

FCC Radio Test Report

FCC ID: X4YTRNTY3G

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

Project No. : 1510C002
Equipment : 3G/4G TRINITY PORTABLE SIM-BASED WI-FI
HOTSPOT
Model Name : ARNPR3G5U1
Applicant : NEXXT SOLUTIONS
Address : 3505 N.W 107TH AVE, MIAMI, FL, 33178

Date of Receipt : Oct. 08, 2015
Date of Test : Oct. 08, 2015 ~ Nov. 02, 2015
Issued Date : Nov. 03, 2015
Tested by : BTL Inc.

Technical Engineer

: Shawn Xiao
(Shawn Xiao)

Authorized Signatory

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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Limitation

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-3-1510C002	Original Issue.	Nov. 03, 2015

1. CERTIFICATION

Equipment : 3G/4G TRINITY PORTABLE SIM-BASED WI-FI HOTSPOT
Brand Name : NEXXT
Model Name : ARNPR3G5U1
Applicant : NEXXT SOLUTIONS
Manufacturer : NEXXT SOLUTIONS
Address : 3505 N.W 107TH AVE, MIAMI, FL, 33178
Date of Test : Oct. 08, 2015 ~ Nov. 02, 2015
Test Sample : Engineering Sample
Standard(s) : 47 CFR FCC Part 24 Subpart E
47 CFR FCC Part 2 & ANSI/TIA-603-D-2010

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-3-1510C002) 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 result included in this report is only for the GSM 1900MHz approval part of the product.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 24 Subpart E & Part 2			
Standard(s) Section	Test Item	Judgment	Remark
FCC			
2.1046 24.232(c)	Radiated power	PASS	
2.1049 24.238(a)	Occupied Bandwidth	PASS	
2.1051 24.238(a)	Conducted Spurious Emissions	PASS	
2.1053 24.238(a)	Radiated Spurious Emissions	PASS	
24.238(a)	Band Edge Measurements	PASS	
24.232(d)	Peak To Average Ratio	PASS	
2.1055 24.235	Frequency Stability	PASS	

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 Emissions Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(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

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	CISPR	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	3G/4G TRINITY PORTABLE SIM-BASED WI-FI HOTSPOT	
Brand Name	NEXXT	
Model Name	ARNPR3G5U1	
Model Difference	NA	
Modulation Type	GSM/GPRS	GMSK
	EDGE	GMSK, 8PSK
Operation Frequency	GSM/GPRS/EDGE	1850.2 ~ 1909.8 MHz
Max. EIRP Power	GSM/GPRS	30.80dBm
	EDGE	28.54dBm
Antenna Type	Fixed Internal Antenna	
Antenna Gain	-0.94dBi	
Power Source	#1 Supplied from PC USB port. #2 Supplied from LI-ion Battery.	
Power Rating	#1 DC 5V #2 2000mAh/3.7V/7.4Wh	

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
Battery	N/A	BM301	3.7Vdc, 2000mAh
USB Cable	N/A	N/A	0.8m shielded cable without 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, X/Y/Z axis and antenna ports.

The worst case was found when positioned on Z-plane for ERP and Z-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
Occupied Bandwidth	512 to 810	512, 661, 810	GSM, EDGE
Conducuted 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

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

EUT TEST CONDITIONS:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25°C, 65%RH	DC 3.7V	Kai Xu
Occupied Bandwidth	25°C, 65%RH	DC 3.7V	Kai Xu
Conducted Emission	25°C, 65%RH	DC 3.7V	Kai Xu
Radiated Emission	25°C, 65%RH	DC 3.7V	Kai Xu
Band Edge	25°C, 65%RH	DC 3.7V	Kai Xu
Peak to Average Ratio	25°C, 65%RH	DC 3.7V	Kai Xu
Frequency Stability	25°C, 65%RH	DC 3.7V	Kai Xu

3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

E.I.R.P:



Remote system
Ground Plane

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.	Note
-	-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	-

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 is 1MHz for GSM, GPRS & EDGE, 5MHz for WCDMA and CDMA, and 10MHz for LTE mode
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. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15\text{dBi}$.

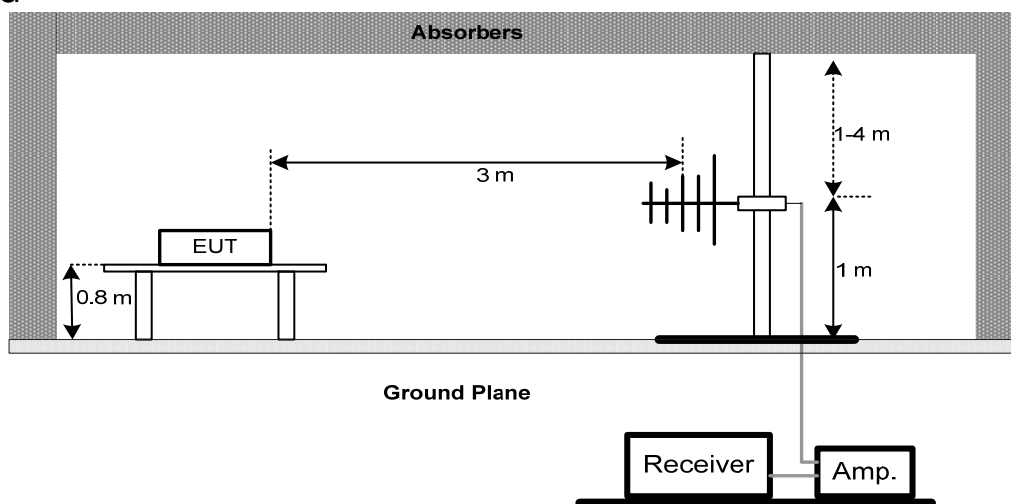
Conducted Power:

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.

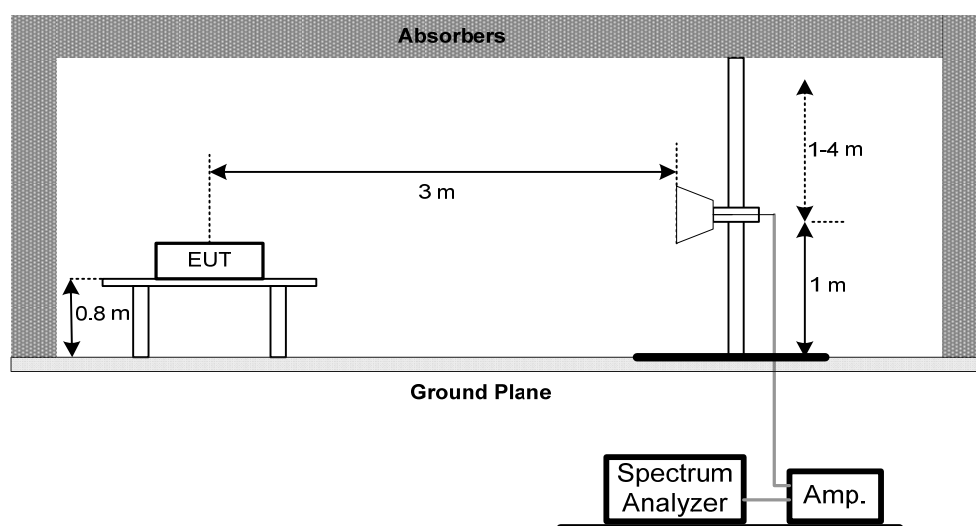
4.1.3 TESTSETUP LAYOUT

ERP Power Measurement

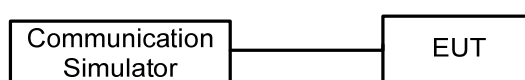
Below 1G



Above 1G



Conducted Power Measurement



4.1.4 TEST DEVIATION

No deviation

4.1.5 TEST RESULTS

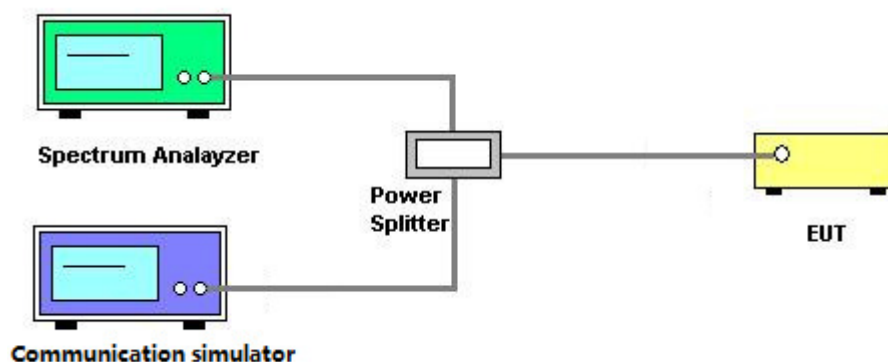
Please refer to the Attachment A.

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.

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

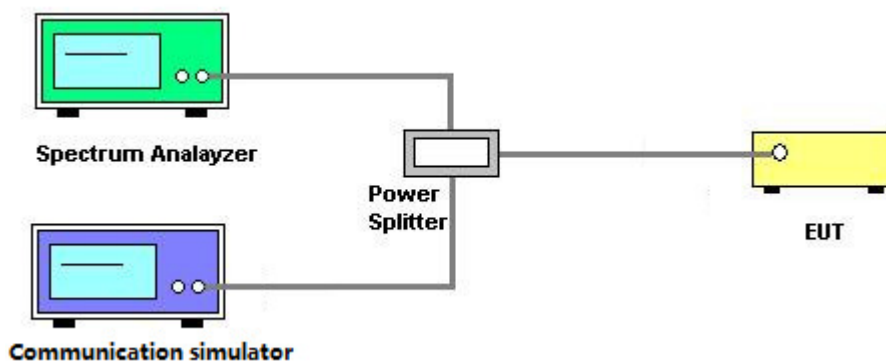
4.3.1 LIMIT

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 EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
2. Measuring frequency range is from 9 kHz to 9GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

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

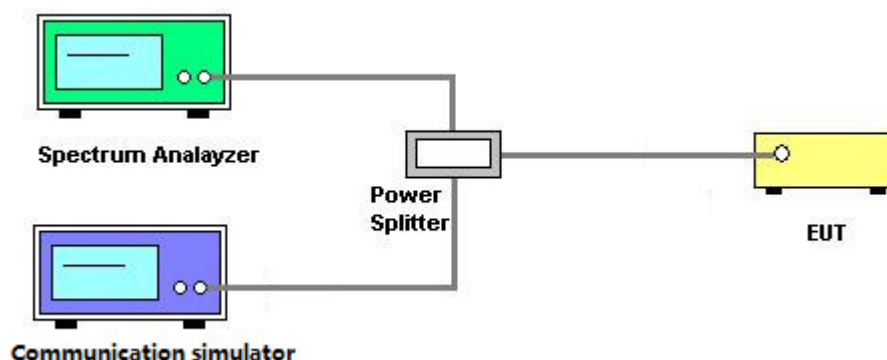
4.5.1 LIMIT

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

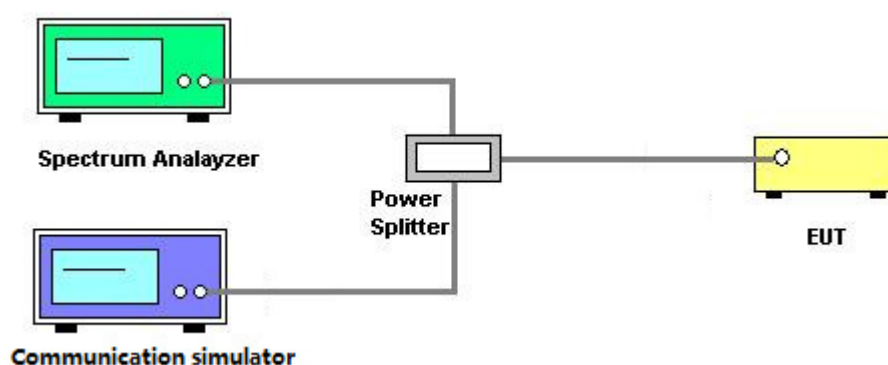
4.6.1 LIMIT

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

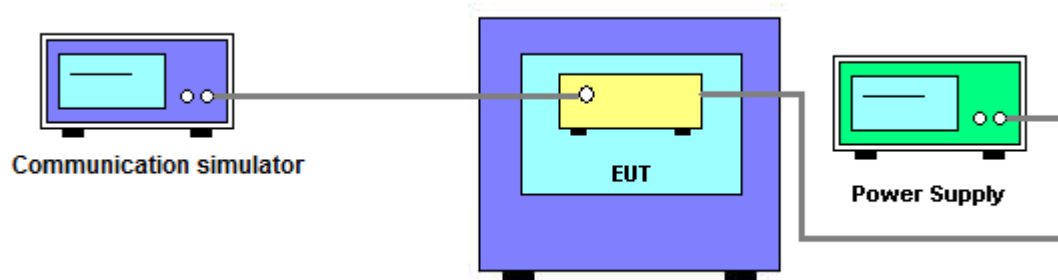
4.7.1 LIMIT

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. 17, 2015
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	75789	Mar. 28, 2016
7	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Mar. 28, 2016
8	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 28, 2016
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Wireless Communication Test Set	(8960 Series) Agilent	E5515C	MY48364183	Mar. 28, 2016
11	Band Reject Filter	Wairwright Instruments GmbH	WRCG 824/849-810/86 3-60/9SS	7	Mar. 04, 2016

Conducted Emission & Band Edge & Occupied Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EXA SpectrumAnalyzer	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.30, 2016
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

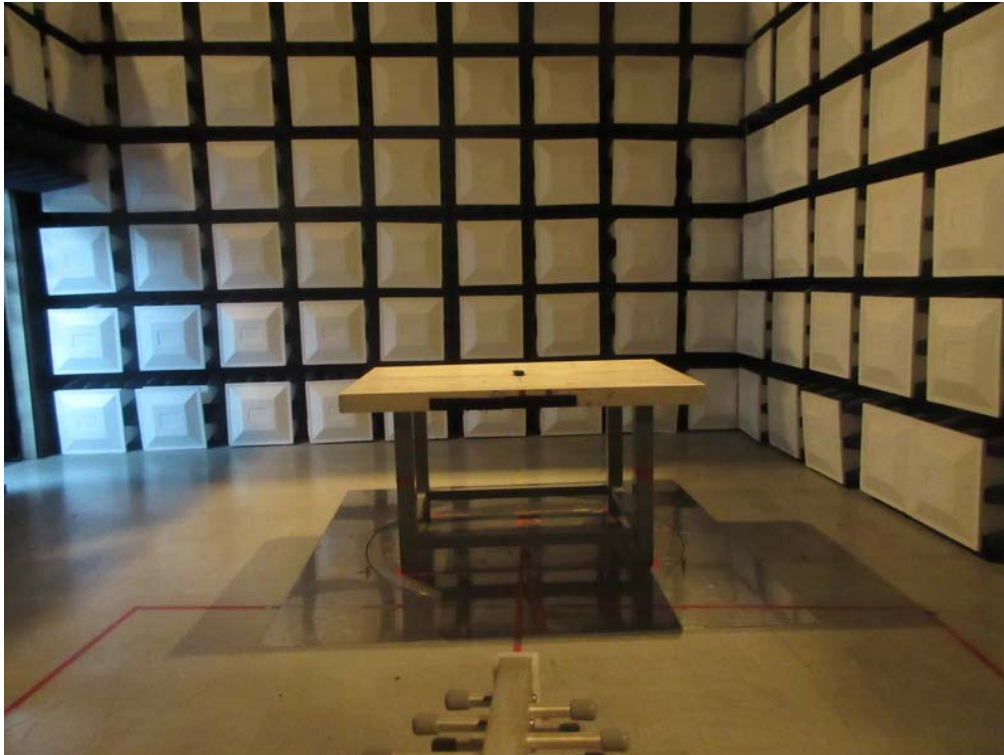
Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test Set	(8960 Series)Agilent	E5515C	MY48364183	Mar. 28, 2016
2	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Mar. 17, 2016
3	Test Cable	N/A	RG316	Cable4-001	Jul. 15, 2016
4	Const Temp. & Humidity Chamber	GIANT FORCE	ITH-225-20-S	IAB0309-001	Dec.05, 2015
5	DC power supply	GW Instek	GPC-3030D N	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

30MHz to 1000MHz



Radiated Measurement Photos

Above 1000MHz



ATTACHMENT A - OUTPUT POWER

Test Mode:	TX CH 512/661/810-GSM
------------	-----------------------

E.I.R.P Power

GSM 1900					
GSM					
Plane	Channel	Frequency (MHz)	EIRP(dBm)	Max. Limit(dBm)	Polarization (H/V)
Z	512	824.2	30.80	33.00	H
	661	836.6	28.96	33.00	H
	810	848.8	29.88	33.00	H
	512	824.2	30.28	33.00	V
	661	836.6	30.65	33.00	V
	810	848.8	28.76	33.00	V
EDGE					
Plane	Channel	Frequency (MHz)	EIRP(dBm)	Max. Limit(dBm)	Polarization (H/V)
Z	512	824.2	27.26	33.00	H
	661	836.6	25.82	33.00	H
	810	848.8	28.54	33.00	H
	512	824.2	27.09	33.00	V
	661	836.6	26.01	33.00	V
	810	848.8	28.16	33.00	V

Conducted Power:

GSM1900		Tune-up	Max Burst Average Power (dBm)			Tune-up	Max Frame Average Power (dBm)		
			512CH	661CH	810CH		512CH	661CH	810CH
			1850.2MHz	1880MHz	1909.8MHz		1850.2MHz	1880MHz	1909.8MHz
GPRS /EDGE (GMSK)	1 Tx Slot	29.00	28.59	28.70	28.64	19.81	19.40	19.51	19.45
	2 Tx Slot	28.50	28.01	28.14	28.10	22.37	21.88	22.01	21.97
	3 Tx Slot	27.00	26.65	26.77	26.76	22.58	22.23	22.35	22.34
	4 Tx Slot	26.50	25.83	25.96	25.95	23.32	22.65	22.78	22.77
EDGE (8PSK)	1 Tx Slot	26.50	25.89	25.92	25.95	17.31	16.70	16.73	16.76
	2 Tx Slot	25.50	24.72	24.78	24.70	19.37	18.59	18.65	18.57
	3 Tx Slot	23.00	22.58	22.45	22.38	18.58	18.16	18.03	17.96
	4 Tx Slot	22.00	21.32	21.36	21.16	18.82	18.14	18.18	17.98

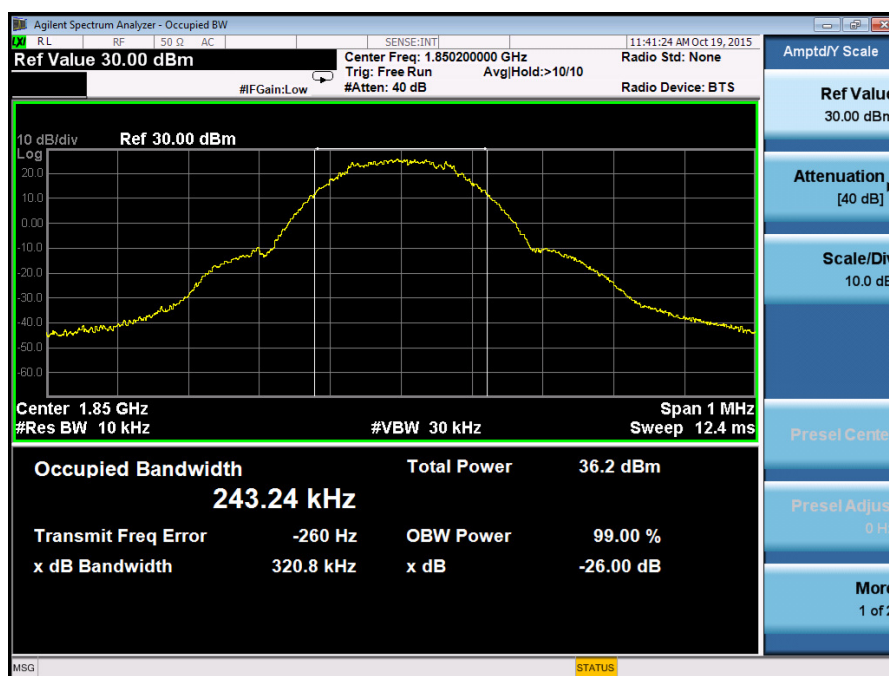
REMARKS:

1. Radiated Output Power(dBm)=Raw Value(dBm) + Correction Factor(dB) +Ant Gain(dBi)
2. Correction Factor(dB) = Power SplitterLoss(dB) + Cable Loss(dB)
3. The antenna gain is-0.94dBi
4. Tests have been conducted for both vertical and horizontal plane and the worst case was found in horizontal plane and the results were selected and recorded in the report

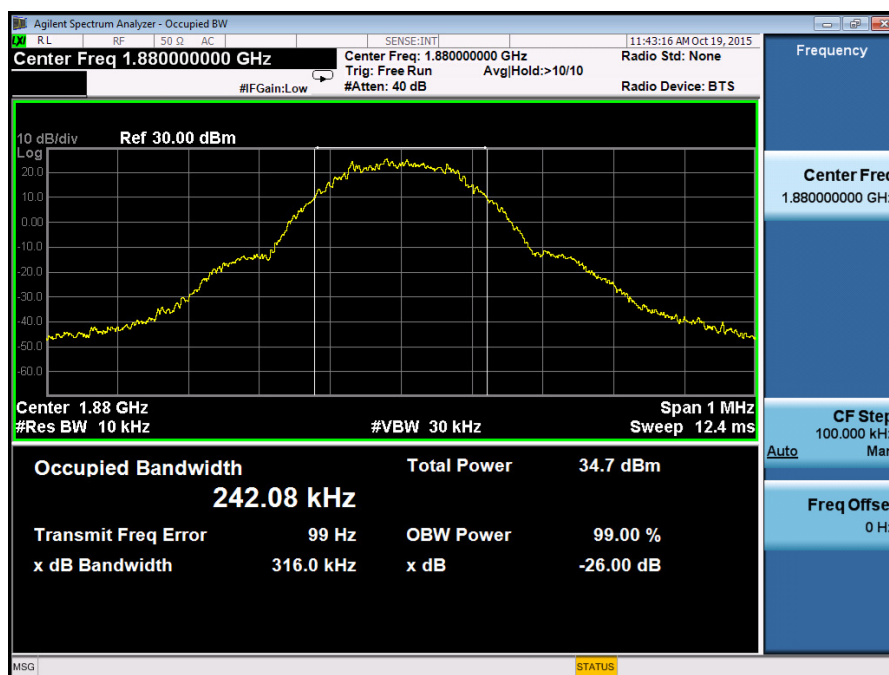
ATTACHMENT B - OCCUPIED BANDWIDTH

Test Mode : TX Mode ConfigurationGSM				
Channel	Frequency	99% OBW (MHz)	-26dBc Bandwidth(MHz)	Result
512	1850.20MHz	0.243	0.321	Complies
661	1880.00 MHz	0.242	0.316	Complies
810	1909.80 MHz	0.247	0.309	Complies

99% Occupied Bandwidth channel 512



99% Occupied Bandwidth channel 661

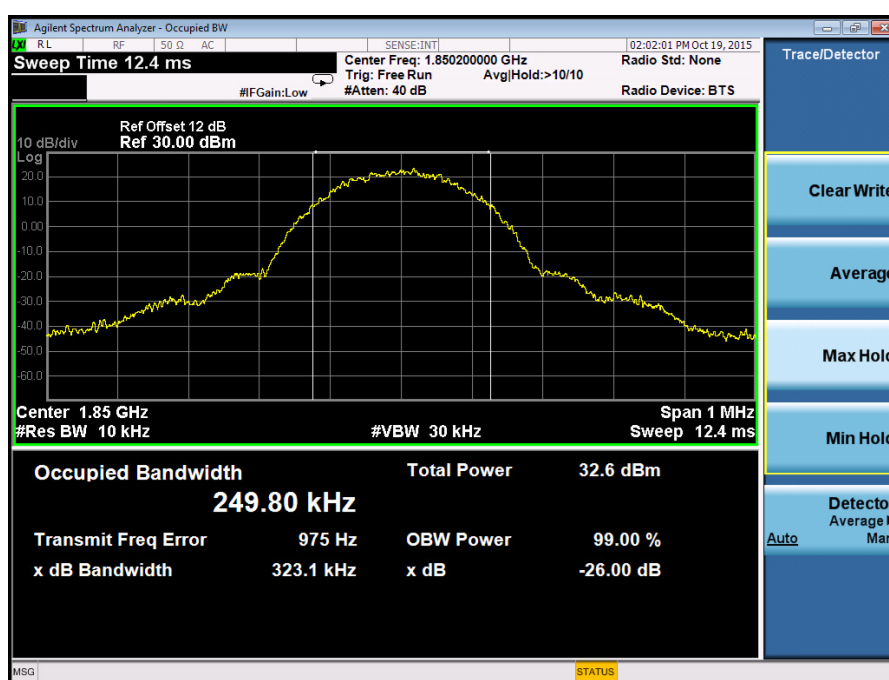


99% Occupied Bandwidth channel 810

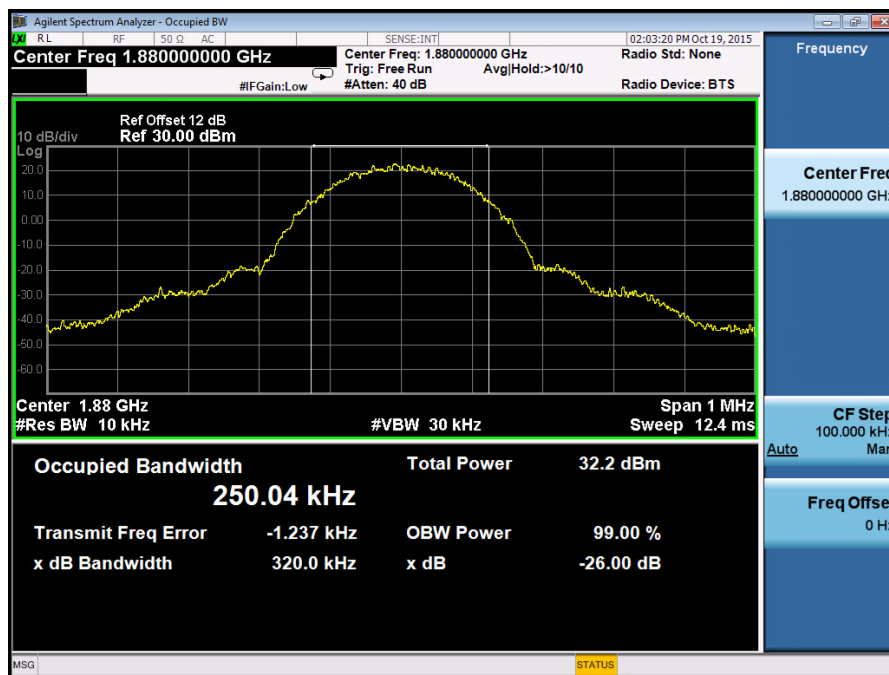


Test Mode : TX Mode ConfigurationEDGE				
Channel	Frequency	99% OBW (MHz)	-26dBc Bandwidth(MHz)	Result
512	1850.20MHz	0.250	0.323	Complies
661	1880.00 MHz	0.250	0.320	Complies
810	1909.80 MHz	0.249	0.320	Complies

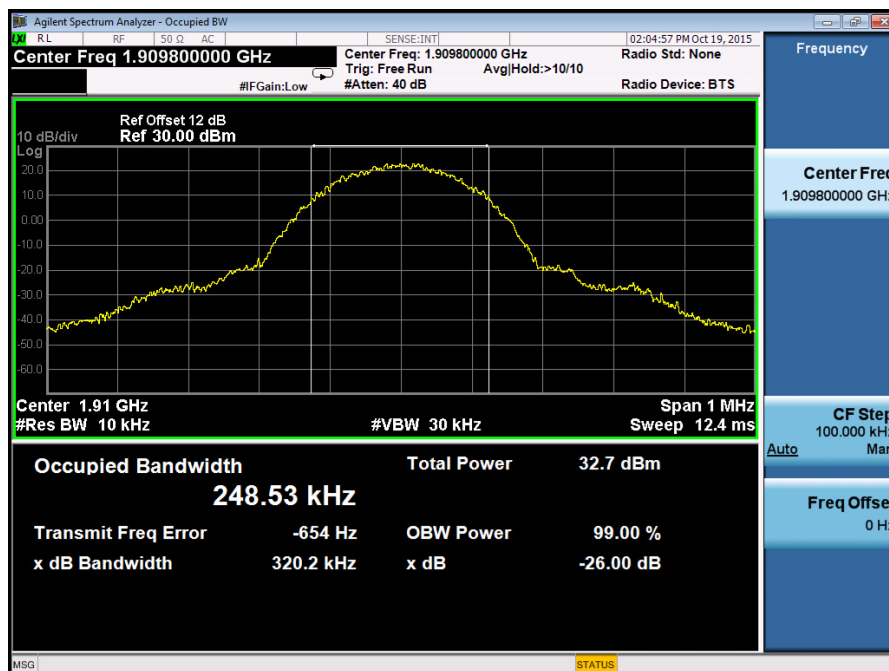
99% Occupied Bandwidth channel 512



99% Occupied Bandwidth channel 661

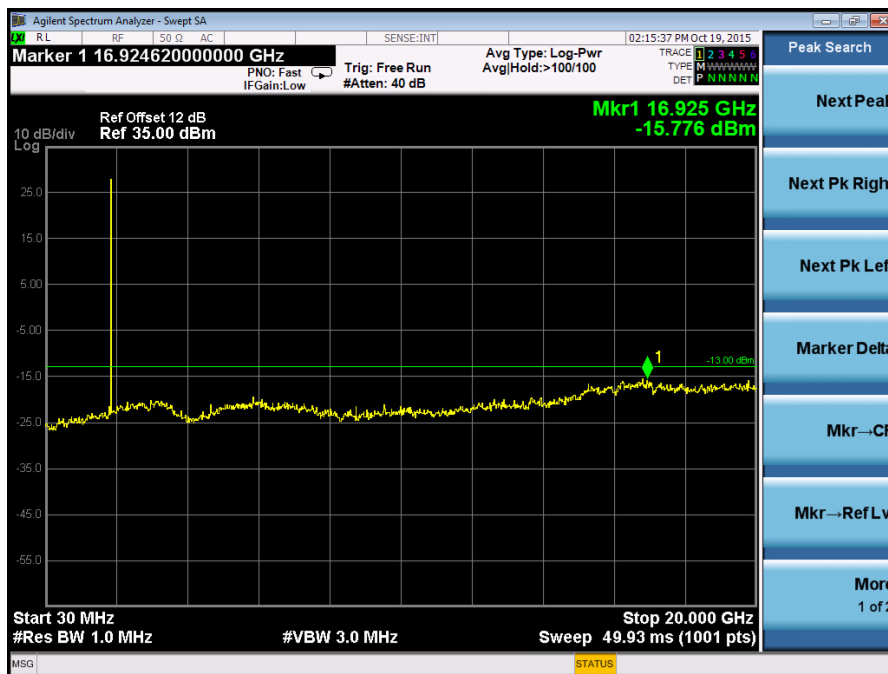


99% Occupied Bandwidth channel 810



ATTACHMENT C – CONDUCTED EMISSIONS

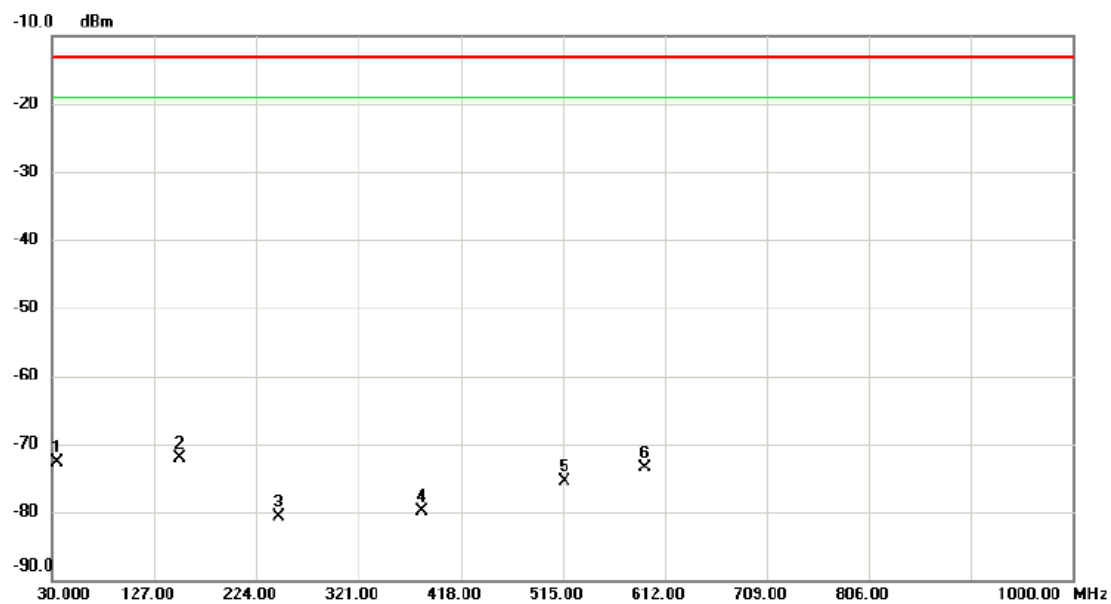
Conducted Spurious of Configuration-GSMchannel 661



ATTACHMENT D - RADIATED EMISSION

Test Mode: TX CH661 GSM

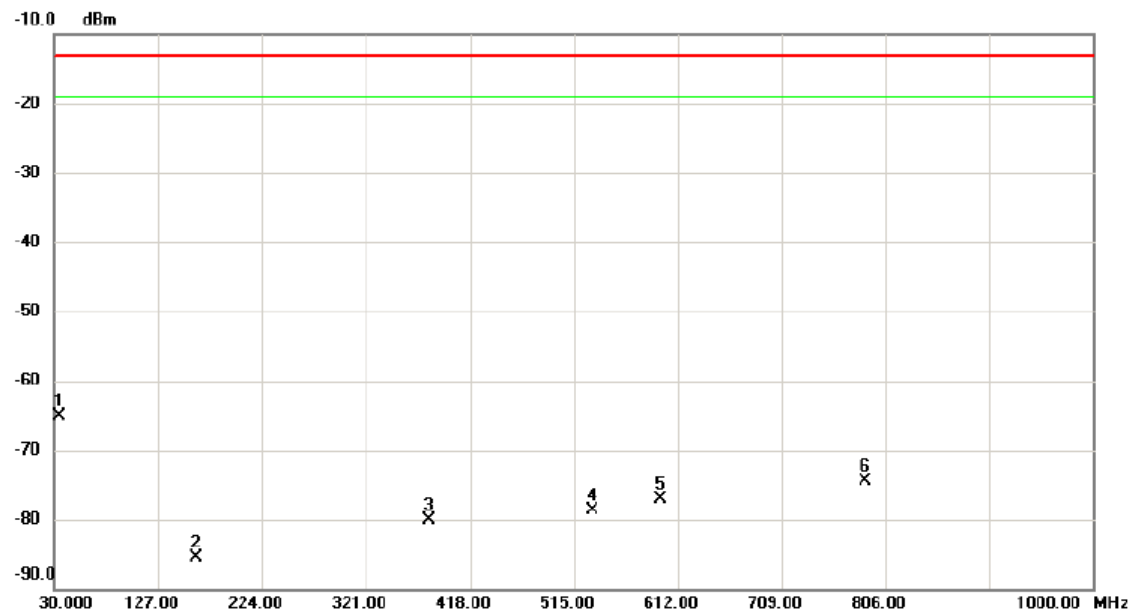
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		33.8800	-63.17	-9.62	-72.79	-13.00	-59.79	peak	
2	*	150.2800	-69.37	-2.76	-72.13	-13.00	-59.13	peak	
3		245.3400	-80.28	-0.48	-80.76	-13.00	-67.76	peak	
4		381.1400	-79.80	-0.11	-79.91	-13.00	-66.91	peak	
5		516.9400	-78.30	2.77	-75.53	-13.00	-62.53	peak	
6		593.5700	-78.87	5.30	-73.57	-13.00	-60.57	peak	

Test Mode: TX CH661 GSM

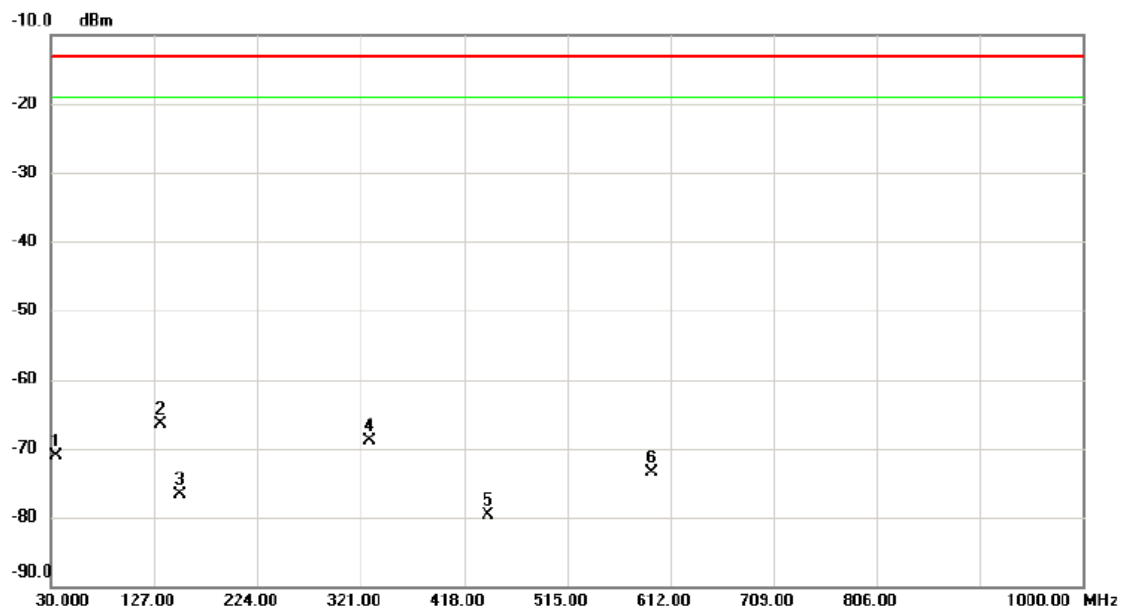
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	33.8800	-65.94	0.91	-65.03	-13.00	-52.03	peak	
2		162.8900	-81.04	-4.55	-85.59	-13.00	-72.59	peak	
3		379.2000	-79.52	-0.54	-80.06	-13.00	-67.06	peak	
4		532.4600	-79.12	0.45	-78.67	-13.00	-65.67	peak	
5		595.5100	-79.40	2.33	-77.07	-13.00	-64.07	peak	
6		786.6000	-79.09	4.54	-74.55	-13.00	-61.55	peak	

Test Mode: TX CH661 EDGE

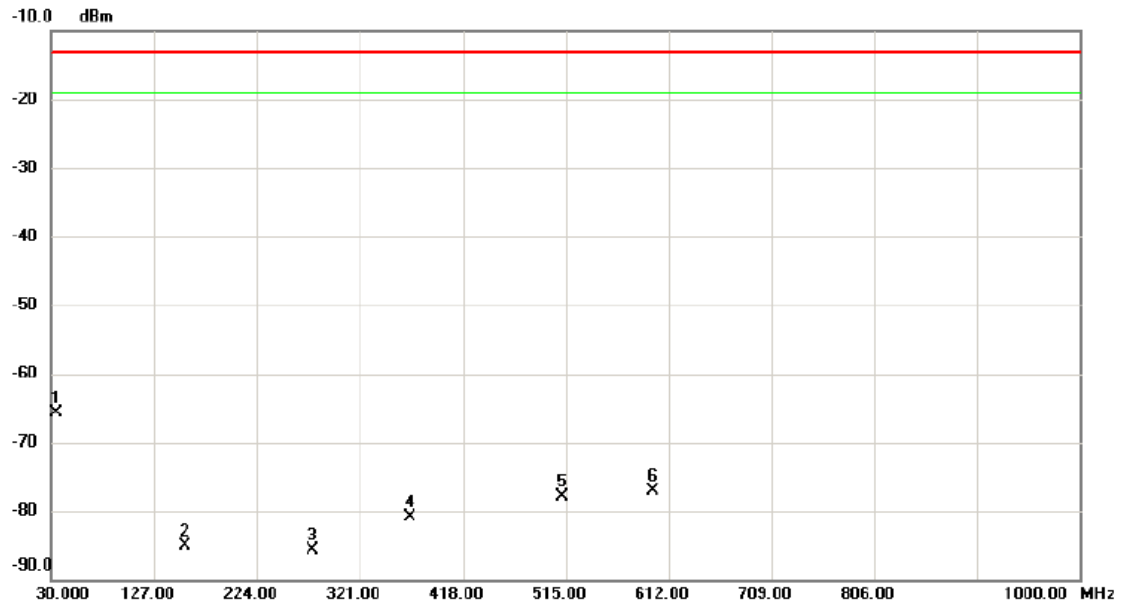
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		33.8800	-61.53	-9.62	-71.15	-13.00	-58.15	peak	
2	*	132.8200	-64.08	-2.46	-66.54	-13.00	-53.54	peak	
3		150.2800	-73.89	-2.76	-76.65	-13.00	-63.65	peak	
4		329.7300	-67.42	-1.53	-68.95	-13.00	-55.95	peak	
5		440.3100	-78.49	-1.21	-79.70	-13.00	-66.70	peak	
6		594.5400	-78.75	5.35	-73.40	-13.00	-60.40	peak	

Test Mode: TX CH661 EDGE

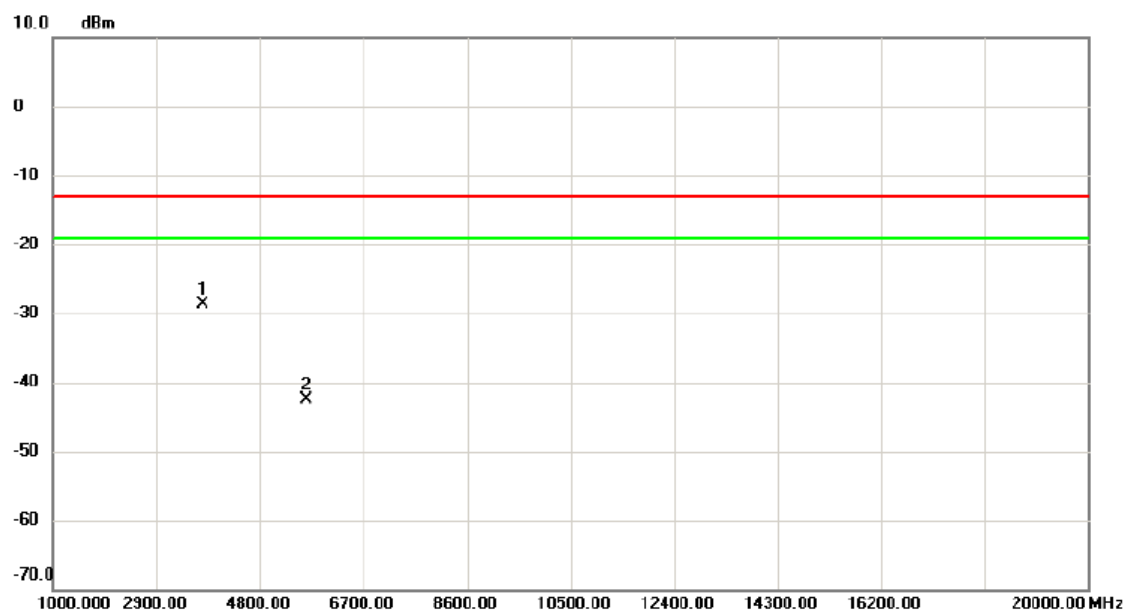
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	33.8800	-66.52	0.91	-65.61	-13.00	-52.61	peak	
2		156.1000	-80.24	-4.80	-85.04	-13.00	-72.04	peak	
3		276.3800	-80.58	-5.15	-85.73	-13.00	-72.73	peak	
4		368.5300	-80.19	-0.68	-80.87	-13.00	-67.87	peak	
5		511.1200	-78.69	0.79	-77.90	-13.00	-64.90	peak	
6		597.4500	-79.49	2.42	-77.07	-13.00	-64.07	peak	

Test Mode: TX CH661 GSM

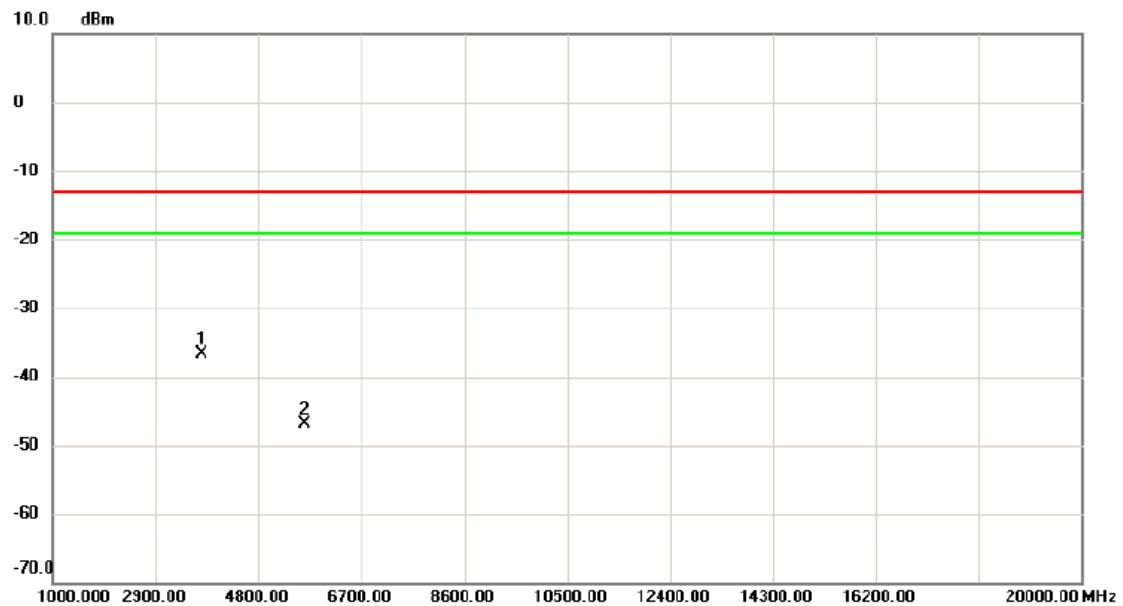
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3759.830	-43.12	14.51	-28.61	-13.00	-15.61	peak	
2		5639.940	-58.88	16.31	-42.57	-13.00	-29.57	peak	

Test Mode: TX CH661 GSM

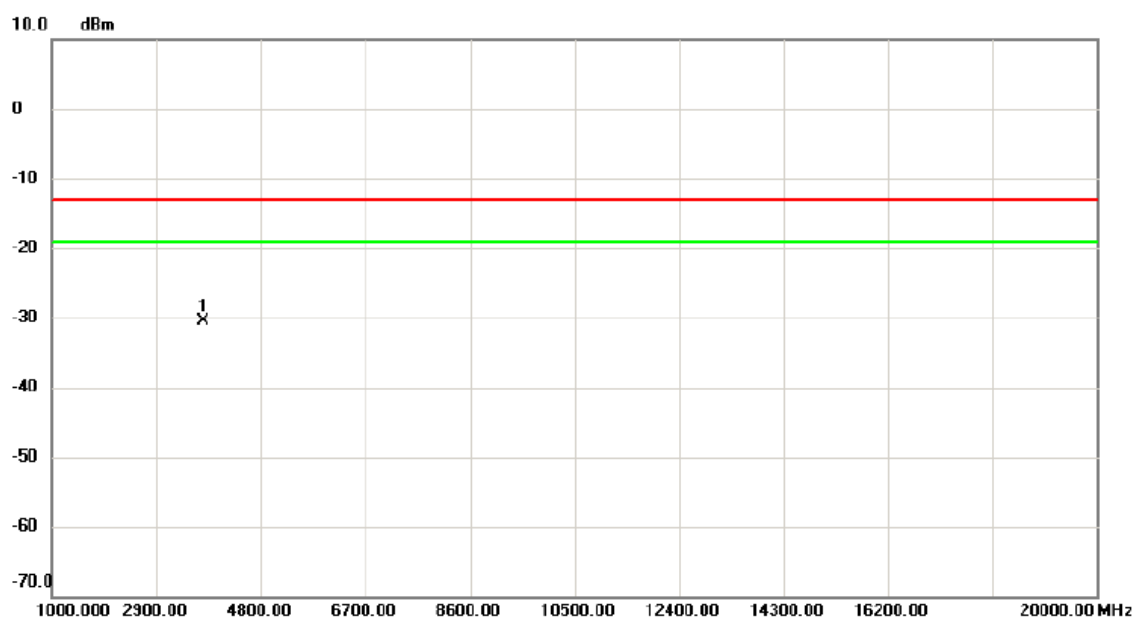
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3759.800	-47.98	11.34	-36.64	-13.00	-23.64	peak	
2		5640.240	-63.96	17.04	-46.92	-13.00	-33.92	peak	

Test Mode:	TX CH661 EDGE
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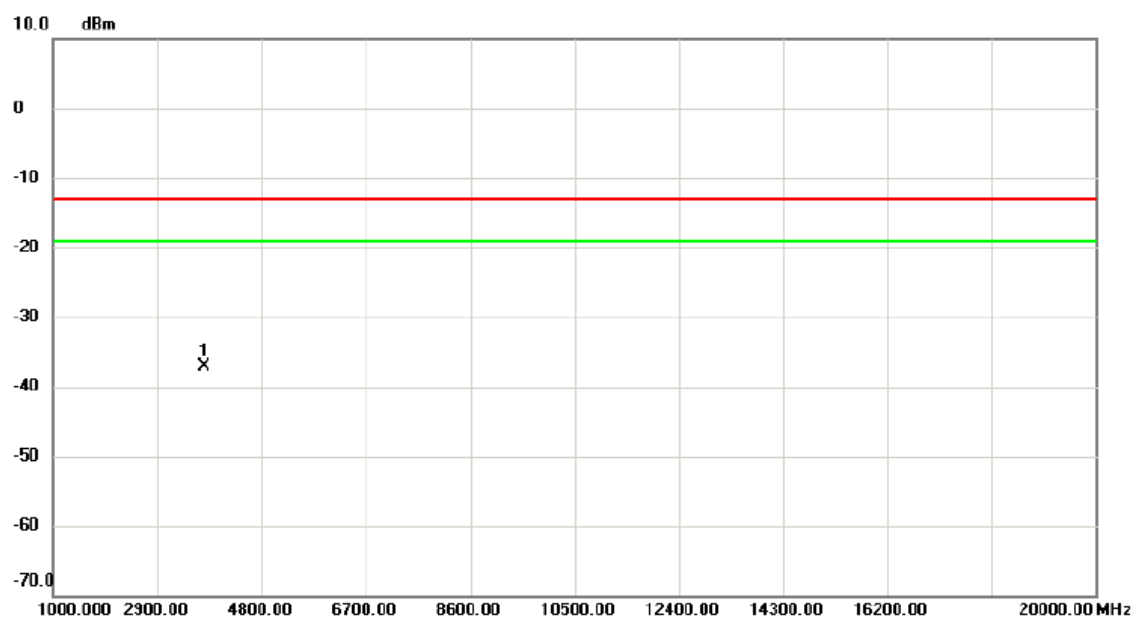
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3760.110	-45.08	14.51	-30.57	-13.00	-17.57	peak	

Test Mode:	TX CH661 EDGE
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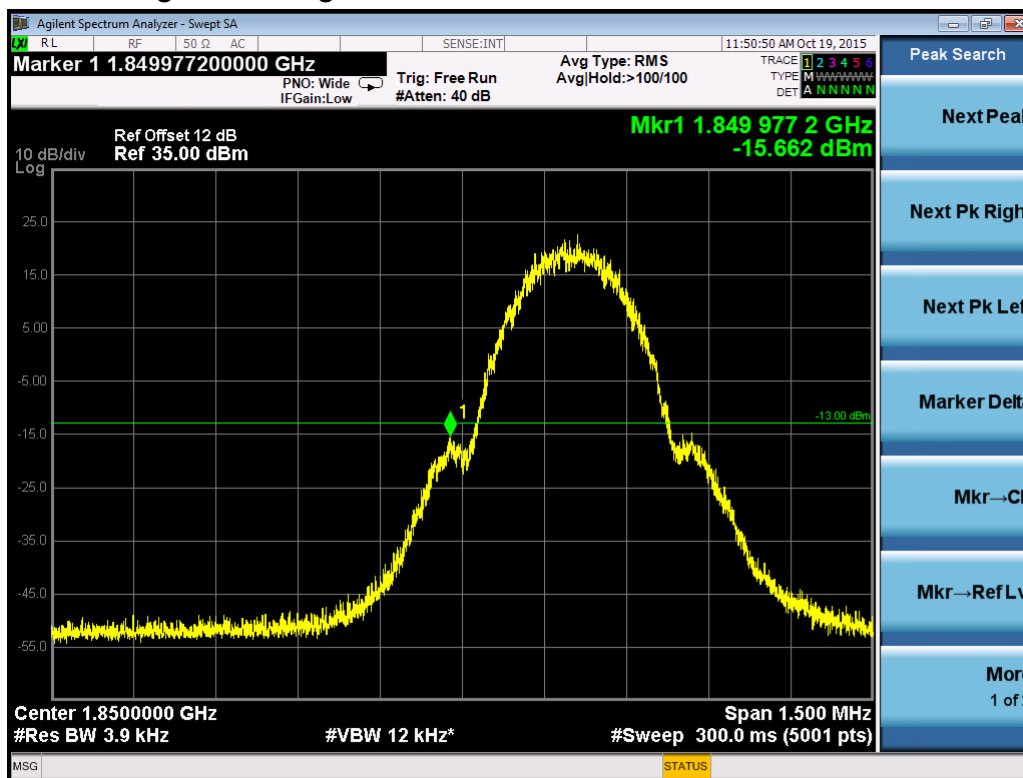
Horizontal



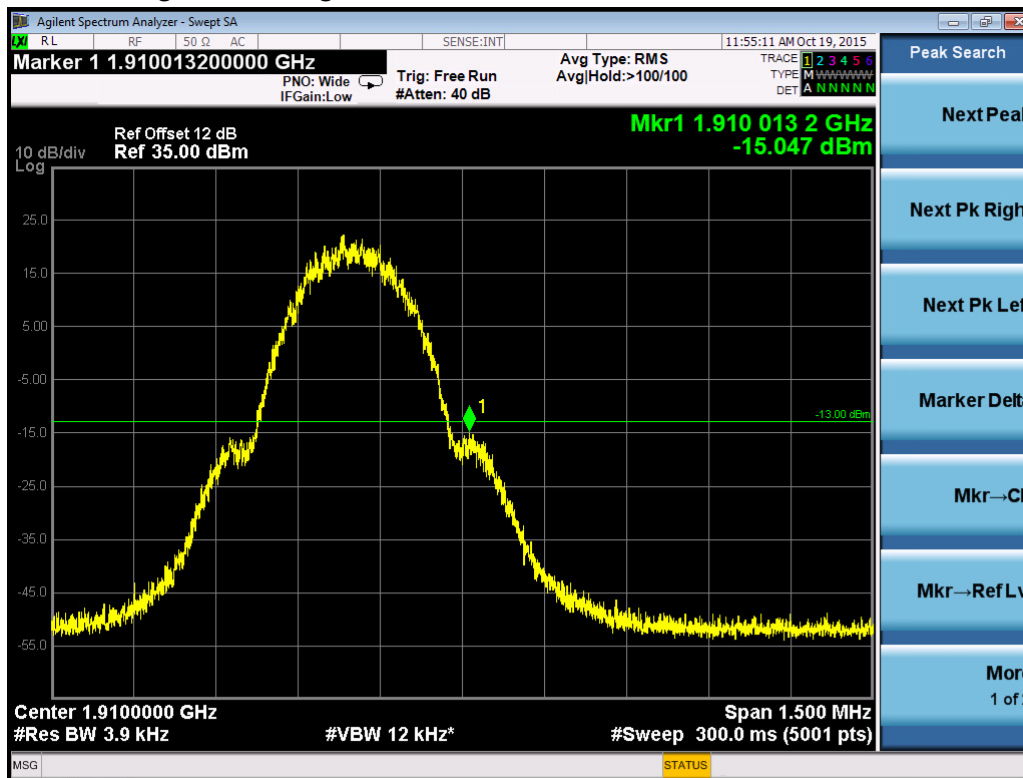
No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	3760.040	-48.41	11.34	-37.07	-13.00	-24.07	peak	

ATTACHMENT E - BAND EDGE

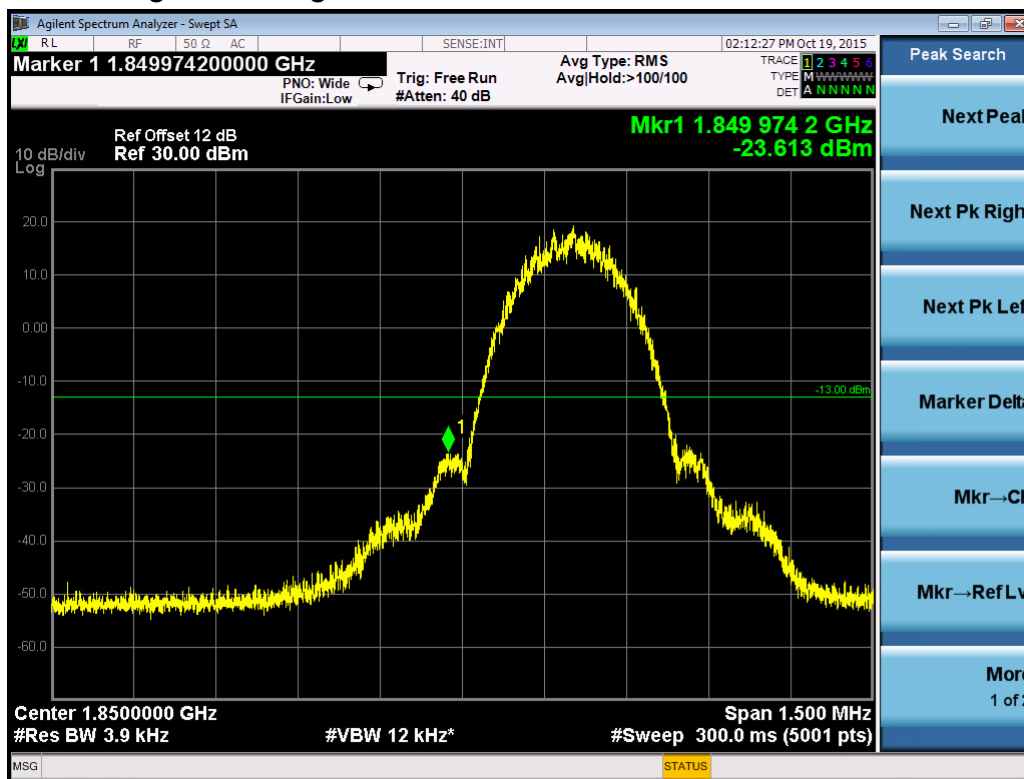
Band Edge on Configuration GSM / Channel 512-CONDUCTED MODE



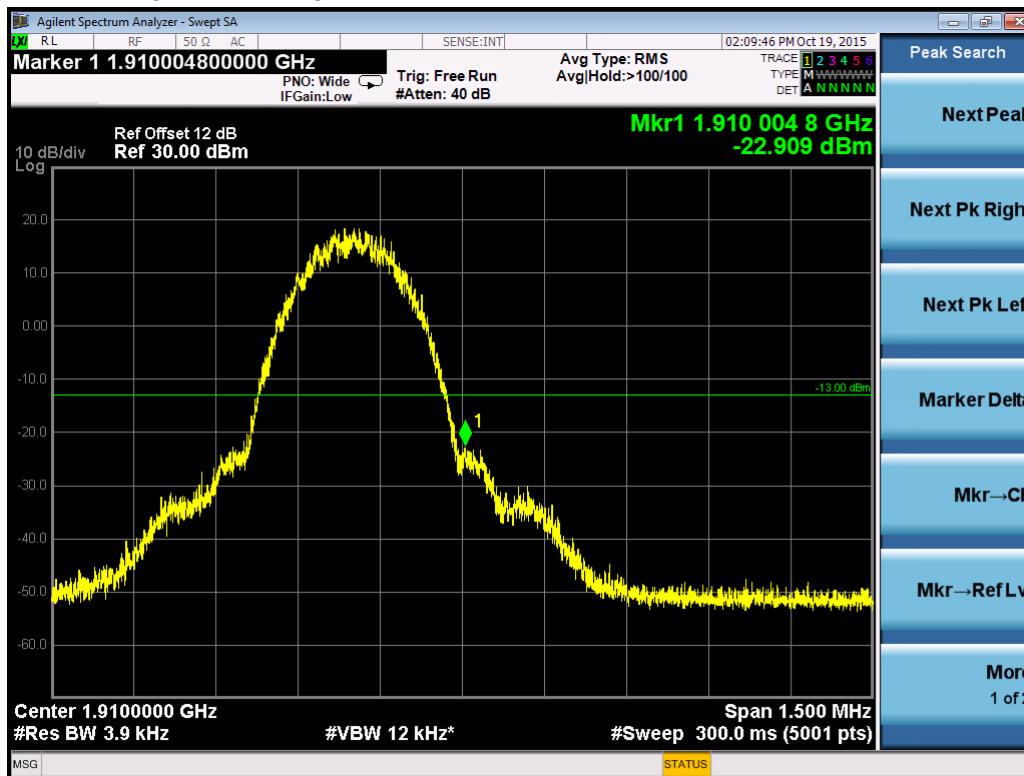
Band Edge on Configuration GSM / Channel 810-CONDUCTED MODE



Band Edge on Configuration EDGE / Channel 512-CONDUCTED MODE

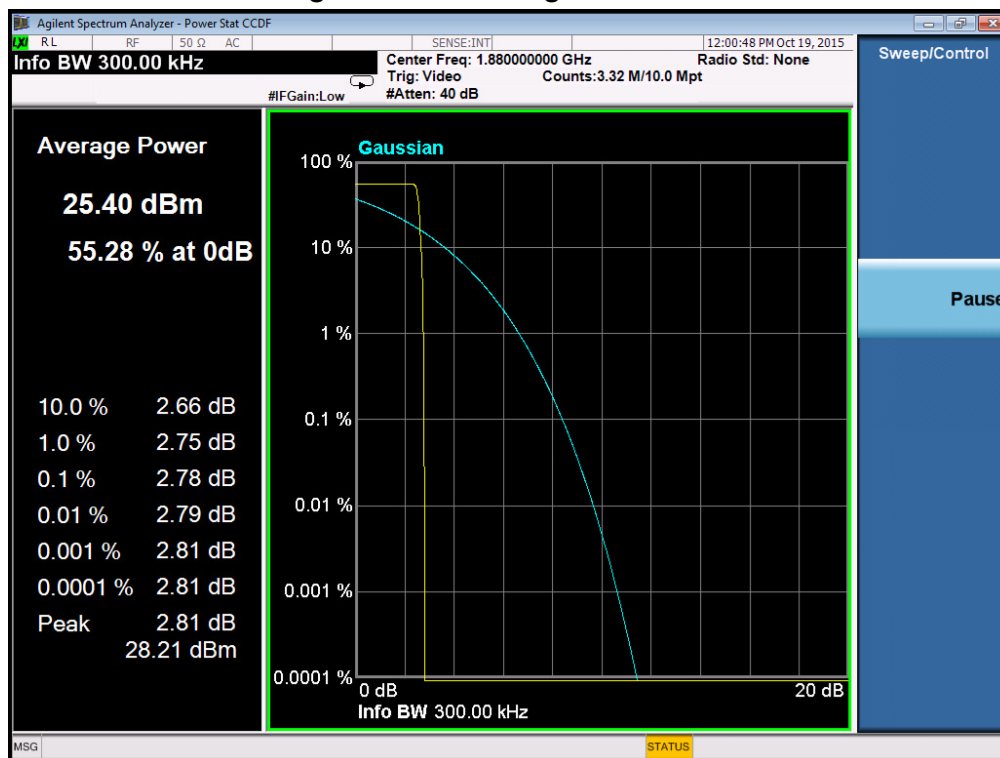


Band Edge on Configuration EDGE / Channel 810-CONDUCTED MODE

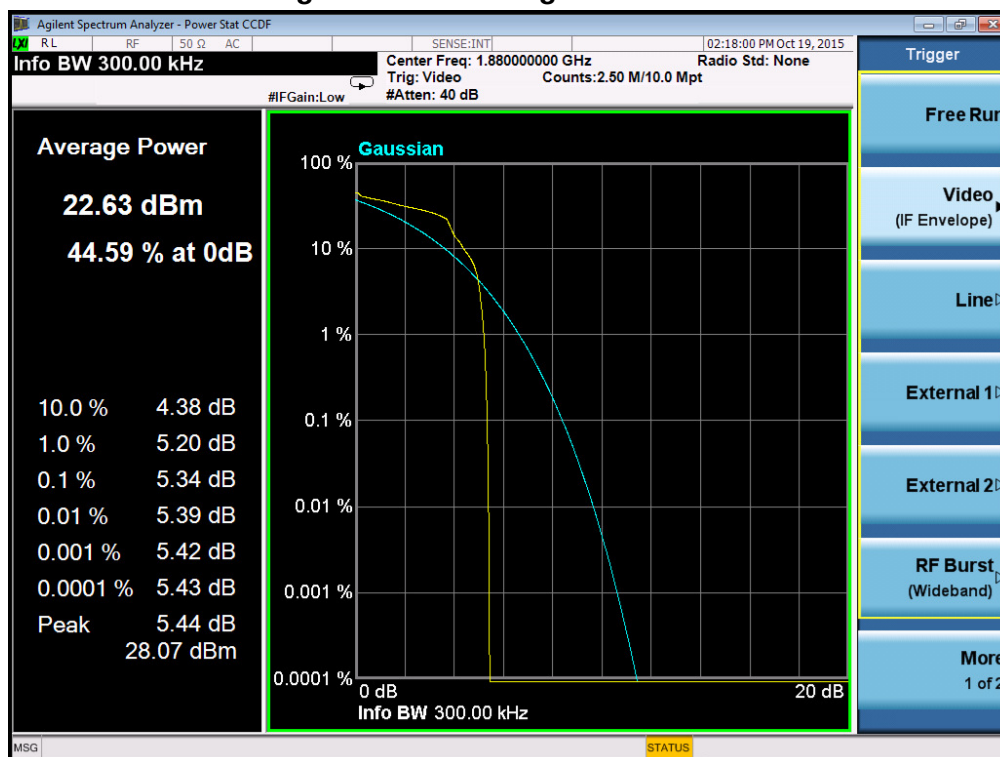


ATTACHMENT F – PEAK TO AVERAGE RATIO

Peak to Average Ratio of Configuration-GSMchannel 661



Peak to Average Ratio of Configuration-EDGEchannel 661



ATTACHMENT G - FREQUENCY STABILITY

Test Mode:	GSM CH512
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	2.25	0.001216085	2.5
10	3.11	0.001680899	2.5
20	4.17	0.00225381	2.5
30	3.98	0.002151119	2.5
40	2.13	0.001151227	2.5
45	3.24	0.001751162	2.5
Max. Deviation (ppm)	5.64	0.003048319	2.5

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.7	6.24	0.003372608	2.5
3.5	1.24	0.000670198	2.5
4.35	3.64	0.001967355	2.5
Max. Deviation (ppm)	6.24	0.003372608	2.5