.9	2.91	6.51	6.51	6.51	0.44	0.94	±13.3%
3700	37.7	3.12	6.30	6.30	6.30	0.46	0.95	±13.3%

[C] Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequency below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ±5%. 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 the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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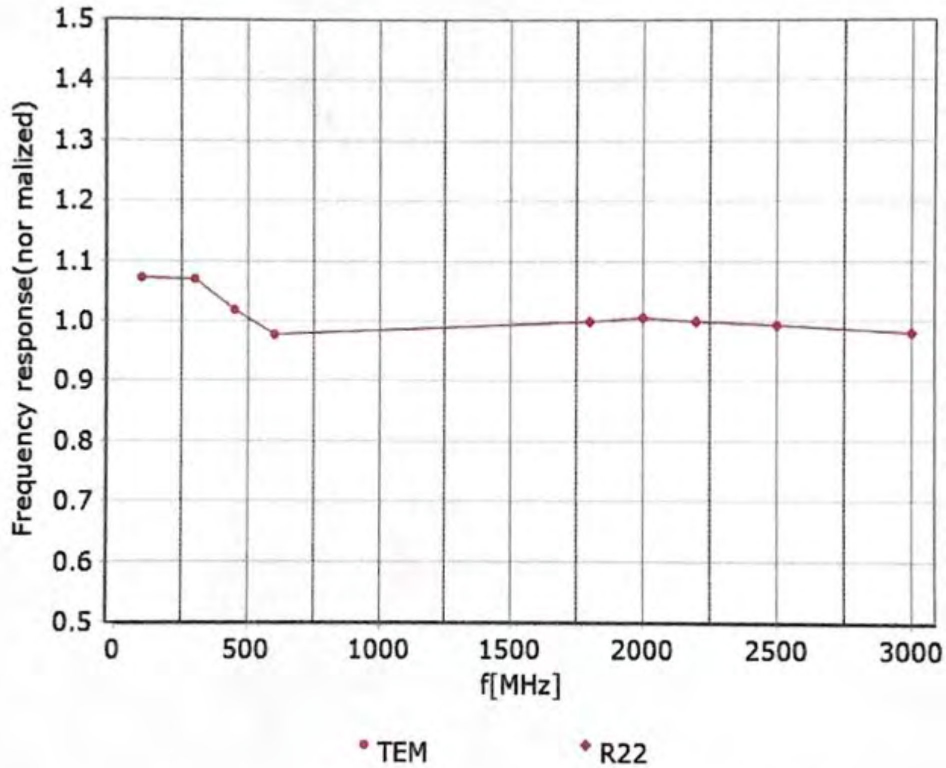
Frequency Response of E-Field
(TEM-Cell: ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ±7.4% (*k*=2)

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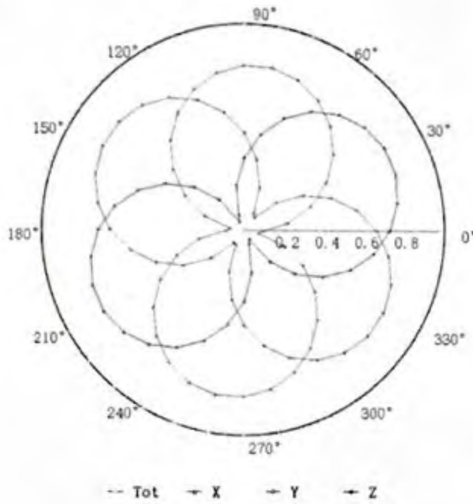
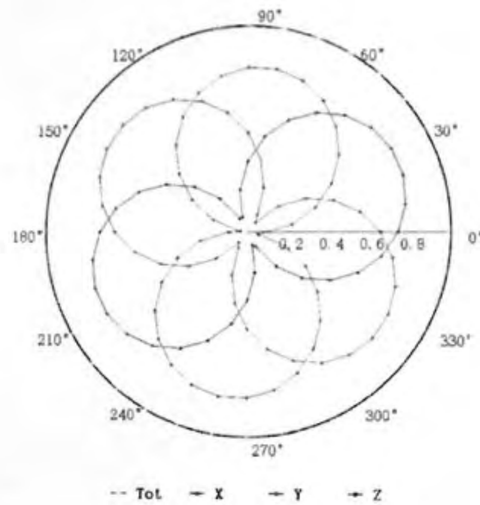
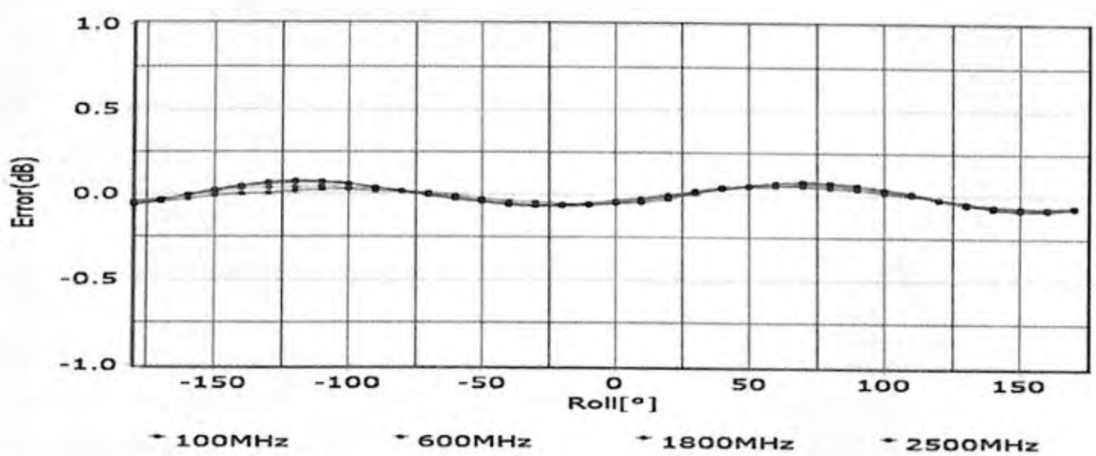
Receiving Pattern (Φ), θ=0°

f=600 MHz, TEM



f=1800 MHz, R22





Uncertainty of Axial Isotropy Assessment: ±1.2% (k=2)

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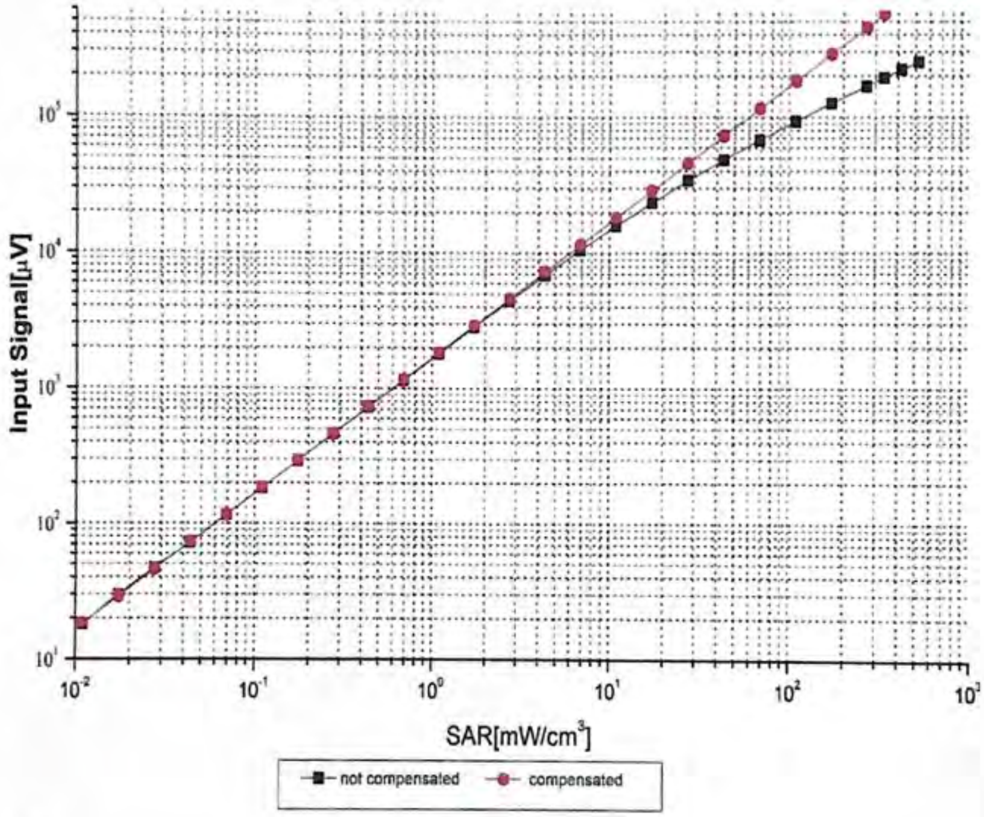
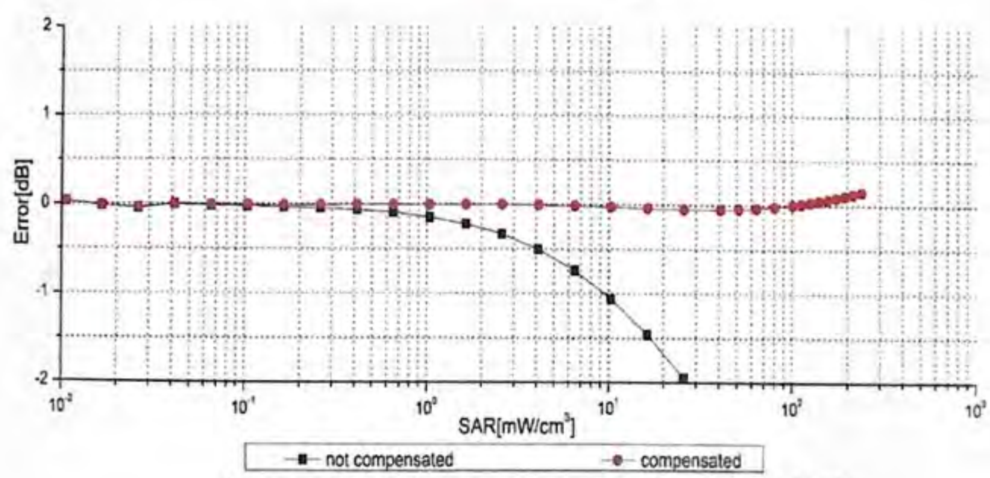
Dynamic Range f(SAR_{head})
(TEM cell, f = 900 MHz)





Uncertainty of Linearity Assessment: ±0.9% (*k*=2)

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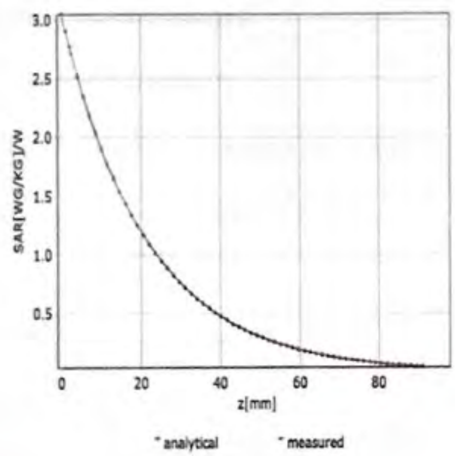
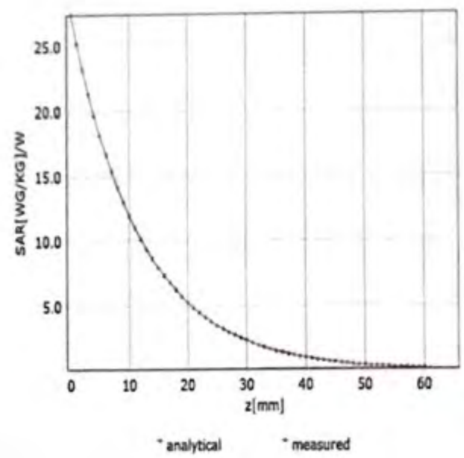
Conversion Factor Assessment

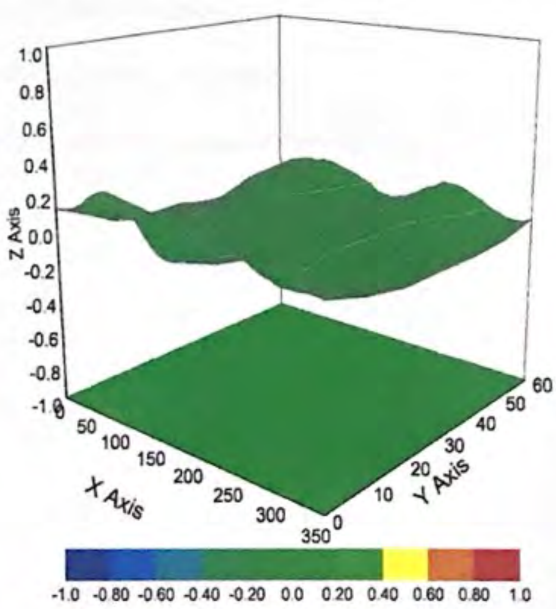
f=750 MHz,WGLS R9(H_convF)



f=1750 MHz,WGLS R22(H_convF)



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: ±3.2% (*k*=2)

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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3793

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	115.7
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

Dipole D1750V2 SN 1149				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
2019-05-21	-31.8	/	47.6	/
2020-05-20	-32.3	1.57%	48.9	1.3Ω

Dipole D2300V2 SN 1072				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
2019-05-21	-26.7	/	46.9	/
2020-05-20	-27.6	3.37%	48.5	1.6Ω

Dipole D2600V2 SN 1125				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
2019-05-20	-25.7	/	48.9	/
2020-05-19	-26.6	3.50%	50.8	1.9Ω

Appendix E

Conducted RF Output Power Table

1 Measurement of RF conducted Power

1.1 Conducted Power of Main Antenna (Ant1)

1.1.1 Conducted Power of GSM

GSM 850 receiver off										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		128	190	251			128	190	251	
GSM(GMSK)	GSM	33.47	**33.46**	33.52	34.00	-9.19	24.28	24.27	24.33	24.81
GPRS/EGPRS (GMSK)	1 TX Slot	33.54	33.48	33.53	34.00	-9.19	24.35	24.29	24.34	24.81
	2 TX Slots	30.37	30.38	30.33	31.00	-6.18	24.19	24.20	24.15	24.82
	3 TX Slots	28.32	28.43	28.53	29.20	-4.42	23.90	24.01	24.11	24.78
	4 TX Slots	27.23	**27.36**	27.54	28.00	-3.17	24.06	24.19	24.37	**24.83**
EGPRS(8PSK)	1 TX Slot	27.01	27.05	27.10	28.50	-9.19	17.82	17.86	17.91	19.31
	2 TX Slots	24.63	24.34	24.68	25.50	-6.18	18.45	18.16	18.50	19.32
	3 TX Slots	22.97	23.10	22.91	23.70	-4.42	18.55	18.68	18.49	19.28
	4 TX Slots	21.92	21.84	21.91	22.50	-3.17	18.75	18.67	18.74	19.33

GSM 1900 Receiver on/Receiver off/ Hotspot off/Sensor off										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	**29.96**	**29.94**	29.91	30.50	-9.19	20.77	20.75	20.72	21.31
GPRS/ EGPRS (GMSK)	1 TX Slot	29.87	29.89	29.93	30.50	-9.19	20.68	20.70	20.74	21.31
	2 TX Slots	26.91	26.94	26.89	27.50	-6.18	20.73	20.76	20.71	21.32
	3 TX Slots	25.24	25.31	24.71	25.70	-4.42	20.82	20.89	20.29	21.28
	4 TX Slots	23.98	**23.78**	23.73	24.50	-3.17	20.81	20.61	20.56	**21.33**
EGPRS (8PSK)	1 TX Slot	26.25	26.26	26.14	27.50	-9.19	17.06	17.07	16.95	18.31
	2 TX Slots	23.39	23.45	23.59	24.50	-6.18	17.21	17.27	17.41	18.32
	3 TX Slots	21.79	21.34	21.75	22.70	-4.42	17.37	16.92	17.33	18.28
	4 TX Slots	20.12	20.11	20.16	21.50	-3.17	16.95	16.94	16.99	18.33

GSM 1900 Hotspot on										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	27.45	27.43	27.37	28.00	-9.19	18.26	18.24	18.18	18.81
GPRS/ EGPRS (GMSK)	1 TX Slot	27.46	27.36	27.37	28.00	-9.19	18.27	18.17	18.18	18.81
	2 TX Slots	24.56	24.45	23.86	25.00	-6.18	18.38	18.27	17.68	18.82
	3 TX Slots	22.47	22.23	22.34	23.20	-4.42	18.05	17.81	17.92	18.78
	4 TX Slots	**20.85**	**20.83**	**20.88**	22.00	-3.17	17.68	17.66	17.71	**18.83**
EGPRS (8PSK)	1 TX Slot	24.25	24.18	24.17	25.00	-9.19	15.06	14.99	14.98	15.81
	2 TX Slots	21.16	20.97	21.02	22.00	-6.18	14.98	14.79	14.84	15.82
	3 TX Slots	18.94	19.58	19.41	20.20	-4.42	14.52	15.16	14.99	15.78
	4 TX Slots	17.96	18.02	17.89	19.00	-3.17	14.79	14.85	14.72	15.83
GSM 1900 Sensor on										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	29.50	29.39	29.44	30.00	-9.19	20.31	20.20	20.25	20.81
GPRS/ EGPRS (GMSK)	1 TX Slot	29.36	29.35	29.41	30.00	-9.19	20.17	20.16	20.22	20.81
	2 TX Slots	26.42	26.39	26.43	27.00	-6.18	20.24	20.21	20.25	20.82
	3 TX Slots	24.79	24.82	24.25	25.20	-4.42	20.37	20.40	19.83	20.78
	4 TX Slots	**23.48**	**23.28**	**23.24**	24.00	-3.17	20.31	20.11	20.07	**20.83**
EGPRS (8PSK)	1 TX Slot	25.72	25.74	25.67	27.00	-9.19	16.53	16.55	16.48	17.81
	2 TX Slots	22.94	22.90	23.11	24.00	-6.18	16.76	16.72	16.93	17.82
	3 TX Slots	21.25	20.89	21.20	22.20	-4.42	16.83	16.47	16.78	17.78
	4 TX Slots	19.64	19.61	19.71	21.00	-3.17	16.47	16.44	16.54	17.83

Table 1： Conducted Power of GSM

1.1.2 Conducted Power of WCDMA

WCDMA Band II Receiver on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	23.83	**23.75**	23.78	25.00
	12.2kbps AMR	23.76	23.74	23.71	25.00
HSDPA	Subtest 1	22.55	22.45	22.50	24.00
	Subtest 2	22.46	22.39	22.47	24.00
	Subtest 3	22.09	21.90	21.89	23.50
	Subtest 4	21.92	21.92	21.87	23.50
HSUPA	Subtest 1	22.50	22.36	22.30	24.00
	Subtest 2	20.47	20.36	20.46	22.00
	Subtest 3	21.53	21.45	21.40	23.00
	Subtest 4	20.32	20.33	20.45	22.00
	Subtest 5	22.58	22.41	22.49	24.00
DC-HSDPA	Subtest 1	22.54	22.48	22.42	24.00
	Subtest 2	22.47	22.44	22.39	24.00
	Subtest 3	22.12	21.98	21.93	23.50
	Subtest 4	21.93	21.91	21.88	23.50
HSPA+	16QAM	21.25	21.33	21.19	22.50

WCDMA Band II Receiver off/Hotsprt off/Sensor off					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	**22.52**	**22.37**	**22.29**	23.50
	12.2kbps AMR	22.48	22.28	22.24	23.50
HSDPA	Subtest 1	21.23	21.14	21.25	22.50
	Subtest 2	21.04	21.03	21.18	22.50
	Subtest 3	20.67	20.65	20.47	22.00
	Subtest 4	20.65	20.61	20.43	22.00
HSUPA	Subtest 1	21.08	21.01	20.96	22.50
	Subtest 2	19.07	18.92	19.14	20.50
	Subtest 3	20.16	20.10	20.13	21.50
	Subtest 4	19.06	19.07	19.17	20.50
	Subtest 5	21.13	21.07	21.22	22.50
DC-HSDPA	Subtest 1	21.11	21.20	21.05	22.50
	Subtest 2	21.03	21.00	20.98	22.50
	Subtest 3	20.84	20.55	20.63	22.00
	Subtest 4	20.50	20.48	20.55	22.00
HSPA+	16QAM	19.89	20.02	19.94	21.00

WCDMA Band II Hotsprt on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	**16.49**	**16.62**	**16.54**	18.00
	12.2kbps AMR	16.43	16.50	16.51	18.00
HSDPA	Subtest 1	15.48	15.32	15.41	17.00
	Subtest 2	15.38	15.25	15.39	17.00
	Subtest 3	14.98	14.85	14.82	16.50
	Subtest 4	14.84	14.79	14.75	16.50
HSUPA	Subtest 1	15.40	15.22	15.24	17.00
	Subtest 2	13.36	13.23	13.31	15.00
	Subtest 3	14.38	14.35	14.32	16.00
	Subtest 4	13.17	13.20	13.35	15.00
	Subtest 5	15.47	15.34	15.42	17.00
DC-HSDPA	Subtest 1	15.49	15.38	15.33	17.00
	Subtest 2	15.37	15.33	15.28	17.00
	Subtest 3	14.98	14.90	14.78	16.50
	Subtest 4	14.84	14.77	14.83	16.50
HSPA+	16QAM	14.14	14.24	14.05	15.50

WCDMA Band II Sensor on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	**18.77**	**18.73**	**18.80**	20.00
	12.2kbps AMR	18.67	18.71	18.78	20.00
HSDPA	Subtest 1	17.48	17.45	17.51	19.00
	Subtest 2	17.39	17.43	17.40	19.00
	Subtest 3	17.04	16.83	16.88	18.50
	Subtest 4	16.90	17.00	16.92	18.50
HSUPA	Subtest 1	17.54	17.46	17.23	19.00
	Subtest 2	15.48	15.27	15.36	17.00
	Subtest 3	16.60	16.36	16.36	18.00
	Subtest 4	15.25	15.39	15.54	17.00
	Subtest 5	17.60	17.50	17.42	19.00
DC-HSDPA	Subtest 1	17.46	17.58	17.33	19.00
	Subtest 2	17.57	17.44	17.46	19.00
	Subtest 3	17.08	17.03	16.83	18.50
	Subtest 4	17.02	16.86	16.82	18.50
HSPA+	16QAM	16.15	16.31	16.15	17.50

WCDMA Band VI Receiver on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	23.51	**23.66**	23.71	25.00
	12.2kbps AMR	23.49	23.65	23.66	25.00
HSDPA	Subtest 1	22.49	22.46	22.47	24.00
	Subtest 2	22.38	22.43	22.41	24.00
	Subtest 3	22.05	22.04	22.05	23.50
	Subtest 4	21.98	22.08	22.06	23.50
HSUPA	Subtest 1	22.41	22.55	22.51	24.00
	Subtest 2	20.42	20.59	20.55	22.00
	Subtest 3	21.46	21.56	21.49	23.00
	Subtest 4	20.49	20.52	20.56	22.00
	Subtest 5	22.44	22.58	22.57	24.00
DC-HSDPA	Subtest 1	22.39	22.52	22.50	24.00
	Subtest 2	22.37	22.46	22.45	24.00
	Subtest 3	21.96	22.04	21.93	23.50
	Subtest 4	21.92	21.97	21.92	23.50
HSPA+	16QAM	20.86	20.94	21.01	22.50

WCDMA Band VI Receiver off/Hotsprt off/Sensor off					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	**21.95**	**22.06**	**22.17**	23.50
	12.2kbps AMR	21.90	22.05	22.05	23.50
HSDPA	Subtest 1	20.88	20.91	20.95	22.50
	Subtest 2	20.81	20.95	20.87	22.50
	Subtest 3	20.57	20.58	20.47	22.00
	Subtest 4	20.39	20.54	20.53	22.00
HSUPA	Subtest 1	20.86	20.96	21.00	22.50
	Subtest 2	18.95	19.12	19.04	20.50
	Subtest 3	19.87	20.09	20.01	21.50
	Subtest 4	19.04	18.93	19.02	20.50
	Subtest 5	20.95	21.00	21.09	22.50
DC-HSDPA	Subtest 1	20.85	20.90	20.92	22.50
	Subtest 2	20.79	20.85	20.83	22.50
	Subtest 3	20.40	20.55	20.46	22.00
	Subtest 4	20.42	20.51	20.42	22.00
HSPA+	16QAM	19.31	19.39	19.48	21.00

WCDMA Band VI Hotspot on/Sensor on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	**18.57**	**18.61**	**18.77**	20.00
	12.2kbps AMR	18.56	18.59	18.75	20.00
HSDPA	Subtest 1	17.39	17.40	17.37	19.00
	Subtest 2	17.28	17.28	17.35	19.00
	Subtest 3	16.94	16.98	16.95	18.50
	Subtest 4	16.83	17.03	16.98	18.50
HSUPA	Subtest 1	17.32	17.42	17.43	19.00
	Subtest 2	15.33	15.50	15.44	17.00
	Subtest 3	16.41	16.51	16.35	18.00
	Subtest 4	15.40	15.47	15.44	17.00
	Subtest 5	17.36	17.47	17.49	19.00
DC-HSDPA	Subtest 1	17.34	17.40	17.41	19.00
	Subtest 2	17.24	17.38	17.31	19.00
	Subtest 3	16.83	16.94	16.80	18.50
	Subtest 4	16.87	16.91	16.82	18.50
HSPA+	16QAM	15.81	15.85	15.89	17.50

WCDMA Band V					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	23.45	**23.55**	23.49	25.00
	12.2kbps AMR	23.41	23.45	23.50	25.00
HSDPA	Subtest 1	22.41	22.41	22.42	24.00
	Subtest 2	22.35	22.38	22.37	24.00
	Subtest 3	21.83	21.80	21.83	23.50
	Subtest 4	21.76	21.77	21.88	23.50
HSUPA	Subtest 1	22.31	22.33	22.33	24.00
	Subtest 2	20.36	20.35	20.39	22.00
	Subtest 3	21.35	21.48	21.29	23.00
	Subtest 4	20.37	20.33	20.42	22.00
	Subtest 5	22.37	22.36	22.37	24.00
DC-HSDPA	Subtest 1	22.24	22.43	22.32	24.00
	Subtest 2	22.16	22.40	22.24	24.00
	Subtest 3	21.69	21.77	21.81	23.50
	Subtest 4	21.78	21.80	21.72	23.50
HSPA+	16QAM	20.86	20.78	20.79	22.50

Table 2： Conducted Power of WCDMA

1.1.3 Conducted Power of LTE

LTE Band 2 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	23.82	23.82	23.85	25.00
		1	2	23.80	23.97	24.04	25.00
		1	5	23.96	24.07	23.99	25.00
		3	0	23.83	23.85	23.90	25.00
		3	2	23.97	23.92	24.05	25.00
		3	3	23.96	24.02	23.98	25.00
		6	0	22.87	22.86	22.91	24.00
	16QAM	1	0	23.34	23.27	23.09	24.00
		1	2	23.09	22.97	23.47	24.00
		1	5	23.09	23.31	23.35	24.00
		3	0	22.85	22.97	22.94	24.00
		3	2	22.95	23.02	23.04	24.00
		3	3	22.90	23.01	23.12	24.00
		6	0	22.02	21.99	21.93	23.00
	64QAM	1	0	21.88	22.02	22.03	23.00
		1	2	21.86	22.04	21.88	23.00
		1	5	21.86	22.02	21.92	23.00
		3	0	22.05	22.07	22.02	23.00
		3	2	21.97	22.07	22.00	23.00
		3	3	22.03	22.00	21.98	23.00
		6	0	21.20	20.80	20.86	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	23.83	23.79	23.88	25.00
		1	7	23.79	23.96	24.06	25.00
		1	14	23.94	24.10	23.91	25.00
		8	0	22.89	22.91	22.97	24.00
		8	4	22.90	22.98	22.98	24.00
		8	7	22.89	23.00	23.03	24.00
		15	0	22.91	22.91	22.98	24.00
	16QAM	1	0	23.28	23.23	23.07	24.00
		1	7	23.03	23.00	23.40	24.00
		1	14	23.11	23.34	23.33	24.00
		8	0	21.82	22.00	21.94	23.00
		8	4	21.90	21.97	22.07	23.00
		8	7	21.86	21.98	22.14	23.00
		15	0	21.98	21.97	21.97	23.00
	64QAM	1	0	22.00	21.90	21.89	23.00
		1	7	22.06	21.99	21.97	23.00
		1	14	22.07	21.93	21.87	23.00
		8	0	21.97	20.75	21.33	22.00
		8	4	20.78	21.37	21.27	22.00
		8	7	21.83	21.10	21.05	22.00
		15	0	21.61	20.88	20.79	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	23.89	23.87	23.96	25.00
		1	13	23.92	24.08	24.12	25.00
		1	24	24.02	24.17	24.06	25.00
		12	0	22.97	22.99	23.04	24.00
		12	6	23.05	23.06	23.13	24.00
		12	13	23.02	23.11	23.11	24.00
		25	0	23.02	22.99	23.06	24.00
	16QAM	1	0	23.41	23.37	23.17	24.00
		1	13	23.17	23.10	23.52	24.00
		1	24	23.16	23.40	23.47	24.00
		12	0	21.94	22.05	22.04	23.00
		12	6	22.04	22.11	22.12	23.00
		12	13	21.97	22.07	22.19	23.00
		25	0	22.10	22.07	22.05	23.00
	64QAM	1	0	21.94	21.95	21.89	23.00
		1	13	21.96	22.01	21.98	23.00
		1	24	22.00	22.01	22.02	23.00
		12	0	21.96	21.50	21.89	22.00
		12	6	21.90	21.30	21.47	22.00
		12	13	21.51	20.89	21.18	22.00
		25	0	21.53	21.04	21.03	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	23.93	24.10	24.06	25.00
		1	25	24.01	24.14	23.97	25.00
		1	49	24.02	23.92	24.10	25.00
		25	0	23.00	22.96	23.03	24.00
		25	13	23.07	23.08	23.12	24.00
		25	25	23.03	23.03	23.19	24.00
		50	0	22.99	22.96	23.16	24.00
	16QAM	1	0	23.02	23.08	23.24	24.00
		1	25	23.51	23.37	23.21	24.00
		1	49	23.11	23.17	23.41	24.00
		25	0	21.98	22.02	21.90	23.00
		25	13	22.14	22.04	22.23	23.00
		25	25	22.10	22.09	22.34	23.00
		50	0	22.04	22.15	22.22	23.00
	64QAM	1	0	21.92	22.04	21.88	23.00
		1	25	22.01	21.96	21.88	23.00
		1	49	21.96	21.91	21.97	23.00
		25	0	21.59	21.43	21.18	22.00
		25	13	21.26	21.57	20.95	22.00
		25	25	21.42	20.92	21.31	22.00
		50	0	21.17	21.54	21.45	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	23.77	23.92	23.85	25.00
		1	38	23.84	23.91	23.89	25.00
		1	74	23.83	24.01	23.96	25.00
		36	0	22.93	22.84	22.85	24.00
		36	18	22.99	22.95	22.95	24.00
		36	39	23.00	22.95	23.08	24.00
		75	0	22.94	22.84	22.93	24.00
	16QAM	1	0	23.14	23.19	22.84	24.00
		1	38	23.40	23.12	23.42	24.00
		1	74	22.98	23.43	23.14	24.00
		36	0	21.83	21.78	21.83	23.00
		36	18	21.95	21.94	21.95	23.00
		36	39	21.95	22.03	22.00	23.00
		75	0	21.93	21.87	21.94	23.00
	64QAM	1	0	21.87	22.06	22.06	23.00
		1	38	22.03	21.91	21.93	23.00
		1	74	22.05	21.95	22.01	23.00
		36	0	20.96	21.14	21.70	22.00
		36	18	21.41	21.12	20.77	22.00
		36	39	21.72	21.05	21.21	22.00
		75	0	21.93	20.81	21.46	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	24.23	24.22	24.25	25.00
		1	50	24.06	24.20	24.17	25.00
		1	99	24.10	24.19	**24.30**	25.00
		50	0	23.24	23.20	23.31	24.00
		50	25	23.32	23.23	23.32	24.00
		50	50	23.32	23.28	**23.39**	24.00
		100	0	23.24	23.16	23.34	24.00
	16QAM	1	0	23.72	23.46	23.37	24.00
		1	50	23.63	23.48	23.73	24.00
		1	99	23.13	23.54	23.85	24.00
		50	0	22.33	22.20	22.24	23.00
		50	25	22.25	22.33	22.33	23.00
		50	50	22.33	22.42	22.41	23.00
		100	0	22.26	22.23	22.31	23.00
	64QAM	1	0	22.02	22.08	21.95	23.00
		1	50	22.05	22.01	21.91	23.00
		1	99	22.06	21.98	22.02	23.00
		50	0	21.33	21.10	21.08	22.00
		50	25	20.75	21.88	21.94	22.00
		50	50	21.86	21.66	21.63	22.00
		100	0	21.19	21.82	21.12	22.00

LTE Band 2 Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	22.22	22.26	22.16	23.50
		1	2	22.08	22.23	22.10	23.50
		1	5	22.00	22.22	22.25	23.50
		3	0	22.18	22.10	22.22	23.50
		3	2	22.23	22.14	22.13	23.50
		3	3	22.27	22.37	22.26	23.50
		6	0	22.16	22.14	22.22	23.50
	16QAM	1	0	22.58	22.38	22.59	23.50
		1	2	22.33	22.53	22.46	23.50
		1	5	22.44	22.45	22.30	23.50
		3	0	22.78	22.61	22.62	23.50
		3	2	22.68	22.70	22.73	23.50
		3	3	22.73	22.76	22.77	23.50
		6	0	21.72	21.76	21.68	22.50
	64QAM	1	0	21.53	21.47	21.45	22.50
		1	2	21.55	21.53	21.42	22.50
		1	5	21.54	21.54	21.41	22.50
		3	0	21.37	21.42	21.55	22.50
		3	2	21.56	21.58	21.55	22.50
		3	3	21.38	21.57	21.51	22.50
		6	0	20.71	21.08	21.04	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	22.59	22.39	22.54	23.50
		1	7	22.34	22.37	22.73	23.50
		1	14	22.62	22.49	22.50	23.50
		8	0	22.16	22.27	22.12	23.50
		8	4	22.21	22.23	22.22	23.50
		8	7	22.18	22.36	22.36	23.50
		15	0	22.21	22.09	22.28	23.50
	16QAM	1	0	22.12	22.07	22.10	23.50
		1	7	22.00	22.08	21.98	23.50
		1	14	22.21	22.03	22.24	23.50
		8	0	21.69	21.67	21.72	22.50
		8	4	21.81	21.73	21.77	22.50
		8	7	21.69	21.84	21.89	22.50
		15	0	21.77	21.72	21.74	22.50
	64QAM	1	0	21.41	21.48	21.54	22.50
		1	7	21.53	21.43	21.52	22.50
		1	14	21.58	21.35	21.54	22.50
		8	0	21.31	20.38	20.88	21.50
		8	4	20.55	20.56	20.59	21.50
		8	7	21.35	21.01	20.53	21.50
		15	0	20.31	20.78	21.12	21.50

Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	22.36	22.11	22.70	23.50
		1	13	22.26	22.53	22.73	23.50
		1	24	22.73	22.42	22.50	23.50
		12	0	22.15	22.12	22.20	23.50
		12	6	22.29	22.22	22.25	23.50
		12	13	22.21	22.26	22.38	23.50
		25	0	22.22	22.09	22.24	23.50
	16QAM	1	0	22.14	21.93	22.15	23.50
		1	13	22.04	22.00	22.17	23.50
		1	24	22.04	22.15	22.19	23.50
		12	0	21.76	21.63	21.70	22.50
		12	6	21.76	21.67	21.74	22.50
		12	13	21.81	21.78	21.86	22.50
		25	0	21.69	21.71	21.68	22.50
	64QAM	1	0	21.41	21.56	21.39	22.50
		1	13	21.58	21.46	21.49	22.50
		1	24	21.35	21.55	21.44	22.50
		12	0	20.55	20.97	20.84	21.50
		12	6	20.66	21.19	20.53	21.50
		12	13	20.36	21.45	20.91	21.50
		25	0	20.71	20.43	21.37	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	22.43	22.19	22.76	23.50
		1	25	22.36	22.59	22.80	23.50
		1	49	22.81	22.52	22.61	23.50
		25	0	22.23	22.23	22.28	23.50
		25	13	22.35	22.29	22.32	23.50
		25	25	22.27	22.34	22.45	23.50
		50	0	22.31	22.14	22.35	23.50
	16QAM	1	0	22.20	22.02	22.26	23.50
		1	25	22.12	22.09	22.23	23.50
		1	49	22.14	22.21	22.26	23.50
		25	0	21.86	21.73	21.77	22.50
		25	13	21.87	21.77	21.81	22.50
		25	25	21.90	21.88	21.91	22.50
		50	0	21.76	21.79	21.73	22.50
	64QAM	1	0	21.44	21.35	21.49	22.50
		1	25	21.37	21.46	21.53	22.50
		1	49	21.56	21.44	21.40	22.50
		25	0	20.96	20.94	21.00	21.50
		25	13	21.03	21.07	21.10	21.50
		25	25	21.39	20.59	21.33	21.50
		50	0	20.46	20.31	20.58	21.50

Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	22.66	22.46	22.65	23.50
		1	38	22.43	22.47	22.81	23.50
		1	74	22.68	22.54	22.56	23.50
		36	0	22.25	22.33	22.21	23.50
		36	18	22.32	22.34	22.32	23.50
		36	39	22.28	22.44	22.44	23.50
		75	0	22.31	22.20	22.34	23.50
	16QAM	1	0	22.22	22.17	22.21	23.50
		1	38	22.05	22.17	22.09	23.50
		1	74	22.27	22.12	22.30	23.50
		36	0	21.75	21.72	21.80	22.50
		36	18	21.91	21.79	21.82	22.50
		36	39	21.78	21.90	21.97	22.50
		75	0	21.85	21.81	21.84	22.50
	64QAM	1	0	21.41	21.38	21.49	22.50
		1	38	21.58	21.37	21.42	22.50
		1	74	21.52	21.56	21.38	22.50
		36	0	20.42	21.20	20.51	21.50
		36	18	20.43	20.39	20.52	21.50
		36	39	20.96	21.39	20.63	21.50
		75	0	20.89	21.23	20.70	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	**22.60**	**22.54**	22.17	23.50
		1	50	22.39	22.48	22.43	23.50
		1	99	22.53	22.54	**22.45**	23.50
		50	0	22.23	22.16	22.27	23.50
		50	25	22.34	22.24	22.22	23.50
		50	50	**22.38**	22.22	22.36	23.50
		100	0	**22.36**	22.22	22.31	23.50
	16QAM	1	0	22.42	22.31	22.23	23.50
		1	50	22.16	22.29	22.18	23.50
		1	99	22.11	22.28	22.35	23.50
		50	0	21.87	21.68	21.73	22.50
		50	25	21.77	21.77	21.79	22.50
		50	50	21.83	21.82	21.85	22.50
		100	0	21.80	21.81	21.78	22.50
	64QAM	1	0	21.36	21.52	21.39	22.50
		1	50	21.58	21.36	21.46	22.50
		1	99	21.57	21.39	21.36	22.50
		50	0	21.11	20.92	20.51	21.50
		50	25	21.25	20.92	20.86	21.50
		50	50	20.52	20.48	20.68	21.50
		100	0	21.36	20.41	20.75	21.50

LTE Band 2 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	16.92	16.54	16.99	17.50
		1	2	16.66	17.06	16.88	17.50
		1	5	16.59	16.97	17.05	17.50
		3	0	16.51	16.54	16.58	17.50
		3	2	16.63	16.57	16.70	17.50
		3	3	16.56	16.55	16.52	17.50
		6	0	16.56	16.55	16.54	17.50
	16QAM	1	0	16.61	16.27	16.44	17.50
		1	2	16.70	16.44	16.59	17.50
		1	5	16.47	16.53	16.48	17.50
		3	0	16.57	16.41	16.42	17.50
		3	2	16.54	16.59	16.75	17.50
		3	3	16.56	16.49	16.68	17.50
		6	0	16.57	16.44	16.49	17.50
	64QAM	1	0	16.57	16.51	16.69	17.50
		1	2	16.45	16.56	16.56	17.50
		1	5	16.50	16.51	16.55	17.50
		3	0	16.57	16.62	16.59	17.50
		3	2	16.46	16.56	16.64	17.50
		3	3	16.49	16.53	16.62	17.50
		6	0	16.52	16.51	16.61	17.50
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	16.94	16.53	16.90	17.50
		1	7	16.69	17.16	16.86	17.50
		1	14	16.57	16.99	17.06	17.50
		8	0	16.58	16.50	16.56	17.50
		8	4	16.63	16.59	16.74	17.50
		8	7	16.48	16.52	16.55	17.50
		15	0	16.55	16.52	16.51	17.50
	16QAM	1	0	16.52	16.29	16.35	17.50
		1	7	16.70	16.45	16.59	17.50
		1	14	16.45	16.63	16.50	17.50
		8	0	16.54	16.42	16.44	17.50
		8	4	16.48	16.64	16.67	17.50
		8	7	16.58	16.53	16.68	17.50
		15	0	16.57	16.47	16.56	17.50
	64QAM	1	0	16.51	16.49	16.54	17.50
		1	7	16.66	16.61	16.52	17.50
		1	14	16.62	16.57	16.60	17.50
		8	0	16.69	16.58	16.56	17.50
		8	4	16.62	16.55	16.51	17.50
		8	7	16.48	16.55	16.68	17.50
		15	0	16.56	16.65	16.51	17.50

Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	17.00	16.59	17.04	17.50
		1	13	16.81	17.21	17.01	17.50
		1	24	16.68	17.09	17.20	17.50
		12	0	16.66	16.61	16.67	17.50
		12	6	16.74	16.67	16.79	17.50
		12	13	16.62	16.65	16.66	17.50
		25	0	16.63	16.62	16.60	17.50
	16QAM	1	0	16.66	16.40	16.49	17.50
		1	13	16.75	16.56	16.72	17.50
		1	24	16.54	16.68	16.59	17.50
		12	0	16.65	16.55	16.49	17.50
		12	6	16.61	16.74	16.80	17.50
		12	13	16.66	16.62	16.76	17.50
		25	0	16.66	16.58	16.62	17.50
	64QAM	1	0	16.56	16.58	16.60	17.50
		1	13	16.51	16.68	16.58	17.50
		1	24	16.50	16.59	16.56	17.50
		12	0	16.45	16.50	16.53	17.50
		12	6	16.59	16.47	16.59	17.50
		12	13	16.56	16.64	16.69	17.50
		25	0	16.65	16.45	16.57	17.50
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	16.41	16.94	16.86	17.50
		1	25	16.70	16.90	17.09	17.50
		1	49	16.74	16.81	16.58	17.50
		25	0	16.56	16.37	16.46	17.50
		25	13	16.55	16.49	16.56	17.50
		25	25	16.68	16.60	16.68	17.50
		50	0	16.55	16.51	16.54	17.50
	16QAM	1	0	16.38	16.37	16.44	17.50
		1	25	16.42	16.55	16.33	17.50
		1	49	16.43	16.60	16.58	17.50
		25	0	16.44	16.52	16.55	17.50
		25	13	16.54	16.49	16.55	17.50
		25	25	16.53	16.63	16.72	17.50
		50	0	16.54	16.46	16.54	17.50
	64QAM	1	0	16.53	16.49	16.66	17.50
		1	25	16.54	16.51	16.49	17.50
		1	49	16.64	16.63	16.52	17.50
		25	0	16.58	16.68	16.67	17.50
		25	13	16.63	16.47	16.46	17.50
		25	25	16.63	16.66	16.67	17.50
		50	0	16.58	16.64	16.68	17.50

Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	16.69	16.95	16.52	17.50
		1	38	16.99	16.83	16.65	17.50
		1	74	17.10	16.74	16.69	17.50
		36	0	16.48	16.55	16.44	17.50
		36	18	16.52	16.57	16.52	17.50
		36	39	16.60	16.55	16.66	17.50
		75	0	16.60	16.39	16.42	17.50
	16QAM	1	0	16.35	16.42	16.47	17.50
		1	38	16.49	16.49	16.48	17.50
		1	74	16.56	16.49	16.57	17.50
		36	0	16.52	16.47	16.57	17.50
		36	18	16.60	16.50	16.54	17.50
		36	39	16.54	16.60	16.65	17.50
		75	0	16.42	16.51	16.52	17.50
	64QAM	1	0	16.55	16.63	16.64	17.50
		1	38	16.63	16.53	16.56	17.50
		1	74	16.60	16.63	16.45	17.50
		36	0	16.68	16.45	16.49	17.50
		36	18	16.59	16.63	16.61	17.50
		36	39	16.48	16.63	16.55	17.50
		75	0	16.57	16.53	16.45	17.50
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	16.93	16.40	16.63	17.50
		1	50	17.01	16.52	16.75	17.50
		1	99	17.12	16.91	16.77	17.50
		50	0	16.52	16.43	**16.57**	17.50
		50	25	**16.53**	16.51	16.55	17.50
		50	50	16.50	**16.69**	16.56	17.50
		100	0	**16.63**	16.45	16.50	17.50
	16QAM	1	0	16.45	16.36	16.37	17.50
		1	50	16.41	16.41	16.46	17.50
		1	99	16.47	16.42	16.73	17.50
		50	0	16.51	16.43	16.48	17.50
		50	25	16.51	16.48	16.51	17.50
		50	50	16.56	16.51	16.59	17.50
		100	0	16.49	16.45	16.51	17.50
	64QAM	1	0	16.66	16.51	16.67	17.50
		1	50	16.58	16.60	16.66	17.50
		1	99	16.65	16.50	16.62	17.50
		50	0	16.46	16.53	16.58	17.50
		50	25	16.69	16.54	16.64	17.50
		50	50	16.66	16.66	16.52	17.50
		100	0	16.65	16.67	16.68	17.50

LTE Band 2 Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	20.22	20.19	20.23	21.00
		1	2	20.00	20.14	20.04	21.00
		1	5	20.20	20.35	20.34	21.00
		3	0	20.20	20.13	20.12	21.00
		3	2	20.24	20.44	20.17	21.00
		3	3	20.25	20.19	20.19	21.00
		6	0	20.08	20.14	20.34	21.00
	16QAM	1	0	20.51	20.32	20.30	21.00
		1	2	20.40	20.51	20.49	21.00
		1	5	20.04	20.51	20.46	21.00
		3	0	20.15	20.15	20.16	21.00
		3	2	20.08	20.30	20.31	21.00
		3	3	20.23	20.32	20.26	21.00
		6	0	20.11	20.13	20.20	21.00
	64QAM	1	0	19.91	20.05	19.89	21.00
		1	2	20.02	20.02	19.84	21.00
		1	5	20.00	19.90	20.05	21.00
		3	0	20.30	20.15	19.95	21.00
		3	2	19.72	20.49	20.45	21.00
		3	3	20.49	20.49	20.46	21.00
		6	0	20.05	20.50	20.11	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	20.18	20.19	20.23	21.00
		1	7	19.96	20.13	20.05	21.00
		1	14	20.21	20.30	20.29	21.00
		8	0	20.21	20.09	20.17	21.00
		8	4	20.22	20.40	20.17	21.00
		8	7	20.22	20.19	20.21	21.00
		15	0	20.10	20.18	20.34	21.00
	16QAM	1	0	20.50	20.29	20.32	21.00
		1	7	20.38	20.50	20.48	21.00
		1	14	20.08	20.50	20.45	21.00
		8	0	20.18	20.17	20.13	21.00
		8	4	20.10	20.33	20.31	21.00
		8	7	20.27	20.34	20.30	21.00
		15	0	20.14	20.10	20.23	21.00
	64QAM	1	0	19.90	20.06	19.93	21.00
		1	7	19.98	20.00	19.85	21.00
		1	14	19.99	19.90	20.06	21.00
		8	0	20.30	20.15	19.96	21.00
		8	4	19.75	20.49	20.46	21.00
		8	7	20.50	20.47	20.45	21.00
		15	0	20.01	20.52	20.14	21.00

Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	20.21	20.15	20.24	21.00
		1	13	19.99	20.15	20.02	21.00
		1	24	20.18	20.33	20.33	21.00
		12	0	20.22	20.10	20.16	21.00
		12	6	20.25	20.44	20.17	21.00
		12	13	20.25	20.16	20.20	21.00
		25	0	20.09	20.14	20.31	21.00
	16QAM	1	0	20.52	20.33	20.27	21.00
		1	13	20.42	20.49	20.49	21.00
		1	24	20.08	20.46	20.44	21.00
		12	0	20.18	20.18	20.12	21.00
		12	6	20.12	20.30	20.29	21.00
		12	13	20.27	20.32	20.30	21.00
		25	0	20.10	20.09	20.23	21.00
	64QAM	1	0	19.95	20.06	19.88	21.00
		1	13	20.03	19.99	19.84	21.00
		1	24	19.98	19.90	20.01	21.00
		12	0	20.26	20.10	19.97	21.00
		12	6	19.74	20.47	20.46	21.00
		12	13	20.50	20.49	20.45	21.00
		25	0	20.00	20.50	20.13	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	20.19	20.19	20.23	21.00
		1	25	19.97	20.15	20.05	21.00
		1	49	20.16	20.34	20.33	21.00
		25	0	20.21	20.10	20.17	21.00
		25	13	20.22	20.40	20.15	21.00
		25	25	20.21	20.19	20.20	21.00
		50	0	20.09	20.17	20.32	21.00
	16QAM	1	0	20.51	20.32	20.31	21.00
		1	25	20.40	20.49	20.49	21.00
		1	49	20.05	20.51	20.42	21.00
		25	0	20.15	20.16	20.11	21.00
		25	13	20.07	20.34	20.29	21.00
		25	25	20.24	20.31	20.26	21.00
		50	0	20.13	20.11	20.23	21.00
	64QAM	1	0	19.92	20.05	19.92	21.00
		1	25	20.00	20.02	19.81	21.00
		1	49	19.98	19.89	20.06	21.00
		25	0	20.28	20.12	19.97	21.00
		25	13	19.72	20.47	20.48	21.00
		25	25	20.51	20.51	20.46	21.00
		50	0	20.03	20.50	20.12	21.00

Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	20.18	20.19	20.22	21.00
		1	38	20.01	20.12	20.03	21.00
		1	74	20.19	20.31	20.30	21.00
		36	0	20.22	20.08	20.17	21.00
		36	18	20.20	20.42	20.18	21.00
		36	39	20.26	20.15	20.21	21.00
		75	0	20.08	20.17	20.36	21.00
	16QAM	1	0	20.52	20.31	20.32	21.00
		1	38	20.41	20.52	20.46	21.00
		1	74	20.05	20.48	20.44	21.00
		36	0	20.15	20.13	20.16	21.00
		36	18	20.11	20.31	20.33	21.00
		36	39	20.24	20.35	20.27	21.00
		75	0	20.10	20.13	20.23	21.00
	64QAM	1	0	19.94	20.02	19.92	21.00
		1	38	20.01	20.00	19.80	21.00
		1	74	19.98	19.90	20.04	21.00
		36	0	20.26	20.13	20.00	21.00
		36	18	19.76	20.45	20.49	21.00
		36	39	20.51	20.51	20.41	21.00
		75	0	20.00	20.52	20.16	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	20.28	20.24	20.29	21.00
		1	50	20.06	20.22	20.10	21.00
		1	99	**20.26**	**20.40**	**20.39**	21.00
		50	0	20.28	20.18	20.22	21.00
		50	25	20.30	**20.49**	20.24	21.00
		50	50	**20.31**	20.24	**20.29**	21.00
		100	0	20.17	**20.43**	20.41	21.00
	16QAM	1	0	20.57	20.39	20.37	21.00
		1	50	20.47	20.58	20.56	21.00
		1	99	20.13	20.56	20.52	21.00
		50	0	20.24	20.23	20.21	21.00
		50	25	20.17	20.40	20.38	21.00
		50	50	20.33	20.41	20.35	21.00
		100	0	20.20	20.19	20.29	21.00
	64QAM	1	0	20.00	20.11	19.98	21.00
		1	50	20.08	20.07	19.90	21.00
		1	99	20.07	19.98	20.11	21.00
		50	0	20.35	20.20	20.05	21.00
		50	25	19.81	20.54	20.54	21.00
		50	50	20.59	20.56	20.51	21.00
		100	0	20.10	20.58	20.21	21.00

LTE Band 4 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	23.50	24.00	23.96	25.00
		1	2	23.63	23.70	23.92	25.00
		1	5	23.58	23.47	23.92	25.00
		3	0	23.79	23.71	23.72	25.00
		3	2	23.66	23.77	23.86	25.00
		3	3	23.76	23.79	23.74	25.00
		6	0	22.77	22.71	23.10	24.00
	16QAM	1	0	22.98	23.16	23.26	24.00
		1	2	22.90	22.79	23.37	24.00
		1	5	22.76	22.86	22.94	24.00
		3	0	22.64	22.87	22.89	24.00
		3	2	22.79	22.68	22.83	24.00
		3	3	23.09	22.89	22.86	24.00
		6	0	21.70	21.71	21.95	23.00
	64QAM	1	0	21.96	22.00	22.08	23.00
		1	2	22.03	21.87	21.86	23.00
		1	5	21.94	21.86	21.89	23.00
		3	0	22.01	21.97	21.89	23.00
		3	2	21.99	22.03	21.92	23.00
		3	3	21.96	21.86	22.06	23.00
		6	0	21.24	21.89	21.39	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	23.56	24.01	23.90	25.00
		1	7	23.65	23.70	23.93	25.00
		1	14	23.61	23.52	23.85	25.00
		8	0	22.74	22.71	22.74	24.00
		8	4	22.64	22.72	22.94	24.00
		8	7	22.73	22.80	22.77	24.00
		15	0	22.81	22.70	23.11	24.00
	16QAM	1	0	22.93	23.10	23.30	24.00
		1	7	22.90	22.84	23.35	24.00
		1	14	22.78	22.87	22.96	24.00
		8	0	21.60	21.88	21.87	23.00
		8	4	21.76	21.69	21.89	23.00
		8	7	22.01	21.99	21.91	23.00
		15	0	21.62	21.70	21.90	23.00
	64QAM	1	0	21.85	22.05	21.88	23.00
		1	7	22.08	22.05	22.05	23.00
		1	14	21.95	21.96	22.00	23.00
		8	0	21.95	20.94	21.23	22.00
		8	4	20.75	21.49	21.96	22.00
		8	7	21.83	21.05	20.78	22.00
		15	0	20.88	21.41	21.40	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	23.63	24.09	24.02	25.00
		1	13	23.77	23.79	24.02	25.00
		1	24	23.67	23.62	23.97	25.00
		12	0	22.84	22.86	22.87	24.00
		12	6	22.77	22.83	22.99	24.00
		12	13	22.82	22.88	22.87	24.00
		25	0	22.89	22.84	23.22	24.00
	16QAM	1	0	23.03	23.24	23.36	24.00
		1	13	23.00	22.94	23.50	24.00
		1	24	22.89	23.00	23.04	24.00
		12	0	21.74	21.97	21.95	23.00
		12	6	21.87	21.82	21.95	23.00
		12	13	21.95	22.04	21.99	23.00
		25	0	21.77	21.85	22.04	23.00
	64QAM	1	0	22.05	21.94	21.95	23.00
		1	13	22.04	21.92	21.93	23.00
		1	24	21.89	21.86	21.85	23.00
		12	0	21.49	21.73	21.79	22.00
		12	6	21.87	21.11	21.67	22.00
		12	13	20.77	21.04	20.89	22.00
		25	0	20.96	21.34	21.63	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	23.97	23.59	23.78	25.00
		1	25	23.92	23.96	24.00	25.00
		1	49	23.74	24.07	24.03	25.00
		25	0	22.74	22.89	22.91	24.00
		25	13	22.96	22.84	23.02	24.00
		25	25	22.91	23.02	22.94	24.00
		50	0	22.97	22.93	23.03	24.00
	16QAM	1	0	23.26	22.75	23.08	24.00
		1	25	22.77	22.89	23.15	24.00
		1	49	22.73	23.28	23.13	24.00
		25	0	21.90	21.87	21.94	23.00
		25	13	21.94	21.95	22.01	23.00
		25	25	22.05	21.94	22.07	23.00
		50	0	21.95	21.92	22.01	23.00
	64QAM	1	0	22.01	21.96	21.87	23.00
		1	25	21.92	21.98	21.97	23.00
		1	49	22.00	22.04	22.01	23.00
		25	0	21.32	20.97	21.88	22.00
		25	13	21.98	21.90	21.97	22.00
		25	25	21.53	21.95	21.03	22.00
		50	0	21.83	21.42	20.81	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	23.74	23.68	23.84	25.00
		1	38	23.68	23.66	23.72	25.00
		1	74	23.68	23.70	23.79	25.00
		36	0	22.85	22.90	22.77	24.00
		36	18	22.75	22.77	22.86	24.00
		36	39	22.75	22.81	22.95	24.00
		75	0	22.91	22.82	22.84	24.00
	16QAM	1	0	23.12	22.82	23.05	24.00
		1	38	22.81	22.88	23.08	24.00
		1	74	23.18	22.73	22.87	24.00
		36	0	21.83	21.77	21.87	23.00
		36	18	21.91	21.76	21.79	23.00
		36	39	21.80	21.88	21.83	23.00
		75	0	21.87	21.69	21.83	23.00
	64QAM	1	0	21.91	21.98	21.88	23.00
		1	38	21.90	22.00	22.04	23.00
		1	74	22.05	21.98	22.04	23.00
		36	0	21.60	21.54	21.63	22.00
		36	18	21.93	20.91	20.84	22.00
		36	39	21.97	21.04	21.23	22.00
		75	0	21.98	21.58	21.02	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	24.03	24.02	**24.12**	25.00
		1	50	24.03	24.02	23.90	25.00
		1	99	23.88	23.91	24.10	25.00
		50	0	23.09	23.12	23.20	24.00
		50	25	23.20	23.03	23.17	24.00
		50	50	**23.25**	23.17	23.21	24.00
		100	0	23.21	23.07	23.08	24.00
	16QAM	1	0	23.61	23.53	23.37	24.00
		1	50	23.40	23.46	23.46	24.00
		1	99	23.59	23.21	23.27	24.00
		50	0	22.23	22.24	22.17	23.00
		50	25	22.22	22.13	22.17	23.00
		50	50	22.09	22.07	22.11	23.00
		100	0	22.15	22.07	22.14	23.00
	64QAM	1	0	22.03	21.87	21.96	23.00
		1	50	21.86	22.02	21.89	23.00
		1	99	21.95	21.97	21.95	23.00
		50	0	21.67	21.70	21.23	22.00
		50	25	21.61	21.54	21.36	22.00
		50	50	20.78	21.55	20.92	22.00
		100	0	20.98	20.80	21.14	22.00

LTE Band 4 Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	22.50	22.47	22.47	24.00
		1	2	22.44	22.41	22.37	24.00
		1	5	22.44	22.46	22.57	24.00
		3	0	22.43	22.49	22.55	24.00
		3	2	22.58	22.50	22.56	24.00
		3	3	22.54	22.51	22.60	24.00
		6	0	22.49	22.46	22.49	24.00
	16QAM	1	0	22.44	22.91	22.64	24.00
		1	2	22.79	22.82	22.37	24.00
		1	5	22.66	22.77	22.62	24.00
		3	0	22.41	22.93	22.65	24.00
		3	2	22.79	22.84	22.38	24.00
		3	3	22.68	22.76	22.61	24.00
		6	0	21.53	21.56	21.53	23.00
	64QAM	1	0	21.47	21.39	21.40	23.00
		1	2	21.58	21.39	21.47	23.00
		1	5	21.58	21.44	21.42	23.00
		3	0	21.57	21.43	21.35	23.00
		3	2	21.39	21.50	21.46	23.00
		3	3	21.48	21.42	21.41	23.00
		6	0	20.79	21.16	21.10	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	22.51	22.98	22.73	24.00
		1	7	22.90	22.91	22.46	24.00
		1	14	22.75	22.84	22.69	24.00
		8	0	22.51	22.59	22.61	24.00
		8	4	22.64	22.56	22.61	24.00
		8	7	22.59	22.56	22.65	24.00
		15	0	22.56	22.53	22.54	24.00
	16QAM	1	0	22.56	22.53	22.53	24.00
		1	7	22.54	22.47	22.44	24.00
		1	14	22.50	22.51	22.67	24.00
		8	0	21.61	21.65	21.63	23.00
		8	4	21.52	21.59	21.51	23.00
		8	7	21.61	21.61	21.64	23.00
		15	0	21.59	21.59	21.56	23.00
	64QAM	1	0	21.45	21.58	21.39	23.00
		1	7	21.38	21.51	21.57	23.00
		1	14	21.46	21.42	21.37	23.00
		8	0	21.40	20.57	20.82	22.00
		8	4	20.32	20.96	20.48	22.00
		8	7	21.31	20.86	20.54	22.00
		15	0	21.44	21.19	20.34	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	22.40	23.12	22.78	24.00
		1	13	22.45	22.98	22.64	24.00
		1	24	22.59	22.70	22.39	24.00
		12	0	22.66	22.67	22.61	24.00
		12	6	22.65	22.59	22.60	24.00
		12	13	22.66	22.59	22.67	24.00
		25	0	22.51	22.58	22.61	24.00
	16QAM	1	0	22.58	22.71	22.68	24.00
		1	13	22.44	22.39	22.54	24.00
		1	24	22.50	22.54	22.54	24.00
		12	0	21.53	21.58	21.65	23.00
		12	6	21.69	21.56	21.49	23.00
		12	13	21.63	21.64	21.58	23.00
		25	0	21.65	21.56	21.61	23.00
	64QAM	1	0	21.54	21.45	21.53	23.00
		1	13	21.48	21.54	21.58	23.00
		1	24	21.54	21.35	21.39	23.00
		12	0	21.01	21.14	20.95	22.00
		12	6	21.19	20.49	20.81	22.00
		12	13	20.64	20.73	21.43	22.00
		25	0	20.26	21.26	20.71	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	22.48	23.18	22.87	24.00
		1	25	22.53	23.06	22.75	24.00
		1	49	22.68	22.77	22.47	24.00
		25	0	22.72	22.78	22.68	24.00
		25	13	22.76	22.66	22.65	24.00
		25	25	22.72	22.67	22.77	24.00
		50	0	22.62	22.64	22.69	24.00
	16QAM	1	0	22.64	22.81	22.78	24.00
		1	25	22.49	22.47	22.65	24.00
		1	49	22.61	22.63	22.65	24.00
		25	0	21.64	21.66	21.73	23.00
		25	13	21.77	21.61	21.58	23.00
		25	25	21.72	21.71	21.67	23.00
		50	0	21.70	21.62	21.67	23.00
	64QAM	1	0	21.46	21.52	21.56	23.00
		1	25	21.44	21.39	21.37	23.00
		1	49	21.38	21.47	21.41	23.00
		25	0	21.41	20.75	20.90	22.00
		25	13	21.36	20.50	21.34	22.00
		25	25	20.31	20.35	20.31	22.00
		50	0	20.81	20.27	20.80	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	22.59	23.07	22.81	24.00
		1	38	22.97	23.02	22.54	24.00
		1	74	22.81	22.95	22.78	24.00
		36	0	22.61	22.68	22.67	24.00
		36	18	22.75	22.67	22.66	24.00
		36	39	22.68	22.66	22.70	24.00
		75	0	22.61	22.64	22.62	24.00
	16QAM	1	0	22.62	22.62	22.61	24.00
		1	38	22.60	22.58	22.51	24.00
		1	74	22.56	22.61	22.76	24.00
		36	0	21.70	21.73	21.68	23.00
		36	18	21.62	21.68	21.57	23.00
		36	39	21.68	21.69	21.69	23.00
		75	0	21.69	21.69	21.62	23.00
	64QAM	1	0	21.49	21.39	21.48	23.00
		1	38	21.47	21.49	21.56	23.00
		1	74	21.46	21.55	21.53	23.00
		36	0	20.50	21.27	20.69	22.00
		36	18	20.42	21.17	20.86	22.00
		36	39	20.48	21.15	20.32	22.00
		75	0	20.66	20.40	20.96	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	22.60	22.75	**23.22**	24.00
		1	50	22.59	**23.08**	22.69	24.00
		1	99	**23.00**	22.71	23.17	24.00
		50	0	22.94	**23.04**	22.97	24.00
		50	25	22.95	22.93	**23.02**	24.00
		50	50	**23.02**	23.03	22.99	24.00
		100	0	22.92	**23.05**	22.98	24.00
	16QAM	1	0	22.51	22.76	22.63	24.00
		1	50	22.60	22.53	22.41	24.00
		1	99	22.40	22.44	22.71	24.00
		50	0	21.63	21.73	21.74	23.00
		50	25	21.74	21.74	21.60	23.00
		50	50	21.65	21.67	21.71	23.00
		100	0	21.70	21.55	21.77	23.00
	64QAM	1	0	21.51	21.45	21.37	23.00
		1	50	21.55	21.38	21.55	23.00
		1	99	21.55	21.54	21.55	23.00
		50	0	21.34	21.05	20.25	22.00
		50	25	21.07	21.03	20.94	22.00
		50	50	21.04	20.98	20.79	22.00
		100	0	20.86	20.54	20.59	22.00

LTE Band 4 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	17.25	17.27	17.34	18.50
		1	2	17.44	17.88	17.77	18.50
		1	5	17.16	17.76	17.75	18.50
		3	0	17.04	17.37	17.23	18.50
		3	2	17.26	17.27	17.36	18.50
		3	3	17.21	17.35	17.45	18.50
		6	0	17.16	17.27	17.34	18.50
	16QAM	1	0	17.01	17.12	17.19	18.50
		1	2	17.21	17.30	17.34	18.50
		1	5	17.19	17.16	17.35	18.50
		3	0	17.11	17.20	17.24	18.50
		3	2	17.29	17.21	17.32	18.50
		3	3	17.18	17.22	17.34	18.50
		6	0	17.20	17.24	17.33	18.50
	64QAM	1	0	17.37	17.34	17.28	18.50
		1	2	17.35	17.28	17.38	18.50
		1	5	17.39	17.32	17.28	18.50
		3	0	17.49	17.47	17.42	18.50
		3	2	17.48	17.41	17.38	18.50
		3	3	17.46	17.42	17.39	18.50
		6	0	17.35	17.48	17.30	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	17.29	17.24	17.42	18.50
		1	7	17.39	17.86	17.84	18.50
		1	14	17.20	17.83	17.74	18.50
		8	0	17.11	17.32	17.27	18.50
		8	4	17.27	17.24	17.42	18.50
		8	7	17.17	17.30	17.45	18.50
		15	0	17.25	17.32	17.40	18.50
	16QAM	1	0	17.02	17.09	17.09	18.50
		1	7	17.17	17.33	17.37	18.50
		1	14	17.14	17.10	17.36	18.50
		8	0	17.05	17.24	17.33	18.50
		8	4	17.31	17.16	17.27	18.50
		8	7	17.22	17.19	17.35	18.50
		15	0	17.26	17.23	17.26	18.50
	64QAM	1	0	17.30	17.27	17.32	18.50
		1	7	17.42	17.49	17.42	18.50
		1	14	17.47	17.41	17.48	18.50
		8	0	17.46	17.45	17.37	18.50
		8	4	17.36	17.28	17.33	18.50
		8	7	17.35	17.40	17.47	18.50
		15	0	17.44	17.47	17.34	18.50

Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	17.37	17.37	17.48	18.50
		1	13	17.49	17.97	17.91	18.50
		1	24	17.27	17.91	17.87	18.50
		12	0	17.16	17.42	17.33	18.50
		12	6	17.37	17.35	17.48	18.50
		12	13	17.32	17.42	17.50	18.50
		25	0	17.30	17.38	17.47	18.50
	16QAM	1	0	17.13	17.21	17.24	18.50
		1	13	17.30	17.39	17.49	18.50
		1	24	17.25	17.24	17.49	18.50
		12	0	17.17	17.34	17.39	18.50
		12	6	17.37	17.31	17.40	18.50
		12	13	17.28	17.33	17.42	18.50
		25	0	17.32	17.32	17.41	18.50
	64QAM	1	0	17.45	17.28	17.44	18.50
		1	13	17.47	17.37	17.49	18.50
		1	24	17.41	17.38	17.31	18.50
		12	0	17.39	17.43	17.32	18.50
		12	6	17.45	17.28	17.34	18.50
		12	13	17.34	17.38	17.49	18.50
		25	0	17.49	17.46	17.33	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	17.35	17.23	17.66	18.50
		1	25	17.57	17.54	17.16	18.50
		1	49	17.61	17.40	17.77	18.50
		25	0	17.09	17.10	17.29	18.50
		25	13	17.26	17.16	17.25	18.50
		25	25	17.17	17.23	17.26	18.50
		50	0	17.20	17.21	17.29	18.50
	16QAM	1	0	17.05	17.17	17.28	18.50
		1	25	16.89	17.05	17.20	18.50
		1	49	17.07	17.05	17.15	18.50
		25	0	17.12	17.16	17.28	18.50
		25	13	17.14	17.24	17.22	18.50
		25	25	17.08	17.20	17.26	18.50
		50	0	17.21	17.19	17.24	18.50
	64QAM	1	0	17.46	17.39	17.41	18.50
		1	25	17.34	17.36	17.27	18.50
		1	49	17.28	17.27	17.45	18.50
		25	0	17.39	17.45	17.47	18.50
		25	13	17.44	17.29	17.38	18.50
		25	25	17.43	17.36	17.45	18.50
		50	0	17.46	17.41	17.41	18.50

Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	17.62	17.35	17.81	18.50
		1	38	17.21	17.57	17.36	18.50
		1	74	17.62	17.43	17.69	18.50
		36	0	17.19	17.22	17.18	18.50
		36	18	17.17	17.14	17.17	18.50
		36	39	17.20	17.19	17.20	18.50
		75	0	17.16	17.23	17.24	18.50
	16QAM	1	0	17.01	17.25	17.19	18.50
		1	38	16.84	17.13	17.07	18.50
		1	74	17.00	17.12	17.13	18.50
		36	0	17.15	17.13	17.25	18.50
		36	18	17.21	17.13	17.21	18.50
		36	39	17.19	17.21	17.26	18.50
		75	0	17.22	17.19	17.13	18.50
	64QAM	1	0	17.29	17.39	17.49	18.50
		1	38	17.33	17.31	17.37	18.50
		1	74	17.48	17.47	17.44	18.50
		36	0	17.36	17.38	17.27	18.50
		36	18	17.37	17.39	17.34	18.50
		36	39	17.46	17.42	17.30	18.50
		75	0	17.38	17.41	17.30	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	17.65	17.10	17.41	18.50
		1	50	17.07	**17.66**	17.00	18.50
		1	99	17.58	17.62	17.08	18.50
		50	0	17.16	**17.27**	**17.36**	18.50
		50	25	17.19	17.11	17.11	18.50
		50	50	**17.25**	17.23	17.22	18.50
		100	0	17.18	17.18	**17.29**	18.50
	16QAM	1	0	17.25	17.25	17.08	18.50
		1	50	16.85	17.01	16.98	18.50
		1	99	17.04	17.15	17.14	18.50
		50	0	17.22	17.19	17.25	18.50
		50	25	17.26	17.14	17.20	18.50
		50	50	17.17	17.15	17.18	18.50
		100	0	17.21	17.08	17.11	18.50
	64QAM	1	0	17.40	17.31	17.46	18.50
		1	50	17.39	17.47	17.43	18.50
		1	99	17.39	17.45	17.37	18.50
		50	0	17.47	17.42	17.32	18.50
		50	25	17.29	17.27	17.46	18.50
		50	50	17.44	17.36	17.46	18.50
		100	0	17.25	17.29	17.36	18.50

LTE Band 4 Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	20.05	20.05	20.20	21.00
		1	2	19.97	20.04	19.76	21.00
		1	5	20.04	19.98	20.10	21.00
		3	0	19.94	20.11	20.03	21.00
		3	2	20.14	20.02	20.17	21.00
		3	3	20.17	20.04	20.10	21.00
		6	0	20.02	20.10	20.08	21.00
	16QAM	1	0	20.24	20.26	20.33	21.00
		1	2	20.09	20.26	20.32	21.00
		1	5	20.27	20.22	20.26	21.00
		3	0	20.10	20.22	20.19	21.00
		3	2	20.10	19.99	20.09	21.00
		3	3	20.06	19.98	20.04	21.00
		6	0	20.05	20.03	20.18	21.00
	64QAM	1	0	20.03	19.81	19.83	21.00
		1	2	19.86	19.90	19.84	21.00
		1	5	19.83	19.89	19.97	21.00
		3	0	20.21	20.21	19.84	21.00
		3	2	20.16	20.01	19.97	21.00
		3	3	19.78	20.30	19.93	21.00
		6	0	19.97	19.63	20.08	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	20.01	20.03	20.20	21.00
		1	7	20.02	20.09	19.79	21.00
		1	14	20.04	19.97	20.09	21.00
		8	0	19.95	20.09	20.03	21.00
		8	4	20.12	20.03	20.19	21.00
		8	7	20.10	20.02	20.11	21.00
		15	0	20.01	20.10	20.11	21.00
	16QAM	1	0	20.27	20.28	20.33	21.00
		1	7	20.10	20.24	20.32	21.00
		1	14	20.28	20.23	20.31	21.00
		8	0	20.09	20.20	20.15	21.00
		8	4	20.06	19.99	20.06	21.00
		8	7	20.04	20.00	20.03	21.00
		15	0	20.06	20.00	20.13	21.00
	64QAM	1	0	20.04	19.77	19.85	21.00
		1	7	19.86	19.89	19.86	21.00
		1	14	19.81	19.89	19.99	21.00
		8	0	20.19	20.21	19.83	21.00
		8	4	20.17	20.00	19.98	21.00
		8	7	19.78	20.31	19.91	21.00
		15	0	19.96	19.63	20.14	21.00

Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	20.07	20.03	20.18	21.00
		1	13	19.97	20.07	19.76	21.00
		1	24	20.04	19.97	20.09	21.00
		12	0	19.97	20.08	20.08	21.00
		12	6	20.13	20.04	20.16	21.00
		12	13	20.17	20.03	20.17	21.00
		25	0	20.07	20.11	20.10	21.00
	16QAM	1	0	20.26	20.30	20.33	21.00
		1	13	20.11	20.22	20.35	21.00
		1	24	20.29	20.28	20.26	21.00
		12	0	20.13	20.19	20.18	21.00
		12	6	20.05	20.05	20.11	21.00
		12	13	20.03	20.02	20.06	21.00
		25	0	20.05	20.02	20.13	21.00
	64QAM	1	0	20.02	19.78	19.83	21.00
		1	13	19.90	19.84	19.87	21.00
		1	24	19.82	19.91	20.00	21.00
		12	0	20.20	20.18	19.86	21.00
		12	6	20.19	20.03	19.99	21.00
		12	13	19.79	20.28	19.91	21.00
		25	0	19.96	19.61	20.14	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	20.01	20.04	20.18	21.00
		1	25	19.95	20.03	19.73	21.00
		1	49	20.05	19.99	20.04	21.00
		25	0	19.91	20.11	20.03	21.00
		25	13	20.15	20.02	20.13	21.00
		25	25	20.10	20.04	20.16	21.00
		50	0	20.01	20.07	20.12	21.00
	16QAM	1	0	20.23	20.26	20.30	21.00
		1	25	20.10	20.23	20.31	21.00
		1	49	20.28	20.27	20.27	21.00
		25	0	20.15	20.18	20.21	21.00
		25	13	20.11	20.01	20.09	21.00
		25	25	20.02	19.95	20.00	21.00
		50	0	19.99	20.02	20.16	21.00
	64QAM	1	0	20.07	19.81	19.85	21.00
		1	25	19.87	19.87	19.85	21.00
		1	49	19.84	19.89	19.97	21.00
		25	0	20.26	20.15	19.86	21.00
		25	13	20.21	20.03	20.02	21.00
		25	25	19.79	20.28	19.95	21.00
		50	0	19.95	19.64	20.09	21.00

Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	20.06	20.04	20.20	21.00
		1	38	19.97	20.04	19.78	21.00
		1	74	20.02	19.98	20.03	21.00
		36	0	19.92	20.04	20.01	21.00
		36	18	20.13	20.00	20.18	21.00
		36	39	20.16	20.07	20.17	21.00
		75	0	20.00	20.09	20.06	21.00
	16QAM	1	0	20.22	20.31	20.28	21.00
		1	38	20.10	20.26	20.36	21.00
		1	74	20.29	20.26	20.24	21.00
		36	0	20.13	20.22	20.15	21.00
		36	18	20.07	20.03	20.12	21.00
		36	39	20.03	19.96	20.00	21.00
		75	0	20.04	20.01	20.15	21.00
	64QAM	1	0	20.06	19.75	19.82	21.00
		1	38	19.92	19.83	19.85	21.00
		1	74	19.81	19.93	20.01	21.00
		36	0	20.24	20.14	19.80	21.00
		36	18	20.19	20.02	20.02	21.00
		36	39	19.77	20.25	19.88	21.00
		75	0	19.92	19.65	20.10	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	20.10	20.11	**20.24**	21.00
		1	50	20.05	**20.12**	19.83	21.00
		1	99	**20.11**	20.07	20.13	21.00
		50	0	20.00	**20.14**	20.11	21.00
		50	25	20.18	20.09	**20.22**	21.00
		50	50	**20.20**	20.12	20.20	21.00
		100	0	20.10	20.15	**20.16**	21.00
	16QAM	1	0	20.32	20.36	20.36	21.00
		1	50	20.17	20.31	20.39	21.00
		1	99	20.34	20.31	20.34	21.00
		50	0	20.19	20.26	20.24	21.00
		50	25	20.14	20.09	20.16	21.00
		50	50	20.12	20.05	20.10	21.00
		100	0	20.09	20.06	20.23	21.00
	64QAM	1	0	20.10	19.85	19.91	21.00
		1	50	19.95	19.93	19.93	21.00
		1	99	19.87	19.98	20.04	21.00
		50	0	20.29	20.24	19.90	21.00
		50	25	20.24	20.06	20.05	21.00
		50	50	19.84	20.35	19.98	21.00
		100	0	20.00	19.70	20.17	21.00

LTE Band 5				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	23.38	23.42	23.49	25.00
		1	2	23.52	23.57	23.53	25.00
		1	5	23.39	23.46	23.44	25.00
		3	0	23.43	23.46	23.48	25.00
		3	2	23.50	23.60	23.52	25.00
		3	3	23.47	23.50	23.47	25.00
		6	0	22.52	22.61	22.62	24.00
	16QAM	1	0	23.03	22.70	23.10	24.00
		1	2	23.15	23.12	22.82	24.00
		1	5	22.62	23.01	22.73	24.00
		3	0	22.63	22.54	22.64	24.00
		3	2	22.84	22.56	22.60	24.00
		3	3	22.50	22.69	22.55	24.00
		6	0	21.66	21.61	21.73	23.00
	64QAM	1	0	21.94	21.81	21.67	23.00
		1	2	21.62	21.92	21.45	23.00
		1	5	21.88	21.78	21.51	23.00
		3	0	21.67	21.64	21.53	23.00
		3	2	21.95	21.76	21.49	23.00
		3	3	21.48	21.83	21.71	23.00
		6	0	20.60	20.87	20.65	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	23.49	23.65	23.58	25.00
		1	7	23.53	23.53	23.57	25.00
		1	14	23.57	23.49	23.44	25.00
		8	0	22.59	22.66	22.65	24.00
		8	4	22.61	22.74	22.69	24.00
		8	7	22.63	22.68	22.65	24.00
		15	0	22.59	22.69	22.62	24.00
	16QAM	1	0	22.79	22.72	23.09	24.00
		1	7	22.74	22.86	22.82	24.00
		1	14	22.73	22.77	22.76	24.00
		8	0	21.59	21.70	21.74	23.00
		8	4	21.63	21.78	21.77	23.00
		8	7	21.66	21.71	21.71	23.00
		15	0	21.69	21.67	21.56	23.00
	64QAM	1	0	21.77	21.77	21.46	23.00
		1	7	21.63	21.92	21.78	23.00
		1	14	21.51	21.95	21.88	23.00
		8	0	20.89	20.56	20.54	22.00
		8	4	20.63	20.93	20.83	22.00
		8	7	20.48	20.47	20.68	22.00
		15	0	20.86	20.55	20.53	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	23.58	23.52	23.59	25.00
		1	13	23.48	23.56	23.53	25.00
		1	24	23.46	23.46	23.64	25.00
		12	0	22.58	22.68	22.66	24.00
		12	6	22.62	22.73	22.65	24.00
		12	13	22.60	22.69	22.67	24.00
		25	0	22.65	22.74	22.69	24.00
	16QAM	1	0	22.80	22.82	23.18	24.00
		1	13	22.53	22.88	23.00	24.00
		1	24	22.75	22.95	22.93	24.00
		12	0	21.69	21.69	21.73	23.00
		12	6	21.64	21.73	21.70	23.00
		12	13	21.61	21.78	21.78	23.00
		25	0	21.69	21.72	21.73	23.00
	64QAM	1	0	21.49	21.90	21.90	23.00
		1	13	21.80	21.82	21.73	23.00
		1	24	21.58	21.53	21.91	23.00
		12	0	20.82	20.66	20.80	22.00
		12	6	20.51	20.81	20.58	22.00
		12	13	20.69	20.90	20.91	22.00
		25	0	20.58	20.90	20.72	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	23.91	23.66	23.91	25.00
		1	25	23.92	23.88	**23.93**	25.00
		1	49	23.85	23.74	23.81	25.00
		25	0	22.82	22.89	22.81	24.00
		25	13	22.89	22.85	22.97	24.00
		25	25	22.90	22.91	**22.98**	24.00
		50	0	22.90	22.88	22.93	24.00
	16QAM	1	0	22.90	23.01	23.13	24.00
		1	25	22.81	22.94	22.92	24.00
		1	49	22.95	23.01	23.09	24.00
		25	0	21.77	21.89	21.97	23.00
		25	13	21.94	21.98	22.02	23.00
		25	25	21.94	21.81	22.02	23.00
		50	0	21.93	21.88	21.96	23.00
	64QAM	1	0	21.57	21.95	21.93	23.00
		1	25	21.70	21.70	21.52	23.00
		1	49	21.81	21.52	21.87	23.00
		25	0	20.73	20.60	20.53	22.00
		25	13	20.53	20.50	20.49	22.00
		25	25	20.90	20.72	20.47	22.00
		50	0	20.84	20.87	20.62	22.00

LTE Band 7 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	23.89	23.97	24.08	25.00
		1	13	24.04	23.98	24.08	25.00
		1	24	23.94	24.07	23.94	25.00
		12	0	23.15	23.17	23.16	24.00
		12	6	23.12	23.22	23.18	24.00
		12	13	23.20	23.21	23.13	24.00
		25	0	23.16	23.13	23.13	24.00
	16QAM	1	0	23.53	23.20	23.62	24.00
		1	13	23.57	23.07	23.13	24.00
		1	24	23.51	23.28	23.59	24.00
		12	0	22.08	22.18	22.21	23.00
		12	6	22.13	22.28	22.25	23.00
		12	13	22.16	22.21	22.17	23.00
		25	0	22.04	22.14	22.23	23.00
	64QAM	1	0	22.17	22.16	22.07	23.00
		1	13	22.11	22.15	22.24	23.00
		1	24	22.25	22.13	22.23	23.00
		12	0	21.19	21.61	21.25	22.00
		12	6	21.88	20.97	21.69	22.00
		12	13	21.89	21.16	21.90	22.00
		25	0	21.18	21.70	21.12	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	24.02	23.95	24.02	25.00
		1	25	23.97	24.03	24.05	25.00
		1	49	24.00	24.01	24.07	25.00
		25	0	23.00	23.07	23.21	24.00
		25	13	23.17	23.22	23.23	24.00
		25	25	23.04	23.23	23.22	24.00
		50	0	23.24	23.09	23.17	24.00
	16QAM	1	0	23.02	22.95	23.34	24.00
		1	25	22.96	23.50	23.08	24.00
		1	49	23.30	23.32	23.59	24.00
		25	0	22.08	22.00	22.19	23.00
		25	13	22.04	22.26	22.23	23.00
		25	25	22.15	22.23	22.25	23.00
		50	0	22.07	22.24	22.22	23.00
	64QAM	1	0	21.97	22.04	21.96	23.00
		1	25	21.97	21.99	21.90	23.00
		1	49	21.89	21.87	21.90	23.00
		25	0	21.97	21.86	21.12	22.00
		25	13	21.17	21.70	20.97	22.00
		25	25	21.40	21.95	21.48	22.00
		50	0	21.65	21.59	20.78	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	23.87	23.82	23.88	25.00
		1	38	23.97	23.94	23.96	25.00
		1	74	24.06	24.04	23.86	25.00
		36	0	22.87	22.96	23.09	24.00
		36	18	23.02	23.02	23.13	24.00
		36	39	23.04	23.07	23.07	24.00
		75	0	23.02	23.01	23.09	24.00
	16QAM	1	0	23.07	23.40	23.02	24.00
		1	38	23.12	23.59	23.38	24.00
		1	74	23.45	23.25	23.15	24.00
		36	0	21.83	22.02	22.02	23.00
		36	18	22.07	22.06	22.12	23.00
		36	39	22.14	22.13	22.09	23.00
		75	0	22.03	21.92	22.21	23.00
	64QAM	1	0	21.94	22.06	21.89	23.00
		1	38	21.97	21.94	22.05	23.00
		1	74	21.88	21.85	21.85	23.00
		36	0	20.82	21.20	21.43	22.00
		36	18	21.72	21.97	21.46	22.00
		36	39	20.95	20.87	21.88	22.00
		75	0	21.01	21.57	21.56	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	23.67	23.86	23.90	25.00
		1	50	23.83	24.06	23.83	25.00
		1	99	**24.53**	24.02	23.89	25.00
		50	0	22.82	22.94	23.01	24.00
		50	25	23.01	23.04	**23.14**	24.00
		50	50	22.94	23.04	23.07	24.00
		100	0	22.98	22.91	23.03	24.00
	16QAM	1	0	23.02	23.05	23.40	24.00
		1	50	23.12	23.34	23.23	24.00
		1	99	23.42	23.23	23.25	24.00
		50	0	21.88	21.89	22.05	23.00
		50	25	22.02	21.96	22.07	23.00
		50	50	22.10	21.82	22.19	23.00
		100	0	22.03	21.98	22.08	23.00
	64QAM	1	0	22.00	22.04	21.88	23.00
		1	50	22.06	22.04	21.92	23.00
		1	99	21.93	22.08	22.03	23.00
		50	0	21.24	21.18	20.84	22.00
		50	25	20.83	20.91	21.73	22.00
		50	50	20.91	21.58	20.84	22.00
		100	0	21.15	21.80	21.56	22.00

LTE Band 7 Receiver off/Hotsprt off/Sensor off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	20.68	20.84	20.90	21.50
		1	13	20.79	20.80	20.89	21.50
		1	24	20.75	20.60	20.74	21.50
		12	0	20.66	20.65	20.59	21.50
		12	6	20.56	20.65	20.60	21.50
		12	13	20.66	20.69	20.60	21.50
		25	0	20.60	20.56	20.60	21.50
	16QAM	1	0	20.50	20.50	20.61	21.50
		1	13	20.56	20.64	20.59	21.50
		1	24	20.53	20.56	20.45	21.50
		12	0	19.15	19.18	19.15	21.00
		12	6	19.14	19.17	19.24	21.00
		12	13	19.18	19.27	19.12	21.00
		25	0	19.19	19.11	19.19	21.00
	64QAM	1	0	19.27	19.36	19.35	21.00
		1	13	19.32	19.36	19.25	21.00
		1	24	19.19	19.33	19.26	21.00
		12	0	19.16	18.86	18.21	20.00
		12	6	18.34	18.20	18.11	20.00
		12	13	19.09	19.16	19.09	20.00
		25	0	18.82	18.45	18.36	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20800	21100	21400	
10MHz	QPSK	1	0	20.68	20.74	20.81	21.50
		1	25	20.53	20.87	20.89	21.50
		1	49	20.62	20.67	20.72	21.50
		25	0	20.48	20.62	20.62	21.50
		25	13	20.62	20.60	20.70	21.50
		25	25	20.60	20.77	20.65	21.50
		50	0	20.63	20.58	20.67	21.50
	16QAM	1	0	20.53	20.40	20.60	21.50
		1	25	20.52	20.38	20.49	21.50
		1	49	20.75	20.32	20.63	21.50
		25	0	19.03	19.18	19.19	21.00
		25	13	19.23	19.13	19.25	21.00
		25	25	19.12	19.18	19.25	21.00
		50	0	19.18	19.19	19.23	21.00
	64QAM	1	0	19.27	19.33	19.28	21.00
		1	25	19.17	19.19	19.28	21.00
		1	49	19.22	19.22	19.36	21.00
		25	0	18.26	18.65	18.42	20.00
		25	13	18.79	18.80	18.05	20.00
		25	25	18.38	18.07	18.64	20.00
		50	0	18.05	18.34	19.00	20.00

Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	20.83	20.66	20.54	21.50
		1	38	20.84	20.80	20.69	21.50
		1	74	20.83	20.90	20.43	21.50
		36	0	20.32	20.39	20.49	21.50
		36	18	20.50	20.43	20.61	21.50
		36	39	20.57	20.59	20.53	21.50
		75	0	20.51	20.45	20.60	21.50
	16QAM	1	0	20.31	20.34	20.41	21.50
		1	38	20.50	20.57	20.44	21.50
		1	74	20.59	20.52	20.56	21.50
		36	0	19.13	19.09	19.21	21.00
		36	18	19.08	19.07	19.13	21.00
		36	39	19.04	19.07	19.06	21.00
		75	0	19.06	19.05	19.02	21.00
	64QAM	1	0	19.17	19.25	19.18	21.00
		1	38	19.23	19.31	19.15	21.00
		1	74	19.35	19.15	19.24	21.00
		36	0	18.83	18.93	18.76	20.00
		36	18	18.67	18.62	19.07	20.00
		36	39	18.86	18.34	19.11	20.00
		75	0	19.03	18.70	18.31	20.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	20.62	20.73	20.88	21.50
		1	50	20.71	20.88	**20.91**	21.50
		1	99	20.66	20.67	20.74	21.50
		50	0	20.73	20.77	20.78	21.50
		50	25	20.88	20.74	20.79	21.50
		50	50	20.85	**20.89**	20.69	21.50
		100	0	20.83	20.81	20.86	21.50
	16QAM	1	0	20.89	20.58	20.71	21.50
		1	50	20.83	20.73	20.77	21.50
		1	99	20.74	20.89	20.78	21.50
		50	0	19.05	19.15	19.08	21.00
		50	25	19.07	19.10	19.04	21.00
		50	50	19.15	19.19	19.02	21.00
		100	0	19.18	19.20	19.05	21.00
	64QAM	1	0	19.38	19.37	19.38	21.00
		1	50	19.21	19.37	19.38	21.00
		1	99	19.26	19.21	19.31	21.00
		50	0	19.27	19.16	18.33	20.00
		50	25	18.96	19.24	19.03	20.00
		50	50	18.21	18.08	18.49	20.00
		100	0	18.12	18.98	19.00	20.00

LTE Band 7 Hotspot on/Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	17.11	17.38	17.31	18.00
		1	13	17.38	17.28	17.37	18.00
		1	24	17.63	17.48	17.68	18.00
		12	0	17.23	17.27	17.24	18.00
		12	6	17.13	17.32	17.21	18.00
		12	13	17.18	17.30	17.31	18.00
		25	0	17.18	17.24	17.27	18.00
	16QAM	1	0	17.09	17.02	17.20	18.00
		1	13	17.09	17.17	17.08	18.00
		1	24	17.15	17.21	17.23	18.00
		12	0	17.15	17.23	17.32	18.00
		12	6	17.15	17.29	17.32	18.00
		12	13	17.25	17.33	17.30	18.00
		25	0	17.22	17.34	17.25	18.00
	64QAM	1	0	17.04	17.04	17.14	18.00
		1	13	17.17	17.15	17.14	18.00
		1	24	17.07	17.07	17.09	18.00
		12	0	17.03	17.13	17.10	18.00
		12	6	17.11	17.15	17.11	18.00
		12	13	17.06	17.08	17.03	18.00
		25	0	16.98	16.99	17.13	18.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	17.29	17.52	17.63	18.00
		1	25	16.99	17.48	17.57	18.00
		1	49	17.68	17.13	17.73	18.00
		25	0	17.02	17.04	17.14	18.00
		25	13	17.10	17.11	17.15	18.00
		25	25	17.16	17.22	17.22	18.00
		50	0	17.11	17.08	17.09	18.00
	16QAM	1	0	16.90	16.89	16.94	18.00
		1	25	16.97	17.04	17.17	18.00
		1	49	17.08	17.14	17.00	18.00
		25	0	17.04	17.12	17.14	18.00
		25	13	17.16	17.11	17.21	18.00
		25	25	17.15	17.17	17.33	18.00
		50	0	17.09	17.07	17.17	18.00
	64QAM	1	0	16.97	17.04	17.15	18.00
		1	25	17.15	17.04	17.14	18.00
		1	49	17.00	17.06	17.16	18.00
		25	0	17.14	17.19	17.12	18.00
		25	13	17.06	17.10	17.09	18.00
		25	25	17.14	17.06	17.19	18.00
		50	0	17.00	17.16	17.15	18.00

Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	17.30	17.35	17.55	18.00
		1	38	17.52	17.03	17.51	18.00
		1	74	17.12	17.18	17.14	18.00
		36	0	17.07	17.04	17.14	18.00
		36	18	17.14	17.09	17.20	18.00
		36	39	17.13	17.25	17.22	18.00
		75	0	17.09	17.12	17.18	18.00
	16QAM	1	0	16.87	16.94	17.04	18.00
		1	38	17.02	17.13	16.94	18.00
		1	74	17.12	17.05	17.08	18.00
		36	0	17.03	17.06	17.14	18.00
		36	18	17.03	17.04	17.24	18.00
		36	39	17.16	17.17	17.20	18.00
		75	0	17.07	17.09	17.13	18.00
	64QAM	1	0	17.16	17.02	17.08	18.00
		1	38	17.12	17.00	17.00	18.00
		1	74	17.02	17.05	17.10	18.00
		36	0	17.06	17.12	17.11	18.00
		36	18	17.05	16.99	17.19	18.00
		36	39	17.19	16.95	16.96	18.00
		75	0	17.14	17.19	17.09	18.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	17.42	17.67	17.19	18.00
		1	50	16.86	17.39	17.62	18.00
		1	99	**17.74**	17.49	17.32	18.00
		50	0	17.01	17.04	17.10	18.00
		50	25	17.10	16.97	17.07	18.00
		50	50	17.08	17.16	**17.19**	18.00
		100	0	17.12	17.05	17.10	18.00
	16QAM	1	0	16.89	16.91	16.87	18.00
		1	50	16.88	16.97	16.98	18.00
		1	99	17.14	16.92	16.88	18.00
		50	0	17.00	17.04	17.07	18.00
		50	25	17.05	17.09	17.23	18.00
		50	50	17.07	17.14	17.07	18.00
		100	0	17.05	17.13	17.17	18.00
	64QAM	1	0	16.95	16.99	17.14	18.00
		1	50	17.02	16.97	17.00	18.00
		1	99	17.09	16.96	17.04	18.00
		50	0	16.96	17.01	17.17	18.00
		50	25	17.17	17.09	17.08	18.00
		50	50	17.01	17.10	17.10	18.00
		100	0	17.14	16.96	17.12	18.00

LTE Band 38 Receiver on/Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	23.82	23.79	23.70	25.00
		1	13	23.74	23.61	23.58	25.00
		1	24	23.76	23.57	23.57	25.00
		12	0	23.01	22.87	22.81	24.00
		12	6	22.93	22.88	22.80	24.00
		12	13	22.85	22.90	22.81	24.00
		25	0	22.87	22.85	22.77	24.00
	16QAM	1	0	23.08	22.99	22.92	24.00
		1	13	22.91	22.92	22.53	24.00
		1	24	23.02	22.87	22.57	24.00
		12	0	21.96	21.84	21.80	23.00
		12	6	21.81	21.89	21.85	23.00
		12	13	21.96	21.82	21.82	23.00
		25	0	21.89	21.90	21.81	23.00
	64QAM	1	0	21.85	21.98	21.97	23.00
		1	13	22.06	22.02	21.86	23.00
		1	24	22.05	21.98	22.00	23.00
		12	0	20.95	21.76	21.46	22.00
		12	6	20.94	21.62	21.78	22.00
		12	13	20.80	21.22	20.87	22.00
		25	0	21.84	21.01	21.05	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	23.81	23.61	23.66	25.00
		1	25	23.62	23.63	23.47	25.00
		1	49	23.67	23.53	23.47	25.00
		25	0	22.92	22.76	22.71	24.00
		25	13	22.81	22.80	22.65	24.00
		25	25	22.82	22.78	22.67	24.00
		50	0	22.79	22.82	22.62	24.00
	16QAM	1	0	23.01	22.91	22.70	24.00
		1	25	22.92	22.73	22.69	24.00
		1	49	22.99	22.69	22.73	24.00
		25	0	22.03	21.77	21.72	23.00
		25	13	21.87	21.75	21.80	23.00
		25	25	21.83	21.72	21.61	23.00
		50	0	21.90	21.83	21.72	23.00
	64QAM	1	0	21.96	21.98	21.87	23.00
		1	25	22.03	21.88	21.88	23.00
		1	49	21.99	21.90	21.88	23.00
		25	0	20.94	20.85	20.19	22.00
		25	13	20.87	20.87	20.41	22.00
		25	25	20.89	20.93	20.51	22.00
		50	0	20.91	20.85	20.56	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	23.89	23.73	23.71	25.00
		1	38	23.71	23.69	23.54	25.00
		1	74	23.77	23.67	23.61	25.00
		36	0	23.03	22.87	22.81	24.00
		36	18	22.94	22.86	22.73	24.00
		36	39	22.91	22.91	22.78	24.00
		75	0	22.93	22.89	22.76	24.00
	16QAM	1	0	23.15	22.97	22.82	24.00
		1	38	22.98	22.83	22.84	24.00
		1	74	23.05	22.84	22.82	24.00
		36	0	22.08	21.92	21.83	23.00
		36	18	22.01	21.89	21.86	23.00
		36	39	21.93	21.86	21.74	23.00
		75	0	22.05	21.97	21.86	23.00
	64QAM	1	0	22.01	22.01	21.89	23.00
		1	38	22.05	21.89	22.00	23.00
		1	74	22.05	22.04	21.99	23.00
		36	0	20.82	20.89	20.46	22.00
		36	18	20.79	20.79	20.26	22.00
		36	39	20.76	20.85	20.51	22.00
		75	0	20.91	20.86	20.15	22.00

Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	24.12	24.01	23.84	25.00
		1	50	**24.13**	23.99	23.86	25.00
		1	99	24.05	23.90	23.78	25.00
		50	0	**23.18**	23.05	22.97	24.00
		50	25	23.14	23.01	22.90	24.00
		50	50	23.16	23.03	22.93	24.00
		100	0	23.15	22.99	22.87	24.00
	16QAM	1	0	23.17	22.97	23.07	24.00
		1	50	23.22	23.07	23.04	24.00
		1	99	23.18	23.19	23.06	24.00
		50	0	22.10	21.95	21.88	23.00
		50	25	22.12	22.03	21.87	23.00
		50	50	22.14	22.01	21.89	23.00
		100	0	22.21	21.99	21.93	23.00
	64QAM	1	0	21.97	21.88	22.05	23.00
		1	50	21.85	22.04	22.01	23.00
		1	99	21.95	21.99	22.07	23.00
		50	0	20.95	20.97	20.48	22.00
		50	25	20.95	20.93	20.18	22.00
		50	50	20.96	20.92	20.38	22.00
		100	0	20.82	20.88	20.47	22.00

LTE Band 38 Hotspot on/Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	19.05	19.00	19.09	20.00
		1	13	19.12	19.02	19.01	20.00
		1	24	19.05	19.13	19.05	20.00
		12	0	19.08	19.12	19.10	20.00
		12	6	19.09	19.11	19.13	20.00
		12	13	19.06	19.00	19.07	20.00
		25	0	19.08	19.11	19.09	20.00
	16QAM	1	0	19.11	19.10	19.08	20.00
		1	13	19.13	19.08	19.13	20.00
		1	24	19.14	19.06	19.02	20.00
		12	0	19.09	19.07	19.01	20.00
		12	6	19.01	19.10	19.12	20.00
		12	13	19.13	19.11	19.06	20.00
		25	0	19.06	19.09	19.12	20.00
	64QAM	1	0	18.76	18.64	18.78	20.00
		1	13	18.83	18.75	18.78	20.00
		1	24	18.75	18.73	18.71	20.00
		12	0	18.73	18.86	18.78	20.00
		12	6	18.84	18.87	18.69	20.00
		12	13	18.74	18.86	18.73	20.00
		25	0	18.77	18.77	18.67	20.00
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	19.10	18.96	18.89	20.00
		1	25	18.92	18.88	18.82	20.00
		1	49	18.89	18.83	18.76	20.00
		25	0	19.08	19.10	19.01	20.00
		25	13	19.10	19.13	19.00	20.00
		25	25	19.10	19.09	18.93	20.00
		50	0	19.14	19.08	18.98	20.00
	16QAM	1	0	19.06	19.10	19.14	20.00
		1	25	19.13	19.11	19.00	20.00
		1	49	19.13	19.01	18.87	20.00
		25	0	19.08	19.12	19.01	20.00
		25	13	19.07	19.06	18.93	20.00
		25	25	19.01	19.13	18.98	20.00
		50	0	19.11	19.05	19.05	20.00
	64QAM	1	0	18.69	18.74	18.70	20.00
		1	25	18.78	18.81	18.78	20.00
		1	49	18.73	18.82	18.79	20.00
		25	0	18.83	18.69	18.67	20.00
		25	13	18.72	18.81	18.67	20.00
		25	25	18.73	18.82	18.80	20.00
		50	0	18.67	18.69	18.66	20.00