



# **FCC Radio Test Report**

FCC ID: QISB525S-65A

This report concerns	(check one):	∷⊠Original Grant	☐Class II Change
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Project No. : 1701C181A Equipment : LTE CPE Model Name : B525s-65a

**Applicant**: Huawei Technologies Co. ,Ltd.

Address : Administration Building, Headquarters of Huawei

Technologies Co., Ltd., Bantian, Longgang District

Shenzhen, 518129, P.R.C

Date of Receipt : Feb. 21, 2017

**Date of Test** : Feb. 21, 2017 ~ Mar. 02, 2017

**Issued Date** : Mar. 03, 2017 **Tested by** : BTL Inc.

Technical Engineer : Shawn XIW

(Shawn Xiao)

Authorized Signatory : (Steven Lu)

# BTL INC.

No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

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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 standards traceable to international standard(s) and/or national standard(s).

**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

**BTL**'s report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

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**BTL**'s laboratory quality assurance procedures are in compliance with the **ISO Guide17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

#### 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-3-1701C181A	Original Issue.	Mar. 03, 2017

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#### 1. CERTIFICATION

Equipment : LTE CPE Brand Name : HUAWEI Model Name : B525s-65a

Applicant : Huawei Technologies Co. ,Ltd. Manufacturer : Huawei Technologies Co. ,Ltd.

Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd.,

Bantian, Longgang District Shenzhen,518129, P.R.C

Factory : Shenzhen Zowee Technology.co.,ltd

Address : Shenzhen songgang town pond under chung industrial avenue with rich

industrial area

Date of Test: Feb. 21, 2017 ~ Mar. 02, 2017

Test Sample: Engineering Sample

Standard(s): 47 CFR FCC Part 22 Subpart H

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-3-1701C181A) 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 GSM850, WCDMA Band 5 and LTE Band 5, LTE Band 26 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	
2.1053 22.917(a)	Radiated Spurious Emissions	PASS	Biao Chen	

# NOTE:

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

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#### 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 %.

Test Site	Method	Measurement Frequency Range		U,(dB)
		9KHz ~ 30MHz	V	3.79
DG-CB03 (3m) CISPR	9KHz ~ 30MHz	Н	3.57	
	CICDD	30MHz ~ 200MHz	V	3.82
	CISER	30MHz ~ 200MHz	Н	3.78
		200MHz ~ 1,000MHz	V	4.10
		200MHz ~ 1,000MHz	Н	4.06

Test Site	Method	Measurement Frequency Range		U,(dB)
DG-CB03	CISPR	1GHz ~ 18GHz	V	3.12
(3m)	CISER	1GHz ~ 18GHz	Н	3.68

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03	CISPR	18GHz ~ 40GHz	V	4.15
(1m)	CISPR	18GHz ~ 40GHz	Н	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	LTE CPE					
Brand Name	HUAWEI					
Model Name	B525s-65a					
Model Difference	N/A					
	GSM/GPRS	GMSK				
	EDGE	GMSK, 8PSK				
Modulation Type	WCDMA	Uplink: BPSK Downlink: QPSK				
	WCDMA(HSDPA/HSUPA/HSPA+/DC- HSDPA/DC-HSUPA)	16QAM/64QAM				
	LTE	QPSK, 16QAM				
	GSM /EDGE/GPRS	824.2 ~ 848.8 MHz				
	WCDMA Band 5	826.4 ~ 846.6 MHz				
	LTE 5 (Channel Bandwidth: 1.4MHz)	824.7 ~ 848.3 MHz				
	LTE 5 (Channel Bandwidth: 3MHz)	825.5 ~ 847.5 MHz				
	LTE 5 (Channel Bandwidth: 5MHz)	826.5 ~ 846.5 MHz				
Operation Frequency	LTE 5 (Channel Bandwidth: 10MHz)	829.0 ~ 844.0 MHz				
Operation requestey	LTE 26 (Channel Bandwidth: 1.4MHz)	814.7 ~ 848.3 MHz				
	LTE 26 (Channel Bandwidth: 3MHz)	815.5 ~ 847.5 MHz				
	LTE 26 (Channel Bandwidth: 5MHz)	816.5 ~ 846.5 MHz				
	LTE 26 (Channel Bandwidth: 10MHz)	819.0 ~ 844.0 MHz				
	LTE 26 (Channel Bandwidth: 15MHz)	821.5 ~ 841.5 MHz				
	LTE 26 (Channel Bandwidth: 20MHz)	824.0 ~ 839.0 MHz				
Antenna Type	Internal Antenna & External Antenna					
Antenna Gain for Internal	1.5 dBi for GSM, 1.5 dBi for WCDMA, 1.5	5 dBi for LTE				
Antenna Gain for External	1,3 dBi for GSM, 1,3 dBi for WCDMA, 1,3	3 dBi for LTE				
Hardware Version	WL1B525I					
Softwarre Version	11.232.08.DM.00					
IMEI No.1	Radiated 864005030005106					
Power Source	DC Voltage supplied from AC/DC adapter. #1 Manufacturer / Model: Fu Hua / HW-120200U01(US) #2 Manufacturer / Model: Ou Lu Tong / HW-120200U01(US)					
Power Rating	DC12V 2A					

#### Note:

For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

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#### 3.2 DESCRIPTION OF TEST MODES AND TEST CONDITION

Following channel(s) was (were) selected for the final test as listed below:

GSM MODE					
Test Item	Available Channel	Tested Channel	Mode		
Radiated Emission	128 to 251	190	GSM, EDGE		

WCDMA MODE					
Test Item Available Channel Tested Channel Mode					
Radiated Emission	4132 to 4233	4182	WCDMA, HSDPA, HSUPA		

**Note:** 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in **QPSK** modulation.

2. For 18G to 26.5G, the hightest bandwidth is worst case and recording in the test report.

LTE BAND 5 MODE						
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode	
Radiated	20407 to 20643	20525	1.4MHz	QPSK	1 RB / 0 RB Offset	
Emission	20450 to 20600	20525	10MHz	QPSK	1 RB / 0 RB Offset	

LTE BAND 26 MODE						
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode	
	26697 to 27033	26865	1.4MHz	QPSK	1 RB / 0 RB Offset	
Radiated	26697 to 27033	27033	1.4MHz	QPSK	1 RB / 0 RB Offset	
Emission	26740 to 26990	26865	10MHz	QPSK	1 RB / 0 RB Offset	
	26765 to 26965	26965	15MHz	QPSK	1 RB / 0 RB Offset	

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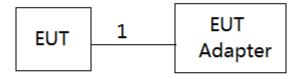




#### **EUT TEST CONDITIONS:**

Test Item	Environmental Conditions	Test Voltage
Radiated Emission	25°C, 60%RH	AC 120V/60Hz

#### 3.3 BLOCKDIGRAMSHOWINGTHECONFIGURATIONOFSYSTEMTESTED FOR RADIATED



#### 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	NO	NO	1.5m	AC Cable

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#### 4. TEST RESULT

#### 4.1 RADIATED EMISSIONS MEASUREMENT

#### 4.1.1 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.

#### 4.1.2 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.

#### 4.1.3 TESTSETUP LAYOUT

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

#### 4.1.4 TESTDEVIATION

No deviation

#### 4.1.5 TEST RESULTS

Please refer to the Attachment A.





# 5. List of measurement equipments

		Radiate	ed Emission		
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 27, 2017
2	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 27, 2017
3	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 23, 2017
4	Amplifier	Agilent	8449B	3008A02274	Mar. 10, 2017
5	Amplifier	HP	8447D	2944A09673	Oct. 20, 2017
6	HighPass Filter	Wairrwright Instruments Gmbh	WHK 1.5/15G-10ST	11	Mar. 10, 2017
7	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 1710/1785-1690/180 5-60/12SS	38	Feb. 22, 2018
8	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 824/849-810/863-60/ 9SS	7	Feb. 22, 2018
9	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 880/915-860/935-60/ 9SS	14	Feb. 22, 2018
10	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 1850/1910-1830/193 0-60/10SS	17	Feb. 22, 2018
11	HighPass Filter	Wairrwright Instruments Gmbh	WHK3.1/18G-10SS	24	Mar. 10, 2017
12	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 27, 2017

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13	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 27, 2017
14	Receiver	Agilent	N9038A	MY52130039	Sep. 04, 2017
15	wideband radio communication tester	R&S	CMW500	152372	Mar. 27, 2017
16	High pass filter	ZHPF-M1000-4000 -1	ZHPF-M3-12.75G-38 69	B201507376 3	Aug. 04, 2017
17	High pass filter	ZHPF-M3-12.75G- 3869	ZHPF-M1000-4000- 1	B201507376 2	Aug. 04, 2017
18	High pass filter	ZHPF-M6-18G-172 7	ZHPF-M6-186-1727	B201507376 4	Aug. 04, 2017
19	Cable	emci	LMR-400(30MHz-1G Hz)(8m+5m)	N/A	Jun. 27, 2017
20	Cable	emci	EMC104-SM-SM-12 000(12m)	N/A	Jul. 06, 2017
21	Controller	ETS-Lindgren	2090	N/A	N/A
22	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.





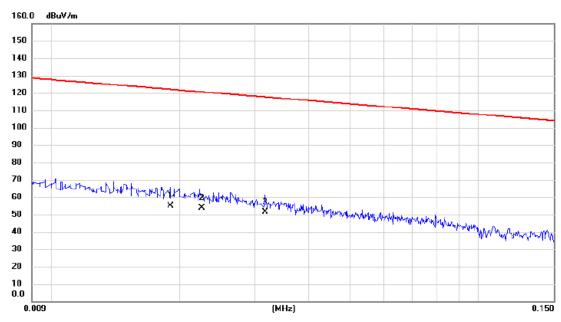
	30
ATTACHMENT A - RADIATED EMISSION	

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#### Ant 0°



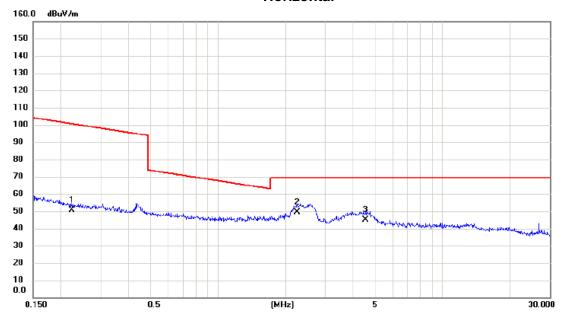
No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0190	31.31	23.58	54.89	122.03	-67.14	AVG	
2	0.0225	30.45	23.21	53.66	120.56	-66.90	AVG	
3 *	0.0317	29.16	22.08	51.24	117.58	-66.34	AVG	





Ant 0°

#### Horizontal



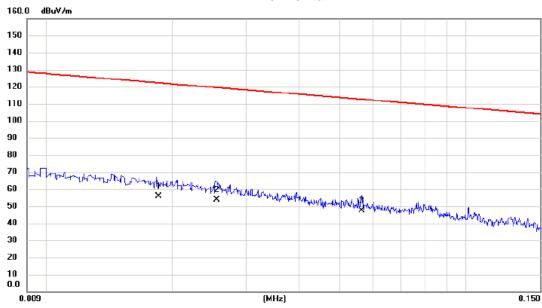
No. Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.2243	32.02	18.68	50.70	100.59	-49.89	AVG	
2 *	2.2486	31.66	17.59	49.25	69.54	-20.29	QP	
3	4.5254	27.50	17.67	45.17	69.54	-24.37	QP	





#### Ant 90°

#### Horizontal



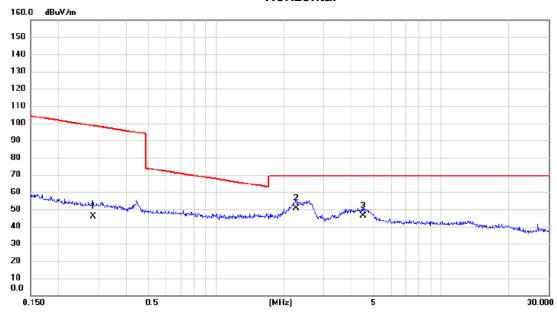
No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0185	32.23	23.61	55.84	122.26	-66.42	AVG	
2	0.0255	31.08	22.84	53.92	119.47	-65.55	AVG	
3 *	0.0565	27.73	19.75	47.48	112.56	-65.08	AVG	





#### Ant 90°

#### Horizontal

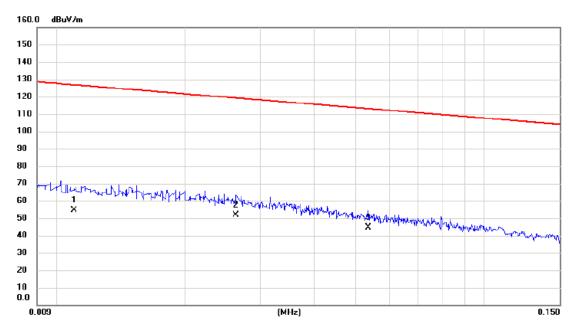


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.2833	27.34	18.61	45.95	98.56	-52.61	AVG	
2 *	2.2726	33.19	17.56	50.75	69.54	-18.79	QP	
3	4.5015	28.47	17.72	46.19	69.54	-23.35	QP	





# Ant 0°



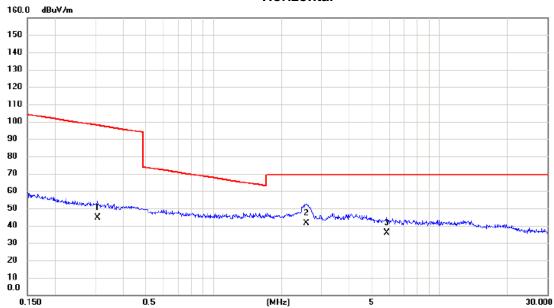
No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0110	30.54	24.06	54.60	126.78	-72.18	AVG	
2 *	0.0263	28.91	22.74	51.65	119.21	-67.56	AVG	
3	0.0536	24.63	19.78	44.41	113.02	-68.61	AVG	





Ant 0°

#### Horizontal



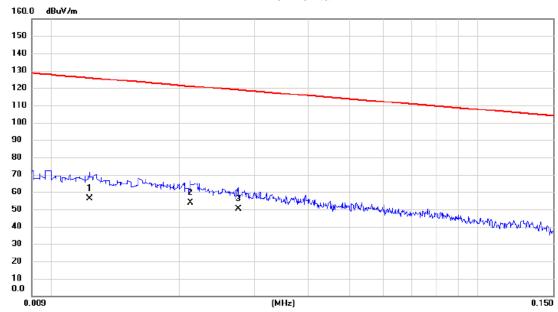
No. Mk.	Freq.			Measure- ment		Margin		
,	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.3082	25.83	18.58	44.41	97.83	-53.42	AVG	
2 *	2.5807	24.16	17.17	41.33	69.54	-28.21	QP	
3	5.8357	19.22	16.54	35.76	69.54	-33.78	QP	





#### Ant 90°

#### Horizontal



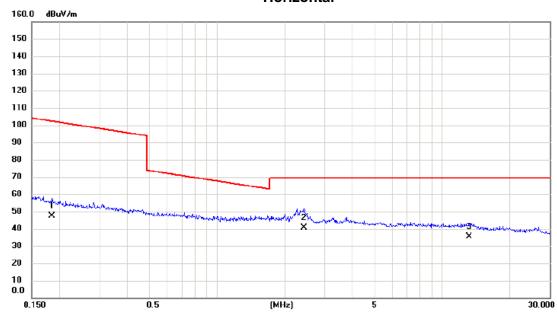
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0123	32.11	23.98	56.09	125.81	-69.72	AVG	
2 *	0.0212	30.32	23.37	53.69	121.08	-67.39	AVG	
3	0.0275	27.81	22.59	50.40	118.82	-68.42	AVG	





#### Ant 90°

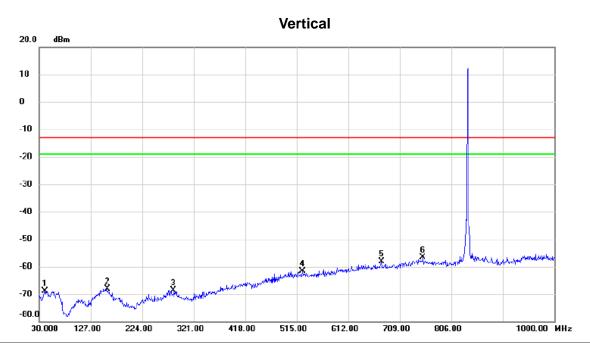
#### Horizontal



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	- Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.1853	28.66	18.70	47.36	102.25	-54.89	AVG	
2 *	2.4346	23.31	17.36	40.67	69.54	-28.87	QP	
3	13.1965	19.53	15.75	35.28	69.54	-34.26	QP	







No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	40.670	-80.96	12.10	-68.86	-13.00	-55.86	peak	
2	159.010	-81.19	13.18	-68.01	-13.00	-55.01	peak	
3	283.170	-81.06	12.51	-68.55	-13.00	-55.55	peak	
4	525.670	-79.02	17.50	-61.52	-13.00	-48.52	peak	
5	675.050	-78.34	20.30	-58.04	-13.00	-45.04	peak	
6 *	752.650	-79.03	22.45	-56.58	-13.00	-43.58	peak	



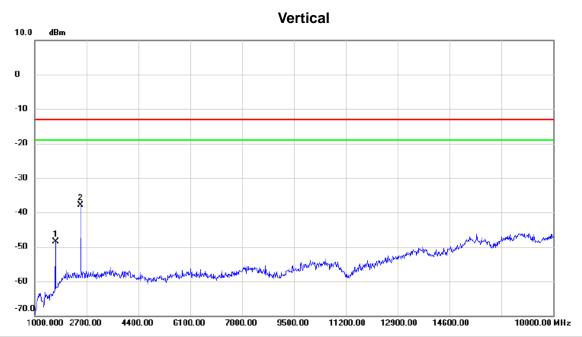




No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	41.640	-81.15	12.40	-68.75	-13.00	-55.75	peak	
2	144.460	-79.65	13.63	-66.02	-13.00	-53.02	peak	
3	242.430	-81.50	12.27	-69.23	-13.00	-56.23	peak	
4	380.170	-79.88	16.10	-63.78	-13.00	-50.78	peak	
5	501.420	-79.48	18.06	-61.42	-13.00	-48.42	peak	
6 *	700.270	-79.31	23.97	-55.34	-13.00	-42.34	peak	



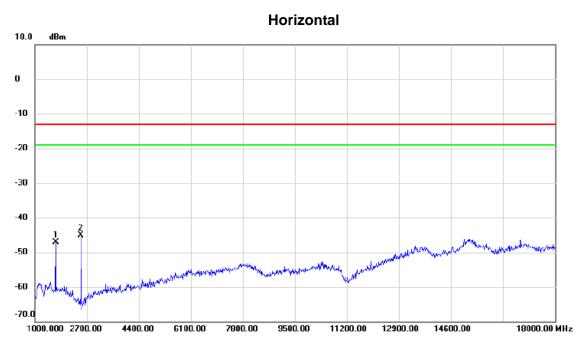




	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
_	1	1	680.000	-55.15	6.59	-48.56	-13.00	-35.56	peak	
Ī	2	* 2	513.000	-50.13	12.21	-37.92	-13.00	-24.92	peak	



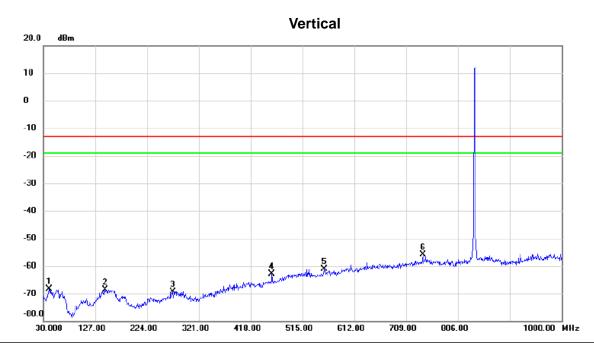




No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	1	680.000	-55.31	8.17	-47.14	-13.00	-34.14	peak	
2	* 2	513.000	-50.46	5.30	-45.16	-13.00	-32.16	peak	







No. Mk	Freq.	Reading Level	Correct Factor	Measure ment	- Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	40.670	-80.38	12.10	-68.28	-13.00	-55.28	peak	
2	145.430	-81.19	12.69	-68.50	-13.00	-55.50	peak	
3	272.500	-81.58	12.30	-69.28	-13.00	-56.28	peak	
4	457.770	-78.67	15.69	-62.98	-13.00	-49.98	peak	
5	555.740	-78.72	17.59	-61.13	-13.00	-48.13	peak	
6 *	740.040	-78.03	22.08	-55.95	-13.00	-42.95	peak	



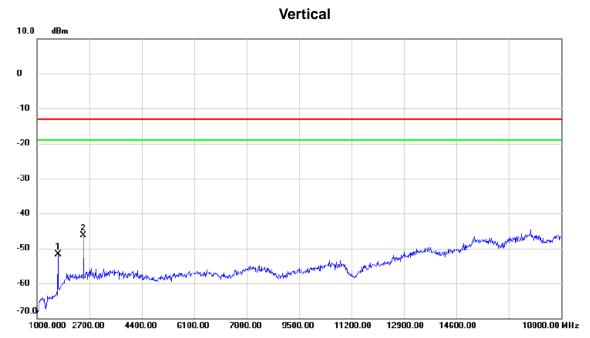


#### Horizontal 20.0 dBm 10 0 -10 -20 -30 -40 -50 -60 -70 -80.0 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		45.520	-81.00	12.87	-68.13	-13.00	-55.13	peak	
2		149.310	-81.83	14.16	-67.67	-13.00	-54.67	peak	
3		230.790	-80.27	13.18	-67.09	-13.00	-54.09	peak	
4		419.940	-80.64	16.88	-63.76	-13.00	-50.76	peak	
5		496.570	-78.86	17.81	-61.05	-13.00	-48.05	peak	
6 '	k	689.600	-78.73	23.27	-55.46	-13.00	-42.46	peak	





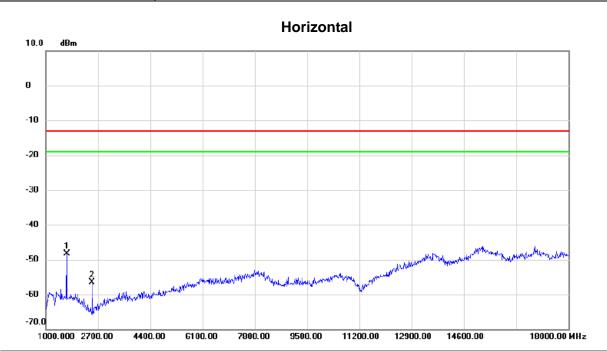


No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	1	1680.000	-58.19	6.59	-51.60	-13.00	-38.60	peak	
2	* 2	2513.000	-58.55	12.21	-46.34	-13.00	-33.34	peak	







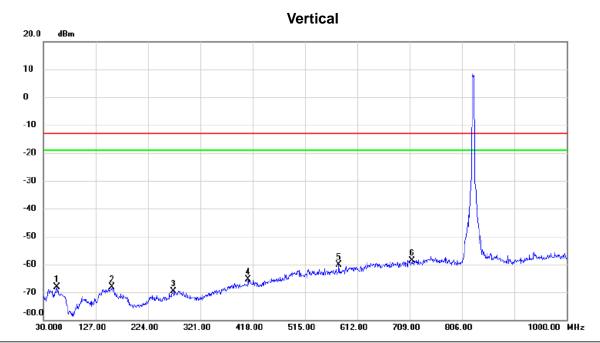


No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1680.000	-56.37	8.17	-48.20	-13.00	-35.20	peak	
2		2513.000	-61.72	5.30	-56.42	-13.00	-43.42	peak	





Test Mode: WCDMA Band V\_TX CH4182\_Internal Antenna

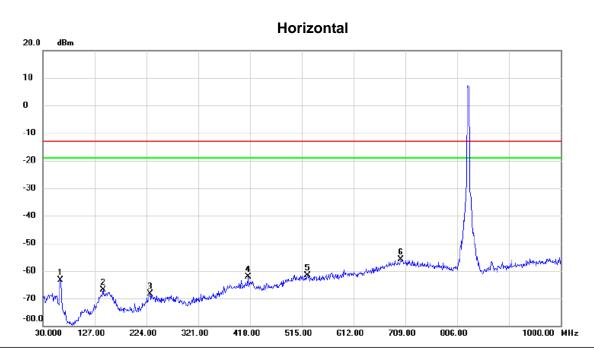


No. M	k. Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	55.220	-80.72	12.61	-68.11	-13.00	-55.11	peak	
2	157.070	-81.39	13.17	-68.22	-13.00	-55.22	peak	
3	271.530	-81.87	12.26	-69.61	-13.00	-56.61	peak	
4	409.270	-79.65	14.36	-65.29	-13.00	-52.29	peak	
5	578.050	-78.38	18.15	-60.23	-13.00	-47.23	peak	
6 *	713.850	-79.57	21.03	-58.54	-13.00	-45.54	peak	





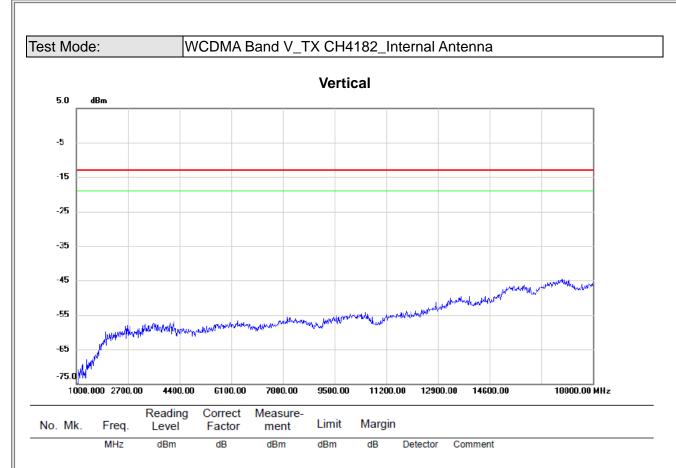
Test Mode: WCDMA Band V\_TX CH4182\_Internal Antenna



1 62	MHz 32.980	dBm -72.30	dB	dBm	dBm	dB	Detector	Comment
	2.980	-72.30	0.02			45	Detector	Comment
			8.93	-63.37	-13.00	-50.37	peak	
2 142	2.520	-80.23	13.41	-66.82	-13.00	-53.82	peak	
3 230	0.790	-81.67	13.18	-68.49	-13.00	-55.49	peak	
4 414	4.120	-78.79	16.59	-62.20	-13.00	-49.20	peak	
5 52	25.670	-79.60	18.08	-61.52	-13.00	-48.52	peak	
6 * 700	0.270	-79.79	23.97	-55.82	-13.00	-42.82	peak	

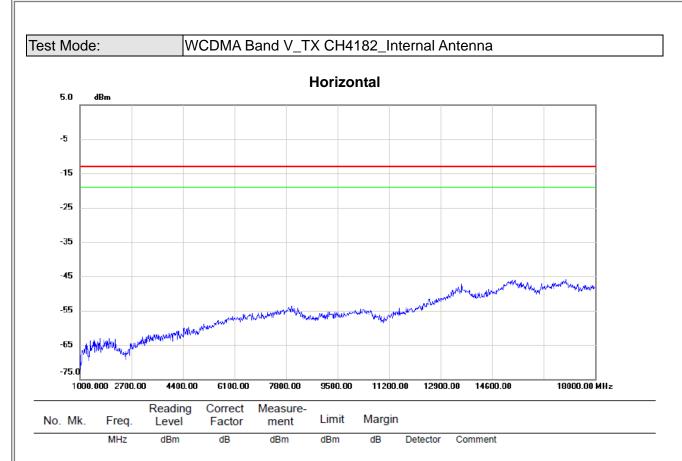








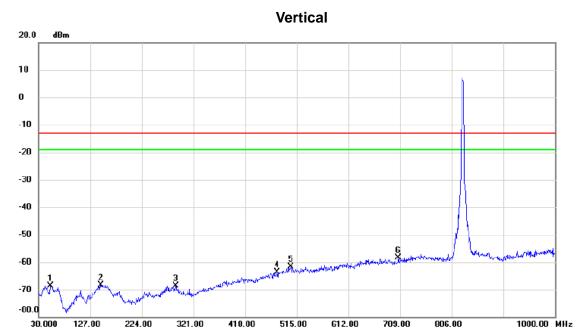








Test Mode: WCDMA Band V\_TX CH4182\_HSDPA\_Internal Antenna

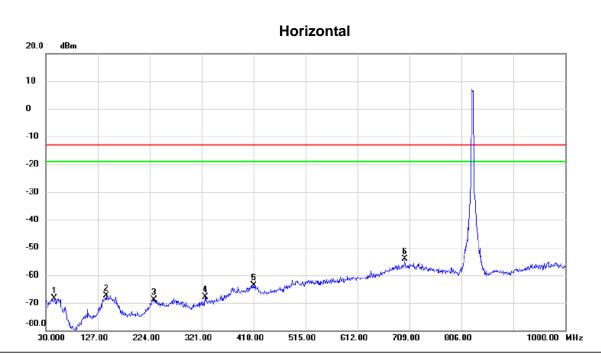


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	ı	
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	52.310	-80.11	11.58	-68.53	-13.00	-55.53	peak	
2	146.400	-81.07	12.79	-68.28	-13.00	-55.28	peak	
3	288.020	-80.97	12.31	-68.66	-13.00	-55.66	peak	
4	478.140	-79.87	16.33	-63.54	-13.00	-50.54	peak	
5	504.330	-79.21	17.54	-61.67	-13.00	-48.67	peak	
6 *	706.090	-79.01	20.72	-58.29	-13.00	-45.29	peak	





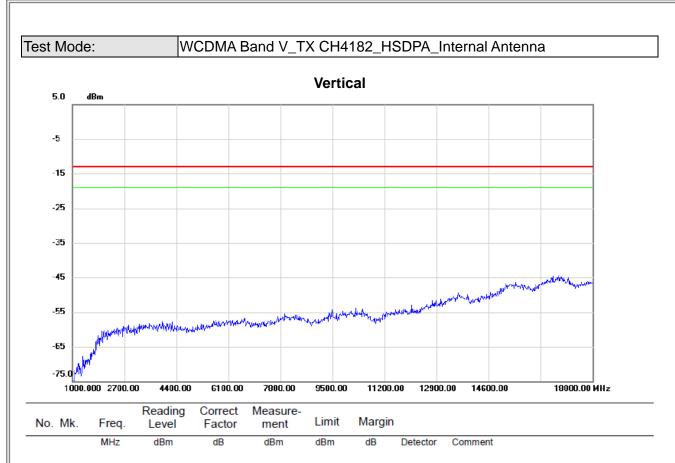
Test Mode: WCDMA Band V\_TX CH4182\_HSDPA\_Internal Antenna



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	46.490	-80.85	12.52	-68.33	-13.00	-55.33	peak	
2	142.520	-80.67	13.41	-67.26	-13.00	-54.26	peak	
3	232.730	-81.79	13.02	-68.77	-13.00	-55.77	peak	
4	327.790	-80.34	12.38	-67.96	-13.00	-54.96	peak	
5	418.970	-80.51	16.83	-63.68	-13.00	-50.68	peak	
6 *	700.270	-78.15	23.97	-54.18	-13.00	-41.18	peak	

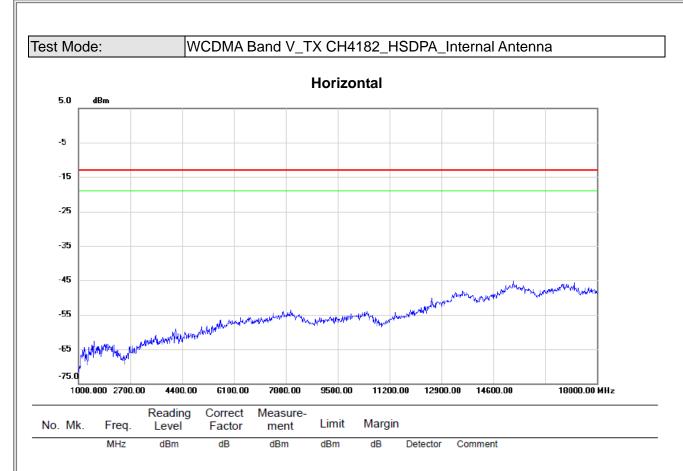








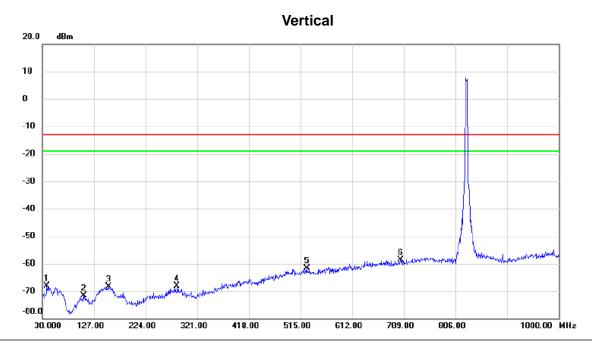








Test Mode: WCDMA Band V\_TX CH4182\_HSUPA\_Internal Antenna



	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
_			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
	1		38.730	-79.39	11.21	-68.18	-13.00	-55.18	peak	
	2		107.600	-80.46	8.91	-71.55	-13.00	-58.55	peak	
_	3		154.160	-81.49	13.16	-68.33	-13.00	-55.33	peak	
	4		283.170	-80.74	12.51	-68.23	-13.00	-55.23	peak	
_	5		526.640	-79.17	17.50	-61.67	-13.00	-48.67	peak	
_	6 '	k	703.180	-79.28	20.61	-58.67	-13.00	-45.67	peak	





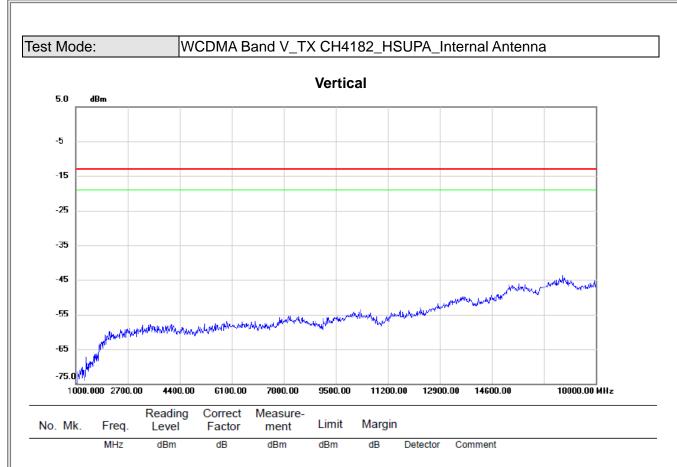
Test Mode: WCDMA Band V\_TX CH4182\_HSUPA\_Internal Antenna

### Horizontal 20.0 dBm 10 0 -10 -20 -30 -40 -50 -60 -70 -80.0 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	41.640	-81.09	12.40	-68.69	-13.00	-55.69	peak	
2	155.130	-80.89	13.48	-67.41	-13.00	-54.41	peak	
3	232.730	-82.27	13.02	-69.25	-13.00	-56.25	peak	
4	377.260	-80.53	15.77	-64.76	-13.00	-51.76	peak	
5	414.120	-80.12	16.59	-63.53	-13.00	-50.53	peak	
6 *	495.600	-79.42	17.74	-61.68	-13.00	-48.68	peak	

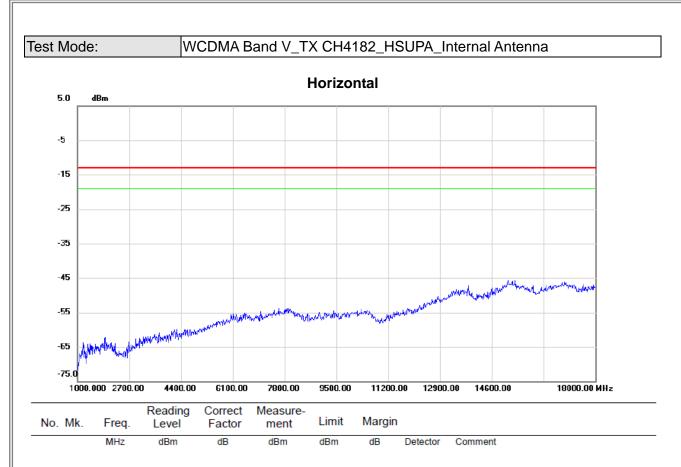














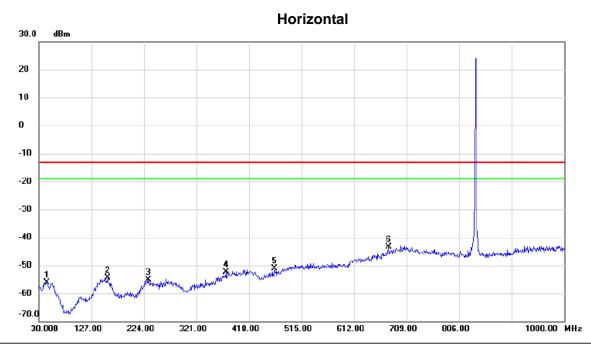


## **Vertical** 30.0 20 10 0 -10 -20 -30 -40 -60 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00

No. Mi	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.18	21.96	-56.22	-13.00	-43.22	peak	
2	156.100	-77.44	23.17	-54.27	-13.00	-41.27	peak	
3	232.730	-77.46	20.41	-57.05	-13.00	-44.05	peak	
4	401.510	-78.38	24.15	-54.23	-13.00	-41.23	peak	
5	493.660	-77.69	27.18	-50.51	-13.00	-37.51	peak	
6 *	657.590	-77.00	30.17	-46.83	-13.00	-33.83	peak	



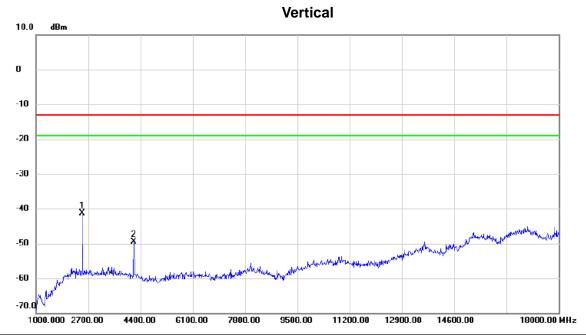




No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-79.01	22.97	-56.04	-13.00	-43.04	peak	
2	157.070	-77.58	23.19	-54.39	-13.00	-41.39	peak	
3	231.760	-78.26	23.10	-55.16	-13.00	-42.16	peak	
4	375.320	-77.98	25.54	-52.44	-13.00	-39.44	peak	
5	465.530	-77.19	25.95	-51.24	-13.00	-38.24	peak	
6 *	676.020	-75.78	32.34	-43.44	-13.00	-30.44	peak	



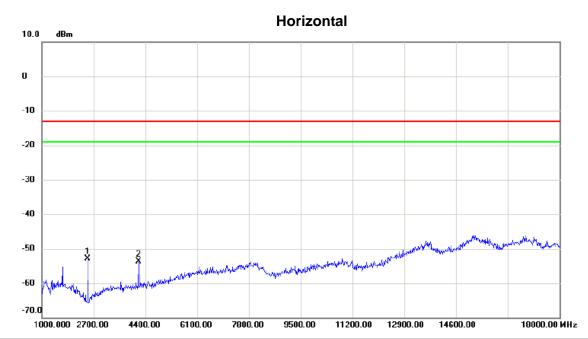




No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	2513.000	-53.50	12.21	-41.29	-13.00	-28.29	peak	
2		4179.000	-64.17	14.63	-49.54	-13.00	-36.54	peak	



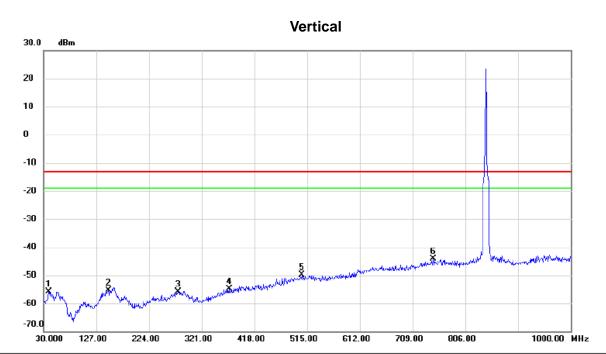




No	٥.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
•	1	* 2	2513.000	-58.22	5.30	-52.92	-13.00	-39.92	peak	
2	2	4	179.000	-66.16	12.39	-53.77	-13.00	-40.77	peak	







No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	39.700	-77.84	21.90	-55.94	-13.00	-42.94	peak	
2	149.310	-78.42	23.08	-55.34	-13.00	-42.34	peak	
3	277.350	-78.35	22.53	-55.82	-13.00	-42.82	peak	
4	371.440	-78.33	23.40	-54.93	-13.00	-41.93	peak	
5	505.300	-77.47	27.54	-49.93	-13.00	-36.93	peak	
6 *	746.830	-76.41	32.35	-44.06	-13.00	-31.06	peak	





1000.00 MHz

806.00

709.00

Test Mode: LTE Band 5\_TX CH20525\_10M \_Internal Antenna

321.00

418.00

# Horizontal 30.0 dBm 20 10 -10 -20 -30 -40 -50 -70.0

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.13	22.97	-55.16	-13.00	-42.16	peak	
2	144.460	-78.50	23.63	-54.87	-13.00	-41.87	peak	
3	233.700	-77.83	22.94	-54.89	-13.00	-41.89	peak	
4	337.490	-77.54	22.50	-55.04	-13.00	-42.04	peak	
5	425.760	-77.97	26.23	-51.74	-13.00	-38.74	peak	
6 *	512.090	-76.66	28.07	-48.59	-13.00	-35.59	peak	

515.00

612.00

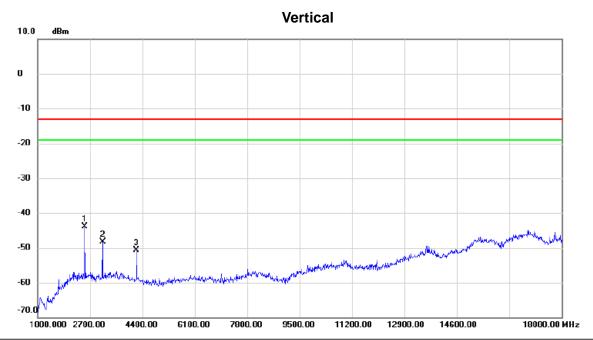
127.00

224.00

30.000



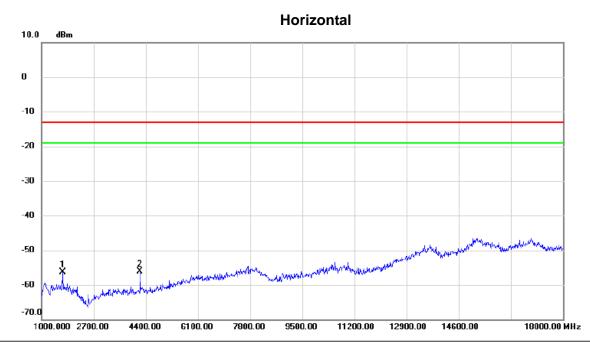




No. M	lk. Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	2530.000	-56.08	12.21	-43.87	-13.00	-30.87	peak	
2	3108.000	-61.14	12.84	-48.30	-13.00	-35.30	peak	
3	4213.000	-65.37	14.61	-50.76	-13.00	-37.76	peak	



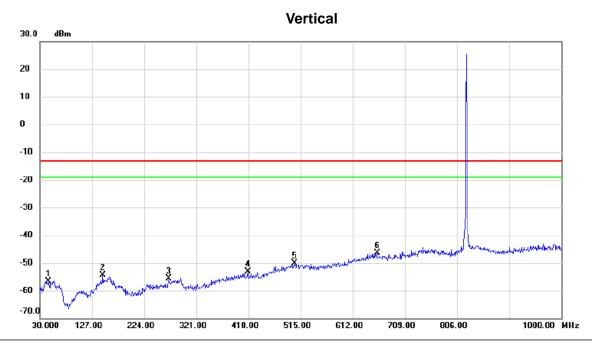




No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	1	680.000	-64.56	8.17	-56.39	-13.00	-43.39	peak	
2	* 4	213.000	-68.64	12.47	-56.17	-13.00	-43.17	peak	







No. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	45.520	-78.34	21.80	-56.54	-13.00	-43.54	peak	
2	147.370	-77.31	22.89	-54.42	-13.00	-41.42	peak	
3	269.590	-77.64	22.13	-55.51	-13.00	-42.51	peak	
4	417.030	-77.75	24.57	-53.18	-13.00	-40.18	peak	
5	503.360	-77.56	27.54	-50.02	-13.00	-37.02	peak	
6 *	657.590	-76.57	30.17	-46.40	-13.00	-33.40	peak	



30.000

127.00

224.00

321.00

418.00



Test Mode: LTE Band 26\_TX CH26865\_1.4M \_Internal Antenna

# Horizontal 30.0 dBm 20 10 0 -10 -20 -30 -40 -50 -70.0

MHz         dBm         dB         dBm         dBm         dB         Detector         Comment           1         46.490         -78.87         22.52         -56.35         -13.00         -43.35         peak           2         149.310         -78.70         24.16         -54.54         -13.00         -41.54         peak           3         242.430         -77.46         22.27         -55.19         -13.00         -42.19         peak           4         400.540         -77.90         25.91         -51.99         -13.00         -38.99         peak           5         519.850         -77.93         28.08         -49.85         -13.00         -36.85         peak           6         *         715.790         -76.15         33.60         -42.55         -13.00         -29.55         peak	1	No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
2 149.310 -78.70 24.16 -54.54 -13.00 -41.54 peak 3 242.430 -77.46 22.27 -55.19 -13.00 -42.19 peak 4 400.540 -77.90 25.91 -51.99 -13.00 -38.99 peak 5 519.850 -77.93 28.08 -49.85 -13.00 -36.85 peak			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
3 242.430 -77.46 22.27 -55.19 -13.00 -42.19 peak 4 400.540 -77.90 25.91 -51.99 -13.00 -38.99 peak 5 519.850 -77.93 28.08 -49.85 -13.00 -36.85 peak		1	46.490	-78.87	22.52	-56.35	-13.00	-43.35	peak	
4 400.540 -77.90 25.91 -51.99 -13.00 -38.99 peak 5 519.850 -77.93 28.08 -49.85 -13.00 -36.85 peak		2	149.310	-78.70	24.16	-54.54	-13.00	-41.54	peak	
5 519.850 -77.93 28.08 -49.85 -13.00 -36.85 peak		3	242.430	-77.46	22.27	-55.19	-13.00	-42.19	peak	
		4	400.540	-77.90	25.91	-51.99	-13.00	-38.99	peak	
6 * 715.790 -76.15 33.60 -42.55 -13.00 -29.55 peak		5	519.850	-77.93	28.08	-49.85	-13.00	-36.85	peak	
		6 *	715.790	-76.15	33.60	-42.55	-13.00	-29.55	peak	

515.00

612.00

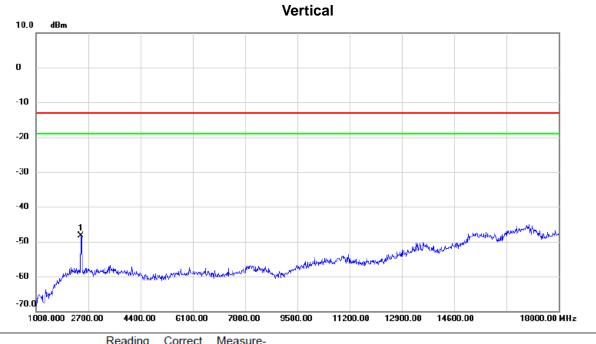
709.00

806.00

1000.00 MHz



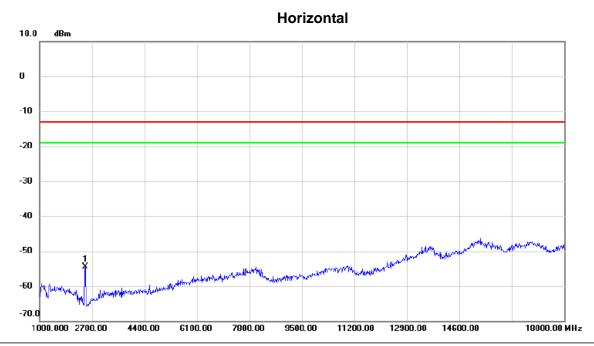




No. Mk	c. Freq.			Measure- ment		Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	2462.000	-60.39	12.11	-48.28	-13.00	-35.28	peak	



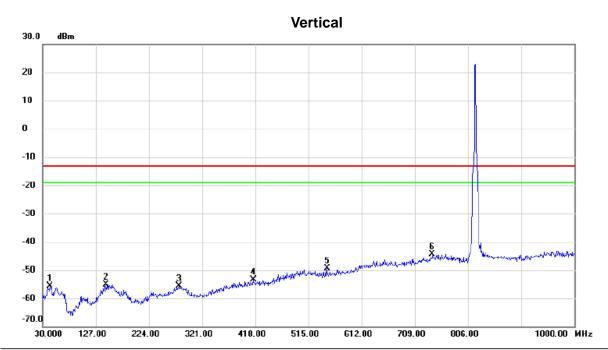




No. Mk	c. Freq.		Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment	
1 *	2479.000	-59.87	5.34	-54.53	-13.00	-41.53	peak		







No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	43.580	-77.64	21.99	-55.65	-13.00	-42.65	peak	
2	145.430	-77.89	22.69	-55.20	-13.00	-42.20	peak	
3	278.320	-78.31	22.57	-55.74	-13.00	-42.74	peak	
4	414.120	-77.76	24.49	-53.27	-13.00	-40.27	peak	
5	548.950	-76.86	27.45	-49.41	-13.00	-36.41	peak	
6 *	741.010	-76.60	32.12	-44.48	-13.00	-31.48	peak	



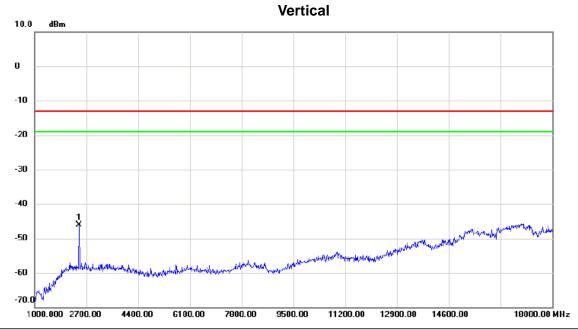


### Horizontal dBm 30.0 20 10 0 -10 -20 -30 -40 -50 -60 -70.0 30.000 127.00 224.00 418.00 515.00 612.00 806.00 1000.00 MHz 321.00 709.00

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.55	22.97	-55.58	-13.00	-42.58	peak	
2	145.430	-78.33	23.73	-54.60	-13.00	-41.60	peak	
3	230.790	-78.18	23.18	-55.00	-13.00	-42.00	peak	
4	396.660	-77.74	25.92	-51.82	-13.00	-38.82	peak	
5	504.330	-78.18	28.06	-50.12	-13.00	-37.12	peak	
6 *	704.150	-77.35	33.88	-43.47	-13.00	-30.47	peak	



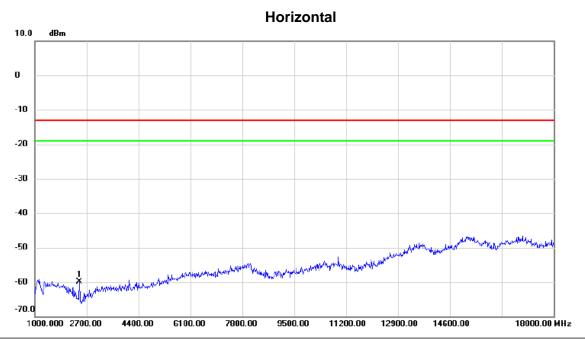




No. MI	k. Freq.	Reading Level		Measure- ment	Limit	Margin			
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment	
1 *	2462.000	-58.20	12.11	-46.09	-13.00	-33.09	peak		



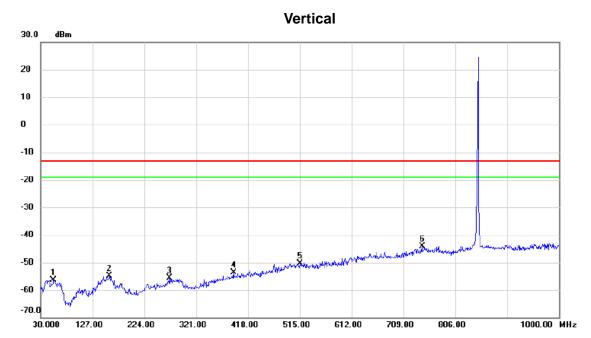




	No. Mk	. Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
-	1 *	2462.000	-65.35	5.45	-59.90	-13.00	-46.90	peak	



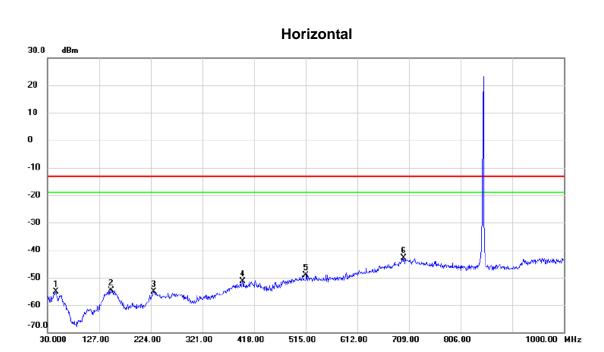




No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	54.250	-78.73	22.40	-56.33	-13.00	-43.33	peak	
2	159.010	-78.00	23.18	-54.82	-13.00	-41.82	peak	
3	271.530	-78.00	22.26	-55.74	-13.00	-42.74	peak	
4	390.840	-77.62	23.98	-53.64	-13.00	-40.64	peak	
5	515.970	-77.98	27.52	-50.46	-13.00	-37.46	peak	
6 *	743.920	-76.41	32.24	-44.17	-13.00	-31.17	peak	



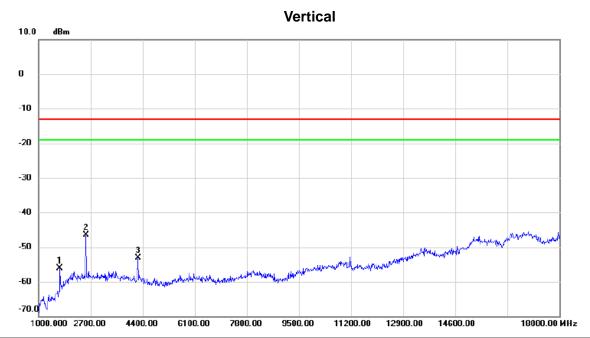




No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	45.520	-78.06	22.87	-55.19	-13.00	-42.19	peak	
2	149.310	-78.71	24.16	-54.55	-13.00	-41.55	peak	
3	229.820	-78.31	23.20	-55.11	-13.00	-42.11	peak	
4	396.660	-77.40	25.92	-51.48	-13.00	-38.48	peak	
5	515.970	-77.12	28.07	-49.05	-13.00	-36.05	peak	
6 *	699.300	-76.76	33.93	-42.83	-13.00	-29.83	peak	



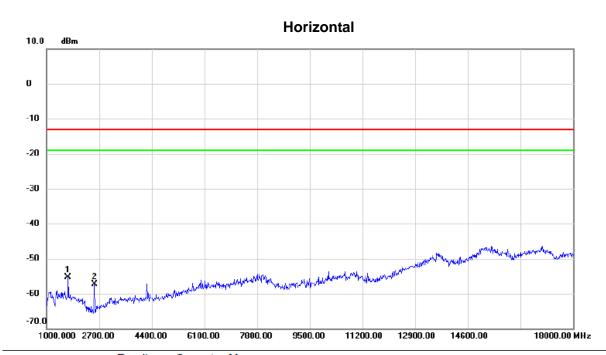




No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		1697.000	-62.94	6.82	-56.12	-13.00	-43.12	peak	
2 '	k	2547.000	-58.79	12.22	-46.57	-13.00	-33.57	peak	
3	4	4247.000	-67.74	14.59	-53.15	-13.00	-40.15	peak	



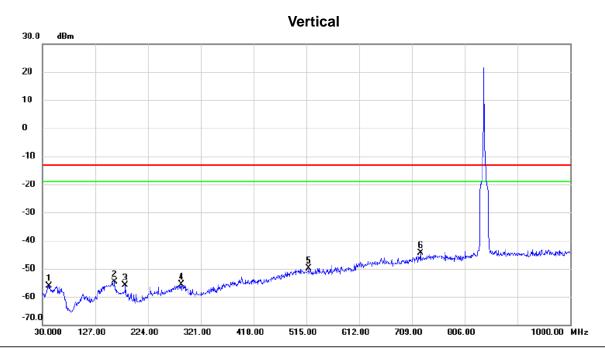




No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	* '	1697.000	-63.47	8.17	-55.30	-13.00	-42.30	peak	
2	2	2547.000	-62.87	5.54	-57.33	-13.00	-44.33	peak	







No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	42.610	-78.20	22.03	-56.17	-13.00	-43.17	peak	
2	162.890	-76.86	22.23	-54.63	-13.00	-41.63	peak	
3	182.290	-76.03	20.18	-55.85	-13.00	-42.85	peak	
4	285.110	-77.95	22.43	-55.52	-13.00	-42.52	peak	
5	518.880	-77.35	27.51	-49.84	-13.00	-36.84	peak	
6 *	724.520	-75.85	31.46	-44.39	-13.00	-31.39	peak	



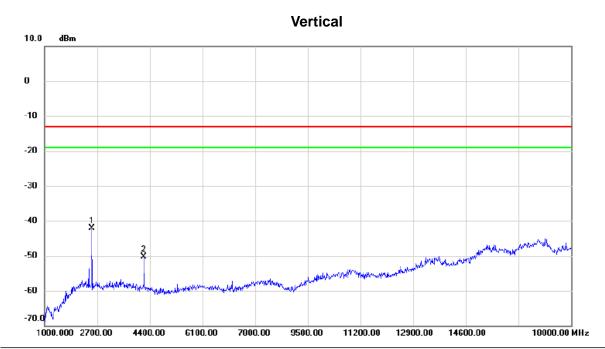


### Horizontal dBm 30.0 20 10 0 -10 -20 -30 -40 -50 -60 -70.0 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00 1000.00 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		43.580	-78.37	22.78	-55.59	-13.00	-42.59	peak	
2		156.100	-77.98	23.33	-54.65	-13.00	-41.65	peak	
3		265.710	-76.76	22.55	-54.21	-13.00	-41.21	peak	
4		386.960	-78.61	26.02	-52.59	-13.00	-39.59	peak	
5		499.480	-78.22	28.02	-50.20	-13.00	-37.20	peak	
6	*	704.150	-76.61	33.88	-42.73	-13.00	-29.73	peak	



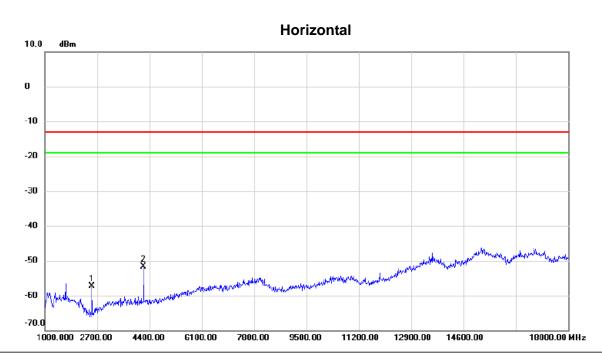




No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	2530.000	-54.24	12.21	-42.03	-13.00	-29.03	peak	
2		4213.000	-64.99	14.61	-50.38	-13.00	-37.38	peak	







No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		2530.000	-62.67	5.42	-57.25	-13.00	-44.25	peak	
2	*	4213.000	-64.10	12.47	-51.63	-13.00	-38.63	peak	



30.000

127.00

224.00

321.00

418.00



GSM850\_TX CH190\_GSM\_External Antenna 3dBi Test Mode:

# **Vertical** 20.0 dBm 10 0 -10 -20 -30 -40 -50 -60 -70 -80.0 1000.00 MHz

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	43.580	-80.88	11.99	-68.89	-13.00	-55.89	peak	
2	138.640	-79.99	11.77	-68.22	-13.00	-55.22	peak	
3	275.410	-81.87	12.44	-69.43	-13.00	-56.43	peak	
4	492.690	-80.14	17.12	-63.02	-13.00	-50.02	peak	
5	568.350	-78.57	17.91	-60.66	-13.00	-47.66	peak	
6 *	663.410	-79.96	20.22	-59.74	-13.00	-46.74	peak	

515.00

612.00

709.00

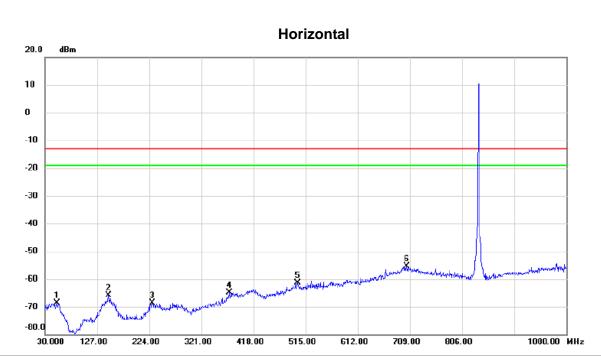
806.00

Report No.: BTL-FCCP-3-1701C181A





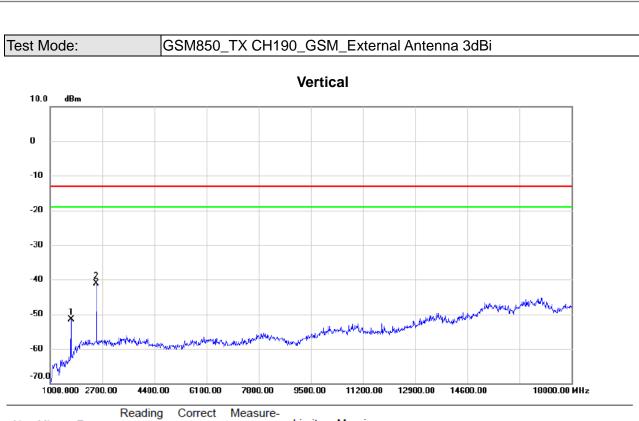
Test Mode: GSM850\_TX CH190\_GSM\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	52.310	-80.49	11.92	-68.57	-13.00	-55.57	peak	
2	148.340	-79.97	14.06	-65.91	-13.00	-52.91	peak	
3	229.820	-81.88	13.20	-68.68	-13.00	-55.68	peak	
4	373.380	-80.12	15.31	-64.81	-13.00	-51.81	peak	
5	500.450	-79.49	18.06	-61.43	-13.00	-48.43	peak	
6 *	703.180	-79.34	23.90	-55.44	-13.00	-42.44	peak	



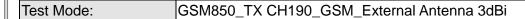


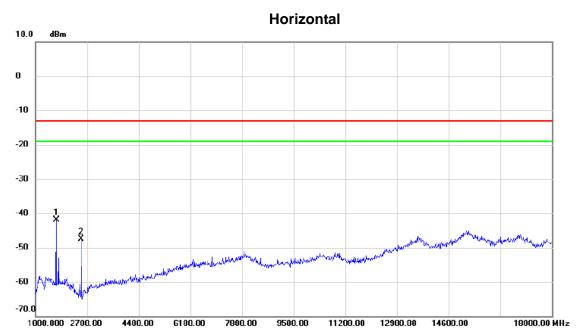


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	10	680.000	-58.17	6.59	-51.58	-13.00	-38.58	peak	
2	* 2	513.000	-53.27	12.21	-41.06	-13.00	-28.06	peak	









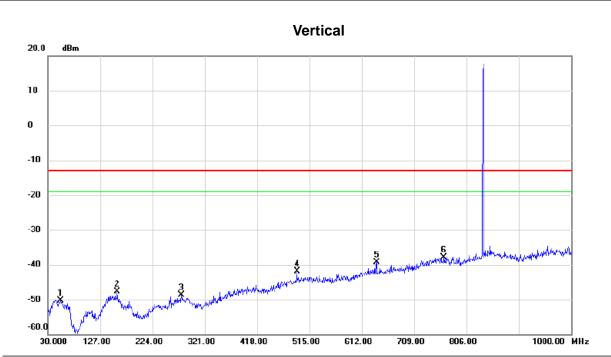
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1680.000	-50.07	8.17	-41.90	-13.00	-28.90	peak	
2		2513.000	-52.76	5.30	-47.46	-13.00	-34.46	peak	

Report No.: BTL-FCCP-3-1701C181A





Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	53.280	-62.30	11.99	-50.31	-13.00	-37.31	peak	
2	159.010	-60.89	13.18	-47.71	-13.00	-34.71	peak	
3	277.350	-61.21	12.53	-48.68	-13.00	-35.68	peak	
4	491.720	-59.01	17.07	-41.94	-13.00	-28.94	peak	
5	639.160	-59.07	19.81	-39.26	-13.00	-26.26	peak	
6 *	764.290	-60.30	22.31	-37.99	-13.00	-24.99	peak	





Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 3dBi

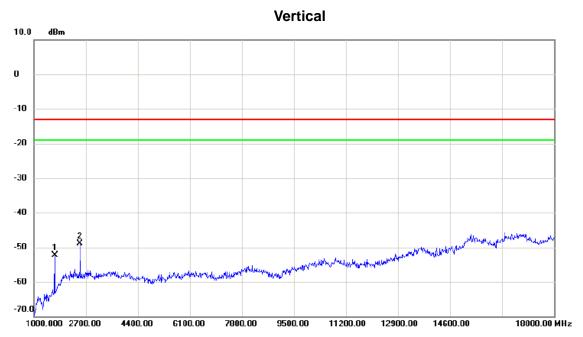
## Horizontal dBm 19.0 9 -1 -11 -21 -41 -51 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00 1000.00 MHz

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-62.11	12.97	-49.14	-13.00	-36.14	peak	
2	155.130	-61.86	13.48	-48.38	-13.00	-35.38	peak	
3	229.820	-61.68	13.20	-48.48	-13.00	-35.48	peak	
4	415.090	-60.26	16.63	-43.63	-13.00	-30.63	peak	
5	505.300	-60.56	18.06	-42.50	-13.00	-29.50	peak	
6 *	723.550	-59.28	23.41	-35.87	-13.00	-22.87	peak	





### Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 3dBi



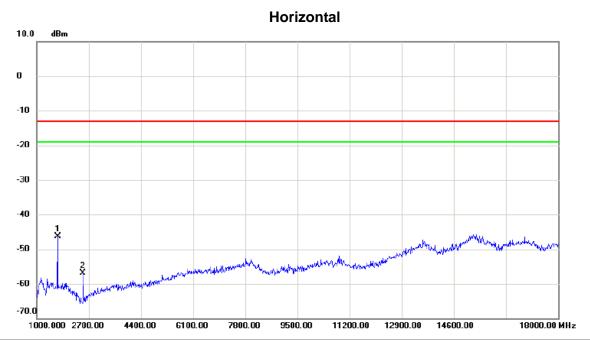
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	,	1680.000	-58.87	6.59	-52.28	-13.00	-39.28	peak	
2	* 2	2513.000	-61.15	12.21	-48.94	-13.00	-35.94	peak	

Report No.: BTL-FCCP-3-1701C181A





### Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 3dBi

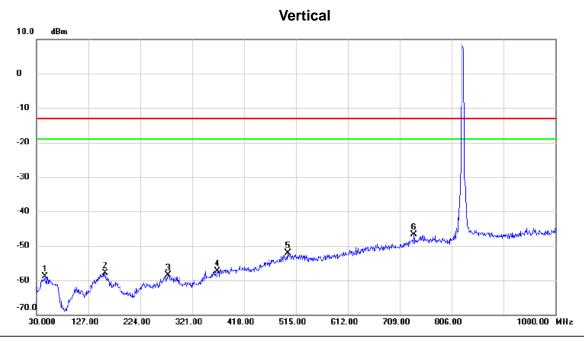


	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
Ī	1	*	1680.000	-54.44	8.17	-46.27	-13.00	-33.27	peak	
	2		2513.000	-62.16	5.30	-56.86	-13.00	-43.86	peak	





Test Mode: WCDMA Band V\_TX CH4182\_External Antenna 3dBi



No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	45.520	-70.71	11.80	-58.91	-13.00	-45.91	peak	
2	159.010	-71.11	13.18	-57.93	-13.00	-44.93	peak	
3	276.380	-71.02	12.48	-58.54	-13.00	-45.54	peak	
4	368.530	-70.53	13.25	-57.28	-13.00	-44.28	peak	
5	499.480	-69.61	17.52	-52.09	-13.00	-39.09	peak	
6 *	735.190	-68.67	21.89	-46.78	-13.00	-33.78	peak	





Test Mode: WCDMA Band V\_TX CH4182\_External Antenna 3dBi

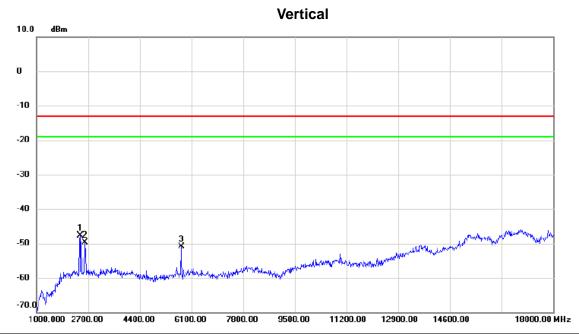
# Horizontal 10.0 dBm -10 -20 -30 -40 -50 -70.0 30.000 127.00 224.00 321.00 419.00 515.00 612.00 709.00 906.00 1090.00 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		52.310	-70.60	11.92	-58.68	-13.00	-45.68	peak	
2		146.400	-71.45	13.84	-57.61	-13.00	-44.61	peak	
3		232.730	-70.42	13.02	-57.40	-13.00	-44.40	peak	
4		392.780	-69.45	15.96	-53.49	-13.00	-40.49	peak	
5		589.690	-69.58	18.92	-50.66	-13.00	-37.66	peak	
6	*	718.700	-69.60	23.53	-46.07	-13.00	-33.07	peak	





### Test Mode: WCDMA Band V\_TX CH4182\_External Antenna 3dBi



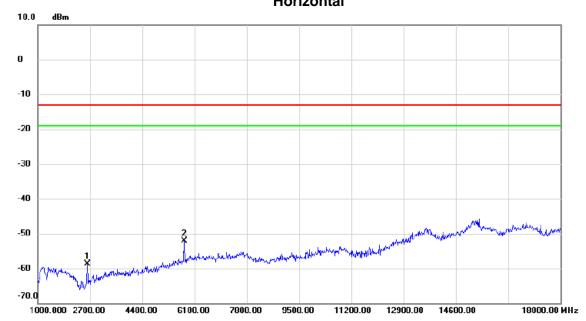
No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	2428.000	-59.80	12.02	-47.78	-13.00	-34.78	peak	
2		2598.000	-61.90	12.25	-49.65	-13.00	-36.65	peak	
3		5760.000	-67.38	16.51	-50.87	-13.00	-37.87	peak	

Report No.: BTL-FCCP-3-1701C181A





## Test Mode: WCDMA Band V\_TX CH4182\_External Antenna 3dBi Horizontal



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		2615.000	-64.68	6.02	-58.66	-13.00	-45.66	peak	
2	*	5760.000	-69.53	17.43	-52.10	-13.00	-39.10	peak	





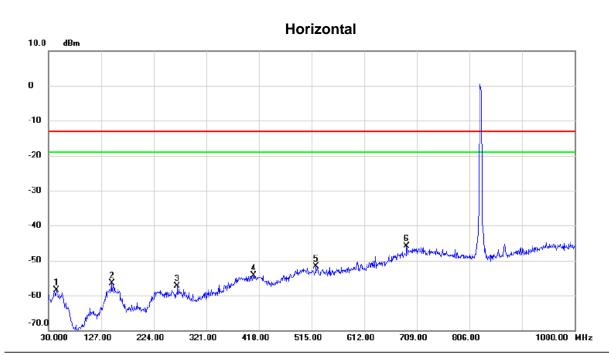
WCDMA Band V\_TX CH4182\_HSDPA\_External Antenna 3dBi Test Mode: **Vertical** 10.0 dBm -10 -20 -40 -50 -60 -70.0 806.00 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 612.00 709.00

No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	55.220	-71.15	12.61	-58.54	-13.00	-45.54	peak	
2	147.370	-71.03	12.89	-58.14	-13.00	-45.14	peak	
3	290.930	-71.03	12.10	-58.93	-13.00	-45.93	peak	
4	431.580	-69.73	14.48	-55.25	-13.00	-42.25	peak	
5	524.700	-69.96	17.50	-52.46	-13.00	-39.46	peak	
6 *	760.410	-69.26	22.36	-46.90	-13.00	-33.90	peak	





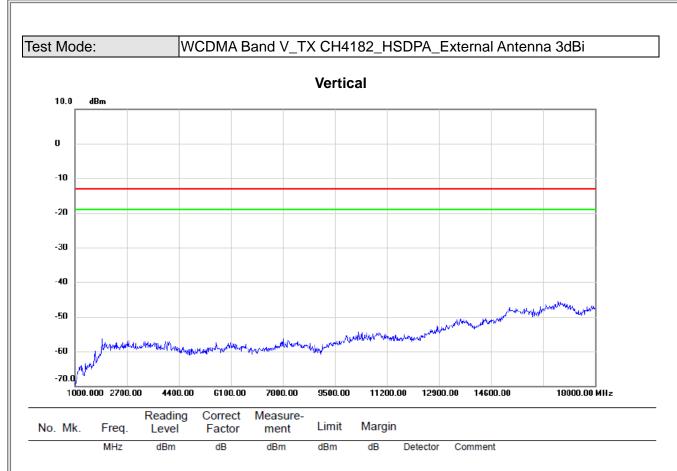
Test Mode: WCDMA Band V\_TX CH4182\_HSDPA\_External Antenna 3dBi



No. M	lk. Fre	Readii Leve	9		1. 2 24	Margin	ı		
	MH	dBm	dB	dBm	dBm	dB	Detector	Comment	
1	44.5	50 -71.4	10 12.97	-58.43	-13.00	-45.43	peak		
2	146.40	00 -70.2	26 13.84	-56.42	-13.00	-43.42	peak		
3	267.6	50 -70.1	14 12.76	-57.38	-13.00	-44.38	peak		
4	408.30	00 -70.6	64 16.30	-54.34	-13.00	-41.34	peak		
5	523.73	.69.8	34 18.08	-51.76	-13.00	-38.76	peak		
6 *	690.57	70 -69.2	23 23.34	-45.89	-13.00	-32.89	peak		

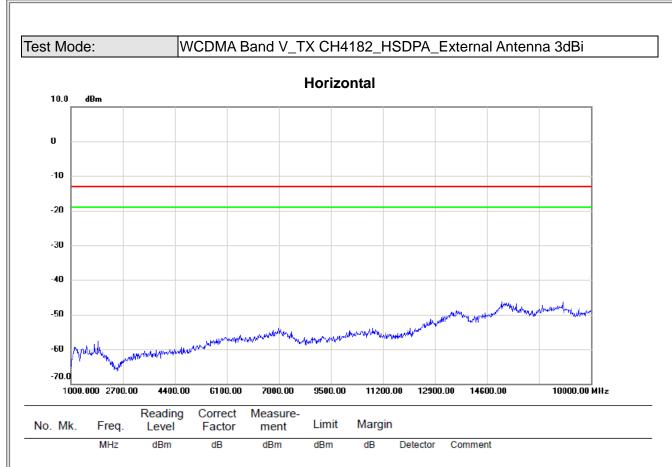








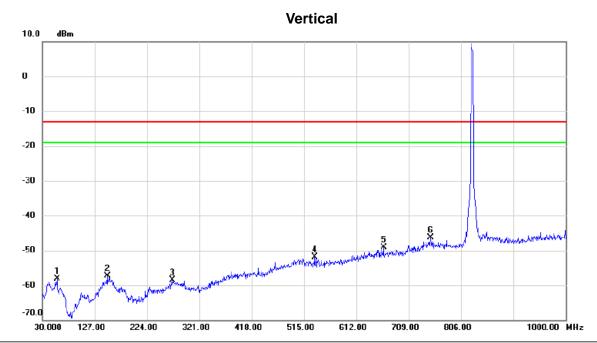








Test Mode: WCDMA Band V\_TX CH4182\_HSUPA\_External Antenna 3dBi

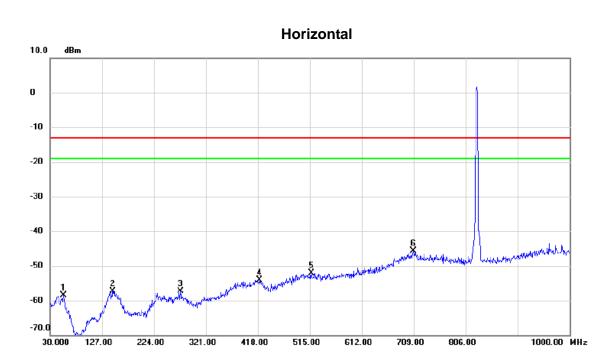


No. Mk	. Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	57.160	-69.80	11.74	-58.06	-13.00	-45.06	peak	
2	150.280	-70.39	13.15	-57.24	-13.00	-44.24	peak	
3	270.560	-70.72	12.22	-58.50	-13.00	-45.50	peak	
4	535.370	-69.46	17.48	-51.98	-13.00	-38.98	peak	
5	662.440	-69.40	20.21	-49.19	-13.00	-36.19	peak	
6 *	749.740	-68.85	22.47	-46.38	-13.00	-33.38	peak	





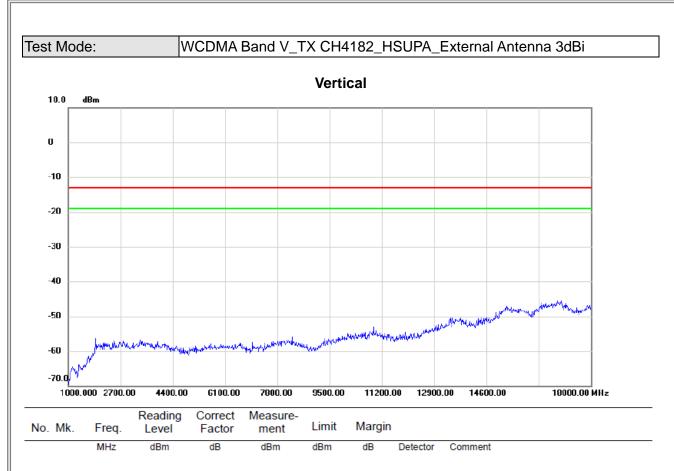
Test Mode: WCDMA Band V\_TX CH4182\_HSUPA\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	55.220	-70.97	12.53	-58.44	-13.00	-45.44	peak	
2	146.400	-71.14	13.84	-57.30	-13.00	-44.30	peak	
3	273.470	-70.16	12.84	-57.32	-13.00	-44.32	peak	
4	420.910	-70.94	16.78	-54.16	-13.00	-41.16	peak	
5	517.910	-70.07	18.07	-52.00	-13.00	-39.00	peak	
6 *	708.030	-69.50	23.79	-45.71	-13.00	-32.71	peak	

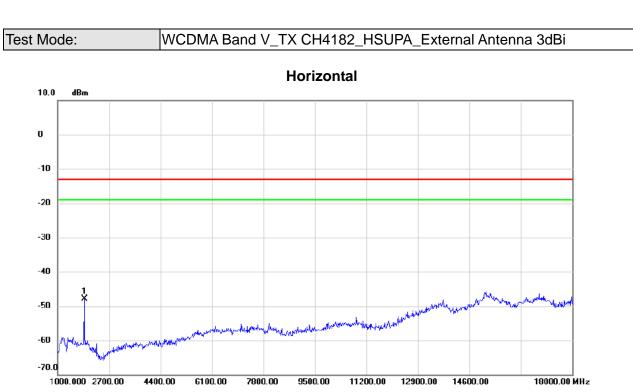










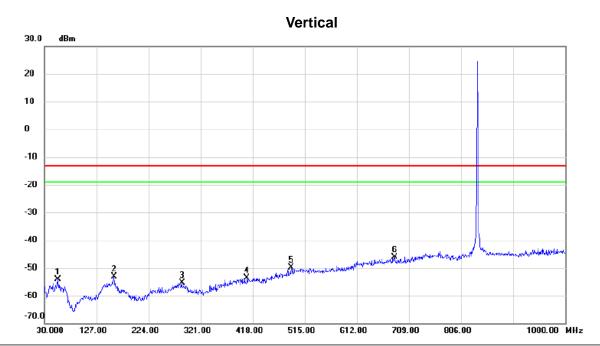


No. Mk	. Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1884.000	-56 19	8 26	-47.93	-13.00	-34 93	neak	





Test Mode: LTE Band 5\_TX CH20525\_1.4M\_External Antenna 3dBi

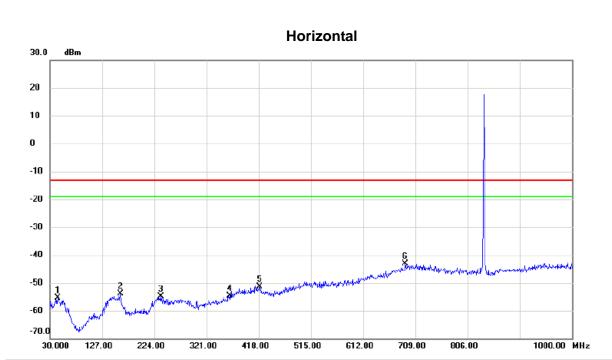


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	55.220	-76.67	22.61	-54.06	-13.00	-41.06	peak	
2	159.980	-76.38	23.18	-53.20	-13.00	-40.20	peak	
3	286.080	-77.80	22.39	-55.41	-13.00	-42.41	peak	
4	407.330	-77.85	24.31	-53.54	-13.00	-40.54	peak	
5	489.780	-76.77	26.95	-49.82	-13.00	-36.82	peak	
6 *	681.840	-76.59	30.35	-46.24	-13.00	-33.24	peak	





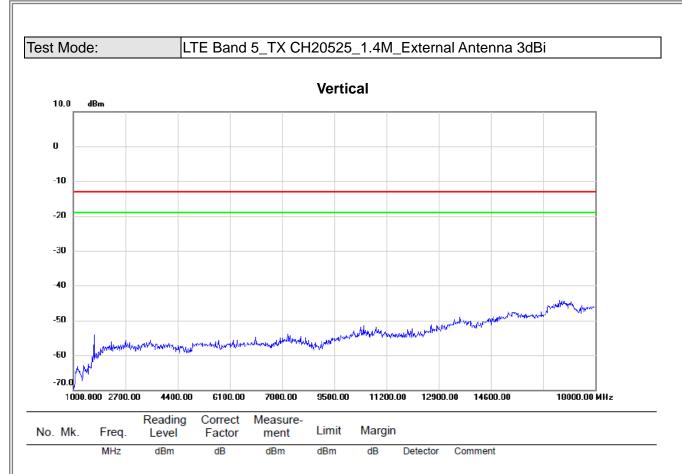
Test Mode: LTE Band 5\_TX CH20525\_1.4M\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.36	22.97	-55.39	-13.00	-42.39	peak	
2	160.950	-76.26	22.35	-53.91	-13.00	-40.91	peak	
3	235.640	-77.67	22.77	-54.90	-13.00	-41.90	peak	
4	363.680	-78.86	24.16	-54.70	-13.00	-41.70	peak	
5	419.940	-78.24	26.88	-51.36	-13.00	-38.36	peak	
6 *	690.570	-76.44	33.34	-43.10	-13.00	-30.10	peak	











LTE Band 5\_TX CH20525\_1.4M\_External Antenna 3dBi Test Mode: Horizontal 10.0 dBm 0 -10 -20 -30 -40 -50 -60 -70.0 1000.000 2700.00 4400.00 6100.00 7800.00 9500.00 11200.00 12900.00 14600.00 18000.00 MHz

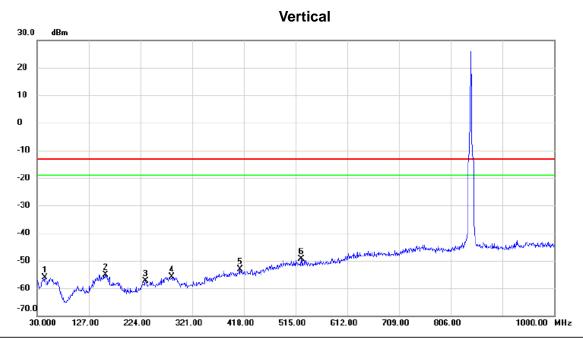


Report No.: BTL-FCCP-3-1701C181A





Test Mode: LTE Band 5\_TX CH20525\_10M\_External Antenna 3dBi

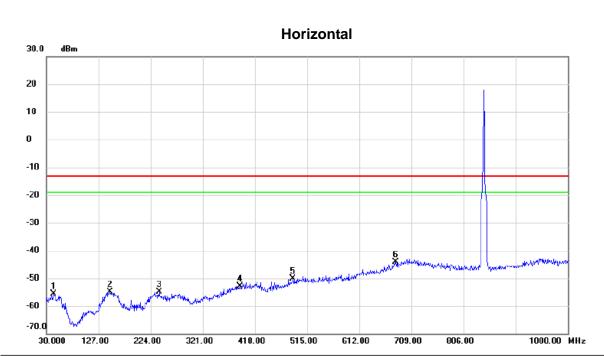


No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.12	21.96	-56.16	-13.00	-43.16	peak	
2	159.010	-78.21	23.18	-55.03	-13.00	-42.03	peak	
3	233.700	-77.82	20.39	-57.43	-13.00	-44.43	peak	
4	283.170	-78.37	22.51	-55.86	-13.00	-42.86	peak	
5	410.240	-77.42	24.39	-53.03	-13.00	-40.03	peak	
6 *	525.670	-76.95	27.50	-49.45	-13.00	-36.45	peak	





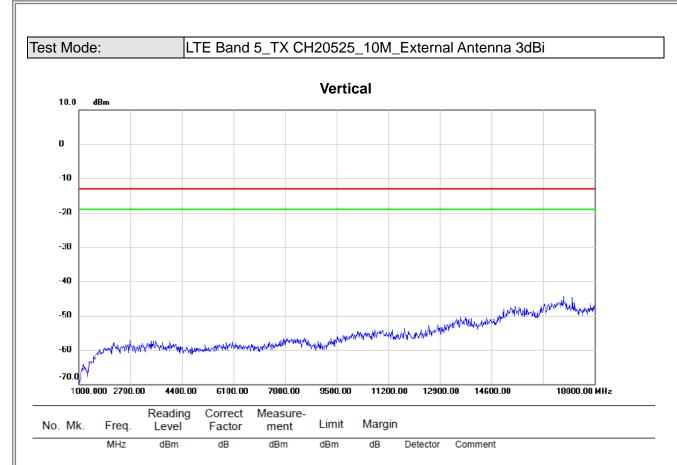
Test Mode: LTE Band 5\_TX CH20525\_10M\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure ment	- Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	43.580	-78.32	22.78	-55.54	-13.00	-42.54	peak	
2	148.340	-79.05	24.06	-54.99	-13.00	-41.99	peak	
3	239.520	-77.21	22.44	-54.77	-13.00	-41.77	peak	
4	389.870	-78.82	25.99	-52.83	-13.00	-39.83	peak	
5	488.810	-77.35	27.25	-50.10	-13.00	-37.10	peak	
6 *	679.900	-76.66	32.61	-44.05	-13.00	-31.05	peak	









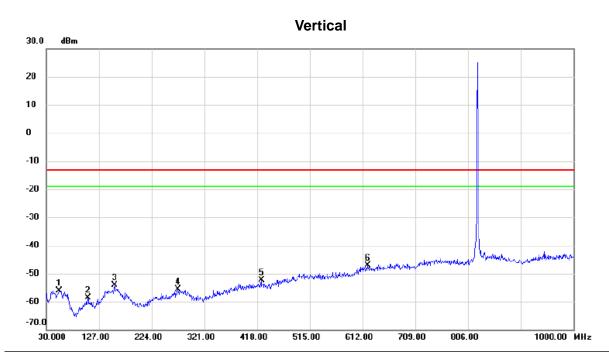








Test Mode: LTE Band 26\_TX CH26865\_1.4M\_External Antenna 3dBi

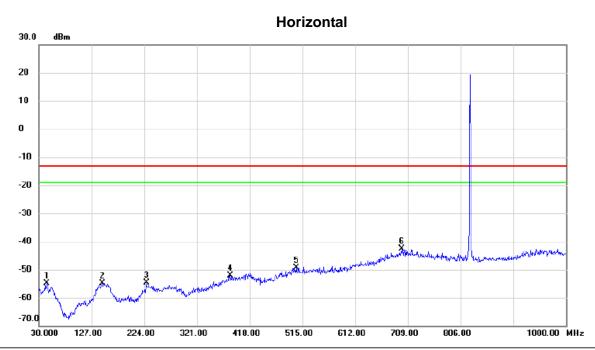


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	54.250	-78.63	22.40	-56.23	-13.00	-43.23	peak	
2	106.630	-77.38	18.87	-58.51	-13.00	-45.51	peak	
3	156.100	-77.24	23.17	-54.07	-13.00	-41.07	peak	
4	272.500	-77.99	22.30	-55.69	-13.00	-42.69	peak	
5	425.760	-76.94	24.57	-52.37	-13.00	-39.37	peak	
6 *	621.700	-76.55	29.32	-47.23	-13.00	-34.23	peak	





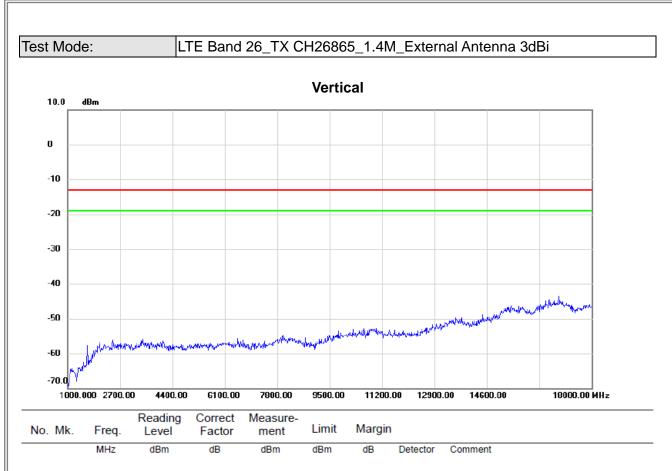
Test Mode: LTE Band 26\_TX CH26865\_1.4M\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-77.96	22.97	-54.99	-13.00	-41.99	peak	
2	147.370	-78.70	23.95	-54.75	-13.00	-41.75	peak	
3	227.880	-77.35	22.68	-54.67	-13.00	-41.67	peak	
4	382.110	-78.18	26.08	-52.10	-13.00	-39.10	peak	
5	503.360	-77.33	28.06	-49.27	-13.00	-36.27	peak	
6 *	698.330	-76.50	33.87	-42.63	-13.00	-29.63	peak	

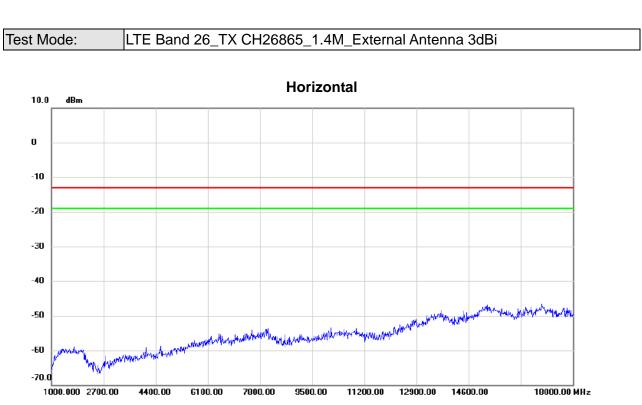












No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment	





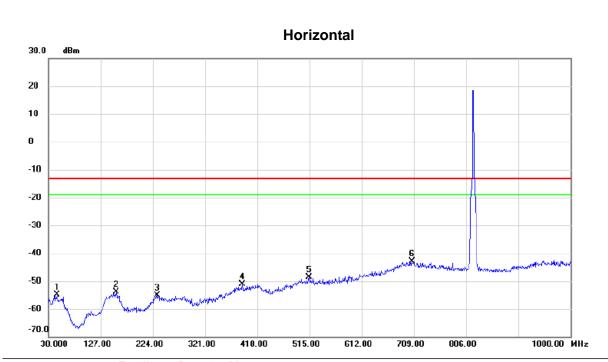
LTE Band 26\_TX CH26865\_10M\_External Antenna 3dBi Test Mode: **Vertical** 30.0 dBm 20 10 0 -10 -20 -30 -40 -50 -60 -70.0 1000.00 MHz 30.000 127.00 224.00 321.00 418.00

No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	54.250	-77.17	22.40	-54.77	-13.00	-41.77	peak	
2	158.040	-78.44	23.17	-55.27	-13.00	-42.27	peak	
3	267.650	-77.26	21.85	-55.41	-13.00	-42.41	peak	
4	395.690	-77.55	24.05	-53.50	-13.00	-40.50	peak	
5	516.940	-77.92	27.52	-50.40	-13.00	-37.40	peak	
6 *	656.620	-76.83	30.17	-46.66	-13.00	-33.66	peak	





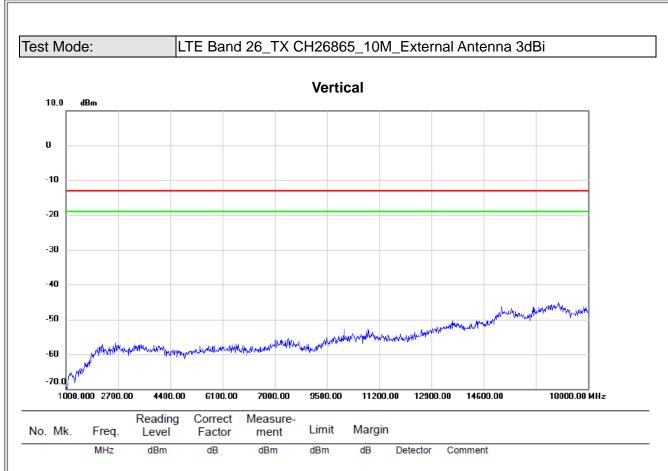
Test Mode: LTE Band 26\_TX CH26865\_10M\_External Antenna 3dBi



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		45.520	-77.76	22.87	-54.89	-13.00	-41.89	peak	
2		156.100	-77.21	23.33	-53.88	-13.00	-40.88	peak	
3		231.760	-78.30	23.10	-55.20	-13.00	-42.20	peak	
4		389.870	-77.01	25.99	-51.02	-13.00	-38.02	peak	
5		514.030	-76.81	28.07	-48.74	-13.00	-35.74	peak	
6	*	705.120	-76.71	33.86	-42.85	-13.00	-29.85	peak	

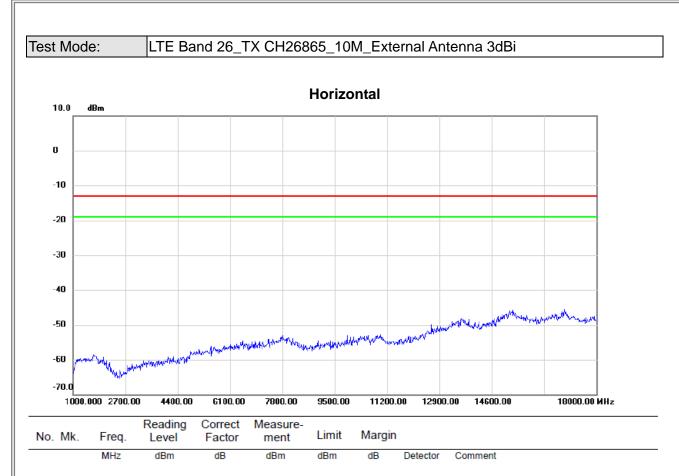








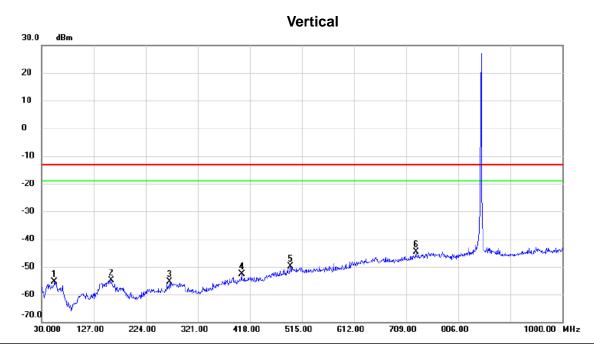








Test Mode: LTE Band 26\_TX CH27033\_1.4M\_External Antenna 3dBi



No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	54.250	-77.69	22.40	-55.29	-13.00	-42.29	peak	
2	159.980	-78.04	23.18	-54.86	-13.00	-41.86	peak	
3	268.620	-77.29	21.99	-55.30	-13.00	-42.30	peak	
4	402.480	-76.84	24.18	-52.66	-13.00	-39.66	peak	
5	493.660	-76.98	27.18	-49.80	-13.00	-36.80	peak	
6 *	727.430	-76.18	31.58	-44.60	-13.00	-31.60	peak	





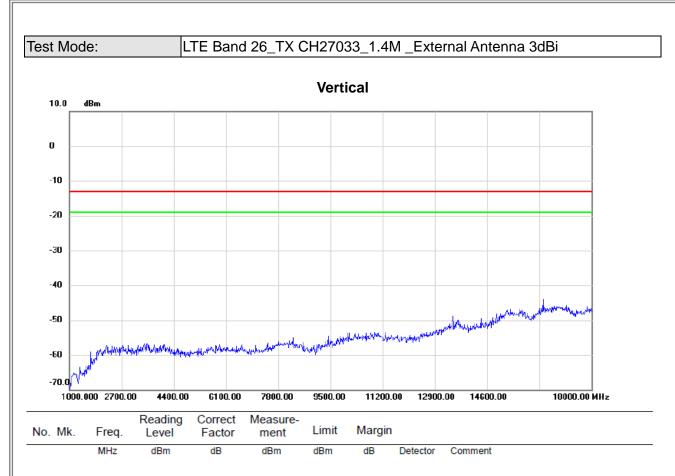
Test Mode: LTE Band 26\_TX CH27033\_1.4M \_External Antenna 3dBi

### Horizontal 30.0 dBm 20 10 0 -10 -20 -30 -40 -50 -60 -70.0 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	54.250	-78.35	22.47	-55.88	-13.00	-42.88	peak	
2	141.550	-77.82	23.30	-54.52	-13.00	-41.52	peak	
3	231.760	-78.90	23.10	-55.80	-13.00	-42.80	peak	
4	378.230	-78.66	25.89	-52.77	-13.00	-39.77	peak	
5	483.960	-77.86	26.91	-50.95	-13.00	-37.95	peak	
6 *	701.240	-76.94	33.95	-42.99	-13.00	-29.99	peak	

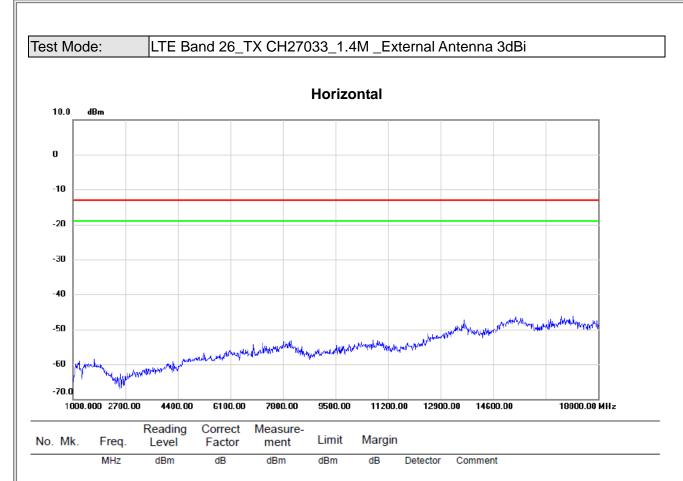








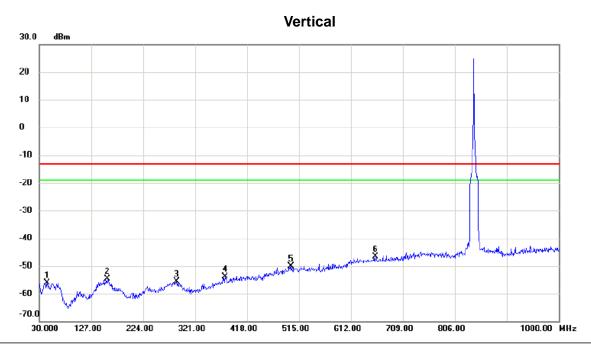








Test Mode: LTE Band 26\_TX CH26965\_15M\_External Antenna 3dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.04	21.96	-56.08	-13.00	-43.08	peak	
2	157.070	-77.80	23.17	-54.63	-13.00	-41.63	peak	
3	287.050	-77.98	22.35	-55.63	-13.00	-42.63	peak	
4	377.260	-77.62	23.69	-53.93	-13.00	-40.93	peak	
5	500.450	-77.70	27.55	-50.15	-13.00	-37.15	peak	
6 *	657.590	-76.87	30.17	-46.70	-13.00	-33.70	peak	



30.000

127.00

224.00



Test Mode: LTE Band 26\_TX CH26965\_15M \_External Antenna 3dBi

418.00

321.00

## Horizontal 30.0 dBm 20 10 -10 -20 -30 -60 -70.0

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	52.310	-77.46	21.92	-55.54	-13.00	-42.54	peak	
2	151.250	-78.82	24.05	-54.77	-13.00	-41.77	peak	
3	229.820	-78.17	23.20	-54.97	-13.00	-41.97	peak	
4	273.470	-77.27	22.84	-54.43	-13.00	-41.43	peak	
5	416.060	-78.15	26.68	-51.47	-13.00	-38.47	peak	
6 *	696.390	-77.16	33.73	-43.43	-13.00	-30.43	peak	

515.00

612.00

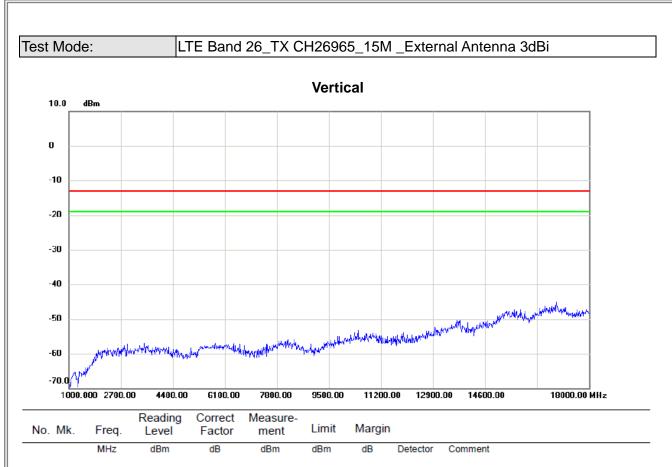
806.00

709.00

1000.00 MHz

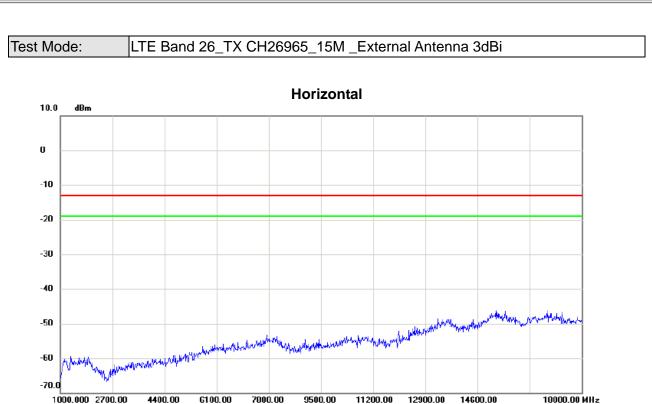










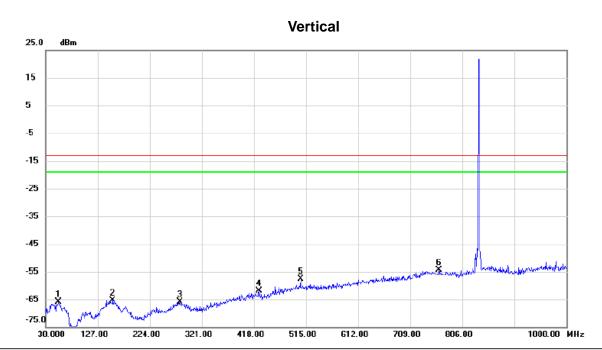


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment		





Test Mode: GSM850\_TX CH190\_GSM\_External Antenna 1dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	53.280	-77.74	11.99	-65.75	-13.00	-52.75	peak	
2	155.130	-78.51	13.17	-65.34	-13.00	-52.34	peak	
3	280.260	-78.62	12.64	-65.98	-13.00	-52.98	peak	
4	427.700	-76.41	14.54	-61.87	-13.00	-48.87	peak	
5	505.300	-75.10	17.54	-57.56	-13.00	-44.56	peak	
6 *	762.350	-76.81	22.33	-54.48	-13.00	-41.48	peak	





Test Mode: GSM850\_TX CH190\_GSM\_External Antenna 1dBi

# Horizontal 25.0 dBm 15 -5 -5 -15 -25 -45 -55 -65 -75.0

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-78.21	12.97	-65.24	-13.00	-52.24	peak	
2	152.220	-77.17	13.91	-63.26	-13.00	-50.26	peak	
3	228.850	-78.60	12.94	-65.66	-13.00	-52.66	peak	
4	271.530	-78.22	12.94	-65.28	-13.00	-52.28	peak	
5	414.120	-77.16	16.59	-60.57	-13.00	-47.57	peak	
6 *	693.480	-76.31	23.54	-52.77	-13.00	-39.77	peak	

515.00

612.00

709.00

806.00

1000.00 MHz

418.00

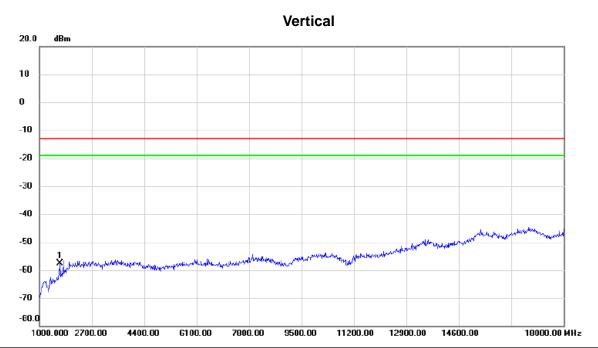
127.00

224.00





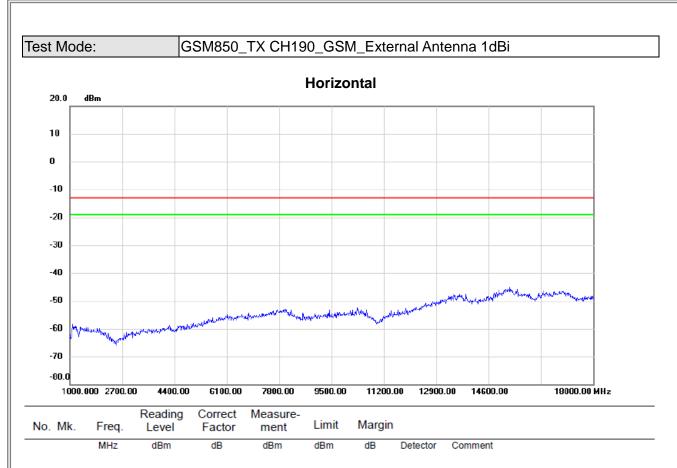
Test Mode: GSM850\_TX CH190\_GSM\_External Antenna 1dBi



No. Mk.	Freq.			Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1663.000	-64.08	6.36	-57.72	-13.00	-44.72	peak	



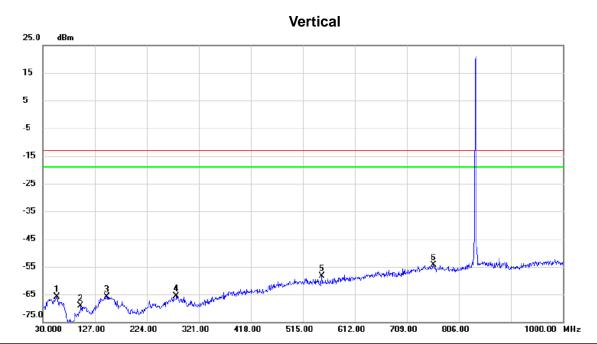








Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 1dBi



No. Mk	. Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	56.190	-77.99	12.18	-65.81	-13.00	-52.81	peak	
2	100.810	-77.82	8.65	-69.17	-13.00	-56.17	peak	
3	149.310	-78.91	13.08	-65.83	-13.00	-52.83	peak	
4	279.290	-78.33	12.62	-65.71	-13.00	-52.71	peak	
5	550.890	-75.89	17.47	-58.42	-13.00	-45.42	peak	
6 *	758.470	-76.76	22.38	-54.38	-13.00	-41.38	peak	



30.000

127.00

224.00

321.00

418.00



1000.00 MHz

Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 1dBi

## Horizontal 19.0 dBm 9 -1 -11 -21 -31 -41 -51 -51 -51

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	55.220	-80.40	12.53	-67.87	-13.00	-54.87	peak	
2	146.400	-80.86	13.84	-67.02	-13.00	-54.02	peak	
3	270.560	-81.50	12.99	-68.51	-13.00	-55.51	peak	
4	409.270	-80.26	16.34	-63.92	-13.00	-50.92	peak	
5	487.840	-79.50	17.18	-62.32	-13.00	-49.32	peak	
6 *	710.940	-79.27	23.72	-55.55	-13.00	-42.55	peak	

515.00

612.00

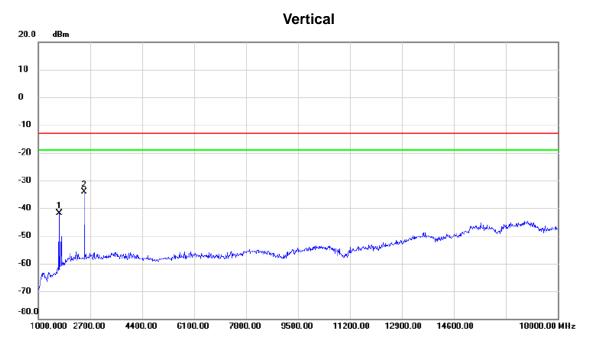
709.00

806.00





## Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 1dBi

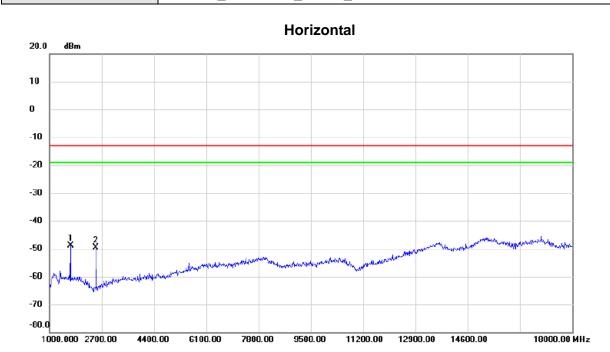


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		1680.000	-48.39	6.59	-41.80	-13.00	-28.80	peak	
2	*	2513.000	-46.30	12.21	-34.09	-13.00	-21.09	peak	





Test Mode: GSM850\_TX CH190\_EDGE\_External Antenna 1dBi

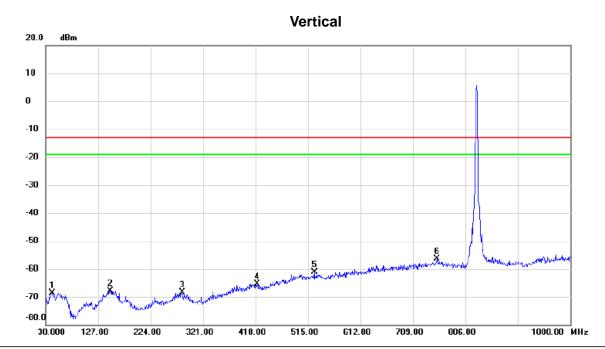


No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1680.000	-57.05	8.17	-48.88	-13.00	-35.88	peak	
2	2513.000	-54.99	5.30	-49.69	-13.00	-36.69	peak	





Test Mode: WCDMA Band V\_TX CH4182\_External Antenna 1dBi

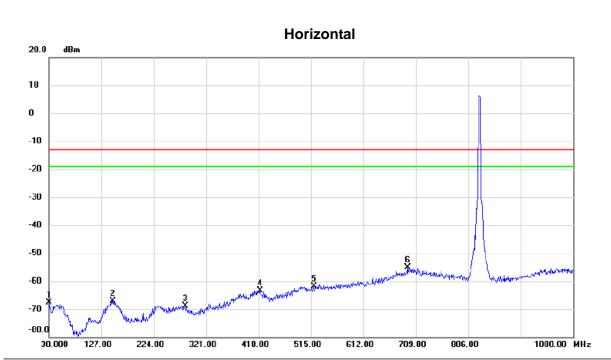


No. I	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		42.610	-80.72	12.03	-68.69	-13.00	-55.69	peak	
2		149.310	-80.88	13.08	-67.80	-13.00	-54.80	peak	
3		282.200	-80.92	12.56	-68.36	-13.00	-55.36	peak	
4		420.910	-80.00	14.64	-65.36	-13.00	-52.36	peak	
5		526.640	-78.67	17.50	-61.17	-13.00	-48.17	peak	
6 *	k	753.620	-78.71	22.44	-56.27	-13.00	-43.27	peak	





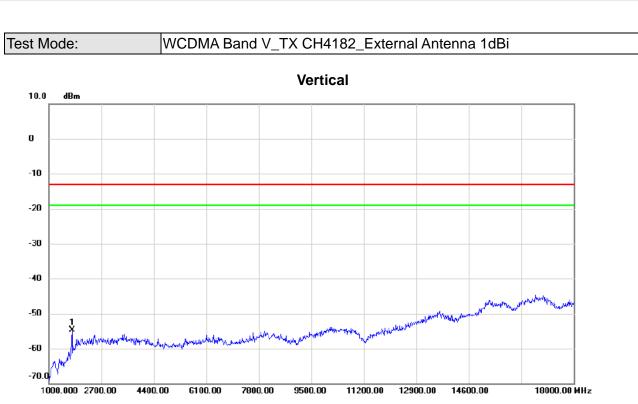
Test Mode: WCDMA Band V\_TX CH4182\_External Antenna 1dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	30.970	-79.25	11.57	-67.68	-13.00	-54.68	peak	
2	148.340	-81.18	14.06	-67.12	-13.00	-54.12	peak	
3	282.200	-81.07	12.30	-68.77	-13.00	-55.77	peak	
4	420.910	-80.03	16.78	-63.25	-13.00	-50.25	peak	
5	520.820	-79.92	18.08	-61.84	-13.00	-48.84	peak	
6 *	693.480	-78.63	23.54	-55.09	-13.00	-42.09	peak	



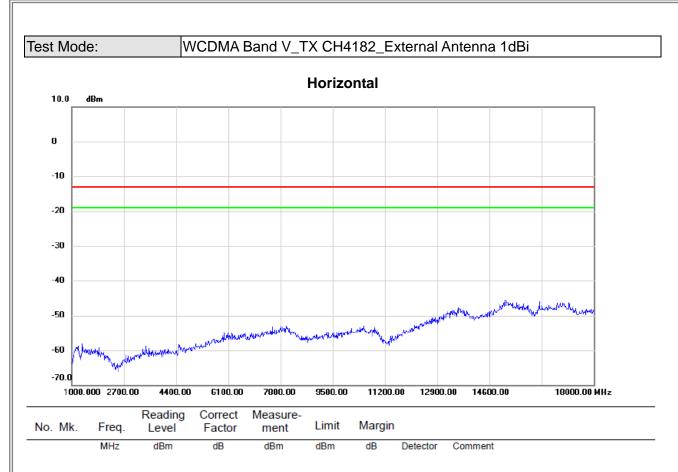




No. Mk	. Freq.			Measure- ment		Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1748.000	-62.29	7.52	-54.77	-13.00	-41.77	peak	



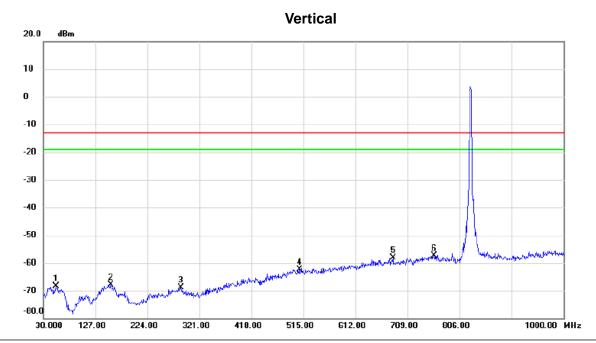








Test Mode: WCDMA Band V\_TX CH4182\_HSDPA\_External Antenna 1dBi

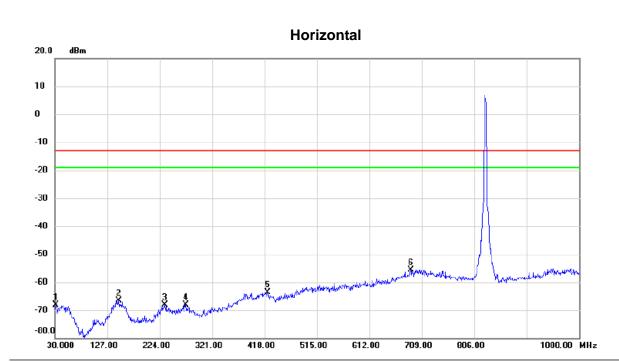


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		53.280	-80.41	11.99	-68.42	-13.00	-55.42	peak	
2		156.100	-80.92	13.17	-67.75	-13.00	-54.75	peak	
3		287.050	-81.19	12.35	-68.84	-13.00	-55.84	peak	
4		507.240	-79.98	17.54	-62.44	-13.00	-49.44	peak	
5		681.840	-78.36	20.35	-58.01	-13.00	-45.01	peak	
6	*	758.470	-79.87	22.38	-57.49	-13.00	-44.49	peak	





Test Mode: WCDMA Band V\_TX CH4182\_HSDPA\_External Antenna 1dBi

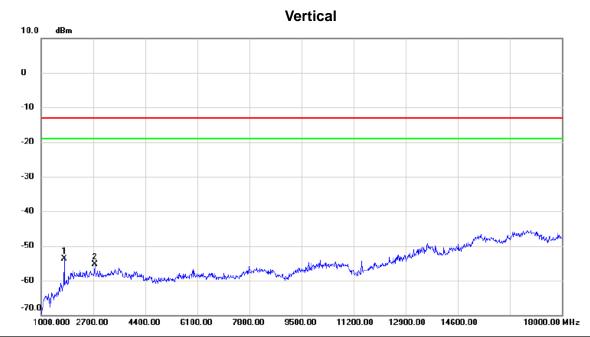


	No. N	Иk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
	1		31.940	-79.50	11.27	-68.23	-13.00	-55.23	peak	
	2		148.340	-80.58	14.06	-66.52	-13.00	-53.52	peak	
	3		233.700	-81.16	12.94	-68.22	-13.00	-55.22	peak	
	4		272.500	-80.90	12.89	-68.01	-13.00	-55.01	peak	
	5		423.820	-80.08	16.45	-63.63	-13.00	-50.63	peak	
	6 *		688.630	-78.71	23.20	-55.51	-13.00	-42.51	peak	
_										





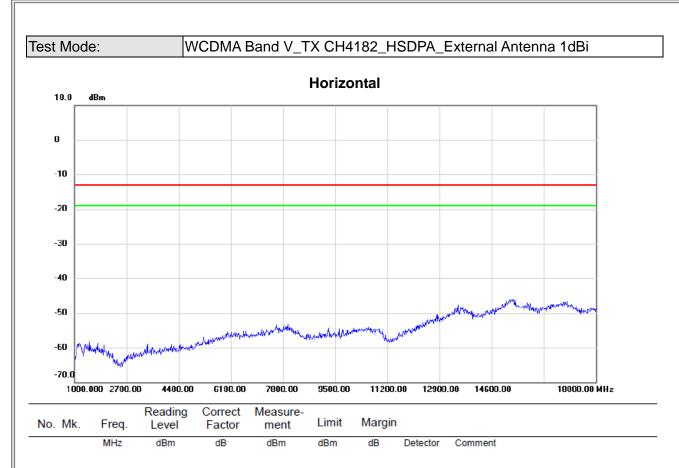
## Test Mode: WCDMA Band V\_TX CH4182\_HSDPA\_External Antenna 1dBi



No	o. I	Mk.	Freq.			Measure- ment		Margin		
			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	1 *	1	748.000	-61.30	7.52	-53.78	-13.00	-40.78	peak	
2	2	2	751.000	-67.71	12.33	-55.38	-13.00	-42.38	peak	



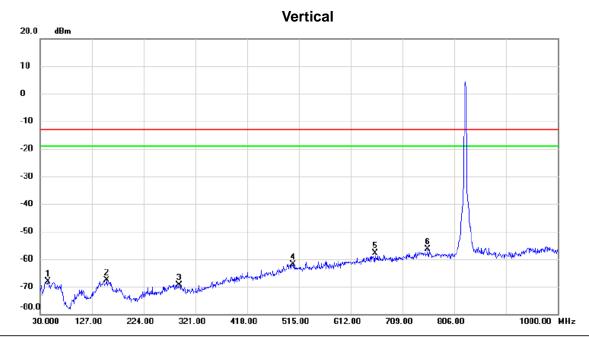








Test Mode: WCDMA Band V\_TX CH4182\_HSUPA\_External Antenna 1dBi

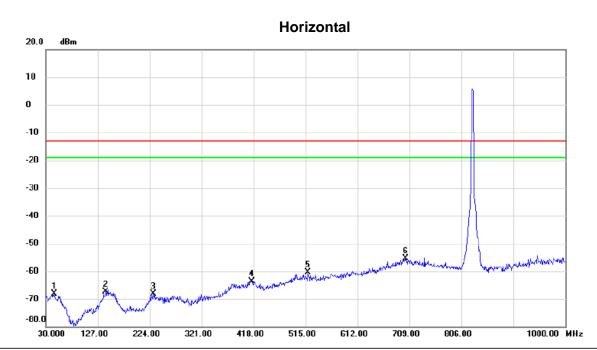


	No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
-	1	44.550	-80.13	11.96	-68.17	-13.00	-55.17	peak	
-	2	155.130	-80.85	13.17	-67.68	-13.00	-54.68	peak	
	3	290.930	-81.49	12.10	-69.39	-13.00	-56.39	peak	
-	4	503.360	-79.30	17.54	-61.76	-13.00	-48.76	peak	
	5	657.590	-78.16	20.17	-57.99	-13.00	-44.99	peak	
-	6 *	756.530	-78.71	22.40	-56.31	-13.00	-43.31	peak	





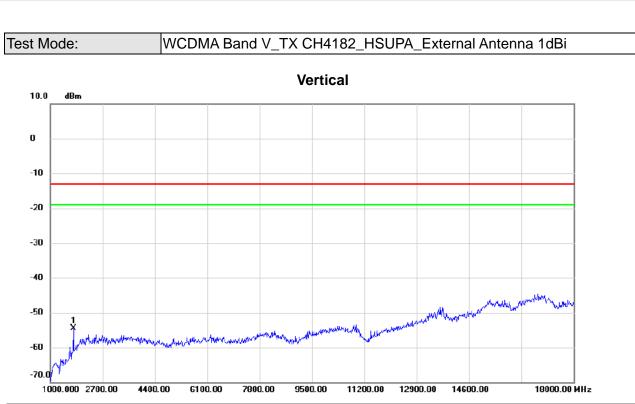
Test Mode: WCDMA Band V\_TX CH4182\_HSUPA\_External Antenna 1dBi



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	46.490	-80.75	12.52	-68.23	-13.00	-55.23	peak	
2	141.550	-80.65	13.30	-67.35	-13.00	-54.35	peak	
3	230.790	-81.20	13.18	-68.02	-13.00	-55.02	peak	
4	415.090	-80.15	16.63	-63.52	-13.00	-50.52	peak	
5	519.850	-78.41	18.08	-60.33	-13.00	-47.33	peak	
6 *	701.240	-79.40	23.95	-55.45	-13.00	-42.45	peak	



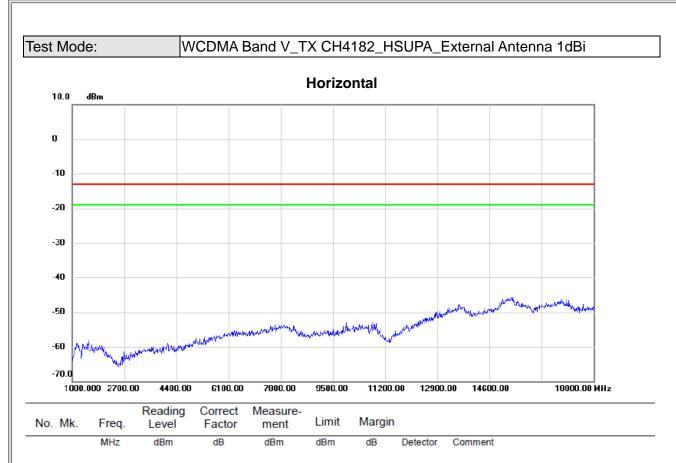




No. Mk	. Freq.			Measure- ment		Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1748.000	-61.94	7.52	-54.42	-13.00	-41.42	peak	

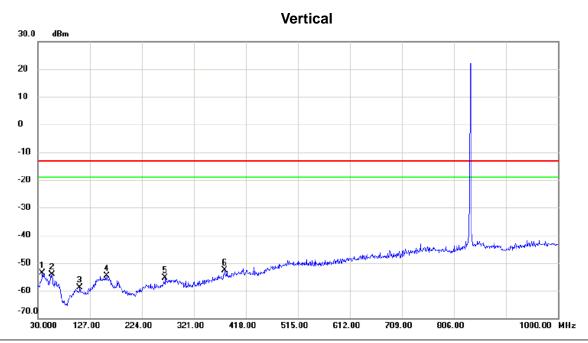








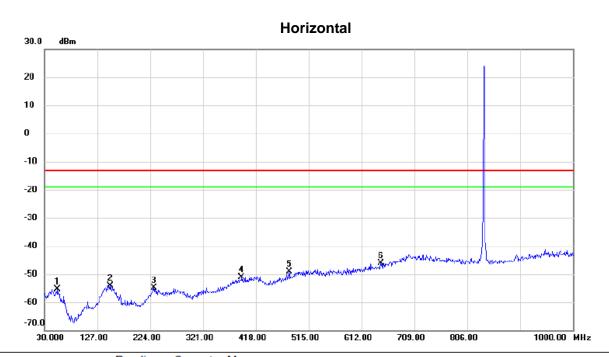




No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		38.730	-74.83	21.21	-53.62	-13.00	-40.62	peak	
2		56.190	-76.41	22.18	-54.23	-13.00	-41.23	peak	
3		108.570	-77.73	18.95	-58.78	-13.00	-45.78	peak	
4		159.010	-77.84	23.18	-54.66	-13.00	-41.66	peak	
5		267.650	-77.15	21.85	-55.30	-13.00	-42.30	peak	
6	*	378.230	-76.33	23.74	-52.59	-13.00	-39.59	peak	



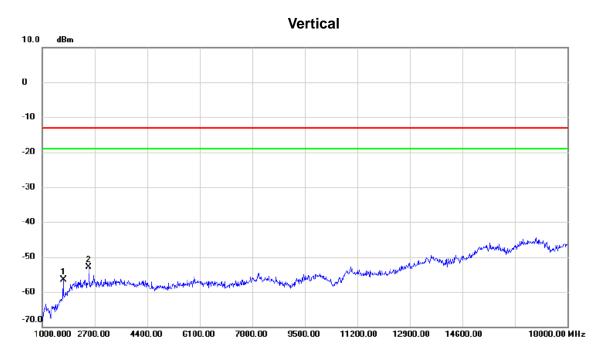




No. Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	54.250	-77.72	22.47	-55.25	-13.00	-42.25	peak	
2	150.280	-78.21	24.20	-54.01	-13.00	-41.01	peak	
3	230.790	-78.07	23.18	-54.89	-13.00	-41.89	peak	
4	391.810	-76.99	25.97	-51.02	-13.00	-38.02	peak	
5	479.110	-75.80	26.58	-49.22	-13.00	-36.22	peak	
6 *	647.890	-76.63	30.51	-46.12	-13.00	-33.12	peak	



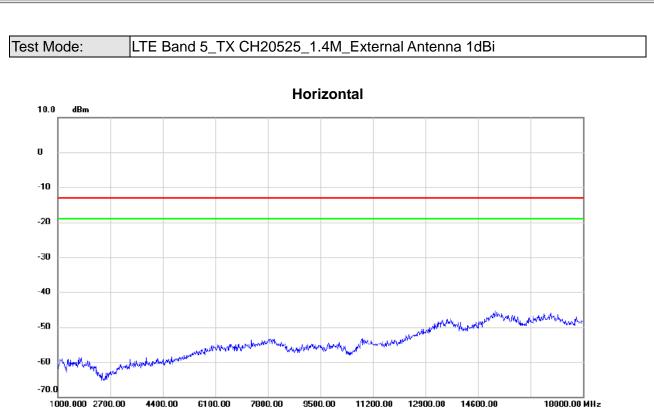




No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	,	1680.000	-63.11	6.59	-56.52	-13.00	-43.52	peak	
2	* 2	2513.000	-65.07	12.21	-52.86	-13.00	-39.86	peak	



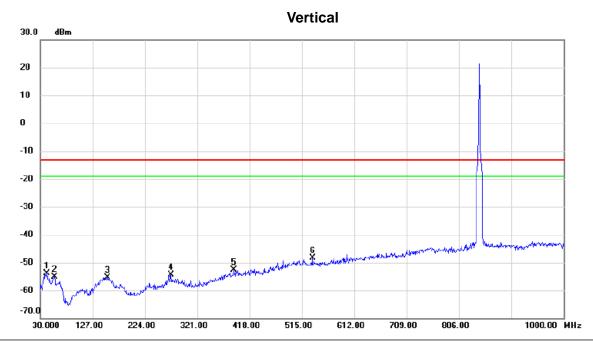




No. Mk.	Freq.			Measure- ment	Limit	Margin				_
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment	 	



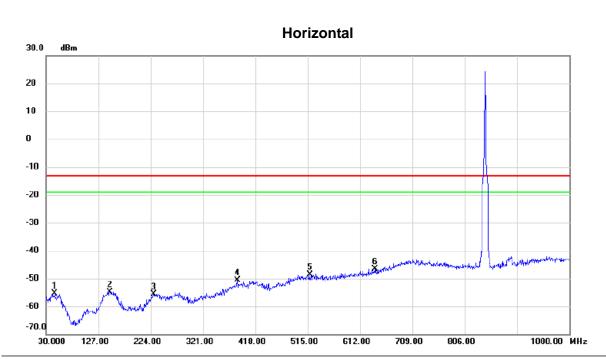




No. Mk.	Freq.	Reading Level	Correct Factor	Measure ment	- Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	42.610	-75.88	22.03	-53.85	-13.00	-40.85	peak	
2	56.190	-77.31	22.18	-55.13	-13.00	-42.13	peak	
3	155.130	-78.43	23.17	-55.26	-13.00	-42.26	peak	
4	272.500	-76.78	22.30	-54.48	-13.00	-41.48	peak	
5	388.900	-76.49	23.95	-52.54	-13.00	-39.54	peak	
6 *	534.400	-75.96	27.48	-48.48	-13.00	-35.48	peak	



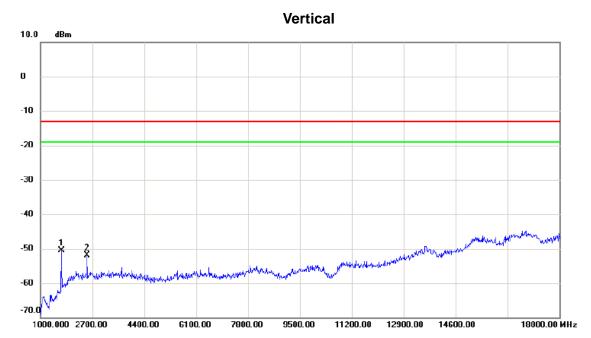




	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
-			MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
	1		45.520	-78.29	22.87	-55.42	-13.00	-42.42	peak	
_	2		148.340	-78.86	24.06	-54.80	-13.00	-41.80	peak	
	3		229.820	-78.87	23.20	-55.67	-13.00	-42.67	peak	
	4		385.020	-76.69	26.04	-50.65	-13.00	-37.65	peak	
-	5		518.880	-76.69	28.08	-48.61	-13.00	-35.61	peak	
	6	*	640.130	-76.80	30.29	-46.51	-13.00	-33.51	peak	
-										



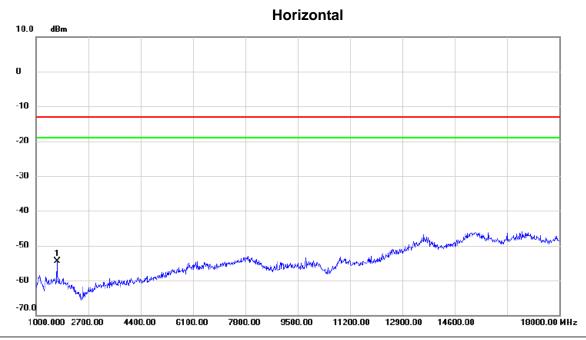




No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1680.000	-57.11	6.59	-50.52	-13.00	-37.52	peak	
2		2530.000	-64.07	12.21	-51.86	-13.00	-38.86	peak	





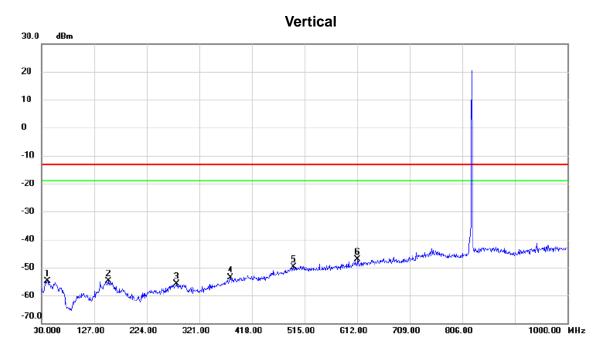


	No. Mk	. Freq.			Measure- ment		Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
-	1 *	1680.000	-62.59	8.17	-54.42	-13.00	-41.42	peak	





Test Mode: LTE Band 26\_TX CH26865\_1.4M\_External Antenna 1dBi



No. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	40.670	-76.97	22.10	-54.87	-13.00	-41.87	peak	
2	153.190	-78.06	23.16	-54.90	-13.00	-41.90	peak	
3	279.290	-78.58	22.62	-55.96	-13.00	-42.96	peak	
4	378.230	-77.31	23.74	-53.57	-13.00	-40.57	peak	
5	494.630	-77.05	27.24	-49.81	-13.00	-36.81	peak	
6 *	612.970	-76.29	29.07	-47.22	-13.00	-34.22	peak	



30.000

127.00

224.00

321.00



Test Mode: LTE Band 26\_TX CH26865\_1.4M\_External Antenna 1dBi

418.00

# Horizontal 30.0 dBm 20 10 -10 -20 -30 -60 -70.0

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	52.310	-77.31	21.92	-55.39	-13.00	-42.39	peak	
2	148.340	-78.11	24.06	-54.05	-13.00	-41.05	peak	
3	232.730	-77.66	23.02	-54.64	-13.00	-41.64	peak	
4	388.900	-76.58	26.00	-50.58	-13.00	-37.58	peak	
5	499.480	-76.51	28.02	-48.49	-13.00	-35.49	peak	
6 *	709.000	-76.02	33.76	-42.26	-13.00	-29.26	peak	

515.00

612.00

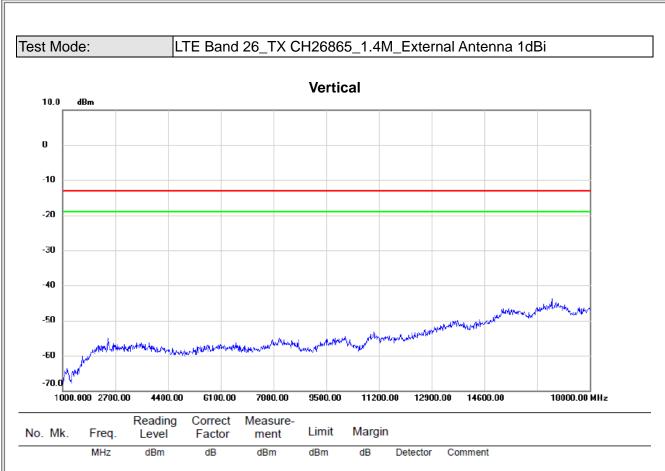
806.00

709.00

1000.00 MHz

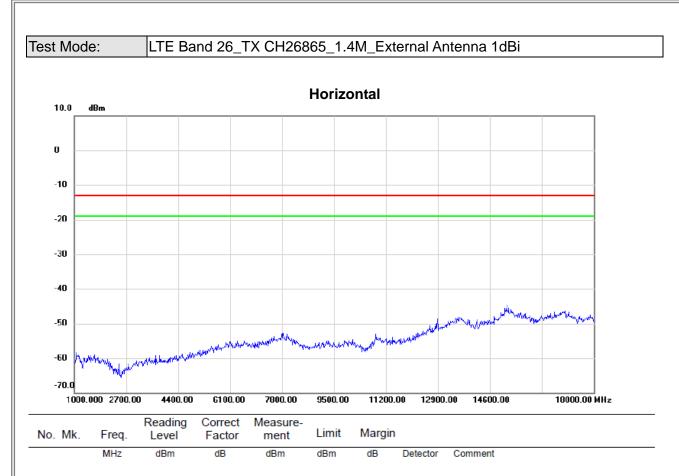






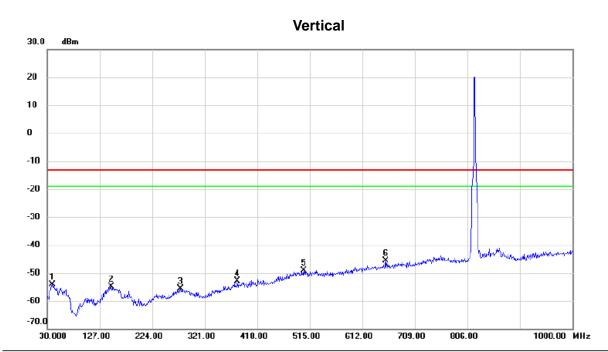








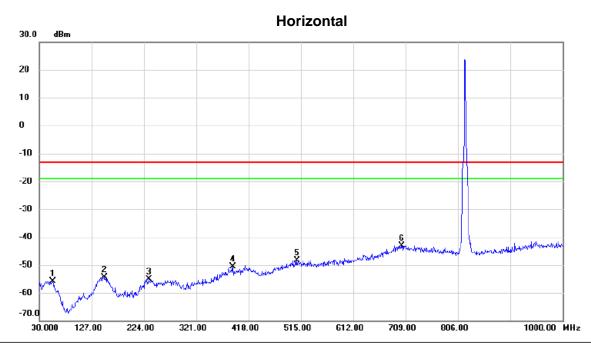




No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	39.700	-76.14	21.90	-54.24	-13.00	-41.24	peak	
2	148.340	-77.91	22.98	-54.93	-13.00	-41.93	peak	
3	276.380	-77.98	22.48	-55.50	-13.00	-42.50	peak	
4	381.140	-76.81	23.85	-52.96	-13.00	-39.96	peak	
5	503.360	-76.75	27.54	-49.21	-13.00	-36.21	peak	
6 *	654.680	-75.80	30.15	-45.65	-13.00	-32.65	peak	



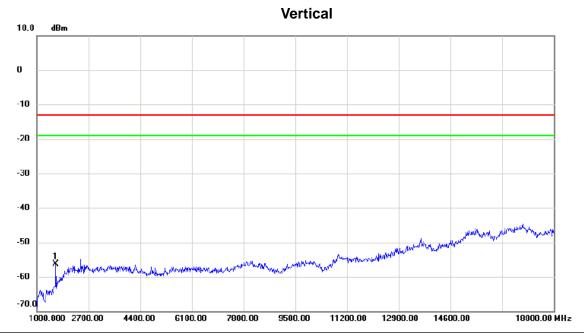




No. Mk.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	55.220	-78.47	22.53	-55.94	-13.00	-42.94	peak	
2	150.280	-78.49	24.20	-54.29	-13.00	-41.29	peak	
3	233.700	-78.12	22.94	-55.18	-13.00	-42.18	peak	
4	388.900	-76.58	26.00	-50.58	-13.00	-37.58	peak	
5	507.240	-76.40	28.07	-48.33	-13.00	-35.33	peak	
6 *	702.210	-77.00	33.93	-43.07	-13.00	-30.07	peak	



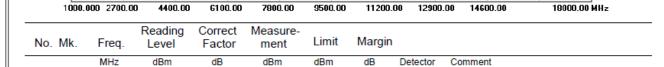




No. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1629.000	-62.13	5.89	-56.24	-13.00	-43.24	peak	



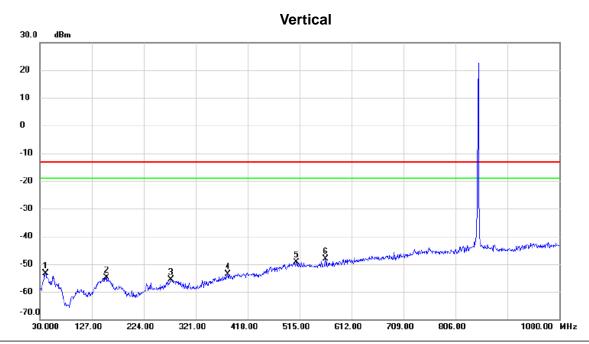








Test Mode: LTE Band 26\_TX CH27033\_1.4M\_External Antenna 1dBi



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		40.670	-75.38	22.10	-53.28	-13.00	-40.28	peak	
2		154.160	-78.02	23.16	-54.86	-13.00	-41.86	peak	
3		274.440	-78.05	22.39	-55.66	-13.00	-42.66	peak	
4		381.140	-77.53	23.85	-53.68	-13.00	-40.68	peak	
5		509.180	-76.82	27.53	-49.29	-13.00	-36.29	peak	
6	*	563.500	-75.97	27.79	-48.18	-13.00	-35.18	peak	





Test Mode: LTE Band 26\_TX CH27033\_1.4M \_External Antenna 1dBi

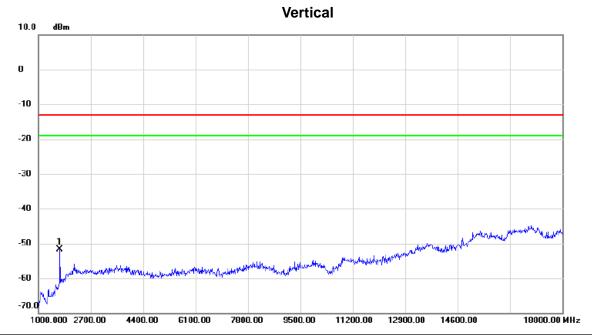


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	ı	
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	43.580	-77.56	22.78	-54.78	-13.00	-41.78	peak	
2	149.310	-78.17	24.16	-54.01	-13.00	-41.01	peak	
3	229.820	-78.58	23.20	-55.38	-13.00	-42.38	peak	
4	368.530	-76.00	24.74	-51.26	-13.00	-38.26	peak	
5	501.420	-77.38	28.06	-49.32	-13.00	-36.32	peak	
6 *	697.360	-77.08	33.80	-43.28	-13.00	-30.28	peak	





Test Mode: LTE Band 26\_TX CH27033\_1.4M \_External Antenna 1dBi

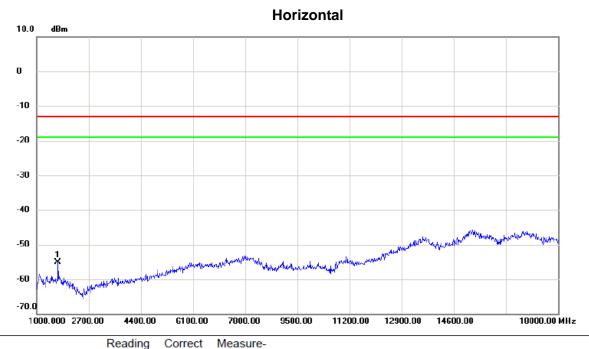


No. Mk.	. Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1697.000	-58.50	6.82	-51.68	-13.00	-38.68	peak	





Test Mode: LTE Band 26\_TX CH27033\_1.4M \_External Antenna 1dBi



No. Mk	. Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1697.000	-63.32	8.17	-55.15	-13.00	-42.15	peak	





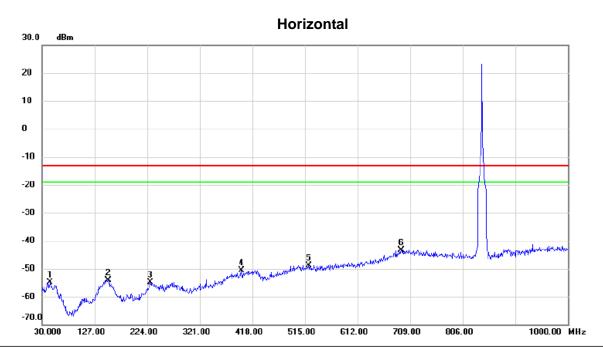
### **Vertical** dBm 30.0 20 10 0 -10 -20 -30 -40 -50 -60 -70.0 224.00 418.00 612.00 806.00 1000.00 MHz 30.000 127.00 321.00 515.00 709.00

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	39.700	-74.74	21.90	-52.84	-13.00	-39.84	peak	
2	54.250	-76.35	22.40	-53.95	-13.00	-40.95	peak	
3	159.010	-77.54	23.18	-54.36	-13.00	-41.36	peak	
4	268.620	-77.36	21.99	-55.37	-13.00	-42.37	peak	
5	410.240	-76.80	24.39	-52.41	-13.00	-39.41	peak	
6 *	510.150	-76.22	27.53	-48.69	-13.00	-35.69	peak	





Test Mode: LTE Band 26\_TX CH26965\_15M \_External Antenna 1dBi

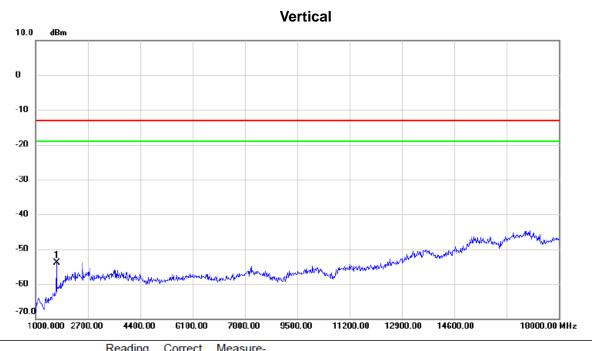


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	44.550	-77.79	22.97	-54.82	-13.00	-41.82	peak	
2	152.220	-78.13	23.91	-54.22	-13.00	-41.22	peak	
3	229.820	-78.12	23.20	-54.92	-13.00	-41.92	peak	
4	397.630	-76.61	25.91	-50.70	-13.00	-37.70	peak	
5	521.790	-76.92	28.08	-48.84	-13.00	-35.84	peak	
6 *	692.510	-76.87	33.47	-43.40	-13.00	-30.40	peak	





Test Mode: LTE Band 26\_TX CH26965\_15M \_External Antenna 1dBi

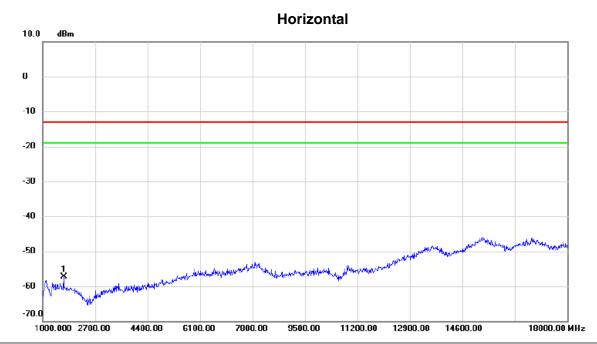


No. Mk	. Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1680.000	-60.45	6.59	-53.86	-13.00	-40.86	peak	





Test Mode: LTE Band 26\_TX CH26965\_15M \_External Antenna 1dBi



No. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1 *	1680.000	-65.51	8.17	-57.34	-13.00	-44.34	peak	