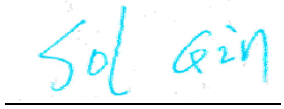
FCC Test Report

Application Purpose	:	Original grant
Applicant Name:	:	TECNO MOBILE LIMITED
FCC ID	:	2ADYY-CXAIR
Equipment Type	:	Mobile phone
Model Name	:	CX Air
Report Number	:	FCC17030129A-5
Standard(S)	:	FCC Part 22H&24E&27 Rules
Date Of Receipt	:	March 13, 2017
Date Of Issue	:	March 27, 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	/	March 27, 2017	Valid	Original Report

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1 CERTIFICATION

Applicant	TECNO MOBILE LIMITED
Address	ROOMS 05-15, 13A/F., SOUTH TOWER, WORLD FINANCE CENTRE, HARBOUR CITY, 17 CANTON ROAD, TSIM SHA TSUI, KOWLOON, 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	TECNO
Test Model	CX Air
Hardware version:	V1.1
Software version:	CX Air-H3713B1-N-170209V2
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(2010). 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:	V1.1
Software version:	CX Air-H3713B1-N-170209V2
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 5 ☒ E-UTRA Band 7
Antenna Type:	Internal Antenna
Antenna gain:	PCS 1900: 0.5dBi GSM850: 0.5dBi UTRA Band 2: 1.3dBi UTRA Band 5: 0.5dBi E-UTRA Band 2: 1.3dBi E-UTRA Band 4: 0.6dBi E-UTRA Band 5 0.5dBi E-UTRA Band 7: 1.85dBi
Battery information:	Li-Polymer Battery : BL-32BT Voltage: 3.85V Capacity: 3200mAh Limited Charge Voltage: 4.4V
Adapter Information:	Adapter: A8-501000 Input: 100~240V 50/60Hz 200mA Output: 5V~1A
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	33.01	33.24
DCS1900	Class 1	GMSK	29.98	30.17
UTRA BAND 2	Class 3	QPSK	21.97	22.88
UTRA BAND 5	Class 3	QPSK	22.44	23.85
E-UTRA Band 2	Class 3	QPSK	21.20	22.50
E-UTRA Band 2	Class 3	16QAM	21.19	22.50
E-UTRA Band 4	Class 3	QPSK	21.08	22.19
E-UTRA Band 4	Class 3	16QAM	21.09	22.18
E-UTRA Band 5	Class 3	QPSK	21.20	22.49
E-UTRA Band 5	Class 3	16QAM	21.19	22.48
E-UTRA Band 7	Class 3	QPSK	21.09	22.20
E-UTRA Band 7	Class 3	16QAM	21.08	22.19

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	CX Ari	2ADYY-CXAIR	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 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 5			
Test Channel	BW(MHz)	UL Channel	Frequency(MHz)
Low Range	1.4	20470	824.7
	3	20415	825.5
	5	20425	826.5
	10	20450	829
Mid Range	1.4/3/5/10	20525	836.5
High Range	1.4	20643	848.3
	3	20635	847.5
	5	20625	846.5
	10	20600	844

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(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/ E-UTRA Band 5):

Test Item	FCC Rule No.	Requirements	Judgement
Effective (Isotropic) Radiated Power	§2.1046, §2.913(a)	EIRP ≤ 7W(38.5dBm)	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

Test limit:

According to §22.913, The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

According to§24.232, Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50 (d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50 (h), Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

See section 4.

Test procedure:

1. The setup of EUT is according with per TIA/EIA Standard 603 D:2010 or KDB971168 D01 v02r02.

2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.

4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

5. ERP/EIRP = PMeas + GT − LC

where:

ERP/EIRP = effective or equivalent radiated power

PMeas = measured transmitter output power from SG

GT = gain of the substitution antenna

LC = cable loss between SG and substitution antenna.

GSM850 BAND:

Mode	Frequency (MHz)	Peak Power	Avg.Burst Power	Tolerance	Duty cycle Factor(dB)	Frame Power(dBm)
GSM850	824.2	**33.24**	**33.01**	0.23	-9	24.01
	836.6	30.12	32.97	0.15	-9	23.97
	848.8	33.10	33.00	0.10	-9	24.00
GPRS850	824.2	29.97	29.86	0.11	-9	20.86
	836.6	30.02	29.87	0.15	-9	20.87
	848.8	30.04	29.95	0.09	-9	20.95
EGPRS850	824.2	27.11	26.66	0.45	-9	17.66
	836.6	27.21	26.97	0.24	-9	17.97
	848.8	27.04	26.96	0.08	-9	17.96

PCS1900 BAND:

Mode	Frequency (MHz)	Peak Power	Tolerance	Avg.Burst Power	Duty cycle Factor(dB)	Frame Power(dBm)
GSM1900	1850.2	**30.17**	**29.98**	0.19	-9	20.98
	1880	30.11	29.95	0.16	-9	20.95
	1909.8	30.14	29.79	0.35	-9	20.79
GPRS1900	1850.2	27.12	26.68	0.44	-9	17.68
	1880	27.24	26.58	0.66	-9	17.58
	1909.8	27.09	26.50	0.59	-9	17.50
EGPRS1900	1850.2	26.23	25.13	1.10	-9	16.13
	1880	26.22	25.16	1.06	-9	16.16
	1909.8	26.19	25.12	1.07	-9	16.12

UTRA BANDS:

BAND 2:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2K	1852.4	**22.88**	**21.97**	0.91
	1880	22.75	21.57	1.18
	1907.6	22.78	21.62	1.16
HSDPA SUBTEST 1	1852.4	22.36	21.00	1.36
	1880	22.82	20.00	2.82
	1907.6	22.21	20.06	2.15
HSUPA SUBTEST 1	1852.4	21.93	20.90	1.03
	1880	22.21	20.01	2.20
	1907.6	22.32	20.08	2.24

BAND 5:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2K	826.4	**23.85**	**22.44**	1.41
	836.4	23.15	22.39	0.76
	846.6	23.10	22.26	0.84
HSDPA SUBTEST 1	826.4	23.20	20.51	2.69
	836.4	23.21	20.57	2.64
	846.6	23.18	20.60	2.58
HSUPA SUBTEST 1	826.4	23.17	21.08	2.09
	836.4	23.20	21.13	2.07
	846.6	23.38	21.16	2.22

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	20.71	22.09	1.38
1.4	18607	1850.7	QPSK	1	MID	20.56	21.64	1.08
1.4	18607	1850.7	QPSK	1	HIGH	20.40	22.01	1.61
1.4	18607	1850.7	QPSK	3	LOW	21.12	21.61	0.49
1.4	18607	1850.7	QPSK	3	MID	20.87	21.68	0.81
1.4	18607	1850.7	QPSK	3	HIGH	20.73	22.36	1.63
1.4	18607	1850.7	QPSK	6	LOW	20.46	22.29	1.83
1.4	18607	1850.7	Q16	1	LOW	20.61	21.80	1.19
1.4	18607	1850.7	Q16	1	MID	21.06	22.21	1.15
1.4	18607	1850.7	Q16	1	HIGH	20.67	22.28	1.61
1.4	18607	1850.7	Q16	3	LOW	20.74	21.95	1.21
1.4	18607	1850.7	Q16	3	MID	20.26	21.97	1.71
1.4	18607	1850.7	Q16	3	HIGH	20.36	21.69	1.33
1.4	18607	1850.7	Q16	6	LOW	20.78	21.59	0.81
1.4	18900	1880	QPSK	1	LOW	21.20	21.70	0.50
1.4	18900	1880	QPSK	1	MID	21.14	21.57	0.43
1.4	18900	1880	QPSK	1	HIGH	20.35	21.54	1.19
1.4	18900	1880	QPSK	3	LOW	20.74	22.10	1.36
1.4	18900	1880	QPSK	3	MID	20.85	21.65	0.80
1.4	18900	1880	QPSK	3	HIGH	20.24	22.16	1.92
1.4	18900	1880	QPSK	6	LOW	20.32	21.59	1.27
1.4	18900	1880	Q16	1	LOW	20.71	22.20	1.49
1.4	18900	1880	Q16	1	MID	20.79	22.38	1.59
1.4	18900	1880	Q16	1	HIGH	21.08	21.89	0.81
1.4	18900	1880	Q16	3	LOW	21.07	22.04	0.97
1.4	18900	1880	Q16	3	MID	20.38	21.94	1.56
1.4	18900	1880	Q16	3	HIGH	20.65	21.65	1.00
1.4	18900	1880	Q16	6	LOW	20.75	21.98	1.23
1.4	19193	1909.3	QPSK	1	LOW	20.26	22.01	1.75
1.4	19193	1909.3	QPSK	1	MID	21.09	21.86	0.77
1.4	19193	1909.3	QPSK	1	HIGH	20.55	22.47	1.92
1.4	19193	1909.3	QPSK	3	LOW	20.23	22.25	2.02
1.4	19193	1909.3	QPSK	3	MID	20.55	21.83	1.28
1.4	19193	1909.3	QPSK	3	HIGH	20.71	21.64	0.93
1.4	19193	1909.3	QPSK	6	LOW	20.42	21.73	1.31

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	19193	1909.3	Q16	1	LOW	20.85	22.44	1.59
1.4	19193	1909.3	Q16	1	MID	20.50	22.00	1.50
1.4	19193	1909.3	Q16	1	HIGH	20.29	21.94	1.65
1.4	19193	1909.3	Q16	3	LOW	20.49	21.81	1.32
1.4	19193	1909.3	Q16	3	MID	21.01	22.37	1.36
1.4	19193	1909.3	Q16	3	HIGH	20.95	22.24	1.29
1.4	19193	1909.3	Q16	6	LOW	20.23	21.83	1.60
3	18615	1851.5	QPSK	1	LOW	20.70	21.99	1.29
3	18615	1851.5	QPSK	1	MID	21.13	21.60	0.47
3	18615	1851.5	QPSK	1	HIGH	20.60	21.92	1.32
3	18615	1851.5	QPSK	8	LOW	20.21	22.38	2.17
3	18615	1851.5	QPSK	8	MID	21.18	21.60	0.42
3	18615	1851.5	QPSK	8	HIGH	20.23	22.16	1.93
3	18615	1851.5	QPSK	15	LOW	21.12	21.88	0.76
3	18615	1851.5	Q16	1	LOW	20.29	22.49	2.20
3	18615	1851.5	Q16	1	MID	20.94	22.24	1.30
3	18615	1851.5	Q16	1	HIGH	20.60	21.72	1.12
3	18615	1851.5	Q16	8	LOW	20.64	21.58	0.94
3	18615	1851.5	Q16	8	MID	20.50	21.99	1.49
3	18615	1851.5	Q16	8	HIGH	20.39	22.10	1.71
3	18615	1851.5	Q16	15	LOW	21.04	21.93	0.89
3	18900	1880	QPSK	1	LOW	20.74	21.68	0.94
3	18900	1880	QPSK	1	MID	20.26	22.43	2.17
3	18900	1880	QPSK	1	HIGH	20.65	22.34	1.69
3	18900	1880	QPSK	8	LOW	20.87	21.73	0.86
3	18900	1880	QPSK	8	MID	20.76	21.69	0.93
3	18900	1880	QPSK	8	HIGH	20.31	21.87	1.56
3	18900	1880	QPSK	15	LOW	20.81	21.63	0.82
3	18900	1880	Q16	1	LOW	20.42	21.68	1.26
3	18900	1880	Q16	1	MID	20.71	21.55	0.84
3	18900	1880	Q16	1	HIGH	20.94	22.07	1.13
3	18900	1880	Q16	8	LOW	20.81	21.99	1.18
3	18900	1880	Q16	8	MID	20.62	22.25	1.63
3	18900	1880	Q16	8	HIGH	20.29	22.35	2.06
3	18900	1880	Q16	15	LOW	20.64	22.05	1.41
3	19185	1908.5	QPSK	1	LOW	20.34	22.12	1.78
3	19185	1908.5	QPSK	1	MID	20.50	22.48	1.98

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
3	19185	1908.5	QPSK	1	HIGH	20.79	22.23	1.44
3	19185	1908.5	QPSK	8	LOW	20.38	21.93	1.55
3	19185	1908.5	QPSK	8	MID	21.10	22.34	1.24
3	19185	1908.5	QPSK	8	HIGH	20.78	22.03	1.25
3	19185	1908.5	QPSK	15	LOW	20.39	21.69	1.30
3	19185	1908.5	Q16	1	LOW	20.78	22.23	1.45
3	19185	1908.5	Q16	1	MID	20.49	22.39	1.90
3	19185	1908.5	Q16	1	HIGH	20.62	22.06	1.44
3	19185	1908.5	Q16	8	LOW	21.00	22.37	1.37
3	19185	1908.5	Q16	8	MID	20.89	21.75	0.86
3	19185	1908.5	Q16	8	HIGH	20.95	22.18	1.23
3	19185	1908.5	Q16	15	LOW	20.93	22.01	1.08
5	18625	1852.5	QPSK	1	LOW	21.02	22.11	1.09
5	18625	1852.5	QPSK	1	MID	21.08	22.27	1.19
5	18625	1852.5	QPSK	1	HIGH	20.55	22.26	1.71
5	18625	1852.5	QPSK	12	LOW	20.46	21.54	1.08
5	18625	1852.5	QPSK	12	MID	20.46	21.79	1.33
5	18625	1852.5	QPSK	12	HIGH	20.72	22.05	1.33
5	18625	1852.5	QPSK	25	LOW	21.00	22.34	1.34
5	18625	1852.5	Q16	1	LOW	20.27	21.78	1.51
5	18625	1852.5	Q16	1	MID	20.62	22.07	1.45
5	18625	1852.5	Q16	1	HIGH	20.37	22.45	2.08
5	18625	1852.5	Q16	12	LOW	20.87	21.69	0.82
5	18625	1852.5	Q16	12	MID	20.39	21.96	1.57
5	18625	1852.5	Q16	12	HIGH	21.08	22.36	1.28
5	18625	1852.5	Q16	25	LOW	20.22	22.46	2.24
5	18900	1880	QPSK	1	LOW	20.48	21.96	1.48
5	18900	1880	QPSK	1	MID	20.44	21.63	1.19
5	18900	1880	QPSK	1	HIGH	20.91	21.86	0.95
5	18900	1880	QPSK	12	LOW	20.31	21.84	1.53
5	18900	1880	QPSK	12	MID	20.56	21.99	1.43
5	18900	1880	QPSK	12	HIGH	21.15	22.45	1.30
5	18900	1880	QPSK	25	LOW	20.57	21.95	1.38
5	18900	1880	Q16	1	LOW	20.28	21.60	1.32
5	18900	1880	Q16	1	MID	20.25	22.19	1.94
5	18900	1880	Q16	1	HIGH	21.10	22.22	1.12
5	18900	1880	Q16	12	LOW	20.91	21.72	0.81

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	18900	1880	Q16	12	MID	20.54	22.35	1.81
5	18900	1880	Q16	12	HIGH	21.16	21.98	0.82
5	18900	1880	Q16	25	LOW	20.42	22.50	2.08
5	19175	1907.5	QPSK	1	LOW	20.73	22.11	1.38
5	19175	1907.5	QPSK	1	MID	20.98	21.70	0.72
5	19175	1907.5	QPSK	1	HIGH	20.37	21.61	1.24
5	19175	1907.5	QPSK	12	LOW	20.68	22.48	1.80
5	19175	1907.5	QPSK	12	MID	20.69	22.45	1.76
5	19175	1907.5	QPSK	12	HIGH	20.68	22.22	1.54
5	19175	1907.5	QPSK	25	LOW	21.19	22.39	1.20
5	19175	1907.5	Q16	1	LOW	20.81	21.77	0.96
5	19175	1907.5	Q16	1	MID	20.66	21.79	1.13
5	19175	1907.5	Q16	1	HIGH	21.17	21.91	0.74
5	19175	1907.5	Q16	12	LOW	20.27	22.05	1.78
5	19175	1907.5	Q16	12	MID	20.86	21.58	0.72
5	19175	1907.5	Q16	12	HIGH	20.79	21.63	0.84
5	19175	1907.5	Q16	25	LOW	21.16	22.19	1.03
10	18650	1855	QPSK	1	LOW	20.97	22.18	1.21
10	18650	1855	QPSK	1	MID	20.59	21.64	1.05
10	18650	1855	QPSK	1	HIGH	20.47	22.16	1.69
10	18650	1855	QPSK	25	LOW	20.74	21.70	0.96
10	18650	1855	QPSK	25	MID	21.01	22.44	1.43
10	18650	1855	QPSK	25	HIGH	20.26	21.97	1.71
10	18650	1855	QPSK	50	LOW	20.93	22.45	1.52
10	18650	1855	Q16	1	LOW	20.76	21.93	1.17
10	18650	1855	Q16	1	MID	20.34	21.69	1.35
10	18650	1855	Q16	1	HIGH	20.87	21.99	1.12
10	18650	1855	Q16	25	LOW	20.74	21.75	1.01
10	18650	1855	Q16	25	MID	20.68	22.31	1.63
10	18650	1855	Q16	25	HIGH	20.47	21.69	1.22
10	18650	1855	Q16	50	LOW	20.28	21.84	1.56
10	18900	1880	QPSK	1	LOW	20.31	21.82	1.51
10	18900	1880	QPSK	1	MID	21.00	21.99	0.99
10	18900	1880	QPSK	1	HIGH	20.76	22.42	1.66
10	18900	1880	QPSK	25	LOW	20.55	21.56	1.01
10	18900	1880	QPSK	25	MID	20.95	22.26	1.31
10	18900	1880	QPSK	25	HIGH	20.35	21.61	1.26

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	18900	1880	QPSK	50	LOW	20.81	22.31	1.50
10	18900	1880	Q16	1	LOW	20.85	22.27	1.42
10	18900	1880	Q16	1	MID	20.73	21.51	0.78
10	18900	1880	Q16	1	HIGH	20.83	21.51	0.68
10	18900	1880	Q16	25	LOW	20.42	21.51	1.09
10	18900	1880	Q16	25	MID	20.81	22.15	1.34
10	18900	1880	Q16	25	HIGH	20.85	22.27	1.42
10	18900	1880	Q16	50	LOW	20.22	22.24	2.02
10	19150	1905	QPSK	1	LOW	21.04	22.45	1.41
10	19150	1905	QPSK	1	MID	20.81	22.24	1.43
10	19150	1905	QPSK	1	HIGH	20.91	22.00	1.09
10	19150	1905	QPSK	25	LOW	21.03	21.84	0.81
10	19150	1905	QPSK	25	MID	20.38	22.00	1.62
10	19150	1905	QPSK	25	HIGH	20.35	21.98	1.63
10	19150	1905	QPSK	50	LOW	20.38	21.94	1.56
10	19150	1905	Q16	1	LOW	20.21	21.91	1.70
10	19150	1905	Q16	1	MID	21.08	22.27	1.19
10	19150	1905	Q16	1	HIGH	20.69	22.24	1.55
10	19150	1905	Q16	25	LOW	21.01	21.54	0.53
10	19150	1905	Q16	25	MID	20.62	21.57	0.95
10	19150	1905	Q16	25	HIGH	20.95	21.54	0.59
10	19150	1905	Q16	50	LOW	20.86	22.33	1.47
15	18675	1857.5	QPSK	1	LOW	20.62	22.08	1.46
15	18675	1857.5	QPSK	1	MID	21.12	21.97	0.85
15	18675	1857.5	QPSK	1	HIGH	20.80	21.89	1.09
15	18675	1857.5	QPSK	36	LOW	20.42	22.10	1.68
15	18675	1857.5	QPSK	36	MID	20.67	22.21	1.54
15	18675	1857.5	QPSK	36	HIGH	20.58	22.36	1.78
15	18675	1857.5	QPSK	75	LOW	20.99	22.47	1.48
15	18675	1857.5	Q16	1	LOW	20.91	21.70	0.79
15	18675	1857.5	Q16	1	MID	20.88	21.94	1.06
15	18675	1857.5	Q16	1	HIGH	20.77	22.34	1.57
15	18675	1857.5	Q16	36	LOW	21.18	21.68	0.50
15	18675	1857.5	Q16	36	MID	20.23	22.21	1.98
15	18675	1857.5	Q16	36	HIGH	20.72	22.02	1.30
15	18675	1857.5	Q16	75	LOW	20.73	22.16	1.43
15	18900	1880	QPSK	1	LOW	20.43	21.89	1.46

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
15	18900	1880	QPSK	1	MID	20.31	21.51	1.20
15	18900	1880	QPSK	1	HIGH	20.99	22.50	1.51
15	18900	1880	QPSK	36	LOW	20.59	22.00	1.41
15	18900	1880	QPSK	36	MID	21.07	22.30	1.23
15	18900	1880	QPSK	36	HIGH	20.28	21.85	1.57
15	18900	1880	QPSK	75	LOW	20.27	21.69	1.42
15	18900	1880	Q16	1	LOW	20.63	21.59	0.96
15	18900	1880	Q16	1	MID	20.93	22.14	1.21
15	18900	1880	Q16	1	HIGH	20.32	22.15	1.83
15	18900	1880	Q16	36	LOW	21.12	21.97	0.85
15	18900	1880	Q16	36	MID	20.44	21.52	1.08
15	18900	1880	Q16	36	HIGH	20.35	21.55	1.20
15	18900	1880	Q16	75	LOW	21.17	22.47	1.30
15	19125	1902.5	QPSK	1	LOW	20.36	22.19	1.83
15	19125	1902.5	QPSK	1	MID	20.74	21.60	0.86
15	19125	1902.5	QPSK	1	HIGH	20.53	21.98	1.45
15	19125	1902.5	QPSK	36	LOW	20.77	21.97	1.20
15	19125	1902.5	QPSK	36	MID	20.88	22.30	1.42
15	19125	1902.5	QPSK	36	HIGH	20.48	21.52	1.04
15	19125	1902.5	QPSK	75	LOW	21.15	22.14	0.99
15	19125	1902.5	Q16	1	LOW	20.98	21.88	0.90
15	19125	1902.5	Q16	1	MID	20.35	22.30	1.95
15	19125	1902.5	Q16	1	HIGH	20.56	22.30	1.74
15	19125	1902.5	Q16	36	LOW	20.82	21.64	0.82
15	19125	1902.5	Q16	36	MID	21.12	21.91	0.79
15	19125	1902.5	Q16	36	HIGH	21.05	21.73	0.68
15	19125	1902.5	Q16	75	LOW	20.40	22.44	2.04
20	18700	1860	QPSK	1	LOW	21.13	21.75	0.62
20	18700	1860	QPSK	1	MID	20.86	22.42	1.56
20	18700	1860	QPSK	1	HIGH	20.65	22.11	1.46
20	18700	1860	QPSK	50	LOW	20.99	22.33	1.34
20	18700	1860	QPSK	50	MID	20.72	21.81	1.09
20	18700	1860	QPSK	50	HIGH	20.77	21.93	1.16
20	18700	1860	QPSK	100	LOW	20.61	21.74	1.13
20	18700	1860	Q16	1	LOW	20.91	21.88	0.97
20	18700	1860	Q16	1	MID	20.22	22.04	1.82
20	18700	1860	Q16	1	HIGH	20.82	21.71	0.89

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
20	18700	1860	Q16	50	LOW	20.58	22.14	1.56
20	18700	1860	Q16	50	MID	20.51	21.79	1.28
20	18700	1860	Q16	50	HIGH	21.09	21.52	0.43
20	18700	1860	Q16	100	LOW	20.94	22.30	1.36
20	18900	1880	QPSK	1	LOW	20.35	22.14	1.79
20	18900	1880	QPSK	1	MID	20.67	21.82	1.15
20	18900	1880	QPSK	1	HIGH	20.42	22.44	2.02
20	18900	1880	QPSK	50	LOW	20.20	21.82	1.62
20	18900	1880	QPSK	50	MID	20.67	21.81	1.14
20	18900	1880	QPSK	50	HIGH	20.90	22.21	1.31
20	18900	1880	QPSK	100	LOW	20.22	22.27	2.05
20	18900	1880	Q16	1	LOW	20.61	22.48	1.87
20	18900	1880	Q16	1	MID	20.27	21.90	1.63
20	18900	1880	Q16	1	HIGH	20.61	21.67	1.06
20	18900	1880	Q16	50	LOW	20.21	22.31	2.10
20	18900	1880	Q16	50	MID	21.07	21.70	0.63
20	18900	1880	Q16	50	HIGH	21.09	21.68	0.59
20	18900	1880	Q16	100	LOW	20.32	21.99	1.67
20	19100	1900	QPSK	1	LOW	20.33	22.32	1.99
20	19100	1900	QPSK	1	MID	20.40	22.26	1.86
20	19100	1900	QPSK	1	HIGH	20.54	21.62	1.08
20	19100	1900	QPSK	50	LOW	21.09	22.39	1.30
20	19100	1900	QPSK	50	MID	20.47	21.59	1.12
20	19100	1900	QPSK	50	HIGH	20.25	21.52	1.27
20	19100	1900	QPSK	100	LOW	20.78	21.96	1.18
20	19100	1900	Q16	1	LOW	20.63	22.14	1.51
20	19100	1900	Q16	1	MID	20.93	22.13	1.20
20	19100	1900	Q16	1	HIGH	20.56	22.39	1.83
20	19100	1900	Q16	50	LOW	20.44	22.15	1.71
20	19100	1900	Q16	50	MID	20.78	21.72	0.94
20	19100	1900	Q16	50	HIGH	20.52	22.44	1.92
20	19100	1900	Q16	100	LOW	21.10	22.10	1.00

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	20.37	21.71	1.34
1.4	19957	1710.7	QPSK	1	MID	20.11	21.28	1.17
1.4	19957	1710.7	QPSK	1	HIGH	20.35	21.68	1.33
1.4	19957	1710.7	QPSK	3	LOW	20.34	21.36	1.02
1.4	19957	1710.7	QPSK	3	MID	21.03	21.23	0.20
1.4	19957	1710.7	QPSK	3	HIGH	20.51	21.66	1.15
1.4	19957	1710.7	QPSK	6	LOW	20.92	21.49	0.57
1.4	19957	1710.7	Q16	1	LOW	20.16	21.51	1.35
1.4	19957	1710.7	Q16	1	MID	20.27	21.98	1.71
1.4	19957	1710.7	Q16	1	HIGH	20.54	21.36	0.82
1.4	19957	1710.7	Q16	3	LOW	20.70	21.22	0.52
1.4	19957	1710.7	Q16	3	MID	20.23	21.52	1.29
1.4	19957	1710.7	Q16	3	HIGH	20.57	22.15	1.58
1.4	19957	1710.7	Q16	6	LOW	20.93	21.99	1.06
1.4	20393	1754.3	QPSK	1	LOW	20.59	21.51	0.92
1.4	20393	1754.3	QPSK	1	MID	21.02	21.64	0.62
1.4	20393	1754.3	QPSK	1	HIGH	21.02	21.80	0.78
1.4	20393	1754.3	QPSK	3	LOW	21.08	21.35	0.27
1.4	20393	1754.3	QPSK	3	MID	20.15	22.11	1.96
1.4	20393	1754.3	QPSK	3	HIGH	20.91	21.92	1.01
1.4	20393	1754.3	QPSK	6	LOW	20.55	21.75	1.20
1.4	20393	1754.3	Q16	1	LOW	20.30	21.33	1.03
1.4	20393	1754.3	Q16	1	MID	20.34	21.85	1.51
1.4	20393	1754.3	Q16	1	HIGH	20.76	21.52	0.76
1.4	20393	1754.3	Q16	3	LOW	20.98	21.24	0.26
1.4	20393	1754.3	Q16	3	MID	20.21	22.08	1.87
1.4	20393	1754.3	Q16	3	HIGH	20.20	21.61	1.41
1.4	20393	1754.3	Q16	6	LOW	20.73	21.97	1.24
1.4	20175	1732.5	QPSK	1	LOW	21.01	21.42	0.41
1.4	20175	1732.5	QPSK	1	MID	21.07	21.84	0.77
1.4	20175	1732.5	QPSK	1	HIGH	21.00	21.22	0.22
1.4	20175	1732.5	QPSK	3	LOW	20.83	21.66	0.83
1.4	20175	1732.5	QPSK	3	MID	20.30	22.10	1.80
1.4	20175	1732.5	QPSK	3	HIGH	20.51	21.45	0.94
1.4	20175	1732.5	QPSK	6	LOW	20.56	21.28	0.72
1.4	20175	1732.5	Q16	1	LOW	20.52	21.38	0.86

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	20175	1732.5	Q16	1	MID	20.35	22.11	1.76
1.4	20175	1732.5	Q16	1	HIGH	20.63	21.63	1.00
1.4	20175	1732.5	Q16	3	LOW	20.13	21.74	1.61
1.4	20175	1732.5	Q16	3	MID	20.15	22.13	1.98
1.4	20175	1732.5	Q16	3	HIGH	20.38	21.33	0.95
1.4	20175	1732.5	Q16	6	LOW	20.82	22.09	1.27
3	19965	1711.5	QPSK	1	LOW	20.67	22.15	1.48
3	19965	1711.5	QPSK	1	MID	20.73	21.31	0.58
3	19965	1711.5	QPSK	1	HIGH	20.59	21.70	1.11
3	19965	1711.5	QPSK	8	LOW	20.34	21.62	1.28
3	19965	1711.5	QPSK	8	MID	20.45	21.68	1.23
3	19965	1711.5	QPSK	8	HIGH	20.63	22.03	1.40
3	19965	1711.5	QPSK	15	LOW	20.65	22.17	1.52
3	19965	1711.5	Q16	1	LOW	20.96	21.53	0.57
3	19965	1711.5	Q16	1	MID	20.16	21.30	1.14
3	19965	1711.5	Q16	1	HIGH	20.30	21.54	1.24
3	19965	1711.5	Q16	8	LOW	20.46	21.50	1.04
3	19965	1711.5	Q16	8	MID	20.61	21.42	0.81
3	19965	1711.5	Q16	8	HIGH	20.98	21.85	0.87
3	19965	1711.5	Q16	15	LOW	20.43	22.00	1.57
3	20385	1753.5	QPSK	1	LOW	20.67	21.67	1.00
3	20385	1753.5	QPSK	1	MID	21.06	21.86	0.80
3	20385	1753.5	QPSK	1	HIGH	20.30	22.10	1.80
3	20385	1753.5	QPSK	8	LOW	20.47	21.42	0.95
3	20385	1753.5	QPSK	8	MID	21.04	21.27	0.23
3	20385	1753.5	QPSK	8	HIGH	20.85	21.81	0.96
3	20385	1753.5	QPSK	15	LOW	20.70	21.67	0.97
3	20385	1753.5	Q16	1	LOW	20.57	21.38	0.81
3	20385	1753.5	Q16	1	MID	20.67	21.38	0.71
3	20385	1753.5	Q16	1	HIGH	20.78	22.05	1.27
3	20385	1753.5	Q16	8	LOW	20.59	21.87	1.28
3	20385	1753.5	Q16	8	MID	20.72	21.77	1.05
3	20385	1753.5	Q16	8	HIGH	20.61	21.35	0.74
3	20385	1753.5	Q16	15	LOW	20.21	22.01	1.80
3	20175	1732.5	QPSK	1	LOW	20.35	21.93	1.58
3	20175	1732.5	QPSK	1	MID	20.39	21.79	1.40
3	20175	1732.5	QPSK	1	HIGH	21.00	21.25	0.25

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
3	20175	1732.5	QPSK	8	LOW	20.34	21.65	1.31
3	20175	1732.5	QPSK	8	MID	20.57	21.52	0.95
3	20175	1732.5	QPSK	8	HIGH	20.45	21.83	1.38
3	20175	1732.5	QPSK	15	LOW	20.24	21.52	1.28
3	20175	1732.5	Q16	1	LOW	20.25	21.61	1.36
3	20175	1732.5	Q16	1	MID	20.52	21.95	1.43
3	20175	1732.5	Q16	1	HIGH	20.54	21.61	1.07
3	20175	1732.5	Q16	8	LOW	20.34	21.40	1.06
3	20175	1732.5	Q16	8	MID	21.01	21.30	0.29
3	20175	1732.5	Q16	8	HIGH	20.86	21.99	1.13
3	20175	1732.5	Q16	15	LOW	20.17	21.36	1.19
5	19975	1712.5	QPSK	1	LOW	20.53	21.25	0.72
5	19975	1712.5	QPSK	1	MID	20.41	21.36	0.95
5	19975	1712.5	QPSK	1	HIGH	20.47	21.61	1.14
5	19975	1712.5	QPSK	12	LOW	20.94	21.84	0.90
5	19975	1712.5	QPSK	12	MID	20.72	21.45	0.73
5	19975	1712.5	QPSK	12	HIGH	20.14	22.02	1.88
5	19975	1712.5	QPSK	25	LOW	20.85	22.17	1.32
5	19975	1712.5	Q16	1	LOW	20.52	22.16	1.64
5	19975	1712.5	Q16	1	MID	20.64	21.39	0.75
5	19975	1712.5	Q16	1	HIGH	20.61	21.75	1.14
5	19975	1712.5	Q16	12	LOW	20.70	22.05	1.35
5	19975	1712.5	Q16	12	MID	20.68	21.60	0.92
5	19975	1712.5	Q16	12	HIGH	20.27	21.40	1.13
5	19975	1712.5	Q16	25	LOW	20.50	22.07	1.57
5	20375	1752.5	QPSK	1	LOW	20.92	22.09	1.17
5	20375	1752.5	QPSK	1	MID	20.90	21.69	0.79
5	20375	1752.5	QPSK	1	HIGH	20.24	21.73	1.49
5	20375	1752.5	QPSK	12	LOW	20.31	21.32	1.01
5	20375	1752.5	QPSK	12	MID	20.19	21.55	1.36
5	20375	1752.5	QPSK	12	HIGH	20.20	21.73	1.53
5	20375	1752.5	QPSK	25	LOW	20.18	21.87	1.69
5	20375	1752.5	Q16	1	LOW	20.41	21.67	1.26
5	20375	1752.5	Q16	1	MID	20.14	21.81	1.67
5	20375	1752.5	Q16	1	HIGH	20.71	21.45	0.74
5	20375	1752.5	Q16	12	LOW	20.55	21.97	1.42
5	20375	1752.5	Q16	12	MID	20.33	21.96	1.63

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	20375	1752.5	Q16	12	HIGH	20.44	22.16	1.72
5	20375	1752.5	Q16	25	LOW	20.85	21.44	0.59
5	20175	1732.5	QPSK	1	LOW	20.68	21.97	1.29
5	20175	1732.5	QPSK	1	MID	20.47	22.12	1.65
5	20175	1732.5	QPSK	1	HIGH	21.04	21.57	0.53
5	20175	1732.5	QPSK	12	LOW	20.14	21.96	1.82
5	20175	1732.5	QPSK	12	MID	20.54	21.42	0.88
5	20175	1732.5	QPSK	12	HIGH	20.19	21.76	1.57
5	20175	1732.5	QPSK	25	LOW	20.67	21.31	0.64
5	20175	1732.5	Q16	1	LOW	21.07	21.35	0.28
5	20175	1732.5	Q16	1	MID	20.44	21.99	1.55
5	20175	1732.5	Q16	1	HIGH	20.41	21.59	1.18
5	20175	1732.5	Q16	12	LOW	20.27	21.94	1.67
5	20175	1732.5	Q16	12	MID	20.23	21.60	1.37
5	20175	1732.5	Q16	12	HIGH	20.22	21.27	1.05
5	20175	1732.5	Q16	25	LOW	20.38	21.98	1.60
10	20000	1715	QPSK	1	LOW	20.78	21.43	0.65
10	20000	1715	QPSK	1	MID	20.64	21.69	1.05
10	20000	1715	QPSK	1	HIGH	20.11	21.98	1.87
10	20000	1715	QPSK	25	LOW	21.07	22.03	0.96
10	20000	1715	QPSK	25	MID	21.01	21.72	0.71
10	20000	1715	QPSK	25	HIGH	20.46	21.75	1.29
10	20000	1715	QPSK	50	LOW	20.32	22.07	1.75
10	20000	1715	Q16	1	LOW	20.81	22.09	1.28
10	20000	1715	Q16	1	MID	20.41	22.08	1.67
10	20000	1715	Q16	1	HIGH	20.62	21.33	0.71
10	20000	1715	Q16	25	LOW	20.37	21.82	1.45
10	20000	1715	Q16	25	MID	20.85	21.27	0.42
10	20000	1715	Q16	25	HIGH	20.35	21.28	0.93
10	20000	1715	Q16	50	LOW	20.63	21.37	0.74
10	20350	1750	QPSK	1	LOW	20.90	21.35	0.45
10	20350	1750	QPSK	1	MID	20.18	21.37	1.19
10	20350	1750	QPSK	1	HIGH	20.30	21.29	0.99
10	20350	1750	QPSK	25	LOW	21.04	21.55	0.51
10	20350	1750	QPSK	25	MID	20.21	21.57	1.36
10	20350	1750	QPSK	25	HIGH	20.57	21.66	1.09
10	20350	1750	QPSK	50	LOW	20.75	21.70	0.95

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	20350	1750	Q16	1	LOW	20.14	22.07	1.93
10	20350	1750	Q16	1	MID	20.74	22.03	1.29
10	20350	1750	Q16	1	HIGH	20.11	21.61	1.50
10	20350	1750	Q16	25	LOW	20.78	21.48	0.70
10	20350	1750	Q16	25	MID	20.86	21.27	0.41
10	20350	1750	Q16	25	HIGH	21.08	22.12	1.04
10	20350	1750	Q16	50	LOW	20.44	21.94	1.50
10	20175	1732.5	QPSK	1	LOW	20.55	21.82	1.27
10	20175	1732.5	QPSK	1	MID	20.82	21.34	0.52
10	20175	1732.5	QPSK	1	HIGH	20.85	21.56	0.71
10	20175	1732.5	QPSK	25	LOW	20.20	21.89	1.69
10	20175	1732.5	QPSK	25	MID	20.22	21.53	1.31
10	20175	1732.5	QPSK	25	HIGH	20.83	22.00	1.17
10	20175	1732.5	QPSK	50	LOW	20.78	21.86	1.08
10	20175	1732.5	Q16	1	LOW	20.11	21.32	1.21
10	20175	1732.5	Q16	1	MID	20.27	21.62	1.35
10	20175	1732.5	Q16	1	HIGH	21.09	21.36	0.27
10	20175	1732.5	Q16	25	LOW	21.00	21.38	0.38
10	20175	1732.5	Q16	25	MID	20.50	22.00	1.50
10	20175	1732.5	Q16	25	HIGH	20.64	21.51	0.87
10	20175	1732.5	Q16	50	LOW	20.70	21.35	0.65
15	20025	1717.5	QPSK	1	LOW	20.84	21.51	0.67
15	20025	1717.5	QPSK	1	MID	20.61	21.70	1.09
15	20025	1717.5	QPSK	1	HIGH	20.82	21.54	0.72
15	20025	1717.5	QPSK	36	LOW	20.46	21.62	1.16
15	20025	1717.5	QPSK	36	MID	20.31	21.69	1.38
15	20025	1717.5	QPSK	36	HIGH	20.76	21.33	0.57
15	20025	1717.5	QPSK	75	LOW	20.96	21.63	0.67
15	20025	1717.5	Q16	1	LOW	20.15	22.08	1.93
15	20025	1717.5	Q16	1	MID	20.56	21.41	0.85
15	20025	1717.5	Q16	1	HIGH	20.67	22.17	1.50
15	20025	1717.5	Q16	36	LOW	20.29	21.79	1.50
15	20025	1717.5	Q16	36	MID	20.22	21.85	1.63
15	20025	1717.5	Q16	36	HIGH	20.56	21.31	0.75
15	20025	1717.5	Q16	75	LOW	20.73	21.71	0.98
15	20325	1747.5	QPSK	1	LOW	20.95	21.34	0.39
15	20325	1747.5	QPSK	1	MID	20.22	22.13	1.91

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
15	20325	1747.5	QPSK	1	HIGH	20.23	21.30	1.07
15	20325	1747.5	QPSK	36	LOW	20.50	21.65	1.15
15	20325	1747.5	QPSK	36	MID	20.32	21.32	1.00
15	20325	1747.5	QPSK	36	HIGH	20.77	21.56	0.79
15	20325	1747.5	QPSK	75	LOW	20.63	21.21	0.58
15	20325	1747.5	Q16	1	LOW	21.02	21.80	0.78
15	20325	1747.5	Q16	1	MID	20.68	21.38	0.70
15	20325	1747.5	Q16	1	HIGH	20.34	22.08	1.74
15	20325	1747.5	Q16	36	LOW	20.52	21.49	0.97
15	20325	1747.5	Q16	36	MID	20.80	21.69	0.89
15	20325	1747.5	Q16	36	HIGH	20.65	21.61	0.96
15	20325	1747.5	Q16	75	LOW	20.68	21.50	0.82
15	20175	1732.5	QPSK	1	LOW	20.35	21.83	1.48
15	20175	1732.5	QPSK	1	MID	20.16	21.39	1.23
15	20175	1732.5	QPSK	1	HIGH	20.19	21.70	1.51
15	20175	1732.5	QPSK	36	LOW	20.42	21.55	1.13
15	20175	1732.5	QPSK	36	MID	20.81	22.19	1.38
15	20175	1732.5	QPSK	36	HIGH	21.02	21.43	0.41
15	20175	1732.5	QPSK	75	LOW	21.08	22.01	0.93
15	20175	1732.5	Q16	1	LOW	20.85	22.14	1.29
15	20175	1732.5	Q16	1	MID	20.80	22.00	1.20
15	20175	1732.5	Q16	1	HIGH	21.09	22.16	1.07
15	20175	1732.5	Q16	36	LOW	20.10	21.64	1.54
15	20175	1732.5	Q16	36	MID	20.48	22.17	1.69
15	20175	1732.5	Q16	36	HIGH	20.13	21.54	1.41
15	20175	1732.5	Q16	75	LOW	20.89	22.13	1.24
20	20050	1720	QPSK	1	LOW	21.01	21.31	0.30
20	20050	1720	QPSK	1	MID	20.12	21.58	1.46
20	20050	1720	QPSK	1	HIGH	20.78	21.54	0.76
20	20050	1720	QPSK	50	LOW	20.20	21.79	1.59
20	20050	1720	QPSK	50	MID	20.61	22.02	1.41
20	20050	1720	QPSK	50	HIGH	20.64	21.87	1.23
20	20050	1720	QPSK	100	LOW	20.95	21.90	0.95
20	20050	1720	Q16	1	LOW	20.71	21.80	1.09
20	20050	1720	Q16	1	MID	20.19	21.94	1.75
20	20050	1720	Q16	1	HIGH	20.72	21.76	1.04
20	20050	1720	Q16	50	LOW	20.30	21.65	1.35

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
20	20050	1720	Q16	50	MID	20.74	21.68	0.94
20	20050	1720	Q16	50	HIGH	20.20	21.74	1.54
20	20050	1720	Q16	100	LOW	20.32	21.30	0.98
20	20300	1745	QPSK	1	LOW	20.17	21.45	1.28
20	20300	1745	QPSK	1	MID	20.48	21.33	0.85
20	20300	1745	QPSK	1	HIGH	20.64	21.35	0.71
20	20300	1745	QPSK	50	LOW	20.13	22.07	1.94
20	20300	1745	QPSK	50	MID	20.67	22.01	1.34
20	20300	1745	QPSK	50	HIGH	20.33	21.33	1.00
20	20300	1745	QPSK	100	LOW	20.12	21.81	1.69
20	20300	1745	Q16	1	LOW	20.22	21.44	1.22
20	20300	1745	Q16	1	MID	20.36	22.05	1.69
20	20300	1745	Q16	1	HIGH	20.70	21.59	0.89
20	20300	1745	Q16	50	LOW	20.27	21.25	0.98
20	20300	1745	Q16	50	MID	20.11	21.21	1.10
20	20300	1745	Q16	50	HIGH	20.45	21.52	1.07
20	20300	1745	Q16	100	LOW	20.49	21.86	1.37
20	20175	1732.5	QPSK	1	LOW	20.60	21.86	1.26
20	20175	1732.5	QPSK	1	MID	20.32	21.28	0.96
20	20175	1732.5	QPSK	1	HIGH	20.97	21.64	0.67
20	20175	1732.5	QPSK	50	LOW	20.24	21.23	0.99
20	20175	1732.5	QPSK	50	MID	20.67	21.37	0.70
20	20175	1732.5	QPSK	50	HIGH	21.02	21.43	0.41
20	20175	1732.5	QPSK	100	LOW	20.97	21.87	0.90
20	20175	1732.5	Q16	1	LOW	20.41	21.59	1.18
20	20175	1732.5	Q16	1	MID	20.32	21.65	1.33
20	20175	1732.5	Q16	1	HIGH	20.69	21.46	0.77
20	20175	1732.5	Q16	50	LOW	20.56	21.34	0.78
20	20175	1732.5	Q16	50	MID	20.26	22.13	1.87
20	20175	1732.5	Q16	50	HIGH	21.04	21.62	0.58
20	20175	1732.5	Q16	100	LOW	20.93	21.71	0.78

BAND 5:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	20470	824.7	QPSK	1	LOW	20.48	22.13	1.65
1.4	20470	824.7	QPSK	1	MID	20.89	21.53	0.64
1.4	20470	824.7	QPSK	1	HIGH	20.7	21.89	1.19
1.4	20470	824.7	QPSK	3	LOW	20.97	22.09	1.12
1.4	20470	824.7	QPSK	3	MID	20.61	22.19	1.58
1.4	20470	824.7	QPSK	3	HIGH	20.25	21.8	1.55
1.4	20470	824.7	QPSK	6	LOW	20.49	22.14	1.65
1.4	20470	824.7	Q16	1	LOW	20.99	22.16	1.17
1.4	20470	824.7	Q16	1	MID	21.13	21.99	0.86
1.4	20470	824.7	Q16	1	HIGH	20.41	22.33	1.92
1.4	20470	824.7	Q16	3	LOW	20.95	21.57	0.62
1.4	20470	824.7	Q16	3	MID	20.95	22.36	1.41
1.4	20470	824.7	Q16	3	HIGH	21.1	22.31	1.21
1.4	20470	824.7	Q16	6	LOW	20.86	22.29	1.43
1.4	20525	836.5	QPSK	1	LOW	21.2	21.96	0.76
1.4	20525	836.5	QPSK	1	MID	20.32	22.46	2.14
1.4	20525	836.5	QPSK	1	HIGH	20.53	22.21	1.68
1.4	20525	836.5	QPSK	3	LOW	20.91	21.92	1.01
1.4	20525	836.5	QPSK	3	MID	21.16	21.94	0.78
1.4	20525	836.5	QPSK	3	HIGH	20.58	22.19	1.61
1.4	20525	836.5	QPSK	6	LOW	20.48	22.09	1.61
1.4	20525	836.5	Q16	1	LOW	20.67	21.84	1.17
1.4	20525	836.5	Q16	1	MID	20.87	22.2	1.33
1.4	20525	836.5	Q16	1	HIGH	20.72	21.93	1.21
1.4	20525	836.5	Q16	3	LOW	20.88	21.59	0.71
1.4	20525	836.5	Q16	3	MID	20.31	21.87	1.56
1.4	20525	836.5	Q16	3	HIGH	20.3	21.83	1.53
1.4	20525	836.5	Q16	6	LOW	20.89	21.58	0.69
1.4	20643	848.3	QPSK	1	LOW	20.65	22.16	1.51
1.4	20643	848.3	QPSK	1	MID	20.9	22.36	1.46
1.4	20643	848.3	QPSK	1	HIGH	21.16	22.09	0.93
1.4	20643	848.3	QPSK	3	LOW	20.33	22.44	2.11
1.4	20643	848.3	QPSK	3	MID	20.53	22.14	1.61
1.4	20643	848.3	QPSK	3	HIGH	20.43	21.88	1.45
1.4	20643	848.3	QPSK	6	LOW	20.27	21.5	1.23
1.4	20643	848.3	Q16	1	LOW	20.92	21.54	0.62

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
1.4	20643	848.3	Q16	1	MID	20.81	22.41	1.6
1.4	20643	848.3	Q16	1	HIGH	20.34	21.78	1.44
1.4	20643	848.3	Q16	3	LOW	20.99	22.16	1.17
1.4	20643	848.3	Q16	3	MID	20.5	21.95	1.45
1.4	20643	848.3	Q16	3	HIGH	20.76	22.39	1.63
1.4	20643	848.3	Q16	6	LOW	20.26	22.44	2.18
3	20415	825.5	QPSK	1	LOW	20.56	22.35	1.79
3	20415	825.5	QPSK	1	MID	20.88	22.18	1.3
3	20415	825.5	QPSK	1	HIGH	20.54	22.13	1.59
3	20415	825.5	QPSK	8	LOW	20.7	22.27	1.57
3	20415	825.5	QPSK	8	MID	21.16	22.19	1.03
3	20415	825.5	QPSK	8	HIGH	21.04	22.29	1.25
3	20415	825.5	QPSK	15	LOW	20.26	22.07	1.81
3	20415	825.5	Q16	1	LOW	20.33	21.92	1.59
3	20415	825.5	Q16	1	MID	21.02	21.72	0.7
3	20415	825.5	Q16	1	HIGH	21.04	22.02	0.98
3	20415	825.5	Q16	8	LOW	20.61	22.06	1.45
3	20415	825.5	Q16	8	MID	20.91	21.78	0.87
3	20415	825.5	Q16	8	HIGH	20.27	22.17	1.9
3	20415	825.5	Q16	15	LOW	20.93	21.85	0.92
3	20525	836.5	QPSK	1	LOW	20.36	22.12	1.76
3	20525	836.5	QPSK	1	MID	20.48	21.91	1.43
3	20525	836.5	QPSK	1	HIGH	20.67	21.89	1.22
3	20525	836.5	QPSK	8	LOW	20.33	21.54	1.21
3	20525	836.5	QPSK	8	MID	20.39	22.4	2.01
3	20525	836.5	QPSK	8	HIGH	20.83	22.19	1.36
3	20525	836.5	QPSK	15	LOW	20.88	22.07	1.19
3	20525	836.5	Q16	1	LOW	20.56	22.28	1.72
3	20525	836.5	Q16	1	MID	21.06	22.14	1.08
3	20525	836.5	Q16	1	HIGH	20.58	21.83	1.25
3	20525	836.5	Q16	8	LOW	21.08	22.31	1.23
3	20525	836.5	Q16	8	MID	20.9	22.23	1.33
3	20525	836.5	Q16	8	HIGH	21.02	21.79	0.77
3	20525	836.5	Q16	15	LOW	20.89	21.97	1.08
3	20635	847.5	QPSK	1	LOW	20.34	21.73	1.39
3	20635	847.5	QPSK	1	MID	20.43	22.1	1.67
3	20635	847.5	QPSK	1	HIGH	20.55	21.99	1.44

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
3	20635	847.5	QPSK	8	LOW	20.79	21.77	0.98
3	20635	847.5	QPSK	8	MID	20.67	21.9	1.23
3	20635	847.5	QPSK	8	HIGH	21.02	22.21	1.19
3	20635	847.5	QPSK	15	LOW	20.46	22.15	1.69
3	20635	847.5	Q16	1	LOW	20.7	21.7	1
3	20635	847.5	Q16	1	MID	20.41	22.37	1.96
3	20635	847.5	Q16	1	HIGH	20.2	21.72	1.52
3	20635	847.5	Q16	8	LOW	20.98	22.29	1.31
3	20635	847.5	Q16	8	MID	20.34	22.25	1.91
3	20635	847.5	Q16	8	HIGH	20.45	21.95	1.5
3	20635	847.5	Q16	15	LOW	20.76	22.04	1.28
5	20425	826.5	QPSK	1	LOW	21.15	21.56	0.41
5	20425	826.5	QPSK	1	MID	20.59	21.55	0.96
5	20425	826.5	QPSK	1	HIGH	20.3	22.18	1.88
5	20425	826.5	QPSK	12	LOW	20.83	22.01	1.18
5	20425	826.5	QPSK	12	MID	20.22	22.2	1.98
5	20425	826.5	QPSK	12	HIGH	20.22	21.9	1.68
5	20425	826.5	QPSK	25	LOW	20.77	21.99	1.22
5	20425	826.5	Q16	1	LOW	20.92	21.51	0.59
5	20425	826.5	Q16	1	MID	20.97	21.65	0.68
5	20425	826.5	Q16	1	HIGH	20.39	22.49	2.1
5	20425	826.5	Q16	12	LOW	20.47	21.9	1.43
5	20425	826.5	Q16	12	MID	20.86	22.07	1.21
5	20425	826.5	Q16	12	HIGH	20.62	22.13	1.51
5	20425	826.5	Q16	25	LOW	20.81	21.62	0.81
5	20525	836.5	QPSK	1	LOW	21.16	22.08	0.92
5	20525	836.5	QPSK	1	MID	20.2	22.31	2.11
5	20525	836.5	QPSK	1	HIGH	20.64	22.4	1.76
5	20525	836.5	QPSK	12	LOW	20.63	22.18	1.55
5	20525	836.5	QPSK	12	MID	21.13	22.31	1.18
5	20525	836.5	QPSK	12	HIGH	20.98	22.19	1.21
5	20525	836.5	QPSK	25	LOW	20.46	21.94	1.48
5	20525	836.5	Q16	1	LOW	20.8	21.8	1
5	20525	836.5	Q16	1	MID	20.21	22.48	2.27
5	20525	836.5	Q16	1	HIGH	20.23	22.11	1.88
5	20525	836.5	Q16	12	LOW	20.38	22.43	2.05
5	20525	836.5	Q16	12	MID	20.94	21.95	1.01

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	20525	836.5	Q16	12	HIGH	20.69	21.88	1.19
5	20525	836.5	Q16	25	LOW	21.04	22.46	1.42
5	20625	846.5	QPSK	1	LOW	20.97	22.32	1.35
5	20625	846.5	QPSK	1	MID	21.03	22.32	1.29
5	20625	846.5	QPSK	1	HIGH	21.09	22.12	1.03
5	20625	846.5	QPSK	12	LOW	20.36	21.84	1.48
5	20625	846.5	QPSK	12	MID	20.34	21.64	1.3
5	20625	846.5	QPSK	12	HIGH	20.69	22.21	1.52
5	20625	846.5	QPSK	25	LOW	20.57	22.18	1.61
5	20625	846.5	Q16	1	LOW	20.81	22.38	1.57
5	20625	846.5	Q16	1	MID	21.14	21.56	0.42
5	20625	846.5	Q16	1	HIGH	20.84	21.75	0.91
5	20625	846.5	Q16	12	LOW	20.62	21.59	0.97
5	20625	846.5	Q16	12	MID	21.09	22.31	1.22
5	20625	846.5	Q16	12	HIGH	20.82	21.88	1.06
5	20625	846.5	Q16	25	LOW	20.37	22.34	1.97
10	20450	829	QPSK	1	LOW	21.15	21.79	0.64
10	20450	829	QPSK	1	MID	20.59	21.53	0.94
10	20450	829	QPSK	1	HIGH	20.81	22.42	1.61
10	20450	829	QPSK	25	LOW	20.48	22.22	1.74
10	20450	829	QPSK	25	MID	21.16	22.2	1.04
10	20450	829	QPSK	25	HIGH	20.72	21.78	1.06
10	20450	829	QPSK	50	LOW	20.67	21.88	1.21
10	20450	829	Q16	1	LOW	21.19	21.76	0.57
10	20450	829	Q16	1	MID	21.13	21.81	0.68
10	20450	829	Q16	1	HIGH	20.27	21.7	1.43
10	20450	829	Q16	25	LOW	21	22.14	1.14
10	20450	829	Q16	25	MID	21.1	22.18	1.08
10	20450	829	Q16	25	HIGH	20.83	21.71	0.88
10	20450	829	Q16	50	LOW	20.96	22.49	1.53
10	20525	836.5	QPSK	1	LOW	20.43	21.88	1.45
10	20525	836.5	QPSK	1	MID	20.73	21.89	1.16
10	20525	836.5	QPSK	1	HIGH	20.97	21.77	0.8
10	20525	836.5	QPSK	25	LOW	20.98	21.69	0.71
10	20525	836.5	QPSK	25	MID	20.61	21.71	1.1
10	20525	836.5	QPSK	25	HIGH	20.31	21.91	1.6
10	20525	836.5	QPSK	50	LOW	21.17	21.6	0.43

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	20525	836.5	Q16	1	LOW	20.94	22.02	1.08
10	20525	836.5	Q16	1	MID	21.11	21.73	0.62
10	20525	836.5	Q16	1	HIGH	20.48	22.2	1.72
10	20525	836.5	Q16	25	LOW	20.92	21.58	0.66
10	20525	836.5	Q16	25	MID	20.95	22.4	1.45
10	20525	836.5	Q16	25	HIGH	20.4	21.7	1.3
10	20525	836.5	Q16	50	LOW	20.55	22.13	1.58
10	20600	844	QPSK	1	LOW	21.18	21.84	0.66
10	20600	836.5	QPSK	1	MID	21.1	21.88	0.78
10	20600	836.5	QPSK	1	HIGH	21.1	22.1	1
10	20600	836.5	QPSK	25	LOW	20.44	22.08	1.64
10	20600	836.5	QPSK	25	MID	21.16	22.21	1.05
10	20600	836.5	QPSK	25	HIGH	20.62	21.82	1.2
10	20600	836.5	QPSK	50	LOW	20.57	21.77	1.2
10	20600	836.5	Q16	1	LOW	21.03	22.26	1.23
10	20600	836.5	Q16	1	MID	20.84	21.68	0.84
10	20600	836.5	Q16	1	HIGH	20.75	22.39	1.64
10	20600	836.5	Q16	25	LOW	20.96	22.37	1.41
10	20600	836.5	Q16	25	MID	20.71	22.3	1.59
10	20600	836.5	Q16	25	HIGH	21.17	22.45	1.28
10	20600	836.5	Q16	50	LOW	20.41	21.69	1.28

BAND 7:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	20775	2502.5	QPSK	1	LOW	20.62	21.33	0.71
5	20775	2502.5	QPSK	1	MID	20.67	22.10	1.43
5	20775	2502.5	QPSK	1	HIGH	20.31	21.76	1.45
5	20775	2502.5	QPSK	12	LOW	20.47	21.89	1.42
5	20775	2502.5	QPSK	12	MID	21.07	21.98	0.91
5	20775	2502.5	QPSK	12	HIGH	20.82	22.04	1.22
5	20775	2502.5	QPSK	25	LOW	20.15	22.09	1.94
5	20775	2502.5	Q16	1	LOW	20.76	21.21	0.45
5	20775	2502.5	Q16	1	MID	20.56	21.54	0.98
5	20775	2502.5	Q16	1	HIGH	20.62	21.39	0.77
5	20775	2502.5	Q16	12	LOW	20.91	21.84	0.93
5	20775	2502.5	Q16	12	MID	20.87	21.92	1.05
5	20775	2502.5	Q16	12	HIGH	20.40	21.46	1.06
5	20775	2502.5	Q16	25	LOW	20.50	21.63	1.13
5	21425	2567.5	QPSK	1	LOW	21.03	21.26	0.23
5	21425	2567.5	QPSK	1	MID	20.73	21.39	0.66
5	21425	2567.5	QPSK	1	HIGH	21.07	21.98	0.91
5	21425	2567.5	QPSK	12	LOW	20.97	22.00	1.03
5	21425	2567.5	QPSK	12	MID	20.38	21.64	1.26
5	21425	2567.5	QPSK	12	HIGH	20.85	21.97	1.12
5	21425	2567.5	QPSK	25	LOW	20.72	21.34	0.62
5	21425	2567.5	Q16	1	LOW	20.84	21.90	1.06
5	21425	2567.5	Q16	1	MID	20.96	21.68	0.72
5	21425	2567.5	Q16	1	HIGH	20.29	21.72	1.43
5	21425	2567.5	Q16	12	LOW	20.37	22.07	1.70
5	21425	2567.5	Q16	12	MID	20.34	21.96	1.62
5	21425	2567.5	Q16	12	HIGH	20.74	21.32	0.58
5	21425	2567.5	Q16	25	LOW	20.84	21.64	0.80
5	21100	2535	QPSK	1	LOW	20.54	22.11	1.57
5	21100	2535	QPSK	1	MID	20.50	21.27	0.77
5	21100	2535	QPSK	1	HIGH	20.86	21.94	1.08
5	21100	2535	QPSK	12	LOW	20.14	21.80	1.66
5	21100	2535	QPSK	12	MID	21.02	21.86	0.84
5	21100	2535	QPSK	12	HIGH	20.92	22.02	1.10
5	21100	2535	QPSK	25	LOW	20.46	21.40	0.94
5	21100	2535	QPSK	1	LOW	20.19	21.41	1.22
5	21100	2535	QPSK	1	MID	20.90	21.55	0.65

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
5	21100	2535	QPSK	1	HIGH	20.50	21.37	0.87
5	21100	2535	QPSK	12	LOW	20.95	21.38	0.43
5	21100	2535	QPSK	12	MID	20.89	21.45	0.56
5	21100	2535	QPSK	12	HIGH	21.00	22.08	1.08
5	21100	2535	QPSK	25	LOW	20.48	21.40	0.92
10	20800	2505	QPSK	1	LOW	20.37	22.15	1.78
10	20800	2505	QPSK	1	MID	20.87	21.36	0.49
10	20800	2505	QPSK	1	HIGH	21.07	21.66	0.59
10	20800	2505	QPSK	25	LOW	20.31	21.43	1.12
10	20800	2505	QPSK	25	MID	20.49	22.04	1.55
10	20800	2505	QPSK	25	HIGH	20.13	21.36	1.23
10	20800	2505	QPSK	50	LOW	21.06	22.16	1.10
10	20800	2505	Q16	1	LOW	20.65	22.10	1.45
10	20800	2505	Q16	1	MID	20.60	22.17	1.57
10	20800	2505	Q16	1	HIGH	21.02	22.07	1.05
10	20800	2505	Q16	25	LOW	20.61	21.25	0.64
10	20800	2505	Q16	25	MID	20.46	21.63	1.17
10	20800	2505	Q16	25	HIGH	20.33	21.48	1.15
10	20800	2505	Q16	50	LOW	21.01	22.20	1.19
10	21400	2565	QPSK	1	LOW	20.32	22.04	1.72
10	21400	2565	QPSK	1	MID	21.03	21.79	0.76
10	21400	2565	QPSK	1	HIGH	20.61	21.60	0.99
10	21400	2565	QPSK	25	LOW	20.85	21.97	1.12
10	21400	2565	QPSK	25	MID	20.42	21.70	1.28
10	21400	2565	QPSK	25	HIGH	20.99	22.10	1.11
10	21400	2565	QPSK	50	LOW	20.61	22.06	1.45
10	21400	2565	QPSK	1	LOW	20.98	21.93	0.95
10	21400	2565	QPSK	1	MID	20.98	22.07	1.09
10	21400	2565	QPSK	1	HIGH	20.69	21.99	1.30
10	21400	2565	Q16	25	LOW	20.41	21.20	0.79
10	21400	2565	Q16	25	MID	20.42	21.44	1.02
10	21400	2565	Q16	25	HIGH	20.37	22.15	1.78
10	21400	2565	Q16	50	LOW	20.28	21.34	1.06
10	21100	2535	QPSK	1	LOW	20.33	22.06	1.73
10	21100	2535	QPSK	1	MID	20.71	21.35	0.64
10	21100	2535	QPSK	1	HIGH	20.99	21.91	0.92
10	21100	2535	QPSK	25	LOW	20.44	21.60	1.16
10	21100	2535	QPSK	25	MID	20.55	21.62	1.07

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
10	21100	2535	QPSK	25	HIGH	20.78	21.60	0.82
10	21100	2535	QPSK	50	LOW	20.43	21.21	0.78
10	21100	2535	QPSK	1	LOW	20.45	21.27	0.82
10	21100	2535	QPSK	1	MID	21.06	21.37	0.31
10	21100	2535	QPSK	1	HIGH	20.33	21.50	1.17
10	21100	2535	Q16	25	LOW	20.34	21.89	1.55
10	21100	2535	Q16	25	MID	20.45	21.51	1.06
10	21100	2535	Q16	25	HIGH	20.98	21.25	0.27
10	21100	2535	Q16	50	LOW	20.17	22.07	1.90
15	20825	2507.5	QPSK	1	LOW	20.58	21.92	1.34
15	20825	2507.5	QPSK	1	MID	20.86	21.75	0.89
15	20825	2507.5	QPSK	1	HIGH	20.43	21.68	1.25
15	20825	2507.5	QPSK	36	LOW	20.96	22.18	1.22
15	20825	2507.5	QPSK	36	MID	20.61	21.79	1.18
15	20825	2507.5	QPSK	36	HIGH	20.73	21.98	1.25
15	20825	2507.5	QPSK	75	LOW	20.17	21.56	1.39
15	20825	2507.5	Q16	1	LOW	20.43	21.70	1.27
15	20825	2507.5	Q16	1	MID	20.76	21.85	1.09
15	20825	2507.5	Q16	1	HIGH	20.79	22.18	1.39
15	20825	2507.5	Q16	36	LOW	20.26	21.75	1.49
15	20825	2507.5	Q16	36	MID	20.60	21.29	0.69
15	20825	2507.5	Q16	36	HIGH	20.27	21.84	1.57
15	20825	2507.5	Q16	75	LOW	20.36	21.84	1.48
15	21375	2562.5	QPSK	1	LOW	20.22	22.07	1.85
15	21375	2562.5	QPSK	1	MID	20.82	21.85	1.03
15	21375	2562.5	QPSK	1	HIGH	20.83	21.32	0.49
15	21375	2562.5	QPSK	36	LOW	20.97	21.36	0.39
15	21375	2562.5	QPSK	36	MID	20.44	21.52	1.08
15	21375	2562.5	QPSK	36	HIGH	20.68	21.68	1.00
15	21375	2562.5	QPSK	75	LOW	20.63	22.12	1.49
15	21375	2562.5	Q16	1	LOW	20.53	22.05	1.52
15	21375	2562.5	Q16	1	MID	21.06	21.77	0.71
15	21375	2562.5	Q16	1	HIGH	21.03	21.36	0.33
15	21375	2562.5	Q16	36	LOW	20.11	21.97	1.86
15	21375	2562.5	Q16	36	MID	20.40	22.04	1.64
15	21375	2562.5	Q16	36	HIGH	20.99	22.06	1.07
15	21375	2562.5	Q16	75	LOW	20.35	21.70	1.35
15	21100	2535	QPSK	1	LOW	20.42	21.82	1.40

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
15	21100	2535	QPSK	1	MID	20.91	21.54	0.63
15	21100	2535	QPSK	1	HIGH	20.91	21.65	0.74
15	21100	2535	QPSK	36	LOW	20.81	21.24	0.43
15	21100	2535	QPSK	36	MID	20.42	21.67	1.25
15	21100	2535	QPSK	36	HIGH	20.15	21.91	1.76
15	21100	2535	QPSK	75	LOW	20.53	21.58	1.05
15	21100	2535	Q16	1	LOW	21.08	21.99	0.91
15	21100	2535	Q16	1	MID	20.95	21.52	0.57
15	21100	2535	Q16	1	HIGH	20.87	21.92	1.05
15	21100	2535	Q16	36	LOW	20.85	22.10	1.25
15	21100	2535	Q16	36	MID	20.32	21.80	1.48
15	21100	2535	Q16	36	HIGH	20.31	22.14	1.83
15	21100	2535	Q16	75	LOW	20.34	21.32	0.98
20	20850	2510	QPSK	1	LOW	20.85	22.02	1.17
20	20850	2510	QPSK	1	MID	20.99	22.01	1.02
20	20850	2510	QPSK	1	HIGH	20.24	21.74	1.50
20	20850	2510	QPSK	50	LOW	20.19	21.74	1.55
20	20850	2510	QPSK	50	MID	20.52	21.94	1.42
20	20850	2510	QPSK	50	HIGH	20.29	21.99	1.70
20	20850	2510	QPSK	100	LOW	20.95	22.13	1.18
20	20850	2510	Q16	1	LOW	20.54	21.21	0.67
20	20850	2510	Q16	1	MID	20.97	22.00	1.03
20	20850	2510	Q16	1	HIGH	20.22	22.04	1.82
20	20850	2510	Q16	50	LOW	20.29	21.22	0.93
20	20850	2510	Q16	50	MID	20.92	21.81	0.89
20	20850	2510	Q16	50	HIGH	20.27	22.04	1.77
20	20850	2510	Q16	100	LOW	20.34	21.30	0.96
20	21100	2535	QPSK	1	LOW	21.09	21.66	0.57
20	21100	2535	QPSK	1	MID	20.55	21.51	0.96
20	21100	2535	QPSK	1	HIGH	20.79	21.31	0.52
20	21100	2535	QPSK	50	LOW	20.82	22.05	1.23
20	21100	2535	QPSK	50	MID	20.60	22.17	1.57
20	21100	2535	QPSK	50	HIGH	20.42	21.52	1.10
20	21100	2535	QPSK	100	LOW	20.90	21.76	0.86
20	21100	2535	Q16	1	LOW	20.59	21.40	0.81
20	21100	2535	Q16	1	MID	20.24	21.45	1.21
20	21100	2535	Q16	1	HIGH	20.57	22.07	1.50
20	21100	2535	Q16	50	LOW	20.77	21.47	0.70

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)	PAPR (dB)
20	21100	2535	Q16	50	MID	20.71	21.36	0.65
20	21100	2535	Q16	50	HIGH	20.80	21.73	0.93
20	21100	2535	Q16	100	LOW	20.57	21.86	1.29
20	21350	2560	QPSK	1	LOW	20.76	21.21	0.45
20	21350	2560	QPSK	1	MID	20.24	21.34	1.10
20	21350	2560	QPSK	1	HIGH	20.56	21.44	0.88
20	21350	2560	QPSK	50	LOW	21.04	21.94	0.90
20	21350	2560	QPSK	50	MID	20.75	21.81	1.06
20	21350	2560	QPSK	50	HIGH	20.44	21.35	0.91
20	21350	2560	QPSK	100	LOW	20.64	22.12	1.48
20	21350	2560	Q16	1	LOW	20.13	21.37	1.24
20	21350	2560	Q16	1	MID	20.96	22.09	1.13
20	21350	2560	Q16	1	HIGH	20.88	21.62	0.74
20	21350	2560	Q16	50	LOW	20.27	21.97	1.70
20	21350	2560	Q16	50	MID	20.49	21.25	0.76
20	21350	2560	Q16	50	HIGH	20.99	22.01	1.02
20	21350	2560	Q16	100	LOW	20.54	22.18	1.64

6 SPURIOUS EMISSION (Conducted and Radiated)

6.1 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 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 5:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1.4	20470	824.7	QPSK	6	LOW	Pass
1.4	20470	824.7	Q16	6	LOW	Pass
1.4	20525	836.5	QPSK	6	LOW	Pass
1.4	20525	836.5	Q16	6	LOW	Pass
1.4	20643	848.3	QPSK	6	LOW	Pass
1.4	20643	848.3	Q16	6	LOW	Pass
3	20415	825.5	QPSK	15	LOW	Pass
3	20415	825.5	Q16	15	LOW	Pass
3	20525	836.5	QPSK	15	LOW	Pass
3	20525	836.5	Q16	15	LOW	Pass
3	20635	847.5	QPSK	15	LOW	Pass
3	20635	847.5	Q16	15	LOW	Pass
5	20425	826.5	QPSK	25	LOW	Pass
5	20425	826.5	Q16	25	LOW	Pass
5	20525	836.5	QPSK	25	LOW	Pass
5	20525	836.5	Q16	25	LOW	Pass
5	20625	846.5	QPSK	25	LOW	Pass
5	20625	846.5	Q16	25	LOW	Pass
10	20450	829	QPSK	50	LOW	Pass
10	20450	829	Q16	50	LOW	Pass
10	20525	836.5	QPSK	50	LOW	Pass
10	20525	836.5	Q16	50	LOW	Pass
10	20600	844	QPSK	50	LOW	Pass
10	20600	844	Q16	50	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

6.1.1 Conducted method

Test limit:

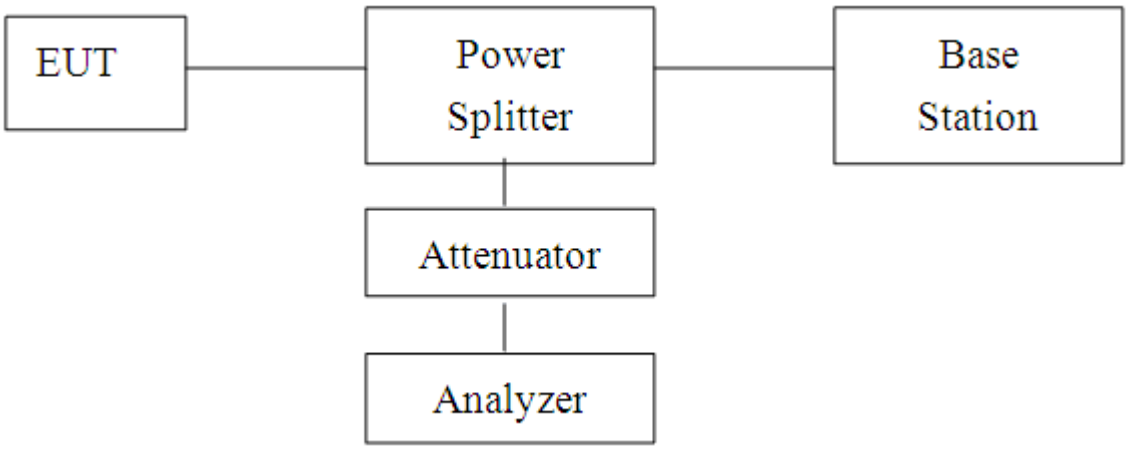
The spurious (unwanted) emission limits specified in the individual FCC rule parts applicable to licensed digital transmitters (typically referred to under the heading 'emission limits') normally apply to any and all emissions that are present outside of the authorized frequency band/block and apply to emissions in both the out-of-band and spurious domains. In some rule parts, the unwanted emission limits are specified by an emission mask that defines the applicable limit as a function of the frequency range relative to the authorized frequency block.

Typically, unwanted emissions are required by the licensed rule parts to be attenuated below the transmitter power by a factor of at least X + 10log(P) dB, where P represents the transmitter power expressed in watts and X is a specified scalar value (e.g., 43). This specification can be interpreted in one of two equivalent ways. First, the required attenuation can be construed to be relative to the mean carrier power, with the resultant of the equation X + 10log(P) being expressed in dBc (dB relative to the maximum carrier power). Alternatively, the specification can be interpreted as an absolute limit when the specified attenuation is actually subtracted from the maximum permissible transmitter power [i.e., 10log(P) – {X + 10log(P)}], resulting in an absolute level of -X dBW [or (-X + 30) dBm]. See section 4.

Test procedure:

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100 kHz below 1 GHz and 1 MHz above 1 GHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonics.

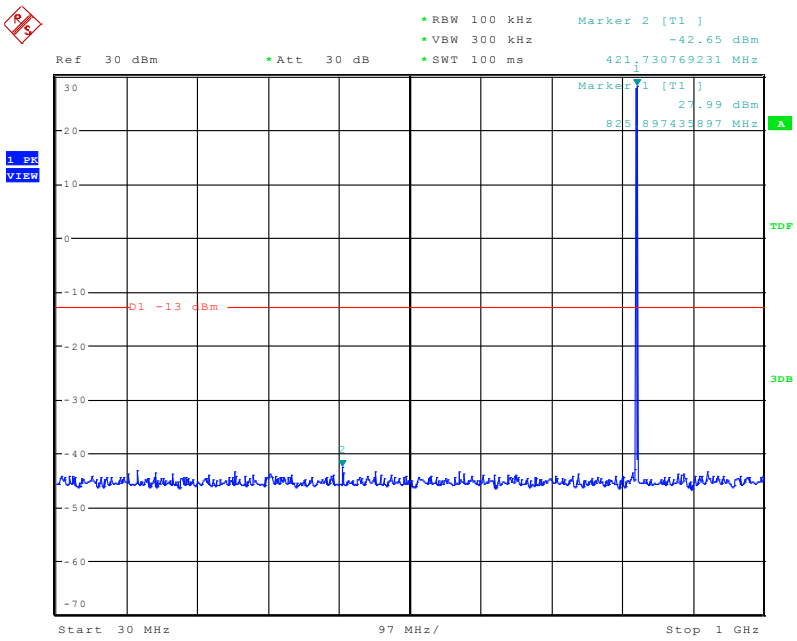
Conducted Emission Test-Up:



Test Plot(s)

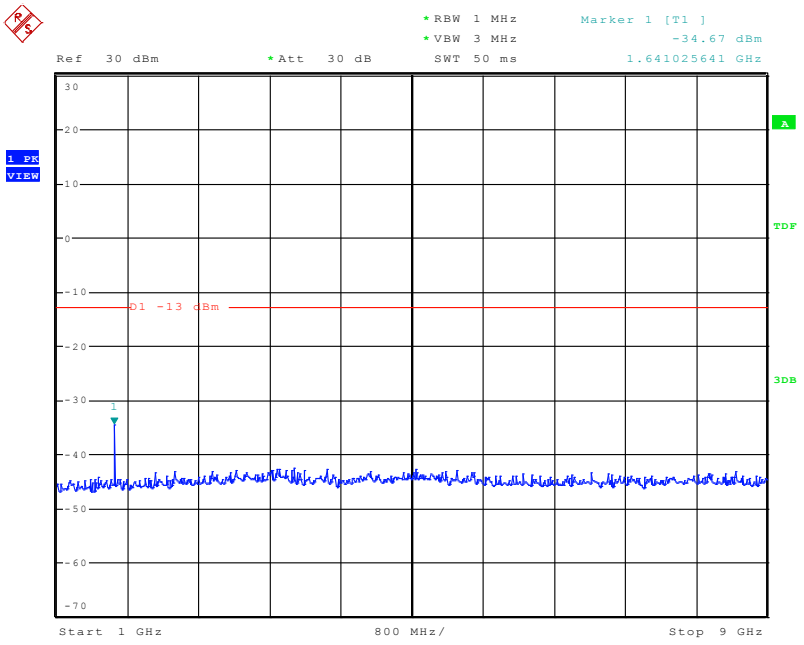
CONDUCTED EMISSION IN GSM850 BAND

Conducted Emission Transmitting Mode CH 128 30MHz – 1GHz



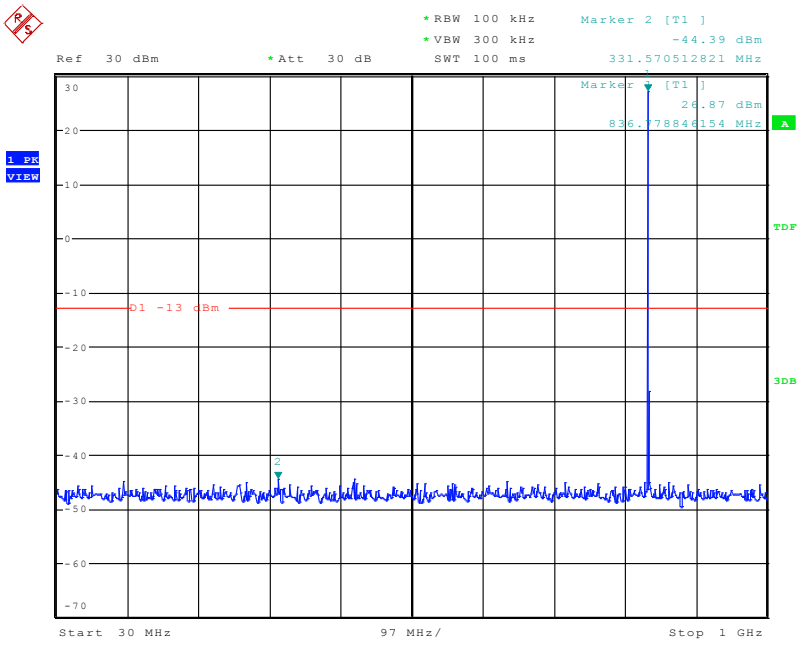
Date: 24.MAR.2017 14:01:23

Conducted Emission Transmitting Mode CH 128 1GHz – 9GHz



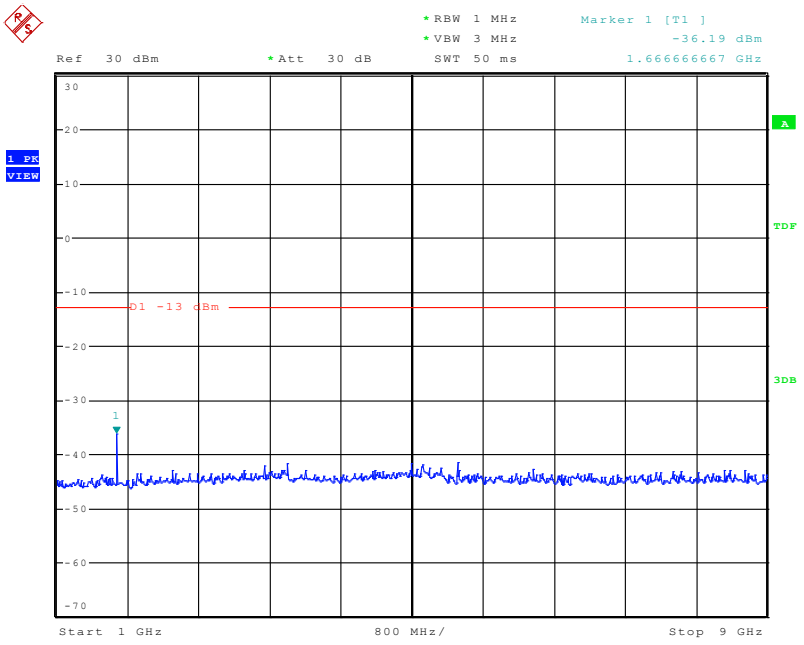
Date: 20.MAR.2017 16:52:06

Conducted Emission Transmitting Mode CH 190 30MHz – 1GHz



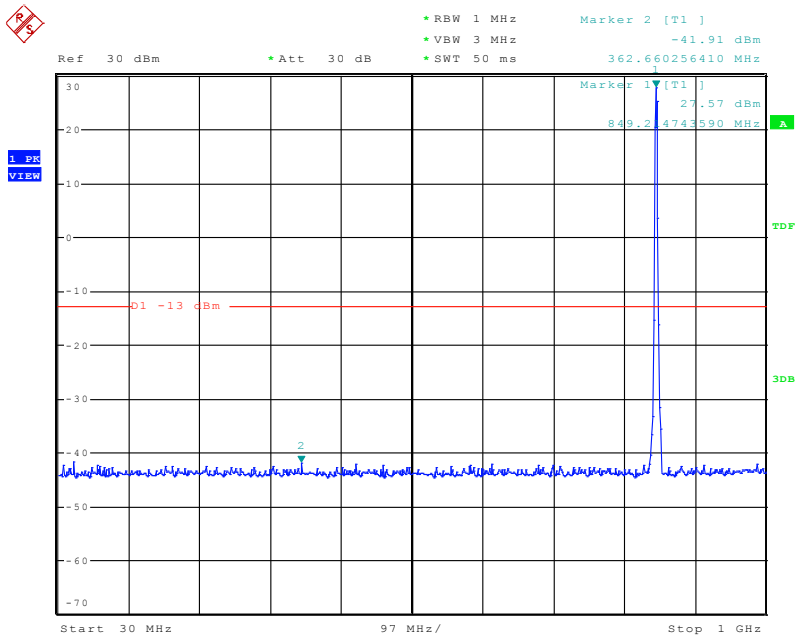
Date: 20.MAR.2017 16:50:17

Conducted Emission Transmitting Mode CH 190 1GHz – 9GHz



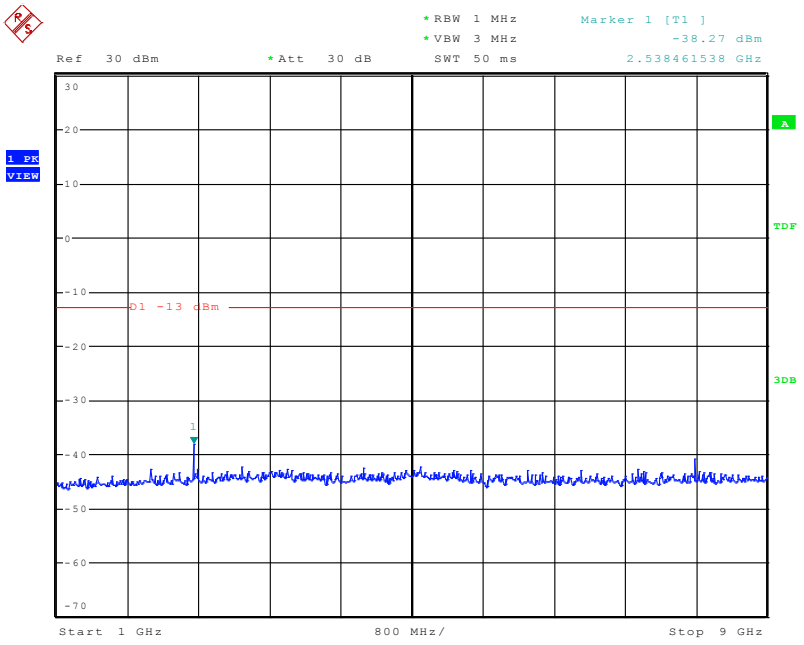
Date: 20.MAR.2017 16:52:42

Conducted Emission Transmitting Mode CH 251 30MHz – 1GHz



Date: 24.MAR.2017 14:03:07

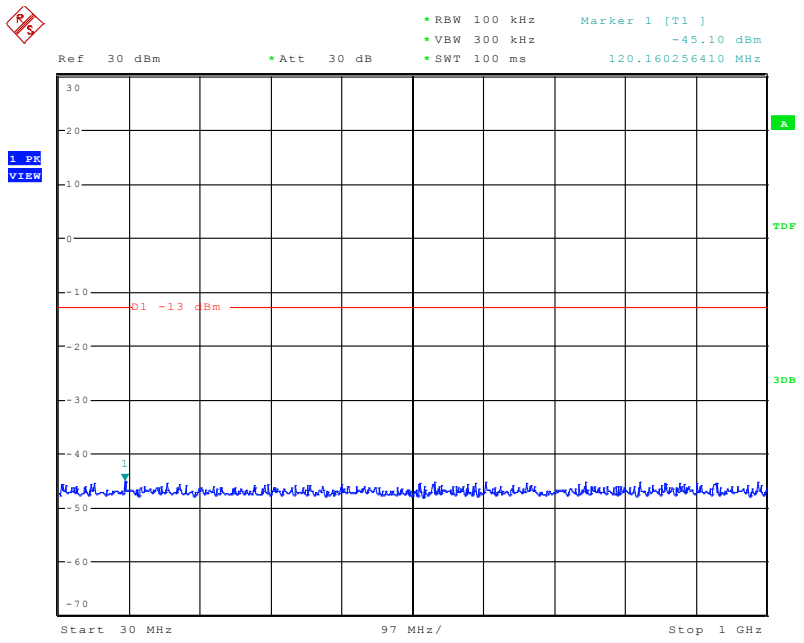
Conducted Emission Transmitting Mode CH 251 1GHz – 9GHz



Date: 20.MAR.2017 16:54:18

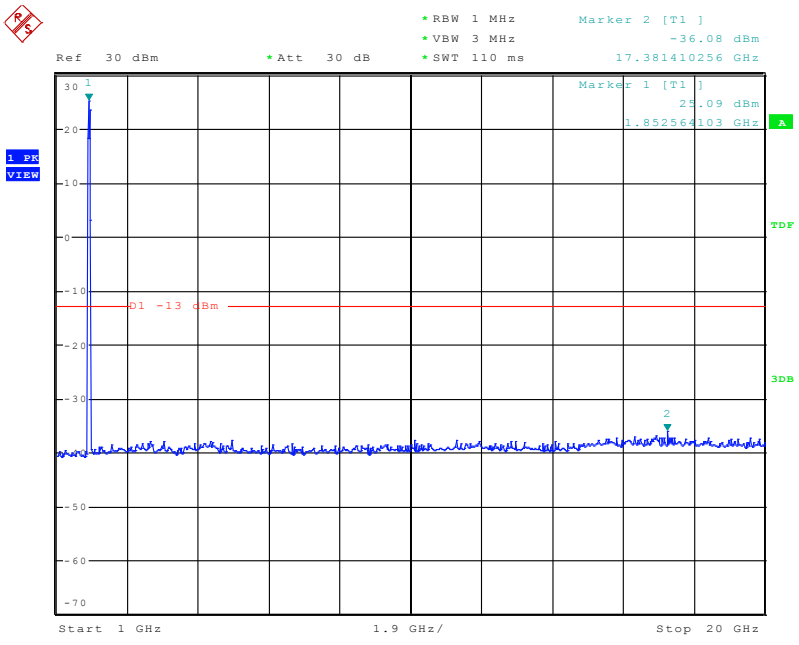
CONDUCTED EMISSION IN PCS1900 BAND

Conducted Emission Transmitting Mode CH 512 30MHz – 1GHz



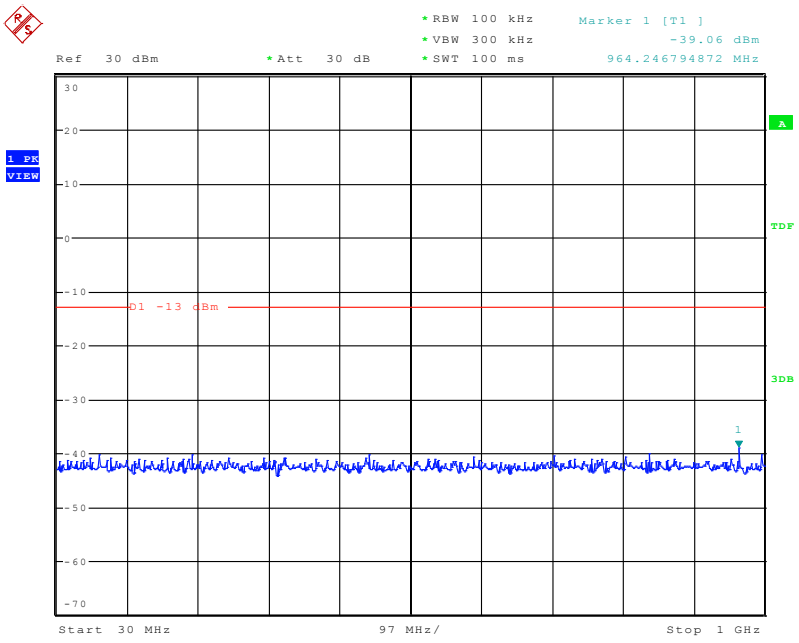
Date: 24.MAR.2017 11:08:05

Conducted Emission Transmitting Mode CH 512 1GHz – 20GHz



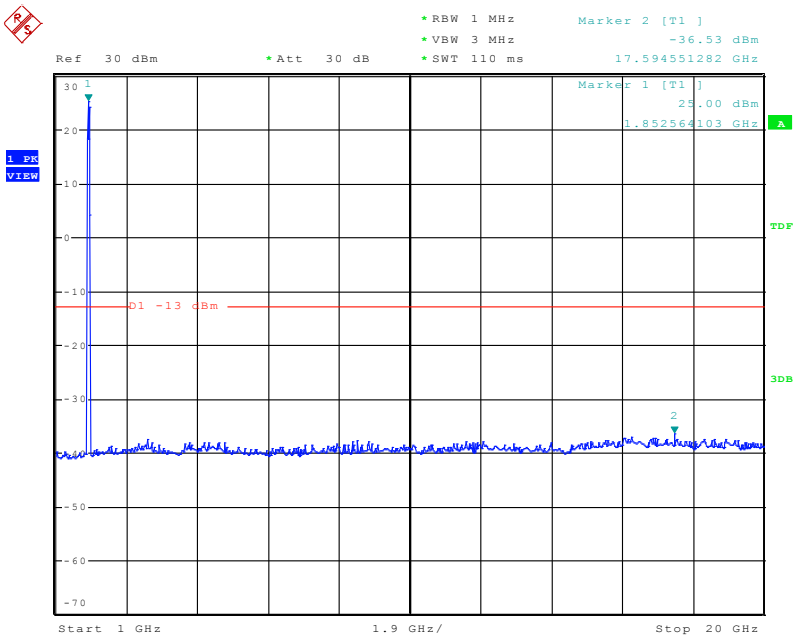
Date: 24.MAR.2017 11:13:28

Conducted Emission Transmitting Mode CH 661 30MHz – 1GHz



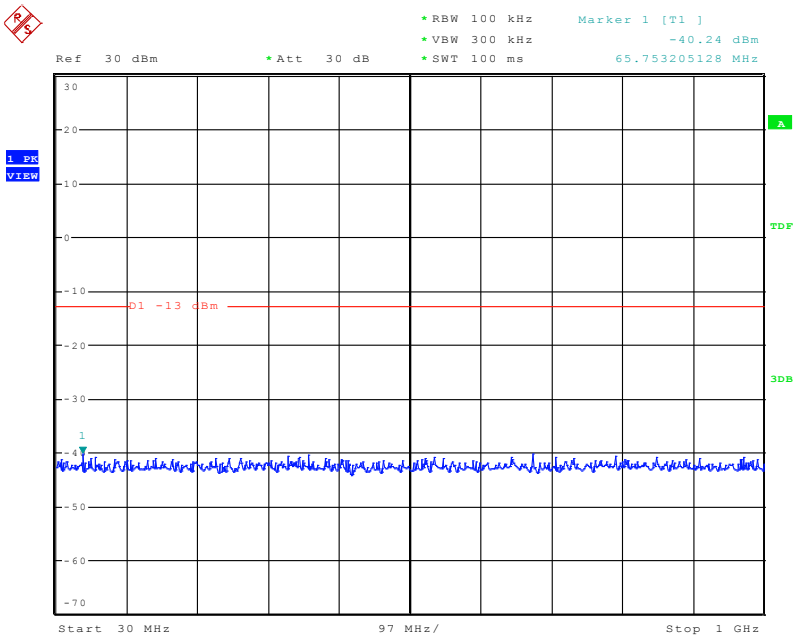
Date: 24.MAR.2017 11:16:11

Conducted Emission Transmitting Mode CH 661 1GHz – 20GHz



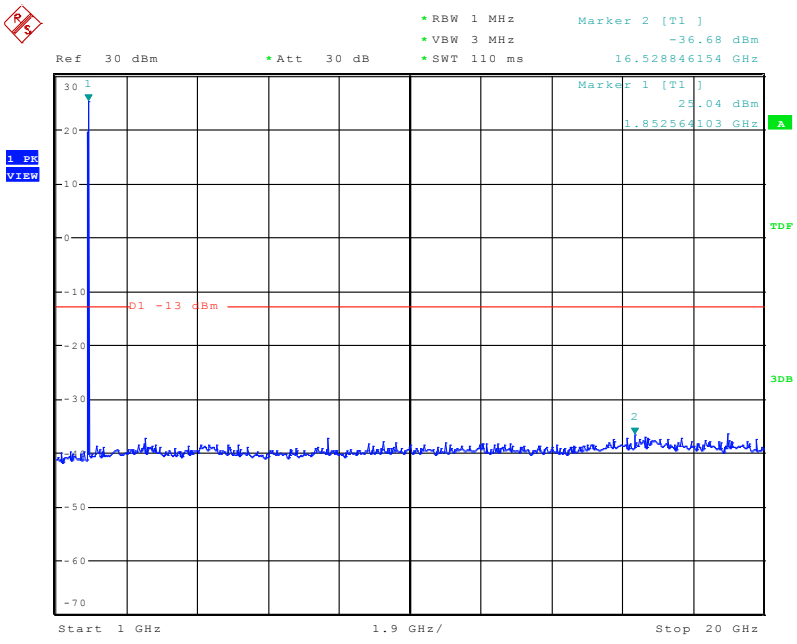
Date: 24.MAR.2017 13:24:06

Conducted Emission Transmitting Mode CH 810 30MHz – 1GHz



Date: 24.MAR.2017 13:18:36

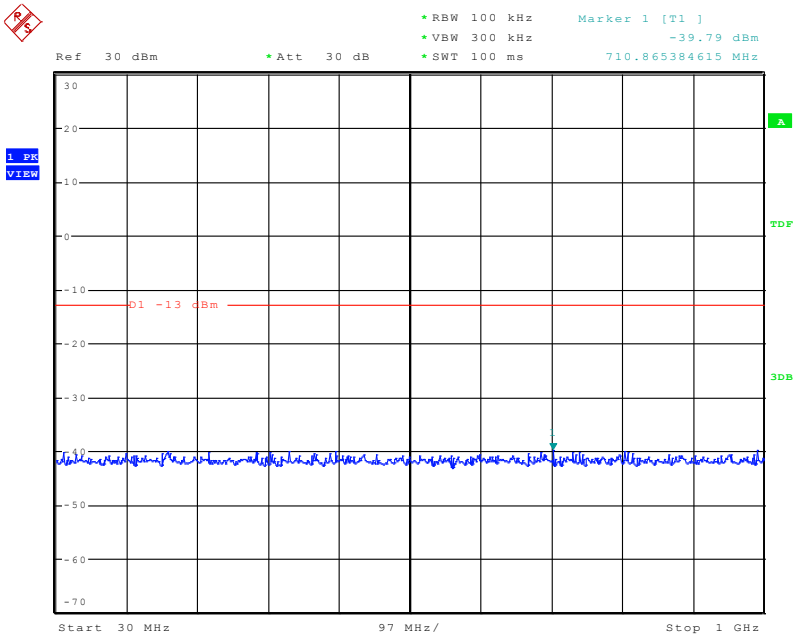
Conducted Emission Transmitting Mode CH 810 1GHz – 20GHz



Date: 24.MAR.2017 13:27:03

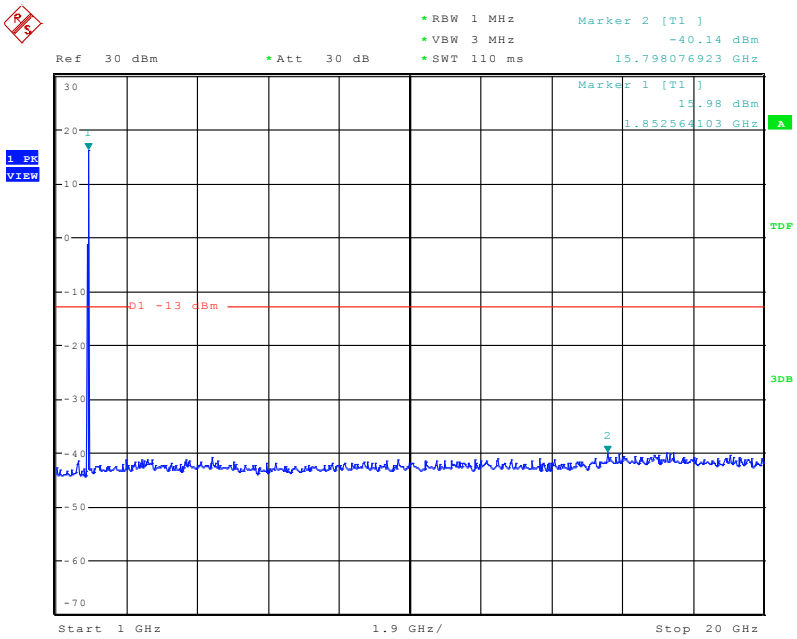
CONDUCTED EMISSION IN WCDMA Band II

Conducted Emission Transmitting Mode CH 9262 30MHz – 1GHz



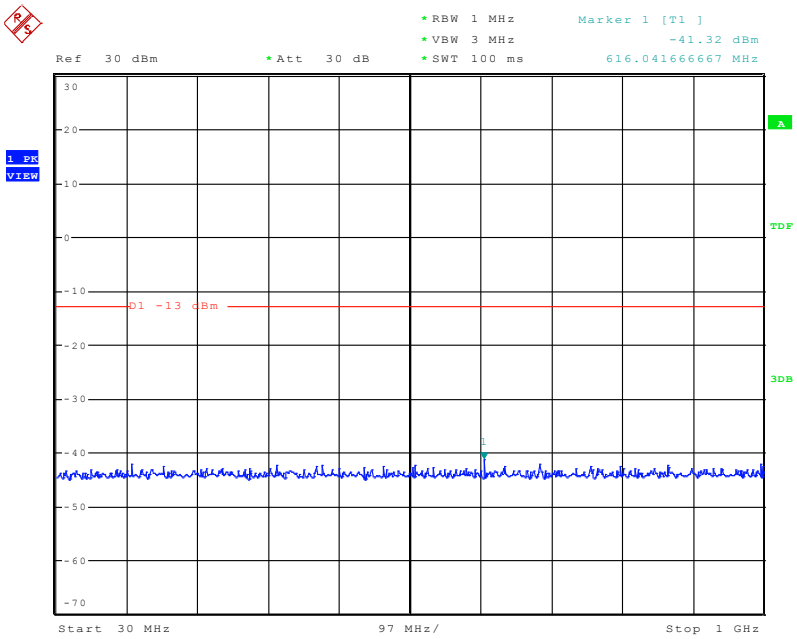
Date: 24.MAR.2017 13:29:23

Conducted Emission Transmitting Mode CH 9262 1GHz – 20GHz



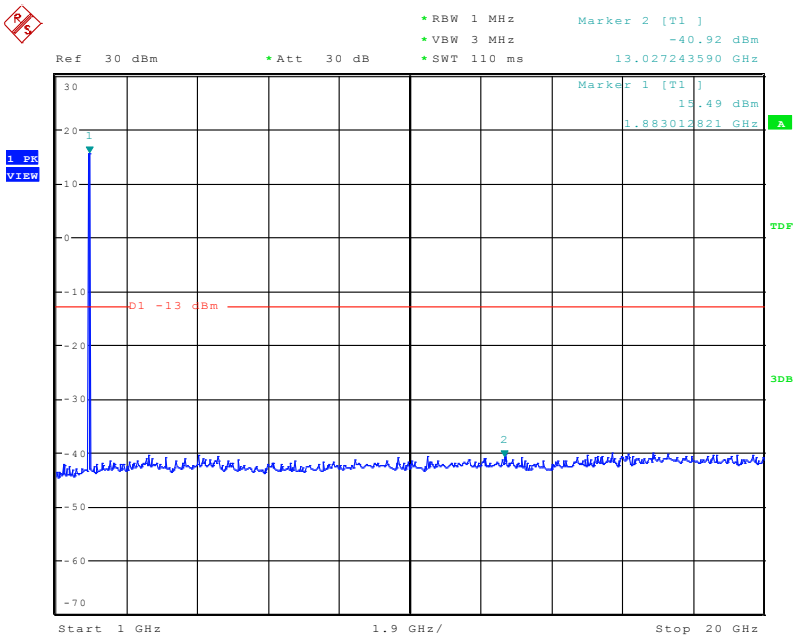
Date: 24.MAR.2017 13:31:10

Conducted Emission Transmitting Mode CH 9400 30MHz – 1GHz



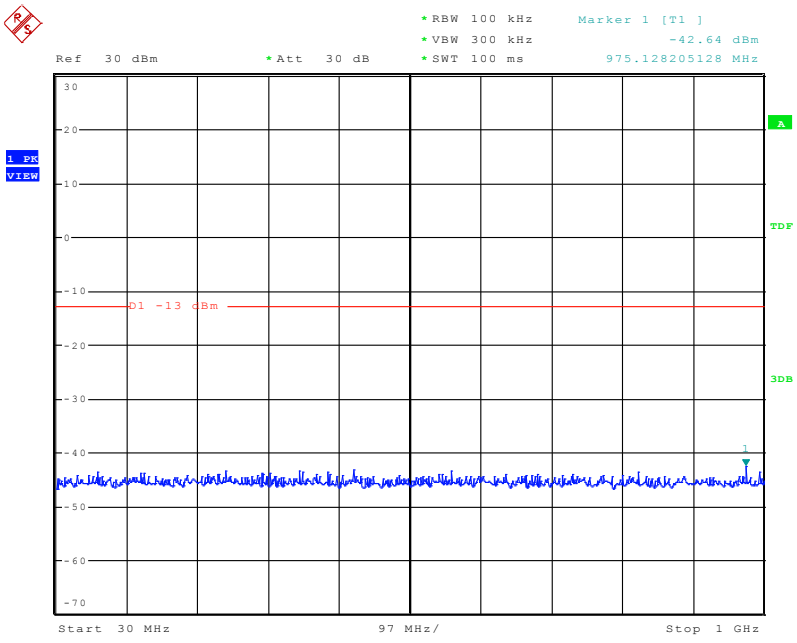
Date: 24.MAR.2017 13:33:24

Conducted Emission Transmitting Mode CH 9400 1GHz – 20GHz



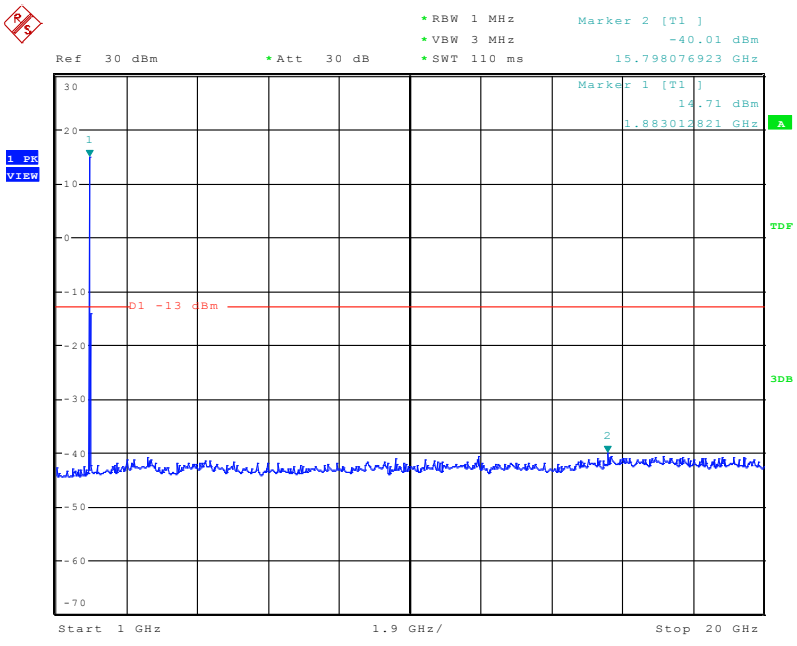
Date: 24.MAR.2017 13:34:38

Conducted Emission Transmitting Mode CH 9538 30MHz – 1GHz



Date: 24.MAR.2017 13:39:51

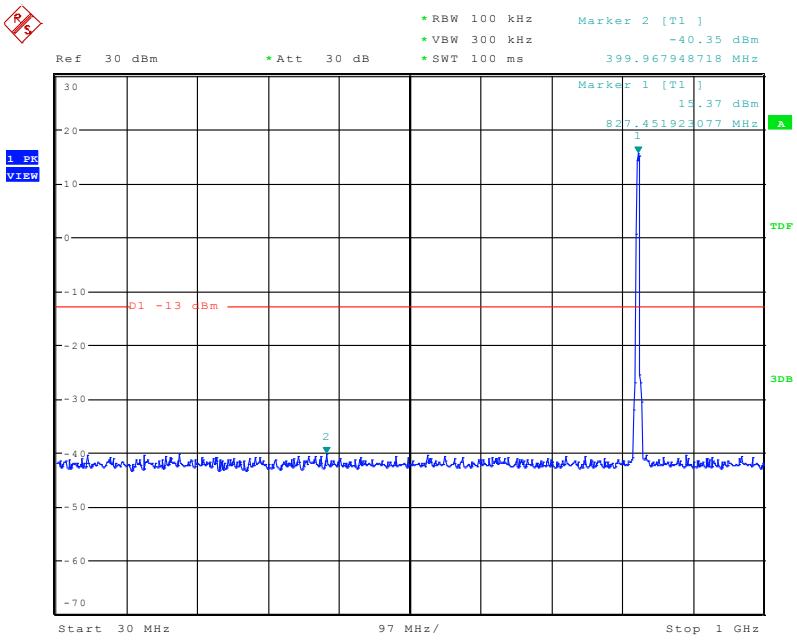
Conducted Emission Transmitting Mode CH 9538 1GHz – 20GHz



Date: 24.MAR.2017 13:42:03

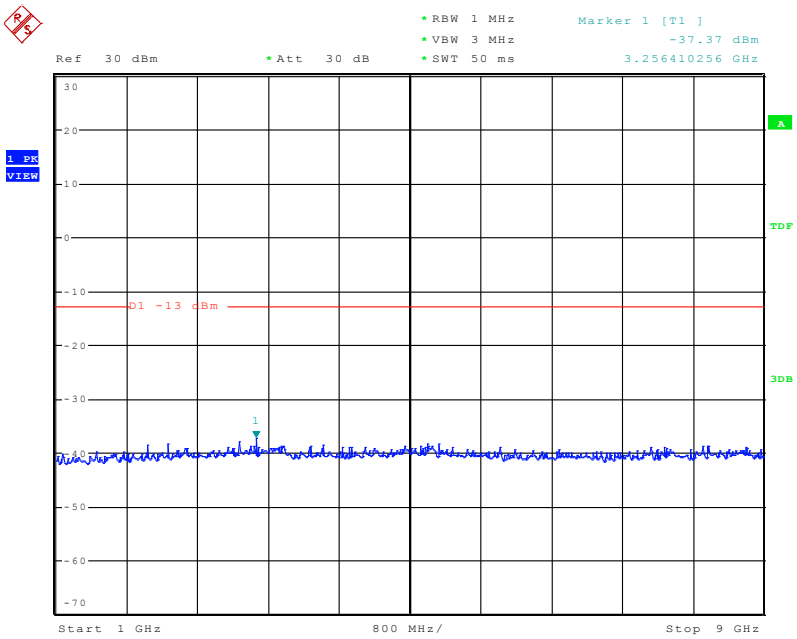
CONDUCTED EMISSION IN WCDMA Band V

Conducted Emission Transmitting Mode CH 4132 30MHz – 1GHz



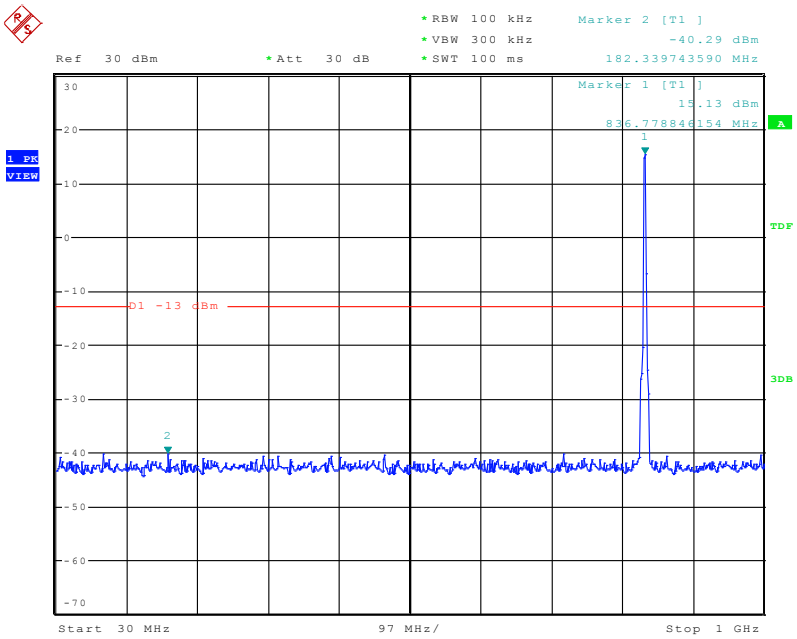
Date: 24.MAR.2017 13:45:12

Conducted Emission Transmitting Mode CH 4132 1GHz – 9GHz



Date: 24.MAR.2017 13:46:52

Conducted Emission Transmitting Mode CH 4182 30MHz – 1GHz



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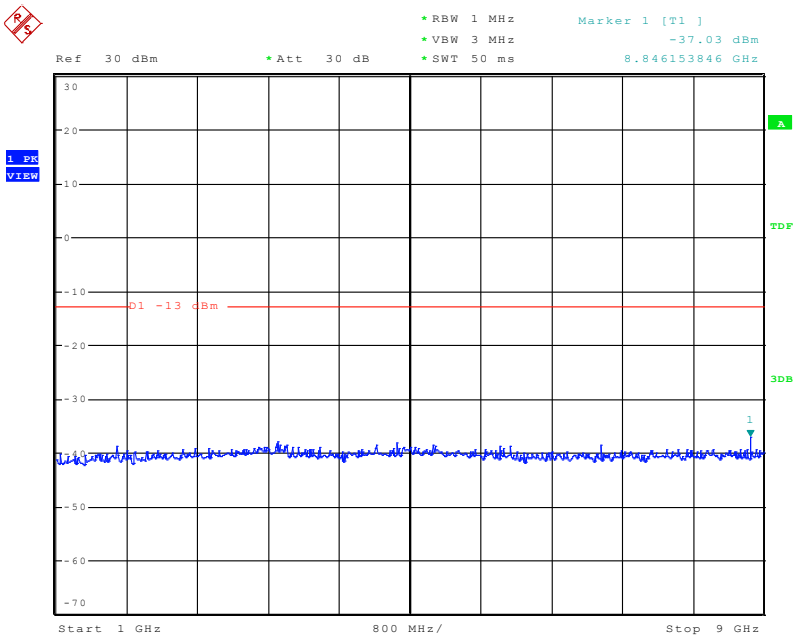
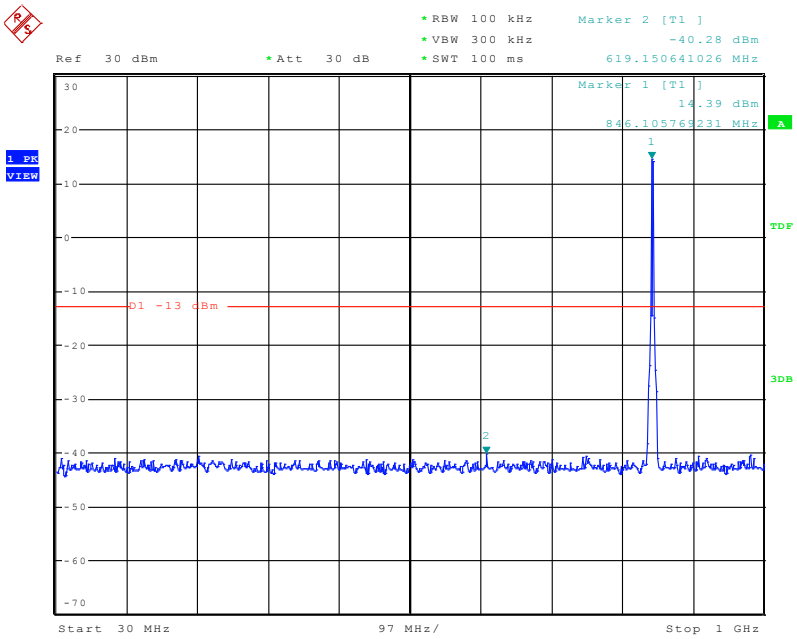
Conducted Emission Transmitting Mode CH 4182 1GHz – 9GHz



Date: 24.MAR.2017 13:52:00

Conducted Emission Transmitting Mode CH 4233 30MHz – 1GHz



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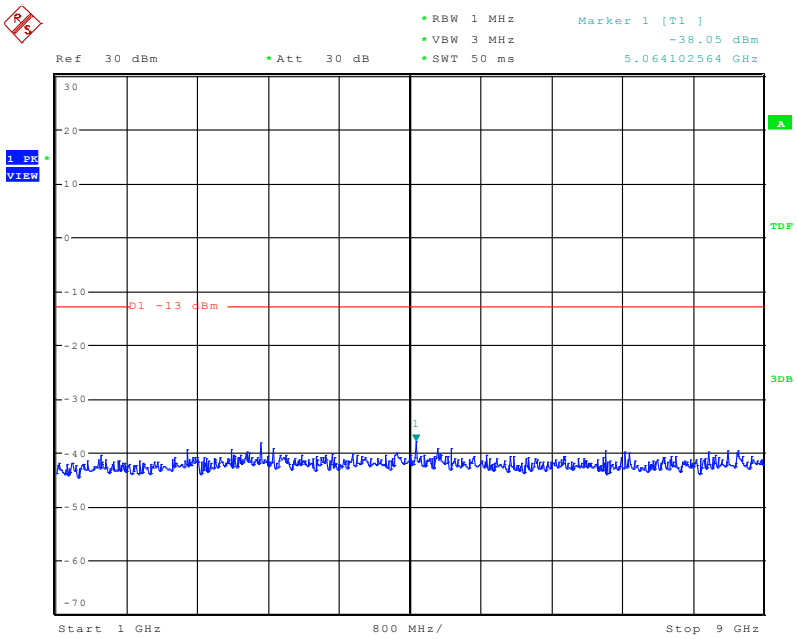
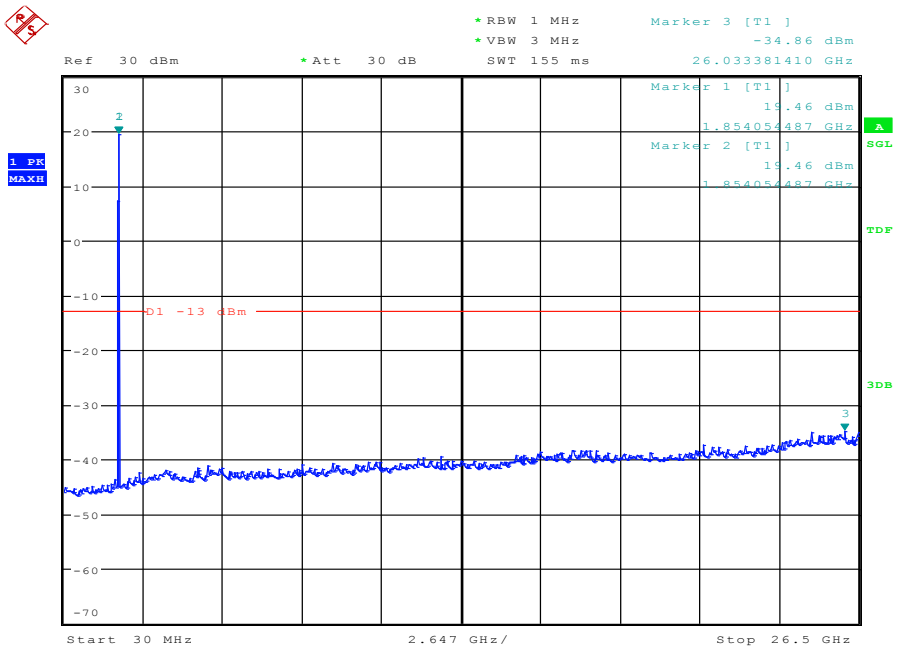
Conducted Emission Transmitting Mode CH 4233 1GHz – 9GHz



Date: 24.MAR.2017 13:56:56

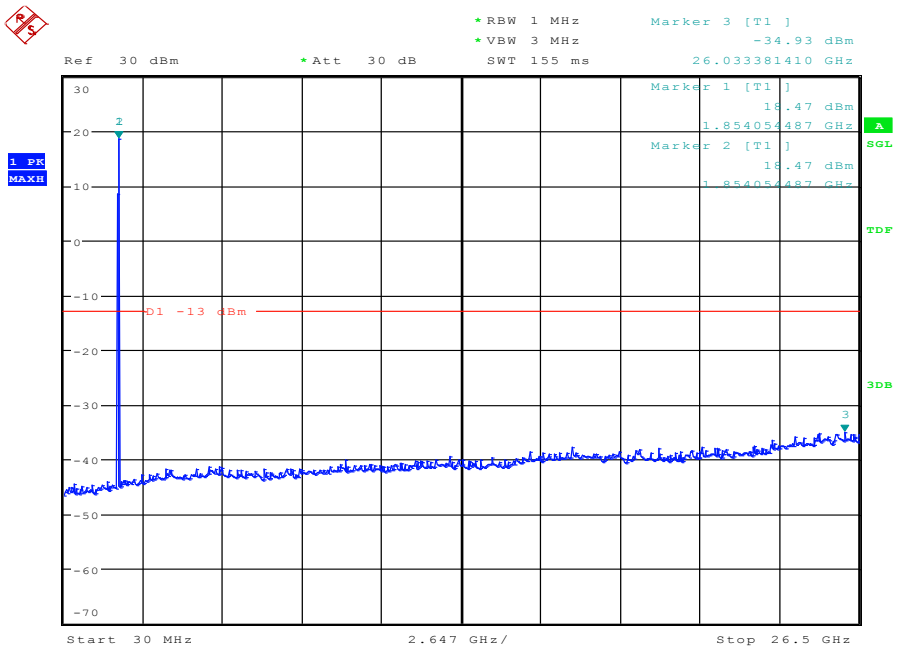
BAND 2@Conducted Spurious Emission

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



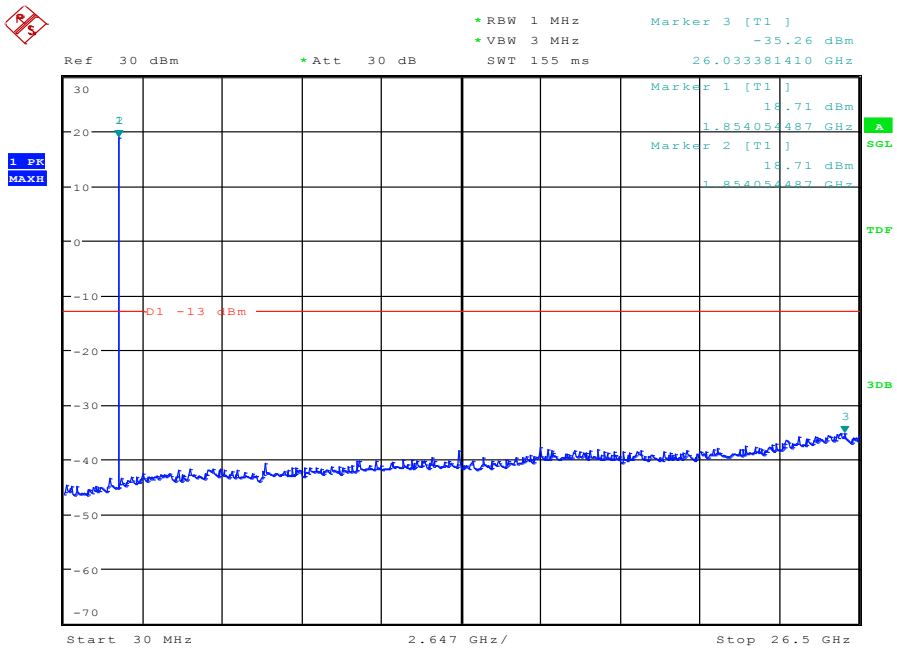
Date: 16.MAR.2017 11:04:57

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



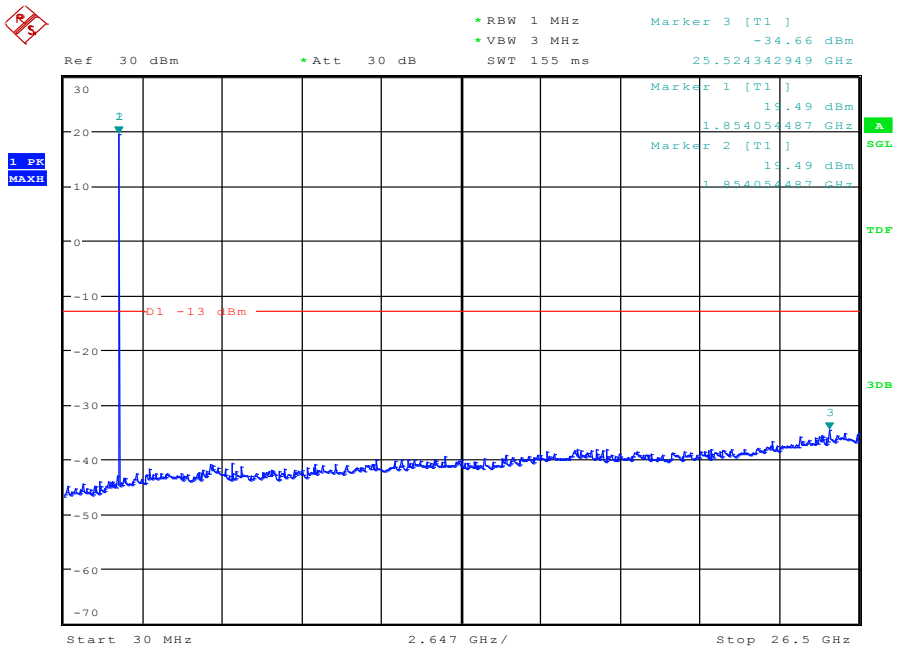
Date: 16.MAR.2017 11:04:40

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



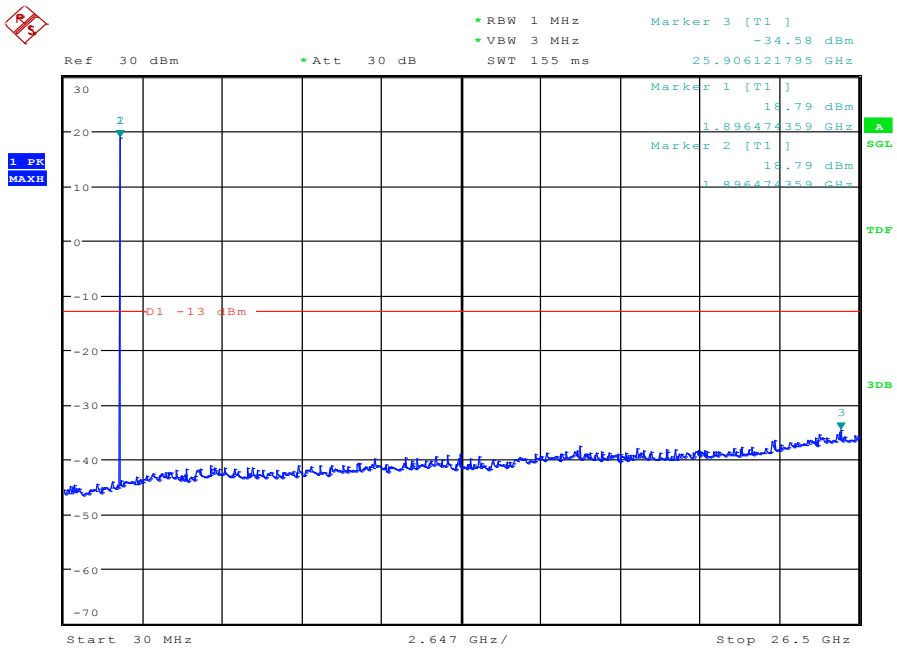
Date: 16.MAR.2017 11:06:05

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



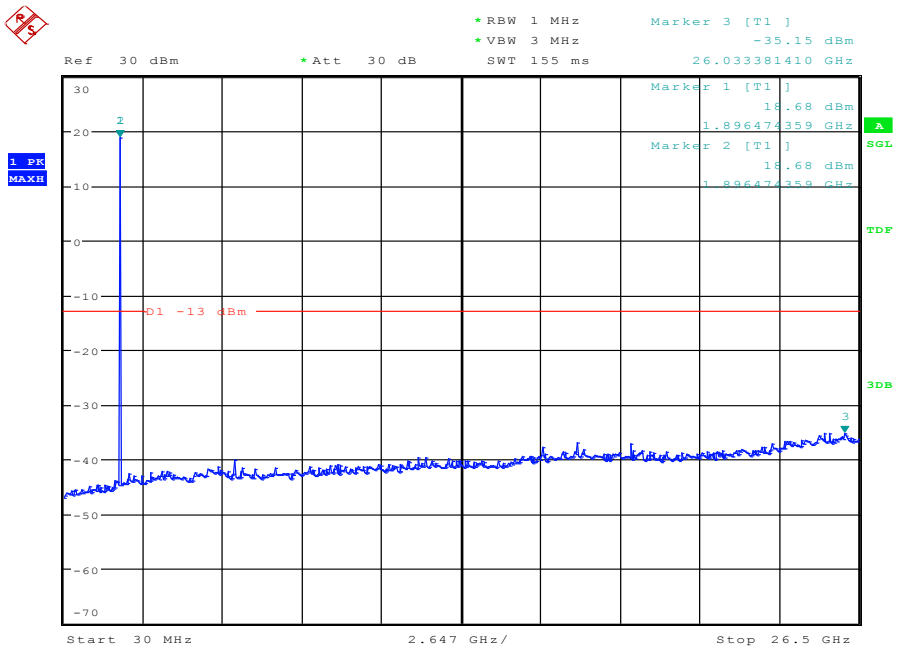
Date: 16.MAR.2017 11:05:48

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



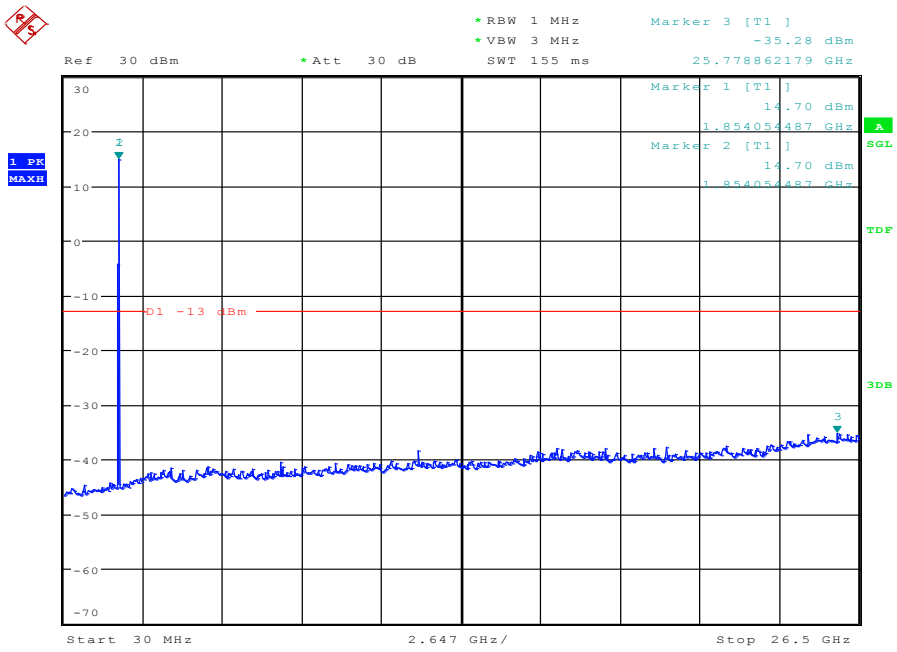
Date: 16.MAR.2017 11:05:31

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



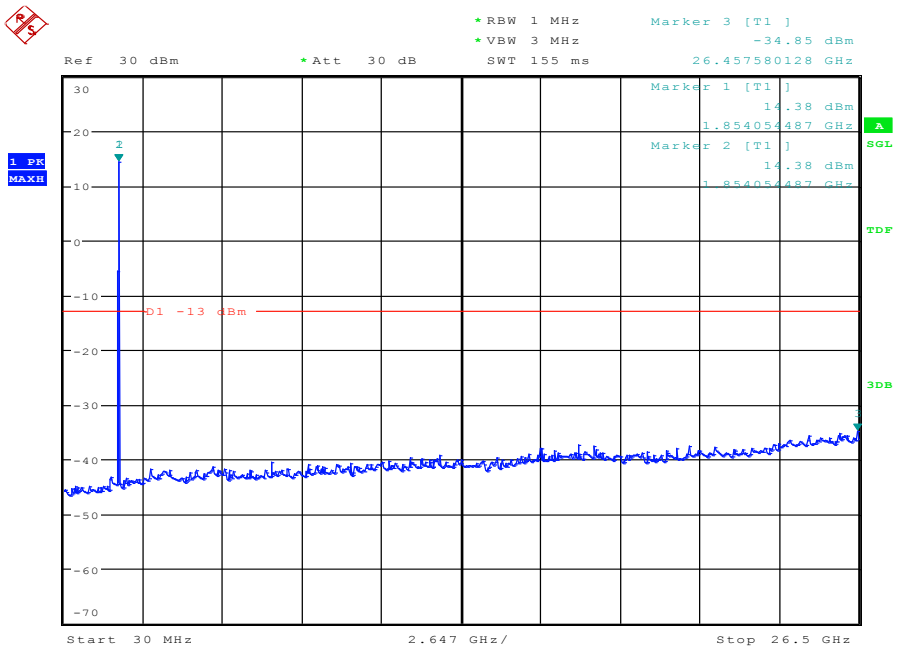
Date: 16.MAR.2017 11:05:14

BW10MHz-1855MHz,Q16-50RB_LOW@Pass



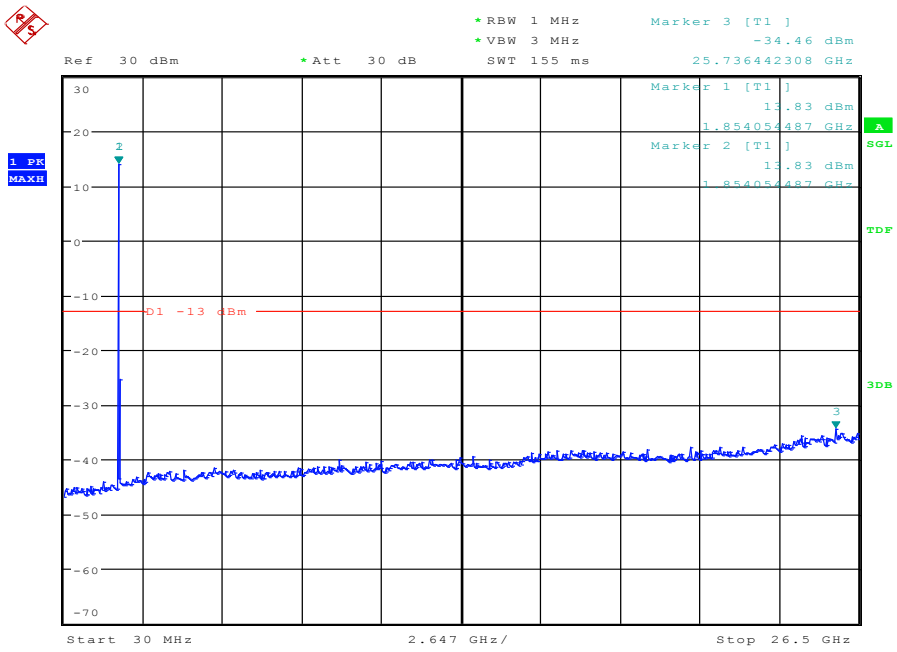
Date: 16.MAR.2017 11:10:17

BW10MHz-1855MHz,QPSK-50RB_LOW@Pass



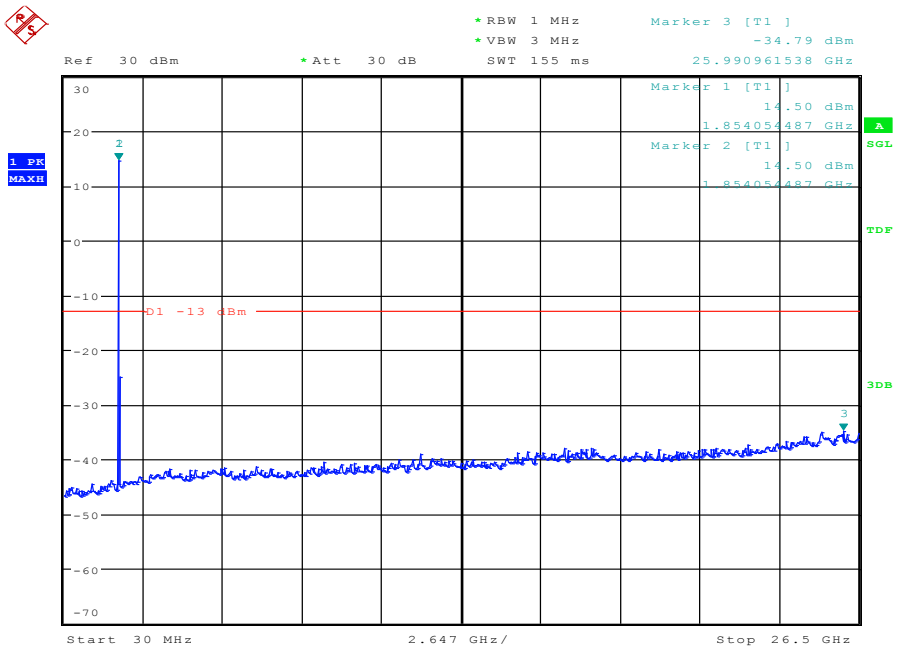
Date: 16.MAR.2017 11:09:59

BW10MHz-1880MHz,Q16-50RB_LOW@Pass



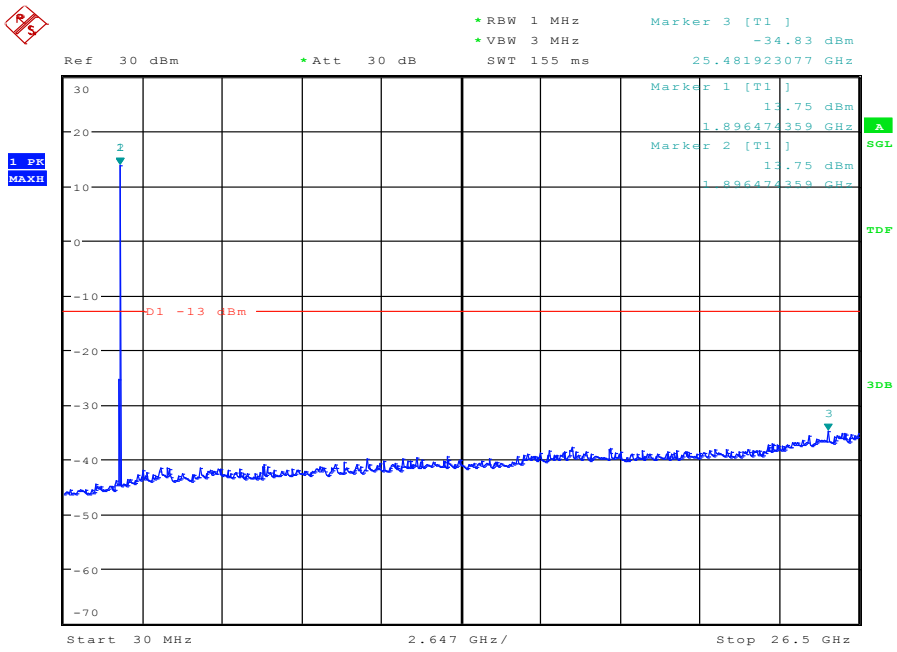
Date: 16.MAR.2017 11:11:29

BW10MHz-1880MHz,QPSK-50RB_LOW@Pass



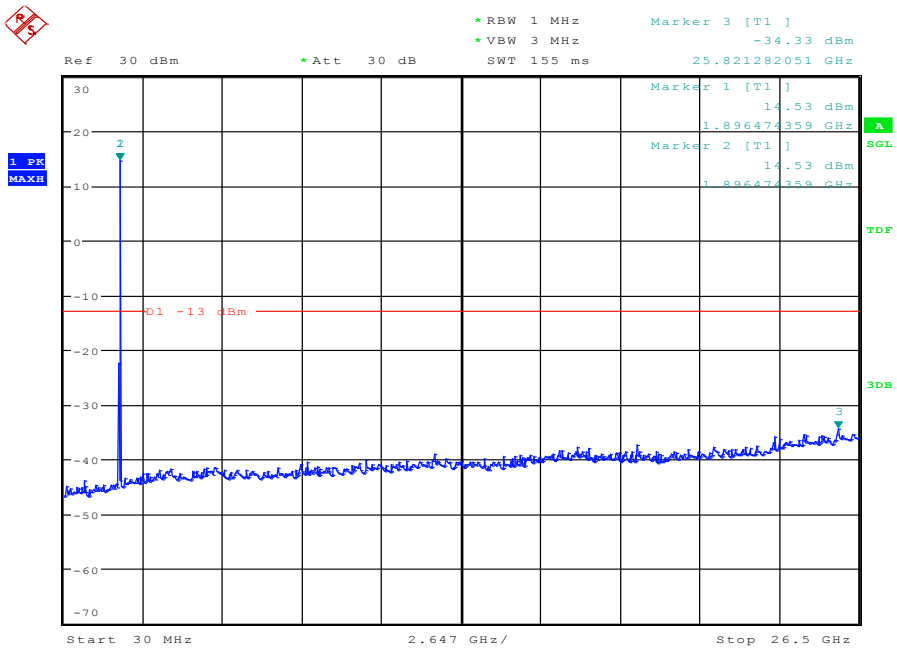
Date: 16.MAR.2017 11:11:11

BW10MHz-1905MHz,Q16-50RB_LOW@Pass



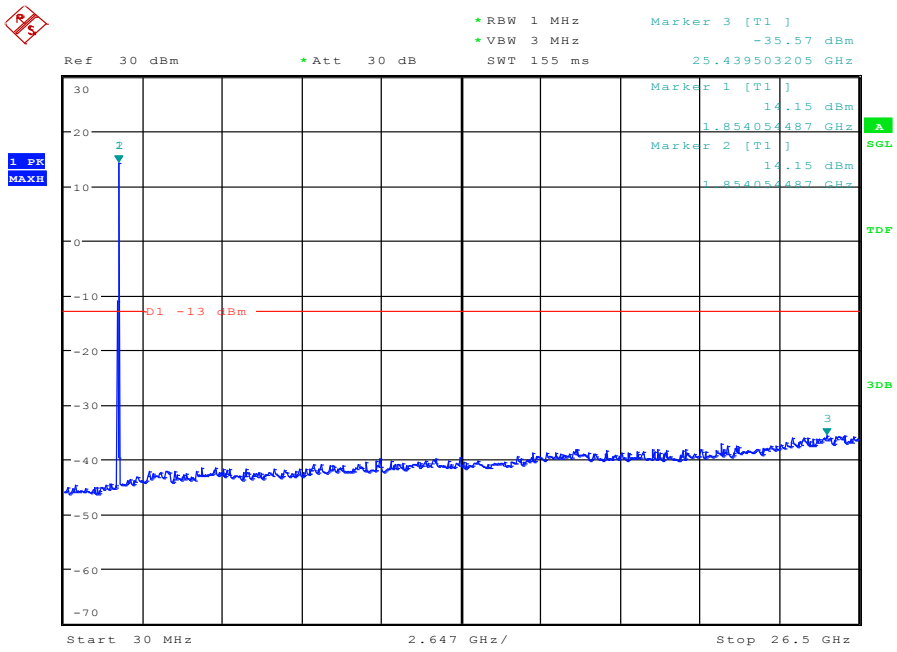
Date: 16.MAR.2017 11:10:53

BW10MHz-1905MHz,QPSK-50RB_LOW@Pass



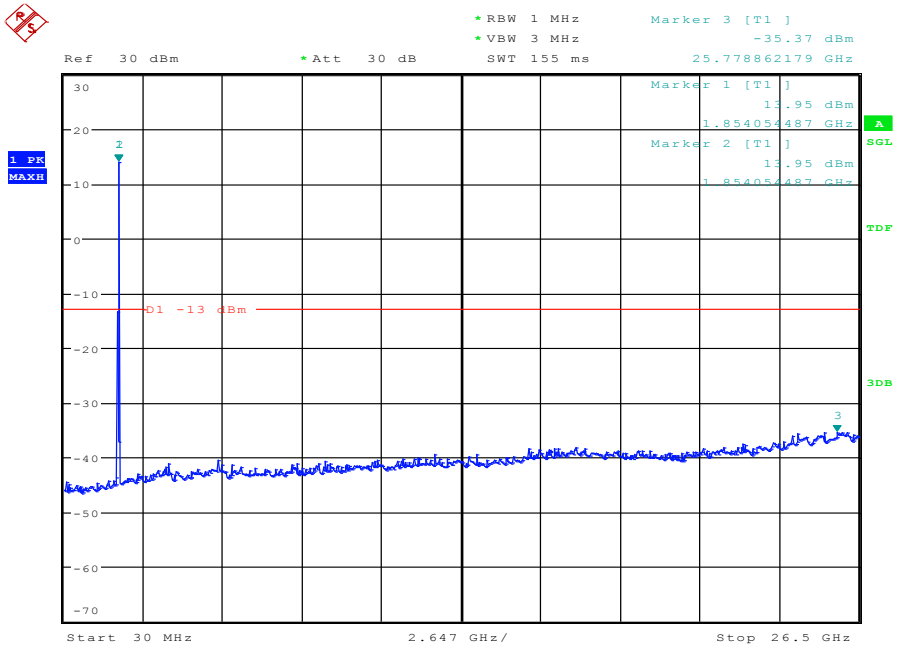
Date: 16.MAR.2017 11:10:35

BW15MHz-1857.5MHz,Q16-75RB_LOW@Pass



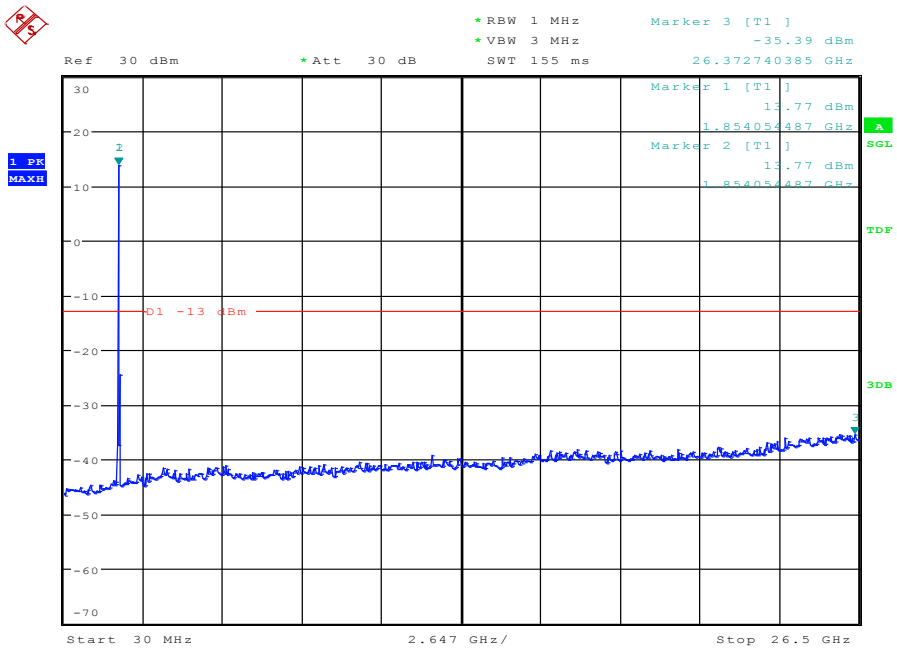
Date: 16.MAR.2017 11:12:12

BW15MHz-1857.5MHz,QPSK-75RB_LOW@Pass



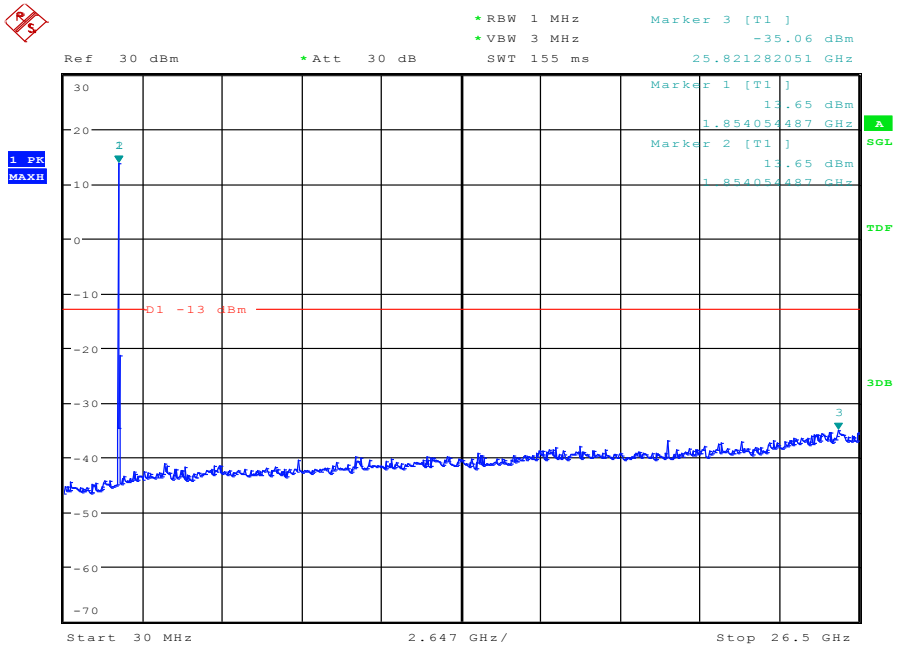
Date: 16.MAR.2017 11:11:52

BW15MHz-1880MHz,Q16-75RB_LOW@Pass



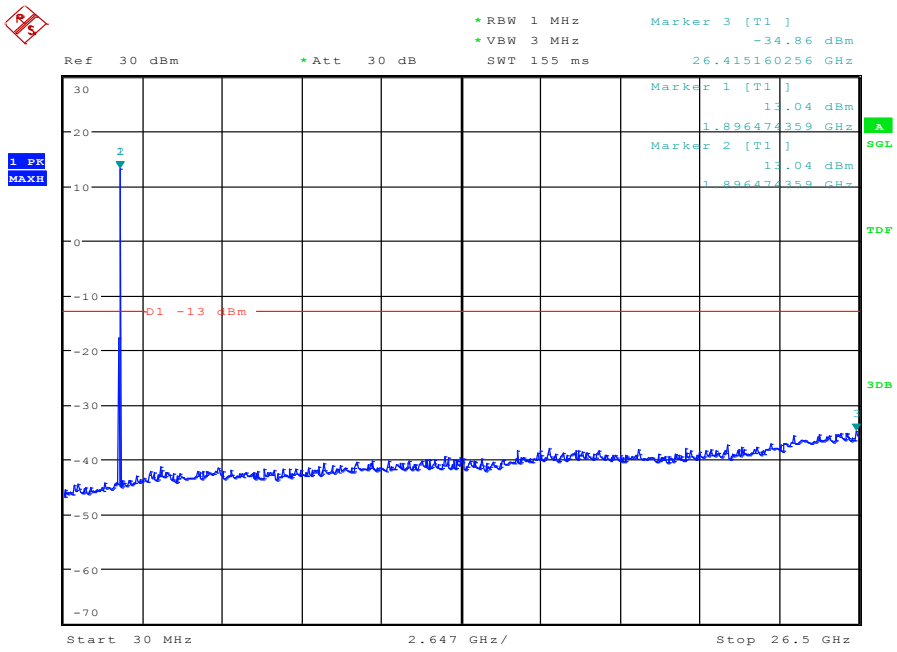
Date: 16.MAR.2017 11:13:33

BW15MHz-1880MHz,QPSK-75RB_LOW@Pass



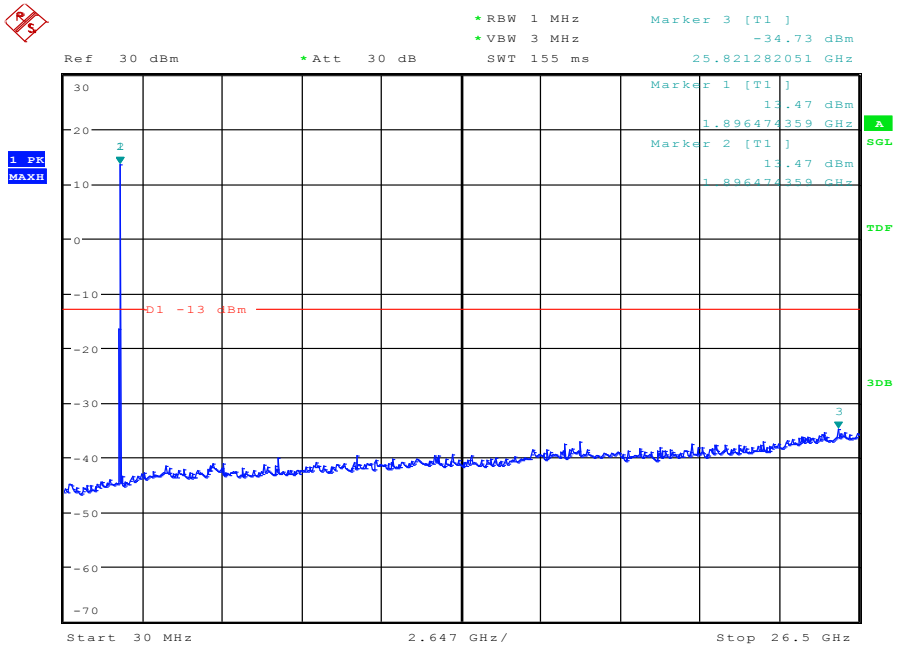
Date: 16.MAR.2017 11:13:13

BW15MHz-1902.5MHz,Q16-75RB_LOW@Pass



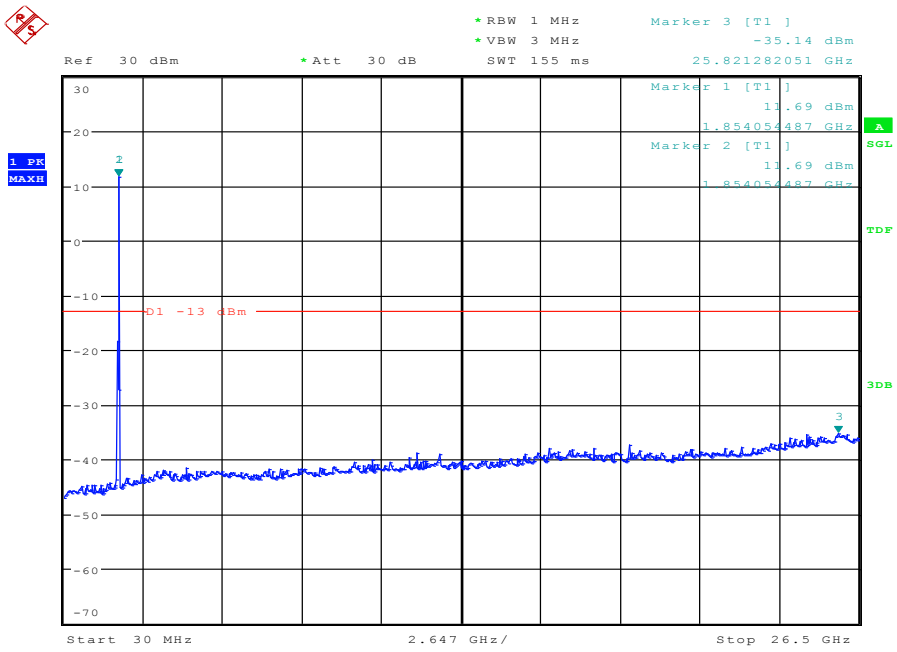
Date: 16.MAR.2017 11:12:52

BW15MHz-1902.5MHz,QPSK-75RB_LOW@Pass



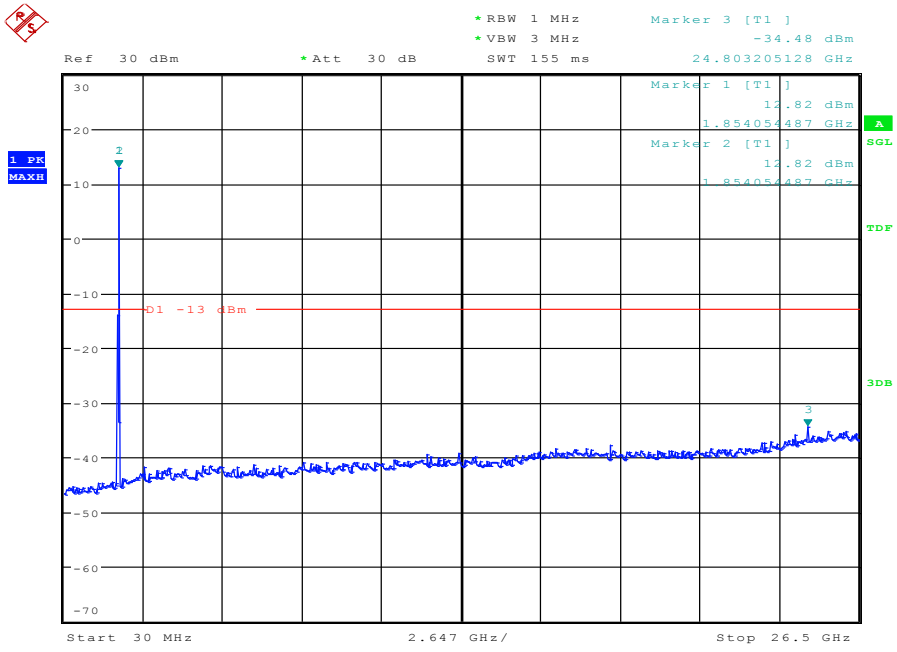
Date: 16.MAR.2017 11:12:32

BW20MHz-1860MHz,Q16-100RB_LOW@Pass



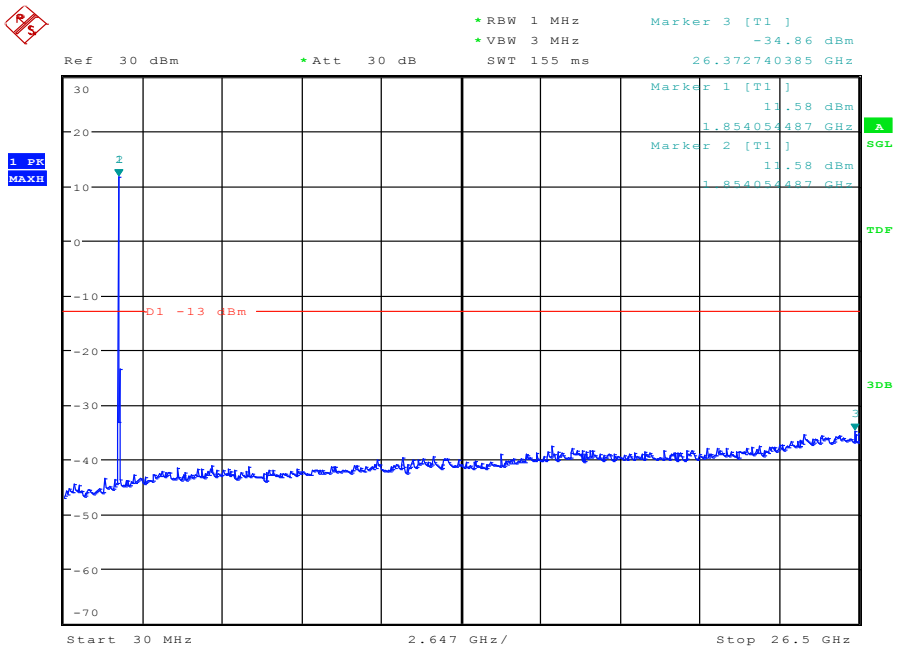
Date: 16.MAR.2017 11:14:16

BW20MHz-1860MHz,QPSK-100RB_LOW@Pass



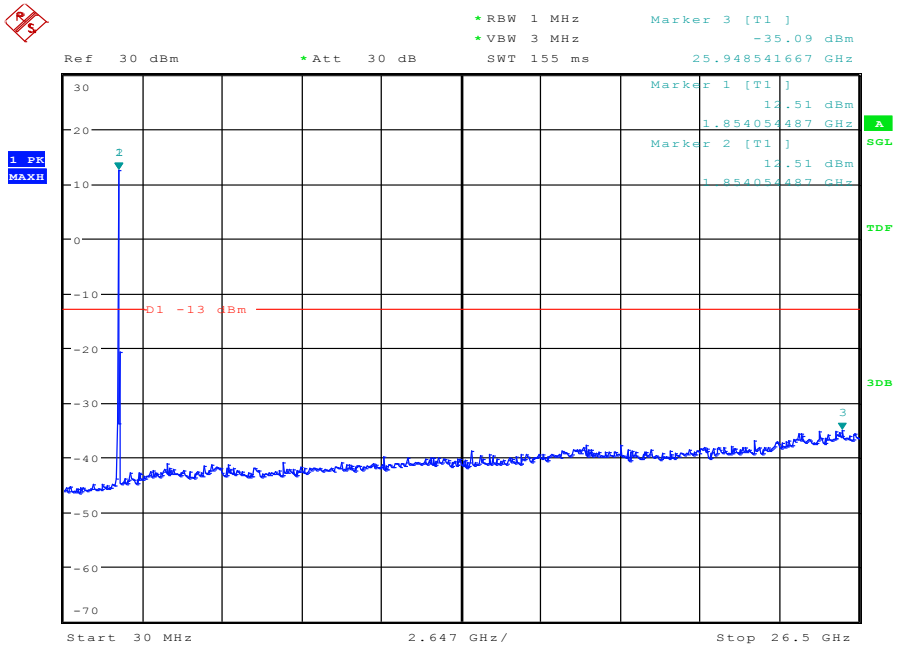
Date: 16.MAR.2017 11:13:56

BW20MHz-1880MHz,Q16-100RB_LOW@Pass



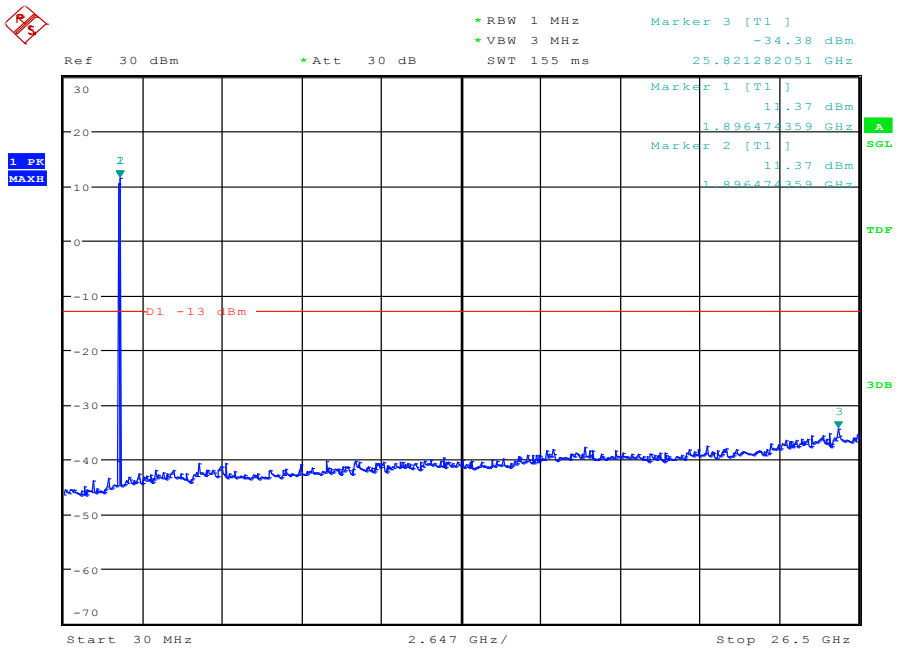
Date: 16.MAR.2017 11:15:38

BW20MHz-1880MHz,QPSK-100RB_LOW@Pass



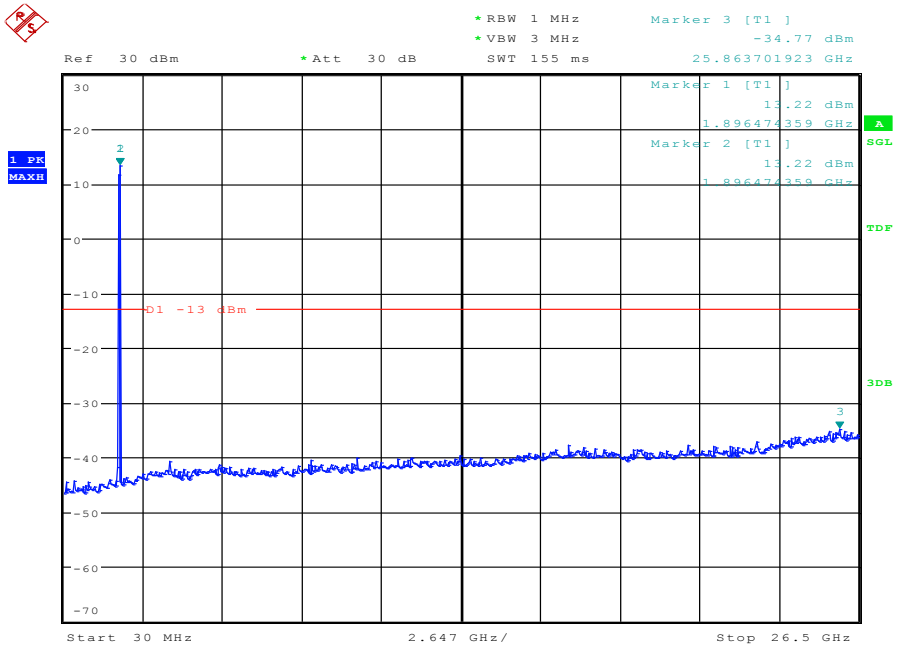
Date: 16.MAR.2017 11:15:18

BW20MHz-1900MHz,Q16-100RB_LOW@Pass



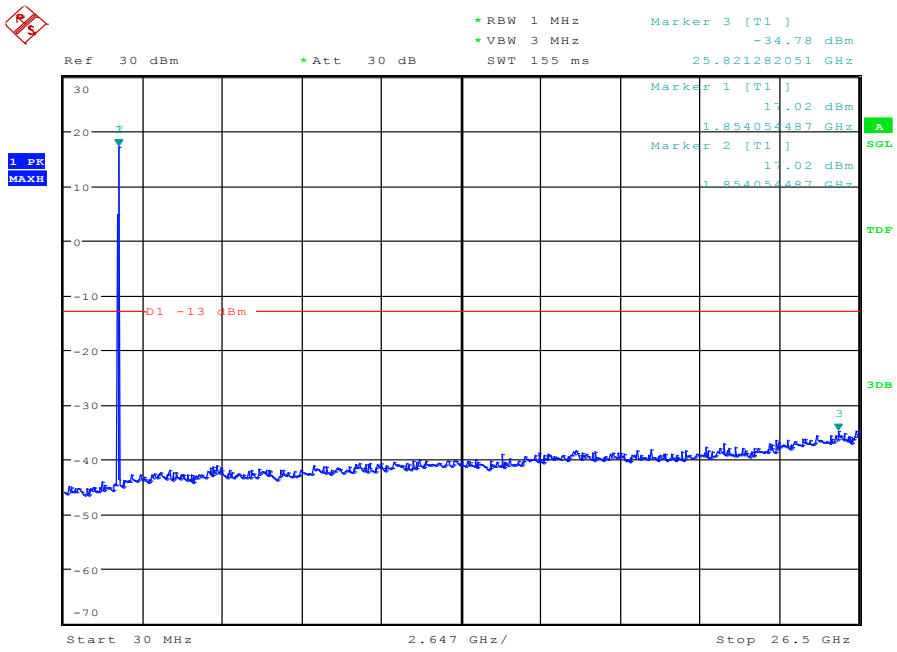
Date: 16.MAR.2017 11:14:57

BW20MHz-1900MHz,QPSK-100RB_LOW@Pass



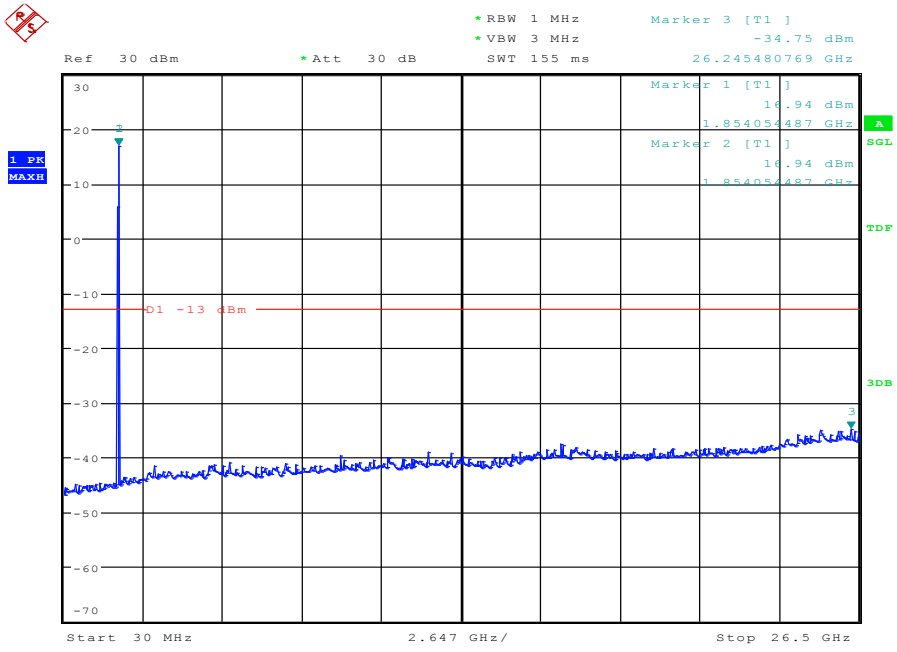
Date: 16.MAR.2017 11:14:37

BW3MHz-1851.5MHz,Q16-15RB_LOW@Pass



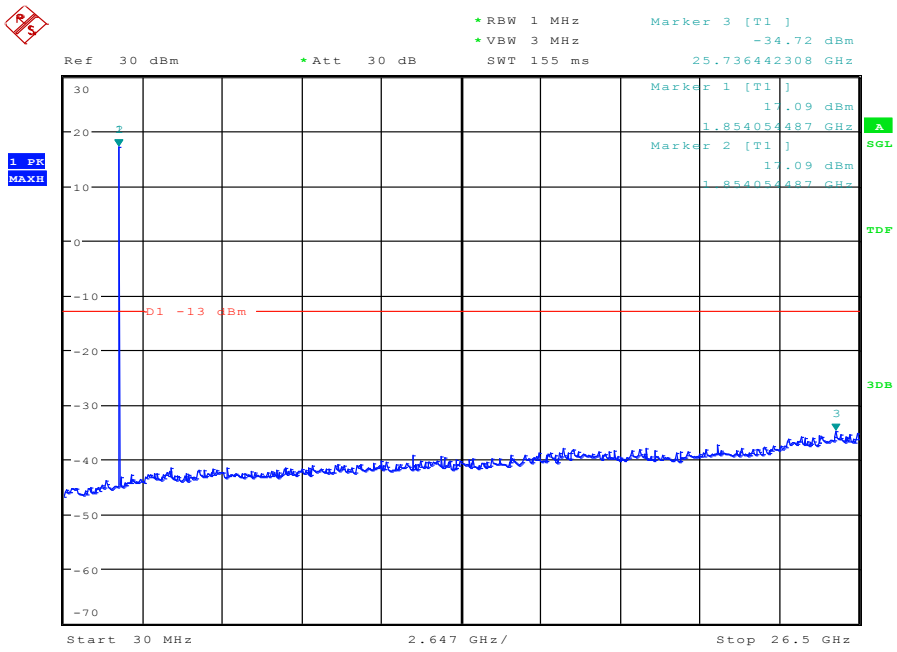
Date: 16.MAR.2017 11:06:42

BW3MHz-1851.5MHz,QPSK-15RB_LOW@Pass



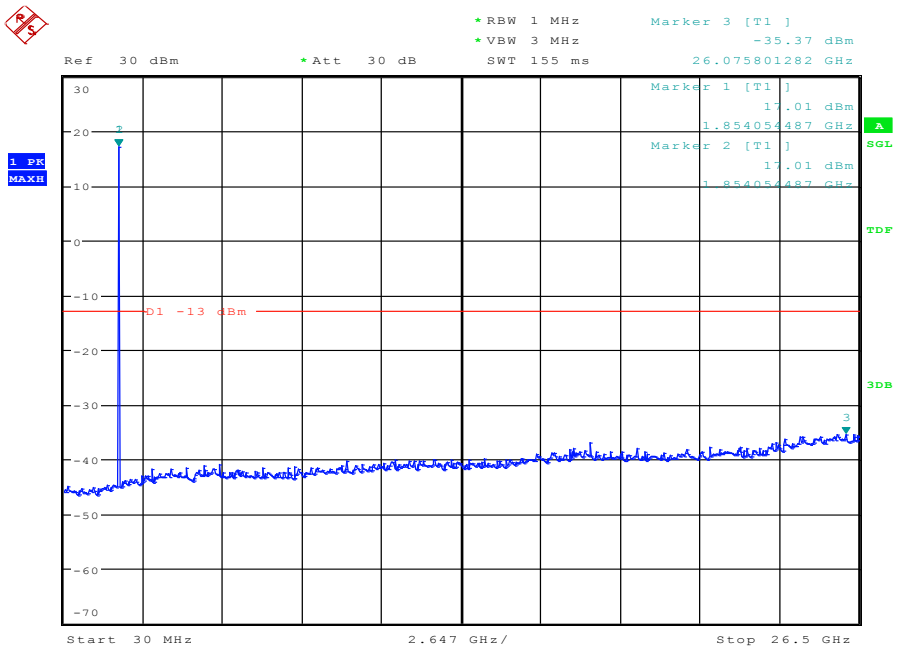
Date: 16.MAR.2017 11:06:25

BW3MHz-1880MHz,Q16-15RB_LOW@Pass



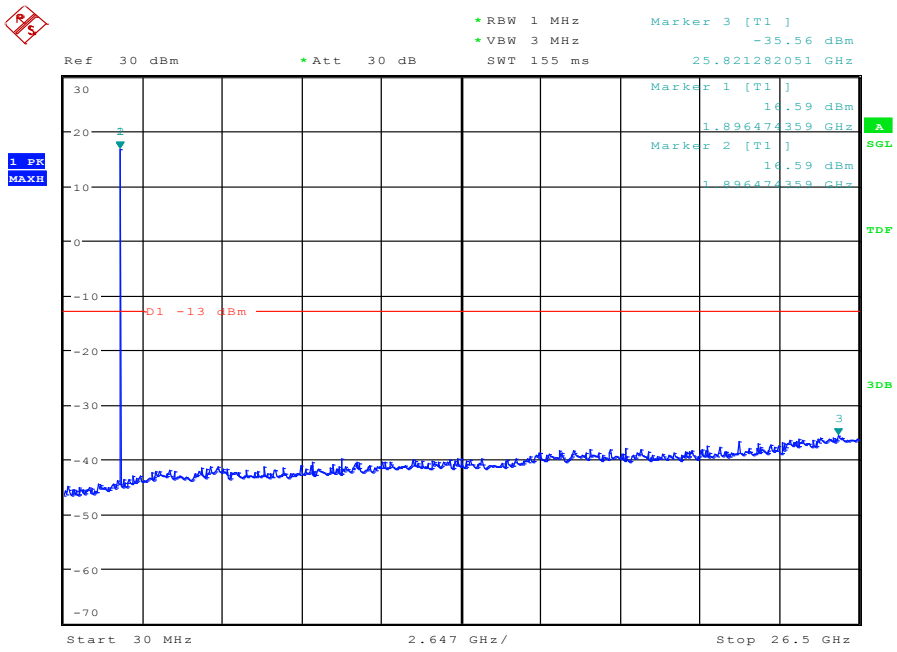
Date: 16.MAR.2017 11:07:51

BW3MHz-1880MHz,QPSK-15RB_LOW@Pass



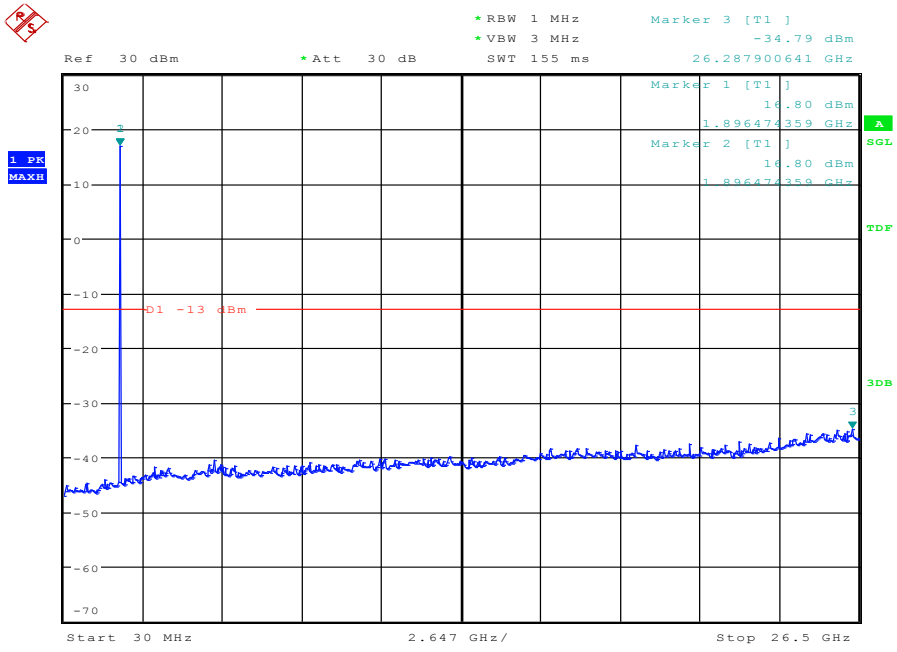
Date: 16.MAR.2017 11:07:34

BW3MHz-1908.5MHz,Q16-15RB_LOW@Pass



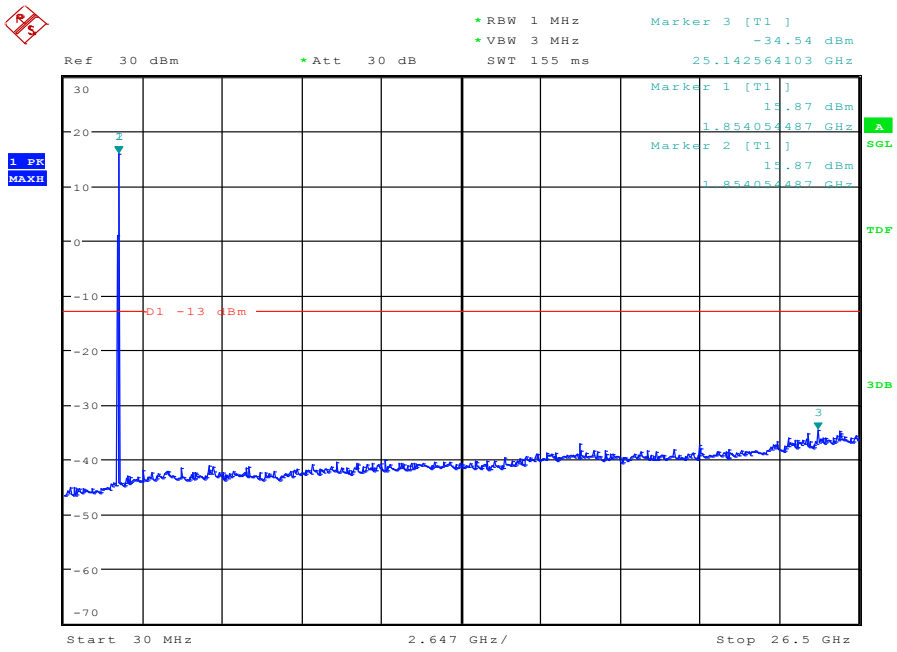
Date: 16.MAR.2017 11:07:16

BW3MHz-1908.5MHz,QPSK-15RB_LOW@Pass



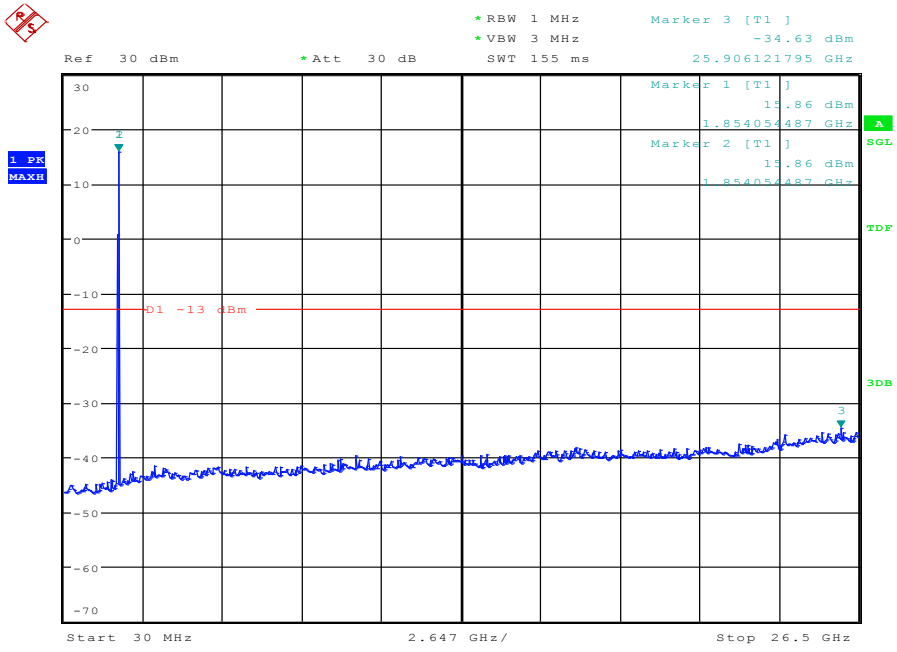
Date: 16.MAR.2017 11:06:59

BW5MHz-1852.5MHz,Q16-25RB_LOW@Pass



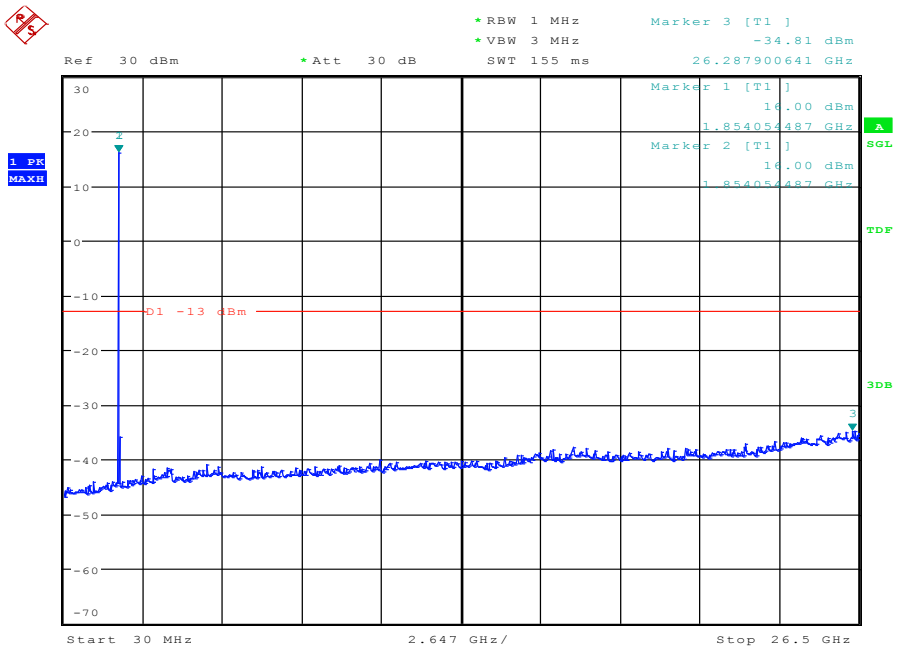
Date: 16.MAR.2017 11:08:28

BW5MHz-1852.5MHz,QPSK-25RB_LOW@Pass



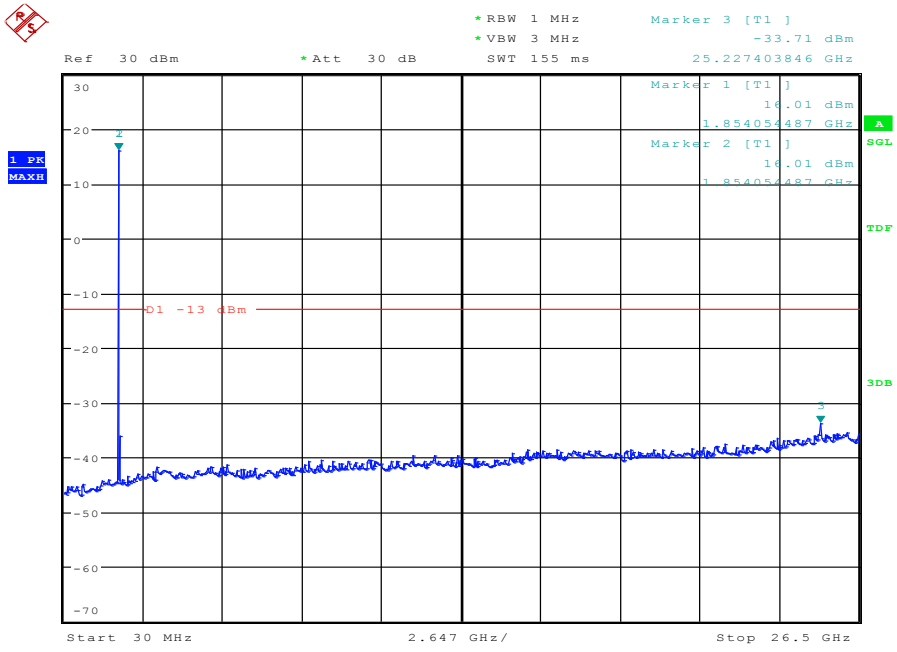
Date: 16.MAR.2017 11:08:11

BW5MHz-1880MHz,Q16-25RB_LOW@Pass



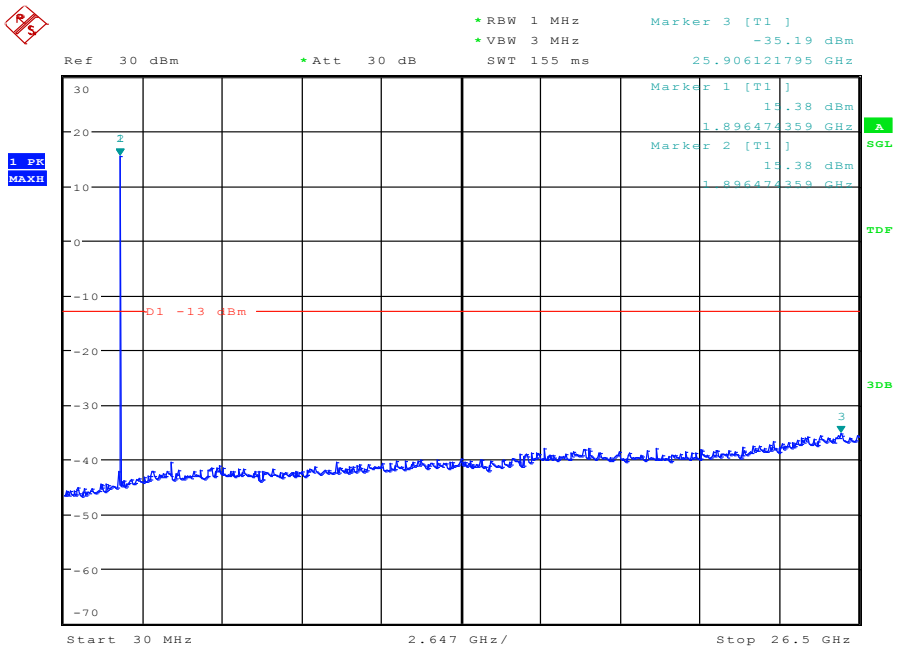
Date: 16.MAR.2017 11:09:38

BW5MHz-1880MHz,QPSK-25RB_LOW@Pass



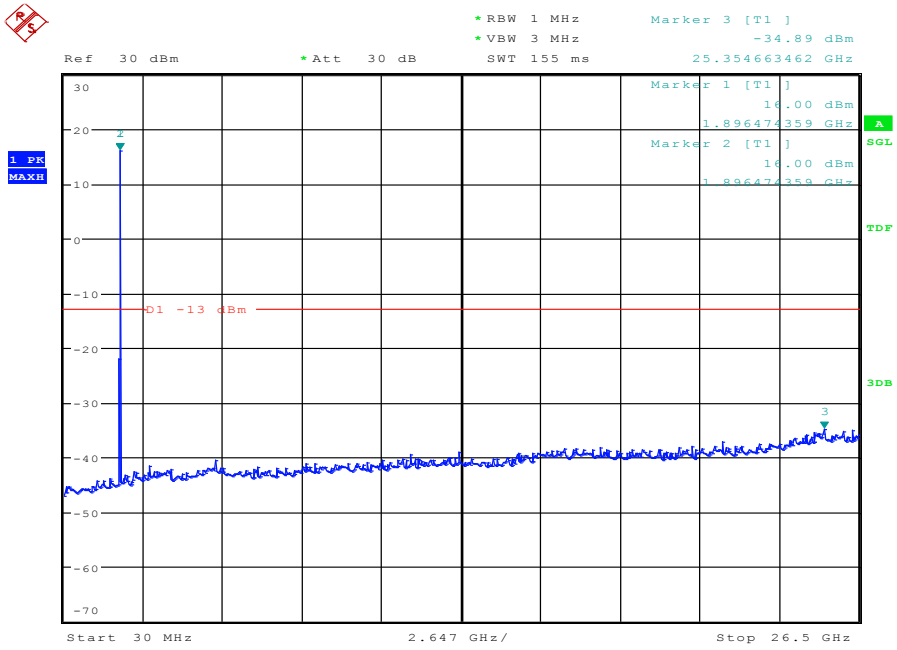
Date: 16.MAR.2017 11:09:21

BW5MHz-1907.5MHz,Q16-25RB_LOW@Pass



Date: 16.MAR.2017 11:09:03

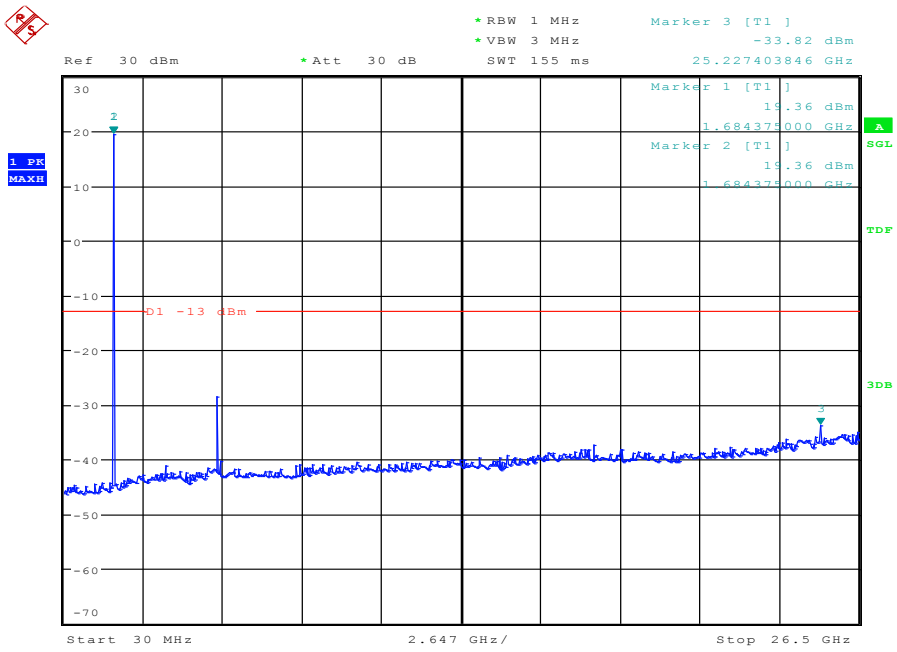
BW5MHz-1907.5MHz,QPSK-25RB_LOW@Pass



Date: 16.MAR.2017 11:08:46

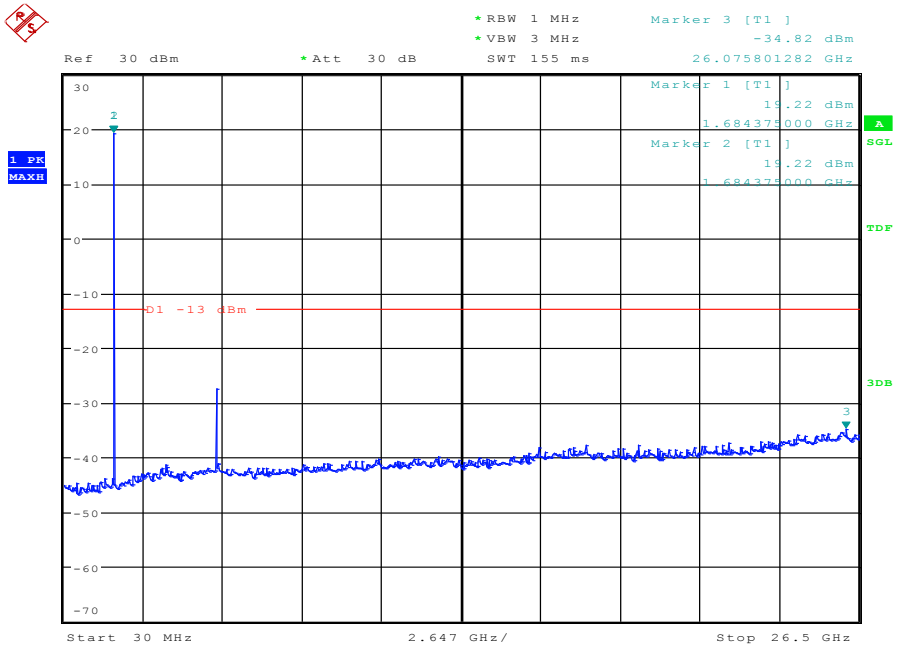
BAND 4@Conducted Spurious Emission

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



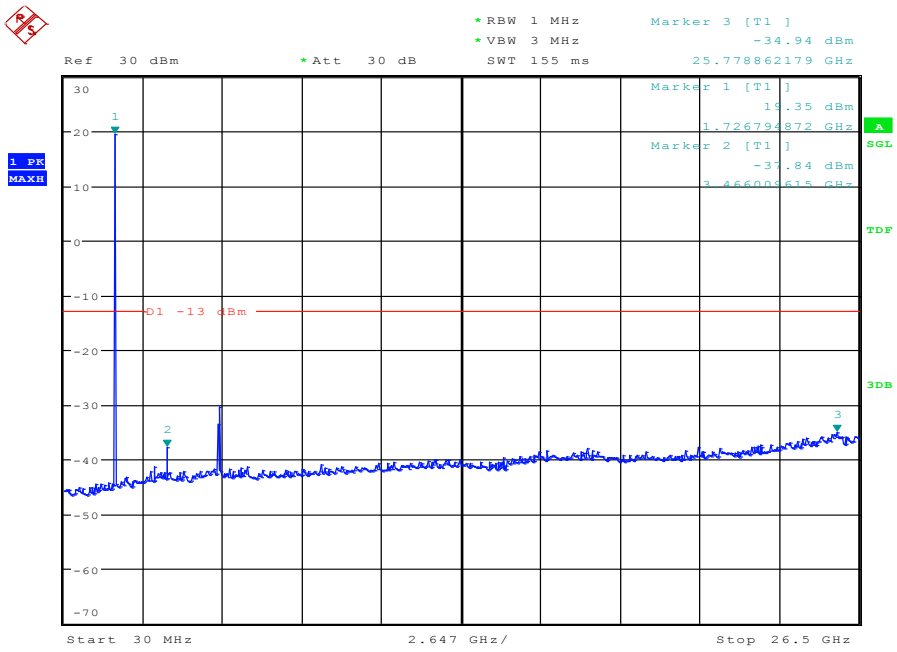
Date: 16.MAR.2017 13:35:22

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



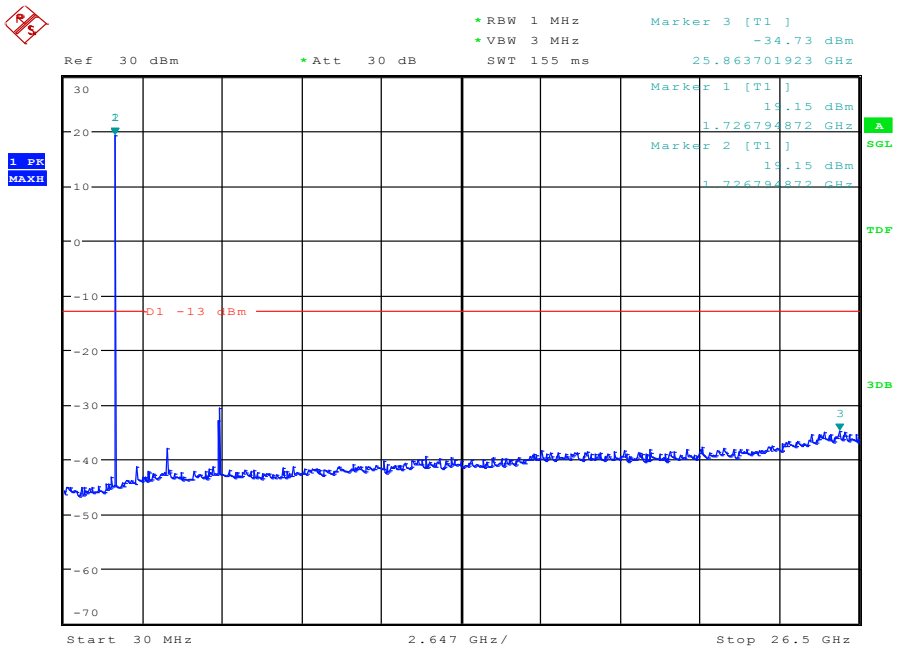
Date: 16.MAR.2017 13:35:05

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



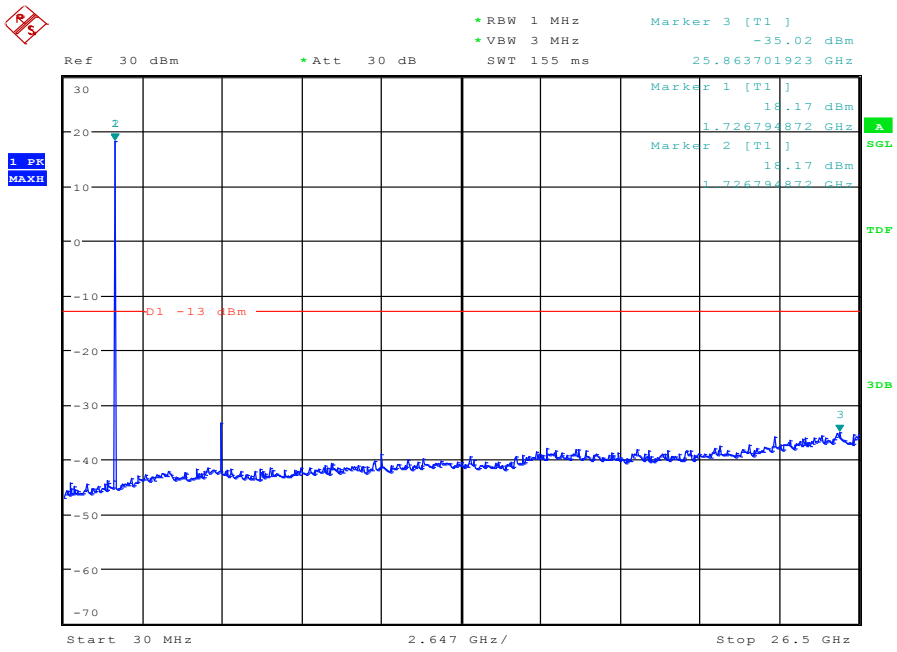
Date: 16.MAR.2017 13:36:31

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



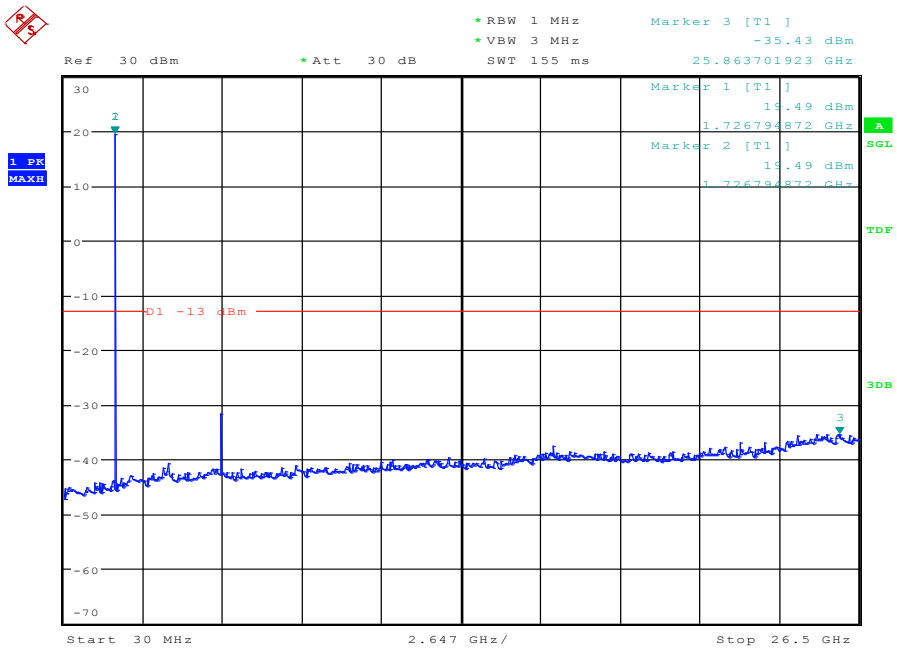
Date: 16.MAR.2017 13:36:14

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



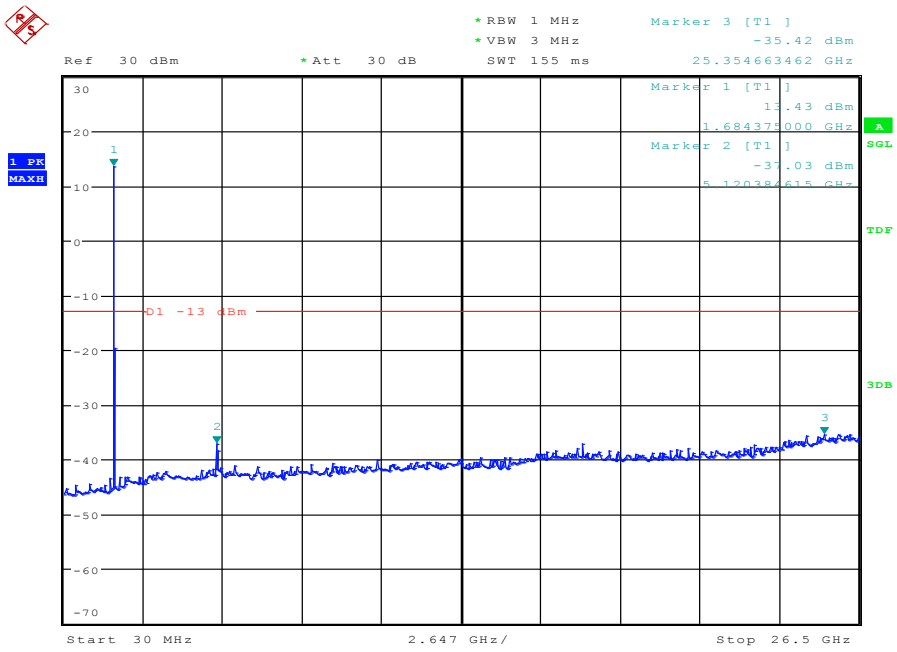
Date: 16.MAR.2017 13:35:57

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



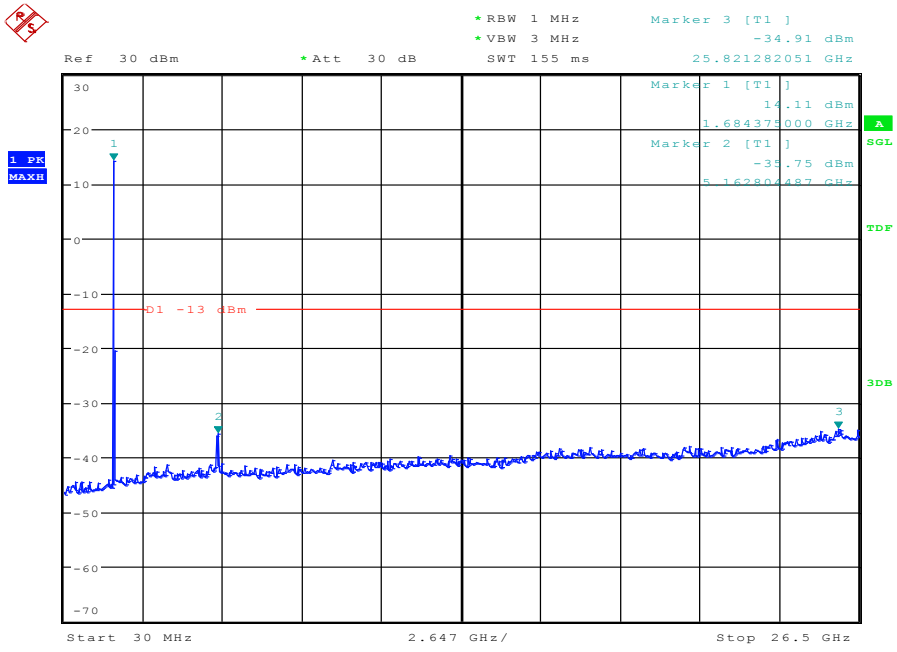
Date: 16.MAR.2017 13:35:40

BW10MHz-1715MHz,Q16-50RB_LOW@Pass



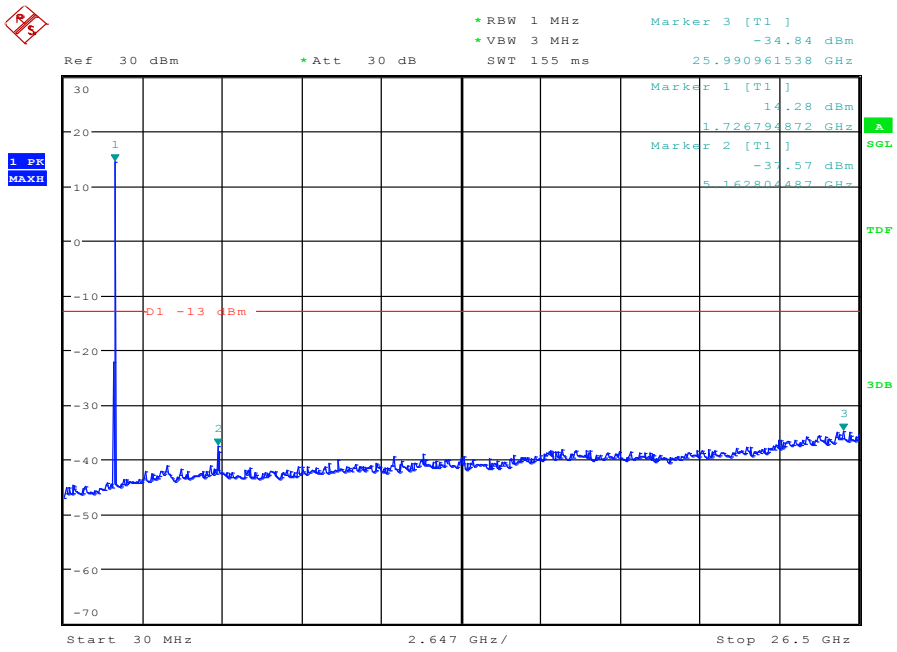
Date: 16.MAR.2017 13:40:44

BW10MHz-1715MHz,QPSK-50RB_LOW@Pass



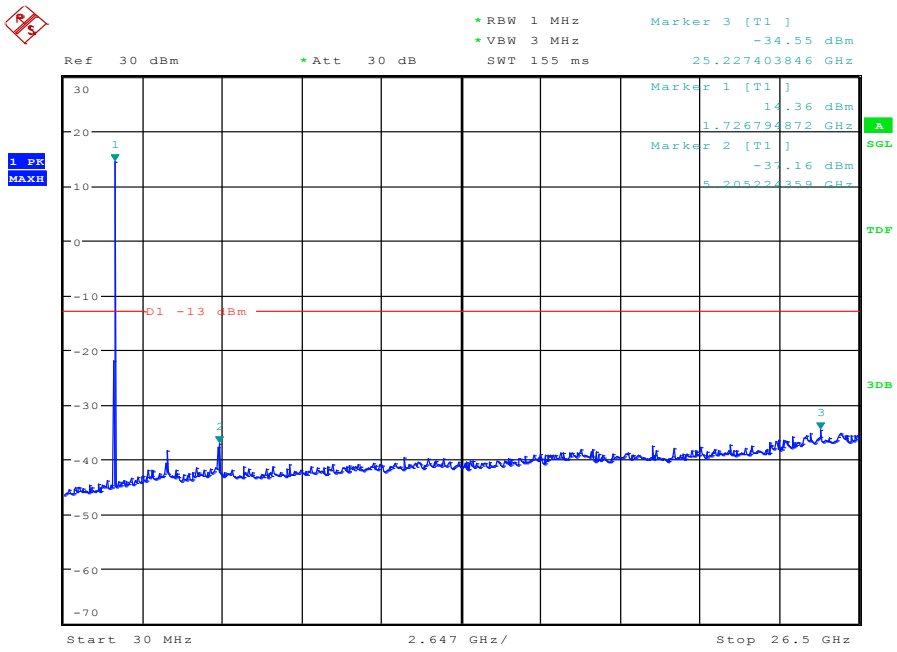
Date: 16.MAR.2017 13:40:26

BW10MHz-1732.5MHz,Q16-50RB_LOW@Pass



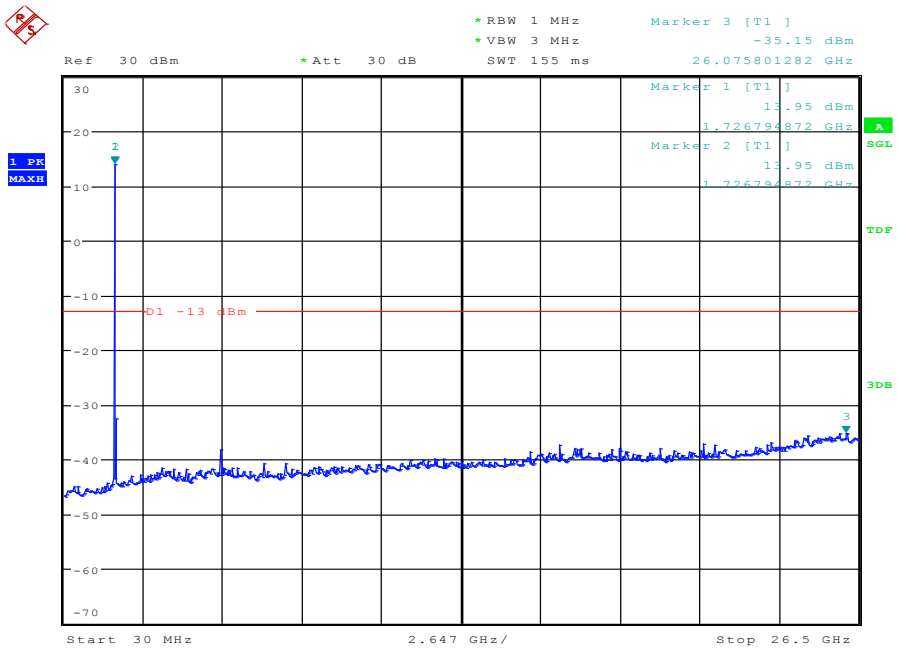
Date: 16.MAR.2017 13:41:56

BW10MHz-1732.5MHz,QPSK-50RB_LOW@Pass



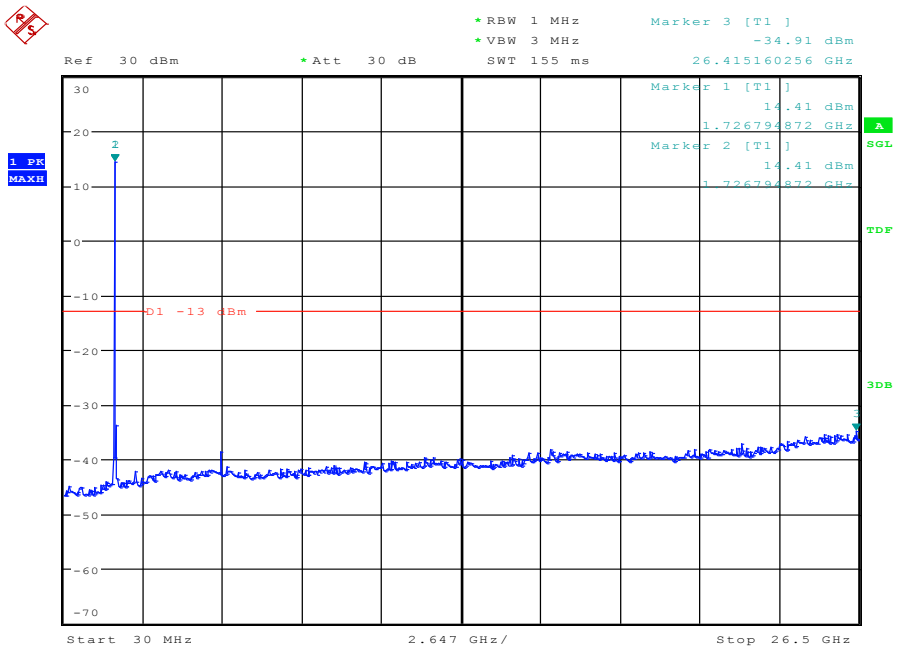
Date: 16.MAR.2017 13:41:38

BW10MHz-1750MHz,Q16-50RB_LOW@Pass



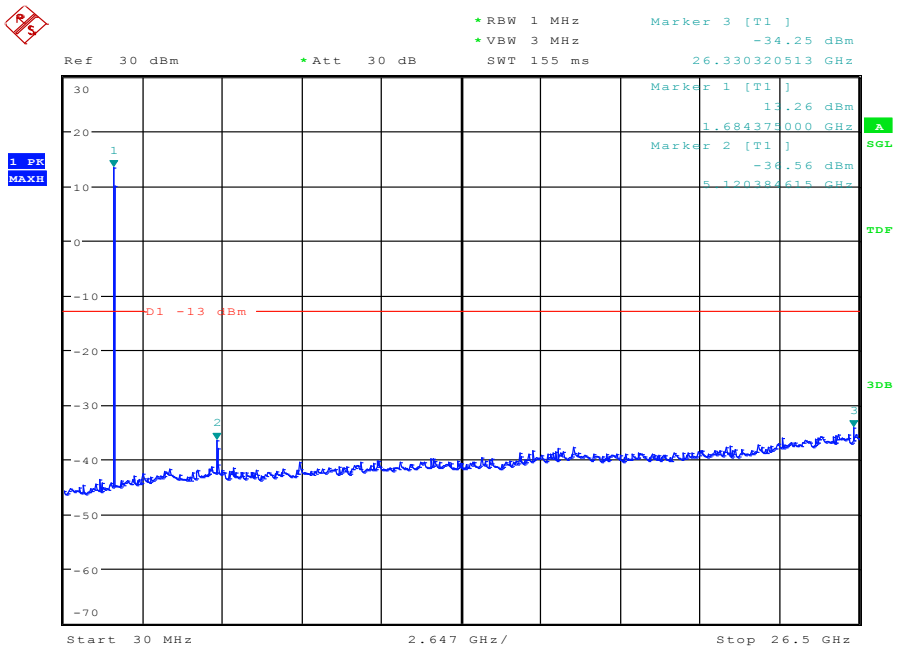
Date: 16.MAR.2017 13:41:20

BW10MHz-1750MHz,QPSK-50RB_LOW@Pass



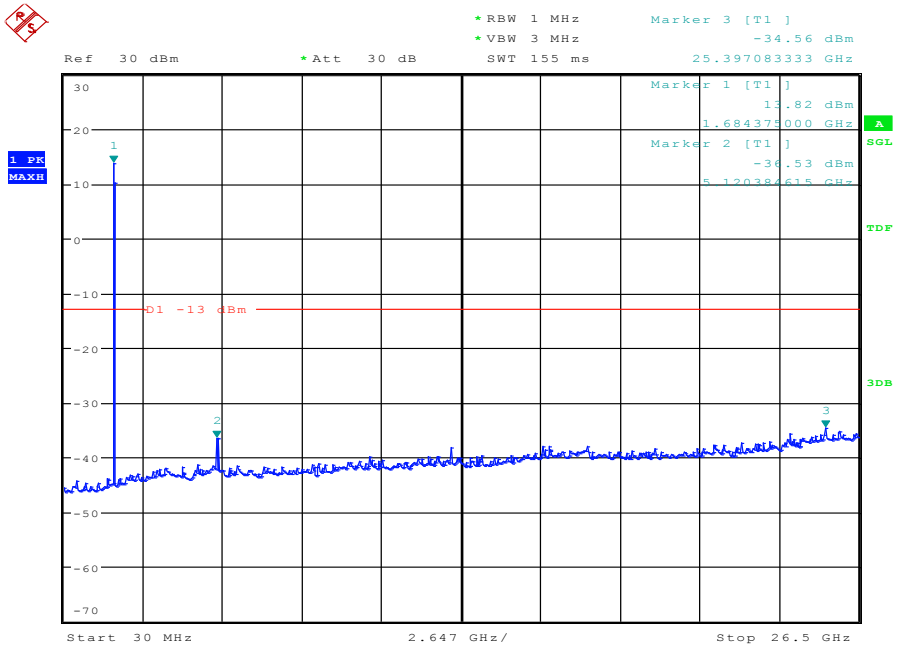
Date: 16.MAR.2017 13:41:02

BW15MHz-1717.5MHz,Q16-75RB_LOW@Pass



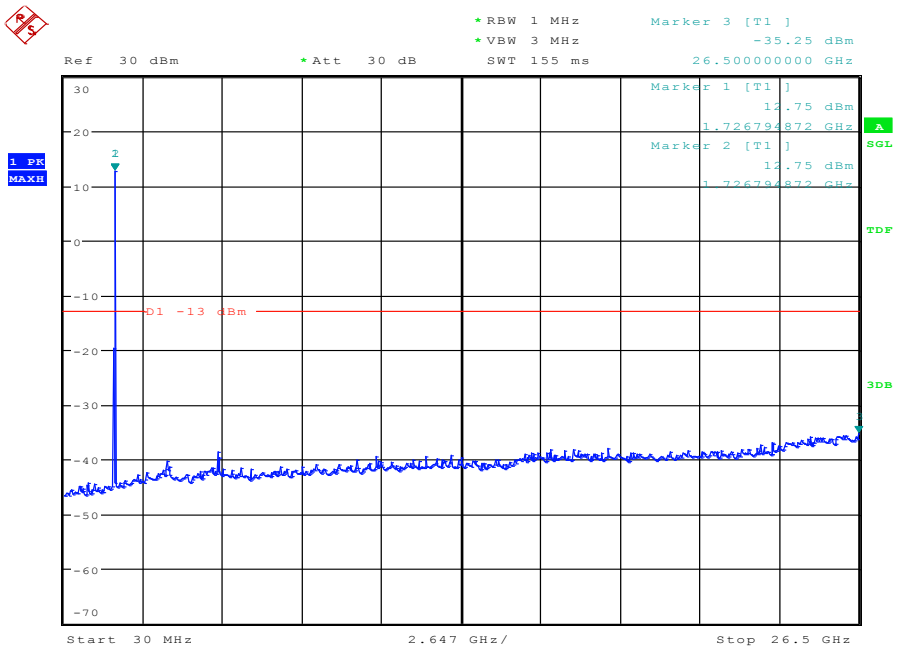
Date: 16.MAR.2017 13:42:39

BW15MHz-1717.5MHz,QPSK-75RB_LOW@Pass



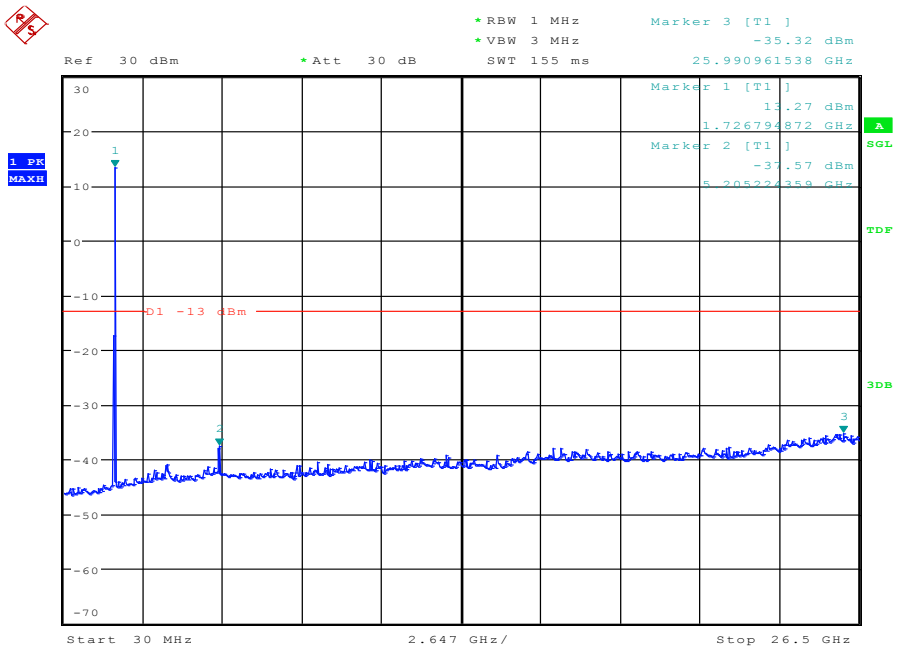
Date: 16.MAR.2017 13:42:19

BW15MHz-1732.5MHz,Q16-75RB_LOW@Pass



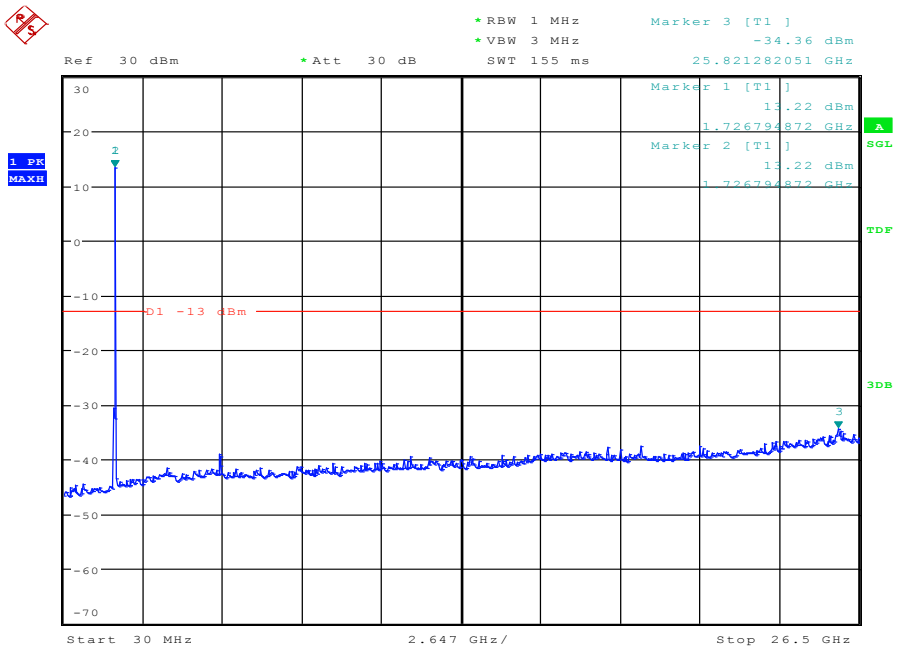
Date: 16.MAR.2017 13:44:00

BW15MHz-1732.5MHz,QPSK-75RB_LOW@Pass



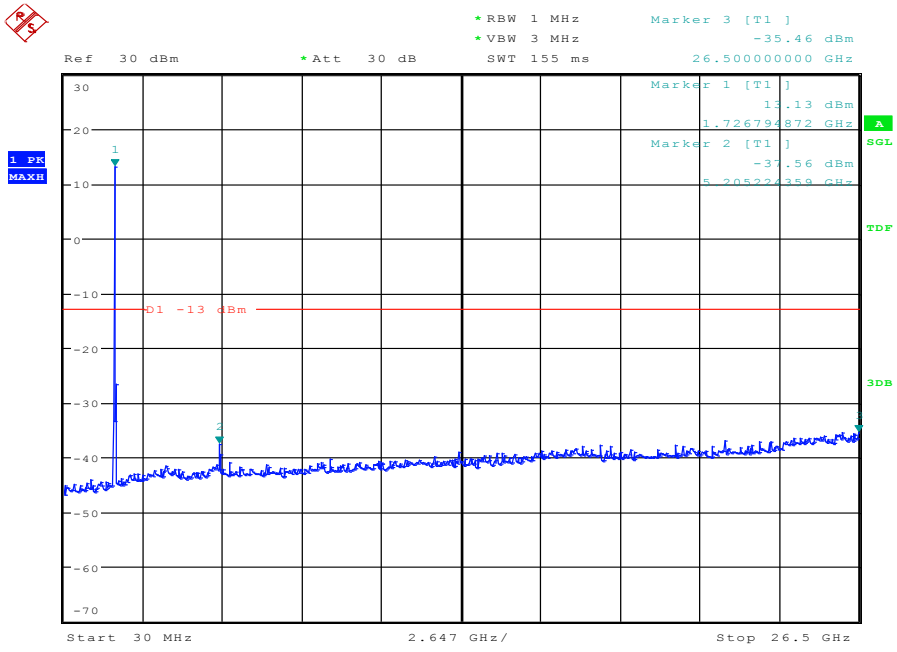
Date: 16.MAR.2017 13:43:40

BW15MHz-1747.5MHz,Q16-75RB_LOW@Pass



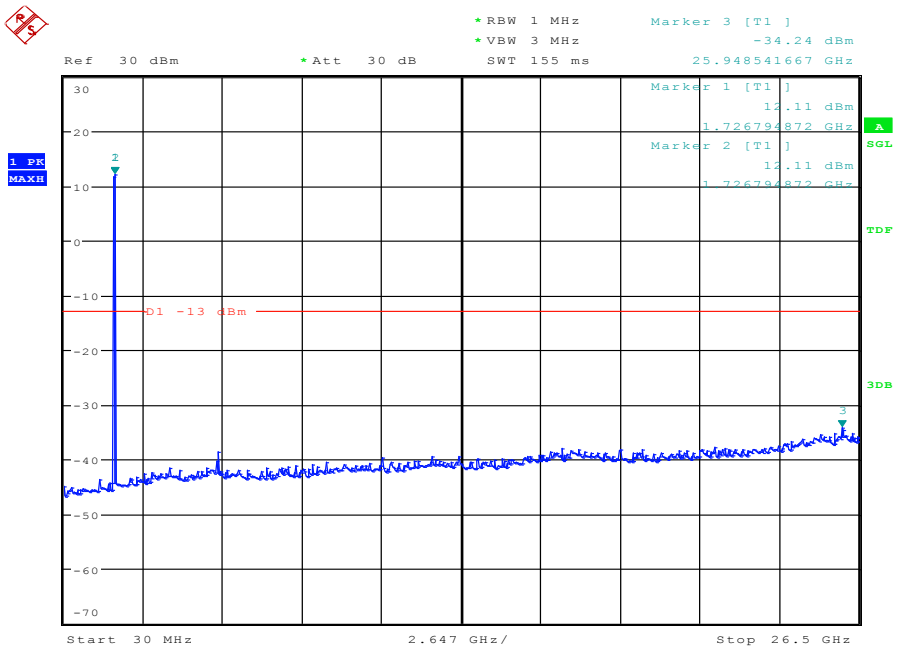
Date: 16.MAR.2017 13:43:20

BW15MHz-1747.5MHz,QPSK-75RB_LOW@Pass



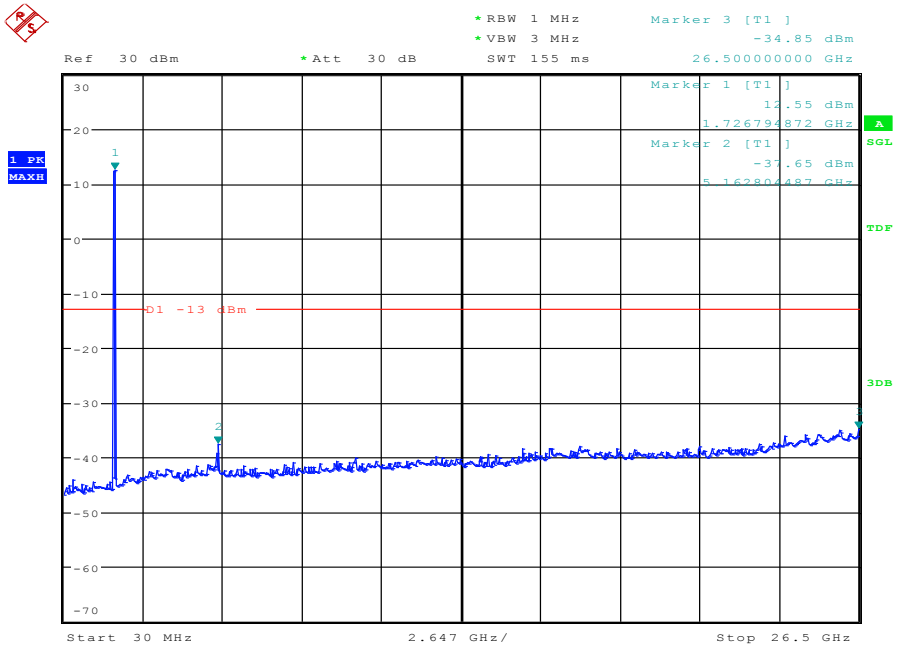
Date: 16.MAR.2017 13:43:00

BW20MHz-1720MHz,Q16-100RB_LOW@Pass



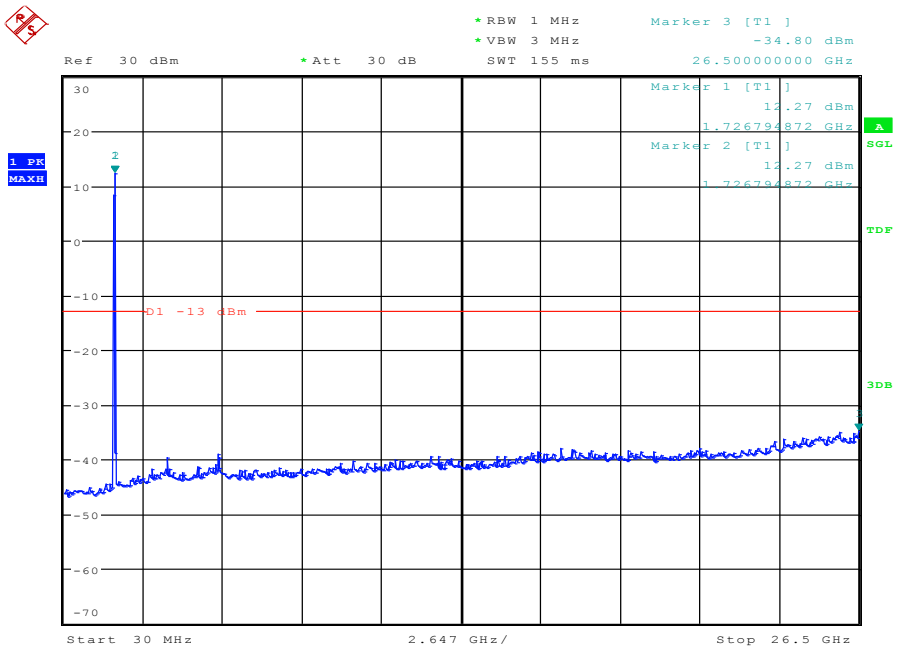
Date: 16.MAR.2017 13:44:44

BW20MHz-1720MHz,QPSK-100RB_LOW@Pass



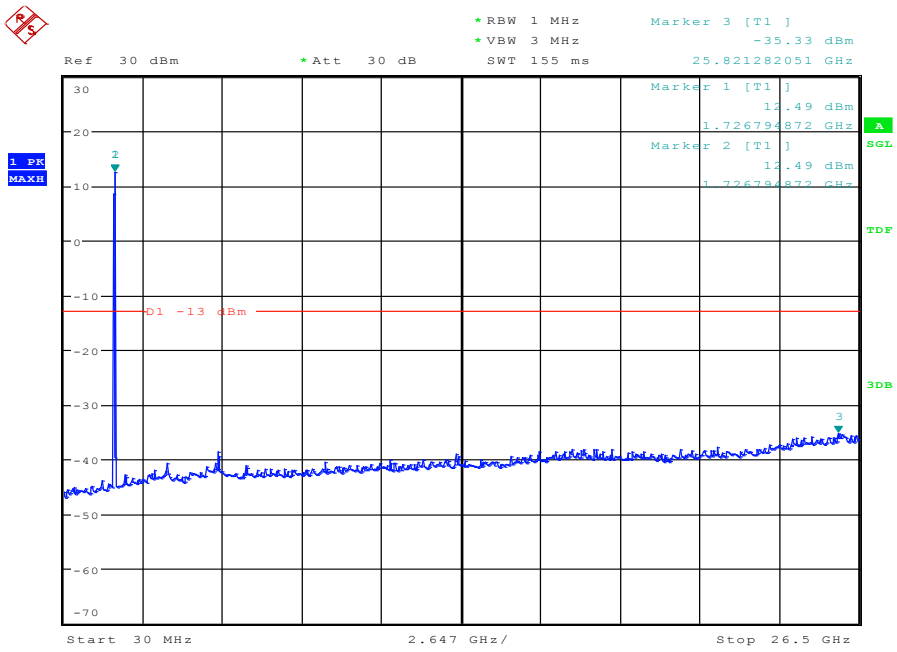
Date: 16.MAR.2017 13:44:24

BW20MHz-1732.5MHz,Q16-100RB_LOW@Pass



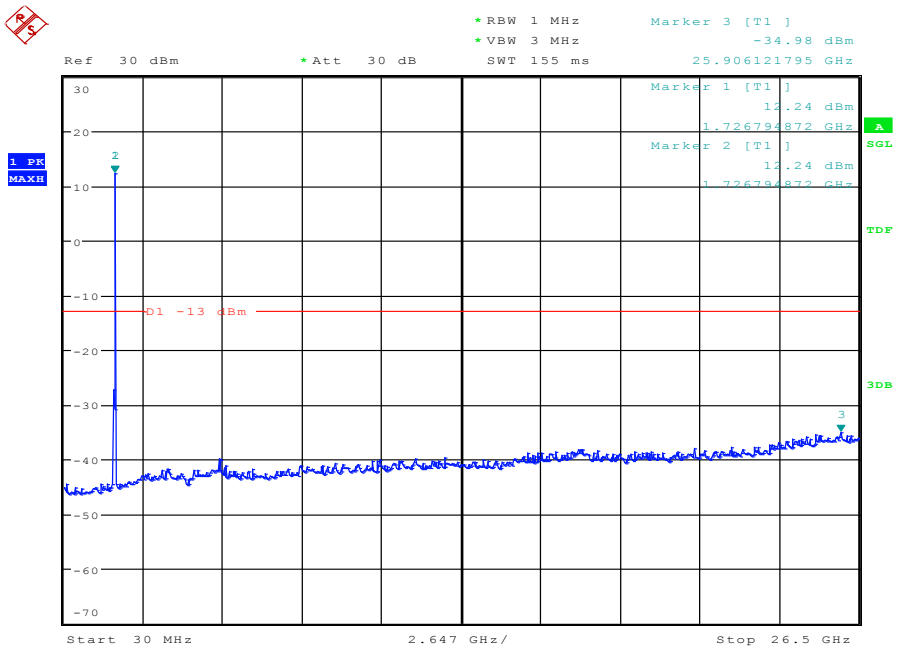
Date: 16.MAR.2017 13:46:06

BW20MHz-1732.5MHz,QPSK-100RB_LOW@Pass



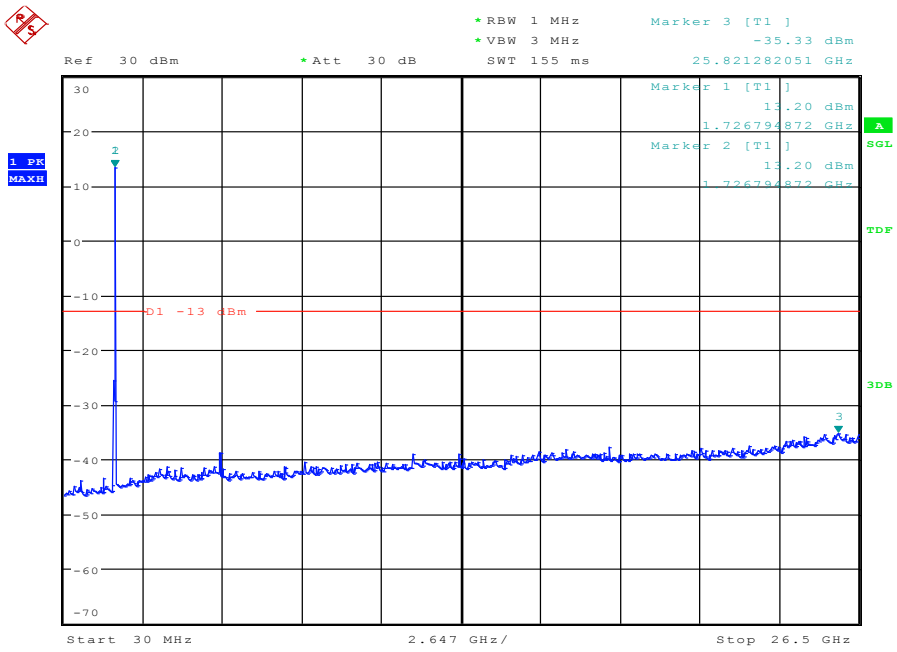
Date: 16.MAR.2017 13:45:46

BW20MHz-1745MHz,Q16-100RB_LOW@Pass



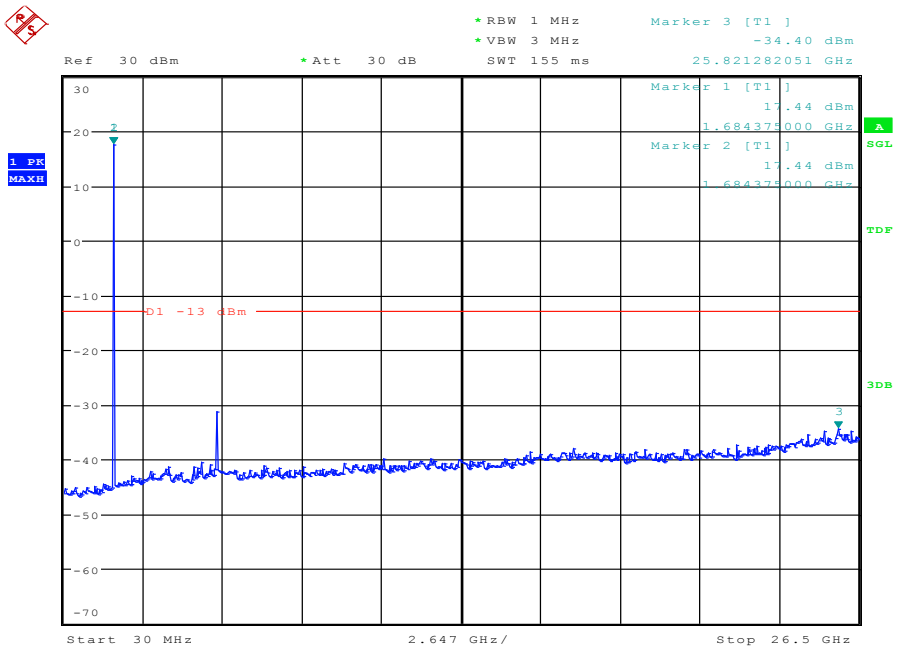
Date: 16.MAR.2017 13:45:25

BW20MHz-1745MHz,QPSK-100RB_LOW@Pass



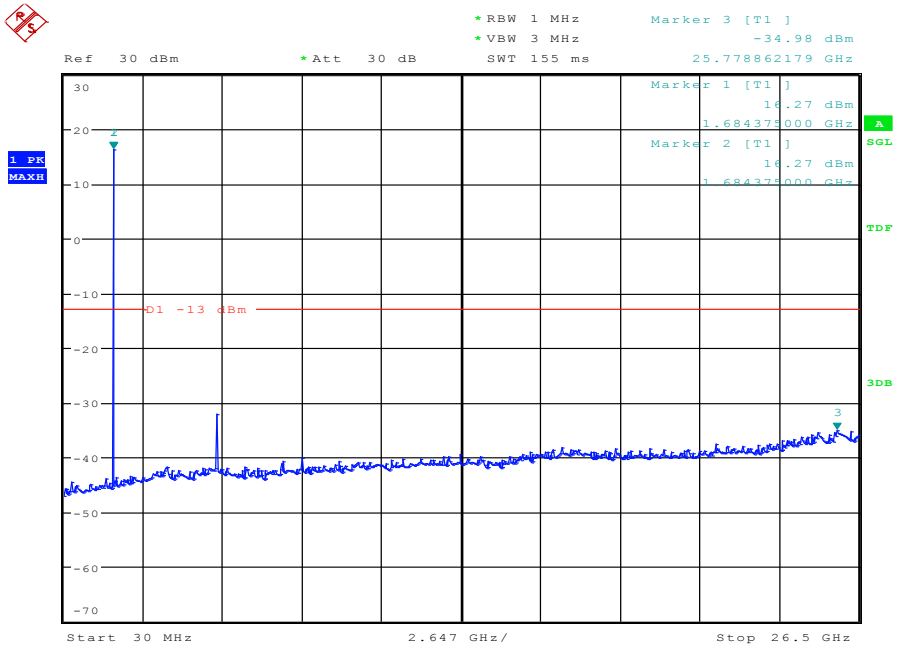
Date: 16.MAR.2017 13:45:05

BW3MHz-1711.5MHz,Q16-15RB_LOW@Pass



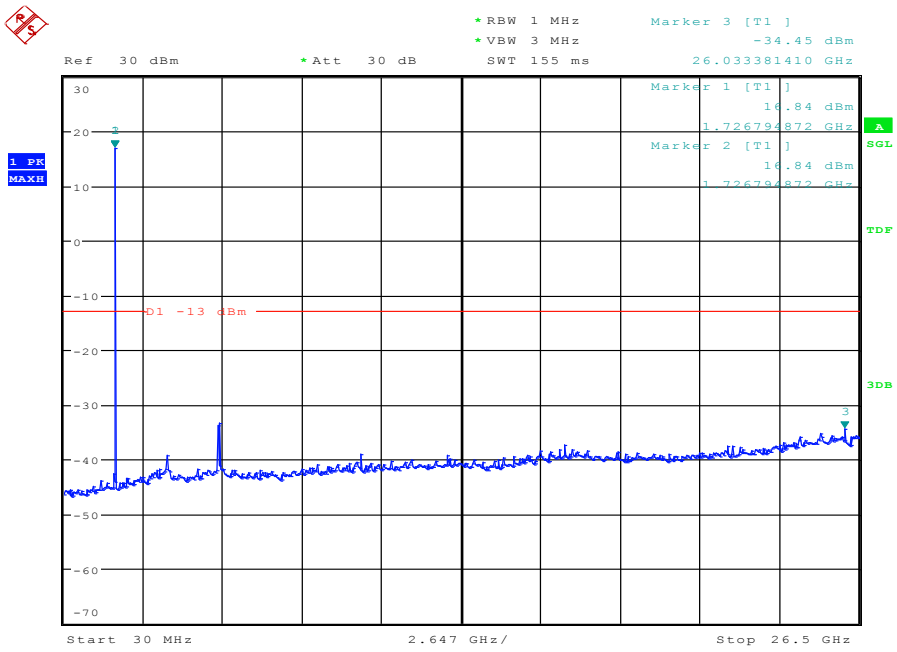
Date: 16.MAR.2017 13:37:08

BW3MHz-1711.5MHz,QPSK-15RB_LOW@Pass



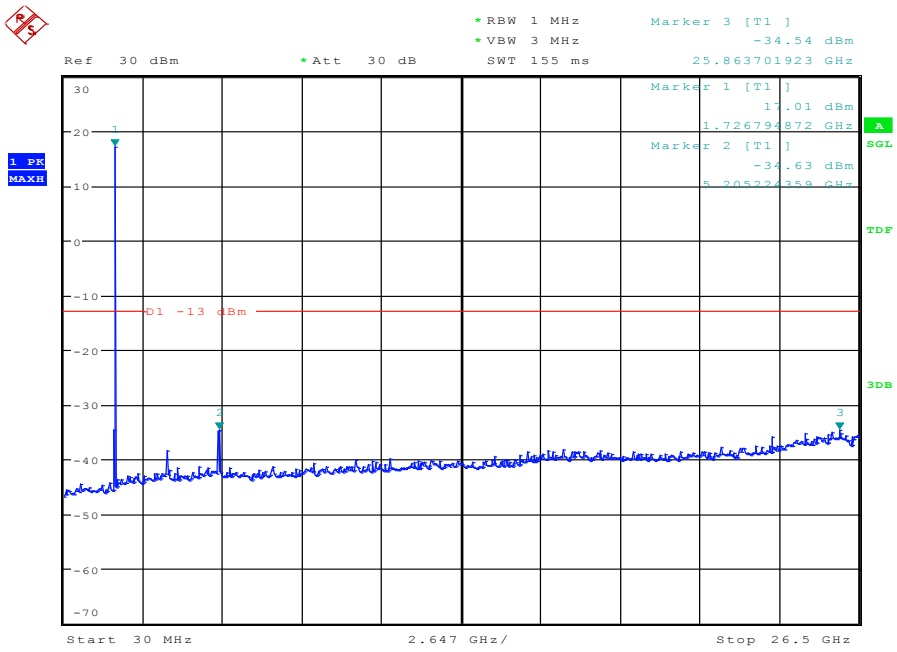
Date: 16.MAR.2017 13:36:51

BW3MHz-1732.5MHz,Q16-15RB_LOW@Pass



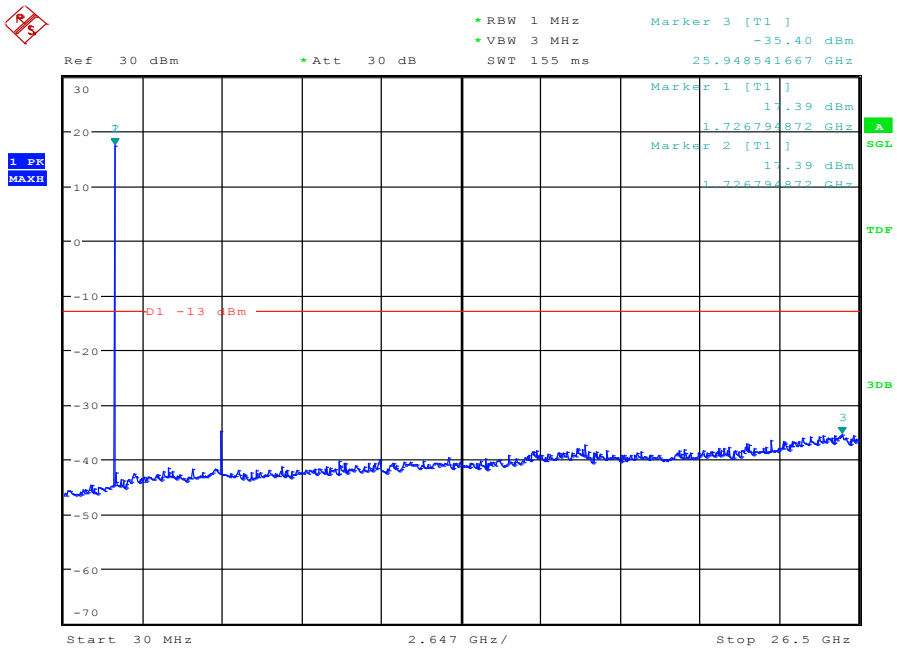
Date: 16.MAR.2017 13:38:17

BW3MHz-1732.5MHz,QPSK-15RB_LOW@Pass



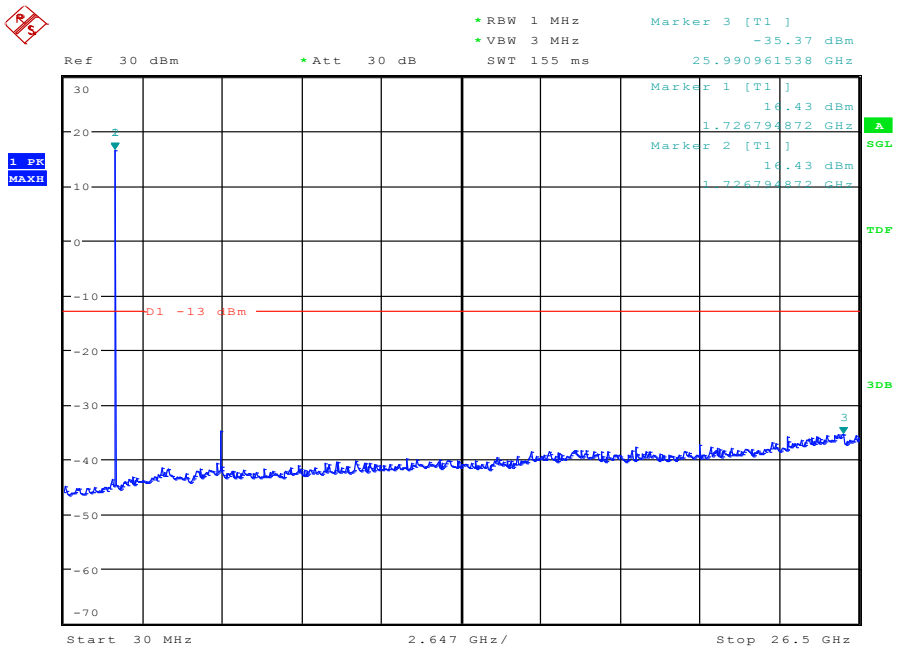
Date: 16.MAR.2017 13:38:00

BW3MHz-1753.5MHz,Q16-15RB_LOW@Pass



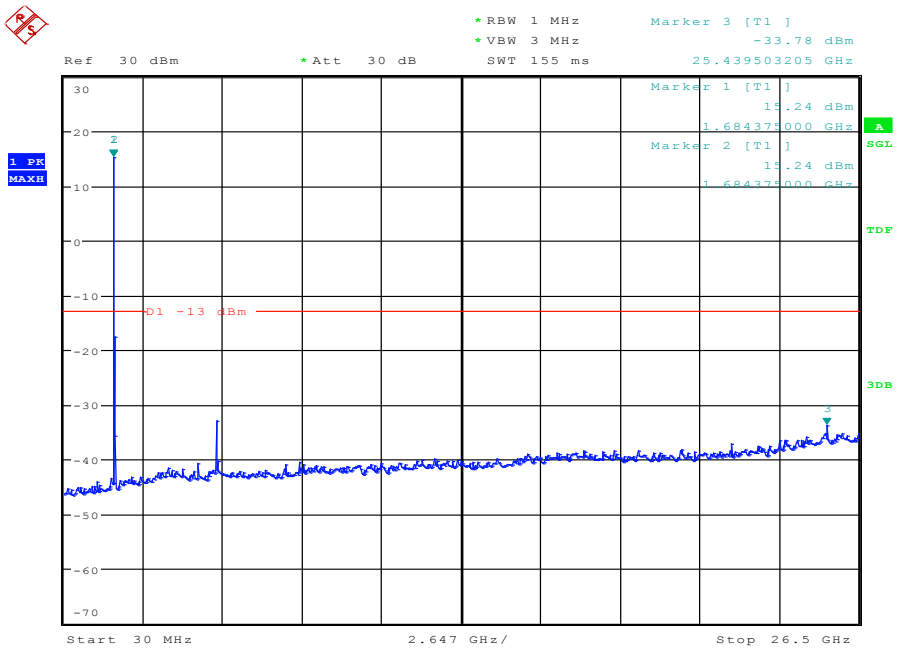
Date: 16.MAR.2017 13:37:42

BW3MHz-1753.5MHz,QPSK-15RB_LOW@Pass



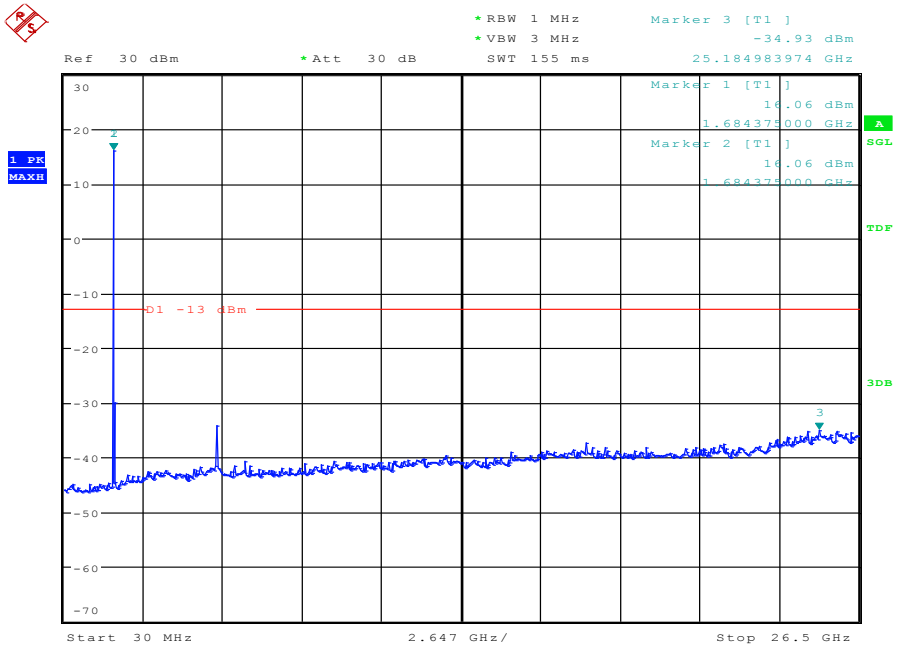
Date: 16.MAR.2017 13:37:25

BW5MHz-1712.5MHz,Q16-25RB_LOW@Pass



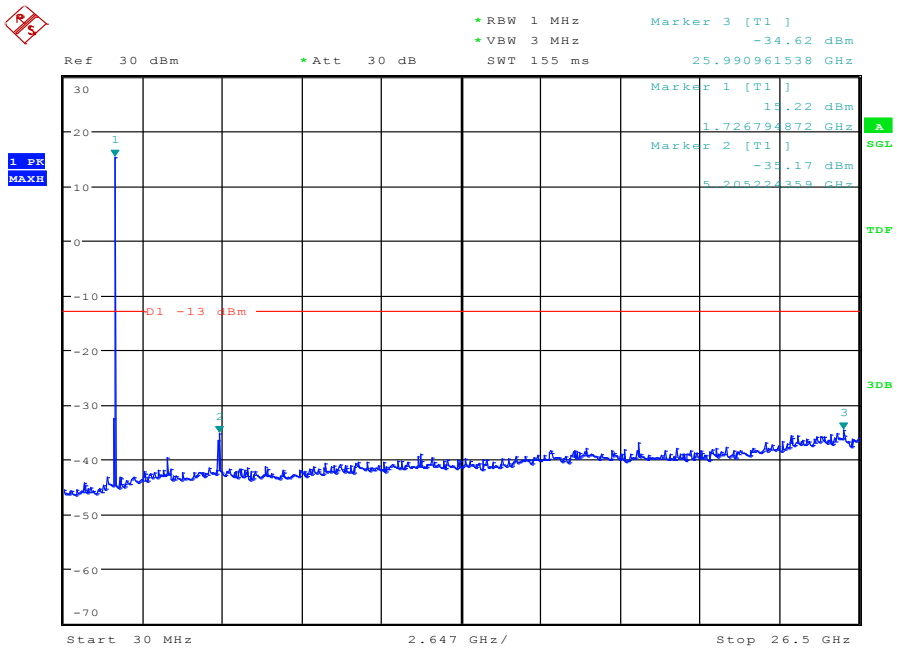
Date: 16.MAR.2017 13:38:54

BW5MHz-1712.5MHz,QPSK-25RB_LOW@Pass



Date: 16.MAR.2017 13:38:37

BW5MHz-1732.5MHz,Q16-25RB_LOW@Pass



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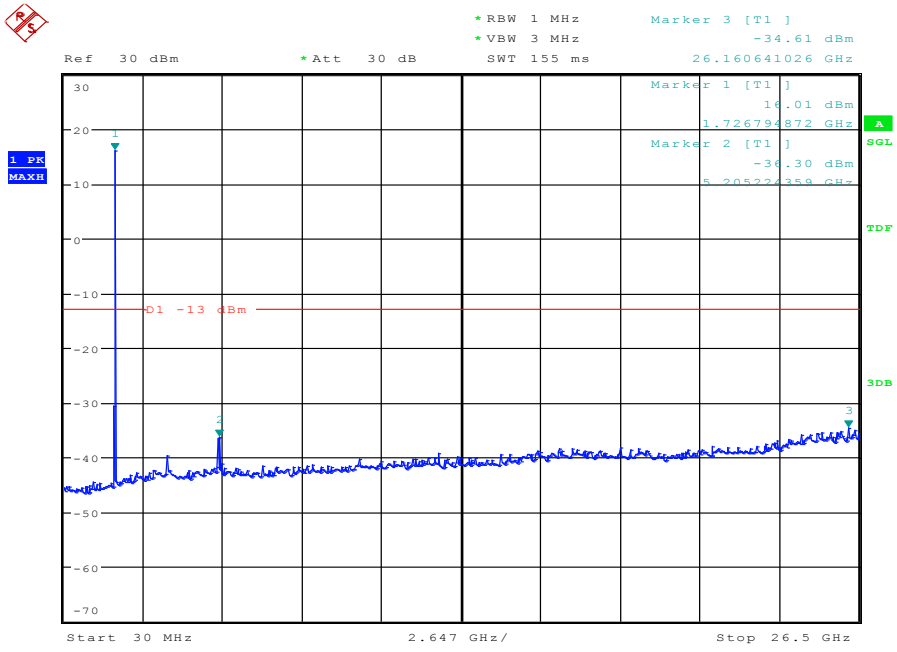
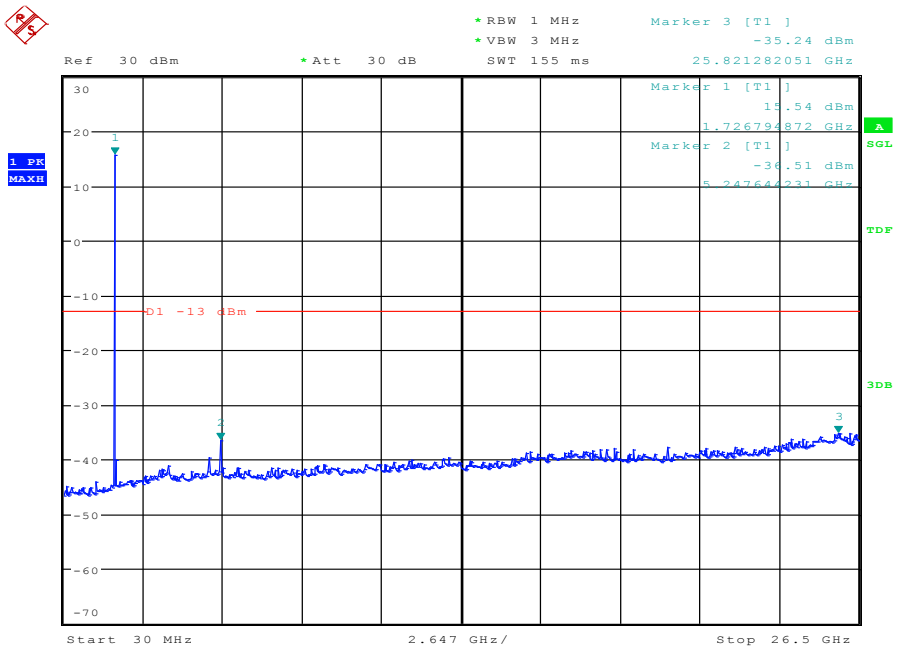
BW5MHz-1732.5MHz,QPSK-25RB_LOW@Pass



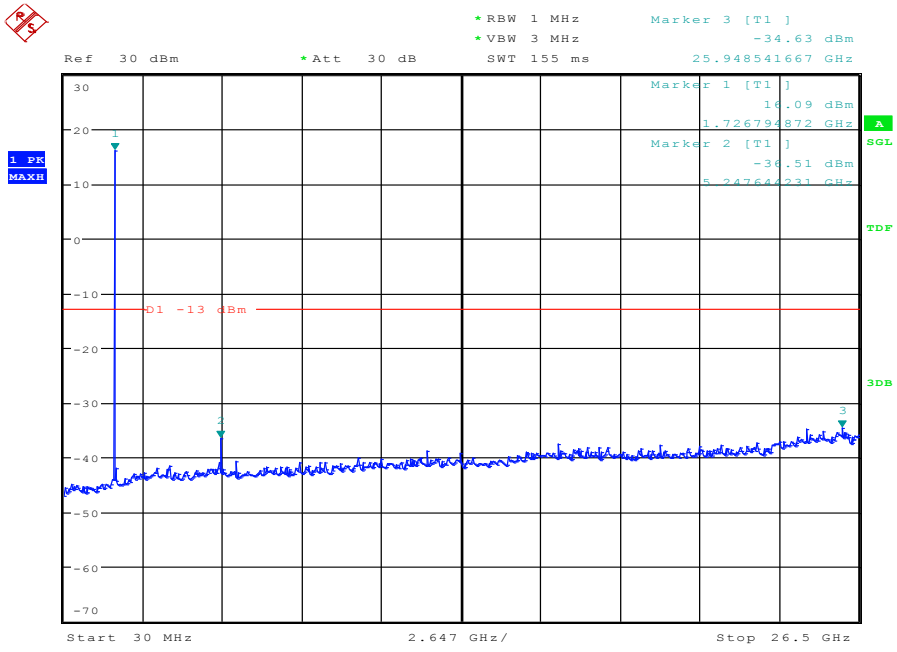
Date: 16.MAR.2017 13:39:48

BW5MHz-1752.5MHz,Q16-25RB_LOW@Pass



Date: 16.MAR.2017 13:39:30

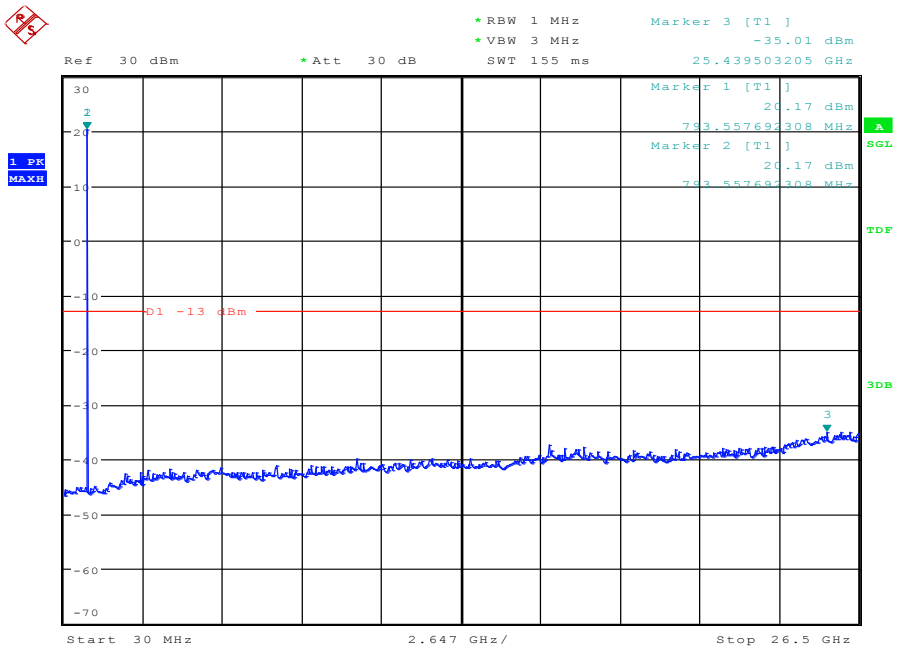
BW5MHz-1752.5MHz,QPSK-25RB_LOW@Pass



Date: 16.MAR.2017 13:39:12

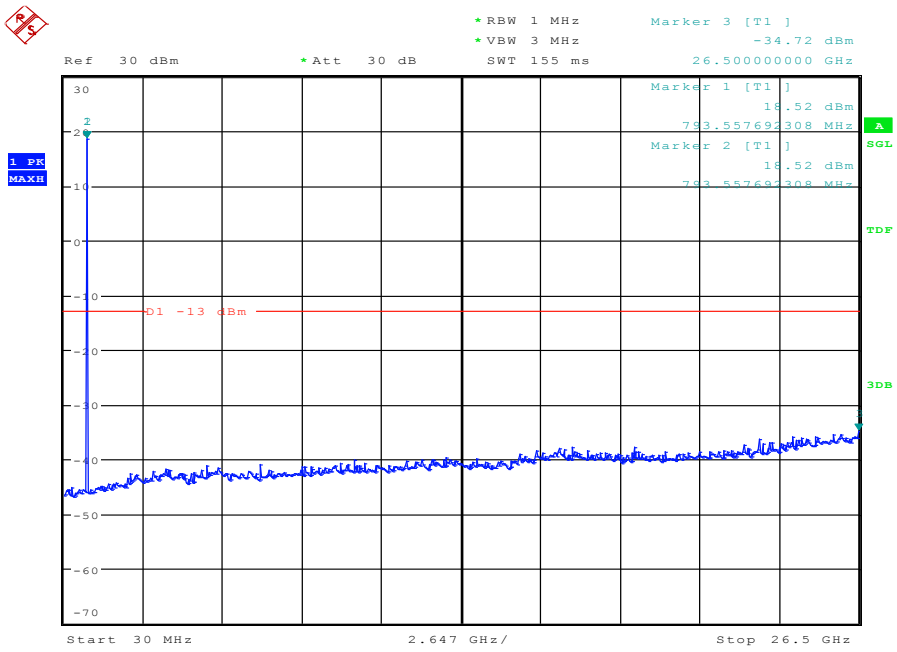
BAND 5@Conducted Spurious Emission

BW1.4MHz-824.7MHz,Q16-6RB_LOW@Pass



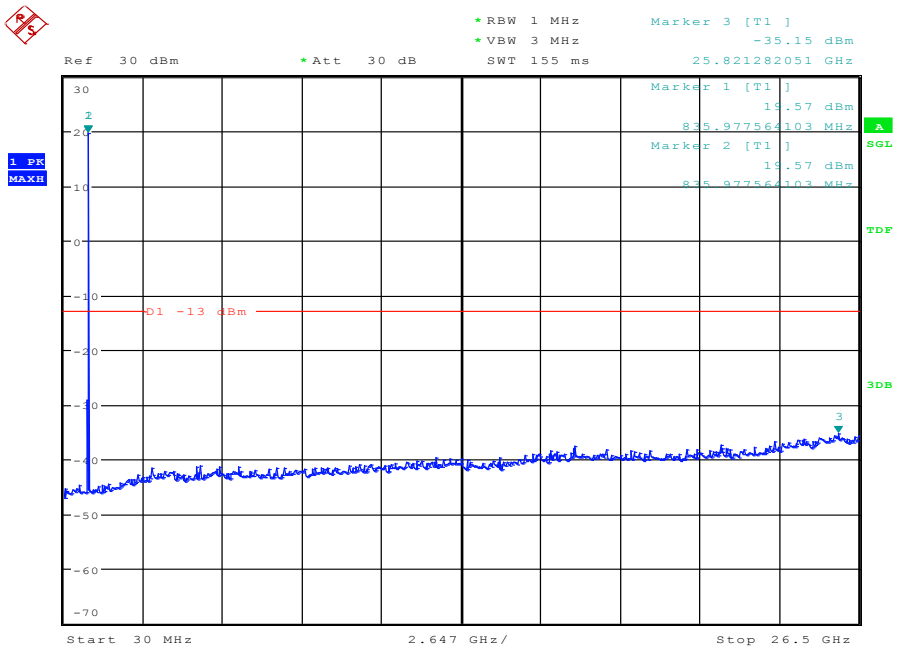
Date: 16.MAR.2017 15:23:04

BW1.4MHz-824.7MHz,QPSK-6RB_LOW@Pass



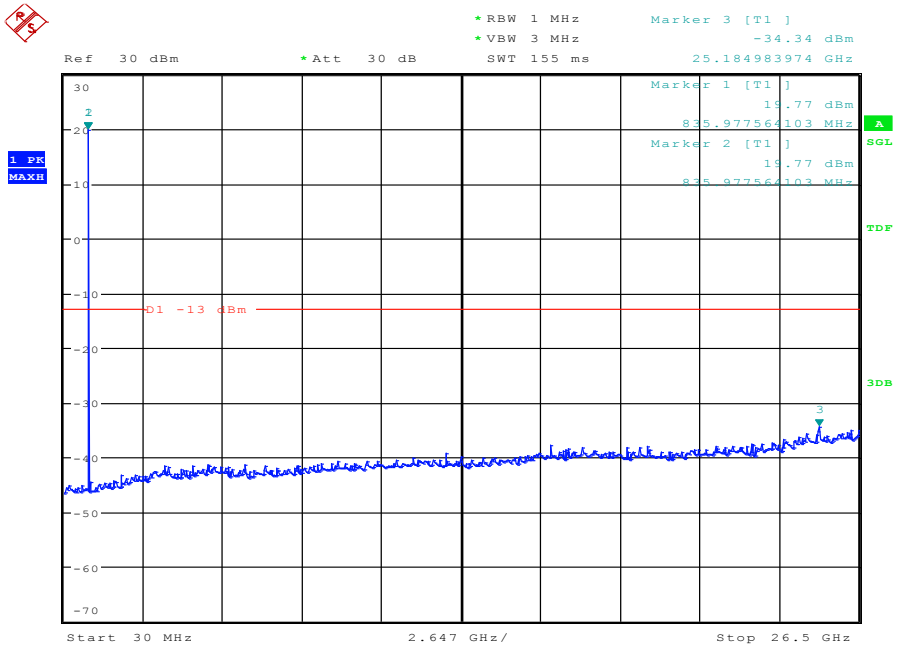
Date: 16.MAR.2017 15:22:47

BW1.4MHz-836.5MHz,QPSK-6RB_LOW@Pass



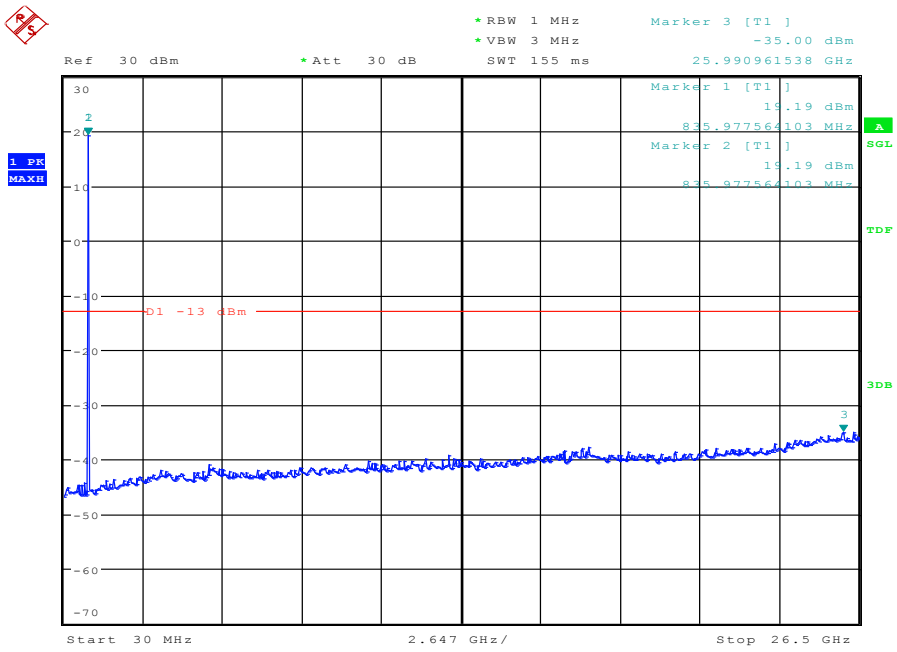
Date: 16.MAR.2017 15:24:13

BW1.4MHz-848.3MHz,Q16-6RB_LOW@Pass



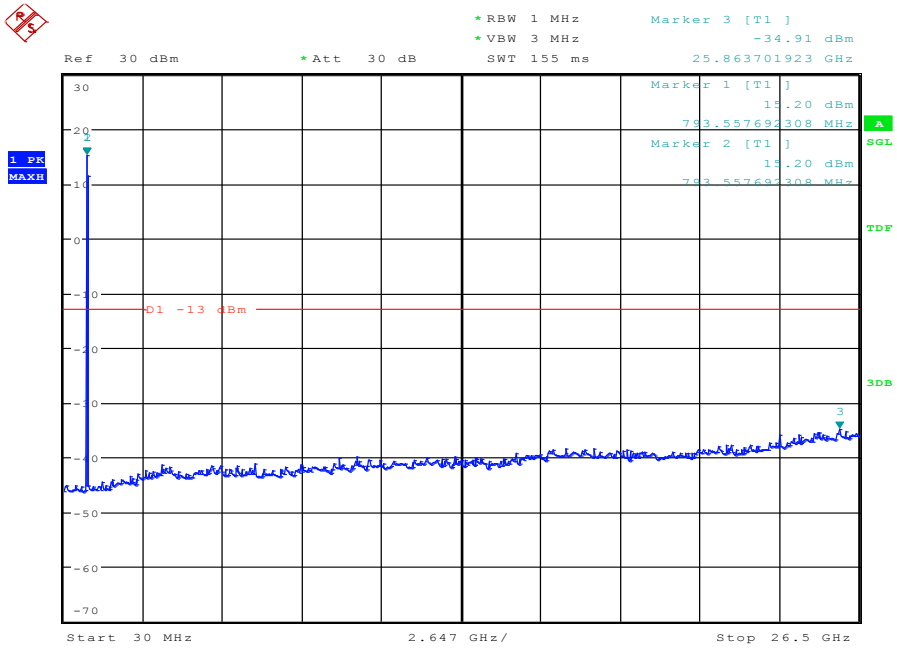
Date: 16.MAR.2017 15:23:38

BW1.4MHz-848.3MHz,QPSK-6RB_LOW@Pass



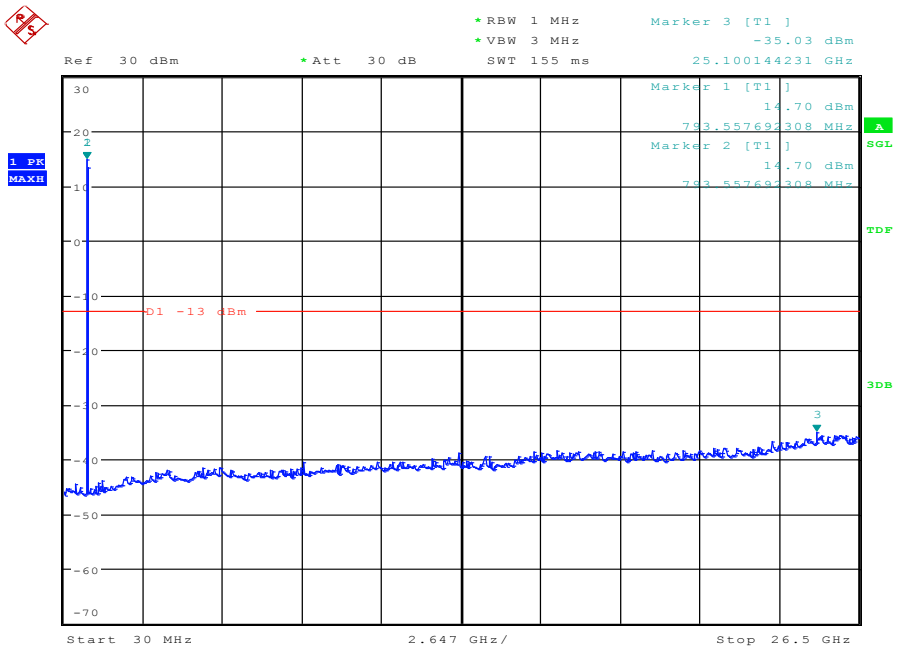
Date: 16.MAR.2017 15:23:21

BW10MHz-829MHz,Q16-50RB_LOW@Pass



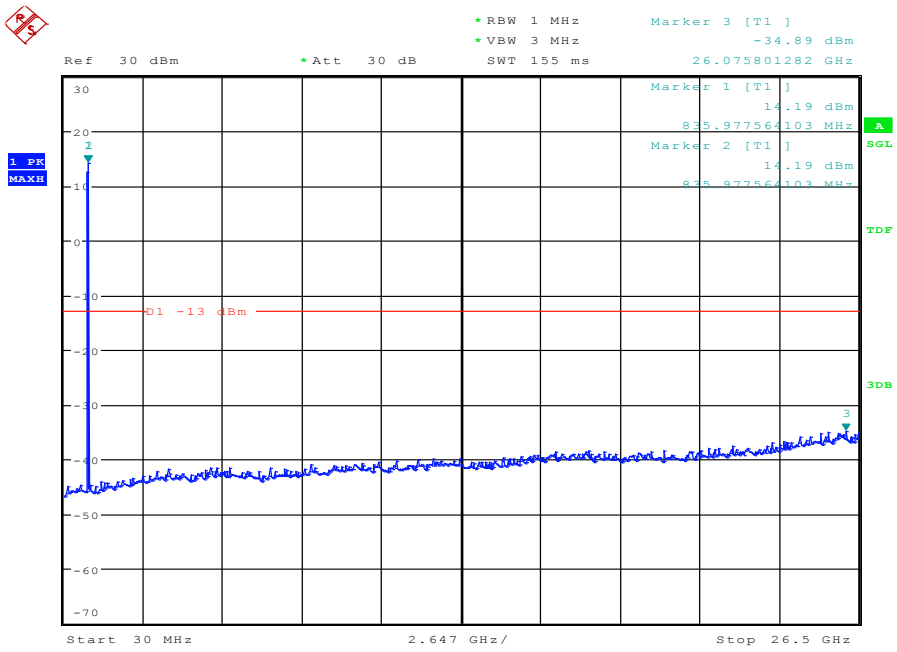
Date: 16.MAR.2017 15:28:26

BW10MHz-829MHz,QPSK-50RB_LOW@Pass



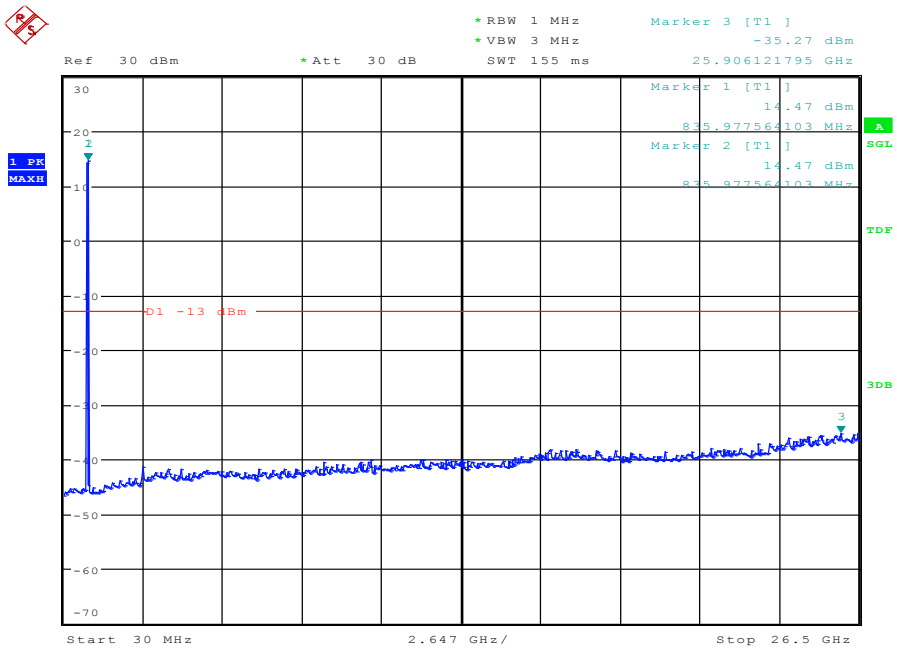
Date: 16.MAR.2017 15:28:08

BW10MHz-836.5MHz,Q16-50RB_LOW@Pass



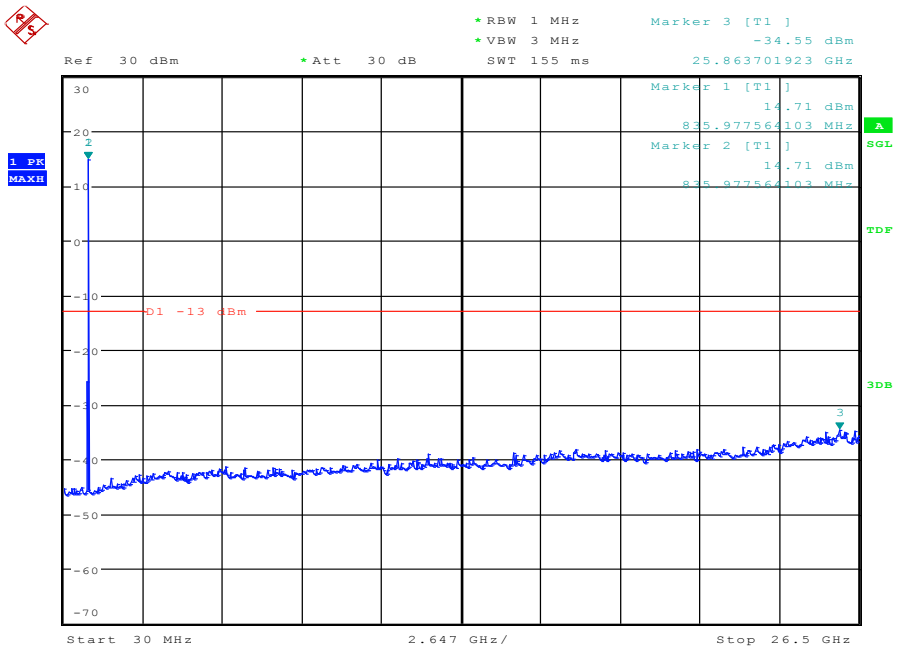
Date: 16.MAR.2017 15:29:38

BW10MHz-836.5MHz,QPSK-50RB_LOW@Pass



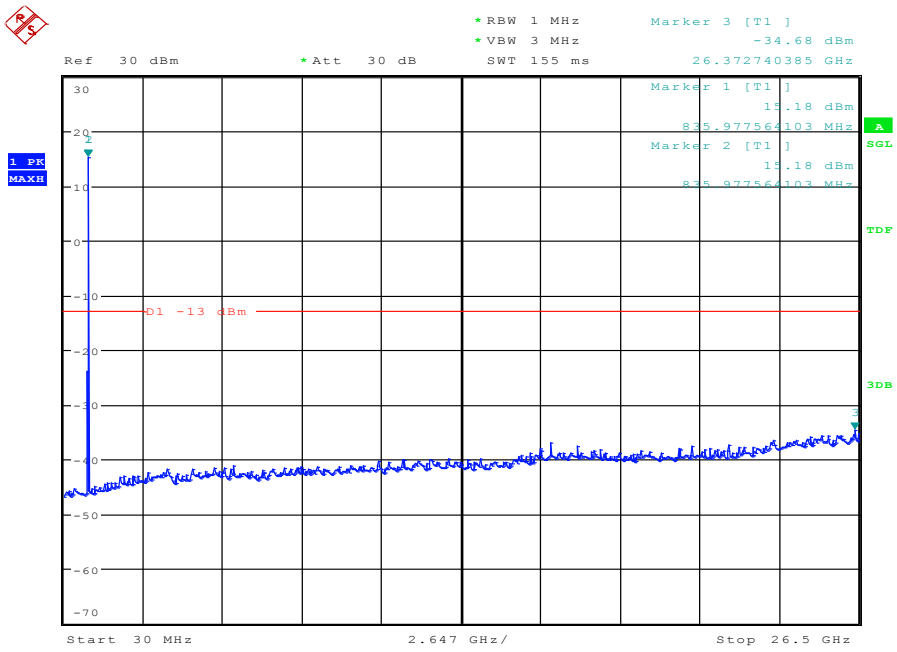
Date: 16.MAR.2017 15:29:20

BW10MHz-844MHz,Q16-50RB_LOW@Pass



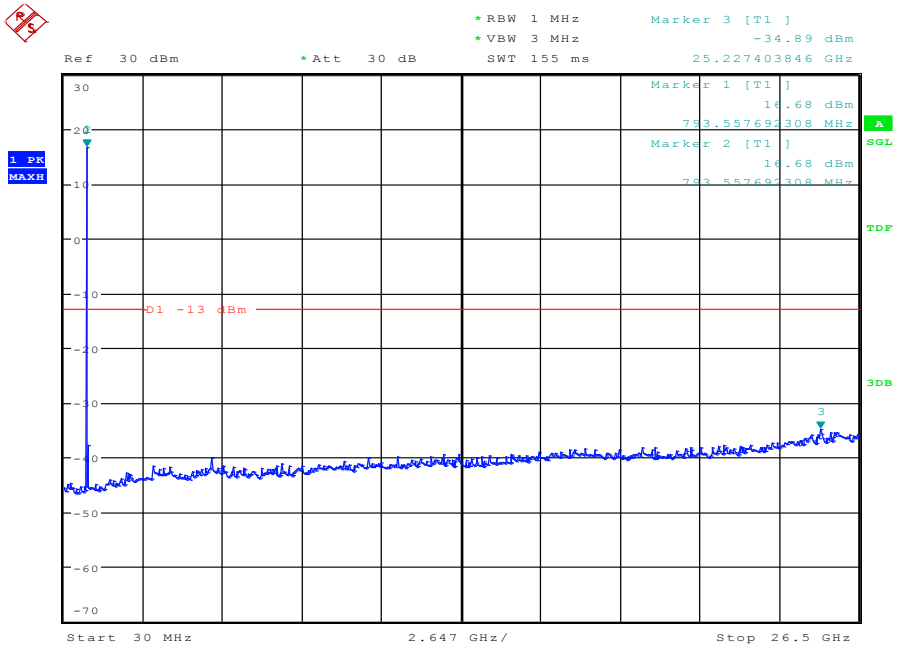
Date: 16.MAR.2017 15:29:02

BW10MHz-844MHz,QPSK-50RB_LOW@Pass



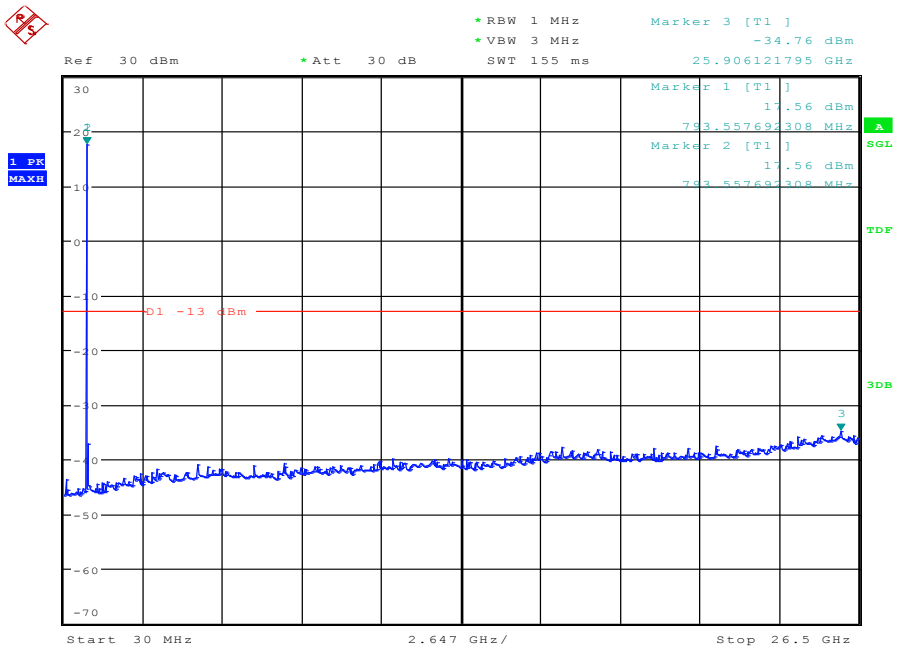
Date: 16.MAR.2017 15:28:44

BW3MHz-825.5MHz,Q16-15RB_LOW@Pass



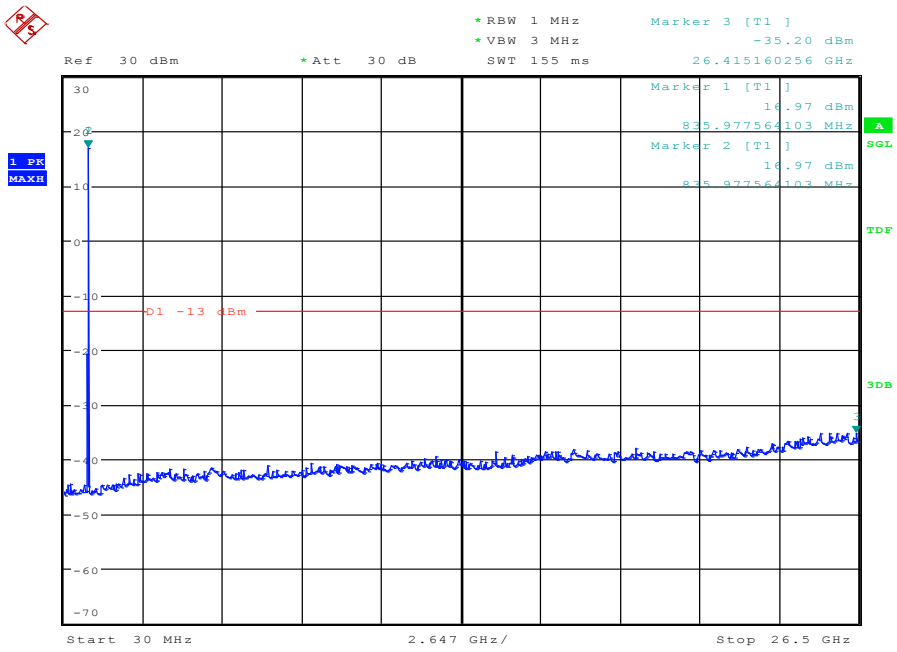
Date: 16.MAR.2017 15:24:50

BW3MHz-825.5MHz,QPSK-15RB_LOW@Pass



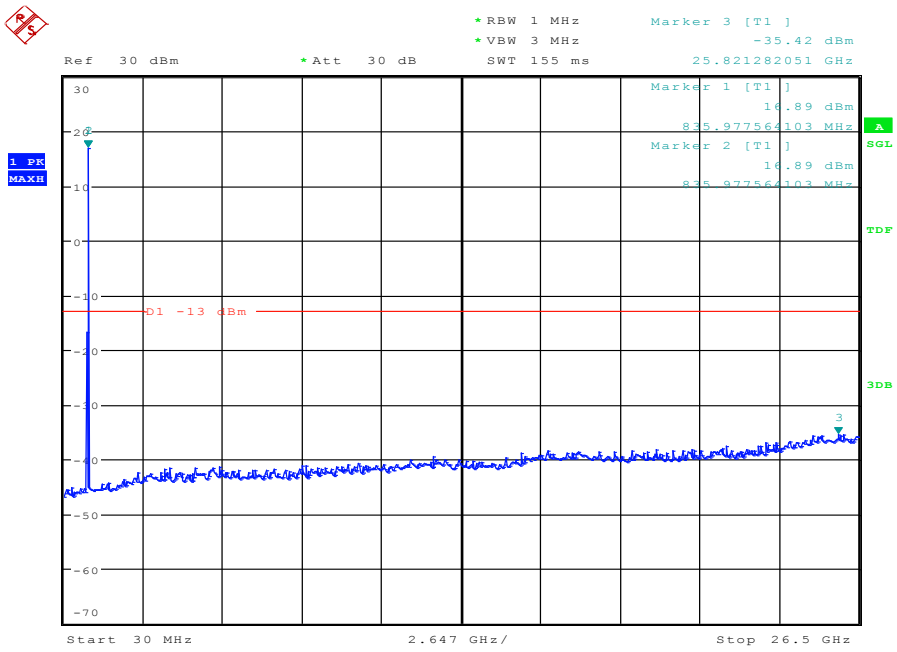
Date: 16.MAR.2017 15:24:33

BW3MHz-836.5MHz,Q16-15RB_LOW@Pass



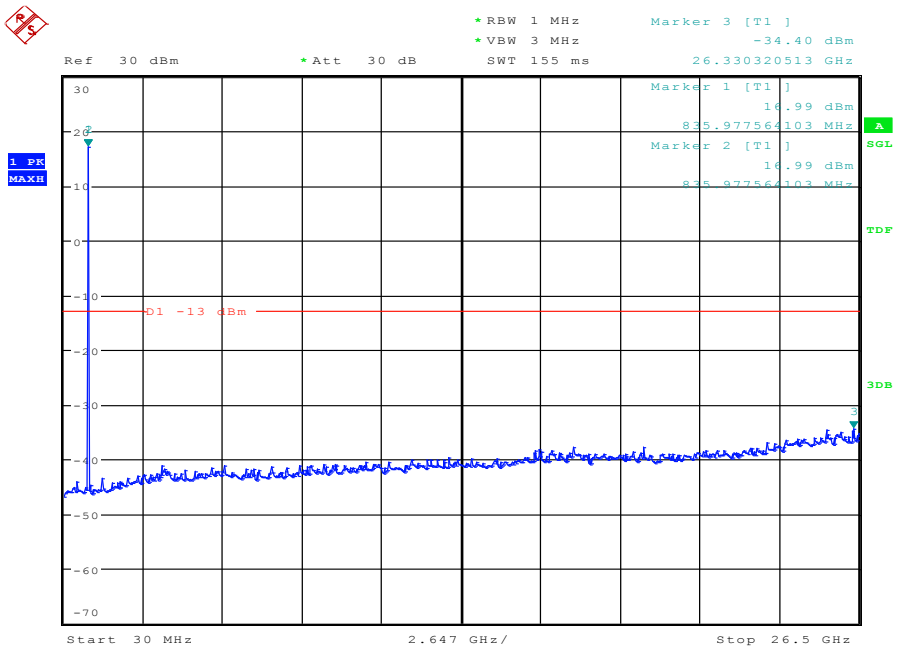
Date: 16.MAR.2017 15:25:59

BW3MHz-836.5MHz,QPSK-15RB_LOW@Pass



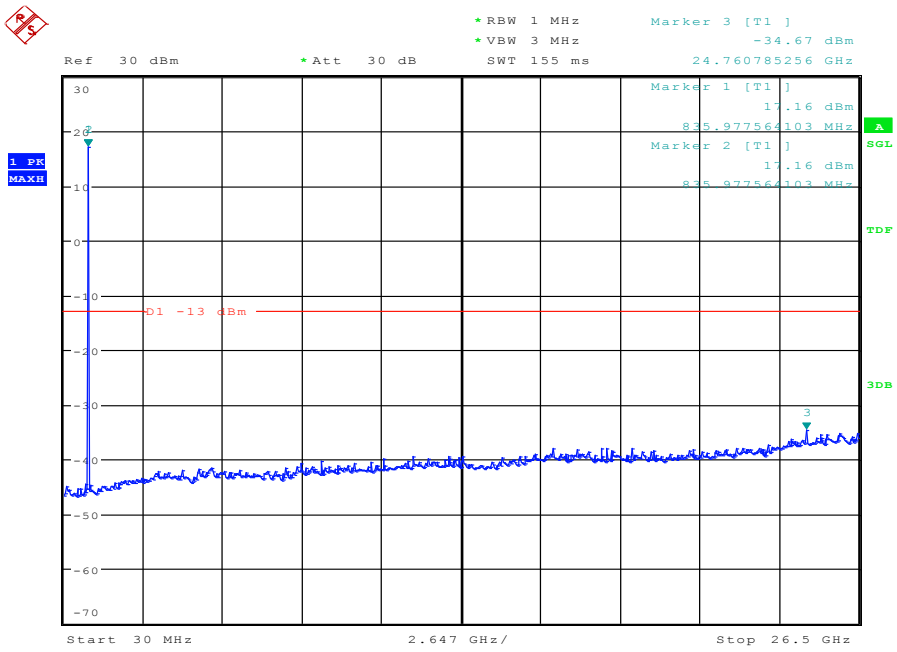
Date: 16.MAR.2017 15:25:42

BW3MHz-847.5MHz,Q16-15RB_LOW@Pass



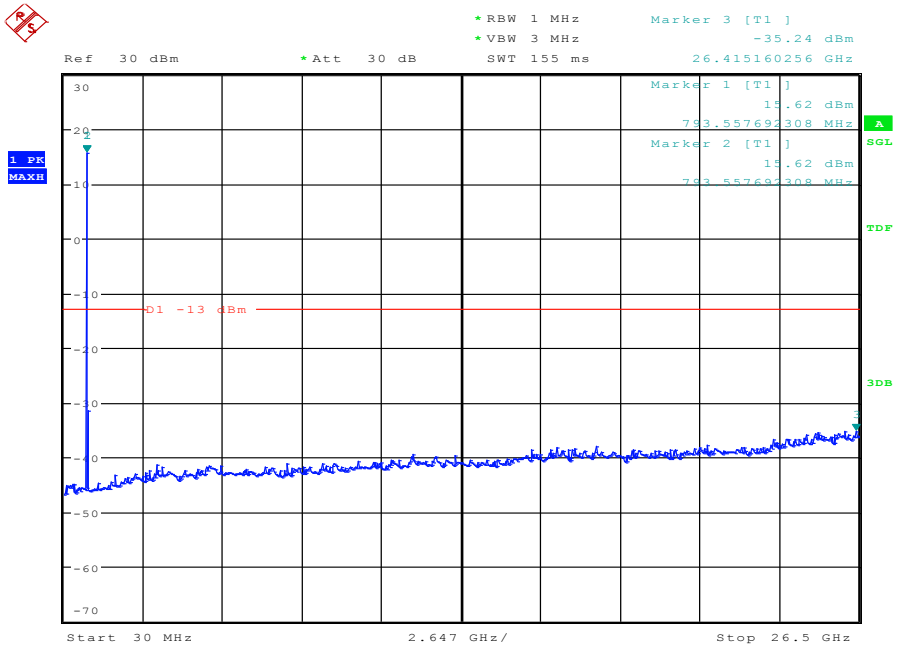
Date: 16.MAR.2017 15:25:25

BW3MHz-847.5MHz,QPSK-15RB_LOW@Pass



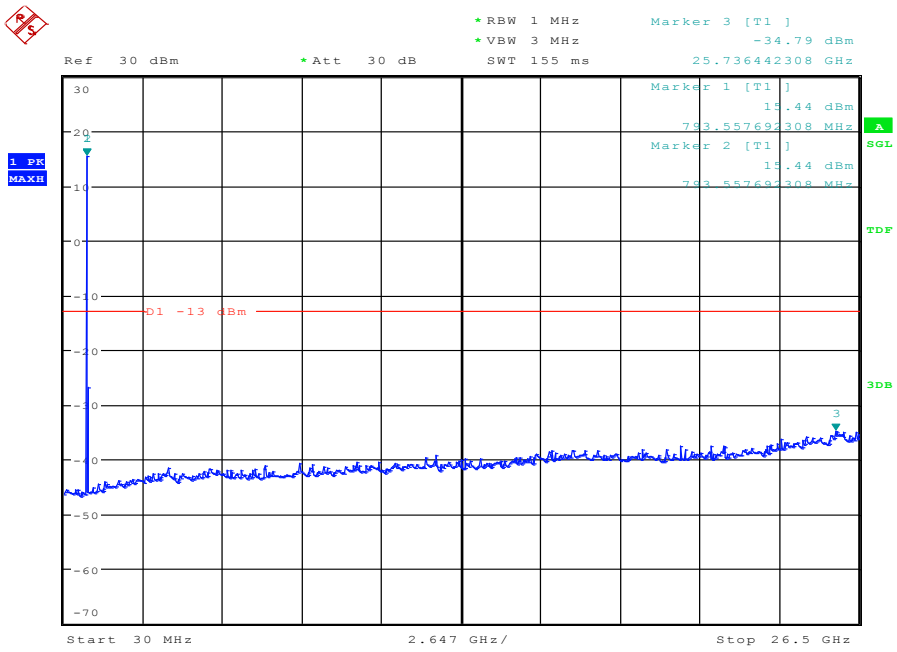
Date: 16.MAR.2017 15:25:08

BW5MHz-826.5MHz,Q16-25RB_LOW@Pass



Date: 16.MAR.2017 15:26:37

BW5MHz-826.5MHz,QPSK-25RB_LOW@Pass



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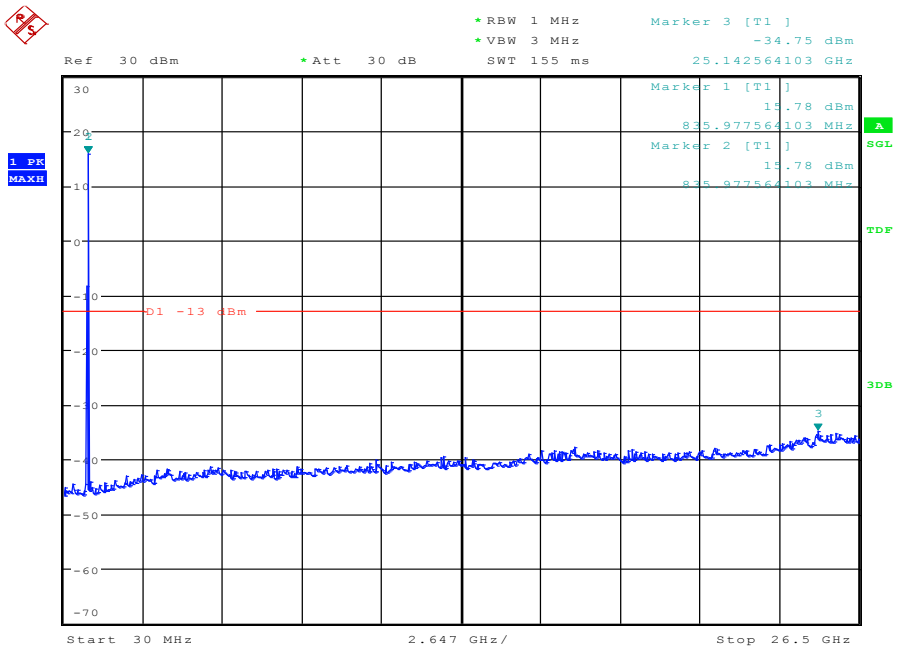
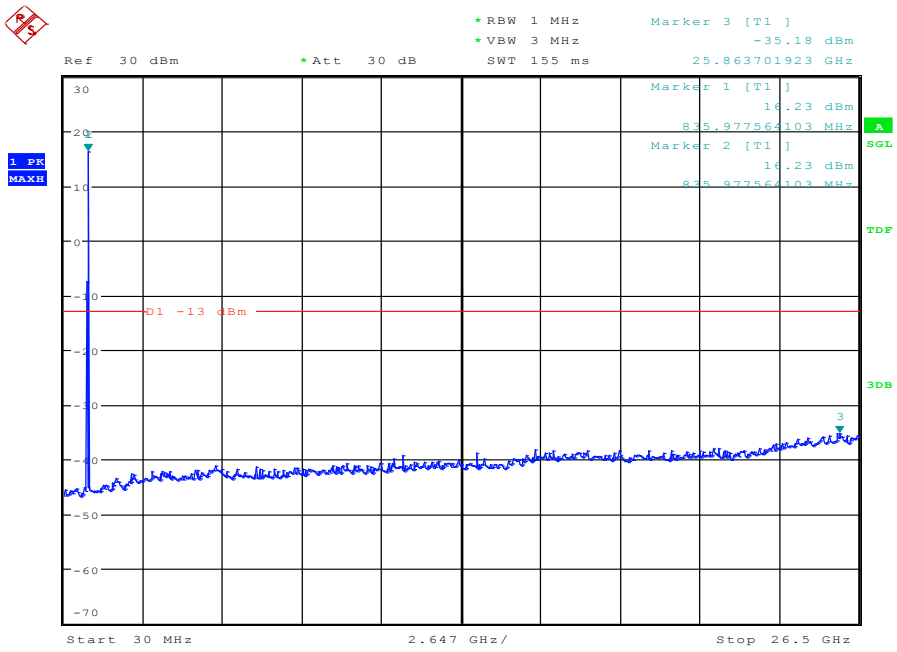
BW5MHz-836.5MHz,Q16-25RB_LOW@Pass



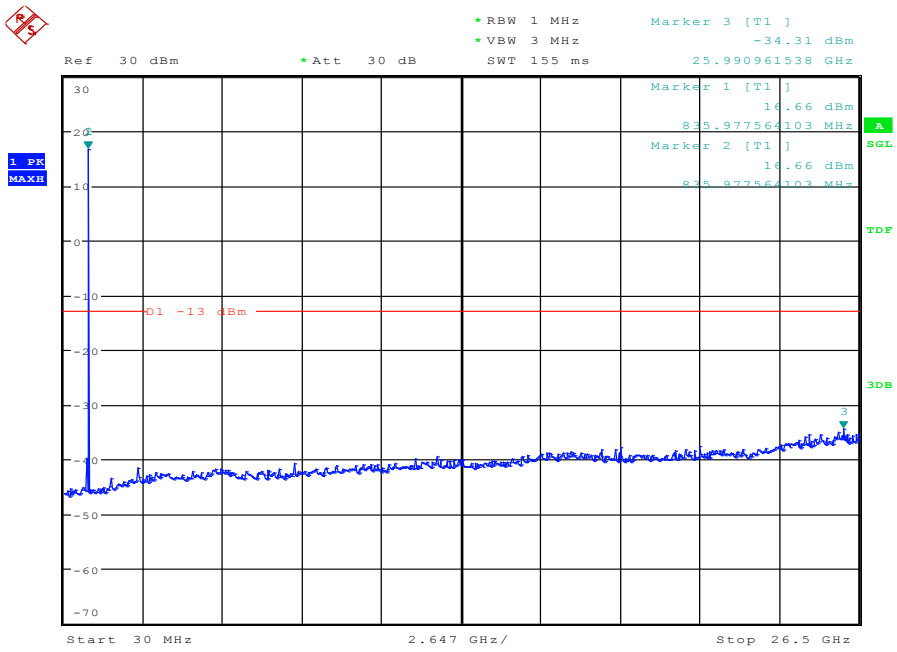
Date: 16.MAR.2017 15:27:48

BW5MHz-836.5MHz,QPSK-25RB_LOW@Pass



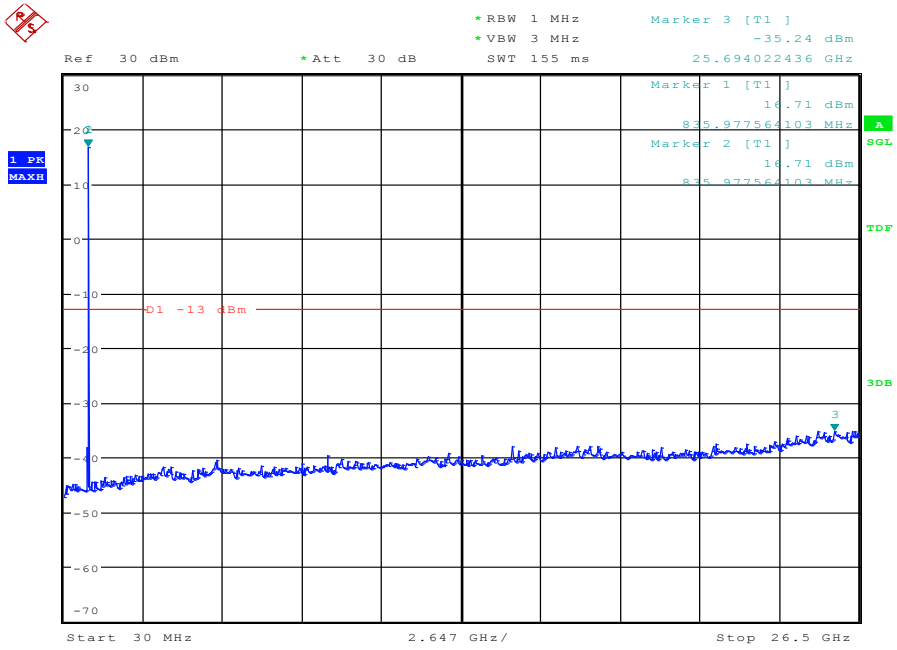
Date: 16.MAR.2017 15:27:30

BW5MHz-846.5MHz,Q16-25RB_LOW@Pass



Date: 16.MAR.2017 15:27:12

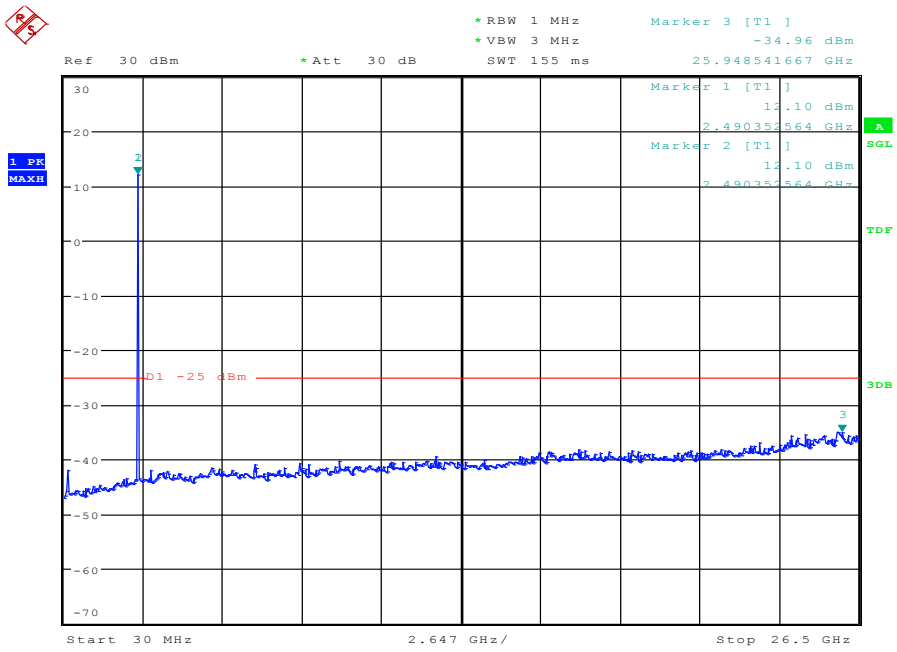
BW5MHz-846.5MHz,QPSK-25RB_LOW@Pass



Date: 16.MAR.2017 15:26:55

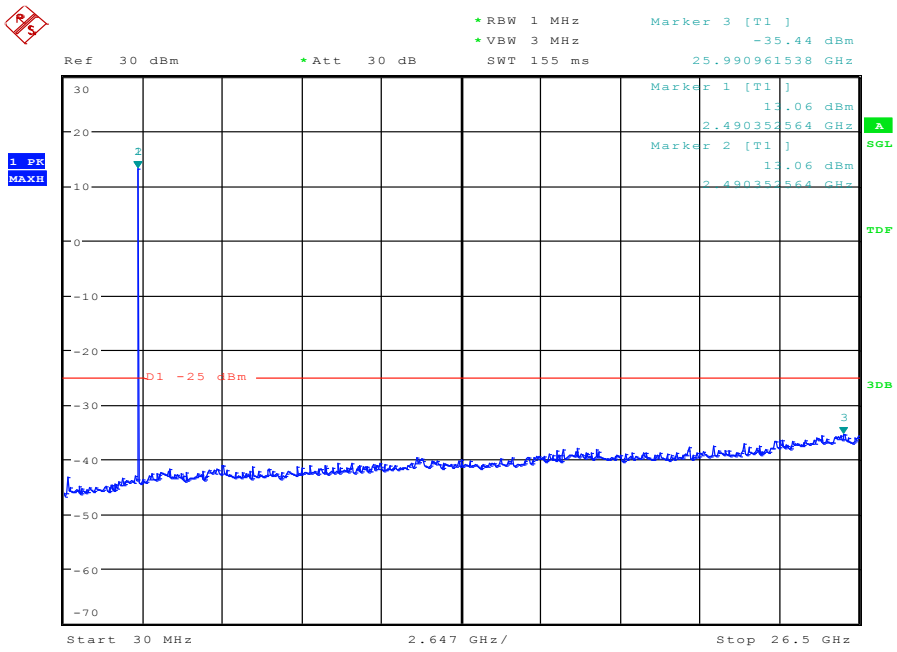
BAND 7@Conducted Spurious Emission

BW10MHz-2505MHz,Q16-50RB_LOW@Pass



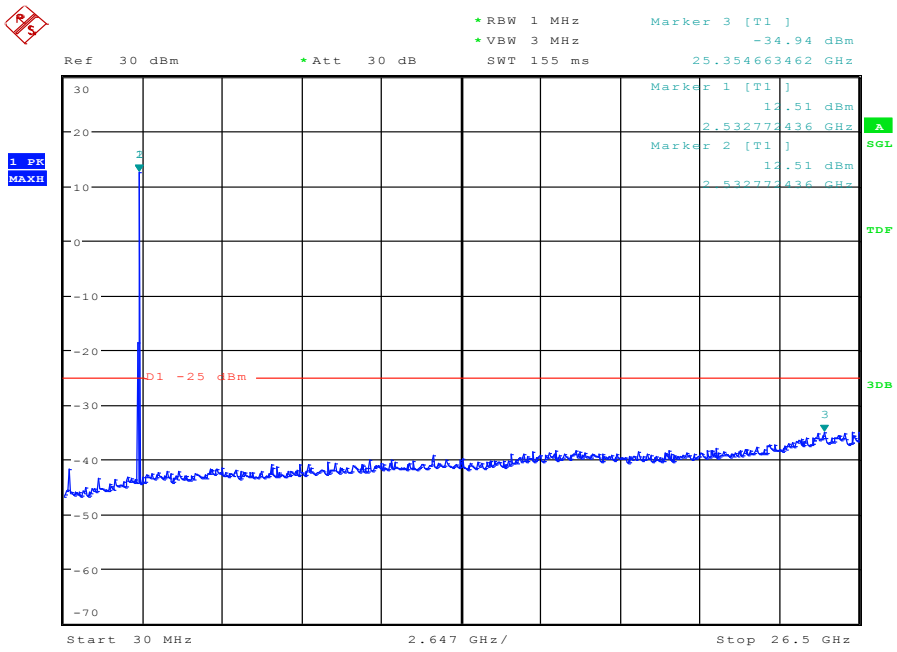
Date: 17.MAR.2017 08:37:38

BW10MHz-2505MHz,QPSK-50RB_LOW@Pass



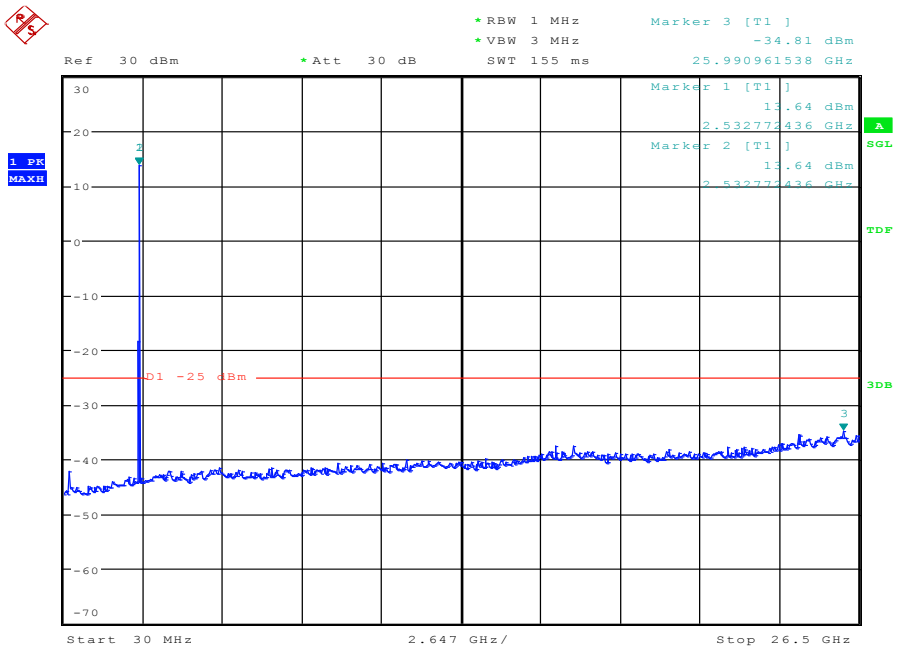
Date: 17.MAR.2017 08:37:20

BW10MHz-2535MHz,Q16-50RB_LOW@Pass



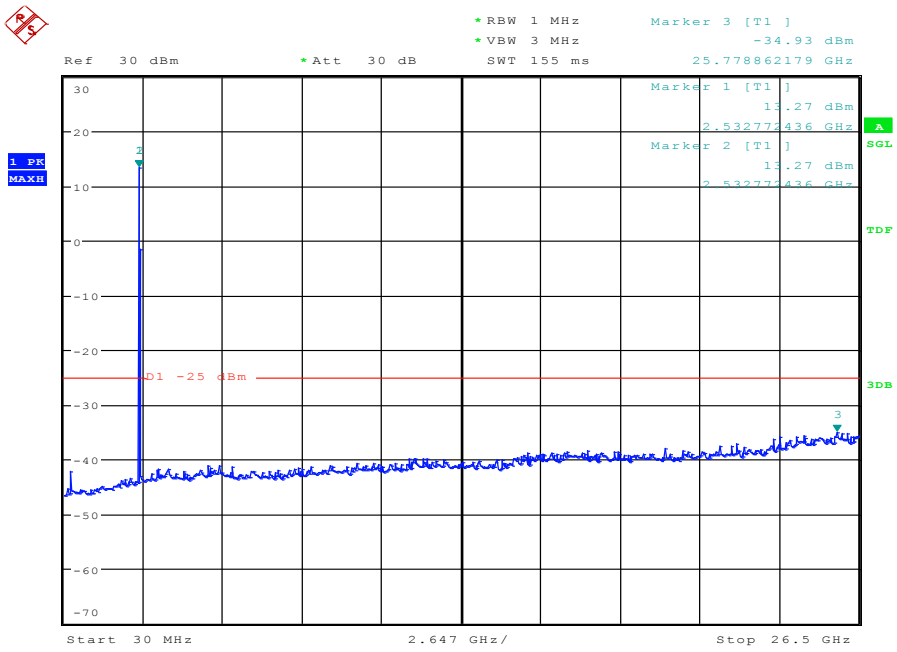
Date: 17.MAR.2017 08:38:51

BW10MHz-2535MHz,QPSK-50RB_LOW@Pass



Date: 17.MAR.2017 08:38:33

BW10MHz-2565MHz,Q16-50RB_LOW@Pass



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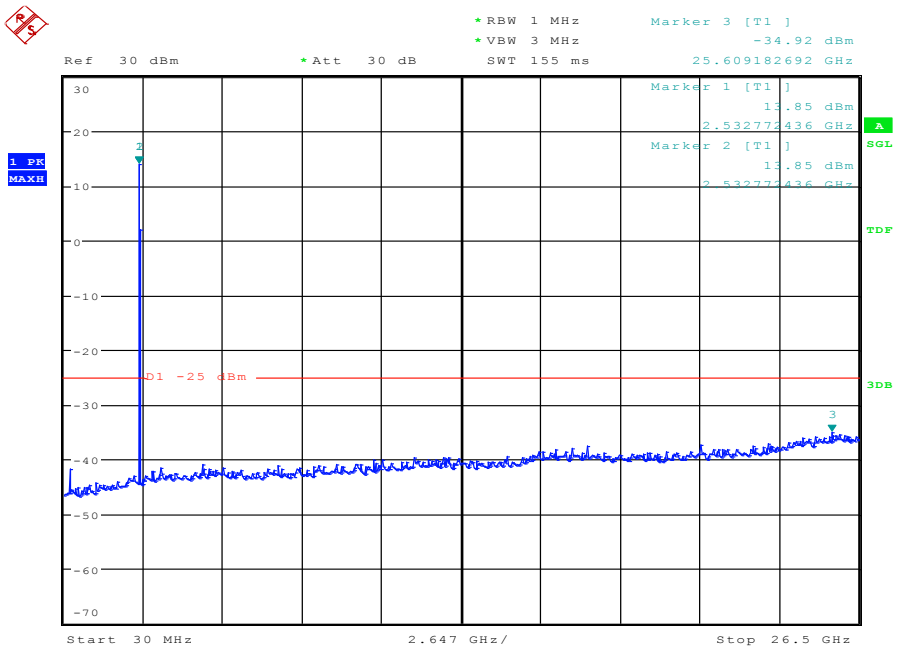
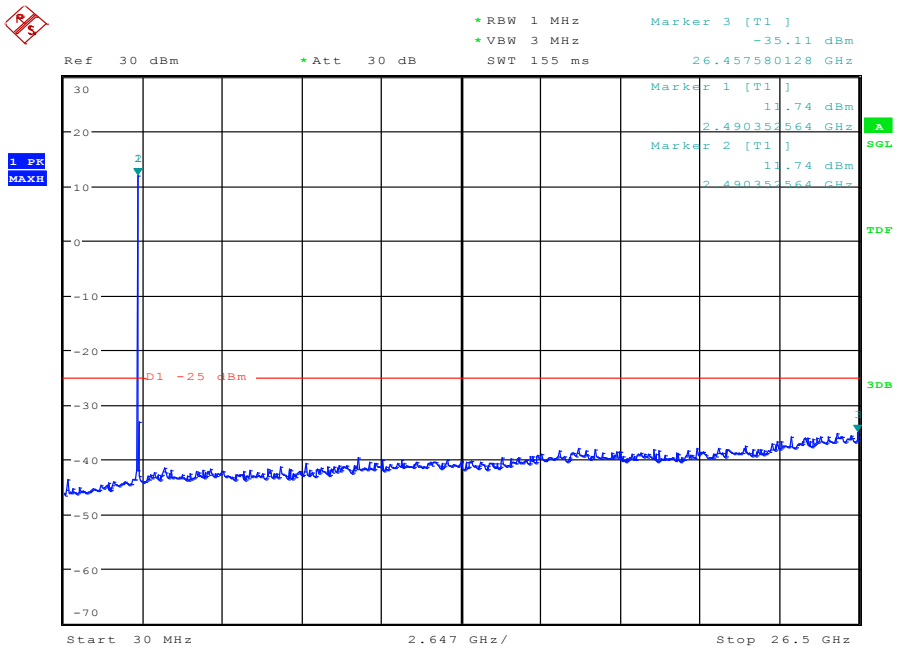
BW10MHz-2565MHz,QPSK-50RB_LOW@Pass



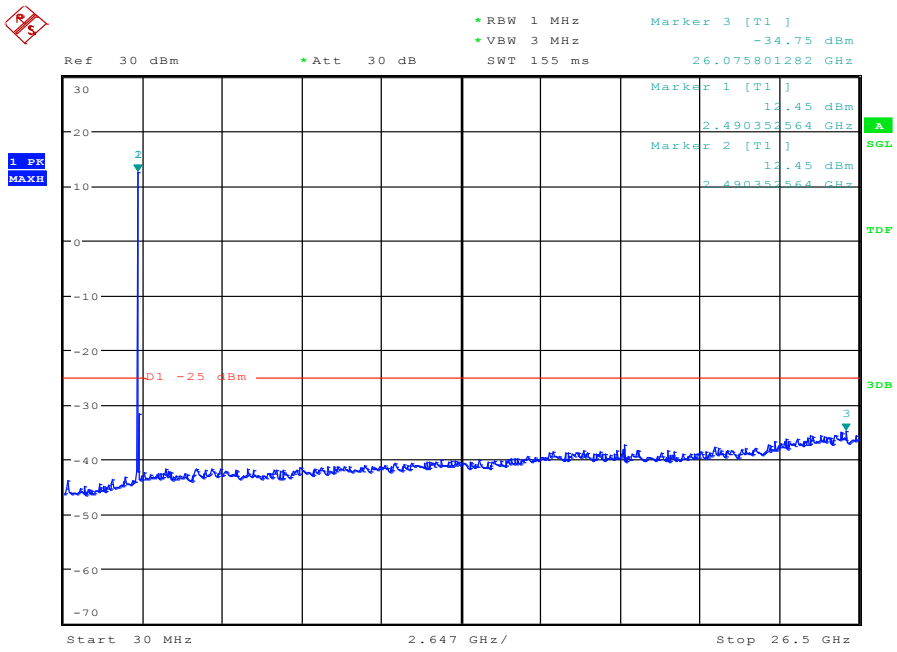
Date: 17.MAR.2017 08:37:57

BW15MHz-2507.5MHz,Q16-75RB_LOW@Pass



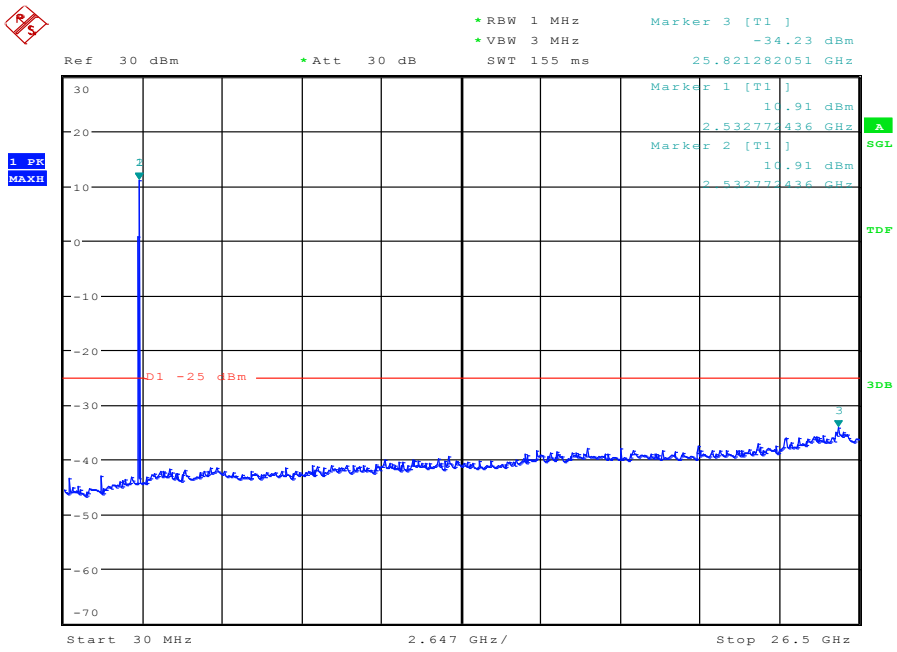
Date: 17.MAR.2017 08:39:34

BW15MHz-2507.5MHz,QPSK-75RB_LOW@Pass



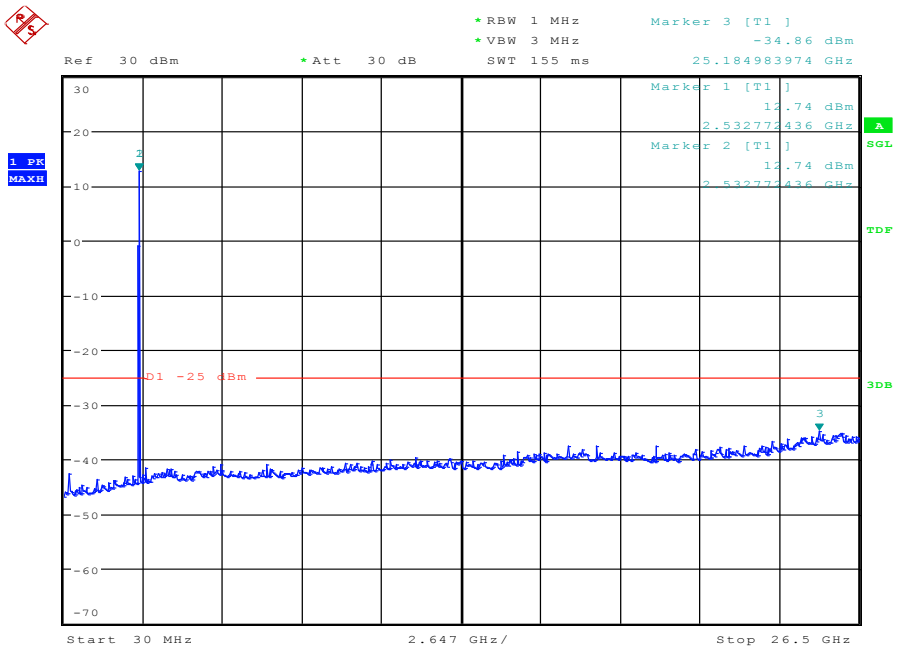
Date: 17.MAR.2017 08:39:14

BW15MHz-2535MHz,Q16-75RB_LOW@Pass



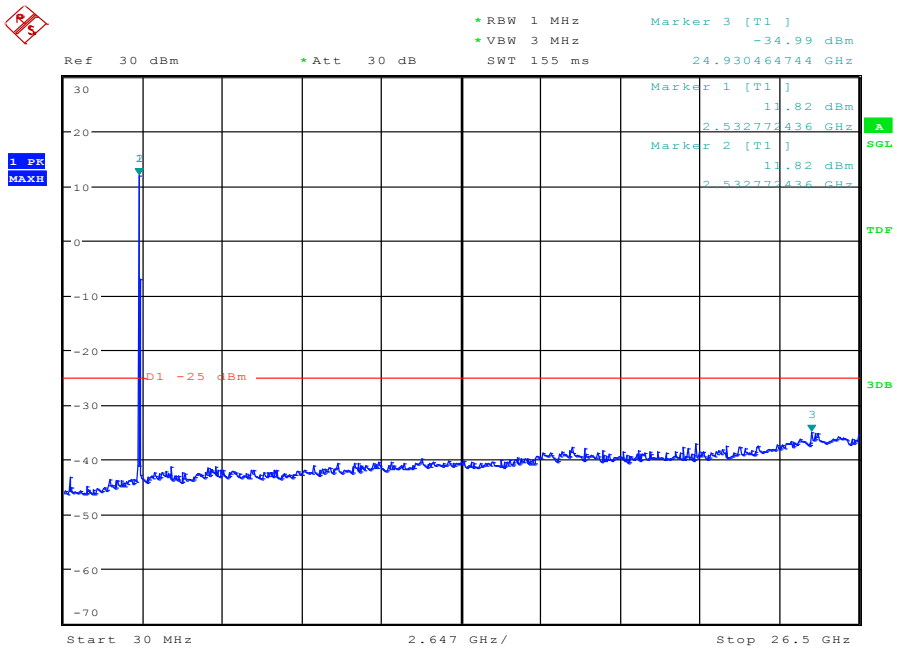
Date: 17.MAR.2017 08:40:56

BW15MHz-2535MHz,QPSK-75RB_LOW@Pass



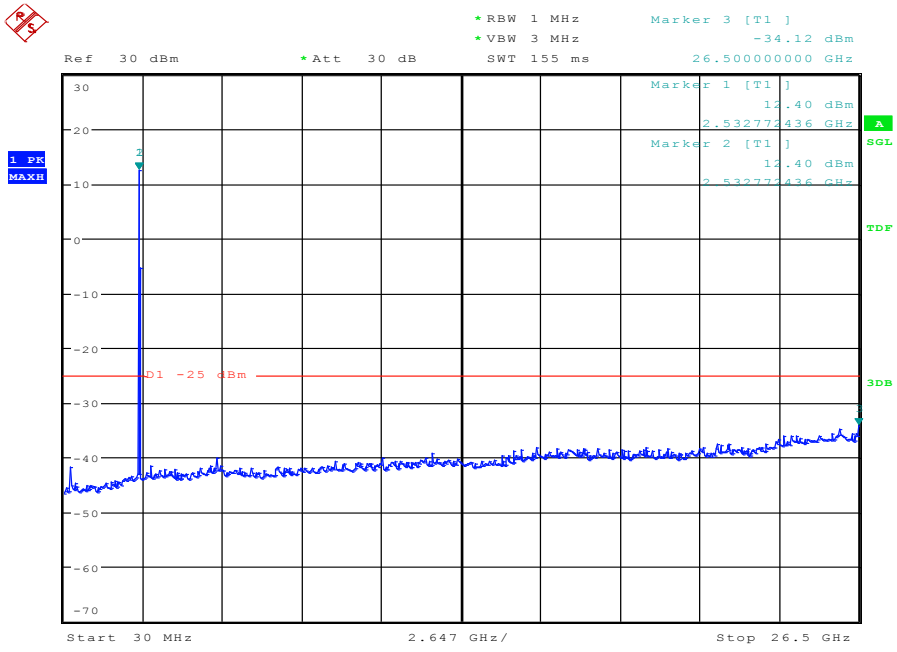
Date: 17.MAR.2017 08:40:36

BW15MHz-2562.5MHz,Q16-75RB_LOW@Pass



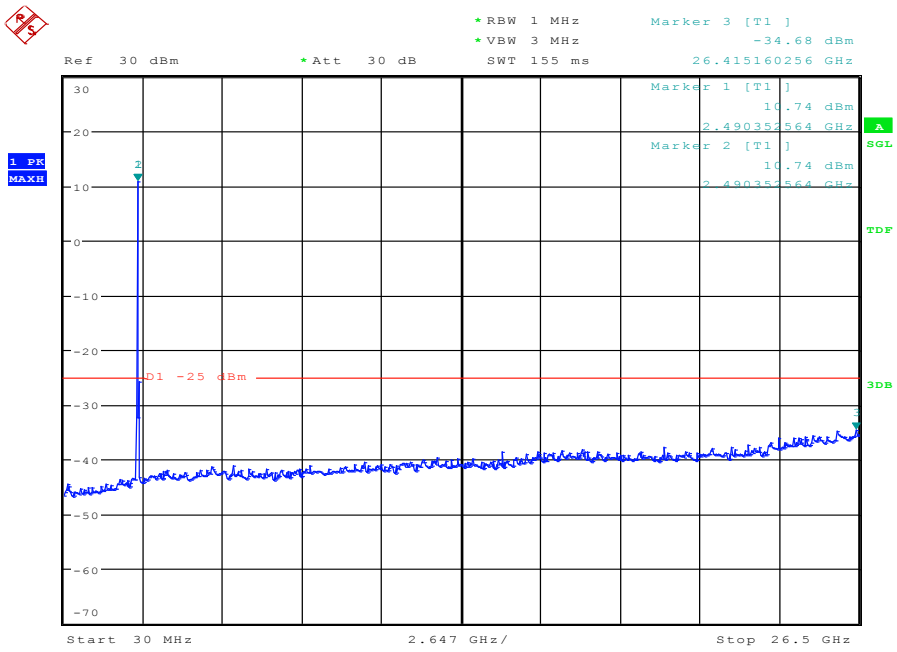
Date: 17.MAR.2017 08:40:15

BW15MHz-2562.5MHz,QPSK-75RB_LOW@Pass



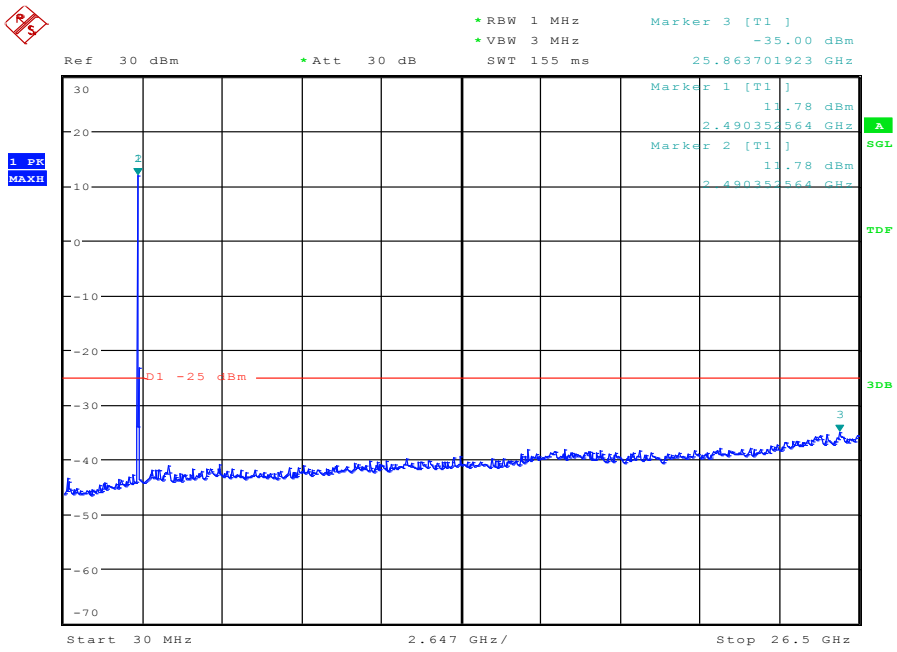
Date: 17.MAR.2017 08:39:55

BW20MHz-2510MHz,Q16-100RB_LOW@Pass



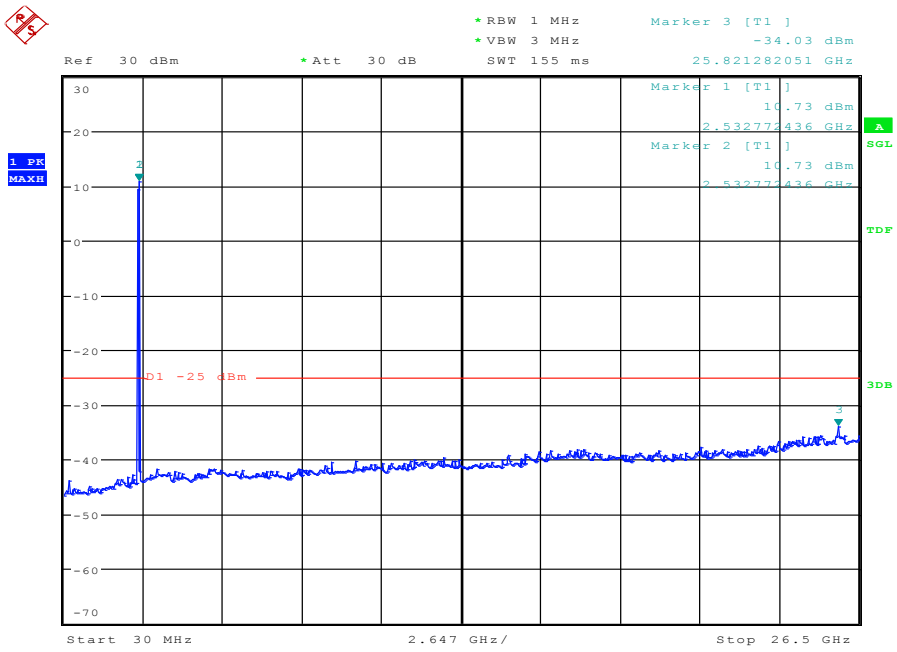
Date: 17.MAR.2017 08:41:39

BW20MHz-2510MHz,QPSK-100RB_LOW@Pass



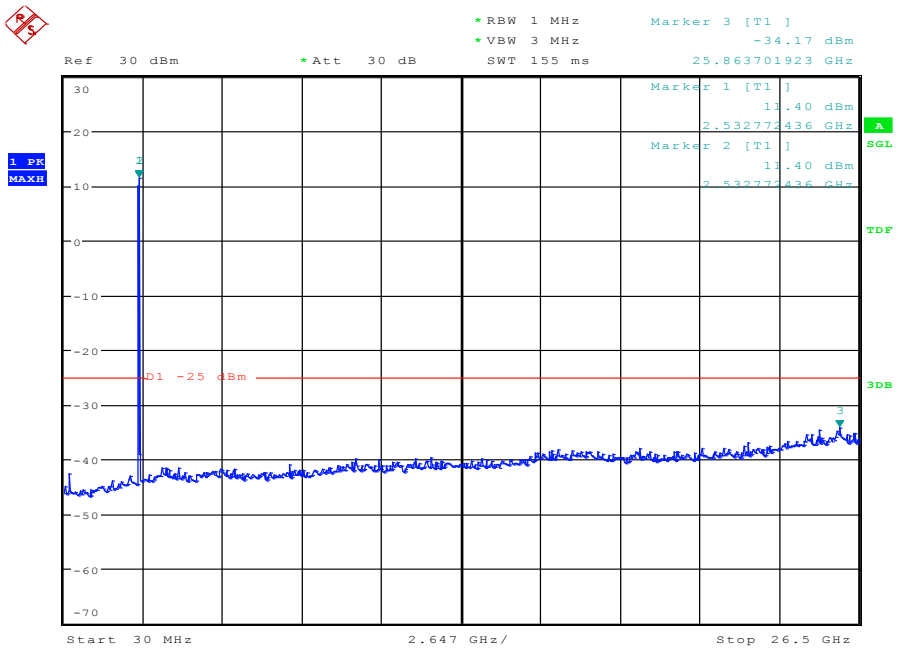
Date: 17.MAR.2017 08:41:18

BW20MHz-2535MHz,Q16-100RB_LOW@Pass



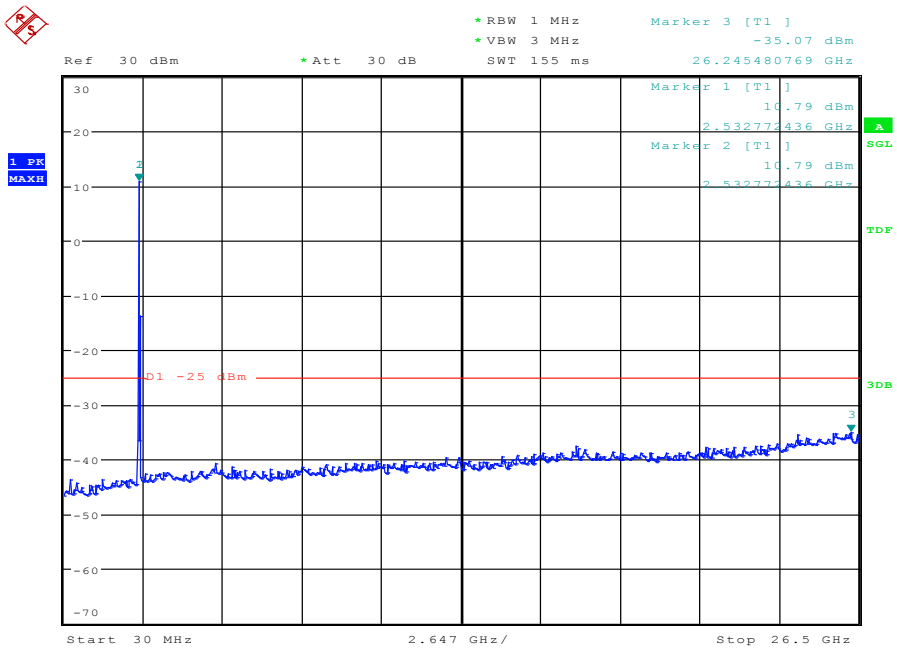
Date: 17.MAR.2017 08:43:00

BW20MHz-2535MHz,QPSK-100RB_LOW@Pass



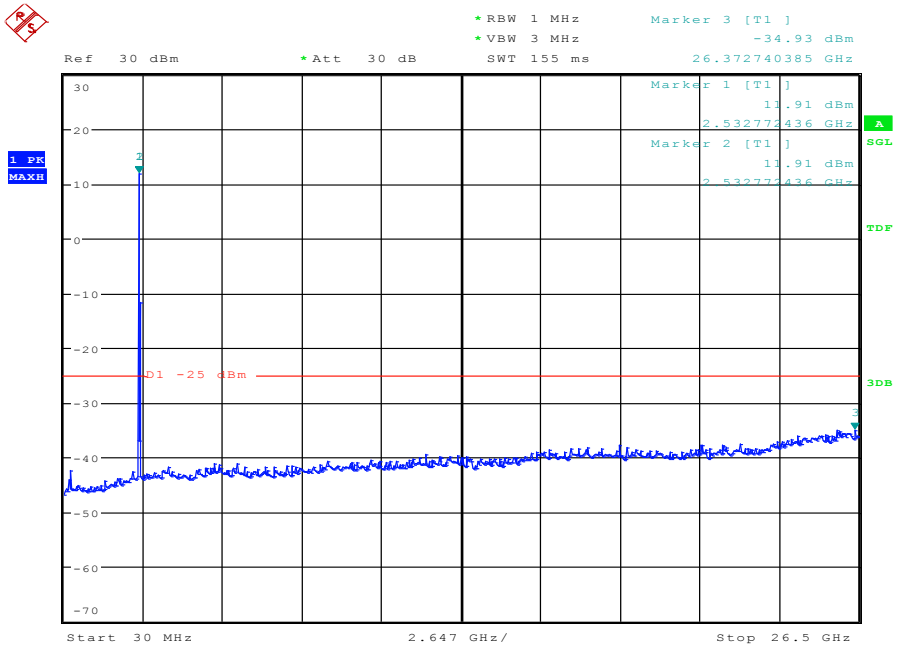
Date: 17.MAR.2017 08:42:41

BW20MHz-2560MHz,Q16-100RB_LOW@Pass



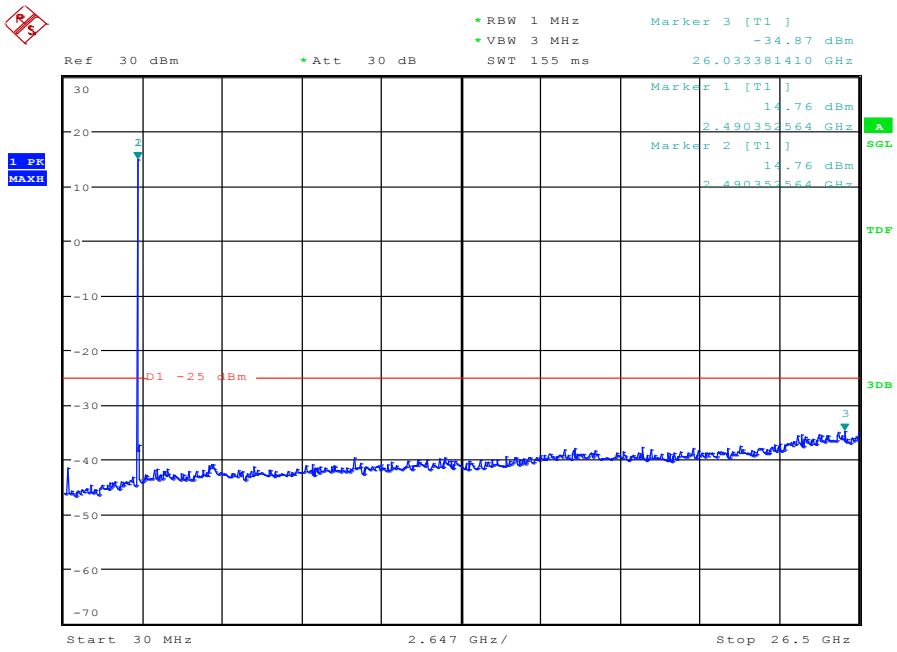
Date: 17.MAR.2017 08:42:20

BW20MHz-2560MHz,QPSK-100RB_LOW@Pass



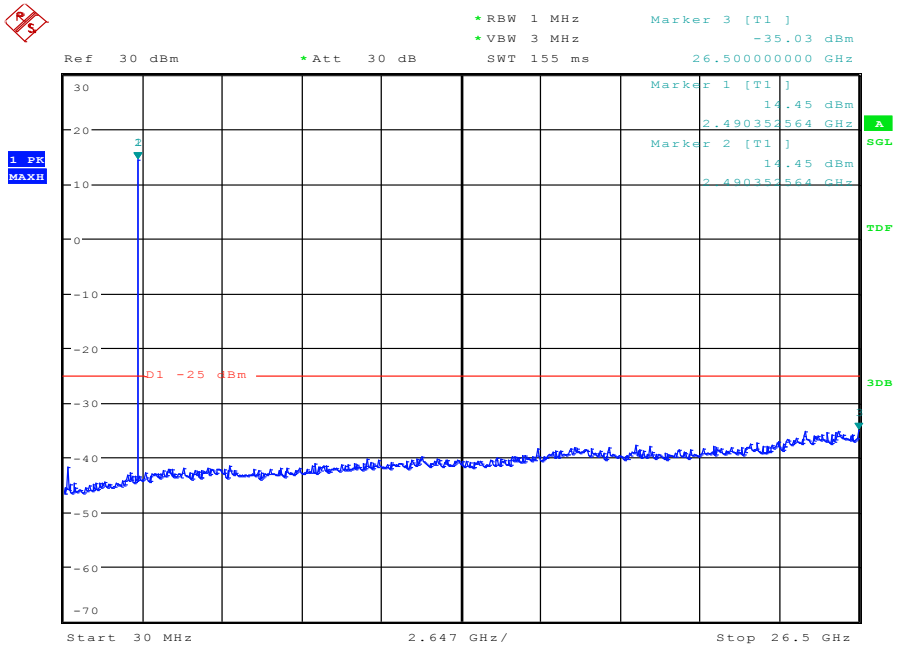
Date: 17.MAR.2017 08:42:00

BW5MHz-2502.5MHz,Q16-25RB_LOW@Pass



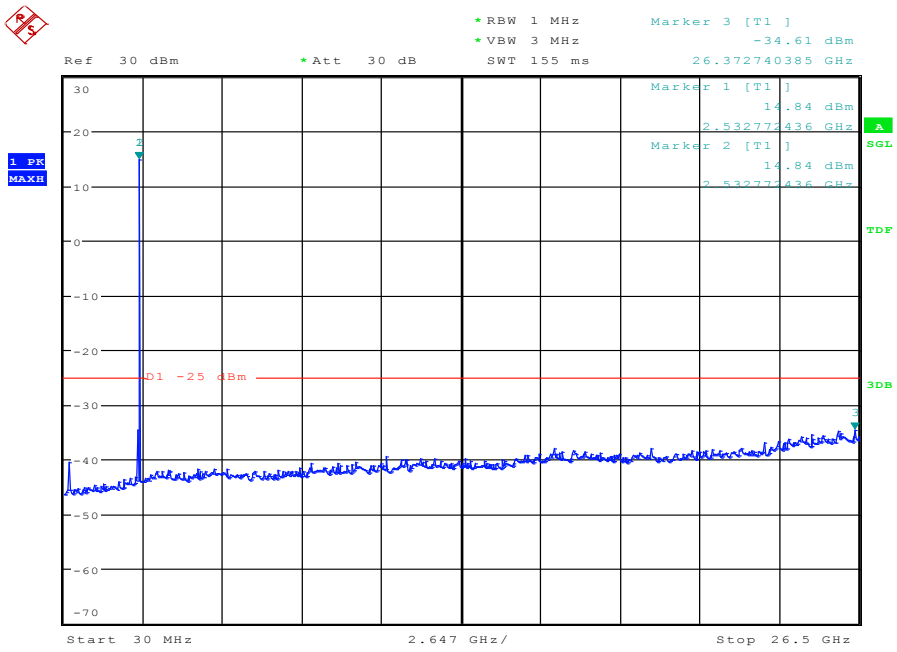
Date: 17.MAR.2017 08:35:49

BW5MHz-2502.5MHz,QPSK-25RB_LOW@Pass



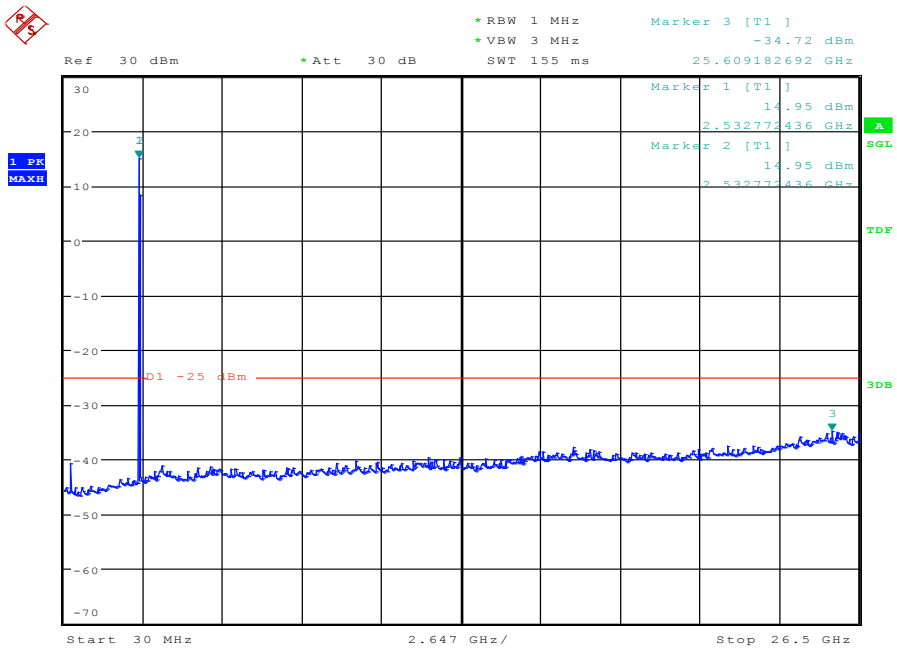
Date: 17.MAR.2017 08:35:31

BW5MHz-2535MHz,QPSK-25RB_LOW@Pass



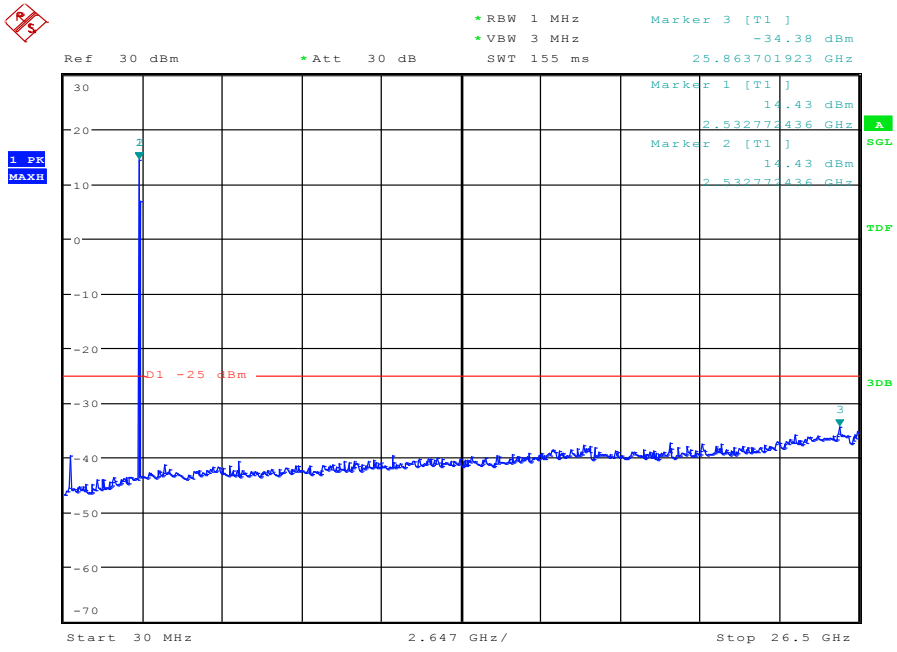
Date: 17.MAR.2017 08:37:00

BW5MHz-2567.5MHz,Q16-25RB_LOW@Pass



Date: 17.MAR.2017 08:36:24

BW5MHz-2567.5MHz,QPSK-25RB_LOW@Pass



Date: 17.MAR.2017 08:36:07

6.1.2 Radiated method

Test limit:

The spurious (unwanted) emission limits specified in the individual FCC rule parts applicable to licensed digital transmitters (typically referred to under the heading 'emission limits') normally apply to any and all emissions that are present outside of the authorized frequency band/block and apply to emissions in both the out-of-band and spurious domains. In some rule parts, the unwanted emission limits are specified by an emission mask that defines the applicable limit as a function of the frequency range relative to the authorized frequency block.

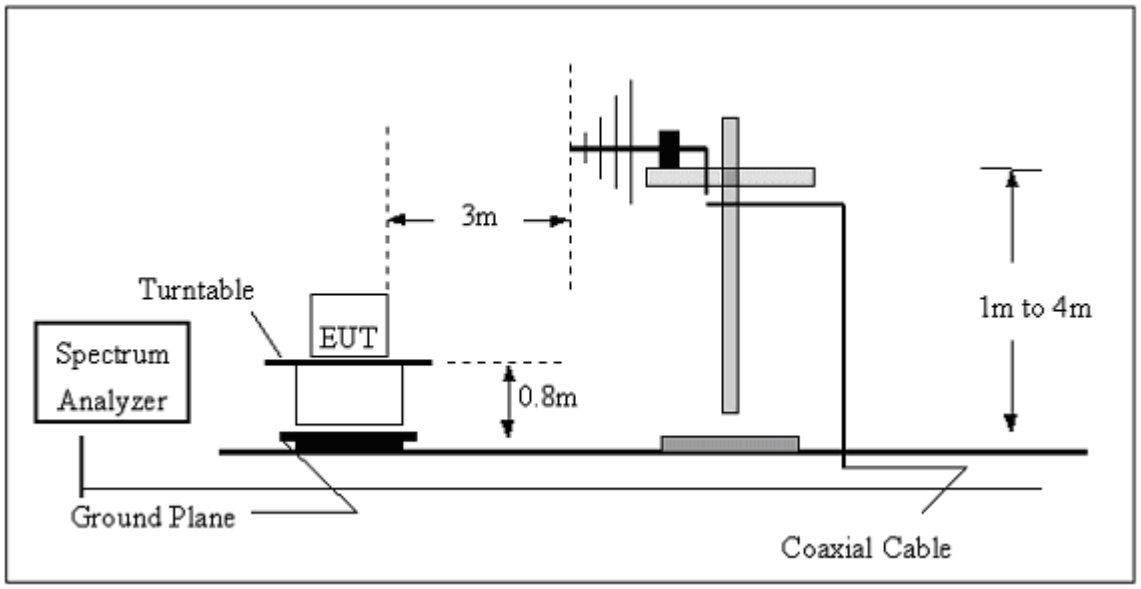
Typically, unwanted emissions are required by the licensed rule parts to be attenuated below the transmitter power by a factor of at least X + 10log(P) dB, where P represents the transmitter power expressed in watts and X is a specified scalar value (e.g., 43). This specification can be interpreted in one of two equivalent ways. First, the required attenuation can be construed to be relative to the mean carrier power, with the resultant of the equation X + 10log(P) being expressed in dBc (dB relative to the maximum carrier power). Alternatively, the specification can be interpreted as an absolute limit when the specified attenuation is actually subtracted from the maximum permissible transmitter power [i.e., 10log(P) – {X + 10log(P)}], resulting in an absolute level of -X dBW [or (-X + 30) dBm]. See section 4.

Test procedure:

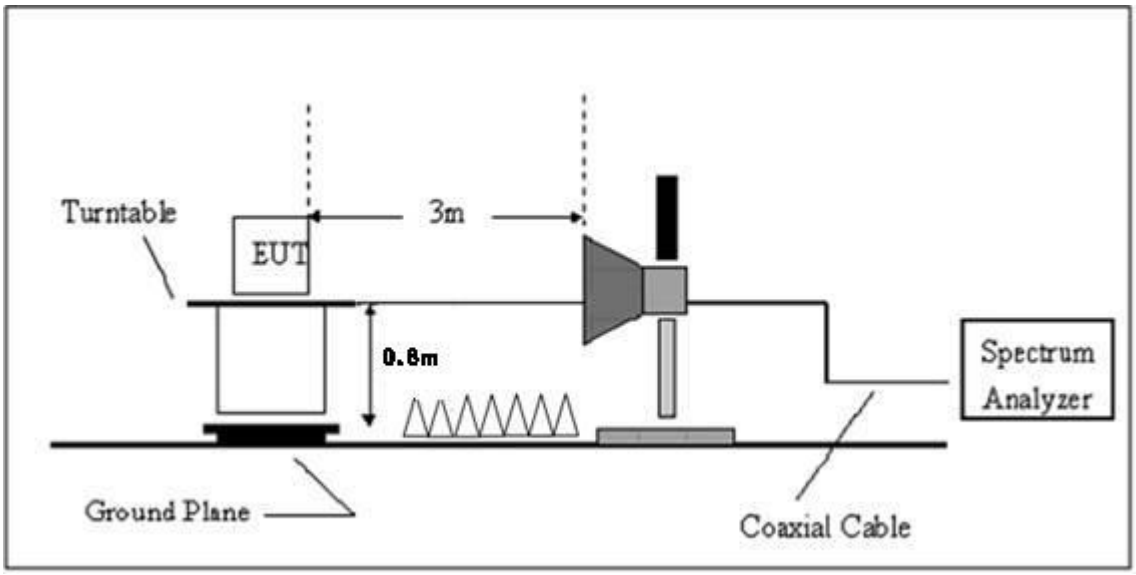
The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site. The resolution bandwidth of the spectrum analyzer was set at 100 kHz below 1 GHz and 1 MHz above 1 GHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonics.

Test setup:

（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 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 5:

Mode	Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Judgement
1	10	20450	829	QPSK	100	LOW	Pass
2	10	20525	836.5	QPSK	100	LOW	Pass
3	10	20600	844	QPSK	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 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 5:

Mode 1					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1679	-62.46	10.65	-51.81	-13	Horizontal
1679	-63.28	10.52	-52.76	-13	Vertical
2518.5	-64.04	11.55	-52.49	-13	Horizontal
2518.5	-65.17	12.36	-52.81	-13	Vertical

Mode 2					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1680	-63.12	10.33	-52.79	-13	Horizontal
1680	-62.86	10.14	-52.72	-13	Vertical
2520	-63.72	12.44	-51.28	-13	Horizontal
2520	-64.64	12.22	-52.43	-13	Vertical

Mode 3					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1683	-62.81	10.41	-52.39	-13	Horizontal
1683	-63.37	10.17	-53.21	-13	Vertical
2524.5	-64.35	12.04	-52.32	-13	Horizontal
2524.5	-65.10	11.50	-53.59	-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

7 FREQUENCY STABILITY

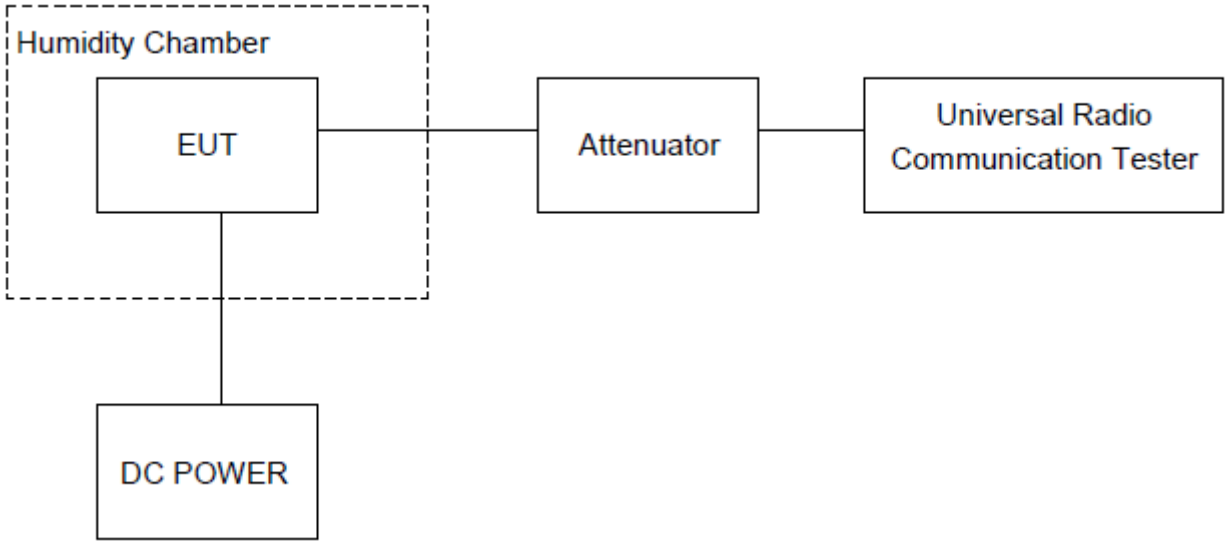
Test limit:

The frequency stability of the transmitter shall be measured while varying the ambient temperatures and supply voltages over the ranges specified in §2.1055. The specific frequency stability limits are provided in the relevant rules section(s). see section 4.

Test procedure:

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

Test setup:



7.1 Measurement Result（Worst）

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

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	35	0.042
3.85	38	0.045
4.4	30	0.036

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	40	0.048
0	35	0.041
10	40	0.048
20	38	0.046
30	31	0.037
40	32	0.038
50	38	0.046

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

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	28	0.015
3.85	32	0.017
4.4	31	0.016

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	37	0.020
0	29	0.015
10	28	0.015
20	29	0.015
30	34	0.018
40	33	0.018
50	40	0.021

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

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	35	0.042
3.85	38	0.045
4.4	30	0.036

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	40	0.048
0	35	0.041
10	40	0.048
20	38	0.046
30	31	0.037
40	32	0.038
50	38	0.046

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	29	0.016
4.4	30	0.016

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	33	0.018
0	37	0.020
10	29	0.015
20	38	0.020
30	37	0.020
40	29	0.016
50	30	0.016

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

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	34	0.041
3.85	38	0.045
4.4	33	0.039

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	33	0.039
0	33	0.039
10	33	0.040
20	41	0.048
30	38	0.045
40	39	0.046
50	29	0.035

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

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	29	0.016
3.85	37	0.020
4.4	29	0.016

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	28	0.015
0	31	0.016
10	32	0.017
20	32	0.017
30	33	0.018
40	32	0.017
50	41	0.022

UTRA BANDS

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

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.45	29	0.015
3.85	28	0.015
4.4	33	0.018

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	31	0.017
0	38	0.020
10	38	0.020
20	31	0.016
30	39	0.021
40	28	0.015
50	39	0.021

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

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.45	33	0.040
3.85	39	0.047
4.4	35	0.042

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

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	33	0.039
0	34	0.041
10	30	0.036
20	35	0.042
30	39	0.046
40	36	0.043
50	36	0.043

E-UTRA
BAND 2:

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
1.4	18607	1850.7	QPSK	1	LOW	3.56	0.004218
1.4	18607	1850.7	QPSK	1	MID	-0.02	-2.4E-05
1.4	18607	1850.7	QPSK	1	HIGH	4.93	0.005841
1.4	18607	1850.7	QPSK	3	LOW	-4.75	-0.00563
1.4	18607	1850.7	QPSK	3	MID	-4.71	-0.00558
1.4	18607	1850.7	QPSK	3	HIGH	4	0.004739
1.4	18607	1850.7	QPSK	6	LOW	1.6	0.001896
1.4	18607	1850.7	Q16	1	LOW	-4.15	-0.00492
1.4	18607	1850.7	Q16	1	MID	-1.72	-0.00204
1.4	18607	1850.7	Q16	1	HIGH	-2.39	-0.00283
1.4	18607	1850.7	Q16	3	LOW	-3.9	-0.00462
1.4	18607	1850.7	Q16	3	MID	4.9	0.005806
1.4	18607	1850.7	Q16	3	HIGH	-0.75	-0.00089
1.4	18607	1850.7	Q16	6	LOW	-3.29	-0.0039
1.4	18900	1880	QPSK	1	LOW	-4.48	-0.00531
1.4	18900	1880	QPSK	1	MID	-1.07	-0.00127
1.4	18900	1880	QPSK	1	HIGH	-0.57	-0.00068
1.4	18900	1880	QPSK	3	LOW	3.28	0.003886
1.4	18900	1880	QPSK	3	MID	-4.18	-0.00495
1.4	18900	1880	QPSK	3	HIGH	-4.64	-0.0055
1.4	18900	1880	QPSK	6	LOW	-4.81	-0.0057
1.4	18900	1880	Q16	1	LOW	4.01	0.004751
1.4	18900	1880	Q16	1	MID	-2.79	-0.00331
1.4	18900	1880	Q16	1	HIGH	2.89	0.003424
1.4	18900	1880	Q16	3	LOW	-1.17	-0.00139
1.4	18900	1880	Q16	3	MID	-2.53	-0.003
1.4	18900	1880	Q16	3	HIGH	-1.18	-0.0014
1.4	18900	1880	Q16	6	LOW	4.7	0.005569
1.4	19193	1909.3	QPSK	1	LOW	1.96	0.002322
1.4	19193	1909.3	QPSK	1	MID	-0.18	-0.00021
1.4	19193	1909.3	QPSK	1	HIGH	-1.11	-0.00132
1.4	19193	1909.3	QPSK	3	LOW	-2.32	-0.00275
1.4	19193	1909.3	QPSK	3	MID	-0.97	-0.00115

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
1.4	19193	1909.3	QPSK	3	HIGH	1.45	0.001718
1.4	19193	1909.3	QPSK	6	LOW	-1.46	-0.00173
1.4	19193	1909.3	Q16	1	LOW	2.56	0.003033
1.4	19193	1909.3	Q16	1	MID	-3.57	-0.00423
1.4	19193	1909.3	Q16	1	HIGH	-2.12	-0.00251
1.4	19193	1909.3	Q16	3	LOW	1.06	0.001256
1.4	19193	1909.3	Q16	3	MID	3.38	0.004005
1.4	19193	1909.3	Q16	3	HIGH	2.3	0.002725
1.4	19193	1909.3	Q16	6	LOW	-0.3	-0.00036
3	18615	1851.5	QPSK	1	LOW	-2.77	-0.00328
3	18615	1851.5	QPSK	1	MID	-0.35	-0.00041
3	18615	1851.5	QPSK	1	HIGH	3.29	0.003898
3	18615	1851.5	QPSK	8	LOW	2.21	0.002618
3	18615	1851.5	QPSK	8	MID	3.16	0.003744
3	18615	1851.5	QPSK	8	HIGH	-4.08	-0.00483
3	18615	1851.5	QPSK	15	LOW	-2.39	-0.00283
3	18615	1851.5	Q16	1	LOW	3.01	0.003566
3	18615	1851.5	Q16	1	MID	3.33	0.003945
3	18615	1851.5	Q16	1	HIGH	4.79	0.005675
3	18615	1851.5	Q16	8	LOW	-2.77	-0.00328
3	18615	1851.5	Q16	8	MID	-0.44	-0.00052
3	18615	1851.5	Q16	8	HIGH	0.46	0.000545
3	18615	1851.5	Q16	15	LOW	-4.01	-0.00475
3	18900	1880	QPSK	1	LOW	-2.65	-0.00314
3	18900	1880	QPSK	1	MID	4.18	0.004953
3	18900	1880	QPSK	1	HIGH	-4.25	-0.00504
3	18900	1880	QPSK	8	LOW	-2.04	-0.00242
3	18900	1880	QPSK	8	MID	0.9	0.001066
3	18900	1880	QPSK	8	HIGH	-0.83	-0.00098
3	18900	1880	QPSK	15	LOW	2.09	0.002476
3	18900	1880	Q16	1	LOW	-2.15	-0.00255
3	18900	1880	Q16	1	MID	-3.85	-0.00456
3	18900	1880	Q16	1	HIGH	1.97	0.002334
3	18900	1880	Q16	8	LOW	-3.16	-0.00374
3	18900	1880	Q16	8	MID	1.6	0.001896
3	18900	1880	Q16	8	HIGH	-4.1	-0.00486

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
3	18900	1880	Q16	15	LOW	1.26	0.001493
3	19185	1908.5	QPSK	1	LOW	-3.41	-0.00404
3	19185	1908.5	QPSK	1	MID	-0.68	-0.00081
3	19185	1908.5	QPSK	1	HIGH	-1.83	-0.00217
3	19185	1908.5	QPSK	8	LOW	2.41	0.002855
3	19185	1908.5	QPSK	8	MID	-1.27	-0.0015
3	19185	1908.5	QPSK	8	HIGH	2.16	0.002559
3	19185	1908.5	QPSK	15	LOW	2.07	0.002453
3	19185	1908.5	Q16	1	LOW	4.01	0.004751
3	19185	1908.5	Q16	1	MID	-1.55	-0.00184
3	19185	1908.5	Q16	1	HIGH	1.05	0.001244
3	19185	1908.5	Q16	8	LOW	1.78	0.002109
3	19185	1908.5	Q16	8	MID	-3.73	-0.00442
3	19185	1908.5	Q16	8	HIGH	-4.01	-0.00475
3	19185	1908.5	Q16	15	LOW	4.91	0.005818
5	18625	1852.5	QPSK	1	LOW	-0.88	-0.00104
5	18625	1852.5	QPSK	1	MID	-1.29	-0.00153
5	18625	1852.5	QPSK	1	HIGH	4.5	0.005332
5	18625	1852.5	QPSK	12	LOW	-3.54	-0.00419
5	18625	1852.5	QPSK	12	MID	-0.03	-3.6E-05
5	18625	1852.5	QPSK	12	HIGH	0.39	0.000462
5	18625	1852.5	QPSK	25	LOW	1.59	0.001884
5	18625	1852.5	Q16	1	LOW	3.12	0.003697
5	18625	1852.5	Q16	1	MID	-1.26	-0.00149
5	18625	1852.5	Q16	1	HIGH	-3.62	-0.00429
5	18625	1852.5	Q16	12	LOW	0.14	0.000166
5	18625	1852.5	Q16	12	MID	-4.85	-0.00575
5	18625	1852.5	Q16	12	HIGH	2.06	0.002441
5	18625	1852.5	Q16	25	LOW	-3.5	-0.00415
5	18900	1880	QPSK	1	LOW	1.42	0.001682
5	18900	1880	QPSK	1	MID	3.83	0.004538
5	18900	1880	QPSK	1	HIGH	-2.73	-0.00323
5	18900	1880	QPSK	12	LOW	-1.81	-0.00214
5	18900	1880	QPSK	12	MID	-2.93	-0.00347
5	18900	1880	QPSK	12	HIGH	-4.42	-0.00524
5	18900	1880	QPSK	25	LOW	1.66	0.001967

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
5	18900	1880	Q16	1	LOW	-2.17	-0.00257
5	18900	1880	Q16	1	MID	-4.4	-0.00521
5	18900	1880	Q16	1	HIGH	-1.6	-0.0019
5	18900	1880	Q16	12	LOW	-1.26	-0.00149
5	18900	1880	Q16	12	MID	1.24	0.001469
5	18900	1880	Q16	12	HIGH	-3.72	-0.00441
5	18900	1880	Q16	25	LOW	0.79	0.000936
5	19175	1907.5	QPSK	1	LOW	-4.31	-0.00511
5	19175	1907.5	QPSK	1	MID	-1.36	-0.00161
5	19175	1907.5	QPSK	1	HIGH	2.32	0.002749
5	19175	1907.5	QPSK	12	LOW	3.57	0.00423
5	19175	1907.5	QPSK	12	MID	-0.05	-5.9E-05
5	19175	1907.5	QPSK	12	HIGH	-4.58	-0.00543
5	19175	1907.5	QPSK	25	LOW	-0.11	-0.00013
5	19175	1907.5	Q16	1	LOW	0.62	0.000735
5	19175	1907.5	Q16	1	MID	-1.23	-0.00146
5	19175	1907.5	Q16	1	HIGH	1.86	0.002204
5	19175	1907.5	Q16	12	LOW	4.62	0.005474
5	19175	1907.5	Q16	12	MID	-4.42	-0.00524
5	19175	1907.5	Q16	12	HIGH	-4.86	-0.00576
5	19175	1907.5	Q16	25	LOW	-3.82	-0.00453
10	18650	1855	QPSK	1	LOW	1.07	0.001268
10	18650	1855	QPSK	1	MID	-0.47	-0.00056
10	18650	1855	QPSK	1	HIGH	3.77	0.004467
10	18650	1855	QPSK	25	LOW	0.86	0.001019
10	18650	1855	QPSK	25	MID	4.34	0.005142
10	18650	1855	QPSK	25	HIGH	0.55	0.000652
10	18650	1855	QPSK	50	LOW	4.21	0.004988
10	18650	1855	Q16	1	LOW	0.9	0.001066
10	18650	1855	Q16	1	MID	0.86	0.001019
10	18650	1855	Q16	1	HIGH	-0.17	-0.0002
10	18650	1855	Q16	25	LOW	2.6	0.003081
10	18650	1855	Q16	25	MID	-0.95	-0.00113
10	18650	1855	Q16	25	HIGH	-3.83	-0.00454
10	18650	1855	Q16	50	LOW	4.9	0.005806
10	18900	1880	QPSK	1	LOW	-3.07	-0.00364

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
10	18900	1880	QPSK	1	MID	-3.77	-0.00447
10	18900	1880	QPSK	1	HIGH	-2.37	-0.00281
10	18900	1880	QPSK	25	LOW	-3.46	-0.0041
10	18900	1880	QPSK	25	MID	-0.38	-0.00045
10	18900	1880	QPSK	25	HIGH	-3.47	-0.00411
10	18900	1880	QPSK	50	LOW	1.92	0.002275
10	18900	1880	Q16	1	LOW	0.79	0.000936
10	18900	1880	Q16	1	MID	3.93	0.004656
10	18900	1880	Q16	1	HIGH	-4.89	-0.00579
10	18900	1880	Q16	25	LOW	2.9	0.003436
10	18900	1880	Q16	25	MID	-1.15	-0.00136
10	18900	1880	Q16	25	HIGH	2.81	0.003329
10	18900	1880	Q16	50	LOW	-3.5	-0.00415
10	19150	1905	QPSK	1	LOW	-3.76	-0.00445
10	19150	1905	QPSK	1	MID	-2.68	-0.00318
10	19150	1905	QPSK	1	HIGH	2.89	0.003424
10	19150	1905	QPSK	25	LOW	2.51	0.002974
10	19150	1905	QPSK	25	MID	-2.34	-0.00277
10	19150	1905	QPSK	25	HIGH	2.46	0.002915
10	19150	1905	QPSK	50	LOW	2.3	0.002725
10	19150	1905	Q16	1	LOW	0.18	0.000213
10	19150	1905	Q16	1	MID	2.44	0.002891
10	19150	1905	Q16	1	HIGH	4.67	0.005533
10	19150	1905	Q16	25	LOW	2.9	0.003436
10	19150	1905	Q16	25	MID	-1.5	-0.00178
10	19150	1905	Q16	25	HIGH	-1.95	-0.00231
10	19150	1905	Q16	50	LOW	-4.25	-0.00504
15	18675	1857.5	QPSK	1	LOW	-2.54	-0.00301
15	18675	1857.5	QPSK	1	MID	0.54	0.00064
15	18675	1857.5	QPSK	1	HIGH	-3.02	-0.00358
15	18675	1857.5	QPSK	36	LOW	-0.49	-0.00058
15	18675	1857.5	QPSK	36	MID	2.94	0.003483
15	18675	1857.5	QPSK	36	HIGH	4.36	0.005166
15	18675	1857.5	QPSK	75	LOW	3.13	0.003709
15	18675	1857.5	Q16	1	LOW	3.9	0.004621
15	18675	1857.5	Q16	1	MID	1.72	0.002038

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
15	18675	1857.5	Q16	1	HIGH	-2.11	-0.0025
15	18675	1857.5	Q16	36	LOW	-3.81	-0.00451
15	18675	1857.5	Q16	36	MID	3.73	0.004419
15	18675	1857.5	Q16	36	HIGH	-4.4	-0.00521
15	18675	1857.5	Q16	75	LOW	-4.07	-0.00482
15	18900	1880	QPSK	1	LOW	-1.13	-0.00134
15	18900	1880	QPSK	1	MID	2.71	0.003211
15	18900	1880	QPSK	1	HIGH	-3.8	-0.0045
15	18900	1880	QPSK	36	LOW	-0.2	-0.00024
15	18900	1880	QPSK	36	MID	3.51	0.004159
15	18900	1880	QPSK	36	HIGH	-2.66	-0.00315
15	18900	1880	QPSK	75	LOW	-2.41	-0.00286
15	18900	1880	Q16	1	LOW	-0.5	-0.00059
15	18900	1880	Q16	1	MID	2.64	0.003128
15	18900	1880	Q16	1	HIGH	2.24	0.002654
15	18900	1880	Q16	36	LOW	-0.62	-0.00073
15	18900	1880	Q16	36	MID	-2.91	-0.00345
15	18900	1880	Q16	36	HIGH	-2.84	-0.00336
15	18900	1880	Q16	75	LOW	-1.65	-0.00195
15	19125	1902.5	QPSK	1	LOW	0.69	0.000818
15	19125	1902.5	QPSK	1	MID	-0.9	-0.00107
15	19125	1902.5	QPSK	1	HIGH	2.2	0.002607
15	19125	1902.5	QPSK	36	LOW	1.64	0.001943
15	19125	1902.5	QPSK	36	MID	3.24	0.003839
15	19125	1902.5	QPSK	36	HIGH	3.81	0.004514
15	19125	1902.5	QPSK	75	LOW	-1.5	-0.00178
15	19125	1902.5	Q16	1	LOW	3.5	0.004147
15	19125	1902.5	Q16	1	MID	-4.7	-0.00557
15	19125	1902.5	Q16	1	HIGH	3.16	0.003744
15	19125	1902.5	Q16	36	LOW	0.23	0.000273
15	19125	1902.5	Q16	36	MID	-1.17	-0.00139
15	19125	1902.5	Q16	36	HIGH	-3.86	-0.00457
15	19125	1902.5	Q16	75	LOW	4.9	0.005806
20	18700	1860	QPSK	1	LOW	4.43	0.005249
20	18700	1860	QPSK	1	MID	-0.89	-0.00105
20	18700	1860	QPSK	1	HIGH	2.6	0.003081

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
20	18700	1860	QPSK	50	LOW	2.69	0.003187
20	18700	1860	QPSK	50	MID	-2.55	-0.00302
20	18700	1860	QPSK	50	HIGH	4.66	0.005521
20	18700	1860	QPSK	100	LOW	1.78	0.002109
20	18700	1860	Q16	1	LOW	-3.93	-0.00466
20	18700	1860	Q16	1	MID	-3.47	-0.00411
20	18700	1860	Q16	1	HIGH	1.61	0.001908
20	18700	1860	Q16	50	LOW	-1.71	-0.00203
20	18700	1860	Q16	50	MID	1.26	0.001493
20	18700	1860	Q16	50	HIGH	-2.55	-0.00302
20	18700	1860	Q16	100	LOW	1.19	0.00141
20	18900	1880	QPSK	1	LOW	-1.98	-0.00235
20	18900	1880	QPSK	1	MID	1.07	0.001268
20	18900	1880	QPSK	1	HIGH	4.96	0.005877
20	18900	1880	QPSK	50	LOW	-1.15	-0.00136
20	18900	1880	QPSK	50	MID	2.03	0.002405
20	18900	1880	QPSK	50	HIGH	0.36	0.000427
20	18900	1880	QPSK	100	LOW	1.62	0.001919
20	18900	1880	Q16	1	LOW	1.78	0.002109
20	18900	1880	Q16	1	MID	-4.15	-0.00492
20	18900	1880	Q16	1	HIGH	4.95	0.005865
20	18900	1880	Q16	50	LOW	3.23	0.003827
20	18900	1880	Q16	50	MID	-4.18	-0.00495
20	18900	1880	Q16	50	HIGH	-2.66	-0.00315
20	18900	1880	Q16	100	LOW	2.9	0.003436
20	19100	1900	QPSK	1	LOW	0.27	0.00032
20	19100	1900	QPSK	1	MID	4.48	0.005308
20	19100	1900	QPSK	1	HIGH	4.63	0.005486
20	19100	1900	QPSK	50	LOW	2.74	0.003246
20	19100	1900	QPSK	50	MID	-3.28	-0.00389
20	19100	1900	QPSK	50	HIGH	-0.17	-0.0002
20	19100	1900	QPSK	100	LOW	-1.59	-0.00188
20	19100	1900	Q16	1	LOW	2.3	0.002725
20	19100	1900	Q16	1	MID	-2.73	-0.00323
20	19100	1900	Q16	1	HIGH	2.91	0.003448
20	19100	1900	Q16	50	LOW	-0.41	-0.00049

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency Error	Frequency Error
				Size	Offset	(Hz)	(ppm)
20	19100	1900	Q16	50	MID	-2.42	-0.00287
20	19100	1900	Q16	50	HIGH	-0.95	-0.00113
20	19100	1900	Q16	100	LOW	-2.04	-0.00242

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	1.22	0.001445
1.4	19957	1710.7	QPSK	1	MID	2.63	0.003116
1.4	19957	1710.7	QPSK	1	HIGH	4.27	0.005059
1.4	19957	1710.7	QPSK	3	LOW	-0.8	-0.00095
1.4	19957	1710.7	QPSK	3	MID	-3.86	-0.00457
1.4	19957	1710.7	QPSK	3	HIGH	2.98	0.003531
1.4	19957	1710.7	QPSK	6	LOW	3.21	0.003803
1.4	19957	1710.7	Q16	1	LOW	-3.74	-0.00443
1.4	19957	1710.7	Q16	1	MID	1.48	0.001754
1.4	19957	1710.7	Q16	1	HIGH	-3.51	-0.00416
1.4	19957	1710.7	Q16	3	LOW	-0.47	-0.00056
1.4	19957	1710.7	Q16	3	MID	-3.42	-0.00405
1.4	19957	1710.7	Q16	3	HIGH	-2.57	-0.00305
1.4	19957	1710.7	Q16	6	LOW	1.22	0.001445
1.4	20393	1754.3	QPSK	1	LOW	-0.86	-0.00102
1.4	20393	1754.3	QPSK	1	MID	-2.21	-0.00262
1.4	20393	1754.3	QPSK	1	HIGH	-2.37	-0.00281
1.4	20393	1754.3	QPSK	3	LOW	-0.49	-0.00058
1.4	20393	1754.3	QPSK	3	MID	-1.73	-0.00205
1.4	20393	1754.3	QPSK	3	HIGH	-4.43	-0.00525
1.4	20393	1754.3	QPSK	6	LOW	-1.44	-0.00171
1.4	20393	1754.3	Q16	1	LOW	4.71	0.005581
1.4	20393	1754.3	Q16	1	MID	4.79	0.005675
1.4	20393	1754.3	Q16	1	HIGH	-4.43	-0.00525
1.4	20393	1754.3	Q16	3	LOW	-4.07	-0.00482
1.4	20393	1754.3	Q16	3	MID	2.45	0.002903
1.4	20393	1754.3	Q16	3	HIGH	-3.76	-0.00445
1.4	20393	1754.3	Q16	6	LOW	-2.2	-0.00261
1.4	20175	1732.5	QPSK	1	LOW	-2.74	-0.00325
1.4	20175	1732.5	QPSK	1	MID	-3.42	-0.00405
1.4	20175	1732.5	QPSK	1	HIGH	-1.48	-0.00175
1.4	20175	1732.5	QPSK	3	LOW	-3.64	-0.00431
1.4	20175	1732.5	QPSK	3	MID	-3.48	-0.00412
1.4	20175	1732.5	QPSK	3	HIGH	1.99	0.002358

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
1.4	20175	1732.5	QPSK	6	LOW	4.48	0.005308
1.4	20175	1732.5	Q16	1	LOW	-2.81	-0.00333
1.4	20175	1732.5	Q16	1	MID	-3.57	-0.00423
1.4	20175	1732.5	Q16	1	HIGH	-3.32	-0.00393
1.4	20175	1732.5	Q16	3	LOW	3.05	0.003614
1.4	20175	1732.5	Q16	3	MID	4.99	0.005912
1.4	20175	1732.5	Q16	3	HIGH	-1.77	-0.0021
1.4	20175	1732.5	Q16	6	LOW	-3.05	-0.00361
3	19965	1711.5	QPSK	1	LOW	4.91	0.005818
3	19965	1711.5	QPSK	1	MID	-3.62	-0.00429
3	19965	1711.5	QPSK	1	HIGH	-2.68	-0.00318
3	19965	1711.5	QPSK	8	LOW	-4.03	-0.00477
3	19965	1711.5	QPSK	8	MID	-4.18	-0.00495
3	19965	1711.5	QPSK	8	HIGH	4.25	0.005036
3	19965	1711.5	QPSK	15	LOW	2.34	0.002773
3	19965	1711.5	Q16	1	LOW	-4.74	-0.00562
3	19965	1711.5	Q16	1	MID	1.99	0.002358
3	19965	1711.5	Q16	1	HIGH	-4.17	-0.00494
3	19965	1711.5	Q16	8	LOW	4	0.004739
3	19965	1711.5	Q16	8	MID	2.86	0.003389
3	19965	1711.5	Q16	8	HIGH	3.31	0.003922
3	19965	1711.5	Q16	15	LOW	-2.85	-0.00338
3	20385	1753.5	QPSK	1	LOW	-2.7	-0.0032
3	20385	1753.5	QPSK	1	MID	4.97	0.005889
3	20385	1753.5	QPSK	1	HIGH	-0.68	-0.00081
3	20385	1753.5	QPSK	8	LOW	-2.05	-0.00243
3	20385	1753.5	QPSK	8	MID	1.15	0.001363
3	20385	1753.5	QPSK	8	HIGH	2.76	0.00327
3	20385	1753.5	QPSK	15	LOW	-1.43	-0.00169
3	20385	1753.5	Q16	1	LOW	2.93	0.003472
3	20385	1753.5	Q16	1	MID	-3.48	-0.00412
3	20385	1753.5	Q16	1	HIGH	-0.34	-0.0004
3	20385	1753.5	Q16	8	LOW	1.1	0.001303
3	20385	1753.5	Q16	8	MID	1.56	0.001848
3	20385	1753.5	Q16	8	HIGH	-1.12	-0.00133
3	20385	1753.5	Q16	15	LOW	2.18	0.002583

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
3	20175	1732.5	QPSK	1	LOW	4.54	0.005379
3	20175	1732.5	QPSK	1	MID	3.18	0.003768
3	20175	1732.5	QPSK	1	HIGH	-3.94	-0.00467
3	20175	1732.5	QPSK	8	LOW	-1.47	-0.00174
3	20175	1732.5	QPSK	8	MID	-1.26	-0.00149
3	20175	1732.5	QPSK	8	HIGH	3.49	0.004135
3	20175	1732.5	QPSK	15	LOW	-3.55	-0.00421
3	20175	1732.5	Q16	1	LOW	2.7	0.003199
3	20175	1732.5	Q16	1	MID	-2.08	-0.00246
3	20175	1732.5	Q16	1	HIGH	-1.97	-0.00233
3	20175	1732.5	Q16	8	LOW	1.85	0.002192
3	20175	1732.5	Q16	8	MID	3.98	0.004716
3	20175	1732.5	Q16	8	HIGH	0.57	0.000675
3	20175	1732.5	Q16	15	LOW	2.11	0.0025
5	19975	1712.5	QPSK	1	LOW	-2.51	-0.00297
5	19975	1712.5	QPSK	1	MID	2.4	0.002844
5	19975	1712.5	QPSK	1	HIGH	-3.9	-0.00462
5	19975	1712.5	QPSK	12	LOW	-3.92	-0.00464
5	19975	1712.5	QPSK	12	MID	3.9	0.004621
5	19975	1712.5	QPSK	12	HIGH	-2.1	-0.00249
5	19975	1712.5	QPSK	25	LOW	-2.89	-0.00342
5	19975	1712.5	Q16	1	LOW	-3.99	-0.00473
5	19975	1712.5	Q16	1	MID	1.91	0.002263
5	19975	1712.5	Q16	1	HIGH	-4.72	-0.00559
5	19975	1712.5	Q16	12	LOW	3.43	0.004064
5	19975	1712.5	Q16	12	MID	2.36	0.002796
5	19975	1712.5	Q16	12	HIGH	-0.25	-0.0003
5	19975	1712.5	Q16	25	LOW	-4.32	-0.00512
5	20375	1752.5	QPSK	1	LOW	4.25	0.005036
5	20375	1752.5	QPSK	1	MID	2.25	0.002666
5	20375	1752.5	QPSK	1	HIGH	1.85	0.002192
5	20375	1752.5	QPSK	12	LOW	1.97	0.002334
5	20375	1752.5	QPSK	12	MID	3.45	0.004088
5	20375	1752.5	QPSK	12	HIGH	-2.01	-0.00238
5	20375	1752.5	QPSK	25	LOW	3.85	0.004562
5	20375	1752.5	Q16	1	LOW	-4.5	-0.00533

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
5	20375	1752.5	Q16	1	MID	4.1	0.004858
5	20375	1752.5	Q16	1	HIGH	-4.28	-0.00507
5	20375	1752.5	Q16	12	LOW	4.2	0.004976
5	20375	1752.5	Q16	12	MID	-3.84	-0.00455
5	20375	1752.5	Q16	12	HIGH	3.68	0.00436
5	20375	1752.5	Q16	25	LOW	-1.63	-0.00193
5	20175	1732.5	QPSK	1	LOW	-2.78	-0.00329
5	20175	1732.5	QPSK	1	MID	-1.98	-0.00235
5	20175	1732.5	QPSK	1	HIGH	-4.83	-0.00572
5	20175	1732.5	QPSK	12	LOW	2.89	0.003424
5	20175	1732.5	QPSK	12	MID	-3.94	-0.00467
5	20175	1732.5	QPSK	12	HIGH	1.45	0.001718
5	20175	1732.5	QPSK	25	LOW	0.47	0.000557
5	20175	1732.5	Q16	1	LOW	-0.48	-0.00057
5	20175	1732.5	Q16	1	MID	-1.06	-0.00126
5	20175	1732.5	Q16	1	HIGH	0.04	4.74E-05
5	20175	1732.5	Q16	12	LOW	-1.99	-0.00236
5	20175	1732.5	Q16	12	MID	-0.45	-0.00053
5	20175	1732.5	Q16	12	HIGH	-3.12	-0.0037
5	20175	1732.5	Q16	25	LOW	-3.18	-0.00377
10	20000	1715	QPSK	1	LOW	2.94	0.003483
10	20000	1715	QPSK	1	MID	3.24	0.003839
10	20000	1715	QPSK	1	HIGH	1.07	0.001268
10	20000	1715	QPSK	25	LOW	-1.97	-0.00233
10	20000	1715	QPSK	25	MID	-1.3	-0.00154
10	20000	1715	QPSK	25	HIGH	0.66	0.000782
10	20000	1715	QPSK	50	LOW	-4.45	-0.00527
10	20000	1715	Q16	1	LOW	1.64	0.001943
10	20000	1715	Q16	1	MID	-2.25	-0.00267
10	20000	1715	Q16	1	HIGH	2.12	0.002512
10	20000	1715	Q16	25	LOW	-0.12	-0.00014
10	20000	1715	Q16	25	MID	-2.38	-0.00282
10	20000	1715	Q16	25	HIGH	3.93	0.004656
10	20000	1715	Q16	50	LOW	1.55	0.001836
10	20350	1750	QPSK	1	LOW	-1.35	-0.0016
10	20350	1750	QPSK	1	MID	-3.31	-0.00392

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
10	20350	1750	QPSK	1	HIGH	-3.33	-0.00395
10	20350	1750	QPSK	25	LOW	-3.75	-0.00444
10	20350	1750	QPSK	25	MID	4.36	0.005166
10	20350	1750	QPSK	25	HIGH	-3.28	-0.00389
10	20350	1750	QPSK	50	LOW	0.71	0.000841
10	20350	1750	Q16	1	LOW	-3.59	-0.00425
10	20350	1750	Q16	1	MID	-1.24	-0.00147
10	20350	1750	Q16	1	HIGH	3.35	0.003969
10	20350	1750	Q16	25	LOW	-0.98	-0.00116
10	20350	1750	Q16	25	MID	1.72	0.002038
10	20350	1750	Q16	25	HIGH	2.36	0.002796
10	20350	1750	Q16	50	LOW	-2.72	-0.00322
10	20175	1732.5	QPSK	1	LOW	3.14	0.00372
10	20175	1732.5	QPSK	1	MID	3.25	0.003851
10	20175	1732.5	QPSK	1	HIGH	0.79	0.000936
10	20175	1732.5	QPSK	25	LOW	3.56	0.004218
10	20175	1732.5	QPSK	25	MID	-4.41	-0.00523
10	20175	1732.5	QPSK	25	HIGH	-2.39	-0.00283
10	20175	1732.5	QPSK	50	LOW	3.69	0.004372
10	20175	1732.5	Q16	1	LOW	2.6	0.003081
10	20175	1732.5	Q16	1	MID	-0.02	-2.4E-05
10	20175	1732.5	Q16	1	HIGH	2.28	0.002701
10	20175	1732.5	Q16	25	LOW	-1.99	-0.00236
10	20175	1732.5	Q16	25	MID	2.17	0.002571
10	20175	1732.5	Q16	25	HIGH	2.87	0.0034
10	20175	1732.5	Q16	50	LOW	-1.69	-0.002
15	20025	1717.5	QPSK	1	LOW	1.81	0.002145
15	20025	1717.5	QPSK	1	MID	3	0.003555
15	20025	1717.5	QPSK	1	HIGH	4.52	0.005355
15	20025	1717.5	QPSK	36	LOW	-0.47	-0.00056
15	20025	1717.5	QPSK	36	MID	-4.64	-0.0055
15	20025	1717.5	QPSK	36	HIGH	4.85	0.005746
15	20025	1717.5	QPSK	75	LOW	-3.68	-0.00436
15	20025	1717.5	Q16	1	LOW	-4.1	-0.00486
15	20025	1717.5	Q16	1	MID	4.73	0.005604
15	20025	1717.5	Q16	1	HIGH	4.57	0.005415

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
15	20025	1717.5	Q16	36	LOW	-2.02	-0.00239
15	20025	1717.5	Q16	36	MID	0.8	0.000948
15	20025	1717.5	Q16	36	HIGH	-3.4	-0.00403
15	20025	1717.5	Q16	75	LOW	-0.56	-0.00066
15	20325	1747.5	QPSK	1	LOW	1.87	0.002216
15	20325	1747.5	QPSK	1	MID	0.43	0.000509
15	20325	1747.5	QPSK	1	HIGH	0.03	3.55E-05
15	20325	1747.5	QPSK	36	LOW	-0.07	-8.3E-05
15	20325	1747.5	QPSK	36	MID	1.69	0.002002
15	20325	1747.5	QPSK	36	HIGH	-4.63	-0.00549
15	20325	1747.5	QPSK	75	LOW	1.76	0.002085
15	20325	1747.5	Q16	1	LOW	-0.77	-0.00091
15	20325	1747.5	Q16	1	MID	2.62	0.003104
15	20325	1747.5	Q16	1	HIGH	4.16	0.004929
15	20325	1747.5	Q16	36	LOW	-3.32	-0.00393
15	20325	1747.5	Q16	36	MID	-3.34	-0.00396
15	20325	1747.5	Q16	36	HIGH	-2.5	-0.00296
15	20325	1747.5	Q16	75	LOW	-1.43	-0.00169
15	20175	1732.5	QPSK	1	LOW	0.53	0.000628
15	20175	1732.5	QPSK	1	MID	-4	-0.00474
15	20175	1732.5	QPSK	1	HIGH	1.02	0.001209
15	20175	1732.5	QPSK	36	LOW	2.01	0.002382
15	20175	1732.5	QPSK	36	MID	1.56	0.001848
15	20175	1732.5	QPSK	36	HIGH	-3.64	-0.00431
15	20175	1732.5	QPSK	75	LOW	-3.5	-0.00415
15	20175	1732.5	Q16	1	LOW	3.59	0.004254
15	20175	1732.5	Q16	1	MID	-4.36	-0.00517
15	20175	1732.5	Q16	1	HIGH	-4.23	-0.00501
15	20175	1732.5	Q16	36	LOW	-1.26	-0.00149
15	20175	1732.5	Q16	36	MID	-0.97	-0.00115
15	20175	1732.5	Q16	36	HIGH	-3.18	-0.00377
15	20175	1732.5	Q16	75	LOW	-4.7	-0.00557
20	20050	1720	QPSK	1	LOW	2.08	0.002464
20	20050	1720	QPSK	1	MID	4.81	0.005699
20	20050	1720	QPSK	1	HIGH	0.83	0.000983
20	20050	1720	QPSK	50	LOW	2.27	0.00269

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
20	20050	1720	QPSK	50	MID	0.29	0.000344
20	20050	1720	QPSK	50	HIGH	-4.35	-0.00515
20	20050	1720	QPSK	100	LOW	-3.3	-0.00391
20	20050	1720	Q16	1	LOW	-0.15	-0.00018
20	20050	1720	Q16	1	MID	4.43	0.005249
20	20050	1720	Q16	1	HIGH	-1.53	-0.00181
20	20050	1720	Q16	50	LOW	2.71	0.003211
20	20050	1720	Q16	50	MID	-1.58	-0.00187
20	20050	1720	Q16	50	HIGH	0.13	0.000154
20	20050	1720	Q16	100	LOW	-2.4	-0.00284
20	20300	1745	QPSK	1	LOW	1.29	0.001528
20	20300	1745	QPSK	1	MID	-1.08	-0.00128
20	20300	1745	QPSK	1	HIGH	-4.11	-0.00487
20	20300	1745	QPSK	50	LOW	4.65	0.005509
20	20300	1745	QPSK	50	MID	-4.95	-0.00586
20	20300	1745	QPSK	50	HIGH	-1.83	-0.00217
20	20300	1745	QPSK	100	LOW	-0.04	-4.7E-05
20	20300	1745	Q16	1	LOW	1.76	0.002085
20	20300	1745	Q16	1	MID	1.54	0.001825
20	20300	1745	Q16	1	HIGH	-0.43	-0.00051
20	20300	1745	Q16	50	LOW	4.51	0.005344
20	20300	1745	Q16	50	MID	-4.63	-0.00549
20	20300	1745	Q16	50	HIGH	0.52	0.000616
20	20300	1745	Q16	100	LOW	3.72	0.004408
20	20175	1732.5	QPSK	1	LOW	3.33	0.003945
20	20175	1732.5	QPSK	1	MID	-1.48	-0.00175
20	20175	1732.5	QPSK	1	HIGH	2.88	0.003412
20	20175	1732.5	QPSK	50	LOW	1.58	0.001872
20	20175	1732.5	QPSK	50	MID	1	0.001185
20	20175	1732.5	QPSK	50	HIGH	4.11	0.00487
20	20175	1732.5	QPSK	100	LOW	4.01	0.004751
20	20175	1732.5	Q16	1	LOW	-1.18	-0.0014
20	20175	1732.5	Q16	1	MID	-0.55	-0.00065
20	20175	1732.5	Q16	1	HIGH	-3.9	-0.00462
20	20175	1732.5	Q16	50	LOW	-4.81	-0.0057
20	20175	1732.5	Q16	50	MID	-3.51	-0.00416

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
20	20175	1732.5	Q16	50	HIGH	-0.01	-1.2E-05
20	20175	1732.5	Q16	100	LOW	4.24	0.005024

BAND 5:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
1.4	20470	824.7	QPSK	1	LOW	4.91	0.005818
1.4	20470	824.7	QPSK	1	MID	4.43	0.005249
1.4	20470	824.7	QPSK	1	HIGH	-0.27	-0.00032
1.4	20470	824.7	QPSK	3	LOW	-4.97	-0.00589
1.4	20470	824.7	QPSK	3	MID	2.06	0.002441
1.4	20470	824.7	QPSK	3	HIGH	-3.17	-0.00376
1.4	20470	824.7	QPSK	6	LOW	-4.67	-0.00553
1.4	20470	824.7	Q16	1	LOW	3.57	0.00423
1.4	20470	824.7	Q16	1	MID	-1.61	-0.00191
1.4	20470	824.7	Q16	1	HIGH	2.38	0.00282
1.4	20470	824.7	Q16	3	LOW	-3.51	-0.00416
1.4	20470	824.7	Q16	3	MID	4.33	0.00513
1.4	20470	824.7	Q16	3	HIGH	-2.84	-0.00336
1.4	20470	824.7	Q16	6	LOW	-2.8	-0.00332
1.4	20525	836.5	QPSK	1	LOW	-4.4	-0.00521
1.4	20525	836.5	QPSK	1	MID	4.71	0.005581
1.4	20525	836.5	QPSK	1	HIGH	-4.18	-0.00495
1.4	20525	836.5	QPSK	3	LOW	0.84	0.000995
1.4	20525	836.5	QPSK	3	MID	-4.52	-0.00536
1.4	20525	836.5	QPSK	3	HIGH	-2.87	-0.0034
1.4	20525	836.5	QPSK	6	LOW	-1.3	-0.00154
1.4	20525	836.5	Q16	1	LOW	1.31	0.001552
1.4	20525	836.5	Q16	1	MID	2.65	0.00314
1.4	20525	836.5	Q16	1	HIGH	-2.9	-0.00344
1.4	20525	836.5	Q16	3	LOW	2.52	0.002986
1.4	20525	836.5	Q16	3	MID	-3.71	-0.0044
1.4	20525	836.5	Q16	3	HIGH	-1.15	-0.00136
1.4	20525	836.5	Q16	6	LOW	-3.56	-0.00422
1.4	20643	848.3	QPSK	1	LOW	-1.03	-0.00122
1.4	20643	848.3	QPSK	1	MID	-0.66	-0.00078
1.4	20643	848.3	QPSK	1	HIGH	4.93	0.005841
1.4	20643	848.3	QPSK	3	LOW	4.83	0.005723
1.4	20643	848.3	QPSK	3	MID	0.07	8.29E-05
1.4	20643	848.3	QPSK	3	HIGH	2.55	0.003021
1.4	20643	848.3	QPSK	6	LOW	-1.43	-0.00169

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
1.4	20643	848.3	Q16	1	LOW	-1.48	-0.00175
1.4	20643	848.3	Q16	1	MID	-3.67	-0.00435
1.4	20643	848.3	Q16	1	HIGH	0.82	0.000972
1.4	20643	848.3	Q16	3	LOW	-3.3	-0.00391
1.4	20643	848.3	Q16	3	MID	2.35	0.002784
1.4	20643	848.3	Q16	3	HIGH	-3.03	-0.00359
1.4	20643	848.3	Q16	6	LOW	1	0.001185
3	20415	825.5	QPSK	1	LOW	-3.2	-0.00379
3	20415	825.5	QPSK	1	MID	-1.99	-0.00236
3	20415	825.5	QPSK	1	HIGH	4.84	0.005735
3	20415	825.5	QPSK	8	LOW	-4.55	-0.00539
3	20415	825.5	QPSK	8	MID	-1.76	-0.00209
3	20415	825.5	QPSK	8	HIGH	-2.89	-0.00342
3	20415	825.5	QPSK	15	LOW	-1.6	-0.0019
3	20415	825.5	Q16	1	LOW	2.94	0.003483
3	20415	825.5	Q16	1	MID	0.34	0.000403
3	20415	825.5	Q16	1	HIGH	0.78	0.000924
3	20415	825.5	Q16	8	LOW	-4.43	-0.00525
3	20415	825.5	Q16	8	MID	-0.75	-0.00089
3	20415	825.5	Q16	8	HIGH	4.76	0.00564
3	20415	825.5	Q16	15	LOW	-4.12	-0.00488
3	20525	836.5	QPSK	1	LOW	-0.41	-0.00049
3	20525	836.5	QPSK	1	MID	3.17	0.003756
3	20525	836.5	QPSK	1	HIGH	-3.88	-0.0046
3	20525	836.5	QPSK	8	LOW	-1.59	-0.00188
3	20525	836.5	QPSK	8	MID	-1.09	-0.00129
3	20525	836.5	QPSK	8	HIGH	1.49	0.001765
3	20525	836.5	QPSK	15	LOW	2.18	0.002583
3	20525	836.5	Q16	1	LOW	-3.44	-0.00408
3	20525	836.5	Q16	1	MID	4.56	0.005403
3	20525	836.5	Q16	1	HIGH	1.74	0.002062
3	20525	836.5	Q16	8	LOW	-1.92	-0.00227
3	20525	836.5	Q16	8	MID	0.81	0.00096
3	20525	836.5	Q16	8	HIGH	-3.64	-0.00431
3	20525	836.5	Q16	15	LOW	0.98	0.001161
3	20635	847.5	QPSK	1	LOW	4.19	0.004964

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
3	20635	847.5	QPSK	1	MID	4.19	0.004964
3	20635	847.5	QPSK	1	HIGH	3.67	0.004348
3	20635	847.5	QPSK	8	LOW	0.92	0.00109
3	20635	847.5	QPSK	8	MID	1.5	0.001777
3	20635	847.5	QPSK	8	HIGH	3.26	0.003863
3	20635	847.5	QPSK	15	LOW	-1.88	-0.00223
3	20635	847.5	Q16	1	LOW	0.32	0.000379
3	20635	847.5	Q16	1	MID	-2.43	-0.00288
3	20635	847.5	Q16	1	HIGH	-0.04	-4.7E-05
3	20635	847.5	Q16	8	LOW	4.7	0.005569
3	20635	847.5	Q16	8	MID	-1.01	-0.0012
3	20635	847.5	Q16	8	HIGH	0.39	0.000462
3	20635	847.5	Q16	15	LOW	-4.02	-0.00476
5	20425	826.5	QPSK	1	LOW	-0.79	-0.00094
5	20425	826.5	QPSK	1	MID	1.17	0.001386
5	20425	826.5	QPSK	1	HIGH	-4.36	-0.00517
5	20425	826.5	QPSK	12	LOW	0.63	0.000746
5	20425	826.5	QPSK	12	MID	3.08	0.003649
5	20425	826.5	QPSK	12	HIGH	1.23	0.001457
5	20425	826.5	QPSK	25	LOW	-3.68	-0.00436
5	20425	826.5	Q16	1	LOW	1.08	0.00128
5	20425	826.5	Q16	1	MID	-4.98	-0.0059
5	20425	826.5	Q16	1	HIGH	-2.43	-0.00288
5	20425	826.5	Q16	12	LOW	-4.47	-0.0053
5	20425	826.5	Q16	12	MID	0.32	0.000379
5	20425	826.5	Q16	12	HIGH	4.74	0.005616
5	20425	826.5	Q16	25	LOW	-2.71	-0.00321
5	20525	836.5	QPSK	1	LOW	-0.17	-0.0002
5	20525	836.5	QPSK	1	MID	-1.6	-0.0019
5	20525	836.5	QPSK	1	HIGH	-1.8	-0.00213
5	20525	836.5	QPSK	12	LOW	-0.24	-0.00028
5	20525	836.5	QPSK	12	MID	4.93	0.005841
5	20525	836.5	QPSK	12	HIGH	4.56	0.005403
5	20525	836.5	QPSK	25	LOW	-1.49	-0.00177
5	20525	836.5	Q16	1	LOW	1.41	0.001671
5	20525	836.5	Q16	1	MID	2.4	0.002844

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
5	20525	836.5	Q16	1	HIGH	0.39	0.000462
5	20525	836.5	Q16	12	LOW	-4.86	-0.00576
5	20525	836.5	Q16	12	MID	4.13	0.004893
5	20525	836.5	Q16	12	HIGH	-2.26	-0.00268
5	20525	836.5	Q16	25	LOW	-1.19	-0.00141
5	20625	846.5	QPSK	1	LOW	-2.89	-0.00342
5	20625	846.5	QPSK	1	MID	4.44	0.005261
5	20625	846.5	QPSK	1	HIGH	-4.43	-0.00525
5	20625	846.5	QPSK	12	LOW	1.78	0.002109
5	20625	846.5	QPSK	12	MID	3.28	0.003886
5	20625	846.5	QPSK	12	HIGH	-3.37	-0.00399
5	20625	846.5	QPSK	25	LOW	-3.07	-0.00364
5	20625	846.5	Q16	1	LOW	4.75	0.005628
5	20625	846.5	Q16	1	MID	-4.38	-0.00519
5	20625	846.5	Q16	1	HIGH	-2.27	-0.00269
5	20625	846.5	Q16	12	LOW	0.8	0.000948
5	20625	846.5	Q16	12	MID	-1.82	-0.00216
5	20625	846.5	Q16	12	HIGH	-4.37	-0.00518
5	20625	846.5	Q16	25	LOW	-2.99	-0.00354
10	20450	829	QPSK	1	LOW	-4.27	-0.00506
10	20450	829	QPSK	1	MID	1.76	0.002085
10	20450	829	QPSK	1	HIGH	-1	-0.00118
10	20450	829	QPSK	25	LOW	1.21	0.001434
10	20450	829	QPSK	25	MID	-2.31	-0.00274
10	20450	829	QPSK	25	HIGH	-1.05	-0.00124
10	20450	829	QPSK	50	LOW	-2.5	-0.00296
10	20450	829	Q16	1	LOW	0.45	0.000533
10	20450	829	Q16	1	MID	1.22	0.001445
10	20450	829	Q16	1	HIGH	0.2	0.000237
10	20450	829	Q16	25	LOW	0.73	0.000865
10	20450	829	Q16	25	MID	4.65	0.005509
10	20450	829	Q16	25	HIGH	-4.04	-0.00479
10	20450	829	Q16	50	LOW	-4.13	-0.00489
10	20525	836.5	QPSK	1	LOW	0.08	9.48E-05
10	20525	836.5	QPSK	1	MID	4.72	0.005592
10	20525	836.5	QPSK	1	HIGH	-2.98	-0.00353

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency Error (Hz)	Frequency Error (ppm)
10	20525	836.5	QPSK	25	LOW	-3.4	-0.00403
10	20525	836.5	QPSK	25	MID	1.62	0.001919
10	20525	836.5	QPSK	25	HIGH	1.27	0.001505
10	20525	836.5	QPSK	50	LOW	3.08	0.003649
10	20525	836.5	Q16	1	LOW	-0.91	-0.00108
10	20525	836.5	Q16	1	MID	1.77	0.002097
10	20525	836.5	Q16	1	HIGH	-4.36	-0.00517
10	20525	836.5	Q16	25	LOW	2.68	0.003175
10	20525	836.5	Q16	25	MID	1.84	0.00218
10	20525	836.5	Q16	25	HIGH	-3.49	-0.00414
10	20525	836.5	Q16	50	LOW	-2.32	-0.00275
10	20600	844	QPSK	1	LOW	-0.37	-0.00044
10	20600	844	QPSK	1	MID	-2.69	-0.00319
10	20600	844	QPSK	1	HIGH	-0.3	-0.00036
10	20600	844	QPSK	25	LOW	-2.65	-0.00314
10	20600	844	QPSK	25	MID	2.69	0.003187
10	20600	844	QPSK	25	HIGH	-0.75	-0.00089
10	20600	844	QPSK	50	LOW	1.77	0.002097
10	20600	844	Q16	1	LOW	3.39	0.004017
10	20600	844	Q16	1	MID	-4.57	-0.00541
10	20600	844	Q16	1	HIGH	-3.52	-0.00417
10	20600	844	Q16	25	LOW	4.22	0.005
10	20600	844	Q16	25	MID	-0.4	-0.00047
10	20600	844	Q16	25	HIGH	3.47	0.004111
10	20600	844	Q16	50	LOW	-2.17	-0.00257

BAND 7:

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
5	20775	2502.5	QPSK	1	LOW	4.13	0.004893
5	20775	2502.5	QPSK	1	MID	-0.13	-0.00015
5	20775	2502.5	QPSK	1	HIGH	3.82	0.004526
5	20775	2502.5	QPSK	12	LOW	1.33	0.001576
5	20775	2502.5	QPSK	12	MID	-3.17	-0.00376
5	20775	2502.5	QPSK	12	HIGH	-1.42	-0.00168
5	20775	2502.5	QPSK	25	LOW	1.76	0.002085
5	20775	2502.5	Q16	1	LOW	2.53	0.002998
5	20775	2502.5	Q16	1	MID	-1.94	-0.0023
5	20775	2502.5	Q16	1	HIGH	-4.71	-0.00558
5	20775	2502.5	Q16	12	LOW	3.56	0.004218
5	20775	2502.5	Q16	12	MID	4.99	0.005912
5	20775	2502.5	Q16	12	HIGH	0.67	0.000794
5	20775	2502.5	Q16	25	LOW	-4.17	-0.00494
5	21425	2567.5	QPSK	1	LOW	3.97	0.004704
5	21425	2567.5	QPSK	1	MID	-2.04	-0.00242
5	21425	2567.5	QPSK	1	HIGH	2.57	0.003045
5	21425	2567.5	QPSK	12	LOW	1.14	0.001351
5	21425	2567.5	QPSK	12	MID	3.97	0.004704
5	21425	2567.5	QPSK	12	HIGH	5	0.005924
5	21425	2567.5	QPSK	25	LOW	-4.51	-0.00534
5	21425	2567.5	Q16	1	LOW	-2.05	-0.00243
5	21425	2567.5	Q16	1	MID	-1.93	-0.00229
5	21425	2567.5	Q16	1	HIGH	-0.62	-0.00073
5	21425	2567.5	Q16	12	LOW	2.59	0.003069
5	21425	2567.5	Q16	12	MID	-3.87	-0.00459
5	21425	2567.5	Q16	12	HIGH	1.69	0.002002
5	21425	2567.5	Q16	25	LOW	-4.19	-0.00496
5	21100	2535	QPSK	1	LOW	-1.63	-0.00193
5	21100	2535	QPSK	1	MID	-4.04	-0.00479
5	21100	2535	QPSK	1	HIGH	3.9	0.004621
5	21100	2535	QPSK	12	LOW	2.52	0.002986
5	21100	2535	QPSK	12	MID	3.56	0.004218
5	21100	2535	QPSK	12	HIGH	-4.24	-0.00502
5	21100	2535	QPSK	25	LOW	-1.79	-0.00212

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
5	21100	2535	QPSK	1	LOW	-2.84	-0.00336
5	21100	2535	QPSK	1	MID	-3.67	-0.00435
5	21100	2535	QPSK	1	HIGH	-0.84	-0.001
5	21100	2535	QPSK	12	LOW	2.58	0.003057
5	21100	2535	QPSK	12	MID	3.01	0.003566
5	21100	2535	QPSK	12	HIGH	1.6	0.001896
5	21100	2535	QPSK	25	LOW	3.14	0.00372
10	20800	2505	QPSK	1	LOW	-2.93	-0.00347
10	20800	2505	QPSK	1	MID	-0.25	-0.0003
10	20800	2505	QPSK	1	HIGH	3.66	0.004336
10	20800	2505	QPSK	25	LOW	-2.4	-0.00284
10	20800	2505	QPSK	25	MID	2.49	0.00295
10	20800	2505	QPSK	25	HIGH	-1.36	-0.00161
10	20800	2505	QPSK	50	LOW	2.42	0.002867
10	20800	2505	Q16	1	LOW	-1.35	-0.0016
10	20800	2505	Q16	1	MID	4.72	0.005592
10	20800	2505	Q16	1	HIGH	1.74	0.002062
10	20800	2505	Q16	25	LOW	0.32	0.000379
10	20800	2505	Q16	25	MID	0.18	0.000213
10	20800	2505	Q16	25	HIGH	0.2	0.000237
10	20800	2505	Q16	50	LOW	3.2	0.003791
10	21400	2565	QPSK	1	LOW	4.61	0.005462
10	21400	2565	QPSK	1	MID	-0.34	-0.0004
10	21400	2565	QPSK	1	HIGH	-4.09	-0.00485
10	21400	2565	QPSK	25	LOW	-0.28	-0.00033
10	21400	2565	QPSK	25	MID	-1.44	-0.00171
10	21400	2565	QPSK	25	HIGH	4.13	0.004893
10	21400	2565	QPSK	50	LOW	2.16	0.002559
10	21400	2565	QPSK	1	LOW	-1.73	-0.00205
10	21400	2565	QPSK	1	MID	-4.69	-0.00556
10	21400	2565	QPSK	1	HIGH	0.08	9.48E-05
10	21400	2565	Q16	25	LOW	4.29	0.005083
10	21400	2565	Q16	25	MID	1.65	0.001955
10	21400	2565	Q16	25	HIGH	-0.03	-3.6E-05
10	21400	2565	Q16	50	LOW	-4.18	-0.00495
10	21100	2535	QPSK	1	LOW	-0.45	-0.00053

Bandwidth	UL Channel	Frequency	Modulation	RB	RB	Frequency error	Frequency Error
				Size	Offset	(Hz)	(ppm)
10	21100	2535	QPSK	1	MID	-2.3	-0.00273
10	21100	2535	QPSK	1	HIGH	1.64	0.001943
10	21100	2535	QPSK	25	LOW	-4.45	-0.00527
10	21100	2535	QPSK	25	MID	0.64	0.000758
10	21100	2535	QPSK	25	HIGH	-0.97	-0.00115
10	21100	2535	QPSK	50	LOW	-4.29	-0.00508
10	21100	2535	QPSK	1	LOW	4.92	0.005829
10	21100	2535	QPSK	1	MID	4.71	0.005581
10	21100	2535	QPSK	1	HIGH	-3.19	-0.00378
10	21100	2535	Q16	25	LOW	4.14	0.004905
10	21100	2535	Q16	25	MID	3.17	0.003756
10	21100	2535	Q16	25	HIGH	-3.25	-0.00385
10	21100	2535	Q16	50	LOW	2.74	0.003246
15	20825	2507.5	QPSK	1	LOW	-3.87	-0.00459
15	20825	2507.5	QPSK	1	MID	2.59	0.003069
15	20825	2507.5	QPSK	1	HIGH	-1.68	-0.00199
15	20825	2507.5	QPSK	36	LOW	4.9	0.005806
15	20825	2507.5	QPSK	36	MID	4.25	0.005036
15	20825	2507.5	QPSK	36	HIGH	-1.11	-0.00132
15	20825	2507.5	QPSK	75	LOW	-1.84	-0.00218
15	20825	2507.5	Q16	1	LOW	1.26	0.001493
15	20825	2507.5	Q16	1	MID	-2.66	-0.00315
15	20825	2507.5	Q16	1	HIGH	-3.34	-0.00396
15	20825	2507.5	Q16	36	LOW	-0.21	-0.00025
15	20825	2507.5	Q16	36	MID	1.33	0.001576
15	20825	2507.5	Q16	36	HIGH	1.31	0.001552
15	20825	2507.5	Q16	75	LOW	3.01	0.003566
15	21375	2562.5	QPSK	1	LOW	-4.13	-0.00489
15	21375	2562.5	QPSK	1	MID	2.26	0.002678
15	21375	2562.5	QPSK	1	HIGH	-0.14	-0.00017
15	21375	2562.5	QPSK	36	LOW	1.86	0.002204
15	21375	2562.5	QPSK	36	MID	1.46	0.00173
15	21375	2562.5	QPSK	36	HIGH	-3.43	-0.00406
15	21375	2562.5	QPSK	75	LOW	1.12	0.001327
15	21375	2562.5	Q16	1	LOW	4.72	0.005592
15	21375	2562.5	Q16	1	MID	-3.77	-0.00447

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
15	21375	2562.5	Q16	1	HIGH	1.3	0.00154
15	21375	2562.5	Q16	36	LOW	1.45	0.001718
15	21375	2562.5	Q16	36	MID	1.62	0.001919
15	21375	2562.5	Q16	36	HIGH	-2.8	-0.00332
15	21375	2562.5	Q16	75	LOW	0.09	0.000107
15	21100	2535	QPSK	1	LOW	-0.22	-0.00026
15	21100	2535	QPSK	1	MID	1.99	0.002358
15	21100	2535	QPSK	1	HIGH	-1.39	-0.00165
15	21100	2535	QPSK	36	LOW	3.28	0.003886
15	21100	2535	QPSK	36	MID	2.95	0.003495
15	21100	2535	QPSK	36	HIGH	4.25	0.005036
15	21100	2535	QPSK	75	LOW	0.39	0.000462
15	21100	2535	Q16	1	LOW	-2.11	-0.0025
15	21100	2535	Q16	1	MID	4.65	0.005509
15	21100	2535	Q16	1	HIGH	3.89	0.004609
15	21100	2535	Q16	36	LOW	1.89	0.002239
15	21100	2535	Q16	36	MID	-0.5	-0.00059
15	21100	2535	Q16	36	HIGH	4.1	0.004858
15	21100	2535	Q16	75	LOW	-4.76	-0.00564
20	20850	2510	QPSK	1	LOW	1.41	0.001671
20	20850	2510	QPSK	1	MID	-3.2	-0.00379
20	20850	2510	QPSK	1	HIGH	2.53	0.002998
20	20850	2510	QPSK	50	LOW	-1.9	-0.00225
20	20850	2510	QPSK	50	MID	2.74	0.003246
20	20850	2510	QPSK	50	HIGH	2.84	0.003365
20	20850	2510	QPSK	100	LOW	2.58	0.003057
20	20850	2510	Q16	1	LOW	0.63	0.000746
20	20850	2510	Q16	1	MID	2.49	0.00295
20	20850	2510	Q16	1	HIGH	1.03	0.00122
20	20850	2510	Q16	50	LOW	3.9	0.004621
20	20850	2510	Q16	50	MID	-2.65	-0.00314
20	20850	2510	Q16	50	HIGH	-2.79	-0.00331
20	20850	2510	Q16	100	LOW	0.72	0.000853
20	21350	2560	QPSK	1	LOW	1.6	0.001896
20	21350	2560	QPSK	1	MID	1.76	0.002085
20	21350	2560	QPSK	1	HIGH	-4.06	-0.00481

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Frequency error (Hz)	Frequency Error (ppm)
20	21350	2560	QPSK	50	LOW	0.16	0.00019
20	21350	2560	QPSK	50	MID	-2.48	-0.00294
20	21350	2560	QPSK	50	HIGH	1.27	0.001505
20	21350	2560	QPSK	100	LOW	-4.51	-0.00534
20	21350	2560	Q16	1	LOW	3.82	0.004526
20	21350	2560	Q16	1	MID	-1.22	-0.00145
20	21350	2560	Q16	1	HIGH	-0.53	-0.00063
20	21350	2560	Q16	50	LOW	-3.9	-0.00462
20	21350	2560	Q16	50	MID	2.69	0.003187
20	21350	2560	Q16	50	HIGH	2.9	0.003436
20	21350	2560	Q16	100	LOW	3.98	0.004716
20	21100	2535	QPSK	1	LOW	-1.73	-0.00205
20	21100	2535	QPSK	1	MID	2.78	0.003294
20	21100	2535	QPSK	1	HIGH	-0.01	-1.2E-05
20	21100	2535	QPSK	50	LOW	-4.16	-0.00493
20	21100	2535	QPSK	50	MID	4.44	0.005261
20	21100	2535	QPSK	50	HIGH	0.28	0.000332
20	21100	2535	QPSK	100	LOW	4.72	0.005592
20	21100	2535	Q16	1	LOW	-3.92	-0.00464
20	21100	2535	Q16	1	MID	3.86	0.004573
20	21100	2535	Q16	1	HIGH	2.51	0.002974
20	21100	2535	Q16	50	LOW	1.04	0.001232
20	21100	2535	Q16	50	MID	-2.34	-0.00277
20	21100	2535	Q16	50	HIGH	-1.73	-0.00205
20	21100	2535	Q16	100	LOW	-0.25	-0.0003

8 OCCUPIED BANDWIDTH& Emission Bandwidth

Test limit:

The occupied bandwidth (OBW), 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 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. [¡ì2.1049(h)]

Many of the individual rule parts specify a relative OBW in lieu of the 99% OBW. In such cases, the OBW is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated by at least X dB below the transmitter power, where the value of X is typically specified as 26.

The relative OBW must be measured and reported when it is specified in the applicable rule part; otherwise, the 99% OBW shall be measured and reported. The test report shall specify which OBW is reported.

A spectrum/signal analyzer or other instrument providing a spectral display is recommended for these measurements and the video bandwidth shall be set to a value at least three times greater than the IF/resolution bandwidth to avoid any amplitude smoothing. Video filtering shall not be used during occupied bandwidth tests.

The OBW shall be measured for all operating conditions that will affect the bandwidth results (e.g. variable modulations, coding, or channel bandwidth settings). See section 4.

Test procedure:

Occupied bandwidth – relative measurement 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).

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).

Occupied bandwidth – power bandwidth (99%) measurement procedure

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.

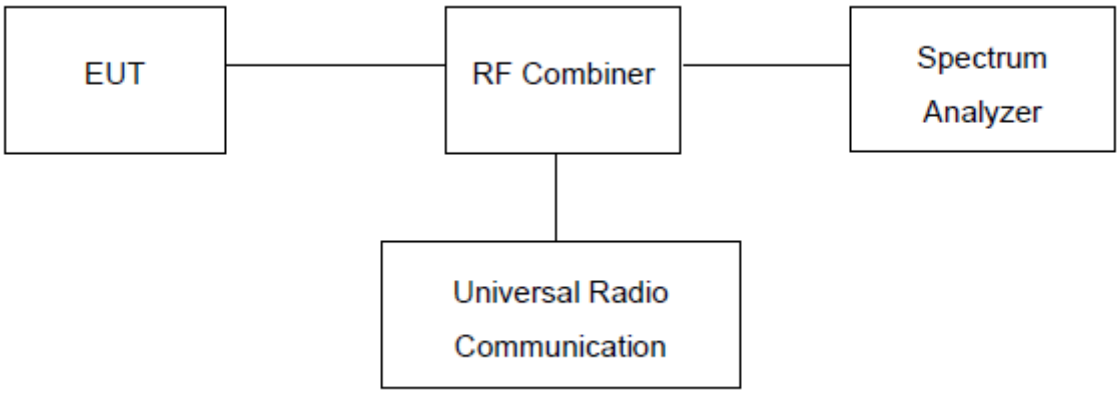
e) Set the detection mode to peak, and the trace mode to max hold..

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).

Test setup:



8.1 Measurement Result

GSM850:

Frequency	OBW(99%)	26dB BW
824.2	246.79KHz	317.31KHz
836.6	245.19KHz	310.90KHz
848.8	246.79KHz	315.71KHz

PCS1900:

Frequency	OBW(99%)	26dB BW
1850.2	246.79KHz	312.50KHz
1880	246.79KHz	306.09KHz
1909.8	240.38KHz	293.27KHz

GPRS850:

Frequency	OBW(99%)	26dB BW
824.2	245.19KHz	318.91KHz
836.6	245.19KHz	315.71KHz
848.8	246.79KHz	318.91KHz

GPRS 1900:

Frequency	OBW(99%)	26dB BW
1850.2	246.79KHz	315.71KHz
1880	246.79KHz	317.31KHz
1909.8	246.79KHz	318.91KHz

EGPRS 850:

Frequency	OBW(99%)	26dB BW
824.2	240.38KHz	291.67KHz
836.6	261.22KHz	334.94KHz
848.8	262.82KHz	338.14KHz

EGPRS 1900:

Frequency	OBW(99%)	26dB BW
1850.2	248.40KHz	307.69KHz
1880	251.60KHz	314.10KHz
1909.8	230.37KHz	299.68KHz

UTRA BANDS

BAND 2:

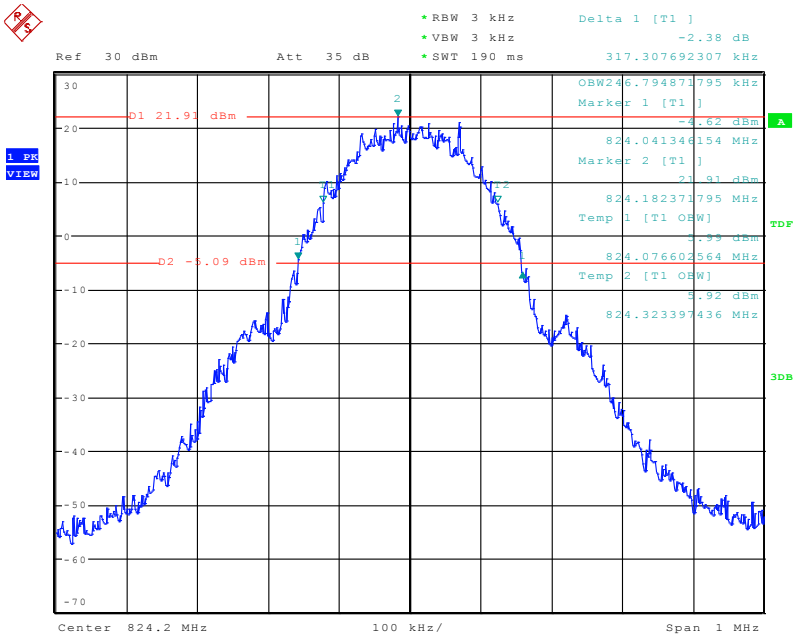
Frequency	OBW(99%)	26dB BW
1852.4	4.215MHz	4.872MHz
1880	4.215MHz	4.888MHz
1907.6	4.215MHz	4.888MHz

BAND 5:

Frequency	OBW(99%)	26dB BW
826.4	4.199MHz	4.904MHz
836.4	4.247MHz	4.872MHz
846.6	4.231MHz	4.904MHz

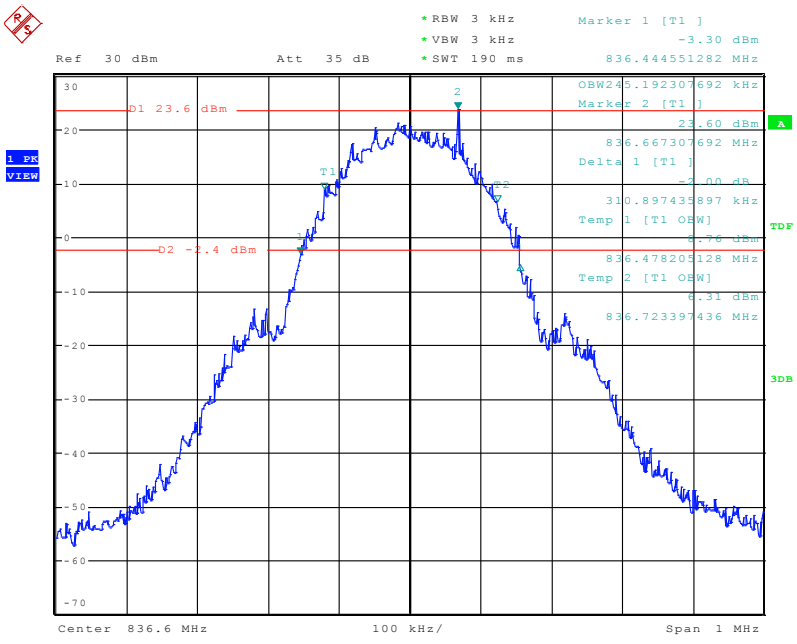
8.2 Test Plot(s)

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



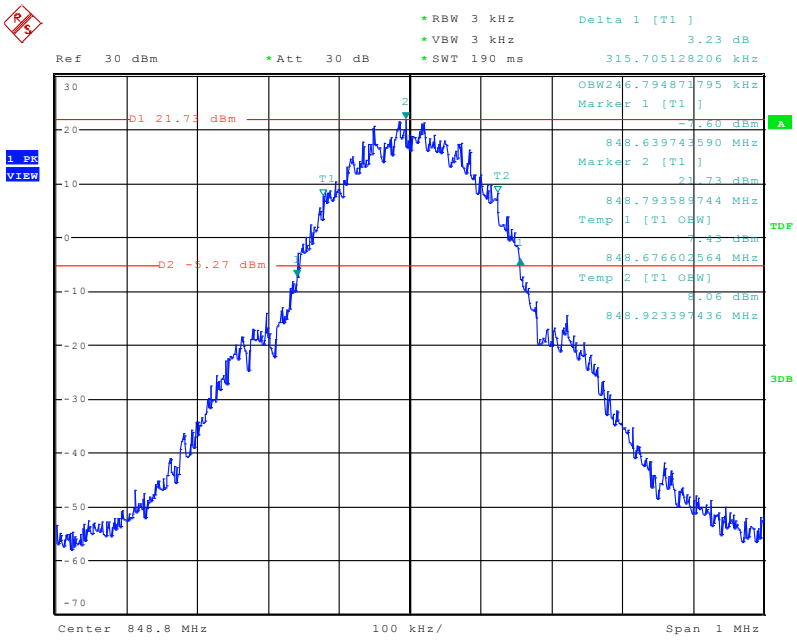
Date: 24.MAR.2017 14:16:22

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



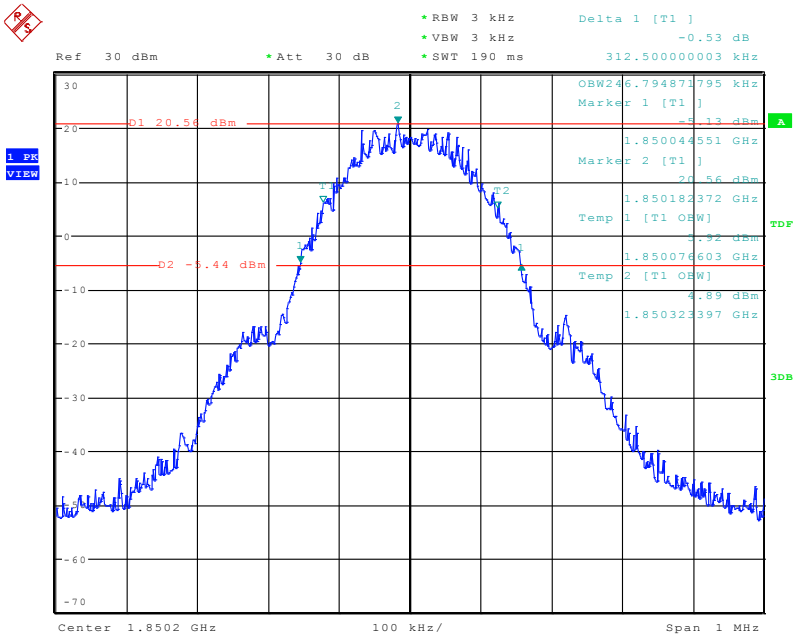
Date: 24.MAR.2017 14:20:43

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



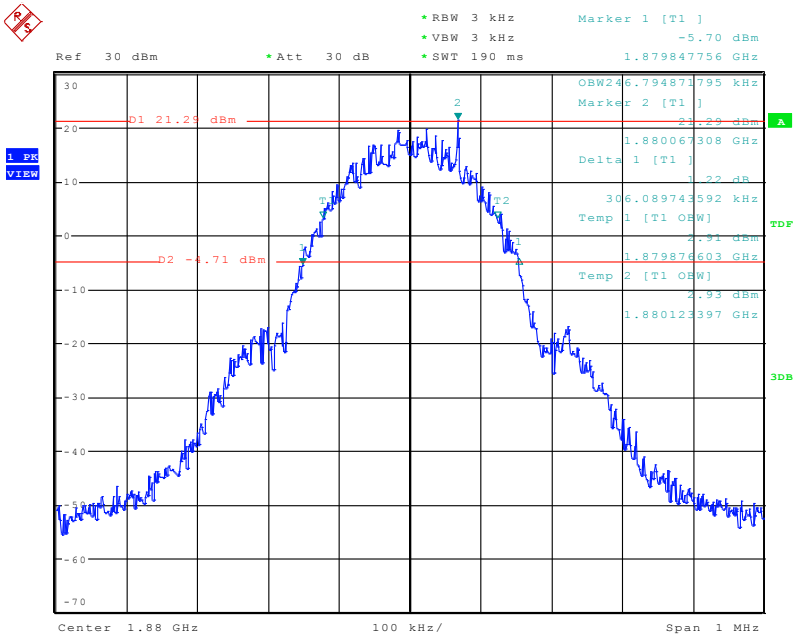
Date: 24.MAR.2017 14:33:32

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



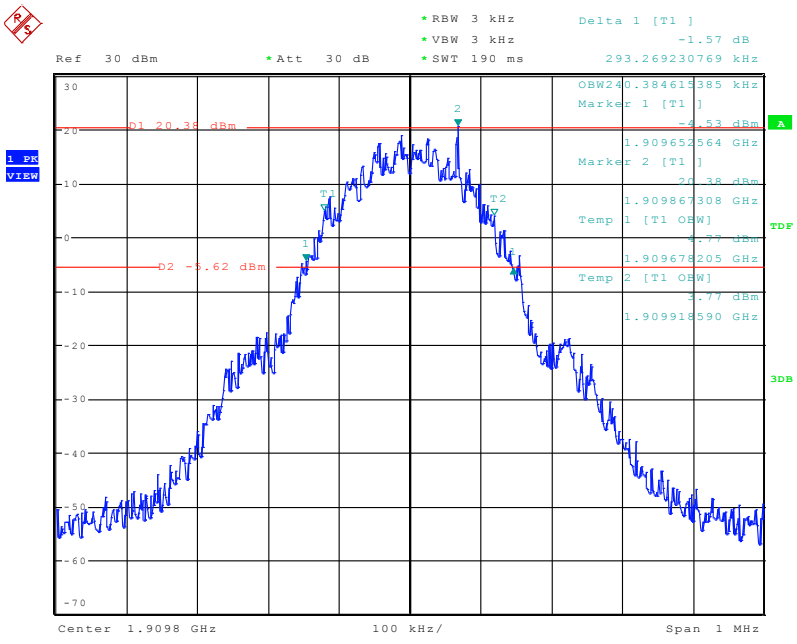
Date: 24.MAR.2017 15:33:19

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



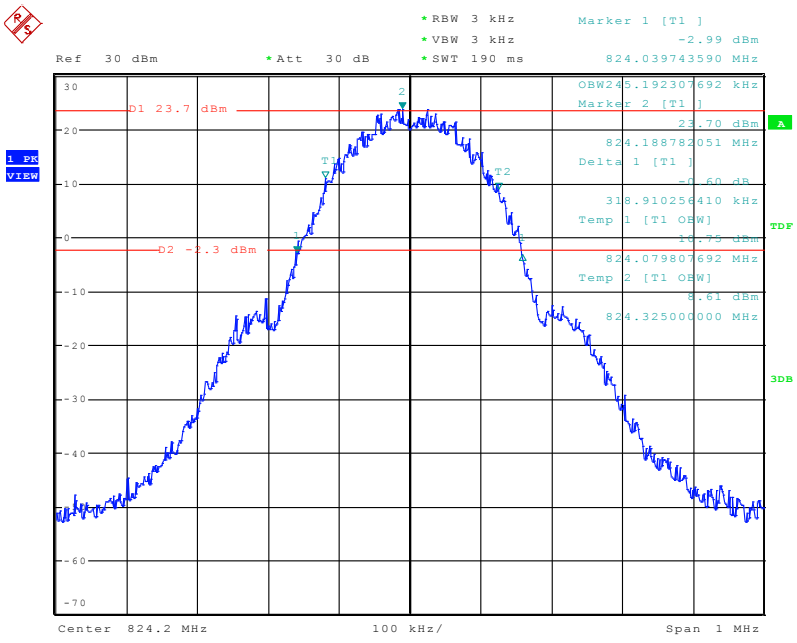
Date: 24.MAR.2017 15:38:18

Occupied Bandwidth (99% and -26dBc) PCS 1900 BAND CH 810



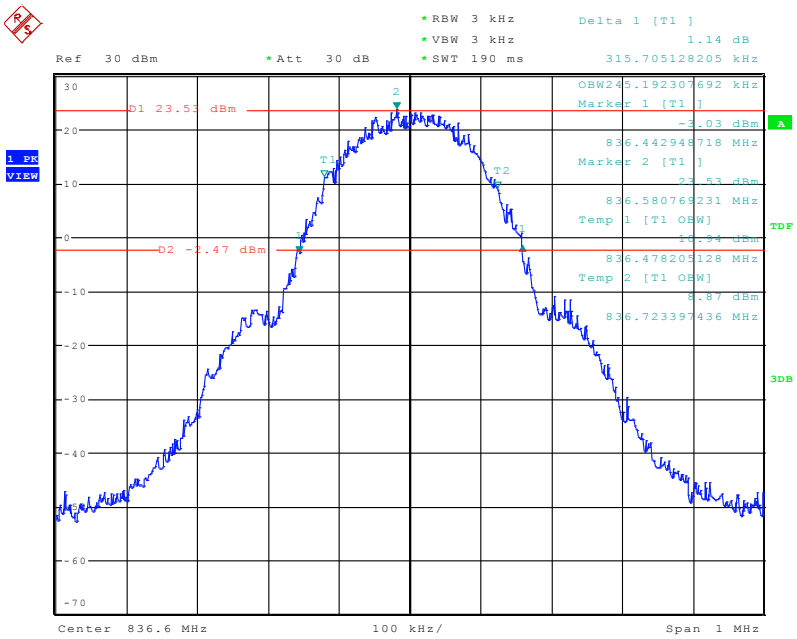
Date: 24.MAR.2017 15:43:37

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



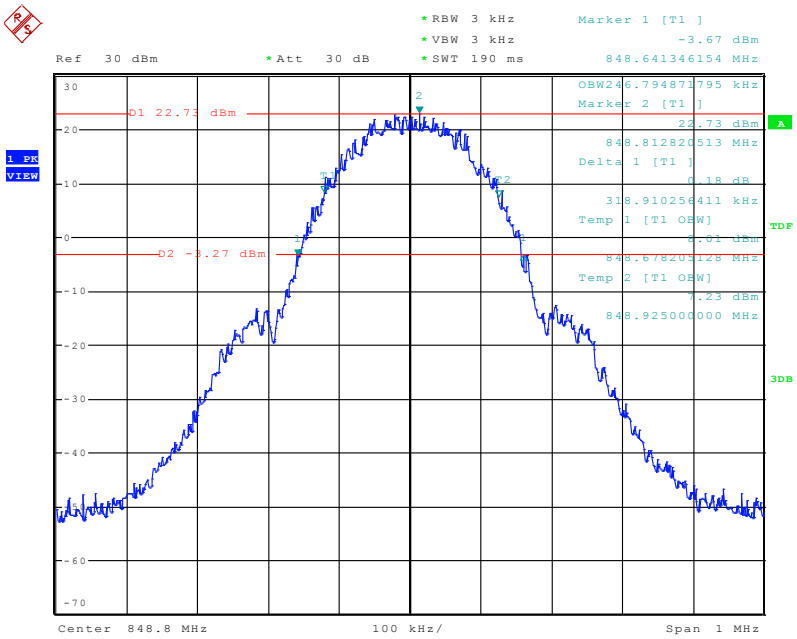
Date: 24.MAR.2017 15:50:40

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



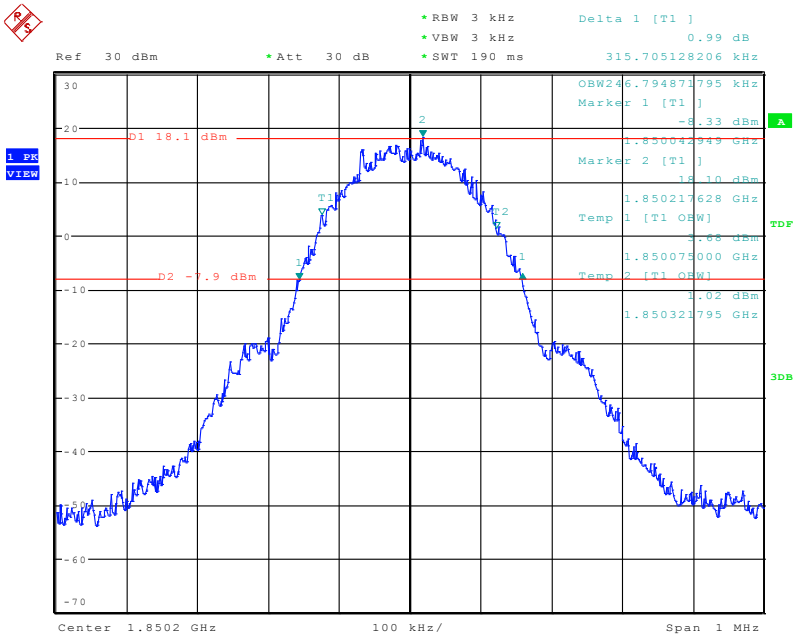
Date: 24.MAR.2017 15:53:20

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



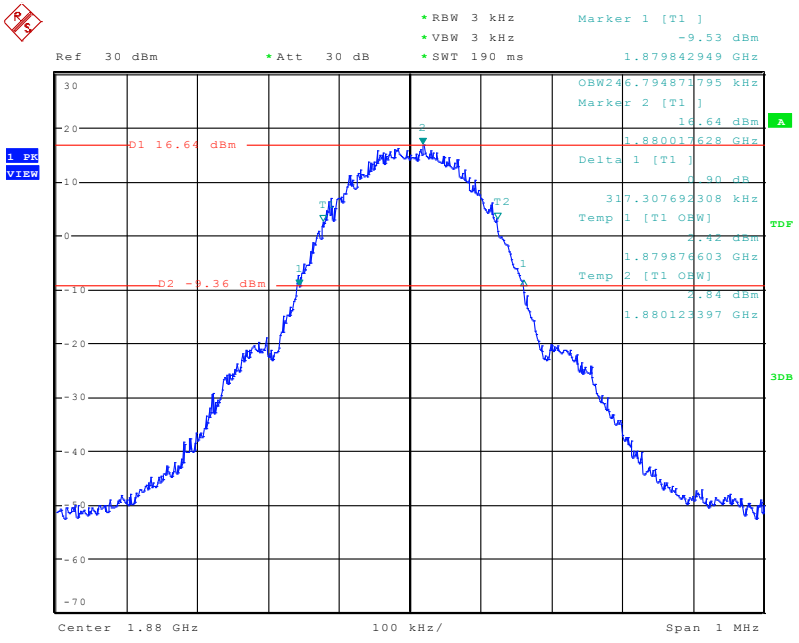
Date: 24.MAR.2017 15:58:10

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



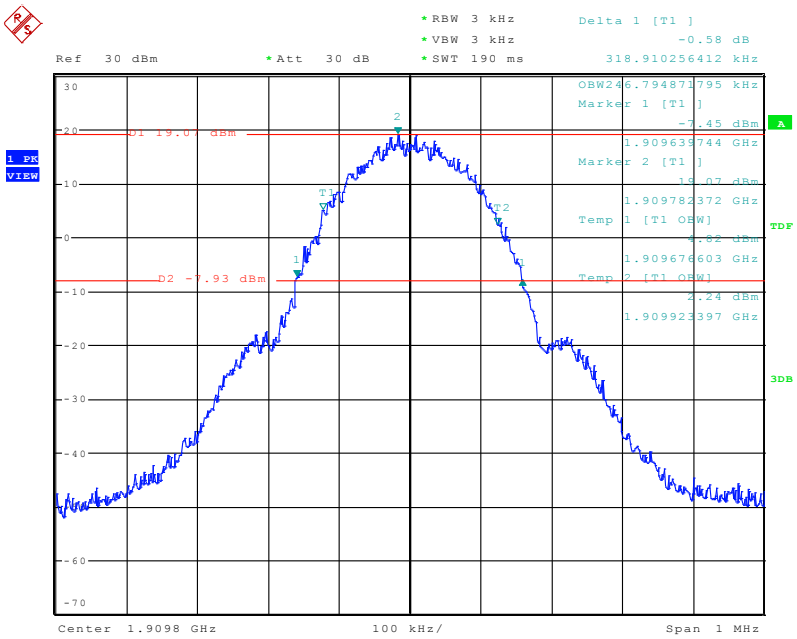
Date: 24.MAR.2017 16:04:22

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



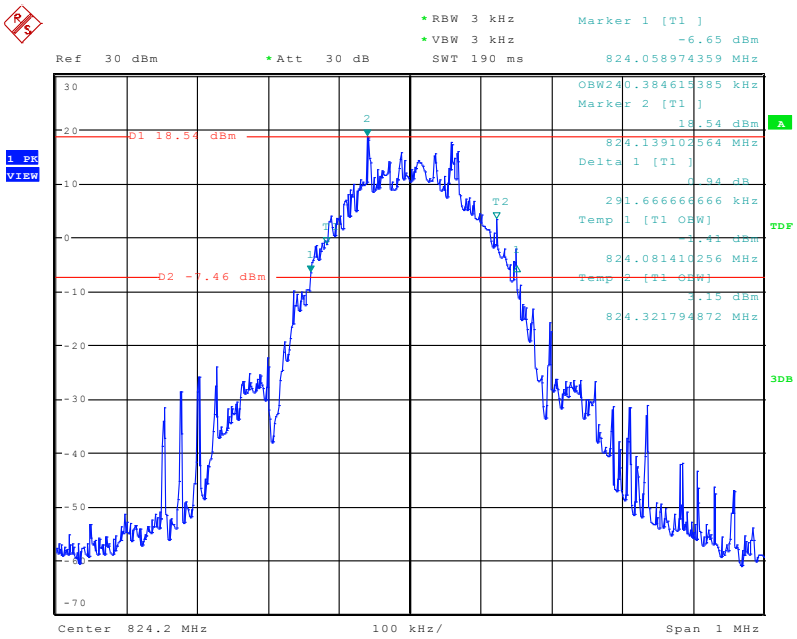
Date: 24.MAR.2017 16:10:29

Occupied Bandwidth (99% and -26dBc) GPRS 1900 BAND CH 810



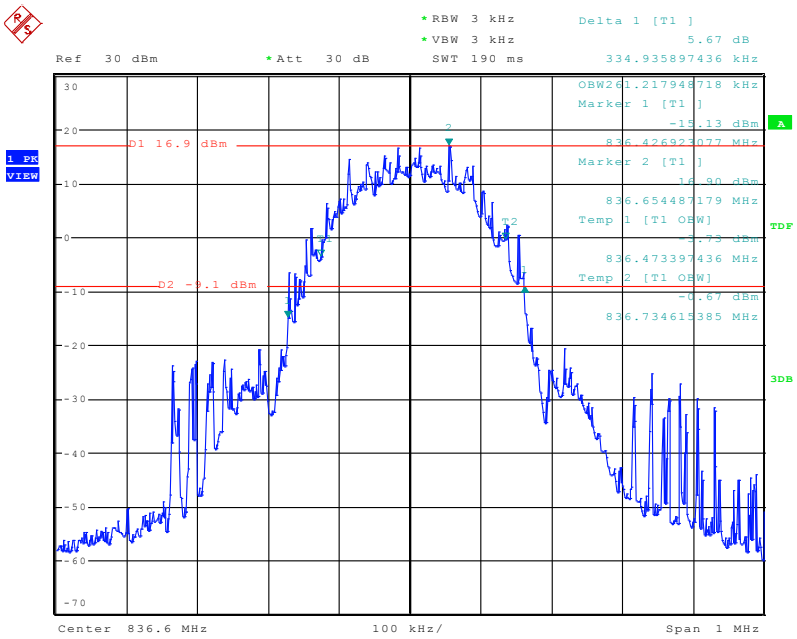
Date: 24.MAR.2017 16:18:17

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



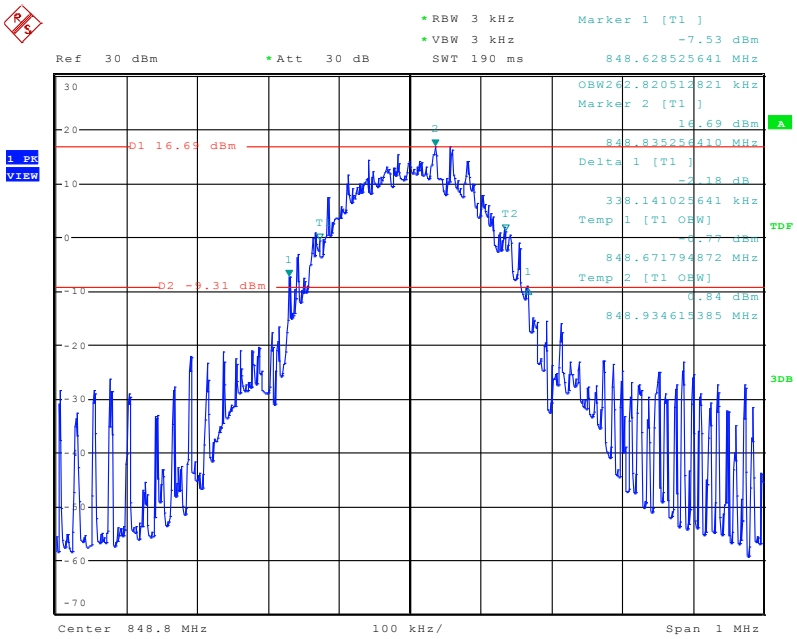
Date: 25.MAR.2017 10:26:41

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



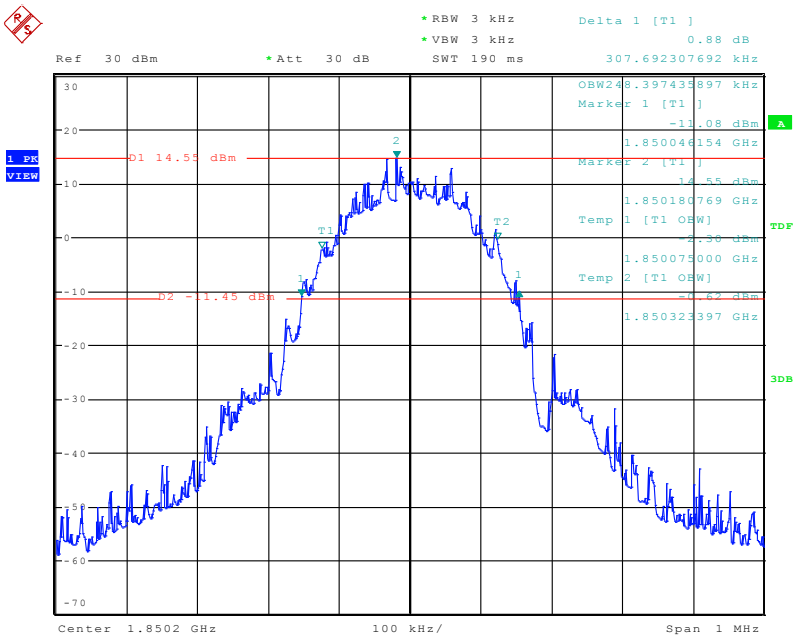
Date: 25.MAR.2017 10:29:16

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



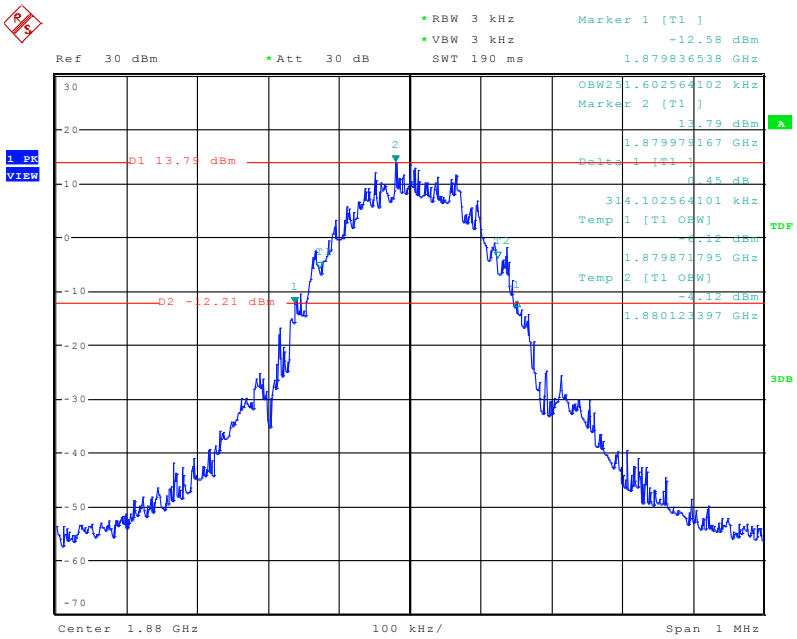
Date: 25.MAR.2017 10:32:37

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



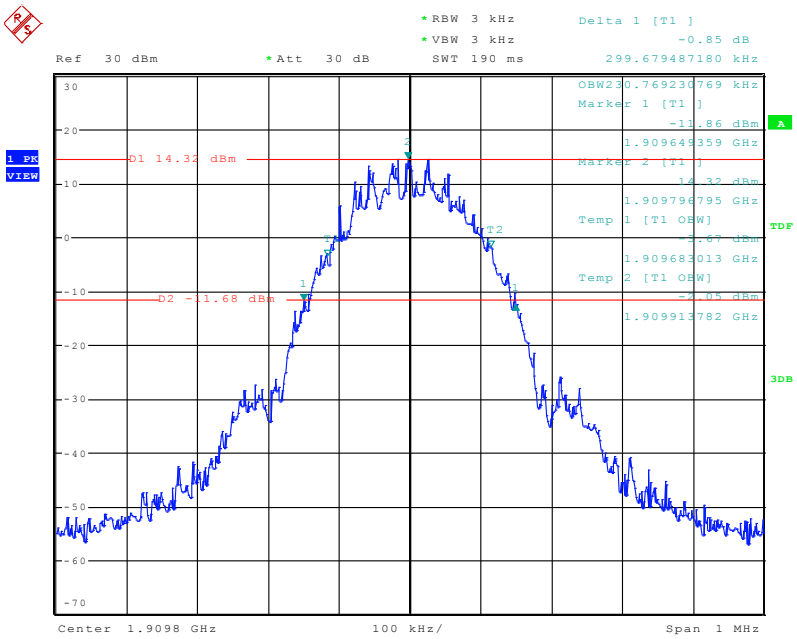
Date: 25.MAR.2017 10:38:39

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



Date: 25.MAR.2017 10:42:22

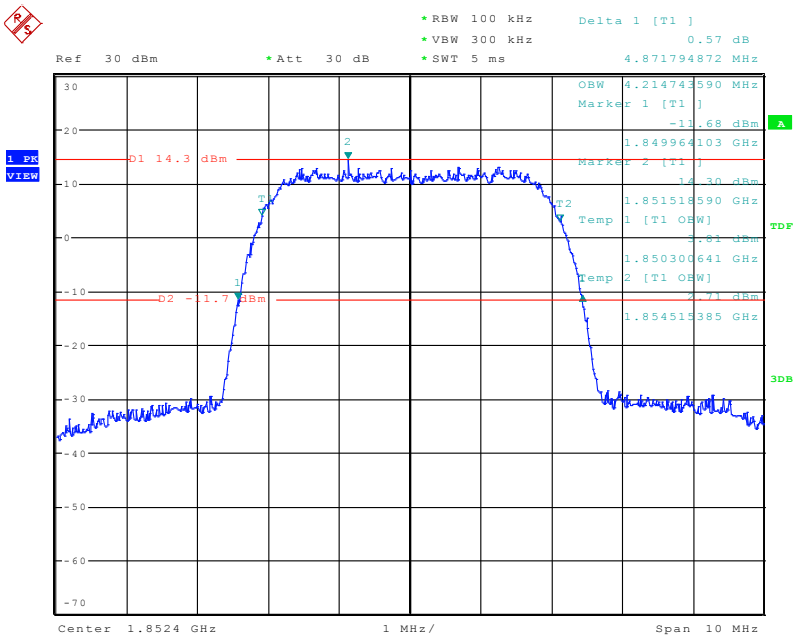
Occupied Bandwidth (99% and -26dBc) EGPRS 1900 BAND CH 810



Date: 25.MAR.2017 10:45:26

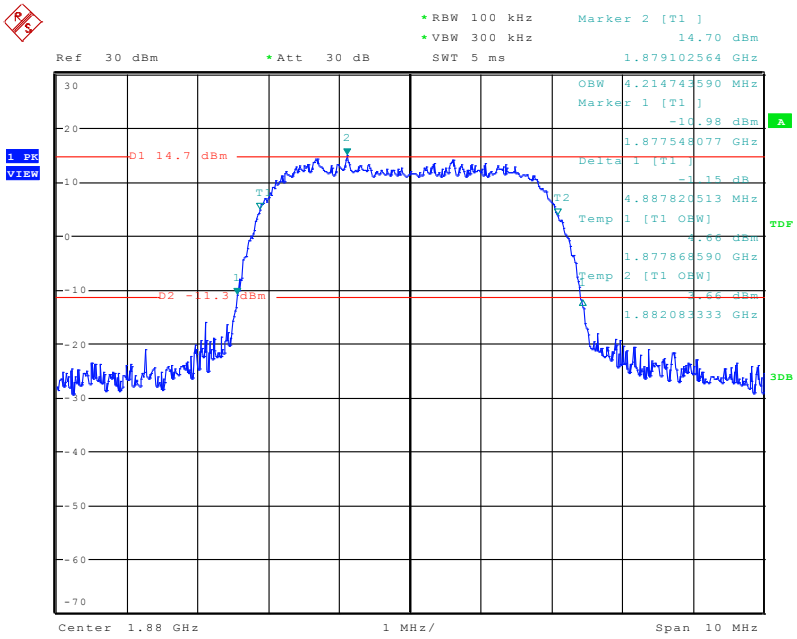
UTRA BANDS

Occupied Bandwidth (99% and -26dBc) WCDMA BAND II CH 9262

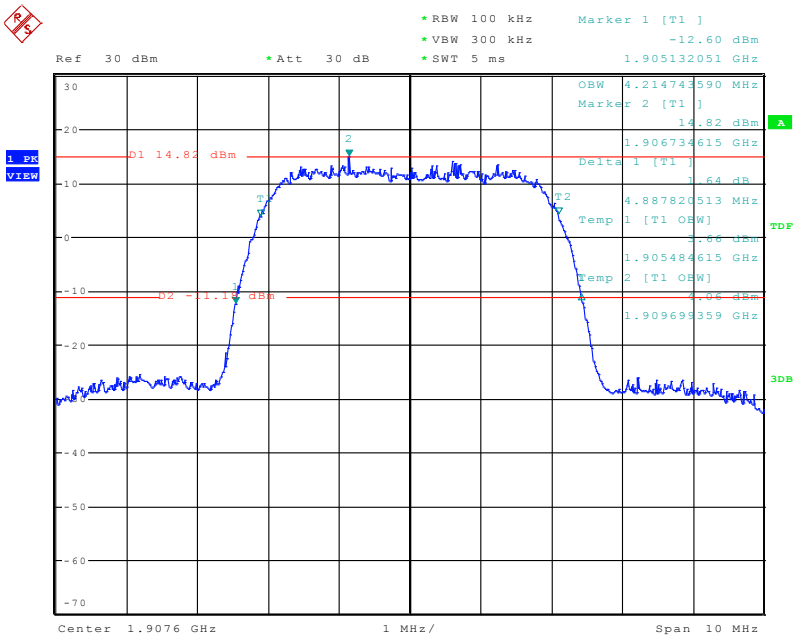


Date: 25.MAR.2017 13:09:55

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

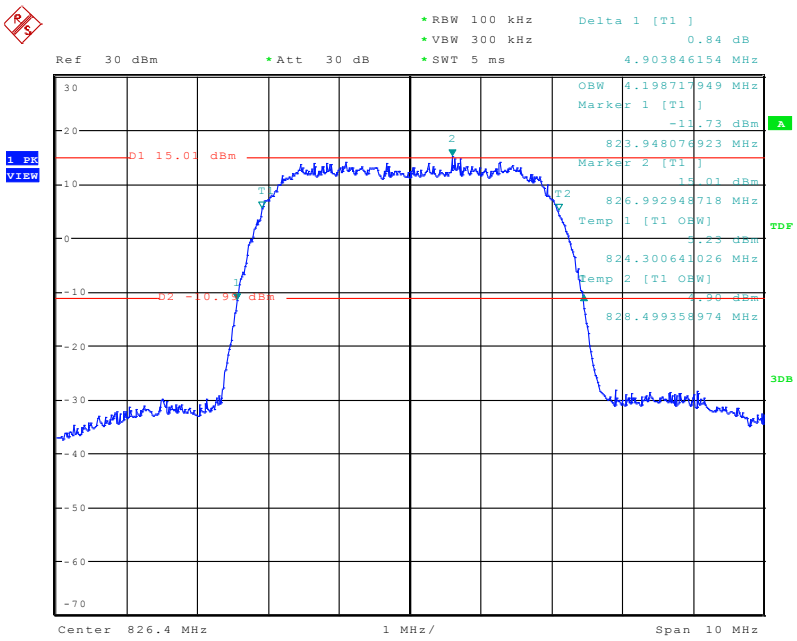


Occupied Bandwidth (99%and-26dBc) WCDMA BAND II CH 9538



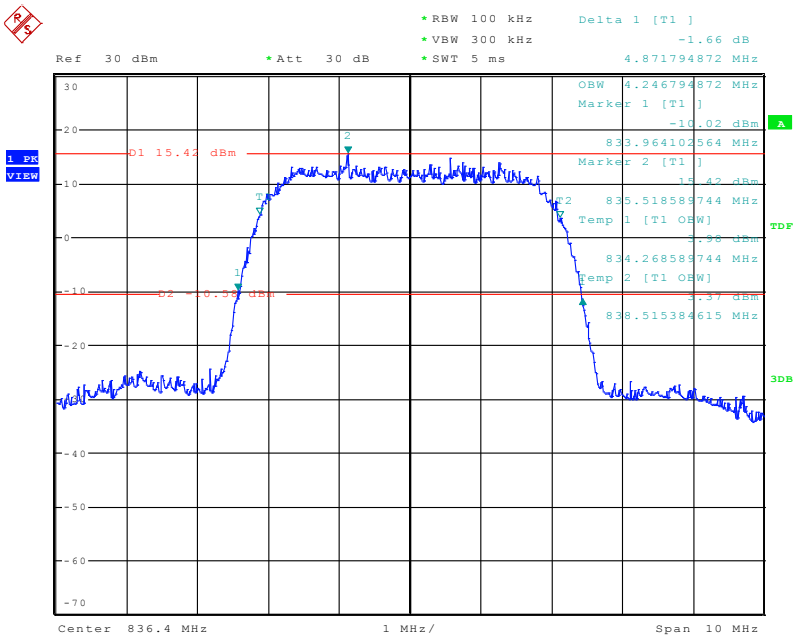
Date: 25.MAR.2017 13:07:43

Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4132



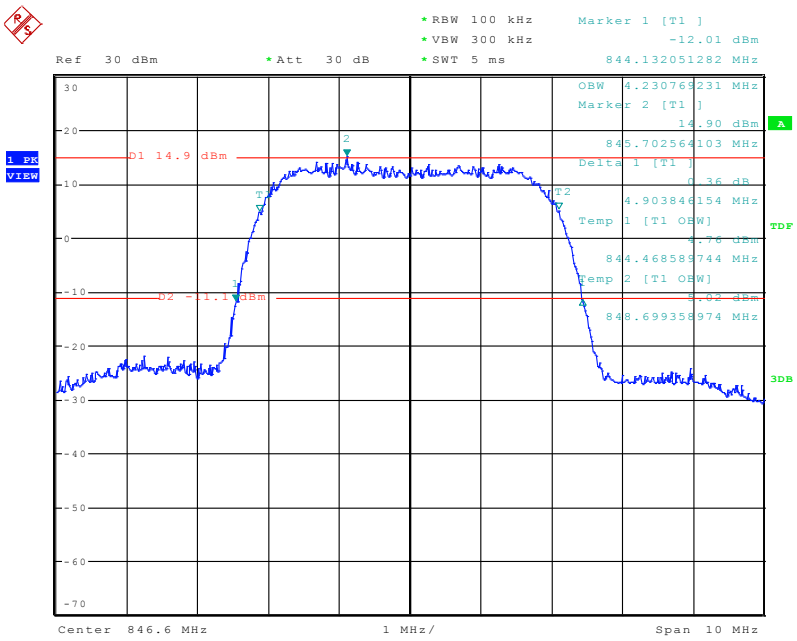
Date: 25.MAR.2017 12:56:12

Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4182



Date: 25.MAR.2017 13:03:56

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



Date: 25.MAR.2017 13:01:51