FCC Test Report
(Part 27)

Report No.:	RF180713C31-2
FCC ID:	H8N-RTL0102VW
Test Model:	TM-RTL0102
Received Date:	Jul. 13, 2018
Test Date:	Jul. 24 ~ Aug. 08, 2018
Issued Date:	Aug. 09, 2018
Applicant:	ASKEY COMPUTER CORP.
Address:	10F, NO. 119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, TAIWAN, R.O.C.
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 (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003
Test Location (2):	No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C
FCC Registration / Designation Number:	427177 / TW0011

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Release Control Record

Issue No.	Description	Date Issued
RF180713C31-2	Original release	Aug. 09, 2018

1 Certificate of Conformity

Product:	LTE WiFi Gateway
Brand:	T-Mobile
Test Model:	TM-RTL0102
Sample Status:	Engineering sample
Applicant:	ASKEY COMPUTER CORP.
Test Date:	Jul. 24 ~ Aug. 08, 2018
Standards:	FCC Part 27, Subpart C, L, H

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 RF characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Aug. 09, 2018

Celine Chou / Specialist

Approved by : Bruce Chen , **Date:** Aug. 09, 2018

Bruce Chen / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2						
FCC Clause				Test Item	Result	Remarks
WCDMA Band 4 / LTE Band 4	LTE Band 12	LTE Band 66	LTE Band 71			
2.1046 27.50 (d)(4)	2.1046 27.50 (c)(10)	2.1046 27.50 (d)(4)	2.1046 27.50 (c)(10)	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	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 (m)(6)	2.1049 27.53 (m)(6)	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(h)	2.1051 27.53(g)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(h)	2.1051 27.53(g)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(h)	2.1051 27.53(g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.6dB at 30.00MHz.

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	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	2.0153 dB
	200MHz ~1000MHz	2.0224 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.0121 dB
	18GHz ~ 40GHz	1.1508 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Agilent Technologies	N9010A	MY52220314	Nov. 24, 2017	Nov. 23, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Jan. 11, 2018	Jan. 10, 2019
Double Ridge Guide Horn Antenna EMCO	3115	5619	Nov. 30, 2017	Nov. 29, 2018
BILOG Antenna SCHWARZBECK	VULB 9168	9168-153	Dec. 06, 2017	Dec. 05, 2018
HORN Antenna Schwarzbeck	BBHA 9120D	9120D-969	Dec. 12, 2017	Dec. 11, 2018
Fixed Attenuator Woken	00801A1GGAM02Y	NA	May 17, 2018	May 16, 2019
MXG Vector signal generator Agilent	N5182B	MY53050430	Oct. 24, 2017	Oct. 23, 2018
Preamplifier Agilent	310N	187226	Jun. 19, 2018	Jun. 18, 2019
Preamplifier Agilent	83017A	MY39501357	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-400)	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-SMS-100-SMS- 24)	Jun. 19, 2018	Jun. 18, 2019
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA
Radio Communication Analyzer Anritsu	MT8820C	6201010284	Dec. 28, 2017	Dec. 27, 2018
Temperature & Humidity Chamber	GTH-120-40-CP-AR	MAA1306-019	Sep. 08, 2017	Sep. 07, 2018
DC Power Supply Topward	33010D	807748	Oct. 25, 2016	Oct. 24, 2018
Digital Multimeter Fluke	87-III	70360742	Jun. 29, 2018	Jun. 28, 2019

Note: 1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HsinTien Chamber 1.
3. The horn antenna and preamplifier (model: 83017A) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The IC Site Registration No. is IC7450I-1.

3 General Information

3.1 General Description of EUT

Product	LTE WiFi Gateway		
Brand	T-Mobile		
Test Model	TM-RTL0102		
Status of EUT	Engineering sample		
Power Supply Rating	12Vdc from Adapter 3.7Vdc from Battery		
Modulation Type	WCDMA: BPSK, QPSK HSDPA: BPSK HSUPA: QPSK LTE: QPSK, 16QAM, 64QAM		
Operating Frequency	WCDMA Band 4		1712.4MHz ~ 1752.6MHz
	LTE Band 4	Channel Bandwidth 1.4MHz	1710.7MHz ~ 1754.3MHz
		Channel Bandwidth 3MHz	1711.5MHz ~ 1753.5MHz
		Channel Bandwidth 5MHz	1712.5MHz ~ 1752.5MHz
		Channel Bandwidth 10MHz	1715.0MHz ~ 1750.0MHz
		Channel Bandwidth 15MHz	1717.5MHz ~ 1747.5MHz
		Channel Bandwidth 20MHz	1720.0MHz ~ 1745.0MHz
	LTE Band 12	Channel Bandwidth 1.4MHz	699.7MHz ~ 715.3MHz
		Channel Bandwidth 3MHz	700.5MHz ~ 714.5MHz
		Channel Bandwidth 5MHz	701.5MHz ~ 713.5MHz
		Channel Bandwidth 10MHz	704.0MHz ~ 711.0MHz
	LTE Band 66	Channel Bandwidth 1.4MHz	1710.7MHz ~ 1779.3MHz
		Channel Bandwidth 3MHz	1711.5MHz ~ 1778.5MHz
		Channel Bandwidth 5MHz	1712.5MHz ~ 1777.5MHz
		Channel Bandwidth 10MHz	1715.0MHz ~ 1775.0MHz
		Channel Bandwidth 15MHz	1717.5MHz ~ 1772.5MHz
		Channel Bandwidth 20MHz	1720.0MHz ~ 1770.0MHz
	LTE Band 71	Channel Bandwidth 5MHz	665.5MHz ~ 695.5MHz
		Channel Bandwidth 10MHz	668.0MHz ~ 693.0MHz
		Channel Bandwidth 15MHz	670.5MHz ~ 690.5MHz
		Channel Bandwidth 20MHz	673.0MHz ~ 688.0MHz

Max. EIRP Power	WCDMA Band 4		360.16mW (25.57dBm)		
			QPSK	16QAM	64QAM
	LTE Band 4	Channel Bandwidth 1.4MHz	500.84mW (27.00dBm)	397.83mW (26.00dBm)	315.28mW (24.99dBm)
		Channel Bandwidth 3MHz	504.31mW (27.03dBm)	399.67mW (26.02dBm)	316.74mW (25.01dBm)
		Channel Bandwidth 5MHz	507.81mW (27.06dBm)	402.44mW (26.05dBm)	318.93mW (25.04dBm)
		Channel Bandwidth 10MHz	512.51mW (27.10dBm)	406.16mW (26.09dBm)	321.88mW (25.08dBm)
		Channel Bandwidth 15MHz	516.06mW (27.13dBm)	409.92mW (26.13dBm)	324.86mW (25.12dBm)
		Channel Bandwidth 20MHz	520.83mW (27.17dBm)	412.76mW (26.16dBm)	327.11mW (25.15dBm)
Max. ERP Power	LTE Band 12	Channel Bandwidth 1.4MHz	140.31mW (21.47dBm)	111.20mW (20.46dBm)	87.92mW (19.44dBm)
		Channel Bandwidth 3MHz	141.61mW (21.51dBm)	112.23mW (20.50dBm)	88.94mW (19.49dBm)
		Channel Bandwidth 5MHz	142.92mW (21.55dBm)	113.27mW (20.54dBm)	89.76mW (19.53dBm)
		Channel Bandwidth 10MHz	143.81mW (21.58dBm)	113.97mW (20.57dBm)	90.32mW (19.56dBm)
Max. EIRP Power	LTE Band 66	Channel Bandwidth 1.4MHz	548.66mW (27.39dBm)	434.81mW (26.38dBm)	434.81mW (26.38dBm)
		Channel Bandwidth 3MHz	552.46mW (27.42dBm)	438.83mW (26.42dBm)	348.58mW (25.42dBm)
		Channel Bandwidth 5MHz	557.57mW (27.46dBm)	441.88mW (26.45dBm)	350.19mW (25.44dBm)
		Channel Bandwidth 10MHz	562.34mW (27.50dBm)	445.66mW (26.49dBm)	354.00mW (25.49dBm)
		Channel Bandwidth 15MHz	566.63mW (27.53dBm)	449.06mW (26.52dBm)	355.88mW (25.51dBm)
		Channel Bandwidth 20MHz	573.19mW (27.58dBm)	454.26mW (26.57dBm)	360.83mW (25.57dBm)
Max. ERP Power	LTE Band 71	Channel Bandwidth 5MHz	157.07mW (21.96dBm)	124.77mW (20.96dBm)	99.11mW (19.96dBm)
		Channel Bandwidth 10MHz	158.16mW (21.99dBm)	125.63mW (20.99dBm)	99.79mW (19.99dBm)
		Channel Bandwidth 15MHz	159.26mW (22.02dBm)	126.50mW (21.02dBm)	100.48mW (20.02dBm)
		Channel Bandwidth 20MHz	160.62mW (22.06dBm)	127.29mW (21.05dBm)	100.88mW (20.04dBm)

Emission Designator	WCDMA Band 4		4M15F9W		
			QPSK	16QAM	64QAM
	LTE Band 4	Channel Bandwidth 1.4MHz	1M09G7D	1M09W7D	1M10W7D
		Channel Bandwidth 3MHz	2M70G7D	2M70W7D	2M70W7D
		Channel Bandwidth 5MHz	4M48G7D	4M48W7D	4M48W7D
		Channel Bandwidth 10MHz	8M93G7D	8M93W7D	8M96W7D
		Channel Bandwidth 15MHz	13M4G7D	13M4W7D	13M4W7D
		Channel Bandwidth 20MHz	17M9G7D	18M0W7D	18M0W7D
	LTE Band 12	Channel Bandwidth 1.4MHz	1M09G7D	1M09W7D	1M09W7D
		Channel Bandwidth 3MHz	2M70G7D	2M70W7D	2M70W7D
		Channel Bandwidth 5MHz	4M48G7D	4M48W7D	4M48W7D
		Channel Bandwidth 10MHz	8M93G7D	8M96W7D	8M96W7D
	LTE Band 66	Channel Bandwidth 1.4MHz	1M10G7D	1M09W7D	1M10W7D
		Channel Bandwidth 3MHz	2M70G7D	2M69W7D	2M70W7D
		Channel Bandwidth 5MHz	4M46G7D	4M46W7D	4M50W7D
		Channel Bandwidth 10MHz	8M93G7D	8M93W7D	8M96W7D
		Channel Bandwidth 15MHz	13M4G7D	13M4W7D	13M4W7D
		Channel Bandwidth 20MHz	18M0G7D	17M9W7D	18M0W7D
	LTE Band 71	Channel Bandwidth 5MHz	4M50G7D	4M48W7D	4M48W7D
		Channel Bandwidth 10MHz	8M93G7D	8M96W7D	8M93W7D
		Channel Bandwidth 15MHz	13M4G7D	13M4W7D	13M3W7D
		Channel Bandwidth 20MHz	17M9G7D	17M9W7D	17M8W7D
Antenna Type	Refer to note				
Antenna Connector	Refer to note				
Accessory Device	Adapter, Battery				
Cable Supplied	NA				

Note:

1. The EUT consumes power from the following adapters and battery.

Adapter 1	
Brand	FLYPOWER
Model	PS24L120K2000UD
Input	100-240Vac, 50/60Hz, 0.8A Max.
Output	12.0Vdc, 2.0A
Power Line	1.45m DC cable without core attached on adapter

Adapter 2	
Brand	Asian Power Devices Inc.
Model	WB-24J12FU
Input	100-240Vac, 50-60Hz, 0.7A Max.
Output	12.0Vdc, 2.0A
Power Line	1.5m DC cable without core attached on adapter

* After pre-test, adapter 1 is the worst case and for final test.

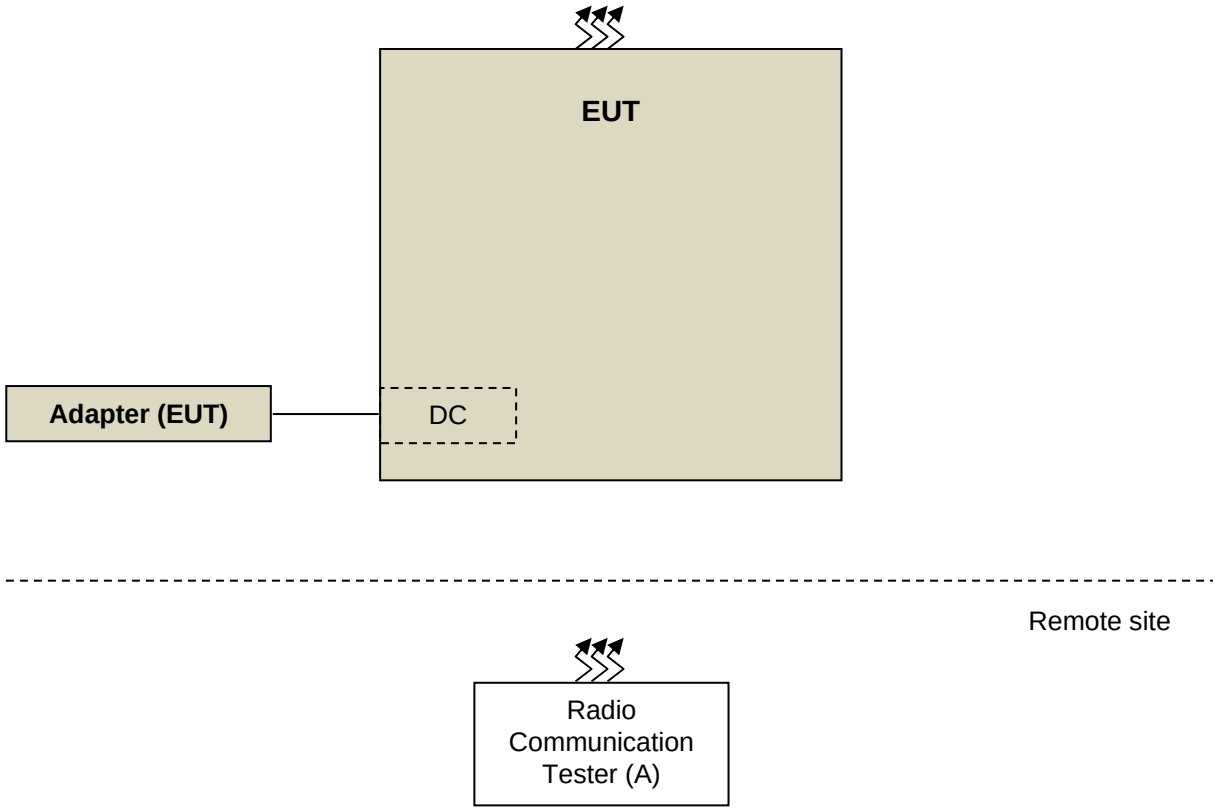
Battery	
Brand	ASKEY COMPUTER CORP.
Model	BP18-002390
Rating	3.7Vdc, 5200mAh, 19.24Wh

2. The following antennas were provided to the EUT.

Ant. No.		Ant 1	Ant 2
Antenna Type		PIFA	PIFA
Connector		NA	NA
Band	Freq. Range	Gain (dBi)	Gain (dBi)
WCDMA Band 2	1850~1910	2.3	-
WCDMA Band 4	1710~1755	1.07	-
WCDMA Band 5	824~849	-	0.33
LTE Band 2	1850~1910	2.3	-
LTE Band 4	1710~1755	1.07	-
LTE Band 5	824~849	-	0.33
LTE Band 12	698~716	-	-1.1
LTE Band 66	1710 ~1780	1.5	-
LTE Band 71	663 to 698	-	-1.3

3. Carrier Aggregation technology supported for this device, the operation behavior is LTE Band 2 + LTE Band 12.

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.	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.

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

Band	ERP / EIRP	Radiated Emission
WCDMA Band 4	Z-plane	Z-plane
LTE Band 4	X-plane	Z-plane
LTE Band 12	X-plane	Z-plane
LTE Band 66	Z-plane	Z-plane
LTE Band 71	Z-plane	Y-plane

Test results are presented in the report as below.

Test Mode	Test Condition
A	EUT with Adapter
B	EUT only (Battery Mode)

WCDMA Band 4 Mode

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
A, B	Conducted Output Power	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA / HSDPA / HSUPA
A	EIRP	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA
A	Modulation Characteristics	1312 to 1513	1413(1732.6MHz)	WCDMA
A	Frequency Stability	1312 to 1513	1413(1732.6MHz)	WCDMA
A	Emission Bandwidth	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA / HSDPA / HSUPA
A	Band Edge	1312 to 1513	1312(1712.4MHz), 1513(1752.6MHz)	WCDMA / HSDPA / HSUPA
A	Peak To Average Ratio	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA / HSDPA / HSUPA
A	Conducted Emission	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA / HSDPA / HSUPA
A	Radiated Emission below 1GHz	1312 to 1513	1312(1712.4MHz)	WCDMA
A	Radiated Emission above 1GHz	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA

LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
A, B	Conducted Output Power	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20175(1732.5MHz), 20385(1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20175(1732.5MHz), 20350(1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20175(1732.5MHz), 20325(1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	EIRP	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20175(1732.5MHz), 20385(1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20175(1732.5MHz), 20350(1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20175(1732.5MHz), 20325(1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	Modulation Characteristics	20050 to 20300	20175(1732.5MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
A	Frequency Stability	19957 to 20393	20175(1732.5MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
A	Emission Bandwidth	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	6 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20175(1732.5MHz), 20385(1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM	15 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20175(1732.5MHz), 20350(1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM	50 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20175(1732.5MHz), 20325(1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM	75 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
A	Band Edge	19957 to 20393	19957(1710.7MHz), 20393(1754.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20385(1753.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20375(1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20350(1750.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20325(1747.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20300(1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
A	Peak To Average Ratio	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20175(1732.5MHz), 20385(1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20175(1732.5MHz), 20350(1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20175(1732.5MHz), 20325(1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	Conducted Emission	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK	6 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20175(1732.5MHz), 20385(1753.5MHz)	3MHz	QPSK	15 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20175(1732.5MHz), 20350(1750.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20175(1732.5MHz), 20325(1747.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
A	Radiated Emission below 1GHz	20050 to 20300	20175(1732.5MHz)	20MHz	QPSK	1 RB / 0 RB Offset
A	Radiated Emission above 1GHz	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 12

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Conducted Output Power	23017 to 23171	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23095(707.5MHz), 23165(714.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5 MHz), 23130(711.0 MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	ERP	23017 to 23171	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23095(707.5MHz), 23165(714.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5 MHz), 23130(711.0 MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	Modulation Characteristics	23060 to 23130	23095(707.5MHz)	10MHz	QPSK / 16QAM / 64QAM	50 RB / 0 RB Offset
A	Frequency Stability	23017 to 23171	23095(707.5MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
A	Emission Bandwidth	23017 to 23171	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	6 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23095(707.5MHz), 23165(714.5MHz)	3MHz	QPSK / 16QAM / 64QAM	15 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5MHz), 23130(711.0MHz)	10MHz	QPSK / 16QAM / 64QAM	50 RB / 0 RB Offset
A	Band Edge	23017 to 23171	23017(699.7MHz), 23173(715.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23165(714.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23155(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23130(711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
A	Peak to Average Ratio	23017 to 23171	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23095(707.5MHz), 23165(714.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5MHz), 23130(711.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A	Conducted Emission	23017 to 23171	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK	6 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23095(707.5MHz), 23165(714.5MHz)	3MHz	QPSK	15 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5MHz), 23130(711.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
A	Radiated Emission below 1GHz	23060 to 23130	23130(711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
A	Radiated Emission above 1GHz	23017 to 23171	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5MHz), 23130(711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

LTE Band 66

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Conducted Output Power	131979 to 132665	131979(1710.7MHz) 132322(1745.0MHz) 132665(1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		131987 to 132657	131987(1711.5MHz) 132322(1745.0MHz) 132657(1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132322(1745.0MHz) 132647(1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132022 to 132622	132022(1715.0MHz) 132322(1745.0MHz) 132622(1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132047 to 132597	132047(1717.5MHz) 132322(1745.0MHz) 132597(1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132322(1745.0MHz) 132572(1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	EIRP	131979 to 132665	131979(1710.7MHz) 132322(1745.0MHz) 132665(1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		131987 to 132657	131987(1711.5MHz) 132322(1745.0MHz) 132657(1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132322(1745.0MHz) 132647(1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132022 to 132622	132022(1715.0MHz) 132322(1745.0MHz) 132622(1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132047 to 132597	132047(1717.5MHz) 132322(1745.0MHz) 132597(1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132322(1745.0MHz) 132572(1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	Modulation Characteristics	132072 to 132572	132322(1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
A	Frequency Stability	131979 to 132665	132322(1745.0MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
A	Emission Bandwidth	131979 to 132665	131979(1710.7MHz) 132322(1745.0MHz) 132665(1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	6 RB / 0 RB Offset
		131987 to 132657	131987(1711.5MHz) 132322(1745.0MHz) 132657(1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM	15 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132322(1745.0MHz) 132647(1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		132022 to 132622	132022(1715.0MHz) 132322(1745.0MHz) 132622(1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	50 RB / 0 RB Offset
		132047 to 132597	132047(1717.5MHz) 132322(1745.0MHz) 132597(1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	75 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132322(1745.0MHz) 132572(1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A	Band Edge	131979 to 132665	131979(1710.7MHz) 132665(1779.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
		131987 to 132657	131987(1711.5MHz) 132657(1778.5MHz)	3MHz	QPSK	1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132647(1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		132022 to 132622	132022(1715.0MHz) 132622(1775.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		132047 to 132597	132047(1717.5MHz) 132597(1772.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132572(1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
A	Peak to Average Ratio	131979 to 132665	131979(1710.7MHz) 132322(1745.0MHz) 132665(1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		131987 to 132657	131987(1711.5MHz) 132322(1745.0MHz) 132657(1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132322(1745.0MHz) 132647(1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132022 to 132622	132022(1715.0MHz) 132322(1745.0MHz) 132622(1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132047 to 132597	132047(1717.5MHz) 132322(1745.0MHz) 132597(1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132322(1745.0MHz) 132572(1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	Conducted Emission	131979 to 132665	131979(1710.7MHz) 132322(1745.0MHz) 132665(1779.3MHz)	1.4MHz	QPSK	6 RB / 0 RB Offset
		131987 to 132657	131987(1711.5MHz) 132322(1745.0MHz) 132657(1778.5MHz)	3MHz	QPSK	15 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132322(1745.0MHz) 132647(1777.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		132022 to 132622	132022(1715.0MHz) 132322(1745.0MHz) 132622(1775.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		132047 to 132597	132047(1717.5MHz) 132322(1745.0MHz) 132597(1772.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132322(1745.0MHz) 132572(1770.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
A	Radiated Emission below 1GHz	132072 to 132572	132322(1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
A	Radiated Emission above 1GHz	131979 to 132665	131979(1710.7MHz) 132322(1745.0MHz) 132665(1779.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997(1712.5MHz) 132322(1745.0MHz) 132647(1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132072(1720.0MHz) 132322(1745.0MHz) 132572(1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

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EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Conducted Output Power	133147 to 133447	133147(665.5MHz), 133297(680.5MHz), 133447(695.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133172 to 133422	133172(668.0MHz), 133297(680.5MHz), 133422(693.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133197 to 133397	133197(670.5MHz), 133297(680.5MHz), 133397(690.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133297(680.5MHz), 133372(688.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	ERP	133147 to 133447	133147(665.5MHz), 133297(680.5MHz), 133447(695.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133172 to 133422	133172(668.0MHz), 133297(680.5MHz), 133422(693.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133197 to 133397	133197(670.5MHz), 133297(680.5MHz), 133397(690.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133297(680.5MHz), 133372(688.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
A	Modulation Characteristics	133222 to 133372	133297(680.5MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
A	Frequency Stability	133147 to 133447	133297(680.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
A	Emission Bandwidth	133147 to 133447	133147(665.5MHz), 133297(680.5MHz), 133447(695.5MHz)	5MHz	QPSK / 16QAM / 64QAM	25 RB / 0 RB Offset
		133172 to 133422	133172(668.0MHz), 133297(680.5MHz), 133422(693.0MHz)	10MHz	QPSK / 16QAM / 64QAM	50 RB / 0 RB Offset
		133197 to 133397	133197(670.5MHz), 133297(680.5MHz), 133397(690.5MHz)	15MHz	QPSK / 16QAM / 64QAM	75 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133297(680.5MHz), 133372(688.0MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
A	Band Edge	133147 to 133447	133147(665.5MHz), 133447(695.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		133172 to 133422	133172(668.0MHz), 133422(693.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
		133197 to 133397	133197(670.5MHz), 133397(690.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133372(688.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
A	Peak to Average Ratio	133147 to 133447	133147(665.5MHz), 133297(680.5MHz), 133447(695.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133172 to 133422	133172(668.0MHz), 133297(680.5MHz), 133422(693.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133197 to 133397	133197(670.5MHz), 133297(680.5MHz), 133397(690.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133297(680.5MHz), 133372(688.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A	Conducted Emission	133147 to 133447	133147(665.5MHz), 133297(680.5MHz), 133447(695.5MHz)	5MHz	QPSK	25 RB / 0 RB Offset
		133172 to 133422	133172(668.0MHz), 133297(680.5MHz), 133422(693.0MHz)	10MHz	QPSK	50 RB / 0 RB Offset
		133197 to 133397	133197(670.5MHz), 133297(680.5MHz), 133397(690.5MHz)	15MHz	QPSK	75 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133297(680.5MHz), 133372(688.0MHz)	20MHz	QPSK	100 RB / 0 RB Offset
A	Radiated Emission below 1GHz	133222 to 133372	133297(680.5MHz)	20MHz	QPSK	1 RB / 0 RB Offset
A	Radiated Emission above 1GHz	133147 to 133447	133147(665.5MHz), 133297(680.5MHz), 133447(695.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		133222 to 133372	133222(673.0MHz), 133297(680.5MHz), 133372(688.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. The conducted output power for QPSK, 16QAM and 64QAM, measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only ERP, EIRP, Modulation Characteristics, Emission Bandwidth and Peak to average ratio had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.
2. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5MHz & highest channel bandwidth for final test.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP / ERP	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Modulation characteristics	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Frequency Stability	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Occupied Bandwidth	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Band Edge	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Peak To Average Ratio	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Conducted Emission	25deg. C, 66%RH	120Vac, 60Hz	Jones Chang
Radiated Emission	25deg. C, 65%RH	120Vac, 60Hz	Kart Lee

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 v03r01

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

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 WCDMA, LTE Band 4 & LTE Band 66 and 3 watts e.r.p for LTE Band 12 & LTE Band 71.

4.1.2 Test Procedures

EIRP / ERP Measurement:

a. All measurements were done at low, middle and high operational frequency range. RWB and VBW is 5MHz for WCDMA mode and 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(below or equal 1GHz) and/or 1.5m(above 1GHz) 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 = Output power level of S.G – TX cable loss + 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 power = E.I.R.P power - 2.15dBi.

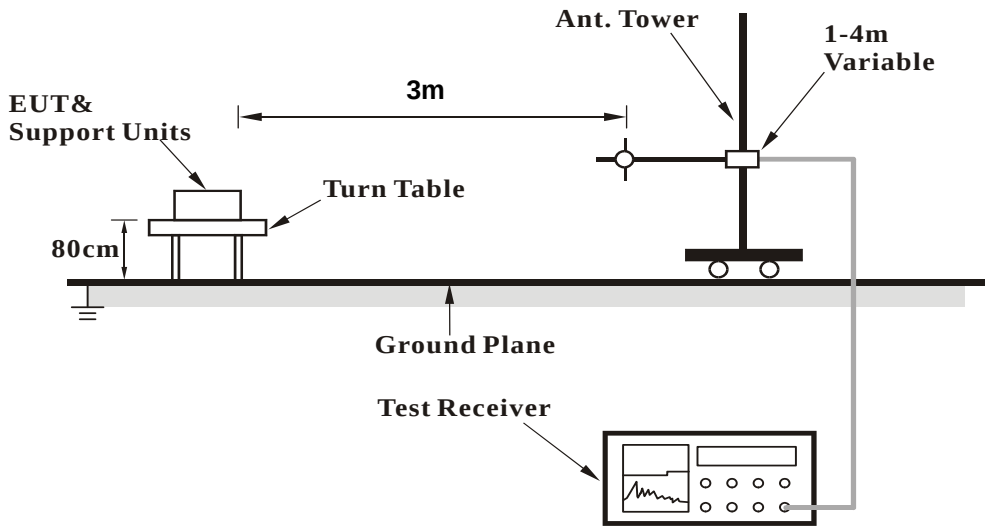
Conducted Power Measurement:

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.

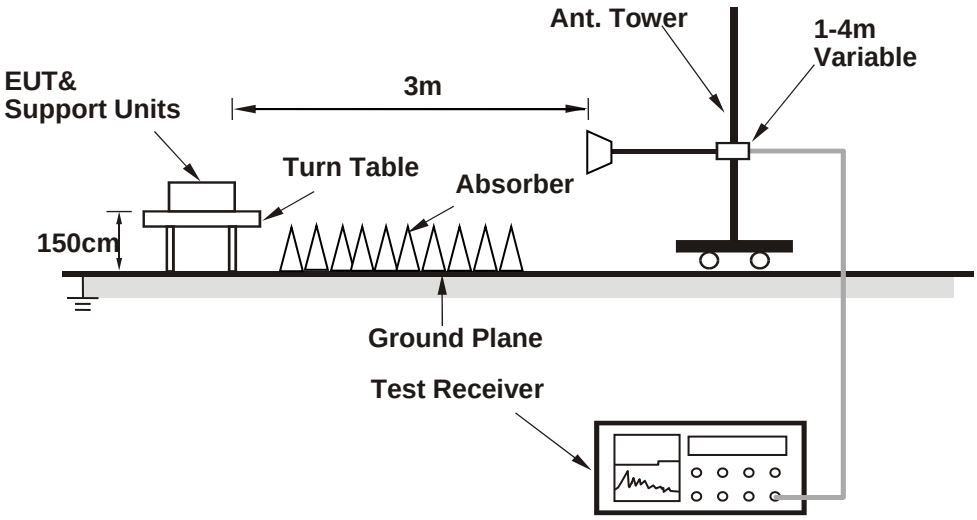
4.1.3 Test Setup

EIRP / ERP MEASUREMENT:

For Radiated Emission below or equal 1GHz



For Radiated Emission above 1GHz



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

For Test Mode A (EUT + Adapter Mode)

Conducted Output Power (dBm)

Band	WCDMA Band IV		
TX Channel	1312	1413	1513
Rx Channel	1537	1638	1738
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	24.49	24.34	24.36
HSDPA Subtest-1	23.40	23.29	23.25
HSDPA Subtest-2	23.36	23.23	23.20
HSDPA Subtest-3	22.88	22.79	22.75
HSDPA Subtest-4	22.84	22.77	22.69
HSUPA Subtest-1	23.31	23.17	23.19
HSUPA Subtest-2	22.12	22.01	22.00
HSUPA Subtest-3	22.43	22.20	22.19
HSUPA Subtest-4	22.10	21.98	21.96
HSUPA Subtest-5	23.40	23.22	23.16

Conducted Output Power (dBm)

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19957	20175	20393	19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
4 / 1.4M	1	0	23.17	25.03	24.56	22.20	24.21	23.34	21.60	23.71	22.58
	1	2	23.27	24.97	24.70	22.58	24.30	23.83	21.80	23.37	23.06
	1	5	23.33	24.90	24.43	22.49	24.21	23.29	21.52	23.66	22.76
	3	0	23.20	25.00	24.47	22.00	24.10	23.57	21.37	23.46	22.86
	3	1	23.24	25.02	24.50	22.27	24.13	23.26	21.31	23.57	22.40
	3	3	23.19	24.98	24.44	22.27	24.08	23.18	21.37	23.17	22.39
	6	0	22.14	23.64	23.48	21.10	23.12	22.22	20.20	22.53	21.45
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19965	20175	20385	19965	20175	20385	19965	20175	20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz
4 / 3M	1	0	23.87	25.51	24.49	22.80	24.70	23.83	22.28	23.93	22.86
	1	7	24.55	25.42	24.99	23.30	24.91	23.73	22.54	24.00	23.09
	1	14	24.14	25.22	24.91	23.60	24.39	24.00	22.65	23.66	23.07
	8	0	22.90	24.60	23.48	21.99	23.67	22.47	21.25	22.81	21.90
	8	3	22.96	24.64	23.93	22.08	23.38	23.01	21.39	22.74	22.40
	8	7	23.04	24.29	23.83	22.15	23.67	22.84	21.64	23.15	22.32
	15	0	23.05	24.18	23.94	22.08	23.23	22.96	21.47	22.53	22.40
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19975	20175	20375	19975	20175	20375	19975	20175	20375
			1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz
4 / 5M	1	0	23.15	25.06	24.05	22.25	24.33	23.30	21.43	23.72	22.57
	1	12	23.60	24.94	24.14	22.75	24.16	23.84	22.03	23.22	23.11
	1	24	24.05	24.94	24.28	22.78	23.90	23.42	22.13	23.35	22.62
	12	0	22.42	24.11	23.58	21.49	23.20	22.24	20.88	22.44	21.49
	12	6	22.65	24.05	23.24	21.64	23.30	22.29	21.10	22.33	21.71
	12	13	22.82	24.09	23.10	21.72	22.99	22.16	20.92	22.05	21.56
	25	0	22.46	23.92	23.12	21.50	22.93	22.14	20.51	22.32	21.34
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20000	20175	20350	20000	20175	20350	20000	20175	20350
			1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz
4 / 10M	1	0	23.49	25.27	24.44	22.80	24.71	23.92	21.98	23.77	23.06
	1	24	24.34	25.10	24.30	23.48	24.23	24.10	22.89	23.30	23.55
	1	49	24.87	24.80	24.29	24.12	24.49	23.69	23.32	23.70	22.81
	25	0	22.84	24.19	23.41	21.95	23.27	22.44	21.11	22.59	21.70
	25	12	23.38	24.16	23.25	22.51	23.11	22.28	21.63	22.61	21.49
	25	25	23.61	24.15	23.47	22.57	23.26	22.60	22.06	22.29	21.88
	50	0	22.95	24.16	23.19	22.06	23.29	22.37	21.56	22.59	21.68

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20025	20175	20325	20025	20175	20325	20025	20175	20325
			1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz
4 / 15M	1	0	23.51	25.29	24.58	22.47	24.31	23.70	21.71	23.48	23.20
	1	37	24.01	25.08	24.16	23.74	24.17	23.39	23.23	23.61	22.73
	1	74	25.01	25.07	24.32	24.32	24.14	23.25	23.35	23.22	22.65
	36	0	23.21	24.25	23.52	22.27	23.27	22.47	21.48	22.69	21.75
	36	19	23.62	24.19	23.43	22.66	23.24	22.31	21.86	22.45	21.62
	36	39	24.05	23.77	23.05	22.94	23.19	22.08	21.94	22.61	21.22
	75	0	23.59	24.12	23.20	22.60	23.18	22.29	21.64	22.52	21.68
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20050	20175	20300	20050	20175	20300	20050	20175	20300
			1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz
4 / 20M	1	0	23.33	25.30	24.87	22.85	24.11	24.18	22.27	23.38	23.67
	1	50	24.88	25.04	24.81	23.95	24.15	23.56	22.97	23.33	22.62
	1	99	25.00	24.65	23.89	24.25	24.08	23.12	23.63	23.51	22.23
	50	0	23.36	24.29	24.19	22.36	23.40	23.09	21.41	22.80	22.15
	50	25	24.02	24.18	23.32	23.03	23.20	22.52	22.26	22.54	21.82
	50	50	24.18	24.04	23.47	23.14	22.74	22.58	22.63	21.98	21.83
	100	0	23.77	23.61	23.28	22.84	23.10	22.36	22.00	22.34	21.79

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23017	23095	23173	23017	23095	23173	23017	23095	23173
			699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz
12 / 1.4M	1	0	23.87	24.08	24.06	23.46	23.24	23.34	22.55	22.68	22.42
	1	2	24.04	24.10	24.16	23.45	23.30	23.32	22.85	22.37	22.41
	1	5	23.85	24.06	24.12	23.46	23.56	23.28	22.77	22.70	22.46
	3	0	23.89	24.10	24.21	23.05	23.14	23.23	22.21	22.35	22.48
	3	1	23.88	24.09	24.14	23.03	23.20	23.22	22.53	22.69	22.70
	3	3	23.97	23.99	24.24	22.98	23.17	23.20	21.98	22.31	22.23
	6	0	22.91	23.11	23.23	22.05	22.23	22.31	21.16	21.58	21.40
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23025	23095	23165	23025	23095	23165	23025	23095	23165
			700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz
12 / 3M	1	0	24.03	24.17	24.27	23.09	23.22	23.23	22.31	22.37	22.29
	1	7	24.23	24.22	24.37	23.32	23.42	23.37	22.52	22.56	22.67
	1	14	24.11	24.17	24.12	23.30	23.19	23.26	22.58	22.62	22.71
	8	0	23.11	23.09	23.20	22.16	22.31	22.35	21.39	21.58	21.71
	8	3	23.12	23.13	23.28	22.32	22.43	22.44	21.68	21.60	21.87
	8	7	23.11	23.04	23.24	22.25	22.33	22.47	21.66	21.36	21.62
	15	0	23.10	23.15	23.17	22.23	22.35	22.38	21.67	21.49	21.49
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23035	23095	23155	23035	23095	23155	23035	23095	23155
			701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz
12 / 5M	1	0	23.83	23.91	24.14	23.35	23.45	23.64	22.71	22.74	23.03
	1	12	23.98	24.03	24.15	23.41	23.46	23.60	22.45	22.45	22.98
	1	24	23.99	24.01	24.17	23.49	23.45	23.67	22.80	22.82	22.75
	12	0	23.00	23.00	23.19	22.07	22.22	22.27	21.30	21.53	21.44
	12	6	23.02	23.08	23.21	22.06	22.18	22.20	21.37	21.66	21.41
	12	13	23.07	23.06	23.10	22.20	22.12	22.25	21.61	21.38	21.56
	25	0	22.99	23.03	23.16	22.08	22.15	22.28	21.16	21.40	21.58
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23060	23095	23130	23060	23095	23130	23060	23095	23130
			704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz
12 / 10M	1	0	23.74	23.84	24.19	23.13	23.12	23.40	22.60	22.39	22.53
	1	24	23.87	23.92	24.10	23.23	23.20	23.39	22.45	22.21	22.42
	1	49	24.04	24.01	24.11	23.35	23.33	23.41	22.69	22.37	22.87
	25	0	23.05	23.05	23.13	22.09	22.28	22.23	21.59	21.64	21.59
	25	12	23.07	23.14	23.14	22.24	22.22	22.20	21.57	21.29	21.47
	25	25	23.14	23.05	23.23	22.29	22.20	22.31	21.30	21.63	21.75
	50	0	23.08	23.09	23.10	22.16	22.12	22.22	21.53	21.43	21.42

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			131979	132322	132665	131979	132322	132665	131979	132322	132665
			1710.7 MHz	1745 MHz	1779.3 MHz	1710.7 MHz	1745 MHz	1779.3 MHz	1710.7 MHz	1745 MHz	1779.3 MHz
66 / 1.4M	1	0	24.34	25.24	25.03	23.43	24.44	24.13	22.61	23.74	23.33
	1	2	24.48	25.47	25.41	23.77	24.56	24.80	23.25	23.59	24.03
	1	5	24.40	25.19	24.93	23.53	24.40	24.41	22.74	23.62	23.78
	3	0	24.01	25.44	25.21	23.32	24.70	24.24	22.40	24.00	23.66
	3	1	24.08	25.28	25.25	23.37	24.54	24.37	22.43	23.61	23.77
	3	3	24.25	25.23	24.89	23.27	24.72	23.96	22.57	24.06	23.25
	6	0	22.99	24.16	23.83	22.25	23.17	23.27	21.46	22.54	22.65
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			131987	132322	132657	131987	132322	132657	131987	132322	132657
			1711.5 MHz	1745 MHz	1778.5 MHz	1711.5 MHz	1745 MHz	1778.5 MHz	1711.5 MHz	1745 MHz	1778.5 MHz
66 / 3M	1	0	24.16	25.45	25.35	23.34	24.68	24.76	23.39	24.10	23.76
	1	7	24.78	25.44	25.12	24.04	24.94	24.41	22.80	23.97	24.18
	1	14	24.47	25.02	25.37	23.67	24.51	24.73	21.80	22.89	22.66
	8	0	23.21	24.47	24.20	22.37	23.80	23.27	22.09	23.08	22.79
	8	3	23.57	24.48	24.29	22.87	23.60	23.68	22.11	22.79	22.39
	8	7	23.34	24.38	24.04	22.66	23.49	23.25	22.08	22.82	22.91
	15	0	23.45	24.33	24.34	22.89	23.55	23.53	22.41	23.05	23.09
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			131997	132322	132647	131997	132322	132647	131997	132322	132647
			1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz
66 / 5M	1	0	24.13	25.19	25.18	23.47	24.59	24.51	22.52	23.96	23.88
	1	12	24.74	25.41	25.31	23.87	24.78	24.81	22.90	24.16	23.89
	1	24	24.38	25.03	24.96	23.82	24.38	24.41	23.25	23.62	23.62
	12	0	23.54	24.11	24.46	22.80	23.33	23.71	21.97	22.46	22.97
	12	6	23.42	24.31	24.38	22.52	23.57	23.64	21.71	22.92	22.65
	12	13	23.86	24.31	24.18	23.32	23.42	23.53	22.35	22.57	22.67
	25	0	23.24	24.07	24.51	22.34	23.50	23.93	21.60	22.99	23.39
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			132022	132322	132622	132022	132322	132622	132022	132322	132622
			1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz
66 / 10M	1	0	24.13	25.50	25.25	23.38	24.73	24.37	22.41	23.88	23.50
	1	24	24.70	25.40	25.16	24.07	24.82	24.36	23.21	23.94	23.77
	1	49	25.22	25.06	25.06	24.60	24.36	24.48	23.68	23.43	23.72
	25	0	23.75	24.49	24.44	23.14	23.68	23.62	22.58	23.01	22.92
	25	12	23.92	24.63	24.13	22.97	23.95	23.19	22.01	23.30	22.59
	25	25	24.08	24.45	24.29	23.10	23.45	23.34	22.55	22.54	22.57
	50	0	23.89	23.98	24.22	23.09	23.18	23.59	22.13	22.44	22.66

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			132047	132322	132597	132047	132322	132597	132047	132322	132597
			1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz
66 / 15M	1	0	24.33	25.40	25.44	23.64	24.42	24.57	22.66	23.52	23.62
	1	37	25.34	25.44	25.27	24.83	24.78	24.44	24.29	23.84	23.48
	1	74	25.15	24.89	25.32	24.55	24.16	24.80	23.58	23.19	24.14
	36	0	23.90	24.59	24.53	23.07	23.68	23.81	22.35	23.12	23.30
	36	19	24.10	24.22	24.24	23.40	23.37	23.70	22.90	22.42	23.01
	36	39	24.17	24.20	24.43	23.40	23.69	23.88	22.60	22.73	23.35
	75	0	24.05	24.06	24.57	23.41	23.42	24.01	22.76	22.46	23.48
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			132072	132322	132572	132072	132322	132572	132072	132322	132572
			1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz
66 / 20M	1	0	24.10	25.60	24.72	23.50	24.76	24.09	22.62	24.04	23.41
	1	50	25.37	25.32	25.16	24.65	24.80	24.33	23.89	24.03	23.82
	1	99	25.11	24.90	24.97	24.26	24.03	24.30	23.34	23.39	23.71
	50	0	23.95	24.40	24.54	23.04	23.80	23.90	22.47	22.94	23.40
	50	25	24.01	24.46	24.28	23.07	23.57	23.31	22.33	22.79	22.33
	50	50	24.31	24.33	24.27	23.75	23.34	23.77	22.83	22.83	23.27
	100	0	24.18	24.00	24.39	23.28	23.12	23.53	22.30	22.15	22.57

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133147	133297	133447	133147	133297	133447	133147	133297	133447
			665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz
71 / 5M	1	0	22.66	24.52	24.42	21.54	23.37	23.39	20.62	22.53	22.47
	1	12	23.38	24.80	24.50	22.40	23.63	23.58	21.50	22.70	22.75
	1	24	23.77	24.85	24.55	22.69	23.59	23.49	21.77	22.62	22.65
	12	0	23.40	23.94	23.50	22.51	23.23	23.28	21.63	22.26	22.35
	12	6	23.71	23.93	23.60	22.95	23.02	23.20	22.03	22.11	22.28
	12	13	23.88	23.84	23.56	22.90	23.00	23.01	22.01	22.10	22.15
	25	0	23.37	23.77	23.51	22.65	22.91	23.00	21.74	21.96	22.12
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133172	133297	133422	133172	133297	133422	133172	133297	133422
			668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz
71 / 10M	1	0	22.63	24.34	24.71	21.61	23.01	24.04	20.72	22.13	23.02
	1	24	23.54	25.01	24.40	22.46	23.75	23.68	21.52	22.73	22.72
	1	49	23.62	24.81	24.47	22.60	23.93	23.72	21.69	23.00	22.79
	25	0	23.77	24.02	23.72	22.56	22.82	22.77	21.71	21.92	21.83
	25	12	23.82	23.85	23.71	22.65	22.80	22.82	21.70	22.02	21.90
	25	25	23.91	23.80	23.51	22.62	22.76	22.80	21.68	21.96	21.88
	50	0	23.67	23.83	23.63	22.73	22.89	22.75	21.79	22.00	21.86
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133197	133297	133397	133197	133297	133397	133197	133297	133397
			670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz
71 / 15M	1	0	22.87	24.12	24.77	21.73	23.03	23.92	20.72	22.06	22.89
	1	37	23.92	25.00	24.66	22.82	24.02	23.96	21.81	22.92	22.83
	1	74	24.00	24.70	24.50	22.75	24.01	23.94	21.76	23.02	23.00
	36	0	23.58	24.01	23.73	22.80	22.89	22.72	21.90	21.91	21.84
	36	19	24.02	24.00	23.70	22.59	22.78	22.64	21.71	21.88	21.73
	36	39	23.83	23.81	23.62	22.60	22.72	22.73	21.68	21.85	21.82
	75	0	24.00	23.93	23.66	22.57	22.74	22.71	21.63	21.82	21.80
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133222	133297	133372	133222	133297	133372	133222	133297	133372
			673 MHz	680.5 MHz	688 MHz	673 MHz	680.5 MHz	688 MHz	673 MHz	680.5 MHz	688 MHz
71 / 20M	1	0	23.13	24.08	25.10	22.05	22.53	23.72	21.02	21.74	22.85
	1	50	24.66	24.82	24.77	23.46	23.52	23.64	22.55	22.69	22.68
	1	99	24.62	24.79	24.50	23.38	23.55	23.73	22.50	22.73	22.82
	50	0	24.30	24.11	23.89	22.55	23.00	22.70	21.72	22.10	21.80
	50	25	24.11	23.92	23.72	22.44	22.77	22.65	21.53	21.84	21.71
	50	50	23.82	23.70	23.71	22.41	22.80	22.73	21.59	21.88	21.83
	100	0	24.01	23.88	23.70	22.50	22.91	22.81	21.62	22.11	22.00

For Test Mode B (EUT only - Battery Mode)

Conducted Output Power (dBm)

Band	WCDMA Band IV		
TX Channel	1312	1413	1513
Rx Channel	1537	1638	1738
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	20.92	20.88	20.82
HSDPA Subtest-1	20.07	20.03	19.97
HSDPA Subtest-2	20.05	20.01	19.95
HSDPA Subtest-3	19.60	19.56	19.50
HSDPA Subtest-4	19.58	19.54	19.48
HSUPA Subtest-1	20.18	20.14	20.08
HSUPA Subtest-2	18.21	18.17	18.11
HSUPA Subtest-3	19.19	19.15	19.09
HSUPA Subtest-4	18.12	18.08	18.02
HSUPA Subtest-5	19.21	19.17	19.13

Conducted Output Power (dBm)

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19957	20175	20393	19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
4 / 1.4M	1	0	22.72	22.65	22.54	22.51	22.61	22.50	22.69	22.59	22.63
	1	2	22.71	22.69	22.56	22.46	22.58	22.55	22.64	22.60	22.42
	1	5	22.60	22.43	22.38	22.50	22.48	22.38	22.39	22.31	22.20
	3	0	22.56	22.64	22.56	22.62	22.49	22.54	22.66	22.52	22.45
	3	1	22.63	22.55	22.47	22.52	22.50	22.47	22.41	22.45	22.38
	3	3	22.43	22.47	22.45	22.42	22.49	22.27	22.38	22.51	22.40
	6	0	22.74	22.63	22.54	22.70	22.56	22.51	22.62	22.58	22.56
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19965	20175	20385	19965	20175	20385	19965	20175	20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz
4 / 3M	1	0	22.75	22.64	22.67	22.77	22.66	22.69	22.62	22.54	22.54
	1	7	22.69	22.50	22.47	22.58	22.62	22.39	22.53	22.59	22.63
	1	14	22.48	22.34	22.36	22.48	22.44	22.38	22.38	22.36	22.30
	8	0	22.64	22.51	22.48	22.52	22.71	22.50	22.66	22.58	22.43
	8	3	22.58	22.58	22.49	22.65	22.56	22.49	22.53	22.44	22.46
	8	7	22.42	22.47	22.36	22.48	22.38	22.35	22.44	22.49	22.26
	15	0	22.64	22.60	22.53	22.61	22.43	22.53	22.71	22.67	22.48
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19975	20175	20375	19975	20175	20375	19975	20175	20375
			1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz
4 / 5M	1	0	22.69	22.68	22.43	22.50	22.64	22.63	22.72	22.61	22.66
	1	12	22.72	22.58	22.40	22.47	22.53	22.39	22.63	22.56	22.40
	1	24	22.50	22.48	22.34	22.43	22.39	22.37	22.47	22.36	22.25
	12	0	22.66	22.64	22.42	22.68	22.51	22.51	22.62	22.50	22.53
	12	6	22.61	22.44	22.32	22.49	22.48	22.35	22.33	22.40	22.34
	12	13	22.58	22.56	22.39	22.46	22.41	22.36	22.39	22.37	22.26
	25	0	22.58	22.70	22.45	22.72	22.64	22.48	22.58	22.53	22.56
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20000	20175	20350	20000	20175	20350	20000	20175	20350
			1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz
4 / 10M	1	0	22.81	22.67	22.62	22.66	22.59	22.51	22.71	22.53	22.60
	1	24	22.67	22.51	22.47	22.53	22.58	22.35	22.54	22.53	22.47
	1	49	22.50	22.41	22.27	22.45	22.33	22.25	22.42	22.42	22.36
	25	0	22.73	22.60	22.49	22.55	22.55	22.38	22.55	22.56	22.62
	25	12	22.58	22.51	22.53	22.57	22.62	22.33	22.53	22.45	22.43
	25	25	22.50	22.43	22.43	22.42	22.43	22.18	22.46	22.34	22.39
	50	0	22.75	22.71	22.50	22.74	22.59	22.59	22.72	22.64	22.63

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20025	20175	20325	20025	20175	20325	20025	20175	20325
			1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz
4 / 15M	1	0	22.75	22.76	22.72	22.80	22.69	22.70	22.80	22.71	22.62
	1	37	22.73	22.68	22.65	22.74	22.61	22.57	22.69	22.64	22.49
	1	74	22.52	22.54	22.46	22.53	22.56	22.35	22.53	22.54	22.35
	36	0	22.69	22.68	22.60	22.70	22.58	22.47	22.73	22.65	22.59
	36	19	22.62	22.59	22.51	22.60	22.49	22.52	22.57	22.59	22.38
	36	39	22.52	22.47	22.49	22.58	22.42	22.40	22.46	22.46	22.33
	75	0	22.73	22.73	22.65	22.62	22.70	22.58	22.64	22.62	22.57
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20050	20175	20300	20050	20175	20300	20050	20175	20300
			1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz
4 / 20M	1	0	22.84	22.81	22.76	22.77	22.72	22.74	22.81	22.81	22.76
	1	50	22.76	22.73	22.65	22.76	22.71	22.64	22.71	22.64	22.55
	1	99	22.62	22.59	22.51	22.54	22.53	22.46	22.55	22.49	22.41
	50	0	22.77	22.74	22.66	22.68	22.72	22.58	22.67	22.72	22.66
	50	25	22.67	22.64	22.56	22.57	22.59	22.49	22.67	22.63	22.47
	50	50	22.60	22.57	22.49	22.56	22.54	22.48	22.51	22.55	22.39
	100	0	22.79	22.76	22.68	22.74	22.67	22.67	22.74	22.76	22.59

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23017	23095	23173	23017	23095	23173	23017	23095	23173
			699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz
12 / 1.4M	1	0	23.19	23.39	23.14	23.15	23.40	23.00	22.96	23.40	23.07
	1	2	23.09	23.36	23.06	23.11	23.19	23.00	23.02	23.23	22.97
	1	5	22.98	23.21	23.03	22.93	23.24	23.00	23.08	23.17	23.00
	3	0	23.03	23.43	23.05	23.06	23.31	22.97	23.07	23.23	23.11
	3	1	23.15	23.40	23.15	23.01	23.33	22.90	23.12	23.20	22.99
	3	3	22.99	23.23	23.04	23.04	23.16	22.96	23.05	23.15	22.88
	6	0	22.98	23.29	23.02	23.02	23.35	22.98	23.06	23.17	23.06
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23025	23095	23165	23025	23095	23165	23025	23095	23165
			700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz
12 / 3M	1	0	23.10	23.36	23.09	23.04	23.20	23.09	23.07	23.26	23.09
	1	7	23.15	23.33	23.09	23.03	23.31	22.96	23.00	23.28	23.19
	1	14	23.00	23.30	23.02	23.05	23.24	23.00	23.01	23.21	22.89
	8	0	23.14	23.26	23.11	23.07	23.27	23.08	23.15	23.29	22.93
	8	3	23.14	23.22	23.12	23.13	23.13	23.02	23.09	23.25	22.99
	8	7	22.97	23.28	23.02	23.04	23.17	23.02	22.93	23.20	23.04
	15	0	23.02	23.25	23.01	23.04	23.26	23.07	23.02	23.21	22.94
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23035	23095	23155	23035	23095	23155	23035	23095	23155
			701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz
12 / 5M	1	0	23.26	23.38	23.19	23.14	23.34	23.17	23.21	23.38	23.14
	1	12	23.18	23.40	23.10	23.17	23.28	23.14	23.07	23.38	23.08
	1	24	23.14	23.29	23.08	23.04	23.23	23.03	23.03	23.27	23.00
	12	0	23.17	23.43	23.20	23.13	23.42	23.13	23.19	23.43	23.08
	12	6	23.11	23.43	23.09	23.08	23.33	23.00	23.10	23.37	23.08
	12	13	23.12	23.34	23.03	23.04	23.31	23.02	23.12	23.22	23.01
	25	0	23.20	23.36	23.13	23.06	23.28	23.06	23.06	23.32	23.04
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23060	23095	23130	23060	23095	23130	23060	23095	23130
			704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz
12 / 10M	1	0	23.26	23.48	23.24	23.25	23.41	23.18	23.22	23.46	23.14
	1	24	23.22	23.44	23.20	23.12	23.42	23.14	23.14	23.40	23.12
	1	49	23.15	23.37	23.13	23.08	23.32	23.09	23.14	23.35	23.07
	25	0	23.24	23.46	23.22	23.22	23.37	23.17	23.19	23.46	23.13
	25	12	23.21	23.43	23.19	23.11	23.33	23.15	23.17	23.38	23.18
	25	25	23.15	23.37	23.13	23.15	23.27	23.07	23.12	23.30	23.09
	50	0	23.20	23.42	23.18	23.15	23.34	23.10	23.12	23.39	23.16

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			131979	132322	132665	131979	132322	132665	131979	132322	132665
			1710.7 MHz	1745 MHz	1779.3 MHz	1710.7 MHz	1745 MHz	1779.3 MHz	1710.7 MHz	1745 MHz	1779.3 MHz
66 / 1.4M	1	0	22.53	22.40	22.31	22.48	22.43	22.23	22.48	22.51	22.30
	1	2	22.40	22.19	22.25	22.31	22.39	22.19	22.44	22.23	22.00
	1	5	22.36	22.23	22.14	22.29	22.29	22.07	22.22	22.16	22.04
	3	0	22.41	22.35	22.21	22.53	22.26	22.23	22.39	22.32	22.21
	3	1	22.41	22.34	22.18	22.21	22.28	21.96	22.18	22.32	22.10
	3	3	22.35	22.30	22.11	22.28	22.23	22.06	22.20	22.23	22.15
	6	0	22.39	22.27	22.16	22.40	22.37	22.18	22.25	22.31	22.16
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			131987	132322	132657	131987	132322	132657	131987	132322	132657
			1711.5 MHz	1745 MHz	1778.5 MHz	1711.5 MHz	1745 MHz	1778.5 MHz	1711.5 MHz	1745 MHz	1778.5 MHz
66 / 3M	1	0	22.53	22.52	22.31	22.41	22.44	22.28	22.46	22.35	22.26
	1	7	22.33	22.21	22.14	22.31	22.35	22.08	22.27	22.14	22.21
	1	14	22.36	22.20	22.16	22.24	22.38	22.21	22.29	22.14	22.17
	8	0	22.45	22.26	22.27	22.38	22.45	22.29	22.35	22.29	22.22
	8	3	22.41	22.36	22.14	22.33	22.30	22.17	22.36	22.30	21.99
	8	7	22.26	22.28	22.08	22.16	22.20	22.15	22.22	22.18	21.94
	15	0	22.37	22.25	22.16	22.29	22.32	22.15	22.36	22.24	22.01
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			131997	132322	132647	131997	132322	132647	131997	132322	132647
			1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz
66 / 5M	1	0	22.50	22.51	22.21	22.41	22.39	22.23	22.43	22.51	22.20
	1	12	22.38	22.35	22.05	22.25	22.18	22.16	22.24	22.27	22.17
	1	24	22.44	22.34	22.14	22.26	22.23	22.06	22.26	22.32	22.00
	12	0	22.48	22.46	21.99	22.47	22.38	22.25	22.36	22.26	22.23
	12	6	22.42	22.31	22.22	22.27	22.20	22.19	22.26	22.26	22.10
	12	13	22.22	22.20	21.97	22.09	22.18	21.96	22.31	22.08	21.94
	25	0	22.38	22.42	22.14	22.16	22.19	22.19	22.18	22.24	22.05
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			132022	132322	132622	132022	132322	132622	132022	132322	132622
			1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz
66 / 10M	1	0	22.51	22.49	22.31	22.47	22.49	22.29	22.45	22.48	22.26
	1	24	22.34	22.27	22.12	22.36	22.25	22.10	22.24	22.14	22.11
	1	49	22.36	22.32	22.12	22.29	22.11	22.15	22.25	22.20	22.15
	25	0	22.51	22.39	22.34	22.29	22.35	22.11	22.35	22.31	22.18
	25	12	22.37	22.37	22.16	22.27	22.28	22.03	22.26	22.22	22.10
	25	25	22.27	22.11	22.05	22.20	22.10	22.11	22.17	22.17	21.95
	50	0	22.31	22.36	22.29	22.39	22.39	22.06	22.43	22.20	22.12

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			132047	132322	132597	132047	132322	132597	132047	132322	132597
			1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz
66 / 15M	1	0	22.60	22.56	22.38	22.49	22.50	22.38	22.59	22.55	22.45
	1	37	22.44	22.42	22.28	22.31	22.38	22.20	22.41	22.34	22.22
	1	74	22.44	22.36	22.22	22.38	22.37	22.18	22.42	22.29	22.21
	36	0	22.52	22.39	22.36	22.48	22.36	22.26	22.47	22.40	22.34
	36	19	22.39	22.32	22.24	22.45	22.32	22.17	22.30	22.38	22.14
	36	39	22.35	22.34	22.18	22.30	22.27	22.17	22.31	22.26	22.09
	75	0	22.48	22.39	22.31	22.46	22.39	22.21	22.40	22.34	22.25
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			132072	132322	132572	132072	132322	132572	132072	132322	132572
			1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz
66 / 20M	1	0	22.64	22.59	22.46	22.57	22.52	22.44	22.61	22.49	22.45
	1	50	22.48	22.43	22.30	22.38	22.33	22.30	22.45	22.33	22.21
	1	99	22.46	22.41	22.28	22.37	22.40	22.23	22.41	22.34	22.25
	50	0	22.54	22.49	22.36	22.46	22.42	22.35	22.47	22.47	22.34
	50	25	22.47	22.42	22.29	22.43	22.41	22.22	22.46	22.36	22.29
	50	50	22.40	22.35	22.22	22.33	22.34	22.18	22.30	22.34	22.16
	100	0	22.49	22.44	22.31	22.43	22.39	22.30	22.41	22.38	22.30

LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133147	133297	133447	133147	133297	133447	133147	133297	133447
			665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz
71 / 5M	1	0	24.90	24.94	24.79	23.88	23.92	23.77	22.28	22.55	22.16
	1	12	24.12	24.04	24.13	23.08	23.02	23.11	22.44	22.48	22.43
	1	24	24.50	24.54	24.49	23.48	23.52	23.47	22.02	22.08	22.14
	12	0	24.00	24.04	23.99	22.98	23.02	22.97	21.85	21.89	21.84
	12	6	23.91	23.95	23.90	22.89	22.93	22.88	21.80	21.84	21.79
	12	13	23.86	23.90	23.85	22.84	22.88	22.83	21.81	21.85	21.80
	25	0	23.87	23.91	23.86	22.85	22.89	22.84	21.03	21.06	21.14
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133172	133297	133422	133172	133297	133422	133172	133297	133422
			668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz
71 / 10M	1	0	24.94	24.98	24.83	23.92	23.96	23.81	22.32	22.52	22.20
	1	24	24.04	24.08	24.03	23.02	23.06	23.01	22.48	22.02	22.47
	1	49	24.54	24.58	24.53	23.52	23.56	23.51	22.06	22.12	22.22
	25	0	24.04	24.08	24.03	23.02	23.06	23.01	21.89	21.93	21.88
	25	12	23.95	23.99	23.94	22.93	22.97	22.92	21.84	21.88	21.83
	25	25	23.90	23.94	23.89	22.88	22.92	22.87	21.85	21.89	21.84
	50	0	23.91	23.95	23.90	22.89	22.93	22.88	21.07	21.10	21.18
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133197	133297	133397	133197	133297	133397	133197	133297	133397
			670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz
71 / 15M	1	0	24.96	25.00	24.85	23.94	23.98	23.83	22.34	22.54	22.22
	1	37	24.06	24.10	24.05	23.04	23.08	23.03	22.50	22.04	22.49
	1	74	24.56	24.60	24.55	23.54	23.58	23.53	22.08	22.14	22.02
	36	0	24.06	24.10	24.05	23.04	23.08	23.03	21.91	21.95	21.90
	36	19	23.97	24.01	23.96	22.95	22.99	22.94	21.86	21.90	21.85
	36	39	23.92	23.96	23.91	22.90	22.94	22.89	21.87	21.91	21.86
	75	0	23.93	23.97	23.92	22.91	22.95	22.90	21.09	21.12	21.20
LTE Band / BW	RB Size	RB Offset	QPSK			16QAM			64QAM		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			133222	133297	133372	133222	133297	133372	133222	133297	133372
			673 MHz	680.5 MHz	688 MHz	673 MHz	680.5 MHz	688 MHz	673 MHz	680.5 MHz	688 MHz
71 / 20M	1	0	24.98	25.02	24.87	23.96	24.00	23.85	22.02	22.56	22.01
	1	50	24.58	24.12	24.57	23.06	23.10	23.05	22.52	22.06	22.51
	1	99	24.08	24.62	24.07	23.56	23.60	23.55	22.02	22.06	22.01
	50	0	24.08	24.12	24.07	23.06	23.10	23.05	21.93	21.97	21.92
	50	25	23.99	24.03	23.98	22.97	23.01	22.96	21.88	21.92	21.87
	50	50	23.94	23.98	23.93	22.92	22.96	22.91	21.89	21.93	21.88
	100	0	23.95	23.99	23.94	22.93	22.97	22.92	21.11	21.02	21.22

EIRP Power (dBm)

WCDMA Band 4							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	1312	1712.4	-16.92	42.49	25.57	360.16	H
	1413	1732.6	-16.78	42.33	25.55	358.67	
	1513	1752.6	-16.59	42.10	25.51	355.63	
	1312	1712.4	-23.43	42.99	19.56	90.36	V
	1413	1732.6	-23.21	42.74	19.53	89.74	
	1513	1752.6	-22.73	42.21	19.48	88.72	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

LTE Band 4

LTE Band 4							
Channel Bandwidth: 1.4MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19957	1710.7	-15.54	42.49	26.95	494.88	H
	20175	1732.5	-15.33	42.33	27.00	500.84	
	20393	1754.3	-15.18	42.10	26.92	492.04	
	19957	1710.7	-21.02	42.99	21.97	157.40	V
	20175	1732.5	-20.74	42.74	22.00	158.49	
	20393	1754.3	-20.26	42.21	21.95	156.68	
Channel Bandwidth: 3MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19965	1711.5	-15.51	42.49	26.98	498.31	H
	20175	1732.5	-15.30	42.33	27.03	504.31	
	20385	1753.5	-15.15	42.10	26.95	495.45	
	19965	1711.5	-20.99	42.99	22.00	158.49	V
	20175	1732.5	-20.71	42.74	22.03	159.59	
	20385	1753.5	-20.22	42.21	21.99	158.12	
Channel Bandwidth: 5MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19975	1712.5	-15.47	42.49	27.02	502.92	H
	20175	1732.5	-15.27	42.33	27.06	507.81	
	20375	1752.5	-15.11	42.10	26.99	500.03	
	19975	1712.5	-20.96	42.99	22.03	159.59	V
	20175	1732.5	-20.67	42.74	22.07	161.06	
	20375	1752.5	-20.19	42.21	22.02	159.22	
Channel Bandwidth: 10MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20000	1715.0	-15.43	42.49	27.06	507.57	H
	20175	1732.5	-15.23	42.33	27.10	512.51	
	20350	1750.0	-15.07	42.10	27.03	504.66	
	20000	1715.0	-20.93	42.99	22.06	160.69	V
	20175	1732.5	-20.64	42.74	22.10	162.18	
	20350	1750.0	-20.16	42.21	22.05	160.32	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 15MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20025	1717.5	-15.40	42.49	27.09	511.09	H
	20175	1732.5	-15.20	42.33	27.13	516.06	
	20325	1747.5	-15.03	42.10	27.07	509.33	
	20025	1717.5	-20.89	42.99	22.10	162.18	V
	20175	1732.5	-20.61	42.74	22.13	163.31	
	20325	1747.5	-20.13	42.21	22.08	161.44	
Channel Bandwidth: 20MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20050	1720.0	-15.37	42.49	27.12	514.64	H
	20175	1732.5	-15.16	42.33	27.17	520.83	
	20300	1745.0	-15.00	42.10	27.10	512.86	
	20050	1720.0	-20.86	42.99	22.13	163.31	V
	20175	1732.5	-20.58	42.74	22.16	164.44	
	20300	1745.0	-20.10	42.21	22.11	162.55	
Channel Bandwidth: 1.4MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19207	1710.7	-16.54	42.49	25.95	393.10	H
	19575	1747.5	-16.33	42.33	26.00	397.83	
	19943	1784.3	-16.19	42.10	25.91	389.94	
	19207	1710.7	-22.03	42.99	20.96	124.74	V
	19575	1747.5	-21.75	42.74	20.99	125.60	
	19943	1784.3	-21.27	42.21	20.94	124.17	
Channel Bandwidth: 3MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19965	1711.5	-16.52	42.49	25.97	394.91	H
	20175	1732.5	-16.31	42.33	26.02	399.67	
	20385	1753.5	-16.15	42.10	25.95	393.55	
	19965	1711.5	-21.99	42.99	21.00	125.89	V
	20175	1732.5	-21.72	42.74	21.02	126.47	
	20385	1753.5	-21.23	42.21	20.98	125.31	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 5MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19975	1712.5	-16.48	42.49	26.01	398.57	H
	20175	1732.5	-16.28	42.33	26.05	402.44	
	20375	1752.5	-16.12	42.10	25.98	396.28	
	19975	1712.5	-21.97	42.99	21.02	126.47	V
	20175	1732.5	-21.66	42.74	21.08	128.23	
	20375	1752.5	-21.20	42.21	21.01	126.18	
Channel Bandwidth: 10MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20000	1715.0	-16.44	42.49	26.05	402.25	H
	20175	1732.5	-16.24	42.33	26.09	406.16	
	20350	1750.0	-16.08	42.10	26.02	399.94	
	20000	1715.0	-21.93	42.99	21.06	127.64	V
	20175	1732.5	-21.64	42.74	21.10	128.82	
	20350	1750.0	-21.17	42.21	21.04	127.06	
Channel Bandwidth: 15MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20025	1717.5	-16.41	42.49	26.08	405.04	H
	20175	1732.5	-16.20	42.33	26.13	409.92	
	20325	1747.5	-16.04	42.10	26.06	403.65	
	20025	1717.5	-21.90	42.99	21.09	128.53	V
	20175	1732.5	-21.62	42.74	21.12	129.42	
	20325	1747.5	-21.15	42.21	21.06	127.64	
Channel Bandwidth: 20MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20050	1720.0	-16.38	42.49	26.11	407.85	H
	20175	1732.5	-16.17	42.33	26.16	412.76	
	20300	1745.0	-16.00	42.10	26.10	407.38	
	20050	1720.0	-21.86	42.99	21.13	129.72	V
	20175	1732.5	-21.59	42.74	21.15	130.32	
	20300	1745.0	-21.11	42.21	21.10	128.82	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 1.4MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19207	1710.7	-17.54	42.49	24.95	312.25	H
	19575	1747.5	-17.34	42.33	24.99	315.28	
	19943	1784.3	-17.21	42.10	24.89	308.32	
	19207	1710.7	-23.05	42.99	19.94	98.63	V
	19575	1747.5	-22.76	42.74	19.98	99.54	
	19943	1784.3	-22.28	42.21	19.93	98.40	
Channel Bandwidth: 3MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19965	1711.5	-17.52	42.49	24.97	313.69	H
	20175	1732.5	-17.32	42.33	25.01	316.74	
	20385	1753.5	-17.15	42.10	24.95	312.61	
	19965	1711.5	-23.00	42.99	19.99	99.77	V
	20175	1732.5	-22.73	42.74	20.01	100.23	
	20385	1753.5	-22.24	42.21	19.97	99.31	
Channel Bandwidth: 5MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19975	1712.5	-17.49	42.49	25.00	315.86	H
	20175	1732.5	-17.29	42.33	25.04	318.93	
	20375	1752.5	-17.12	42.10	24.98	314.77	
	19975	1712.5	-22.98	42.99	20.01	100.23	V
	20175	1732.5	-22.67	42.74	20.07	101.62	
	20375	1752.5	-22.21	42.21	20.00	100.00	
Channel Bandwidth: 10MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20000	1715.0	-17.44	42.49	25.05	319.52	H
	20175	1732.5	-17.25	42.33	25.08	321.88	
	20350	1750.0	-17.08	42.10	25.02	317.69	
	20000	1715.0	-22.94	42.99	20.05	101.16	V
	20175	1732.5	-22.65	42.74	20.09	102.09	
	20350	1750.0	-22.18	42.21	20.03	100.69	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 15MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20025	1717.5	-17.42	42.49	25.07	321.00	H
	20175	1732.5	-17.21	42.33	25.12	324.86	
	20325	1747.5	-17.05	42.10	25.05	319.89	
	20025	1717.5	-22.91	42.99	20.08	101.86	V
	20175	1732.5	-22.63	42.74	20.11	102.57	
	20325	1747.5	-22.16	42.21	20.05	101.16	
Channel Bandwidth: 20MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20050	1720.0	-17.39	42.49	25.10	323.22	H
	20175	1732.5	-17.18	42.33	25.15	327.11	
	20300	1745.0	-17.01	42.10	25.09	322.85	
	20050	1720.0	-22.86	42.99	20.13	103.04	V
	20175	1732.5	-22.60	42.74	20.14	103.28	
	20300	1745.0	-22.11	42.21	20.10	102.33	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

LTE Band 12

LTE Band 12							
Channel Bandwidth: 1.4MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23017	699.7	-9.16	32.719	21.41	138.32	H
	23095	707.5	-9.15	32.736	21.44	139.19	
	23173	715.3	-8.97	32.591	21.47	140.31	
	23017	699.7	-11.13	32.69	19.41	87.30	V
	23095	707.5	-11.20	32.81	19.46	88.31	
	23173	715.3	-11.09	32.74	19.50	89.13	
Channel Bandwidth: 3MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23025	700.5	-9.13	32.719	21.44	139.28	H
	23095	707.5	-9.12	32.736	21.47	140.15	
	23165	714.5	-8.93	32.591	21.51	141.61	
	23025	700.5	-11.09	32.69	19.45	88.10	V
	23095	707.5	-11.17	32.81	19.49	88.92	
	23165	714.5	-11.06	32.74	19.53	89.74	
Channel Bandwidth: 5MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23035	701.5	-9.09	32.719	21.48	140.57	H
	23095	707.5	-9.08	32.736	21.51	141.45	
	23155	713.5	-8.89	32.591	21.55	142.92	
	23035	701.5	-11.06	32.69	19.48	88.72	V
	23095	707.5	-11.13	32.81	19.53	89.74	
	23155	713.5	-11.02	32.74	19.57	90.57	
Channel Bandwidth: 10MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23060	704.0	-9.06	32.727	21.52	141.81	H
	23095	707.5	-9.04	32.739	21.55	142.86	
	23130	711.0	-9.00	32.728	21.58	143.81	
	23060	704.0	-11.09	32.75	19.51	89.33	V
	23095	707.5	-11.10	32.81	19.56	90.36	
	23130	711.0	-11.08	32.84	19.61	91.41	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15.

Channel Bandwidth: 1.4MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23017	699.7	-10.16	32.719	20.41	109.88	H
	23095	707.5	-10.16	32.736	20.43	110.31	
	23173	715.3	-9.98	32.591	20.46	111.20	
	23017	699.7	-12.14	32.69	18.40	69.18	V
	23095	707.5	-12.21	32.81	18.45	69.98	
	23173	715.3	-12.10	32.74	18.49	70.63	
Channel Bandwidth: 3MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23025	700.5	-10.13	32.719	20.44	110.64	H
	23095	707.5	-10.12	32.736	20.47	111.33	
	23165	714.5	-9.94	32.591	20.50	112.23	
	23025	700.5	-12.09	32.69	18.45	69.98	V
	23095	707.5	-12.18	32.81	18.48	70.47	
	23165	714.5	-12.08	32.74	18.51	70.96	
Channel Bandwidth: 5MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23035	701.5	-10.10	32.719	20.47	111.40	H
	23095	707.5	-10.09	32.736	20.50	112.10	
	23155	713.5	-9.90	32.591	20.54	113.27	
	23035	701.5	-12.07	32.69	18.47	70.31	V
	23095	707.5	-12.14	32.81	18.52	71.12	
	23155	713.5	-12.03	32.74	18.56	71.78	
Channel Bandwidth: 10MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23060	704.0	-10.06	32.727	20.52	112.64	H
	23095	707.5	-10.05	32.739	20.54	113.21	
	23130	711.0	-10.01	32.728	20.57	113.97	
	23060	704.0	-12.10	32.75	18.50	70.79	V
	23095	707.5	-12.11	32.81	18.55	71.61	
	23130	711.0	-12.08	32.84	18.61	72.61	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15.

Channel Bandwidth: 1.4MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23017	699.7	-11.16	32.719	19.41	87.28	H
	23095	707.5	-11.17	32.736	19.42	87.42	
	23173	715.3	-11.00	32.591	19.44	87.92	
	23017	699.7	-13.15	32.69	17.39	54.83	V
	23095	707.5	-13.21	32.81	17.45	55.59	
	23173	715.3	-13.11	32.74	17.48	55.98	
Channel Bandwidth: 3MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23025	700.5	-11.13	32.719	19.44	87.88	H
	23095	707.5	-11.12	32.736	19.47	88.43	
	23165	714.5	-10.95	32.591	19.49	88.94	
	23025	700.5	-13.10	32.69	17.44	55.46	V
	23095	707.5	-13.18	32.81	17.48	55.98	
	23165	714.5	-13.09	32.74	17.50	56.23	
Channel Bandwidth: 5MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23035	701.5	-11.10	32.719	19.47	88.49	H
	23095	707.5	-11.10	32.736	19.49	88.84	
	23155	713.5	-10.91	32.591	19.53	89.76	
	23035	701.5	-13.08	32.69	17.46	55.72	V
	23095	707.5	-13.15	32.81	17.51	56.36	
	23155	713.5	-13.04	32.74	17.55	56.89	
Channel Bandwidth: 10MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23060	704.0	-11.07	32.727	19.51	89.27	H
	23095	707.5	-11.06	32.739	19.53	89.72	
	23130	711.0	-11.02	32.728	19.56	90.32	
	23060	704.0	-13.11	32.75	17.49	56.10	V
	23095	707.5	-13.11	32.81	17.55	56.89	
	23130	711.0	-13.09	32.84	17.60	57.54	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15.

LTE Band 66

LTE Band 66							
Channel Bandwidth: 1.4MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131979	1710.7	-9.11	36.45	27.34	542.00	H
	132322	1745.0	-9.44	36.80	27.36	544.38	
	132665	1779.3	-9.55	36.94	27.39	548.66	
	131979	1710.7	-14.95	37.28	22.33	170.88	V
	132322	1745.0	-15.26	37.63	22.37	172.58	
	132665	1779.3	-15.22	37.64	22.42	174.58	
Channel Bandwidth: 3MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131987	1711.5	-9.08	36.45	27.37	545.76	H
	132322	1745.0	-9.41	36.80	27.39	548.15	
	132657	1778.5	-9.52	36.94	27.42	552.46	
	131987	1711.5	-14.91	37.28	22.37	172.46	V
	132322	1745.0	-15.22	37.63	22.41	174.18	
	132657	1778.5	-15.19	37.64	22.45	175.79	
Channel Bandwidth: 5MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131997	1712.5	-9.03	36.45	27.42	552.08	H
	132322	1745.0	-9.36	36.80	27.44	554.50	
	132647	1777.5	-9.48	36.94	27.46	557.57	
	131997	1712.5	-14.86	37.28	22.42	174.46	V
	132322	1745.0	-15.18	37.63	22.45	175.79	
	132647	1777.5	-15.16	37.64	22.48	177.01	
Channel Bandwidth: 10MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132022	1715.0	-9.18	36.64	27.46	557.19	H
	132322	1745.0	-9.32	36.80	27.48	559.11	
	132622	1775.0	-9.30	36.80	27.50	562.34	
	132022	1715.0	-14.98	37.44	22.46	176.16	V
	132322	1745.0	-15.14	37.63	22.49	177.38	
	132622	1775.0	-15.13	37.64	22.51	178.03	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 15MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132047	1717.5	-8.96	36.45	27.49	561.05	H
	132322	1745.0	-9.28	36.80	27.52	564.81	
	132597	1772.5	-9.41	36.94	27.53	566.63	
	132047	1717.5	-14.79	37.28	22.49	177.30	V
	132322	1745.0	-15.11	37.63	22.52	178.65	
	132597	1772.5	-15.09	37.64	22.55	179.89	
Channel Bandwidth: 20MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132072	1720.0	-8.92	36.45	27.53	566.24	H
	132322	1745.0	-9.24	36.80	27.56	570.03	
	132572	1770.0	-9.36	36.94	27.58	573.19	
	132072	1720.0	-14.75	37.28	22.53	178.94	V
	132322	1745.0	-15.08	37.63	22.55	179.89	
	132572	1770.0	-15.07	37.64	22.57	180.72	
Channel Bandwidth: 1.4MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131979	1710.7	-10.12	36.45	26.33	429.54	H
	132322	1745.0	-10.45	36.80	26.35	431.42	
	132665	1779.3	-10.56	36.94	26.38	434.81	
	131979	1710.7	-15.96	37.28	21.32	135.43	V
	132322	1745.0	-16.27	37.63	21.36	136.77	
	132665	1779.3	-16.23	37.64	21.41	138.36	
Channel Bandwidth: 3MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131987	1711.5	-10.09	36.45	26.36	432.51	H
	132322	1745.0	-10.41	36.80	26.39	435.41	
	132657	1778.5	-10.52	36.94	26.42	438.83	
	131987	1711.5	-15.92	37.28	21.36	136.68	V
	132322	1745.0	-16.23	37.63	21.40	138.04	
	132657	1778.5	-16.19	37.64	21.45	139.64	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 5MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131997	1712.5	-10.04	36.45	26.41	437.52	H
	132322	1745.0	-10.37	36.80	26.43	439.44	
	132647	1777.5	-10.49	36.94	26.45	441.88	
	131997	1712.5	-15.87	37.28	21.41	138.26	V
	132322	1745.0	-16.19	37.63	21.44	139.32	
	132647	1777.5	-16.17	37.64	21.47	140.28	
Channel Bandwidth: 10MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132022	1715.0	-10.19	36.64	26.45	441.57	H
	132322	1745.0	-10.33	36.80	26.47	443.10	
	132622	1775.0	-10.31	36.80	26.49	445.66	
	132022	1715.0	-15.98	37.44	21.46	139.93	V
	132322	1745.0	-16.14	37.63	21.49	140.90	
	132622	1775.0	-16.14	37.64	21.50	141.09	
Channel Bandwidth: 15MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132047	1717.5	-9.96	36.45	26.49	445.66	H
	132322	1745.0	-10.29	36.80	26.51	447.61	
	132597	1772.5	-10.42	36.94	26.52	449.06	
	132047	1717.5	-15.80	37.28	21.48	140.51	V
	132322	1745.0	-16.12	37.63	21.51	141.58	
	132597	1772.5	-16.10	37.64	21.54	142.56	
Channel Bandwidth: 20MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132072	1720.0	-9.93	36.45	26.52	448.75	H
	132322	1745.0	-10.25	36.80	26.55	451.75	
	132572	1770.0	-10.37	36.94	26.57	454.26	
	132072	1720.0	-15.76	37.28	21.52	141.81	V
	132322	1745.0	-16.08	37.63	21.55	142.89	
	132572	1770.0	-16.07	37.64	21.57	143.55	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 1.4MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131979	1710.7	-10.12	36.45	26.33	429.54	H
	132322	1745.0	-10.45	36.80	26.35	431.42	
	132665	1779.3	-10.56	36.94	26.38	434.81	
	131979	1710.7	-15.96	37.28	21.32	135.43	V
	132322	1745.0	-16.27	37.63	21.36	136.77	
	132665	1779.3	-16.23	37.64	21.41	138.36	
Channel Bandwidth: 3MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131987	1711.5	-11.10	36.45	25.35	342.77	H
	132322	1745.0	-11.42	36.80	25.38	345.06	
	132657	1778.5	-11.52	36.94	25.42	348.58	
	131987	1711.5	-16.92	37.28	20.36	108.57	V
	132322	1745.0	-17.24	37.63	20.39	109.40	
	132657	1778.5	-17.20	37.64	20.44	110.66	
Channel Bandwidth: 5MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131997	1712.5	-11.05	36.45	25.40	346.74	H
	132322	1745.0	-11.37	36.80	25.43	349.06	
	132647	1777.5	-11.50	36.94	25.44	350.19	
	131997	1712.5	-16.87	37.28	20.41	109.82	V
	132322	1745.0	-17.20	37.63	20.43	110.41	
	132647	1777.5	-17.18	37.64	20.46	111.17	
Channel Bandwidth: 10MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132022	1715.0	-11.20	36.64	25.44	349.95	H
	132322	1745.0	-11.34	36.80	25.46	351.16	
	132622	1775.0	-11.31	36.80	25.49	354.00	
	132022	1715.0	-16.98	37.44	20.46	111.15	V
	132322	1745.0	-17.15	37.63	20.48	111.66	
	132622	1775.0	-17.14	37.64	20.50	112.07	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

Channel Bandwidth: 15MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132047	1717.5	-10.96	36.45	25.49	354.00	H
	132322	1745.0	-11.30	36.80	25.50	354.73	
	132597	1772.5	-11.43	36.94	25.51	355.88	
	132047	1717.5	-16.81	37.28	20.47	111.35	V
	132322	1745.0	-17.12	37.63	20.51	112.46	
	132597	1772.5	-17.11	37.64	20.53	112.98	
Channel Bandwidth: 20MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132072	1720.0	-10.94	36.45	25.51	355.63	H
	132322	1745.0	-11.26	36.80	25.54	358.01	
	132572	1770.0	-11.37	36.94	25.57	360.83	
	132072	1720.0	-16.76	37.28	20.52	112.64	V
	132322	1745.0	-17.09	37.63	20.54	113.24	
	132572	1770.0	-17.08	37.64	20.56	113.76	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB).

LTE Band 71

LTE Band 71							
Channel Bandwidth: 5MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133147	665.5	-8.67	32.719	21.90	154.85	H
	133297	680.5	-8.65	32.736	21.94	156.17	
	133447	695.5	-8.48	32.591	21.96	157.07	
	133147	665.5	-10.65	32.69	19.89	97.50	V
	133297	680.5	-10.72	32.81	19.94	98.63	
	133447	695.5	-10.61	32.74	19.98	99.54	
Channel Bandwidth: 10MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133172	668.0	-8.63	32.719	21.94	156.28	H
	133297	680.5	-8.62	32.736	21.97	157.25	
	133422	693.0	-8.45	32.591	21.99	158.16	
	133172	668.0	-10.61	32.69	19.93	98.40	V
	133297	680.5	-10.68	32.81	19.98	99.54	
	133422	693.0	-10.58	32.74	20.01	100.23	
Channel Bandwidth: 15MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133197	670.5	-8.60	32.719	21.97	157.36	H
	133297	680.5	-8.59	32.736	22.00	158.34	
	133397	690.5	-8.42	32.591	22.02	159.26	
	133197	670.5	-10.58	32.69	19.96	99.08	V
	133297	680.5	-10.65	32.81	20.01	100.23	
	133397	690.5	-10.54	32.74	20.05	101.16	
Channel Bandwidth: 20MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133222	673.0	-8.57	32.727	22.01	158.74	H
	133297	680.5	-8.56	32.739	22.03	159.55	
	133372	688.0	-8.52	32.728	22.06	160.62	
	133222	673.0	-10.60	32.75	20.00	100.00	V
	133297	680.5	-10.62	32.81	20.04	100.93	
	133372	688.0	-10.61	32.84	20.08	101.86	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15.

LTE Band 71							
Channel Bandwidth: 5MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133147	665.5	-9.68	32.719	20.89	122.72	H
	133297	680.5	-9.66	32.736	20.93	123.77	
	133447	695.5	-9.48	32.591	20.96	124.77	
	133147	665.5	-11.66	32.69	18.88	77.27	V
	133297	680.5	-11.72	32.81	18.94	78.34	
	133447	695.5	-11.62	32.74	18.97	78.89	
Channel Bandwidth: 10MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133172	668.0	-9.64	32.719	20.93	123.85	H
	133297	680.5	-9.63	32.736	20.96	124.62	
	133422	693.0	-9.45	32.591	20.99	125.63	
	133172	668.0	-11.62	32.69	18.92	77.98	V
	133297	680.5	-11.68	32.81	18.98	79.07	
	133422	693.0	-11.59	32.74	19.00	79.43	
Channel Bandwidth: 15MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133197	670.5	-9.60	32.719	20.97	125.00	H
	133297	680.5	-9.60	32.736	20.99	125.49	
	133397	690.5	-9.42	32.591	21.02	126.50	
	133197	670.5	-11.59	32.69	18.95	78.52	V
	133297	680.5	-11.65	32.81	19.01	79.62	
	133397	690.5	-11.55	32.74	19.04	80.17	
Channel Bandwidth: 20MHz / 16QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133222	673.0	-9.58	32.727	21.00	125.81	H
	133297	680.5	-9.57	32.739	21.02	126.44	
	133372	688.0	-9.53	32.728	21.05	127.29	
	133222	673.0	-11.61	32.75	18.99	79.25	V
	133297	680.5	-11.63	32.81	19.03	79.98	
	133372	688.0	-11.62	32.84	19.07	80.72	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15.

Channel Bandwidth: 5MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133147	665.5	-10.69	32.719	19.88	97.25	H
	133297	680.5	-10.67	32.736	19.92	98.08	
	133447	695.5	-10.48	32.591	19.96	99.11	
	133147	665.5	-12.67	32.69	17.87	61.24	V
	133297	680.5	-12.72	32.81	17.94	62.23	
	133447	695.5	-12.63	32.74	17.96	62.52	
Channel Bandwidth: 10MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133172	668.0	-10.64	32.719	19.93	98.38	H
	133297	680.5	-10.63	32.736	19.96	98.99	
	133422	693.0	-10.45	32.591	19.99	99.79	
	133172	668.0	-12.62	32.69	17.92	61.94	V
	133297	680.5	-12.69	32.81	17.97	62.66	
	133422	693.0	-12.60	32.74	17.99	62.95	
Channel Bandwidth: 15MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133197	670.5	-10.61	32.719	19.96	99.06	H
	133297	680.5	-10.61	32.736	19.98	99.45	
	133397	690.5	-10.42	32.591	20.02	100.48	
	133197	670.5	-12.60	32.69	17.94	62.23	V
	133297	680.5	-12.65	32.81	18.01	63.24	
	133397	690.5	-12.56	32.74	18.03	63.53	
Channel Bandwidth: 20MHz / 64QAM							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	133222	673.0	-10.59	32.727	19.99	99.70	H
	133297	680.5	-10.58	32.739	20.01	100.21	
	133372	688.0	-10.54	32.728	20.04	100.88	
	133222	673.0	-12.62	32.75	17.98	62.81	V
	133297	680.5	-12.64	32.81	18.02	63.39	
	133372	688.0	-12.62	32.84	18.07	64.12	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15.

4.2 Modulation Characteristics Measurement

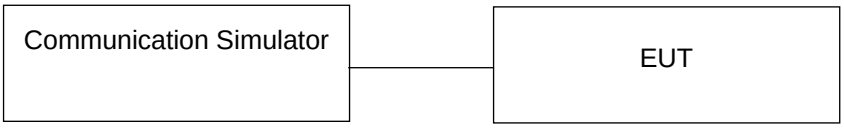
4.2.1 Limits of Modulation Characteristics

N/A

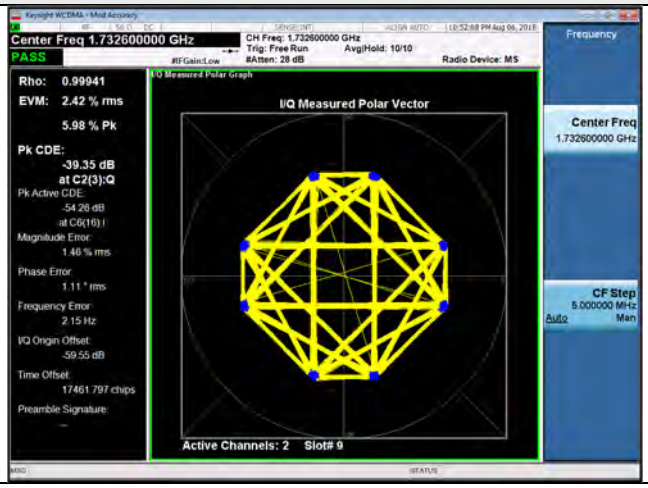
4.2.2 Test Procedure

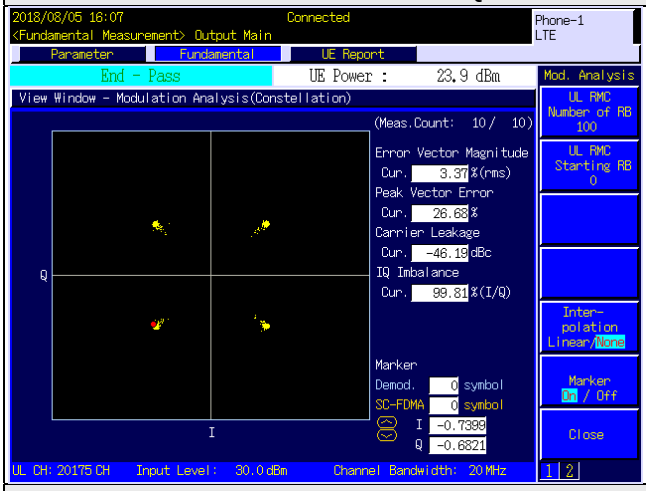
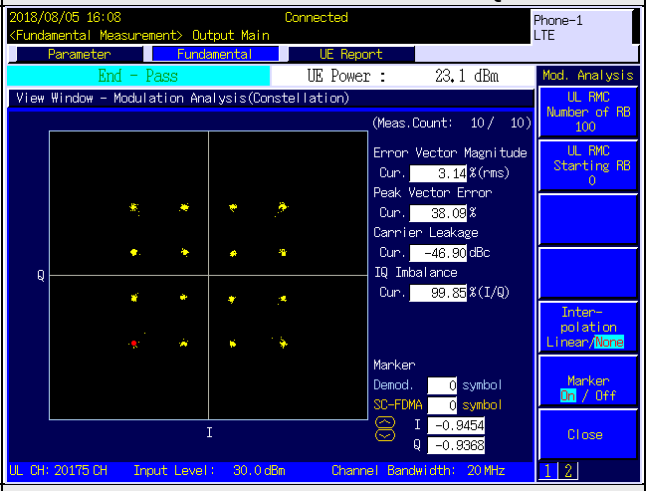
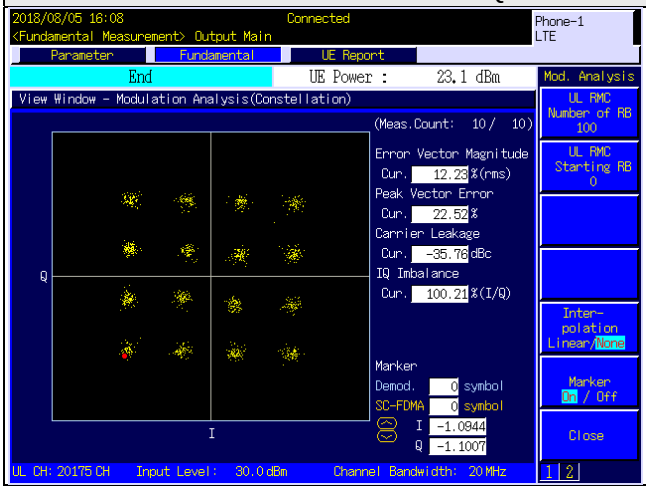
Connect the EUT to Communication Simulator via the antenna connector, the frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

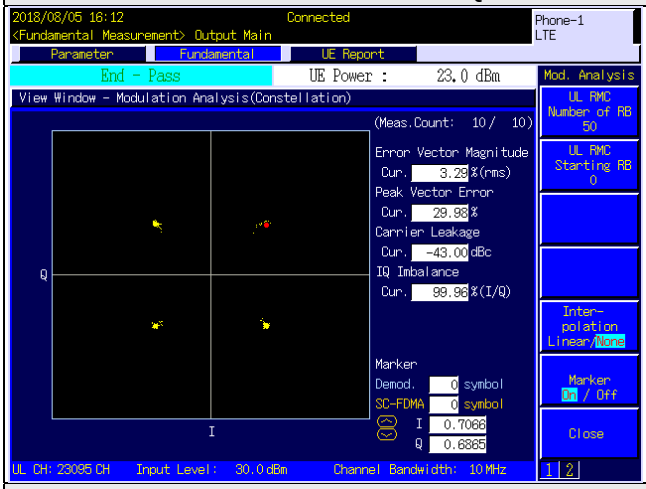
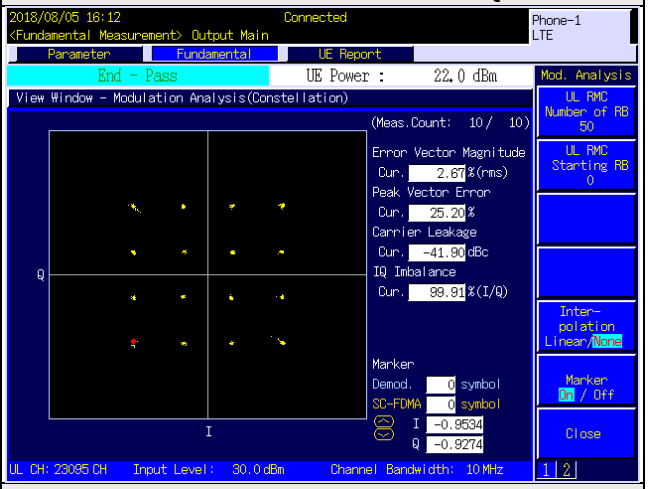
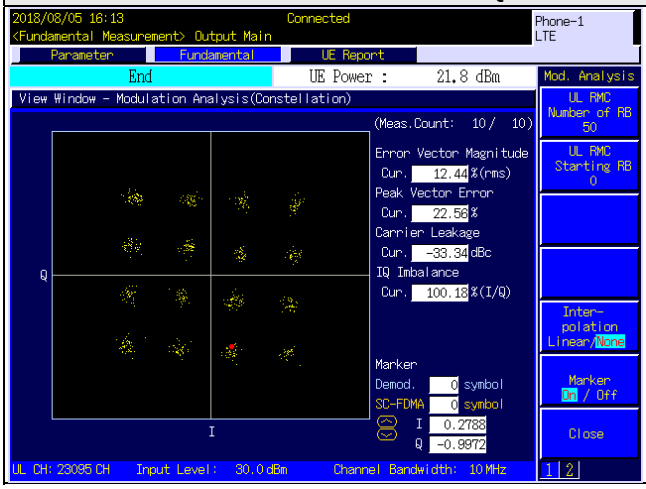
4.2.3 Test Setup

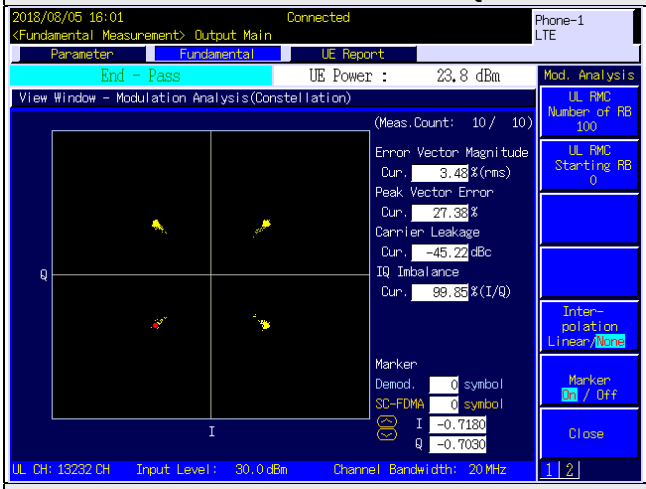
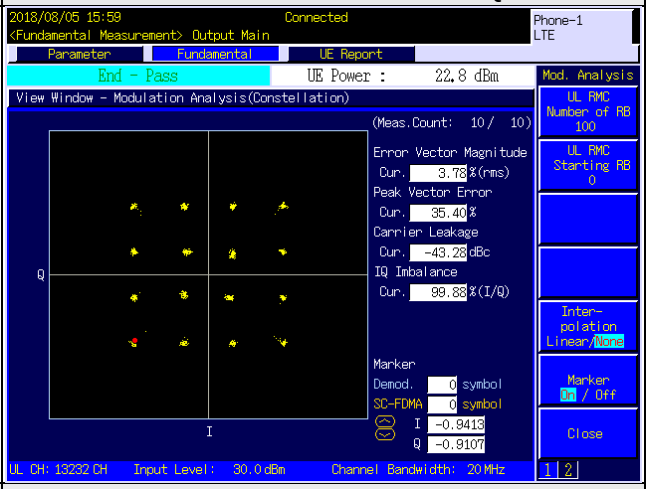
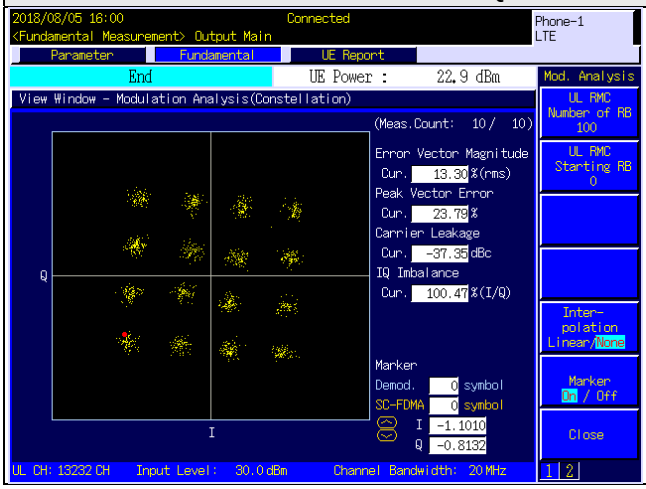


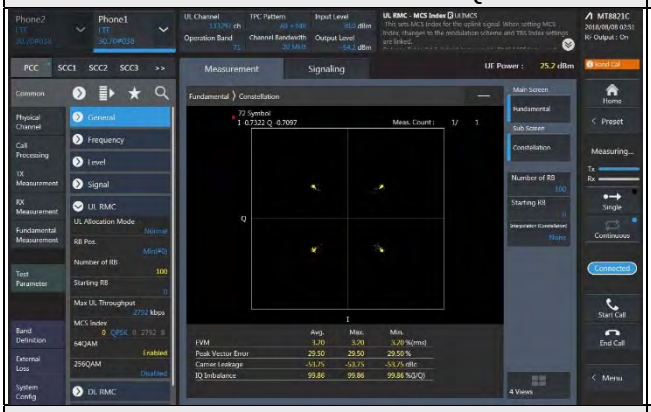
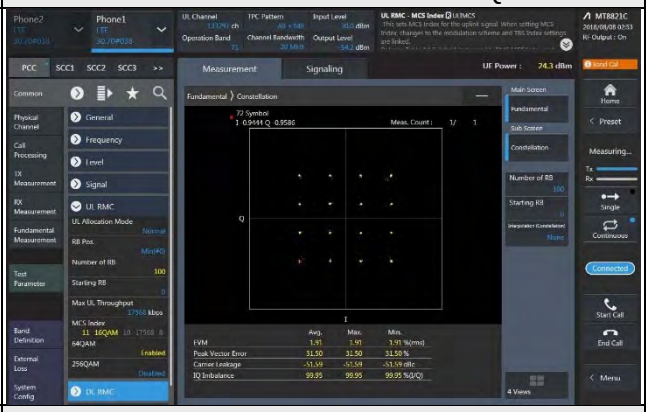
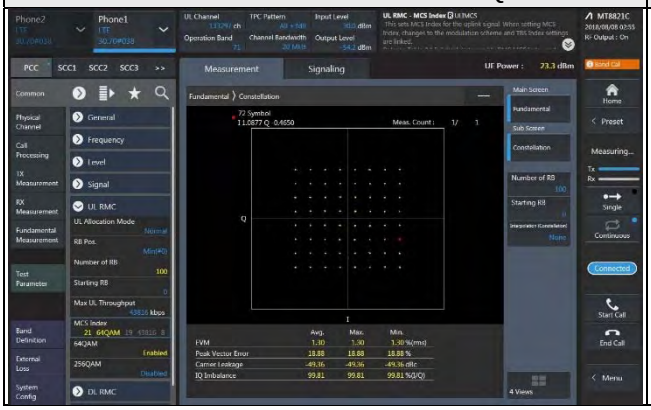
4.2.4 Test Results

Spectrum Plot of Measurement Value
Channel: 1413 / Frequency (MHz): 1732.6MHz
WCDMA


LTE Band 4	
Spectrum Plot of Measurement Value	
Channel: 20175 / Frequency (MHz): 1732.5MHz	
Channel Bandwidth: 20MHz / QPSK	Channel Bandwidth: 20MHz / 16QAM
	
Channel Bandwidth: 20MHz / 64QAM	
	

LTE Band 12	
Spectrum Plot of Measurement Value	
Channel: 23095 / Frequency (MHz): 707.5 MHz	
Channel Bandwidth: 10MHz / QPSK	Channel Bandwidth: 10MHz / 16QAM
	
Channel Bandwidth: 10MHz / 64QAM	
	

LTE Band 66	
Spectrum Plot of Measurement Value	
Channel: 13232 / Frequency (MHz): 1745 MHz	
Channel Bandwidth: 20MHz / QPSK	Channel Bandwidth: 20MHz / 16QAM
	
Channel Bandwidth: 20MHz / 64QAM	
	

LTE Band 71	
Spectrum Plot of Measurement Value	
Channel: 133297 / Frequency (MHz): 680.5 MHz	
Channel Bandwidth: 20MHz / QPSK	Channel Bandwidth: 20MHz / 16QAM
	
Channel Bandwidth: 20MHz / 64QAM	
	

4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

According to the FCC part 2.1055 shall be tested the frequency stability. The rule is defined that" The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block." The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with specification of EUT -30℃ ~ 50℃.

4.3.2 Test Procedure

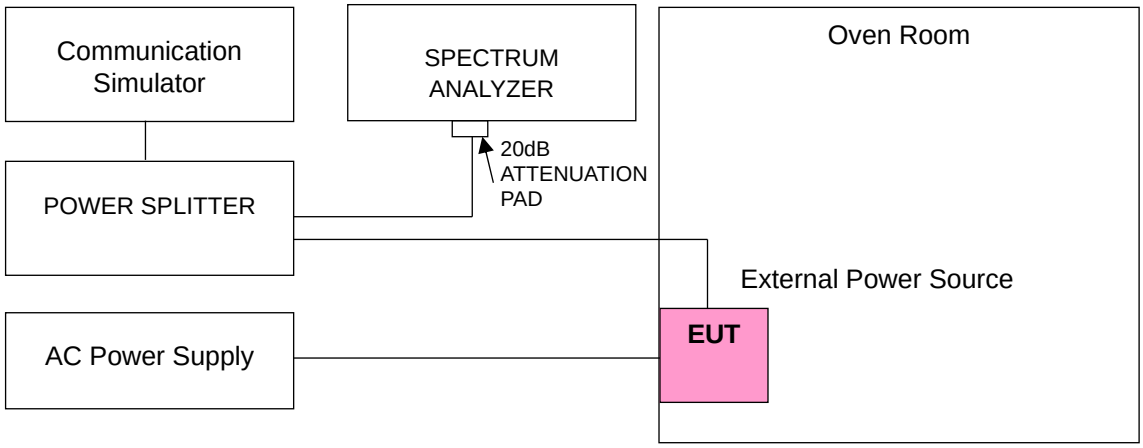
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

b. EUT is connected the external power supply to control the AC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.

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

4.3.3 Test Setup



4.3.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	Frequency Error (ppm)					Limit (ppm)
	WCDMA Band 4	LTE Band 4	LTE Band 12	LTE Band 66	LTE Band 71	
138	0.06548	0.05238	0.01759	0.01147	0.03029	2.5
120	0.05236	0.03887	0.08004	0.03158	0.06995	2.5
102	0.05266	0.06697	0.05251	0.04899	0.06267	2.5

Note: The applicant defined the normal working voltage is from 102Vac to 138Vac.

Frequency Error vs. Temperature

Voltage (Volts)	Frequency Error (ppm)					Limit (ppm)
	WCDMA Band 4	LTE Band 4	LTE Band 12	LTE Band 66	LTE Band 71	
50	0.07488	0.08444	0.02288	0.03869	0.05841	2.5
40	0.07151	0.07030	0.02502	0.07568	0.08282	2.5
30	0.04409	0.04076	0.09386	0.00127	0.09273	2.5
20	0.00963	0.03887	0.08004	0.03158	0.06995	2.5
10	0.02053	0.04047	0.09649	0.05825	0.07179	2.5
0	0.03509	0.06830	0.02549	0.05398	0.08854	2.5
-10	0.09489	0.01012	0.01939	0.05644	0.00450	2.5
-20	0.09222	0.03132	0.09314	0.01347	0.02885	2.5
-30	0.08312	0.08884	0.08484	0.02469	0.06186	2.5

4.4 Emission Bandwidth Measurement

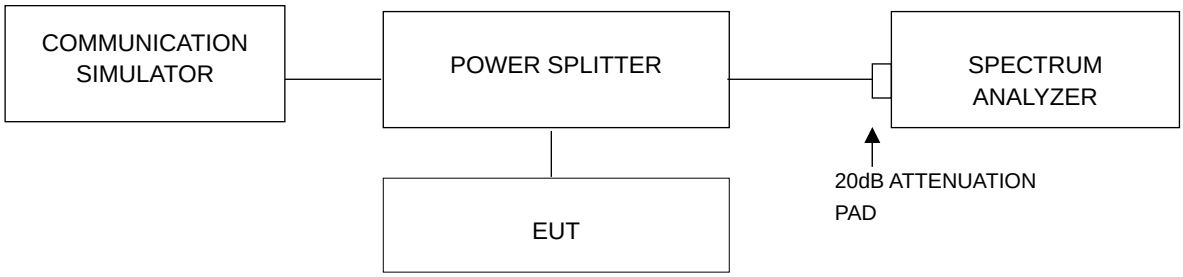
4.4.1 Limits of Emission Bandwidth Measurement

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.

4.4.2 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 = 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). The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

4.4.3 Test Setup



4.4.4 Test Result

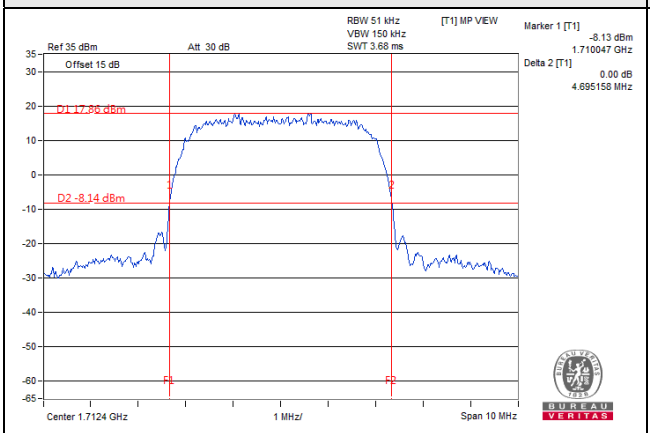
WCDMA Band 4

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		WCDMA	HSDPA	HSUPA	WCDMA	HSDPA	HSUPA
1312	1712.4	4.70	4.69	4.67	4.15	4.11	4.13
1413	1732.6	4.67	4.67	4.70	4.15	4.13	4.13
1513	1752.6	4.67	4.71	4.69	4.11	4.11	4.13

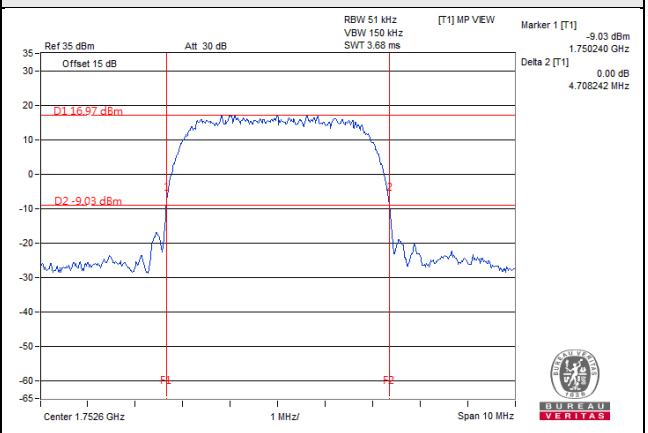
26dBc Bandwidth

Spectrum Plot of Worst Value

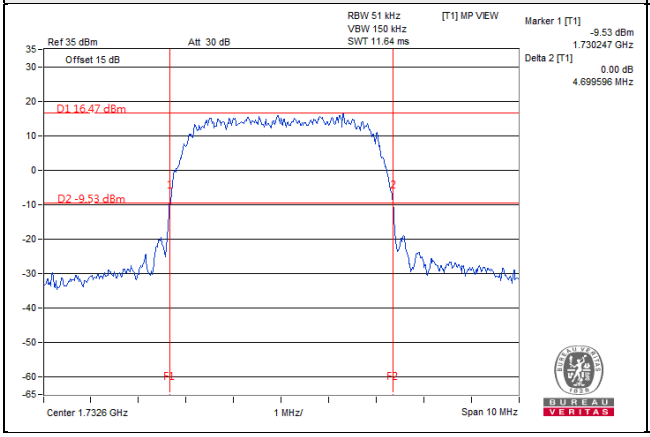
WCDMA

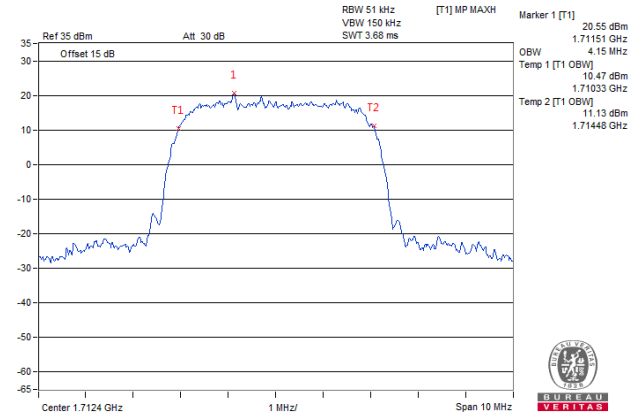
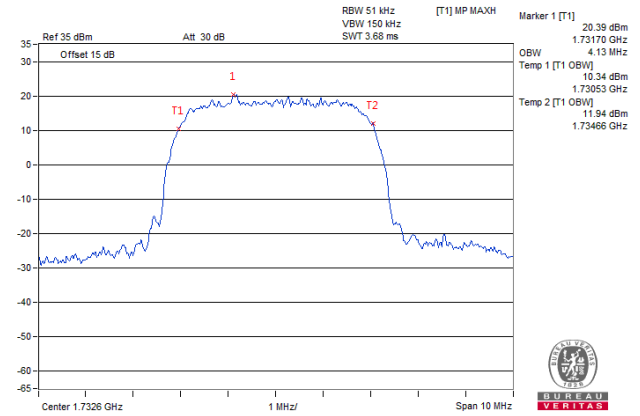
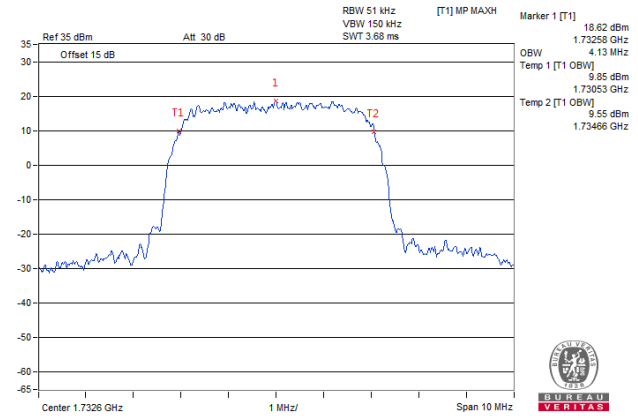


HSDPA



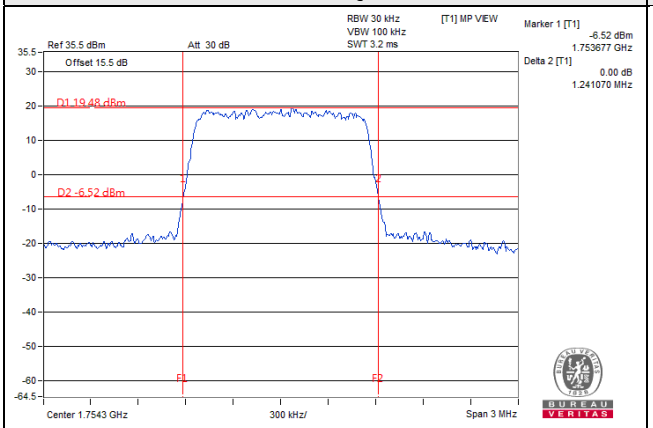
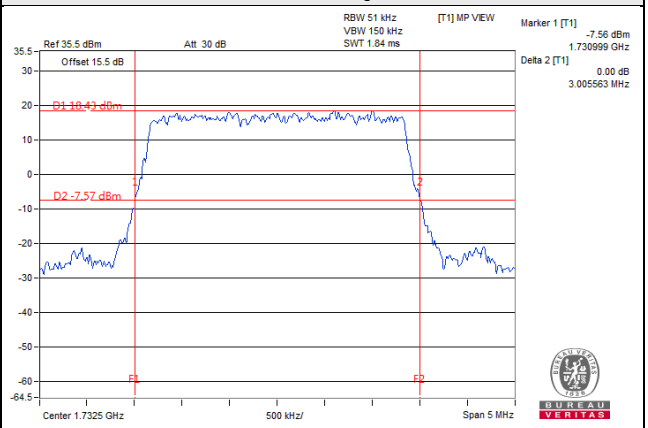
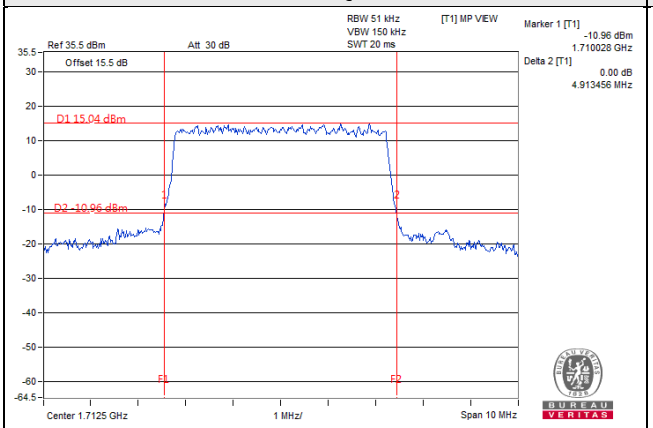
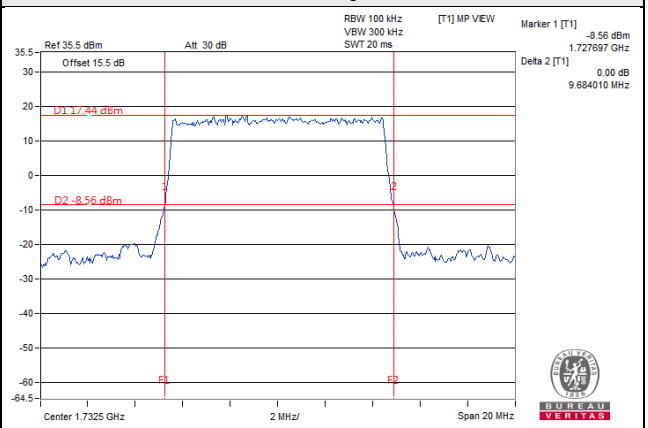
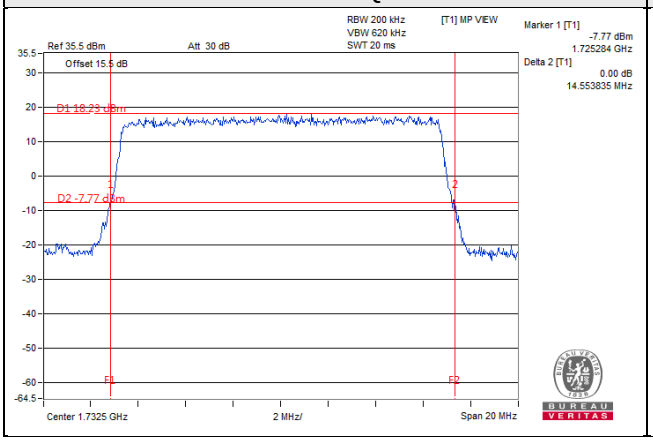
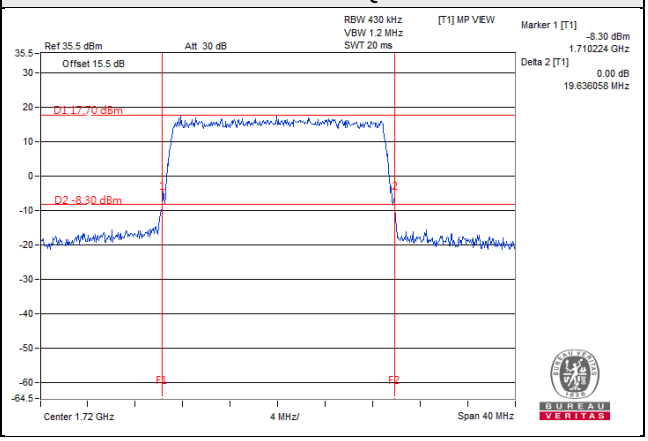
HSUPA

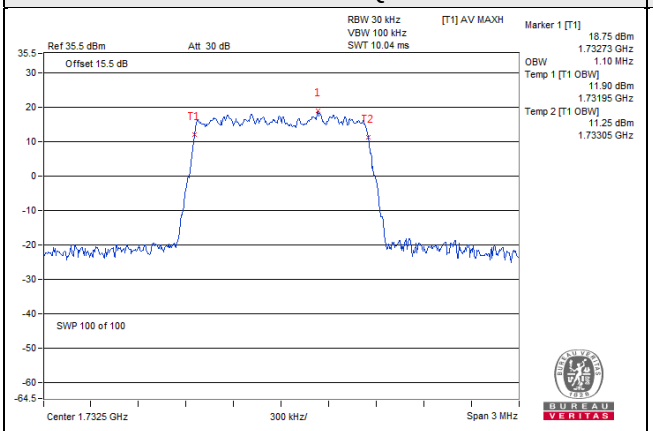
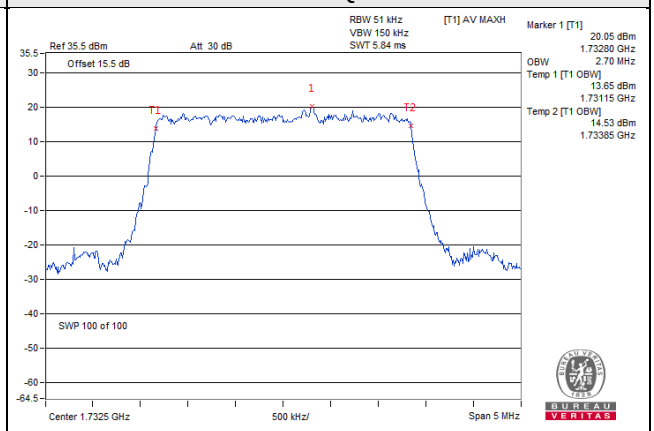
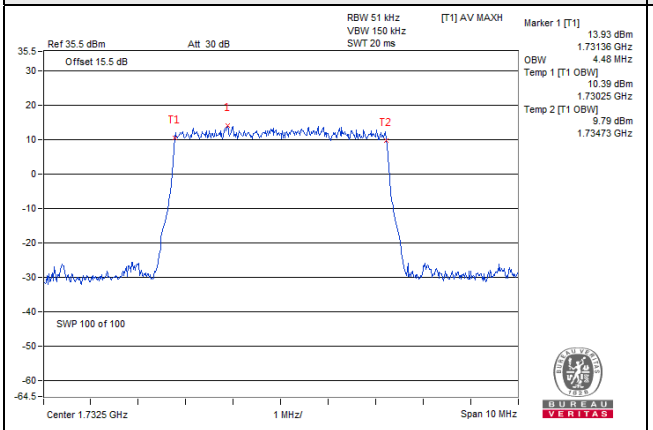
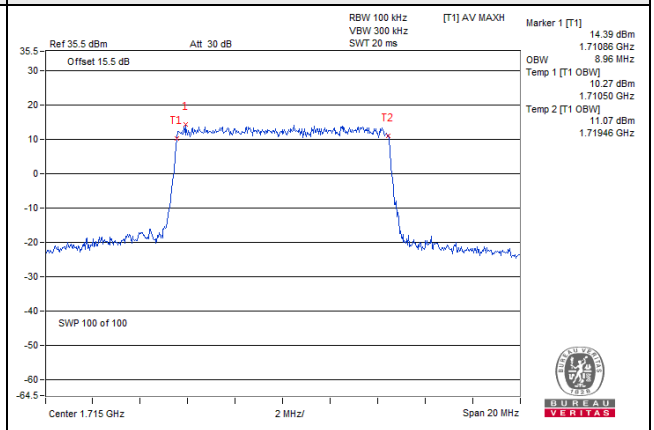
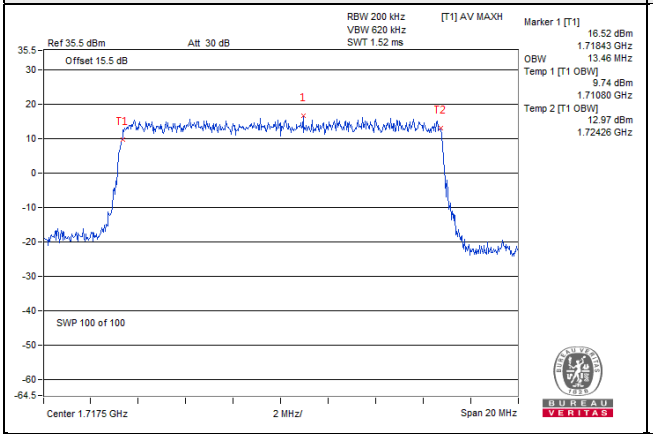
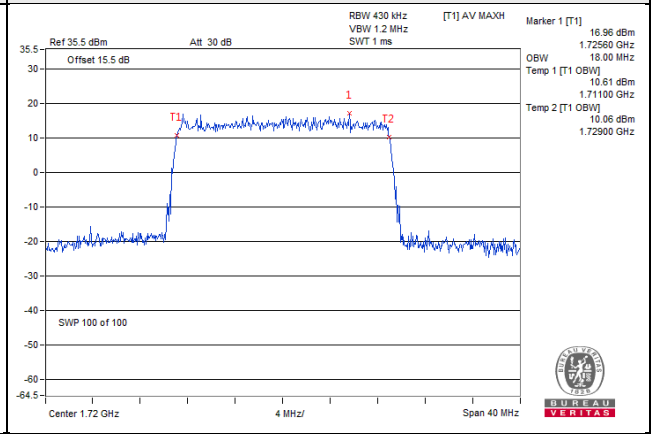


Occupied Bandwidth	
Spectrum Plot of Worst Value	
WCDMA	HSDPA
	
HSUPA	
	

LTE Band 4

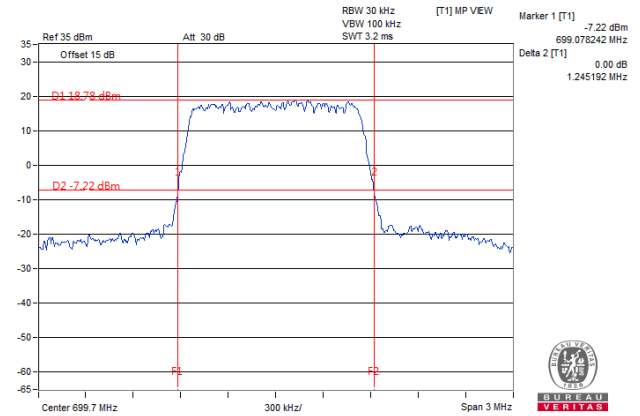
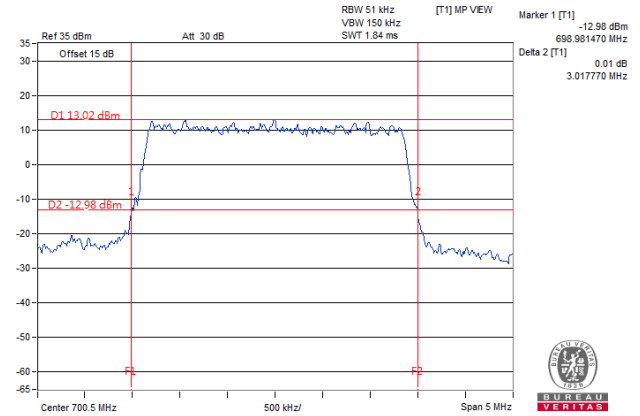
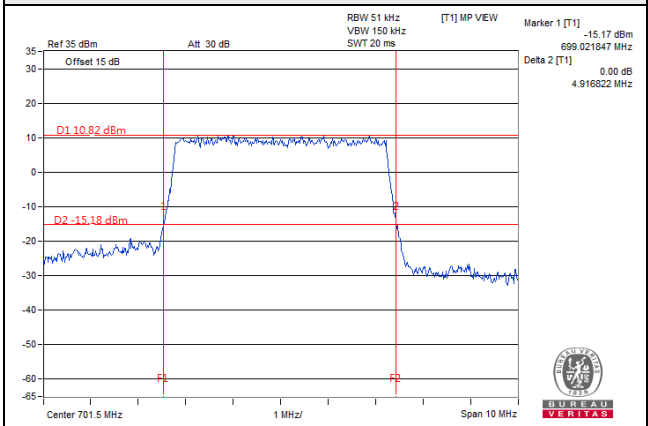
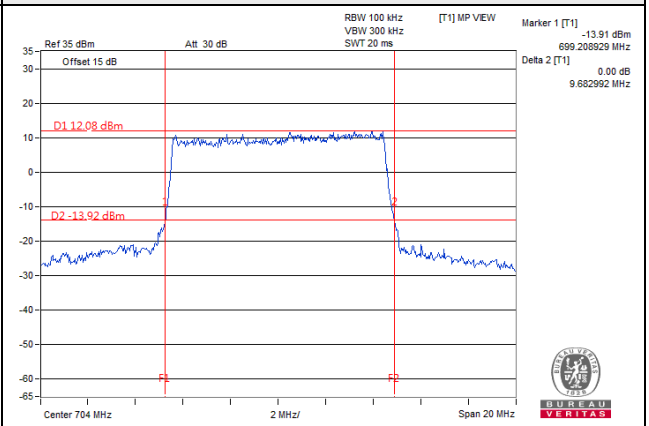
Channel Bandwidth: 1.4MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
19957	1710.7	1.23	1.23	1.24	1.09	1.09	1.09
20175	1732.5	1.22	1.24	1.22	1.09	1.09	1.10
20393	1754.3	1.24	1.24	1.23	1.09	1.09	1.09
Channel Bandwidth: 3MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
19965	1711.5	2.99	2.98	3.00	2.69	2.70	2.70
20175	1732.5	2.98	3.00	2.98	2.70	2.68	2.70
20385	1753.5	2.94	2.98	2.96	2.69	2.69	2.70
Channel Bandwidth: 5MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
19975	1712.5	4.91	4.87	4.83	4.46	4.48	4.48
20175	1732.5	4.90	4.91	4.85	4.46	4.48	4.46
20375	1752.5	4.88	4.89	4.86	4.48	4.48	4.46
Channel Bandwidth: 10MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20000	1715.0	9.62	9.57	9.63	8.93	8.93	8.96
20175	1732.5	9.68	9.65	9.63	8.93	8.93	8.93
20350	1750.0	9.59	9.55	9.67	8.93	8.93	8.93
Channel Bandwidth: 15MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20025	1717.5	14.52	14.53	14.53	13.46	13.40	13.36
20175	1732.5	14.48	14.55	14.44	13.40	13.40	13.40
20325	1747.5	14.49	14.44	14.50	13.43	13.40	13.36
Channel Bandwidth: 20MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20050	1720.0	19.55	19.55	19.63	17.93	18.00	18.00
20175	1732.5	19.37	19.50	19.51	17.86	17.86	17.93
20300	1745.0	19.50	19.43	19.28	17.86	17.86	17.86

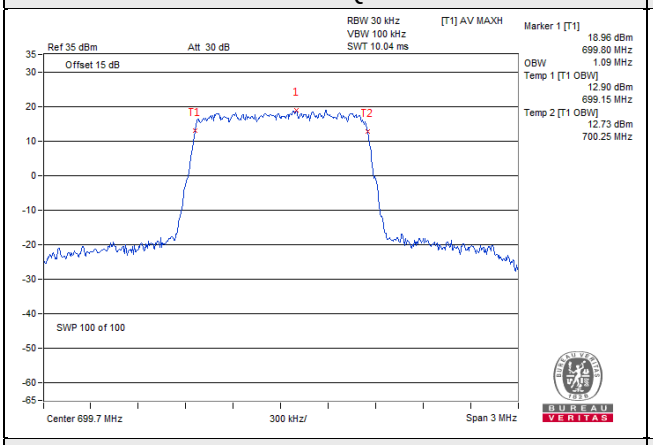
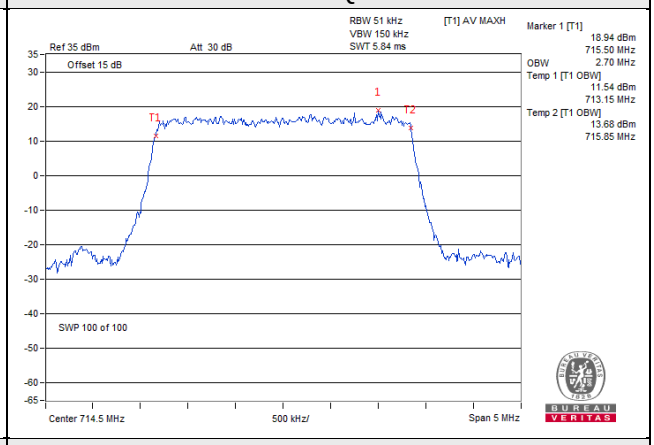
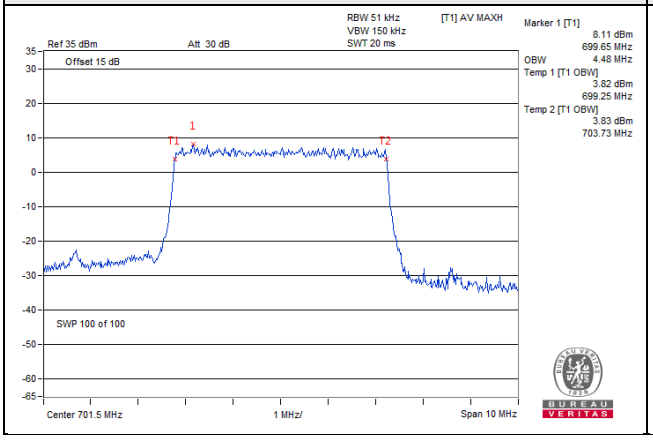
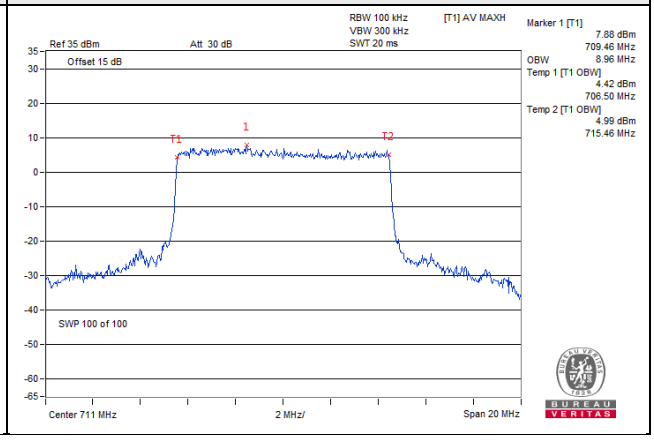
26dBc Bandwidth	
Spectrum Plot of Worst Value	
1.4MHz / QPSK	3MHz / 16QAM
	
5MHz / QPSK	10MHz / QPSK
	
15MHz / 16QAM	20MHz / 64QAM
	

Occupied Bandwidth	
Spectrum Plot of Worst Value	
1.4MHz / 64QAM	3MHz / QPSK
	
5MHz / 16QAM	10MHz / 64QAM
	
15MHz / QPSK	20MHz / 64QAM
	

LTE Band 12

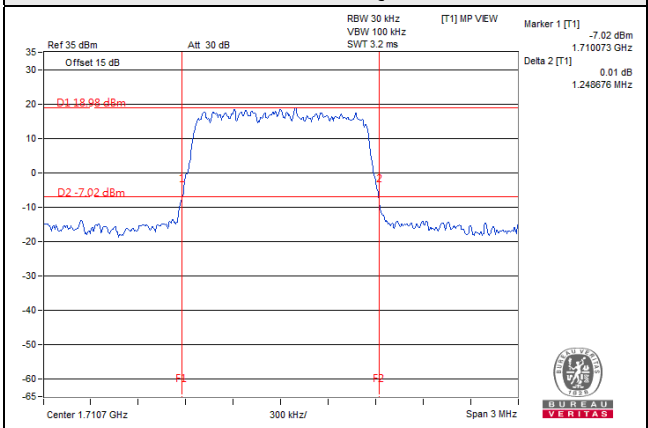
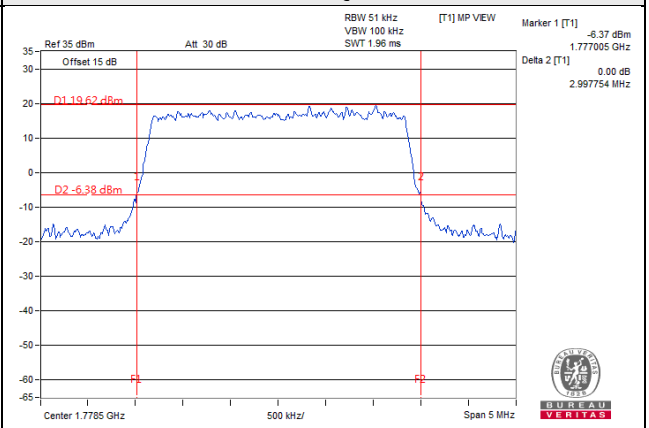
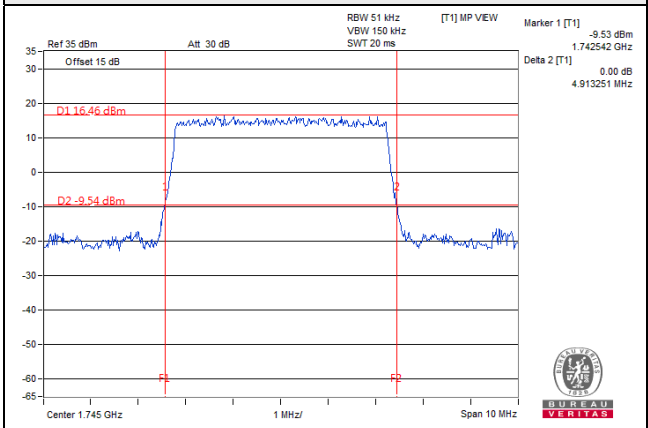
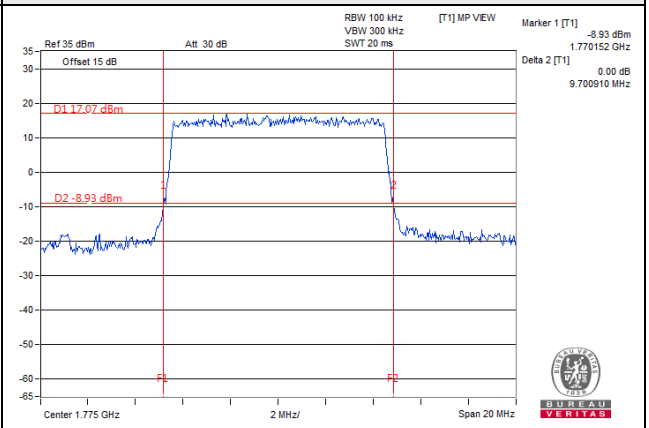
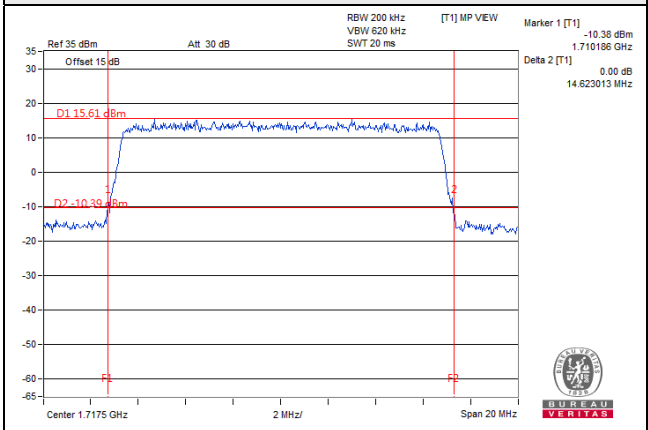
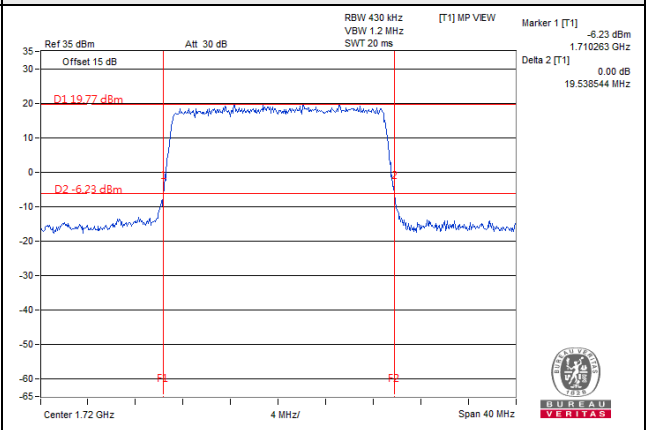
Channel Bandwidth: 1.4MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
23017	699.7	1.24	1.24	1.24	1.09	1.09	1.09
23095	707.5	1.22	1.22	1.22	1.09	1.09	1.09
23173	715.3	1.23	1.23	1.23	1.09	1.09	1.09
Channel Bandwidth: 3MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
23025	700.5	2.99	2.98	3.01	2.68	2.70	2.70
23095	707.5	2.93	2.95	2.96	2.69	2.68	2.70
23165	714.5	2.96	3.00	2.95	2.70	2.68	2.70
Channel Bandwidth: 5MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
23035	701.5	4.91	4.91	4.87	4.48	4.48	4.46
23095	707.5	4.85	4.84	4.82	4.46	4.46	4.46
23155	713.5	4.88	4.90	4.88	4.46	4.48	4.48
Channel Bandwidth: 10MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
23060	704	9.62	9.68	9.65	8.93	8.93	8.96
23095	707.5	9.47	9.52	9.62	8.90	8.86	8.93
23130	711	9.58	9.68	9.63	8.93	8.96	8.93

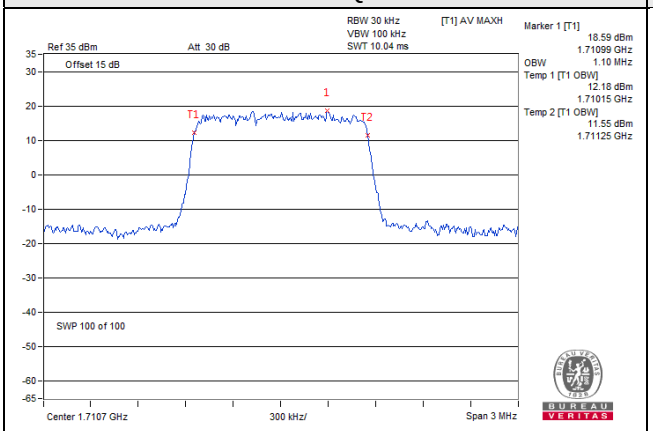
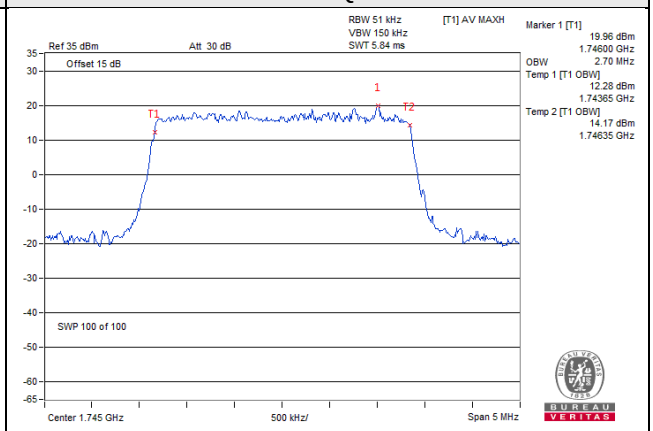
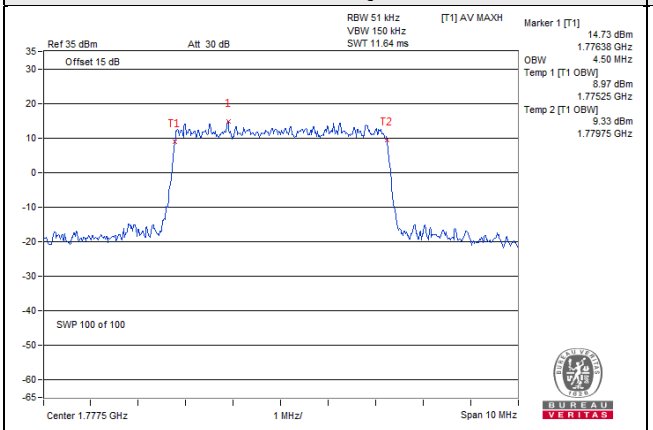
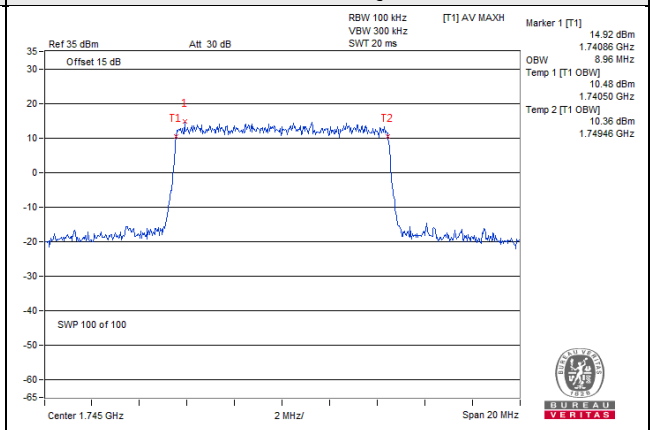
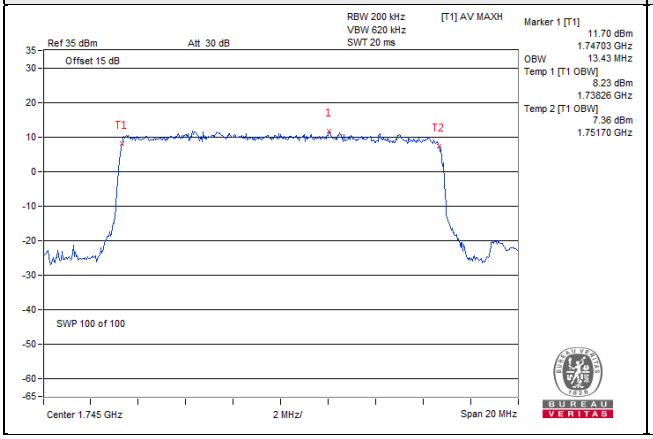
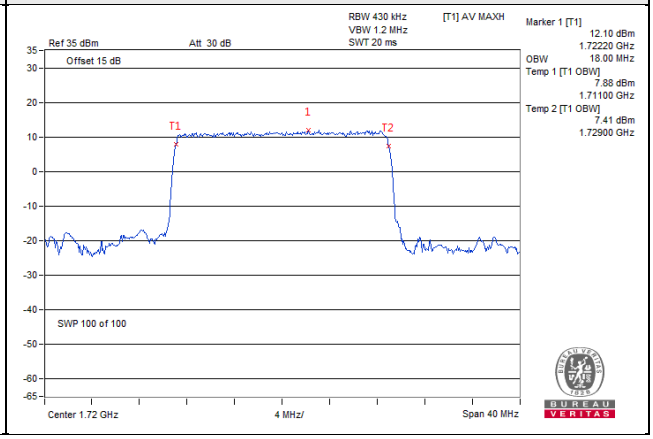
26dBc Bandwidth	
Spectrum Plot of Worst Value	
1.4MHz / 16QAM	3MHz / 64QAM
	
5MHz / QPSK	10MHz / 16QAM
	

Occupied Bandwidth	
Spectrum Plot of Worst Value	
1.4MHz / QPSK	3MHz / QPSK
	
5MHz / QPSK	10MHz / 16QAM
	

LTE Band 66

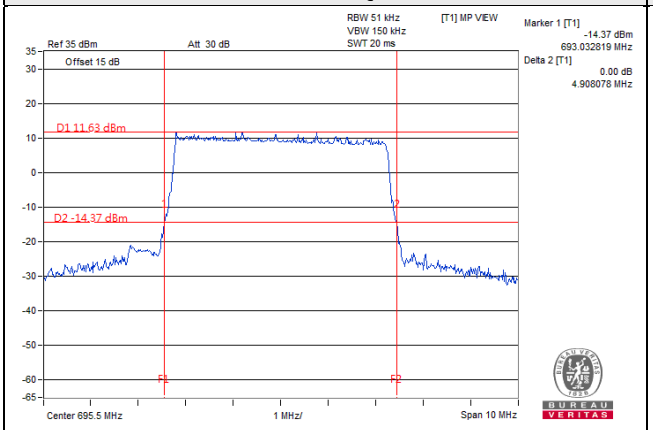
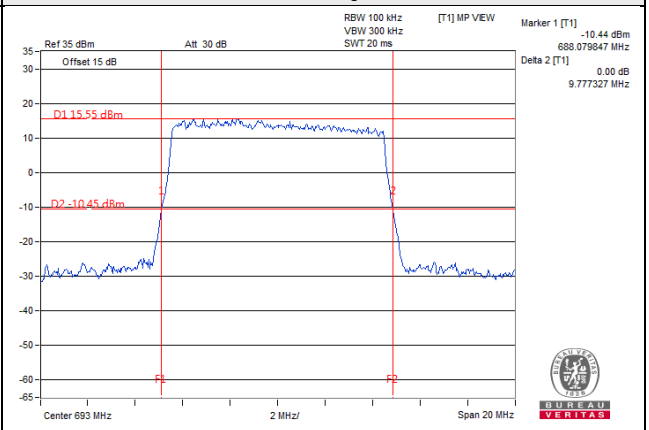
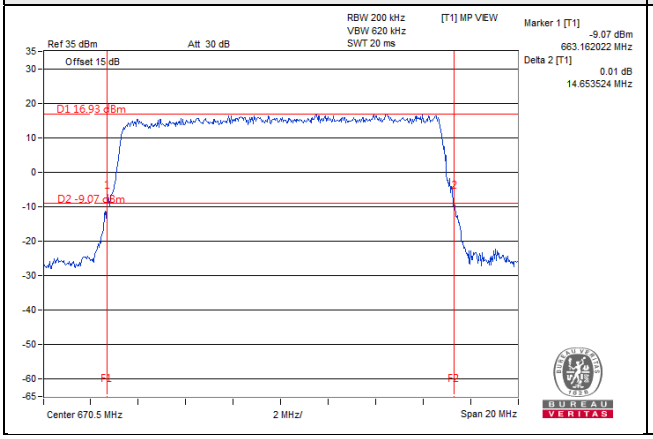
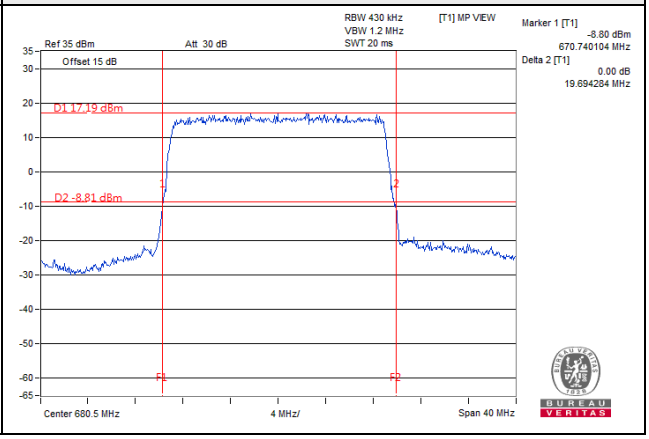
Channel Bandwidth: 1.4MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
131979	1710.7	1.24	1.24	1.22	1.10	1.09	1.09
132322	1745.0	1.23	1.23	1.24	1.09	1.09	1.09
132665	1779.3	1.23	1.24	1.23	1.09	1.09	1.10
Channel Bandwidth: 3MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
131987	1711.5	2.99	2.97	2.99	2.68	2.69	2.70
132322	1745.0	2.96	2.96	2.95	2.70	2.68	2.70
132657	1778.5	2.99	2.94	2.95	2.70	2.68	2.70
Channel Bandwidth: 5MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
131997	1712.5	4.89	4.86	4.83	4.46	4.46	4.48
132322	1745.0	4.91	4.84	4.83	4.46	4.46	4.50
132647	1777.5	4.83	4.87	4.87	4.46	4.46	4.50
Channel Bandwidth: 10MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
132022	1715.0	9.60	9.65	9.67	8.93	8.93	8.93
132322	1745.0	9.59	9.58	9.60	8.93	8.93	8.96
132622	1775.0	9.70	9.67	9.67	8.93	8.93	8.93
Channel Bandwidth: 15MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
132047	1717.5	14.48	14.48	14.62	13.40	13.43	13.40
132322	1745.0	14.45	14.53	14.54	13.43	13.40	13.40
132597	1772.5	14.50	14.48	14.61	13.36	13.43	13.40
Channel Bandwidth: 20MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
132072	1720.0	19.53	19.44	19.53	18.00	17.93	18.00
132322	1745.0	19.46	19.49	19.35	17.93	17.86	17.93
132572	1770.0	19.52	19.39	19.42	17.93	17.93	18.00

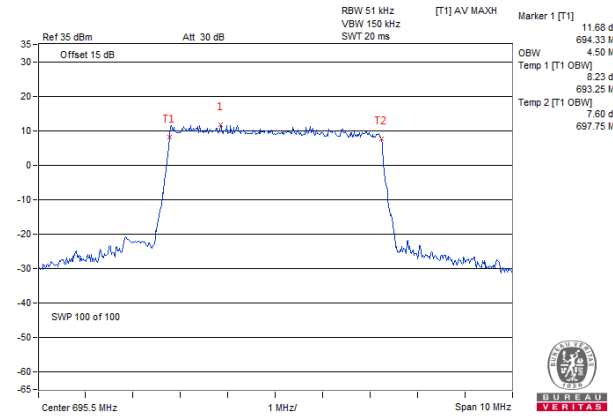
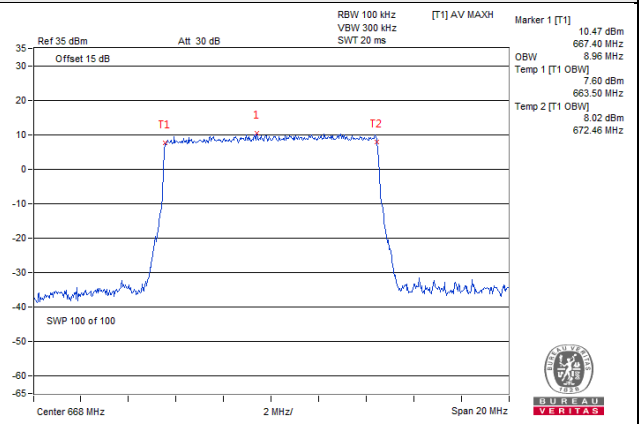
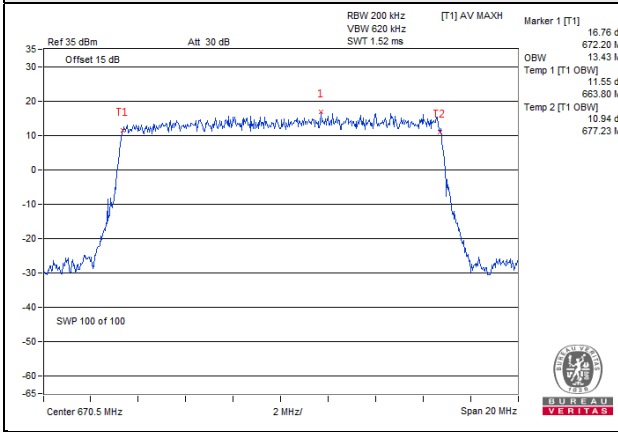
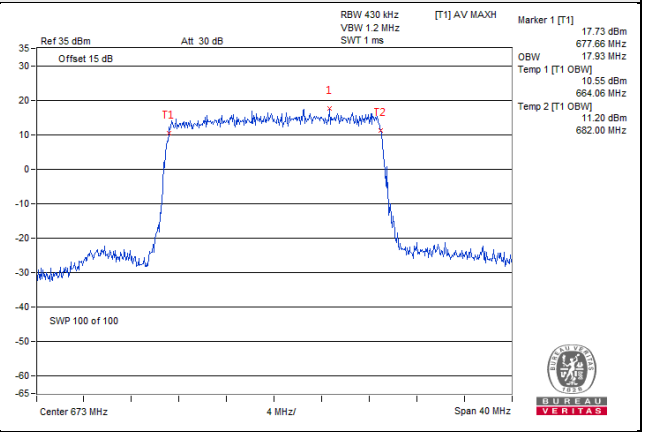
26dBc Bandwidth	
Spectrum Plot of Worst Value	
1.4MHz / 16QAM	3MHz / QPSK
	
5MHz / QPSK	10MHz / QPSK
	
15MHz / 64QAM	20MHz / QPSK
	

Occupied Bandwidth	
Spectrum Plot of Worst Value	
1.4MHz / QPSK	3MHz / QPSK
	
5MHz / 64QAM	10MHz / 64QAM
	
15MHz / QPSK	20MHz / QPSK
	

LTE Band 71

Channel Bandwidth: 5MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
133147	665.5	4.84	4.86	4.88	4.45	4.46	4.48
133297	680.5	4.87	4.89	4.89	4.46	4.46	4.48
133447	695.5	4.86	4.89	4.90	4.50	4.48	4.48
Channel Bandwidth: 10MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
133172	668.0	9.59	9.65	9.58	8.93	8.96	8.93
133297	680.5	9.64	9.63	9.58	8.93	8.93	8.93
133422	693.0	9.77	9.74	9.55	8.90	8.90	8.93
Channel Bandwidth: 15MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
133197	670.5	14.62	14.65	14.50	13.43	13.40	13.36
133297	680.5	14.47	14.49	14.56	13.36	13.40	13.36
133397	690.5	14.35	14.43	14.51	13.36	13.40	13.36
Channel Bandwidth: 20MHz							
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
133222	673.0	19.49	19.42	19.52	17.93	17.93	17.86
133297	680.5	19.38	19.69	19.56	17.93	17.93	17.86
133372	688.0	19.32	19.42	19.48	17.86	17.93	17.86

26dBc Bandwidth	
Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / QPSK
	
15MHz / 16QAM	20MHz / 16QAM
	

Occupied Bandwidth	
Spectrum Plot of Worst Value	
5MHz / QPSK	10MHz / 16QAM
	
15MHz / QPSK	20MHz / QPSK
	

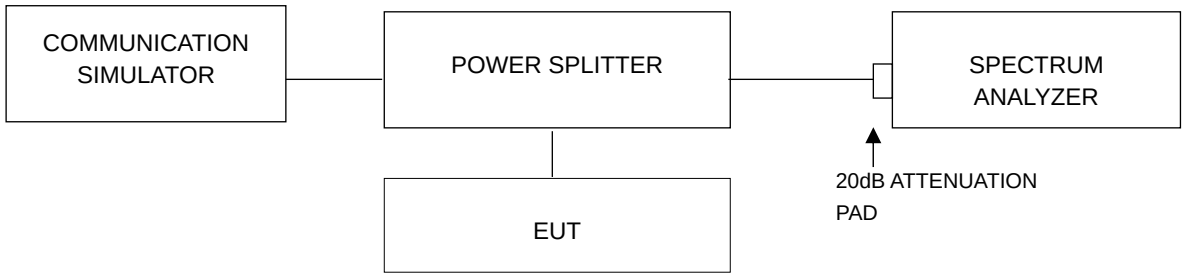
4.5 Channel Edge Measurement

4.5.1 Limits of Band Edge Measurement

For WCDMA Band 4, LTE Band 4, 66
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 log10 (P) dB.

For LTE Band 12, 71
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.

4.5.2 Test Setup



4.5.3 Test Procedures

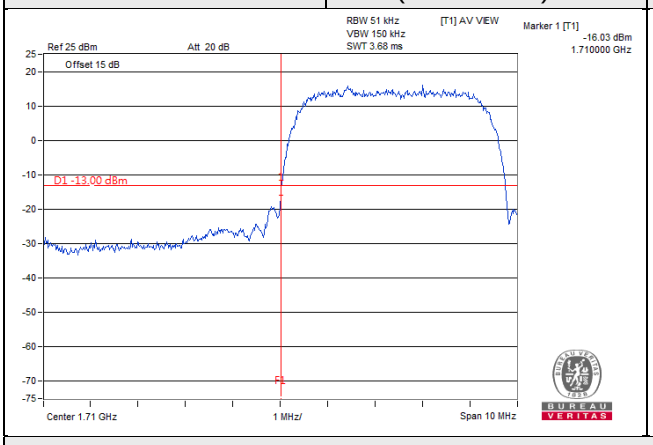
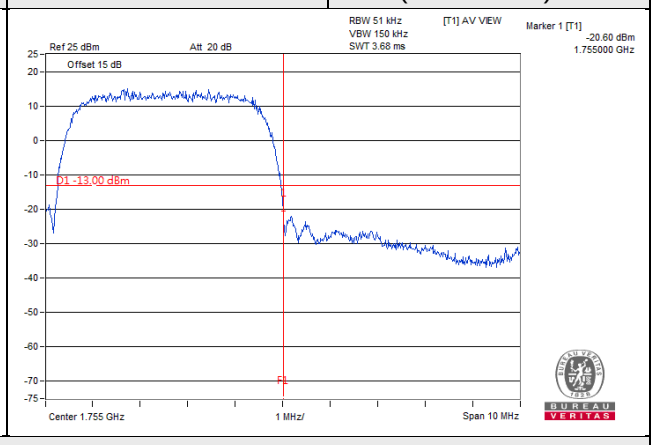
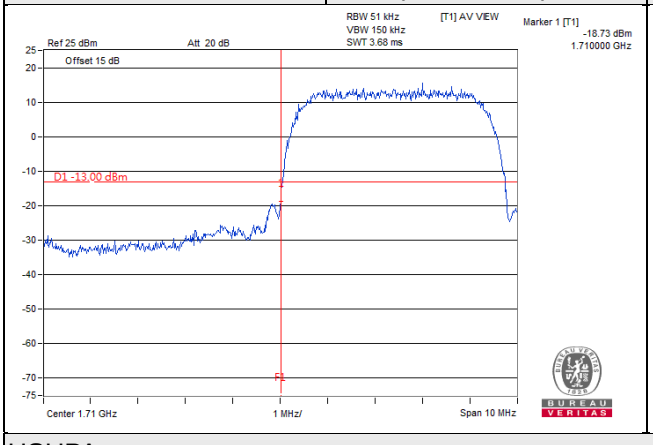
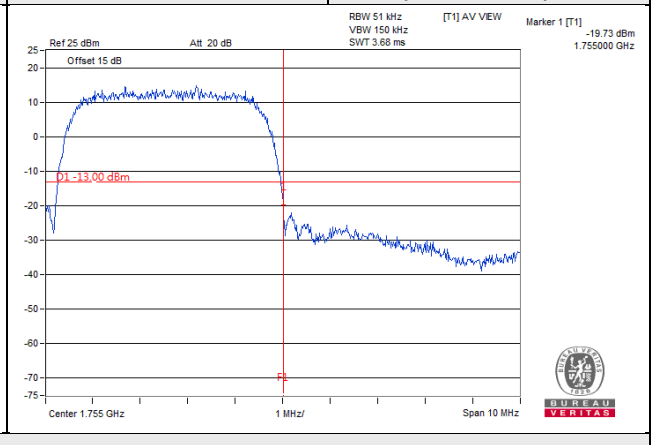
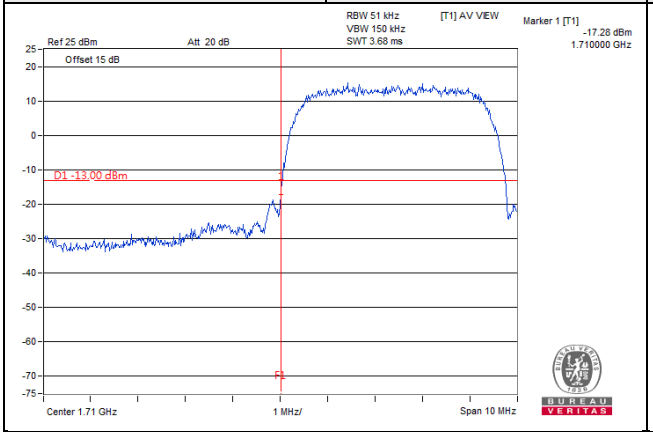
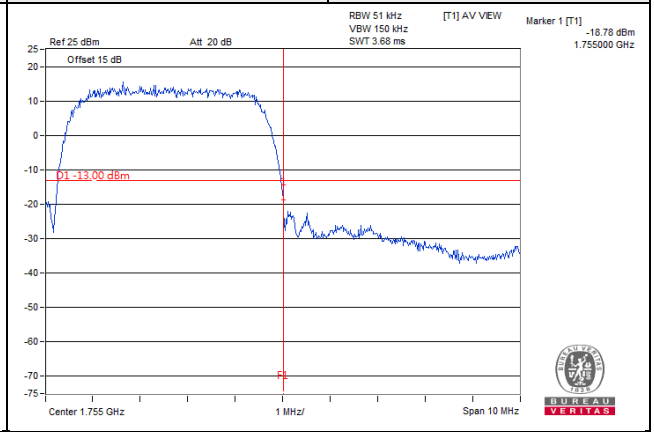
a. The EUT was set up for the rated peak power. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels: low, middle and high operational frequency range.

b. The center frequency of spectrum is the band edge frequency and span is 1.5MHz. RBW = 30kHz and VBW = 100kHz (Channel Bandwidth: 1.4MHz and 3MHz), RBW = 51kHz and VBW = 150kHz (Channel Bandwidth: 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).

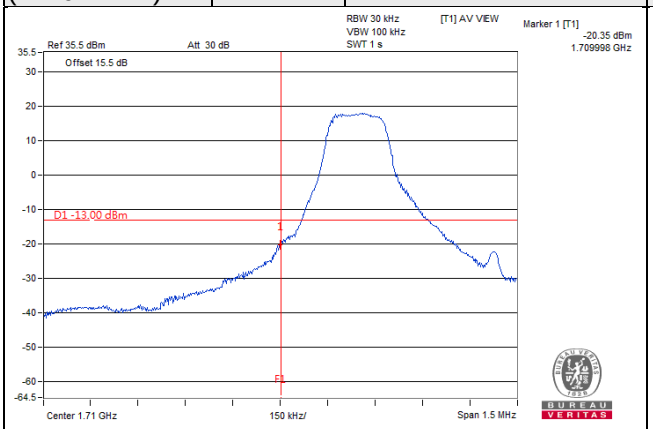
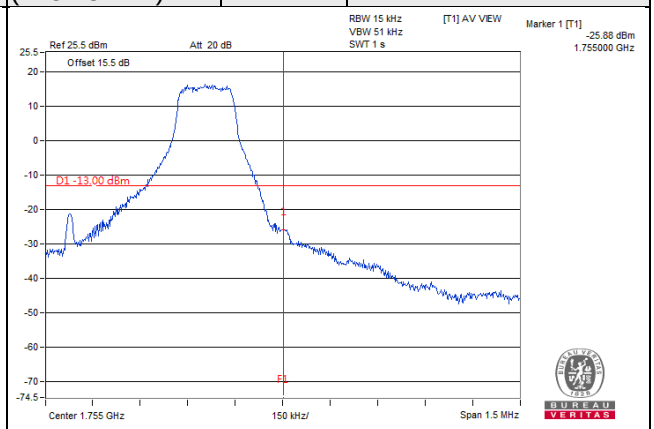
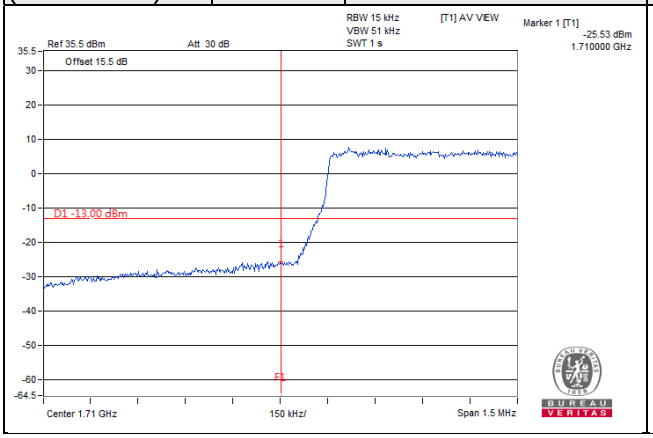
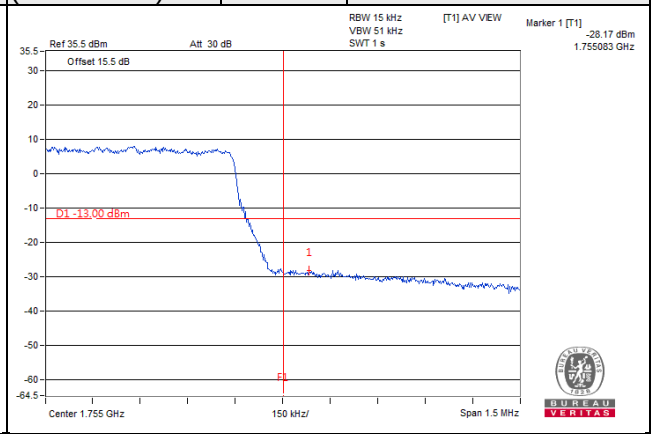
c. Record the max trace plot into the test report.

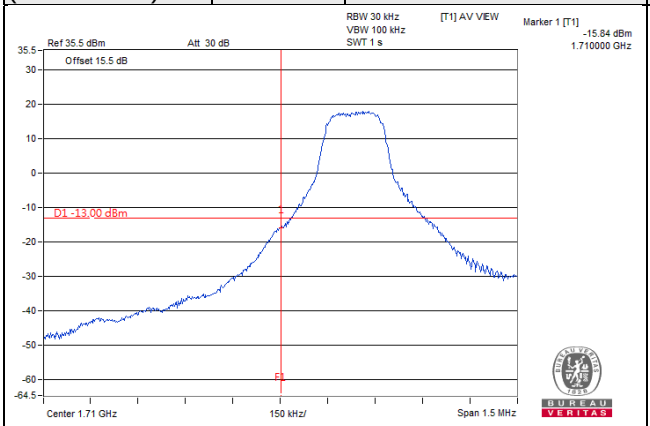
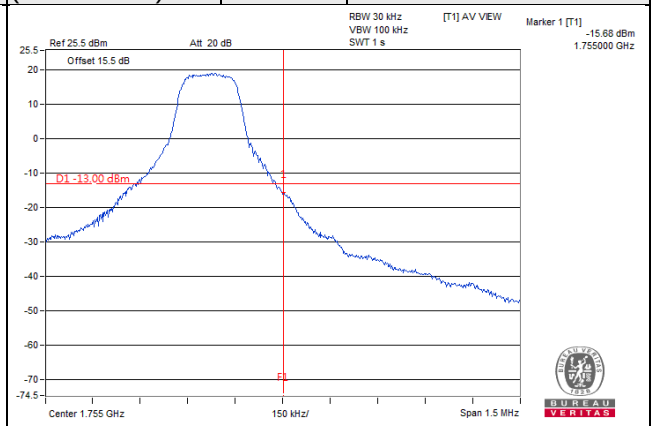
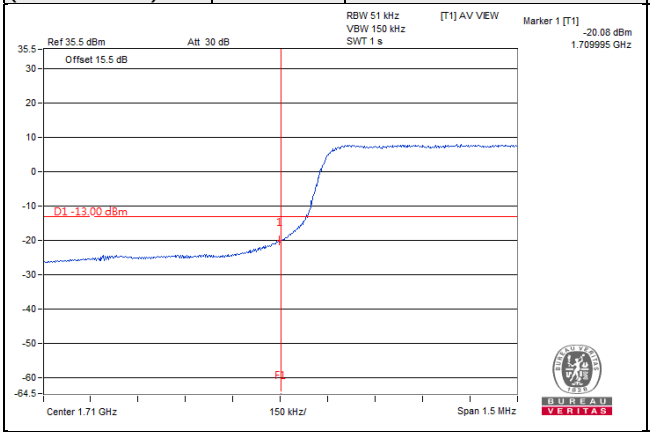
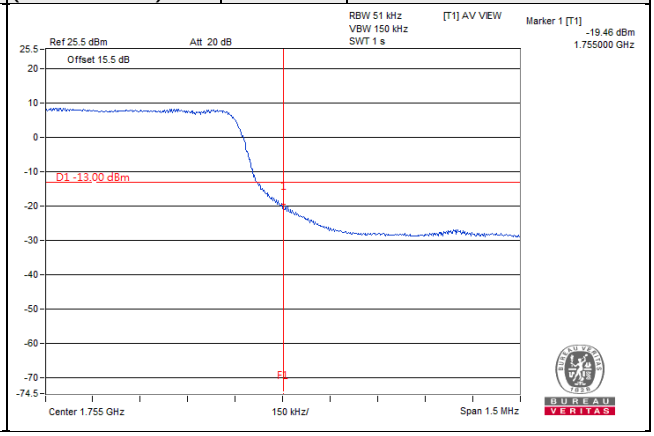
4.5.4 Test Results

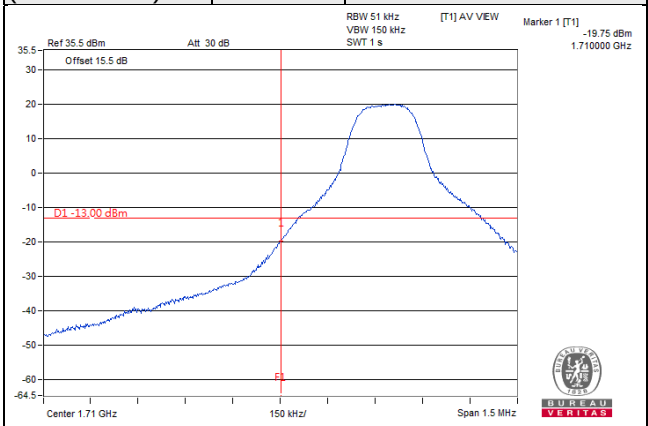
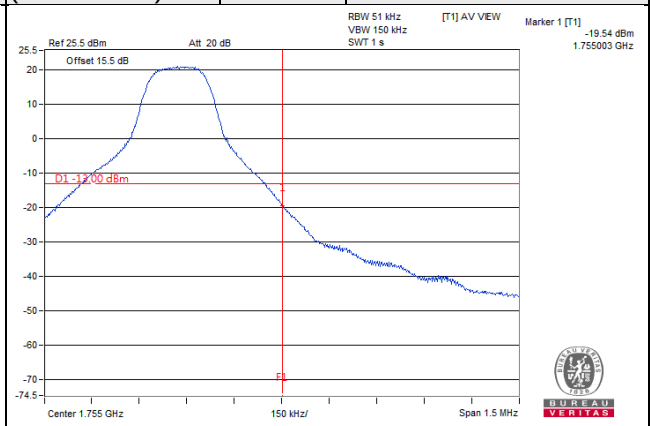
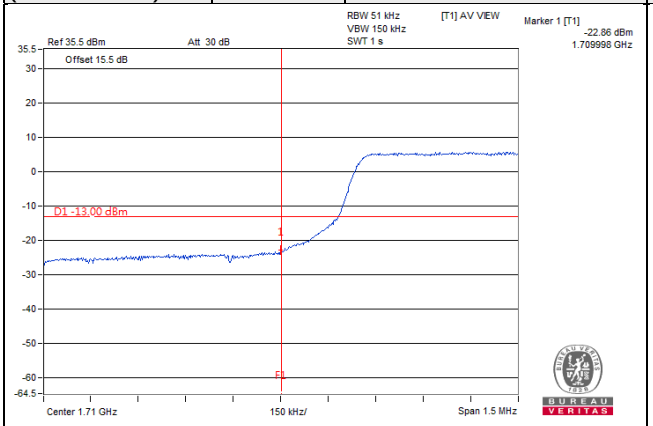
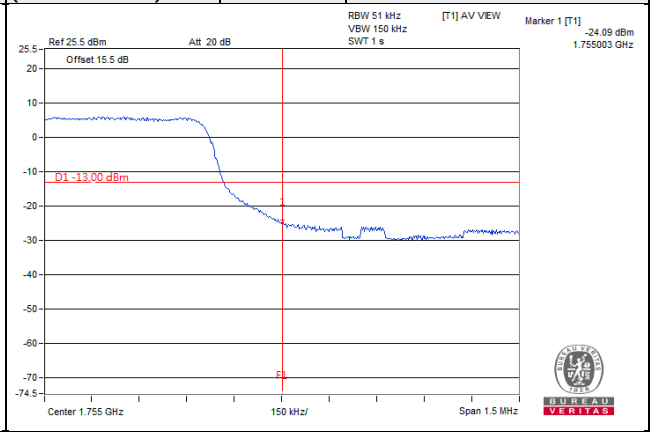
WCDMA Band 4

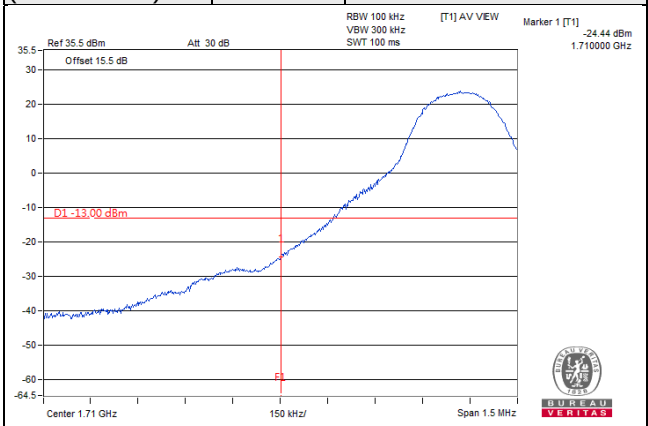
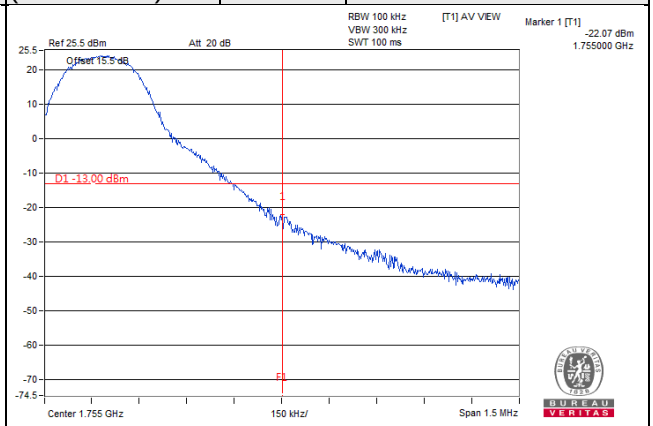
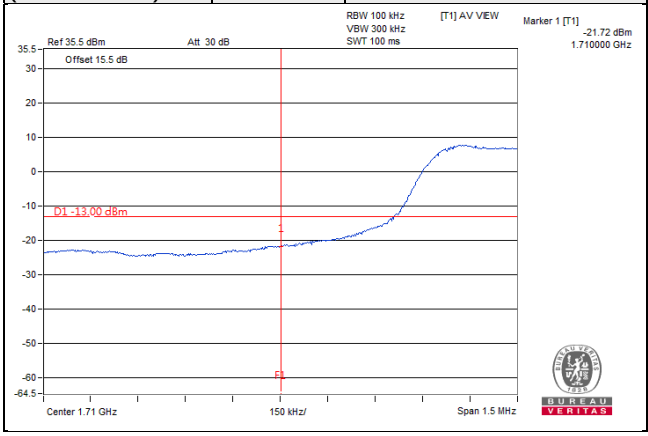
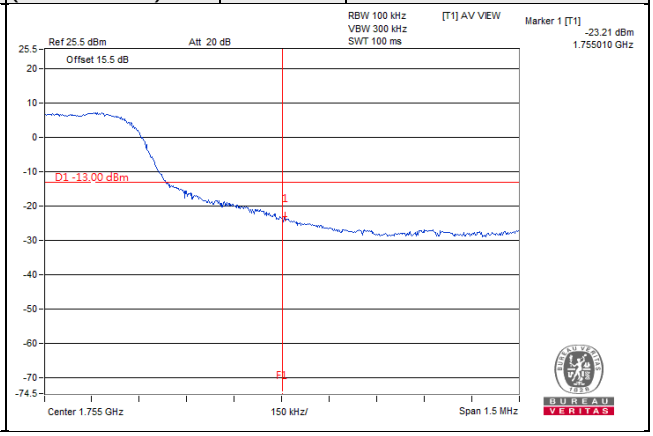
WCDMA			
Channel	1312 (1712.4MHz)	Channel	1513 (1752.6MHz)
			
HSDPA			
Channel	1312 (1712.4MHz)	Channel	1513 (1752.6MHz)
			
HSUPA			
Channel	1312 (1712.4MHz)	Channel	1513 (1752.6MHz)
			

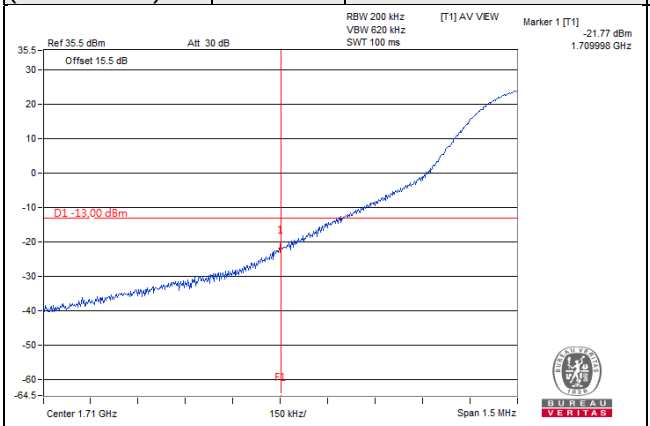
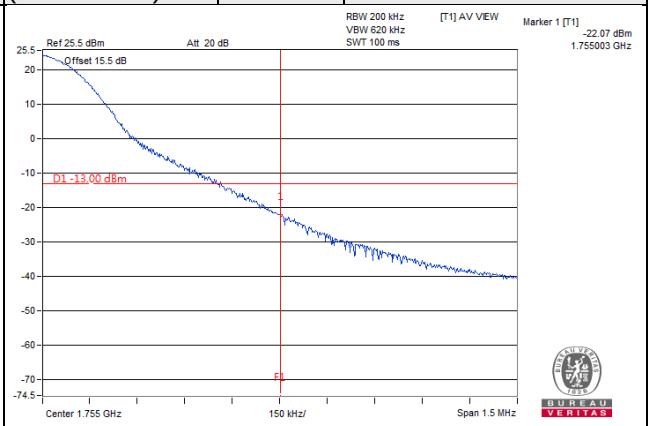
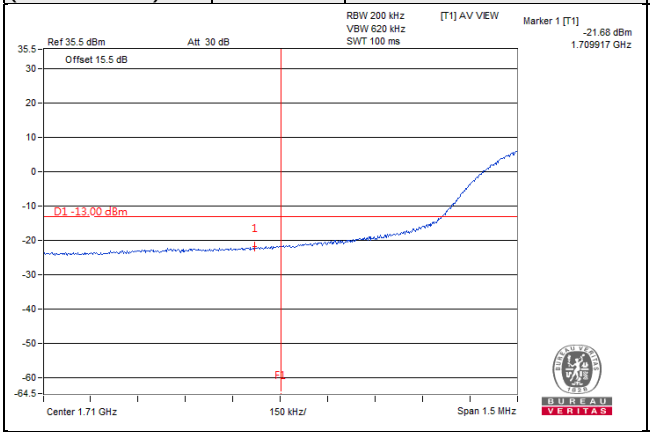
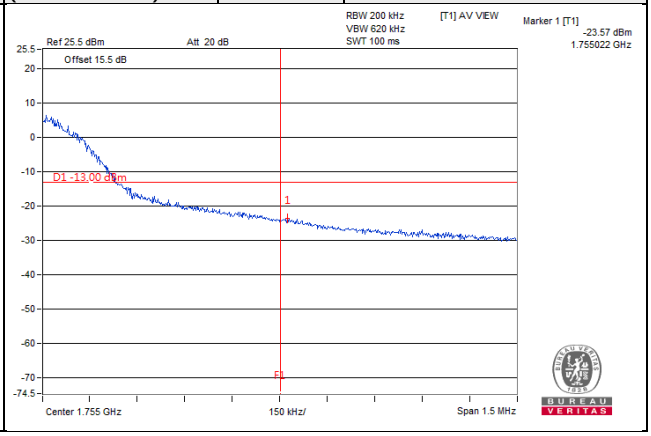
LTE Band 4

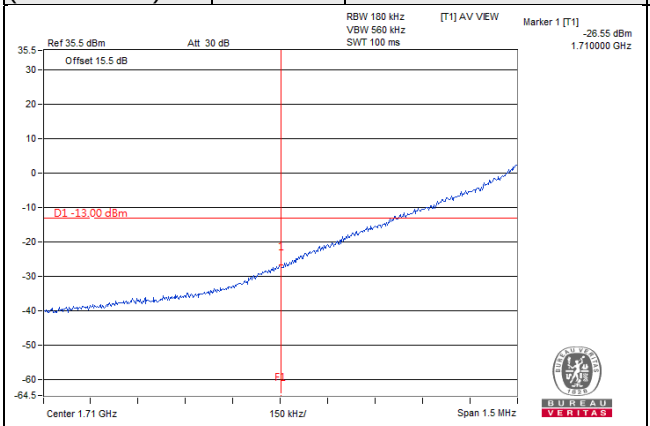
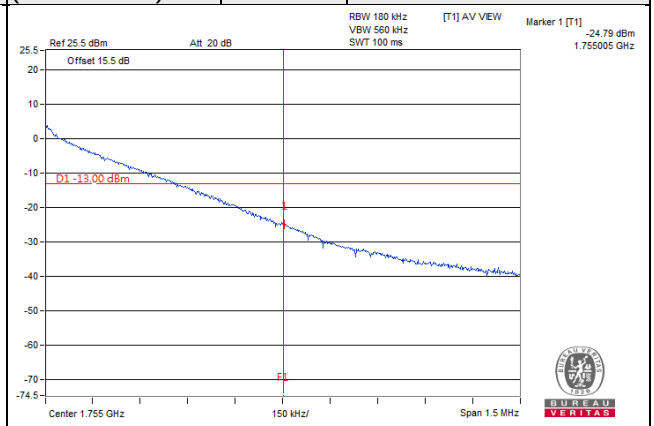
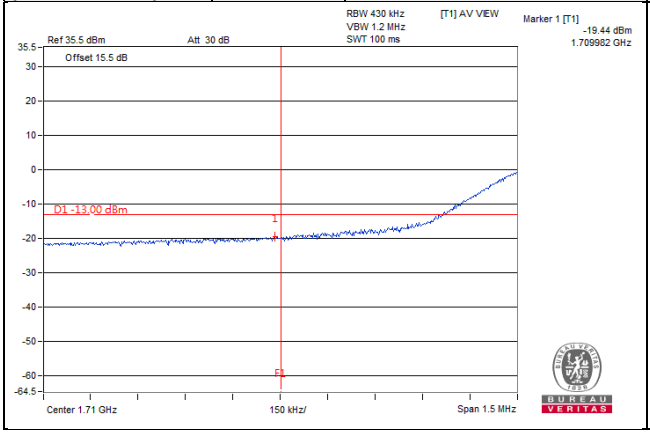
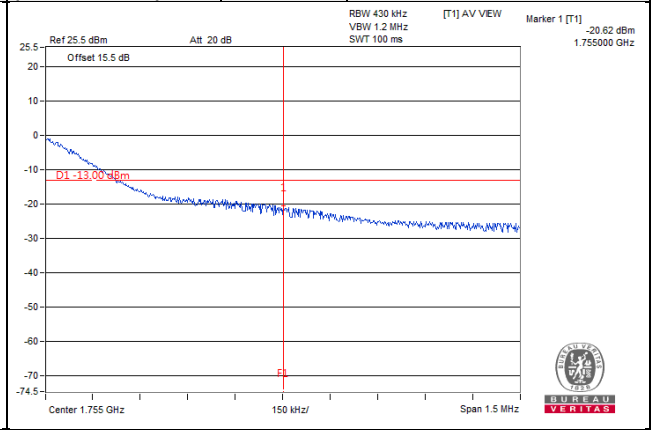
Channel Bandwidth: 1.4MHz					
Channel 19957 (1710.7MHz)	QPSK	1 RB / 0 RB Offset	Channel 20393 (1754.3MHz)	QPSK	1 RB / 5 RB Offset
					
Channel 19957 (1710.7MHz)	QPSK	6 RB / 0 RB Offset	Channel 20393 (1754.3MHz)	QPSK	6 RB / 0 RB Offset
					

Channel Bandwidth: 3MHz					
Channel 19965 (1711.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 20385 (1753.5MHz)	QPSK	1 RB / 14 RB Offset
					
Channel 19965 (1711.5MHz)	QPSK	15 RB / 0 RB Offset	Channel 20385 (1753.5MHz)	QPSK	15 RB / 0 RB Offset
					

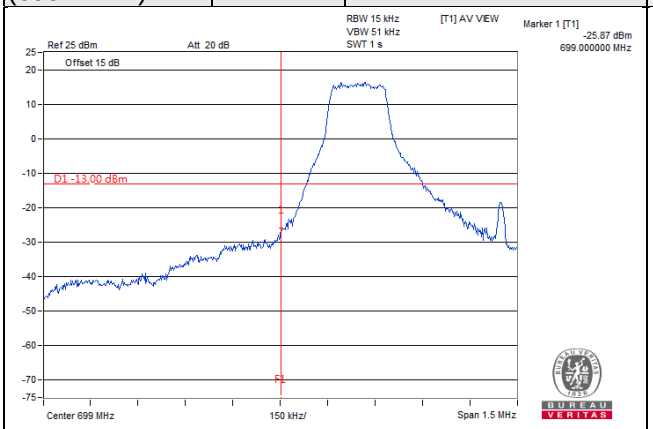
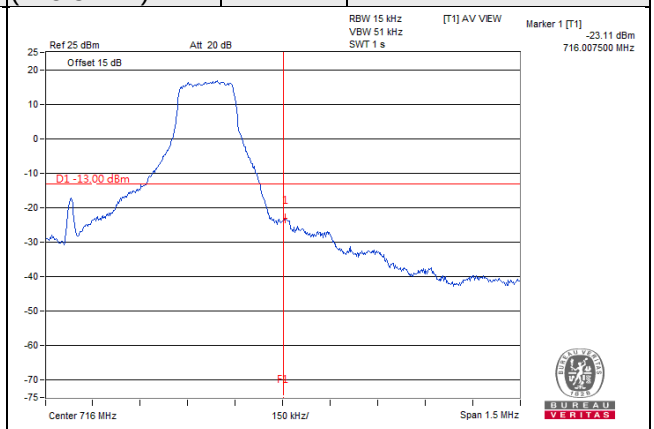
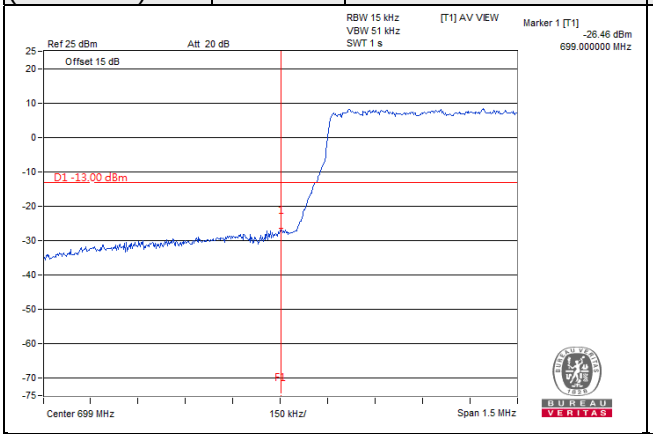
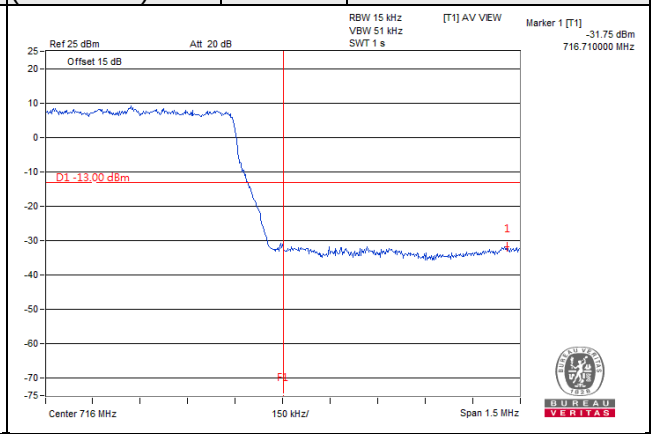
Channel Bandwidth: 5MHz					
Channel 19975 (1712.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 20375 (1752.5MHz)	QPSK	1 RB / 24 RB Offset
					
Channel 19975 (1712.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 20375 (1752.5MHz)	QPSK	25 RB / 0 RB Offset
					

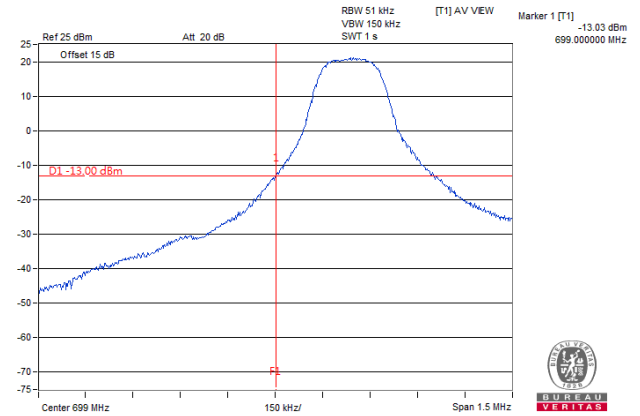
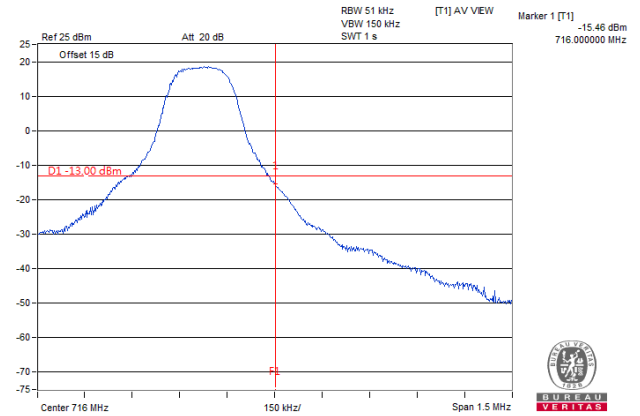
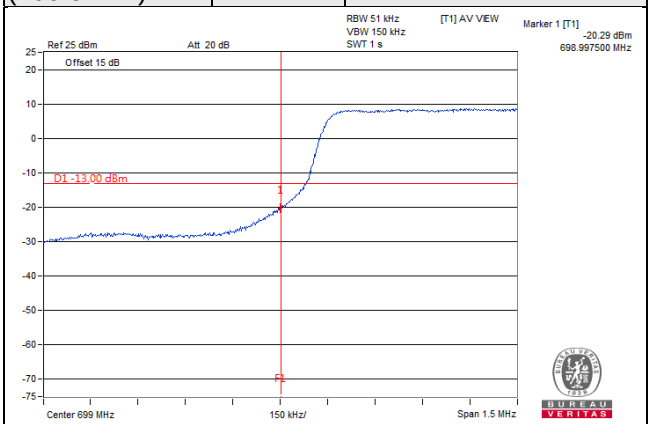
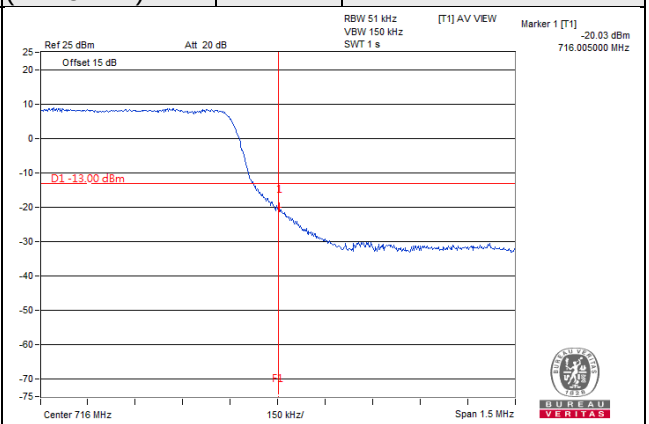
Channel Bandwidth: 10MHz					
Channel 20000 (1715.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 20350 (1750.0MHz)	QPSK	1 RB / 49 RB Offset
					
Channel 20000 (1715.0MHz)	QPSK	50 RB / 0 RB Offset	Channel 20350 (1750.0MHz)	QPSK	50 RB / 0 RB Offset
					

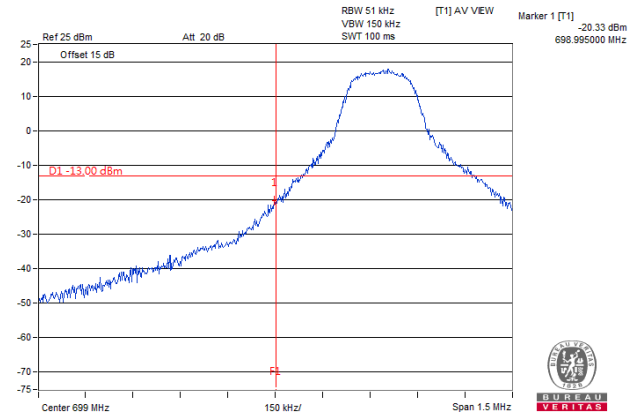
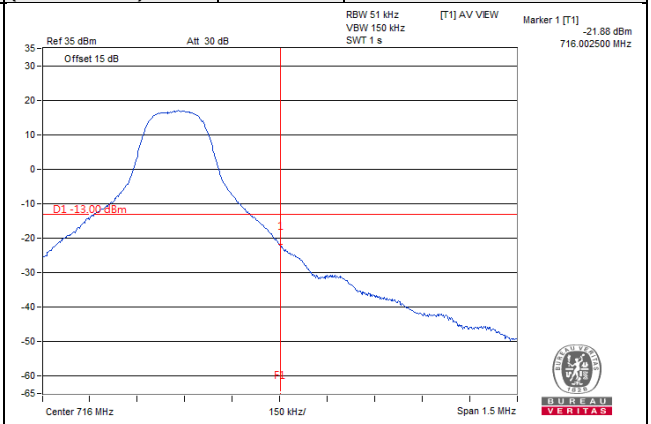
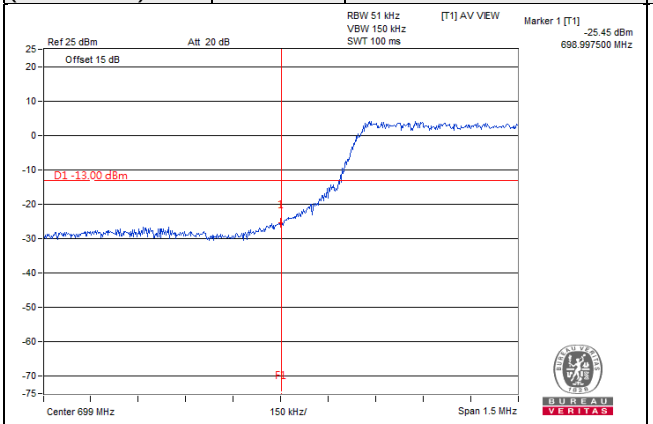
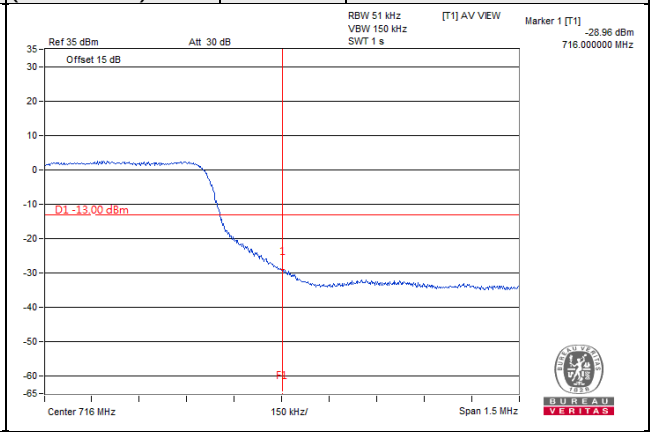
Channel Bandwidth: 15MHz					
Channel 20025 (1717.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 20325 (1747.5MHz)	QPSK	1 RB / 74 RB Offset
					
Channel 20025 (1717.5MHz)	QPSK	75 RB / 0 RB Offset	Channel 20325 (1747.5MHz)	QPSK	75 RB / 0 RB Offset
					

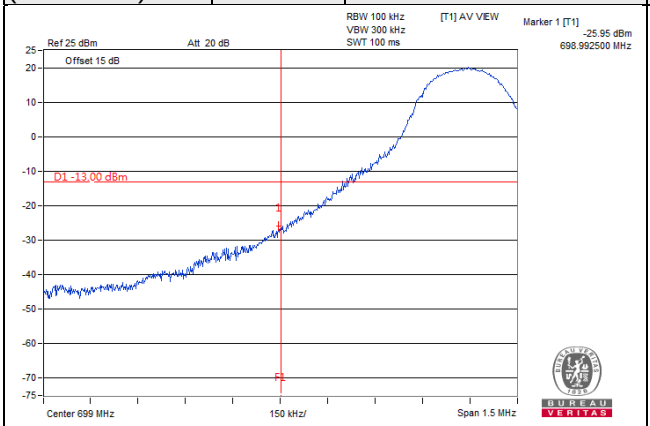
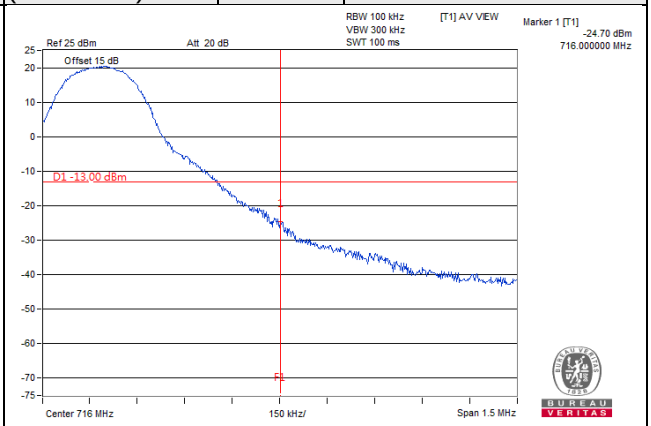
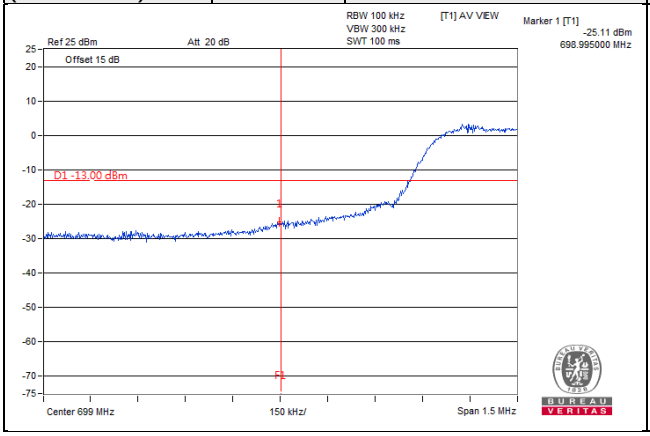
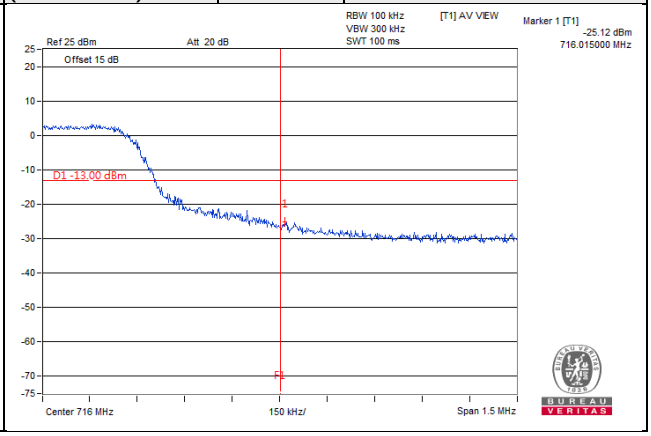
Channel Bandwidth: 20MHz					
Channel 20050 (1720.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 20300 (1745.0MHz)	QPSK	1 RB / 99 RB Offset
					
Channel 20050 (1720.0MHz)	QPSK	100 RB / 0 RB Offset	Channel 20300 (1745.0MHz)	QPSK	100 RB / 0 RB Offset
					

LTE Band 12

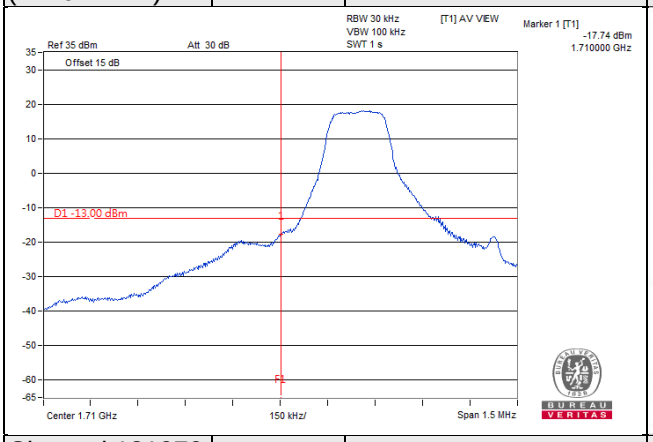
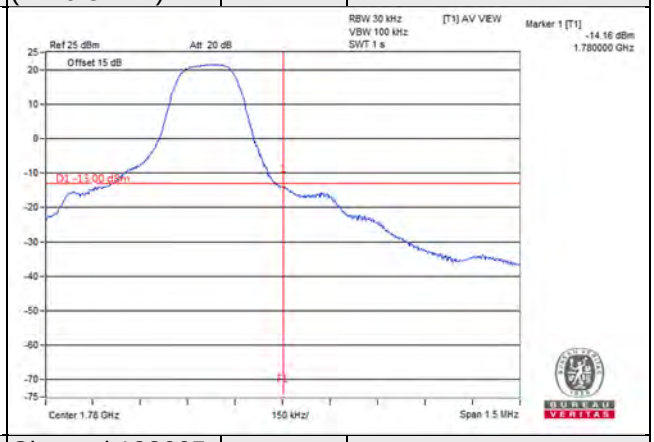
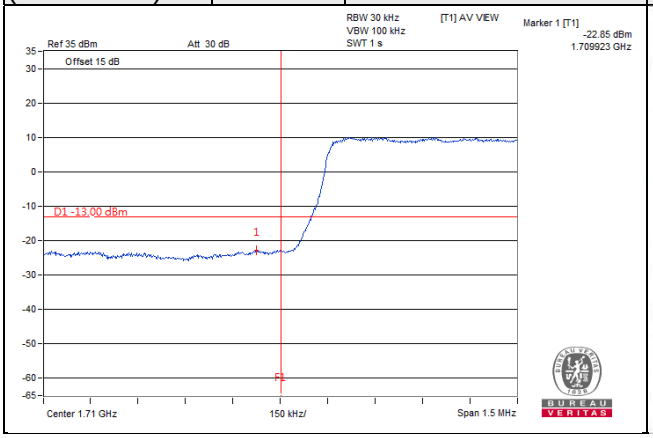
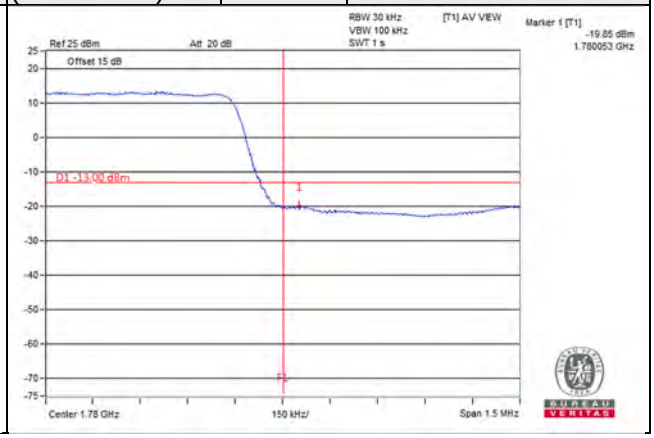
Channel Bandwidth: 1.4MHz					
Channel 23017 (699.7MHz)	QPSK	1 RB / 0 RB Offset	Channel 23173 (715.3MHz)	QPSK	1 RB / 5 RB Offset
					
Channel 23017 (699.7MHz)	QPSK	6 RB / 0 RB Offset	Channel 23173 (715.3MHz)	QPSK	6 RB / 0 RB Offset
					

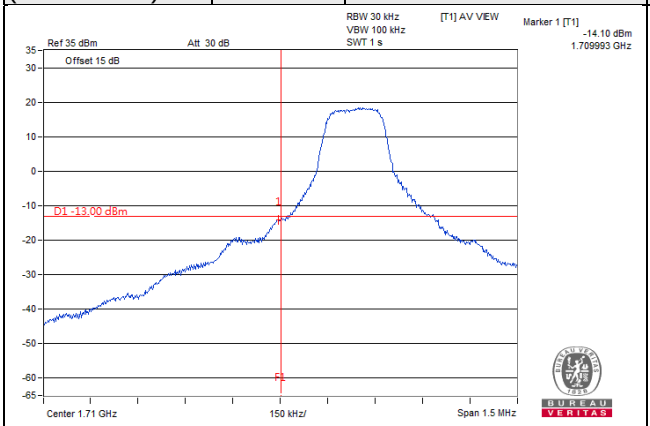
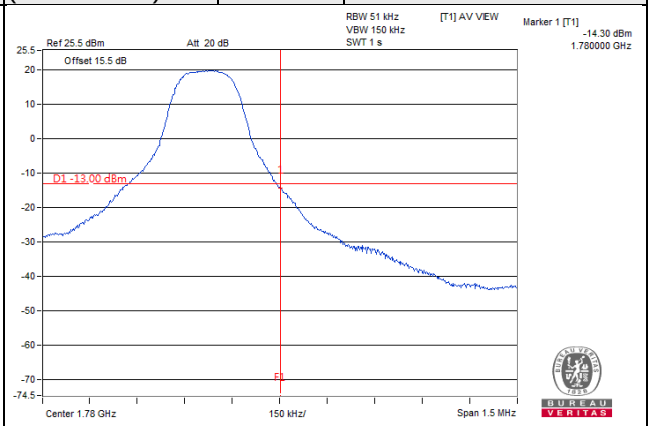
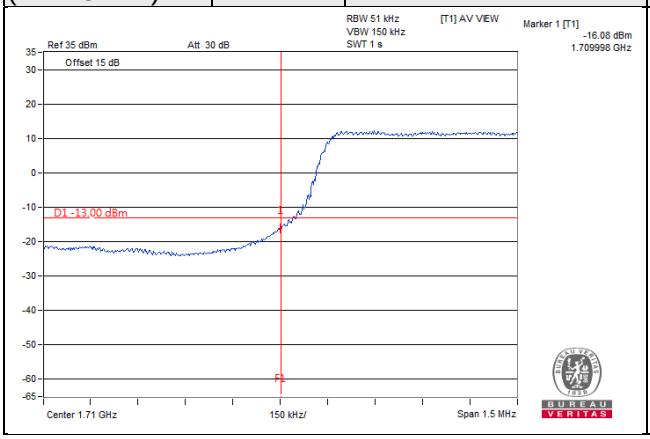
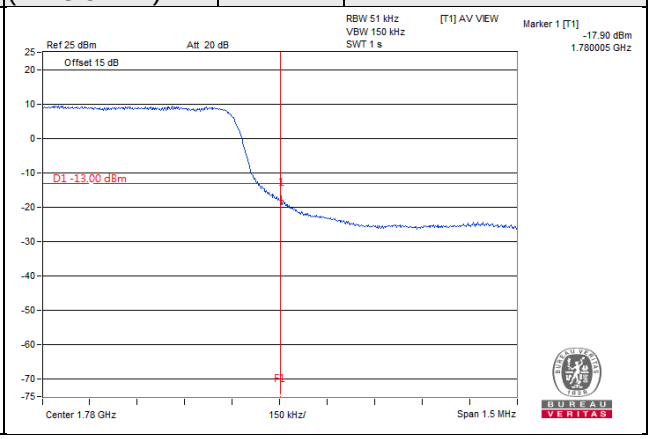
Channel Bandwidth: 3MHz					
Channel 23025 (700.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 23165 (714.5MHz)	QPSK	1 RB / 14 RB Offset
					
Channel 23025 (700.5MHz)	QPSK	15 RB / 0 RB Offset	Channel 23165 (714.5MHz)	QPSK	15 RB / 0 RB Offset
					

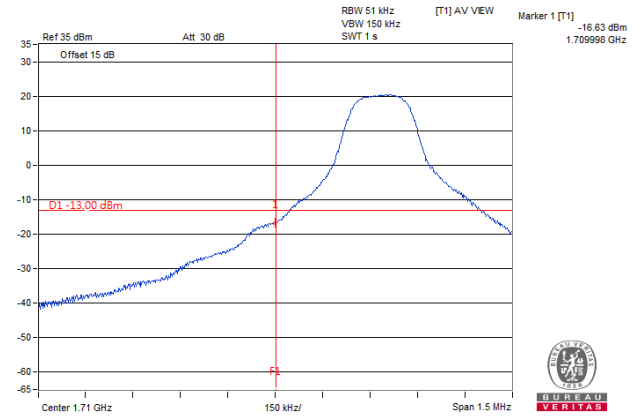
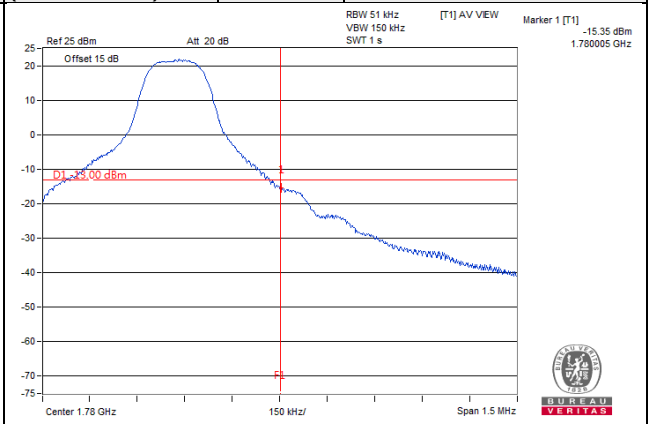
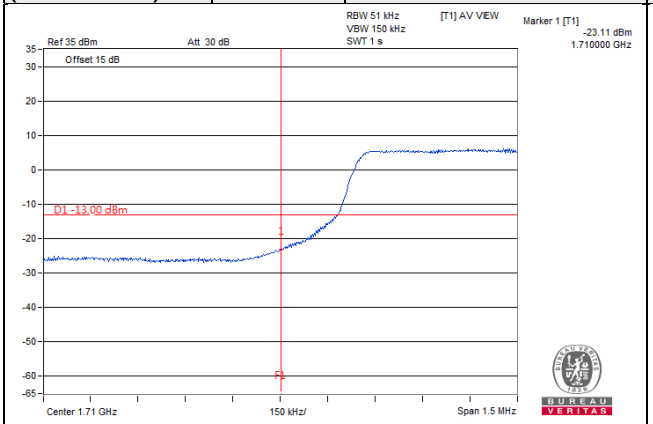
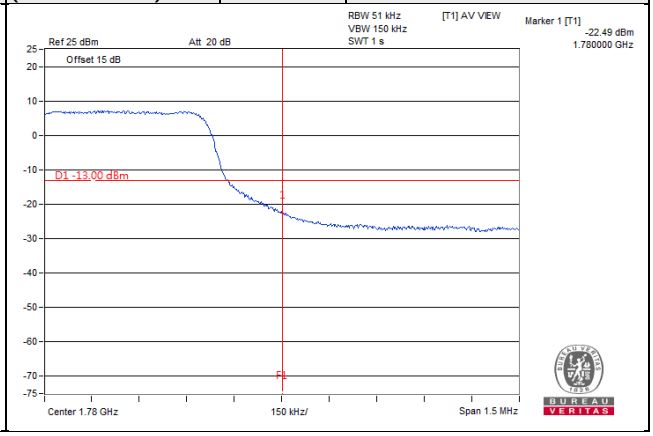
Channel Bandwidth: 5MHz					
Channel 23035 (701.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 23155 (713.5MHz)	QPSK	1 RB / 24 RB Offset
					
Channel 23035 (701.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 23155 (713.5MHz)	QPSK	25 RB / 0 RB Offset
					

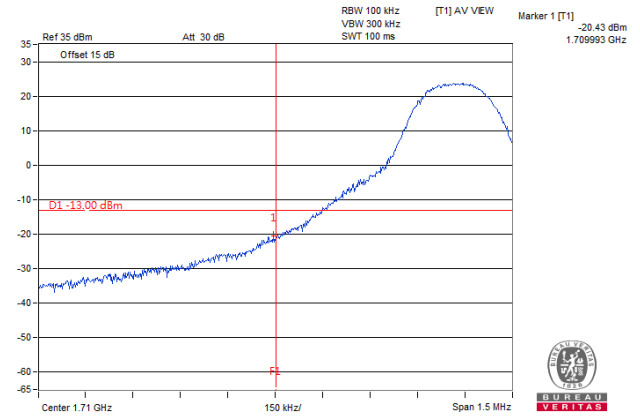
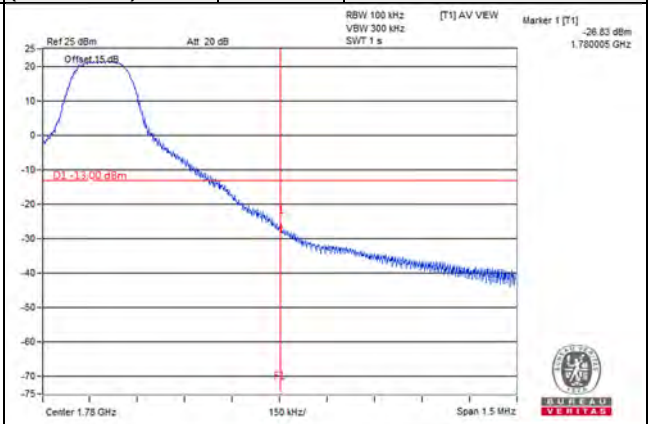
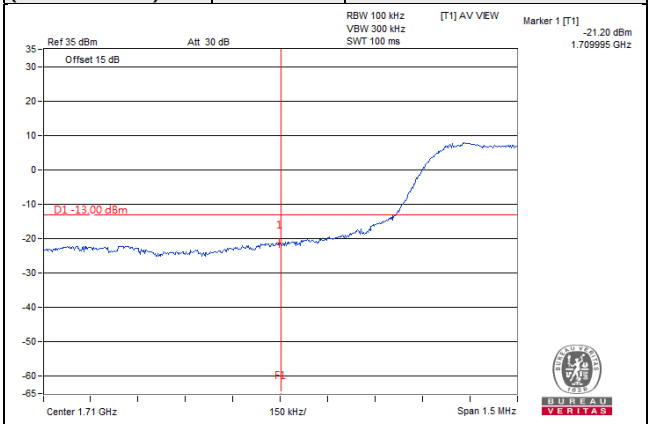
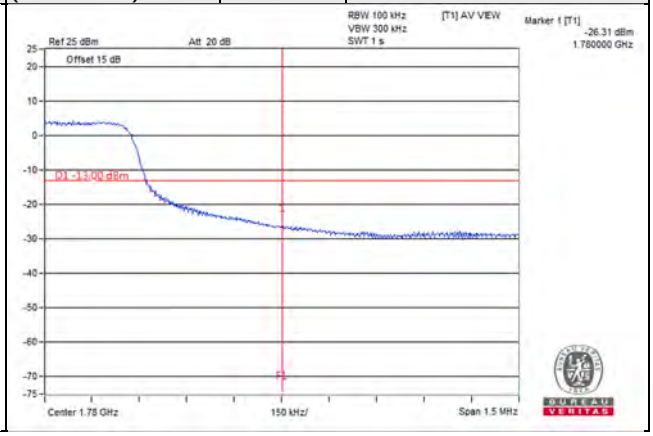
Channel Bandwidth: 10MHz					
Channel 23060 (704.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 23130 (711.0MHz)	QPSK	1 RB / 49 RB Offset
					
Channel 23060 (704.0MHz)	QPSK	50 RB / 0 RB Offset	Channel 23130 (711.0MHz)	QPSK	50 RB / 0 RB Offset
					

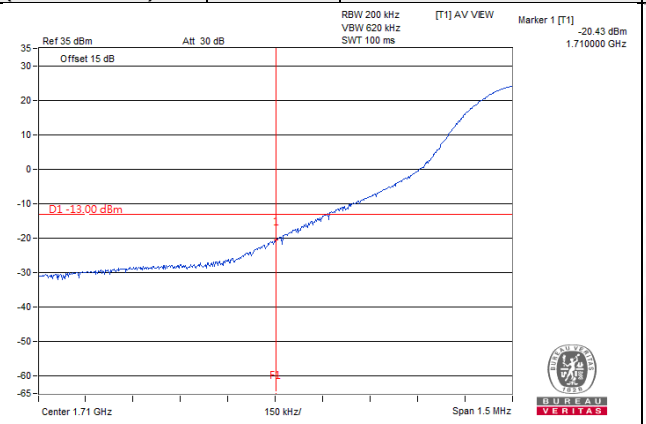
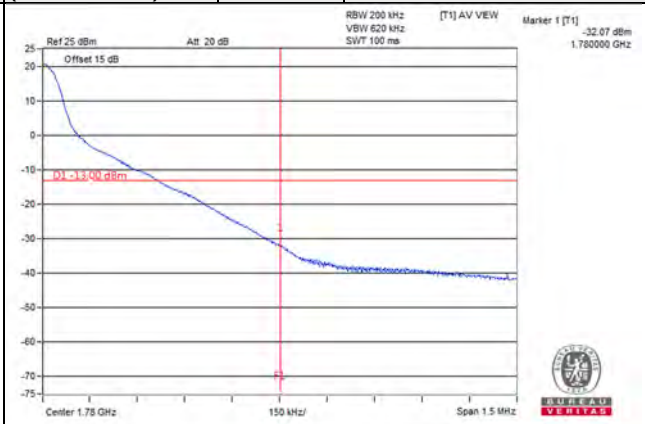
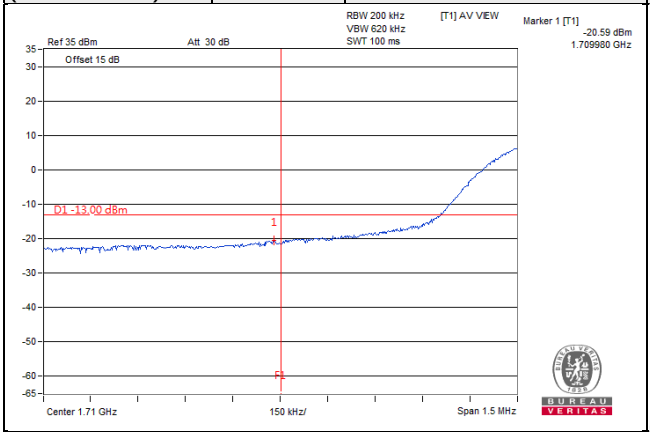
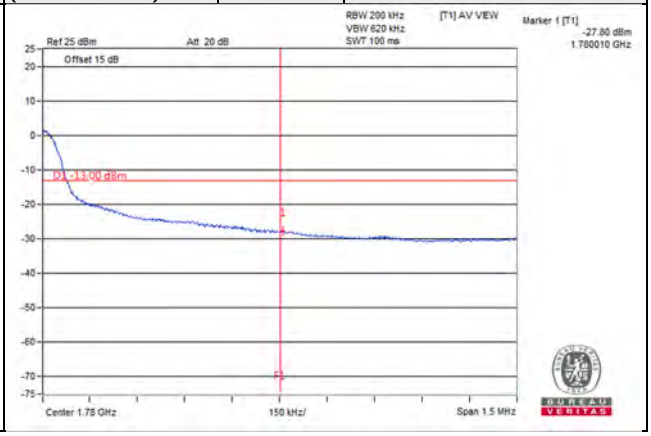
LTE Band 66

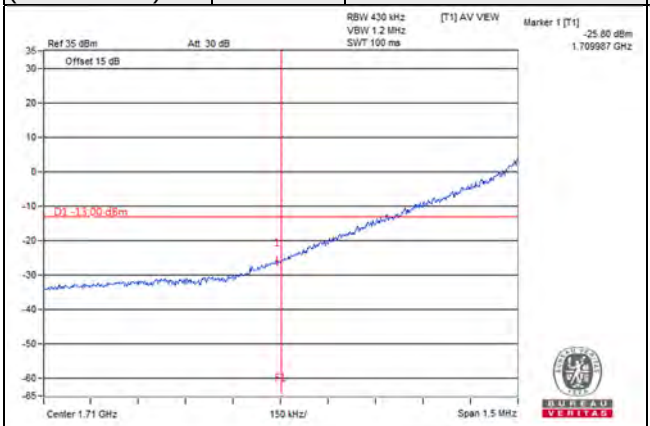
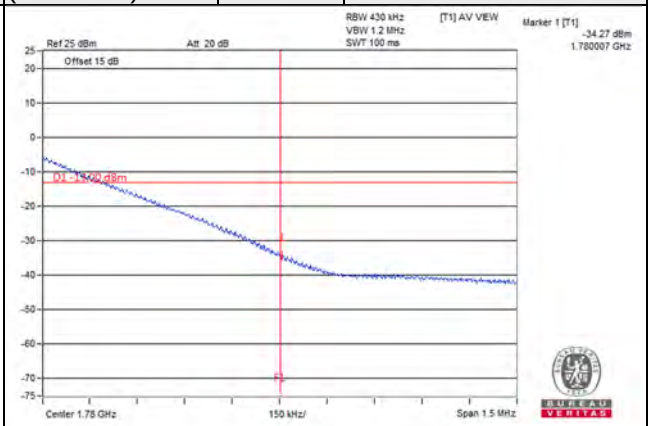
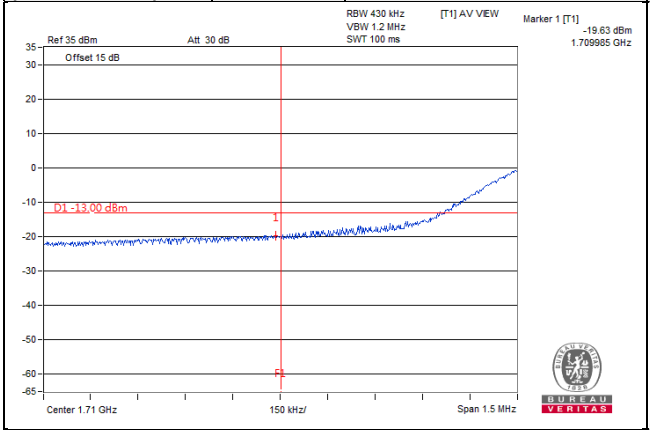
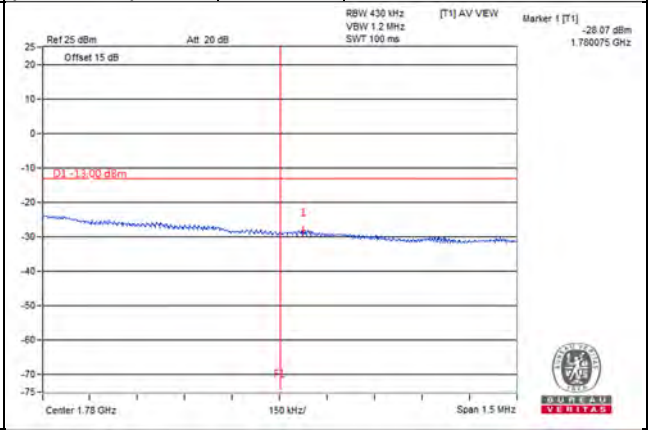
Channel Bandwidth: 1.4MHz					
Channel 131979 (1710.7MHz)	QPSK	1 RB / 0 RB Offset	Channel 132665 (1779.3MHz)	QPSK	1 RB / 5 RB Offset
					
Channel 131979 (1710.7MHz)	QPSK	6 RB / 0 RB Offset	Channel 132665 (1779.3MHz)	QPSK	6 RB / 0 RB Offset
					

Channel Bandwidth: 3MHz					
Channel 131987 (1711.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 132657 (1778.5MHz)	QPSK	1 RB / 14 RB Offset
					
Channel 131987 (1711.5MHz)	QPSK	15 RB / 0 RB Offset	Channel 132657 (1778.5MHz)	QPSK	15 RB / 0 RB Offset
					

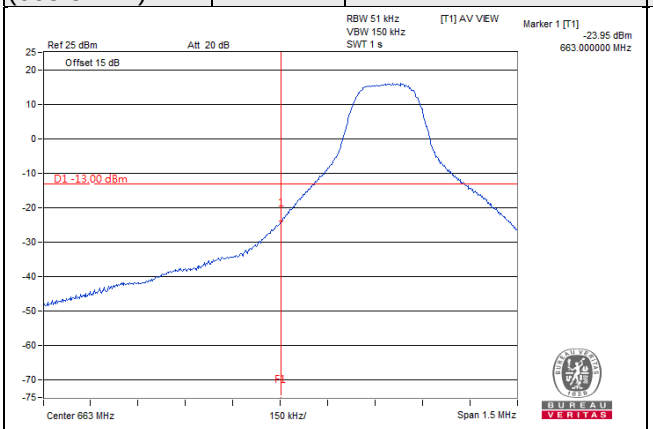
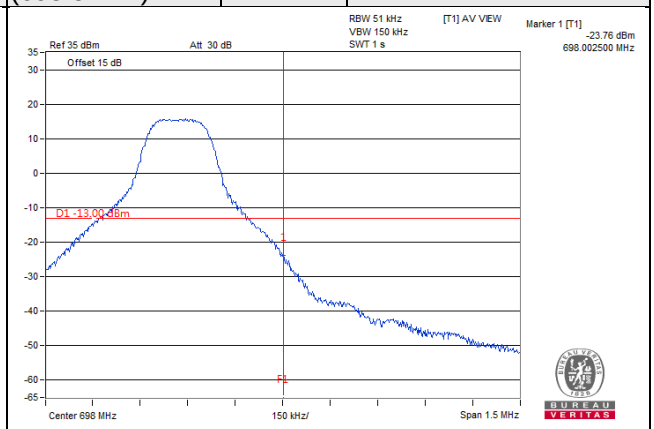
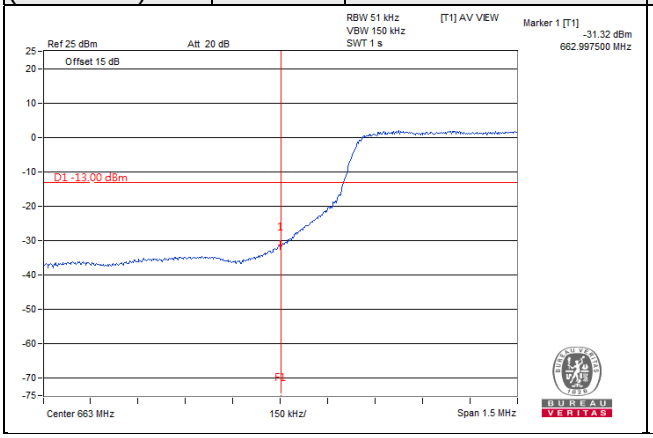
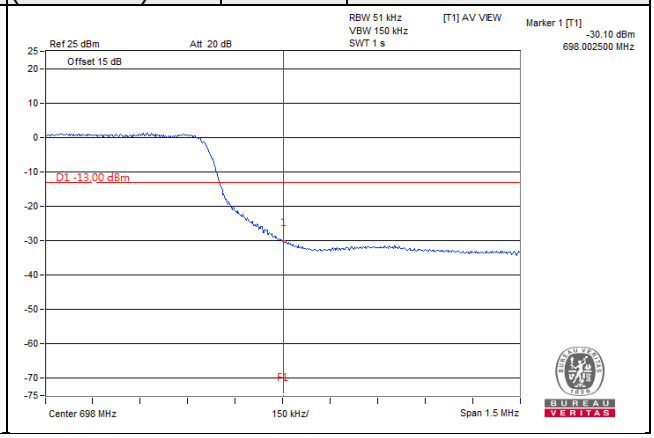
Channel Bandwidth: 5MHz					
Channel 131997 (1712.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 132647 (1777.5MHz)	QPSK	1 RB / 24 RB Offset
					
Channel 131997 (1712.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 132647 (1777.5MHz)	QPSK	25 RB / 0 RB Offset
					

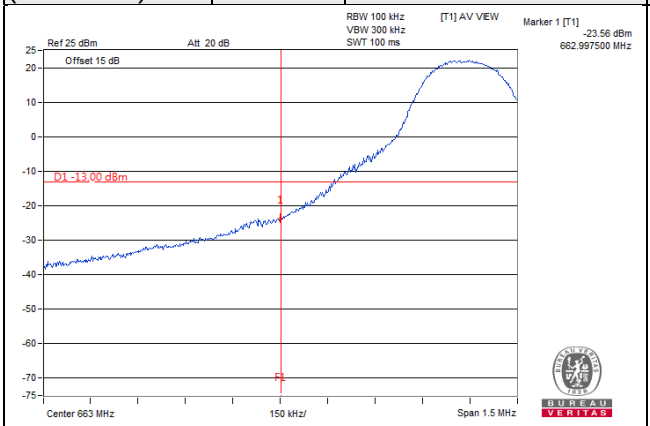
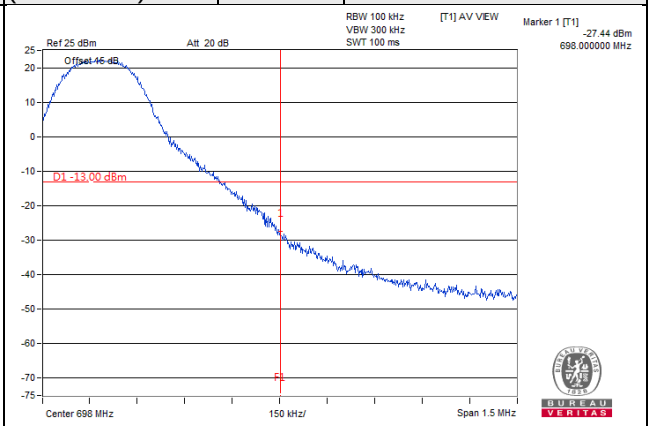
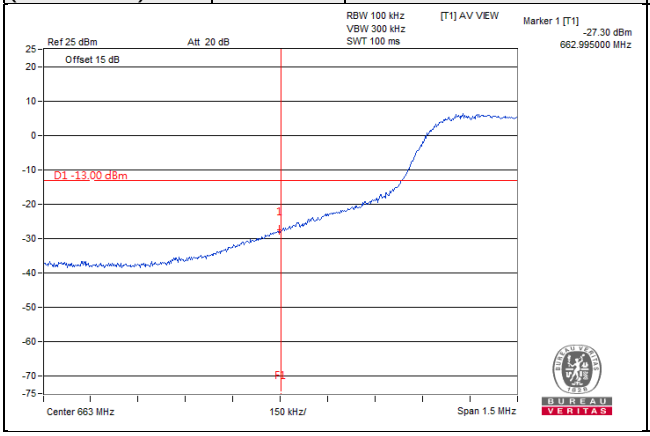
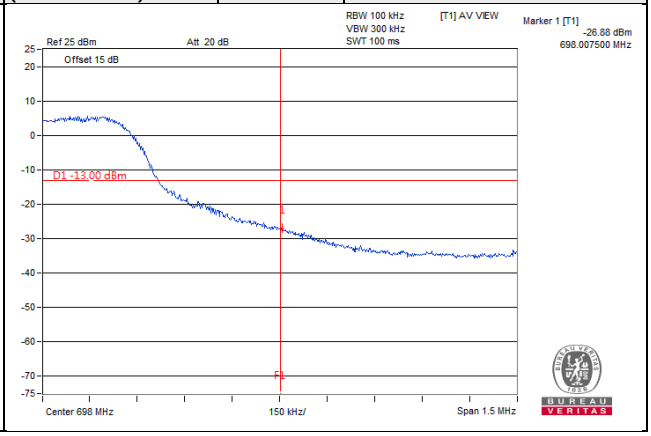
Channel Bandwidth: 10MHz					
Channel 132022 (1715.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 132622 (1775MHz)	QPSK	1 RB / 49 RB Offset
					
Channel 132022 (1715.0MHz)	QPSK	50 RB / 0 RB Offset	Channel 132622 (1775MHz)	QPSK	50 RB / 0 RB Offset
					

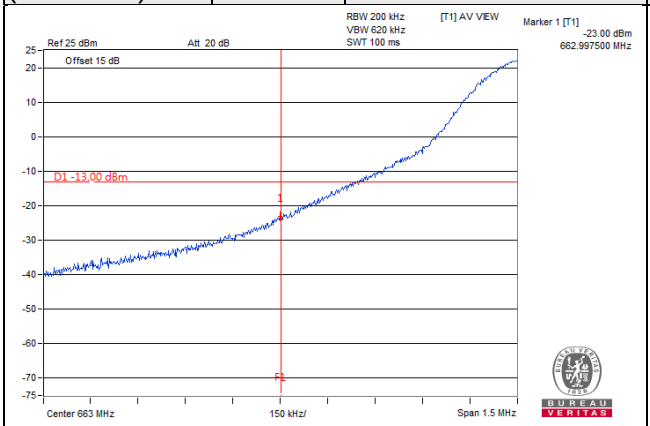
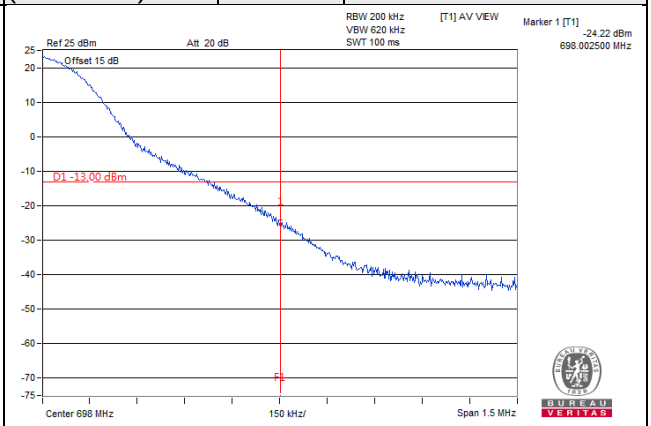
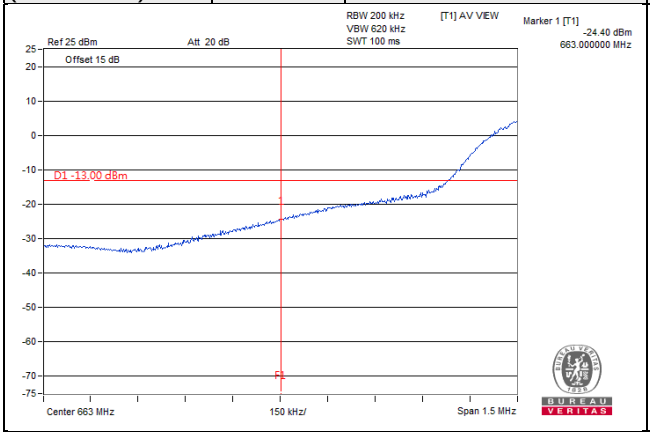
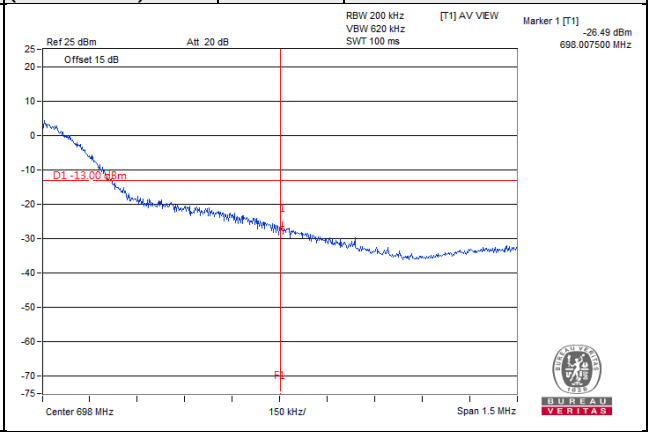
Channel Bandwidth: 15MHz					
Channel 132047 (1717.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 132597 (1772.5MHz)	QPSK	1 RB / 74 RB Offset
					
Channel 132047 (1717.5MHz)	QPSK	75 RB / 0 RB Offset	Channel 132597 (1772.5MHz)	QPSK	75 RB / 0 RB Offset
					

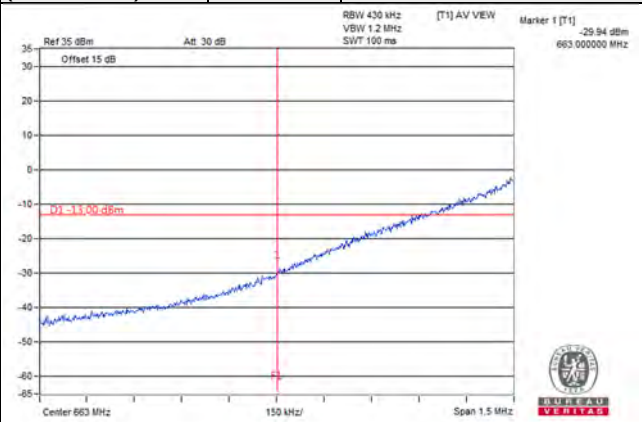
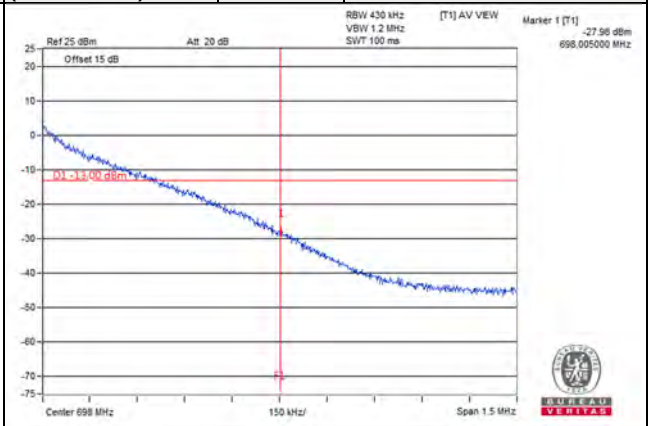
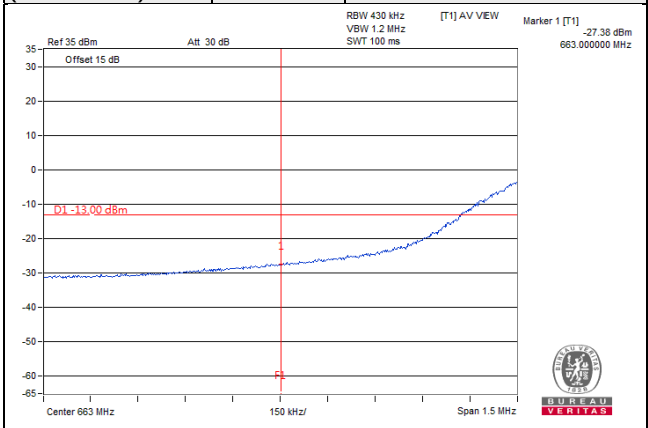
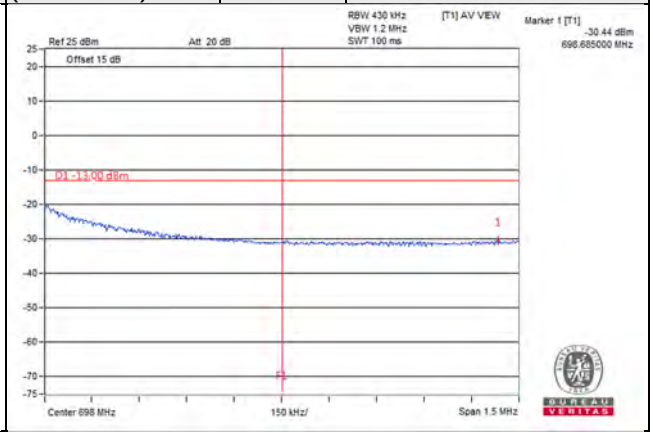
Channel Bandwidth: 20MHz					
Channel 132072 (1720.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 132572 (1770MHz)	QPSK	1 RB / 99 RB Offset
					
Channel 132072 (1720.0MHz)	QPSK	100 RB / 0 RB Offset	Channel 132572 (1770MHz)	QPSK	100 RB / 0 RB Offset
					

LTE Band 71

Channel Bandwidth: 5MHz					
Channel 133147 (665.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 133447 (695.5MHz)	QPSK	1 RB / 24 RB Offset
					
Channel 133147 (665.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 133447 (695.5MHz)	QPSK	25 RB / 0 RB Offset
					

Channel Bandwidth: 10MHz					
Channel 133172 (668.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 133422 (693.0MHz)	QPSK	1 RB / 49 RB Offset
					
Channel 133172 (668.0MHz)	QPSK	50 RB / 0 RB Offset	Channel 133422 (693.0MHz)	QPSK	50 RB / 0 RB Offset
					

Channel Bandwidth: 15MHz					
Channel 133197 (670.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 133397 (690.5MHz)	QPSK	1 RB / 74 RB Offset
					
Channel 133197 (670.5MHz)	QPSK	75 RB / 0 RB Offset	Channel 133397 (690.5MHz)	QPSK	75 RB / 0 RB Offset
					

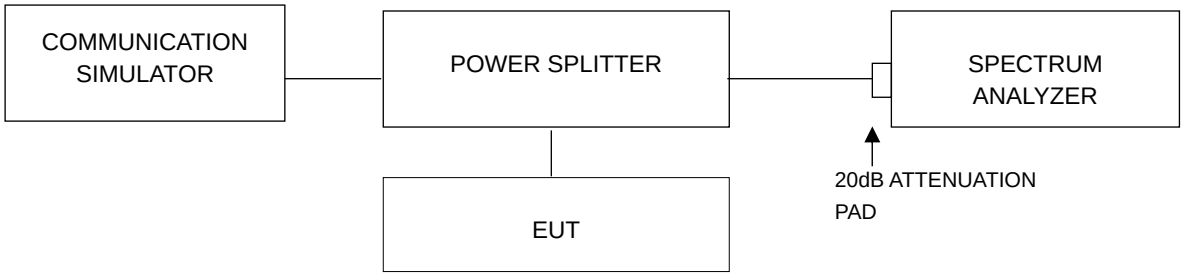
Channel Bandwidth: 20MHz					
Channel 133222 (673.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 133372 (688.0MHz)	QPSK	1 RB / 99 RB Offset
					
Channel 133222 (673.0MHz)	QPSK	100 RB / 0 RB Offset	Channel 133372 (688.0MHz)	QPSK	100 RB / 0 RB Offset
					

4.6 Peak to Average Ratio

4.6.1 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

4.6.2 Test Setup



4.6.3 Test Procedures

a. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;

b. Set the number of counts to a value that stabilizes the measured CCDF curve;

c. Record the maximum PAPR level associated with a probability of 0.1%.

4.6.4 Test Results

WCDMA Band 4

Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		WCDMA	HSDPA	HSUPA
1312	1712.4	2.99	2.97	3.01
1413	1732.6	2.97	2.98	2.98
1513	1752.6	2.99	2.99	3.03

Spectrum Plot of Worst Value

WCDMA

HSDPA

HSUPA

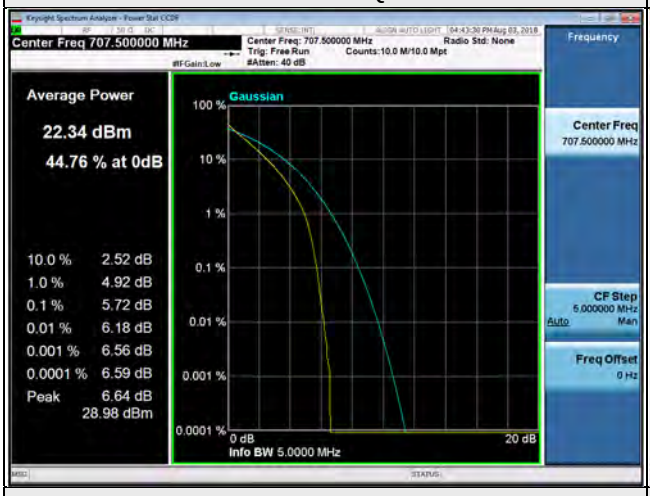
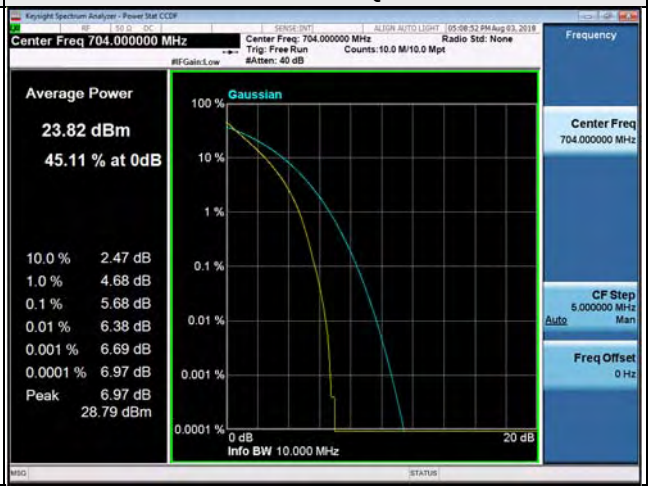
LTE Band 4

Channel Bandwidth: 1.4MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
19957	1710.7	3.56	4.36	4.40
20175	1732.5	3.44	4.32	4.38
20393	1754.3	3.43	4.20	4.27
Channel Bandwidth: 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
19965	1711.5	3.46	4.29	4.32
20175	1732.5	3.33	4.20	4.26
20385	1753.5	3.33	4.12	4.20
Channel Bandwidth: 5MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
19975	1712.5	3.49	4.27	4.31
20175	1732.5	3.52	4.21	4.25
20375	1752.5	3.35	4.09	4.27
Channel Bandwidth: 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
20000	1715.0	3.38	4.23	4.22
20175	1732.5	3.49	4.27	4.31
20350	1750.0	3.30	4.08	4.15
Channel Bandwidth: 15MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
20025	1717.5	3.35	4.17	4.22
20175	1732.5	3.39	4.21	4.27
20325	1747.5	3.38	4.07	4.16
Channel Bandwidth: 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
20050	1720.0	3.38	4.17	4.20
20175	1732.5	3.49	4.21	4.35
20300	1745.0	3.39	4.18	4.24

Spectrum Plot Of Worst Value	
1.4MHz / 64QAM	3MHz / 64QAM
	
5MHz / 64QAM	10MHz / 64QAM
	
15MHz / 64QAM	20MHz / 64QAM
	

LTE Band 12

Channel Bandwidth: 1.4MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
23017	699.7	5.57	5.57	5.57
23095	707.5	5.72	5.72	5.72
23173	715.3	5.55	5.54	5.54
Channel Bandwidth: 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
23025	700.5	5.52	5.56	5.56
23095	707.5	5.65	5.67	5.67
23165	714.5	5.54	5.52	5.52
Channel Bandwidth: 5MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
23035	701.5	5.42	5.42	5.42
23095	707.5	5.49	5.49	5.49
23155	713.5	5.44	5.43	5.43
Channel Bandwidth: 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
23060	704.0	5.58	5.68	5.68
23095	707.5	5.50	5.54	5.54
23130	711.0	5.31	5.24	5.24

Spectrum Plot Of Worst Value	
1.4MHz / 64QAM	3MHz / 64QAM
	
5MHz / 64QAM	10MHz / 64QAM
	

LTE Band 66

Channel Bandwidth: 1.4MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
131979	1710.7	3.29	4.10	5.01
132322	1745.0	3.14	4.06	4.79
132665	1779.3	3.22	3.90	4.78
Channel Bandwidth: 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
131987	1711.5	3.21	5.05	4.96
132322	1745.0	3.13	4.83	4.70
132657	1778.5	3.17	4.94	5.06
Channel Bandwidth: 5MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
131997	1712.5	3.25	4.10	5.00
132322	1745.0	3.34	3.95	4.82
132647	1777.5	3.33	4.15	5.21
Channel Bandwidth: 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
132022	1715.0	3.21	4.06	4.98
132322	1745.0	3.24	3.92	4.97
132622	1775.0	3.23	3.99	4.87
Channel Bandwidth: 15MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
132047	1717.5	3.17	3.99	4.92
132322	1745.0	3.12	4.14	4.79
132597	1772.5	3.18	3.89	4.83
Channel Bandwidth: 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
132072	1720.0	3.22	3.97	4.93
132322	1745.0	3.35	4.00	4.89
132572	1770.0	3.25	4.01	4.93

Spectrum Plot Of Worst Value	
1.4MHz / 64QAM	3MHz / 64QAM
	
5MHz / 64QAM	10MHz / 64QAM
	
15MHz / 64QAM	20MHz / 64QAM
	

LTE Band 71

Channel Bandwidth: 5MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
133147	665.5	3.54	4.14	4.75
133297	680.5	3.48	3.50	5.27
133447	695.5	3.46	3.58	5.56
Channel Bandwidth: 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
133172	668.0	3.56	4.26	4.94
133297	680.5	3.31	4.10	5.28
133422	693.0	3.39	4.16	5.19
Channel Bandwidth: 15MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
133197	670.5	3.58	4.32	6.39
133297	680.5	3.31	4.14	5.20
133397	690.5	3.49	4.26	6.47
Channel Bandwidth: 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
133222	673.0	3.58	4.34	6.35
133297	680.5	3.44	4.23	5.17
133372	688.0	3.72	4.25	6.42

Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 64QAM
	
15MHz / 64QAM	20MHz / 64QAM
	

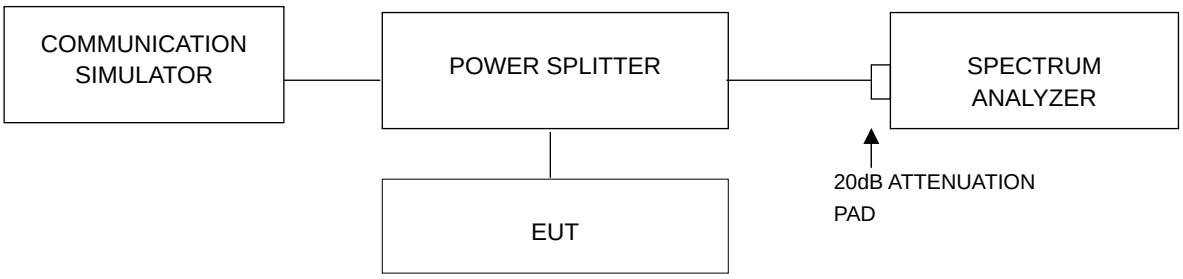
4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

For WCDMA Band 4, LTE Band 4, 66
In the FCC 27.53(m)(4),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 12, 71
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.

4.7.2 Test Setup



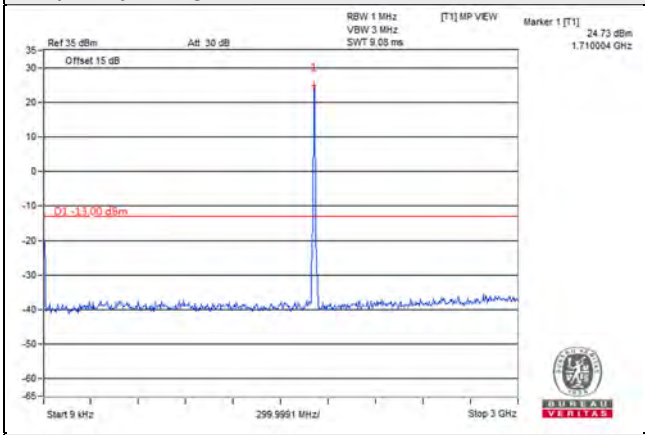
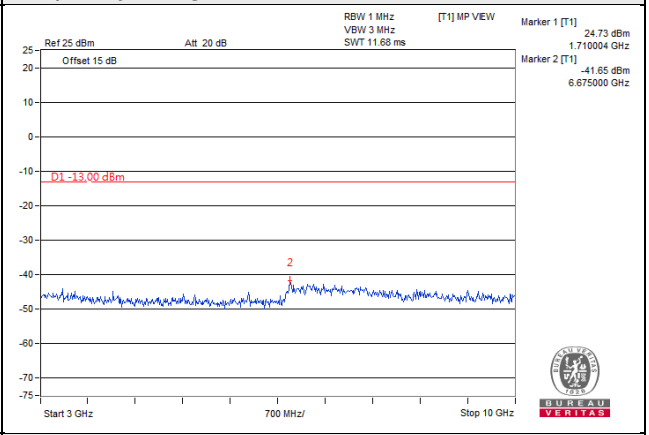
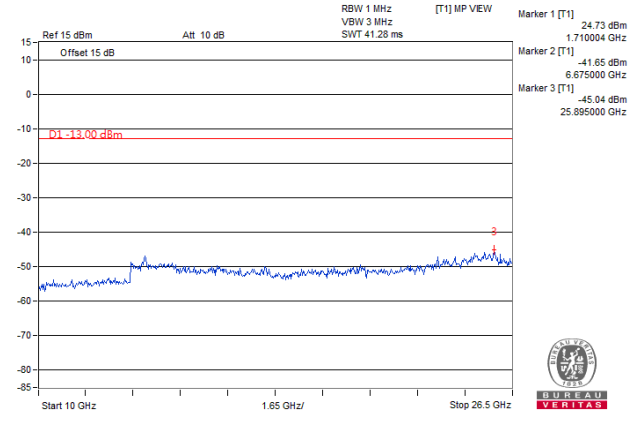
4.7.3 Test Procedure

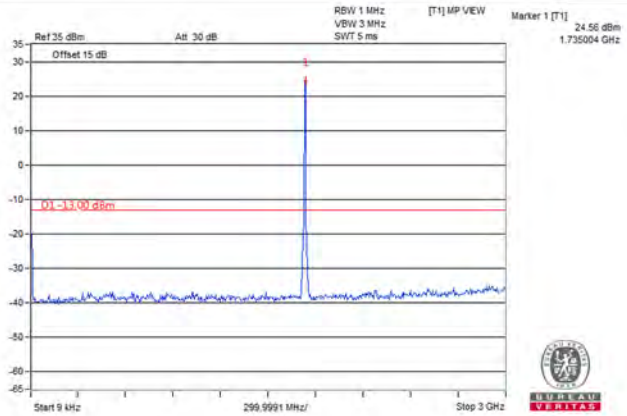
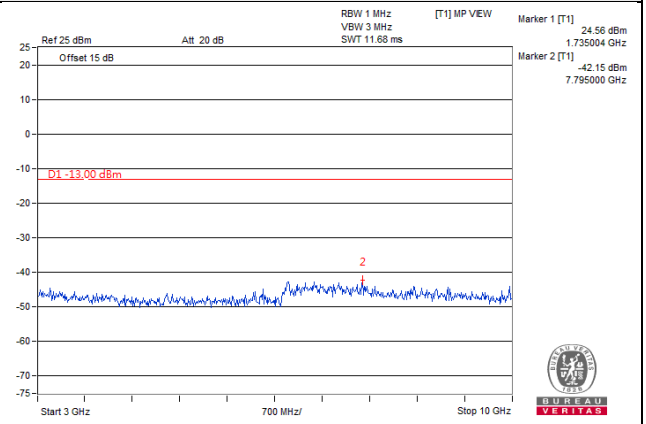
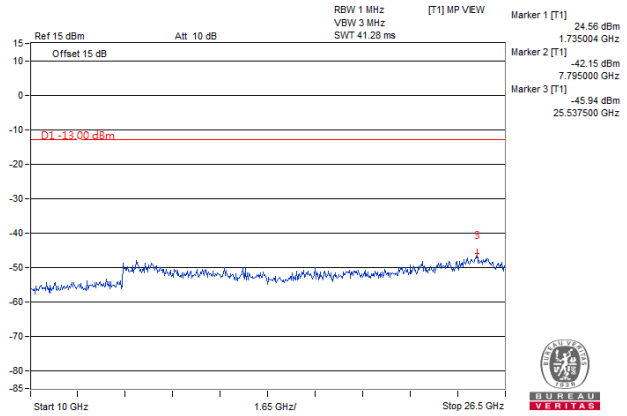
a. All measurements were done at 3 channels: low, middle and high operational frequency range.

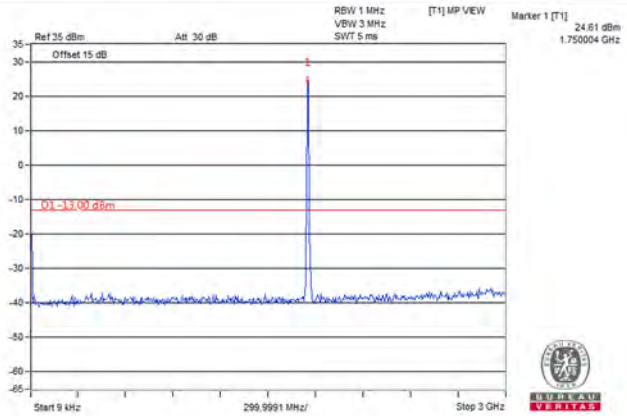
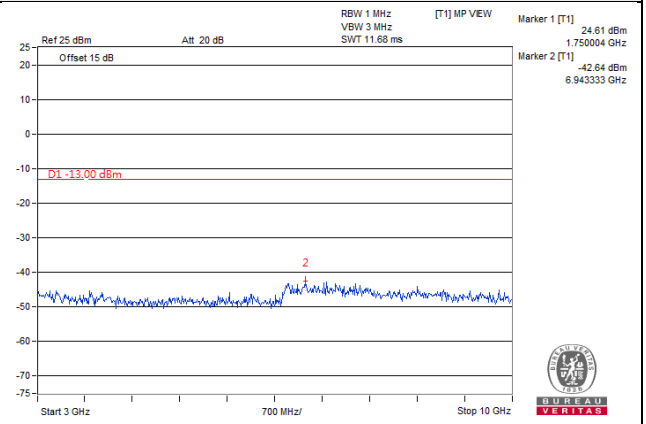
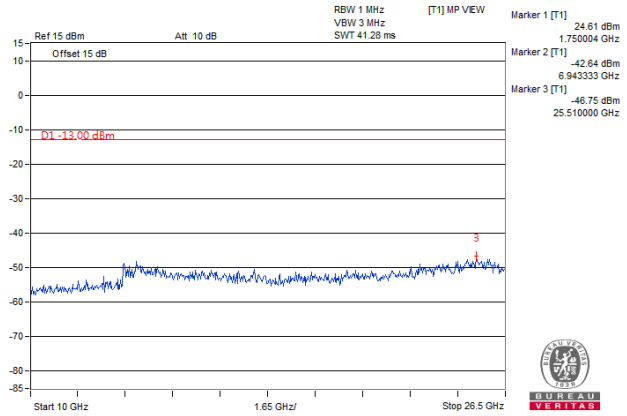
b. When the spectrum scanned from 9kHz to 26.5GHz, it shall be connected to the attenuator with the carried frequency.

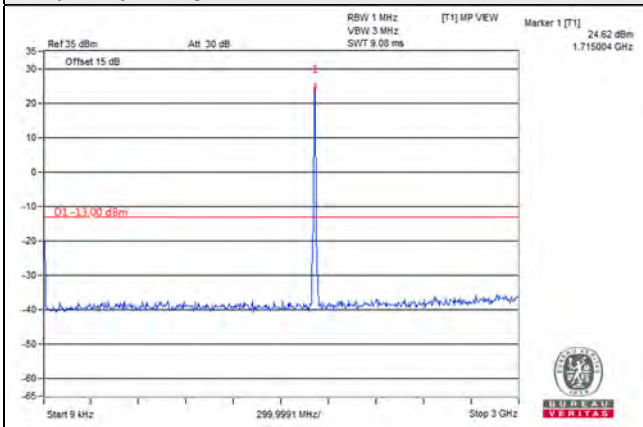
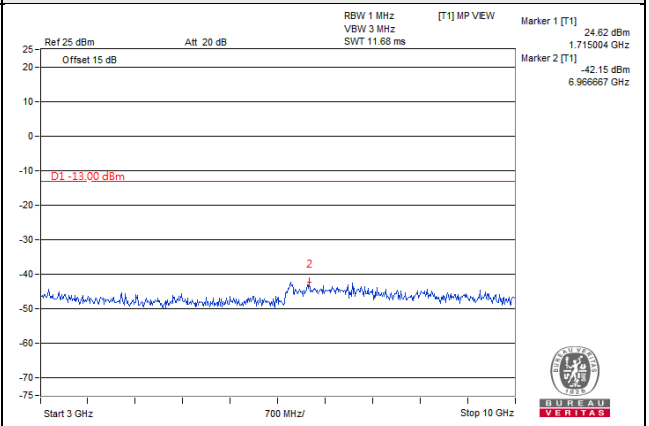
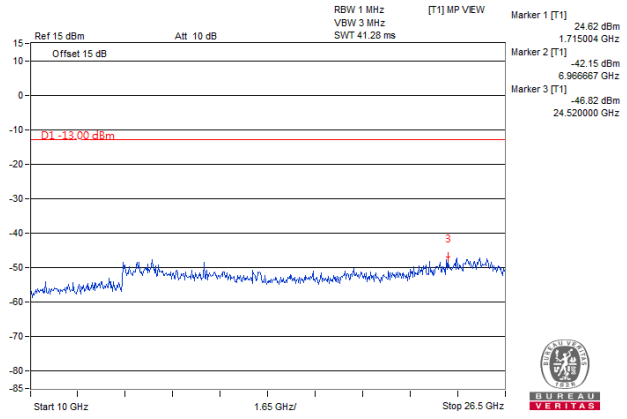
4.7.4 Test Results

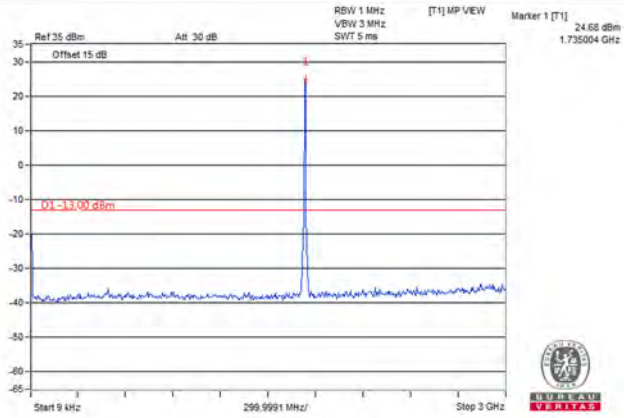
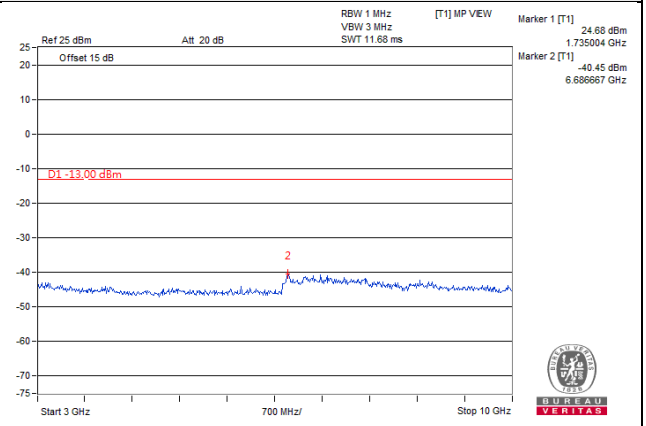
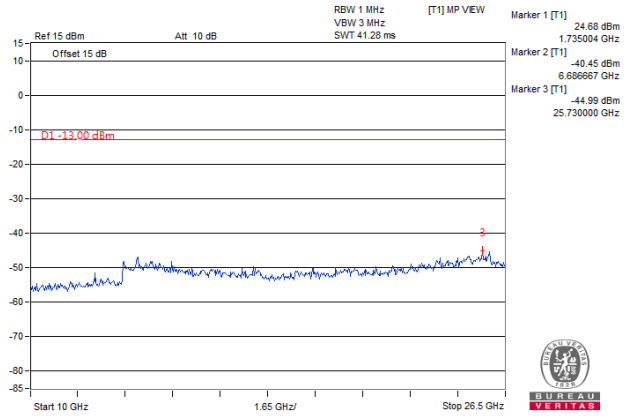
WCDMA Band 4

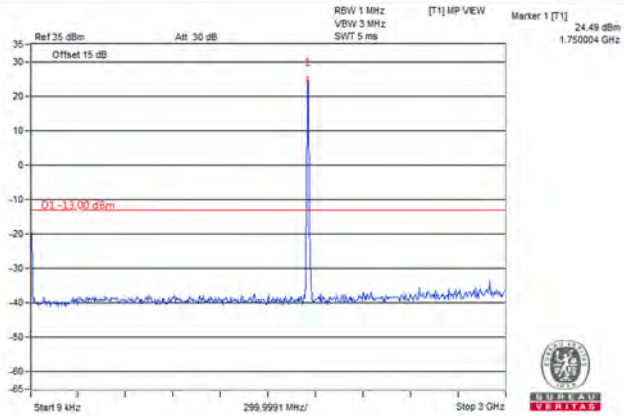
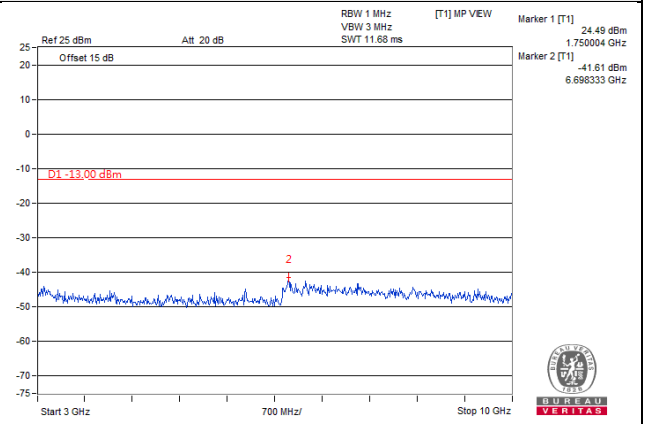
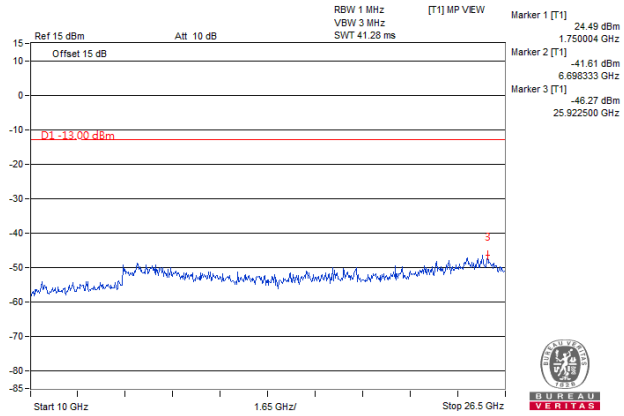
WCDMA	
Channel 1312 (1712.4MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

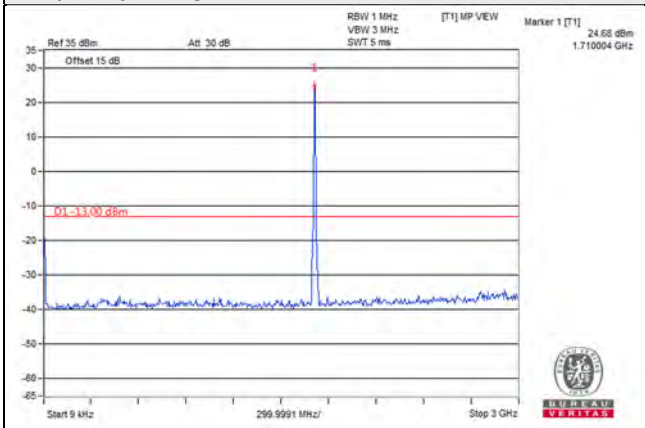
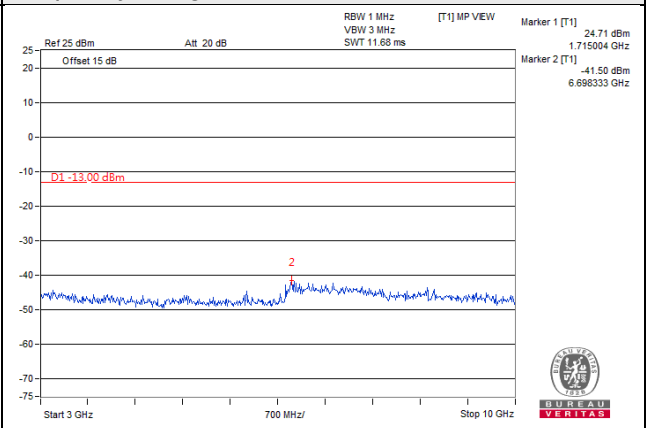
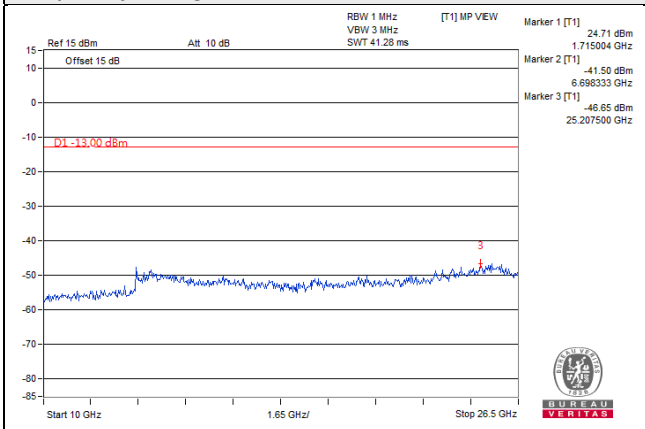
WCDMA	
Channel 1413 (1732.6MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

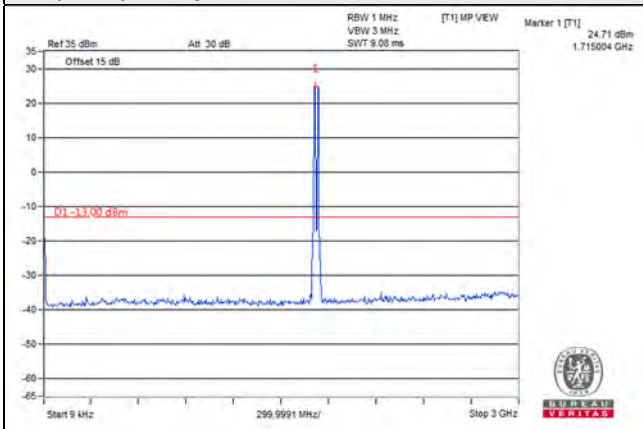
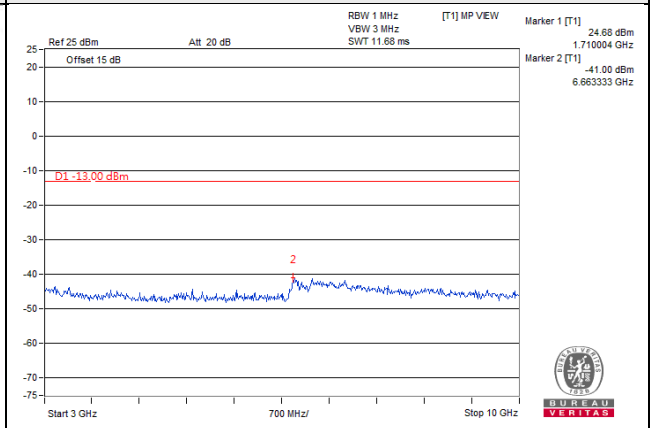
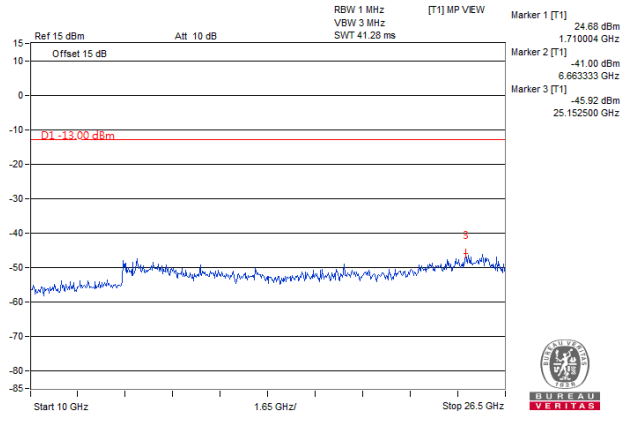
WCDMA	
Channel 1513 (1752.6MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

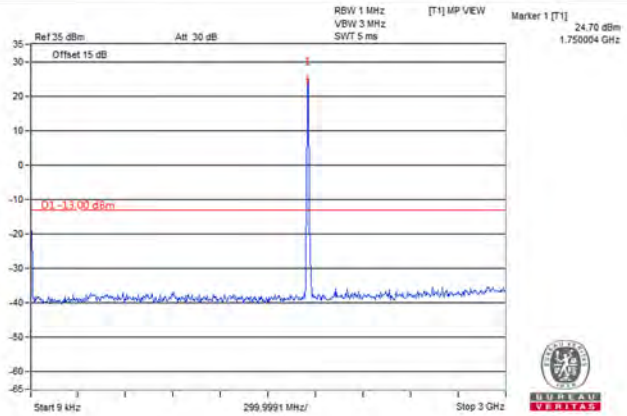
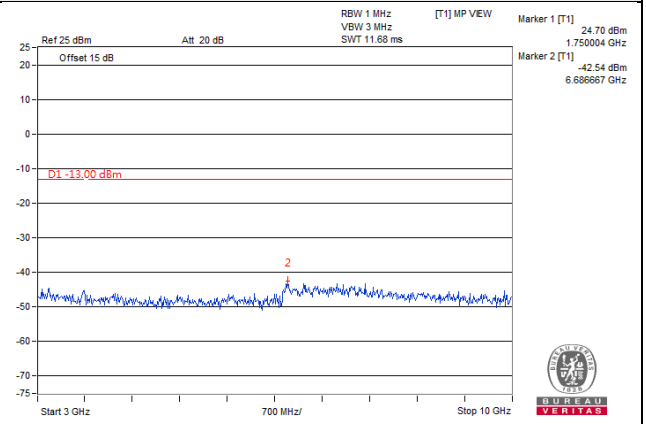
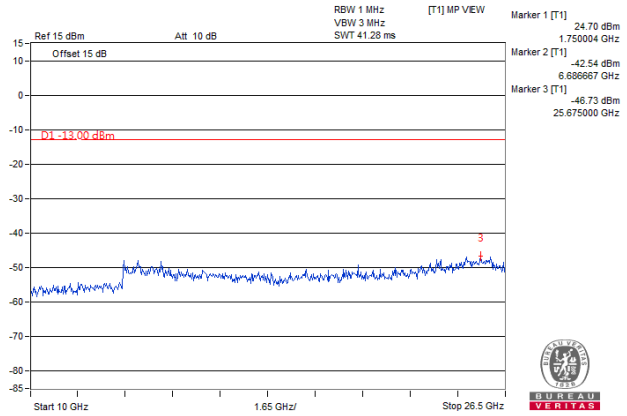
HSDPA	
Channel 1312 (1712.4MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

HSDPA	
Channel 1413 (1732.6MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

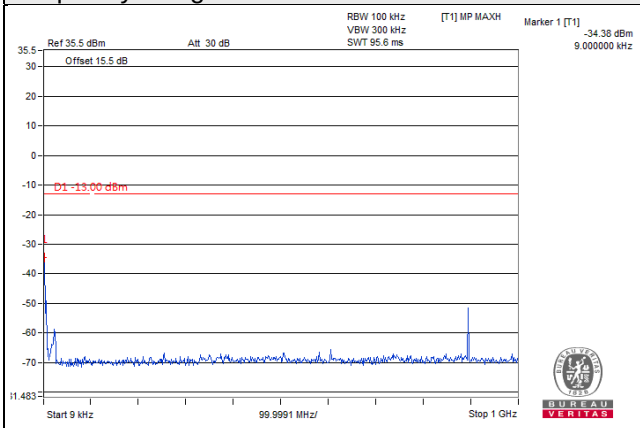
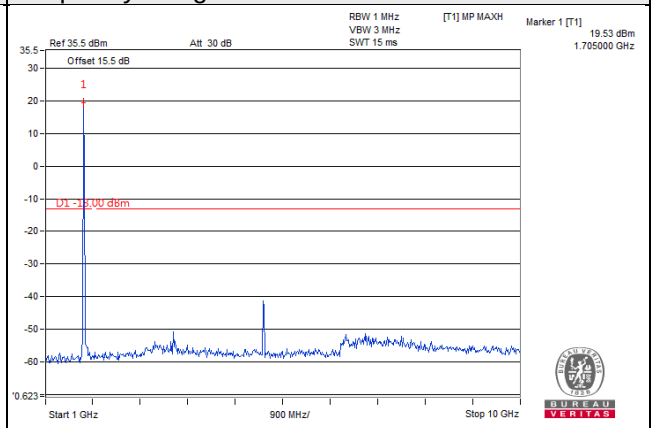
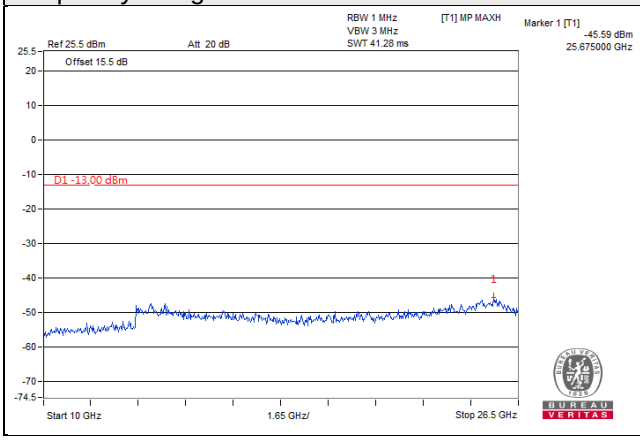
HSDPA	
Channel 1513 (1752.6MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

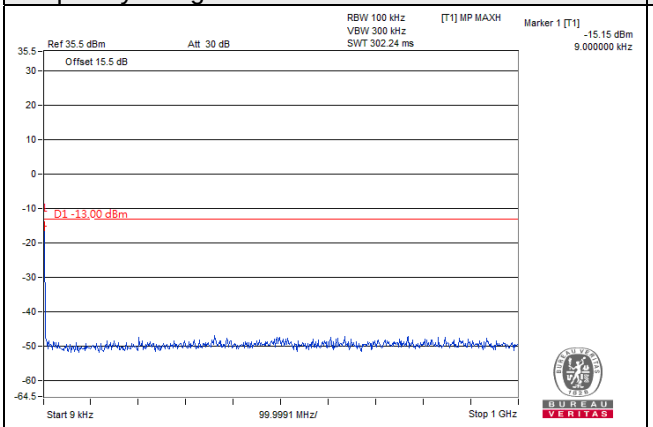
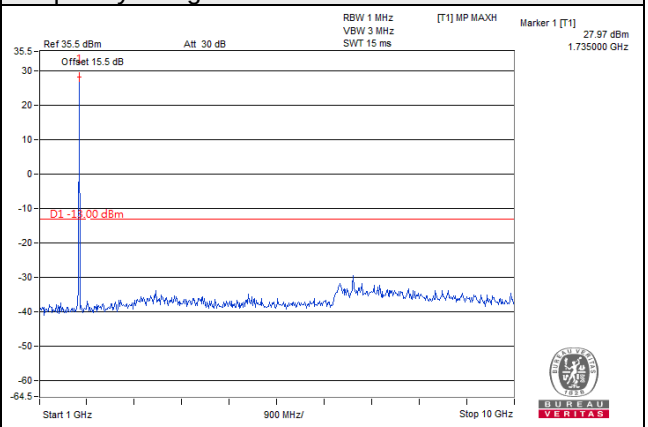
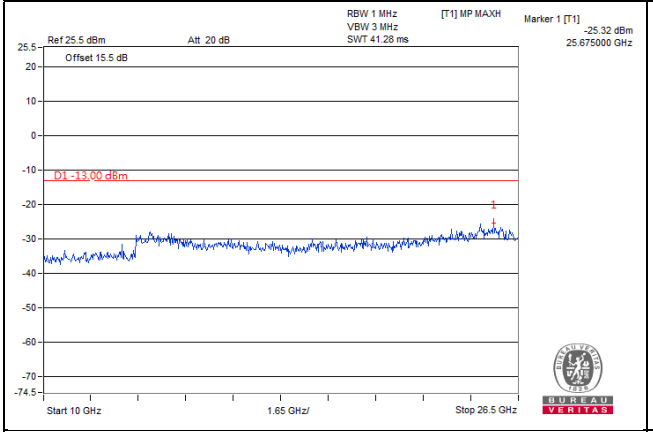
HSUPA	
Channel 1312 (1712.4MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

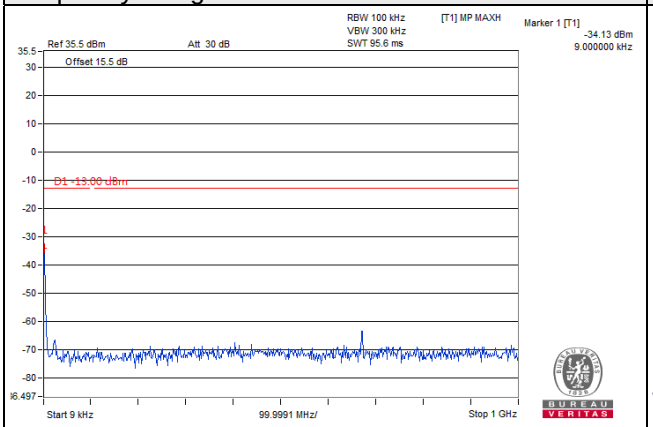
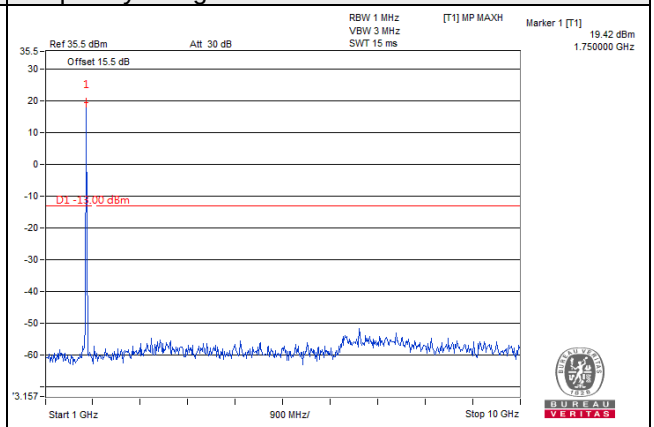
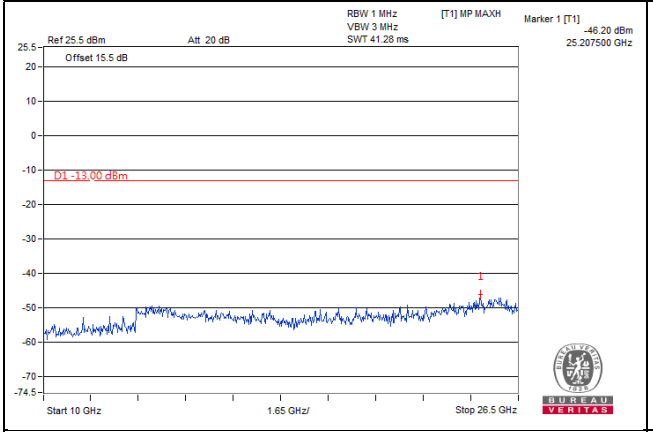
HSUPA	
Channel 1413 (1732.6MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

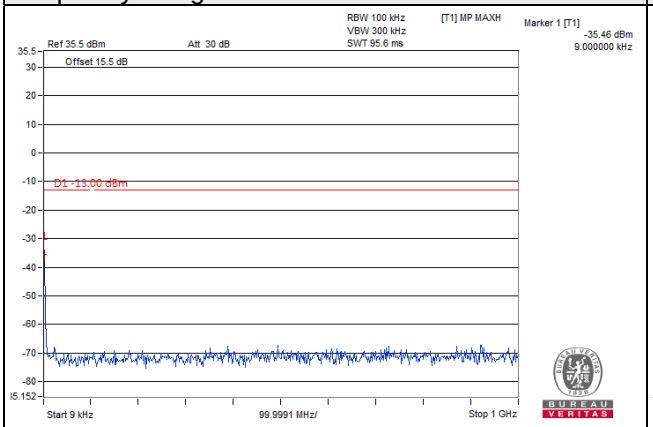
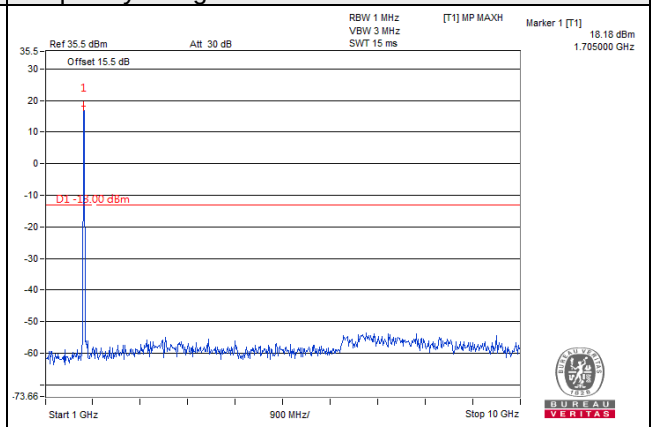
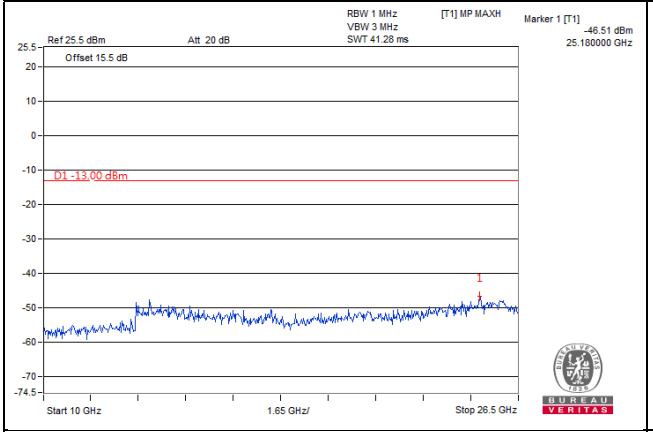
HSUPA	
Channel 1513 (1752.6MHz)	
Frequency Range : 9kHz~3GHz	Frequency Range : 3GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

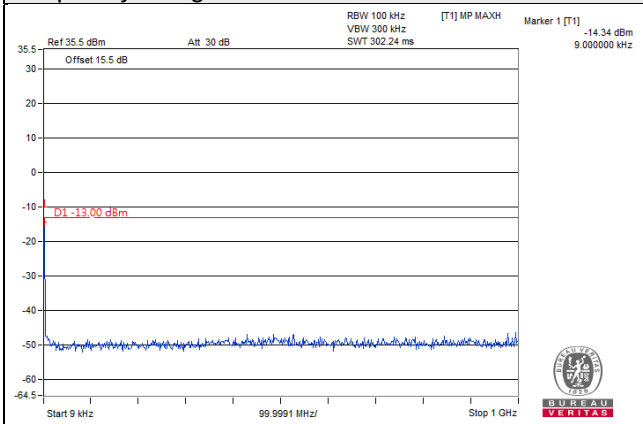
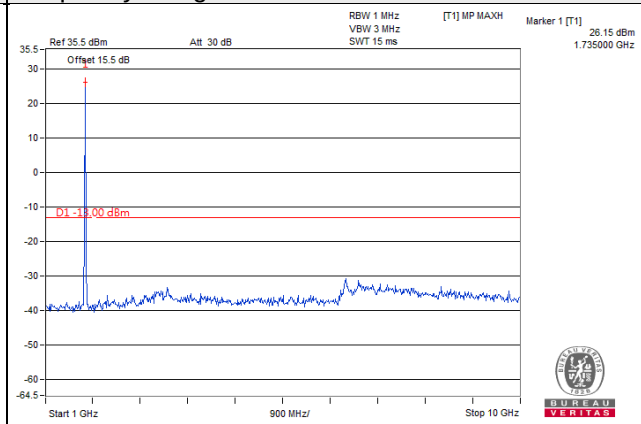
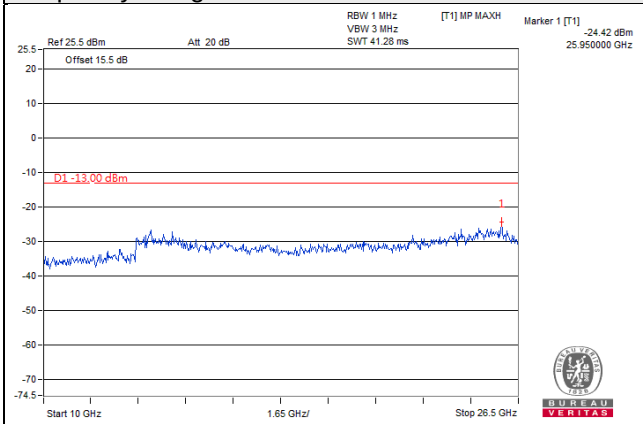
LTE Band 4

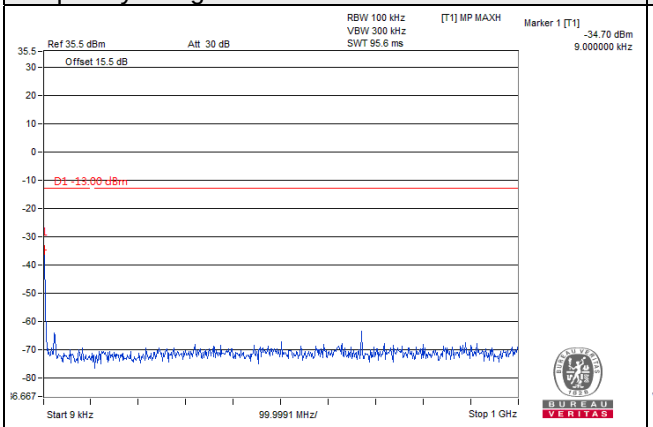
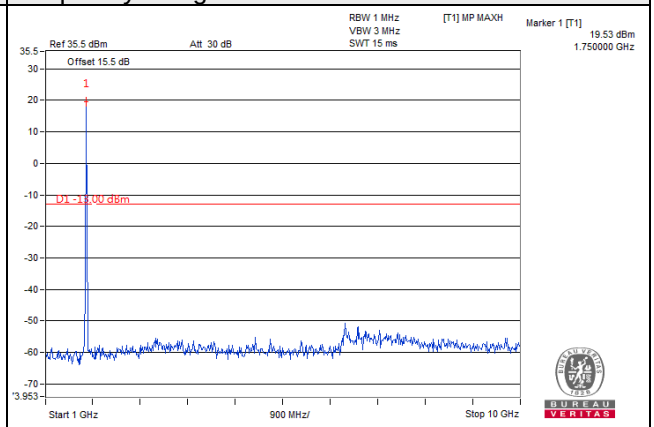
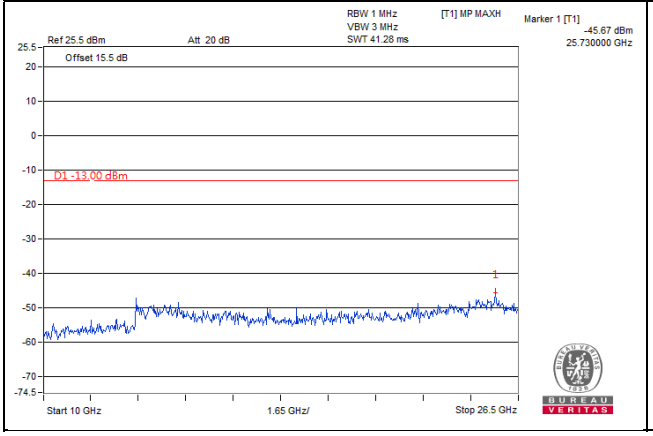
Channel Bandwidth: 1.4MHz	
Channel 19957 (1710.7MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

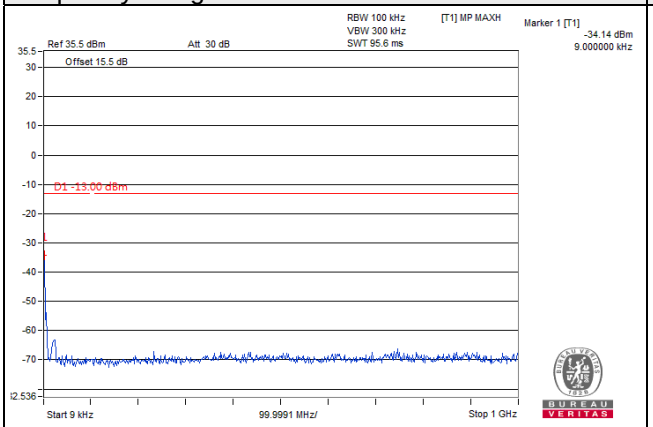
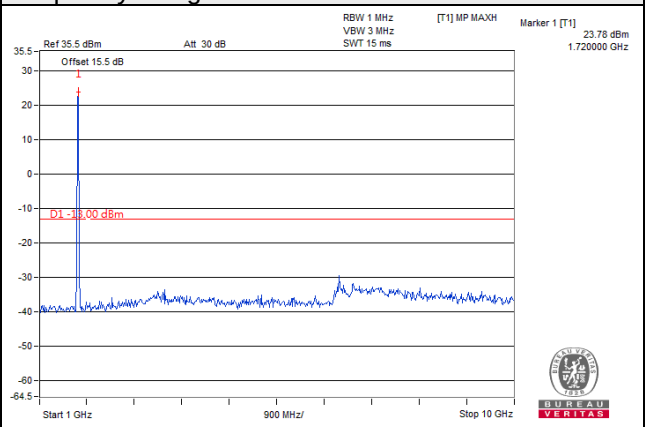
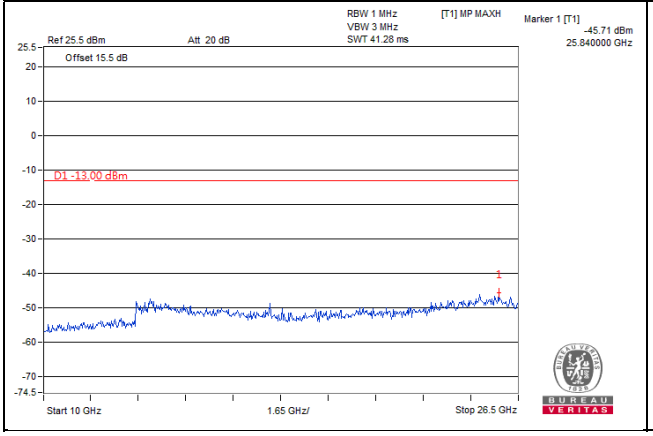
Channel Bandwidth: 1.4MHz	
Channel 20175 (1732.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

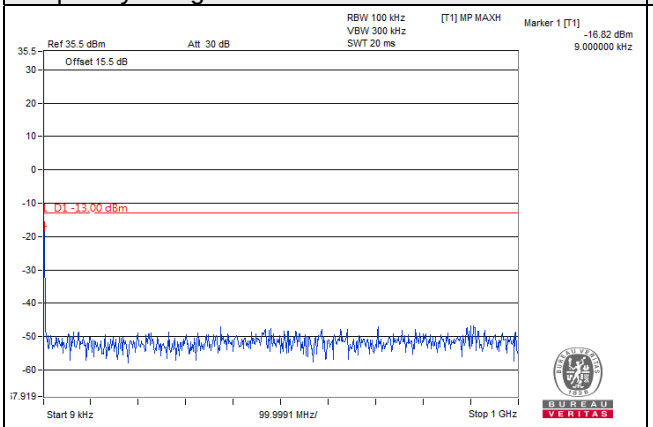
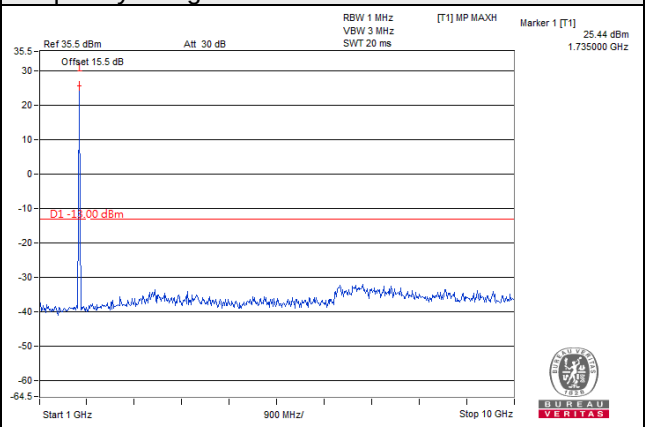
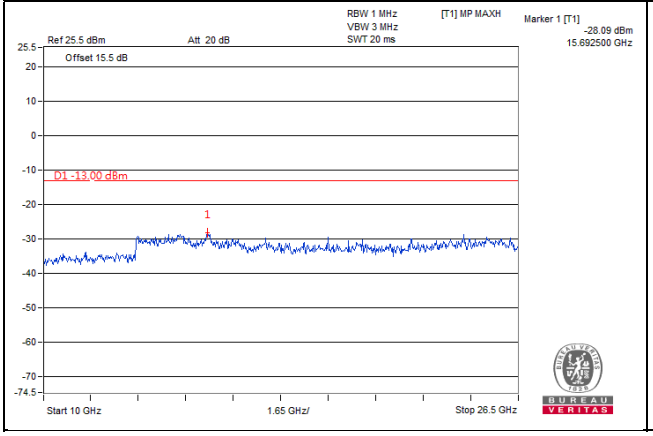
Channel Bandwidth: 1.4MHz	
Channel 20393 (1754.3MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

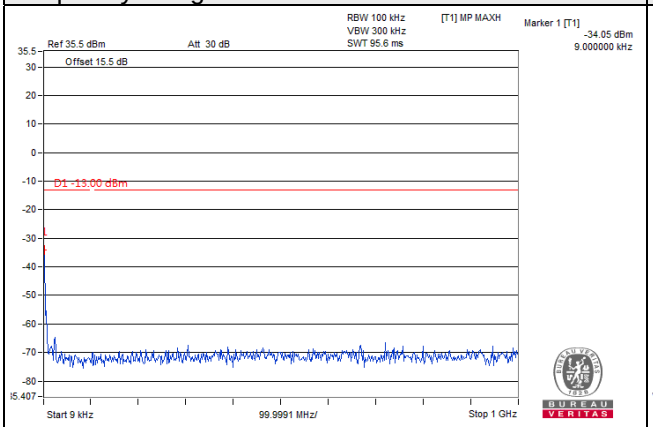
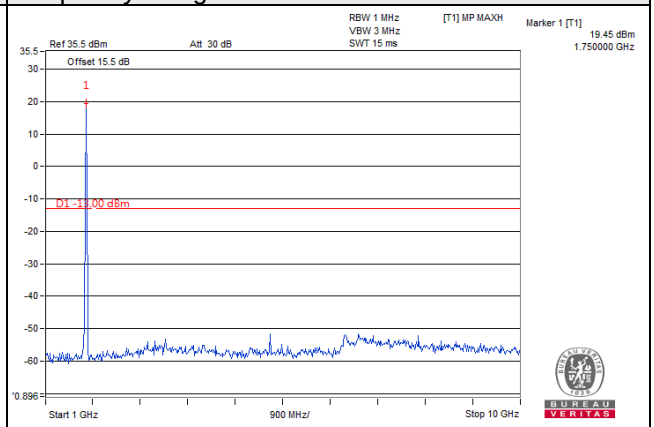
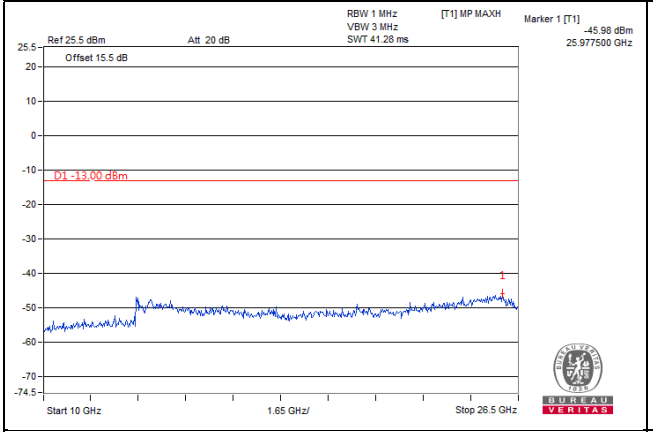
Channel Bandwidth: 3MHz	
Channel 19965 (1711.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

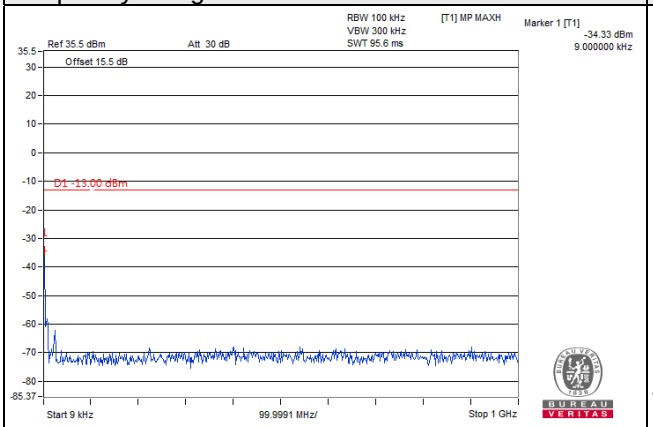
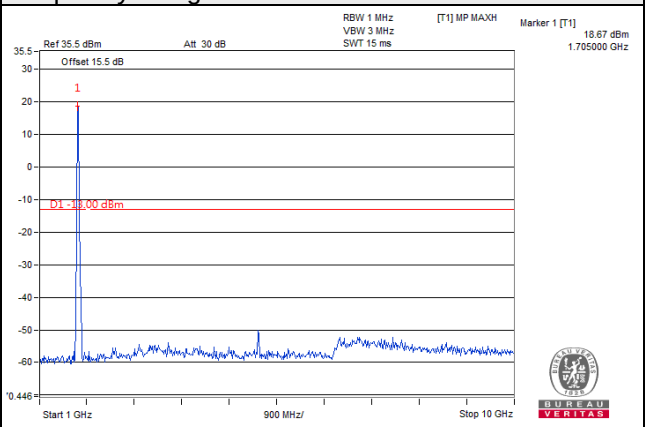
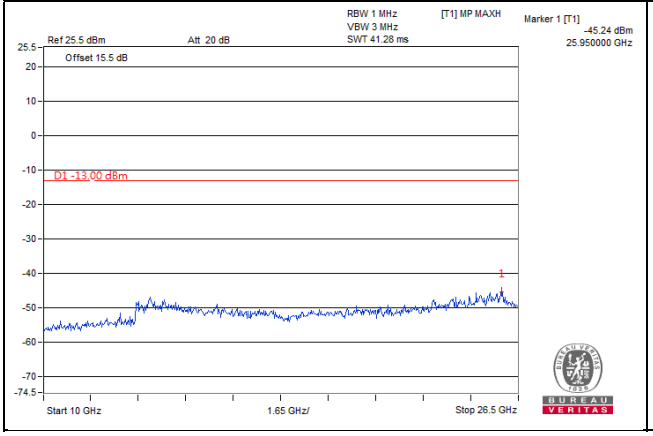
Channel Bandwidth: 3MHz	
Channel 20175 (1732.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

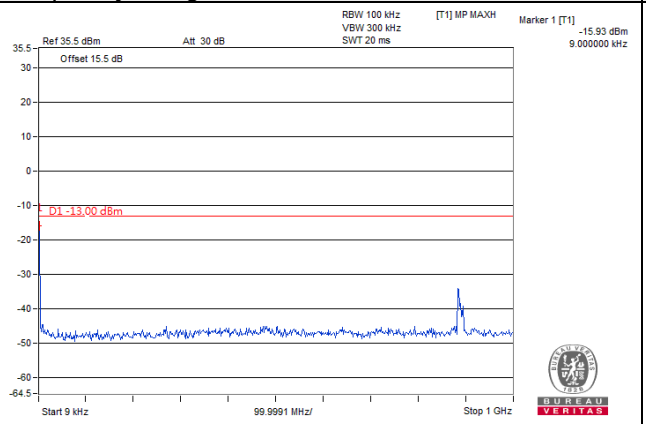
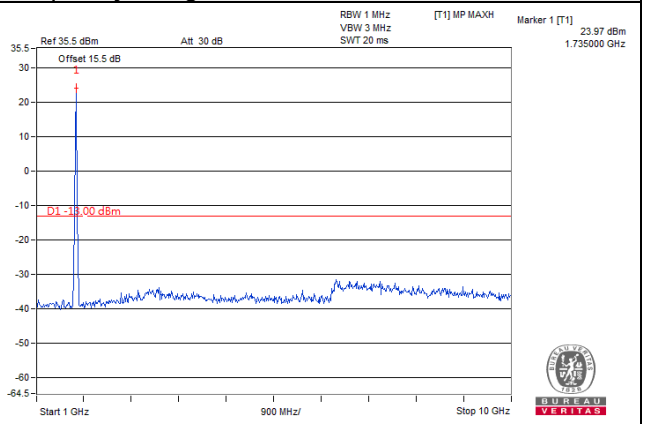
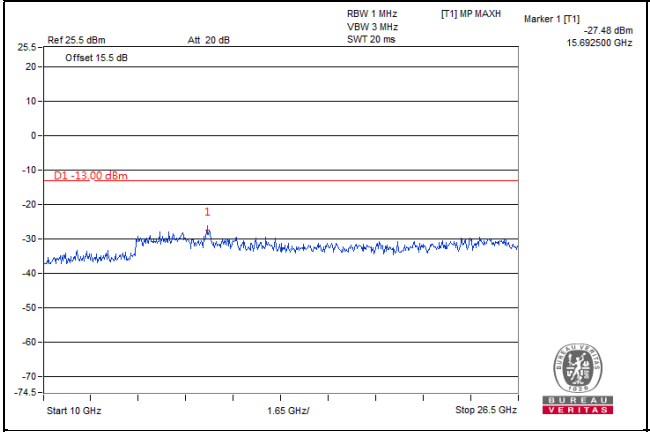
Channel Bandwidth: 3MHz	
Channel 20385 (1753.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

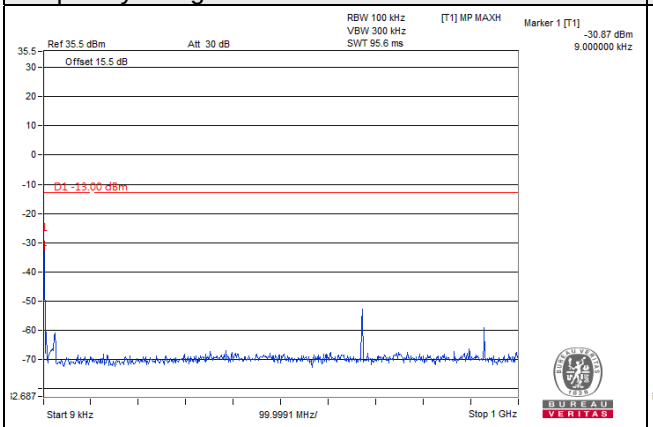
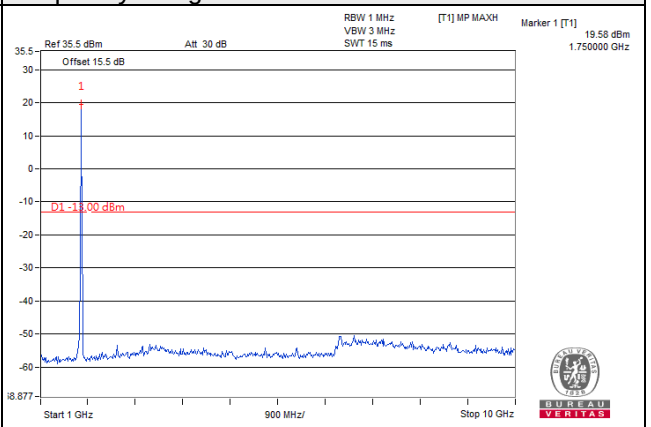
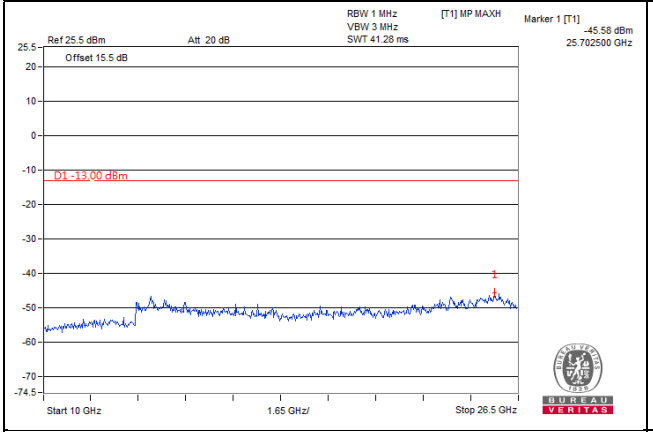
Channel Bandwidth: 5MHz	
Channel 19975 (1712.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

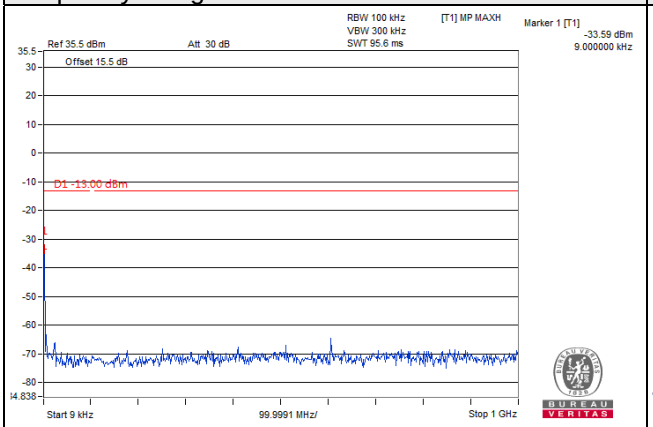
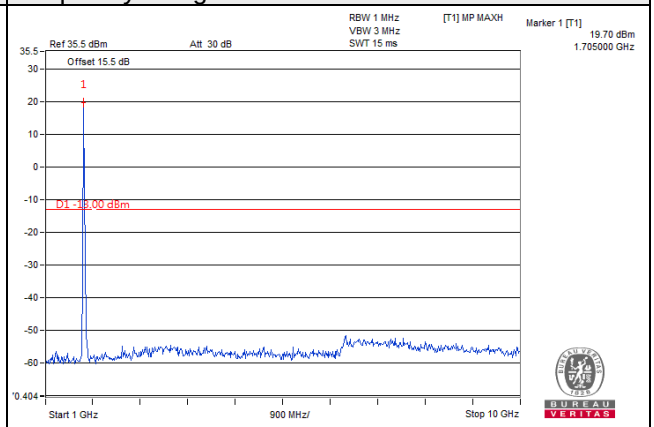
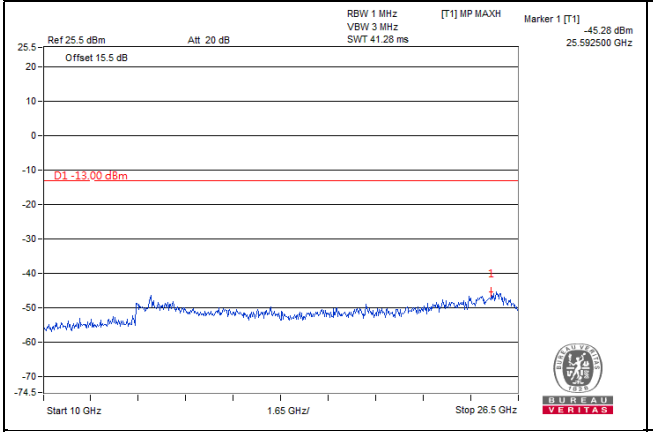
Channel Bandwidth: 5MHz	
Channel 20175 (1732.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

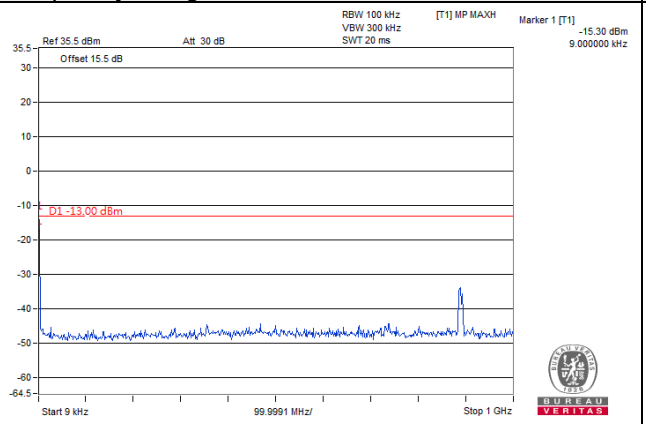
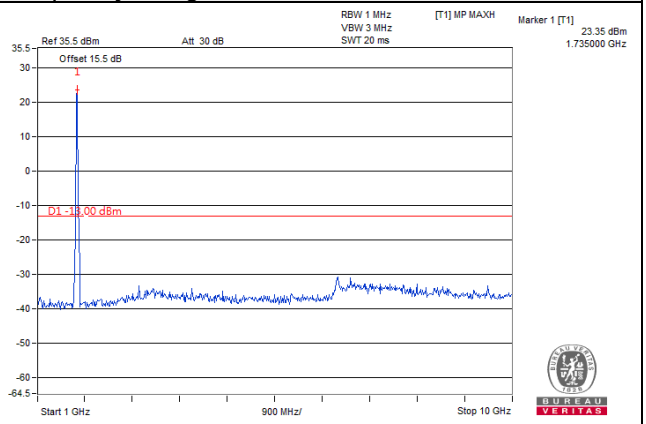
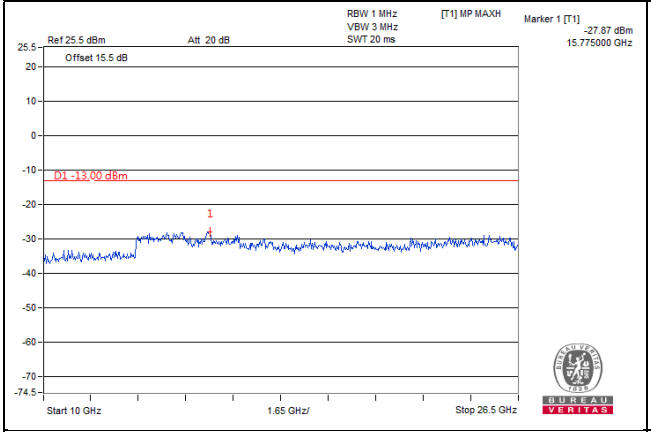
Channel Bandwidth: 5MHz	
Channel 20375 (1752.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

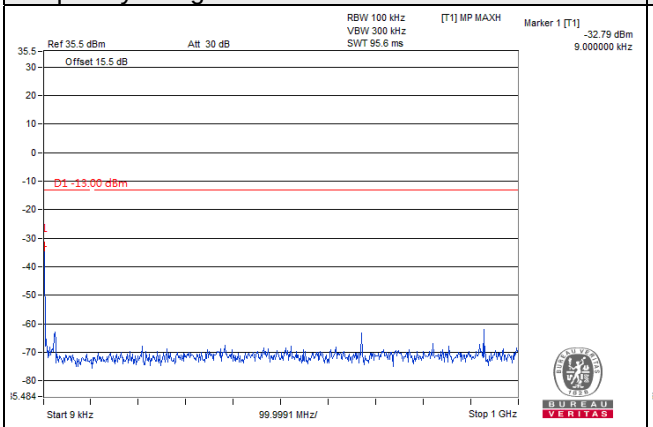
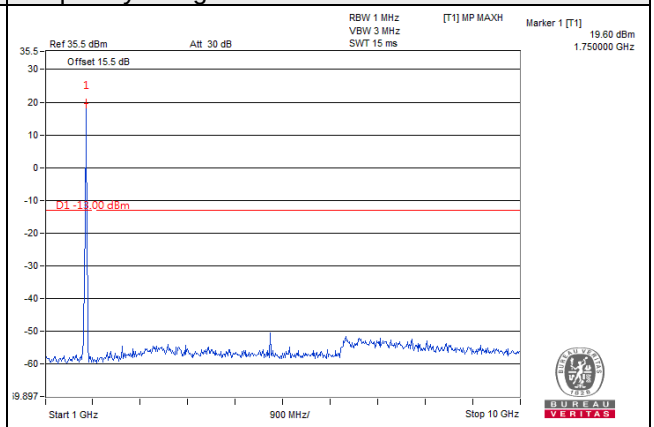
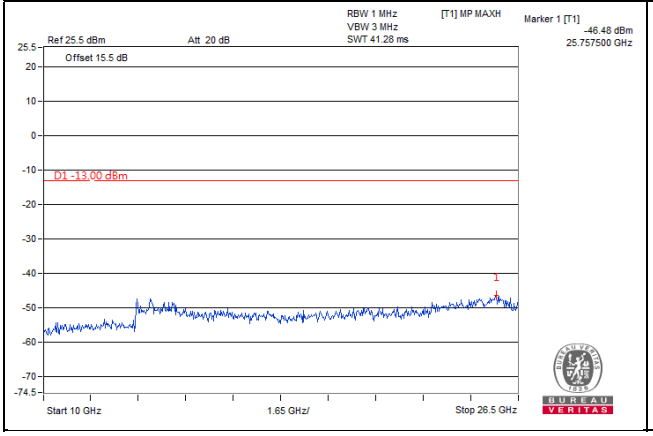
Channel Bandwidth: 10MHz	
Channel 20000 (1715.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

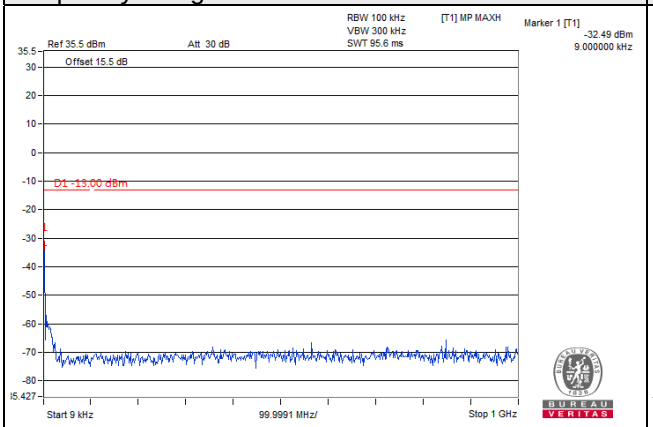
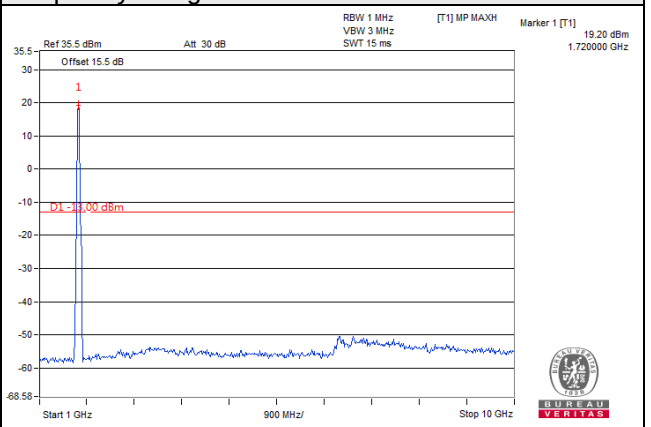
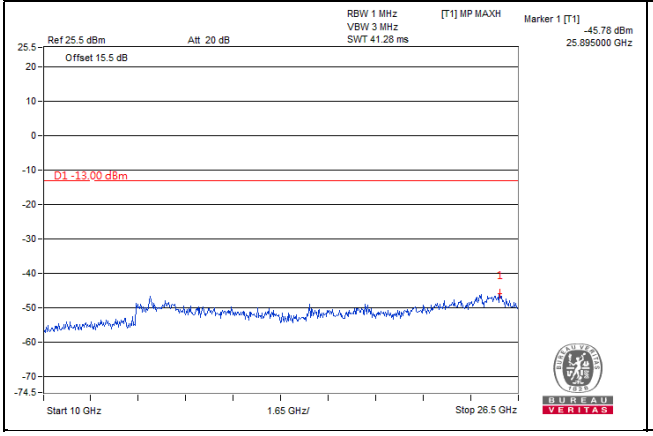
Channel Bandwidth: 10MHz	
Channel 20175 (1732.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

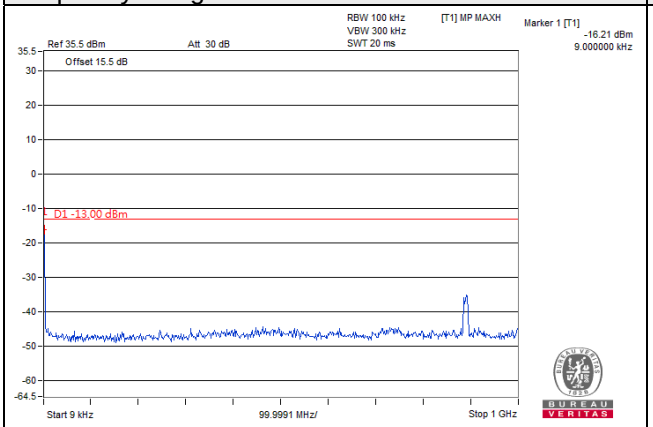
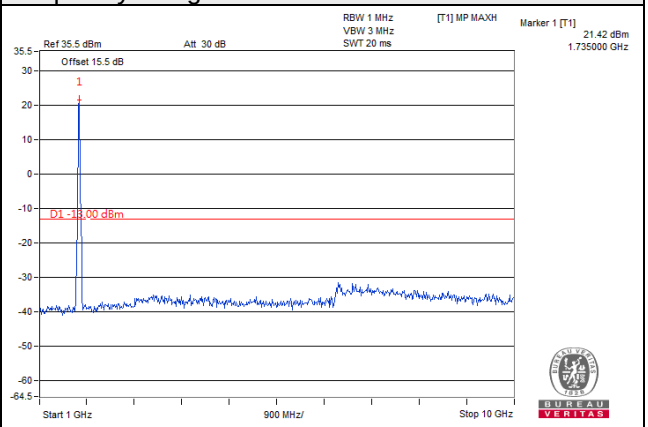
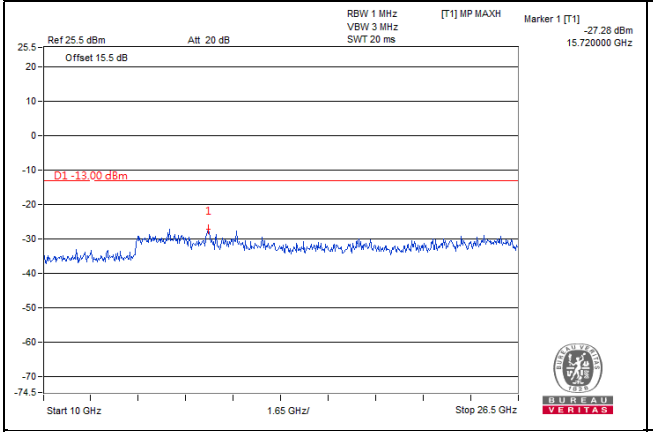
Channel Bandwidth: 10MHz	
Channel 20350 (1750.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

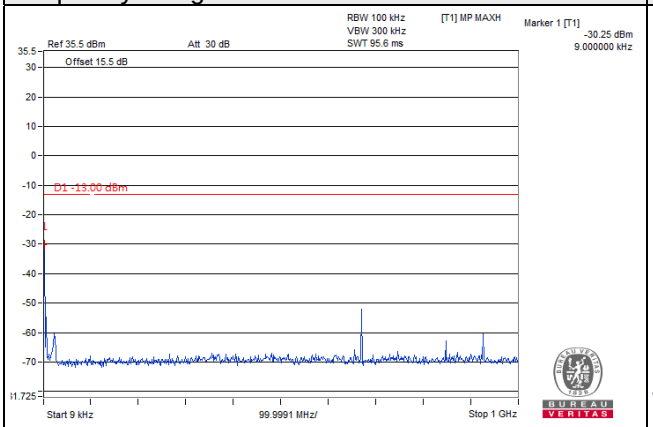
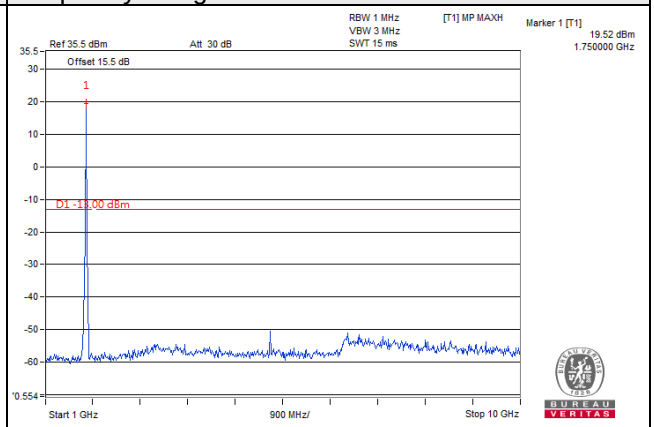
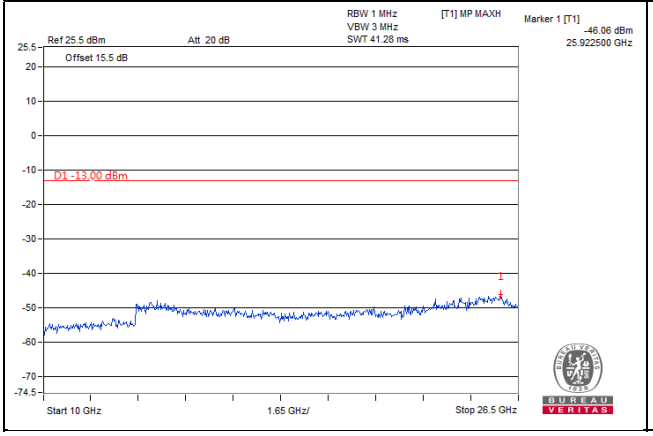
Channel Bandwidth: 15MHz	
Channel 20025 (1717.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 15MHz	
Channel 20175 (1732.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

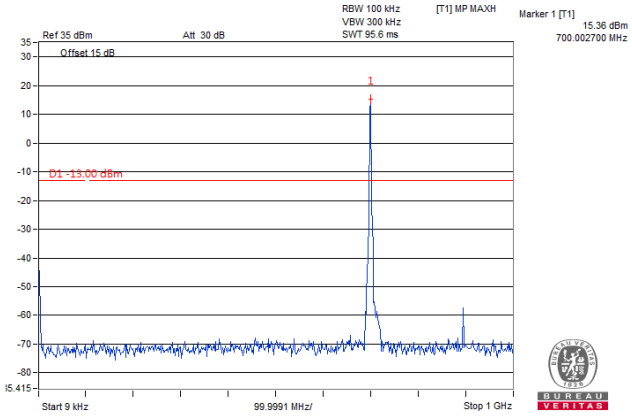
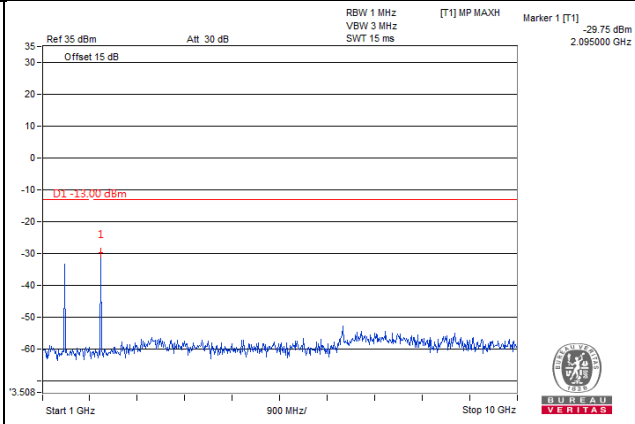
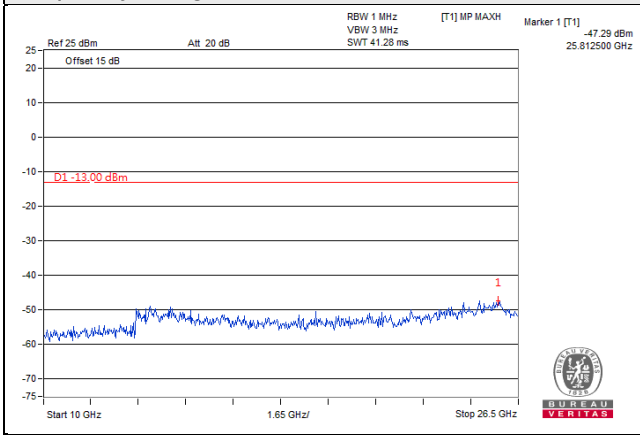
Channel Bandwidth: 15MHz	
Channel 20325 (1747.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

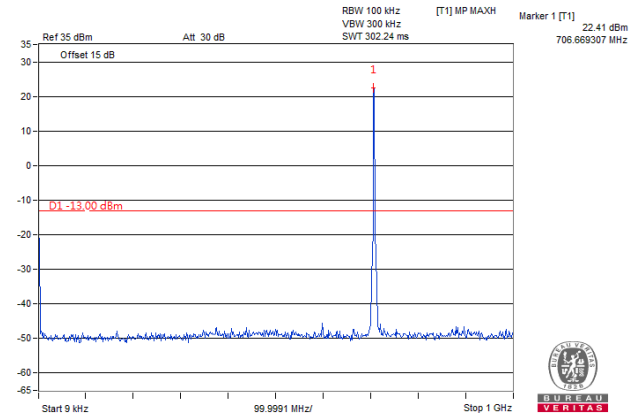
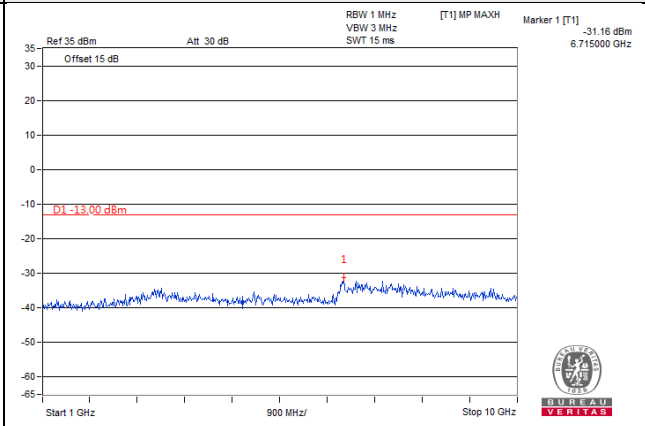
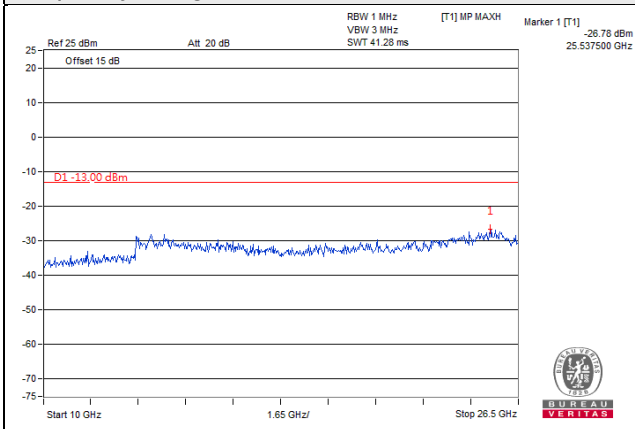
Channel Bandwidth: 20MHz	
Channel 20050 (1720.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

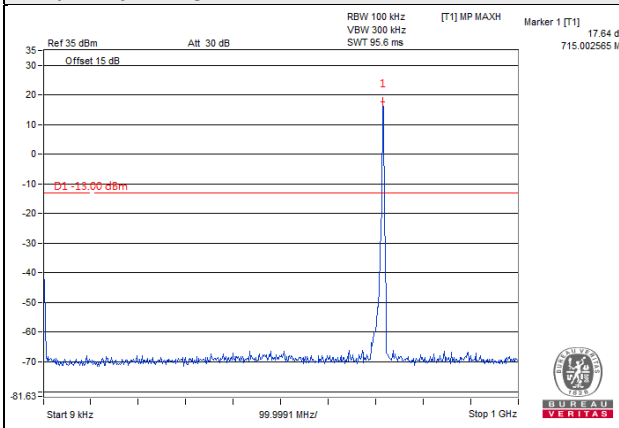
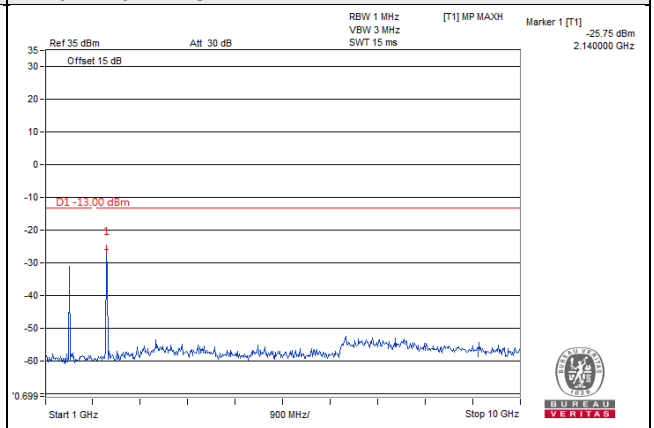
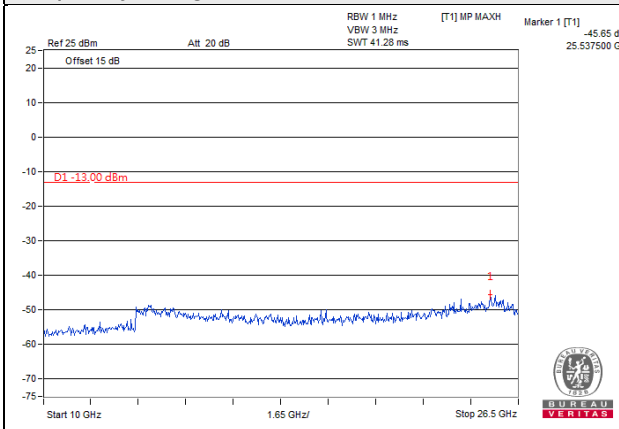
Channel Bandwidth: 20MHz	
Channel 20175 (1732.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

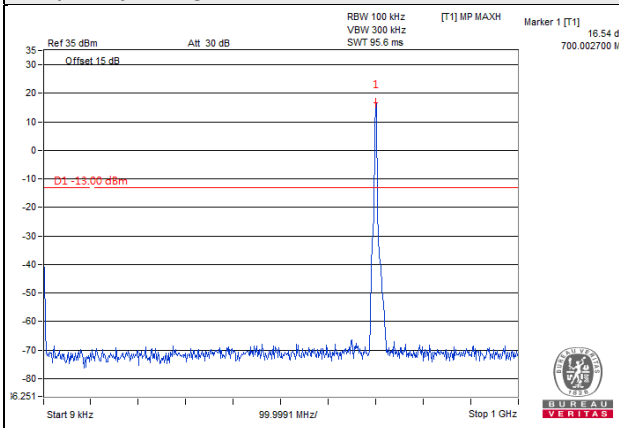
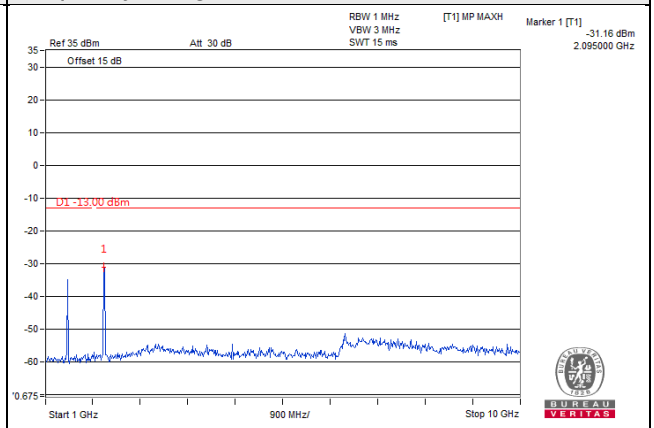
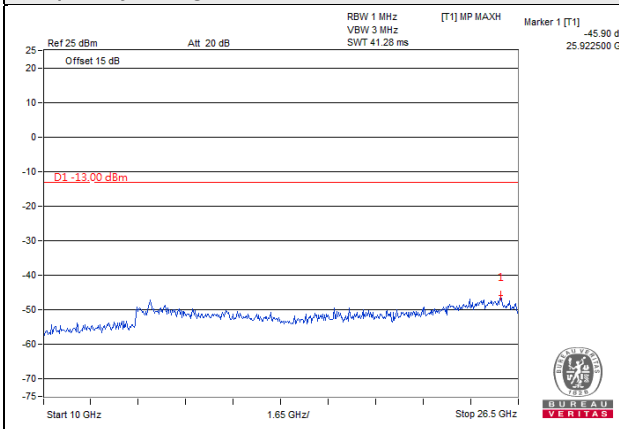
Channel Bandwidth: 20MHz	
Channel 20300 (1745.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

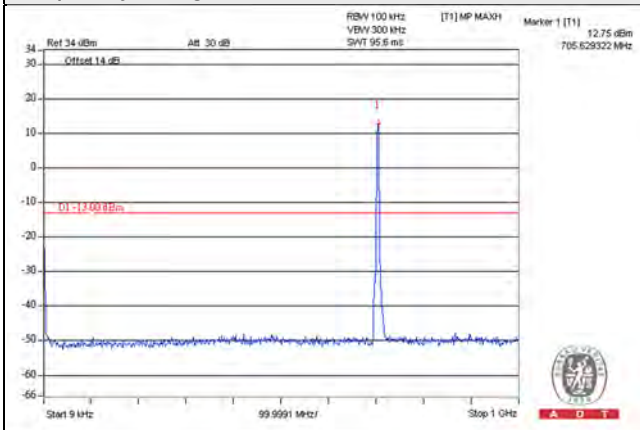
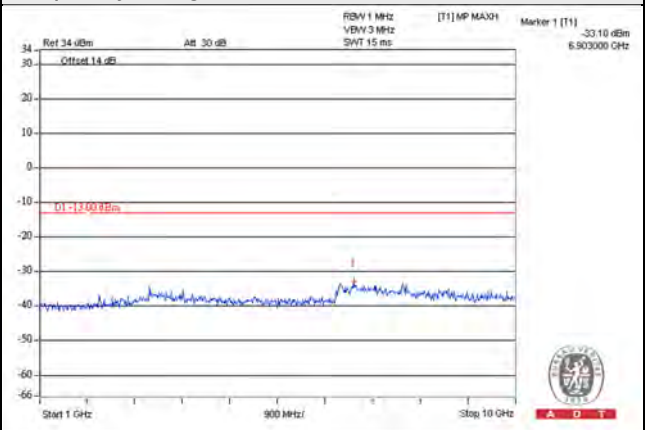
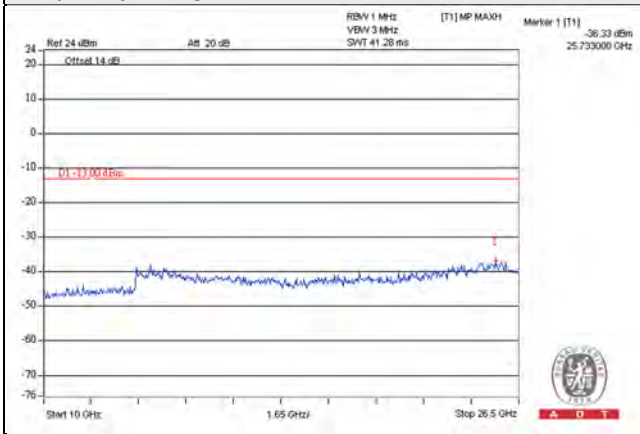
LTE Band 12

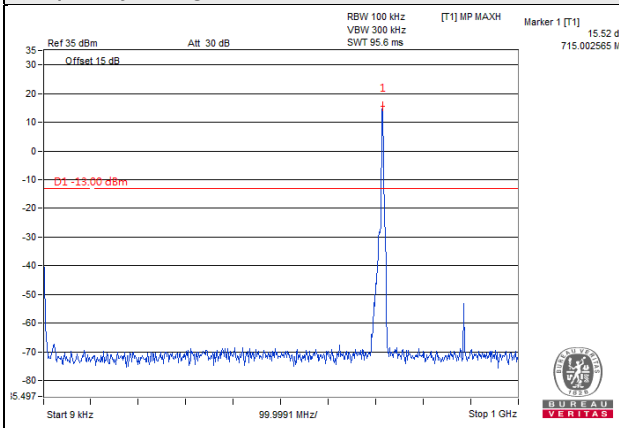
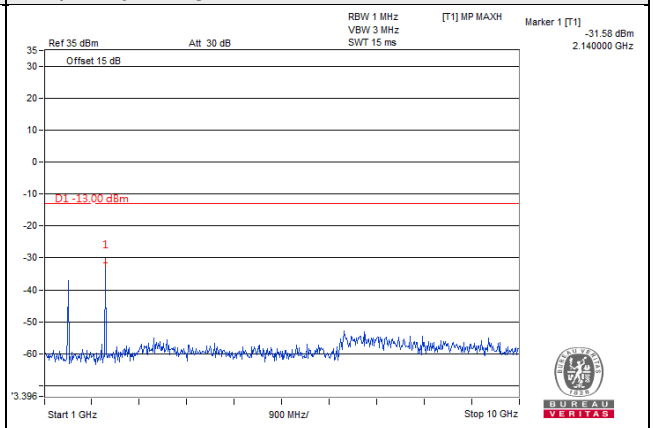
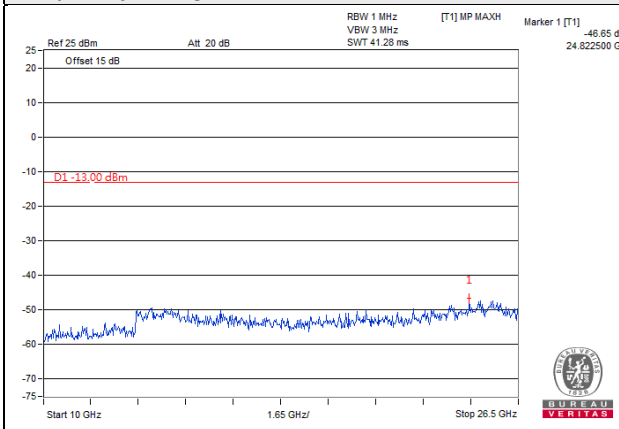
Channel Band width: 1.4MHz	
Channel 23017 (699.7MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

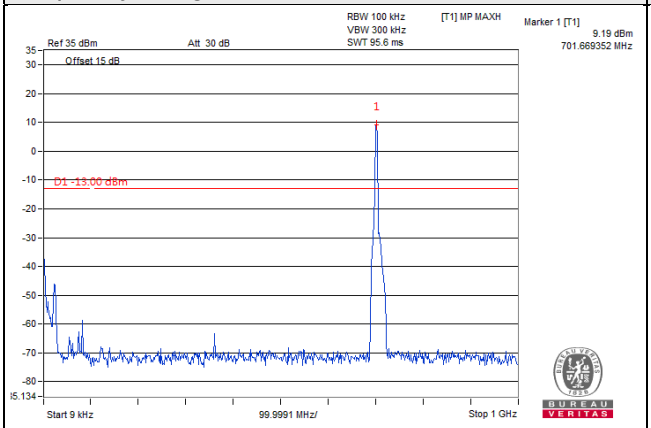
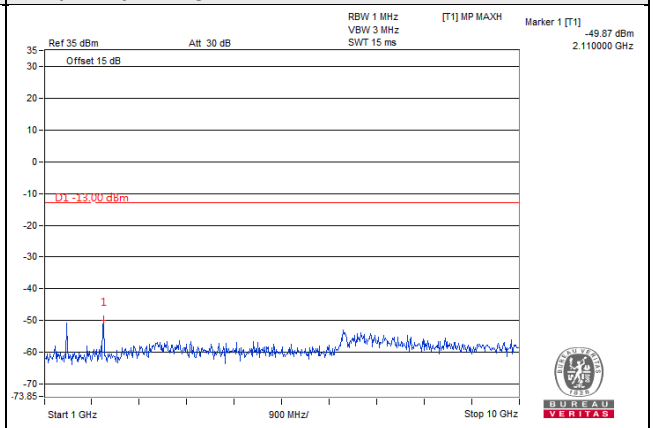
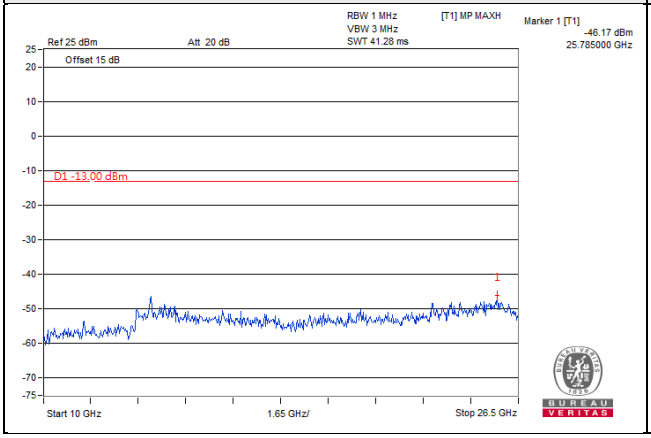
Channel Band width: 1.4MHz	
Channel 23095 (707.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

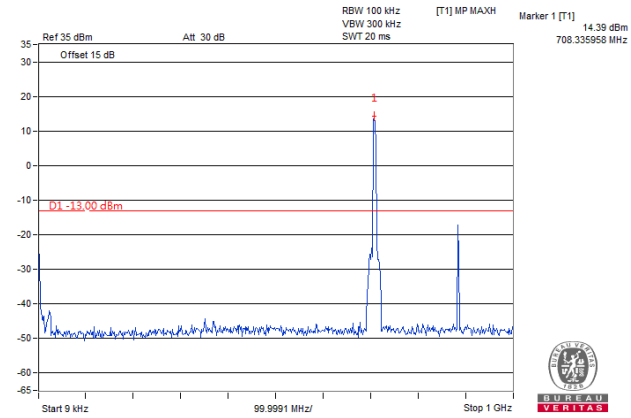
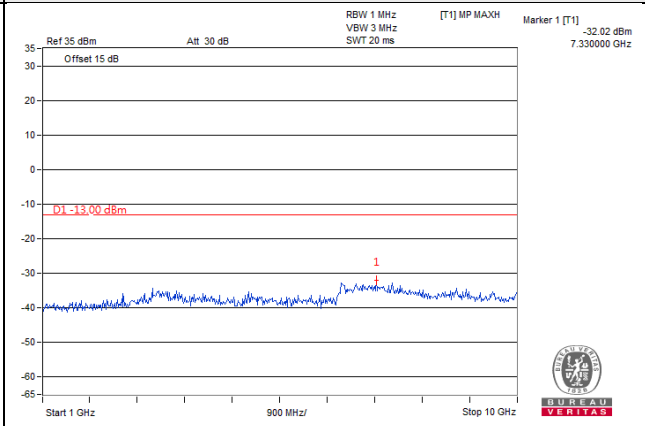
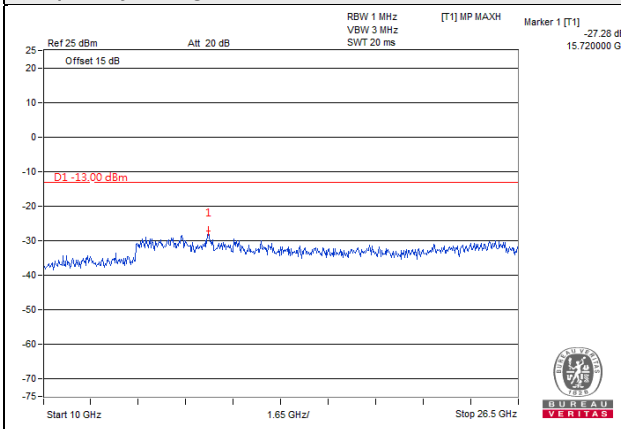
Channel Band width: 1.4MHz	
Channel 23173 (715.3MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

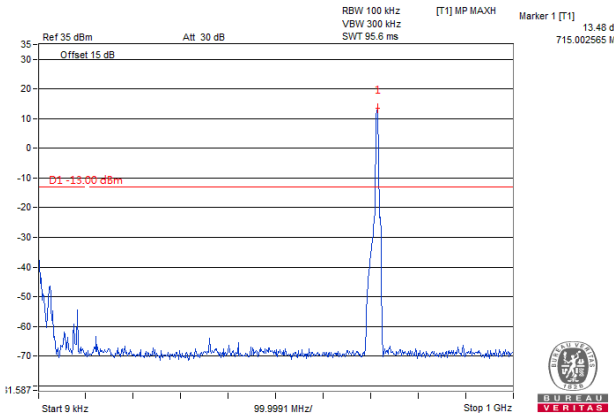
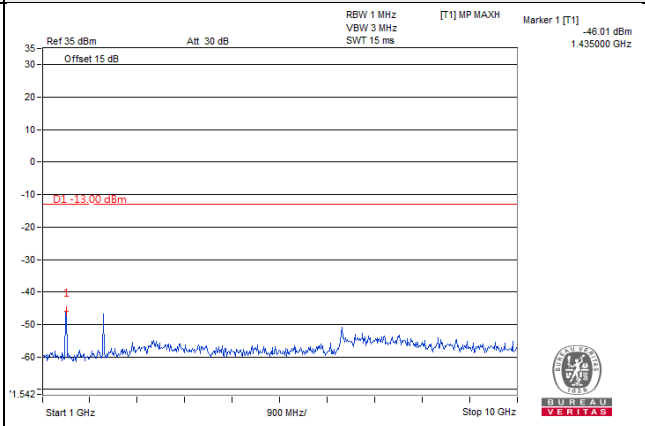
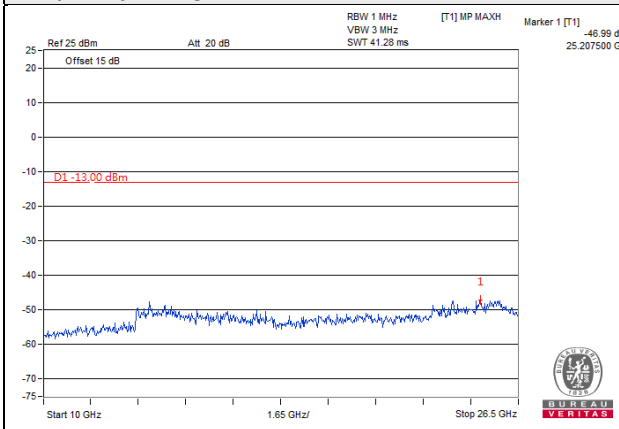
Channel Band width: 3MHz	
Channel 23025 (700.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

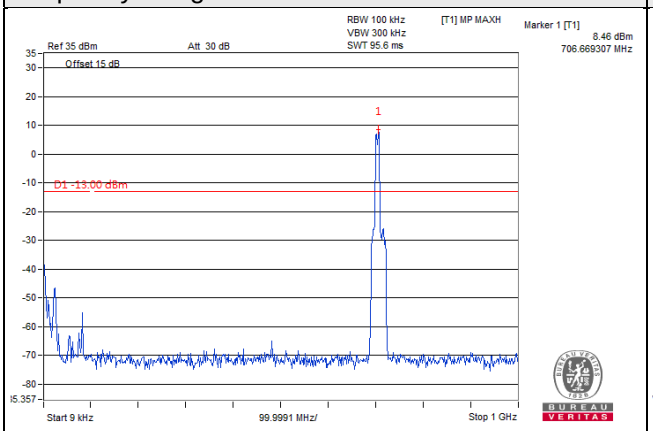
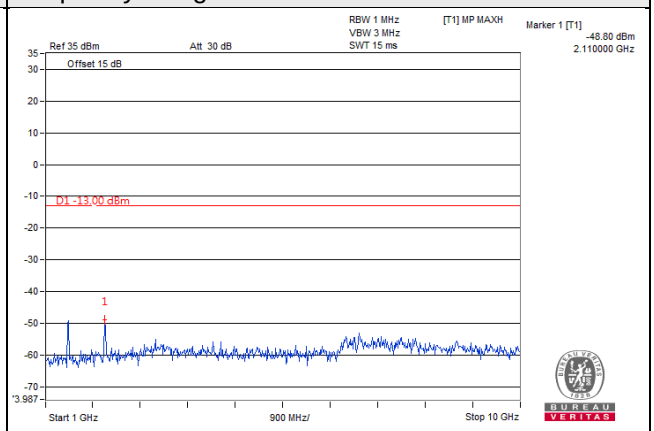
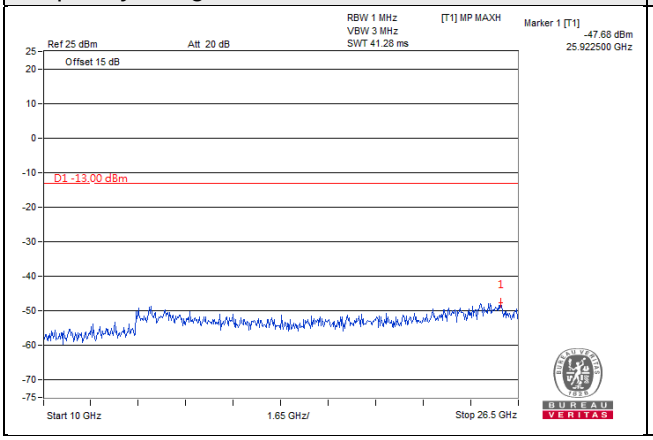
Channel Band width: 3MHz	
Channel 23095 (707.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

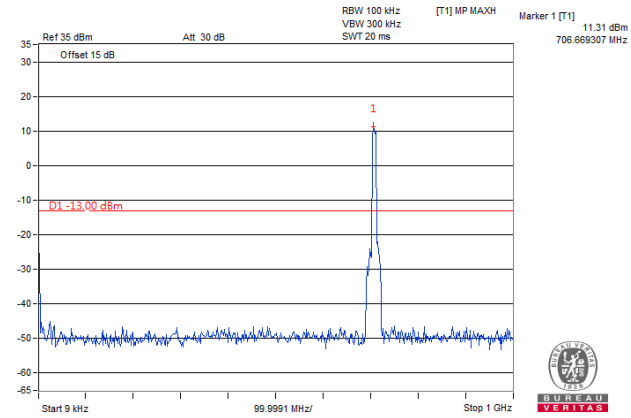
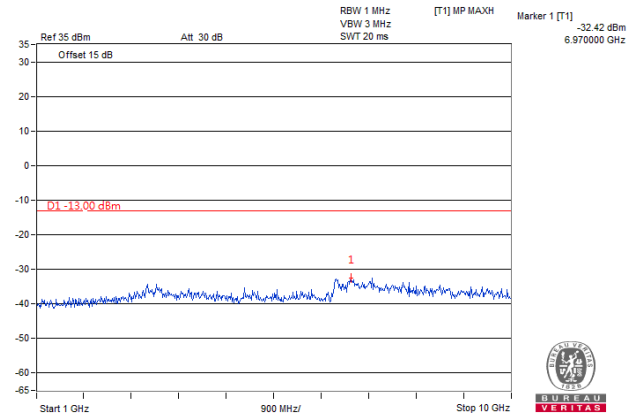
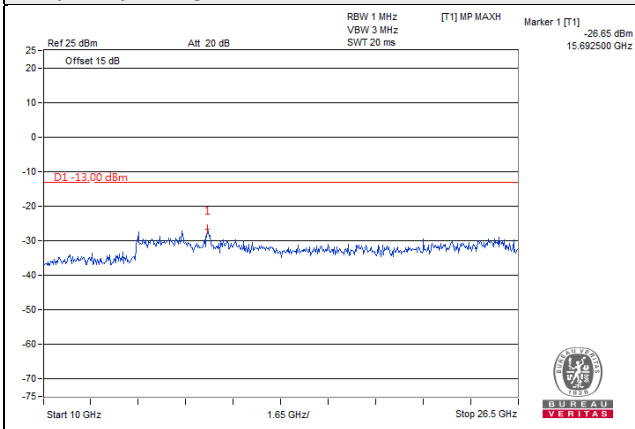
Channel Band width: 3MHz	
Channel 23165 (714.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

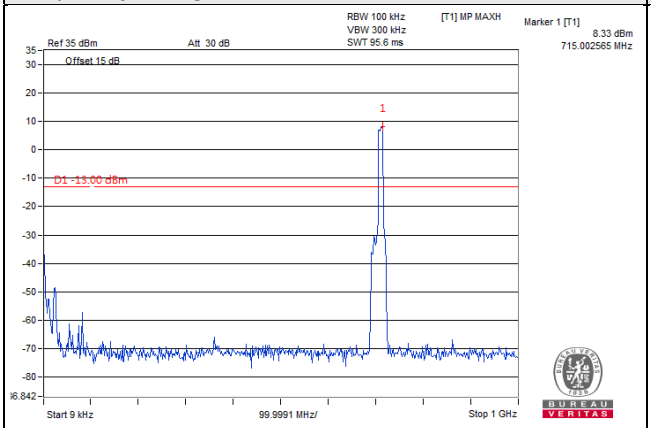
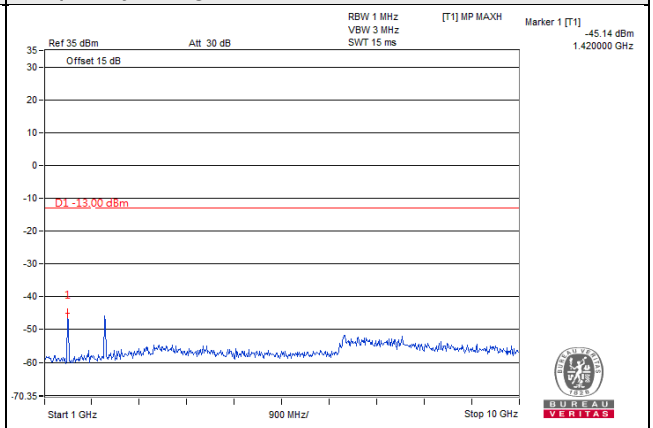
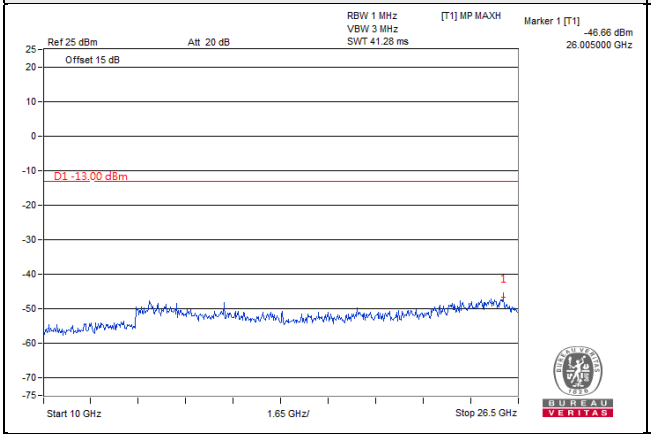
Channel Band width: 5MHz	
Channel 23035 (701.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Band width: 5MHz	
Channel 23095 (707.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

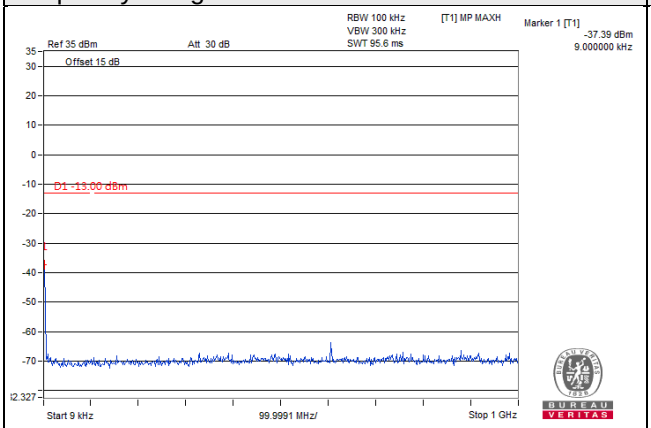
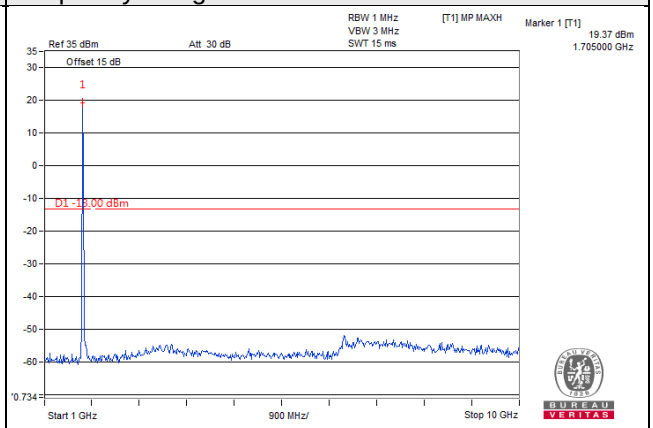
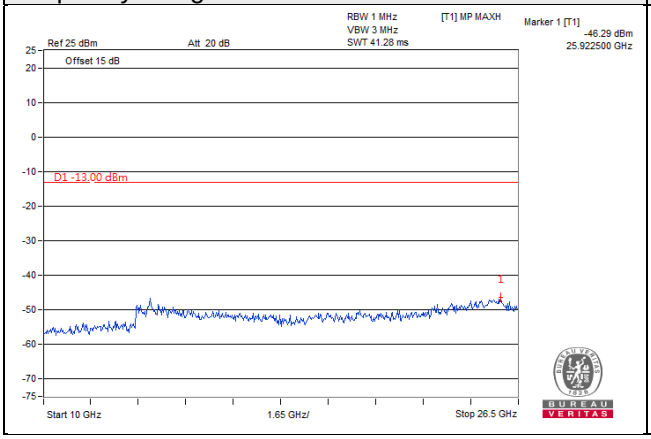
Channel Band width: 5MHz	
Channel 23155 (713.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

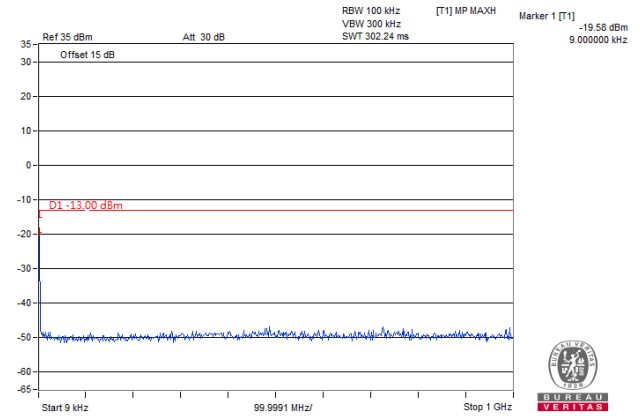
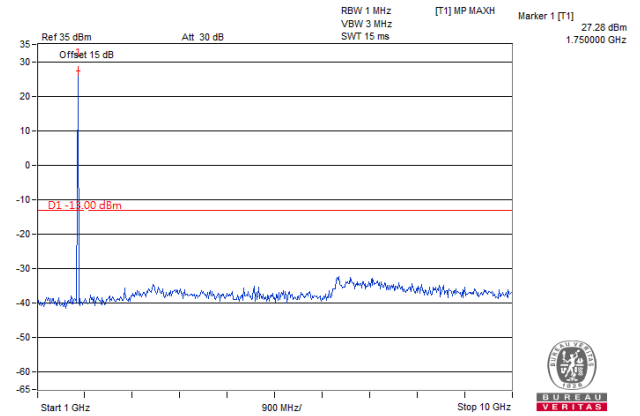
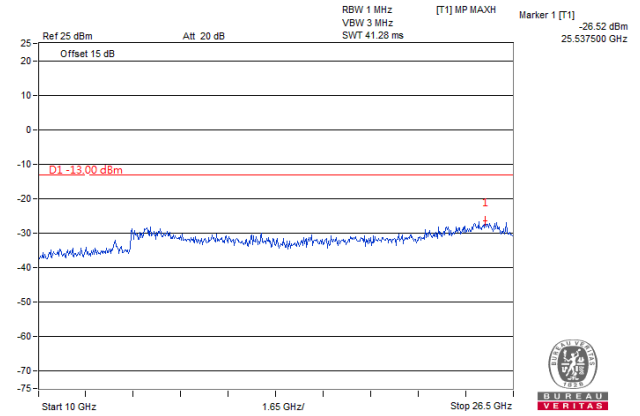
Channel Band width: 10MHz	
Channel 23060 (704MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

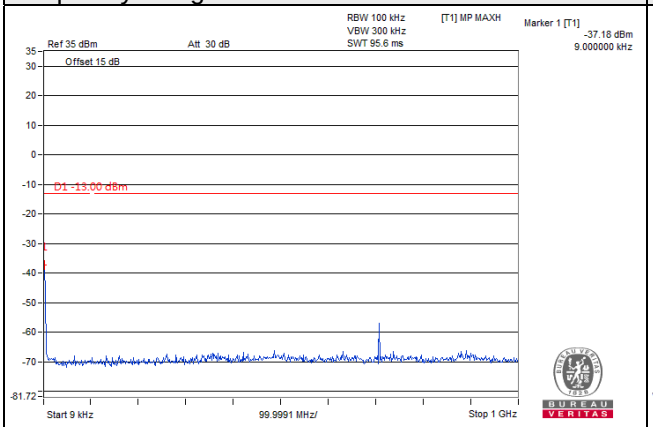
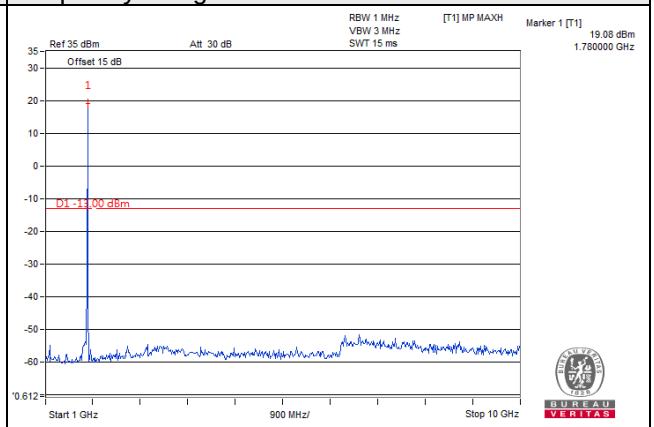
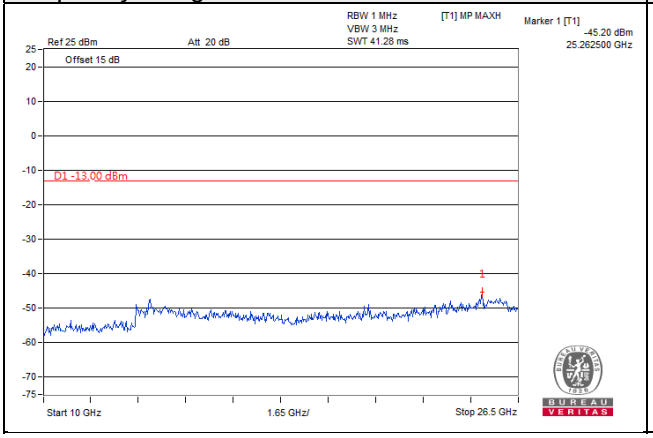
Channel Band width: 10MHz	
Channel 23095 (707.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

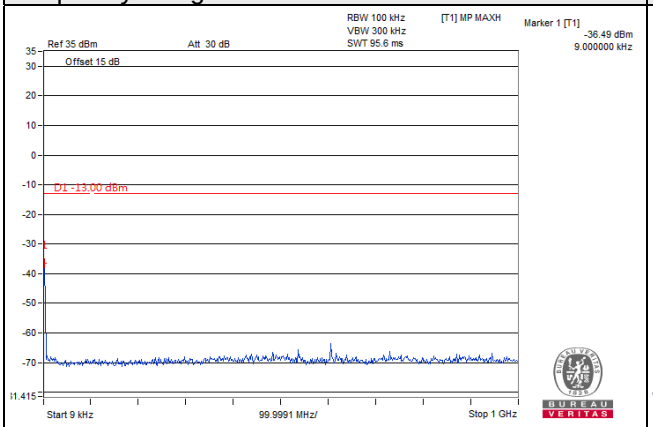
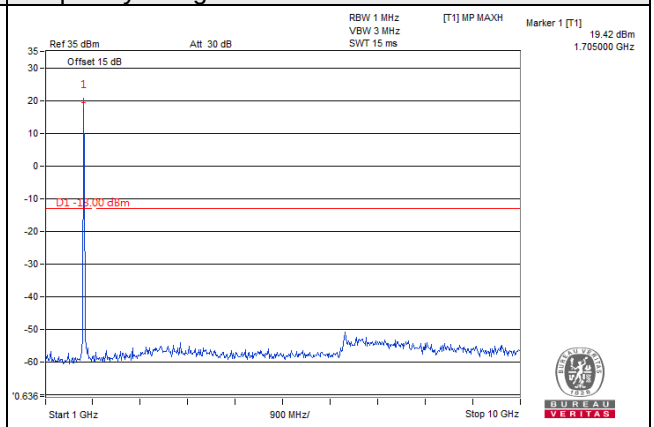
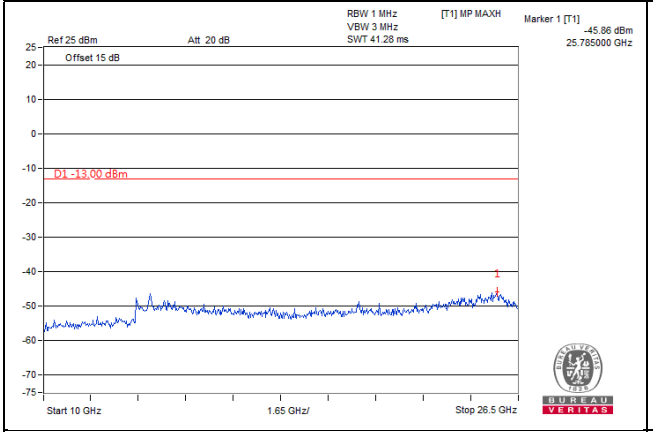
Channel Band width: 10MHz	
Channel 23130 (711MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

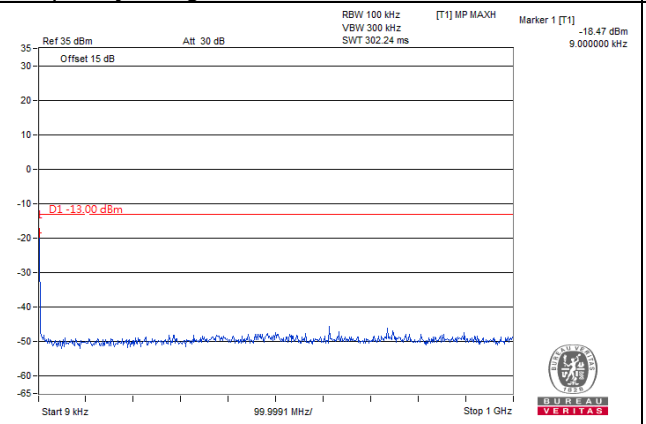
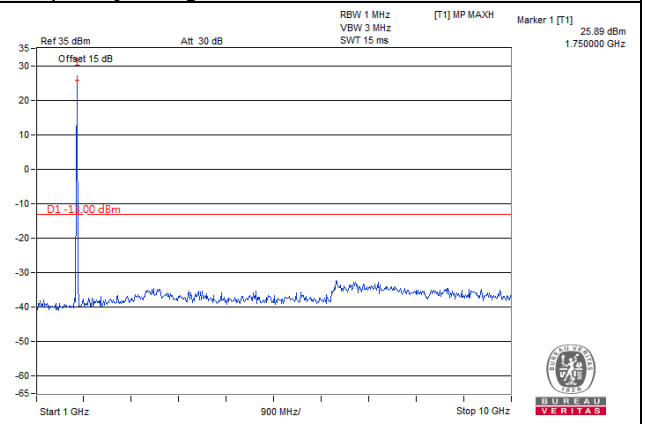
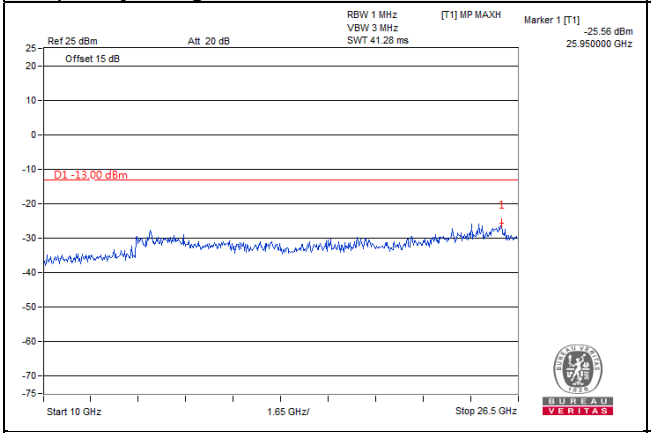
LTE Band 66

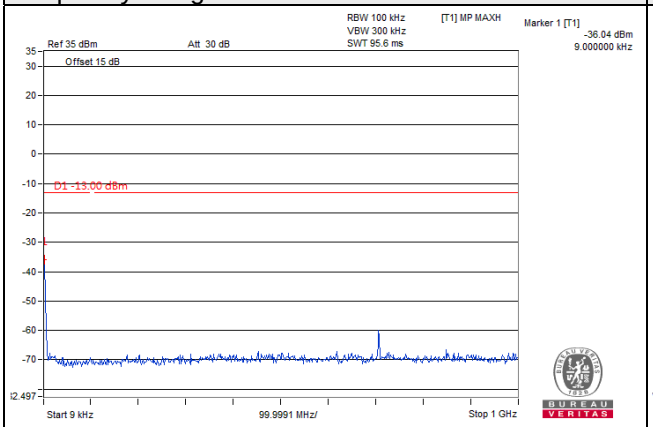
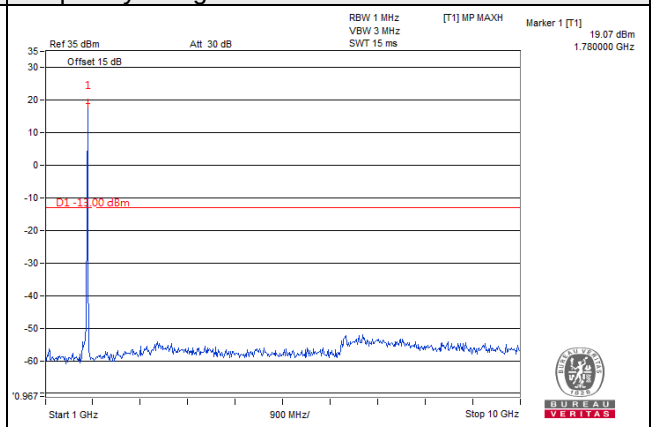
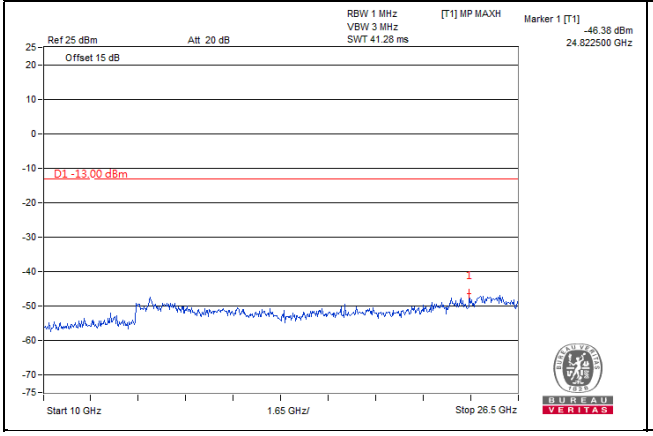
Channel Bandwidth: 1.4MHz	
Channel 131979 (1710.7MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

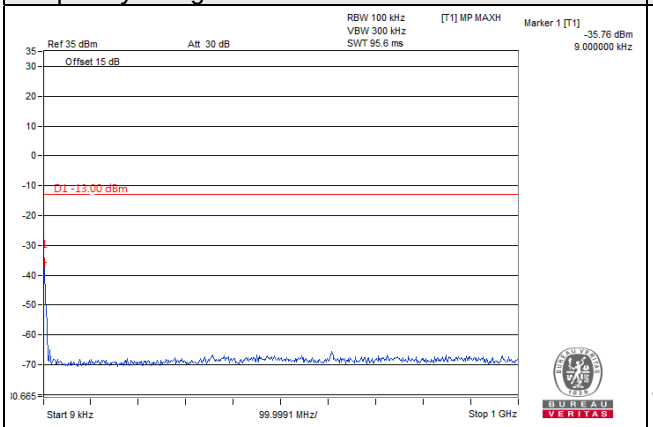
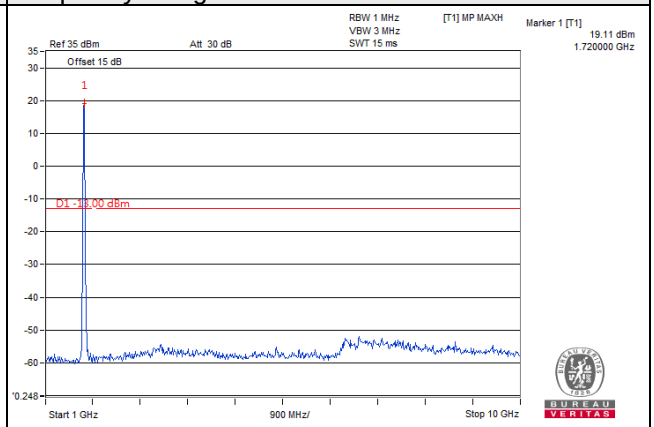
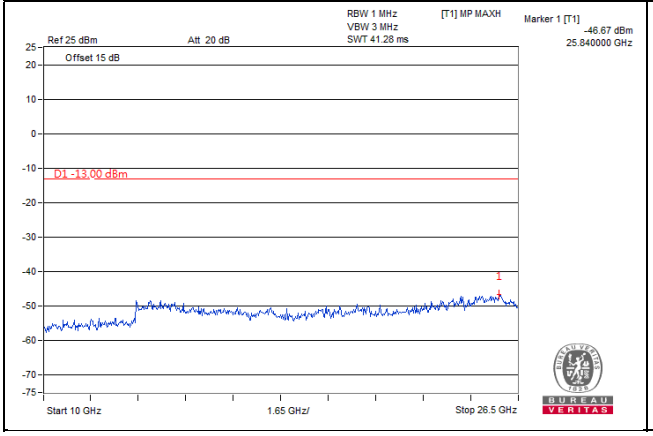
Channel Bandwidth: 1.4MHz	
Channel 132322(1745MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

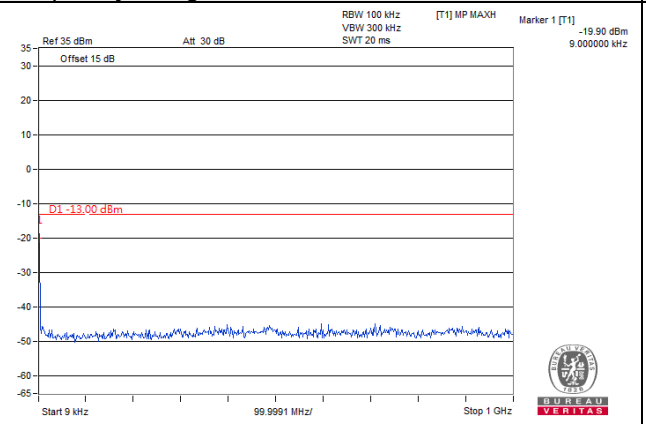
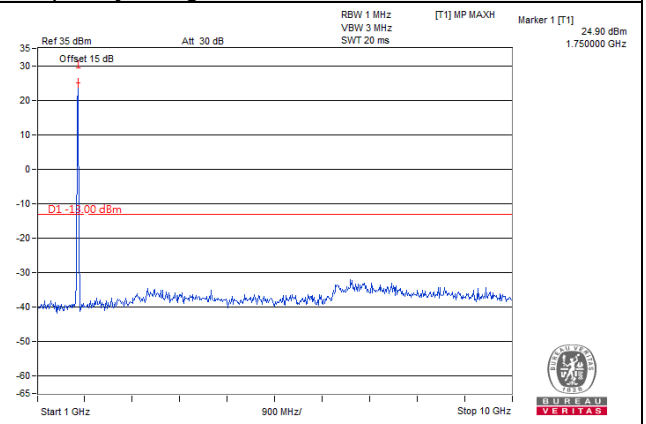
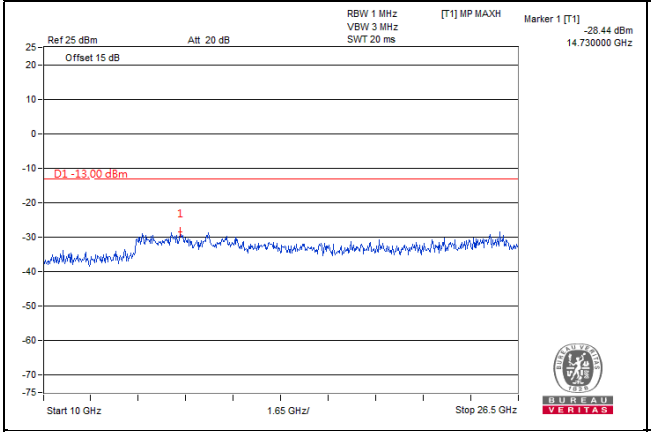
Channel Bandwidth: 1.4MHz	
Channel 132665(1779.3MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

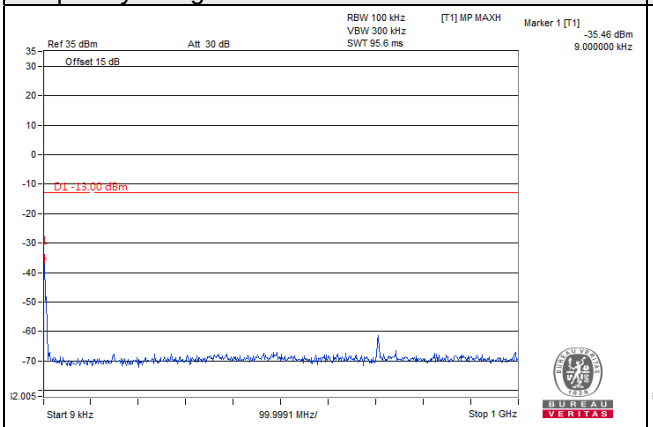
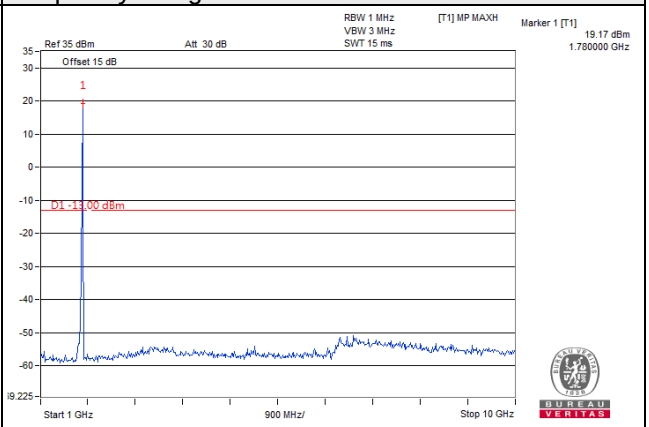
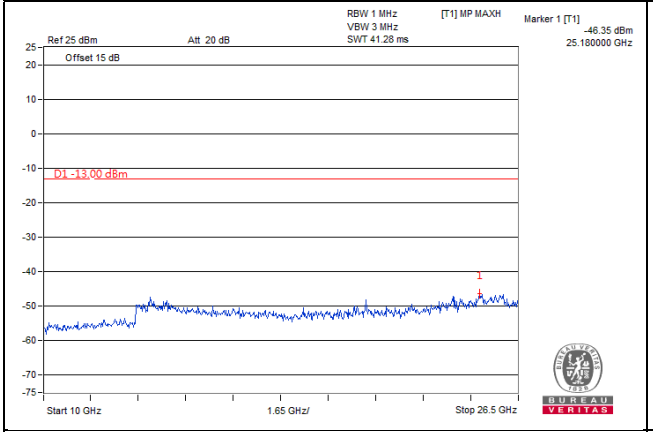
Channel Bandwidth: 3MHz	
Channel 131987 (1711.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

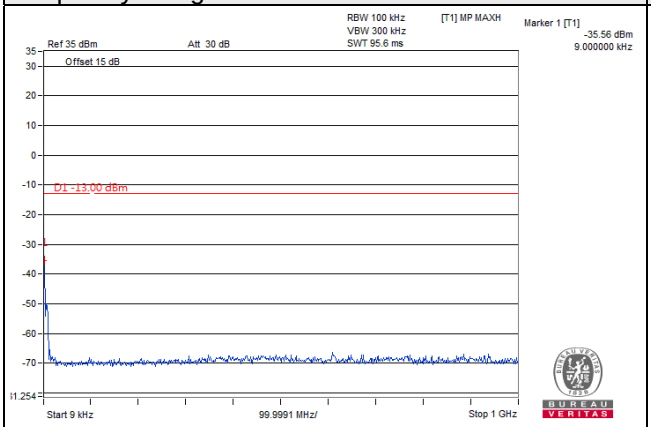
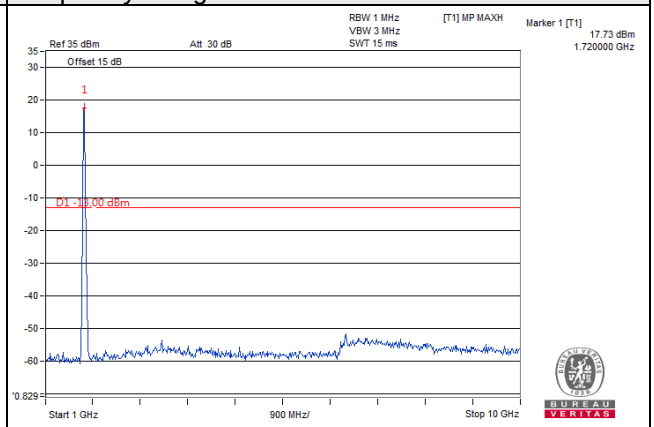
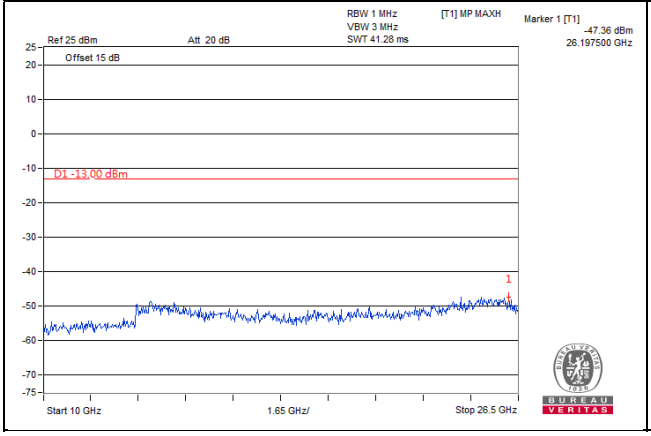
Channel Bandwidth: 3MHz	
Channel 132322(1745MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

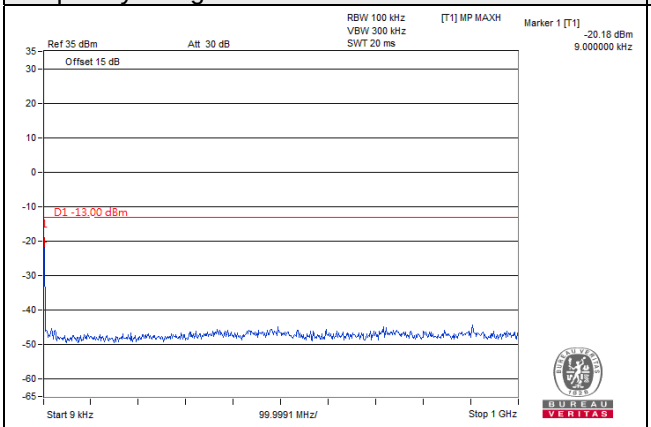
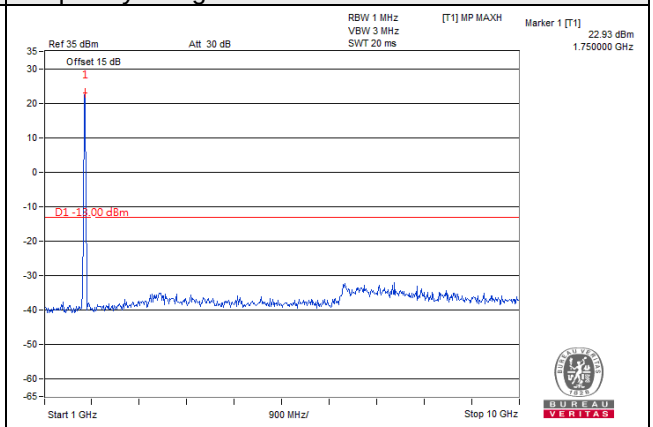
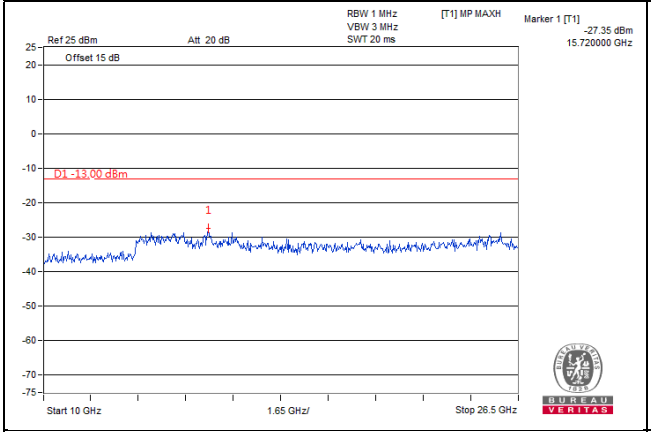
Channel Bandwidth: 3MHz	
Channel 132657(1778.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

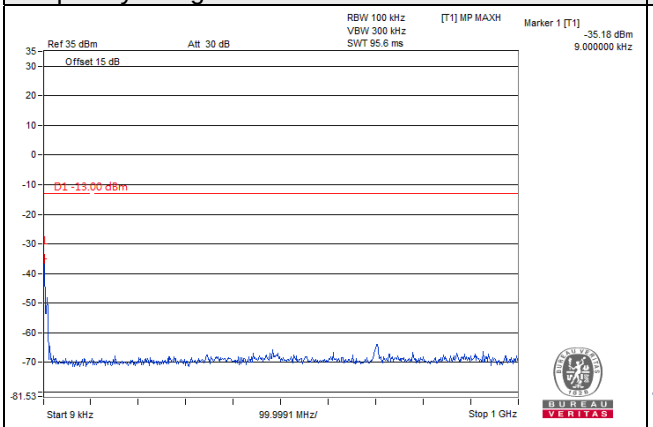
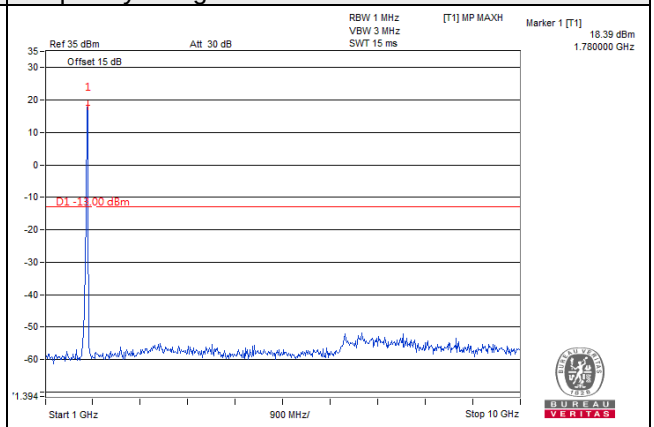
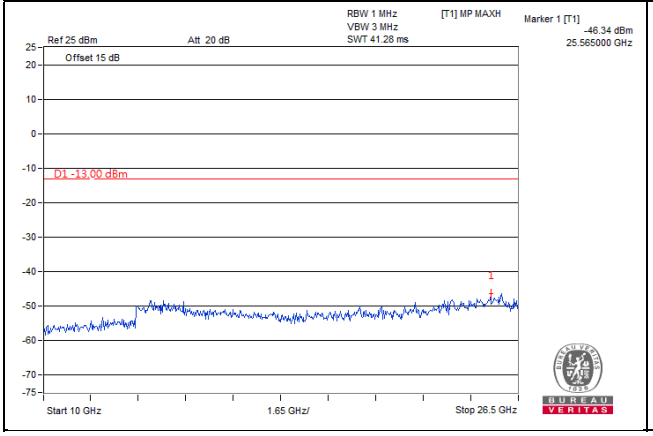
Channel Bandwidth: 5MHz	
Channel 131997(1712.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

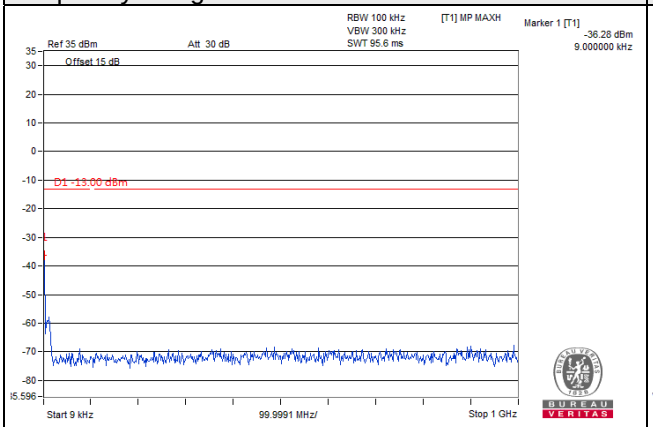
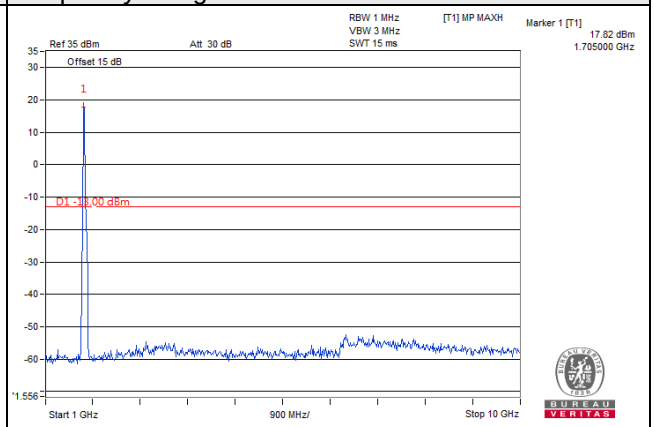
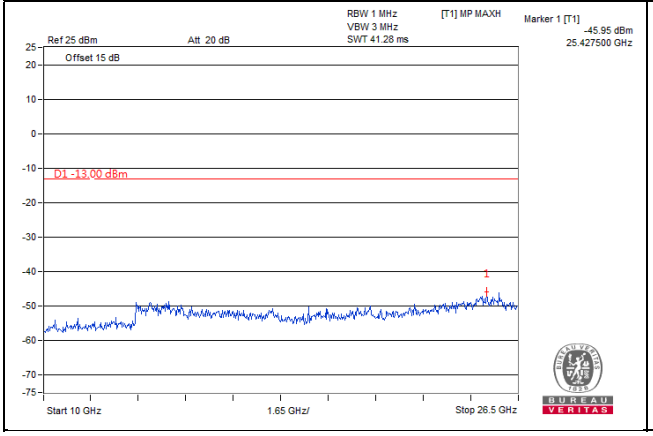
Channel Bandwidth: 5MHz	
Channel 132322(1745MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

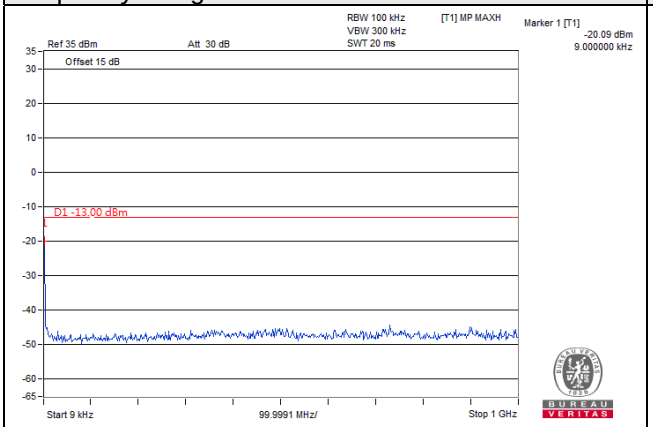
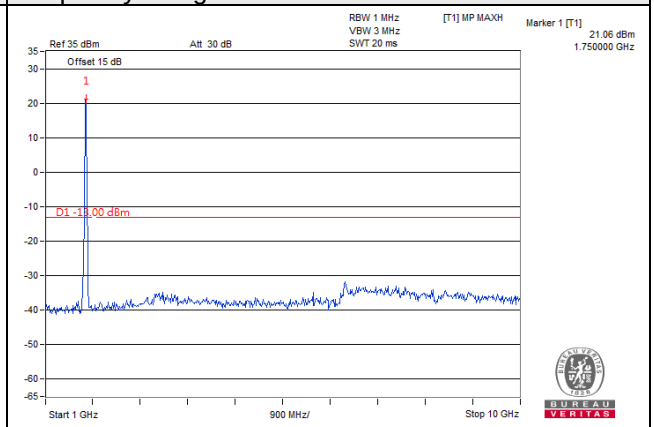
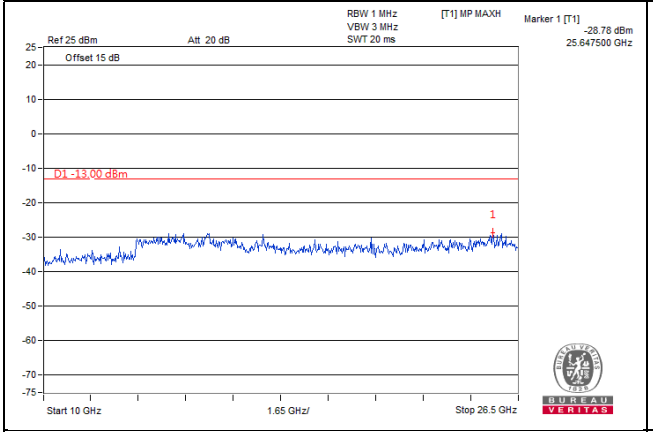
Channel Bandwidth: 5MHz	
Channel 132647(1777.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

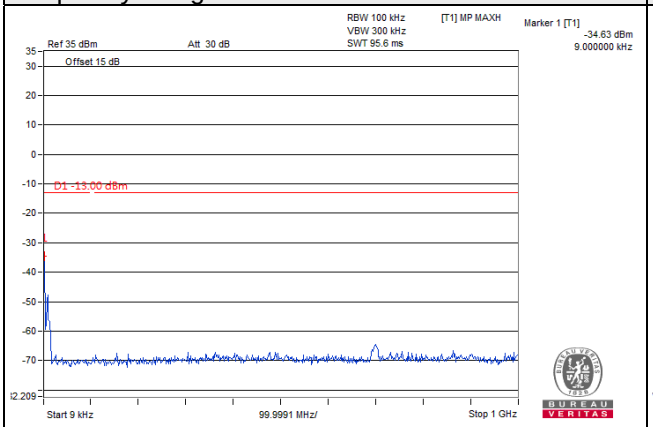
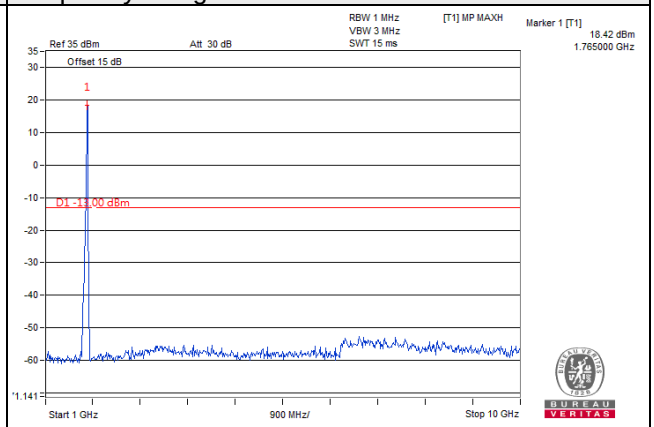
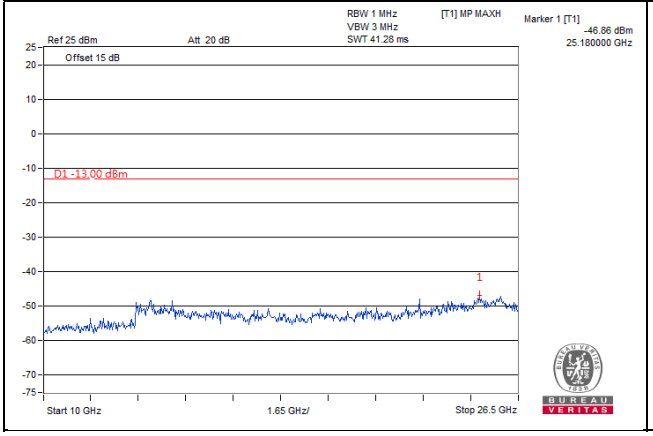
Channel Bandwidth: 10MHz	
Channel 132022 (1715MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

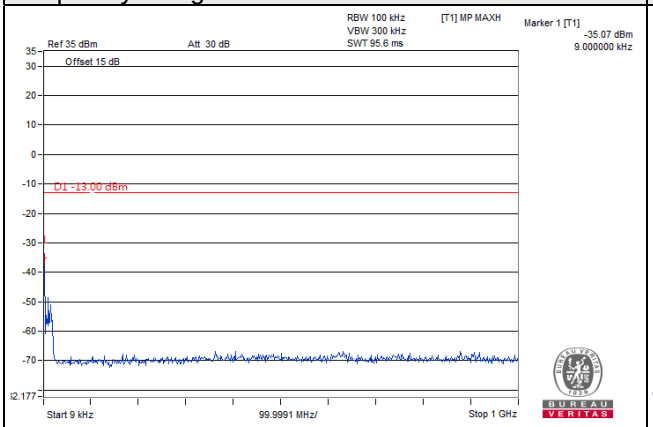
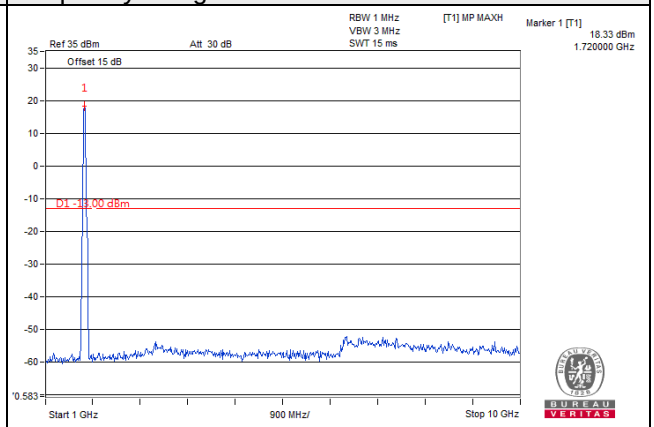
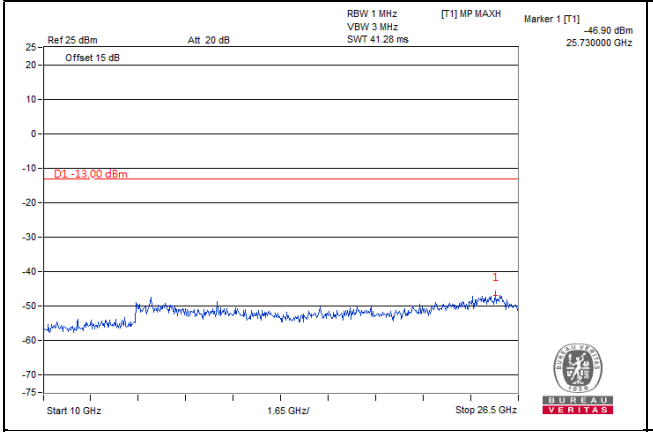
Channel Bandwidth: 10MHz	
Channel 132322(1745MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

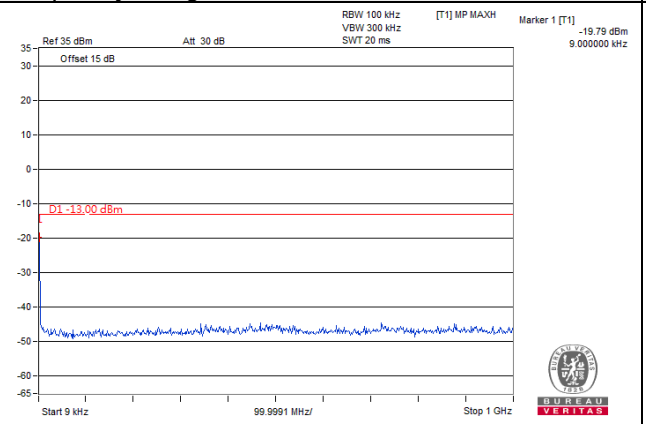
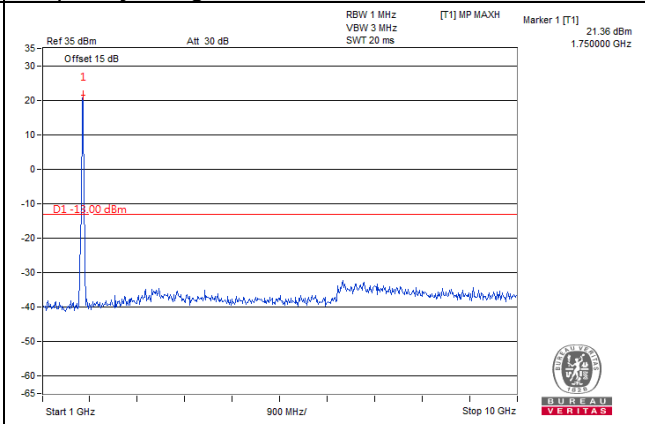
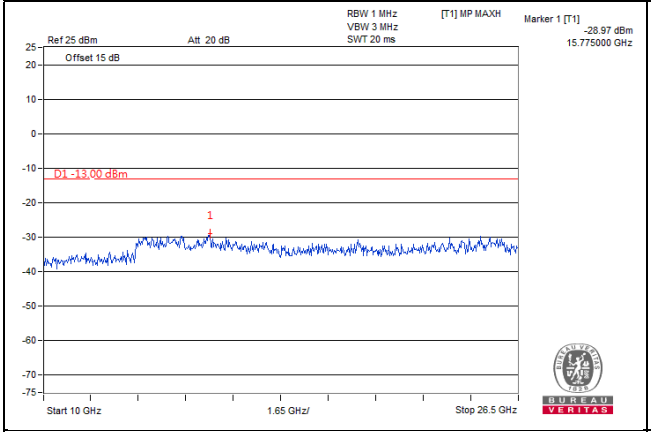
Channel Bandwidth: 10MHz	
Channel 132622(1775MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

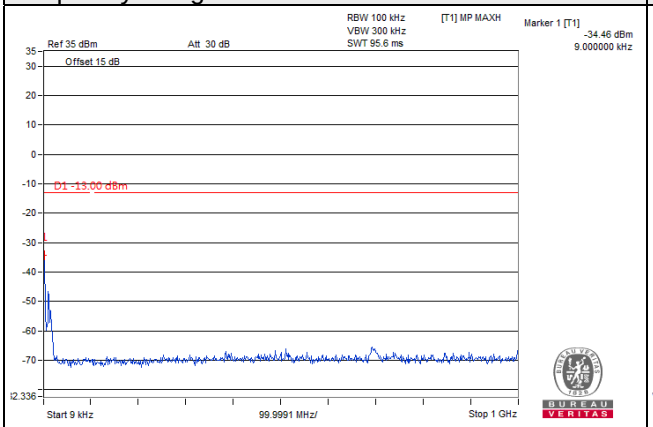
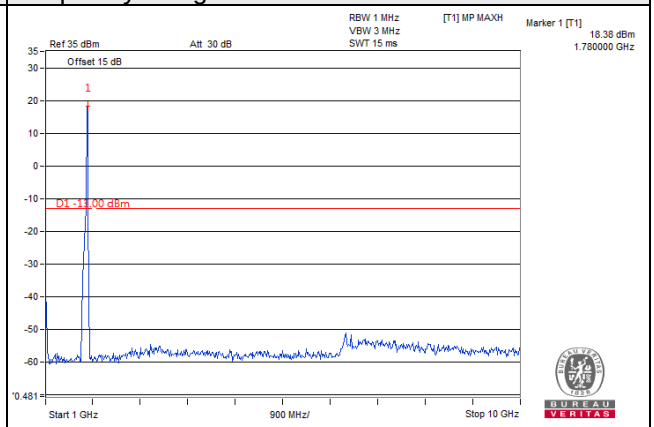
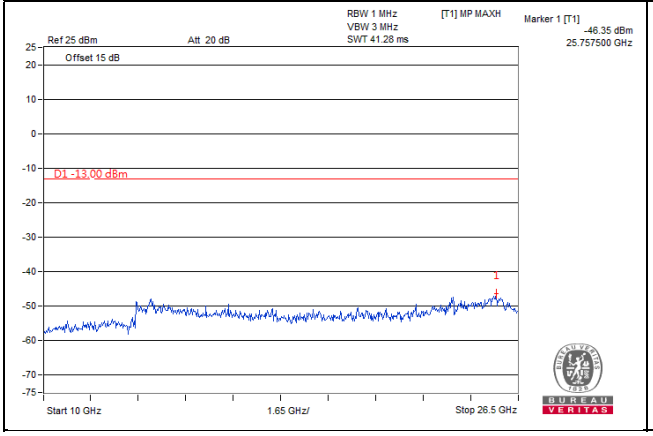
Channel Bandwidth: 15MHz	
Channel 132047 (1717.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 15MHz	
Channel 132322(1745MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

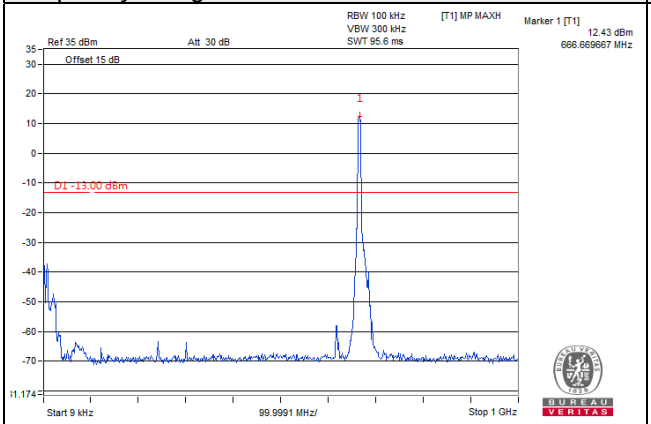
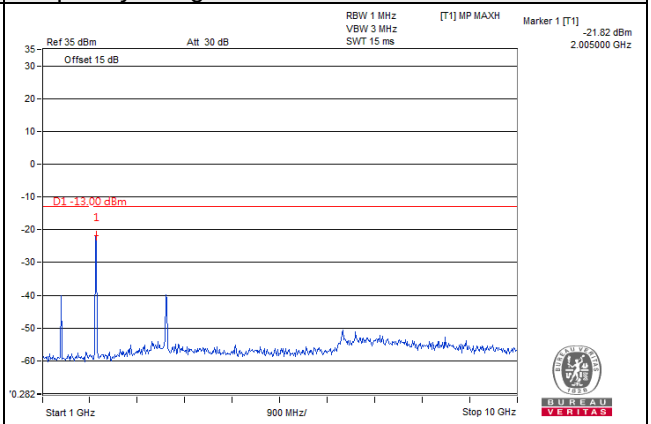
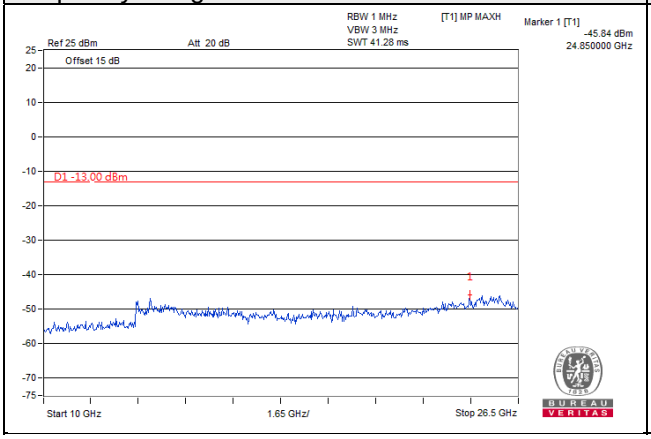
Channel Bandwidth: 15MHz	
Channel 132597(1772.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

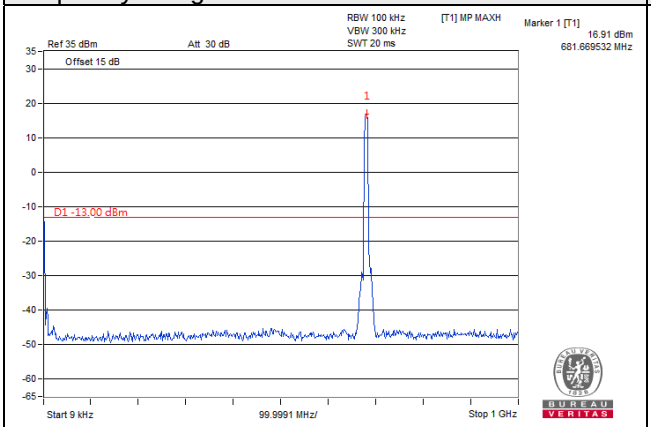
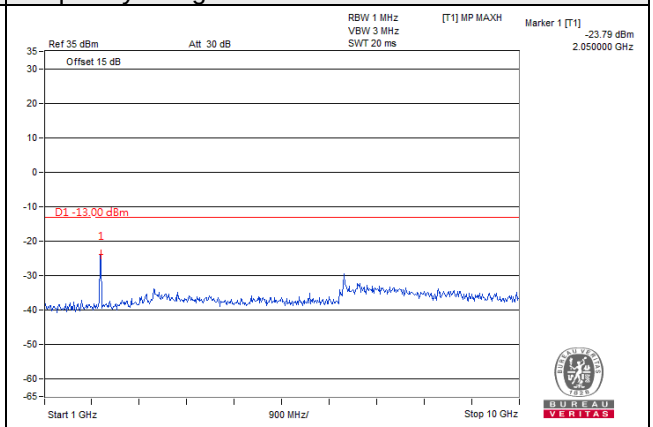
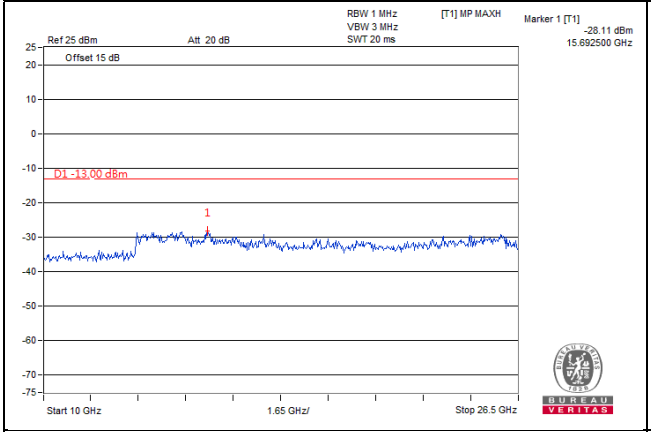
Channel Bandwidth: 20MHz	
Channel 132072 (1720.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

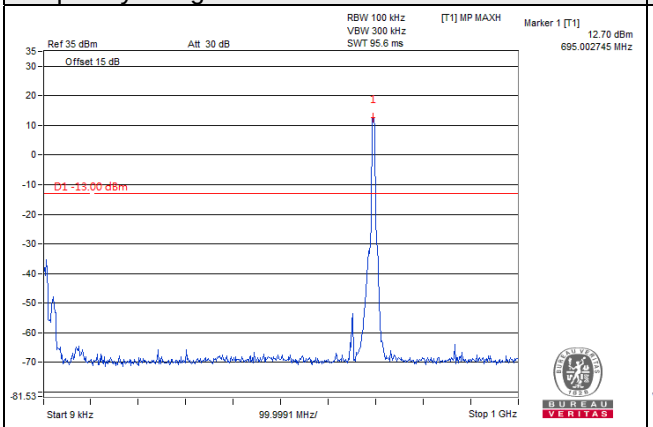
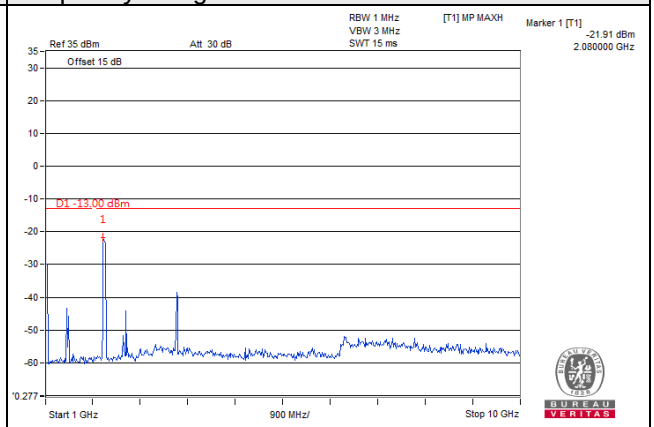
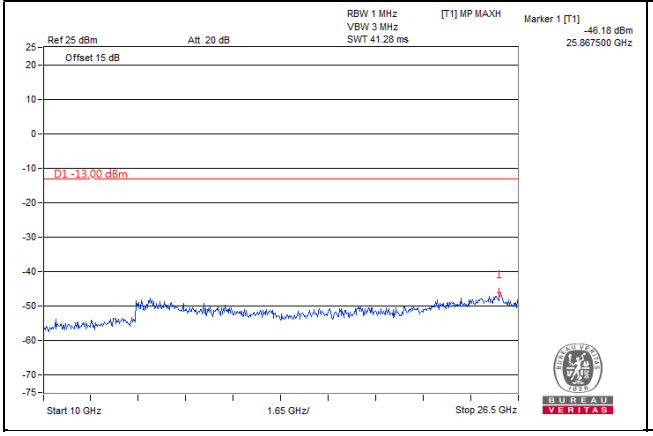
Channel Bandwidth: 20MHz	
Channel 132322(1745MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

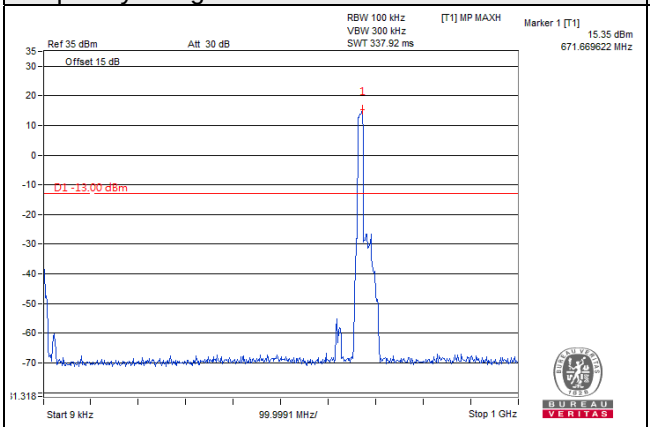
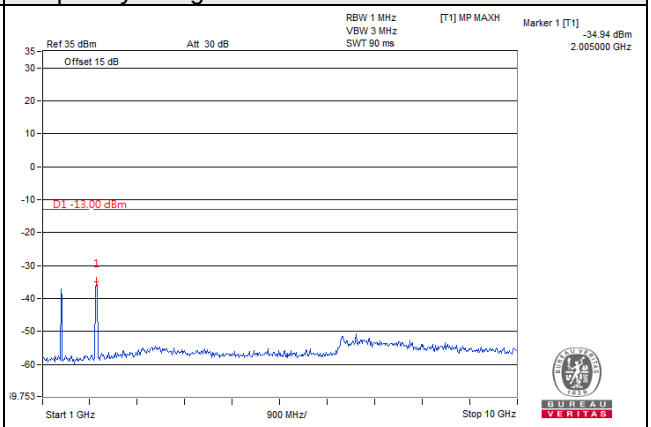
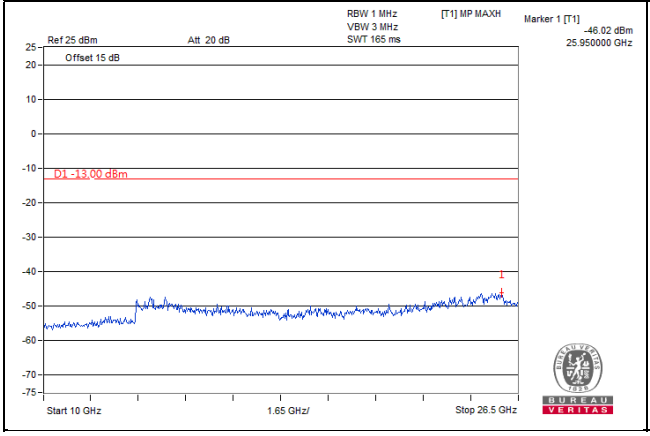
Channel Bandwidth: 20MHz	
Channel 132572(1770MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

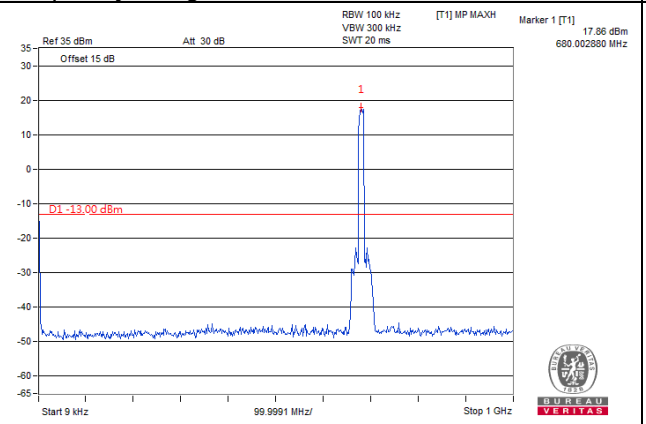
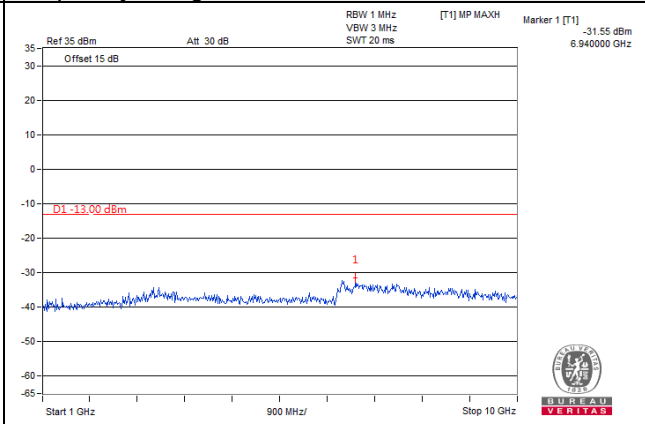
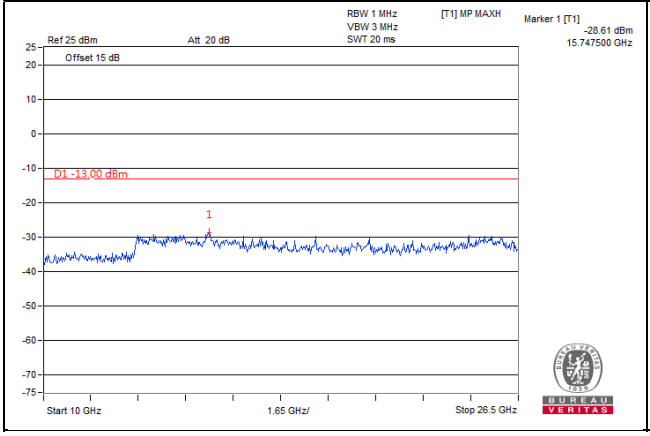
LTE Band 71

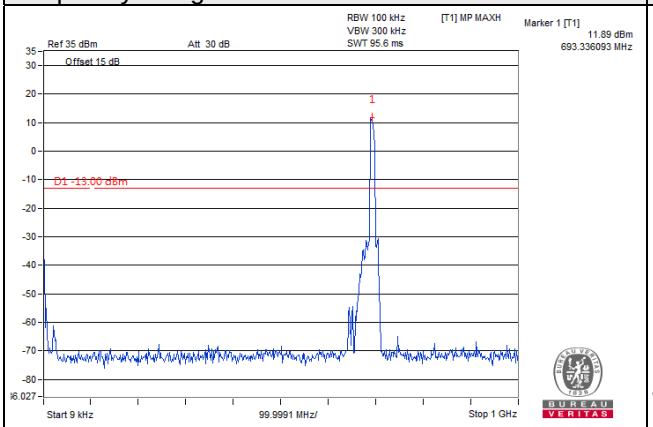
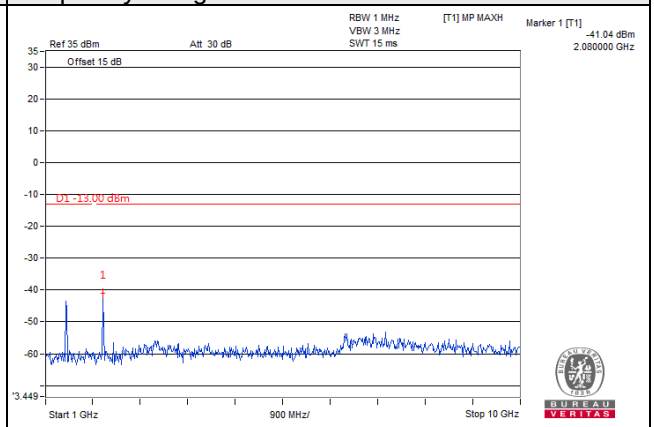
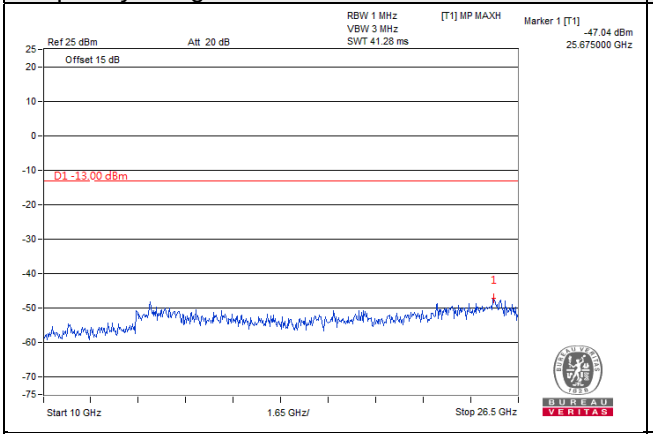
Channel Bandwidth: 5MHz	
Channel 133147(665.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

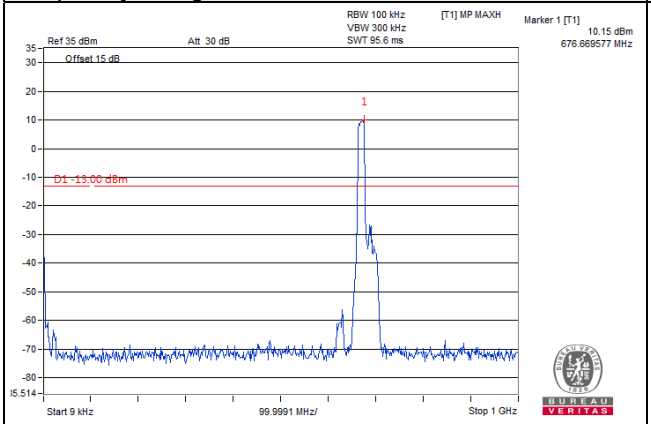
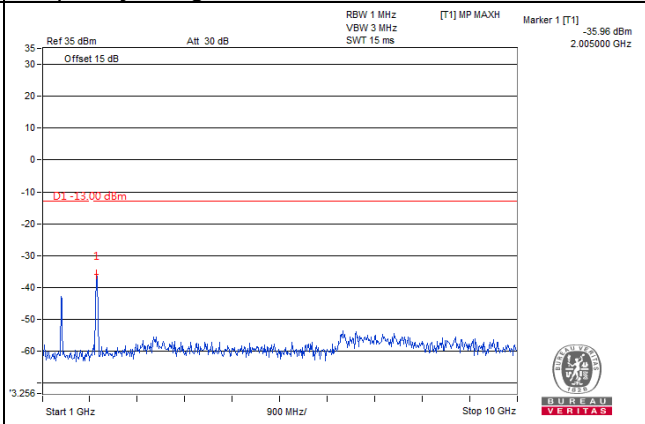
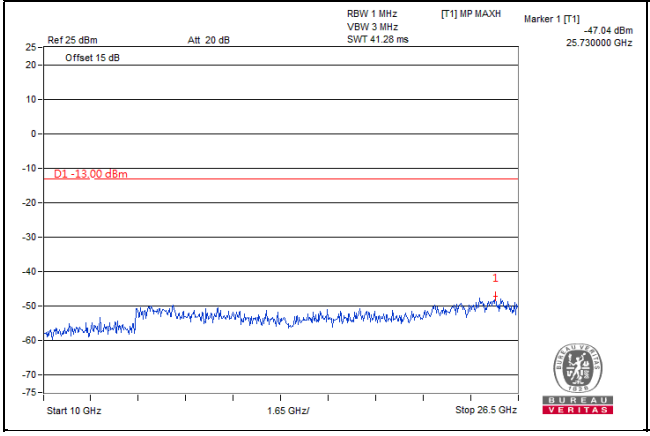
Channel Bandwidth: 5MHz	
Channel 133297(680.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

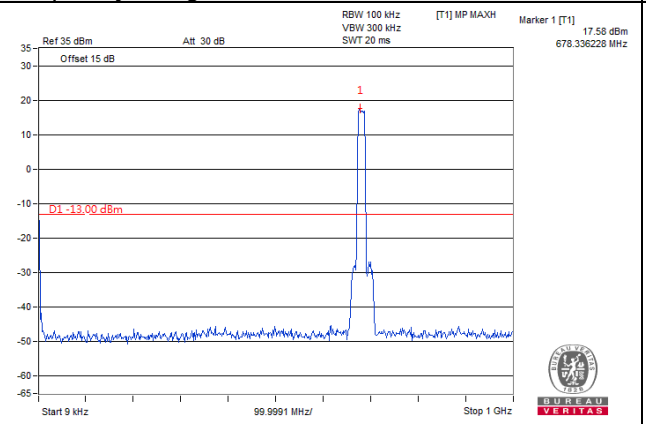
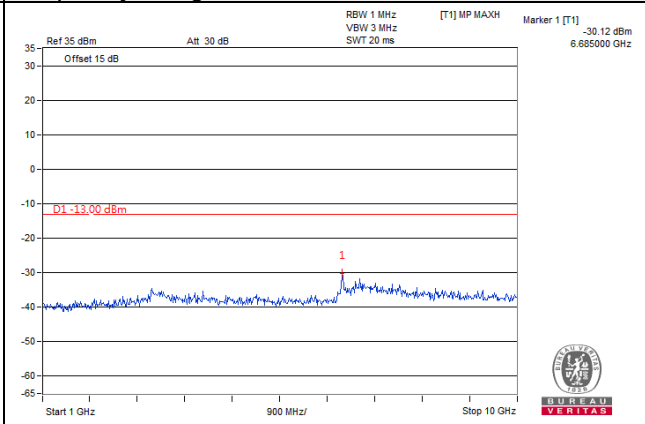
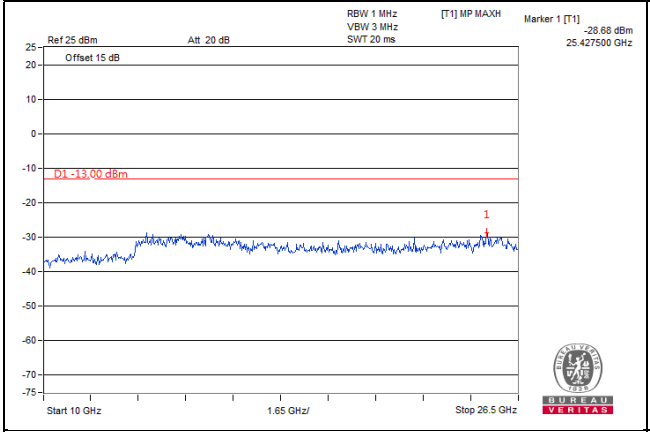
Channel Bandwidth: 5MHz	
Channel 133447(695.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

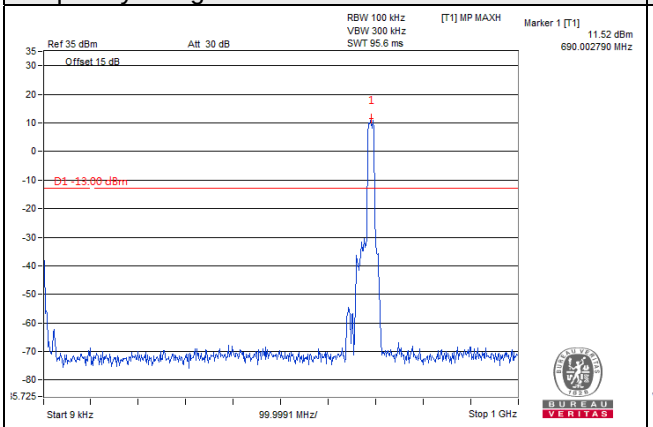
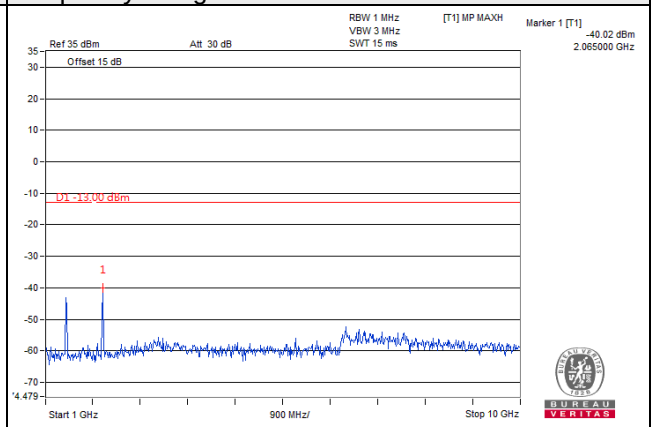
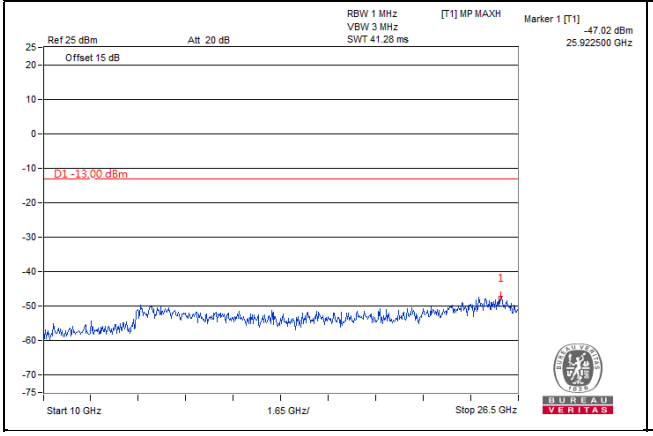
Channel Bandwidth: 10MHz	
Channel 133172(668.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

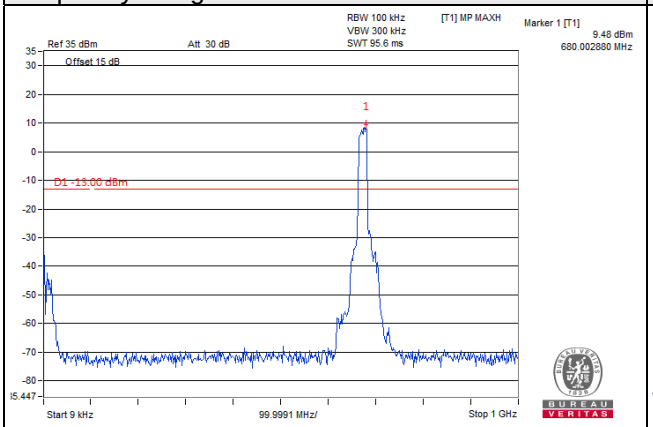
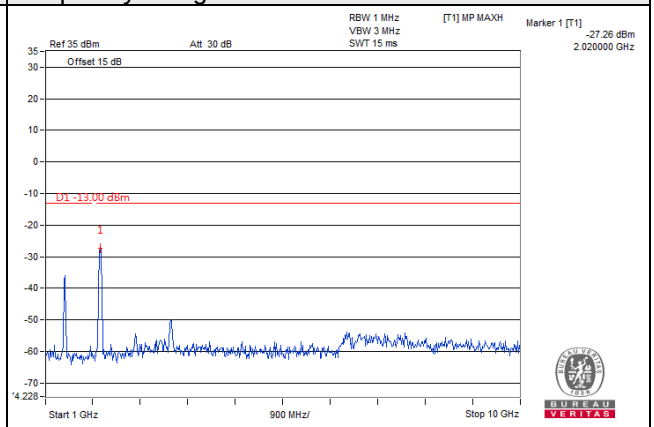
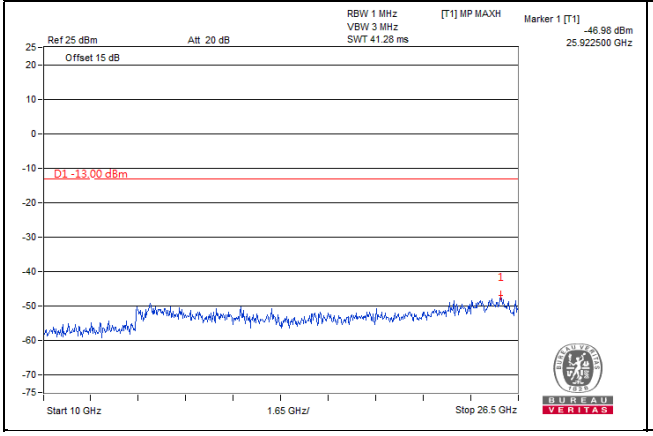
Channel Bandwidth: 10MHz	
Channel 133297(680.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

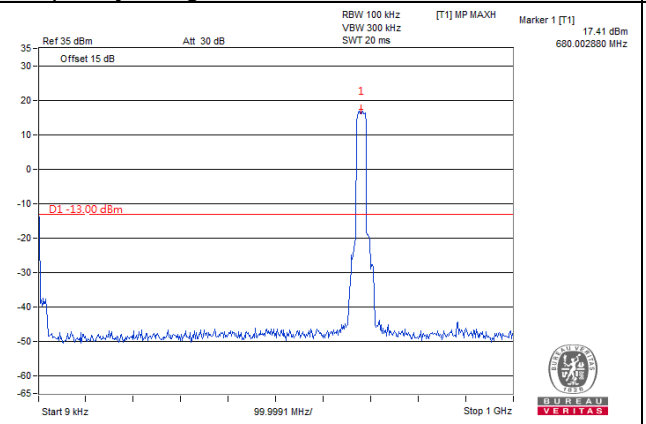
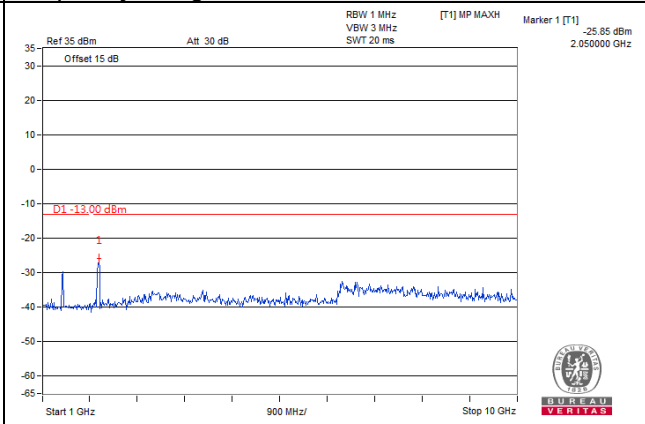
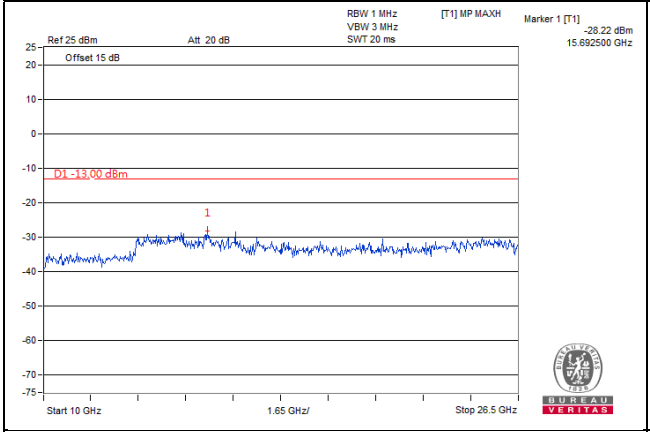
Channel Bandwidth: 10MHz	
Channel 133422(693.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

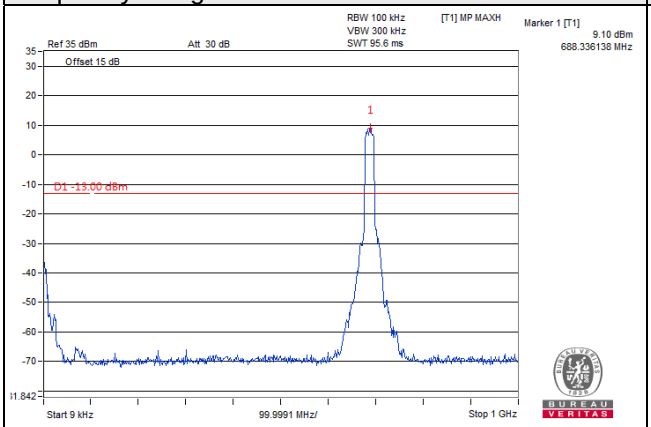
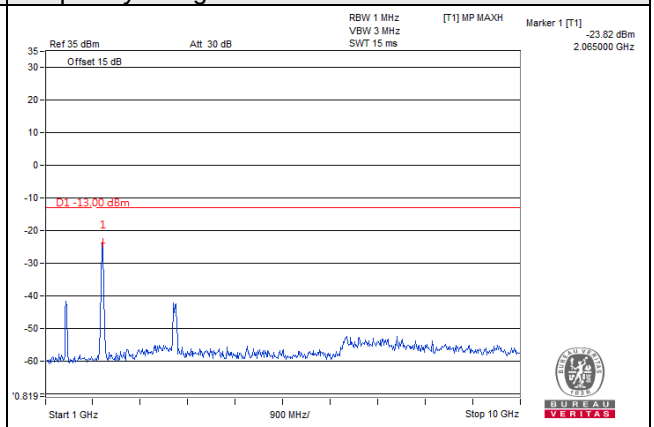
Channel Bandwidth: 15MHz	
Channel Channel 133197(670.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 15MHz	
Channel 133297(680.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 15MHz	
Channel 133397(690.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 20MHz	
Channel 133222(673.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 20MHz	
Channel 133297(680.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz	
	

Channel Bandwidth: 20MHz	
Channel 133327(688.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz
	
Frequency Range : 10GHz~26.5GHz