FCC Test Report

(PART 24)

Report No.:	RF181126C15-1
FCC ID:	N7NHL78
Test Model:	HL7800
Received Date:	Nov. 26, 2018
Test Date:	Jun. 29 ~ Jul. 05, 2018 (Cat-M1) Dec. 08, 2018 ~ Apr. 22, 2019 (NB-IoT)
Issued Date:	May 30, 2019
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
RF181126C15-1	Original Release	May 30, 2019

1 Certificate of Conformity

Product:	Embedded Module
Brand:	AirPrime
Test Model:	HL7800
Sample Status:	Engineering Sample
Applicant:	Sierra Wireless Inc.
Test Date:	Jun. 29 ~ Jul. 05, 2018 (Cat-M1) Dec. 08, 2018 ~ Apr. 22, 2019 (NB-IoT)
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:** May 30, 2019

Ivonne Wu / Supervisor

Approved by : _____ , **Date:** May 30, 2019

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.
2.1047	Modulation Characteristics	Pass	Meet the requirement.
2.1046 24.232(d)	Peak to Average Ratio	Pass	Meet the requirement of limit.
2.1055 24.235	Frequency Stability	Pass	Meet the requirement of limit.
2.1049	Occupied Bandwidth	Pass	Meet the requirement of limit.
24.238	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.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	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

Test Date: Jun. 29 ~ Jul. 05, 2018

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-1000(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.

Test Date: Dec. 08, 2018 ~ Apr. 22, 2019

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY52260177	Aug. 20, 2018	Aug. 19, 2019
Spectrum Analyzer Keysight	N9010A	MY56070348	Sep. 06, 2018	Sep. 05, 2019
Spectrum Analyzer ROHDE & SCHWARZ	FSW26	102023	Oct. 11, 2018	Oct. 10, 2019
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Nov. 25, 2018	Nov. 24, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Nov. 23, 2018	Nov. 22, 2019
Double Ridge Guide Horn Antenna EMCO	3115	5619	Nov. 25, 2018	Nov. 24, 2019
BILOG Antenna SCHWARZBECK	VULB 9168	9168-153	Nov. 23, 2018	Nov. 22, 2019
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 16, 2018 Apr. 15, 2019	Apr. 15, 2019 Apr. 14, 2020
MXG Vector signal generator Agilent	N5182B	MY53050430	Nov. 19, 2018	Nov. 18, 2019
Preamplifier EMCI	EMC 012645	980115	Oct. 12, 2018	Oct. 11, 2019
Preamplifier EMCI	EMC 330H	980112	Oct. 12, 2018	Oct. 11, 2019
RF Coaxial Cable HUBER+SUHNNER	EMC104-SM-SM-8000&3000	140811+170717	Oct. 12, 2018	Oct. 11, 2019
RF Coaxial Cable HUBER+SUHNNER	SUCOFLEX 104	EMC104-SM-SM-1000(140807)	Oct. 12, 2018	Oct. 11, 2019
RF Coaxial Cable WOKEN	8D-FB	Cable-Ch10-01	Oct. 12, 2018	Oct. 11, 2019
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
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
Radio Communication Analyzer ANRITSU	MT8821C	6201664741	Jul. 04, 2018	Jul. 03, 2019
Temperature & Humidity Chamber	GTH-120-40-CP-AR	MAA1306-019	Sep. 05, 2018	Sep. 04, 2019
DC Power Supply Topward	33010D	807748	NA	NA

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 General Information

3.1 General Description of EUT

Product	Embedded Module		
Brand	AirPrime		
Test Model	HL7800		
Status of EUT	Engineering Sample		
Power Supply Rating	5.0 Vdc (host equipment) 12.0 Vdc (adapter)		
Modulation Type	**Cat-M1**	QPSK, 16QAM	
	NB-IoT	BPSK, QPSK	
Frequency Range	**Cat-M1**	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
	NB-IoT	LTE 2	1850.1 ~ 1909.9 MHz
		LTE 25	1850.1 ~ 1914.9 MHz
Max. EIRP Power	**Cat-M1**	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
	NB-IoT	LTE 2	233.88 mW (BPSK) 272.90 mW (QPSK)
		LTE 25	231.21 mW (BPSK) 274.16 mW (QPSK)

Emission Designator	**Cat-M1**	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
	NB-IoT	LTE 2	1K93G7D
		LTE 25	1K92G7D
Antenna Type	Dipole Antenna with 2 dBi gain		
Accessory Device	Refer to Note as below		
Data Cable Supplied	Refer to Note as below		

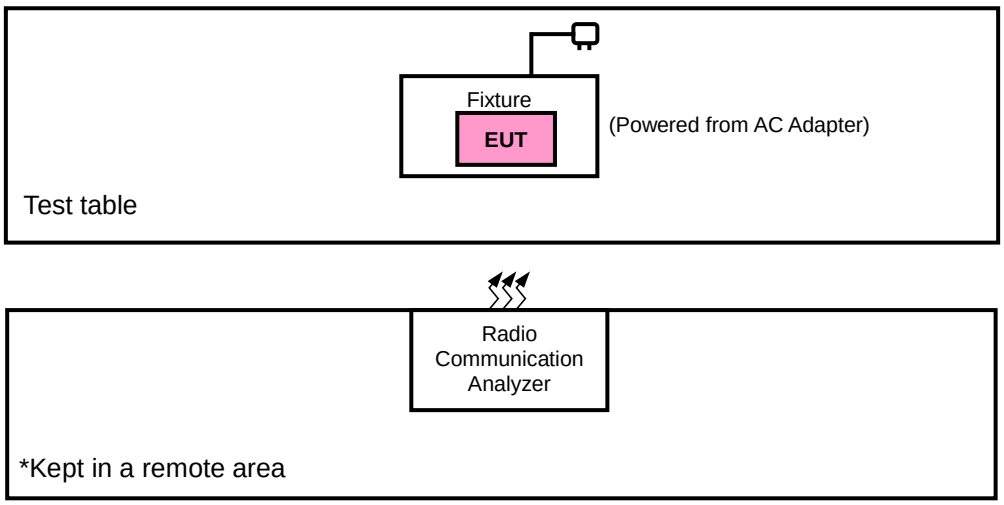
Note:

1. This report is issued as a supplementary report to BV CPS report no.: RF180425C07A-1. The difference compared with original report is enabled NB-IoT function via software (as listed below). All the test items for NB-IoT were tested. For Cat-M1, only the worst case of radiated spurious emissions for LTE B4/B14 and effective radiated power for LTE B12/B25 in the original report were verified, and the other test data from the original report are kept in this report.

Report No.	FCC ID	Model	Difference
RF180425C07A-1	N7NHL78M	HL7800-M	Support Cat-M1
RF181126C15-1	N7NHL78	HL7800	Support Cat-M1 and NB-IoT

2. 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

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

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item 1 was provided by client.

3.3 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 (Cat-M1) X-plane (NB-IoT)	Z-axis (Cat-M1) X-axis (NB-IoT)
LTE Band 25	Z-plane (Cat-M1) X-plane (NB-IoT)	Z-axis (Cat-M1) X-axis (NB-IoT)

Cat-M1

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

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	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.

NB-IoT

LTE Band 2

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Sub-carrier Bandwidth	Modulation	N_{tones}
-	EIRP	18601 to 19199	18601, 18900, 19199	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	3@3
-	Modulation Characteristics	18601 to 19199	18900	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
-	Frequency Stability	18601 to 19199	18601, 19199	15 kHz	QPSK	3@3
-	Occupied Bandwidth	18601 to 19199	18601	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
						12@0
			18900	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
						12@0
			19199	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	1@11
						3@3
						12@0
-	Peak to Average Ratio	18601 to 19199	18900	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
-	Band Edge	18601 to 19199	18601	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
						12@0
			19199	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	1@11
						3@3
						12@0
-	Conducted Emission	18601 to 19199	18601, 18900, 19199	15 kHz	QPSK	3@3
-	Radiated Emission	18601 to 19199	18601, 18900, 19199	15 kHz	QPSK	3@3

Note:

1. Selection is tested with Stand-alone, In-band and Guard-band, the worst case was found in Stand-alone.
2. For radiated emission and conducted emission test, pre-tested BPSK, QPSK modulation type and found QPSK was the worst, therefore chosen for the final test.
3. The emission measurement was based on the worst maximum conducted power.

LTE Band 25

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Sub-carrier Bandwidth	Modulation	N_{tones}
-	EIRP	26041 to 26689	26041, 26365, 26689	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	3@3
-	Modulation Characteristics	26041 to 26689	26365	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
-	Frequency Stability	26041 to 26689	26041, 26689	15 kHz	QPSK	3@3
-	Occupied Bandwidth	26041 to 26689	26041	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
						12@0
			26365	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
						12@0
			26689	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	1@11
						3@3
						12@0
-	Peak to Average Ratio	26041 to 26689	26365	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
-	Band Edge	26041 to 26689	26041	3.75 kHz	BPSK	1@0
				15 kHz	QPSK	1@0
						3@3
						12@0
			26689	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	1@11
						3@3
						12@0
-	Conducted Emission	26041 to 26689	26041, 26365, 26689	15 kHz	QPSK	1@0
-	Radiated Emission	26041 to 26689	26041, 26365, 26689	15 kHz	QPSK	1@0

Note:

1. Selection is tested with Stand-alone, In-band and Guard-band, the worst case was found in Stand-alone.
2. For radiated emission and conducted emission test, pre-tested BPSK, QPSK modulation type and found QPSK was the worst, therefore chosen for the final test.
3. The emission measurement was based on the worst maximum conducted power.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	26 deg. C, 58 % RH	12 Vdc	Jisyong Wang / 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	12 Vdc	Jisyong Wang / 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
ANSI 63.2 -1996

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 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.

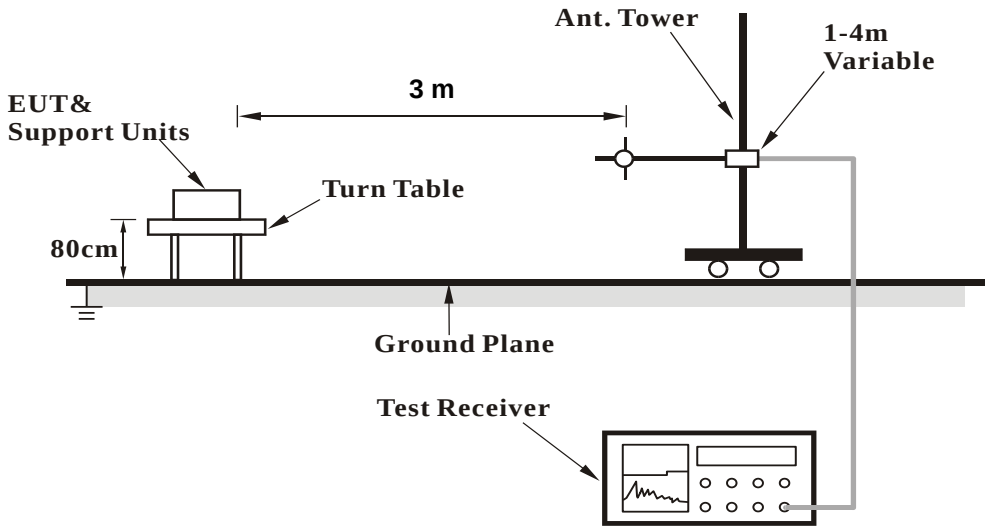
d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15 dB.

Conducted Power Measurement:

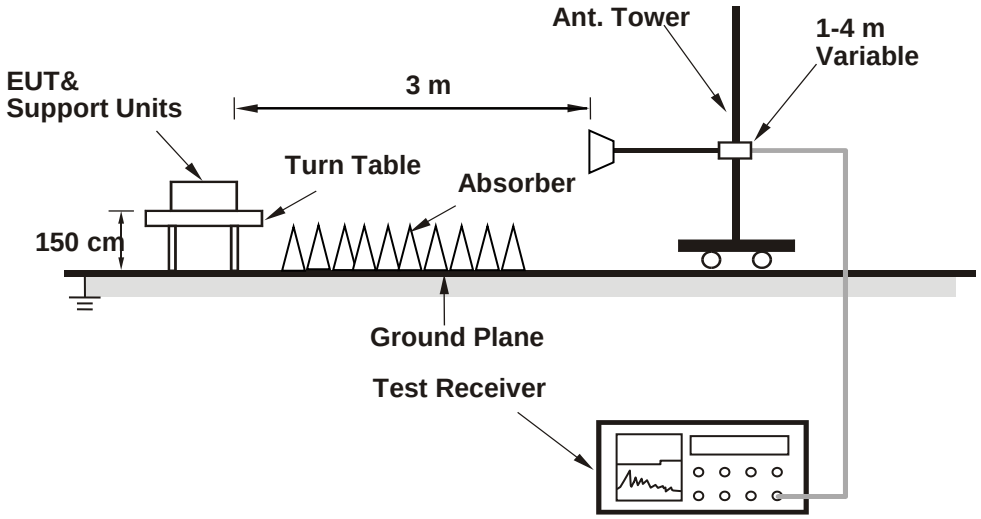
The EUT was set up for the maximum power with LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

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)

Cat-M1

LTE Band 2								
BW (MHz): 1.4								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	18607	1850.7	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	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	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

LTE Band 2								
BW (MHz): 3								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	18615	1851.5	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
Mid. Range	18900	1880	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	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

LTE Band 2								
BW (MHz): 5								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	18625	1852.5	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	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

LTE Band 2								
BW (MHz): 5								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
High Range	19175	1907.5	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

LTE Band 2								
BW (MHz): 10								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	18650	1855	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
Mid. Range	18900	1880	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	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

LTE Band 2								
BW (MHz): 15								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	18675	1857.5	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	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
High Range	19125	1902.5	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

LTE Band 2								
BW (MHz): 20								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	18700	1860	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	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	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)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	26047	1850.7	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	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	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

LTE Band 25								
BW (MHz): 3								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	26055	1851.5	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
Mid. Range	26365	1882.5	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	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

LTE Band 25								
BW (MHz): 5								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	26065	1852.5	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	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

LTE Band 25								
BW (MHz): 5								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
High Range	26665	1912.5	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

LTE Band 25								
BW (MHz): 10								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	26090	1855	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
Mid. Range	26365	1882.5	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	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

LTE Band 25								
BW (MHz): 15								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	26115	1857.5	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	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
High Range	26615	1907.5	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

LTE Band 25								
BW (MHz): 20								
Test Frequency ID	N_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Power (dBm)
Low Range	26140	1860	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
Mid. Range	26365	1882.5	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	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

NB-IoT

LTE Band 2							
Stand-alone							
N_{UL}	**M_{UL}**	**Frequency of Uplink (MHz)**	**Test Configuration Initial of Power**			**EUT**	
			Modulation	**N_{tones}**	**Sub-carrier Spacing (kHz)**	**Cell Power (dBm/15 kHz)**	**Power (dBm)**
18601	0	1850.1	BPSK	1@0	3.75	-110	21.35
			QPSK	1@0	15	-110	21.47
			QPSK	3@3	15	-110	21.92
			QPSK	12@0	15	-110	20.31
18900	0	1880	BPSK	1@0	3.75	-110	22.15
			BPSK	1@47	3.75	-110	22.37
			QPSK	1@0	15	-110	22.89
			QPSK	1@11	15	-110	22.94
			QPSK	3@3	15	-110	23.14
			QPSK	12@0	15	-110	22.8
19199	0	1909.9	BPSK	1@47	3.75	-110	21.61
			QPSK	1@11	15	-110	21.56
			QPSK	3@3	15	-110	21.83
			QPSK	12@0	15	-110	20.3

LTE Band 2							
In-Band	**BW (MHz): 3**						
N_{UL}	**M_{UL}**	**Frequency of Uplink (MHz)**	**Test Configuration Initial of Power**			**EUT**	
			Modulation	**N_{tones}**	**Sub-carrier Spacing (kHz)**	**Cell Power (dBm/15 kHz)**	**Power (dBm)**
18606	0	1850.6	BPSK	1@0	3.75	-110	22.19
			QPSK	1@0	15	-110	22.72
			QPSK	3@3	15	-110	22.92
			QPSK	12@0	15	-110	22.79
18891	0	1879.1	BPSK	1@0	3.75	-110	22.21
			BPSK	1@47	3.75	-110	22.18
			QPSK	1@0	15	-110	22.72
			QPSK	1@11	15	-110	22.71
			QPSK	3@3	15	-110	22.89
			QPSK	12@0	15	-110	22.76
19194	0	1909.4	BPSK	1@47	3.75	-110	22.5
			QPSK	1@11	15	-110	22.87
			QPSK	3@3	15	-110	23.11
			QPSK	12@0	15	-110	22.99

LTE Band 2							
In-Band	**BW (MHz): 10**	**NB-IoT PRB: 30**					
N_{UL}	**M_{UL}**	**Frequency of Uplink (MHz)**	**Test Configuration Initial of Power**			**EUT**	
			Modulation	**N_{tones}**	**Sub-carrier Spacing (kHz)**	**Cell Power (dBm/15 kHz)**	**Power (dBm)**
18660	-2	1855.99	BPSK	1@0	3.75	-110	22.06
			QPSK	1@0	15	-110	22.55
			QPSK	3@3	15	-110	22.78
			QPSK	12@0	15	-110	22.63
18910	-2	1880.99	BPSK	1@0	3.75	-110	22.1
			BPSK	1@47	3.75	-110	22.18
			QPSK	1@0	15	-110	22.46
			QPSK	1@11	15	-110	22.38
			QPSK	3@3	15	-110	22.83
			QPSK	12@0	15	-110	22.49
19160	-2	1905.99	BPSK	1@47	3.75	-110	22.38
			QPSK	1@11	15	-110	22.48
			QPSK	3@3	15	-110	22.77
			QPSK	12@0	15	-110	22.69

LTE Band 2							
In-Band	BW (MHz): 10	NB-IoT PRB: 35					
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
18669	-2	1856.89	BPSK	1@0	3.75	-110	22.1
			QPSK	1@0	15	-110	22.28
			QPSK	3@3	15	-110	22.78
			QPSK	12@0	15	-110	22.52
18919	-2	1881.89	BPSK	1@0	3.75	-110	22.28
			BPSK	1@47	3.75	-110	22.28
			QPSK	1@0	15	-110	22.68
			QPSK	1@11	15	-110	22.67
			QPSK	3@3	15	-110	23.06
			QPSK	12@0	15	-110	22.72
19169	-2	1906.89	BPSK	1@47	3.75	-110	22.46
			QPSK	1@11	15	-110	22.75
			QPSK	3@3	15	-110	22.94
			QPSK	12@0	15	-110	22.75

LTE Band 2							
Guard-Band	BW (MHz): 5						
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
18601	0	1850.1	BPSK	1@0	3.75	-110	22.2
			QPSK	1@0	15	-110	22.62
			QPSK	3@3	15	-110	22.97
			QPSK	12@0	15	-110	22.79
18876	0	1877.6	BPSK	1@0	3.75	-110	22.32
			BPSK	1@47	3.75	-110	22.71
			QPSK	1@0	15	-110	22.69
			QPSK	1@11	15	-110	22.88
			QPSK	3@3	15	-110	23.01
			QPSK	12@0	15	-110	22.94
19199	0	1909.9	BPSK	1@47	3.75	-110	22.32
			QPSK	1@11	15	-110	22.66
			QPSK	3@3	15	-110	22.81
			QPSK	12@0	15	-110	22.79

LTE Band 25							
Stand-alone							
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
26041	0	1850.1	BPSK	1@0	3.75	-110	21.02
			QPSK	1@0	15	-110	20.81
			QPSK	3@3	15	-110	21.52
			QPSK	12@0	15	-110	20.31
26365	0	1882.5	BPSK	1@0	3.75	-110	22.44
			BPSK	1@47	3.75	-110	22.31
			QPSK	1@0	15	-110	23.15
			QPSK	1@11	15	-110	22.45
			QPSK	3@3	15	-110	22.52
			QPSK	12@0	15	-110	22.39
26689	0	1914.9	BPSK	1@47	3.75	-110	21.33
			QPSK	1@11	15	-110	21.24
			QPSK	3@3	15	-110	21.58
			QPSK	12@0	15	-110	20.3

LTE Band 25							
In-Band	BW (MHz): 3						
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
26046	0	1850.6	BPSK	1@0	3.75	-110	22.78
			QPSK	1@0	15	-110	22.79
			QPSK	3@3	15	-110	23.01
			QPSK	12@0	15	-110	22.79
26356	0	1881.6	BPSK	1@0	3.75	-110	22.48
			BPSK	1@47	3.75	-110	22.31
			QPSK	1@0	15	-110	22.73
			QPSK	1@11	15	-110	22.69
			QPSK	3@3	15	-110	22.76
			QPSK	12@0	15	-110	22.68
26684	0	1914.4	BPSK	1@47	3.75	-110	23.09
			QPSK	1@11	15	-110	23.01
			QPSK	3@3	15	-110	23.08
			QPSK	12@0	15	-110	23.02

LTE Band 25							
In-Band	BW (MHz): 10	NB-IoT PRB: 30					
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
26100	-2	1855.99	BPSK	1@0	3.75	-110	22.79
			QPSK	1@0	15	-110	22.77
			QPSK	3@3	15	-110	23.01
			QPSK	12@0	15	-110	22.83
26375	-2	1883.49	BPSK	1@0	3.75	-110	22.74
			BPSK	1@47	3.75	-110	22.73
			QPSK	1@0	15	-110	22.71
			QPSK	1@11	15	-110	22.84
			QPSK	3@3	15	-110	23.01
			QPSK	12@0	15	-110	22.91
26650	-2	1910.99	BPSK	1@47	3.75	-110	23.1
			QPSK	1@11	15	-110	23.07
			QPSK	3@3	15	-110	23.08
			QPSK	12@0	15	-110	23.03

LTE Band 25							
In-Band	BW (MHz): 10	NB-IoT PRB: 35					
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
26109	-2	1856.89	BPSK	1@0	3.75	-110	22.94
			QPSK	1@0	15	-110	22.66
			QPSK	3@3	15	-110	22.84
			QPSK	12@0	15	-110	22.75
26384	-2	1884.39	BPSK	1@0	3.75	-110	22.81
			BPSK	1@47	3.75	-110	22.87
			QPSK	1@0	15	-110	22.67
			QPSK	1@11	15	-110	22.78
			QPSK	3@3	15	-110	22.81
			QPSK	12@0	15	-110	22.76
26659	-2	1911.89	BPSK	1@47	3.75	-110	22.89
			QPSK	1@11	15	-110	23.01
			QPSK	3@3	15	-110	23.02
			QPSK	12@0	15	-110	22.98

LTE Band 25							
Guard-Band	BW (MHz): 5						
N_{UL}	M_{UL}	Frequency of Uplink (MHz)	Test Configuration Initial of Power			EUT	
			Modulation	N_{tones}	Sub-carrier Spacing (kHz)	Cell Power (dBm/15 kHz)	Power (dBm)
26041	0	1850.1	BPSK	1@0	3.75	-110	22.88
			QPSK	1@0	15	-110	22.92
			QPSK	3@3	15	-110	23.04
			QPSK	12@0	15	-110	22.97
26341	0	1880.1	BPSK	1@0	3.75	-110	22.59
			BPSK	1@47	3.75	-110	22.72
			QPSK	1@0	15	-110	22.61
			QPSK	1@11	15	-110	22.69
			QPSK	3@3	15	-110	22.81
			QPSK	12@0	15	-110	22.62
26689	0	1914.9	BPSK	1@47	3.75	-110	22.66
			QPSK	1@11	15	-110	22.77
			QPSK	3@3	15	-110	22.79
			QPSK	12@0	15	-110	22.65

EIRP Power (dBm)

Cat-M1

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	-12.88	37.65	24.77	299.92	V
	26365	1882.5	-12.63	37.58	24.95	312.61	
	26683	1914.3	-13.34	37.92	24.58	287.08	
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)

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LTE Band 2							
BPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	18601	1850.1	-13.06	36.57	23.51	224.39	H
	18900	1880.0	-13.53	37.22	23.69	233.88	
	19199	1909.9	-13.58	37.18	23.60	229.09	
	18601	1850.1	-20.57	37.65	17.08	51.05	V
	18900	1880.0	-20.37	37.58	17.21	52.60	
	19199	1909.9	-20.34	37.48	17.14	51.76	
QPSK							
X	18601	1850.1	-12.36	36.57	24.21	263.63	H
	18900	1880.0	-12.86	37.22	24.36	272.90	
	19199	1909.9	-12.89	37.18	24.29	268.53	
	18601	1850.1	-19.85	37.65	17.80	60.26	V
	18900	1880.0	-19.63	37.58	17.95	62.37	
	19199	1909.9	-19.59	37.48	17.89	61.52	

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

LTE Band 25							
BPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	26041	1850.1	-13.00	36.57	23.57	227.51	H
	26365	1882.5	-13.58	37.22	23.64	231.21	
	26689	1914.9	-15.26	38.72	23.46	221.82	
	26041	1850.1	-20.34	37.65	17.31	53.83	V
	26365	1882.5	-20.18	37.58	17.40	54.95	
	26689	1914.9	-20.31	37.56	17.25	53.09	
QPSK							
X	26041	1850.1	-12.26	36.57	24.31	269.77	H
	26365	1882.5	-12.84	37.22	24.38	274.16	
	26689	1914.9	-14.46	38.72	24.26	266.69	
	26041	1850.1	-19.48	37.65	18.17	65.61	V
	26365	1882.5	-19.36	37.58	18.22	66.37	
	26689	1914.9	-19.50	37.56	18.06	63.97	

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 Setup

4.2.3 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.

4.2.4 Test Results

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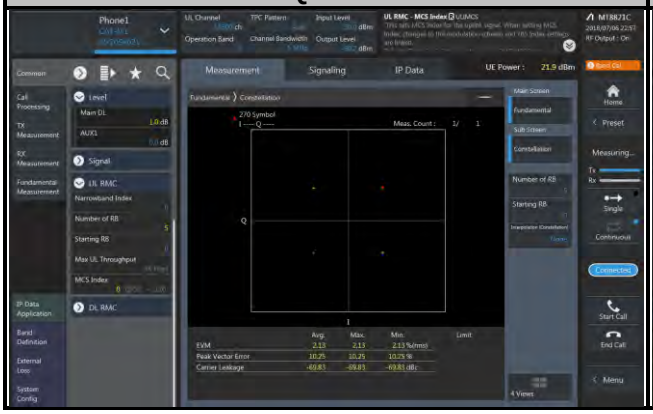
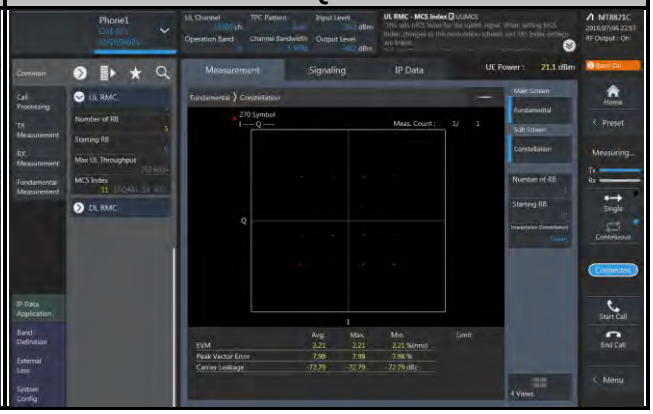
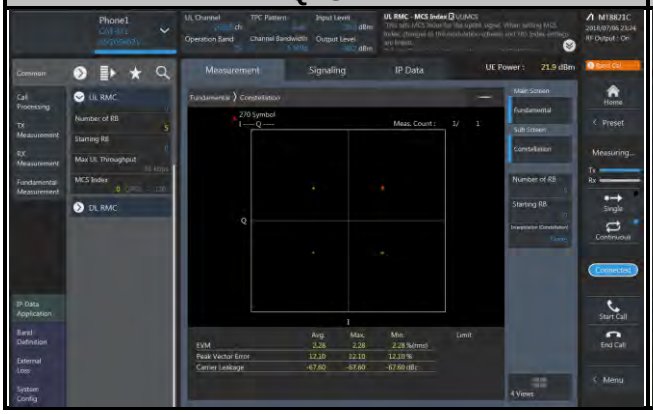
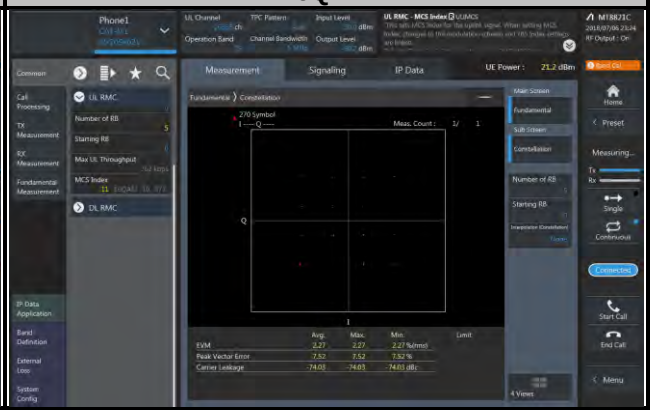
Spectrum Plot of Measurement	
LTE Band 2	
Channel 18900	
QPSK	16QAM
	

Spectrum Plot of Measurement	
LTE Band 25	
Channel 26365	
QPSK	16QAM
	

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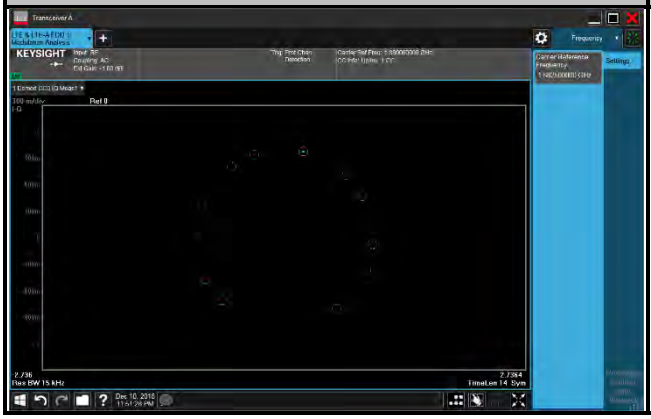
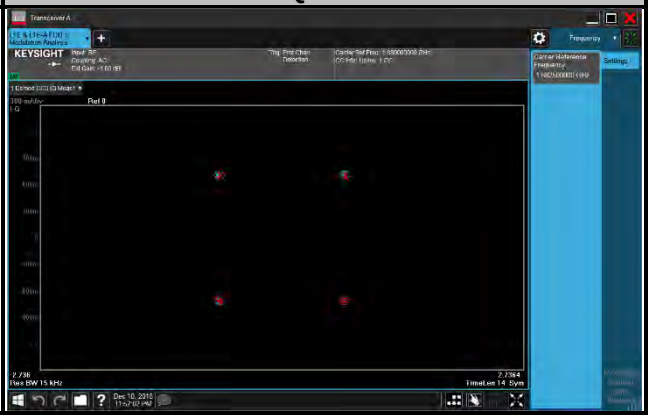
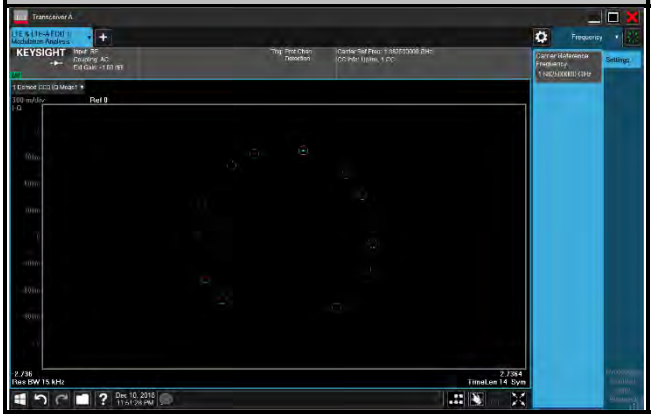
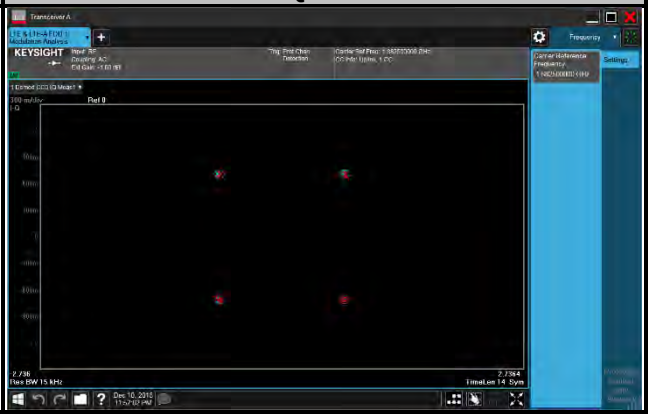
Spectrum Plot of Measurement	
LTE Band 2	
Channel 18900	
BPSK	QPSK
	

Spectrum Plot of Measurement	
LTE Band 25	
Channel 26365	
BPSK	QPSK
	

4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

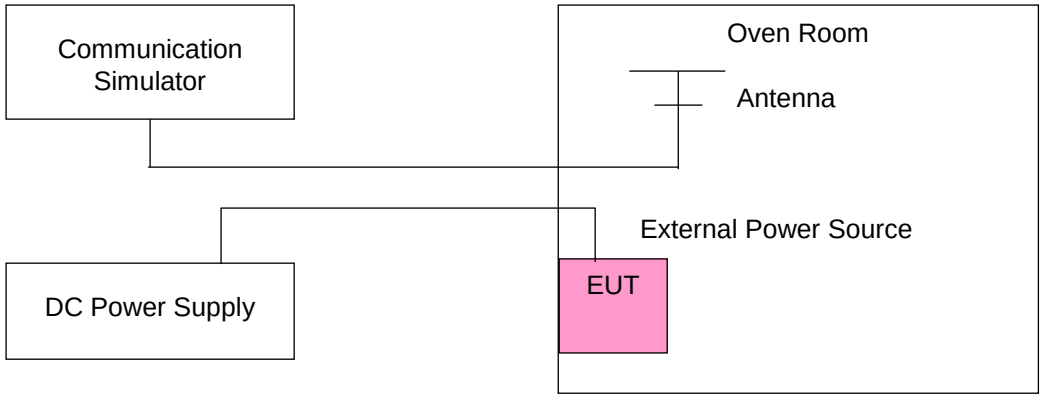
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

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

Cat-M1

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Channel Bandwidth: 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1850.700003	0.002	1909.300002	0.001
10.2	1850.700004	0.002	1909.300003	0.002
13.8	1850.700002	0.001	1909.300003	0.002

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	Channel Bandwidth: 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1850.700003	0.002	1909.300001	0.001
-20	1850.700002	0.001	1909.300004	0.002
-10	1850.700002	0.001	1909.300004	0.002
0	1850.700003	0.002	1909.300002	0.001
10	1850.700003	0.002	1909.300002	0.001
20	1850.700002	0.001	1909.299999	-0.001
30	1850.699997	-0.002	1909.299997	-0.002
40	1850.699998	-0.001	1909.299998	-0.001
50	1850.699998	-0.001	1909.299998	-0.001
60	824.699998	-0.001	848.299998	-0.003
70	1850.699996	-0.002	1909.299998	-0.001
80	1850.699999	-0.001	1909.299998	-0.001
85	1850.699998	-0.001	1909.299998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Channel Bandwidth: 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1851.500003	0.001	1907.500002	0.001
10.2	1851.500002	0.001	1907.500003	0.001
13.8	1851.500004	0.002	1907.500004	0.002

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	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
-20	1851.500002	0.001	1907.500004	0.002
-10	1851.500002	0.001	1907.500003	0.001
0	1851.500003	0.002	1907.500001	0.001
10	1851.500004	0.002	1907.500001	0.001
20	1851.500001	0.001	1907.500004	0.002
30	1851.499997	-0.002	1907.499996	-0.002
40	1851.499996	-0.002	1907.499997	-0.002
50	1851.499998	-0.001	1907.499997	-0.002
60	1851.499997	-0.002	1907.499997	-0.002
70	1851.499999	-0.001	1907.499998	-0.001
50	1851.499997	-0.001	1907.499999	-0.001
85	1851.499998	-0.001	1907.499996	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1852.500004	0.002	1907.500000	0.000
10.2	1852.500003	0.002	1907.500000	0.000
13.8	1852.500002	0.001	1907.500000	0.000

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	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
-20	1852.500003	0.002	1907.500004	0.002
-10	1852.500003	0.002	1907.500002	0.001
0	1852.500002	0.001	1907.500004	0.002
10	1852.500001	0.001	1907.500003	0.001
20	1852.500003	0.002	1907.500003	0.002
30	1852.499997	-0.002	1907.499999	-0.001
40	1852.499998	-0.001	1907.499999	-0.001
50	1852.499998	-0.001	1907.499998	-0.001
60	1852.499996	-0.002	1907.499996	-0.002
70	1852.499996	-0.002	1907.499997	-0.002
50	1852.499997	-0.001	1907.499996	-0.002
85	1852.499997	-0.002	1907.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1855.000001	0.001	1905.000003	0.002
10.2	1855.000003	0.002	1905.000003	0.002
13.8	1855.000004	0.002	1905.000002	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	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
-20	1855.000003	0.002	1905.000004	0.002
-10	1855.000001	0.001	1905.000003	0.001
0	1855.000002	0.001	1905.000002	0.001
10	1855.000002	0.001	1905.000003	0.001
20	1855.000001	0.001	1905.000002	0.001
30	1854.999998	-0.001	1904.999998	-0.001
40	1854.999997	-0.002	1904.999996	-0.002
50	1854.999999	-0.001	1904.999998	-0.001
60	1854.999996	-0.002	1904.999997	-0.001
70	1854.999997	-0.002	1904.999998	-0.001
50	1854.999999	-0.001	1904.999997	-0.002
85	1854.999998	-0.001	1904.999998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1857.500001	0.001	1902.500004	0.002
10.2	1857.500003	0.002	1902.500003	0.001
13.8	1857.500002	0.001	1902.500001	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	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
-20	1857.500002	0.001	1902.500001	0.001
-10	1857.500004	0.002	1902.500001	0.001
0	1857.500003	0.001	1902.500001	0.001
10	1857.500003	0.002	1902.500003	0.001
20	1857.500003	0.002	1902.500004	0.002
30	1857.499996	-0.002	1902.499997	-0.001
40	1857.499996	-0.002	1902.499996	-0.002
50	1857.499997	-0.002	1902.499998	-0.001
60	1857.499999	-0.001	1902.499998	-0.001
70	1857.499998	-0.001	1902.499999	-0.001
50	1857.499996	-0.002	1902.499997	-0.002
85	1857.499999	-0.001	1902.499999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1860.000002	0.001	1900.000004	0.002
10.2	1860.000003	0.001	1900.000002	0.001
13.8	1860.000001	0.001	1900.000002	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	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
-20	1860.000002	0.001	1900.000003	0.001
-10	1860.000003	0.002	1900.000001	0.001
0	1860.000002	0.001	1900.000003	0.002
10	1860.000003	0.002	1900.000004	0.002
20	1860.000001	0.001	1900.000003	0.002
30	1859.999999	-0.001	1899.999997	-0.002
40	1859.999999	-0.001	1899.999997	-0.002
50	1859.999998	-0.001	1899.999999	-0.001
60	1859.999998	-0.001	1899.999996	-0.002
70	1859.999999	-0.001	1899.999998	-0.001
50	1859.999996	-0.002	1899.999997	-0.002
85	1859.999999	-0.001	1899.999999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Channel Bandwidth: 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1850.700003	0.002	1914.300003	0.001
10.2	1850.700003	0.001	1914.300002	0.001
13.8	1850.700002	0.001	1914.300003	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25			
	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
-20	1850.700002	0.001	1914.300004	0.002
-10	1850.700002	0.001	1914.300003	0.002
0	1850.700002	0.001	1914.300003	0.002
10	1850.700003	0.002	1914.300003	0.001
20	1850.700002	0.001	1914.300002	0.001
30	1850.699997	-0.002	1914.299999	-0.001
40	1850.699999	-0.001	1914.299998	-0.001
50	1850.699997	-0.002	1914.299999	-0.001
60	1850.699996	-0.002	1914.299996	-0.002
70	1850.699997	-0.001	1914.299997	-0.002
80	1850.699998	-0.001	1914.299996	-0.002
85	1850.699997	-0.002	1914.299996	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Channel Bandwidth: 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1851.500003	0.002	1913.500003	0.002
10.2	1851.500001	0.001	1913.500004	0.002
13.8	1851.500002	0.001	1913.500002	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25			
	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
-20	1851.500002	0.001	1913.500003	0.002
-10	1851.500002	0.001	1913.500004	0.002
0	1851.500004	0.002	1913.500001	0.001
10	1851.500003	0.002	1913.500001	0.001
20	1851.500003	0.002	1913.500003	0.002
30	1851.499996	-0.002	1913.499998	-0.001
40	1851.499997	-0.002	1913.499998	-0.001
50	1851.499999	-0.001	1913.499999	-0.001
60	1851.499999	-0.001	1913.499997	-0.001
70	1851.499999	-0.001	1913.499999	-0.001
50	1851.499998	-0.001	1913.499998	-0.001
85	1851.499998	-0.001	1913.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1852.500004	0.002	1912.500001	0.001
10.2	1852.500004	0.002	1912.500003	0.002
13.8	1852.500001	0.001	1912.500004	0.002

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25			
	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
-20	1852.500001	0.001	1912.500004	0.002
-10	1852.500002	0.001	1912.500003	0.002
0	1852.500003	0.002	1912.500003	0.001
10	1852.500001	0.001	1912.500002	0.001
20	1852.500002	0.001	1912.500004	0.002
30	1852.499998	-0.001	1912.499998	-0.001
40	1852.499998	-0.001	1912.499998	-0.001
50	1852.499999	-0.001	1912.499997	-0.002
60	1852.499998	-0.001	1912.499997	-0.002
70	1852.499997	-0.001	1912.499997	-0.002
50	1852.499996	-0.002	1912.499998	-0.001
85	1852.499999	-0.001	1912.499997	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1855.000002	0.001	1910.000004	0.002
10.2	1855.000004	0.002	1910.000004	0.002
13.8	1855.000002	0.001	1910.000003	0.002

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25			
	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
-20	1855.000003	0.001	1910.000001	0.001
-10	1855.000001	0.001	1910.000001	0.001
0	1855.000003	0.001	1910.000002	0.001
10	1855.000003	0.002	1910.000002	0.001
20	1855.000004	0.002	1910.000002	0.001
30	1854.999999	-0.001	1909.999996	-0.002
40	1854.999997	-0.002	1909.999999	-0.001
50	1854.999996	-0.002	1909.999996	-0.002
60	1854.999997	-0.001	1909.999997	-0.002
70	1854.999997	-0.002	1909.999998	-0.001
50	1854.999997	-0.002	1909.999997	-0.001
85	1854.999998	-0.001	1909.999999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1857.500004	0.002	1907.500002	0.001
10.2	1857.500001	0.001	1907.500002	0.001
13.8	1857.500003	0.002	1907.500001	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25			
	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
-20	1857.500002	0.001	1907.500001	0.001
-10	1857.500002	0.001	1907.500002	0.001
0	1857.500002	0.001	1907.500004	0.002
10	1857.500003	0.002	1907.500004	0.002
20	1857.500002	0.001	1907.500002	0.001
30	1857.499996	-0.002	1907.499997	-0.002
40	1857.499999	-0.001	1907.499997	-0.002
50	1857.499998	-0.001	1907.499996	-0.002
60	1857.499999	-0.001	1907.499998	-0.001
70	1857.499997	-0.002	1907.499998	-0.001
50	1857.499998	-0.001	1907.499997	-0.002
85	1857.499996	-0.002	1907.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1860.000001	0.001	1905.000003	0.001
10.2	1860.000001	0.001	1905.000002	0.001
13.8	1860.000004	0.002	1905.000002	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 25			
	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
-20	1860.000004	0.002	1905.000004	0.002
-10	1860.000002	0.001	1905.000003	0.002
0	1860.000002	0.001	1905.000003	0.002
10	1860.000003	0.002	1905.000002	0.001
20	1860.000001	0.001	1905.000004	0.002
30	1859.999998	-0.001	1904.999997	-0.002
40	1859.999998	-0.001	1904.999997	-0.002
50	1859.999997	-0.001	1904.999999	-0.001
60	1859.999998	-0.001	1904.999997	-0.002
70	1859.999997	-0.002	1904.999997	-0.001
50	1859.999997	-0.002	1904.999998	-0.001
85	1859.999998	-0.001	1904.999998	-0.001

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Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 2			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1850.100002	0.001	1909.900001	0.001
10.2	1850.100004	0.002	1909.900004	0.002
13.8	1850.100001	0.001	1909.900002	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 2			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1850.100003	0.002	1909.900004	0.002
-20	1850.100002	0.001	1909.900004	0.002
-10	1850.100001	0.001	1909.900002	0.001
0	1850.100003	0.001	1909.900002	0.001
10	1850.100003	0.002	1909.900001	0.001
20	1850.099997	-0.002	1909.899998	-0.001
30	1850.099997	-0.002	1909.899997	-0.001
40	1850.099997	-0.002	1909.899998	-0.001
50	1850.099998	-0.001	1909.899998	-0.001
60	1850.099996	-0.002	1909.899998	-0.001
70	1850.099996	-0.002	1909.899997	-0.002
80	1850.099998	-0.001	1909.899999	-0.001
85	1850.099998	-0.001	1909.899999	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 25			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
12	1882.500003	0.002	1882.500003	0.002
10.2	1882.500002	0.001	1882.500003	0.002
13.8	1882.500004	0.002	1882.500002	0.001

Note: The fixture defined the normal working voltage of the adapter is from 10.2 Vdc to 13.8 Vdc.

Frequency Error vs. Temperature

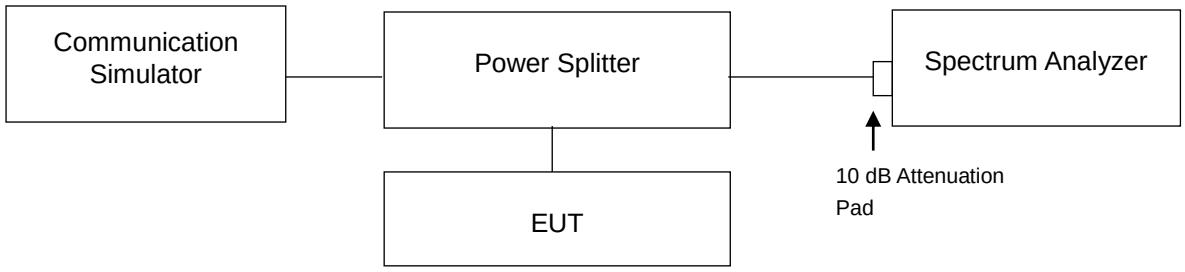
Temp. (℃)	LTE Band 25			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1882.500001	0.001	1882.500002	0.001
-20	1882.500004	0.002	1882.500004	0.002
-10	1882.500003	0.001	1882.500002	0.001
0	1882.500001	0.001	1882.500004	0.002
10	1882.500002	0.001	1882.500001	0.001
20	1882.499997	-0.001	1882.499997	-0.001
30	1882.499998	-0.001	1882.499998	-0.001
40	1882.499997	-0.002	1882.499999	-0.001
50	1882.499996	-0.002	1882.499997	-0.002
60	1850.099998	-0.001	1914.899996	-0.002
70	1850.099998	-0.001	1914.899996	-0.002
80	1850.099997	-0.002	1914.899997	-0.002
85	1850.099999	-0.001	1914.899999	-0.001

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.

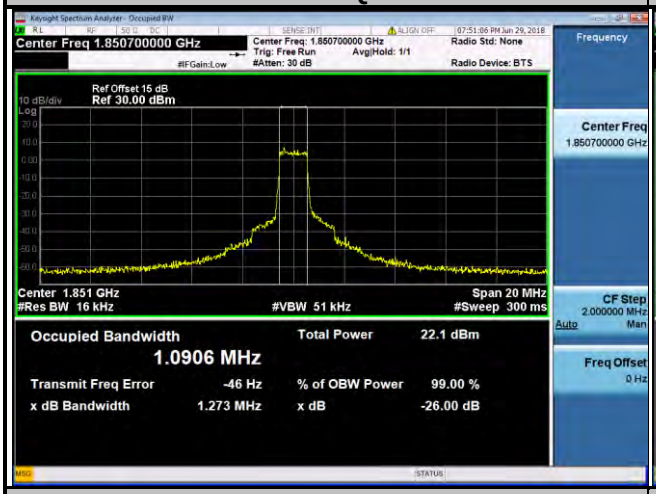
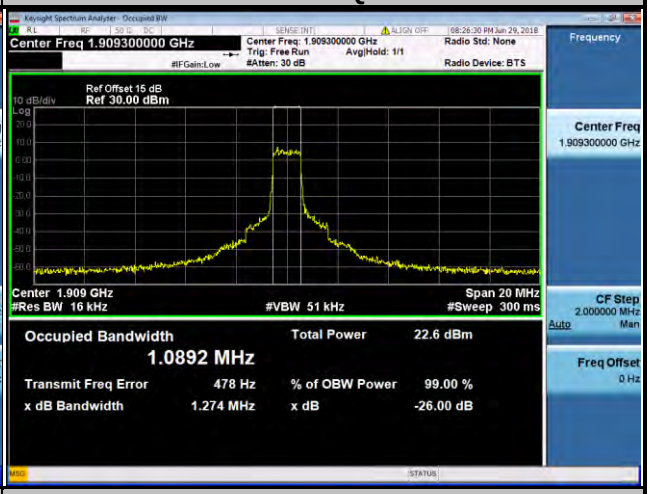
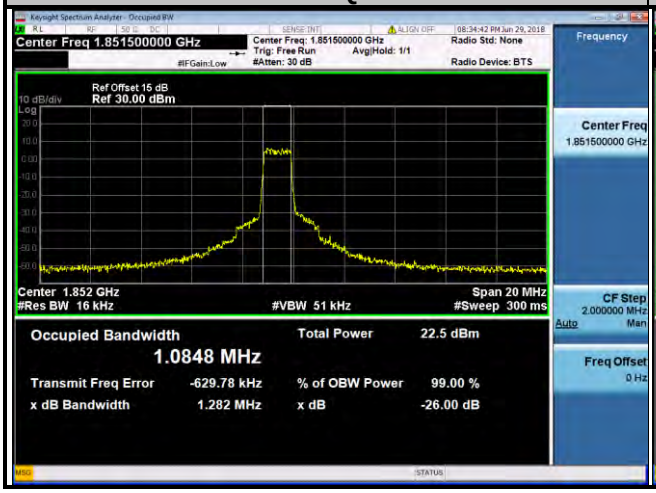
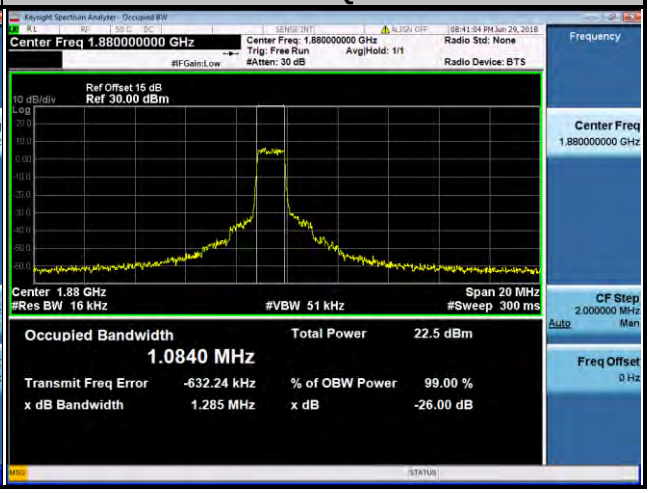
4.4.2 Test Setup



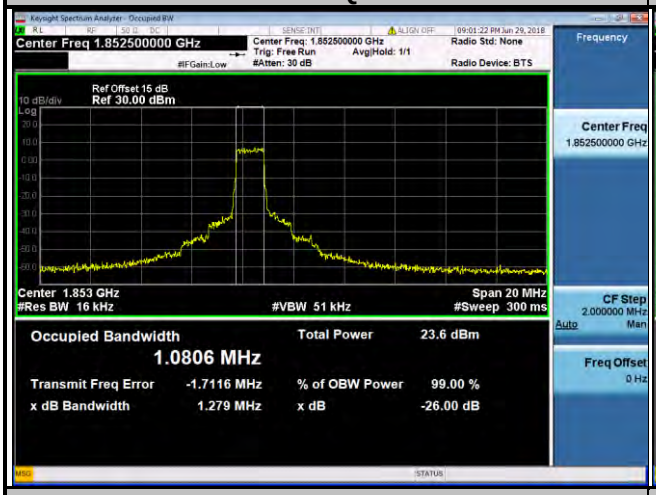
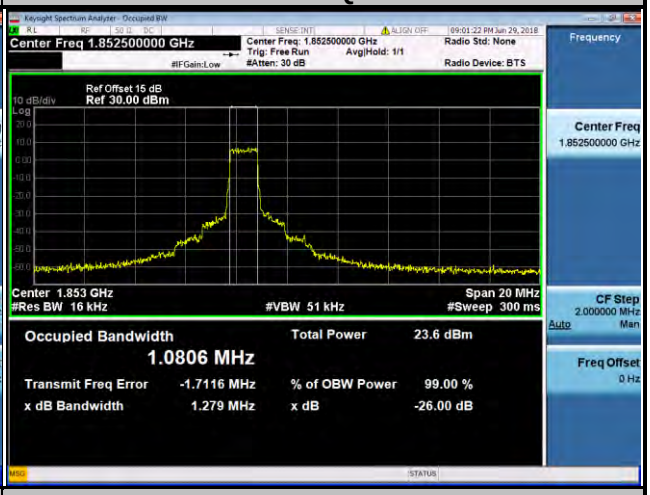
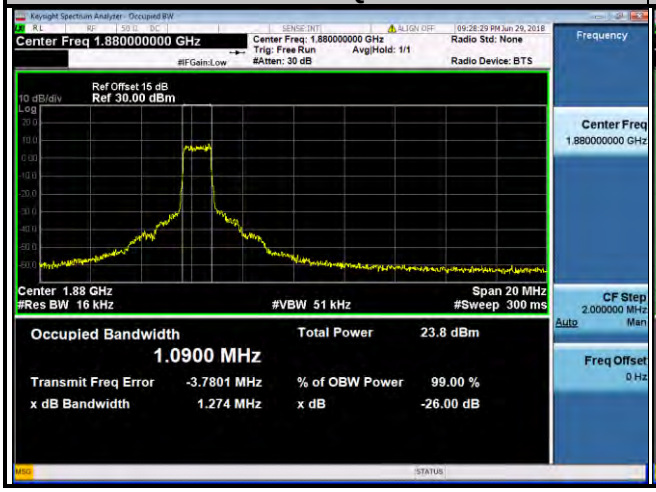
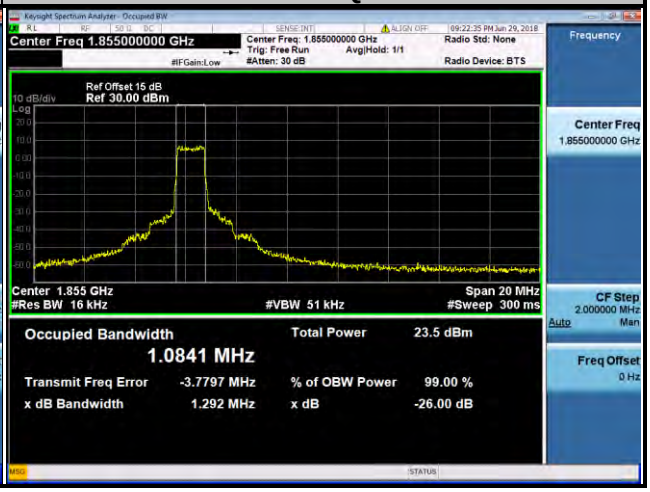
4.4.3 Test Result

Cat-M1

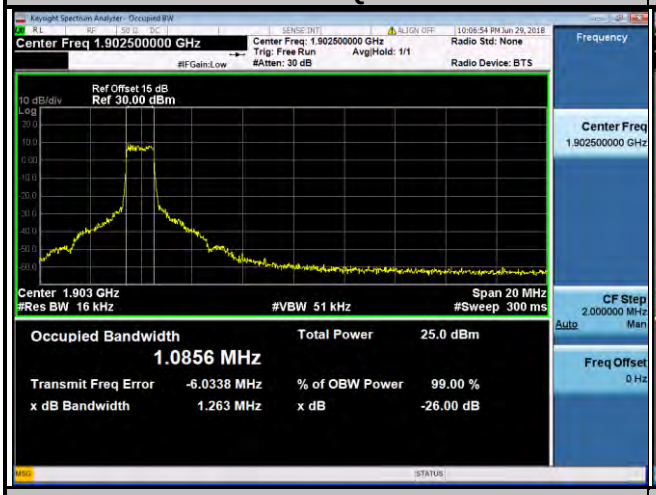
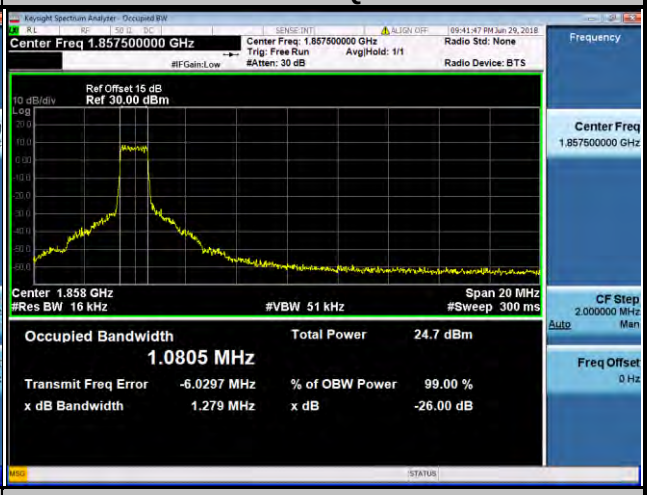
LTE Band 2					
Channel Bandwidth: 1.4 MHz					
Channel	**Frequency (MHz)**	**99 % Occupied Bandwidth (MHz)**		**26 dB Bandwidth (MHz)**	
		QPSK	**16QAM**	**QPSK**	**16QAM**
18607	1850.7	1.0906	0.9129	1.273	1.243
18900	1880.0	1.0870	0.9108	1.271	1.206
19193	1909.3	1.0892	0.9113	1.274	1.243
Channel Bandwidth: 3 MHz					
Channel	**Frequency (MHz)**	**99 % Occupied Bandwidth (MHz)**		**26 dB Bandwidth (MHz)**	
		QPSK	**16QAM**	**QPSK**	**16QAM**
18615	1851.5	1.0848	0.9089	1.282	1.252
18900	1880.0	1.0840	0.9131	1.285	1.197
19185	1908.5	1.0836	0.9176	1.280	1.212

Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	**26 dB Bandwidth**
1.4 MHz / QPSK	**1.4 MHz / QPSK**
	
3 MHz / QPSK	**3 MHz / QPSK**
	

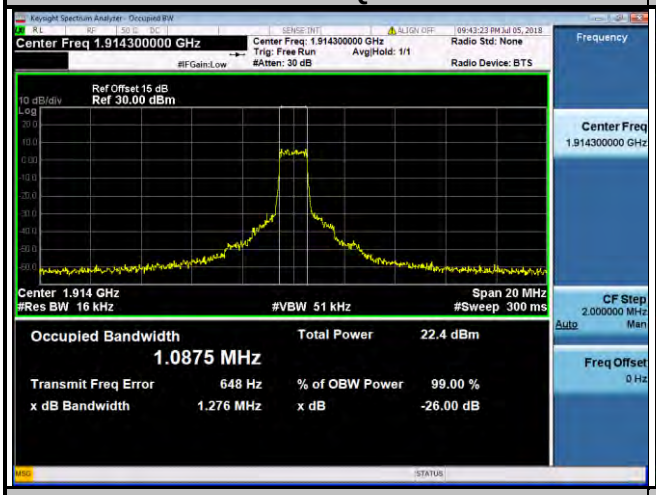
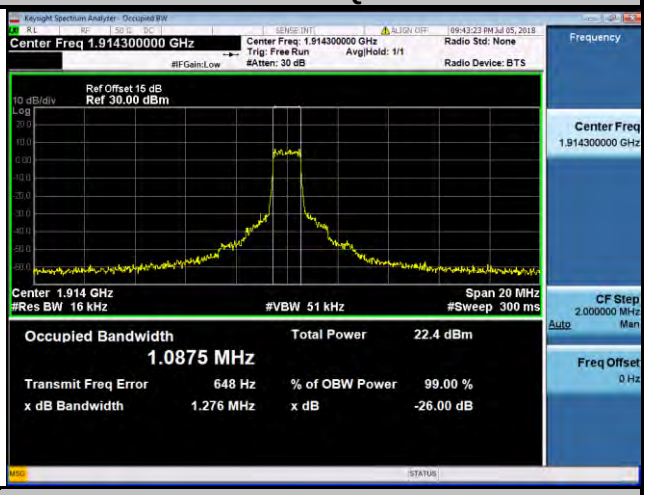
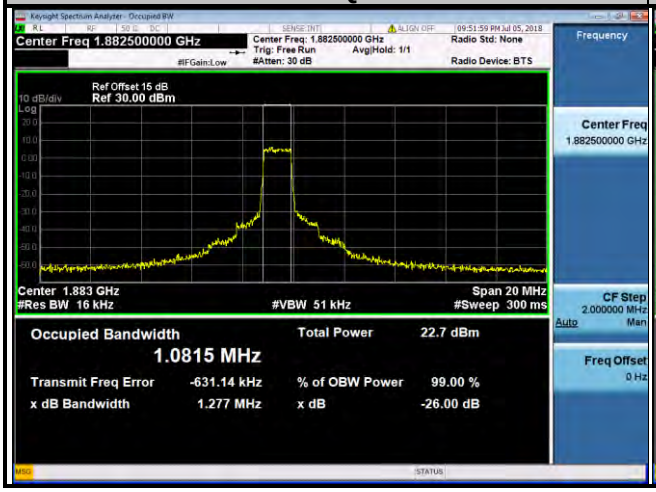
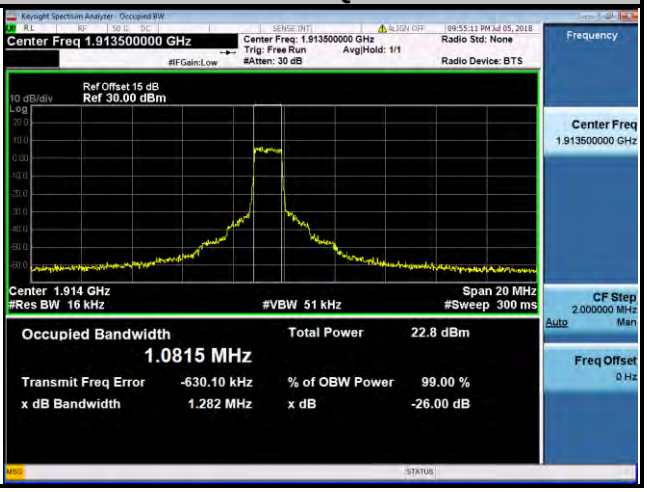
LTE Band 2					
Channel Bandwidth: 5 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
18625	1852.5	1.0806	0.9151	1.279	1.215
18900	1880.0	1.0800	0.9139	1.274	1.192
19175	1907.5	1.0779	0.9129	1.268	1.241
Channel Bandwidth: 10 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
18650	1855.0	1.0841	0.9114	1.292	1.200
18900	1880.0	1.0900	0.9132	1.274	1.210
19150	1905.0	1.0842	0.9162	1.257	1.167

Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	26 dB Bandwidth
5 MHz / QPSK	5 MHz / QPSK
	
10 MHz / QPSK	10 MHz / QPSK
	

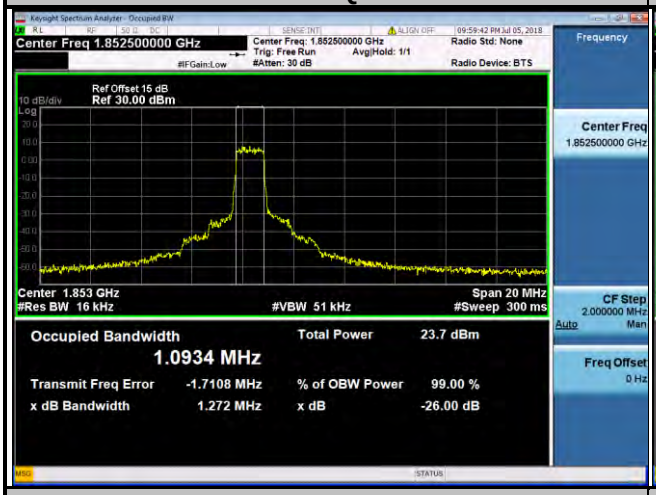
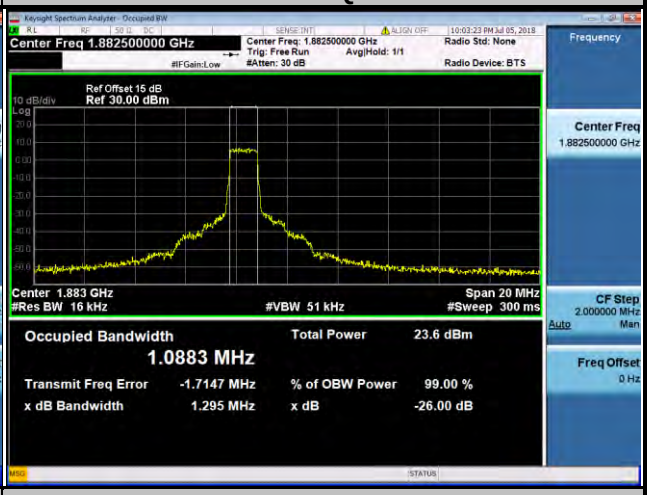
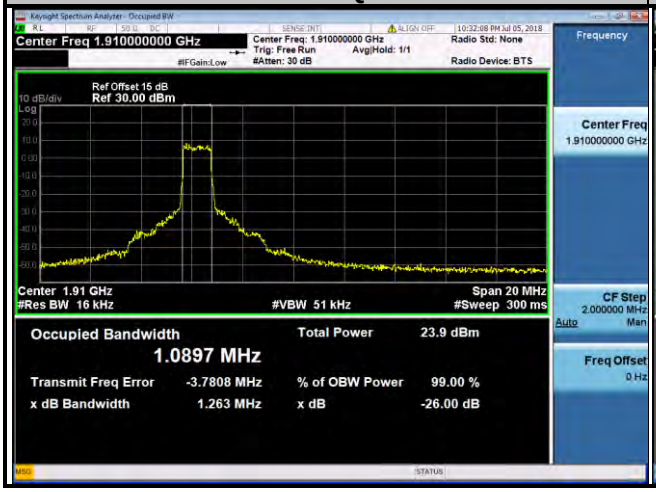
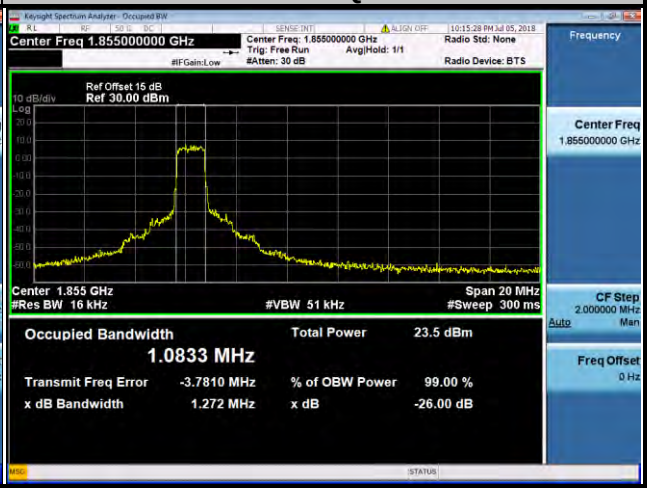
LTE Band 2					
Channel Bandwidth: 15 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
18675	1857.5	1.0805	0.9153	1.279	1.214
18900	1880.0	1.0852	0.9108	1.269	1.207
19125	1902.5	1.0856	0.9116	1.263	1.231
Channel Bandwidth: 20 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
18700	1860.0	1.082	0.915	1.255	1.210
18900	1880.0	1.087	0.916	1.273	1.189
19100	1900.0	1.086	0.915	1.279	1.187

Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	26 dB Bandwidth
15 MHz / QPSK	15 MHz / QPSK
	
20 MHz / QPSK	20 MHz / QPSK
	

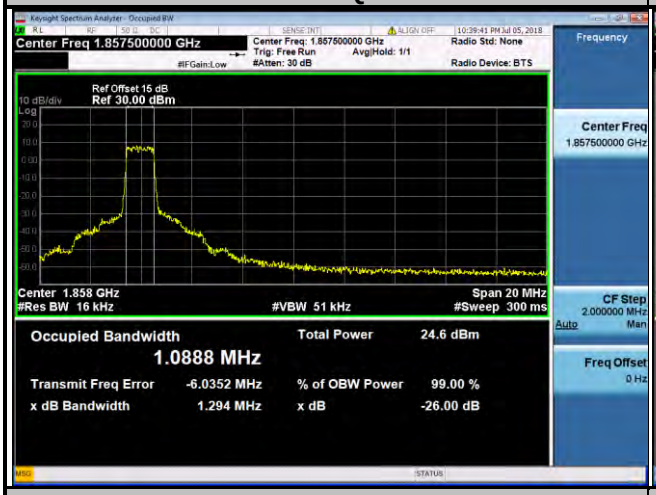
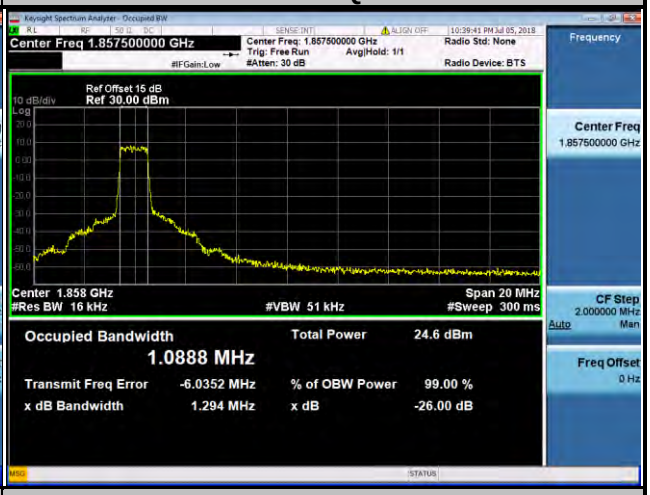
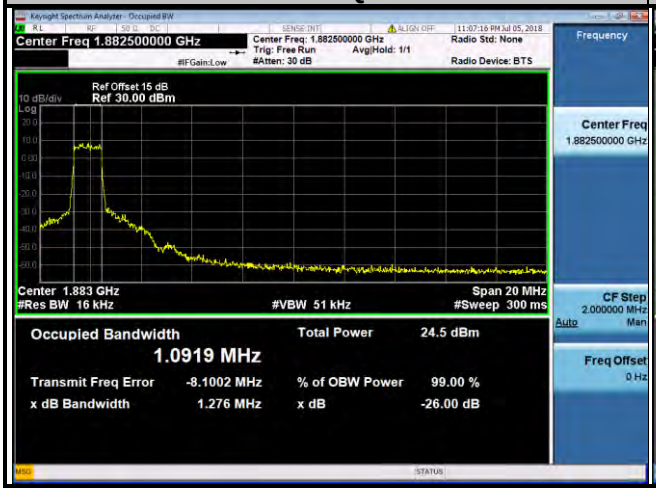
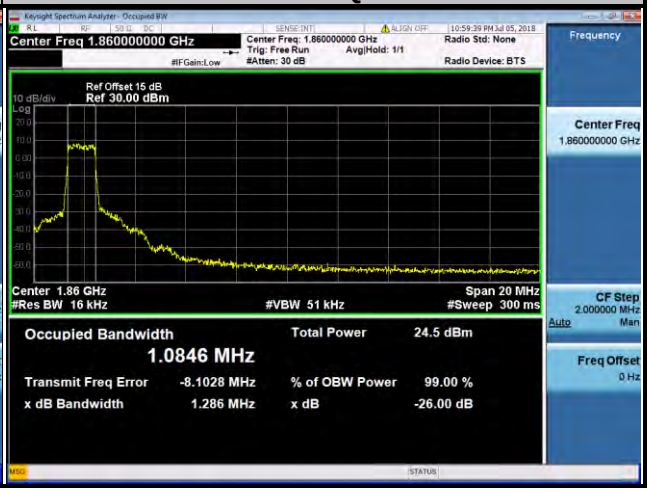
LTE Band 25					
Channel Bandwidth: 1.4 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26047	1850.7	1.0848	0.9169	1.269	1.230
26365	1882.5	1.0858	0.9126	1.271	1.239
26683	1914.3	1.0875	0.9150	1.276	1.220
Channel Bandwidth: 3 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26055	1851.5	1.0792	0.9232	1.241	1.245
26365	1882.5	1.0815	0.9150	1.277	1.248
26675	1913.5	1.0815	0.9184	1.282	1.244

Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	26 dB Bandwidth
1.4 MHz / QPSK	1.4 MHz / QPSK
	
3 MHz / QPSK	3 MHz / QPSK
	

LTE Band 25					
Channel Bandwidth: 5 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26065	1852.5	1.0934	0.9112	1.272	1.228
26365	1882.5	1.0883	0.9128	1.295	1.237
26665	1912.5	1.0798	0.9151	1.265	1.227
Channel Bandwidth: 10 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26090	1855.0	1.0833	0.9141	1.272	1.220
26365	1882.5	1.0896	0.9122	1.257	1.251
26640	1910.0	1.0897	0.9106	1.263	1.235

Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	26 dB Bandwidth
5 MHz / QPSK	5 MHz / QPSK
	
10 MHz / QPSK	10 MHz / QPSK
	

LTE Band 25					
Channel Bandwidth: 15 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26115	1857.5	1.0888	0.9110	1.294	1.255
26365	1882.5	1.0877	0.9095	1.281	1.257
26615	1907.5	1.0868	0.9090	1.265	1.234
Channel Bandwidth: 20 MHz					
Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)		26 dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26140	1860.0	1.0846	0.9152	1.286	1.266
26365	1882.5	1.0919	0.9125	1.276	1.271
26590	1905.0	1.0908	0.9158	1.276	1.240

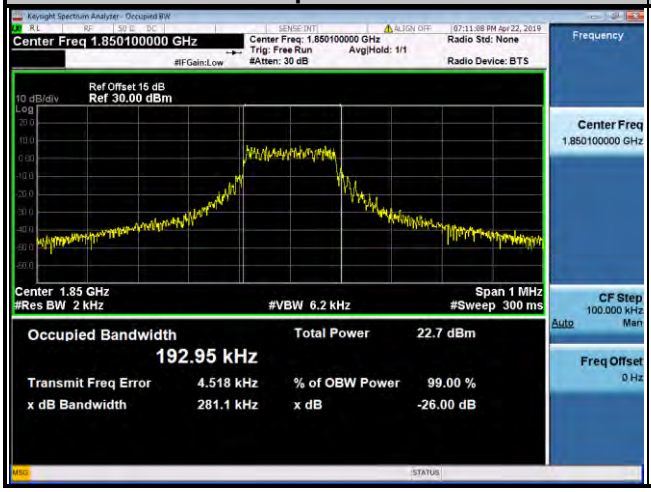
Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	26 dB Bandwidth
15 MHz / QPSK	15 MHz / QPSK
	
20 MHz / QPSK	20 MHz / QPSK
	

NB-IoT

LTE Band 5						
Channel	**Frequency (MHz)**	**Modulation**	**N_{tones}**	**Sub-carrier Spacing (kHz)**	**99 % Occupied Bandwidth (kHz)**	**26 dB Bandwidth (kHz)**
18601	1850.1	BPSK	1@0	3.75	57.45	37.56
		QPSK	1@0	15	96.65	112.60
		QPSK	3@3	15	101.67	169.20
		QPSK	12@0	15	192.95	281.10
18900	1880	BPSK	1@0	3.75	60.89	37.73
		QPSK	1@0	15	96.34	113.10
		QPSK	3@3	15	104.38	181.60
		QPSK	12@0	15	191.53	270.10
19199	1909.9	BPSK	1@47	3.75	55.60	37.48
		QPSK	1@11	15	93.96	112.70
		QPSK	3@3	15	102.16	155.50
		QPSK	12@0	15	192.73	272.10

Spectrum Plot of Worst Value

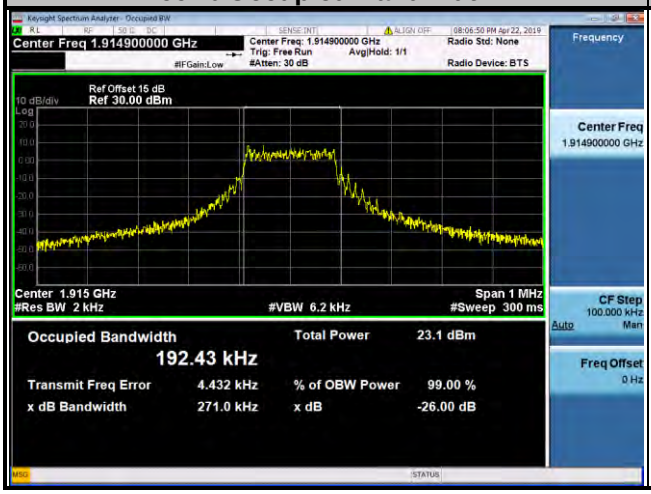
99 % Occupied Bandwidth

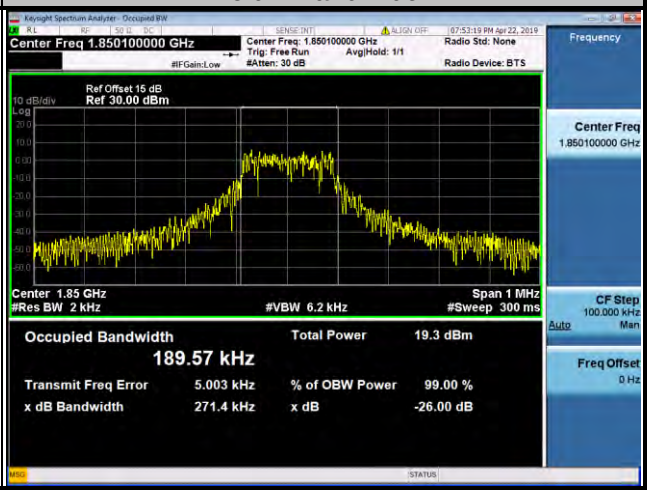


26 dB Bandwidth

LTE Band 26						
Channel	Frequency (MHz)	Modulation	N_{tones}	Sub-carrier Spacing (kHz)	99 % Occupied Bandwidth (kHz)	26 dB Bandwidth (kHz)
26041	1850.1	BPSK	1@0	3.75	57.76	37.73
		QPSK	1@0	15	96.81	124.20
		QPSK	3@3	15	104.26	182.00
		QPSK	12@0	15	189.57	271.40
26365	1882.5	BPSK	1@0	3.75	54.22	38.06
		QPSK	1@0	15	96.01	136.80
		QPSK	3@3	15	108.17	168.10
		QPSK	12@0	15	184.43	265.30
26689	1914.9	BPSK	1@47	3.75	54.08	37.61
		QPSK	1@11	15	94.95	113.00
		QPSK	3@3	15	102.35	156.30
		QPSK	12@0	15	192.43	271.00

Spectrum Plot of Worst Value	
99 % Occupied Bandwidth	26 dB Bandwidth



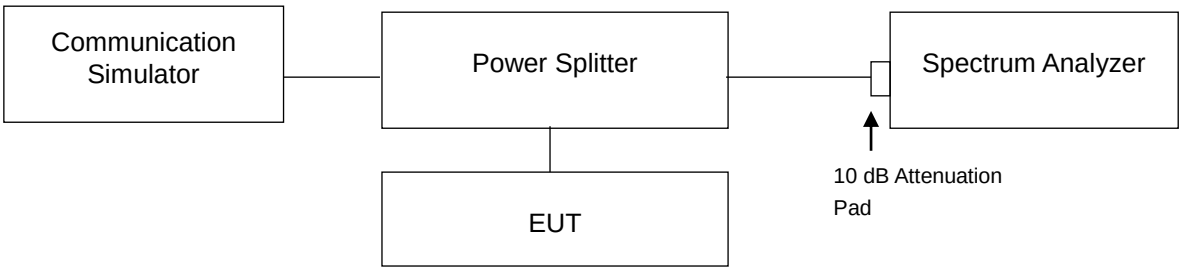


4.5 Band Edge Measurement

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

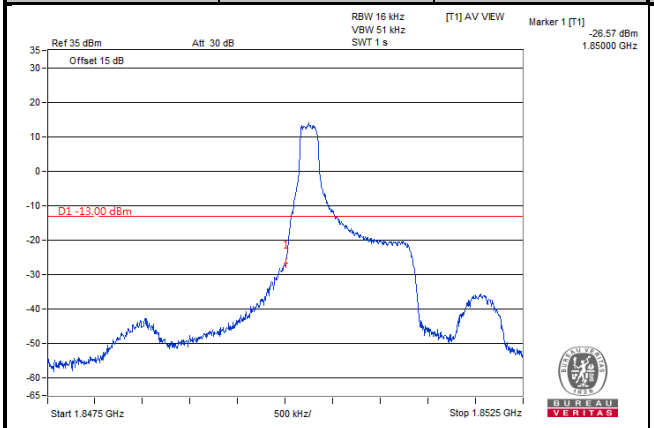
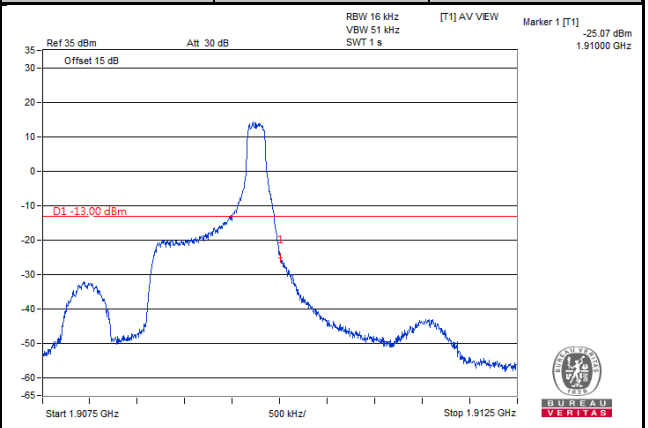
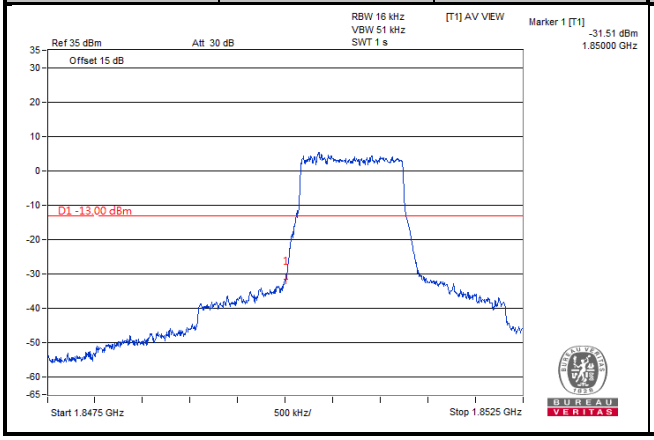
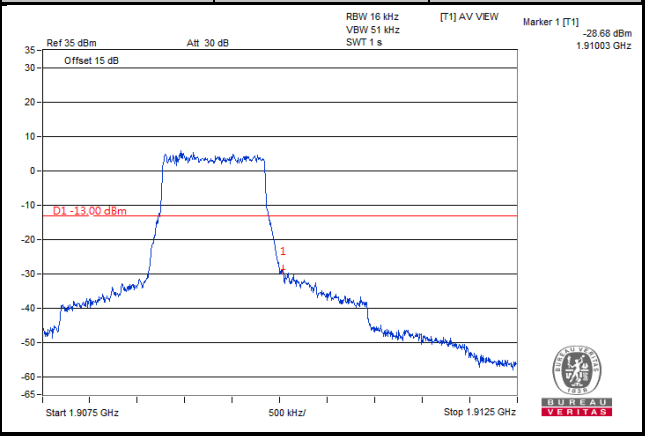


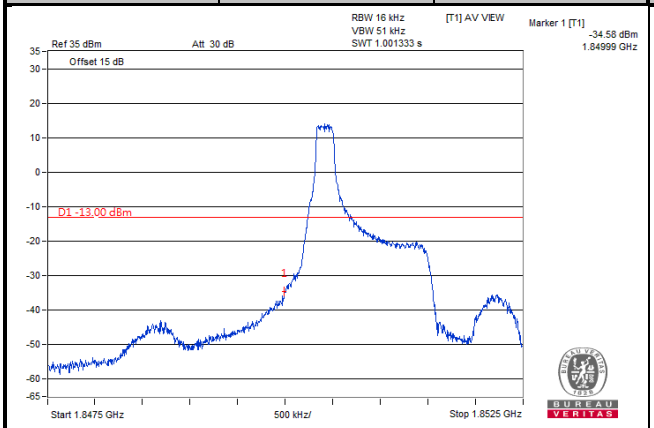
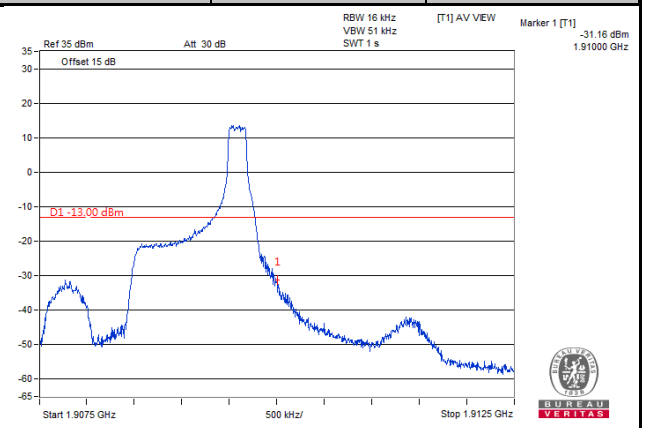
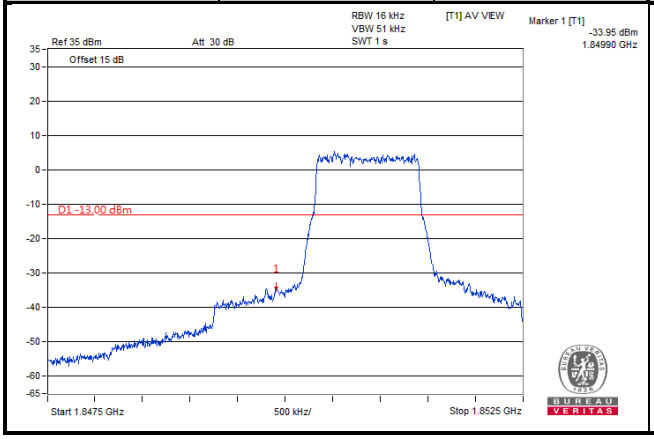
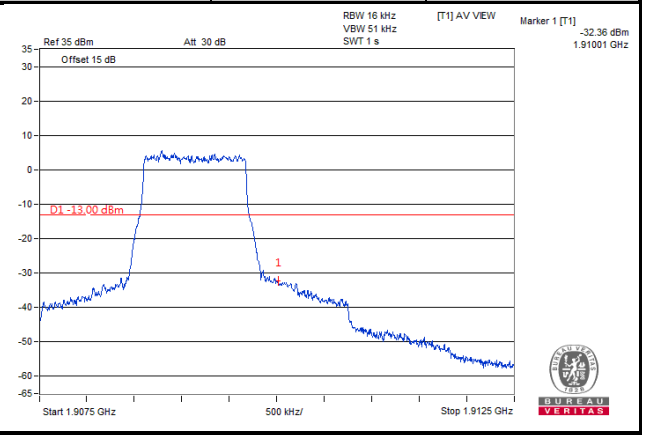
4.5.3 Test Procedures

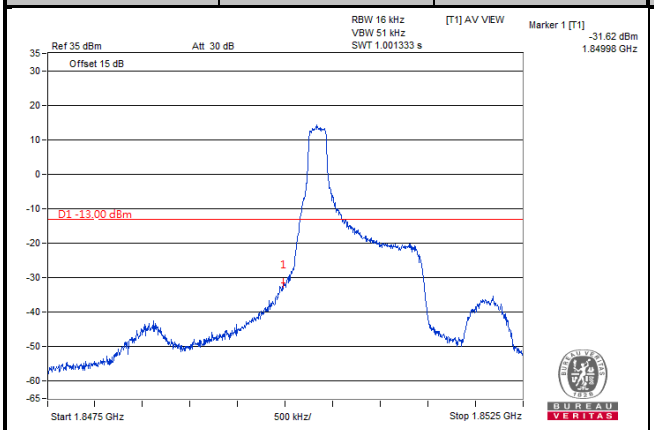
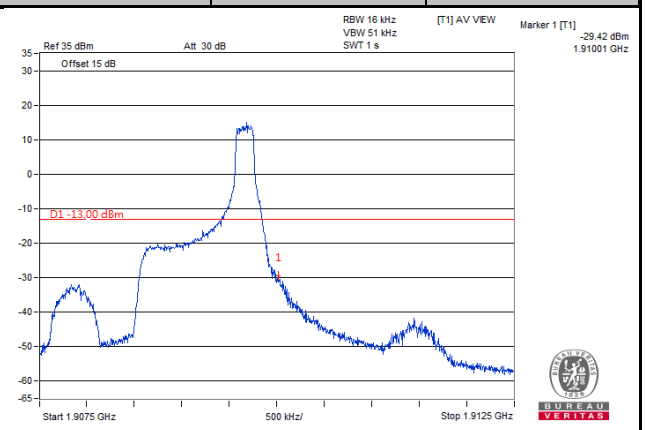
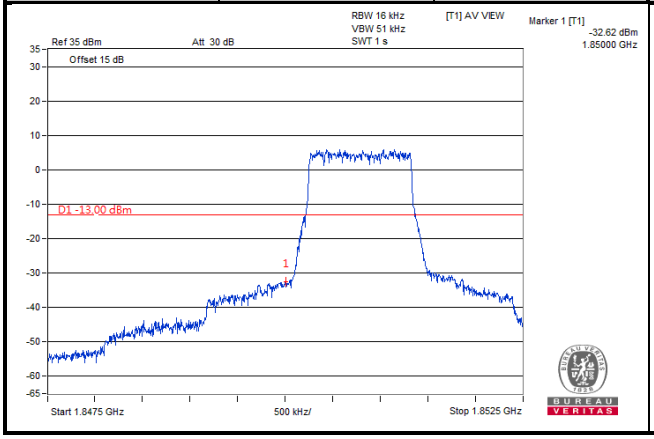
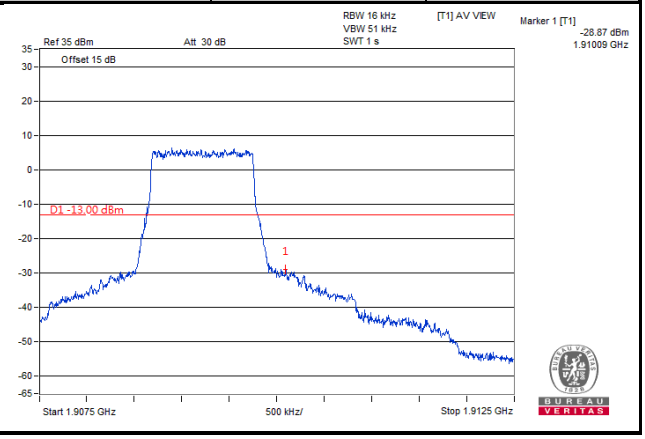
a. All measurements were done at low and high operational frequency range.
b. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 30 kHz and VB of the spectrum is 100 kHz (LTE Bandwidth 1.4 MHz) for Cat-M1.
c. The center frequency of spectrum is the band 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) for Cat-M1.
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) for Cat-M1.
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) for Cat-M1.
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) for Cat-M1.
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) for Cat-M1.
h. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 51 Hz and VB of the spectrum is 160 Hz (BPSK) for NB-IoT.
i. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 200 Hz or 2 kHz and VB of the spectrum is 620 Hz or 6.2 kHz (QPSK) for NB-IoT.
j. Record the max trace plot into the test report.

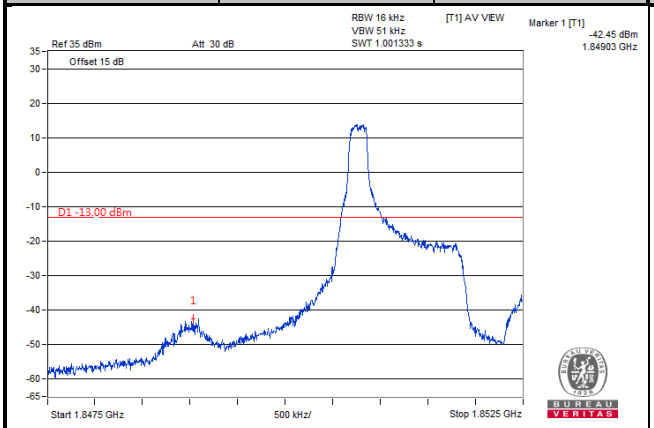
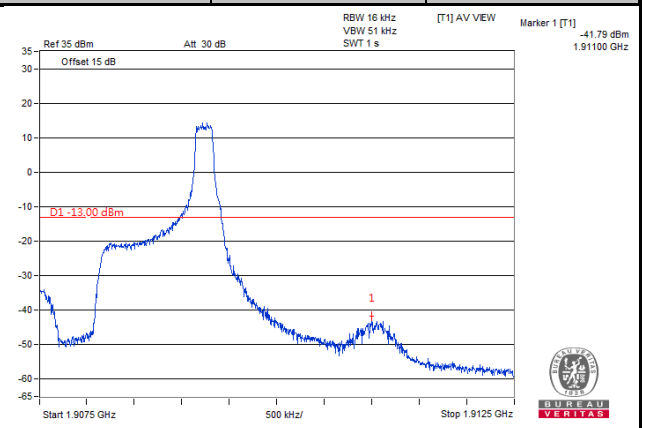
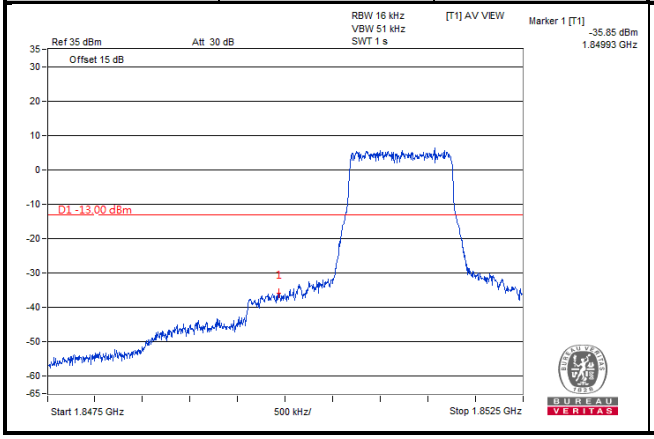
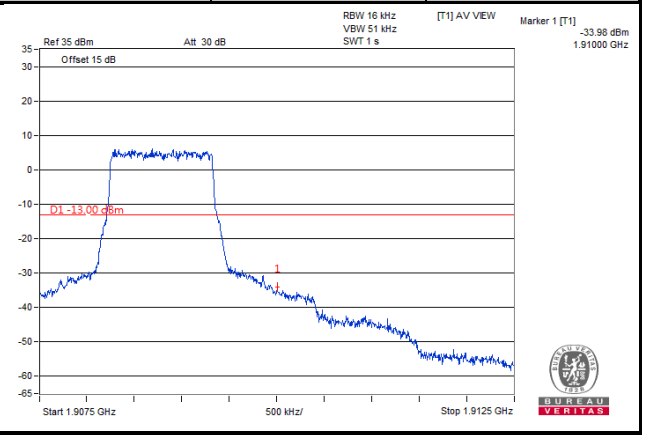
4.5.4 Test Results

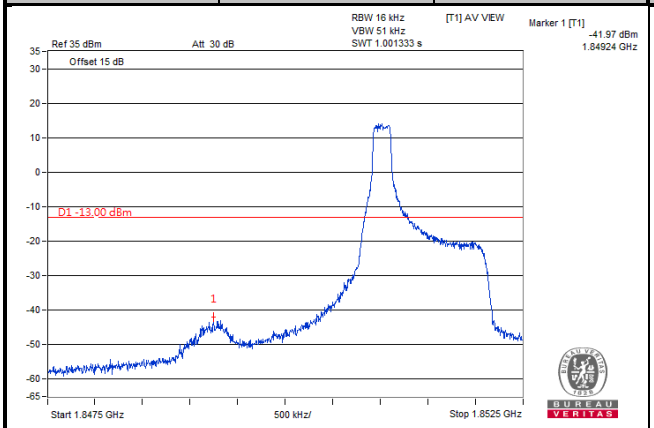
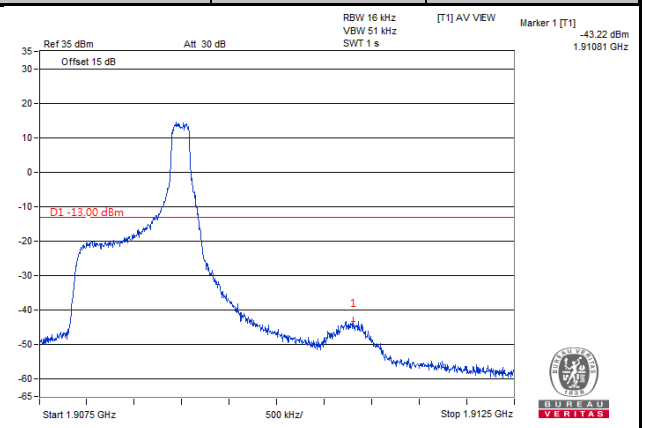
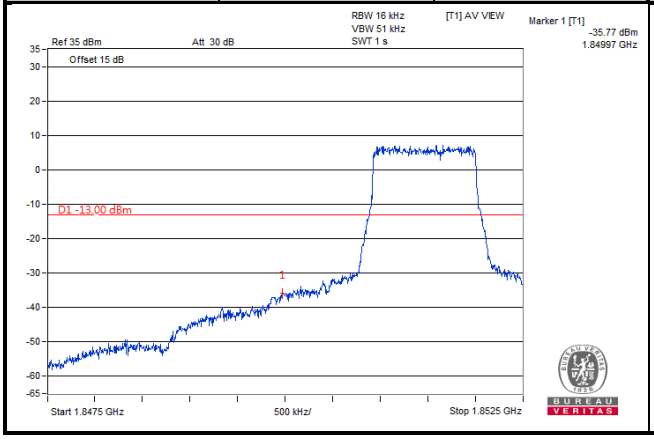
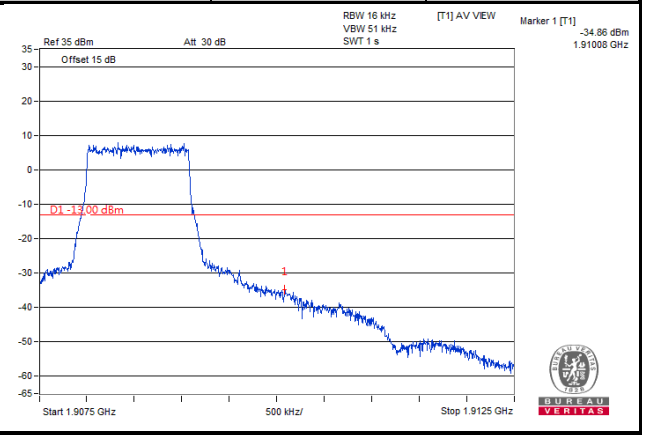
Cat-M1

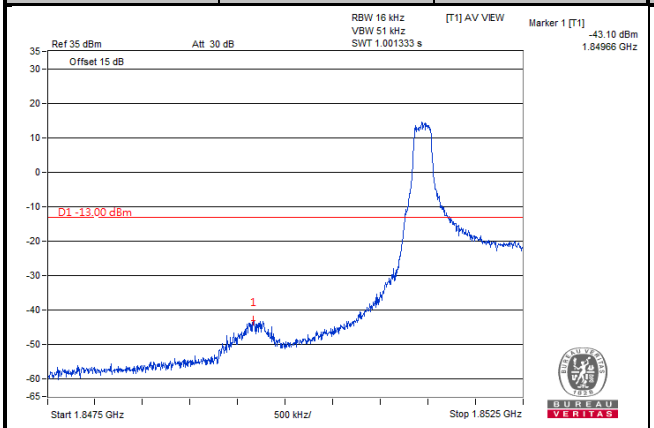
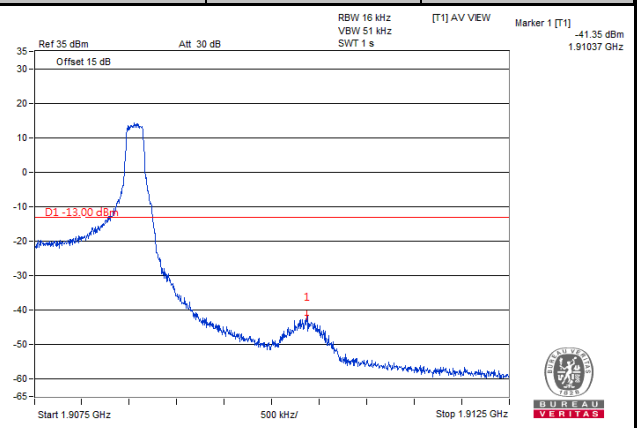
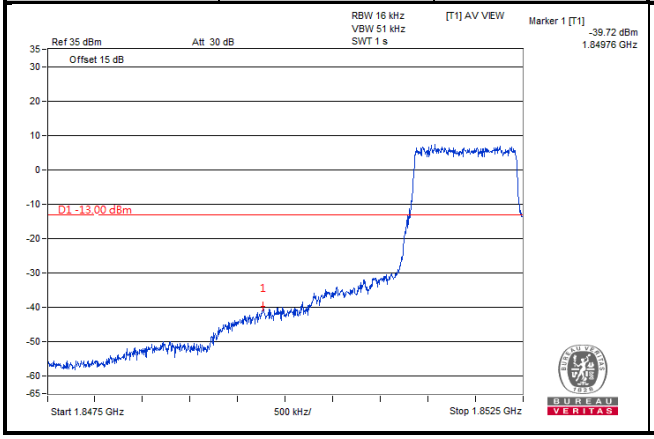
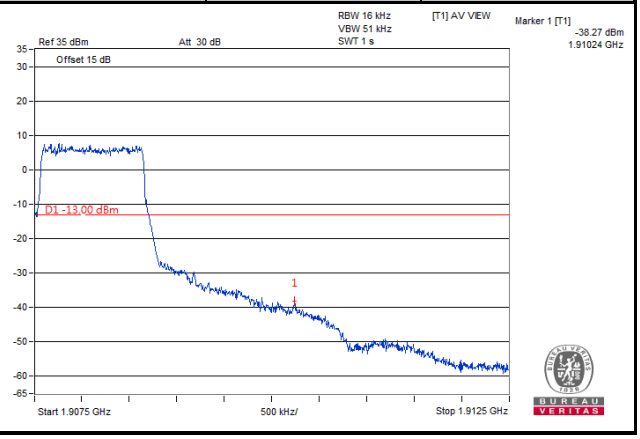
LTE Band 2					
Channel Bandwidth: 1.4 MHz					
Channel	18607	1 RB	Channel	19193	1 RB
					
Channel	18607	6 RB	Channel	19193	6 RB
					

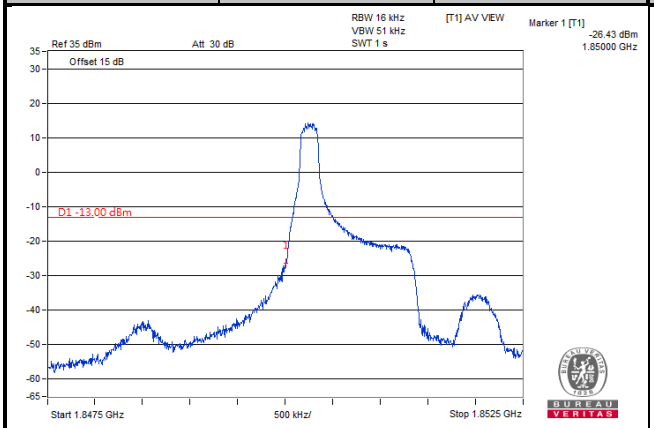
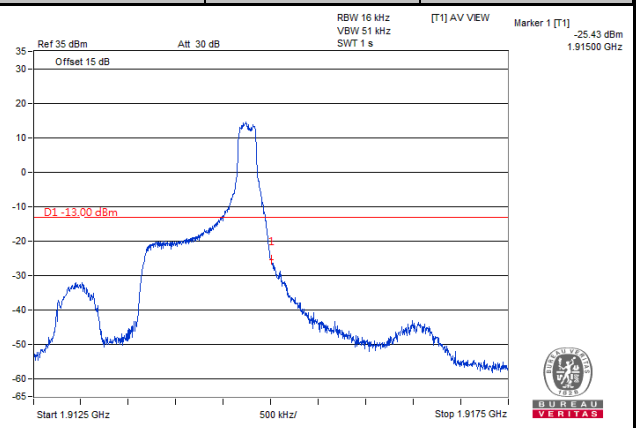
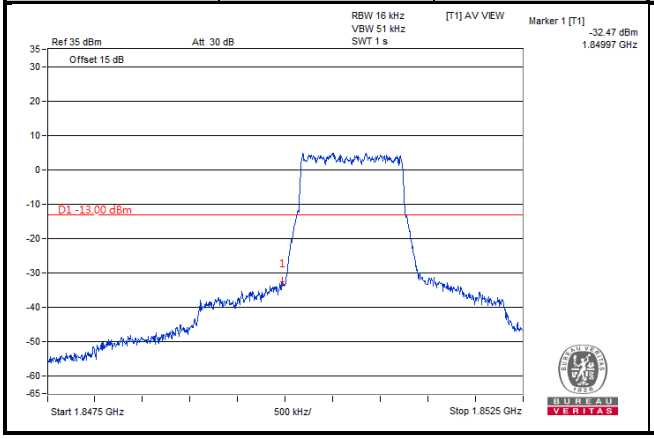
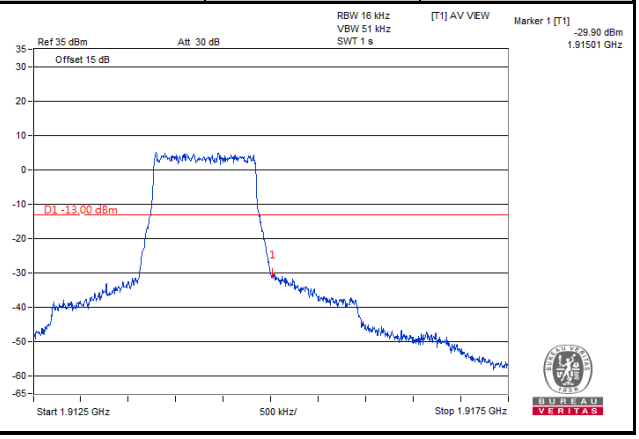
LTE Band 2					
Channel Bandwidth: 3 MHz					
Channel	18615	1 RB	Channel	19185	1 RB
					
Channel	18615	15 RB	Channel	19185	15 RB
					

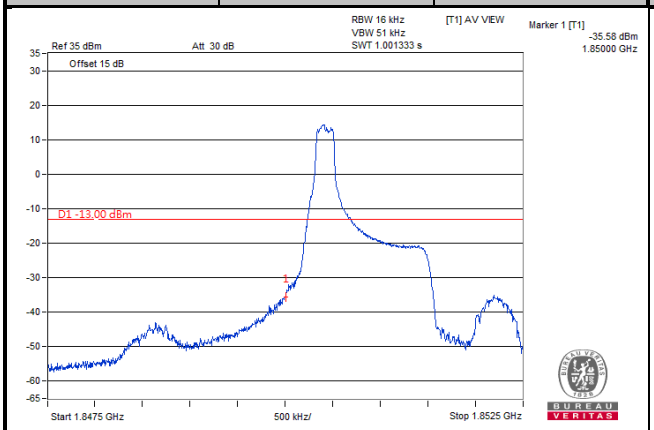
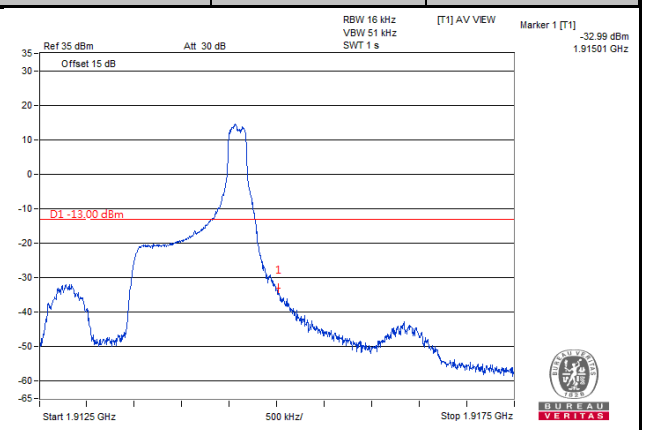
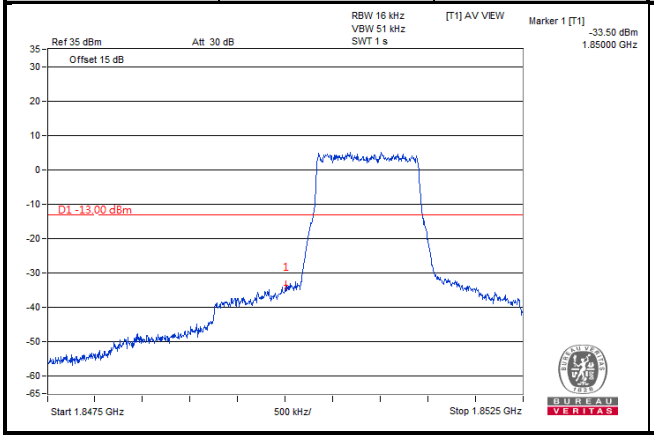
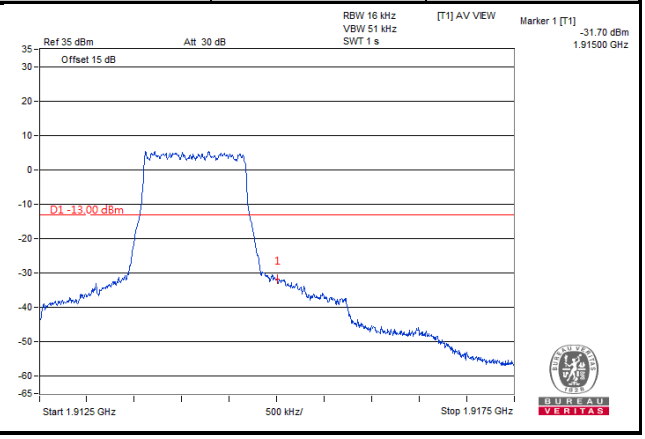
LTE Band 2					
Channel Bandwidth: 5 MHz					
Channel	18625	1 RB	Channel	19175	1 RB
					
Channel	18625	25 RB	Channel	19175	25 RB
					

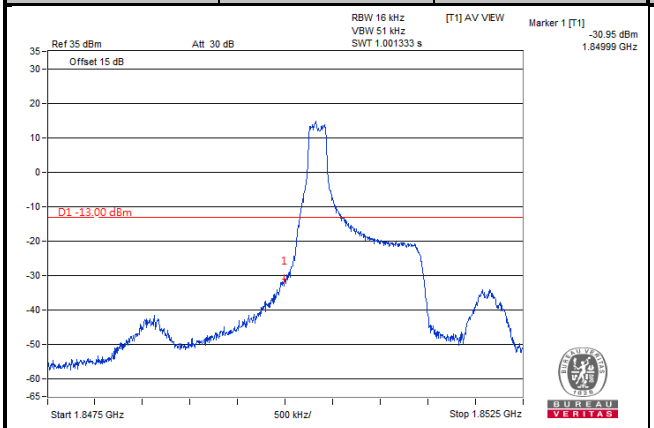
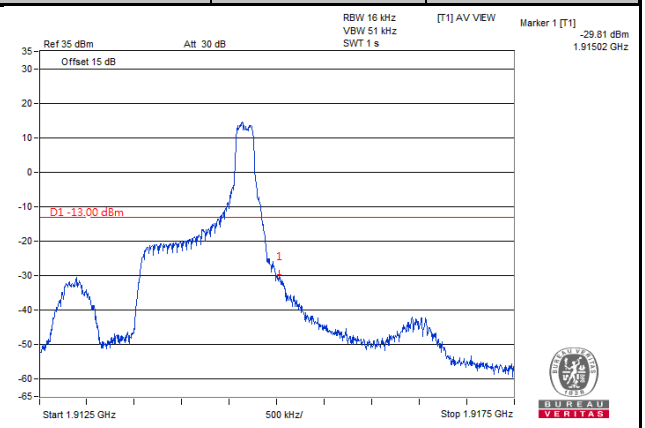
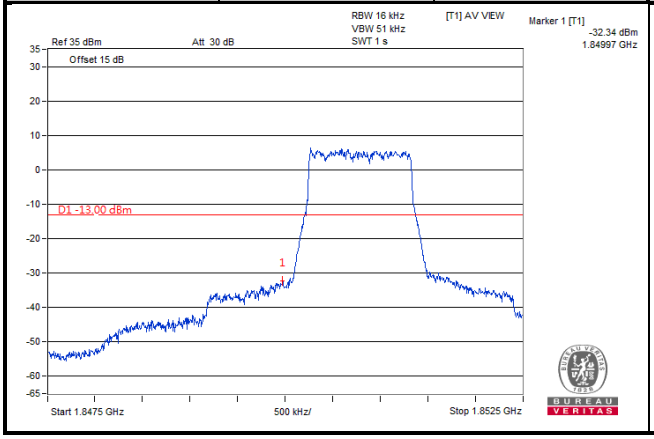
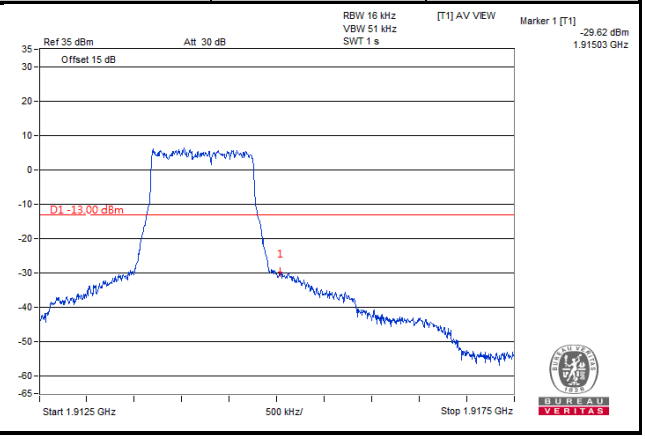
LTE Band 2					
Channel Bandwidth: 10 MHz					
Channel	18650	1 RB	Channel	19150	1 RB
					
Channel	18650	50 RB	Channel	19150	50 RB
					

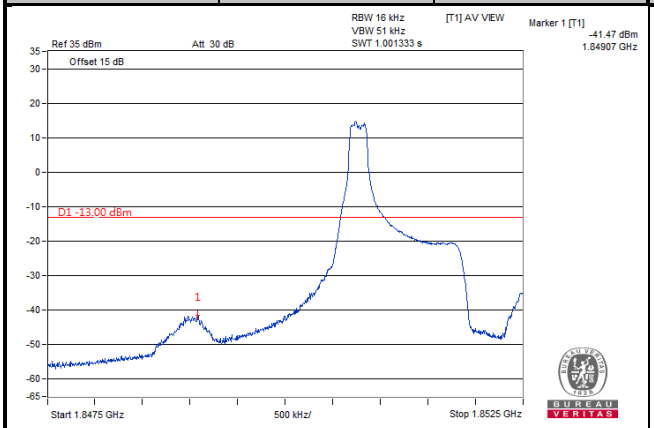
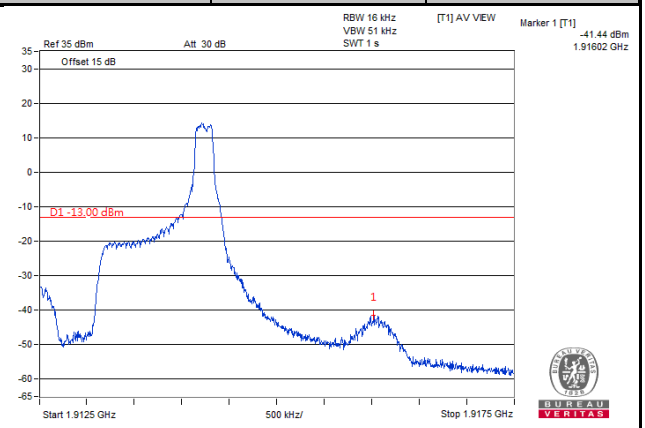
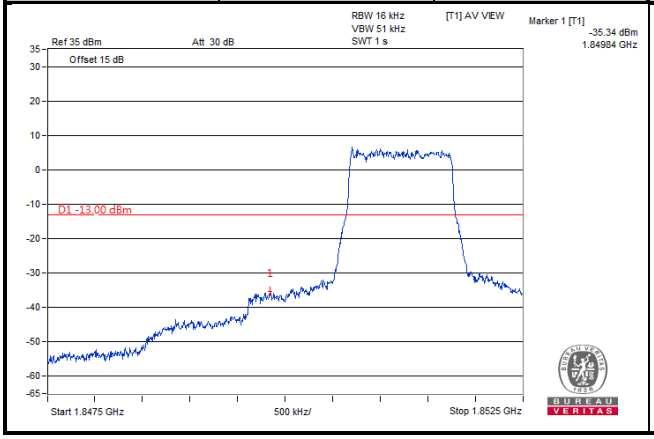
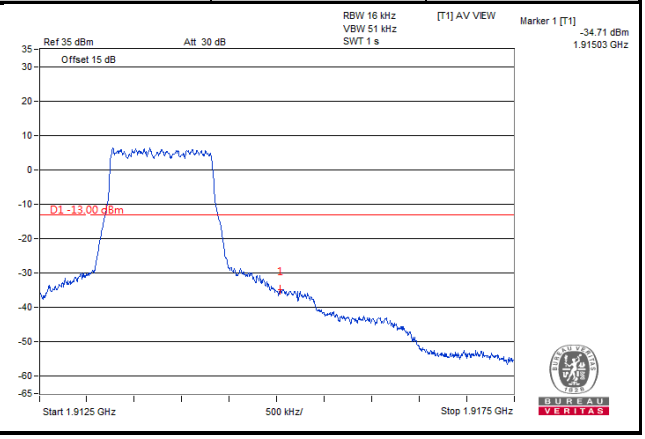
LTE Band 2					
Channel Bandwidth: 15 MHz					
Channel	18675	1 RB	Channel	19125	1 RB
					
Channel	18675	75 RB	Channel	19125	75 RB
					

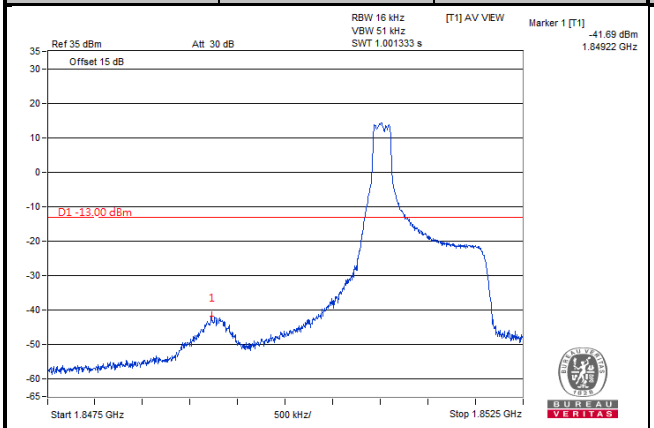
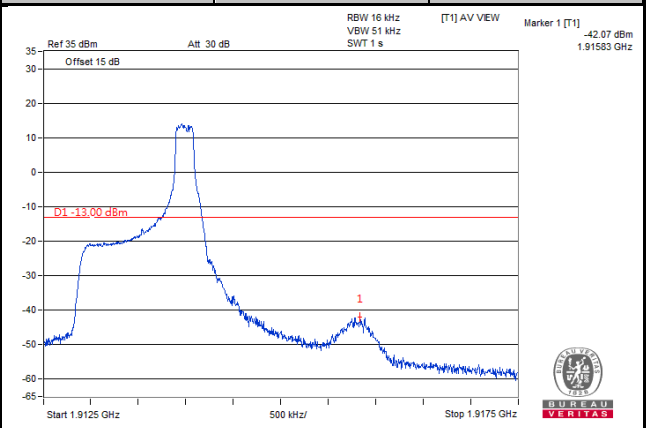
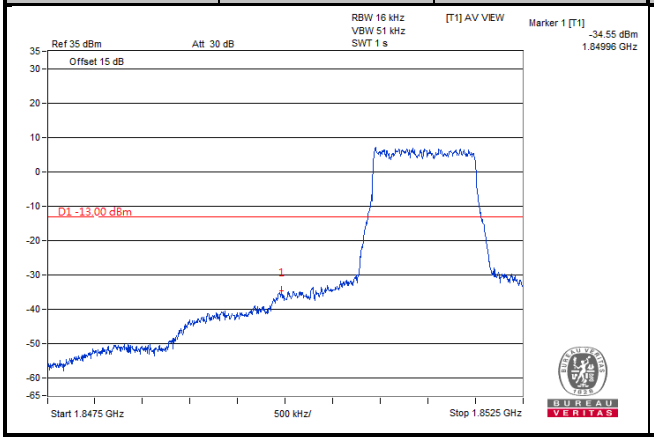
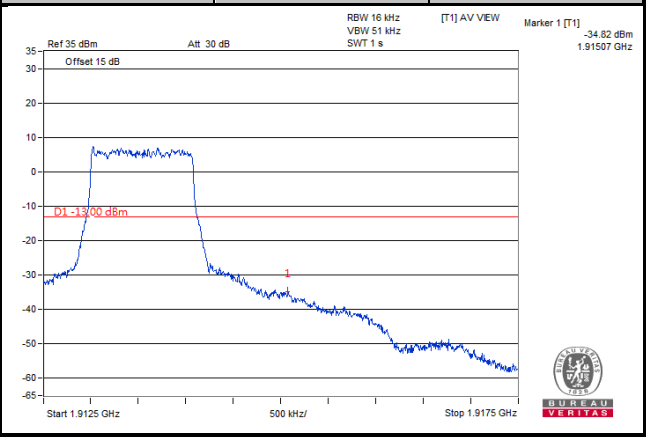
LTE Band 2					
Channel Bandwidth: 20 MHz					
Channel	18700	1 RB	Channel	19100	1 RB
					
Channel	18700	100 RB	Channel	19100	100 RB
					

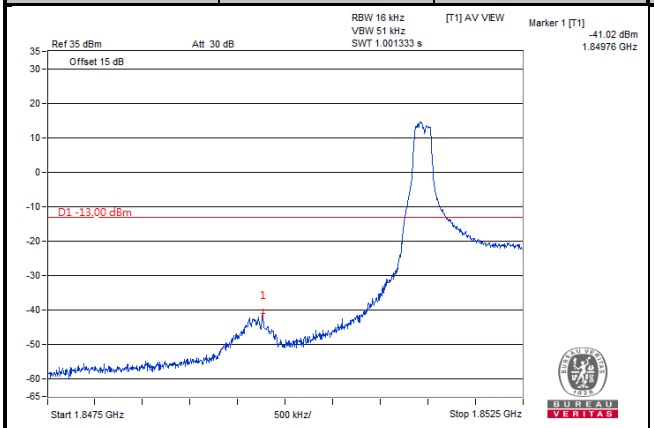
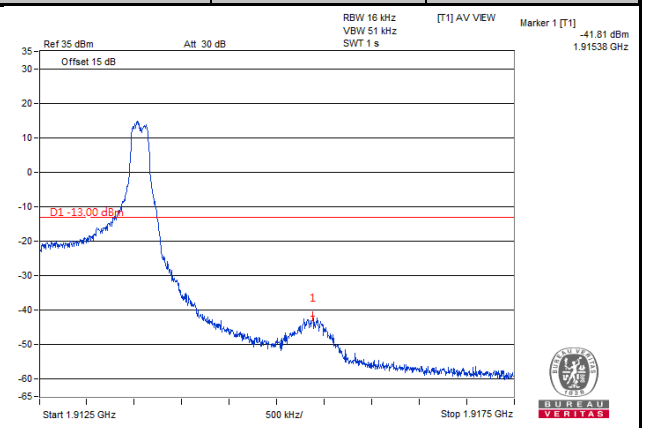
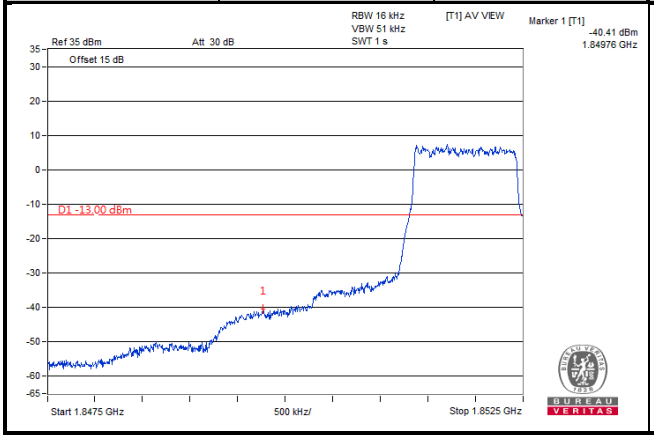
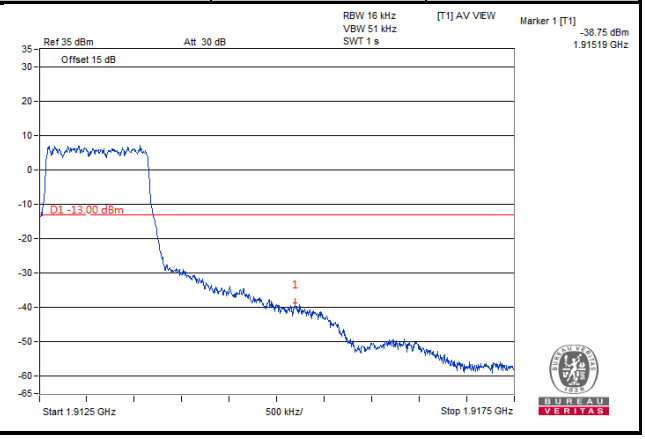
LTE Band 25					
Channel Bandwidth: 1.4 MHz					
Channel	26047	1 RB	Channel	26683	1 RB
					
Channel	26047	6 RB	Channel	26683	6 RB
					

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
					

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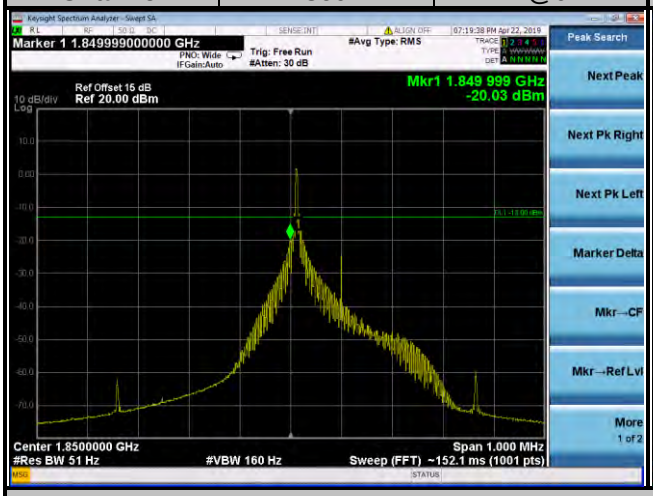
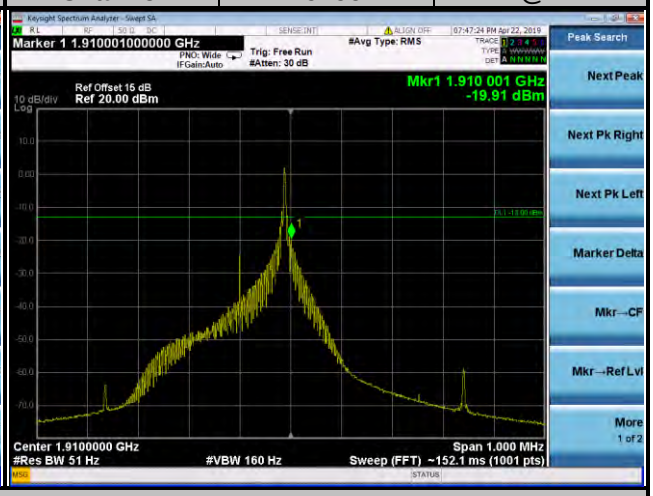
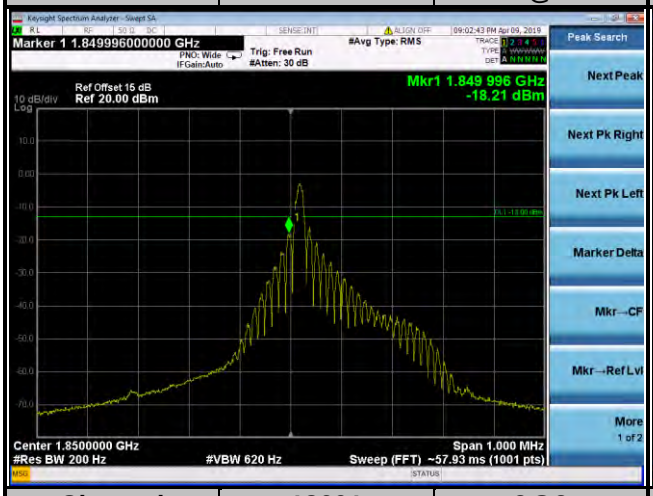
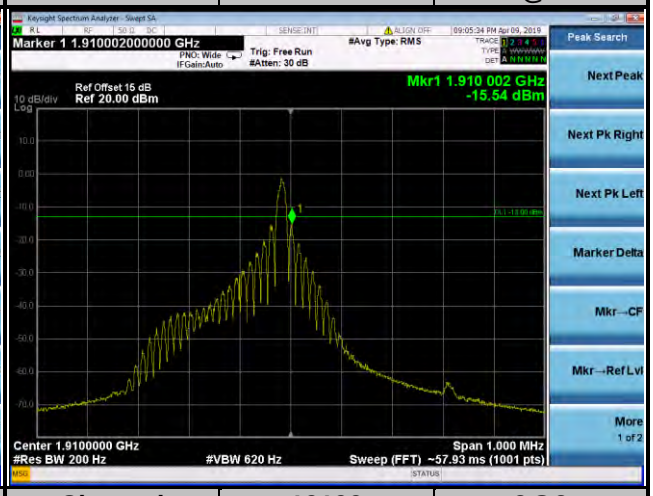
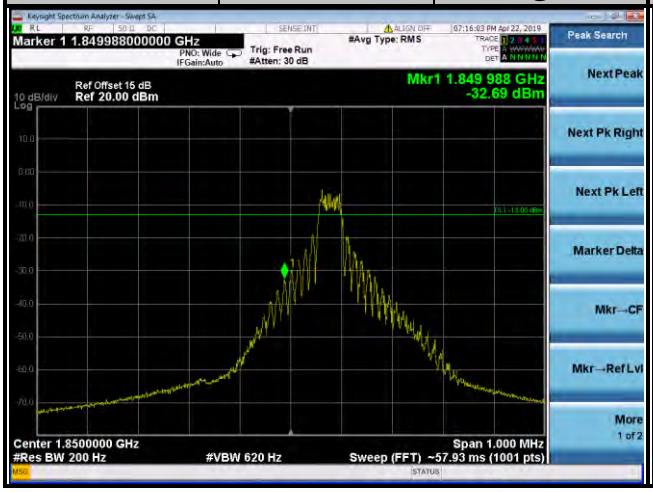
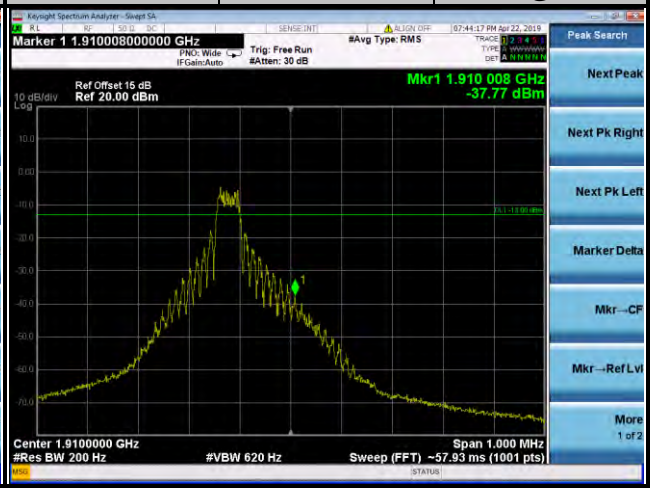
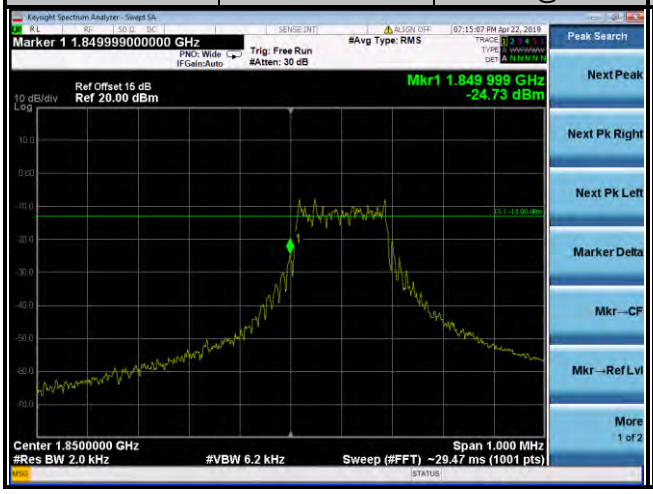
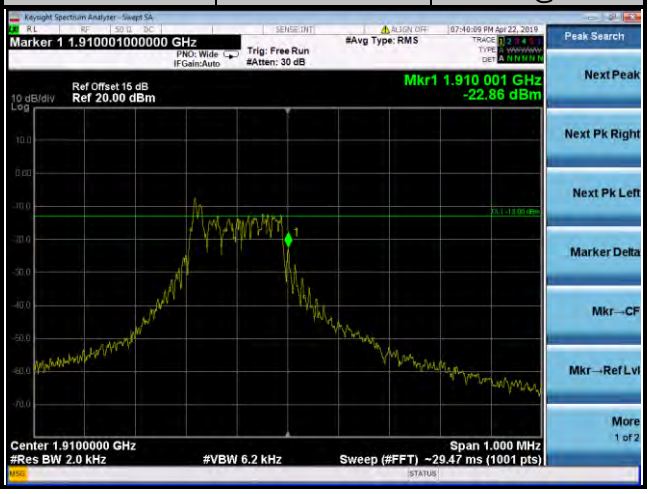
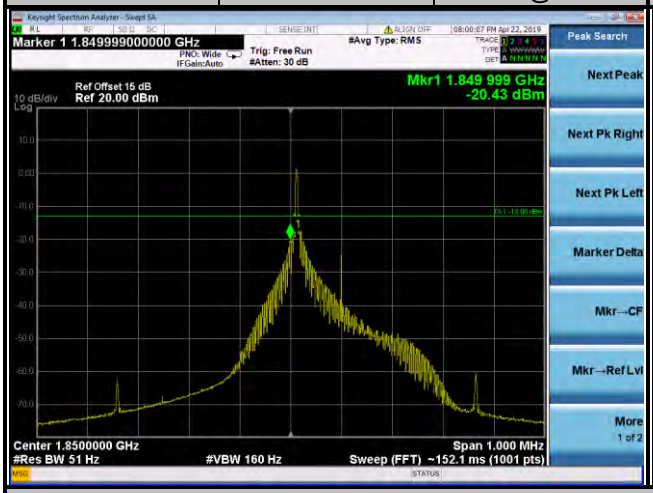
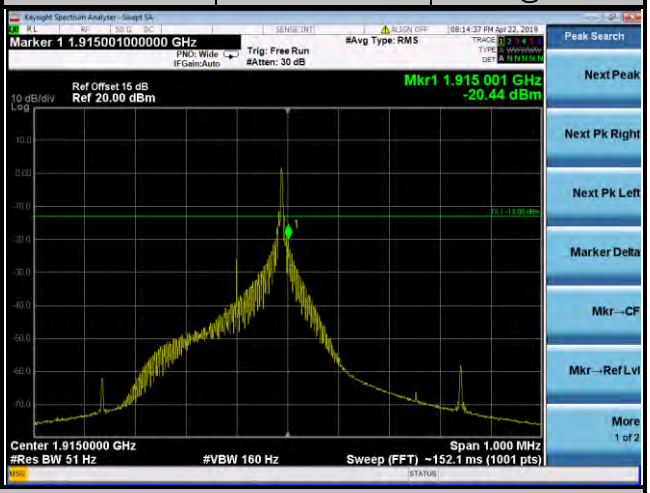
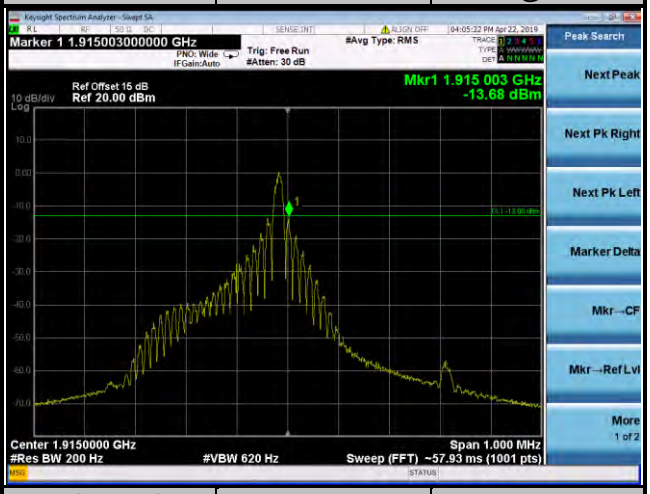
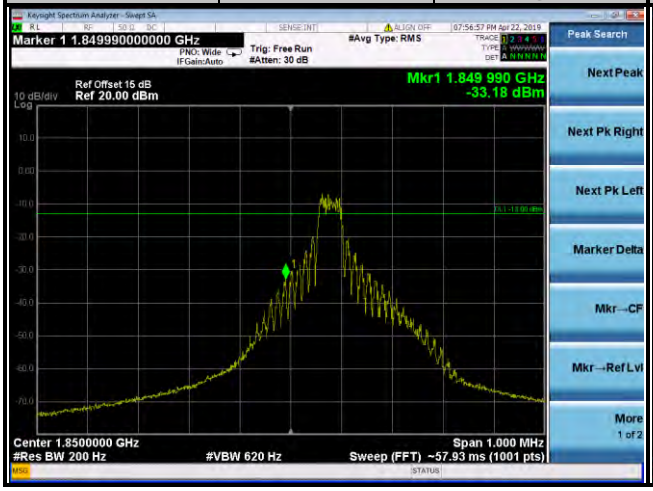
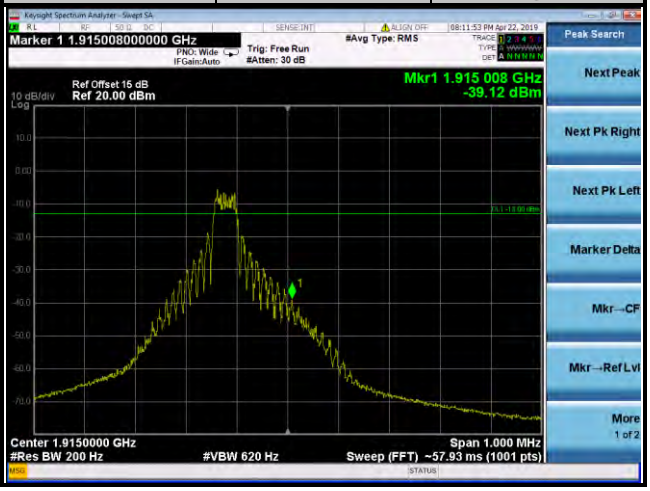
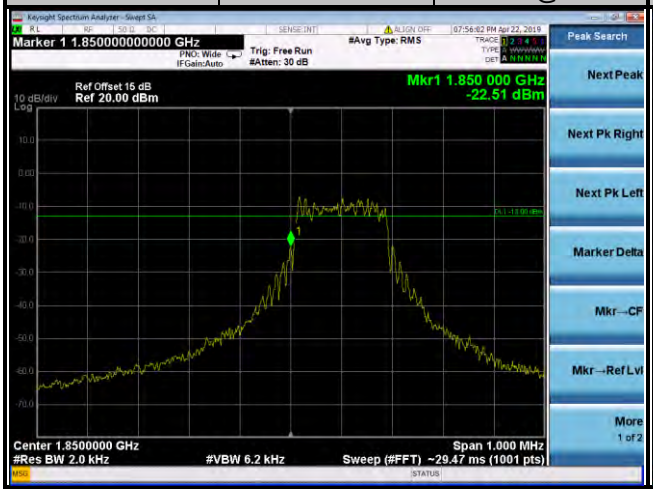
LTE Band 2					
BPSK					
Channel	**18601**	**1@0**	**Channel**	**19199**	**1@47**
					
QPSK					
Channel	**18601**	**1@0**	**Channel**	**19199**	**1@11**
					
Channel	**18601**	**3@3**	**Channel**	**19199**	**3@3**
					

LTE Band 2					
QPSK					
Channel	18601	12@0	Channel	19199	12@0
					

LTE Band 25					
BPSK					
Channel	26041	1@0	Channel	26689	1@47
					
QPSK					
Channel	26041	1@0	Channel	26689	1@11
					
Channel	26041	3@3	Channel	26689	3@3
					

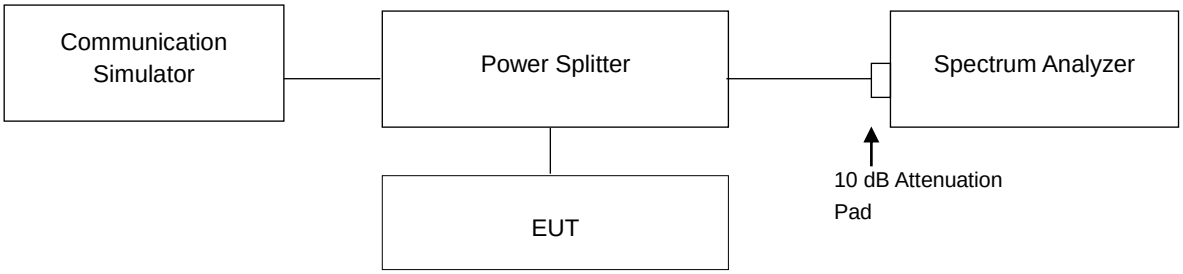
LTE Band 26					
QPSK					
Channel	26041	12@0	Channel	26689	12@0
					

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 %.

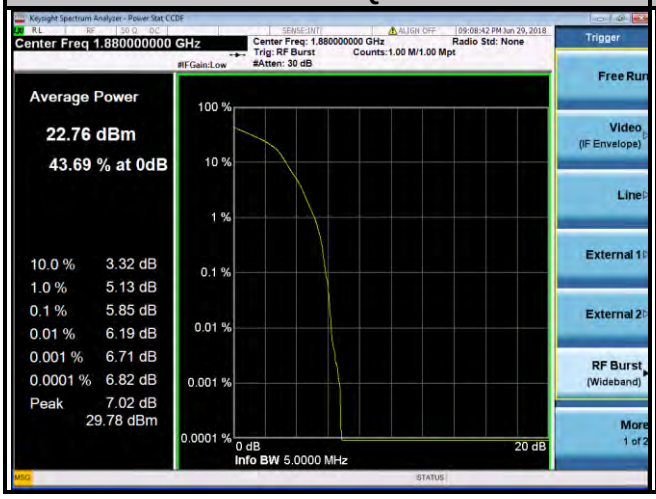
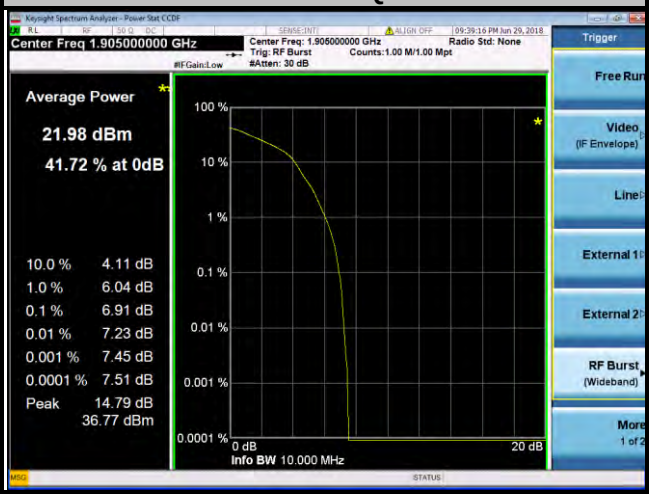
4.6.4 Test Results

Cat-M1

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
	

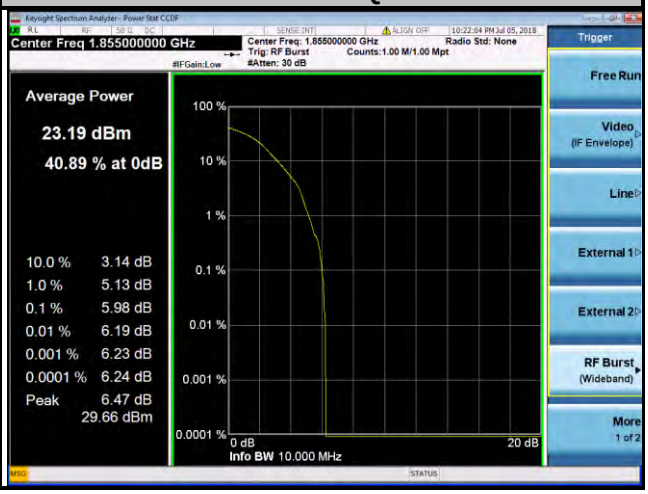
LTE Band 2							
Channel Bandwidth: 15 MHz				Channel Bandwidth: 20 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
18675	1857.5	6.18	6.46	18700	1860.0	6.50	5.69
18900	1880.0	6.40	5.94	18900	1880.0	6.02	5.72
19125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

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

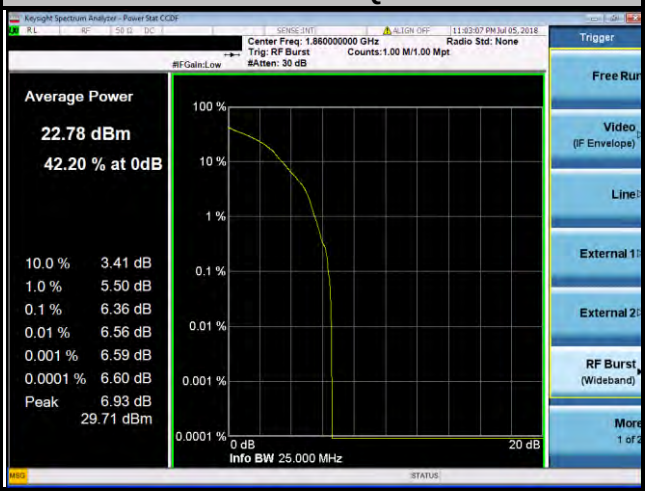
LTE Band 25							
Channel Bandwidth: 1.4 MHz				Channel Bandwidth: 3 MHz			
Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)	
		QPSK	16QAM			QPSK	16QAM
26047	1850.7	5.68	6.20	26055	1851.5	5.22	6.35
26365	1882.5	5.18	6.14	26365	1882.5	5.18	6.27
26683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

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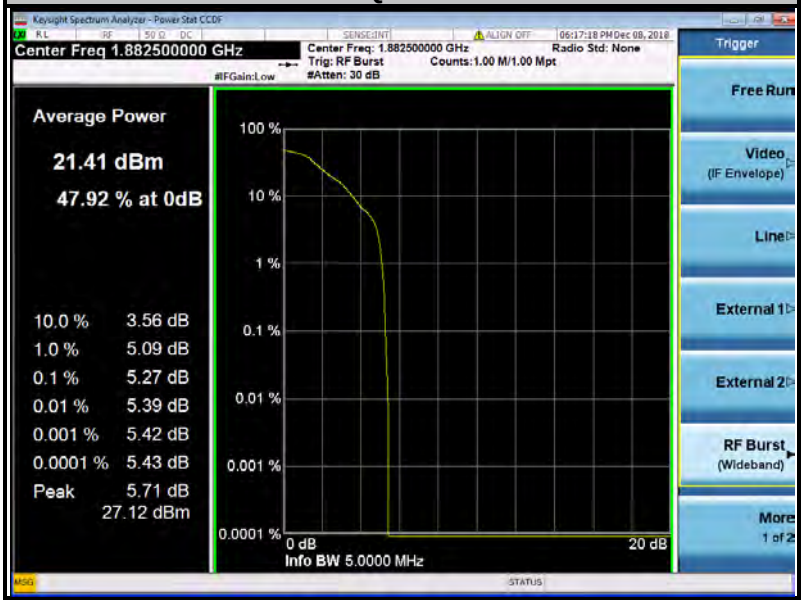
LTE Band 2					
Channel	Frequency (MHz)	Modulation	N_{tones}	Sub-carrier Spacing (kHz)	PAPR (dB)
18900	1880	BPSK	1@0	3.75	1.58
18900	1880	QPSK	1@0	15	2.69
18900	1880	QPSK	3@3	15	6.85

Spectrum Plot of Worst Value
QPSK

LTE Band 25					
Channel	Frequency (MHz)	Modulation	N_{tones}	Sub-carrier Spacing (kHz)	PAPR (dB)
26365	1882.5	BPSK	1@0	3.75	1.67
26365	1882.5	QPSK	1@0	15	2.42
26365	1882.5	QPSK	3@3	15	5.27

Spectrum Plot of Worst Value
QPSK

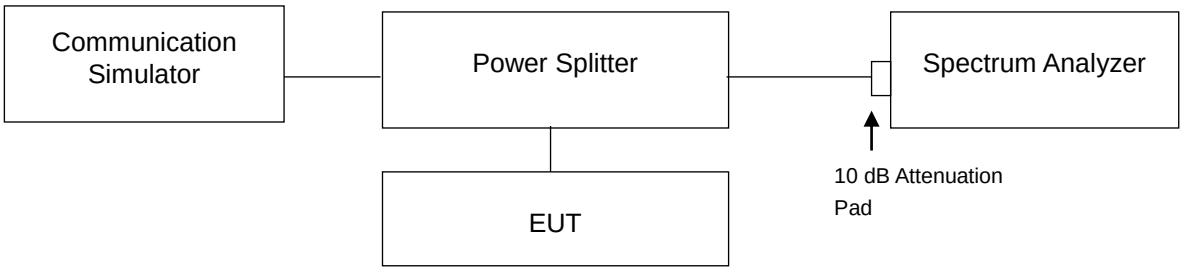


4.7 Conducted Spurious Emissions

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

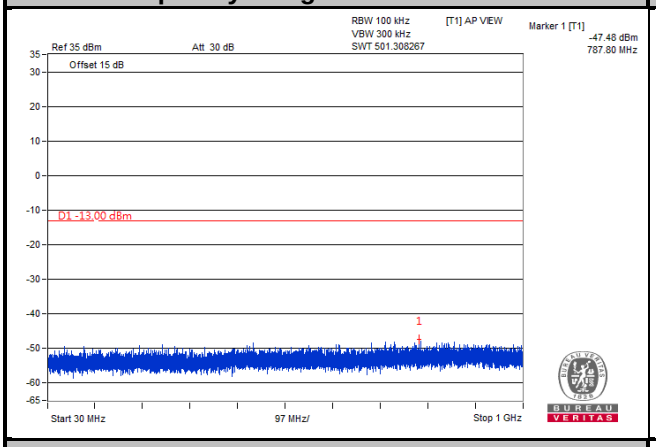
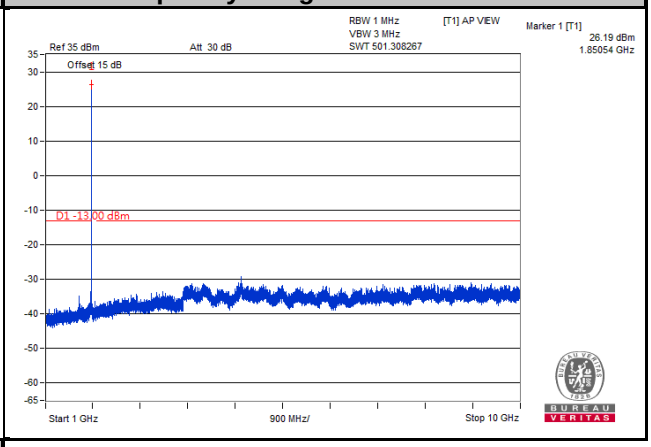
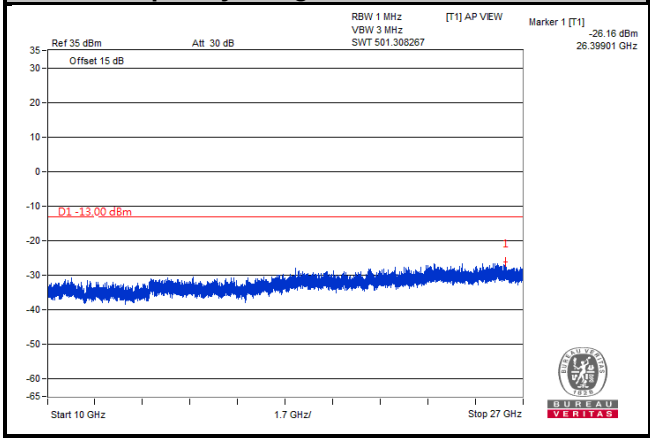


4.7.3 Test Procedure

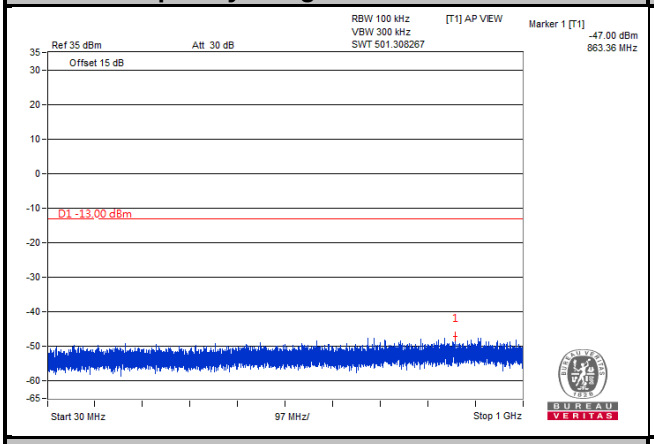
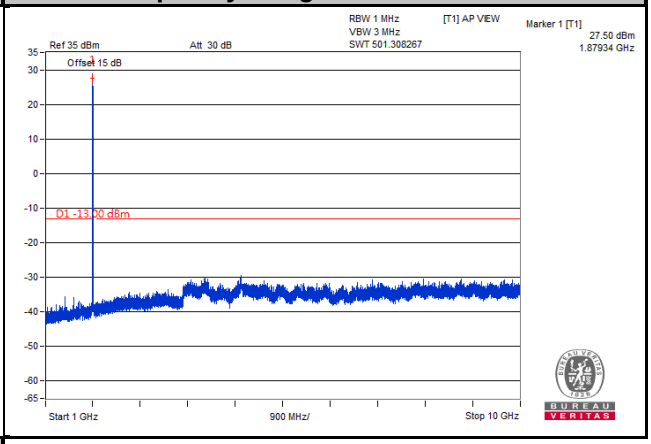
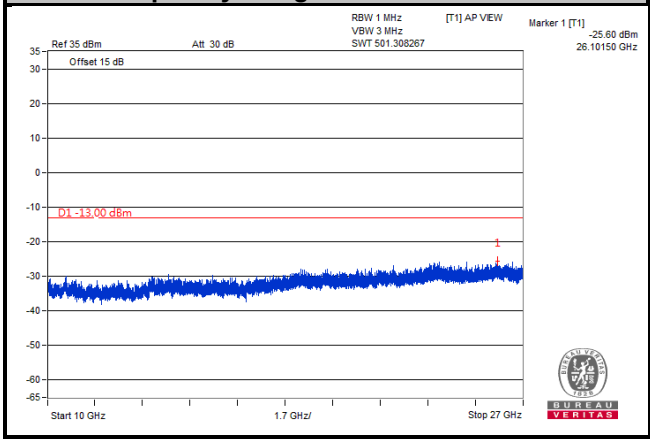
a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
b. Measuring frequency range is from 9 kHz to 1 GHz. 10 dB attenuation pad is connected with spectrum. RBW = 100 kHz and VBW = 300 kHz is used for conducted emission measurement.
c. Measuring frequency range is from 1 GHz to 20 GHz / 26.5 GHz. 10 dB attenuation pad is connected with spectrum. RBW = 1 MHz and VBW = 3 MHz is used for conducted emission measurement.
d. Spectrum RBW settings are referenced to ANSI 63.2-1996 section 8.2.2 and ANSI 63.26 section 5.7.2.

4.7.4 Test Results

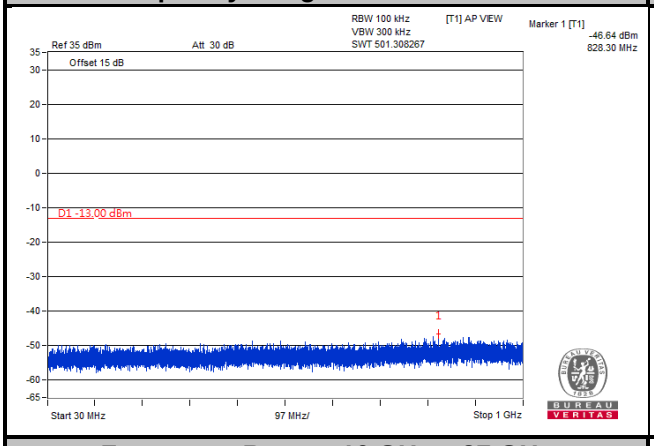
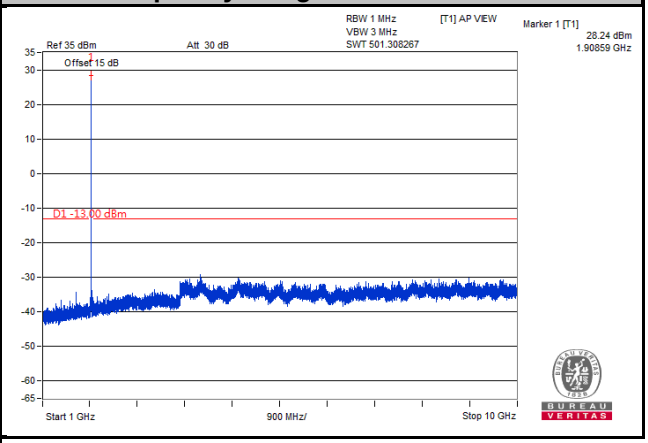
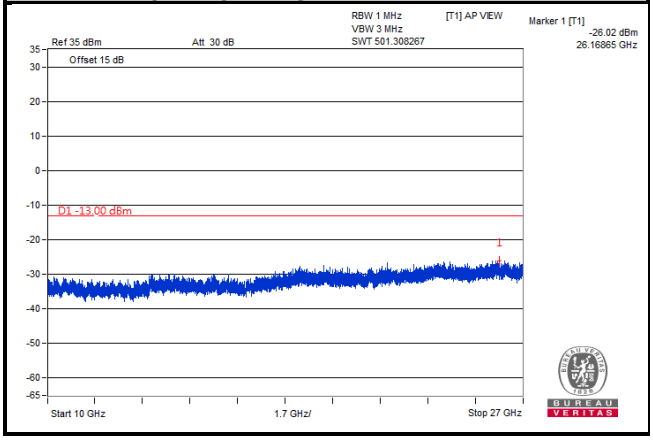
Cat-M1

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	
	

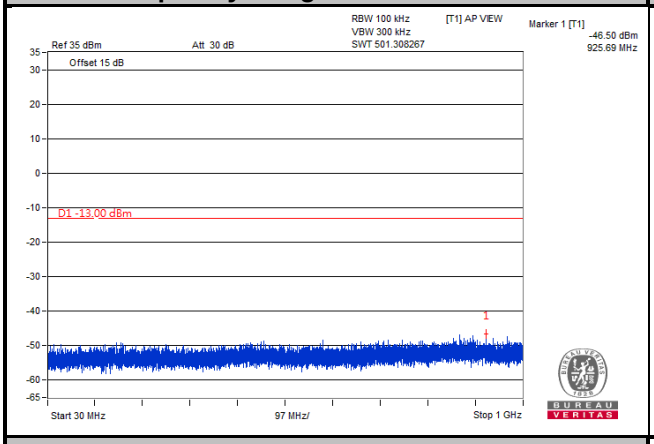
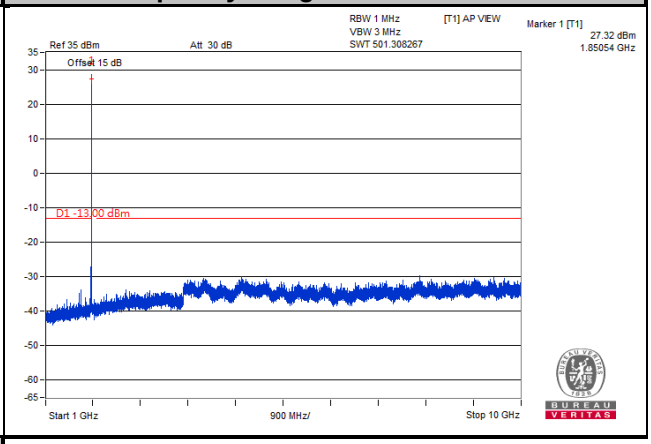
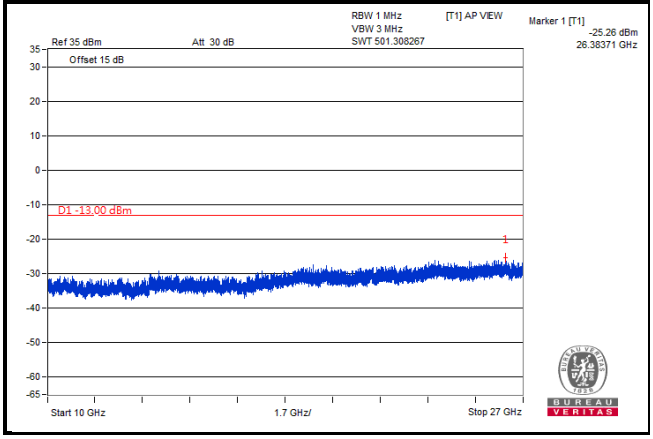
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

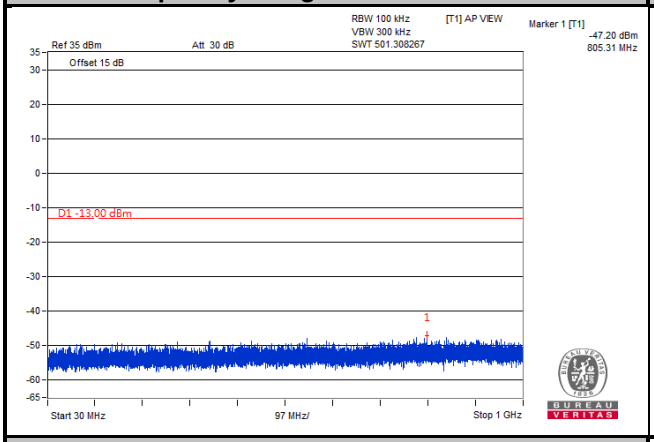
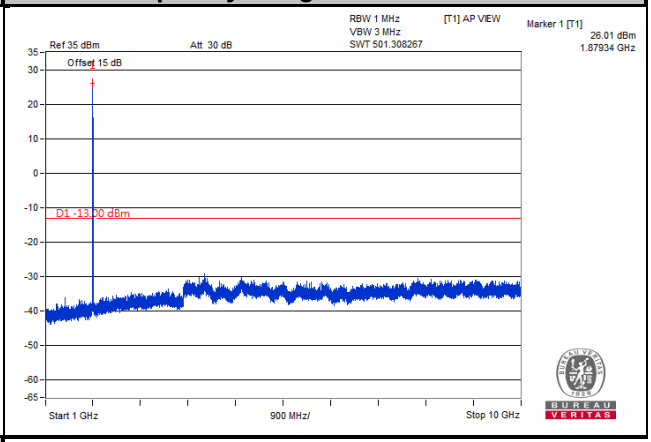
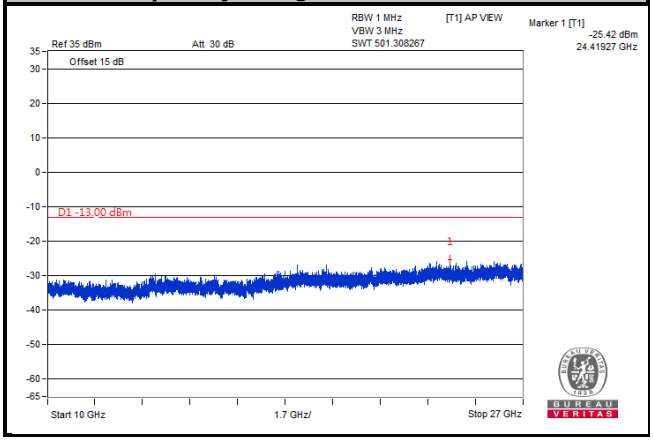
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

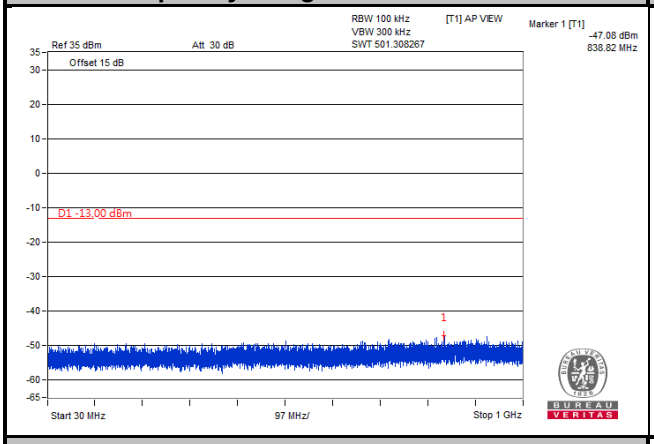
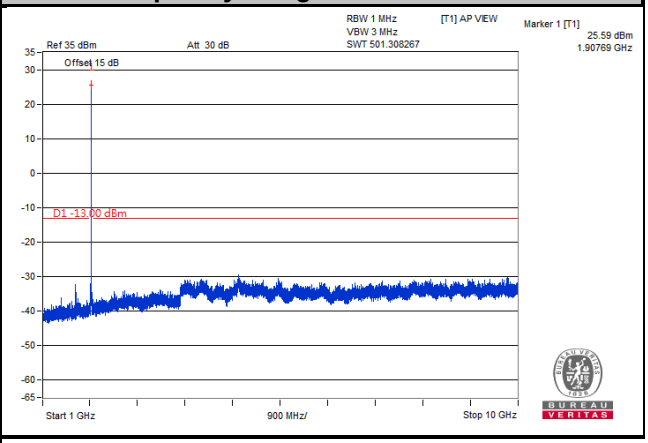
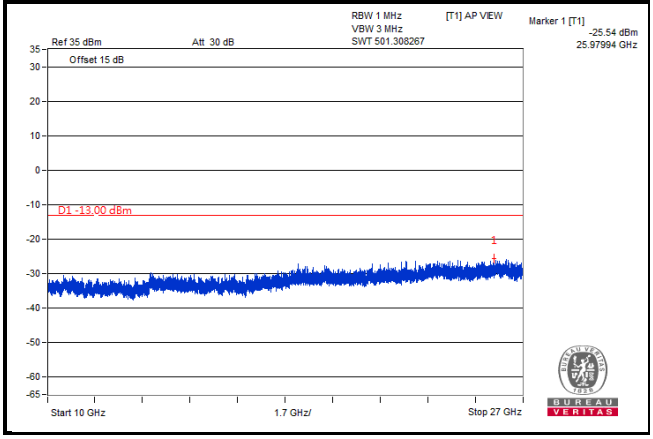
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

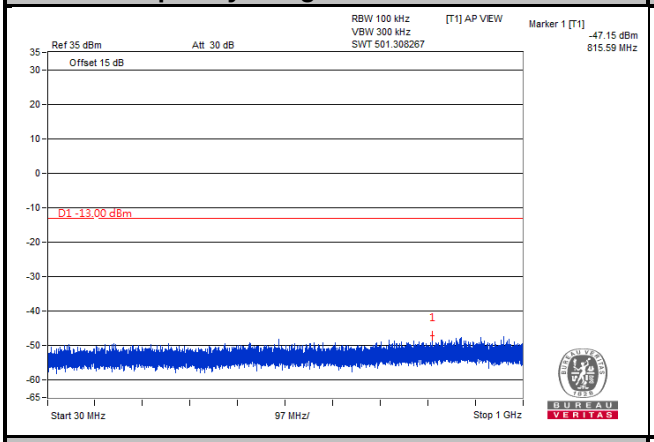
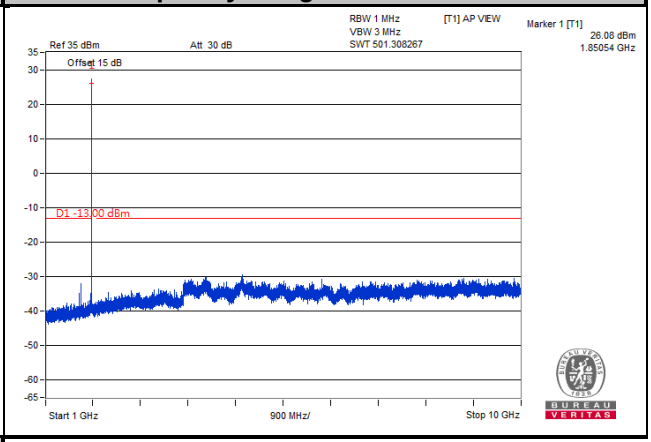
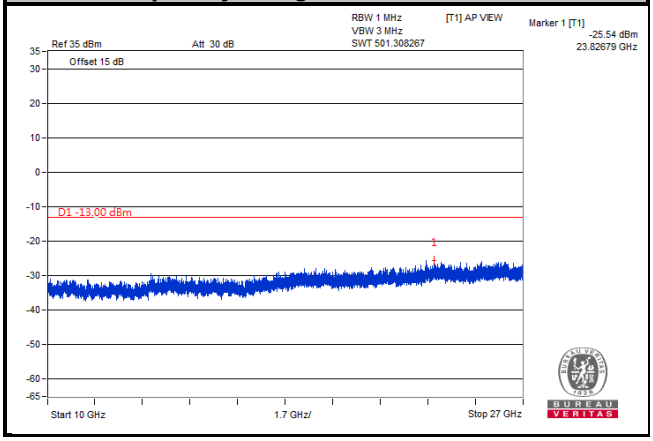
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

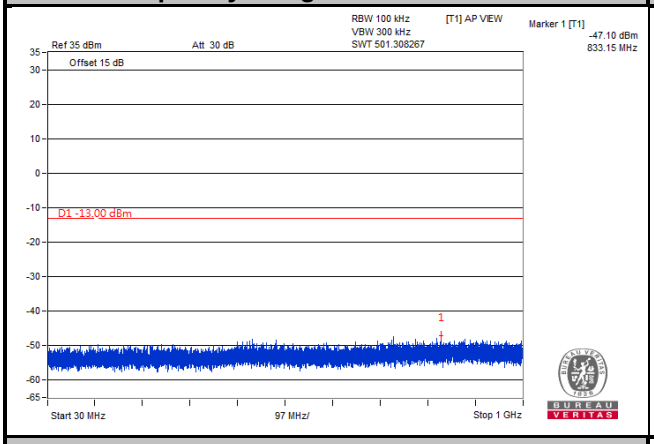
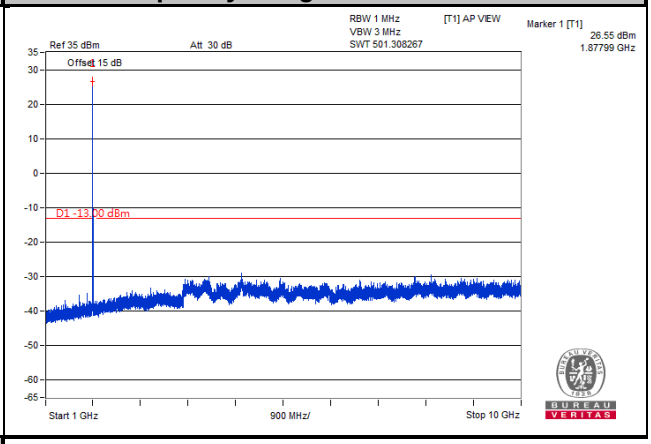
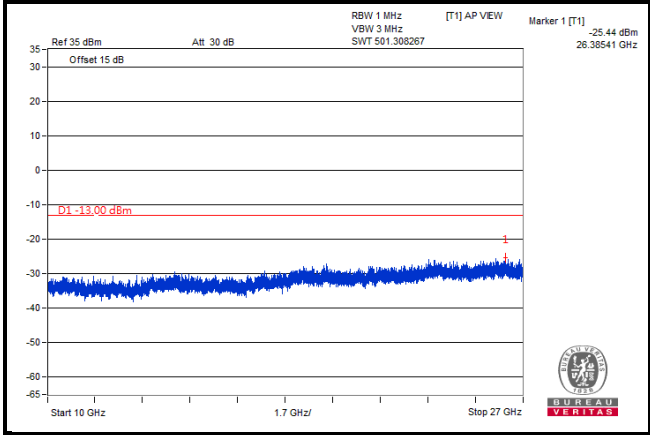
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

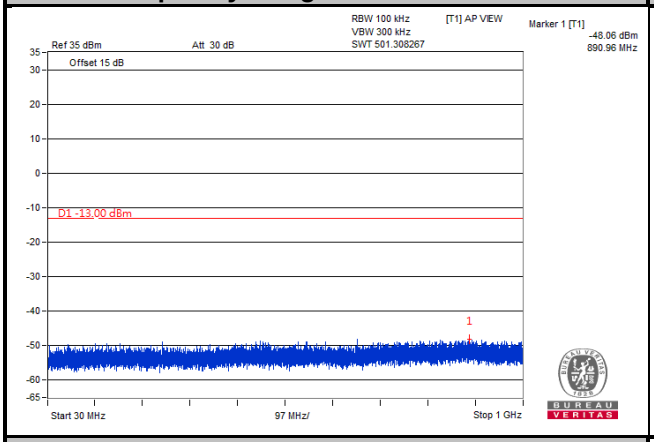
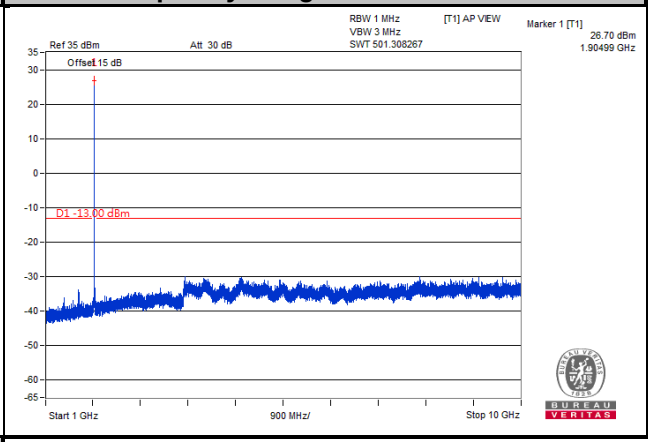
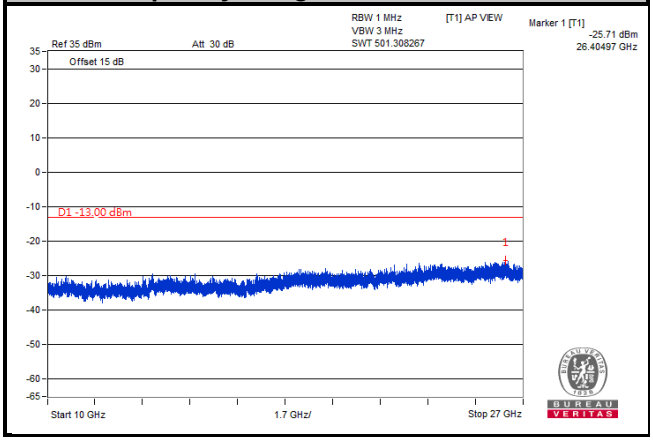
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

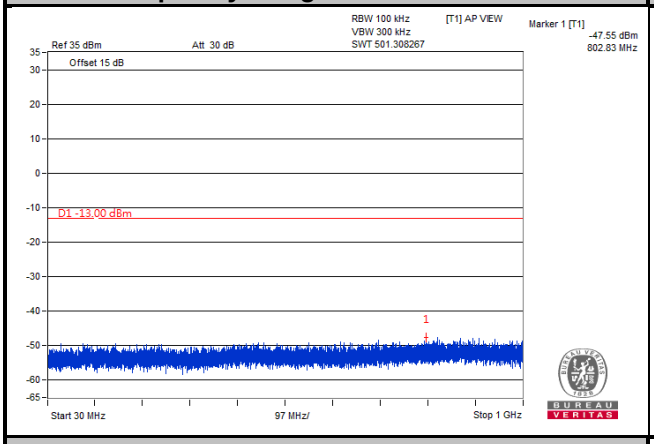
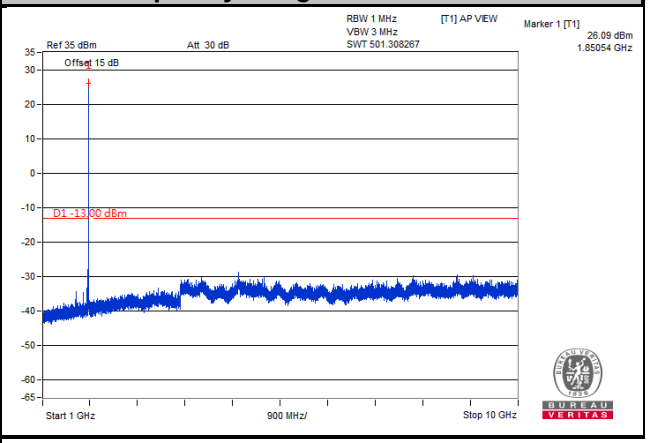
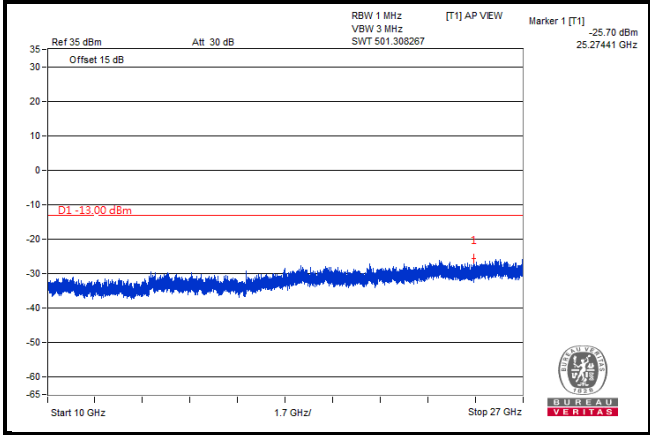
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

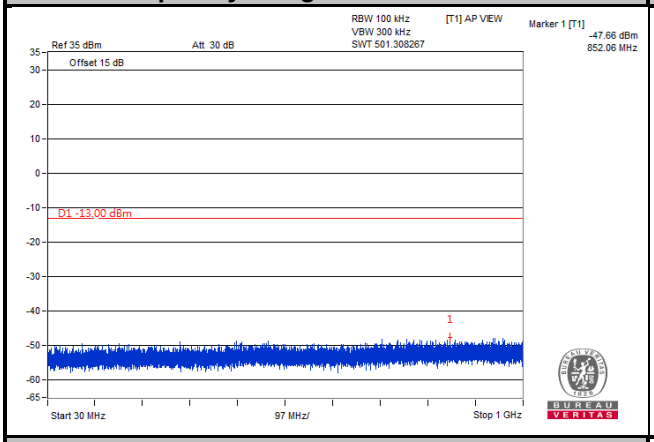
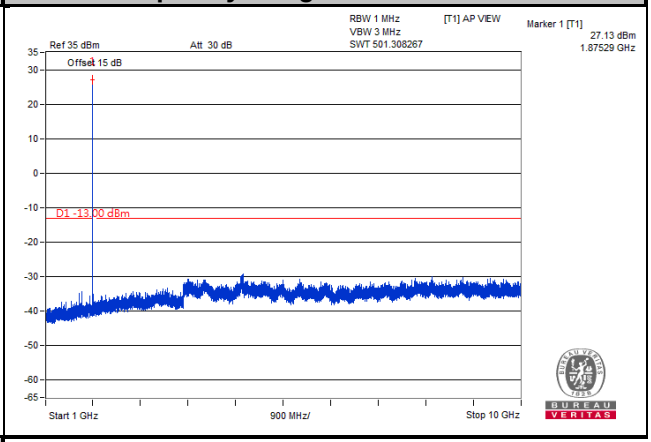
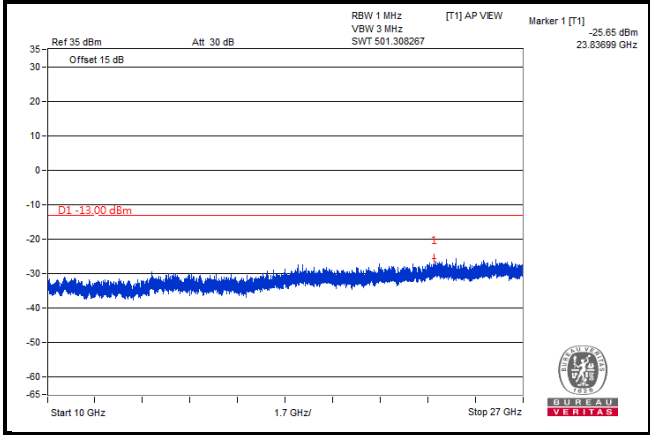
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

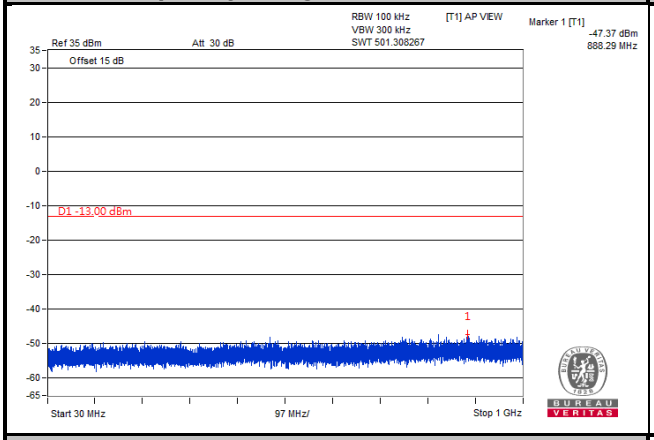
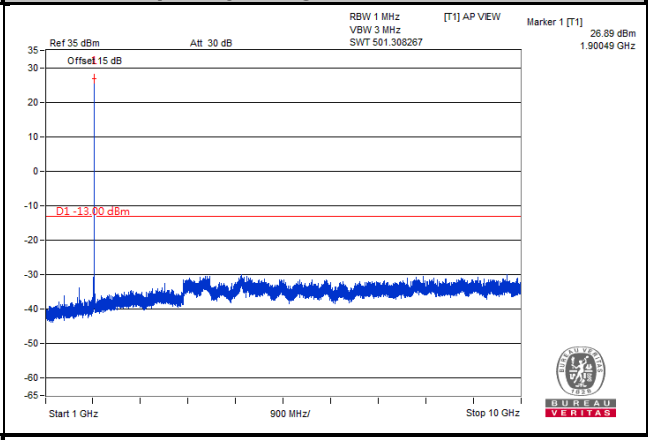
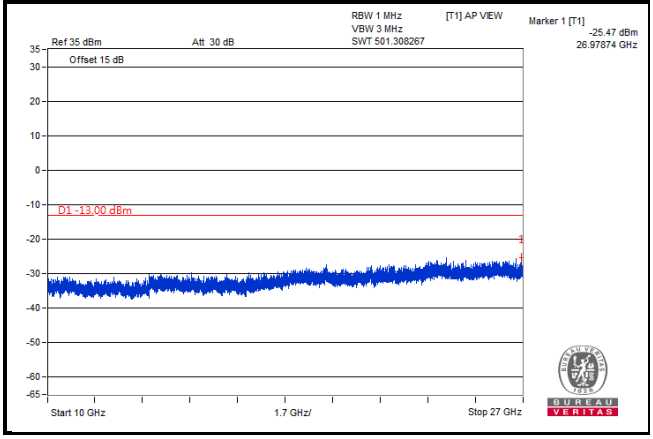
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

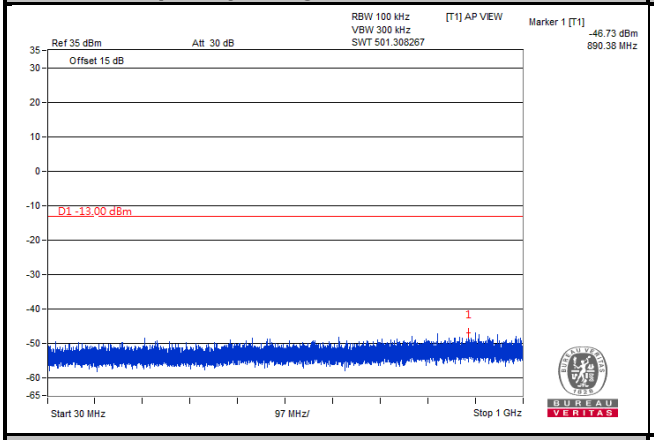
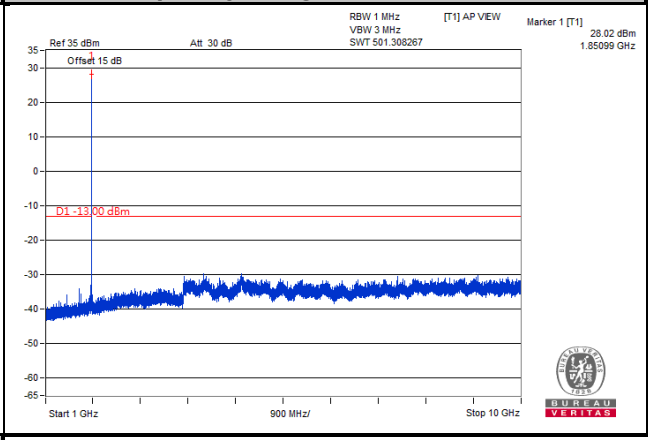
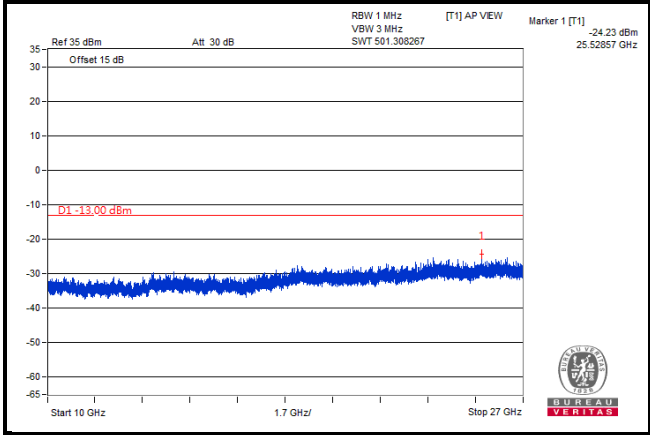
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

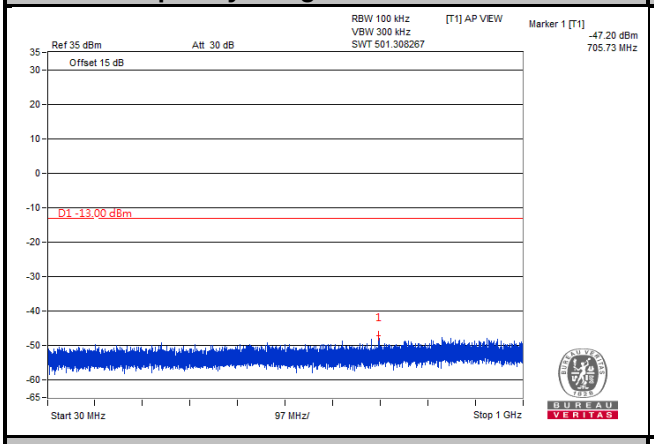
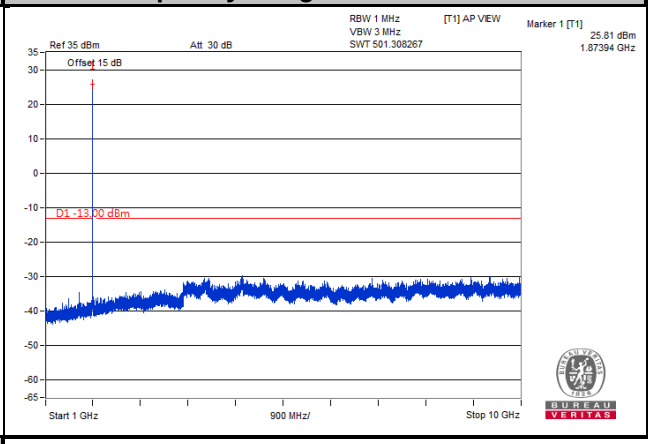
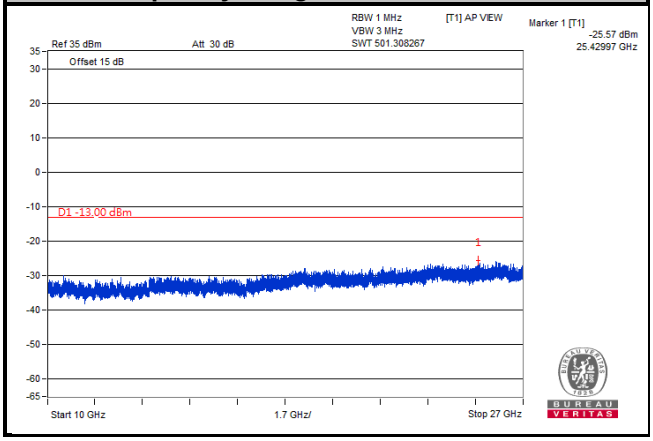
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

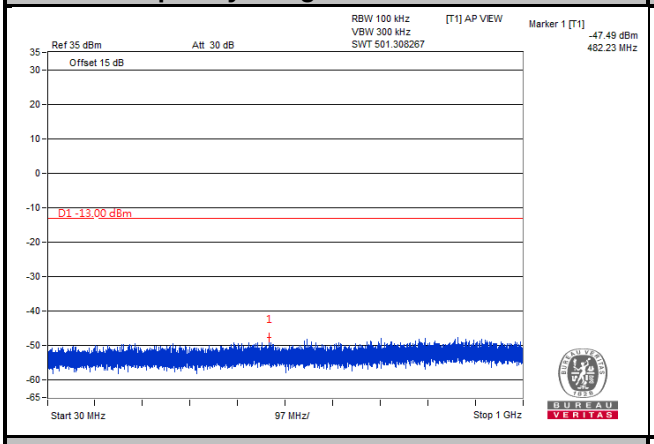
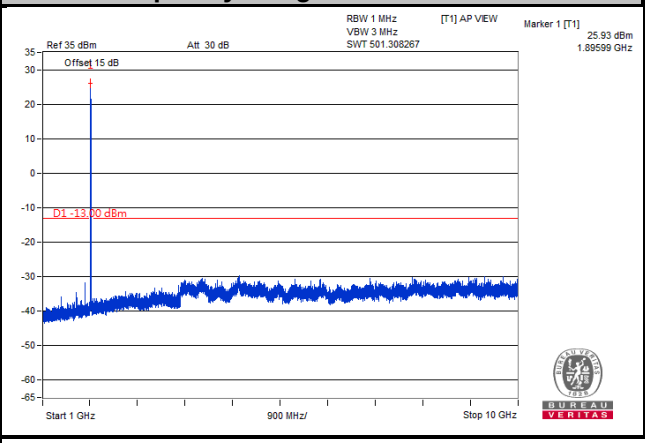
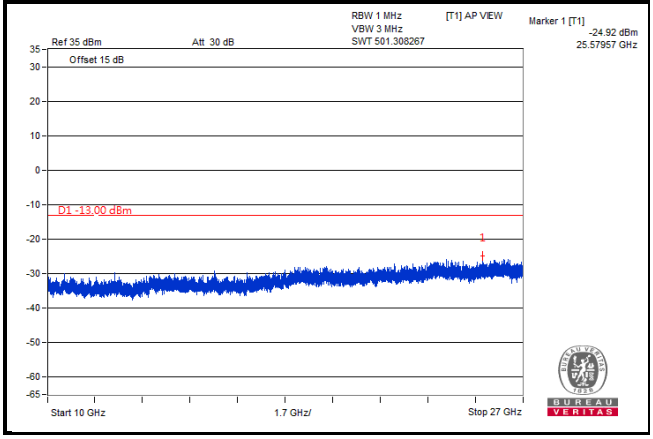
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

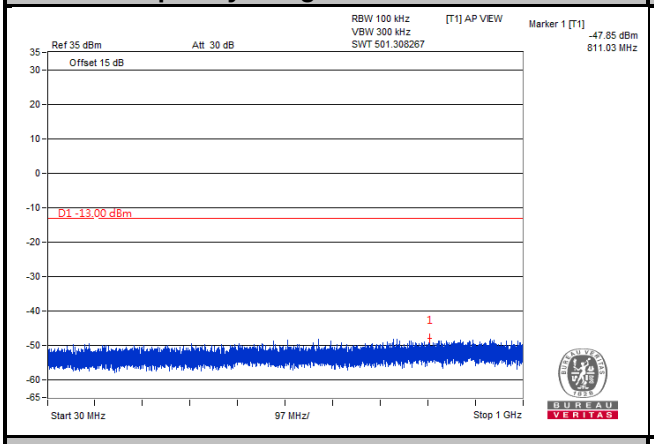
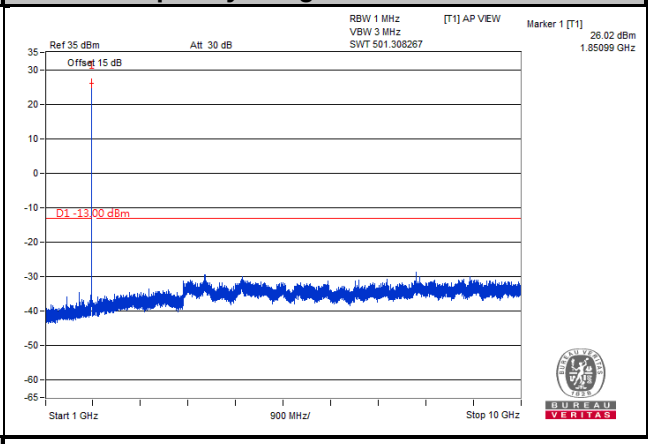
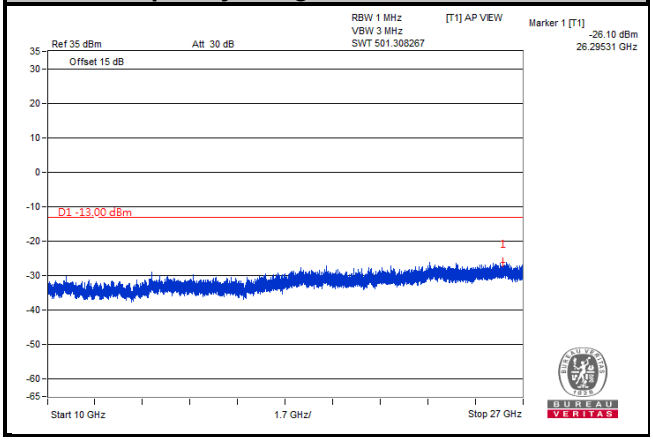
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

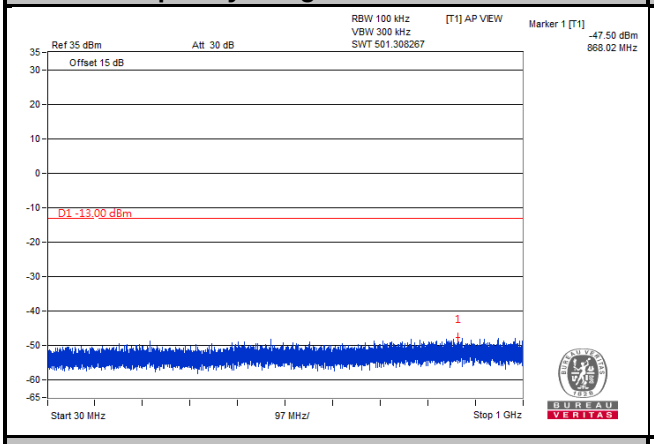
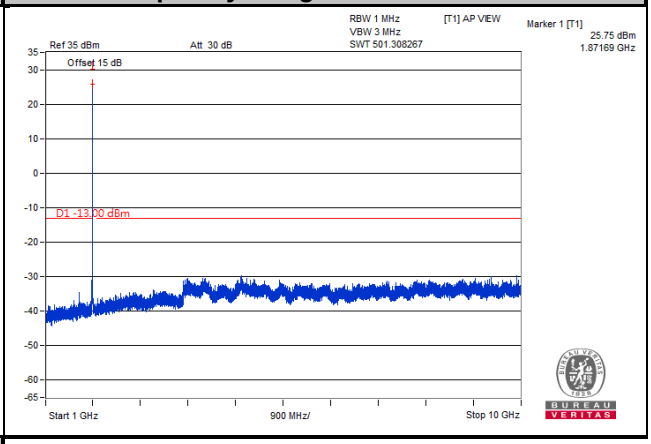
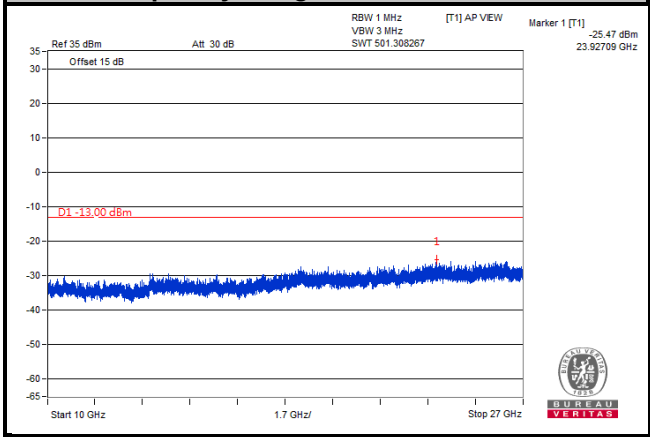
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

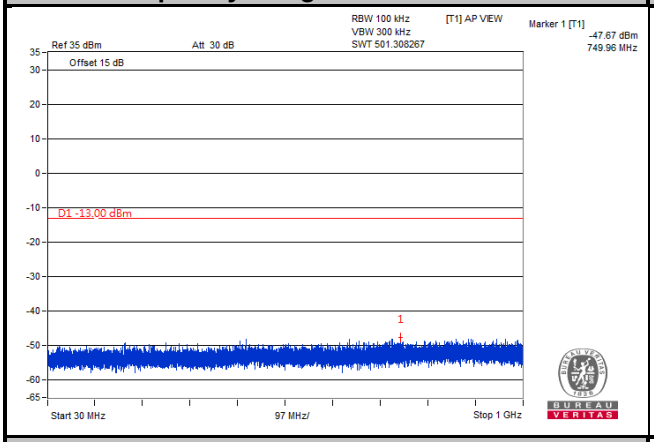
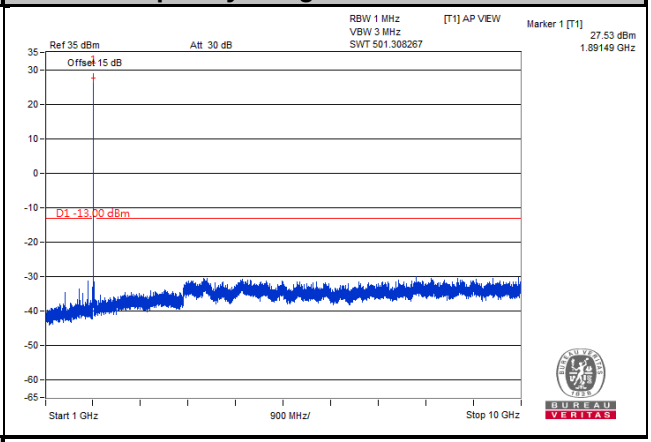
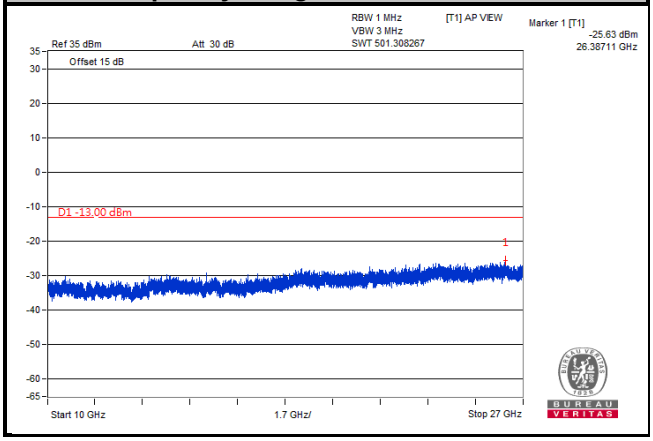
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

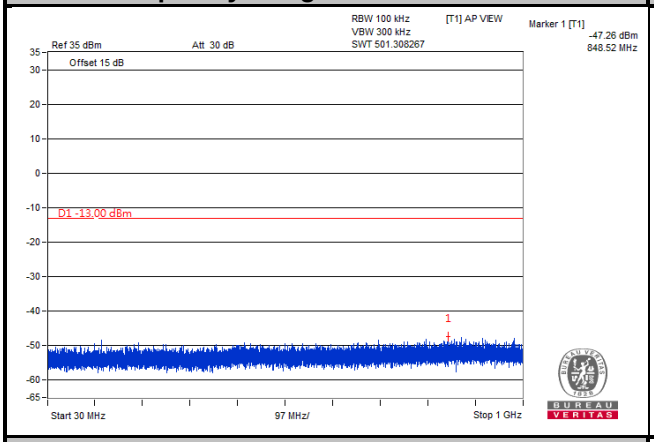
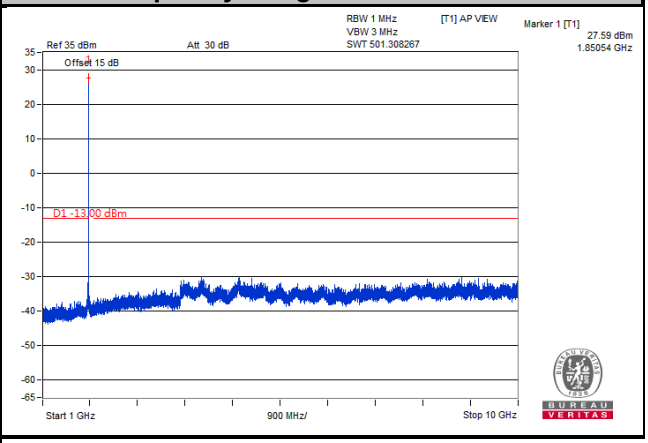
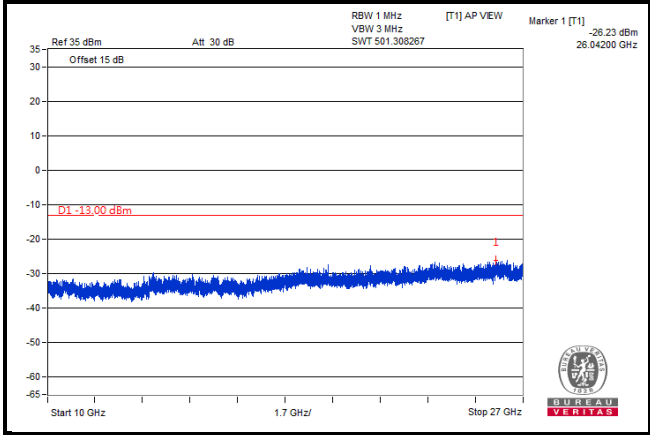
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

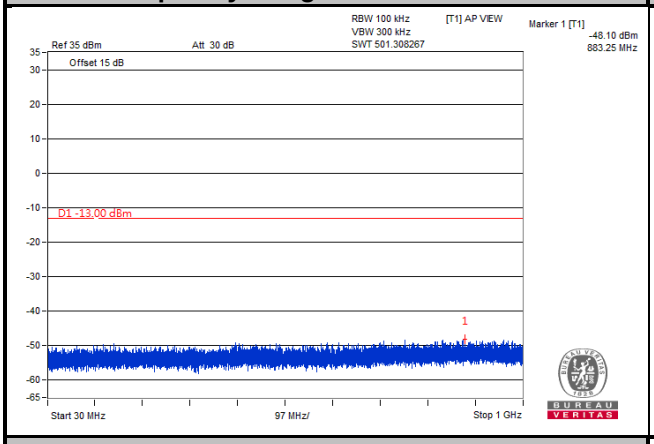
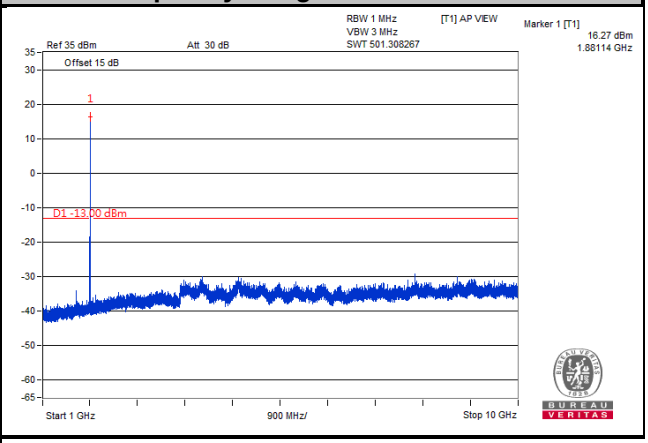
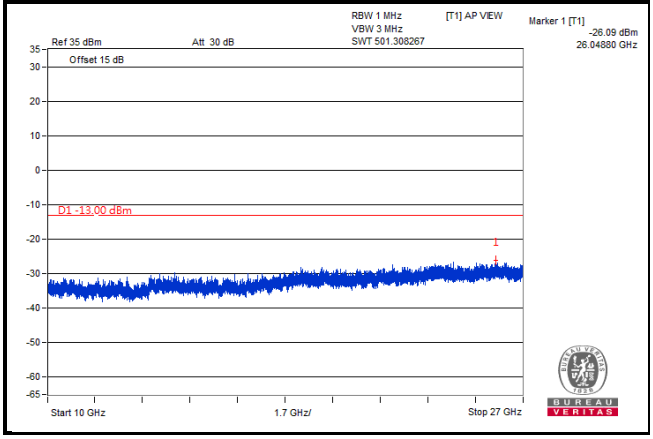
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

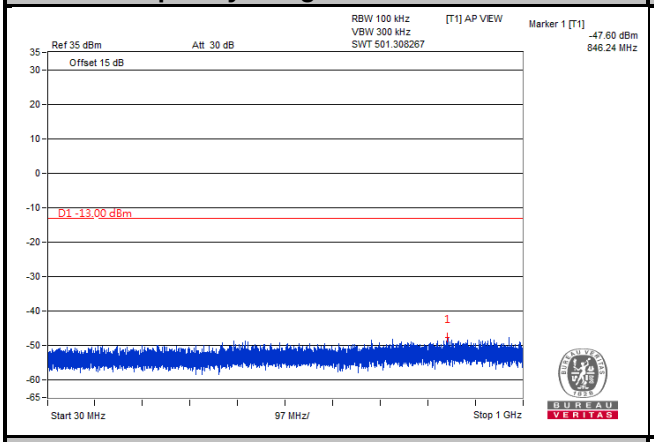
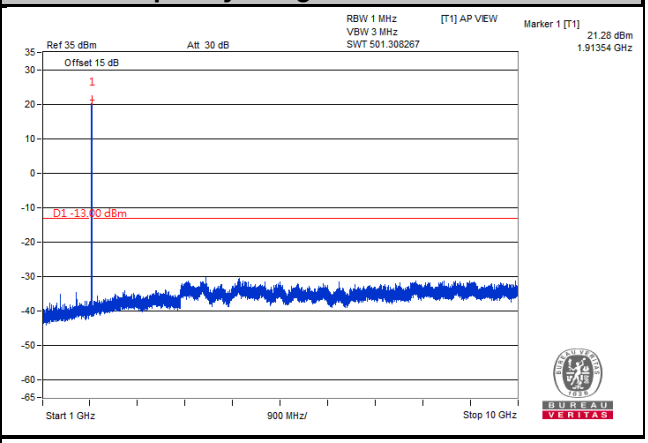
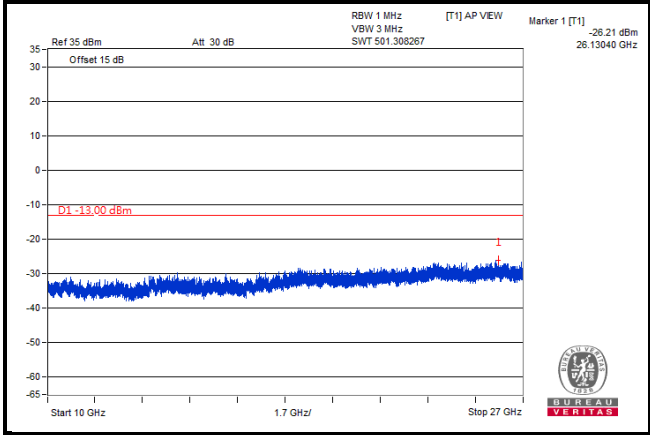
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

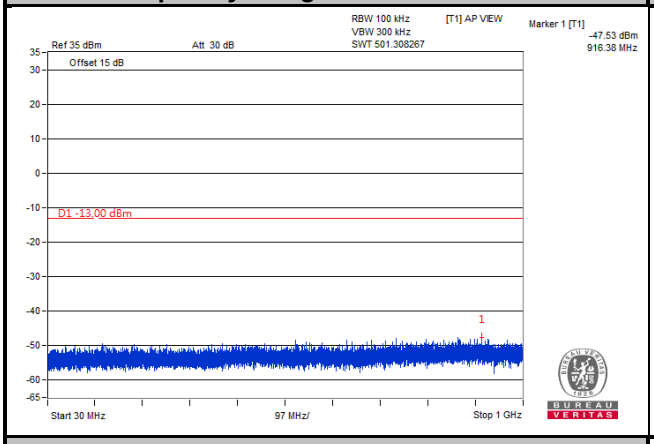
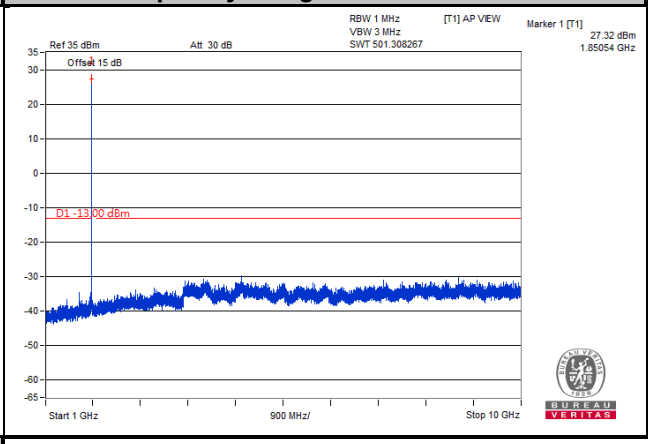
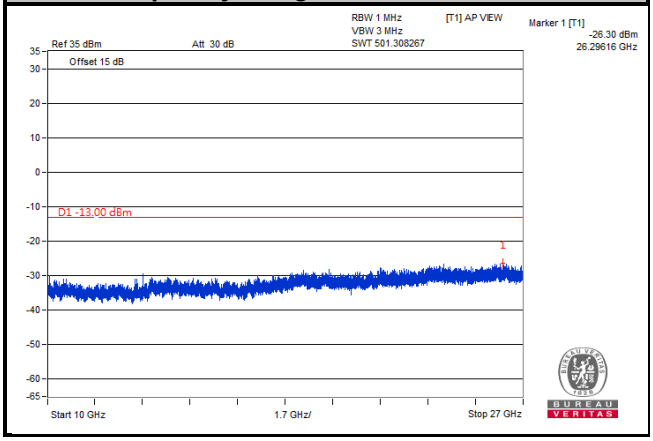
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

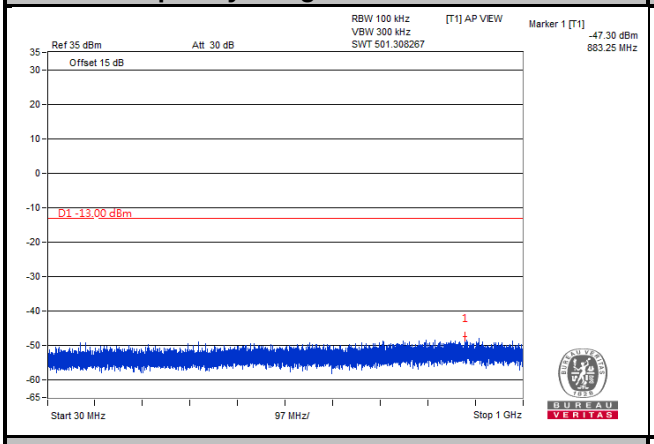
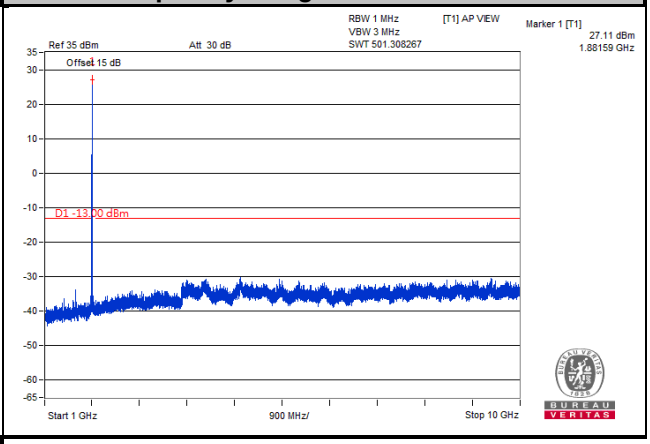
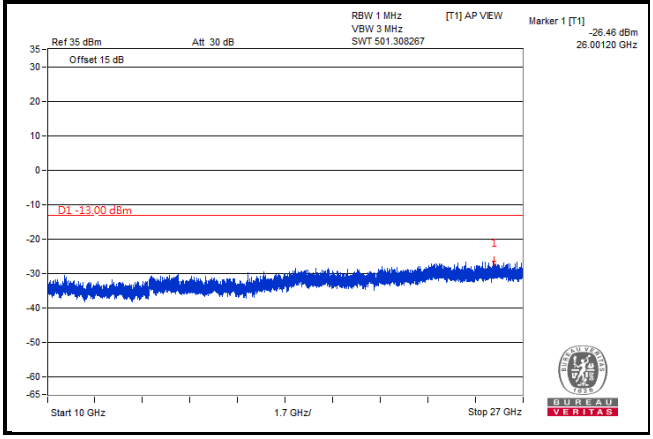
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

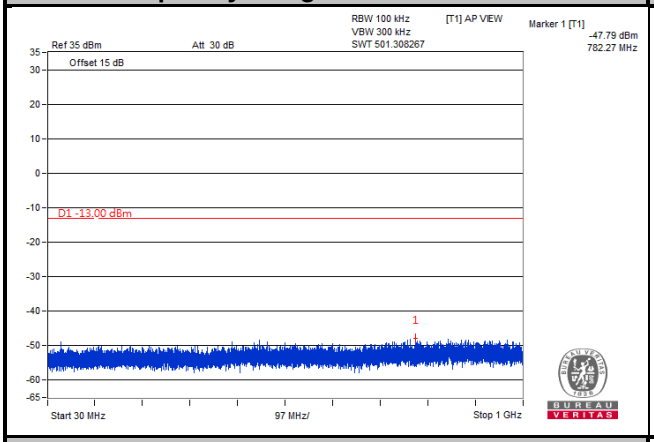
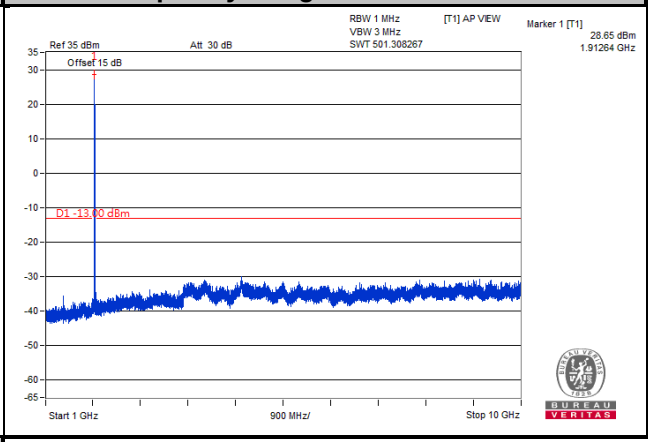
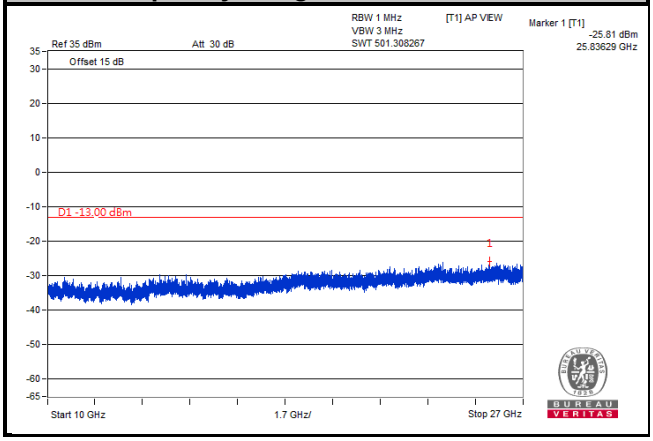
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

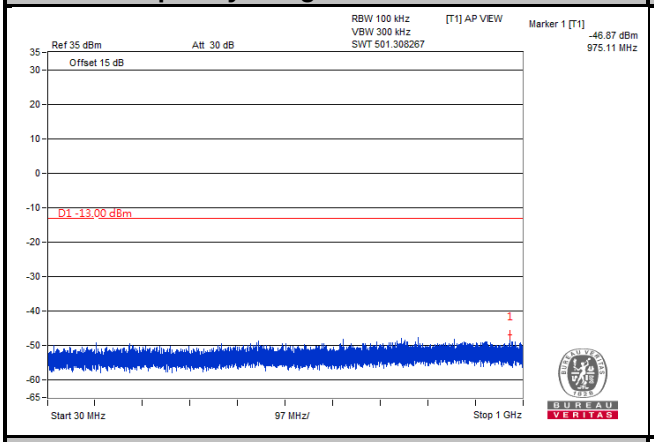
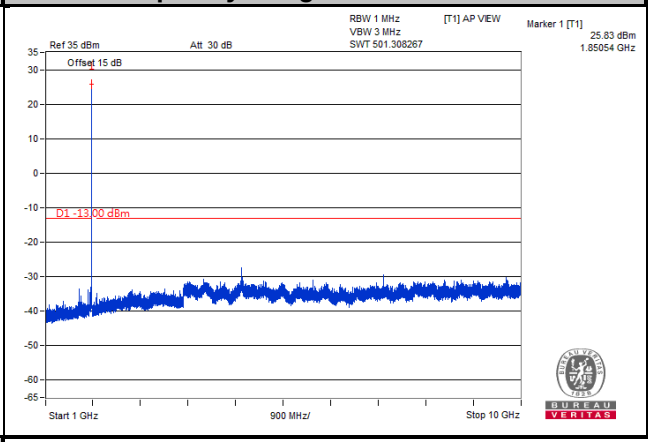
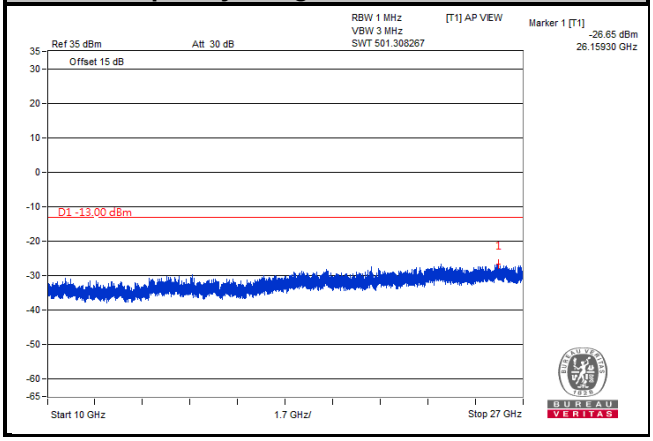
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

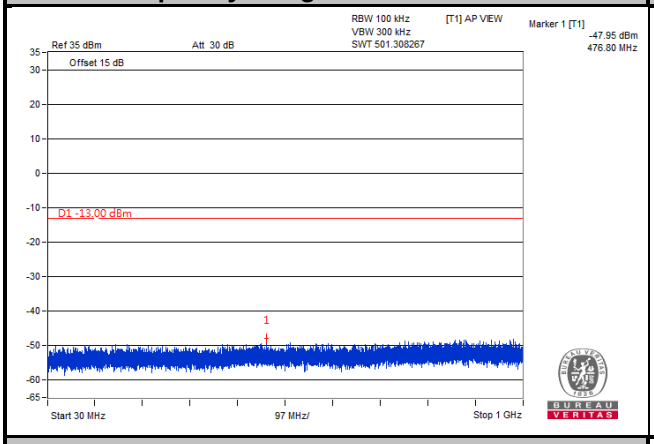
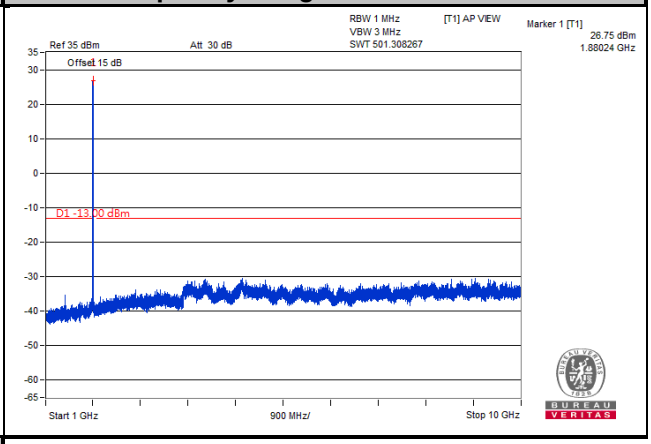
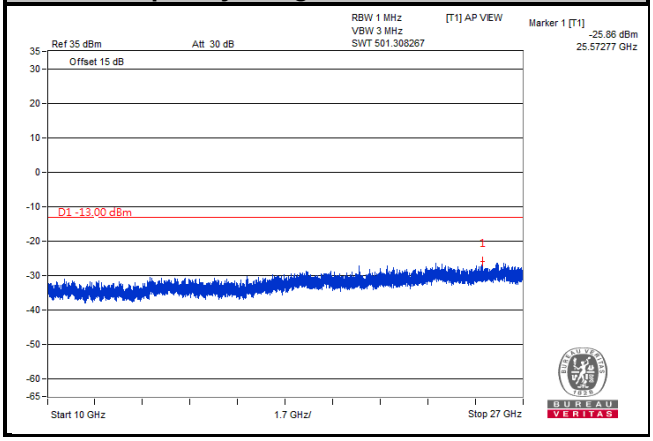
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

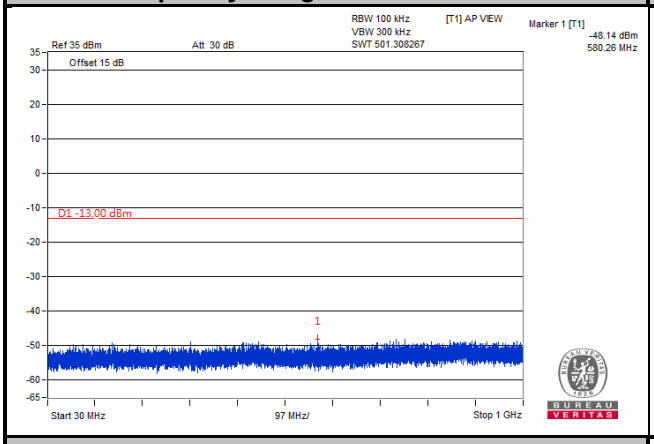
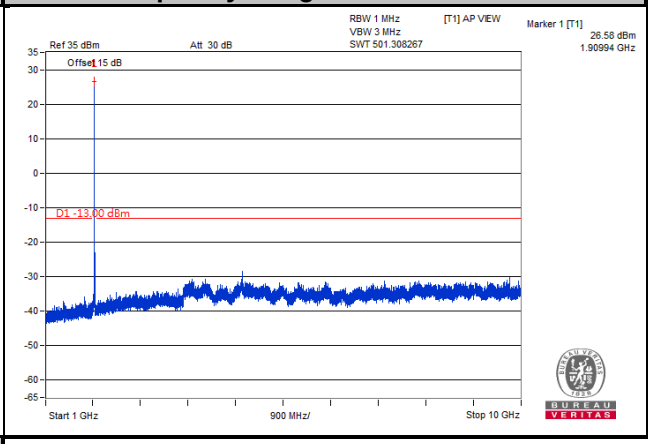
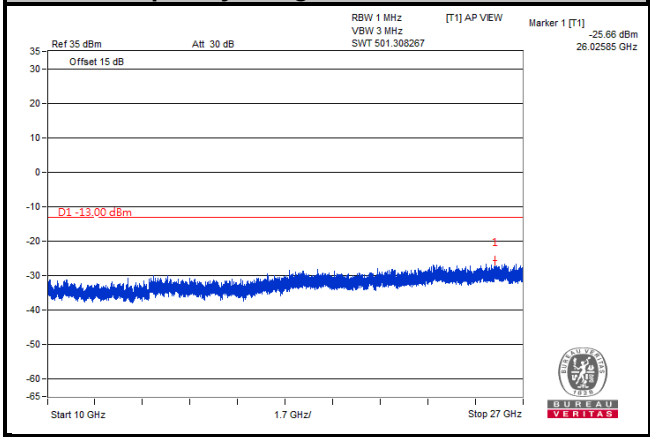
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

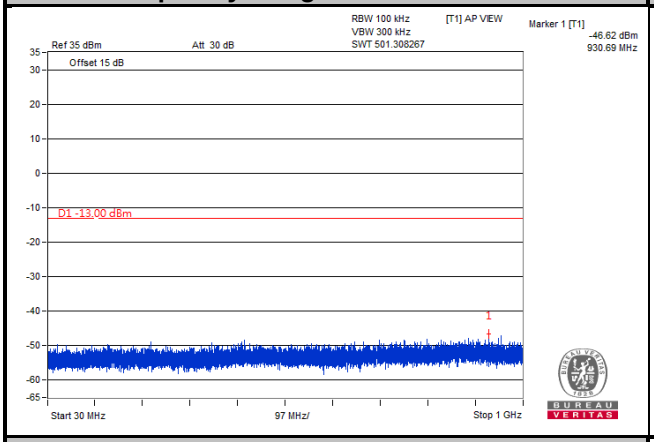
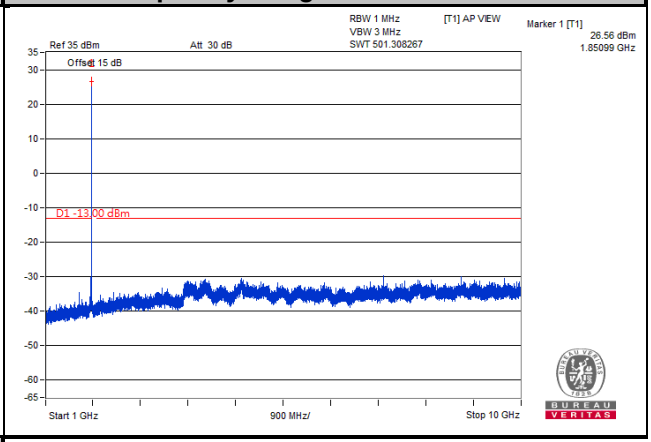
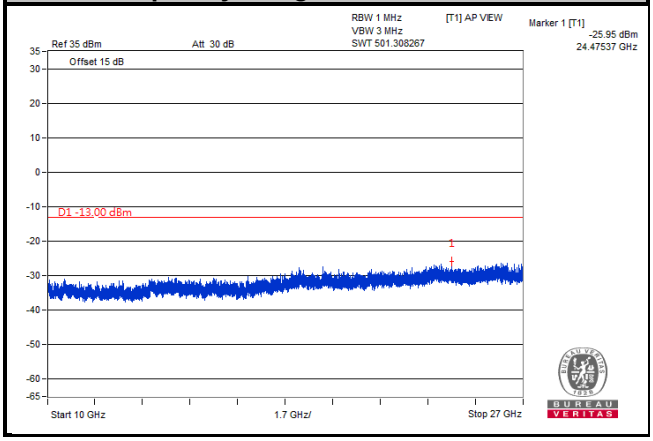
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

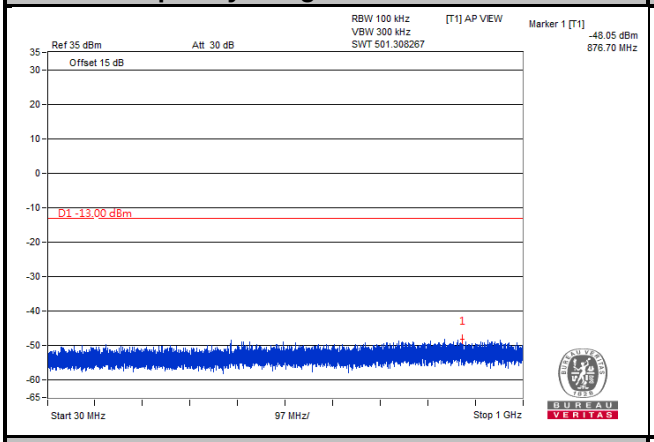
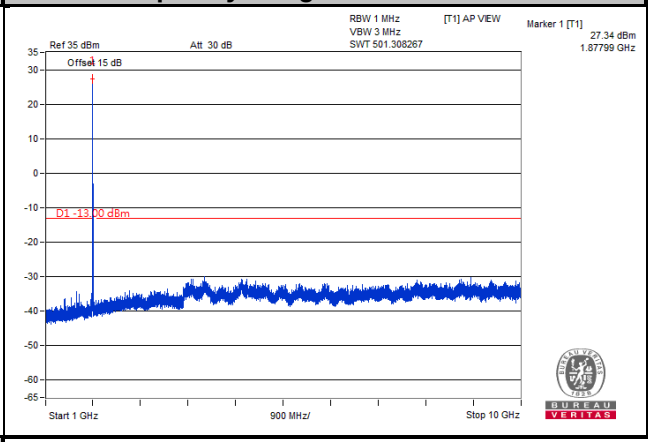
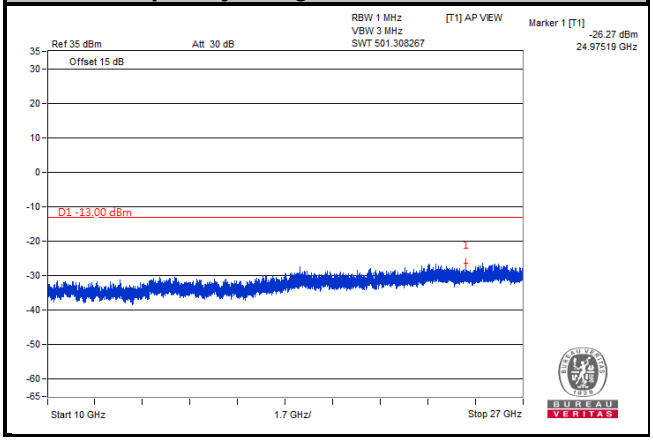
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

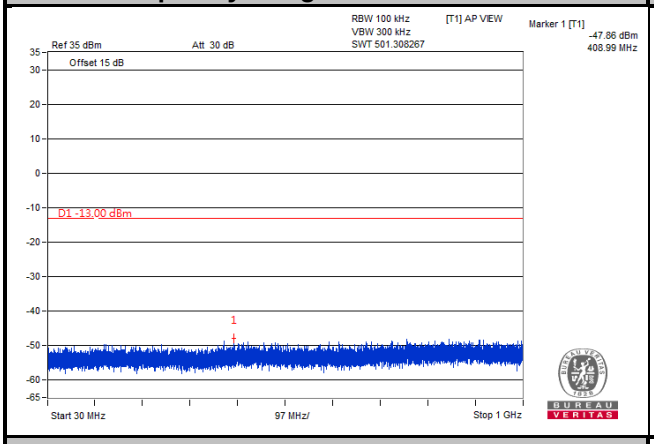
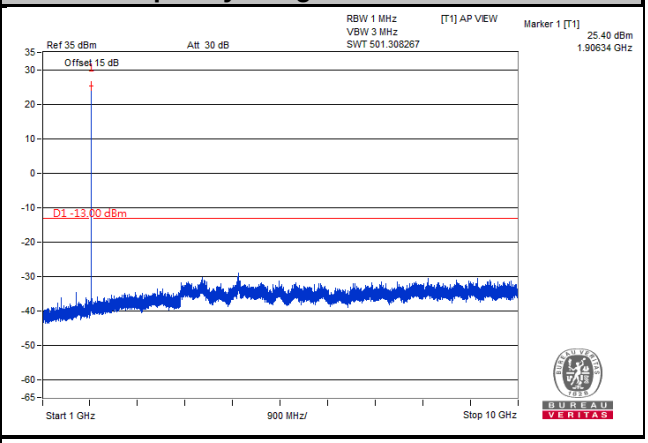
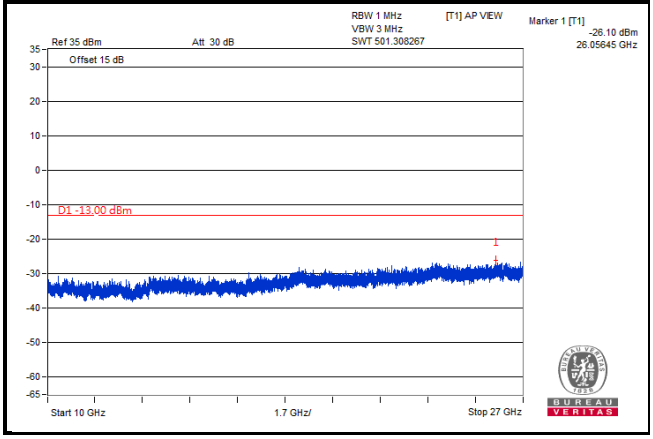
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

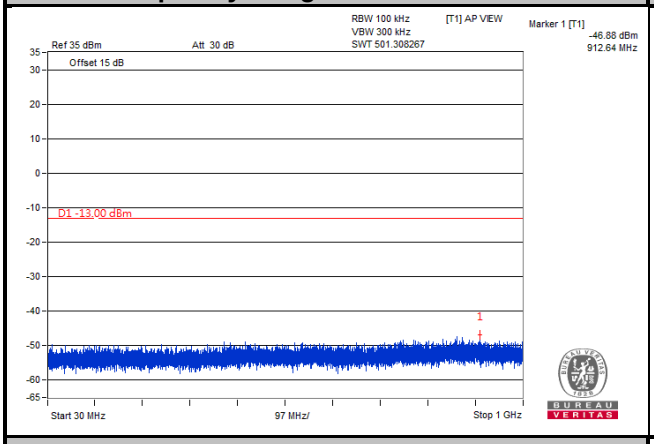
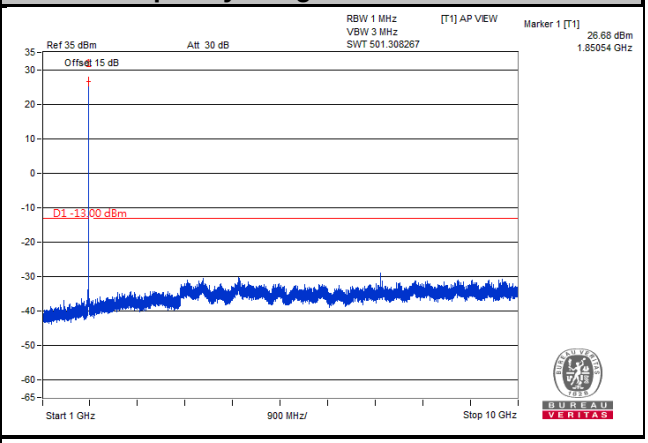
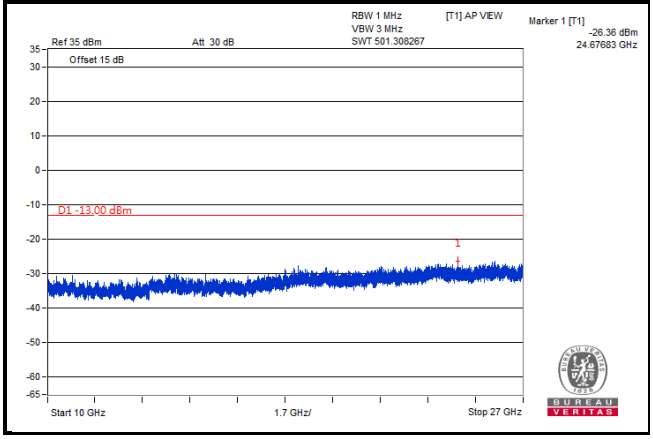
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

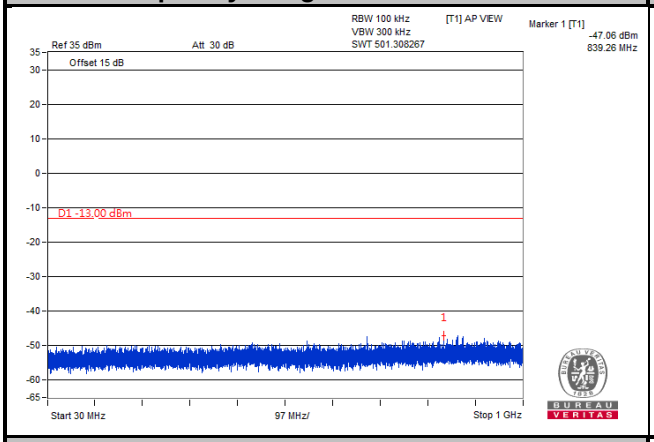
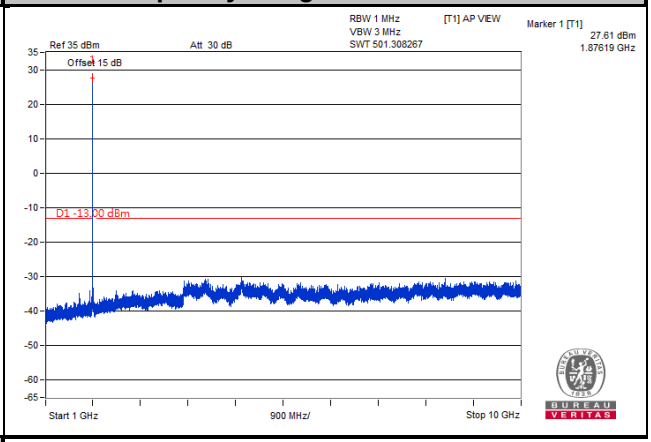
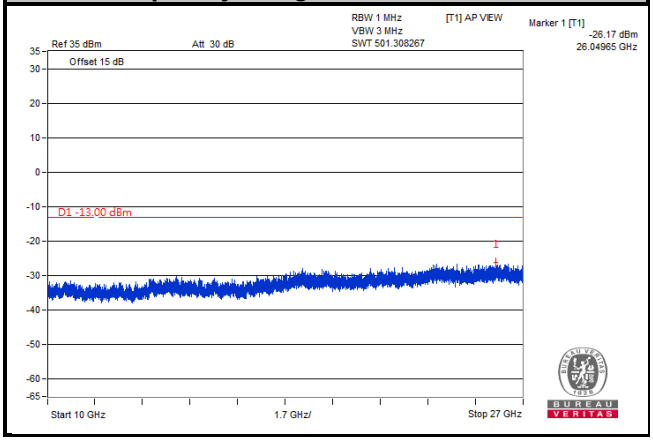
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

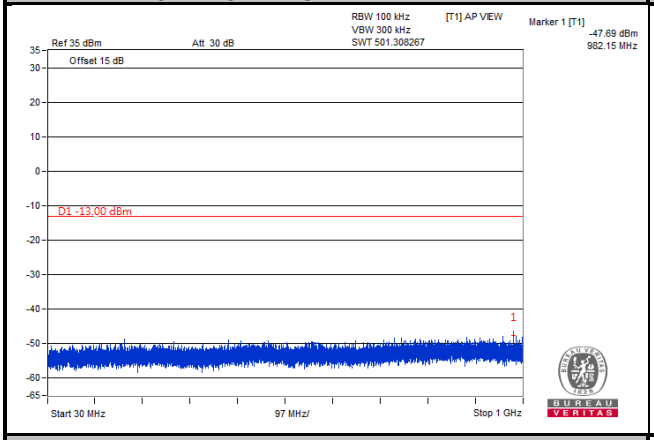
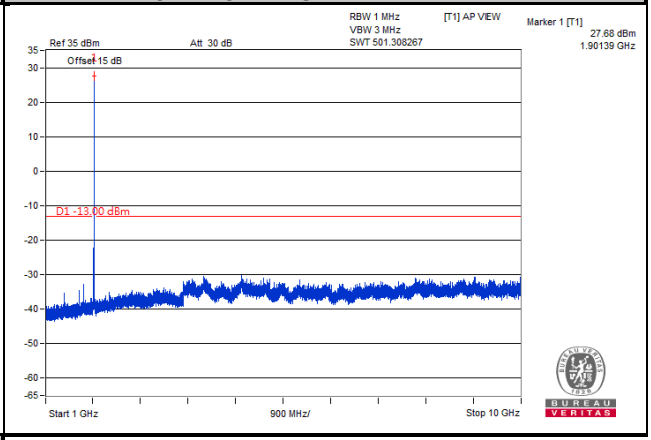
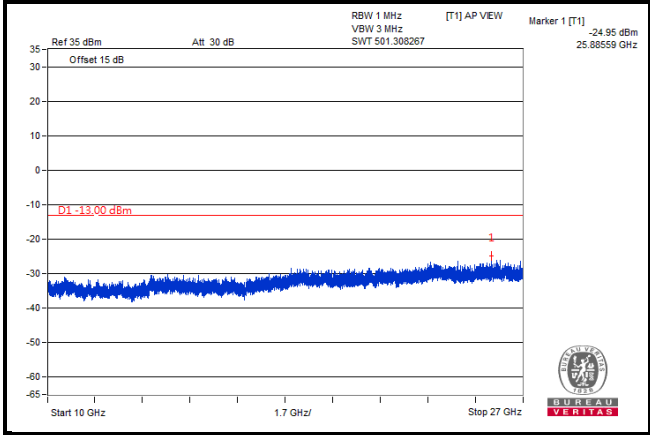
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

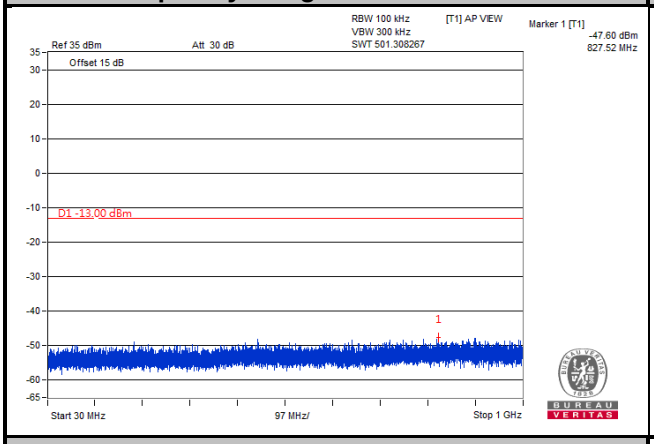
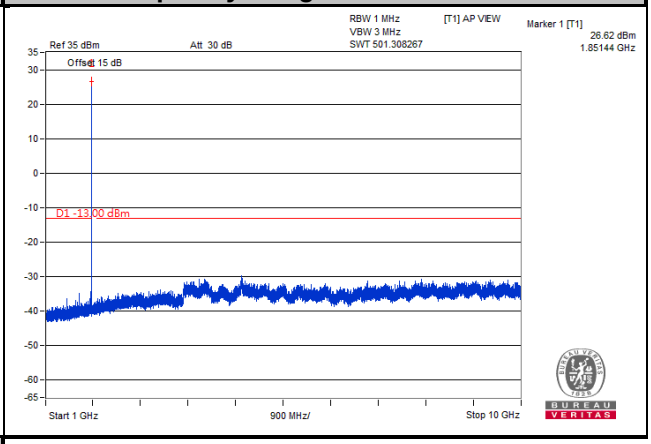
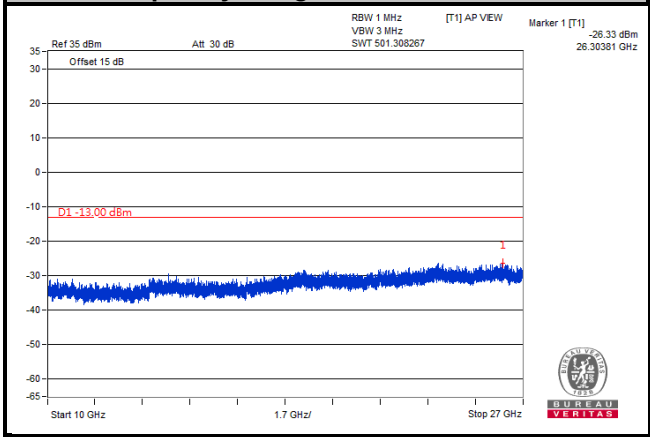
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

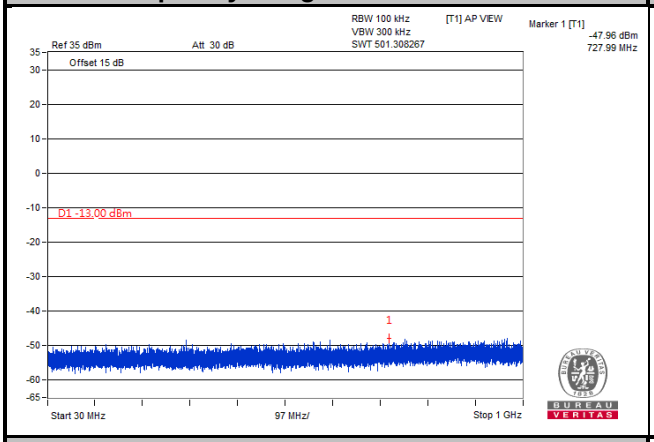
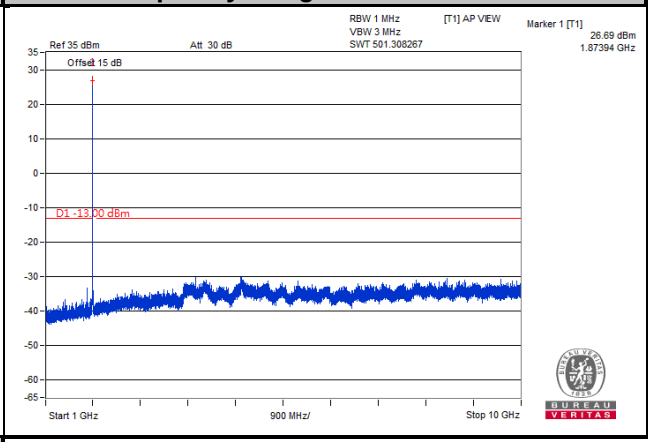
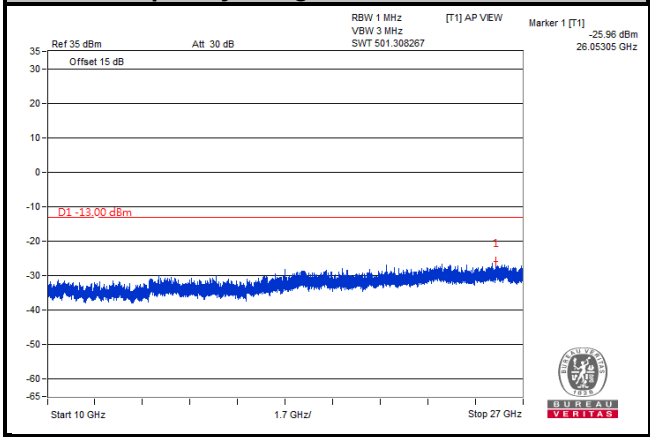
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

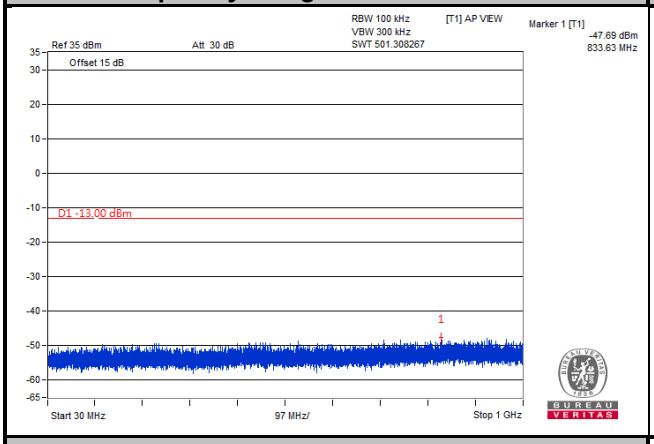
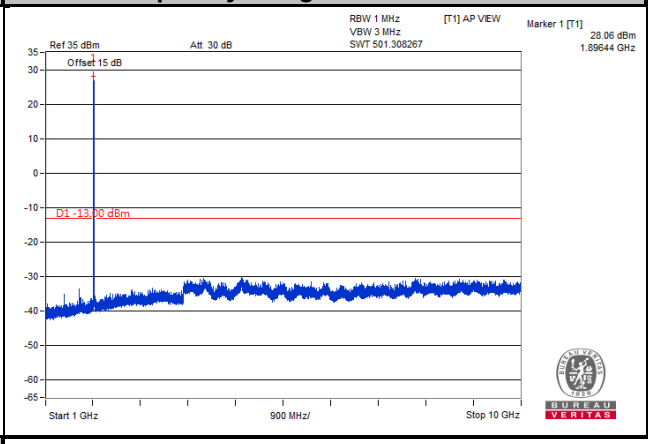
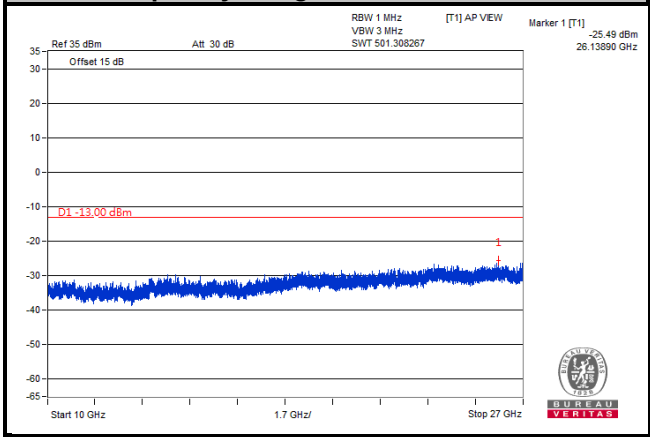
Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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	
	

Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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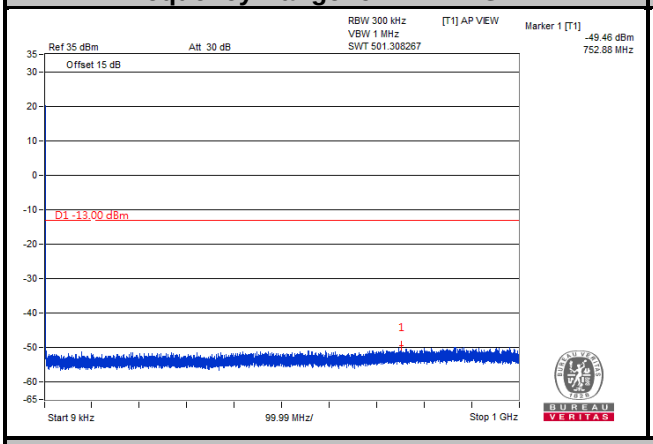
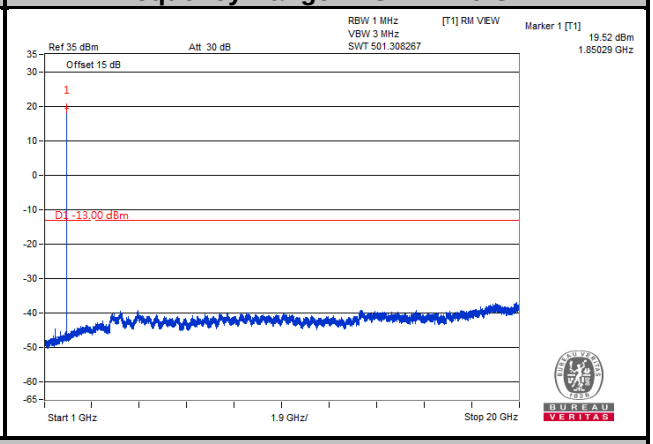
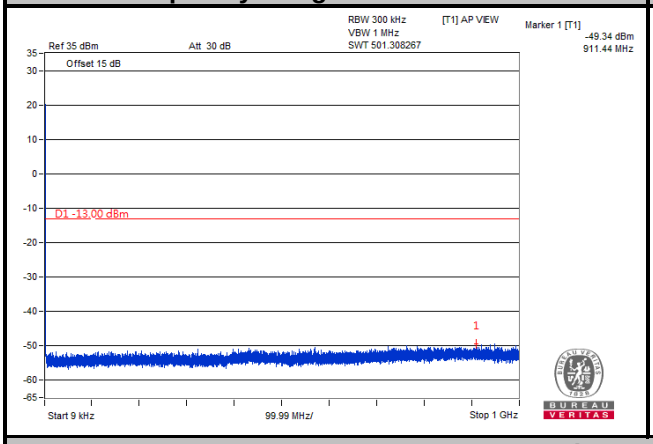
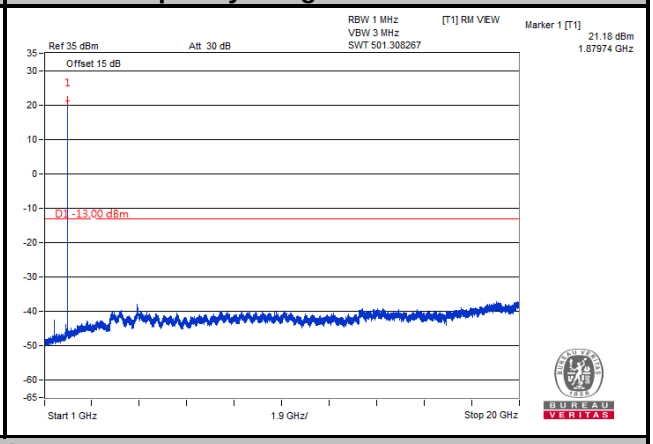
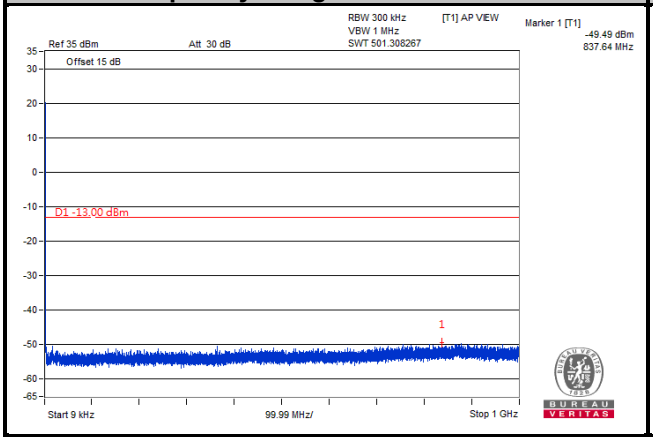
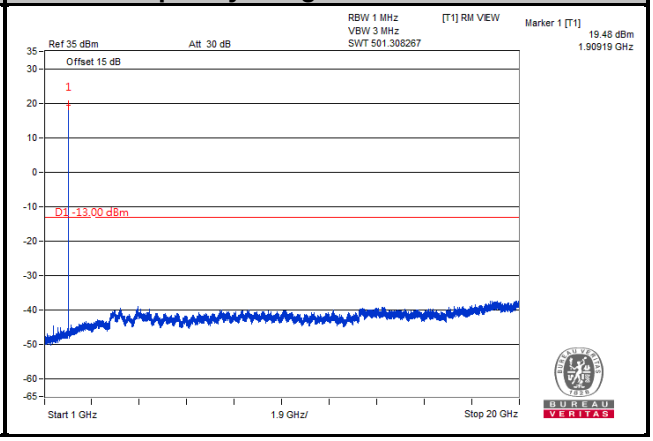
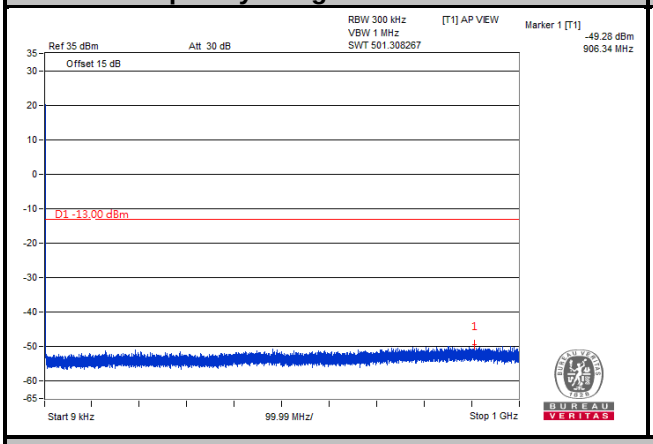
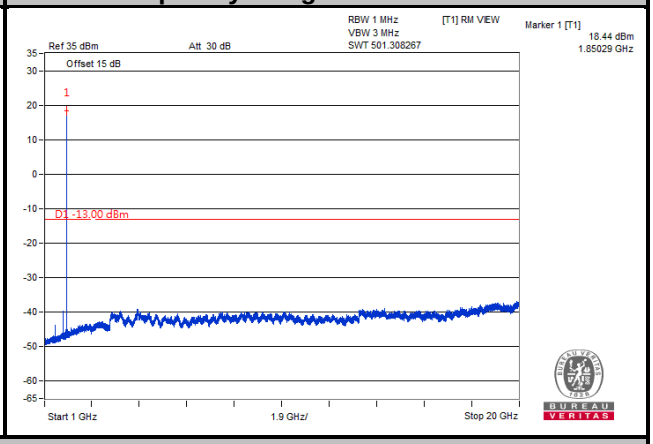
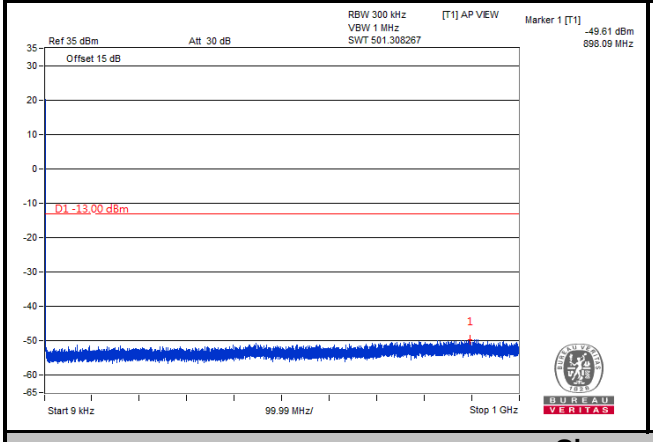
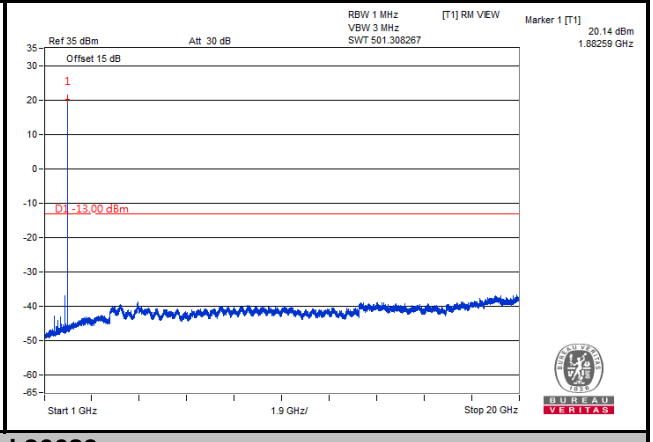
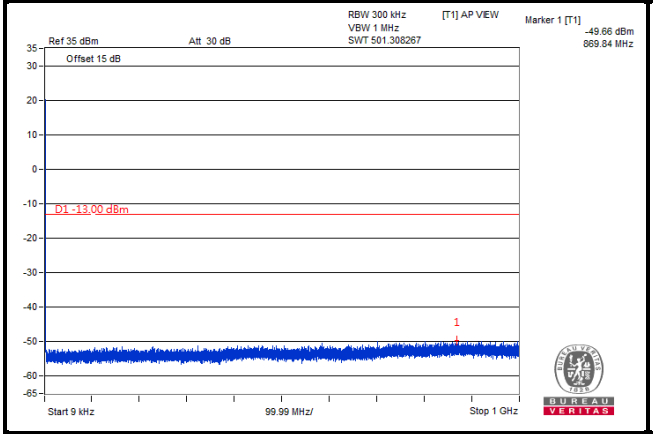
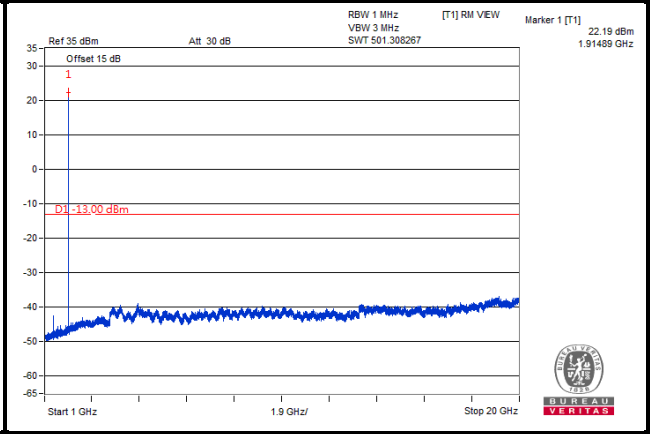
LTE Band 2	
Channel 18601	
Frequency Range: 9 kHz ~ 1 GHz	Frequency Range: 1 GHz ~ 20 GHz
	
Channel 18900	
Frequency Range: 9 kHz ~ 1 GHz	Frequency Range: 1 GHz ~ 20 GHz
	
Channel 19199	
Frequency Range: 9 kHz ~ 1 GHz	Frequency Range: 1 GHz ~ 20 GHz
	

Note: The signal over the limit in 9 kHz is from spectrum analyzer.

LTE Band 25	
Channel 26041	
Frequency Range: 9 kHz ~ 1 GHz	Frequency Range: 1 GHz ~ 20 GHz
	
Channel 26365	
Frequency Range: 9 kHz ~ 1 GHz	Frequency Range: 1 GHz ~ 20 GHz
	
Channel 26689	
Frequency Range: 9 kHz ~ 1 GHz	Frequency Range: 1 GHz ~ 20 GHz
	

Note: The signal over the limit in 9 kHz is from spectrum analyzer.

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.

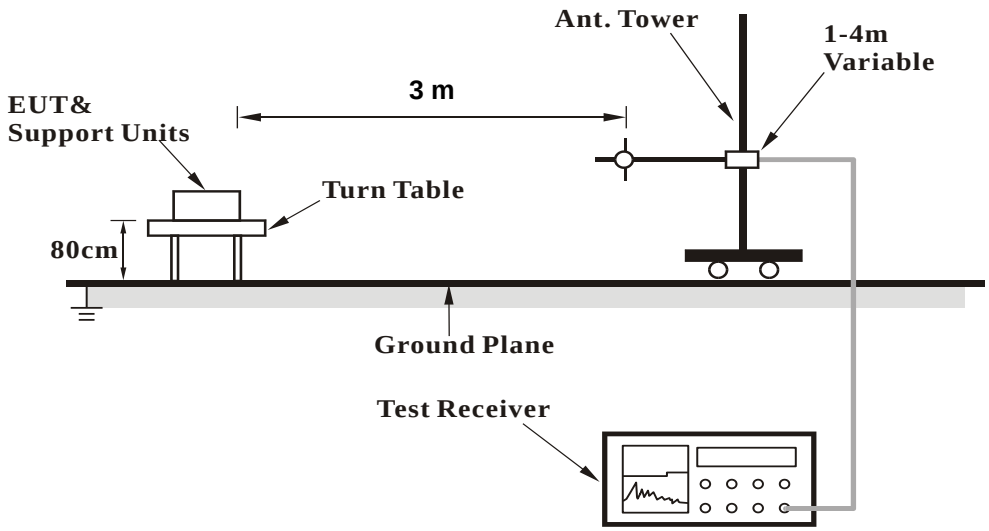
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz.

4.8.3 Deviation from Test Standard

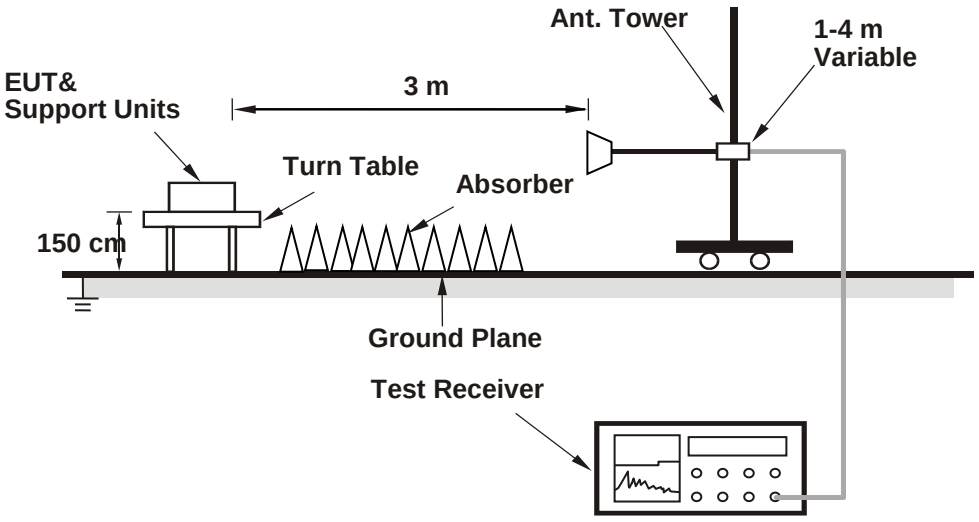
No deviation.

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

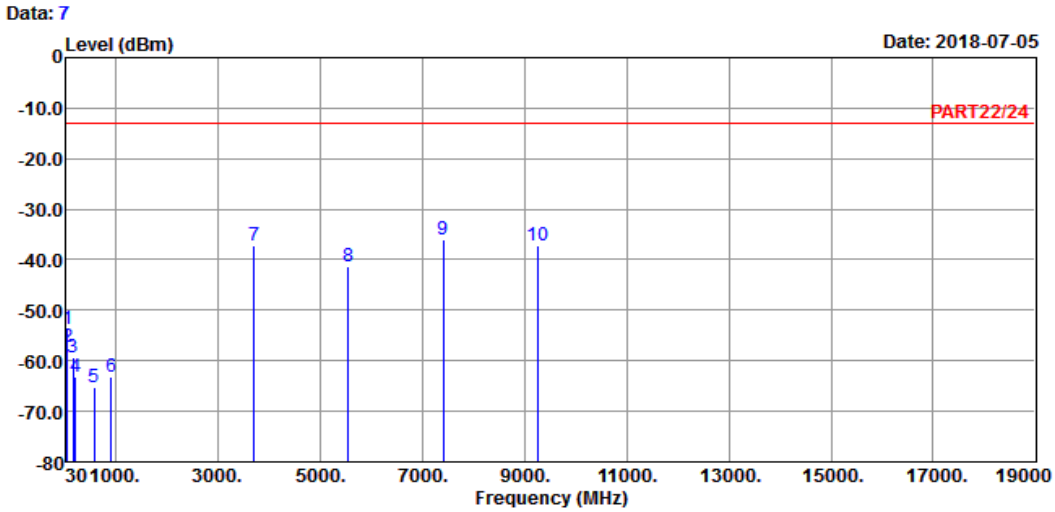
Cat-M1

LTE Band 2

Channel Bandwidth: 1.4 MHz / QPSK

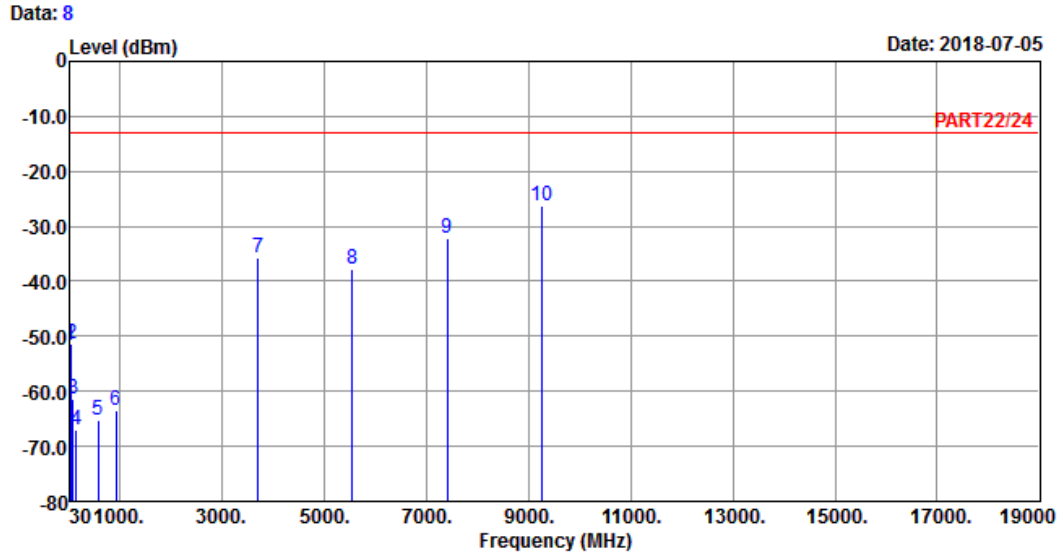
Low Channel

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

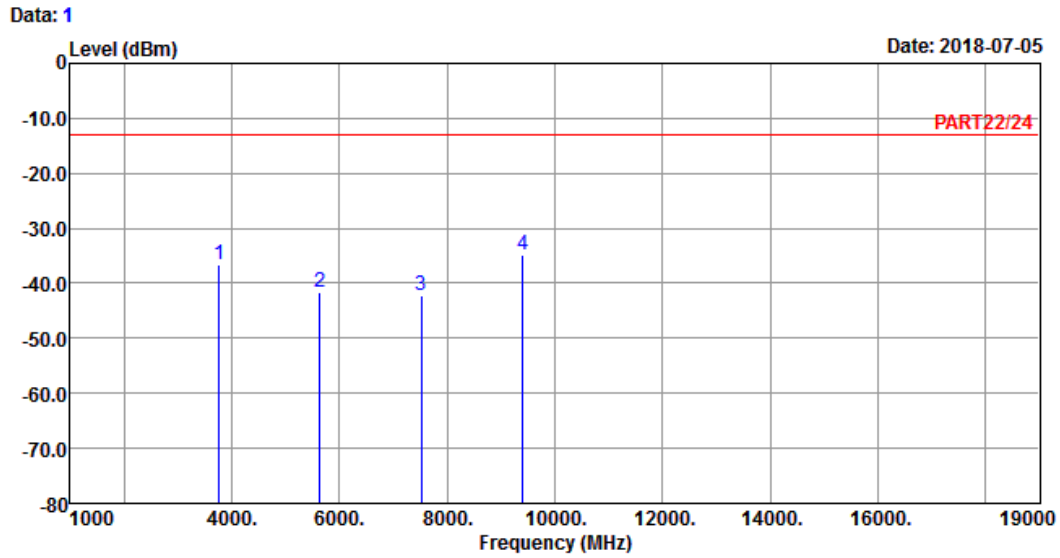


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_L-CH
Tested by: Thomas Wei

	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

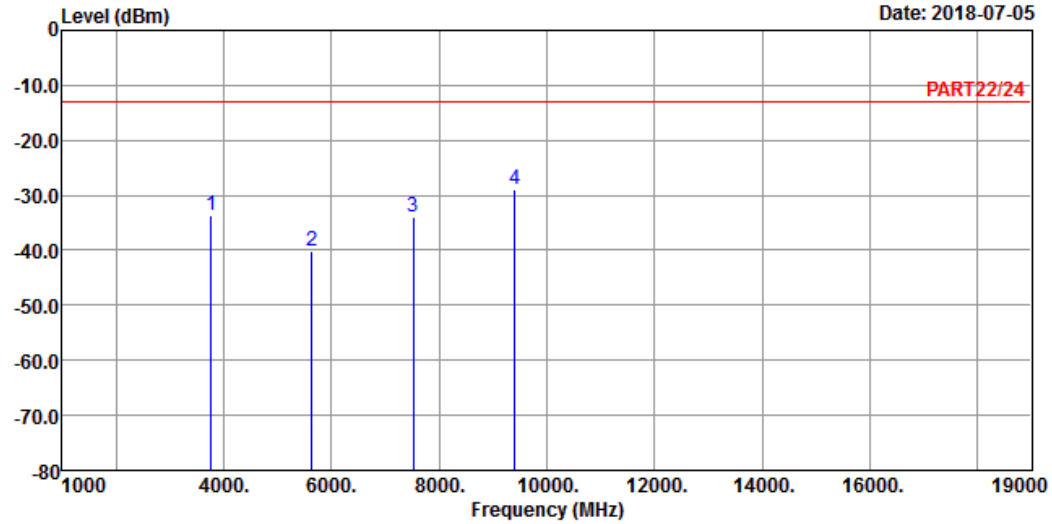
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

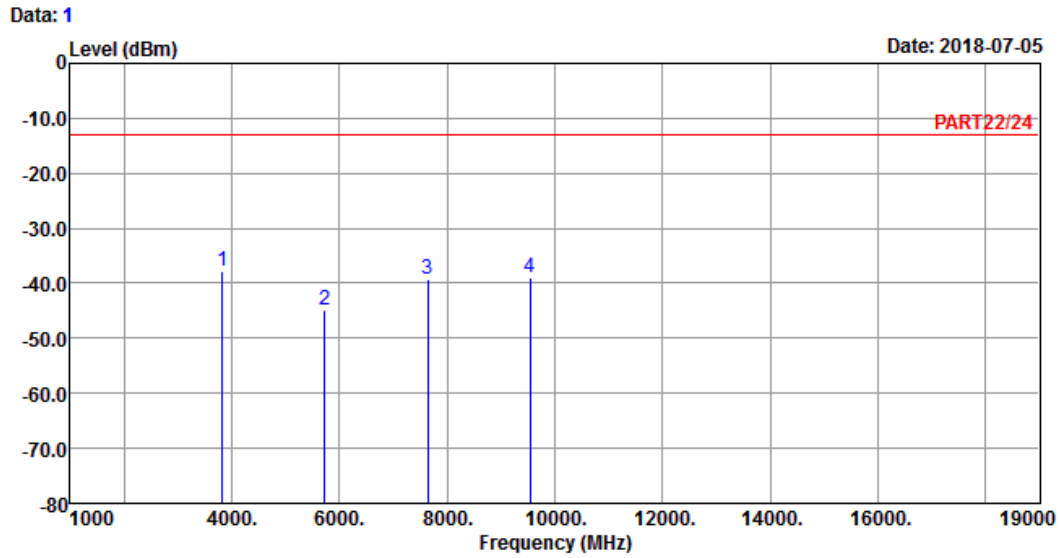


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_M-CH
Tested by: Thomas Wei

	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

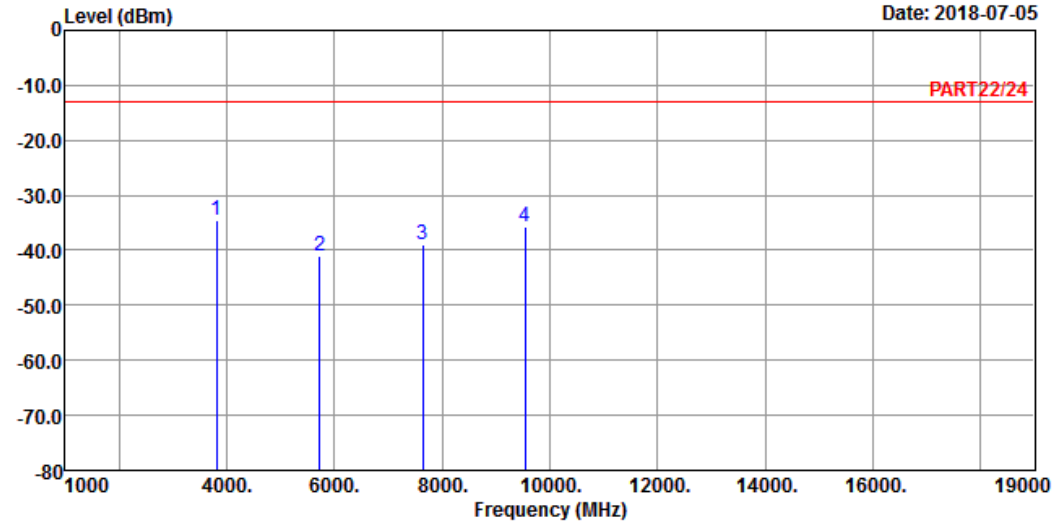
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

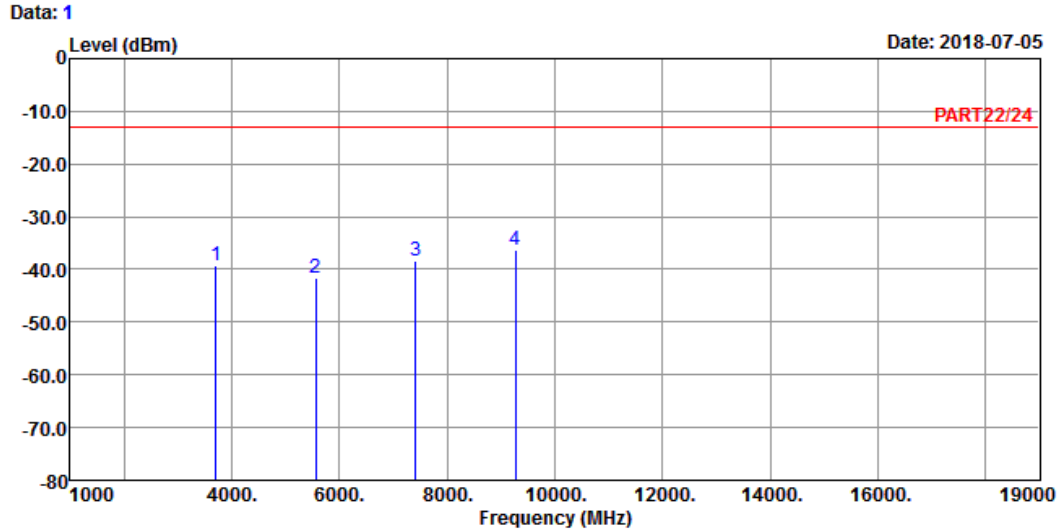


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_1.4M Link_H-CH
Tested by: Thomas Wei

	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

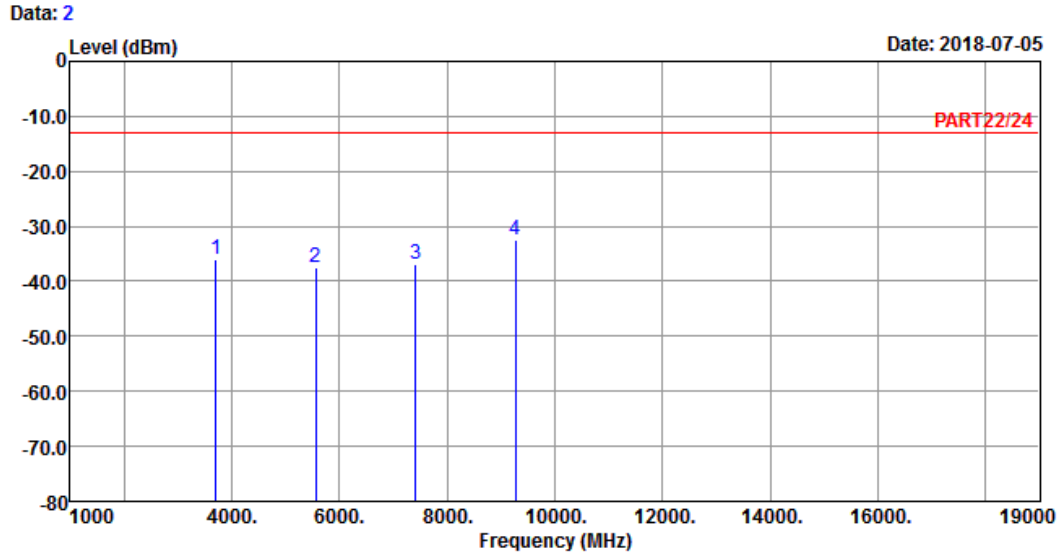
Channel Bandwidth: 5 MHz / QPSK
Low Channel

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

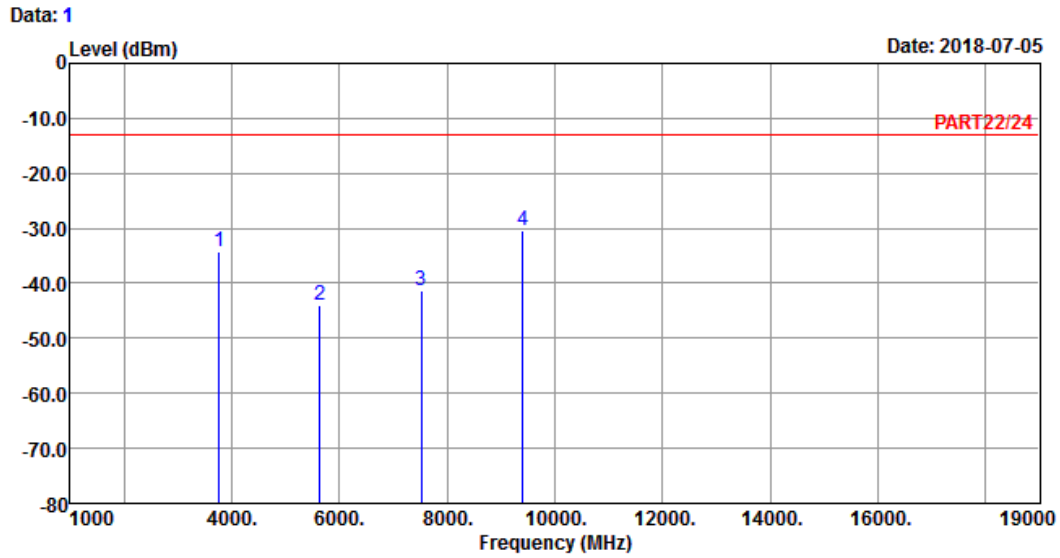


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_L-CH
Tested by: Thomas Wei

	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

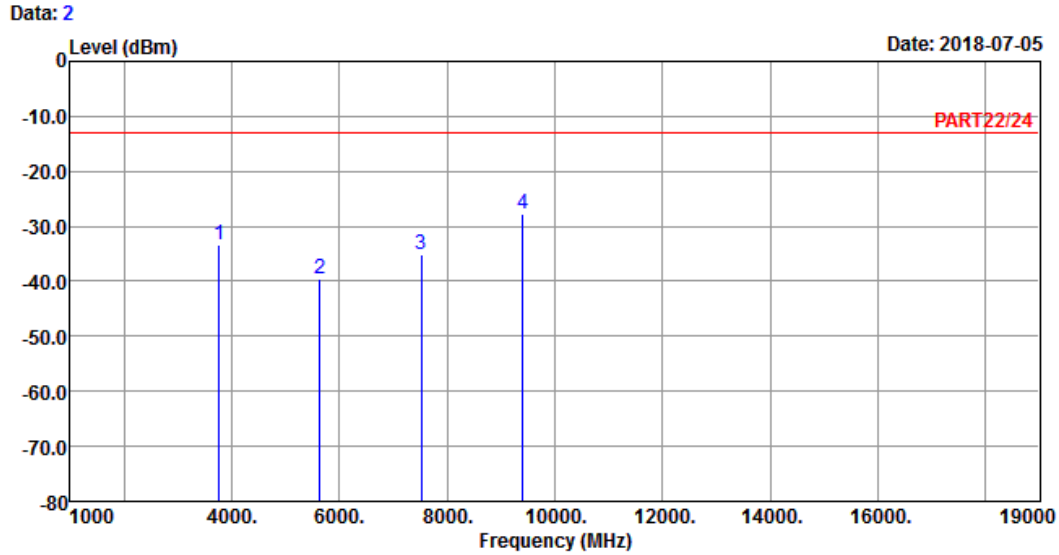
Middle Channel

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

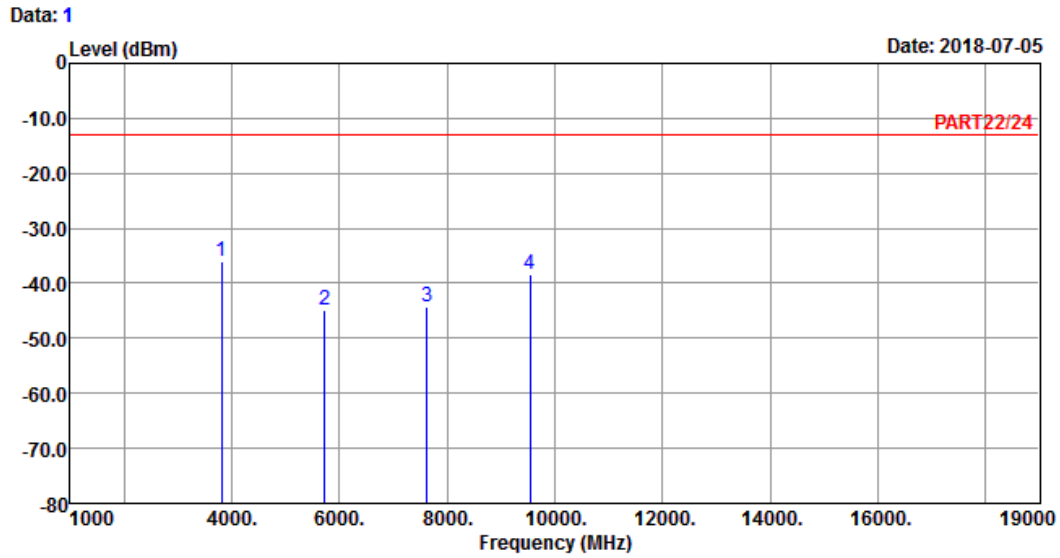


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_M-CH
Tested by: Thomas Wei

	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

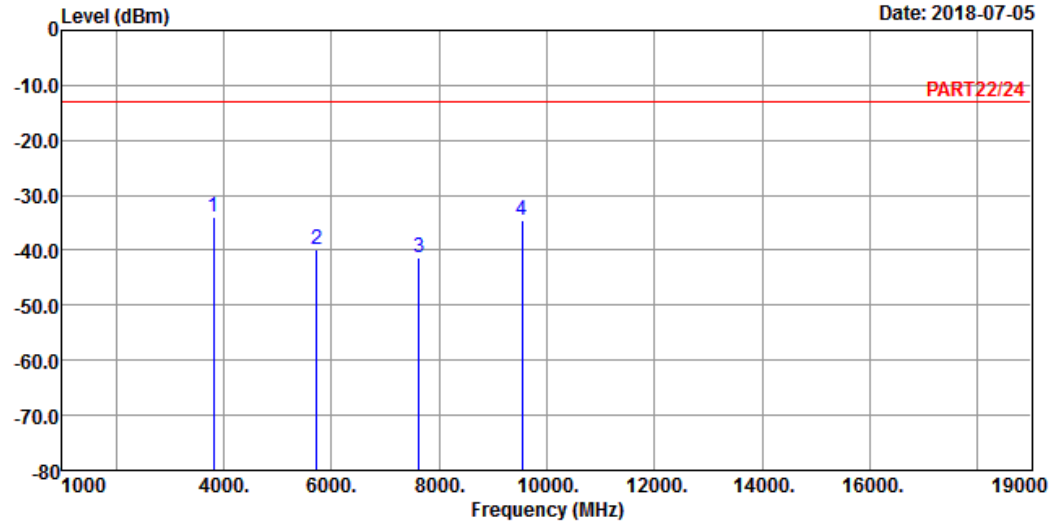
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

Data: 2

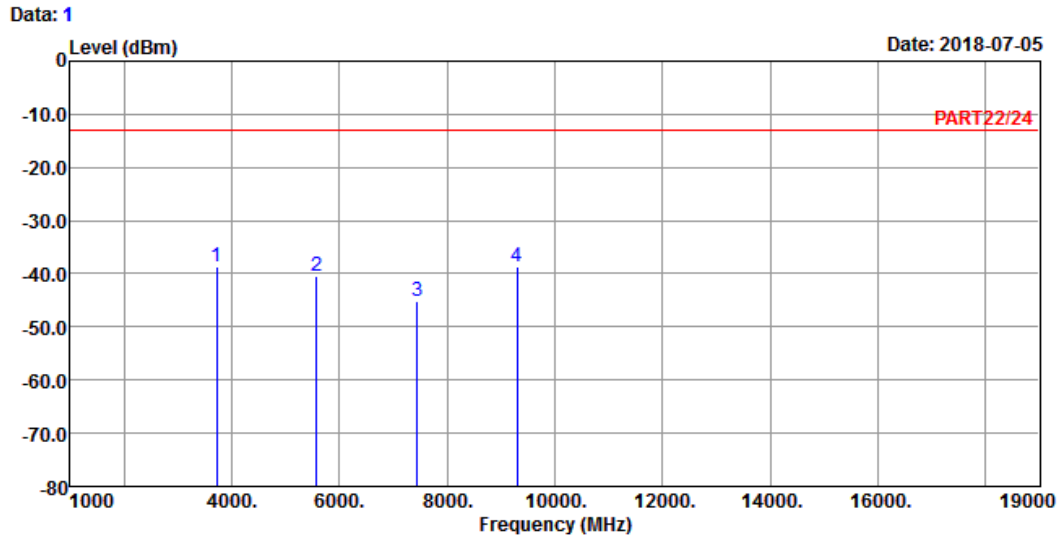


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_5M Link_H-CH
Tested by: Thomas Wei

	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

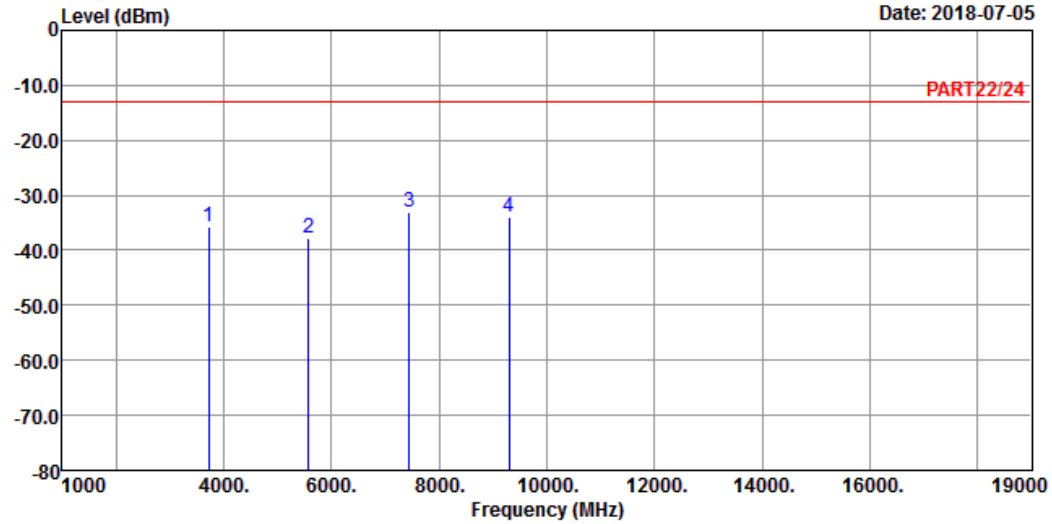
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

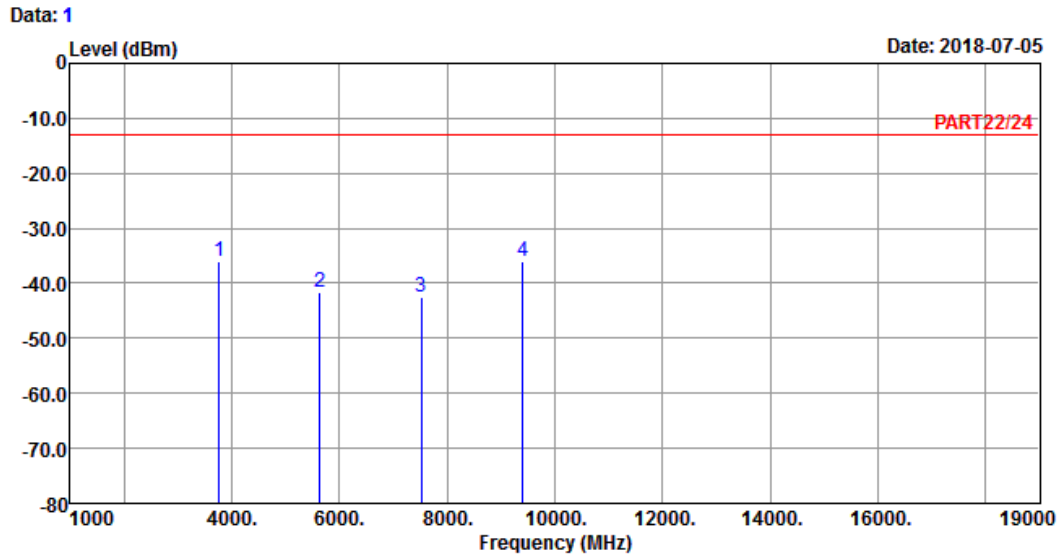


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_20M Link_L-CH
Tested by: Thomas Wei

	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

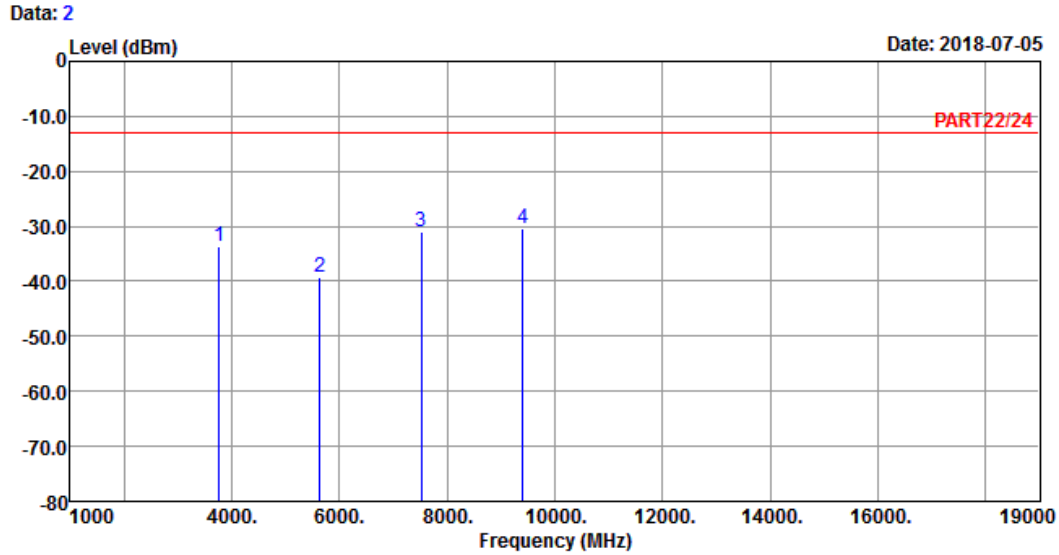
Middle Channel

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

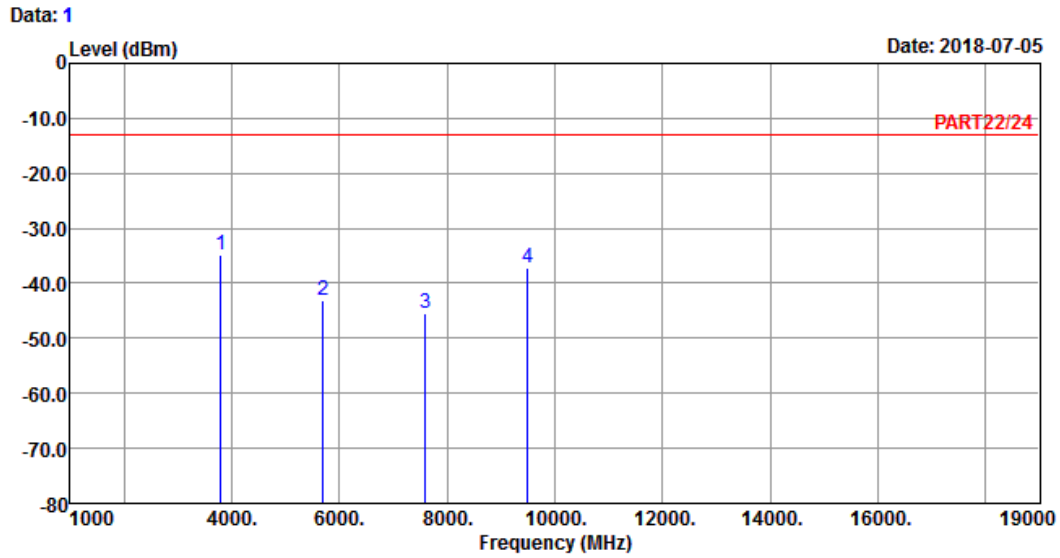


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_20M Link_M-CH
Tested by: Thomas Wei

	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

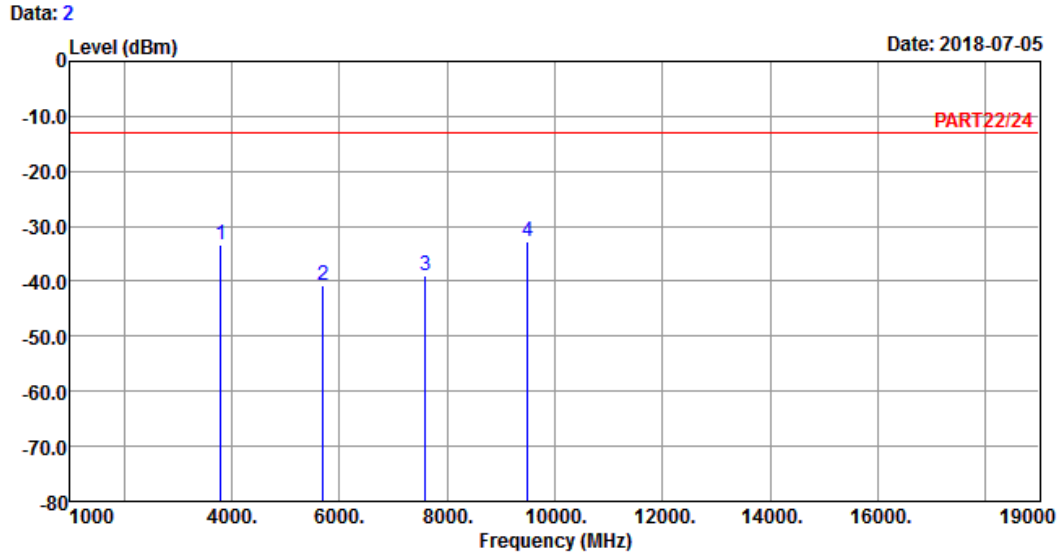
High Channel

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

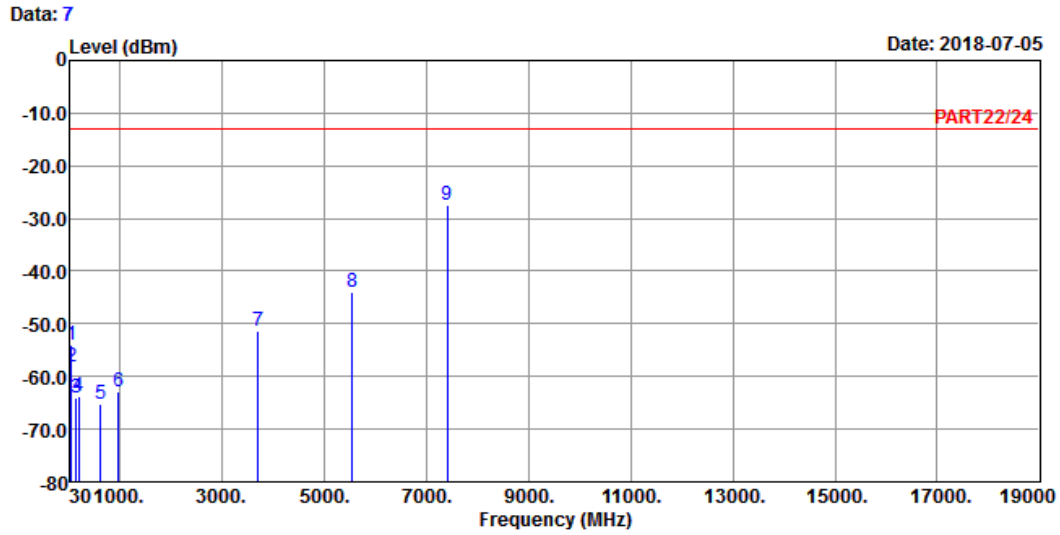


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 2 QPSK_20M Link_H-CH
Tested by: Thomas Wei

	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

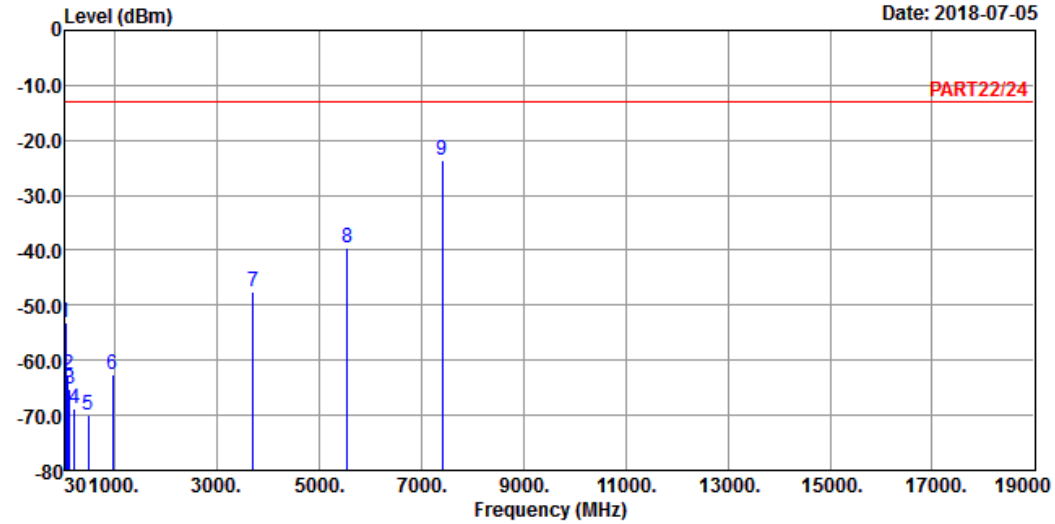
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

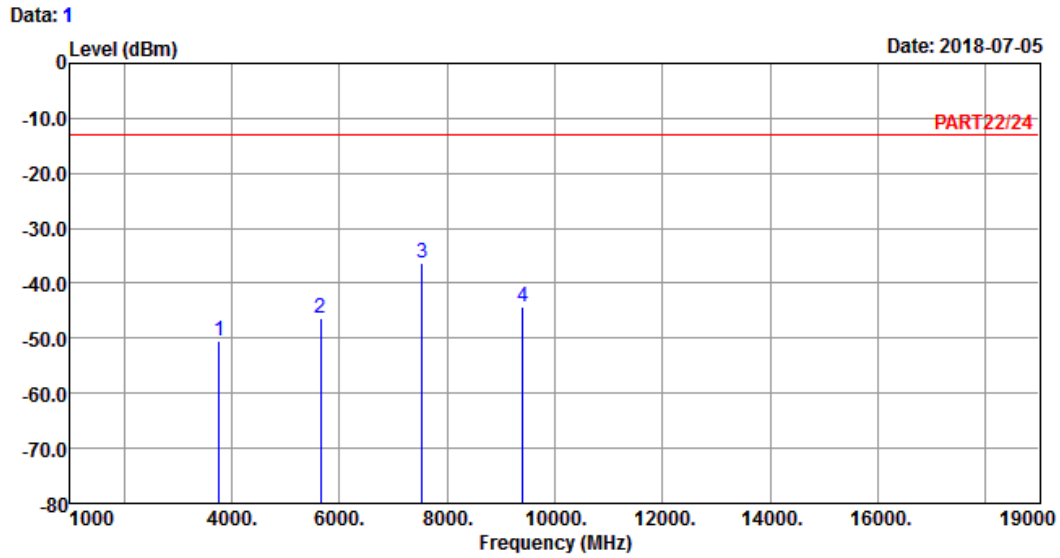


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_L-CH
Tested by: Thomas Wei

	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

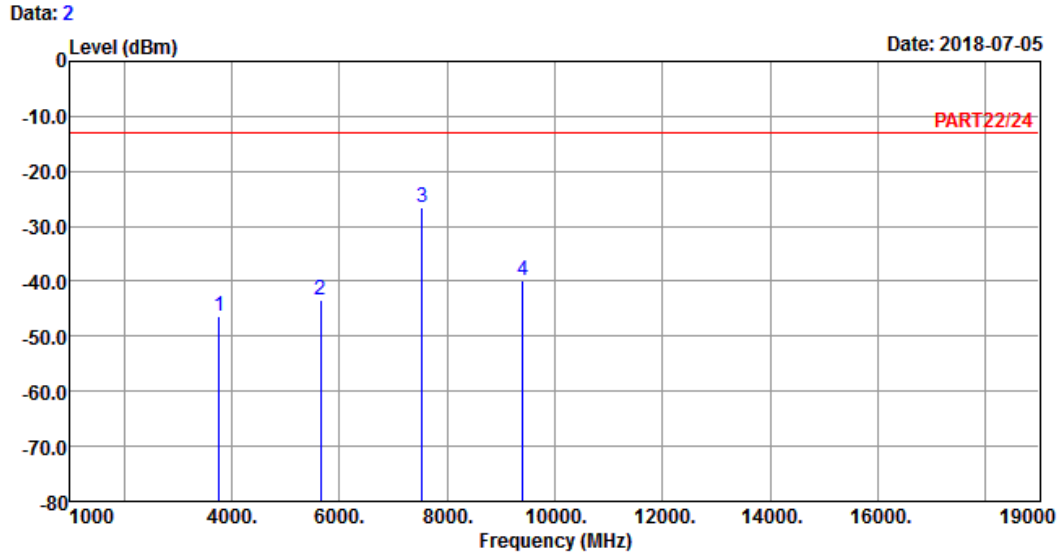
Middle Channel

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

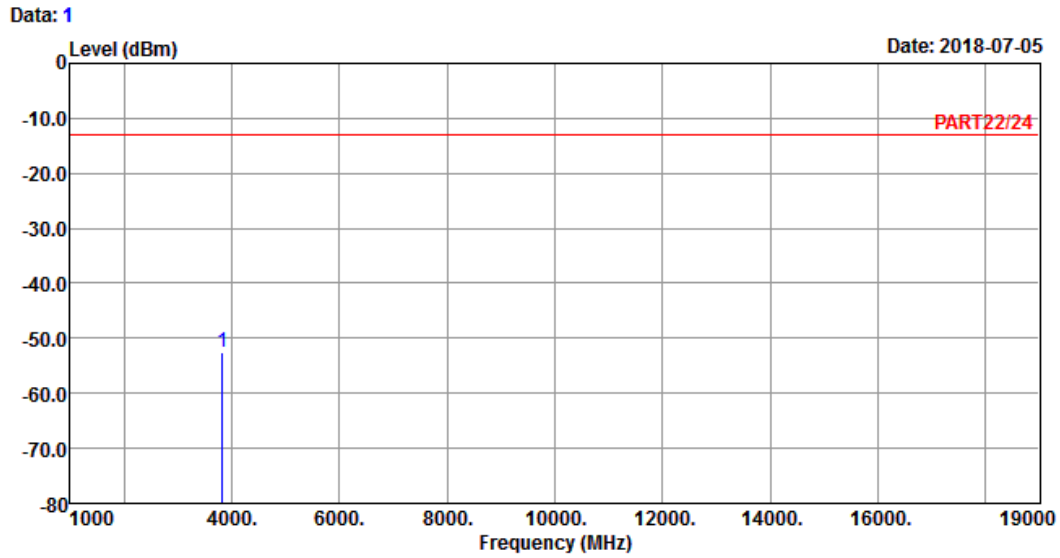


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_M-CH
Tested by: Thomas Wei

	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

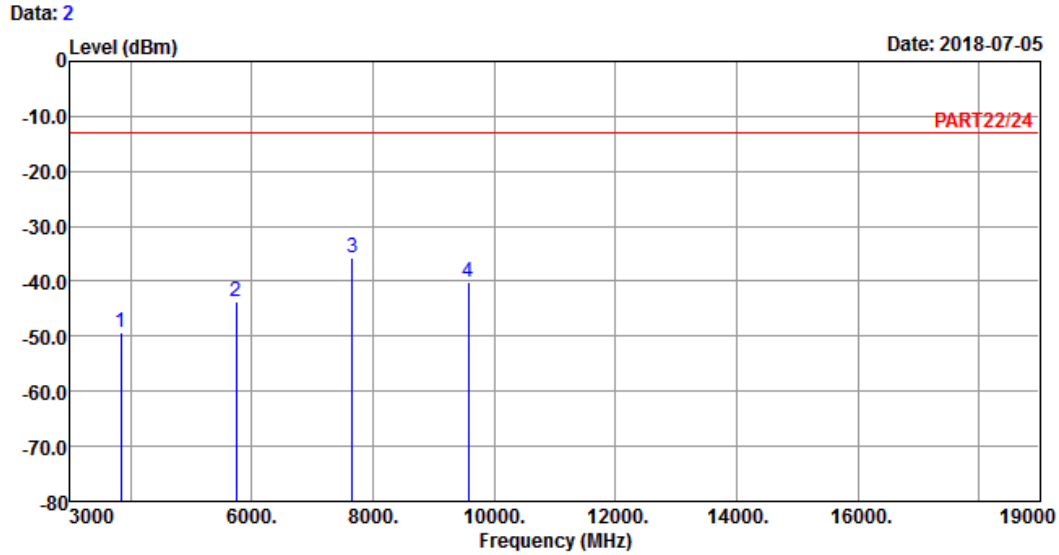
High Channel

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

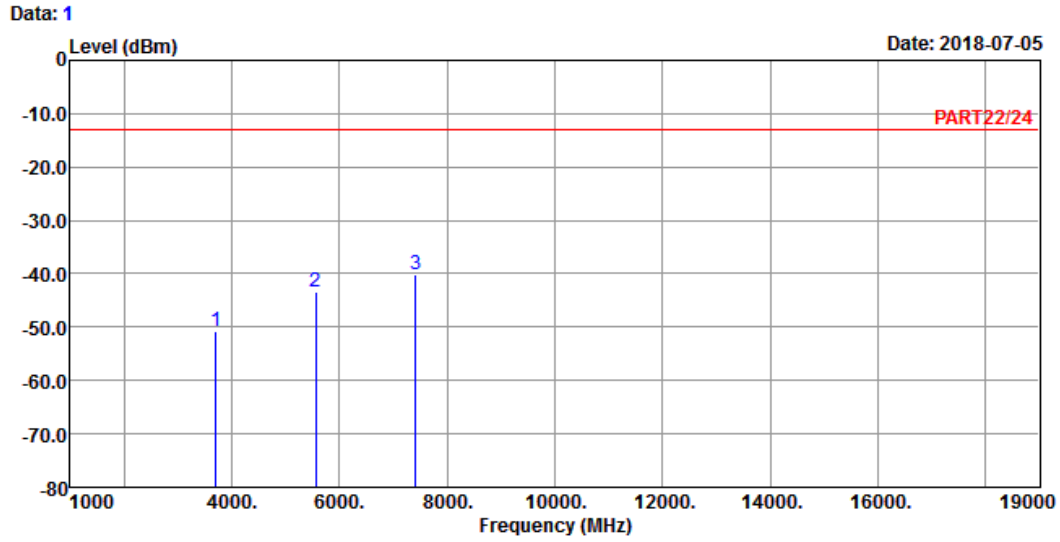


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_1.4M Link_H-CH
Tested by: Thomas Wei

	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

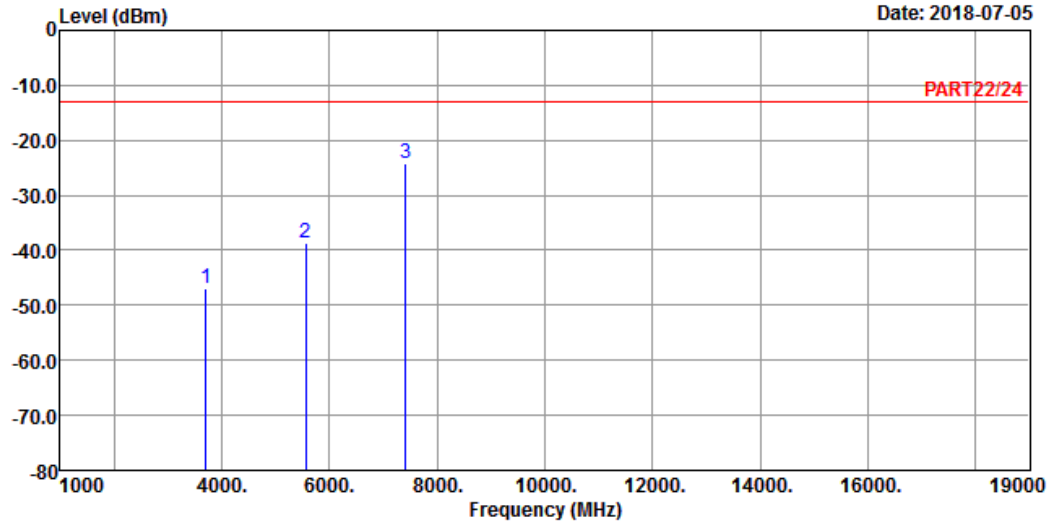
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

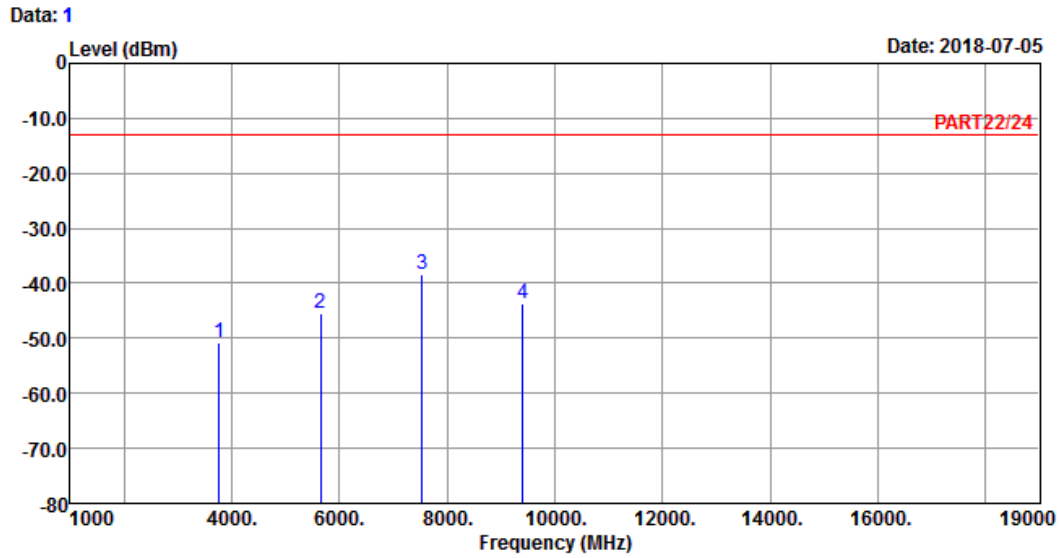


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_5M Link_L-CH
Tested by: Thomas Wei

	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

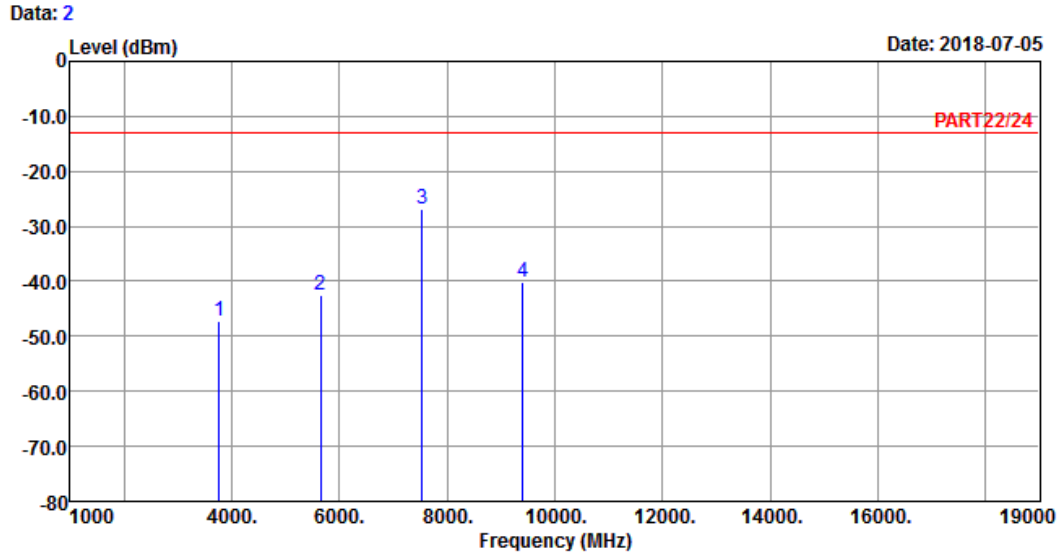
Middle Channel

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

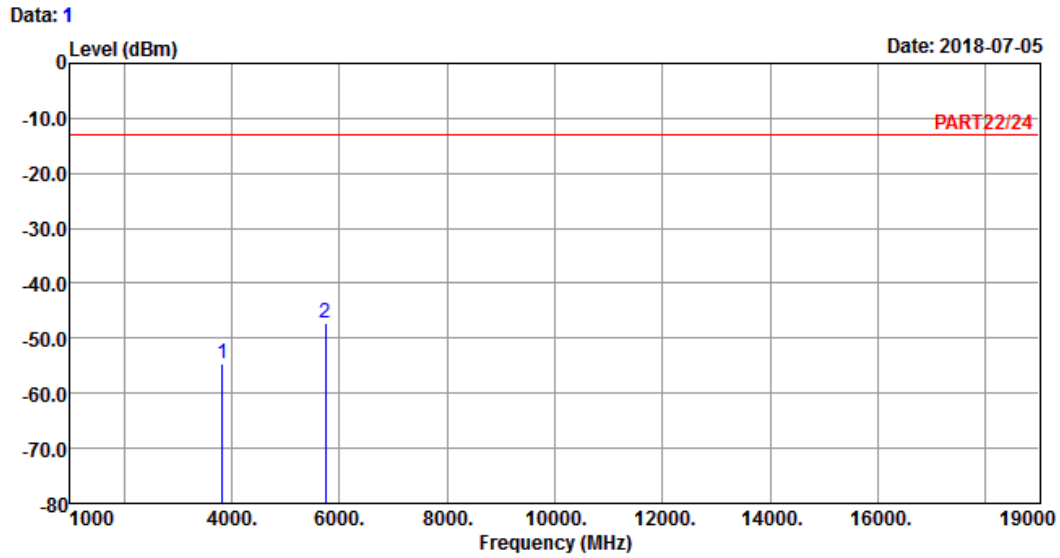


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_5M Link_M-CH
Tested by: Thomas Wei

	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

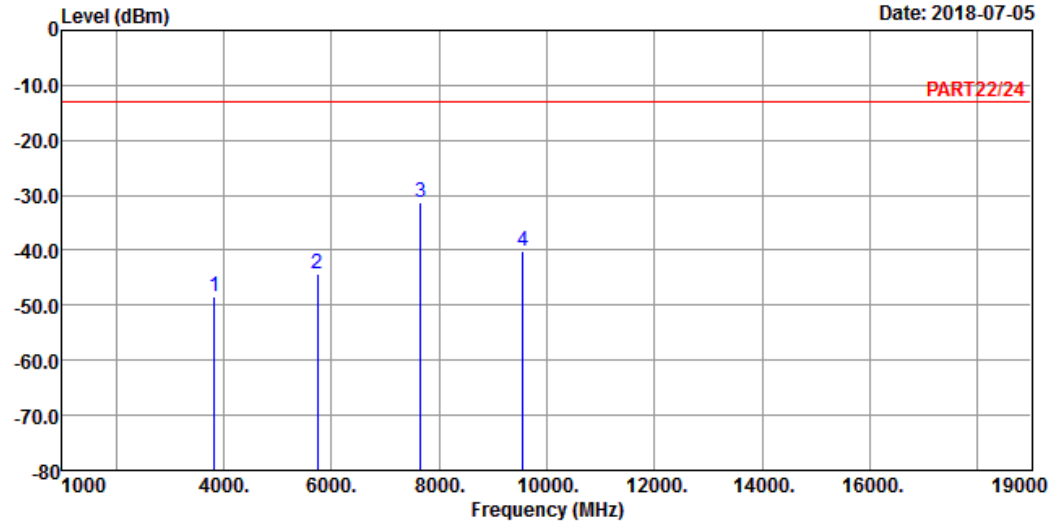
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

Data: 2

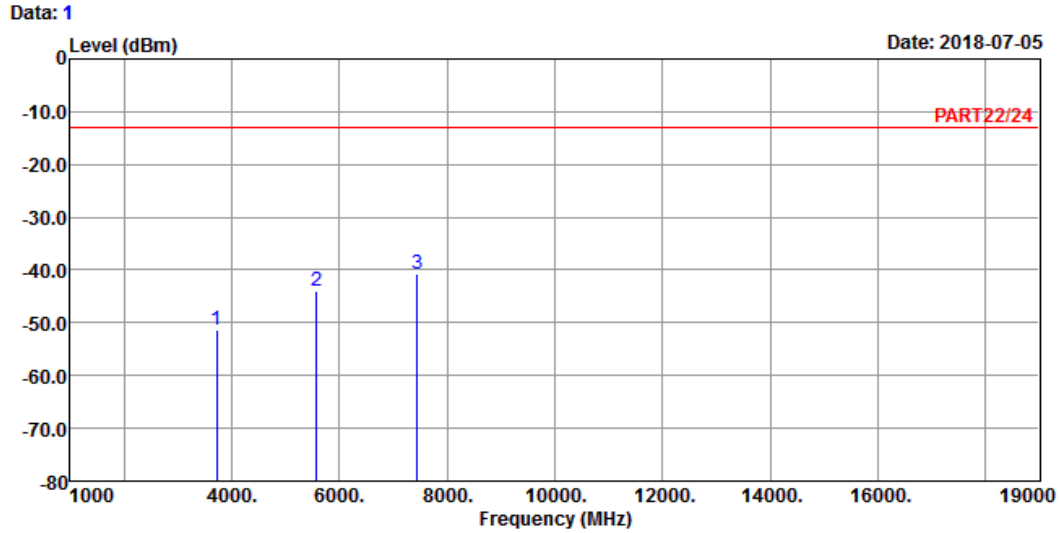


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_5M Link_H-CH
Tested by: Thomas Wei

	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

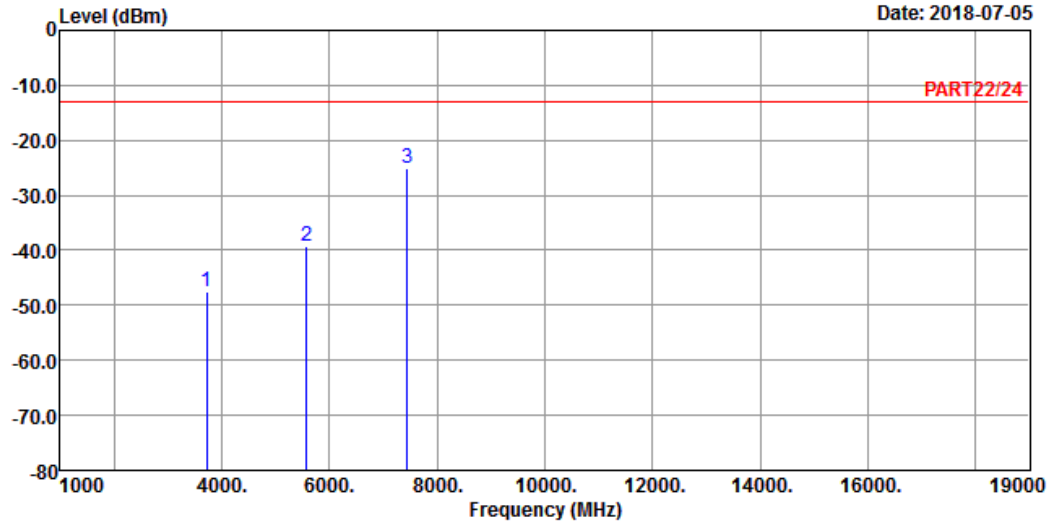
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

Data: 2

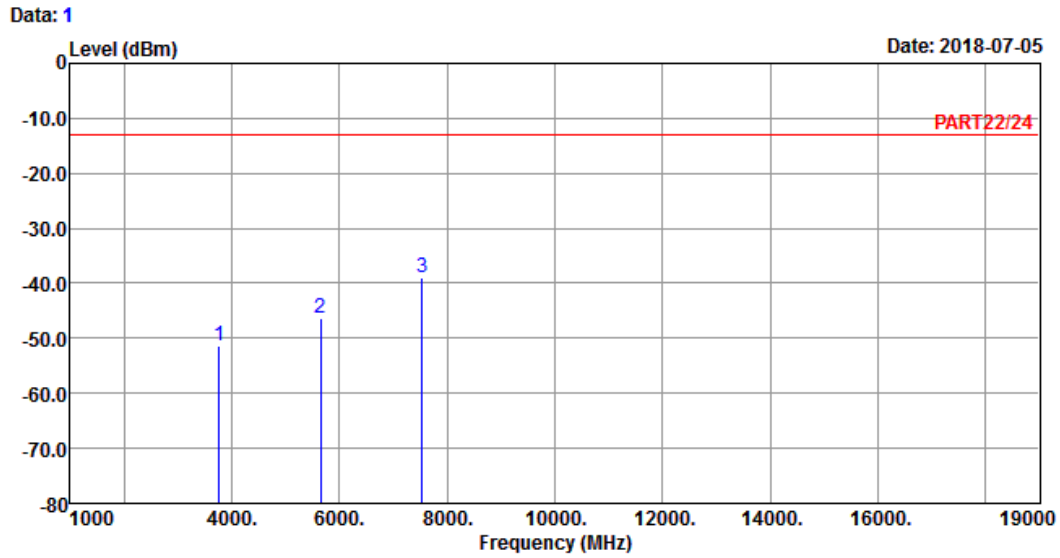


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_20M Link_L-CH
Tested by: Thomas Wei

	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

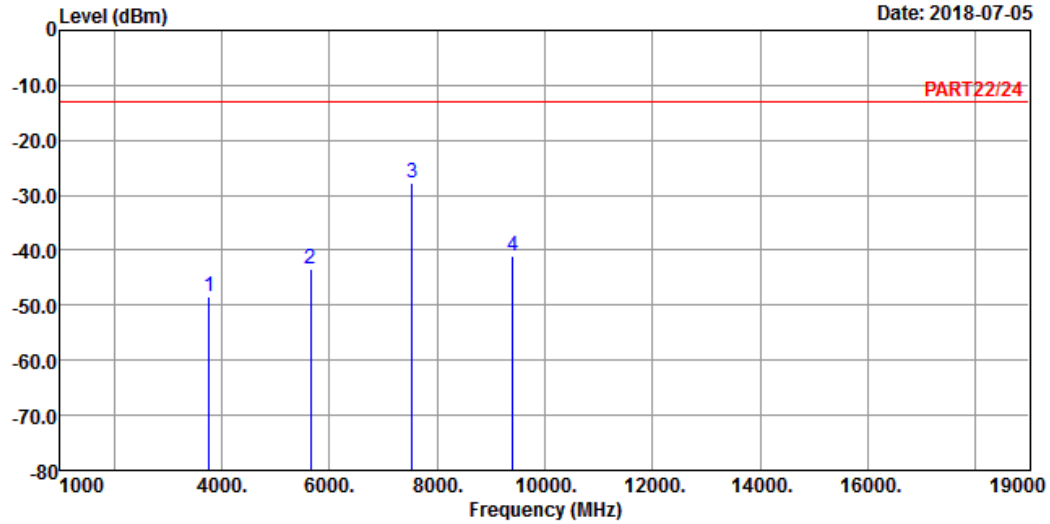
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

Data: 2

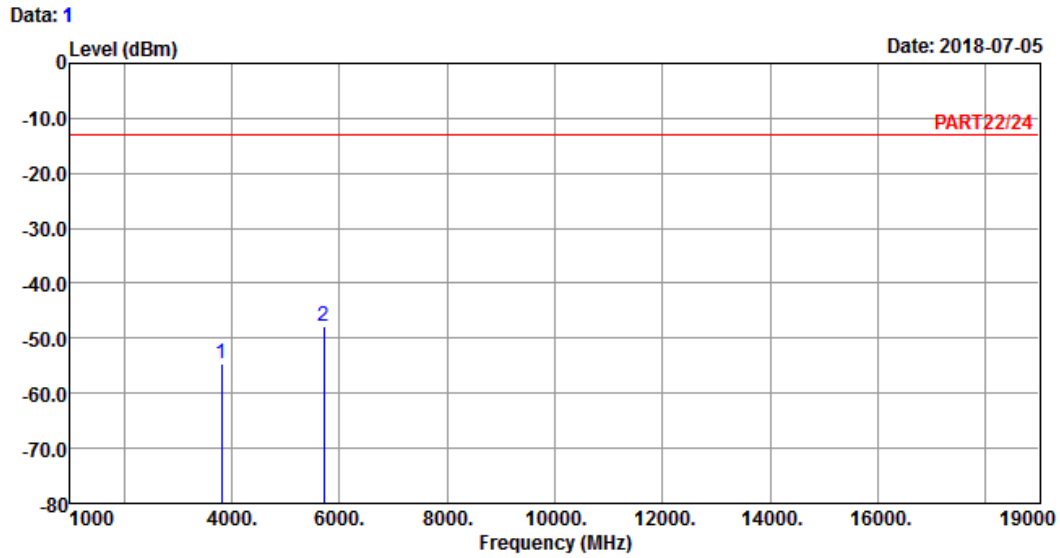


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : Cat-M1 Band 25 QPSK_20M Link_M-CH
Tested by: Thomas Wei

	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

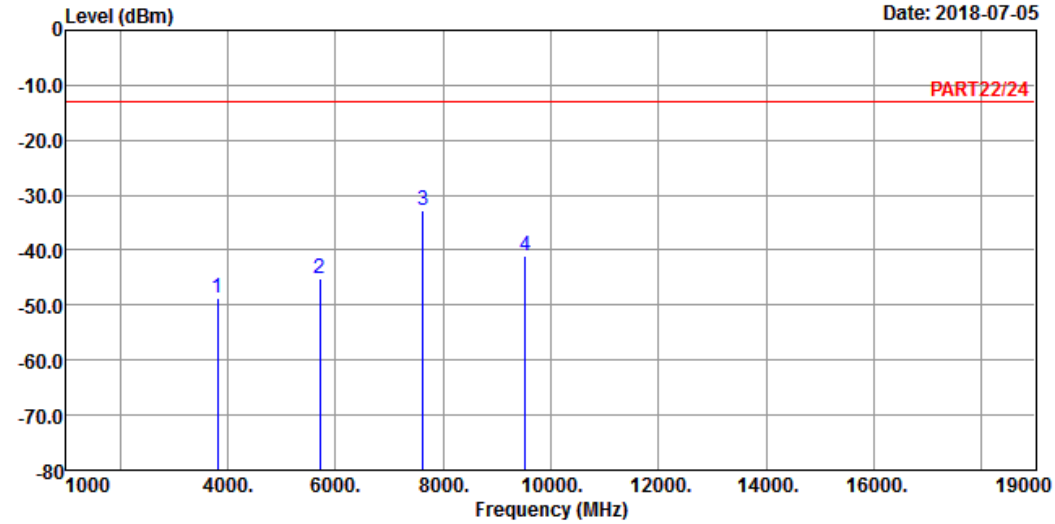
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



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

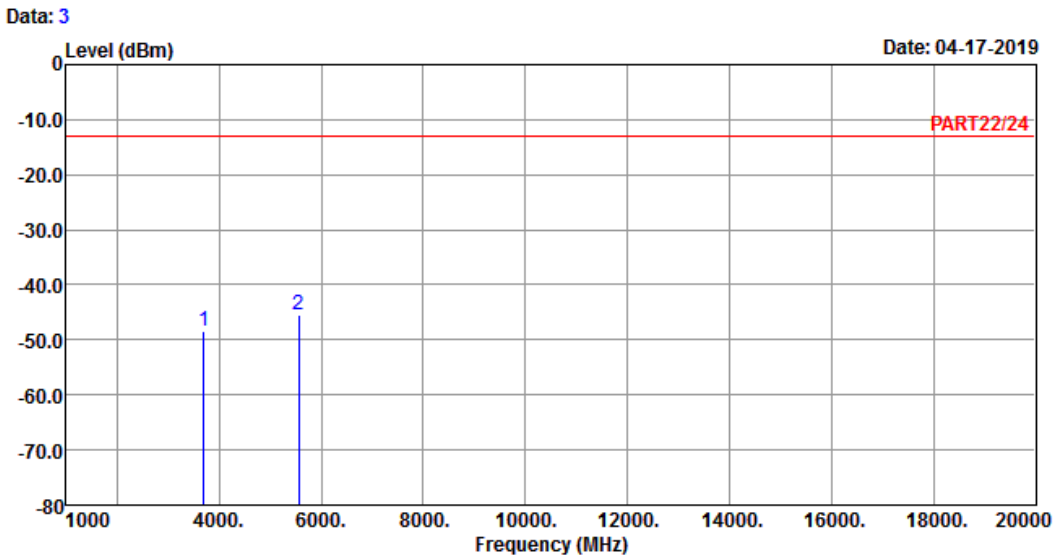
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3810.00	-48.85	-42.48	-13.00	-35.85	-6.37	Peak
2	5715.00	-45.11	-43.46	-13.00	-32.11	-1.65	Peak
3 pp	7620.00	-32.88	-37.43	-13.00	-19.88	4.55	Peak
4	9525.00	-40.90	-46.32	-13.00	-27.90	5.42	Peak

NB-IoT

LTE Band 2

Low Channel

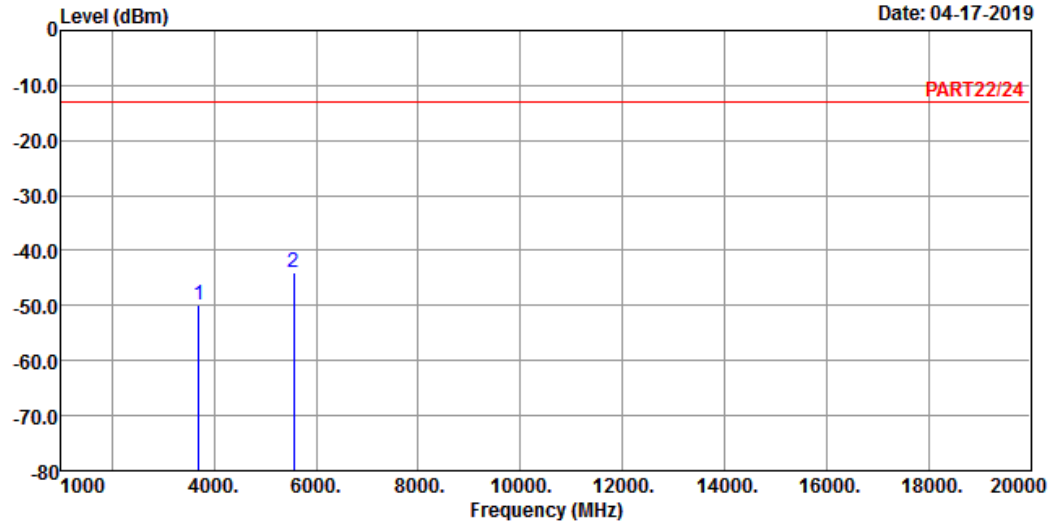
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : NB-IOT Band 2 Stand-alone_Link_L-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3700.20	-48.42	-41.49	-13.00	-6.93	-35.42	Peak
2 pp	5550.30	-45.34	-43.44	-13.00	-1.90	-32.34	Peak

Data: 4

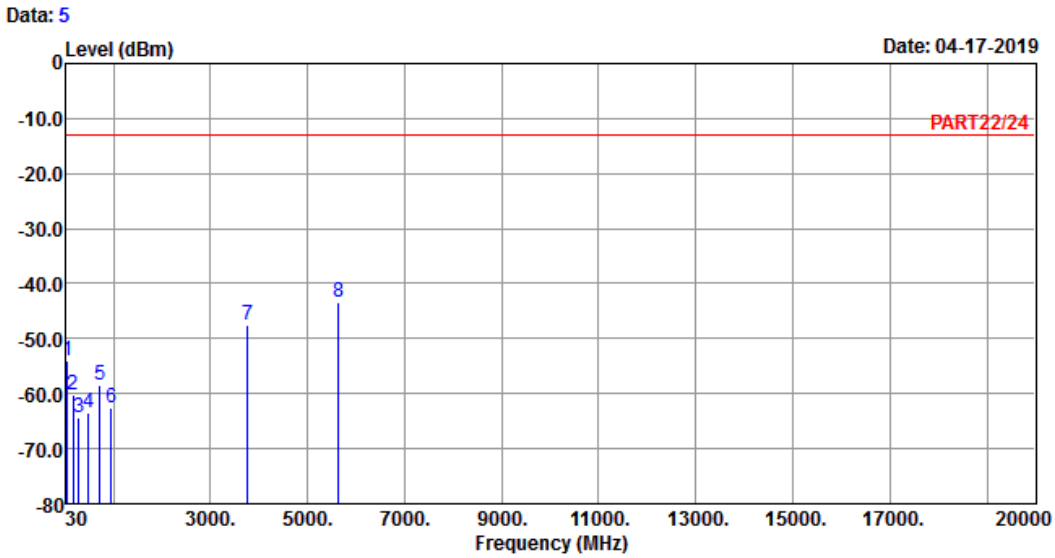


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : NB-IOT Band 2 Stand-alone_Link_L-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3700.20	-49.94	-43.01	-13.00	-6.93	-36.94	Peak
2 pp	5550.30	-44.13	-42.23	-13.00	-1.90	-31.13	Peak

Middle Channel

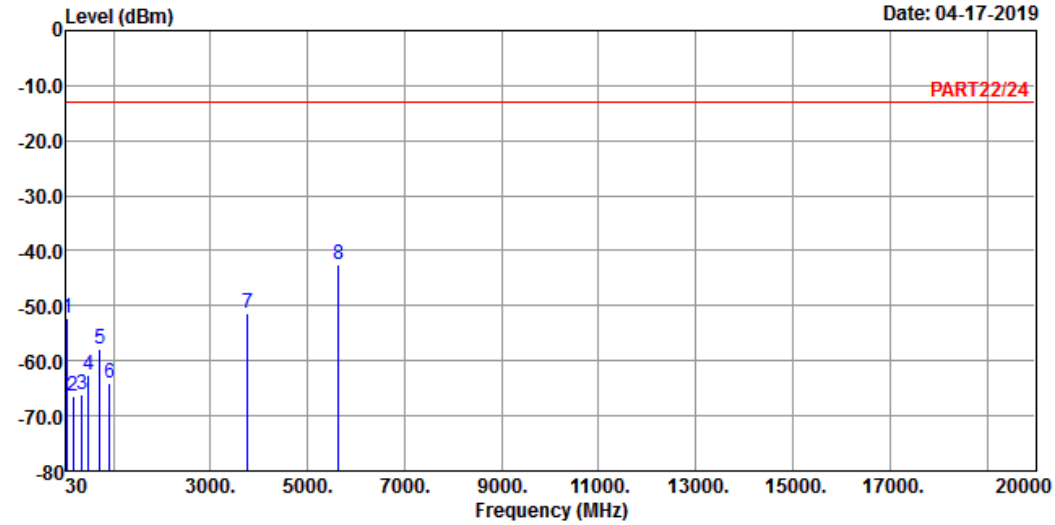
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : NB-IOT Band 2 Stand-alone_Link_M-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.58	-54.06	-52.59	-13.00	-1.47	-41.06	Peak
2	168.71	-60.37	-54.91	-13.00	-5.46	-47.37	Peak
3	287.05	-64.42	-57.67	-13.00	-6.75	-51.42	Peak
4	480.08	-63.60	-58.61	-13.00	-4.99	-50.60	Peak
5	716.76	-58.54	-58.77	-13.00	0.23	-45.54	Peak
6	963.14	-62.70	-64.98	-13.00	2.28	-49.70	Peak
7	3760.00	-47.55	-40.90	-13.00	-6.65	-34.55	Peak
8 pp	5640.00	-43.34	-41.48	-13.00	-1.86	-30.34	Peak

Data: 6

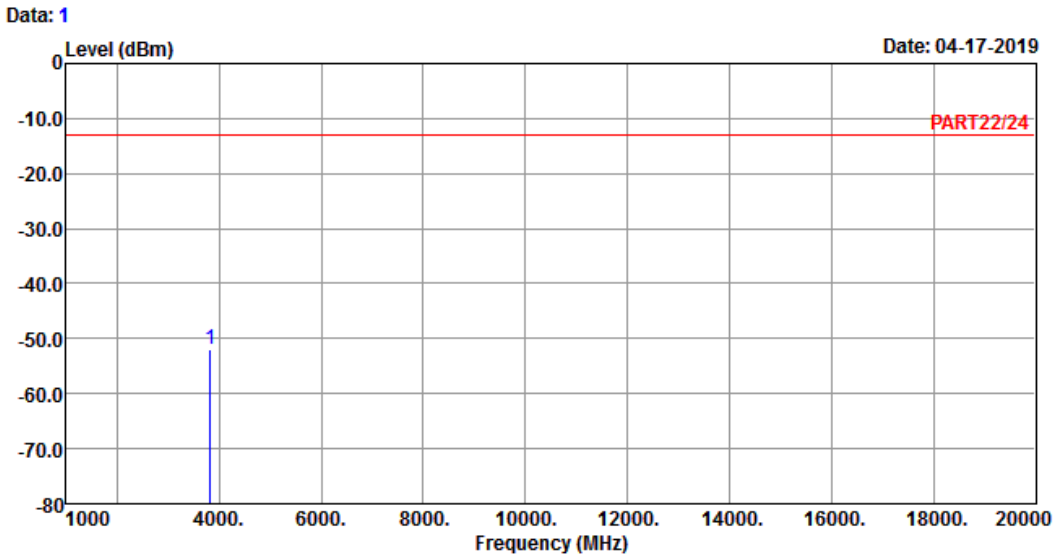


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : NB-IOT Band 2 Stand-alone_Link_M-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.58	-52.25	-50.78	-13.00	-1.47	-39.25	Peak
2	160.95	-66.43	-61.52	-13.00	-4.91	-53.43	Peak
3	360.77	-66.25	-60.07	-13.00	-6.18	-53.25	Peak
4	481.05	-62.54	-57.57	-13.00	-4.97	-49.54	Peak
5	717.73	-57.73	-57.98	-13.00	0.25	-44.73	Peak
6	924.34	-64.08	-65.25	-13.00	1.17	-51.08	Peak
7	3760.00	-51.43	-44.78	-13.00	-6.65	-38.43	Peak
8 pp	5640.00	-42.55	-40.69	-13.00	-1.86	-29.55	Peak

High Channel

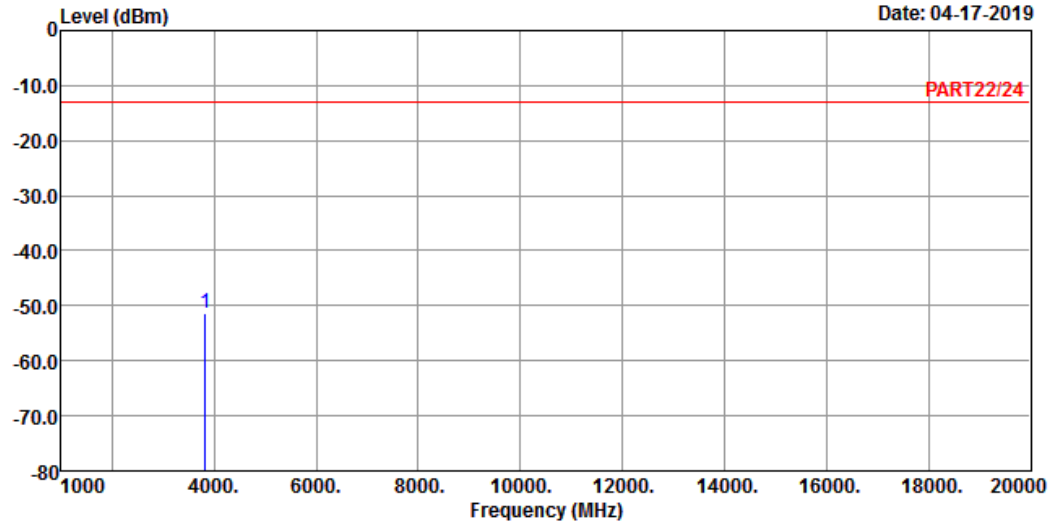
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : NB-IOT Band 2 Stand-alone_Link_H-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3819.80	-51.98	-45.58	-13.00	-6.40	-38.98	Peak

Data: 2

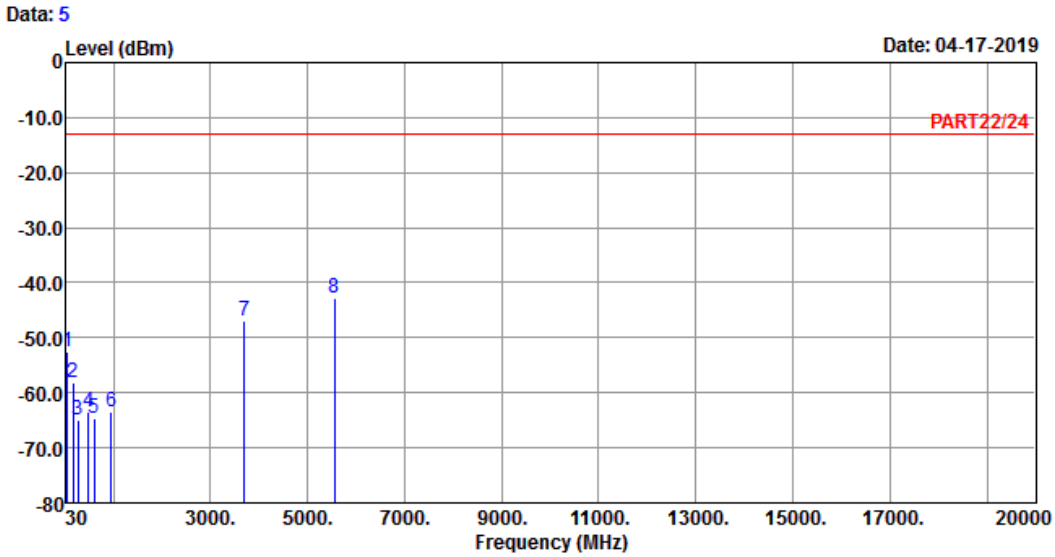


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : NB-IOT Band 2 Stand-alone_Link_H-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3819.80	-51.36	-44.96	-13.00	-6.40	-38.36	Peak

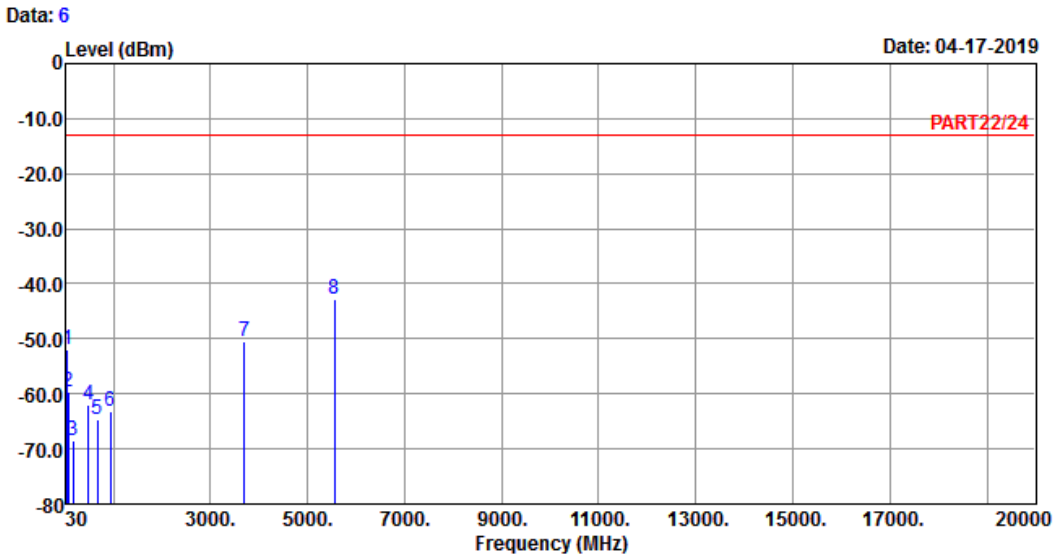
LTE Band 25
Low Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : NB-IOT Band 25 Stand-alone_Link_L-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.58	-52.68	-51.21	-13.00	-1.47	-39.68	Peak
2	160.95	-58.18	-53.27	-13.00	-4.91	-45.18	Peak
3	271.53	-64.95	-58.52	-13.00	-6.43	-51.95	Peak
4	481.05	-63.44	-58.47	-13.00	-4.97	-50.44	Peak
5	600.36	-64.63	-63.88	-13.00	-0.75	-51.63	Peak
6	953.44	-63.50	-65.44	-13.00	1.94	-50.50	Peak
7	3700.20	-46.97	-40.04	-13.00	-6.93	-33.97	Peak
8 pp	5550.30	-42.94	-41.04	-13.00	-1.90	-29.94	Peak

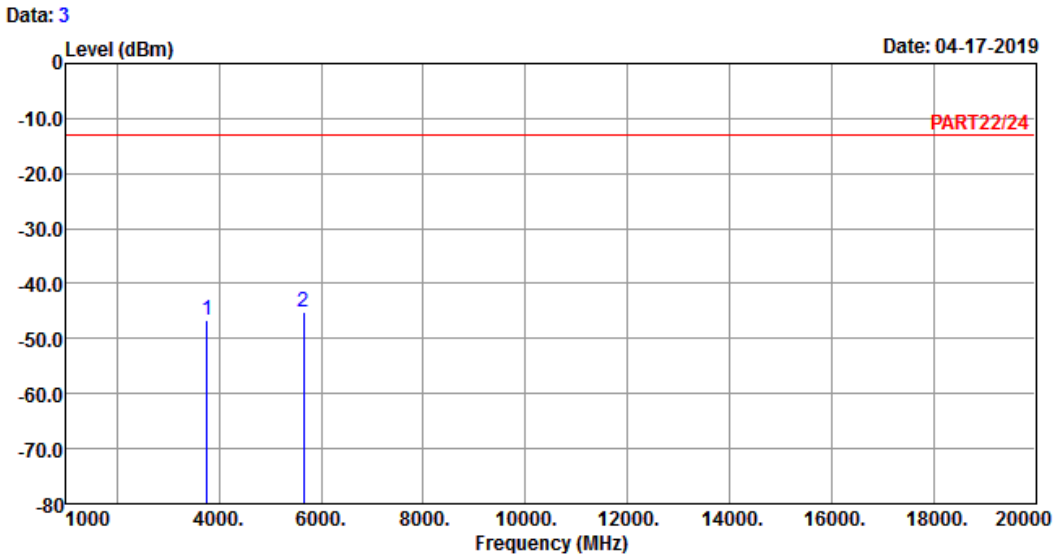


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : NB-IOT Band 25 Stand-alone_Link_L-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.58	-52.04	-50.57	-13.00	-1.47	-39.04	Peak
2	68.80	-59.70	-51.38	-13.00	-8.32	-46.70	Peak
3	161.92	-68.57	-63.59	-13.00	-4.98	-55.57	Peak
4	481.05	-62.03	-57.06	-13.00	-4.97	-49.03	Peak
5	664.38	-64.67	-64.01	-13.00	-0.66	-51.67	Peak
6	938.89	-63.13	-64.66	-13.00	1.53	-50.13	Peak
7	3700.20	-50.62	-43.69	-13.00	-6.93	-37.62	Peak
8 pp	5550.30	-42.82	-40.92	-13.00	-1.90	-29.82	Peak

Middle Channel

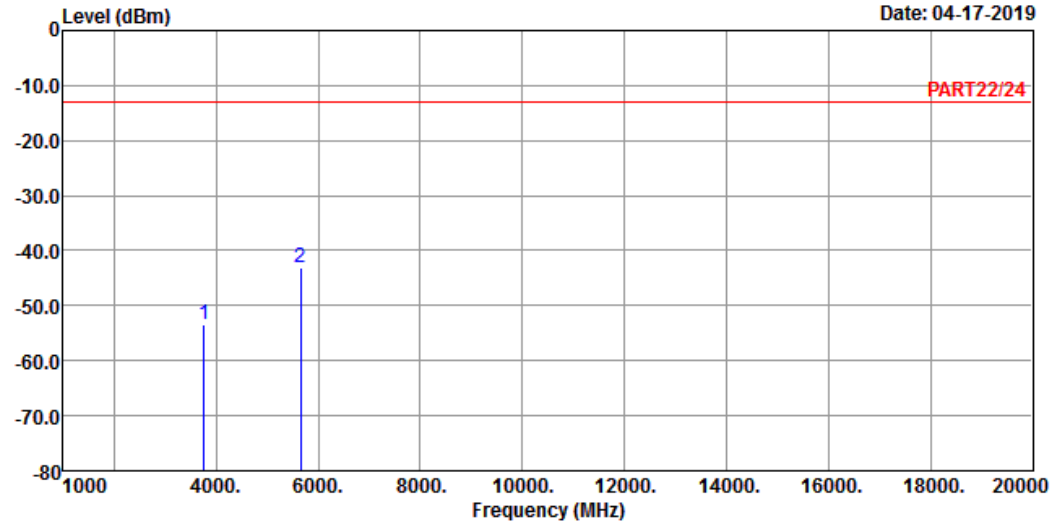
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : NB-IOT Band 25 Stand-alone_Link_M-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-46.75	-40.15	-13.00	-6.60	-33.75	Peak
2 pp	5647.50	-45.10	-43.27	-13.00	-1.83	-32.10	Peak

Data: 4

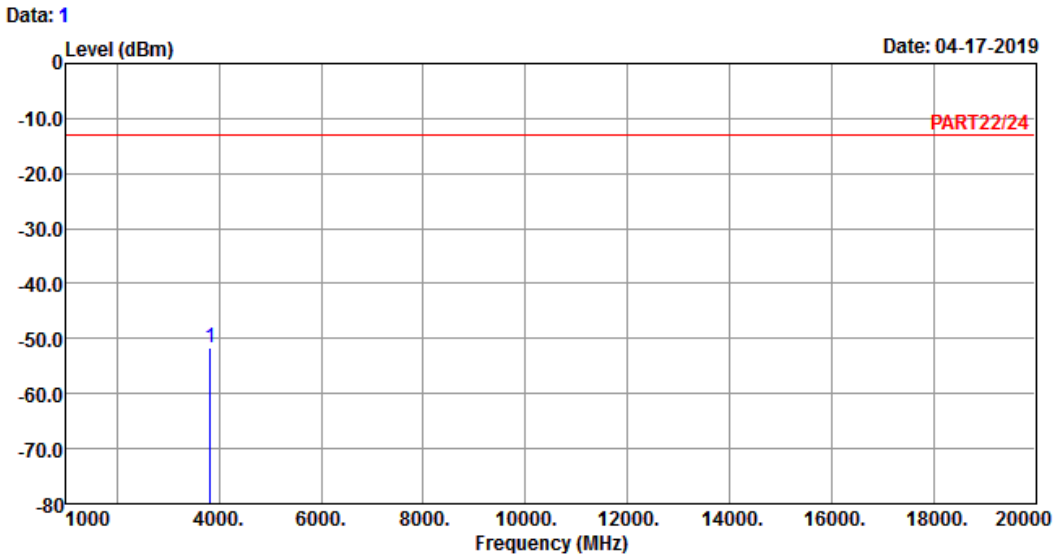


Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : NB-IOT Band 25 Stand-alone_Link_M-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3765.00	-53.41	-46.81	-13.00	-6.60	-40.41	Peak
2 pp	5647.50	-43.01	-41.18	-13.00	-1.83	-30.01	Peak

High Channel

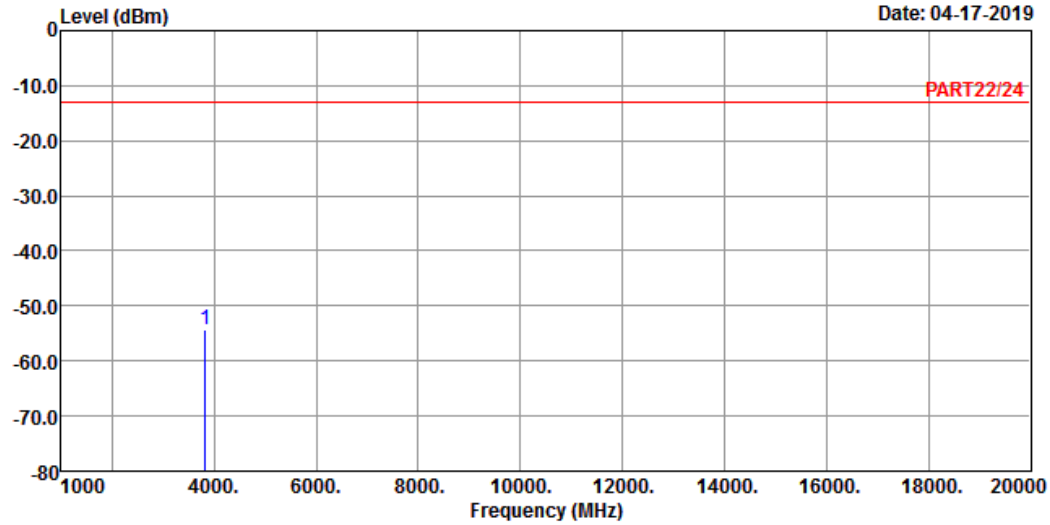
Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : NB-IOT Band 25 Stand-alone_Link_H-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3829.80	-51.75	-45.38	-13.00	-6.37	-38.75	Peak

Data: 2



Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : NB-IOT Band 25 Stand-alone_Link_H-Ch
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Factor	Over Limit	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3829.80	-54.39	-48.02	-13.00	-6.37	-41.39	Peak

5 Pictures of Test Arrangements

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

Appendix – Information of 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:

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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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