

FCC Radio Test Report

FCC ID: YJYCLUE

This report concerns (check one): ☒ Original Grant ☐ Class II Change

Project No. : 1602C039
Equipment : 4G LTE Digital Mobile Telephone
Model Name : C630
Applicant : Shanghai Feixun Communication Co.,Ltd.
Address : No.3666, Sixian Rd., Songjiang District, Shanghai,
P.R.China

Date of Receipt : Feb. 19, 2016
Date of Test : Feb. 19, 2016 ~ Mar. 16, 2016
Issued Date : Mar. 17, 2016
Tested by : BTL Inc.

Technical Engineer

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For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-5-1602C039	Original Issue.	Mar. 17, 2016

1. CERTIFICATION

Equipment : 4G LTE Digital Mobile Telephone
Brand Name : PHICOMM, FEIXUN
Model Name : C630
Applicant : Shanghai Feixun Communication Co.,Ltd.
Manufacturer : Shanghai Feixun Communication Co.,Ltd.
Address : No.3666,Sixian Rd.,Songjiang District,Shanghai,P.R.China
Date of Test : Feb. 19, 2016 ~ Mar. 16, 2016
Test Sample : Engineering Sample
Standard(s) : 47 CFR FCC Part 24 Subpart E
47 CFR FCC Part 2
ANSI/TIA-603-D-2010
KDB 971168 D01 Power Meas License Digital Systems v02r02

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-5-1602C039) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Test results included in this report is only for the DCS1900, WCDMA Band II and LTE Band II part.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 22 Subpart H& Part 2			
Standard(s) Section	Test Item	Judgment	Tested By
2.1046 24.232(c)	Radiated power	PASS	Robert Luo
2.1046 24.232(c)	Conducted Output Power	PASS	Allen Li
2.1049 24.238(a)	Occupied Bandwidth	PASS	Allen Li
2.1051 24.238(a)	Conducted Spurious Emissions	PASS	Allen Li
2.1053 24.238(a)	Radiated Spurious Emissions	PASS	Robert Luo
24.238(a)	Band Edge Measurements	PASS	Allen Li
24.232(d)	Peak To Average Ratio	PASS	Allen Li
2.1055 24.235	Frequency Stability	PASS	Allen Li

NOTE:

(1) "N/A" denotes test is not applicable to this device.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{CISPR} requirement.

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

A. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U_1 (dB)
DG-CB03 (3m)	CISPR	9KHz~30MHz	V	3.79
		9KHz~30MHz	H	3.57
		30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.78
		200MHz ~ 1,000MHz	V	4.10
		200MHz ~ 1,000MHz	H	4.06
		1GHz~18GHz	V	3.12
		1GHz~18GHz	H	3.68
		18GHz~40GHz	V	4.15
		18GHz~40GHz	H	4.14

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	4G LTE Digital Mobile Telephone	
Brand Name	PHICOMM, FEIXUN	
Model Name	C630	
Model Difference	N/A	
Modulation Type	GSM/GPRS	GMSK
	EDGE	GMSK, 8PSK
	WCDMA	Uplink: BPSK Downlink: QPSK
	WCDMA(HSDPA/HSUPA)	16QAM/64QAM
	LTE	QPSK, 16QAM
Operation Frequency	GSM /EDGE/GPRS	1850.2 ~ 1909.8 MHz
	WCDMA Band 2	1852.4 ~ 1907.6 MHz
	LTE 2 (Channel Bandwidth: 1.4MHz)	1850.7 ~ 1909.3 MHz
	LTE 2 (Channel Bandwidth: 3MHz)	1851.5 ~ 1908.5 MHz
	LTE 2 (Channel Bandwidth: 5MHz)	1852.5 ~ 1907.5 MHz
	LTE 2 (Channel Bandwidth: 10MHz)	1855.0 ~ 1905.0 MHz
	LTE 2 (Channel Bandwidth: 15MHz)	1857.5 ~ 1902.5 MHz
	LTE 2 (Channel Bandwidth: 20MHz)	1860.0 ~ 1900.0 MHz
Max. EIRP Power	GSM/GPRS	27.71 dBm
	EDGE	21.93 dBm
	WCDMA	18.47 dBm
	LTE 2 (Channel Bandwidth: 1.4MHz)	23.46 dBm
	LTE 2 (Channel Bandwidth: 3MHz)	26.43 dBm
	LTE 2 (Channel Bandwidth: 5MHz)	26.19 dBm
	LTE 2 (Channel Bandwidth: 10MHz)	28.26 dBm
	LTE 2 (Channel Bandwidth: 15MHz)	28.30 dBm
	LTE 2 (Channel Bandwidth: 20MHz)	29.10 dBm
Antenna Type	Fixed Internal Antenna	
Antenna Gain	3.36dBi	
Hardware Version	C630LwLA_0000_5.0_1.0T06_0229_SH	
Software Version	C630LwLA_MB_V1.0	
IMEI No.	867985021362672	
Power Source	#1 DC voltage supplied from AC/DC adapter. #2 Supplied from USB port. #3 Supplied from rechargeable Li-Polymer battery.	
Power Rating	Please refer to note 2	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	N/A	RD0501000-USBA-18MG	I/P: 100-240V~50/60Hz, 0.25A MAX O/P: 5V --- 1000mA
Battery	N/A	BL-F33	3.8V, 2300mAh, 8.74Wh
USB Cable	N/A	N/A	100cm shielded cable with core

3.2 DESCRIPTION OF TEST MODES AND TEST CONDITION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports
The worst case was found when positioned on X-plane for EIRP and X-axis for radiated emission.
Following channel(s) was (were) selected for the final test as listed below:

GSM MODE			
Test Item	Available Channel	Tested Channel	Mode
EIRP	512 to 810	512, 661, 810	GSM, EDGE
Conducted Output Power	512 to 810	512, 661, 810	GSM, EDGE
Occupied Bandwidth	512 to 810	512, 661, 810	GSM, EDGE
Conducted Emission	512 to 810	661	GSM, EDGE
Radiated Emission	512 to 810	661	GSM, EDGE
Band Edge	512 to 810	512, 810	GSM, EDGE
Peak to Average Ratio	512 to 810	512, 661, 810	GSM, EDGE
Frequency Stability	512 to 810	661	GSM, EDGE

WCDMA MODE			
Test Item	Available Channel	Tested Channel	Mode
EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
Conducted Output Power	9262 to 9538	9262, 9400, 9538	WCDMA
Conducted Emission	9262 to 9538	9400	WCDMA
Radiated Emission	9262 to 9538	9400	WCDMA
Band Edge	9262 to 9538	9262, 9538	WCDMA
Peak to Average Ratio	9262 to 9538	9262, 9400, 9538	WCDMA
Frequency Stability	9262 to 9538	9262	WCDMA

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in **QPSK** modulation.

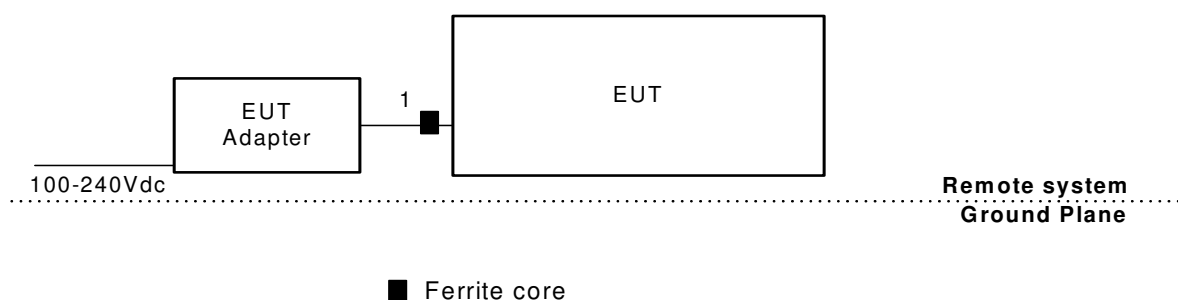
LTE BAND 2 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset
Occupied Bandwidth	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	6 RB / 0 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	15 RB / 0 RB Offset
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	75 RB / 0 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	100 RB / 0 RB Offset
Conducted Emission	18607 to 19193	18900	1.4MHz	QPSK	1 RB / 0 RB Offset
	18615 to 19185	18900	3MHz	QPSK	1 RB / 0 RB Offset
	18625 to 19175	18900	5MHz	QPSK	1 RB / 0 RB Offset
	18650 to 19150	18900	10MHz	QPSK	1 RB / 0 RB Offset
	18675 to 19125	18900	15MHz	QPSK	1 RB / 0 RB Offset
	18700 to 19100	18900	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission	18607 to 19193	18900	1.4MHz	QPSK	1 RB / 0 RB Offset
	18615 to 19185	18900	3MHz	QPSK	1 RB / 0 RB Offset
	18625 to 19175	18900	5MHz	QPSK	1 RB / 0 RB Offset
	18650 to 19150	18900	10MHz	QPSK	1 RB / 0 RB Offset
	18675 to 19125	18900	15MHz	QPSK	1 RB / 0 RB Offset
	18700 to 19100	18900	20MHz	QPSK	1 RB / 0 RB Offset

Band Edge	18607 to 19193	18607	1.4MHz	QPSK	1 RB / 0 RB Offset
		19193	1.4MHz	QPSK	6 RB / 0 RB Offset
	18615 to 19185	18615	3MHz	QPSK	1 RB / 5 RB Offset
		19185	3MHz	QPSK	6 RB / 0 RB Offset
	18625 to 19175	18625	5MHz	QPSK	1 RB / 0 RB Offset
		19175	5MHz	QPSK	15 RB / 0 RB Offset
	18650 to 19150	18650	10MHz	QPSK	1 RB / 14 RB Offset
		19150	10MHz	QPSK	15 RB / 0 RB Offset
	18675 to 19125	18675	15MHz	QPSK	1 RB / 0 RB Offset
		19125	15MHz	QPSK	25 RB / 0 RB Offset
	18700 to 19100	18700	20MHz	QPSK	1 RB / 24 RB Offset
		19100	20MHz	QPSK	25 RB / 0 RB Offset
Peak To Average Ratio	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset
Frequency Stability	18607 to 19193	18900	1.4MHz	QPSK	1 RB / 0 RB Offset
	18615 to 19185	18900	3MHz	QPSK	1 RB / 0 RB Offset
	18625 to 19175	18900	5MHz	QPSK	1 RB / 0 RB Offset
	18650 to 19150	18900	10MHz	QPSK	1 RB / 0 RB Offset
	18675 to 19125	18900	15MHz	QPSK	1 RB / 0 RB Offset
	18700 to 19100	18900	20MHz	QPSK	1 RB / 0 RB Offset

EUT TEST CONDITIONS:

Test Item	Environmental Conditions	Test Voltage
EIRP	24°C, 63%RH	AC 120V/60Hz
Conducted Output Power	25°C, 65%RH	AC 120V/60Hz
Occupied Bandwidth	25°C, 65%RH	AC 120V/60Hz
Conducted Emission	25°C, 65%RH	AC 120V/60Hz
Radiated Emission	24°C, 63%RH	AC 120V/60Hz
Band Edge	25°C, 65%RH	AC 120V/60Hz
Peak to Average Ratio	25°C, 65%RH	AC 120V/60Hz
Frequency Stability	25°C, 65%RH	AC 120V/60Hz

3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	YES	YES	1m	USB cable

4. TEST RESULT

4.1 OUTPUT POWER MEASUREMENT

4.1.1 LIMIT

Mobile / Portable station are limited to 2 watts e.i.r.p.

4.1.2 TEST PROCEDURE

EIRP/ERP:

1. All measurements were done at low, middle and high operational frequency range. RBW and VBW setting:
 Set the $RBW \geq OBW$.
 Set $VBW \geq 3 \times RBW$.
 Set $span \geq 2 \times RBW$
 Sweep time=auto couple
 Detector=peak
 Ensure that the number of measurement points $\geq span/RBW$
 Trace mode=max hold
 Allow trace to fully stabilize
 Use the peak marker function to determine the peak amplitude level
2. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
3. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G
5. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of Integral, E.R.P power=E.I.P.R power-2.15dBi.

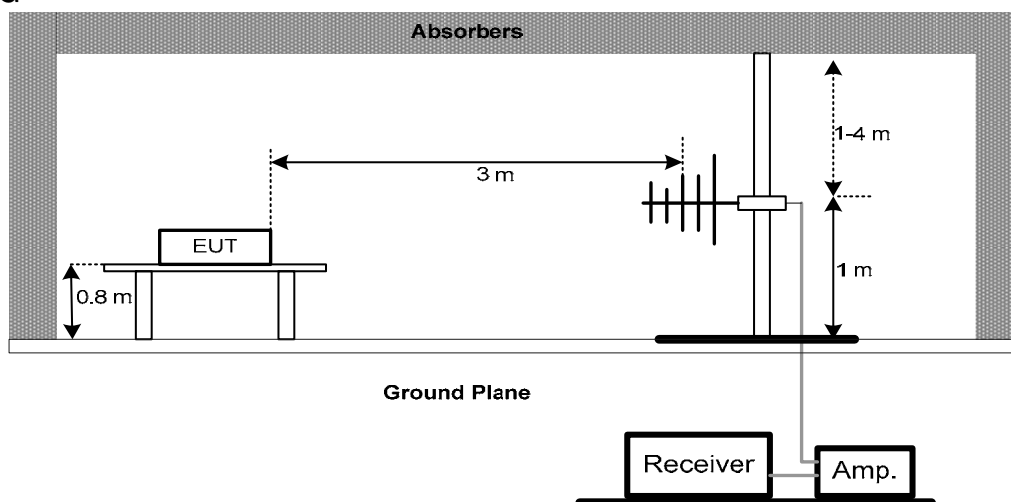
Conducted Power:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA, CDMA, and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

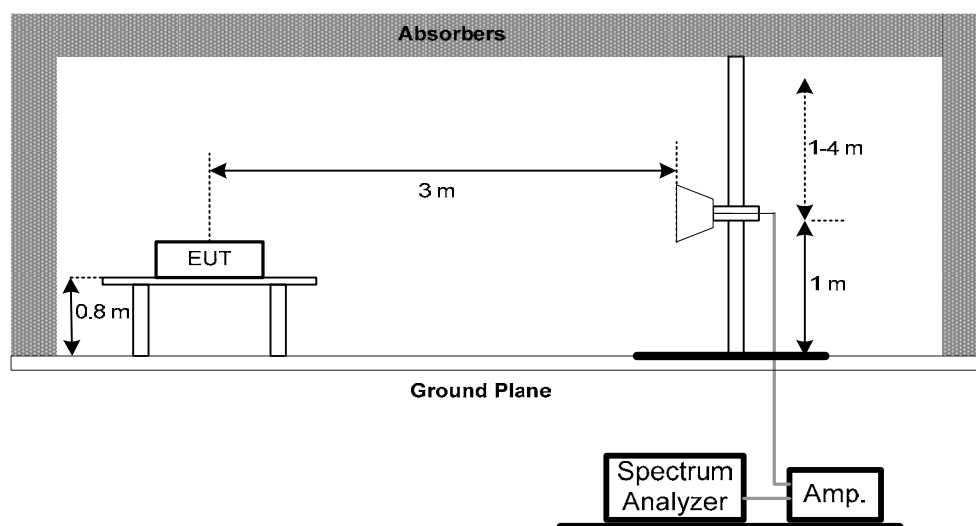
4.1.3 TESTSETUP LAYOUT

ERP Power Measurement

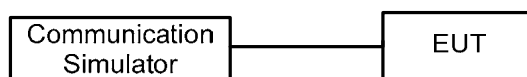
Below 1G



Above 1G



Conducted Power Measurement



4.1.4 TEST DEVIATION

No deviation

4.1.5 TEST RESULTS

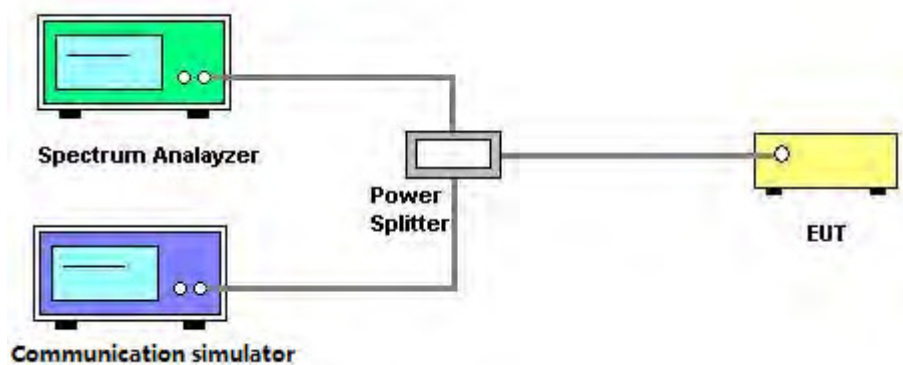
Please refer to the Attachment A.

4.2 OCCUPIED BANDWIDTH MEASUREMENT

4.2.1 TEST PROCEDURE

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.

4.2.2 TEST SETUP LAYOUT



4.2.3 TEST DEVIATION

No deviation

4.2.4 TEST RESULTS

Please refer to the Attachment B.

4.3 CONDUCTED EMISSIONS MEASUREMENT

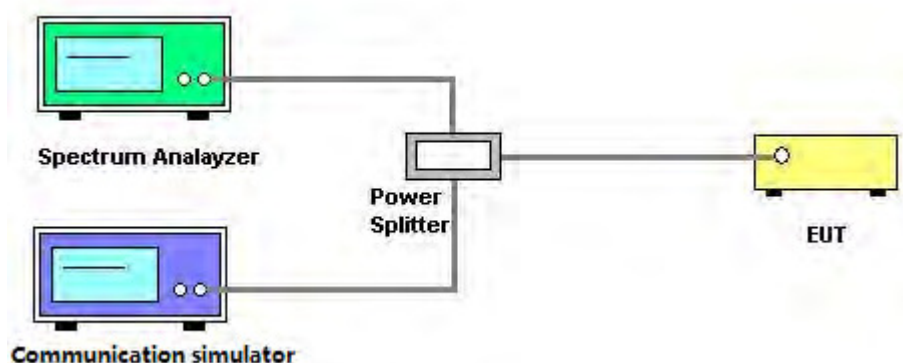
4.3.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

4.3.2 TEST PROCEDURES

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured. Set $RBW \geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Set spectrum analyzer with RMS detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from $43 + 10 \log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10 \log(P)](dB)$
 $= [30 + 10 \log(P)](dBm) - [43 + 10 \log(P)](dB)$
 $= -13dBm$

4.3.3 TESTSETUP LAYOUT



4.3.4 TESTDEVIATION

No deviation

4.3.5 TEST RESULTS

Please refer to the Attachment C.

4.4 RADIATED EMISSIONS MEASUREMENT

4.4.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

4.4.2 TEST PROCEDURES

1. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
2. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value “ of step a. Record the power level of S.G
3. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
4. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.
5. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.4.3 TESTSETUP LAYOUT

This test setup layout is the same as that shown in **section 4.1.3**.

4.4.4 TESTDEVIATION

No deviation

4.4.5 TEST RESULTS

Please refer to the Attachment D.

4.5 BAND EDGE MEASUREMENT

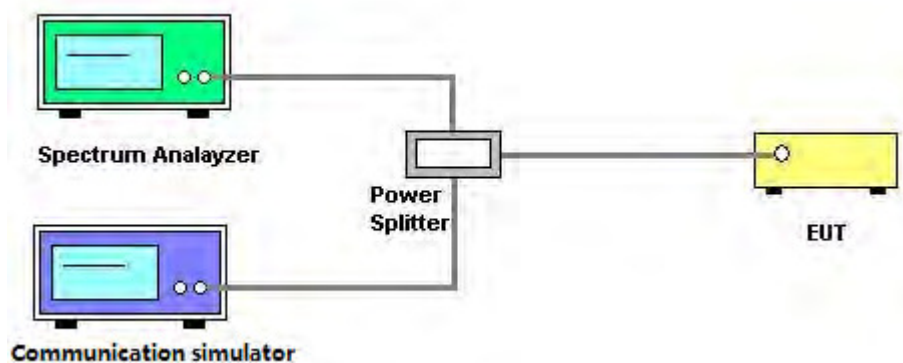
4.5.1 LIMIT

A Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.5.2 TEST PROCEDURES

1. All measurements were done at low and high operational frequency range.
2. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 3kHz and VB of the spectrum is 10kHz (GSM/GPRS/EDGE).
3. The center frequency of spectrum is the band edge frequency and span is 5MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (WCDMA).
4. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 13kHz and VB of the spectrum is 51kHz (LTE Bandwidth 1.4MHz).
5. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 30kHz and VB of the spectrum is 100kHz (LTE Bandwidth 3MHz).
6. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (LTE Bandwidth 5MHz/10MHz).
7. Record the max trace plot into the test report.

4.5.3 TESTSETUP LAYOUT



4.5.4 TESTDEVIATION

No deviation

4.5.5 TEST RESULTS

Please refer to the Attachment E.

4.6 PEAK TO AVERAGE RATIO MEASUREMENT

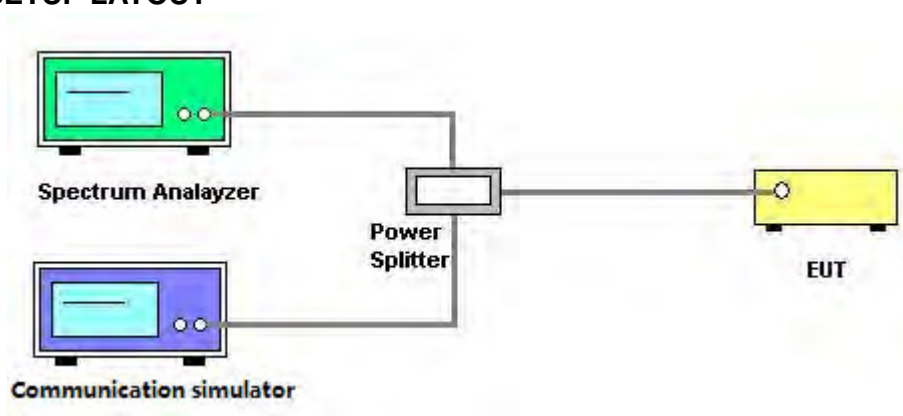
4.6.1 LIMIT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

4.6.2 TEST PROCEDURES

1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

4.6.3 TESTSETUP LAYOUT



4.6.4 TESTDEVIATION

No deviation

4.6.5 TEST RESULTS

Please refer to the Attachment F.

4.7 FREQUENCY STABILITY MEASUREMENT

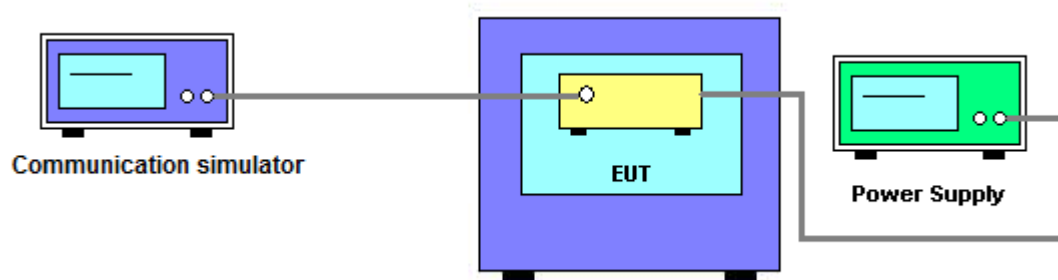
4.7.1 LIMIT

1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

4.7.2 TEST PROCEDURES

1. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
2. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
3. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
4. The frequency error was recorded frequency error from the communication simulator.

4.7.3 TESTSETUP LAYOUT



4.7.4 TESTDEVIATION

No deviation

4.7.5 TEST RESULTS

Please refer to the Attachment G.

5. LIST OF MEASUREMENT EQUIPMENTS

Radiated Emission & ERP or EIRP Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 28, 2016
2	Amplifier	HP	8447D	2944A09673	Nov. 09, 2016
3	Receiver	AGILENT	N9038A	MY52130039	Oct. 11, 2016
4	Test Cable	emci	LMR-400(30MHz-1GHz)	C-01	Jun. 28, 2016
5	Controller	CT	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	Mar. 28, 2016
7	Amplifier	Agilent	8449B	3008A02274	Nov. 01, 2016
8	Test Cable	emci	EMC104-SM-S M-10000(1GHz-26.5GHz)	C-68	Jun. 28, 2016
9	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Mar. 28, 2016
10	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 28, 2016
11	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
12	Wireless Communication Test Set	(8960 Series) Agilent	E5515C	MY48364183	Mar. 28, 2016
13	Band Reject Filter	Wairwright Instruments Gmbh	WRCG 1850/1910-1830 /1930-60/10SS	17	Mar. 03, 2017
14	HighPass Filter	Wairwright Instruments Gmbh	WHK 1.5/15G-10ST	11	Jul. 06, 2016
15	HighPass Filter	Wairwright Instruments Gmbh	WHK 3.1/18G-10SS	24	Mar. 03, 2017
16	HighPass Filter	ZHPF-M1000-4000-1	WHK 1000-4000MHz	B2015073762	Aug. 05, 2016
17	HighPass Filter	ZHPF-M3-12.75G-3869	WHK 3000-12750MHz	B2015073763	Aug. 05, 2016
18	HighPass Filter	ZHPF-M6-18G-1727	WHK 6000-18000MHz	B2015073764	Aug. 05, 2016
19	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 07, 2016

Conducted Emission & Band Edge & Occupied Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EXA Spectrum Analyzer	Agilent	N9010A	MY50520044	Mar. 28, 2016
2	Wireless Communication Test Set	(8960 Series) Agilent	E5515C	MY48364183	Mar. 28, 2016
3	wideband radio communication tester	R&S	CMW500	152372	Jan. 29, 2017
4	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Mar. 17, 2016
5	Test Cable	N/A	RG316	Cable4-001	Jul. 15, 2016
6	Test Cable	N/A	RG316	Cable4-002	Jul. 15, 2016
7	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test Set	(8960 Series) Agilent	E5515C	MY48364183	Mar. 28, 2016
2	wideband radio communication tester	R&S	CMW500	152372	Jan. 29, 2017
3	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Mar. 17, 2016
4	Test Cable	N/A	RG316	Cable4-001	Jul. 15, 2016
5	Const Temp. & Humidity Chamber	GIANT FORCE	ITH-225-20-S	IAB0309-001	Dec. 04, 2016
6	DC power supply	GW Instek	GPC-30300N	EK880675	Oct. 13, 2016

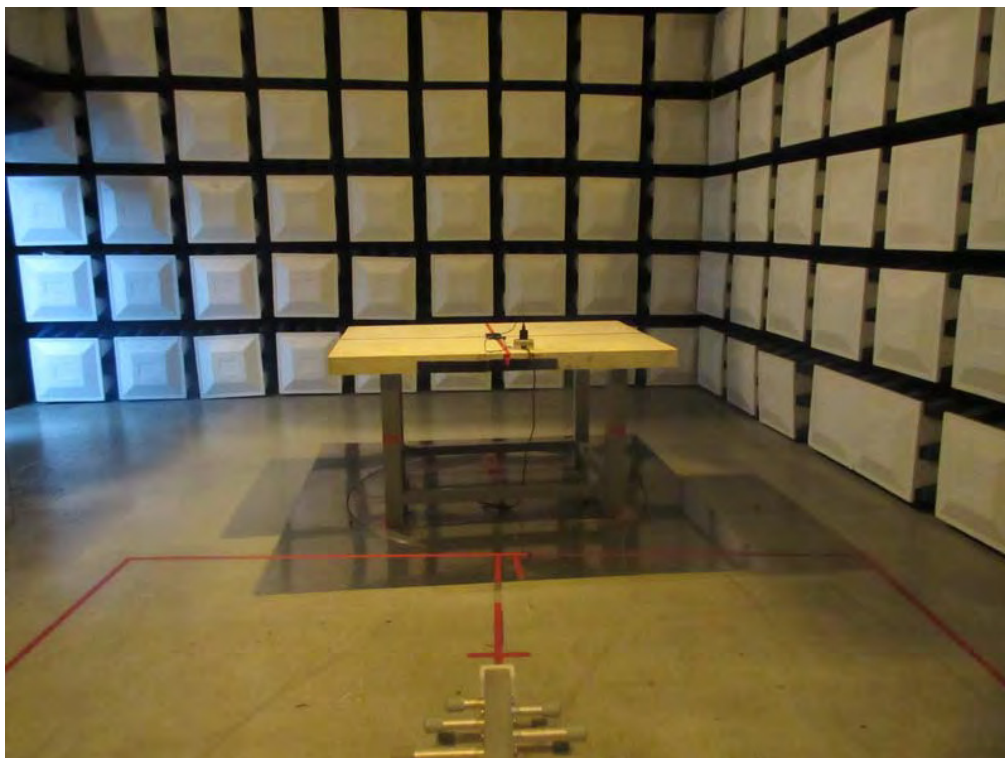
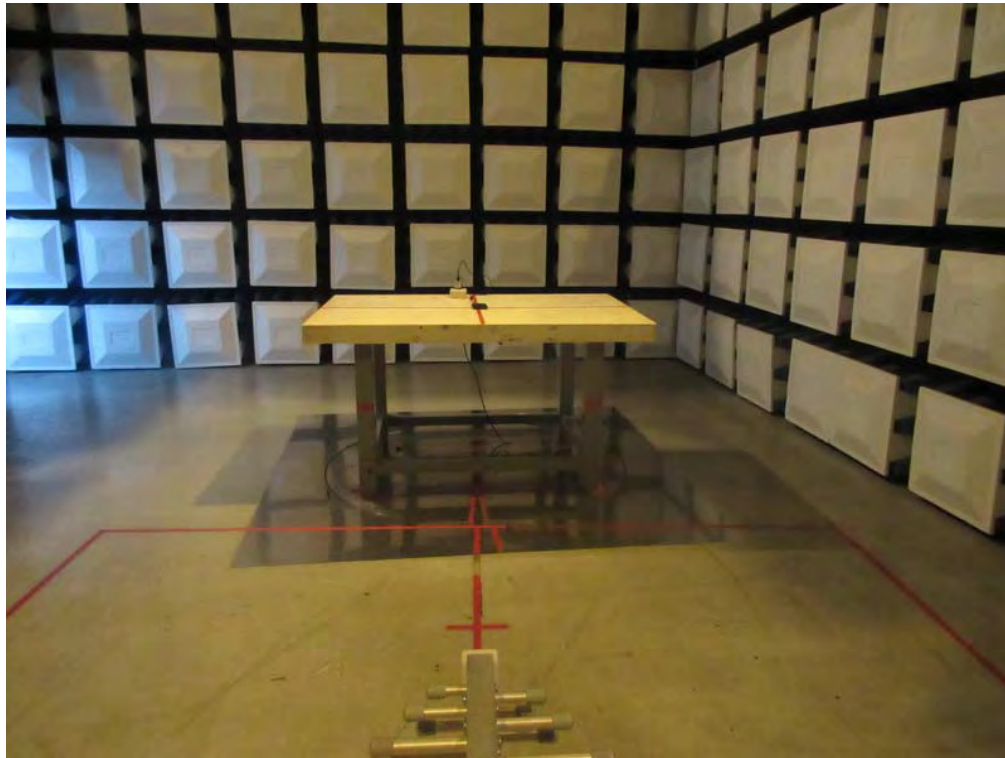
Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

6. EUT TEST PHOTO

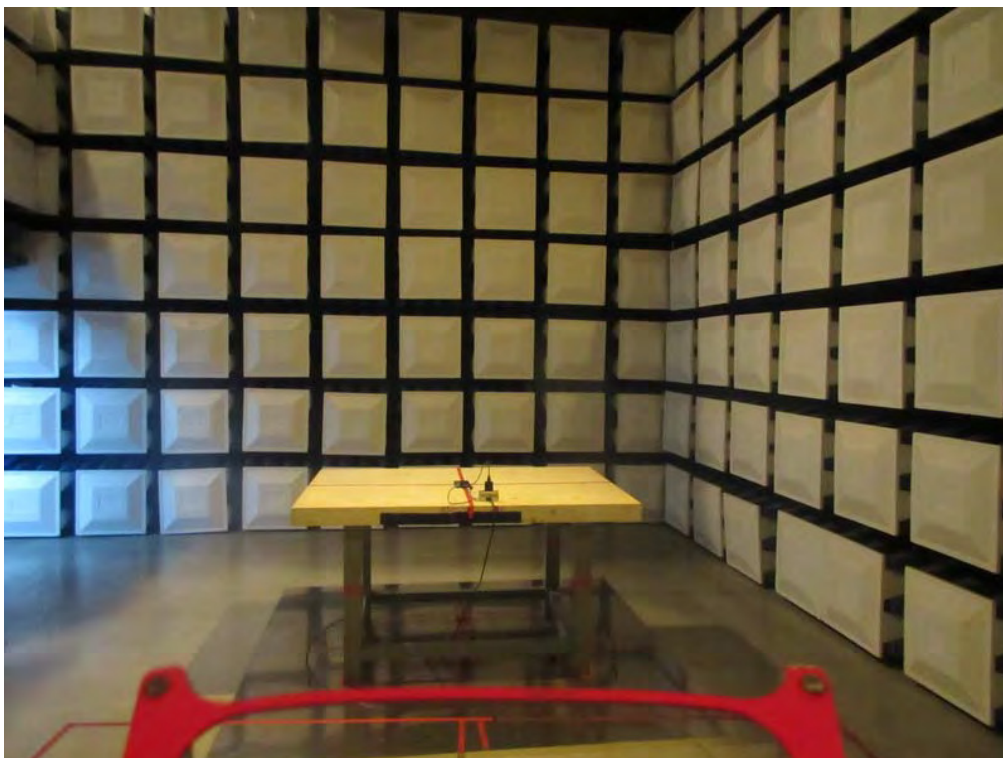
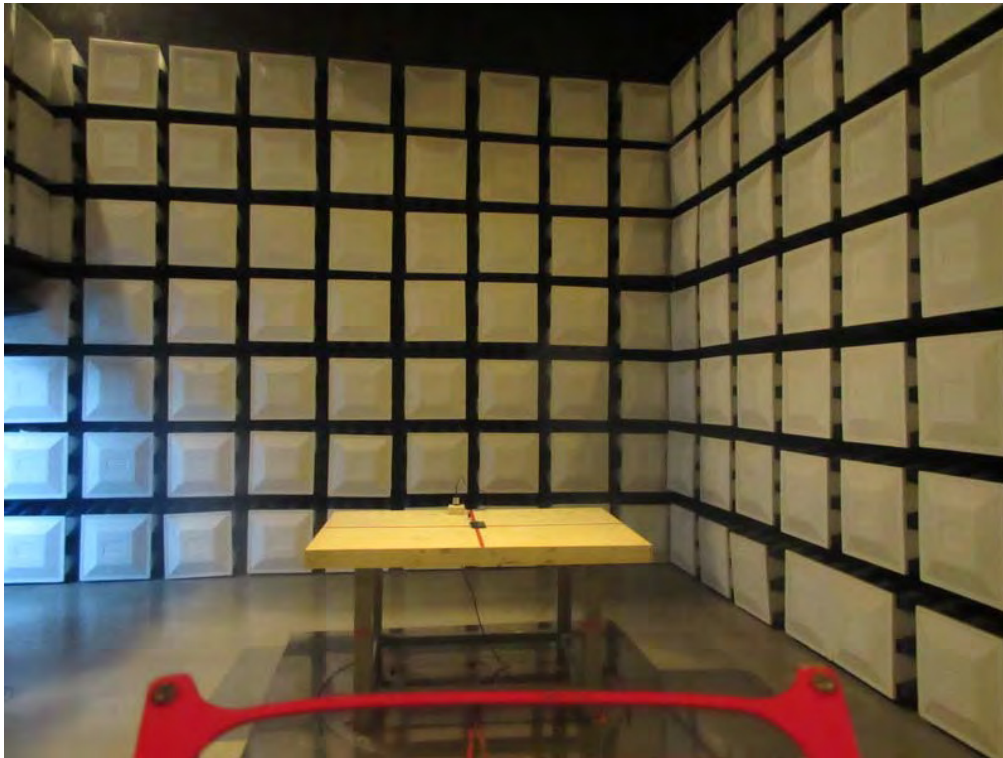
Radiated Measurement Photos 9KHz to 30MHz



Radiated Measurement Photos Below 1GHz



**Radiated Measurement Photos
Above 1GHz**



ATTACHMENT A - OUTPUT POWER

Conducted Power:

DCS1900 (Capsensor Off)	Burst Conducted Power (dBm)				Average Power (dBm)		
	512CH	661CH	810CH		512CH	661CH	810CH
	1850.2MHz	1880MHz	1909.8MHz		1850.2MHz	1880MHz	1909.8MHz
GSM (CS)	29.33	29.35	29.31		20.14	20.16	20.12
GPRS/EDGE (GMSK)	29.24	29.33	29.37		20.05	20.14	20.18
	27.31	27.34	27.25		21.18	21.21	21.12
	25.21	25.15	25.38		20.79	20.73	20.96
	23.17	23.24	23.19		19.99	20.06	20.01
EDGE (8PSK)	23.84	23.72	23.74		14.65	14.53	14.55
	22.27	22.17	22.19		16.14	16.04	16.06
	21.05	21.10	21.07		16.63	16.68	16.65
	20.68	20.69	20.67		17.50	17.51	17.49

Band	WCDMA Band II(Capsensor Off)		
Tx Channel	9262CH	9400CH	9538CH
Rx Channel	9662CH	9800CH	9938CH
Frequency	1852.4MHz	1880MHz	1907.6MHz
RMC 12.2K	22.92	22.93	22.86
RMC 64K	22.91	22.85	22.88
RMC 144K	22.89	22.83	22.87
RMC 384K	22.87	22.82	22.85
HSDPA Subtest-1	21.86	21.87	21.82
HSDPA Subtest-2	21.93	21.86	21.81
HSDPA Subtest-3	21.42	21.31	21.30
HSDPA Subtest-4	21.35	21.24	21.29
HSUPA Subtest-1	21.95	21.57	21.44
HSUPA Subtest-2	20.63	20.32	20.31
HSUPA Subtest-3	20.08	19.95	20.68
HSUPA Subtest-4	21.48	21.37	21.81
HSUPA Subtest-5	21.93	21.86	21.84

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				18607 CH	18900 CH	19193 CH
				1850.7 MHz	1880 MHz	1909.3 MHz
2 / 1.4M	QPSK	1	0	23.00	23.08	23.20
		1	2	23.14	23.17	23.32
		1	5	23.10	23.17	23.10
		3	0	22.29	22.22	23.19
		3	1	22.25	22.11	22.17
		3	3	22.28	22.12	22.19
		6	0	22.03	22.11	22.18
	16QAM	1	0	22.98	22.25	23.09
		1	2	23.23	22.38	23.21
		1	5	22.94	22.30	22.92
		3	0	22.33	22.11	22.42
		3	1	22.30	22.26	22.36
		3	3	22.42	22.30	22.33
		6	0	21.00	20.96	21.21

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				18615 CH	18900 CH	19185 CH
				1851.5 MHz	1880 MHz	1908.5 MHz
2 / 3M	QPSK	1	0	23.32	23.05	23.41
		1	7	23.32	23.02	23.05
		1	14	23.34	23.03	23.11
		8	0	22.16	22.09	22.24
		8	3	22.15	22.13	22.13
		8	7	22.12	22.20	22.17
		15	0	22.06	22.16	22.16
	16QAM	1	0	22.09	22.36	22.44
		1	7	22.47	22.52	22.55
		1	14	22.67	22.45	22.32
		8	0	21.19	21.08	21.30
		8	3	21.29	21.33	21.17
		8	7	21.36	21.28	21.15
		15	0	21.21	21.28	21.12

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				18625 CH	18900 CH	19175 CH
				1852.5 MHz	1880 MHz	1907.5 MHz
2 / 5M	QPSK	1	0	22.92	23.05	23.03
		1	12	23.04	23.08	22.97
		1	24	23.20	23.18	22.99
		12	0	22.07	22.16	22.21
		12	6	22.11	22.10	22.14
		12	13	22.12	22.22	22.13
		25	0	22.11	22.14	22.21
	16QAM	1	0	22.15	22.57	22.39
		1	12	21.63	22.12	22.13
		1	24	22.18	22.18	22.37
		12	0	21.06	21.19	21.08
		12	6	21.16	21.10	21.00
		12	13	21.00	21.24	21.10
		25	0	20.98	21.19	21.37

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				18650 CH	18900 CH	19150 CH
				1855 MHz	1880 MHz	1905 MHz
2 / 10M	QPSK	1	0	23.37	23.04	23.23
		1	24	23.39	23.03	23.18
		1	49	23.38	23.00	23.14
		25	0	22.11	22.21	22.26
		25	12	22.12	22.27	22.14
		25	25	22.10	22.23	22.14
		50	0	22.11	22.16	22.20
	16QAM	1	0	22.15	22.65	22.54
		1	24	22.21	22.67	22.40
		1	49	22.57	22.69	22.51
		25	0	21.19	21.00	21.33
		25	12	21.11	21.12	21.23
		25	25	20.92	21.08	21.17
		50	0	21.10	21.20	21.26

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				18675 CH	18900 CH	19125 CH
				1857.5 MHz	1880 MHz	1902.5 MHz
2 / 15M	QPSK	1	0	23.34	23.26	23.32
		1	37	23.22	23.14	23.02
		1	74	23.25	23.28	23.22
		36	0	22.21	22.28	22.23
		36	19	22.11	22.15	22.13
		36	39	22.17	22.19	22.23
		75	0	22.15	22.16	22.24
	16QAM	1	0	22.54	22.62	23.15
		1	37	22.18	22.30	22.69
		1	74	22.76	22.56	23.17
		36	0	21.32	22.56	21.23
		36	19	21.02	21.32	21.18
		36	39	21.00	21.38	21.26
		75	0	21.08	21.23	21.18

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				18700 CH	18900 CH	19100 CH
				1860 MHz	1880 MHz	1900 MHz
2 / 20M	QPSK	1	0	23.37	23.44	23.32
		1	50	23.13	22.25	23.03
		1	99	23.02	23.06	23.12
		50	0	22.27	22.32	22.20
		50	25	22.09	22.25	22.20
		50	50	22.25	22.24	22.22
		100	0	22.10	22.15	22.18
	16QAM	1	0	22.94	22.46	22.33
		1	50	22.10	21.23	22.32
		1	99	22.32	22.54	22.50
		50	0	21.25	21.20	21.15
		50	25	21.07	21.22	21.05
		50	50	21.23	21.36	21.15
		100	0	21.20	21.09	21.21

E.I.R.P Power

DCS1900					
Plane	Channel	Frequency (MHz)	GSM EIRP(dBm)	EDGE EIRP(dBm)	Polarization (H/V)
X	512	1850.2	25.68	21.93	H
	661	1880	27.71	20.33	H
	810	1909.8	21.64	16.08	H
	512	1850.2	19.97	15.15	V
	661	1880	20.68	13.79	V
	810	1909.8	21.63	15.26	V

WCDMA Band II				
Plane	Channel	Frequency (MHz)	EIRP(dBm)	Polarization (H/V)
X	9262	1852.4	18.16	H
	9400	1880	18.47	H
	9538	1907.6	17.82	H
	9262	1852.4	11.89	V
	9400	1880	13.61	V
	9538	1907.6	13.53	V

LTE Band II_1.4M					
Plane	Channel	Frequency (MHz)	EIRP(dBm)		Polarization (H/V)
			QPSK	16QAM	
X	18607	1850.7	22.29	22.42	H
	18900	1880	22.83	23.46	H
	19193	1909.3	22.81	21.87	H
	18607	1850.7	16.07	15.82	V
	18900	1880	15.42	14.44	V
	19193	1909.3	11.88	10.30	V

LTE Band II_3M					
Plane	Channel	Frequency (MHz)	EIRP(dBm)		Polarization (H/V)
			QPSK	16QAM	
X	18615	1851.5	25.11	25.61	H
	18900	1880	25.42	21.33	H
	19185	1908.5	26.43	26.07	H
	18615	1851.5	19.12	17.83	V
	18900	1880	17.29	26.26	V
	19185	1908.5	13.84	14.68	V

LTE Band II_5M					
Plane	Channel	Frequency (MHz)	EIRP(dBm)		Polarization (H/V)
			QPSK	16QAM	
X	18625	1852.5	25.23	25.76	H
	18900	1880	25.29	26.19	H
	19175	1907.5	26.19	24.99	H
	18625	1852.5	18.27	18.32	V
	18900	1880	21.66	20.53	V
	19175	1907.5	20.53	21.39	V

LTE Band II_10M					
Plane	Channel	Frequency (MHz)	EIRP(dBm)		Polarization (H/V)
			QPSK	16QAM	
X	18650	1855	27.89	28.26	H
	18900	1880	28.07	27.99	H
	19150	1905	27.31	27.42	H
	18650	1855	21.53	22.02	V
	18900	1880	22.64	22.50	V
	19150	1905	24.14	24.32	V

LTE Band II_15M					
Plane	Channel	Frequency (MHz)	EIRP(dBm)		Polarization (H/V)
			QPSK	16QAM	
X	18675	1857.5	27.66	27.97	H
	18900	1880	28.30	27.94	H
	19125	1902.5	27.95	23.42	H
	18675	1857.5	21.31	21.87	V
	18900	1880	22.72	22.25	V
	19125	1902.5	23.67	27.88	V

LTE Band II_20M					
Plane	Channel	Frequency (MHz)	EIRP(dBm)		Polarization (H/V)
			QPSK	16QAM	
X	18700	1860	28.70	28.73	H
	18900	1880	29.10	28.95	H
	19100	1900	28.60	28.48	H
	18700	1860	22.06	21.81	V
	18900	1880	23.18	22.84	V
	19100	1900	25.60	25.49	V

ATTACHMENT B - OCCUPIED BANDWIDTH

DCS1900					
GSM			EDGE		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
512	1850.2	0.243	512	1850.2	0.245
661	1880	0.246	661	1880	0.246
810	1909.8	0.248	810	1909.8	0.242
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
512	1850.2	0.317	512	1850.2	0.307
661	1880	0.319	661	1880	0.309
810	1909.8	0.312	810	1909.8	0.303

Spectrum Plot

GSM -512



GSM-661



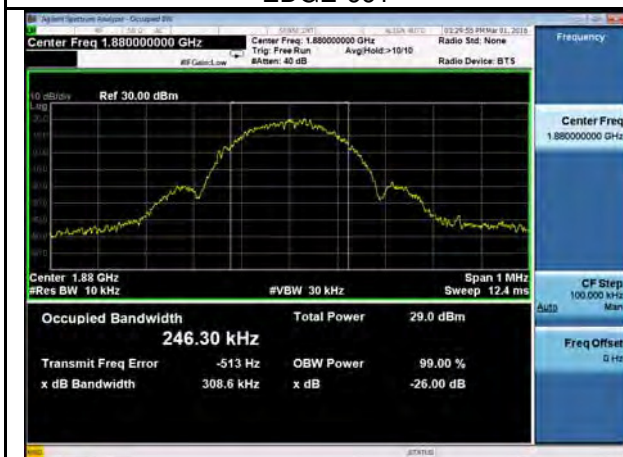
GSM-810



EDGE-512



EDGE-661



EDGE-810



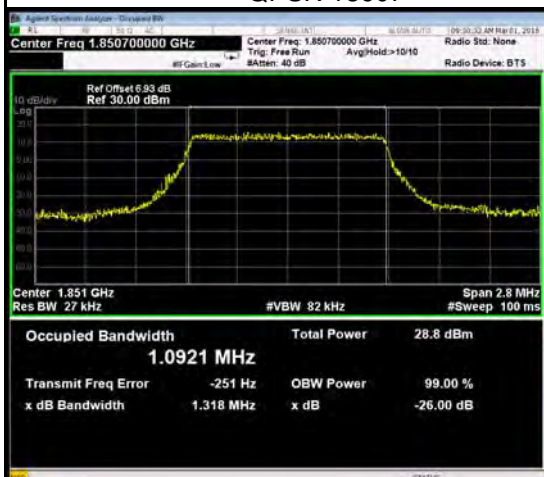
WCDMA Band II					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
9262	1852.4	4.160	9262	1852.4	4.735
9400	1880	4.179	9400	1880	4.743
9538	1907.6	4.162	9538	1907.6	4.736



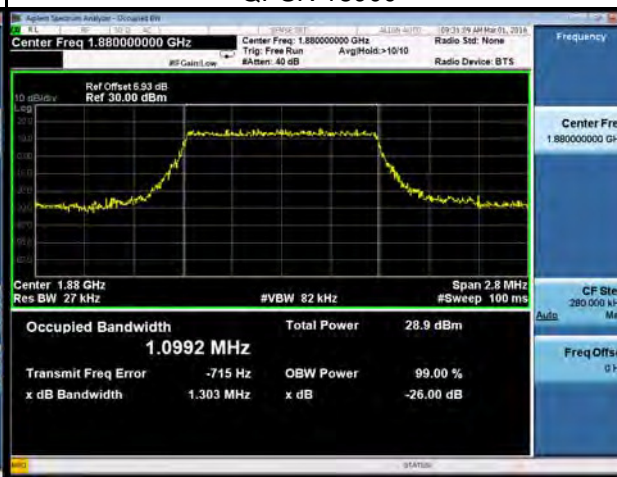
LTE Band II_1.4M					
QPSK			16QAM		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
18607	1850.7	1.092	18607	1850.7	1.092
18900	1880	1.099	18900	1880	1.090
19193	1909.3	1.089	19193	1909.3	1.093
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.318	18607	1850.7	1.291
18900	1880	1.303	18900	1880	1.296
19193	1909.3	1.302	19193	1909.3	1.300

Spectrum Plot

QPSK-18607



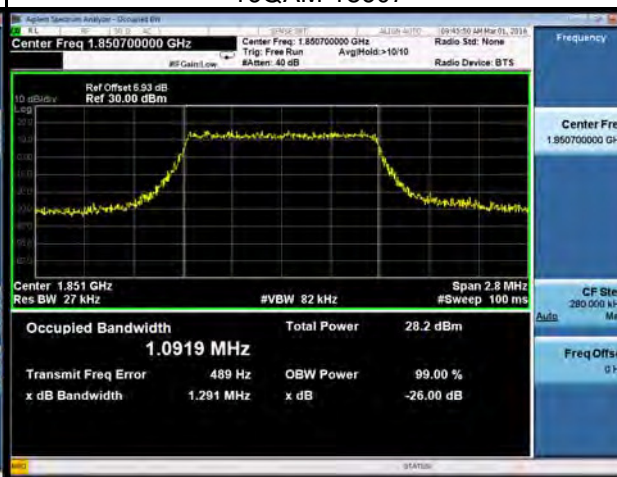
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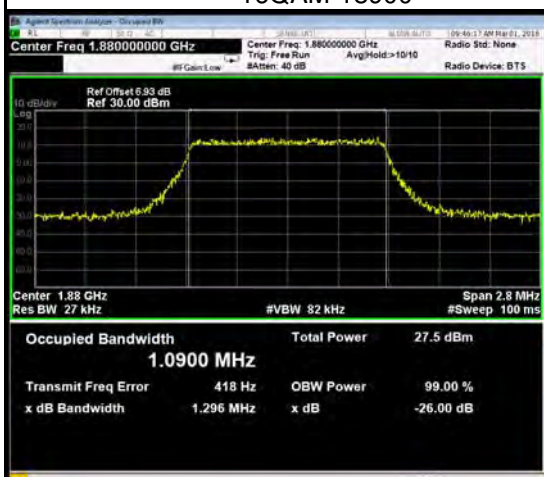
QPSK-19193



16QAM-18607



16QAM-18900



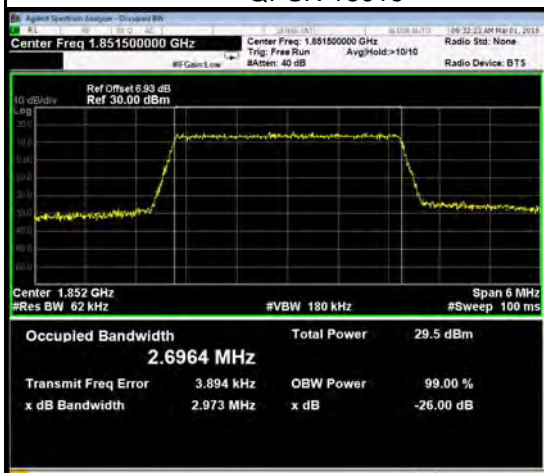
16QAM-19193



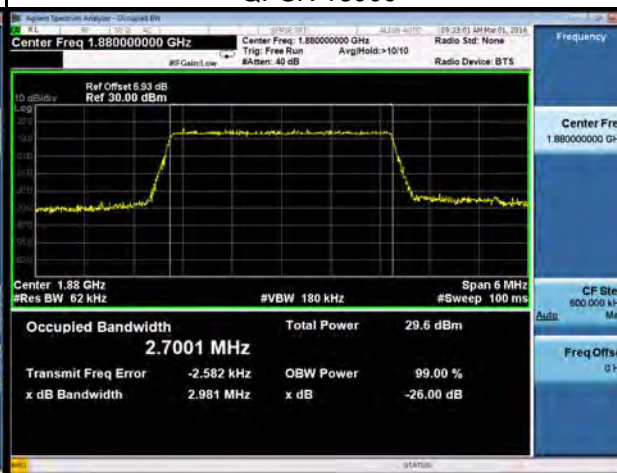
LTE Band II_3M					
QPSK			16QAM		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
18615	1851.5	2.696	18615	1851.5	2.697
18900	1880	2.700	18900	1880	2.701
19185	1908.5	2.704	19185	1908.5	2.698
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.973	18615	1851.5	2.968
18900	1880	2.981	18900	1880	3.000
19185	1908.5	2.987	19185	1908.5	2.984

Spectrum Plot

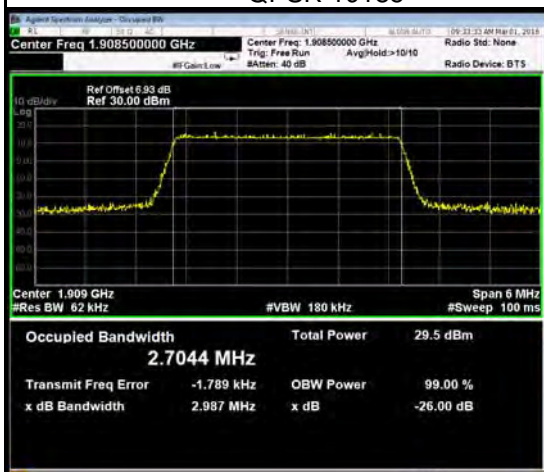
QPSK-18615



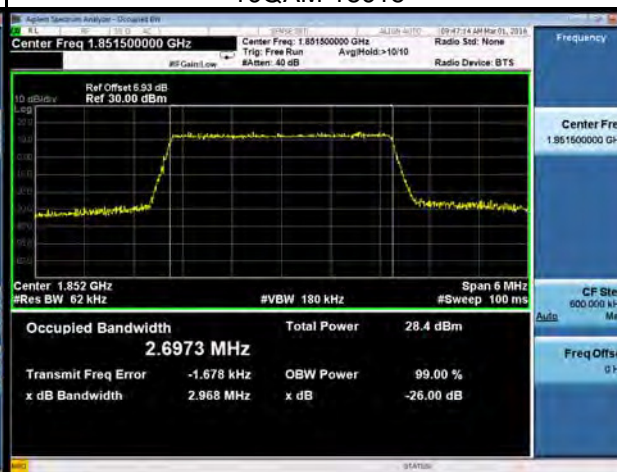
QPSK-18900



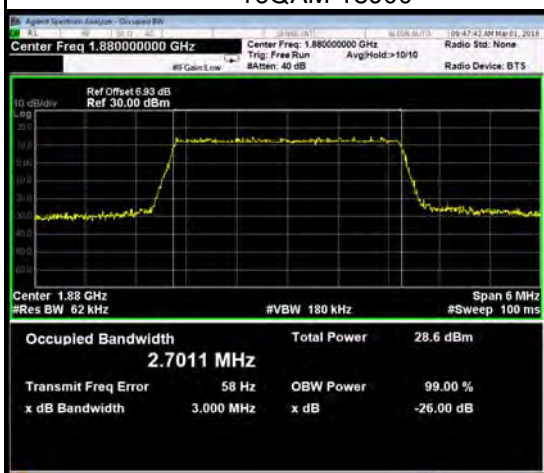
QPSK-19185



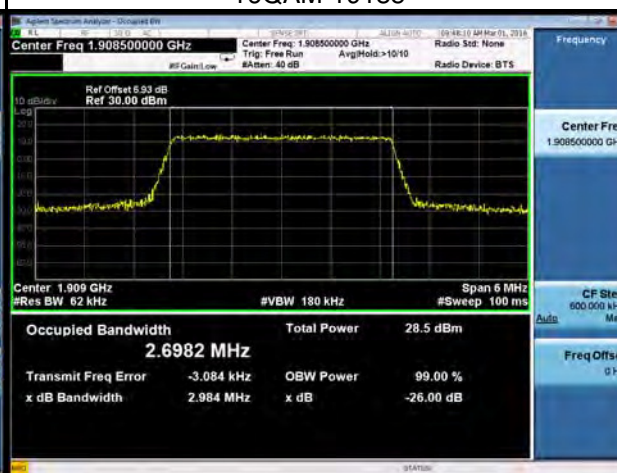
16QAM-18615



16QAM-18900



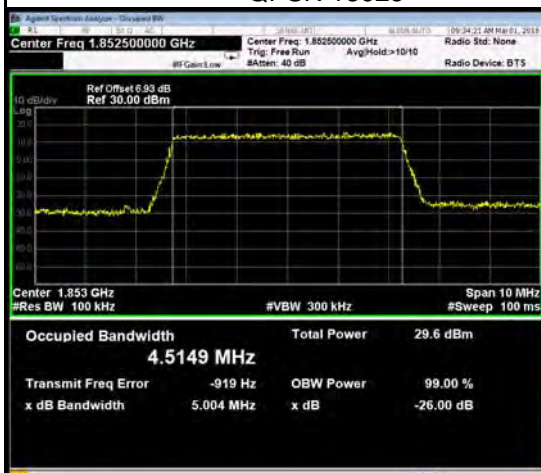
16QAM-19185



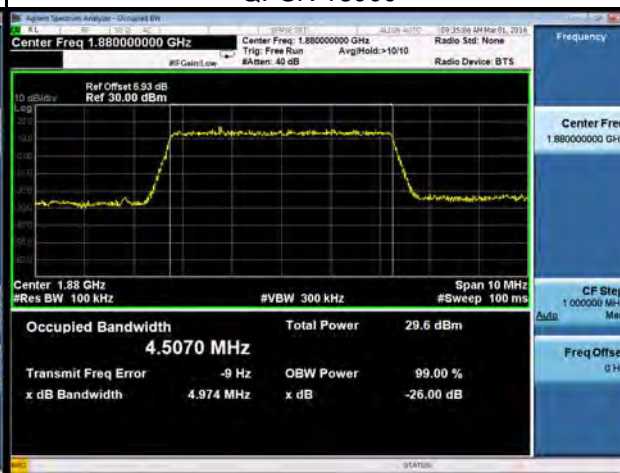
LTE Band II_5M					
QPSK			16QAM		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
18625	1852.5	4.515	18625	1852.5	4.499
18900	1880	4.507	18900	1880	4.505
19175	1907.5	4.516	19175	1907.5	4.508
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	5.004	18625	1852.5	5.012
18900	1880	4.974	18900	1880	4.974
19175	1907.5	4.986	19175	1907.5	4.954

Spectrum Plot

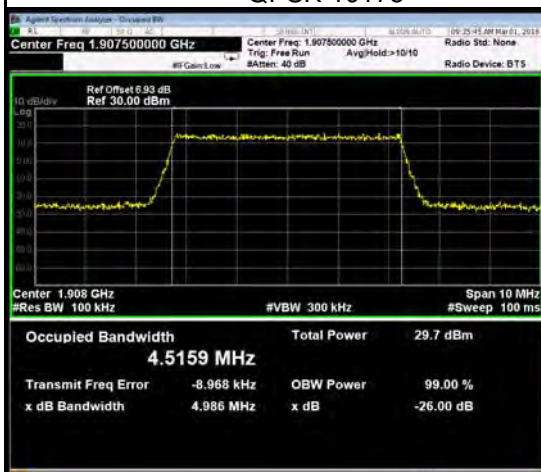
QPSK-18625



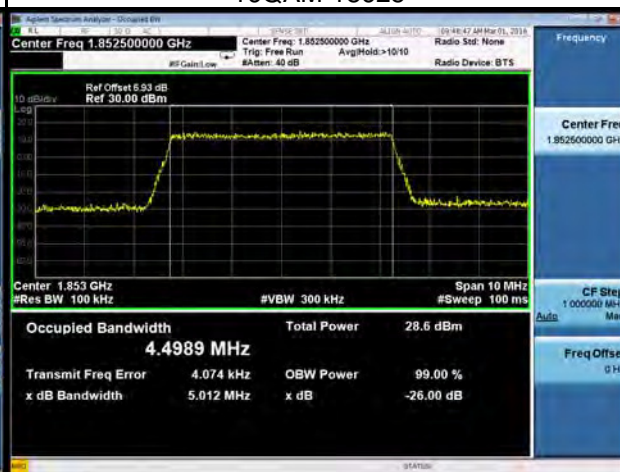
QPSK-18900



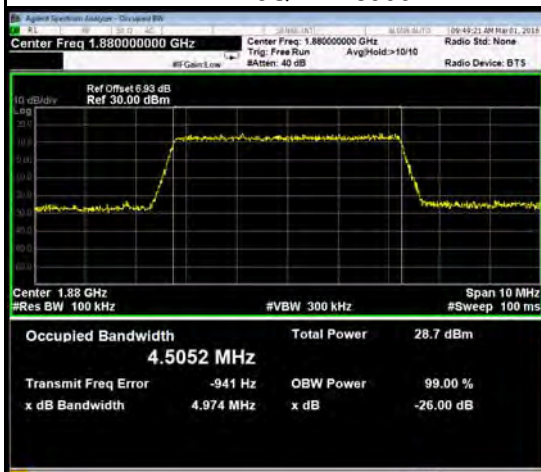
QPSK-19175



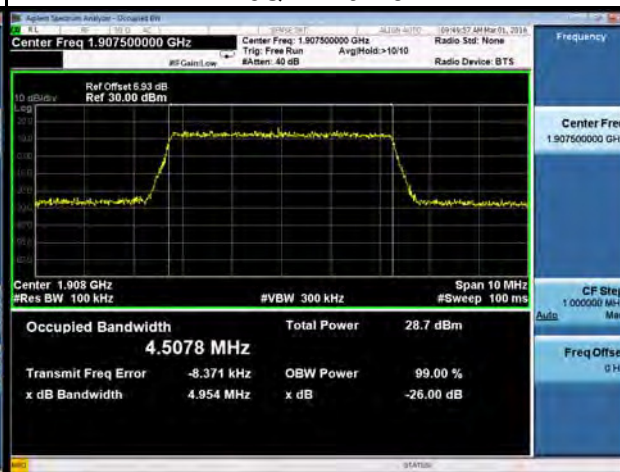
16QAM-18625



16QAM-18900



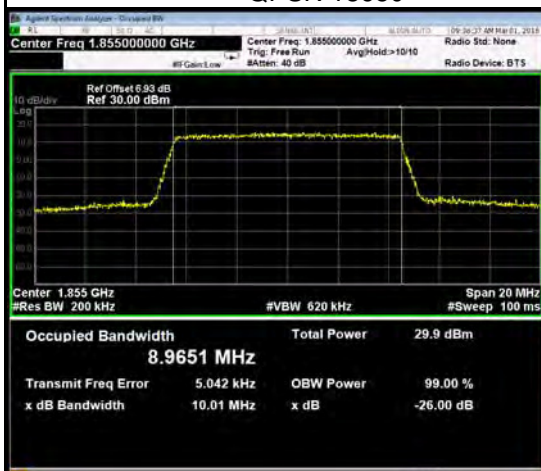
16QAM-19175



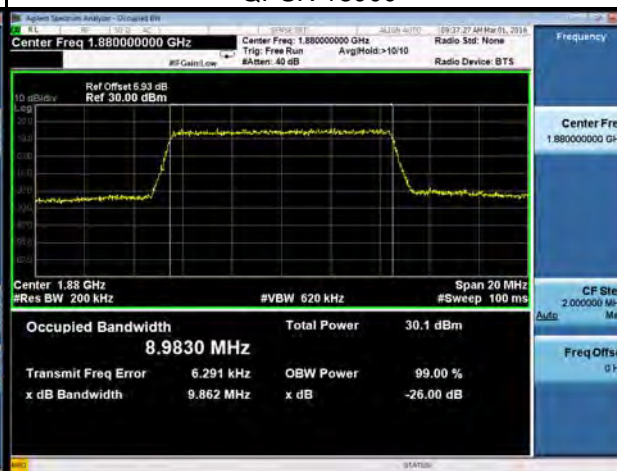
LTE Band II_10M					
QPSK			16QAM		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
18650	1855	8.965	18650	1855	8.944
18900	1880	8.983	18900	1880	8.960
19150	1905	8.987	19150	1905	8.988
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	10.010	18650	1855	9.867
18900	1880	9.862	18900	1880	9.900
19150	1905	9.869	19150	1905	9.723

Spectrum Plot

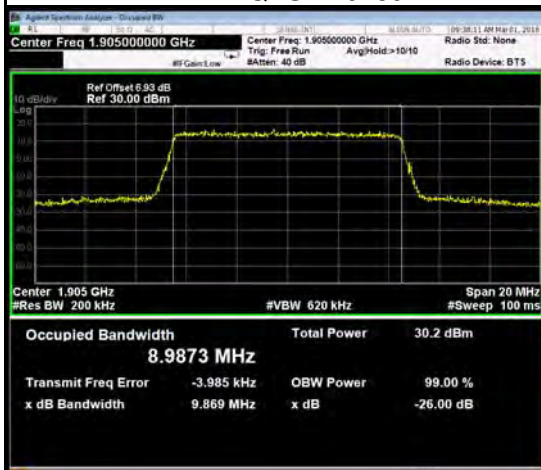
QPSK-18650



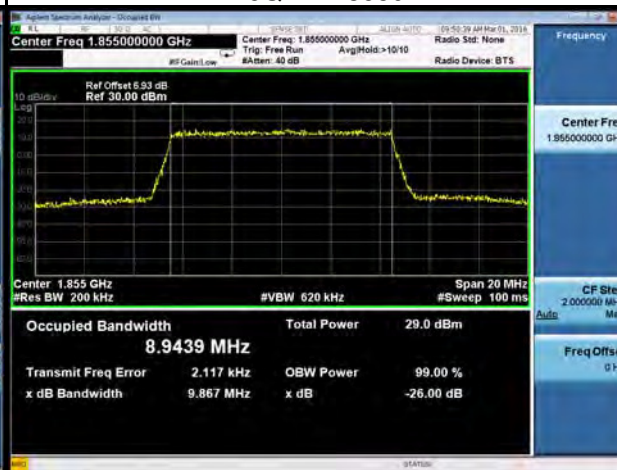
QPSK-18900



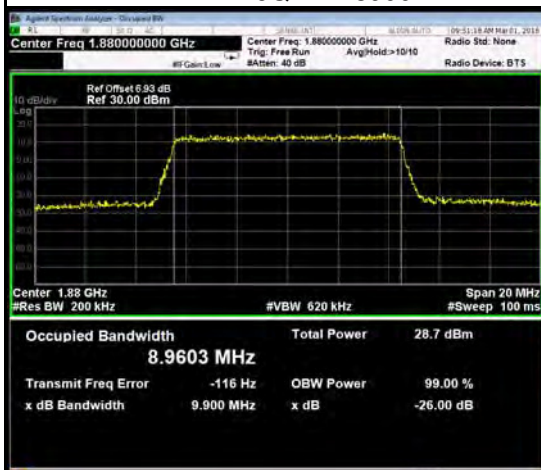
QPSK-19150



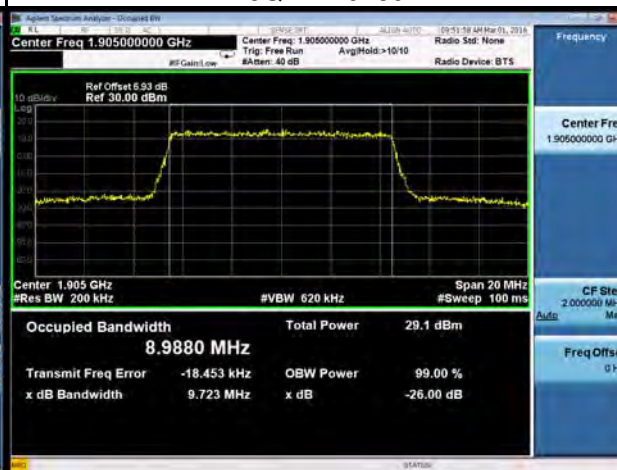
16QAM-18650



16QAM-18900



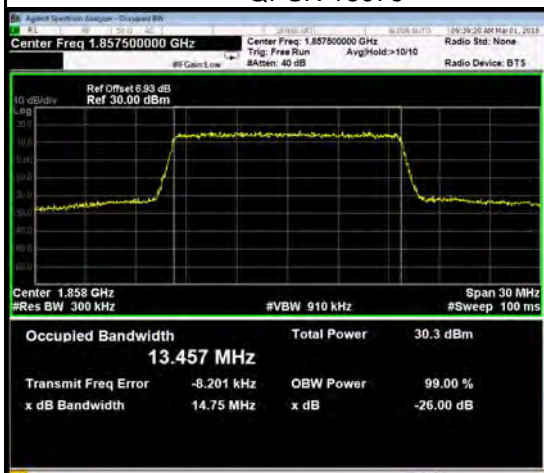
16QAM-19150



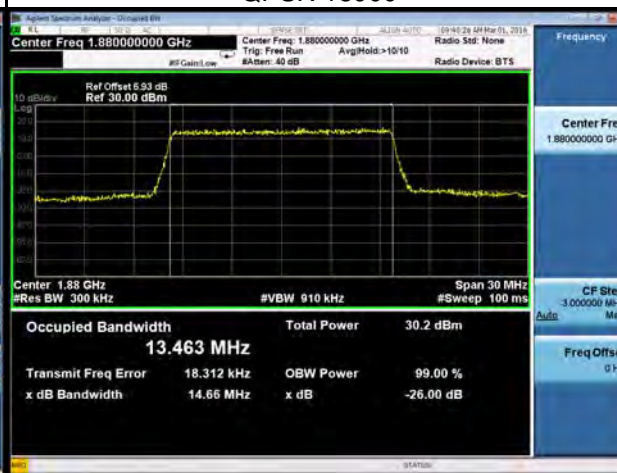
LTE Band II_15M					
QPSK			16QAM		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
18675	1857.5	13.457	18675	1857.5	13.410
18900	1880	13.463	18900	1880	13.475
19125	1902.5	13.437	19125	1902.5	13.428
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	14.750	18675	1857.5	14.680
18900	1880	14.660	18900	1880	14.750
19125	1902.5	14.760	19125	1902.5	14.710

Spectrum Plot

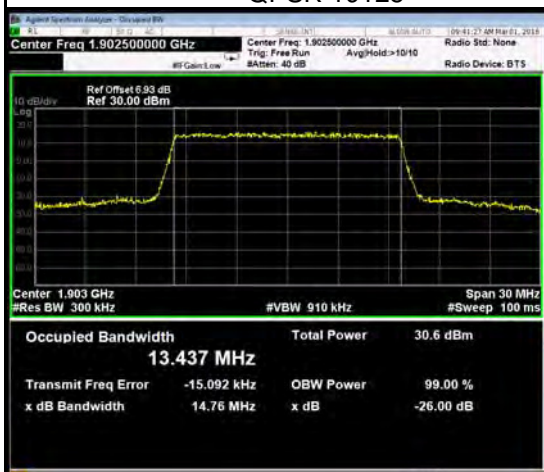
QPSK-18675



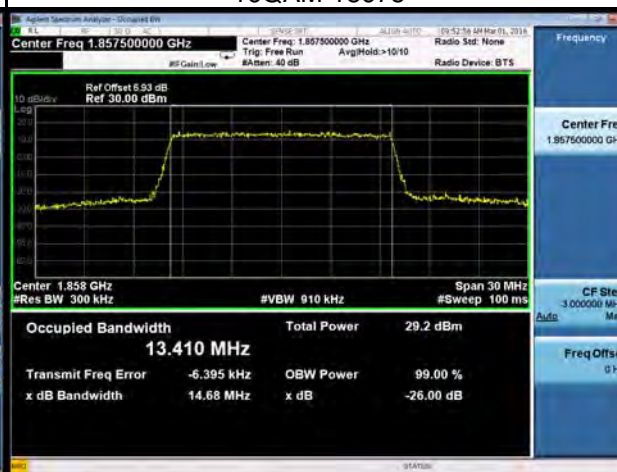
QPSK-18900



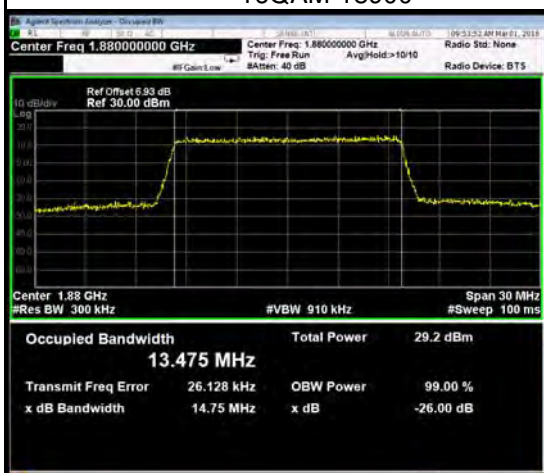
QPSK-19125



16QAM-18675



16QAM-18900



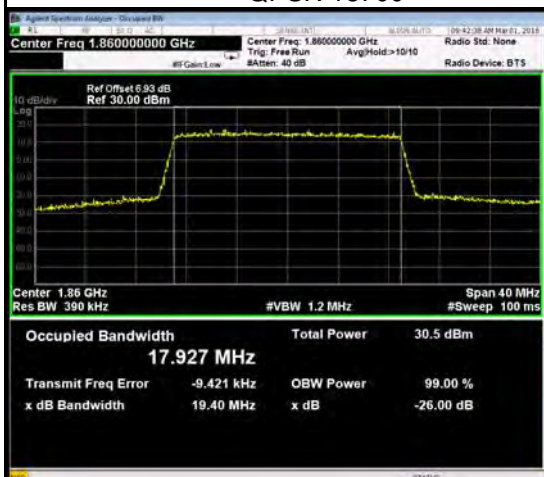
16QAM-19125



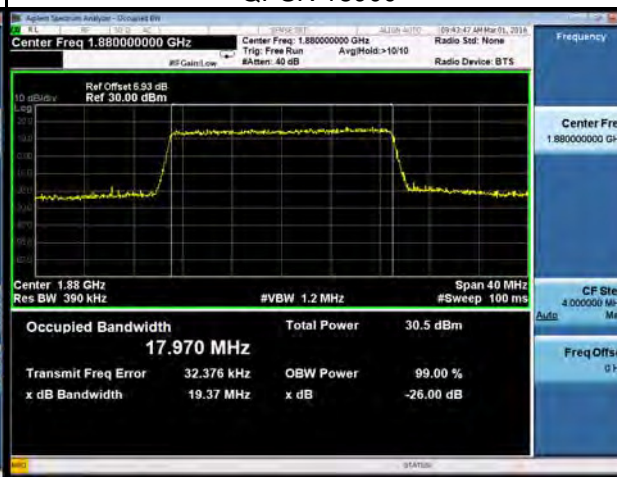
LTE Band II_20M					
QPSK			16QAM		
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
18700	1860	17.918	18700	1860	17.884
18900	1880	17.970	18900	1880	17.938
19100	1900	17.892	19100	1900	17.906
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	19.400	18700	1860	19.390
18900	1880	19.370	18900	1880	19.510
19100	1900	19.350	19100	1900	19.570

Spectrum Plot

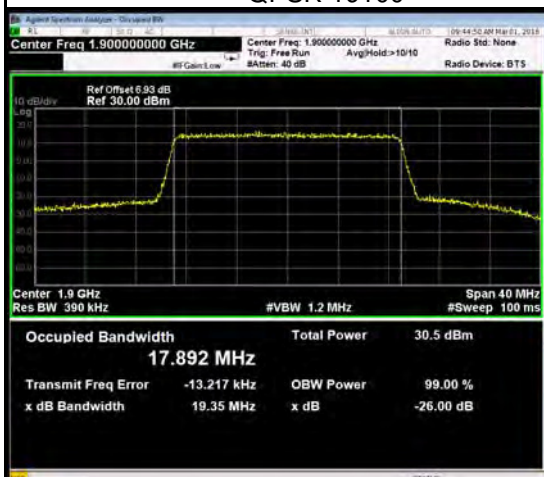
QPSK-18700



QPSK-18900



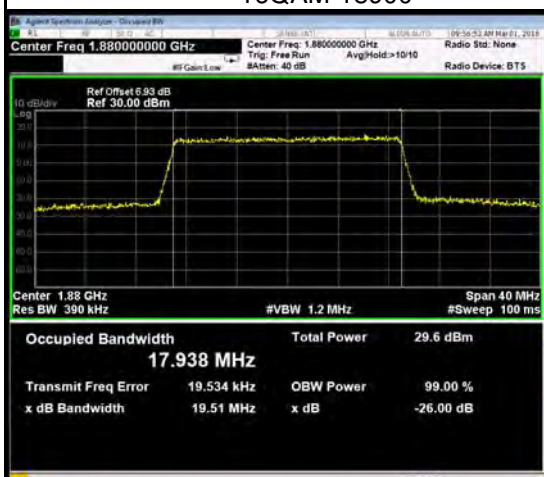
QPSK-19100



16QAM-18700



16QAM-18900



16QAM-19100



ATTACHMENT C – CONDUCTED EMISSIONS

DCS1900			
GSM		GSM	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
661	1880	661	1880
GSM		EDGE	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
661	1880	661	1880
EDGE		EDGE	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
661	1880	661	1880

WCDMA Band II			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
9400	1880	9400	1880
Channel	Frequency(MHz)	-	-
9400	1880	-	-

LTE Band II_1.4M			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
Channel	Frequency(MHz)	-	-
18900	1880	-	-

LTE Band II_3M			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
Channel	Frequency(MHz)	-	-
18900	1880	-	-

LTE Band II_5M			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
Channel	Frequency(MHz)	-	-
18900	1880	-	-

LTE Band II_10M			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
Date: 16.MAR.2016 14:12:12		Date: 16.MAR.2016 14:09:05	
Channel	Frequency(MHz)	-	-
18900	1880	-	-
		-	

LTE Band II_15M			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
Channel	Frequency(MHz)	-	-
18900	1880	-	-

LTE Band II_20M			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
Channel	Frequency(MHz)	-	-
18900	1880	-	-

ATTACHMENT D - RADIATED EMISSION

Test Mode:	DCS1900_TX CH661_GSM
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Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0123	0°	13.18	24.79	37.97	125.81	-87.84	AVG
0.0123	0°	14.46	24.79	39.25	145.81	-106.56	PK
0.0258	0°	6.42	23.93	30.35	119.37	-89.02	AVG
0.0258	0°	8.63	23.93	32.56	139.37	-106.81	PK
0.0338	0°	3.77	23.43	27.20	117.03	-89.83	AVG
0.0338	0°	5.24	23.43	28.67	137.03	-108.36	PK
0.0527	0°	1.43	22.35	23.78	113.17	-89.39	AVG
0.0527	0°	2.57	22.35	24.92	133.17	-108.25	PK
0.5016	0°	19.42	19.81	39.23	73.60	-34.37	QP
1.9532	0°	23.19	19.50	42.69	69.54	-26.85	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0119	90°	13.12	24.30	37.42	126.09	-88.67	AVG
0.0119	90°	14.03	24.30	38.33	146.09	-107.76	PK
0.0237	90°	7.24	24.07	31.31	120.11	-88.80	AVG
0.0237	90°	8.34	24.07	32.41	140.11	-107.70	PK
0.0452	90°	5.35	22.70	28.05	114.50	-86.45	AVG
0.0452	90°	6.96	22.70	29.66	134.50	-104.84	PK
0.0561	90°	1.73	22.28	24.01	112.62	-88.62	AVG
0.0561	90°	2.31	22.28	24.59	132.62	-108.04	PK
0.6216	90°	22.06	20.19	42.25	71.73	-29.48	QP
2.0537	90°	24.28	19.47	43.75	69.54	-25.79	QP

Test Mode: DCS1900_TX CH661_EDGE

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0120	0°	13.26	24.81	38.07	126.02	-87.95	AVG
0.0120	0°	14.45	24.81	39.26	146.02	-106.76	PK
0.0238	0°	6.24	24.06	30.30	120.07	-89.77	AVG
0.0238	0°	8.82	24.06	32.88	140.07	-107.19	PK
0.0349	0°	3.87	23.36	27.23	116.75	-89.52	AVG
0.0349	0°	5.66	23.36	29.02	136.75	-107.73	PK
0.0573	0°	1.28	22.25	23.53	112.44	-88.91	AVG
0.0573	0°	2.84	22.25	25.09	132.44	-107.35	PK
0.5062	0°	19.38	19.82	39.20	73.52	-34.32	QP
1.9511	0°	23.96	19.50	43.46	69.54	-26.08	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0123	90°	13.91	24.30	38.21	125.81	-87.60	AVG
0.0123	90°	14.72	24.30	39.02	145.81	-106.79	PK
0.0218	90°	7.62	24.19	31.81	120.84	-89.03	AVG
0.0218	90°	8.19	24.19	32.38	140.84	-108.46	PK
0.0472	90°	5.52	22.58	28.10	114.13	-86.03	AVG
0.0472	90°	6.17	22.58	28.75	134.13	-105.38	PK
0.0533	90°	1.71	22.33	24.04	113.07	-89.03	AVG
0.0533	90°	2.83	22.33	25.16	133.07	-107.91	PK
0.6212	90°	22.53	20.19	42.72	71.74	-29.02	QP
2.0582	90°	24.42	19.47	43.89	69.54	-25.65	QP

Test Mode: WCDMA Band II_TX CH9400

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0114	0°	13.28	24.84	38.12	126.47	-88.34	AVG
0.0114	0°	14.53	24.84	39.37	146.47	-107.09	PK
0.0217	0°	6.51	24.19	30.70	120.88	-90.17	AVG
0.0217	0°	8.44	24.19	32.63	140.88	-108.24	PK
0.0366	0°	3.77	23.25	27.02	116.33	-89.32	AVG
0.0366	0°	5.91	23.25	29.16	136.33	-107.18	PK
0.0511	0°	1.52	22.38	23.90	113.44	-89.54	AVG
0.0511	0°	2.37	22.38	24.75	133.44	-108.69	PK
0.5073	0°	19.73	19.82	39.55	73.50	-33.95	QP
1.9532	0°	23.17	19.50	42.67	69.54	-26.87	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0129	90°	13.38	24.30	37.68	125.39	-87.71	AVG
0.0129	90°	14.53	24.30	38.83	145.39	-106.56	PK
0.0236	90°	7.56	24.07	31.63	120.15	-88.51	AVG
0.0236	90°	8.27	24.07	32.34	140.15	-107.80	PK
0.0432	90°	5.19	22.83	28.02	114.89	-86.87	AVG
0.0432	90°	6.23	22.83	29.06	134.89	-105.83	PK
0.0513	90°	1.46	22.37	23.83	113.40	-89.57	AVG
0.0513	90°	2.23	22.37	24.60	133.40	-108.80	PK
0.6204	90°	22.68	20.19	42.87	71.75	-28.89	QP
2.0535	90°	24.38	19.47	43.85	69.54	-25.69	QP

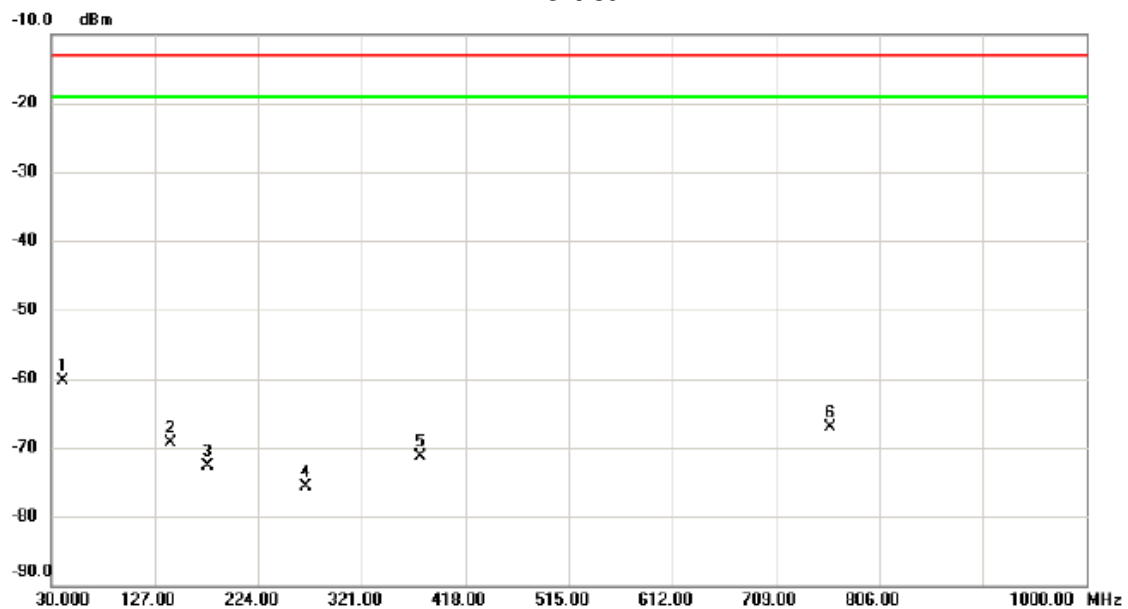
Test Mode: LTE Band II_TX CH18900

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0126	0°	13.20	24.77	37.97	125.60	-87.63	AVG
0.0126	0°	14.86	24.77	39.63	145.60	-105.97	PK
0.0221	0°	6.29	24.17	30.46	120.72	-90.26	AVG
0.0221	0°	8.30	24.17	32.47	140.72	-108.25	PK
0.0343	0°	3.47	23.39	26.86	116.90	-90.03	AVG
0.0343	0°	5.50	23.39	28.89	136.90	-108.00	PK
0.0548	0°	1.80	22.30	24.10	112.83	-88.72	AVG
0.0548	0°	2.96	22.30	25.26	132.83	-107.56	PK
0.5056	0°	19.34	19.82	39.16	73.53	-34.37	QP
1.9538	0°	23.51	19.50	43.01	69.54	-26.53	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0128	90°	13.12	24.30	37.42	125.46	-88.04	AVG
0.0128	90°	14.63	24.30	38.93	145.46	-106.53	PK
0.0259	90°	7.20	23.93	31.13	119.34	-88.21	AVG
0.0259	90°	8.35	23.93	32.28	139.34	-107.06	PK
0.0445	90°	5.42	22.75	28.17	114.64	-86.47	AVG
0.0445	90°	6.36	22.75	29.11	134.64	-105.53	PK
0.0536	90°	1.48	22.33	23.81	113.02	-89.21	AVG
0.0536	90°	2.42	22.33	24.75	133.02	-108.27	PK
0.6242	90°	22.38	20.20	42.58	71.70	-29.12	QP
2.0563	90°	24.47	19.47	43.94	69.54	-25.60	QP

Test Mode: DCS1900_TX CH661_GSM

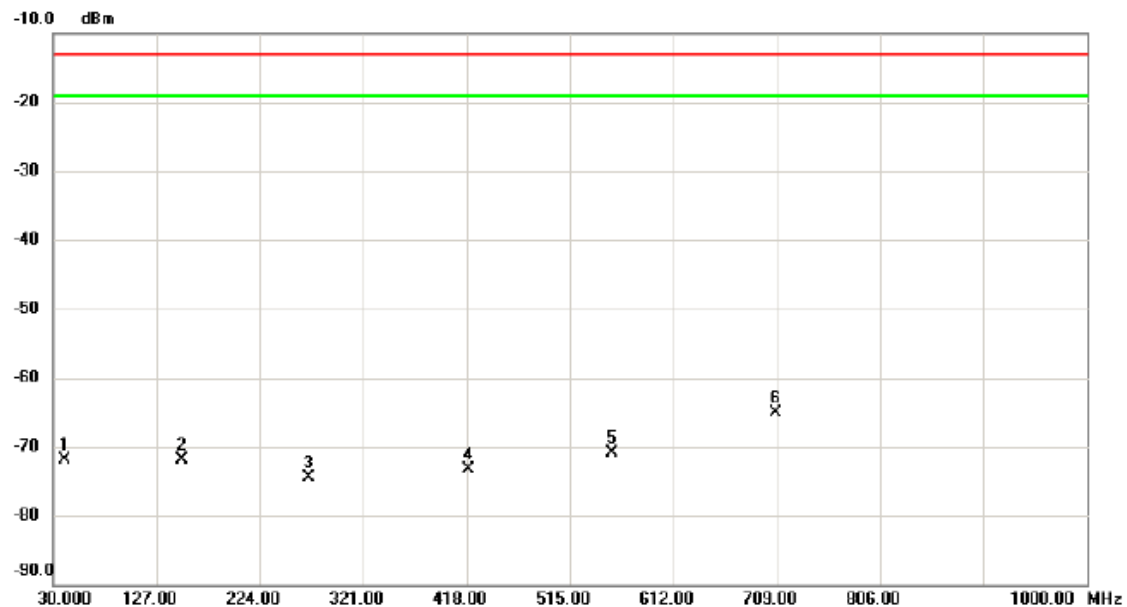
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	40.6700	-62.33	2.10	-60.23	-13.00	-47.23	peak	
2		141.5500	-71.52	2.31	-69.21	-13.00	-56.21	peak	
3		176.4700	-73.12	0.46	-72.66	-13.00	-59.66	peak	
4		268.6200	-77.71	1.99	-75.72	-13.00	-62.72	peak	
5		375.3200	-74.86	3.59	-71.27	-13.00	-58.27	peak	
6		760.4100	-79.46	12.36	-67.10	-13.00	-54.10	peak	

Test Mode: DCS1900_TX CH661_GSM

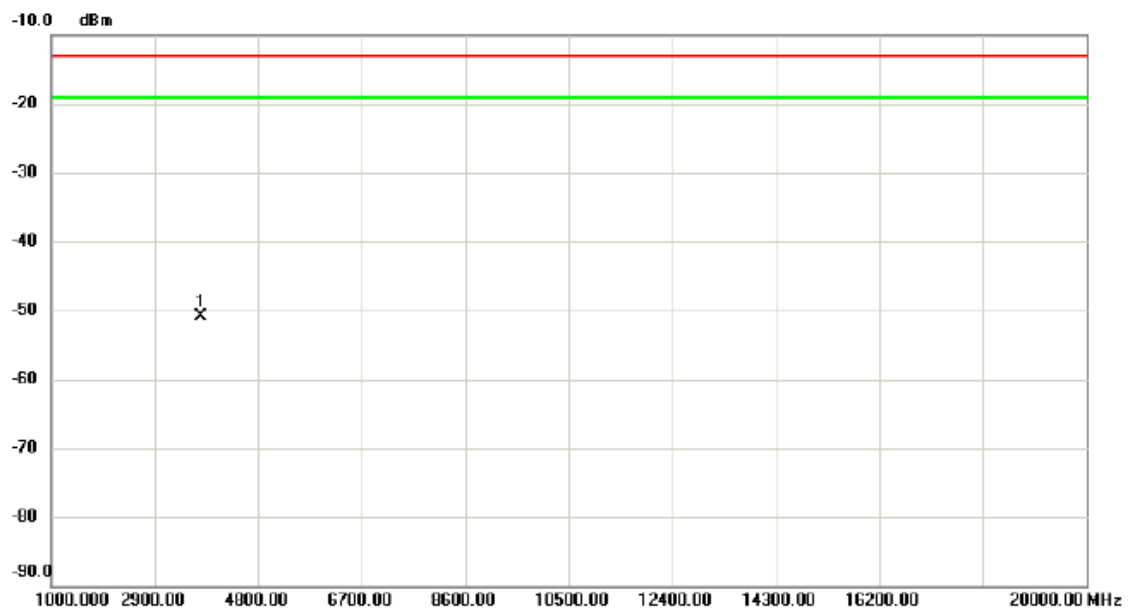
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		40.6700	-74.16	2.21	-71.95	-13.00	-58.95	peak	
2		150.2800	-76.06	4.20	-71.86	-13.00	-58.86	peak	
3		269.5900	-77.56	2.98	-74.58	-13.00	-61.58	peak	
4		419.9400	-80.18	6.88	-73.30	-13.00	-60.30	peak	
5		554.7700	-79.03	8.20	-70.83	-13.00	-57.83	peak	
6	*	708.0300	-78.92	13.79	-65.13	-13.00	-52.13	peak	

Test Mode: DCS1900_TX CH661_GSM

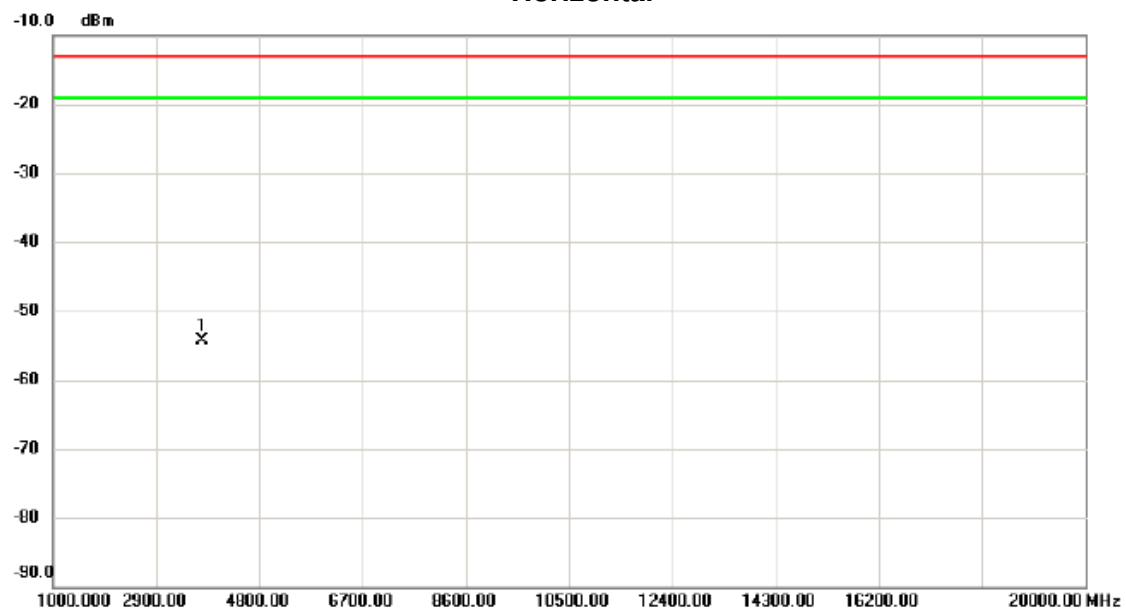
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3760.000	-65.36	14.51	-50.85	-13.00	-37.85	peak	

Test Mode: DCS1900_TX CH661_GSM

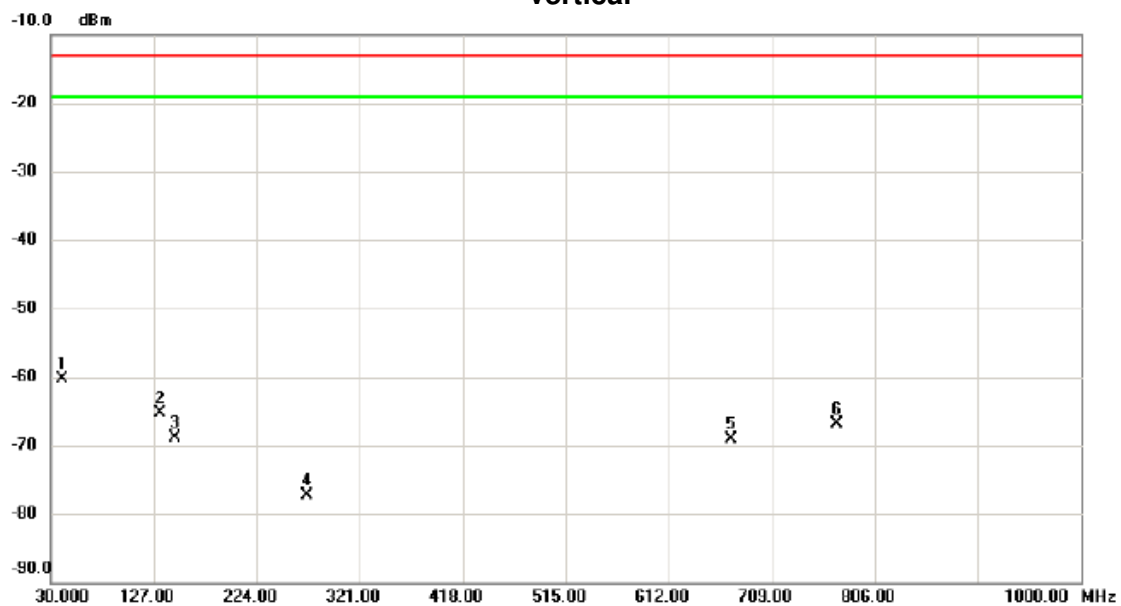
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3760.000	-65.66	11.34	-54.32	-13.00	-41.32	peak	

Test Mode: DCS1900_TX CH661_EDGE

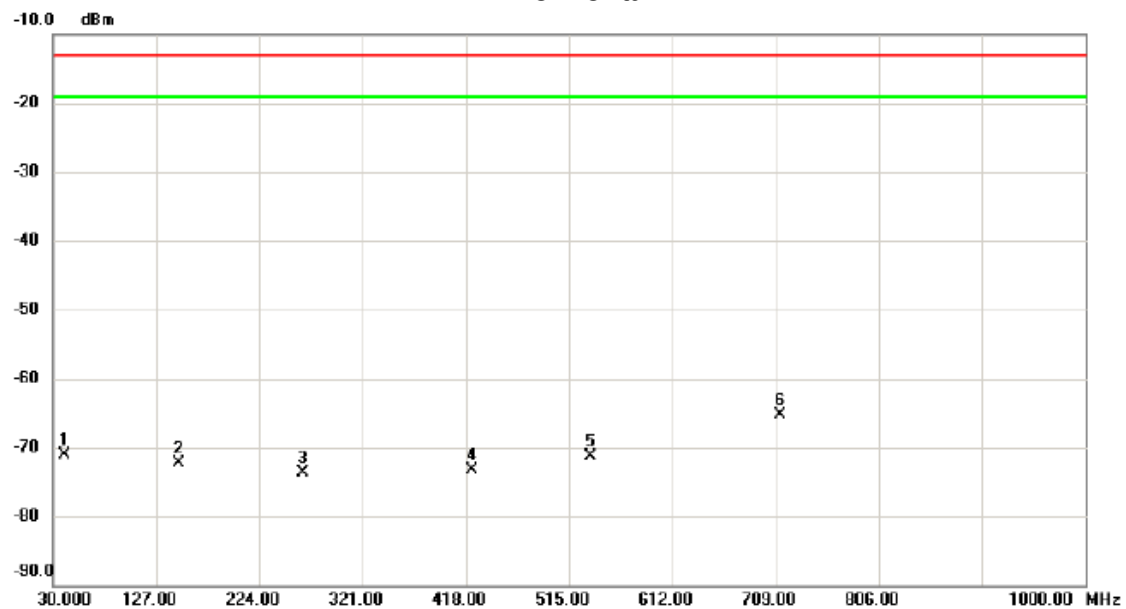
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	40.6700	-62.38	2.10	-60.28	-13.00	-47.28	peak	
2		132.8200	-65.36	0.16	-65.20	-13.00	-52.20	peak	
3		146.4000	-71.69	2.79	-68.90	-13.00	-55.90	peak	
4		270.5600	-79.56	2.22	-77.34	-13.00	-64.34	peak	
5		670.2000	-79.29	10.27	-69.02	-13.00	-56.02	peak	
6		770.1100	-79.13	12.24	-66.89	-13.00	-53.89	peak	

Test Mode: DCS1900_TX CH661_EDGE

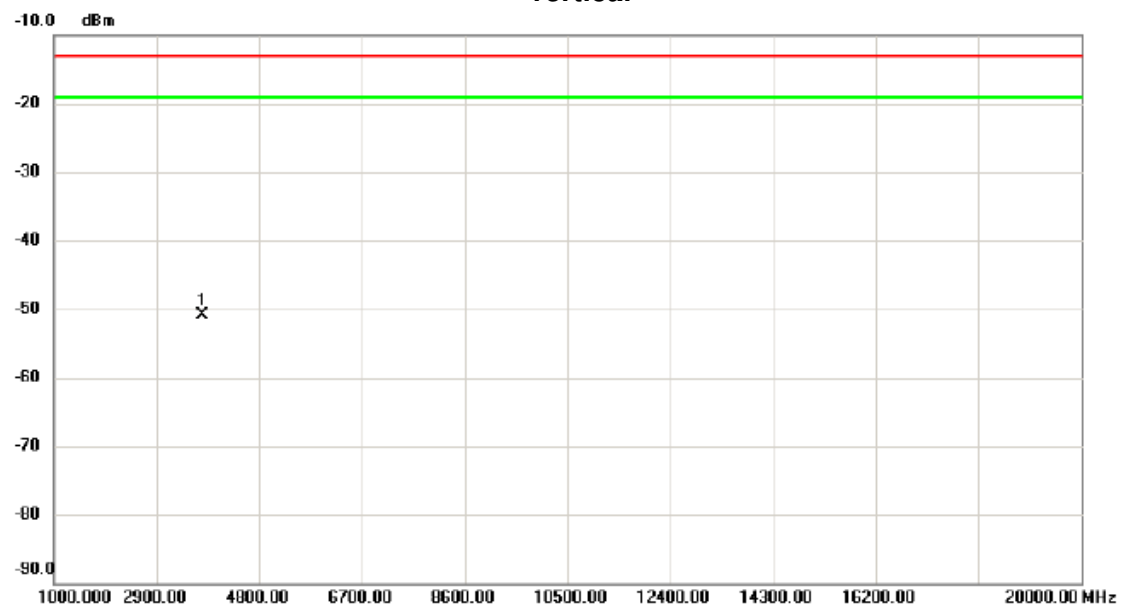
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		40.6700	-73.28	2.21	-71.07	-13.00	-58.07	peak	
2		148.3400	-76.26	4.06	-72.20	-13.00	-59.20	peak	
3		264.7400	-76.06	2.45	-73.61	-13.00	-60.61	peak	
4		423.8200	-79.80	6.45	-73.35	-13.00	-60.35	peak	
5		534.4000	-79.35	8.09	-71.26	-13.00	-58.26	peak	
6	*	713.8500	-78.89	13.64	-65.25	-13.00	-52.25	peak	

Test Mode: DCS1900_TX CH661_EDGE

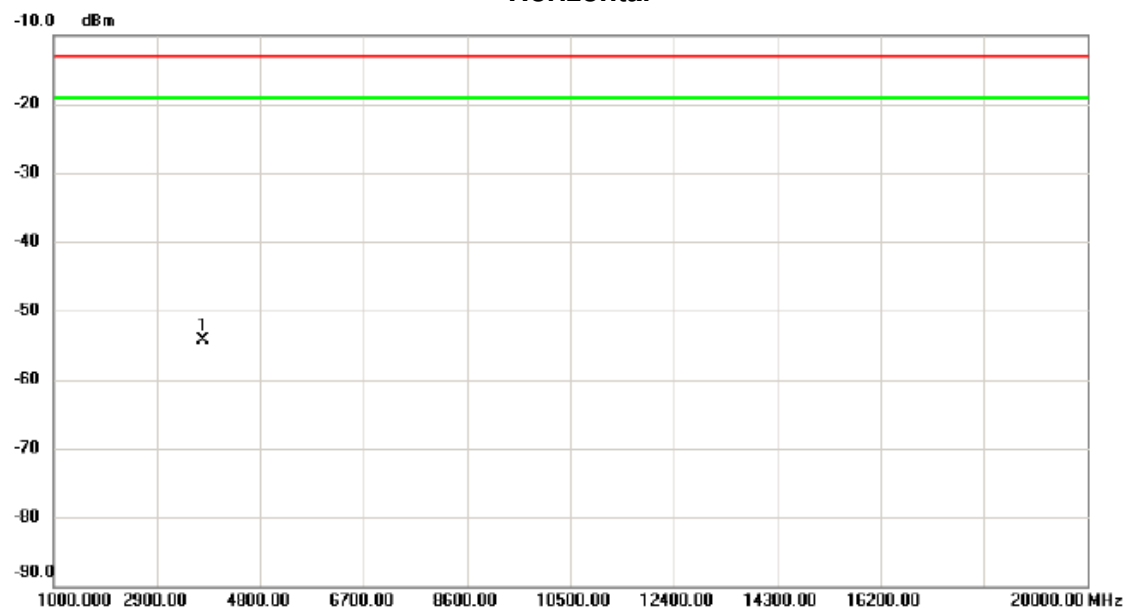
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3760.000	-65.34	14.51	-50.83	-13.00	-37.83	peak	

Test Mode: DCS1900_TX CH661_EDGE

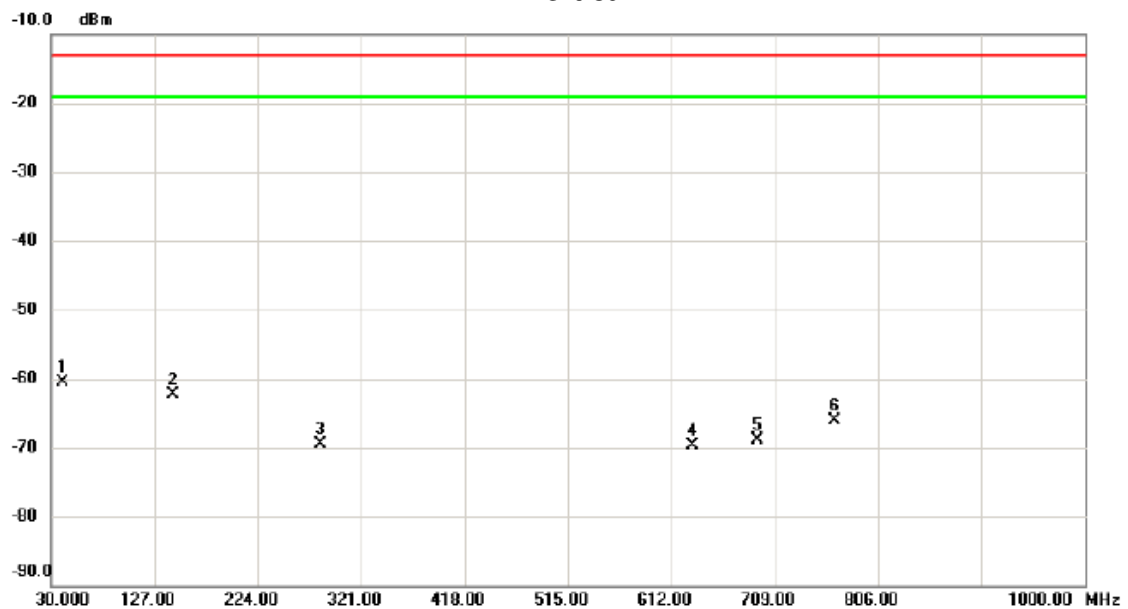
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3760.000	-65.60	11.34	-54.26	-13.00	-41.26	peak	

Test Mode: WCDMA Band II_TX CH9400

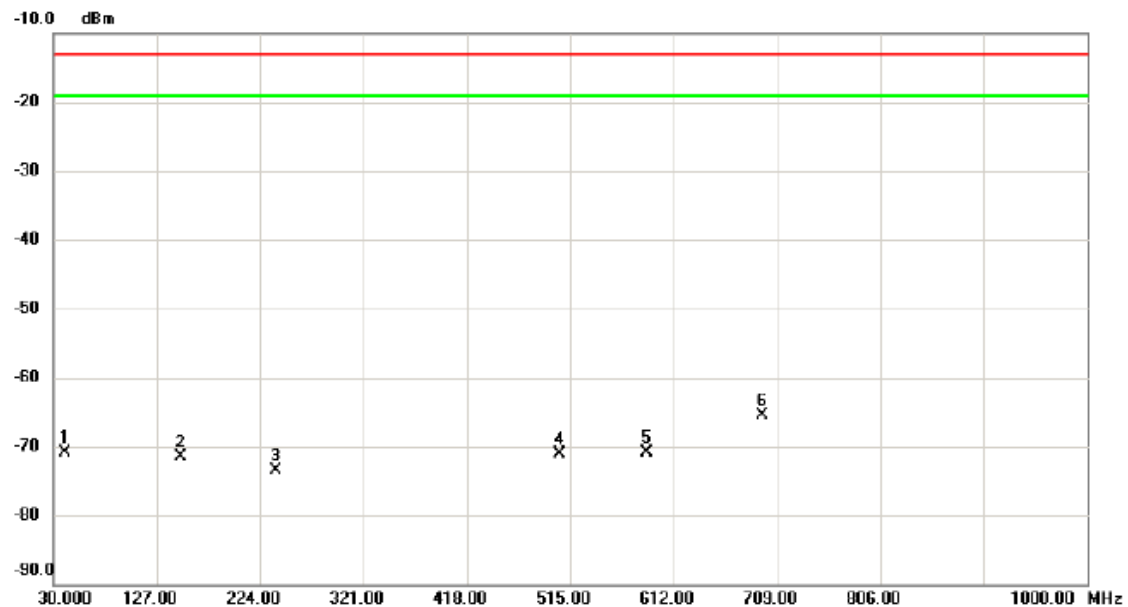
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	40.6700	-62.60	2.10	-60.50	-13.00	-47.50	peak	
2		144.4600	-64.84	2.60	-62.24	-13.00	-49.24	peak	
3		282.2000	-71.97	2.56	-69.41	-13.00	-56.41	peak	
4		631.4000	-79.39	9.59	-69.80	-13.00	-56.80	peak	
5		692.5100	-79.28	10.43	-68.85	-13.00	-55.85	peak	
6		765.2600	-78.31	12.30	-66.01	-13.00	-53.01	peak	

Test Mode: WCDMA Band II_TX CH9400

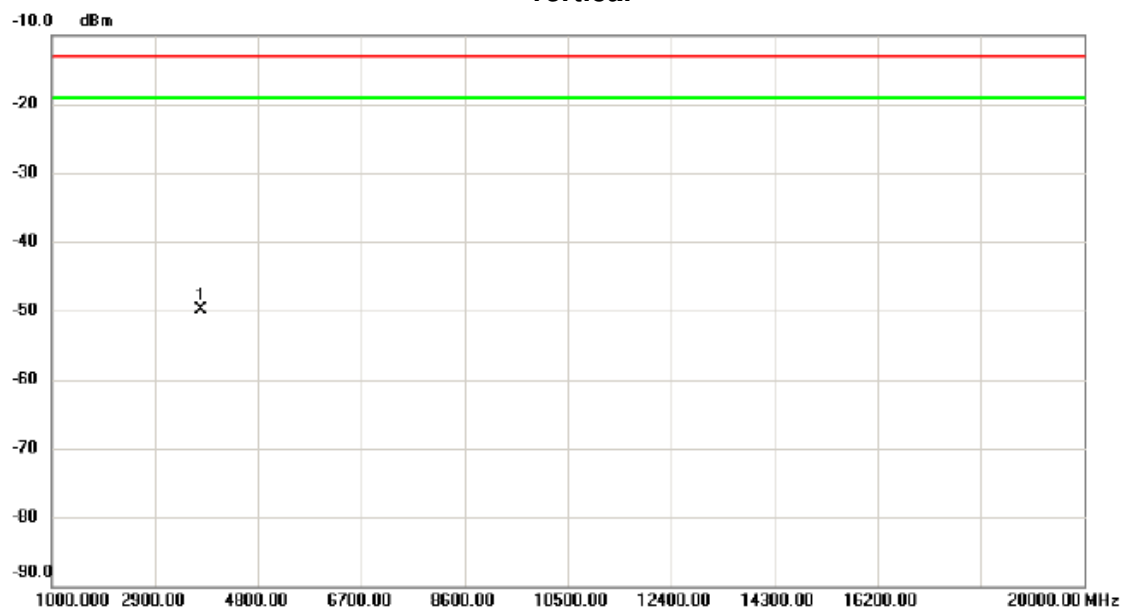
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		40.6700	-73.15	2.21	-70.94	-13.00	-57.94	peak	
2		149.3100	-75.56	4.16	-71.40	-13.00	-58.40	peak	
3		238.5500	-76.06	2.52	-73.54	-13.00	-60.54	peak	
4		505.3000	-79.15	8.06	-71.09	-13.00	-58.09	peak	
5		586.7800	-79.75	8.86	-70.89	-13.00	-57.89	peak	
6	*	695.4200	-79.18	13.67	-65.51	-13.00	-52.51	peak	

Test Mode: WCDMA Band II_TX CH9262

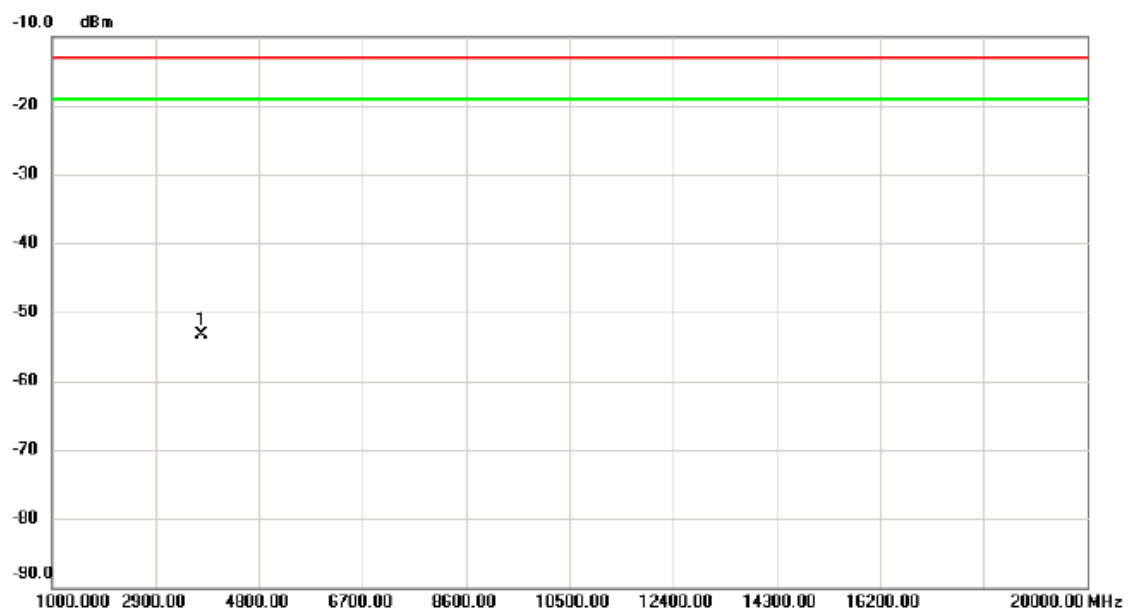
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3760.000	-64.38	14.51	-49.87	-13.00	-36.87	peak	

Test Mode: WCDMA Band II_TX CH9262

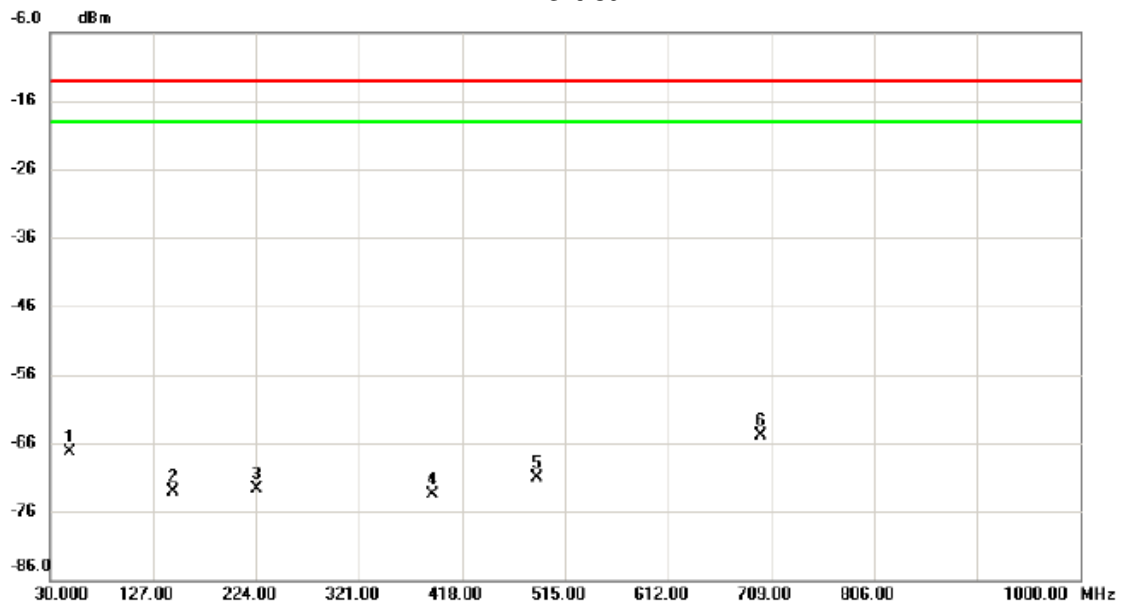
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3760.000	-64.72	11.34	-53.38	-13.00	-40.38	peak	

Test Mode: LTE Band II_TX CH18900_1.4M

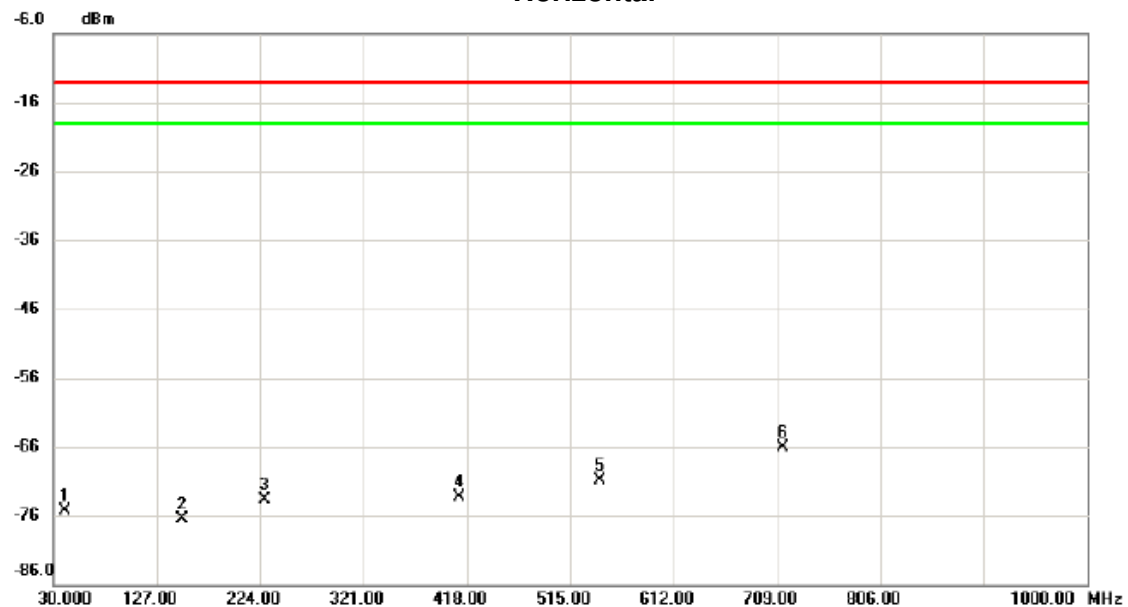
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		48.4300	-69.12	1.83	-67.29	-13.00	-54.29	peak	
2		145.4300	-76.82	3.73	-73.09	-13.00	-60.09	peak	
3		224.0000	-74.29	1.62	-72.67	-13.00	-59.67	peak	
4		389.8700	-79.45	5.99	-73.46	-13.00	-60.46	peak	
5		488.8100	-78.27	7.25	-71.02	-13.00	-58.02	peak	
6	*	699.3000	-78.85	13.93	-64.92	-13.00	-51.92	peak	

Test Mode: LTE Band II_TX CH18900_1.4M

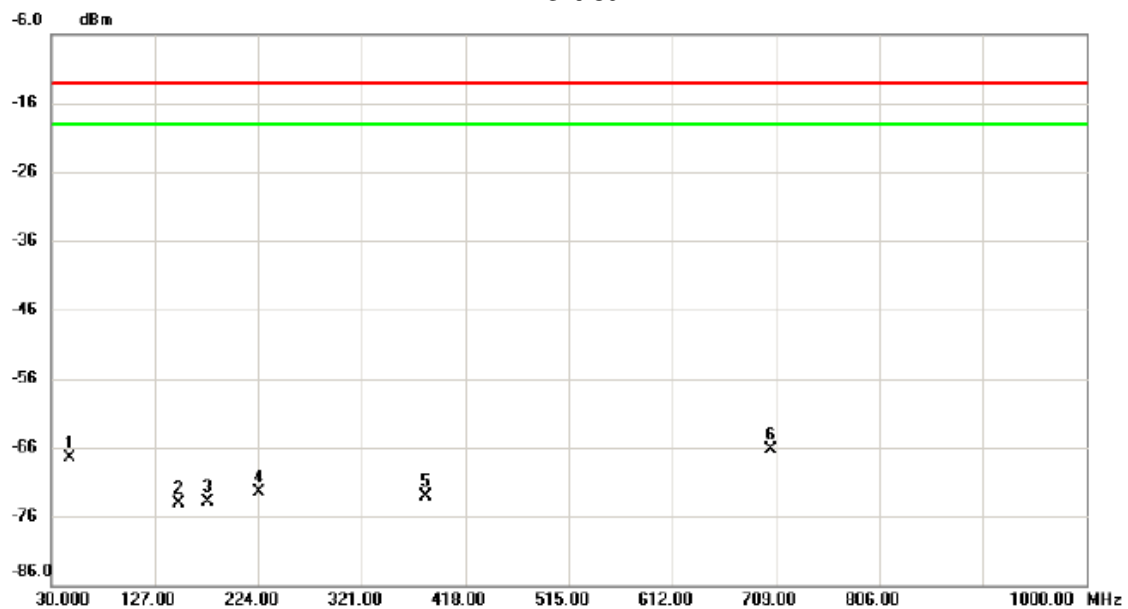
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		40.6700	-77.48	2.21	-75.27	-13.00	-62.27	peak	
2		150.2800	-80.64	4.20	-76.44	-13.00	-63.44	peak	
3		228.8500	-76.57	2.94	-73.63	-13.00	-60.63	peak	
4		411.2100	-79.74	6.44	-73.30	-13.00	-60.30	peak	
5		543.1300	-79.06	8.09	-70.97	-13.00	-57.97	peak	
6	*	714.8200	-79.62	13.62	-66.00	-13.00	-53.00	peak	

Test Mode: LTE Band II_TX CH18900_3M

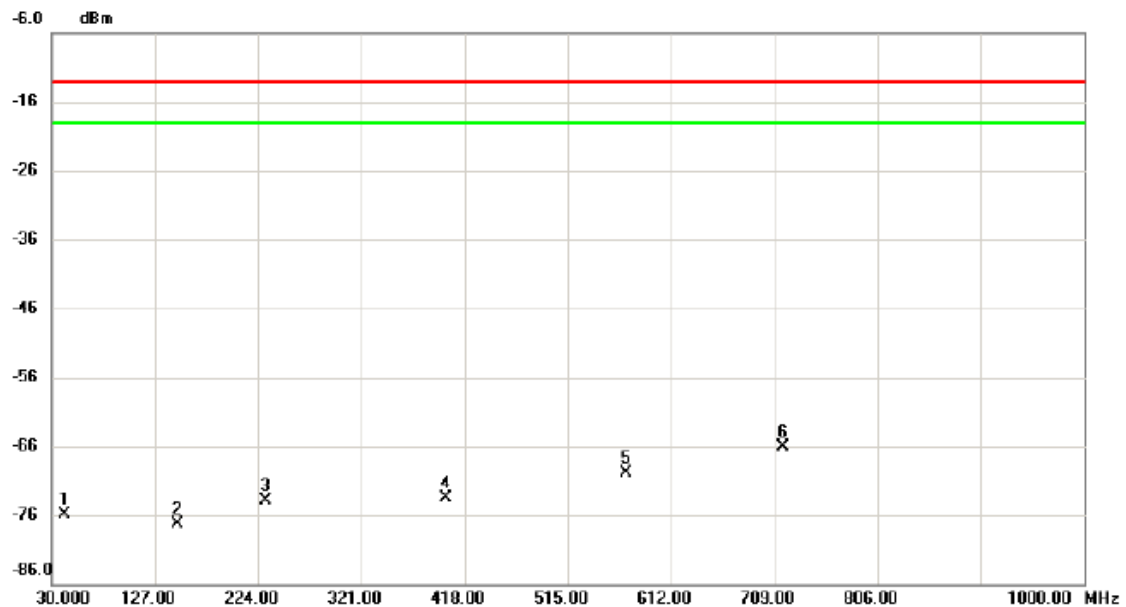
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		47.4600	-69.72	2.17	-67.55	-13.00	-54.55	peak	
2		149.3100	-78.25	4.16	-74.09	-13.00	-61.09	peak	
3		176.4700	-72.01	-1.95	-73.96	-13.00	-60.96	peak	
4		224.0000	-74.21	1.62	-72.59	-13.00	-59.59	peak	
5		381.1400	-79.25	6.09	-73.16	-13.00	-60.16	peak	
6	*	704.1500	-80.25	13.88	-66.37	-13.00	-53.37	peak	

Test Mode: LTE Band II_TX CH18900_3M

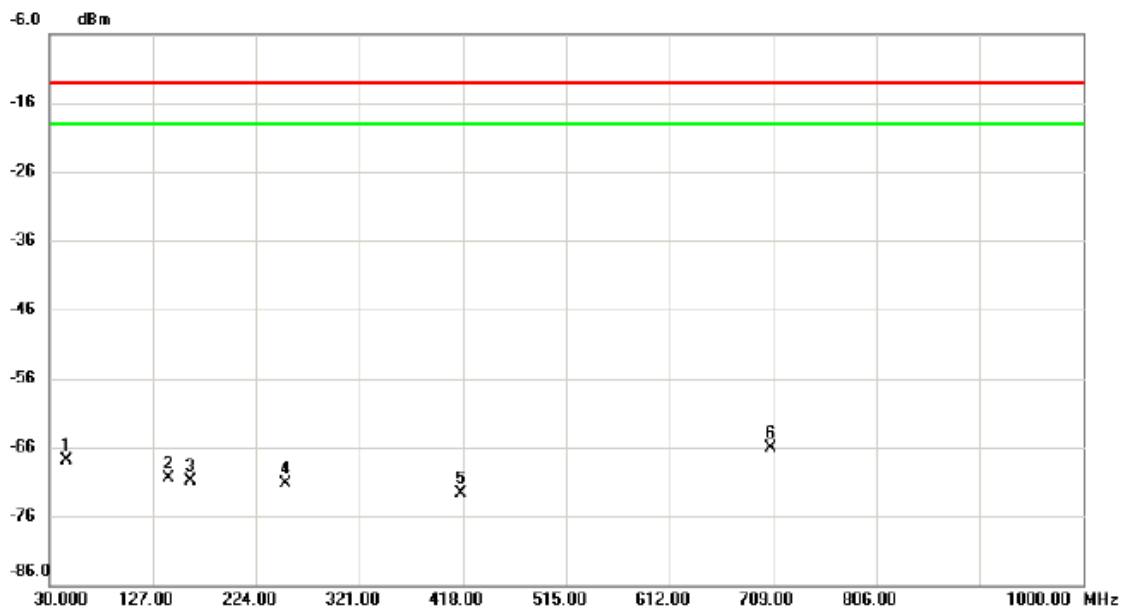
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		41.6400	-78.25	2.40	-75.85	-13.00	-62.85	peak	
2		148.3400	-81.40	4.06	-77.34	-13.00	-64.34	peak	
3		230.7900	-77.03	3.18	-73.85	-13.00	-60.85	peak	
4		400.5400	-79.35	5.91	-73.44	-13.00	-60.44	peak	
5		569.3200	-78.40	8.50	-69.90	-13.00	-56.90	peak	
6	*	716.7600	-79.74	13.57	-66.17	-13.00	-53.17	peak	

Test Mode: LTE Band II_TX CH18900_5M

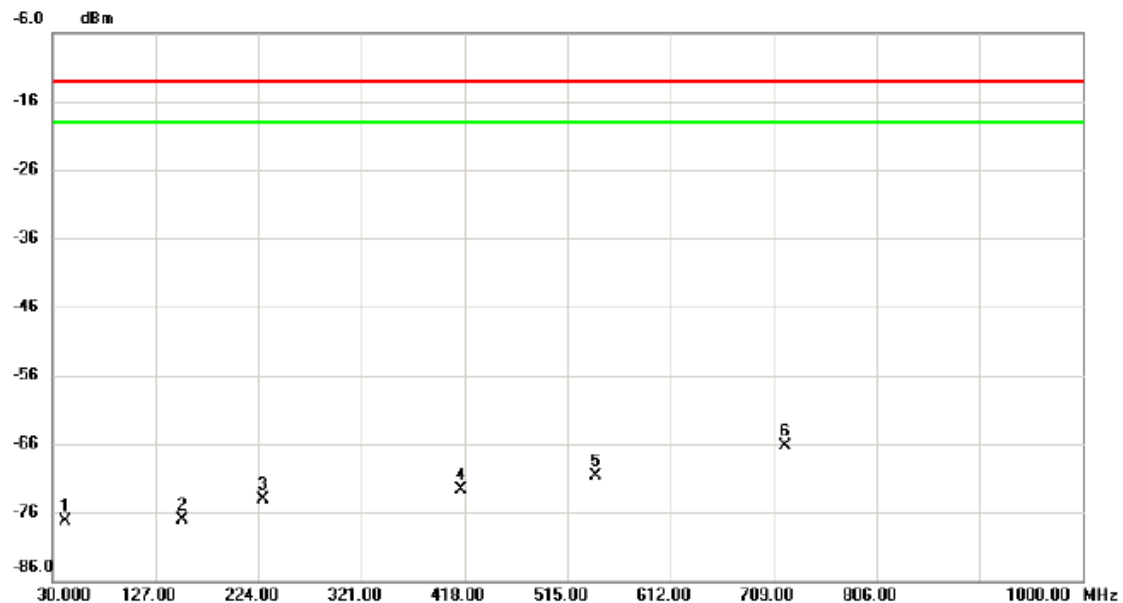
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		46.4900	-70.49	2.52	-67.97	-13.00	-54.97	peak	
2		141.5500	-73.70	3.30	-70.40	-13.00	-57.40	peak	
3		161.9200	-72.86	1.95	-70.91	-13.00	-57.91	peak	
4		251.1600	-73.17	1.88	-71.29	-13.00	-58.29	peak	
5		416.0600	-79.44	6.68	-72.76	-13.00	-59.76	peak	
6	*	707.0600	-79.87	13.81	-66.06	-13.00	-53.06	peak	

Test Mode: LTE Band II_TX CH18900_5M

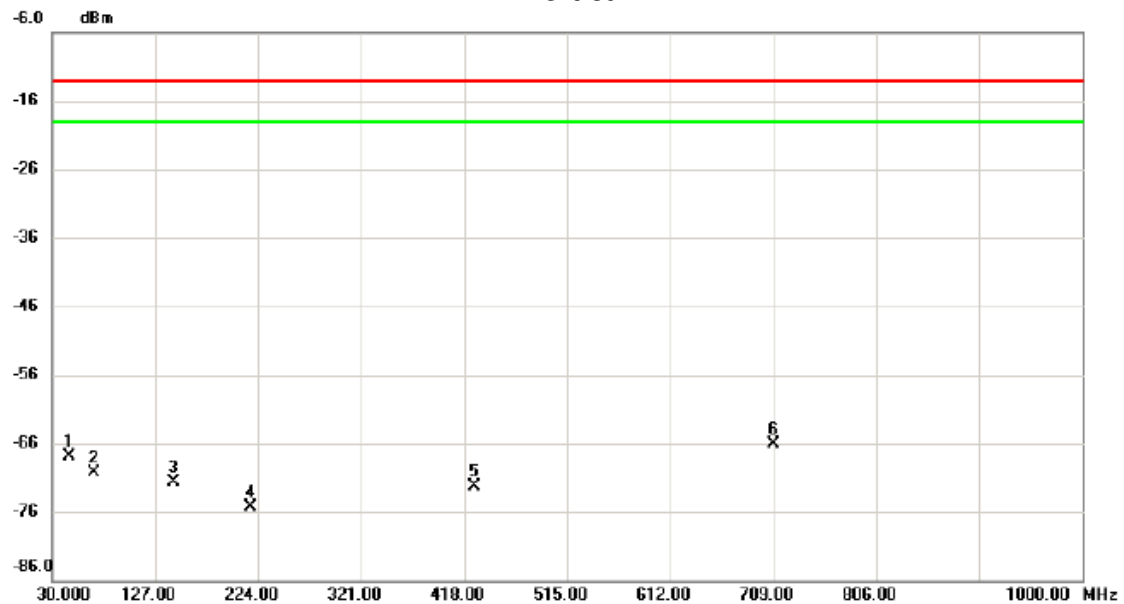
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		41.6400	-79.67	2.40	-77.27	-13.00	-64.27	peak	
2		152.2200	-80.97	3.91	-77.06	-13.00	-64.06	peak	
3		228.8500	-76.95	2.94	-74.01	-13.00	-61.01	peak	
4		415.0900	-79.43	6.63	-72.80	-13.00	-59.80	peak	
5		541.1900	-78.70	8.09	-70.61	-13.00	-57.61	peak	
6	*	719.6700	-79.89	13.50	-66.39	-13.00	-53.39	peak	

Test Mode: LTE Band II_TX CH18900_10M

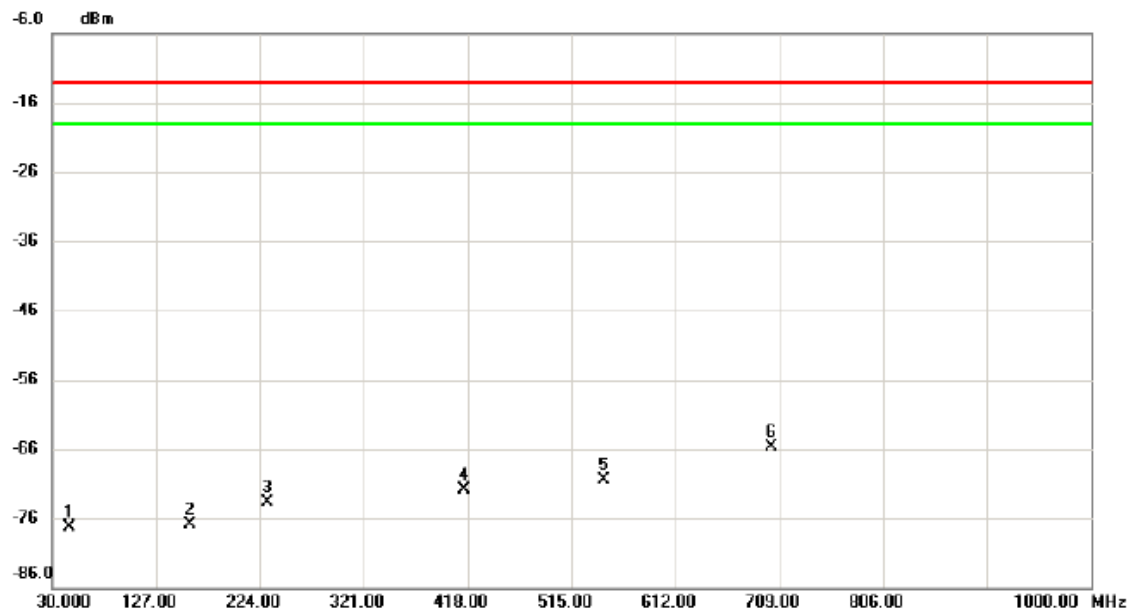
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1		46.4900	-70.36	2.52	-67.84	-13.00	-54.84	peak	
2		68.8000	-67.08	-3.29	-70.37	-13.00	-57.37	peak	
3		144.4600	-75.30	3.63	-71.67	-13.00	-58.67	peak	
4		216.2400	-74.83	-0.39	-75.22	-13.00	-62.22	peak	
5		427.7000	-78.39	6.01	-72.38	-13.00	-59.38	peak	
6	*	709.9700	-79.80	13.74	-66.06	-13.00	-53.06	peak	

Test Mode: LTE Band II_TX CH18900_10M

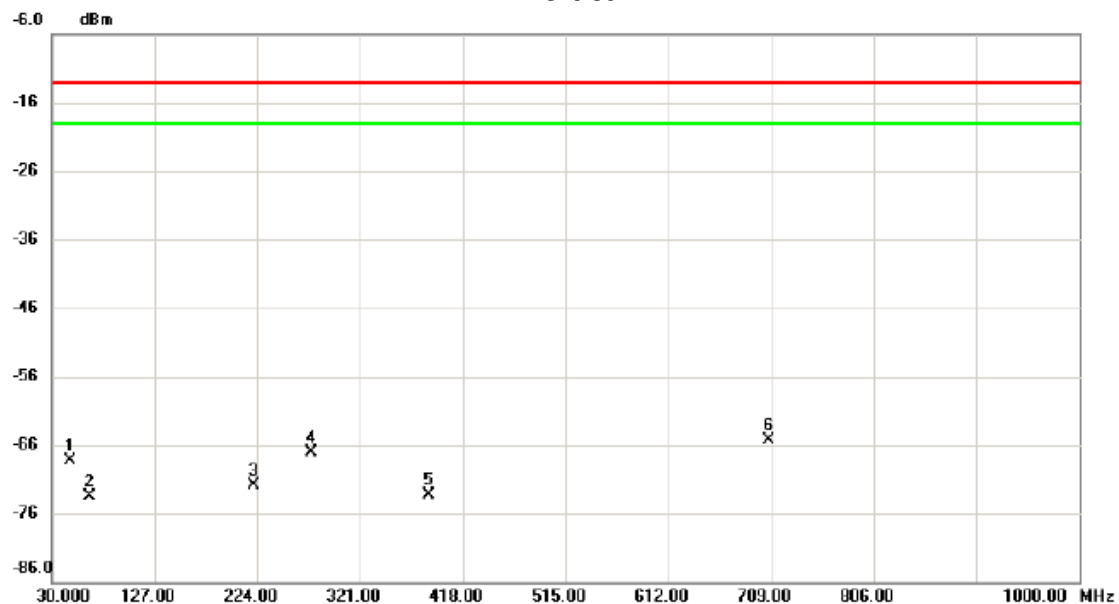
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		46.4900	-79.72	2.52	-77.20	-13.00	-64.20	peak	
2		158.0400	-79.90	3.04	-76.86	-13.00	-63.86	peak	
3		230.7900	-76.90	3.18	-73.72	-13.00	-60.72	peak	
4		414.1200	-78.56	6.59	-71.97	-13.00	-58.97	peak	
5		545.0700	-78.56	8.10	-70.46	-13.00	-57.46	peak	
6	*	701.2400	-79.71	13.95	-65.76	-13.00	-52.76	peak	

Test Mode: LTE Band II_TX CH18900_15M

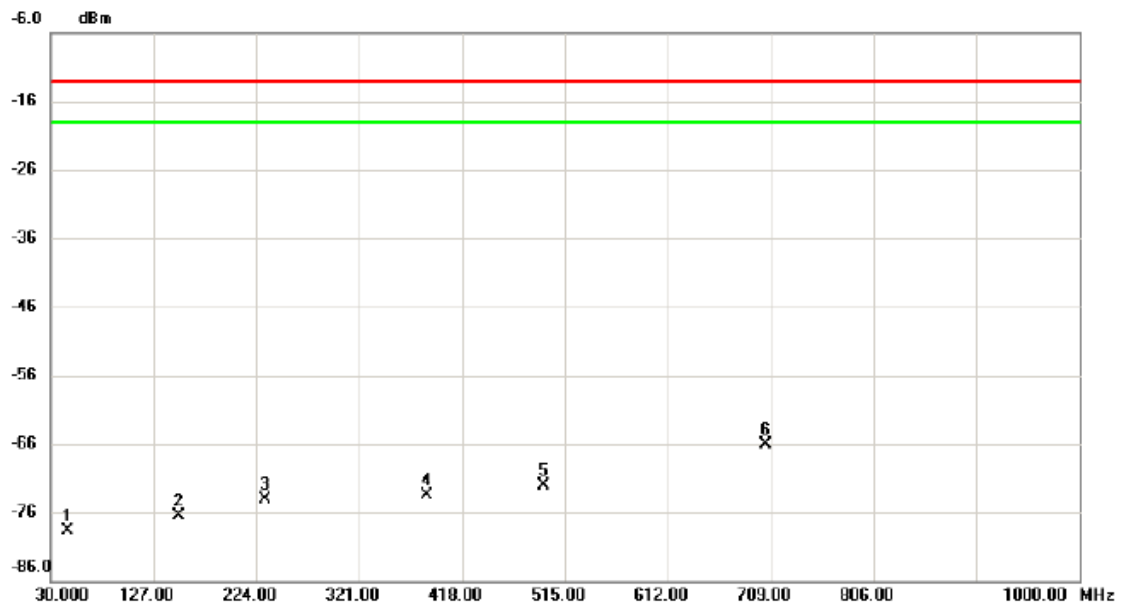
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		47.4600	-70.49	2.17	-68.32	-13.00	-55.32	peak	
2		64.9200	-72.31	-1.27	-73.58	-13.00	-60.58	peak	
3		220.1200	-72.56	0.57	-71.99	-13.00	-58.99	peak	
4		274.4400	-69.80	2.79	-67.01	-13.00	-54.01	peak	
5		385.9900	-79.32	6.03	-73.29	-13.00	-60.29	peak	
6	*	707.0600	-79.18	13.81	-65.37	-13.00	-52.37	peak	

Test Mode: LTE Band II_TX CH18900_15M

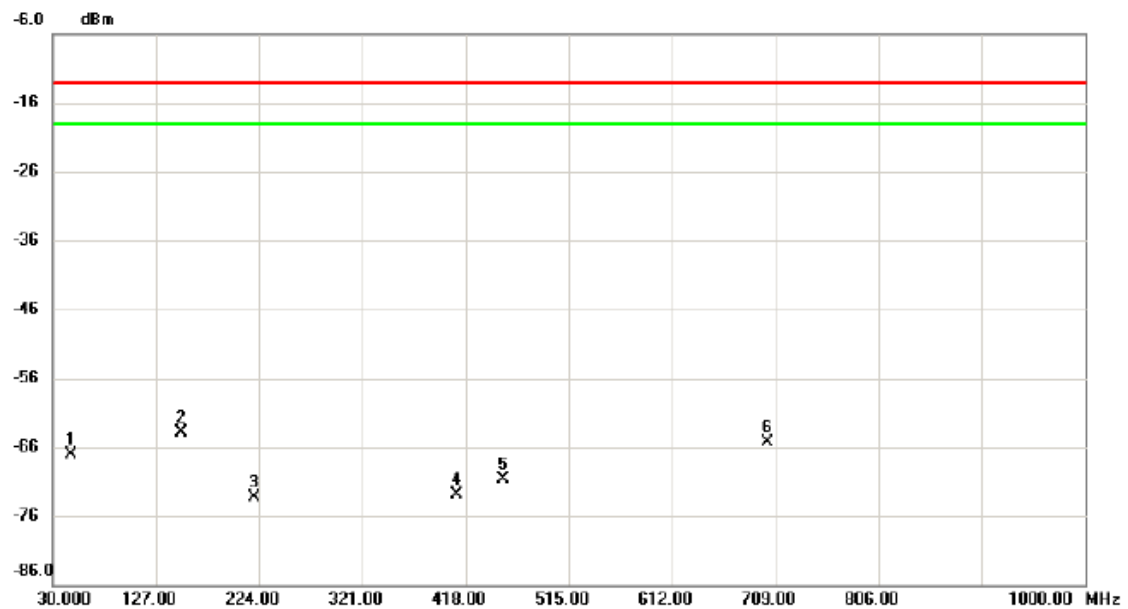
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		45.5200	-81.54	2.87	-78.67	-13.00	-65.67	peak	
2		151.2500	-80.54	4.05	-76.49	-13.00	-63.49	peak	
3		232.7300	-77.13	3.02	-74.11	-13.00	-61.11	peak	
4		385.0200	-79.61	6.04	-73.57	-13.00	-60.57	peak	
5		494.6300	-79.71	7.67	-72.04	-13.00	-59.04	peak	
6	*	704.1500	-80.04	13.88	-66.16	-13.00	-53.16	peak	

Test Mode: LTE Band II_TX CH18900_20M

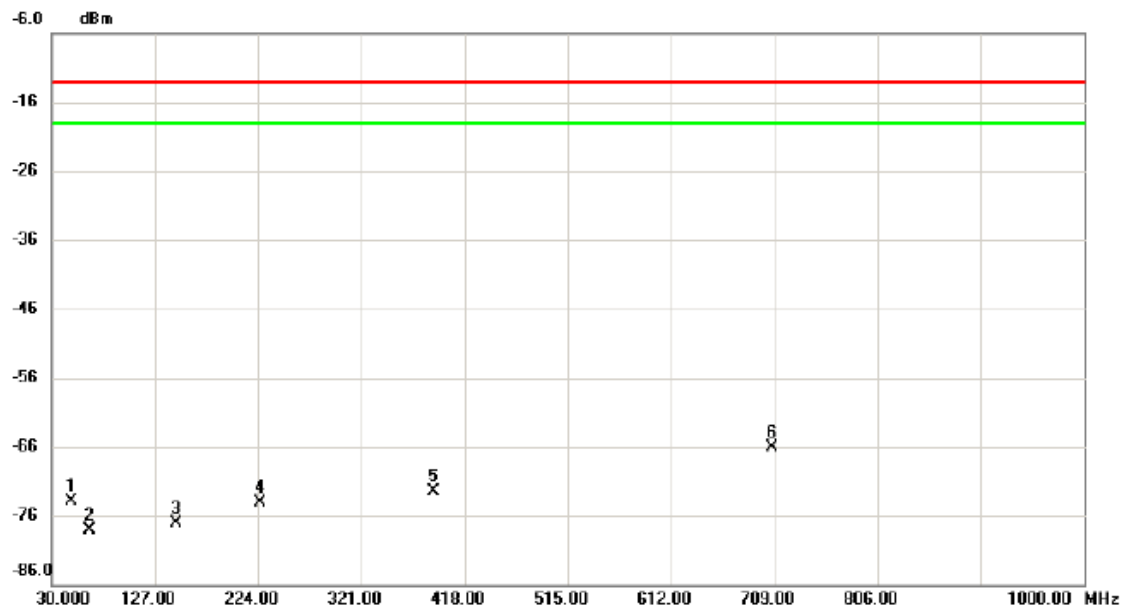
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		47.4600	-69.31	2.17	-67.14	-13.00	-54.14	peak	
2	*	150.2800	-68.12	4.20	-63.92	-13.00	-50.92	peak	
3		219.1500	-73.62	0.33	-73.29	-13.00	-60.29	peak	
4		409.2700	-79.28	6.34	-72.94	-13.00	-59.94	peak	
5		452.9200	-76.10	5.31	-70.79	-13.00	-57.79	peak	
6		702.2100	-79.31	13.93	-65.38	-13.00	-52.38	peak	

Test Mode: LTE Band II_TX CH18900_20M

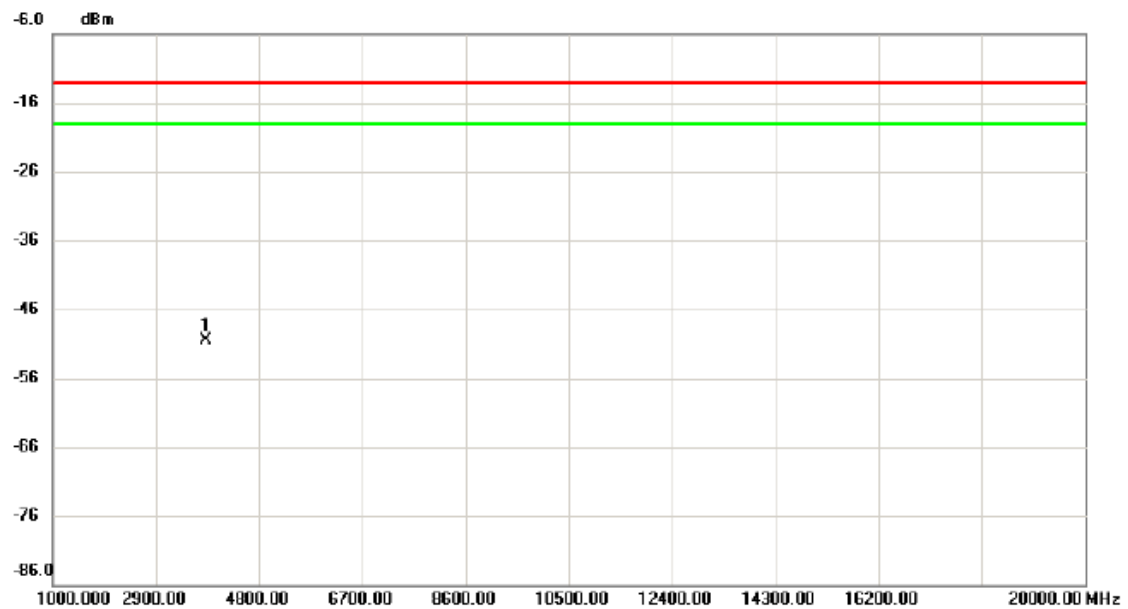
Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBm	dB	dBm	dBm	dB		
1		48.4300	-75.69	1.83	-73.86	-13.00	-60.86	peak	
2		64.9200	-76.86	-1.27	-78.13	-13.00	-65.13	peak	
3		147.3700	-80.98	3.95	-77.03	-13.00	-64.03	peak	
4		225.9400	-76.28	2.15	-74.13	-13.00	-61.13	peak	
5		388.9000	-78.46	6.00	-72.46	-13.00	-59.46	peak	
6	*	707.0600	-79.87	13.81	-66.06	-13.00	-53.06	peak	

Test Mode: LTE Band II_TX CH18900_1.4M

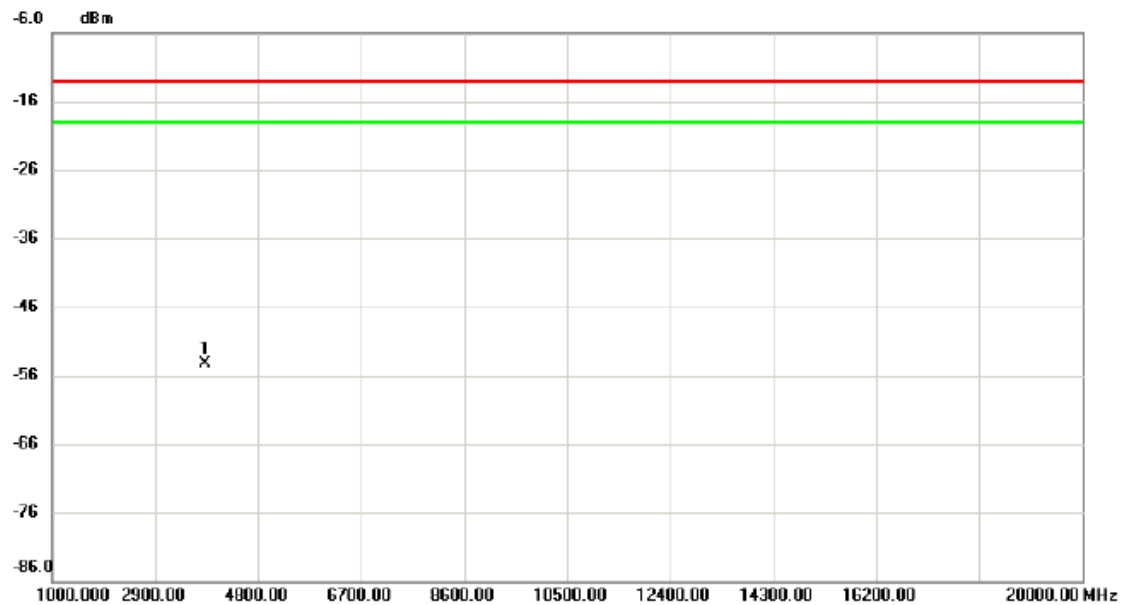
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	3818.000	-65.13	14.57	-50.56	-13.00	-37.56	peak	

Test Mode: LTE Band II_TX CH18900_1.4M

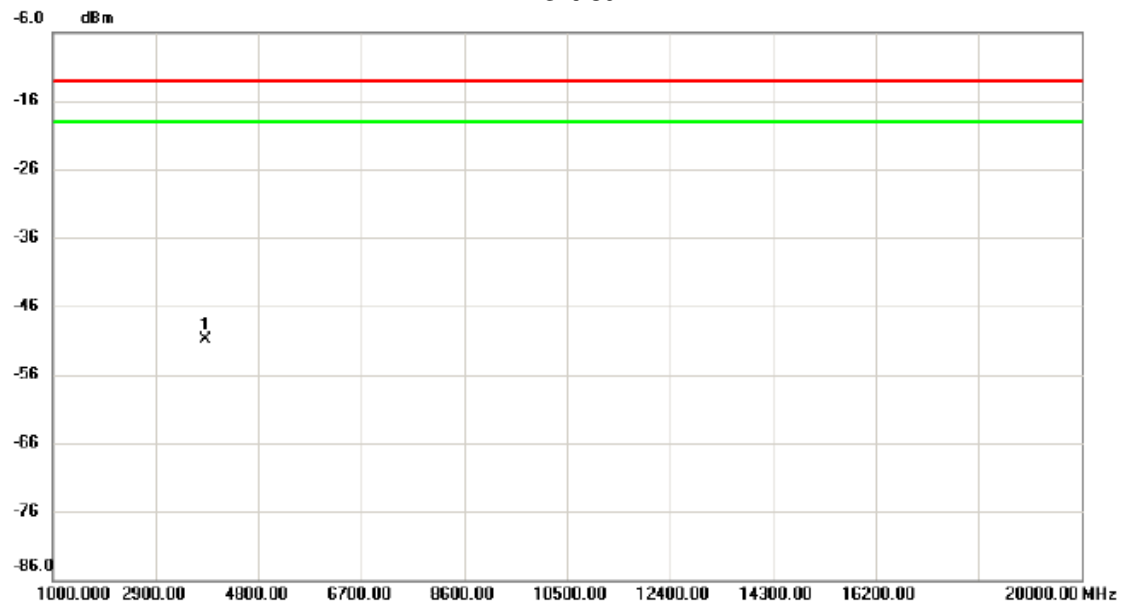
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3818.600	-65.78	11.50	-54.28	-13.00	-41.28	peak	

Test Mode: LTE Band II_TX CH18900_3M

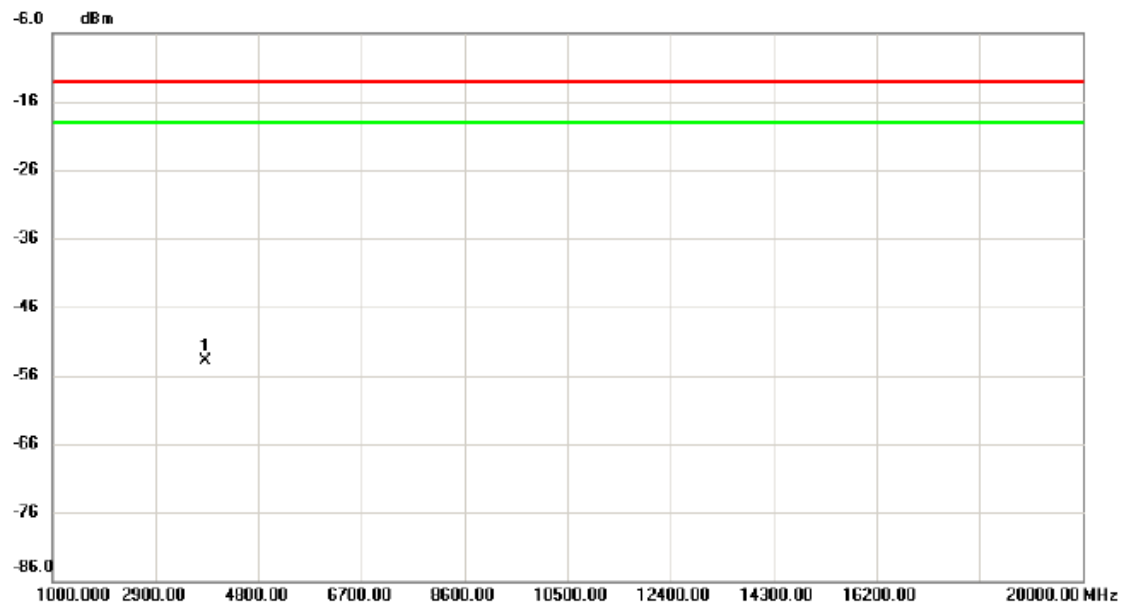
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	3817.000	-65.38	14.56	-50.82	-13.00	-37.82	peak	

Test Mode: LTE Band II_TX CH18900_3M

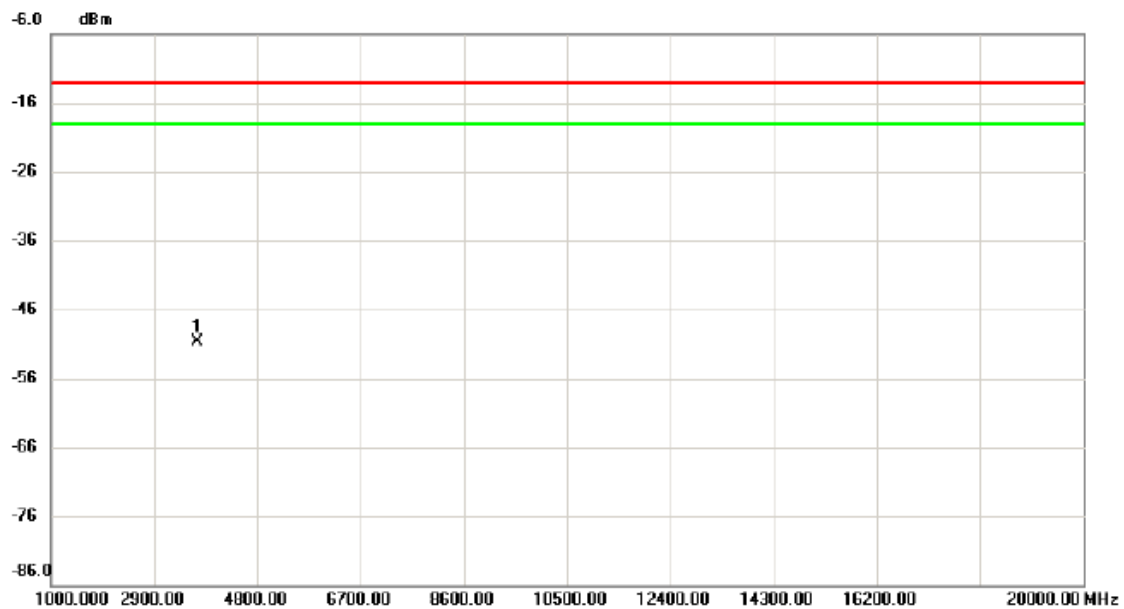
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3817.500	-65.35	11.50	-53.85	-13.00	-40.85	peak	

Test Mode: LTE Band II_TX CH18900_5M

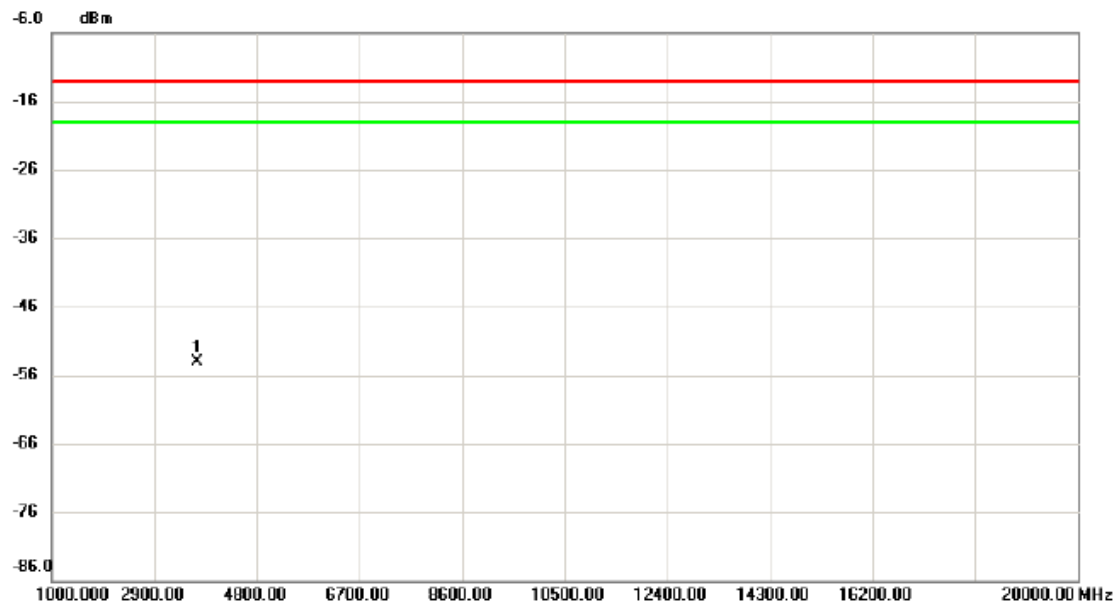
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3704.200	-65.25	14.46	-50.79	-13.00	-37.79	peak	

Test Mode: LTE Band II_TX CH18900_5M

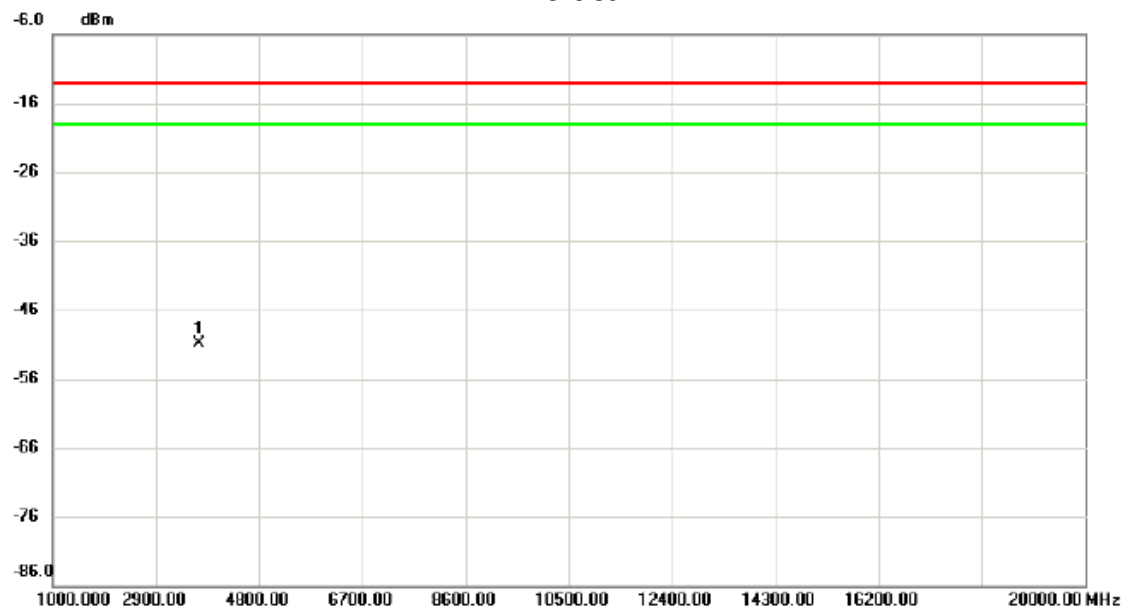
Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBm	dB	dBm	dBm	dB		
1	*	3704.300	-65.35	11.19	-54.16	-13.00	-41.16	peak	

Test Mode:	LTE Band II_TX CH18900_10M
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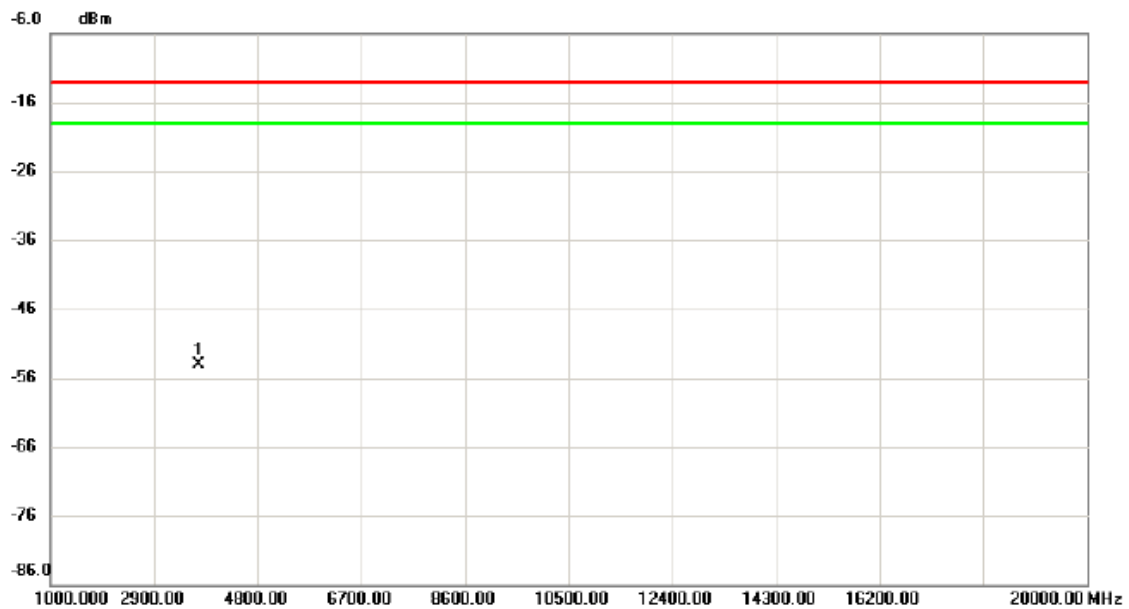
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3710.300	-65.32	14.46	-50.86	-13.00	-37.86	peak	

Test Mode: LTE Band II_TX CH18900_10M

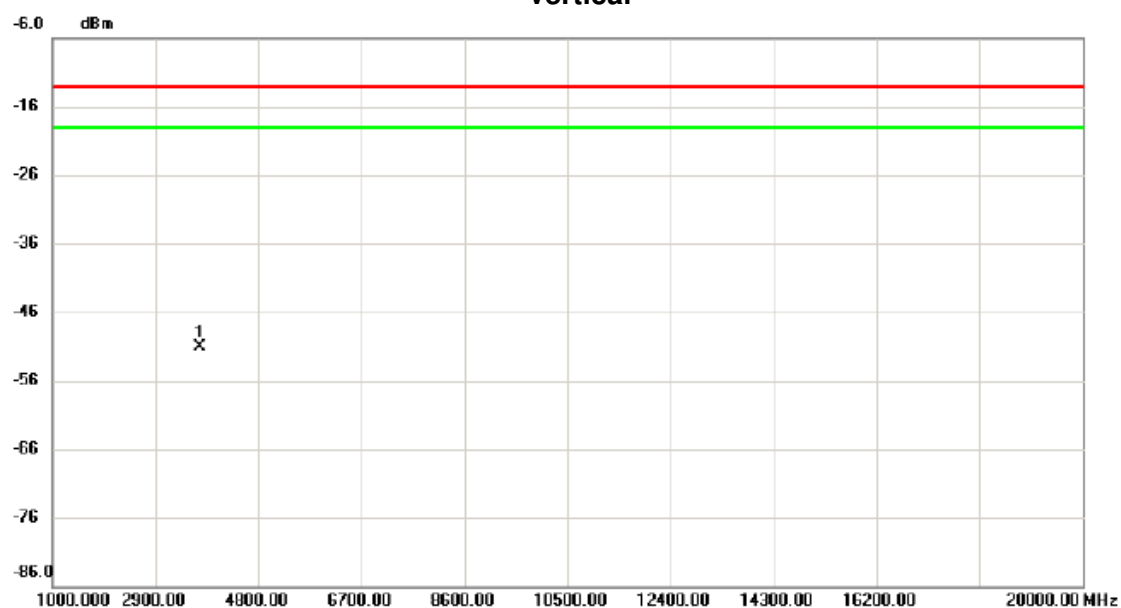
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3710.740	-65.36	11.21	-54.15	-13.00	-41.15	peak	

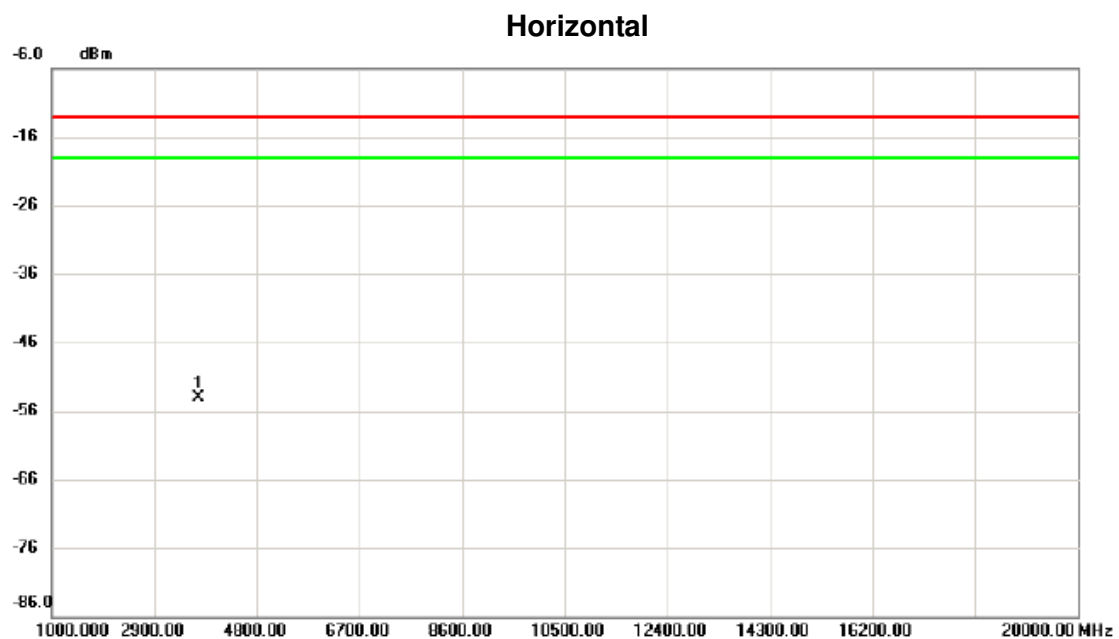
Test Mode: LTE Band II_TX CH18900_15M

Vertical



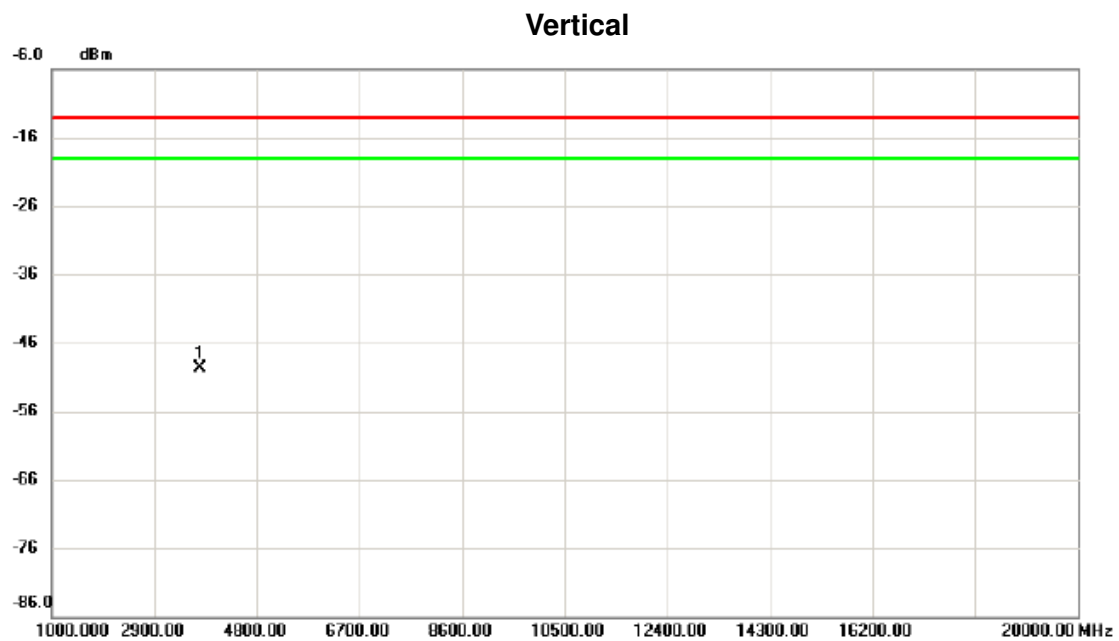
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3715.400	-65.61	14.47	-51.14	-13.00	-38.14	peak	

Test Mode: LTE Band II_TX CH18900_15M



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3715.000	-65.33	11.22	-54.11	-13.00	-41.11	peak	

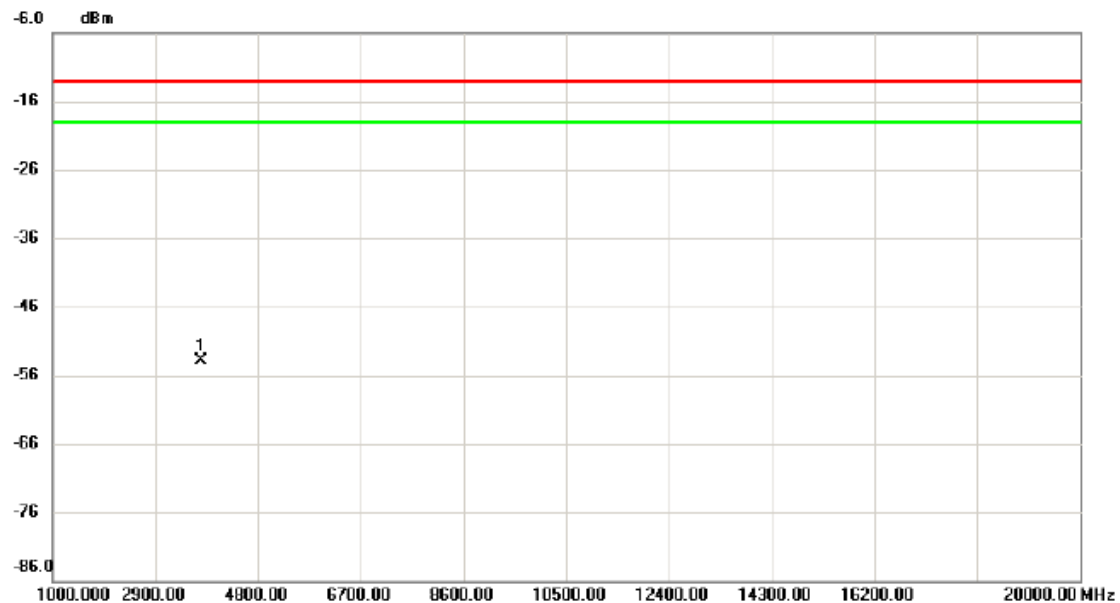
Test Mode:	LTE Band II_TX CH18900_20M
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No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3760.000	-64.26	14.51	-49.75	-13.00	-36.75	peak	

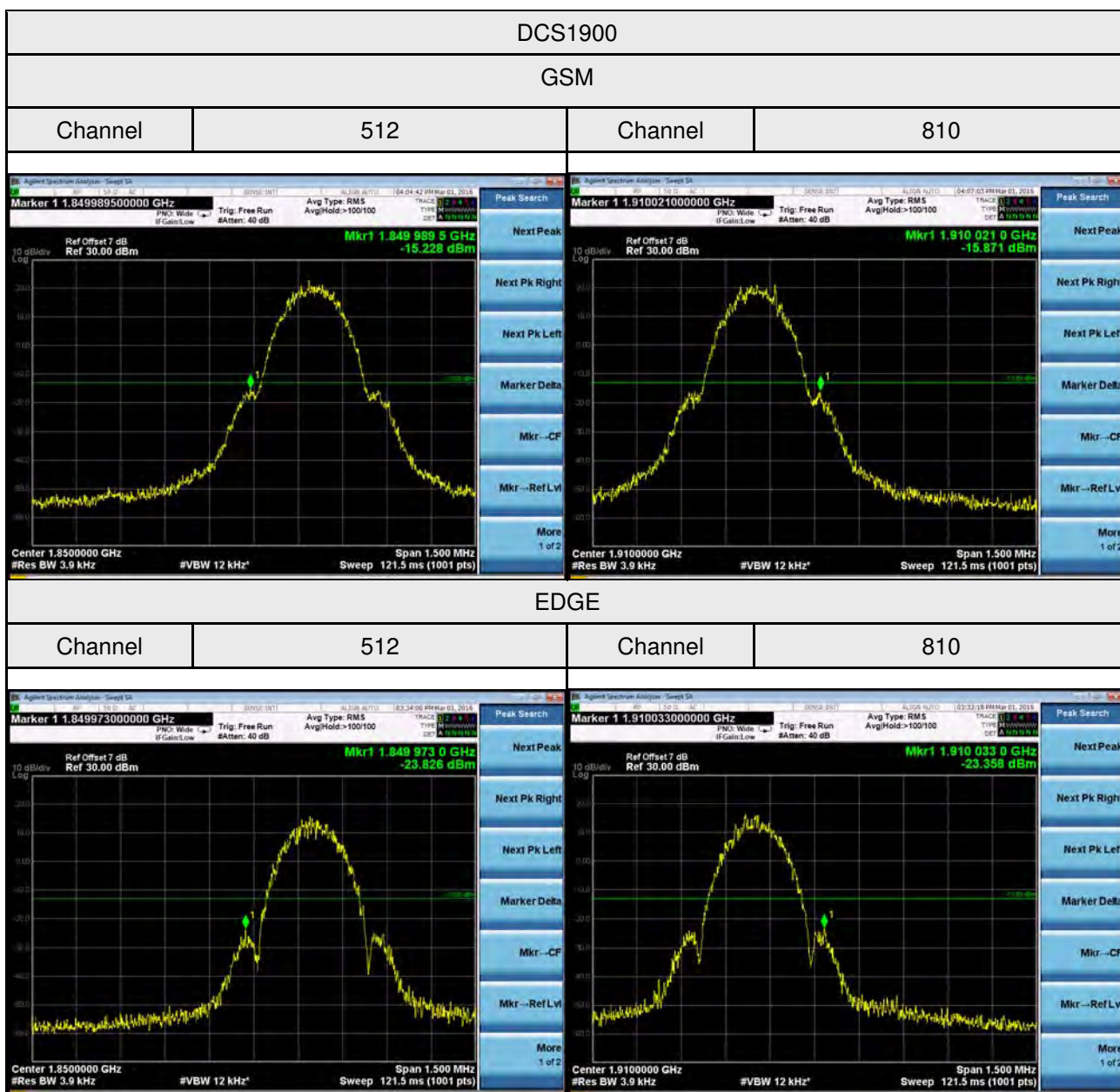
Test Mode: LTE Band II_TX CH18900_20M

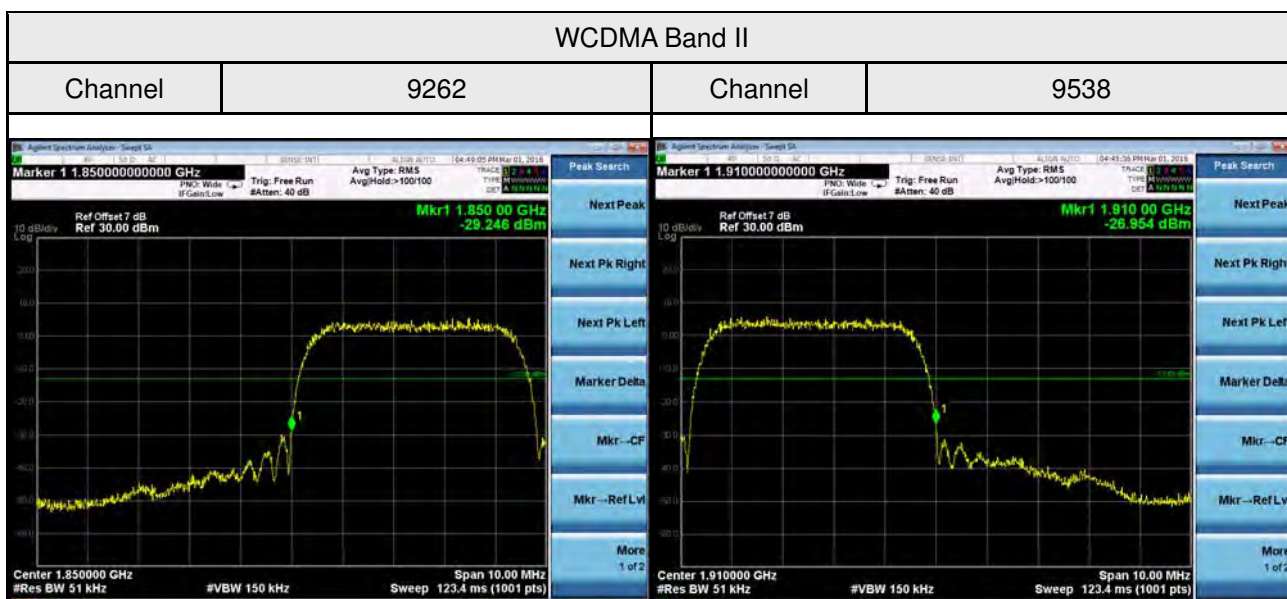
Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBm	dB	dBm	dBm	dB		
1	*	3761.000	-65.21	11.35	-53.86	-13.00	-40.86	peak	

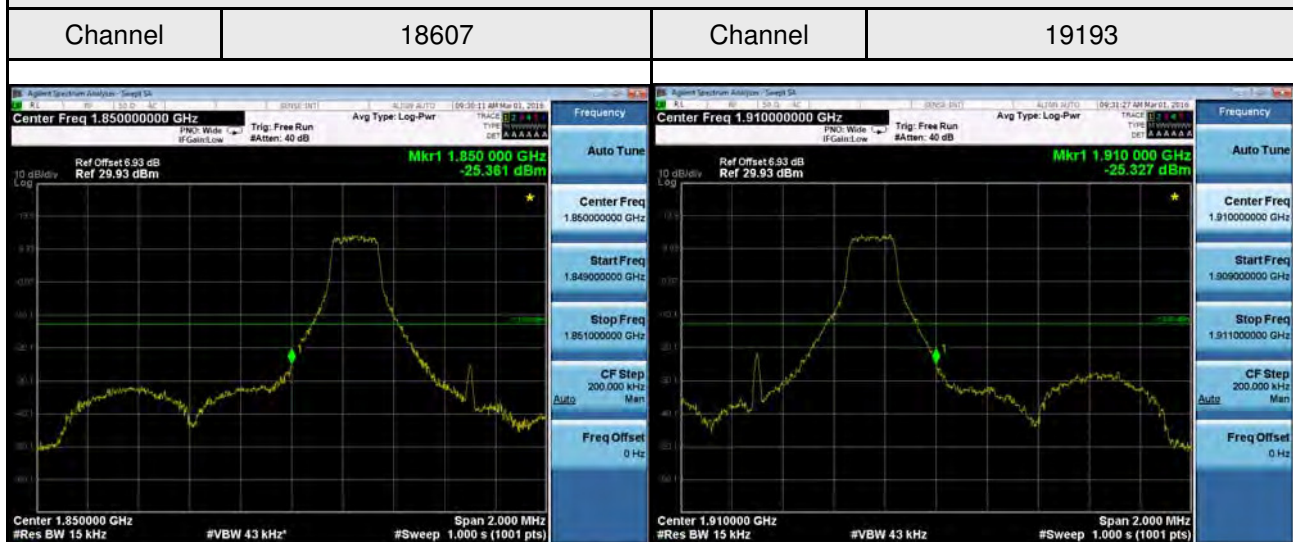
ATTACHMENT E - BAND EDGE



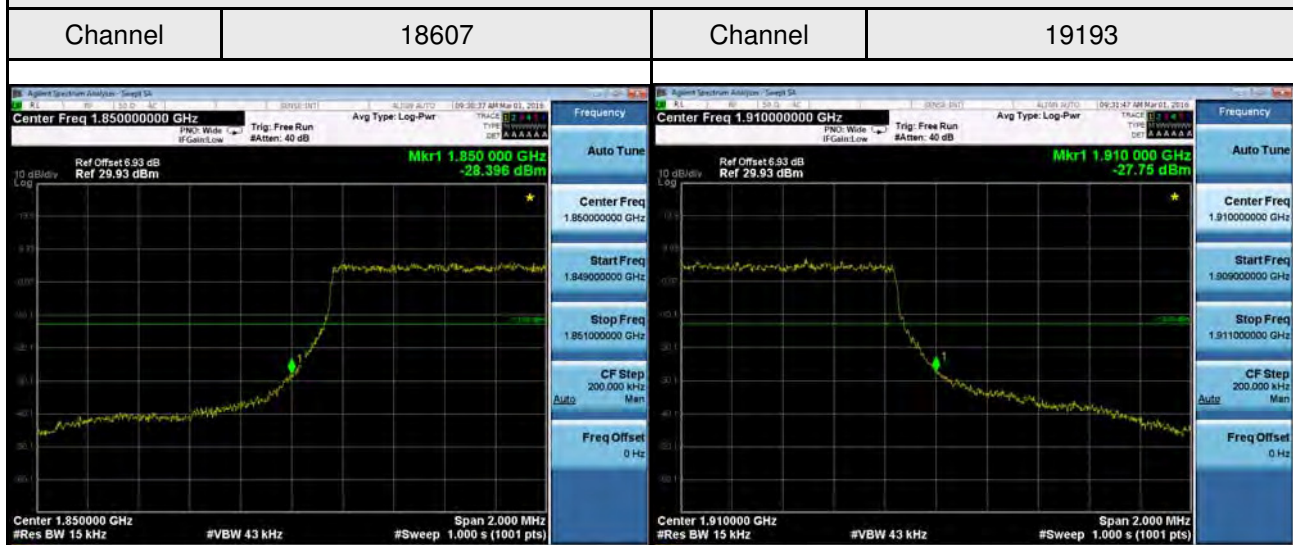


LTE Band II_1.4M

1RB0

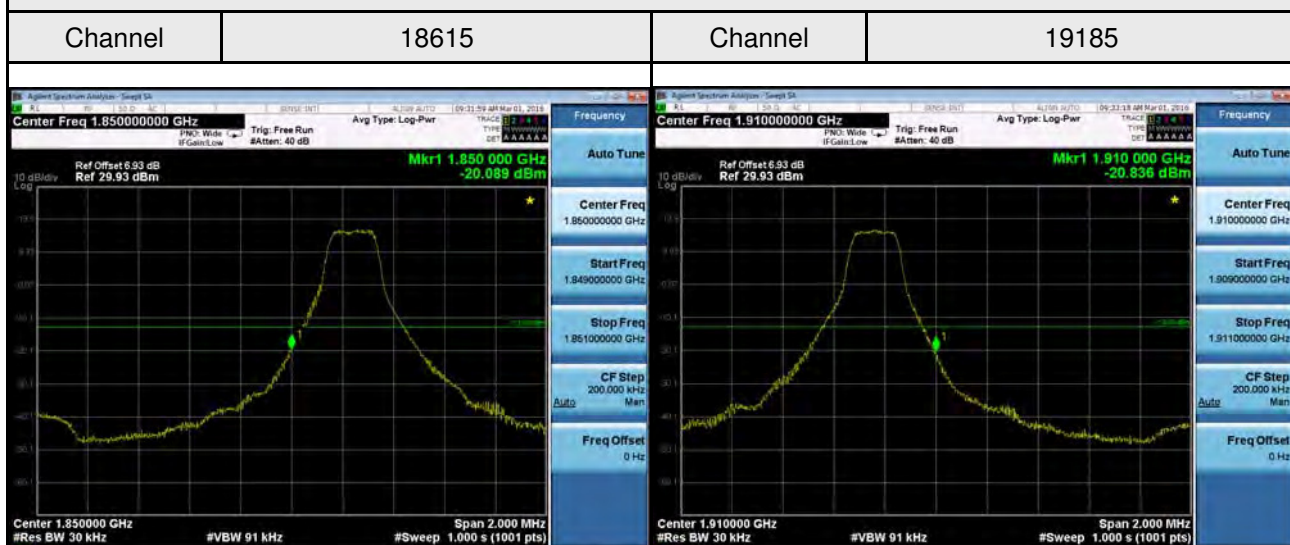


6RB0

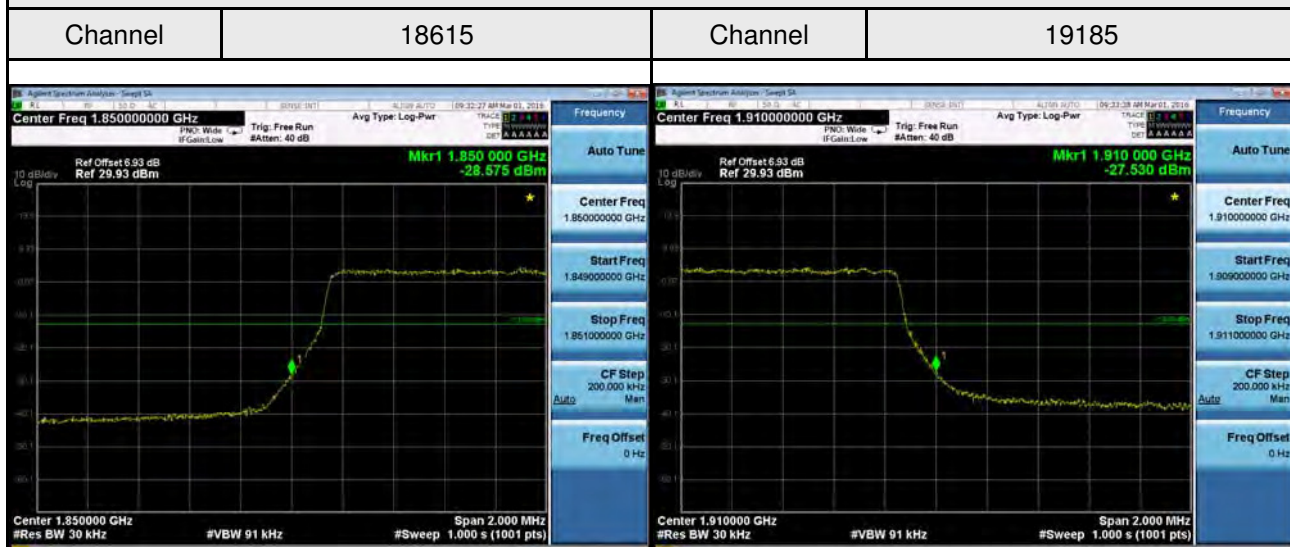


LTE Band II_3M

1RB0

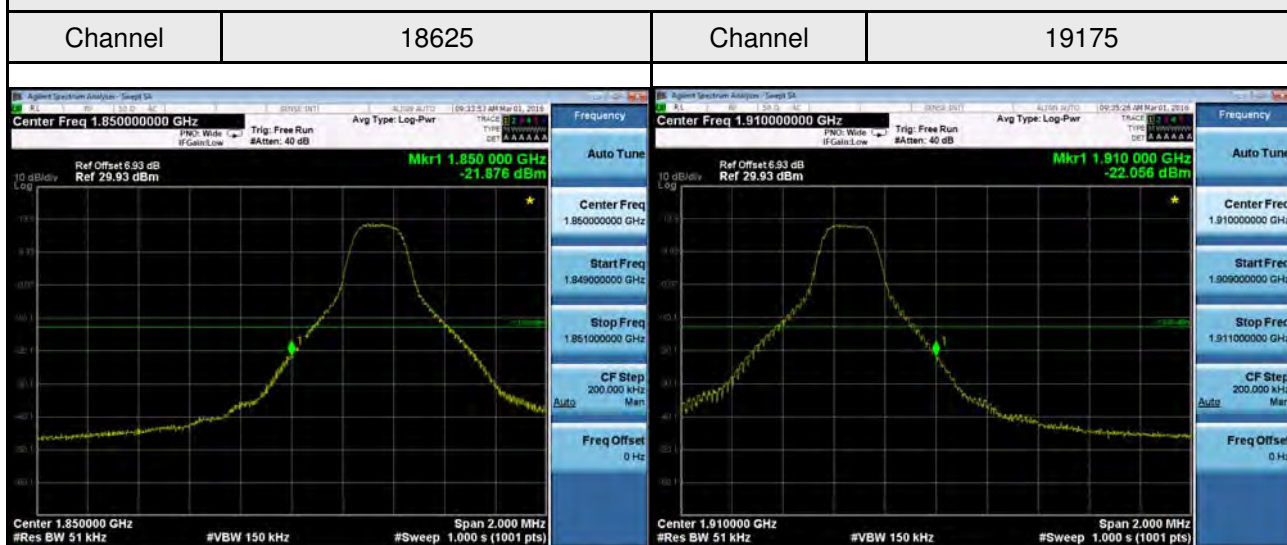


15RB0

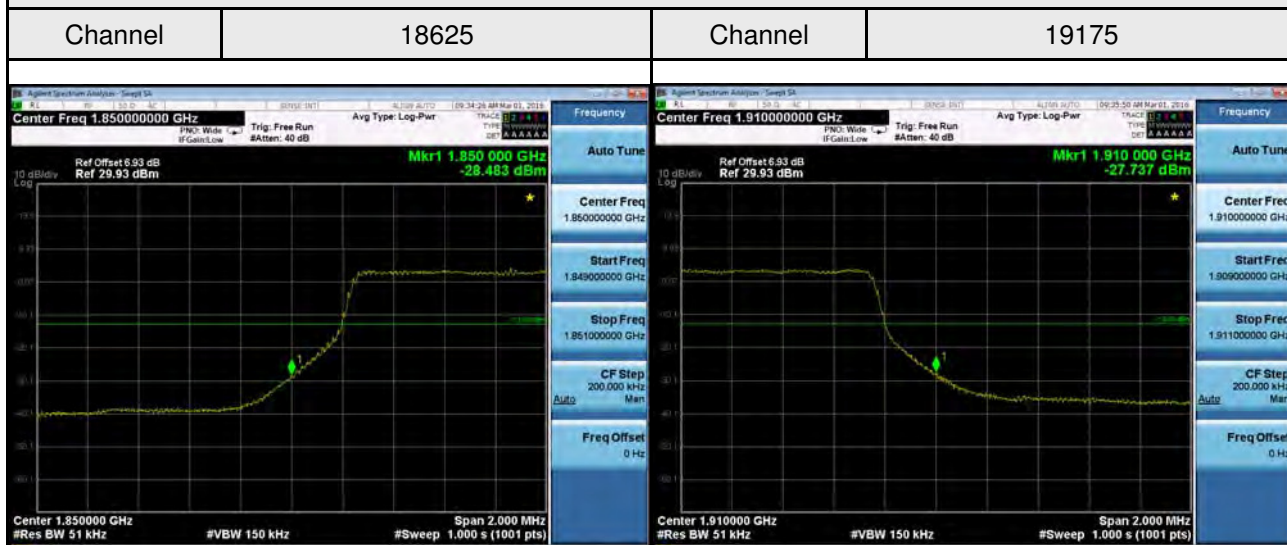


LTE Band II_5M

1RB0

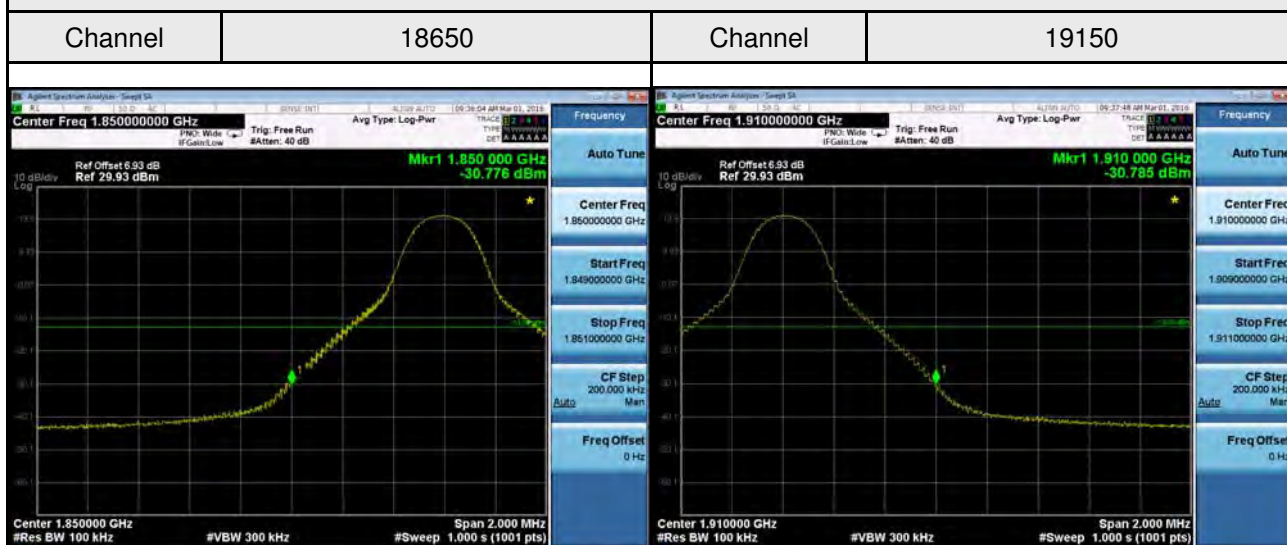


25RB0

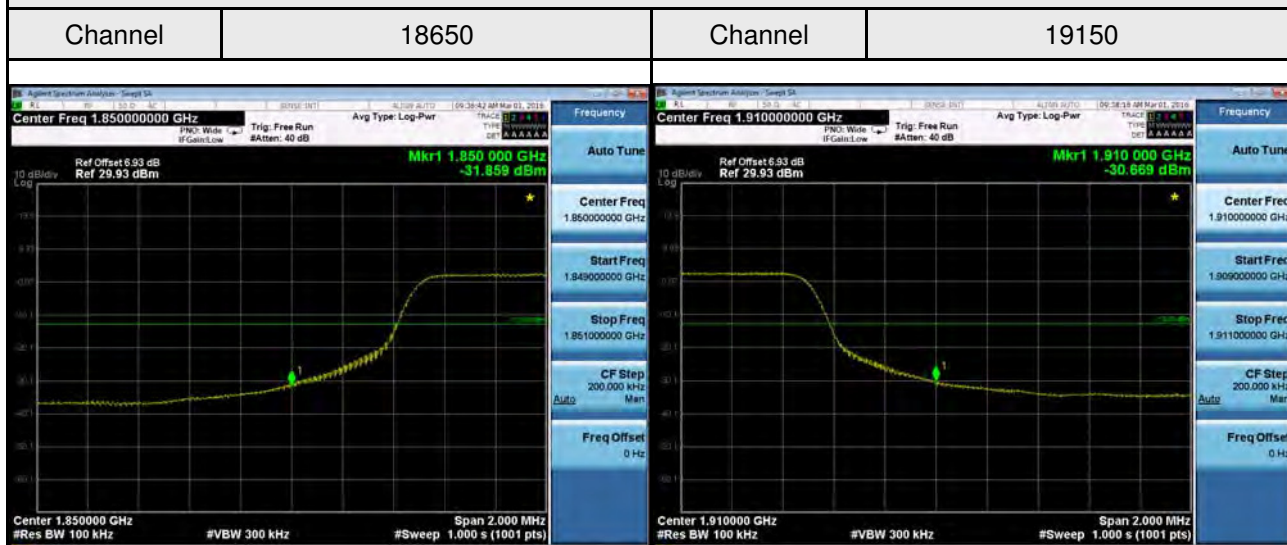


LTE Band II_10M

1RB0



50RB0



LTE Band II_15M

1RB0

Channel

18675

Channel

19125



75RB0

Channel

18675

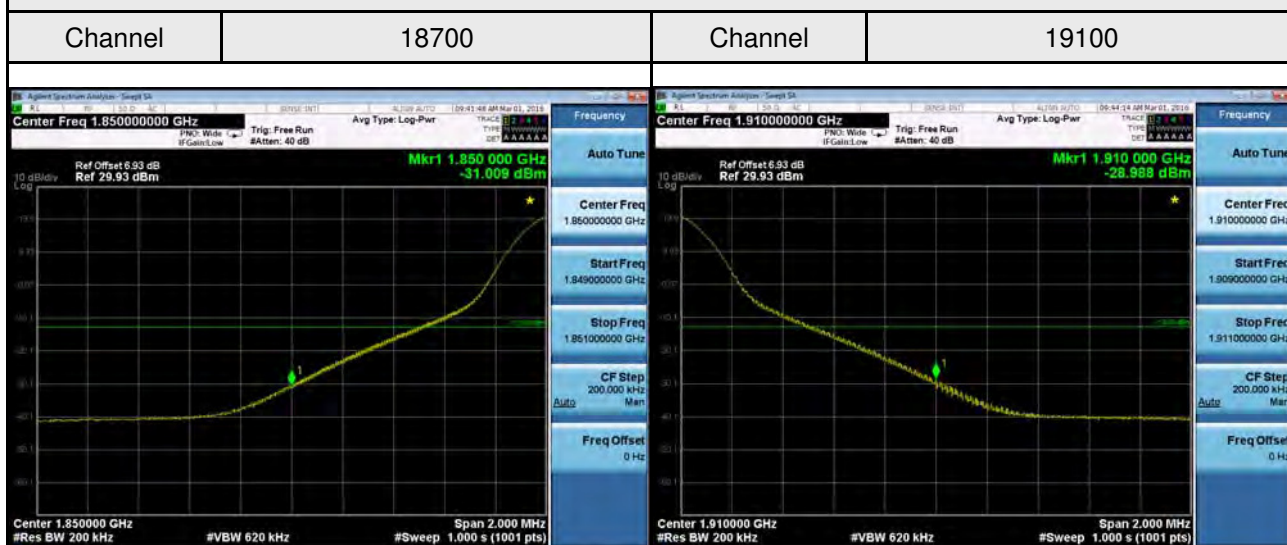
Channel

19125

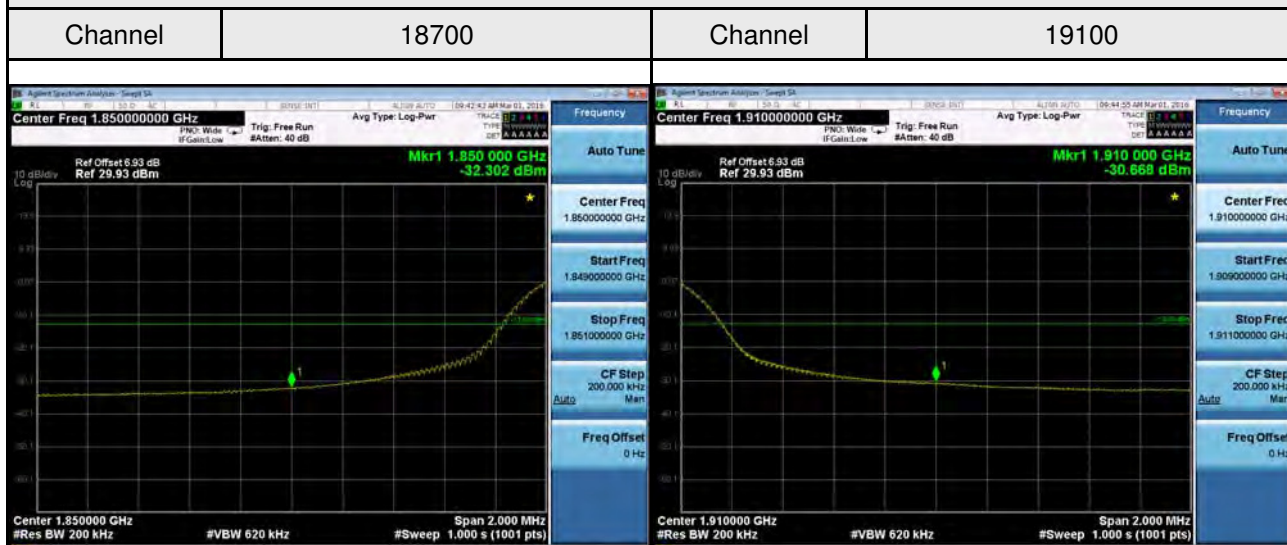


LTE Band II_20M

1RB0



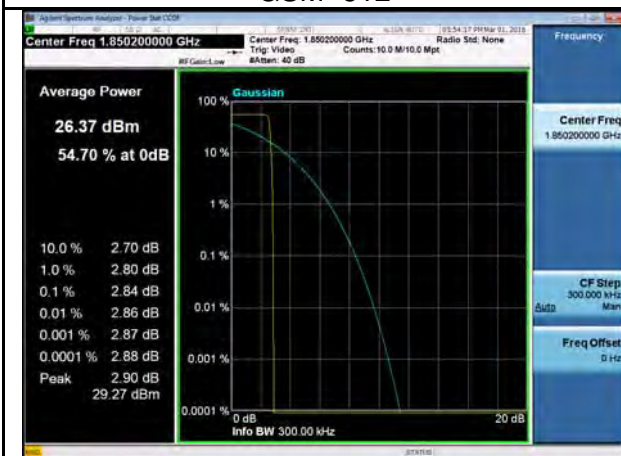
100RB0



ATTACHMENT F – PEAK TO AVERAGE RATIO

DCS1900 Spectrum Plot

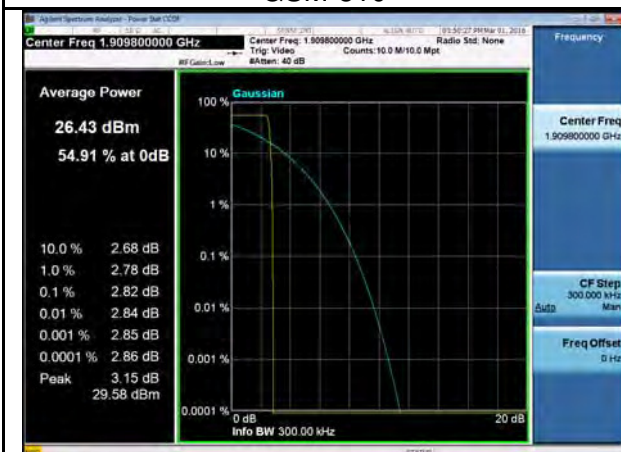
GSM -512



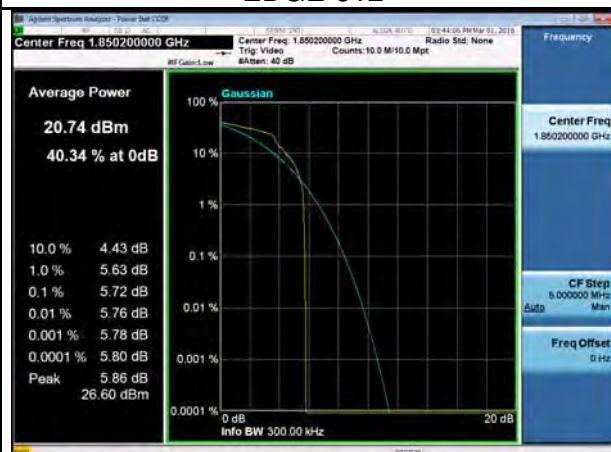
GSM-661



GSM-810



EDGE-512



EDGE-661



EDGE-810



WCDMA Band II Spectrum Plot

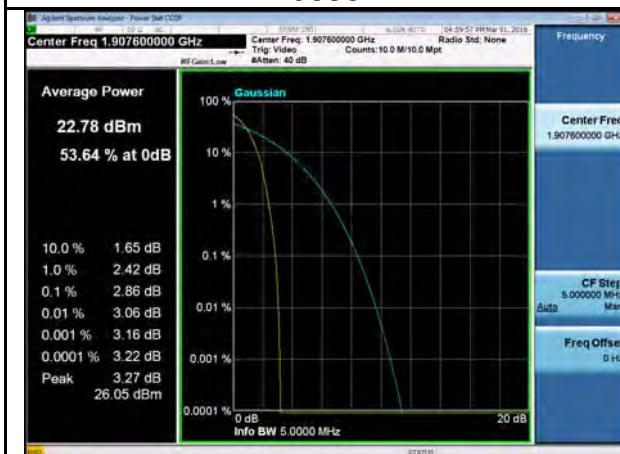
9262



9400



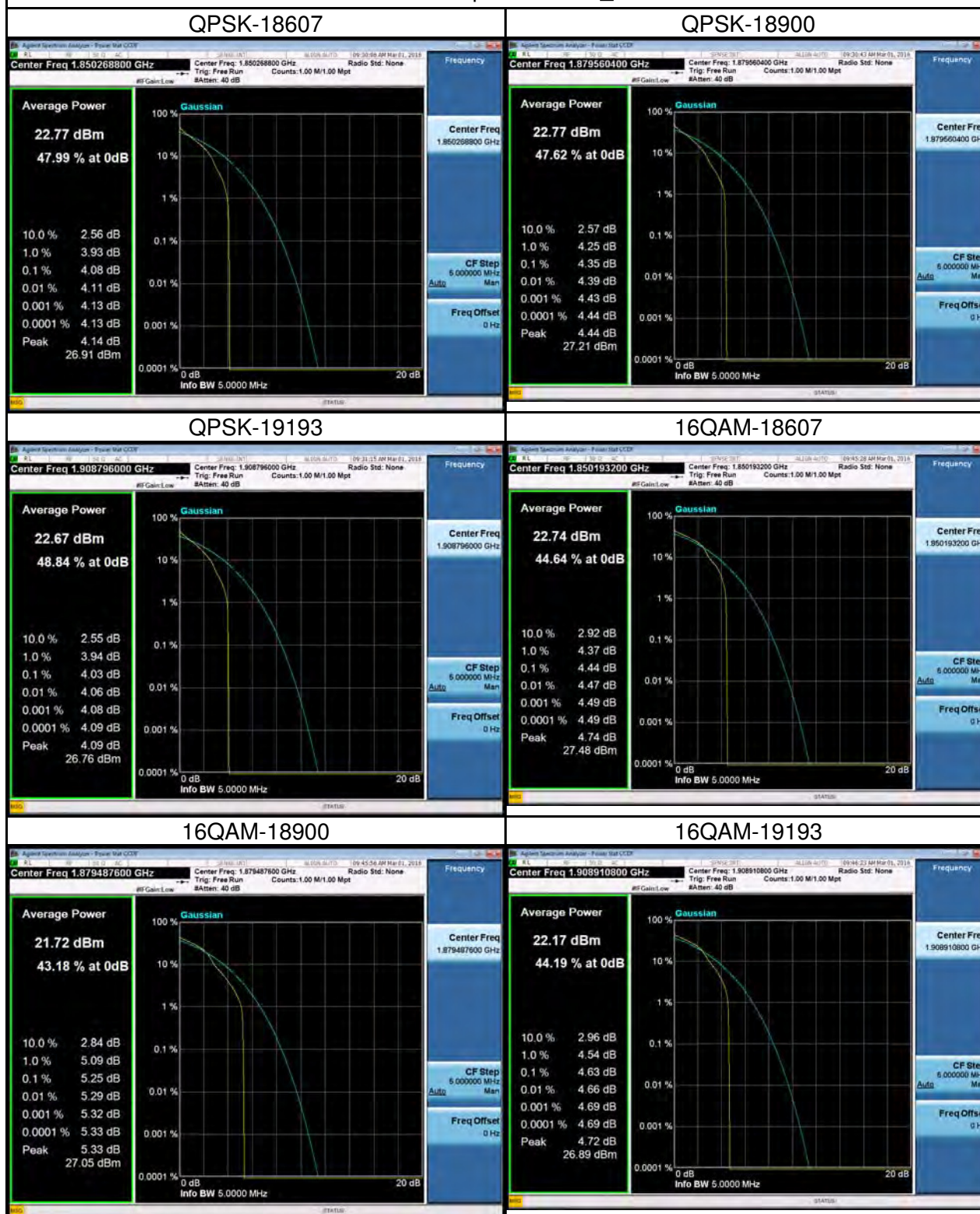
9538



-

-

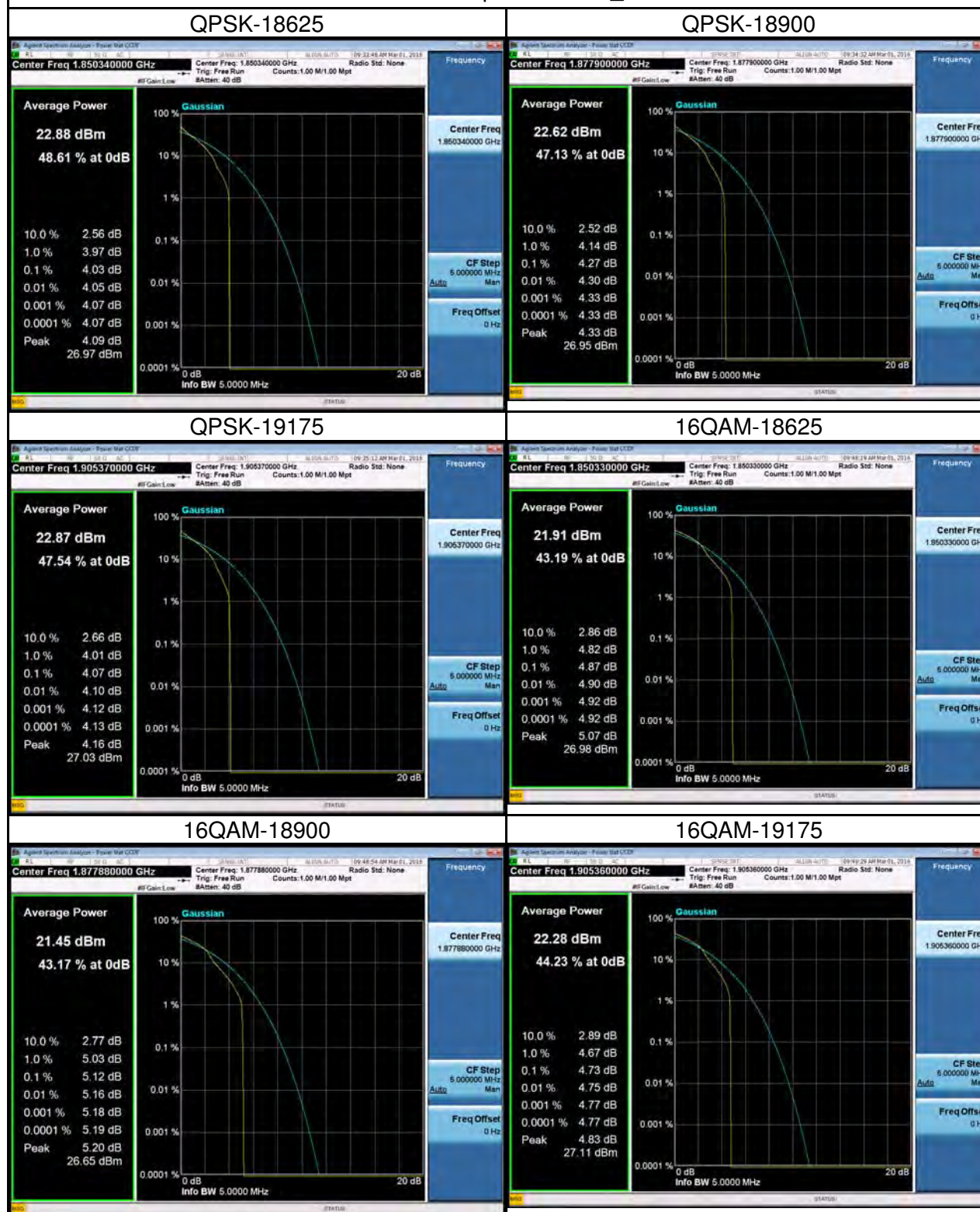
LTE Band II Spectrum Plot_1.4M



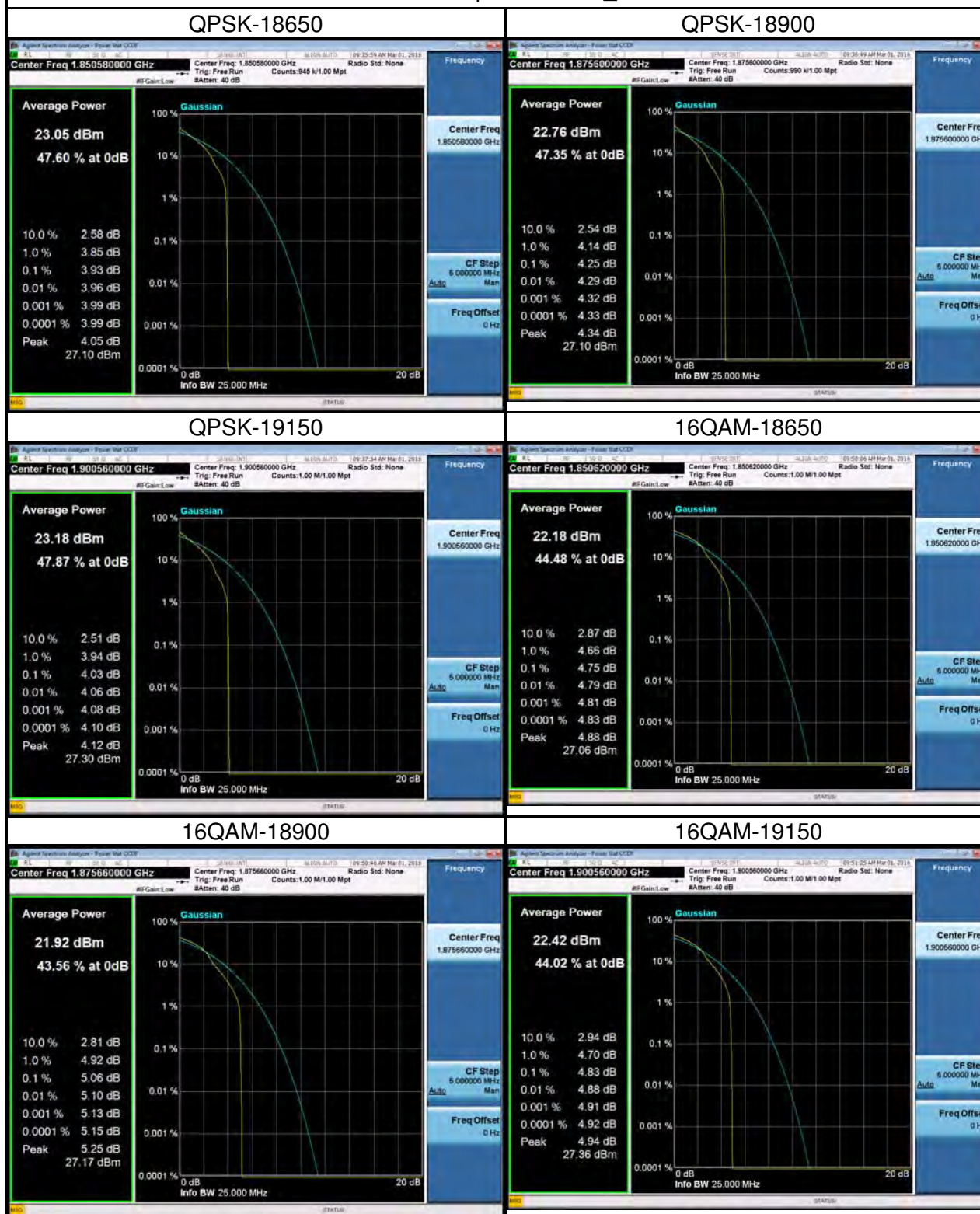
LTE Band II Spectrum Plot_3M



LTE Band II Spectrum Plot_5M



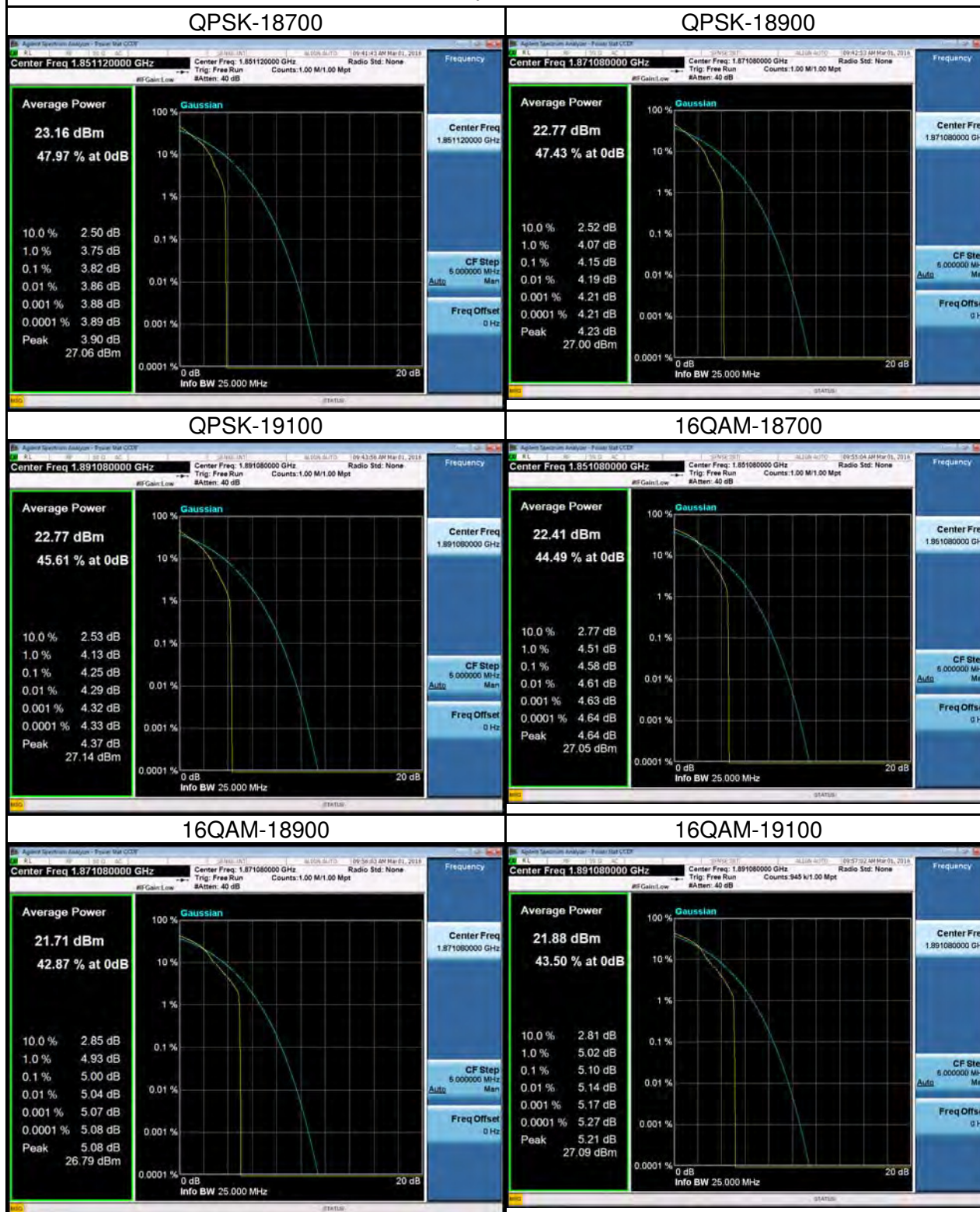
LTE Band II Spectrum Plot_10M



LTE Band II Spectrum Plot_15M



LTE Band II Spectrum Plot_20M



ATTACHMENT G - FREQUENCY STABILITY

Test Mode:	DCS1900_CH661
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	7.15	0.003864447	2.5
-20	6.48	0.003502324	2.5
-10	5.16	0.002788888	2.5
0	6.25	0.003378013	2.5
10	4.38	0.002367312	2.5
20	5.49	0.002967247	2.5
30	4.52	0.002442979	2.5
40	7.28	0.003934710	2.5
50	3.22	0.001740352	2.5
Max. Deviation (ppm)	7.28	0.003934710	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	5.46	0.002951032	2.5
3.5	2.19	0.001183656	2.5
4.35	1.26	0.000681007	2.5
Max. Deviation (ppm)	5.46	0.002951032	2.5

Test Mode:	WCDMA Band II_CH9400
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	2.31	0.001228723	2.5
-20	7.38	0.003925532	2.5
-10	4.86	0.002585106	2.5
0	5.37	0.002856383	2.5
10	4.19	0.002228723	2.5
20	6.13	0.003260638	2.5
30	6.28	0.003340426	2.5
40	6.91	0.003675532	2.5
50	7.38	0.003925532	2.5
Max. Deviation (ppm)	7.38	0.003925532	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	6.14	0.003265957	2.5
3.5	1.86	0.000989362	2.5
4.35	6.18	0.003287234	2.5
Max. Deviation (ppm)	6.18	0.003287234	2.5

Test Mode:	LTE Band II_CH18900_1.4M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-4.16	0.002212766	2.5
-20	-3.17	0.001686170	2.5
-10	5.14	0.002734043	2.5
0	4.18	0.002223404	2.5
10	3.44	0.001829787	2.5
20	-1.64	0.000872340	2.5
30	-3.56	0.001893617	2.5
40	4.63	0.002462766	2.5
50	-4.41	0.002345745	2.5
Max. Deviation (ppm)	5.14	0.002734043	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	3.17	0.001686170	2.5
3.5	6.34	0.003372340	2.5
4.35	4.57	0.002430851	2.5
Max. Deviation (ppm)	6.34	0.003372340	2.5

Test Mode:	LTE Band II_CH18900_3M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.51	0.001867021	2.5
-20	-3.61	0.001920213	2.5
-10	3.25	0.001728723	2.5
0	-4.15	0.002207447	2.5
10	5.54	0.002946809	2.5
20	3.17	0.001686170	2.5
30	1.84	0.000978723	2.5
40	-2.24	0.001191489	2.5
50	-4.41	0.002345745	2.5
Max. Deviation (ppm)	5.54	0.002946809	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-3.11	0.001654255	2.5
3.5	2.28	0.001212766	2.5
4.35	-4.54	0.002414894	2.5
Max. Deviation (ppm)	4.54	0.002414894	2.5

Test Mode:	LTE Band II_CH18900_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-3.25	0.001728723	2.5
-20	3.53	0.001877660	2.5
-10	-3.51	0.001867021	2.5
0	-4.63	0.002462766	2.5
10	3.48	0.001851064	2.5
20	3.27	0.001739362	2.5
30	-2.45	0.001303191	2.5
40	-4.63	0.002462766	2.5
50	4.47	0.002377660	2.5
Max. Deviation (ppm)	4.63	0.002462766	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	2.45	0.001303191	2.5
3.5	-3.49	0.001856383	2.5
4.35	4.73	0.002515957	2.5
Max. Deviation (ppm)	4.73	0.002515957	2.5

Test Mode:	LTE Band II_CH18900_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.84	0.002042553	2.5
-20	-5.53	0.002941489	2.5
-10	-1.95	0.001037234	2.5
0	4.52	0.002404255	2.5
10	-1.83	0.000973404	2.5
20	2.51	0.001335106	2.5
30	-3.34	0.001776596	2.5
40	-2.40	0.001276596	2.5
50	1.74	0.000925532	2.5
Max. Deviation (ppm)	4.52	0.002941489	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-2.57	0.001367021	2.5
3.5	-3.95	0.002101064	2.5
4.35	2.86	0.001521277	2.5
Max. Deviation (ppm)	3.95	0.002101064	2.5

Test Mode:	LTE Band II_CH18900_15M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-3.18	0.001691489	2.5
-20	-5.43	0.002888298	2.5
-10	4.49	0.002388298	2.5
0	4.71	0.002505319	2.5
10	1.26	0.000670213	2.5
20	3.42	0.001819149	2.5
30	-4.14	0.002202128	2.5
40	2.78	0.001478723	2.5
50	-1.46	0.000776596	2.5
Max. Deviation (ppm)	5.43	0.002888298	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	5.74	0.003053191	2.5
3.5	-3.88	0.002063830	2.5
4.35	3.29	0.001750000	2.5
Max. Deviation (ppm)	5.74	0.003053191	2.5

Test Mode:	LTE Band II_CH18900_20M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-6.33	0.003367021	2.5
-20	-4.45	0.002367021	2.5
-10	-3.55	0.001888298	2.5
0	-3.41	0.001813830	2.5
10	-2.22	0.001180851	2.5
20	2.56	0.001361702	2.5
30	-4.52	0.002404255	2.5
40	5.21	0.002771277	2.5
50	5.42	0.002882979	2.5
Max. Deviation (ppm)	6.33	0.003367021	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	3.96	0.002106383	2.5
3.5	-3.51	0.001867021	2.5
4.35	2.62	0.001393617	2.5
Max. Deviation (ppm)	3.96	0.002106383	2.5