

FCC Test Report

(Part 27)

Report No.: RF150504C40-2

FCC ID: T5UAQT80

Test Model: AQT80

Received Date: May 04, 2015

Test Date: May 07 ~ Jul. 21, 2015

Issued Date: Aug. 24, 2015

Applicant: Quanta Microsystems, Inc.

Address: 188 Wenhwa 2nd Rd., Guishan Dist., Tao Yuan City, Taiwan, 33377

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results	5
2.1 Measurement Uncertainty	5
2.2 Test Site and Instruments	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Configuration of System Under Test	10
3.2.1 Description of Support Units	10
3.3 Test Mode Applicability and Tested Channel Detail	11
3.4 EUT Operating Conditions	17
3.5 General Description of Applied Standards	17
4 Test Types and Results	18
4.1 Output Power Measurement	18
4.1.1 Limits of Output Power Measurement	18
4.1.2 Test Procedures	18
4.1.3 Test Setup	19
4.1.4 Test Results	20
4.2 Frequency Stability Measurement	42
4.2.1 Limits of Frequency Stability Measurement	42
4.2.2 Test Procedure	42
4.2.3 Test Setup	42
4.2.4 Test Results	43
4.3 Emission Bandwidth Measurement	44
4.3.1 Limits of Emission Bandwidth Measurement	44
4.3.2 Test Procedure	44
4.3.3 Test Setup	44
4.3.4 Test Result	45
4.4 Channel Edge Measurement	54
4.4.1 Limits of Band Edge Measurement	54
4.4.2 Test Setup	54
4.4.3 Test Procedures	54
4.4.4 Test Results	55
4.5 Peak To Average Ratio	73
4.5.1 Limits of Peak To Average Ratio Measurement	73
4.5.2 Test Setup	73
4.5.3 Test Procedures	73
4.5.4 Test Results	74
4.6 Conducted Spurious Emissions	79
4.6.1 Limits of Conducted Spurious Emissions Measurement	79
4.6.2 Test Setup	79
4.6.3 Test Procedure	79
4.6.4 Test Results	80
4.7 Radiated Emission Measurement	130
4.7.1 Limits of Radiated Emission Measurement	130
4.7.2 Test Procedure	130
4.7.3 Deviation from Test Standard	130
4.7.4 Test Setup	131
4.7.5 Test Results	132
5 Pictures of Test Arrangements	178
Appendix – Information on the Testing Laboratories	179



A D T

Release Control Record

Issue No.	Description	Date Issued
RF150504C40-2	Original release	Aug. 24, 2015

1 Certificate of Conformity

Product: LTE Tablet PC

Brand: Sprint

Test Model: AQT80

Sample Status: Engineering sample

Applicant: Quanta Microsystems, Inc.

Test Date: May 07 ~ Jul. 21, 2015

Standards: FCC Part 27, Subpart C, H, L, M

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Aug. 24, 2015
Celine Chou / Specialist

Approved by : Jeremy Lin , **Date:** Aug. 24, 2015
Jeremy Lin / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2					
FCC Clause			Test Item	Result	Remarks
LTE Band 4	LTE Band 12	LTE Band 41			
2.1046 27.50(h)(2)	2.1046 27.50(c)(10)	2.1046 27.50(h)	Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
----	----	----	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1055 27.54	2.1055 27.54	2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Meet the requirement of limit.
2.1049 27.53(m)(6)	2.1049 27.53(g)	2.1049 27.53(m)(6)	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(m)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(h)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(m)(4)(6)	2.1053 27.53(g)	2.1053 27.53(m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.50 dB at 4997.00MHz.

2.1 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:

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Dec. 01, 2014	Nov. 30, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Mar. 30, 2015	Mar. 29, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Feb. 06, 2015	Feb. 05, 2016
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Feb. 09, 2015	Feb. 08, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8449B	3008A01911	Aug. 09, 2014	Aug. 08, 2015
Preamplifier Agilent	8447D	2944A10638	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	248780/4 309222/4 274092/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable Worken	8D-FB	Cable-CH9-01	Aug. 11, 2014	Aug. 10, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2014	Jun. 07, 2015
			Jun. 08, 2015	Jun. 07, 2016
Mini-Circuits Power Splitter	ZN2PD-9G	NA	Jun. 09, 2014	Jun. 08, 2015
			Jun. 09, 2015	Jun. 08, 2016
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 9.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 215374.
5. The IC Site Registration No. is IC 7450F-9.

3 General Information

3.1 General Description of EUT

Product	LTE Tablet PC	
Brand	Sprint	
Test Model	AQT80	
Status of EUT	Engineering sample	
Power Supply Rating	5Vdc (adapter) 3.8Vdc (battery)	
Modulation Type	QPSK, 16QAM	
Operating Frequency	LTE Band 4 (Channel Bandwidth 1.4MHz)	1710.7MHz ~ 1754.3MHz
	LTE Band 4 (Channel Bandwidth 3MHz)	1711.5MHz ~ 1753.5MHz
	LTE Band 4 (Channel Bandwidth 5MHz)	1712.5MHz ~ 1752.5MHz
	LTE Band 4 (Channel Bandwidth 10MHz)	1715MHz ~ 1750MHz
	LTE Band 4 (Channel Bandwidth 15MHz)	1717.5MHz ~ 1747.5MHz
	LTE Band 4 (Channel Bandwidth 20MHz)	1720MHz ~ 1745MHz
	LTE Band 12 (Channel Bandwidth 1.4MHz)	699.7MHz ~ 715.3MHz
	LTE Band 12 (Channel Bandwidth 3MHz)	700.5MHz ~ 714.5MHz
	LTE Band 12 (Channel Bandwidth 5MHz)	701.5MHz ~ 713.5MHz
	LTE Band 12 (Channel Bandwidth 10MHz)	704MHz ~ 711MHz
	LTE Band 41 (Channel Bandwidth 5MHz)	2498.5MHz ~ 2687.5MHz
	LTE Band 41 (Channel Bandwidth 10MHz)	2501MHz ~ 2685MHz
	LTE Band 41 (Channel Bandwidth 15MHz)	2503.5MHz ~ 2682.5MHz
	LTE Band 41 (Channel Bandwidth 20MHz)	2506MHz ~ 2680MHz

Max. EIRP Power	LTE Band 4 (Channel Bandwidth 1.4MHz)	125.893mW (21.00dBm)
	LTE Band 4 (Channel Bandwidth 3MHz)	216.272mW (23.35dBm)
	LTE Band 4 (Channel Bandwidth 5MHz)	190.985mW (22.81dBm)
	LTE Band 4 (Channel Bandwidth 10MHz)	130.918mW (21.17dBm)
	LTE Band 4 (Channel Bandwidth 15MHz)	188.799mW (22.76dBm)
	LTE Band 4 (Channel Bandwidth 20MHz)	73.790mW (18.68dBm)
	LTE Band 12 (Channel Bandwidth 1.4MHz)	788.860mW (28.97dBm)
	LTE Band 12 (Channel Bandwidth 3MHz)	138.038mW (21.40dBm)
	LTE Band 12 (Channel Bandwidth 5MHz)	132.739mW (21.23dBm)
	LTE Band 12 (Channel Bandwidth 10MHz)	109.901mW (20.41dBm)
	LTE Band 41 (Channel Bandwidth 5MHz)	177.419mW (22.49dBm)
	LTE Band 41 (Channel Bandwidth 10MHz)	201.372mW (23.04dBm)
	LTE Band 41 (Channel Bandwidth 15MHz)	154.525mW (21.89dBm)
	LTE Band 41 (Channel Bandwidth 20MHz)	111.686mW (20.48dBm)
Antenna Type	LTE Band 4	Main Ant.: LDS antenna with 0.31dBi gain Aux Ant.: LDS antenna with -2.43dBi gain
	LTE Band 12	Main Ant.: LDS antenna with -1.36dBi gain Aux Ant.: LDS antenna with -6.45dBi gain
	LTE Band 41	Main Ant.: LDS antenna with 3.98dBi gain Aux Ant.: LDS antenna with 0.08dBi gain
Antenna Connector	U.FL	
Accessory Device	Adapter, Battery	
Data Cable Supplied	0.9m shielded USB Cable	

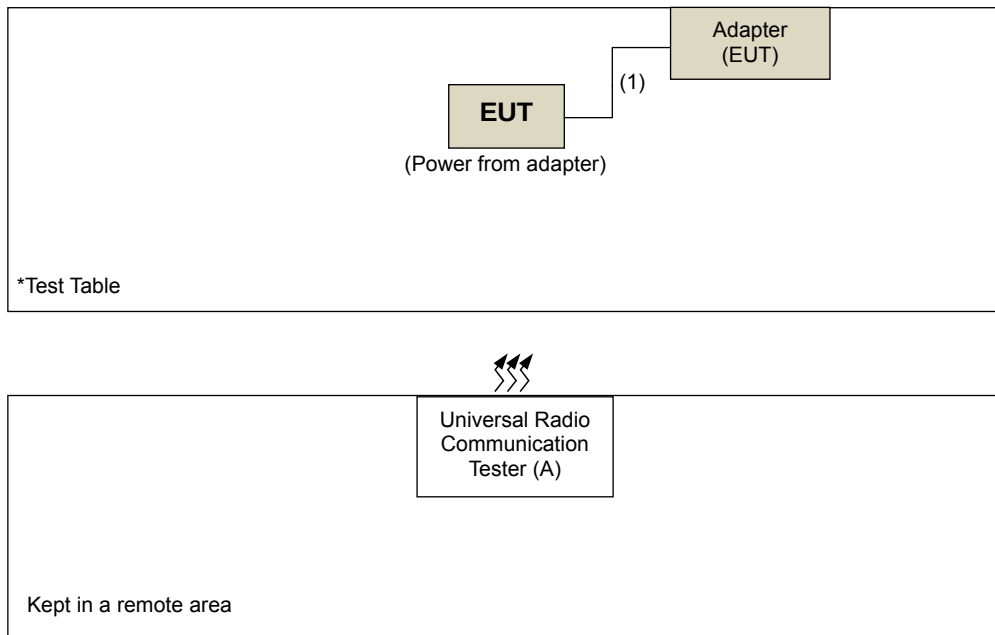
Note:

1. The EUT uses following adapter and battery.

Adapter	
Brand	TPT
Model	NSS050200B
Input Power	100-240Vac, 50-60Hz, 0.3A
Output Power	5Vdc, 2A

Battery	
Brand	Ningbo Veken Battery
Model	NKS
Rating	3.8Vdc, 4450mAh, 16.91Wh

3.2 Configuration of System Under Test



3.2.1 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.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Universal Radio Communication Tester	Anritsu	MT8820C	6201010284	NA	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	0.9	Y	0	Accessory of EUT

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports.

The worst case was found when positioned on Z-plane for LTE Band 4 and 41, X-plane for LTE Band 12. Following channel(s) was (were) selected for the final test as listed below:

LTE Band 4

Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK	1 RB / 0 RB Offset
Frequency Stability	19957 to 20393	20175	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	20175	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	20175	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20175	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20175	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20175	20MHz	QPSK	1 RB / 0 RB Offset
Emission Bandwidth	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK / 16QAM	1 RB / 0 RB Offset
Band Edge	18607 to 19193	19957	1.4MHz	QPSK	1 RB / 0 RB Offset
					6 RB / 0 RB Offset
		20393	1.4MHz	QPSK	1 RB / 5 RB Offset
					6 RB / 0 RB Offset
	18615 to 19185	19965	3MHz	QPSK	1 RB / 0 RB Offset
					15 RB / 0 RB Offset
		20385	3MHz	QPSK	1 RB / 14 RB Offset
					15 RB / 0 RB Offset
	18625 to 19175	19975	5MHz	QPSK	1 RB / 0 RB Offset
					25 RB / 0 RB Offset
		20375	5MHz	QPSK	1 RB / 24 RB Offset
					25 RB / 0 RB Offset
	18650 to 19150	20000	10MHz	QPSK	1 RB / 0 RB Offset
					50 RB / 0 RB Offset
		20350	10MHz	QPSK	1 RB / 49 RB Offset
					50 RB / 0 RB Offset
	18675 to 19125	20025	15MHz	QPSK	1 RB / 0 RB Offset
					75 RB / 0 RB Offset
		20325	15MHz	QPSK	1 RB / 74 RB Offset
					75 RB / 0 RB Offset
	18700 to 19100	20050	20MHz	QPSK	1 RB / 0 RB Offset
					100 RB / 0 RB Offset
		20300	20MHz	QPSK	1 RB / 99 RB Offset
					100 RB / 0 RB Offset

Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK / 16QAM	1 RB / 0 RB Offset
Conducuted Emission	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission Below 1GHz	19957 to 20393	19957	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	19965	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	19975	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20000	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20025	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20050	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission Above 1GHz	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK	1 RB / 0 RB Offset

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	16deg. C, 70%RH	120Vac, 60Hz	Frank Liu
Frequency Stability	24deg. C, 64%RH	3.8Vdc	Match Tsui
Occupied Bandwidth	24deg. C, 64%RH	3.8Vdc	Match Tsui
Band Edge	24deg. C, 64%RH	3.8Vdc	Match Tsui
Peak To Average Ratio	24deg. C, 64%RH	3.8Vdc	Match Tsui
Conducted Emission	24deg. C, 64%RH	3.8Vdc	Match Tsui
Radiated Emission	16deg. C, 70%RH	120Vac, 60Hz	Frank Liu

LTE Band 12

Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
EIRP	23017 to 23171	23017, 23095, 23173	1.4MHz	QPSK	1 RB / 0 RB Offset
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK	1 RB / 0 RB Offset
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK	1 RB / 0 RB Offset
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK	1 RB / 0 RB Offset
Frequency Stability	23017 to 23171	23095	1.4MHz	QPSK	1 RB / 0 RB Offset
	23025 to 23165	23095	3MHz	QPSK	1 RB / 0 RB Offset
	23035 to 23155	23095	5MHz	QPSK	1 RB / 0 RB Offset
	23060 to 23130	23095	10MHz	QPSK	1 RB / 0 RB Offset
Emission Bandwidth	23017 to 23171	23017, 23095, 23173	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset
Band Edge	23017 to 23171	23017	1.4MHz	QPSK	1 RB / 0 RB Offset
		23171	1.4MHz	QPSK	6 RB / 0 RB Offset
	23025 to 23165	23025	3MHz	QPSK	1 RB / 5 RB Offset
		23165	3MHz	QPSK	6 RB / 0 RB Offset
	23035 to 23155	23035	5MHz	QPSK	1 RB / 0 RB Offset
		23155	5MHz	QPSK	15 RB / 0 RB Offset
	23060 to 23130	23060	10MHz	QPSK	1 RB / 14 RB Offset
		23130	10MHz	QPSK	15 RB / 0 RB Offset
	23017 to 23171	23017	1.4MHz	QPSK	1 RB / 0 RB Offset
		23171	1.4MHz	QPSK	25 RB / 0 RB Offset
	23025 to 23165	23025	3MHz	QPSK	1 RB / 24 RB Offset
		23165	3MHz	QPSK	25 RB / 0 RB Offset
Peak to Average Ratio	23017 to 23171	23017, 23095, 23173	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset
Conducuted Emission	23017 to 23171	23017, 23095, 23173	1.4MHz	QPSK	1 RB / 0 RB Offset
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK	1 RB / 0 RB Offset
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK	1 RB / 0 RB Offset
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission Below 1GHz	23017 to 23171	23017	1.4MHz	QPSK	1 RB / 0 RB Offset
	23025 to 23165	23025	3MHz	QPSK	1 RB / 0 RB Offset
	23035 to 23155	23035	5MHz	QPSK	1 RB / 0 RB Offset
	23060 to 23130	23060	10MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission Above 1GHz	23017 to 23171	23017, 23095, 23173	1.4MHz	QPSK	1 RB / 0 RB Offset
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK	1 RB / 0 RB Offset
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK	1 RB / 0 RB Offset
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK	1 RB / 0 RB Offset

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	16deg. C, 70%RH	120Vac, 60Hz	Frank Liu
Frequency Stability	24deg. C, 64%RH	3.8Vdc	Match Tsui
Occupied Bandwidth	24deg. C, 64%RH	3.8Vdc	Match Tsui
Band Edge	24deg. C, 64%RH	3.8Vdc	Match Tsui
Peak To Average Ratio	24deg. C, 64%RH	3.8Vdc	Match Tsui
Conducted Emission	24deg. C, 64%RH	3.8Vdc	Match Tsui
Radiated Emission	16deg. C, 70%RH	120Vac, 60Hz	Frank Liu

LTE Band 41

Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
EIRP	39675 to 41565	39675, 40148, 40620, 41093, 41565	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700, 40160, 40620, 41080, 41540	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	39725, 40173, 40620, 41068, 41515	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	39750, 40185, 40620, 41055, 41490	20MHz	QPSK	1 RB / 0 RB Offset
Frequency Stability	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	40620	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	40620	20MHz	QPSK	1 RB / 0 RB Offset
Emission Bandwidth	39675 to 41565	39675, 40148, 40620, 41093, 41565	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	39700 to 41540	39700, 40160, 40620, 41080, 41540	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	39725 to 41515	39725, 40173, 40620, 40068, 41515	15MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	39750 to 41490	39750, 40185, 40620, 41055, 41490	20MHz	QPSK / 16QAM	1 RB / 0 RB Offset
Band Edge	39675 to 41565	39675, 40148, 40620, 41093, 41565	5MHz	QPSK / 16QAM	25 RB / 0 RB Offset
	39700 to 41540	39700, 40160, 40620, 41080, 41540	10MHz	QPSK / 16QAM	50 RB / 0 RB Offset
	39725 to 41515	39725, 40173, 40620, 40068, 41515	15MHz	QPSK / 16QAM	75 RB / 0 RB Offset
	39750 to 41490	39750, 40185, 40620, 41055, 41490	20MHz	QPSK / 16QAM	100 RB / 0 RB Offset
Peak to Average Ratio	39675 to 41565	39675, 40148, 40620, 41093, 41565	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	39700 to 41540	39700, 40160, 40620, 41080, 41540	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	39725 to 41515	39725, 40173, 40620, 40068, 41515	15MHz	QPSK / 16QAM	1 RB / 0 RB Offset
	39750 to 41490	39750, 40185, 40620, 41055, 41490	20MHz	QPSK / 16QAM	1 RB / 0 RB Offset
Condcudeted Emission	39675 to 41565	39675, 40148, 40620, 41093, 41565	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700, 40160, 40620, 41080, 41540	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	39725, 40173, 40620, 40068, 41515	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	39750, 40185, 40620, 41055, 41490	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission Below 1GHz	39675 to 41565	39675	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	39725	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	39750	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission Above 1GHz	39675 to 41565	39675, 40148, 40620, 41093, 41565	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700, 40160, 40620, 41080, 41540	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	39725, 40173, 40620, 40068, 41515	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	39750, 40185, 40620, 41055, 41490	20MHz	QPSK	1 RB / 0 RB Offset

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25deg. C, 65%RH	120Vac, 60Hz	Ted Chang
Frequency Stability	24deg. C, 64%RH	3.8Vdc	Match Tsui
Occupied Bandwidth	24deg. C, 64%RH	3.8Vdc	Match Tsui
Band Edge	24deg. C, 64%RH	3.8Vdc	Match Tsui
Peak To Average Ratio	24deg. C, 64%RH	3.8Vdc	Match Tsui
Conducted Emission	24deg. C, 64%RH	3.8Vdc	Match Tsui
Radiated Emission	25deg. C, 65%RH	120Vac, 60Hz	Ted Chang

3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v02r02

ANSI/TIA/EIA-603-C 2004

Note: All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

Mobile / Portable station are limited to 1 watts e.i.r.p for LTE Band 4, 3 watts e.i.r.p for LTE Band 12 and 2 watts e.i.r.p for LTE Band 14.

4.1.2 Test Procedures

EIRP / ERP Measurement:

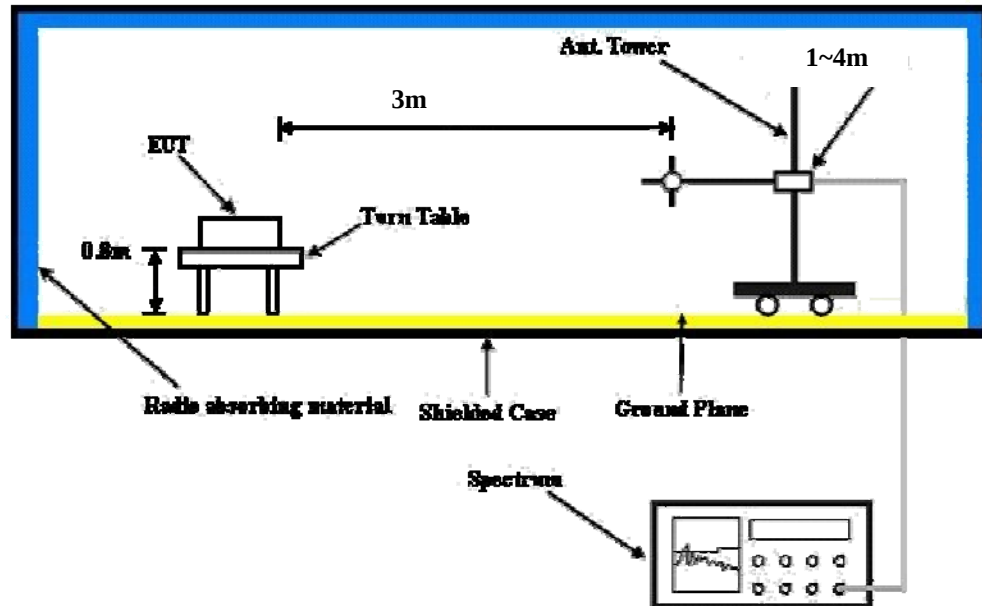
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 5MHz for LTE Mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the 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.
- c. 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
- d. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15\text{dBi}$.

Conducted Power Measurement:

A power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

4.1.3 Test Setup

EIRP / ERP MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.4 Test Results

CONDUCTED OUTPUT POWER (dBm)

Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
4 / 1.4M	1	0	23.04	22.84	22.87	22.02	21.82	21.85
	1	2	22.96	22.76	22.79	21.94	21.74	21.77
	1	5	22.92	22.72	22.75	21.90	21.70	21.73
	3	0	22.88	22.82	22.85	21.93	21.87	21.90
	3	1	22.86	22.71	22.74	21.91	21.76	21.79
	3	3	22.84	22.64	22.67	21.89	21.69	21.72
	6	0	22.07	21.94	21.97	21.12	20.99	21.02
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19965	20175	20385	19965	20175	20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz
4 / 3M	1	0	23.08	22.88	22.91	22.06	21.86	21.89
	1	7	23.00	22.80	22.83	21.98	21.78	21.81
	1	14	22.96	22.76	22.79	21.94	21.74	21.77
	8	0	22.12	22.06	22.09	21.17	21.11	21.14
	8	3	22.10	21.95	21.98	21.15	21.00	21.03
	8	7	22.08	21.88	21.91	21.13	20.93	20.96
	15	0	22.11	21.98	22.01	21.16	21.03	21.06
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19975	20175	20375	19975	20175	20375
			1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz
4 / 5M	1	0	23.21	23.01	23.04	22.19	21.99	22.02
	1	12	23.13	22.93	22.96	22.11	21.91	21.94
	1	24	23.09	22.89	22.92	22.07	21.87	21.90
	12	0	22.25	22.19	22.22	21.30	21.24	21.27
	12	6	22.23	22.08	22.11	21.28	21.13	21.16
	12	13	22.21	22.01	22.04	21.26	21.06	21.09
	25	0	22.24	22.11	22.14	21.29	21.16	21.19

Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20000	20175	20350	20000	20175	20350
			1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz
4 / 10M	1	0	23.32	23.12	23.15	22.30	22.10	22.13
	1	24	23.24	23.04	23.07	22.22	22.02	22.05
	1	49	23.20	23.00	23.03	22.18	21.98	22.01
	25	0	22.36	22.30	22.33	21.41	21.35	21.38
	25	12	22.34	22.19	22.22	21.39	21.24	21.27
	25	25	22.32	22.12	22.15	21.37	21.17	21.20
	50	0	22.35	22.22	22.25	21.40	21.27	21.30
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20025	20175	20325	20025	20175	20325
			1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz
4 / 15M	1	0	23.41	23.21	23.24	22.39	22.19	22.22
	1	37	23.33	23.13	23.16	22.31	22.11	22.14
	1	74	23.29	23.09	23.12	22.27	22.07	22.10
	36	0	22.45	22.39	22.42	21.50	21.44	21.47
	36	19	22.43	22.28	22.31	21.48	21.33	21.36
	36	39	22.41	22.21	22.24	21.46	21.26	21.29
	75	0	22.44	22.31	22.34	21.49	21.36	21.39
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20050	20175	20300	20050	20175	20300
			1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz
4 / 20M	1	0	23.46	23.33	23.36	22.51	22.31	22.34
	1	50	23.45	23.25	23.28	22.43	22.23	22.26
	1	99	23.41	23.21	23.24	22.39	22.19	22.22
	50	0	22.50	22.44	22.47	21.55	21.49	21.52
	50	25	22.48	22.33	22.36	21.53	21.38	21.41
	50	50	22.46	22.26	22.29	21.51	21.31	21.34
	100	0	22.49	22.36	22.39	21.54	21.41	21.44

Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23017	23095	23173	23017	23095	23173
			699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz
12 / 1.4M	1	0	22.25	22.41	22.55	21.22	21.38	21.52
	1	2	22.46	22.62	22.76	21.43	21.59	21.73
	1	5	22.41	22.57	22.71	21.38	21.54	21.68
	3	0	21.42	21.58	21.72	20.39	20.55	20.69
	3	1	21.45	21.61	21.75	20.42	20.58	20.72
	3	3	21.41	21.57	21.71	20.38	20.54	20.68
	6	0	21.31	21.47	21.61	20.28	20.44	20.58
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23025	23095	23165	23025	23095	23165
			700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz
12 / 3M	1	0	22.38	22.54	22.68	21.35	21.51	21.65
	1	7	22.59	22.75	22.89	21.56	21.72	21.86
	1	14	22.54	22.70	22.84	21.51	21.67	21.81
	8	0	21.55	21.71	21.85	20.52	20.68	20.82
	8	3	21.58	21.74	21.88	20.55	20.71	20.85
	8	7	21.54	21.70	21.84	20.51	20.67	20.81
	15	0	21.44	21.60	21.74	20.41	20.57	20.71
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23035	23095	23155	23035	23095	23155
			701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz
12 / 5M	1	0	22.47	22.63	22.77	21.44	21.60	21.74
	1	12	22.68	22.84	22.98	21.65	21.81	21.95
	1	24	22.63	22.79	22.93	21.60	21.76	21.90
	12	0	21.64	21.80	21.94	20.61	20.77	20.91
	12	6	21.67	21.83	21.97	20.64	20.80	20.94
	12	13	21.63	21.79	21.93	20.60	20.76	20.90
	25	0	21.53	21.69	21.83	20.50	20.66	20.80
Band / BW	RB Size	RB Offset	QPSK			16QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23060	23095	23130	23060	23095	23130
			704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz
12 / 10M	1	0	22.59	22.75	22.89	21.56	21.72	21.86
	1	24	22.80	22.96	23.10	21.77	21.93	22.07
	1	49	22.75	22.91	23.05	21.72	21.88	22.02
	25	0	21.76	21.92	22.06	20.73	20.89	21.03
	25	12	21.79	21.95	22.09	20.76	20.92	21.06
	25	25	21.75	21.91	22.05	20.72	20.88	21.02
	50	0	21.65	21.81	21.95	20.62	20.78	20.92



A D T

Band / BW	RB Size	RB Offset	QPSK					16QAM				
			L-CH	M-CH	M-CH	M-CH	H-CH	L-CH	M-CH	M-CH	M-CH	H-CH
			39675	40148	40620	41093	41565	39675	40148	40620	41093	41565
			2498.5 MHz	2545.8 MHz	2593 MHz	2640.3 MHz	2687.5 MHz	2498.5 MHz	2545.8 MHz	2593 MHz	2640.3 MHz	2687.5 MHz
41 / 5M	1	0	21.71	21.78	21.84	21.30	21.29	20.69	20.76	20.82	20.28	20.27
	1	12	21.67	21.74	21.80	21.26	21.25	20.65	20.72	20.78	20.24	20.23
	1	24	21.57	21.64	21.70	21.16	21.15	20.55	20.62	20.68	20.14	20.13
	12	0	20.79	20.86	20.92	20.38	20.37	19.77	19.84	19.90	19.36	19.35
	12	6	20.72	20.79	20.85	20.31	20.30	19.70	19.77	19.83	19.29	19.28
	12	13	20.65	20.72	20.78	20.24	20.23	19.63	19.70	19.76	19.22	19.21
	25	0	20.73	20.80	20.86	20.32	20.31	19.71	19.78	19.84	19.30	19.29
Band / BW	RB Size	RB Offset	QPSK					16QAM				
			L-CH	M-CH	M-CH	M-CH	H-CH	L-CH	M-CH	M-CH	M-CH	H-CH
			39700	40160	40620	41080	41540	39700	40160	40620	41080	41540
			2501 MHz	2547 MHz	2593 MHz	2639 MHz	2685 MHz	2501 MHz	2547 MHz	2593 MHz	2639 MHz	2685 MHz
41 / 10M	1	0	21.82	21.89	21.95	21.41	21.40	20.80	20.87	20.93	20.39	20.38
	1	24	21.78	21.85	21.91	21.37	21.36	20.76	20.83	20.89	20.35	20.34
	1	49	21.68	21.75	21.81	21.27	21.26	20.66	20.73	20.79	20.25	20.24
	25	0	20.90	20.97	21.03	20.49	20.48	19.88	19.95	20.01	19.47	19.46
	25	12	20.83	20.90	20.96	20.42	20.41	19.81	19.88	19.94	19.40	19.39
	25	25	20.76	20.83	20.89	20.35	20.34	19.74	19.81	19.87	19.33	19.32
	50	0	20.84	20.91	20.97	20.43	20.42	19.82	19.89	19.95	19.41	19.40
Band / BW	RB Size	RB Offset	QPSK					16QAM				
			L-CH	M-CH	M-CH	M-CH	H-CH	L-CH	M-CH	M-CH	M-CH	H-CH
			39725	40173	40620	41068	41515	39725	40173	40620	41068	41515
			2503.5 MHz	2548.3 MHz	2593 MHz	2637.8 MHz	2682.5 MHz	2503.5 MHz	2548.3 MHz	2593 MHz	2637.8 MHz	2682.5 MHz
41 / 15M	1	0	21.92	21.99	22.05	21.51	21.50	20.90	20.97	21.03	20.49	20.48
	1	37	21.88	21.95	22.01	21.47	21.46	20.86	20.93	20.99	20.45	20.44
	1	74	21.78	21.85	21.91	21.37	21.36	20.76	20.83	20.89	20.35	20.34
	36	0	21.00	21.07	21.13	20.59	20.58	19.98	20.05	20.11	19.57	19.56
	36	19	20.93	21.00	21.06	20.52	20.51	19.91	19.98	20.04	19.50	19.49
	36	39	20.86	20.93	20.99	20.45	20.44	19.84	19.91	19.97	19.43	19.42
	75	0	20.94	21.01	21.07	20.53	20.52	19.92	19.99	20.05	19.51	19.50
Band / BW	RB Size	RB Offset	QPSK					16QAM				
			L-CH	M-CH	M-CH	M-CH	H-CH	L-CH	M-CH	M-CH	M-CH	H-CH
			39750	40185	40620	41055	41490	39750	40185	40620	41055	41490
			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
41 / 20M	1	0	22.04	22.11	22.17	21.63	21.62	21.02	21.09	21.15	20.61	20.60
	1	50	22.00	22.07	22.13	21.59	21.58	20.98	21.05	21.11	20.57	20.56
	1	99	21.90	21.97	22.03	21.49	21.48	20.88	20.95	21.01	20.47	20.46
	50	0	21.12	21.19	21.25	20.71	20.70	20.10	20.17	20.23	19.69	19.68
	50	25	21.05	21.12	21.18	20.64	20.63	20.03	20.10	20.16	19.62	19.61
	50	50	20.98	21.05	21.11	20.57	20.56	19.96	20.03	20.09	19.55	19.54
	100	0	21.06	21.13	21.19	20.65	20.64	20.04	20.11	20.17	19.63	19.62

EIRP Power (dBm)

LTE Band 4

Channel Bandwidth: 1.4MHz

MODE		TX channel 19957					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1710.70	-23.00	20.60	-4.90	15.70	30.00	-14.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1710.70	-21.20	22.20	-4.90	17.30	30.00	-12.70

MODE		TX channel 20175					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-22.40	21.50	-4.90	16.60	30.00	-13.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-20.90	22.90	-4.90	18.00	30.00	-12.00

MODE		TX channel 20393					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1754.30	-19.20	25.10	-5.00	20.10	30.00	-9.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1754.30	-18.40	26.00	-5.00	21.00	30.00	-9.00

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 3MHz

MODE		TX channel 19965					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1711.50	-19.28	18.78	0.68	19.46	30.00	-10.54
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1711.50	-18.93	18.92	0.68	19.60	30.00	-10.40

MODE		TX channel 20175					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-18.98	19.45	0.59	20.04	30.00	-9.96
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-17.75	20.61	0.59	21.20	30.00	-8.80

MODE		TX channel 20385					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1753.50	-19.73	19.07	0.50	19.57	30.00	-10.43
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1753.50	-16.02	22.85	0.50	23.35	30.00	-6.65

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 5MHz

MODE		TX channel 19975					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1712.50	-19.90	18.17	0.68	18.85	30.00	-11.15
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1712.50	-18.45	19.42	0.68	20.10	30.00	-9.90

MODE		TX channel 20175					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-19.48	18.95	0.59	19.54	30.00	-10.46
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-17.40	20.96	0.59	21.55	30.00	-8.45

MODE		TX channel 20375					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1752.50	-18.70	20.09	0.50	20.59	30.00	-9.41
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1752.50	-16.54	22.31	0.50	22.81	30.00	-7.19

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 10MHz

MODE		TX channel 20000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1715.00	-20.04	18.07	0.67	18.74	30.00	-11.26
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1715.00	-19.41	18.52	0.67	19.19	30.00	-10.81

MODE		TX channel 20175					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-18.71	19.72	0.59	20.31	30.00	-9.69
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-18.51	19.85	0.59	20.44	30.00	-9.56

MODE		TX channel 20350					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1750.00	-18.77	19.97	0.52	20.49	30.00	-9.51
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1750.00	-18.13	20.65	0.52	21.17	30.00	-8.83

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 15MHz

MODE		TX channel 20025					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1717.50	-19.56	18.60	0.66	19.26	30.00	-10.74
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1717.50	-19.04	18.95	0.66	19.61	30.00	-10.39

MODE		TX channel 20175					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-18.53	19.90	0.59	20.49	30.00	-9.51
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-16.19	22.17	0.59	22.76	30.00	-7.24

MODE		TX channel 20325					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1747.50	-21.02	17.67	0.53	18.20	30.00	-11.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1747.50	-20.79	17.93	0.53	18.46	30.00	-11.54

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 20MHz

MODE		TX channel 20050					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1720.00	-20.49	17.71	0.65	18.36	30.00	-11.64
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1720.00	-20.02	18.03	0.65	18.68	30.00	-11.32

MODE		TX channel 20175					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-20.83	17.60	0.59	18.19	30.00	-11.81
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1732.50	-20.42	17.94	0.59	18.53	30.00	-11.47

MODE		TX channel 20300					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1745.00	-20.84	17.81	0.54	18.35	30.00	-11.65
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1745.00	-20.88	17.78	0.54	18.32	30.00	-11.68

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 12

Channel Bandwidth: 1.4MHz

MODE		TX channel 23017					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	699.70	-7.63	32.71	-3.74	28.97	34.77	-5.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	699.70	-13.27	26.17	-3.74	22.43	34.77	-12.34

MODE		TX channel 23095					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-8.91	31.43	-3.74	27.69	34.77	-7.08
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-20.03	19.41	-3.74	15.67	34.77	-19.10

MODE		TX channel 23173					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	715.30	-7.77	32.57	-3.74	28.83	34.77	-5.94
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	715.30	-18.30	21.14	-3.74	17.40	34.77	-17.37

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 3MHz

MODE		TX channel 23025					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	700.50	-7.24	17.31	3.42	20.73	34.77	-14.04
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	700.50	-14.25	13.33	3.42	16.75	34.77	-18.02

MODE		TX channel 23095					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-9.28	15.46	3.50	18.96	34.77	-15.81
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-16.20	11.50	3.50	15.00	34.77	-19.77

MODE		TX channel 23165					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	714.50	-7.07	17.90	3.50	21.40	34.77	-13.37
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	714.50	-15.17	12.51	3.50	16.01	34.77	-18.76

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 5MHz

MODE		TX channel 23035					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	701.50	-7.67	16.86	3.43	20.29	34.77	-14.48
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	701.50	-13.76	13.82	3.43	17.25	34.77	-17.52

MODE		TX channel 23095					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-9.50	15.24	3.50	18.74	34.77	-16.03
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-16.51	11.19	3.50	14.69	34.77	-20.08

MODE		TX channel 23155					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	713.50	-7.27	17.74	3.49	21.23	34.77	-13.54
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	713.50	-14.54	13.20	3.49	16.69	34.77	-18.08

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 10MHz

MODE		TX channel 23060					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	704.00	-7.70	16.89	3.52	20.41	34.77	-14.36
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	704.00	-14.23	13.41	3.52	16.93	34.77	-17.84

MODE		TX channel 23095					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-9.37	15.37	3.50	18.87	34.77	-15.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	707.50	-15.81	11.89	3.50	15.39	34.77	-19.38

MODE		TX channel 23130					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	711.00	-9.29	15.64	3.47	19.11	34.77	-15.66
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	711.00	-15.97	11.66	3.47	15.13	34.77	-19.64

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 41

Channel Bandwidth: 5MHz

MODE		TX channel 39675					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2498.50	-20.44	21.03	0.17	21.20	33.00	-11.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2498.50	-23.88	19.63	0.17	19.80	33.00	-13.20

MODE		TX channel 40148					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2545.80	-20.50	21.30	0.20	21.50	33.00	-11.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2545.80	-24.10	19.50	0.20	19.70	33.00	-13.30

MODE		TX channel 40620					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-20.58	21.63	0.20	21.83	33.00	-11.17
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-24.55	19.24	0.20	19.44	33.00	-13.56

MODE		TX channel 41093					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2640.30	-20.70	21.80	0.30	22.10	33.00	-10.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2640.30	-24.80	18.90	0.30	19.20	33.00	-13.80

MODE		TX channel 41565					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2687.50	-20.75	22.23	0.26	22.49	33.00	-10.51
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2687.50	-25.96	17.81	0.26	18.07	33.00	-14.93

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 10MHz

MODE		TX channel 39700					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2501.00	-21.30	20.18	0.17	20.35	33.00	-12.65
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2501.00	-22.70	20.83	0.17	21.00	33.00	-12.00

MODE		TX channel 40160					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2547.00	-20.10	21.70	0.20	21.90	33.00	-11.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2547.00	-23.00	20.60	0.20	20.80	33.00	-12.20

MODE		TX channel 40620					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-20.02	22.19	0.20	22.39	33.00	-10.61
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-22.42	21.37	0.20	21.57	33.00	-11.43

MODE		TX channel 41080					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2639.00	-20.10	22.40	0.30	22.70	33.00	-10.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2639.00	-23.00	20.70	0.30	21.00	33.00	-12.00

MODE		TX channel 41540					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2685.00	-20.18	22.79	0.25	23.04	33.00	-9.96
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2685.00	-23.11	20.67	0.25	20.92	33.00	-12.08

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 15MHz

MODE		TX channel 39725					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2503.50	-26.17	15.33	0.17	15.50	33.00	-17.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2503.50	-22.53	21.00	0.17	21.17	33.00	-11.83

MODE		TX channel 40173					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2548.30	-26.40	15.40	0.20	15.60	33.00	-17.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2548.30	-22.30	21.30	0.20	21.50	33.00	-11.50

MODE		TX channel 40620					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-26.53	15.68	0.20	15.88	33.00	-17.12
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-22.17	21.62	0.20	21.82	33.00	-11.18

MODE		TX channel 41068					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2637.80	-26.20	16.40	0.20	16.60	33.00	-16.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2637.80	-22.40	21.40	0.20	21.60	33.00	-11.40

MODE		TX channel 41515					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2682.50	-26.38	16.56	0.26	16.82	33.00	-16.18
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2682.50	-22.14	21.63	0.26	21.89	33.00	-11.11

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Channel Bandwidth: 20MHz

MODE		TX channel 39750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2506.00	-25.31	16.21	0.17	16.38	33.00	-16.62
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2506.00	-23.23	20.31	0.17	20.48	33.00	-12.52

MODE		TX channel 40185					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2549.50	-25.40	16.40	0.20	16.60	33.00	-16.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2549.50	-23.60	20.10	0.20	20.30	33.00	-12.70

MODE		TX channel 40620					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-25.48	16.73	0.20	16.93	33.00	-16.07
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2593.00	-23.78	20.01	0.20	20.21	33.00	-12.79

MODE		TX channel 41055					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2636.50	-25.70	16.90	0.20	17.10	33.00	-15.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2636.50	-24.40	19.40	0.20	19.60	33.00	-13.40

MODE		TX channel 41490					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2680.00	-25.73	17.19	0.25	17.44	33.00	-15.56
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2680.00	-24.97	18.81	0.25	19.06	33.00	-13.94

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

4.2 Frequency Stability Measurement

4.2.1 Limits of Frequency Stability Measurement

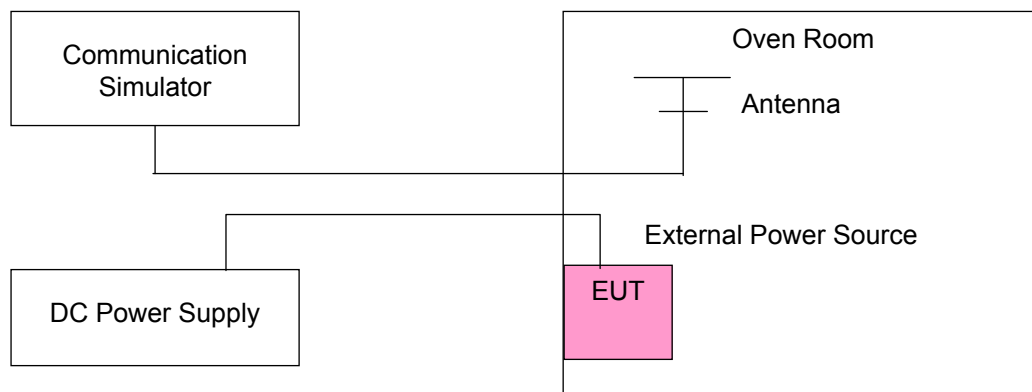
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

4.2.2 Test Procedure

- 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.
- 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.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ± 0.5 °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.

Note: The frequency error was recorded frequency error from the communication simulator.

4.2.3 Test Setup



4.2.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	Frequency Error (ppm)														Limit (ppm)
	LTE Band 4						LTE Band 12				LTE Band 41				
	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	1.4 MHz	3 MHz	5 MHz	10 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
4.35	-0.010	-0.009	-0.009	-0.006	-0.009	-0.010	-0.024	-0.021	-0.020	-0.020	-0.005	-0.005	-0.006	-0.006	2.5
3.8	-0.009	-0.008	-0.009	-0.006	-0.008	-0.009	-0.023	-0.016	-0.018	-0.021	-0.005	-0.005	-0.005	-0.005	2.5
3.5	-0.009	-0.009	-0.008	-0.008	-0.009	-0.010	-0.018	-0.018	-0.020	-0.018	-0.004	-0.004	-0.005	-0.006	2.5

Note: The applicant defined the normal working voltage is from 3.5Vdc to 4.35Vdc.

Frequency Error vs. Temperature

Voltage (Volts)	Frequency Error (ppm)														Limit (ppm)
	LTE Band 4						LTE Band 12				LTE Band 41				
	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	1.4 MHz	3 MHz	5 MHz	10 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
55	-0.017	-0.015	-0.017	-0.016	-0.015	-0.014	-0.042	-0.031	-0.030	-0.038	-0.011	-0.011	-0.011	-0.010	2.5
50	-0.020	-0.015	-0.016	-0.015	-0.016	-0.014	-0.044	-0.037	-0.031	-0.037	-0.012	-0.012	-0.011	-0.010	2.5
40	-0.015	-0.014	-0.015	-0.014	-0.012	-0.015	-0.044	-0.034	-0.028	-0.030	-0.009	-0.009	-0.011	-0.009	2.5
30	-0.014	-0.010	-0.013	-0.009	-0.010	-0.012	-0.034	-0.021	-0.020	-0.027	-0.006	-0.006	-0.008	-0.007	2.5
20	-0.009	-0.008	-0.009	-0.006	-0.008	-0.009	-0.023	-0.016	-0.018	-0.021	-0.005	-0.005	-0.005	-0.005	2.5
10	-0.012	-0.012	-0.012	-0.010	-0.014	-0.014	-0.027	-0.023	-0.021	-0.024	-0.007	-0.007	-0.007	-0.008	2.5
0	-0.017	-0.016	-0.016	-0.014	-0.017	-0.014	-0.037	-0.030	-0.041	-0.033	-0.011	-0.011	-0.009	-0.007	2.5
-10	-0.020	-0.019	-0.020	-0.018	-0.020	-0.018	-0.048	-0.040	-0.038	-0.041	-0.013	-0.013	-0.011	-0.011	2.5
-20	-0.019	-0.021	-0.018	-0.020	-0.021	-0.019	-0.052	-0.048	-0.042	-0.049	-0.012	-0.012	-0.012	-0.012	2.5

4.3 Emission Bandwidth Measurement

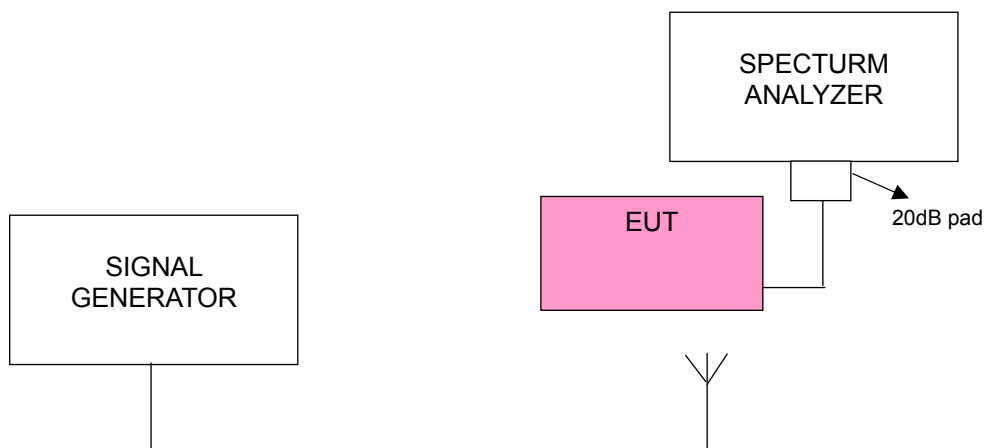
4.3.1 Limits of Emission Bandwidth Measurement

According to FCC 27.53(m)(6) specified that emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

4.3.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW = 150kHz and VBW = 430kHz (Channel Bandwidth: 1.4MHz), RBW = 100kHz and VBW = 300kHz (Channel Bandwidth: 3MHz and 5MHz), RBW = 200kHz and VBW = 620kHz (Channel Bandwidth: 10MHz and 15MHz) and RBW = 430kHz and VBW = 1.2MHz (Channel Bandwidth: 20MHz). The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

4.3.3 Test Setup



4.3.4 Test Result

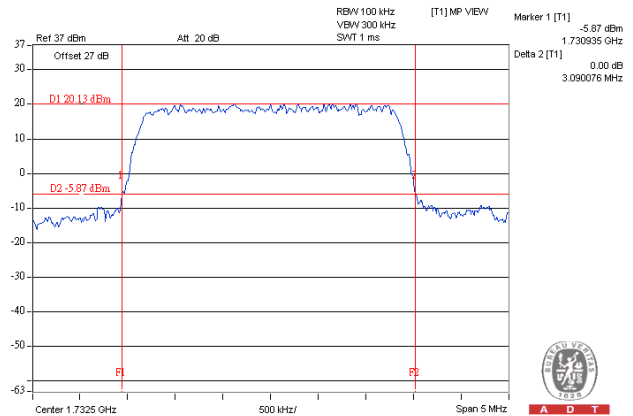
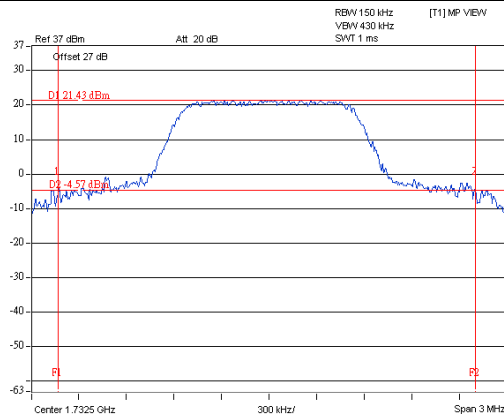
LTE Band 4					
Channel Bandwidth: 1.4MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
19957	1710.7	1.56	1.53	1.09	1.10
20175	1732.5	2.28	2.64	1.11	1.11
20393	1754.3	1.64	1.64	1.10	1.11
Channel Bandwidth: 3MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
19965	1711.5	3.06	3.07	2.69	2.71
20175	1732.5	3.09	3.08	2.69	2.69
20385	1753.5	3.07	3.09	2.70	2.69
Channel Bandwidth: 5MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
19975	1712.5	4.99	5.08	4.48	4.47
20175	1732.5	5.09	5.06	4.48	4.47
20375	1752.5	5.03	5.02	4.47	4.48
Channel Bandwidth: 10MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20000	1715	9.95	9.88	8.93	8.93
20175	1732.5	9.82	9.92	8.93	8.93
20350	1750	9.90	9.93	8.93	8.93
Channel Bandwidth: 15MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20025	1717.5	14.52	14.53	13.43	13.40
20175	1732.5	14.69	14.47	13.43	13.40
20325	1747.5	14.57	14.62	13.40	13.40
Channel Bandwidth: 20MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
20050	1720	19.25	19.32	17.87	17.93
20175	1732.5	19.14	19.14	18.20	18.20
20300	1745	19.38	19.16	17.87	17.87

-26dBc Bandwidth

Spectrum Plot Of Worst Value

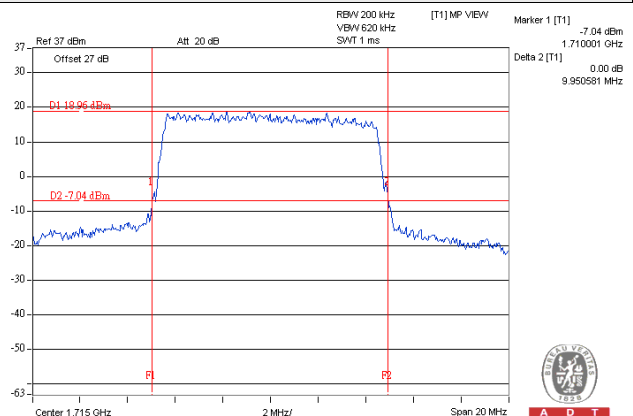
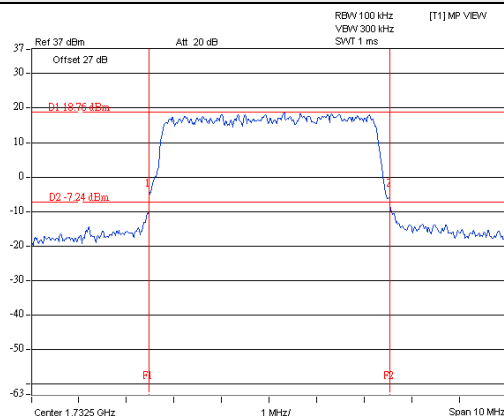
1.4MHz / 16QAM

3MHz / QPSK



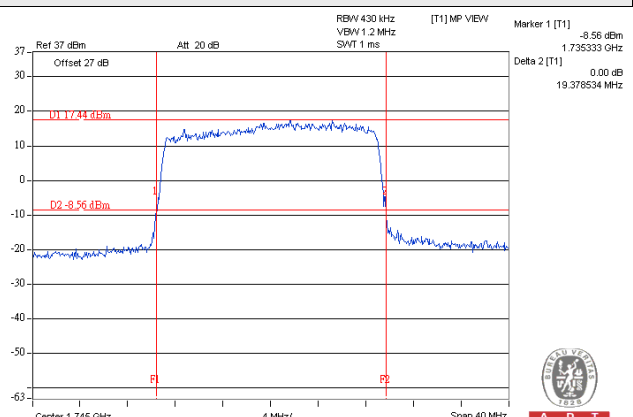
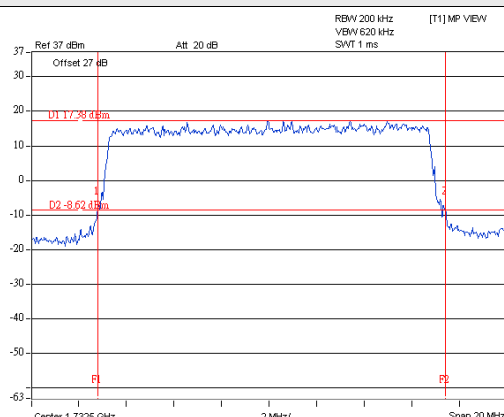
5MHz / QPSK

10MHz / QPSK



15MHz / QPSK

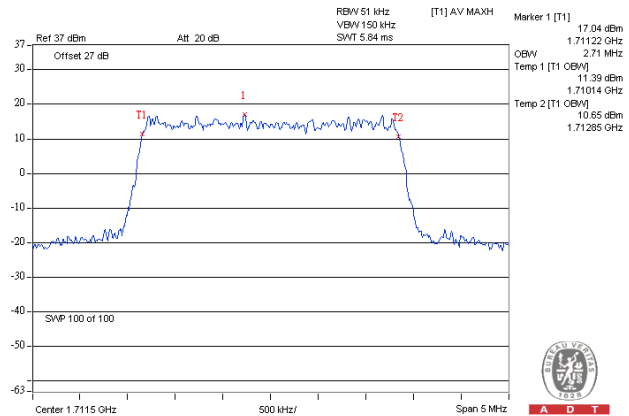
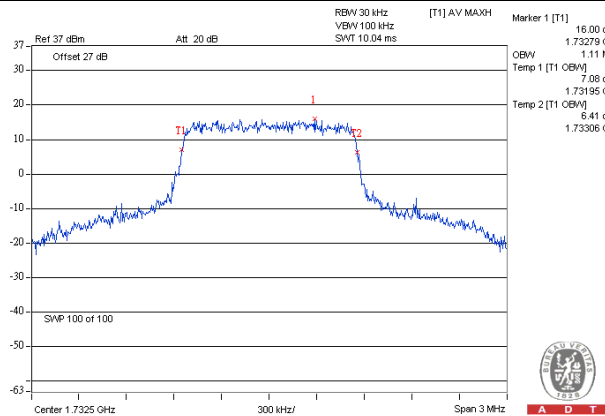
20MHz / QPSK



Occupied Bandwidth Spectrum Plot Of Worst Value

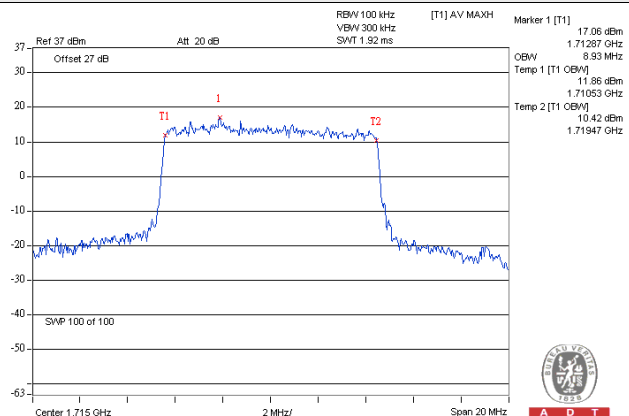
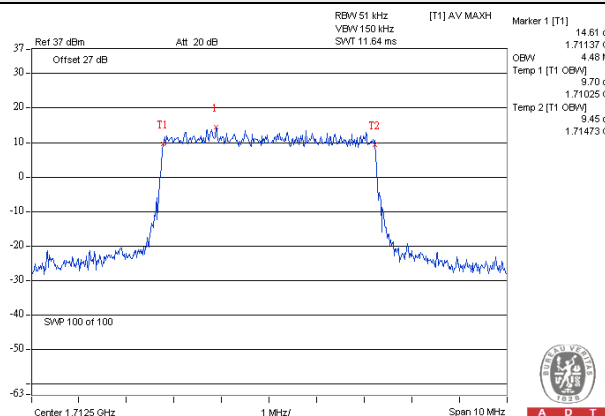
1.4MHz / QPSK

3MHz / 16QAM



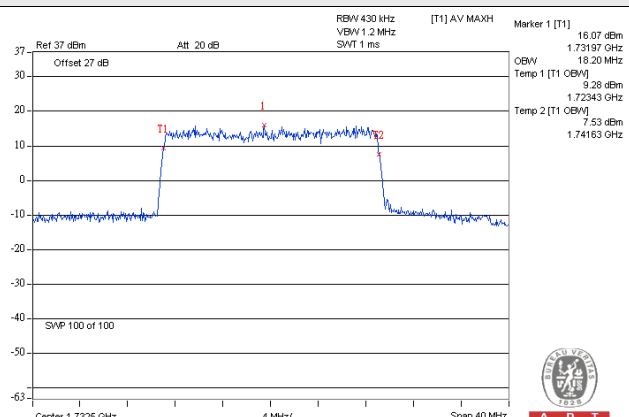
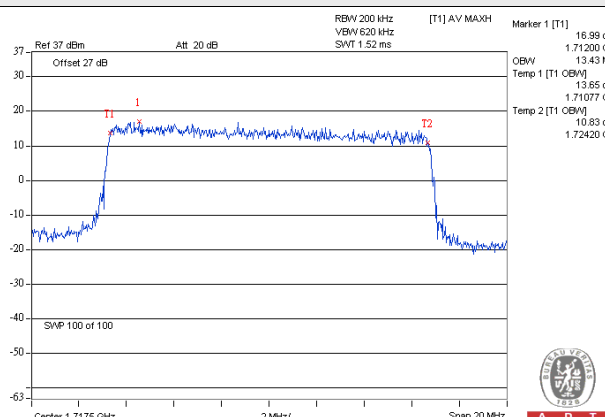
5MHz / QPSK

10MHz / QPSK



15MHz / QPSK

20MHz / QPSK



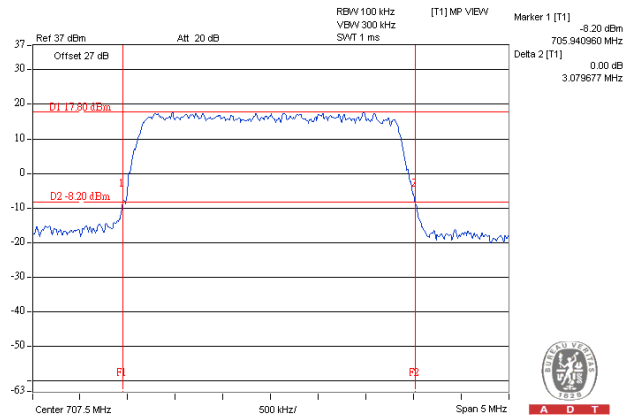
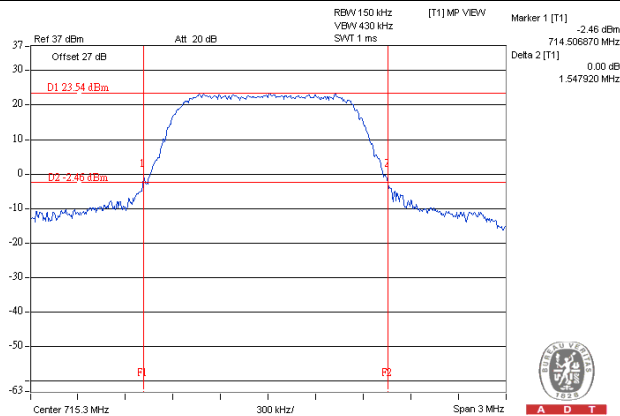
LTE Band 12					
Channel Bandwidth: 1.4MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
23017	699.7	1.54	1.53	1.09	1.10
23095	707.5	1.52	1.52	1.09	1.09
23173	715.3	1.55	1.55	1.10	1.09
Channel Bandwidth: 3MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
23025	700.5	3.05	3.07	2.69	2.68
23095	707.5	3.06	3.08	2.69	2.69
23165	714.5	3.03	3.04	2.69	2.68
Channel Bandwidth: 5MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
23035	701.5	4.99	5.02	4.45	4.47
23095	707.5	5.03	5.00	4.47	4.47
23155	713.5	5.04	5.03	4.47	4.47
Channel Bandwidth: 10MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
23060	704	9.92	9.93	8.93	8.93
23095	707.5	9.94	9.98	8.97	8.93
23130	711	9.91	9.86	8.93	8.93

-26dBc Bandwidth

Spectrum Plot Of Worst Value

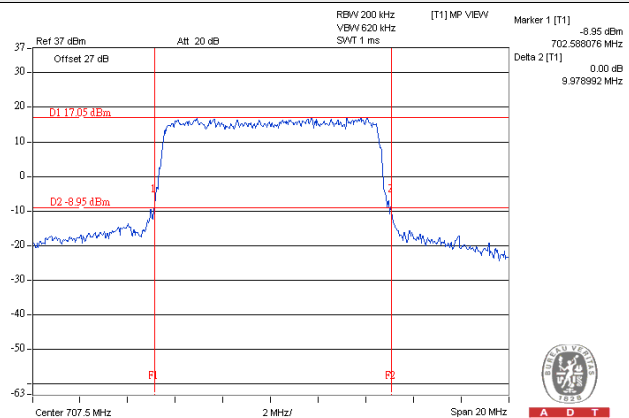
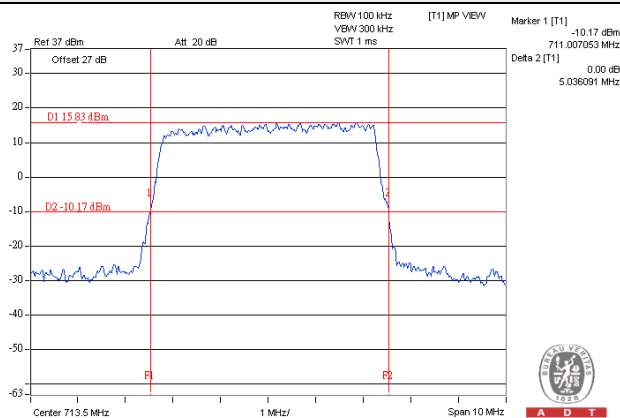
1.4MHz / QPSK

3MHz / 16QAM



5MHz / QPSK

10MHz / 16QAM

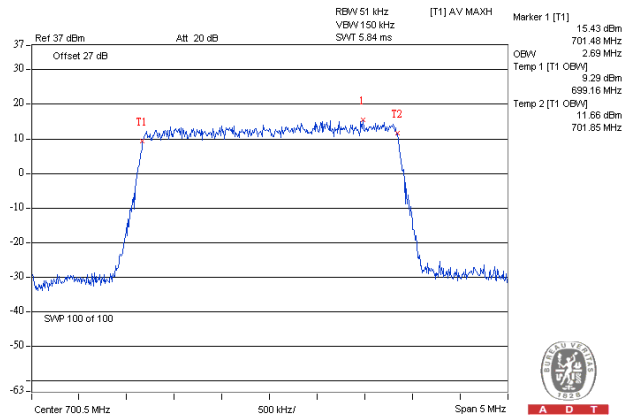
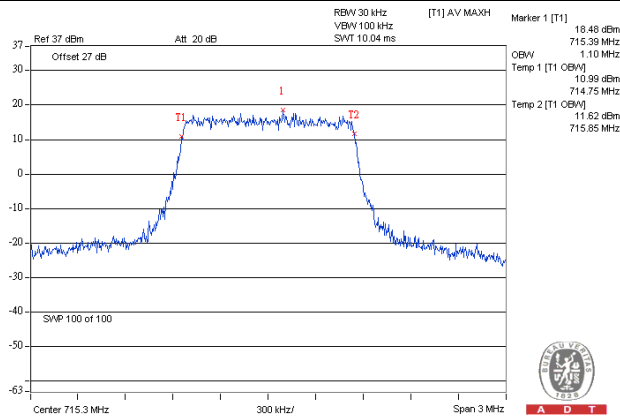


Occupied Bandwidth

Spectrum Plot Of Worst Value

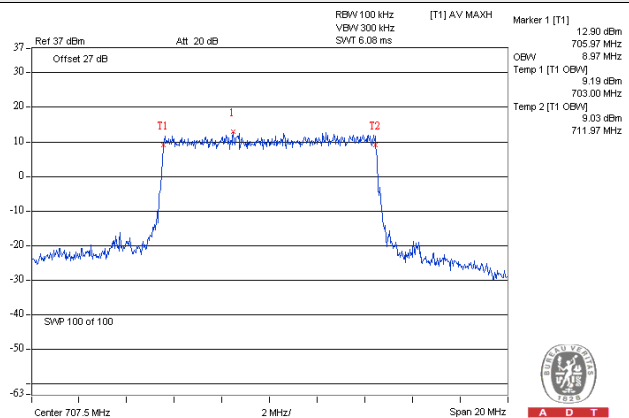
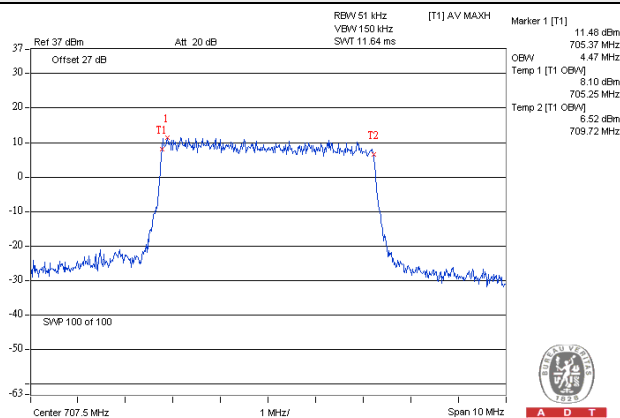
1.4MHz / QPSK

3MHz / QPSK



5MHz / QPSK

10MHz / QPSK



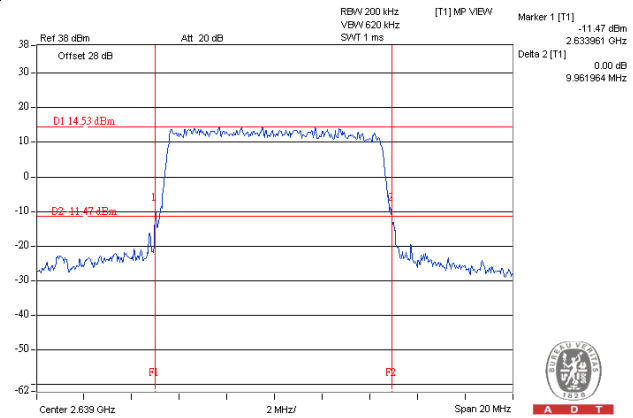
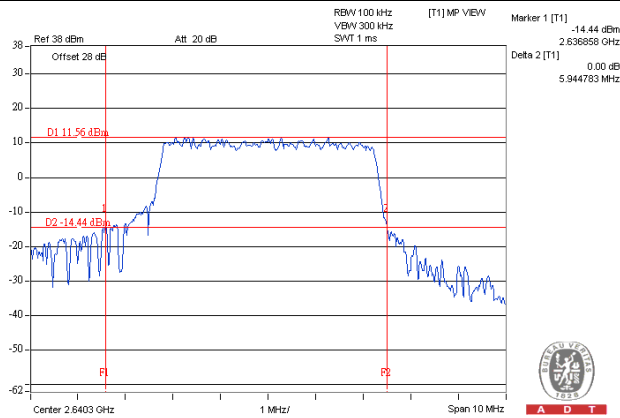
LTE Band 41					
Channel Bandwidth: 5MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
39675	2498.5	5.26	5.14	4.48	4.47
40148	2545.8	5.19	5.22	4.48	4.47
40620	2593	5.42	5.34	4.47	4.48
41093	2640.3	5.78	5.94	4.48	4.48
41565	2687.5	5.82	5.86	4.48	4.48
Channel Bandwidth: 10MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
39700	2501	9.75	9.74	8.93	8.93
40160	2547	9.78	9.78	8.90	8.90
40620	2593	9.76	9.80	8.93	8.93
41080	2639	9.73	9.96	8.93	8.93
41540	2685	9.76	9.79	8.90	8.93
Channel Bandwidth: 15MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
39725	2503.5	14.33	14.29	13.40	13.43
40173	2548.3	14.71	14.54	13.43	13.40
40620	2593	14.86	14.80	13.40	13.40
41068	2637.8	14.42	15.25	13.43	13.43
41515	2682.5	16.19	14.78	13.40	13.43
Channel Bandwidth: 20MHz					
Channel	Frequency (MHz)	-26dBc Bandwidth (MHz)		Occupied Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
39750	2506	19.37	19.25	17.93	17.87
40185	2549.5	19.35	19.30	18.00	17.93
40620	2593	19.39	19.28	17.93	18.00
41055	2636.5	20.22	20.21	17.93	17.93
41490	2680	19.47	19.40	17.93	17.93

-26dBc Bandwidth

Spectrum Plot Of Worst Value

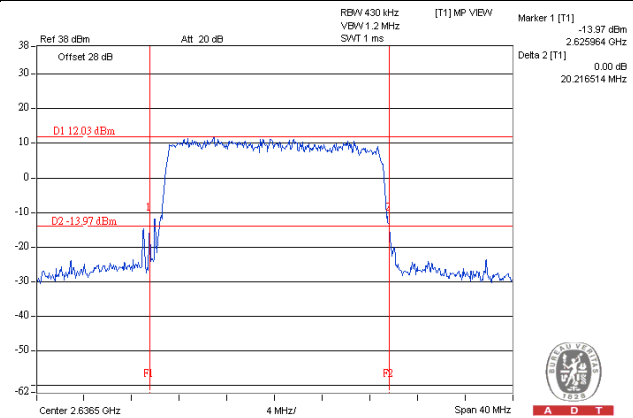
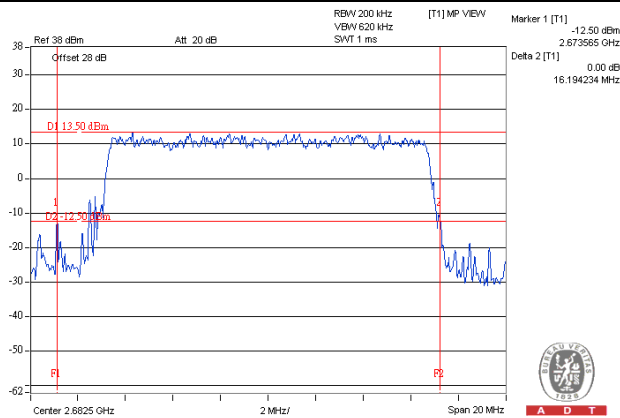
5MHz / 16QAM

10MHz / 16QAM



15MHz / QPSK

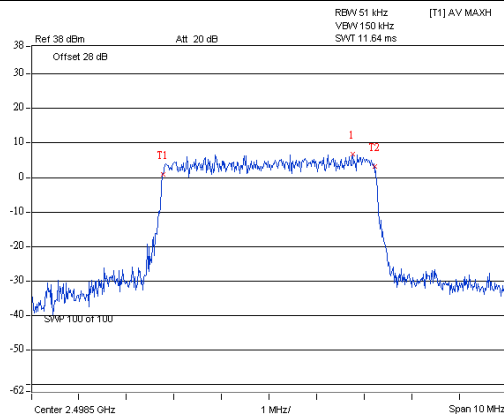
20MHz / QPSK



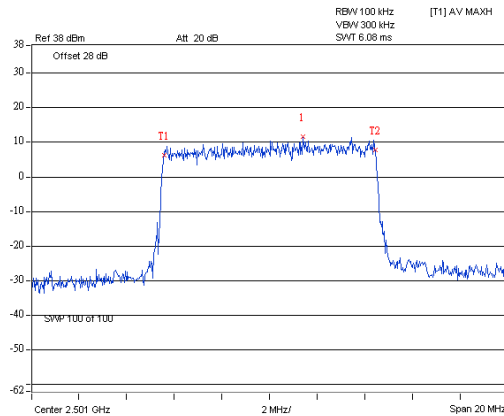
Occupied Bandwidth Spectrum Plot Of Worst Value

5MHz / QPSK

10MHz / QPSK



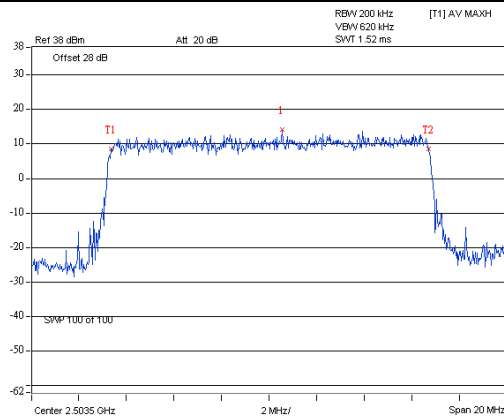
A D T



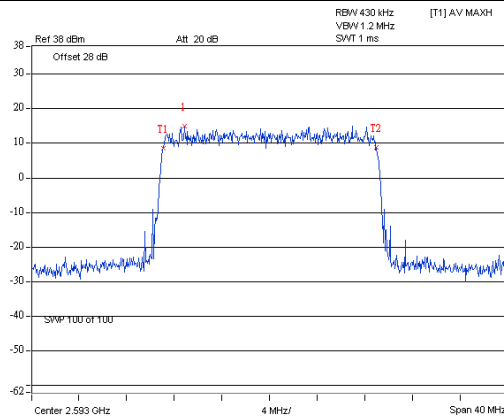
A D T

15MHz / 16QAM

20MHz / 16QAM



A D T



A D T

4.4 Channel Edge Measurement

4.4.1 Limits of Band Edge Measurement

For LTE Band 4

According to FCC 27.53(h) for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.

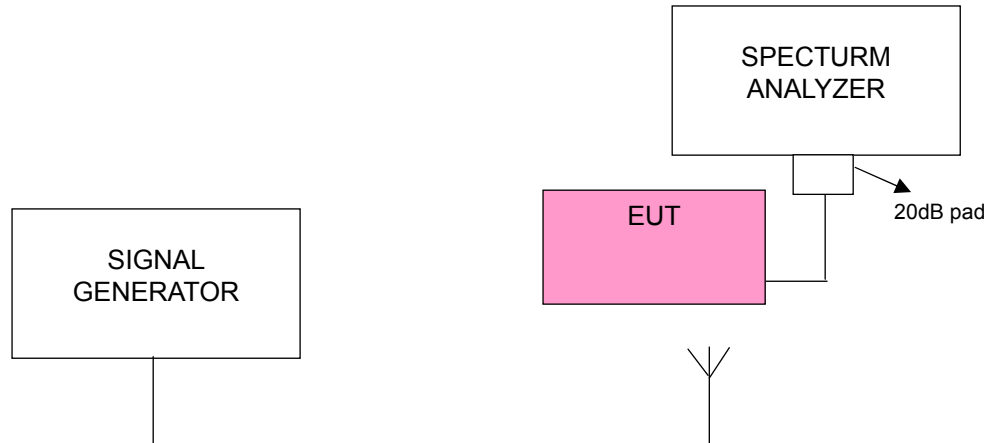
For LTE Band 12

According to FCC 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

For LTE Band 41

According to FCC 27.53(m)(4) specified that power of any emission outside of the channel edge must be attenuated below the transmitting power (P) by a factor shall be not less than $43 + 10 \log (P)$ dB at the channel edge, the limit of emission equal to -13dBm . And $55 + 10 \log (P)$ dB at 5.5 MHz from the channel edges, the limit of emission equal to -25dBm . In the 1MHz 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.

4.4.2 Test Setup



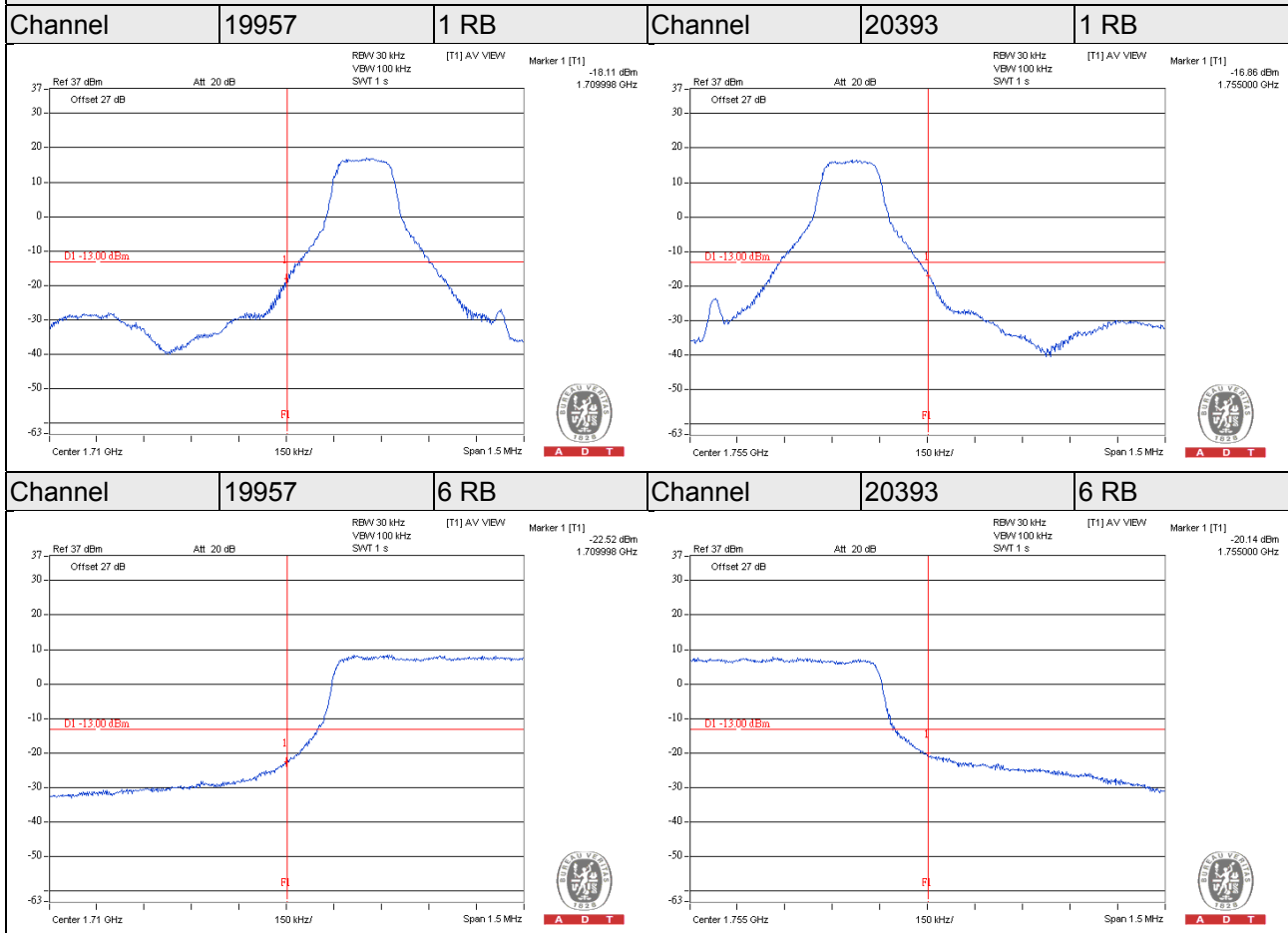
4.4.3 Test Procedures

- The EUT was set up for the rated peak power. The power was measured with Spectrum Analyzer. For LTE band 4 & 12 measurements were done at 3 channels for LTE Band 41 measurements were done at 5 channels: low, middle and high operational frequency range.
- The center frequency of spectrum is the band edge frequency and span is 1.5MHz. RBW = 30kHz and VBW = 100kHz (Channel Bandwidth: 1.4MHz), RBW = 51kHz and VBW = 150kHz (Channel Bandwidth: 3MHz and 5MHz), RBW = 100kHz and VBW = 300kHz (Channel Bandwidth: 10MHz), RBW = 200kHz and VBW = 620kHz (Channel Bandwidth: 15MHz) and RBW = 430kHz and VBW = 1.2MHz (Channel Bandwidth: 20MHz).
- Record the max trace plot into the test report.

4.4.4 Test Results

LTE Band 4

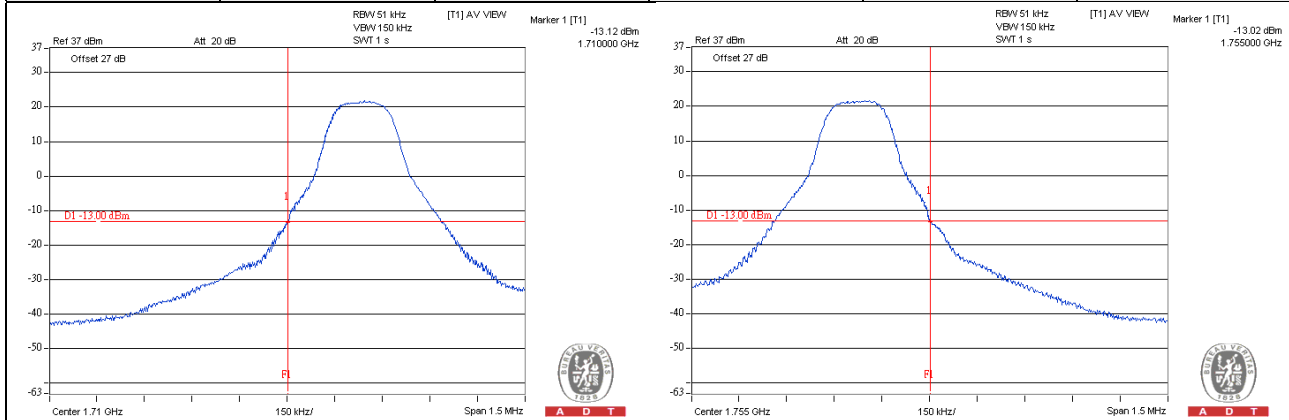
Channel Bandwidth 1.4MHz



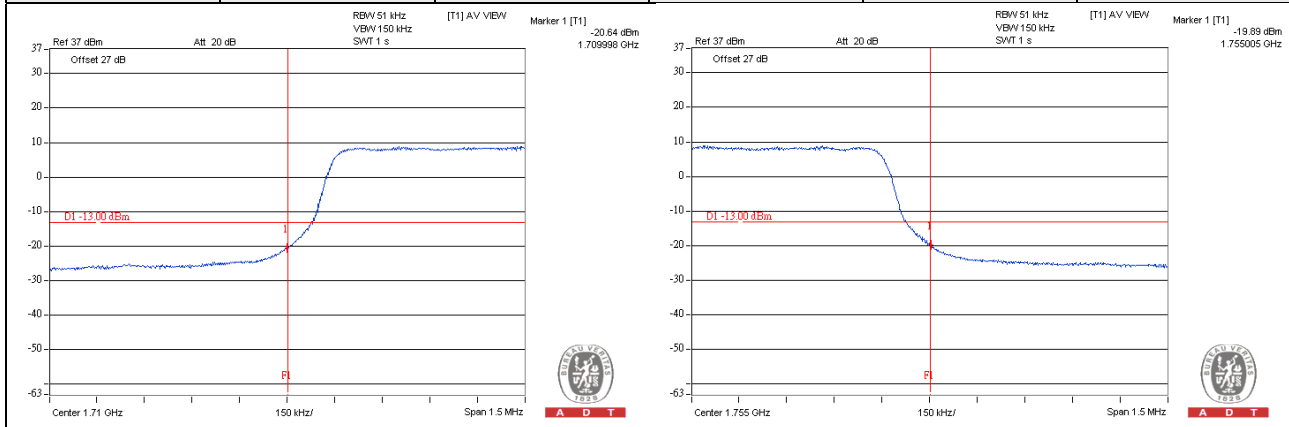
LTE Band 4

Channel Bandwidth 3MHz

Channel	19965	1 RB	Channel	20385	1 RB
---------	-------	------	---------	-------	------



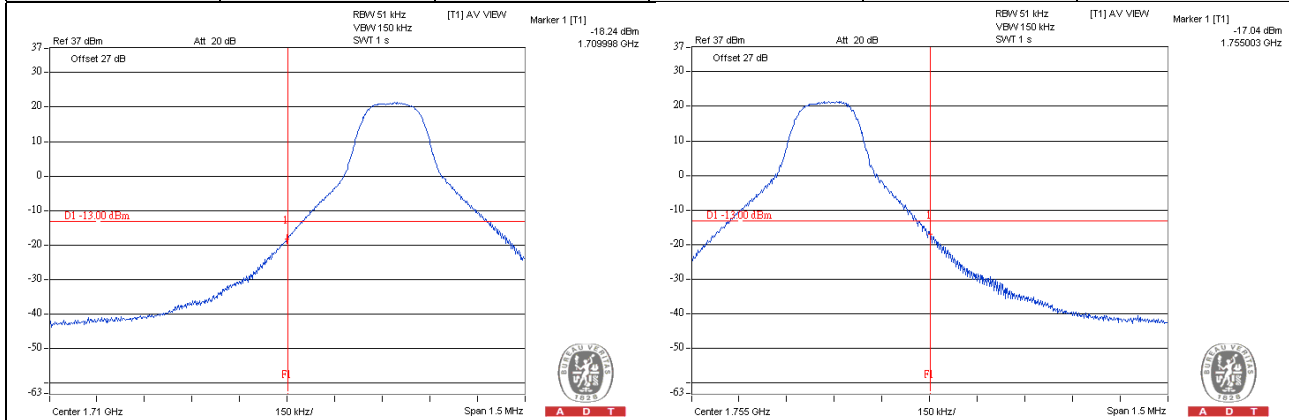
Channel	19965	15 RB	Channel	20385	15 RB
---------	-------	-------	---------	-------	-------



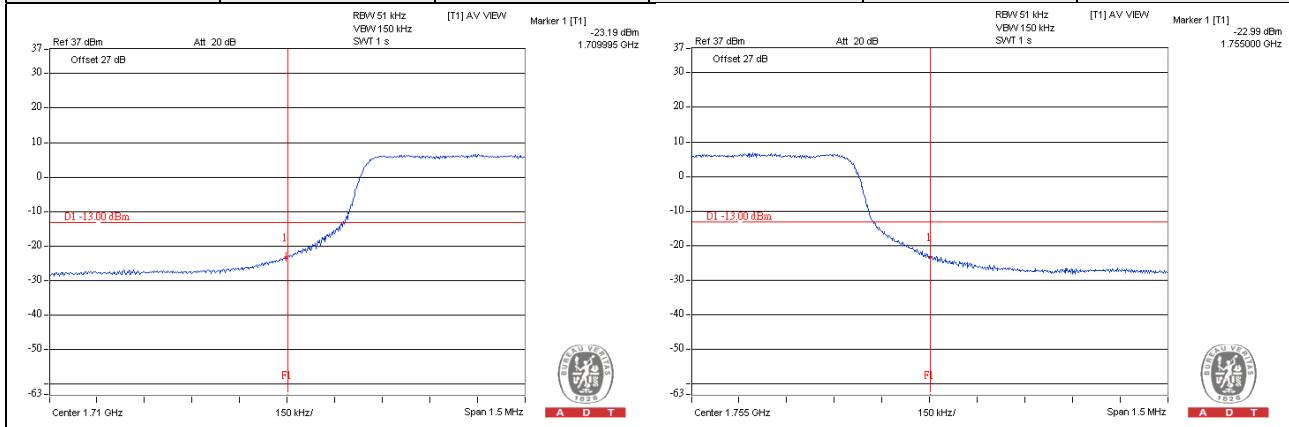
LTE Band 4

Channel Bandwidth 5MHz

Channel	19975	1 RB	Channel	20375	1 RB
---------	-------	------	---------	-------	------



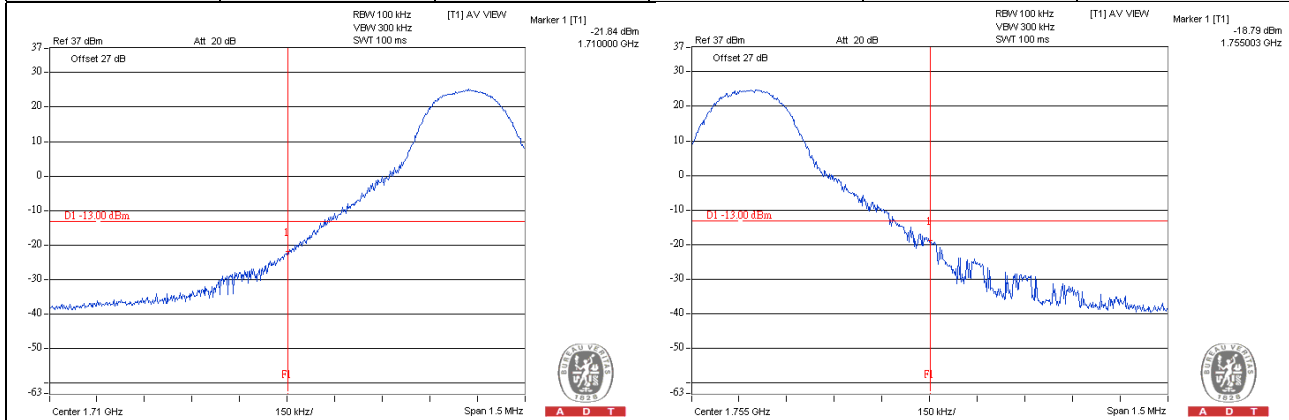
Channel	19975	25 RB	Channel	20375	25 RB
---------	-------	-------	---------	-------	-------



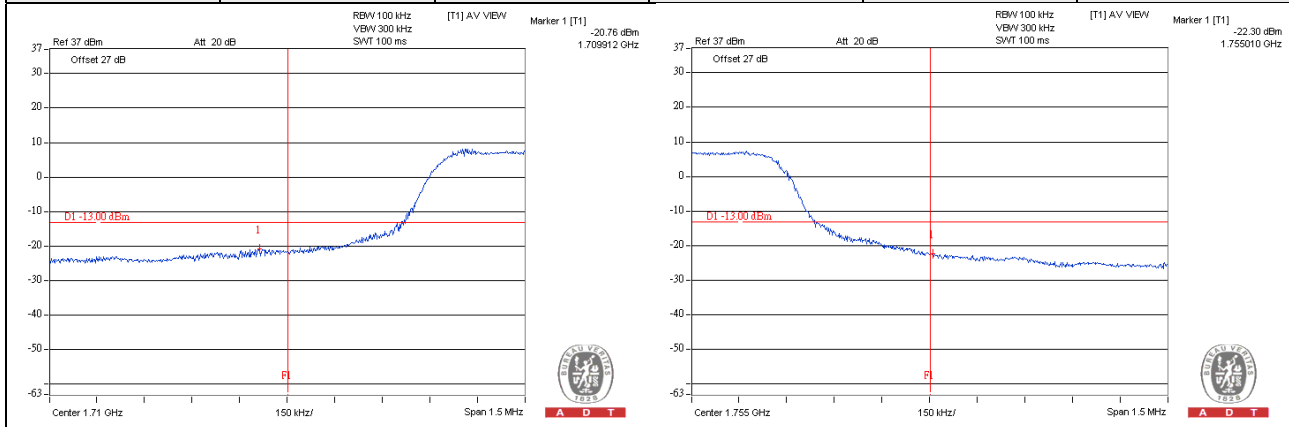
LTE Band 4

Channel Bandwidth 10MHz

Channel	20000	1 RB	Channel	20350	1 RB
---------	-------	------	---------	-------	------



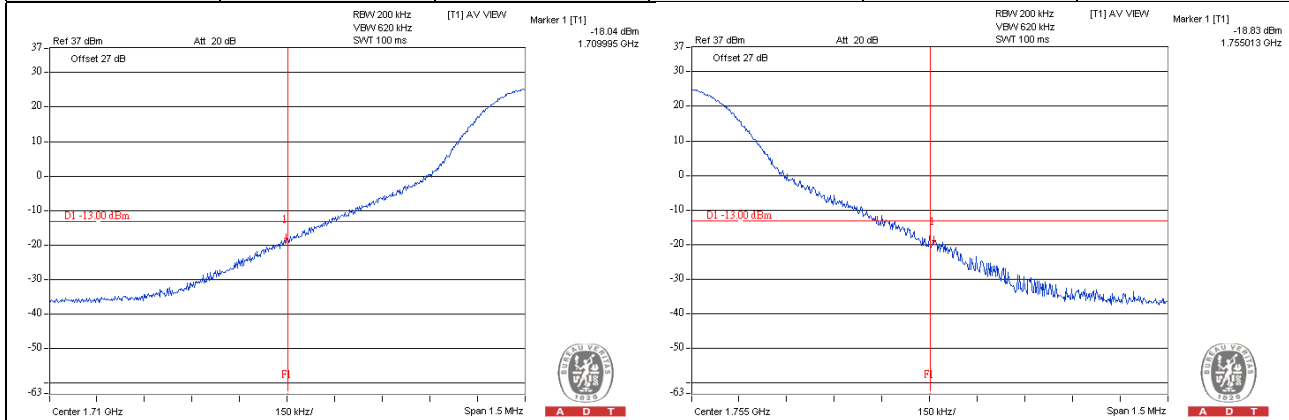
Channel	20000	50 RB	Channel	20350	50 RB
---------	-------	-------	---------	-------	-------



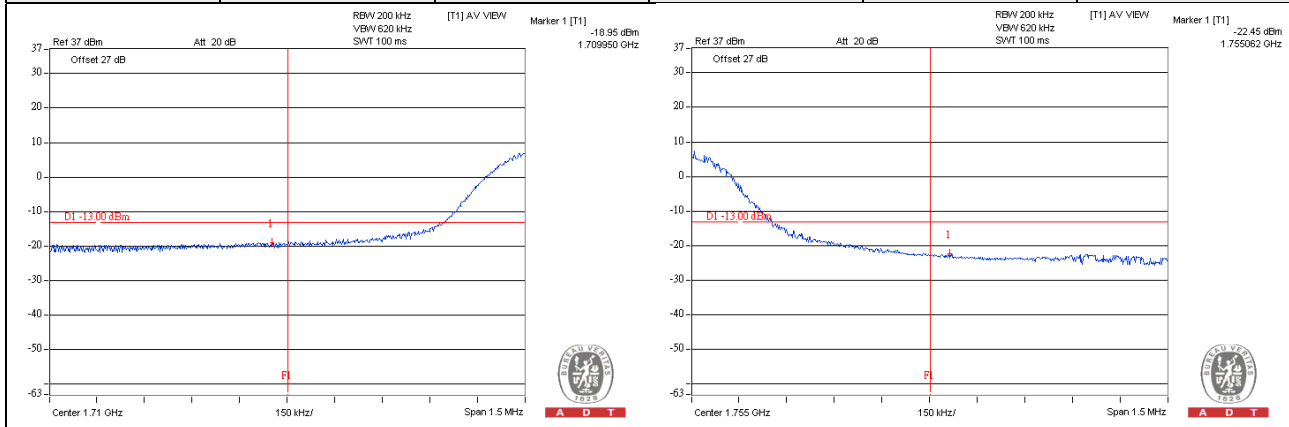
LTE Band 4

Channel Bandwidth 15MHz

Channel	20025	1 RB	Channel	20325	1 RB
---------	-------	------	---------	-------	------



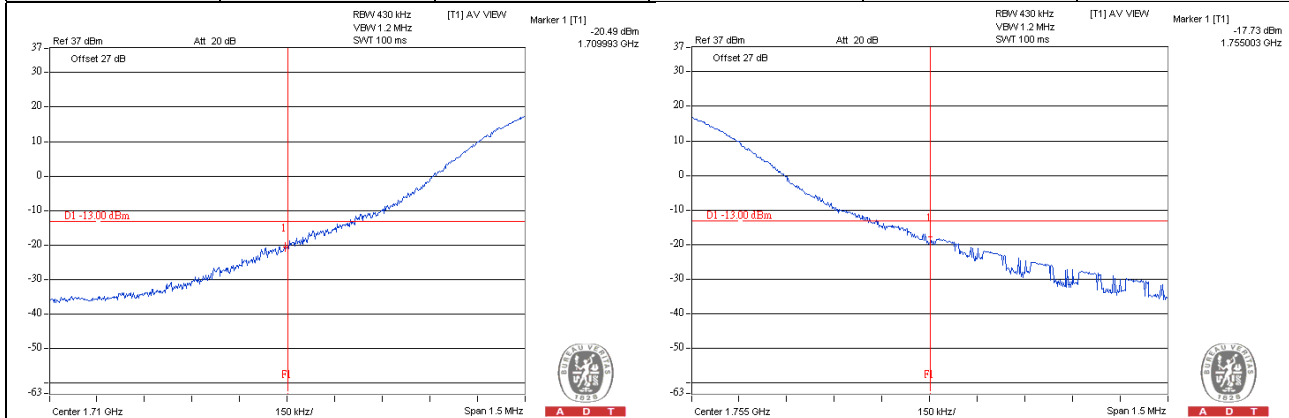
Channel	20025	75 RB	Channel	20325	75 RB
---------	-------	-------	---------	-------	-------



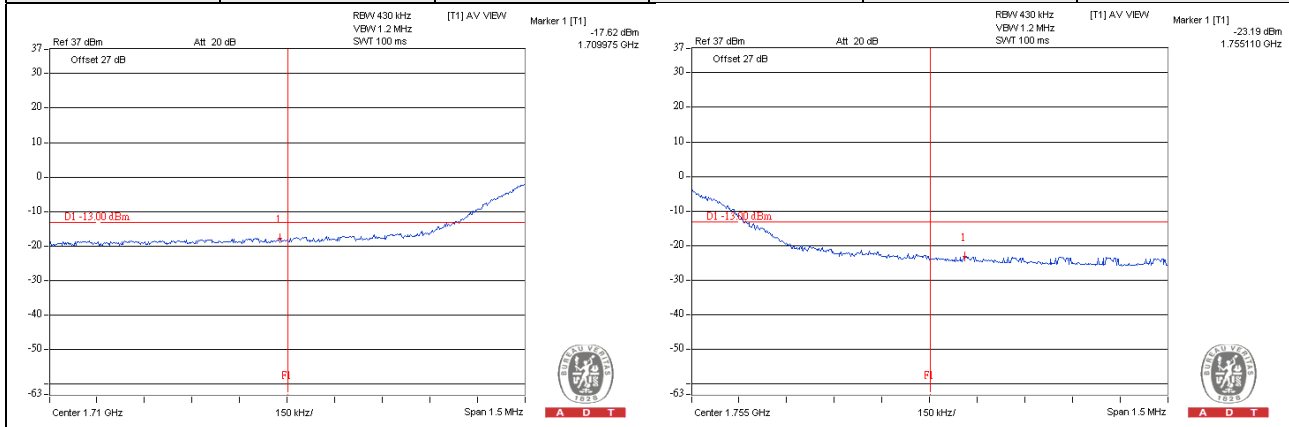
LTE Band 4

Channel Bandwidth 20MHz

Channel	20050	1 RB	Channel	20300	1 RB
---------	-------	------	---------	-------	------



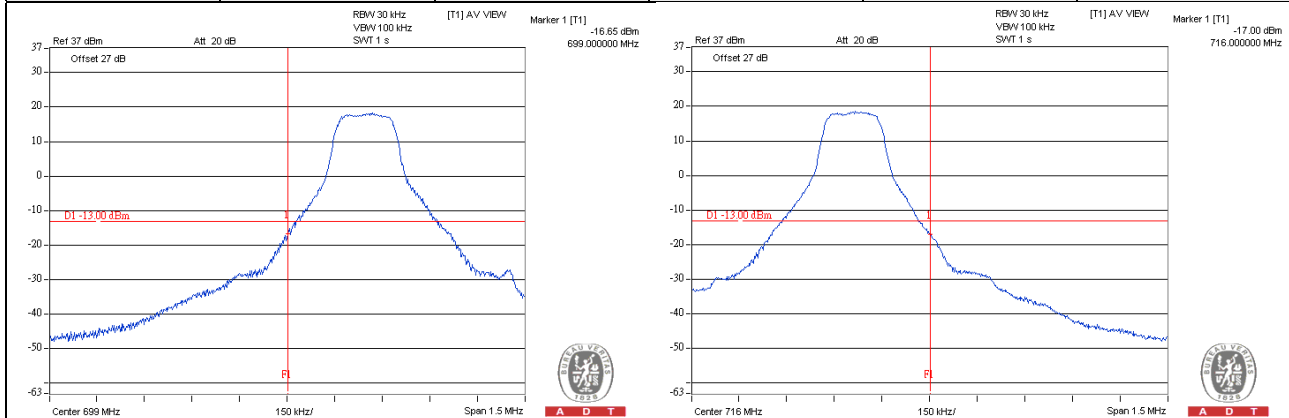
Channel	20050	100 RB	Channel	20300	100 RB
---------	-------	--------	---------	-------	--------



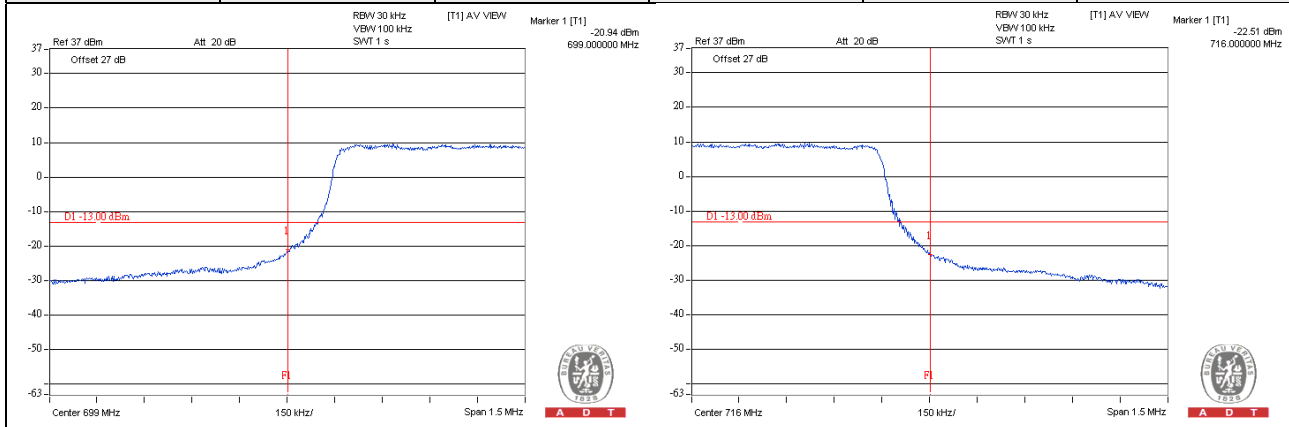
LTE Band 12

Channel Bandwidth 1.4MHz

Channel	23017	1 RB	Channel	23171	1 RB
---------	-------	------	---------	-------	------



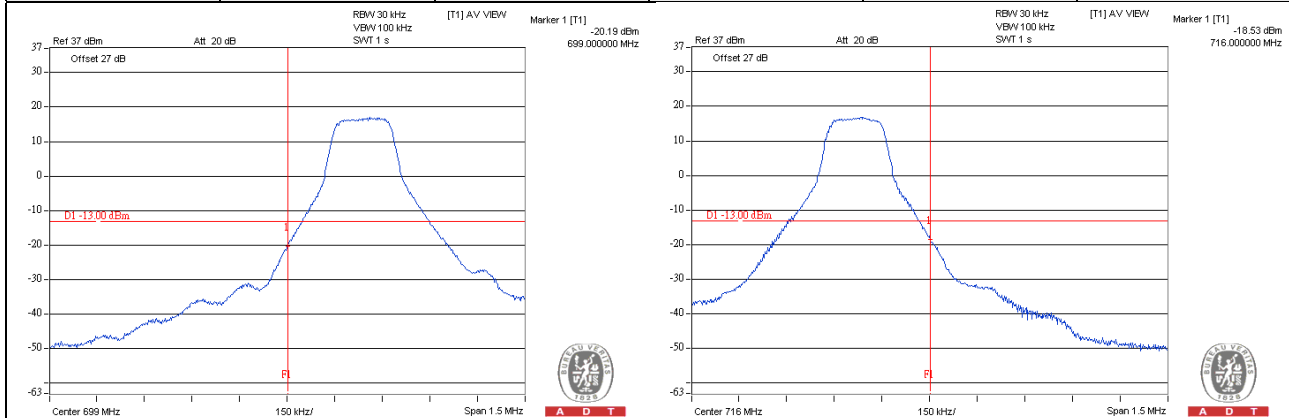
Channel	23017	6 RB	Channel	23171	6 RB
---------	-------	------	---------	-------	------



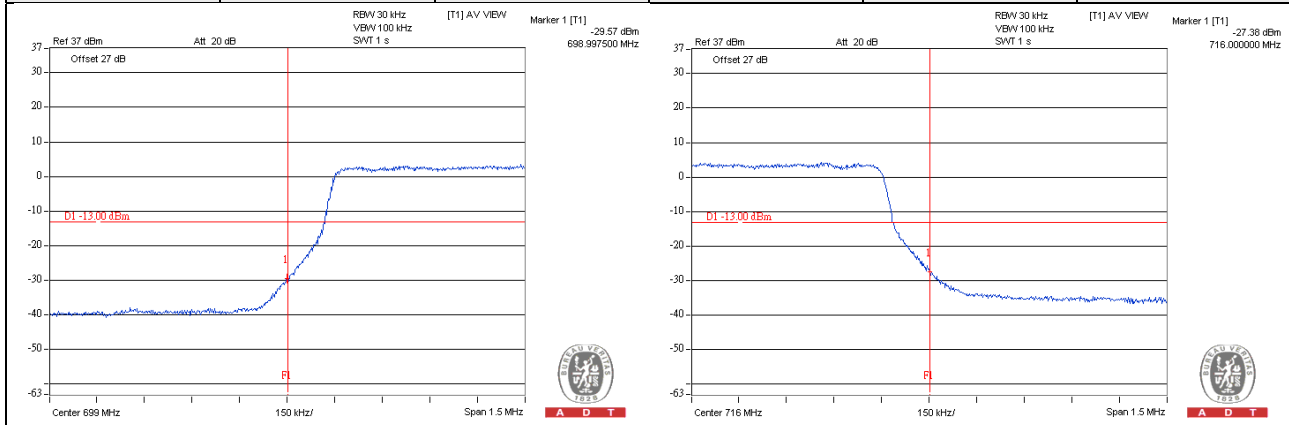
LTE Band 12

Channel Bandwidth 3MHz

Channel	23025	1 RB	Channel	23165	1 RB
---------	-------	------	---------	-------	------



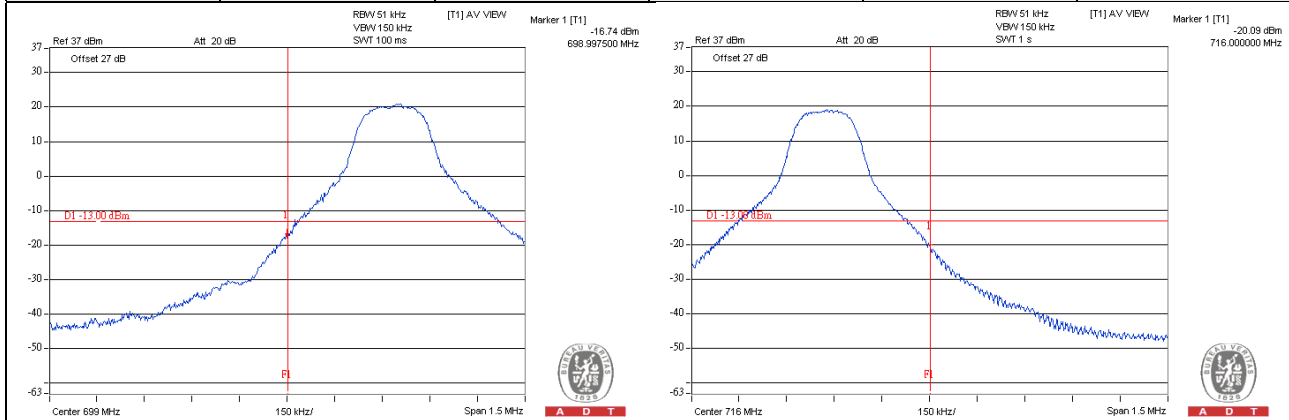
Channel	23025	15 RB	Channel	23165	15 RB
---------	-------	-------	---------	-------	-------



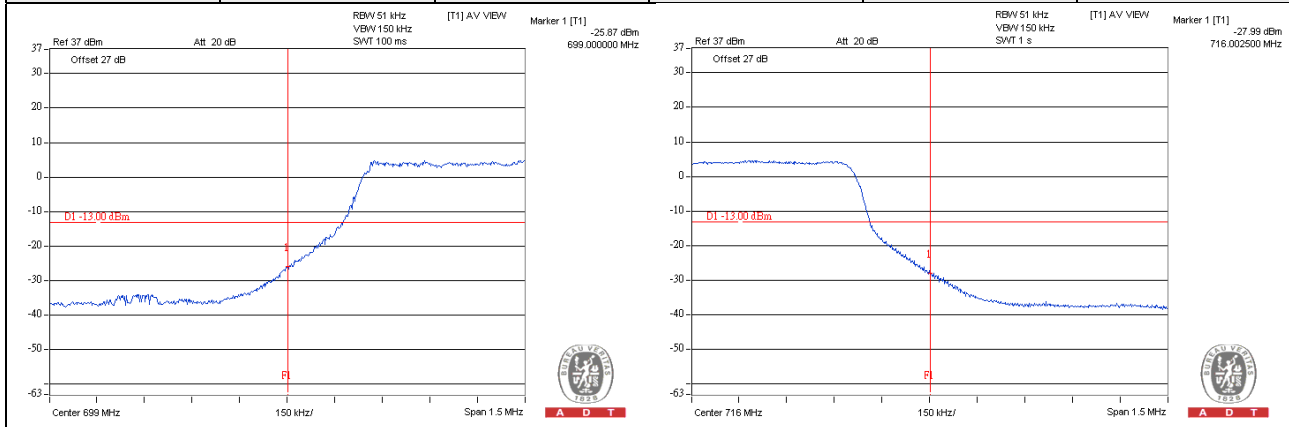
LTE Band 12

Channel Bandwidth 5MHz

Channel	23035	1 RB	Channel	23155	1 RB
---------	-------	------	---------	-------	------



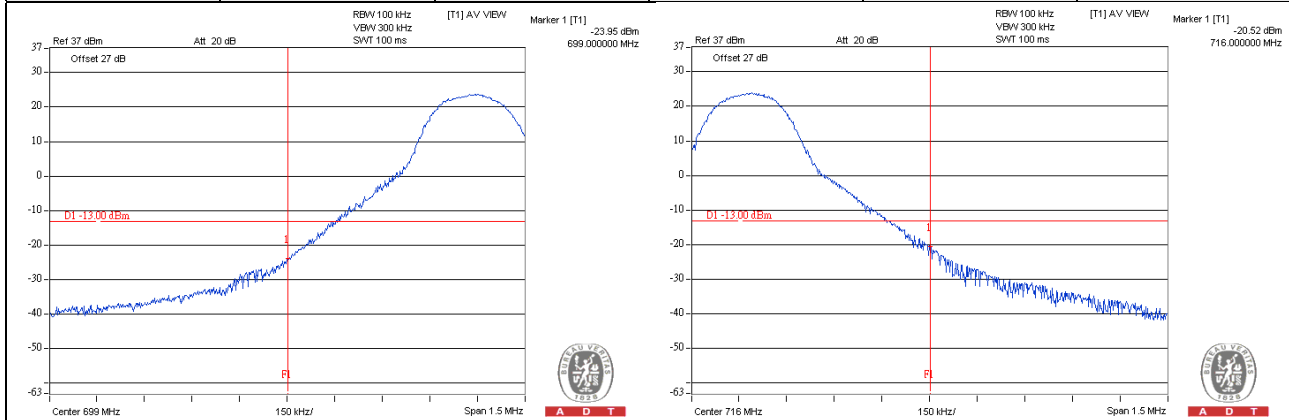
Channel	23035	25 RB	Channel	23155	25 RB
---------	-------	-------	---------	-------	-------



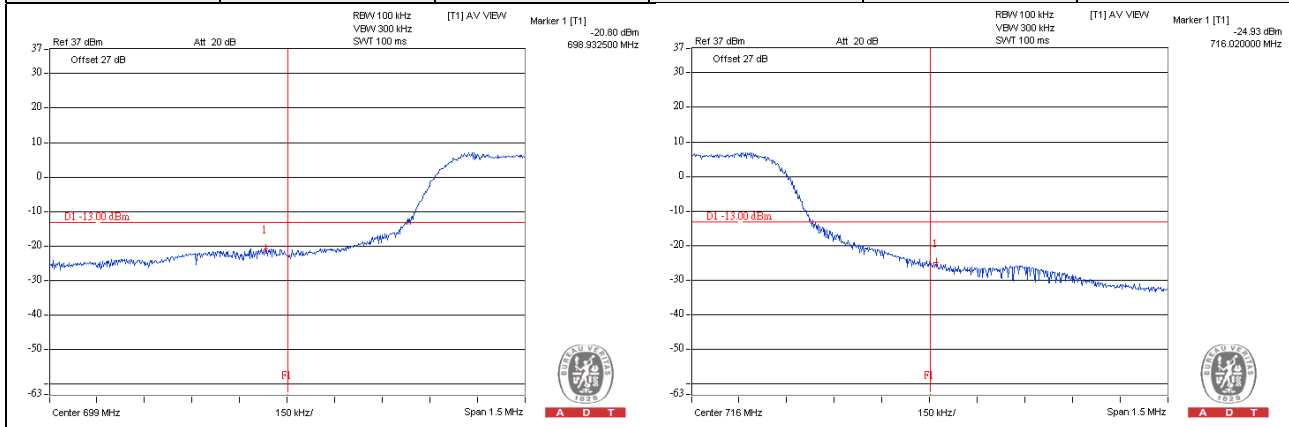
LTE Band 12

Channel Bandwidth 10MHz

Channel	23060	1 RB	Channel	23130	1 RB
---------	-------	------	---------	-------	------

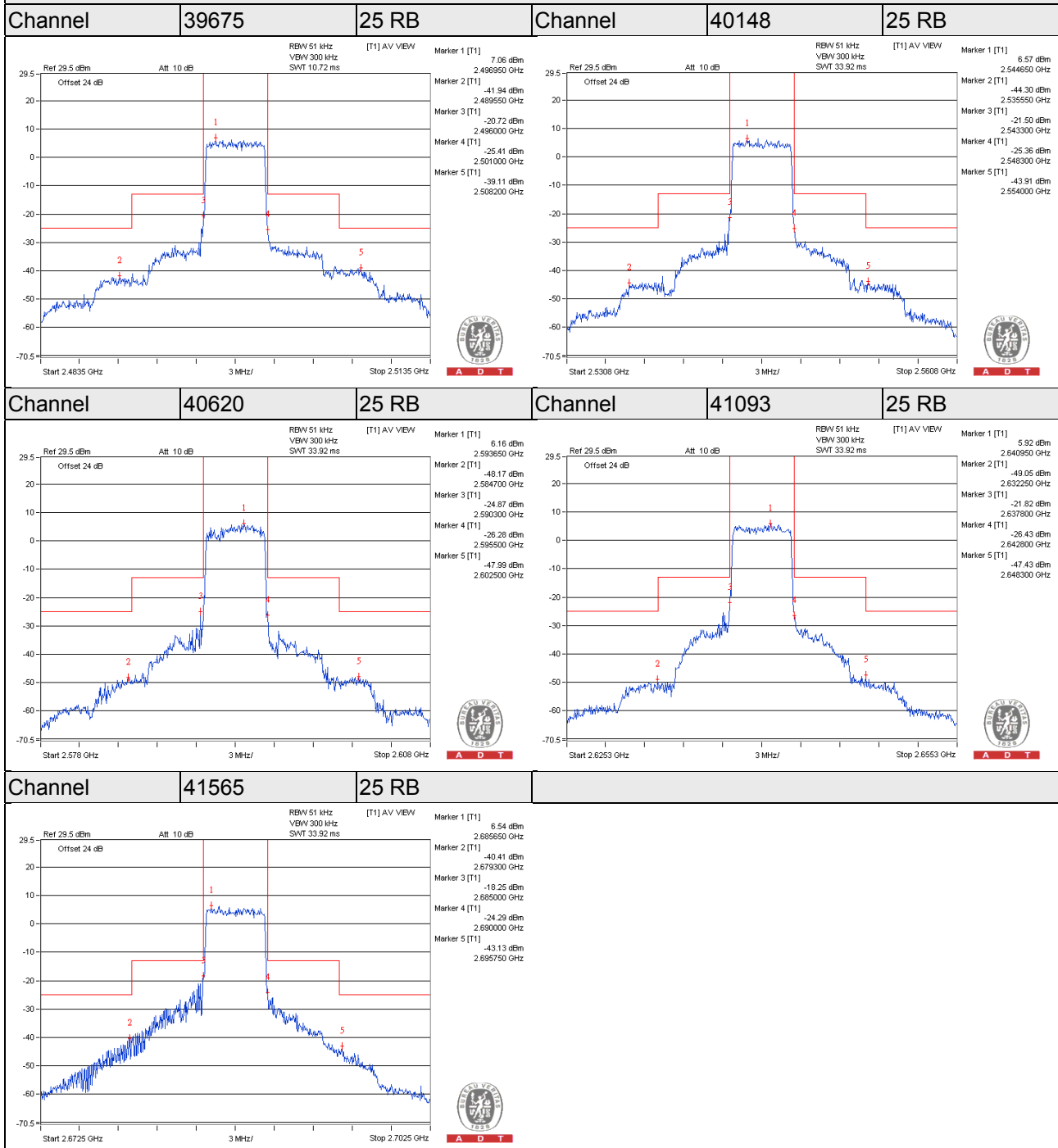


Channel	23060	50 RB	Channel	23130	50 RB
---------	-------	-------	---------	-------	-------



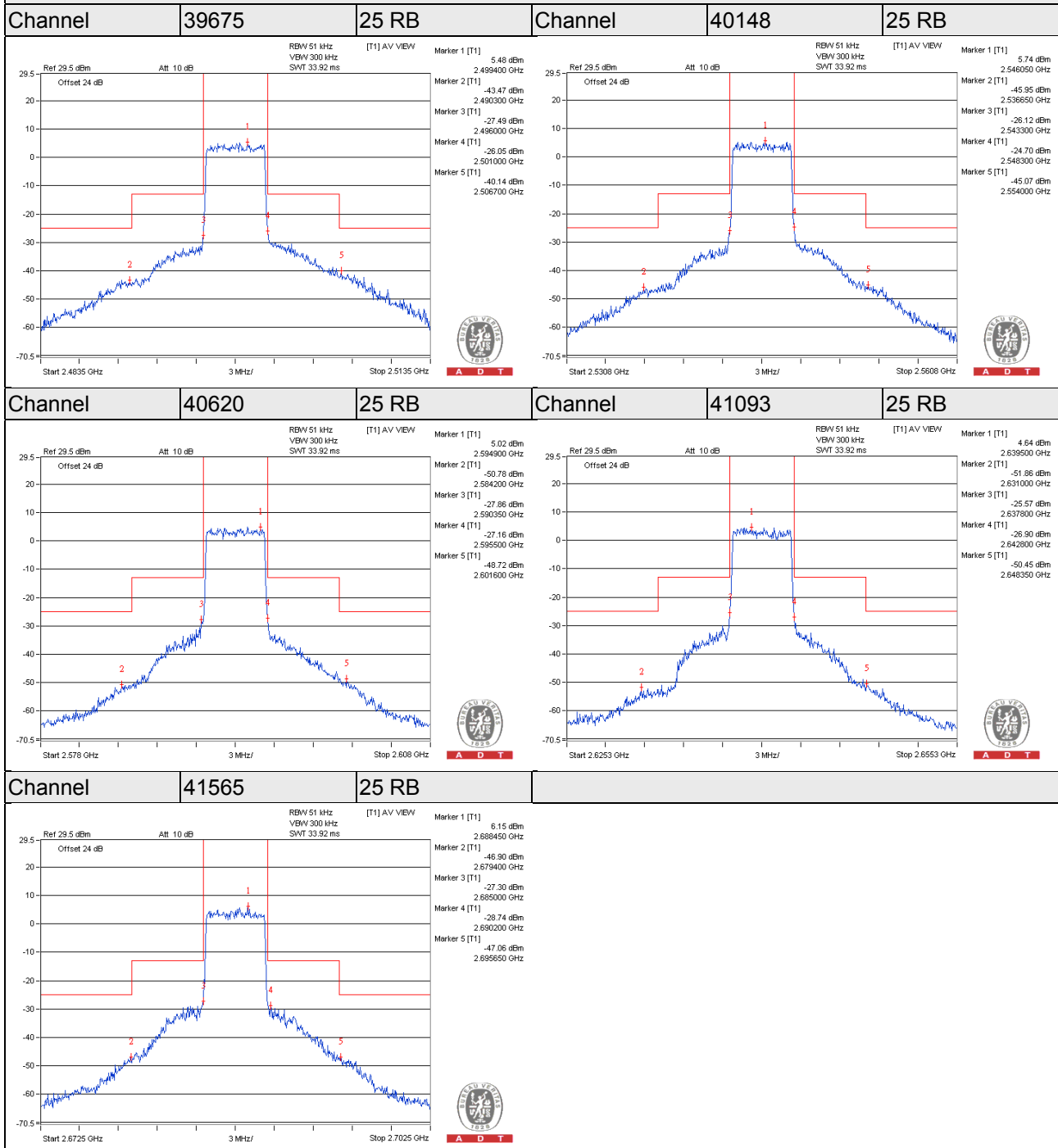
LTE Band 41 / QPSK

Channel Bandwidth 5MHz



LTE Band 41 / 16QAM

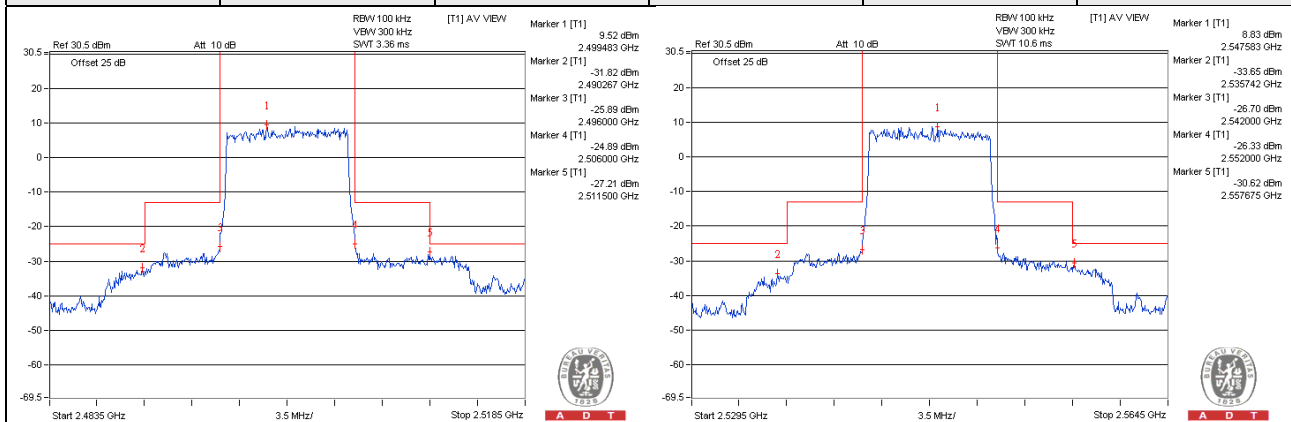
Channel Bandwidth 5MHz



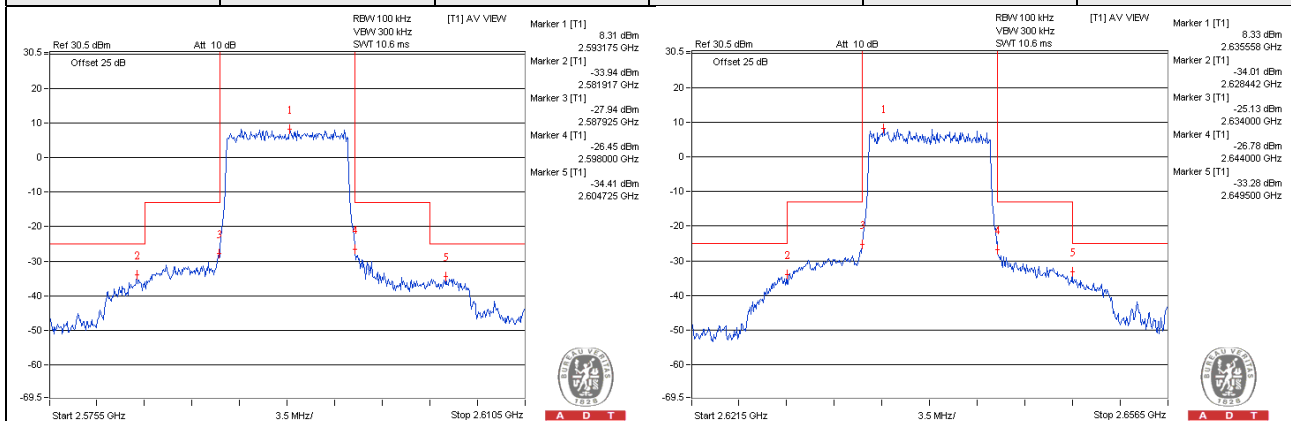
LTE Band 41 / QPSK

Channel Bandwidth 10MHz

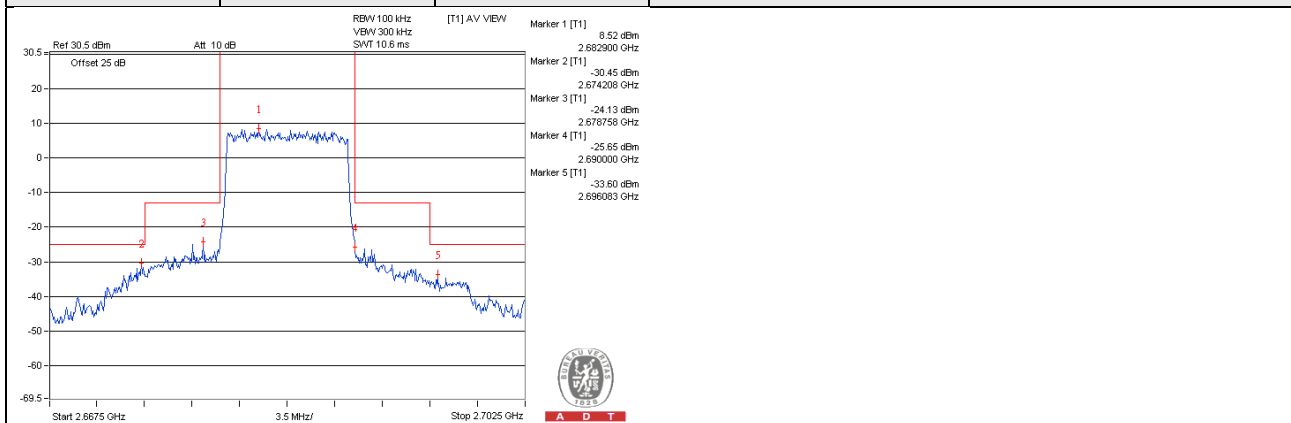
Channel	39700	50 RB	Channel	40160	50 RB
---------	-------	-------	---------	-------	-------



Channel	40620	50 RB	Channel	41080	50 RB
---------	-------	-------	---------	-------	-------

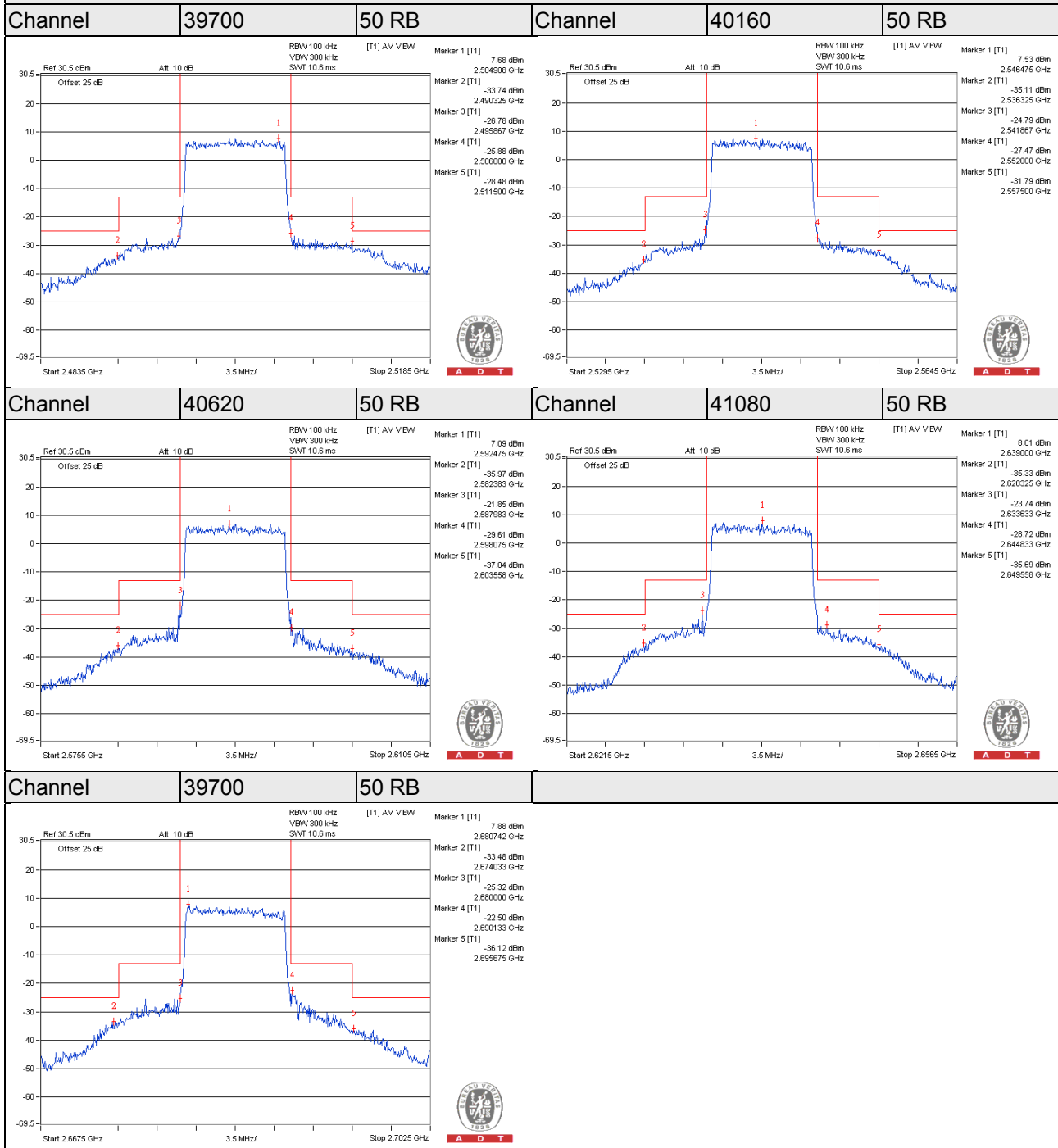


Channel	39700	50 RB	
---------	-------	-------	--



LTE Band 41 / 16QAM

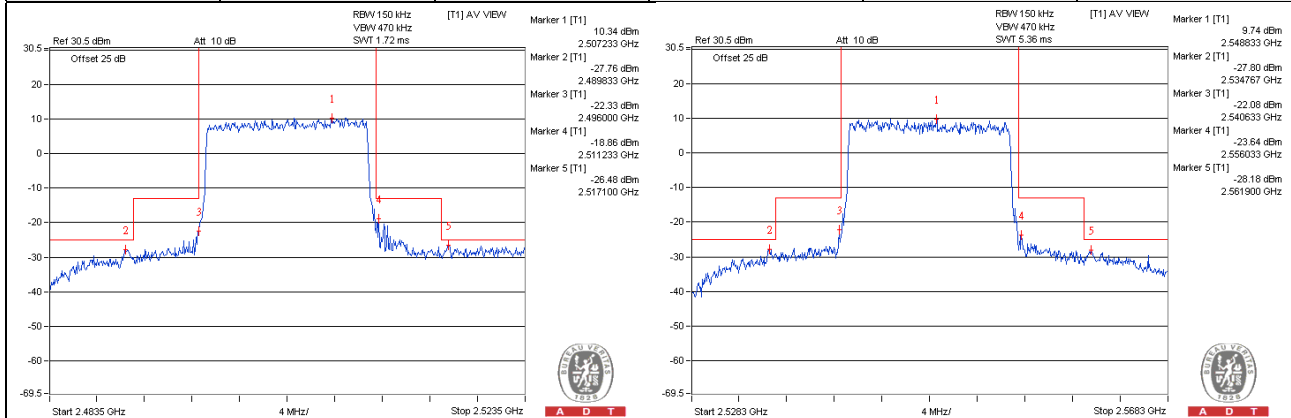
Channel Bandwidth 10MHz



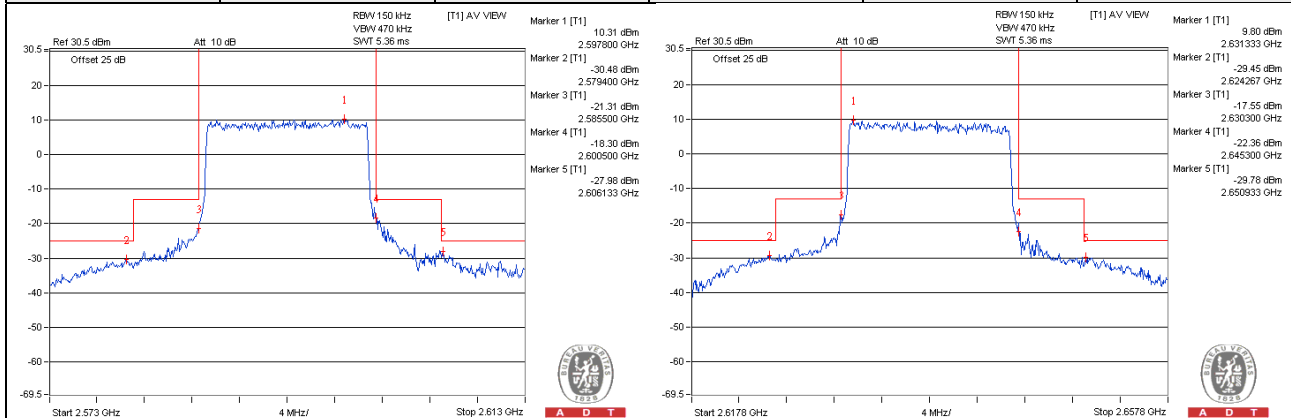
LTE Band 41 / QPSK

Channel Bandwidth 15MHz

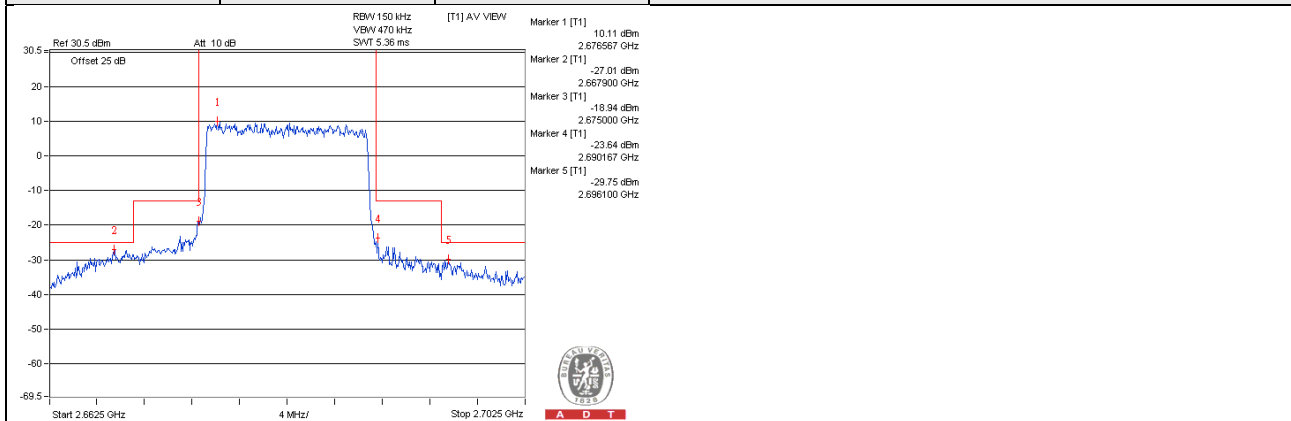
Channel	39725	75 RB	Channel	40173	75 RB
---------	-------	-------	---------	-------	-------



Channel	40620	75 RB	Channel	40068	75 RB
---------	-------	-------	---------	-------	-------

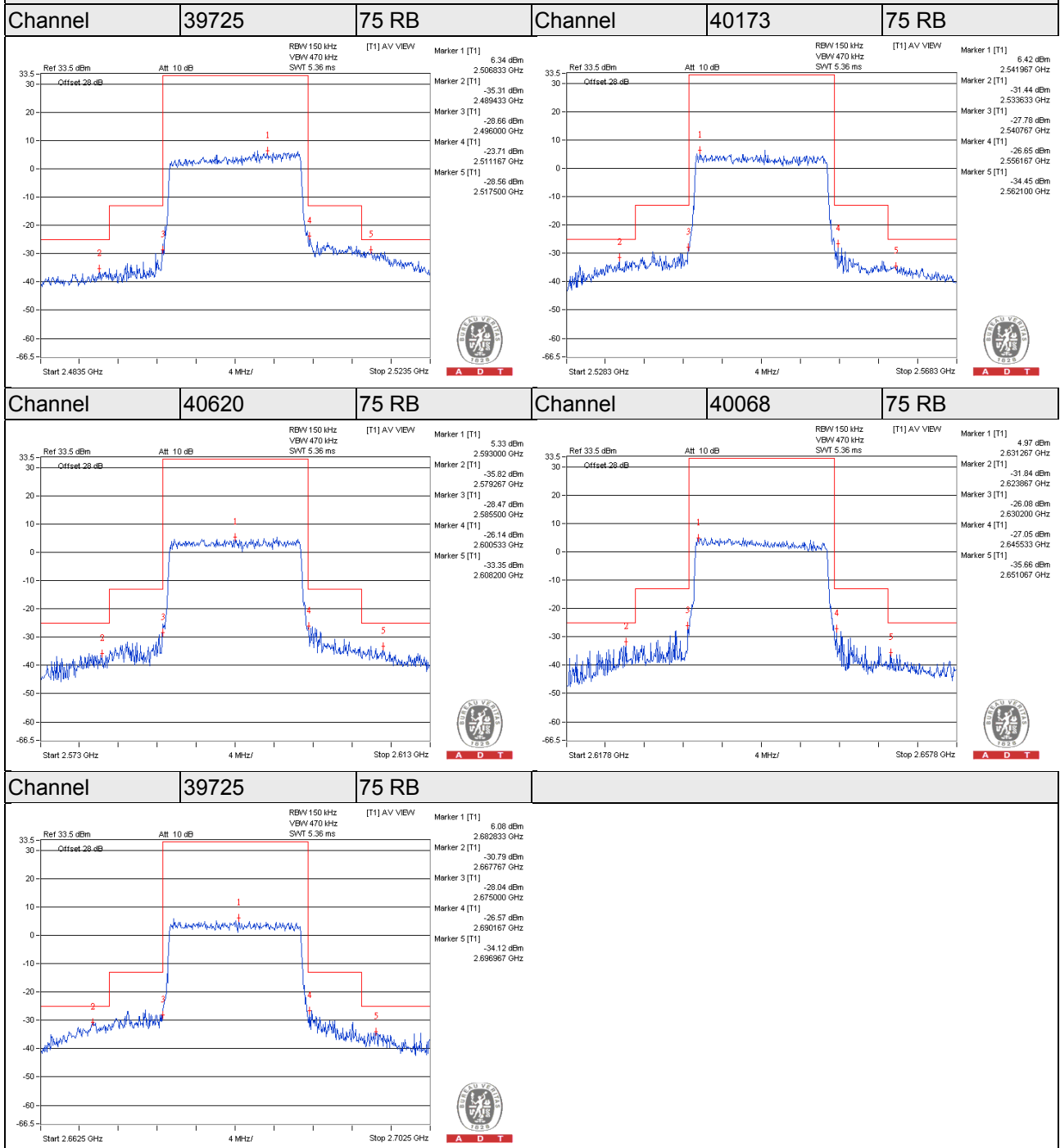


Channel	39725	75 RB			
---------	-------	-------	--	--	--



LTE Band 41 / 16QAM

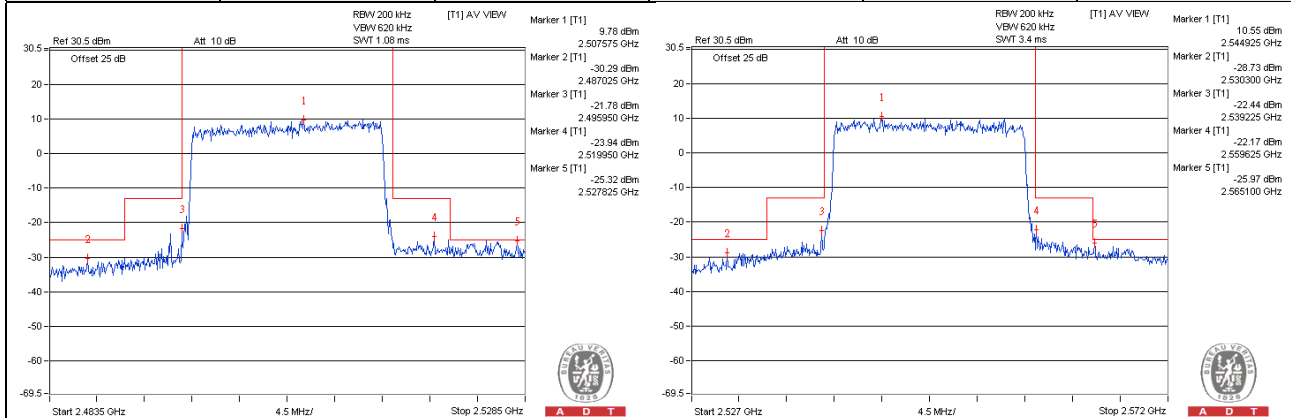
Channel Bandwidth 15MHz



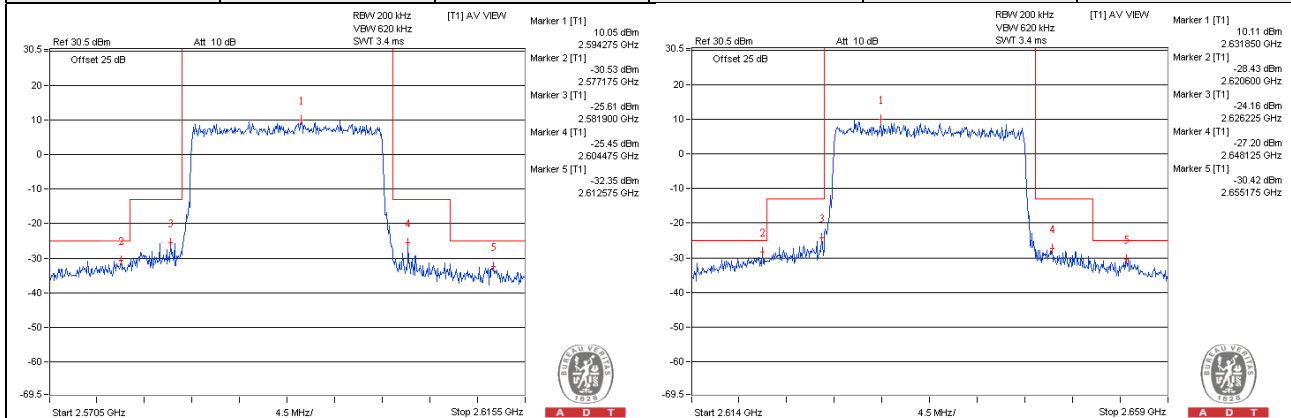
LTE Band 41 / QPSK

Channel Bandwidth 20MHz

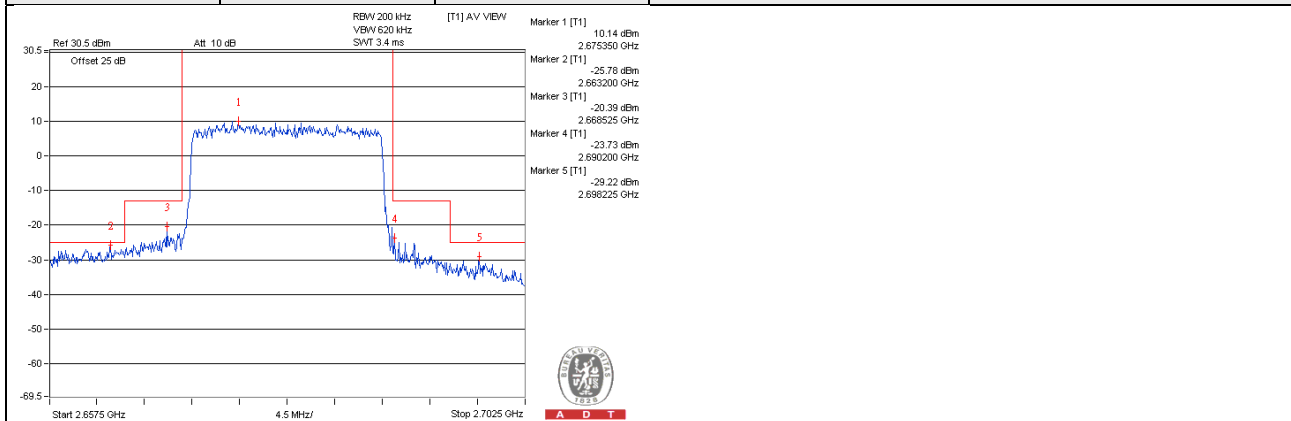
Channel	39750	100 RB	Channel	40185	100 RB
---------	-------	--------	---------	-------	--------



Channel	40620	100 RB	Channel	41055	100 RB
---------	-------	--------	---------	-------	--------



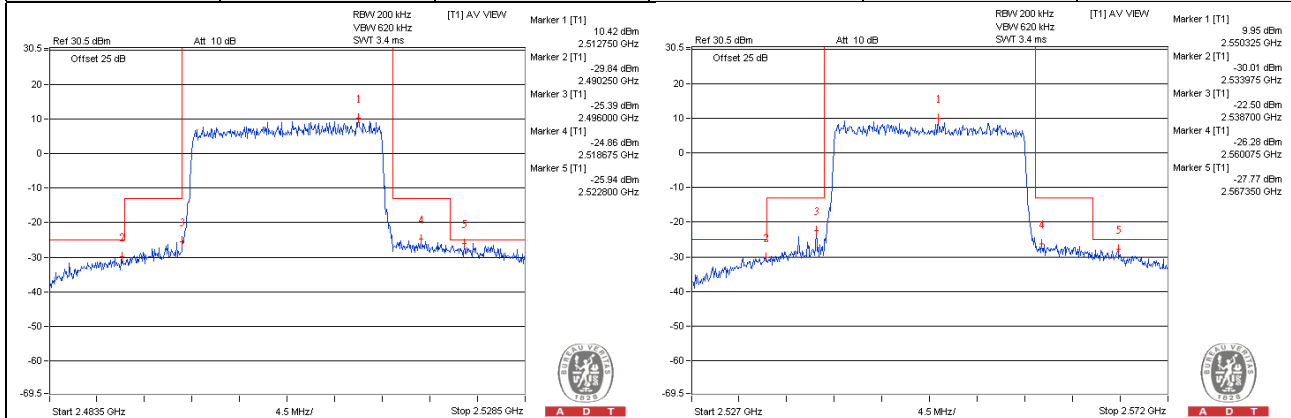
Channel	40620	100 RB			
---------	-------	--------	--	--	--



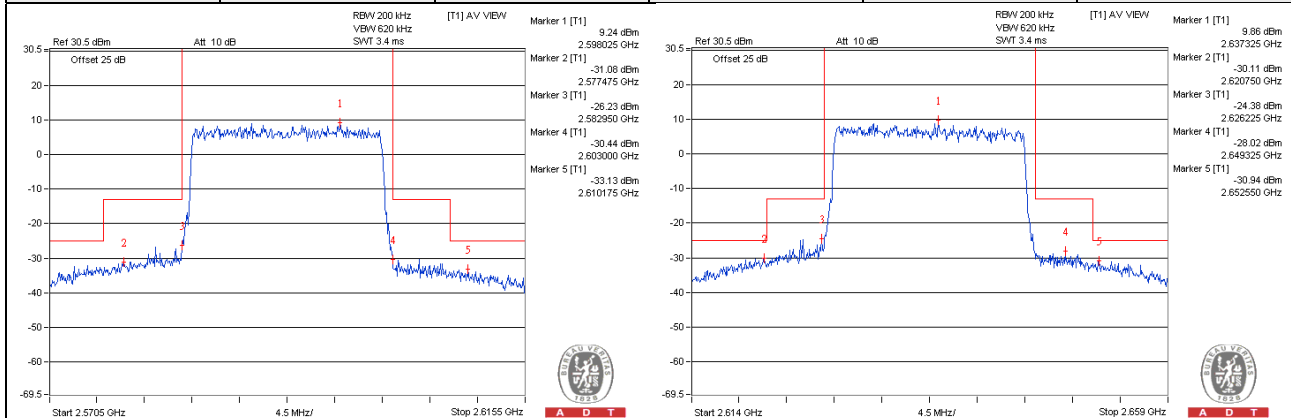
LTE Band 41 / 16QAM

Channel Bandwidth 20MHz

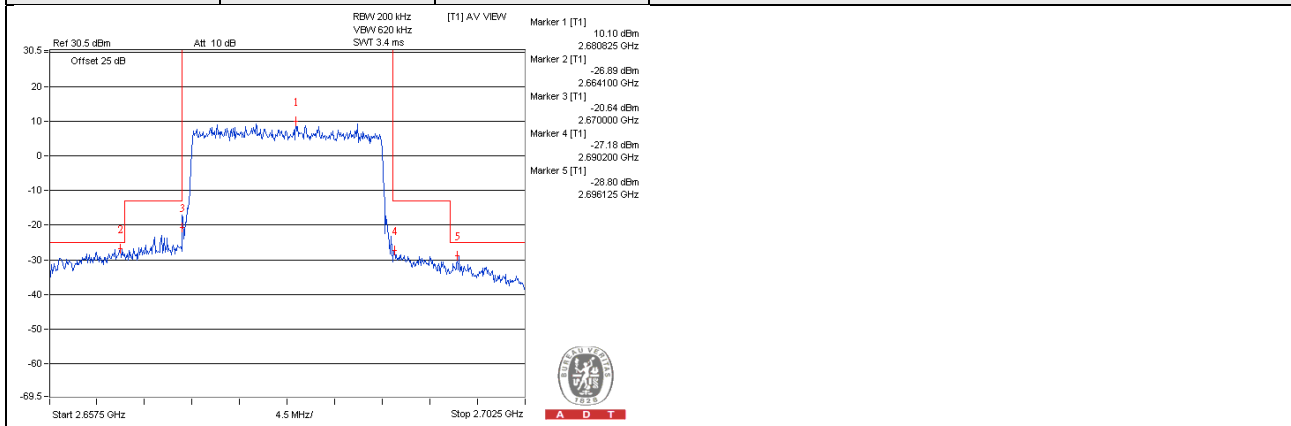
Channel	39750	100 RB	Channel	40185	100 RB
---------	-------	--------	---------	-------	--------



Channel	40620	100 RB	Channel	41055	100 RB
---------	-------	--------	---------	-------	--------



Channel	40620	100 RB			
---------	-------	--------	--	--	--

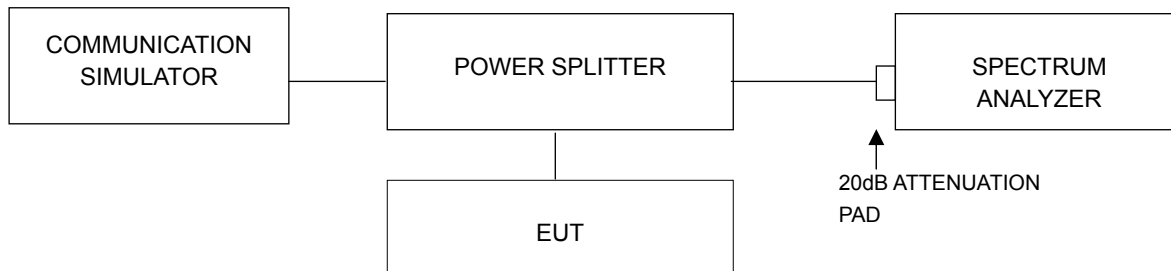


4.5 Peak To Average Ratio

4.5.1 Limits of Peak To Average Ratio Measurement

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

4.5.2 Test Setup



4.5.3 Test Procedures

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

4.5.4 Test Results

LTE Band 4							
Channel Bandwidth 1.4MHz				Channel Bandwidth 3MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
19957	1710.7	4.67	4.71	19965	1711.5	4.81	4.79
20175	1732.5	4.99	5.05	20175	1732.5	5.15	5.15
20393	1754.3	4.79	4.85	20385	1753.5	5.00	5.03
Channel Bandwidth 5MHz				Channel Bandwidth 10MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
19975	1712.5	4.58	5.03	20000	1715	4.72	5.27
20175	1732.5	4.77	5.21	20175	1732.5	5.21	5.24
20375	1752.5	5.09	5.11	20350	1750	5.17	5.19
Channel Bandwidth 15MHz				Channel Bandwidth 20MHz			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
20025	1717.5	5.09	5.09	20050	1720	5.03	5.38
20175	1732.5	5.23	5.36	20175	1732.5	5.32	5.37
20325	1747.5	5.24	5.30	20300	1745	5.25	5.30

Spectrum Plot Of Worst Value

1.4MHz / 16QAM



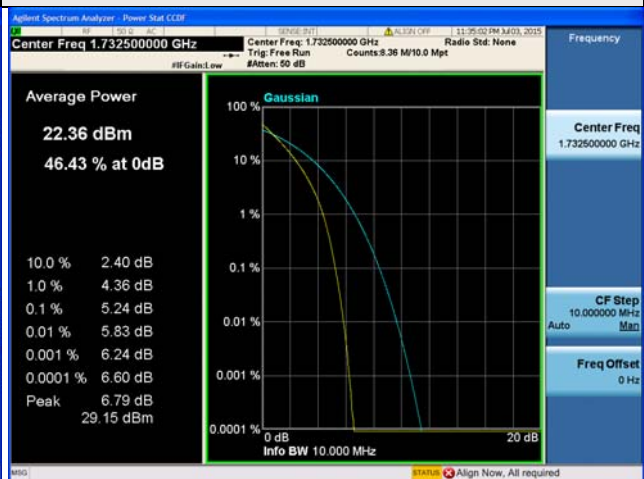
3MHz / QPSK



5MHz / 16QAM



10MHz / 16QAM



15MHz / 16QAM



20MHz / 16QAM



LTE Band 12

Channel Bandwidth 1.4MHz				Channel Bandwidth 3MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
23017	699.7	4.97	4.96	23025	700.5	5.22	5.22
23095	707.5	4.32	4.38	23095	707.5	4.54	4.48
23173	715.3	4.37	4.31	23165	714.5	4.78	4.80
Channel Bandwidth 5MHz				Channel Bandwidth 10MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
23035	701.5	5.19	5.19	23060	704	5.01	4.89
23095	707.5	4.86	4.87	23095	707.5	5.22	5.18
23155	713.5	5.16	5.12	23130	711	5.28	5.23

Spectrum Plot Of Worst Value

1.4MHz / QPSK



3MHz / QPSK



5MHz / QPSK



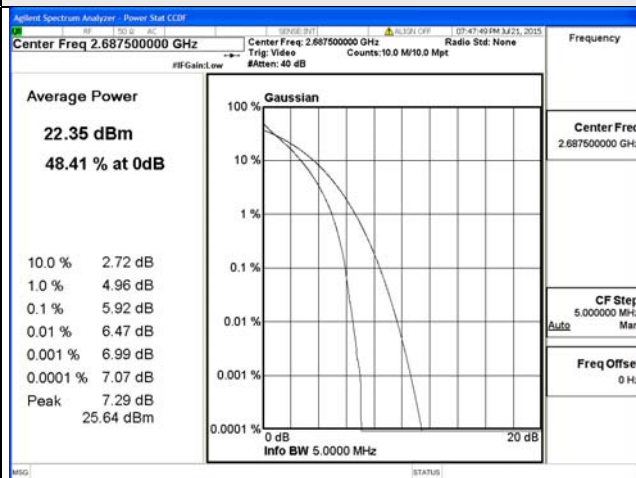
10MHz / QPSK



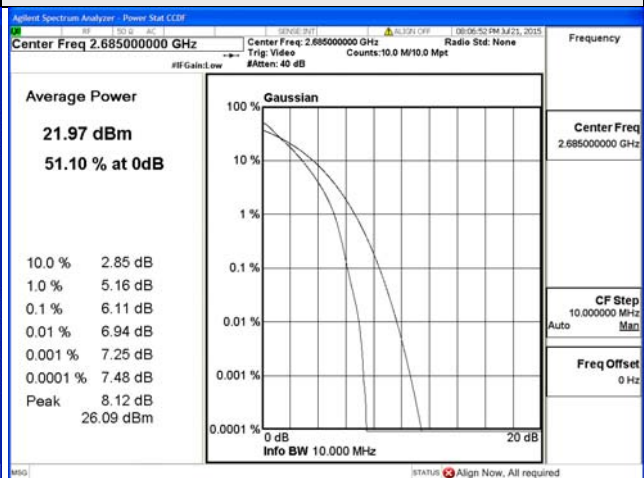
LTE Band 41							
Channel Bandwidth 5MHz				Channel Bandwidth 10MHz			
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
39675	2498.5	5.67	5.73	39700	2501	5.94	5.72
40148	2545.8	5.76	5.76	40160	2547	5.92	5.98
40620	2593	5.76	5.73	40620	2593	5.90	5.80
41093	2640.3	5.80	5.83	41080	2639	5.92	5.96
41565	2687.5	5.92	5.92	41540	2685	6.06	6.11
Channel Bandwidth 15MHz				Channel Bandwidth 20MHz			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
39725	2503.5	5.72	5.65	39750	2506	5.68	5.68
40173	2548.3	5.92	5.95	40185	2549.5	5.69	5.73
40620	2593	5.83	5.74	40620	2593	5.76	5.75
41068	2637.8	5.87	5.85	41055	2636.5	5.73	5.74
41515	2682.5	6.00	6.04	41490	2680	5.76	5.86

Spectrum Plot Of Worst Value

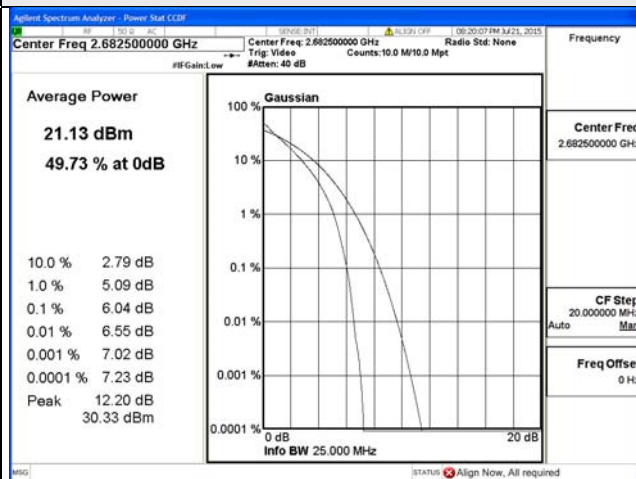
5MHz / QPSK



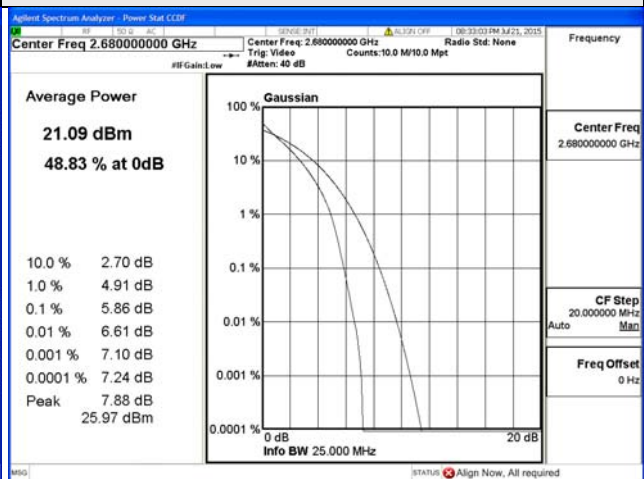
10MHz / 16QAM



15MHz / 16QAM



20MHz / 16QAM



4.6 Conducted Spurious Emissions

4.6.1 Limits of Conducted Spurious Emissions Measurement

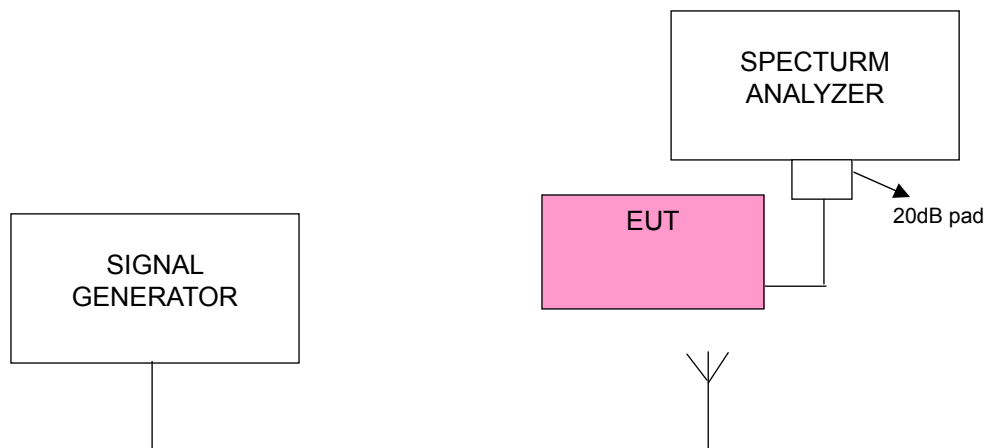
For LTE Band 4 and 12

On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The emission limit equal to -13dBm .

For LTE Band 41

On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least $55 + 10 \log (P)$ dB. The emission limit equal to -25dBm .

4.6.2 Test Setup



4.6.3 Test Procedure

- For LTE band 4 & 12 measurements were done at 3 channels for LTE Band 41 measurements were done at 5 channels: low, middle and high operational frequency range.
- When the spectrum scanned from 9kHz to 20GHz, it shall be connected to the 20dB pad attenuated the carried frequency. The spectrum set RB = 1MHz, VB = 3MHz for LTE Band 4 and 41.
- When the spectrum scanned from 9kHz to 9GHz, it shall be connected to the 20dB pad attenuated the carried frequency. The spectrum set RB = 1MHz, VB = 3MHz for LTE Band 12.

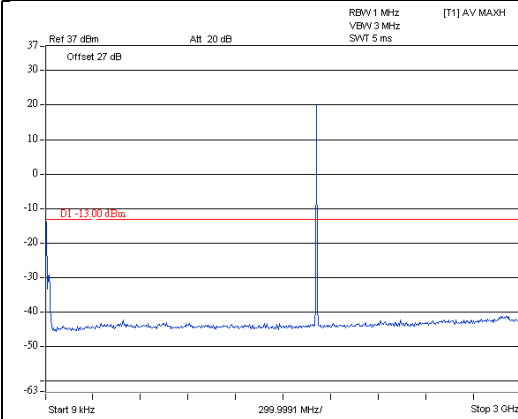
4.6.4 Test Results

LTE Band 4 Channel Band width: 1.4MHz

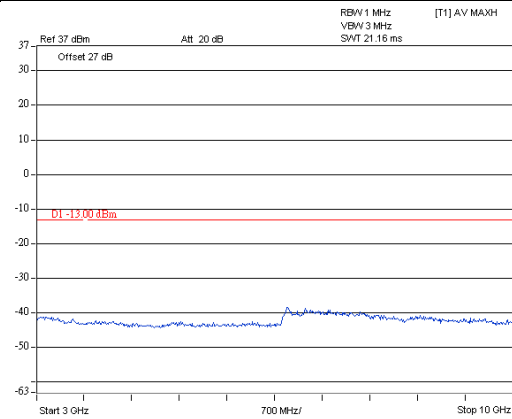
Channel 19957

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

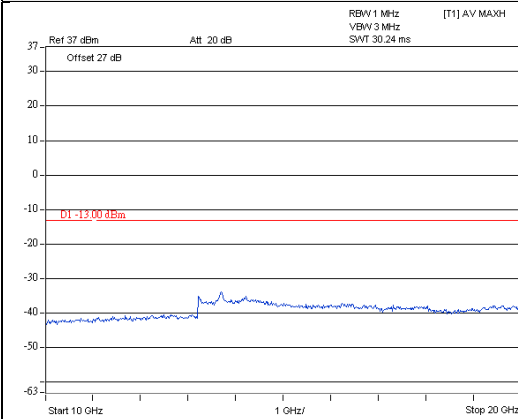


A D T



A D T

Frequency Range : 10GHz~20GHz



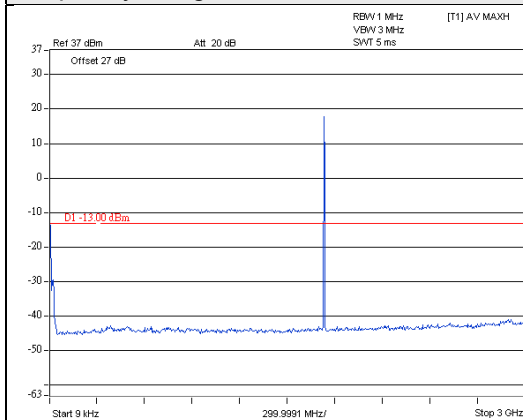
A D T

LTE Band 4 Channel Band width: 1.4MHz

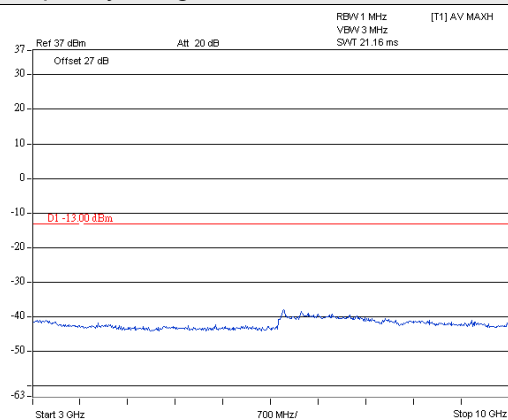
Channel 20175

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

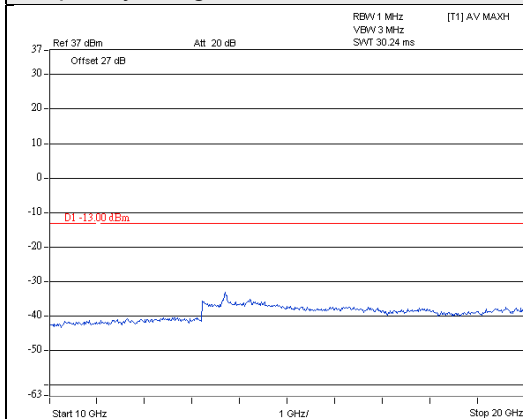


A D T



A D T

Frequency Range : 10GHz~20GHz



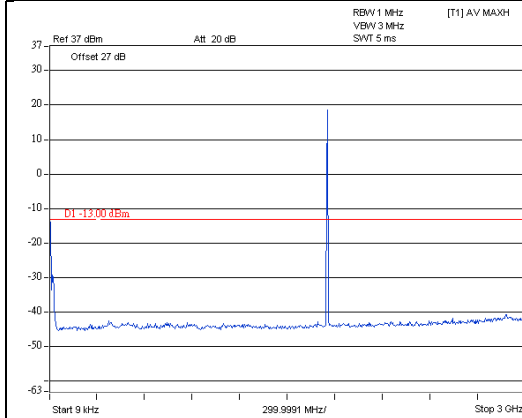
A D T

LTE Band 4 Channel Band width: 1.4MHz

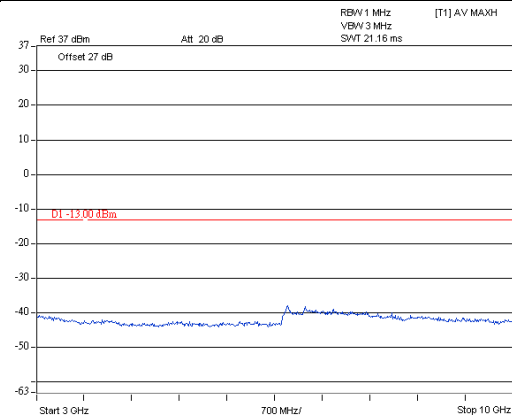
Channel 20393

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

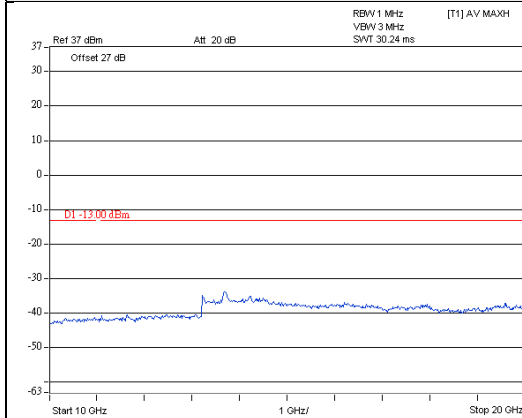


A D T



A D T

Frequency Range : 10GHz~20GHz



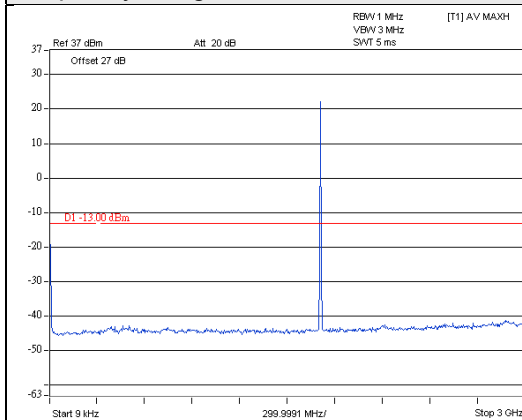
A D T

LTE Band 4 Channel Band width: 3MHz

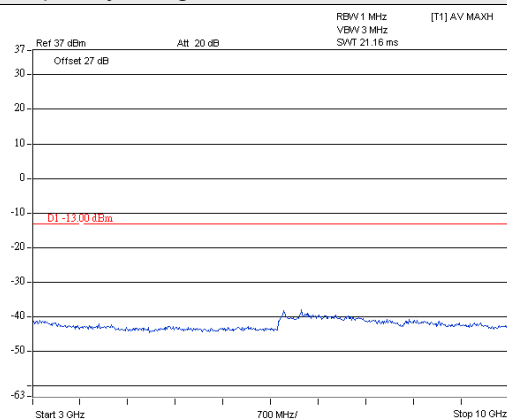
Channel 19965

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

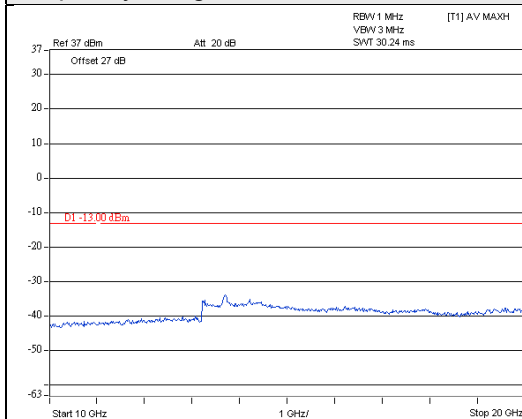


A D T



A D T

Frequency Range : 10GHz~20GHz



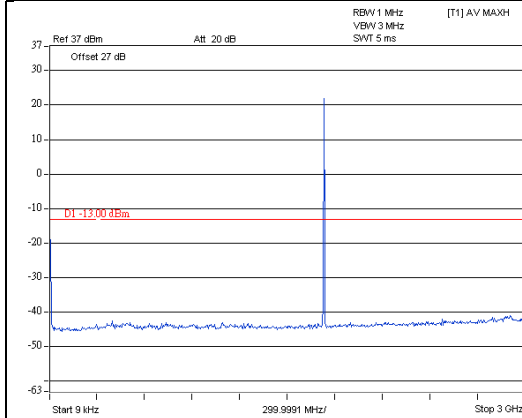
A D T

LTE Band 4 Channel Band width: 3MHz

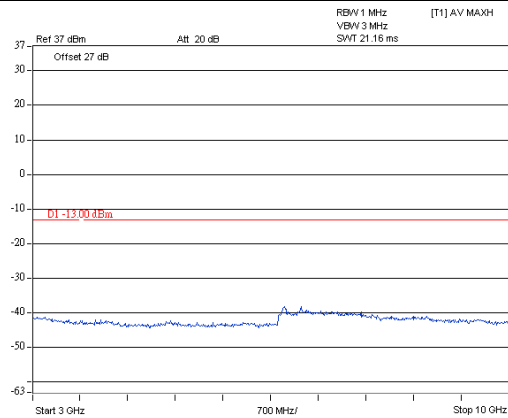
Channel 20175

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

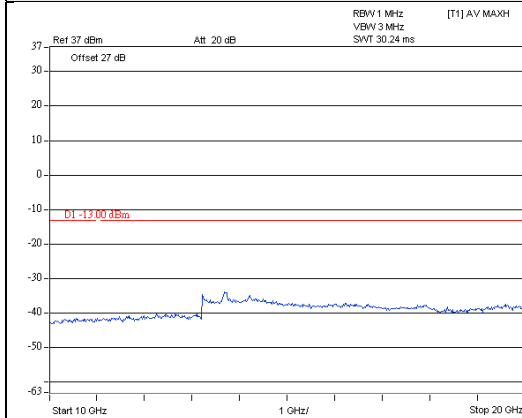


A D T



A D T

Frequency Range : 10GHz~20GHz



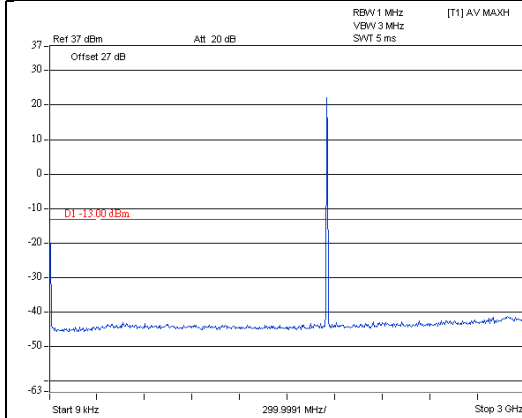
A D T

LTE Band 4 Channel Band width: 3MHz

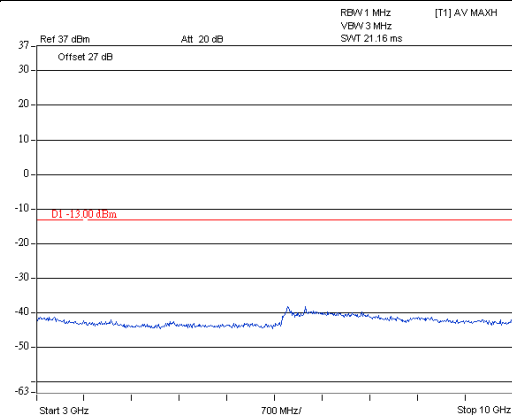
Channel 20385

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

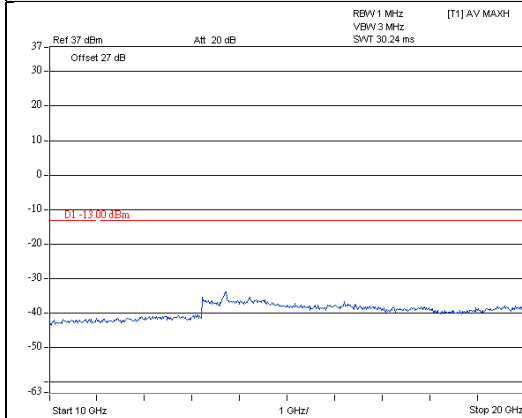


A D T



A D T

Frequency Range : 10GHz~20GHz



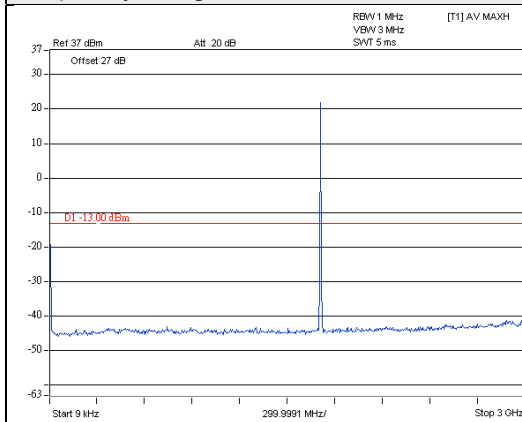
A D T

LTE Band 4 Channel Band width: 5MHz

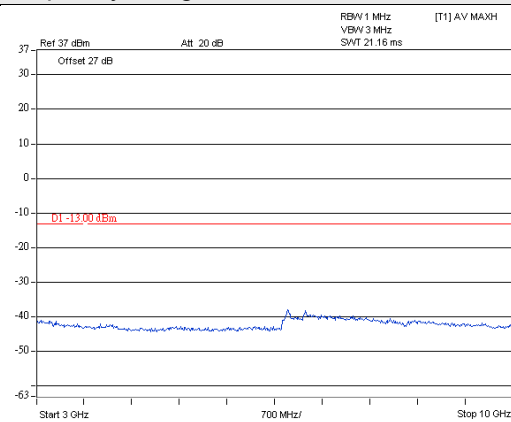
Channel 19975,

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

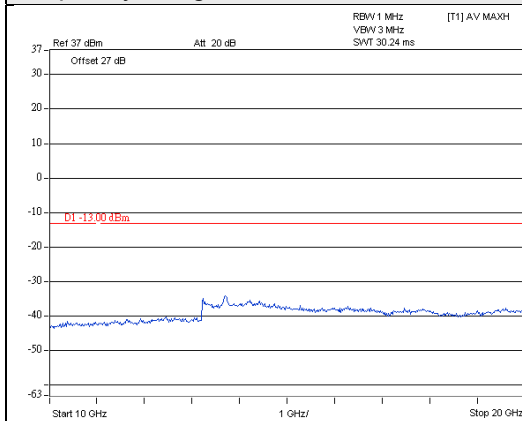


A D T



A D T

Frequency Range : 10GHz~20GHz



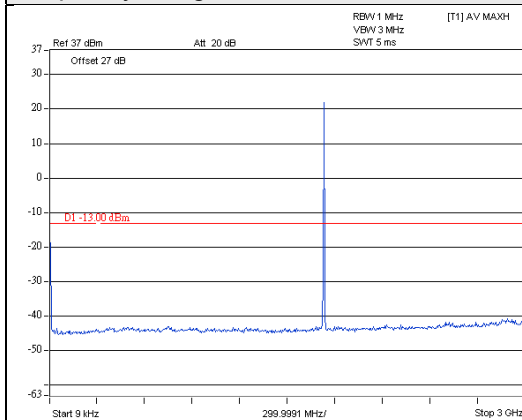
A D T

LTE Band 4 Channel Band width: 5MHz

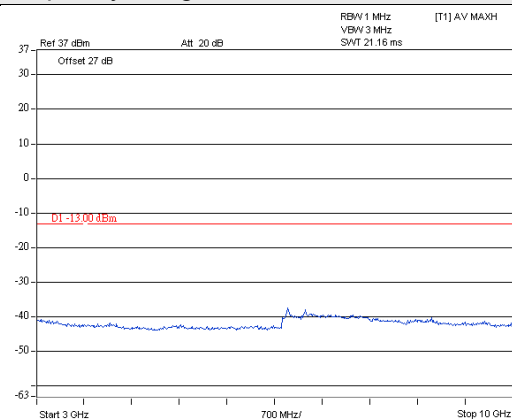
Channel 20175

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

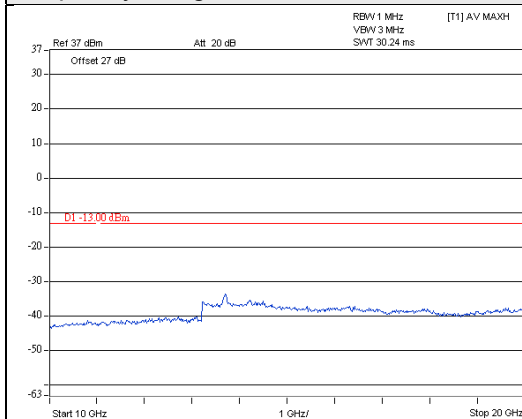


A D T



A D T

Frequency Range : 10GHz~20GHz



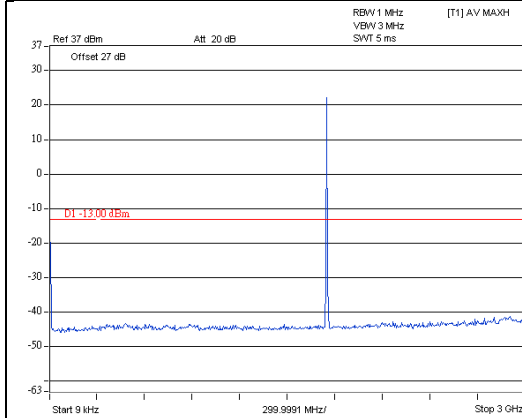
A D T

LTE Band 4 Channel Band width: 5MHz

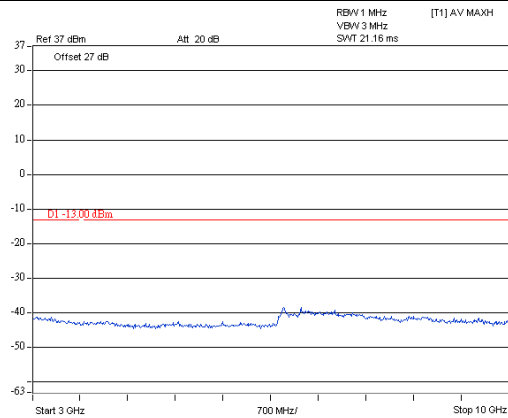
Channel 20375

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

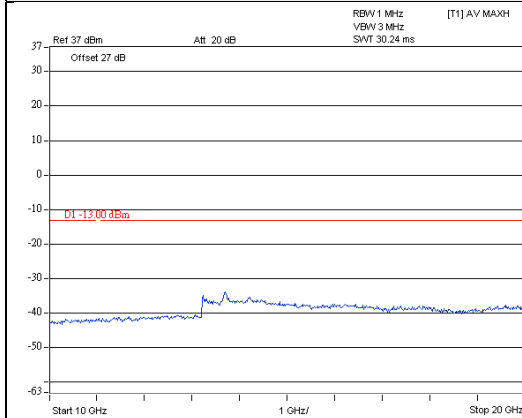


A D T



A D T

Frequency Range : 10GHz~20GHz



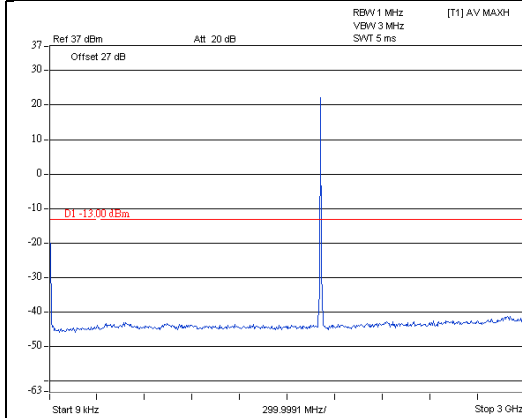
A D T

LTE Band 4 Channel Band width: 10MHz

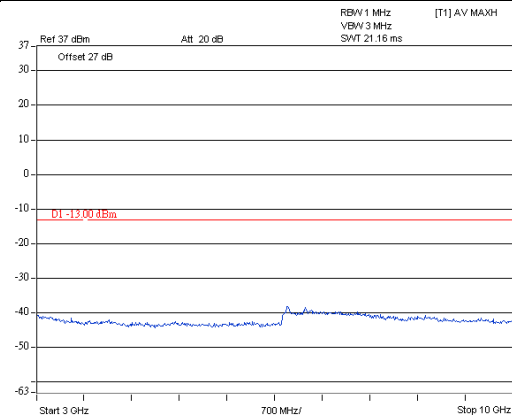
Channel 20000

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

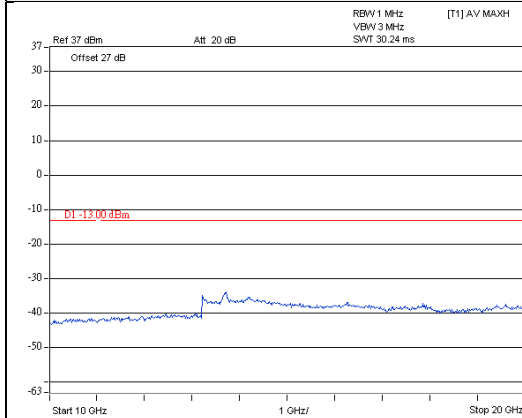


A D T



A D T

Frequency Range : 10GHz~20GHz



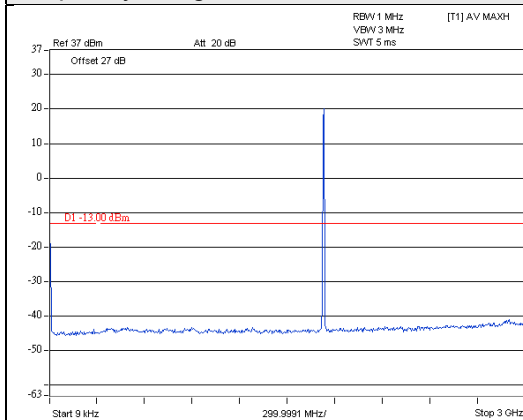
A D T

LTE Band 4 Channel Band width: 10MHz

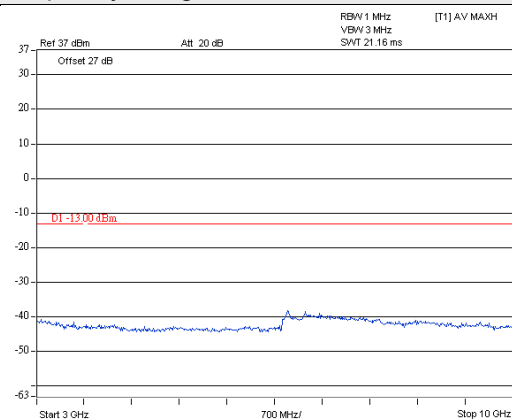
Channel 20175

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

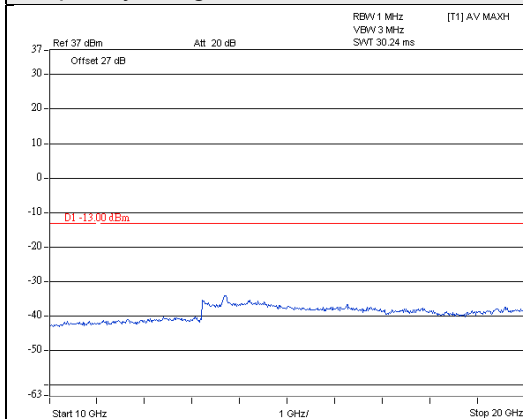


A D T



A D T

Frequency Range : 10GHz~20GHz



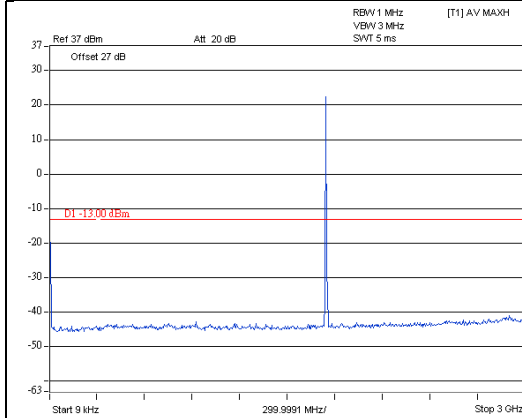
A D T

LTE Band 4 Channel Band width: 10MHz

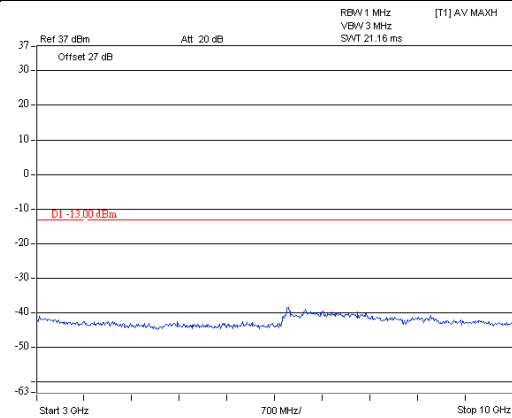
Channel 20350

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

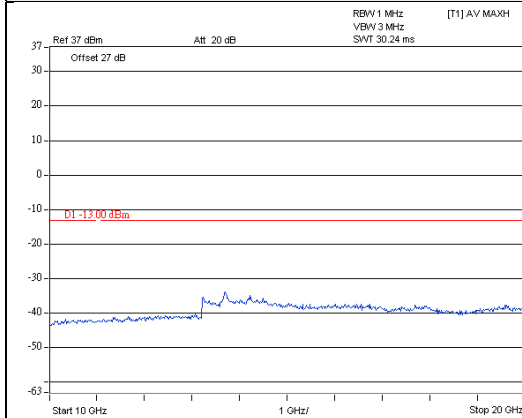


A D T



A D T

Frequency Range : 10GHz~20GHz



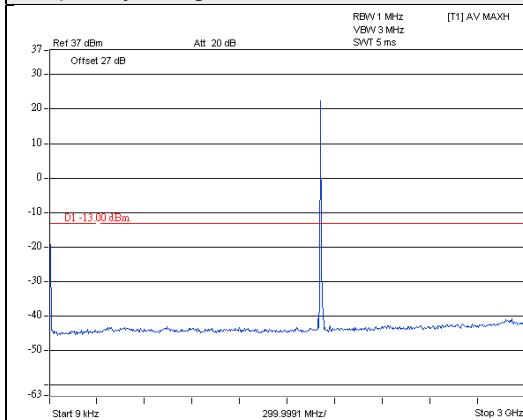
A D T

LTE Band 4 Channel Band width: 15MHz

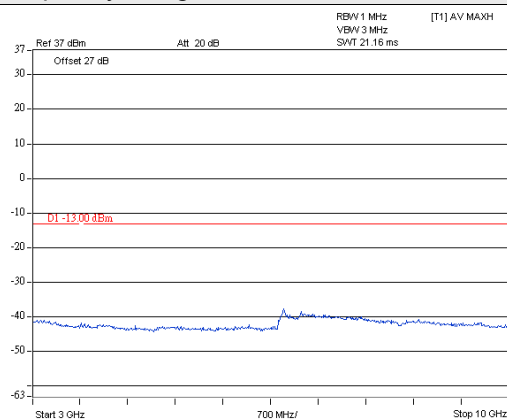
Channel 20025,

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

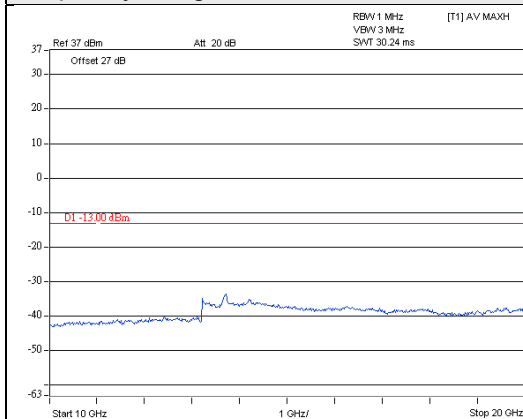


A D T



A D T

Frequency Range : 10GHz~20GHz



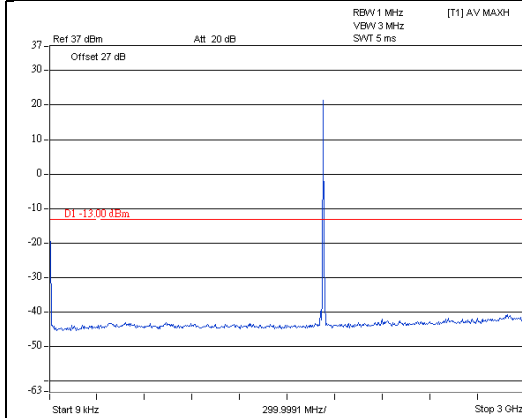
A D T

LTE Band 4 Channel Band width: 15MHz

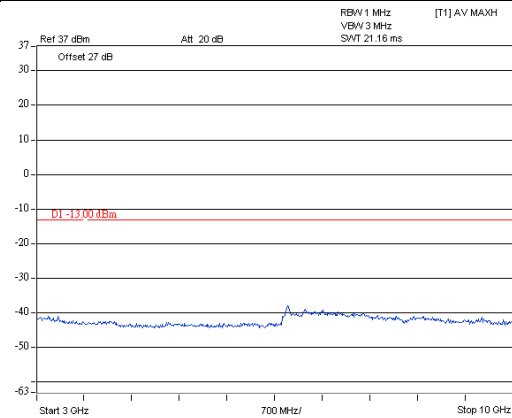
Channel 20175

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

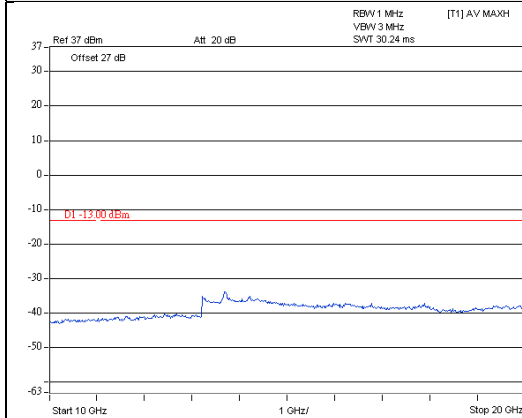


A D T



A D T

Frequency Range : 10GHz~20GHz



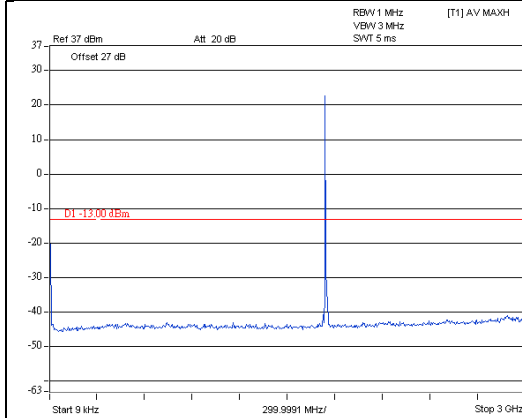
A D T

LTE Band 4 Channel Band width: 15MHz

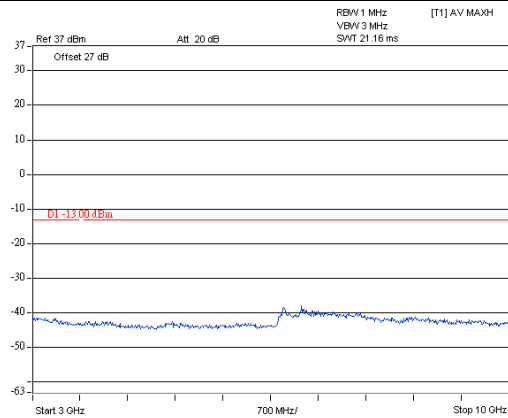
Channel 20325

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

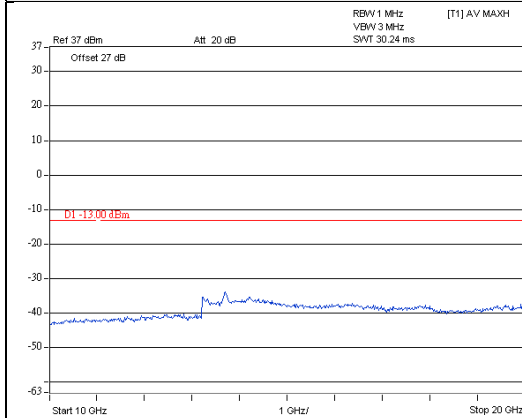


A D T



A D T

Frequency Range : 10GHz~20GHz



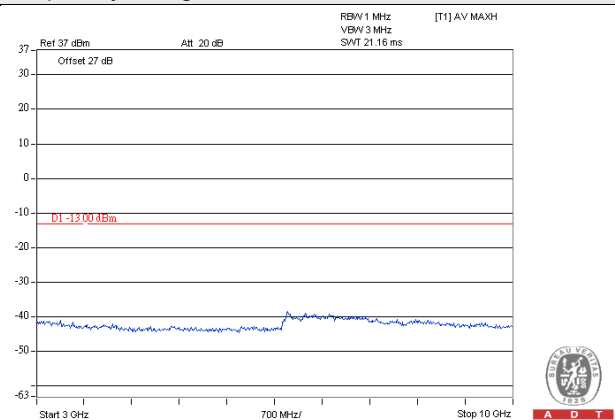
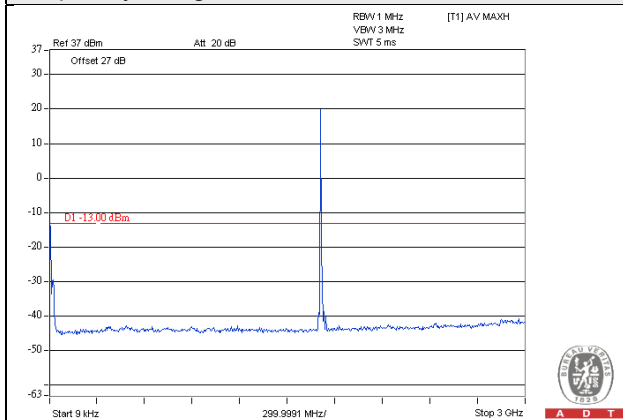
A D T

LTE Band 4 Channel Band width: 20MHz

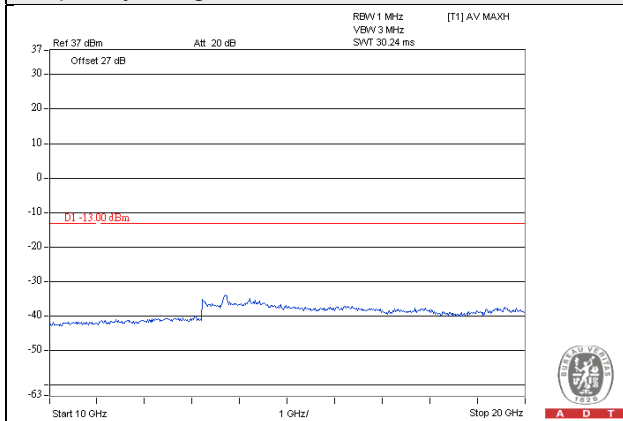
Channel 20050

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz



Frequency Range : 10GHz~20GHz

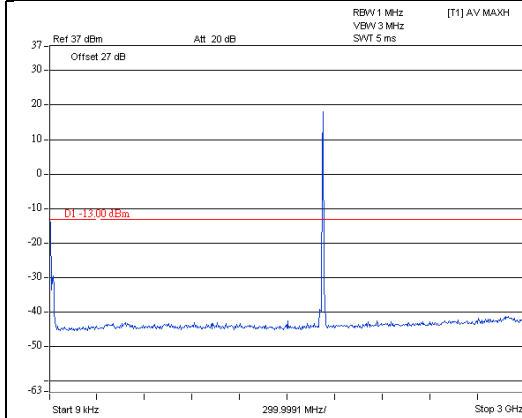


LTE Band 4 Channel Band width: 20MHz

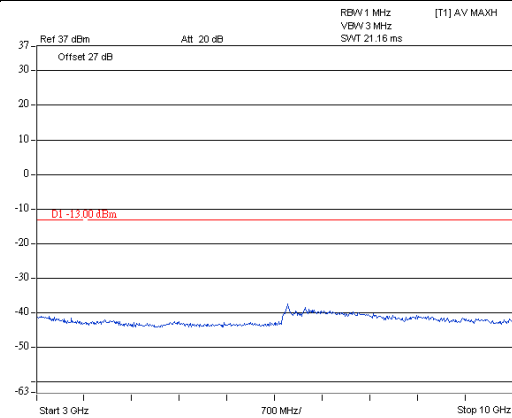
Channel 20175

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

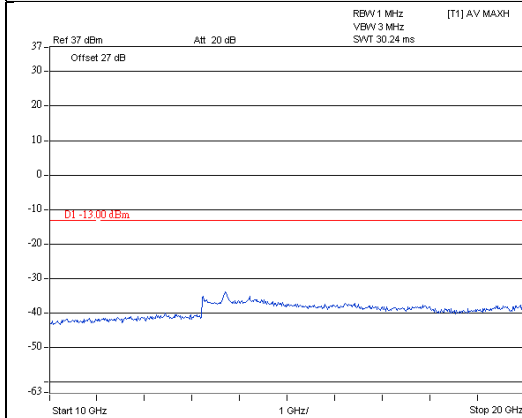


A D T



A D T

Frequency Range : 10GHz~20GHz



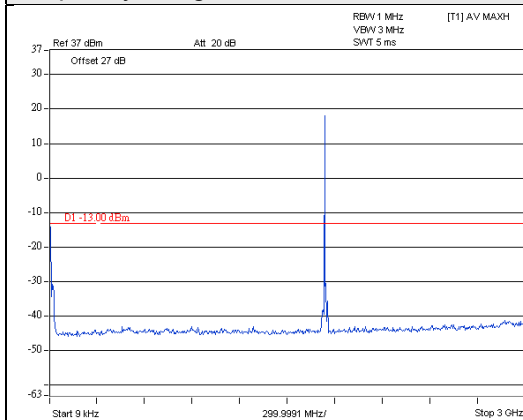
A D T

LTE Band 4 Channel Band width: 20MHz

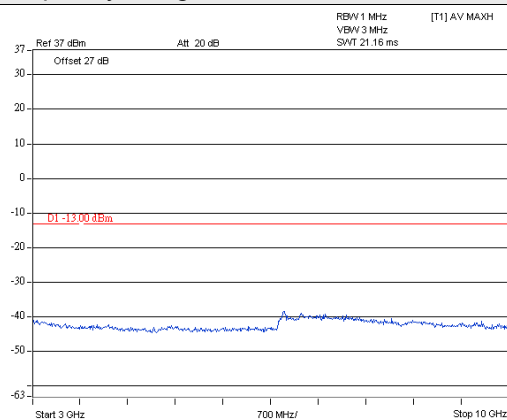
Channel 20300

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

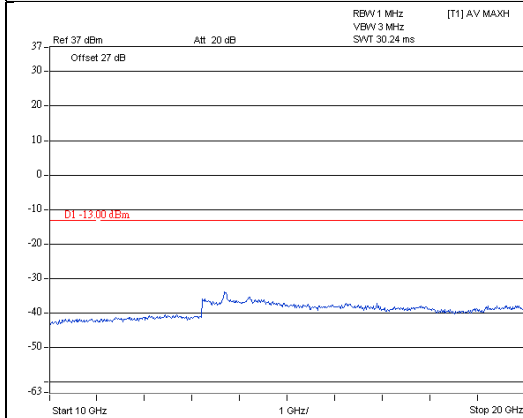


A D T



A D T

Frequency Range : 10GHz~20GHz



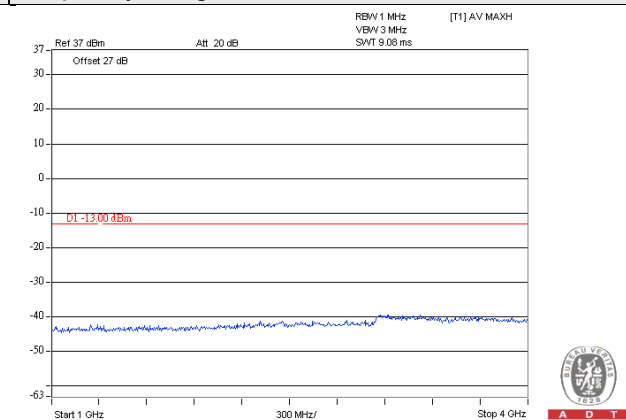
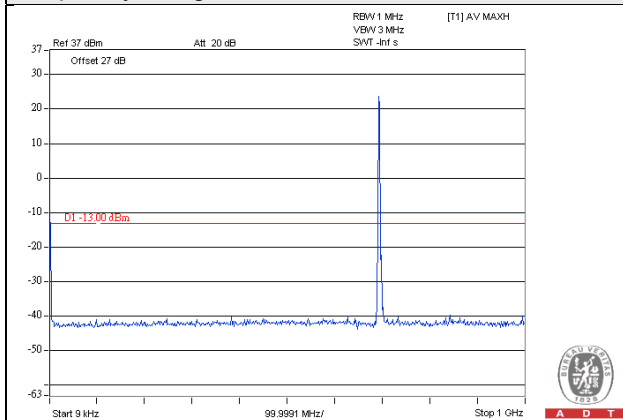
A D T

LTE Band 12 Channel Band width: 1.4MHz

Channel 23017

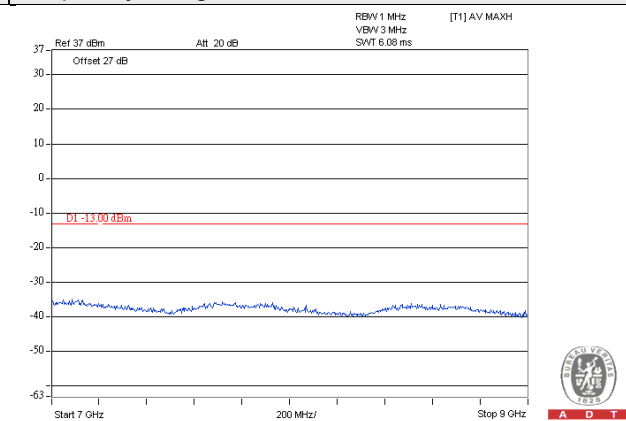
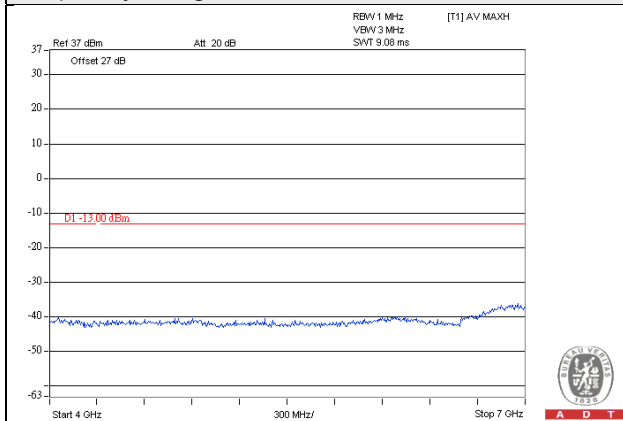
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

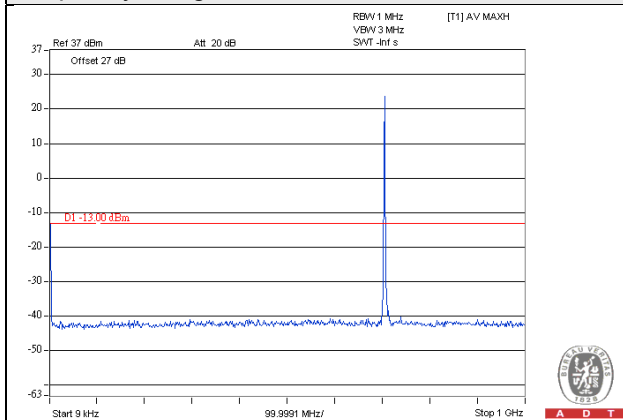


LTE Band 12 Channel Band width: 1.4MHz

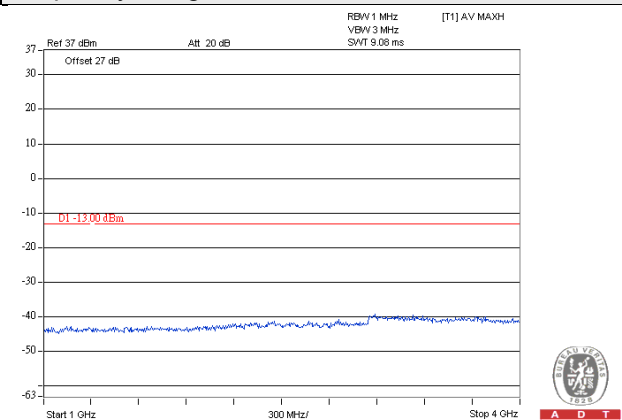
Channel 23095

Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



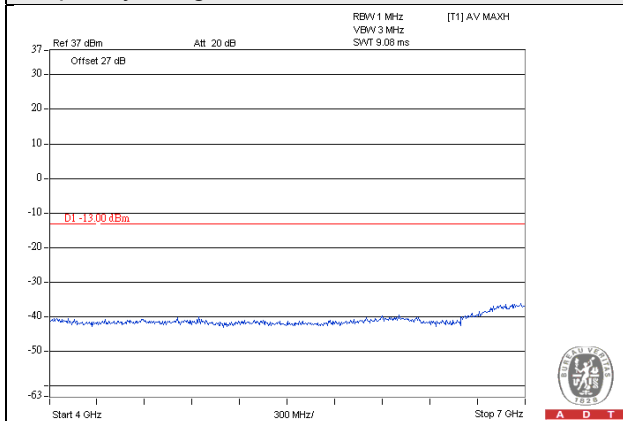
A D T



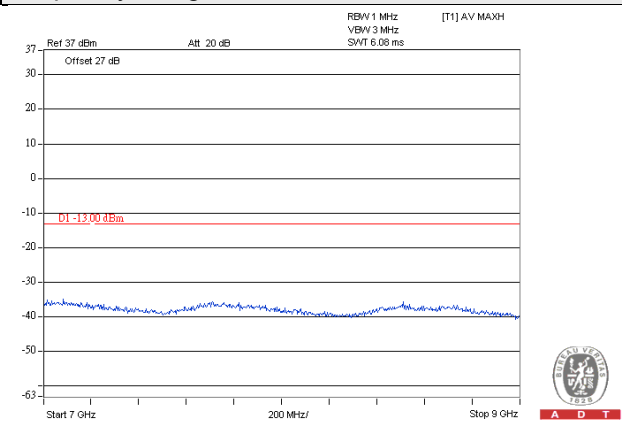
A D T

Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz



A D T



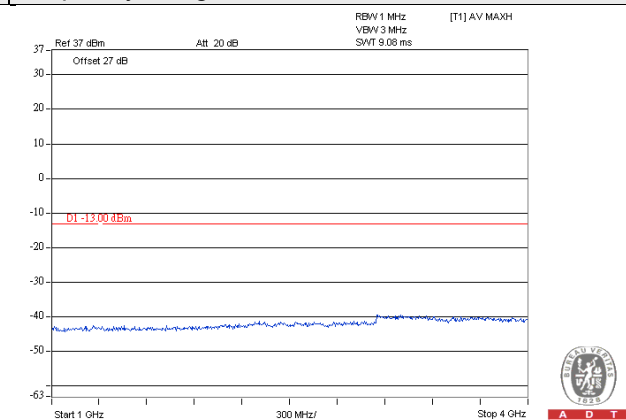
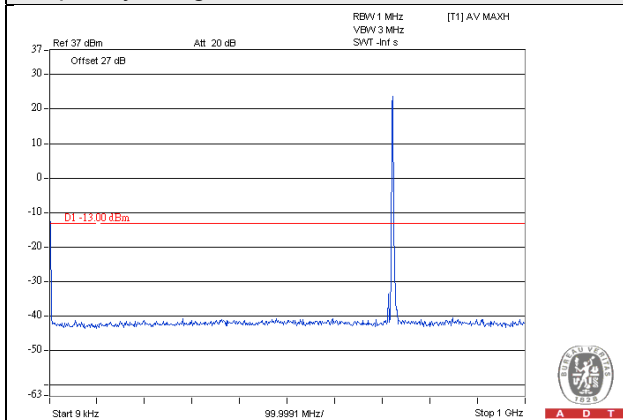
A D T

LTE Band 12 Channel Band width: 1.4MHz

Channel 23173

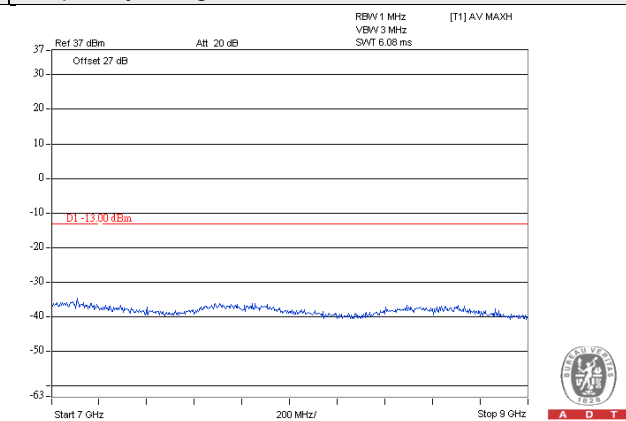
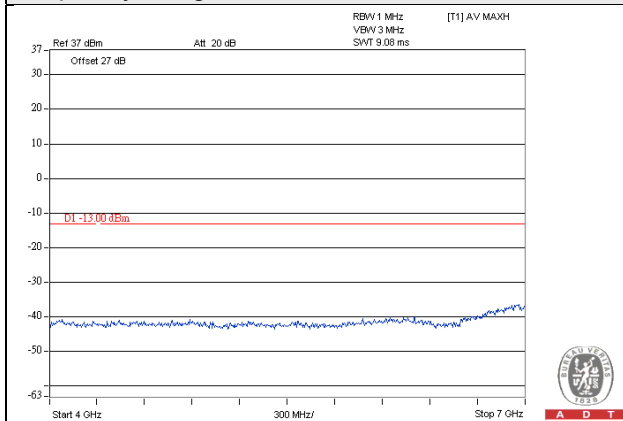
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

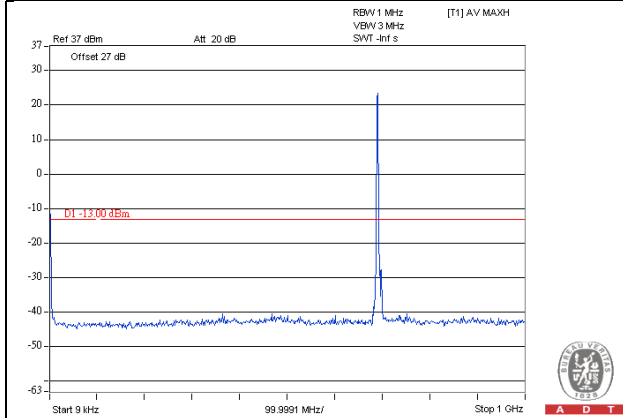


LTE Band 12 Channel Band width: 3MHz

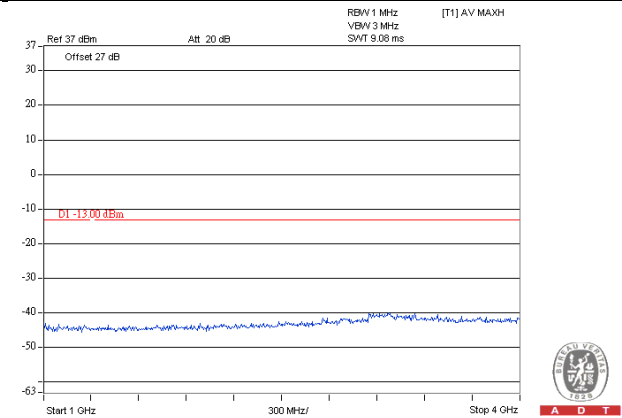
Channel 23025

Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



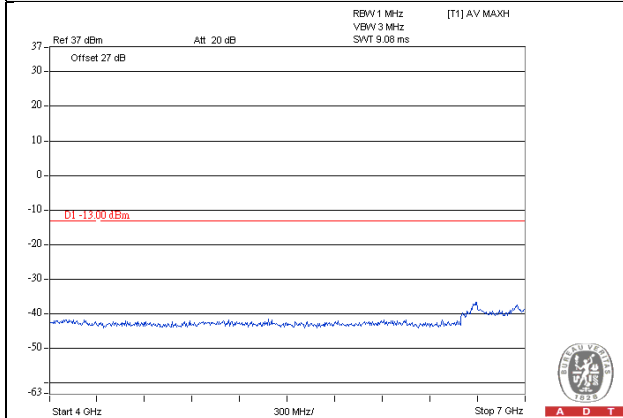
A D T



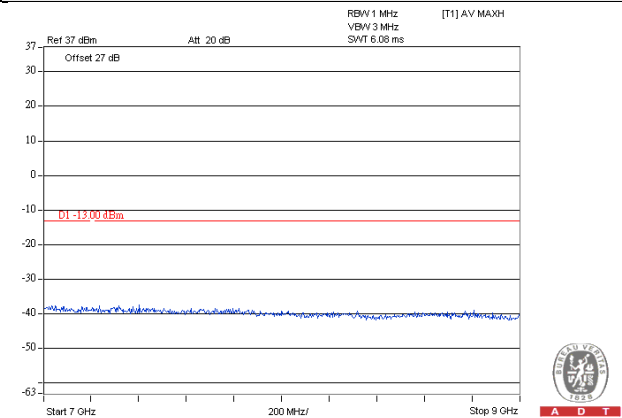
A D T

Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz



A D T



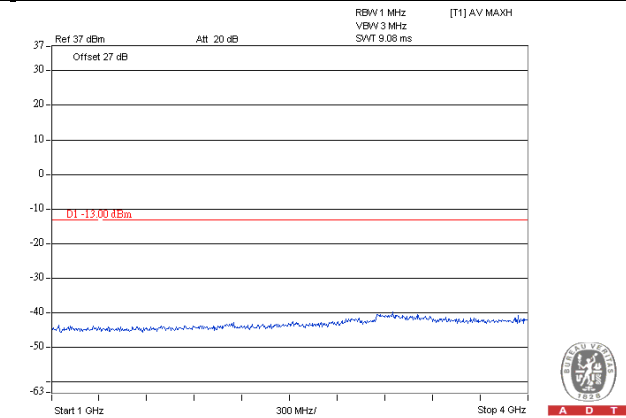
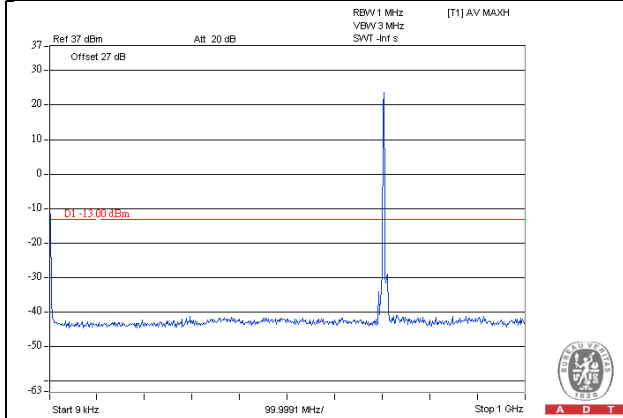
A D T

LTE Band 12 Channel Band width: 3MHz

Channel 23095

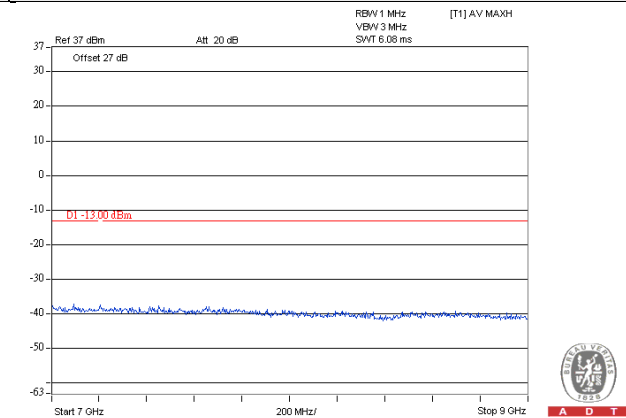
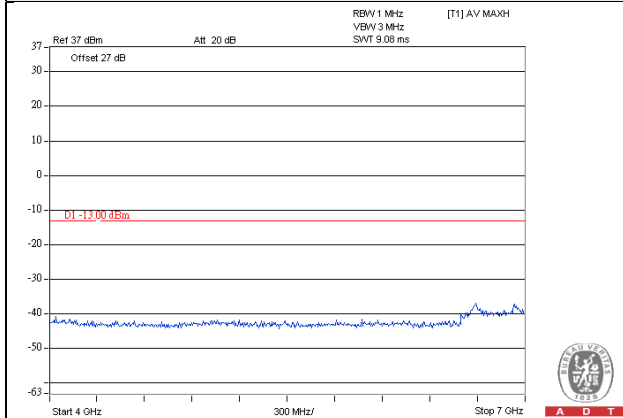
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

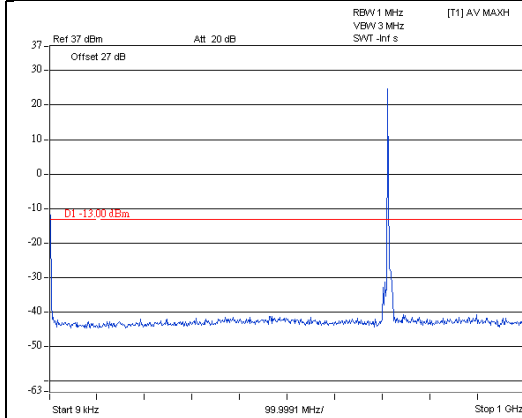


LTE Band 12 Channel Band width: 3MHz

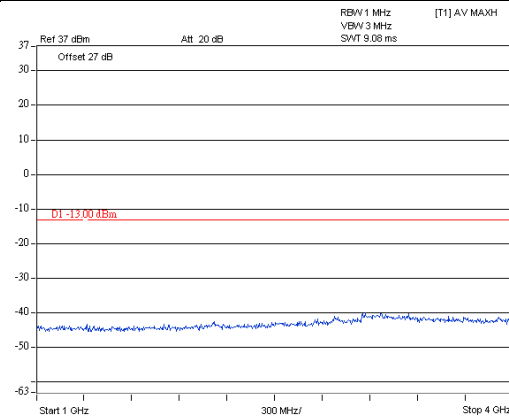
Channel 23165

Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



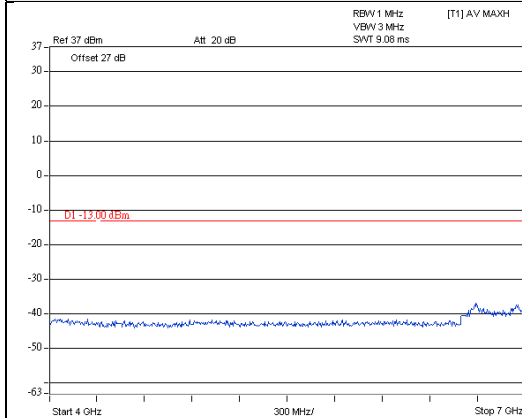
A D T



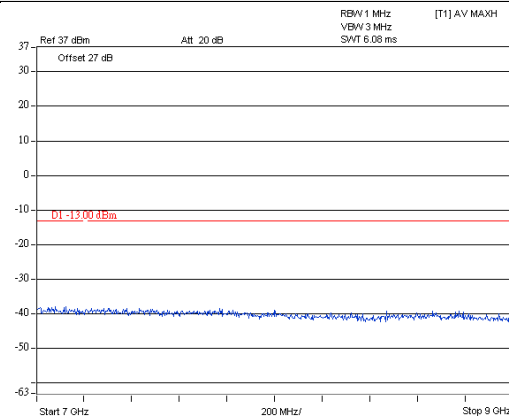
A D T

Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz



A D T



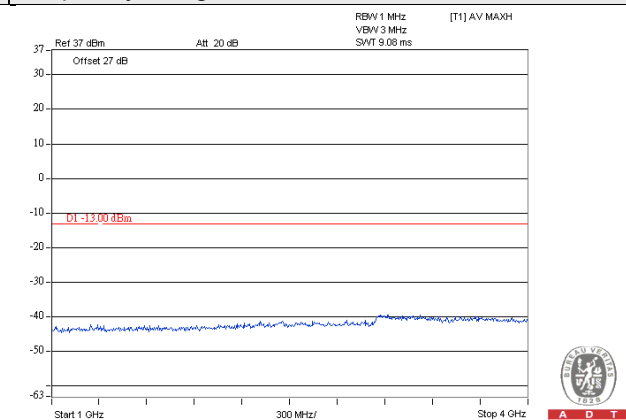
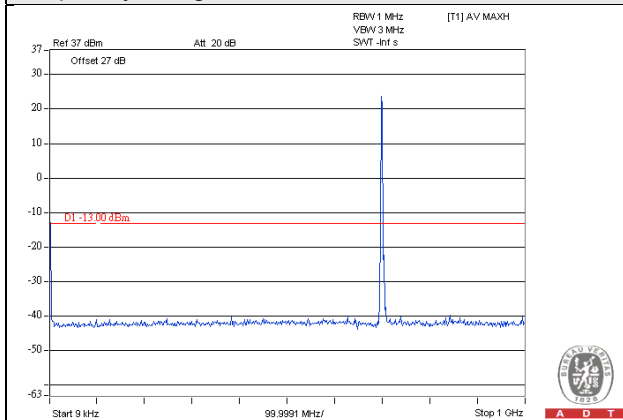
A D T

LTE Band 12 Channel Band width: 5MHz

Channel 23035

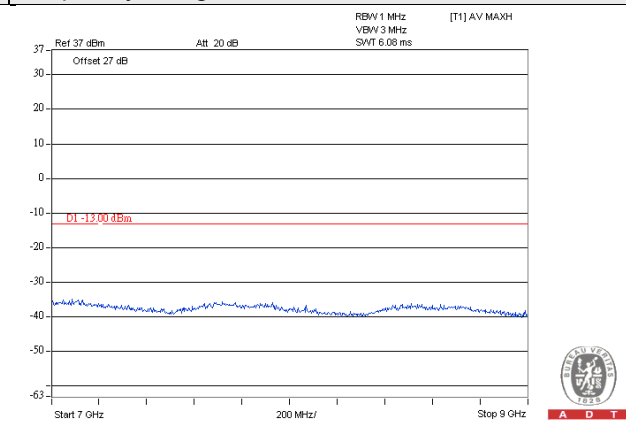
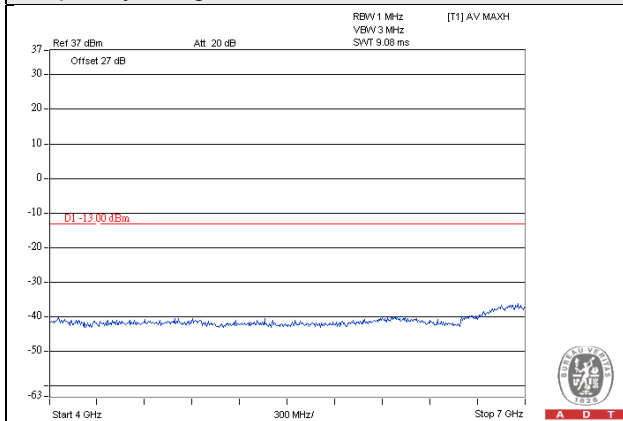
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

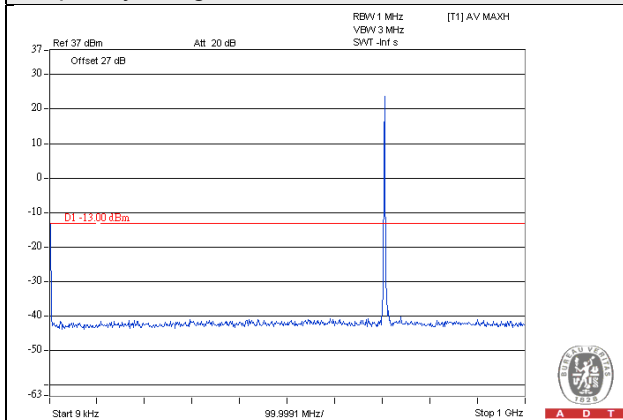


LTE Band 12 Channel Band width: 5MHz

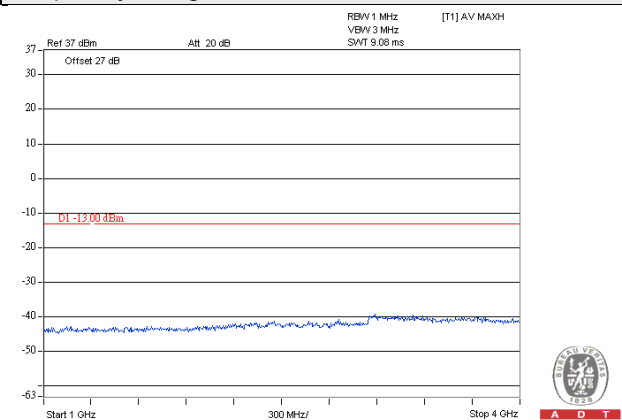
Channel 23095

Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



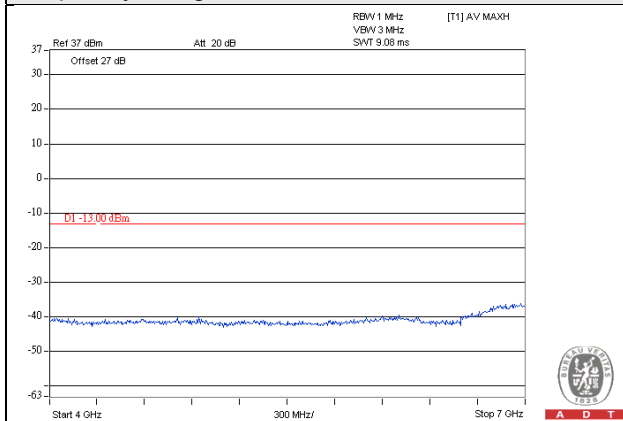
A D T



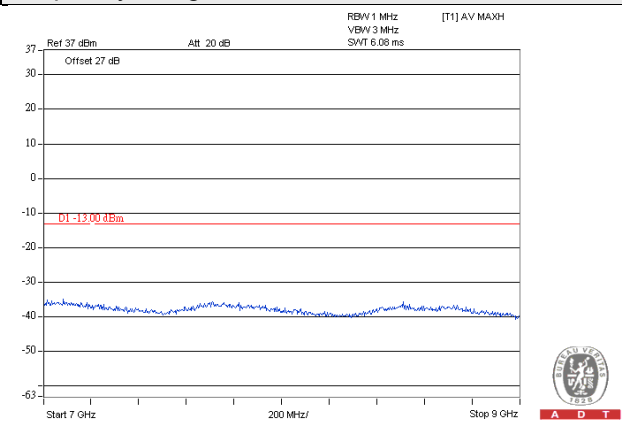
A D T

Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz



A D T



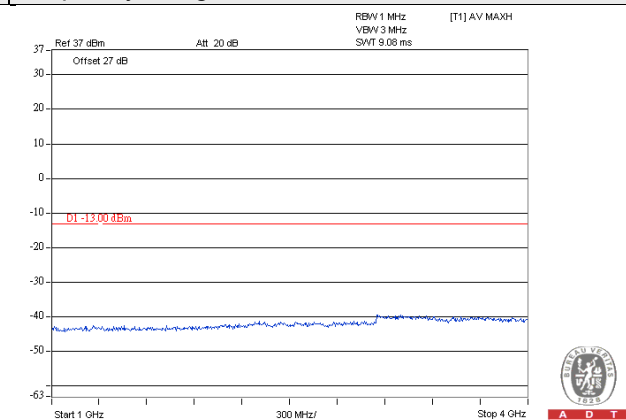
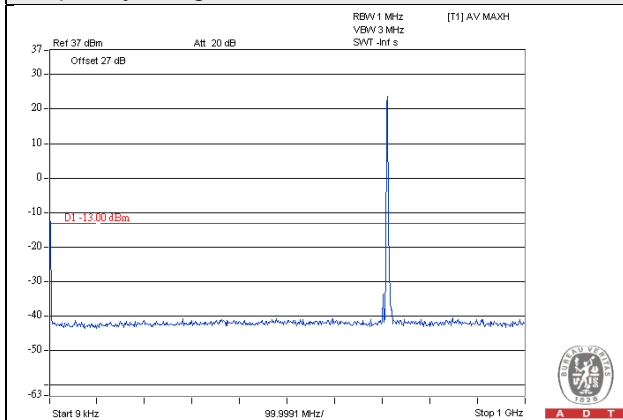
A D T

LTE Band 12 Channel Band width: 5MHz

Channel 23155

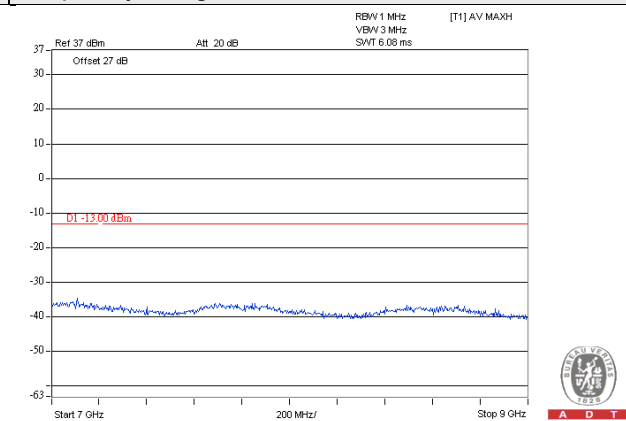
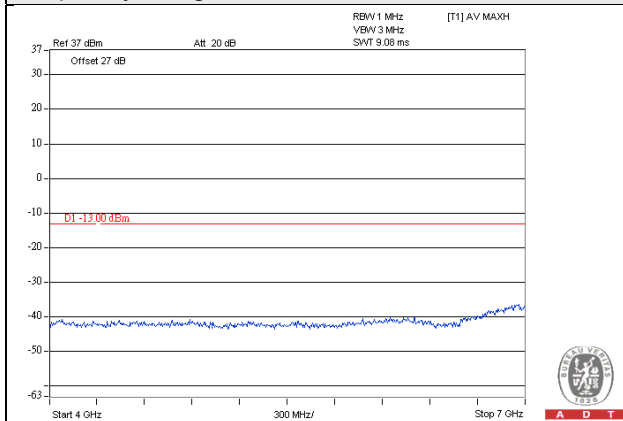
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

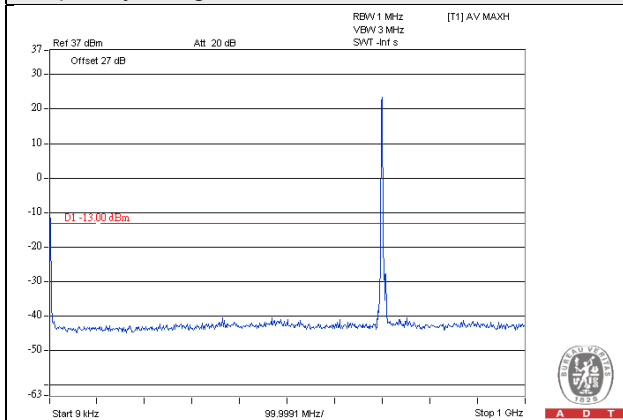


LTE Band 12 Channel Band width: 10MHz

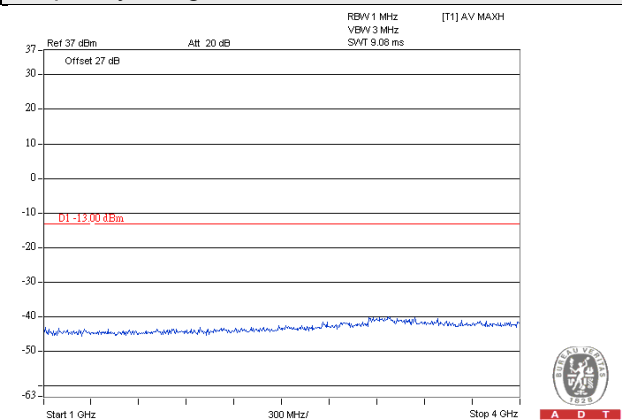
Channel 23060

Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



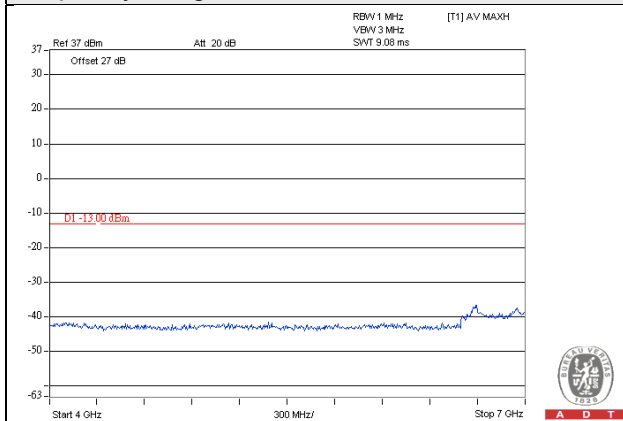
A D T



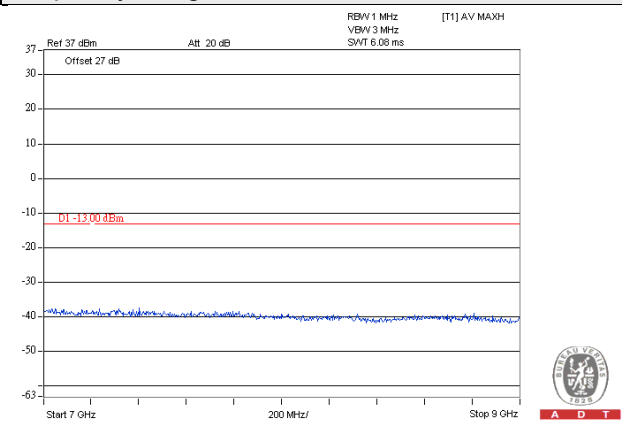
A D T

Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz



A D T



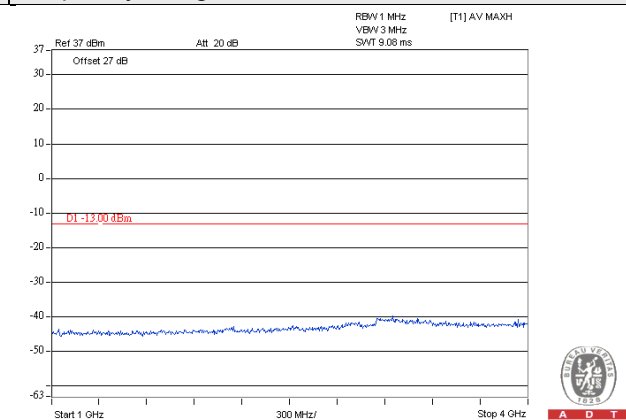
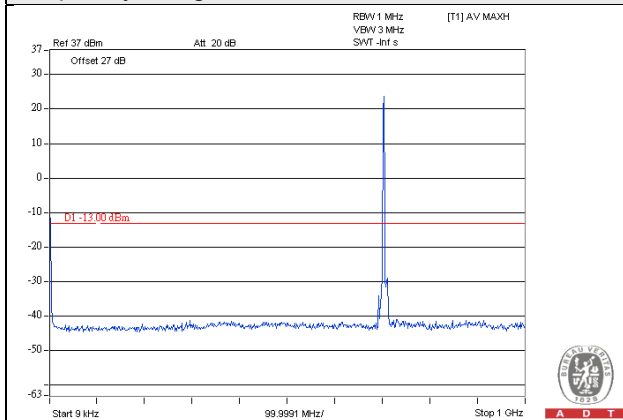
A D T

LTE Band 12 Channel Band width: 10MHz

Channel 23095

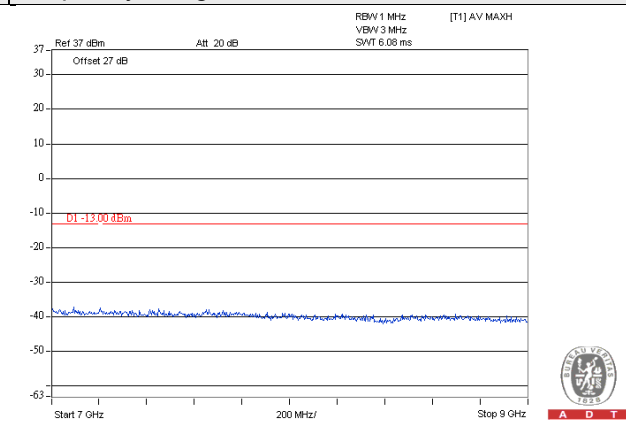
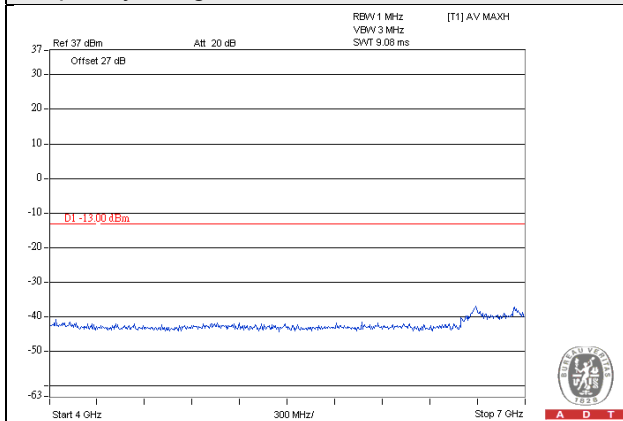
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

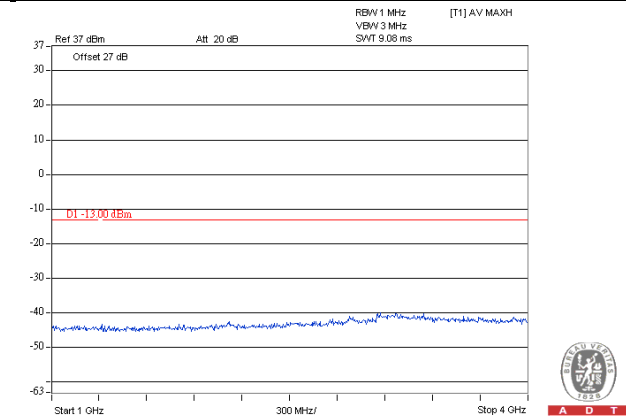
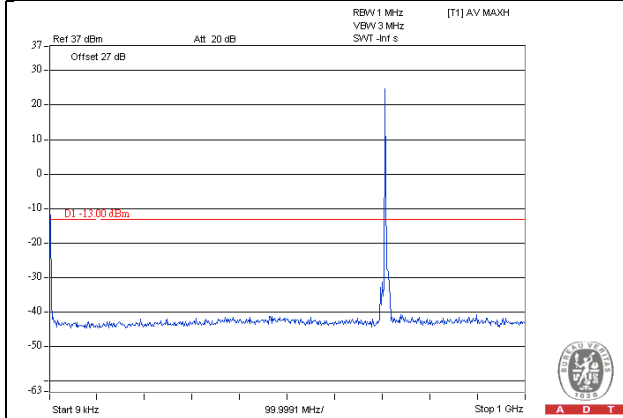


LTE Band 12 Channel Band width: 10MHz

Channel 23130

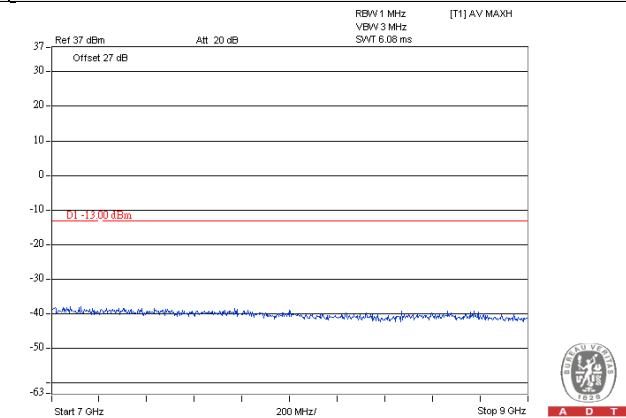
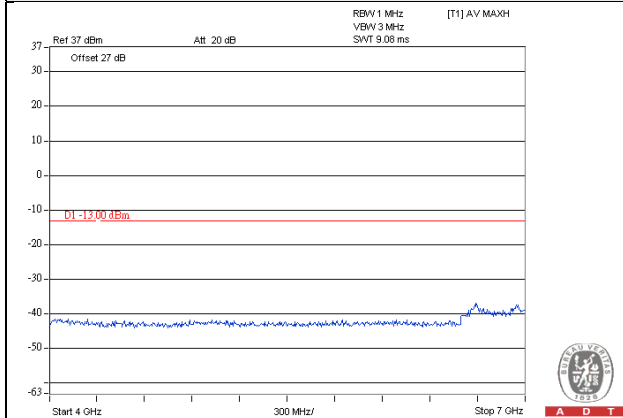
Frequency Range : 9kHz~1GHz

Frequency Range : 1GHz~4GHz



Frequency Range : 4GHz~7GHz

Frequency Range : 7GHz~9GHz

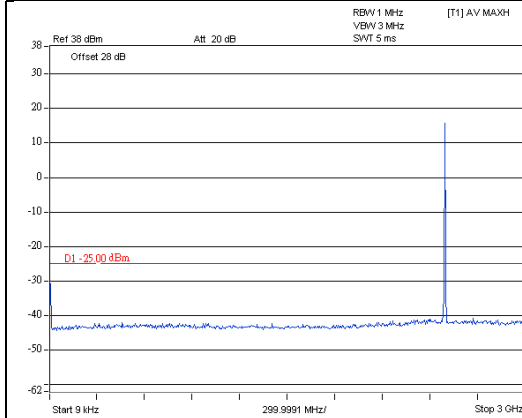


LTE Band 41 Channel Band width: 5MHz

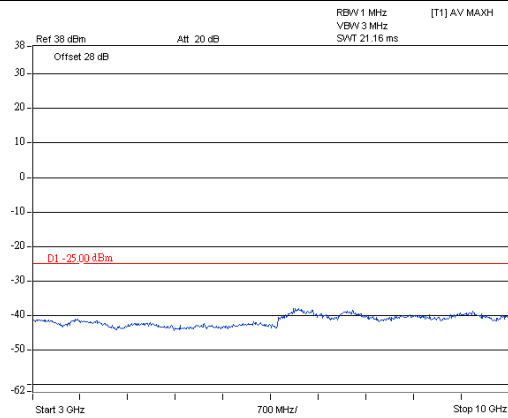
Channel 39675

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

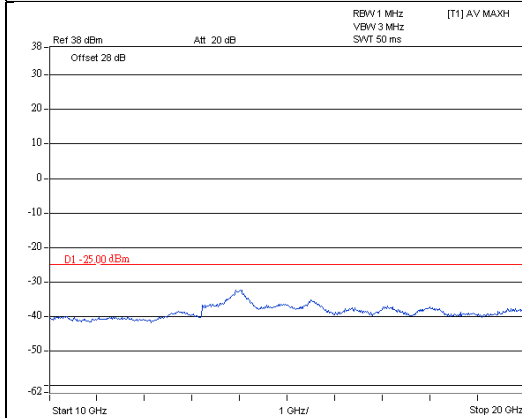


A D T



A D T

Frequency Range : 10GHz~20GHz



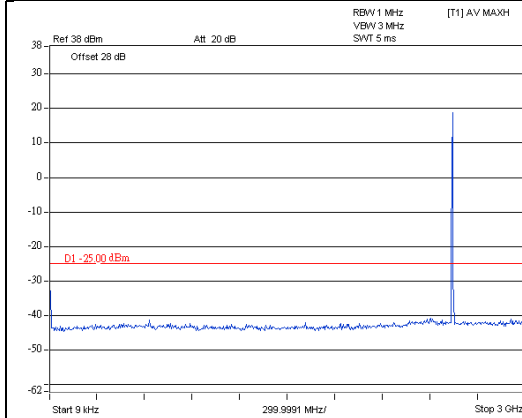
A D T

LTE Band 41 Channel Band width: 5MHz

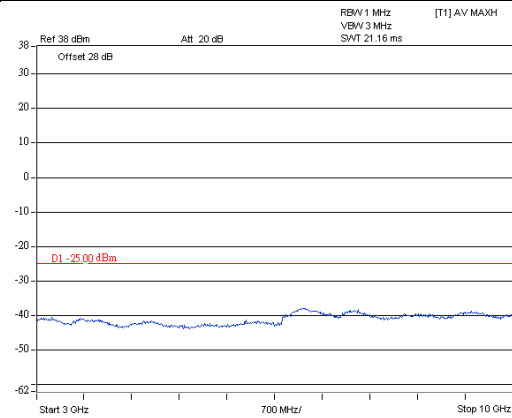
Channel 40148

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

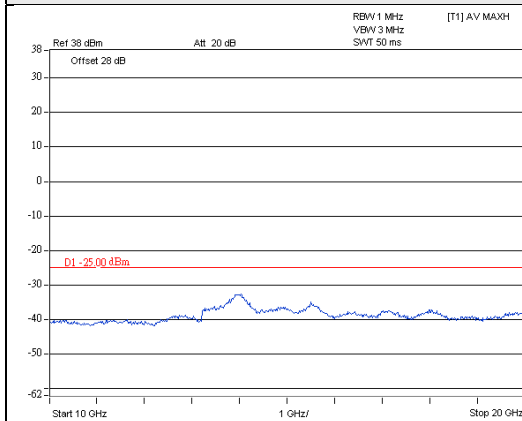


A D T



A D T

Frequency Range : 10GHz~20GHz



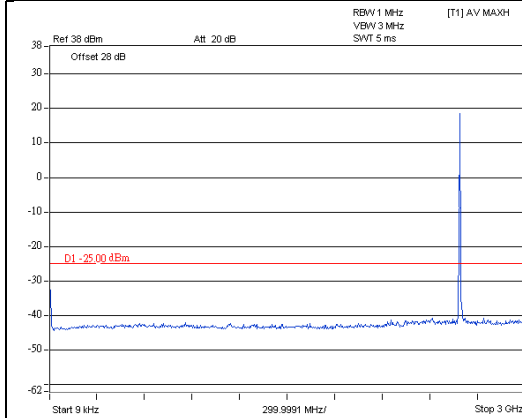
A D T

LTE Band 41 Channel Band width: 5MHz

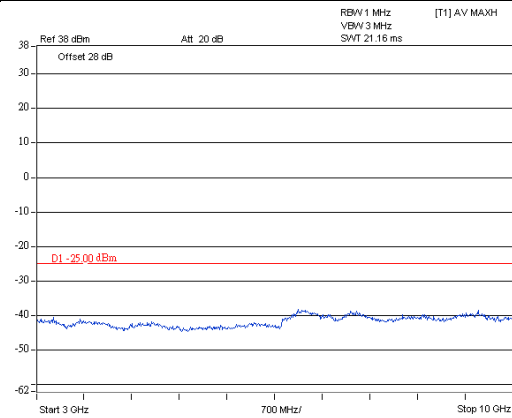
Channel 40620

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

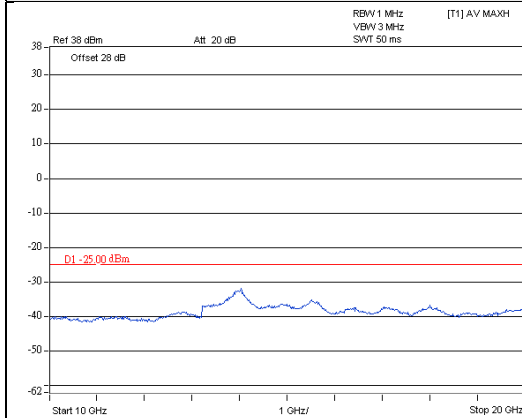


A D T



A D T

Frequency Range : 10GHz~20GHz



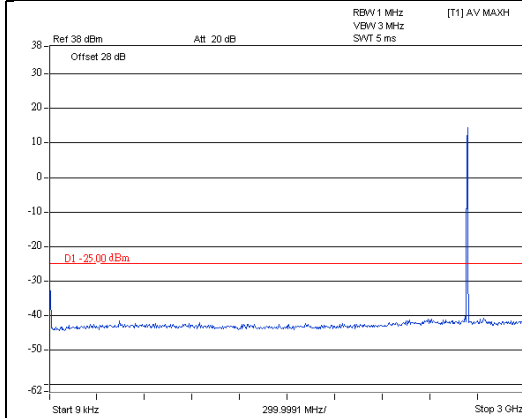
A D T

LTE Band 41 Channel Band width: 5MHz

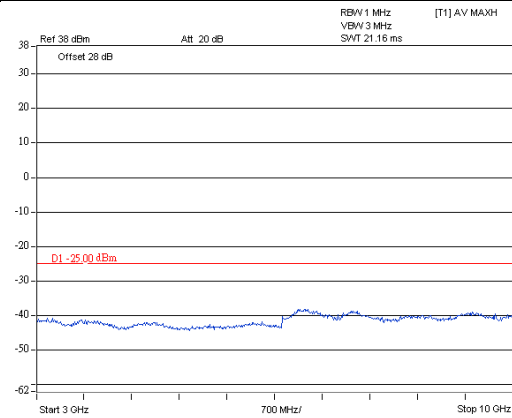
Channel 41093

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

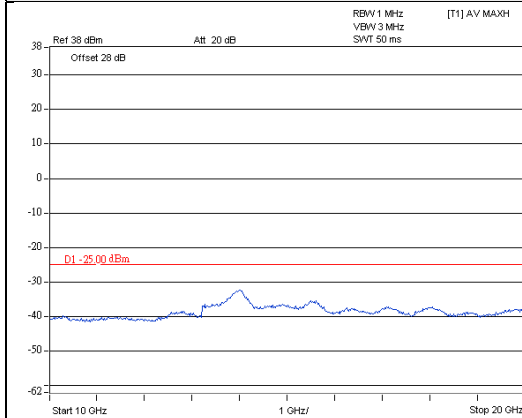


A D T



A D T

Frequency Range : 10GHz~20GHz



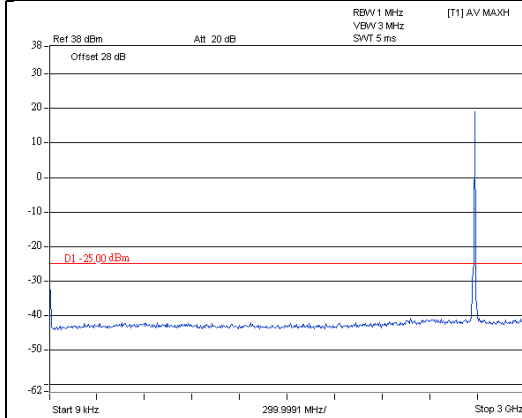
A D T

LTE Band 41 Channel Band width: 5MHz

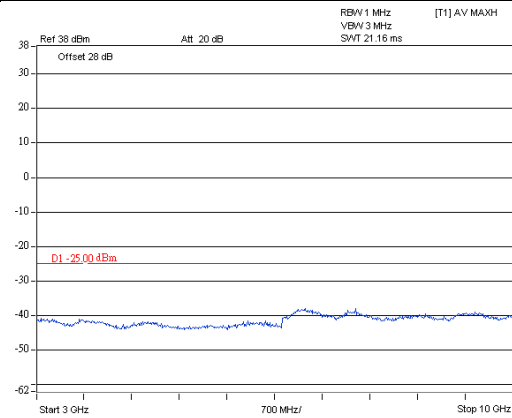
Channel 41565

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

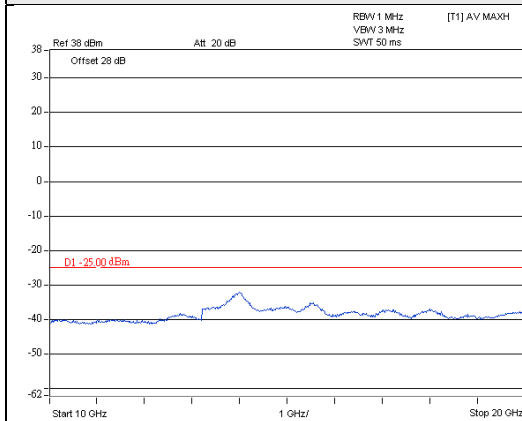


A D T



A D T

Frequency Range : 10GHz~20GHz



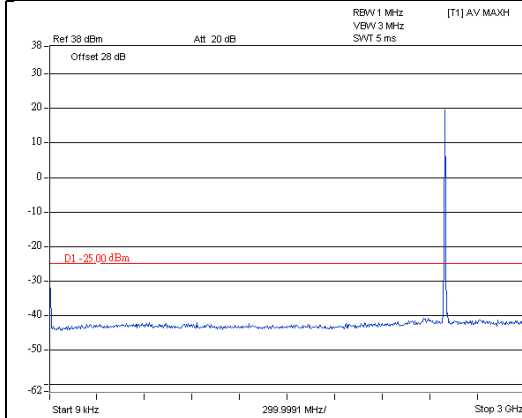
A D T

LTE Band 41 Channel Band width: 10MHz

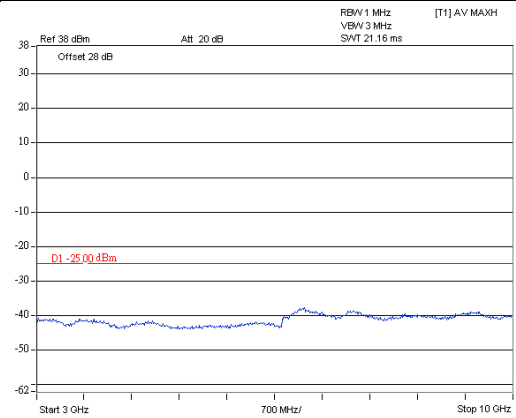
Channel 39700

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

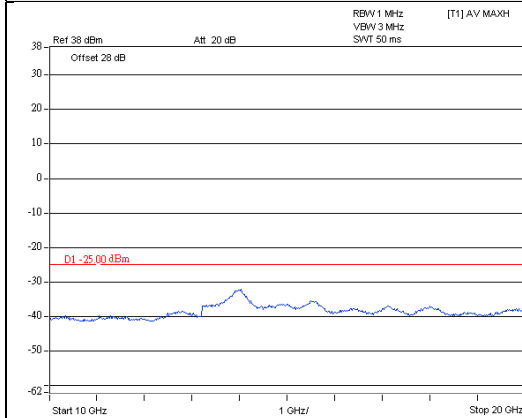


A D T



A D T

Frequency Range : 10GHz~20GHz



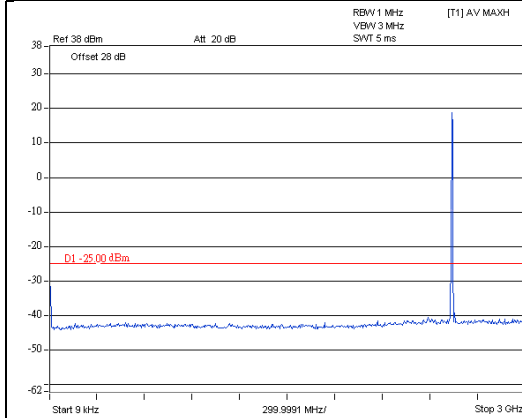
A D T

LTE Band 41 Channel Band width: 10MHz

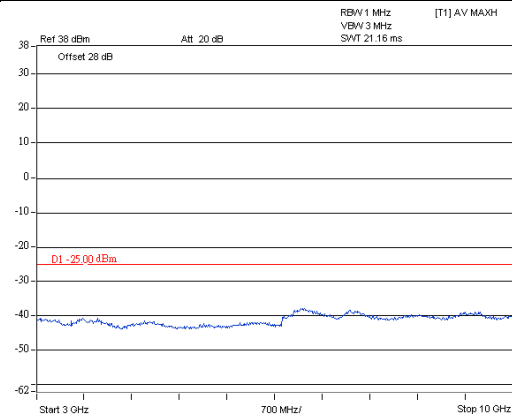
Channel 40160

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

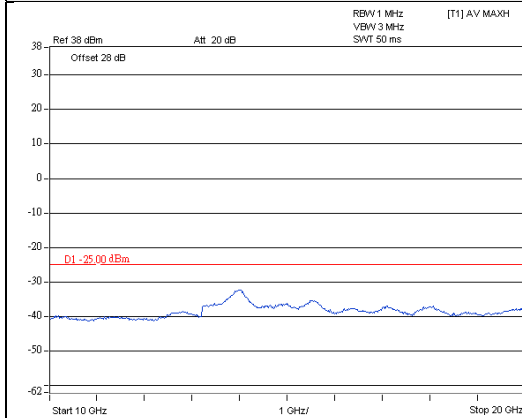


A D T



A D T

Frequency Range : 10GHz~20GHz



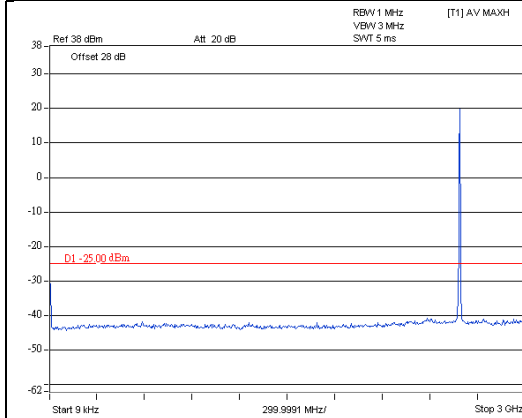
A D T

LTE Band 41 Channel Band width: 10MHz

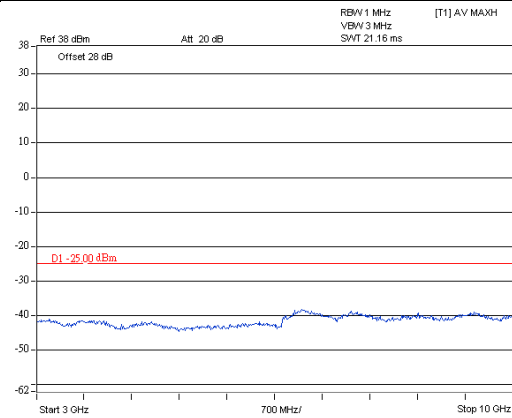
Channel 40620,

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

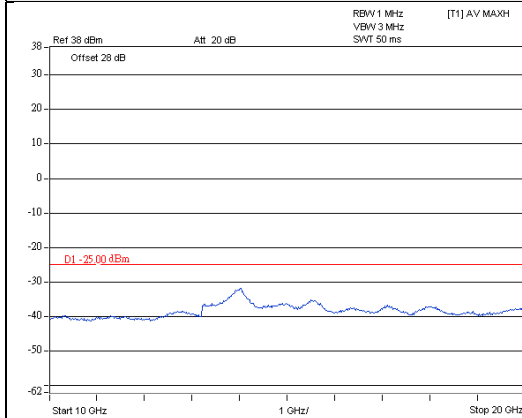


A D T



A D T

Frequency Range : 10GHz~20GHz



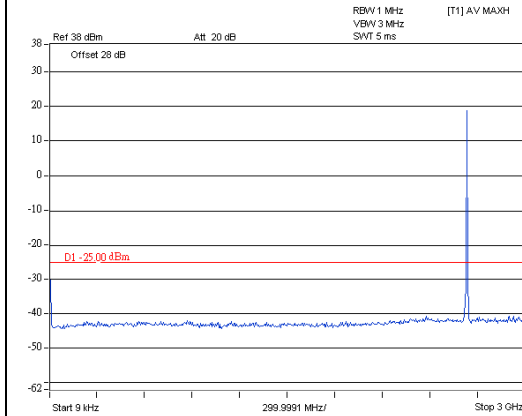
A D T

LTE Band 41 Channel Band width: 10MHz

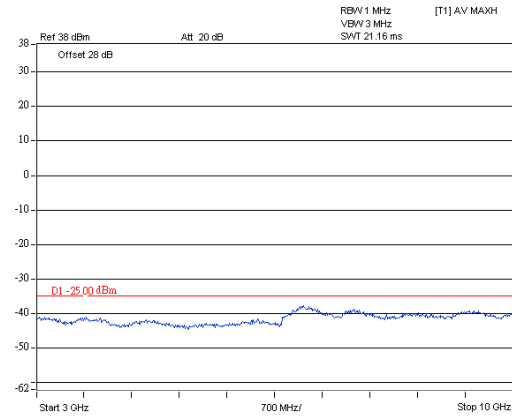
Channel 41080

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

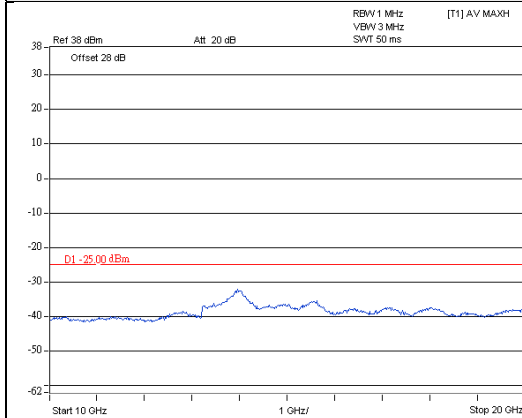


A D T



A D T

Frequency Range : 10GHz~20GHz



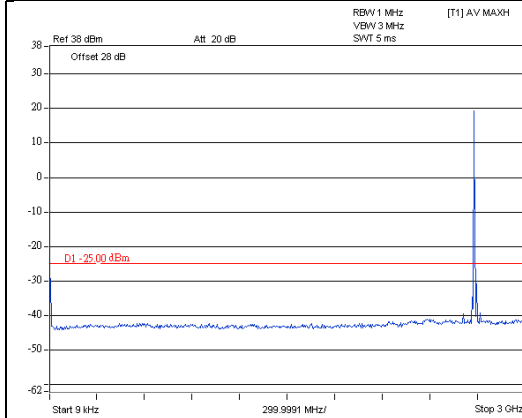
A D T

LTE Band 41 Channel Band width: 10MHz

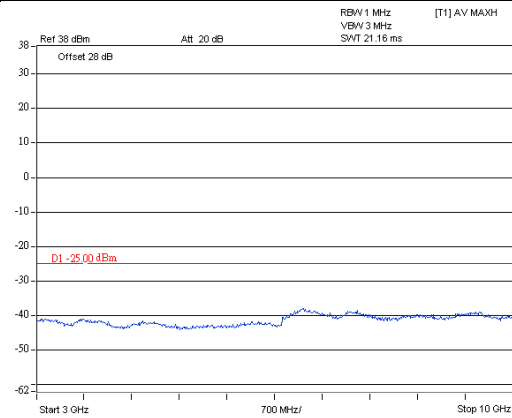
Channel 41540

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

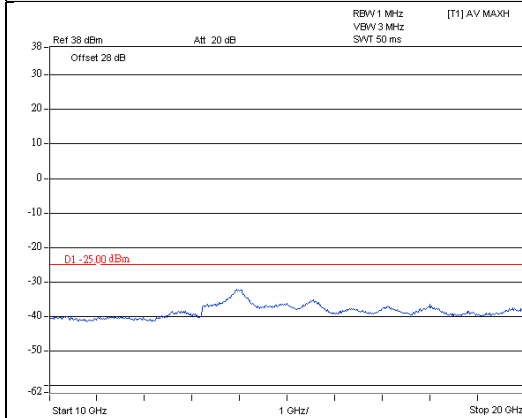


A D T



A D T

Frequency Range : 10GHz~20GHz



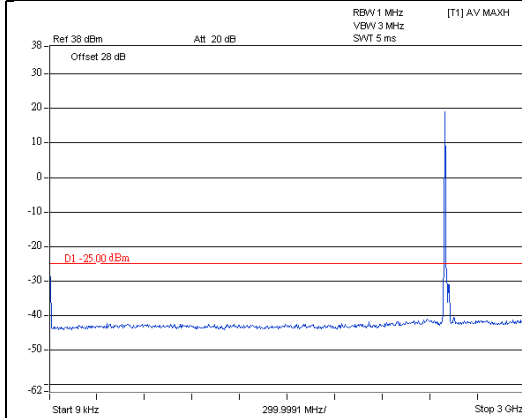
A D T

LTE Band 41 Channel Band width: 15MHz

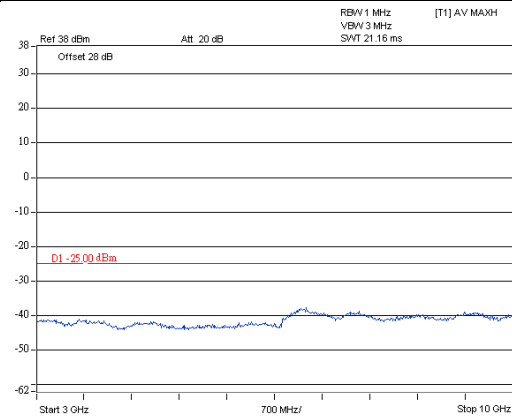
Channel 39725

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

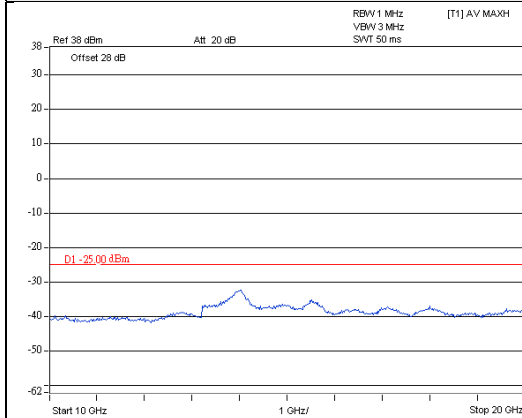


A D T



A D T

Frequency Range : 10GHz~20GHz



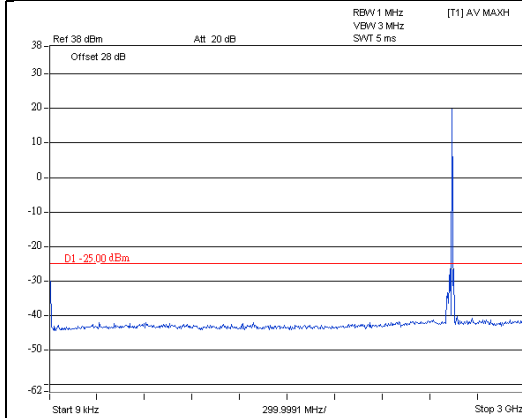
A D T

LTE Band 41 Channel Band width: 15MHz

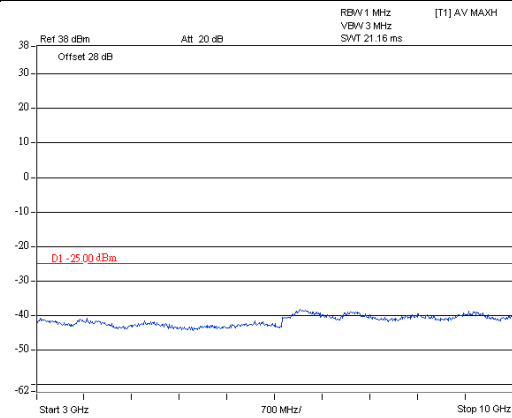
Channel 40173

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

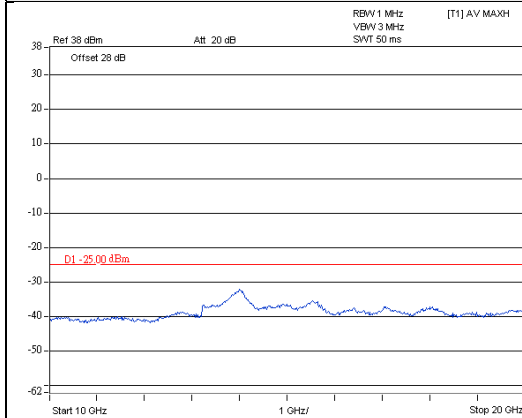


A D T



A D T

Frequency Range : 10GHz~20GHz



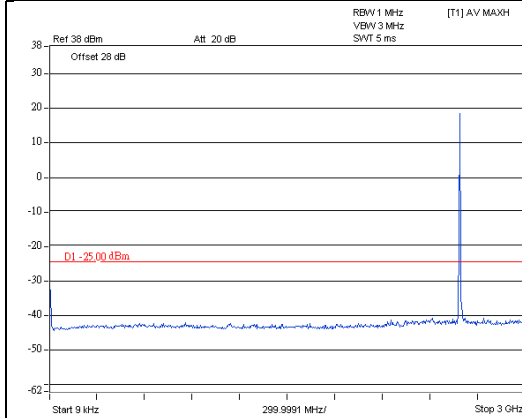
A D T

LTE Band 41 Channel Band width: 15MHz

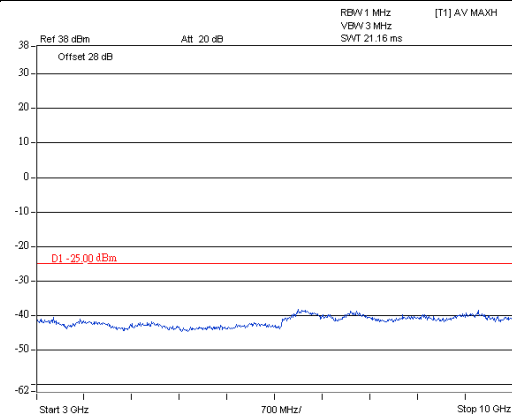
Channel 40620,

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

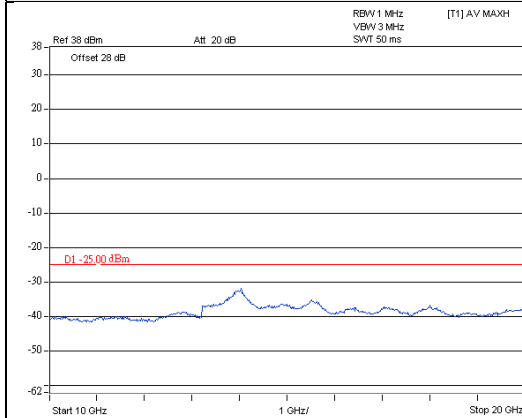


A D T



A D T

Frequency Range : 10GHz~20GHz



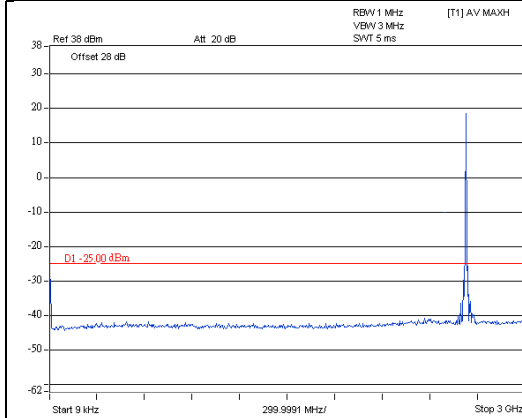
A D T

LTE Band 41 Channel Band width: 15MHz

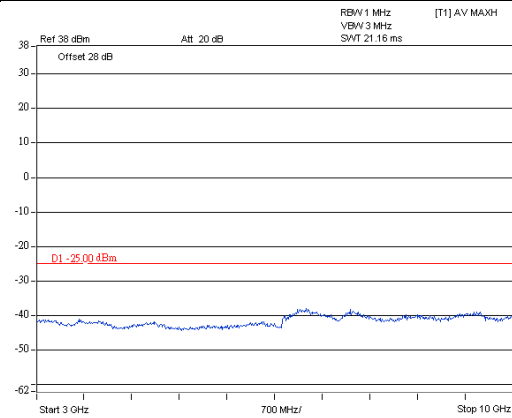
Channel 41068

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

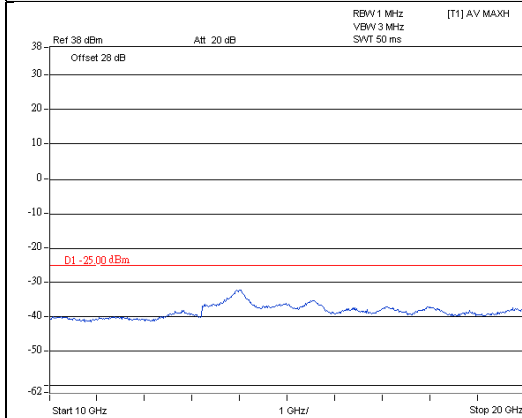


A D T



A D T

Frequency Range : 10GHz~20GHz



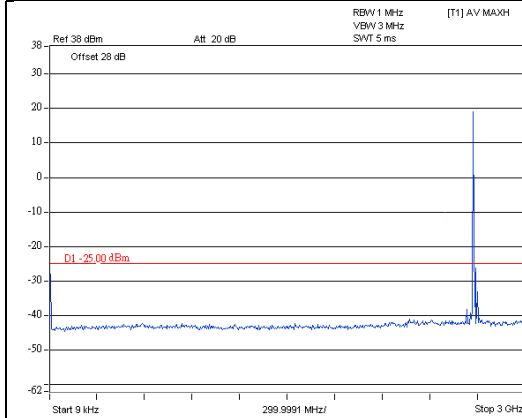
A D T

LTE Band 41 Channel Band width: 15MHz

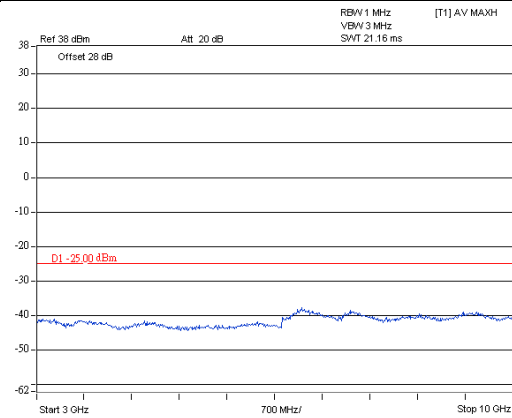
Channel 41515

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

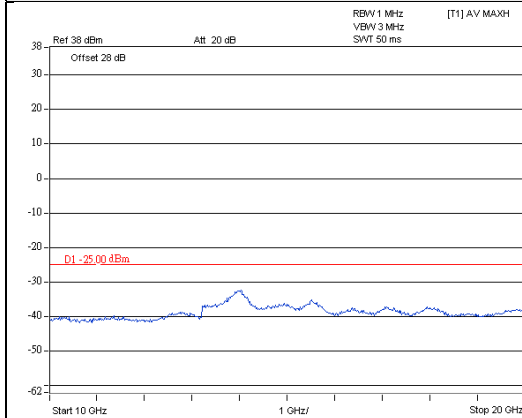


A D T



A D T

Frequency Range : 10GHz~20GHz



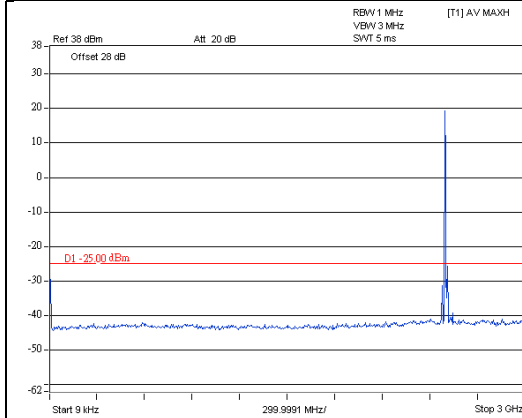
A D T

LTE Band 41 Channel Band width: 20MHz

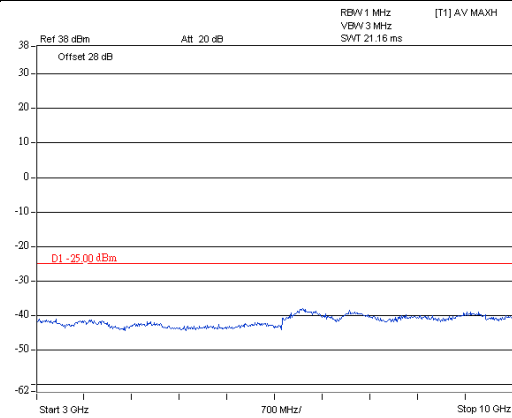
Channel 39750

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

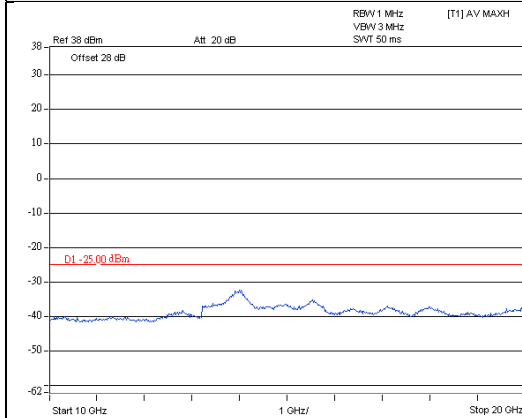


A D T



A D T

Frequency Range : 10GHz~20GHz



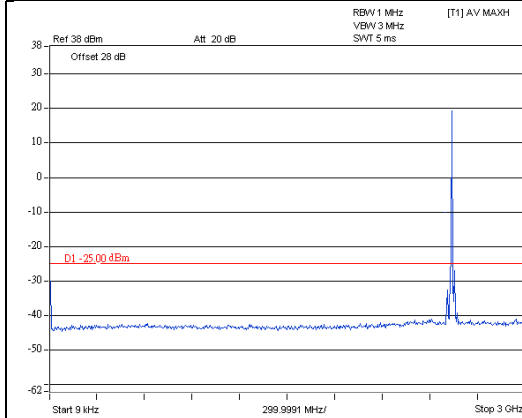
A D T

LTE Band 41 Channel Band width: 20MHz

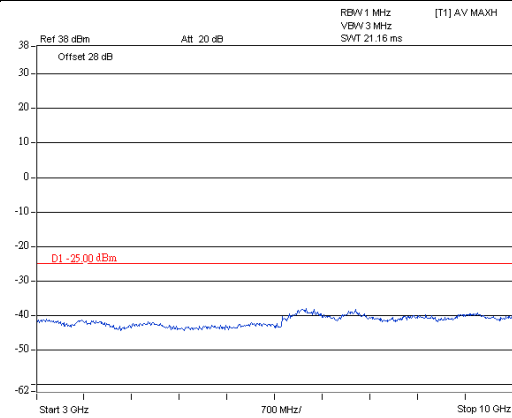
Channel 40185

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

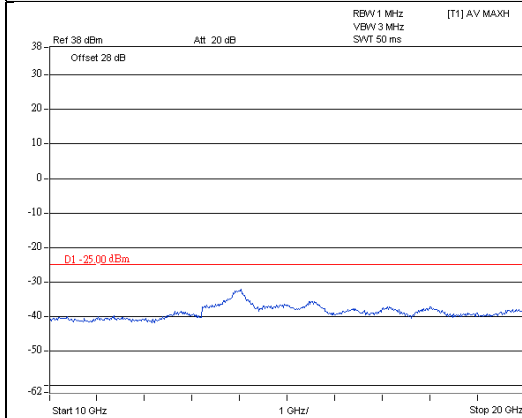


A D T



A D T

Frequency Range : 10GHz~20GHz



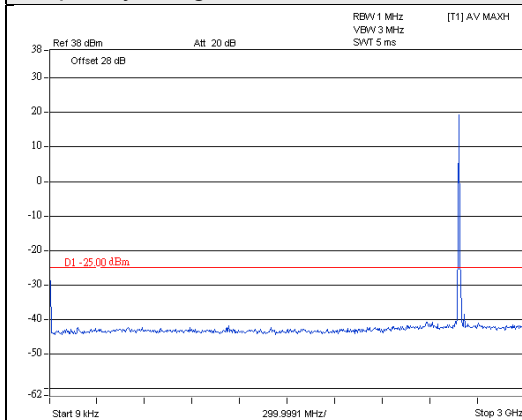
A D T

LTE Band 41 Channel Band width: 20MHz

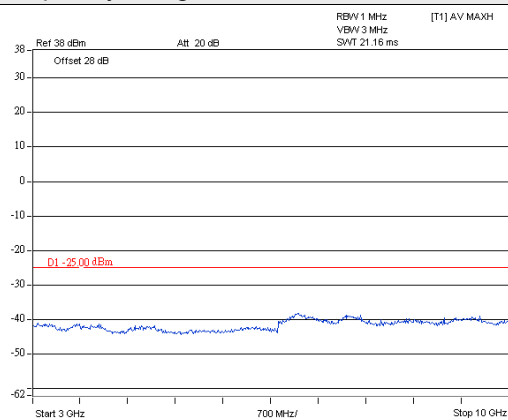
Channel 40620

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

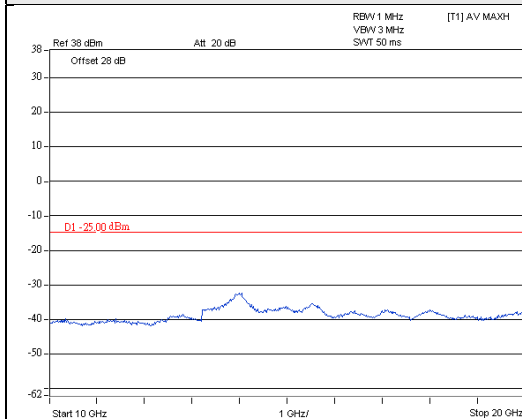


A D T



A D T

Frequency Range : 10GHz~20GHz



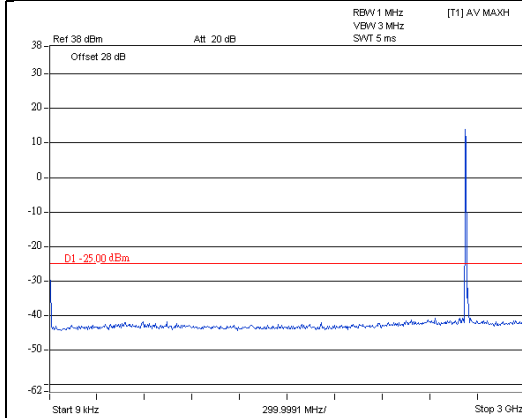
A D T

LTE Band 41 Channel Band width: 20MHz

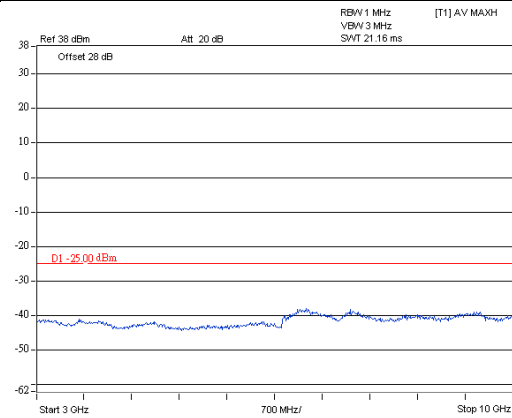
Channel 41055

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

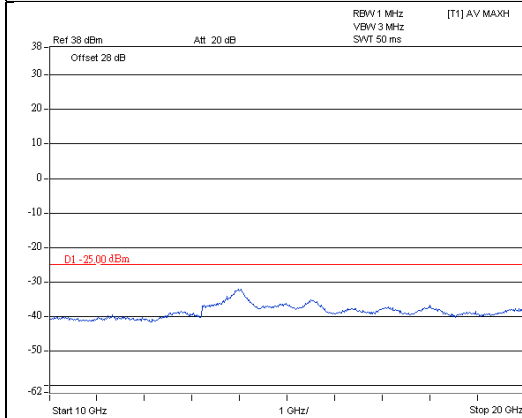


A D T



A D T

Frequency Range : 10GHz~20GHz



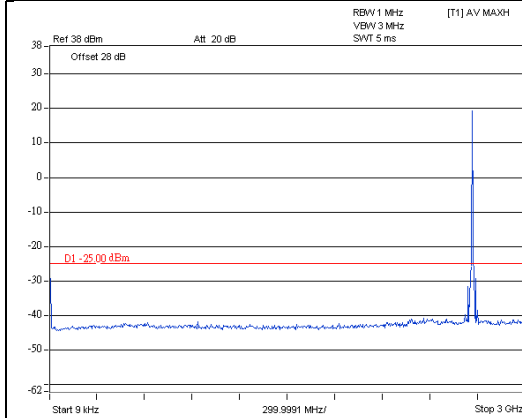
A D T

LTE Band 41 Channel Band width: 20MHz

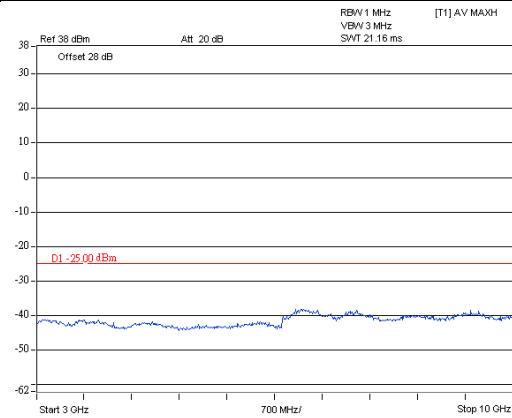
Channel 41490

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

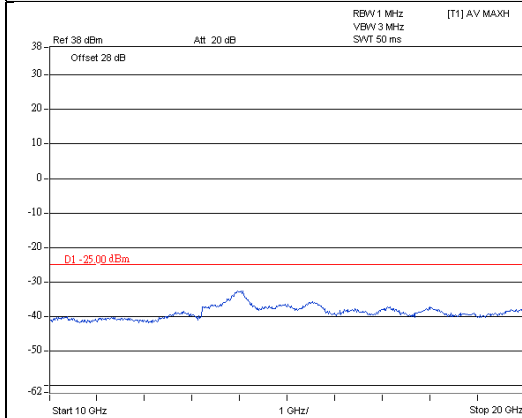


A D T



A D T

Frequency Range : 10GHz~20GHz



A D T

4.7 Radiated Emission Measurement

4.7.1 Limits of Radiated Emission Measurement

For LTE Band 4 and 12

On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The emission limit equal to -13dBm .

For LTE Band 41

On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least $55 + 10 \log (P)$ dB. The emission limit equal to -25dBm .

4.7.2 Test Procedure

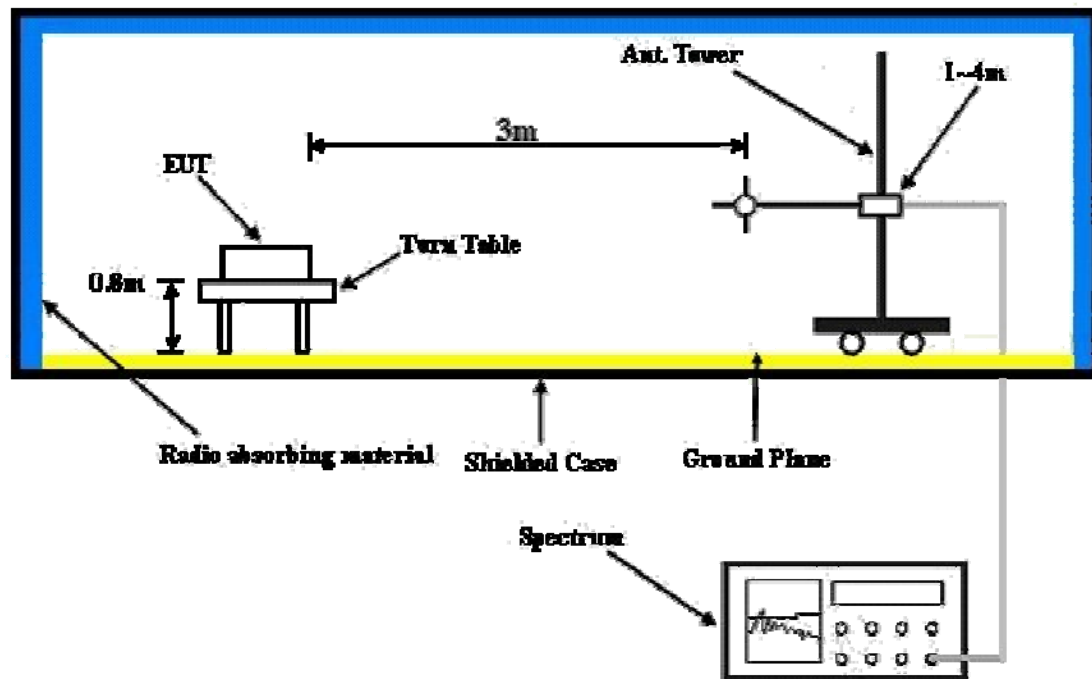
- The power was measured with R&S Spectrum Analyzer. For LTE band 4 & 12 measurements were done at 3 channels for LTE Band 41 measurements were done at 5 channels (low, middle and high channel of operational frequency range.)
- Substitution method is used for E.I.R.P measurement. In the semi-anechoic 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.
- The substitution 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
- $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution antenna}$.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.7.3 Deviation from Test Standard

No deviation.

4.7.4 Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.7.5 Test Results

Below 1GHz

LTE Band 4

Channel Bandwidth: 1.4MHz

Mode	TX channel 19957	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	80.44	-44.20	-49.60	0.50	-49.10	-13.00	-36.10
2	111.48	-47.70	-52.90	-2.50	-55.40	-13.00	-42.40
3	134.76	-48.90	-51.70	-3.20	-54.90	-13.00	-41.90
4	171.62	-43.00	-47.20	-2.90	-50.10	-13.00	-37.10
5	220.12	-45.10	-51.30	-1.90	-53.20	-13.00	-40.20
6	260.86	-47.10	-50.30	-1.50	-51.80	-13.00	-38.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	84.32	-47.30	-52.70	0.40	-52.30	-13.00	-39.30
2	134.76	-44.90	-45.30	-3.20	-48.50	-13.00	-35.50
3	187.14	-37.50	-37.20	-2.70	-39.90	-13.00	-26.90
4	262.80	-50.10	-47.50	-1.60	-49.10	-13.00	-36.10
5	319.06	-50.60	-54.70	4.00	-50.70	-13.00	-37.70
6	421.88	-52.20	-56.00	3.40	-52.60	-13.00	-39.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 3MHz

Mode	TX channel 19965	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	82.38	-43.30	-49.10	0.40	-48.70	-13.00	-35.70
2	132.82	-47.00	-49.80	-3.30	-53.10	-13.00	-40.10
3	187.14	-41.50	-47.00	-2.70	-49.70	-13.00	-36.70
4	260.86	-47.00	-50.20	-1.50	-51.70	-13.00	-38.70
5	305.48	-56.60	-64.80	3.80	-61.00	-13.00	-48.00
6	429.64	-61.00	-65.00	3.50	-61.50	-13.00	-48.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	82.38	-48.10	-53.00	0.40	-52.60	-13.00	-39.60
2	134.76	-45.40	-45.80	-3.20	-49.00	-13.00	-36.00
3	187.14	-39.80	-39.50	-2.70	-42.20	-13.00	-29.20
4	225.94	-48.80	-51.10	-1.70	-52.80	-13.00	-39.80
5	260.86	-51.50	-49.00	-1.50	-50.50	-13.00	-37.50
6	423.82	-53.00	-56.70	3.40	-53.30	-13.00	-40.30

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 5MHz

Mode	TX channel 19975	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	80.44	-44.50	-49.90	0.50	-49.40	-13.00	-36.40
2	132.82	-48.50	-51.30	-3.30	-54.60	-13.00	-41.60
3	169.68	-43.20	-47.20	-2.80	-50.00	-13.00	-37.00
4	220.12	-45.40	-51.60	-1.90	-53.50	-13.00	-40.50
5	260.86	-46.70	-49.90	-1.50	-51.40	-13.00	-38.40
6	297.72	-55.10	-56.10	-1.70	-57.80	-13.00	-44.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	84.32	-47.70	-53.10	0.40	-52.70	-13.00	-39.70
2	134.76	-45.50	-45.90	-3.20	-49.10	-13.00	-36.10
3	189.08	-40.10	-39.50	-2.80	-42.30	-13.00	-29.30
4	260.86	-51.50	-49.00	-1.50	-50.50	-13.00	-37.50
5	317.12	-51.10	-55.20	4.10	-51.10	-13.00	-38.10
6	425.76	-52.90	-56.80	3.50	-53.30	-13.00	-40.30

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

Mode	TX channel 20000	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	80.44	-44.70	-50.10	0.50	-49.60	-13.00	-36.60
2	134.76	-48.50	-51.30	-3.20	-54.50	-13.00	-41.50
3	169.68	-43.70	-47.70	-2.80	-50.50	-13.00	-37.50
4	218.18	-45.10	-51.40	-2.10	-53.50	-13.00	-40.50
5	260.86	-46.90	-50.10	-1.50	-51.60	-13.00	-38.60
6	297.72	-54.90	-55.90	-1.70	-57.60	-13.00	-44.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	82.38	-49.20	-54.10	0.40	-53.70	-13.00	-40.70
2	134.76	-45.60	-46.00	-3.20	-49.20	-13.00	-36.20
3	169.68	-45.00	-45.40	-2.80	-48.20	-13.00	-35.20
4	187.14	-37.90	-37.60	-2.70	-40.30	-13.00	-27.30
5	198.78	-46.20	-44.80	-2.40	-47.20	-13.00	-34.20
6	260.86	-50.90	-48.40	-1.50	-49.90	-13.00	-36.90

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Channel Bandwidth: 15MHz

Mode	TX channel 20025	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	37.76	-58.60	-40.60	-14.70	-55.30	-13.00	-42.30
2	82.38	-44.10	-49.90	0.40	-49.50	-13.00	-36.50
3	134.76	-48.30	-51.10	-3.20	-54.30	-13.00	-41.30
4	171.62	-43.40	-47.60	-2.90	-50.50	-13.00	-37.50
5	260.86	-47.30	-50.50	-1.50	-52.00	-13.00	-39.00
6	297.72	-54.70	-55.70	-1.70	-57.40	-13.00	-44.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	59.10	-46.20	-49.20	-3.80	-53.00	-13.00	-40.00
2	82.38	-49.80	-54.70	0.40	-54.30	-13.00	-41.30
3	134.76	-45.40	-45.80	-3.20	-49.00	-13.00	-36.00
4	187.14	-37.70	-37.40	-2.70	-40.10	-13.00	-27.10
5	198.78	-46.70	-45.30	-2.40	-47.70	-13.00	-34.70
6	260.86	-51.80	-49.30	-1.50	-50.80	-13.00	-37.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 20MHz

Mode	TX channel 20050	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.64	-58.00	-43.60	-12.30	-55.90	-13.00	-42.90
2	80.44	-44.70	-50.10	0.50	-49.60	-13.00	-36.60
3	136.70	-47.70	-50.50	-3.20	-53.70	-13.00	-40.70
4	196.84	-39.20	-45.10	-2.50	-47.60	-13.00	-34.60
5	235.64	-45.00	-50.70	-1.50	-52.20	-13.00	-39.20
6	260.86	-47.10	-50.30	-1.50	-51.80	-13.00	-38.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	82.38	-49.60	-54.50	0.40	-54.10	-13.00	-41.10
2	134.76	-45.10	-45.50	-3.20	-48.70	-13.00	-35.70
3	187.14	-38.20	-37.90	-2.70	-40.60	-13.00	-27.60
4	231.76	-49.20	-50.40	-1.60	-52.00	-13.00	-39.00
5	260.86	-51.10	-48.60	-1.50	-50.10	-13.00	-37.10
6	315.18	-51.20	-55.30	4.00	-51.30	-13.00	-38.30

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

LTE Band 12

Channel Bandwidth: 1.4MHz

Mode	TX channel 23017	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	39.70	-42.40	-28.50	-13.70	-42.20	-13.00	-29.20
2	80.40	-47.80	-55.40	0.50	-54.90	-13.00	-41.90
3	130.90	-45.80	-50.90	-3.30	-54.20	-13.00	-41.20
4	204.60	-44.90	-53.00	-2.00	-55.00	-13.00	-42.00
5	359.80	-27.80	-36.60	4.00	-32.60	-13.00	-19.60
6	480.10	-43.80	-49.70	3.60	-46.10	-13.00	-33.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	132.80	-44.80	-47.80	-3.30	-51.10	-13.00	-38.10
2	185.20	-47.90	-50.10	-2.80	-52.90	-13.00	-39.90
3	198.80	-46.10	-46.90	-2.40	-49.30	-13.00	-36.30
4	247.30	-49.30	-50.80	-1.50	-52.30	-13.00	-39.30
5	359.80	-29.60	-36.10	4.00	-32.10	-13.00	-19.10
6	480.10	-49.20	-55.20	3.60	-51.60	-13.00	-38.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 3MHz

Mode	TX channel 23025	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-50.80	-29.50	-19.40	-48.90	-13.00	-35.90
2	39.70	-42.90	-29.10	-13.70	-42.80	-13.00	-29.80
3	80.40	-47.20	-54.80	0.50	-54.30	-13.00	-41.30
4	204.60	-45.00	-53.10	-2.00	-55.10	-13.00	-42.10
5	359.80	-27.60	-36.50	4.00	-32.50	-13.00	-19.50
6	480.10	-44.20	-50.20	3.60	-46.60	-13.00	-33.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	132.80	-44.90	-48.00	-3.30	-51.30	-13.00	-38.30
2	185.20	-47.40	-49.60	-2.80	-52.40	-13.00	-39.40
3	198.80	-45.40	-46.10	-2.40	-48.50	-13.00	-35.50
4	247.30	-48.60	-50.10	-1.50	-51.60	-13.00	-38.60
5	359.80	-29.10	-35.60	4.00	-31.60	-13.00	-18.60
6	480.10	-49.50	-55.50	3.60	-51.90	-13.00	-38.90

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 5MHz

Mode	TX channel 23035	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	39.70	-42.60	-28.80	-13.70	-42.50	-13.00	-29.50
2	82.40	-48.00	-55.90	0.40	-55.50	-13.00	-42.50
3	130.90	-46.70	-51.80	-3.30	-55.10	-13.00	-42.10
4	202.70	-44.40	-52.40	-2.10	-54.50	-13.00	-41.50
5	359.80	-27.90	-36.70	4.00	-32.70	-13.00	-19.70
6	480.10	-44.10	-50.10	3.60	-46.50	-13.00	-33.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	55.20	-46.00	-49.60	-5.40	-55.00	-13.00	-42.00
2	132.80	-44.20	-47.30	-3.30	-50.60	-13.00	-37.60
3	196.80	-45.40	-45.90	-2.50	-48.40	-13.00	-35.40
4	247.30	-48.90	-50.40	-1.50	-51.90	-13.00	-38.90
5	359.80	-29.10	-35.60	4.00	-31.60	-13.00	-18.60
6	480.10	-47.20	-53.20	3.60	-49.60	-13.00	-36.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Channel Bandwidth: 10MHz

Mode	TX channel 23060	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	37.80	-43.50	-27.70	-14.70	-42.40	-13.00	-29.40
2	132.80	-46.50	-51.40	-3.30	-54.70	-13.00	-41.70
3	204.60	-44.60	-52.80	-2.00	-54.80	-13.00	-41.80
4	359.80	-27.60	-36.50	4.00	-32.50	-13.00	-19.50
5	379.20	-50.80	-58.10	3.60	-54.50	-13.00	-41.50
6	480.10	-44.10	-50.10	3.60	-46.50	-13.00	-33.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	132.80	-44.60	-47.70	-3.30	-51.00	-13.00	-38.00
2	196.80	-45.10	-45.60	-2.50	-48.10	-13.00	-35.10
3	247.30	-48.80	-50.30	-1.50	-51.80	-13.00	-38.80
4	260.90	-53.00	-52.60	-1.50	-54.10	-13.00	-41.10
5	359.80	-28.60	-35.10	4.00	-31.10	-13.00	-18.10
6	480.10	-47.00	-53.00	3.60	-49.40	-13.00	-36.40

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

LTE Band 41

Channel Bandwidth: 5MHz

Mode	TX channel 39675	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	35.82	-57.40	-38.00	-15.90	-53.90	-25.00	-28.90
2	80.44	-44.70	-50.10	0.50	-49.60	-25.00	-24.60
3	136.70	-47.60	-50.40	-3.20	-53.60	-25.00	-28.60
4	161.92	-44.90	-47.50	-2.90	-50.40	-25.00	-25.40
5	198.78	-36.90	-42.90	-2.40	-45.30	-25.00	-20.30
6	260.86	-47.30	-50.50	-1.50	-52.00	-25.00	-27.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	134.76	-46.00	-46.40	-3.20	-49.60	-25.00	-24.60
2	189.08	-43.80	-43.20	-2.80	-46.00	-25.00	-21.00
3	206.54	-44.50	-45.00	-2.00	-47.00	-25.00	-22.00
4	229.82	-47.70	-49.50	-1.70	-51.20	-25.00	-26.20
5	258.92	-50.00	-47.80	-1.50	-49.30	-25.00	-24.30
6	317.12	-48.80	-52.90	4.10	-48.80	-25.00	-23.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

Mode	TX channel 39700	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	82.38	-45.00	-50.80	0.40	-50.40	-25.00	-25.40
2	136.70	-46.60	-49.40	-3.20	-52.60	-25.00	-27.60
3	158.04	-44.70	-46.90	-2.70	-49.60	-25.00	-24.60
4	185.20	-43.30	-48.80	-2.80	-51.60	-25.00	-26.60
5	198.78	-37.50	-43.50	-2.40	-45.90	-25.00	-20.90
6	256.98	-46.90	-50.60	-1.50	-52.10	-25.00	-27.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	134.76	-46.10	-46.50	-3.20	-49.70	-25.00	-24.70
2	158.04	-48.00	-48.20	-2.70	-50.90	-25.00	-25.90
3	187.14	-42.40	-42.10	-2.70	-44.80	-25.00	-19.80
4	233.70	-48.50	-49.10	-1.70	-50.80	-25.00	-25.80
5	256.98	-49.80	-47.80	-1.50	-49.30	-25.00	-24.30
6	317.12	-49.00	-53.10	4.10	-49.00	-25.00	-24.00

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Channel Bandwidth: 15MHz

Mode	TX channel 39725	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	35.82	-57.40	-38.00	-15.90	-53.90	-25.00	-28.90
2	82.38	-44.90	-50.70	0.40	-50.30	-25.00	-25.30
3	134.76	-47.50	-50.30	-3.20	-53.50	-25.00	-28.50
4	161.92	-44.70	-47.30	-2.90	-50.20	-25.00	-25.20
5	198.78	-37.90	-43.90	-2.40	-46.30	-25.00	-21.30
6	260.86	-47.20	-50.40	-1.50	-51.90	-25.00	-26.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	134.76	-46.20	-46.60	-3.20	-49.80	-25.00	-24.80
2	187.14	-43.20	-42.90	-2.70	-45.60	-25.00	-20.60
3	208.48	-44.70	-45.70	-2.00	-47.70	-25.00	-22.70
4	231.76	-47.90	-49.10	-1.60	-50.70	-25.00	-25.70
5	260.86	-49.60	-47.10	-1.50	-48.60	-25.00	-23.60
6	317.12	-48.70	-52.80	4.10	-48.70	-25.00	-23.70

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Channel Bandwidth: 20MHz

Mode	TX channel 39750	Frequency Range	Below 1000 MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	80.44	-46.60	-52.00	0.50	-51.50	-25.00	-26.50
2	111.48	-47.60	-52.80	-2.50	-55.30	-25.00	-30.30
3	159.98	-43.80	-46.10	-3.00	-49.10	-25.00	-24.10
4	167.74	-45.30	-49.10	-2.90	-52.00	-25.00	-27.00
5	198.78	-37.50	-43.50	-2.40	-45.90	-25.00	-20.90
6	260.86	-46.80	-50.00	-1.50	-51.50	-25.00	-26.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	66.86	-41.60	-47.30	-1.50	-48.80	-25.00	-23.80
2	134.76	-46.90	-47.30	-3.20	-50.50	-25.00	-25.50
3	156.10	-47.40	-47.30	-2.90	-50.20	-25.00	-25.20
4	200.72	-42.70	-41.60	-2.30	-43.90	-25.00	-18.90
5	260.86	-49.50	-47.00	-1.50	-48.50	-25.00	-23.50
6	313.24	-50.40	-54.50	4.00	-50.50	-25.00	-25.50

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Above 1GHz

LTE Band 4

Channel Bandwidth: 1.4MHz

Mode	TX channel 19957	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3421.40	-46.34	-37.73	1.29	-36.44	-13.00	-23.44
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3421.40	-48.22	-40.10	1.29	-38.81	-13.00	-25.81

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 20175	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-49.31	-40.92	1.38	-39.54	-13.00	-26.54
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-48.46	-40.62	1.38	-39.24	-13.00	-26.24

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 20393	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3508.60	-46.60	-38.37	1.46	-36.91	-13.00	-23.91
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3508.60	-48.19	-40.56	1.46	-39.10	-13.00	-26.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 3 MHz

Mode	TX channel 19965	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3423.00	-55.50	-49.10	1.30	-47.80	-13.00	-34.80
2	5134.50	-58.00	-48.00	1.40	-46.60	-13.00	-33.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3423.00	-60.00	-54.00	1.30	-52.70	-13.00	-39.70
2	5134.50	-61.30	-51.70	1.40	-50.30	-13.00	-37.30

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 20175	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-56.90	-50.60	1.40	-49.20	-13.00	-36.20
2	5197.50	-55.80	-46.30	1.40	-44.90	-13.00	-31.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-59.40	-53.80	1.40	-52.40	-13.00	-39.40
2	5197.50	-61.00	-50.90	1.40	-49.50	-13.00	-36.50

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 20385	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3507.00	-56.90	-50.80	1.40	-49.40	-13.00	-36.40
2	5260.50	-58.40	-48.80	1.50	-47.30	-13.00	-34.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3507.00	-59.50	-54.00	1.40	-52.60	-13.00	-39.60
2	5260.50	-61.70	-52.20	1.50	-50.70	-13.00	-37.70

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 5MHz

Mode	TX channel 19975	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3425.00	-55.10	-48.70	1.30	-47.40	-13.00	-34.40
2	5137.50	-60.00	-50.00	1.40	-48.60	-13.00	-35.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3425.00	-59.00	-53.10	1.30	-51.80	-13.00	-38.80
2	5137.50	-61.80	-52.00	1.40	-50.60	-13.00	-37.60

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 20175	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-56.80	-50.50	1.40	-49.10	-13.00	-36.10
2	5197.50	-59.10	-49.60	1.40	-48.20	-13.00	-35.20
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-60.50	-54.90	1.40	-53.50	-13.00	-40.50
2	5197.50	-61.50	-51.40	1.40	-50.00	-13.00	-37.00

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 20375	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3505.00	-56.60	-50.60	1.50	-49.10	-13.00	-36.10
2	5257.50	-58.10	-48.50	1.50	-47.00	-13.00	-34.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3505.00	-58.20	-52.70	1.50	-51.20	-13.00	-38.20
2	5257.50	-62.00	-52.50	1.50	-51.00	-13.00	-38.00

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

Mode	TX channel 20000	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3430.00	-56.00	-49.70	1.40	-48.30	-13.00	-35.30
2	5145.00	-61.00	-51.00	1.40	-49.60	-13.00	-36.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3430.00	-59.20	-53.40	1.40	-52.00	-13.00	-39.00
2	5145.00	-61.40	-51.70	1.40	-50.30	-13.00	-37.30

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 20175	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-56.80	-50.50	1.40	-49.10	-13.00	-36.10
2	5197.50	-58.60	-49.20	1.40	-47.80	-13.00	-34.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-60.50	-54.90	1.40	-53.50	-13.00	-40.50
2	5197.50	-61.80	-51.70	1.40	-50.30	-13.00	-37.30

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 20350	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3500.00	-55.40	-49.40	1.50	-47.90	-13.00	-34.90
2	5250.00	-60.60	-51.10	1.50	-49.60	-13.00	-36.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3500.00	-59.50	-54.10	1.50	-52.60	-13.00	-39.60
2	5250.00	-61.20	-51.70	1.50	-50.20	-13.00	-37.20

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 15MHz

Mode	TX channel 20025	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3435.00	-56.50	-50.10	1.30	-48.80	-13.00	-35.80
2	5152.50	-61.20	-51.40	1.40	-50.00	-13.00	-37.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3435.00	-60.50	-54.60	1.30	-53.30	-13.00	-40.30
2	5152.50	-65.00	-55.20	1.40	-53.80	-13.00	-40.80

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 20175	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-57.40	-51.20	1.40	-49.80	-13.00	-36.80
2	5197.50	-59.80	-50.30	1.40	-48.90	-13.00	-35.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-60.30	-54.70	1.40	-53.30	-13.00	-40.30
2	5197.50	-61.70	-51.60	1.40	-50.20	-13.00	-37.20

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 20325	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3495.00	-57.40	-51.40	1.50	-49.90	-13.00	-36.90
2	5242.50	-61.00	-51.40	1.40	-50.00	-13.00	-37.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3495.00	-59.00	-53.50	1.50	-52.00	-13.00	-39.00
2	5242.50	-61.90	-52.10	1.40	-50.70	-13.00	-37.70

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 20MHz

Mode	TX channel 20050	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3440.00	-58.10	-51.80	1.30	-50.50	-13.00	-37.50
2	5160.00	-61.50	-51.70	1.40	-50.30	-13.00	-37.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3440.00	-60.20	-54.40	1.30	-53.10	-13.00	-40.10
2	5160.00	-62.40	-52.50	1.40	-51.10	-13.00	-38.10

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 20175	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-58.50	-52.30	1.40	-50.90	-13.00	-37.90
2	5197.50	-59.20	-49.80	1.40	-48.40	-13.00	-35.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3465.00	-60.50	-54.90	1.40	-53.50	-13.00	-40.50
2	5197.50	-60.70	-50.60	1.40	-49.20	-13.00	-36.20

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Mode	TX channel 20300	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3490.00	-57.00	-51.00	1.50	-49.50	-13.00	-36.50
2	5235.00	-61.30	-51.70	1.40	-50.30	-13.00	-37.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3490.00	-60.80	-55.40	1.50	-53.90	-13.00	-40.90
2	5235.00	-61.90	-52.10	1.40	-50.70	-13.00	-37.70

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



LTE Band 12

Channel Bandwidth: 1.4MHz

Mode	TX channel 23017	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1399.40	-55.63	-49.33	0.85	-48.48	-13.00	-35.48
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1399.40	-57.27	-52.10	0.85	-51.25	-13.00	-38.25

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 23095	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-55.57	-49.08	0.94	-48.14	-13.00	-35.14
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-57.39	-52.03	0.94	-51.09	-13.00	-38.09

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 23173	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1430.60	-55.66	-49.01	1.05	-47.96	-13.00	-34.96
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1430.60	-69.29	-63.77	1.05	-62.72	-13.00	-49.72

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Channel Bandwidth: 3 MHz

Mode	TX channel 23025	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1401.00	-61.20	-55.00	0.90	-54.10	-13.00	-41.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1401.00	-56.60	-51.50	0.90	-50.60	-13.00	-37.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 23095	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-61.20	-54.70	0.90	-53.80	-13.00	-40.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-57.00	-51.70	0.90	-50.80	-13.00	-37.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 23165	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1429.00	-61.40	-54.70	1.00	-53.70	-13.00	-40.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1429.00	-57.60	-52.10	1.00	-51.10	-13.00	-38.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Channel Bandwidth: 5MHz

Mode	TX channel 23035	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1403.00	-61.10	-54.80	0.90	-53.90	-13.00	-40.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1403.00	-57.10	-52.00	0.90	-51.10	-13.00	-38.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 23095	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-61.80	-55.30	0.90	-54.40	-13.00	-41.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-58.40	-53.00	0.90	-52.10	-13.00	-39.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 23155	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1427.00	-61.80	-55.10	1.00	-54.10	-13.00	-41.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1427.00	-57.30	-51.80	1.00	-50.80	-13.00	-37.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Channel Bandwidth: 10MHz

Mode	TX channel 23060	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1408.00	-61.80	-55.30	0.90	-54.40	-13.00	-41.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1408.00	-57.60	-52.40	0.90	-51.50	-13.00	-38.50

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 23095	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-62.30	-55.80	0.90	-54.90	-13.00	-41.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1415.00	-60.00	-54.70	0.90	-53.80	-13.00	-40.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 23130	Frequency Range	Above 1000MHz
Environmental Conditions	16deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Frank Liu		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1422.00	-61.60	-55.10	1.00	-54.10	-13.00	-41.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1422.00	-58.30	-52.90	1.00	-51.90	-13.00	-38.90

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

LTE Band 41

Channel Bandwidth: 5MHz

Mode	TX channel 39675	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	4997.00	-52.20	-39.90	1.40	-38.50	-25.00	-13.50
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	4997.00	-55.60	-44.60	1.40	-43.20	-25.00	-18.20

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40148	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5091.60	-53.50	-41.00	1.40	-39.60	-25.00	-14.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5091.60	-56.80	-45.20	1.40	-43.80	-25.00	-18.80

Remarks:

- Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
- Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40620	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-53.10	-41.40	1.40	-40.00	-25.00	-15.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-56.80	-44.60	1.40	-43.20	-25.00	-18.20

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 41093	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5280.60	-54.10	-42.30	1.50	-40.80	-25.00	-15.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5280.60	-57.00	-45.60	1.50	-44.10	-25.00	-19.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 41565	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5375.00	-54.20	-42.20	1.50	-40.70	-25.00	-15.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5375.00	-57.30	-45.90	1.50	-44.40	-25.00	-19.40

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Channel Bandwidth: 10MHz

Mode	TX channel 39700	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5002.00	-57.30	-45.00	1.40	-43.60	-25.00	-18.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5002.00	-60.20	-51.40	1.40	-50.00	-25.00	-25.00

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40160	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5094.00	-57.60	-45.10	1.40	-43.70	-25.00	-18.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5094.00	-60.80	-49.20	1.40	-47.80	-25.00	-22.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Mode	TX channel 40620	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-56.20	-44.50	1.40	-43.10	-25.00	-18.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-62.70	-50.50	1.40	-49.10	-25.00	-24.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 41080	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5275.60	-51.90	-40.10	1.50	-38.60	-25.00	-13.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5275.60	-57.30	-45.80	1.50	-44.30	-25.00	-19.30

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 41540	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5370.00	-52.10	-40.10	1.50	-38.60	-25.00	-13.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5370.00	-58.40	-47.10	1.50	-45.60	-25.00	-20.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Channel Bandwidth: 15MHz

Mode	TX channel 39725	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5007.00	-57.70	-45.40	1.40	-44.00	-25.00	-19.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5007.00	-62.40	-51.40	1.40	-50.00	-25.00	-25.00

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40173	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5096.60	-56.90	-44.40	1.40	-43.00	-25.00	-18.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5096.60	-61.90	-50.30	1.40	-48.90	-25.00	-23.90

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40620	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-56.80	-45.10	1.40	-43.70	-25.00	-18.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-62.70	-50.50	1.40	-49.10	-25.00	-24.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 41068	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5275.60	-55.70	-43.90	1.50	-42.40	-25.00	-17.40
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5275.60	-62.00	-50.50	1.50	-49.00	-25.00	-24.00

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 41515	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5365.00	-56.30	-44.30	1.50	-42.80	-25.00	-17.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5365.00	-62.40	-51.10	1.50	-49.60	-25.00	-24.60

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Channel Bandwidth: 20MHz

Mode	TX channel 39750	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5012.00	-58.30	-46.00	1.40	-44.60	-25.00	-19.60
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5012.00	-62.60	-51.50	1.40	-50.10	-25.00	-25.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40185	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5099.00	-58.60	-46.10	1.40	-44.70	-25.00	-19.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5099.00	-62.70	-51.10	1.40	-49.70	-25.00	-24.70

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 40620	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-57.20	-45.50	1.40	-44.10	-25.00	-19.10
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-63.70	-51.50	1.40	-50.10	-25.00	-25.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 41055	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5273.00	-56.60	-44.80	1.50	-43.30	-25.00	-18.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5273.00	-61.50	-50.00	1.50	-48.50	-25.00	-23.50

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 41490	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Ted Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5360.00	-57.40	-45.40	1.50	-43.90	-25.00	-18.90
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5360.00	-62.10	-50.80	1.50	-49.30	-25.00	-24.30

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

--- END ---