TESTING LABORATORY
CERTIFICATE #4820.01

FCC PART 22H, PART 24E,PART 27, PART 90 MEASUREMENT AND TEST REPORT

For

Fujian Morefun Electronic Technology Co., Ltd.

A-602, No.10 Building, HaiXi Innovation Area, High-Tech Zone, Fuzhou, Fujian, China

FCC ID: 2AQRE-MF919

Report Type:	**Product Type:**
Original Report	MF919 Android POS Terminal

Report Number:	RXM180726051-00D
Report Date:	2020-08-31
Reviewed By:	Ivan Cao Assistant Manager
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:		MF919 Android POS Terminal
EUT Model:		MF919
Operation modes:		WCDMA(R99 (Data), HSDPA/HSUPA/HSPA+) FDD-LTE
Modulation Type:		BPSK, QPSK, 16QAM
Adapter Information	**Model:**	JYXL0502000US
	Input:	100-240~50/60Hz 0.3A Max
	Output:	5V2A
Rated Input Voltage:		DC 7.4V from battery or DC 5V from Adapter
Serial Number:		RXM180726051-RF-S1
EUT Received Date:		18.07.26
EUT Status:		Good

Objective

This report is prepared on behalf of ***Fujian Morefun Electronic Technology Co., Ltd.*** in accordance with: Part 2-Subpart J, Part 22-Subpart H, Part 24-Subpart E, Part 27, Part 90 of the Federal Communications Commission's rules.

The objective is to determine compliance with FCC Rules for output power, modulation characteristic, occupied bandwidth, spurious emissions at antenna terminal, spurious radiated emission, frequency stability and band edge.

Related Submittal(s)/Grant(s)

FCC Part 15C DSS submissions with FCC ID: 2AQRE-MF919
FCC Part 15C DTS submissions with FCC ID: 2AQRE-MF919
FCC Part 15C DXX submissions with FCC ID: 2AQRE-MF919

Test Methodology

All tests and measurements indicated in this document were performed in accordance with:

the Code of federal Regulations Title 47, Part 2, Part 22H, Part 24E, Part 27, Part 90

ANSI C63.26-2015, American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Dongguan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Unwanted Emissions, radiated	30MHz ~ 1GHz:5.85 dB 1G~26.5GHz: 5.23 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%

Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

Declarations

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “△”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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SYSTEM TEST CONFIGURATION

Justification

The EUT was configured for testing according to ANSI C63.26-2015.

The test items were performed with the EUT operating at testing mode. The device operates on WCDMA Band 2/4/5, and LTE band 2/4/5/7/12/13/25/26, test was performed with channels as below table:

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
WCDMA Band 2	4.2	1852.4	1880	1907.6
WCDMA Band 4	4.2	1712.4	1732.6	1752.6
WCDMA Band 5	4.2	826.4	836.6	846.6
LTE Band 2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE Band 7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560
LTE Band 12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704	707.5	711
LTE Band 13	5	779.5	782	784.5
	10	/	782	/
LTE Band 25	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
	5	1852.5	1882.5	1912.5
	10	1855	1882.5	1910
	15	1857.5	1882.5	1907.5
	20	1860	1882.5	1905
LTE Band 26	1.4	814.7	831.5	848.3
	3	815.5	831.5	847.5
	5	816.5	831.5	846.5
	10	819	831.5	844
	15	821.5	831.5	841.5

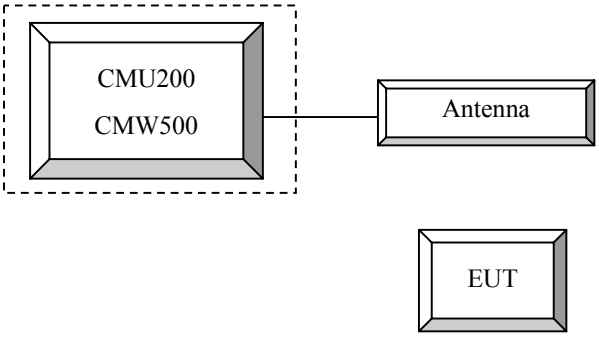
Equipment Modifications

No modification was made to the EUT.

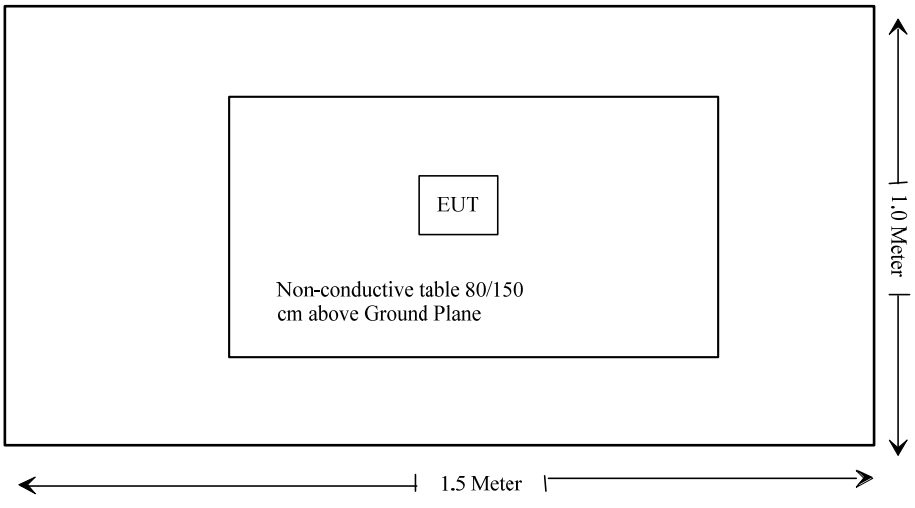
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
R&S	Universial Radio Communication Tester	CMU200	106 891
R&S	Wideband Radio Communication Tester	CMW500	147473
Un-known	ANTENNA	Un-known	Un-known

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC§1.1310, §2.1093	RF Exposure	Compliance
FCC§2.1046;§ 22.913 (a); § 24.232 (c);§27.50; §90.635	RF Output Power	Compliance
FCC§ 2.1047	Modulation Characteristics	Not Applicable
FCC§ 2.1049; § 22.905; § 22.917; § 24.238; §27.53; §90.209	Occupied Bandwidth	Compliance
FCC§ 2.1051, § 22.917 (a); § 24.238 (a); §27.53; §90.691	Spurious Emissions at Antenna Terminal	Compliance
FCC§ 2.1053 § 22.917 (a); § 24.238 (a); §27.53; §90.691	Field Strength of Spurious Radiation	Compliance
FCC§ 22.917 (a); § 24.238 (a); §27.53; §90.691	Out of band emission, Band Edge	Compliance
FCC§ 2.1055;§ 22.355; § 24.235; §27.54; §90.213	Frequency stability vs. temperature Frequency stability vs. voltage	Compliance

FCC §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: RXM180726051-20.

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E,27, 90 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046, § 22.913 (a) & § 24.232 (c) & § 27.50&§ 90.635 - RF OUTPUT POWER

Applicable Standard

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (C), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §24.232 (d) Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. 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.

According to §27.50

(a) The following power limits and related requirements apply to stations transmitting in the 2305-2320 MHz band or the 2345-2360 MHz band.

(3) Mobile and portable stations. (i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

(ii) Mobile and portable stations are not permitted to transmit in the 2315-2320 MHz and 2345-2350 MHz bands.

(iii) Automatic transmit power control. Mobile and portable stations transmitting in the 2305-2315 MHz band or in the 2350-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications.

(iv) Prohibition on external vehicle-mounted antennas. The use of external vehicle-mounted antennas for mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band is prohibited.

(b)(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

(c) (10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

(d), (4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(h),(2) Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

According to §90.635

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Test Procedure

GSM/GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/1900
Press Connection control to choose the different menus
Press RESET > choose all the reset all settings
Connection Press Signal Off to turn off the signal and change settings
Network Support > GSM + GPRS or GSM + EGSM
Main Service > Packet Data
Service selection > Test Mode A – Auto Slot Config. off
MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting
> Slot configuration > Uplink/Gamma
> 33 dBm for GPRS 850
> 30 dBm for GPRS 1900
> 27 dBm for EGPRS 850
> 26 dBm for EGPRS 1900
BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel
Frequency Offset > + 0 Hz
Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stable)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off
P0 > 4 dB
Slot Config > Unchanged (if already set under MS signal)
TCH > choose desired test channel
Hopping > Off
Main Timeslot > 3
Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)

Bit Stream > 2E9-1 PSR Bit Stream
AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input
Connection Press Signal on to turn on the signal and change settings

WCDMA-Release 99

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification. The EUT has a nominal maximum output power of 24dBm (+1.7/-3.7).

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc / βd	8/15

WCDMA HSDPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subset	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/ βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR(dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs=βhs/ βc	30/15			

WCDMA HSUPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subset	**1**	**2**	**3**	**4**	**5**
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30/15	2/15	5/15
	βc/ βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
	MPR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	Ahs=βhs/ βc	30/15				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCIs	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

HSPA+

The following tests were conducted according to the test requirements in Table C.11.1.4 of 3GPP TS 34.121-1

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c .
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

DC-HSDPA

The following tests were conducted according to the test requirements in Table C.8.1.12 of 3GPP TS 34.121-1

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

LTE (FDD):

The following tests were conducted according to the test requirements in 3GPP TS36.101

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01".

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ERP/EIRP Test					
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
R&S	EMI Test Receiver	ESR3	102453	2019-09-12	2020-09-12
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2020-05-06	2021-05-06
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-02	2019-09-05	2020-09-05
Agilent	Signal Generator	E8247C	MY43321350	2019-12-10	2020-12-10
Agilent	Spectrum Analyzer	E4440A	SG43360054	2020-05-09	2021-05-09
TDK RF	Horn Antenna	HRN-0118	130 084	2018-10-12	2021-10-12
ETS-Lindgren	Horn Antenna	3115	000 527 35	2018-10-12	2021-10-12
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-02	2019-09-05	2020-09-05
Conducted Output Power Test					
R&S	Universal Radio Communication Tester	CMU200	106 891	2019-12-14	2020-12-14
R&S	Wideband Radio Communication Tester	CMW500	147473	2019-09-12	2020-09-12
E-Microwave	Coaxial Attenuators	EMCA10-5RN-6	OE01203239	Each time	/
Unknown	Coaxial Cable	C-SJ00-0010	C0010/03	Each time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Test Items:	Radiation Below 1GHz	Radiation Above 1GHz	Conducted Output Power
Temperature:	25.7 °C	24.3°C	28.1°C
Relative Humidity:	43%	38 %	66 %
ATM Pressure:	100.8 kPa	100.8 kPa	100.9 kPa
Tester:	Joker Chen	Bond Qin	Chris Mo
Test Date:	2020-08-21	2020-08-21	2020-08-22

Test Result: Compliance

Conducted Output Power

WCDMA Band 2

Mode	3GPP Sub Test	Low Channel		Middle Channel		High Channel	
		Ave. Power (dBm)	PAR (dB)	Ave. Power (dBm)	PAR (dB)	Ave. Power (dBm)	PAR (dB)
Rel 99	1	22.16	3.25	22.60	3.30	22.23	3.33
HSDPA	1	21.92	3.42	21.92	3.57	22.03	3.59
	2	21.89	3.43	21.91	3.58	22.01	3.56
	3	21.86	3.46	21.88	3.56	21.98	3.52
	4	21.83	3.41	21.86	3.54	21.96	3.54
HSUPA	1	21.56	3.42	21.47	4.58	21.52	4.35
	2	21.53	3.52	21.45	4.58	21.51	4.36
	3	21.52	3.51	21.41	4.56	20.98	4.32
	4	21.50	3.56	21.38	4.57	20.96	4.36
	5	21.48	3.18	21.36	4.52	20.95	4.32
DC-HSDPA	1	21.46	3.49	21.35	4.51	20.92	4.31
	2	21.45	3.46	21.32	4.59	20.91	4.39
	3	21.43	3.47	21.31	4.56	20.86	4.38
	4	21.41	3.42	21.28	4.52	20.84	4.31
HSPA+ (16QAM)	1	21.40	3.41	21.26	4.53	20.83	4.32

WCDMA Band 4

Mode	3GPP Sub Test	Low Channel		Middle Channel		High Channel	
		Ave. Power (dBm)	PAR (dB)	Ave. Power (dBm)	PAR (dB)	Ave. Power (dBm)	PAR (dB)
Rel 99	1	22.62	2.90	22.63	2.87	22.59	2.96
HSDPA	1	22.31	3.01	22.36	3.30	22.22	3.10
	2	22.29	3.06	22.35	3.36	22.21	3.16
	3	22.26	3.02	22.34	3.35	22.19	3.12
	4	22.25	3.09	22.32	3.32	22.18	3.14
HSUPA	1	21.79	3.25	21.78	4.09	21.81	3.83
	2	21.78	3.26	21.76	4.06	21.78	3.86
	3	21.76	3.22	21.75	4.05	21.76	3.84
	4	21.74	3.22	21.74	4.03	21.75	3.82
	5	21.72	3.29	21.72	4.02	21.74	3.84
DC-HSDPA	1	21.68	3.21	21.69	4.09	21.73	3.86
	2	21.63	3.28	21.67	4.06	21.71	3.84
	3	21.62	3.25	21.65	4.07	21.68	3.87
	4	21.61	3.24	21.63	4.03	21.65	3.82
HSPA+ (16QAM)	1	21.59	3.21	21.62	4.05	21.62	3.86

WCDMA Band 5

Mode	3GPP Sub Test	Low Channel		Middle Channel		High Channel	
		Ave. Power (dBm)	PAR (dB)	Ave. Power (dBm)	PAR (dB)	Ave. Power (dBm)	PAR (dB)
Rel 99	1	22.82	3.10	22.76	2.99	22.75	2.96
HSDPA	1	22.40	3.19	22.48	3.10	22.36	3.36
	2	22.38	3.16	22.46	3.16	22.35	3.35
	3	22.35	3.15	22.43	3.15	22.34	3.32
	4	22.34	3.14	22.41	3.14	22.31	3.31
HSUPA	1	21.94	3.30	21.97	3.22	21.99	3.32
	2	21.93	3.35	21.96	3.23	21.98	3.36
	3	21.92	3.36	21.95	3.21	21.96	3.35
	4	21.89	3.32	21.93	3.22	21.95	3.39
	5	21.88	3.34	21.92	3.25	21.94	3.32
DC-HSDPA	1	21.86	3.29	21.91	3.21	21.93	3.31
	2	21.84	3.26	21.87	3.20	21.91	3.38
	3	21.83	3.34	21.86	3.16	21.86	3.36
	4	21.82	3.36	21.84	3.24	21.85	3.34
HSPA+ (16QAM)	1	21.78	3.31	21.83	3.15	21.81	3.31

LTE Band 2

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	23.44	23.38	23.15
		RB1#3	23.59	23.48	23.26
		RB1#5	23.46	23.45	23.16
		RB3#0	23.37	23.28	23.21
		RB3#3	23.43	23.25	23.31
		RB6#0	22.43	22.40	22.26
	16QAM	RB1#0	22.57	22.66	22.40
		RB1#3	22.58	22.85	22.57
		RB1#5	22.05	22.44	22.44
		RB3#0	22.53	22.39	22.36
		RB3#3	22.07	22.12	21.92
		RB6#0	21.37	21.32	21.00
3MHz	QPSK	RB1#0	23.43	23.52	23.10
		RB1#8	23.28	23.32	23.27
		RB1#14	23.46	23.59	23.27
		RB6#0	22.44	22.38	22.27
		RB6#9	22.57	22.35	22.36
		RB15#0	22.57	22.37	22.30
	16QAM	RB1#0	22.74	22.60	22.45
		RB1#8	22.65	22.44	22.33
		RB1#14	22.65	22.64	22.62
		RB6#0	21.47	21.59	21.40
		RB6#9	21.49	21.66	21.40
		RB15#0	21.38	21.62	21.53
5MHz	QPSK	RB1#0	23.30	23.54	23.38
		RB1#13	23.29	23.26	23.16
		RB1#24	23.50	23.65	23.27
		RB15#0	22.54	22.34	22.39
		RB15#10	22.50	22.39	22.29
		RB25#0	22.54	22.42	22.31
	16QAM	RB1#0	21.91	22.68	21.88
		RB1#13	21.56	22.13	21.78
		RB1#24	21.86	22.51	21.72
		RB15#0	21.36	21.42	21.08
		RB15#10	21.34	21.18	21.32
		RB25#0	21.38	21.52	21.23

10MHz	QPSK	RB1#0	23.53	23.64	23.52
		RB1#25	23.77	23.28	23.33
		RB1#49	23.61	23.49	23.22
		RB25#0	22.59	22.45	22.48
		RB25#25	22.56	22.43	22.34
		RB50#0	22.54	22.39	22.47
	16QAM	RB1#0	22.70	22.85	22.60
		RB1#25	22.57	22.58	22.48
		RB1#49	22.78	22.69	22.41
		RB25#0	21.42	21.50	21.45
		RB25#25	21.46	21.41	21.39
		RB50#0	21.51	21.41	21.37
15MHz	QPSK	RB1#0	23.61	23.68	23.54
		RB1#38	23.51	23.28	23.31
		RB1#74	23.86	23.44	23.43
		RB36#0	22.58	22.60	22.62
		RB36#39	22.67	22.57	22.41
		RB75#0	22.56	22.53	22.46
	16QAM	RB1#0	22.96	23.59	22.79
		RB1#38	22.71	22.46	22.38
		RB1#74	23.14	23.22	22.70
		RB36#0	21.52	21.52	21.52
		RB36#39	21.55	21.44	21.28
		RB75#0	21.53	21.46	21.53
20MHz	QPSK	RB1#0	23.54	23.81	23.63
		RB1#50	23.60	23.41	23.58
		RB1#99	23.98	23.74	23.42
		RB50#0	22.62	22.58	22.69
		RB50#50	22.78	22.42	22.52
		RB100#0	22.65	22.59	22.63
	16QAM	RB1#0	22.46	23.24	23.36
		RB1#50	22.50	22.93	22.99
		RB1#99	22.87	23.15	22.91
		RB50#0	21.55	21.56	21.65
		RB50#50	21.82	21.49	21.41
		RB100#0	21.67	21.58	21.52

LTE Band 4

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	24.07	24.00	23.95
		RB1#3	24.08	24.16	23.95
		RB1#5	24.01	24.02	23.82
		RB3#0	24.05	24.01	23.89
		RB3#3	24.06	23.95	23.97
		RB6#0	23.04	23.10	22.96
	16QAM	RB1#0	23.04	23.33	22.79
		RB1#3	23.34	23.25	22.96
		RB1#5	23.19	23.09	22.93
		RB3#0	22.90	23.18	22.99
		RB3#3	23.04	23.23	22.95
		RB6#0	22.09	22.32	22.00
3MHz	QPSK	RB1#0	23.96	24.28	23.78
		RB1#8	23.91	24.14	23.94
		RB1#14	23.86	24.04	23.93
		RB6#0	23.04	23.13	22.92
		RB6#9	22.95	23.08	23.07
		RB15#0	23.07	23.16	23.05
	16QAM	RB1#0	23.03	23.79	22.96
		RB1#8	22.95	22.99	23.02
		RB1#14	23.17	23.07	23.14
		RB6#0	21.98	22.24	22.01
		RB6#9	22.00	22.13	21.82
		RB15#0	21.92	22.22	22.06
5MHz	QPSK	RB1#0	23.86	23.94	23.85
		RB1#13	23.89	24.04	23.71
		RB1#24	23.80	24.20	24.01
		RB15#0	23.11	23.18	22.90
		RB15#10	23.13	23.02	23.11
		RB25#0	23.06	23.12	23.00
	16QAM	RB1#0	22.43	23.28	23.01
		RB1#13	22.27	22.62	22.50
		RB1#24	22.09	22.73	23.05
		RB15#0	21.84	22.18	21.75
		RB15#10	21.97	22.05	21.90
		RB25#0	22.00	22.20	21.82

10MHz	QPSK	RB1#0	24.24	24.21	24.01
		RB1#25	24.07	24.17	24.03
		RB1#49	24.26	23.96	24.02
		RB25#0	23.11	23.17	23.03
		RB25#25	23.06	23.02	23.12
		RB50#0	23.07	23.13	23.03
	16QAM	RB1#0	23.22	23.43	22.23
		RB1#25	23.52	23.21	22.44
		RB1#49	23.51	22.99	23.12
		RB25#0	21.94	22.27	22.12
		RB25#25	22.17	21.98	22.24
		RB50#0	22.03	22.09	22.01
15MHz	QPSK	RB1#0	24.23	24.15	23.90
		RB1#38	24.07	24.00	23.79
		RB1#74	24.16	23.93	24.20
		RB36#0	22.94	23.20	23.07
		RB36#39	23.06	23.00	23.09
		RB75#0	23.12	23.19	23.04
	16QAM	RB1#0	23.88	23.24	23.14
		RB1#38	23.18	22.99	22.86
		RB1#74	23.18	22.96	23.57
		RB36#0	22.07	22.21	22.03
		RB36#39	22.13	22.02	22.14
		RB75#0	22.06	22.14	22.08
20MHz	QPSK	RB1#0	24.21	24.24	24.06
		RB1#50	24.31	23.94	24.07
		RB1#99	24.20	23.96	24.18
		RB50#0	23.15	23.22	23.13
		RB50#50	23.09	23.07	23.03
		RB100#0	23.08	23.20	23.12
	16QAM	RB1#0	23.86	23.86	23.37
		RB1#50	23.88	23.44	22.99
		RB1#99	23.76	23.31	22.97
		RB50#0	22.06	22.09	22.06
		RB50#50	22.10	21.96	21.99
		RB100#0	22.06	22.03	22.08

LTE Band 5

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	24.59	24.69	24.60
		RB1#3	24.37	24.72	24.89
		RB1#5	24.28	24.52	24.56
		RB3#0	24.54	24.68	24.58
		RB3#3	24.50	24.69	24.60
		RB6#0	23.60	23.89	23.59
	16QAM	RB1#0	23.50	24.43	23.71
		RB1#3	23.47	24.51	23.72
		RB1#5	23.50	24.48	23.34
		RB3#0	23.78	23.82	23.77
		RB3#3	23.70	23.85	23.86
		RB6#0	22.34	22.89	22.64
3MHz	QPSK	RB1#0	24.55	24.67	24.54
		RB1#8	24.31	24.54	24.58
		RB1#14	24.51	24.42	24.55
		RB6#0	23.52	23.67	23.67
		RB6#9	23.61	23.71	23.74
		RB15#0	23.54	23.70	23.83
	16QAM	RB1#0	23.66	23.74	23.76
		RB1#8	23.75	23.63	23.56
		RB1#14	23.68	23.96	23.61
		RB6#0	22.56	22.83	22.70
		RB6#9	22.45	22.80	22.79
		RB15#0	22.61	22.73	22.67
5MHz	QPSK	RB1#0	24.47	24.44	24.47
		RB1#13	24.23	24.70	24.33
		RB1#24	24.30	24.86	24.54
		RB15#0	23.67	23.68	23.72
		RB15#10	23.62	23.62	23.75
		RB25#0	23.61	23.67	23.68
	16QAM	RB1#0	23.50	23.44	23.10
		RB1#13	22.84	23.58	23.13
		RB1#24	22.76	23.65	23.16
		RB15#0	22.50	22.35	22.71
		RB15#10	22.38	22.33	22.65
		RB25#0	22.57	22.41	22.58
10MHz	QPSK	RB1#0	24.62	24.76	24.68
		RB1#25	24.40	24.78	24.58
		RB1#49	24.60	24.70	24.68
		RB25#0	23.62	23.59	23.61
		RB25#25	23.62	23.57	23.63
		RB50#0	23.57	23.62	23.71
	16QAM	RB1#0	23.73	24.24	23.66
		RB1#25	23.53	24.38	23.18
		RB1#49	24.01	23.94	23.69
		RB25#0	22.36	22.51	22.97
		RB25#25	22.45	22.49	22.73
		RB50#0	22.37	22.60	22.72

LTE Band 7

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5MHz	QPSK	RB1#0	23.18	23.74	23.61
		RB1#13	23.12	23.84	23.49
		RB1#24	23.19	23.80	23.53
		RB15#0	22.57	22.81	22.71
		RB15#10	22.51	22.83	22.70
		RB25#0	22.47	22.88	22.77
	16QAM	RB1#0	21.93	23.01	22.25
		RB1#13	21.56	22.64	22.56
		RB1#24	21.60	22.92	22.17
		RB15#0	21.56	21.64	21.61
		RB15#10	21.38	21.72	21.68
		RB25#0	21.61	21.73	21.60
10MHz	QPSK	RB1#0	23.50	23.73	23.71
		RB1#25	23.38	23.72	23.73
		RB1#49	23.25	23.94	23.70
		RB25#0	22.56	22.85	22.87
		RB25#25	22.38	22.94	22.85
		RB50#0	22.56	22.93	22.72
	16QAM	RB1#0	22.62	23.08	22.98
		RB1#25	22.69	23.16	23.03
		RB1#49	22.26	23.26	22.84
		RB25#0	21.60	21.93	22.07
		RB25#25	21.29	21.89	21.85
		RB50#0	21.52	22.02	21.89
15MHz	QPSK	RB1#0	23.70	23.83	23.88
		RB1#38	23.15	23.78	23.63
		RB1#74	23.38	23.90	23.84
		RB36#0	22.59	22.83	22.79
		RB36#39	22.38	22.78	22.72
		RB75#0	22.58	22.83	22.61
	16QAM	RB1#0	23.13	23.03	23.22
		RB1#38	22.42	23.06	23.02
		RB1#74	22.51	23.78	23.01
		RB36#0	21.57	21.88	21.73
		RB36#39	21.43	22.09	21.76
		RB75#0	21.49	21.93	21.79
20MHz	QPSK	RB1#0	23.74	23.84	24.09
		RB1#50	23.24	24.35	23.93
		RB1#99	23.38	23.92	23.68
		RB50#0	22.53	22.85	22.83
		RB50#50	22.37	22.87	22.69
		RB100#0	22.62	22.90	22.74
	16QAM	RB1#0	22.96	23.19	24.02
		RB1#50	22.59	22.88	23.71
		RB1#99	22.57	22.93	23.75
		RB50#0	21.66	21.83	21.87
		RB50#50	21.37	22.01	21.80
		RB100#0	21.56	21.81	21.90

LTE Band 12

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	24.65	24.60	24.40
		RB1#3	24.58	24.63	24.59
		RB1#5	24.54	24.40	24.44
		RB3#0	24.38	24.47	24.35
		RB3#3	24.38	24.59	24.60
		RB6#0	23.56	23.73	23.55
	16QAM	RB1#0	23.56	24.07	22.63
		RB1#3	23.54	23.83	22.86
		RB1#5	23.81	23.84	23.10
		RB3#0	23.21	23.38	23.56
		RB3#3	23.29	23.35	23.27
		RB6#0	22.34	22.68	22.54
3MHz	QPSK	RB1#0	24.27	24.52	24.48
		RB1#8	24.26	24.32	24.45
		RB1#14	24.19	24.24	24.55
		RB6#0	23.43	23.49	23.58
		RB6#9	23.47	23.57	23.69
		RB15#0	23.42	23.73	23.65
	16QAM	RB1#0	23.44	24.05	23.26
		RB1#8	23.37	24.24	23.10
		RB1#14	23.33	24.13	23.27
		RB6#0	22.38	22.87	22.58
		RB6#9	22.40	22.65	22.72
		RB15#0	22.49	22.73	22.56
5MHz	QPSK	RB1#0	24.31	24.22	24.31
		RB1#13	24.30	24.48	24.13
		RB1#24	24.27	24.34	24.45
		RB15#0	23.48	23.53	23.41
		RB15#10	23.56	23.62	23.52
		RB25#0	23.56	23.50	23.40
	16QAM	RB1#0	22.55	23.57	22.82
		RB1#13	22.44	23.39	23.08
		RB1#24	22.91	23.57	23.51
		RB15#0	22.33	22.34	22.26
		RB15#10	22.55	22.43	22.57
		RB25#0	22.41	22.52	22.46
10MHz	QPSK	RB1#0	24.17	24.50	24.49
		RB1#25	24.56	24.62	24.42
		RB1#49	24.44	24.23	24.54
		RB25#0	23.34	23.51	23.62
		RB25#25	23.56	23.41	23.57
		RB50#0	23.42	23.48	23.55
	16QAM	RB1#0	23.84	23.62	23.37
		RB1#25	23.66	24.03	23.24
		RB1#49	23.65	23.48	23.56
		RB25#0	22.36	22.47	22.60
		RB25#25	22.46	22.48	22.60
		RB50#0	22.36	22.66	22.79

LTE Band 13

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5MHz	QPSK	RB1#0	23.79	23.52	23.65
		RB1#13	23.73	23.79	23.57
		RB1#24	23.99	23.58	23.60
		RB15#0	22.92	23.05	23.10
		RB15#10	22.95	22.99	22.95
		RB25#0	22.93	23.01	23.03
	16QAM	RB1#0	22.76	22.41	22.10
		RB1#13	22.34	22.61	21.91
		RB1#24	23.12	22.57	21.82
		RB15#0	21.65	21.83	21.94
		RB15#10	21.76	21.79	21.74
		RB25#0	21.74	21.90	22.07
10MHz	QPSK	RB1#0	/	23.71	/
		RB1#25	/	23.96	/
		RB1#49	/	23.96	/
		RB25#0	/	23.03	/
		RB25#25	/	22.94	/
		RB50#0	/	23.06	/
	16QAM	RB1#0	/	22.89	/
		RB1#25	/	22.94	/
		RB1#49	/	22.81	/
		RB25#0	/	22.01	/
		RB25#25	/	21.98	/
		RB50#0	/	21.93	/

LTE Band 25

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	23.00	22.98	23.00
		RB1#3	23.14	23.18	22.96
		RB1#5	23.14	23.23	22.98
		RB3#0	23.03	23.14	23.06
		RB3#3	23.15	23.22	23.01
		RB6#0	22.12	22.20	22.03
	16QAM	RB1#0	22.21	21.60	22.31
		RB1#3	22.40	21.80	22.41
		RB1#5	22.38	21.66	22.35
		RB3#0	21.85	21.80	22.36
		RB3#3	22.11	21.95	22.20
		RB6#0	20.98	21.13	20.90
3MHz	QPSK	RB1#0	23.08	23.22	22.93
		RB1#8	22.93	23.11	22.97
		RB1#14	23.09	23.00	23.00
		RB6#0	22.17	22.12	22.15
		RB6#9	22.22	22.16	22.13
		RB15#0	22.33	22.15	22.11
	16QAM	RB1#0	22.21	22.27	21.81
		RB1#8	21.92	22.36	21.71
		RB1#14	22.11	22.50	21.30

		RB6#0	21.20	21.41	20.99
		RB6#9	21.20	21.35	20.94
		RB15#0	21.26	21.28	20.95
5MHz	QPSK	RB1#0	23.01	22.94	22.71
		RB1#13	23.07	23.21	22.94
		RB1#24	23.01	23.15	22.86
		RB15#0	22.25	22.14	22.05
		RB15#10	22.20	22.20	22.13
		RB25#0	22.25	22.14	22.03
	16QAM	RB1#0	21.30	21.53	21.97
		RB1#13	21.16	22.01	21.50
		RB1#24	21.05	21.94	21.94
		RB15#0	21.13	20.80	20.84
		RB15#10	21.12	21.03	21.13
		RB25#0	21.37	21.21	21.12
10MHz	QPSK	RB1#0	23.23	23.12	23.03
		RB1#25	23.29	23.46	22.97
		RB1#49	23.30	23.25	23.02
		RB25#0	22.36	22.12	22.17
		RB25#25	22.27	22.28	22.13
		RB50#0	22.26	22.22	22.20
	16QAM	RB1#0	22.39	22.30	22.29
		RB1#25	22.76	22.91	22.11
		RB1#49	22.71	22.83	22.23
		RB25#0	21.16	21.22	21.22
		RB25#25	21.27	21.16	21.21
		RB50#0	21.23	21.01	21.07
15MHz	QPSK	RB1#0	23.26	23.14	22.98
		RB1#38	23.28	23.07	22.92
		RB1#74	23.22	23.26	23.09
		RB36#0	22.34	22.28	22.23
		RB36#39	22.33	22.24	22.03
		RB75#0	22.29	22.17	22.13
	16QAM	RB1#0	22.74	22.53	22.16
		RB1#38	22.66	22.27	22.23
		RB1#74	22.50	22.51	22.12
		RB36#0	21.39	21.08	21.26
		RB36#39	21.30	21.12	21.08
		RB75#0	21.21	21.14	21.27
20MHz	QPSK	RB1#0	23.30	23.55	23.26
		RB1#50	23.67	23.16	23.53
		RB1#99	23.48	23.29	23.35
		RB50#0	22.36	22.10	22.26
		RB50#50	22.29	22.06	22.18
		RB100#0	22.32	22.14	22.19
	16QAM	RB1#0	22.28	22.68	21.96
		RB1#50	21.75	22.65	21.73
		RB1#99	21.83	22.79	21.77
		RB50#0	21.34	21.02	21.22
		RB50#50	21.23	21.05	21.16
		RB100#0	21.39	21.15	21.18

LTE Band 26

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	24.12	24.20	23.94
		RB1#3	24.14	24.22	23.98
		RB1#5	24.20	24.02	24.07
		RB3#0	23.97	24.02	24.17
		RB3#3	24.03	24.19	24.02
		RB6#0	23.01	23.12	23.13
	16QAM	RB1#0	23.40	23.21	22.70
		RB1#3	23.37	23.36	23.01
		RB1#5	23.50	23.31	22.59
		RB3#0	23.03	22.83	22.95
		RB3#3	23.03	23.05	22.86
		RB6#0	22.14	22.26	22.04
3MHz	QPSK	RB1#0	24.04	24.09	24.04
		RB1#8	24.18	24.14	23.89
		RB1#14	24.43	24.38	23.95
		RB6#0	23.00	23.15	23.26
		RB6#9	23.35	23.18	23.00
		RB15#0	23.22	23.12	23.18
	16QAM	RB1#0	23.18	23.40	23.10
		RB1#8	23.39	23.28	22.40
		RB1#14	23.34	23.59	22.30
		RB6#0	22.17	22.19	22.14
		RB6#9	22.36	22.32	22.08
		RB15#0	22.37	22.20	22.20
5MHz	QPSK	RB1#0	23.80	24.14	23.90
		RB1#13	24.09	24.07	24.01
		RB1#24	24.12	24.37	23.93
		RB15#0	23.31	23.19	23.32
		RB15#10	23.35	23.26	23.21
		RB25#0	23.36	23.27	23.29
	16QAM	RB1#0	22.96	23.04	23.31
		RB1#13	22.24	22.87	22.79
		RB1#24	22.53	23.43	22.82
		RB15#0	22.19	22.01	22.16
		RB15#10	22.20	22.27	21.98
		RB25#0	22.41	22.17	22.26
10MHz	QPSK	RB1#0	24.34	24.33	24.20
		RB1#25	24.42	24.28	24.06
		RB1#49	24.06	24.30	24.11
		RB25#0	23.36	23.20	23.36
		RB25#25	23.29	23.33	23.24
		RB50#0	23.29	23.24	23.32
	16QAM	RB1#0	23.39	23.45	23.40
		RB1#25	23.46	23.33	22.72
		RB1#49	23.29	23.61	22.73
		RB25#0	22.40	22.23	22.26
		RB25#25	22.25	22.35	22.43
		RB50#0	22.40	22.36	22.27

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15MHz	QPSK	RB1#0	24.23	24.21	24.11
		RB1#38	24.03	24.12	23.99
		RB1#74	24.19	24.16	24.49
		RB36#0	23.43	23.15	23.31
		RB36#39	23.27	23.31	23.18
		RB75#0	23.39	23.24	23.31
	16QAM	RB1#0	24.35	23.97	23.49
		RB1#38	23.16	23.31	23.09
		RB1#74	23.51	24.17	23.20
		RB36#0	22.26	22.18	22.25
		RB36#39	22.29	22.21	22.11
		RB75#0	22.42	22.19	22.23

PAR, Band 2

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.46	4.52	4.38	13
	100 RB		5.16	5.16	5.07	13
16QAM	1 RB	20 MHz	5.07	5.54	5.25	13
	100 RB		6.14	6.06	6.09	13

PAR, Band 4

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.17	4.46	4.38	13
	100 RB		5.04	4.64	5.04	13
16QAM	1 RB	20 MHz	5.25	5.33	5.28	13
	100 RB		5.91	5.65	5.97	13

PAR, Band 5

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	4.64	4.90	4.32	13
	50 RB		5.45	4.78	4.93	13
16QAM	1 RB	10 MHz	5.65	5.91	5.01	13
	50 RB		6.29	5.71	5.94	13

PAR, Band 7

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	3.28	4.26	3.97	13
	100 RB		4.03	4.61	4.43	13
16QAM	1 RB	20 MHz	4.23	5.42	5.01	13
	100 RB		4.99	5.65	5.48	13

PAR, Band 12

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	5.13	5.01	4.67	13
	50 RB		5.33	5.33	5.54	13
16QAM	1 RB	10 MHz	6.14	6.12	5.83	13
	50 RB		6.38	6.32	6.43	13

PAR, Band 13

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	/	4.00	/	13
	50 RB		/	4.99	/	13
16QAM	1 RB	10 MHz	/	5.10	/	13
	50 RB		/	5.97	/	13

PAR, Band 25

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.61	4.96	4.87	13
	100 RB		5.54	5.57	5.22	13
16QAM	1 RB	20 MHz	5.74	6.00	5.88	13
	100 RB		6.52	6.55	6.35	13

PAR, Band 26

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	15 MHz	4.49	4.58	4.2	13
	75 RB		4.55	5.01	4.84	13
16QAM	1 RB	15 MHz	5.45	5.59	5.1	13
	75 RB		5.54	5.88	5.77	13

Note: peak-to-average ratio (PAR) <13 dB.

ERP & EIRP

Part 22H

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA R99 Band 5 Low channel								
826.40	H	94.63	19.63	0.00	0.96	18.67	38.45	19.78
826.40	V	92.00	20.10	0.00	0.96	19.14	38.45	19.31
WCDMA R99 Band 5 middle channel								
836.60	H	94.28	19.36	0.00	0.97	18.39	38.45	20.06
836.60	V	92.25	20.46	0.00	0.97	19.49	38.45	18.96
WCDMA R99 Band 5 High channel								
846.60	H	94.13	19.28	0.00	0.99	18.29	38.45	20.16
846.60	V	92.01	20.32	0.00	0.99	19.33	38.45	19.12

Part 24E

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA R99 Band 2 low channel								
1852.40	H	87.85	13.17	11.47	0.86	23.78	33.00	9.22
1852.40	V	89.83	15.09	11.47	0.86	25.70	33.00	7.30
WCDMA R99 Band 2 middle channel								
1880.00	H	86.20	11.89	11.66	0.95	22.60	33.00	10.40
1880.00	V	90.57	16.40	11.66	0.95	27.11	33.00	5.89
WCDMA R99 Band 2 high channel								
1907.60	H	86.90	12.90	11.82	1.03	23.69	33.00	9.31
1907.60	V	89.63	15.92	11.82	1.03	26.71	33.00	6.29

Part 27

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA R99 Band 4 low channel								
1712.40	H	83.49	7.52	10.84	0.74	17.62	30.00	12.38
1712.40	V	85.95	9.69	10.84	0.74	19.79	30.00	10.21
WCDMA R99 Band 4 middle channel								
1732.60	H	83.43	7.59	10.90	0.73	17.76	30.00	12.24
1732.60	V	84.79	8.64	10.90	0.73	18.81	30.00	11.19
WCDMA R99 Band 4 high channel								
1752.60	H	87.56	11.86	10.96	0.71	22.11	30.00	7.89
1752.60	V	87.72	11.67	10.96	0.71	21.92	30.00	8.08

Note:
1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
3) Margin = Limit-Absolute Level

LTE Band 2:

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.40	QPSK	Low	H	83.26	8.56	11.45	0.85	19.16	33.00	13.84
		Low	V	85.19	10.42	11.45	0.85	21.02	33.00	11.98
		Middle	H	84.94	10.63	11.66	0.95	21.34	33.00	11.66
		Middle	V	87.10	12.93	11.66	0.95	**23.64**	33.00	9.36
		High	H	81.05	7.06	11.82	1.03	17.85	33.00	15.15
		High	V	85.21	11.51	11.82	1.03	22.30	33.00	10.70
	16QAM	Low	H	82.40	7.70	11.45	0.85	18.30	33.00	14.70
		Low	V	86.12	11.35	11.45	0.85	21.95	33.00	11.05
		Middle	H	84.61	10.30	11.66	0.95	21.01	33.00	11.99
		Middle	V	86.64	12.47	11.66	0.95	**23.18**	33.00	9.82
		High	H	82.24	8.25	11.82	1.03	19.04	33.00	13.96
		High	V	85.51	11.81	11.82	1.03	22.60	33.00	10.40
3.00	QPSK	Low	H	82.12	7.43	11.46	0.86	18.03	33.00	14.97
		Low	V	83.12	8.37	11.46	0.86	18.97	33.00	14.03
		Middle	H	83.12	8.81	11.66	0.95	19.52	33.00	13.48
		Middle	V	85.50	11.33	11.66	0.95	22.04	33.00	10.96
		High	H	81.36	7.36	11.82	1.03	18.15	33.00	14.85
		High	V	84.12	10.41	11.82	1.03	21.20	33.00	11.80
	16QAM	Low	H	81.48	6.79	11.46	0.86	17.39	33.00	15.61
		Low	V	85.02	10.27	11.46	0.86	20.87	33.00	12.13
		Middle	H	82.12	7.81	11.66	0.95	18.52	33.00	14.48
		Middle	V	84.52	10.35	11.66	0.95	21.06	33.00	11.94
		High	H	81.26	7.26	11.82	1.03	18.05	33.00	14.95
		High	V	84.56	10.85	11.82	1.03	21.64	33.00	11.36
5.00	QPSK	Low	H	81.02	6.34	11.47	0.86	16.95	33.00	16.05
		Low	V	83.73	9.00	11.47	0.86	19.61	33.00	13.39
		Middle	H	81.03	6.72	11.66	0.95	17.43	33.00	15.57
		Middle	V	83.12	8.95	11.66	0.95	19.66	33.00	13.34
		High	H	80.12	6.11	11.82	1.03	16.90	33.00	16.10
		High	V	79.96	6.25	11.82	1.03	17.04	33.00	15.96
	16QAM	Low	H	80.37	5.69	11.47	0.86	16.30	33.00	16.70
		Low	V	84.26	9.53	11.47	0.86	20.14	33.00	12.86
		Middle	H	80.56	6.25	11.66	0.95	16.96	33.00	16.04
		Middle	V	82.99	8.82	11.66	0.95	19.53	33.00	13.47
		High	H	80.12	6.11	11.82	1.03	16.90	33.00	16.10
		High	V	83.05	9.34	11.82	1.03	20.13	33.00	12.87
10.0	QPSK	Low	H	80.56	5.92	11.49	0.87	16.54	33.00	16.46
		Low	V	82.38	7.70	11.49	0.87	18.32	33.00	14.68
		Middle	H	79.25	4.94	11.66	0.95	15.65	33.00	17.35
		Middle	V	81.90	7.73	11.66	0.95	18.44	33.00	14.56
		High	H	78.01	3.99	11.81	1.03	14.77	33.00	18.23
		High	V	81.98	8.25	11.81	1.03	19.03	33.00	13.97
	16QAM	Low	H	80.12	5.48	11.49	0.87	16.10	33.00	16.90
		Low	V	83.56	8.88	11.49	0.87	19.50	33.00	13.50
		Middle	H	80.56	6.25	11.66	0.95	16.96	33.00	16.04
		Middle	V	82.16	7.99	11.66	0.95	18.70	33.00	14.30
		High	H	80.45	6.43	11.81	1.03	17.21	33.00	15.79
		High	V	82.05	8.32	11.81	1.03	19.10	33.00	13.90

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
15.0	QPSK	Low	H	82.08	7.47	11.50	0.88	18.09	33.00	14.91
		Low	V	83.05	8.42	11.50	0.88	19.04	33.00	13.96
		Middle	H	79.56	5.25	11.66	0.95	15.96	33.00	17.04
		Middle	V	81.23	7.06	11.66	0.95	17.77	33.00	15.23
		High	H	80.56	6.52	11.81	1.02	17.31	33.00	15.69
		High	V	83.64	9.90	11.81	1.02	20.69	33.00	12.31
	16QAM	Low	H	80.91	6.30	11.50	0.88	16.92	33.00	16.08
		Low	V	83.31	8.68	11.50	0.88	19.30	33.00	13.70
		Middle	H	83.25	8.94	11.66	0.95	19.65	33.00	13.35
		Middle	V	85.23	11.06	11.66	0.95	21.77	33.00	11.23
		High	H	81.25	7.21	11.81	1.02	18.00	33.00	15.00
		High	V	83.35	9.61	11.81	1.02	20.40	33.00	12.60
20.0	QPSK	Low	H	79.89	5.31	11.52	0.88	15.95	33.00	17.05
		Low	V	82.90	8.32	11.52	0.88	18.96	33.00	14.04
		Middle	H	80.59	6.28	11.66	0.95	16.99	33.00	16.01
		Middle	V	81.36	7.19	11.66	0.95	17.90	33.00	15.10
		High	H	79.01	4.96	11.80	1.02	15.74	33.00	17.26
		High	V	84.98	11.22	11.80	1.02	22.00	33.00	11.00
	16QAM	Low	H	81.04	6.46	11.52	0.88	17.10	33.00	15.90
		Low	V	84.01	9.43	11.52	0.88	20.07	33.00	12.93
		Middle	H	82.16	7.85	11.66	0.95	18.56	33.00	14.44
		Middle	V	84.56	10.39	11.66	0.95	21.10	33.00	11.90
		High	H	79.21	5.16	11.80	1.02	15.94	33.00	17.06
		High	V	82.71	8.95	11.80	1.02	19.73	33.00	13.27

LTE Band 4

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.40	QPSK	Low	H	85.92	9.94	10.83	0.74	**20.03**	30.00	9.97
		Low	V	82.56	6.30	10.83	0.74	16.39	30.00	13.61
		Middle	H	84.34	8.50	10.90	0.73	18.67	30.00	11.33
		Middle	V	81.72	5.57	10.90	0.73	15.74	30.00	14.26
		High	H	84.00	8.31	10.96	0.71	18.56	30.00	11.44
		High	V	83.02	6.98	10.96	0.71	17.23	30.00	12.77
	16QAM	Low	H	84.73	8.75	10.83	0.74	**18.84**	30.00	11.16
		Low	V	81.49	5.23	10.83	0.74	15.32	30.00	14.68
		Middle	H	84.30	8.46	10.90	0.73	18.63	30.00	11.37
		Middle	V	81.54	5.39	10.90	0.73	15.56	30.00	14.44
		High	H	83.58	7.89	10.96	0.71	18.14	30.00	11.86
		High	V	82.84	6.80	10.96	0.71	17.05	30.00	12.95
3.00	QPSK	Low	H	85.75	9.76	10.83	0.74	19.85	30.00	10.15
		Low	V	82.37	6.10	10.83	0.74	16.19	30.00	13.81
		Middle	H	84.02	8.18	10.90	0.73	18.35	30.00	11.65
		Middle	V	81.44	5.29	10.90	0.73	15.46	30.00	14.54
		High	H	84.46	8.77	10.96	0.71	19.02	30.00	10.98
		High	V	83.49	7.44	10.96	0.71	17.69	30.00	12.31
	16QAM	Low	H	84.72	8.73	10.83	0.74	18.82	30.00	11.18
		Low	V	81.47	5.20	10.83	0.74	15.29	30.00	14.71
		Middle	H	83.86	8.02	10.90	0.73	18.19	30.00	11.81
		Middle	V	81.11	4.96	10.90	0.73	15.13	30.00	14.87
		High	H	84.02	8.33	10.96	0.71	18.58	30.00	11.42
		High	V	83.29	7.24	10.96	0.71	17.49	30.00	12.51
5.00	QPSK	Low	H	85.61	9.64	10.84	0.74	19.74	30.00	10.26
		Low	V	82.25	5.99	10.84	0.74	16.09	30.00	13.91
		Middle	H	84.01	8.17	10.90	0.73	18.34	30.00	11.66
		Middle	V	81.41	5.26	10.90	0.73	15.43	30.00	14.57
		High	H	84.12	8.42	10.96	0.71	18.67	30.00	11.33
		High	V	83.15	7.10	10.96	0.71	17.35	30.00	12.65
	16QAM	Low	H	84.58	8.61	10.84	0.74	18.71	30.00	11.29
		Low	V	81.22	4.96	10.84	0.74	15.06	30.00	14.94
		Middle	H	83.71	7.87	10.90	0.73	18.04	30.00	11.96
		Middle	V	81.07	4.92	10.90	0.73	15.09	30.00	14.91
		High	H	83.88	8.18	10.96	0.71	18.43	30.00	11.57
		High	V	83.12	7.07	10.96	0.71	17.32	30.00	12.68
10.0	QPSK	Low	H	85.35	9.39	10.85	0.74	19.50	30.00	10.50
		Low	V	81.93	5.69	10.85	0.74	15.80	30.00	14.20
		Middle	H	83.90	8.06	10.90	0.73	18.23	30.00	11.77
		Middle	V	81.32	5.17	10.90	0.73	15.34	30.00	14.66
		High	H	83.41	7.69	10.95	0.72	17.92	30.00	12.08
		High	V	82.43	6.37	10.95	0.72	16.60	30.00	13.40
	16QAM	Low	H	84.05	8.09	10.85	0.74	18.20	30.00	11.80
		Low	V	80.79	4.55	10.85	0.74	14.66	30.00	15.34
		Middle	H	83.62	7.78	10.90	0.73	17.95	30.00	12.05
		Middle	V	80.95	4.80	10.90	0.73	14.97	30.00	15.03
		High	H	83.10	7.38	10.95	0.72	17.61	30.00	12.39
		High	V	82.46	6.40	10.95	0.72	16.63	30.00	13.37

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
15.0	QPSK	Low	H	85.45	9.51	10.85	0.74	19.62	30.00	10.38
		Low	V	82.06	5.83	10.85	0.74	15.94	30.00	14.06
		Middle	H	84.38	8.54	10.90	0.73	18.71	30.00	11.29
		Middle	V	81.79	5.64	10.90	0.73	15.81	30.00	14.19
		High	H	83.10	7.37	10.94	0.72	17.59	30.00	12.41
		High	V	82.16	6.08	10.94	0.72	16.30	30.00	13.70
	16QAM	Low	H	84.25	8.31	10.85	0.74	18.42	30.00	11.58
		Low	V	81.03	4.80	10.85	0.74	14.91	30.00	15.09
		Middle	H	84.24	8.40	10.90	0.73	18.57	30.00	11.43
		Middle	V	81.46	5.31	10.90	0.73	15.48	30.00	14.52
		High	H	83.02	7.29	10.94	0.72	17.51	30.00	12.49
		High	V	82.37	6.29	10.94	0.72	16.51	30.00	13.49
20.0	QPSK	Low	H	85.47	9.55	10.86	0.74	19.67	30.00	10.33
		Low	V	82.08	5.86	10.86	0.74	15.98	30.00	14.02
		Middle	H	84.31	8.47	10.90	0.73	18.64	30.00	11.36
		Middle	V	81.65	5.50	10.90	0.73	15.67	30.00	14.33
		High	H	83.07	7.32	10.94	0.72	17.54	30.00	12.46
		High	V	82.11	6.02	10.94	0.72	16.24	30.00	13.76
	16QAM	Low	H	84.30	8.38	10.86	0.74	18.50	30.00	11.50
		Low	V	81.11	4.89	10.86	0.74	15.01	30.00	14.99
		Middle	H	84.26	8.42	10.90	0.73	18.59	30.00	11.41
		Middle	V	81.49	5.34	10.90	0.73	15.51	30.00	14.49
		High	H	83.04	7.29	10.94	0.72	17.51	30.00	12.49
		High	V	82.39	6.30	10.94	0.72	16.52	30.00	13.48

LTE Band 5:

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.40	QPSK	Low	H	94.63	19.61	0.00	0.96	**18.65**	38.45	19.80
		Low	V	90.50	18.58	0.00	0.96	17.62	38.45	20.83
		Middle	H	93.72	18.79	0.00	0.97	17.82	38.45	20.63
		Middle	V	89.82	18.03	0.00	0.97	17.06	38.45	21.39
		High	H	92.98	18.15	0.00	0.99	17.16	38.45	21.29
		High	V	89.26	17.59	0.00	0.99	16.60	38.45	21.85
	16QAM	Low	H	93.68	18.66	0.00	0.96	17.70	38.45	20.75
		Low	V	90.32	18.40	0.00	0.96	**17.44**	38.45	21.01
		Middle	H	93.34	18.41	0.00	0.97	17.44	38.45	21.01
		Middle	V	89.68	17.89	0.00	0.97	16.92	38.45	21.53
		High	H	92.87	18.04	0.00	0.99	17.05	38.45	21.40
		High	V	89.08	17.41	0.00	0.99	16.42	38.45	22.03
3.00	QPSK	Low	H	92.62	17.61	0.00	0.96	16.65	38.45	21.80
		Low	V	89.45	17.54	0.00	0.96	16.58	38.45	21.87
		Middle	H	91.54	16.61	0.00	0.97	15.64	38.45	22.81
		Middle	V	87.92	16.13	0.00	0.97	15.16	38.45	23.29
		High	H	92.11	17.27	0.00	0.99	16.28	38.45	22.17
		High	V	88.96	17.28	0.00	0.99	16.29	38.45	22.16
	16QAM	Low	H	92.15	17.14	0.00	0.96	16.18	38.45	22.27
		Low	V	89.36	17.45	0.00	0.96	16.49	38.45	21.96
		Middle	H	91.37	16.44	0.00	0.97	15.47	38.45	22.98
		Middle	V	87.75	15.96	0.00	0.97	14.99	38.45	23.46
		High	H	91.99	17.15	0.00	0.99	16.16	38.45	22.29
		High	V	88.65	16.97	0.00	0.99	15.98	38.45	22.47
5.00	QPSK	Low	H	93.27	18.27	0.00	0.96	17.31	38.45	21.14
		Low	V	88.62	16.72	0.00	0.96	15.76	38.45	22.69
		Middle	H	92.43	17.5	0.00	0.97	16.53	38.45	21.92
		Middle	V	89.03	17.24	0.00	0.97	16.27	38.45	22.18
		High	H	92.97	18.12	0.00	0.99	17.13	38.45	21.32
		High	V	89.83	18.14	0.00	0.99	17.15	38.45	21.3
	16QAM	Low	H	93.1	18.1	0.00	0.96	17.14	38.45	21.31
		Low	V	88.5	16.6	0.00	0.96	15.64	38.45	22.81
		Middle	H	92.29	17.36	0.00	0.97	16.39	38.45	22.06
		Middle	V	88.87	17.08	0.00	0.97	16.11	38.45	22.34
		High	H	92.78	17.93	0.00	0.99	16.94	38.45	21.51
		High	V	89.7	18.01	0.00	0.99	17.02	38.45	21.43
10.0	QPSK	Low	H	92.09	17.11	0.00	0.96	16.15	38.45	22.3
		Low	V	87.53	15.66	0.00	0.96	14.7	38.45	23.75
		Middle	H	92.01	17.08	0.00	0.97	16.11	38.45	22.34
		Middle	V	88.76	16.97	0.00	0.97	16	38.45	22.45
		High	H	92.18	17.31	0.00	0.98	16.33	38.45	22.12
		High	V	89.34	17.62	0.00	0.98	16.64	38.45	21.81
	16QAM	Low	H	91.85	16.87	0.00	0.96	15.91	38.45	22.54
		Low	V	87.38	15.51	0.00	0.96	14.55	38.45	23.9
		Middle	H	91.94	17.01	0.00	0.97	16.04	38.45	22.41
		Middle	V	88.52	16.73	0.00	0.97	15.76	38.45	22.69
		High	H	92.02	17.15	0.00	0.98	16.17	38.45	22.28
		High	V	89.21	17.49	0.00	0.98	16.51	38.45	21.94

LTE Band 7:

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5.00	QPSK	Low	H	83.98	9.31	13.10	1.24	21.17	33.00	11.83
		Low	V	79.46	6.02	13.10	1.24	17.88	33.00	15.12
		Middle	H	84.19	9.74	13.14	1.26	21.62	33.00	11.38
		Middle	V	79.97	6.98	13.14	1.26	18.86	33.00	14.14
		High	H	84.06	9.84	13.17	1.29	21.72	33.00	11.28
		High	V	79.53	6.99	13.17	1.29	18.87	33.00	14.13
	16QAM	Low	H	82.01	7.34	13.10	1.24	19.20	33.00	13.80
		Low	V	78.37	4.93	13.10	1.24	16.79	33.00	16.21
		Middle	H	82.92	8.47	13.14	1.26	20.35	33.00	12.65
		Middle	V	78.77	5.78	13.14	1.26	17.66	33.00	15.34
		High	H	84.06	9.84	13.17	1.29	21.72	33.00	11.28
		High	V	79.53	6.99	13.17	1.29	18.87	33.00	14.13
10.0	QPSK	Low	H	84.31	9.66	13.11	1.24	21.53	33.00	11.47
		Low	V	80.02	6.62	13.11	1.24	18.49	33.00	14.51
		Middle	H	84.27	9.82	13.14	1.26	21.70	33.00	11.30
		Middle	V	80.09	7.10	13.14	1.26	18.98	33.00	14.02
		High	H	84.08	9.84	13.17	1.29	21.72	33.00	11.28
		High	V	79.56	6.99	13.17	1.29	18.87	33.00	14.13
	16QAM	Low	H	83.35	8.69	13.11	1.24	20.56	33.00	12.44
		Low	V	78.86	5.46	13.11	1.24	17.33	33.00	15.67
		Middle	H	83.06	8.61	13.14	1.26	20.49	33.00	12.51
		Middle	V	78.91	5.92	13.14	1.26	17.80	33.00	15.20
		High	H	82.99	8.75	13.17	1.29	20.63	33.00	12.37
		High	V	78.63	6.06	13.17	1.29	17.94	33.00	15.06
15.0	QPSK	Low	H	84.65	10.01	13.11	1.25	21.87	33.00	11.13
		Low	V	80.21	6.84	13.11	1.25	18.70	33.00	14.30
		Middle	H	84.45	10.01	13.14	1.26	21.89	33.00	11.11
		Middle	V	80.25	7.26	13.14	1.26	19.14	33.00	13.86
		High	H	83.98	9.73	13.16	1.28	21.61	33.00	11.39
		High	V	79.41	6.80	13.16	1.28	18.68	33.00	14.32
	16QAM	Low	H	83.54	8.90	13.11	1.25	20.76	33.00	12.24
		Low	V	79.09	5.72	13.11	1.25	17.58	33.00	15.42
		Middle	H	83.29	8.85	13.14	1.26	20.73	33.00	12.27
		Middle	V	79.13	6.14	13.14	1.26	18.02	33.00	14.98
		High	H	83.01	8.76	13.16	1.28	20.64	33.00	12.36
		High	V	78.66	6.05	13.16	1.28	17.93	33.00	15.07
20.0	QPSK	Low	H	84.87	10.25	13.11	1.25	22.11	33.00	10.89
		Low	V	80.33	7.00	13.11	1.25	18.86	33.00	14.14
		Middle	H	84.62	10.18	13.14	1.26	22.06	33.00	10.94
		Middle	V	80.43	7.44	13.14	1.26	19.32	33.00	13.68
		High	H	83.76	9.49	13.16	1.28	21.37	33.00	11.63
		High	V	79.28	6.64	13.16	1.28	18.52	33.00	14.48
	16QAM	Low	H	84.06	9.44	13.11	1.25	21.30	33.00	11.70
		Low	V	79.42	6.09	13.11	1.25	17.95	33.00	15.05
		Middle	H	83.69	9.24	13.14	1.26	21.12	33.00	11.88
		Middle	V	79.46	6.47	13.14	1.26	18.35	33.00	14.65
		High	H	82.54	8.27	13.16	1.28	20.15	33.00	12.85
		High	V	78.17	5.53	13.16	1.28	17.41	33.00	15.59

LTE Band 12：

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.40	QPSK	Low	H	96.90	19.90	0.00	0.94	18.96	34.77	15.81
		Low	V	93.93	19.32	0.00	0.94	18.38	34.77	16.39
		Middle	H	96.37	19.51	0.00	0.94	18.57	37.77	16.20
		Middle	V	93.40	18.98	0.00	0.94	18.04	37.77	16.73
		High	H	97.36	20.64	0.00	0.94	**19.70**	34.77	15.07
		High	V	94.39	20.16	0.00	0.94	19.22	34.77	15.55
	16QAM	Low	H	97.20	20.20	0.00	0.94	19.26	34.77	15.51
		Low	V	94.23	19.62	0.00	0.94	18.68	34.77	16.09
		Middle	H	96.15	19.29	0.00	0.94	18.35	37.77	16.42
		Middle	V	93.18	18.76	0.00	0.94	17.82	37.77	16.95
		High	H	97.52	20.80	0.00	0.94	**19.86**	34.77	14.91
		High	V	94.55	20.32	0.00	0.94	19.38	34.77	15.39
3.00	QPSK	Low	H	95.21	18.23	0.00	0.94	17.29	34.77	17.48
		Low	V	92.24	17.65	0.00	0.94	16.71	34.77	18.06
		Middle	H	96.29	19.43	0.00	0.94	18.49	37.77	16.28
		Middle	V	93.32	18.90	0.00	0.94	17.96	37.77	16.81
		High	H	95.31	18.56	0.00	0.94	17.62	34.77	17.15
		High	V	92.34	18.07	0.00	0.94	17.13	34.77	17.64
	16QAM	Low	H	95.88	18.90	0.00	0.94	17.96	34.77	16.81
		Low	V	92.91	18.32	0.00	0.94	17.38	34.77	17.39
		Middle	H	95.70	18.84	0.00	0.94	17.90	37.77	16.87
		Middle	V	92.73	18.31	0.00	0.94	17.37	37.77	17.40
		High	H	94.68	17.89	0.00	0.94	16.95	34.77	17.82
		High	V	91.73	17.40	0.00	0.94	16.46	34.77	18.31
5.00	QPSK	Low	H	94.72	17.76	0.00	0.94	16.82	34.77	17.95
		Low	V	91.75	17.19	0.00	0.94	16.25	34.77	18.52
		Middle	H	96.26	19.40	0.00	0.94	18.46	37.77	16.31
		Middle	V	93.29	18.87	0.00	0.94	17.93	37.77	16.84
		High	H	95.94	19.21	0.00	0.94	18.27	34.77	16.50
		High	V	92.97	18.72	0.00	0.94	17.78	34.77	16.99
	16QAM	Low	H	94.80	17.84	0.00	0.94	16.90	34.77	17.87
		Low	V	91.83	17.27	0.00	0.94	16.33	34.77	18.44
		Middle	H	95.54	18.68	0.00	0.94	17.74	37.77	17.03
		Middle	V	92.57	18.15	0.00	0.94	17.21	37.77	17.56
		High	H	96.08	19.35	0.00	0.94	18.41	34.77	16.36
		High	V	93.11	18.86	0.00	0.94	17.92	34.77	16.85
10.0	QPSK	Low	H	94.20	17.28	0.00	0.94	16.34	34.77	18.43
		Low	V	91.15	16.65	0.00	0.94	15.71	34.77	19.06
		Middle	H	95.98	19.12	0.00	0.94	18.18	37.77	16.59
		Middle	V	92.79	18.37	0.00	0.94	17.43	37.77	17.34
		High	H	95.48	18.73	0.00	0.94	17.79	34.77	16.98
		High	V	92.51	18.24	0.00	0.94	17.30	34.77	17.47
	16QAM	Low	H	94.19	17.27	0.00	0.94	16.33	34.77	18.44
		Low	V	91.13	16.63	0.00	0.94	15.69	34.77	19.08
		Middle	H	95.85	18.99	0.00	0.94	18.05	37.77	16.72
		Middle	V	92.72	18.30	0.00	0.94	17.36	37.77	17.41
		High	H	94.59	17.80	0.00	0.94	16.86	34.77	17.91
		High	V	91.64	17.31	0.00	0.94	16.37	34.77	18.40

LTE Band 13：

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
5.00	QPSK	Low	H	93.45	17.88	0.00	0.93	**16.95**	34.77	17.82
		Low	V	86.35	13.68	0.00	0.93	12.75	34.77	22.02
		Middle	H	92.76	17.23	0.00	0.93	16.30	34.77	18.47
		Middle	V	85.66	13.05	0.00	0.93	12.12	34.77	22.65
		High	H	93.29	17.80	0.00	0.93	16.87	34.77	17.90
		High	V	86.19	13.64	0.00	0.93	12.71	34.77	22.06
	16QAM	Low	H	93.56	17.99	0.00	0.93	**17.06**	34.77	17.71
		Low	V	86.46	13.79	0.00	0.93	12.86	34.77	21.91
		Middle	H	92.21	16.68	0.00	0.93	15.75	34.77	19.02
		Middle	V	85.11	12.50	0.00	0.93	11.57	34.77	23.20
		High	H	93.67	18.18	0.00	0.93	17.25	34.77	17.52
		High	V	86.57	14.02	0.00	0.93	13.09	34.77	21.68
10.0	QPSK	Middle	H	92.02	16.49	0.00	0.93	15.56	34.77	19.21
		Middle	V	85.17	12.56	0.00	0.93	11.63	34.77	23.14
	16QAM	Middle	H	91.75	16.22	0.00	0.93	15.29	34.77	19.48
		Middle	V	84.96	12.35	0.00	0.93	11.42	34.77	23.35

LTE Band 25:

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.40	QPSK	Low	H	85.03	10.33	11.45	0.85	20.93	33.00	12.07
		Low	V	86.15	11.38	11.45	0.85	21.98	33.00	11.02
		Middle	H	85.68	11.40	11.68	0.96	22.12	33.00	10.88
		Middle	V	85.97	11.85	11.68	0.96	22.57	33.00	10.43
		High	H	85.79	11.83	11.83	1.04	22.62	33.00	10.38
		High	V	86.23	12.56	11.83	1.04	**23.35**	33.00	9.65
	16QAM	Low	H	84.75	10.05	11.45	0.85	20.65	33.00	12.35
		Low	V	86.01	11.24	11.45	0.85	21.84	33.00	11.16
		Middle	H	85.53	11.25	11.68	0.96	21.97	33.00	11.03
		Middle	V	85.91	11.79	11.68	0.96	22.51	33.00	10.49
		High	H	85.73	11.77	11.83	1.04	22.56	33.00	10.44
		High	V	86.23	12.56	11.83	1.04	**23.35**	33.00	9.65
3.00	QPSK	Low	H	85.23	10.54	11.46	0.86	21.14	33.00	11.86
		Low	V	86.51	11.76	11.46	0.86	22.36	33.00	10.64
		Middle	H	85.46	11.18	11.68	0.96	21.90	33.00	11.1
		Middle	V	85.72	11.60	11.68	0.96	22.32	33.00	10.68
		High	H	85.56	11.59	11.83	1.03	22.39	33.00	10.61
		High	V	85.83	12.16	11.83	1.03	22.96	33.00	10.04
	16QAM	Low	H	85.06	10.37	11.46	0.86	20.97	33.00	12.03
		Low	V	86.28	11.53	11.46	0.86	22.13	33.00	10.87
		Middle	H	85.32	11.04	11.68	0.96	21.76	33.00	11.24
		Middle	V	85.71	11.59	11.68	0.96	22.31	33.00	10.69
		High	H	85.56	11.59	11.83	1.03	22.39	33.00	10.61
		High	V	86.00	12.33	11.83	1.03	23.13	33.00	9.87
5.00	QPSK	Low	H	84.95	10.27	11.47	0.86	20.88	33.00	12.12
		Low	V	86.12	11.39	11.47	0.86	22.00	33.00	11
		Middle	H	85.80	11.68	11.68	0.96	22.40	33.00	10.6
		Middle	V	85.87	11.75	11.68	0.96	22.47	33.00	10.53
		High	H	86.26	12.14	11.68	0.96	22.86	33.00	10.14
		High	V	86.02	12.34	11.83	1.03	23.14	33.00	9.86
	16QAM	Low	H	84.56	9.88	11.47	0.86	20.49	33.00	12.51
		Low	V	85.84	11.11	11.47	0.86	21.72	33.00	11.28
		Middle	H	85.43	11.15	11.68	0.96	21.87	33.00	11.13
		Middle	V	85.80	11.68	11.68	0.96	22.40	33.00	10.6
		High	H	85.58	11.61	11.83	1.03	22.41	33.00	10.59
		High	V	86.01	12.33	11.83	1.03	23.13	33.00	9.87
10.0	QPSK	Low	H	84.87	10.23	11.49	0.87	20.85	33.00	12.15
		Low	V	86.06	11.38	11.49	0.87	22.00	33.00	11
		Middle	H	85.97	11.69	11.68	0.96	22.41	33.00	10.59
		Middle	V	86.26	12.14	11.68	0.96	22.86	33.00	10.14
		High	H	86.28	12.29	11.82	1.03	23.08	33.00	9.92
		High	V	86.26	12.14	11.68	0.96	22.86	33.00	10.14
	16QAM	Low	H	84.52	9.88	11.49	0.87	20.50	33.00	12.5
		Low	V	85.82	11.14	11.49	0.87	21.76	33.00	11.24
		Middle	H	85.56	11.28	11.68	0.96	22.00	33.00	11
		Middle	V	85.96	11.84	11.68	0.96	22.56	33.00	10.44
		High	H	85.74	11.75	11.82	1.03	22.54	33.00	10.46
		High	V	86.15	12.45	11.82	1.03	23.24	33.00	9.76

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
15.0	QPSK	Low	H	84.79	10.18	11.50	0.88	20.80	33.00	12.20
		Low	V	85.95	11.32	11.50	0.88	21.94	33.00	11.06
		Middle	H	86.03	11.75	11.68	0.96	22.47	33.00	10.53
		Middle	V	86.29	12.17	11.68	0.96	22.89	33.00	10.11
		High	H	86.28	12.28	11.82	1.03	23.07	33.00	9.93
		High	V	86.03	11.91	11.68	0.96	22.63	33.00	10.37
	16QAM	Low	H	84.47	9.86	11.50	0.88	20.48	33.00	12.52
		Low	V	85.80	11.17	11.50	0.88	21.79	33.00	11.21
		Middle	H	85.67	11.39	11.68	0.96	22.11	33.00	10.89
		Middle	V	86.03	11.91	11.68	0.96	22.63	33.00	10.37
		High	H	85.77	11.77	11.82	1.03	22.56	33.00	10.44
		High	V	86.34	12.63	11.82	1.03	23.42	33.00	9.58
20.0	QPSK	Low	H	84.96	10.38	11.52	0.88	21.02	33.00	11.98
		Low	V	86.07	11.49	11.52	0.88	22.13	33.00	10.87
		Middle	H	85.76	11.48	11.68	0.96	22.20	33.00	10.80
		Middle	V	86.10	11.98	11.68	0.96	22.70	33.00	10.30
		High	H	86.05	12.03	11.81	1.03	22.81	33.00	10.19
		High	V	86.23	12.50	11.81	1.03	23.28	33.00	9.72
	16QAM	Low	H	84.37	9.79	11.52	0.88	20.43	33.00	12.57
		Low	V	85.71	11.13	11.52	0.88	21.77	33.00	11.23
		Middle	H	85.53	11.25	11.68	0.96	21.97	33.00	11.03
		Middle	V	86.01	11.89	11.68	0.96	22.61	33.00	10.39
		High	H	85.82	11.80	11.81	1.03	22.58	33.00	10.42
		High	V	86.33	12.60	11.81	1.03	**23.38**	33.00	9.62

LTE Band 26:

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1.40	QPSK	Low	H	95.77	20.67	0.00	0.95	19.72	38.45	18.69
		Low	V	89.63	17.61	0.00	0.95	16.66	38.45	21.75
		Middle	H	95.72	20.76	0.00	0.97	**19.79**	38.45	18.66
		Middle	V	89.58	17.73	0.00	0.97	16.76	38.45	21.69
		High	H	95.15	20.32	0.00	0.99	19.33	38.45	19.12
		High	V	89.01	17.34	0.00	0.99	16.35	38.45	22.10
	16QAM	Low	H	95.72	20.62	0.00	0.95	19.67	38.45	18.74
		Low	V	89.58	17.56	0.00	0.95	16.61	38.45	21.80
		Middle	H	95.78	20.82	0.00	0.97	**19.85**	38.45	18.60
		Middle	V	89.64	17.79	0.00	0.97	16.82	38.45	21.63
		High	H	95.37	20.54	0.00	0.99	19.55	38.45	18.90
		High	V	89.23	17.56	0.00	0.99	16.57	38.45	21.88
3.00	QPSK	Low	H	94.03	18.94	0.00	0.95	17.99	38.45	20.46
		Low	V	87.89	15.88	0.00	0.95	14.93	38.45	23.52
		Middle	H	93.99	19.03	0.00	0.97	18.06	38.45	20.39
		Middle	V	87.85	16.00	0.00	0.97	15.03	38.45	23.42
		High	H	93.44	18.60	0.00	0.99	17.61	38.45	20.84
		High	V	87.30	15.62	0.00	0.99	14.63	38.45	23.82
	16QAM	Low	H	93.89	18.80	0.00	0.95	17.85	38.45	20.60
		Low	V	87.75	15.74	0.00	0.95	14.79	38.45	23.66
		Middle	H	93.28	18.32	0.00	0.97	17.35	38.45	21.10
		Middle	V	87.14	15.29	0.00	0.97	14.32	38.45	24.13
		High	H	93.57	18.73	0.00	0.99	17.74	38.45	20.71
		High	V	87.43	15.75	0.00	0.99	14.76	38.45	23.69
5.00	QPSK	Low	H	92.28	17.20	0.00	0.95	16.25	38.45	22.20
		Low	V	86.14	14.14	0.00	0.95	13.19	38.45	25.26
		Middle	H	92.93	17.97	0.00	0.97	17.00	38.45	21.45
		Middle	V	86.79	14.94	0.00	0.97	13.97	38.45	24.48
		High	H	92.56	17.71	0.00	0.99	16.72	38.45	21.73
		High	V	86.42	14.73	0.00	0.99	13.74	38.45	24.71
	16QAM	Low	H	92.18	17.10	0.00	0.95	16.15	38.45	22.30
		Low	V	86.04	14.04	0.00	0.95	13.09	38.45	25.36
		Middle	H	92.38	17.42	0.00	0.97	16.45	38.45	22.00
		Middle	V	86.24	14.39	0.00	0.97	13.42	38.45	25.03
		High	H	93.43	18.58	0.00	0.99	17.59	38.45	20.86
		High	V	87.29	15.60	0.00	0.99	14.61	38.45	23.84
10.0	QPSK	Low	H	92.52	17.46	0.00	0.95	16.51	38.45	21.94
		Low	V	86.38	14.41	0.00	0.95	13.46	38.45	24.99
		Middle	H	92.23	17.27	0.00	0.97	16.30	38.45	22.15
		Middle	V	86.09	14.24	0.00	0.97	13.27	38.45	25.18
		High	H	91.38	16.51	0.00	0.98	15.53	38.45	22.92
		High	V	85.24	13.52	0.00	0.98	12.54	38.45	25.91
	16QAM	Low	H	92.44	17.38	0.00	0.95	16.43	38.45	22.02
		Low	V	86.30	14.33	0.00	0.95	13.38	38.45	25.07
		Middle	H	91.68	16.72	0.00	0.97	15.75	38.45	22.70
		Middle	V	85.54	13.69	0.00	0.97	12.72	38.45	25.73
		High	H	91.93	17.06	0.00	0.98	16.08	38.45	22.37
		High	V	85.79	14.07	0.00	0.98	13.09	38.45	25.36

BW (MHz)	Modulation	Test Channel	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
15.0	QPSK	Low	H	94.23	19.19	0.00	0.96	18.23	38.45	20.22
		Low	V	88.09	16.14	0.00	0.96	15.18	38.45	23.27
		Middle	H	93.38	18.42	0.00	0.97	17.45	38.45	21.00
		Middle	V	87.24	15.39	0.00	0.97	14.42	38.45	24.03
		High	H	92.37	17.48	0.00	0.98	16.50	38.45	21.95
		High	V	86.23	14.49	0.00	0.98	13.51	38.45	24.94
	16QAM	Low	H	93.88	18.84	0.00	0.96	17.88	38.45	20.57
		Low	V	87.74	15.79	0.00	0.96	14.83	38.45	23.62
		Middle	H	93.25	18.29	0.00	0.97	17.32	38.45	21.13
		Middle	V	87.11	15.26	0.00	0.97	14.29	38.45	24.16
		High	H	92.55	17.66	0.00	0.98	16.68	38.45	21.77
		High	V	86.41	14.67	0.00	0.98	13.69	38.45	24.76

Note:
1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
3) Margin = Limit-Absolute Level

FCC §2.1049, §22.917, §22.905 & §24.238 & §27.53&§90.209- OCCUPIED BANDWIDTH

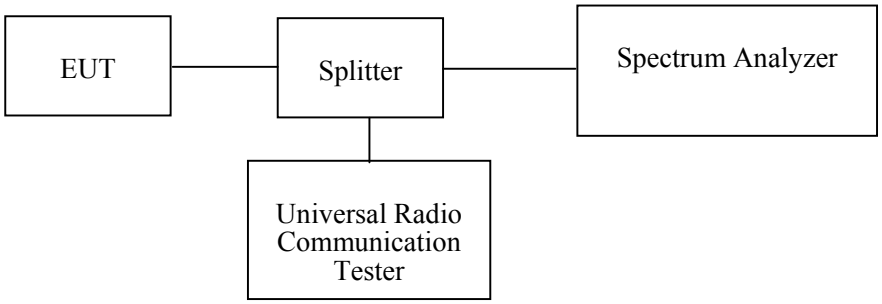
Applicable Standard

FCC §2.1049, §22.917, §22.905, §24.238, §27.53, and§90.209

Test Procedure

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation.

The 26 dB & 99% bandwidth was recorded.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2020-05-09	2021-05-09
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41005011	Each time	/
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41002201	Each Time	/
E-Microwave	Two-way Spliter	ODP-1-6-2S	OE0120142	Each Time	/

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	27.1 °C~ 30 °C
Relative Humidity:	54 %~ 74 %
ATM Pressure:	99.8kPa ~100.8kPa
Tester:	Chris Mo
Test Date:	2020-08-22~2020-08-28

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots.

WCDMA:

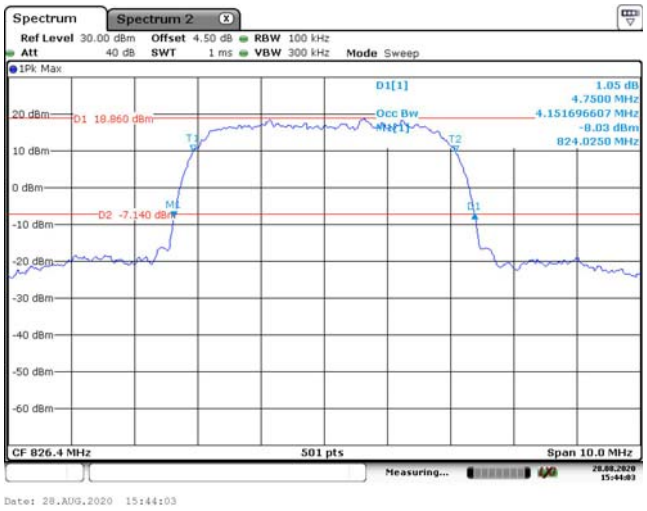
Band	Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
Cellular	Rel 99	4.152	4.132	4.132	4.750	4.731	4.711
	HSDPA	4.192	4.132	4.132	4.750	4.770	4.711
	HSUPA	4.172	4.132	4.112	4.750	4.732	4.750
PCS	Rel 99	4.192	4.172	4.172	4.746	4.731	4.731
	HSDPA	4.192	4.172	4.152	4.750	4.750	4.731
	HSUPA	4.192	4.172	4.192	4.750	4.750	4.750
AWS	Rel 99	4.172	4.152	4.172	4.750	4.750	4.750
	HSDPA	4.192	4.192	4.172	4.750	4.750	4.770
	HSUPA	4.192	4.152	4.172	4.750	4.750	4.770

LTE Bands:

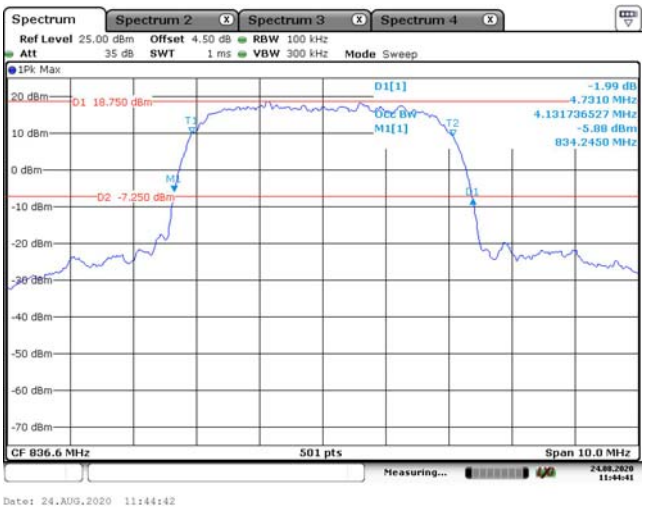
Band	Bandwidth (MHz)	Modulation mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
			Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
LTE Band 2	1.4 MHz	QPSK	1.108	1.102	1.108	1.293	1.314	1.311
		16QAM	1.102	1.108	1.102	1.323	1.344	1.317
	3 MHz	QPSK	2.695	2.695	2.695	1.850	2.940	2.946
		16QAM	2.683	2.695	2.695	2.958	2.964	2.982
	5 MHz	QPSK	4.531	4.531	4.531	5.038	5.060	5.070
		16QAM	4.531	4.511	4.511	5.050	5.040	5.030
	10 MHz	QPSK	8.982	8.942	8.942	9.815	9.800	9.820
		16QAM	8.942	8.942	8.942	9.741	9.680	9.661
	15 MHz	QPSK	13.533	13.533	13.533	14.925	15.000	14.850
		16QAM	13.533	13.533	13.533	14.850	14.820	14.790
	20 MHz	QPSK	17.964	18.044	17.964	19.296	19.360	19.321
		16QAM	17.964	18.044	17.884	19.401	19.440	19.561
LTE Band 4	1.4 MHz	QPSK	1.102	1.102	1.108	1.323	1.308	1.335
		16QAM	1.102	1.102	1.096	1.329	1.314	1.311
	3 MHz	QPSK	2.695	2.695	2.695	2.972	2.928	2.958
		16QAM	2.683	2.683	2.683	2.958	2.964	2.970
	5 MHz	QPSK	4.511	4.531	4.531	5.020	5.040	5.010
		16QAM	4.551	4.511	4.531	5.090	5.040	5.010
	10 MHz	QPSK	8.942	8.942	8.942	9.860	9.760	9.740
		16QAM	8.942	8.942	8.982	9.690	9.680	9.820
	15 MHz	QPSK	13.413	13.473	13.413	14.446	14.880	14.431
		16QAM	13.413	13.473	13.413	14.311	14.820	14.431
	20 MHz	QPSK	17.884	17.884	17.884	18.917	19.360	19.067
		16QAM	17.964	17.964	17.884	19.002	19.440	18.987

Band	Bandwidth (MHz)	Modulation mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
			Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
LTE Band 5	1.4 MHz	QPSK	1.108	1.102	1.108	1.335	1.320	1.311
		16QAM	1.108	1.102	1.102	1.329	1.320	1.323
	3 MHz	QPSK	2.695	2.695	2.683	2.943	2.940	2.970
		16QAM	2.695	2.683	2.683	2.970	2.976	2.958
	5 MHz	QPSK	4.551	4.531	4.511	5.068	5.040	5.050
		16QAM	4.551	4.511	4.531	5.070	5.020	5.030
	10 MHz	QPSK	8.982	8.942	8.942	9.855	9.720	9.741
		16QAM	8.982	8.942	8.942	9.780	9.640	9.780
LTE Band 7	5 MHz	QPSK	4.511	4.531	4.511	5.090	5.040	5.010
		16QAM	4.515	4.531	4.530	5.036	5.040	5.065
	10 MHz	QPSK	8.944	8.942	8.944	9.830	9.800	9.725
		16QAM	8.944	8.942	8.944	9.696	9.720	9.609
	15 MHz	QPSK	13.415	13.473	13.415	14.544	14.940	14.457
		16QAM	13.415	13.473	13.415	14.327	14.820	14.414
	20 MHz	QPSK	17.829	17.804	17.887	19.045	19.280	18.813
		16QAM	17.829	17.884	17.887	18.987	19.360	19.161
LTE Band 12	1.4 MHz	QPSK	1.103	1.096	1.103	1.311	1.302	1.333
		16QAM	1.098	1.096	1.098	1.302	1.296	1.294
	3 MHz	QPSK	2.700	2.683	2.692	2.952	2.940	2.935
		16QAM	2.692	2.695	2.692	2.944	2.976	2.952
	5 MHz	QPSK	4.544	4.531	4.530	5.051	5.040	5.051
		16QAM	4.544	4.511	4.515	5.065	5.020	5.007
	10 MHz	QPSK	8.944	8.942	9.001	9.754	9.680	9.754
		16QAM	8.915	4.531	8.973	9.667	5.040	9.783
LTE Band 13	5 MHz	QPSK	4.515	4.530	4.515	5.007	5.040	5.007
		16QAM	4.515	4.511	4.544	5.022	5.020	5.036
	10 MHz	QPSK	\	8.942	\	\	9.720	\
		16QAM	\	8.942	\	\	9.720	\
LTE Band 25	1.4 MHz	QPSK	1.107	1.102	1.107	1.329	1.308	1.294
		16QAM	1.107	1.096	1.098	1.342	1.320	1.303
	3 MHz	QPSK	2.700	2.695	2.692	2.926	2.952	2.935
		16QAM	2.692	2.695	2.683	2.944	2.976	2.944
	5 MHz	QPSK	4.530	4.551	4.501	5.065	5.060	4.978
		16QAM	4.544	4.511	4.530	5.080	5.040	5.007
	10 MHz	QPSK	8.973	8.982	8.944	9.812	9.760	9.638
		16QAM	8.973	8.942	8.944	9.783	9.720	9.754
	15 MHz	QPSK	13.415	13.533	13.372	14.501	14.940	14.327
		16QAM	13.415	13.533	13.415	14.240	14.880	14.414
	20 MHz	QPSK	17.829	18.044	17.829	18.871	19.440	18.920
		16QAM	17.829	17.964	17.887	18.929	19.520	18.920
LTE Band 26	1.4 MHz	QPSK	1.103	1.102	1.103	1.320	1.320	1.333
		16QAM	1.098	1.102	1.103	1.324	1.320	1.298
	3 MHz	QPSK	2.692	2.695	2.692	2.944	2.952	2.960
		16QAM	2.683	2.695	2.683	2.952	2.988	2.952
	5 MHz	QPSK	4.515	4.551	4.501	4.933	5.060	5.007
		16QAM	4.530	4.511	4.515	5.022	5.060	5.022
	10 MHz	QPSK	8.944	8.982	8.915	9.812	9.800	9.754
		16QAM	8.915	8.942	8.915	9.609	9.680	9.725
	15 MHz	QPSK	13.415	13.533	13.415	14.371	14.820	14.501
		16QAM	13.415	13.533	13.458	14.284	14.820	14.370

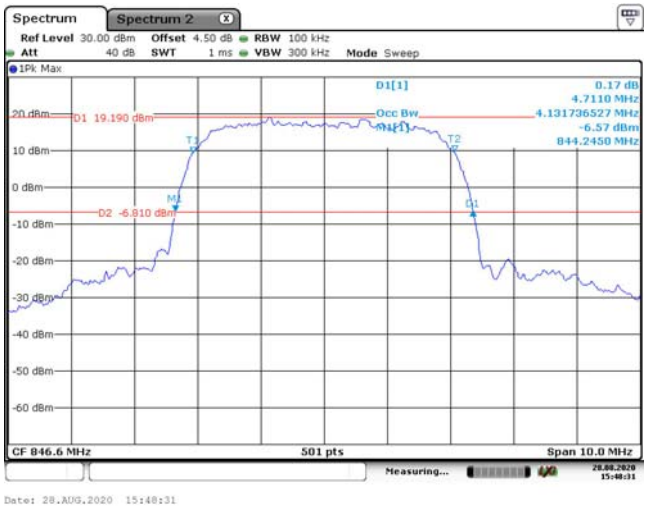
WCDMA Band V, Rel99, Low Channel



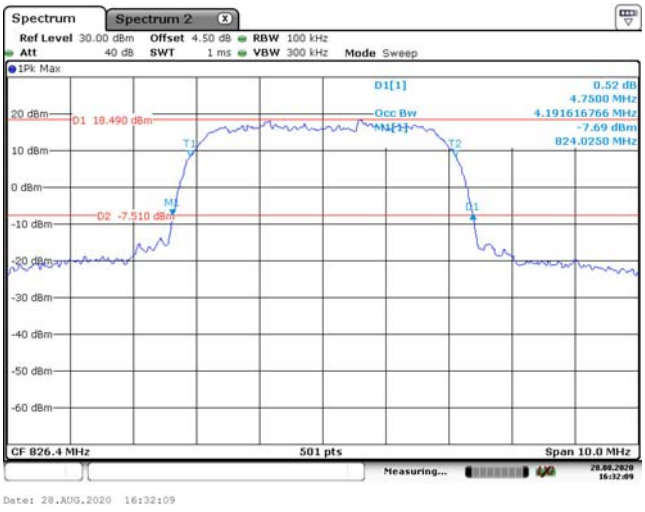
WCDMA Band V, Rel99, Middle Channel



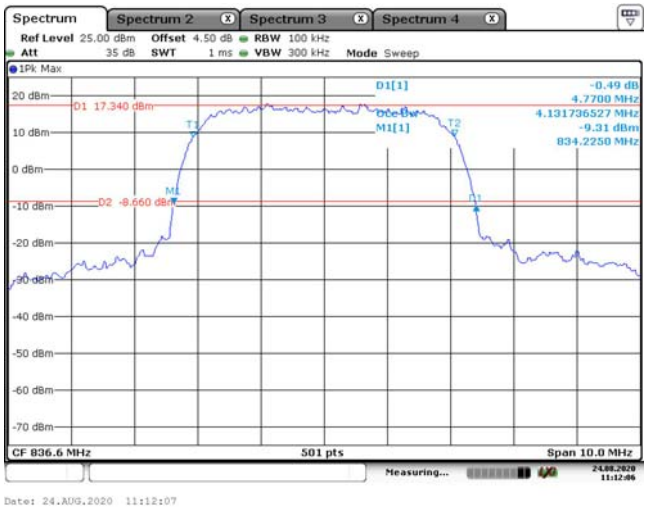
WCDMA Band V, Rel99, High Channel



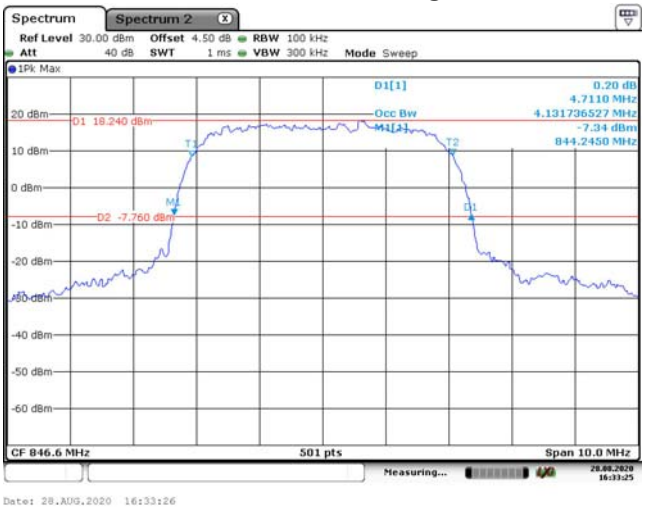
WCDMA Band V, HSDPA, Low Channel



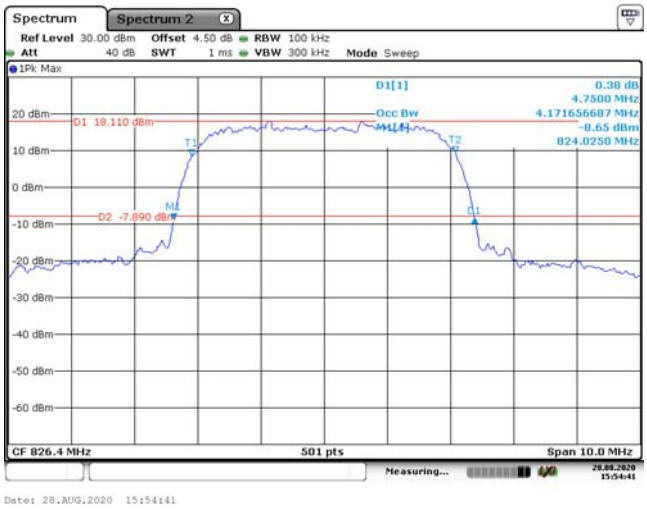
WCDMA Band V, HSDPA, Middle Channel



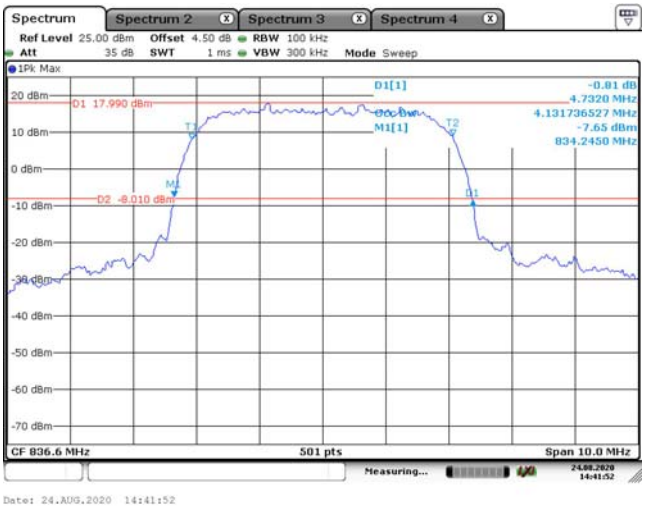
WCDMA Band V, HSDPA, High Channel



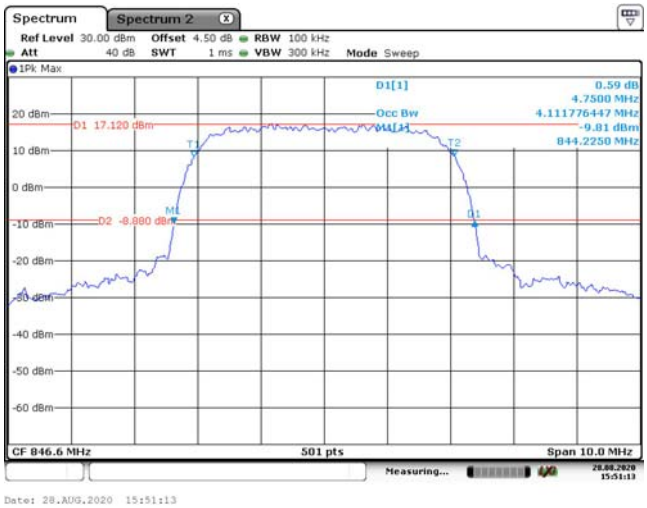
WCDMA Band V, HSUPA, Low Channel



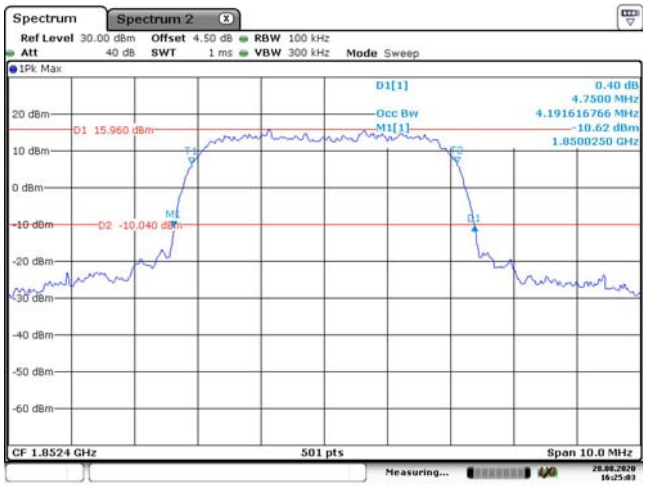
WCDMA Band V, HSUPA, Middle Channel



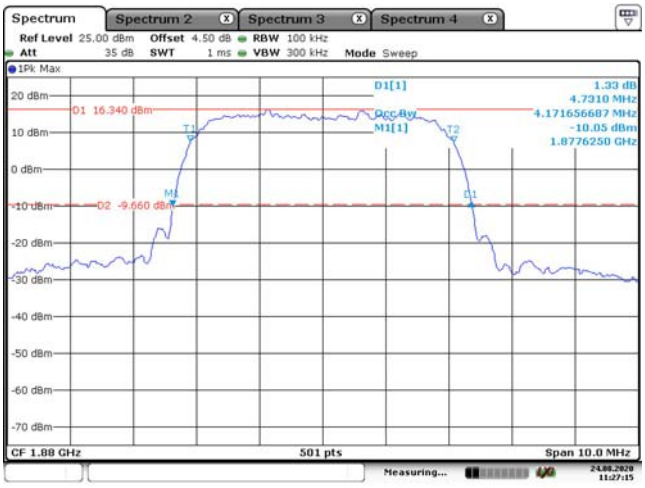
WCDMA Band V, HSUPA, High Channel



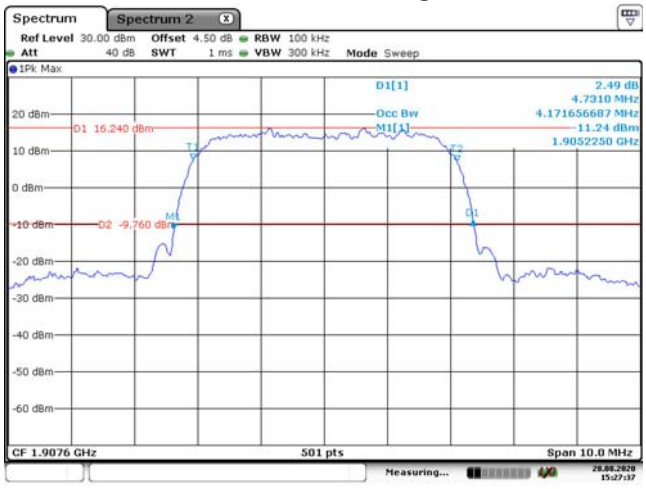
WCDMA Band II, Rel99, Low Channel



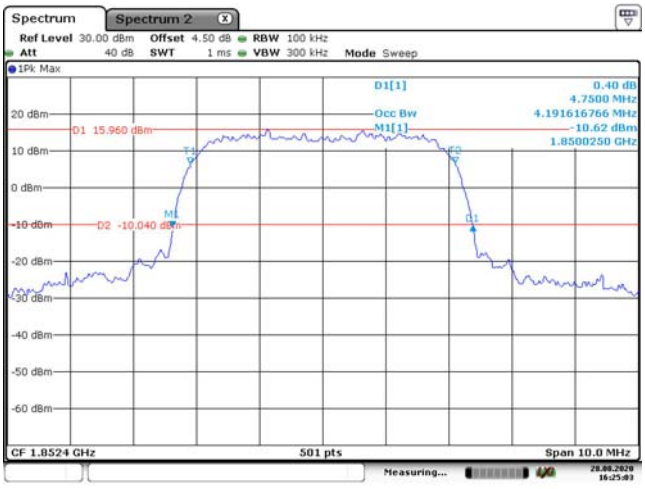
WCDMA Band II, Rel99, Middle Channel



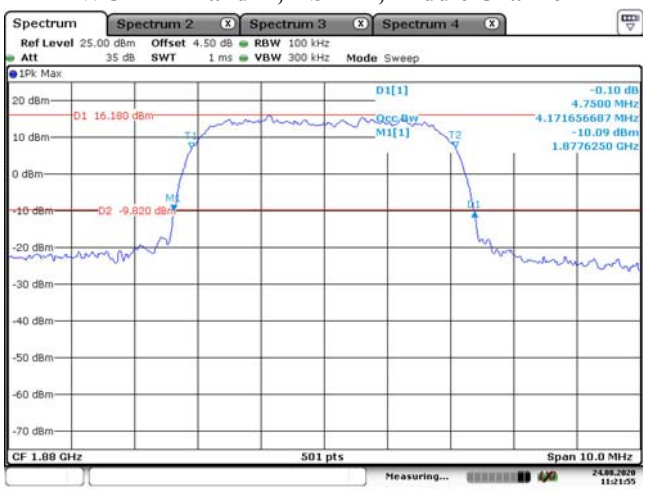
WCDMA Band II, Rel99, High Channel



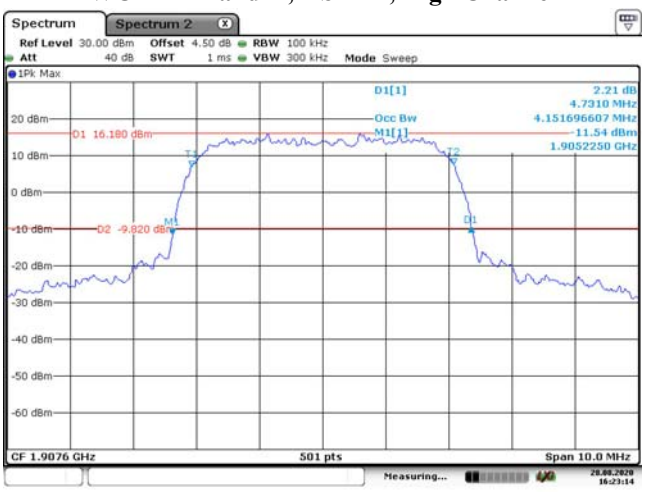
WCDMA Band II, HSDPA, Low Channel



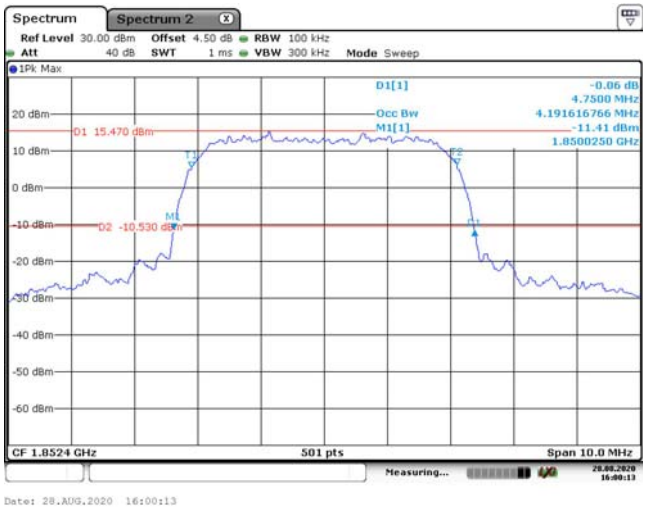
WCDMA Band II, HSDPA, Middle Channel



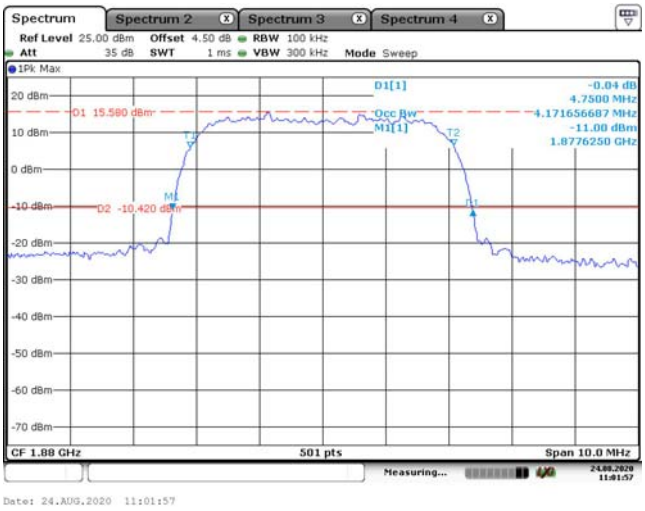
WCDMA Band II, HSDPA, High Channel



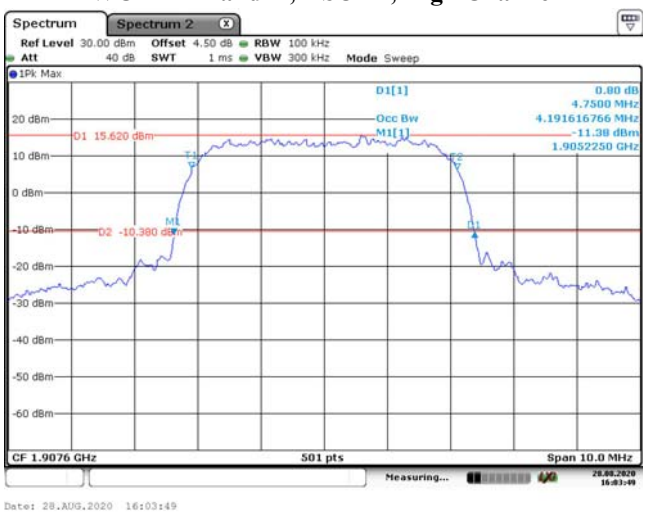
WCDMA Band II, HSUPA, Low Channel



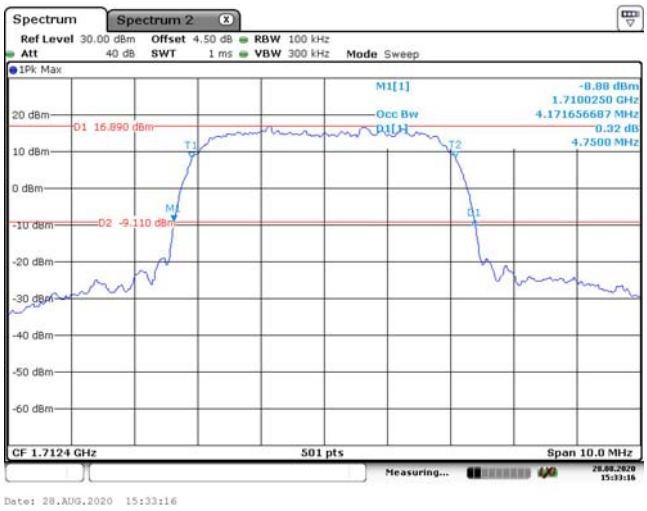
WCDMA Band II, HSUPA, Middle Channel



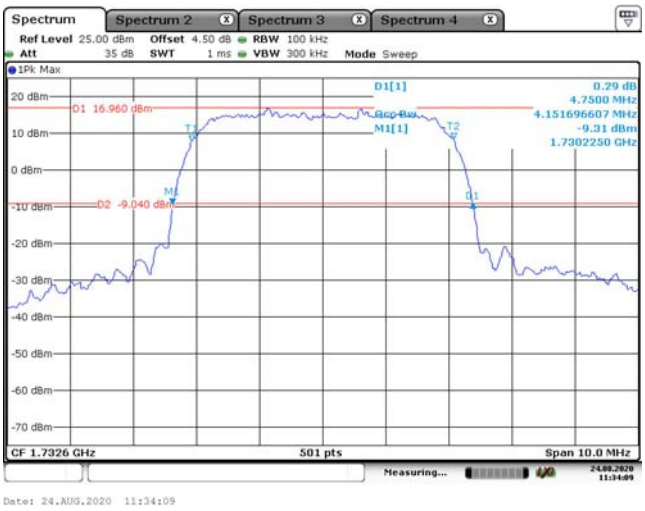
WCDMA Band II, HSUPA, High Channel



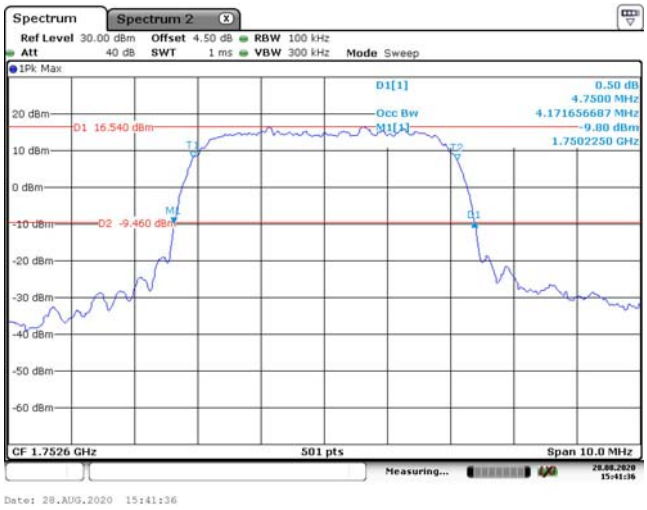
WCDMA Band IV, Rel99, Low Channel



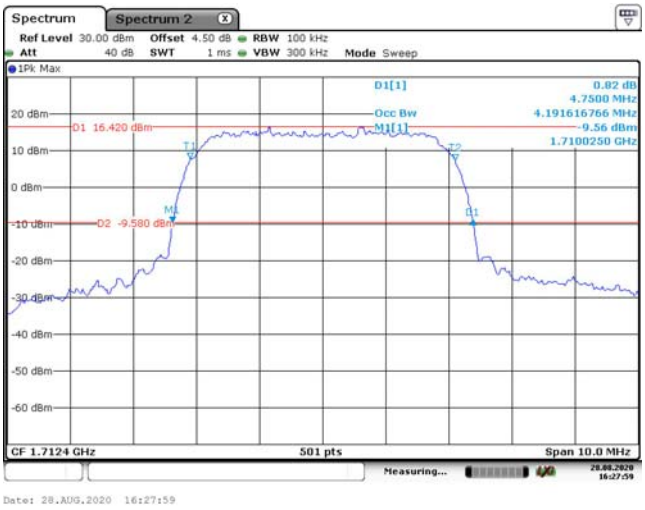
WCDMA Band IV, Rel99, Middle Channel



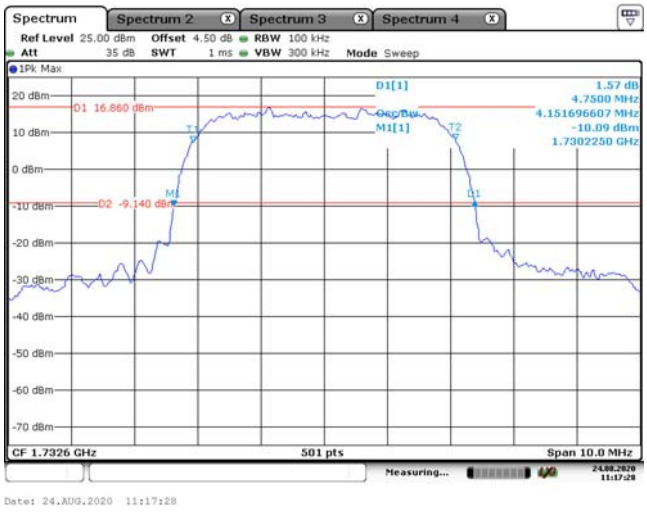
WCDMA Band IV, Rel99, High Channel



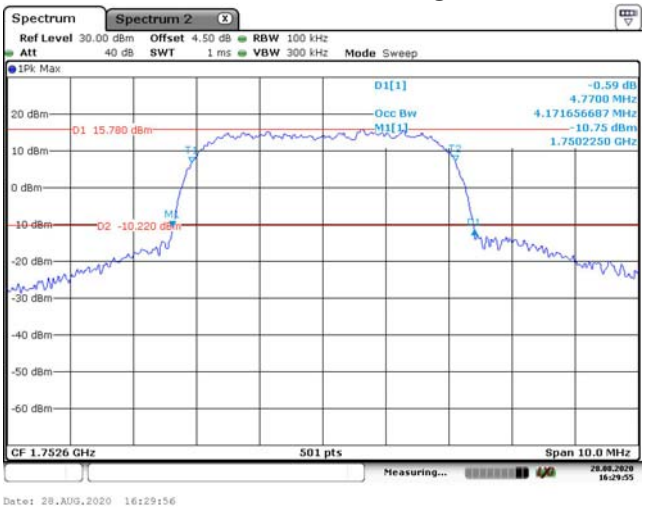
WCDMA Band IV, HSDPA, Low Channel



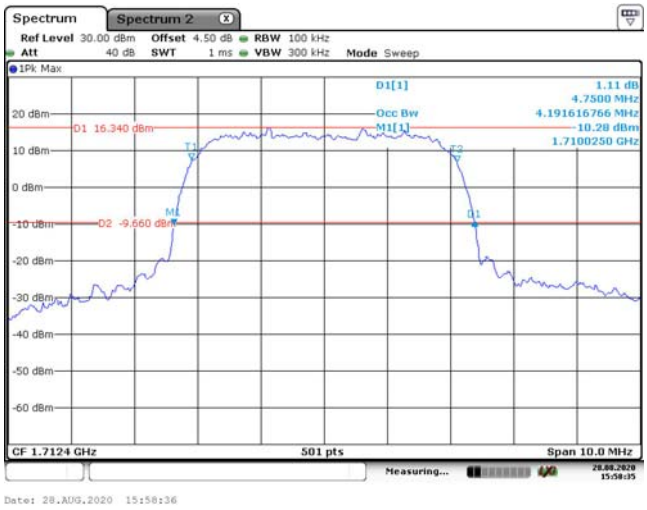
WCDMA Band IV, HSDPA, Middle Channel



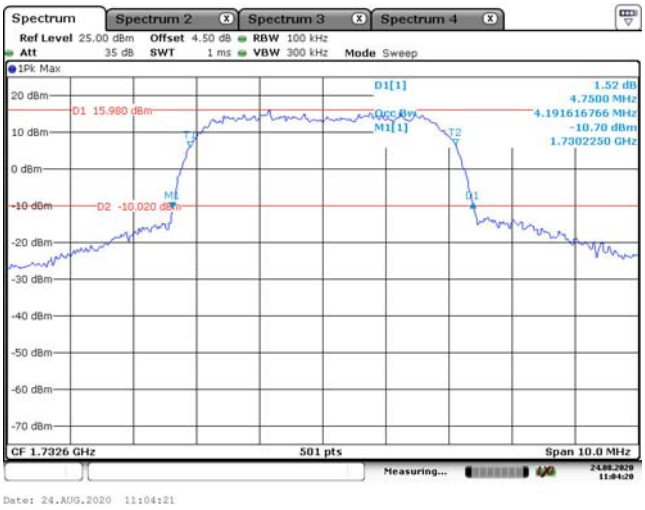
WCDMA Band IV, HSDPA, High Channel



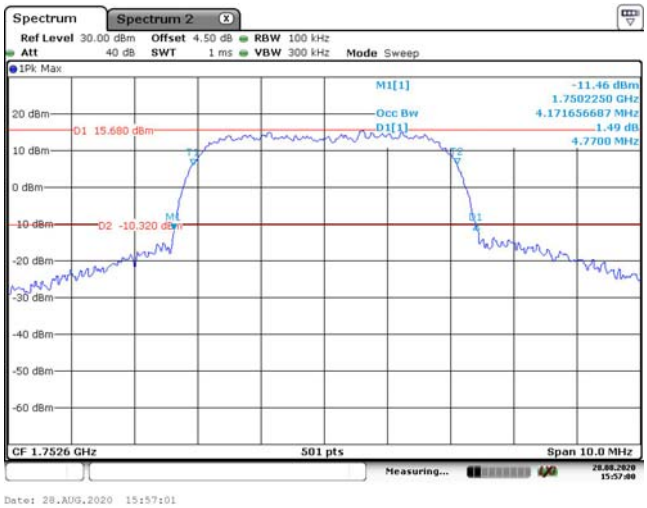
WCDMA Band IV, HSUPA, Low Channel



WCDMA Band IV, HSUPA, Middle Channel

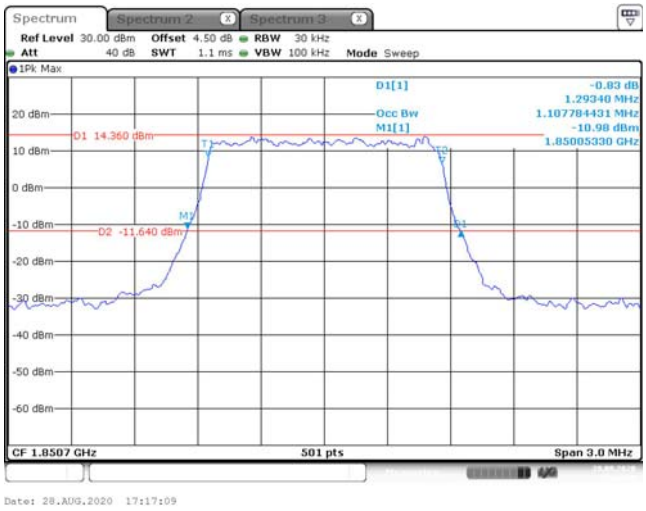


WCDMA Band IV, HSUPA, High Channel

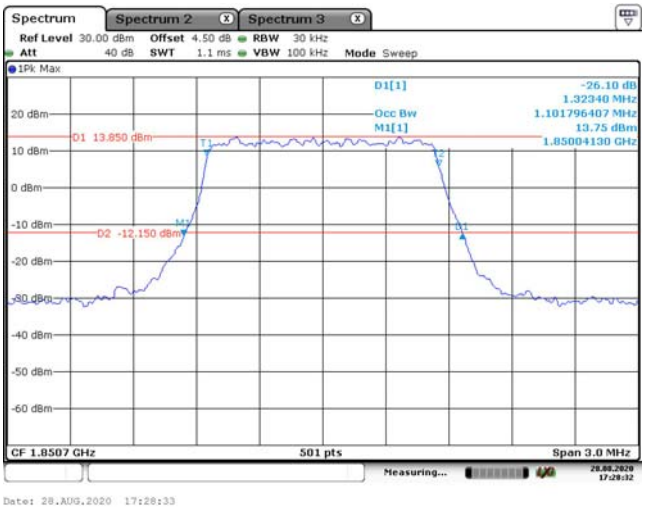


LTE Band 2

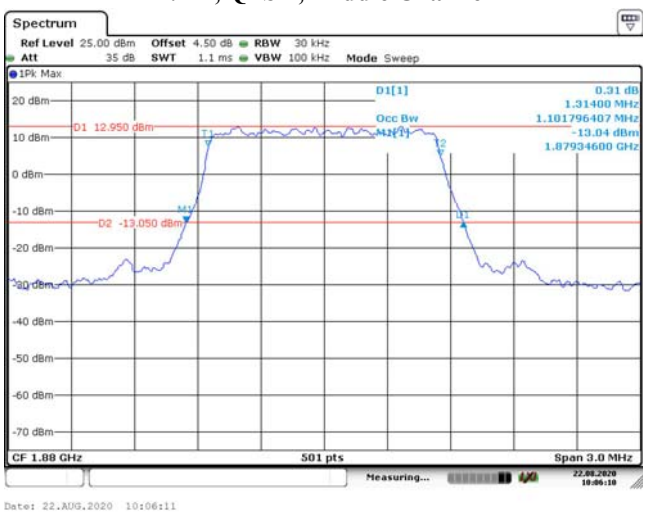
1.4M, QPSK, Low Channel



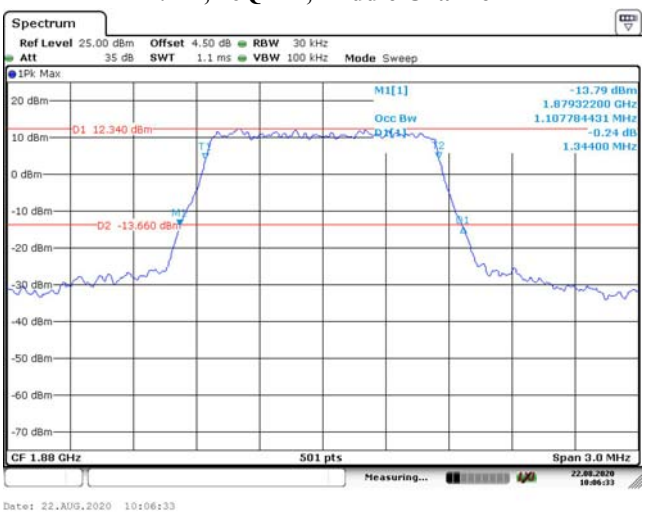
1.4M, 16QAM, Low Channel



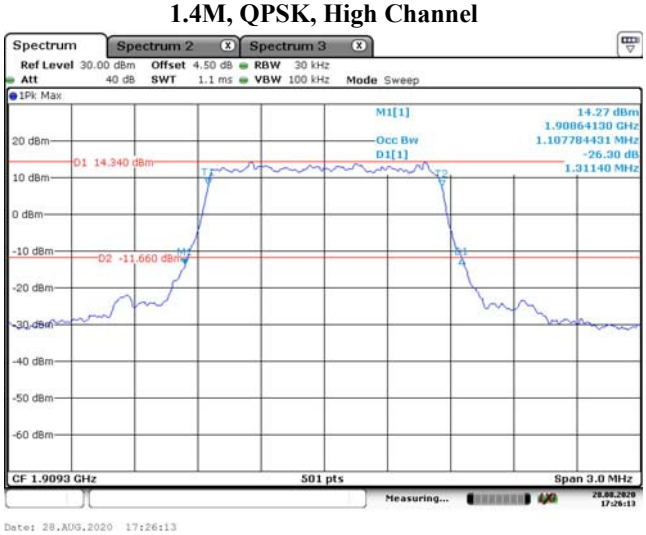
1.4M, QPSK, Middle Channel



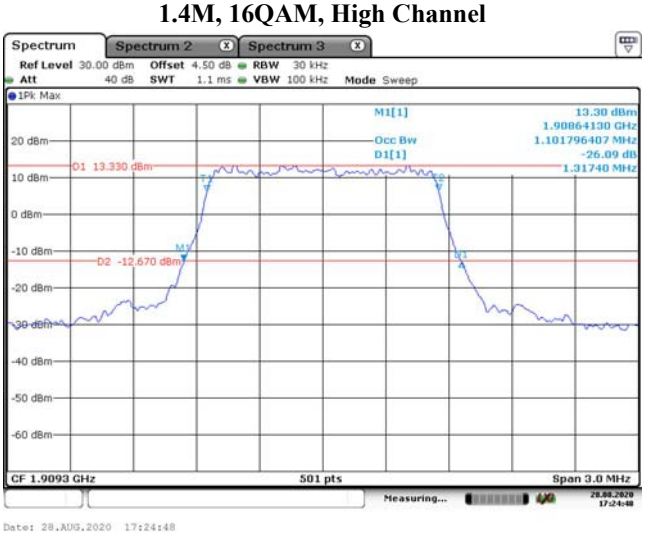
1.4M, 16QAM, Middle Channel



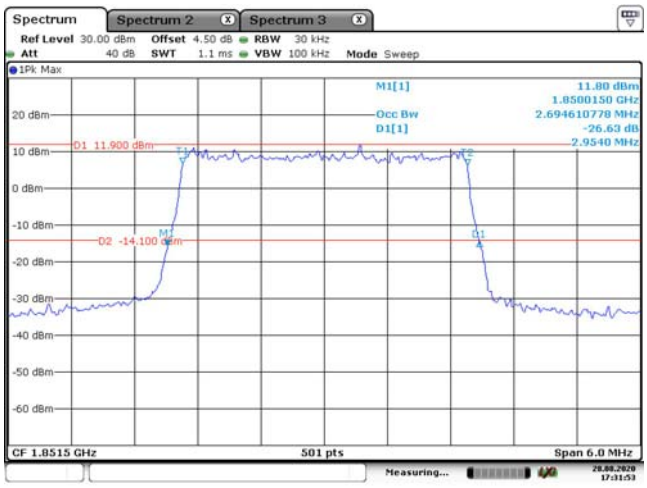
1.4M, QPSK, High Channel



1.4M, 16QAM, High Channel

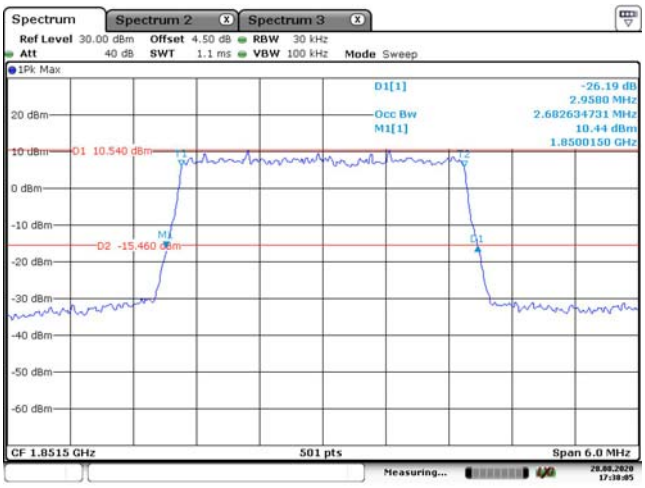


3M, QPSK, Low Channel



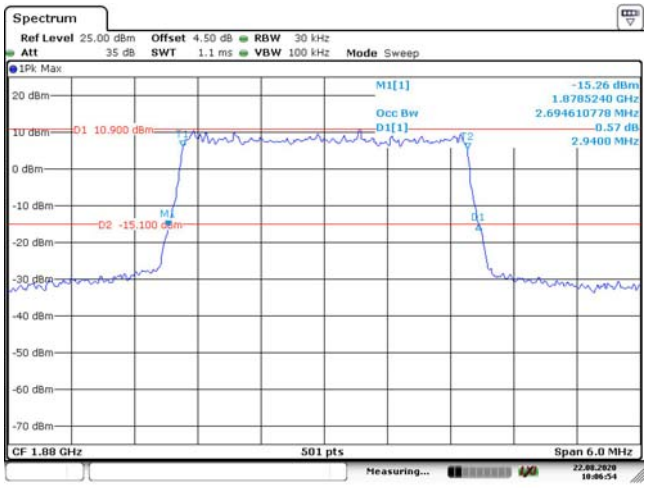
Date: 28.AUG.2020 17:31:54

3M, 16QAM, Low Channel



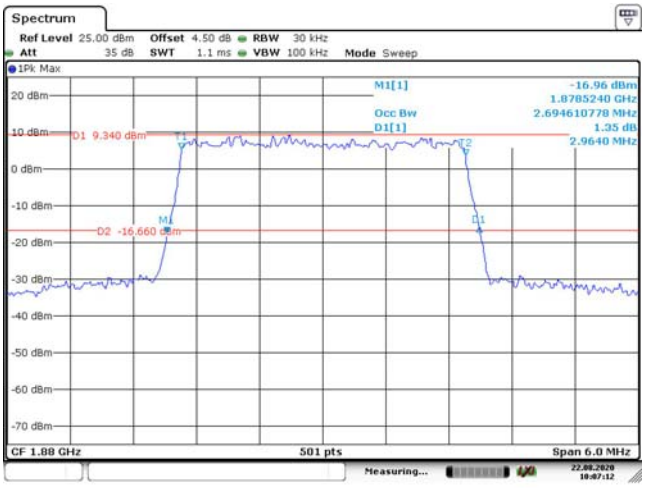
Date: 28.AUG.2020 17:38:06

3M, QPSK, Middle Channel



Date: 22.AUG.2020 10:06:54

3M, 16QAM, Middle Channel



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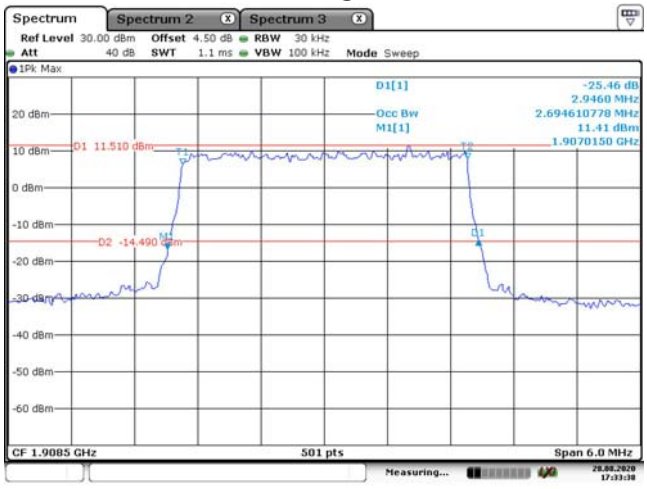
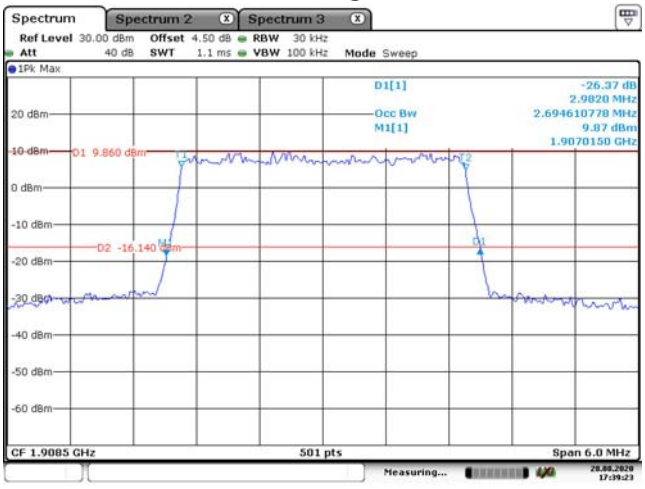
3M, QPSK, High Channel



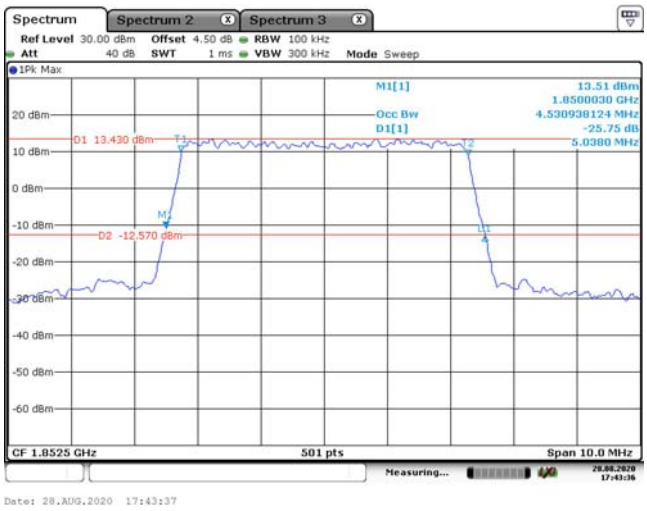
Date: 28.AUG.2020 17:33:38

3M, 16QAM, High Channel

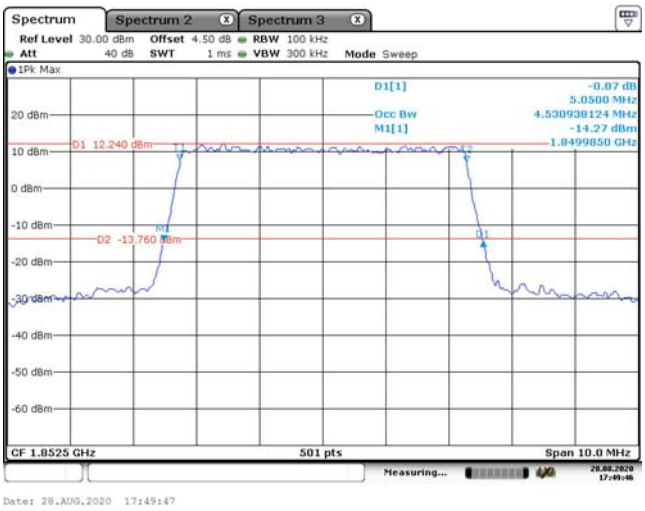


Date: 28.AUG.2020 17:39:23

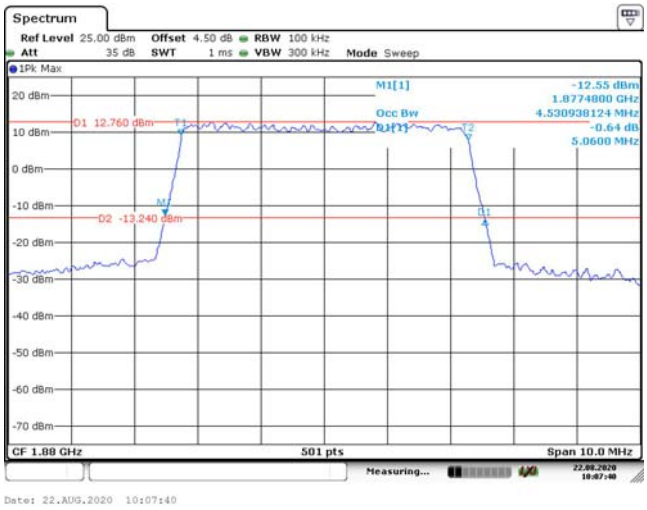
5M, QPSK, Low Channel



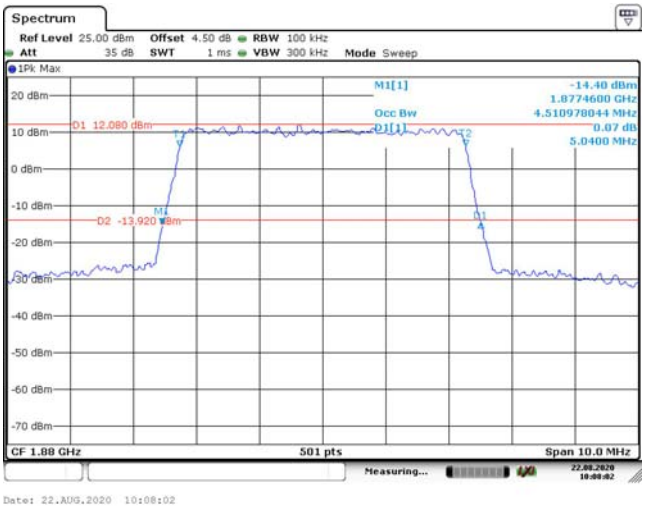
5M, 16QAM, Low Channel



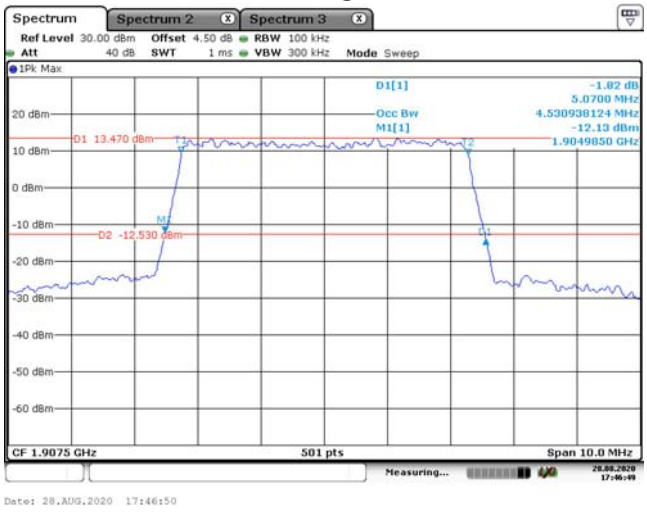
5M, QPSK, Middle Channel



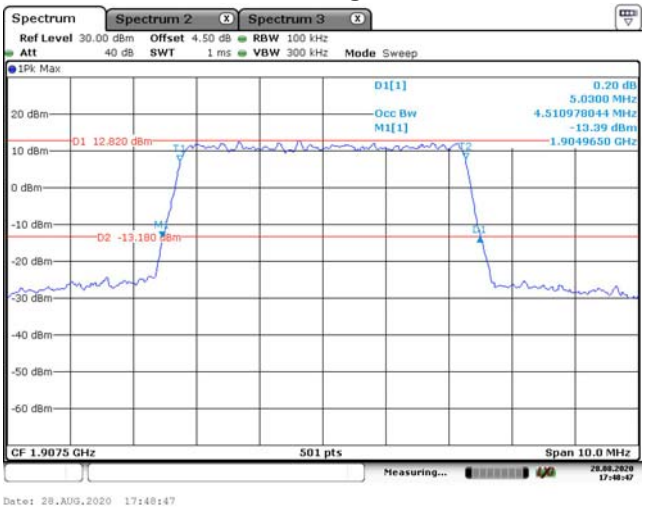
5M, 16QAM, Middle Channel



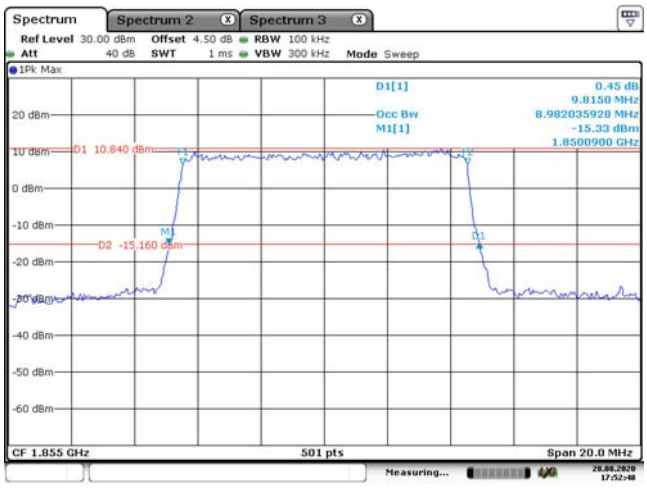
5M, QPSK, High Channel



5M, 16QAM, High Channel

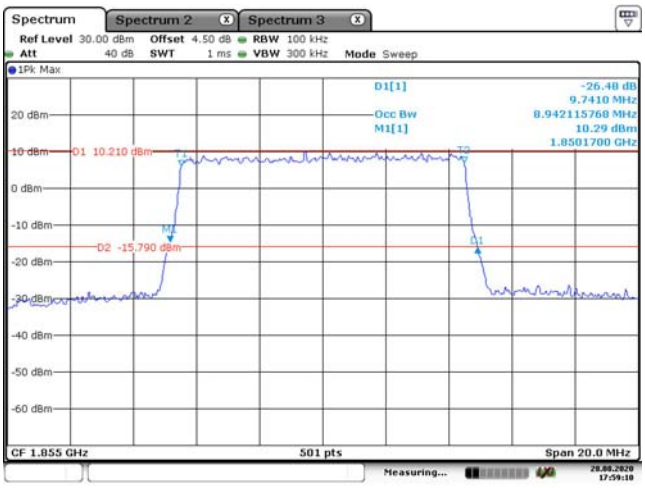


10M, QPSK, Low Channel



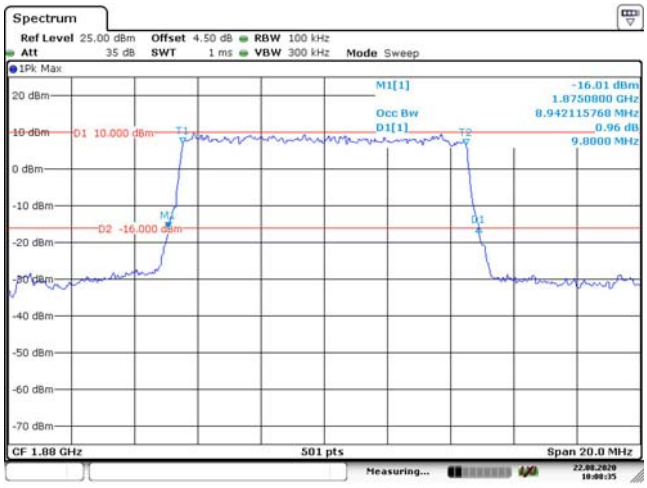
Date: 28.AUG.2020 17:52:49

10M, 16QAM, Low Channel



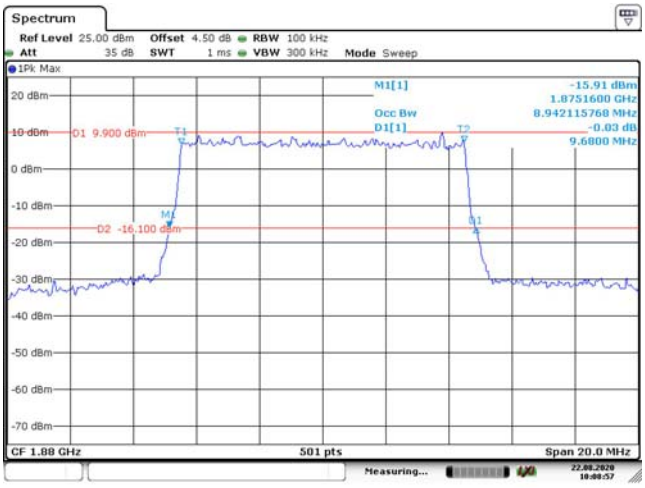
Date: 28.AUG.2020 17:59:11

10M, QPSK, Middle Channel



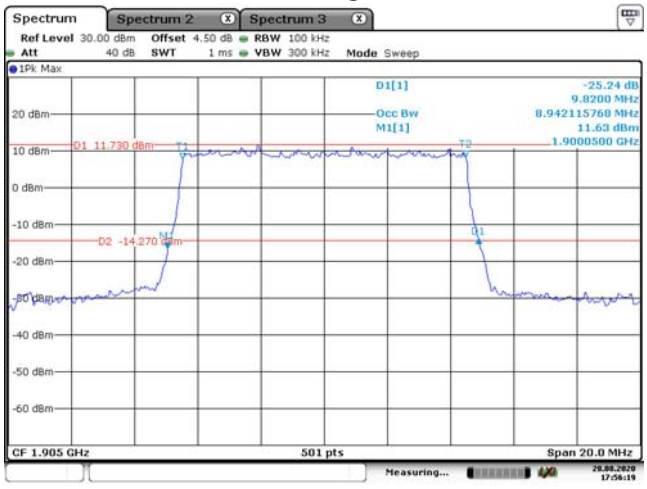
Date: 22.AUG.2020 10:08:36

10M, 16QAM, Middle Channel



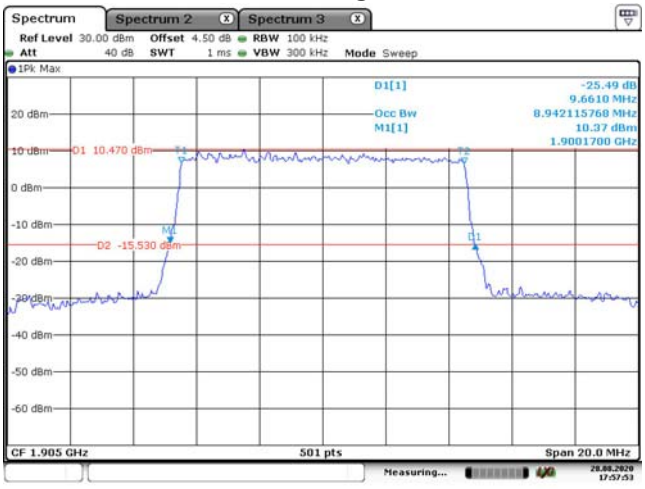
Date: 22.AUG.2020 10:08:58

10M, QPSK, High Channel



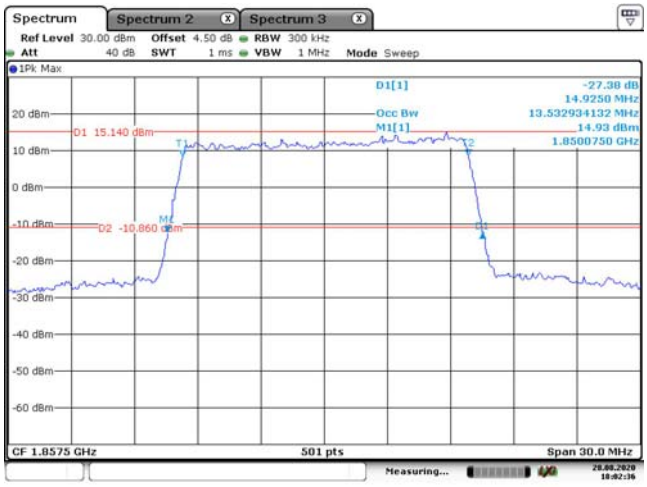
Date: 28.AUG.2020 17:56:20

10M, 16QAM, High Channel



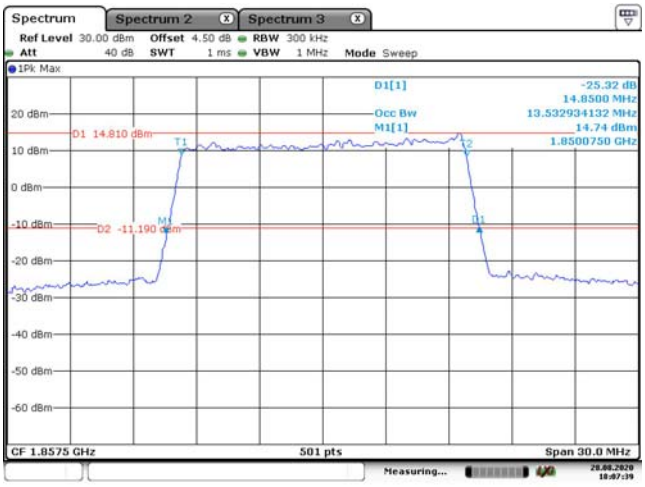
Date: 28.AUG.2020 17:57:54

15M, QPSK, Low Channel



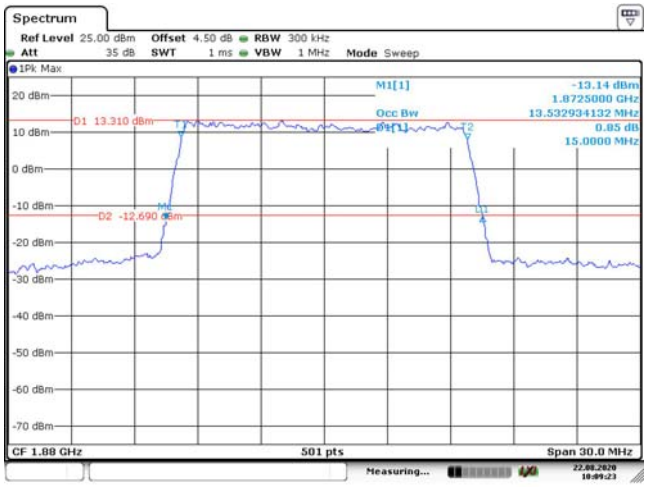
Date: 28.AUG.2020 18:02:36

15M, 16QAM, Low Channel



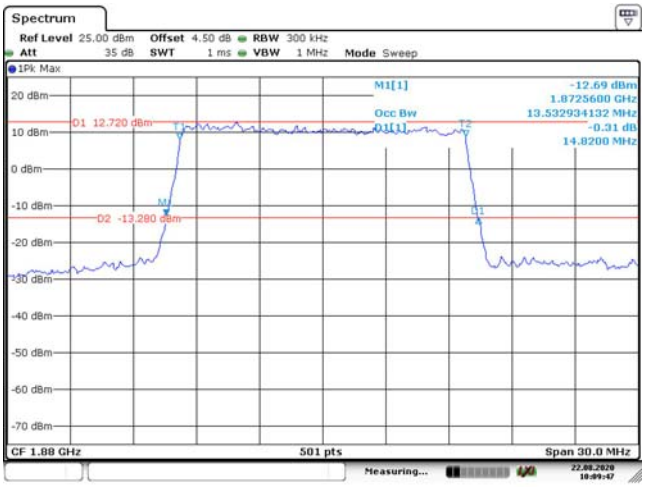
Date: 28.AUG.2020 18:07:40

15M, QPSK, Middle Channel



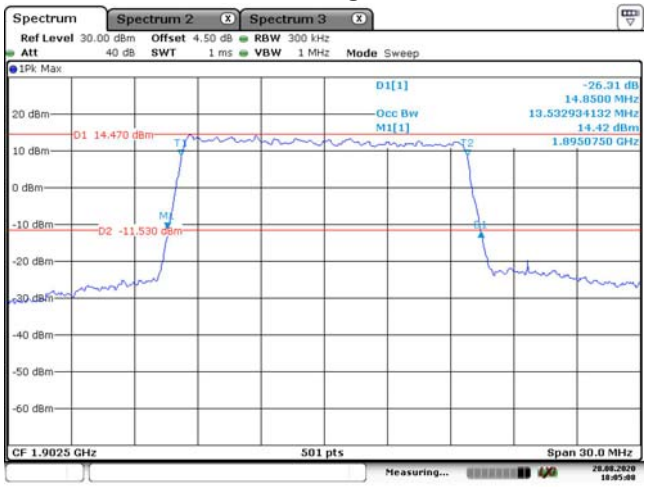
Date: 22.AUG.2020 10:09:24

15M, 16QAM, Middle Channel



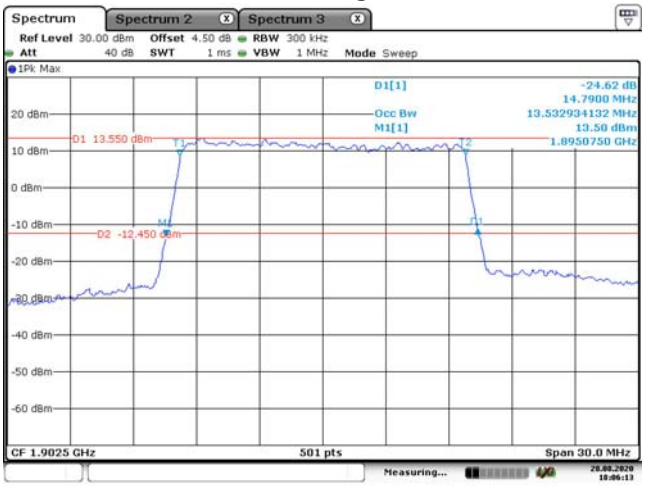
Date: 22.AUG.2020 10:09:48

15M, QPSK, High Channel



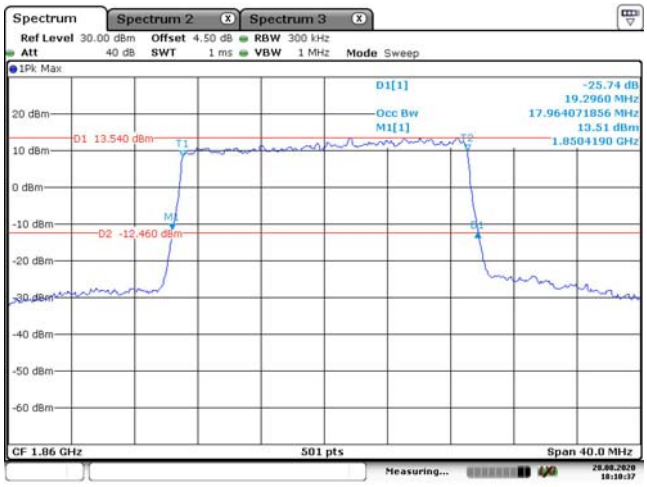
Date: 28.AUG.2020 18:05:09

15M, 16QAM, High Channel



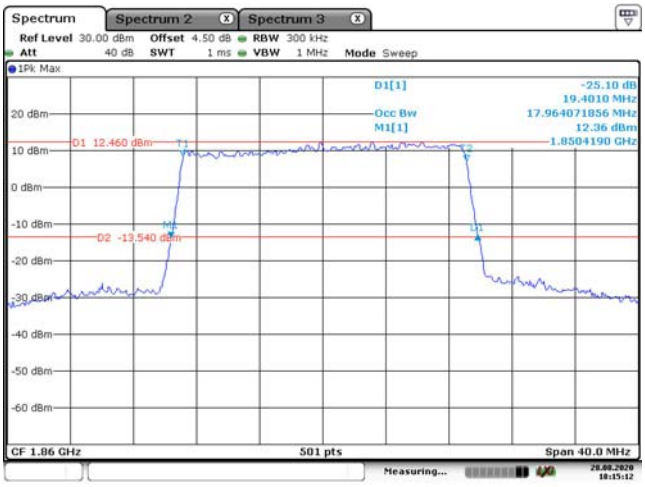
Date: 28.AUG.2020 18:06:14

20M, QPSK, Low Channel



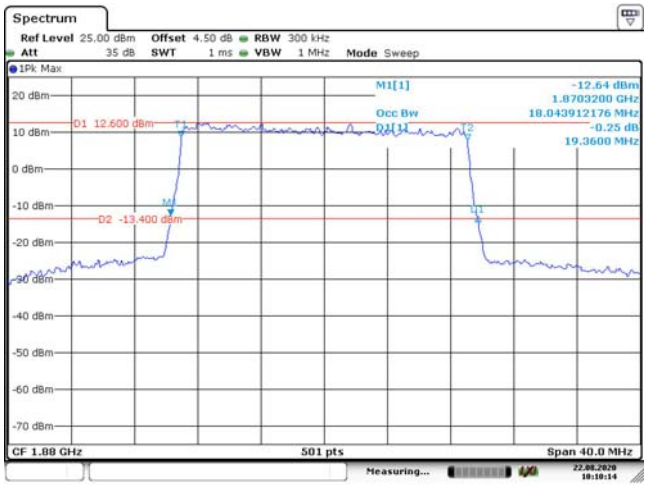
Date: 28.AUG.2020 18:10:38

20M, 16QAM, Low Channel



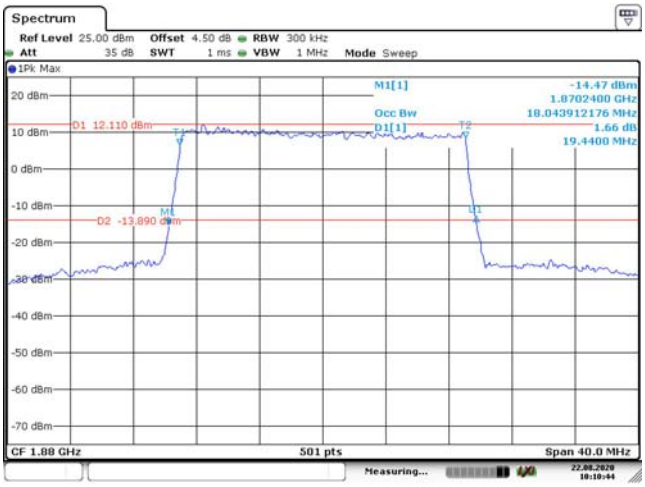
Date: 28.AUG.2020 18:15:13

20M, QPSK, Middle Channel



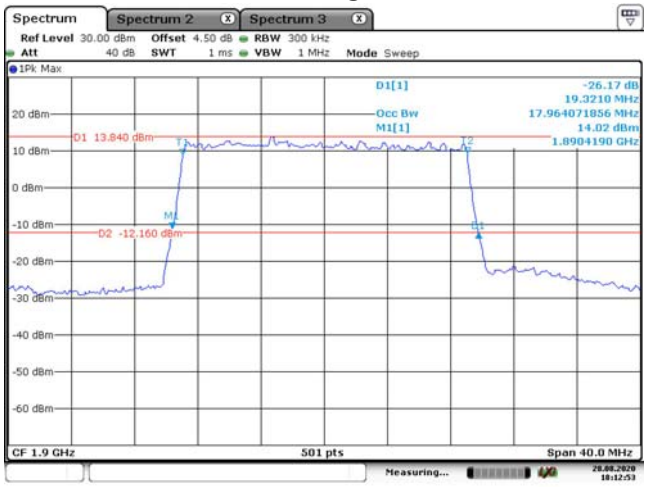
Date: 22.AUG.2020 10:10:14

20M, 16QAM, Middle Channel



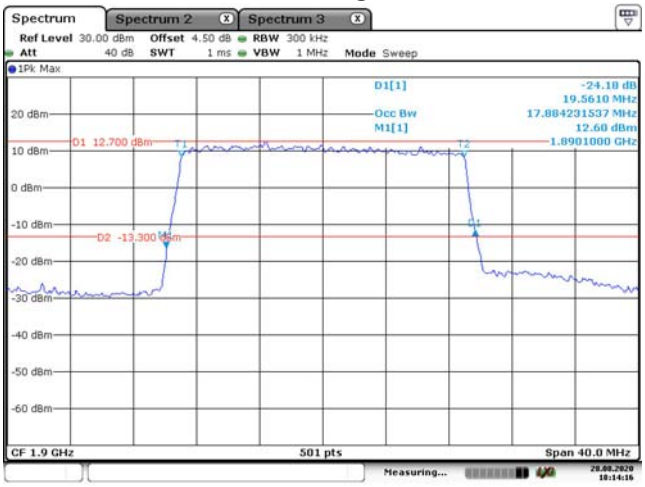
Date: 22.AUG.2020 10:10:45

20M, QPSK, High Channel



Date: 28.AUG.2020 18:12:54

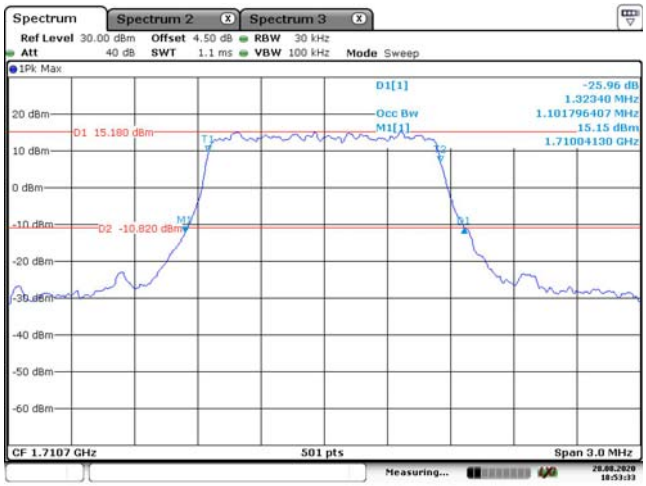
20M, 16QAM, High Channel



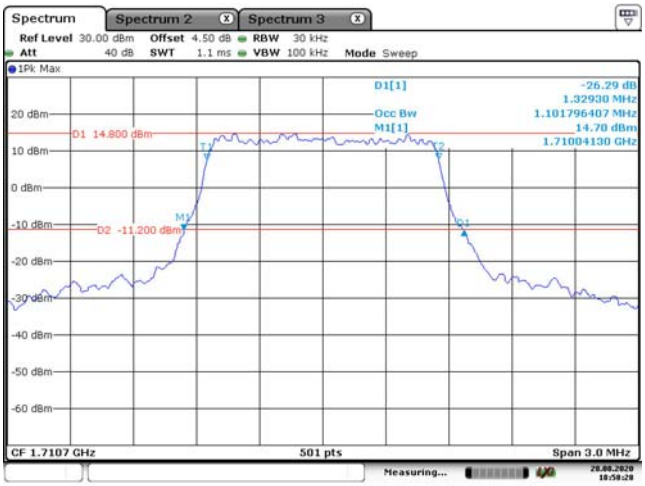
Date: 28.AUG.2020 18:14:17

LTE Band 4:

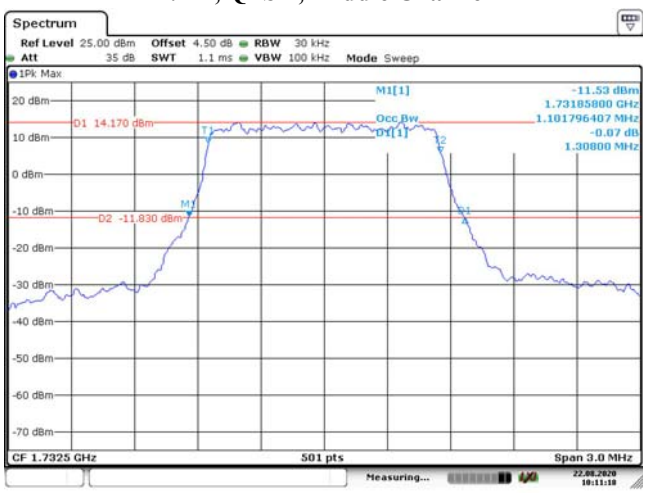
1.4M, QPSK, Low Channel



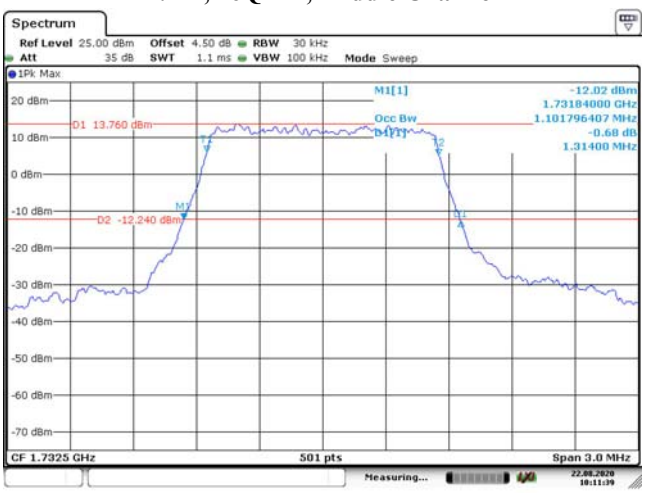
1.4M, 16QAM, Low Channel



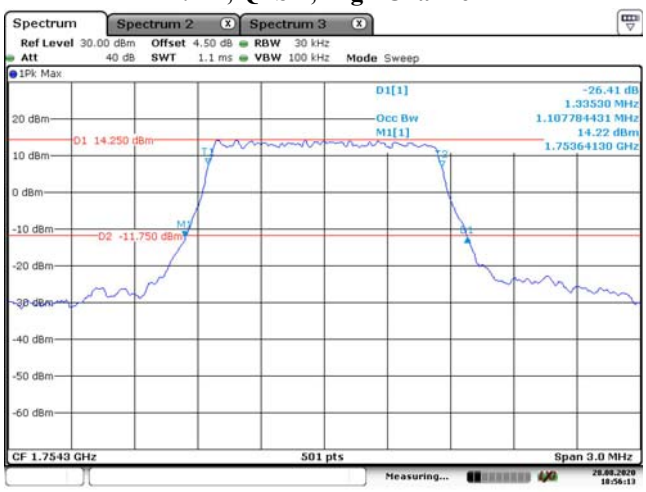
1.4M, QPSK, Middle Channel



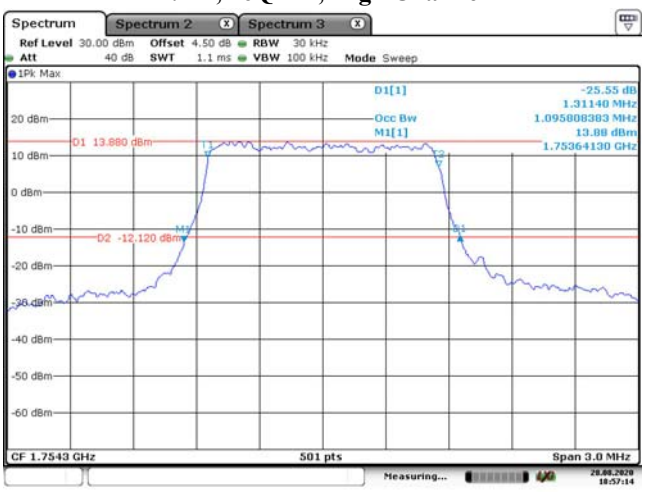
1.4M, 16QAM, Middle Channel



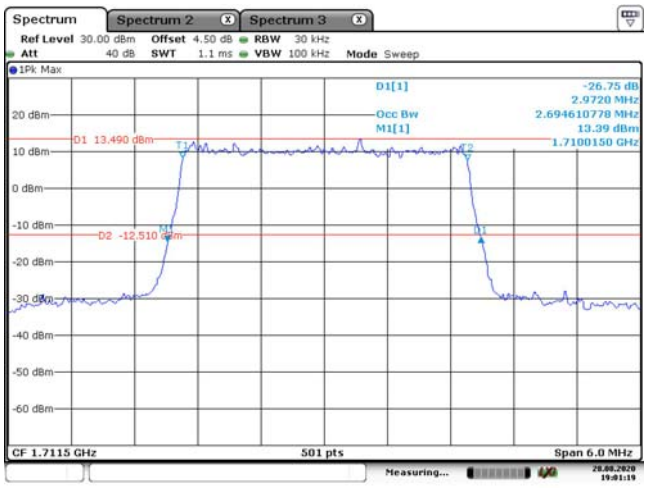
1.4M, QPSK, High Channel



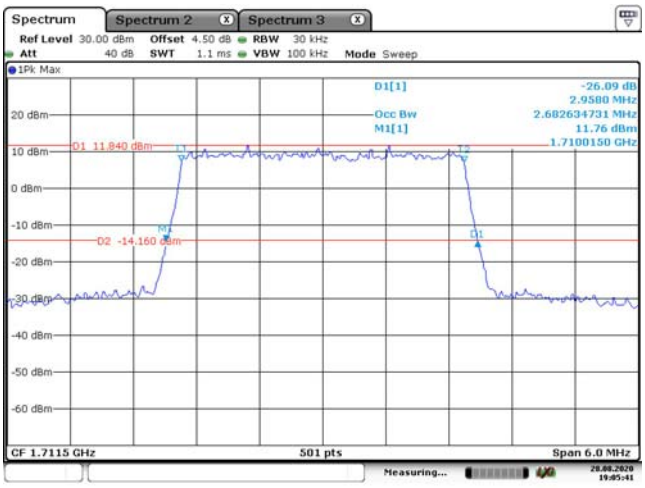
1.4M, 16QAM, High Channel



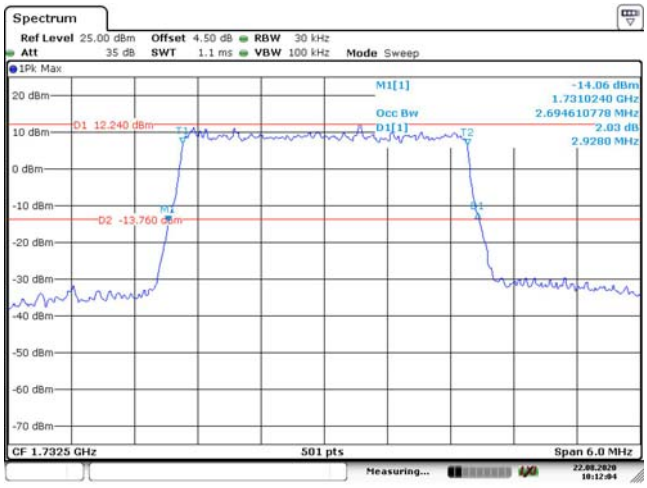
3M, QPSK, Low Channel



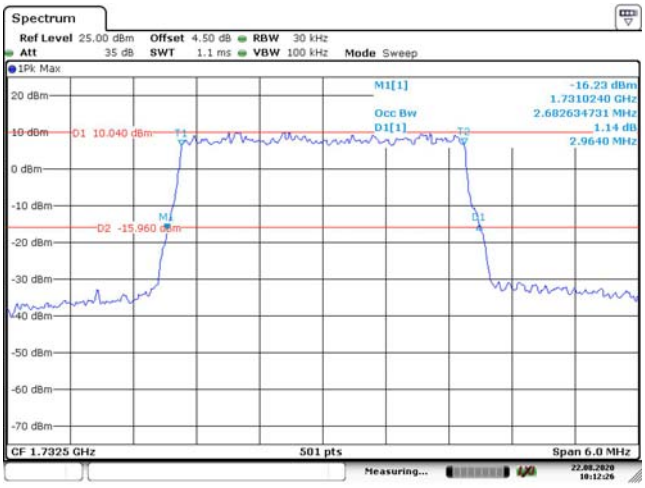
3M, 16QAM, Low Channel



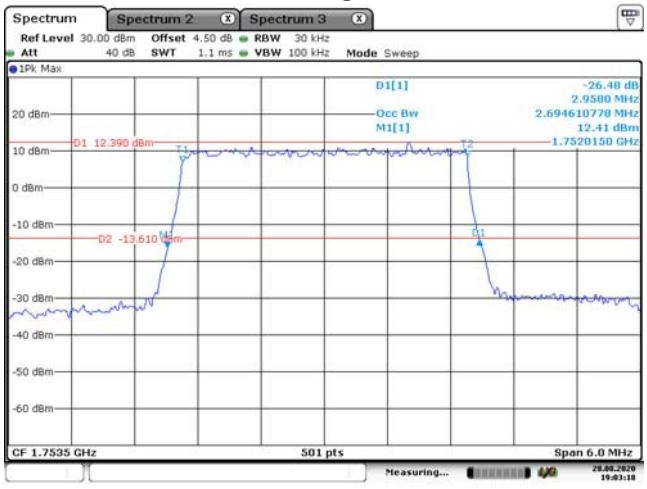
3M, QPSK, Middle Channel



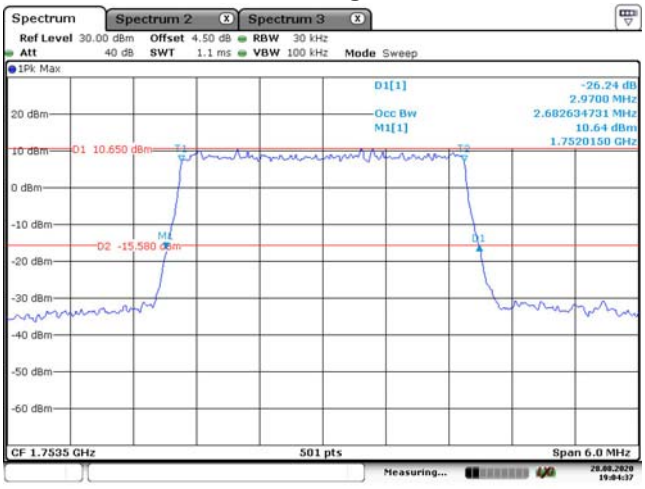
3M, 16QAM, Middle Channel



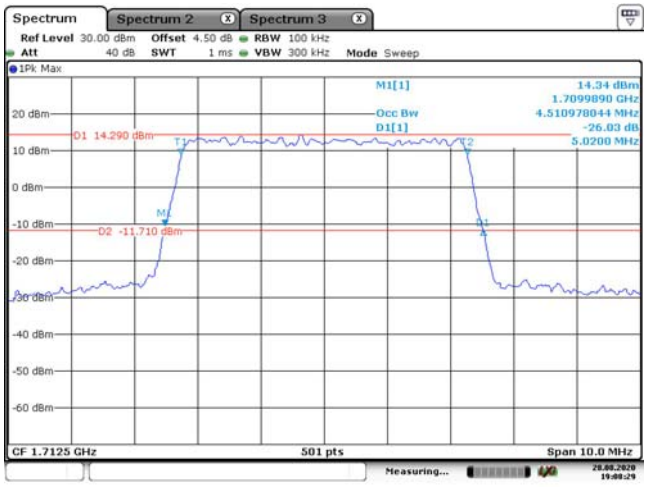
3M, QPSK, High Channel



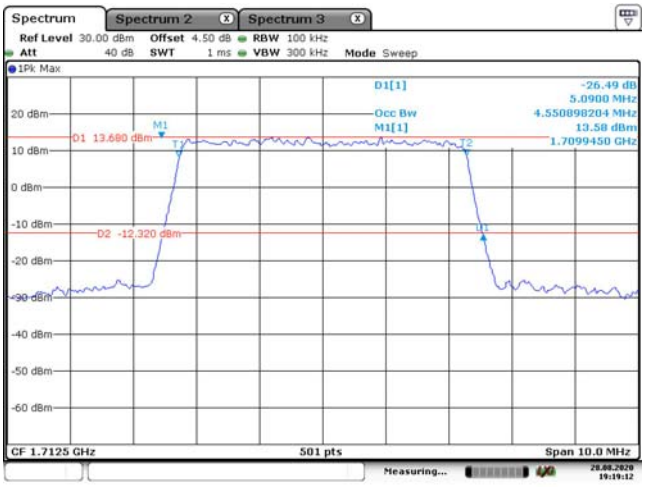
3M, 16QAM, High Channel



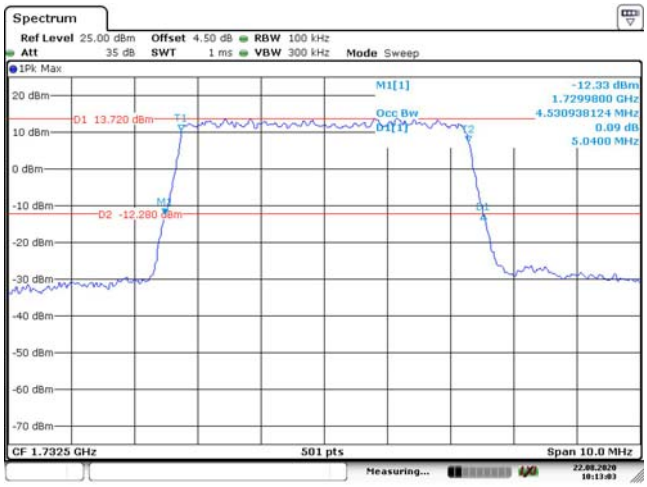
5M, QPSK, Low Channel



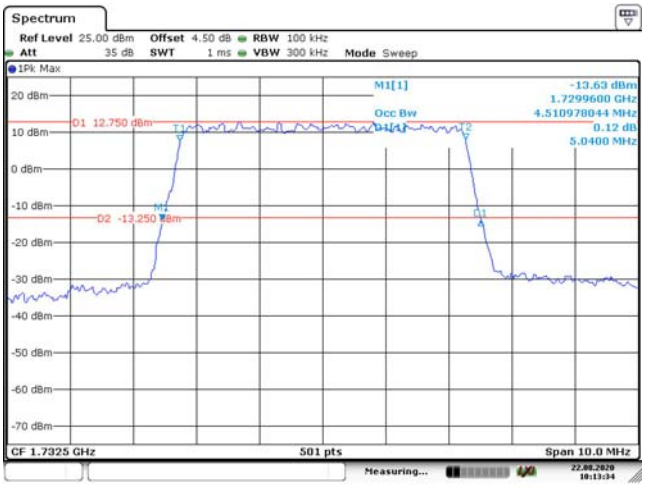
5M, 16QAM, Low Channel



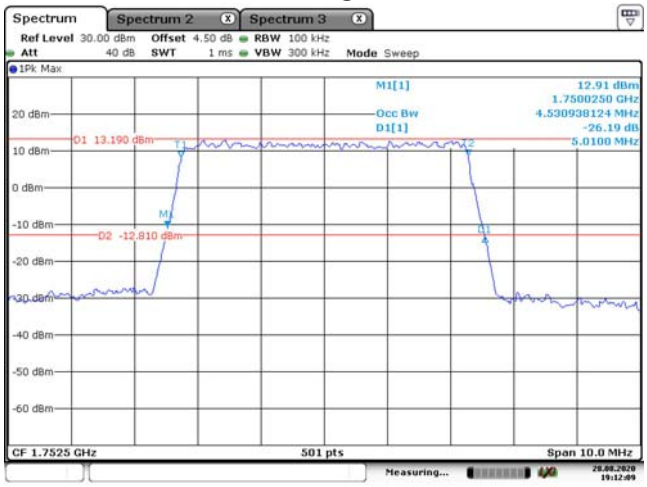
5M, QPSK, Middle Channel



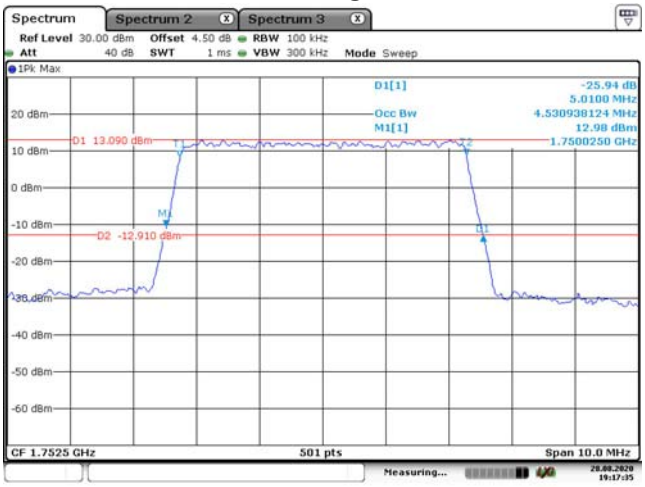
5M, 16QAM, Middle Channel



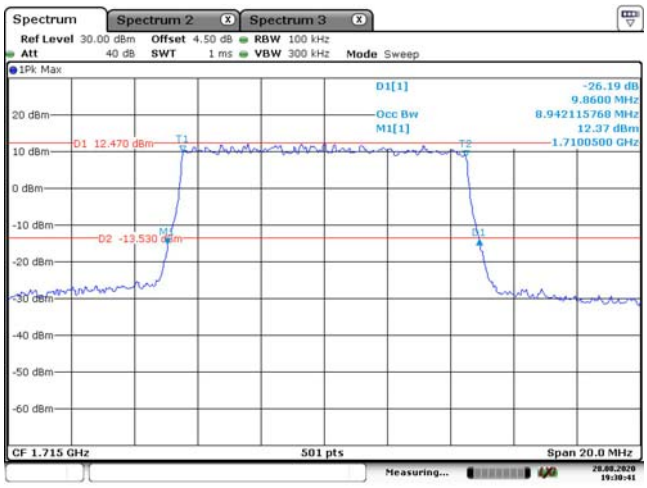
5M, QPSK, High Channel



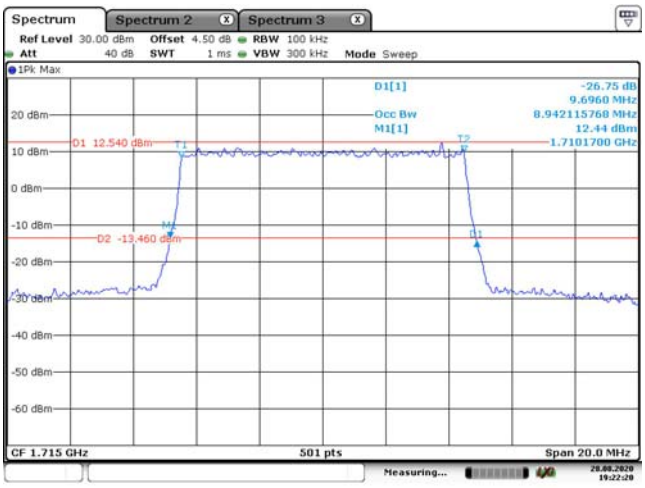
5M, 16QAM, High Channel



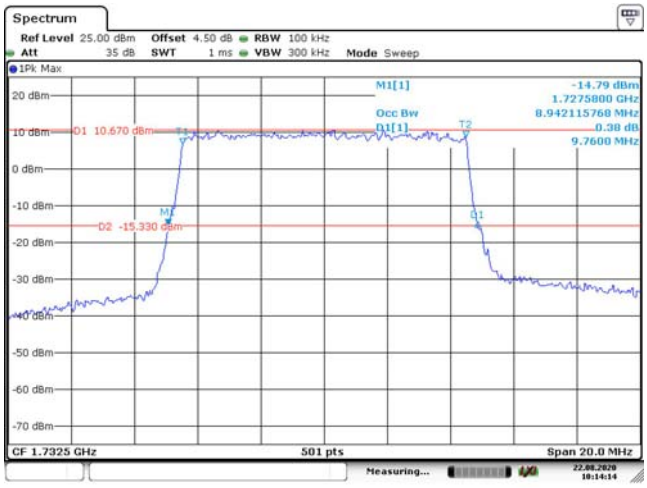
10M, QPSK, Low Channel



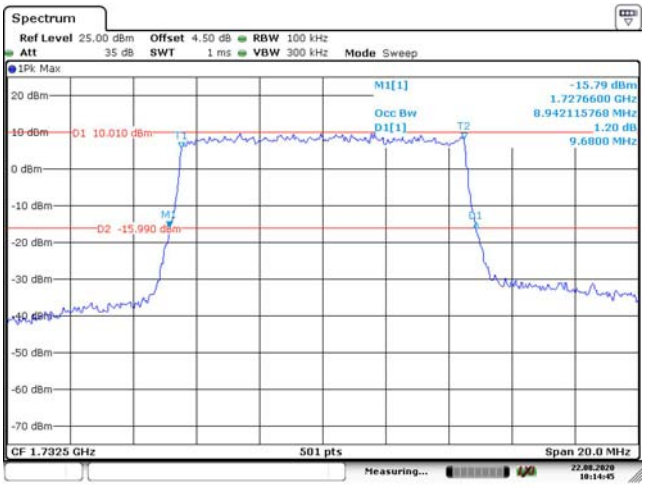
10M, 16QAM, Low Channel



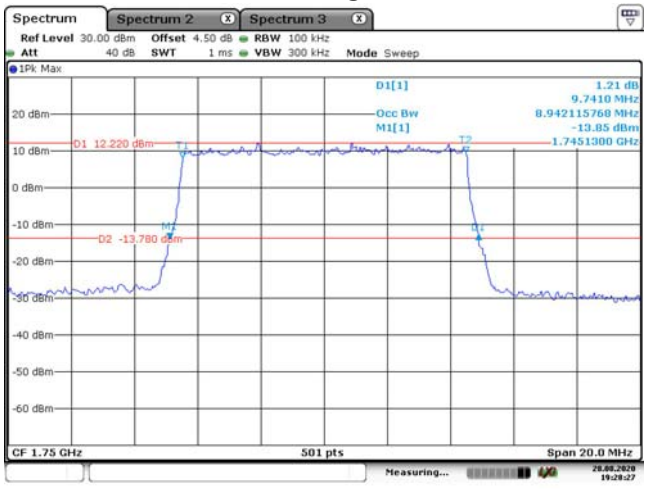
10M, QPSK, Middle Channel



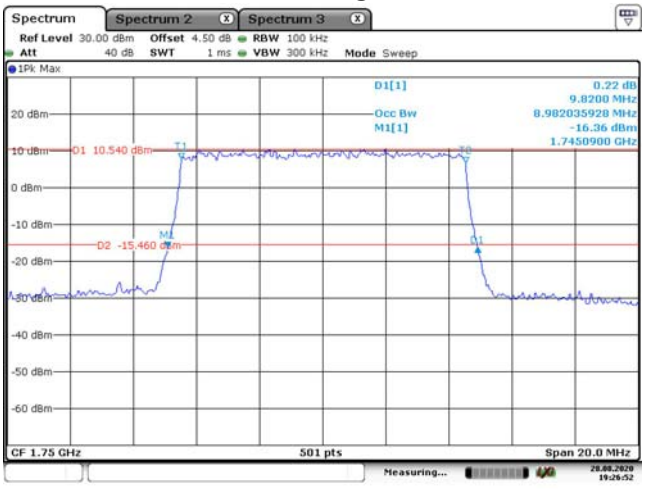
10M, 16QAM, Middle Channel



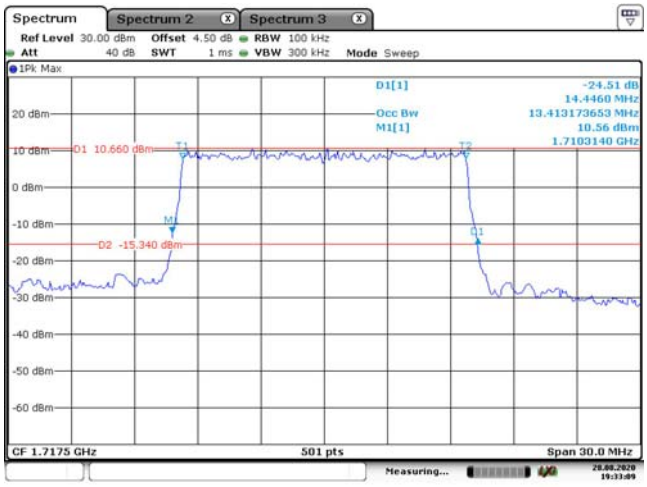
10M, QPSK, High Channel



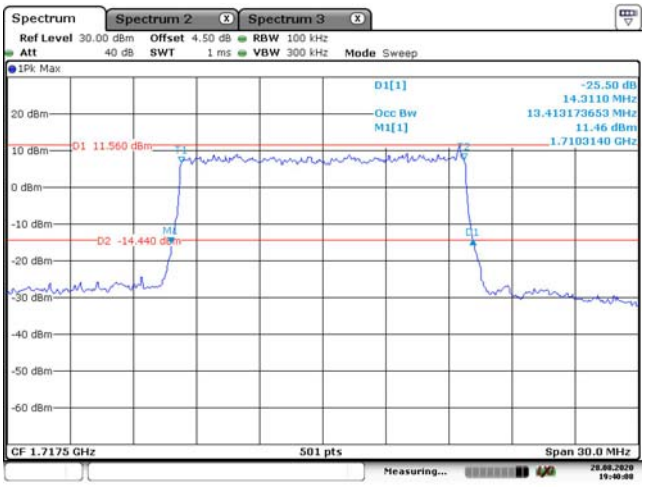
10M, 16QAM, High Channel



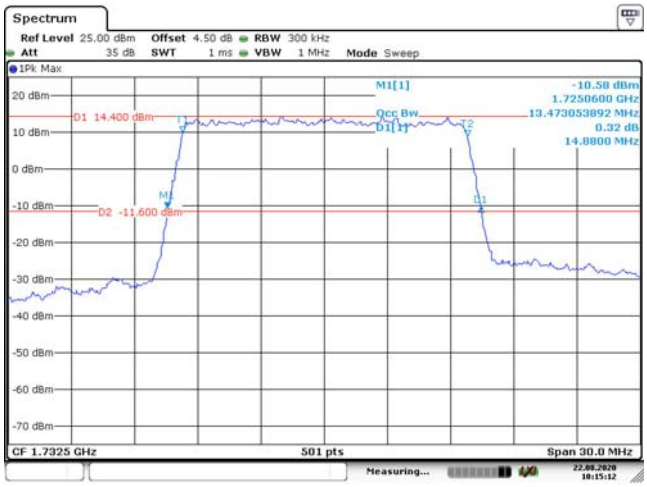
15M, QPSK, Low Channel



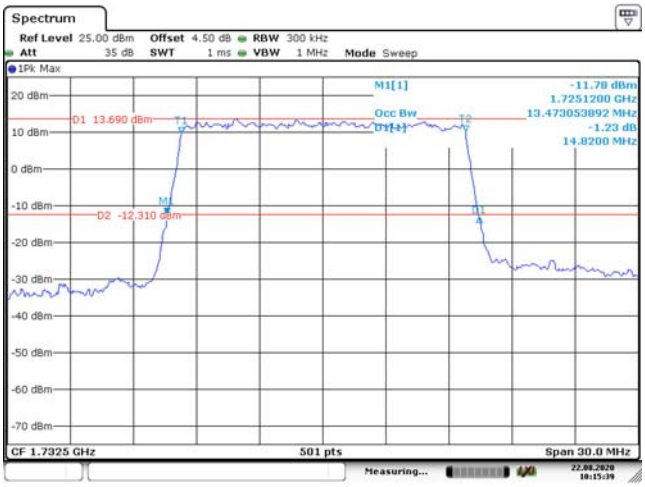
15M, 16QAM, Low Channel



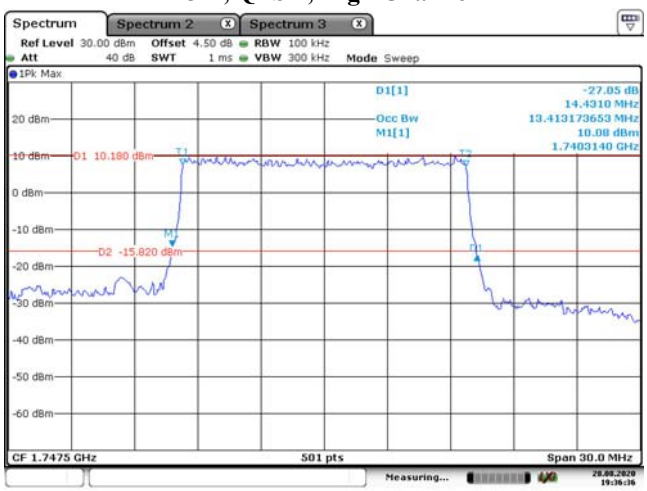
15M, QPSK, Middle Channel



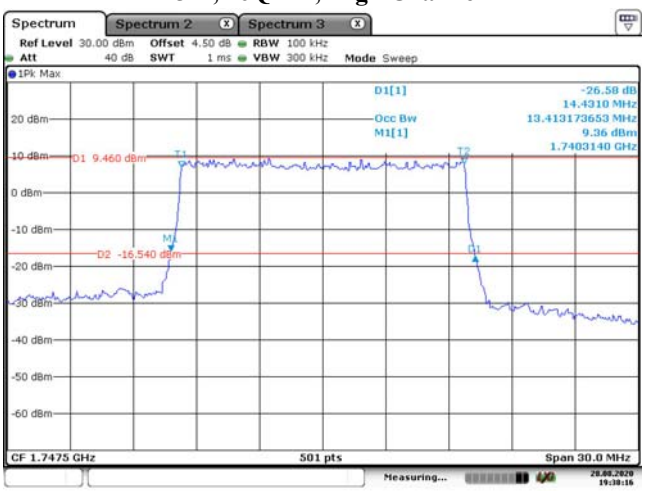
15M, 16QAM, Middle Channel



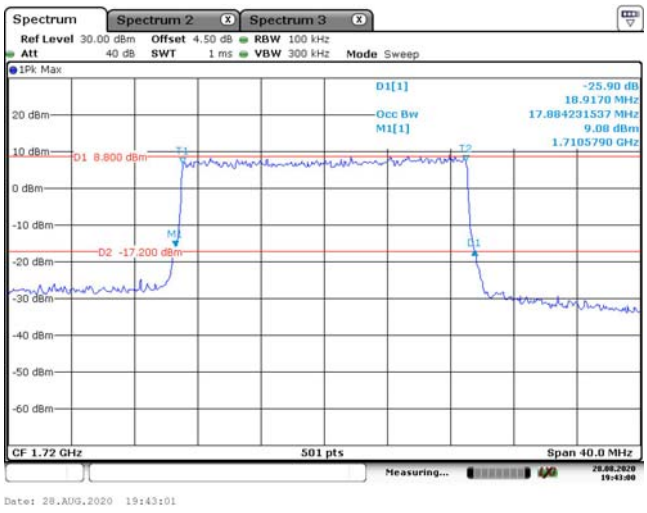
15M, QPSK, High Channel



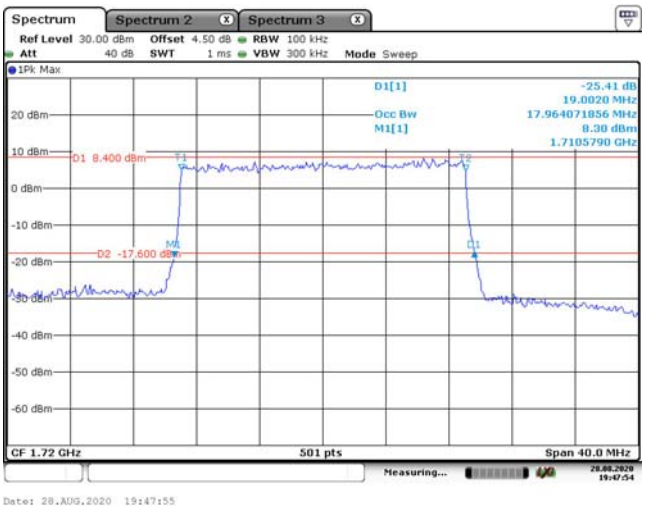
15M, 16QAM, High Channel



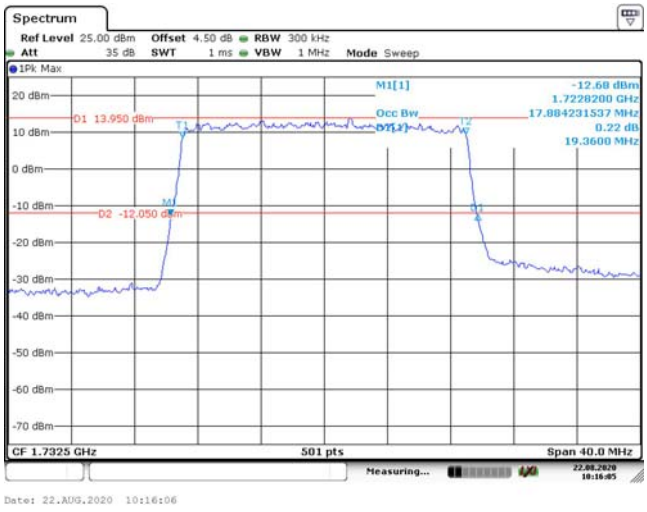
20M, QPSK, Low Channel



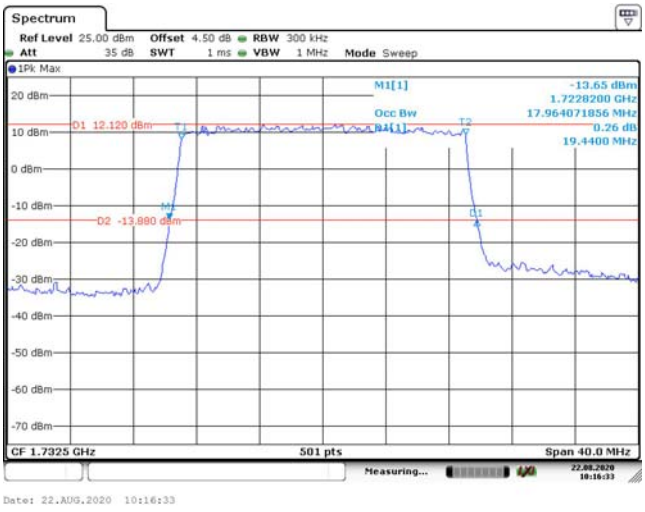
20M, 16QAM, Low Channel



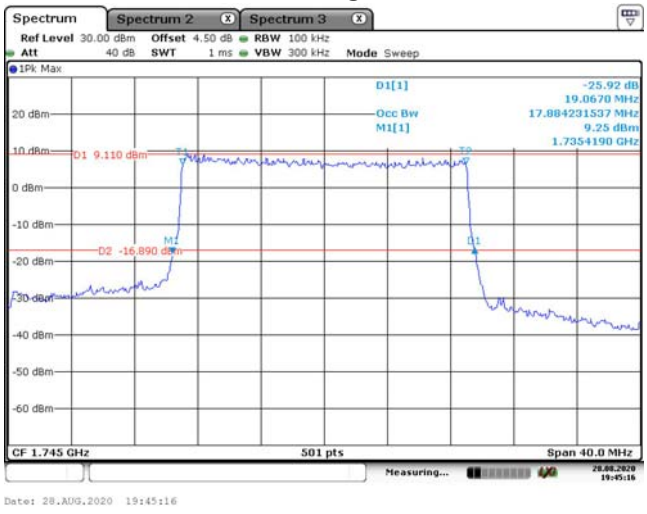
20M, QPSK, Middle Channel



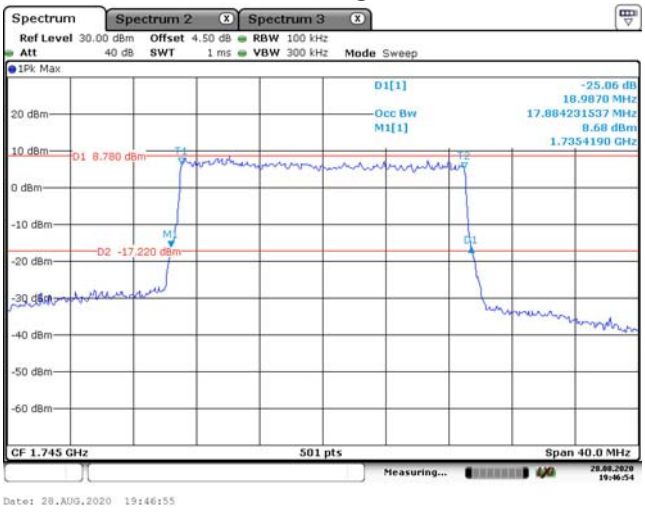
20M, 16QAM, Middle Channel



20M, QPSK, High Channel

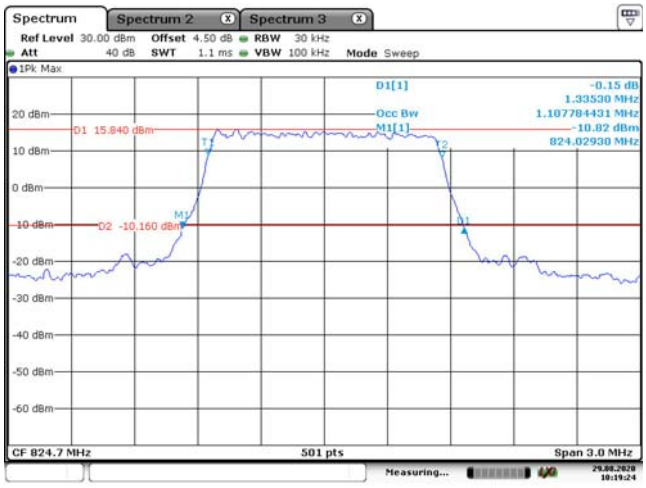


20M, 16QAM, High Channel

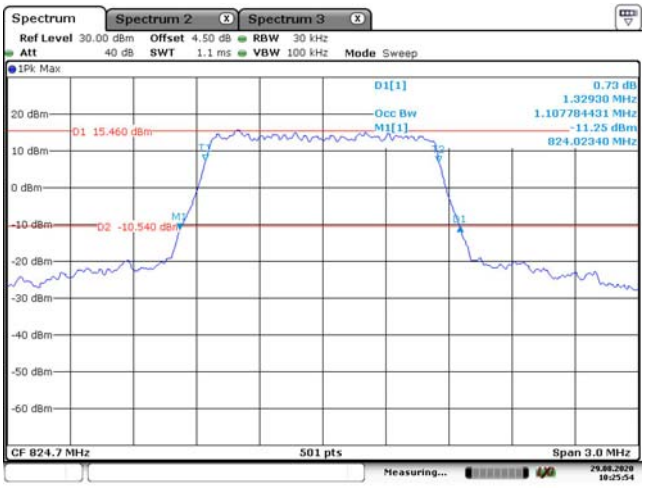


LTE Band 5:

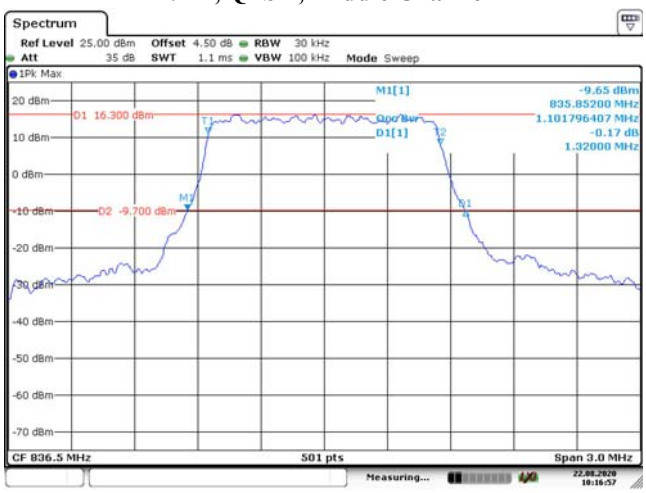
1.4M, QPSK, Low Channel



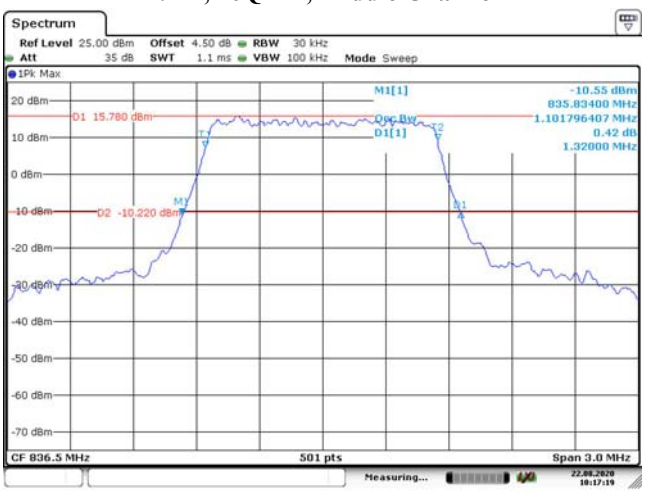
1.4M, 16QAM, Low Channel



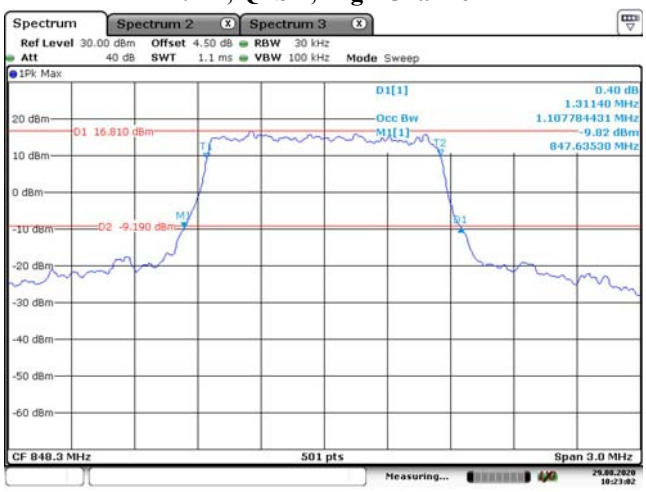
1.4M, QPSK, Middle Channel



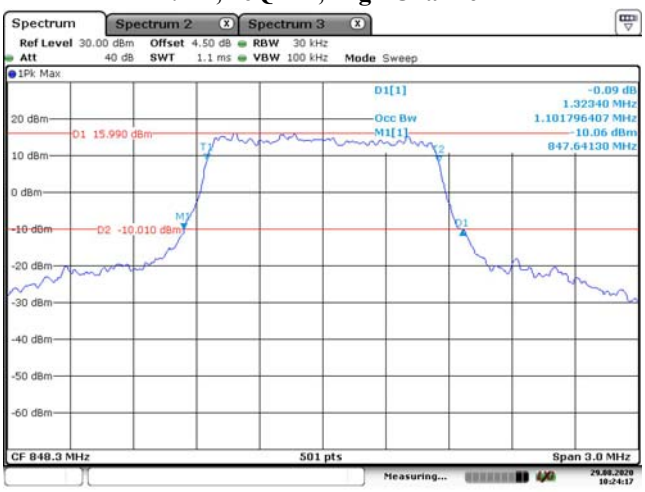
1.4M, 16QAM, Middle Channel



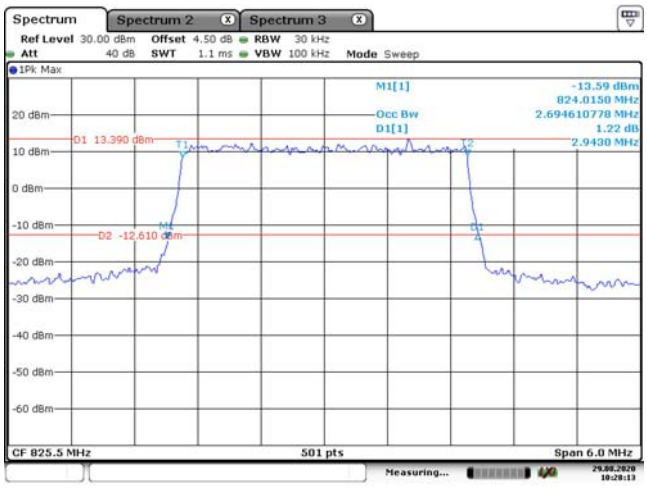
1.4M, QPSK, High Channel



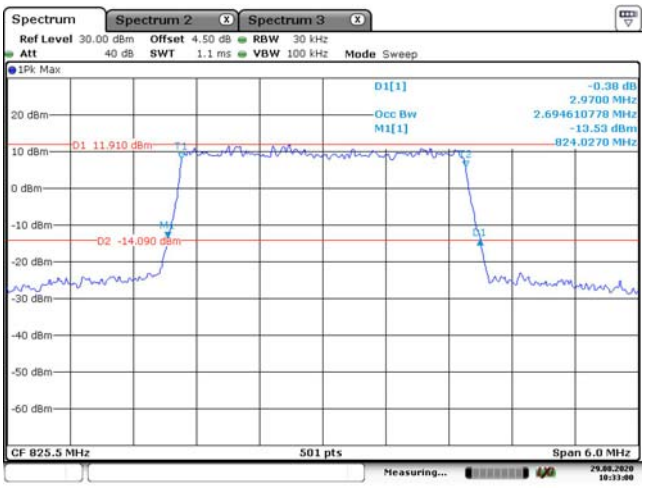
1.4M, 16QAM, High Channel



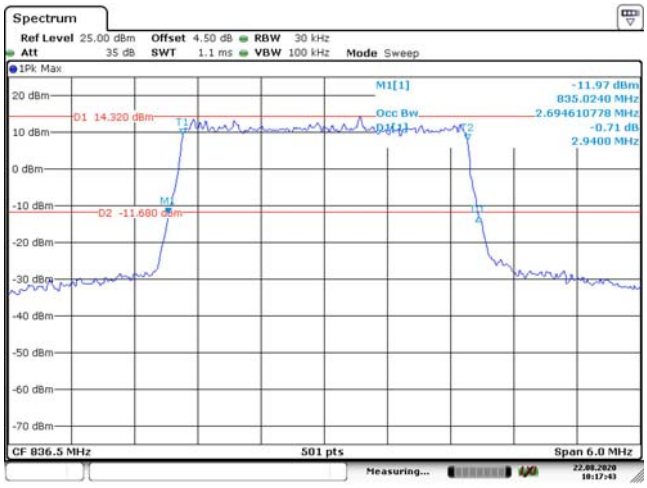
3M, QPSK, Low Channel



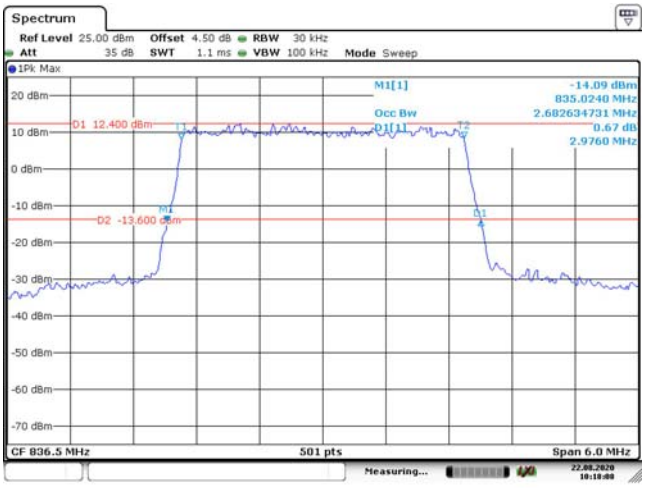
3M, 16QAM, Low Channel



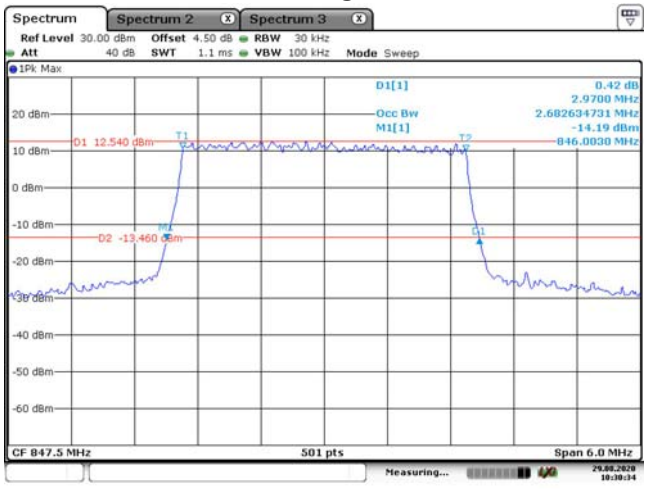
3M, QPSK, Middle Channel



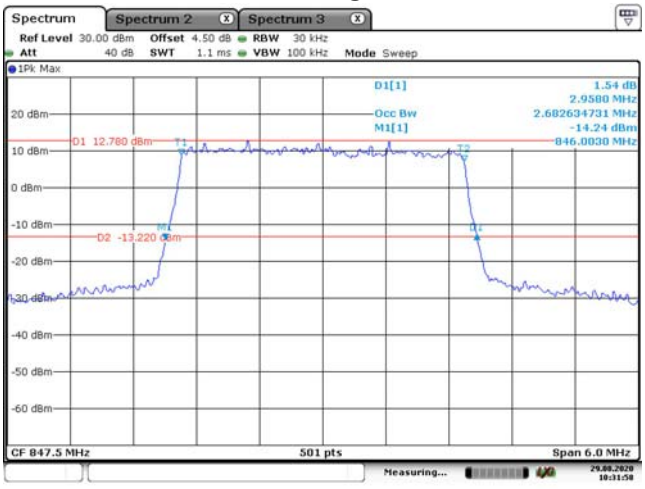
3M, 16QAM, Middle Channel



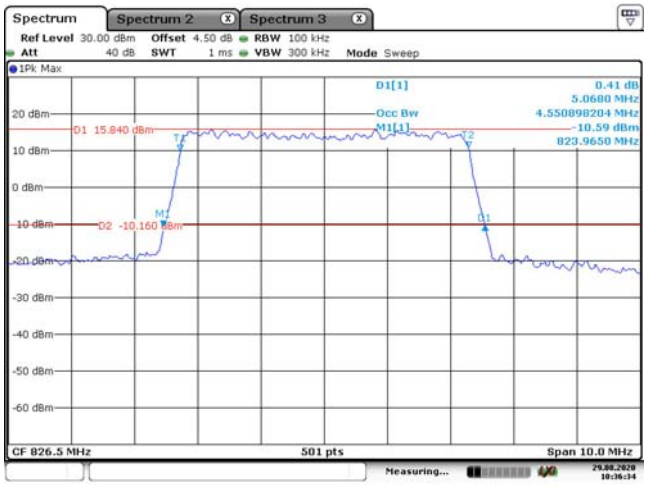
3M, QPSK, High Channel



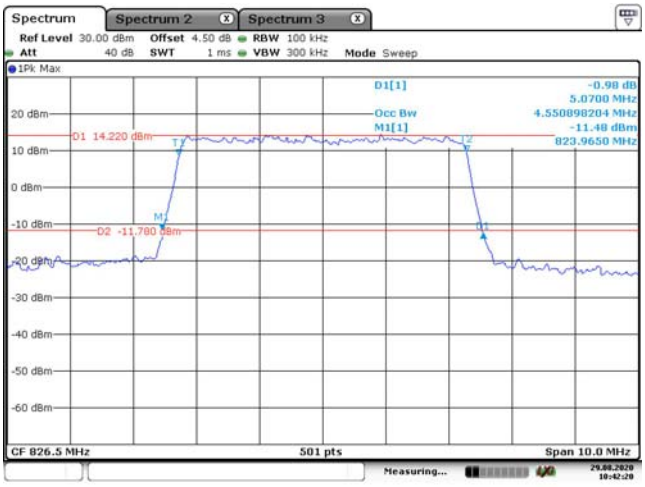
3M, 16QAM, High Channel



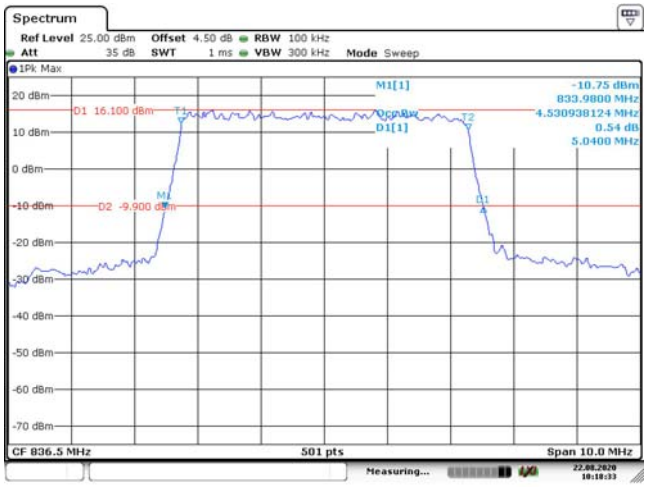
5M, QPSK, Low Channel



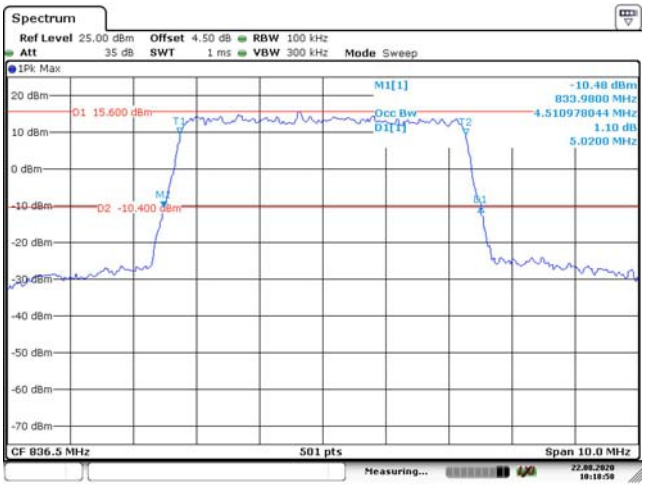
5M, 16QAM, Low Channel



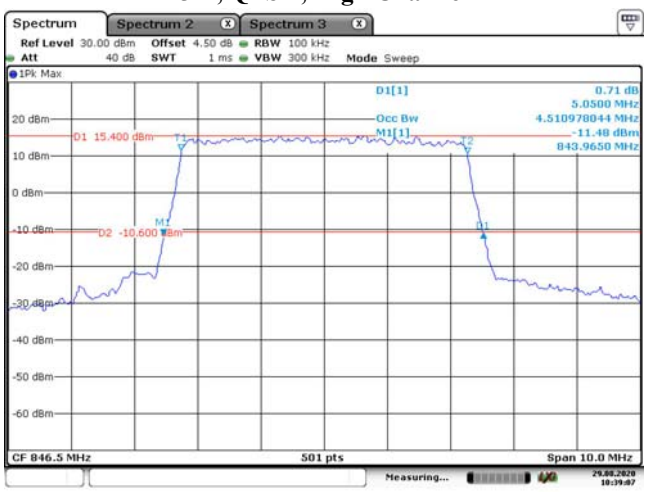
5M, QPSK, Middle Channel



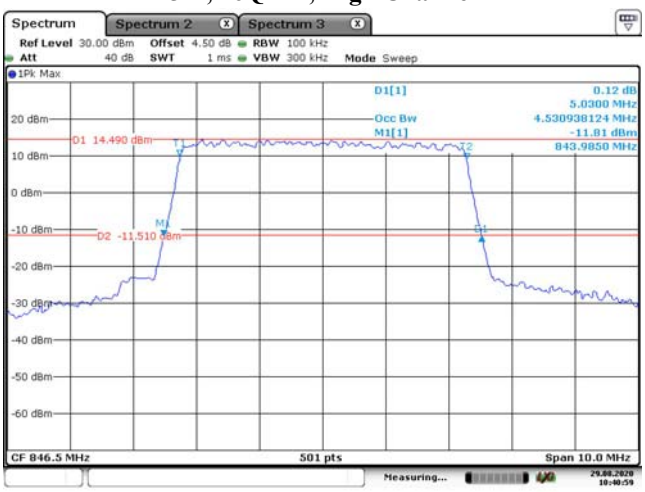
5M, 16QAM, Middle Channel



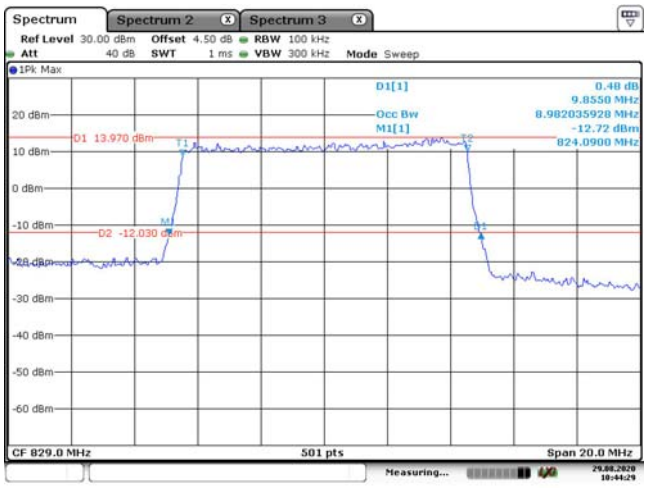
5M, QPSK, High Channel



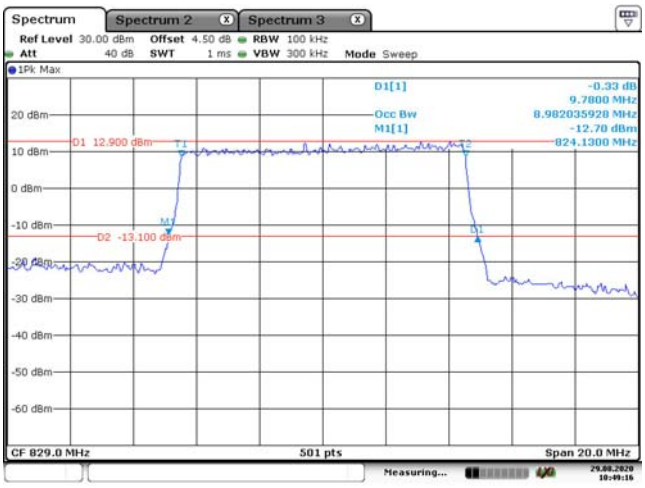
5M, 16QAM, High Channel



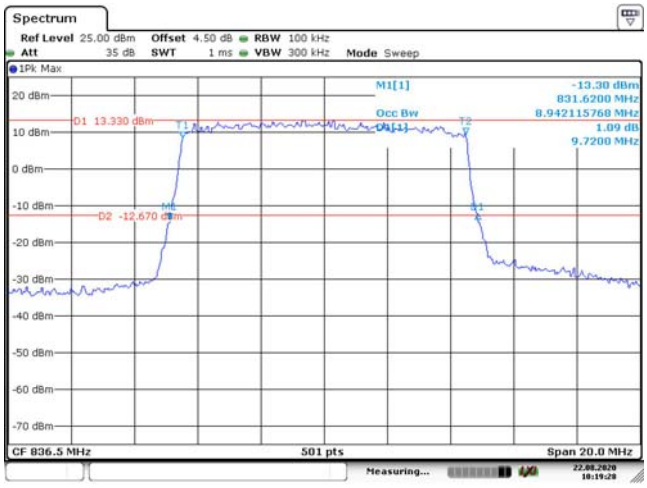
10M, QPSK, Low Channel



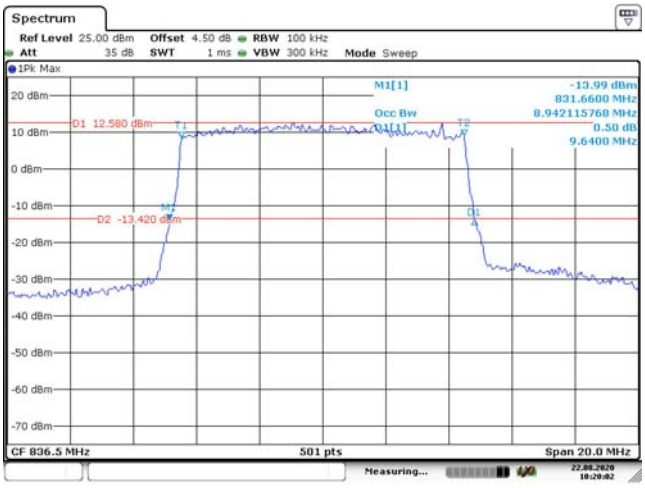
10M, 16QAM, Low Channel



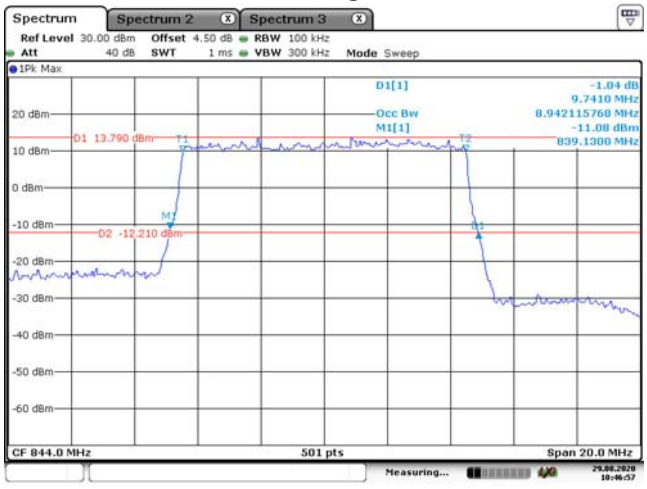
10M, QPSK, Middle Channel



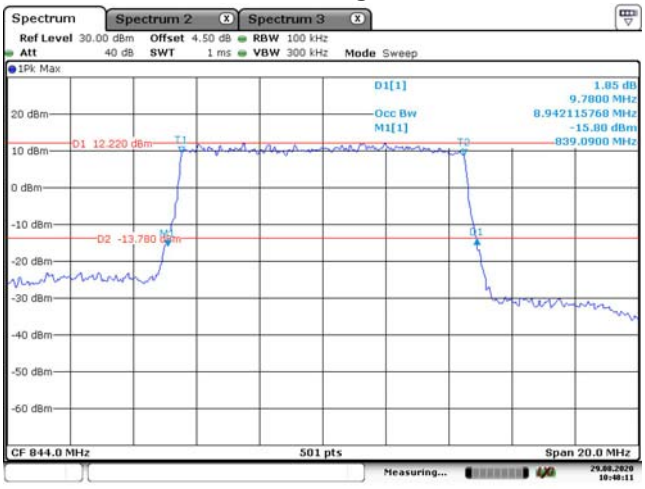
10M, 16QAM, Middle Channel



10M, QPSK, High Channel

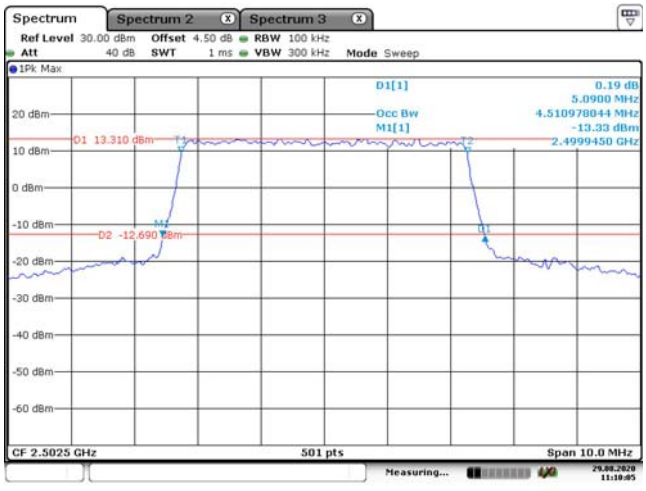


10M, 16QAM, High Channel

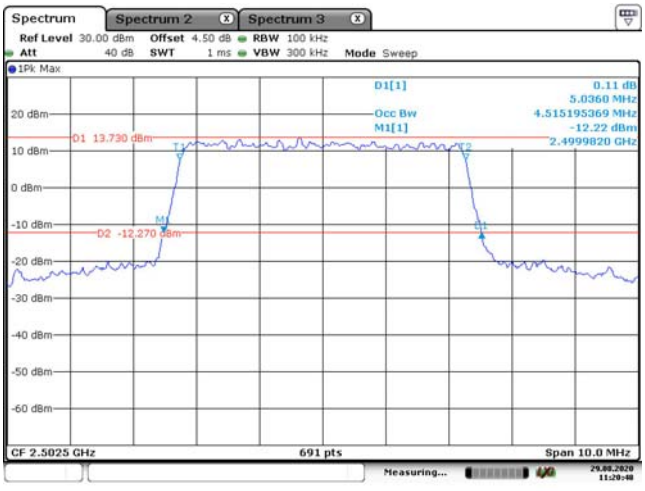


LTE Band 7:

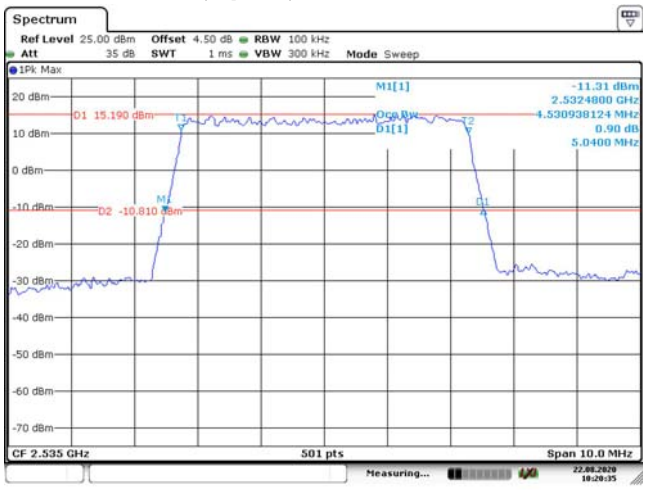
5M, QPSK, Low Channel



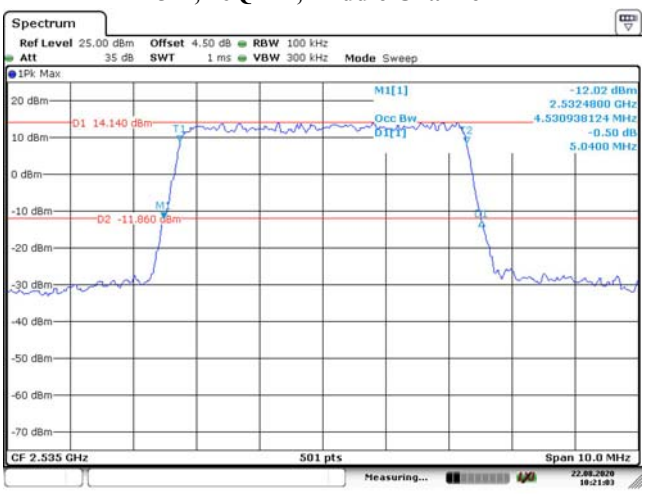
5M, 16QAM, Low Channel



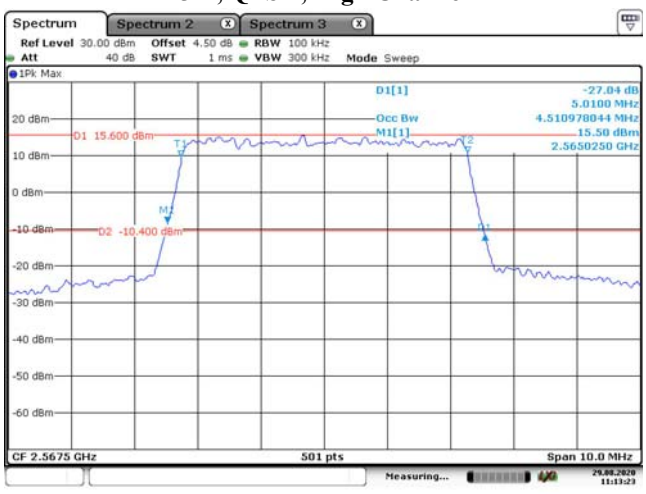
5M, QPSK, Middle Channel



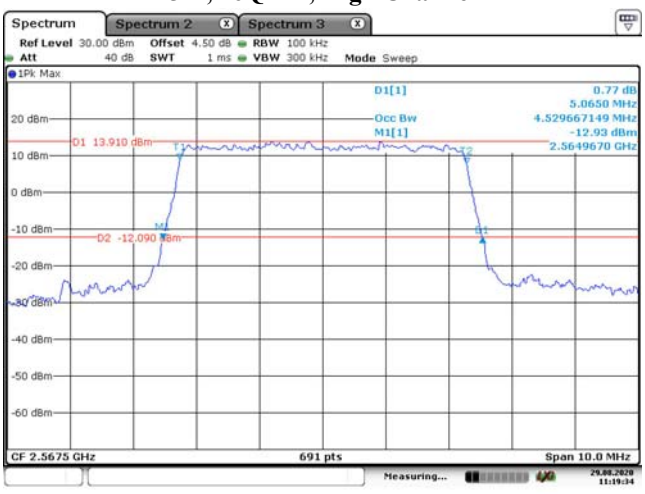
5M, 16QAM, Middle Channel



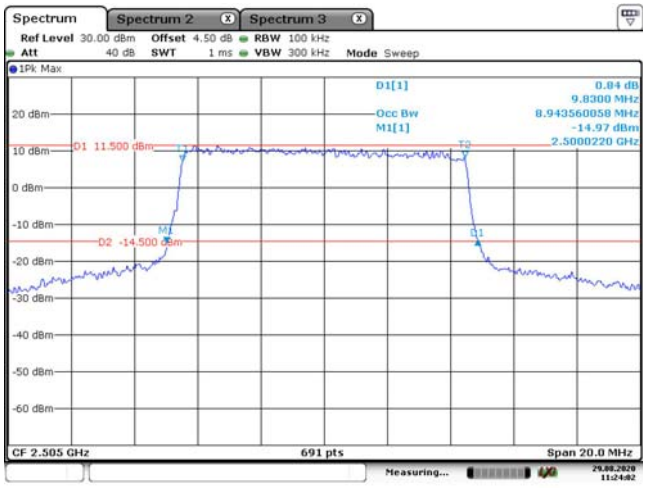
5M, QPSK, High Channel



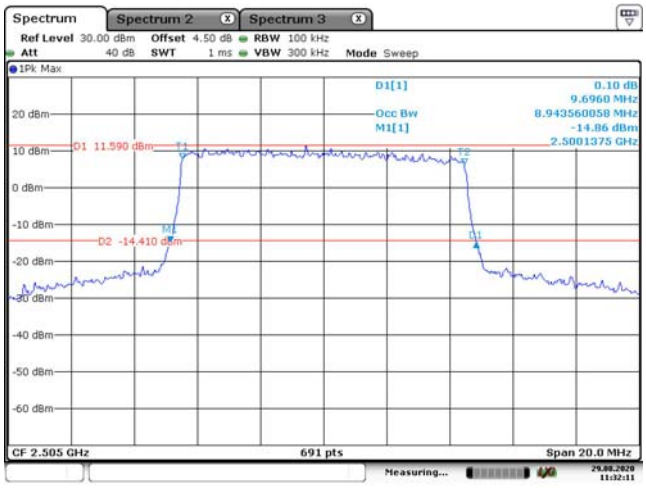
5M, 16QAM, High Channel



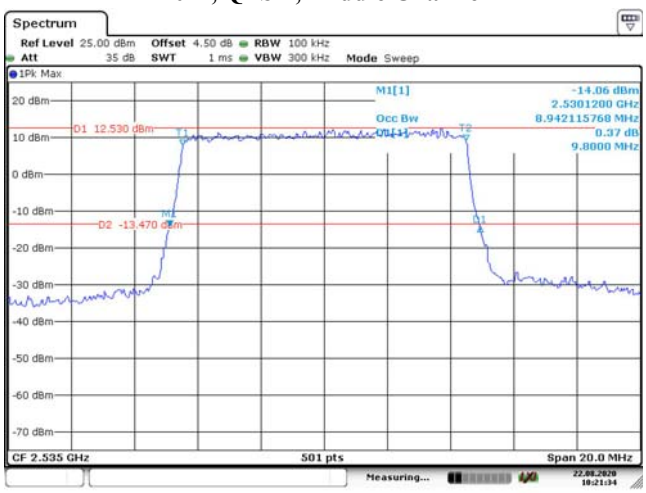
10M, QPSK, Low Channel



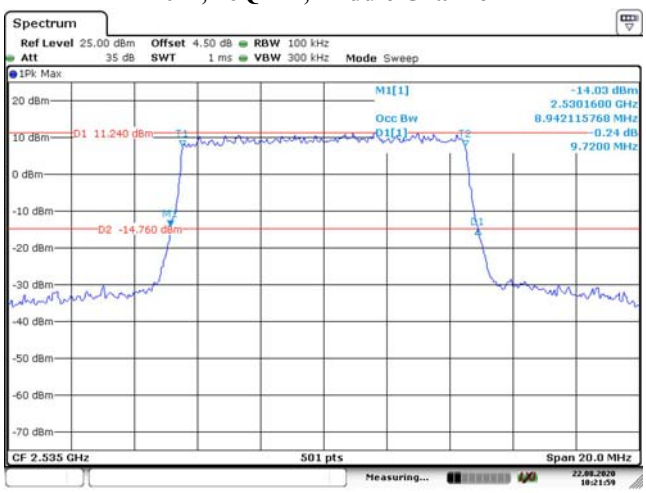
10M, 16QAM, Low Channel



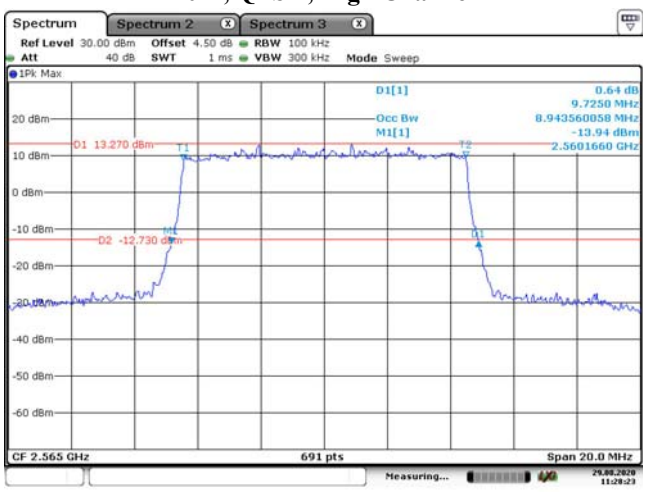
10M, QPSK, Middle Channel



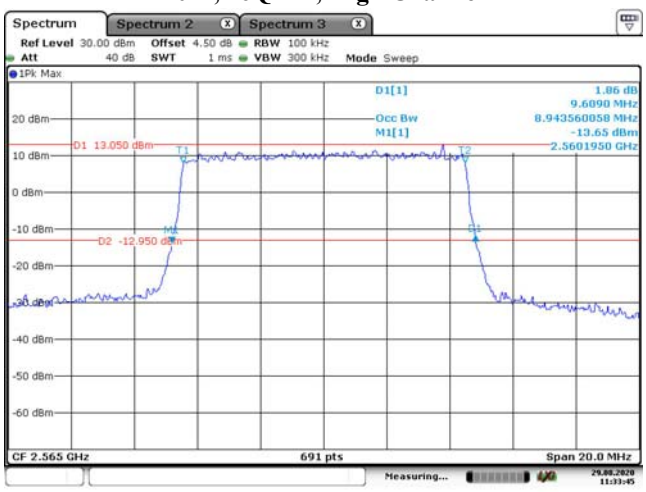
10M, 16QAM, Middle Channel



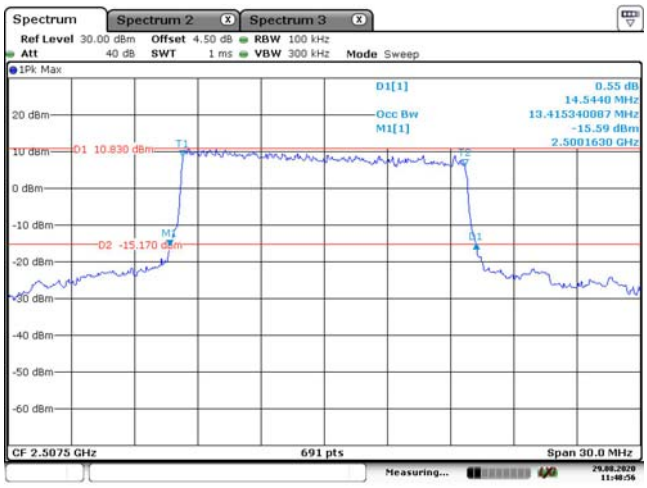
10M, QPSK, High Channel



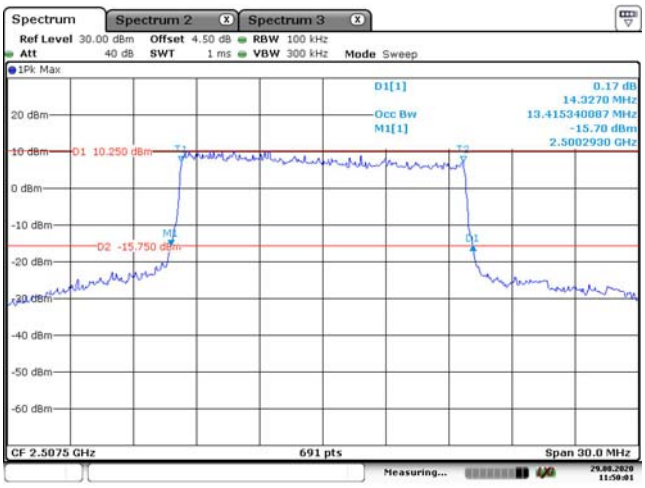
10M, 16QAM, High Channel



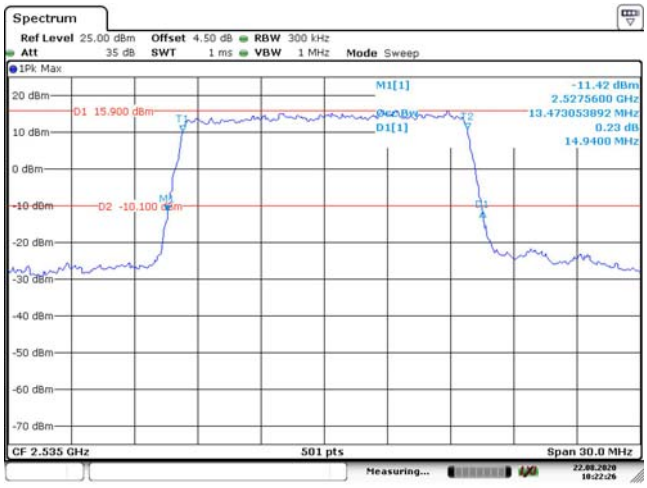
15M, QPSK, Low Channel



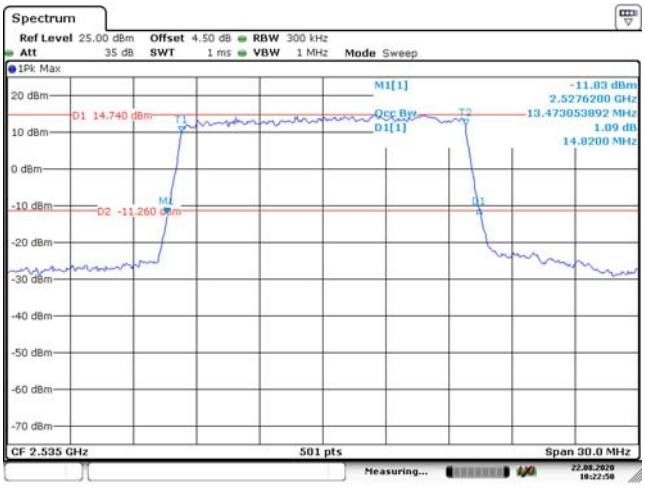
15M, 16QAM, Low Channel



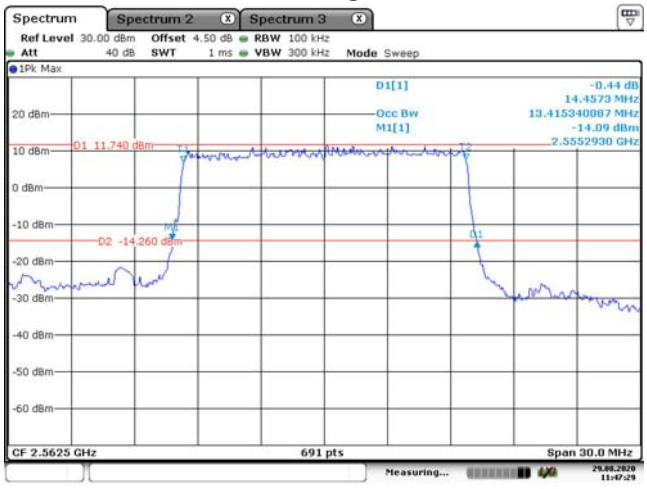
15M, QPSK, Middle Channel



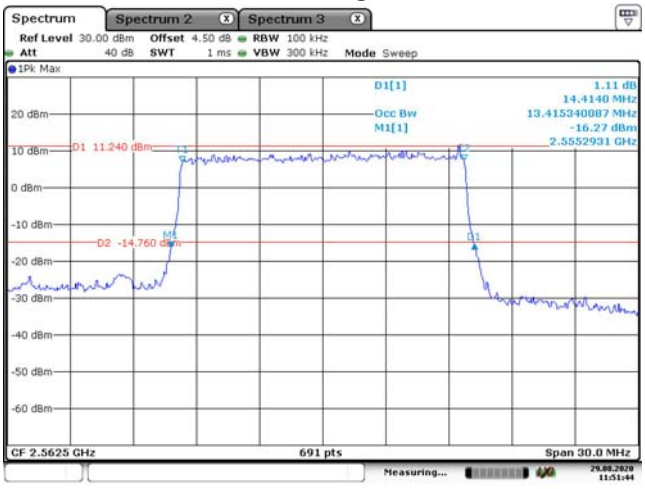
15M, 16QAM, Middle Channel



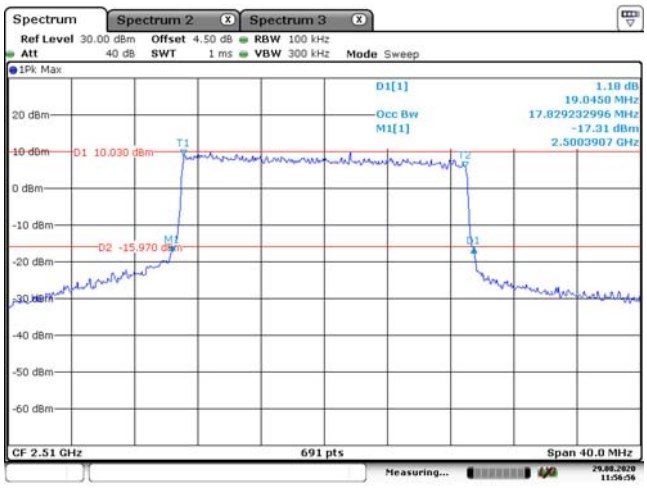
15M, QPSK, High Channel



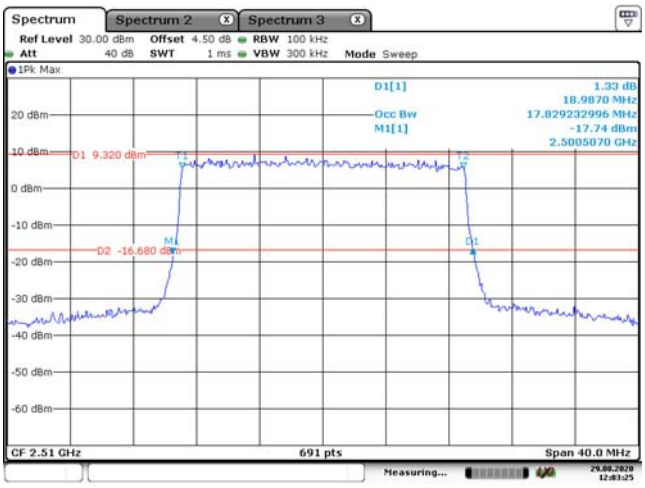
15M, 16QAM, High Channel



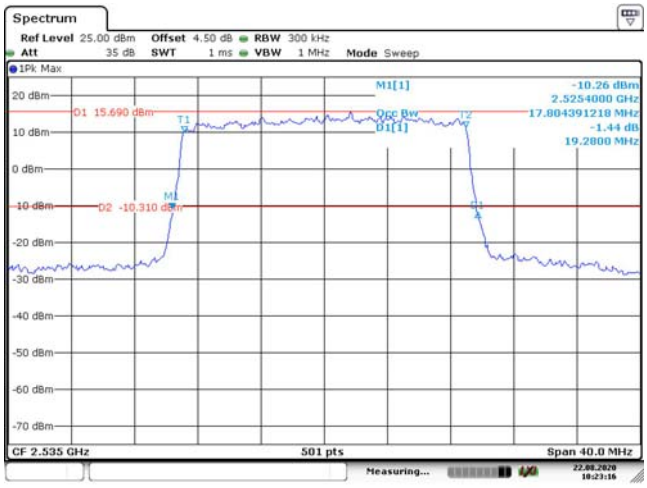
20M, QPSK, Low Channel



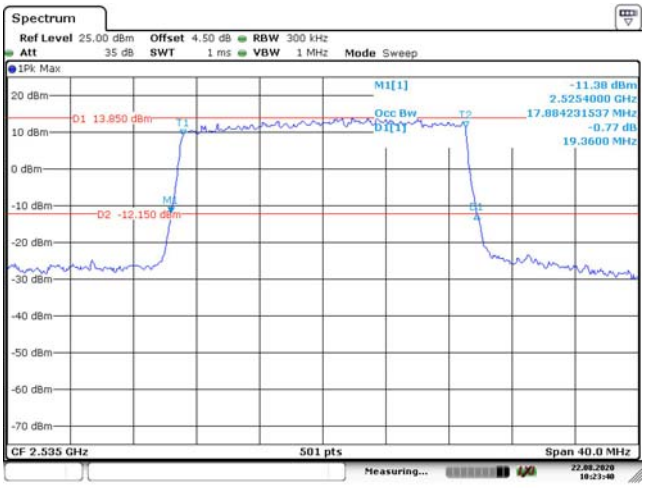
20M, 16QAM, Low Channel



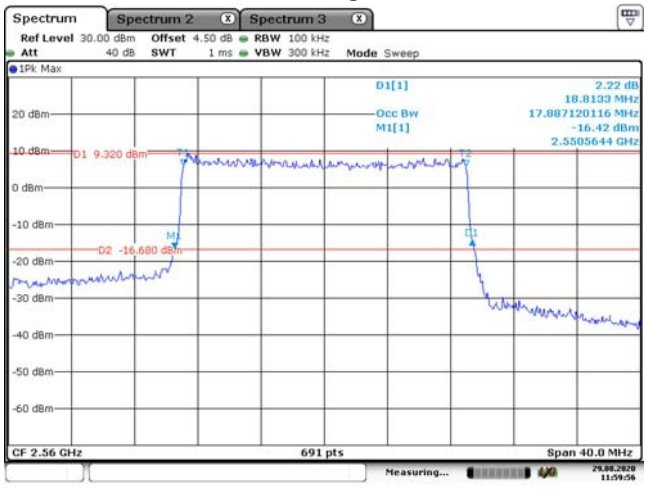
20M, QPSK, Middle Channel



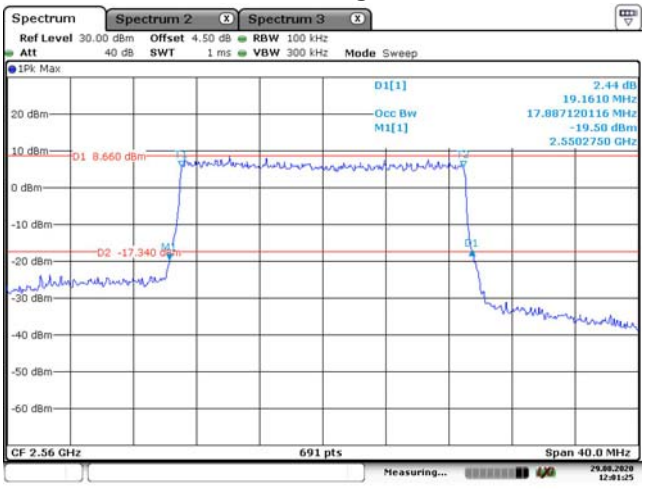
20M, 16QAM, Middle Channel



20M, QPSK, High Channel

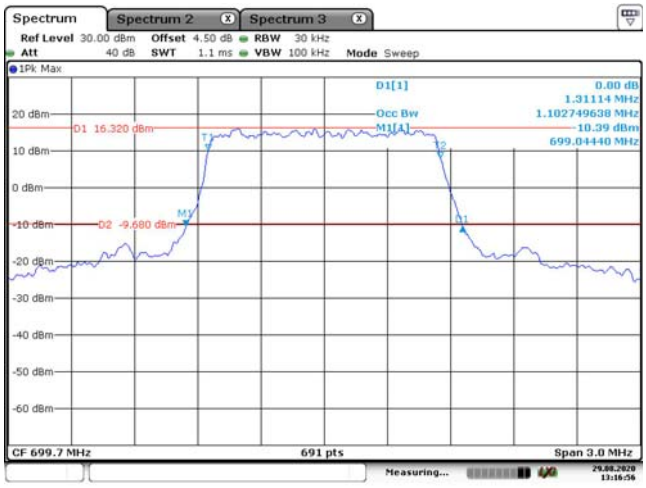


20M, 16QAM, High Channel

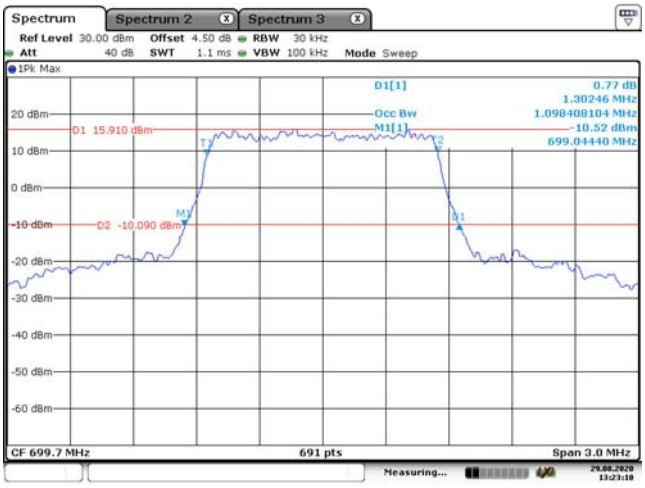


LTE Band 12:

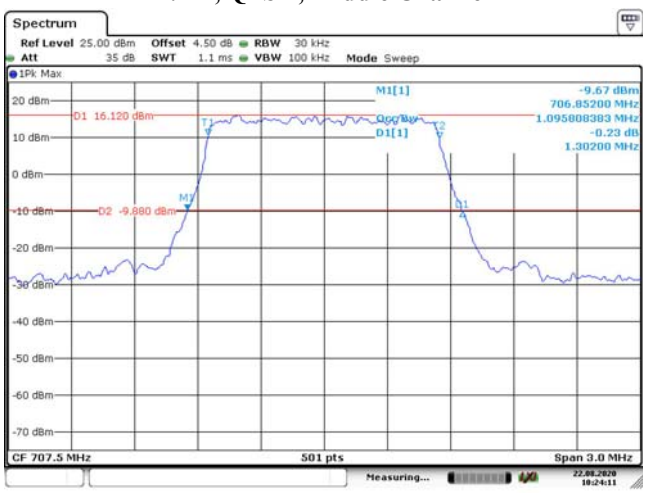
1.4M, QPSK, Low Channel



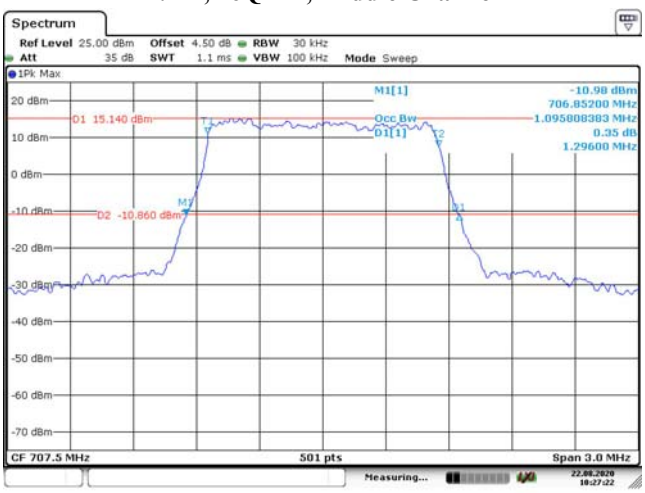
1.4M, 16QAM, Low Channel



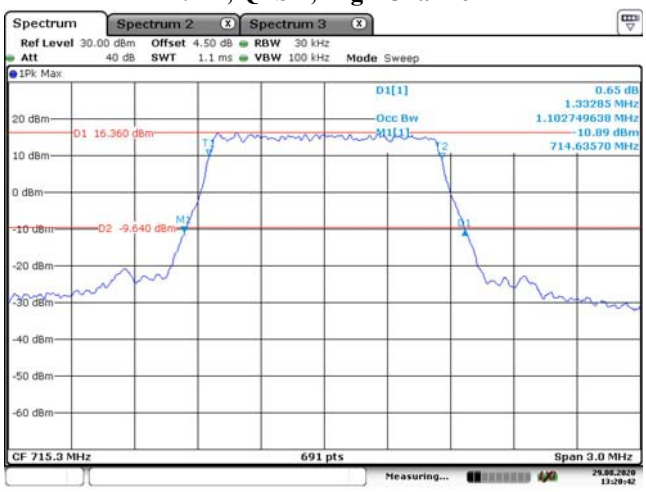
1.4M, QPSK, Middle Channel



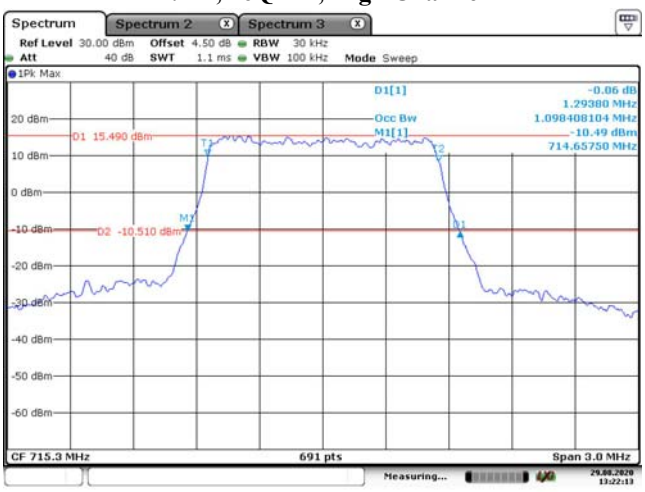
1.4M, 16QAM, Middle Channel



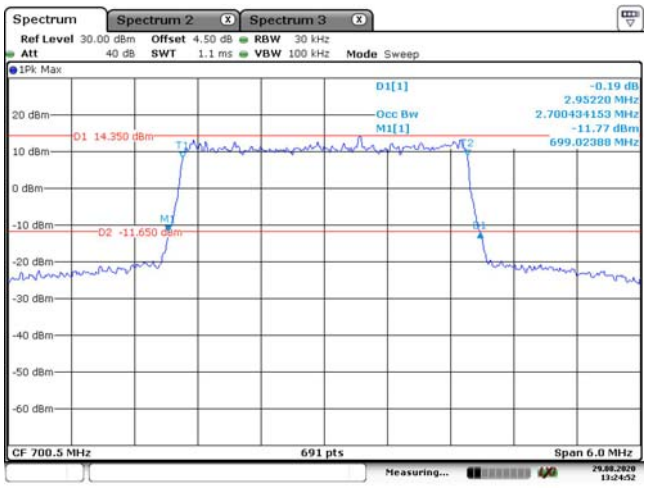
1.4M, QPSK, High Channel



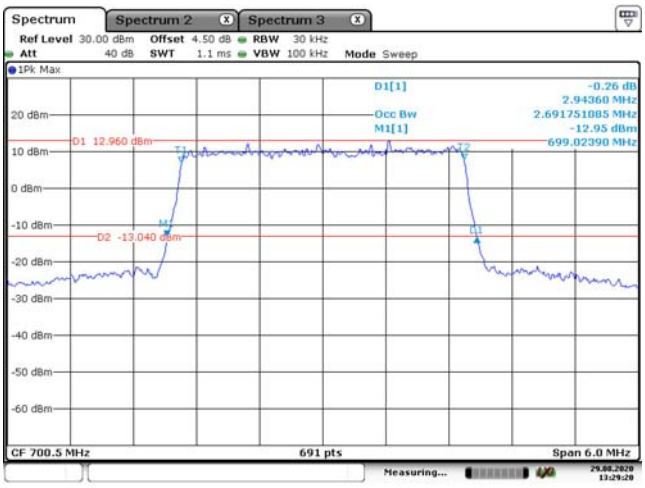
1.4M, 16QAM, High Channel



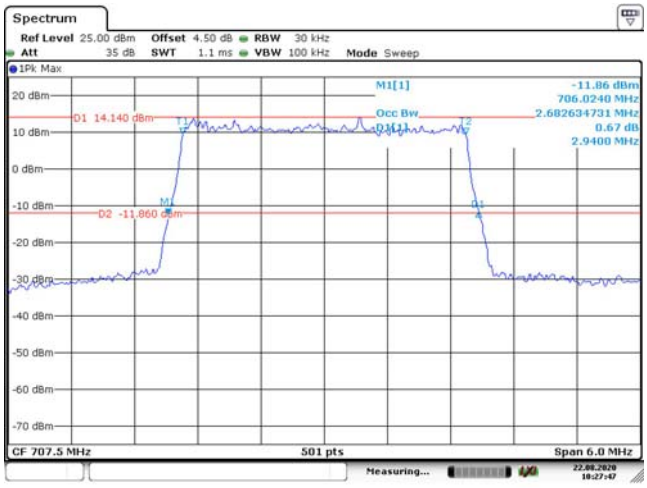
3M, QPSK, Low Channel



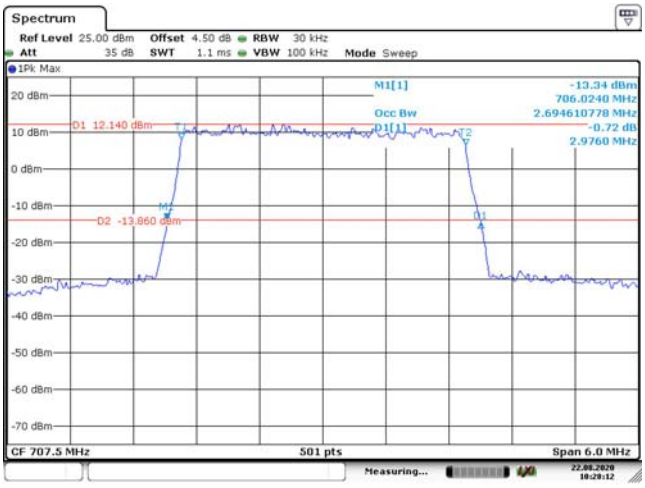
3M, 16QAM, Low Channel



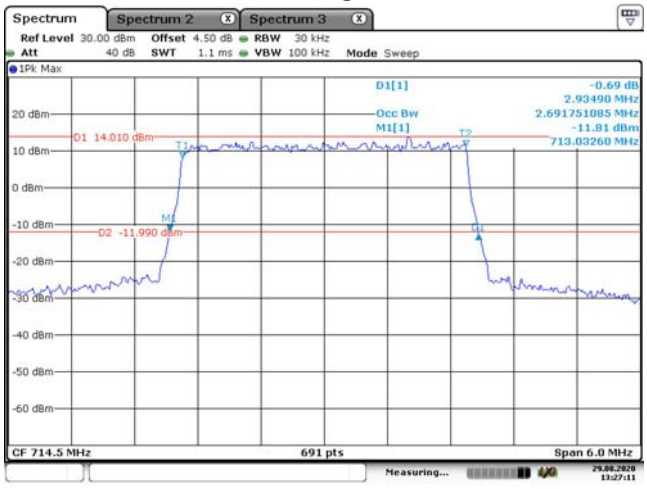
3M, QPSK, Middle Channel



3M, 16QAM, Middle Channel



3M, QPSK, High Channel



3M, 16QAM, High Channel