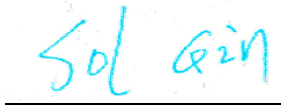
FCC Test Report

Application Purpose	:	Original grant
Applicant Name:	:	INFINIX MOBILITY LIMITED
FCC ID	:	2AIZN-X522
Equipment Type	:	Mobile phone
Model Name	:	X522
Report Number	:	FCC17010001A-5
Standard(S)	:	FCC Part 22H&24E&27 Rules
Date Of Receipt	:	January 04, 2017
Date Of Issue	:	February 15, 2017
Test By	:	 (Daisy Qin)
Reviewed By	:	 (Sol Qin)
Authorized by	:	 (Michal Ling)
Prepared by	:	**QTC Certification & Testing Co., Ltd.** 2nd Floor,Bl Building,Fengyeyuan Industrial Plant,, Liuxian 2st. Road, Xin'an Street, Bao'an District,,Shenzhen,518000 **Registration Number: 588523**

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	February 15, 2017	Valid	Original Report

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1 CERTIFICATION

Applicant	INFINIX MOBILITY LIMITED
Address	RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON RD TST KLN HONG KONG
Manufacturer	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Address	1-4th Floor,3rd Building,Pacific Industrial Park,No.2088,Shenyan Road,Yantian District,Shenzhen,Guangdong,China
Equipment Type	Mobile phone
Brand Name	Infinix
Test Model	X522
Hardware version:	H539_B1_V1.2
Software version:	X522-H539D1-M-161206V23
Series Model	N/A
Difference description	N/A
Deviation	None
Condition of Test Sample	Normal

We hereby certify that:

All measurement facilities used to collect the measurement data are located at QTC Certification & Testing Co., Ltd.
Registration Number: 588523

The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C 63.4:2014 and TIA/EIA 603. The sample tested as described in this report is in compliance with the FCC Rules Part 22H and 24E and 27.
The test results of this report relate only to the tested sample identified in this report.

2 EUT INFORMATION

Table 2.1.1 General Information

Equipment Type:	Mobile phone
Hardware version:	H539_B1_V1.2
Software version:	X522-H539D1-M-161206V23
Frequency Bands:	☒GSM 850 ☒PCS 1900 (U.S. Bands) UTRA Bands: ☒UTRA Band 2 ☒UTRA Band 4 ☒UTRA Band 5 E-UTRA Bands: ☒ E-UTRA Band 2 ☒ E-UTRA Band 4 ☒ E-UTRA Band 7
Antenna Type:	Internal Antenna
Antenna gain:	PCS 1900/UTRA Band 2/E-UTRA Band 2: -4.0dBi UTRA Band 4/E-UTRA Band 4: -4.0dBi GSM850/UTRA Band 5: -4.0dBi E-UTRA Band 7: -4.0dBi
Battery information:	Li-Polymer Battery : BL-30SX Voltage: 3.85V Capacity: 3000mAh Limited Charge Voltage: 4.4V
Adapter Information:	Adapter: A88-502000 Input: 100~240V 50/60Hz 350mA Output: 5V~2A
Card(S):	Card 1: E-UTRA Card Slot Card 2: GSM Card Slot
Max power:	See Table 2.1.2
Extreme Vol. Limits:	DC 3.45V to 4.4V (Normal: DC 3.85V)
Extreme Temp. Tolerance	-10℃ to +65℃

Note 1: The High Voltage DC 4.4V and Low Voltage DC 3.45V were declared by manufacturer, The EUT couldn't be operating normally with higher or lower voltage.

Table 2.1.2 The Basic Technical Specification for Working BAND(S).

OPERATION BAND(S)	Power Class	Mod.	Max Average (dBm)	Max Peak Power (dBm)
GSM850	Class 4	GMSK	32.79	33.04
DCS1900	Class 1	GMSK	29.75	30.19
UTRA BAND 2	Class 3	QPSK	21.48	23.97
UTRA BAND 4	Class 3	QPSK	21.67	23.95
UTRA BAND 5	Class 3	QPSK	22.78	23.73
E-UTRA Band 2	Class 3	QPSK	21.20	24.48
E-UTRA Band 2	Class 3	16QAM	21.19	22.49
E-UTRA Band 4	Class 3	QPSK	21.19	22.50
E-UTRA Band 4	Class 3	16QAM	21.20	22.49
E-UTRA Band 7	Class 3	QPSK	21.20	23.50
E-UTRA Band 7	Class 3	16QAM	21.18	23.49

3 TEST DESCRIPTION

3.1 Test Facility

The test site used to collect the radiated data is located at:
QTC Certification & Testing Co., Ltd.
Registration Number: 588523

3.2 EUT System Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

Fig. 3.2-1 Configuration of EUT System

Table 3.2-1 Equipment Used in EUT System

Item	Equipment	Model No.	ID or Specification	Note
1	Mobile phone	X522	2AIZN-X522	EUT

***Note: All the accessories have been used during the test. The following "EUT" in setup diagram means EUT system.

3.3 Description Of Test Channels And Test Modes

Test channels:

GSM 850			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	0.2	128	824.2
Mid Range	0.2	190	836.6
High Range	0.2	251	848.8

PCS 1900			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	0.2	512	1850.2
Mid Range	0.2	661	1880
High Range	0.2	810	1909.8

URTA BAND 2			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	5	9262	1852.4
Mid Range	5	9400	1880
High Range	5	9538	1907.6

URTA BAND 4			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	5	1312	1712.4
Mid Range	5	1413	1732.6
High Range	5	1513	1752.6

URTA BAND 5			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	5	4132	826.4
Mid Range	5	4182	836.4
High Range	5	4233	846.6

LTE BAND 2			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	1.4	18607	1850.7
	3	18615	1851.5
	5	18625	1852.5
	10	18650	1855
	15	18675	1857.5
	20	18700	1860
Mid Range	1.4/3/5/10 15 /20	18900	1880
High Range	1.4	19193	1909.3
	3	19185	1908.5
	5	19175	1907.5
	10	19150	1905
	15	19125	1902.5
	20	19100	1900

LTE BAND 4			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	1.4	19957	1710.7
	3	19965	1711.5
	5	19975	1712.5
	10	20000	1715
	15	20025	1717.5
	20	20050	1720
Mid Range	1.4/3/5/10/15/20	20175	1732.5
High Range	1.4	20393	1754.3
	3	20385	1753.5
	5	20375	1752.5
	10	20350	1750
	15	20325	1747.5
	20	20300	1745

LTE BAND 7			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	5	20775	2502.5
	10	20800	2505
	15	20825	2507.5
	20	20850	2510
Mid Range	5/10/15/20	21100	2535
High Range	5	21425	2567.5
	10	21400	2565
	15	21375	2562.5
	20	21350	2560

Note 1: both QPSK&16QAM modulation has been measured;

Note 2: The worst condition was recorded in the test report if no other modes test data.

3.4 Equipment Modifications

Not available for this EUT intended for grant.

4 SUMMARY OF TEST REQUIREMENTS AND RESULTS

BAND 2(PCS 1900/ E-UTRA Band 2/ UTRA Band 2):

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	§2.1046, §24.232(c)	EIRP ≤ 2W(33dBm)	Pass
Bandwidth	§2.1049 §24.238(a)	OBW: No limit. EBW: No limit.	Pass
Band Edges	§2.1051, §24.238(a)	-13dBm	Pass
Spurious Emission at Antenna Terminals	§2.1051, §24.238(a)	-13dBm	Pass
Field Strength of Spurious Radiation	§2.1053, §24.238(a)	-13dBm	Pass
Frequency Stability	§2.1055, §24.235	the fundamental emission stays within the authorized frequency block.	Pass
Peak to average ratio	§24.232(d)	<13dB	Pass

BAND 4(UTRA Band 4/E-UTRA Band 4):

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	§2.1046, §27.50(d)	EIRP ≤ 1W(30dBm)	Pass
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Pass
Band Edges	§2.1051, §27.53(h)	-13dBm	Pass
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)	-13dBm	Pass
Field Strength of Spurious Radiation	§2.1053, §27.53(h)	-13dBm	Pass
Frequency Stability	§2.1055, §27.54	the fundamental emissions stay within the authorized bands of operation. (2.5ppm)	Pass
Peak to average ratio	§27.50(d)	<13dB	Pass

BAND 5(GSM850/ UTRA Band 5):

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	§2.1046, §2.913(a)	EIRP ≤ 7W(33dBm)	Pass
Occupied Bandwidth	§2.1049	OBW: No limit.	Pass
Emission Bandwidth	22.917(b)	EBW: No limit.	Pass
Band Edges Compliance	§2.1051, §22.917(a)(b)	KDB 971 168 D02 971168 D02 Misc OOBE License Digital Systems v01 &27.53(m) for detail the limit is upon different OBW	Pass
Spurious Emission at Antenna Terminals	§2.1051, §22.917	-13dBm	Pass
Field Strength of Spurious Radiation	§2.1053, §22.917	-13dBm	Pass
Frequency Stability	§2.1055, §22.355	the fundamental emissions stay within the authorized bands of operation. (2.5ppm)	Pass

BAND 7(E-UTRA Band 7):

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	§2.1046, §27.50(h)	EIRP ≤ 2W(33dBm)	Pass
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Pass
Band Edges	§2.1051, §27.53(m)	KDB 971 168 D02 971168 D02 Misc OOBE License Digital Systems v01 &27.53(m) for detail the limit is upon different OBW	Pass
Spurious Emission at Antenna Terminals	§2.1051, §27.53(m)	-25dBm	Pass
Field Strength of Spurious Radiation	§2.1053, §27.53(m)	-25dBm	Pass
Frequency Stability	§2.1055, §27.54	the fundamental emissions stay within the authorized bands of operation. (2.5ppm)	Pass

MEASUREMENT INSTRUMENTS

NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	Calibration Date	Calibration Due.
EMI Test Receiver	R&S	ESCI	100005	08/19/2016	08/18/2017
LISN	AFJ	LS16	16010222119	08/19/2016	08/18/2017
LISN(EUT)	Mestec	AN3016	04/10040	08/19/2016	08/18/2017
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	08/19/2016	08/18/2017
Coaxial cable	Megalon	LMR400	N/A	08/12/2016	08/11/2017
GPIB cable	Megalon	GPIB	N/A	08/12/2016	08/11/2017
Spectrum Analyzer	R&S	FSU	100114	08/19/2016	08/18/2017
Pre Amplifier	H.P.	HP8447E	2945A02715	10/13/2016	10/12/2017
Pre-Amplifier	CDSI	PAP-1G18-38	--	10/13/2016	10/12/2017
Loop Antenna	R&S	HFH2-Z2	100296	10/13/2016	10/12/2017
Bi-log Antenna	SUNOL Sciences	JB3	A021907	09/13/2016	09/12/2017
9*6*6 Anechoic	--	--	--	08/21/2016	08/20/2017
Horn Antenna	COMPLIANCE ENGINEERING	CE18000	--	09/13/2016	09/12/2017
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-631	08/23/2016	08/22/2017
Power meter	Anritsu	ML2487A	6K00003613	08/23/2016	08/22/2017
Power meter	Anritsu	MA2491A	32263	08/23/2016	08/22/2017
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	04/24/2016	04/23/2017
System-Controller	CCS	N/A	N/A	N.C.R	N.C.R
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R
RF cable	Murata	MXHQ87WA3000	-	08/21/2016	08/20/2017
Loop Antenna	EMCO	6502	00042960	08/22/2016	08/21/2017
Wideband Radio Communication Tester	R&S	CMW 500	103974	08/19/2016	08/18/2017
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	08/19/2016	08/18/2017
H & T Chamber	Guangzhou gongwen	GDJS-500-40	0329	08/19/2016	08/18/2017

5 EFFECTIVE (ISOTROPIC) RADIATED POWER

(a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in §2.1033(c)(8). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

(b) For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as follows. In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.

(1) Single sideband transmitters in the A3A or A3J emission modes—by two tones at frequencies of 400 Hz and 1800 Hz (for 3.0 kHz authorized bandwidth), or 500 Hz and 2100 Hz (3.5 kHz authorized bandwidth), or 500 Hz and 2400 Hz (for 4.0 kHz authorized bandwidth), applied simultaneously, the input levels of the tones so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(2) Single sideband transmitters in the A3H emission mode—by one tone at a frequency of 1500 Hz (for 3.0 kHz authorized bandwidth), or 1700 Hz (for 3.5 kHz authorized bandwidth), or 1900 Hz (for 4.0 kHz authorized bandwidth), the level of which is adjusted to produce a radio frequency signal component equal in magnitude to the magnitude of the carrier in this mode.

(3) As an alternative to paragraphs (b) (1) and (2) of this section other tones besides those specified may be used as modulating frequencies, upon a sufficient showing of need. However, any tones so chosen must not be harmonically related, the third and fifth order intermodulation products which occur must fall within the −25 dB step of the emission bandwidth limitation curve, the seventh and ninth order intermodulation product must fall within the 35 dB step of the referenced curve and the eleventh and all higher order products must fall beyond the −35 dB step of the referenced curve.

(4) Independent sideband transmitters having two channels by 1700 Hz tones applied simultaneously in both channels, the input levels of the tones so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(5) Independent sideband transmitters having more than two channels by an appropriate signal or signals applied to all channels simultaneously. The input signal or signals shall simulate the input signals specified by the manufacturer for normal operation.

(6) Single-channel controlled-carrier transmitters in the A3 emission mode—by a 2500 Hz tone.

(c) For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the

basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.

Measurement Result

Test Procedure

The instrument must have an available measurement/resolution bandwidth that is equal to or exceeds the OBW. If this capability is available, then the following procedure can be used to determine the total peak output power.

a) Set the RBW ≥ OBW.

b) Set VBW ≥ 3 × RBW.

c) Set span ≥ 2 × RBW

d) Sweep time = auto couple.

e) Detector = peak.

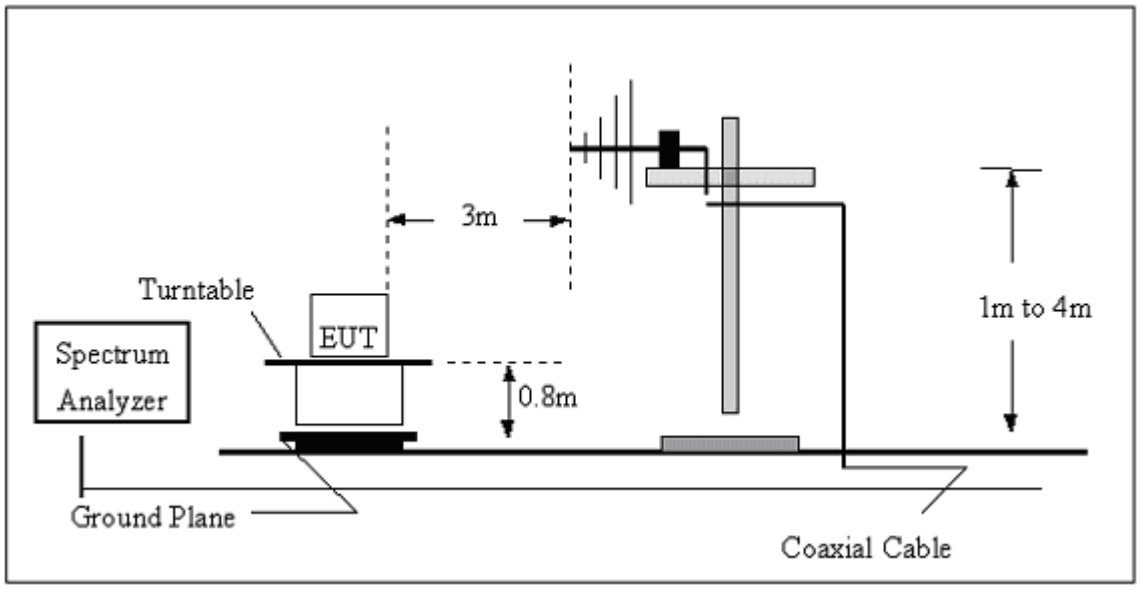
f) Ensure that the number of measurement points ≥ span/RBW.

g) Trace mode = max hold.

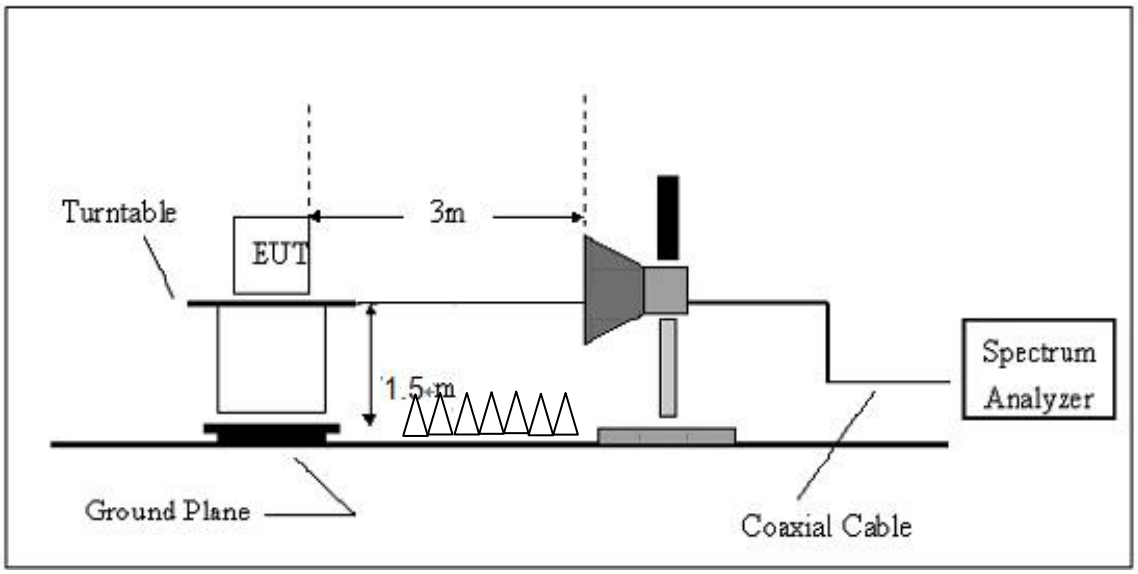
h) Allow trace to fully stabilize.

i) Use the peak marker function to determine the peak amplitude level.

（A）Radiated Emission Test-Up Frequency 30MHz~1GHz



（B）Radiated Emission Test-Up Frequency Above 1GHz



GSM850 BAND:

Mode	Frequency (MHz)	Peak Power	Avg.Burst Power	Tolerance	Duty cycle Factor(dB)	Frame Power(dBm)
GSM850	824.2	**33.04**	32.75	0.29	-9	23.75
	836.6	32.73	32.51	0.22	-9	23.51
	848.8	32.84	**32.79**	0.05	-9	23.79
GPRS850	824.2	29.87	28.58	1.29	-9	19.58
	836.6	30.01	28.68	1.33	-9	19.68
	848.8	30.05	28.82	1.23	-9	19.82
EGPRS850	824.2	27.21	26.13	1.08	-9	17.13
	836.6	27.32	26.25	1.07	-9	17.25
	848.8	27.09	26.17	0.92	-9	17.17

PCS1900 BAND:

Mode	Frequency (MHz)	Peak Power	Tolerance	Avg.Burst Power	Duty cycle Factor(dB)	Frame Power(dBm)
GSM1900	1850.2	29.77	29.51	0.26	-9	20.51
	1880	29.91	**29.75**	0.16	-9	20.75
	1909.8	**30.19**	29.67	0.52	-9	20.67
GPRS1900	1850.2	27.10	26.4	0.70	-9	17.40
	1880	27.50	26.31	1.19	-9	17.31
	1909.8	27.24	26.34	0.90	-9	17.34
EGPRS1900	1850.2	26.45	25.64	0.81	-9	16.64
	1880	26.37	25.63	0.74	-9	16.63
	1909.8	26.81	25.58	1.23	-9	16.58

UTRA BANDS:
BAND 2:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2K	1852.4	23.79	**21.48**	2.31
	1880	23.26	21.44	1.82
	1907.6	23.64	21.38	2.26
HSDPA SUBTEST 1	1852.4	**23.97**	21.20	2.77
	1880	23.92	21.35	2.57
	1907.6	23.19	21.21	1.98
HSUPA SUBTEST 1	1852.4	23.89	21.34	2.55
	1880	23.70	21.42	2.28
	1907.6	23.74	21.25	2.49

BAND 4:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2K	1712.4	**23.95**	22.46	1.49
	1732.6	23.74	22.59	1.15
	1752.6	23.27	22.38	0.89
HSDPA SUBTEST 1	1712.4	23.29	22.10	1.19
	1732.6	23.64	22.13	1.51
	1752.6	23.54	22.21	1.33
HSUPA SUBTEST 1	1712.4	23.71	**21.67**	2.04
	1732.6	24.26	21.31	2.95
	1752.6	23.63	21.32	2.31

BAND 5:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2K	826.4	23.15	**22.78**	0.37
	836.4	23.11	22.72	0.39
	846.6	23.34	22.68	0.66
HSDPA SUBTEST 1	826.4	23.41	22.51	0.90
	836.4	**23.73**	22.32	1.41
	846.6	23.22	22.51	0.71
HSUPA SUBTEST 1	826.4	23.33	21.50	1.83
	836.4	23.54	21.64	1.90
	846.6	23.60	21.37	2.23

E-UTRA BANDS:

BAND 2:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	18607	1850.7	QPSK	1	LOW	20.49	22.35	1.86
1.4	18607	1850.7	QPSK	1	MID	20.79	21.83	1.04
1.4	18607	1850.7	QPSK	1	HIGH	20.78	22.16	1.38
1.4	18607	1850.7	QPSK	3	LOW	20.70	21.99	1.29
1.4	18607	1850.7	QPSK	3	MID	20.72	21.89	1.17
1.4	18607	1850.7	QPSK	3	HIGH	20.69	21.77	1.08
1.4	18607	1850.7	QPSK	6	LOW	21.07	22.48	1.41
1.4	18607	1850.7	Q16	1	LOW	20.74	21.93	1.19
1.4	18607	1850.7	Q16	1	MID	20.84	21.70	0.86
1.4	18607	1850.7	Q16	1	HIGH	21.05	22.41	1.36
1.4	18607	1850.7	Q16	3	LOW	21.12	22.12	1.00
1.4	18607	1850.7	Q16	3	MID	20.81	21.67	0.86
1.4	18607	1850.7	Q16	3	HIGH	21.05	22.13	1.08
1.4	18607	1850.7	Q16	6	LOW	21.05	21.81	0.76
1.4	18900	1880	QPSK	1	LOW	20.29	22.20	1.91
1.4	18900	1880	QPSK	1	MID	20.26	22.47	2.21
1.4	18900	1880	QPSK	1	HIGH	20.47	21.66	1.19
1.4	18900	1880	QPSK	3	LOW	21.09	22.39	1.3
1.4	18900	1880	QPSK	3	MID	20.38	21.89	1.51
1.4	18900	1880	QPSK	3	HIGH	20.53	22.14	1.61
1.4	18900	1880	QPSK	6	LOW	20.85	21.90	1.05
1.4	18900	1880	Q16	1	LOW	21.19	22.01	0.82
1.4	18900	1880	Q16	1	MID	21.06	22.34	1.28
1.4	18900	1880	Q16	1	HIGH	21.02	22.47	1.45
1.4	18900	1880	Q16	3	LOW	20.77	22.44	1.67
1.4	18900	1880	Q16	3	MID	20.37	21.91	1.54
1.4	18900	1880	Q16	3	HIGH	21.09	22.27	1.18
1.4	18900	1880	Q16	6	LOW	20.82	22.20	1.38
1.4	19193	1909.3	QPSK	1	LOW	20.71	22.36	1.65
1.4	19193	1909.3	QPSK	1	MID	21.07	22.24	1.17
1.4	19193	1909.3	QPSK	1	HIGH	21.10	22.46	1.36
1.4	19193	1909.3	QPSK	3	LOW	20.89	21.97	1.08
1.4	19193	1909.3	QPSK	3	MID	20.67	21.52	0.85
1.4	19193	1909.3	QPSK	3	HIGH	20.96	22.23	1.27
1.4	19193	1909.3	QPSK	6	LOW	20.88	21.57	0.69

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	19193	1909.3	Q16	1	LOW	20.48	21.93	1.45
1.4	19193	1909.3	Q16	1	MID	20.28	22.20	1.92
1.4	19193	1909.3	Q16	1	HIGH	21.00	21.67	0.67
1.4	19193	1909.3	Q16	3	LOW	20.37	22.46	2.09
1.4	19193	1909.3	Q16	3	MID	20.59	22.00	1.41
1.4	19193	1909.3	Q16	3	HIGH	20.28	22.03	1.75
1.4	19193	1909.3	Q16	6	LOW	20.41	21.79	1.38
3	18615	1851.5	QPSK	1	LOW	20.89	21.71	0.82
3	18615	1851.5	QPSK	1	MID	20.68	21.75	1.07
3	18615	1851.5	QPSK	1	HIGH	20.53	22.11	1.58
3	18615	1851.5	QPSK	8	LOW	20.69	22.41	1.72
3	18615	1851.5	QPSK	8	MID	20.98	21.57	0.59
3	18615	1851.5	QPSK	8	HIGH	21.01	22.31	1.3
3	18615	1851.5	QPSK	15	LOW	20.99	21.85	0.86
3	18615	1851.5	Q16	1	LOW	20.23	22.25	2.02
3	18615	1851.5	Q16	1	MID	20.63	22.12	1.49
3	18615	1851.5	Q16	1	HIGH	20.85	22.42	1.57
3	18615	1851.5	Q16	8	LOW	20.30	21.93	1.63
3	18615	1851.5	Q16	8	MID	20.86	22.27	1.41
3	18615	1851.5	Q16	8	HIGH	21.20	21.94	0.74
3	18615	1851.5	Q16	15	LOW	20.71	22.38	1.67
3	18900	1880	QPSK	1	LOW	20.27	22.13	1.86
3	18900	1880	QPSK	1	MID	21.13	22.11	0.98
3	18900	1880	QPSK	1	HIGH	20.60	22.22	1.62
3	18900	1880	QPSK	8	LOW	20.39	21.53	1.14
3	18900	1880	QPSK	8	MID	20.83	22.11	1.28
3	18900	1880	QPSK	8	HIGH	20.30	22.44	2.14
3	18900	1880	QPSK	15	LOW	20.92	22.35	1.43
3	18900	1880	Q16	1	LOW	21.20	22.46	1.26
3	18900	1880	Q16	1	MID	20.88	22.02	1.14
3	18900	1880	Q16	1	HIGH	20.92	22.07	1.15
3	18900	1880	Q16	8	LOW	20.29	21.59	1.3
3	18900	1880	Q16	8	MID	20.63	22.25	1.62
3	18900	1880	Q16	8	HIGH	20.32	21.94	1.62
3	18900	1880	Q16	15	LOW	20.31	22.05	1.74
3	19185	1908.5	QPSK	1	LOW	20.45	21.80	1.35
3	19185	1908.5	QPSK	1	MID	21.00	21.75	0.75

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
3	19185	1908.5	QPSK	1	HIGH	20.73	21.72	0.99
3	19185	1908.5	QPSK	8	LOW	20.91	21.68	0.77
3	19185	1908.5	QPSK	8	MID	20.69	21.61	0.92
3	19185	1908.5	QPSK	8	HIGH	21.12	22.38	1.26
3	19185	1908.5	QPSK	15	LOW	20.77	21.78	1.01
3	19185	1908.5	Q16	1	LOW	20.61	21.73	1.12
3	19185	1908.5	Q16	1	MID	20.98	22.10	1.12
3	19185	1908.5	Q16	1	HIGH	20.32	21.56	1.24
3	19185	1908.5	Q16	8	LOW	20.50	21.71	1.21
3	19185	1908.5	Q16	8	MID	20.45	21.80	1.35
3	19185	1908.5	Q16	8	HIGH	20.63	22.34	1.71
3	19185	1908.5	Q16	15	LOW	20.65	22.35	1.7
5	18625	1852.5	QPSK	1	LOW	20.42	22.12	1.7
5	18625	1852.5	QPSK	1	MID	21.12	21.56	0.44
5	18625	1852.5	QPSK	1	HIGH	20.55	21.97	1.42
5	18625	1852.5	QPSK	12	LOW	21.05	21.71	0.66
5	18625	1852.5	QPSK	12	MID	21.04	22.15	1.11
5	18625	1852.5	QPSK	12	HIGH	21.11	21.90	0.79
5	18625	1852.5	QPSK	25	LOW	20.42	22.40	1.98
5	18625	1852.5	Q16	1	LOW	20.48	21.87	1.39
5	18625	1852.5	Q16	1	MID	20.23	22.22	1.99
5	18625	1852.5	Q16	1	HIGH	20.36	21.56	1.2
5	18625	1852.5	Q16	12	LOW	20.82	21.56	0.74
5	18625	1852.5	Q16	12	MID	20.27	21.50	1.23
5	18625	1852.5	Q16	12	HIGH	20.68	22.31	1.63
5	18625	1852.5	Q16	25	LOW	20.72	21.80	1.08
5	18900	1880	QPSK	1	LOW	20.88	22.33	1.45
5	18900	1880	QPSK	1	MID	20.86	22.25	1.39
5	18900	1880	QPSK	1	HIGH	20.97	21.94	0.97
5	18900	1880	QPSK	12	LOW	20.92	22.16	1.24
5	18900	1880	QPSK	12	MID	20.84	22.03	1.19
5	18900	1880	QPSK	12	HIGH	20.57	22.26	1.69
5	18900	1880	QPSK	25	LOW	20.96	21.80	0.84
5	18900	1880	Q16	1	LOW	20.59	22.49	1.9
5	18900	1880	Q16	1	MID	20.40	21.97	1.57
5	18900	1880	Q16	1	HIGH	20.58	21.62	1.04
5	18900	1880	Q16	12	LOW	21.10	21.83	0.73

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	18900	1880	Q16	12	MID	20.22	21.57	1.35
5	18900	1880	Q16	12	HIGH	20.57	22.29	1.72
5	18900	1880	Q16	25	LOW	21.06	22.29	1.23
5	19175	1907.5	QPSK	1	LOW	20.45	21.53	1.08
5	19175	1907.5	QPSK	1	MID	20.32	22.27	1.95
5	19175	1907.5	QPSK	1	HIGH	21.17	21.85	0.68
5	19175	1907.5	QPSK	12	LOW	21.18	21.56	0.38
5	19175	1907.5	QPSK	12	MID	21.12	21.88	0.76
5	19175	1907.5	QPSK	12	HIGH	20.92	21.97	1.05
5	19175	1907.5	QPSK	25	LOW	20.55	22.24	1.69
5	19175	1907.5	Q16	1	LOW	20.33	21.91	1.58
5	19175	1907.5	Q16	1	MID	20.44	21.79	1.35
5	19175	1907.5	Q16	1	HIGH	20.60	22.20	1.6
5	19175	1907.5	Q16	12	LOW	20.60	22.13	1.53
5	19175	1907.5	Q16	12	MID	20.87	22.46	1.59
5	19175	1907.5	Q16	12	HIGH	21.20	22.32	1.12
5	19175	1907.5	Q16	25	LOW	20.20	21.65	1.45
10	18650	1855	QPSK	1	LOW	21.11	22.45	1.34
10	18650	1855	QPSK	1	MID	20.73	21.73	1
10	18650	1855	QPSK	1	HIGH	20.71	22.35	1.64
10	18650	1855	QPSK	25	LOW	20.29	22.24	1.95
10	18650	1855	QPSK	25	MID	21.05	21.59	0.54
10	18650	1855	QPSK	25	HIGH	20.71	22.15	1.44
10	18650	1855	QPSK	50	LOW	20.41	22.24	1.83
10	18650	1855	Q16	1	LOW	20.89	21.98	1.09
10	18650	1855	Q16	1	MID	20.51	22.10	1.59
10	18650	1855	Q16	1	HIGH	21.12	21.67	0.55
10	18650	1855	Q16	25	LOW	20.72	22.25	1.53
10	18650	1855	Q16	25	MID	21.09	22.05	0.96
10	18650	1855	Q16	25	HIGH	20.25	21.79	1.54
10	18650	1855	Q16	50	LOW	20.23	22.02	1.79
10	18900	1880	QPSK	1	LOW	20.79	22.18	1.39
10	18900	1880	QPSK	1	MID	20.88	21.55	0.67
10	18900	1880	QPSK	1	HIGH	21.13	22.26	1.13
10	18900	1880	QPSK	25	LOW	20.47	22.46	1.99
10	18900	1880	QPSK	25	MID	20.63	21.58	0.95
10	18900	1880	QPSK	25	HIGH	21.06	21.61	0.55

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	18900	1880	QPSK	50	LOW	20.73	21.61	0.88
10	18900	1880	Q16	1	LOW	20.97	21.75	0.78
10	18900	1880	Q16	1	MID	20.75	22.17	1.42
10	18900	1880	Q16	1	HIGH	20.53	21.78	1.25
10	18900	1880	Q16	25	LOW	20.84	21.61	0.77
10	18900	1880	Q16	25	MID	20.43	21.56	1.13
10	18900	1880	Q16	25	HIGH	20.28	21.85	1.57
10	18900	1880	Q16	50	LOW	20.90	21.85	0.95
10	19150	1905	QPSK	1	LOW	20.86	21.96	1.1
10	19150	1905	QPSK	1	MID	21.13	21.72	0.59
10	19150	1905	QPSK	1	HIGH	20.23	22.47	2.24
10	19150	1905	QPSK	25	LOW	20.62	22.16	1.54
10	19150	1905	QPSK	25	MID	20.45	22.14	1.69
10	19150	1905	QPSK	25	HIGH	21.07	21.69	0.62
10	19150	1905	QPSK	50	LOW	20.90	22.33	1.43
10	19150	1905	Q16	1	LOW	21.06	21.57	0.51
10	19150	1905	Q16	1	MID	20.74	21.74	1
10	19150	1905	Q16	1	HIGH	21.06	21.72	0.66
10	19150	1905	Q16	25	LOW	20.98	21.73	0.75
10	19150	1905	Q16	25	MID	20.81	21.88	1.07
10	19150	1905	Q16	25	HIGH	20.62	22.22	1.6
10	19150	1905	Q16	50	LOW	20.61	22.36	1.75
15	18675	1857.5	QPSK	1	LOW	20.26	22.10	1.84
15	18675	1857.5	QPSK	1	MID	21.03	21.64	0.61
15	18675	1857.5	QPSK	1	HIGH	20.52	22.05	1.53
15	18675	1857.5	QPSK	36	LOW	21.09	22.39	1.3
15	18675	1857.5	QPSK	36	MID	20.33	21.60	1.27
15	18675	1857.5	QPSK	36	HIGH	20.98	21.90	0.92
15	18675	1857.5	QPSK	75	LOW	21.16	21.79	0.63
15	18675	1857.5	Q16	1	LOW	20.23	22.07	1.84
15	18675	1857.5	Q16	1	MID	20.98	22.01	1.03
15	18675	1857.5	Q16	1	HIGH	20.54	21.86	1.32
15	18675	1857.5	Q16	36	LOW	20.80	22.48	1.68
15	18675	1857.5	Q16	36	MID	20.32	21.55	1.23
15	18675	1857.5	Q16	36	HIGH	20.48	22.11	1.63
15	18675	1857.5	Q16	75	LOW	20.56	22.17	1.61
15	18900	1880	QPSK	1	LOW	21.15	22.28	1.13

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
15	18900	1880	QPSK	1	MID	20.44	22.22	1.78
15	18900	1880	QPSK	1	HIGH	20.98	21.60	0.62
15	18900	1880	QPSK	36	LOW	21.01	22.39	1.38
15	18900	1880	QPSK	36	MID	20.36	22.15	1.79
15	18900	1880	QPSK	36	HIGH	21.15	21.94	0.79
15	18900	1880	QPSK	75	LOW	20.26	22.29	2.03
15	18900	1880	Q16	1	LOW	20.44	21.65	1.21
15	18900	1880	Q16	1	MID	20.94	21.72	0.78
15	18900	1880	Q16	1	HIGH	21.09	22.38	1.29
15	18900	1880	Q16	36	LOW	20.58	21.93	1.35
15	18900	1880	Q16	36	MID	20.72	22.15	1.43
15	18900	1880	Q16	36	HIGH	21.02	22.02	1
15	18900	1880	Q16	75	LOW	21.18	21.94	0.76
15	19125	1902.5	QPSK	1	LOW	20.78	21.72	0.94
15	19125	1902.5	QPSK	1	MID	20.92	21.60	0.68
15	19125	1902.5	QPSK	1	HIGH	20.75	21.98	1.23
15	19125	1902.5	QPSK	36	LOW	20.97	21.83	0.86
15	19125	1902.5	QPSK	36	MID	21.18	22.19	1.01
15	19125	1902.5	QPSK	36	HIGH	20.96	22.26	1.3
15	19125	1902.5	QPSK	75	LOW	20.65	22.49	1.84
15	19125	1902.5	Q16	1	LOW	21.11	21.70	0.59
15	19125	1902.5	Q16	1	MID	20.95	21.90	0.95
15	19125	1902.5	Q16	1	HIGH	20.82	22.20	1.38
15	19125	1902.5	Q16	36	LOW	20.77	21.83	1.06
15	19125	1902.5	Q16	36	MID	20.98	22.28	1.3
15	19125	1902.5	Q16	36	HIGH	21.10	22.10	1
15	19125	1902.5	Q16	75	LOW	20.23	22.24	2.01
20	18700	1860	QPSK	1	LOW	20.83	22.28	1.45
20	18700	1860	QPSK	1	MID	20.68	21.58	0.9
20	18700	1860	QPSK	1	HIGH	20.31	22.33	2.02
20	18700	1860	QPSK	50	LOW	20.79	22.13	1.34
20	18700	1860	QPSK	50	MID	20.29	22.48	2.19
20	18700	1860	QPSK	50	HIGH	20.44	22.09	1.65
20	18700	1860	QPSK	100	LOW	20.32	22.20	1.88
20	18700	1860	Q16	1	LOW	20.33	22.46	2.13
20	18700	1860	Q16	1	MID	20.92	21.81	0.89
20	18700	1860	Q16	1	HIGH	20.55	21.90	1.35

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
20	18700	1860	Q16	50	LOW	20.29	22.41	2.12
20	18700	1860	Q16	50	MID	20.94	22.48	1.54
20	18700	1860	Q16	50	HIGH	20.97	21.80	0.83
20	18700	1860	Q16	100	LOW	20.47	22.00	1.53
20	18900	1880	QPSK	1	LOW	20.55	21.55	1
20	18900	1880	QPSK	1	MID	20.76	21.92	1.16
20	18900	1880	QPSK	1	HIGH	20.77	21.94	1.17
20	18900	1880	QPSK	50	LOW	20.39	21.88	1.49
20	18900	1880	QPSK	50	MID	20.32	21.99	1.67
20	18900	1880	QPSK	50	HIGH	20.78	22.45	1.67
20	18900	1880	QPSK	100	LOW	20.92	21.63	0.71
20	18900	1880	Q16	1	LOW	21.16	21.98	0.82
20	18900	1880	Q16	1	MID	21.09	21.73	0.64
20	18900	1880	Q16	1	HIGH	20.44	21.51	1.07
20	18900	1880	Q16	50	LOW	21.18	22.35	1.17
20	18900	1880	Q16	50	MID	20.80	22.30	1.5
20	18900	1880	Q16	50	HIGH	20.95	22.02	1.07
20	18900	1880	Q16	100	LOW	21.18	22.27	1.09
20	19100	1900	QPSK	1	LOW	20.52	22.23	1.71
20	19100	1900	QPSK	1	MID	20.45	22.26	1.81
20	19100	1900	QPSK	1	HIGH	21.15	21.53	0.38
20	19100	1900	QPSK	50	LOW	20.40	22.10	1.7
20	19100	1900	QPSK	50	MID	20.89	21.57	0.68
20	19100	1900	QPSK	50	HIGH	20.77	22.20	1.43
20	19100	1900	QPSK	100	LOW	20.83	22.48	1.65
20	19100	1900	Q16	1	LOW	20.71	21.77	1.06
20	19100	1900	Q16	1	MID	21.03	21.85	0.82
20	19100	1900	Q16	1	HIGH	20.50	21.88	1.38
20	19100	1900	Q16	50	LOW	20.65	21.54	0.89
20	19100	1900	Q16	50	MID	21.18	22.17	0.99
20	19100	1900	Q16	50	HIGH	20.56	21.73	1.17
20	19100	1900	Q16	100	LOW	20.61	22.1	1.49

BAND 4:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	19957	1710.7	QPSK	1	LOW	20.94	21.76	0.82
1.4	19957	1710.7	QPSK	1	MID	20.28	21.70	1.42
1.4	19957	1710.7	QPSK	1	HIGH	21.15	22.46	1.31
1.4	19957	1710.7	QPSK	3	LOW	20.55	22.20	1.65
1.4	19957	1710.7	QPSK	3	MID	20.64	22.42	1.78
1.4	19957	1710.7	QPSK	3	HIGH	20.87	21.56	0.69
1.4	19957	1710.7	QPSK	6	LOW	20.45	22.44	1.99
1.4	19957	1710.7	Q16	1	LOW	20.52	22.17	1.65
1.4	19957	1710.7	Q16	1	MID	21.13	21.56	0.43
1.4	19957	1710.7	Q16	1	HIGH	21.12	22.19	1.07
1.4	19957	1710.7	Q16	3	LOW	21.05	22.22	1.17
1.4	19957	1710.7	Q16	3	MID	20.34	22.48	2.14
1.4	19957	1710.7	Q16	3	HIGH	21.09	22.11	1.02
1.4	19957	1710.7	Q16	6	LOW	20.59	21.56	0.97
1.4	20393	1754.3	QPSK	1	LOW	20.91	21.78	0.87
1.4	20393	1754.3	QPSK	1	MID	20.62	21.73	1.11
1.4	20393	1754.3	QPSK	1	HIGH	21.10	22.23	1.13
1.4	20393	1754.3	QPSK	3	LOW	20.63	22.39	1.76
1.4	20393	1754.3	QPSK	3	MID	20.34	22.21	1.87
1.4	20393	1754.3	QPSK	3	HIGH	20.72	21.68	0.96
1.4	20393	1754.3	QPSK	6	LOW	20.46	22.06	1.6
1.4	20393	1754.3	Q16	1	LOW	20.60	22.26	1.66
1.4	20393	1754.3	Q16	1	MID	20.68	22.07	1.39
1.4	20393	1754.3	Q16	1	HIGH	20.51	22.28	1.77
1.4	20393	1754.3	Q16	3	LOW	20.50	21.69	1.19
1.4	20393	1754.3	Q16	3	MID	20.55	21.76	1.21
1.4	20393	1754.3	Q16	3	HIGH	20.41	21.75	1.34
1.4	20393	1754.3	Q16	6	LOW	20.55	21.68	1.13
1.4	20175	1732.5	QPSK	1	LOW	20.21	22.24	2.03
1.4	20175	1732.5	QPSK	1	MID	20.22	22.25	2.03
1.4	20175	1732.5	QPSK	1	HIGH	20.65	22.38	1.73
1.4	20175	1732.5	QPSK	3	LOW	21.05	21.71	0.66
1.4	20175	1732.5	QPSK	3	MID	20.70	21.68	0.98
1.4	20175	1732.5	QPSK	3	HIGH	20.60	22.40	1.8
1.4	20175	1732.5	QPSK	6	LOW	20.43	21.53	1.1
1.4	20175	1732.5	Q16	1	LOW	21.07	22.49	1.42

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	20175	1732.5	Q16	1	MID	21.10	22.46	1.36
1.4	20175	1732.5	Q16	1	HIGH	20.39	22.50	2.11
1.4	20175	1732.5	Q16	3	LOW	20.40	21.84	1.44
1.4	20175	1732.5	Q16	3	MID	21.10	22.00	0.9
1.4	20175	1732.5	Q16	3	HIGH	20.83	21.77	0.94
1.4	20175	1732.5	Q16	6	LOW	21.14	21.98	0.84
3	19965	1711.5	QPSK	1	LOW	20.90	21.82	0.92
3	19965	1711.5	QPSK	1	MID	20.49	22.13	1.64
3	19965	1711.5	QPSK	1	HIGH	20.60	21.93	1.33
3	19965	1711.5	QPSK	8	LOW	20.25	22.39	2.14
3	19965	1711.5	QPSK	8	MID	21.19	22.42	1.23
3	19965	1711.5	QPSK	8	HIGH	20.48	21.51	1.03
3	19965	1711.5	QPSK	15	LOW	20.79	22.36	1.57
3	19965	1711.5	Q16	1	LOW	20.57	21.84	1.27
3	19965	1711.5	Q16	1	MID	20.52	22.42	1.9
3	19965	1711.5	Q16	1	HIGH	20.21	22.32	2.11
3	19965	1711.5	Q16	8	LOW	20.71	21.68	0.97
3	19965	1711.5	Q16	8	MID	20.89	22.48	1.59
3	19965	1711.5	Q16	8	HIGH	20.85	22.00	1.15
3	19965	1711.5	Q16	15	LOW	20.40	22.44	2.04
3	20385	1753.5	QPSK	1	LOW	20.28	21.80	1.52
3	20385	1753.5	QPSK	1	MID	21.12	21.62	0.5
3	20385	1753.5	QPSK	1	HIGH	21.12	21.83	0.71
3	20385	1753.5	QPSK	8	LOW	20.86	22.21	1.35
3	20385	1753.5	QPSK	8	MID	20.60	21.63	1.03
3	20385	1753.5	QPSK	8	HIGH	20.48	21.62	1.14
3	20385	1753.5	QPSK	15	LOW	20.74	21.78	1.04
3	20385	1753.5	Q16	1	LOW	21.02	22.42	1.4
3	20385	1753.5	Q16	1	MID	20.52	21.66	1.14
3	20385	1753.5	Q16	1	HIGH	21.10	22.36	1.26
3	20385	1753.5	Q16	8	LOW	20.85	22.23	1.38
3	20385	1753.5	Q16	8	MID	21.09	21.50	0.41
3	20385	1753.5	Q16	8	HIGH	20.77	22.04	1.27
3	20385	1753.5	Q16	15	LOW	20.89	21.74	0.85
3	20175	1732.5	QPSK	1	LOW	20.27	22.48	2.21
3	20175	1732.5	QPSK	1	MID	20.83	22.35	1.52
3	20175	1732.5	QPSK	1	HIGH	20.95	21.87	0.92

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
3	20175	1732.5	QPSK	8	LOW	21.01	22.16	1.15
3	20175	1732.5	QPSK	8	MID	20.28	21.54	1.26
3	20175	1732.5	QPSK	8	HIGH	20.20	22.05	1.85
3	20175	1732.5	QPSK	15	LOW	20.87	22.09	1.22
3	20175	1732.5	Q16	1	LOW	21.00	22.37	1.37
3	20175	1732.5	Q16	1	MID	20.38	21.67	1.29
3	20175	1732.5	Q16	1	HIGH	20.24	21.79	1.55
3	20175	1732.5	Q16	8	LOW	20.57	22.05	1.48
3	20175	1732.5	Q16	8	MID	20.43	22.27	1.84
3	20175	1732.5	Q16	8	HIGH	20.60	21.59	0.99
3	20175	1732.5	Q16	15	LOW	20.59	22.29	1.7
5	19975	1712.5	QPSK	1	LOW	20.43	22.18	1.75
5	19975	1712.5	QPSK	1	MID	21.19	21.87	0.68
5	19975	1712.5	QPSK	1	HIGH	21.11	21.52	0.41
5	19975	1712.5	QPSK	12	LOW	20.79	21.87	1.08
5	19975	1712.5	QPSK	12	MID	20.55	21.58	1.03
5	19975	1712.5	QPSK	12	HIGH	20.59	22.14	1.55
5	19975	1712.5	QPSK	25	LOW	20.86	22.31	1.45
5	19975	1712.5	Q16	1	LOW	20.54	21.52	0.98
5	19975	1712.5	Q16	1	MID	20.85	21.68	0.83
5	19975	1712.5	Q16	1	HIGH	20.68	21.92	1.24
5	19975	1712.5	Q16	12	LOW	20.75	22.48	1.73
5	19975	1712.5	Q16	12	MID	20.96	21.52	0.56
5	19975	1712.5	Q16	12	HIGH	20.46	21.93	1.47
5	19975	1712.5	Q16	25	LOW	20.59	22.13	1.54
5	20375	1752.5	QPSK	1	LOW	20.78	22.41	1.63
5	20375	1752.5	QPSK	1	MID	20.81	22.01	1.2
5	20375	1752.5	QPSK	1	HIGH	21.05	21.54	0.49
5	20375	1752.5	QPSK	12	LOW	20.53	21.83	1.3
5	20375	1752.5	QPSK	12	MID	20.64	21.91	1.27
5	20375	1752.5	QPSK	12	HIGH	20.75	21.70	0.95
5	20375	1752.5	QPSK	25	LOW	21.05	22.08	1.03
5	20375	1752.5	Q16	1	LOW	20.50	22.28	1.78
5	20375	1752.5	Q16	1	MID	20.77	21.82	1.05
5	20375	1752.5	Q16	1	HIGH	20.51	22.21	1.7
5	20375	1752.5	Q16	12	LOW	20.32	21.68	1.36
5	20375	1752.5	Q16	12	MID	20.60	21.53	0.93

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	20375	1752.5	Q16	12	HIGH	20.60	22.36	1.76
5	20375	1752.5	Q16	25	LOW	20.40	22.12	1.72
5	20175	1732.5	QPSK	1	LOW	20.99	21.91	0.92
5	20175	1732.5	QPSK	1	MID	20.84	21.54	0.7
5	20175	1732.5	QPSK	1	HIGH	20.53	21.79	1.26
5	20175	1732.5	QPSK	12	LOW	21.03	21.93	0.9
5	20175	1732.5	QPSK	12	MID	20.85	21.64	0.79
5	20175	1732.5	QPSK	12	HIGH	20.34	22.06	1.72
5	20175	1732.5	QPSK	25	LOW	20.99	22.17	1.18
5	20175	1732.5	Q16	1	LOW	20.84	21.82	0.98
5	20175	1732.5	Q16	1	MID	20.57	21.96	1.39
5	20175	1732.5	Q16	1	HIGH	20.32	22.41	2.09
5	20175	1732.5	Q16	12	LOW	20.24	21.62	1.38
5	20175	1732.5	Q16	12	MID	21.20	21.76	0.56
5	20175	1732.5	Q16	12	HIGH	20.33	22.06	1.73
5	20175	1732.5	Q16	25	LOW	20.67	22.46	1.79
10	20000	1715	QPSK	1	LOW	20.67	21.80	1.13
10	20000	1715	QPSK	1	MID	20.43	21.61	1.18
10	20000	1715	QPSK	1	HIGH	21.01	22.10	1.09
10	20000	1715	QPSK	25	LOW	20.43	22.36	1.93
10	20000	1715	QPSK	25	MID	20.81	22.33	1.52
10	20000	1715	QPSK	25	HIGH	20.48	22.04	1.56
10	20000	1715	QPSK	50	LOW	20.84	22.29	1.45
10	20000	1715	Q16	1	LOW	20.32	22.46	2.14
10	20000	1715	Q16	1	MID	20.64	22.45	1.81
10	20000	1715	Q16	1	HIGH	20.51	21.83	1.32
10	20000	1715	Q16	25	LOW	20.63	21.58	0.95
10	20000	1715	Q16	25	MID	21.01	22.28	1.27
10	20000	1715	Q16	25	HIGH	20.58	21.64	1.06
10	20000	1715	Q16	50	LOW	20.52	21.79	1.27
10	20350	1750	QPSK	1	LOW	20.87	22.29	1.42
10	20350	1750	QPSK	1	MID	20.92	22.04	1.12
10	20350	1750	QPSK	1	HIGH	20.79	22.11	1.32
10	20350	1750	QPSK	25	LOW	21.20	21.94	0.74
10	20350	1750	QPSK	25	MID	20.71	21.79	1.08
10	20350	1750	QPSK	25	HIGH	20.38	22.14	1.76
10	20350	1750	QPSK	50	LOW	20.61	22.19	1.58

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	20350	1750	Q16	1	LOW	20.60	22.38	1.78
10	20350	1750	Q16	1	MID	20.23	21.88	1.65
10	20350	1750	Q16	1	HIGH	20.49	22.20	1.71
10	20350	1750	Q16	25	LOW	20.46	22.11	1.65
10	20350	1750	Q16	25	MID	20.85	22.38	1.53
10	20350	1750	Q16	25	HIGH	20.98	22.00	1.02
10	20350	1750	Q16	50	LOW	20.31	21.97	1.66
10	20175	1732.5	QPSK	1	LOW	20.98	21.96	0.98
10	20175	1732.5	QPSK	1	MID	20.92	22.33	1.41
10	20175	1732.5	QPSK	1	HIGH	20.81	21.56	0.75
10	20175	1732.5	QPSK	25	LOW	21.07	22.38	1.31
10	20175	1732.5	QPSK	25	MID	20.73	21.85	1.12
10	20175	1732.5	QPSK	25	HIGH	20.83	22.15	1.32
10	20175	1732.5	QPSK	50	LOW	20.70	21.58	0.88
10	20175	1732.5	Q16	1	LOW	20.50	21.66	1.16
10	20175	1732.5	Q16	1	MID	20.72	22.24	1.52
10	20175	1732.5	Q16	1	HIGH	20.24	22.33	2.09
10	20175	1732.5	Q16	25	LOW	20.39	21.84	1.45
10	20175	1732.5	Q16	25	MID	20.87	21.53	0.66
10	20175	1732.5	Q16	25	HIGH	20.39	22.09	1.7
10	20175	1732.5	Q16	50	LOW	20.86	22.40	1.54
15	20025	1717.5	QPSK	1	LOW	20.67	21.59	0.92
15	20025	1717.5	QPSK	1	MID	20.82	22.39	1.57
15	20025	1717.5	QPSK	1	HIGH	20.48	22.13	1.65
15	20025	1717.5	QPSK	36	LOW	20.59	22.39	1.8
15	20025	1717.5	QPSK	36	MID	21.11	21.70	0.59
15	20025	1717.5	QPSK	36	HIGH	20.78	21.96	1.18
15	20025	1717.5	QPSK	75	LOW	20.98	22.12	1.14
15	20025	1717.5	Q16	1	LOW	21.07	21.60	0.53
15	20025	1717.5	Q16	1	MID	20.27	22.49	2.22
15	20025	1717.5	Q16	1	HIGH	20.21	21.50	1.29
15	20025	1717.5	Q16	36	LOW	21.01	21.93	0.92
15	20025	1717.5	Q16	36	MID	21.15	22.07	0.92
15	20025	1717.5	Q16	36	HIGH	21.06	22.00	0.94
15	20025	1717.5	Q16	75	LOW	21.00	21.71	0.71
15	20325	1747.5	QPSK	1	LOW	20.32	22.39	2.07
15	20325	1747.5	QPSK	1	MID	21.06	21.77	0.71

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
15	20325	1747.5	QPSK	1	HIGH	20.52	21.87	1.35
15	20325	1747.5	QPSK	36	LOW	20.75	22.50	1.75
15	20325	1747.5	QPSK	36	MID	21.10	21.89	0.79
15	20325	1747.5	QPSK	36	HIGH	20.56	21.91	1.35
15	20325	1747.5	QPSK	75	LOW	20.85	22.45	1.6
15	20325	1747.5	Q16	1	LOW	20.33	21.67	1.34
15	20325	1747.5	Q16	1	MID	20.52	22.04	1.52
15	20325	1747.5	Q16	1	HIGH	21.15	21.72	0.57
15	20325	1747.5	Q16	36	LOW	20.41	21.84	1.43
15	20325	1747.5	Q16	36	MID	20.74	21.95	1.21
15	20325	1747.5	Q16	36	HIGH	20.44	21.74	1.3
15	20325	1747.5	Q16	75	LOW	20.90	22.17	1.27
15	20175	1732.5	QPSK	1	LOW	20.75	22.22	1.47
15	20175	1732.5	QPSK	1	MID	20.91	21.73	0.82
15	20175	1732.5	QPSK	1	HIGH	20.99	22.34	1.35
15	20175	1732.5	QPSK	36	LOW	20.84	21.81	0.97
15	20175	1732.5	QPSK	36	MID	20.37	21.78	1.41
15	20175	1732.5	QPSK	36	HIGH	20.70	22.10	1.4
15	20175	1732.5	QPSK	75	LOW	20.76	21.72	0.96
15	20175	1732.5	Q16	1	LOW	20.51	21.83	1.32
15	20175	1732.5	Q16	1	MID	20.35	22.43	2.08
15	20175	1732.5	Q16	1	HIGH	20.63	22.01	1.38
15	20175	1732.5	Q16	36	LOW	20.41	21.53	1.12
15	20175	1732.5	Q16	36	MID	20.87	21.58	0.71
15	20175	1732.5	Q16	36	HIGH	20.26	22.11	1.85
15	20175	1732.5	Q16	75	LOW	20.76	21.92	1.16
20	20050	1720	QPSK	1	LOW	20.60	22.00	1.4
20	20050	1720	QPSK	1	MID	21.02	22.37	1.35
20	20050	1720	QPSK	1	HIGH	20.93	21.54	0.61
20	20050	1720	QPSK	50	LOW	21.19	21.96	0.77
20	20050	1720	QPSK	50	MID	21.02	21.58	0.56
20	20050	1720	QPSK	50	HIGH	21.05	22.17	1.12
20	20050	1720	QPSK	100	LOW	20.96	21.60	0.64
20	20050	1720	Q16	1	LOW	21.10	21.56	0.46
20	20050	1720	Q16	1	MID	21.07	21.63	0.56
20	20050	1720	Q16	1	HIGH	20.85	21.52	0.67
20	20050	1720	Q16	50	LOW	20.41	22.16	1.75

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
20	20050	1720	Q16	50	MID	20.63	21.82	1.19
20	20050	1720	Q16	50	HIGH	21.16	22.25	1.09
20	20050	1720	Q16	100	LOW	21.20	22.29	1.09
20	20300	1745	QPSK	1	LOW	20.48	21.79	1.31
20	20300	1745	QPSK	1	MID	20.87	22.10	1.23
20	20300	1745	QPSK	1	HIGH	20.91	22.07	1.16
20	20300	1745	QPSK	50	LOW	20.71	22.04	1.33
20	20300	1745	QPSK	50	MID	20.55	22.39	1.84
20	20300	1745	QPSK	50	HIGH	20.34	21.85	1.51
20	20300	1745	QPSK	100	LOW	20.97	21.76	0.79
20	20300	1745	Q16	1	LOW	20.97	22.17	1.2
20	20300	1745	Q16	1	MID	20.97	22.30	1.33
20	20300	1745	Q16	1	HIGH	20.94	21.76	0.82
20	20300	1745	Q16	50	LOW	20.28	21.70	1.42
20	20300	1745	Q16	50	MID	21.15	22.46	1.31
20	20300	1745	Q16	50	HIGH	20.55	22.20	1.65
20	20300	1745	Q16	100	LOW	20.64	22.42	1.78
20	20175	1732.5	QPSK	1	LOW	20.87	21.56	0.69
20	20175	1732.5	QPSK	1	MID	20.45	22.44	1.99
20	20175	1732.5	QPSK	1	HIGH	20.52	22.17	1.65
20	20175	1732.5	QPSK	50	LOW	21.13	21.56	0.43
20	20175	1732.5	QPSK	50	MID	21.12	22.19	1.07
20	20175	1732.5	QPSK	50	HIGH	21.05	22.22	1.17
20	20175	1732.5	QPSK	100	LOW	20.34	22.48	2.14
20	20175	1732.5	Q16	1	LOW	21.09	22.11	1.02
20	20175	1732.5	Q16	1	MID	20.59	21.56	0.97
20	20175	1732.5	Q16	1	HIGH	20.91	21.78	0.87
20	20175	1732.5	Q16	50	LOW	20.62	21.73	1.11
20	20175	1732.5	Q16	50	MID	21.10	22.23	1.13
20	20175	1732.5	Q16	50	HIGH	20.63	22.39	1.76
20	20175	1732.5	Q16	100	LOW	20.34	22.21	1.87

BAND 7:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	20775	2502.5	QPSK	1	LOW	21.05	21.96	0.91
5	20775	2502.5	QPSK	1	MID	21.04	21.56	0.52
5	20775	2502.5	QPSK	1	HIGH	20.85	22.47	1.62
5	20775	2502.5	QPSK	12	LOW	21.12	22.47	1.35
5	20775	2502.5	QPSK	12	MID	21.03	21.67	0.64
5	20775	2502.5	QPSK	12	HIGH	20.71	21.71	1
5	20775	2502.5	QPSK	25	LOW	20.37	21.64	1.27
5	20775	2502.5	Q16	1	LOW	20.67	21.59	0.92
5	20775	2502.5	Q16	1	MID	20.99	21.94	0.95
5	20775	2502.5	Q16	1	HIGH	20.40	22.06	1.66
5	20775	2502.5	Q16	12	LOW	20.31	21.71	1.4
5	20775	2502.5	Q16	12	MID	20.79	21.76	0.97
5	20775	2502.5	Q16	12	HIGH	21.02	21.68	0.66
5	20775	2502.5	Q16	25	LOW	20.73	21.56	0.83
5	21425	2567.5	QPSK	1	LOW	20.90	21.70	0.8
5	21425	2567.5	QPSK	1	MID	20.79	21.53	0.74
5	21425	2567.5	QPSK	1	HIGH	20.53	21.83	1.3
5	21425	2567.5	QPSK	12	LOW	20.66	21.53	0.87
5	21425	2567.5	QPSK	12	MID	21.11	22.46	1.35
5	21425	2567.5	QPSK	12	HIGH	21.18	21.51	0.33
5	21425	2567.5	QPSK	25	LOW	20.30	22.28	1.98
5	21425	2567.5	Q16	1	LOW	20.41	22.10	1.69
5	21425	2567.5	Q16	1	MID	21.07	22.09	1.02
5	21425	2567.5	Q16	1	HIGH	20.77	22.43	1.66
5	21425	2567.5	Q16	12	LOW	21.15	21.94	0.79
5	21425	2567.5	Q16	12	MID	20.84	21.68	0.84
5	21425	2567.5	Q16	12	HIGH	20.79	21.71	0.92
5	21425	2567.5	Q16	25	LOW	20.67	21.67	1
5	21100	2535	QPSK	1	LOW	20.96	21.91	0.95
5	21100	2535	QPSK	1	MID	20.92	22.37	1.45
5	21100	2535	QPSK	1	HIGH	20.72	21.81	1.09
5	21100	2535	QPSK	12	LOW	20.60	21.54	0.94
5	21100	2535	QPSK	12	MID	20.73	22.07	1.34
5	21100	2535	QPSK	12	HIGH	20.95	21.58	0.63
5	21100	2535	QPSK	25	LOW	20.42	21.89	1.47
5	21100	2535	QPSK	1	LOW	20.41	21.97	1.56
5	21100	2535	QPSK	1	MID	20.85	21.84	0.99

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	21100	2535	QPSK	1	HIGH	20.48	21.87	1.39
5	21100	2535	QPSK	12	LOW	21.09	21.93	0.84
5	21100	2535	QPSK	12	MID	21.16	21.52	0.36
5	21100	2535	QPSK	12	HIGH	20.25	22.34	2.09
5	21100	2535	QPSK	25	LOW	21.01	22.23	1.22
10	20800	2505	QPSK	1	LOW	20.98	21.96	0.98
10	20800	2505	QPSK	1	MID	20.62	22.09	1.47
10	20800	2505	QPSK	1	HIGH	20.93	21.81	0.88
10	20800	2505	QPSK	25	LOW	20.40	22.40	2
10	20800	2505	QPSK	25	MID	21.09	21.71	0.62
10	20800	2505	QPSK	25	HIGH	20.56	21.71	1.15
10	20800	2505	QPSK	50	LOW	21.16	22.05	0.89
10	20800	2505	Q16	1	LOW	21.01	22.21	1.2
10	20800	2505	Q16	1	MID	20.74	21.54	0.8
10	20800	2505	Q16	1	HIGH	20.29	21.64	1.35
10	20800	2505	Q16	25	LOW	21.15	21.83	0.68
10	20800	2505	Q16	25	MID	21.09	21.52	0.43
10	20800	2505	Q16	25	HIGH	20.36	21.61	1.25
10	20800	2505	Q16	50	LOW	20.67	21.67	1
10	21400	2565	QPSK	1	LOW	20.36	22.16	1.8
10	21400	2565	QPSK	1	MID	20.26	22.11	1.85
10	21400	2565	QPSK	1	HIGH	20.96	22.25	1.29
10	21400	2565	QPSK	25	LOW	20.48	22.47	1.99
10	21400	2565	QPSK	25	MID	20.98	22.47	1.49
10	21400	2565	QPSK	25	HIGH	20.51	22.08	1.57
10	21400	2565	QPSK	50	LOW	20.65	22.24	1.59
10	21400	2565	QPSK	1	LOW	20.68	21.86	1.18
10	21400	2565	QPSK	1	MID	20.42	21.81	1.39
10	21400	2565	QPSK	1	HIGH	20.69	22.26	1.57
10	21400	2565	Q16	25	LOW	20.59	22.41	1.82
10	21400	2565	Q16	25	MID	20.43	22.24	1.81
10	21400	2565	Q16	25	HIGH	20.75	22.07	1.32
10	21400	2565	Q16	50	LOW	20.68	22.08	1.4
10	21100	2535	QPSK	1	LOW	20.77	21.80	1.03
10	21100	2535	QPSK	1	MID	20.37	21.94	1.57
10	21100	2535	QPSK	1	HIGH	21.19	22.33	1.14
10	21100	2535	QPSK	25	LOW	20.36	22.28	1.92
10	21100	2535	QPSK	25	MID	20.59	21.53	0.94

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	21100	2535	QPSK	25	HIGH	20.93	21.63	0.7
10	21100	2535	QPSK	50	LOW	20.98	21.63	0.65
10	21100	2535	QPSK	1	LOW	21.15	21.75	0.6
10	21100	2535	QPSK	1	MID	20.57	22.32	1.75
10	21100	2535	QPSK	1	HIGH	20.84	21.53	0.69
10	21100	2535	Q16	25	LOW	20.30	21.87	1.57
10	21100	2535	Q16	25	MID	20.98	21.56	0.58
10	21100	2535	Q16	25	HIGH	20.99	21.96	0.97
10	21100	2535	Q16	50	LOW	20.78	22.45	1.67
15	20825	2507.5	QPSK	1	LOW	20.74	22.42	1.68
15	20825	2507.5	QPSK	1	MID	20.70	22.09	1.39
15	20825	2507.5	QPSK	1	HIGH	20.98	21.95	0.97
15	20825	2507.5	QPSK	36	LOW	20.28	21.84	1.56
15	20825	2507.5	QPSK	36	MID	21.06	22.05	0.99
15	20825	2507.5	QPSK	36	HIGH	21.06	21.64	0.58
15	20825	2507.5	QPSK	75	LOW	20.52	22.29	1.77
15	20825	2507.5	Q16	1	LOW	20.42	22.34	1.92
15	20825	2507.5	Q16	1	MID	20.69	22.18	1.49
15	20825	2507.5	Q16	1	HIGH	21.01	21.64	0.63
15	20825	2507.5	Q16	36	LOW	21.20	21.54	0.34
15	20825	2507.5	Q16	36	MID	20.94	21.91	0.97
15	20825	2507.5	Q16	36	HIGH	21.12	21.58	0.46
15	20825	2507.5	Q16	75	LOW	20.26	22.29	2.03
15	21375	2562.5	QPSK	1	LOW	20.28	22.01	1.73
15	21375	2562.5	QPSK	1	MID	20.83	21.89	1.06
15	21375	2562.5	QPSK	1	HIGH	20.84	22.50	1.66
15	21375	2562.5	QPSK	36	LOW	21.16	21.60	0.44
15	21375	2562.5	QPSK	36	MID	20.68	21.95	1.27
15	21375	2562.5	QPSK	36	HIGH	20.97	22.10	1.13
15	21375	2562.5	QPSK	75	LOW	20.29	22.21	1.92
15	21375	2562.5	Q16	1	LOW	20.87	21.57	0.7
15	21375	2562.5	Q16	1	MID	21.19	22.50	1.31
15	21375	2562.5	Q16	1	HIGH	20.95	22.26	1.31
15	21375	2562.5	Q16	36	LOW	21.10	22.18	1.08
15	21375	2562.5	Q16	36	MID	20.33	22.28	1.95
15	21375	2562.5	Q16	36	HIGH	20.94	22.11	1.17
15	21375	2562.5	Q16	75	LOW	20.31	22.28	1.97
15	21100	2535	QPSK	1	LOW	20.51	22.14	1.63

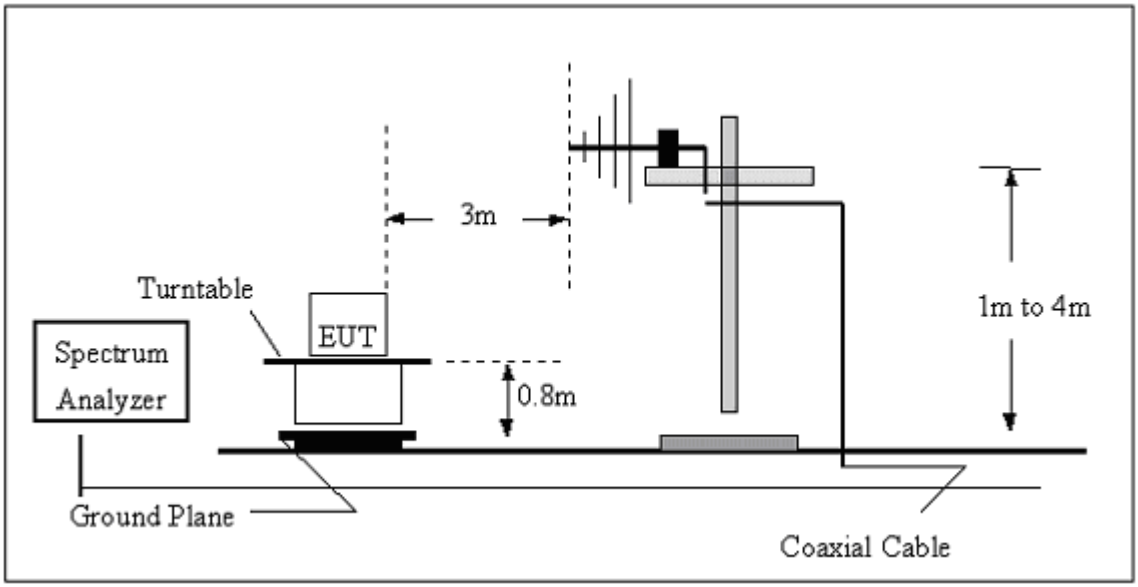
Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
15	21100	2535	QPSK	1	MID	20.48	22.04	1.56
15	21100	2535	QPSK	1	HIGH	20.47	21.89	1.42
15	21100	2535	QPSK	36	LOW	20.65	22.10	1.45
15	21100	2535	QPSK	36	MID	20.95	21.82	0.87
15	21100	2535	QPSK	36	HIGH	20.86	22.38	1.52
15	21100	2535	QPSK	75	LOW	20.56	21.70	1.14
15	21100	2535	Q16	1	LOW	21.18	21.53	0.35
15	21100	2535	Q16	1	MID	21.06	22.40	1.34
15	21100	2535	Q16	1	HIGH	20.76	21.73	0.97
15	21100	2535	Q16	36	LOW	20.55	22.15	1.6
15	21100	2535	Q16	36	MID	20.95	21.53	0.58
15	21100	2535	Q16	36	HIGH	21.16	21.72	0.56
15	21100	2535	Q16	75	LOW	21.18	22.05	0.87
20	20850	2510	QPSK	1	LOW	21.17	22.38	1.21
20	20850	2510	QPSK	1	MID	20.95	22.15	1.2
20	20850	2510	QPSK	1	HIGH	21.18	22.15	0.97
20	20850	2510	QPSK	50	LOW	20.99	21.72	0.73
20	20850	2510	QPSK	50	MID	20.84	22.04	1.2
20	20850	2510	QPSK	50	HIGH	20.82	21.99	1.17
20	20850	2510	QPSK	100	LOW	20.57	22.35	1.78
20	20850	2510	Q16	1	LOW	20.36	21.66	1.3
20	20850	2510	Q16	1	MID	20.82	22.02	1.2
20	20850	2510	Q16	1	HIGH	21.18	22.25	1.07
20	20850	2510	Q16	50	LOW	20.26	22.27	2.01
20	20850	2510	Q16	50	MID	20.32	22.17	1.85
20	20850	2510	Q16	50	HIGH	20.60	22.30	1.7
20	20850	2510	Q16	100	LOW	21.13	21.66	0.53
20	21100	2535	QPSK	1	LOW	20.54	22.16	1.62
20	21100	2535	QPSK	1	MID	20.92	22.01	1.09
20	21100	2535	QPSK	1	HIGH	20.74	21.96	1.22
20	21100	2535	QPSK	50	LOW	20.52	22.02	1.5
20	21100	2535	QPSK	50	MID	20.31	22.44	2.13
20	21100	2535	QPSK	50	HIGH	20.87	21.84	0.97
20	21100	2535	QPSK	100	LOW	20.21	21.81	1.6
20	21100	2535	Q16	1	LOW	20.94	22.08	1.14
20	21100	2535	Q16	1	MID	20.71	22.36	1.65
20	21100	2535	Q16	1	HIGH	20.55	21.76	1.21
20	21100	2535	Q16	50	LOW	20.56	22.47	1.91

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
20	21100	2535	Q16	50	MID	20.94	22.34	1.4
20	21100	2535	Q16	50	HIGH	21.08	22.05	0.97
20	21100	2535	Q16	100	LOW	20.39	21.81	1.42
20	21350	2560	QPSK	1	LOW	20.35	22.35	2
20	21350	2560	QPSK	1	MID	20.55	22.23	1.68
20	21350	2560	QPSK	1	HIGH	20.79	21.72	0.93
20	21350	2560	QPSK	50	LOW	20.36	22.25	1.89
20	21350	2560	QPSK	50	MID	20.59	21.57	0.98
20	21350	2560	QPSK	50	HIGH	20.79	22.35	1.56
20	21350	2560	QPSK	100	LOW	20.78	21.85	1.07
20	21350	2560	Q16	1	LOW	20.44	21.74	1.3
20	21350	2560	Q16	1	MID	20.86	21.81	0.95
20	21350	2560	Q16	1	HIGH	20.81	21.60	0.79
20	21350	2560	Q16	50	LOW	21.14	21.81	0.67
20	21350	2560	Q16	50	MID	20.95	21.55	0.6
20	21350	2560	Q16	50	HIGH	20.57	22.38	1.81
20	21350	2560	Q16	100	LOW	20.84	22.12	1.28

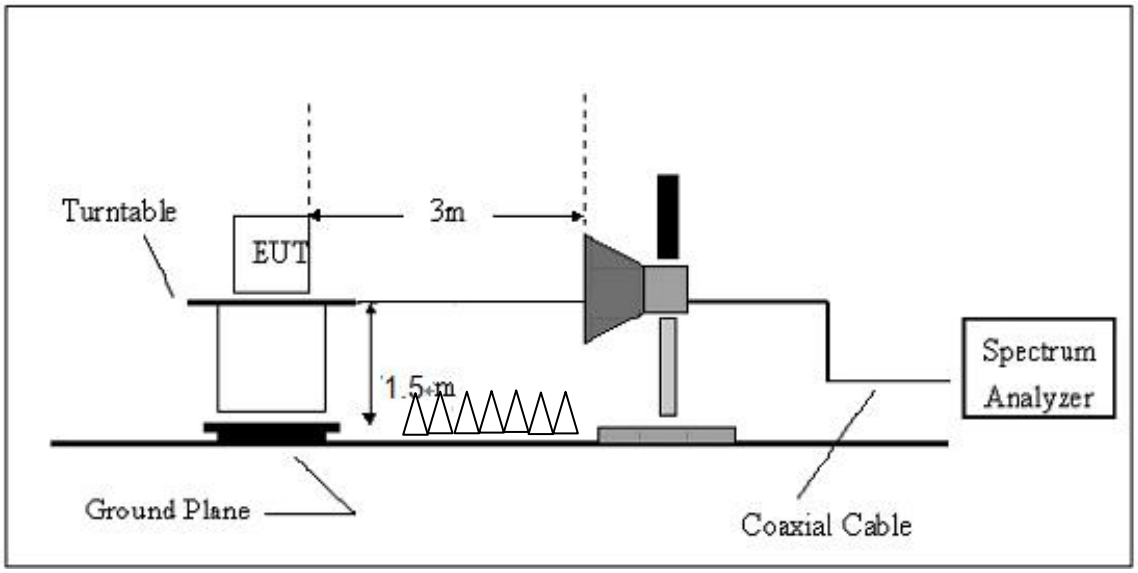
SPURIOUS EMISSION (Conducted and Radiated)

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in §2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

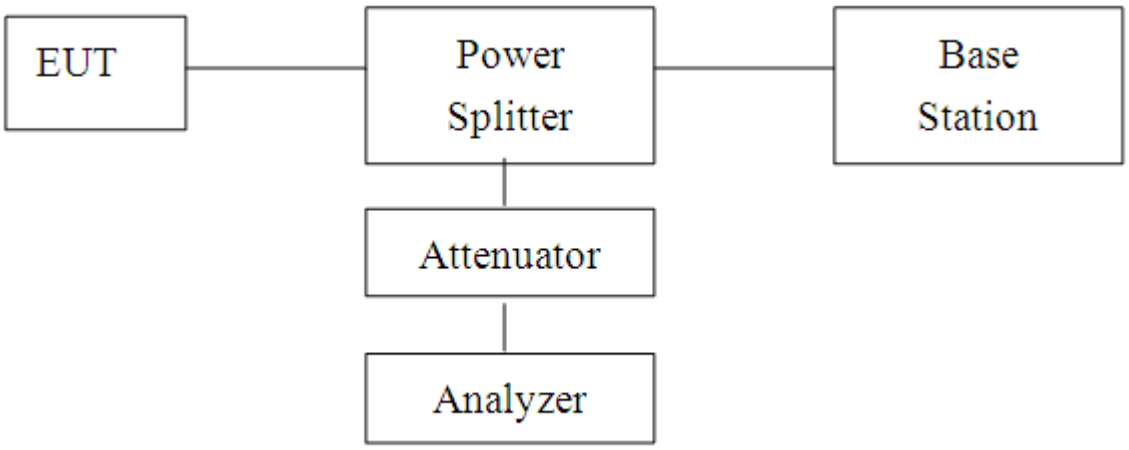
（A）Radiated Emission Test-Up Frequency 30MHz~1GHz



（B）Radiated Emission Test-Up Frequency Above 1GHz



（C） Conducted Emission Test-Up



5.1 Measurement Result (Pre-measurement)

GSM850:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	0.2	128	824.2	Pass
Middle Range	0.2	190	836.6	Pass
High Range	0.2	251	848.8	Pass

PCS 1900：

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	0.2	512	1850.2	Pass
Middle Range	0.2	661	1880.0	Pass
High Range	0.2	810	1909.8	Pass

UTRA BANDS

BAND 2:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	5	9262	1852.4	Pass
Middle Range	5	9400	1880.0	Pass
High Range	5	9538	1907.6	Pass

BAND 4:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	5	1312	1712.4	Pass
Middle Range	5	1413	1732.6	Pass
High Range	5	1513	1752.6	Pass

BAND 5:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	5	4132	826.4	Pass
Middle Range	5	4182	836.4	Pass
High Range	5	4233	846.6	Pass

E-UTRA BANDS

BAND 2:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1.4	18607	1850.7	QPSK	6	LOW	Pass
1.4	18607	1850.7	Q16	6	LOW	Pass
1.4	18900	1880	QPSK	6	LOW	Pass
1.4	18900	1880	Q16	6	LOW	Pass
1.4	19193	1909.3	QPSK	6	LOW	Pass
1.4	19193	1909.3	Q16	6	LOW	Pass
3	18615	1851.5	QPSK	15	LOW	Pass
3	18615	1851.5	Q16	15	LOW	Pass
3	18900	1880	QPSK	15	LOW	Pass
3	18900	1880	Q16	15	LOW	Pass
3	19185	1908.5	QPSK	15	LOW	Pass
3	19185	1908.5	Q16	15	LOW	Pass
5	18625	1852.5	QPSK	25	LOW	Pass
5	18625	1852.5	Q16	25	LOW	Pass
5	18900	1880	QPSK	25	LOW	Pass
5	18900	1880	Q16	25	LOW	Pass
5	19175	1907.5	QPSK	25	LOW	Pass
5	19175	1907.5	Q16	25	LOW	Pass
10	18650	1855	QPSK	50	LOW	Pass
10	18650	1855	Q16	50	LOW	Pass
10	18900	1880	QPSK	50	LOW	Pass
10	18900	1880	Q16	50	LOW	Pass
10	19150	1905	QPSK	50	LOW	Pass
10	19150	1905	Q16	50	LOW	Pass
15	18675	1857.5	QPSK	75	LOW	Pass
15	18675	1857.5	Q16	75	LOW	Pass
15	18900	1880	QPSK	75	LOW	Pass
15	18900	1880	Q16	75	LOW	Pass
15	19125	1902.5	QPSK	75	LOW	Pass
15	19125	1902.5	Q16	75	LOW	Pass
20	18700	1860	QPSK	100	LOW	Pass
20	18700	1860	Q16	100	LOW	Pass
20	18900	1880	QPSK	100	LOW	Pass
20	18900	1880	Q16	100	LOW	Pass
20	19100	1900	QPSK	100	LOW	Pass

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
20	19100	1900	Q16	100	LOW	Pass

BAND 4:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1.4	19957	1710.7	QPSK	6	LOW	Pass
1.4	19957	1710.7	Q16	6	LOW	Pass
1.4	20393	1754.3	QPSK	6	LOW	Pass
1.4	20393	1754.3	Q16	6	LOW	Pass
1.4	20175	1732.5	QPSK	6	LOW	Pass
1.4	20175	1732.5	Q16	6	LOW	Pass
3	19965	1711.5	QPSK	15	LOW	Pass
3	19965	1711.5	Q16	15	LOW	Pass
3	20385	1753.5	QPSK	15	LOW	Pass
3	20385	1753.5	Q16	15	LOW	Pass
3	20175	1732.5	QPSK	15	LOW	Pass
3	20175	1732.5	Q16	15	LOW	Pass
5	19975	1712.5	QPSK	25	LOW	Pass
5	19975	1712.5	Q16	25	LOW	Pass
5	20375	1752.5	QPSK	25	LOW	Pass
5	20375	1752.5	Q16	25	LOW	Pass
5	20175	1732.5	QPSK	25	LOW	Pass
5	20175	1732.5	Q16	25	LOW	Pass
10	20000	1715	QPSK	50	LOW	Pass
10	20000	1715	Q16	50	LOW	Pass
10	20350	1750	QPSK	50	LOW	Pass
10	20350	1750	Q16	50	LOW	Pass
10	20175	1732.5	QPSK	50	LOW	Pass
10	20175	1732.5	Q16	50	LOW	Pass
15	20025	1717.5	QPSK	75	LOW	Pass
15	20025	1717.5	Q16	75	LOW	Pass
15	20325	1747.5	QPSK	75	LOW	Pass
15	20325	1747.5	Q16	75	LOW	Pass
15	20175	1732.5	QPSK	75	LOW	Pass
15	20175	1732.5	Q16	75	LOW	Pass
20	20050	1720	QPSK	100	LOW	Pass
20	20050	1720	Q16	100	LOW	Pass
20	20300	1745	QPSK	100	LOW	Pass

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
20	20300	1745	Q16	100	LOW	Pass
20	20175	1732.5	QPSK	100	LOW	Pass
20	20175	1732.5	Q16	100	LOW	Pass

BAND 7:

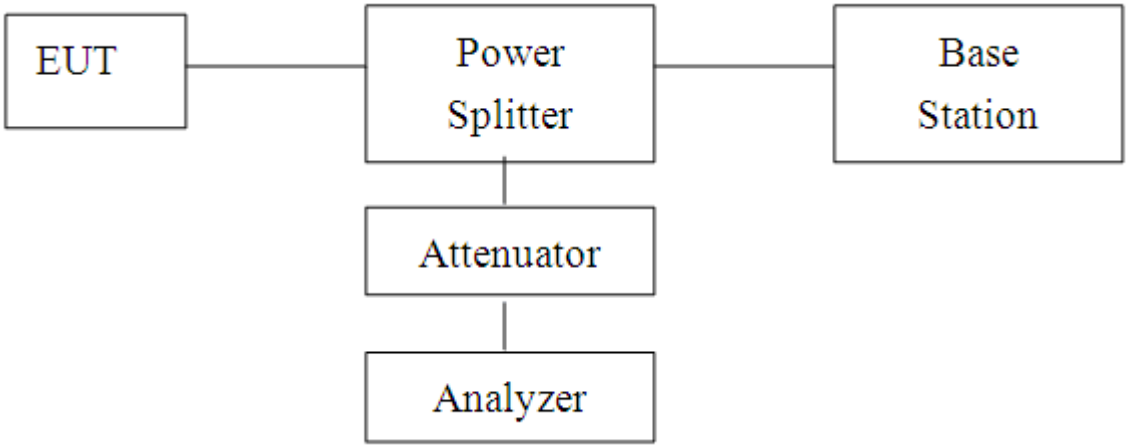
Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
5	20775	2502.5	QPSK	25	LOW	Pass
5	20775	2502.5	Q16	25	LOW	Pass
5	21425	2567.5	QPSK	25	LOW	Pass
5	21425	2567.5	Q16	25	LOW	Pass
5	21100	2535	QPSK	25	LOW	Pass
5	21100	2535	QPSK	25	LOW	Pass
10	20800	2505	QPSK	50	LOW	Pass
10	20800	2505	Q16	50	LOW	Pass
10	21400	2565	QPSK	50	LOW	Pass
10	21400	2565	Q16	50	LOW	Pass
10	21100	2535	QPSK	50	LOW	Pass
10	21100	2535	Q16	50	LOW	Pass
15	20825	2507.5	QPSK	75	LOW	Pass
15	20825	2507.5	Q16	75	LOW	Pass
15	21375	2562.5	QPSK	75	LOW	Pass
15	21375	2562.5	Q16	75	LOW	Pass
15	21100	2535	QPSK	75	LOW	Pass
15	21100	2535	Q16	75	LOW	Pass
20	20850	2510	QPSK	100	LOW	Pass
20	20850	2510	Q16	100	LOW	Pass
20	21350	2560	QPSK	100	LOW	Pass
20	21350	2560	Q16	100	LOW	Pass
20	21100	2535	QPSK	100	LOW	Pass
20	21100	2535	Q16	100	LOW	Pass

Test Plot(s)

5.1.1 Conducted method

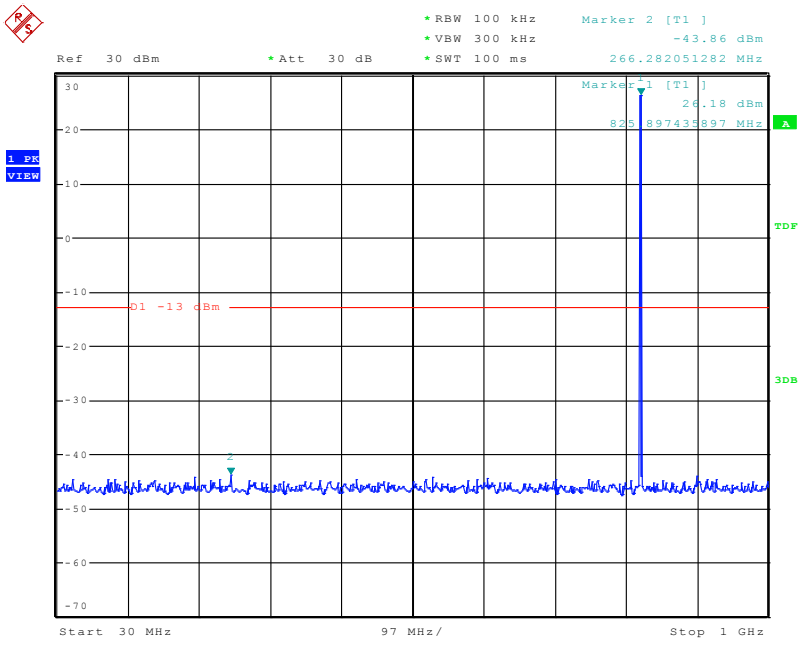
The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in §2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

Conducted Emission Test-Up



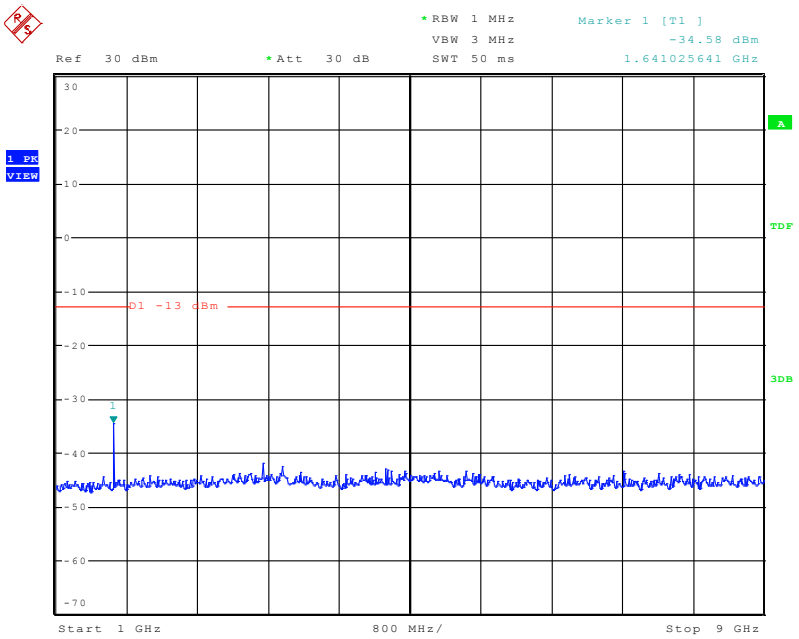
CONDUCTED EMISSION IN GSM850 BAND

Conducted Emission Transmitting Mode CH 128 30MHz – 1GHz



Date: 14.FEB.2017 08:37:12

Conducted Emission Transmitting Mode CH 128 1GHz – 9GHz



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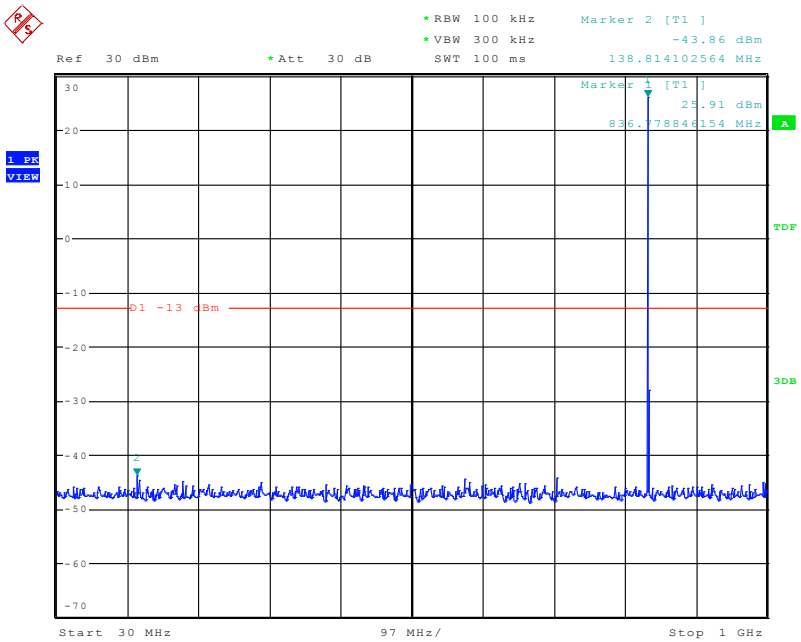
Conducted Emission Transmitting Mode CH 190 30MHz – 1GHz



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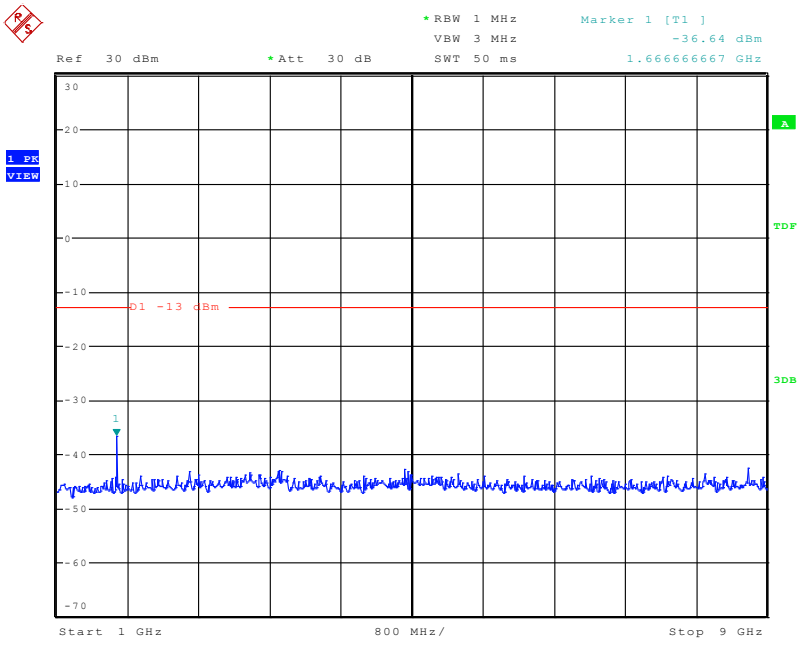
Conducted Emission Transmitting Mode CH 190 1GHz – 9GHz



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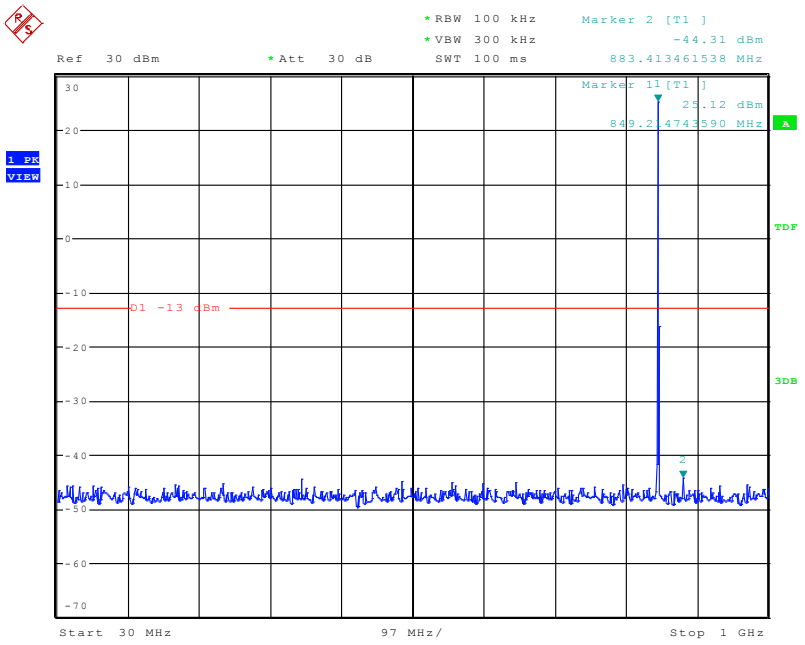
Conducted Emission Transmitting Mode CH 251 30MHz – 1GHz



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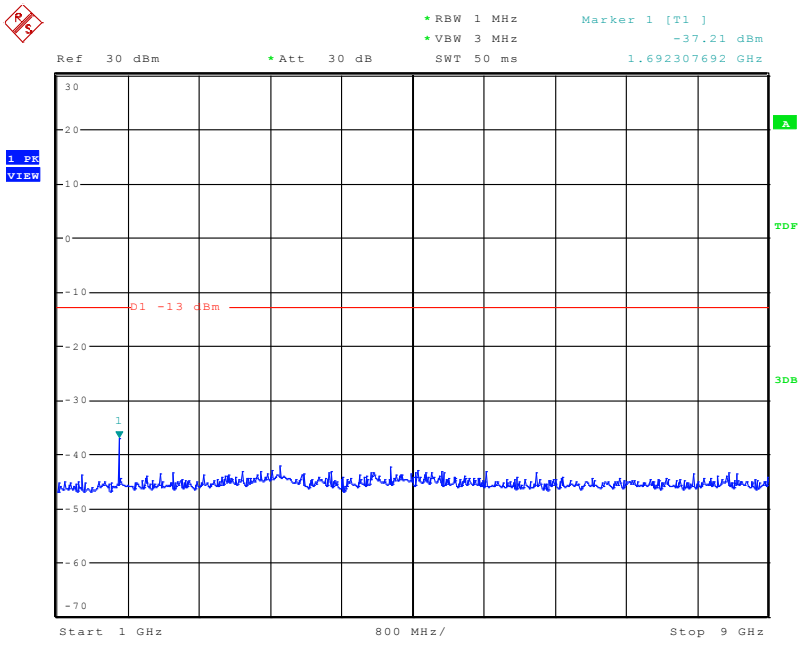
Conducted Emission Transmitting Mode CH 251 1GHz – 9GHz



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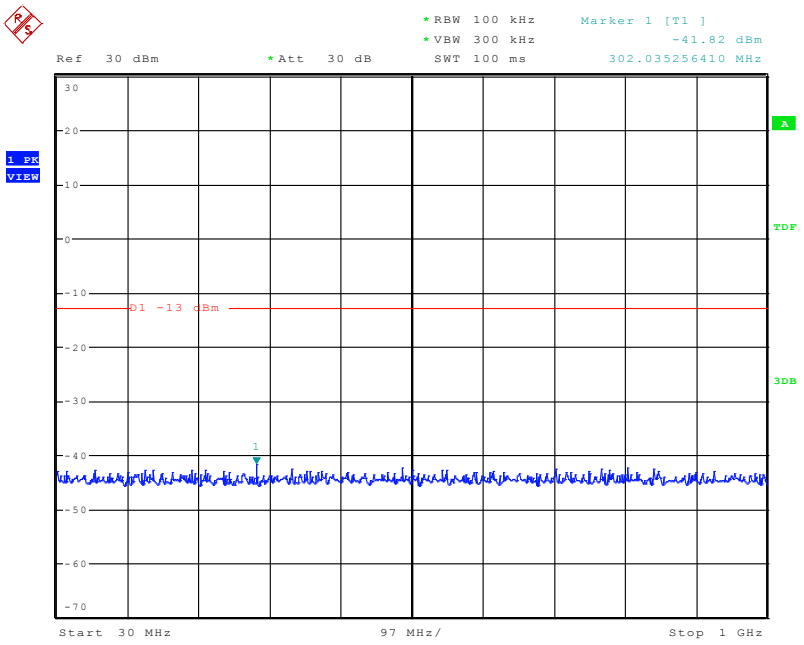
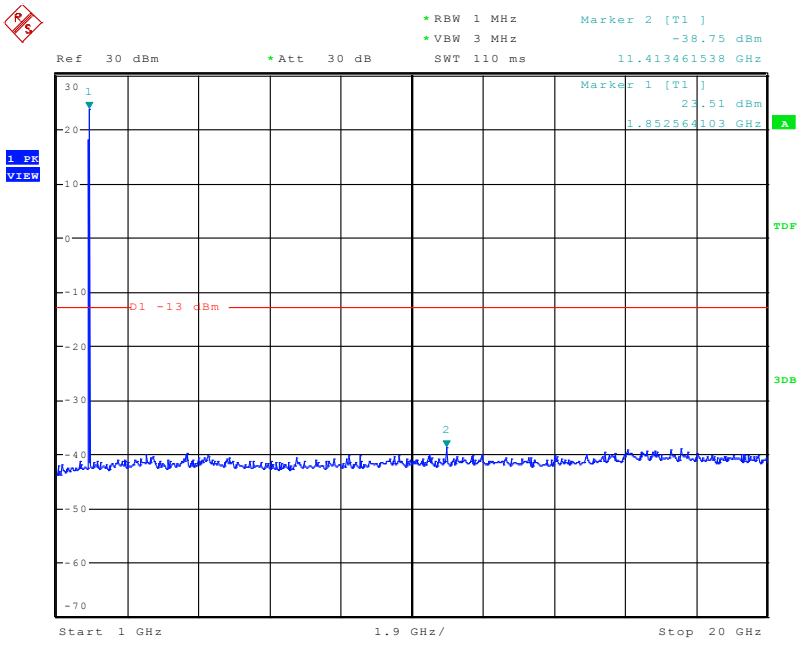
CONDUCTED EMISSION IN PCS1900 BAND

Conducted Emission Transmitting Mode CH 512 30MHz – 1GHz



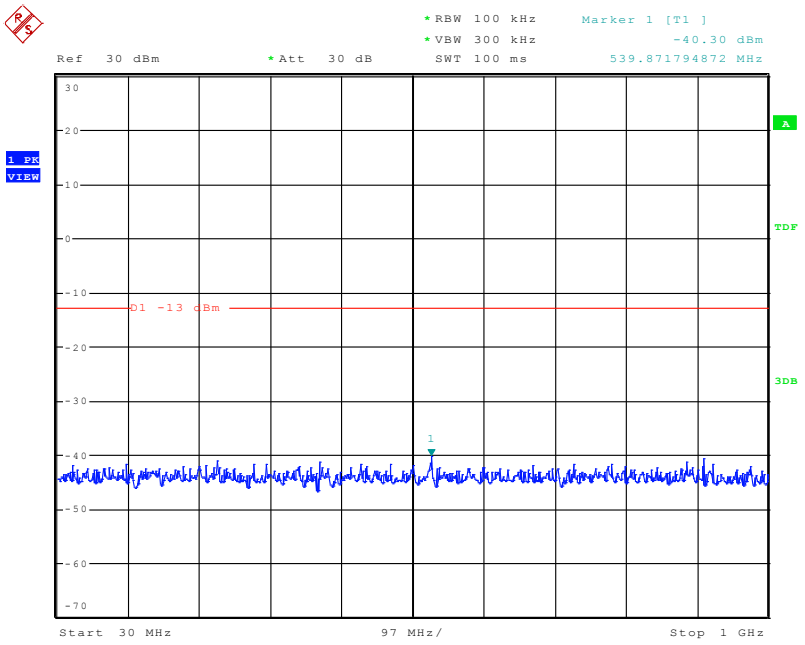
Date: 14.FEB.2017 09:05:01

Conducted Emission Transmitting Mode CH 512 1GHz – 20GHz



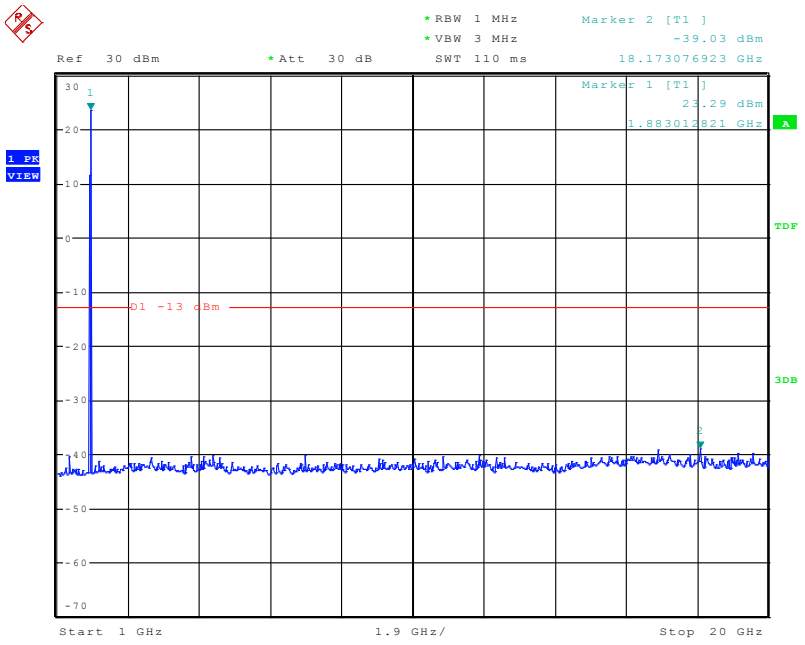
Date: 14.FEB.2017 09:01:28

Conducted Emission Transmitting Mode CH 661 30MHz – 1GHz



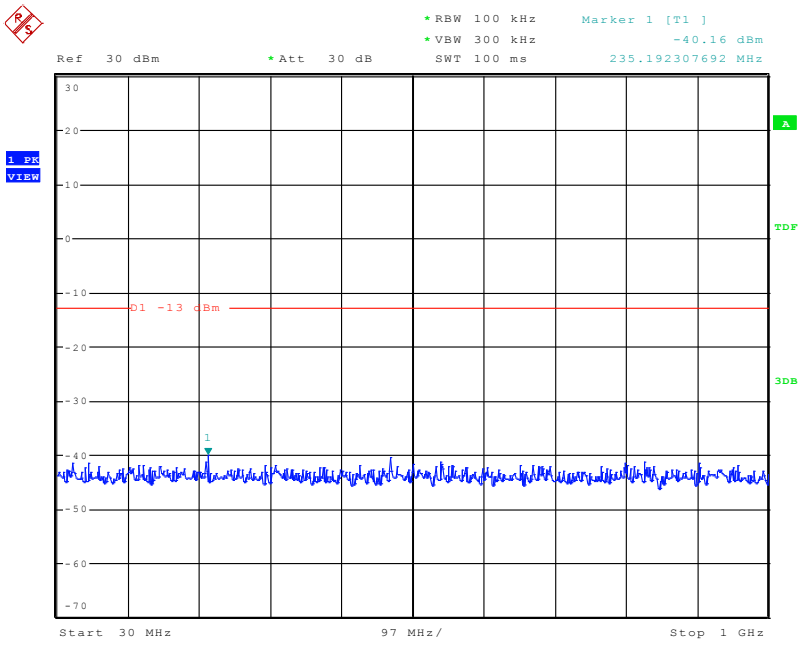
Date: 14.FEB.2017 09:12:51

Conducted Emission Transmitting Mode CH 661 1GHz – 20GHz



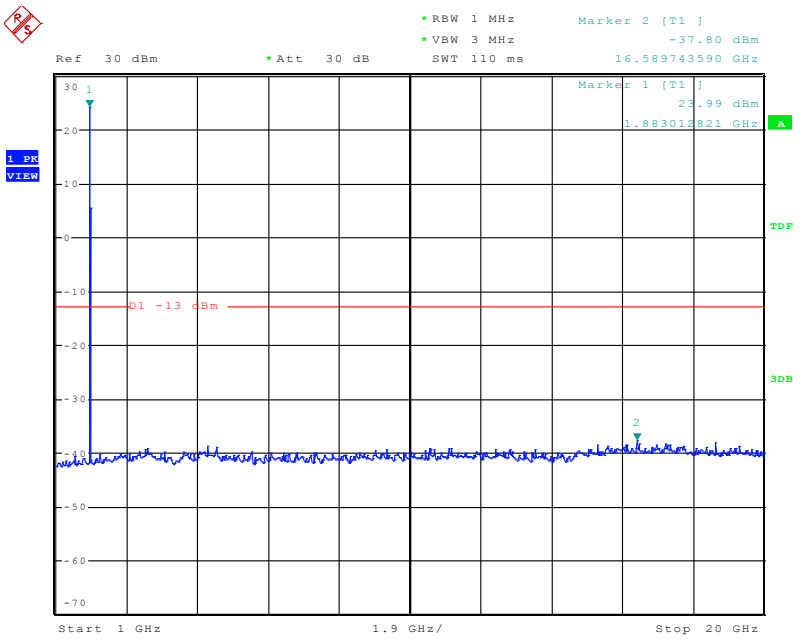
Date: 14.FEB.2017 09:09:34

Conducted Emission Transmitting Mode CH 810 30MHz – 1GHz



Date: 14.FEB.2017 09:14:04

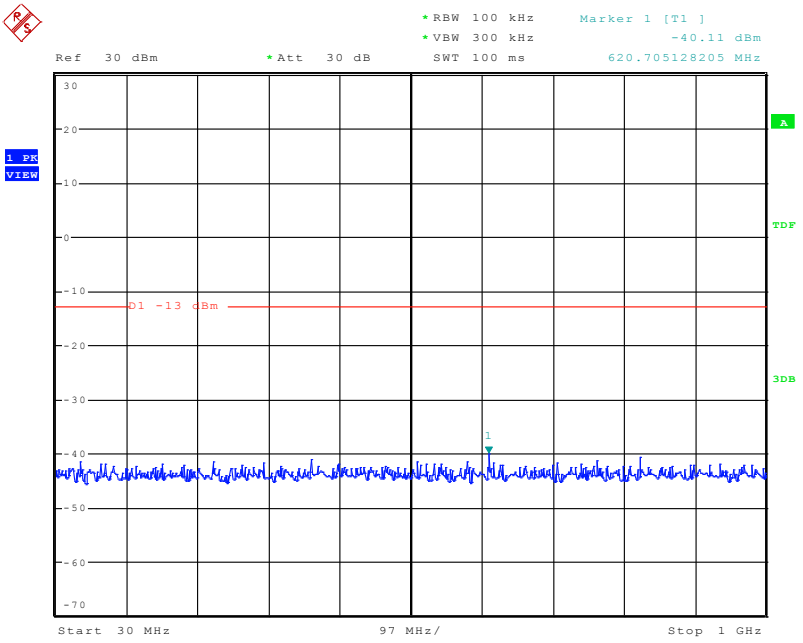
Conducted Emission Transmitting Mode CH 810 1GHz – 20GHz



Date: 14.FEB.2017 09:16:55

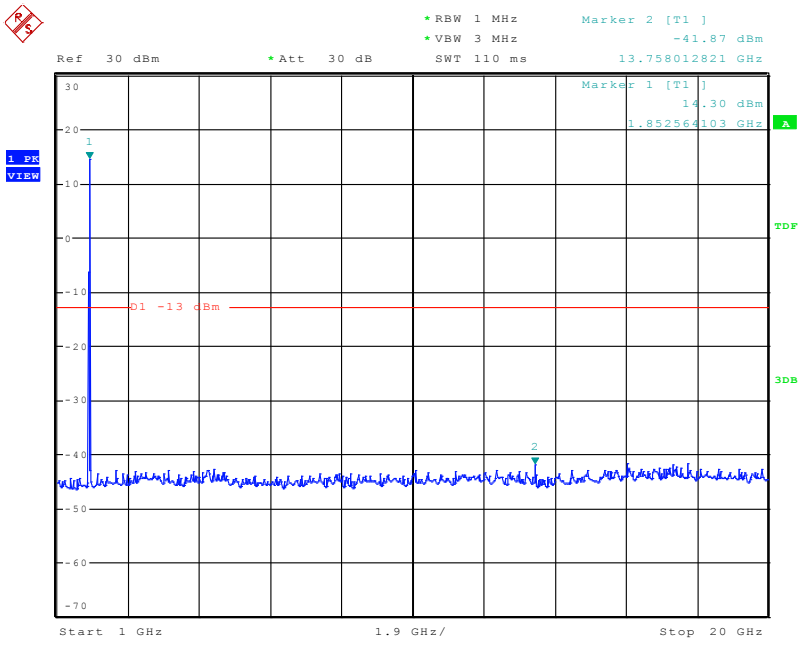
CONDUCTED EMISSION IN WCDMA Band II

Conducted Emission Transmitting Mode CH 9262 30MHz – 1GHz



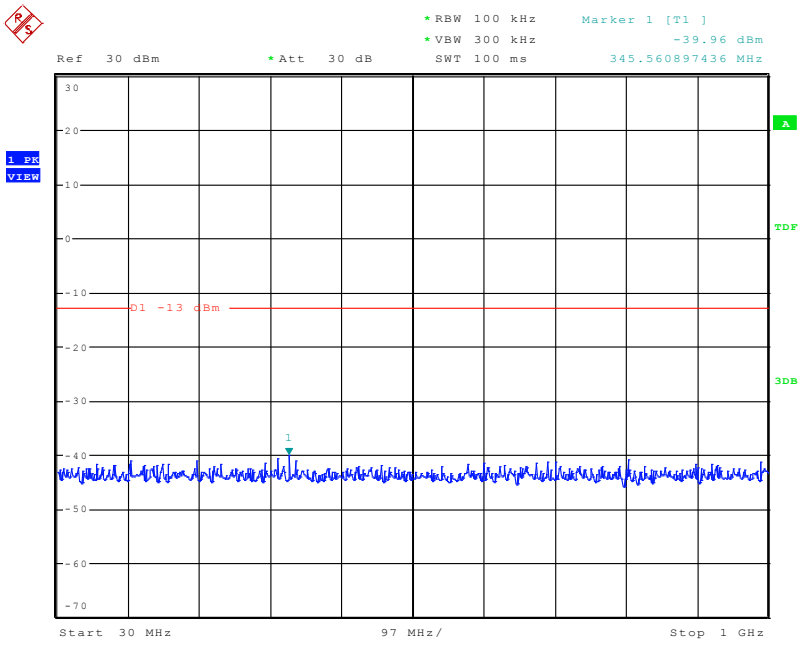
Date: 14.FEB.2017 09:25:10

Conducted Emission Transmitting Mode CH 9262 1GHz – 20GHz



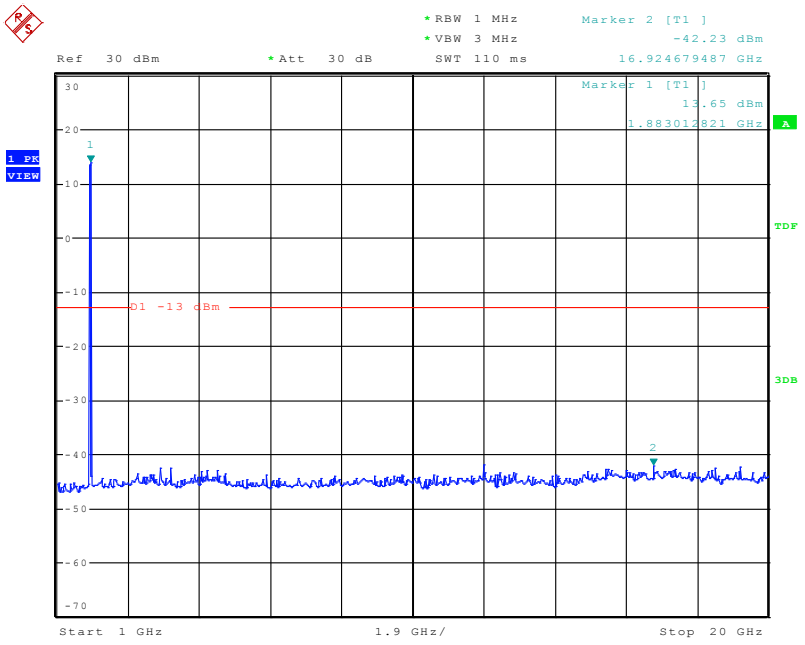
Date: 14.FEB.2017 09:22:09

Conducted Emission Transmitting Mode CH 9400 30MHz – 1GHz



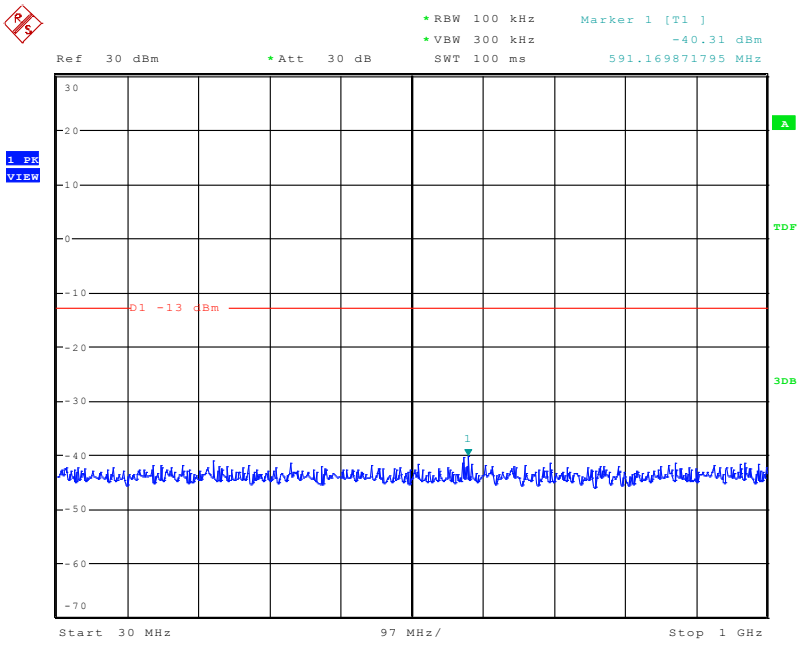
Date: 14.FEB.2017 09:26:31

Conducted Emission Transmitting Mode CH 9400 1GHz – 20GHz



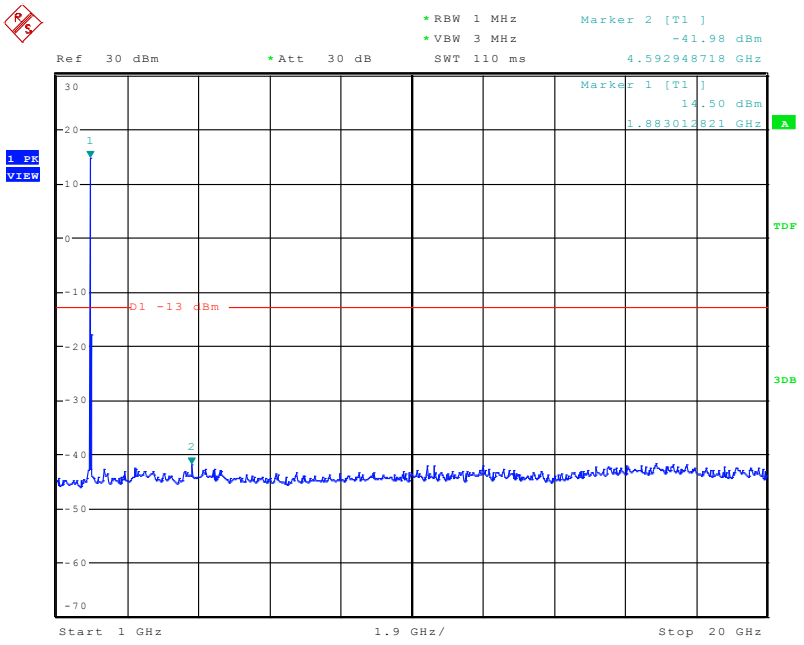
Date: 14.FEB.2017 09:29:23

Conducted Emission Transmitting Mode CH 9538 30MHz – 1GHz



Date: 14.FEB.2017 09:33:59

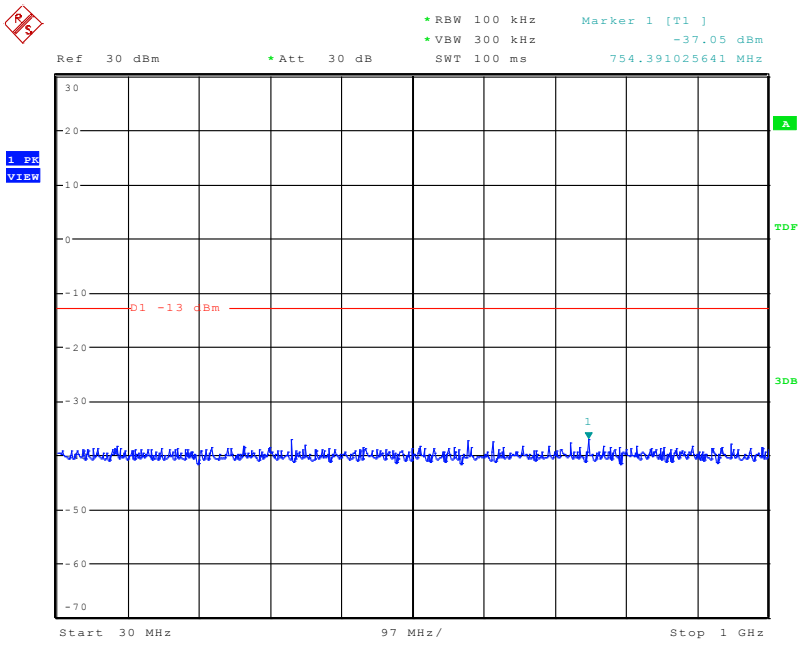
Conducted Emission Transmitting Mode CH 9538 1GHz – 20GHz



Date: 14.FEB.2017 09:35:50

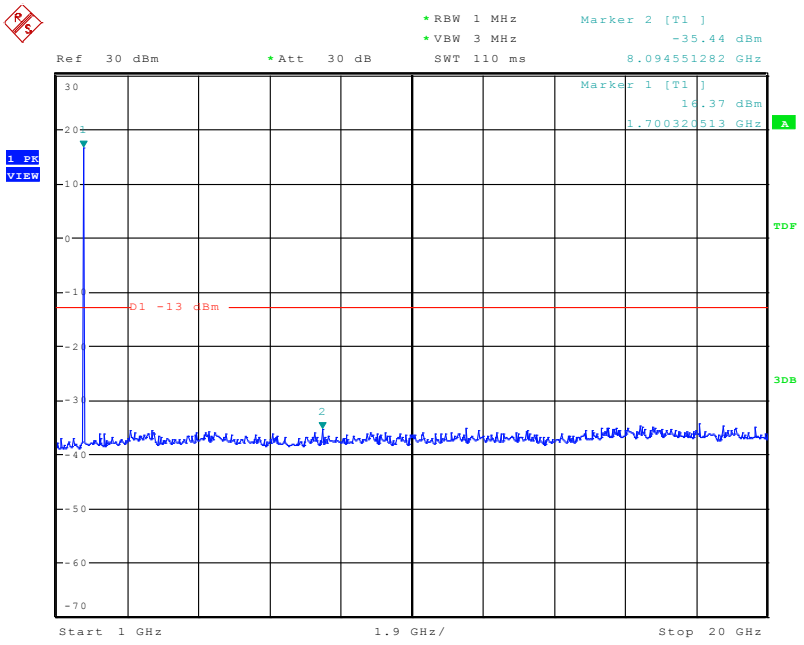
CONDUCTED EMISSION IN WCDMA Band IV

Conducted Emission Transmitting Mode CH 1312 30MHz – 1GHz



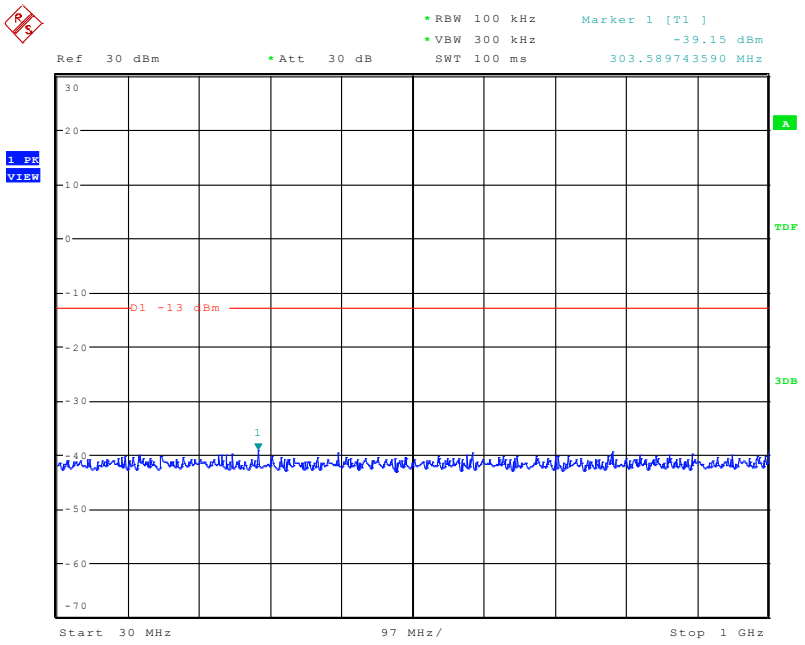
Date: 14.FEB.2017 09:40:40

Conducted Emission Transmitting Mode CH 1312 1GHz – 20GHz



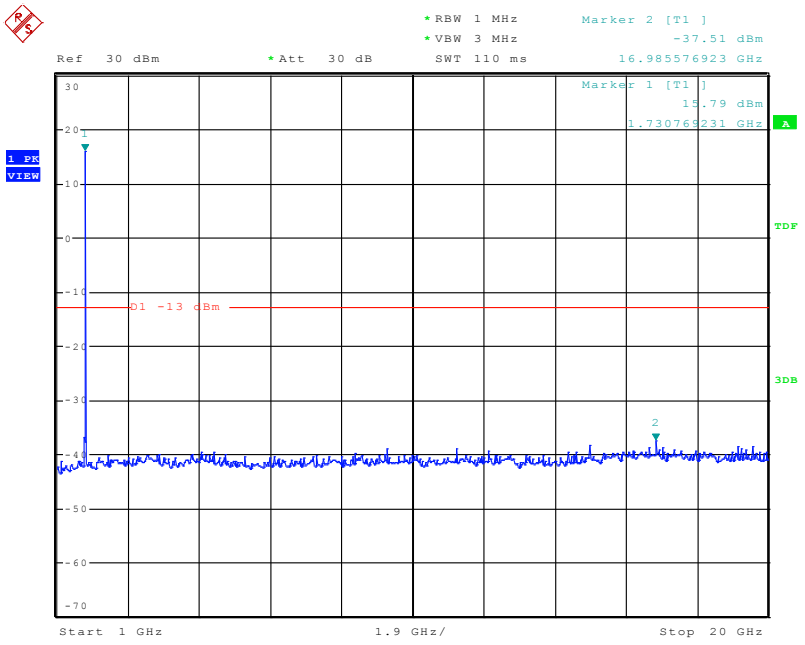
Date: 14.FEB.2017 09:39:28

Conducted Emission Transmitting Mode CH 1413 30MHz – 1GHz



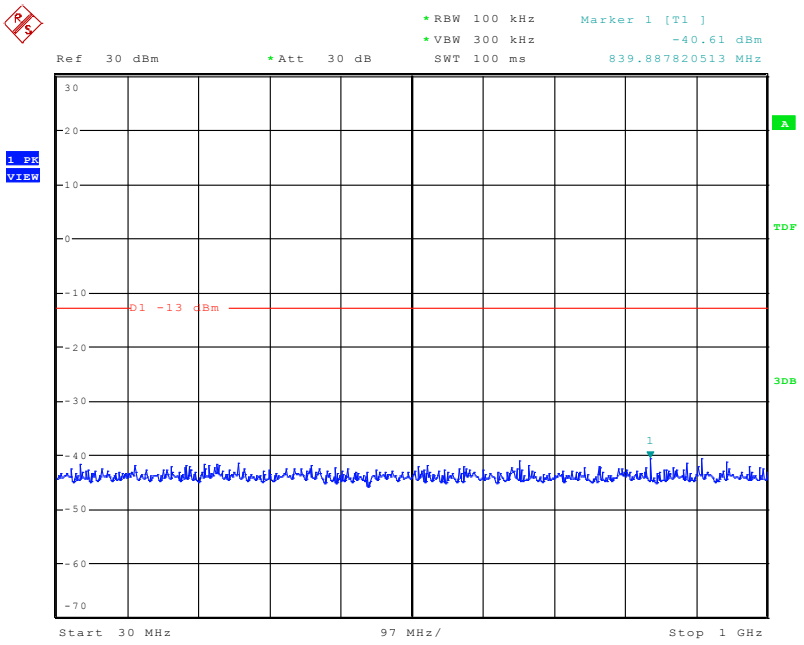
Date: 14.FEB.2017 09:43:51

Conducted Emission Transmitting Mode CH 1413 1GHz – 20GHz



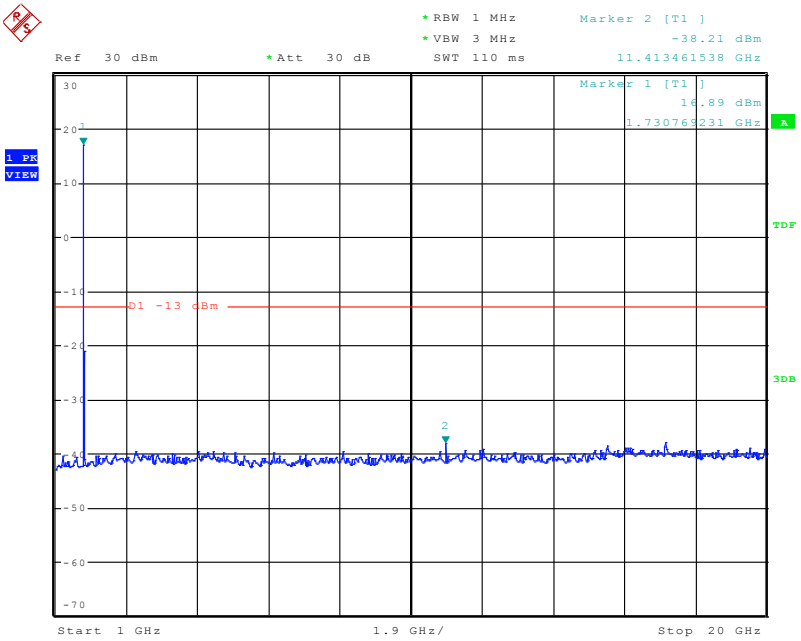
Date: 14.FEB.2017 09:46:19

Conducted Emission Transmitting Mode CH 1513 30MHz – 1GHz



Date: 14.FEB.2017 09:49:55

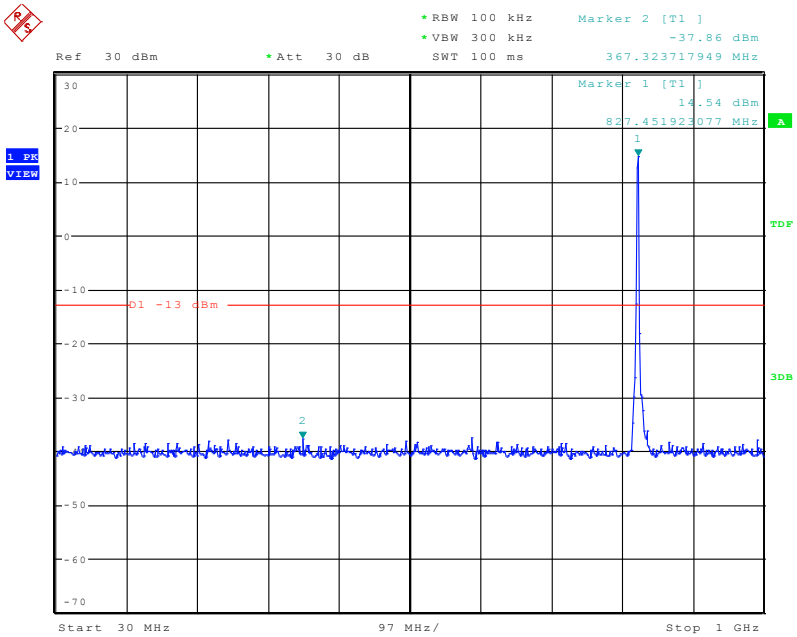
Conducted Emission Transmitting Mode CH 1513 1GHz – 20GHz



Date: 14.FEB.2017 09:47:27

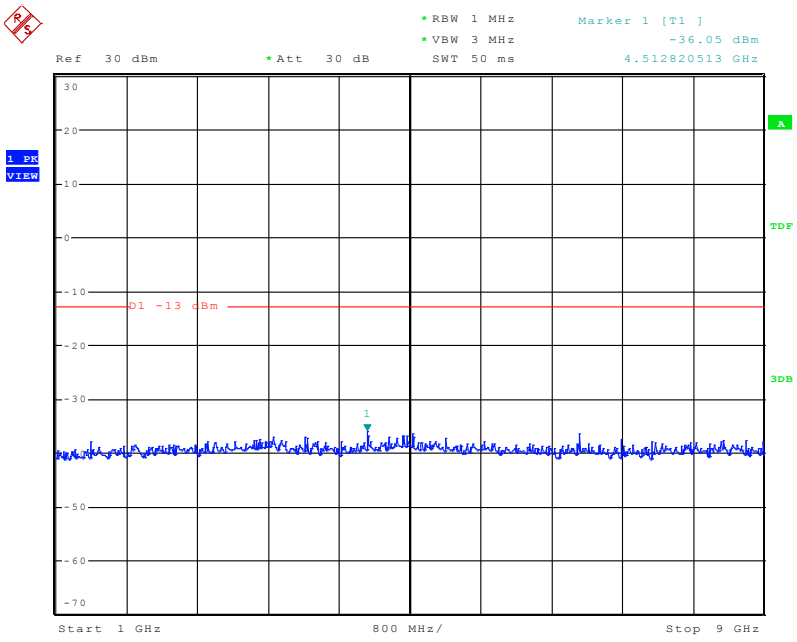
CONDUCTED EMISSION IN WCDMA Band V

Conducted Emission Transmitting Mode CH 4132 30MHz – 1GHz



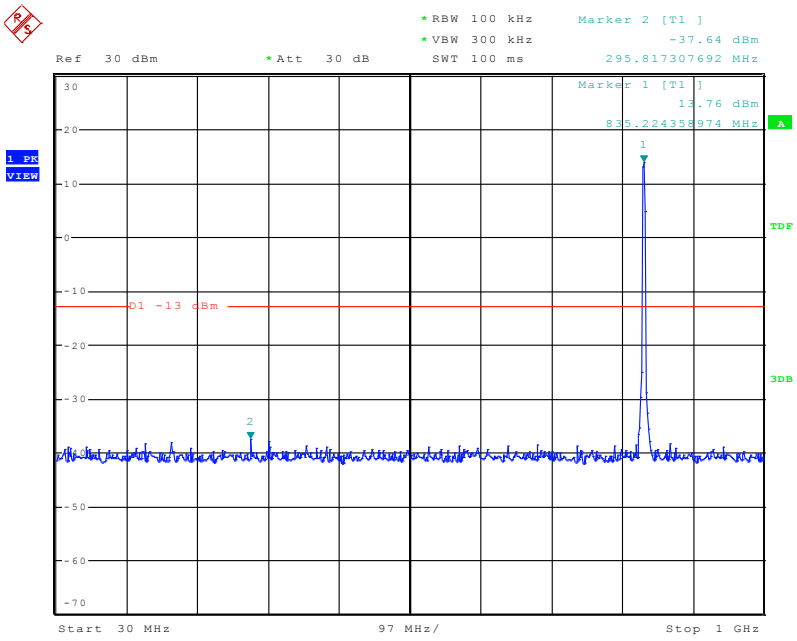
Date: 14.FEB.2017 09:54:12

Conducted Emission Transmitting Mode CH 4132 1GHz – 9GHz



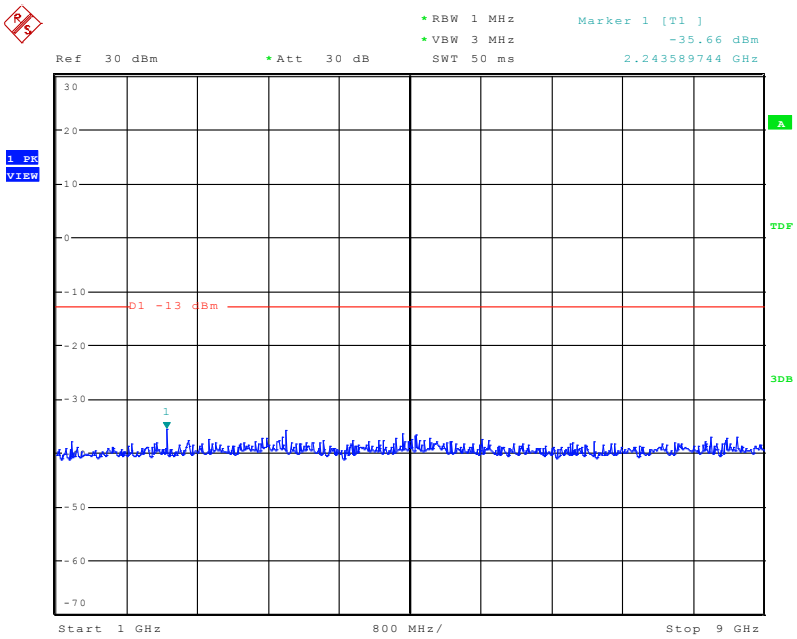
Date: 14.FEB.2017 09:56:45

Conducted Emission Transmitting Mode CH 4182 30MHz – 1GHz



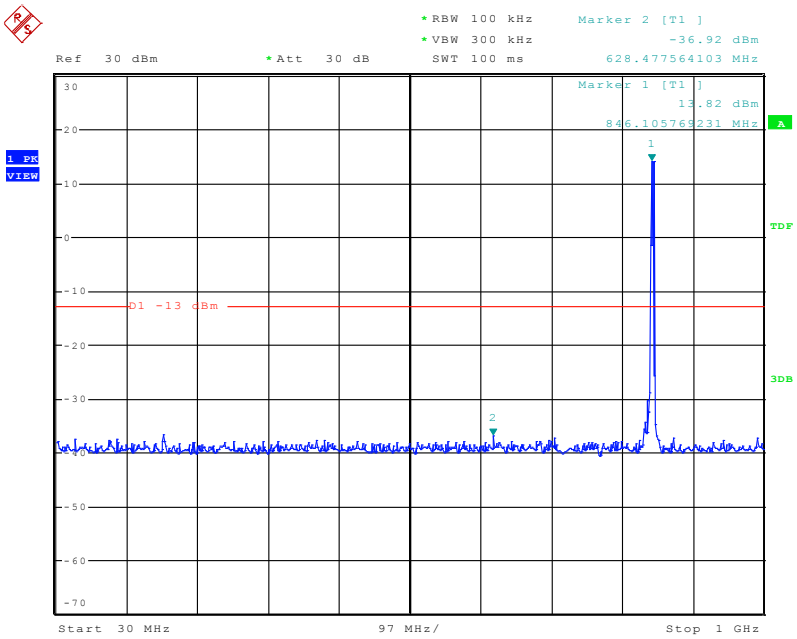
Date: 14.FEB.2017 09:59:01

Conducted Emission Transmitting Mode CH 4182 1GHz – 9GHz



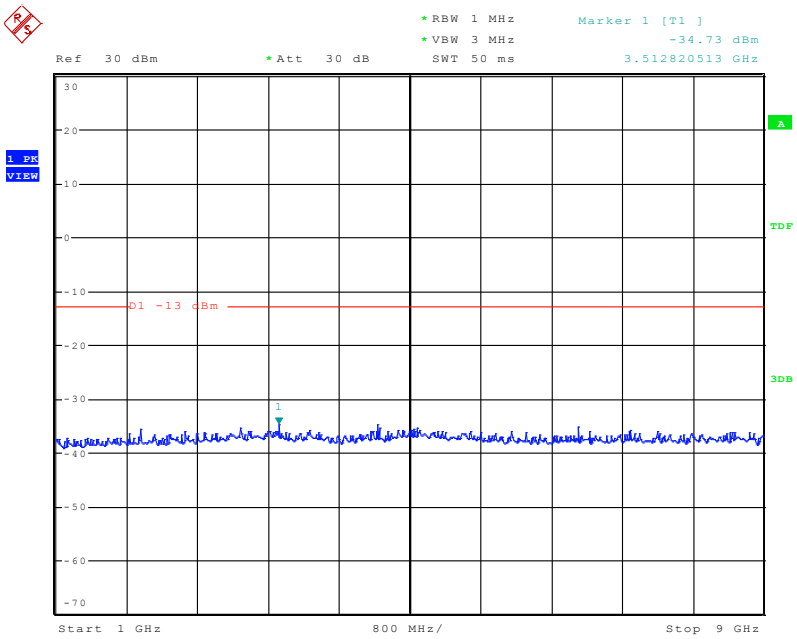
Date: 14.FEB.2017 09:57:51

Conducted Emission Transmitting Mode CH 4233 30MHz – 1GHz



Date: 14.FEB.2017 10:00:46

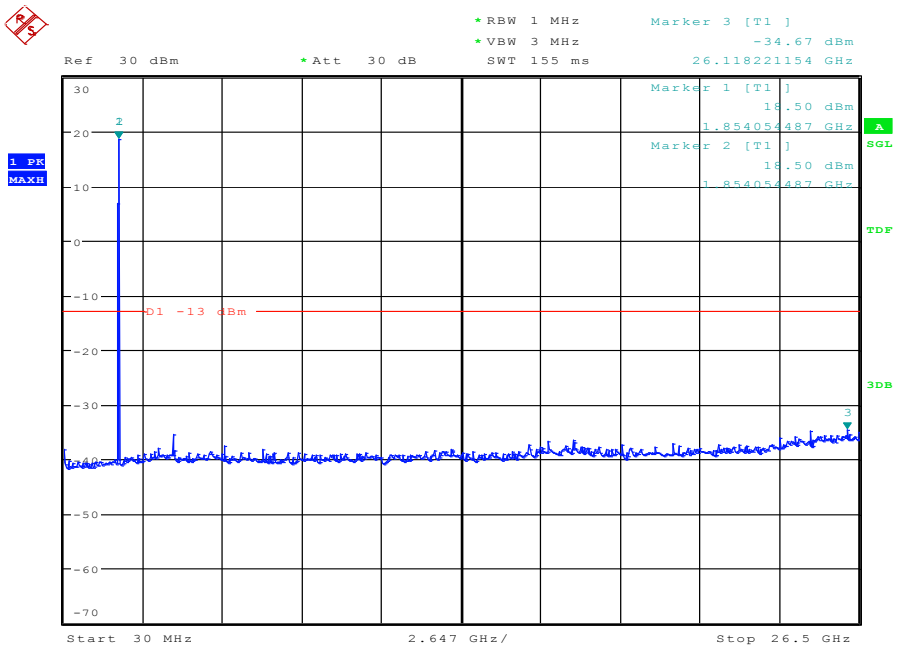
Conducted Emission Transmitting Mode CH 4233 1GHz – 9GHz



Date: 14.FEB.2017 10:02:04

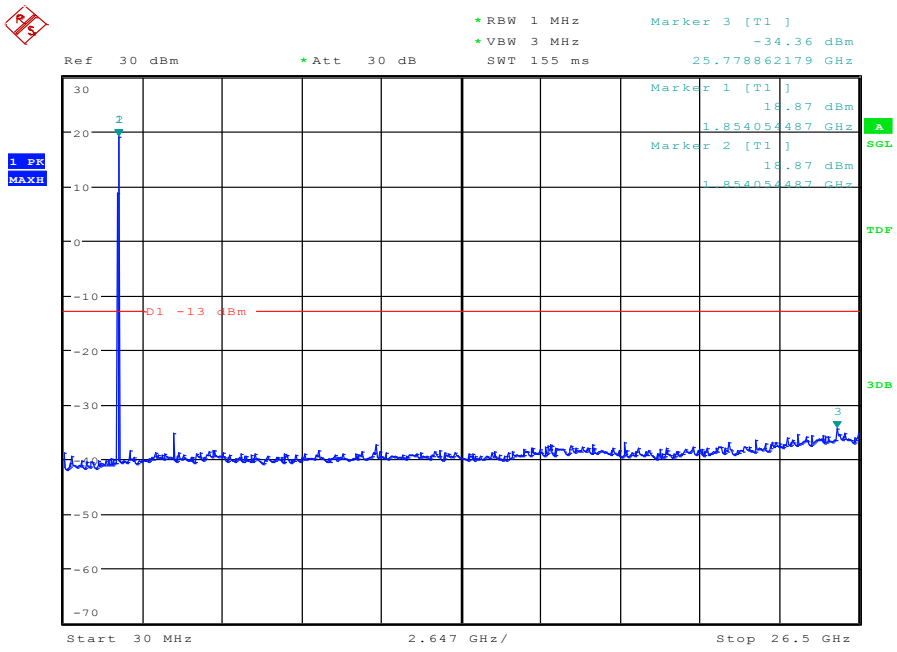
BAND 2@Conducted Spurious Emission

BW1.4MHz-1850.7MHz,Q16-6RB_LOW@Pass



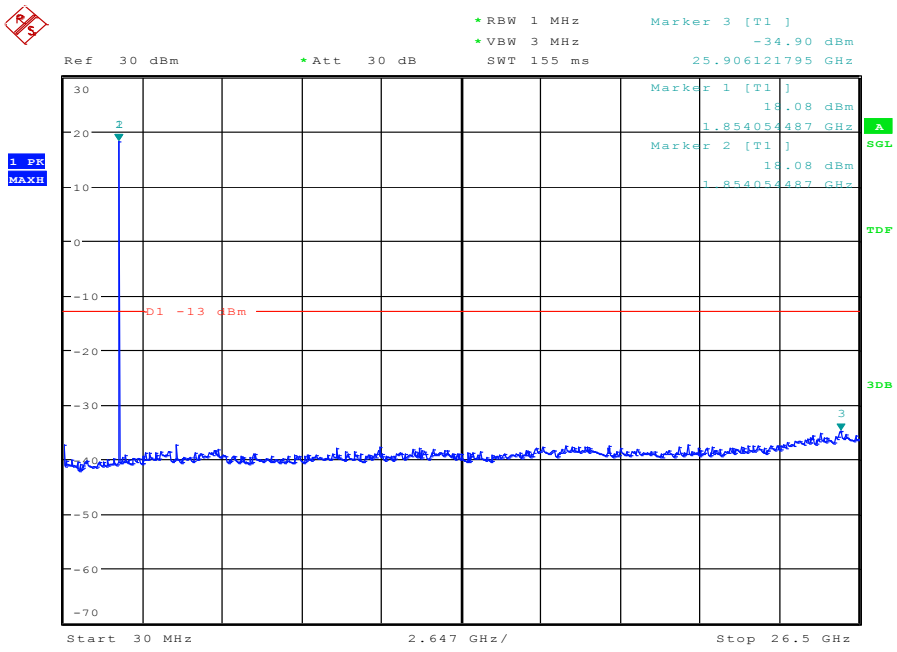
Date: 11.JAN.2017 19:53:18

BW1.4MHz-1850.7MHz,QPSK-6RB_LOW@Pass



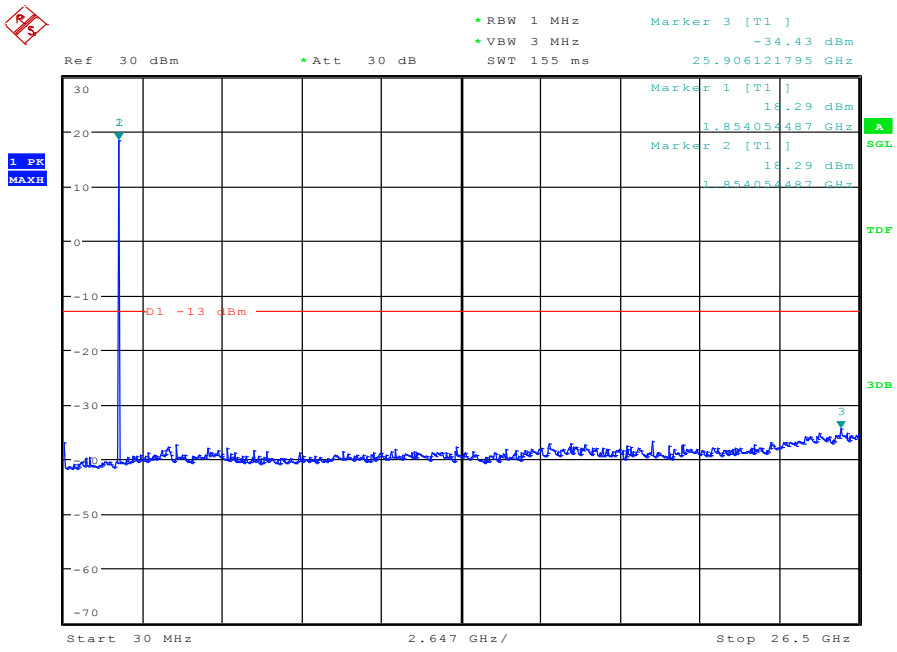
Date: 11.JAN.2017 19:52:20

BW1.4MHz-1880MHz,Q16-6RB_LOW@Pass



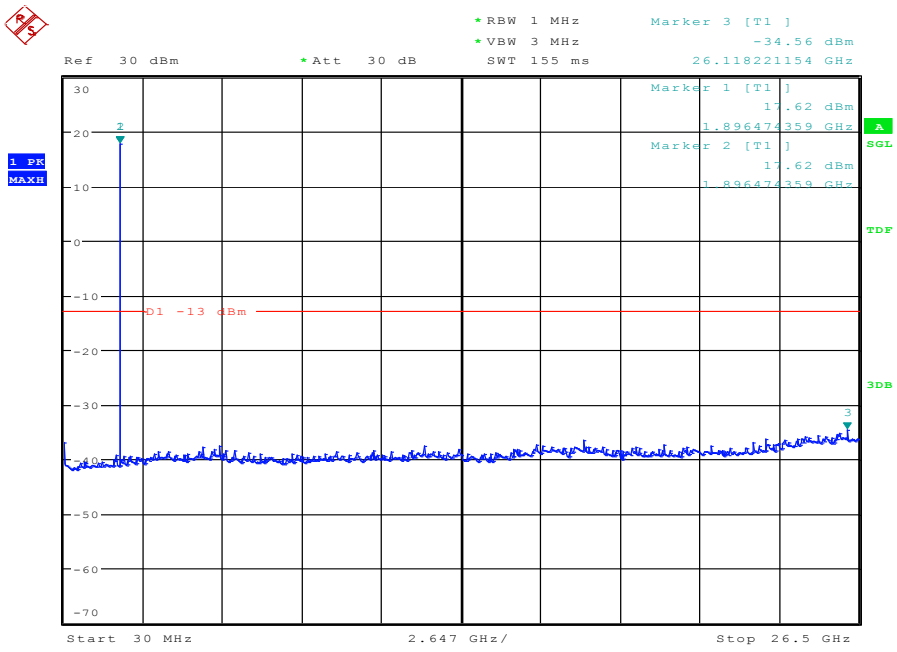
Date: 11.JAN.2017 19:57:06

BW1.4MHz-1880MHz,QPSK-6RB_LOW@Pass



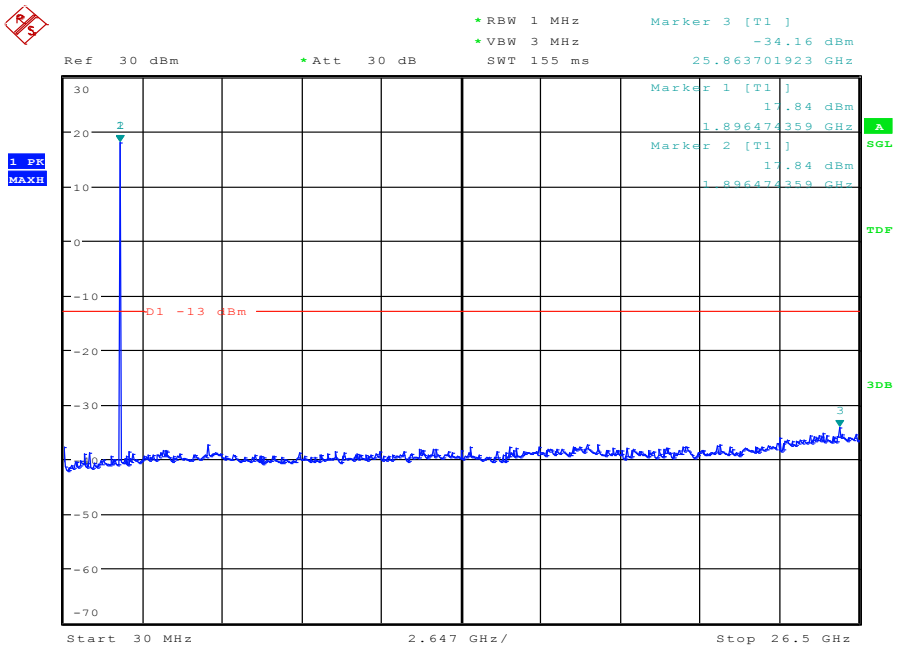
Date: 11.JAN.2017 19:56:24

BW1.4MHz-1909.3MHz,Q16-6RB_LOW@Pass



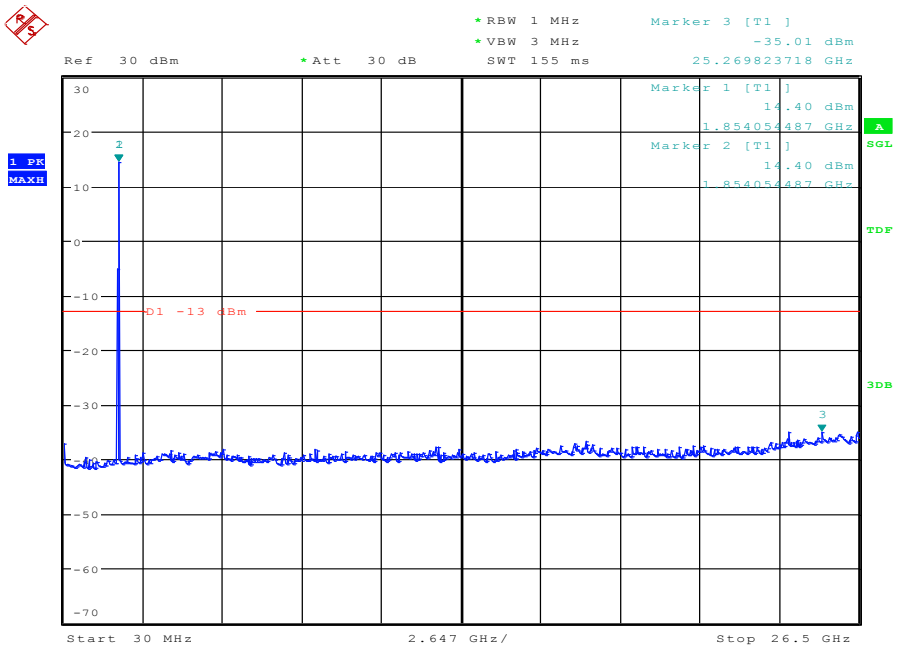
Date: 11.JAN.2017 19:55:36

BW1.4MHz-1909.3MHz,QPSK-6RB_LOW@Pass



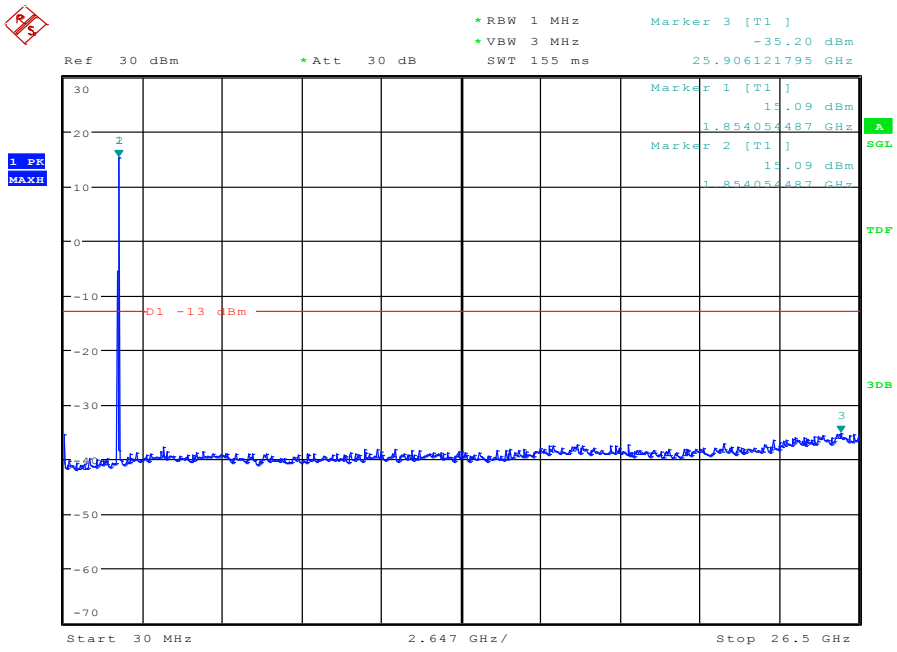
Date: 11.JAN.2017 19:54:28

BW10MHz-1855MHz,Q16-50RB_LOW@Pass



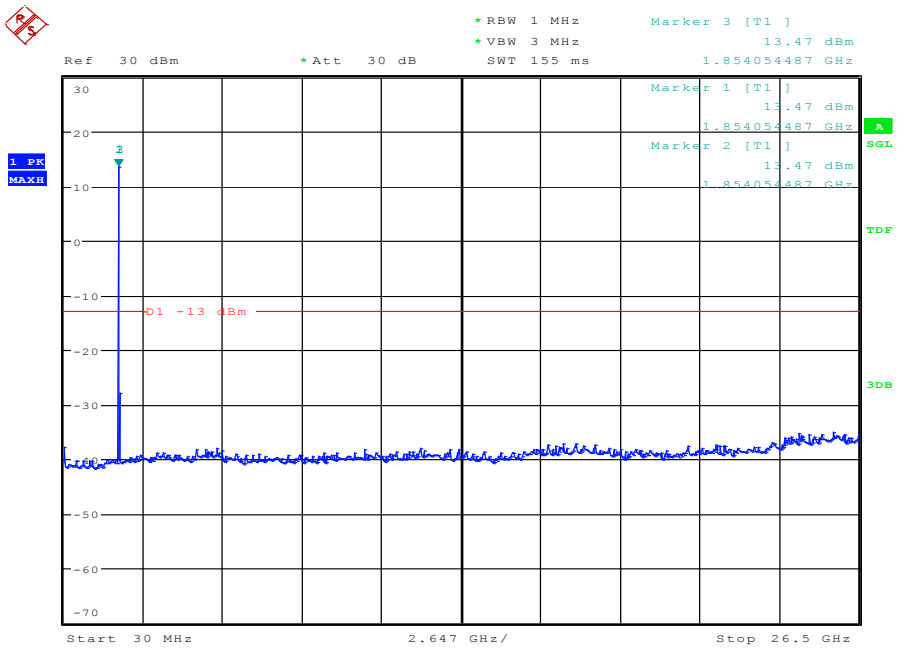
Date: 11.JAN.2017 20:08:09

BW10MHz-1855MHz,QPSK-50RB_LOW@Pass



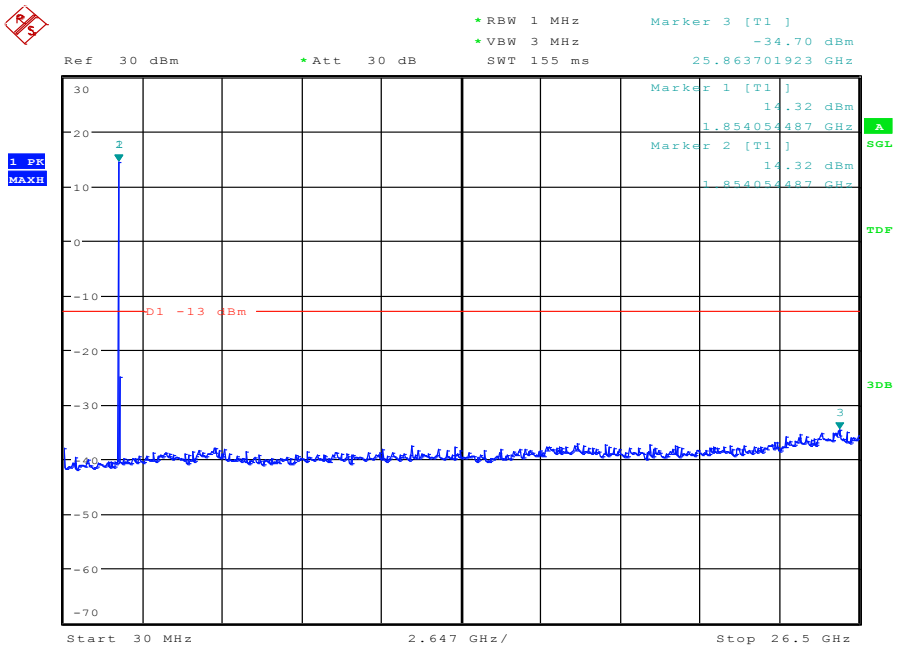
Date: 11.JAN.2017 20:07:28

BW10MHz-1880MHz,Q16-50RB_LOW@Pass



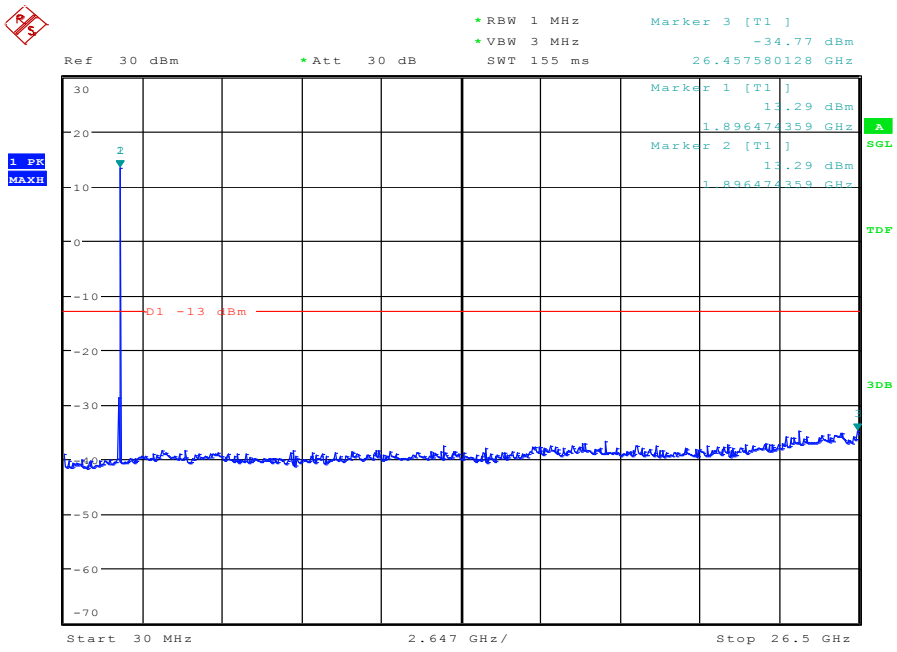
Date: 11.JAN.2017 20:10:35

BW10MHz-1880MHz,QPSK-50RB_LOW@Pass



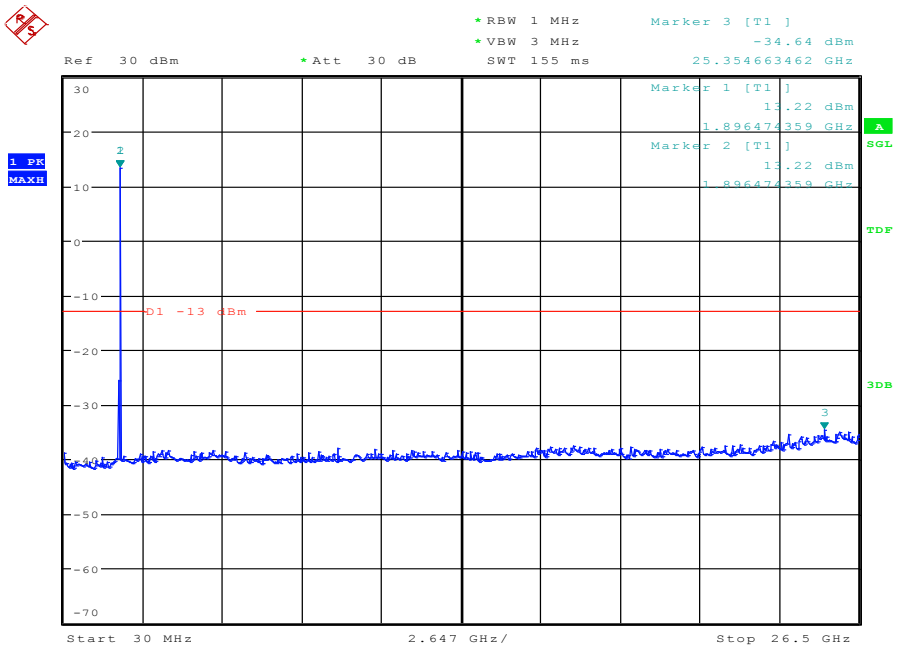
Date: 11.JAN.2017 20:10:07

BW10MHz-1905MHz,Q16-50RB_LOW@Pass



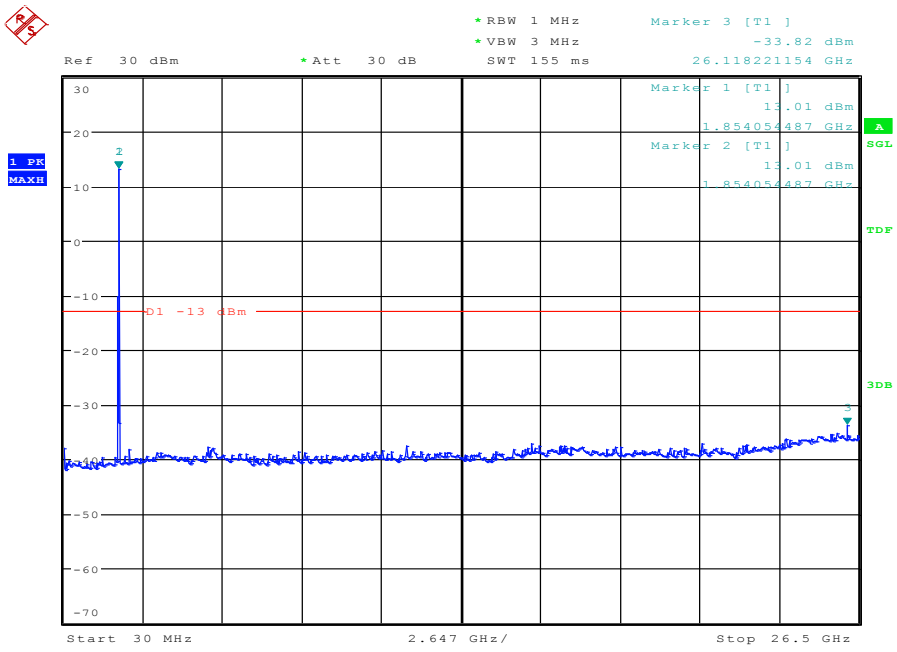
Date: 11.JAN.2017 20:09:33

BW10MHz-1905MHz,QPSK-50RB_LOW@Pass



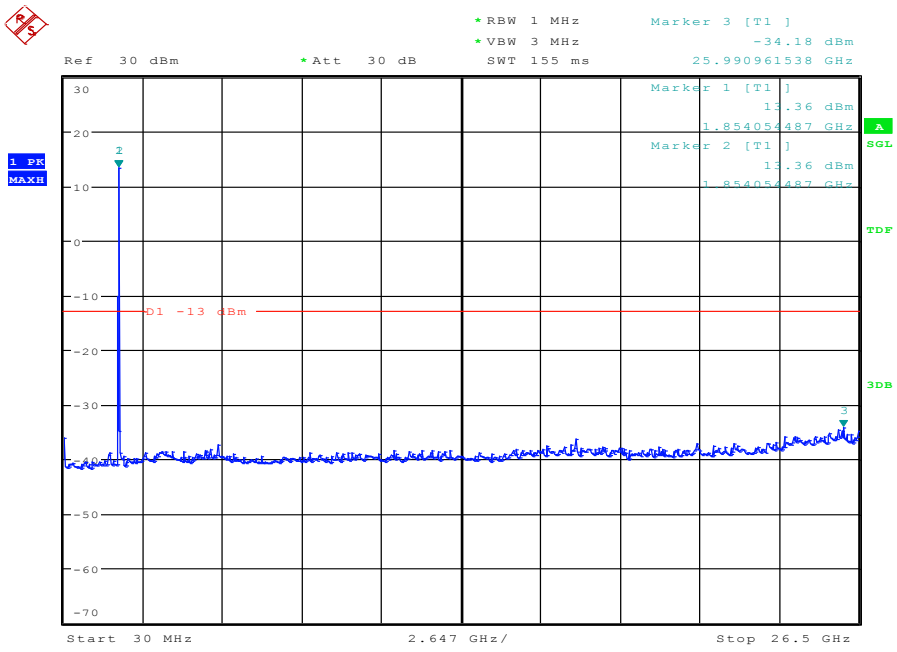
Date: 11.JAN.2017 20:08:51

BW15MHz-1857.5MHz,Q16-75RB_LOW@Pass



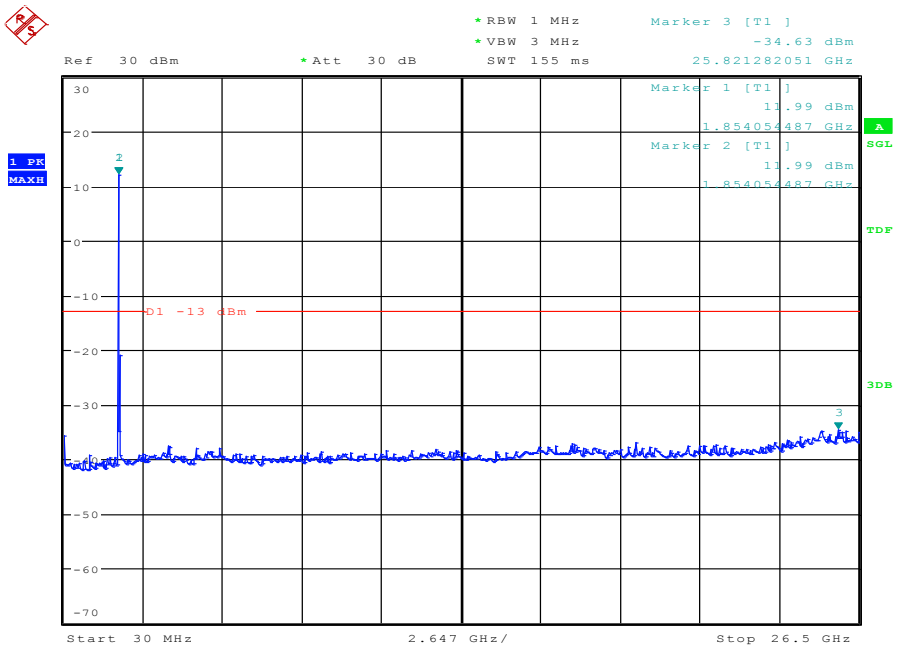
Date: 11.JAN.2017 20:11:59

BW15MHz-1857.5MHz,QPSK-75RB_LOW@Pass



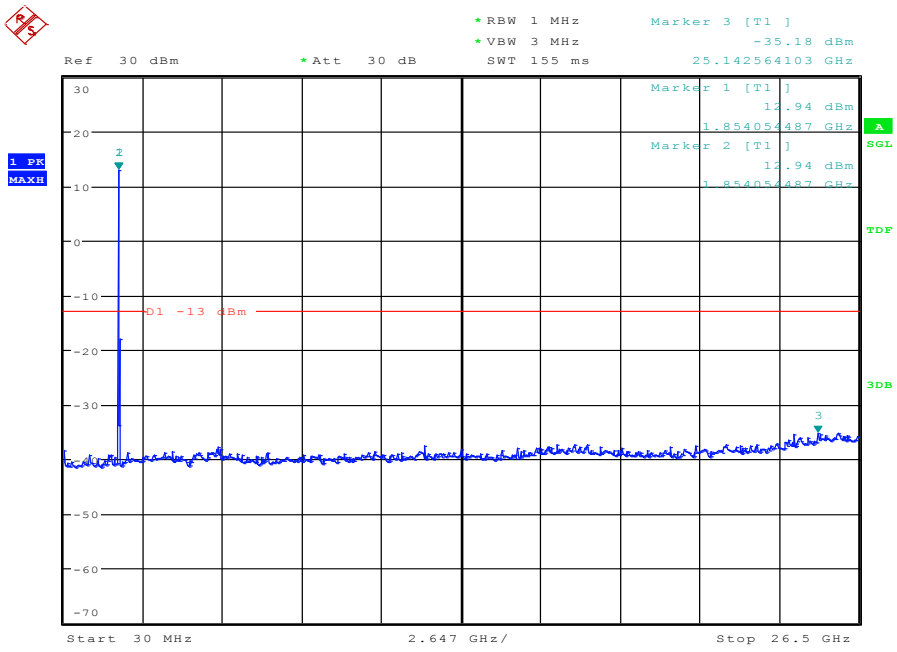
Date: 11.JAN.2017 20:11:16

BW15MHz-1880MHz,Q16-75RB_LOW@Pass



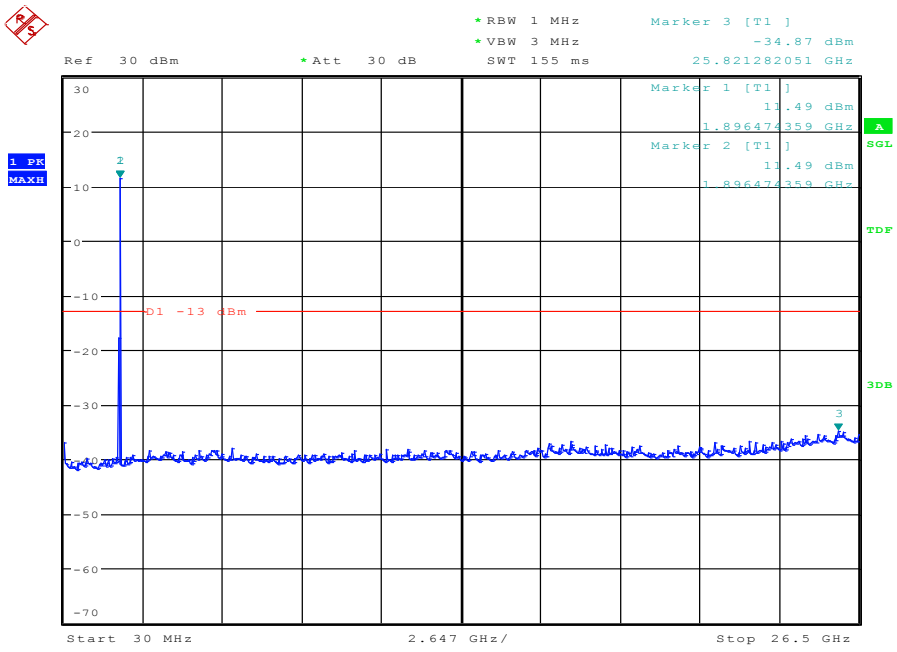
Date: 11.JAN.2017 20:14:31

BW15MHz-1880MHz,QPSK-75RB_LOW@Pass



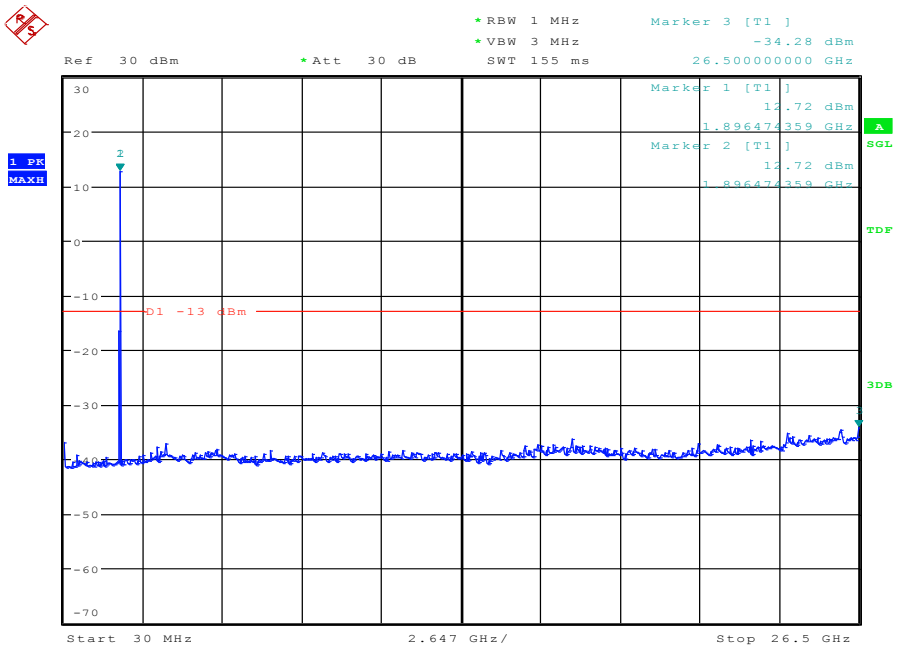
Date: 11.JAN.2017 20:14:00

BW15MHz-1902.5MHz,Q16-75RB_LOW@Pass



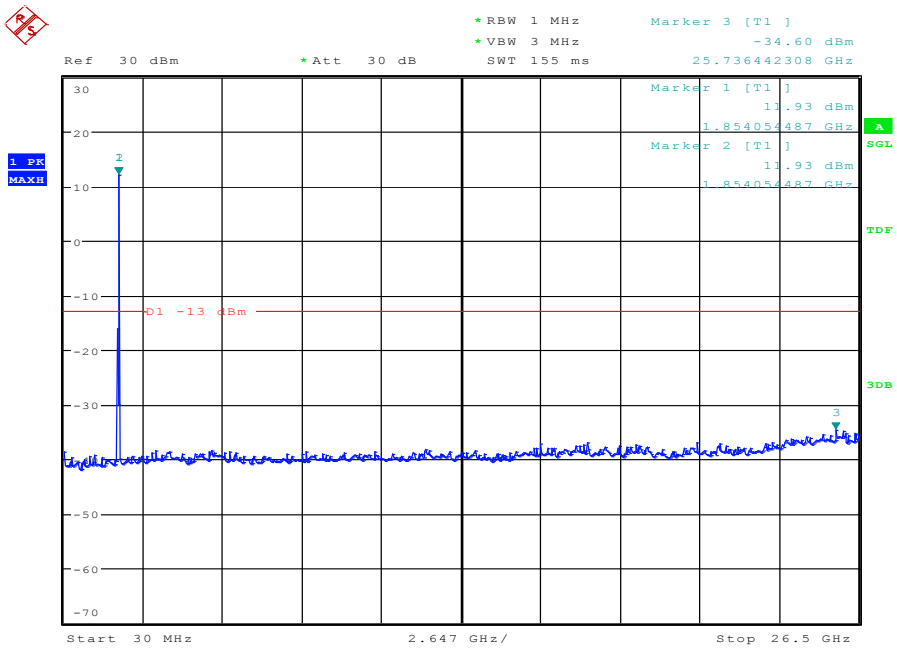
Date: 11.JAN.2017 20:13:26

BW15MHz-1902.5MHz,QPSK-75RB_LOW@Pass



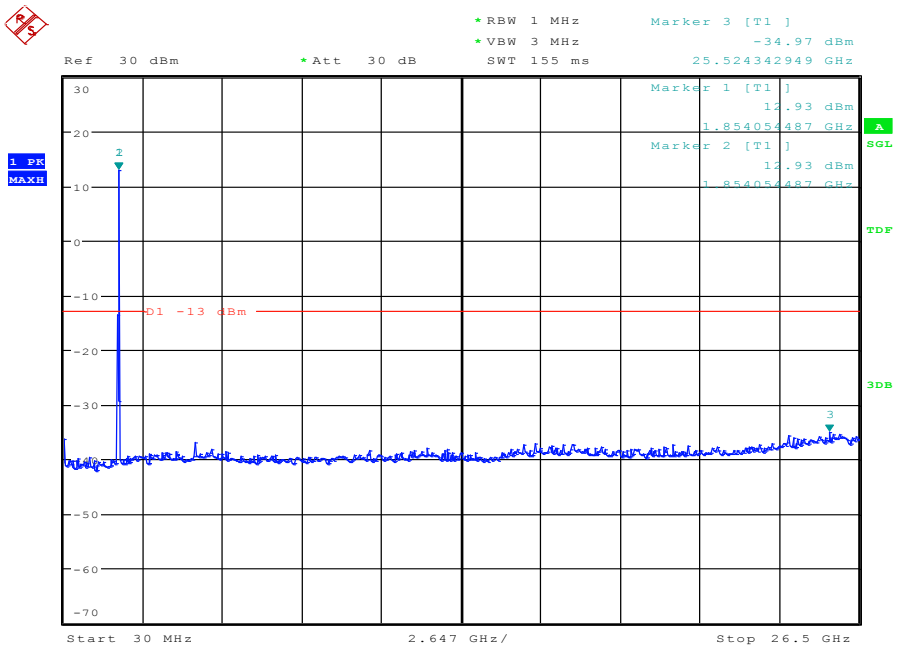
Date: 11.JAN.2017 20:12:42

BW20MHz-1860MHz,Q16-100RB_LOW@Pass



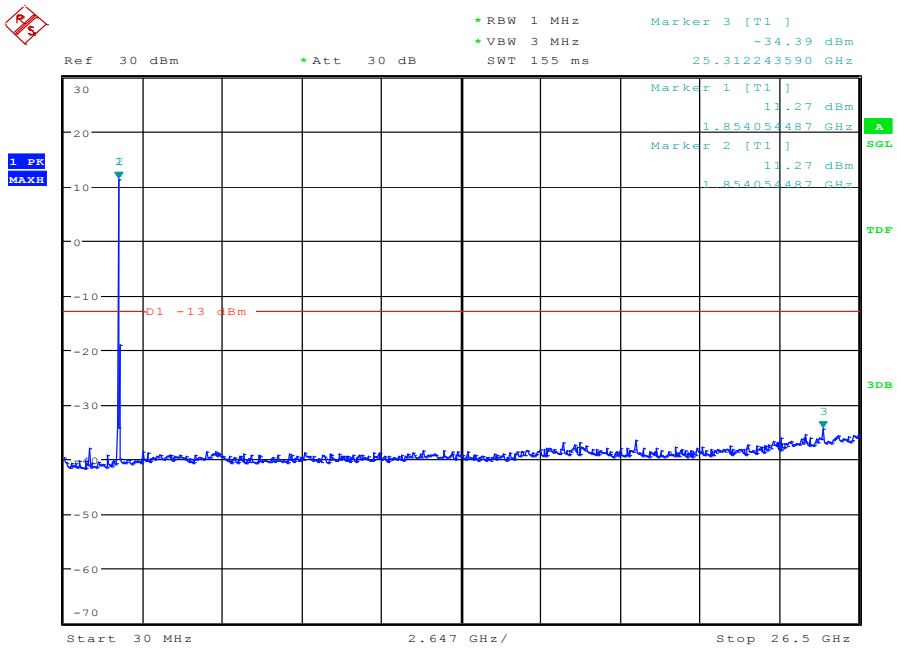
Date: 11.JAN.2017 20:15:53

BW20MHz-1860MHz,QPSK-100RB_LOW@Pass



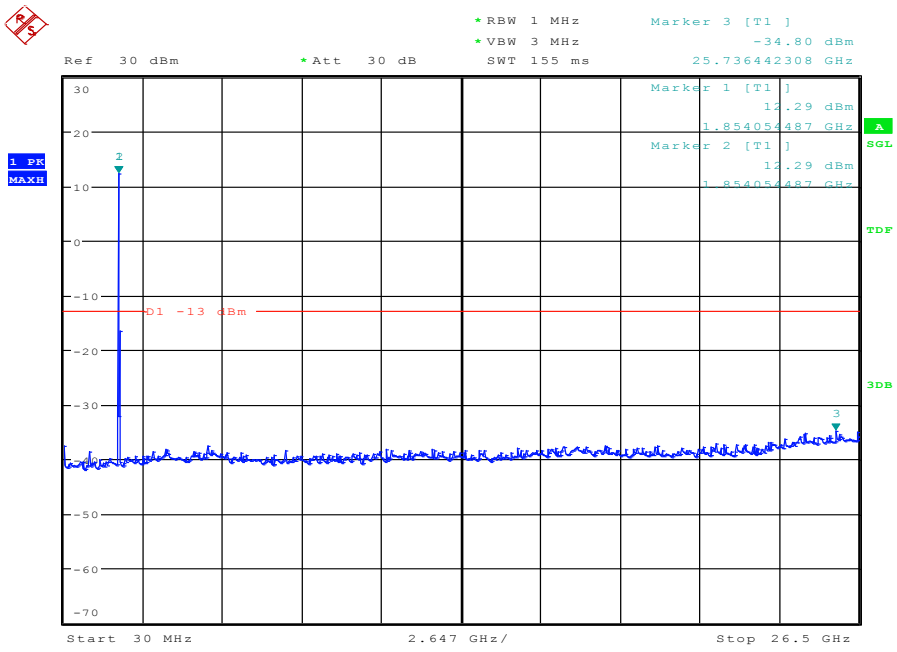
Date: 11.JAN.2017 20:15:11

BW20MHz-1880MHz,Q16-100RB_LOW@Pass



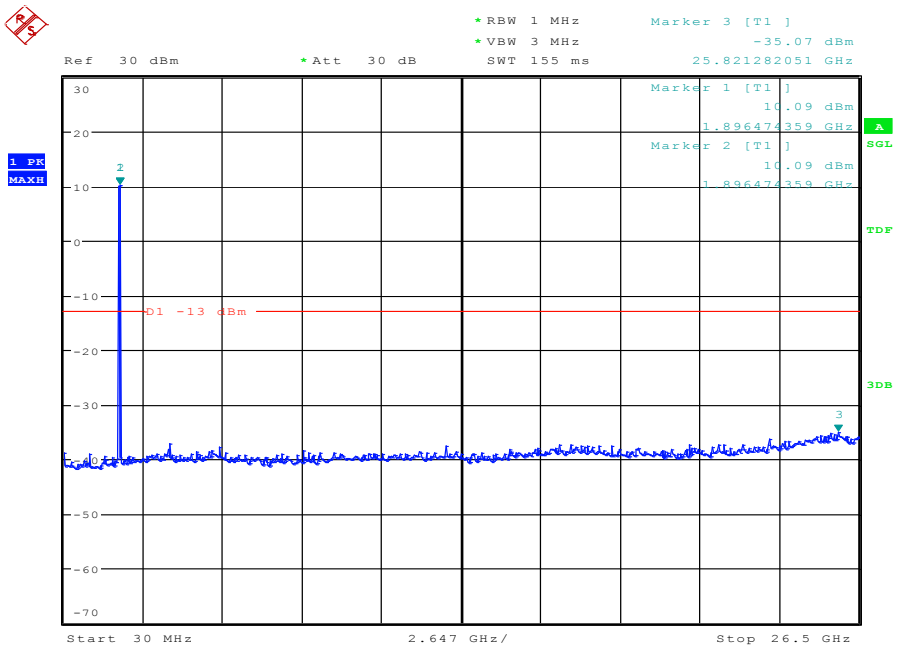
Date: 11.JAN.2017 20:18:22

BW20MHz-1880MHz,QPSK-100RB_LOW@Pass



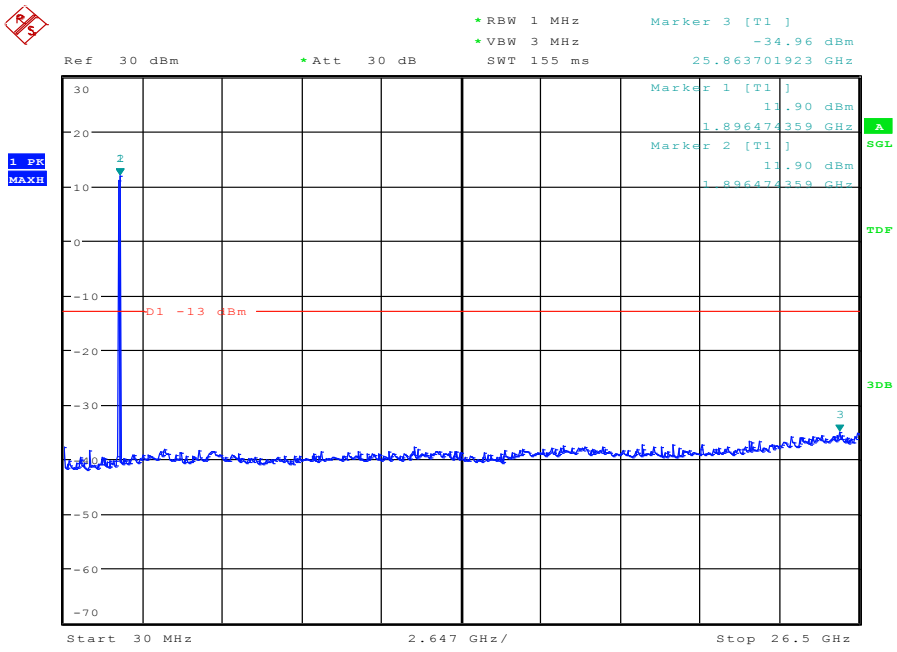
Date: 11.JAN.2017 20:17:53

BW20MHz-1900MHz,Q16-100RB_LOW@Pass



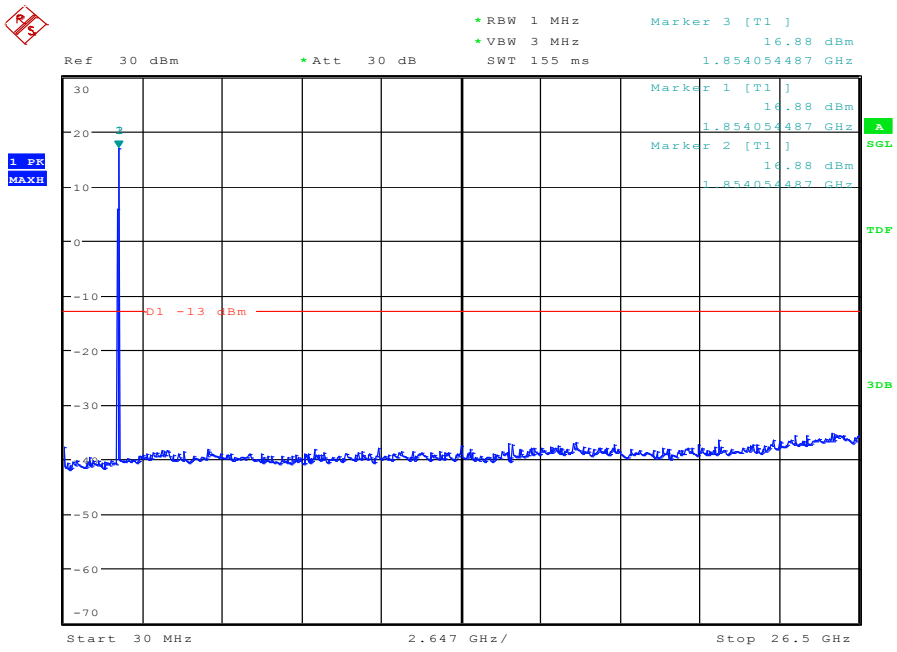
Date: 11.JAN.2017 20:17:19

BW20MHz-1900MHz,QPSK-100RB_LOW@Pass



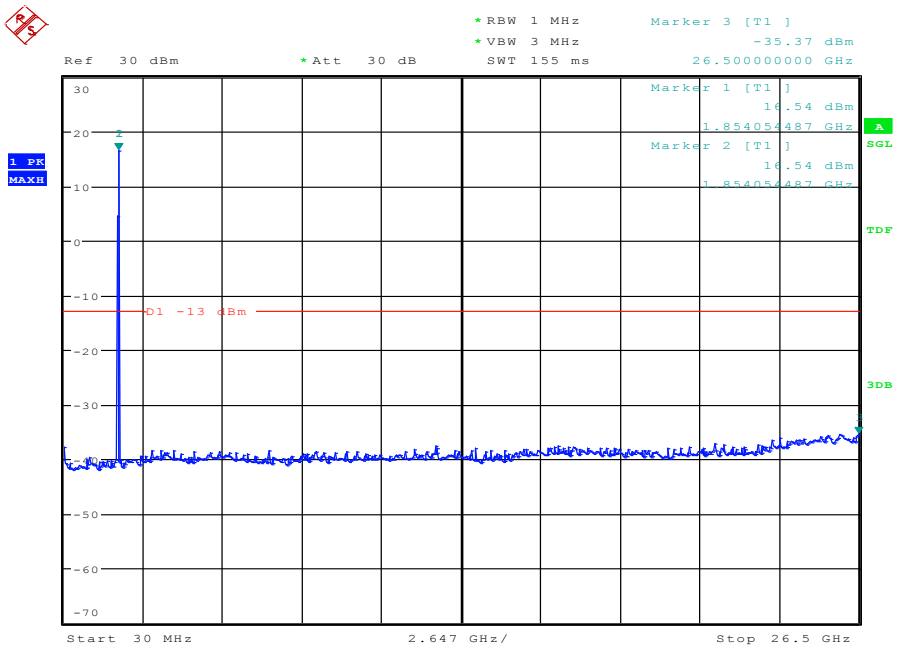
Date: 11.JAN.2017 20:16:36

BW3MHz-1851.5MHz,Q16-15RB_LOW@Pass



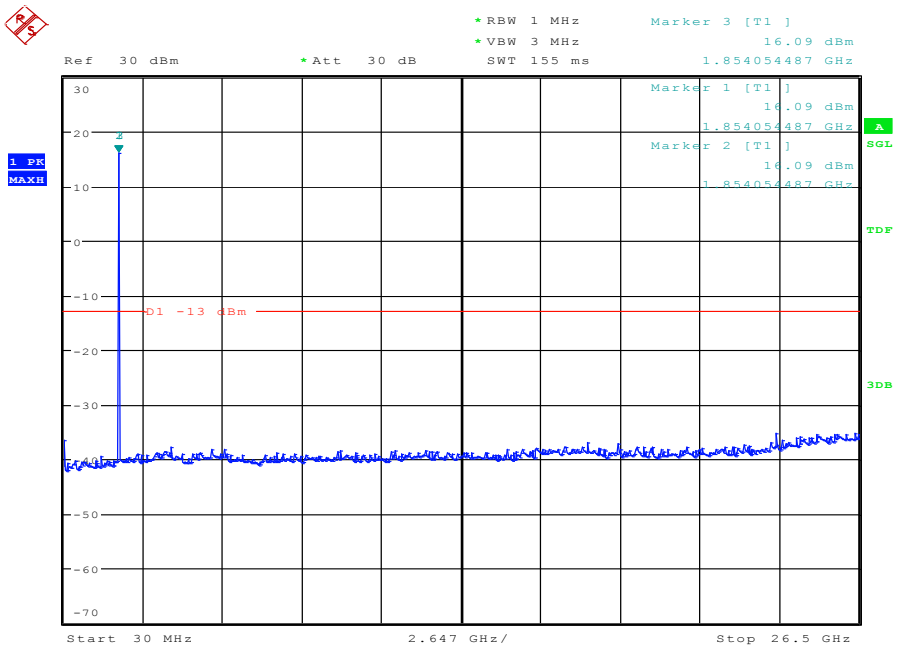
Date: 11.JAN.2017 19:58:45

BW3MHz-1851.5MHz,QPSK-15RB_LOW@Pass



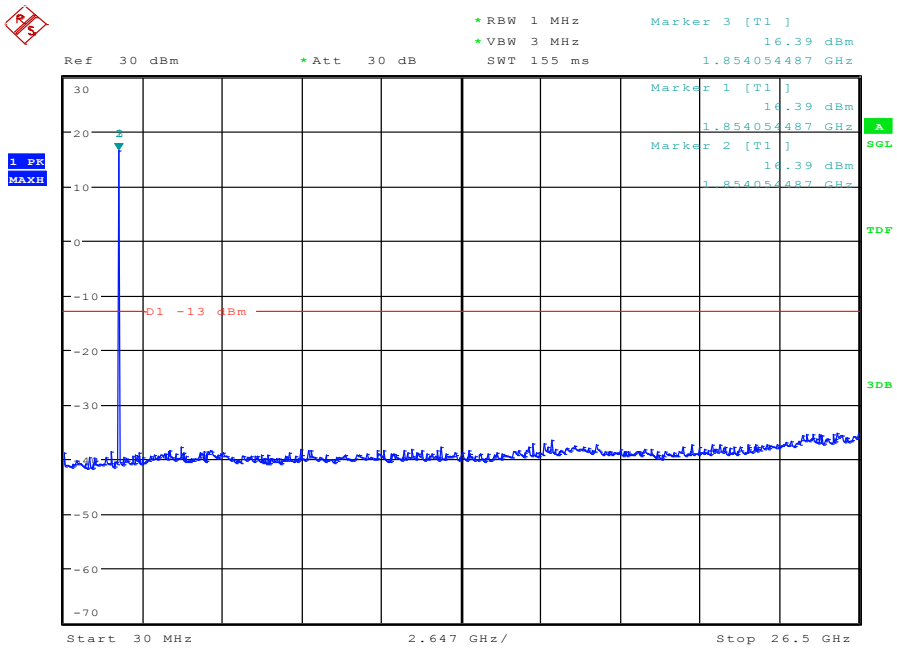
Date: 11.JAN.2017 19:57:54

BW3MHz-1880MHz,Q16-15RB_LOW@Pass



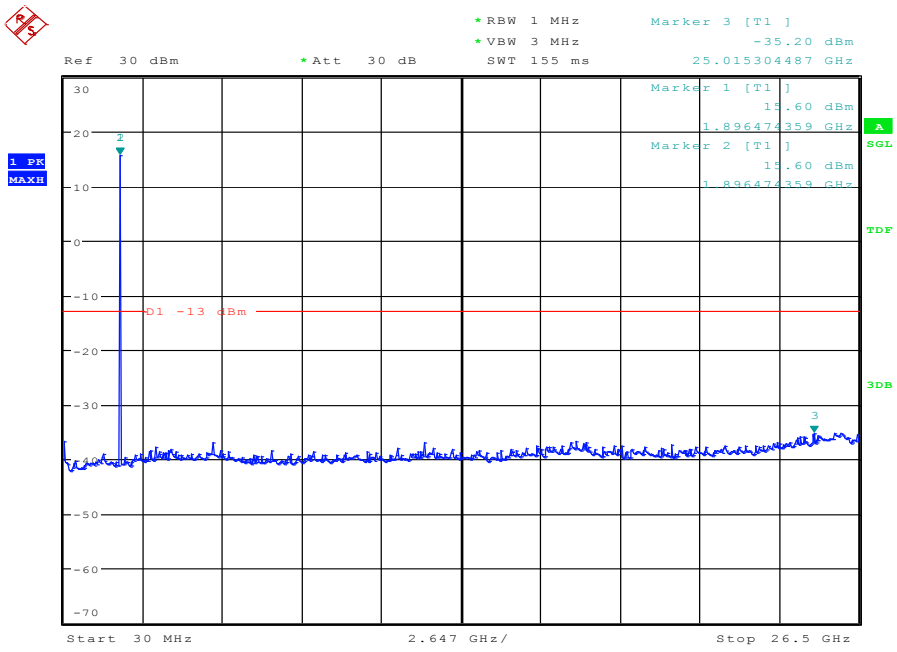
Date: 11.JAN.2017 20:02:00

BW3MHz-1880MHz,QPSK-15RB_LOW@Pass



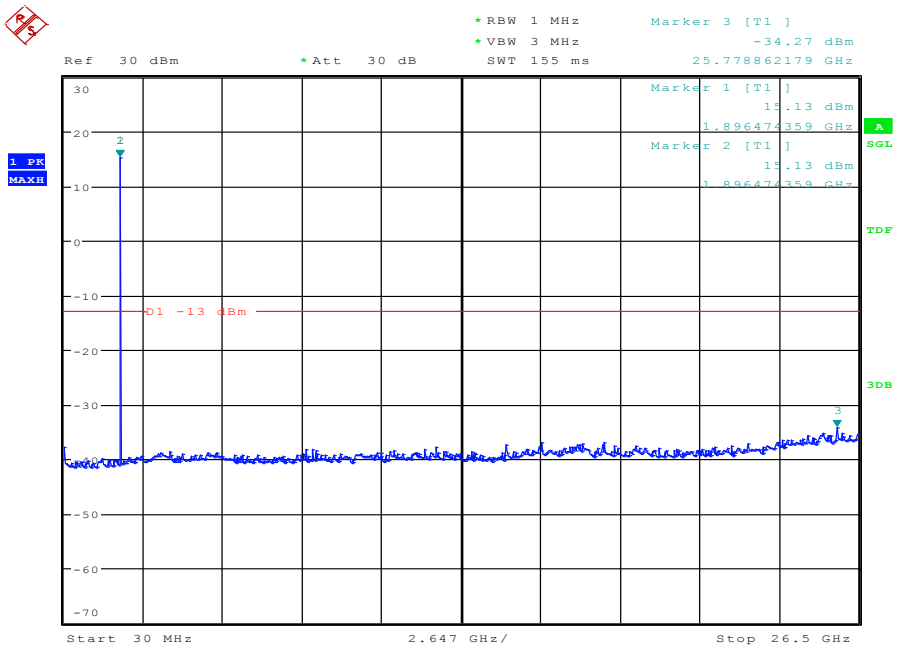
Date: 11.JAN.2017 20:01:27

BW3MHz-1908.5MHz,Q16-15RB_LOW@Pass



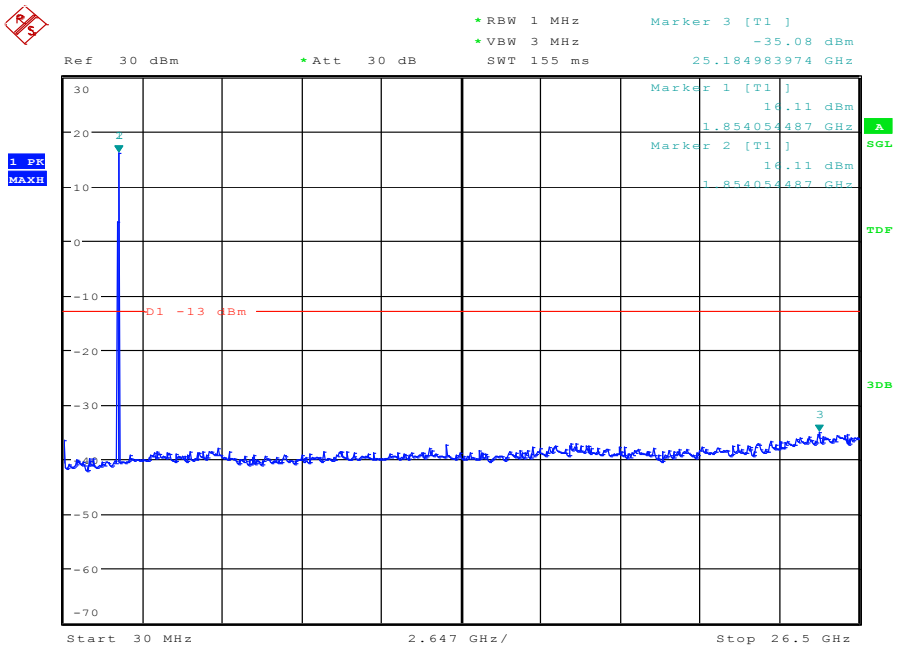
Date: 11.JAN.2017 20:00:48

BW3MHz-1908.5MHz,QPSK-15RB_LOW@Pass



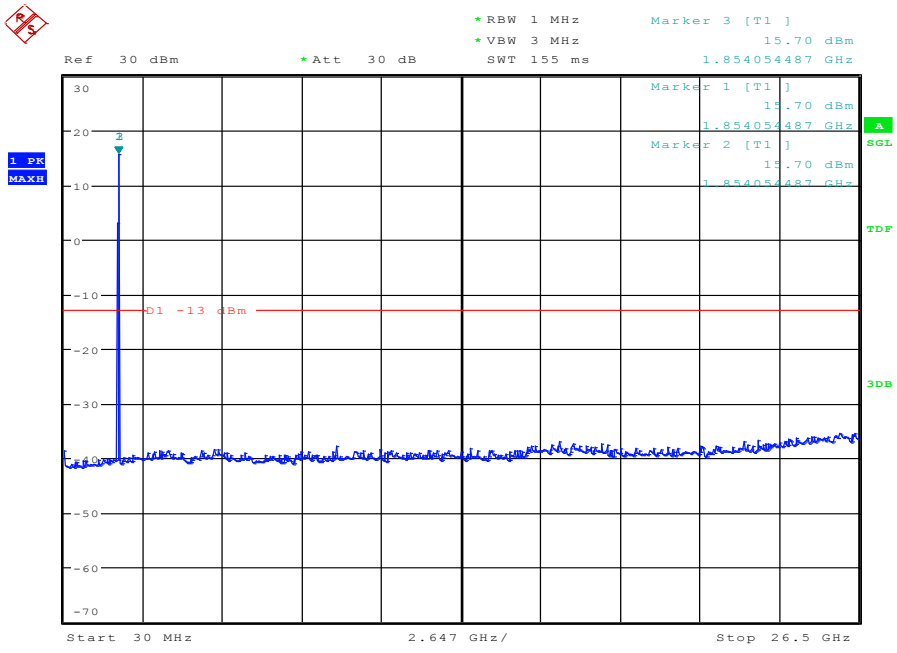
Date: 11.JAN.2017 19:59:47

BW5MHz-1852.5MHz,Q16-25RB_LOW@Pass



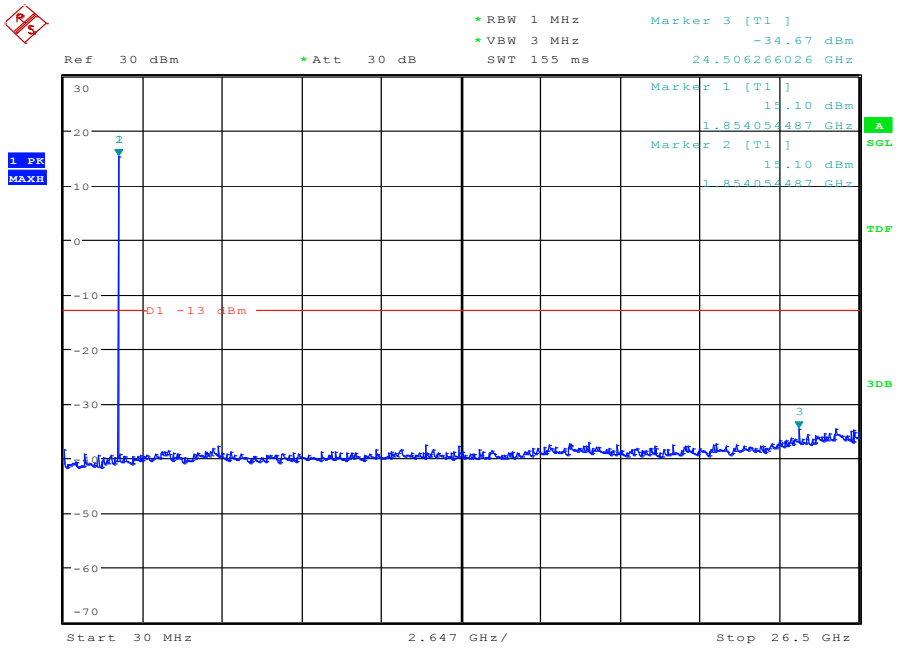
Date: 11.JAN.2017 20:03:46

BW5MHz-1852.5MHz,QPSK-25RB_LOW@Pass



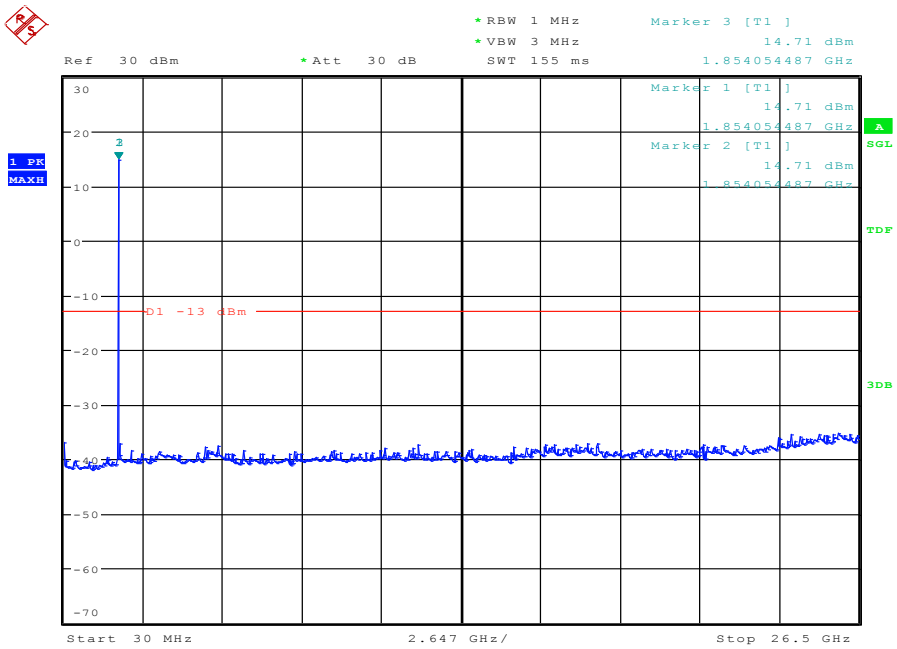
Date: 11.JAN.2017 20:02:51

BW5MHz-1880MHz,Q16-25RB_LOW@Pass



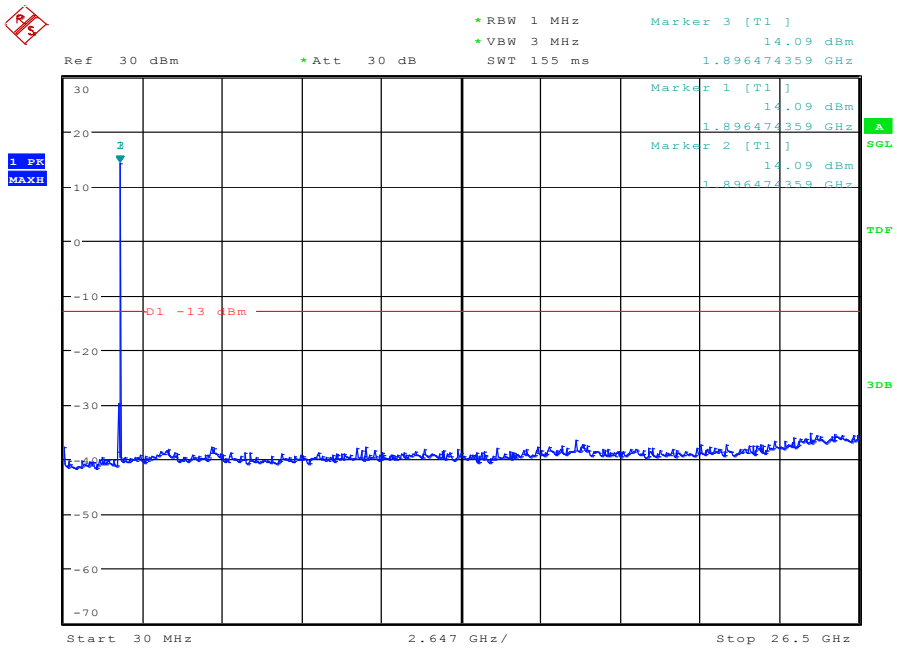
Date: 11.JAN.2017 20:06:49

BW5MHz-1880MHz,QPSK-25RB_LOW@Pass



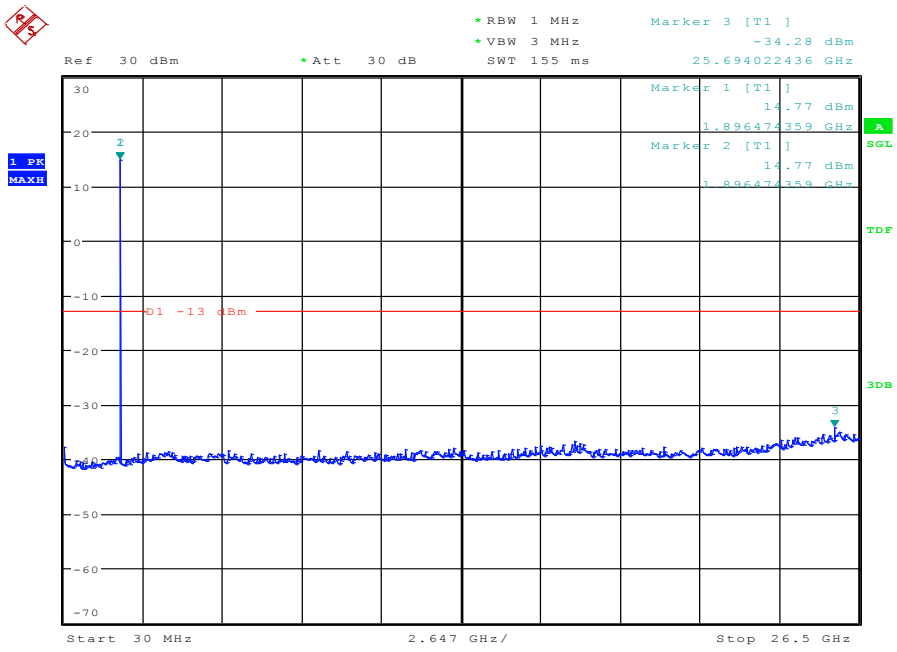
Date: 11.JAN.2017 20:06:20

BW5MHz-1907.5MHz,Q16-25RB_LOW@Pass



Date: 11.JAN.2017 20:05:47

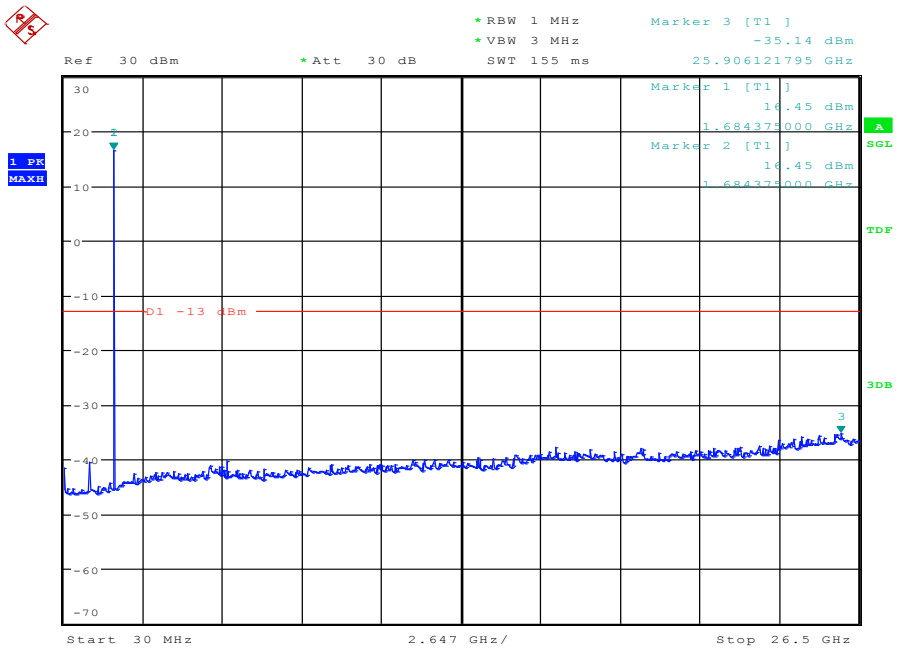
BW5MHz-1907.5MHz,QPSK-25RB_LOW@Pass



Date: 11.JAN.2017 20:04:51

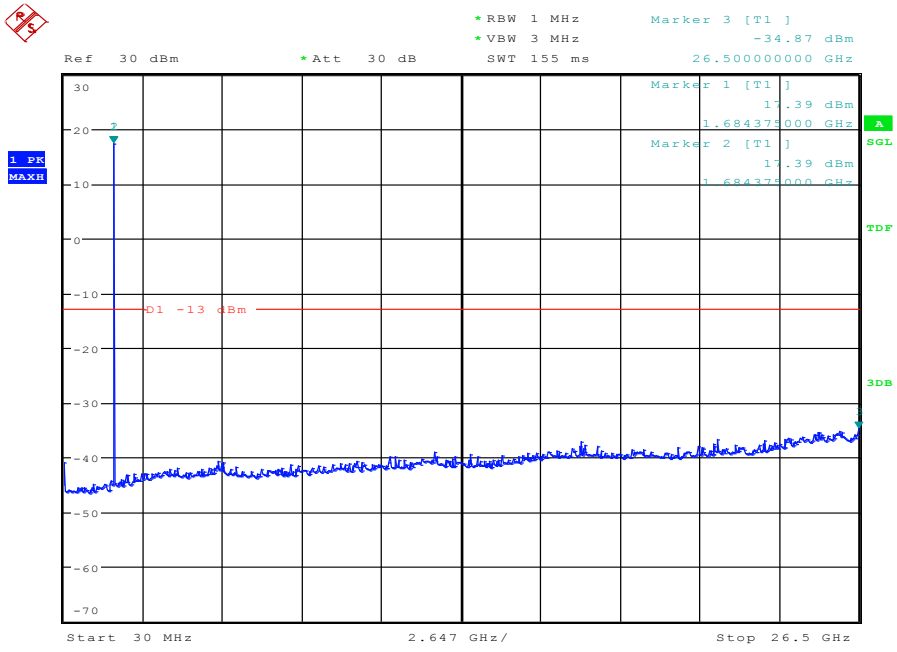
BAND 4@Conducted Spurious Emission

BW1.4MHz-1710.7MHz,Q16-6RB_LOW@Pass



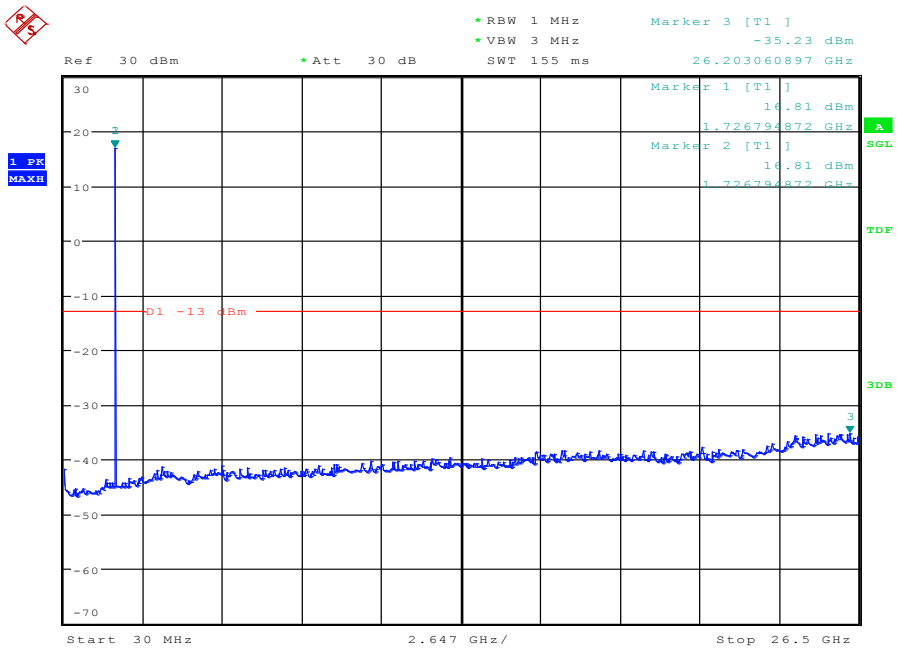
Date: 12.JAN.2017 08:23:15

BW1.4MHz-1710.7MHz,QPSK-6RB_LOW@Pass



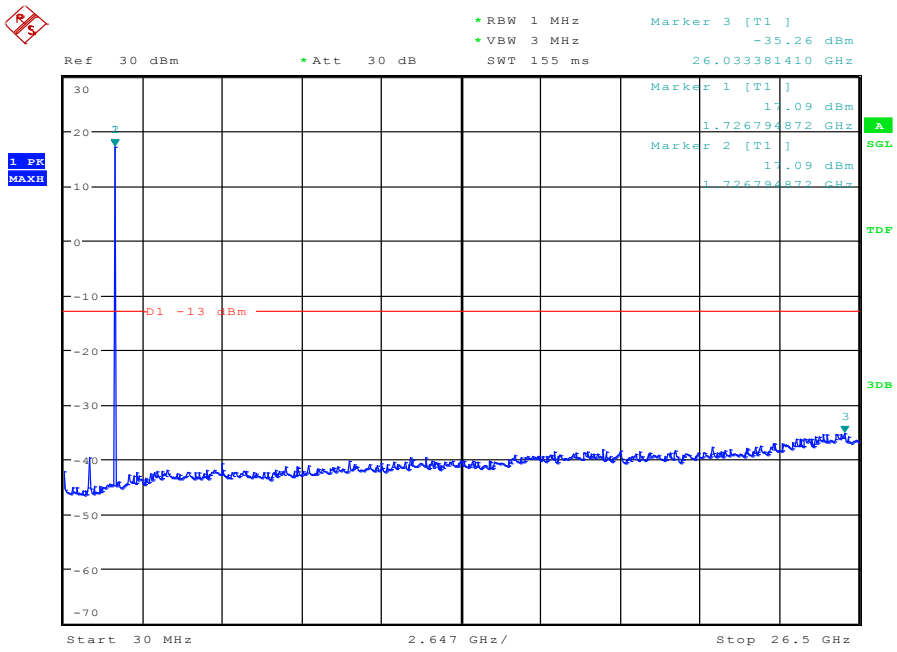
Date: 12.JAN.2017 08:22:09

BW1.4MHz-1732.5MHz,Q16-6RB_LOW@Pass



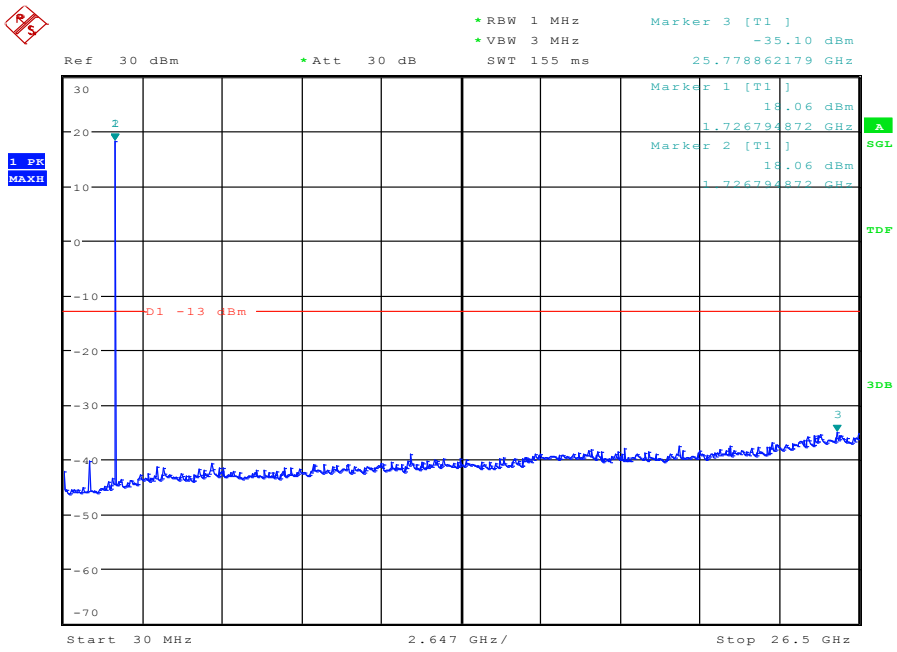
Date: 12.JAN.2017 08:26:40

BW1.4MHz-1732.5MHz,QPSK-6RB_LOW@Pass



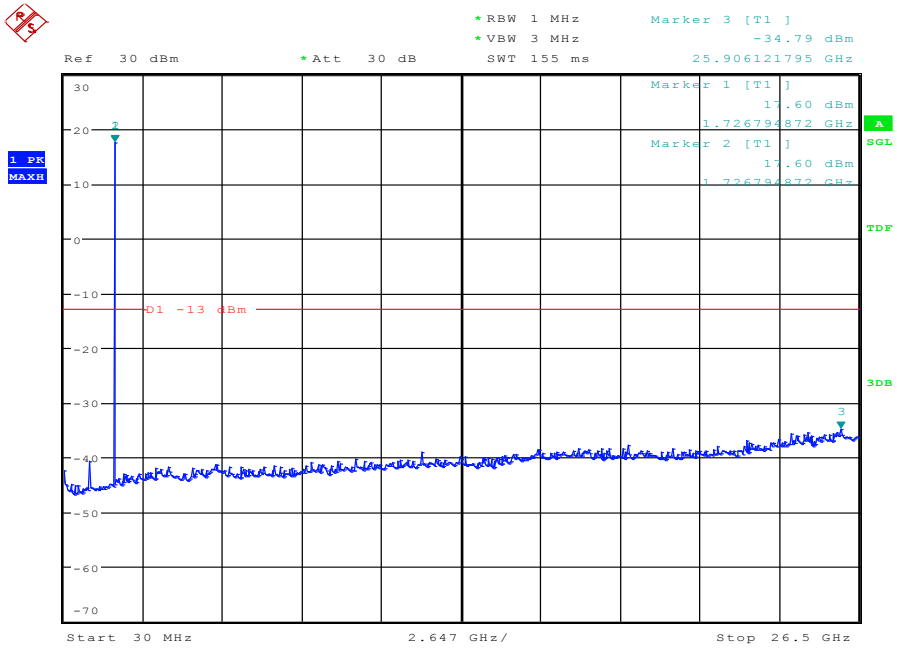
Date: 12.JAN.2017 08:25:59

BW1.4MHz-1754.3MHz,Q16-6RB_LOW@Pass



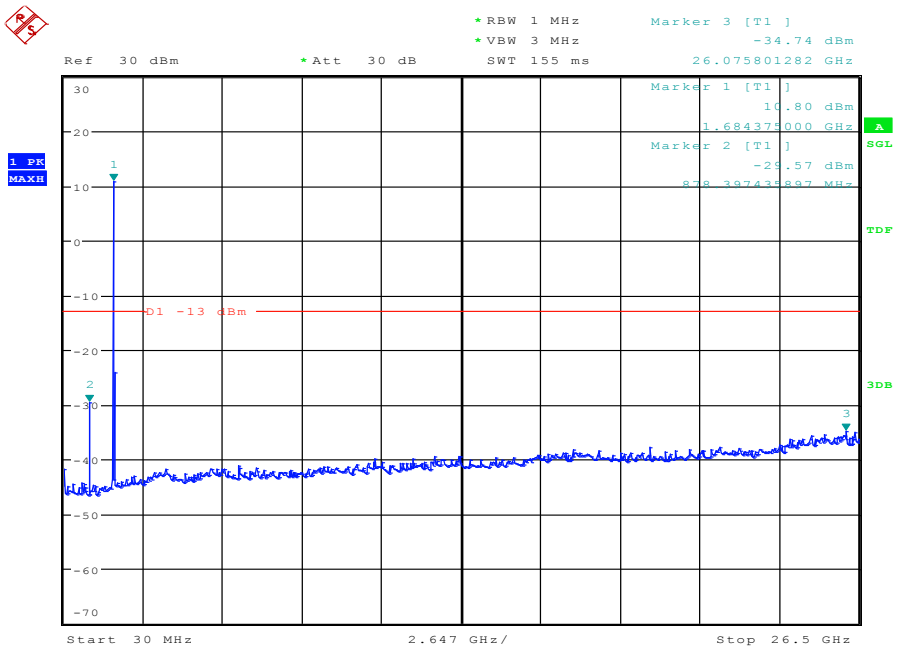
Date: 12.JAN.2017 08:25:12

BW1.4MHz-1754.3MHz,QPSK-6RB_LOW@Pass



Date: 12.JAN.2017 08:24:13

BW10MHz-1715MHz,Q16-50RB_LOW@Pass



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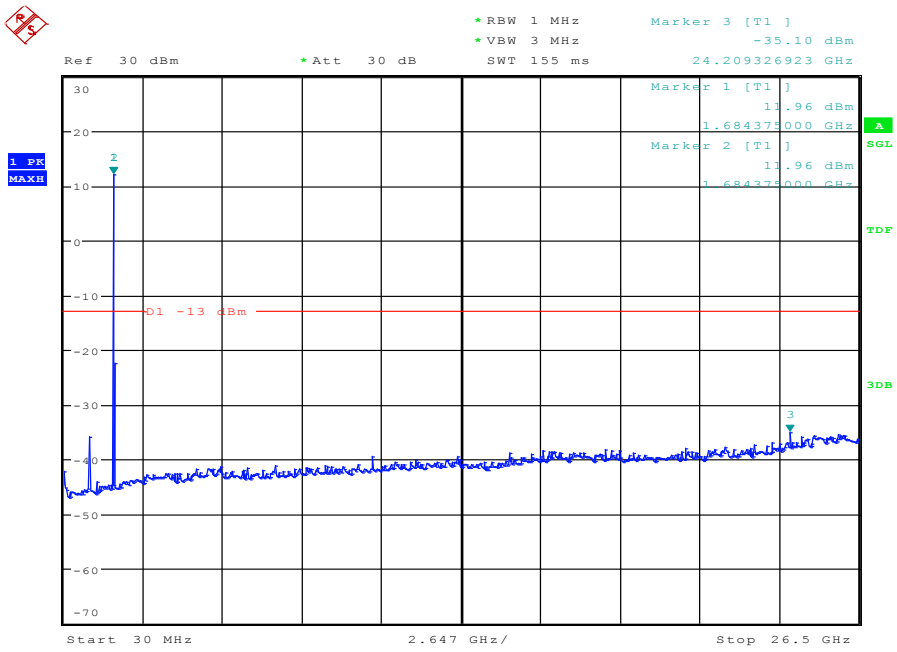
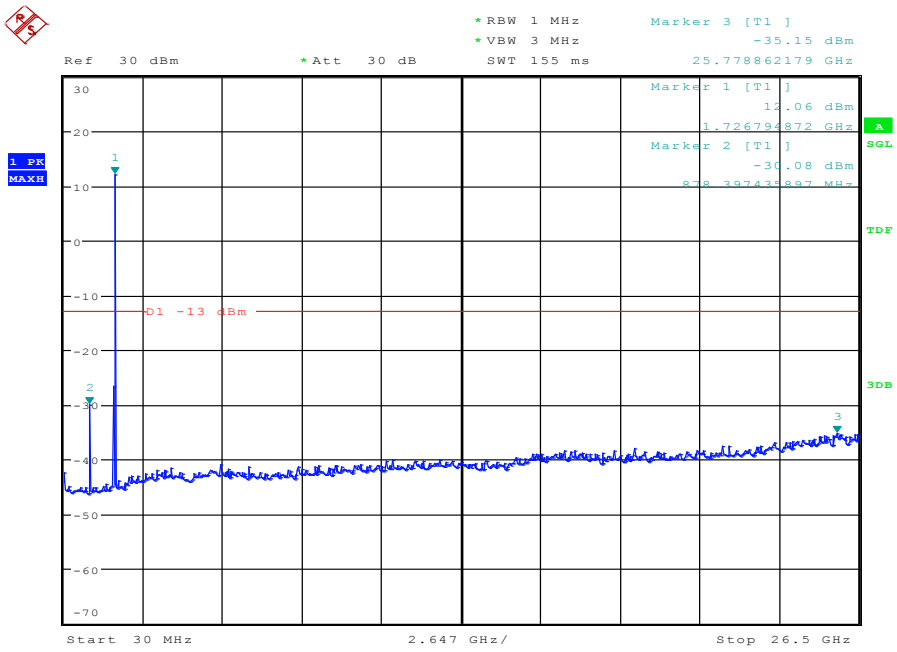
BW10MHz-1715MHz,QPSK-50RB_LOW@Pass



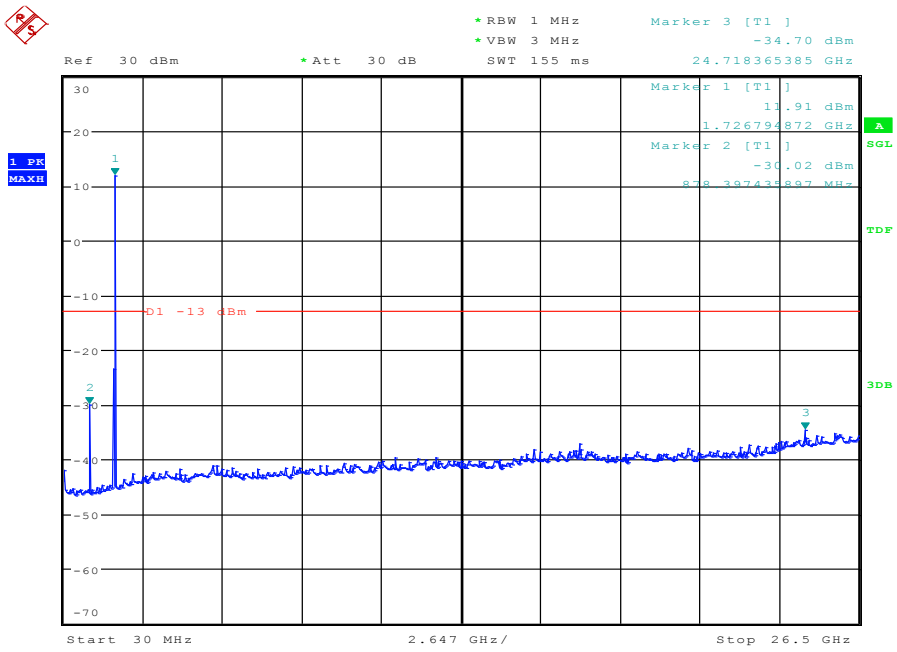
Date: 12.JAN.2017 08:37:18

BW10MHz-1732.5MHz,Q16-50RB_LOW@Pass



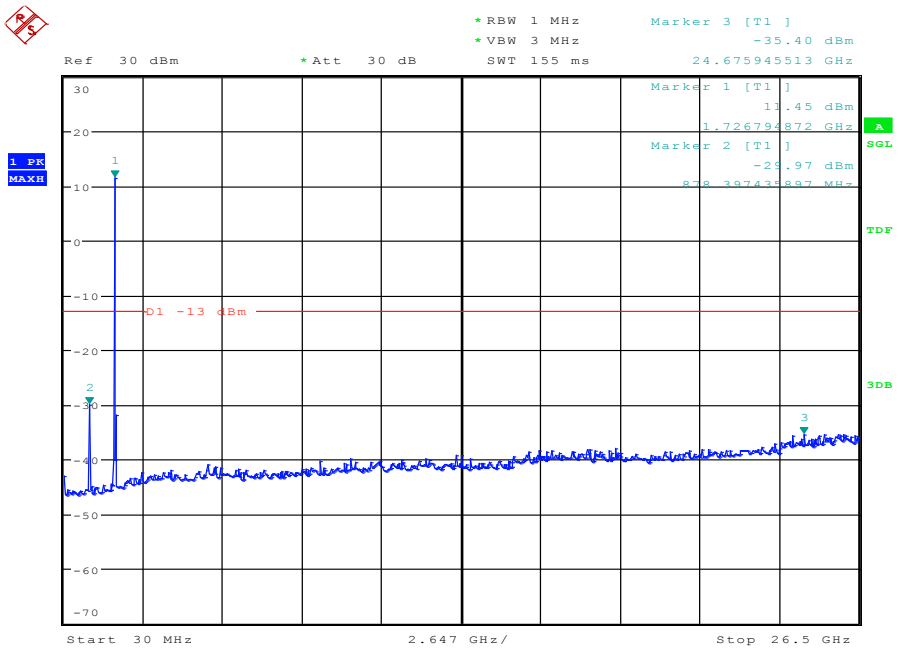
Date: 12.JAN.2017 08:41:09

BW10MHz-1732.5MHz,QPSK-50RB_LOW@Pass



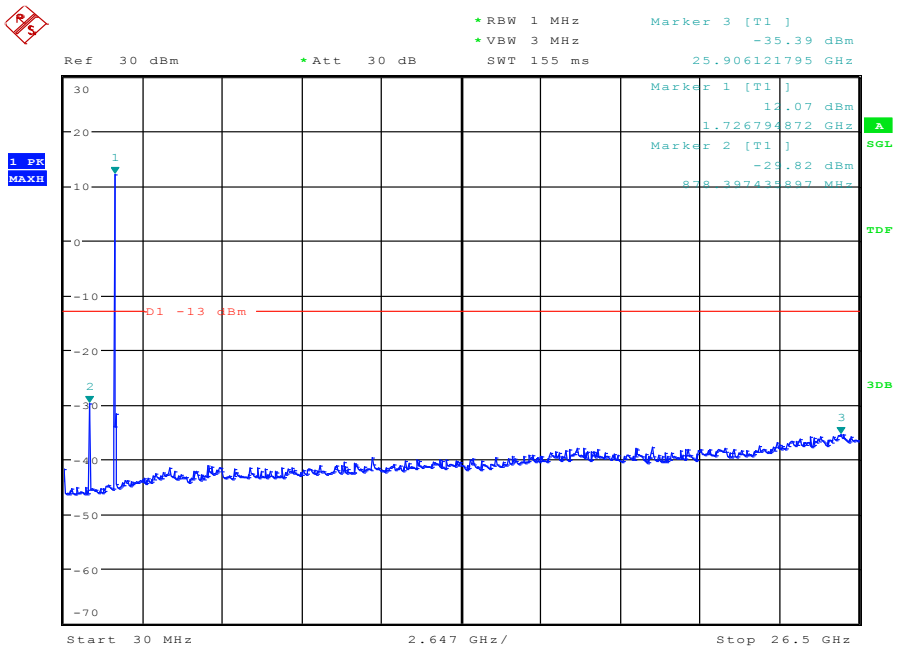
Date: 12.JAN.2017 08:40:34

BW10MHz-1750MHz,Q16-50RB_LOW@Pass



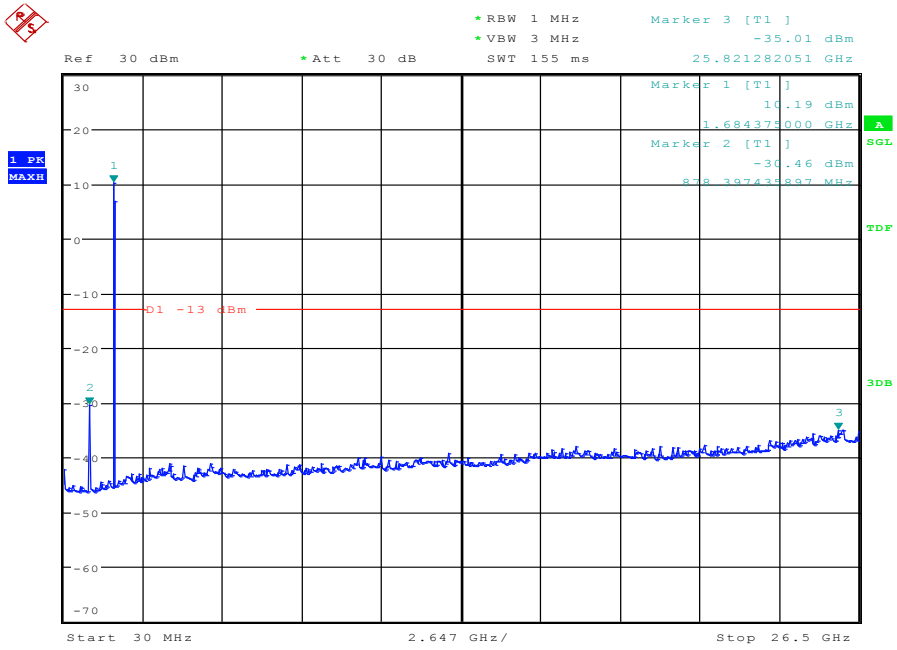
Date: 12.JAN.2017 08:39:53

BW10MHz-1750MHz,QPSK-50RB_LOW@Pass



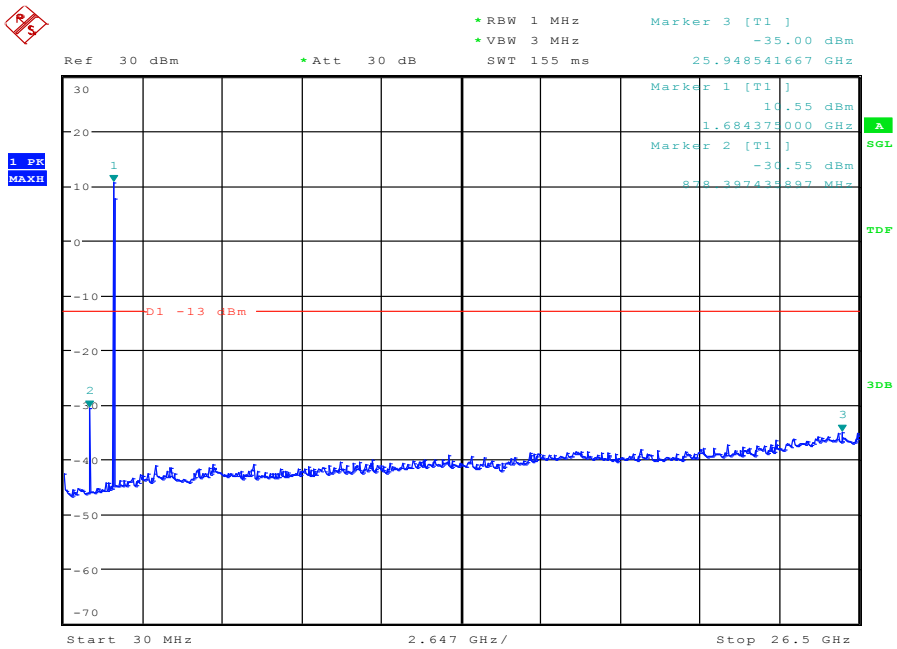
Date: 12.JAN.2017 08:39:01

BW15MHz-1717.5MHz,Q16-75RB_LOW@Pass



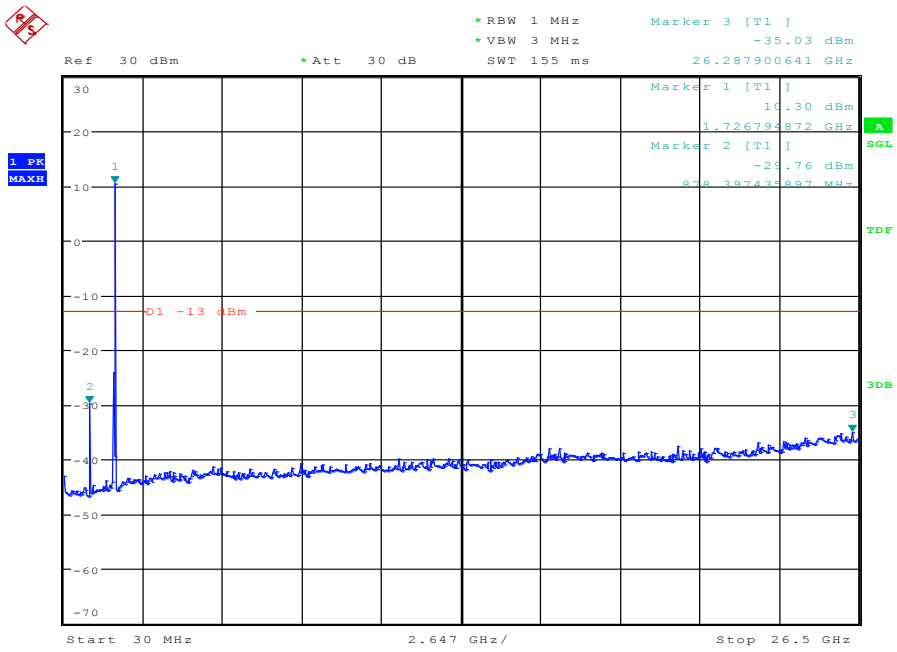
Date: 12.JAN.2017 08:42:48

BW15MHz-1717.5MHz,QPSK-75RB_LOW@Pass



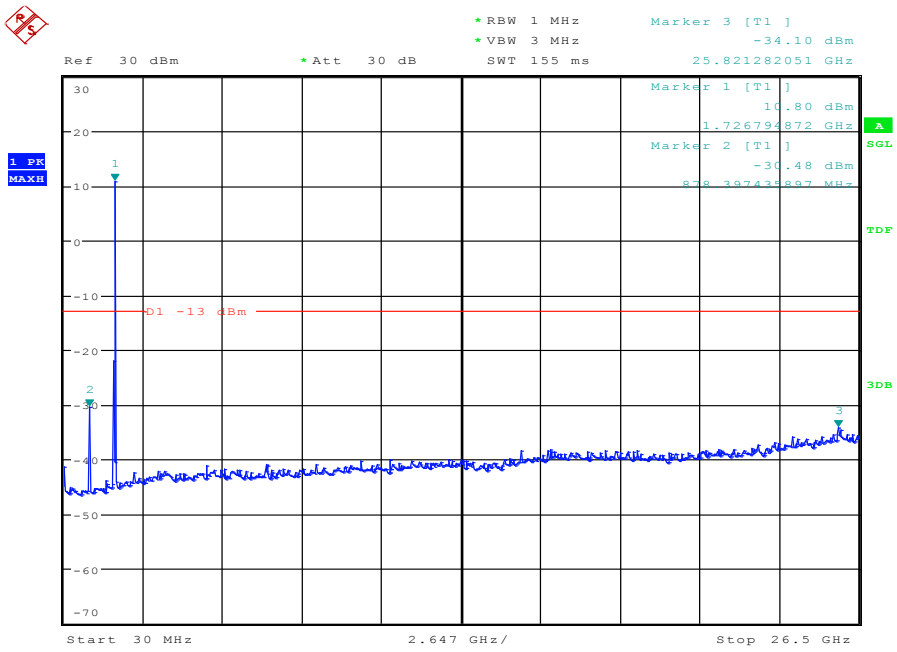
Date: 12.JAN.2017 08:41:57

BW15MHz-1732.5MHz,Q16-75RB_LOW@Pass



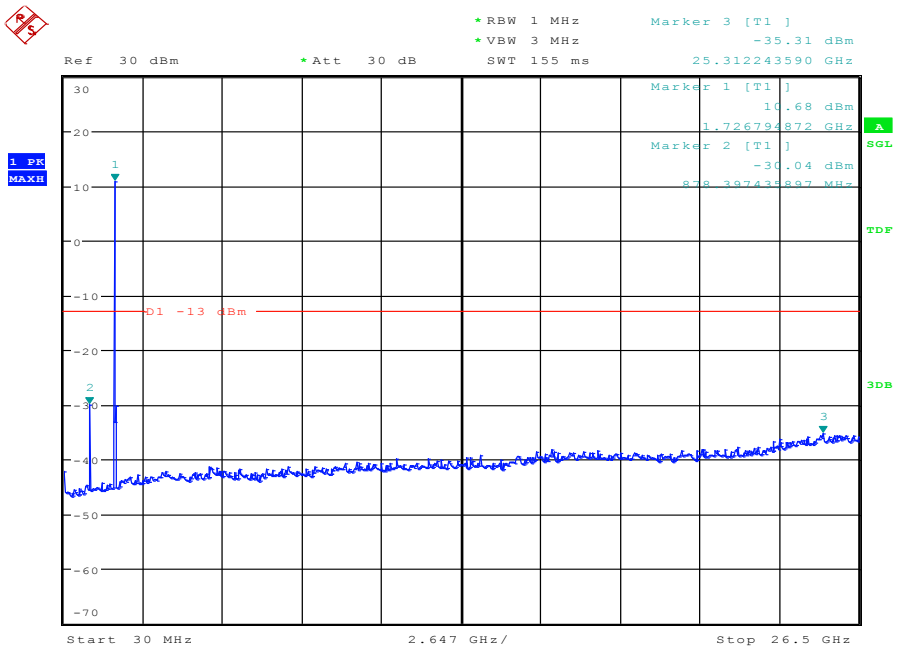
Date: 12.JAN.2017 08:45:48

BW15MHz-1732.5MHz,QPSK-75RB_LOW@Pass



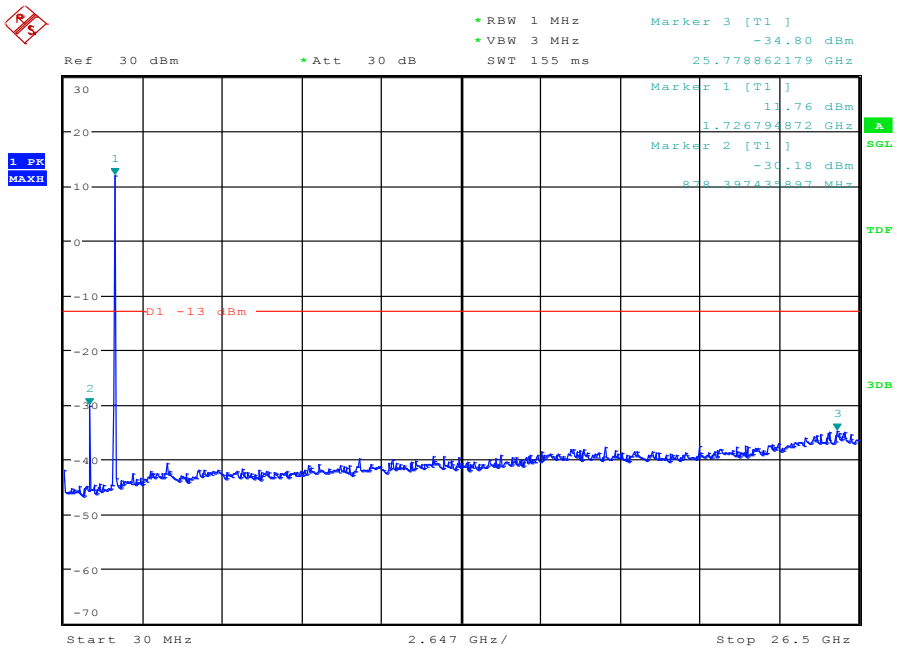
Date: 12.JAN.2017 08:45:13

BW15MHz-1747.5MHz,Q16-75RB_LOW@Pass



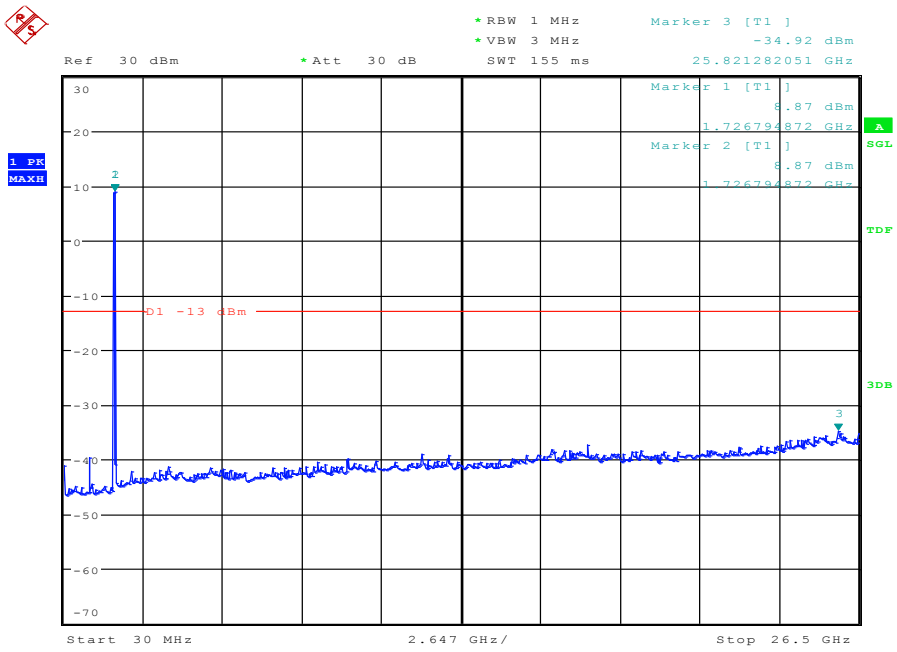
Date: 12.JAN.2017 08:44:31

BW15MHz-1747.5MHz,QPSK-75RB_LOW@Pass



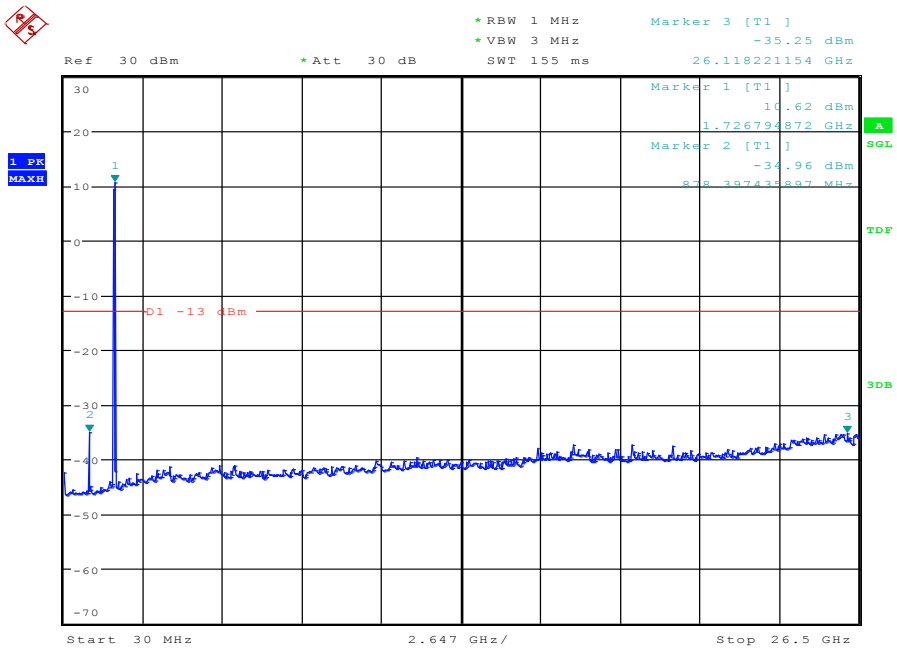
Date: 12.JAN.2017 08:43:40

BW20MHz-1720MHz,Q16-100RB_LOW@Pass



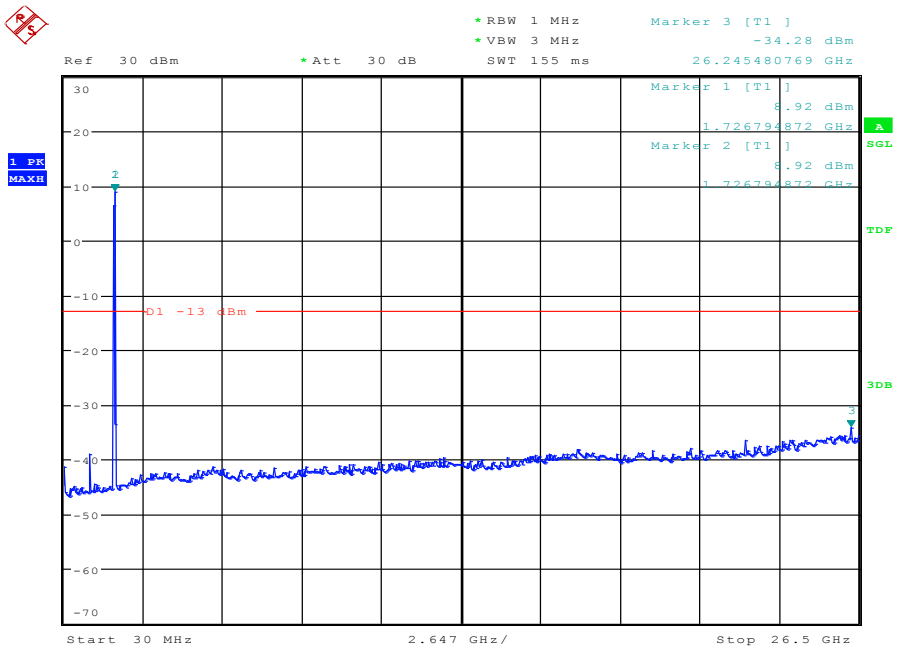
Date: 12.JAN.2017 08:47:28

BW20MHz-1720MHz,QPSK-100RB_LOW@Pass



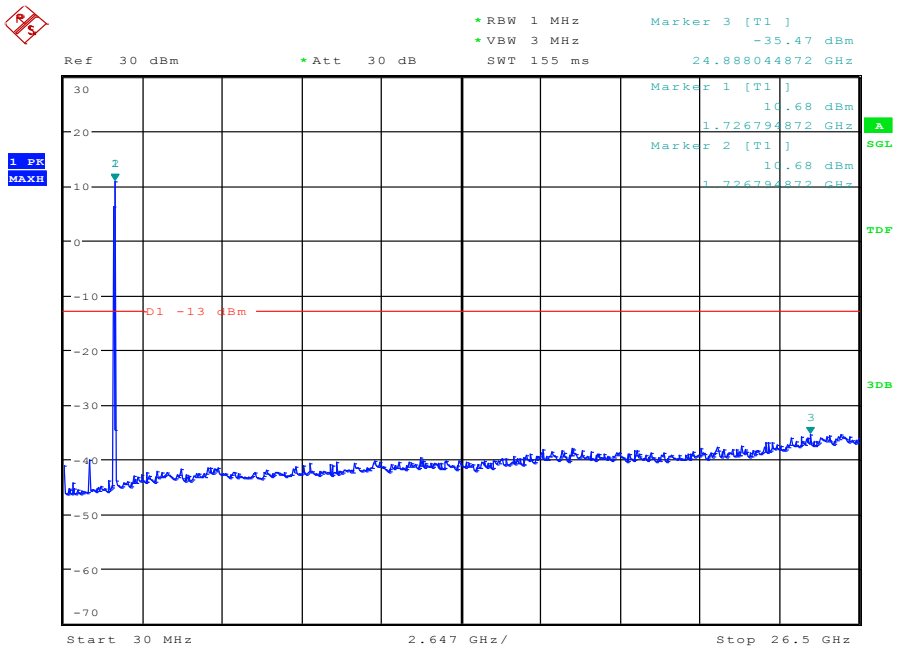
Date: 12.JAN.2017 08:46:37

BW20MHz-1732.5MHz,Q16-100RB_LOW@Pass



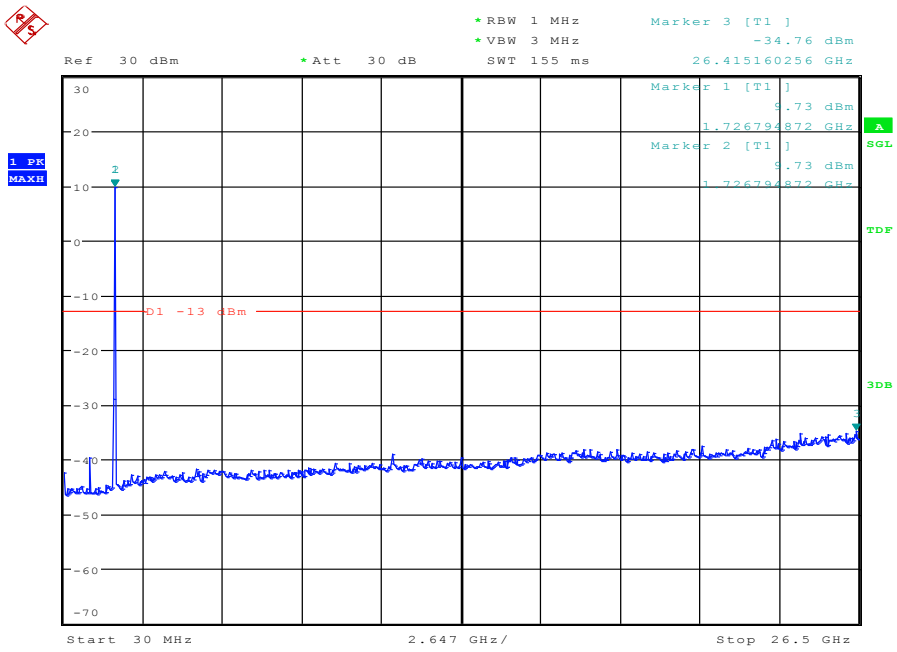
Date: 12.JAN.2017 08:50:30

BW20MHz-1732.5MHz,QPSK-100RB_LOW@Pass



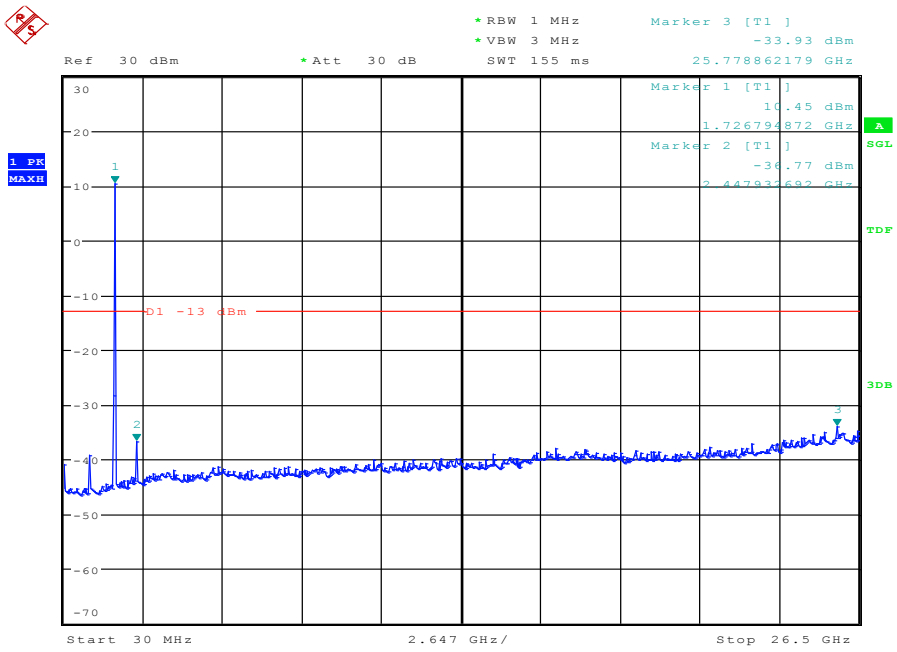
Date: 12.JAN.2017 08:49:53

BW20MHz-1745MHz,Q16-100RB_LOW@Pass



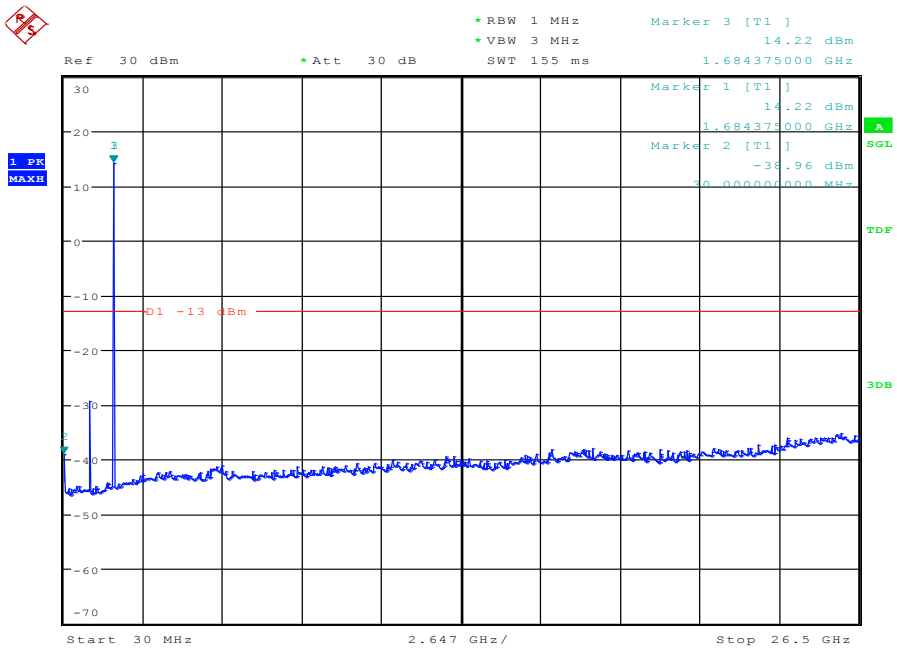
Date: 12.JAN.2017 08:49:11

BW20MHz-1745MHz,QPSK-100RB_LOW@Pass



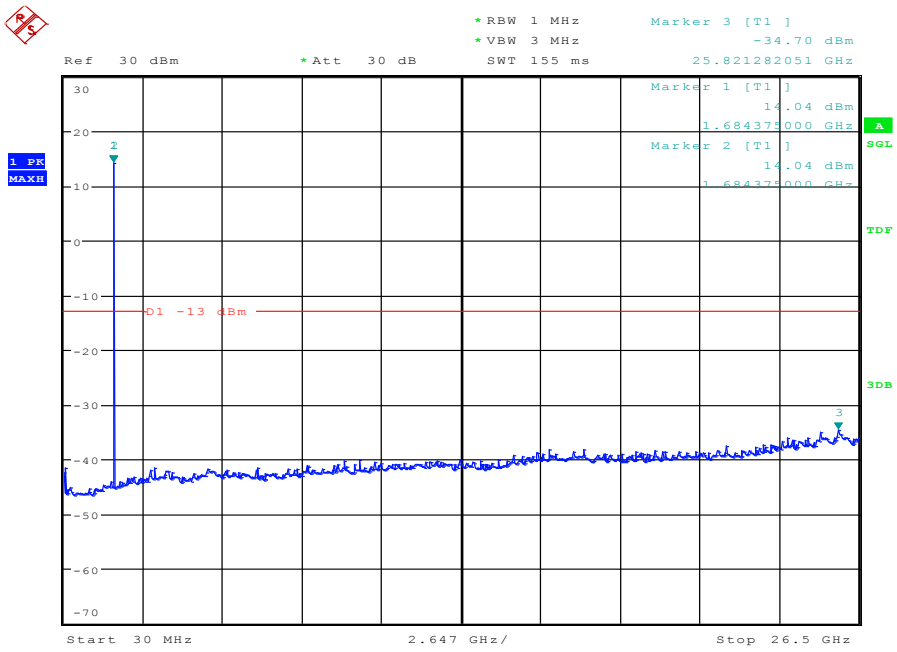
Date: 12.JAN.2017 08:48:19

BW3MHz-1711.5MHz,Q16-15RB_LOW@Pass



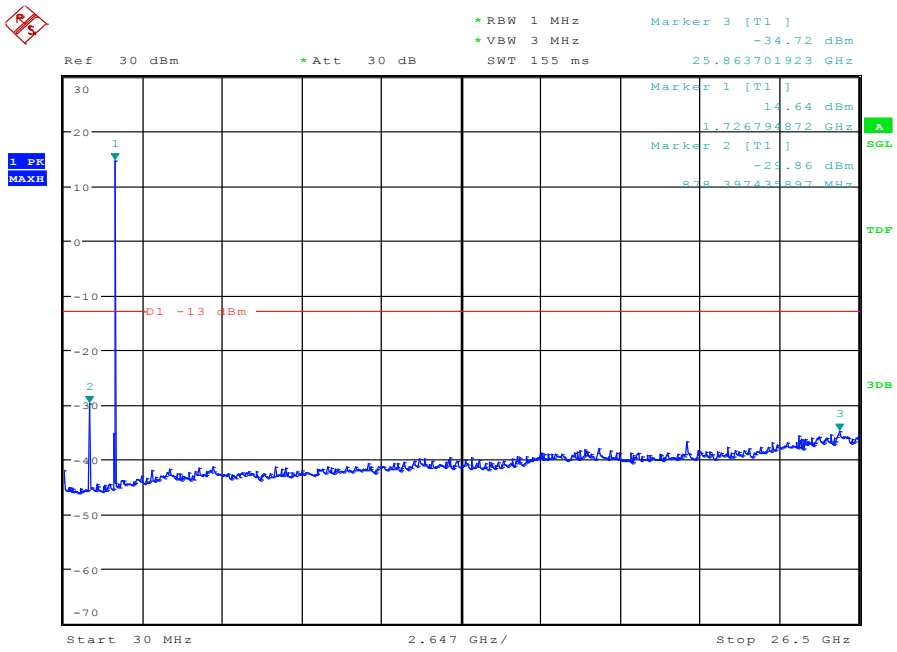
Date: 12.JAN.2017 08:28:35

BW3MHz-1711.5MHz,QPSK-15RB_LOW@Pass



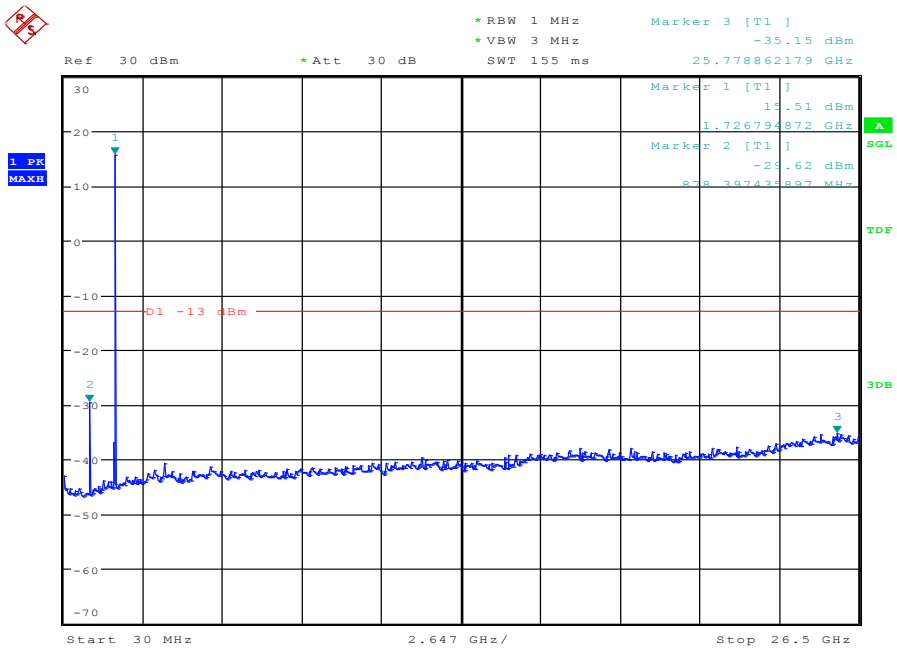
Date: 12.JAN.2017 08:27:36

BW3MHz-1732.5MHz,Q16-15RB_LOW@Pass



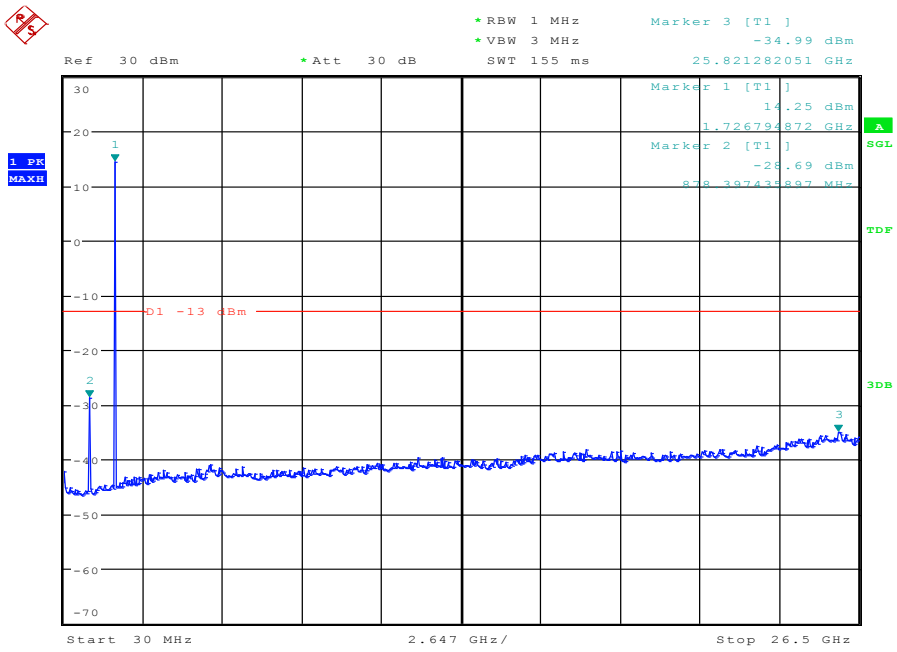
Date: 12.JAN.2017 08:31:28

BW3MHz-1732.5MHz,QPSK-15RB_LOW@Pass



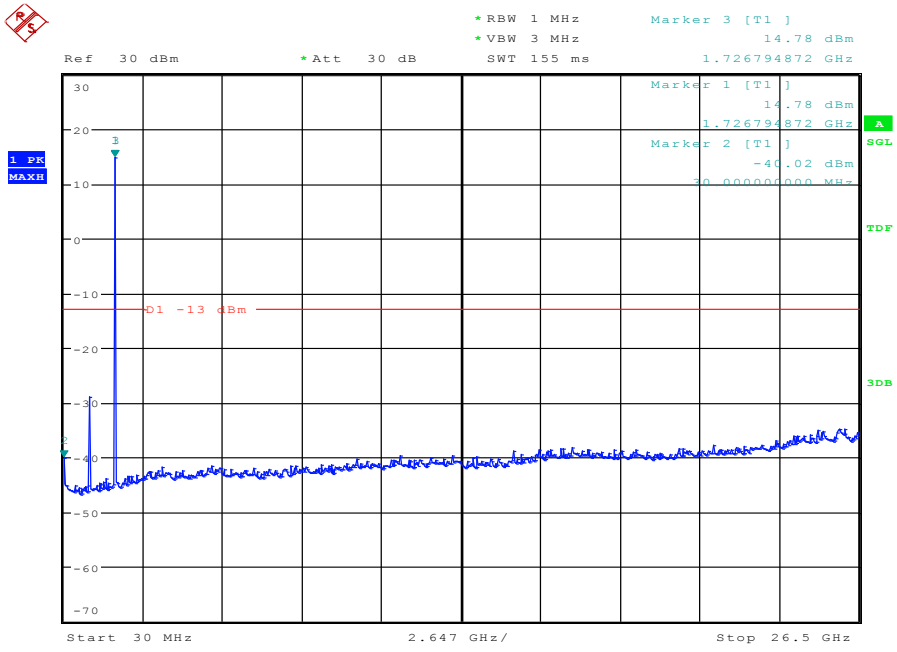
Date: 12.JAN.2017 08:30:54

BW3MHz-1753.5MHz,Q16-15RB_LOW@Pass



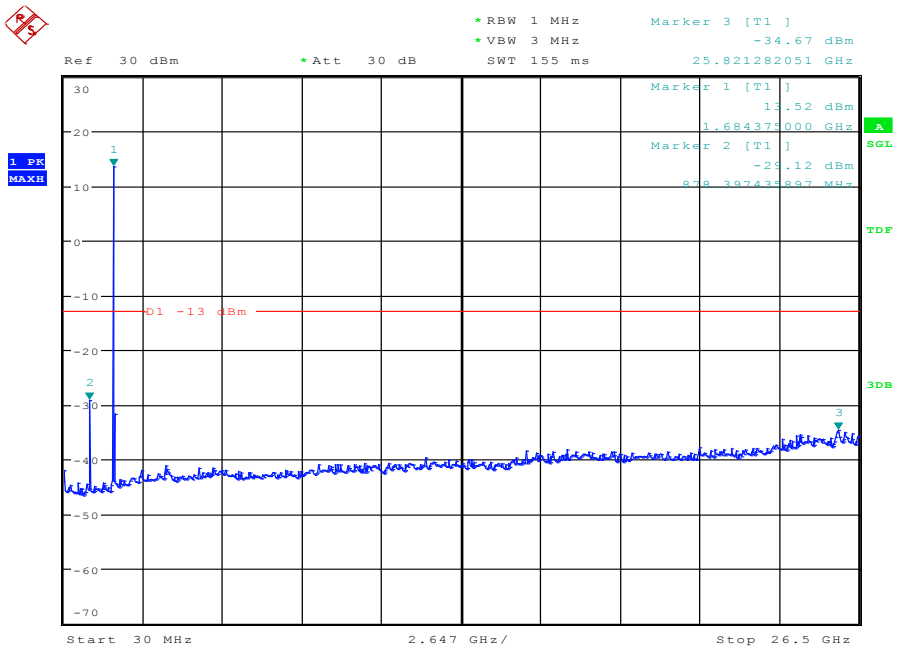
Date: 12.JAN.2017 08:30:15

BW3MHz-1753.5MHz,QPSK-15RB_LOW@Pass



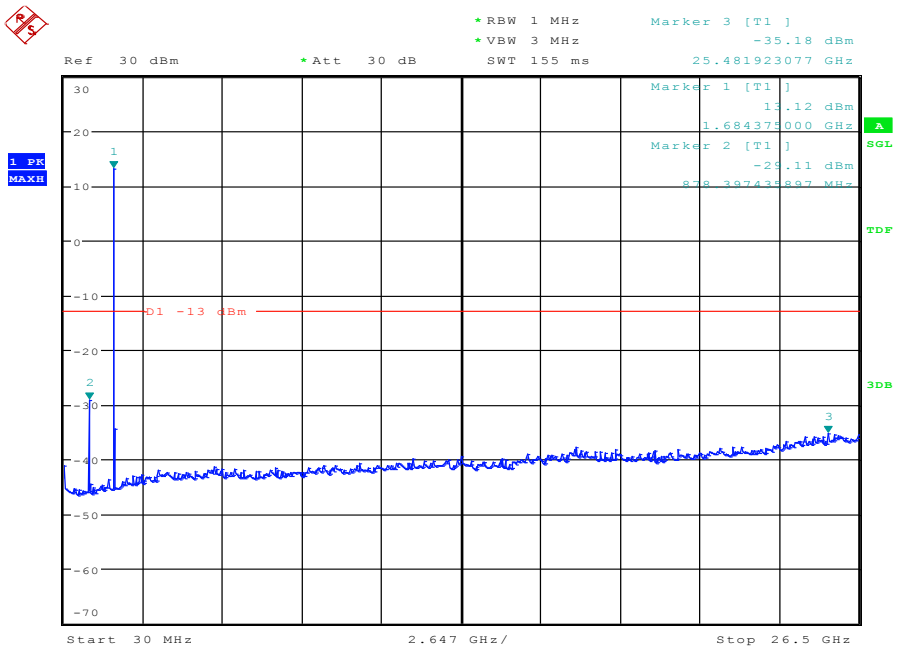
Date: 12.JAN.2017 08:29:25

BW5MHz-1712.5MHz,Q16-25RB_LOW@Pass



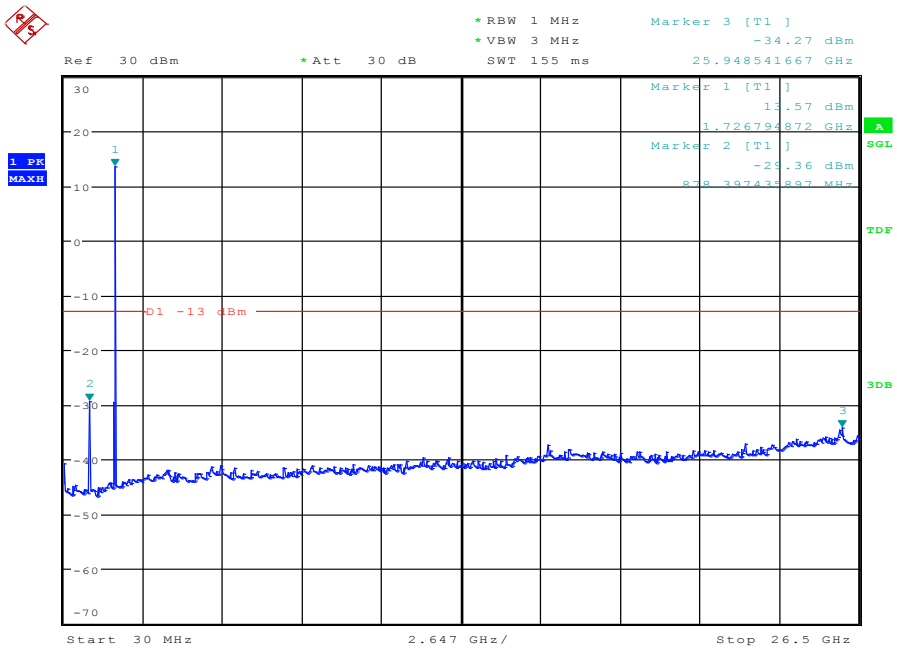
Date: 12.JAN.2017 08:33:26

BW5MHz-1712.5MHz,QPSK-25RB_LOW@Pass



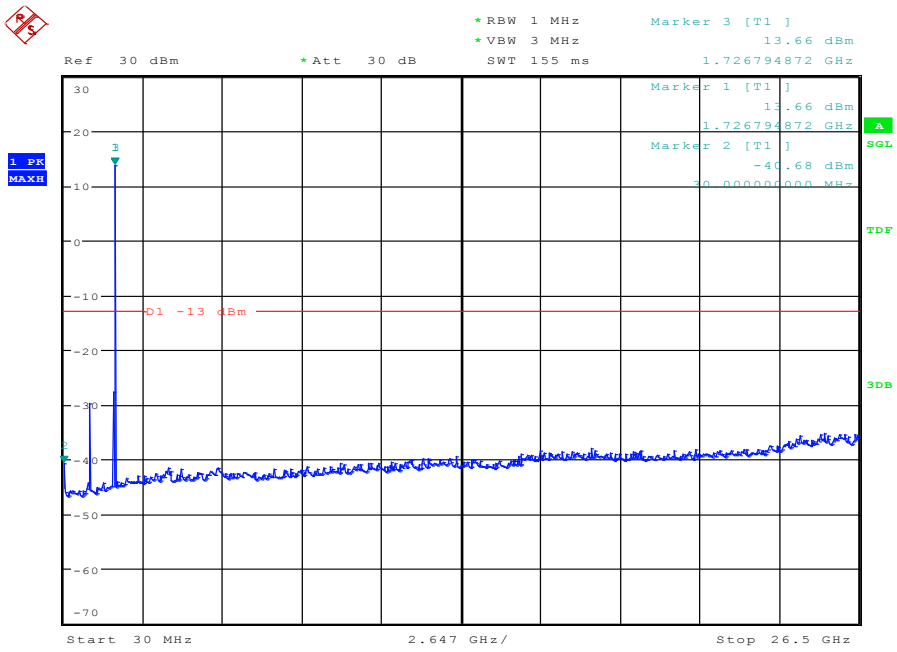
Date: 12.JAN.2017 08:32:25

BW5MHz-1732.5MHz,Q16-25RB_LOW@Pass



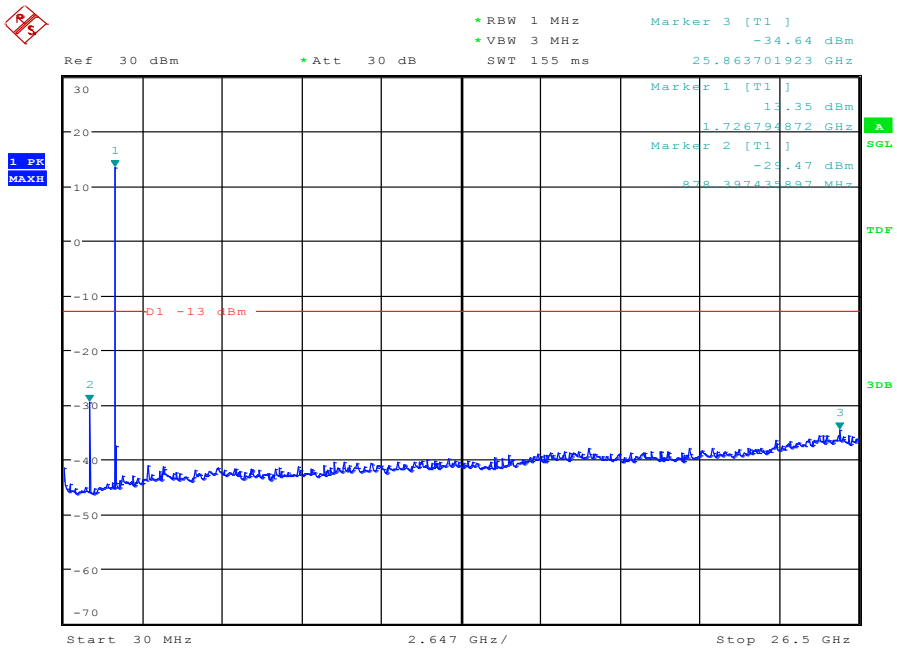
Date: 12.JAN.2017 08:36:31

BW5MHz-1732.5MHz,QPSK-25RB_LOW@Pass



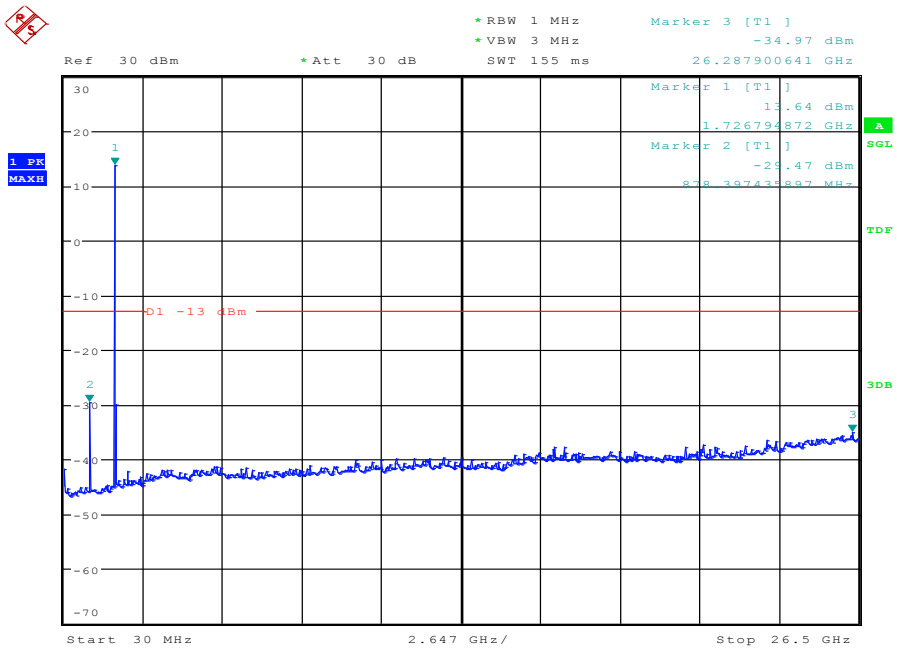
Date: 12.JAN.2017 08:35:56

BW5MHz-1752.5MHz,Q16-25RB_LOW@Pass



Date: 12.JAN.2017 08:35:15

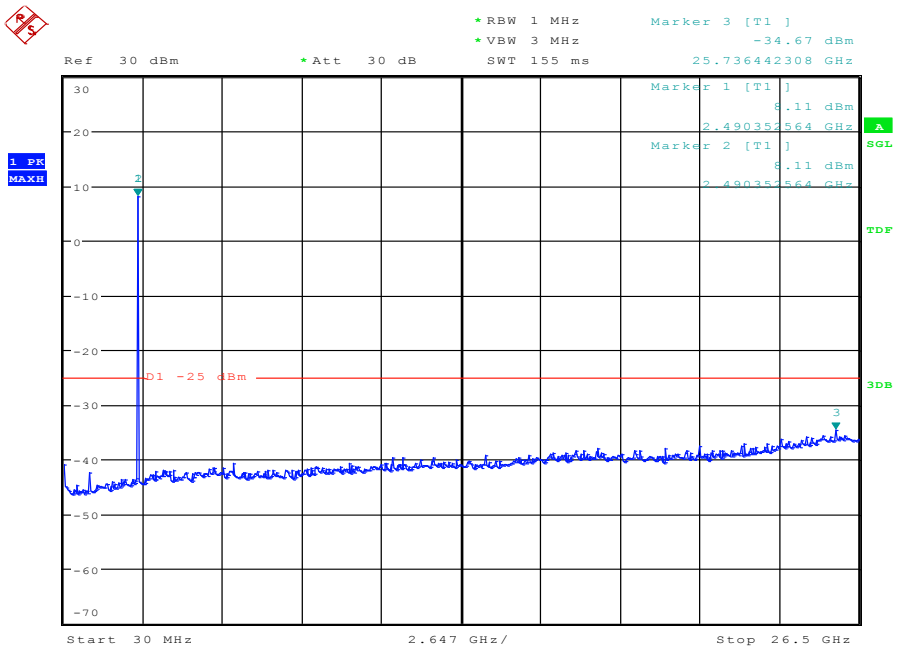
BW5MHz-1752.5MHz,QPSK-25RB_LOW@Pass



Date: 12.JAN.2017 08:34:21

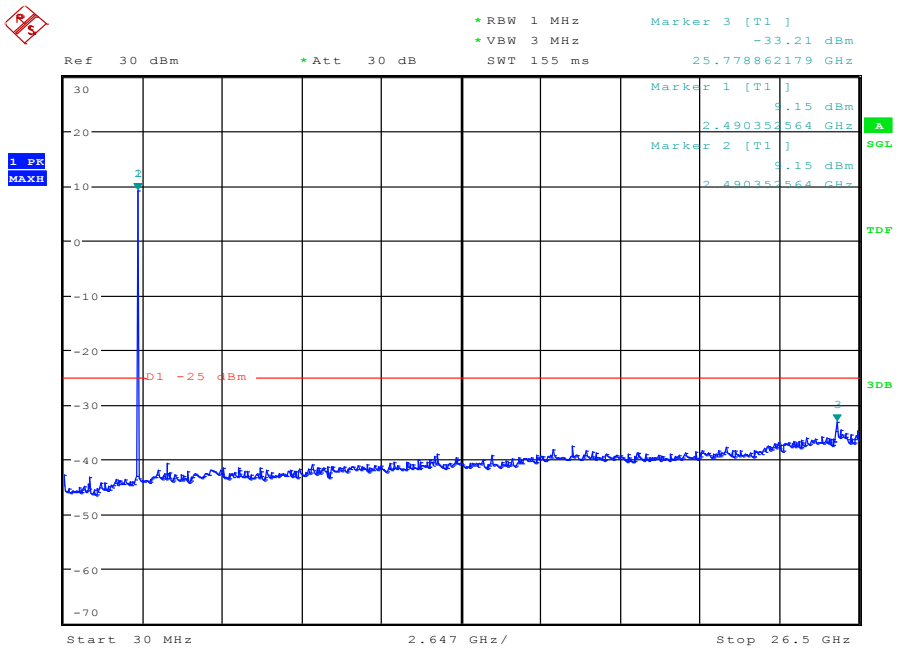
BAND 7@Conducted Spurious Emission

BW10MHz-2505MHz,Q16-50RB_LOW@Pass



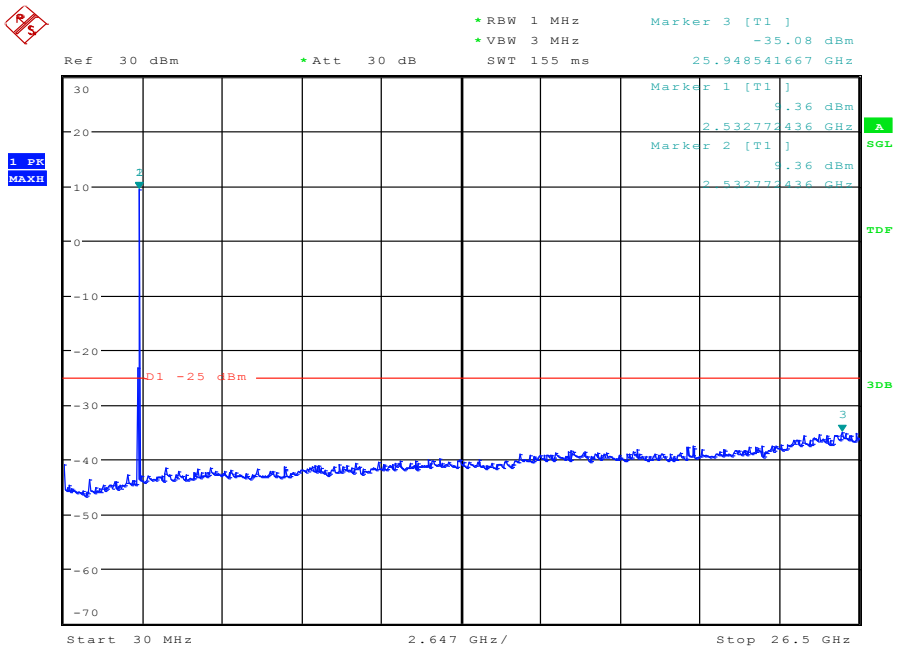
Date: 12.JAN.2017 09:01:17

BW10MHz-2505MHz,QPSK-50RB_LOW@Pass



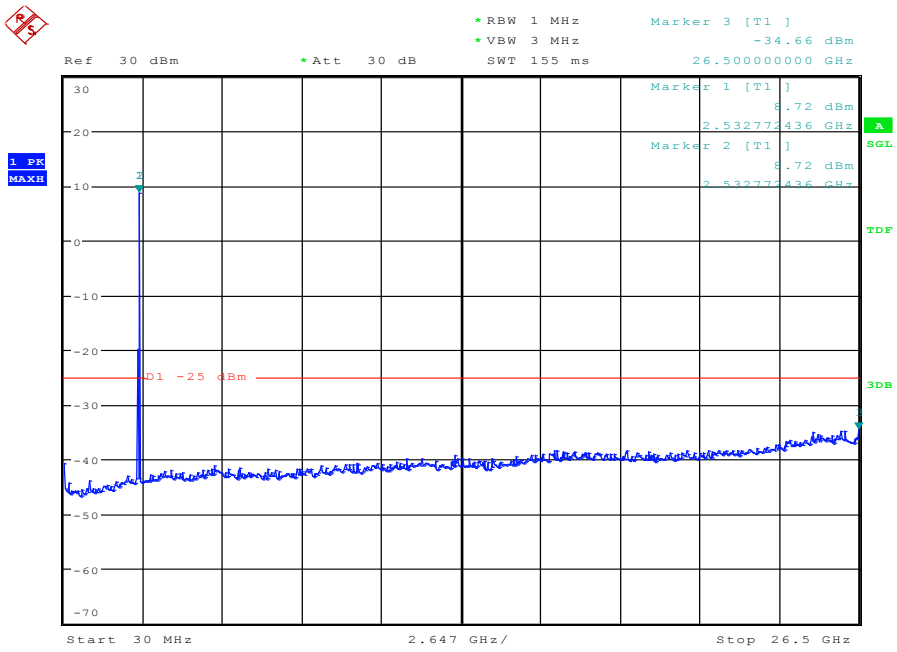
Date: 12.JAN.2017 09:00:35

BW10MHz-2535MHz,Q16-50RB_LOW@Pass



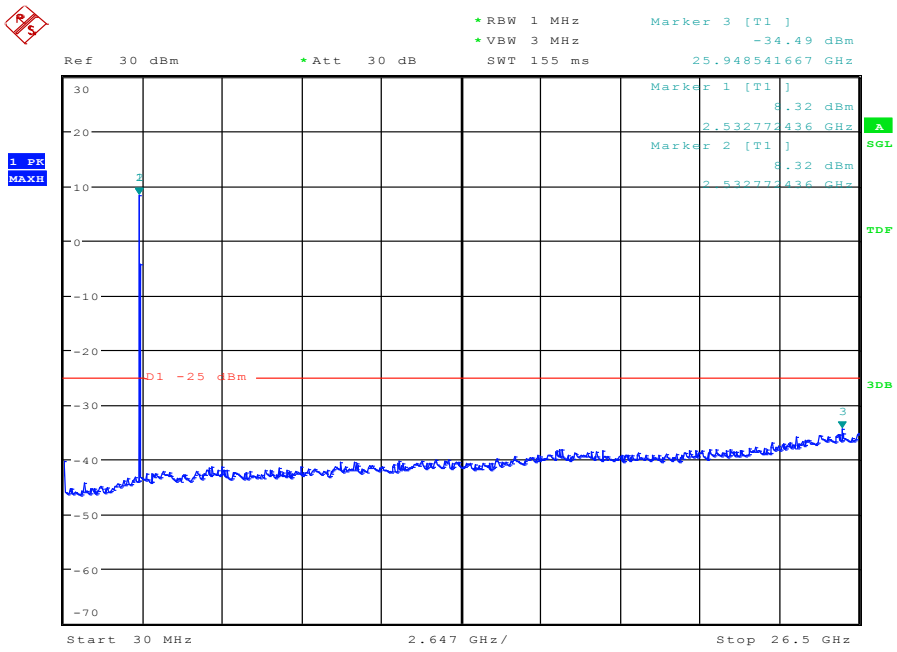
Date: 12.JAN.2017 09:03:44

BW10MHz-2535MHz,QPSK-50RB_LOW@Pass



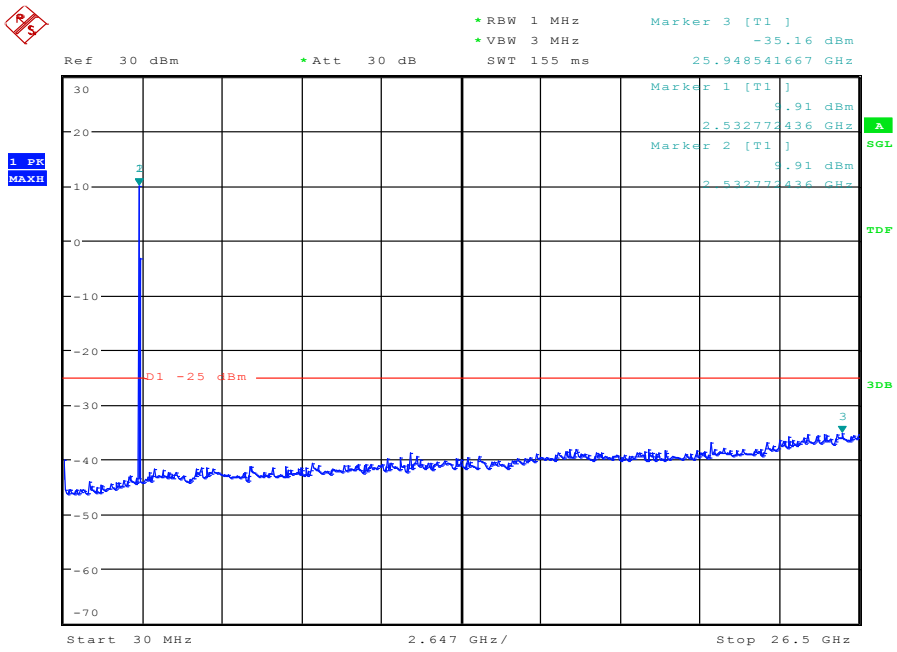
Date: 12.JAN.2017 09:03:15

BW10MHz-2565MHz,Q16-50RB_LOW@Pass



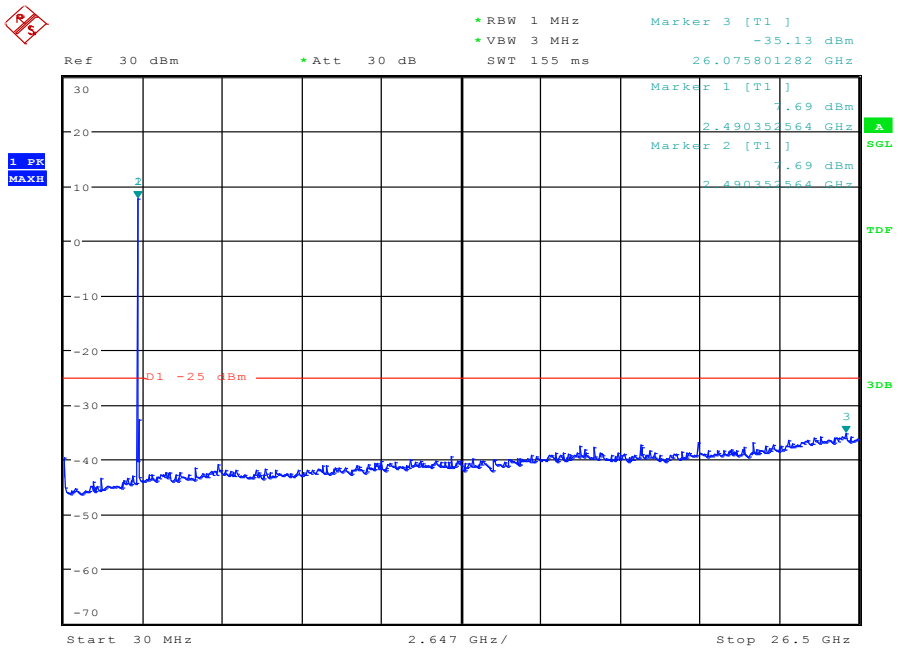
Date: 12.JAN.2017 09:02:42

BW10MHz-2565MHz,QPSK-50RB_LOW@Pass



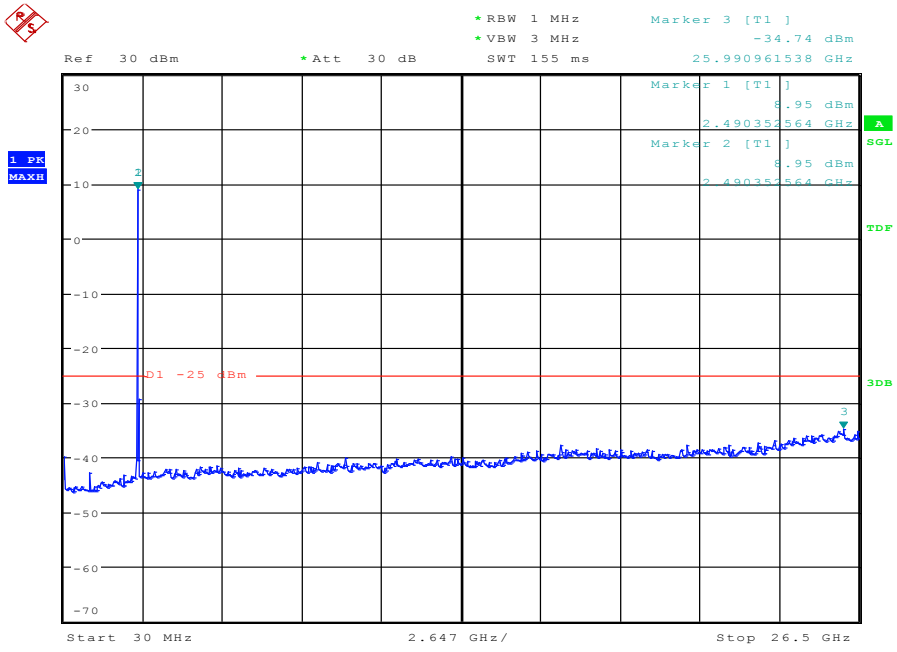
Date: 12.JAN.2017 09:02:00

BW15MHz-2507.5MHz,Q16-75RB_LOW@Pass



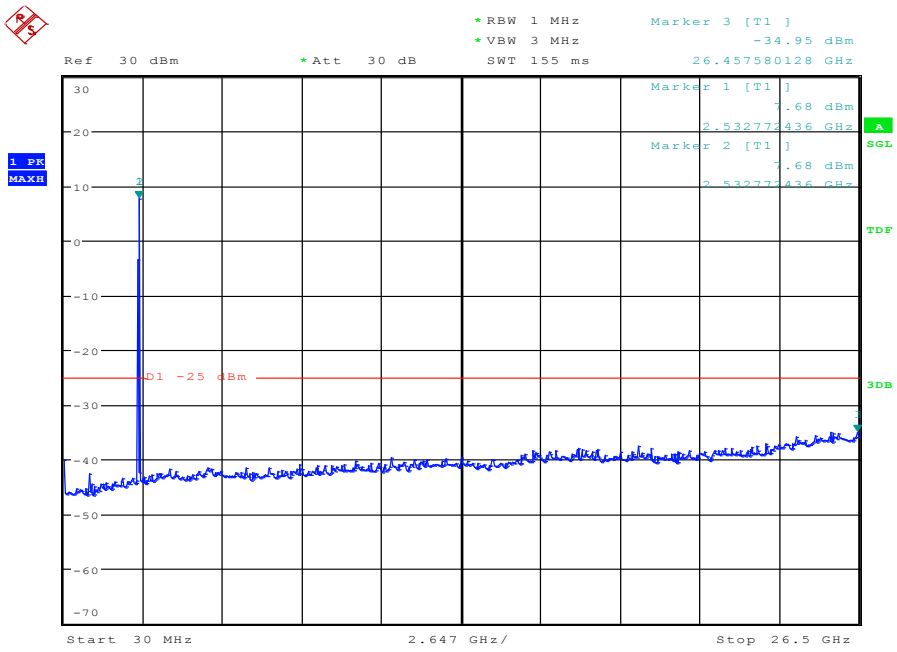
Date: 12.JAN.2017 09:05:07

BW15MHz-2507.5MHz,QPSK-75RB_LOW@Pass



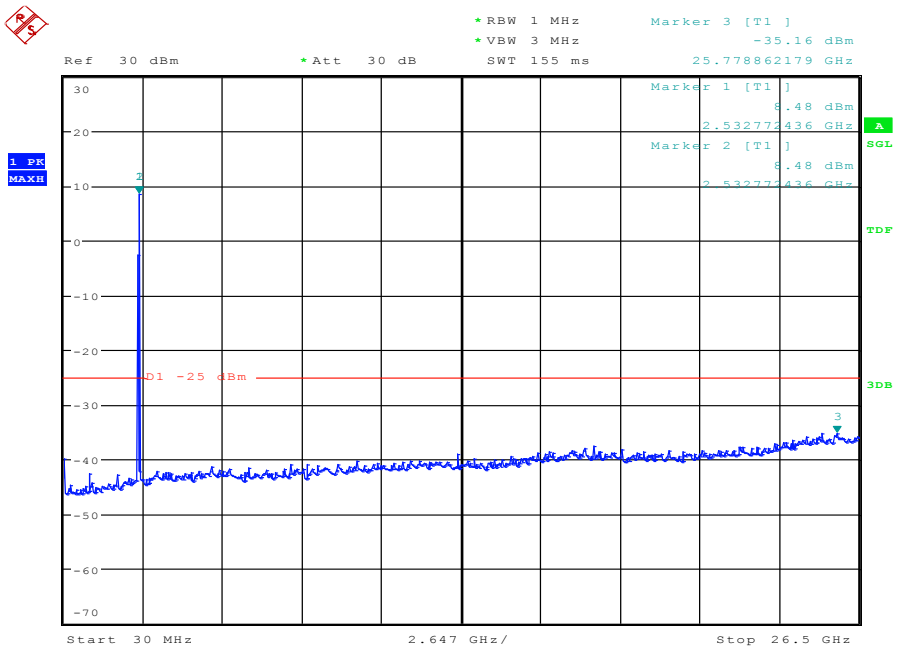
Date: 12.JAN.2017 09:04:25

BW15MHz-2535MHz,Q16-75RB_LOW@Pass



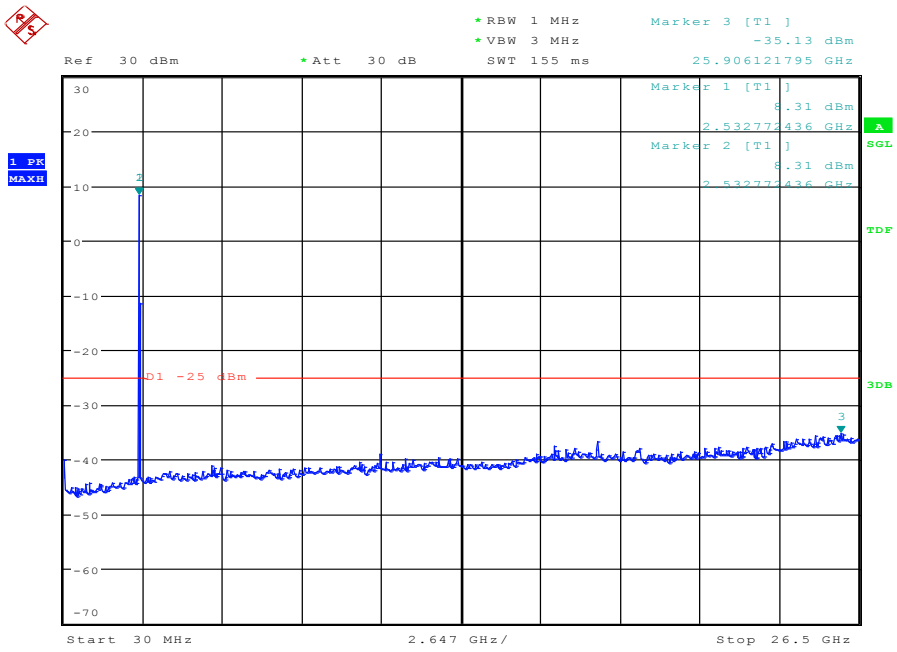
Date: 12.JAN.2017 09:07:34

BW15MHz-2535MHz,QPSK-75RB_LOW@Pass



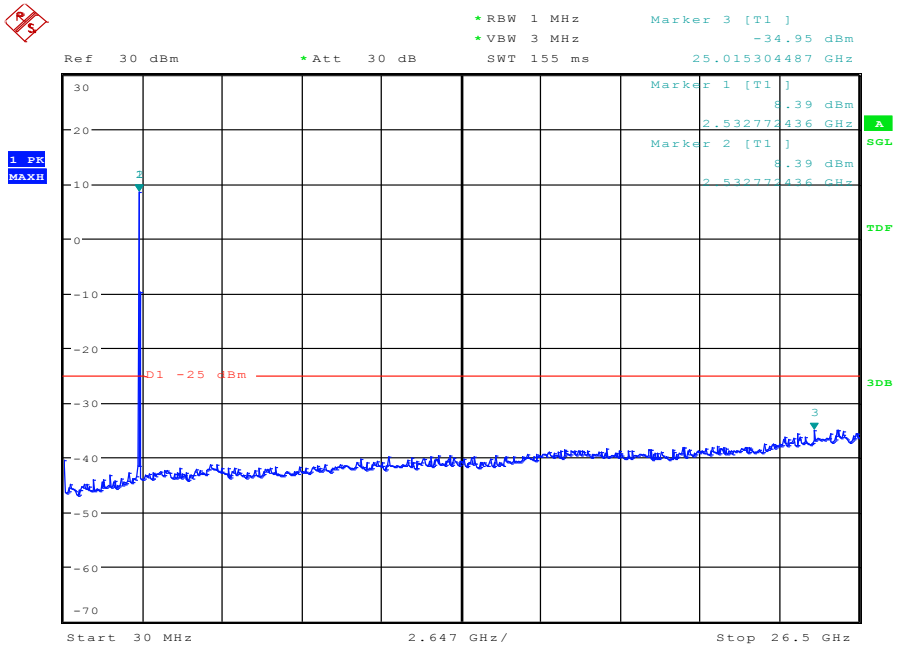
Date: 12.JAN.2017 09:07:06

BW15MHz-2562.5MHz,Q16-75RB_LOW@Pass



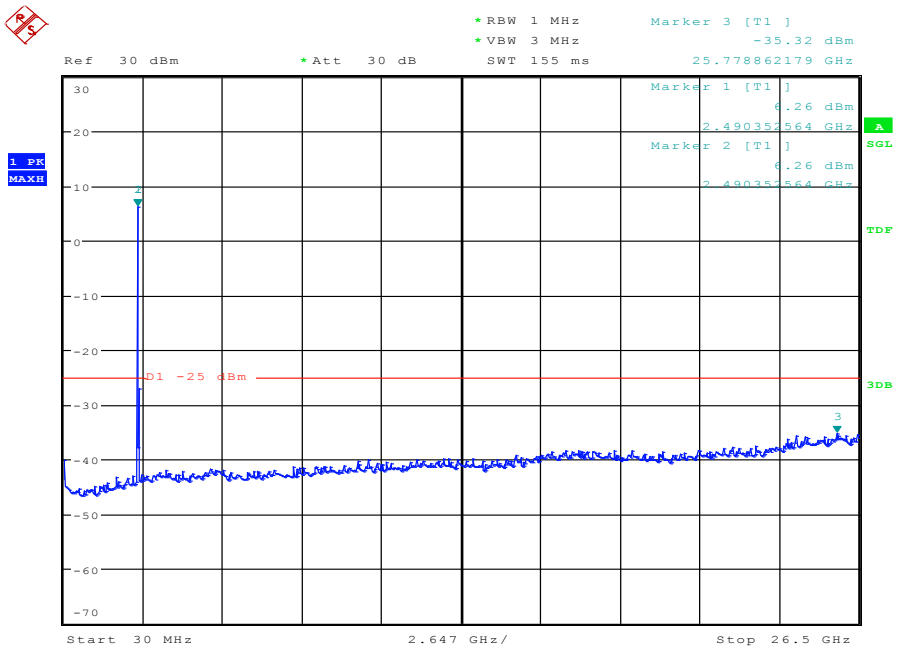
Date: 12.JAN.2017 09:06:32

BW15MHz-2562.5MHz,QPSK-75RB_LOW@Pass



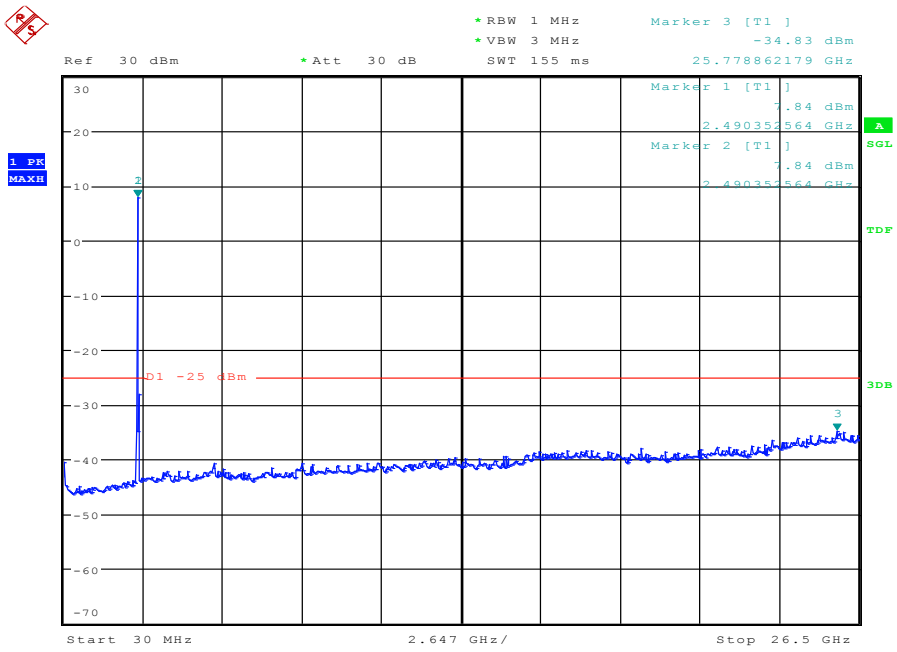
Date: 12.JAN.2017 09:05:49

BW20MHz-2510MHz,Q16-100RB_LOW@Pass



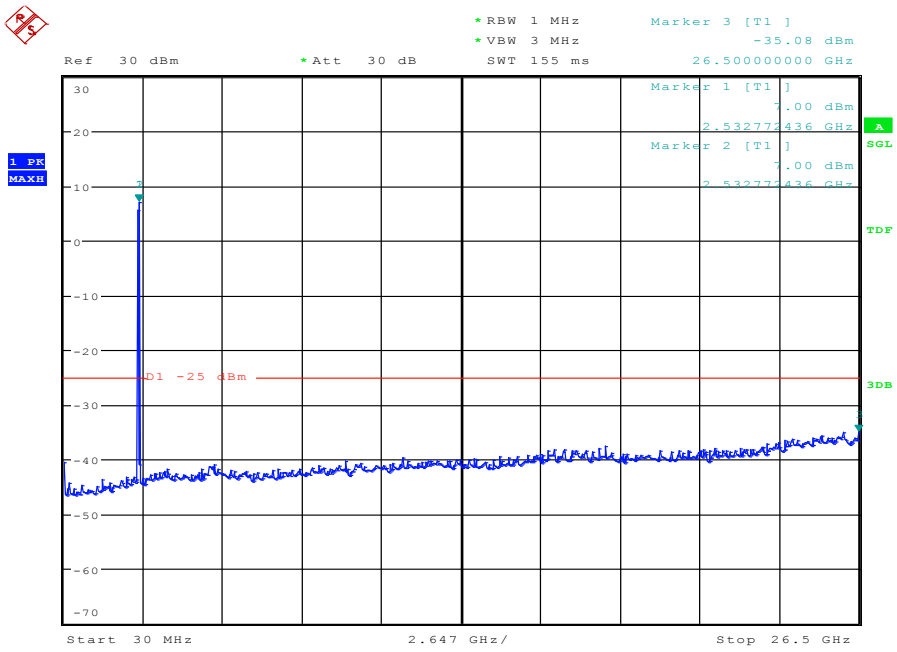
Date: 12.JAN.2017 09:08:59

BW20MHz-2510MHz,QPSK-100RB_LOW@Pass



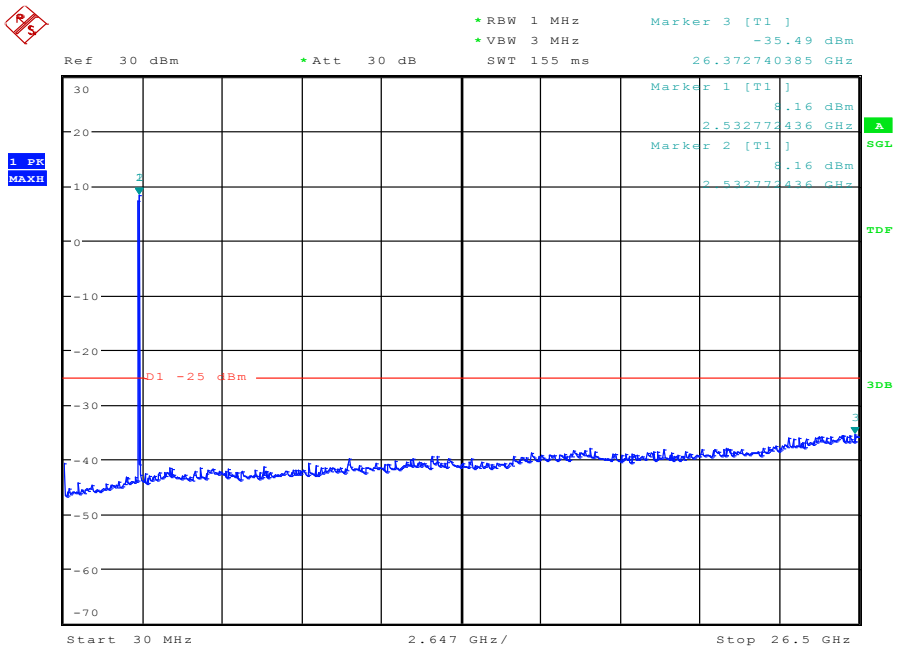
Date: 12.JAN.2017 09:08:16

BW20MHz-2535MHz,Q16-100RB_LOW@Pass



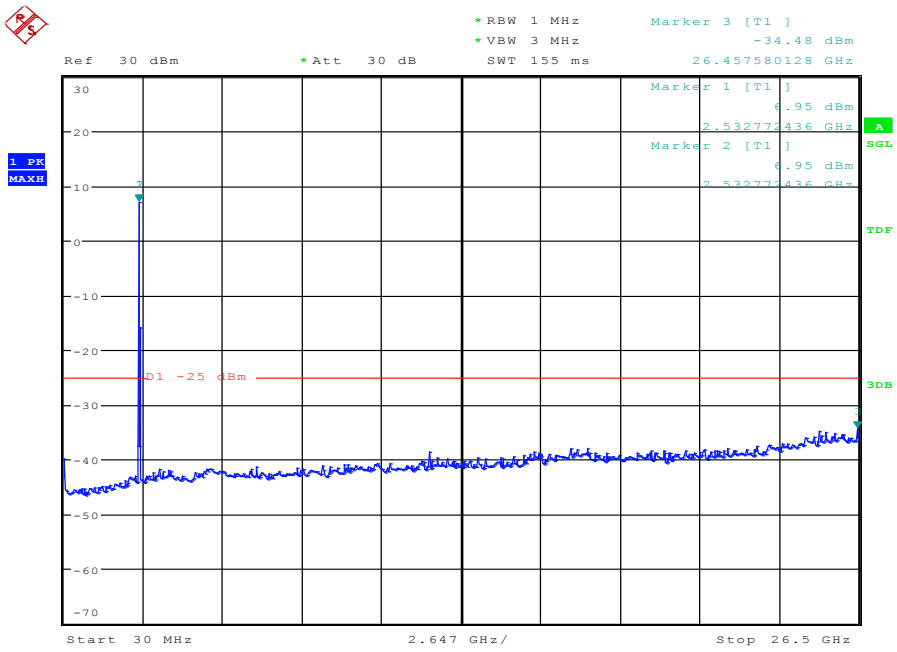
Date: 12.JAN.2017 09:11:30

BW20MHz-2535MHz,QPSK-100RB_LOW@Pass



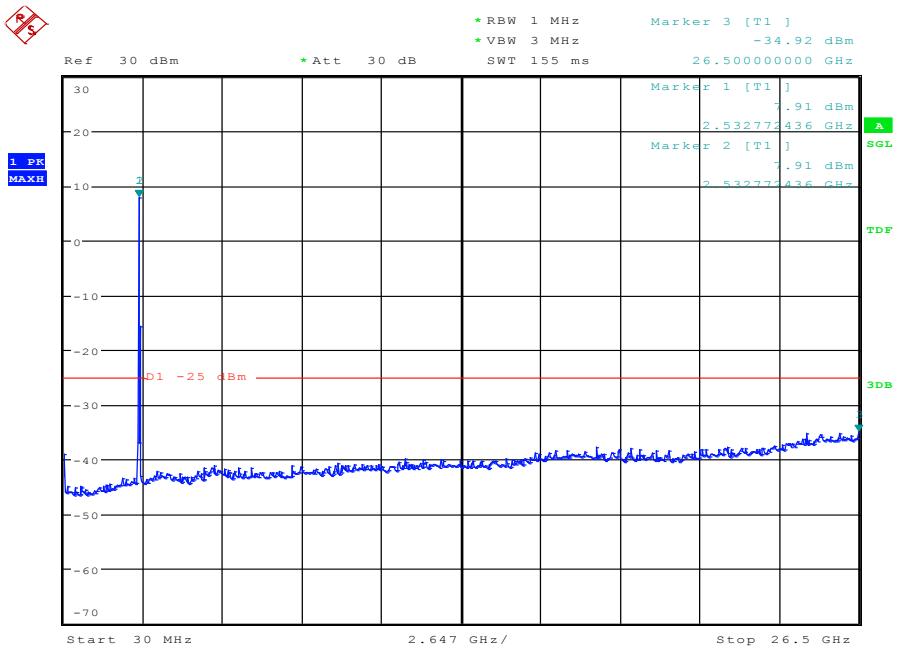
Date: 12.JAN.2017 09:11:00

BW20MHz-2560MHz,Q16-100RB_LOW@Pass



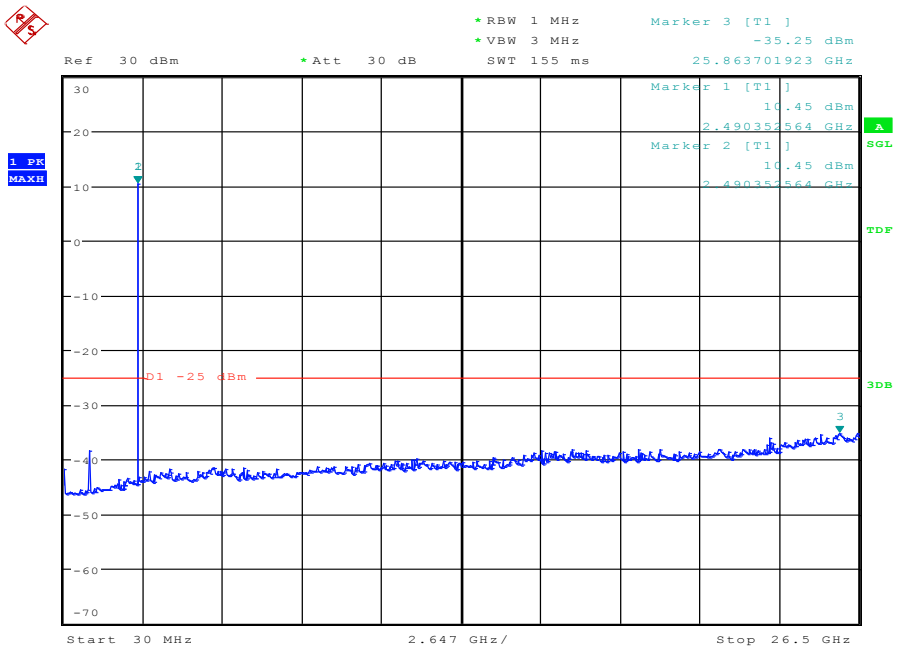
Date: 12.JAN.2017 09:10:25

BW20MHz-2560MHz,QPSK-100RB_LOW@Pass



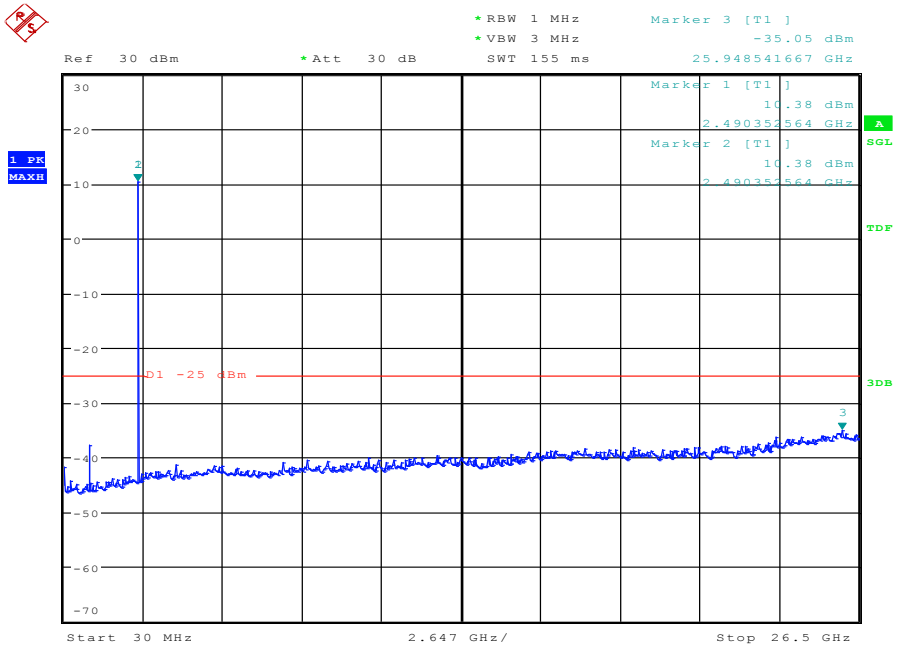
Date: 12.JAN.2017 09:09:42

BW5MHz-2502.5MHz,Q16-25RB_LOW@Pass



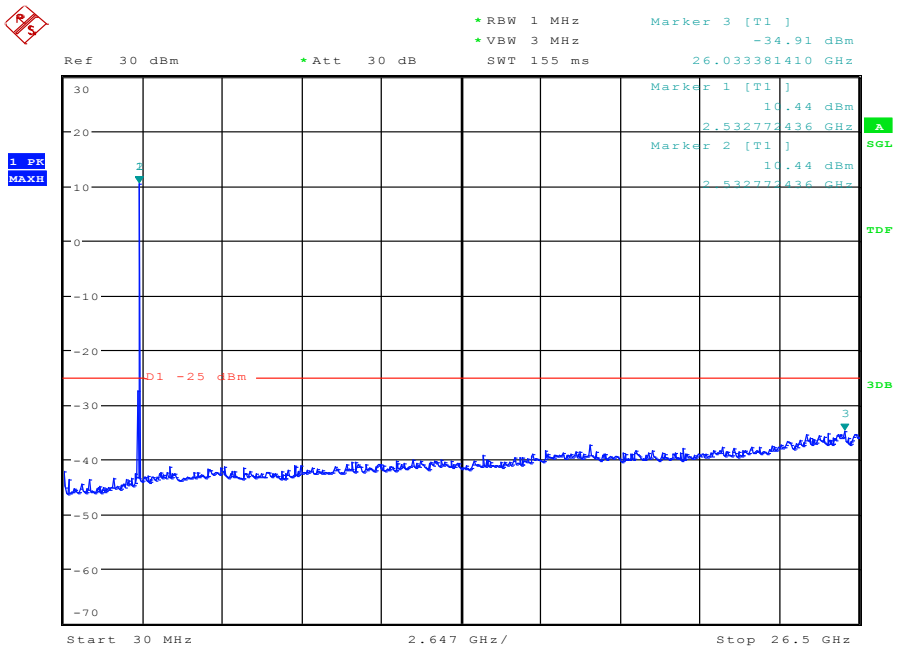
Date: 12.JAN.2017 08:56:52

BW5MHz-2502.5MHz,QPSK-25RB_LOW@Pass



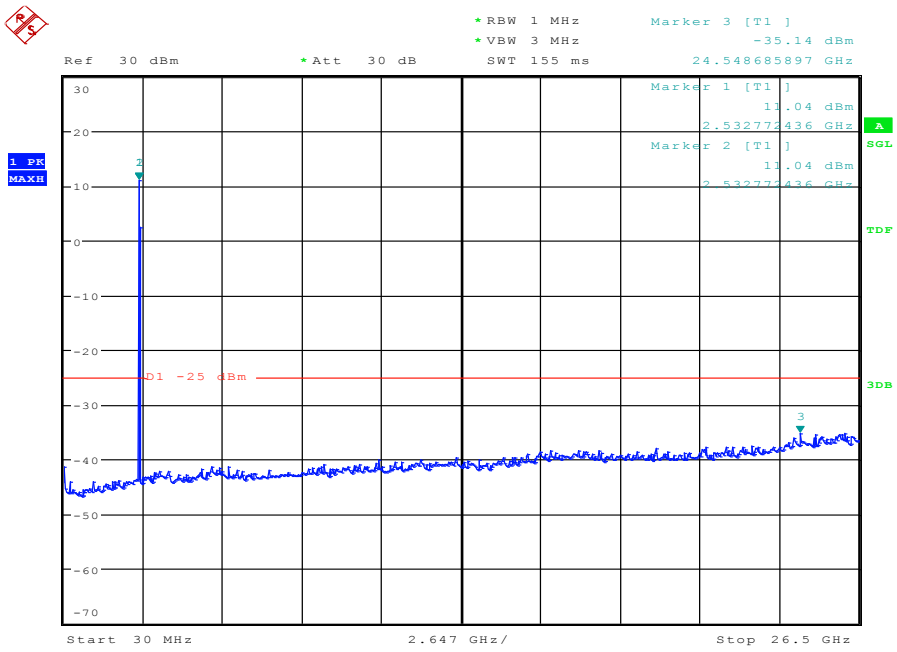
Date: 12.JAN.2017 08:56:01

BW5MHz-2535MHz,QPSK-25RB_LOW@Pass



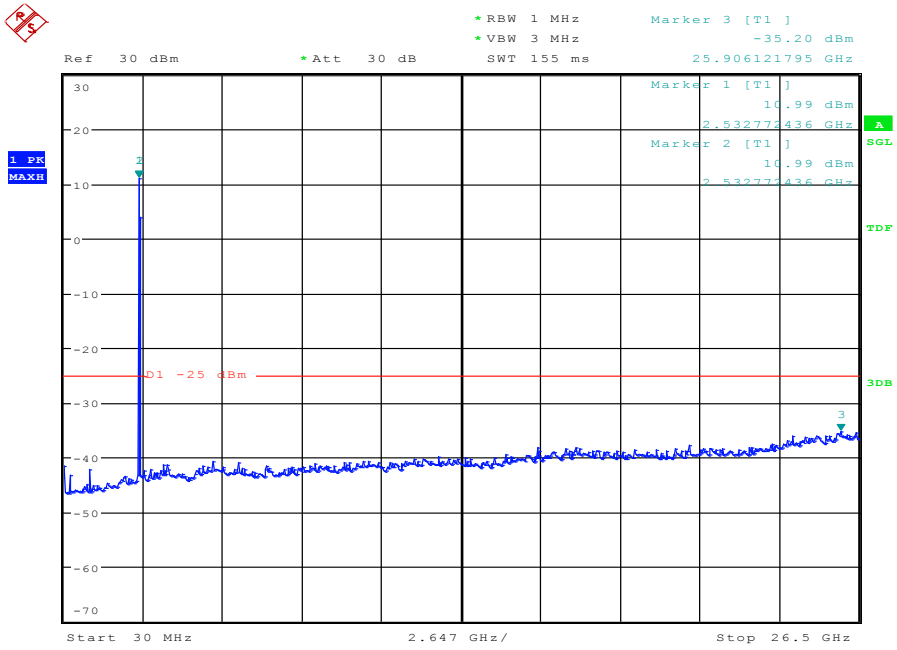
Date: 12.JAN.2017 08:59:54

BW5MHz-2567.5MHz,Q16-25RB_LOW@Pass



Date: 12.JAN.2017 08:58:36

BW5MHz-2567.5MHz,QPSK-25RB_LOW@Pass



Date: 12.JAN.2017 08:57:44

5.1.1 Radiated method

(a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of §2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.

(b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:

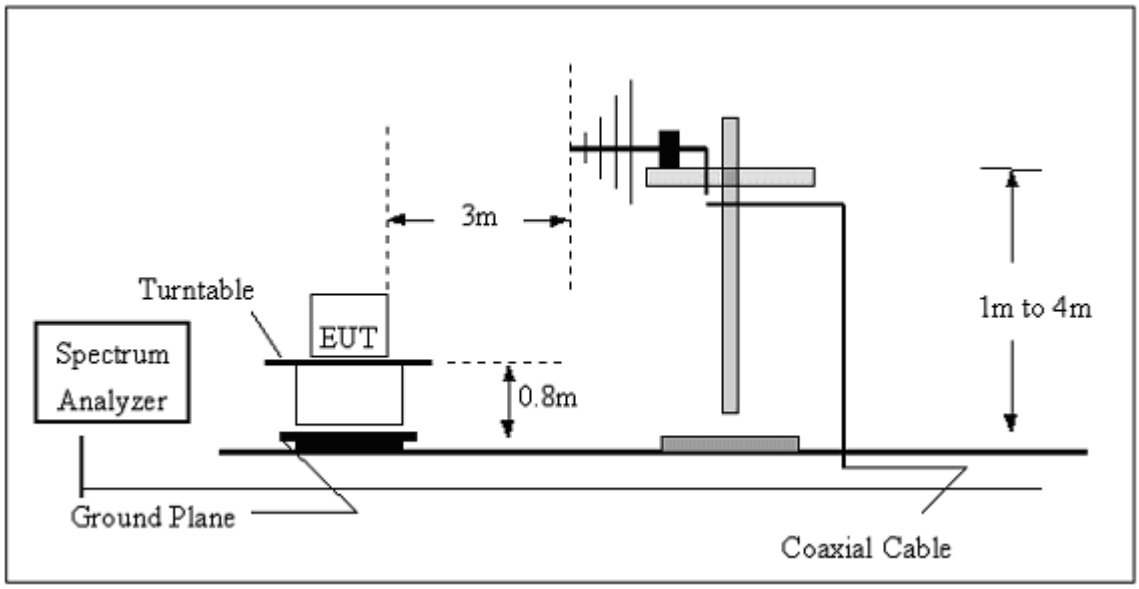
(1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.

(2) All equipment operating on frequencies higher than 25 MHz.

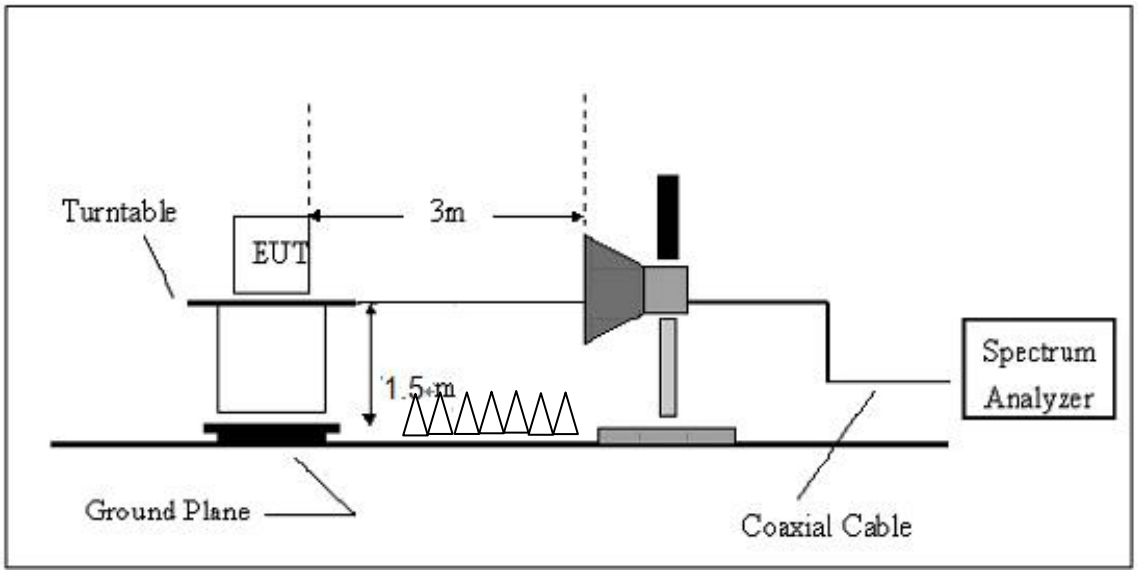
(3) All equipment where the antenna is an integral part of, and attached directly to the transmitter.

(4) Other types of equipment as required, when deemed necessary by the Commission.

（A）Radiated Emission Test-Up Frequency 30MHz~1GHz



（B）Radiated Emission Test-Up Frequency Above 1GHz



Note:

1*, Below 30MHz no Spurious found.*

2, UE is poistioned at 3 axis at the pre-scan stage, and only the measurement of the worst case(bandwidth:20MHz /Full RB /QPSK) is reported in this part.

List of final test modes:

GSM850:

Mode	UL Channel	Frequency	Judgement
1	128	824.2	Pass
2	190	836.6	Pass
3	251	848.8	Pass

PCS1900

Mode	UL Channel	Frequency	Judgement
1	512	1850.2	Pass
2	661	1880	Pass
3	810	1909.8	Pass

UTRA BANDS

BAND 2:

Mode	UL Channel	Frequency	Judgement
1	9262	1852.4	Pass
2	9400	1880	Pass
3	9538	1907.6	Pass

BAND 4:.

Mode	UL Channel	Frequency	Judgement
1	1312	1712.4	Pass
2	1413	1732.6	Pass
3	1513	1752.6	Pass

BAND 5:

Mode	UL Channel	Frequency	Judgement
1	4132	826.4	Pass
2	4182	836.4	Pass
3	4233	846.6	Pass

E-UTRA BANDS

BAND 2:

Mode	Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1	20	18700	1860	QPSK	100	LOW	Pass
2	20	18900	1880	QPSK	100	LOW	Pass
3	20	19100	1900	QPSK	100	LOW	Pass

BAND 4:

Mode	Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1	20	20050	1720	Q16	100	LOW	Pass
2	20	20300	1745	Q16	100	LOW	Pass
3	20	20175	1732.5	Q16	100	LOW	Pass

BAND 7:

Mode	Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1	20	20850	2510	QPSK	100	LOW	Pass
2	20	21350	2560	QPSK	100	LOW	Pass
3	20	21100	2535	QPSK	100	LOW	Pass

Test record:

GSM850:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1648.4	-34.93	1.42	-36.35	-13	Horizontal
1648.4	-28.60	-2.48	-26.12	-13	Vertical
2472.6	-31.02	3.26	-34.28	-13	Horizontal
2472.6	-28.79	6.68	-35.47	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1673.2	-34.23	1.42	-35.65	-13	Horizontal
1673.2	-30.25	-2.48	-27.77	-13	Vertical
2509.8	-36.03	3.26	-39.29	-13	Horizontal
2509.8	-33.15	6.68	-39.83	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1697.6	-30.98	1.42	-32.40	-13	Horizontal
1697.6	-36.53	-2.48	-34.05	-13	Vertical
2546.4	-28.67	3.26	-31.93	-13	Horizontal
2546.4	-32.27	6.68	-38.95	-13	Vertical

PCS1900:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3700.4	-28.05	-1.98	-26.07	-13	Horizontal
3700.4	-35.16	-1.61	-33.55	-13	Vertical
5550.6	-31.46	1.97	-33.43	-13	Horizontal
5550.6	-31.44	-2.26	-29.18	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3760	-32.83	-1.98	-30.85	-13	Horizontal
3760	-28.23	-1.61	-26.62	-13	Vertical
5640	-32.55	1.97	-34.52	-13	Horizontal
5640	-33.42	-2.26	-31.16	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3819.6	-29.76	-1.98	-27.78	-13	Horizontal
3819.6	-34.39	-1.61	-32.78	-13	Vertical
5729.4	-32.03	1.97	-34.00	-13	Horizontal
5729.4	-33.23	-2.26	-30.97	-13	Vertical

UTRA BANDS

BAND 2:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3704.8	-62.59	10.38	-52.20	-13	Horizontal
3704.8	-62.80	10.01	-52.79	-13	Vertical
5557.2	-63.85	11.62	-52.23	-13	Horizontal
5557.2	-64.63	12.24	-52.39	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3760	-62.89	10.36	-52.53	-13	Horizontal
3760	-62.71	10.86	-51.85	-13	Vertical
5640	-63.60	11.89	-51.71	-13	Horizontal
5640	-64.73	12.17	-52.57	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3815.2	-63.15	10.25	-52.89	-13	Horizontal
3815.2	-62.53	10.68	-51.85	-13	Vertical
5722.8	-63.73	12.33	-51.40	-13	Horizontal
5722.8	-64.85	12.26	-52.59	-13	Vertical

BAND 4:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3424.8	-63.00	10.70	-52.29	-13	Horizontal
3424.8	-62.81	10.89	-51.92	-13	Vertical
5137.2	-63.51	12.18	-51.32	-13	Horizontal
5137.2	-64.70	11.75	-52.95	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3465.2	-62.66	10.91	-51.75	-13	Horizontal
3465.2	-63.49	11.00	-52.49	-13	Vertical
5197.8	-64.38	11.59	-52.79	-13	Horizontal
5197.8	-65.01	12.37	-52.64	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3505.2	-62.76	10.57	-52.18	-13	Horizontal
3505.2	-62.55	10.39	-52.16	-13	Vertical
5257.8	-64.43	12.43	-51.99	-13	Horizontal
5257.8	-64.97	12.44	-52.53	-13	Vertical

BAND 5:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1652.8	-62.82	10.00	-52.82	-13	Horizontal
1652.8	-63.42	10.84	-52.58	-13	Vertical
2479.2	-63.67	12.46	-51.21	-13	Horizontal
2479.2	-64.82	12.32	-52.50	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1673.2	-62.71	10.21	-52.49	-13	Horizontal
1673.2	-62.75	10.30	-52.45	-13	Vertical
2509.8	-64.13	11.56	-52.57	-13	Horizontal
2509.8	-65.02	11.75	-53.27	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1693.2	-62.48	10.13	-52.35	-13	Horizontal
1693.2	-63.13	10.58	-52.55	-13	Vertical
2539.8	-63.79	11.95	-51.84	-13	Horizontal
2539.8	-64.60	11.77	-52.82	-13	Vertical

E-UTRA BANDS

BAND 2:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3720	-62.66	10.84	-51.82	-13	Horizontal
3720	-63.32	10.75	-52.56	-13	Vertical
5580	-64.43	12.44	-51.99	-13	Horizontal
5580	-65.49	11.53	-53.96	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3760	-62.51	10.65	-51.86	-13	Horizontal
3760	-63.16	10.61	-52.55	-13	Vertical
5640	-63.59	11.63	-51.96	-13	Horizontal
5640	-64.96	12.49	-52.47	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3800	-63.09	10.01	-53.08	-13	Horizontal
3800	-63.14	10.83	-52.32	-13	Vertical
5700	-63.61	11.72	-51.89	-13	Horizontal
5700	-64.59	11.69	-52.90	-13	Vertical

BAND 4:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3440	-62.28	10.83	-51.45	-13	Horizontal
3440	-63.01	10.22	-52.79	-13	Vertical
5160	-64.43	12.06	-52.37	-13	Horizontal
5160	-64.94	12.28	-52.66	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3490	-62.93	10.27	-52.66	-13	Horizontal
3490	-62.78	10.04	-52.73	-13	Vertical
5235	-64.48	12.15	-52.33	-13	Horizontal
5235	-64.68	11.81	-52.87	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3465	-63.04	10.95	-52.09	-13	Horizontal
3465	-62.76	10.35	-52.41	-13	Vertical
5197.5	-64.11	11.56	-52.55	-13	Horizontal
5197.5	-64.69	12.30	-52.39	-13	Vertical

BAND 7:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1679	-62.24	10.20	-52.04	-25	Horizontal
1679	-63.41	10.17	-53.24	-25	Vertical
2518.5	-64.35	11.81	-52.55	-25	Horizontal
2518.5	-64.96	11.96	-53.01	-25	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1680	-62.27	10.37	-51.89	-25	Horizontal
1680	-63.23	10.80	-52.43	-25	Vertical
2520	-64.21	11.82	-52.39	-25	Horizontal
2520	-65.49	11.98	-53.52	-25	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1683	-62.59	10.84	-51.75	-25	Horizontal
1683	-62.86	10.05	-52.81	-25	Vertical
2524.5	-63.75	11.64	-52.12	-25	Horizontal
2524.5	-64.92	11.88	-53.04	-25	Vertical

6 FREQUENCY STABILITY

Frequency stability

(a) The frequency stability shall be measured with variation of ambient temperature as follows:

(1) From −30° to + 50° centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.

(2) From −20° to + 50° centigrade for equipment to be licensed for use in the Maritime Services under part 80 of this chapter, except for Class A, B, and S Emergency Position Indicating Radiobeacons (EPIRBS), and equipment to be licensed for use above 952 MHz at operational fixed stations in all services, stations in the Local Television Transmission Service and Point-to-Point Microwave Radio Service under part 21 of this chapter, equipment licensed for use aboard aircraft in the Aviation Services under part 87 of this chapter, and equipment authorized for use in the Family Radio Service under part 95 of this chapter.

(3) From 0° to + 50° centigrade for equipment to be licensed for use in the Radio Broadcast Services under part 73 of this chapter.

(b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on the frequency of the transmitter due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.

(c) In addition to all other requirements of this section, the following information is required for equipment incorporating heater type crystal oscillators to be used in mobile stations, for which type acceptance is first requested after March 25, 1974, except for battery powered, hand carried, portable equipment having less than 3 watts mean output power.

(1) Measurement data showing variation in transmitter output frequency from a cold start and the elapsed time necessary for the frequency to stabilize within the applicable tolerance. Tests shall be made after temperature stabilization at each of the ambient temperature levels; the lower temperature limit, 0° centigrade and + 30° centigrade with no primary power applied.

(2) Beginning at each temperature level specified in paragraph (c)(1) of this section, the frequency shall be measured within one minute after application of primary power to the transmitter and at intervals of no more than one minute thereafter until ten minutes have elapsed or until sufficient measurements are obtained to indicate clearly that the frequency has stabilized within the applicable tolerance, whichever time period is greater. During each test, the ambient temperature shall not be allowed to rise more than 10° centigrade above the respective beginning ambient temperature level.

(3) The elapsed time necessary for the frequency to stabilize within the applicable tolerance from each beginning ambient temperature level as determined from the tests specified in this paragraph shall be specified in the instruction book for the transmitter furnished to the user.

(4) When it is impracticable to subject the complete transmitter to this test because of its physical dimensions or power rating, only its frequency determining and stabilizing portions need be tested.

(d) The frequency stability shall be measured with variation of primary supply voltage as follows:

(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

(2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.

(3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

(e) When deemed necessary, the Commission may require tests of frequency stability under conditions in addition to those specifically set out in paragraphs (a), (b), (c), and (d) of this section. (For example measurements showing the effect of proximity to large metal objects, or of various types of antennas, may be required for portable equipment.)

6.1 Measurement Result（Worst）

Frequency Error against Voltage for GSM 850 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	33	0.039
3.85	29	0.034
4.4	35	0.042

Frequency Error against Temperature for GSM 850 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	30	0.036
0	35	0.042
10	35	0.042
20	35	0.042
30	28	0.034
40	35	0.042
50	35	0.041

Frequency Error against Voltage for PCS 1900 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	37	0.020
3.85	29	0.015
4.4	34	0.018

Frequency Error against Temperature for PCS 1900 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	30	0.016
0	36	0.019
10	36	0.019
20	34	0.018
30	36	0.019
40	40	0.021
50	29	0.015

Frequency Error against Voltage for GPRS 850 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	33	0.039
3.85	29	0.034
4.4	35	0.042

Frequency Error against Temperature for GPRS 850 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	38	0.046
0	39	0.047
10	40	0.048
20	36	0.043
30	39	0.047
40	31	0.037
50	39	0.047

Frequency Error against Voltage for GPRS 1900 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	37	0.020
3.85	34	0.018
4.4	30	0.016

Frequency Error against Temperature for GPRS 1900 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	38	0.020
0	37	0.020
10	36	0.019
20	36	0.019
30	38	0.020
40	39	0.021
50	40	0.021

Frequency Error against Voltage for EGPRS 850 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	40	0.048
3.85	30	0.035
4.4	28	0.034

Frequency Error against Temperature for EGPRS 850 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	30	0.035
0	31	0.037
10	37	0.044
20	35	0.042
30	37	0.044
40	28	0.033
50	39	0.047

Frequency Error against Voltage for EGPRS 1900 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	37	0.020
3.85	34	0.018
4.4	30	0.016

Frequency Error against Temperature for EGPRS 1900 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	38	0.020
0	37	0.020
10	36	0.019
20	36	0.019
30	38	0.020
40	39	0.021
50	40	0.021

UTRA BANDS

Frequency Error against Voltage for WCDMA BAND 2 (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	31	0.017
3.85	30	0.016
4.4	34	0.018

Frequency Error against Temperature for WCDMA BAND 2 (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	33	0.018
0	35	0.019
10	28	0.015
20	37	0.020
30	34	0.018
40	40	0.021
50	40	0.021

Frequency Error against Voltage for WCDMA BAND 4 (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	30	0.017
3.85	41	0.023
4.4	32	0.019

Frequency Error against Temperature for WCDMA BAND 4 (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	30	0.017
0	30	0.018
10	28	0.016
20	33	0.019
30	38	0.022
40	37	0.021
50	29	0.017

Frequency Error against Voltage for WCDMA BAND 5 (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	30	0.036
3.85	35	0.042
4.4	34	0.040

Frequency Error against Temperature for WCDMA BAND 5 (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	31	0.037
0	30	0.036
10	33	0.039
20	31	0.037
30	32	0.039
40	35	0.042
50	41	0.049

E-UTRA

BAND 2:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
1.4	18607	1850.7	QPSK	1	LOW	-3.86	-0.00457
1.4	18607	1850.7	QPSK	1	MID	-2.94	-0.00348
1.4	18607	1850.7	QPSK	1	HIGH	-3.42	-0.00405
1.4	18607	1850.7	QPSK	3	LOW	-4.26	-0.00505
1.4	18607	1850.7	QPSK	3	MID	-2.9	-0.00344
1.4	18607	1850.7	QPSK	3	HIGH	1.69	0.002002
1.4	18607	1850.7	QPSK	6	LOW	0.96	0.001137
1.4	18607	1850.7	Q16	1	LOW	4.05	0.004799
1.4	18607	1850.7	Q16	1	MID	1.04	0.001232
1.4	18607	1850.7	Q16	1	HIGH	-2.46	-0.00291
1.4	18607	1850.7	Q16	3	LOW	-0.95	-0.00113
1.4	18607	1850.7	Q16	3	MID	2.92	0.00346
1.4	18607	1850.7	Q16	3	HIGH	-3.85	-0.00456
1.4	18607	1850.7	Q16	6	LOW	-1.33	-0.00158
1.4	18900	1880	QPSK	1	LOW	3.44	0.004076
1.4	18900	1880	QPSK	1	MID	-1.67	-0.00198
1.4	18900	1880	QPSK	1	HIGH	-0.16	-0.00019
1.4	18900	1880	QPSK	3	LOW	2.71	0.003211
1.4	18900	1880	QPSK	3	MID	-0.97	-0.00115
1.4	18900	1880	QPSK	3	HIGH	-2.38	-0.00282
1.4	18900	1880	QPSK	6	LOW	-4.83	-0.00572
1.4	18900	1880	Q16	1	LOW	3.55	0.004206
1.4	18900	1880	Q16	1	MID	4.97	0.005889
1.4	18900	1880	Q16	1	HIGH	-2.3	-0.00273
1.4	18900	1880	Q16	3	LOW	2.9	0.003436
1.4	18900	1880	Q16	3	MID	3.46	0.0041
1.4	18900	1880	Q16	3	HIGH	-2.3	-0.00273
1.4	18900	1880	Q16	6	LOW	4.25	0.005036
1.4	19193	1909.3	QPSK	1	LOW	-0.51	-0.0006
1.4	19193	1909.3	QPSK	1	MID	-1.16	-0.00137
1.4	19193	1909.3	QPSK	1	HIGH	-3.3	-0.00391
1.4	19193	1909.3	QPSK	3	LOW	3.66	0.004336
1.4	19193	1909.3	QPSK	3	MID	1.29	0.001528
1.4	19193	1909.3	QPSK	3	HIGH	-3.01	-0.00357

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
1.4	19193	1909.3	QPSK	6	LOW	3.02	0.003578
1.4	19193	1909.3	Q16	1	LOW	2.89	0.003424
1.4	19193	1909.3	Q16	1	MID	1.78	0.002109
1.4	19193	1909.3	Q16	1	HIGH	0.56	0.000664
1.4	19193	1909.3	Q16	3	LOW	-4.58	-0.00543
1.4	19193	1909.3	Q16	3	MID	-3.37	-0.00399
1.4	19193	1909.3	Q16	3	HIGH	-4.25	-0.00504
1.4	19193	1909.3	Q16	6	LOW	1.02	0.001209
3	18615	1851.5	QPSK	1	LOW	3.2	0.003791
3	18615	1851.5	QPSK	1	MID	-0.39	-0.00046
3	18615	1851.5	QPSK	1	HIGH	0.64	0.000758
3	18615	1851.5	QPSK	8	LOW	4.45	0.005273
3	18615	1851.5	QPSK	8	MID	-2.55	-0.00302
3	18615	1851.5	QPSK	8	HIGH	2.78	0.003294
3	18615	1851.5	QPSK	15	LOW	-2.05	-0.00243
3	18615	1851.5	Q16	1	LOW	-0.3	-0.00036
3	18615	1851.5	Q16	1	MID	-0.69	-0.00082
3	18615	1851.5	Q16	1	HIGH	-0.49	-0.00058
3	18615	1851.5	Q16	8	LOW	3.4	0.004028
3	18615	1851.5	Q16	8	MID	1.98	0.002346
3	18615	1851.5	Q16	8	HIGH	1.01	0.001197
3	18615	1851.5	Q16	15	LOW	-0.67	-0.00079
3	18900	1880	QPSK	1	LOW	-3.27	-0.00387
3	18900	1880	QPSK	1	MID	-3.93	-0.00466
3	18900	1880	QPSK	1	HIGH	-4.21	-0.00499
3	18900	1880	QPSK	8	LOW	-2.05	-0.00243
3	18900	1880	QPSK	8	MID	3.22	0.003815
3	18900	1880	QPSK	8	HIGH	0.02	2.37E-05
3	18900	1880	QPSK	15	LOW	-3.98	-0.00472
3	18900	1880	Q16	1	LOW	2.15	0.002547
3	18900	1880	Q16	1	MID	0.28	0.000332
3	18900	1880	Q16	1	HIGH	-2.66	-0.00315
3	18900	1880	Q16	8	LOW	2.51	0.002974
3	18900	1880	Q16	8	MID	4	0.004739
3	18900	1880	Q16	8	HIGH	0.5	0.000592
3	18900	1880	Q16	15	LOW	-2.45	-0.0029

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
3	19185	1908.5	QPSK	1	LOW	3.32	0.003934
3	19185	1908.5	QPSK	1	MID	1.21	0.001434
3	19185	1908.5	QPSK	1	HIGH	4.42	0.005237
3	19185	1908.5	QPSK	8	LOW	1.37	0.001623
3	19185	1908.5	QPSK	8	MID	-0.35	-0.00041
3	19185	1908.5	QPSK	8	HIGH	0.45	0.000533
3	19185	1908.5	QPSK	15	LOW	-3.27	-0.00387
3	19185	1908.5	Q16	1	LOW	-0.88	-0.00104
3	19185	1908.5	Q16	1	MID	-1.75	-0.00207
3	19185	1908.5	Q16	1	HIGH	-2.61	-0.00309
3	19185	1908.5	Q16	8	LOW	3.5	0.004147
3	19185	1908.5	Q16	8	MID	1.17	0.001386
3	19185	1908.5	Q16	8	HIGH	-3.55	-0.00421
3	19185	1908.5	Q16	15	LOW	0.61	0.000723
5	18625	1852.5	QPSK	1	LOW	-2.27	-0.00269
5	18625	1852.5	QPSK	1	MID	-1.14	-0.00135
5	18625	1852.5	QPSK	1	HIGH	-0.25	-0.0003
5	18625	1852.5	QPSK	12	LOW	3.46	0.0041
5	18625	1852.5	QPSK	12	MID	4.11	0.00487
5	18625	1852.5	QPSK	12	HIGH	-0.51	-0.0006
5	18625	1852.5	QPSK	25	LOW	3.56	0.004218
5	18625	1852.5	Q16	1	LOW	-3.9	-0.00462
5	18625	1852.5	Q16	1	MID	-2.88	-0.00341
5	18625	1852.5	Q16	1	HIGH	-3.74	-0.00443
5	18625	1852.5	Q16	12	LOW	2.5	0.002962
5	18625	1852.5	Q16	12	MID	3.42	0.004052
5	18625	1852.5	Q16	12	HIGH	-1.51	-0.00179
5	18625	1852.5	Q16	25	LOW	3.16	0.003744
5	18900	1880	QPSK	1	LOW	0.37	0.000438
5	18900	1880	QPSK	1	MID	-1.78	-0.00211
5	18900	1880	QPSK	1	HIGH	-2.46	-0.00291
5	18900	1880	QPSK	12	LOW	4.12	0.004882
5	18900	1880	QPSK	12	MID	4.43	0.005249
5	18900	1880	QPSK	12	HIGH	-4.69	-0.00556
5	18900	1880	QPSK	25	LOW	0.25	0.000296
5	18900	1880	Q16	1	LOW	1.4	0.001659

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
5	18900	1880	Q16	1	MID	0.08	9.48E-05
5	18900	1880	Q16	1	HIGH	0.65	0.00077
5	18900	1880	Q16	12	LOW	4.16	0.004929
5	18900	1880	Q16	12	MID	0.55	0.000652
5	18900	1880	Q16	12	HIGH	-2.82	-0.00334
5	18900	1880	Q16	25	LOW	-2.26	-0.00268
5	19175	1907.5	QPSK	1	LOW	0.67	0.000794
5	19175	1907.5	QPSK	1	MID	2.42	0.002867
5	19175	1907.5	QPSK	1	HIGH	-2.28	-0.0027
5	19175	1907.5	QPSK	12	LOW	1.18	0.001398
5	19175	1907.5	QPSK	12	MID	0.95	0.001126
5	19175	1907.5	QPSK	12	HIGH	-1.09	-0.00129
5	19175	1907.5	QPSK	25	LOW	-2.29	-0.00271
5	19175	1907.5	Q16	1	LOW	-4.32	-0.00512
5	19175	1907.5	Q16	1	MID	-0.33	-0.00039
5	19175	1907.5	Q16	1	HIGH	-3.88	-0.0046
5	19175	1907.5	Q16	12	LOW	-3.08	-0.00365
5	19175	1907.5	Q16	12	MID	-4.22	-0.005
5	19175	1907.5	Q16	12	HIGH	1.17	0.001386
5	19175	1907.5	Q16	25	LOW	4.49	0.00532
10	18650	1855	QPSK	1	LOW	-0.39	-0.00046
10	18650	1855	QPSK	1	MID	-4.85	-0.00575
10	18650	1855	QPSK	1	HIGH	2.42	0.002867
10	18650	1855	QPSK	25	LOW	-3.64	-0.00431
10	18650	1855	QPSK	25	MID	4.43	0.005249
10	18650	1855	QPSK	25	HIGH	-1.98	-0.00235
10	18650	1855	QPSK	50	LOW	3.95	0.00468
10	18650	1855	Q16	1	LOW	-0.73	-0.00086
10	18650	1855	Q16	1	MID	-1.83	-0.00217
10	18650	1855	Q16	1	HIGH	1.34	0.001588
10	18650	1855	Q16	25	LOW	3.47	0.004111
10	18650	1855	Q16	25	MID	2.02	0.002393
10	18650	1855	Q16	25	HIGH	4.76	0.00564
10	18650	1855	Q16	50	LOW	2.26	0.002678
10	18900	1880	QPSK	1	LOW	-4.22	-0.005
10	18900	1880	QPSK	1	MID	-3.47	-0.00411

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
10	18900	1880	QPSK	1	HIGH	-3.42	-0.00405
10	18900	1880	QPSK	25	LOW	-0.25	-0.0003
10	18900	1880	QPSK	25	MID	4.99	0.005912
10	18900	1880	QPSK	25	HIGH	-0.01	-1.2E-05
10	18900	1880	QPSK	50	LOW	0.71	0.000841
10	18900	1880	Q16	1	LOW	-4.24	-0.00502
10	18900	1880	Q16	1	MID	2.2	0.002607
10	18900	1880	Q16	1	HIGH	-2.43	-0.00288
10	18900	1880	Q16	25	LOW	3.47	0.004111
10	18900	1880	Q16	25	MID	4.7	0.005569
10	18900	1880	Q16	25	HIGH	0.01	1.18E-05
10	18900	1880	Q16	50	LOW	1.05	0.001244
10	19150	1905	QPSK	1	LOW	2.62	0.003104
10	19150	1905	QPSK	1	MID	-4.05	-0.0048
10	19150	1905	QPSK	1	HIGH	1.03	0.00122
10	19150	1905	QPSK	25	LOW	-0.96	-0.00114
10	19150	1905	QPSK	25	MID	-2.26	-0.00268
10	19150	1905	QPSK	25	HIGH	4.99	0.005912
10	19150	1905	QPSK	50	LOW	-0.94	-0.00111
10	19150	1905	Q16	1	LOW	2.33	0.002761
10	19150	1905	Q16	1	MID	-1.57	-0.00186
10	19150	1905	Q16	1	HIGH	1.49	0.001765
10	19150	1905	Q16	25	LOW	4.91	0.005818
10	19150	1905	Q16	25	MID	2.1	0.002488
10	19150	1905	Q16	25	HIGH	2.8	0.003318
10	19150	1905	Q16	50	LOW	-2.39	-0.00283
15	18675	1857.5	QPSK	1	LOW	0.03	3.55E-05
15	18675	1857.5	QPSK	1	MID	1.86	0.002204
15	18675	1857.5	QPSK	1	HIGH	-2.25	-0.00267
15	18675	1857.5	QPSK	36	LOW	3.04	0.003602
15	18675	1857.5	QPSK	36	MID	-4.77	-0.00565
15	18675	1857.5	QPSK	36	HIGH	-1.04	-0.00123
15	18675	1857.5	QPSK	75	LOW	1.26	0.001493
15	18675	1857.5	Q16	1	LOW	3.13	0.003709
15	18675	1857.5	Q16	1	MID	3.23	0.003827
15	18675	1857.5	Q16	1	HIGH	0.89	0.001055

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
15	18675	1857.5	Q16	36	LOW	-1.38	-0.00164
15	18675	1857.5	Q16	36	MID	-1.4	-0.00166
15	18675	1857.5	Q16	36	HIGH	2.52	0.002986
15	18675	1857.5	Q16	75	LOW	-3.39	-0.00402
15	18900	1880	QPSK	1	LOW	-3.31	-0.00392
15	18900	1880	QPSK	1	MID	4.15	0.004917
15	18900	1880	QPSK	1	HIGH	-1.91	-0.00226
15	18900	1880	QPSK	36	LOW	-0.46	-0.00055
15	18900	1880	QPSK	36	MID	2.28	0.002701
15	18900	1880	QPSK	36	HIGH	-1.45	-0.00172
15	18900	1880	QPSK	75	LOW	-4.27	-0.00506
15	18900	1880	Q16	1	LOW	-3.03	-0.00359
15	18900	1880	Q16	1	MID	-4.4	-0.00521
15	18900	1880	Q16	1	HIGH	-0.27	-0.00032
15	18900	1880	Q16	36	LOW	-4.62	-0.00547
15	18900	1880	Q16	36	MID	0.09	0.000107
15	18900	1880	Q16	36	HIGH	-0.88	-0.00104
15	18900	1880	Q16	75	LOW	-0.97	-0.00115
15	19125	1902.5	QPSK	1	LOW	-4.13	-0.00489
15	19125	1902.5	QPSK	1	MID	-4.43	-0.00525
15	19125	1902.5	QPSK	1	HIGH	3.3	0.00391
15	19125	1902.5	QPSK	36	LOW	-2.69	-0.00319
15	19125	1902.5	QPSK	36	MID	-1.1	-0.0013
15	19125	1902.5	QPSK	36	HIGH	2.26	0.002678
15	19125	1902.5	QPSK	75	LOW	-0.13	-0.00015
15	19125	1902.5	Q16	1	LOW	-1.03	-0.00122
15	19125	1902.5	Q16	1	MID	-3.98	-0.00472
15	19125	1902.5	Q16	1	HIGH	-1.17	-0.00139
15	19125	1902.5	Q16	36	LOW	-3.7	-0.00438
15	19125	1902.5	Q16	36	MID	-2.46	-0.00291
15	19125	1902.5	Q16	36	HIGH	-0.95	-0.00113
15	19125	1902.5	Q16	75	LOW	-0.28	-0.00033
20	18700	1860	QPSK	1	LOW	3.27	0.003874
20	18700	1860	QPSK	1	MID	4.02	0.004763
20	18700	1860	QPSK	1	HIGH	-1.3	-0.00154
20	18700	1860	QPSK	50	LOW	0.9	0.001066

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
20	18700	1860	QPSK	50	MID	-4.81	-0.0057
20	18700	1860	QPSK	50	HIGH	1.87	0.002216
20	18700	1860	QPSK	100	LOW	1.04	0.001232
20	18700	1860	Q16	1	LOW	-0.95	-0.00113
20	18700	1860	Q16	1	MID	-0.71	-0.00084
20	18700	1860	Q16	1	HIGH	-3.67	-0.00435
20	18700	1860	Q16	50	LOW	-4.18	-0.00495
20	18700	1860	Q16	50	MID	-0.88	-0.00104
20	18700	1860	Q16	50	HIGH	3.02	0.003578
20	18700	1860	Q16	100	LOW	-0.57	-0.00068
20	18900	1880	QPSK	1	LOW	1.06	0.001256
20	18900	1880	QPSK	1	MID	3.28	0.003886
20	18900	1880	QPSK	1	HIGH	4.99	0.005912
20	18900	1880	QPSK	50	LOW	-3.67	-0.00435
20	18900	1880	QPSK	50	MID	-4.46	-0.00528
20	18900	1880	QPSK	50	HIGH	0.62	0.000735
20	18900	1880	QPSK	100	LOW	-1.92	-0.00227
20	18900	1880	Q16	1	LOW	3.57	0.00423
20	18900	1880	Q16	1	MID	-2	-0.00237
20	18900	1880	Q16	1	HIGH	1.41	0.001671
20	18900	1880	Q16	50	LOW	-0.94	-0.00111
20	18900	1880	Q16	50	MID	0.87	0.001031
20	18900	1880	Q16	50	HIGH	-2.57	-0.00305
20	18900	1880	Q16	100	LOW	2.12	0.002512
20	19100	1900	QPSK	1	LOW	-0.43	-0.00051
20	19100	1900	QPSK	1	MID	0.6	0.000711
20	19100	1900	QPSK	1	HIGH	-2.69	-0.00319
20	19100	1900	QPSK	50	LOW	1.19	0.00141
20	19100	1900	QPSK	50	MID	-4.93	-0.00584
20	19100	1900	QPSK	50	HIGH	4.96	0.005877
20	19100	1900	QPSK	100	LOW	2.18	0.002583
20	19100	1900	Q16	1	LOW	-3.7	-0.00438
20	19100	1900	Q16	1	MID	2.05	0.002429
20	19100	1900	Q16	1	HIGH	2.39	0.002832
20	19100	1900	Q16	50	LOW	-1.42	-0.00168
20	19100	1900	Q16	50	MID	-1.28	-0.00152

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
20	19100	1900	Q16	50	HIGH	3.67	0.004348
20	19100	1900	Q16	100	LOW	2.59	0.003069

BAND 4:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
1.4	19957	1710.7	QPSK	1	LOW	2.72	0.003223
1.4	19957	1710.7	QPSK	1	MID	-1.37	-0.00162
1.4	19957	1710.7	QPSK	1	HIGH	-3.27	-0.00387
1.4	19957	1710.7	QPSK	3	LOW	2.67	0.003164
1.4	19957	1710.7	QPSK	3	MID	-4.79	-0.00568
1.4	19957	1710.7	QPSK	3	HIGH	-1.24	-0.00147
1.4	19957	1710.7	QPSK	6	LOW	-2.39	-0.00283
1.4	19957	1710.7	Q16	1	LOW	4.7	0.005569
1.4	19957	1710.7	Q16	1	MID	3.35	0.003969
1.4	19957	1710.7	Q16	1	HIGH	1.6	0.001896
1.4	19957	1710.7	Q16	3	LOW	-1.47	-0.00174
1.4	19957	1710.7	Q16	3	MID	-2.89	-0.00342
1.4	19957	1710.7	Q16	3	HIGH	2.9	0.003436
1.4	19957	1710.7	Q16	6	LOW	-0.23	-0.00027
1.4	20393	1754.3	QPSK	1	LOW	3.61	0.004277
1.4	20393	1754.3	QPSK	1	MID	-2.68	-0.00318
1.4	20393	1754.3	QPSK	1	HIGH	4.27	0.005059
1.4	20393	1754.3	QPSK	3	LOW	4.96	0.005877
1.4	20393	1754.3	QPSK	3	MID	1.63	0.001931
1.4	20393	1754.3	QPSK	3	HIGH	-1.56	-0.00185
1.4	20393	1754.3	QPSK	6	LOW	1.9	0.002251
1.4	20393	1754.3	Q16	1	LOW	-1.8	-0.00213
1.4	20393	1754.3	Q16	1	MID	3.47	0.004111
1.4	20393	1754.3	Q16	1	HIGH	-2.34	-0.00277
1.4	20393	1754.3	Q16	3	LOW	-0.38	-0.00045
1.4	20393	1754.3	Q16	3	MID	-1.06	-0.00126
1.4	20393	1754.3	Q16	3	HIGH	-0.06	-7.1E-05
1.4	20393	1754.3	Q16	6	LOW	1.98	0.002346
1.4	20175	1732.5	QPSK	1	LOW	4.97	0.005889
1.4	20175	1732.5	QPSK	1	MID	-3.71	-0.0044
1.4	20175	1732.5	QPSK	1	HIGH	-3.54	-0.00419
1.4	20175	1732.5	QPSK	3	LOW	-1.51	-0.00179
1.4	20175	1732.5	QPSK	3	MID	-2.18	-0.00258
1.4	20175	1732.5	QPSK	3	HIGH	2.1	0.002488

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
1.4	20175	1732.5	QPSK	6	LOW	-4.96	-0.00588
1.4	20175	1732.5	Q16	1	LOW	4.37	0.005178
1.4	20175	1732.5	Q16	1	MID	2.1	0.002488
1.4	20175	1732.5	Q16	1	HIGH	3.01	0.003566
1.4	20175	1732.5	Q16	3	LOW	1.59	0.001884
1.4	20175	1732.5	Q16	3	MID	-2.89	-0.00342
1.4	20175	1732.5	Q16	3	HIGH	1.16	0.001374
1.4	20175	1732.5	Q16	6	LOW	-2.85	-0.00338
3	19965	1711.5	QPSK	1	LOW	3.59	0.004254
3	19965	1711.5	QPSK	1	MID	0.25	0.000296
3	19965	1711.5	QPSK	1	HIGH	-2.89	-0.00342
3	19965	1711.5	QPSK	8	LOW	-0.28	-0.00033
3	19965	1711.5	QPSK	8	MID	0.34	0.000403
3	19965	1711.5	QPSK	8	HIGH	-0.88	-0.00104
3	19965	1711.5	QPSK	15	LOW	-3.97	-0.0047
3	19965	1711.5	Q16	1	LOW	-2.81	-0.00333
3	19965	1711.5	Q16	1	MID	2.35	0.002784
3	19965	1711.5	Q16	1	HIGH	-2	-0.00237
3	19965	1711.5	Q16	8	LOW	4.74	0.005616
3	19965	1711.5	Q16	8	MID	-2.51	-0.00297
3	19965	1711.5	Q16	8	HIGH	-4.2	-0.00498
3	19965	1711.5	Q16	15	LOW	2.85	0.003377
3	20385	1753.5	QPSK	1	LOW	1.87	0.002216
3	20385	1753.5	QPSK	1	MID	-2.39	-0.00283
3	20385	1753.5	QPSK	1	HIGH	-3.66	-0.00434
3	20385	1753.5	QPSK	8	LOW	-4.44	-0.00526
3	20385	1753.5	QPSK	8	MID	-2.8	-0.00332
3	20385	1753.5	QPSK	8	HIGH	-4.12	-0.00488
3	20385	1753.5	QPSK	15	LOW	-4.3	-0.00509
3	20385	1753.5	Q16	1	LOW	-4.02	-0.00476
3	20385	1753.5	Q16	1	MID	-3.6	-0.00427
3	20385	1753.5	Q16	1	HIGH	-1.99	-0.00236
3	20385	1753.5	Q16	8	LOW	4.71	0.005581
3	20385	1753.5	Q16	8	MID	-2.39	-0.00283
3	20385	1753.5	Q16	8	HIGH	-0.73	-0.00086
3	20385	1753.5	Q16	15	LOW	-3.18	-0.00377

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
3	20175	1732.5	QPSK	1	LOW	2.86	0.003389
3	20175	1732.5	QPSK	1	MID	3.1	0.003673
3	20175	1732.5	QPSK	1	HIGH	3.24	0.003839
3	20175	1732.5	QPSK	8	LOW	-3.87	-0.00459
3	20175	1732.5	QPSK	8	MID	0.92	0.00109
3	20175	1732.5	QPSK	8	HIGH	1.08	0.00128
3	20175	1732.5	QPSK	15	LOW	-4.23	-0.00501
3	20175	1732.5	Q16	1	LOW	-1.47	-0.00174
3	20175	1732.5	Q16	1	MID	3.68	0.00436
3	20175	1732.5	Q16	1	HIGH	3.44	0.004076
3	20175	1732.5	Q16	8	LOW	-2.56	-0.00303
3	20175	1732.5	Q16	8	MID	-2.38	-0.00282
3	20175	1732.5	Q16	8	HIGH	-2.53	-0.003
3	20175	1732.5	Q16	15	LOW	1.57	0.00186
5	19975	1712.5	QPSK	1	LOW	-1.72	-0.00204
5	19975	1712.5	QPSK	1	MID	4.46	0.005284
5	19975	1712.5	QPSK	1	HIGH	4.53	0.005367
5	19975	1712.5	QPSK	12	LOW	3.56	0.004218
5	19975	1712.5	QPSK	12	MID	2.14	0.002536
5	19975	1712.5	QPSK	12	HIGH	-4.95	-0.00586
5	19975	1712.5	QPSK	25	LOW	-1.48	-0.00175
5	19975	1712.5	Q16	1	LOW	2.2	0.002607
5	19975	1712.5	Q16	1	MID	-4.89	-0.00579
5	19975	1712.5	Q16	1	HIGH	4.78	0.005664
5	19975	1712.5	Q16	12	LOW	-3.89	-0.00461
5	19975	1712.5	Q16	12	MID	0.24	0.000284
5	19975	1712.5	Q16	12	HIGH	-3.65	-0.00432
5	19975	1712.5	Q16	25	LOW	3.77	0.004467
5	20375	1752.5	QPSK	1	LOW	-0.97	-0.00115
5	20375	1752.5	QPSK	1	MID	3.3	0.00391
5	20375	1752.5	QPSK	1	HIGH	-1.57	-0.00186
5	20375	1752.5	QPSK	12	LOW	-0.97	-0.00115
5	20375	1752.5	QPSK	12	MID	-4.63	-0.00549
5	20375	1752.5	QPSK	12	HIGH	3	0.003555
5	20375	1752.5	QPSK	25	LOW	-0.42	-0.0005
5	20375	1752.5	Q16	1	LOW	2.85	0.003377

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
5	20375	1752.5	Q16	1	MID	-1.06	-0.00126
5	20375	1752.5	Q16	1	HIGH	-0.87	-0.00103
5	20375	1752.5	Q16	12	LOW	1.98	0.002346
5	20375	1752.5	Q16	12	MID	-4.25	-0.00504
5	20375	1752.5	Q16	12	HIGH	-3.2	-0.00379
5	20375	1752.5	Q16	25	LOW	-0.85	-0.00101
5	20175	1732.5	QPSK	1	LOW	-0.82	-0.00097
5	20175	1732.5	QPSK	1	MID	-0.26	-0.00031
5	20175	1732.5	QPSK	1	HIGH	1.18	0.001398
5	20175	1732.5	QPSK	12	LOW	3.36	0.003981
5	20175	1732.5	QPSK	12	MID	1.5	0.001777
5	20175	1732.5	QPSK	12	HIGH	3.78	0.004479
5	20175	1732.5	QPSK	25	LOW	0.62	0.000735
5	20175	1732.5	Q16	1	LOW	-0.07	-8.3E-05
5	20175	1732.5	Q16	1	MID	2.25	0.002666
5	20175	1732.5	Q16	1	HIGH	0.14	0.000166
5	20175	1732.5	Q16	12	LOW	-2.57	-0.00305
5	20175	1732.5	Q16	12	MID	0	0
5	20175	1732.5	Q16	12	HIGH	1.74	0.002062
5	20175	1732.5	Q16	25	LOW	3.05	0.003614
10	20000	1715	QPSK	1	LOW	-4.86	-0.00576
10	20000	1715	QPSK	1	MID	2.51	0.002974
10	20000	1715	QPSK	1	HIGH	1.87	0.002216
10	20000	1715	QPSK	25	LOW	-3.79	-0.00449
10	20000	1715	QPSK	25	MID	-3.27	-0.00387
10	20000	1715	QPSK	25	HIGH	4.2	0.004976
10	20000	1715	QPSK	50	LOW	2.35	0.002784
10	20000	1715	Q16	1	LOW	-0.54	-0.00064
10	20000	1715	Q16	1	MID	-1.54	-0.00182
10	20000	1715	Q16	1	HIGH	4.68	0.005545
10	20000	1715	Q16	25	LOW	0.1	0.000118
10	20000	1715	Q16	25	MID	-4.14	-0.00491
10	20000	1715	Q16	25	HIGH	-3.22	-0.00382
10	20000	1715	Q16	50	LOW	-3.37	-0.00399
10	20350	1750	QPSK	1	LOW	-2.52	-0.00299
10	20350	1750	QPSK	1	MID	-4.22	-0.005

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
10	20350	1750	QPSK	1	HIGH	-4.3	-0.00509
10	20350	1750	QPSK	25	LOW	-0.18	-0.00021
10	20350	1750	QPSK	25	MID	0.62	0.000735
10	20350	1750	QPSK	25	HIGH	0.34	0.000403
10	20350	1750	QPSK	50	LOW	0.9	0.001066
10	20350	1750	Q16	1	LOW	1.55	0.001836
10	20350	1750	Q16	1	MID	-0.2	-0.00024
10	20350	1750	Q16	1	HIGH	2.65	0.00314
10	20350	1750	Q16	25	LOW	-1.46	-0.00173
10	20350	1750	Q16	25	MID	0.59	0.000699
10	20350	1750	Q16	25	HIGH	2.89	0.003424
10	20350	1750	Q16	50	LOW	-3.37	-0.00399
10	20175	1732.5	QPSK	1	LOW	1.54	0.001825
10	20175	1732.5	QPSK	1	MID	-3.31	-0.00392
10	20175	1732.5	QPSK	1	HIGH	-4.6	-0.00545
10	20175	1732.5	QPSK	25	LOW	-3.85	-0.00456
10	20175	1732.5	QPSK	25	MID	0.04	4.74E-05
10	20175	1732.5	QPSK	25	HIGH	-0.32	-0.00038
10	20175	1732.5	QPSK	50	LOW	-1.8	-0.00213
10	20175	1732.5	Q16	1	LOW	3.03	0.00359
10	20175	1732.5	Q16	1	MID	-0.45	-0.00053
10	20175	1732.5	Q16	1	HIGH	-0.28	-0.00033
10	20175	1732.5	Q16	25	LOW	-4.49	-0.00532
10	20175	1732.5	Q16	25	MID	1.05	0.001244
10	20175	1732.5	Q16	25	HIGH	-3.11	-0.00368
10	20175	1732.5	Q16	50	LOW	-2.55	-0.00302
15	20025	1717.5	QPSK	1	LOW	-3.11	-0.00368
15	20025	1717.5	QPSK	1	MID	-4.15	-0.00492
15	20025	1717.5	QPSK	1	HIGH	-1.31	-0.00155
15	20025	1717.5	QPSK	36	LOW	-2.49	-0.00295
15	20025	1717.5	QPSK	36	MID	2.05	0.002429
15	20025	1717.5	QPSK	36	HIGH	-3.08	-0.00365
15	20025	1717.5	QPSK	75	LOW	-0.63	-0.00075
15	20025	1717.5	Q16	1	LOW	-0.12	-0.00014
15	20025	1717.5	Q16	1	MID	1.55	0.001836
15	20025	1717.5	Q16	1	HIGH	-1.68	-0.00199

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
15	20025	1717.5	Q16	36	LOW	-3.54	-0.00419
15	20025	1717.5	Q16	36	MID	4.52	0.005355
15	20025	1717.5	Q16	36	HIGH	1.61	0.001908
15	20025	1717.5	Q16	75	LOW	4.87	0.00577
15	20325	1747.5	QPSK	1	LOW	2.82	0.003341
15	20325	1747.5	QPSK	1	MID	1.73	0.00205
15	20325	1747.5	QPSK	1	HIGH	-0.83	-0.00098
15	20325	1747.5	QPSK	36	LOW	2.12	0.002512
15	20325	1747.5	QPSK	36	MID	2.36	0.002796
15	20325	1747.5	QPSK	36	HIGH	4.82	0.005711
15	20325	1747.5	QPSK	75	LOW	-2.68	-0.00318
15	20325	1747.5	Q16	1	LOW	3.58	0.004242
15	20325	1747.5	Q16	1	MID	-3	-0.00355
15	20325	1747.5	Q16	1	HIGH	2.44	0.002891
15	20325	1747.5	Q16	36	LOW	-4.84	-0.00573
15	20325	1747.5	Q16	36	MID	4.53	0.005367
15	20325	1747.5	Q16	36	HIGH	3.18	0.003768
15	20325	1747.5	Q16	75	LOW	4.71	0.005581
15	20175	1732.5	QPSK	1	LOW	-2.73	-0.00323
15	20175	1732.5	QPSK	1	MID	-1.78	-0.00211
15	20175	1732.5	QPSK	1	HIGH	3.53	0.004182
15	20175	1732.5	QPSK	36	LOW	4.68	0.005545
15	20175	1732.5	QPSK	36	MID	-0.1	-0.00012
15	20175	1732.5	QPSK	36	HIGH	1.05	0.001244
15	20175	1732.5	QPSK	75	LOW	-3.04	-0.0036
15	20175	1732.5	Q16	1	LOW	0.31	0.000367
15	20175	1732.5	Q16	1	MID	-3.76	-0.00445
15	20175	1732.5	Q16	1	HIGH	4.93	0.005841
15	20175	1732.5	Q16	36	LOW	-4.25	-0.00504
15	20175	1732.5	Q16	36	MID	-0.83	-0.00098
15	20175	1732.5	Q16	36	HIGH	2.62	0.003104
15	20175	1732.5	Q16	75	LOW	-2.88	-0.00341
20	20050	1720	QPSK	1	LOW	0.86	0.001019
20	20050	1720	QPSK	1	MID	-4.63	-0.00549
20	20050	1720	QPSK	1	HIGH	-3.81	-0.00451
20	20050	1720	QPSK	50	LOW	-2.62	-0.0031

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
20	20050	1720	QPSK	50	MID	-2.68	-0.00318
20	20050	1720	QPSK	50	HIGH	4.37	0.005178
20	20050	1720	QPSK	100	LOW	-0.15	-0.00018
20	20050	1720	Q16	1	LOW	-4.68	-0.00555
20	20050	1720	Q16	1	MID	3.83	0.004538
20	20050	1720	Q16	1	HIGH	-0.73	-0.00086
20	20050	1720	Q16	50	LOW	1.02	0.001209
20	20050	1720	Q16	50	MID	2.47	0.002927
20	20050	1720	Q16	50	HIGH	-3.71	-0.0044
20	20050	1720	Q16	100	LOW	2.37	0.002808
20	20300	1745	QPSK	1	LOW	4.03	0.004775
20	20300	1745	QPSK	1	MID	-1.46	-0.00173
20	20300	1745	QPSK	1	HIGH	-3.07	-0.00364
20	20300	1745	QPSK	50	LOW	-3.82	-0.00453
20	20300	1745	QPSK	50	MID	-3.68	-0.00436
20	20300	1745	QPSK	50	HIGH	2.65	0.00314
20	20300	1745	QPSK	100	LOW	4.5	0.005332
20	20300	1745	Q16	1	LOW	-1.73	-0.00205
20	20300	1745	Q16	1	MID	-2.7	-0.0032
20	20300	1745	Q16	1	HIGH	-0.36	-0.00043
20	20300	1745	Q16	50	LOW	-3.4	-0.00403
20	20300	1745	Q16	50	MID	-1.28	-0.00152
20	20300	1745	Q16	50	HIGH	2.91	0.003448
20	20300	1745	Q16	100	LOW	2.43	0.002879
20	20175	1732.5	QPSK	1	LOW	0.42	0.000498
20	20175	1732.5	QPSK	1	MID	-2.68	-0.00318
20	20175	1732.5	QPSK	1	HIGH	-3.05	-0.00361
20	20175	1732.5	QPSK	50	LOW	-2.32	-0.00275
20	20175	1732.5	QPSK	50	MID	-3.53	-0.00418
20	20175	1732.5	QPSK	50	HIGH	1.89	0.002239
20	20175	1732.5	QPSK	100	LOW	-2.84	-0.00336
20	20175	1732.5	Q16	1	LOW	-0.84	-0.001
20	20175	1732.5	Q16	1	MID	4.87	0.00577
20	20175	1732.5	Q16	1	HIGH	4.68	0.005545
20	20175	1732.5	Q16	50	LOW	1.05	0.001244
20	20175	1732.5	Q16	50	MID	4.57	0.005415

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
20	20175	1732.5	Q16	50	HIGH	1.45	0.001718
20	20175	1732.5	Q16	100	LOW	-2.74	-0.00325

BAND 7:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
5	20775	2502.5	QPSK	1	LOW	-4.14	-0.00491
5	20775	2502.5	QPSK	1	MID	3.54	0.004194
5	20775	2502.5	QPSK	1	HIGH	-1.2	-0.00142
5	20775	2502.5	QPSK	12	LOW	1.16	0.001374
5	20775	2502.5	QPSK	12	MID	-1.35	-0.0016
5	20775	2502.5	QPSK	12	HIGH	-1.16	-0.00137
5	20775	2502.5	QPSK	25	LOW	1.46	0.00173
5	20775	2502.5	Q16	1	LOW	1.12	0.001327
5	20775	2502.5	Q16	1	MID	3.25	0.003851
5	20775	2502.5	Q16	1	HIGH	2.93	0.003472
5	20775	2502.5	Q16	12	LOW	4.04	0.004787
5	20775	2502.5	Q16	12	MID	-1.85	-0.00219
5	20775	2502.5	Q16	12	HIGH	-3.75	-0.00444
5	20775	2502.5	Q16	25	LOW	-0.55	-0.00065
5	21425	2567.5	QPSK	1	LOW	-0.11	-0.00013
5	21425	2567.5	QPSK	1	MID	2.73	0.003235
5	21425	2567.5	QPSK	1	HIGH	2.84	0.003365
5	21425	2567.5	QPSK	12	LOW	-2.94	-0.00348
5	21425	2567.5	QPSK	12	MID	-1.42	-0.00168
5	21425	2567.5	QPSK	12	HIGH	-4.69	-0.00556
5	21425	2567.5	QPSK	25	LOW	-0.66	-0.00078
5	21425	2567.5	Q16	1	LOW	-0.07	-8.3E-05
5	21425	2567.5	Q16	1	MID	0.15	0.000178
5	21425	2567.5	Q16	1	HIGH	-2.71	-0.00321
5	21425	2567.5	Q16	12	LOW	4.7	0.005569
5	21425	2567.5	Q16	12	MID	-1.6	-0.0019
5	21425	2567.5	Q16	12	HIGH	1.46	0.00173
5	21425	2567.5	Q16	25	LOW	0.14	0.000166
5	21100	2535	QPSK	1	LOW	-4.12	-0.00488
5	21100	2535	QPSK	1	MID	-4.18	-0.00495
5	21100	2535	QPSK	1	HIGH	-3.83	-0.00454
5	21100	2535	QPSK	12	LOW	1.66	0.001967
5	21100	2535	QPSK	12	MID	1.26	0.001493
5	21100	2535	QPSK	12	HIGH	1.89	0.002239
5	21100	2535	QPSK	25	LOW	-0.06	-7.1E-05

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency error	Frequency Error
				Size	Offset	(Hz)	(ppm)
5	21100	2535	QPSK	1	LOW	-4.29	-0.00508
5	21100	2535	QPSK	1	MID	1.29	0.001528
5	21100	2535	QPSK	1	HIGH	3.52	0.004171
5	21100	2535	QPSK	12	LOW	3.65	0.004325
5	21100	2535	QPSK	12	MID	-1.34	-0.00159
5	21100	2535	QPSK	12	HIGH	2.68	0.003175
5	21100	2535	QPSK	25	LOW	-4.73	-0.0056
10	20800	2505	QPSK	1	LOW	2.94	0.003483
10	20800	2505	QPSK	1	MID	3.33	0.003945
10	20800	2505	QPSK	1	HIGH	-0.88	-0.00104
10	20800	2505	QPSK	25	LOW	-3.06	-0.00363
10	20800	2505	QPSK	25	MID	1.57	0.00186
10	20800	2505	QPSK	25	HIGH	-3.59	-0.00425
10	20800	2505	QPSK	50	LOW	-0.2	-0.00024
10	20800	2505	Q16	1	LOW	0.73	0.000865
10	20800	2505	Q16	1	MID	-1.82	-0.00216
10	20800	2505	Q16	1	HIGH	-4.45	-0.00527
10	20800	2505	Q16	25	LOW	-1.93	-0.00229
10	20800	2505	Q16	25	MID	2.32	0.002749
10	20800	2505	Q16	25	HIGH	-1.9	-0.00225
10	20800	2505	Q16	50	LOW	0.31	0.000367
10	21400	2565	QPSK	1	LOW	-1.64	-0.00194
10	21400	2565	QPSK	1	MID	2.74	0.003246
10	21400	2565	QPSK	1	HIGH	-1.99	-0.00236
10	21400	2565	QPSK	25	LOW	-0.8	-0.00095
10	21400	2565	QPSK	25	MID	0.55	0.000652
10	21400	2565	QPSK	25	HIGH	-3.1	-0.00367
10	21400	2565	QPSK	50	LOW	-3.74	-0.00443
10	21400	2565	QPSK	1	LOW	3.72	0.004408
10	21400	2565	QPSK	1	MID	4.45	0.005273
10	21400	2565	QPSK	1	HIGH	-4.02	-0.00476
10	21400	2565	Q16	25	LOW	2.7	0.003199
10	21400	2565	Q16	25	MID	-1.52	-0.0018
10	21400	2565	Q16	25	HIGH	0.1	0.000118
10	21400	2565	Q16	50	LOW	4.96	0.005877
10	21100	2535	QPSK	1	LOW	1.18	0.001398

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency error	Frequency Error
				Size	Offset	(Hz)	(ppm)
10	21100	2535	QPSK	1	MID	-2.25	-0.00267
10	21100	2535	QPSK	1	HIGH	1.1	0.001303
10	21100	2535	QPSK	25	LOW	-3	-0.00355
10	21100	2535	QPSK	25	MID	4.17	0.004941
10	21100	2535	QPSK	25	HIGH	-0.46	-0.00055
10	21100	2535	QPSK	50	LOW	-2.37	-0.00281
10	21100	2535	QPSK	1	LOW	1.79	0.002121
10	21100	2535	QPSK	1	MID	2.61	0.003092
10	21100	2535	QPSK	1	HIGH	-2.81	-0.00333
10	21100	2535	Q16	25	LOW	2.39	0.002832
10	21100	2535	Q16	25	MID	0.71	0.000841
10	21100	2535	Q16	25	HIGH	3.84	0.00455
10	21100	2535	Q16	50	LOW	3.69	0.004372
15	20825	2507.5	QPSK	1	LOW	-3.45	-0.00409
15	20825	2507.5	QPSK	1	MID	-3.89	-0.00461
15	20825	2507.5	QPSK	1	HIGH	-3.36	-0.00398
15	20825	2507.5	QPSK	36	LOW	-1.05	-0.00124
15	20825	2507.5	QPSK	36	MID	-3.04	-0.0036
15	20825	2507.5	QPSK	36	HIGH	-2.49	-0.00295
15	20825	2507.5	QPSK	75	LOW	3.66	0.004336
15	20825	2507.5	Q16	1	LOW	0.2	0.000237
15	20825	2507.5	Q16	1	MID	-3.13	-0.00371
15	20825	2507.5	Q16	1	HIGH	1.06	0.001256
15	20825	2507.5	Q16	36	LOW	3.1	0.003673
15	20825	2507.5	Q16	36	MID	-4.94	-0.00585
15	20825	2507.5	Q16	36	HIGH	4.82	0.005711
15	20825	2507.5	Q16	75	LOW	4.52	0.005355
15	21375	2562.5	QPSK	1	LOW	1.85	0.002192
15	21375	2562.5	QPSK	1	MID	4.8	0.005687
15	21375	2562.5	QPSK	1	HIGH	-4.24	-0.00502
15	21375	2562.5	QPSK	36	LOW	1.52	0.001801
15	21375	2562.5	QPSK	36	MID	-2.6	-0.00308
15	21375	2562.5	QPSK	36	HIGH	0.2	0.000237
15	21375	2562.5	QPSK	75	LOW	3.74	0.004431
15	21375	2562.5	Q16	1	LOW	-4.58	-0.00543
15	21375	2562.5	Q16	1	MID	3.21	0.003803

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
15	21375	2562.5	Q16	1	HIGH	-0.13	-0.00015
15	21375	2562.5	Q16	36	LOW	2.39	0.002832
15	21375	2562.5	Q16	36	MID	-0.43	-0.00051
15	21375	2562.5	Q16	36	HIGH	-1.8	-0.00213
15	21375	2562.5	Q16	75	LOW	3.3	0.00391
15	21100	2535	QPSK	1	LOW	0.56	0.000664
15	21100	2535	QPSK	1	MID	3.79	0.004491
15	21100	2535	QPSK	1	HIGH	-0.35	-0.00041
15	21100	2535	QPSK	36	LOW	-3.65	-0.00432
15	21100	2535	QPSK	36	MID	-0.22	-0.00026
15	21100	2535	QPSK	36	HIGH	-1.04	-0.00123
15	21100	2535	QPSK	75	LOW	-3.04	-0.0036
15	21100	2535	Q16	1	LOW	-3.01	-0.00357
15	21100	2535	Q16	1	MID	-1.19	-0.00141
15	21100	2535	Q16	1	HIGH	1.87	0.002216
15	21100	2535	Q16	36	LOW	-4.89	-0.00579
15	21100	2535	Q16	36	MID	-3.57	-0.00423
15	21100	2535	Q16	36	HIGH	0.57	0.000675
15	21100	2535	Q16	75	LOW	-4.67	-0.00553
20	20850	2510	QPSK	1	LOW	3.52	0.004171
20	20850	2510	QPSK	1	MID	3.39	0.004017
20	20850	2510	QPSK	1	HIGH	2.94	0.003483
20	20850	2510	QPSK	50	LOW	-2.38	-0.00282
20	20850	2510	QPSK	50	MID	-4.27	-0.00506
20	20850	2510	QPSK	50	HIGH	-1.14	-0.00135
20	20850	2510	QPSK	100	LOW	1.65	0.001955
20	20850	2510	Q16	1	LOW	3.5	0.004147
20	20850	2510	Q16	1	MID	2.89	0.003424
20	20850	2510	Q16	1	HIGH	4.77	0.005652
20	20850	2510	Q16	50	LOW	-4.73	-0.0056
20	20850	2510	Q16	50	MID	3.76	0.004455
20	20850	2510	Q16	50	HIGH	4.39	0.005201
20	20850	2510	Q16	100	LOW	4.24	0.005024
20	21350	2560	QPSK	1	LOW	1.47	0.001742
20	21350	2560	QPSK	1	MID	4.96	0.005877
20	21350	2560	QPSK	1	HIGH	1.29	0.001528

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
20	21350	2560	QPSK	50	LOW	0.71	0.000841
20	21350	2560	QPSK	50	MID	-4.68	-0.00555
20	21350	2560	QPSK	50	HIGH	4.45	0.005273
20	21350	2560	QPSK	100	LOW	0.11	0.00013
20	21350	2560	Q16	1	LOW	1.53	0.001813
20	21350	2560	Q16	1	MID	1.94	0.002299
20	21350	2560	Q16	1	HIGH	4.99	0.005912
20	21350	2560	Q16	50	LOW	3.8	0.004502
20	21350	2560	Q16	50	MID	-0.82	-0.00097
20	21350	2560	Q16	50	HIGH	-0.58	-0.00069
20	21350	2560	Q16	100	LOW	2.79	0.003306
20	21100	2535	QPSK	1	LOW	-0.93	-0.0011
20	21100	2535	QPSK	1	MID	2.58	0.003057
20	21100	2535	QPSK	1	HIGH	-0.14	-0.00017
20	21100	2535	QPSK	50	LOW	-3.84	-0.00455
20	21100	2535	QPSK	50	MID	0.4	0.000474
20	21100	2535	QPSK	50	HIGH	-2.41	-0.00286
20	21100	2535	QPSK	100	LOW	2.48	0.002938
20	21100	2535	Q16	1	LOW	-0.49	-0.00058
20	21100	2535	Q16	1	MID	-0.98	-0.00116
20	21100	2535	Q16	1	HIGH	0.33	0.000391
20	21100	2535	Q16	50	LOW	-4.16	-0.00493
20	21100	2535	Q16	50	MID	1.47	0.001742
20	21100	2535	Q16	50	HIGH	1.01	0.001197
20	21100	2535	Q16	100	LOW	-1.26	-0.00149

7 OCCUPIED BANDWIDTH& Emission Bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable:

(a) Radiotelegraph transmitters for manual operation when keyed at 16 dots per second.

(b) Other keyed transmitters—when keyed at the maximum machine speed.

(c) Radiotelephone transmitters equipped with a device to limit modulation or peak envelope power shall be modulated as follows. For single sideband and independent sideband transmitters, the input level of the modulating signal shall be 10 dB greater than that necessary to produce rated peak envelope power.

(1) Other than single sideband or independent sideband transmitters—when modulated by a 2500 Hz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation. The input level shall be established at the frequency of maximum response of the audio modulating circuit.

(2) Single sideband transmitters in A3A or A3J emission modes—when modulated by two tones at frequencies of 400 Hz and 1800 Hz (for 3.0 kHz authorized bandwidth), or 500 Hz and 2100 Hz (for 3.5 kHz authorized bandwidth), or 500 Hz and 2400 Hz (for 4.0 kHz authorized bandwidth), applied simultaneously. The input levels of the tones shall be so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(3) Single sideband transmitters in the A3H emission mode—when modulated by one tone at a frequency of 1500 Hz (for 3.0 kHz authorized bandwidth), or 1700 Hz (for 3.5 kHz authorized bandwidth), or 1900 Hz (for 4.0 kHz authorized bandwidth), the level of which is adjusted to produce a radio frequency signal component equal in magnitude to the magnitude of the carrier in this mode.

(4) As an alternative to paragraphs (c) (2) and (3) of this section, other tones besides those specified may be used as modulating frequencies, upon a sufficient showing of need. However, any tones so chosen must not be harmonically related, the third and fifth order intermodulation products which occur must fall within the −25 dB step of the emission bandwidth limitation curve, the seventh and ninth order products must fall within the −35 dB step of the referenced curve and the eleventh and all higher order products must fall beyond the −35 dB step of the referenced curve.

(5) Independent sideband transmitters having two channels—when modulated by 1700 Hz tones applied simultaneously to both channels. The input levels of the tones shall be so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(d) Radiotelephone transmitters without a device to limit modulation or peak envelope power shall be modulated as follows. For single sideband and independent sideband transmitters, the input level of the modulating signal should be that necessary to produce rated peak envelope power.

(1) Other than single sideband or independent sideband transmitters—when modulated by a 2500 Hz tone of sufficient level to produce at least 85 percent modulation. If 85 percent modulation is unattainable, the highest percentage modulation shall be used.

(2) Single sideband transmitters in A3A or A3J emission modes—when modulated by two tones at frequencies of 400 Hz and 1800 Hz (for 3.0 kHz authorized bandwidth), or 500 Hz and 2100 Hz (for 3.5 kHz authorized bandwidth), or 500 Hz and 2400 Hz (for 4.0 kHz authorized bandwidth), applied simultaneously. The input levels of the tones shall be so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(3) Single sideband transmitters in the A3H emission mode—when modulated by one tone at a frequency of 1500 Hz (for 3.0 kHz authorized bandwidth), or 1700 Hz (for 3.5 kHz authorized bandwidth), or 1900 Hz (for 4.0 kHz authorized bandwidth), the level of which is adjusted to produce a radio frequency signal component equal in magnitude to the magnitude of the carrier in this mode.

(4) As an alternative to paragraphs (d) (2) and (3) of this section, other tones besides those specified may be used as modulating frequencies, upon a sufficient showing of need. However any tones so chosen must not be harmonically related, the third and fifth order intermodulation products which occur must fall within the −25 dB step of the emission bandwidth limitation curve, the seventh and ninth order products must fall within the −35 dB step of the referenced curve and the eleventh and all higher order products must fall beyond the −35 dB step of the referenced curve.

(5) Independent sideband transmitters having two channels—when modulated by 1700 Hz tones applied simultaneously to both channels. The input levels of the tones shall be so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(e) Transmitters for use in the Radio Broadcast Services:

(1) AM broadcast transmitters for monaural operation—when amplitude modulated 85% by a 7,500 Hz input signal.

(2) AM broadcast stereophonic operation—when the transmitter operated under any stereophonic modulation condition not exceeding 100% on negative peaks and tested under the conditions specified in §73.128 in part 73 of the FCC rules for AM broadcast stations.

(3) FM broadcast transmitter not used for multiplex operation—when modulated 85 percent by a 15 kHz input signal.

(4) FM broadcast transmitters for multiplex operation under Subsidiary Communication Authorization (SCA)—when carrier is modulated 70 percent by a 15 kHz main channel input signal, and modulated an additional 15 percent simultaneously by a 67 kHz subcarrier (unmodulated).

(5) FM broadcast transmitter for stereophonic operation—when modulated by a 15 kHz input signal to the main channel, a 15 kHz input signal to the stereophonic subchannel, and the pilot subcarrier simultaneously. The input signals to the main channel and stereophonic subchannel each shall produce 38 percent modulation of the carrier. The pilot subcarrier should produce 9 percent modulation of the carrier.

(6) Television broadcast monaural transmitters—when modulated 85% by a 15 kHz input signal.

(7) Television broadcast stereophonic sound transmitters—when the transmitter is modulated with a 15 kHz input signal to the main channel and the stereophonic subchannel, any pilot subcarrier(s) and any unmodulated auxiliary subcarrier(s) which may be provided. The signals to the main channel and the stereophonic subchannel must be representative of the system being tested and when combined with any pilot subcarrier(s) or other auxiliary subcarriers shall result in 85% deviation of the maximum specified aural carrier deviation.
(f) Transmitters for which peak frequency deviation (D) is determined in accordance with §2.202(f), and in which the modulating baseband comprises more than 3 independent speech channels—when modulated by a test signal determined in accordance with the following:

(1) A modulation reference level is established for the characteristic baseband frequency. (Modulation reference level is defined as the average power level of a sinusoidal test signal delivered to the modulator input which provides the specified value of per-channel deviation.)

(2) Modulation reference level being established, the total rms deviation of the transmitter is measured when a test signal consisting of a band of random noise extending from below 20 kHz to the highest frequency in the baseband, is applied to the modulator input through any preemphasis networks used in normal service. The average power level of the test signal shall exceed the modulation reference level by the number of decibels determined using the appropriate formula in the following table:

Number of message circuits that modulate the transmitter	**Number of dB by which the average power (P_{avg}) level test signal shall exceed the modulation reference level**	**Limits of P_{avg} (dBm0)**
More than 3, but less than 12	To be specified by the equipment manufacturer subject to FCC approval	
At least 12, but less than 60	$X + 2 \log_{10} N_c$	X: −2 to + 2.6
At least 60, but less than 240	$X + 4 \log_{10} N_c$	X: −5.6 to −1.0
240 or more	$X + 10 \log_{10} N_c$	X: −19.6 to −15.0

Where X represents the average power in a message circuit in dBm0; Nc is the number of circuits in the multiplexed message load. Pavg shall be selected by the transmitter manufacturer and included with the technical data submitted with the application for type acceptance. (See §2.202(e) in this chapter.)

(g) Transmitters in which the modulating baseband comprises not more than three independent channels—when modulated by the full complement of signals for which the transmitter is rated. The level of modulation for each channel should be set to that prescribed in rule parts applicable to the services for which

the transmitter is intended. If specific modulation levels are not set forth in the rules, the tests should provide the manufacturer's maximum rated condition.

(h) Transmitters employing digital modulation techniques—when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the occupied bandwidth shall be shown for operation with any devices used for modifying the spectrum when such devices are optional at the discretion of the user.

(i) Transmitters designed for other types of modulation—when modulated by an appropriate signal of sufficient amplitude to be representative of the type of service in which used. A description of the input signal should be supplied.

Test Procedure

The reference value is the highest level of the spectral envelope of the modulated signal.

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
b) The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
c) Set the reference level of the instrument as required to prevent the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least 10log (OBW / RBW) below the reference level.
d) NOTE—Steps a) through c) may require iteration to adjust within the specified tolerances.
e) The dynamic range of the spectrum analyzer at the selected RBW shall be at least 10 dB below the target "-X dB down" requirement (i.e., if the requirement calls for measuring the –26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference value).
f) Set the detection mode to peak, and the trace mode to max hold.
g) Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
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h) Determine the "-X dB down amplitude" as equal to (Reference Value – X). Alternatively, this calculation can be performed by the analyzer by using the marker-delta function.
i) Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the "–X dB down amplitude" determined in step g). If a marker is below this "-X dB down amplitude" value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
j) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display. The frequency and amplitude axes and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

The following procedure shall be used for measuring (99 %) power bandwidth

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the OBW).
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
c) Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least 10log (OBW / RBW) below the reference level.
d) NOTE—Steps a) through c) may require iteration to adjust within the specified tolerances.
e) Set the detection mode to peak, and the trace mode to max hold..
f) Use the 99 % power bandwidth function of the spectrum analyzer (if available) and report the measured bandwidth.
g) If the instrument does not have a 99 % power bandwidth function, the trace data points are to be recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99 % power bandwidth is the difference between these two frequencies.
h) The OBW shall be reported by providing plot(s) of the measuring instrument display. The frequency and amplitude axes and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

7.1 Measurement Result

GSM850:

Frequency	OBW(99%)	26dB BW
824.2	245.19KHz	312.50KHz
836.6	246.79KHz	314.10KHz
848.8	243.59KHz	306.09KHz

PCS1900:

Frequency	OBW(99%)	26dB BW
1850.2	246.79KHz	309.29KHz
1880	245.19KHz	314.10KHz
1909.8	245.19KHz	304.49KHz

GPRS850:

Frequency	OBW(99%)	26dB BW
824.2	246.79KHz	318.91KHz
836.6	246.79KHz	322.12KHz
848.8	245.19KHz	318.91KHz

GPRS 1900:

Frequency	OBW(99%)	26dB BW
1850.2	246.79KHz	318.91KHz
1880	246.79KHz	315.71KHz
1909.8	246.79KHz	314.10KHz

EGPRS 850:

Frequency	OBW(99%)	26dB BW
824.2	246.79KHz	302.88KHz
836.6	238.78KHz	291.67KHz
848.8	243.59KHz	290.06KHz

EGPRS 1900:

Frequency	OBW(99%)	26dB BW
1850.2	243.59KHz	290.06KHz
1880	245.19KHz	302.88KHz
1909.8	243.59KHz	298.08KHz

UTRA BANDS

BAND 2:

Frequency	OBW(99%)	26dB BW
1852.4	4.231MHz	4.888MHz
1880	4.279MHz	4.936MHz
1907.6	4.215MHz	4.824MHz

BAND 4:

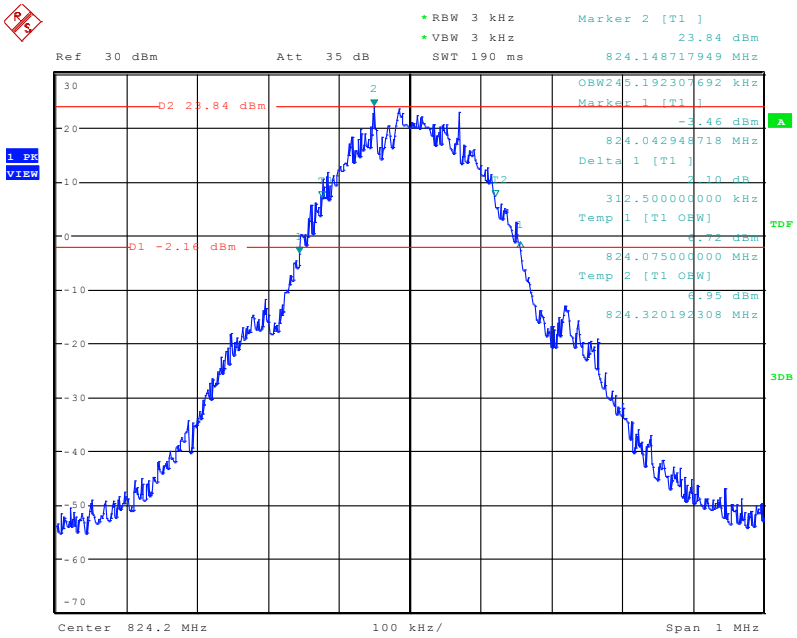
Frequency	OBW(99%)	26dB BW
1712.4	4.215MHz	4.872MHz
1732.6	4.215MHz	4.840MHz
1752.6	4.231MHz	4.888MHz

BAND 5:

Frequency	OBW(99%)	26dB BW
826.4	4.231MHz	4.888MHz
836.4	4.231MHz	4.872MHz
846.6	4.199MHz	4.872MHz

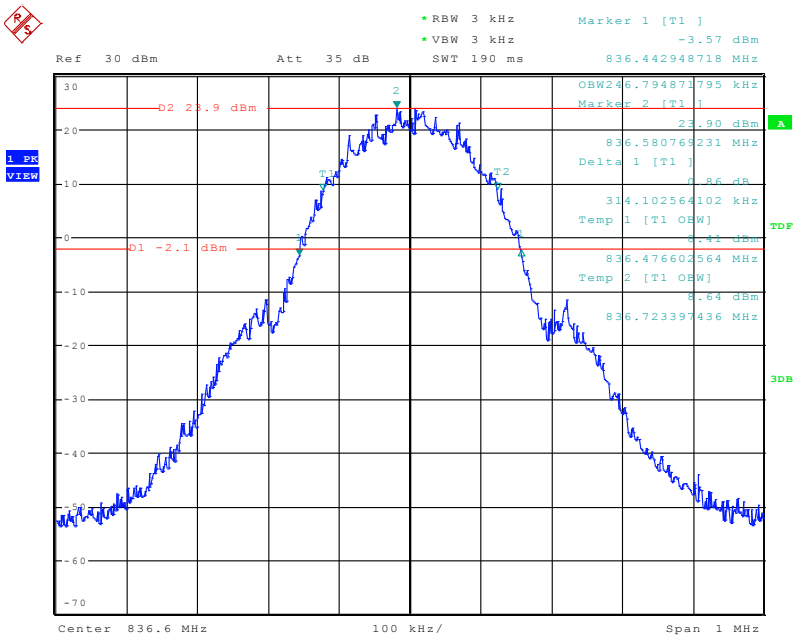
7.2 Test Plot(s)

Occupied Bandwidth (99% and -26dBc) GSM 850 BAND CH 128



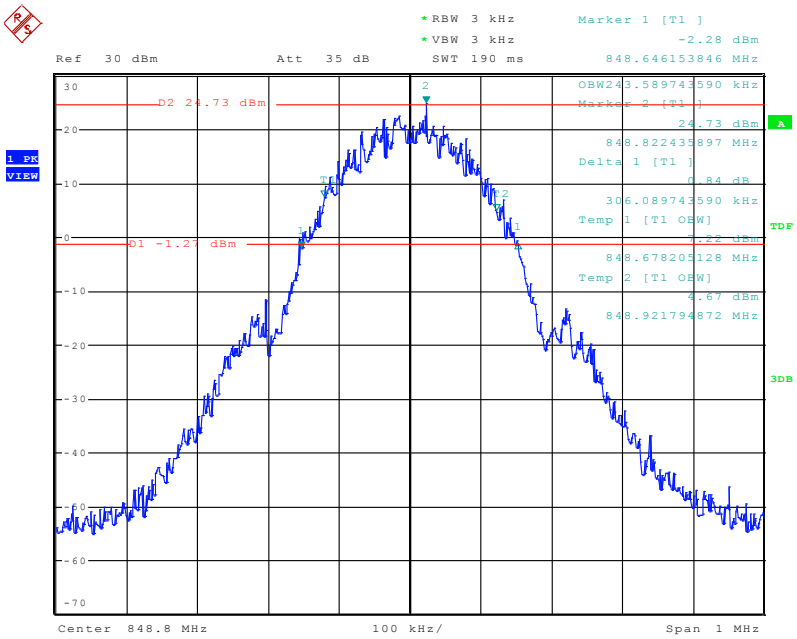
Date: 14.FEB.2017 10:40:24

Occupied Bandwidth (99% and -26dBc) GSM 850 BAND CH 190



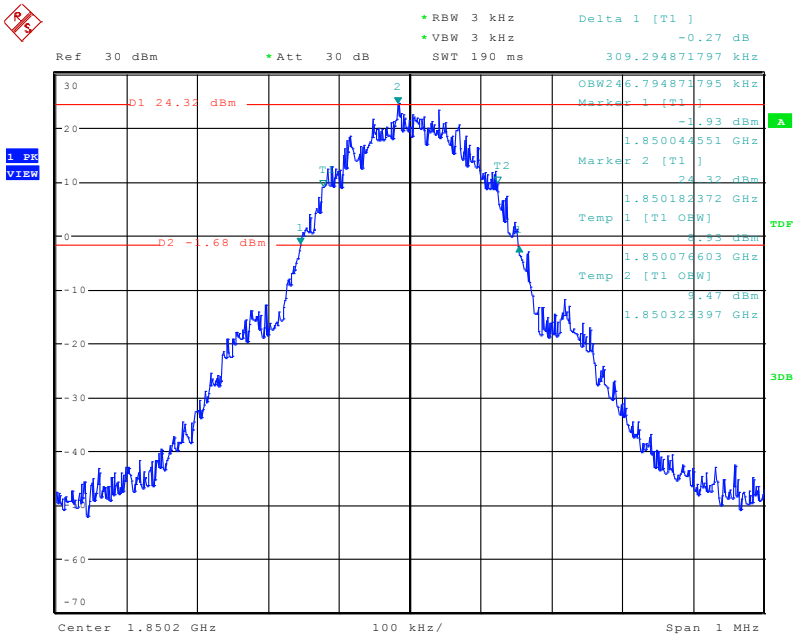
Date: 14.FEB.2017 10:45:46

Occupied Bandwidth (99% and -26dBc) GSM 850 BAND CH 251



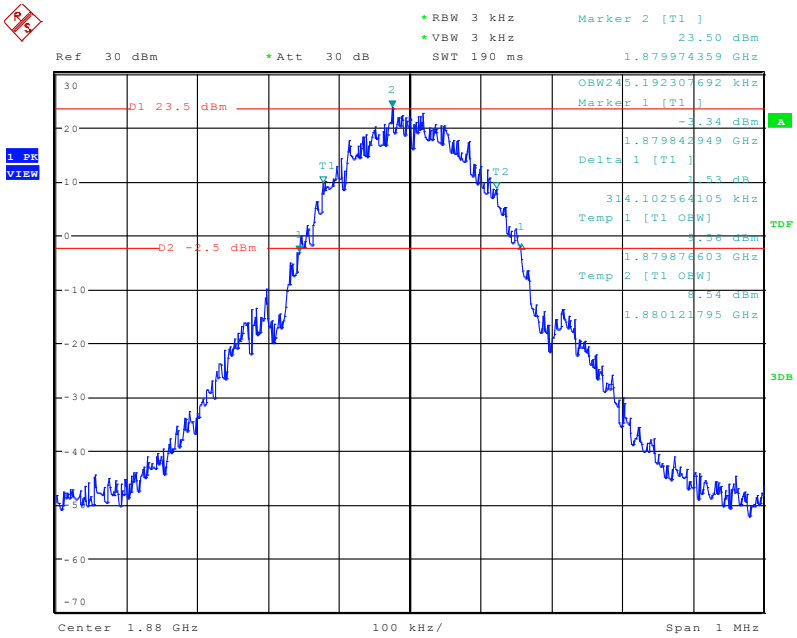
Date: 14.FEB.2017 10:55:58

Occupied Bandwidth (99% and -26dBc) GSM 1900 BAND CH 512



Date: 14.FEB.2017 11:10:36

Occupied Bandwidth (99% and -26dBc) PCS 1900 BAND CH 661



Date: 14.FEB.2017 11:14:29

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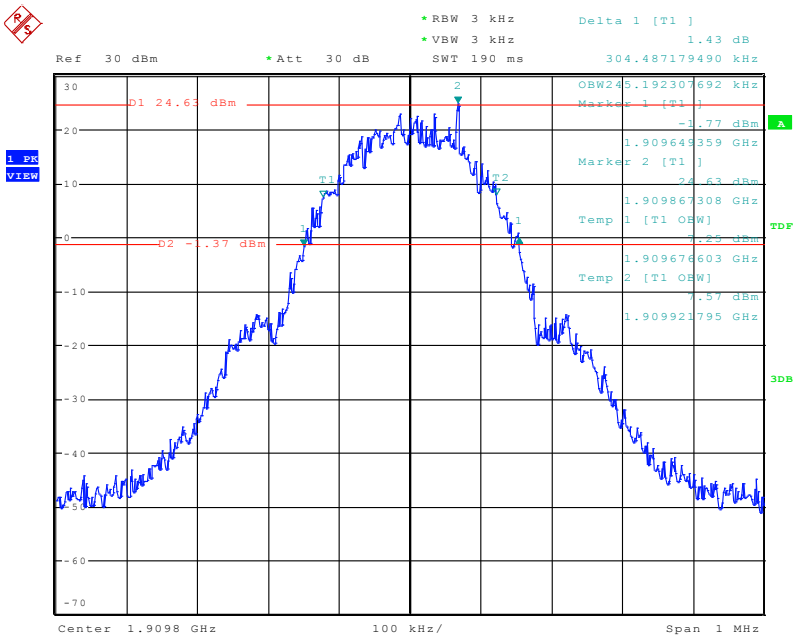
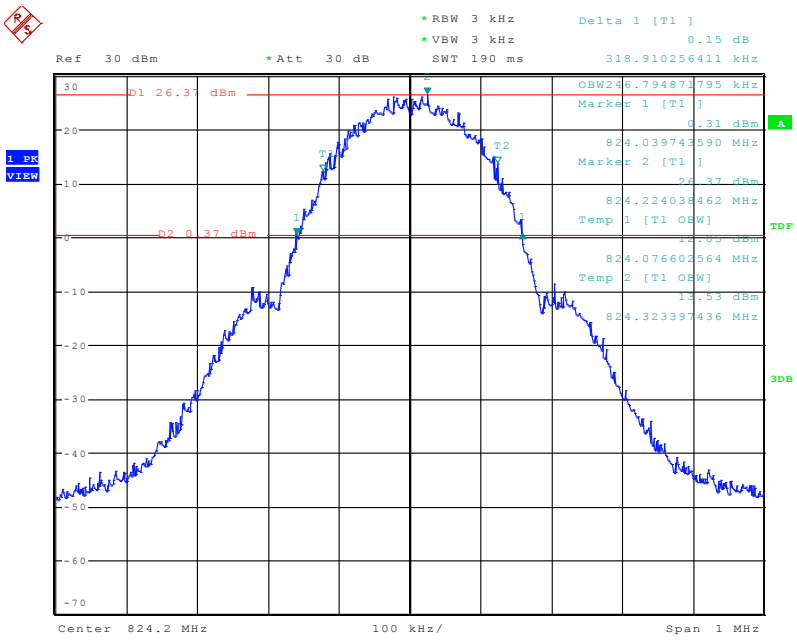


Date: 14.FEB.2017 11:18:38

Occupied Bandwidth (99% and -26dBc) GPRS 850 BAND CH 128



Date: 14.FEB.2017 13:23:59

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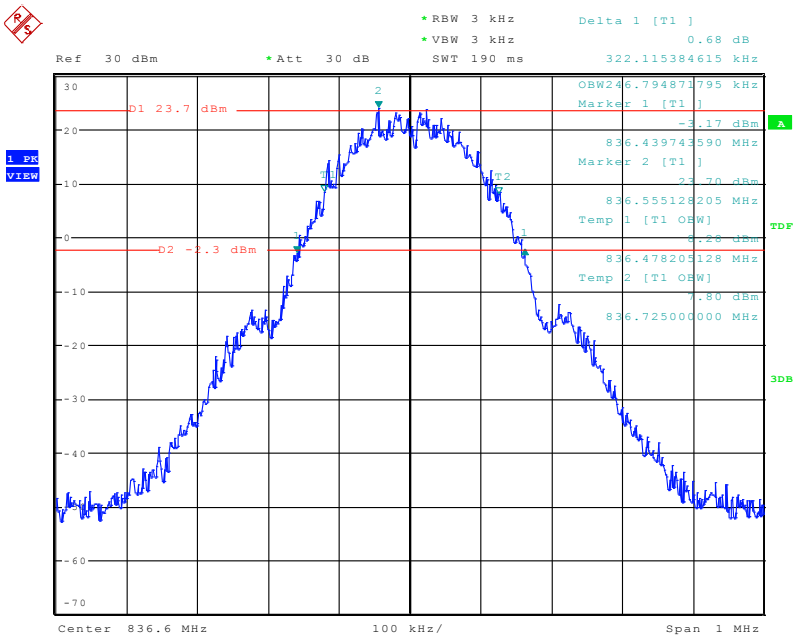
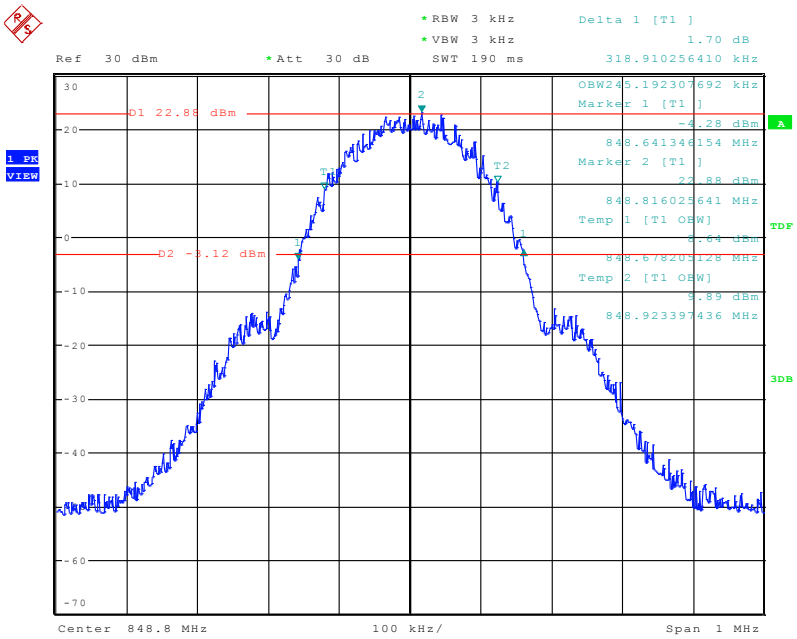


Date: 14.FEB.2017 13:28:55

Occupied Bandwidth (99% and -26dBc) GPRS 850 BAND CH 251



Date: 14.FEB.2017 13:31:22

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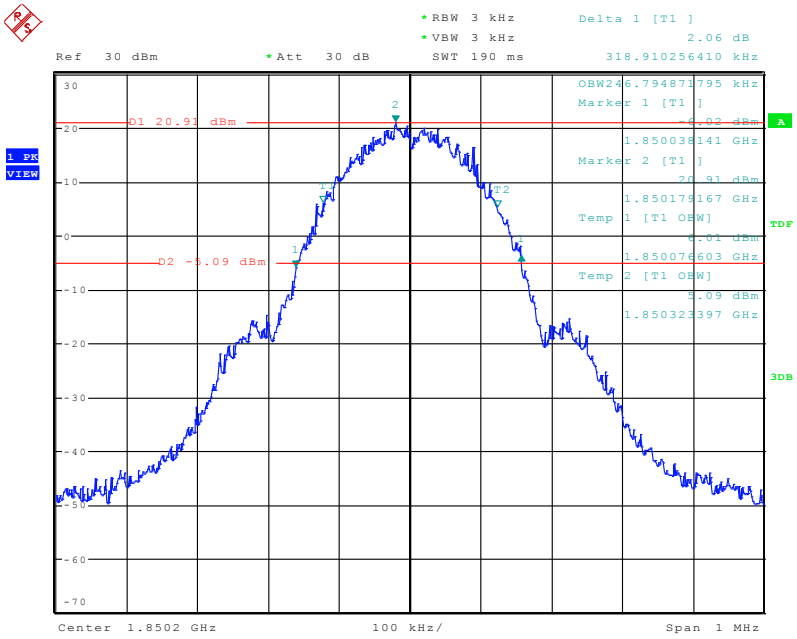
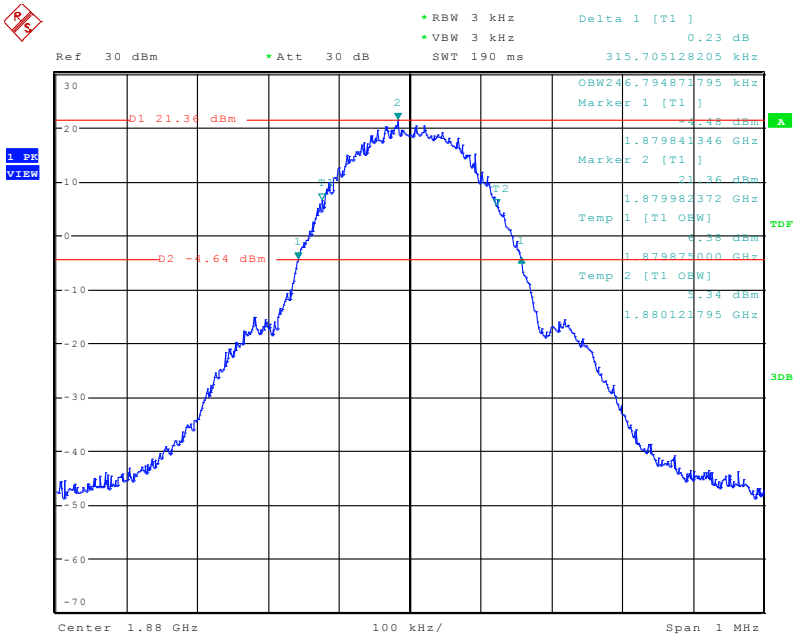


Date: 14.FEB.2017 13:38:33

Occupied Bandwidth (99% and -26dBc) GPRS 1900 BAND CH 661



Date: 14.FEB.2017 13:42:14

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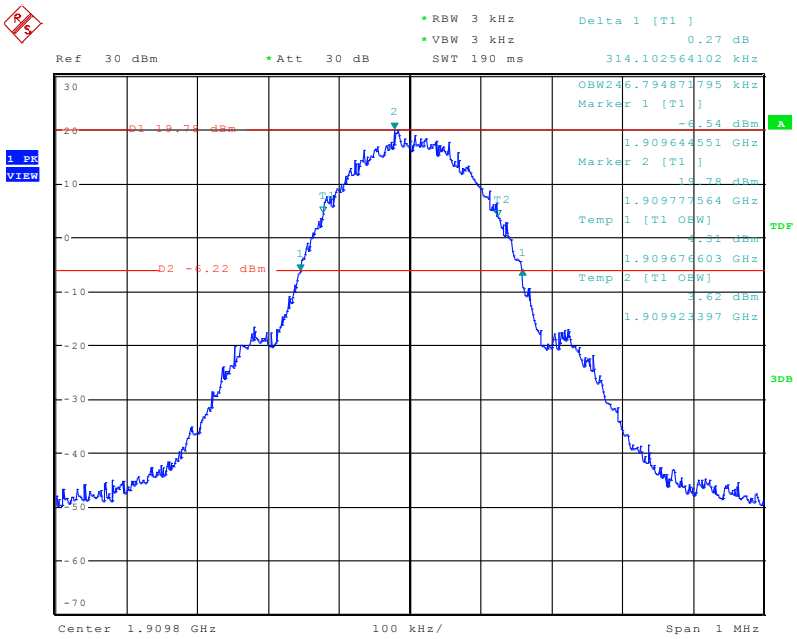
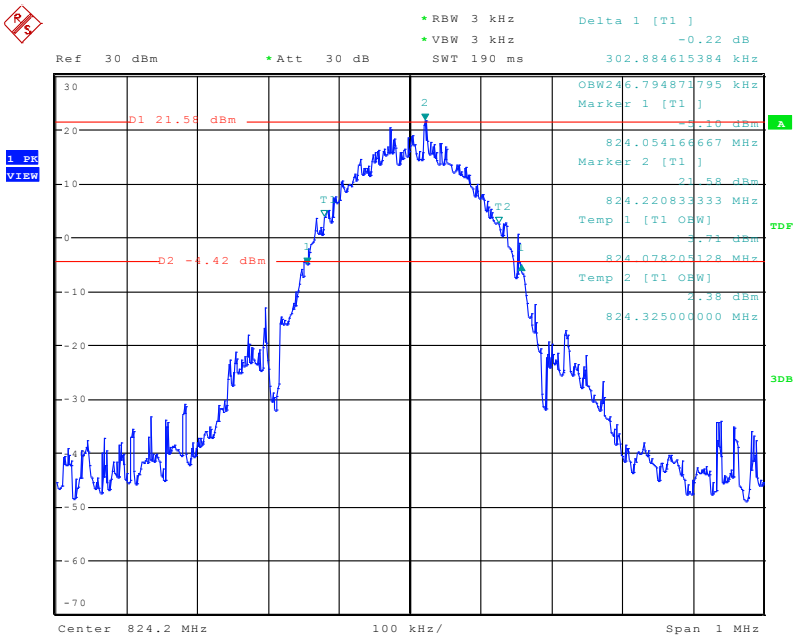


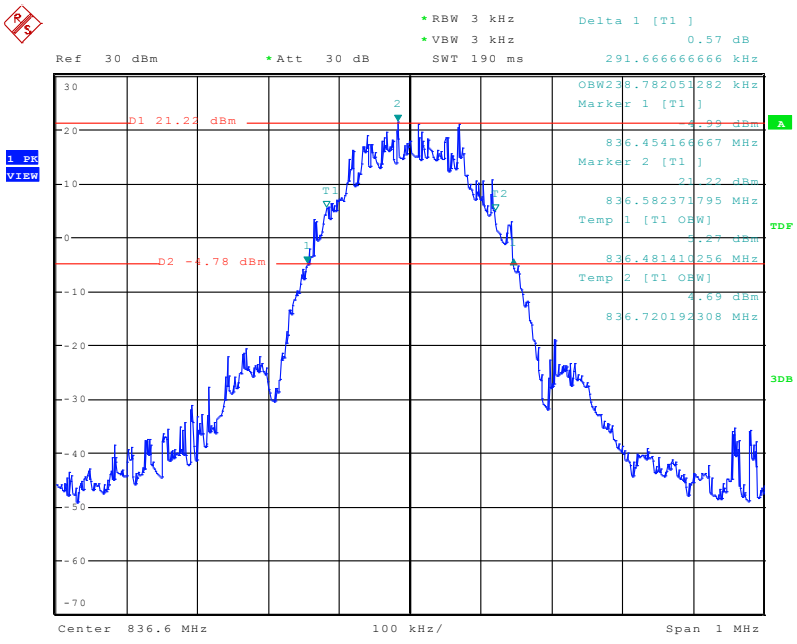
Date: 14.FEB.2017 13:46:46

Occupied Bandwidth (99% and -26dBc) EGPRS 850 BAND CH 128



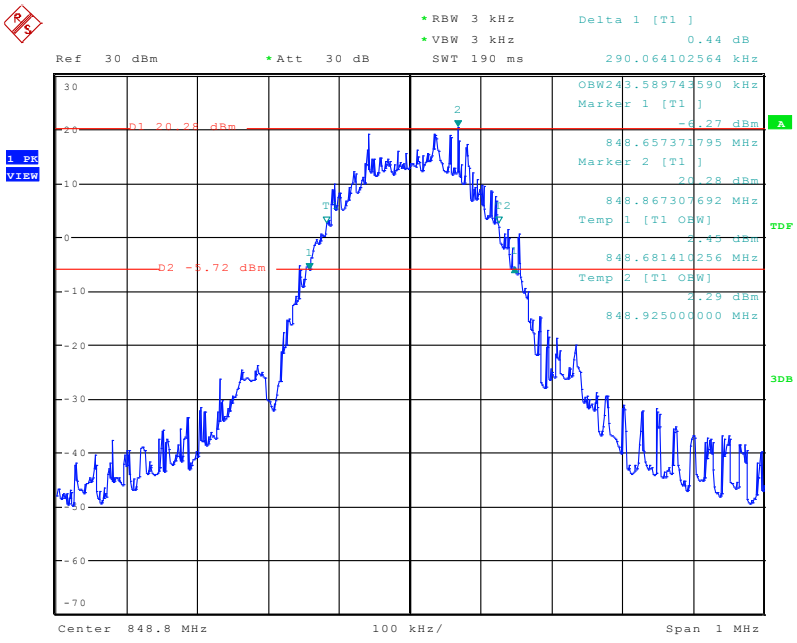
Date: 14.FEB.2017 14:06:11

Occupied Bandwidth (99% and -26dBc) EGPRS 850 BAND CH 190



Date: 14.FEB.2017 14:09:18

Occupied Bandwidth (99% and -26dBc) EGPRS 850 BAND CH 251



Date: 14.FEB.2017 14:12:30

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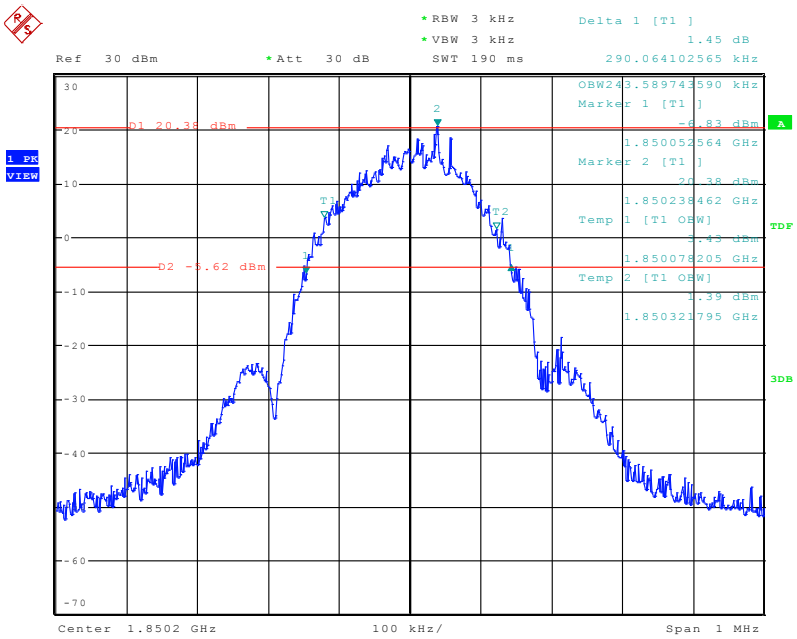
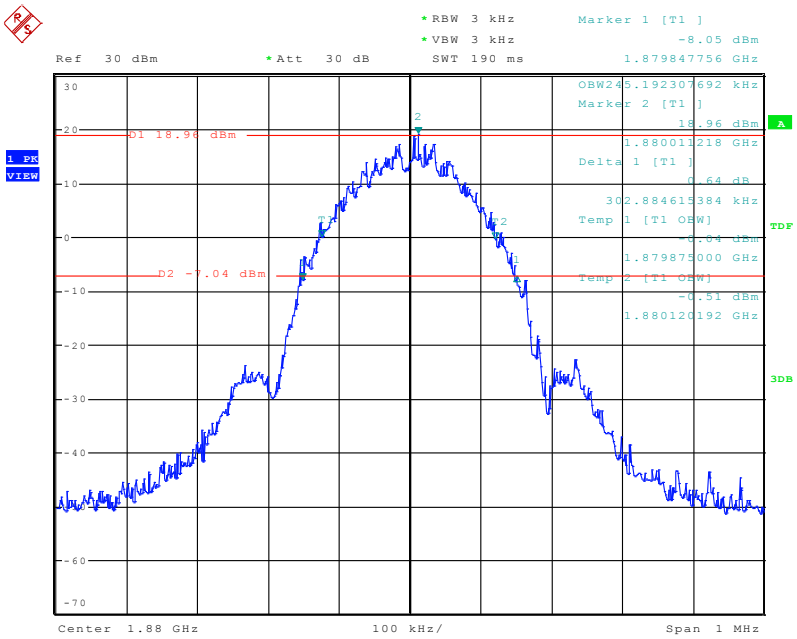


Date: 14.FEB.2017 13:52:40

Occupied Bandwidth (99% and -26dBc) EGPRS 1900 BAND CH 661



Date: 14.FEB.2017 13:57:01

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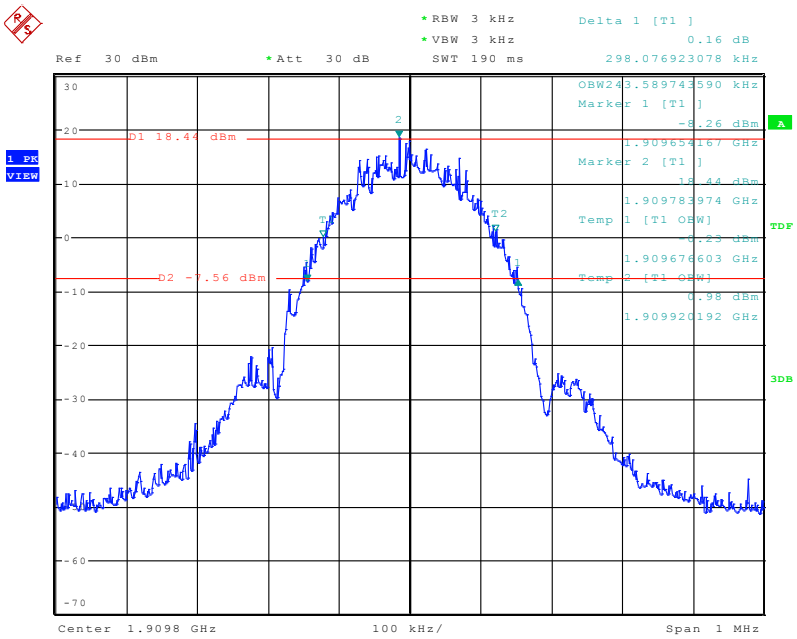
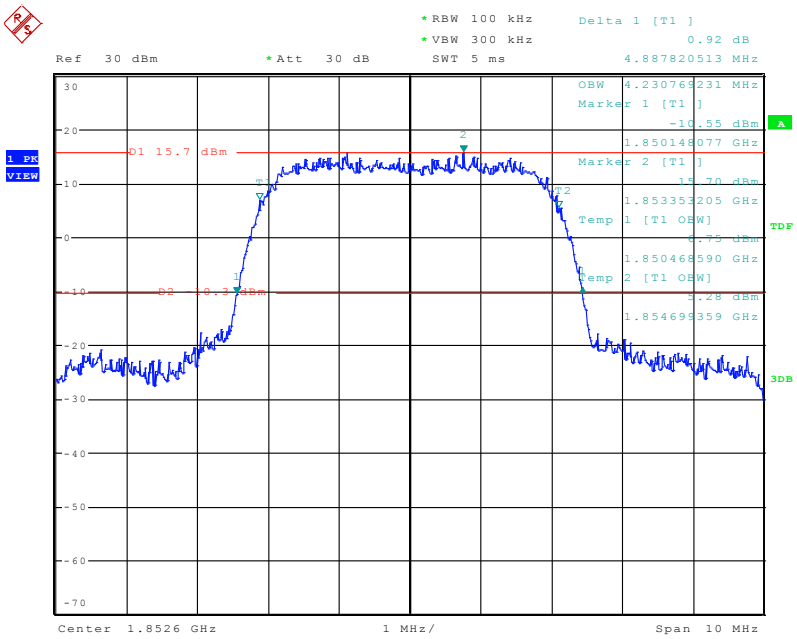


Date: 14.FEB.2017 14:00:41

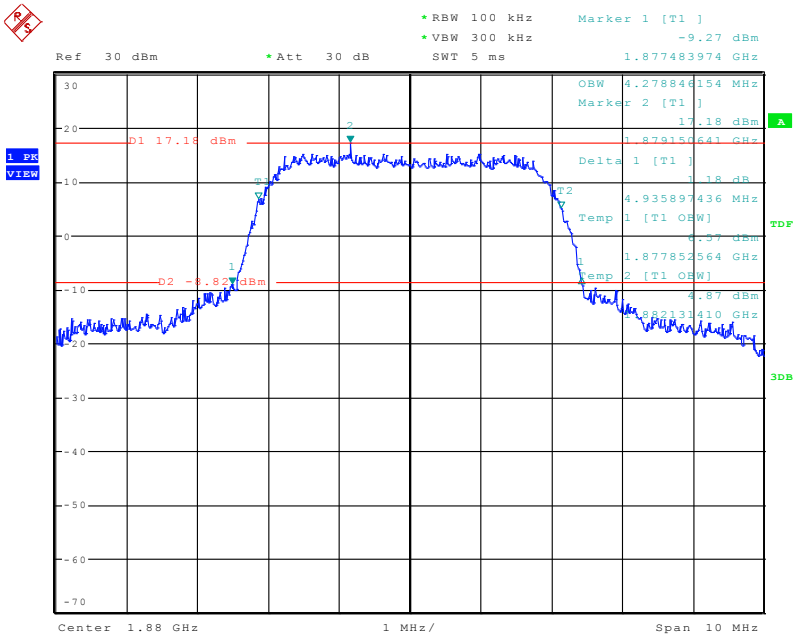
UTRA BANDS

Occupied Bandwidth (99% and -26dBc) WCDMA BAND II CH 9263



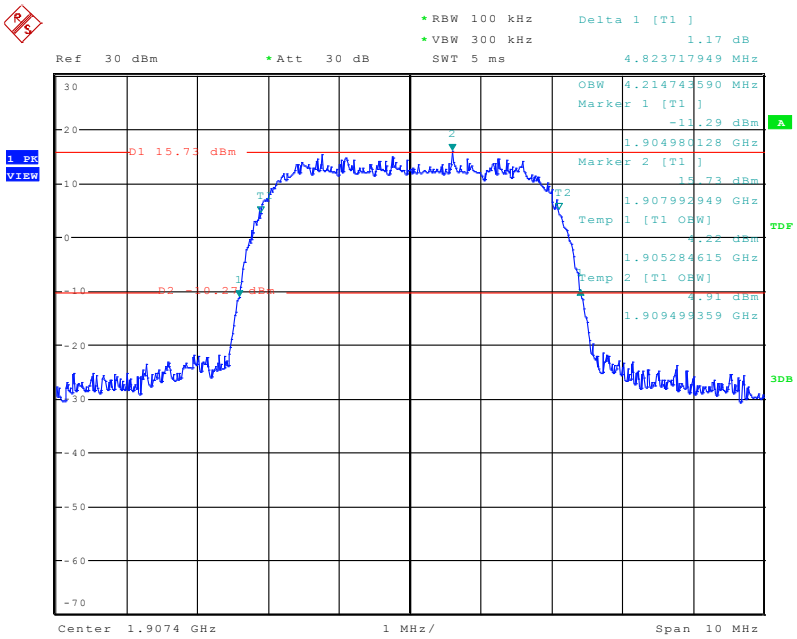
Date: 14.FEB.2017 14:19:55

Occupied Bandwidth (99%and-26dBc) WCDMA BAND II CH 9400



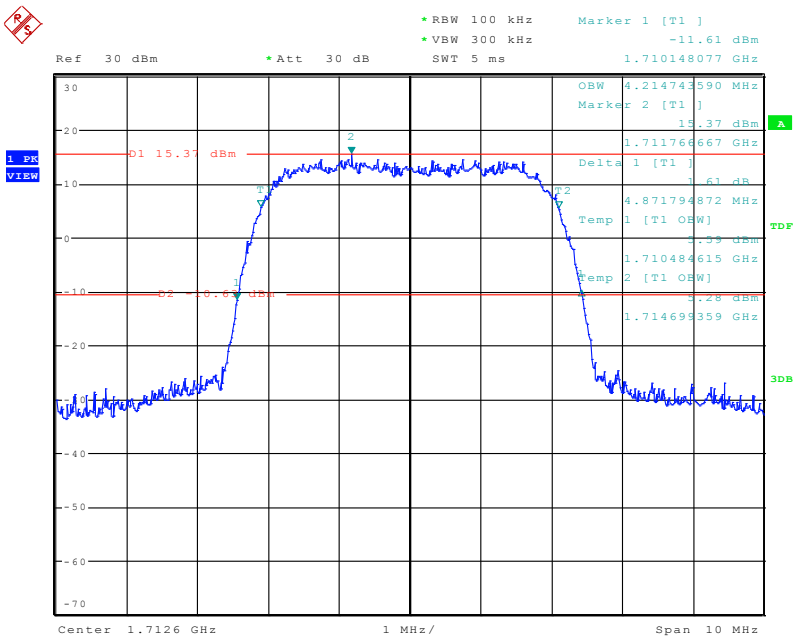
Date: 14.FEB.2017 14:25:21

Occupied Bandwidth (99%and-26dBc) WCDMA BAND II CH 9537



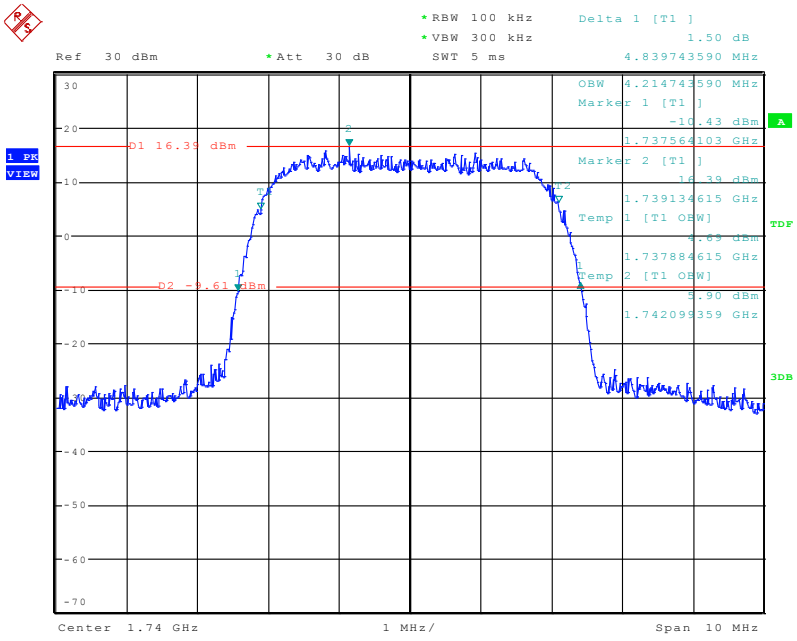
Date: 14.FEB.2017 14:28:26

Occupied Bandwidth (99% and -26dBc) WCDMA BAND IV CH 1313



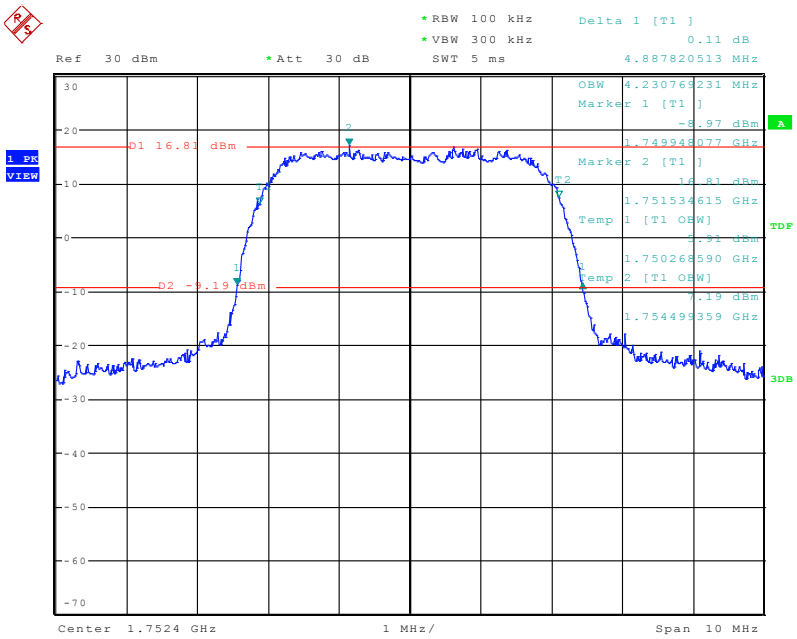
Date: 14.FEB.2017 14:34:16

Occupied Bandwidth (99% and -26dBc) WCDMA BAND IV CH 1450



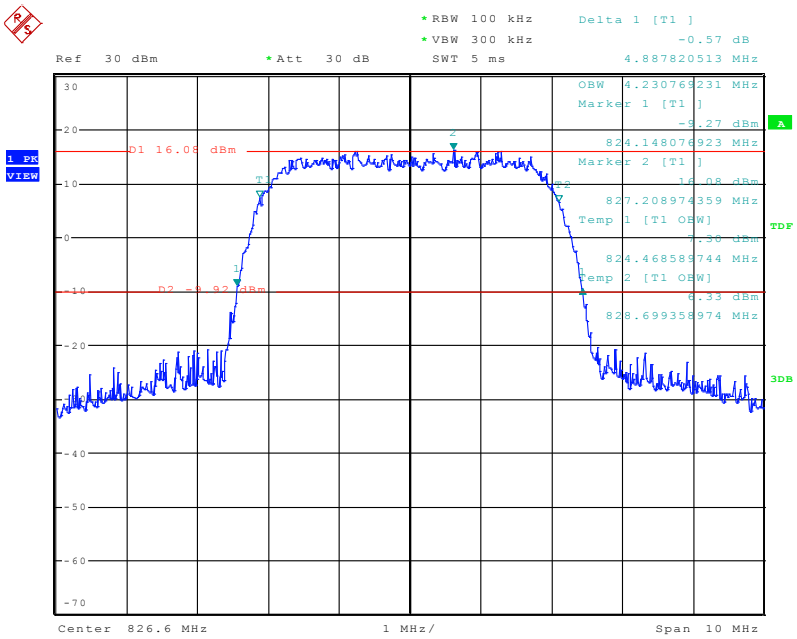
Date: 14.FEB.2017 14:36:13

Occupied Bandwidth (99% and -26dBc) WCDMA BAND IV CH 1512



Date: 14.FEB.2017 14:40:04

Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4133



Date: 14.FEB.2017 14:44:08

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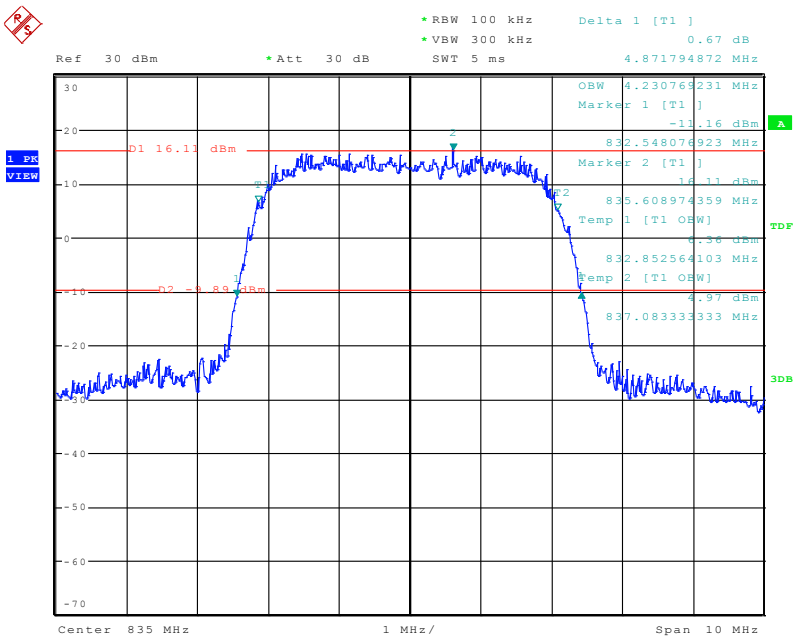
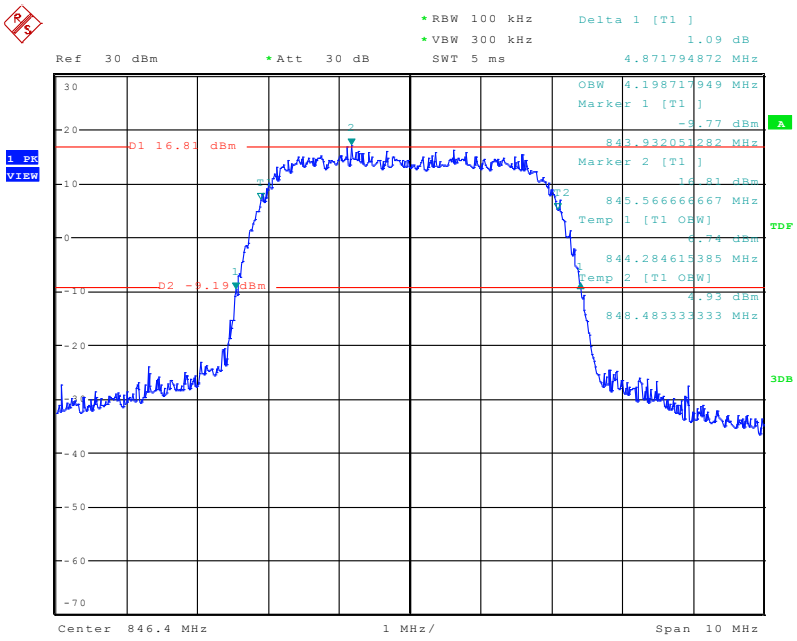


Date: 14.FEB.2017 14:47:43

Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4233



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