FCC Test Report

(PART 24)

Report No.:	RF180425C07A-1
FCC ID:	N7NHL78M
Test Model:	HL7800-M
Received Date:	Jun. 14, 2018
Test Date:	Jun. 29, 2018 ~ Jul. 05, 2018
Issued Date:	Jul. 18, 2018
Applicant:	Sierra Wireless Inc.
Address:	13811 Wireless Way, Richmond, BC, Canada V6V3A4
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)
Test Location:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
RF180425C07A-1	Original Release	Jul. 18, 2018

1 Certificate of Conformity

Product:	Embedded Module
Brand:	AirPrime
Test Model:	HL7800-M
Sample Status:	ENGINEERING SAMPLE
Applicant:	Sierra Wireless Inc.
Test Date:	Jun. 29, 2018 ~ Jul. 05, 2018
Standards:	FCC Part 24, Subpart E

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 :  , **Date:** Jul. 18, 2018

Gina Liu / Specialist

Approved by :  , **Date:** Jul. 18, 2018

Dylan Chiou / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	**Test Item**	**Result**	**Remarks**
2.1046 24.232	Effective Isotropic Radiated Power	Pass	Meet the requirement of limit.
2.1046 24.232(d)	Peak to Average Ratio	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	PASS	Meet the requirement
2.1055 24.235	Frequency Stability	Pass	Meet the requirement of limit.
2.1049 24.238(b)	Occupied Bandwidth	Pass	Meet the requirement of limit.
24.238(b)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 24.238	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -10.66 dB at 7402.80 MHz.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY51210203	Mar. 16, 2018	Mar. 15, 2019
Spectrum Analyzer Agilent	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
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 16, 2017	Aug. 15, 2019
Preamplifier EMCI	EMC 012645	980115	Oct. 20, 2017	Oct. 19, 2018
Preamplifier EMCI	EMC 184045	980116	Oct. 20, 2017	Oct. 19, 2018
Preamplifier EMCI	EMC 330H	980112	Oct. 13, 2017	Oct. 12, 2018
Power Meter Anritsu	ML2495A	1012010	Aug. 15, 2017	Aug. 14, 2018
Power Sensor Anritsu	MA2411B	1315050	Aug. 15, 2017	Aug. 14, 2018
RF Coaxial Cable HUBER+SUHNNER	EMC104-SM-SM-8000 &3000	140811+170717	Oct. 20, 2017	Oct. 19, 2018
RF Coaxial Cable HUBER+SUHNNER	SUCOFLEX 104	EMC104-SM-SM-10 00(140807)	Oct. 20, 2017	Oct. 19, 2018
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 20, 2017	Oct. 19, 2018
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA
DC Power Supply Topward	33010D	807748	Oct. 25, 2016	Oct. 24, 2018
STANDARD TEMPERATURE &HUMIDITY CHAMBER TERCHY	MHU-225AU	920842	Jun. 01, 2018	May 30, 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 HwaYa Chamber 10.
3. The horn antenna and preamplifier (model: EMC 184045) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The IC Site Registration No. is IC7450F-10.

3 General Information

3.1 General Description of EUT

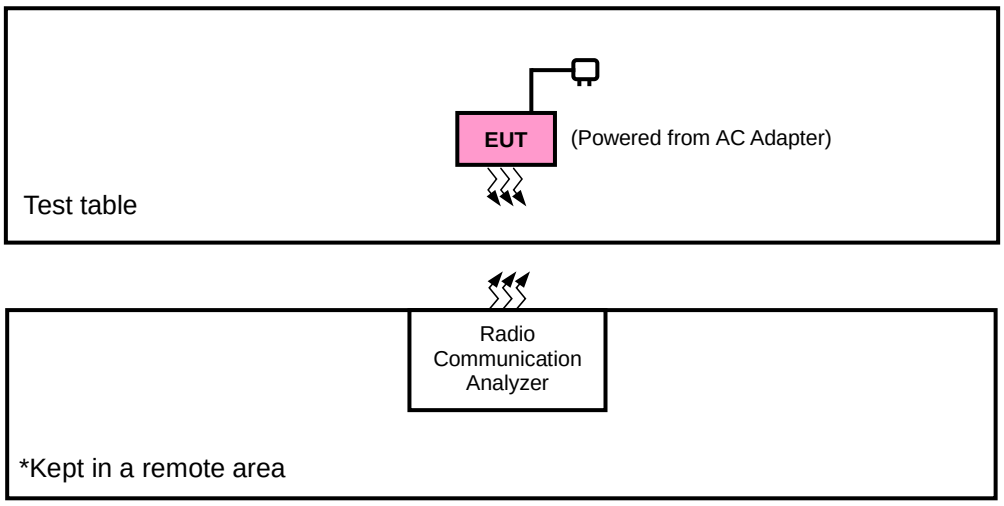
Product	Embedded Module	
Brand	AirPrime	
Test Model	HL7800-M	
Status of EUT	ENGINEERING SAMPLE	
Power Supply Rating	5.0 Vdc (host equipment) 12.0 Vdc (adapter)	
Modulation Type	LTE	QPSK, 16QAM
Frequency Range	LTE Band 2 (Channel Bandwidth: 1.4 MHz)	1850.7 ~ 1909.3 MHz
	LTE Band 2 (Channel Bandwidth: 3 MHz)	1851.5 ~ 1908.5 MHz
	LTE Band 2 (Channel Bandwidth: 5 MHz)	1852.5 ~ 1907.5 MHz
	LTE Band 2 (Channel Bandwidth: 10 MHz)	1855.0 ~ 1905.0 MHz
	LTE Band 2 (Channel Bandwidth: 15 MHz)	1857.5 ~ 1902.5 MHz
	LTE Band 2 (Channel Bandwidth: 20 MHz)	1860.0 ~ 1900.0 MHz
	LTE Band 25 (Channel Bandwidth: 1.4 MHz)	1850.7 ~ 1914.3 MHz
	LTE Band 25 (Channel Bandwidth: 3 MHz)	1851.5 ~ 1913.5 MHz
	LTE Band 25 (Channel Bandwidth: 5 MHz)	1852.5 ~ 1912.5 MHz
	LTE Band 25 (Channel Bandwidth: 10 MHz)	1855.0 ~ 1910.0 MHz
	LTE Band 25 (Channel Bandwidth: 15 MHz)	1857.5 ~ 1907.5 MHz
	LTE Band 25 (Channel Bandwidth: 20 MHz)	1860.0 ~ 1905.0 MHz
Max. EIRP Power	LTE Band 2 (Channel Bandwidth: 1.4 MHz)	308.32 mW
	LTE Band 2 (Channel Bandwidth: 3 MHz)	287.74 mW
	LTE Band 2 (Channel Bandwidth: 5 MHz)	266.07 mW
	LTE Band 2 (Channel Bandwidth: 10 MHz)	248.89 mW
	LTE Band 2 (Channel Bandwidth: 15 MHz)	231.74 mW
	LTE Band 2 (Channel Bandwidth: 20 MHz)	218.27 mW
	LTE Band 25 (Channel Bandwidth: 1.4 MHz)	315.50 mW
	LTE Band 25 (Channel Bandwidth: 3 MHz)	293.76 mW
	LTE Band 25 (Channel Bandwidth: 5 MHz)	275.42 mW
	LTE Band 25 (Channel Bandwidth: 10 MHz)	258.82 mW
	LTE Band 25 (Channel Bandwidth: 15 MHz)	243.22 mW
	LTE Band 25 (Channel Bandwidth: 20 MHz)	226.46 mW

Emission Designator	LTE Band 2 (Channel Bandwidth: 1.4 MHz)	1M09G7D
	LTE Band 2 (Channel Bandwidth: 3 MHz)	1M09G7D
	LTE Band 2 (Channel Bandwidth: 5 MHz)	1M08G7D
	LTE Band 2 (Channel Bandwidth: 10 MHz)	1M09G7D
	LTE Band 2 (Channel Bandwidth: 15 MHz)	1M09G7D
	LTE Band 2 (Channel Bandwidth: 20 MHz)	1M09G7D
	LTE Band 25 (Channel Bandwidth: 1.4 MHz)	1M09G7D
	LTE Band 25 (Channel Bandwidth: 3 MHz)	1M08G7D
	LTE Band 25 (Channel Bandwidth: 5 MHz)	1M09G7D
	LTE Band 25 (Channel Bandwidth: 10 MHz)	1M09G7D
	LTE Band 25 (Channel Bandwidth: 15 MHz)	1M09G7D
	LTE Band 25 (Channel Bandwidth: 20 MHz)	1M09W7D
Antenna Type	Dipole Antenna with 2 dBi gain	
Accessory Device	N/A	
Data Cable Supplied	N/A	

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

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.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Adapter	N/A	N/A	N/A	N/A
2.	Radio Communication Analyzer	Anritsu	MT8820C	6201300640	NA

No.	Signal Cable Description Of The Above Support Units
1.	N/A
2.	N/A

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item 1 was provided by client.
3. Item 2 acted as communication partners 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	EIRP	Radiated Emission
LTE Band 2	Z-plane	Z-axis
LTE Band 25	Z-plane	Z-axis

LTE Band 2

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18615 to 19185	18615, 18900, 19185	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18650 to 19150	18650, 18900, 19150	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18675 to 19125	18675, 18900, 19125	15 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Modulation characteristics	18625 to 19175	18900	5 MHz	QPSK, 16QAM	5 RB / 0 RB Offset
-	Frequency Stability	18607 to 19193	18607, 19193	1.4 MHz	QPSK	1 RB / 0 RB Offset
		18615 to 19185	18615, 19185	3 MHz	QPSK	1 RB / 0 RB Offset
		18625 to 19175	18625, 19175	5 MHz	QPSK	1 RB / 0 RB Offset
		18650 to 19150	18650, 19150	10 MHz	QPSK	1 RB / 0 RB Offset
		18675 to 19125	18675, 19125	15 MHz	QPSK	1 RB / 0 RB Offset
		18700 to 19100	18700, 19100	20 MHz	QPSK	1 RB / 0 RB Offset
-	Occupied Bandwidth	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK, 16QAM	6 RB / 0 RB Offset
		18615 to 19185	18615, 18900, 19185	3 MHz	QPSK, 16QAM	15 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		18650 to 19150	18650, 18900, 19150	10 MHz	QPSK, 16QAM	50 RB / 0 RB Offset
		18675 to 19125	18675, 18900, 19125	15 MHz	QPSK, 16QAM	75 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK, 16QAM	100 RB / 0 RB Offset
-	Peak to Average Ratio	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18615 to 19185	18615, 18900, 19185	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18650 to 19150	18650, 18900, 19150	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18675 to 19125	18675, 18900, 19125	15 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK, 16QAM	1 RB / 0 RB Offset

-	Band Edge	18607 to 19193	18607	1.4 MHz	QPSK	1 RB / 0 RB Offset
						6 RB / 0 RB Offset
			19193	1.4 MHz	QPSK	1 RB / 5 RB Offset
						6 RB / 0 RB Offset
		18615 to 19185	18615	3 MHz	QPSK	1 RB / 0 RB Offset
						15 RB / 0 RB Offset
			19185	3 MHz	QPSK	1 RB / 14 RB Offset
						15 RB / 0 RB Offset
		18625 to 19175	18625	5 MHz	QPSK	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			19175	5 MHz	QPSK	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		18650 to 19150	18650	10 MHz	QPSK	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			19150	10 MHz	QPSK	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		18675 to 19125	18675	15 MHz	QPSK	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			19125	15 MHz	QPSK	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		18700 to 19100	18700	20 MHz	QPSK	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			19100	20 MHz	QPSK	1 RB / 99 RB Offset
						100 RB / 0 RB Offset
-	Conducted Emission	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK	1 RB / 0 RB Offset
		18615 to 19185	18615, 18900, 19185	3 MHz	QPSK	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK	1 RB / 0 RB Offset
		18650 to 19150	18650, 18900, 19150	10 MHz	QPSK	1 RB / 0 RB Offset
		18675 to 19125	18675, 18900, 19125	15 MHz	QPSK	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK	1 RB / 0 RB Offset

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

LTE Band 25

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	26047 to 26683	26047, 26365, 26683	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26055 to 26675	26055, 26365, 26675	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26065 to 26665	26065, 26365, 26665	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26090 to 26640	26090, 26365, 26640	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26115 to 26615	26115, 26365, 26615	15 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Modulation characteristics	26065 to 26665	26365	5 MHz	QPSK, 16QAM	5 RB / 0 RB Offset
-	Frequency Stability	26047 to 26683	26047, 26683	1.4 MHz	QPSK	1 RB / 0 RB Offset
		26055 to 26675	26055, 26675	3 MHz	QPSK	1 RB / 0 RB Offset
		26065 to 26665	26065, 26665	5 MHz	QPSK	1 RB / 0 RB Offset
		26090 to 26640	26090, 26640	10 MHz	QPSK	1 RB / 0 RB Offset
		26115 to 26615	26115, 26615	15 MHz	QPSK	1 RB / 0 RB Offset
		26140 to 26590	26140, 26590	20 MHz	QPSK	1 RB / 0 RB Offset
-	Occupied Bandwidth	26047 to 26683	26047, 26365, 26683	1.4 MHz	QPSK, 16QAM	6 RB / 0 RB Offset
		26055 to 26675	26055, 26365, 26675	3 MHz	QPSK, 16QAM	15 RB / 0 RB Offset
		26065 to 26665	26065, 26365, 26665	5 MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		26090 to 26640	26090, 26365, 26640	10 MHz	QPSK, 16QAM	50 RB / 0 RB Offset
		26115 to 26615	26115, 26365, 26615	15 MHz	QPSK, 16QAM	75 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20 MHz	QPSK, 16QAM	100 RB / 0 RB Offset
-	Peak to Average Ratio	26047 to 26683	26047, 26365, 26683	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26055 to 26675	26055, 26365, 26675	3 MHz	QPSK, 16QAM	1 RB / 7 RB Offset
		26065 to 26665	26065, 26365, 26665	5 MHz	QPSK, 16QAM	1 RB / 12 RB Offset
		26090 to 26640	26090, 26365, 26640	10 MHz	QPSK, 16QAM	1 RB / 24 RB Offset
		26115 to 26615	26115, 26365, 26615	15 MHz	QPSK, 16QAM	75 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20 MHz	QPSK, 16QAM	100 RB / 0 RB Offset
-	Band Edge	26047 to 26683	26047	1.4 MHz	QPSK	1 RB / 0 RB Offset
						6 RB / 0 RB Offset
			26683	1.4 MHz	QPSK	1 RB / 5 RB Offset
						6 RB / 0 RB Offset
		26055 to 26675	26055	3 MHz	QPSK	1 RB / 0 RB Offset
						1 RB / 0 RB Offset
			26675	3 MHz	QPSK	1 RB / 14 RB Offset
						15 RB / 0 RB Offset
		26065 to 26665	26065	5 MHz	QPSK	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			26665	5 MHz	QPSK	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		26090 to 26640	26090	10 MHz	QPSK	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			26640	10 MHz	QPSK	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		26115 to 26615	26115	15 MHz	QPSK	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			26615	15 MHz	QPSK	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		26140 to 26590	26140	20 MHz	QPSK	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			26590	20 MHz	QPSK	1 RB / 99 RB Offset
						100 RB / 0 RB Offset

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Conducted Emission	26047 to 26683	26047, 26365, 26683	1.4 MHz	QPSK	1 RB / 5 RB Offset
		26055 to 26675	26055, 26365, 26675	3 MHz	QPSK	1 RB / 7 RB Offset
		26065 to 26665	26065, 26365, 26665	5 MHz	QPSK	1 RB / 12 RB Offset
		26090 to 26640	26090, 26365, 26640	10 MHz	QPSK	1 RB / 24 RB Offset
		26115 to 26615	26115, 26365, 26615	15 MHz	QPSK	1 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK	1 RB / 0 RB Offset

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

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	26 deg. C, 58 % RH	12 Vdc	Thomas Wei
Modulation characteristics	26 deg. C, 58 % RH	12 Vdc	Getaz Yang
Frequency Stability	26 deg. C, 58 % RH	12 Vdc	Getaz Yang
Occupied Bandwidth	26 deg. C, 58 % RH	12 Vdc	Getaz Yang
Band Edge	26 deg. C, 58 % RH	12 Vdc	Getaz Yang
Peak to Average Ratio	26 deg. C, 58 % RH	12 Vdc	Getaz Yang
Conducted Emission	26 deg. C, 58 % RH	12 Vdc	Getaz Yang
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Thomas Wei

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 24
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 2 watts e.i.r.p.

4.1.2 Test Procedures

EIRP / ERP Measurement:

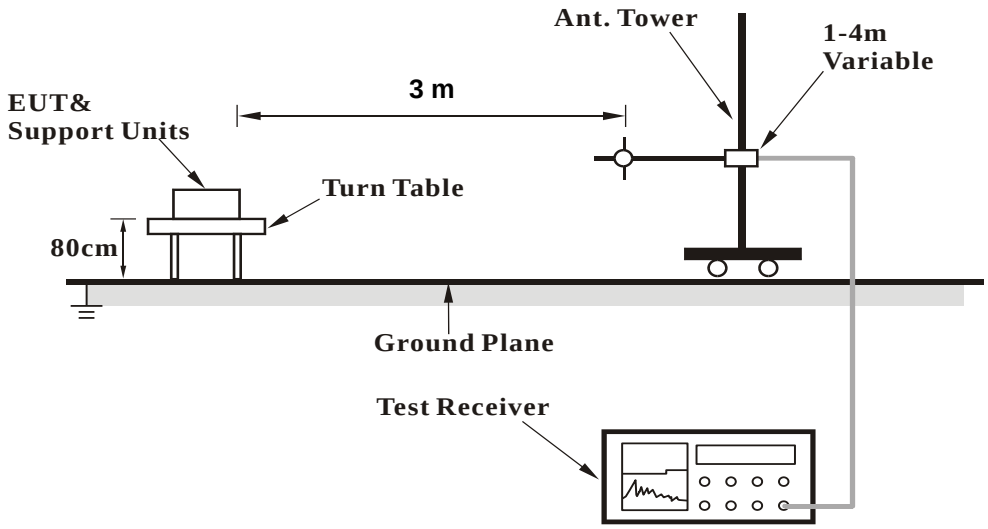
a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1 MHz for GSM, GPRS & EDGE, 5 MHz for WCDMA and CDMA, and 10 MHz for LTE mode.
b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) 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 1 m to 4 m 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 - 2.15 dB.

Conducted Power Measurement:

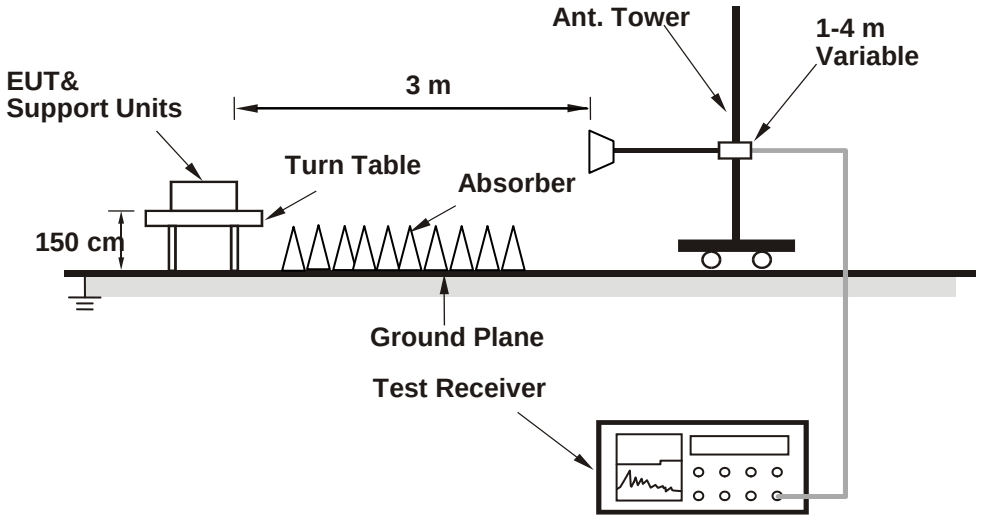
The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA, CDMA, and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

4.1.3 Test Setup

EIRP / ERP Measurement:
<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

Conducted Power Measurement:

4.1.4 Test Results

Conducted Output Power (dBm)

LTE Band 2

BW(MHz):	1.4

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	18607	1850.7	607	1930.7	QPSK	1	0	0	-85	23.88
					QPSK	1	5	0	-85	23.45
					QPSK	3	3	0	-85	21.99
					QPSK	6	0	0	-85	21.04
					16QAM	1	0	0	-85	21.51
					16QAM	1	5	0	-85	21.59
					16QAM	3	0	0	-85	20.73
					16QAM	5	0	0	-85	20.47
Mid Range	18900	1880	900	1960	QPSK	1	0	0	-85	24.17
					QPSK	1	5	0	-85	23.89
					QPSK	3	3	0	-85	22.25
					QPSK	6	0	0	-85	21.42
					16QAM	1	0	0	-85	21.72
					16QAM	1	5	0	-85	21.91
					16QAM	3	0	0	-85	21.1
					16QAM	5	0	0	-85	20.71
High Range	19193	1909.3	1193	1989.3	QPSK	1	0	0	-85	24.15
					QPSK	1	5	0	-85	23.82
					QPSK	3	3	0	-85	22.18
					QPSK	6	0	0	-85	21.27
					16QAM	1	0	0	-85	21.75
					16QAM	1	5	0	-85	21.84
					16QAM	3	0	0	-85	20.98
					16QAM	5	0	0	-85	20.64

BW(MHz):	3

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	18615	1851.5	615	1931.5	QPSK	1	0	0	-85	22.67
					QPSK	1	5	0	-85	22.71
					QPSK	1	0	1	-85	22.74
					QPSK	1	5	1	-85	22.78
					QPSK	3	3	0	-85	21.82
					QPSK	3	3	1	-85	21.85
					QPSK	6	0	0	-85	20.93
					QPSK	6	0	1	-85	20.94
					16QAM	1	0	0	-85	21.02
					16QAM	1	5	0	-85	20.98
					16QAM	1	0	1	-85	20.99
					16QAM	1	5	1	-85	21.03
					16QAM	3	0	0	-85	20.54
					16QAM	3	3	1	-85	20.8
					16QAM	5	0	0	-85	20.32
					16QAM	5	0	1	-85	20.46

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Mid Range	18900	1880	900	1960	QPSK	1	0	0	-85	22.93
					QPSK	1	5	0	-85	22.87
					QPSK	1	0	1	-85	22.82
					QPSK	1	5	1	-85	23.04
					QPSK	3	3	0	-85	21.95
					QPSK	3	3	1	-85	21.97
					QPSK	6	0	0	-85	21.1
					QPSK	6	0	1	-85	20.97
					16QAM	1	0	0	-85	21.13
					16QAM	1	5	0	-85	21.17
					16QAM	1	0	1	-85	21.52
					16QAM	1	5	1	-85	21.37
					16QAM	3	0	0	-85	20.72
					16QAM	3	3	1	-85	21.11
					16QAM	5	0	0	-85	20.45
					16QAM	5	0	1	-85	20.97
High Range	19185	1908.5	1185	1988.5	QPSK	1	0	0	-85	22.77
					QPSK	1	5	0	-85	22.73
					QPSK	1	0	1	-85	22.63
					QPSK	1	5	1	-85	22.75
					QPSK	3	3	0	-85	21.87
					QPSK	3	3	1	-85	21.97
					QPSK	6	0	0	-85	21.03
					QPSK	6	0	1	-85	20.81
					16QAM	1	0	0	-85	21.78
					16QAM	1	5	0	-85	21.39
					16QAM	1	0	1	-85	21.82
					16QAM	1	5	1	-85	21.34
					16QAM	3	0	0	-85	20.97
					16QAM	3	3	1	-85	20.87
					16QAM	5	0	0	-85	20.88
					16QAM	5	0	1	-85	20.85

BW(MHz):	5									
Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	18625	1852.5	625	1932.5	QPSK	1	0	0	-85	22.51
					QPSK	1	5	0	-85	22.56
					QPSK	1	0	1	-85	22.59
					QPSK	1	5	1	-85	22.65
					QPSK	1	0	3	-85	22.62
					QPSK	1	5	3	-85	22.68
					QPSK	3	0	0	-85	21.81
					QPSK	3	3	3	-85	21.76
					QPSK	6	0	0	-85	21.84
					QPSK	6	0	1	-85	21.89
					QPSK	6	0	3	-85	21.92
					16QAM	1	0	0	-85	21.95
					16QAM	1	5	0	-85	21.97
					16QAM	1	0	1	-85	21.98
					16QAM	1	5	1	-85	21.99
					16QAM	1	0	3	-85	21.97
					16QAM	1	5	3	-85	21.99
					16QAM	3	0	0	-85	21.49
					16QAM	3	3	3	-85	21.74
					16QAM	5	0	0	-85	20.32
					16QAM	5	0	1	-85	20.3
					16QAM	5	0	3	-85	20.41
Mid Range	18900	1880	900	1960	QPSK	1	0	0	-85	22.78
					QPSK	1	5	0	-85	22.78
					QPSK	1	0	1	-85	22.73
					QPSK	1	5	1	-85	22.79
					QPSK	1	0	3	-85	22.83
					QPSK	1	5	3	-85	22.86
					QPSK	3	0	0	-85	21.99
					QPSK	3	3	3	-85	21.93
					QPSK	6	0	0	-85	21.99
					QPSK	6	0	1	-85	21.98
					QPSK	6	0	3	-85	22.14
					16QAM	1	0	0	-85	22.17
					16QAM	1	5	0	-85	22.13
					16QAM	1	0	1	-85	22.21
					16QAM	1	5	1	-85	22.13
					16QAM	1	0	3	-85	22.17
					16QAM	1	5	3	-85	22.22
					16QAM	3	0	0	-85	21.61
					16QAM	3	3	3	-85	21.81
					16QAM	5	0	0	-85	20.47
					16QAM	5	0	1	-85	20.36
					16QAM	5	0	3	-85	20.64

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
High Range	19175	1907.5	1175	1987.5	QPSK	1	0	0	-85	22.69
					QPSK	1	5	0	-85	22.72
					QPSK	1	0	1	-85	22.83
					QPSK	1	5	1	-85	22.91
					QPSK	1	0	3	-85	22.71
					QPSK	1	5	3	-85	22.74
					QPSK	3	0	0	-85	22
					QPSK	3	3	3	-85	22.79
					QPSK	6	0	0	-85	21.94
					QPSK	6	0	1	-85	22.02
					QPSK	6	0	3	-85	21.99
					16QAM	1	0	0	-85	22.02
					16QAM	1	5	0	-85	22.03
					16QAM	1	0	1	-85	22.07
					16QAM	1	5	1	-85	22.04
					16QAM	1	0	3	-85	22.07
					16QAM	1	5	3	-85	22.04
					16QAM	3	0	0	-85	21.54
					16QAM	3	3	3	-85	21.59
					16QAM	5	0	0	-85	20.41
					16QAM	5	0	1	-85	20.58
					16QAM	5	0	3	-85	20.42

BW(MHz):	10

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	18650	1855	650	1935	QPSK	1	0	0	-85	22.66
					QPSK	1	5	0	-85	22.55
					QPSK	1	0	3	-85	22.87
					QPSK	1	5	3	-85	22.76
					QPSK	1	0	7	-85	22.78
					QPSK	1	5	7	-85	22.81
					QPSK	4	0	0	-85	22.67
					QPSK	4	2	7	-85	22.89
					QPSK	6	0	0	-85	21.77
					QPSK	6	0	7	-85	21.91
					16QAM	1	0	0	-85	22.04
					16QAM	1	5	0	-85	22.57
					16QAM	1	0	3	-85	22.67
					16QAM	1	5	3	-85	22.73
					16QAM	1	0	7	-85	22.95
					16QAM	1	5	7	-85	22.14
					16QAM	4	2	0	-85	21.97
					16QAM	4	2	7	-85	21.97
					16QAM	5	0	0	-85	21.61
					16QAM	5	0	7	-85	21.66

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Mid Range	18900	1880	900	1960	QPSK	1	0	0	-85	22.72
					QPSK	1	5	0	-85	22.71
					QPSK	1	0	3	-85	22.74
					QPSK	1	5	3	-85	22.67
					QPSK	1	0	7	-85	22.74
					QPSK	1	5	7	-85	22.72
					QPSK	4	0	0	-85	22.82
					QPSK	4	2	7	-85	22.93
					QPSK	6	0	0	-85	21.87
					QPSK	6	0	7	-85	21.89
					16QAM	1	0	0	-85	22.99
					16QAM	1	5	0	-85	22.15
					16QAM	1	0	3	-85	22.01
					16QAM	1	5	3	-85	21.85
					16QAM	1	0	7	-85	22.45
					16QAM	1	5	7	-85	22.64
					16QAM	4	2	0	-85	21.97
					16QAM	4	2	7	-85	21.99
					16QAM	5	0	0	-85	21.64
					16QAM	5	0	7	-85	21.87
High Range	19150	1905	1150	1985	QPSK	1	0	0	-85	23.02
					QPSK	1	5	0	-85	22.95
					QPSK	1	5	7	-85	22.64
					QPSK	1	0	3	-85	22.98
					QPSK	1	5	3	-85	22.95
					QPSK	1	0	7	-85	22.87
					QPSK	4	0	0	-85	23.01
					QPSK	4	2	7	-85	22.96
					QPSK	6	0	0	-85	22.02
					QPSK	6	0	7	-85	21.89
					16QAM	1	0	0	-85	23.11
					16QAM	1	5	0	-85	22.97
					16QAM	1	0	3	-85	22.91
					16QAM	1	5	3	-85	22.99
					16QAM	1	0	7	-85	22.77
					16QAM	1	5	7	-85	22.56
					16QAM	4	2	0	-85	22.03
					16QAM	4	2	7	-85	22.21
					16QAM	5	0	0	-85	21.77
					16QAM	5	0	7	-85	21.79

BW(MHz):	15

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	18675	1857.5	675	1937.5	QPSK	1	0	0	-85	22.67
					QPSK	1	5	0	-85	22.71
					QPSK	1	0	5	-85	22.66
					QPSK	1	5	5	-85	22.75
					QPSK	1	0	11	-85	22.81
					QPSK	1	5	11	-85	22.85
					QPSK	3	0	0	-85	22.91
					QPSK	3	3	11	-85	22.92
					QPSK	6	0	0	-85	22.74
					QPSK	6	0	11	-85	22.89
					16QAM	1	0	0	-85	22.97
					16QAM	1	5	0	-85	22.74
					16QAM	1	0	5	-85	22.87
					16QAM	1	5	5	-85	22.41
					16QAM	1	0	11	-85	22.81
					16QAM	1	5	11	-85	22.71
					16QAM	3	0	0	-85	22.69
					16QAM	3	3	11	-85	23.01
					16QAM	5	0	0	-85	22.68
					16QAM	5	0	11	-85	22.76
Mid Range	18900	1880	900	1960	QPSK	1	0	0	-85	22.91
					QPSK	1	5	0	-85	22.88
					QPSK	1	0	5	-85	22.77
					QPSK	1	5	5	-85	22.89
					QPSK	1	0	11	-85	22.78
					QPSK	1	5	11	-85	22.84
					QPSK	3	0	0	-85	22.91
					QPSK	3	3	11	-85	23.02
					QPSK	6	0	0	-85	22.95
					QPSK	6	0	11	-85	22.93
					16QAM	1	0	0	-85	23.08
					16QAM	1	5	0	-85	23.04
					16QAM	1	0	5	-85	22.64
					16QAM	1	5	5	-85	22.75
					16QAM	1	0	11	-85	22.87
					16QAM	1	5	11	-85	22.67
					16QAM	3	0	0	-85	22.84
					16QAM	3	3	11	-85	22.78
					16QAM	5	0	0	-85	22.68
					16QAM	5	0	11	-85	22.92

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
High Range	19125	1902.5	1125	1982.5	QPSK	1	0	0	-85	23.01
					QPSK	1	5	11	-85	22.88
					QPSK	1	0	5	-85	23.02
					QPSK	1	5	5	-85	22.87
					QPSK	1	0	11	-85	22.91
					QPSK	1	5	11	-85	22.87
					QPSK	3	0	0	-85	22.87
					QPSK	3	3	11	-85	23.01
					QPSK	6	0	0	-85	23.03
					QPSK	6	0	11	-85	23.02
					16QAM	1	0	0	-85	23.18
					16QAM	1	5	0	-85	22.64
					16QAM	1	0	5	-85	23.04
					16QAM	1	5	5	-85	22.88
					16QAM	1	0	11	-85	22.08
					16QAM	1	5	11	-85	22.59
					16QAM	3	0	0	-85	22.98
					16QAM	3	3	11	-85	22.61
					16QAM	5	0	0	-85	22.94
					16QAM	5	0	11	-85	22.86

BW(MHz):	20

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	18700	1860	700	1940	QPSK	1	0	0	-85	22.79
					QPSK	1	5	0	-85	22.83
					QPSK	1	0	7	-85	22.51
					QPSK	1	5	7	-85	22.63
					QPSK	1	0	15	-85	22.86
					QPSK	1	5	15	-85	22.92
					QPSK	3	0	0	-85	22.67
					QPSK	3	3	15	-85	22.74
					QPSK	6	0	0	-85	22.74
					QPSK	6	0	15	-85	22.91
					16QAM	1	0	0	-85	22.47
					16QAM	1	5	0	-85	22.47
					16QAM	1	0	7	-85	22.55
					16QAM	1	5	7	-85	22.83
					16QAM	1	0	15	-85	22.39
					16QAM	1	5	15	-85	22.46
					16QAM	3	0	0	-85	22.81
					16QAM	3	3	15	-85	22.87
					16QAM	5	0	0	-85	22.62
					16QAM	5	0	15	-85	22.81

Mid Range	18900	1880	900	1960	QPSK	1	0	0	-85	22.88
					QPSK	1	5	0	-85	22.86
					QPSK	1	0	7	-85	22.89
					QPSK	1	5	7	-85	22.87
					QPSK	1	0	15	-85	22.73
					QPSK	1	5	15	-85	23.02
					QPSK	3	0	0	-85	22.93
					QPSK	3	3	15	-85	22.96
					QPSK	6	0	0	-85	22.87
					QPSK	6	0	15	-85	23.02
					16QAM	1	0	0	-85	22.97
					16QAM	1	5	0	-85	22.77
					16QAM	1	0	7	-85	22.57
					16QAM	1	5	7	-85	22.86
					16QAM	1	0	15	-85	22.76
					16QAM	1	5	15	-85	22.85
					16QAM	3	0	0	-85	22.86
					16QAM	3	3	15	-85	22.74
					16QAM	5	0	0	-85	22.76
					16QAM	5	0	15	-85	22.93
High Range	19100	1900	1100	1980	QPSK	1	0	0	-85	22.88
					QPSK	1	5	0	-85	22.97
					QPSK	1	0	7	-85	23.02
					QPSK	1	5	7	-85	22.99
					QPSK	1	0	15	-85	22.96
					QPSK	1	5	15	-85	22.96
					QPSK	3	0	0	-85	22.88
					QPSK	3	3	15	-85	22.98
					QPSK	6	0	0	-85	23.02
					QPSK	6	0	15	-85	23.03
					16QAM	1	0	0	-85	23.14
					16QAM	1	5	0	-85	23.01
					16QAM	1	0	7	-85	22.96
					16QAM	1	5	7	-85	22.99
					16QAM	1	0	15	-85	22.71
					16QAM	1	5	15	-85	22.71
					16QAM	3	0	0	-85	22.99
					16QAM	3	3	15	-85	22.97
					16QAM	5	0	0	-85	22.91
					16QAM	5	0	15	-85	22.96

LTE Band 25

BW(MHz):	1.4

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	26047	1850.7	8047	1930.7	QPSK	1	0	0	-85	24.37
					QPSK	1	5	0	-85	23.95
					QPSK	3	3	0	-85	22.41
					QPSK	6	0	0	-85	21.49
					16QAM	1	0	0	-85	21.88
					16QAM	1	5	0	-85	22.01
					16QAM	3	0	0	-85	21.19
					16QAM	5	0	0	-85	20.78
Mid Range	26365	1882.5	8365	1962.5	QPSK	1	0	0	-85	24.51
					QPSK	1	5	0	-85	24.13
					QPSK	3	3	0	-85	22.57
					QPSK	6	0	0	-85	21.73
					16QAM	1	0	0	-85	22.12
					16QAM	1	5	0	-85	22.18
					16QAM	3	0	0	-85	21.39
					16QAM	5	0	0	-85	21.04
High Range	26683	1914.3	8683	1994.3	QPSK	1	0	0	-85	24.31
					QPSK	1	5	0	-85	23.87
					QPSK	3	3	0	-85	22.42
					QPSK	6	0	0	-85	21.58
					16QAM	1	0	0	-85	21.94
					16QAM	1	5	0	-85	22.04
					16QAM	3	0	0	-85	21.18
					16QAM	5	0	0	-85	20.78

BW(MHz):	3

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	26055	1851.5	8055	1931.5	QPSK	1	0	0	-85	23.04
					QPSK	1	5	0	-85	23.03
					QPSK	1	0	1	-85	22.96
					QPSK	1	5	1	-85	23
					QPSK	3	3	0	-85	22.18
					QPSK	3	3	1	-85	22.11
					QPSK	6	0	0	-85	21.24
					QPSK	6	0	1	-85	21.23
					16QAM	1	0	0	-85	21.32
					16QAM	1	5	0	-85	21.36
					16QAM	1	0	1	-85	21.37
					16QAM	1	5	1	-85	21.32
					16QAM	3	0	0	-85	20.97
					16QAM	3	3	1	-85	21.07
					16QAM	5	0	0	-85	20.76
					16QAM	5	0	1	-85	20.65

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Mid Range	26365	1882.5	8365	1962.5	QPSK	1	0	0	-85	23.28
					QPSK	1	5	0	-85	23.26
					QPSK	1	0	1	-85	22.98
					QPSK	1	5	1	-85	23.01
					QPSK	3	3	0	-85	22.36
					QPSK	3	3	1	-85	22.14
					QPSK	6	0	0	-85	21.49
					QPSK	6	0	1	-85	21.24
					16QAM	1	0	0	-85	21.54
					16QAM	1	5	0	-85	21.52
					16QAM	1	0	1	-85	21.33
					16QAM	1	5	1	-85	21.29
					16QAM	3	0	0	-85	21.06
					16QAM	3	3	1	-85	21.05
					16QAM	5	0	0	-85	20.82
					16QAM	5	0	1	-85	20.63
High Range	26675	1913.5	8675	1993.5	QPSK	1	0	0	-85	23.12
					QPSK	1	5	0	-85	23.12
					QPSK	1	0	1	-85	23.11
					QPSK	1	5	1	-85	23.09
					QPSK	3	3	0	-85	22.24
					QPSK	3	3	1	-85	22.21
					QPSK	6	0	0	-85	21.37
					QPSK	6	0	1	-85	21.42
					16QAM	1	0	0	-85	21.36
					16QAM	1	5	0	-85	21.42
					16QAM	1	0	1	-85	21.33
					16QAM	1	5	1	-85	21.24
					16QAM	3	0	0	-85	20.88
					16QAM	3	3	1	-85	20.94
					16QAM	5	0	0	-85	20.64
					16QAM	5	0	1	-85	20.55

BW(MHz):	5

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	26065	1852.5	8065	1932.5	QPSK	1	0	0	-85	23.04
					QPSK	1	5	0	-85	23.07
					QPSK	1	0	1	-85	23.09
					QPSK	1	5	1	-85	23.13
					QPSK	1	0	3	-85	23.11
					QPSK	1	5	3	-85	23.12
					QPSK	3	0	0	-85	22.04
					QPSK	3	3	3	-85	22.26
					QPSK	6	0	0	-85	22.15
					QPSK	6	0	1	-85	22.28
					QPSK	6	0	3	-85	22.31
					16QAM	1	0	0	-85	23.16
					16QAM	1	5	0	-85	23.17
					16QAM	1	0	1	-85	22.75
					16QAM	1	5	1	-85	23.07
					16QAM	1	0	3	-85	22.85
					16QAM	1	5	3	-85	22.72
					16QAM	3	0	0	-85	22.12
					16QAM	3	3	3	-85	22.21
					16QAM	5	0	0	-85	20.91
					16QAM	5	0	1	-85	21.05
					16QAM	5	0	3	-85	20.97
Mid Range	26365	1882.5	8365	1962.5	QPSK	1	0	0	-85	23.21
					QPSK	1	5	0	-85	23.14
					QPSK	1	0	1	-85	23.11
					QPSK	1	5	1	-85	23.14
					QPSK	1	0	3	-85	23.16
					QPSK	1	5	3	-85	23.09
					QPSK	3	0	0	-85	23.01
					QPSK	3	3	3	-85	22.27
					QPSK	6	0	0	-85	22.47
					QPSK	6	0	1	-85	22.25
					QPSK	6	0	3	-85	22.36
					16QAM	1	0	0	-85	23.07
					16QAM	1	5	0	-85	23.08
					16QAM	1	0	1	-85	22.77
					16QAM	1	5	1	-85	22.81
					16QAM	1	0	3	-85	22.89
					16QAM	1	5	3	-85	22.78
					16QAM	3	0	0	-85	22.21
					16QAM	3	3	3	-85	22.18
					16QAM	6	0	0	-85	21.25
					16QAM	6	0	1	-85	21.07
					16QAM	6	0	3	-85	20.99

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
High Range	26665	1912.5	8665	1992.5	QPSK	1	0	0	-85	23.01
					QPSK	1	5	0	-85	23.07
					QPSK	1	0	1	-85	23.02
					QPSK	1	5	1	-85	23.07
					QPSK	1	0	3	-85	23.11
					QPSK	1	5	3	-85	23.05
					QPSK	3	0	0	-85	22.06
					QPSK	3	3	3	-85	22.19
					QPSK	6	0	0	-85	22.17
					QPSK	6	0	1	-85	22.33
					QPSK	6	0	3	-85	22.18
					16QAM	1	0	0	-85	22.81
					16QAM	1	5	0	-85	22.97
					16QAM	1	0	1	-85	22.65
					16QAM	1	5	1	-85	22.79
					16QAM	1	0	3	-85	22.81
					16QAM	1	5	3	-85	22.67
					16QAM	3	0	0	-85	22.16
					16QAM	3	3	3	-85	22.14
					16QAM	5	0	0	-85	20.96
					16QAM	5	0	1	-85	20.95
					16QAM	5	0	3	-85	20.93

BW(MHz):	10

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	26090	1855	8090	1935	QPSK	1	0	0	-85	23.14
					QPSK	1	5	0	-85	23.08
					QPSK	1	0	3	-85	23.17
					QPSK	1	5	3	-85	23.19
					QPSK	1	0	7	-85	23.14
					QPSK	1	5	7	-85	23.02
					QPSK	4	0	0	-85	23.02
					QPSK	4	2	7	-85	23.31
					QPSK	6	0	0	-85	22.23
					QPSK	6	0	7	-85	22.41
					16QAM	1	0	0	-85	23.11
					16QAM	1	5	0	-85	23.26
					16QAM	1	0	3	-85	22.92
					16QAM	1	5	3	-85	22.91
					16QAM	1	0	7	-85	22.95
					16QAM	1	5	7	-85	22.96
					16QAM	4	2	0	-85	22.18
					16QAM	4	2	7	-85	22.75
					16QAM	5	0	0	-85	21.88
					16QAM	5	0	7	-85	22.02

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Mid Range	26365	1882.5	8365	1962.5	QPSK	1	0	0	-85	23.31
					QPSK	1	5	0	-85	23.14
					QPSK	1	0	3	-85	23.11
					QPSK	1	5	3	-85	23.21
					QPSK	1	0	7	-85	23.19
					QPSK	1	5	7	-85	23.08
					QPSK	4	0	0	-85	23.26
					QPSK	4	2	7	-85	23.38
					QPSK	6	0	0	-85	22.23
					QPSK	6	0	7	-85	22.44
					16QAM	1	0	0	-85	23.17
					16QAM	1	5	0	-85	23.07
					16QAM	1	0	3	-85	22.91
					16QAM	1	5	3	-85	22.89
					16QAM	1	0	7	-85	22.87
					16QAM	1	5	7	-85	22.91
					16QAM	4	2	0	-85	22.58
					16QAM	4	2	7	-85	22.67
					16QAM	5	0	0	-85	22.13
					16QAM	5	0	7	-85	21.99
High Range	26640	1910	8640	1990	QPSK	1	0	0	-85	23.21
					QPSK	1	5	0	-85	23.35
					QPSK	1	5	7	-85	23.22
					QPSK	1	0	3	-85	23.09
					QPSK	1	5	3	-85	23.23
					QPSK	1	0	7	-85	23.24
					QPSK	4	0	0	-85	23.16
					QPSK	4	2	7	-85	23.35
					QPSK	6	0	0	-85	22.51
					QPSK	6	0	7	-85	22.41
					16QAM	1	0	0	-85	23.04
					16QAM	1	5	0	-85	23.16
					16QAM	1	0	3	-85	22.98
					16QAM	1	5	3	-85	22.89
					16QAM	1	0	7	-85	22.85
					16QAM	1	5	7	-85	22.94
					16QAM	4	2	0	-85	22.97
					16QAM	4	2	7	-85	22.65
					16QAM	6	0	0	-85	22.18
					16QAM	6	0	7	-85	21.94

BW(MHz):	15

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	26115	1857.5	8115	1937.5	QPSK	1	0	0	-85	22.82
					QPSK	1	5	0	-85	22.97
					QPSK	1	0	5	-85	22.94
					QPSK	1	5	5	-85	22.93
					QPSK	1	0	11	-85	22.96
					QPSK	1	5	11	-85	22.91
					QPSK	3	0	0	-85	23.04
					QPSK	3	3	11	-85	22.77
					QPSK	6	0	0	-85	22.95
					QPSK	6	0	11	-85	22.85
					16QAM	1	0	0	-85	23.02
					16QAM	1	5	0	-85	23.01
					16QAM	1	0	5	-85	23.04
					16QAM	1	5	5	-85	23.02
					16QAM	1	0	11	-85	23.01
					16QAM	1	5	11	-85	23.02
					16QAM	3	0	0	-85	22.97
					16QAM	3	3	11	-85	22.87
					16QAM	5	0	0	-85	22.87
					16QAM	5	0	11	-85	22.63
Mid Range	26365	1882.5	8365	1962.5	QPSK	1	0	0	-85	23.04
					QPSK	1	5	0	-85	23.02
					QPSK	1	0	5	-85	23.05
					QPSK	1	5	5	-85	23.07
					QPSK	1	0	11	-85	23.13
					QPSK	1	5	11	-85	23.07
					QPSK	3	0	0	-85	23.18
					QPSK	3	3	11	-85	23.02
					QPSK	6	0	0	-85	23.04
					QPSK	6	0	11	-85	23.07
					16QAM	1	0	0	-85	23.01
					16QAM	1	5	0	-85	23.07
					16QAM	1	0	5	-85	23.14
					16QAM	1	5	5	-85	23.13
					16QAM	1	0	11	-85	23.04
					16QAM	1	5	11	-85	23.04
					16QAM	3	0	0	-85	23.12
					16QAM	3	3	11	-85	23.03
					16QAM	5	0	0	-85	23.04
					16QAM	5	0	11	-85	22.88

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
High Range	26615	1907.5	8615	1987.5	QPSK	1	0	0	-85	23.17
					QPSK	1	5	11	-85	22.97
					QPSK	1	0	5	-85	23.13
					QPSK	1	5	5	-85	23.02
					QPSK	1	0	11	-85	23.01
					QPSK	3	0	0	-85	23.18
					QPSK	3	3	11	-85	22.96
					QPSK	6	0	0	-85	23.06
					QPSK	6	0	11	-85	23.27
					16QAM	1	0	0	-85	23.12
					16QAM	1	5	0	-85	23.17
					16QAM	1	0	5	-85	23.08
					16QAM	1	5	5	-85	23.16
					16QAM	1	0	11	-85	23.08
					16QAM	1	5	11	-85	23.05
					16QAM	3	0	0	-85	23.13
					16QAM	3	3	11	-85	22.99
					16QAM	5	0	0	-85	23.07
					16QAM	5	0	11	-85	23.02

BW(MHz):	20

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Low Range	26140	1860	8140	1940	QPSK	1	0	0	-85	22.95
					QPSK	1	5	0	-85	22.98
					QPSK	1	0	7	-85	23.01
					QPSK	1	5	7	-85	23.02
					QPSK	1	0	15	-85	23.07
					QPSK	1	5	15	-85	23.01
					QPSK	3	0	0	-85	23.02
					QPSK	3	3	15	-85	22.92
					QPSK	6	0	0	-85	23.16
					QPSK	6	0	15	-85	22.99
					16QAM	1	0	0	-85	23.14
					16QAM	1	5	0	-85	23.16
					16QAM	1	0	7	-85	23.11
					16QAM	1	5	7	-85	23.06
					16QAM	1	0	15	-85	23.07
					16QAM	1	5	15	-85	23.02
					16QAM	3	0	0	-85	23.07
					16QAM	3	3	15	-85	22.94
					16QAM	5	0	0	-85	23.02
					16QAM	5	0	15	-85	23.12

Test Frequency ID	N_{UL}	Frequency of Uplink [MHz]	N_{DL}	Frequency of Downlink [MHz]	Test Configuration Initial of Power				EUT	
					Modulation	RB Size	RB Offset	Narrowband Index	Cell power (dBm/15kHz)	power (dBm)
Mid Range	26365	1882.5	8365	1962.5	QPSK	1	0	0	-85	22.91
					QPSK	1	5	0	-85	23.05
					QPSK	1	0	7	-85	23.02
					QPSK	1	5	7	-85	23.01
					QPSK	1	0	15	-85	23.02
					QPSK	1	5	15	-85	22.99
					QPSK	3	0	0	-85	23.22
					QPSK	3	3	15	-85	23.02
					QPSK	6	0	0	-85	23.01
					QPSK	6	0	15	-85	23.13
					16QAM	1	0	0	-85	23.23
					16QAM	1	5	0	-85	23.15
					16QAM	1	0	7	-85	23.12
					16QAM	1	5	7	-85	23.13
					16QAM	1	0	15	-85	23.12
					16QAM	1	5	15	-85	23.18
					16QAM	3	0	0	-85	23.01
					16QAM	3	3	15	-85	23.17
					16QAM	5	0	0	-85	23.05
					16QAM	5	0	15	-85	23.03
High Range	26590	1905	8590	1985	QPSK	1	0	0	-85	23.21
					QPSK	1	5	0	-85	23.07
					QPSK	1	0	7	-85	23.01
					QPSK	1	5	7	-85	23.11
					QPSK	1	0	15	-85	22.97
					QPSK	1	5	15	-85	22.97
					QPSK	3	0	0	-85	23.32
					QPSK	3	3	15	-85	22.89
					QPSK	6	0	0	-85	23.17
					QPSK	6	0	15	-85	23.17
					16QAM	1	0	0	-85	23.21
					16QAM	1	5	0	-85	23.14
					16QAM	1	0	7	-85	23.14
					16QAM	1	5	7	-85	23.12
					16QAM	1	0	15	-85	23.09
					16QAM	1	5	15	-85	23.22
					16QAM	3	0	0	-85	23.23
					16QAM	3	3	15	-85	23.05
					16QAM	5	0	0	-85	23.3
					16QAM	5	0	15	-85	23.09

EIRP Power (dBm)

LTE Band 2							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	18607	1850.7	-20.85	36.57	15.72	37.33	H
	18900	1880.0	-20.97	37.22	16.25	42.17	
	19193	1909.3	-21.19	37.18	15.99	39.72	
	18607	1850.7	-13.64	37.65	24.01	251.77	V
	18900	1880.0	-12.69	37.58	24.89	308.32	
	19193	1909.3	-12.63	37.48	24.85	305.49	
Channel Bandwidth: 1.4 MHz / 16QAM							
Z	18607	1850.7	-21.83	36.57	14.74	29.79	H
	18900	1880.0	-21.95	37.22	15.27	33.65	
	19193	1909.3	-22.17	37.18	15.01	31.70	
	18607	1850.7	-14.62	37.65	23.03	200.91	V
	18900	1880.0	-13.67	37.58	23.91	246.04	
	19193	1909.3	-13.61	37.48	23.87	243.78	

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

LTE Band 2							
Channel Bandwidth: 3 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	18615	1851.5	-21.15	36.57	15.42	34.83	H
	18900	1880.0	-21.27	37.22	15.95	39.36	
	19185	1908.5	-21.49	37.18	15.69	37.07	
	18615	1851.5	-13.94	37.65	23.71	234.96	V
	18900	1880.0	-12.99	37.58	24.59	287.74	
	19185	1908.5	-12.93	37.48	24.55	285.10	
Channel Bandwidth: 3 MHz / 16QAM							
Z	18615	1851.5	-22.14	36.57	14.43	27.73	H
	18900	1880.0	-22.26	37.22	14.96	31.33	
	19185	1908.5	-22.48	37.18	14.70	29.51	
	18615	1851.5	-14.93	37.65	22.72	187.07	V
	18900	1880.0	-13.98	37.58	23.60	229.09	
	19185	1908.5	-13.92	37.48	23.56	226.99	

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

LTE Band 2							
Channel Bandwidth: 5 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	18625	1852.5	-21.49	36.57	15.08	32.21	H
	18900	1880.0	-21.61	37.22	15.61	36.39	
	19175	1907.5	-21.83	37.18	15.35	34.28	
	18625	1852.5	-14.28	37.65	23.37	217.27	V
	18900	1880.0	-13.33	37.58	24.25	266.07	
	19175	1907.5	-13.27	37.48	24.21	263.63	
Channel Bandwidth: 5 MHz / 16QAM							
Z	18625	1852.5	-22.49	36.57	14.08	25.59	H
	18900	1880.0	-22.61	37.22	14.61	28.91	
	19175	1907.5	-22.83	37.18	14.35	27.23	
	18625	1852.5	-15.28	37.65	22.37	172.58	V
	18900	1880.0	-14.33	37.58	23.25	211.35	
	19175	1907.5	-14.27	37.48	23.21	209.41	

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

LTE Band 2							
Channel Bandwidth: 10 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	18650	1855.0	-21.78	36.57	14.79	30.13	H
	18900	1880.0	-21.90	37.22	15.32	34.04	
	19150	1905.0	-22.12	37.18	15.06	32.06	
	18650	1855.0	-14.57	37.65	23.08	203.24	V
	18900	1880.0	-13.62	37.58	23.96	248.89	
	19150	1905.0	-13.56	37.48	23.92	246.60	
Channel Bandwidth: 10 MHz / 16QAM							
Z	18650	1855.0	-22.75	36.57	13.82	24.10	H
	18900	1880.0	-22.87	37.22	14.35	27.23	
	19150	1905.0	-23.09	37.18	14.09	25.64	
	18650	1855.0	-15.54	37.65	22.11	162.55	V
	18900	1880.0	-14.59	37.58	22.99	199.07	
	19150	1905.0	-14.53	37.48	22.95	197.24	

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

LTE Band 2							
Channel Bandwidth: 15 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	18675	1857.5	-22.09	36.57	14.48	28.05	H
	18900	1880.0	-22.21	37.22	15.01	31.70	
	19125	1902.5	-22.43	37.18	14.75	29.85	
	18675	1857.5	-14.88	37.65	22.77	189.23	V
	18900	1880.0	-13.93	37.58	23.65	231.74	
	19125	1902.5	-13.87	37.48	23.61	229.61	
Channel Bandwidth: 15 MHz / 16QAM							
Z	18675	1857.5	-23.06	36.57	13.51	22.44	H
	18900	1880.0	-23.18	37.22	14.04	25.35	
	19125	1902.5	-23.40	37.18	13.78	23.88	
	18675	1857.5	-15.85	37.65	21.80	151.36	V
	18900	1880.0	-14.90	37.58	22.68	185.35	
	19125	1902.5	-14.84	37.48	22.64	183.65	

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

LTE Band 2							
Channel Bandwidth: 20 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	18700	1860.0	-22.35	36.57	14.22	26.42	H
	18900	1880.0	-22.47	37.22	14.75	29.85	
	19100	1900.0	-22.69	37.18	14.49	28.12	
	18700	1860.0	-15.14	37.65	22.51	178.24	V
	18900	1880.0	-14.19	37.58	23.39	218.27	
	19100	1900.0	-14.13	37.48	23.35	216.27	
Channel Bandwidth: 20 MHz / 16QAM							
Z	18700	1860.0	-23.36	36.57	13.21	20.94	H
	18900	1880.0	-23.48	37.22	13.74	23.66	
	19100	1900.0	-23.70	37.18	13.48	22.28	
	18700	1860.0	-16.15	37.65	21.50	141.25	V
	18900	1880.0	-15.20	37.58	22.38	172.98	
	19100	1900.0	-15.14	37.48	22.34	171.40	

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

LTE Band 25							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	26047	1850.7	-21.68	36.57	14.89	30.83	H
	26365	1882.5	-22.03	37.22	15.19	33.04	
	26683	1914.3	-24.46	39.09	14.63	29.04	
	26047	1850.7	-12.84	37.65	24.81	302.69	V
	26365	1882.5	-12.59	37.58	24.99	315.50	
	26683	1914.3	-13.30	37.92	24.62	289.73	
Channel Bandwidth: 1.4 MHz / 16QAM							
Z	26047	1850.7	-22.69	36.57	13.88	24.43	H
	26365	1882.5	-23.04	37.22	14.18	26.18	
	26683	1914.3	-25.47	39.09	13.62	23.01	
	26047	1850.7	-13.85	37.65	23.80	239.88	V
	26365	1882.5	-13.60	37.58	23.98	250.03	
	26683	1914.3	-14.31	37.92	23.61	229.61	

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

LTE Band 25							
Channel Bandwidth: 3 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
Z	26055	1851.5	-21.99	36.57	14.58	28.71	H
	26365	1882.5	-22.34	37.22	14.88	30.76	
	26675	1913.5	-24.79	39.11	14.32	27.04	
	26055	1851.5	-13.15	37.65	24.50	281.84	V
	26365	1882.5	-12.90	37.58	24.68	293.76	
	26675	1913.5	-13.62	37.93	24.31	269.77	
Channel Bandwidth: 3 MHz / 16QAM							
Z	26055	1851.5	-22.97	36.57	13.60	22.91	H
	26365	1882.5	-23.32	37.22	13.90	24.55	
	26675	1913.5	-25.77	39.11	13.34	21.58	
	26055	1851.5	-14.13	37.65	23.52	224.91	V
	26365	1882.5	-13.88	37.58	23.70	234.42	
	26675	1913.5	-14.60	37.93	23.33	215.28	

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

LTE Band 25							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	26065	1852.5	-22.27	36.57	14.30	26.92	H
	26365	1882.5	-22.62	37.22	14.60	28.84	
	26665	1912.5	-24.07	38.11	14.04	25.35	
	26065	1852.5	-13.43	37.65	24.22	264.24	V
	26365	1882.5	-13.18	37.58	24.40	275.42	
	26665	1912.5	-13.93	37.96	24.03	252.93	
Channel Bandwidth: 5 MHz / 16QAM							
Z	26065	1852.5	-23.24	36.57	13.33	21.53	H
	26365	1882.5	-23.59	37.22	13.63	23.07	
	26665	1912.5	-25.04	38.11	13.07	20.28	
	26065	1852.5	-14.40	37.65	23.25	211.35	V
	26365	1882.5	-14.15	37.58	23.43	220.29	
	26665	1912.5	-14.90	37.96	23.06	202.30	

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

LTE Band 25							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	26090	1855.0	-22.54	36.57	14.03	25.29	H
	26365	1882.5	-22.89	37.22	14.33	27.10	
	26640	1910.0	-24.42	38.19	13.77	23.82	
	26090	1855.0	-13.70	37.65	23.95	248.31	V
	26365	1882.5	-13.45	37.58	24.13	258.82	
	26640	1910.0	-14.39	38.15	23.76	237.68	
Channel Bandwidth: 10 MHz / 16QAM							
Z	26090	1855.0	-23.56	36.57	13.01	20.00	H
	26365	1882.5	-23.91	37.22	13.31	21.43	
	26640	1910.0	-25.44	38.19	12.75	18.84	
	26090	1855.0	-14.72	37.65	22.93	196.34	V
	26365	1882.5	-14.47	37.58	23.11	204.64	
	26640	1910.0	-15.41	38.15	22.74	187.93	

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

LTE Band 25							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	26115	1857.5	-22.81	36.57	13.76	23.77	H
	26365	1882.5	-23.16	37.22	14.06	25.47	
	26615	1907.5	-24.73	38.23	13.50	22.39	
	26115	1857.5	-13.97	37.65	23.68	233.35	V
	26365	1882.5	-13.72	37.58	23.86	243.22	
	26615	1907.5	-14.73	38.22	23.49	223.36	
Channel Bandwidth: 15 MHz / 16QAM							
Z	26115	1857.5	-23.77	36.57	12.80	19.05	H
	26365	1882.5	-24.12	37.22	13.10	20.42	
	26615	1907.5	-25.69	38.23	12.54	17.95	
	26115	1857.5	-14.93	37.65	22.72	187.07	V
	26365	1882.5	-14.68	37.58	22.90	194.98	
	26615	1907.5	-15.69	38.22	22.53	179.06	

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

LTE Band 25							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	26140	1860.0	-23.12	36.57	13.45	22.13	H
	26365	1882.5	-23.47	37.22	13.75	23.71	
	26590	1905.0	-25.53	38.72	13.19	20.84	
	26140	1860.0	-14.28	37.65	23.37	217.27	V
	26365	1882.5	-14.03	37.58	23.55	226.46	
	26590	1905.0	-14.38	37.56	23.18	207.97	
Channel Bandwidth: 20 MHz / 16QAM							
Z	26140	1860.0	-24.10	36.57	12.47	17.66	H
	26365	1882.5	-24.45	37.22	12.77	18.92	
	26590	1905.0	-26.51	38.72	12.21	16.63	
	26140	1860.0	-15.26	37.65	22.39	173.38	V
	26365	1882.5	-15.01	37.58	22.57	180.72	
	26590	1905.0	-15.36	37.56	22.20	165.96	

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

4.2 Modulation characteristics Measurement

4.2.1 Limits of Modulation characteristics

N/A

4.2.2 Test Procedure

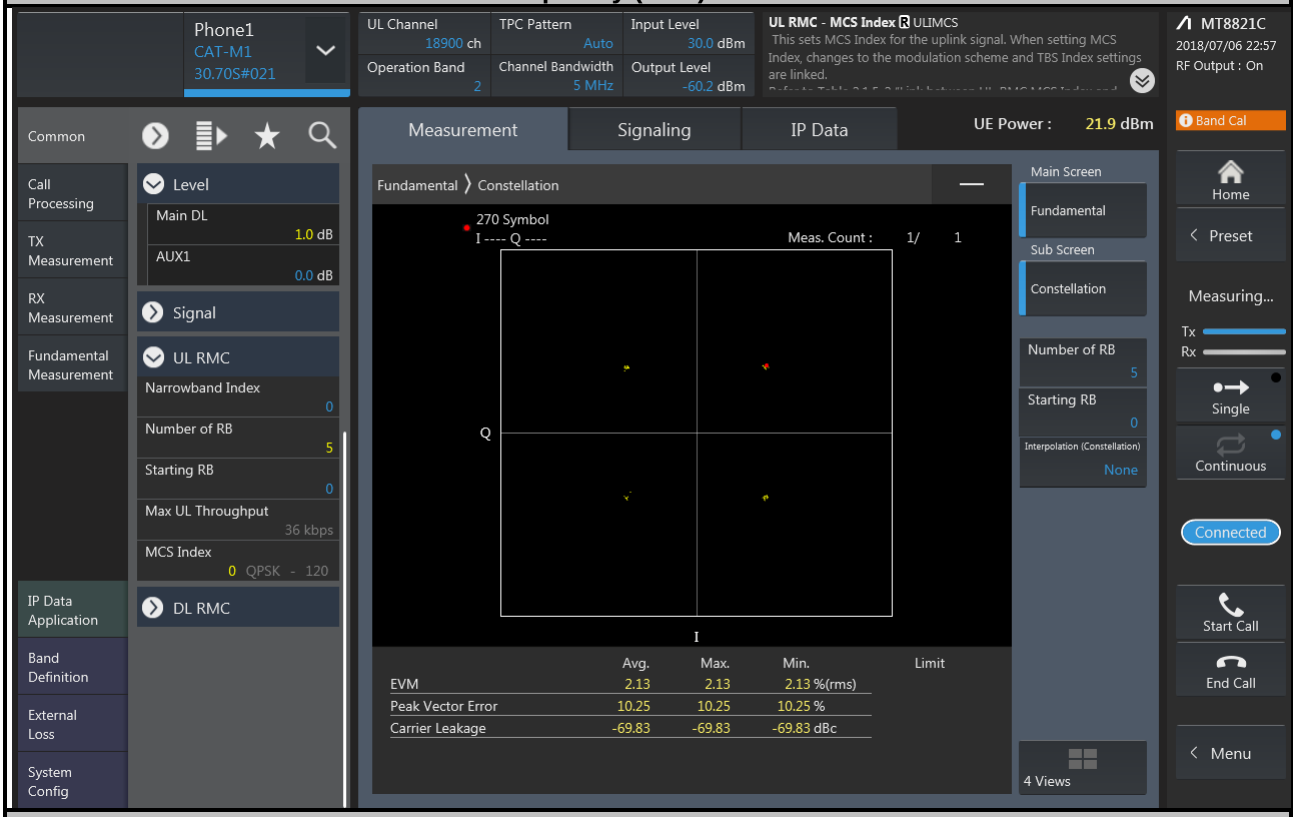
Connect the EUT to Communication Simulator via the antenna connector, The frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.2.3 Test Setup

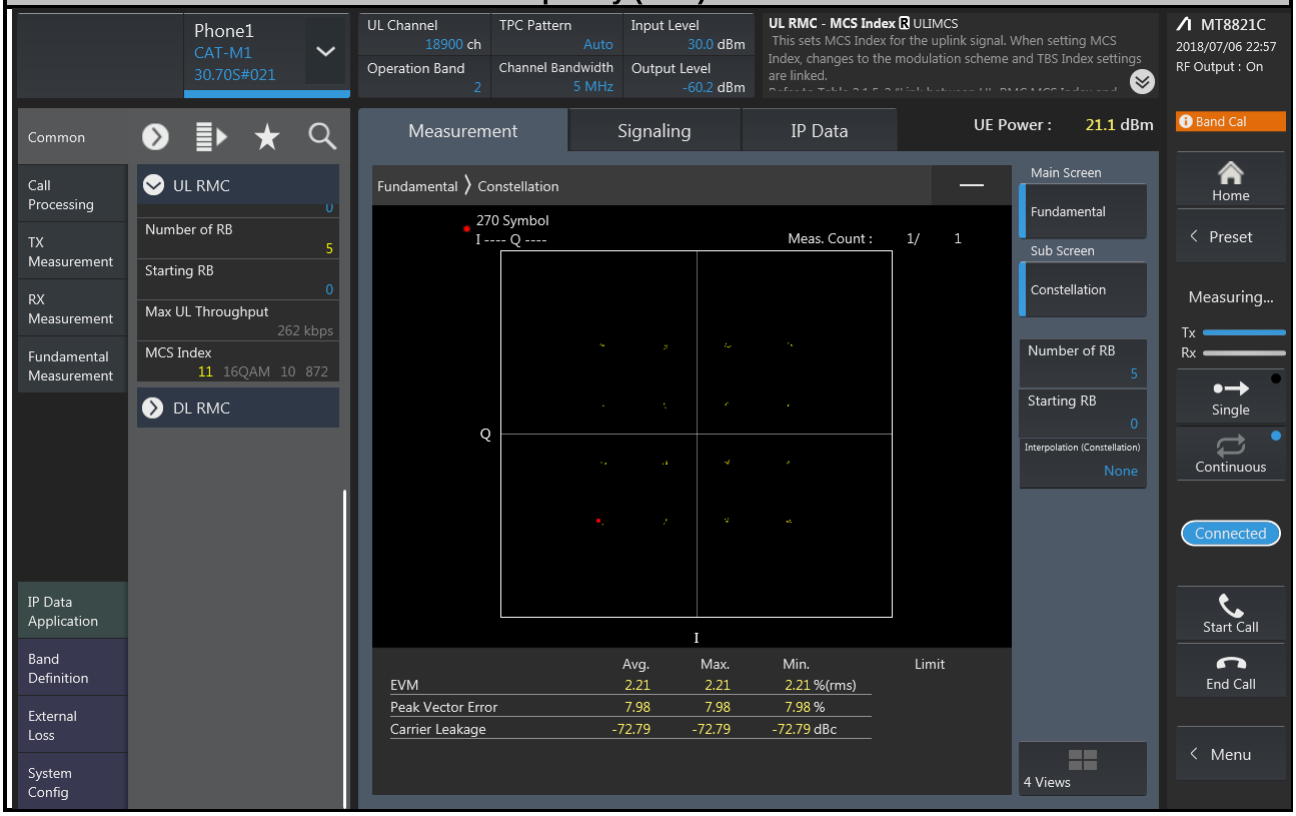
4.2.4 Test Results

LTE Band 2

Spectrum Plot of Measurement Value
Channel: 18900 (QPSK) Frequency (MHz): 1880.0



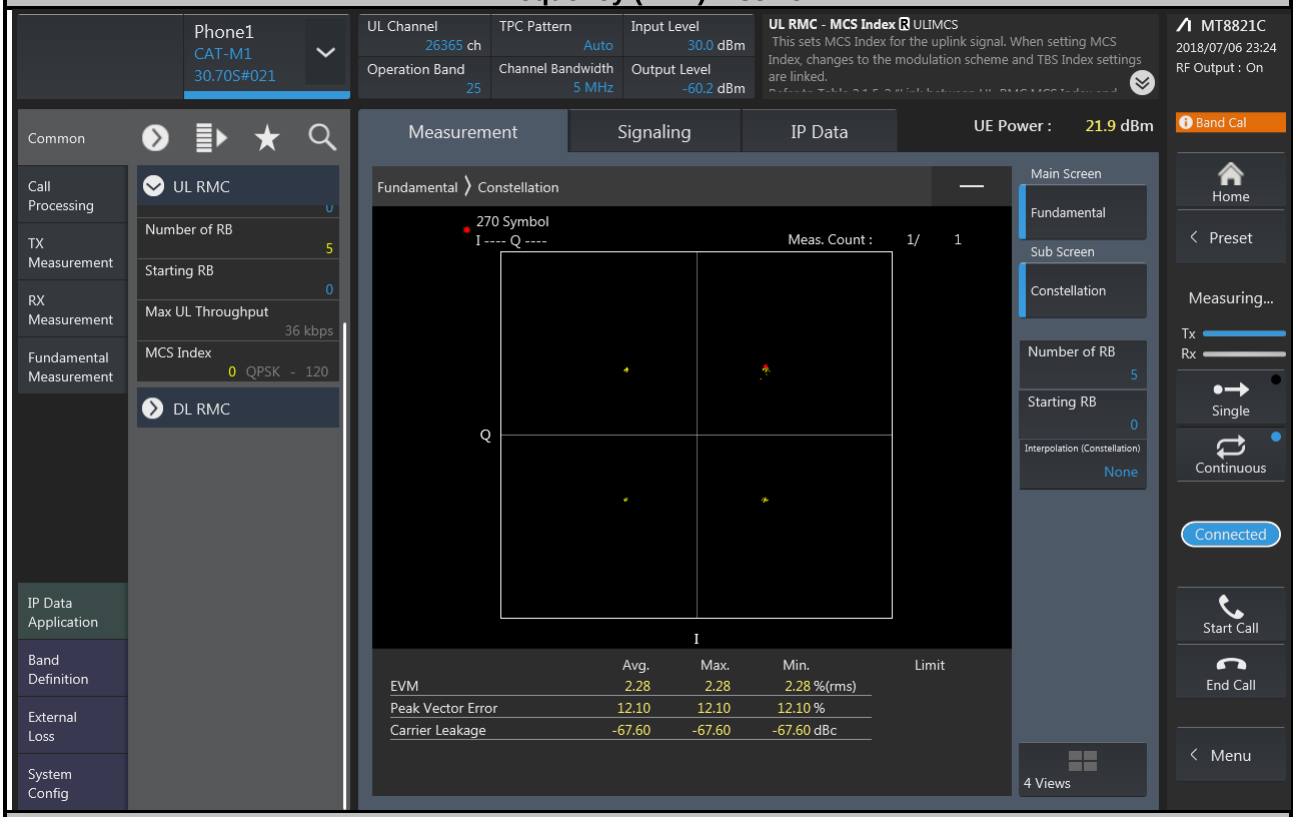
Channel: 18900 (16QAM) Frequency (MHz): 1880.0



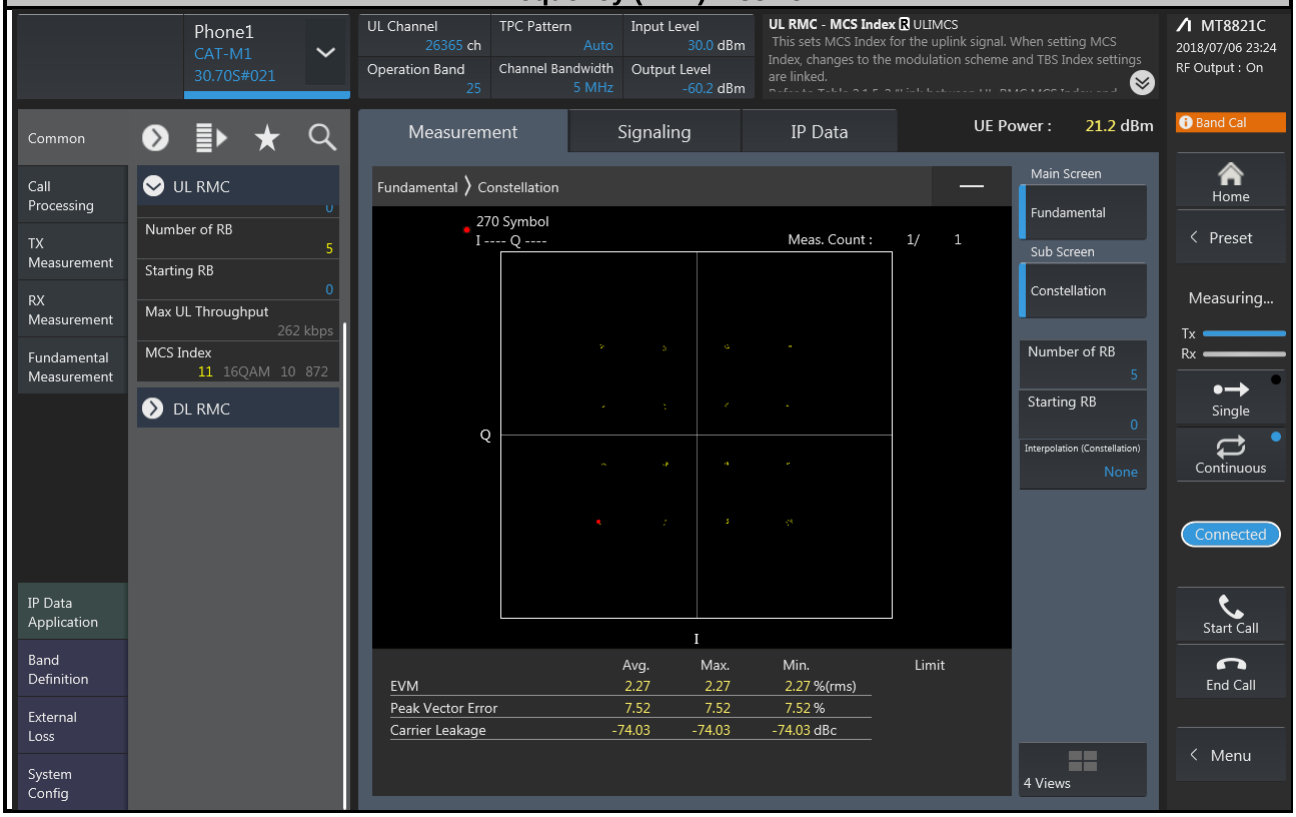
LTE Band 25

Spectrum Plot of Measurement Value

Channel: 26365 (QPSK)
Frequency (MHz): 1882.5



Channel: 26365 (16QAM)
Frequency (MHz): 1882.5



4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

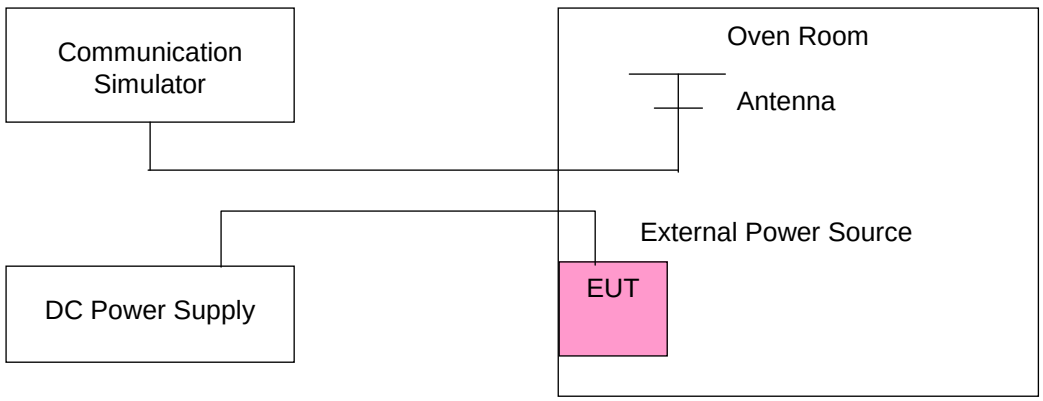
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

4.3.2 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 DC 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)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 1.4 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
108	1850.700003	0.002	1909.300002	0.001	2.5
120	1850.700004	0.002	1909.300003	0.002	2.5
132	1850.700002	0.001	1909.300003	0.002	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vdc to 132 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 1.4 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1850.700003	1.400	1909.300001	0.001	2.5
-20	1850.700002	3.700	1909.300004	0.002	2.5
-10	1850.700002	2.800	1909.300004	0.002	2.5
0	1850.700003	3.400	1909.300002	0.001	2.5
10	1850.700003	2.000	1909.300002	0.001	2.5
20	1850.700002	3.800	1909.299999	-0.001	2.5
30	1850.699997	-2.900	1909.299997	-0.002	2.5
40	1850.699998	-1.100	1909.299998	-0.001	2.5
50	1850.699998	-3.000	1909.299998	-0.001	2.5
60	824.699998	-3.500	848.299998	-0.003	2.5
70	1850.699996	-1.200	1909.299998	-0.001	2.5
80	1850.699999	-1.900	1909.299998	-0.001	2.5
85	1850.699998	-4.000	1909.299998	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 3 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1851.500003	0.001	1907.500002	0.001	2.5
108	1851.500002	0.001	1907.500003	0.001	2.5
132	1851.500004	0.002	1907.500004	0.002	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 3 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1851.500004	0.002	1907.500003	0.002	2.5
-20	1851.500002	0.001	1907.500004	0.002	2.5
-10	1851.500002	0.001	1907.500003	0.001	2.5
0	1851.500003	0.002	1907.500001	0.001	2.5
10	1851.500004	0.002	1907.500001	0.001	2.5
20	1851.500001	0.001	1907.500004	0.002	2.5
30	1851.499997	-0.002	1907.499996	-0.002	2.5
40	1851.499996	-0.002	1907.499997	-0.002	2.5
50	1851.499998	-0.001	1907.499997	-0.002	2.5
60	1851.499997	-0.002	1907.499997	-0.002	2.5
70	1851.499999	-0.001	1907.499998	-0.001	2.5
50	1851.499997	-0.001	1907.499999	-0.001	2.5
85	1851.499998	-0.001	1907.499996	-0.002	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 5 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1852.500004	0.002	1907.500000	0.000	2.5
108	1852.500003	0.002	1907.500000	0.000	2.5
132	1852.500002	0.001	1907.500000	0.000	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 5 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1852.500003	0.002	1907.500004	0.002	2.5
-20	1852.500003	0.002	1907.500004	0.002	2.5
-10	1852.500003	0.002	1907.500002	0.001	2.5
0	1852.500002	0.001	1907.500004	0.002	2.5
10	1852.500001	0.001	1907.500003	0.001	2.5
20	1852.500003	0.002	1907.500003	0.002	2.5
30	1852.499997	-0.002	1907.499999	-0.001	2.5
40	1852.499998	-0.001	1907.499999	-0.001	2.5
50	1852.499998	-0.001	1907.499998	-0.001	2.5
60	1852.499996	-0.002	1907.499996	-0.002	2.5
70	1852.499996	-0.002	1907.499997	-0.002	2.5
50	1852.499997	-0.001	1907.499996	-0.002	2.5
85	1852.499997	-0.002	1907.499998	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 10 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1855.000001	0.001	1905.000003	0.002	2.5
108	1855.000003	0.002	1905.000003	0.002	2.5
132	1855.000004	0.002	1905.000002	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 10 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1855.000001	0.001	1905.000002	0.001	2.5
-20	1855.000003	0.002	1905.000004	0.002	2.5
-10	1855.000001	0.001	1905.000003	0.001	2.5
0	1855.000002	0.001	1905.000002	0.001	2.5
10	1855.000002	0.001	1905.000003	0.001	2.5
20	1855.000001	0.001	1905.000002	0.001	2.5
30	1854.999998	-0.001	1904.999998	-0.001	2.5
40	1854.999997	-0.002	1904.999996	-0.002	2.5
50	1854.999999	-0.001	1904.999998	-0.001	2.5
60	1854.999996	-0.002	1904.999997	-0.001	2.5
70	1854.999997	-0.002	1904.999998	-0.001	2.5
50	1854.999999	-0.001	1904.999997	-0.002	2.5
85	1854.999998	-0.001	1904.999998	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 15 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1857.500001	0.001	1902.500004	0.002	2.5
108	1857.500003	0.002	1902.500003	0.001	2.5
132	1857.500002	0.001	1902.500001	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 15 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1857.500004	0.002	1902.500001	0.001	2.5
-20	1857.500002	0.001	1902.500001	0.001	2.5
-10	1857.500004	0.002	1902.500001	0.001	2.5
0	1857.500003	0.001	1902.500001	0.001	2.5
10	1857.500003	0.002	1902.500003	0.001	2.5
20	1857.500003	0.002	1902.500004	0.002	2.5
30	1857.499996	-0.002	1902.499997	-0.001	2.5
40	1857.499996	-0.002	1902.499996	-0.002	2.5
50	1857.499997	-0.002	1902.499998	-0.001	2.5
60	1857.499999	-0.001	1902.499998	-0.001	2.5
70	1857.499998	-0.001	1902.499999	-0.001	2.5
50	1857.499996	-0.002	1902.499997	-0.002	2.5
85	1857.499999	-0.001	1902.499999	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 20 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1860.000002	0.001	1900.000004	0.002	2.5
108	1860.000003	0.001	1900.000002	0.001	2.5
132	1860.000001	0.001	1900.000002	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2				Limit (ppm)
	Channel Bandwidth: 20 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1860.000003	0.002	1900.000003	0.002	2.5
-20	1860.000002	0.001	1900.000003	0.001	2.5
-10	1860.000003	0.002	1900.000001	0.001	2.5
0	1860.000002	0.001	1900.000003	0.002	2.5
10	1860.000003	0.002	1900.000004	0.002	2.5
20	1860.000001	0.001	1900.000003	0.002	2.5
30	1859.999999	-0.001	1899.999997	-0.002	2.5
40	1859.999999	-0.001	1899.999997	-0.002	2.5
50	1859.999998	-0.001	1899.999999	-0.001	2.5
60	1859.999998	-0.001	1899.999996	-0.002	2.5
70	1859.999999	-0.001	1899.999998	-0.001	2.5
50	1859.999996	-0.002	1899.999997	-0.002	2.5
85	1859.999999	-0.001	1899.999999	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 1.4 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1850.700003	0.002	1914.300003	0.001	2.5
108	1850.700003	0.001	1914.300002	0.001	2.5
132	1850.700002	0.001	1914.300003	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 1.4 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1850.700001	0.001	1914.300003	0.002	2.5
-20	1850.700002	0.001	1914.300004	0.002	2.5
-10	1850.700002	0.001	1914.300003	0.002	2.5
0	1850.700002	0.001	1914.300003	0.002	2.5
10	1850.700003	0.002	1914.300003	0.001	2.5
20	1850.700002	0.001	1914.300002	0.001	2.5
30	1850.699997	-0.002	1914.299999	-0.001	2.5
40	1850.699999	-0.001	1914.299998	-0.001	2.5
50	1850.699997	-0.002	1914.299999	-0.001	2.5
60	1850.699996	-0.002	1914.299996	-0.002	2.5
70	1850.699997	-0.001	1914.299997	-0.002	2.5
80	1850.699998	-0.001	1914.299996	-0.002	2.5
85	1850.699997	-0.002	1914.299996	-0.002	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 3 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1851.500003	0.002	1913.500003	0.002	2.5
108	1851.500001	0.001	1913.500004	0.002	2.5
132	1851.500002	0.001	1913.500002	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 3 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1851.500004	0.002	1913.500001	0.001	2.5
-20	1851.500002	0.001	1913.500003	0.002	2.5
-10	1851.500002	0.001	1913.500004	0.002	2.5
0	1851.500004	0.002	1913.500001	0.001	2.5
10	1851.500003	0.002	1913.500001	0.001	2.5
20	1851.500003	0.002	1913.500003	0.002	2.5
30	1851.499996	-0.002	1913.499998	-0.001	2.5
40	1851.499997	-0.002	1913.499998	-0.001	2.5
50	1851.499999	-0.001	1913.499999	-0.001	2.5
60	1851.499999	-0.001	1913.499997	-0.001	2.5
70	1851.499999	-0.001	1913.499999	-0.001	2.5
50	1851.499998	-0.001	1913.499998	-0.001	2.5
85	1851.499998	-0.001	1913.499998	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 5 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1852.500004	0.002	1912.500001	0.001	2.5
108	1852.500004	0.002	1912.500003	0.002	2.5
132	1852.500001	0.001	1912.500004	0.002	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 5 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1852.500003	0.001	1912.500001	0.001	2.5
-20	1852.500001	0.001	1912.500004	0.002	2.5
-10	1852.500002	0.001	1912.500003	0.002	2.5
0	1852.500003	0.002	1912.500003	0.001	2.5
10	1852.500001	0.001	1912.500002	0.001	2.5
20	1852.500002	0.001	1912.500004	0.002	2.5
30	1852.499998	-0.001	1912.499998	-0.001	2.5
40	1852.499998	-0.001	1912.499998	-0.001	2.5
50	1852.499999	-0.001	1912.499997	-0.002	2.5
60	1852.499998	-0.001	1912.499997	-0.002	2.5
70	1852.499997	-0.001	1912.499997	-0.002	2.5
50	1852.499996	-0.002	1912.499998	-0.001	2.5
85	1852.499999	-0.001	1912.499997	-0.002	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 10 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1855.000002	0.001	1910.000004	0.002	2.5
108	1855.000004	0.002	1910.000004	0.002	2.5
132	1855.000002	0.001	1910.000003	0.002	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 10 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1855.000004	0.002	1910.000004	0.002	2.5
-20	1855.000003	0.001	1910.000001	0.001	2.5
-10	1855.000001	0.001	1910.000001	0.001	2.5
0	1855.000003	0.001	1910.000002	0.001	2.5
10	1855.000003	0.002	1910.000002	0.001	2.5
20	1855.000004	0.002	1910.000002	0.001	2.5
30	1854.999999	-0.001	1909.999996	-0.002	2.5
40	1854.999997	-0.002	1909.999999	-0.001	2.5
50	1854.999996	-0.002	1909.999996	-0.002	2.5
60	1854.999997	-0.001	1909.999997	-0.002	2.5
70	1854.999997	-0.002	1909.999998	-0.001	2.5
50	1854.999997	-0.002	1909.999997	-0.001	2.5
85	1854.999998	-0.001	1909.999999	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 15 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1857.500004	0.002	1907.500002	0.001	2.5
108	1857.500001	0.001	1907.500002	0.001	2.5
132	1857.500003	0.002	1907.500001	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 15 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1857.500002	0.001	1907.500001	0.001	2.5
-20	1857.500002	0.001	1907.500001	0.001	2.5
-10	1857.500002	0.001	1907.500002	0.001	2.5
0	1857.500002	0.001	1907.500004	0.002	2.5
10	1857.500003	0.002	1907.500004	0.002	2.5
20	1857.500002	0.001	1907.500002	0.001	2.5
30	1857.499996	-0.002	1907.499997	-0.002	2.5
40	1857.499999	-0.001	1907.499997	-0.002	2.5
50	1857.499998	-0.001	1907.499996	-0.002	2.5
60	1857.499999	-0.001	1907.499998	-0.001	2.5
70	1857.499997	-0.002	1907.499998	-0.001	2.5
50	1857.499998	-0.001	1907.499997	-0.002	2.5
85	1857.499996	-0.002	1907.499998	-0.001	2.5

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 20 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
120	1860.000001	0.001	1905.000003	0.001	2.5
108	1860.000001	0.001	1905.000002	0.001	2.5
132	1860.000004	0.002	1905.000002	0.001	2.5

Note: The applicant defined the normal working voltage of the adapter is from 108 Vac to 132 Vac.

Frequency Error vs. Temperature

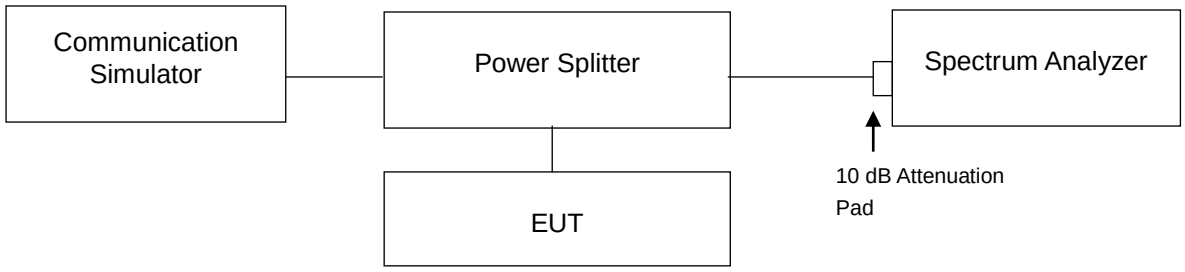
Temp. (℃)	LTE Band 25				Limit (ppm)
	Channel Bandwidth: 20 MHz				
	Low Channel		High Channel		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	
-30	1860.000004	0.002	1905.000003	0.001	2.5
-20	1860.000004	0.002	1905.000004	0.002	2.5
-10	1860.000002	0.001	1905.000003	0.002	2.5
0	1860.000002	0.001	1905.000003	0.002	2.5
10	1860.000003	0.002	1905.000002	0.001	2.5
20	1860.000001	0.001	1905.000004	0.002	2.5
30	1859.999998	-0.001	1904.999997	-0.002	2.5
40	1859.999998	-0.001	1904.999997	-0.002	2.5
50	1859.999997	-0.001	1904.999999	-0.001	2.5
60	1859.999998	-0.001	1904.999997	-0.002	2.5
70	1859.999997	-0.002	1904.999997	-0.001	2.5
50	1859.999997	-0.002	1904.999998	-0.001	2.5
85	1859.999998	-0.001	1904.999998	-0.001	2.5

4.4 Occupied Bandwidth Measurement

4.4.1 Test Procedure

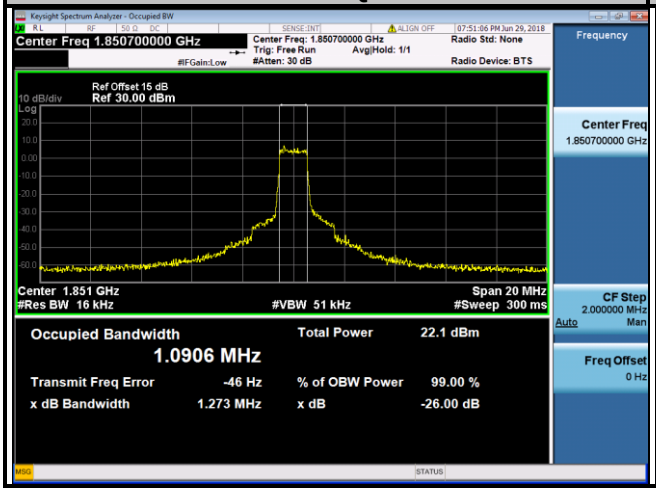
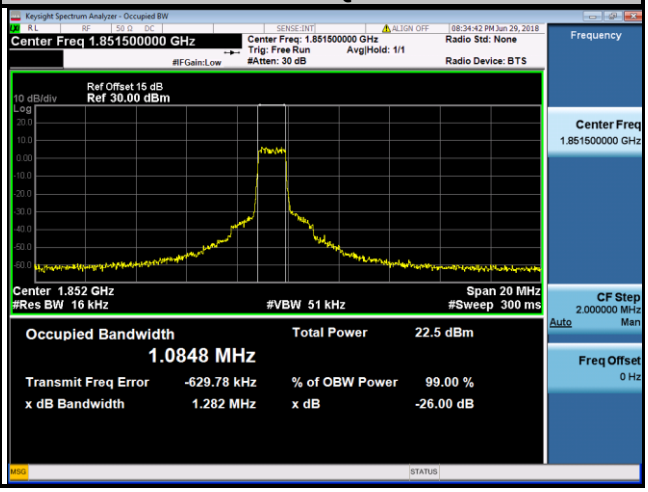
The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function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

4.4.2 Test Setup



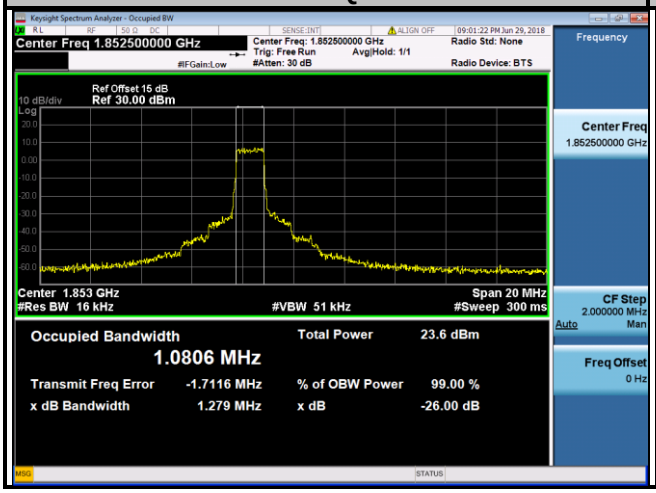
4.4.3 Test Result

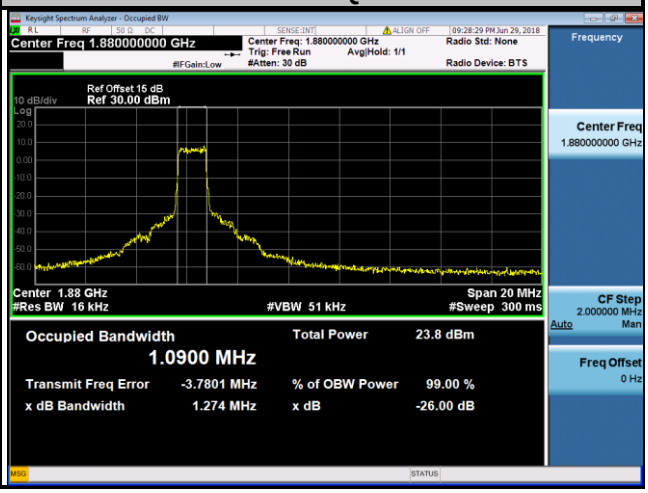
LTE Band 2							
Channel Bandwidth: 1.4 MHz				Channel Bandwidth: 3 MHz			
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
18607	1850.7	1.091	0.913	18615	1851.5	1.085	0.909
18900	1880.0	1.087	0.911	18900	1880.0	1.084	0.913
19193	1909.3	1.089	0.911	19185	1908.5	1.084	0.918

Spectrum Plot of Worst Value	
1.4 MHz / QPSK	3 MHz / QPSK
	

LTE Band 2							
Channel Bandwidth: 5 MHz				Channel Bandwidth: 10 MHz			
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
18625	1852.5	1.081	0.915	18650	1855.0	1.084	0.911
18900	1880.0	1.080	0.914	18900	1880.0	1.090	0.913
19175	1907.5	1.078	0.913	19150	1905.0	1.084	0.916

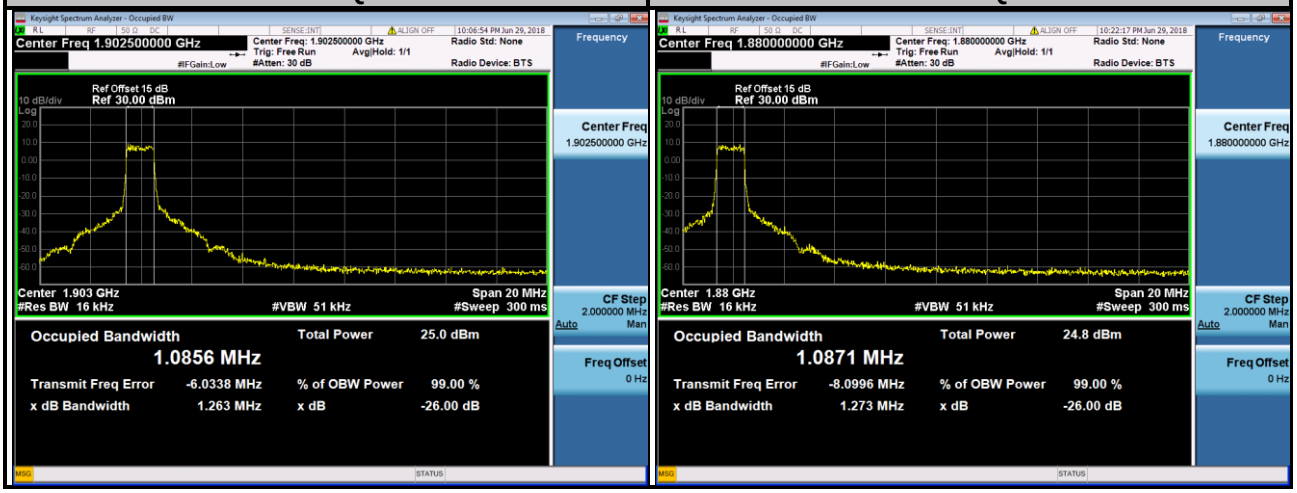
Spectrum Plot of Worst Value	
5 MHz / QPSK	10 MHz / QPSK



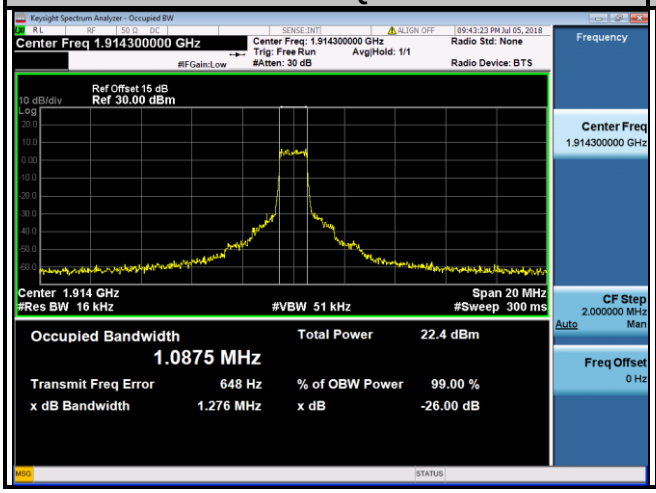
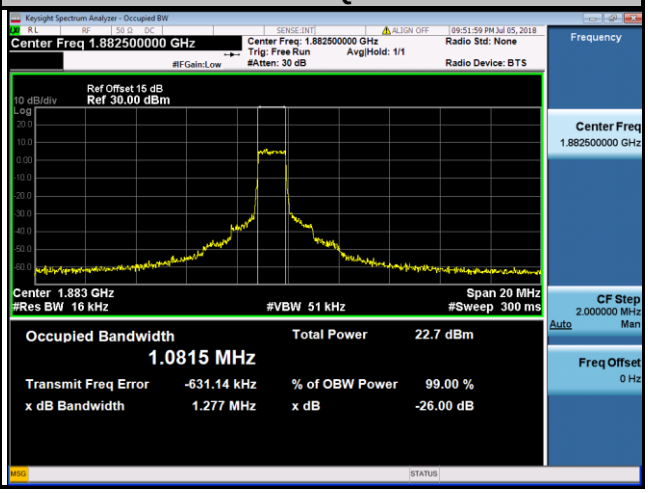


LTE Band 2							
Channel Bandwidth: 15 MHz				Channel Bandwidth: 20 MHz			
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
18675	1857.5	1.081	0.915	18700	1860.0	1.082	0.915
18900	1880.0	1.085	0.911	18900	1880.0	1.087	0.916
19125	1902.5	1.086	0.912	19100	1900.0	1.086	0.915

Spectrum Plot of Worst Value	
15 MHz / QPSK	20 MHz / QPSK

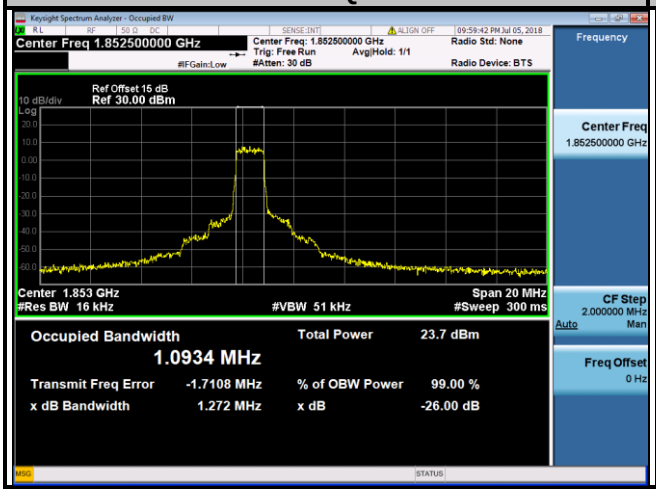


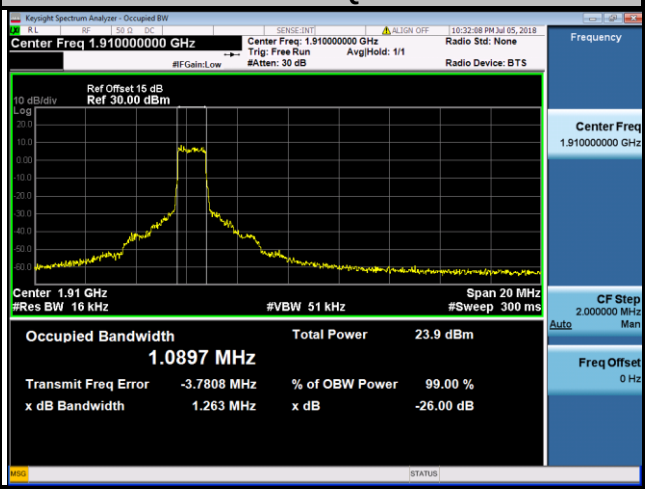
LTE Band 25							
Channel Bandwidth: 1.4 MHz				Channel Bandwidth: 3 MHz			
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
26047	1850.7	1.085	0.917	26055	1851.5	1.079	0.923
26365	1882.5	1.086	0.913	26365	1882.5	1.082	0.915
26683	1914.3	1.088	0.915	26675	1913.5	1.082	0.918

Spectrum Plot of Worst Value	
1.4 MHz / QPSK	3 MHz / QPSK
	

LTE Band 25							
Channel Bandwidth: 5 MHz				Channel Bandwidth: 10 MHz			
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
26065	1852.5	1.093	0.911	26090	1855.0	1.083	0.914
26365	1882.5	1.088	0.913	26365	1882.5	1.090	0.912
26665	1912.5	1.080	0.915	26640	1910.0	1.090	0.911

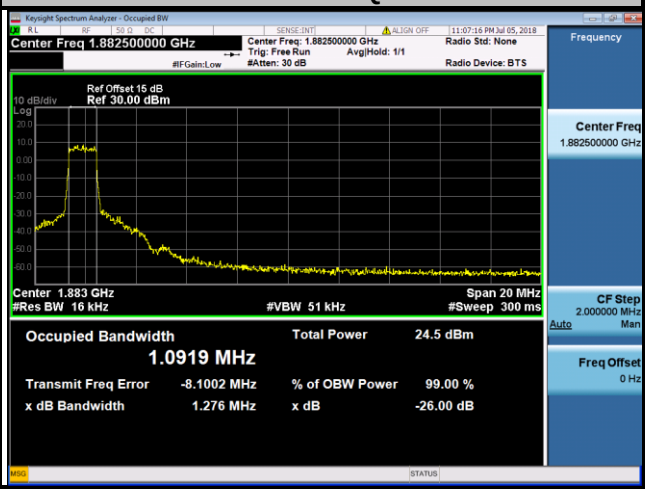
Spectrum Plot of Worst Value	
5 MHz / QPSK	10 MHz / QPSK





LTE BAND 25							
Channel Bandwidth: 15 MHz				Channel Bandwidth: 20 MHz			
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
26115	1857.5	1.089	0.911	26140	1860.0	1.085	0.915
26365	1882.5	1.088	0.910	26365	1882.5	1.092	0.913
26615	1907.5	1.087	0.909	26590	1905.0	1.091	0.916

Spectrum Plot of Worst Value	
15 MHz / QPSK	20 MHz / 16QAM

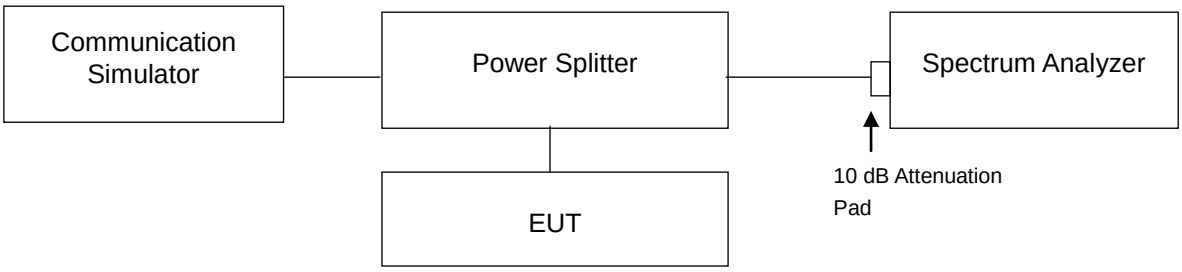


4.5 Band Edge Measurement

4.5.1 Limits of Band Edge Measurement

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

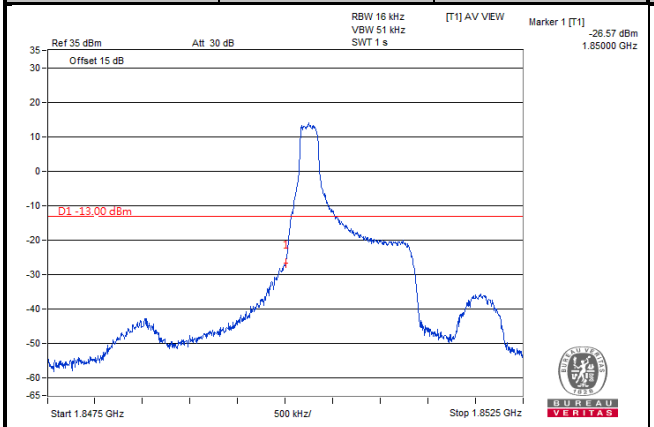
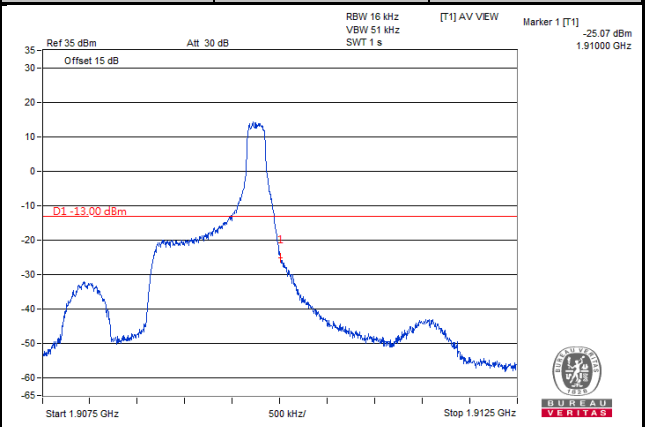
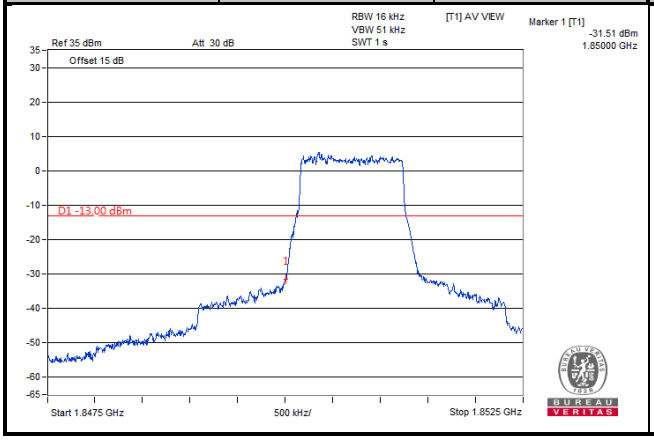
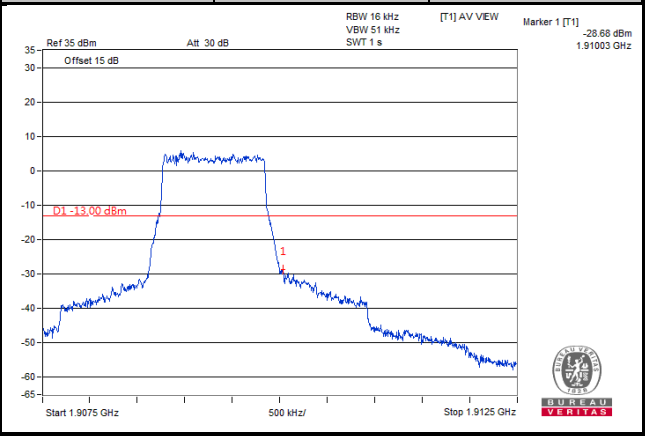
4.5.2 Test Setup

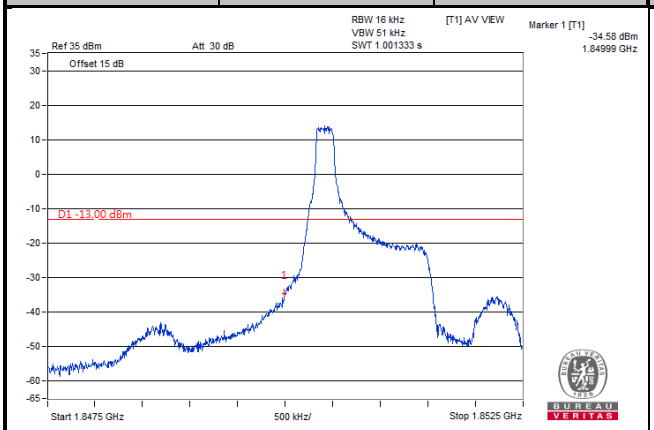
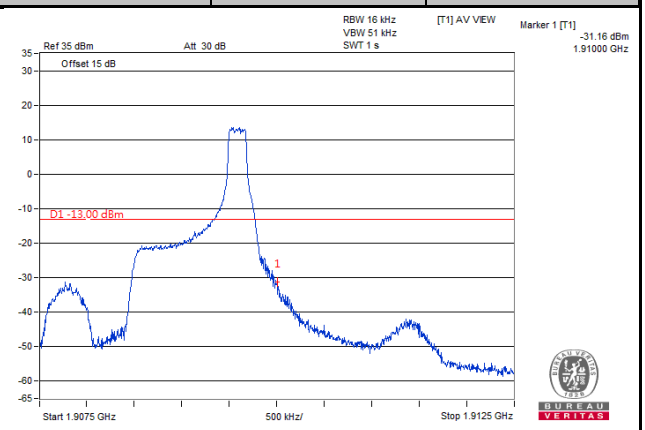
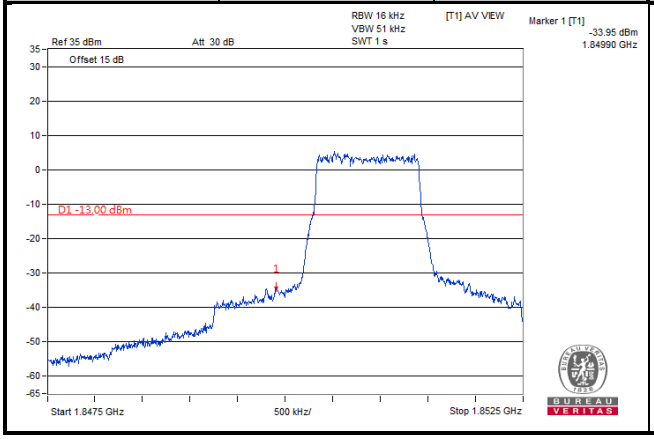
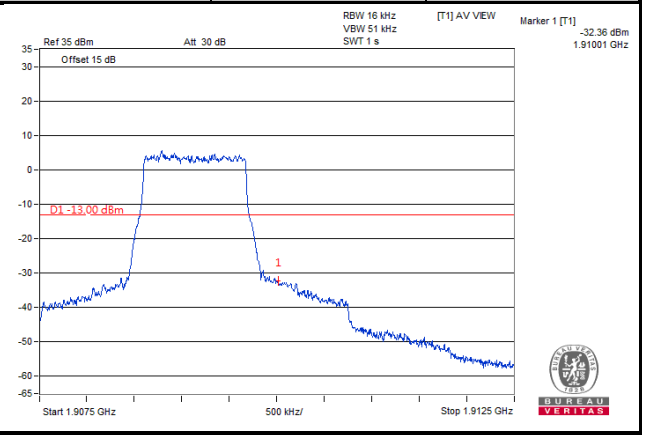


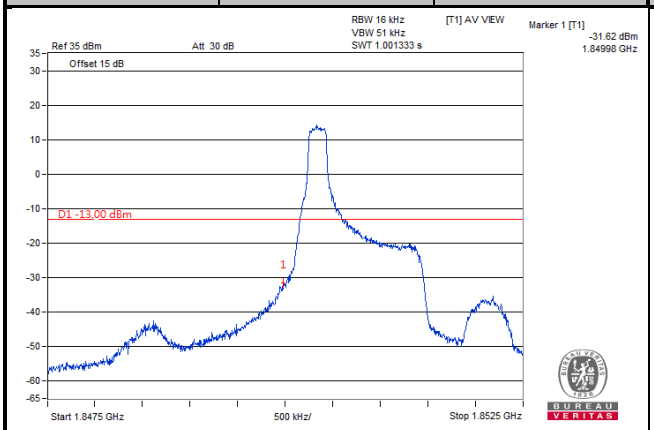
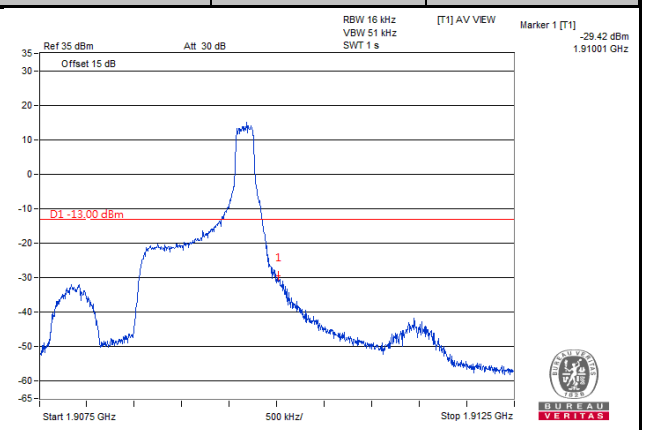
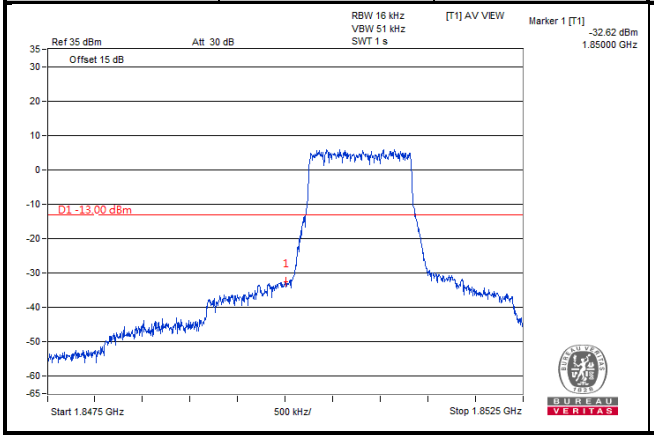
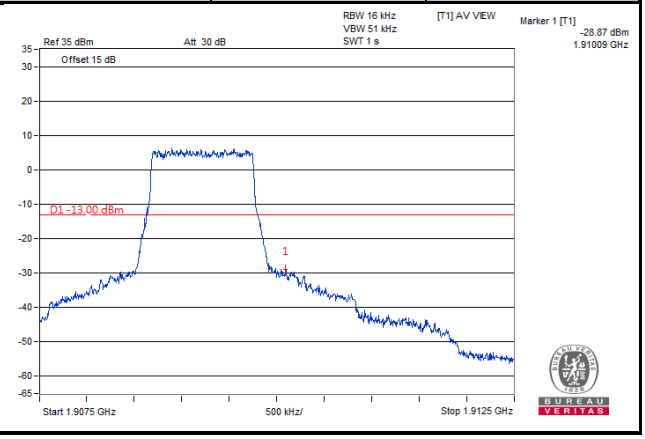
4.5.3 Test Procedures

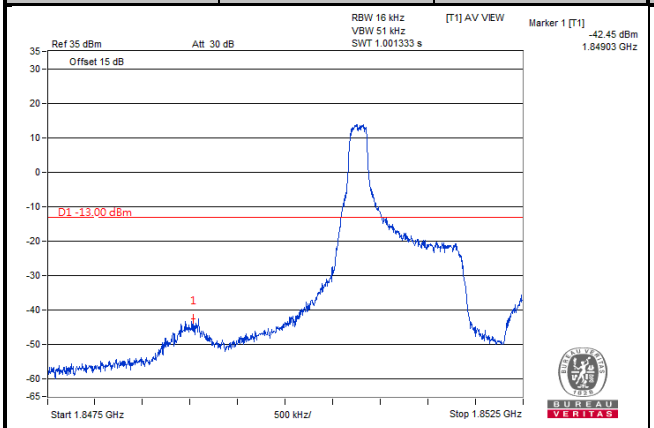
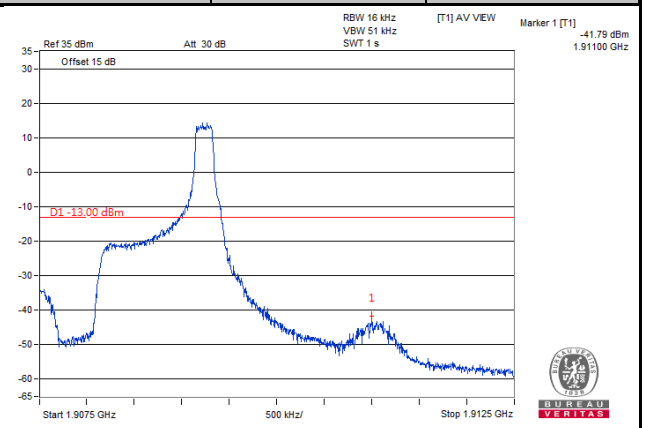
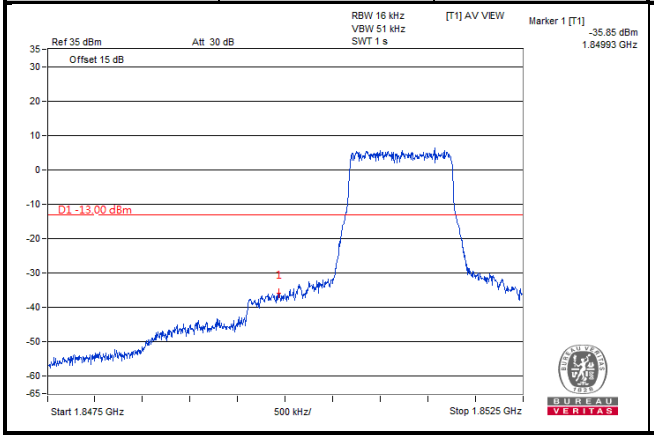
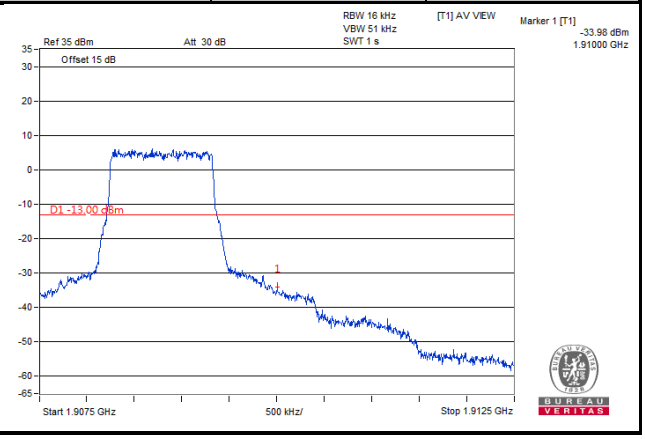
a. All measurements were done at low and high operational frequency range.
b. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 30 kHz and VB of the spectrum is 100 kHz (LTE Bandwidth 1.4 MHz).
c. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 62 kHz and VB of the spectrum is 200 kHz (LTE Bandwidth 3 MHz).
d. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 100 kHz and VB of the spectrum is 300 kHz (LTE Bandwidth 5 MHz).
e. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 200 kHz and VB of the spectrum is 1 MHz (LTE Bandwidth 10 MHz).
f. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 300 kHz and VB of the spectrum is 1 MHz (LTE Bandwidth 15 MHz).
g. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 300 kHz and VB of the spectrum is 1 MHz (LTE Bandwidth 20 MHz).
h. Record the max trace plot into the test report.

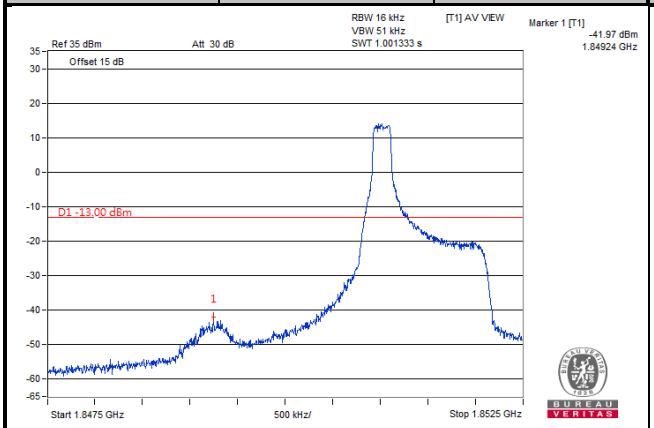
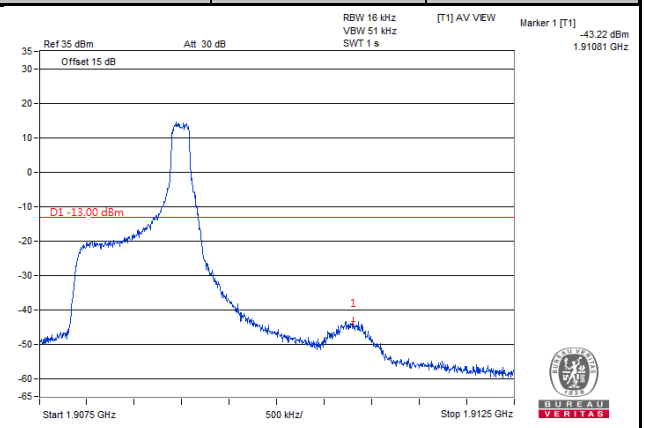
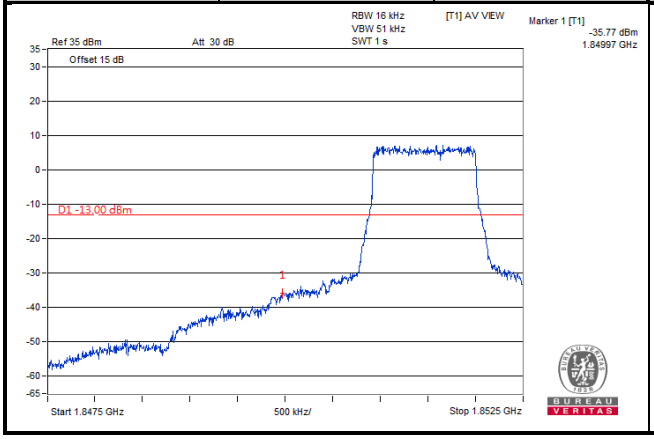
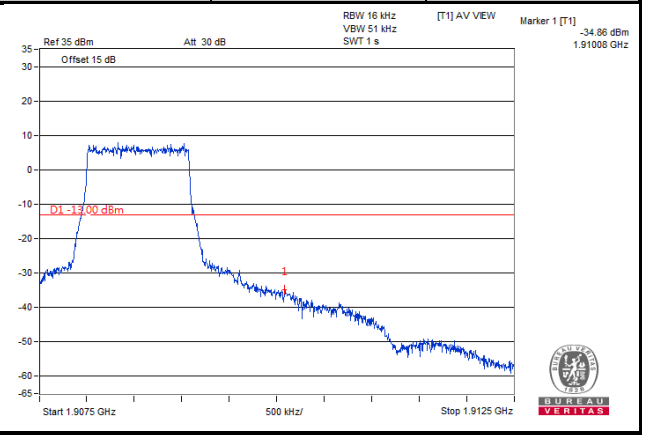
4.5.4 Test Results

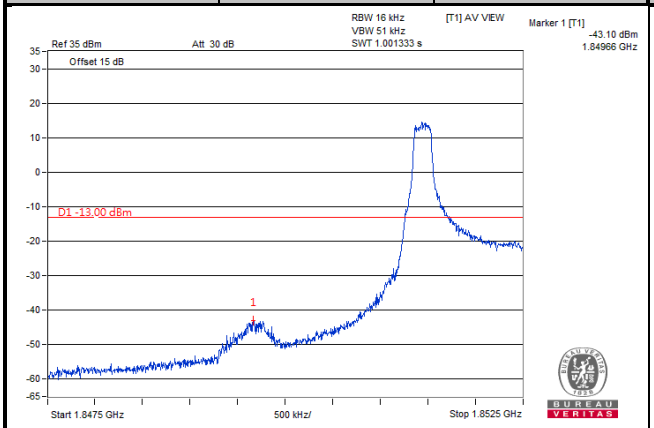
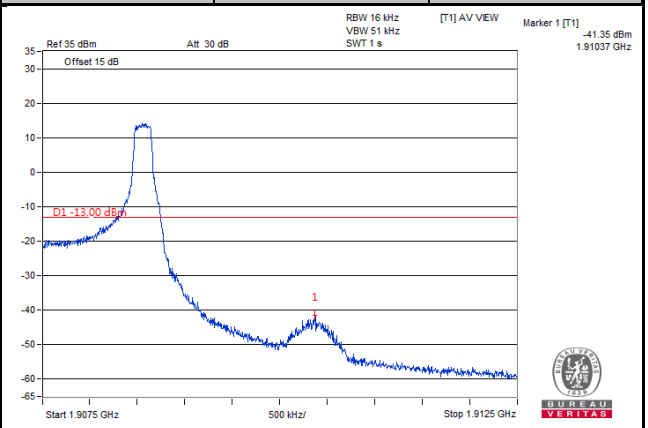
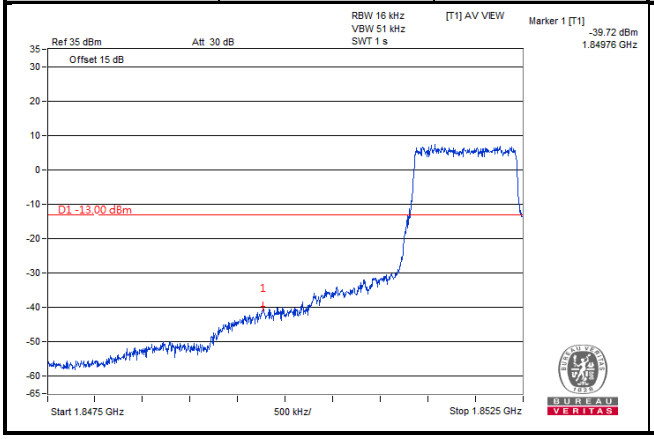
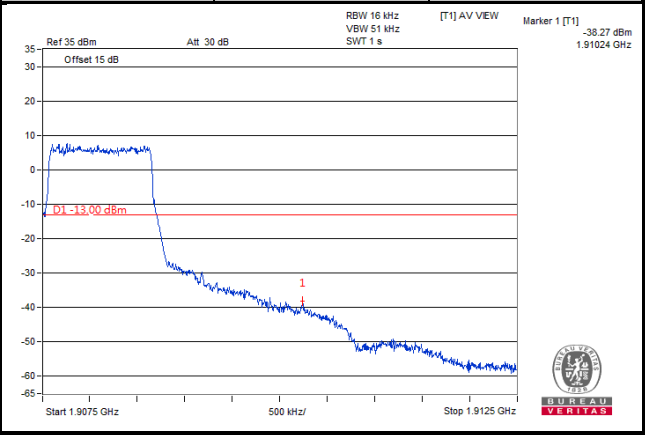
LTE Band 2					
Channel Bandwidth: 1.4 MHz					
Channel	18607	1 RB	Channel	19193	1 RB
					
Channel	18607	6 RB	Channel	19193	6 RB
					

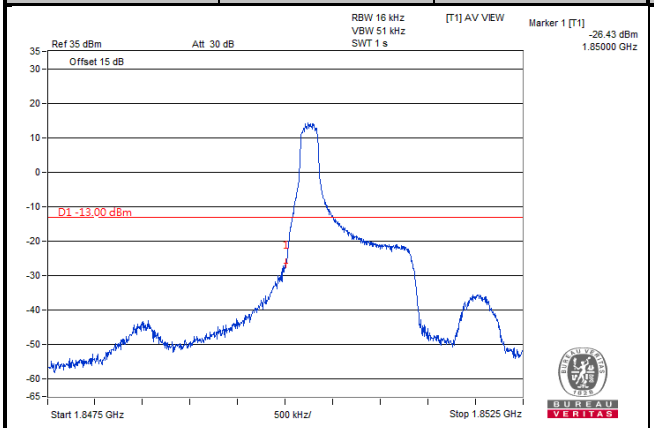
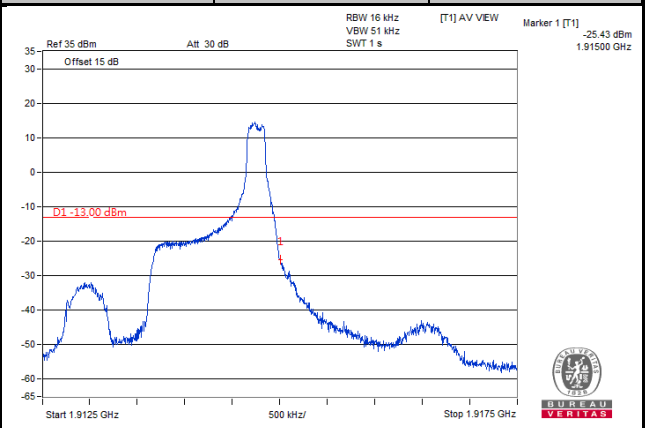
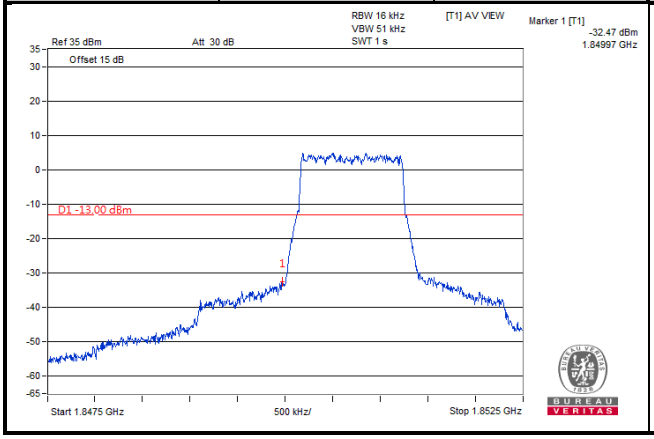
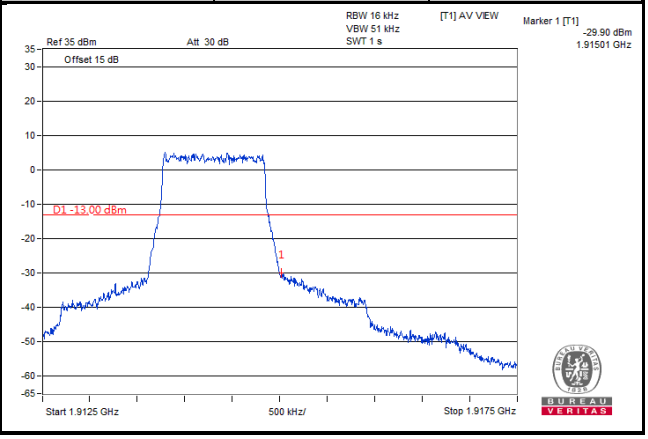
LTE Band 2					
Channel Bandwidth: 3 MHz					
Channel	18615	1 RB	Channel	19185	1 RB
					
Channel	18615	15 RB	Channel	19185	15 RB
					

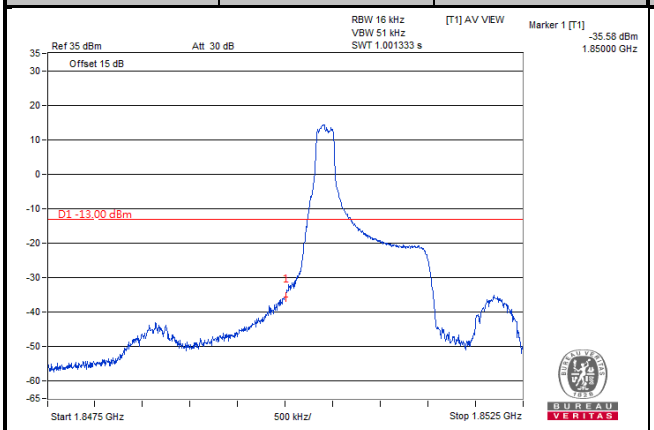
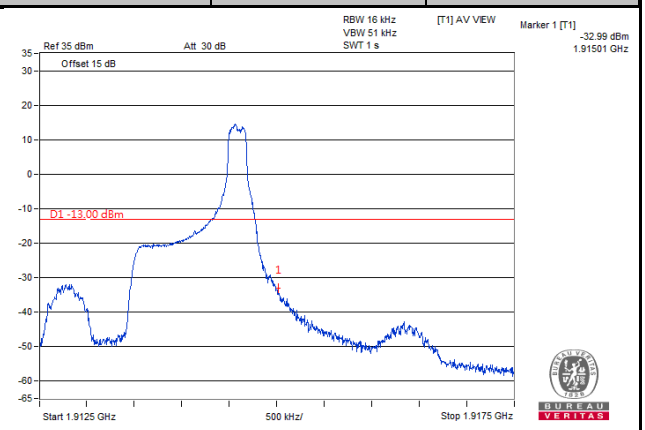
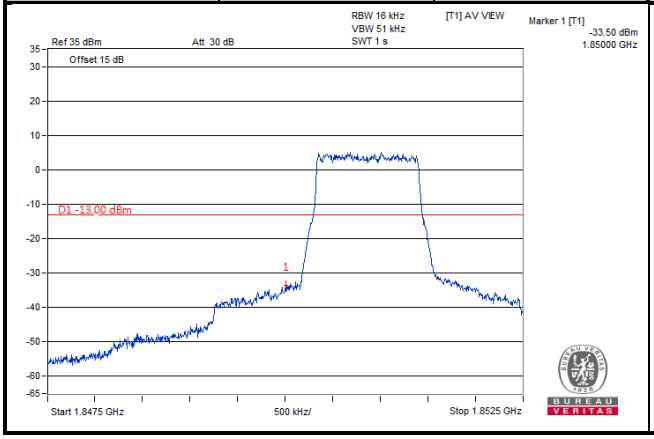
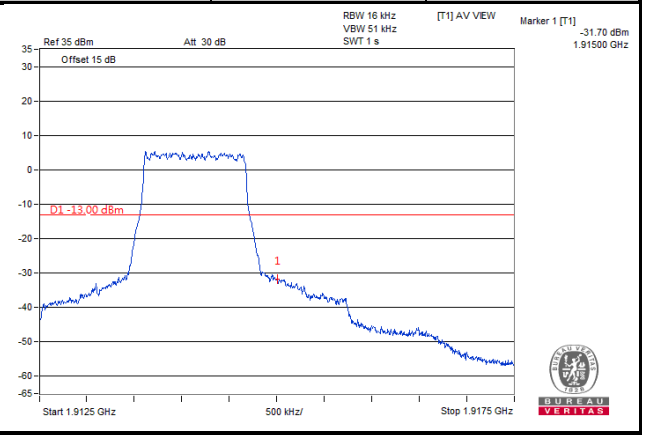
LTE Band 2					
Channel Bandwidth: 5 MHz					
Channel	18625	1 RB	Channel	19175	1 RB
					
Channel	18625	25 RB	Channel	19175	25 RB
					

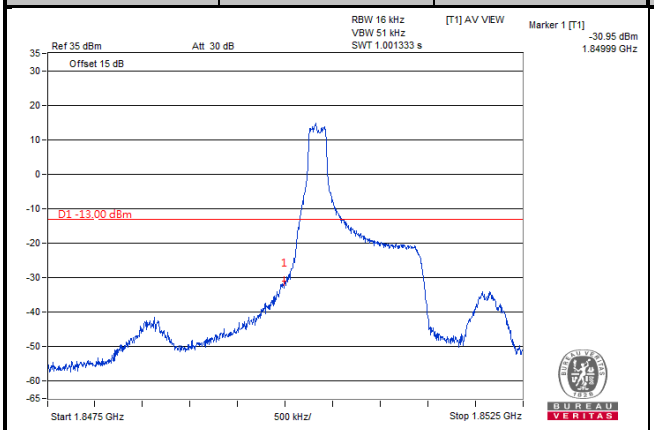
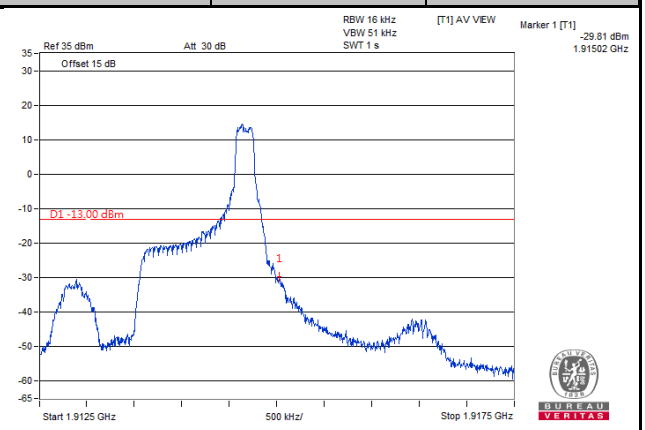
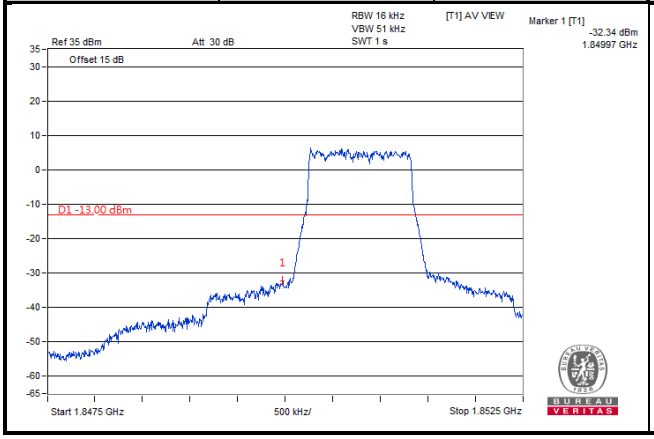
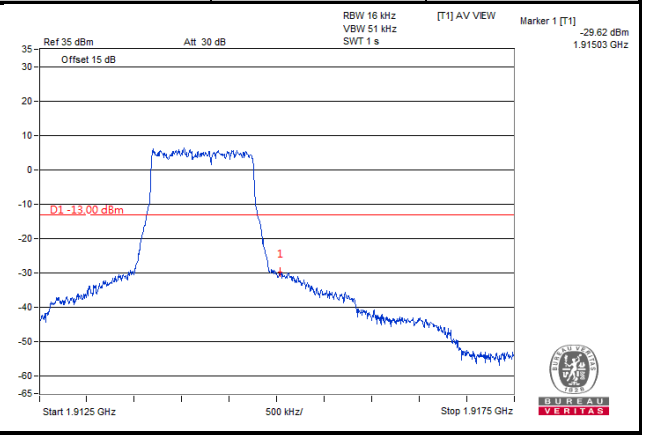
LTE Band 2					
Channel Bandwidth: 10 MHz					
Channel	18650	1 RB	Channel	19150	1 RB
					
Channel	18650	50 RB	Channel	19150	50 RB
					

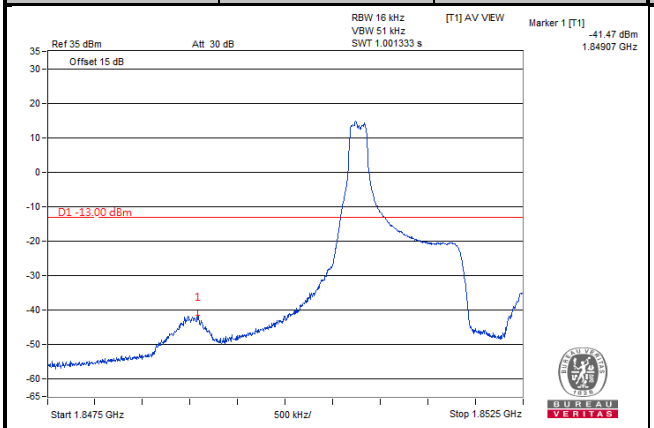
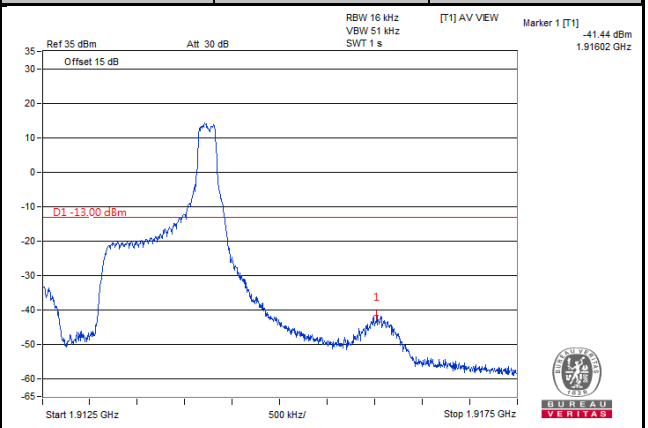
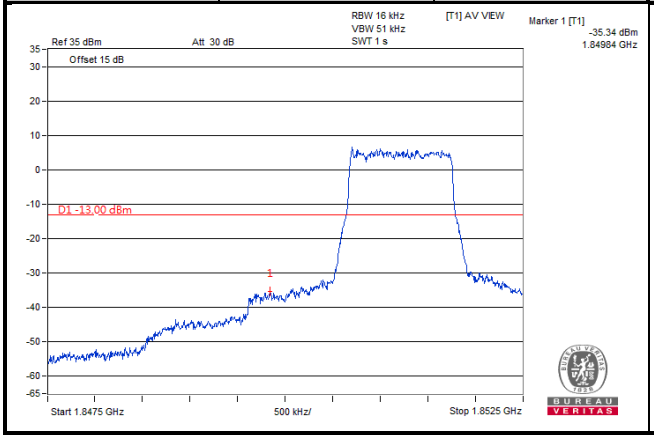
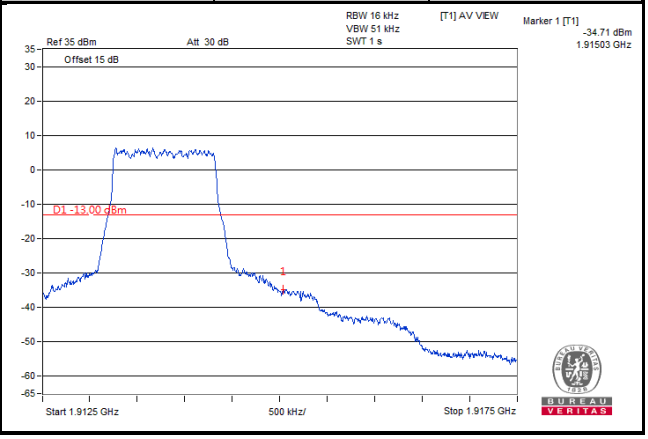
LTE Band 2					
Channel Bandwidth: 15 MHz					
Channel	18675	1 RB	Channel	19125	1 RB
					
Channel	18675	75 RB	Channel	19125	75 RB
					

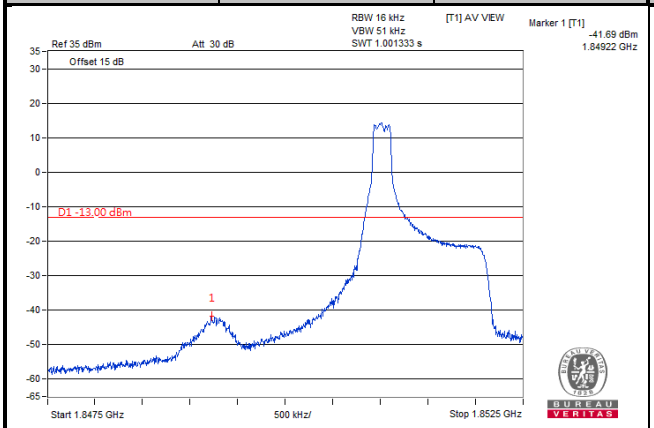
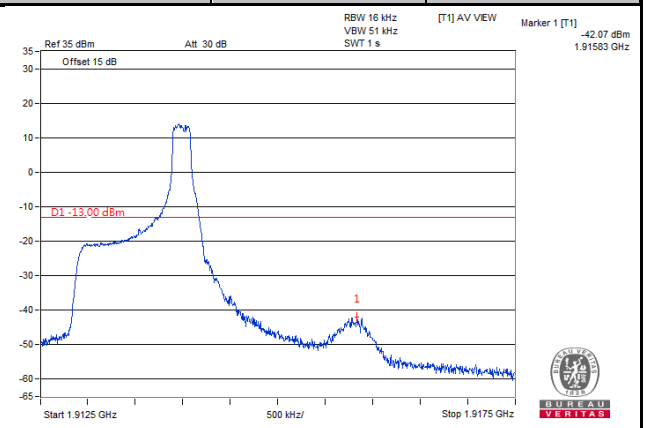
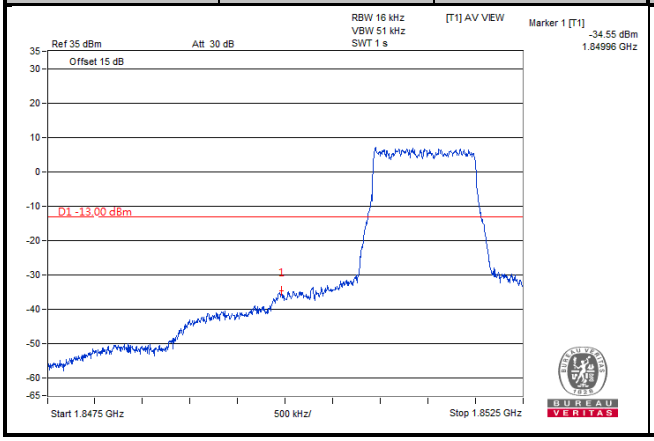
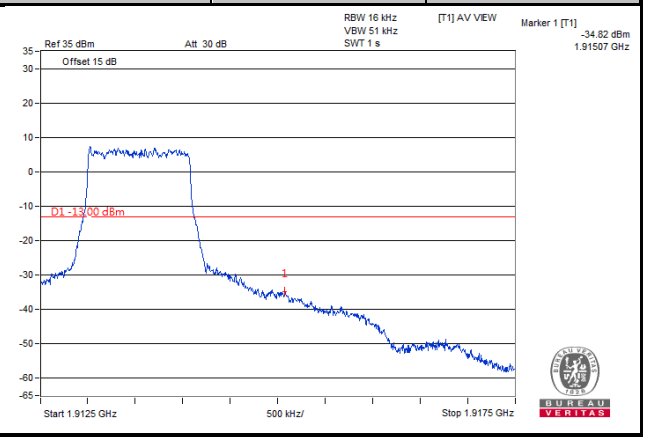
LTE Band 2					
Channel Bandwidth: 20 MHz					
Channel	18700	1 RB	Channel	19100	1 RB
					
Channel	18700	100 RB	Channel	19100	100 RB
					

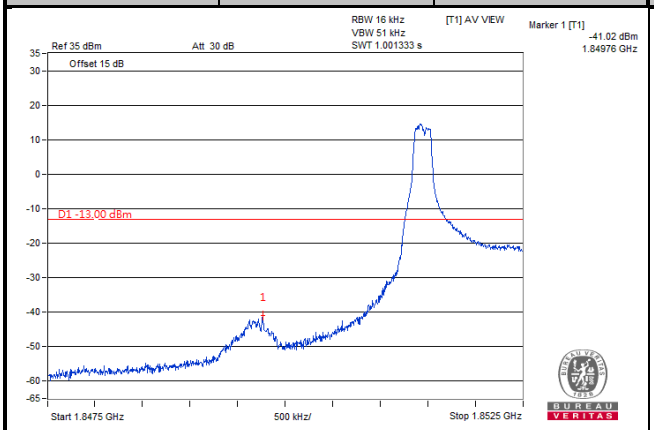
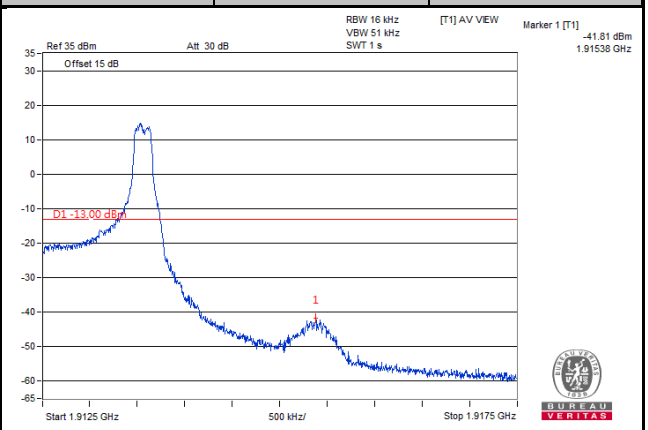
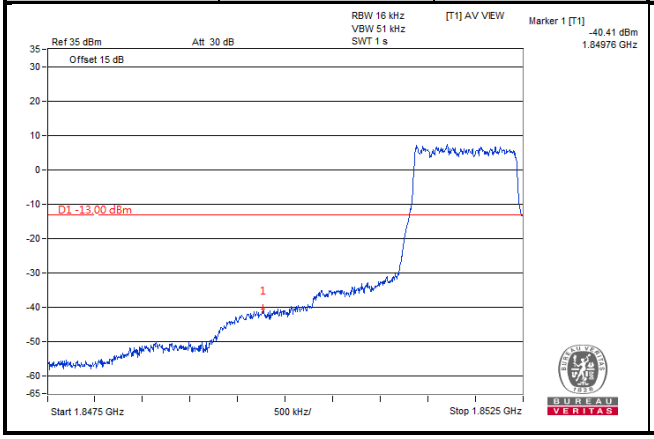
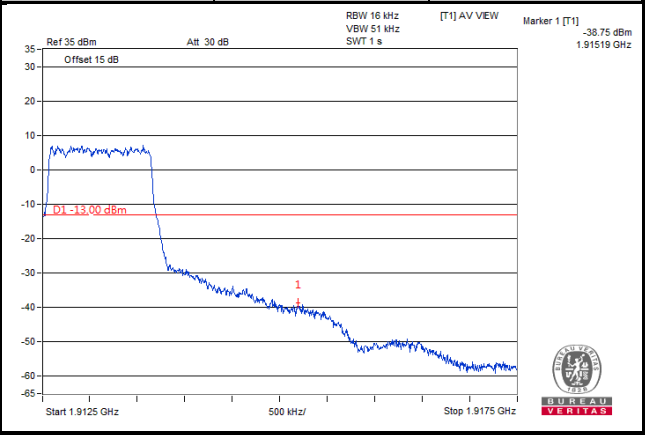
LTE Band 25					
Channel Bandwidth: 1.4 MHz					
Channel	26047	1 RB	Channel	26683	1 RB
					
Channel	26047	6 RB	Channel	26683	6 RB
					

LTE Band 25					
Channel Bandwidth: 3 MHz					
Channel	26055	1 RB	Channel	26675	1 RB
					
Channel	26055	15 RB	Channel	26675	15 RB
					

LTE Band 25					
Channel Bandwidth: 5 MHz					
Channel	26065	1 RB	Channel	26665	1 RB
					
Channel	26065	25 RB	Channel	26665	25 RB
					

LTE Band 25					
Channel Bandwidth: 10 MHz					
Channel	26090	1 RB	Channel	26640	1 RB
					
Channel	26090	50 RB	Channel	26640	50 RB
					

LTE Band 25					
Channel Bandwidth: 15 MHz					
Channel	26115	1 RB	Channel	26615	1 RB
					
Channel	26115	75 RB	Channel	26615	75 RB
					

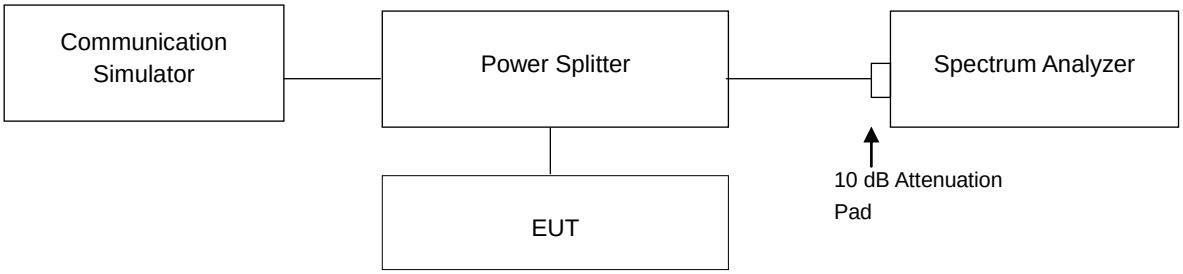
LTE Band 25					
Channel Bandwidth: 20 MHz					
Channel	26140	1 RB	Channel	26590	1 RB
					
Channel	26140	100 RB	Channel	26590	100 RB
					

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

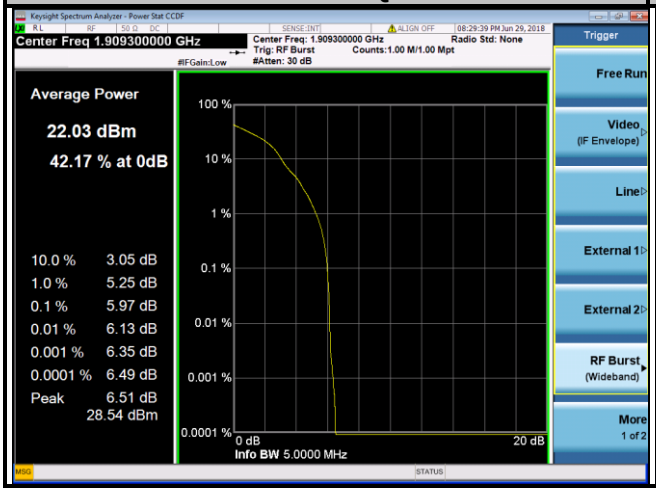
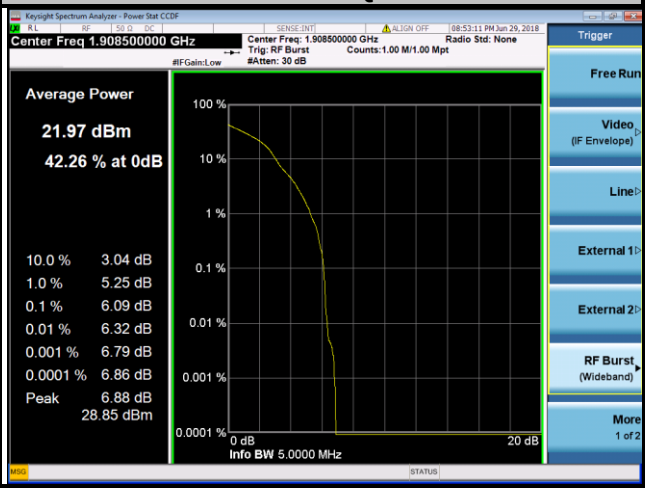


4.6.3 Test Procedures

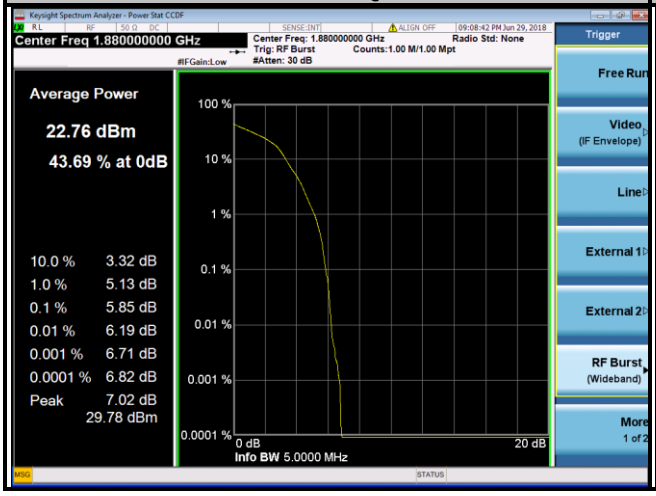
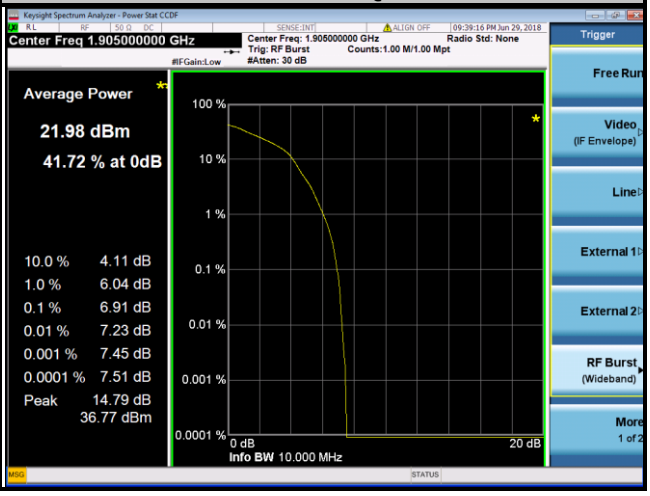
1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1 %.

4.6.4 Test Results

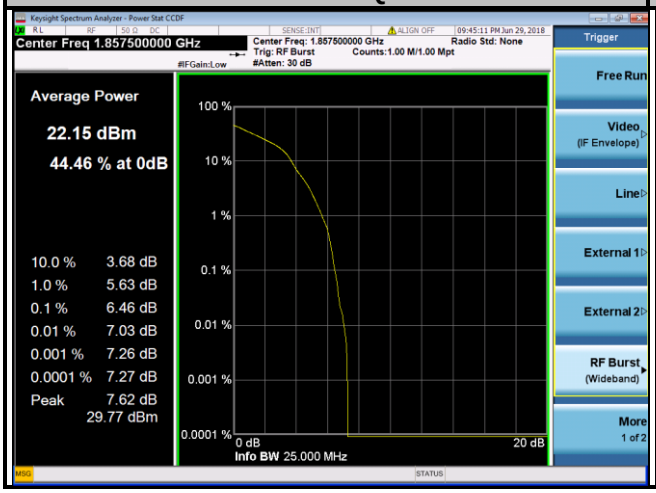
LTE Band 2							
Channel Bandwidth: 1.4 MHz				Channel Bandwidth: 3 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
18607	1850.7	5.64	5.83	18615	1851.5	5.81	5.95
18900	1880.0	5.21	5.76	18900	1880.0	5.70	5.81
19193	1909.3	5.75	5.97	19185	1908.5	5.80	6.09

Spectrum Plot of Worst Value	
1.4 MHz / 16QAM	3 MHz / 16QAM
	

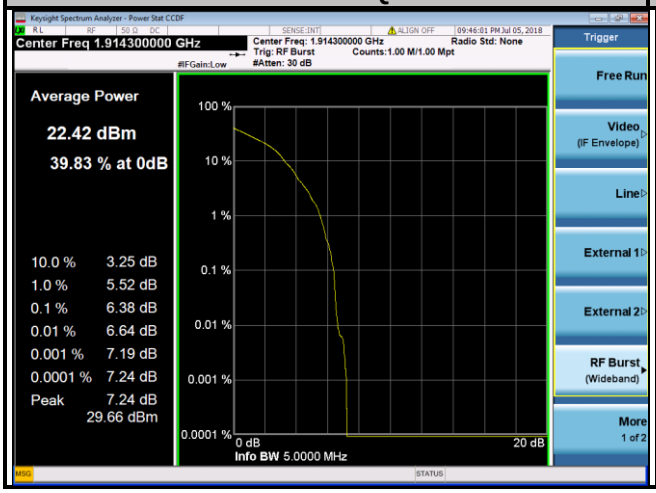
LTE Band 2							
Channel Bandwidth: 5 MHz				Channel Bandwidth: 10 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
18625	1852.5	5.77	5.79	18650	1855.0	5.64	5.83
18900	1880.0	5.73	5.85	18900	1880.0	5.70	5.66
19175	1907.5	5.77	5.78	19150	1905.0	5.65	6.91

Spectrum Plot of Worst Value	
5 MHz / 16QAM	10 MHz / 16QAM
	

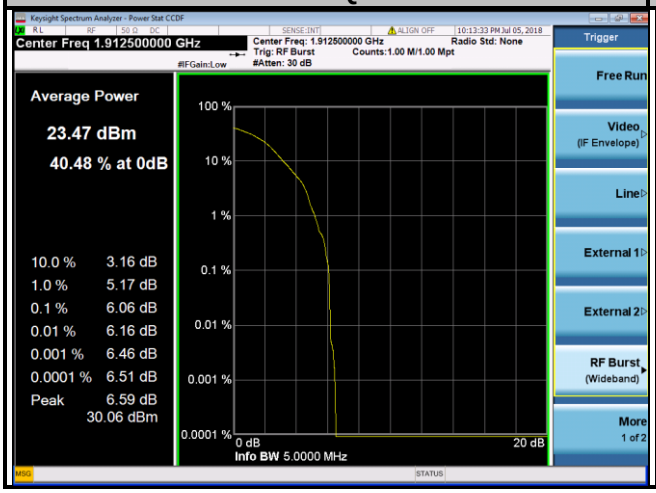
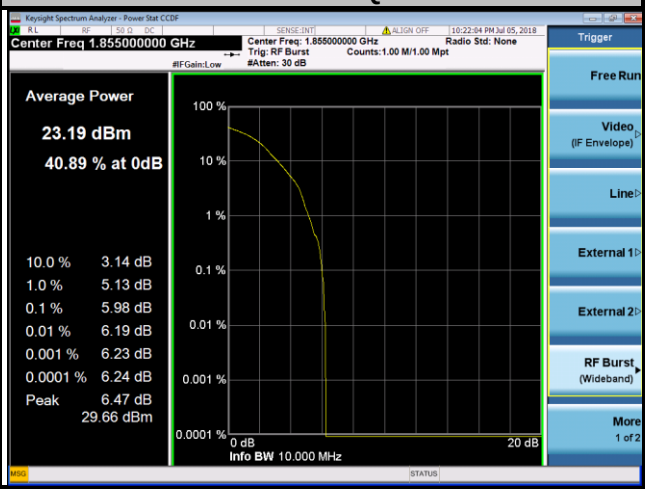
LTE Band 2							
Channel Bandwidth: 15 MHz				Channel Bandwidth: 20 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
18675	1857.5	6.18	6.46	18700	1860.0	6.50	5.69
18900	1880.0	6.40	5.94	18900	1880.0	6.02	5.72
19125	1902.5	5.74	6.00	19100	1900.0	6.26	6.01

Spectrum Plot of Worst Value	
15 MHz / 16QAM	20 MHz / QPSK
	

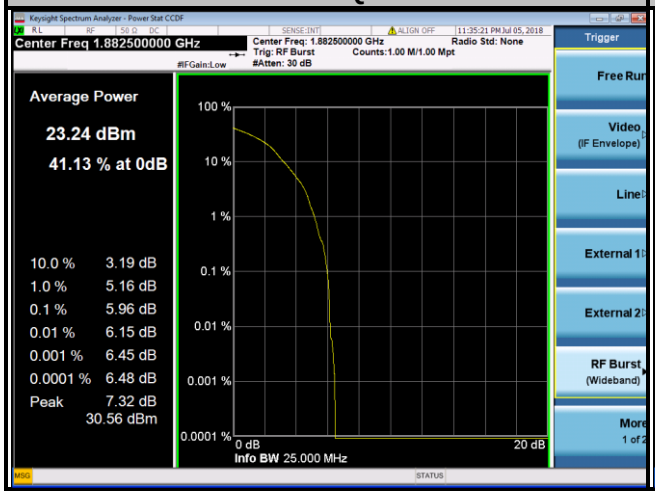
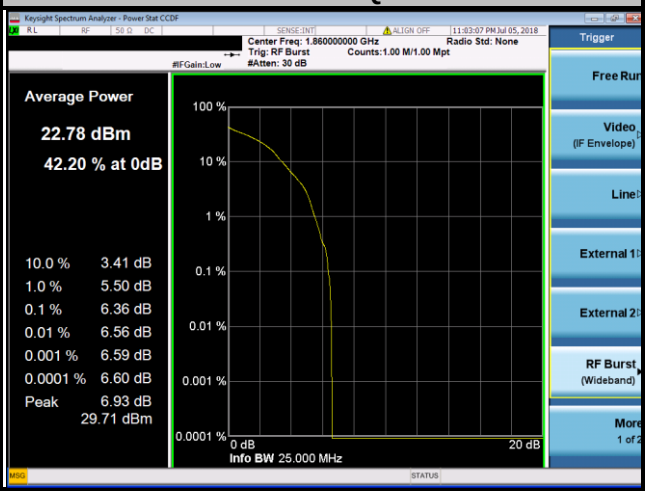
LTE Band 25							
Channel Bandwidth: 1.4 MHz				Channel Bandwidth: 3 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
26047	1850.7	5.68	6.20	26055	1851.5	5.22	6.35
26365	1882.5	5.18	6.14	26365	1882.5	5.18	6.27
26683	1914.3	5.40	6.38	26675	1913.5	5.43	6.50

Spectrum Plot of Worst Value	
1.4 MHz / 16QAM	3 MHz / 16QAM
	

LTE Band 25							
Channel Bandwidth: 5 MHz				Channel Bandwidth: 10 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
26065	1852.5	5.55	5.82	26090	1855.0	5.60	5.98
26365	1882.5	5.42	5.79	26365	1882.5	5.38	5.82
26665	1912.5	5.59	6.06	26640	1910.0	5.51	5.89

Spectrum Plot of Worst Value	
5 MHz / QPSK	10 MHz / 16QAM
	

LTE Band 25							
Channel Bandwidth: 15 MHz				Channel Bandwidth: 20 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
26115	1857.5	5.50	5.91	26140	1860.0	5.47	6.36
26365	1882.5	5.64	5.96	26365	1882.5	5.41	5.73
26615	1907.5	5.58	5.87	26590	1905.0	5.47	5.88

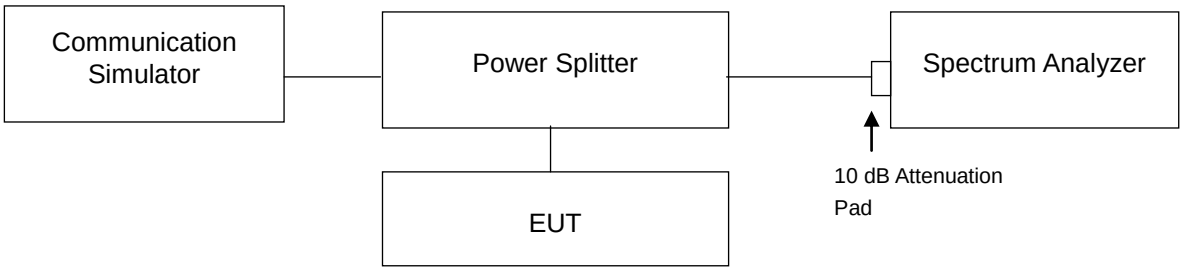
Spectrum Plot of Worst Value	
15 MHz / QPSK	20 MHz / 16QAM
	

4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

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

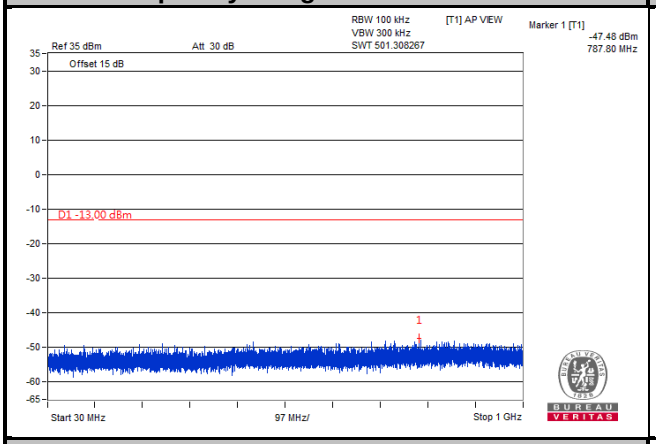
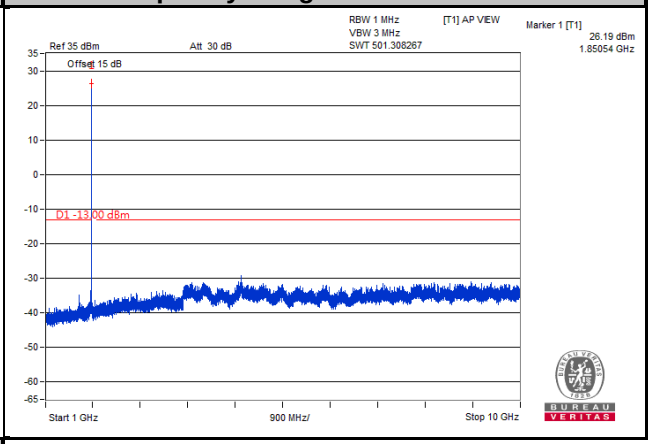
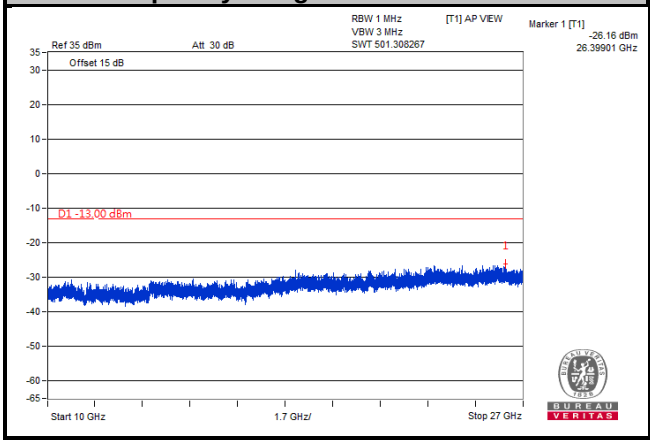
4.7.2 Test Setup

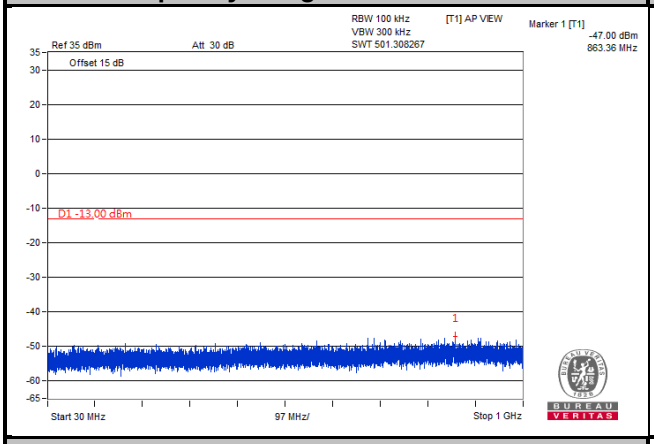
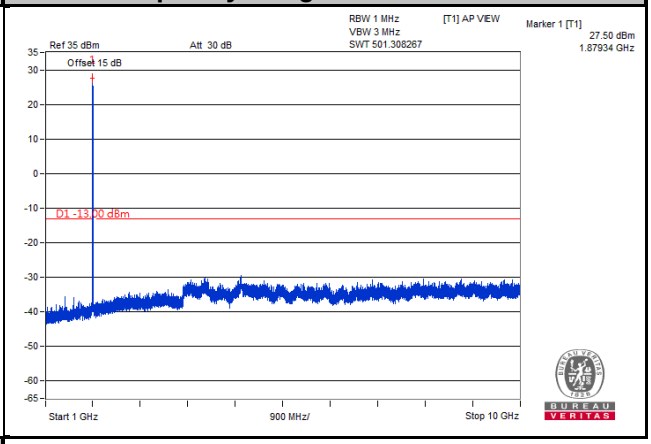
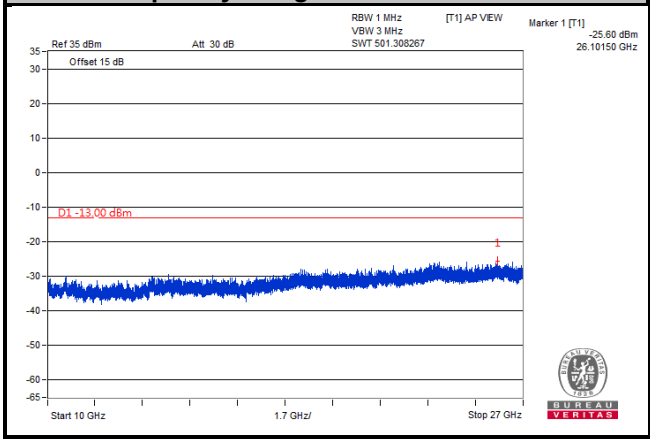


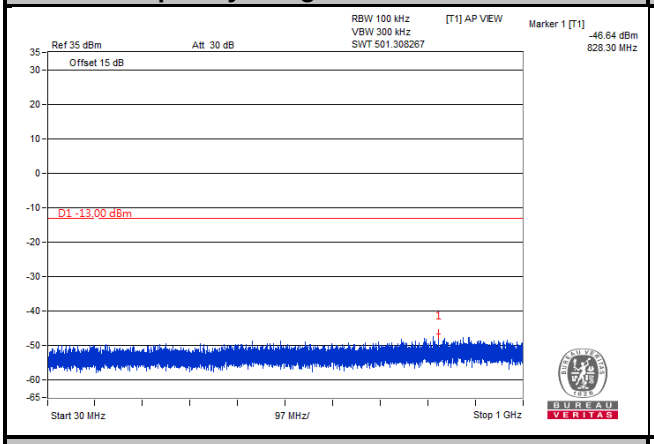
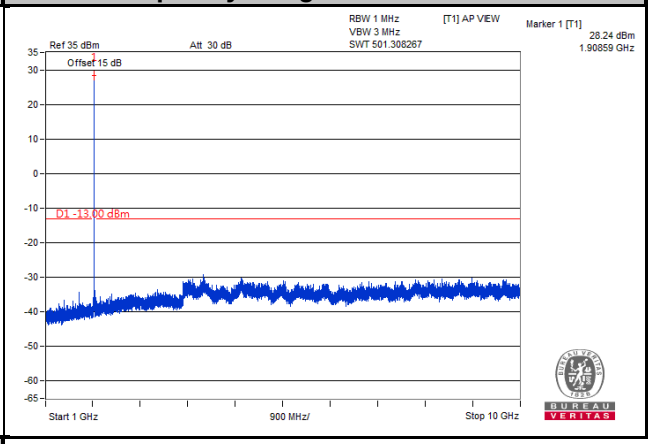
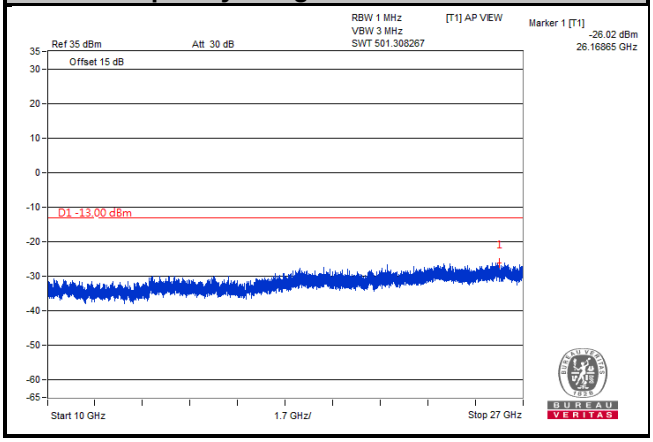
4.7.3 Test Procedure

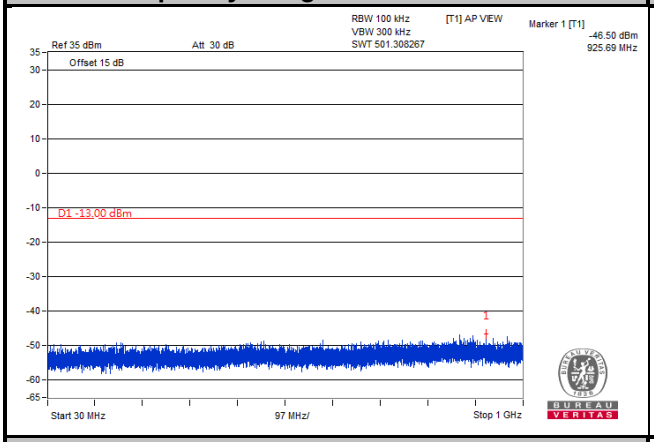
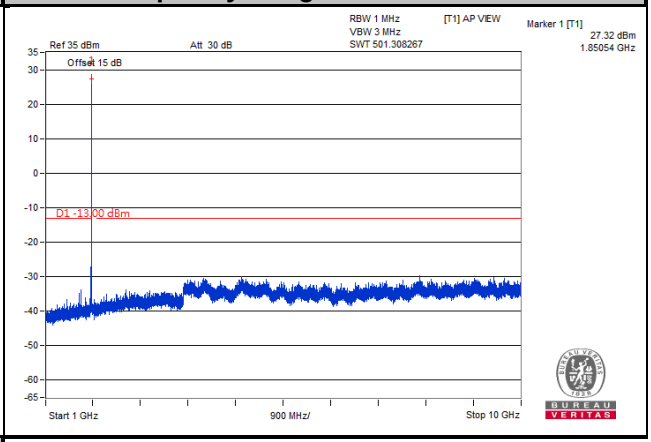
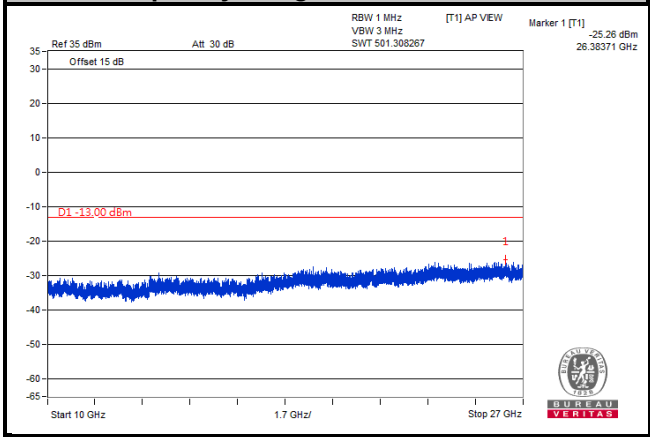
a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
b. Measuring frequency range is from 9 kHz to 26.5 GHz. 20 dB attenuation pad is connected with spectrum. RBW = 1 MHz and VBW = 3 MHz is used for conducted emission measurement.

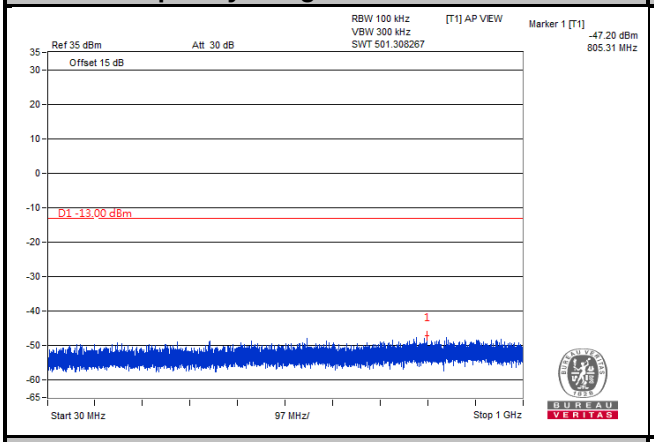
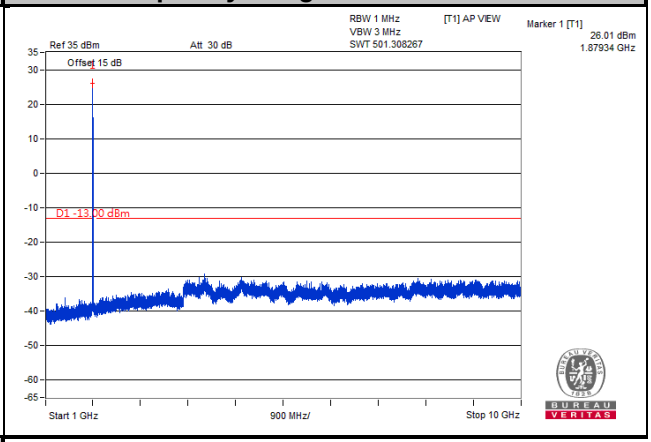
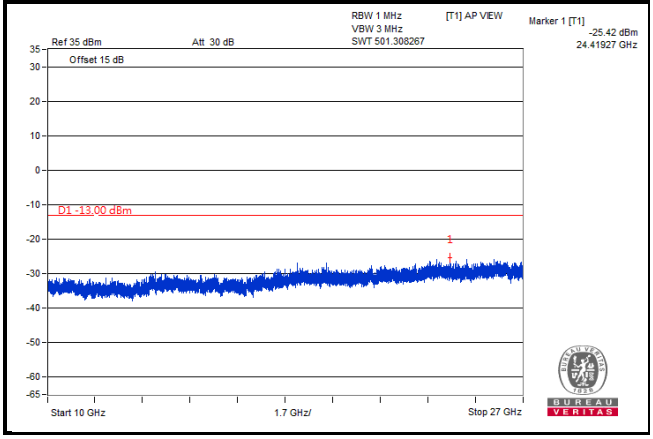
4.7.4 Test Results

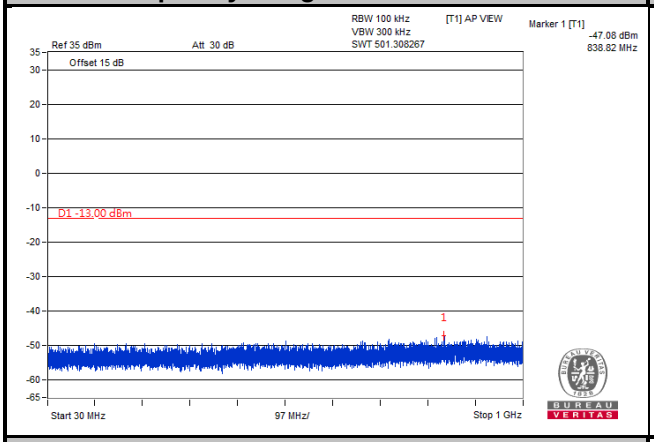
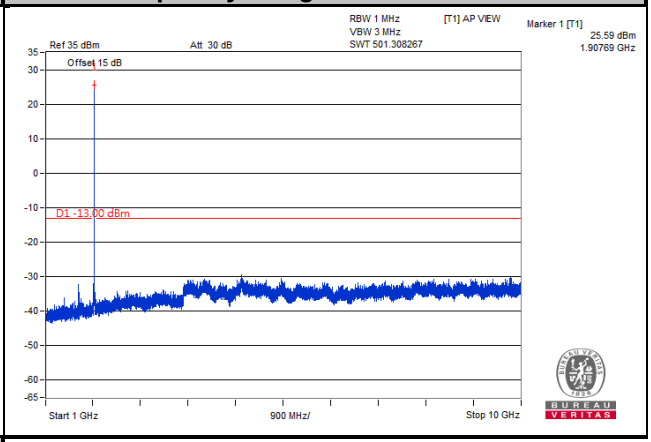
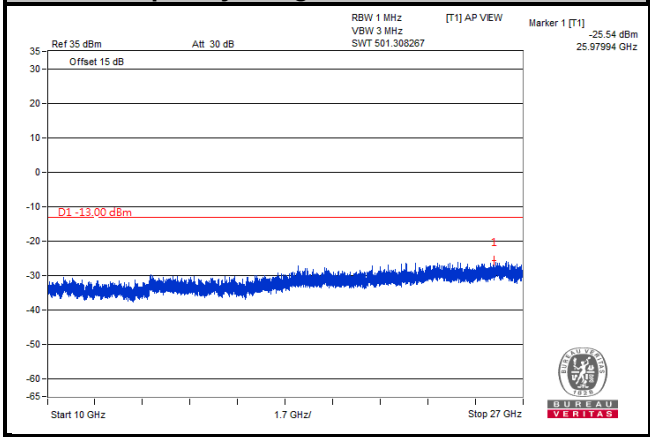
LTE Band 2	
Channel Bandwidth: 1.4 MHz	
Channel 18607	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

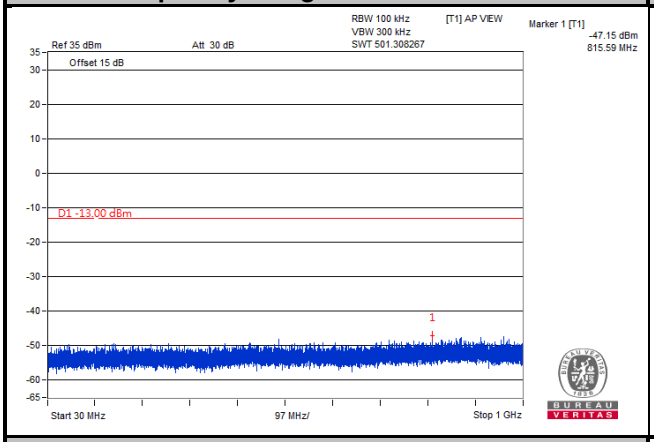
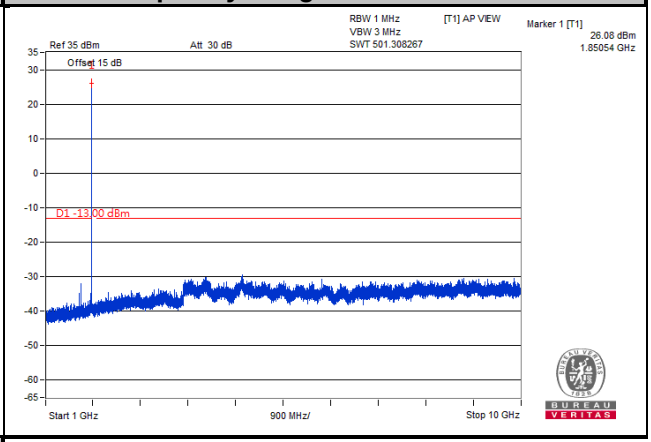
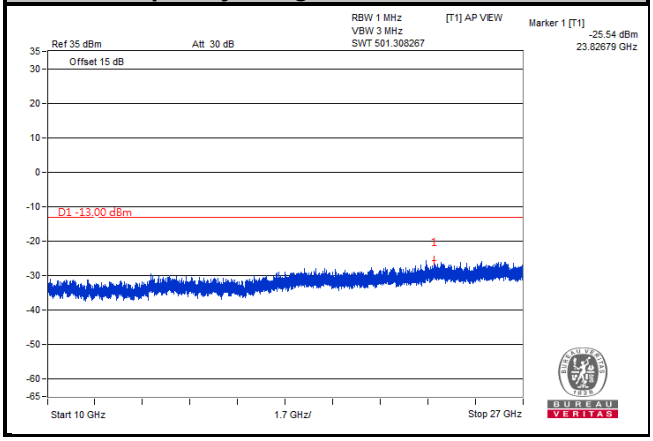
LTE Band 2	
Channel Bandwidth: 1.4 MHz	
Channel 18900	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

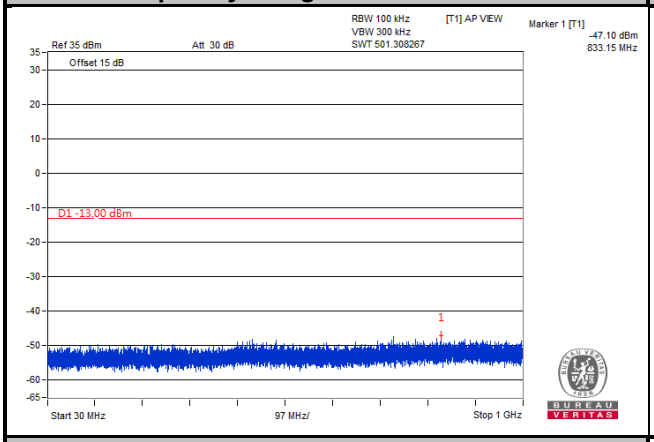
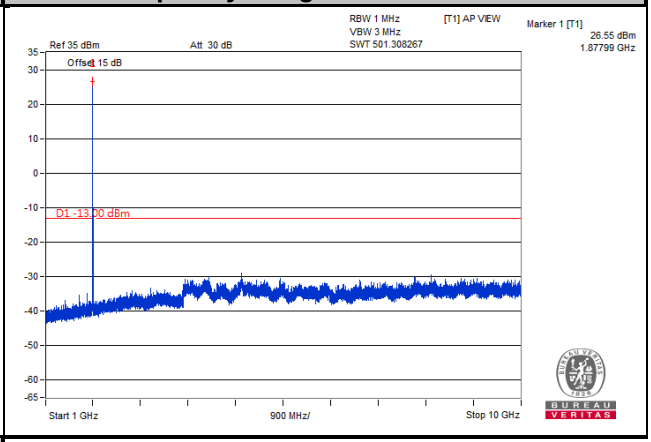
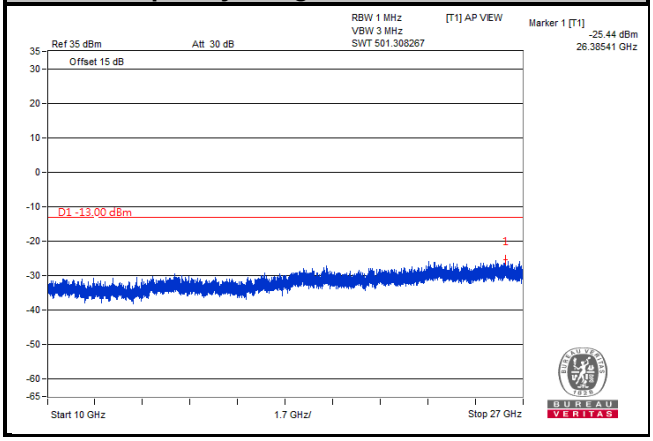
LTE Band 2	
Channel Bandwidth: 1.4 MHz	
Channel 19193	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

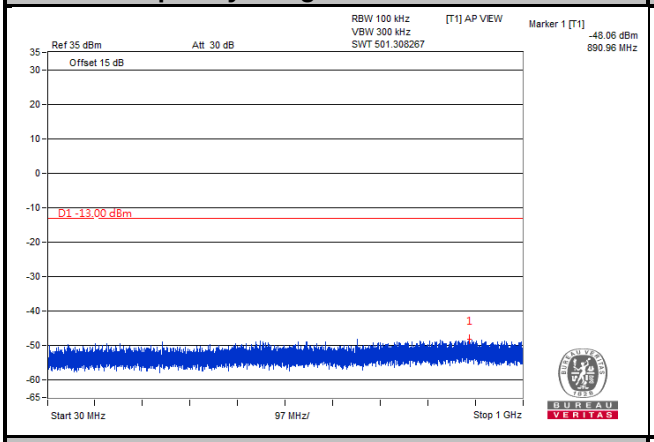
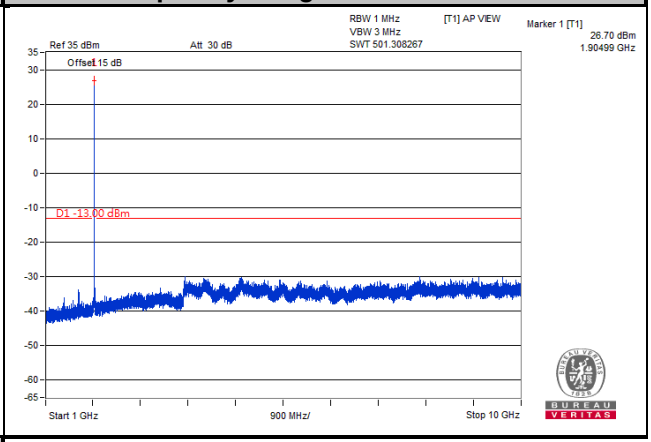
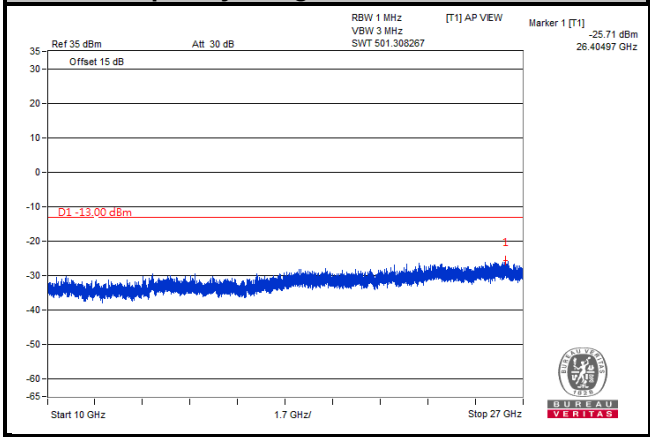
LTE Band 2	
Channel Bandwidth: 3 MHz	
Channel 18615	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

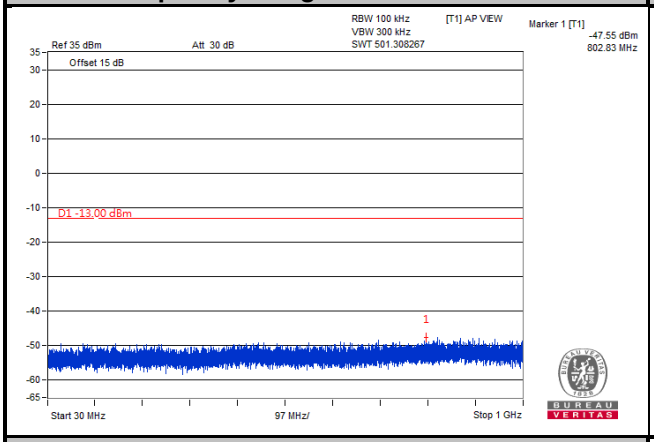
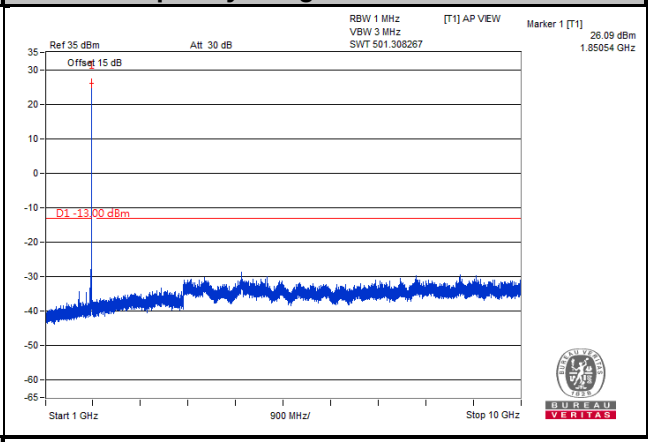
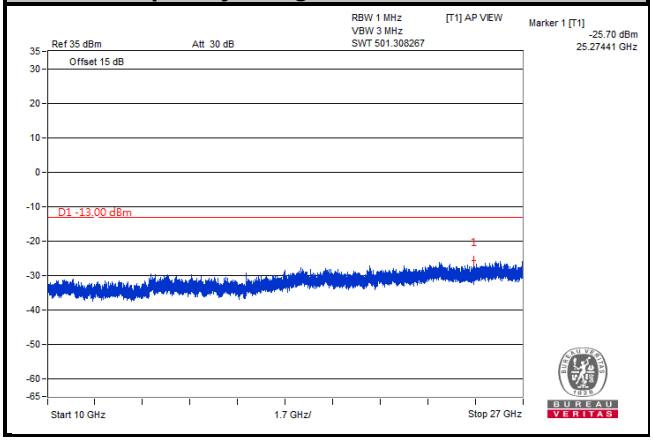
LTE Band 2	
Channel Bandwidth: 3 MHz	
Channel 18900	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

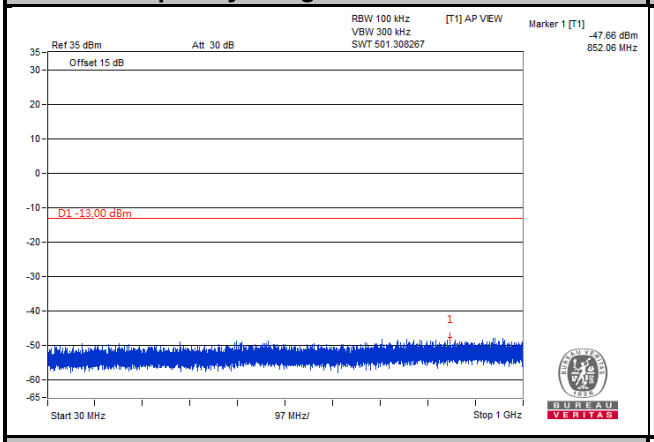
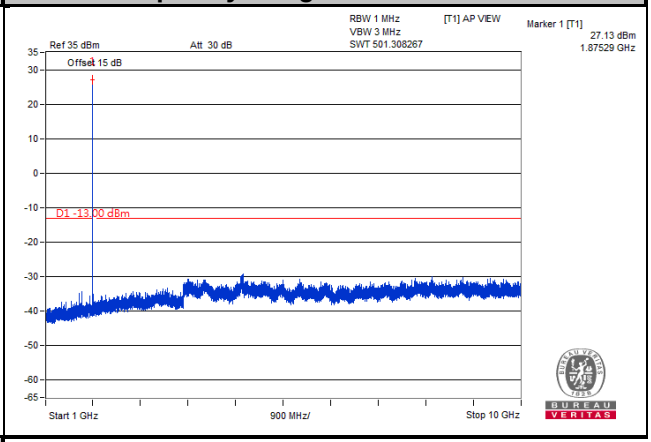
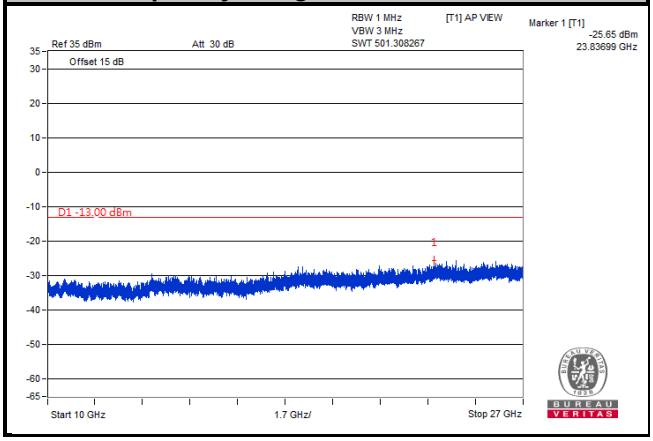
LTE Band 2	
Channel Bandwidth: 3 MHz	
Channel 19185	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

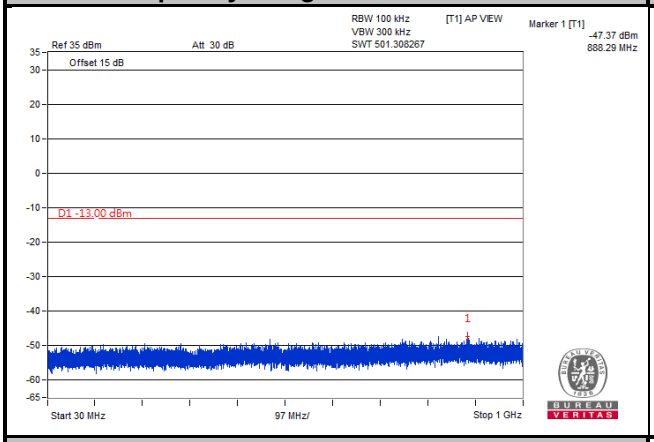
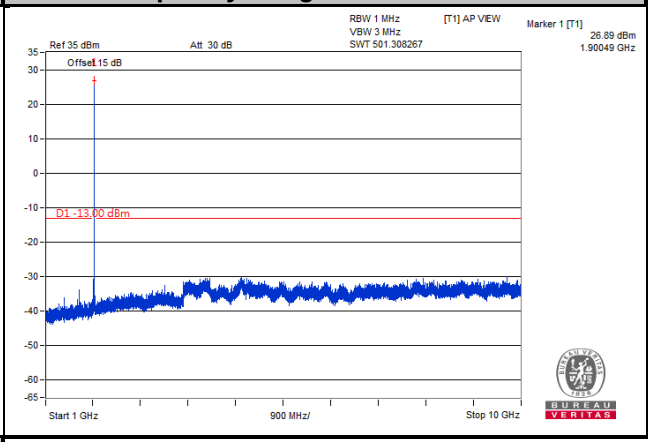
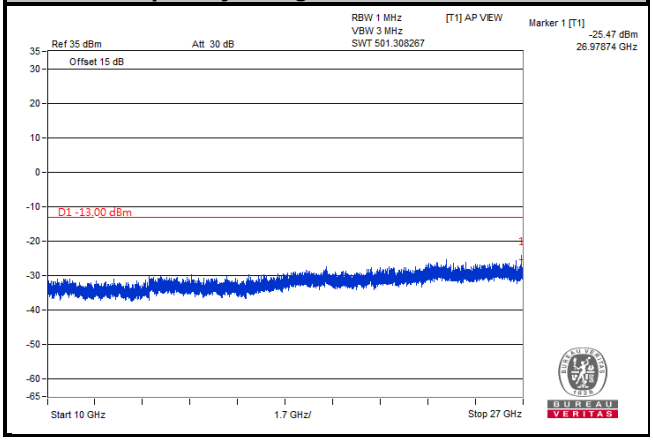
LTE Band 2	
Channel Bandwidth: 5 MHz	
Channel 18625	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

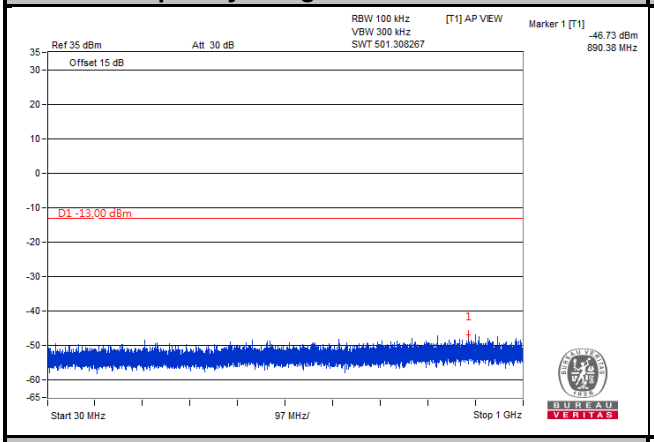
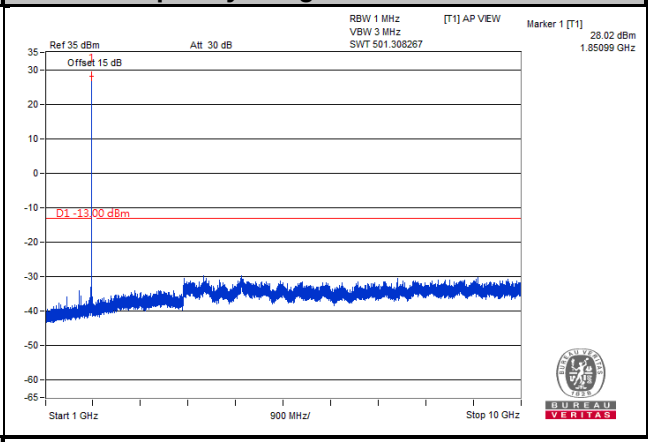
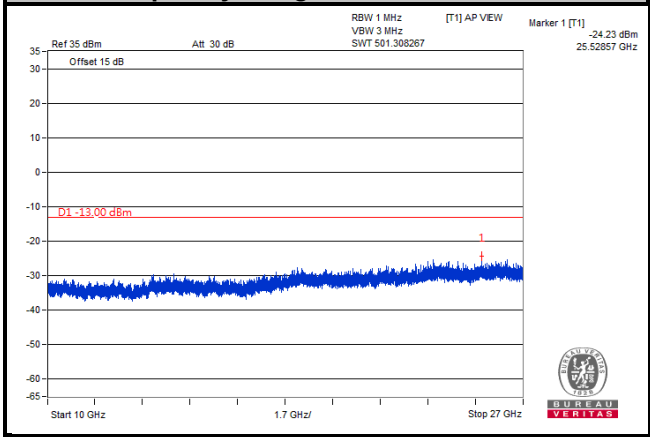
LTE Band 2	
Channel Bandwidth: 5 MHz	
Channel 18900	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

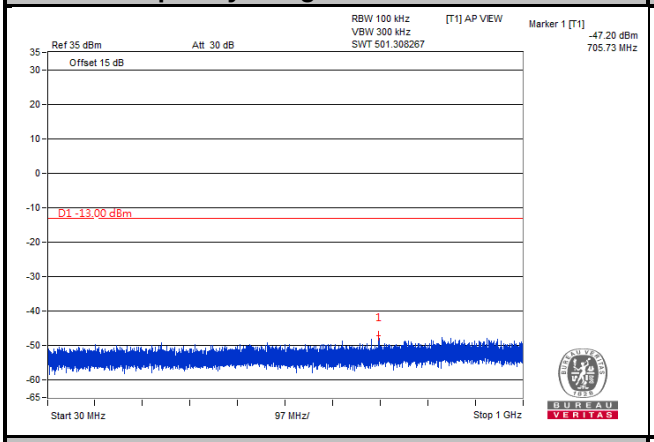
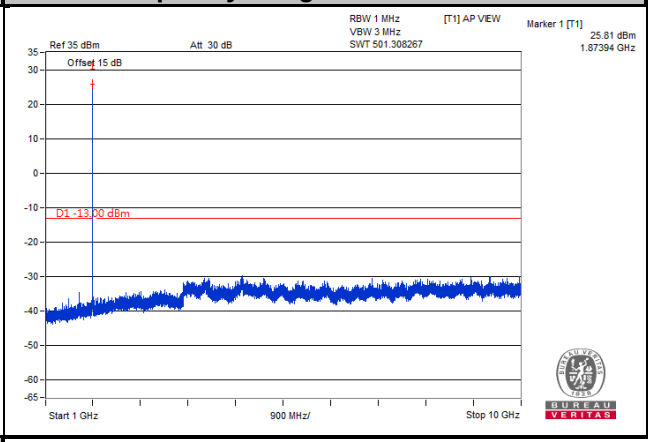
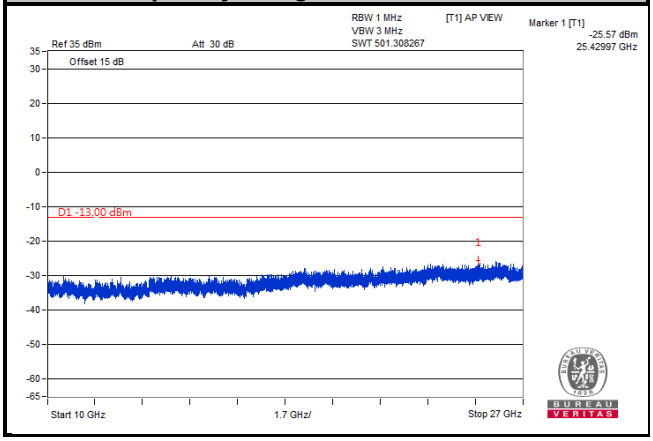
LTE Band 2	
Channel Bandwidth: 5 MHz	
Channel 19175	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

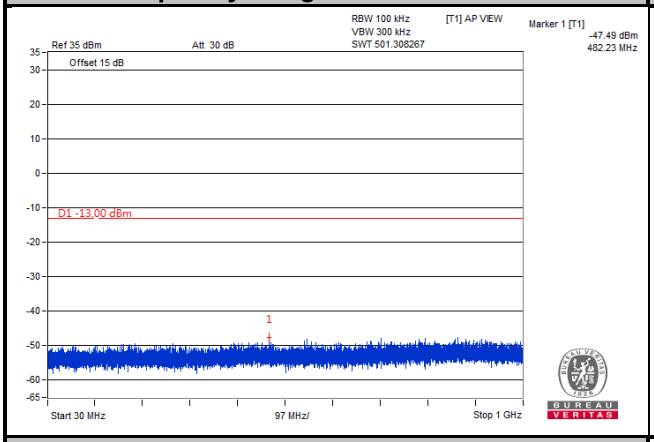
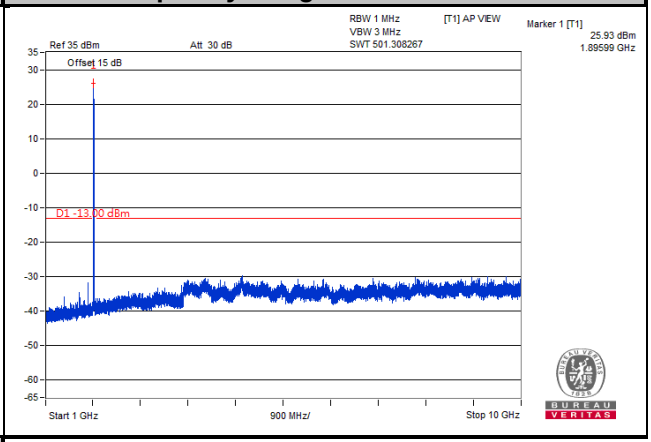
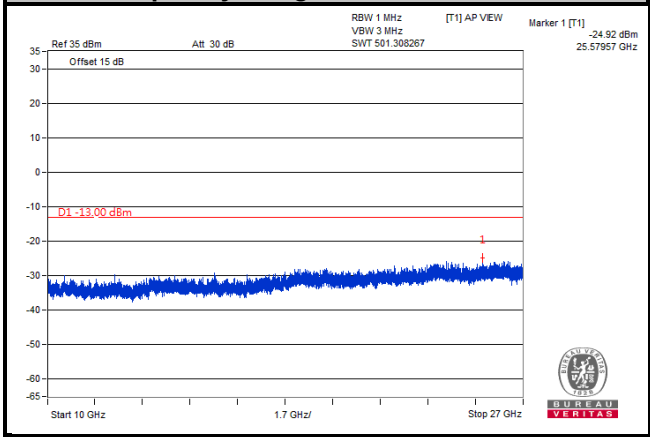
LTE Band 2	
Channel Bandwidth: 10 MHz	
Channel 18650	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

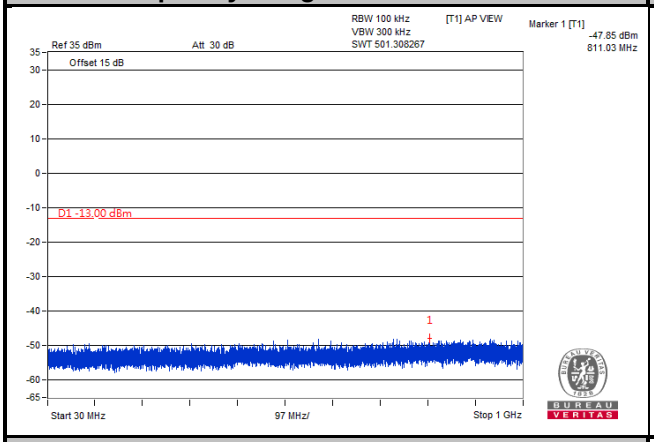
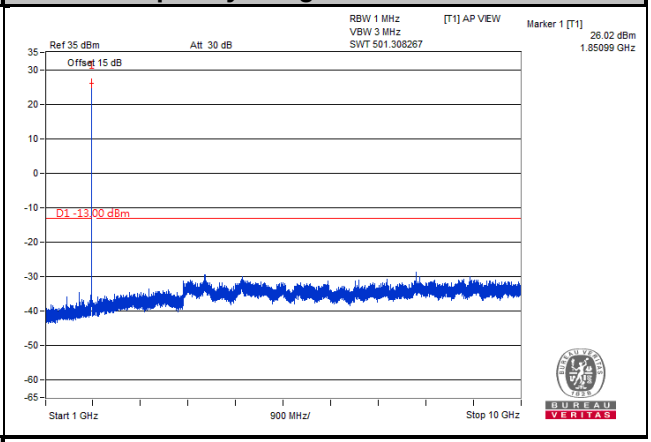
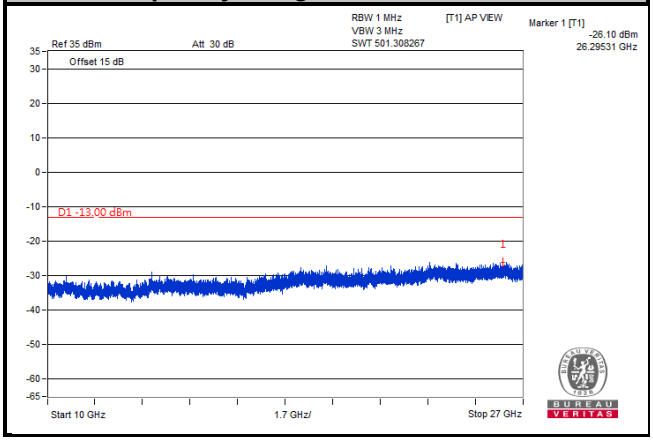
LTE Band 2	
Channel Bandwidth: 10 MHz	
Channel 18900	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

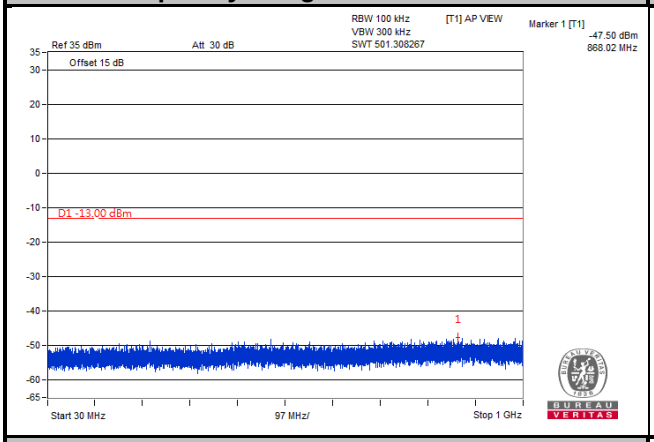
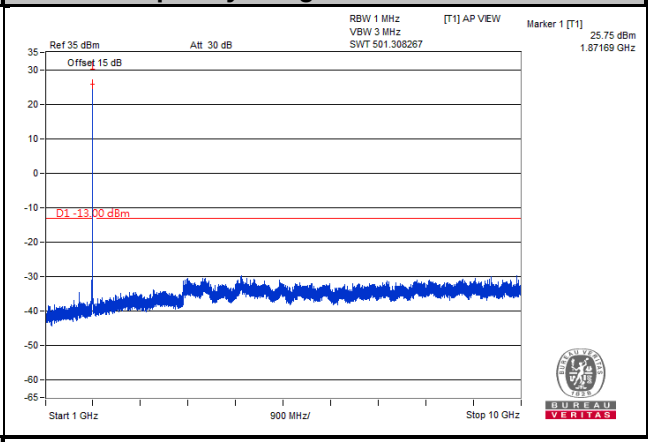
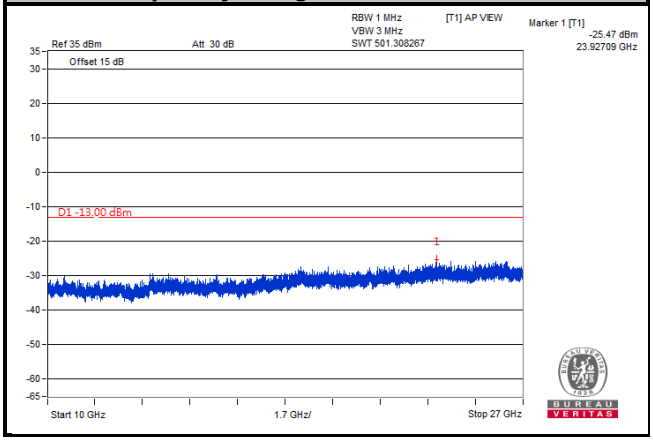
LTE Band 2	
Channel Bandwidth: 10 MHz	
Channel 19150	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

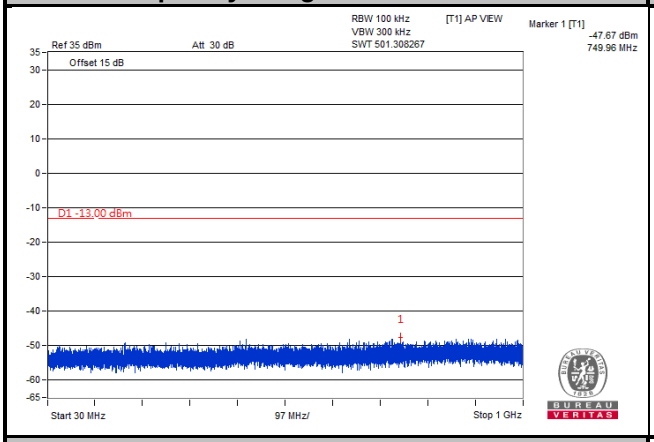
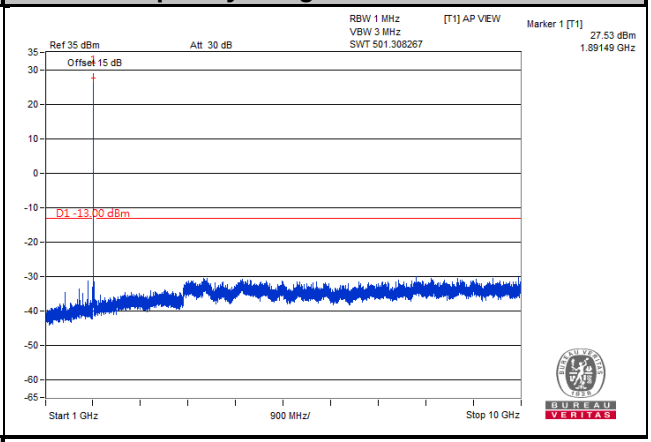
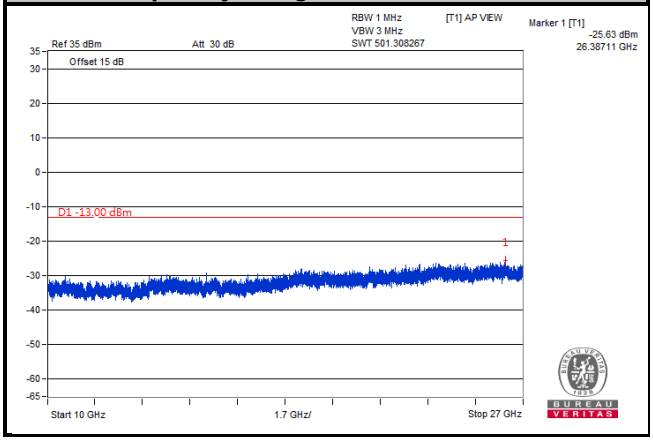
LTE Band 2	
Channel Bandwidth: 15 MHz	
Channel 18675	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

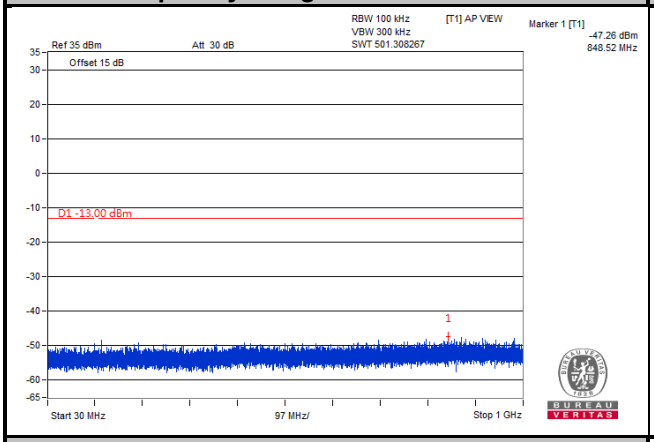
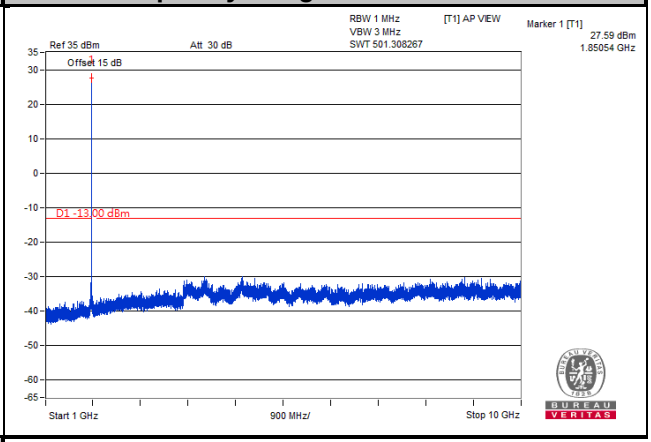
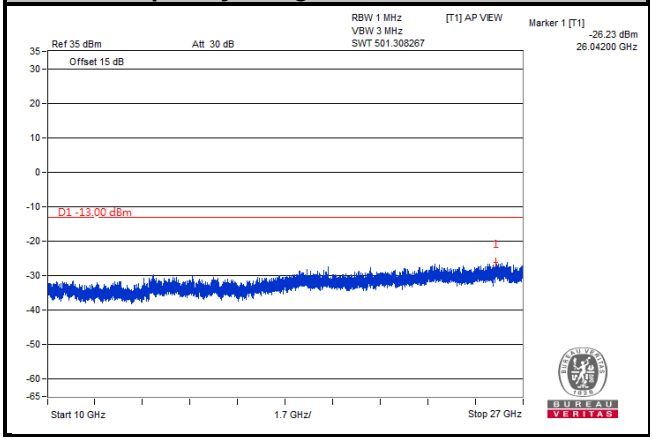
LTE Band 2	
Channel Bandwidth: 15 MHz	
Channel 18900	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

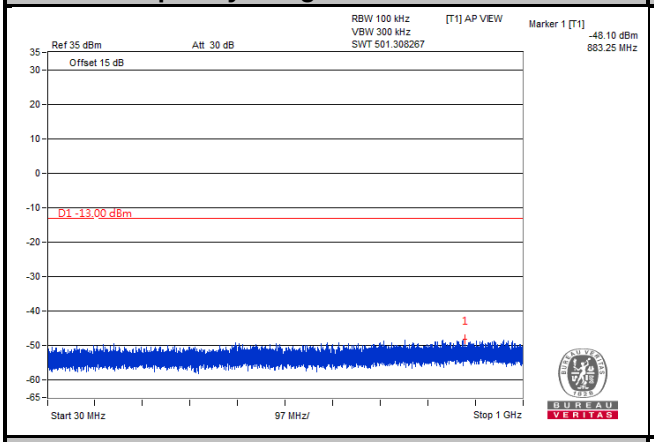
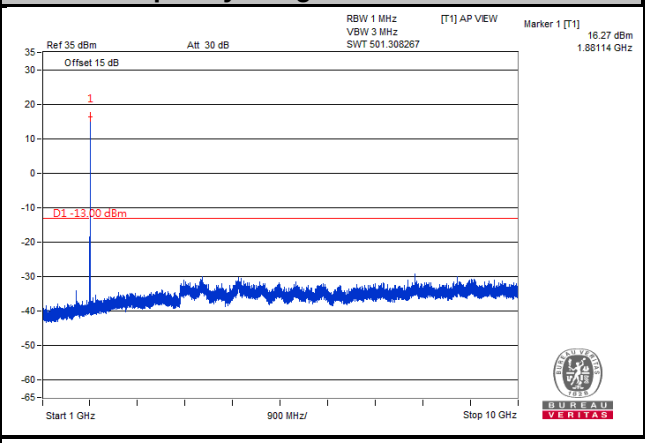
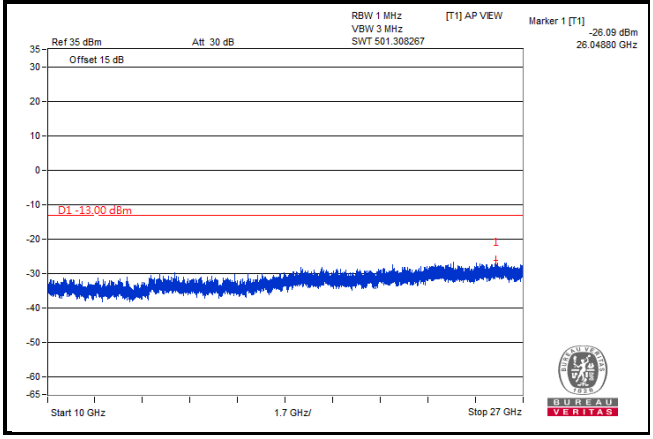
LTE Band 2	
Channel Bandwidth: 15 MHz	
Channel 19125	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

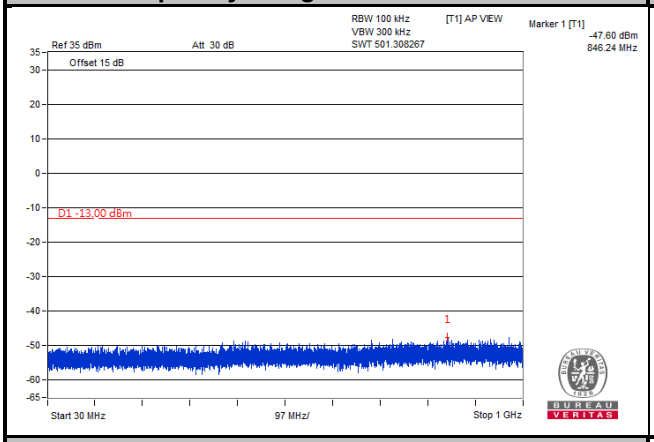
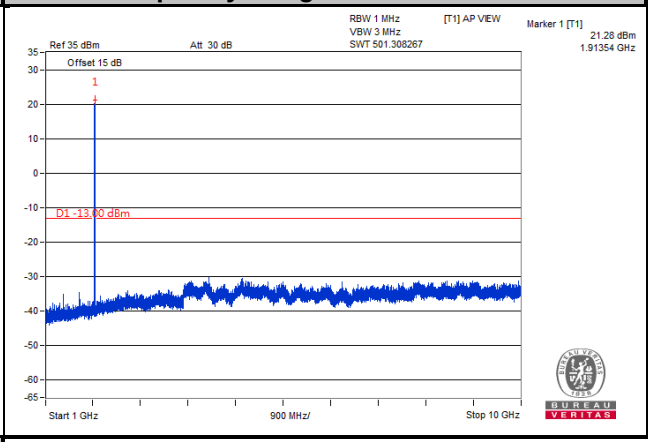
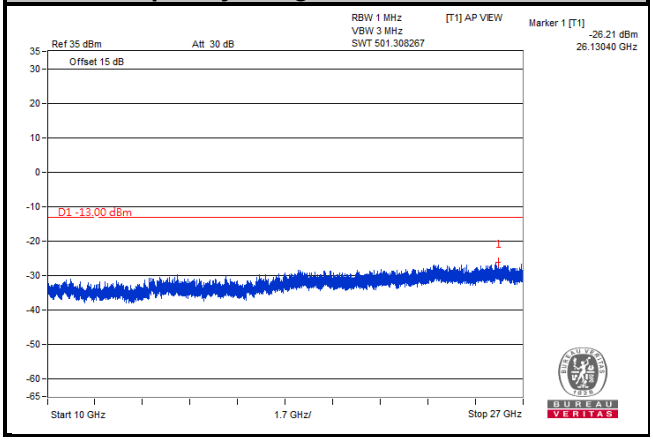
LTE Band 2	
Channel Bandwidth: 20 MHz	
Channel 18700	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

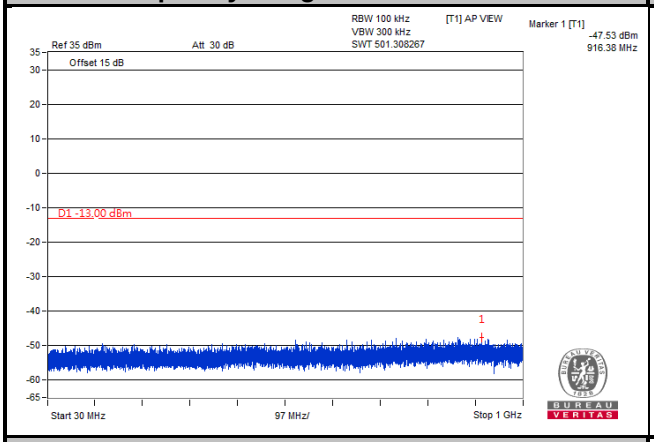
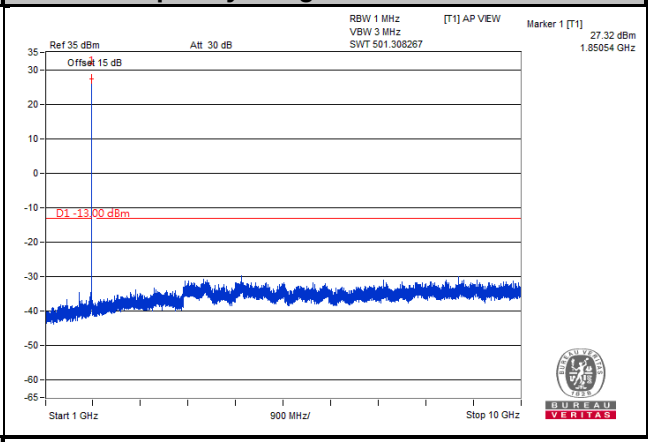
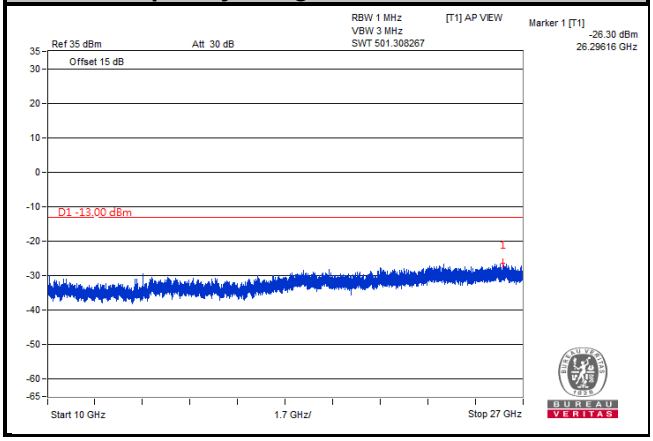
LTE Band 2	
Channel Bandwidth: 20 MHz	
Channel 18900	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

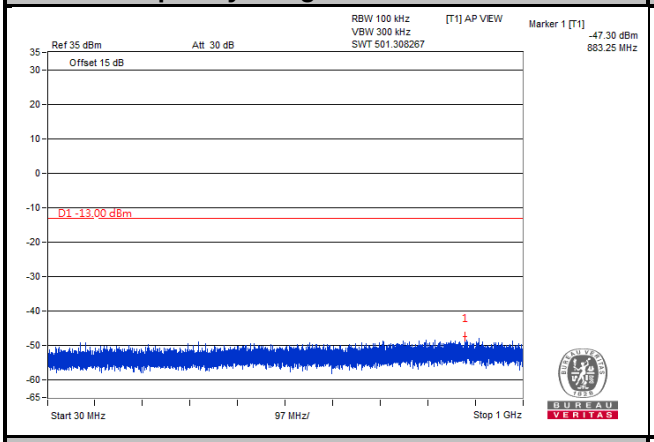
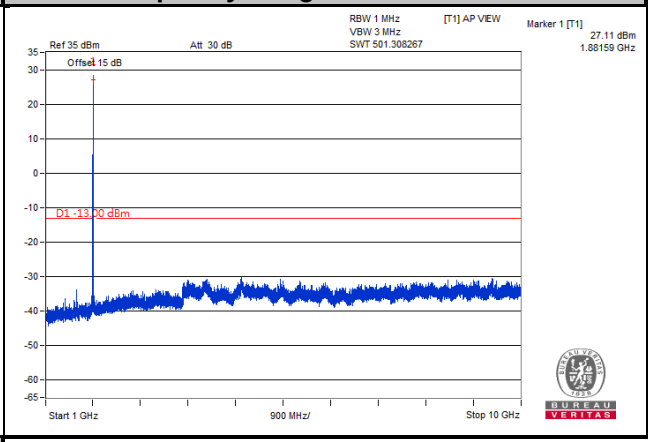
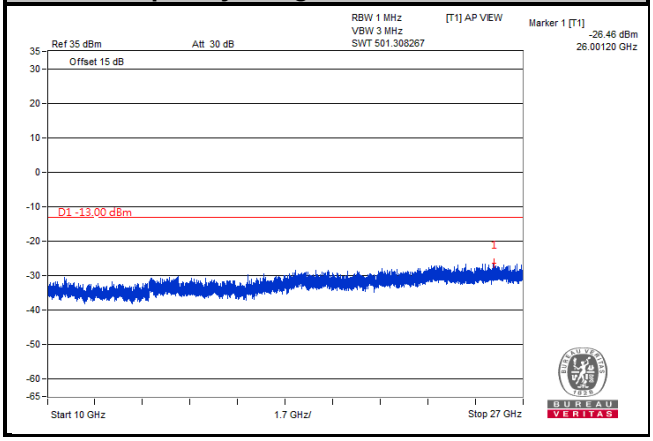
LTE Band 2	
Channel Bandwidth: 20 MHz	
Channel 19100	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

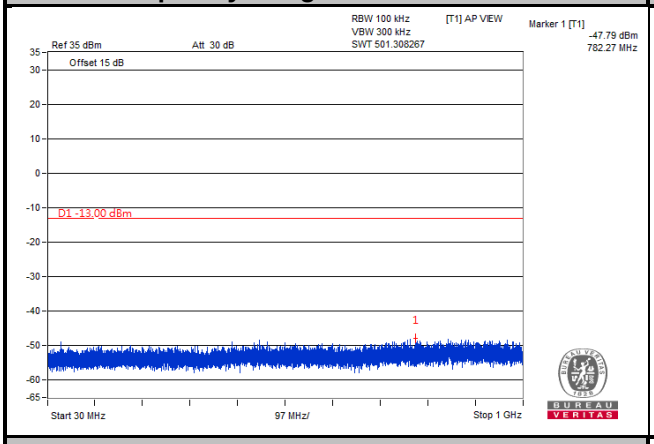
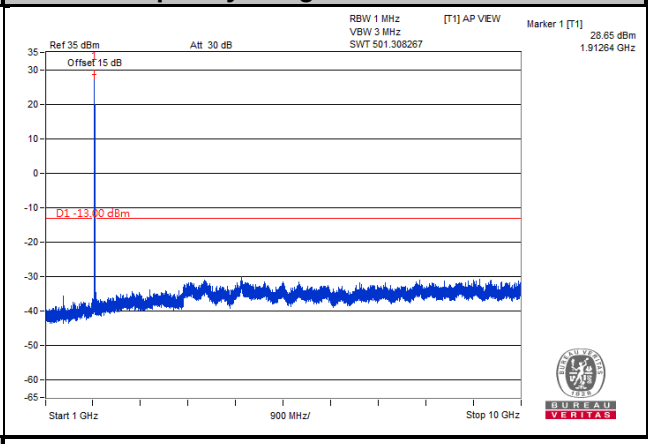
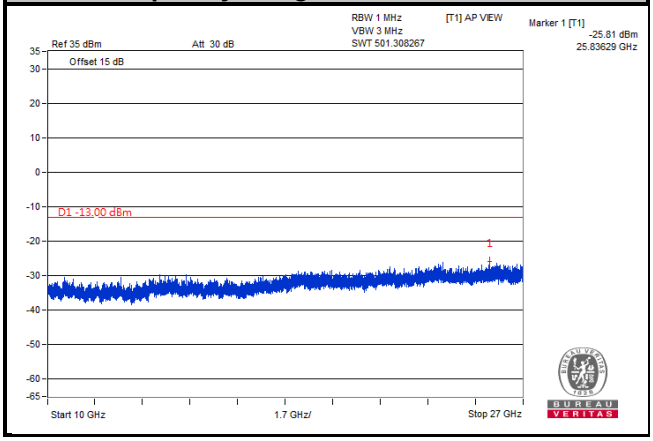
LTE Band 25	
Channel Bandwidth: 1.4 MHz	
Channel 26047	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

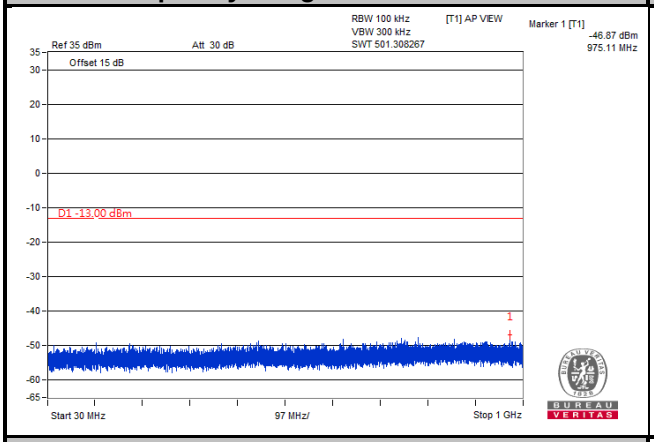
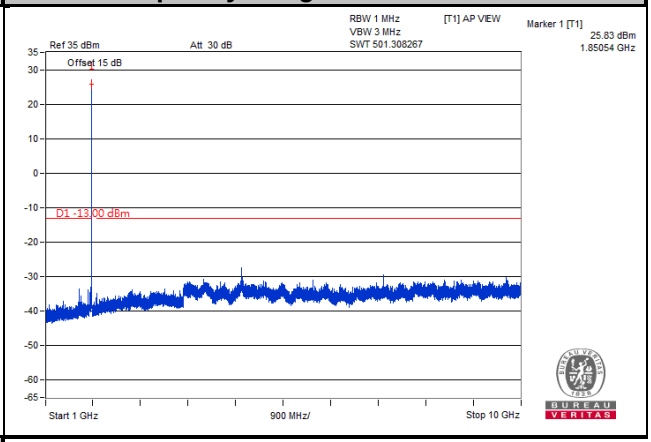
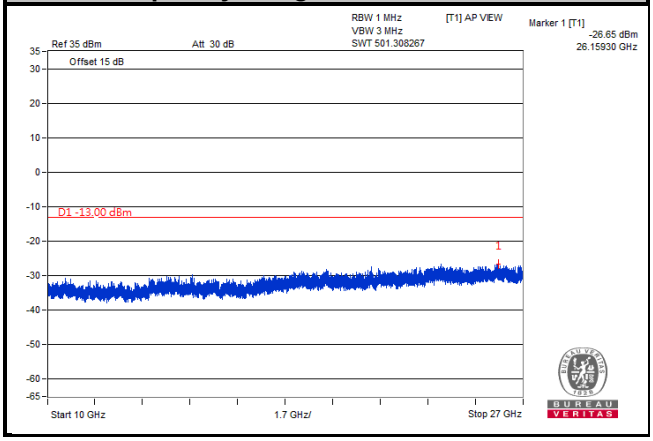
LTE Band 25	
Channel Bandwidth: 1.4 MHz	
Channel 26365	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

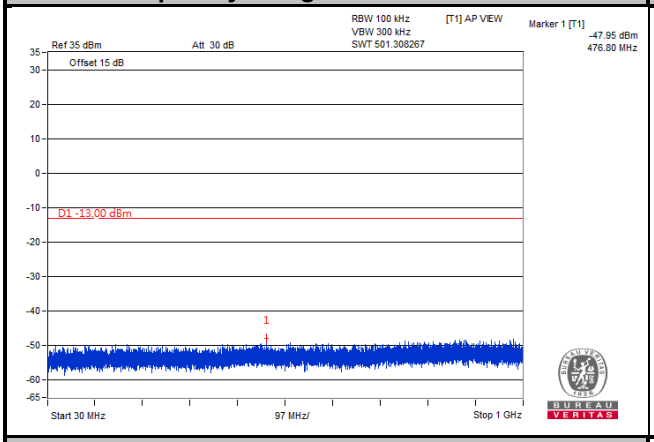
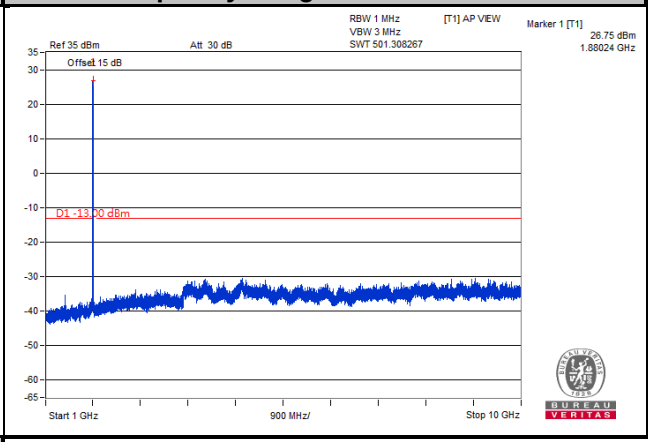
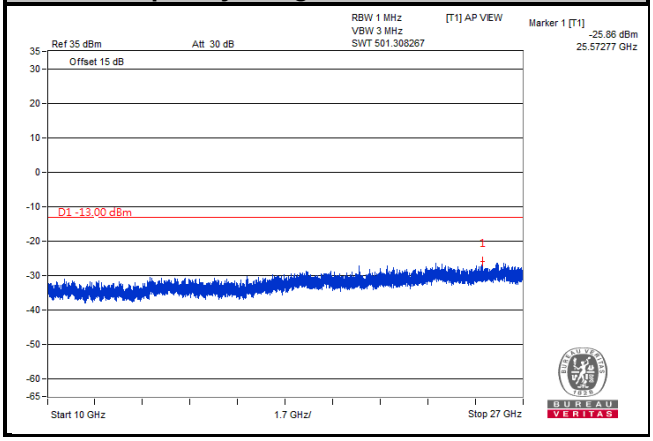
LTE Band 25	
Channel Bandwidth: 1.4 MHz	
Channel 26683	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

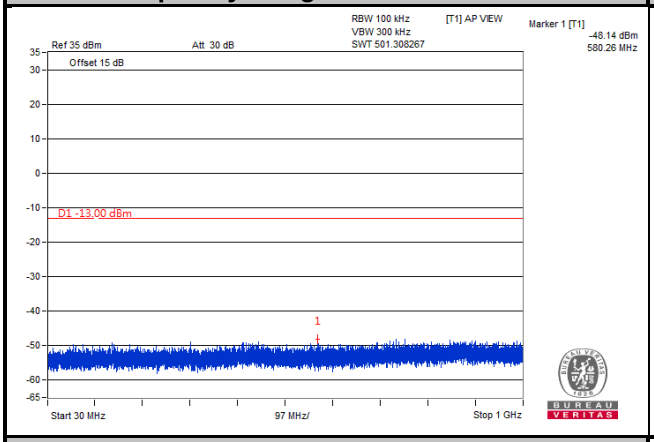
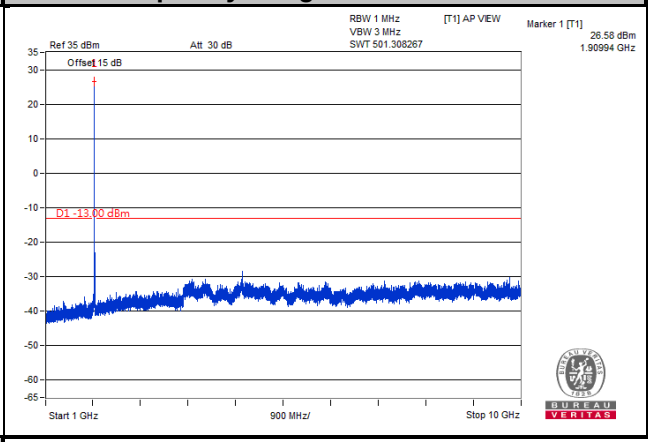
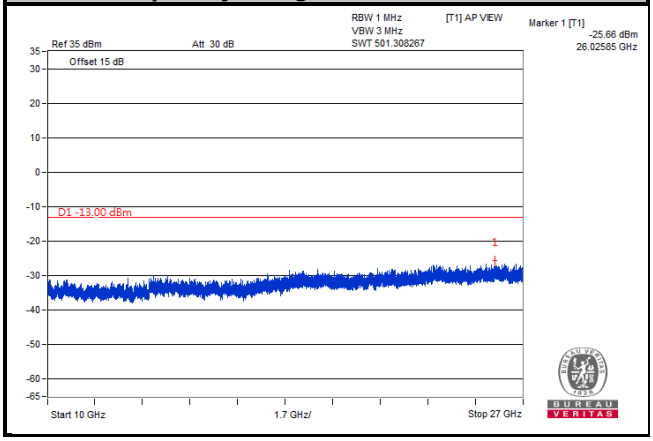
LTE Band 25	
Channel Bandwidth: 3 MHz	
Channel 26055	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

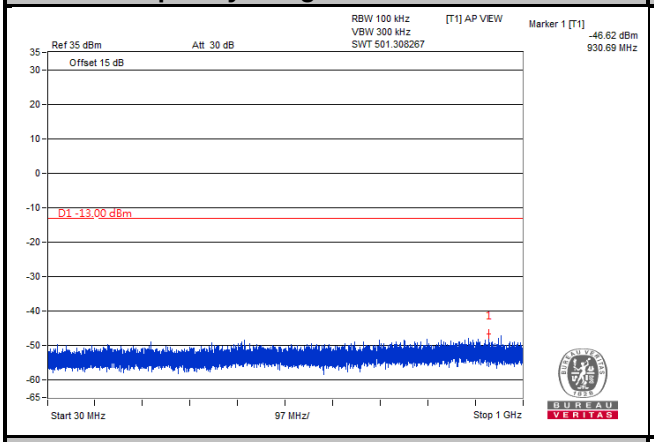
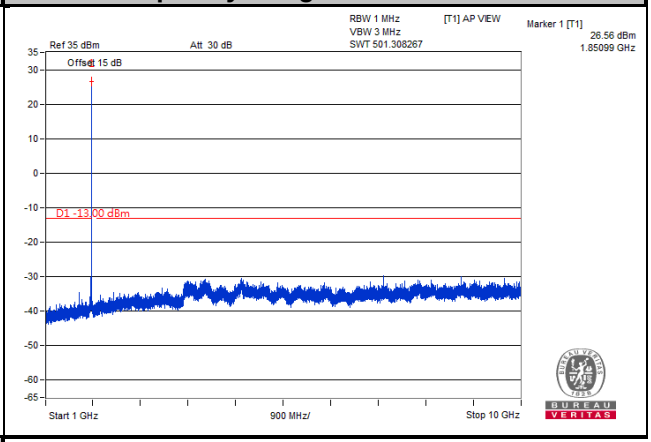
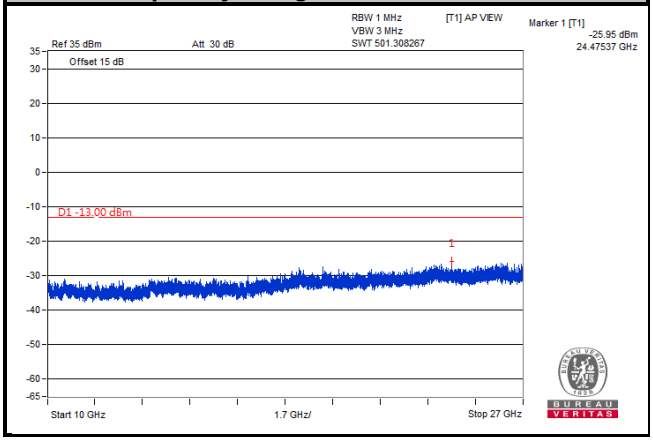
LTE Band 25	
Channel Bandwidth: 3 MHz	
Channel 26365	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

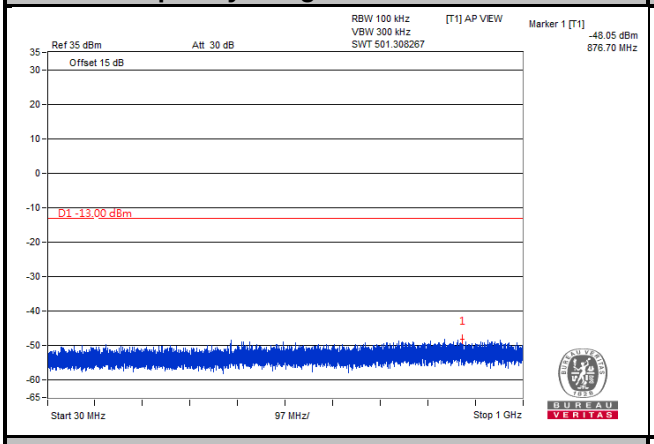
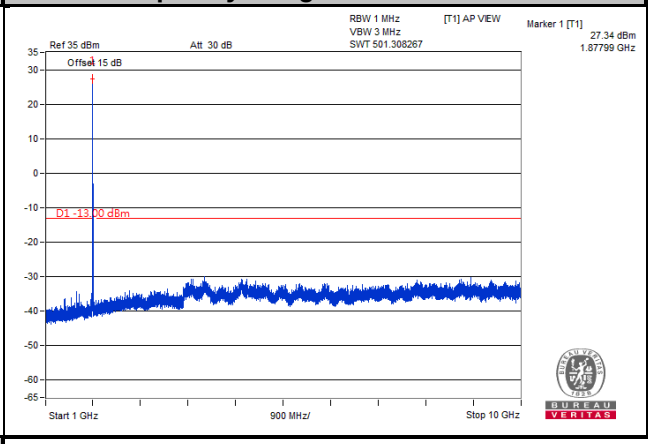
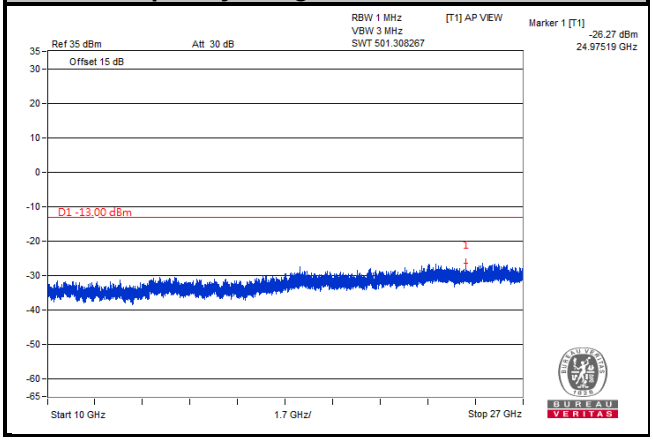
LTE Band 25	
Channel Bandwidth: 3 MHz	
Channel 26675	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

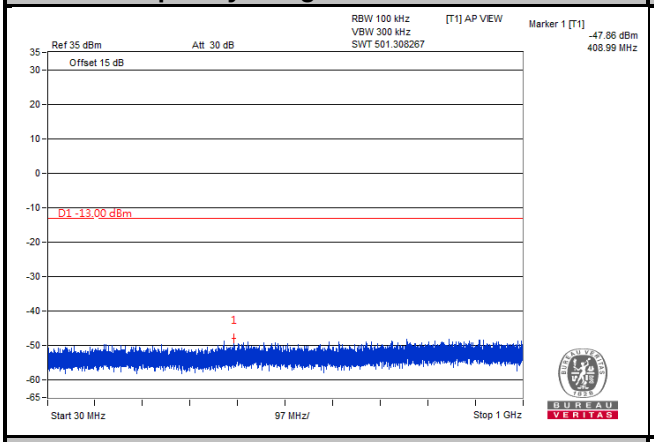
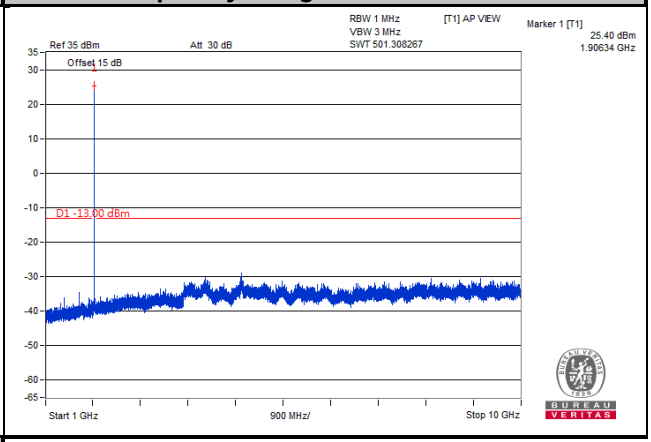
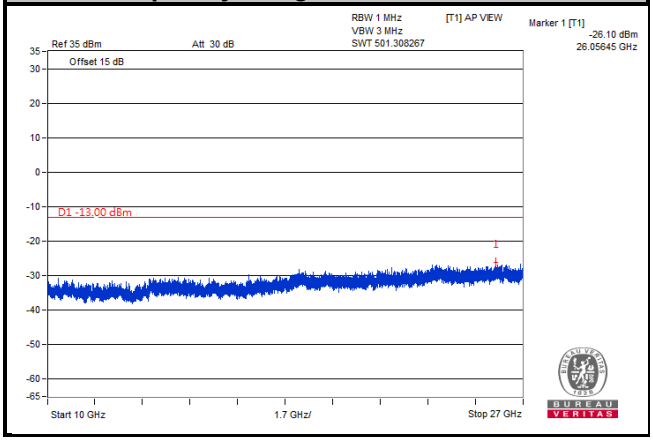
LTE Band 25	
Channel Bandwidth: 5 MHz	
Channel 26065	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

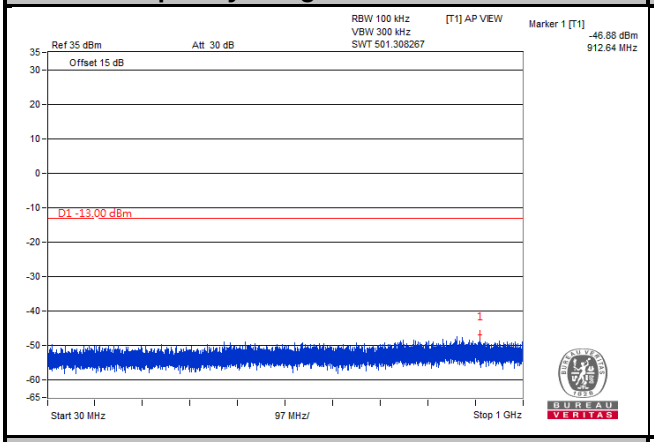
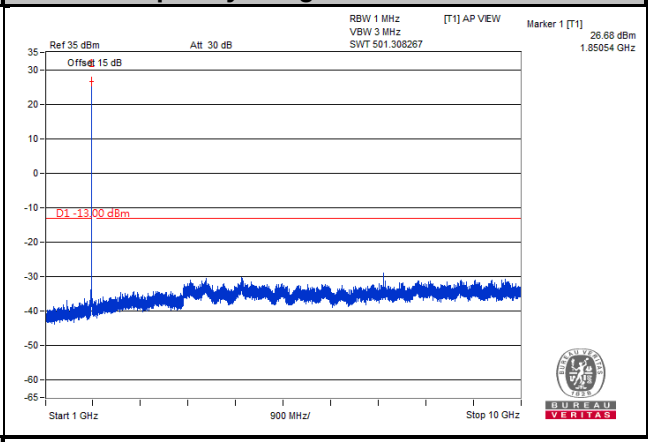
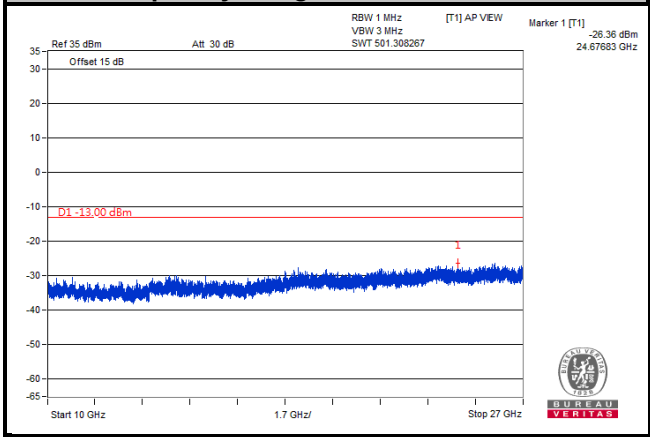
LTE Band 25	
Channel Bandwidth: 5 MHz	
Channel 26365	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

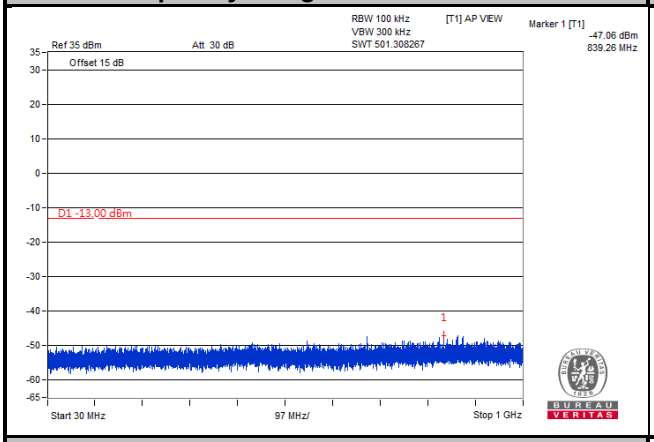
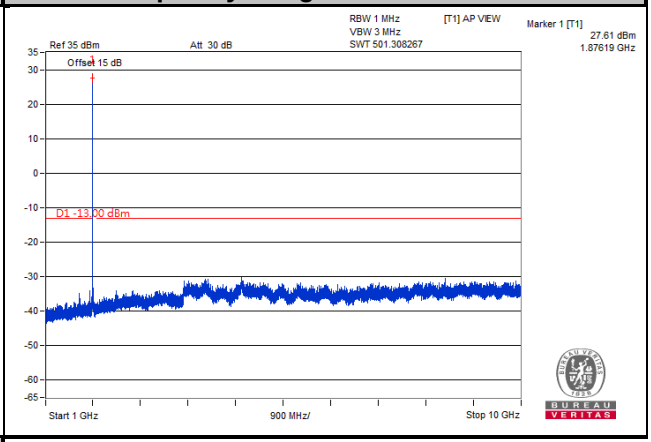
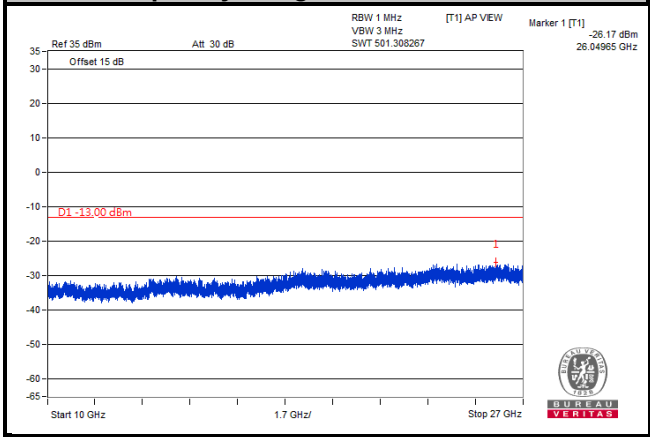
LTE Band 25	
Channel Bandwidth: 5 MHz	
Channel 26665	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

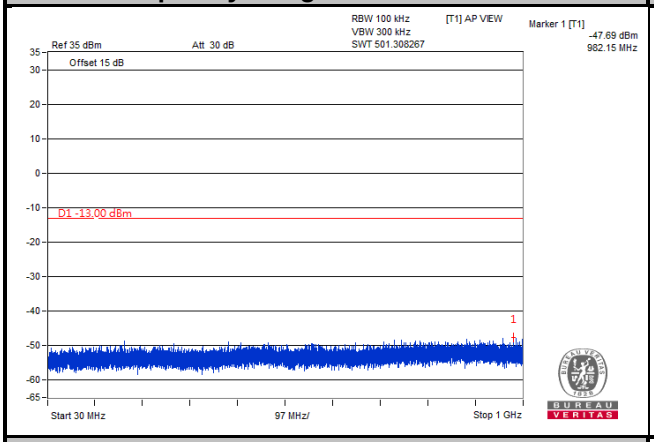
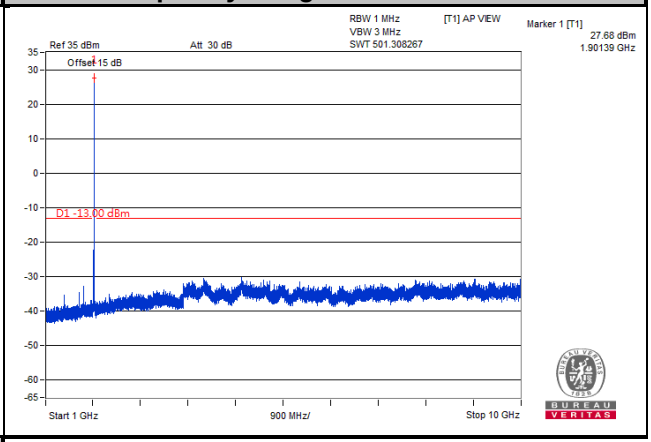
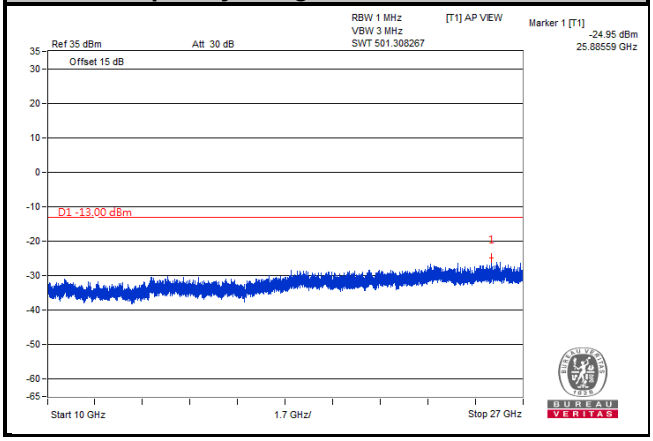
LTE Band 25	
Channel Bandwidth: 10 MHz	
Channel 26090	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

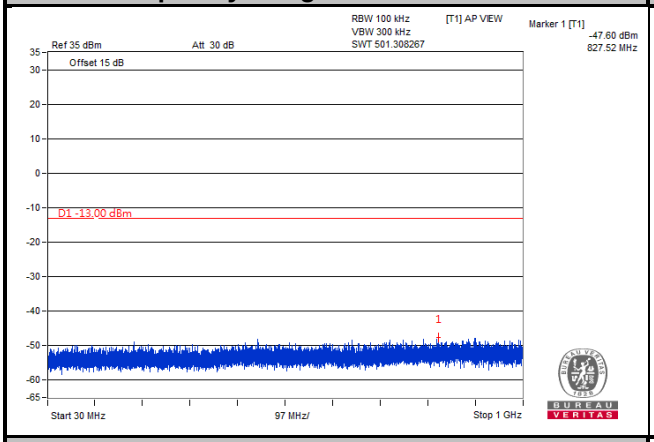
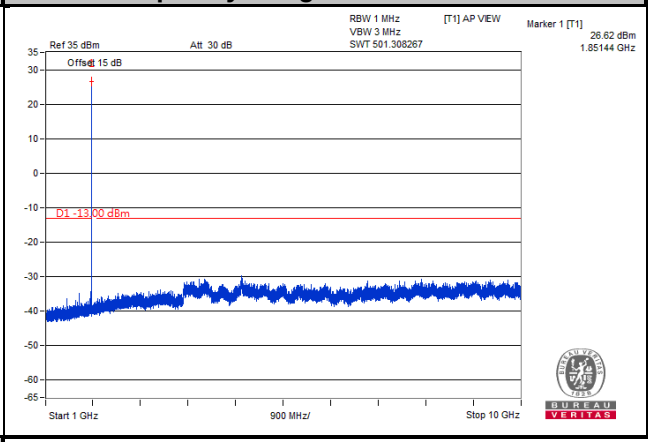
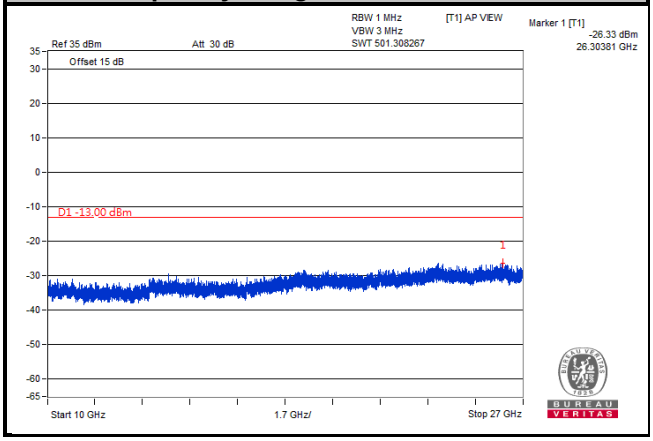
LTE Band 25	
Channel Bandwidth: 10 MHz	
Channel 26365	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

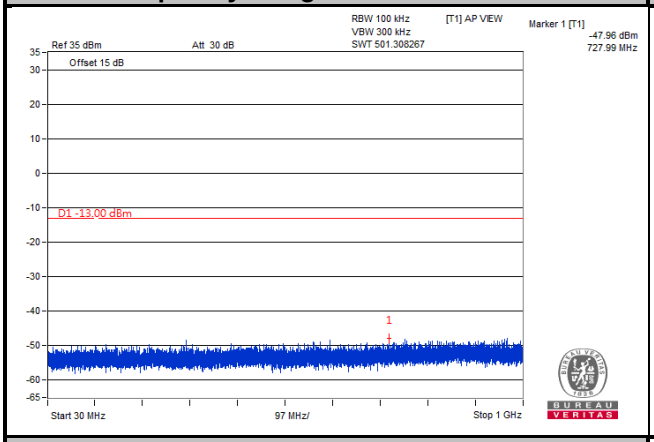
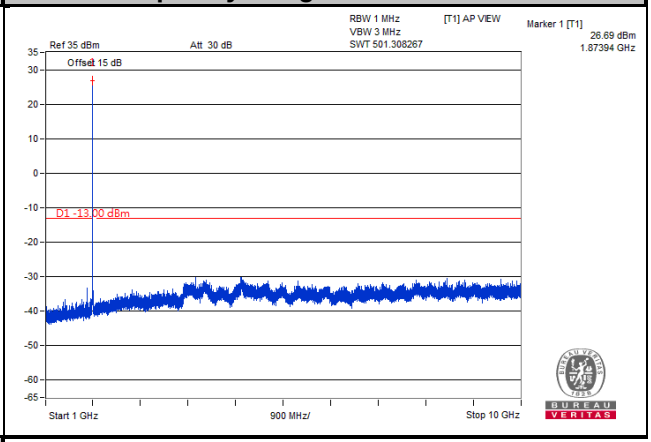
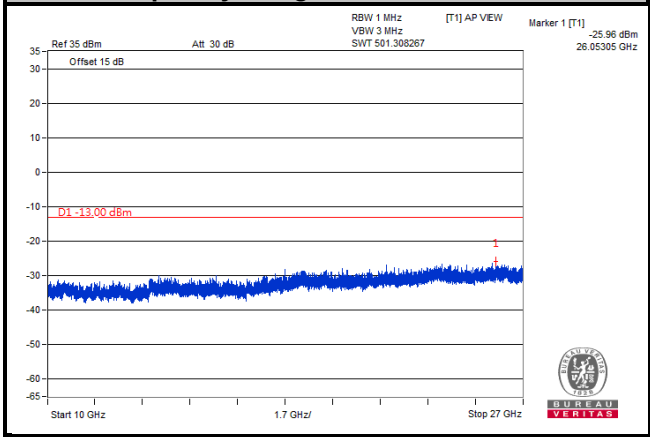
LTE Band 25	
Channel Bandwidth: 10 MHz	
Channel 26640	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

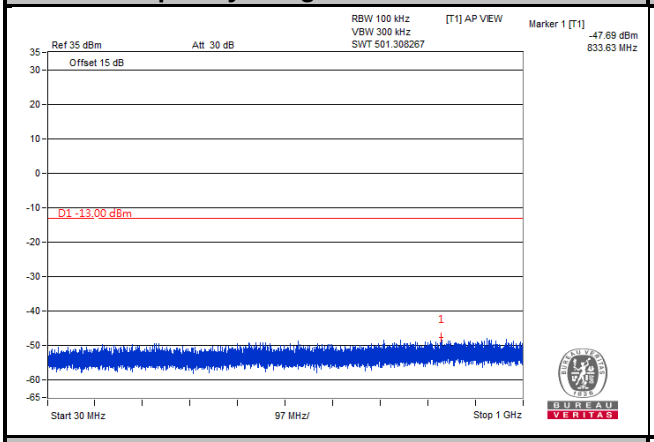
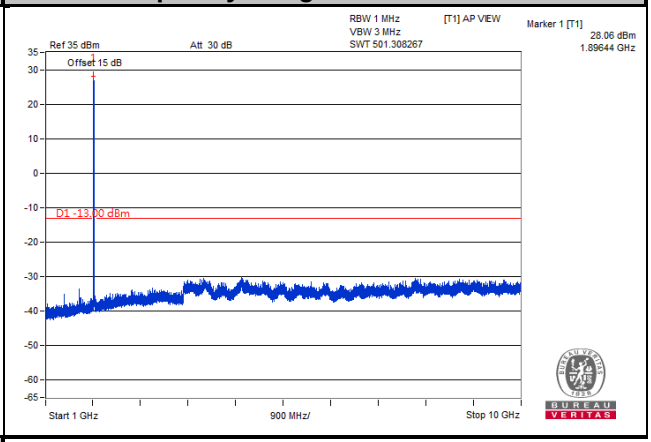
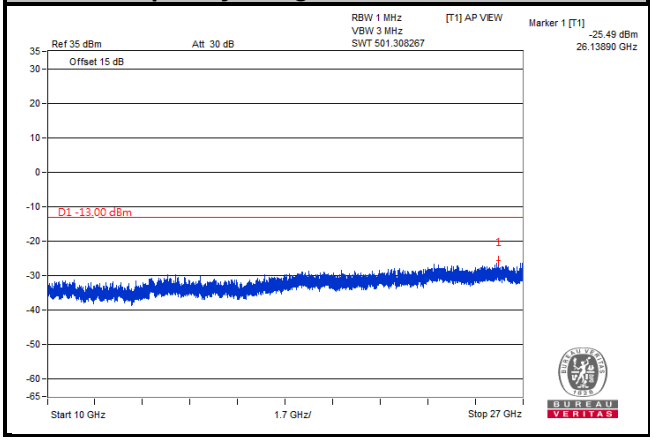
LTE Band 25	
Channel Bandwidth: 15 MHz	
Channel 26115	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

LTE Band 25	
Channel Bandwidth: 15 MHz	
Channel 26365	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

LTE Band 25	
Channel Bandwidth: 15 MHz	
Channel 26615	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

LTE Band 25	
Channel Bandwidth: 20 MHz	
Channel 26140	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

LTE Band 25	
Channel Bandwidth: 20 MHz	
Channel 26365	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

LTE Band 25	
Channel Bandwidth: 20 MHz	
Channel 26590	
Frequency Range: 30 MHz ~ 1 GHz	Frequency Range: 1 GHz ~ 10 GHz
	
Frequency Range: 10 GHz ~ 27 GHz	
	

4.8 Radiated Emission Measurement

4.8.1 Limits of Radiated Emission Measurement

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

4.8.2 Test Procedure

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) 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 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G.
c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. 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 - 2.15 dB.

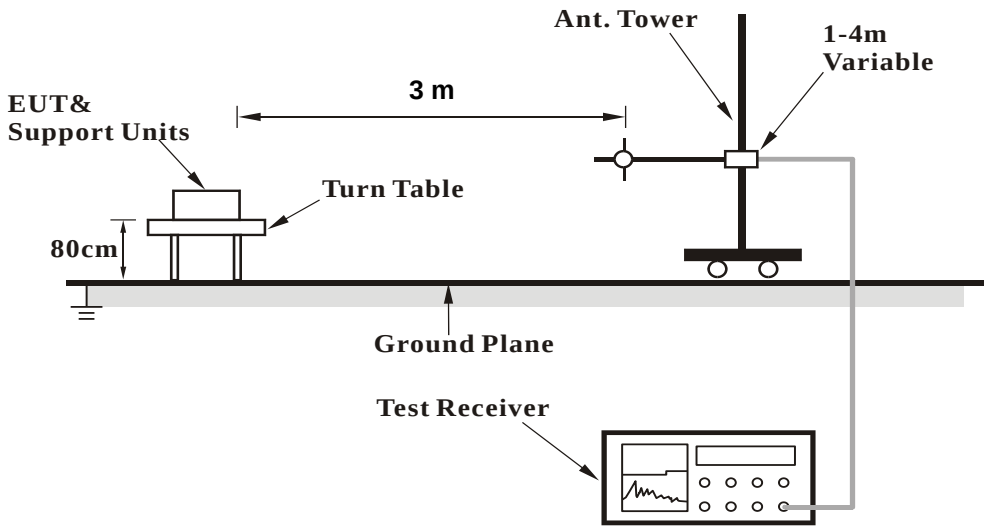
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz.

4.8.3 Deviation from Test Standard

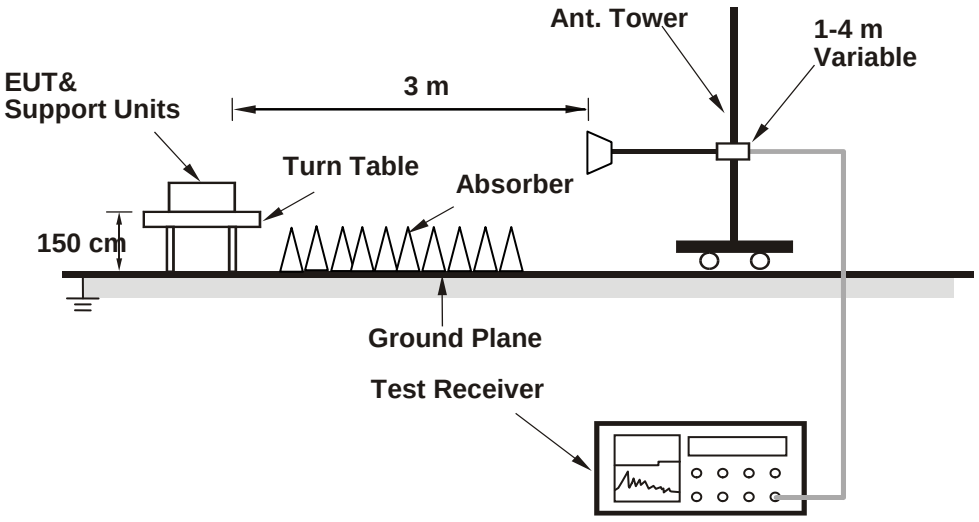
No deviation.

4.8.4 Test Setup

<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

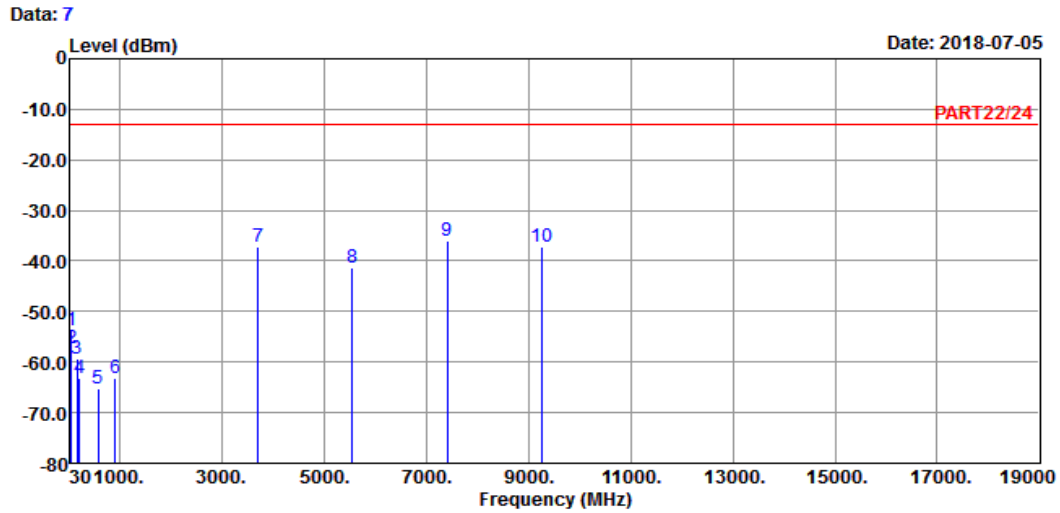
4.8.5 Test Results

LTE Band 2

Channel Bandwidth: 1.4 MHz / QPSK

Low Channel

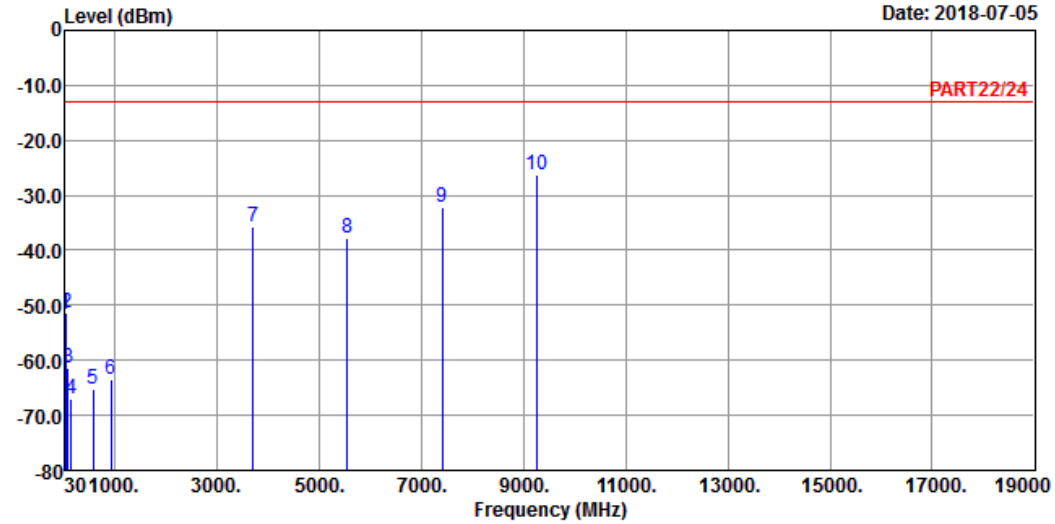
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.77	-53.64	-52.17	-13.00	-40.64	-1.47	Peak
2	54.03	-57.33	-51.26	-13.00	-44.33	-6.07	Peak
3	161.49	-59.39	-54.41	-13.00	-46.39	-4.98	Peak
4	211.98	-63.13	-55.62	-13.00	-50.13	-7.51	Peak
5	574.40	-65.20	-63.36	-13.00	-52.20	-1.84	Peak
6	913.20	-63.06	-63.97	-13.00	-50.06	0.91	Peak
7	3701.40	-37.11	-30.18	-13.00	-24.11	-6.93	Peak
8	5552.10	-41.35	-39.45	-13.00	-28.35	-1.90	Peak
9 pp	7402.80	-35.90	-40.01	-13.00	-22.90	4.11	Peak
10	9253.50	-37.11	-42.01	-13.00	-24.11	4.90	Peak

Data: 8

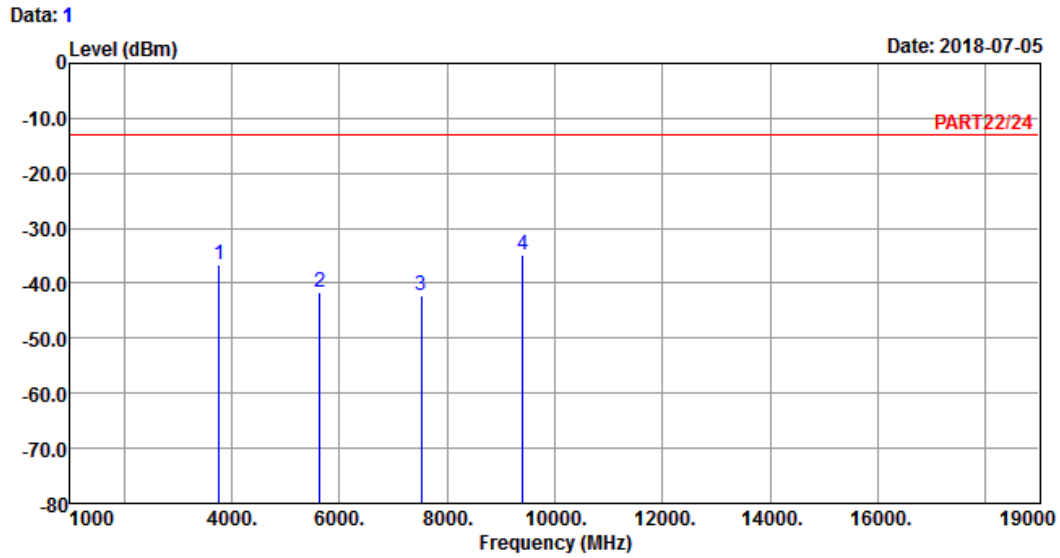


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	31.35	-51.53	-51.42	-13.00	-38.53	-0.11	Peak
2	43.23	-51.39	-49.92	-13.00	-38.39	-1.47	Peak
3	79.14	-61.41	-50.75	-13.00	-48.41	-10.66	Peak
4	153.66	-66.88	-60.12	-13.00	-53.88	-6.76	Peak
5	580.00	-65.24	-63.64	-13.00	-52.24	-1.60	Peak
6	917.40	-63.39	-64.39	-13.00	-50.39	1.00	Peak
7	3701.40	-35.59	-28.66	-13.00	-22.59	-6.93	Peak
8	5552.10	-37.71	-35.81	-13.00	-24.71	-1.90	Peak
9	7402.80	-32.19	-36.30	-13.00	-19.19	4.11	Peak
10 pp	9253.50	-26.18	-31.08	-13.00	-13.18	4.90	Peak

Middle Channel

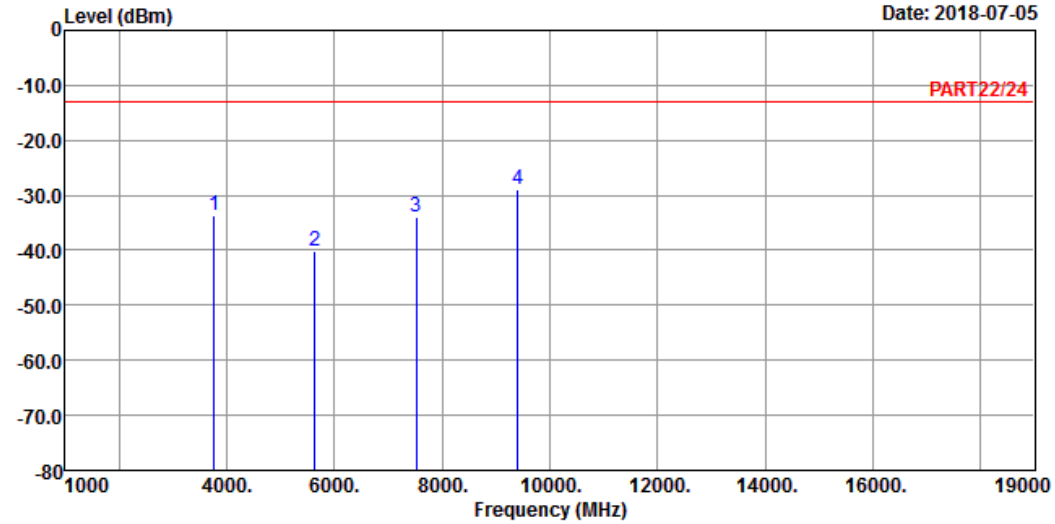
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-36.61	-29.96	-13.00	-23.61	-6.65	Peak
2	5640.00	-41.54	-39.68	-13.00	-28.54	-1.86	Peak
3	7520.00	-42.27	-46.48	-13.00	-29.27	4.21	Peak
4 pp	9400.00	-34.75	-39.82	-13.00	-21.75	5.07	Peak

Data: 2

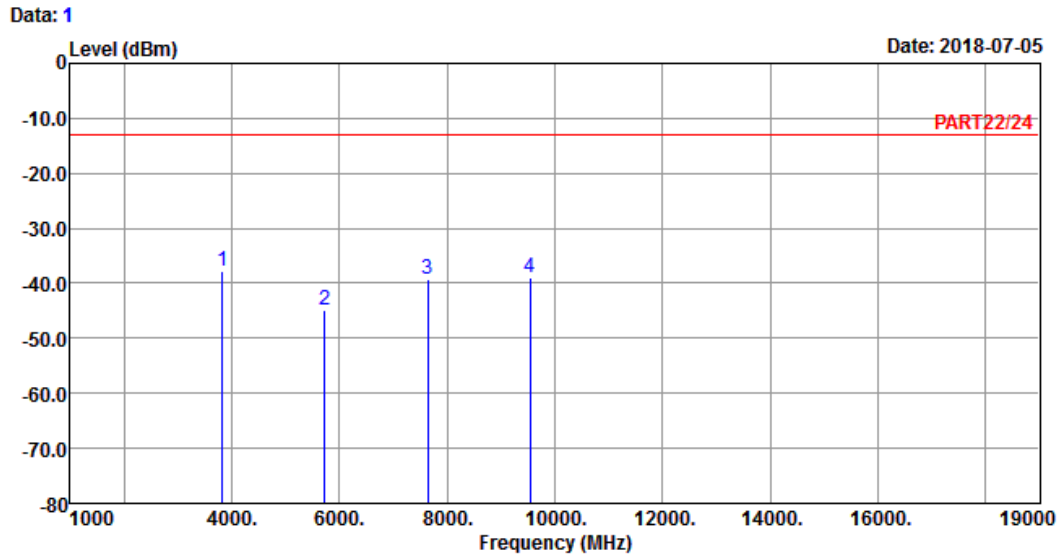


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-33.61	-26.96	-13.00	-20.61	-6.65	Peak
2	5640.00	-40.24	-38.38	-13.00	-27.24	-1.86	Peak
3	7520.00	-33.93	-38.14	-13.00	-20.93	4.21	Peak
4 pp	9400.00	-29.05	-34.12	-13.00	-16.05	5.07	Peak

High Channel

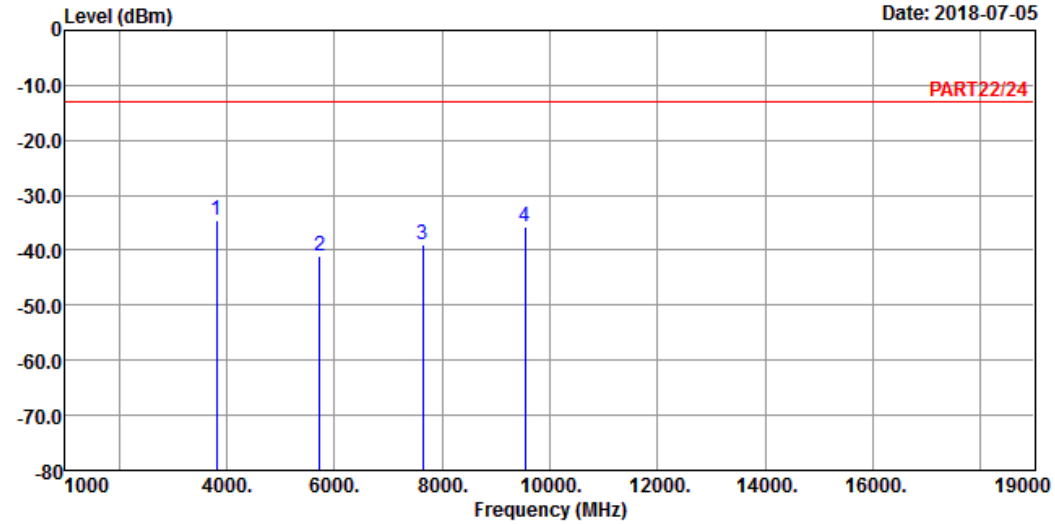
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3818.60	-37.69	-31.29	-13.00	-24.69	-6.40	Peak
2	5727.90	-44.82	-43.17	-13.00	-31.82	-1.65	Peak
3	7637.20	-39.30	-43.85	-13.00	-26.30	4.55	Peak
4	9546.50	-38.96	-44.35	-13.00	-25.96	5.39	Peak

Data: 2

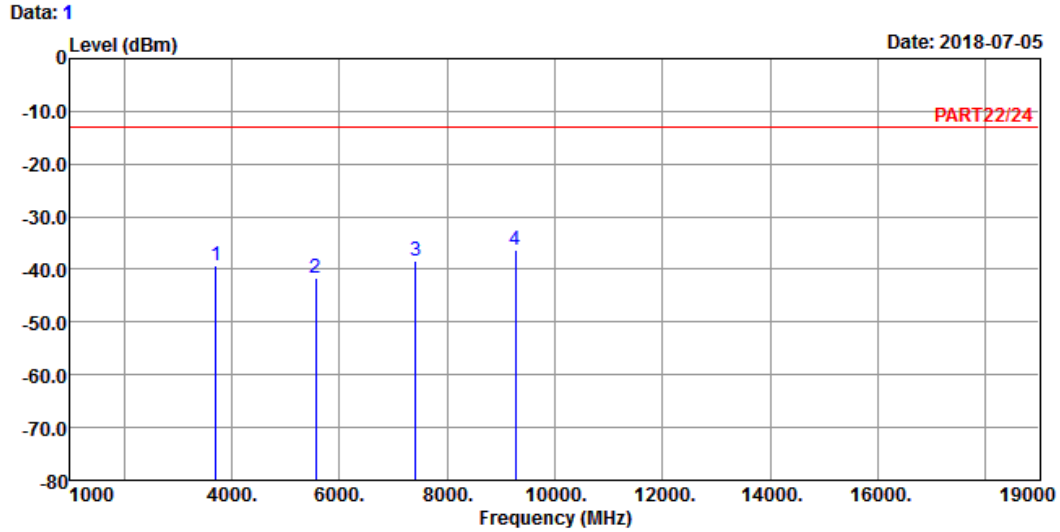


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3816.60	-34.51	-28.11	-13.00	-21.51	-6.40	Peak
2	5727.90	-41.04	-39.39	-13.00	-28.04	-1.65	Peak
3	7637.20	-38.98	-43.53	-13.00	-25.98	4.55	Peak
4	9546.50	-35.57	-40.96	-13.00	-22.57	5.39	Peak

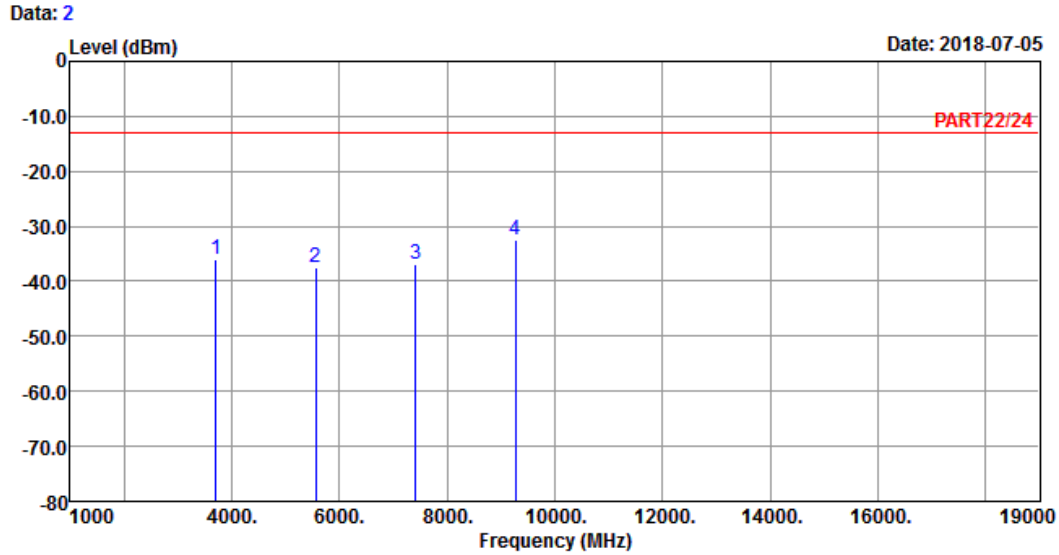
Channel Bandwidth: 5 MHz / QPSK
Low Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_5M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3705.00	-39.34	-32.41	-13.00	-26.34	-6.93	Peak
2	5557.50	-41.67	-39.76	-13.00	-28.67	-1.91	Peak
3	7410.00	-38.24	-42.37	-13.00	-25.24	4.13	Peak
4 pp	9262.50	-36.42	-41.32	-13.00	-23.42	4.90	Peak

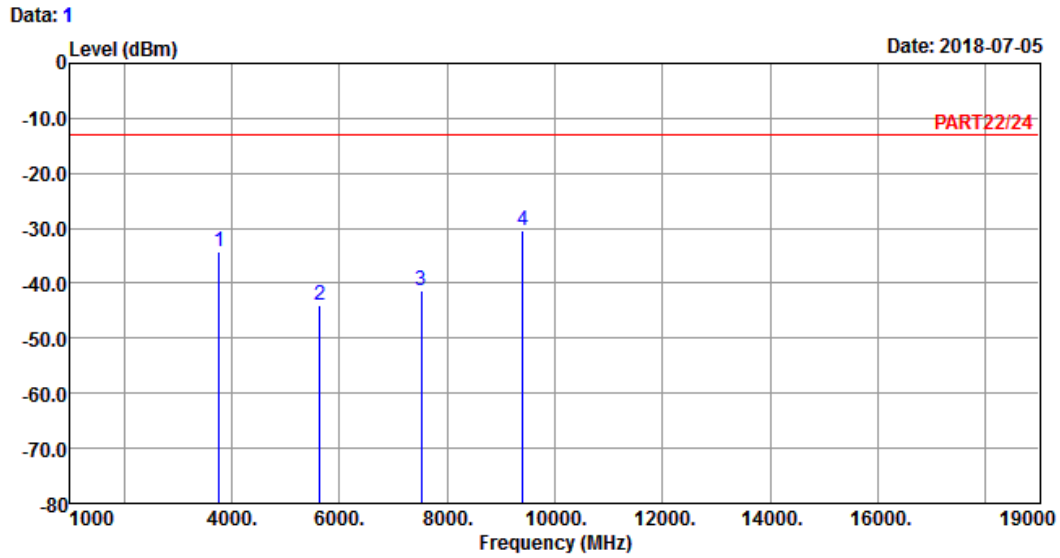


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3705.00	-36.06	-29.13	-13.00	-23.06	-6.93	Peak
2	5557.50	-37.58	-35.67	-13.00	-24.58	-1.91	Peak
3	7410.00	-37.04	-41.17	-13.00	-24.04	4.13	Peak
4 pp	9262.50	-32.43	-37.33	-13.00	-19.43	4.90	Peak

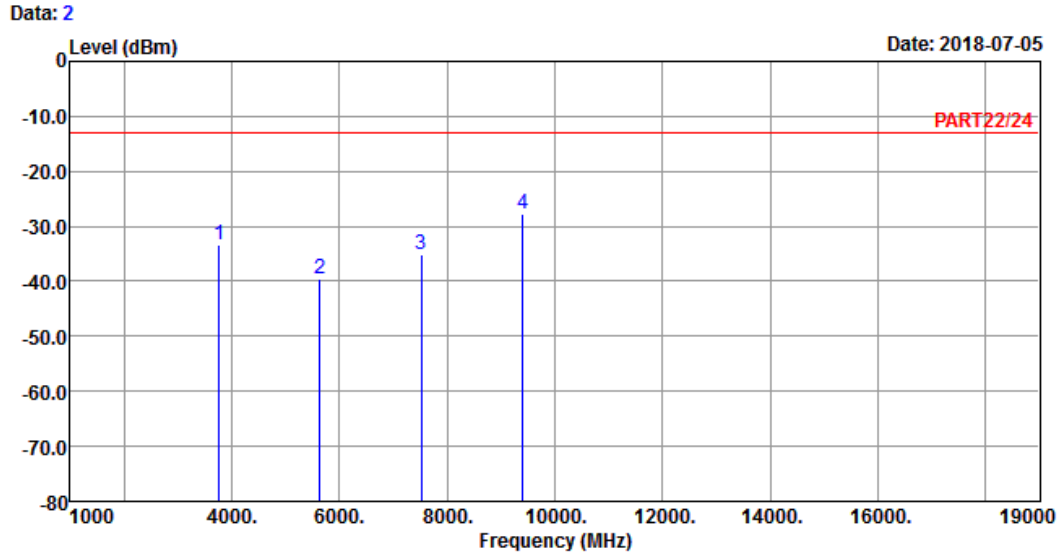
Middle Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_5M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-34.25	-27.60	-13.00	-21.25	-6.65	Peak
2	5640.00	-43.87	-42.01	-13.00	-30.87	-1.86	Peak
3	7520.00	-41.28	-45.49	-13.00	-28.28	4.21	Peak
4 pp	9400.00	-30.43	-35.50	-13.00	-17.43	5.07	Peak

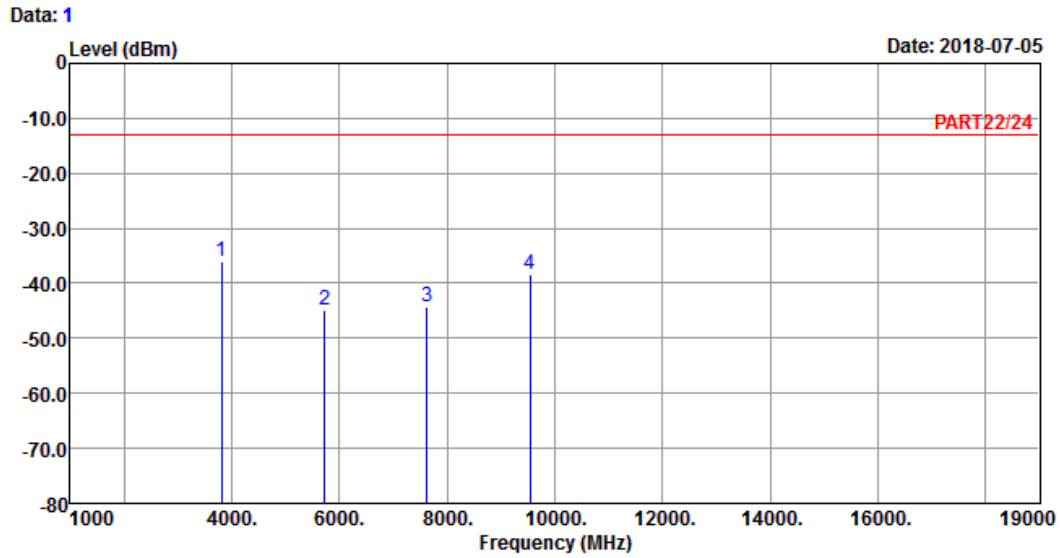


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-33.49	-26.84	-13.00	-20.49	-6.65	Peak
2	5640.00	-39.52	-37.66	-13.00	-26.52	-1.86	Peak
3	7520.00	-35.25	-39.46	-13.00	-22.25	4.21	Peak
4 pp	9400.00	-27.66	-32.73	-13.00	-14.66	5.07	Peak

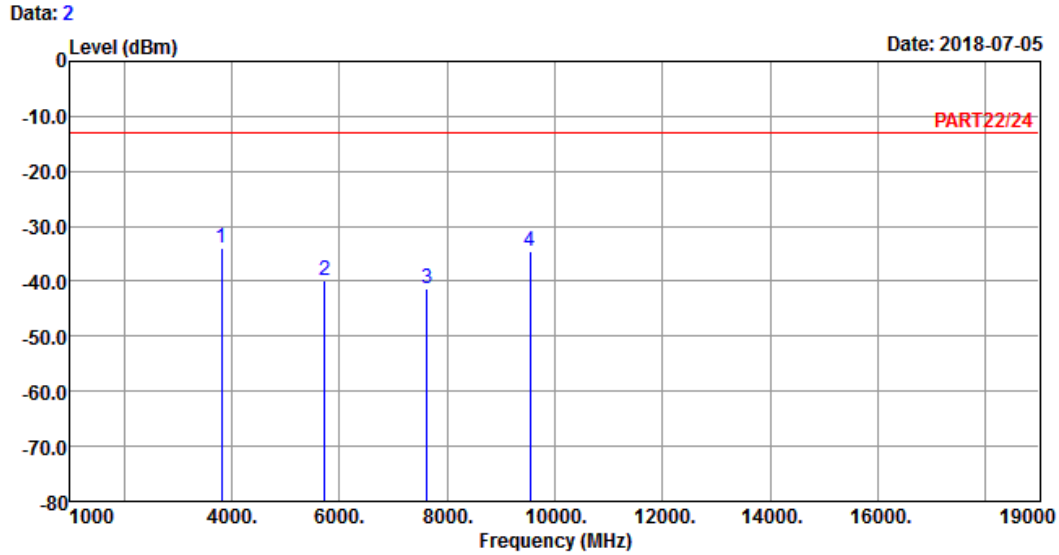
High Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3815.00	-36.05	-29.65	-13.00	-23.05	-6.40	Peak
2	5722.50	-44.92	-43.23	-13.00	-31.92	-1.69	Peak
3	7630.00	-44.21	-48.72	-13.00	-31.21	4.51	Peak
4	9537.50	-38.49	-43.88	-13.00	-25.49	5.39	Peak

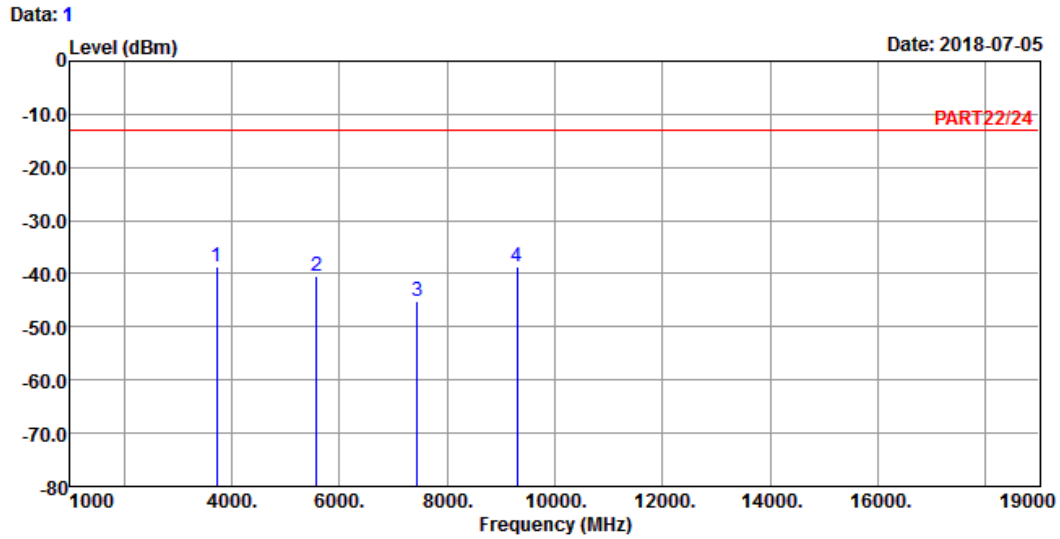


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3815.00	-34.09	-27.69	-13.00	-21.09	-6.40	Peak
2	5722.50	-39.79	-38.10	-13.00	-26.79	-1.69	Peak
3	7630.00	-41.45	-45.96	-13.00	-28.45	4.51	Peak
4	9537.50	-34.46	-39.85	-13.00	-21.46	5.39	Peak

Channel Bandwidth: 20 MHz / QPSK
Low Channel

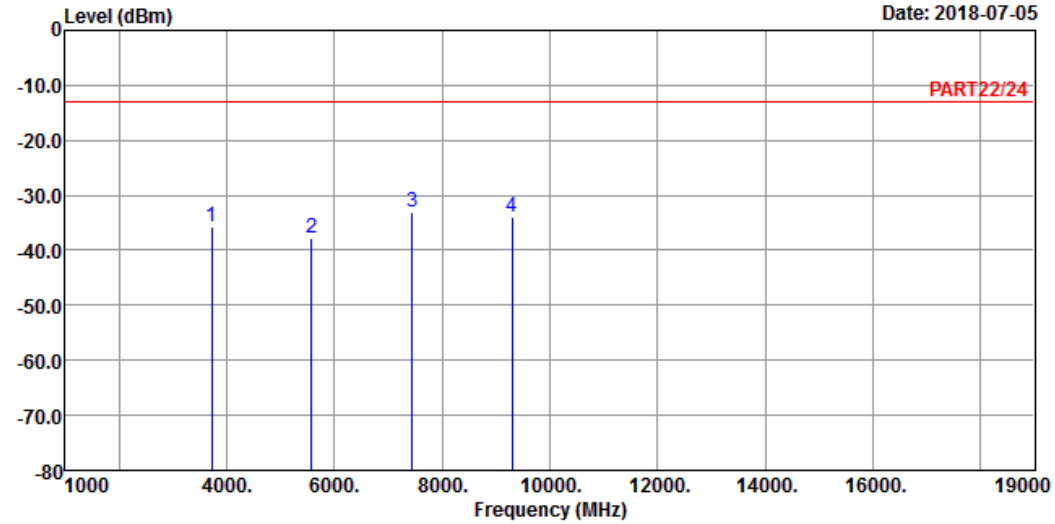
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_20M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3720.00	-38.76	-31.94	-13.00	-25.76	-6.82	Peak
2	5580.00	-40.53	-38.61	-13.00	-27.53	-1.92	Peak
3	7440.00	-45.22	-49.37	-13.00	-32.22	4.15	Peak
4 pp	9300.00	-38.53	-43.47	-13.00	-25.53	4.94	Peak

Data: 2

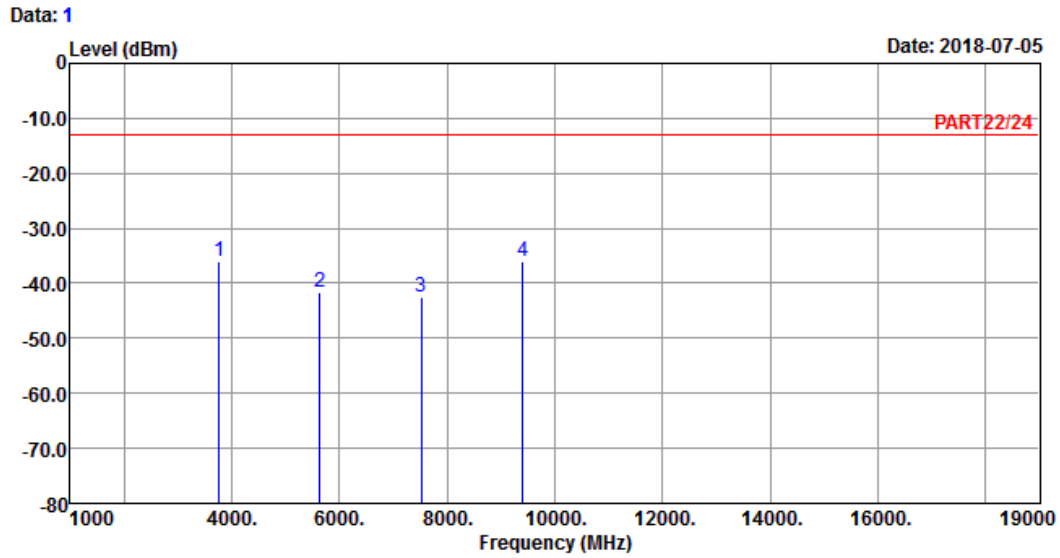


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_20M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3720.00	-35.57	-28.75	-13.00	-22.57	-6.82	Peak
2	5580.00	-37.72	-35.80	-13.00	-24.72	-1.92	Peak
3 pp	7440.00	-33.20	-37.35	-13.00	-20.20	4.15	Peak
4	9300.00	-34.08	-39.02	-13.00	-21.08	4.94	Peak

Middle Channel

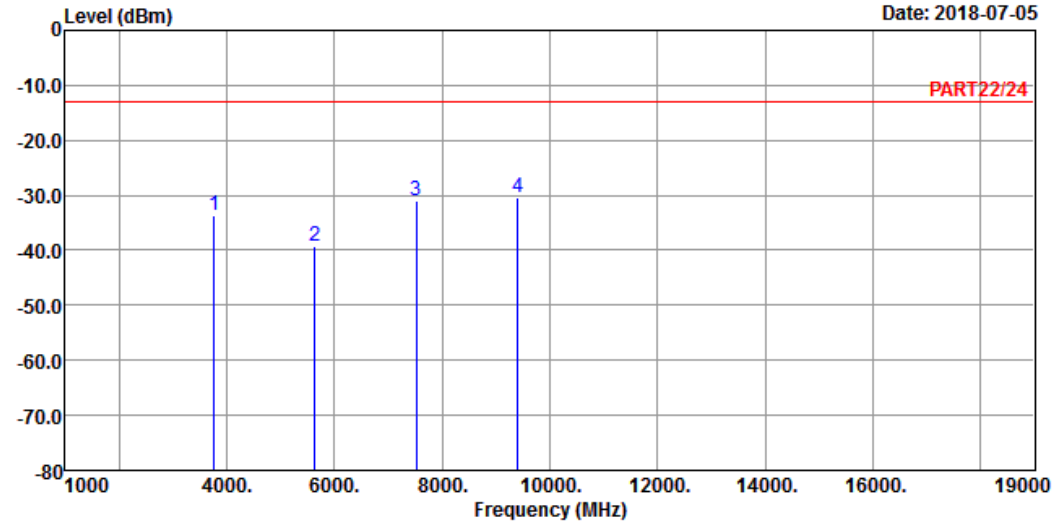
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_20M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-36.12	-29.47	-13.00	-23.12	-6.65	Peak
2	5640.00	-41.64	-39.78	-13.00	-28.64	-1.86	Peak
3	7520.00	-42.61	-46.82	-13.00	-29.61	4.21	Peak
4 pp	9400.00	-36.05	-41.12	-13.00	-23.05	5.07	Peak

Data: 2

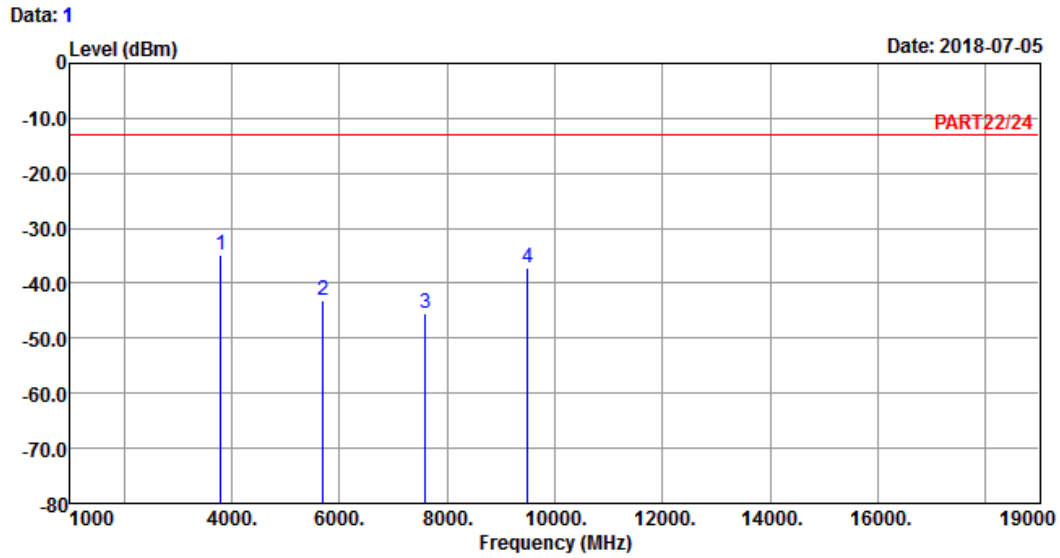


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_20M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-33.51	-26.86	-13.00	-20.51	-6.65	Peak
2	5640.00	-39.18	-37.32	-13.00	-26.18	-1.86	Peak
3	7520.00	-30.87	-35.08	-13.00	-17.87	4.21	Peak
4 pp	9400.00	-30.26	-35.33	-13.00	-17.26	5.07	Peak

High Channel

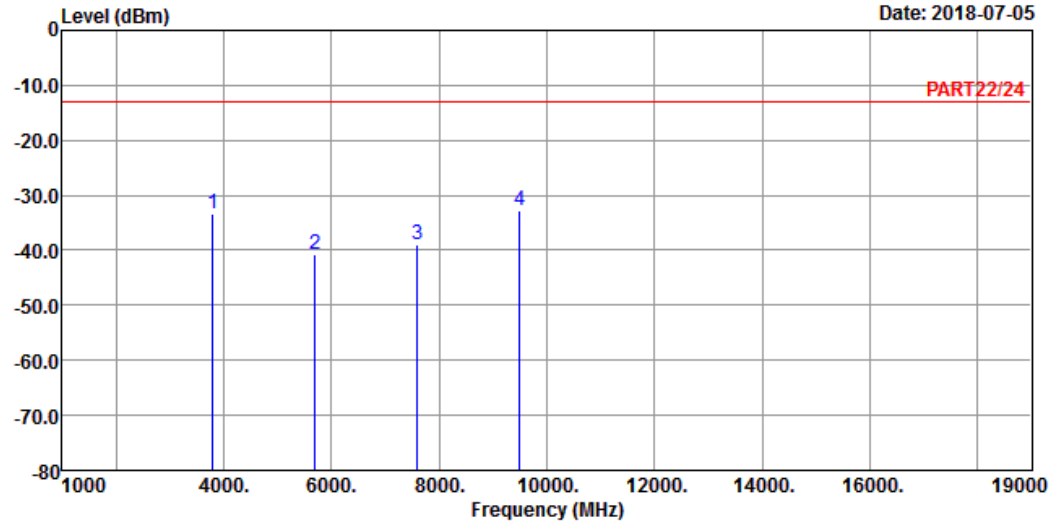
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 2 QPSK_20M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3800.00	-34.90	-28.47	-13.00	-21.90	-6.43	Peak
2	5700.00	-42.99	-41.26	-13.00	-29.99	-1.73	Peak
3	7600.00	-45.36	-49.83	-13.00	-32.36	4.47	Peak
4	9500.00	-37.08	-42.39	-13.00	-24.08	5.31	Peak

Data: 2

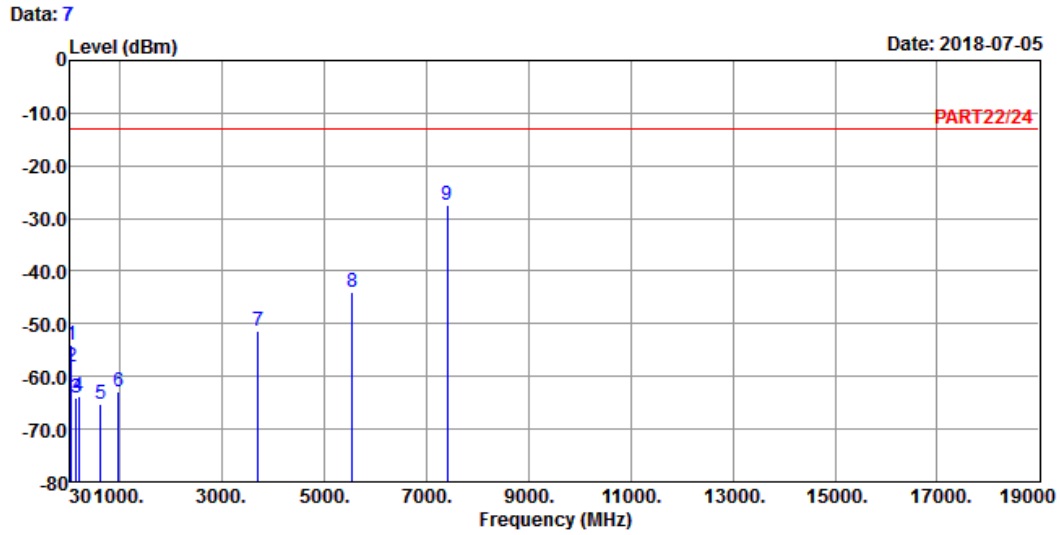


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_20M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3800.00	-33.43	-27.00	-13.00	-20.43	-6.43	Peak
2	5700.00	-40.78	-39.05	-13.00	-27.78	-1.73	Peak
3	7600.00	-39.02	-43.49	-13.00	-26.02	4.47	Peak
4 pp	9500.00	-32.67	-37.98	-13.00	-19.67	5.31	Peak

LTE Band 25
Channel Bandwidth: 1.4 MHz / QPSK
Low Channel

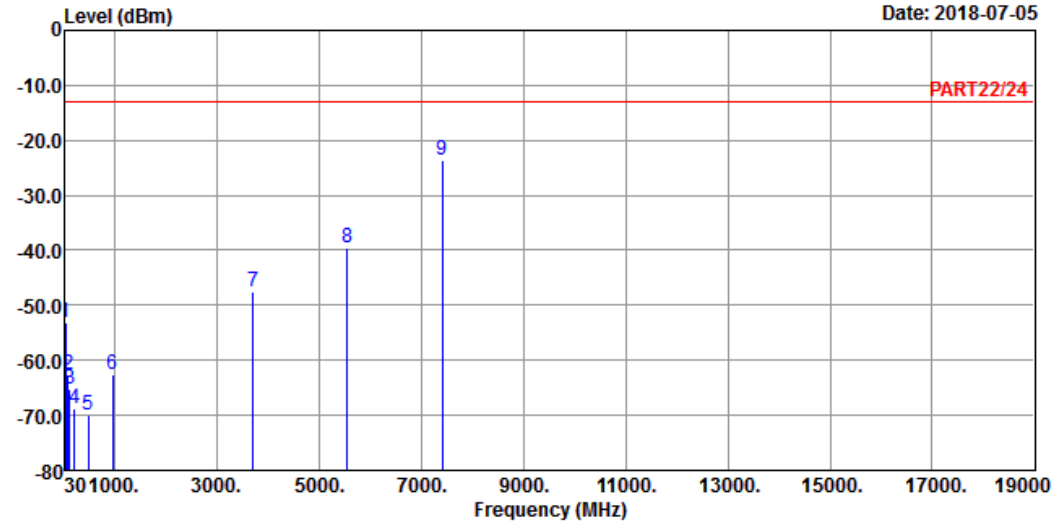
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	45.39	-54.03	-51.53	-13.00	-41.03	-2.50	Peak
2	54.30	-58.25	-52.18	-13.00	-45.25	-6.07	Peak
3	152.31	-64.08	-57.05	-13.00	-51.08	-7.03	Peak
4	189.57	-63.65	-56.56	-13.00	-50.65	-7.09	Peak
5	617.80	-65.36	-64.56	-13.00	-52.36	-0.80	Peak
6	970.60	-62.79	-65.34	-13.00	-49.79	2.55	Peak
7	3701.40	-51.49	-44.56	-13.00	-38.49	-6.93	Peak
8	5552.10	-43.88	-41.98	-13.00	-30.88	-1.90	Peak
9 pp	7402.80	-27.50	-31.61	-13.00	-14.50	4.11	Peak

Data: 8

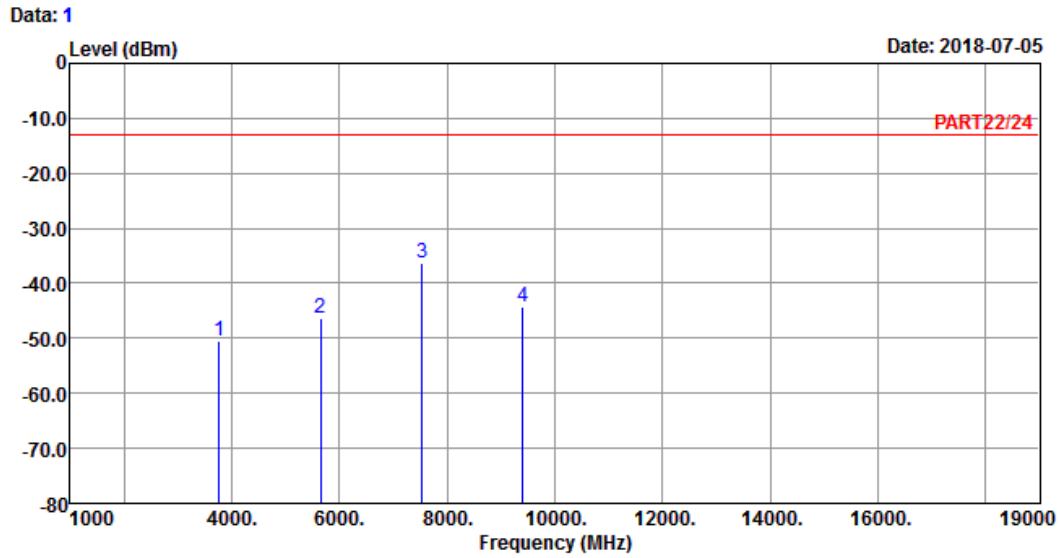


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	39.45	-53.19	-53.83	-13.00	-40.19	0.64	Peak
2	77.79	-62.62	-52.42	-13.00	-49.62	-10.20	Peak
3	113.16	-65.24	-55.09	-13.00	-52.24	-10.15	Peak
4	209.55	-68.83	-61.20	-13.00	-55.83	-7.63	Peak
5	475.00	-69.96	-64.88	-13.00	-56.96	-5.08	Peak
6	951.00	-62.69	-64.52	-13.00	-49.69	1.83	Peak
7	3701.40	-47.53	-40.60	-13.00	-34.53	-6.93	Peak
8	5552.10	-39.55	-37.65	-13.00	-26.55	-1.90	Peak
9 pp	7402.80	-23.66	-27.77	-13.00	-10.66	4.11	Peak

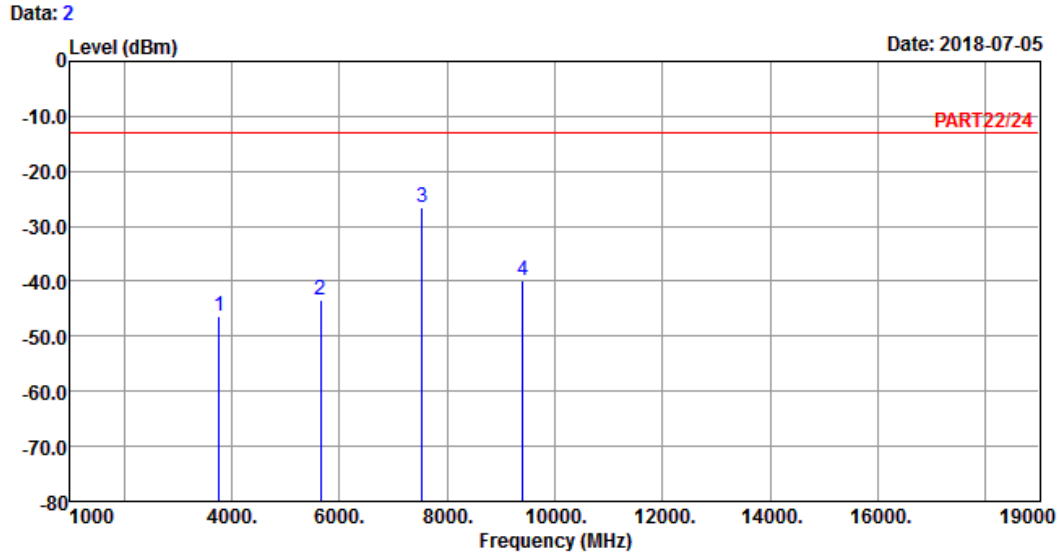
Middle Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-50.40	-43.80	-13.00	-37.40	-6.60	Peak
2	5647.50	-46.47	-44.64	-13.00	-33.47	-1.83	Peak
3 pp	7530.00	-36.33	-40.61	-13.00	-23.33	4.28	Peak
4	9400.00	-44.21	-49.28	-13.00	-31.21	5.07	Peak

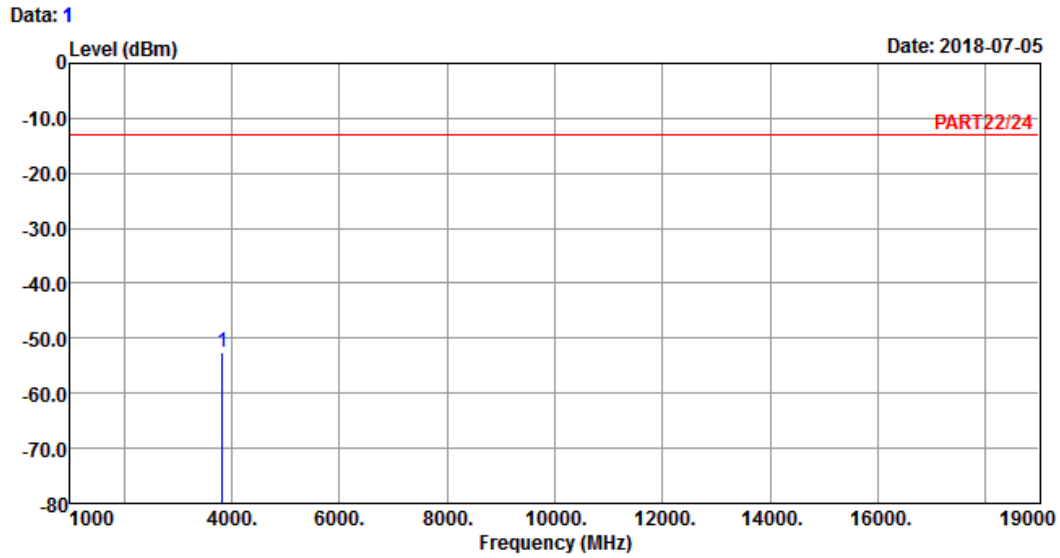


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-46.25	-39.65	-13.00	-33.25	-6.60	Peak
2	5647.50	-43.29	-41.46	-13.00	-30.29	-1.83	Peak
3 pp	7530.00	-26.66	-30.94	-13.00	-13.66	4.28	Peak
4	9400.00	-39.89	-44.96	-13.00	-26.89	5.07	Peak

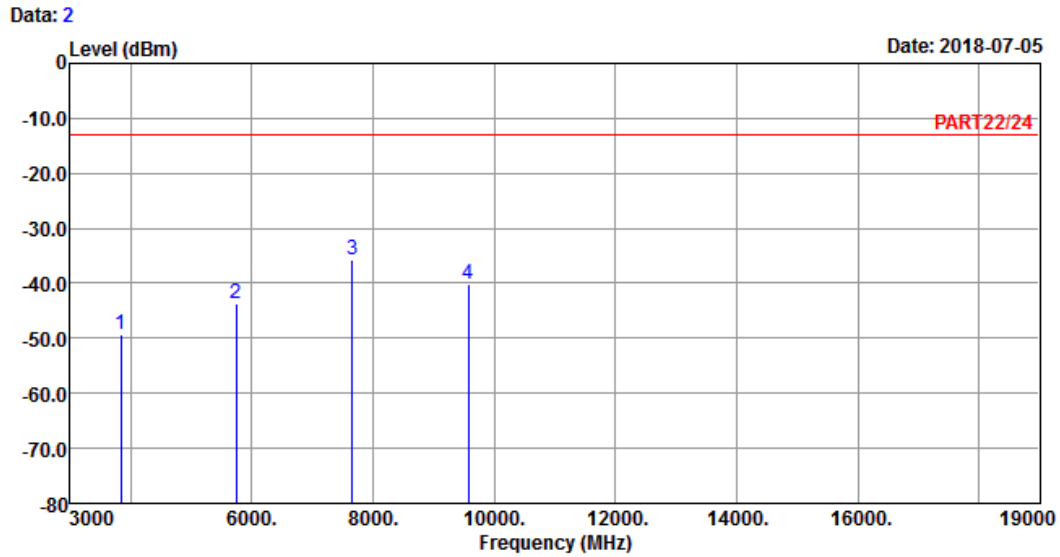
High Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3828.60	-52.60	-46.23	-13.00	-39.60	-6.37	Peak

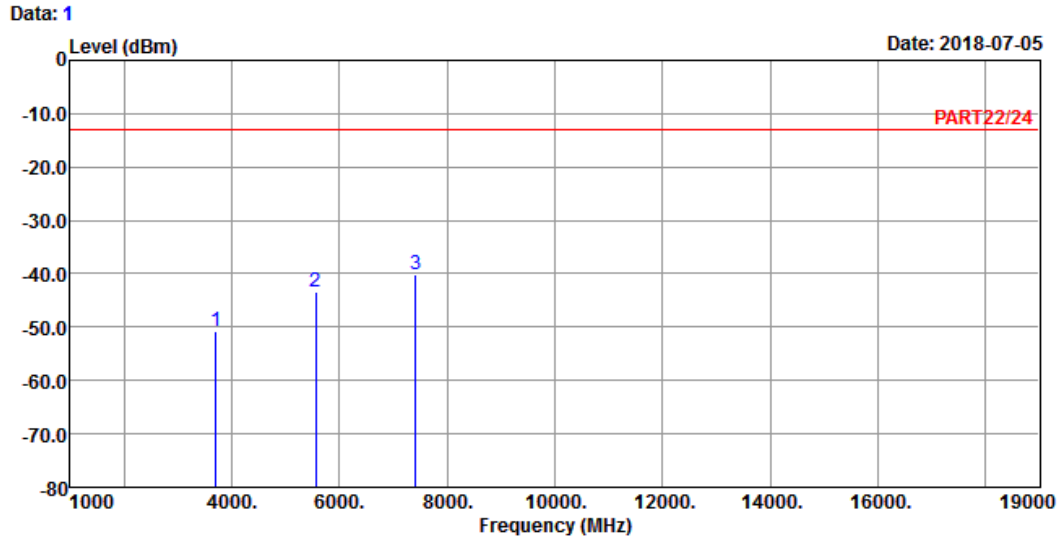


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3828.60	-49.42	-43.05	-13.00	-36.42	-6.37	Peak
2	5742.90	-43.73	-42.08	-13.00	-30.73	-1.65	Peak
3 pp	7657.20	-35.75	-40.33	-13.00	-22.75	4.58	Peak
4	9571.50	-40.14	-45.56	-13.00	-27.14	5.42	Peak

Channel Bandwidth: 5 MHz / QPSK
Low Channel

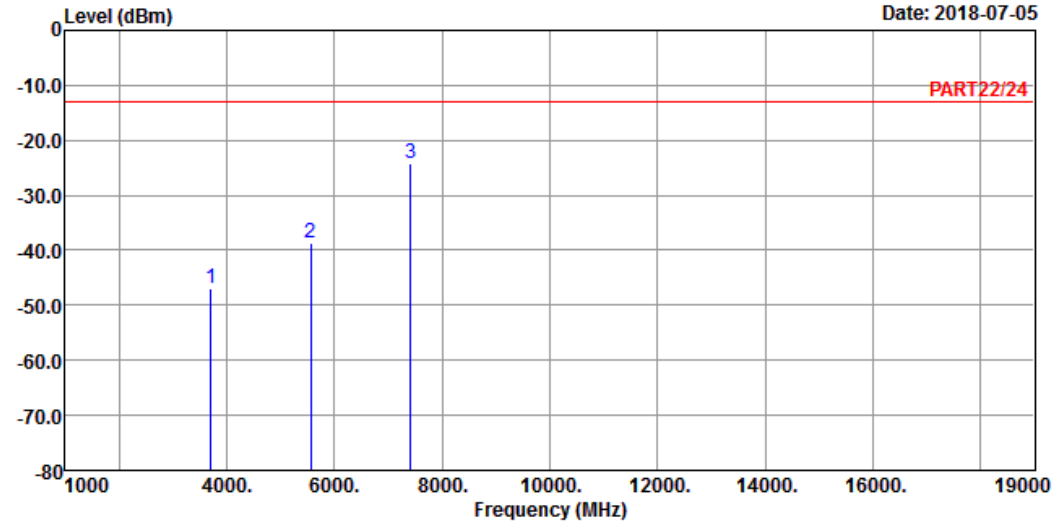
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_5M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3705.00	-50.90	-43.97	-13.00	-37.90	-6.93	Peak
2	5557.50	-43.53	-41.62	-13.00	-30.53	-1.91	Peak
3 pp	7410.00	-40.15	-44.28	-13.00	-27.15	4.13	Peak

Data: 2

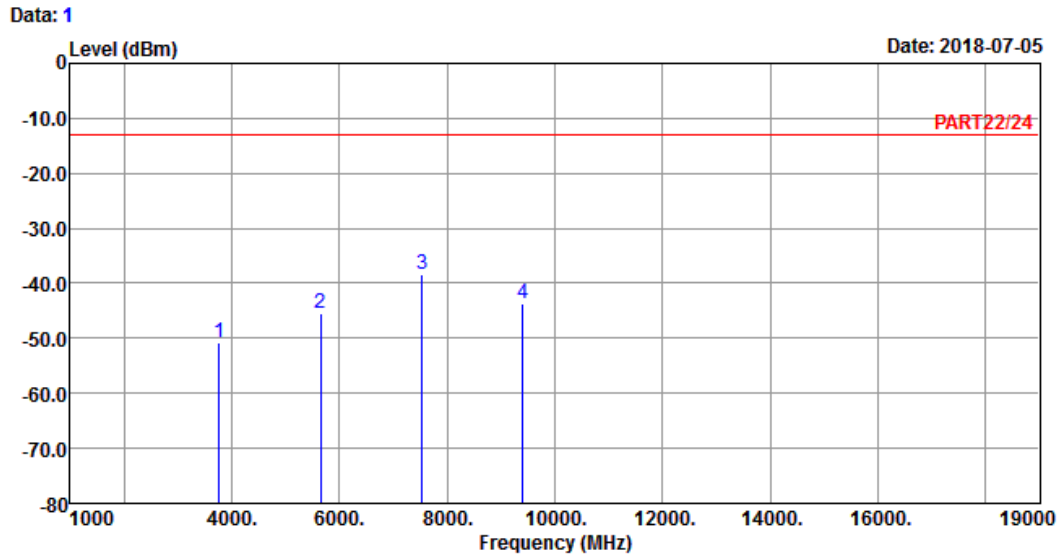


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_5M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3705.00	-46.94	-40.01	-13.00	-33.94	-6.93	Peak
2	5557.50	-38.58	-36.67	-13.00	-25.58	-1.91	Peak
3 pp	7410.00	-24.22	-28.35	-13.00	-11.22	4.13	Peak

Middle Channel

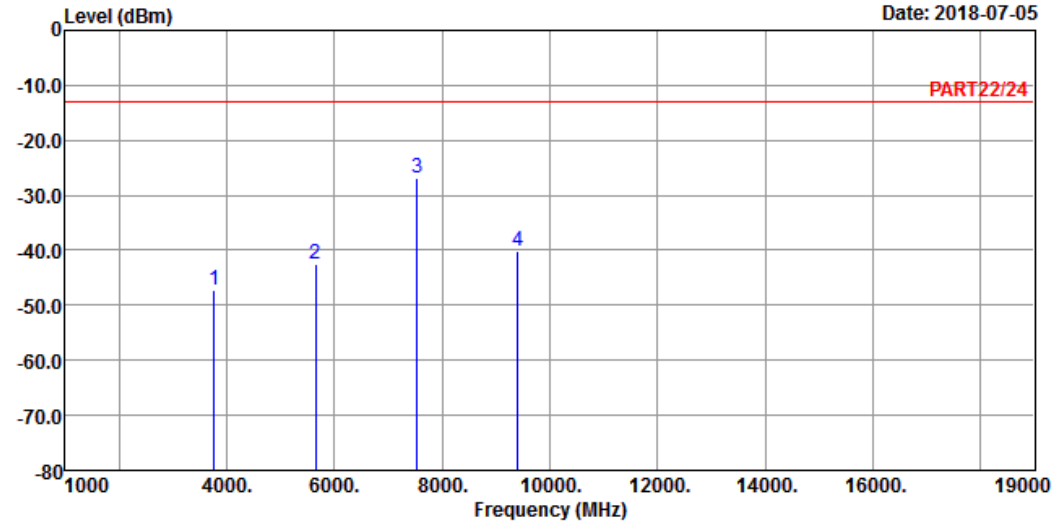
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_5M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-50.81	-44.21	-13.00	-37.81	-6.60	Peak
2	5647.50	-45.47	-43.64	-13.00	-32.47	-1.83	Peak
3 pp	7530.00	-38.34	-42.62	-13.00	-25.34	4.28	Peak
4	9400.00	-43.67	-48.74	-13.00	-30.67	5.07	Peak

Data: 2

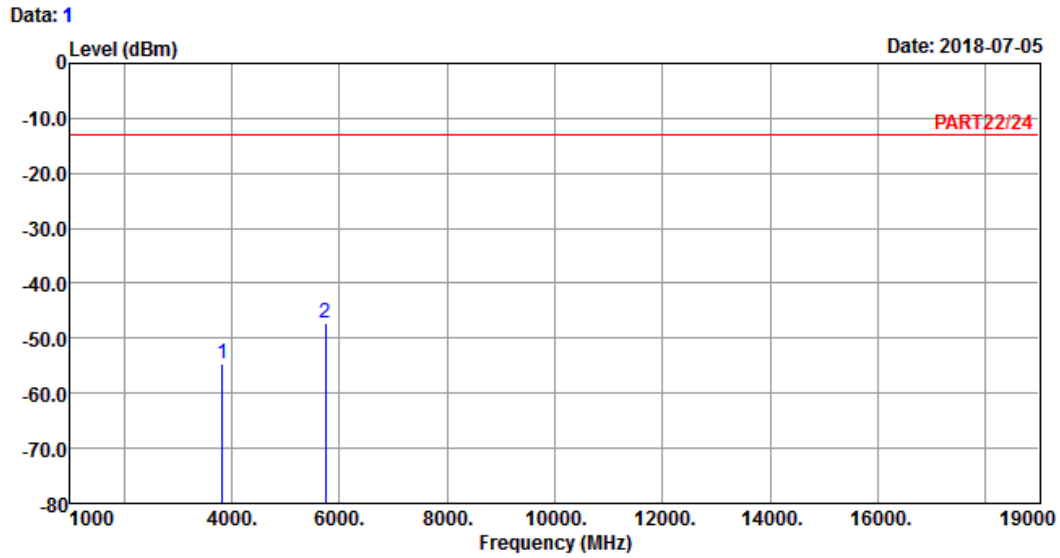


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_5M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-47.27	-40.67	-13.00	-34.27	-6.60	Peak
2	5647.50	-42.61	-40.78	-13.00	-29.61	-1.83	Peak
3 pp	7530.00	-26.93	-31.21	-13.00	-13.93	4.28	Peak
4	9400.00	-40.03	-45.10	-13.00	-27.03	5.07	Peak

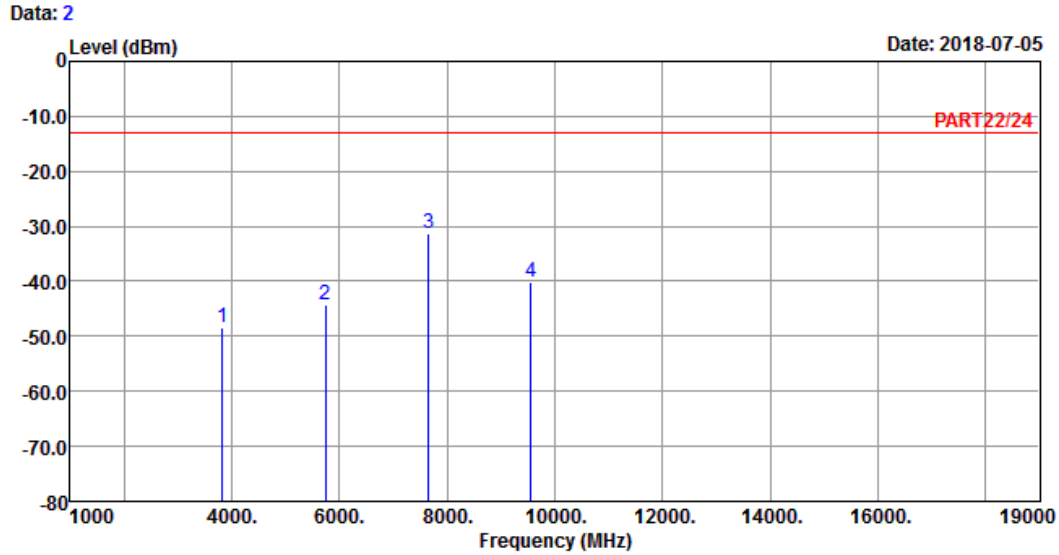
High Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_5M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3825.00	-54.66	-48.29	-13.00	-41.66	-6.37	Peak
2 pp	5737.50	-47.24	-45.59	-13.00	-34.24	-1.65	Peak

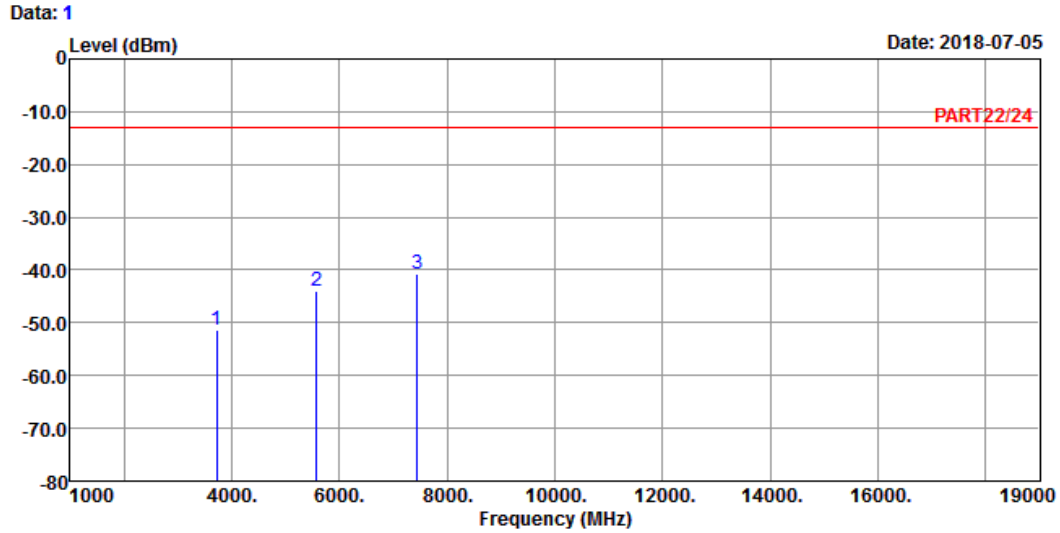


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_5M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3825.00	-48.33	-41.96	-13.00	-35.33	-6.37	Peak
2	5737.50	-44.31	-42.66	-13.00	-31.31	-1.65	Peak
3 pp	7650.00	-31.42	-35.97	-13.00	-18.42	4.55	Peak
4	9562.50	-40.25	-45.67	-13.00	-27.25	5.42	Peak

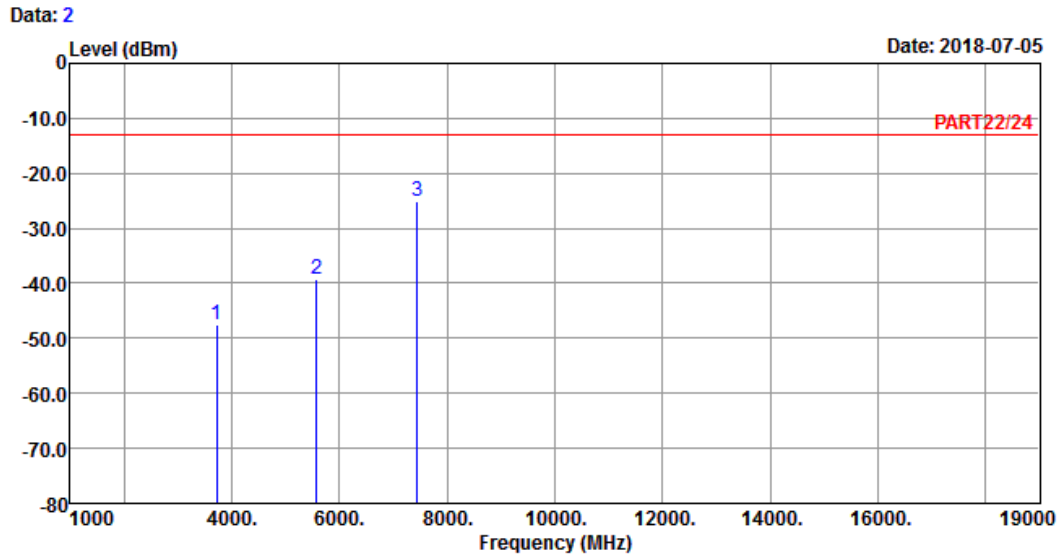
Channel Bandwidth: 20 MHz / QPSK
Low Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_20M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3720.00	-51.33	-44.40	-13.00	-38.33	-6.93	Peak
2	5580.00	-44.07	-42.17	-13.00	-31.07	-1.90	Peak
3 pp	7440.00	-40.77	-44.88	-13.00	-27.77	4.11	Peak

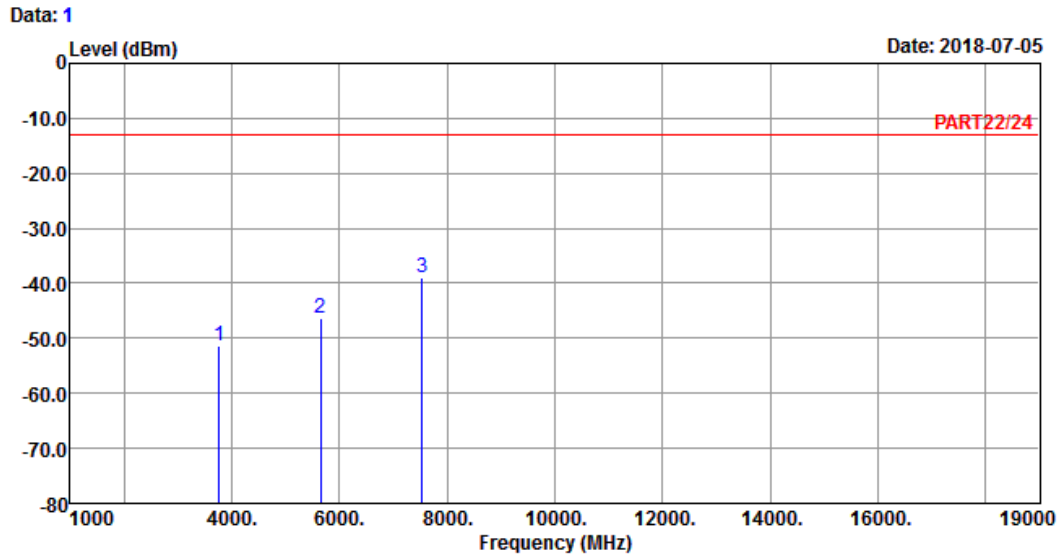


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_20M Link_L-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3720.00	-47.66	-40.73	-13.00	-34.66	-6.93	Peak
2	5580.00	-39.22	-37.32	-13.00	-26.22	-1.90	Peak
3 pp	7440.00	-25.07	-29.18	-13.00	-12.07	4.11	Peak

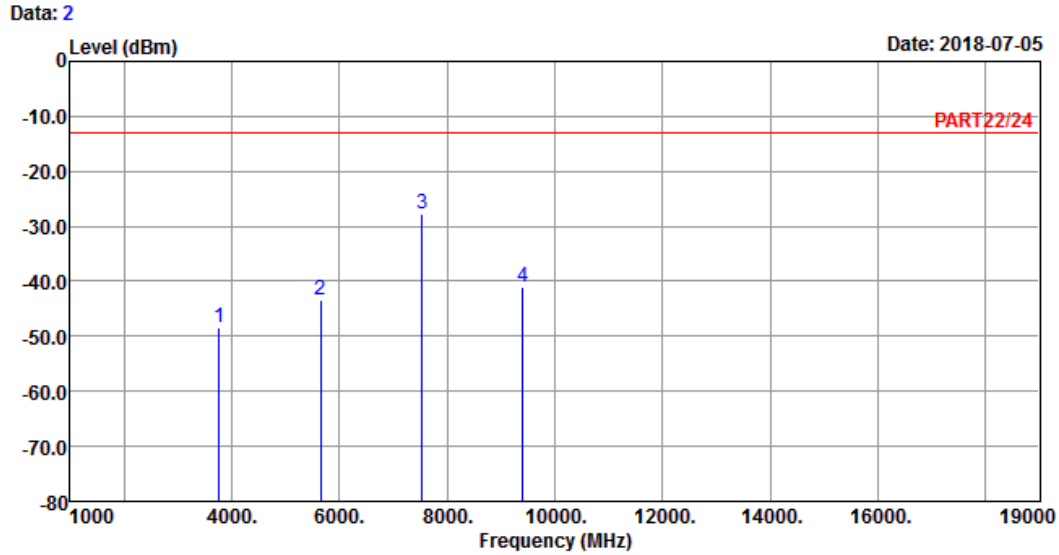
Middle Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_20M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-51.48	-44.88	-13.00	-38.48	-6.60	Peak
2	5647.50	-46.22	-44.39	-13.00	-33.22	-1.83	Peak
3 pp	7530.00	-39.03	-43.31	-13.00	-26.03	4.28	Peak

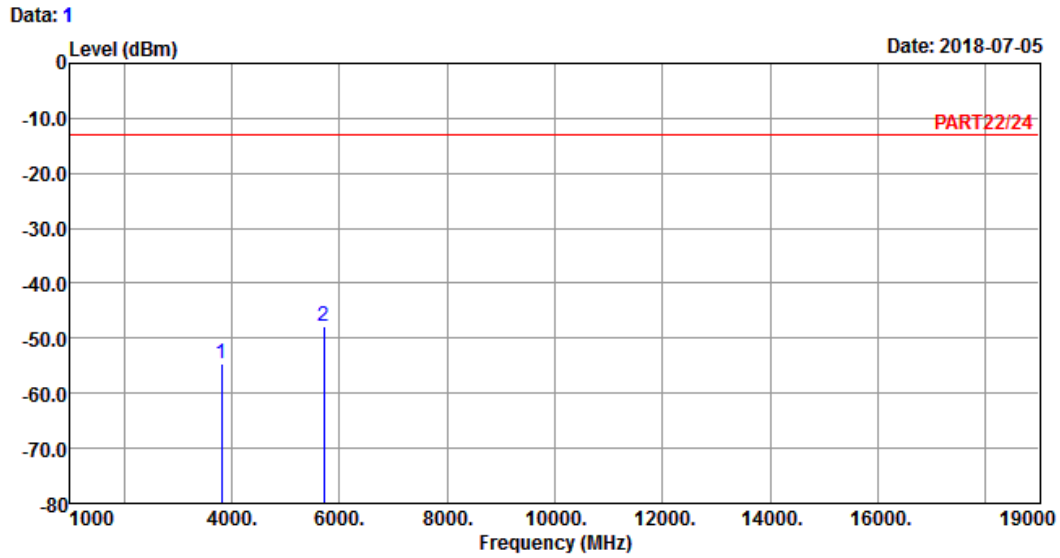


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_20M Link_M-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-48.33	-41.73	-13.00	-35.33	-6.60	Peak
2	5647.50	-43.49	-41.66	-13.00	-30.49	-1.83	Peak
3 pp	7530.00	-27.88	-32.16	-13.00	-14.88	4.28	Peak
4	9400.00	-40.89	-45.96	-13.00	-27.89	5.07	Peak

High Channel

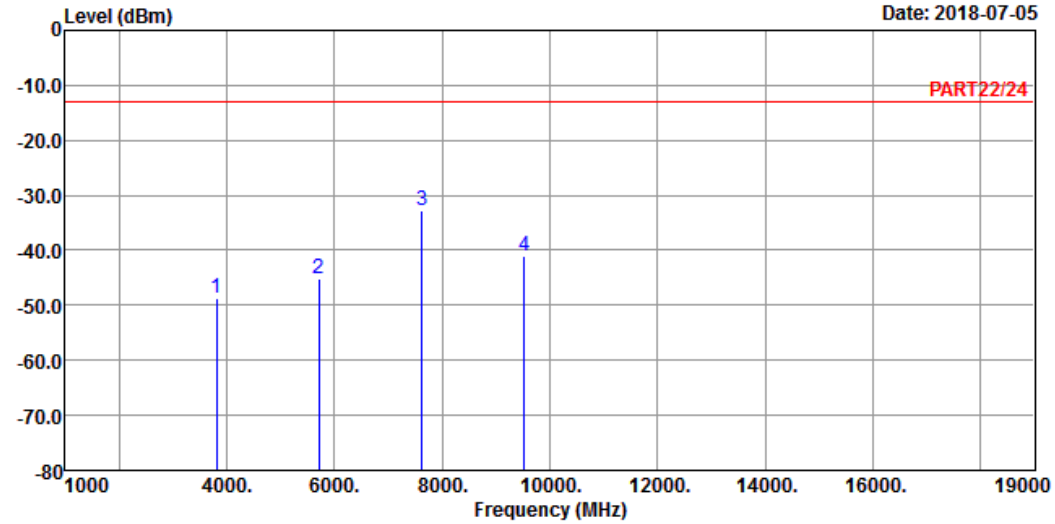
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : Cat-M1 Band 25 QPSK_20M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3810.00	-54.49	-48.12	-13.00	-41.49	-6.37	Peak
2 pp	5715.00	-47.79	-46.14	-13.00	-34.79	-1.65	Peak

Data: 2



Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_20M Link_H-CH
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3810.00	-48.85	-42.48	-13.00	-35.85	-6.37	Peak
2	5715.00	-45.11	-43.46	-13.00	-32.11	-1.65	Peak
3 pp	7620.00	-32.88	-37.43	-13.00	-19.88	4.55	Peak
4	9525.00	-40.90	-46.32	-13.00	-27.90	5.42	Peak

5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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