



TESTING LABORATORY  
CERTIFICATE #4820.01



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

For

## Shenzhen Inrico Electronics Co.,Ltd

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**FCC ID: 2AIV6-TM9**

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## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

<b>EUT Name:</b>	PoC mobile radio
<b>EUT Model:</b>	TM-9
<b>Operation modes:</b>	GPRS/EDGE Data WCDMA( R99 (Data), HSDPA/HSUPA/HSPA+) FDD-LTE, TDD-LTE
<b>Operation Frequency:</b>	GSM850: 824-849 MHz(TX); 869-894 MHz(RX) PCS1900: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 5: 824-849 MHz(TX); 869-894 MHz(RX) LTE Band 2:1850-1910 MHz(TX), 1930-1990 MHz(RX) LTE Band 4: 1710-1755 MHz(TX);2110-2155 MHz(RX) LTE Band 5:824-849 MHz(TX), 869-894 MHz(RX) LTE Band 7:2500-2570 MHz(TX), 2620-2690 MHz(RX) LTE Band 12: 699-716 MHz(TX), 729-746 MHz(RX) LTE Band 17: 704-716 MHz(TX), 734-746 MHz(RX) LTE Band 38: 2570-2620 MHz(TX&RX) LTE Band 66: 1710-1780 MHz(TX), 2110-2180 MHz(RX)
<b>Antenna Gain<sup>▲</sup>:</b>	GSM850/WCDMA B5/LTE B5: 0.5 dBi(-1.65 dBd) PCS1900/WCDMA B2/LTE B2: 0.5 dBi LTE B4/B66: 0.5 dBi LTE B7/B38: 0.5 dBi LTE B12: 0.5 dBi(-1.65 dBd)
<b>Modulation Type:</b>	GMSK, 8PSK, BPSK, QPSK, 16QAM
<b>Rated Input Voltage:</b>	DC 12-24V from Car Battery
<b>Serial Number:</b>	RDG200407007-RF-S1
<b>EUT Received Date:</b>	2020.11.12
<b>EUT Status:</b>	Good

### Objective

This report is prepared on behalf of *Shenzhen Inrico Electronics Co.,Ltd* in accordance with: Part 2-Subpart J, Part 22-Subpart H, Part 24-Subpart E, Part 27of 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)

No related submittal.

## 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.

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	±0.61 dB
Unwanted Emissions, radiated	30MHz ~ 1GHz: 5.85 dB 1G~26.5GHz: 5.23 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1 °C
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 GSM Band 850/1900MHz(only supports GPRS and EDGE Data),WCDMA Band 2/5, and LTE band 2/4/5/7/12/17/38/66, test was performed with channels as below table:

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GPRS/EDGE 850	0.25	824.2	836.6	848.8
GPRS/EDGE 1900	0.25	1850.2	1880	1909.8
WCDMA Band 2	4.2	1852.4	1880	1907.6
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 17	5	706.5	710	713.5
	10	709	710	711
LTE Band 38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610
LTE Band 66	1.4	1710.7	1745	1779.3
	3	1711.5	1745	1778.5
	5	1712.5	1745	1777.5
	10	1715	1745	1775
	15	1717.5	1745	1772.5
	20	1720	1745	1770

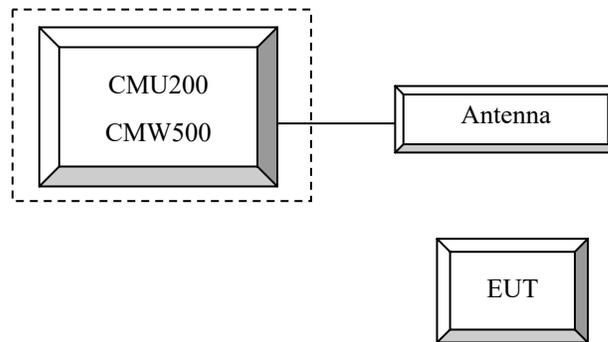
### Equipment Modifications

No modification was made to the EUT.

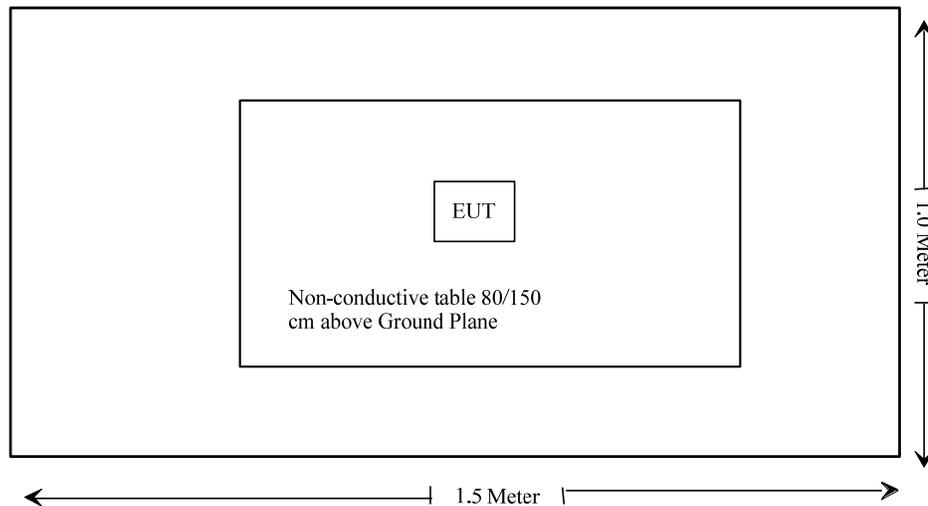
### Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
R&S	Universal 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**

<b>Rules</b>	<b>Description of Test</b>	<b>Result</b>
FCC§1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliance
FCC§2.1046;§ 22.913 (a); § 24.232 (c);§27.50	RF Output Power	Compliance
FCC§ 2.1047	Modulation Characteristics	Not Applicable
FCC§ 2.1049; § 22.905 § 22.917; § 24.238; §27.53	Occupied Bandwidth	Compliance
FCC§ 2.1051, § 22.917 (a); § 24.238 (a); §27.53;	Spurious Emissions at Antenna Terminal	Compliance
FCC§ 2.1053 § 22.917 (a); § 24.238 (a); §27.53	Field Strength of Spurious Radiation	Compliance
FCC§ 22.917 (a); § 24.238 (a); §27.53;	Out of band emission, Band Edge	Compliance
FCC§ 2.1055 § 22.355; § 24.235; §27.54	Frequency stability vs. temperature Frequency stability vs. voltage	Compliance

## **FCC §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

### **Applicable Standard**

According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
<b>Frequency Range (MHz)</b>	<b>Electric Field Strength (V/m)</b>	<b>Magnetic Field Strength (A/m)</b>	<b>Power Density (mW/cm<sup>2</sup>)</b>	<b>Averaging Time (minutes)</b>
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; \* = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

### **Calculation formula:**

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$  = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

**Calculated Data:**

Mode	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
		(dBi)	(numeric)	(dBm)	(mW)			
GPRS/EDGE 850	824-849	0.5	1.12	32.1	1621.81	20.00	0.362	0.55
GPRS/EDGE 1900	1850-1910	0.5	1.12	29.5	891.25	20.00	0.199	1.0
WCDMA Band 2	1850-1910	0.5	1.12	23	199.53	20.00	0.045	1.0
WCDMA Band 5	824-849	0.5	1.12	22.5	177.83	20.00	0.040	0.55
LTE Band 2	1850-1910	0.5	1.12	23	199.53	20.00	0.045	1.0
LTE Band 4	1710-1755	0.5	1.12	22.5	177.83	20.00	0.040	1.0
LTE Band 5	824-849	0.5	1.12	23	199.53	20.00	0.045	0.55
LTE Band 7	2500-2570	0.5	1.12	23	199.53	20.00	0.045	1.0
LTE Band 12	699-716	0.5	1.12	23	199.53	20.00	0.045	0.47
LTE Band 17	704-716	0.5	1.12	23	199.53	20.00	0.045	0.47
LTE Band 38	2570-2620	0.5	1.12	23	199.53	20.00	0.045	1.0
LTE Band 66	1710-1780	0.5	1.12	22.5	177.83	20.00	0.040	1.0

**Result:** The device meet FCC MPE at 20 cm distance

## **FCC §2.1047 - MODULATION CHARACTERISTIC**

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

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

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**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)(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.

(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.

**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).

<b>WCDMA General Settings</b>	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	$\beta_c / \beta_d$	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			
	$\beta_c$	2/15	12/15	15/15	15/15
	$\beta_d$	15/15	15/15	8/15	4/15
	$\beta_d$ (SF)	64			
	$\beta_c / \beta_d$	2/15	12/15	15/8	15/4
	$\beta_{hs}$	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			
	$A_{hs} = \beta_{hs} / \beta_c$	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
<b>WCDMA General Settings</b>	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	$\beta_c$	11/15	6/15	15/15	2/15	15/15
	$\beta_d$	15/15	15/15	9/15	15/15	0
	$\beta_{ec}$	209/225	12/15	30/15	2/15	5/15
	$\beta_c / \beta_d$	11/15	6/15	15/9	2/15	-
	$\beta_{hs}$	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	
<b>HSDPA Specific Settings</b>	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	$A_{hs} = \beta_{hs} / \beta_c$	30/15				
<b>HSUPA Specific Settings</b>	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-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	$\beta_c$ (Note3)	$\beta_d$	$\beta_{HS}$ (Note1)	$\beta_{ec}$	$\beta_{ed}$ (2xSF2) (Note 4)	$\beta_{ed}$ (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	$\beta_{ed1}$ : 30/15 $\beta_{ed2}$ : 30/15	$\beta_{ed3}$ : 24/15 $\beta_{ed4}$ : 24/15	3.5	2.5	14	105	105

Note 1:  $\Delta_{ACK}, \Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ .

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  $\beta_c$  is set to 1 and  $\beta_d = 0$  by default.

Note 4:  $\beta_{ed}$  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.

**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	13	10	Table 6.2.4-2	Table 6.2.4-2
	6.6.3.3.2				
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 <sup>1</sup>	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.

**LTE(TDD):**

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$	-	-	-	-	-

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

**Calculated Duty Cycle**

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink x (T<sub>s</sub>) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle =  $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

where

T<sub>s</sub> = 1/(15000 x 2048) seconds

**Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A
E-Microwave	Blocking Control	EMDCB-00036	0E01201048	Each time	N/A
E-Microwave	Coaxial Attenuators	EMCA10-5RN-6	OE01203239	Each time	N/A
R&S	Universal Radio Communication Tester	CMU200	106 891	2020-09-12	2021-09-12
R&S	Wideband Radio Communication Tester	CMW500	149216	2020-09-12	2021-09-12

*\* 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**

<b>Temperature:</b>	28.1~28.7 °C
<b>Relative Humidity:</b>	51~57%
<b>ATM Pressure:</b>	101.2~101.4kPa
<b>Tester:</b>	Theshy Xie
<b>Test Date:</b>	2020-11-20~2021-01-19

*Test Result: Compliance*

**Conducted Output Power****Cellular Band & PCS Band**

Band	Channel No.	Conducted Peak Output Power (dBm)							
		GPRS 1 TX Slot	GPRS 2 TX Slots	GPRS 3 TX Slots	GPRS 4 TX Slots	EGPRS 1 TX Slot	EGPRS 2 TX Slots	EGPRS 3 TX Slots	EGPRS 4 TX Slots
Cellular	128	31.84	29.77	27.85	25.49	26.73	24.66	22.77	20.37
	190	31.94	29.70	27.77	25.42	26.77	24.67	22.62	20.30
	251	32.02	29.65	27.68	25.36	27.00	24.61	22.58	20.34
PCS	512	29.37	27.20	25.60	23.29	25.83	23.52	21.92	19.68
	661	29.15	26.49	24.83	22.46	25.54	22.86	21.19	18.83
	810	28.60	25.72	23.95	21.72	24.98	22.13	20.30	18.06

**ERP/EIRP:**

Band	Mode	Channel	Conducted Power (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
Cellular	GPRS	Low	31.84	-1.65	0.2	29.99	38.45
		Middle	31.94	-1.65	0.2	30.09	38.45
		High	32.02	-1.65	0.2	30.17	38.45
	EDGE	Low	26.73	-1.65	0.2	24.88	38.45
		Middle	26.77	-1.65	0.2	24.92	38.45
		High	27.00	-1.65	0.2	25.15	38.45
PCS	GPRS	Low	29.37	0.5	0.4	29.47	33
		Middle	29.15	0.5	0.4	29.25	33
		High	28.60	0.5	0.4	28.7	33
	EDGE	Low	25.83	0.5	0.4	25.93	33
		Middle	25.54	0.5	0.4	25.64	33
		High	24.98	0.5	0.4	25.08	33

**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) Result = Conducted Power - Cable loss + Antenna Gain
- 3) Antenna gain(dBd)= Antenna gain(dBi)-2.15

**WCDMA Band 2**

**Conducted Output Power and PAR:**

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	22.97	2.96	22.92	2.81	22.94	2.87
HSDPA	1	21.38	4.03	21.17	4.06	20.83	3.45
	2	20.58	4.02	20.56	4.02	20.01	3.15
	3	20.12	4.06	19.88	40.20	19.45	3.21
	4	19.86	3.98	19.31	4.03	18.89	3.80
HSUPA	1	22.25	4.09	22.22	3.83	22.09	3.28
	2	21.88	4.06	21.89	3.78	21.59	3.13
	3	20.78	3.89	20.56	3.48	20.45	3.23
	4	19.89	3.99	19.66	3.18	19.32	3.31
	5	19.02	3.78	18.98	3.38	18.99	3.25
HSPA+ (16QAM)	1	21.45	3.97	20.65	3.89	20.45	3.27

**EIRP:**

Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
Low	22.97	0.5	0.4	23.07	33
Middle	22.92	0.5	0.4	23.02	33
High	22.94	0.5	0.4	23.04	33

**WCDMA Band 5**

**Conducted Output Power and PAR:**

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	22.31	3.04	22.41	2.96	22.39	2.93
HSDPA	1	21.46	4.02	21.58	3.88	21.50	3.62
	2	20.55	4.03	20.56	3.78	20.78	3.26
	3	19.62	4.03	20.45	3.58	19.77	3.65
	4	18.46	3.89	19.88	3.65	18.89	3.27
HSUPA	1	21.51	3.51	21.49	3.54	21.44	3.57
	2	20.89	3.25	20.56	3.54	20.45	3.28
	3	19.56	3.21	19.45	3.21	19.33	3.29
	4	18.63	3.26	18.63	3.23	18.35	3.34
	5	17.21	3.56	17.02	3.33	16.89	3.21
HSPA+ (16QAM)	1	21.00	0.32	20.56	3.89	20.01	3.13

**ERP:**

Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
Low	22.31	-1.65	0.2	20.46	38.45
Middle	22.41	-1.65	0.2	20.56	38.45
High	22.39	-1.65	0.2	20.56	38.45

**LTE Band 2**

**Conducted Output Power:**

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	22.14	21.80	21.75
		RB1#3	22.22	22.03	21.93
		RB1#5	22.00	21.83	21.74
		RB3#0	22.03	21.88	21.80
		RB3#3	22.05	21.86	21.81
		RB6#0	21.08	20.86	20.78
	16QAM	RB1#0	21.05	20.78	20.70
		RB1#3	21.23	20.93	20.87
		RB1#5	21.07	20.79	20.74
		RB3#0	22.07	21.88	21.82
		RB3#3	22.08	21.92	21.82
		RB6#0	20.14	19.84	19.81
3MHz	QPSK	RB1#0	22.04	21.86	21.81
		RB1#8	21.98	21.88	21.85
		RB1#14	21.93	21.85	21.81
		RB6#0	21.00	20.80	20.77
		RB6#9	20.94	20.80	20.74
		RB15#0	21.01	20.86	20.81
	16QAM	RB1#0	21.44	20.96	20.79
		RB1#8	21.45	20.96	20.78
		RB1#14	21.44	20.92	20.77
		RB6#0	20.08	19.83	19.75
		RB6#9	20.00	19.88	19.71
		RB15#0	20.07	19.83	19.92
5MHz	QPSK	RB1#0	21.96	21.78	21.72
		RB1#13	22.01	21.88	21.85
		RB1#24	21.85	21.78	21.72
		RB15#0	21.04	20.86	20.91
		RB15#10	21.03	20.85	20.82
		RB25#0	20.95	20.81	20.80
	16QAM	RB1#0	20.78	20.99	20.74
		RB1#13	20.86	21.11	20.91
		RB1#24	20.75	20.98	20.76
		RB15#0	21.02	20.87	20.91
		RB15#10	21.01	20.79	20.81
		RB25#0	20.06	19.85	19.90

10MHz	QPSK	RB1#0	22.02	21.84	21.82
		RB1#25	22.08	22.05	22.01
		RB1#49	21.91	21.82	21.80
		RB25#0	21.05	20.96	20.88
		RB25#25	21.04	20.84	20.81
		RB50#0	21.05	20.85	20.88
	16QAM	RB1#0	21.48	20.92	20.81
		RB1#25	21.65	21.09	20.93
		RB1#49	21.51	20.90	20.78
		RB25#0	21.03	20.90	20.89
		RB25#25	21.05	20.83	20.81
		RB50#0	20.11	19.92	19.90
15MHz	QPSK	RB1#0	21.96	21.79	21.70
		RB1#38	22.01	21.89	21.85
		RB1#74	21.81	21.70	21.74
		RB36#0	21.05	20.97	20.89
		RB36#39	21.01	20.92	20.92
		RB75#0	21.08	20.97	20.93
	16QAM	RB1#0	21.38	20.85	21.10
		RB1#38	21.56	20.98	21.22
		RB1#74	21.40	20.83	21.04
		RB36#0	21.02	20.98	20.87
		RB36#39	21.04	20.89	20.92
		RB75#0	20.12	19.96	19.92
20MHz	QPSK	RB1#0	21.74	21.64	21.46
		RB1#50	22.12	22.06	21.97
		RB1#99	21.65	21.55	21.49
		RB50#0	20.97	20.89	20.81
		RB50#50	21.03	20.75	20.78
		RB100#0	21.00	20.83	20.82
	16QAM	RB1#0	20.98	20.80	21.02
		RB1#50	21.40	21.12	21.50
		RB1#99	20.89	20.72	20.98
		RB50#0	20.99	20.87	20.80
		RB50#50	21.00	20.77	20.80
		RB100#0	20.04	19.88	19.88

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
QPSK	1 RB	20 MHz	3.96	4.48	4.76	13.00
	100 RB		5.36	5.36	5.52	13.00
16QAM	1 RB	20 MHz	5.12	5.16	5.88	13.00
	100 RB		6.28	6.28	6.44	13.00

**EIRP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	22.22	0.5	0.4	22.32	33.00
		Middle	22.03	0.5	0.4	22.13	33.00
		High	21.93	0.5	0.4	22.03	33.00
	16QAM	Low	22.08	0.5	0.4	22.18	33.00
		Middle	21.92	0.5	0.4	22.02	33.00
		High	21.82	0.5	0.4	21.92	33.00
3MHz	QPSK	Low	22.04	0.5	0.4	22.14	33.00
		Middle	21.88	0.5	0.4	21.98	33.00
		High	21.85	0.5	0.4	21.95	33.00
	16QAM	Low	21.45	0.5	0.4	21.55	33.00
		Middle	20.96	0.5	0.4	21.06	33.00
		High	20.79	0.5	0.4	20.89	33.00
5MHz	QPSK	Low	22.01	0.5	0.4	22.11	33.00
		Middle	21.88	0.5	0.4	21.98	33.00
		High	21.85	0.5	0.4	21.95	33.00
	16QAM	Low	21.02	0.5	0.4	21.12	33.00
		Middle	21.11	0.5	0.4	21.21	33.00
		High	20.91	0.5	0.4	21.01	33.00
10MHz	QPSK	Low	22.08	0.5	0.4	22.18	33.00
		Middle	22.05	0.5	0.4	22.15	33.00
		High	22.01	0.5	0.4	22.11	33.00
	16QAM	Low	21.65	0.5	0.4	21.75	33.00
		Middle	21.09	0.5	0.4	21.19	33.00
		High	20.93	0.5	0.4	21.03	33.00
15MHz	QPSK	Low	22.01	0.5	0.4	22.11	33.00
		Middle	21.89	0.5	0.4	21.99	33.00
		High	21.85	0.5	0.4	21.95	33.00
	16QAM	Low	21.56	0.5	0.4	21.66	33.00
		Middle	20.98	0.5	0.4	21.08	33.00
		High	21.22	0.5	0.4	21.32	33.00
20MHz	QPSK	Low	22.12	0.5	0.4	22.22	33.00
		Middle	22.06	0.5	0.4	22.16	33.00
		High	21.97	0.5	0.4	22.07	33.00
	16QAM	Low	21.4	0.5	0.4	21.50	33.00
		Middle	21.12	0.5	0.4	21.22	33.00
		High	21.5	0.5	0.4	21.60	33.00

LTE Band 4

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	22.09	22.10	22.11
		RB1#3	22.25	22.27	22.29
		RB1#5	22.09	22.09	22.09
		RB3#0	22.16	22.18	22.07
		RB3#3	22.13	22.21	22.05
		RB6#0	21.18	21.16	21.14
	16QAM	RB1#0	21.10	21.29	21.01
		RB1#3	21.28	21.46	21.22
		RB1#5	21.14	21.25	21.06
		RB3#0	22.17	22.19	22.05
		RB3#3	22.18	22.18	22.11
		RB6#0	20.19	20.21	20.02
3MHz	QPSK	RB1#0	22.19	22.19	22.17
		RB1#8	22.12	22.20	22.19
		RB1#14	22.12	22.17	22.17
		RB6#0	21.14	21.18	21.14
		RB6#9	21.11	21.14	21.13
		RB15#0	21.21	21.22	21.16
	16QAM	RB1#0	21.70	21.38	21.16
		RB1#8	21.68	21.36	21.12
		RB1#14	21.65	21.32	21.12
		RB6#0	20.21	20.18	20.03
		RB6#9	20.15	20.26	20.04
		RB15#0	20.26	20.21	20.18
5MHz	QPSK	RB1#0	22.08	22.08	22.01
		RB1#13	22.14	22.24	22.14
		RB1#24	22.07	22.09	22.05
		RB15#0	21.19	21.22	21.18
		RB15#10	21.27	21.23	21.21
		RB25#0	21.14	21.17	21.14
	16QAM	RB1#0	21.01	21.45	21.09
		RB1#13	21.08	21.57	21.19
		RB1#24	20.99	21.45	21.09
		RB15#0	21.20	21.22	21.15
		RB15#10	21.23	21.23	21.21
		RB25#0	20.21	20.21	20.17
10MHz	QPSK	RB1#0	22.13	22.14	22.12
		RB1#25	22.26	22.34	22.26
		RB1#49	22.08	22.11	22.18
		RB25#0	21.17	21.29	21.20
		RB25#25	21.25	21.26	21.23
		RB50#0	21.19	21.25	21.18
	16QAM	RB1#0	21.69	21.32	21.15
		RB1#25	21.81	21.54	21.33
		RB1#49	21.72	21.35	21.07
		RB25#0	21.19	21.28	21.20
		RB25#25	21.25	21.29	21.26
		RB50#0	20.22	20.27	20.21

15MHz	QPSK	RB1#0	22.01	22.03	21.99
		RB1#38	22.12	22.18	22.13
		RB1#74	22.00	22.04	22.06
		RB36#0	21.20	21.22	21.19
		RB36#39	21.25	21.26	21.27
		RB75#0	21.25	21.29	21.28
	16QAM	RB1#0	21.61	21.19	21.43
		RB1#38	21.73	21.37	21.53
		RB1#74	21.71	21.22	21.35
		RB36#0	21.20	21.20	21.23
		RB36#39	21.23	21.25	21.30
		RB75#0	20.23	20.23	20.22
20MHz	QPSK	RB1#0	21.85	21.80	21.85
		RB1#50	22.27	22.30	22.30
		RB1#99	21.91	21.80	21.89
		RB50#0	21.13	21.22	21.12
		RB50#50	21.20	21.20	21.20
		RB100#0	21.19	21.23	21.21
	16QAM	RB1#0	21.16	21.46	21.24
		RB1#50	21.83	21.95	21.59
		RB1#99	21.49	21.45	21.17
		RB50#0	21.14	21.24	21.15
		RB50#50	21.14	21.23	21.22
		RB100#0	20.14	20.22	20.20

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.68	5.12	4.84	13
	100 RB		5.52	5.60	5.36	13
16QAM	1 RB	20 MHz	5.68	6.08	6.08	13
	100 RB		6.36	6.60	6.28	13

**EIRP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	22.25	0.5	0.4	22.35	30.00
		Middle	22.27	0.5	0.4	22.37	30.00
		High	22.29	0.5	0.4	22.39	30.00
	16QAM	Low	22.18	0.5	0.4	22.28	30.00
		Middle	22.19	0.5	0.4	22.29	30.00
		High	22.11	0.5	0.4	22.21	30.00
3MHz	QPSK	Low	22.19	0.5	0.4	22.29	30.00
		Middle	22.2	0.5	0.4	22.30	30.00
		High	22.19	0.5	0.4	22.29	30.00
	16QAM	Low	21.7	0.5	0.4	21.80	30.00
		Middle	21.38	0.5	0.4	21.48	30.00
		High	21.16	0.5	0.4	21.26	30.00
5MHz	QPSK	Low	22.14	0.5	0.4	22.24	30.00
		Middle	22.24	0.5	0.4	22.34	30.00
		High	22.14	0.5	0.4	22.24	30.00
	16QAM	Low	21.23	0.5	0.4	21.33	30.00
		Middle	21.57	0.5	0.4	21.67	30.00
		High	21.21	0.5	0.4	21.31	30.00
10MHz	QPSK	Low	22.26	0.5	0.4	22.36	30.00
		Middle	22.34	0.5	0.4	22.44	30.00
		High	22.26	0.5	0.4	22.36	30.00
	16QAM	Low	21.81	0.5	0.4	21.91	30.00
		Middle	21.54	0.5	0.4	21.64	30.00
		High	21.33	0.5	0.4	21.43	30.00
15MHz	QPSK	Low	22.12	0.5	0.4	22.22	30.00
		Middle	22.18	0.5	0.4	22.28	30.00
		High	22.13	0.5	0.4	22.23	30.00
	16QAM	Low	21.73	0.5	0.4	21.83	30.00
		Middle	21.37	0.5	0.4	21.47	30.00
		High	21.53	0.5	0.4	21.63	30.00
20MHz	QPSK	Low	22.27	0.5	0.4	22.37	30.00
		Middle	22.3	0.5	0.4	22.40	30.00
		High	22.3	0.5	0.4	22.40	30.00
	16QAM	Low	21.83	0.5	0.4	21.93	30.00
		Middle	21.95	0.5	0.4	22.05	30.00
		High	21.59	0.5	0.4	21.69	30.00

LTE Band 5

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	22.29	22.32	22.28
		RB1#3	22.46	22.44	22.48
		RB1#5	22.29	22.23	22.30
		RB3#0	22.37	22.35	22.37
		RB3#3	22.36	22.36	22.37
		RB6#0	21.32	21.33	21.35
	16QAM	RB1#0	21.29	21.40	21.28
		RB1#3	21.47	21.60	21.46
		RB1#5	21.31	21.39	21.29
		RB3#0	22.39	22.36	22.38
		RB3#3	22.37	22.40	22.41
		RB6#0	20.33	20.32	20.30
3MHz	QPSK	RB1#0	22.35	22.36	22.40
		RB1#8	22.31	22.39	22.39
		RB1#14	22.26	22.32	22.36
		RB6#0	21.28	21.27	21.30
		RB6#9	21.30	21.26	21.29
		RB15#0	21.38	21.34	21.37
	16QAM	RB1#0	21.97	21.46	21.38
		RB1#8	21.90	21.46	21.36
		RB1#14	21.86	21.48	21.36
		RB6#0	20.38	20.30	20.24
		RB6#9	20.36	20.32	20.24
		RB15#0	20.43	20.35	20.44
5MHz	QPSK	RB1#0	22.26	22.25	22.26
		RB1#13	22.42	22.40	22.39
		RB1#24	22.28	22.26	22.29
		RB15#0	21.33	21.36	21.41
		RB15#10	21.36	21.36	21.36
		RB25#0	21.38	21.35	21.36
	16QAM	RB1#0	21.14	21.54	21.30
		RB1#13	21.27	21.71	21.45
		RB1#24	21.14	21.52	21.31
		RB15#0	21.35	21.35	21.42
		RB15#10	21.39	21.35	21.36
		RB25#0	20.37	20.32	20.38
10MHz	QPSK	RB1#0	22.27	22.31	22.30
		RB1#25	22.46	22.50	22.42
		RB1#49	22.29	22.36	22.35
		RB25#0	21.33	21.41	21.38
		RB25#25	21.32	21.37	21.31
		RB50#0	21.31	21.40	21.37
	16QAM	RB1#0	21.92	21.45	21.32
		RB1#25	22.03	21.62	21.49
		RB1#49	21.84	21.52	21.31
		RB25#0	21.36	21.42	21.39
		RB25#25	21.32	21.39	21.32
		RB50#0	20.32	20.40	20.40

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	5.48	4.40	5.48	13
	50 RB		5.40	5.48	5.56	13
16QAM	1 RB	10 MHz	6.80	5.20	6.60	13
	50 RB		6.28	6.48	6.48	13

**ERP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	22.46	-1.65	0.2	20.61	38.45
		Middle	22.44	-1.65	0.2	20.59	38.45
		High	22.48	-1.65	0.2	20.63	38.45
	16QAM	Low	22.39	-1.65	0.2	20.54	38.45
		Middle	22.4	-1.65	0.2	20.55	38.45
		High	22.41	-1.65	0.2	20.56	38.45
3MHz	QPSK	Low	22.35	-1.65	0.2	20.5	38.45
		Middle	22.39	-1.65	0.2	20.54	38.45
		High	22.4	-1.65	0.2	20.55	38.45
	16QAM	Low	21.97	-1.65	0.2	20.12	38.45
		Middle	21.48	-1.65	0.2	19.63	38.45
		High	21.38	-1.65	0.2	19.53	38.45
5MHz	QPSK	Low	22.42	-1.65	0.2	20.57	38.45
		Middle	22.4	-1.65	0.2	20.55	38.45
		High	22.39	-1.65	0.2	20.54	38.45
	16QAM	Low	21.39	-1.65	0.2	19.54	38.45
		Middle	21.71	-1.65	0.2	19.86	38.45
		High	21.45	-1.65	0.2	19.6	38.45
10MHz	QPSK	Low	22.46	-1.65	0.2	20.61	38.45
		Middle	22.5	-1.65	0.2	20.65	38.45
		High	22.42	-1.65	0.2	20.57	38.45
	16QAM	Low	22.03	-1.65	0.2	20.18	38.45
		Middle	21.62	-1.65	0.2	19.77	38.45
		High	21.49	-1.65	0.2	19.64	38.45

LTE Band 7

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	22.14	21.59	21.59
		RB1#13	21.69	21.73	21.68
		RB1#24	21.59	21.66	21.52
		RB15#0	20.66	20.69	20.74
		RB15#10	20.71	20.74	20.68
		RB25#0	20.65	20.72	20.68
	16QAM	RB1#0	20.88	20.68	20.48
		RB1#13	20.94	20.77	20.57
		RB1#24	20.82	20.73	20.48
		RB15#0	19.62	19.74	19.69
		RB15#10	19.67	19.78	19.66
		RB25#0	19.66	19.74	19.65
10 MHz	QPSK	RB1#0	21.69	21.72	21.74
		RB1#25	21.82	21.90	21.86
		RB1#49	21.69	21.74	21.67
		RB25#0	20.66	20.76	20.84
		RB25#25	20.69	20.79	20.73
		RB50#0	20.70	20.78	20.77
	16QAM	RB1#0	21.18	20.80	20.70
		RB1#25	21.25	20.98	20.87
		RB1#49	21.12	20.81	20.64
		RB25#0	19.70	19.82	19.85
		RB25#25	19.74	19.85	19.73
		RB50#0	19.72	19.81	19.76
15 MHz	QPSK	RB1#0	21.60	21.61	21.71
		RB1#38	21.71	21.75	21.76
		RB1#74	21.59	21.63	21.62
		RB36#0	20.68	20.74	20.90
		RB36#39	20.78	20.81	20.76
		RB75#0	20.76	20.80	20.85
	16QAM	RB1#0	21.05	20.68	20.89
		RB1#38	21.09	20.85	21.22
		RB1#74	20.96	20.78	20.66
		RB36#0	19.71	19.77	19.76
		RB36#39	19.73	19.85	20.13
		RB75#0	19.71	19.80	19.93
20MHz	QPSK	RB1#0	21.39	21.46	21.47
		RB1#50	21.74	21.89	21.90
		RB1#99	21.39	21.49	21.40
		RB50#0	20.48	21.08	20.77
		RB50#50	20.52	20.74	20.62
		RB100#0	20.54	20.66	20.71
	16QAM	RB1#0	20.67	20.89	20.74
		RB1#50	20.97	21.33	21.10
		RB1#99	20.63	20.99	20.71
		RB50#0	19.50	19.59	19.74
		RB50#50	19.53	19.73	19.55
		RB100#0	19.57	19.71	19.67

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.96	4.90	4.20	13
	100 RB		4.81	5.07	4.90	13
16QAM	1 RB	20 MHz	4.96	5.45	4.75	13
	100 RB		5.74	6.03	5.74	13

**EIRP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	22.14	0.50	0.40	22.24	33.00
		Middle	21.73	0.50	0.40	21.83	33.00
		High	21.68	0.50	0.40	21.78	33.00
	16QAM	Low	20.94	0.50	0.40	21.04	33.00
		Middle	20.77	0.50	0.40	20.87	33.00
		High	20.57	0.50	0.40	20.67	33.00
10MHz	QPSK	Low	21.82	0.50	0.40	21.92	33.00
		Middle	21.90	0.50	0.40	22.00	33.00
		High	21.86	0.50	0.40	21.96	33.00
	16QAM	Low	21.25	0.50	0.40	21.35	33.00
		Middle	20.98	0.50	0.40	21.08	33.00
		High	20.87	0.50	0.40	20.97	33.00
15MHz	QPSK	Low	21.71	0.50	0.40	21.81	33.00
		Middle	21.75	0.50	0.40	21.85	33.00
		High	21.76	0.50	0.40	21.86	33.00
	16QAM	Low	21.09	0.50	0.40	21.19	33.00
		Middle	20.85	0.50	0.40	20.95	33.00
		High	21.22	0.50	0.40	21.32	33.00
20MHz	QPSK	Low	21.74	0.50	0.40	21.84	33.00
		Middle	21.89	0.50	0.40	21.99	33.00
		High	21.90	0.50	0.40	22.00	33.00
	16QAM	Low	20.97	0.50	0.40	21.07	33.00
		Middle	21.33	0.50	0.40	21.43	33.00
		High	21.10	0.50	0.40	21.20	33.00

LTE Band 12

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	22.30	22.41	22.27
		RB1#3	22.43	22.56	22.47
		RB1#5	22.29	22.39	22.34
		RB3#0	22.41	22.48	22.43
		RB3#3	22.46	22.44	22.50
		RB6#0	21.35	21.39	21.32
	16QAM	RB1#0	21.26	21.50	21.27
		RB1#3	21.47	21.72	21.46
		RB1#5	21.32	21.49	21.36
		RB3#0	21.61	21.49	21.57
		RB3#3	21.63	21.49	21.62
		RB6#0	20.42	20.51	20.36
3MHz	QPSK	RB1#0	22.36	22.46	22.33
		RB1#8	22.32	22.46	22.36
		RB1#14	22.34	22.41	22.40
		RB6#0	21.25	21.30	21.28
		RB6#9	21.28	21.37	21.31
		RB15#0	21.35	21.41	21.36
	16QAM	RB1#0	21.90	21.57	21.42
		RB1#8	21.88	21.56	21.36
		RB1#14	21.92	21.52	21.44
		RB6#0	20.43	20.37	20.38
		RB6#9	20.41	20.47	20.31
		RB15#0	20.49	20.48	20.47
5MHz	QPSK	RB1#0	22.23	22.34	22.18
		RB1#13	22.40	22.44	22.34
		RB1#24	22.31	22.32	22.41
		RB15#0	21.43	21.32	21.56
		RB15#10	21.24	21.58	21.25
		RB25#0	21.30	21.46	21.41
	16QAM	RB1#0	21.08	21.63	21.30
		RB1#13	21.26	21.76	21.40
		RB1#24	21.25	21.59	21.42
		RB15#0	20.55	20.36	20.69
		RB15#10	20.37	20.61	20.38
		RB25#0	20.45	20.52	20.52
10MHz	QPSK	RB1#0	22.24	22.30	22.33
		RB1#25	22.47	22.53	22.54
		RB1#49	22.36	22.32	22.42
		RB25#0	21.66	21.45	21.13
		RB25#25	21.60	21.63	21.08
		RB50#0	21.61	21.56	21.13
	16QAM	RB1#0	21.78	21.49	21.36
		RB1#25	22.16	21.64	21.53
		RB1#49	21.99	21.48	21.39
		RB25#0	20.85	20.60	20.30
		RB25#25	20.72	20.79	20.25
		RB50#0	20.72	20.69	20.23

**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	4.49	5.30	5.65	13
	50 RB		5.57	5.59	5.30	13
16QAM	1 RB	10 MHz	5.74	6.29	6.17	13
	50 RB		6.49	6.58	6.38	13

**ERP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	22.46	-1.65	0.20	20.61	34.77
		Middle	22.56	-1.65	0.20	20.71	34.77
		High	22.50	-1.65	0.20	20.65	34.77
	16QAM	Low	21.63	-1.65	0.20	19.78	34.77
		Middle	21.72	-1.65	0.20	19.87	34.77
		High	21.62	-1.65	0.20	19.77	34.77
3MHz	QPSK	Low	22.36	-1.65	0.20	20.51	34.77
		Middle	22.46	-1.65	0.20	20.61	34.77
		High	22.40	-1.65	0.20	20.55	34.77
	16QAM	Low	21.92	-1.65	0.20	20.07	34.77
		Middle	21.57	-1.65	0.20	19.72	34.77
		High	21.44	-1.65	0.20	19.59	34.77
5MHz	QPSK	Low	22.40	-1.65	0.20	20.55	34.77
		Middle	22.44	-1.65	0.20	20.59	34.77
		High	22.41	-1.65	0.20	20.56	34.77
	16QAM	Low	21.26	-1.65	0.20	19.41	34.77
		Middle	21.76	-1.65	0.20	19.91	34.77
		High	21.42	-1.65	0.20	19.57	34.77
10MHz	QPSK	Low	22.47	-1.65	0.20	20.62	34.77
		Middle	22.53	-1.65	0.20	20.68	34.77
		High	22.54	-1.65	0.20	20.69	34.77
	16QAM	Low	22.16	-1.65	0.20	20.31	34.77
		Middle	21.64	-1.65	0.20	19.79	34.77
		High	21.53	-1.65	0.20	19.68	34.77

**LTE Band 17**

**Conducted Output Power:**

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	22.34	22.32	22.24
		RB1#13	22.49	22.41	22.43
		RB1#24	22.35	22.28	22.32
		RB15#0	21.45	21.21	21.58
		RB15#10	21.58	21.40	21.28
		RB25#0	21.47	21.33	21.39
	16QAM	RB1#0	21.23	21.61	21.31
		RB1#13	21.36	21.71	21.44
		RB1#24	21.25	21.58	21.40
		RB15#0	20.60	20.27	20.66
		RB15#10	20.72	20.49	20.40
		RB25#0	20.61	20.38	20.50
10 MHz	QPSK	RB1#0	22.33	22.37	22.35
		RB1#25	22.54	22.49	22.53
		RB1#49	22.32	22.44	22.45
		RB25#0	21.29	21.22	21.17
		RB25#25	21.37	21.16	21.09
		RB50#0	21.41	21.20	21.15
	16QAM	RB1#0	21.99	21.50	21.36
		RB1#25	22.12	21.62	21.50
		RB1#49	21.94	21.54	21.43
		RB25#0	20.42	20.31	20.34
		RB25#25	20.49	20.26	20.26
		RB50#0	20.45	20.27	20.27

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	5.48	6.12	5.54	13
	50 RB		5.39	5.39	5.33	13
16QAM	1 RB	10 MHz	6.35	6.29	7.10	13
	50 RB		6.43	6.43	6.29	13

**ERP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	22.49	-1.65	0.20	20.64	34.77
		Middle	22.41	-1.65	0.20	20.56	34.77
		High	22.43	-1.65	0.20	20.58	34.77
	16QAM	Low	21.36	-1.65	0.20	19.51	34.77
		Middle	21.71	-1.65	0.20	19.86	34.77
		High	21.44	-1.65	0.20	19.59	34.77
10MHz	QPSK	Low	22.54	-1.65	0.20	20.69	34.77
		Middle	22.49	-1.65	0.20	20.64	34.77
		High	22.53	-1.65	0.20	20.68	34.77
	16QAM	Low	22.12	-1.65	0.20	20.27	34.77
		Middle	21.62	-1.65	0.20	19.77	34.77
		High	21.50	-1.65	0.20	19.65	34.77

LTE Band 38

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5MHz	QPSK	RB1#0	21.60	21.58	21.80
		RB1#13	21.76	21.73	22.04
		RB1#24	21.62	21.59	21.90
		RB15#0	20.70	20.66	20.99
		RB15#10	20.66	20.68	20.98
		RB25#0	20.69	20.63	20.98
	16QAM	RB1#0	20.80	20.53	20.98
		RB1#13	20.88	20.72	21.08
		RB1#24	20.79	20.56	20.91
		RB15#0	19.64	19.90	20.01
		RB15#10	19.64	19.84	20.05
		RB25#0	19.63	19.95	20.02
10MHz	QPSK	RB1#0	22.11	22.17	22.10
		RB1#25	22.45	22.50	22.37
		RB1#49	22.14	22.16	22.05
		RB25#0	21.16	21.13	21.07
		RB25#25	21.11	21.17	21.04
		RB50#0	21.12	21.12	21.06
	16QAM	RB1#0	21.26	21.01	21.16
		RB1#25	21.54	21.31	21.34
		RB1#49	21.26	21.04	21.00
		RB25#0	20.14	20.18	20.11
		RB25#25	20.06	20.18	20.07
		RB50#0	20.11	20.12	20.07
15MHz	QPSK	RB1#0	22.04	22.09	22.04
		RB1#38	22.18	22.21	22.12
		RB1#74	22.03	22.07	21.95
		RB36#0	21.13	21.11	21.10
		RB36#39	21.13	21.15	21.10
		RB75#0	21.16	21.15	21.13
	16QAM	RB1#0	21.16	20.92	21.16
		RB1#38	21.31	21.07	21.24
		RB1#74	21.15	20.92	21.05
		RB36#0	20.14	20.08	20.14
		RB36#39	20.12	20.14	20.18
		RB75#0	20.12	20.13	20.08
20MHz	QPSK	RB1#0	21.86	21.85	21.93
		RB1#50	22.34	22.39	22.38
		RB1#99	21.88	21.83	21.78
		RB50#0	21.06	21.03	21.00
		RB50#50	21.07	21.10	21.00
		RB100#0	21.05	21.08	20.96
	16QAM	RB1#0	20.85	20.77	21.13
		RB1#50	21.36	21.31	21.53
		RB1#99	20.88	20.77	20.94
		RB50#0	20.04	20.07	20.01
		RB50#50	20.00	20.13	20.03
		RB100#0	20.05	20.07	19.98

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	12.12	8.52	7.33	13
	100 RB		8.41	8.41	14.35	13
16QAM	1 RB	20 MHz	19.86	8.35	8.38	13
	100 RB		8.46	8.46	8.55	13

**EIRP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	21.76	0.50	0.40	21.86	33.00
		Middle	21.73	0.50	0.40	21.83	33.00
		High	22.04	0.50	0.40	22.14	33.00
	16QAM	Low	20.88	0.50	0.40	20.98	33.00
		Middle	20.72	0.50	0.40	20.82	33.00
		High	21.08	0.50	0.40	21.18	33.00
10MHz	QPSK	Low	22.45	0.50	0.40	22.55	33.00
		Middle	22.50	0.50	0.40	22.60	33.00
		High	22.37	0.50	0.40	22.47	33.00
	16QAM	Low	21.54	0.50	0.40	21.64	33.00
		Middle	21.31	0.50	0.40	21.41	33.00
		High	21.34	0.50	0.40	21.44	33.00
15MHz	QPSK	Low	22.18	0.50	0.40	22.28	33.00
		Middle	22.21	0.50	0.40	22.31	33.00
		High	22.12	0.50	0.40	22.22	33.00
	16QAM	Low	21.31	0.50	0.40	21.41	33.00
		Middle	21.07	0.50	0.40	21.17	33.00
		High	21.24	0.50	0.40	21.34	33.00
20MHz	QPSK	Low	22.34	0.50	0.40	22.44	33.00
		Middle	22.39	0.50	0.40	22.49	33.00
		High	22.38	0.50	0.40	22.48	33.00
	16QAM	Low	21.36	0.50	0.40	21.46	33.00
		Middle	21.31	0.50	0.40	21.41	33.00
		High	21.53	0.50	0.40	21.63	33.00

LTE Band 66

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	21.90	21.89	21.88
		RB1#3	22.05	21.99	22.04
		RB1#5	21.91	21.85	21.89
		RB3#0	21.96	21.96	21.95
		RB3#3	21.98	21.92	21.95
		RB6#0	21.01	20.95	20.98
	16QAM	RB1#0	20.94	21.01	20.90
		RB1#3	21.08	21.19	21.07
		RB1#5	20.95	21.00	20.95
		RB3#0	21.24	21.00	21.07
		RB3#3	21.22	21.02	21.05
		RB6#0	19.98	19.99	19.87
3MHz	QPSK	RB1#0	21.99	21.93	21.97
		RB1#8	21.95	21.93	21.97
		RB1#14	21.91	21.89	21.99
		RB6#0	20.96	20.86	20.91
		RB6#9	20.96	20.87	20.93
		RB15#0	21.01	20.97	21.00
	16QAM	RB1#0	21.52	21.11	20.95
		RB1#8	21.53	21.09	20.98
		RB1#14	21.47	21.09	20.95
		RB6#0	20.01	19.94	19.81
		RB6#9	20.00	19.94	19.83
		RB15#0	20.07	19.94	20.05
5MHz	QPSK	RB1#0	21.86	21.85	21.79
		RB1#13	21.98	21.97	21.93
		RB1#24	21.86	21.83	21.86
		RB15#0	21.00	20.99	21.00
		RB15#10	21.06	21.01	21.00
		RB25#0	20.98	20.96	20.91
	16QAM	RB1#0	20.79	21.21	20.85
		RB1#13	20.89	21.30	21.02
		RB1#24	20.78	21.15	20.91
		RB15#0	20.02	19.96	19.98
		RB15#10	20.10	19.98	19.99
		RB25#0	20.04	19.99	19.96
10MHz	QPSK	RB1#0	21.94	21.96	22.00
		RB1#25	22.02	22.08	22.09
		RB1#49	21.95	21.92	21.97
		RB25#0	20.97	21.00	21.02
		RB25#25	21.02	21.04	20.99
		RB50#0	21.02	21.04	21.03
	16QAM	RB1#0	21.51	21.14	20.88
		RB1#25	21.64	21.25	21.05
		RB1#49	21.61	21.06	20.96
		RB25#0	20.01	20.04	20.09
		RB25#25	20.06	20.09	20.05
		RB50#0	20.01	20.04	20.01

15MHz	QPSK	RB1#0	21.82	21.85	21.87
		RB1#38	21.93	21.95	22.01
		RB1#74	21.88	21.83	21.89
		RB36#0	21.04	21.02	21.12
		RB36#39	21.05	21.08	21.11
		RB75#0	21.05	21.09	21.14
	16QAM	RB1#0	21.41	21.03	21.09
		RB1#38	21.61	21.13	21.22
		RB1#74	21.55	20.98	21.25
		RB36#0	20.00	20.09	20.00
		RB36#39	20.07	20.10	20.00
		RB75#0	20.03	20.09	20.02
20MHz	QPSK	RB1#0	21.68	21.72	21.60
		RB1#50	22.13	22.10	22.00
		RB1#99	21.78	21.70	21.65
		RB50#0	20.96	20.99	20.87
		RB50#50	21.00	21.08	20.90
		RB100#0	20.99	21.03	20.86
	16QAM	RB1#0	21.03	21.00	21.10
		RB1#50	21.50	21.35	21.47
		RB1#99	21.18	20.86	21.25
		RB50#0	19.95	20.02	19.87
		RB50#50	20.01	20.04	19.88
		RB100#0	20.02	20.02	19.88

**PAR:**

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.67	5.01	3.07	13
	100 RB		5.25	5.42	4.61	13
16QAM	1 RB	20 MHz	5.80	5.83	4.26	13
	100 RB		6.32	6.43	5.65	13

**EIRP:**

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	22.05	0.50	0.40	22.15	30.00
		Middle	21.99	0.50	0.40	22.09	30.00
		High	22.04	0.50	0.40	22.14	30.00
	16QAM	Low	21.24	0.50	0.40	21.34	30.00
		Middle	21.19	0.50	0.40	21.29	30.00
		High	21.07	0.50	0.40	21.17	30.00
3MHz	QPSK	Low	21.99	0.50	0.40	22.09	30.00
		Middle	21.93	0.50	0.40	22.03	30.00
		High	21.99	0.50	0.40	22.09	30.00
	16QAM	Low	21.53	0.50	0.40	21.63	30.00
		Middle	21.11	0.50	0.40	21.21	30.00
		High	20.98	0.50	0.40	21.08	30.00
5MHz	QPSK	Low	21.98	0.50	0.40	22.08	30.00
		Middle	21.97	0.50	0.40	22.07	30.00
		High	21.93	0.50	0.40	22.03	30.00
	16QAM	Low	20.89	0.50	0.40	20.99	30.00
		Middle	21.30	0.50	0.40	21.40	30.00
		High	21.02	0.50	0.40	21.12	30.00
10MHz	QPSK	Low	22.02	0.50	0.40	22.12	30.00
		Middle	22.08	0.50	0.40	22.18	30.00
		High	22.09	0.50	0.40	22.19	30.00
	16QAM	Low	21.64	0.50	0.40	21.74	30.00
		Middle	21.25	0.50	0.40	21.35	30.00
		High	21.05	0.50	0.40	21.15	30.00
15MHz	QPSK	Low	21.93	0.50	0.40	22.03	30.00
		Middle	21.95	0.50	0.40	22.05	30.00
		High	22.01	0.50	0.40	22.11	30.00
	16QAM	Low	21.61	0.50	0.40	21.71	30.00
		Middle	21.13	0.50	0.40	21.23	30.00
		High	21.25	0.50	0.40	21.35	30.00
20MHz	QPSK	Low	22.13	0.50	0.40	22.23	30.00
		Middle	22.10	0.50	0.40	22.20	30.00
		High	22.00	0.50	0.40	22.10	30.00
	16QAM	Low	21.50	0.50	0.40	21.60	30.00
		Middle	21.35	0.50	0.40	21.45	30.00
		High	21.47	0.50	0.40	21.57	30.00

## 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) Result = Conducted Power - Cable loss + Antenna Gain
- 3) Antenna gain(dBd)= Antenna gain(dBi)-2.15

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

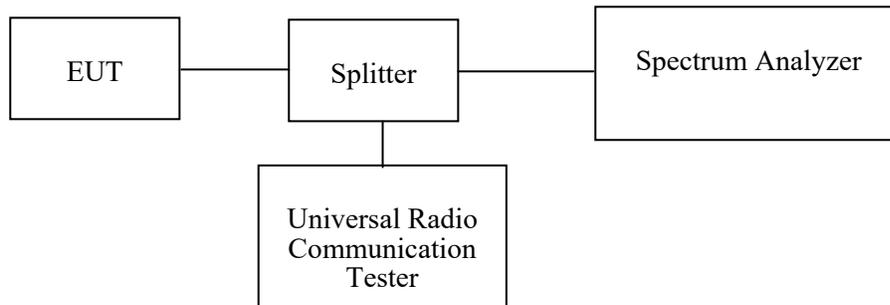
**Applicable Standard**

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

**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	2020-07-07	2021-07-07
R&S	Spectrum Analyzer	FSV40	101474	2020-07-07	2021-07-07
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A
E-Microwave	Blocking Control	EMDCB-00036	0E01201048	Each time	N/A
E-Microwave	Coaxial Attenuators	EMCA10-5RN-6	OE01203239	Each time	N/A
E-Microwave	Two-way Splitter	ODP-1-6-2S	OE0120142	Each time	N/A

\* **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**

<b>Temperature:</b>	19.8~28.7 °C
<b>Relative Humidity:</b>	29~57%
<b>ATM Pressure:</b>	100.9~101.8kPa
<b>Tester:</b>	Theshy Xie
<b>Test Date:</b>	2020-11-20~2021-01-08

*Test Mode: Transmitting*

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

**GSM:**

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	GPRS	0.246	0.246	0.246	0.319	0.323	0.321
	EGPRS	0.248	0.244	0.244	0.323	0.315	0.319
PCS	GPRS	0.244	0.244	0.242	0.319	0.318	0.317
	EGPRS	0.253	0.250	0.251	0.321	0.323	0.325

**WCDMA:**

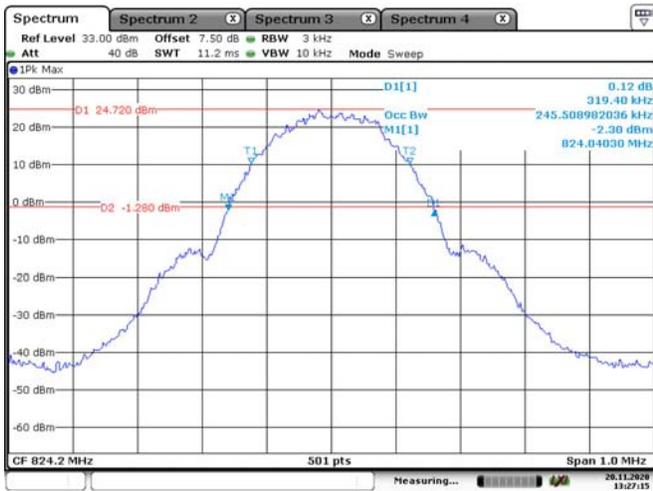
Band	Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
Cellular	Rel 99	4.172	4.172	4.172	4.750	4.750	4.750
	HSDPA	4.192	4.192	4.212	4.770	4.750	4.950
	HSUPA	4.192	4.192	4.212	4.750	4.750	4.910
PCS	Rel 99	4.172	4.172	4.172	4.750	0.750	4.750
	HSDPA	4.192	4.192	4.192	4.750	4.750	4.750
	HSUPA	4.212	4.192	4.212	4.790	4.750	5.090

**LTE Bands:**

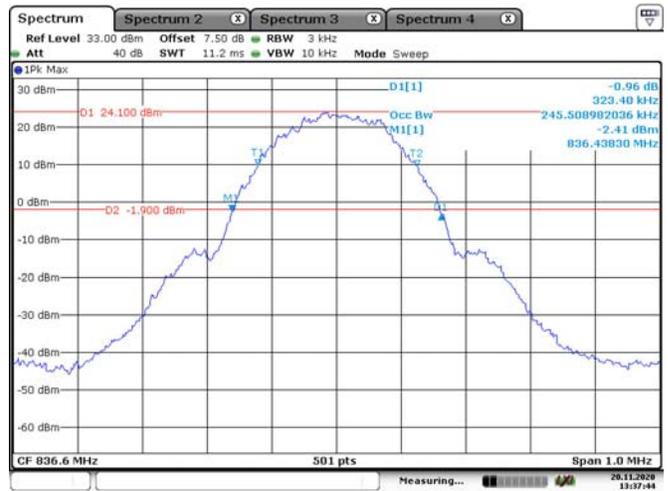
Band	Bandwidth (MHz)	Modulation mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)			
			Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel	
LTE Band 2	1.4 MHz	QPSK	1.098	1.104	1.092	1.290	1.290	1.308	
		16QAM	1.098	1.098	1.098	1.278	1.278	1.314	
	3 MHz	QPSK	2.676	2.688	2.688	2.856	2.880	2.880	
		16QAM	2.688	2.688	2.688	2.892	2.880	2.868	
	5 MHz	QPSK	4.540	4.540	4.520	5.200	5.640	5.100	
		16QAM	4.520	4.560	4.560	5.140	5.560	5.200	
	10 MHz	QPSK	8.960	8.960	9.000	9.960	9.920	9.920	
		16QAM	8.960	8.960	8.960	9.680	9.880	9.840	
	15 MHz	QPSK	13.560	13.560	13.560	15.180	15.180	15.180	
		16QAM	13.560	13.560	13.560	15.120	15.060	15.120	
	20 MHz	QPSK	18.000	18.000	18.000	19.600	19.600	19.840	
		16QAM	17.920	18.000	17.920	19.680	19.680	19.680	
	LTE Band 4	1.4 MHz	QPSK	1.092	1.104	1.110	1.296	1.290	1.296
			16QAM	1.098	1.092	1.092	1.308	1.290	1.284
3 MHz		QPSK	2.688	2.676	2.676	2.880	2.868	2.880	
		16QAM	2.676	2.688	2.688	2.892	2.868	2.880	
5 MHz		QPSK	4.540	4.540	4.540	5.180	5.160	5.080	
		16QAM	4.520	4.540	4.560	5.140	5.160	5.260	
10 MHz		QPSK	8.960	8.960	8.960	9.880	9.840	9.920	
		16QAM	9.000	8.960	9.000	9.720	9.800	9.920	
15 MHz		QPSK	13.560	13.560	13.560	14.940	15.120	15.180	
		16QAM	13.560	13.560	13.560	15.180	15.120	15.180	
20 MHz		QPSK	17.920	17.920	18.000	19.520	19.760	19.840	
		16QAM	17.920	18.000	18.000	19.760	19.840	19.680	

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	1.092	1.104	1.104	1.284	1.296	1.290
		16QAM	1.104	1.092	1.098	1.302	1.284	1.296
	3 MHz	QPSK	2.688	2.688	2.688	2.856	2.868	2.880
		16QAM	2.676	2.688	2.688	2.856	2.880	2.868
	5 MHz	QPSK	4.540	4.520	4.520	5.080	5.180	5.120
		16QAM	4.520	4.540	4.520	5.140	5.220	5.220
10 MHz	QPSK	8.960	8.960	8.960	9.840	9.760	9.720	
	16QAM	8.960	8.960	8.960	9.600	9.760	9.760	
LTE Band 7	5 MHz	QPSK	4.531	4.531	4.531	5.200	5.160	5.200
		16QAM	4.531	4.551	4.511	5.220	5.200	5.180
	10 MHz	QPSK	8.981	8.942	8.981	9.880	9.920	9.920
		16QAM	8.981	8.981	8.981	9.720	9.920	9.960
	15 MHz	QPSK	13.533	13.473	13.473	15.360	15.480	15.240
		16QAM	13.533	13.533	13.533	15.120	15.060	15.060
20 MHz	QPSK	17.964	17.884	17.964	19.520	19.600	19.840	
	16QAM	17.964	17.964	17.884	19.760	19.760	19.600	
LTE Band 12	1.4 MHz	QPSK	1.096	1.102	1.102	1.296	1.320	1.290
		16QAM	1.102	1.096	1.102	1.326	1.296	1.308
	3 MHz	QPSK	2.683	2.695	2.683	2.868	2.868	2.892
		16QAM	2.683	2.683	2.683	2.976	2.892	2.880
	5 MHz	QPSK	4.551	4.531	4.531	5.160	5.120	5.860
		16QAM	4.511	4.531	4.571	5.140	5.240	5.840
10 MHz	QPSK	9.022	8.981	8.942	9.960	9.800	10.200	
	16QAM	8.981	8.981	8.942	9.840	9.960	10.160	
LTE Band 17	5 MHz	QPSK	4.531	4.531	4.531	5.180	6.540	6.100
		16QAM	4.531	4.571	4.571	5.120	6.140	5.480
	10 MHz	QPSK	8.942	8.942	8.942	9.880	10.440	10.200
16QAM		8.901	8.942	8.942	9.800	9.800	9.800	
LTE Band 38	5 MHz	QPSK	4.511	4.511	4.511	5.100	5.140	5.180
		16QAM	4.511	4.531	4.531	5.120	5.140	5.200
	10 MHz	QPSK	8.981	8.942	8.981	9.960	9.960	9.840
		16QAM	8.942	8.942	8.981	9.720	9.760	9.880
	15 MHz	QPSK	13.533	13.473	13.473	15.540	15.240	15.720
		16QAM	13.533	13.593	13.593	15.240	15.240	15.600
20 MHz	QPSK	17.964	17.964	17.964	19.760	19.600	19.680	
	16QAM	17.964	17.964	17.884	19.680	20.320	19.600	
LTE Band 66	1.4 MHz	QPSK	1.096	1.102	1.102	1.296	1.320	1.290
		16QAM	1.096	1.096	1.096	1.314	1.290	1.290
	3 MHz	QPSK	2.695	2.683	2.683	2.880	2.868	2.892
		16QAM	2.683	2.683	2.683	2.880	2.880	2.880
	5 MHz	QPSK	4.531	4.511	4.511	5.180	5.200	5.140
		16QAM	4.511	4.551	4.551	5.140	5.220	5.240
	10 MHz	QPSK	8.981	8.942	8.981	9.960	9.880	10.000
		16QAM	8.942	8.942	8.981	9.840	9.880	9.840
	15 MHz	QPSK	13.533	13.533	13.533	15.300	15.240	15.240
		16QAM	13.533	13.533	13.533	15.120	15.180	15.240
	20 MHz	QPSK	18.044	17.964	18.044	19.600	19.680	19.920
		16QAM	17.964	18.044	17.964	19.680	19.760	19.760

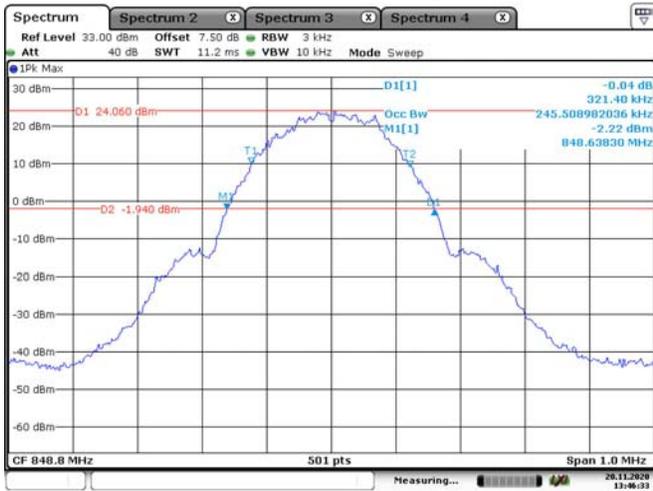
**Cellular 850 Band, GPRS, Low Channel**



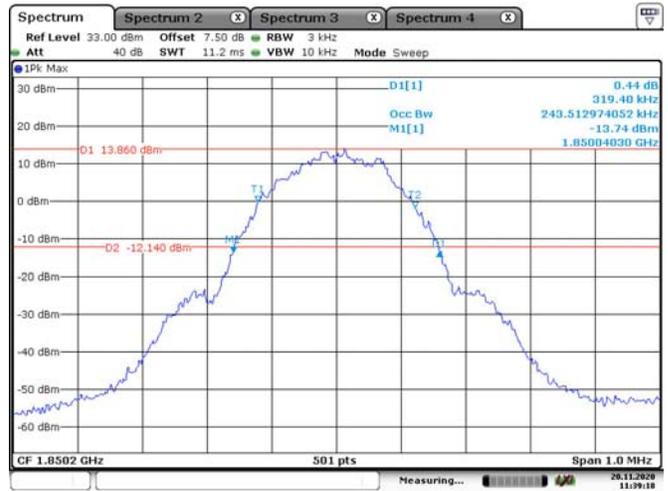
**Cellular 850 Band, GPRS, Middle Channel**



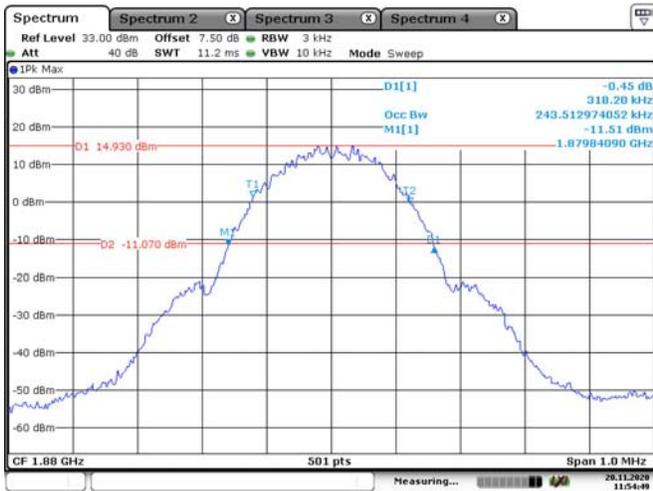
**Cellular 850 Band, GPRS, High Channel**



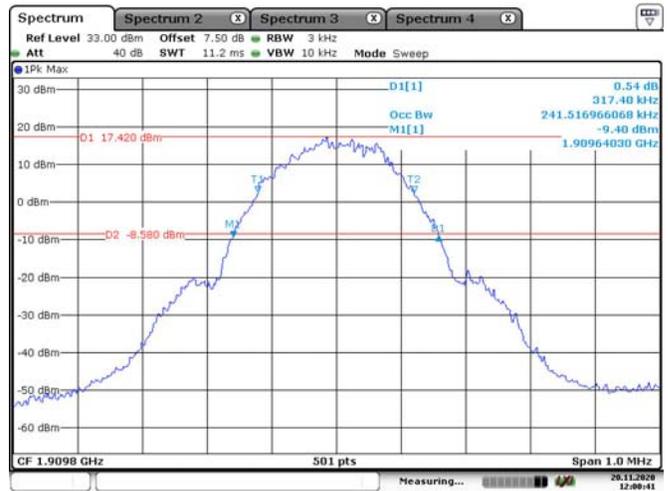
**PCS 1900 Band, GPRS, Low Channel**



**PCS 1900 Band, GPRS, Middle Channel**



**PCS 1900 Band, GPRS, High Channel**



**Cellular 850 Band, EGPRS, Low Channel**



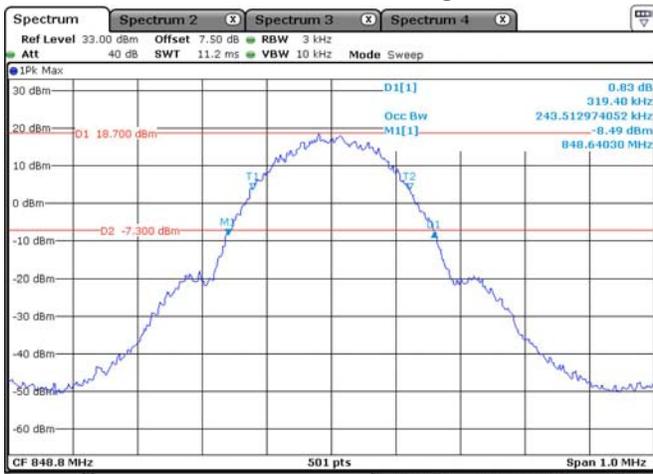
Date: 20.NOV.2020 20:27:58

**Cellular 850 Band, EGPRS, Middle Channel**



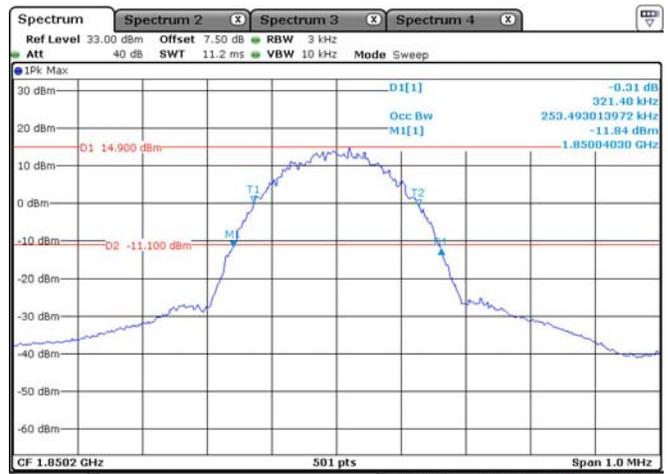
Date: 20.NOV.2020 20:32:28

**Cellular 850 Band, EGPRS, High Channel**



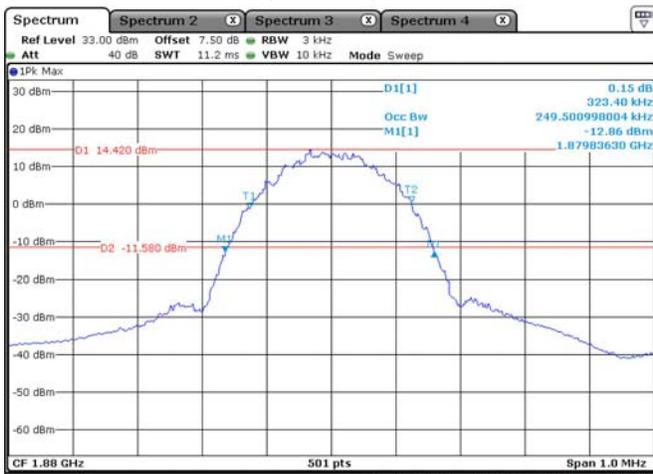
Date: 20.NOV.2020 20:35:44

**PCS 1900 Band, EGPRS, Low Channel**



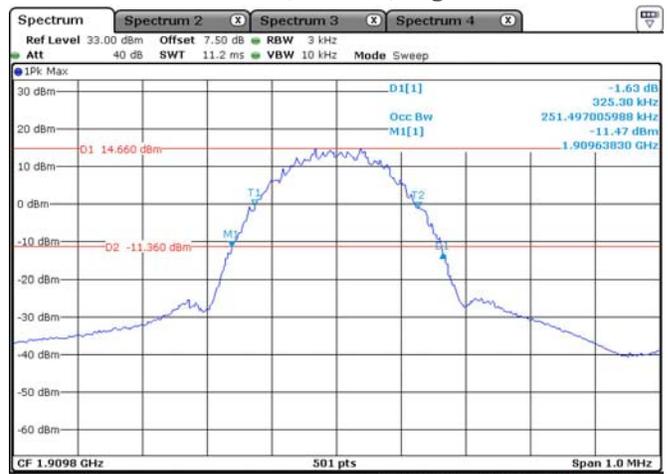
Date: 20.NOV.2020 20:57:20

**PCS 1900 Band, EGPRS, Middle Channel**



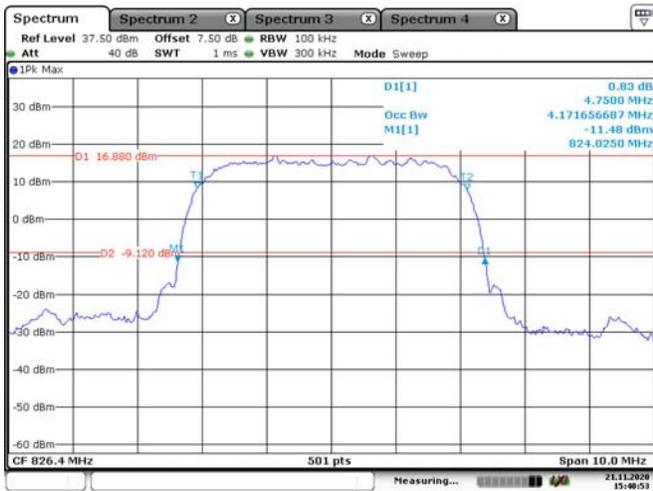
Date: 20.NOV.2020 21:03:03

**PCS 1900 Band, EGPRS, High Channel**

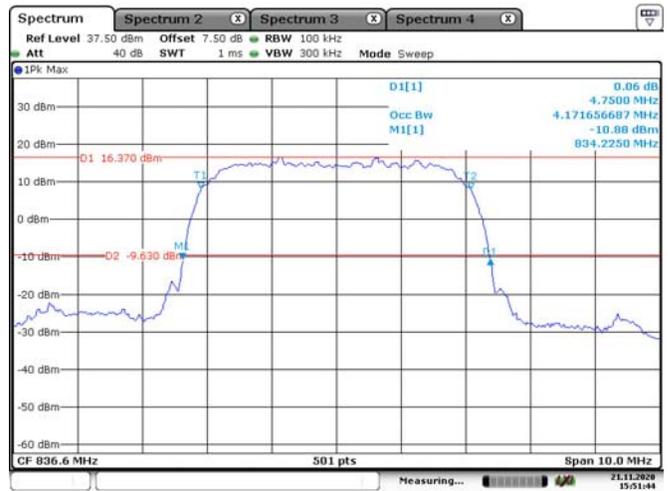


Date: 20.NOV.2020 21:06:28

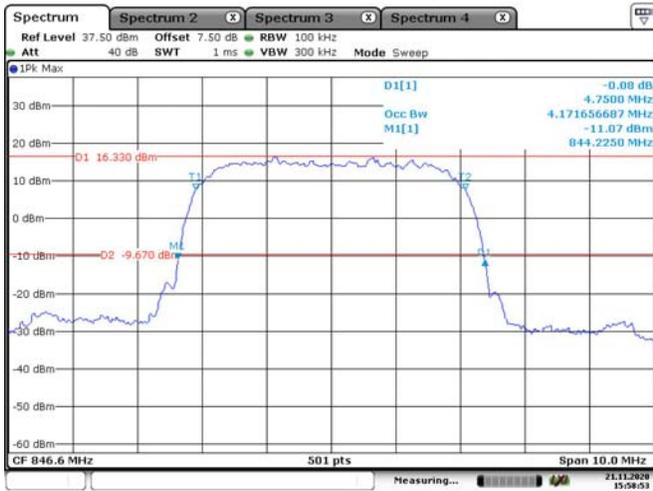
WCDMA Band V, Rel99, Low Channel



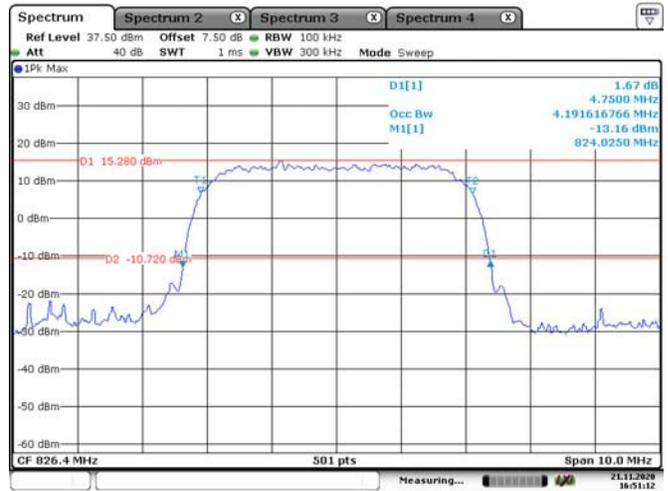
WCDMA Band V, Rel99, Middle Channel



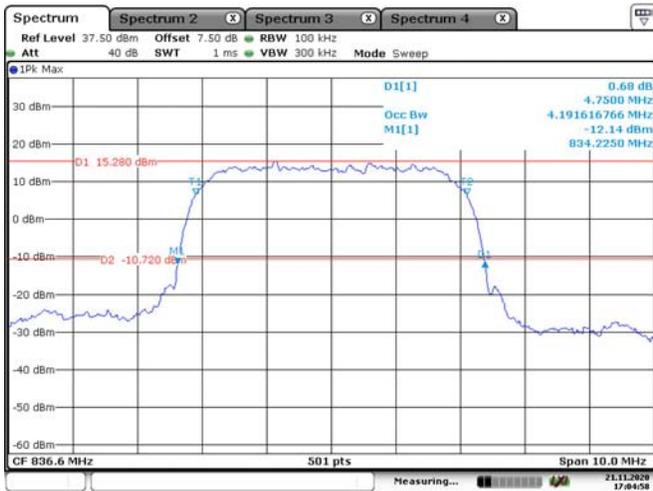
WCDMA Band V, Rel99, High Channel



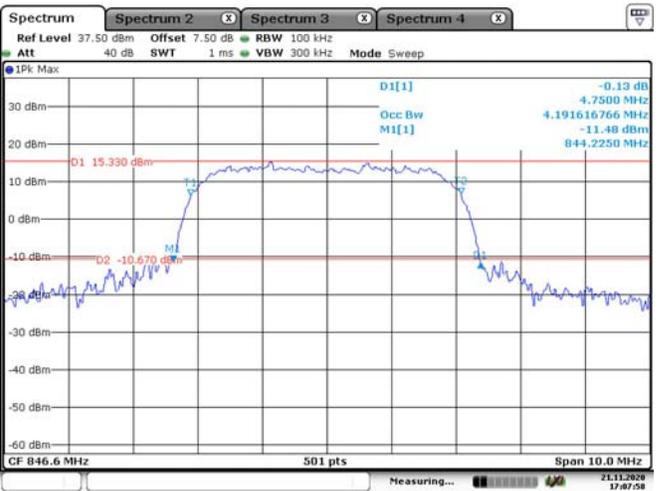
WCDMA Band V, HSDPA, Low Channel



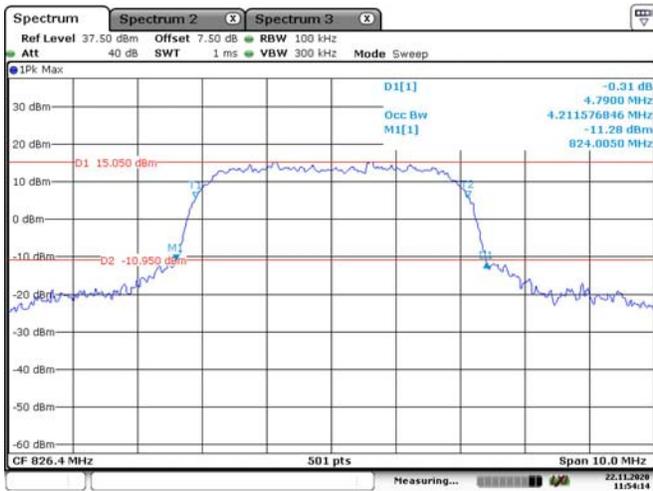
WCDMA Band V, HSDPA, Middle Channel



WCDMA Band V, HSDPA, High Channel

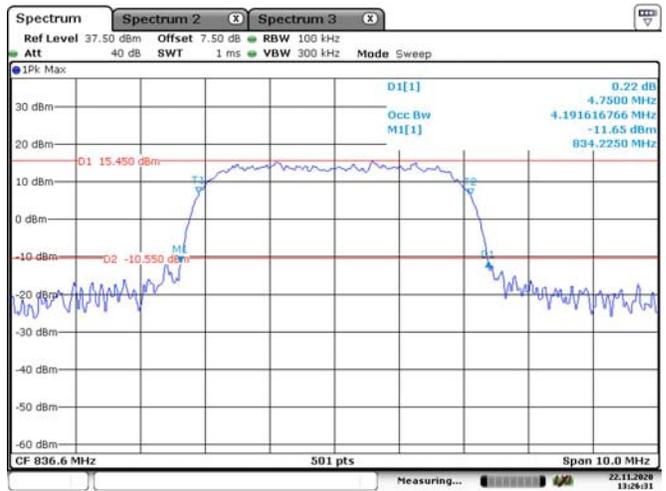


WCDMA Band V, HSUPA, Low Channel



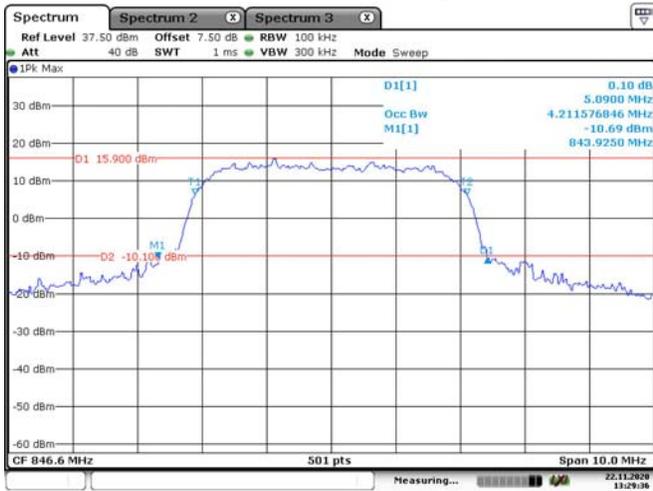
Date: 22.NOV.2020 11:54:15

WCDMA Band V, HSUPA, Middle Channel



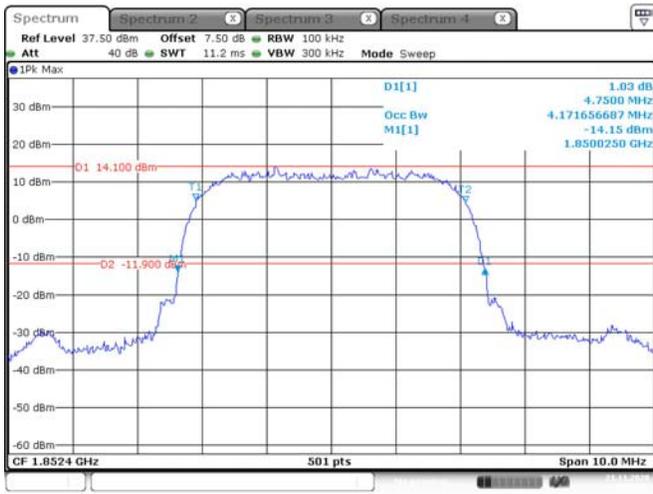
Date: 22.NOV.2020 13:26:31

WCDMA Band V, HSUPA, High Channel



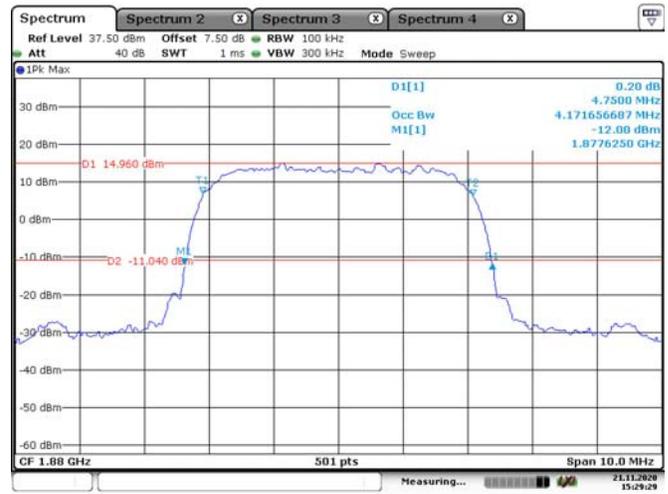
Date: 22.NOV.2020 13:29:36

WCDMA Band II, Rel99, Low Channel



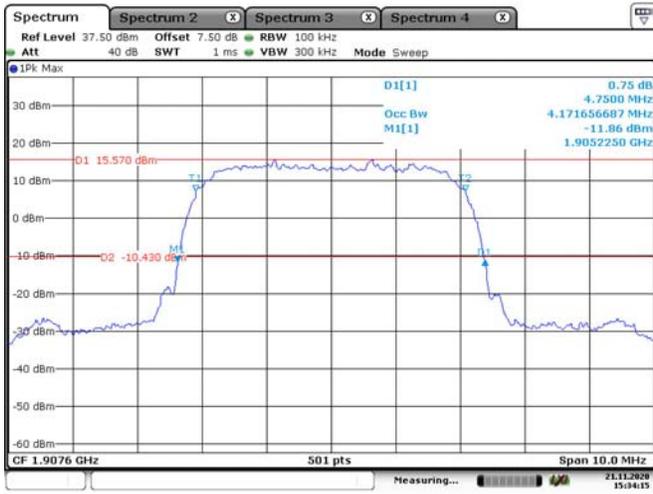
Date: 21.NOV.2020 15:00:58

WCDMA Band II, Rel99, Middle Channel



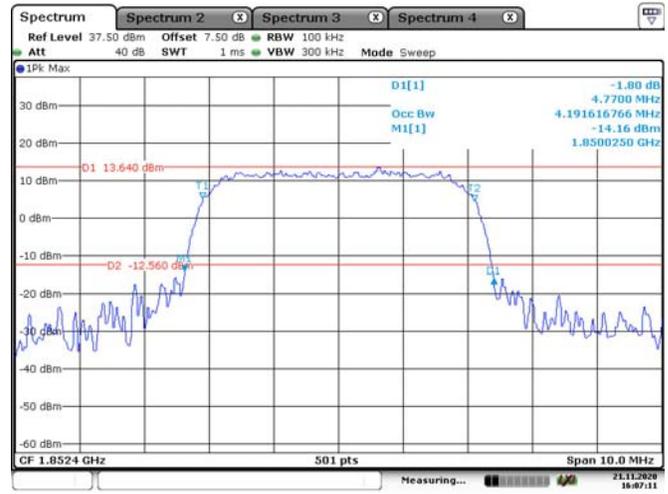
Date: 21.NOV.2020 15:29:30

WCDMA Band II, Rel99, High Channel



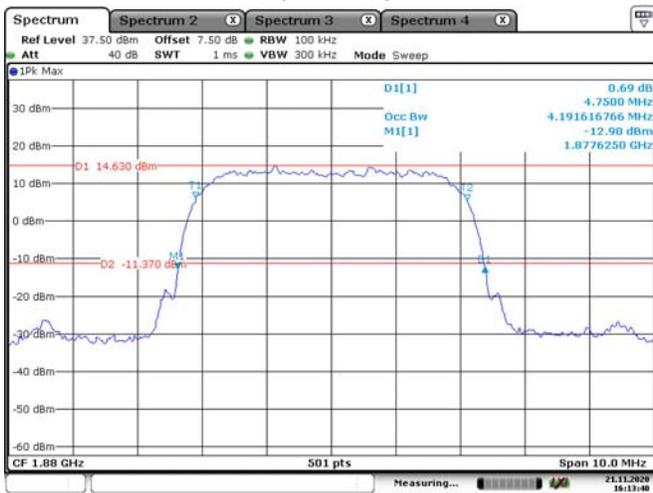
Date: 21.NOV.2020 15:34:16

WCDMA Band II, HSDPA, Low Channel



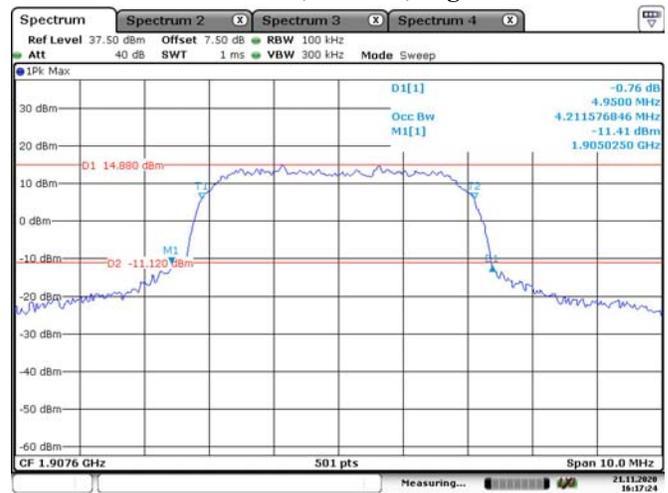
Date: 21.NOV.2020 16:07:12

WCDMA Band II, HSDPA, Middle Channel



Date: 21.NOV.2020 16:13:41

WCDMA Band II, HSDPA, High Channel



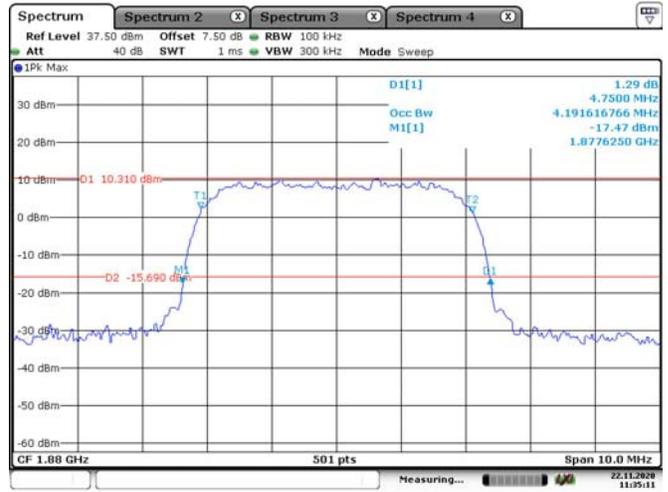
Date: 21.NOV.2020 16:17:24

**WCDMA Band II, HSUPA, Low Channel**



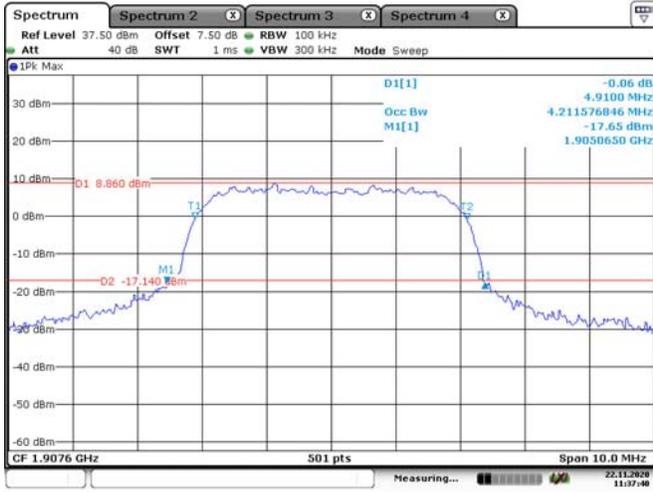
Date: 22.NOV.2020 11:26:10

**WCDMA Band II, HSUPA, Middle Channel**



Date: 22.NOV.2020 11:35:11

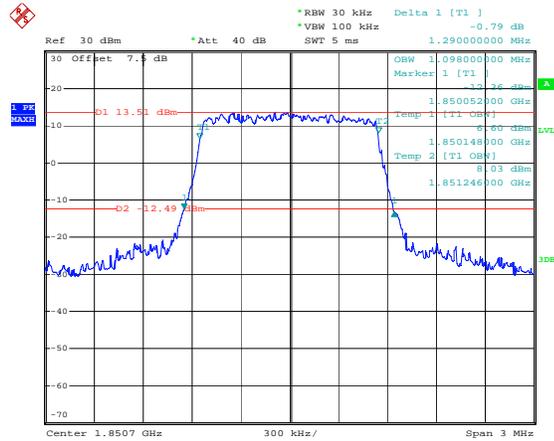
**WCDMA Band II, HSUPA, High Channel**



Date: 22.NOV.2020 11:37:41

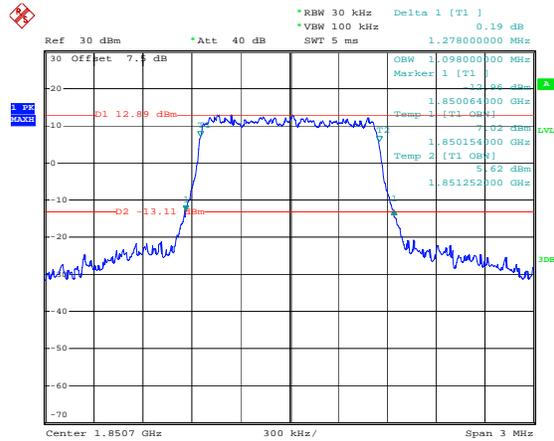
**LTE Band 2**

**1.4M, QPSK, Low Channel**



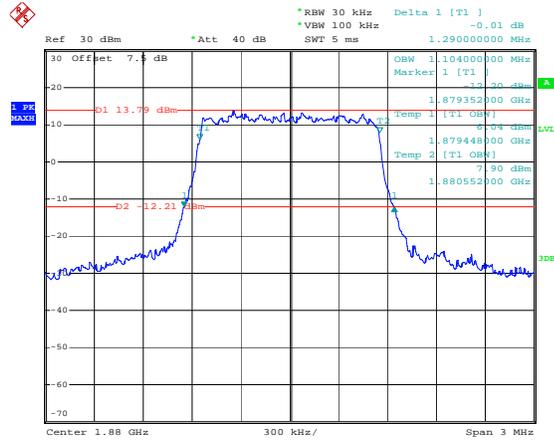
Date: 20.NOV.2020 08:06:18

**1.4M, 16QAM, Low Channel**



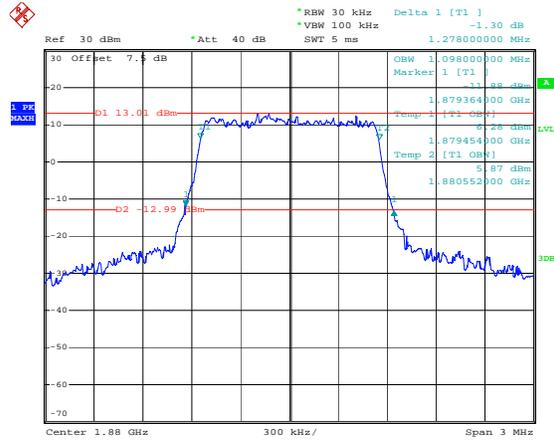
Date: 20.NOV.2020 08:06:40

**1.4M, QPSK, Middle Channel**



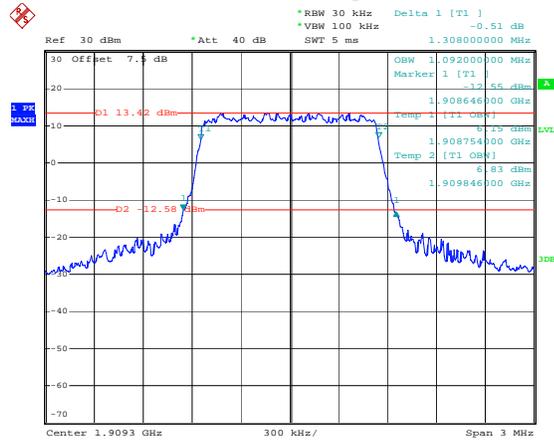
Date: 20.NOV.2020 08:07:01

**1.4M, 16QAM, Middle Channel**



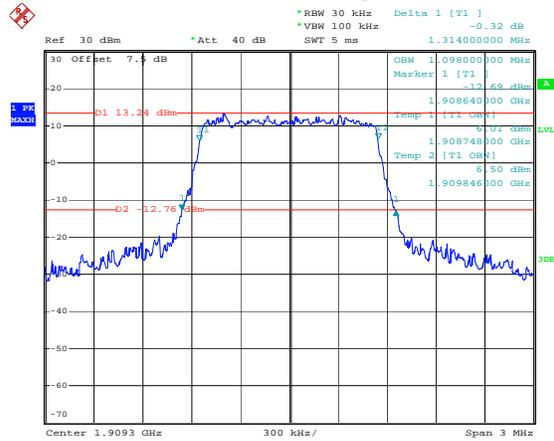
Date: 20.NOV.2020 08:07:23

**1.4M, QPSK, High Channel**



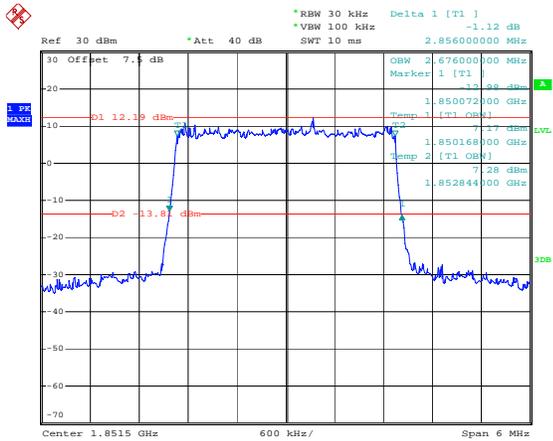
Date: 20.NOV.2020 08:07:49

**1.4M, 16QAM, High Channel**



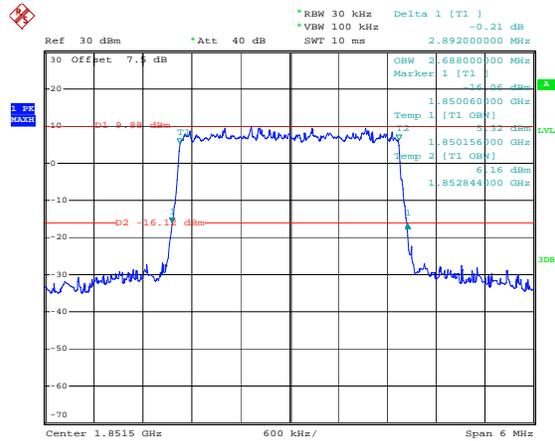
Date: 20.NOV.2020 08:08:13

### 3M, QPSK, Low Channel



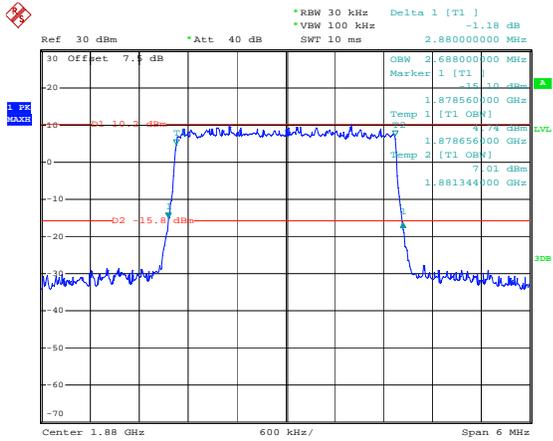
Date: 20.NOV.2020 08:08:37

### 3M, 16QAM, Low Channel



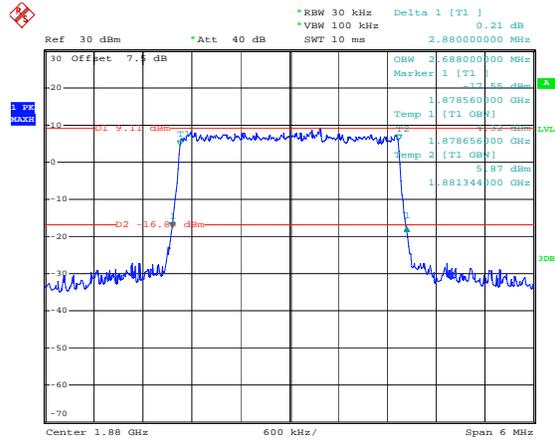
Date: 20.NOV.2020 08:08:58

### 3M, QPSK, Middle Channel



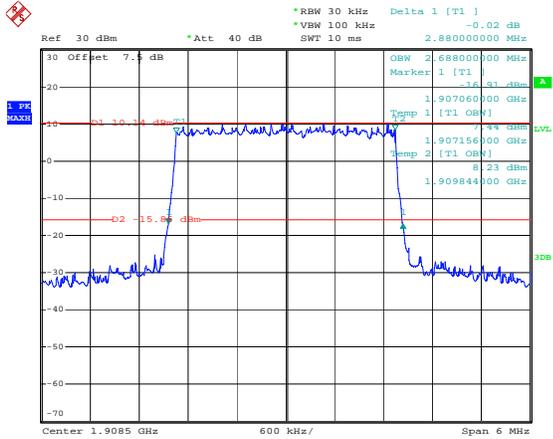
Date: 20.NOV.2020 08:09:20

### 3M, 16QAM, Middle Channel



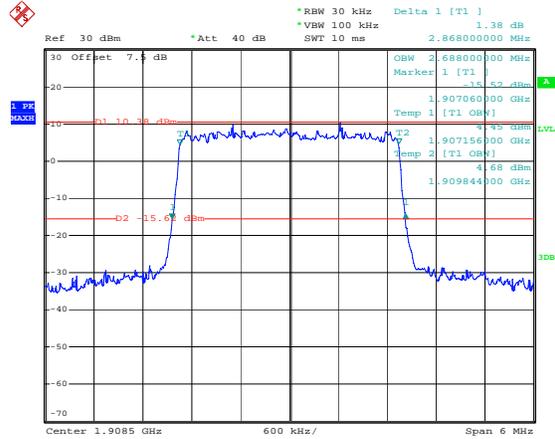
Date: 20.NOV.2020 08:09:41

### 3M, QPSK, High Channel



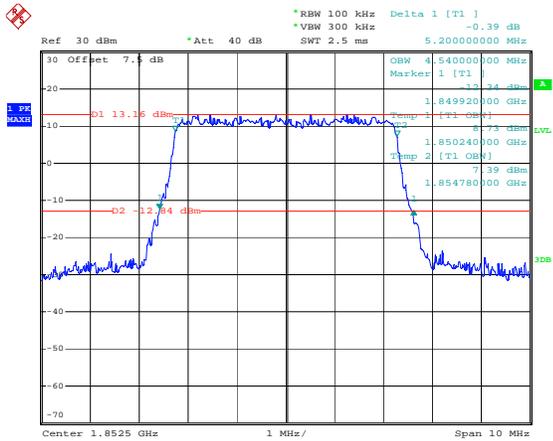
Date: 20.NOV.2020 08:10:02

### 3M, 16QAM, High Channel



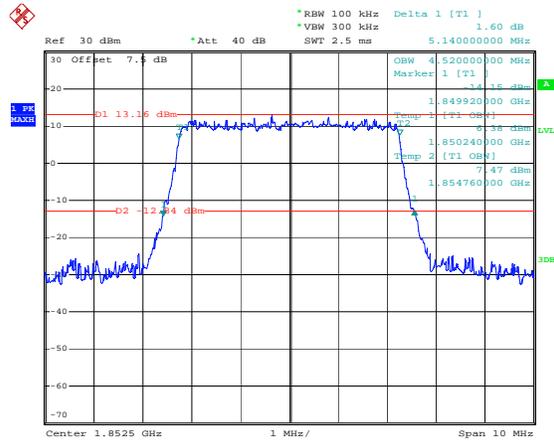
Date: 20.NOV.2020 08:10:20

**5M, QPSK, Low Channel**



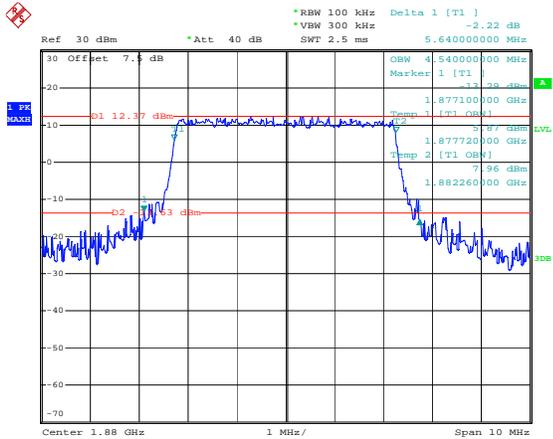
Date: 20.NOV.2020 08:10:48

**5M, 16QAM, Low Channel**



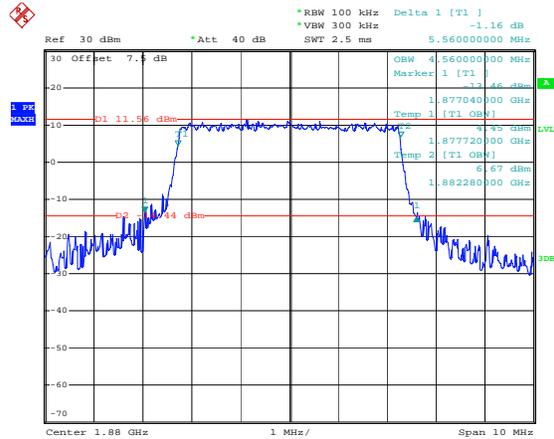
Date: 20.NOV.2020 08:11:09

**5M, QPSK, Middle Channel**



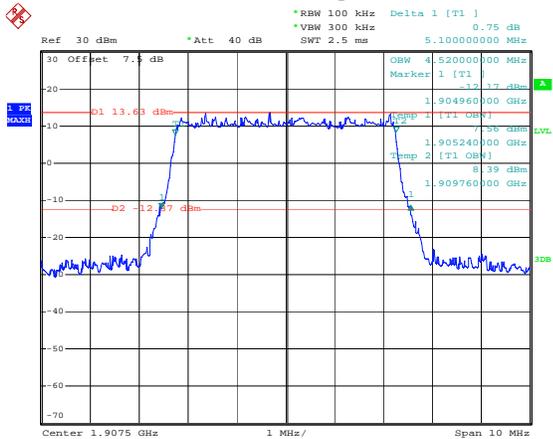
Date: 20.NOV.2020 08:11:37

**5M, 16QAM, Middle Channel**



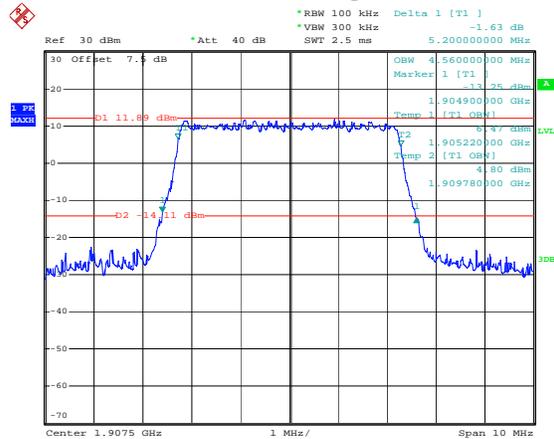
Date: 20.NOV.2020 08:12:01

**5M, QPSK, High Channel**



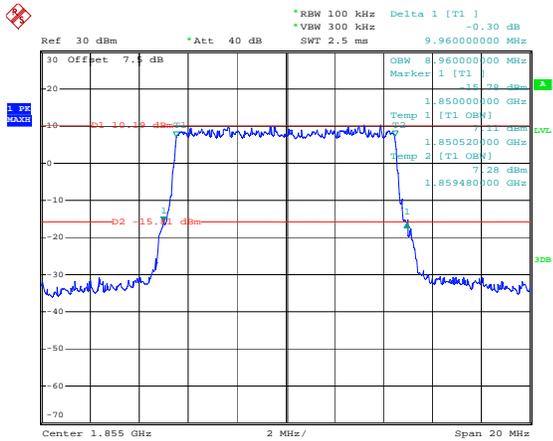
Date: 20.NOV.2020 08:12:22

**5M, 16QAM, High Channel**



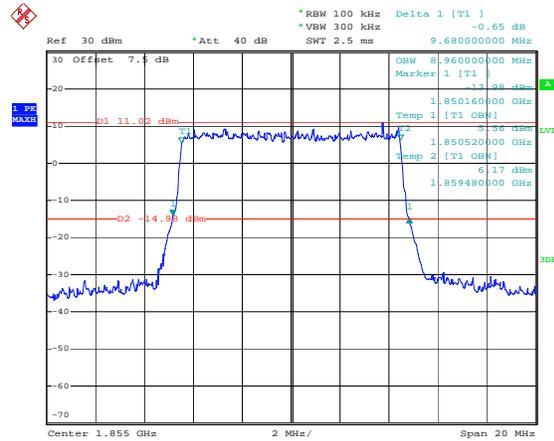
Date: 20.NOV.2020 08:12:47

### 10M, QPSK, Low Channel



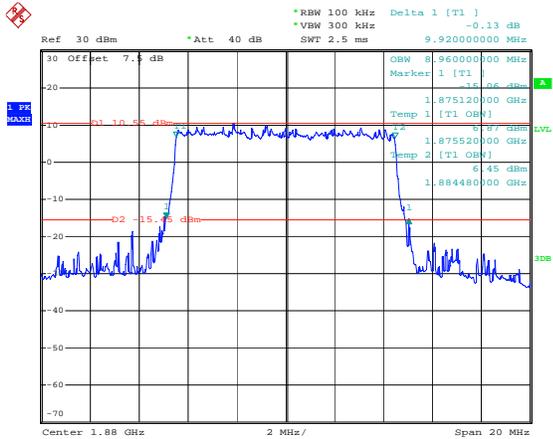
Date: 20.NOV.2020 08:13:14

### 10M, 16QAM, Low Channel



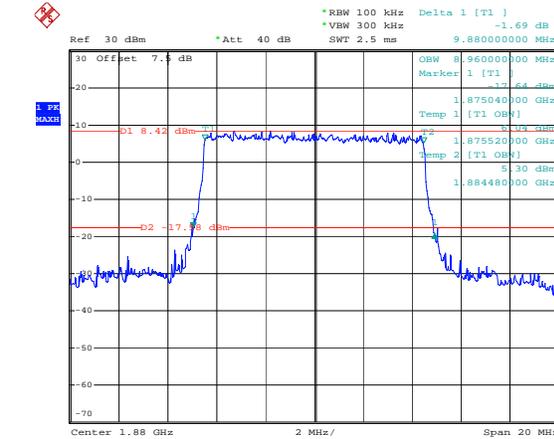
Date: 20.NOV.2020 08:13:35

### 10M, QPSK, Middle Channel



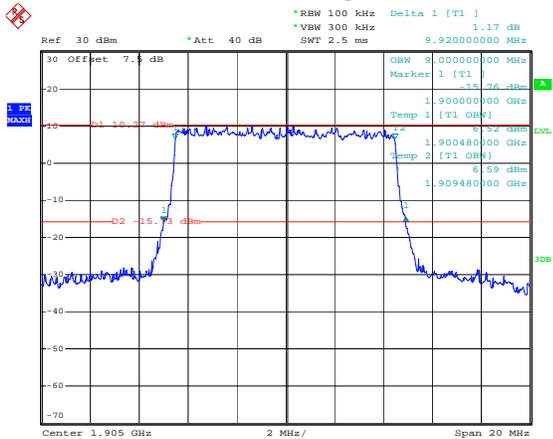
Date: 20.NOV.2020 08:13:58

### 10M, 16QAM, Middle Channel



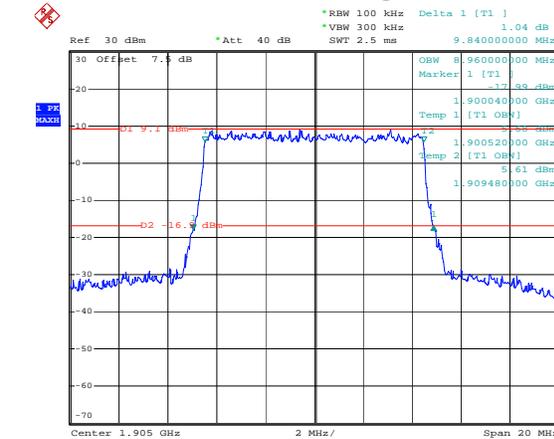
Date: 20.NOV.2020 08:14:24

### 10M, QPSK, High Channel



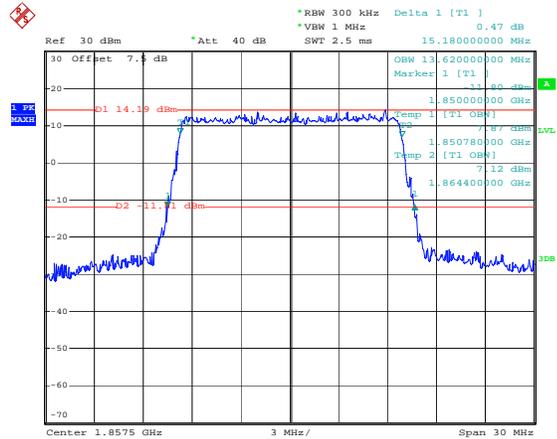
Date: 20.NOV.2020 08:14:50

### 10M, 16QAM, High Channel



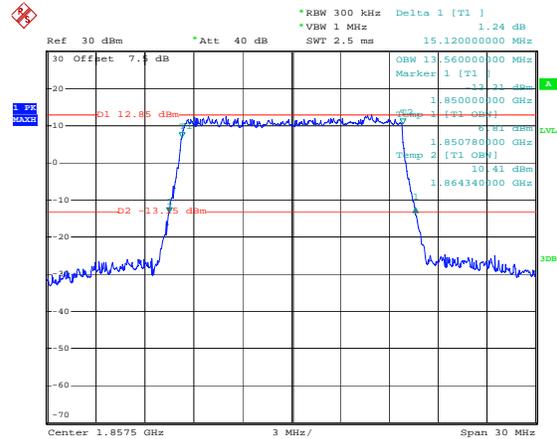
Date: 20.NOV.2020 08:15:12

15M, QPSK, Low Channel



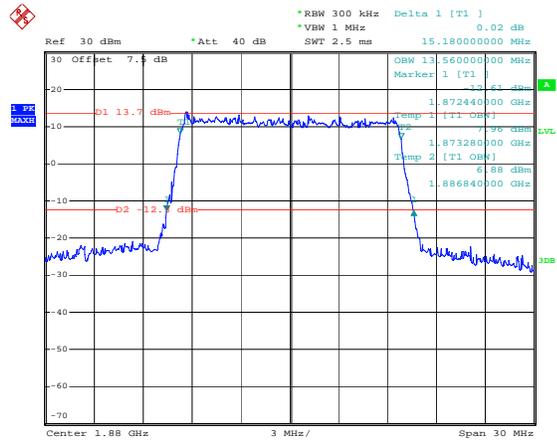
Date: 20.NOV.2020 08:15:40

15M, 16QAM, Low Channel



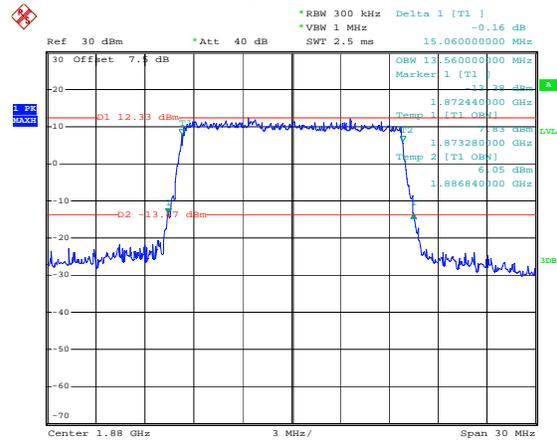
Date: 20.NOV.2020 08:16:04

15M, QPSK, Middle Channel



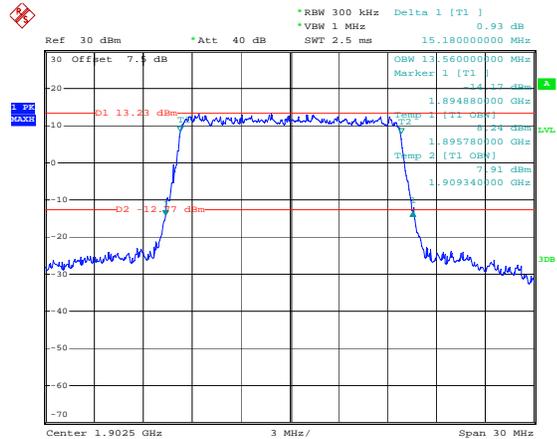
Date: 20.NOV.2020 08:16:29

15M, 16QAM, Middle Channel



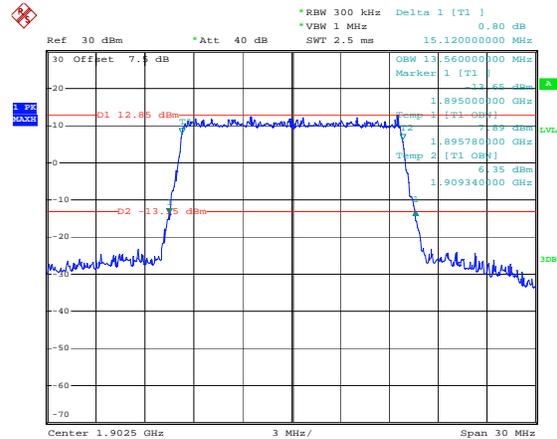
Date: 20.NOV.2020 08:16:50

15M, QPSK, High Channel



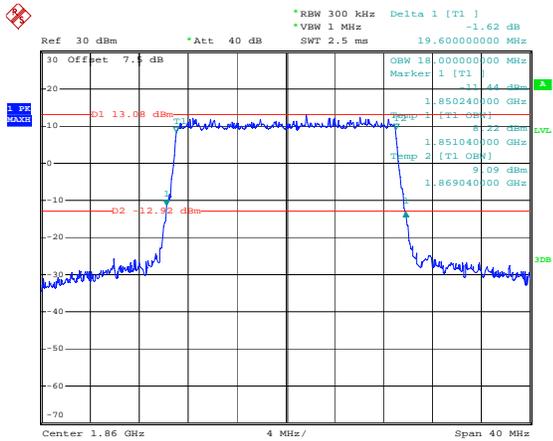
Date: 20.NOV.2020 08:17:15

15M, 16QAM, High Channel



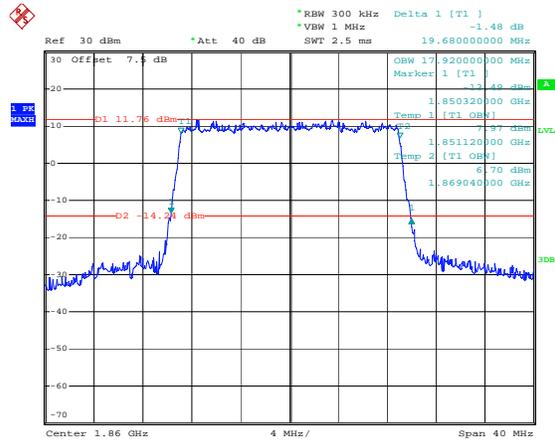
Date: 20.NOV.2020 08:17:42

**20M, QPSK, Low Channel**



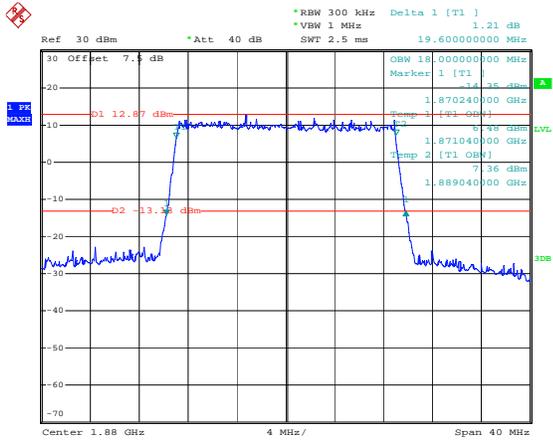
Date: 20.NOV.2020 08:18:11

**20M, 16QAM, Low Channel**



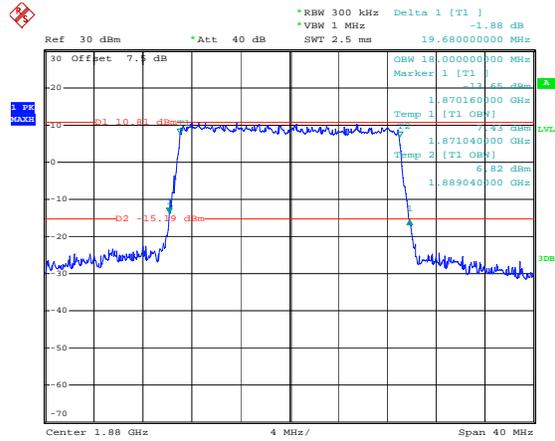
Date: 20.NOV.2020 08:18:38

**20M, QPSK, Middle Channel**



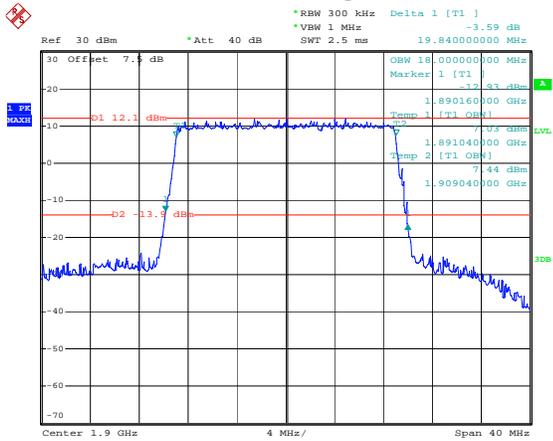
Date: 20.NOV.2020 08:19:03

**20M, 16QAM, Middle Channel**



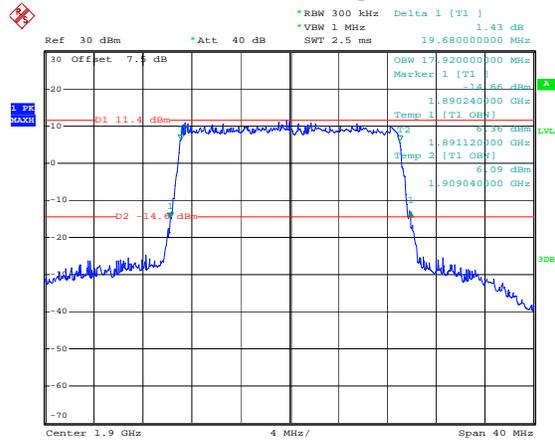
Date: 20.NOV.2020 08:19:28

**20M, QPSK, High Channel**



Date: 20.NOV.2020 08:19:56

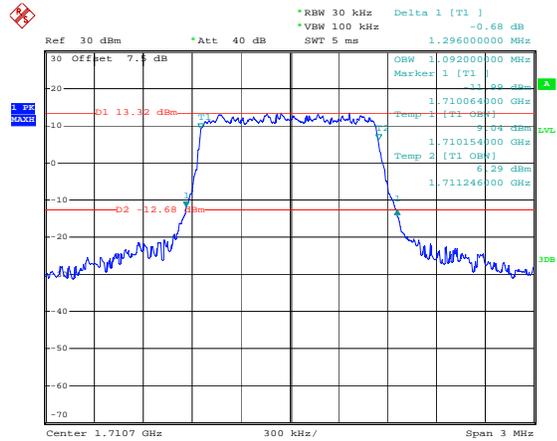
**20M, 16QAM, High Channel**



Date: 20.NOV.2020 08:20:21

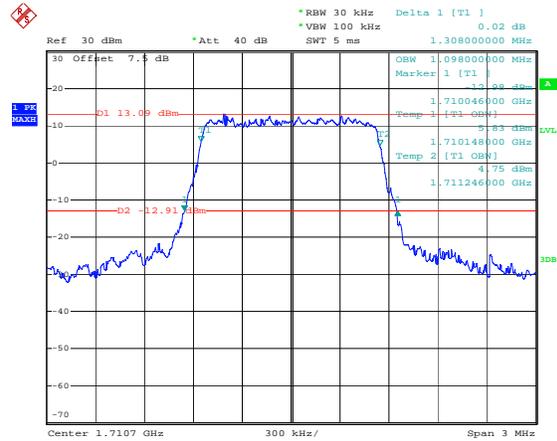
**LTE Band 4:**

**1.4M, QPSK, Low Channel**



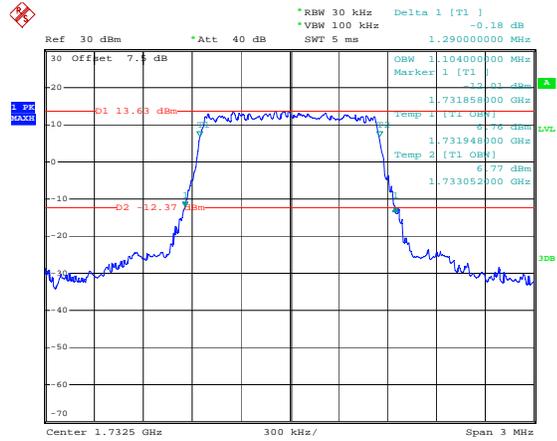
Date: 20.NOV.2020 08:20:45

**1.4M, 16QAM, Low Channel**



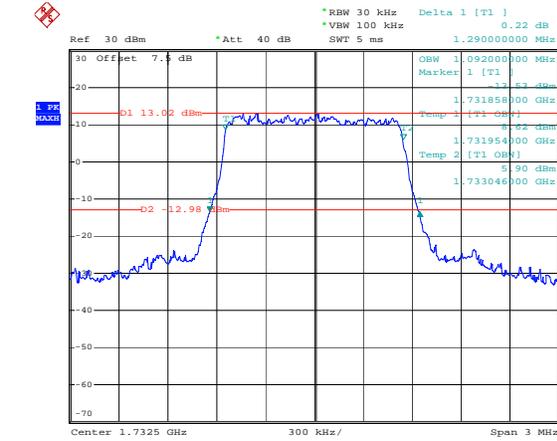
Date: 20.NOV.2020 08:21:10

**1.4M, QPSK, Middle Channel**



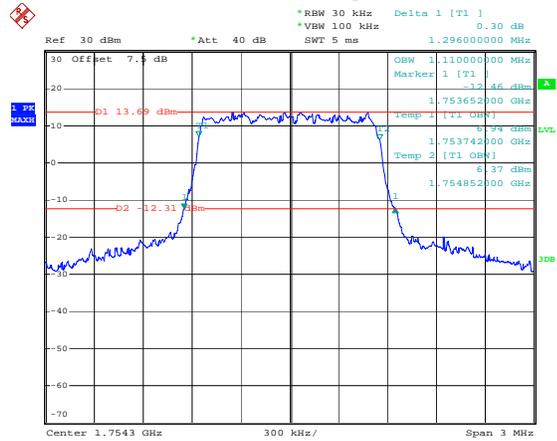
Date: 20.NOV.2020 08:21:31

**1.4M, 16QAM, Middle Channel**



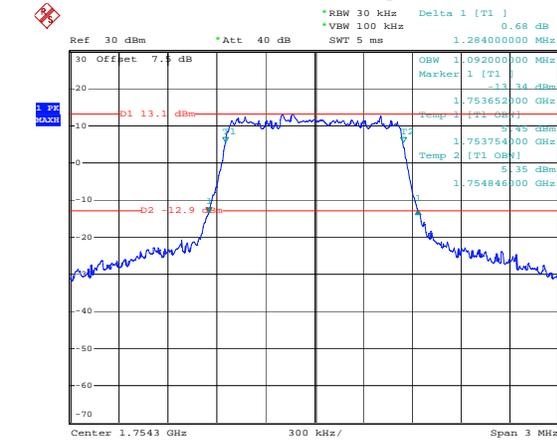
Date: 20.NOV.2020 08:21:52

**1.4M, QPSK, High Channel**



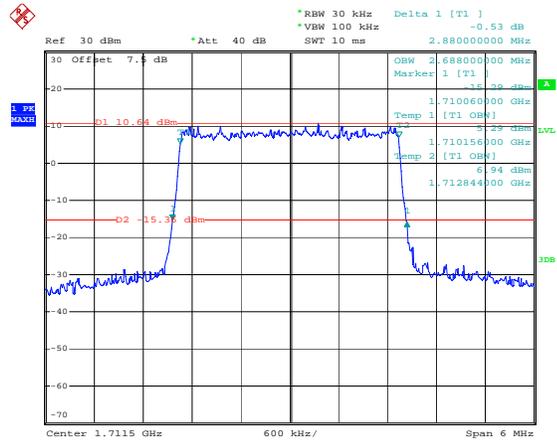
Date: 20.NOV.2020 08:22:14

**1.4M, 16QAM, High Channel**



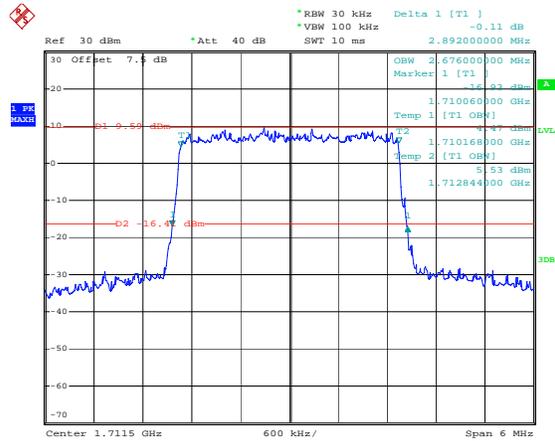
Date: 20.NOV.2020 08:22:35

### 3M, QPSK, Low Channel



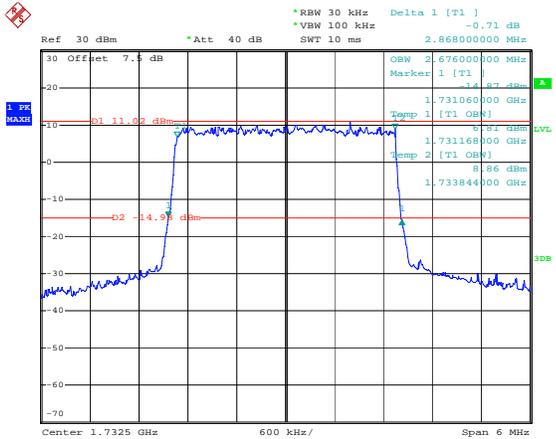
Date: 20.NOV.2020 08:22:59

### 3M, 16QAM, Low Channel



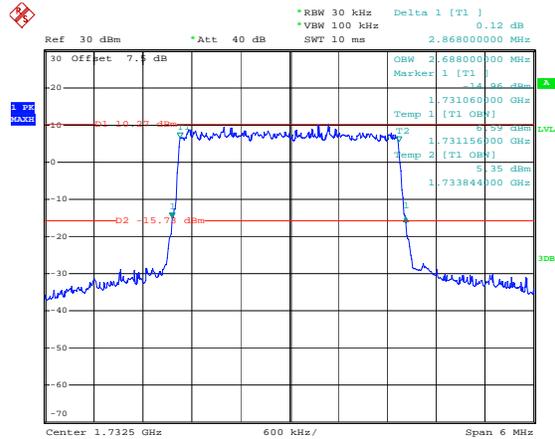
Date: 20.NOV.2020 08:23:21

### 3M, QPSK, Middle Channel



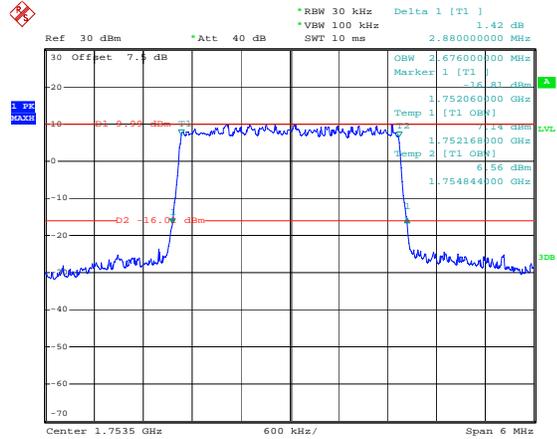
Date: 20.NOV.2020 08:23:42

### 3M, 16QAM, Middle Channel



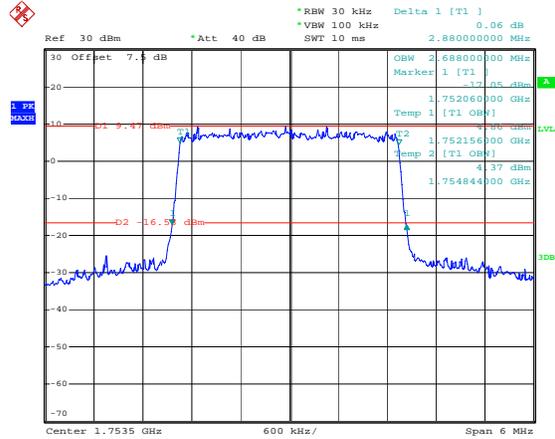
Date: 20.NOV.2020 08:24:00

### 3M, QPSK, High Channel



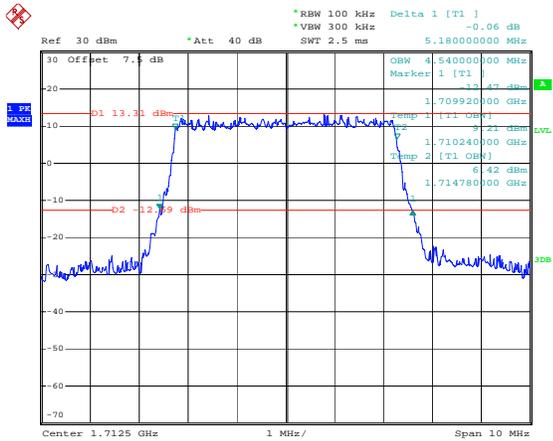
Date: 20.NOV.2020 08:24:22

### 3M, 16QAM, High Channel



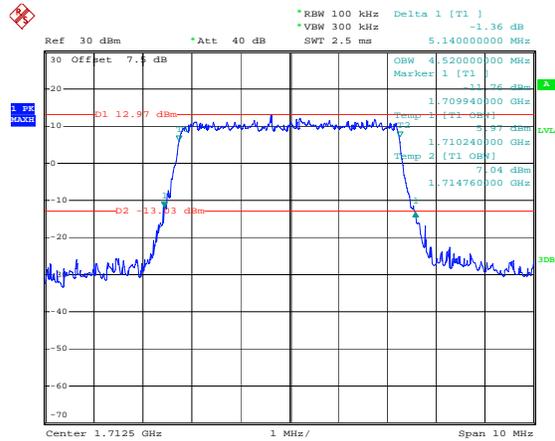
Date: 20.NOV.2020 08:24:43

**5M, QPSK, Low Channel**



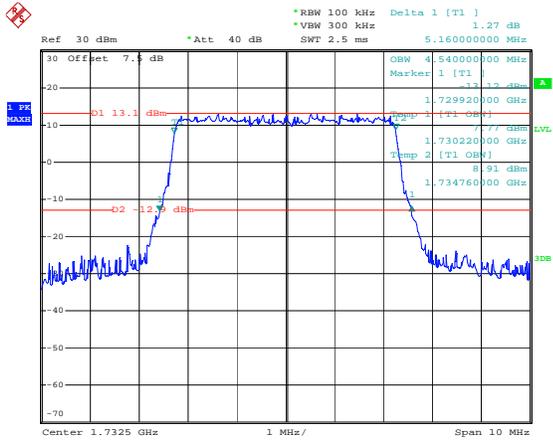
Date: 20.NOV.2020 08:25:07

**5M, 16QAM, Low Channel**



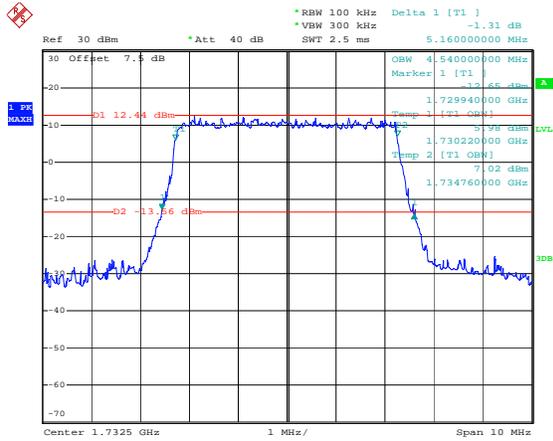
Date: 20.NOV.2020 08:25:31

**5M, QPSK, Middle Channel**



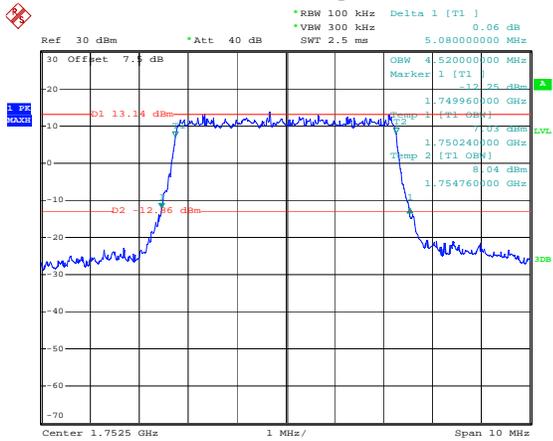
Date: 20.NOV.2020 08:25:56

**5M, 16QAM, Middle Channel**



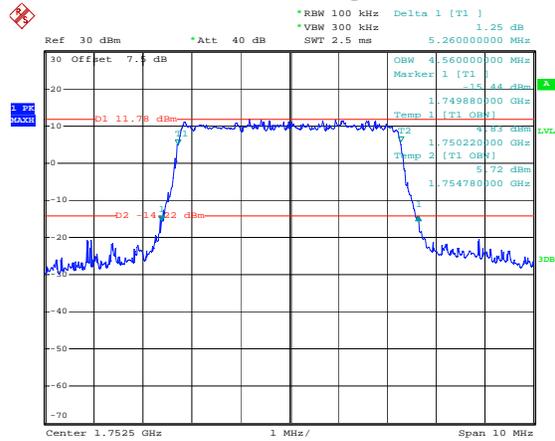
Date: 20.NOV.2020 08:26:17

**5M, QPSK, High Channel**



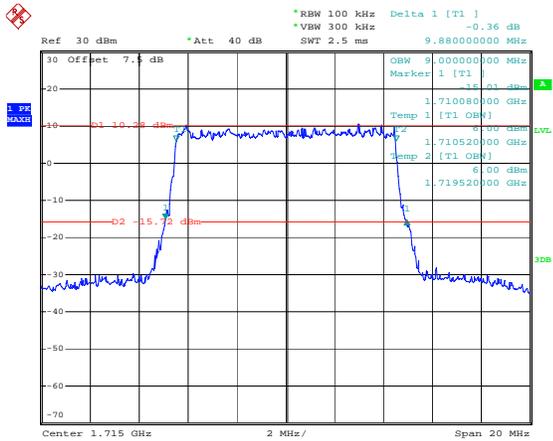
Date: 20.NOV.2020 08:26:39

**5M, 16QAM, High Channel**



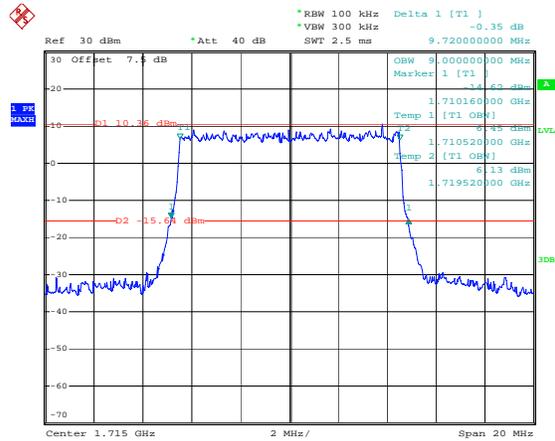
Date: 20.NOV.2020 08:27:00

10M, QPSK, Low Channel



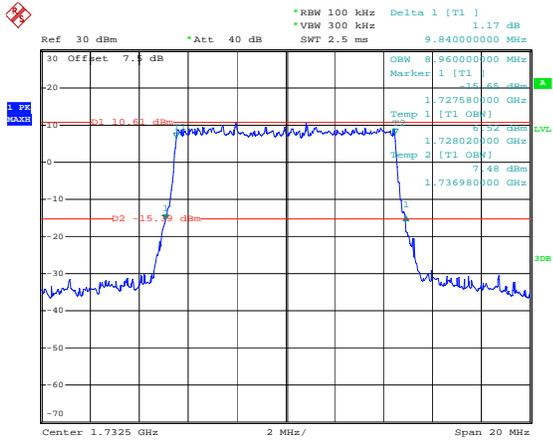
Date: 20.NOV.2020 08:27:25

10M, 16QAM, Low Channel



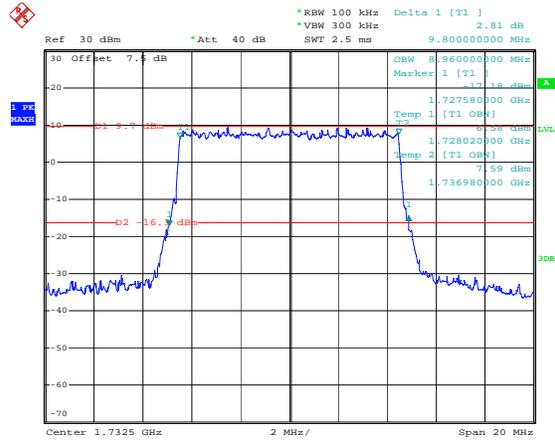
Date: 20.NOV.2020 08:27:47

10M, QPSK, Middle Channel



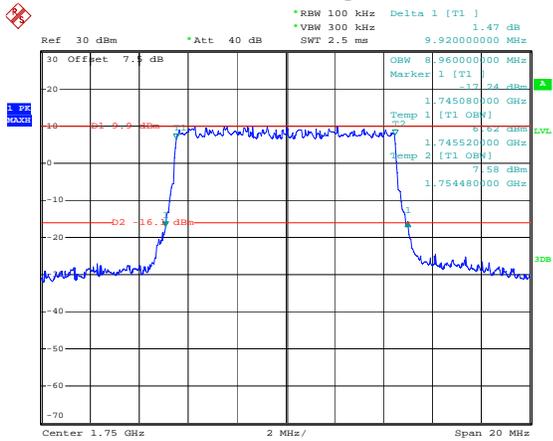
Date: 20.NOV.2020 08:28:07

10M, 16QAM, Middle Channel



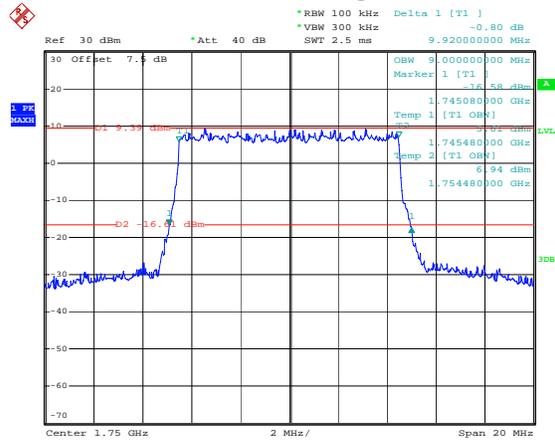
Date: 20.NOV.2020 08:28:32

10M, QPSK, High Channel



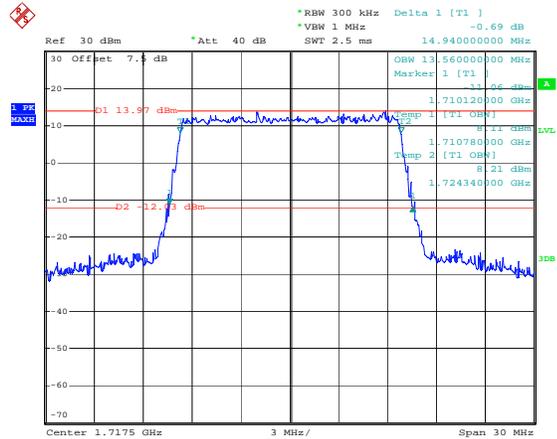
Date: 20.NOV.2020 08:28:55

10M, 16QAM, High Channel



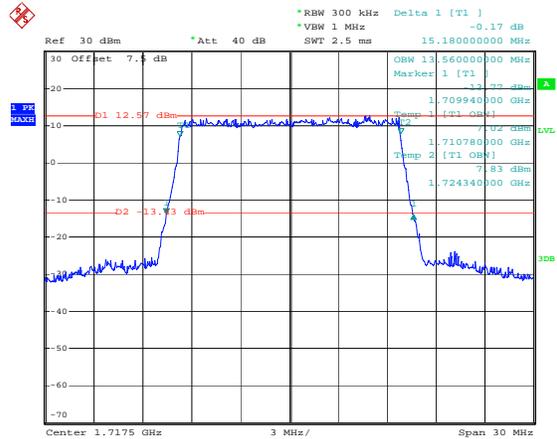
Date: 20.NOV.2020 08:29:17

15M, QPSK, Low Channel



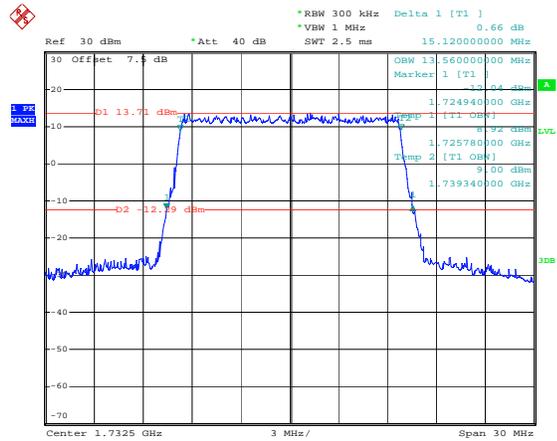
Date: 20.NOV.2020 08:29:45

15M, 16QAM, Low Channel



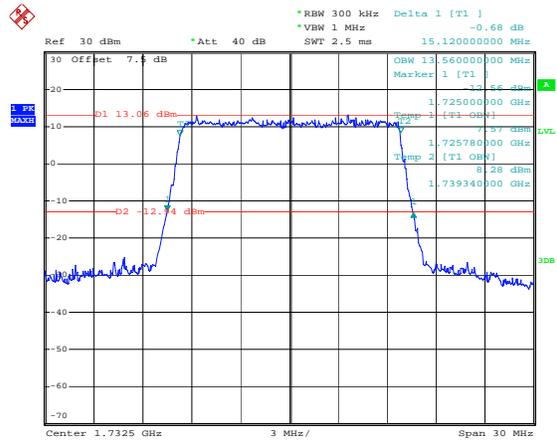
Date: 20.NOV.2020 08:30:09

15M, QPSK, Middle Channel



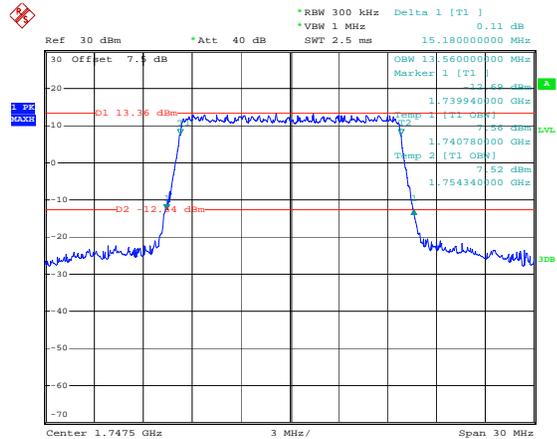
Date: 20.NOV.2020 08:30:34

15M, 16QAM, Middle Channel



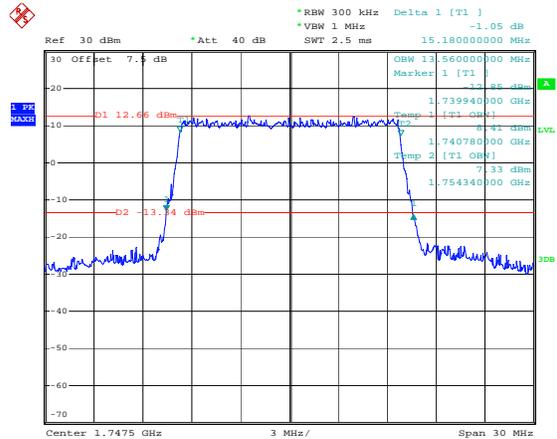
Date: 20.NOV.2020 08:30:58

15M, QPSK, High Channel



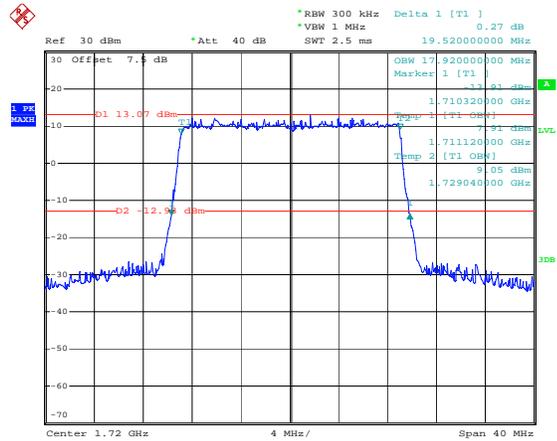
Date: 20.NOV.2020 08:31:23

15M, 16QAM, High Channel



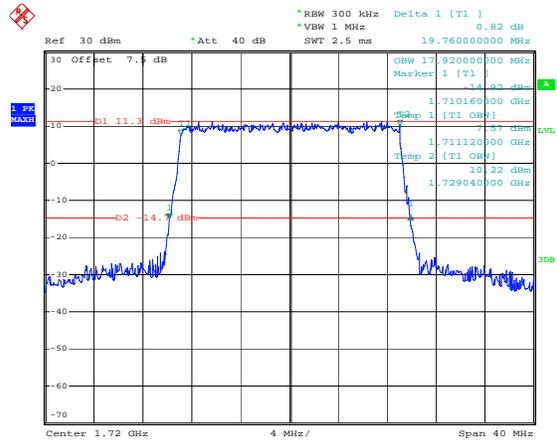
Date: 20.NOV.2020 08:31:48

**20M, QPSK, Low Channel**



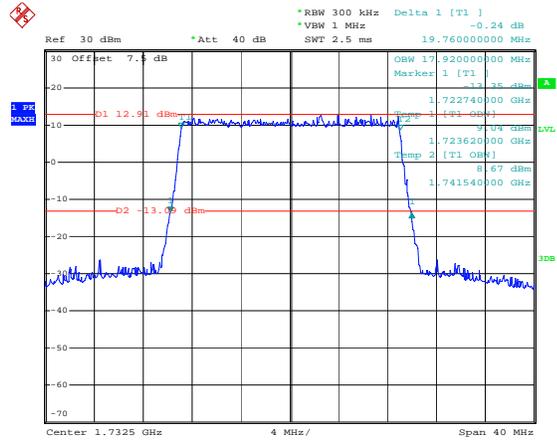
Date: 20.NOV.2020 08:32:15

**20M, 16QAM, Low Channel**



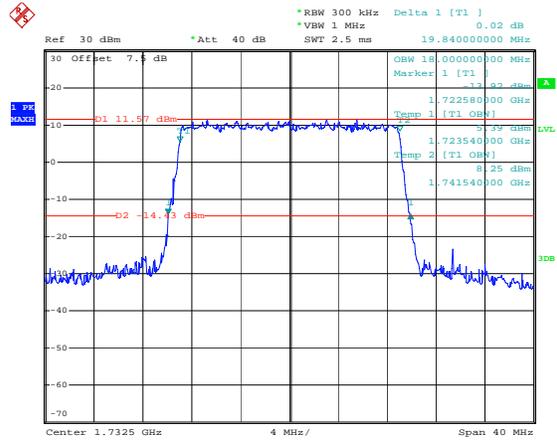
Date: 20.NOV.2020 08:32:43

**20M, QPSK, Middle Channel**



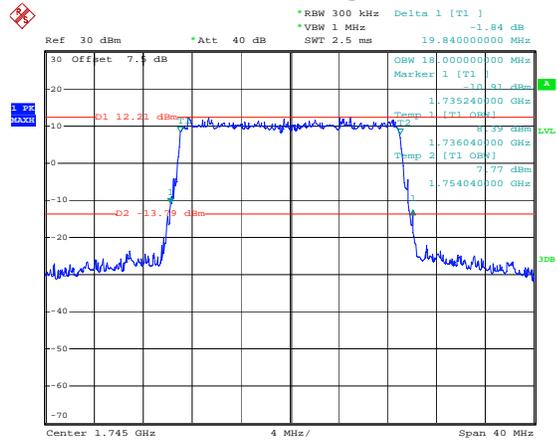
Date: 20.NOV.2020 08:33:08

**20M, 16QAM, Middle Channel**



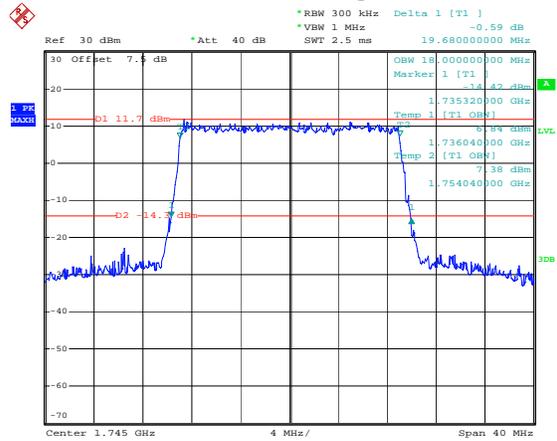
Date: 20.NOV.2020 08:33:32

**20M, QPSK, High Channel**



Date: 20.NOV.2020 08:33:54

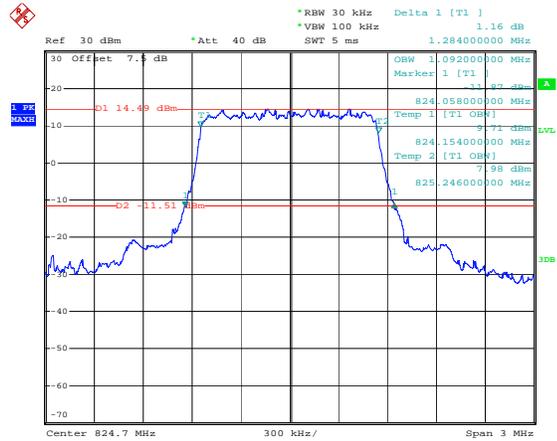
**20M, 16QAM, High Channel**



Date: 20.NOV.2020 08:34:19

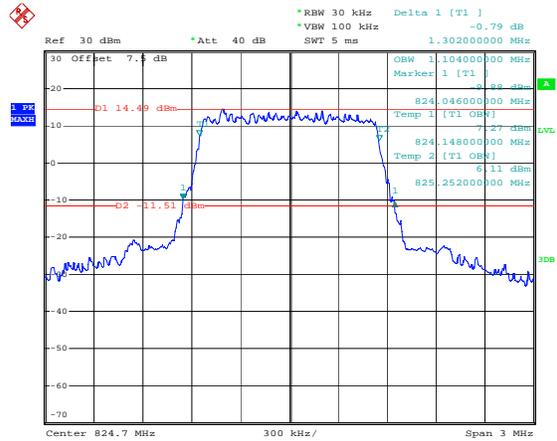
**LTE Band 5:**

**1.4M, QPSK, Low Channel**



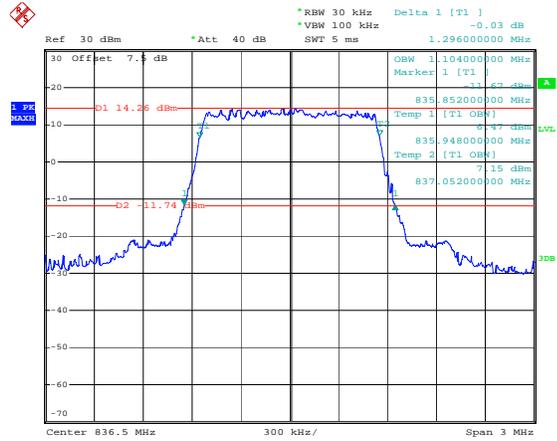
Date: 20.NOV.2020 08:34:40

**1.4M, 16QAM, Low Channel**



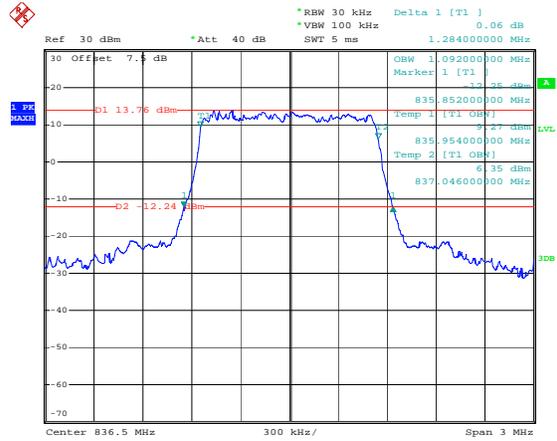
Date: 20.NOV.2020 08:34:58

**1.4M, QPSK, Middle Channel**



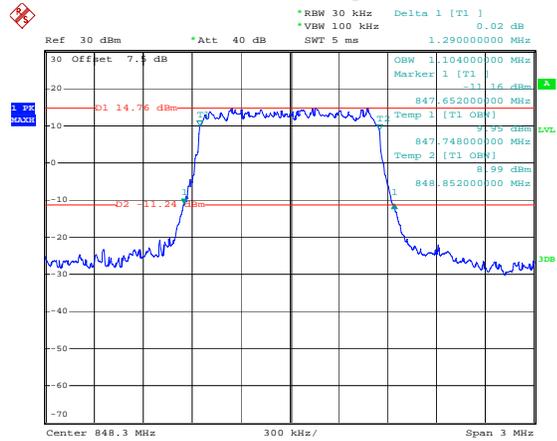
Date: 20.NOV.2020 08:35:16

**1.4M, 16QAM, Middle Channel**



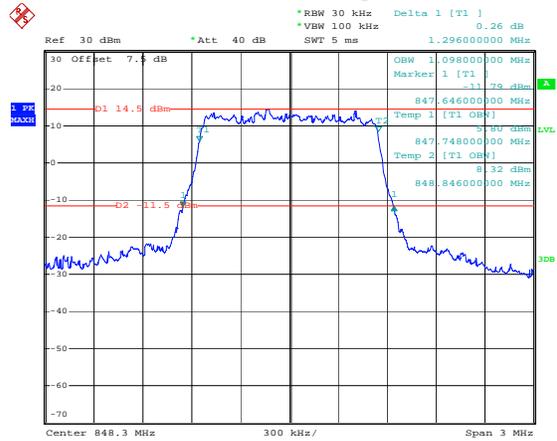
Date: 20.NOV.2020 08:35:38

**1.4M, QPSK, High Channel**



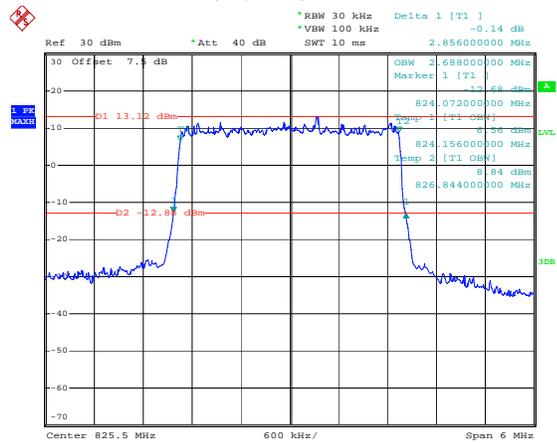
Date: 20.NOV.2020 08:35:56

**1.4M, 16QAM, High Channel**



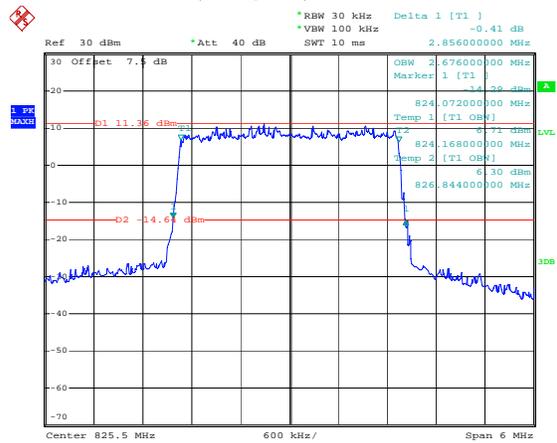
Date: 20.NOV.2020 08:36:17

### 3M, QPSK, Low Channel



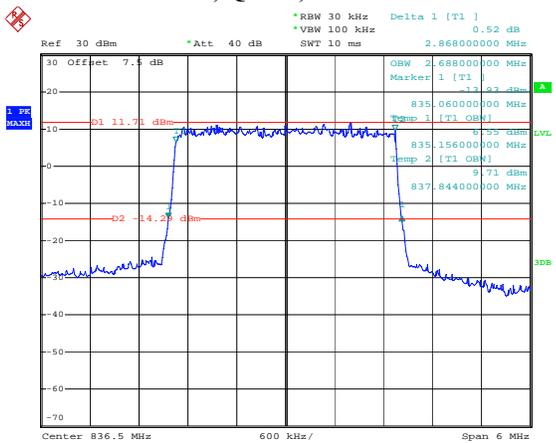
Date: 20.NOV.2020 08:36:41

### 3M, 16QAM, Low Channel



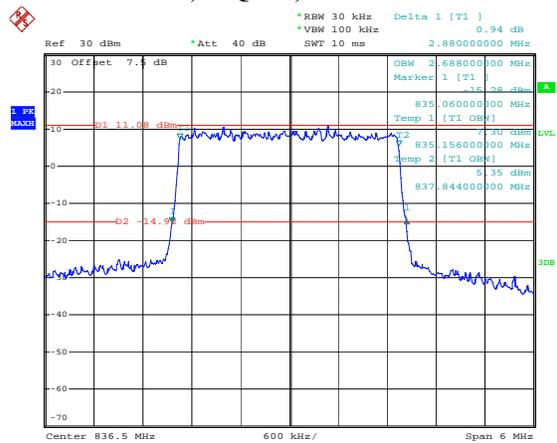
Date: 20.NOV.2020 08:36:59

### 3M, QPSK, Middle Channel



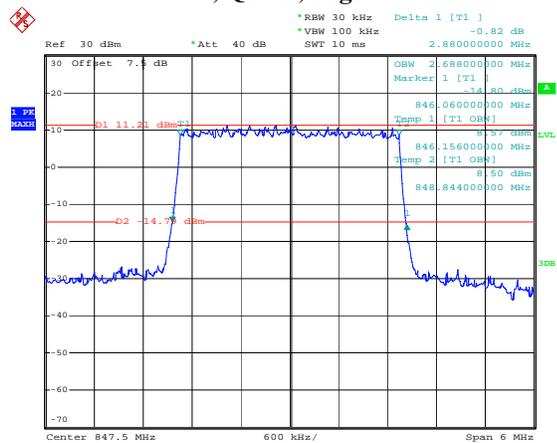
Date: 20.NOV.2020 08:37:18

### 3M, 16QAM, Middle Channel



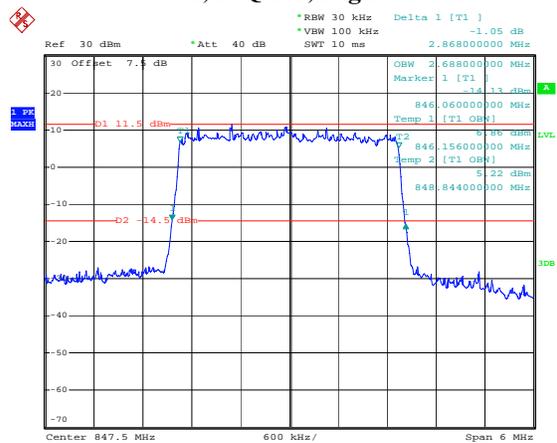
Date: 20.NOV.2020 08:37:39

### 3M, QPSK, High Channel



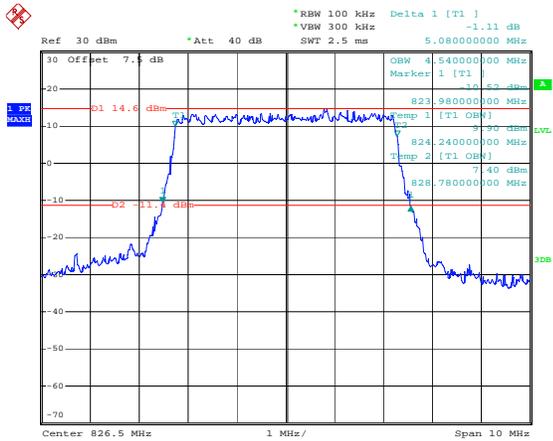
Date: 20.NOV.2020 08:38:54

### 3M, 16QAM, High Channel



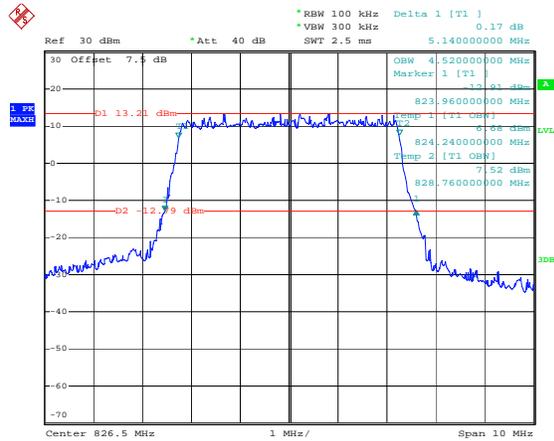
Date: 20.NOV.2020 08:39:12

**5M, QPSK, Low Channel**



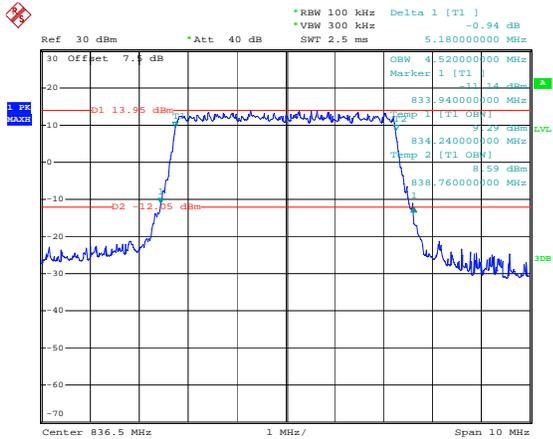
Date: 20.NOV.2020 08:39:36

**5M, 16QAM, Low Channel**



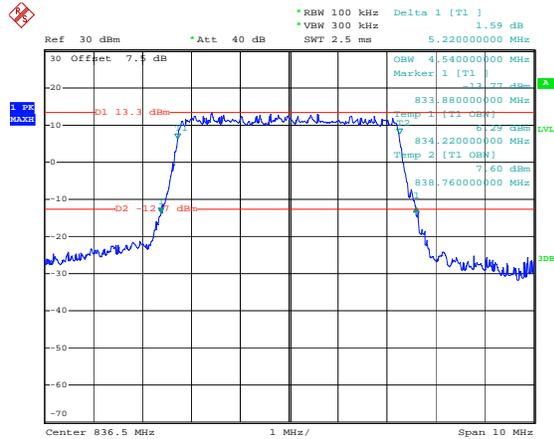
Date: 20.NOV.2020 08:39:54

**5M, QPSK, Middle Channel**



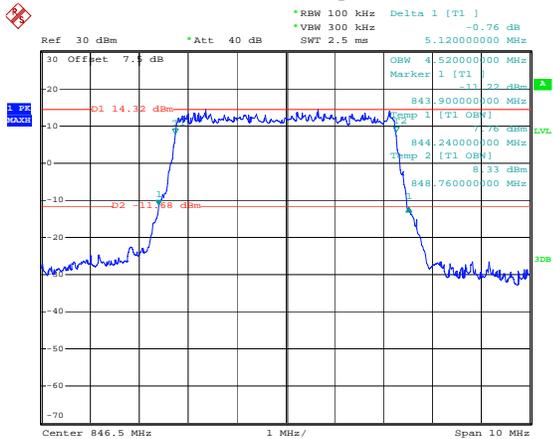
Date: 20.NOV.2020 08:40:16

**5M, 16QAM, Middle Channel**



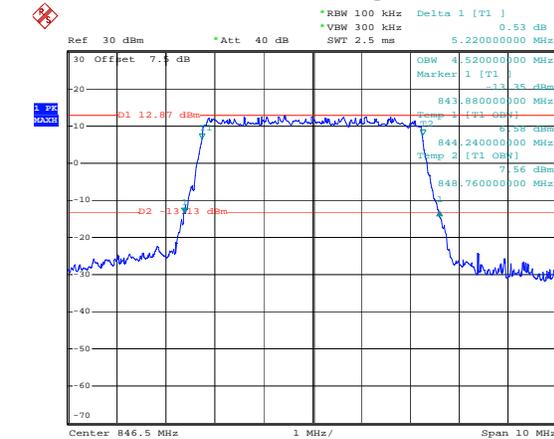
Date: 20.NOV.2020 08:40:40

**5M, QPSK, High Channel**



Date: 20.NOV.2020 08:41:02

**5M, 16QAM, High Channel**

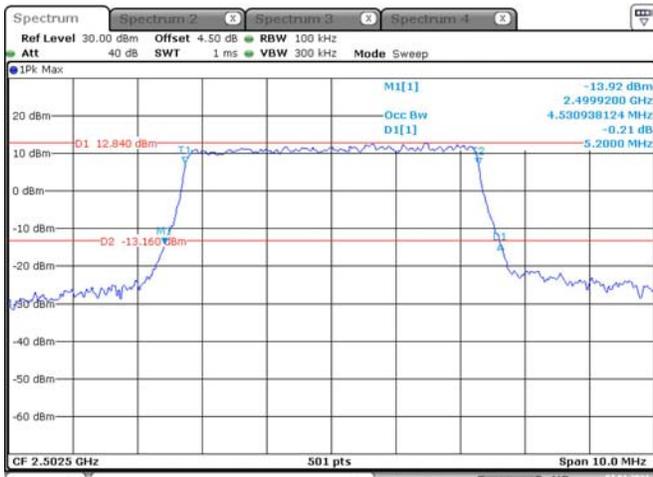


Date: 20.NOV.2020 08:41:26



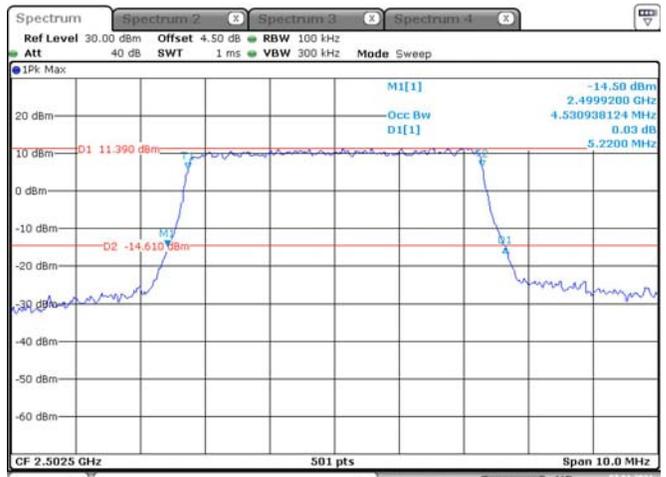
**LTE Band 7:**

**5M, QPSK, Low Channel**



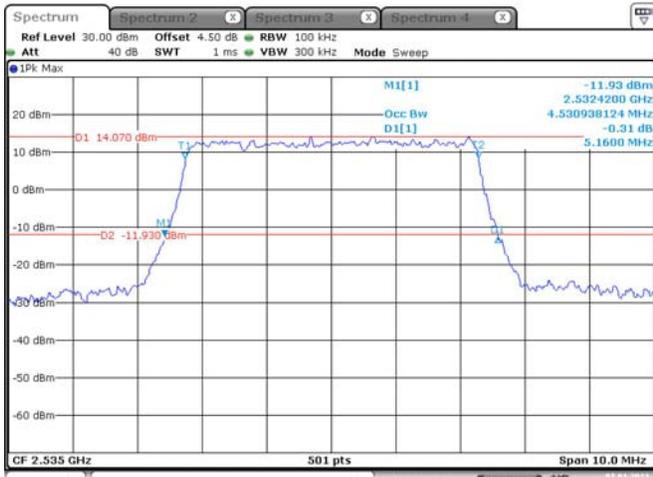
Date: 7, JAN, 2021 22:49:18

**5M, 16QAM, Low Channel**



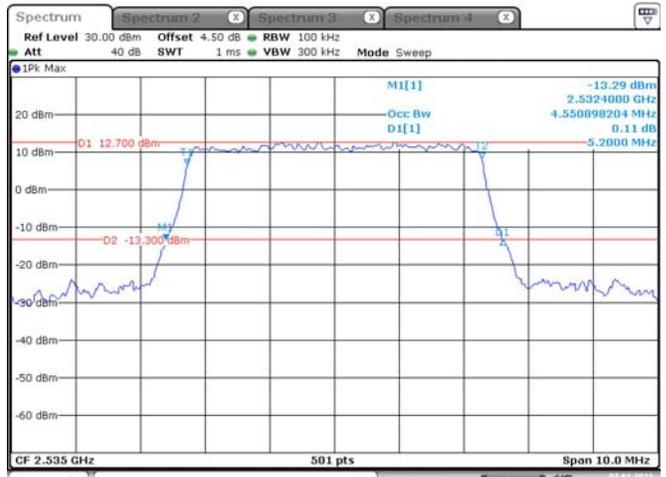
Date: 7, JAN, 2021 22:49:43

**5M, QPSK, Middle Channel**



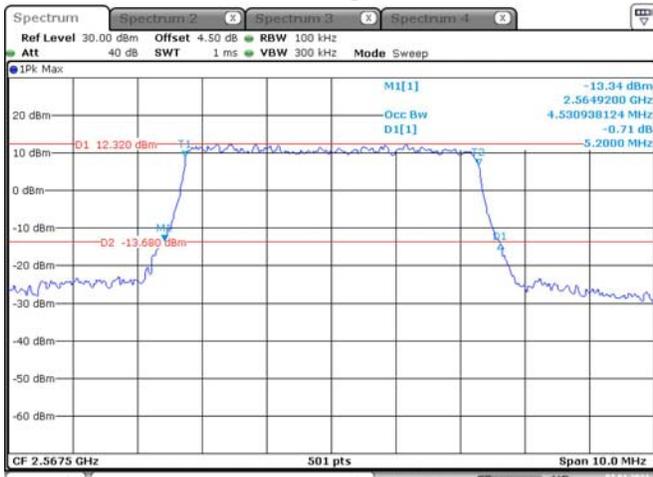
Date: 7, JAN, 2021 22:50:09

**5M, 16QAM, Middle Channel**



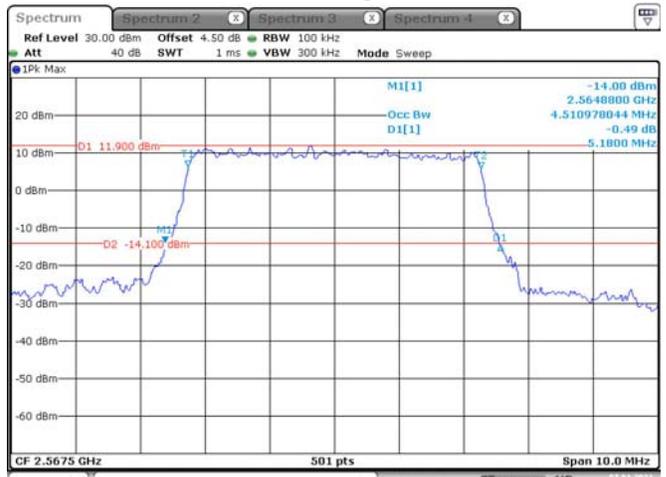
Date: 7, JAN, 2021 22:50:43

**5M, QPSK, High Channel**



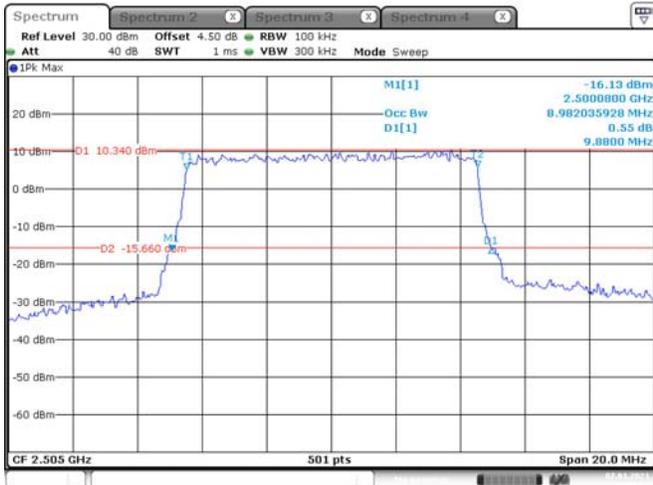
Date: 7, JAN, 2021 22:51:15

**5M, 16QAM, High Channel**



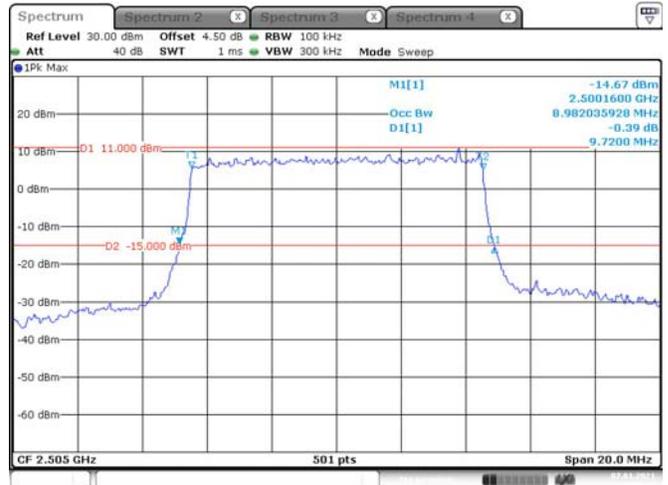
Date: 7, JAN, 2021 22:51:40

10M, QPSK, Low Channel



Date: 7, JAN, 2021 22:52:10

10M, 16QAM, Low Channel



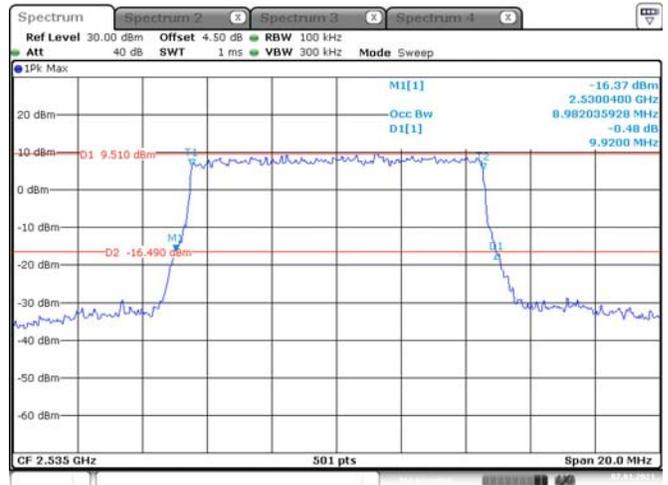
Date: 7, JAN, 2021 22:52:42

10M, QPSK, Middle Channel



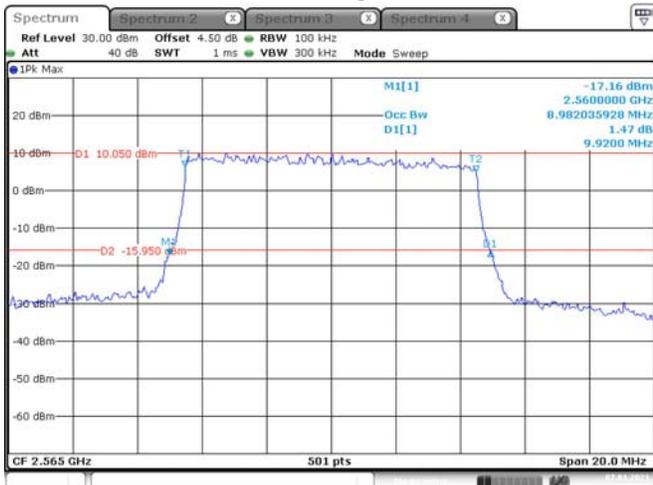
Date: 7, JAN, 2021 22:53:06

10M, 16QAM, Middle Channel



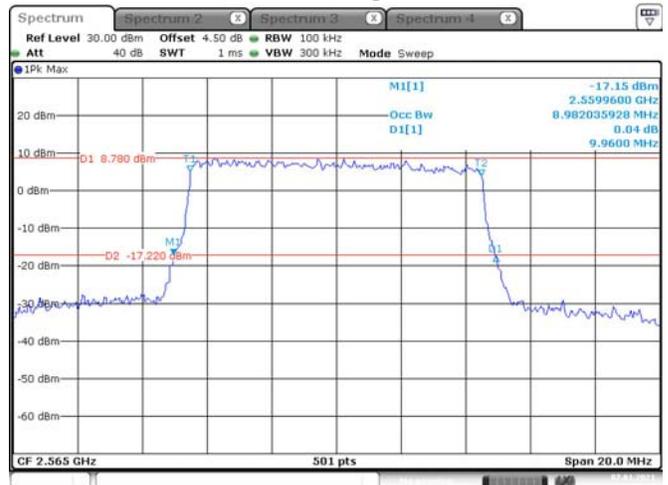
Date: 7, JAN, 2021 22:53:29

10M, QPSK, High Channel



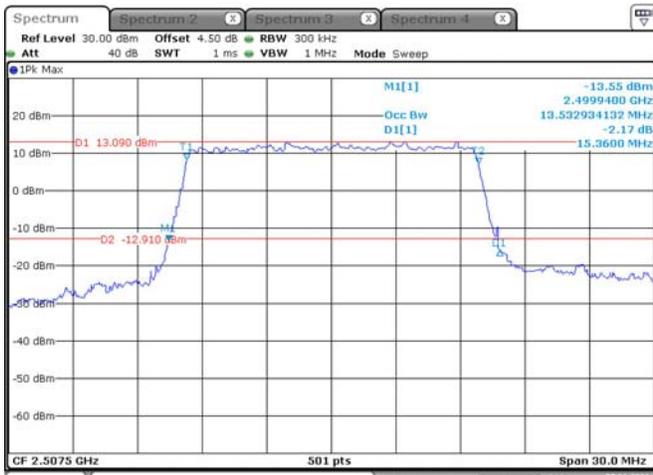
Date: 7, JAN, 2021 22:54:08

10M, 16QAM, High Channel



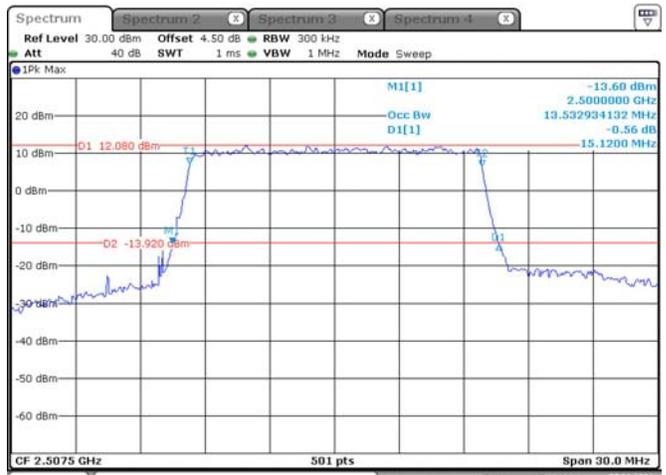
Date: 7, JAN, 2021 22:54:37

15M, QPSK, Low Channel



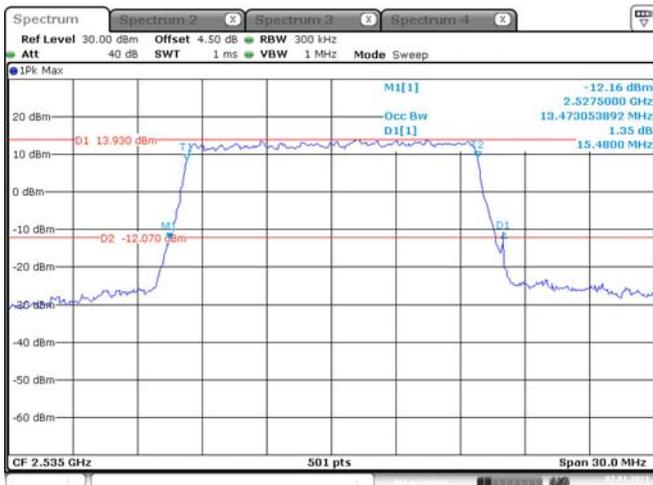
Date: 7, JAN, 2021 22:55:09

15M, 16QAM, Low Channel



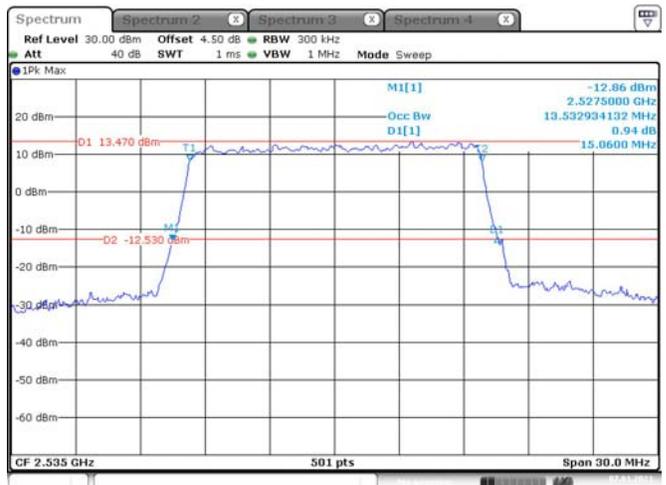
Date: 7, JAN, 2021 22:57:20

15M, QPSK, Middle Channel



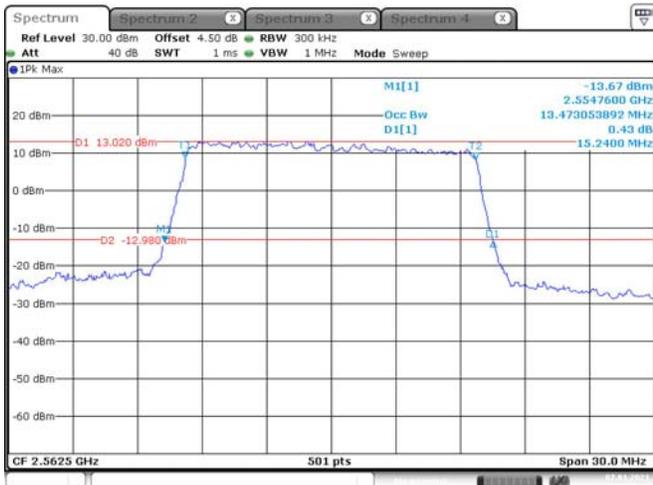
Date: 7, JAN, 2021 22:58:23

15M, 16QAM, Middle Channel



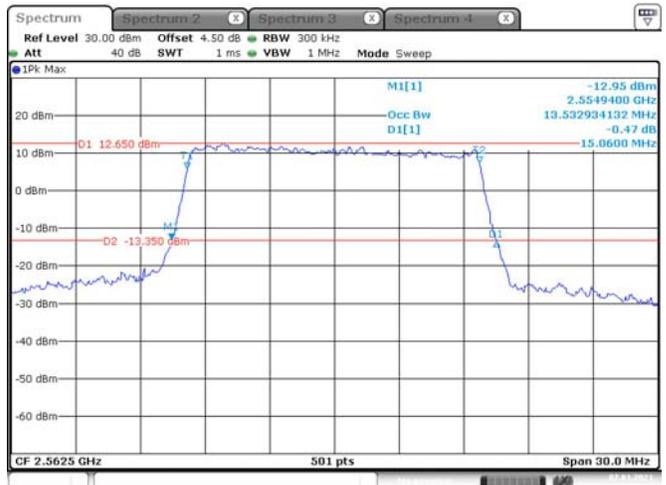
Date: 7, JAN, 2021 22:58:54

15M, QPSK, High Channel



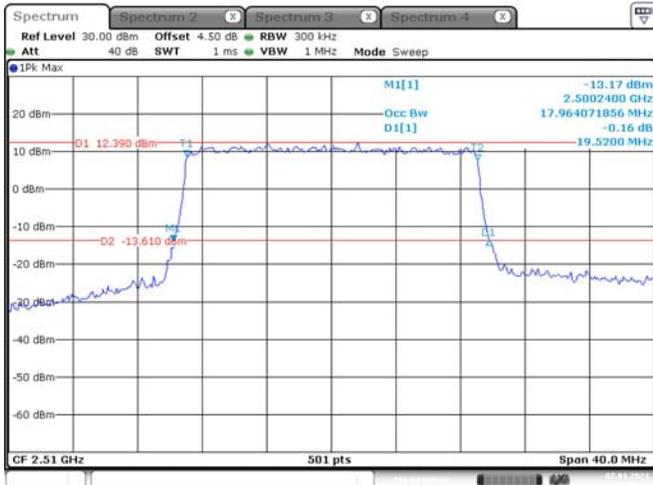
Date: 7, JAN, 2021 22:59:46

15M, 16QAM, High Channel



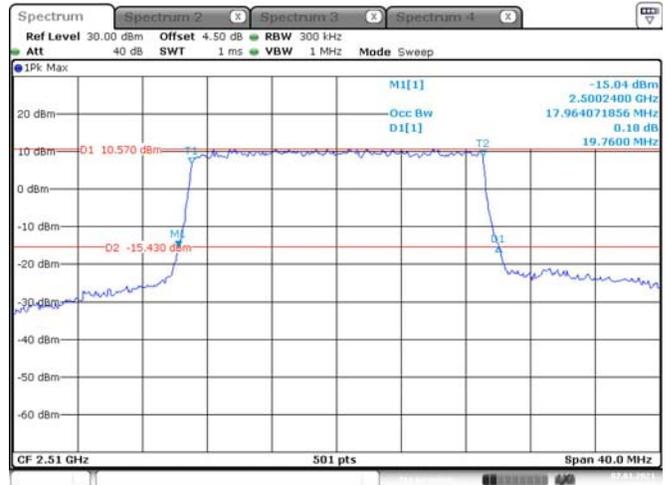
Date: 7, JAN, 2021 23:00:17

20M, QPSK, Low Channel



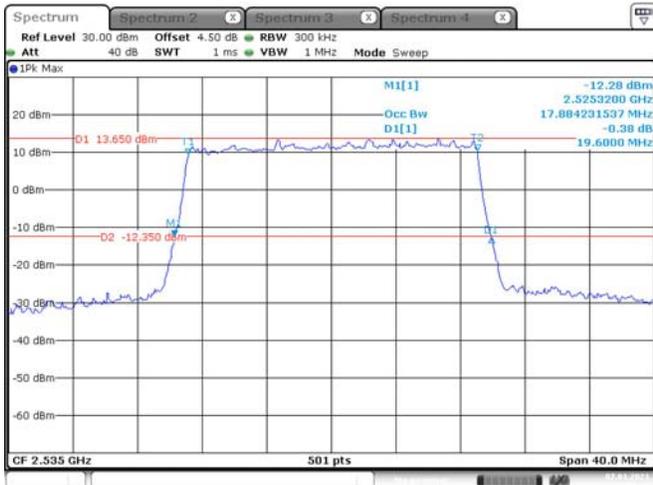
Date: 7, JAN, 2021 23:01:14

20M, 16QAM, Low Channel



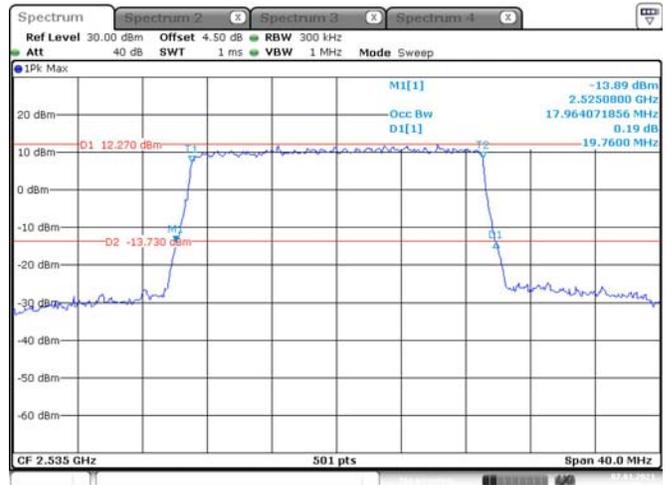
Date: 7, JAN, 2021 23:02:04

20M, QPSK, Middle Channel



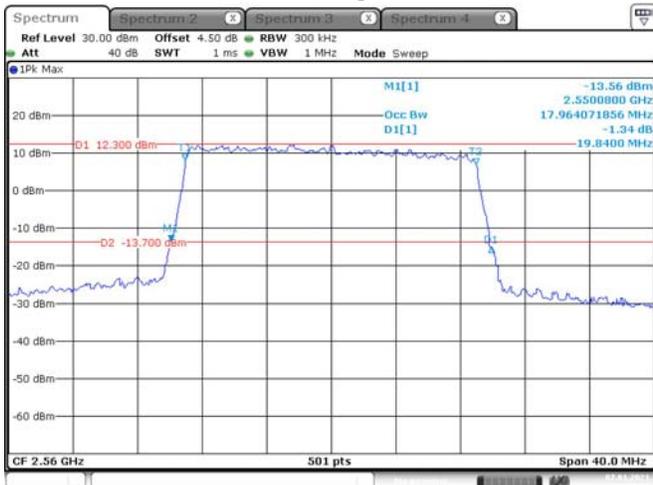
Date: 7, JAN, 2021 23:02:40

20M, 16QAM, Middle Channel



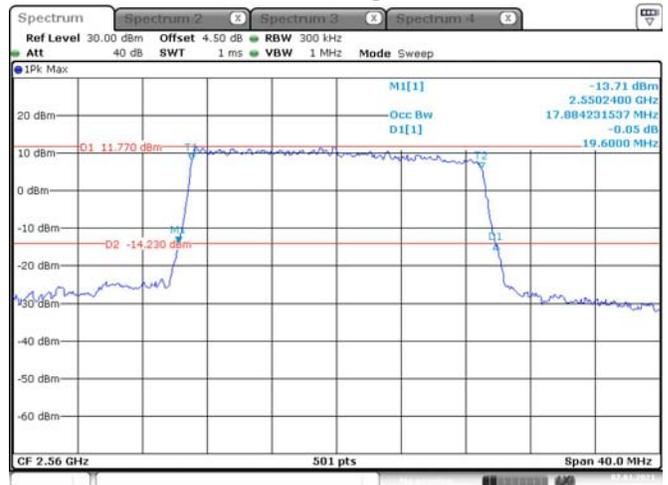
Date: 7, JAN, 2021 23:03:30

20M, QPSK, High Channel



Date: 7, JAN, 2021 23:04:03

20M, 16QAM, High Channel



Date: 7, JAN, 2021 23:04:59

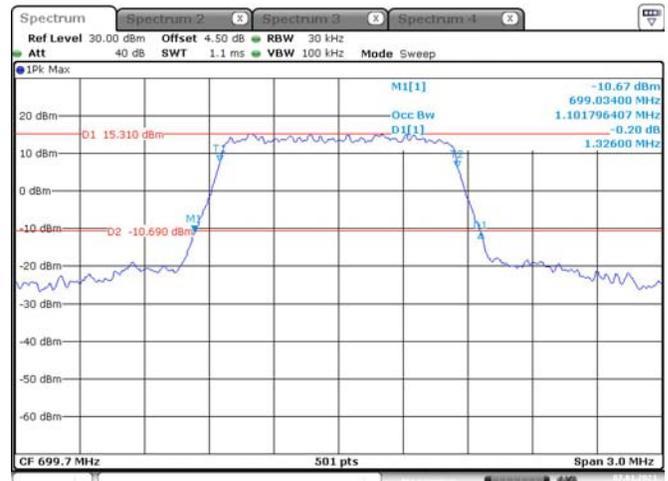
LTE Band 12:

1.4M, QPSK, Low Channel



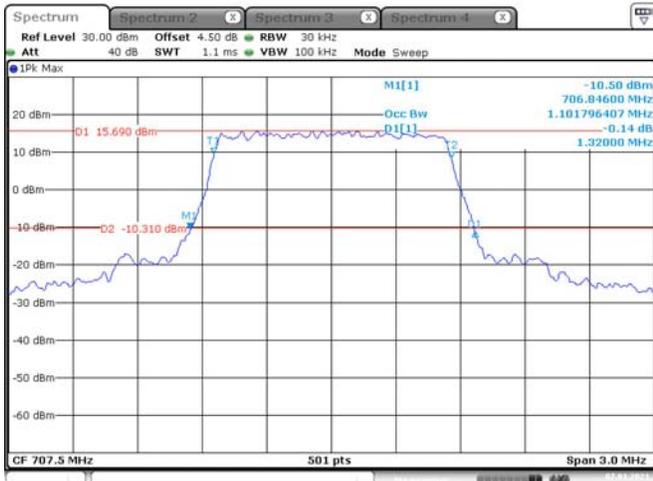
Date: 7, JAN, 2021 23:05:49

1.4M, 16QAM, Low Channel



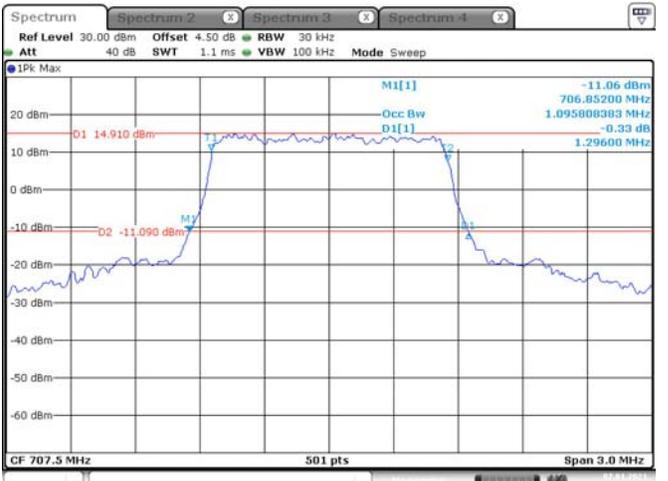
Date: 7, JAN, 2021 23:06:11

1.4M, QPSK, Middle Channel



Date: 7, JAN, 2021 23:06:58

1.4M, 16QAM, Middle Channel



Date: 7, JAN, 2021 23:07:20

1.4M, QPSK, High Channel



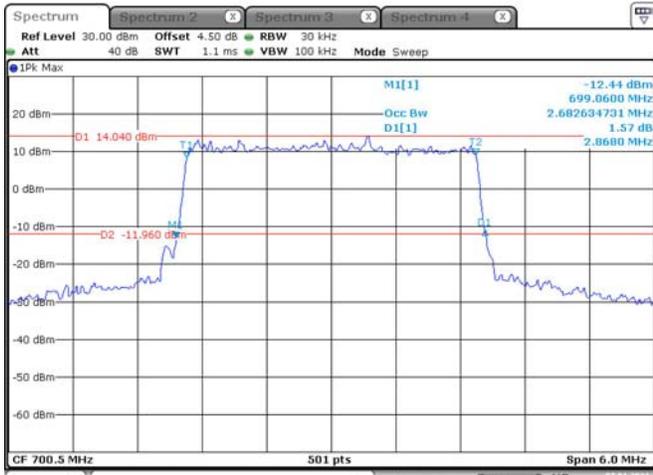
Date: 7, JAN, 2021 23:08:02

1.4M, 16QAM, High Channel



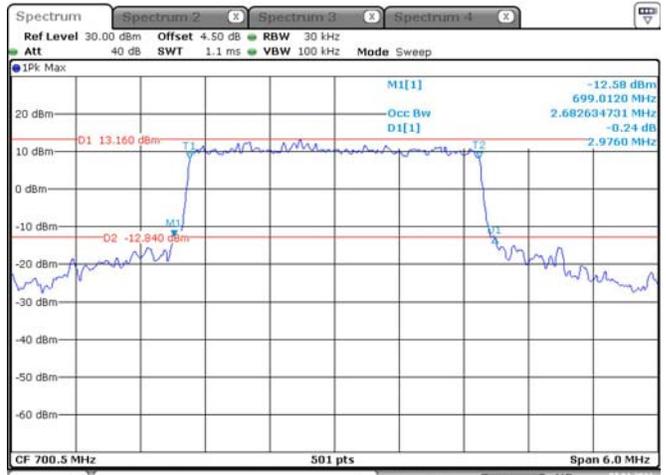
Date: 7, JAN, 2021 23:08:23

3M, QPSK, Low Channel



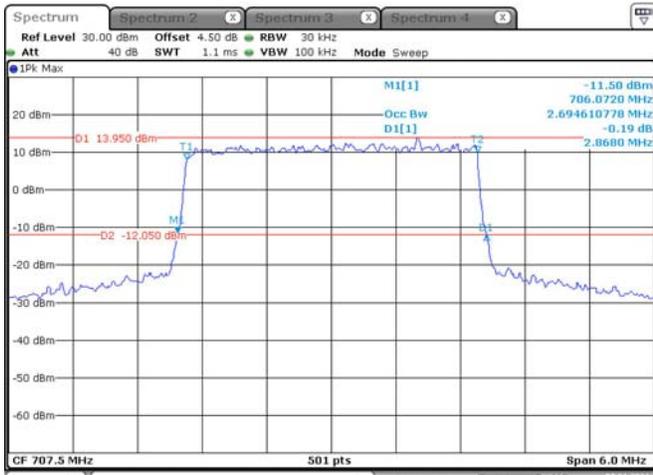
Date: 7, JAN, 2021 23:09:19

3M, 16QAM, Low Channel



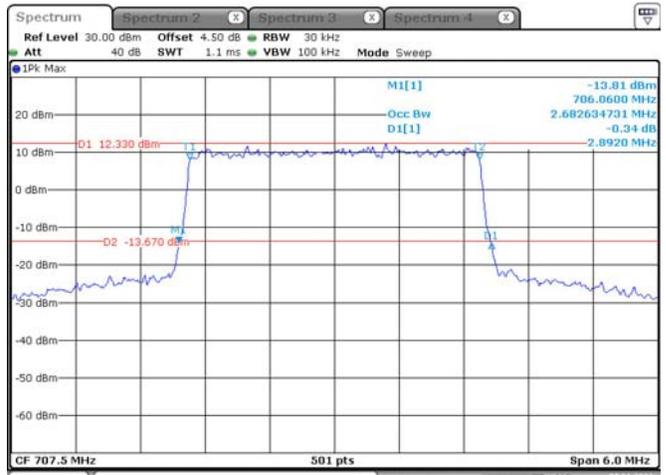
Date: 7, JAN, 2021 23:10:25

3M, QPSK, Middle Channel



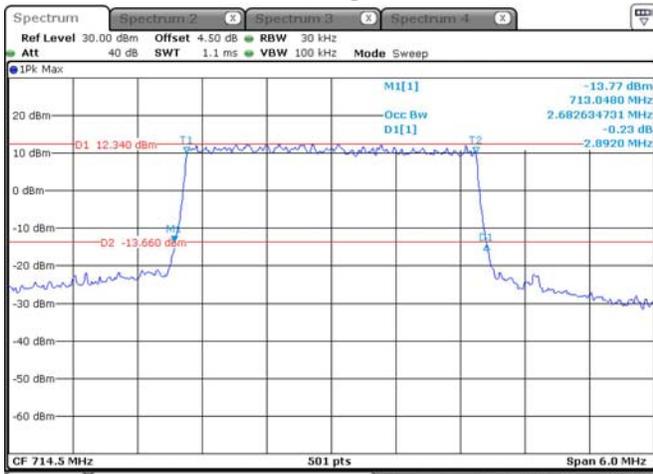
Date: 7, JAN, 2021 23:11:16

3M, 16QAM, Middle Channel



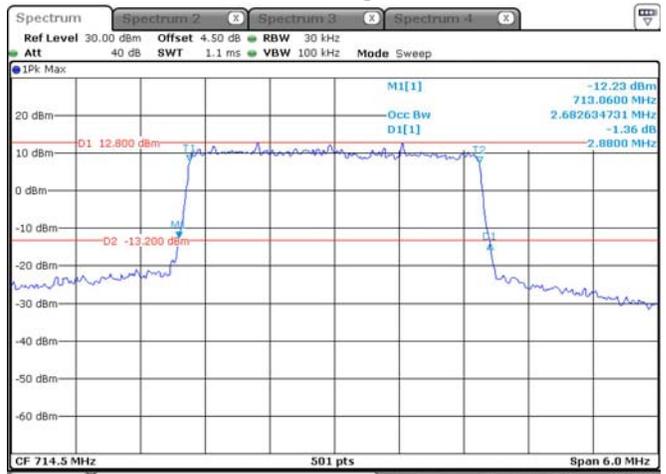
Date: 7, JAN, 2021 23:11:38

3M, QPSK, High Channel



Date: 7, JAN, 2021 23:12:22

3M, 16QAM, High Channel



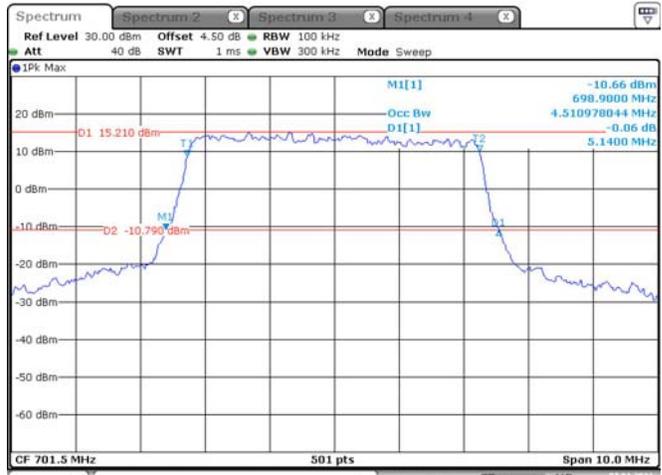
Date: 7, JAN, 2021 23:12:44

5M, QPSK, Low Channel



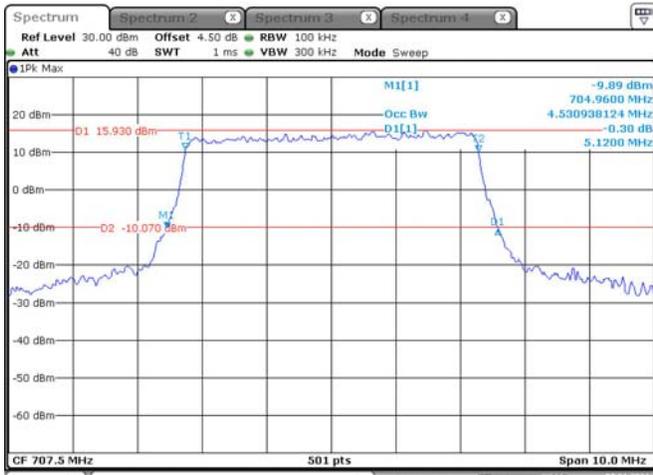
Date: 7, JAN, 2021 23:13:31

5M, 16QAM, Low Channel



Date: 7, JAN, 2021 23:14:02

5M, QPSK, Middle Channel



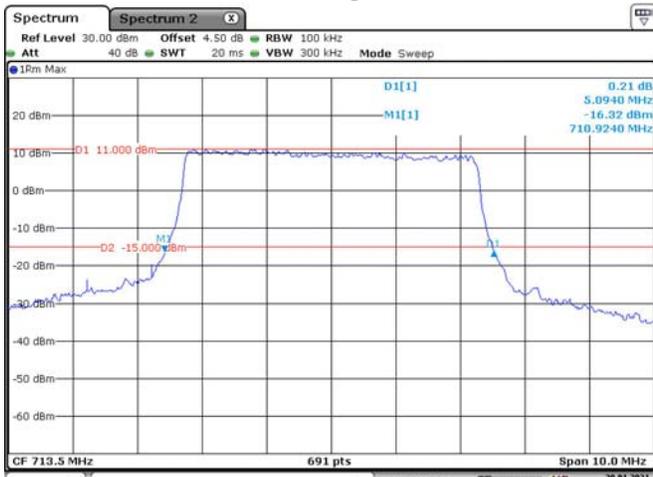
Date: 7, JAN, 2021 23:14:53

5M, 16QAM, Middle Channel



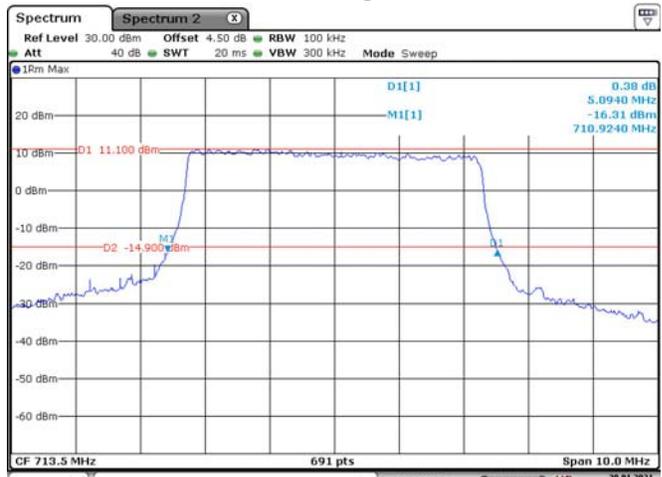
Date: 7, JAN, 2021 23:15:27

5M, QPSK, High Channel



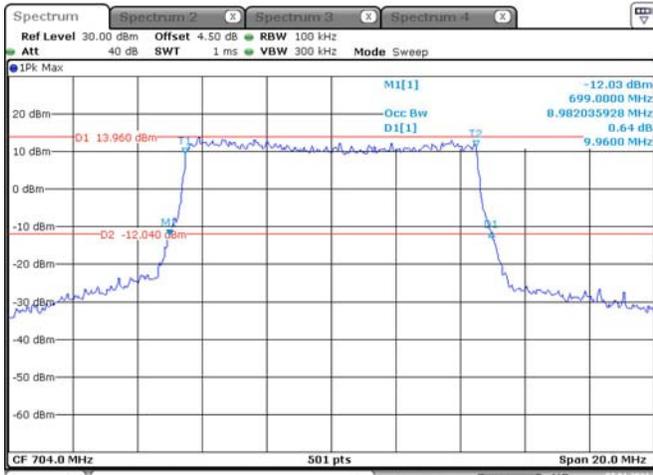
Date: 20, JAN, 2021 00:56:31

5M, 16QAM, High Channel



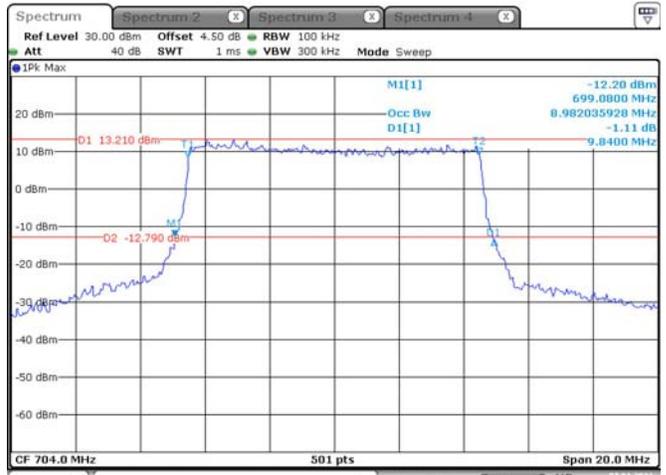
Date: 20, JAN, 2021 00:58:21

10M, QPSK, Low Channel



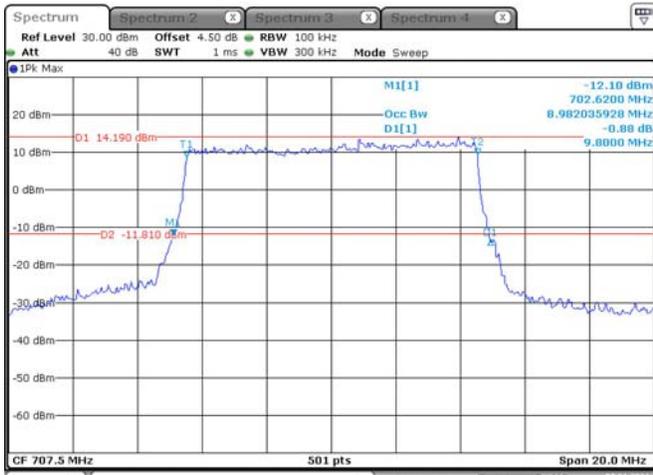
Date: 7, JAN, 2021 23:19:01

10M, 16QAM, Low Channel



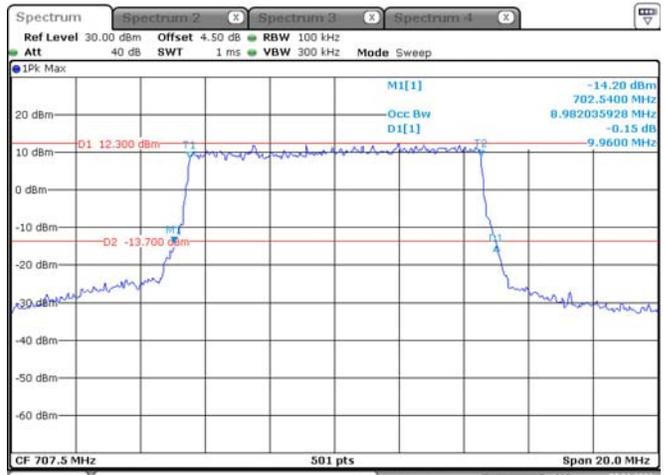
Date: 7, JAN, 2021 23:20:02

10M, QPSK, Middle Channel



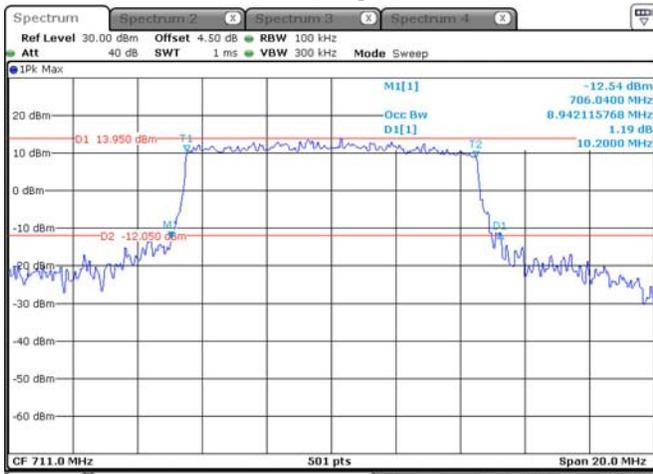
Date: 7, JAN, 2021 23:20:54

10M, 16QAM, Middle Channel



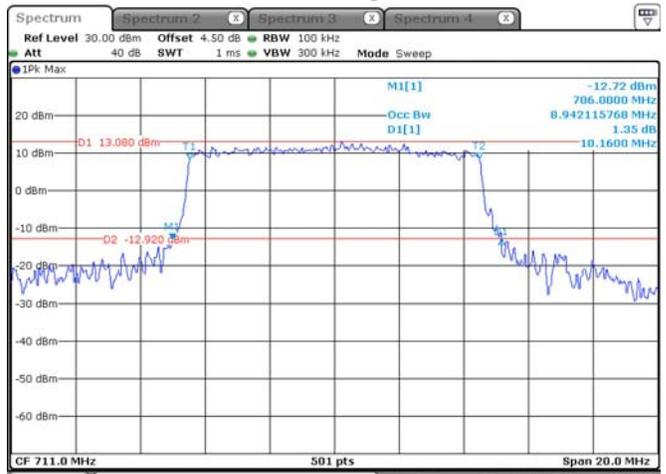
Date: 7, JAN, 2021 23:21:42

10M, QPSK, High Channel



Date: 7, JAN, 2021 23:22:21

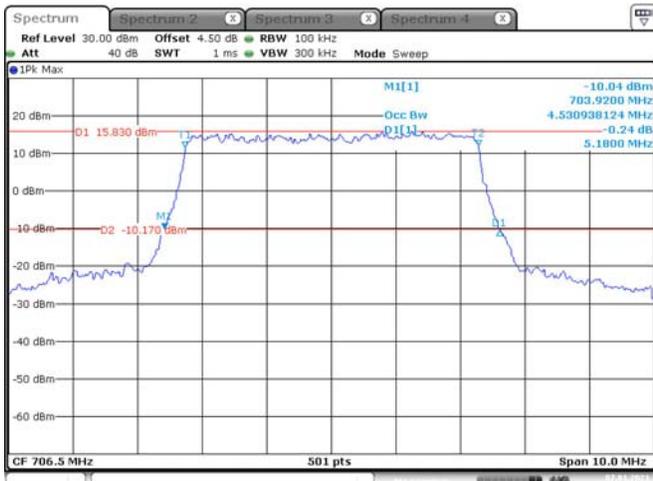
10M, 16QAM, High Channel



Date: 7, JAN, 2021 23:23:25

**LTE Band 17:**

**5M, QPSK, Low Channel**



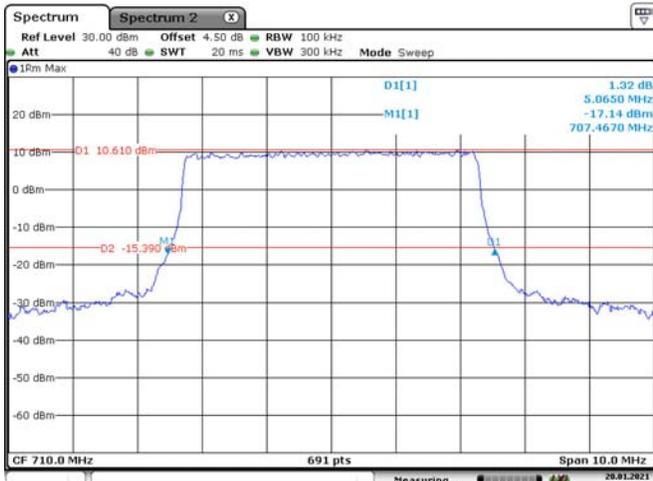
Date: 7, JAN, 2021 23:24:18

**5M, 16QAM, Low Channel**



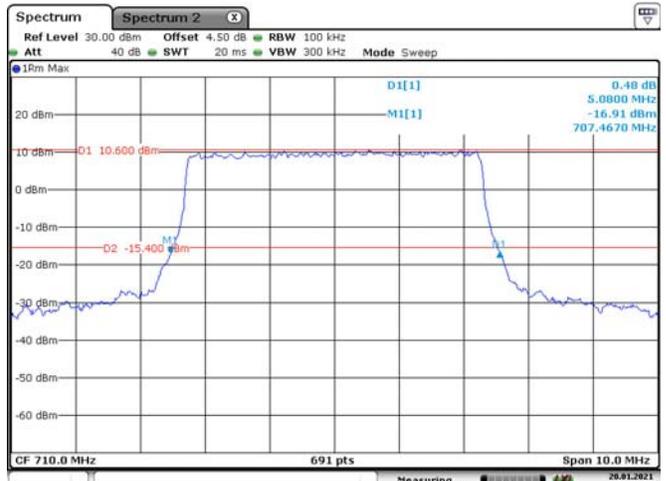
Date: 7, JAN, 2021 23:25:08

**5M, QPSK, Middle Channel**



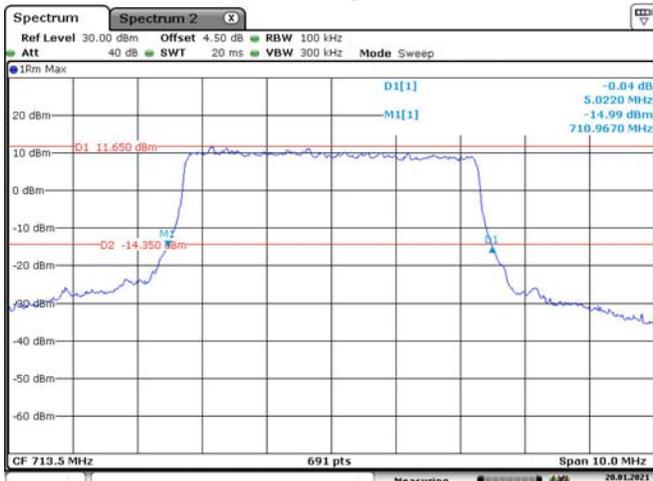
Date: 20, JAN, 2021 01:00:28

**5M, 16QAM, Middle Channel**



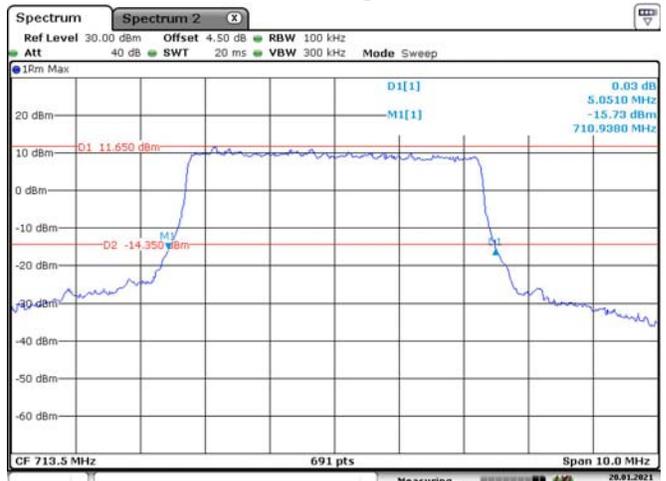
Date: 20, JAN, 2021 01:01:51

**5M, QPSK, High Channel**



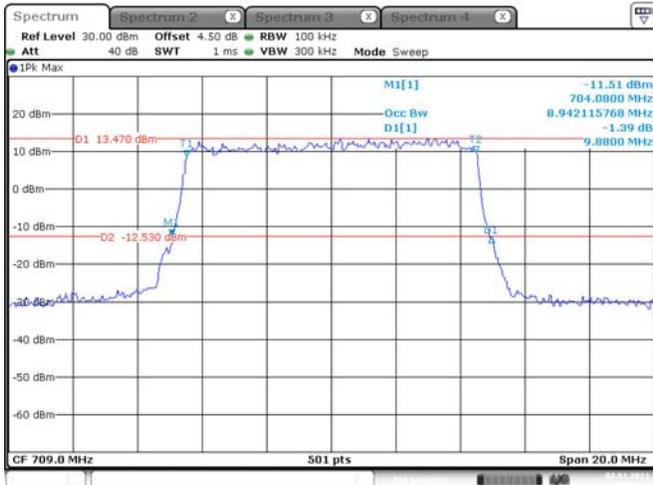
Date: 20, JAN, 2021 01:03:48

**5M, 16QAM, High Channel**



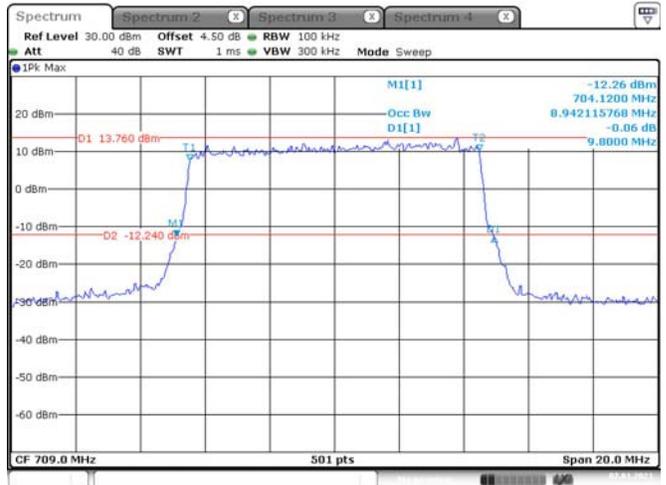
Date: 20, JAN, 2021 01:04:37

10M, QPSK, Low Channel



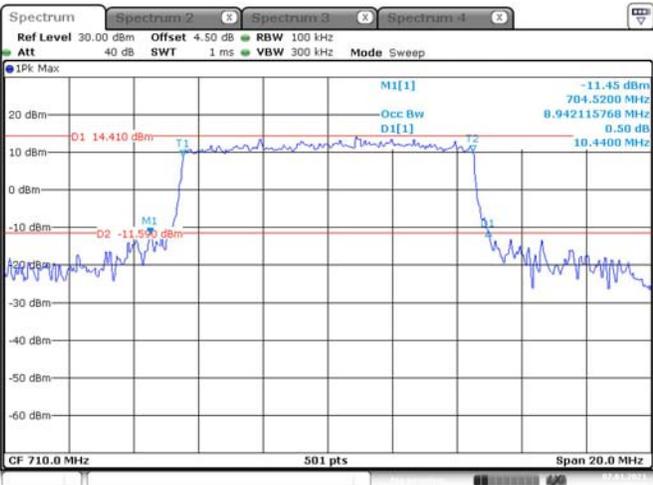
Date: 7, JAN, 2021 23:30:10

10M, 16QAM, Low Channel



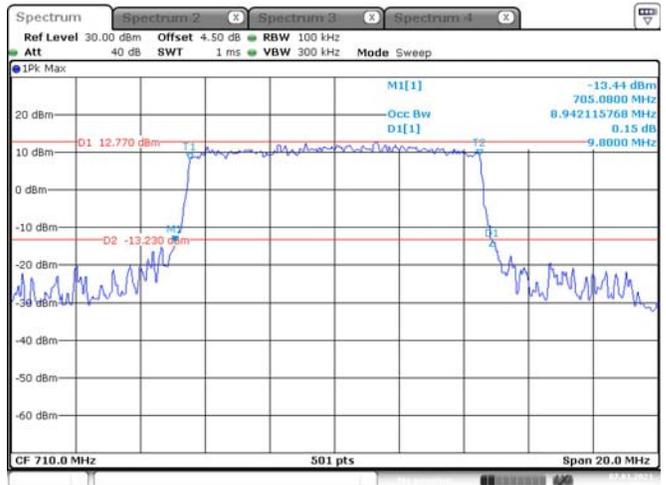
Date: 7, JAN, 2021 23:31:16

10M, QPSK, Middle Channel



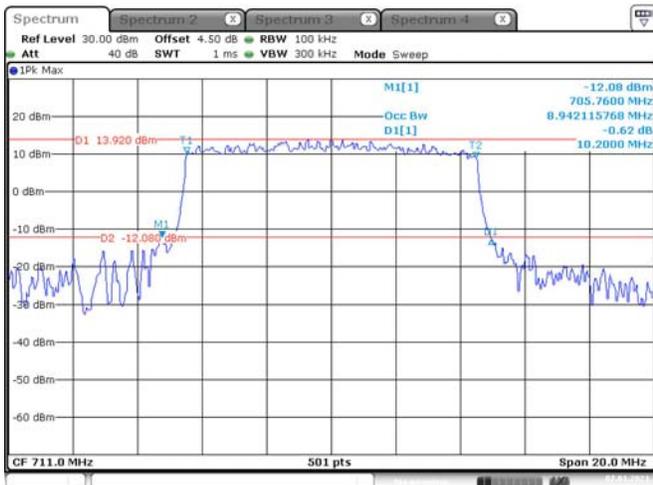
Date: 7, JAN, 2021 23:32:33

10M, 16QAM, Middle Channel



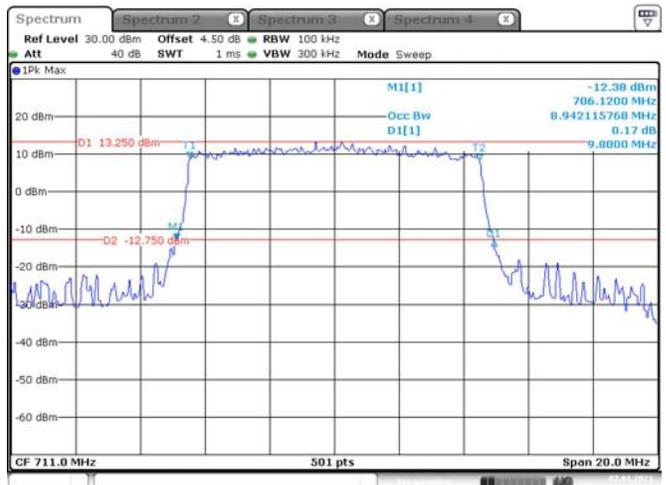
Date: 7, JAN, 2021 23:33:30

10M, QPSK, High Channel



Date: 7, JAN, 2021 23:34:41

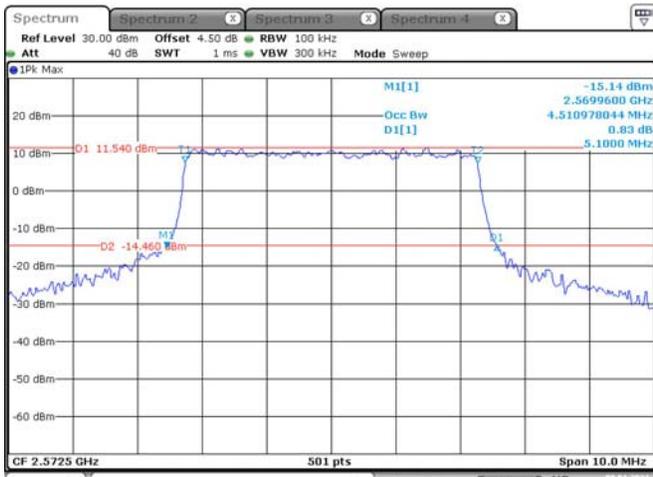
10M, 16QAM, High Channel



Date: 7, JAN, 2021 23:35:35

**LTE Band 38:**

**5M, QPSK, Low Channel**



Date: 8, JAN, 2021 00:04:11

**5M, 16QAM, Low Channel**



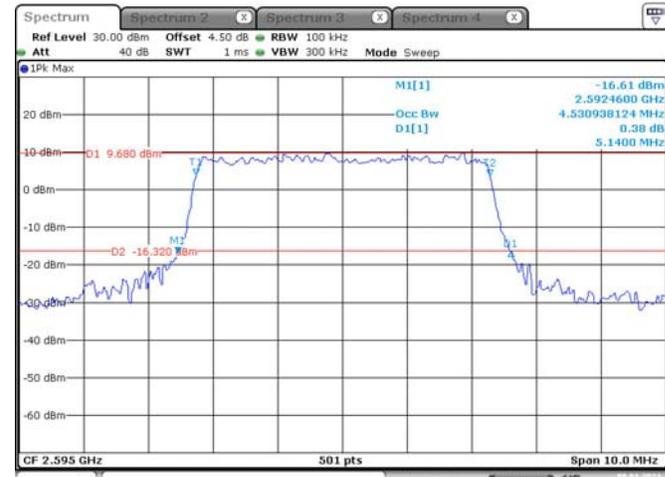
Date: 8, JAN, 2021 00:09:16

**5M, QPSK, Middle Channel**



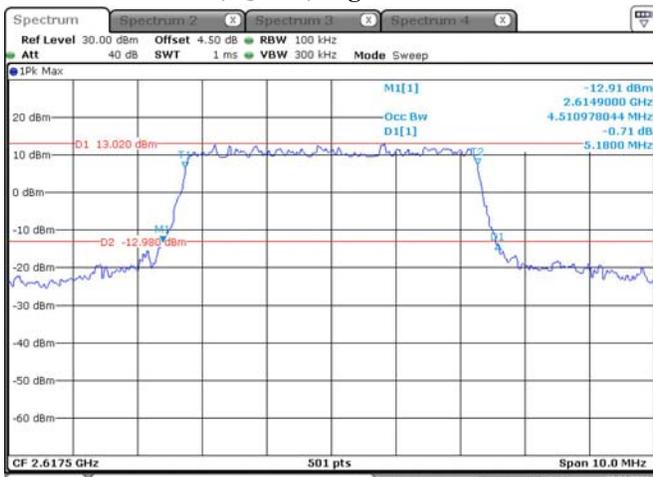
Date: 8, JAN, 2021 00:06:16

**5M, 16QAM, Middle Channel**



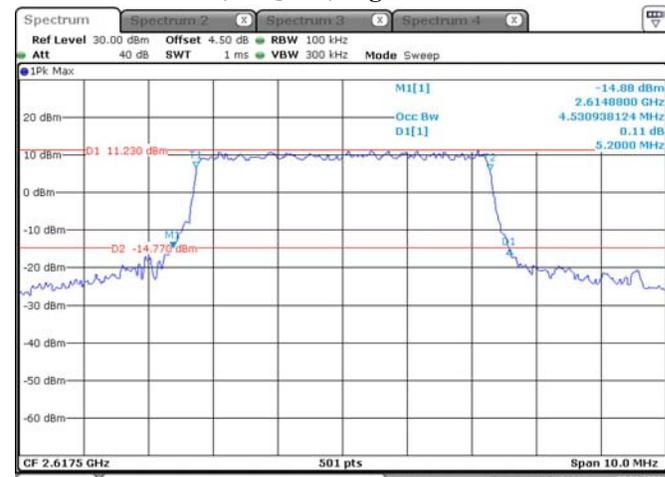
Date: 8, JAN, 2021 00:07:27

**5M, QPSK, High Channel**



Date: 8, JAN, 2021 00:08:21

**5M, 16QAM, High Channel**



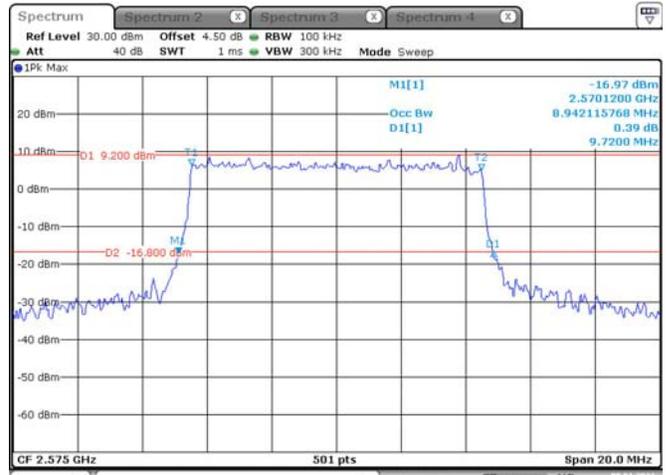
Date: 8, JAN, 2021 00:09:33

10M, QPSK, Low Channel



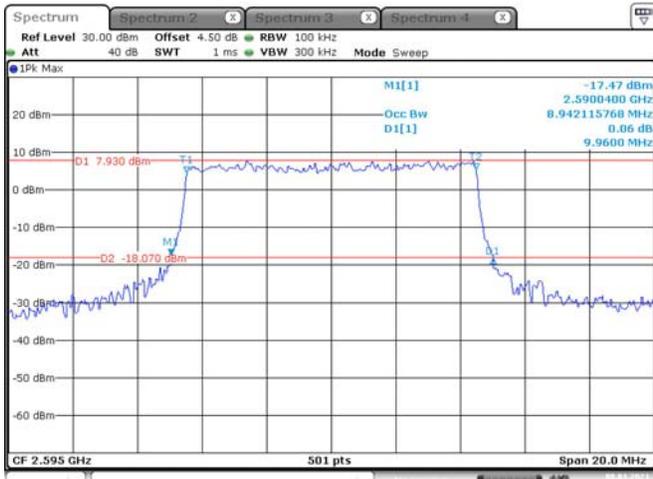
Date: 8, JAN, 2021 00:10:46

10M, 16QAM, Low Channel



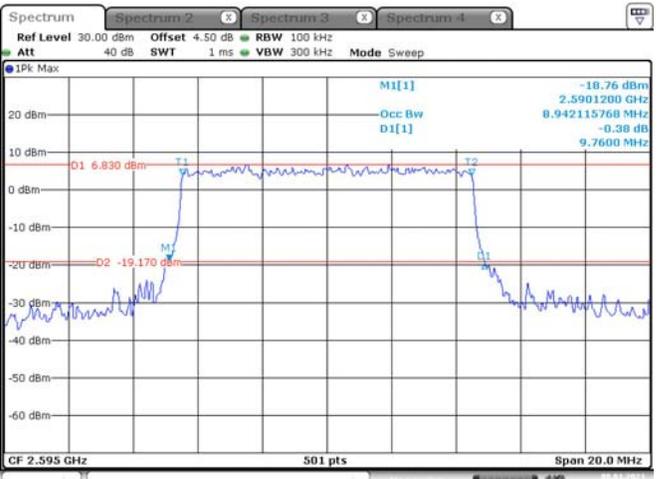
Date: 8, JAN, 2021 00:11:40

10M, QPSK, Middle Channel



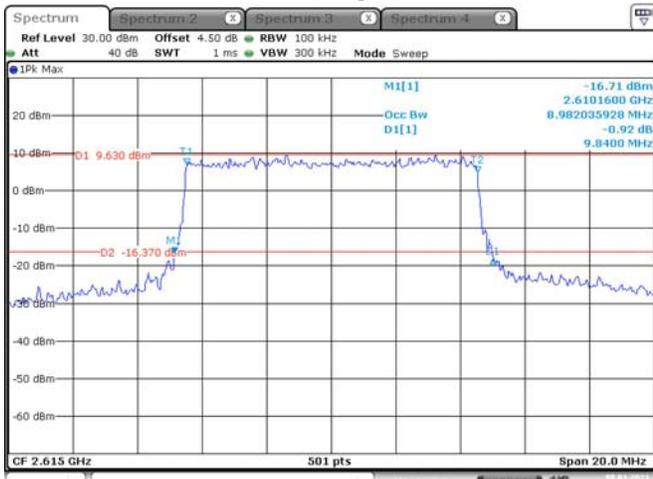
Date: 8, JAN, 2021 00:13:03

10M, 16QAM, Middle Channel



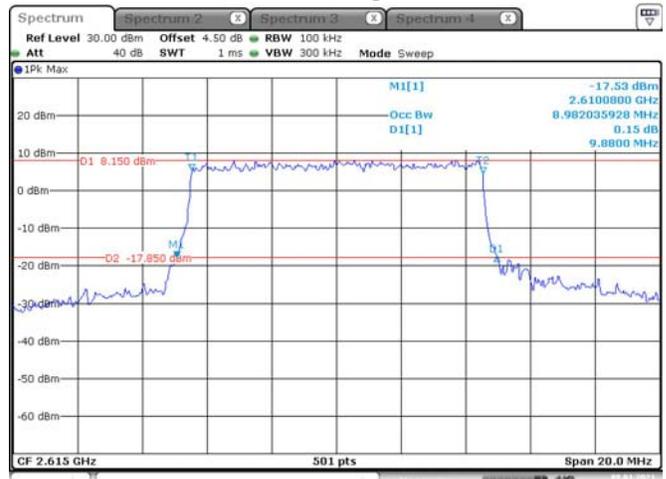
Date: 8, JAN, 2021 00:13:51

10M, QPSK, High Channel



Date: 8, JAN, 2021 00:14:21

10M, 16QAM, High Channel



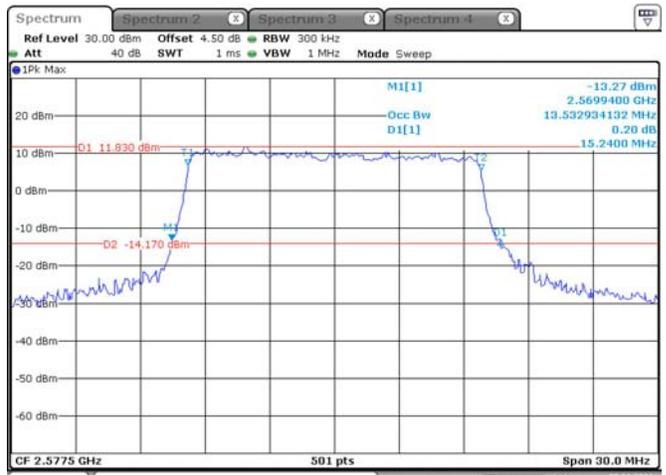
Date: 8, JAN, 2021 00:15:21

15M, QPSK, Low Channel



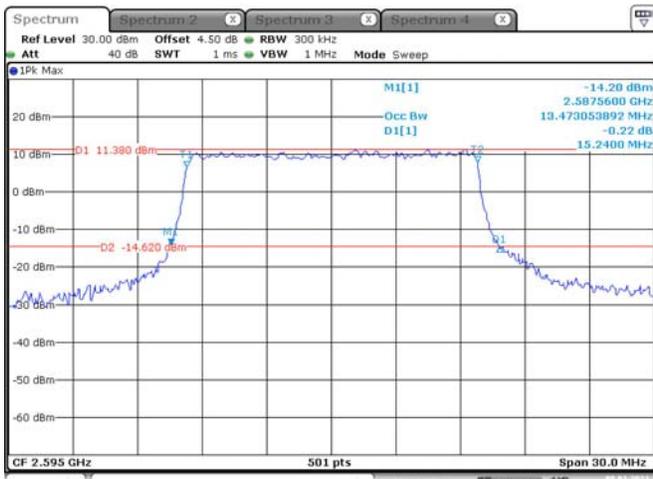
Date: 8, JAN, 2021 00:16:18

15M, 16QAM, Low Channel



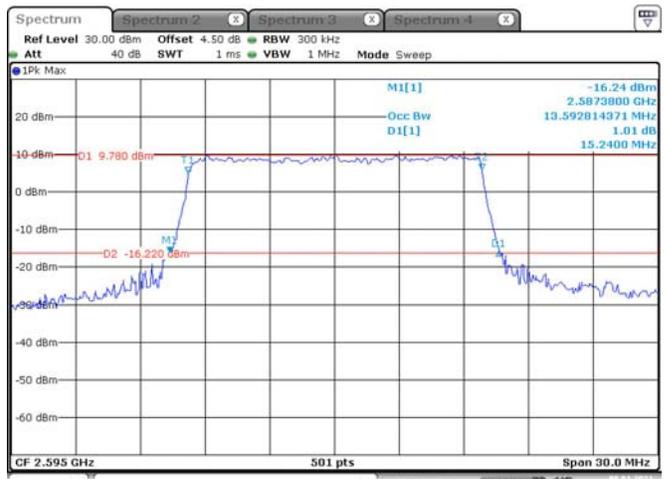
Date: 8, JAN, 2021 00:17:27

15M, QPSK, Middle Channel



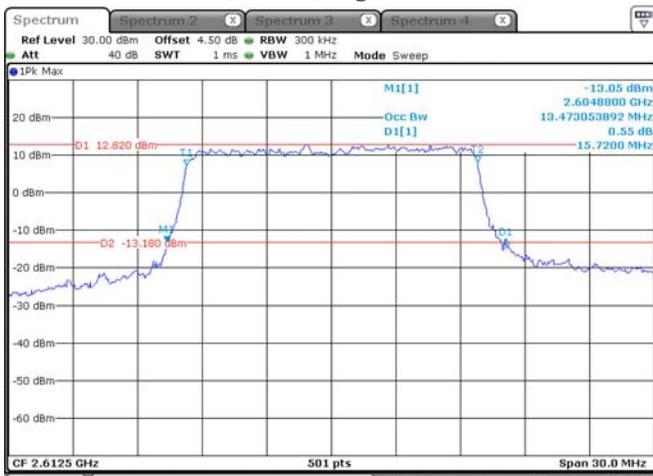
Date: 8, JAN, 2021 00:18:27

15M, 16QAM, Middle Channel



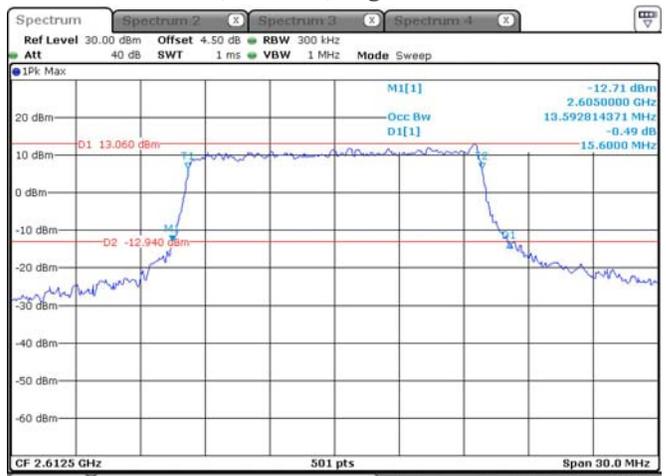
Date: 8, JAN, 2021 00:19:33

15M, QPSK, High Channel



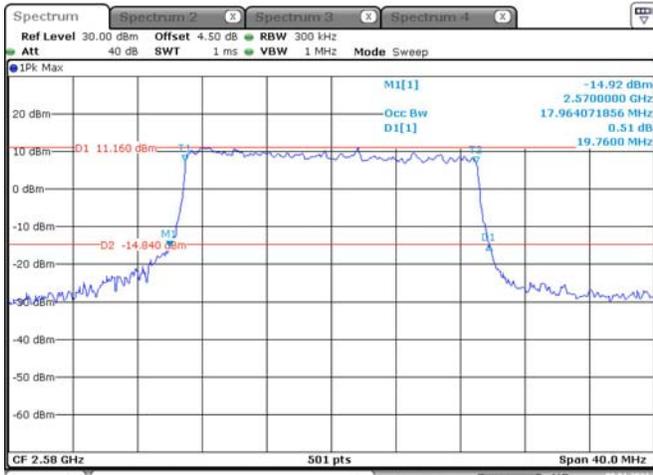
Date: 8, JAN, 2021 00:20:27

15M, 16QAM, High Channel



Date: 8, JAN, 2021 00:21:20

20M, QPSK, Low Channel



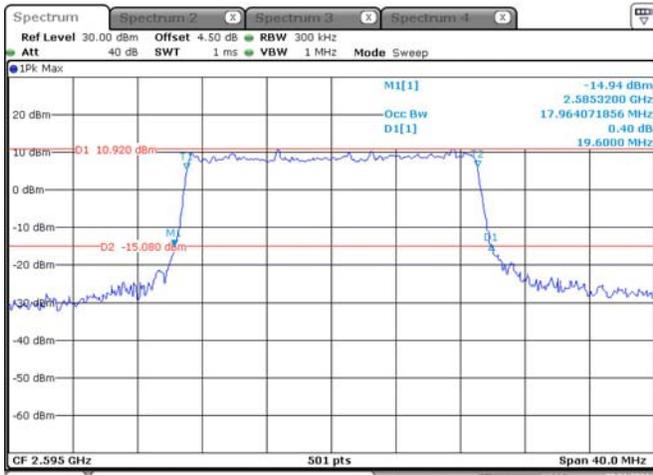
Date: 8, JAN, 2021 00:22:27

20M, 16QAM, Low Channel



Date: 8, JAN, 2021 00:23:26

20M, QPSK, Middle Channel



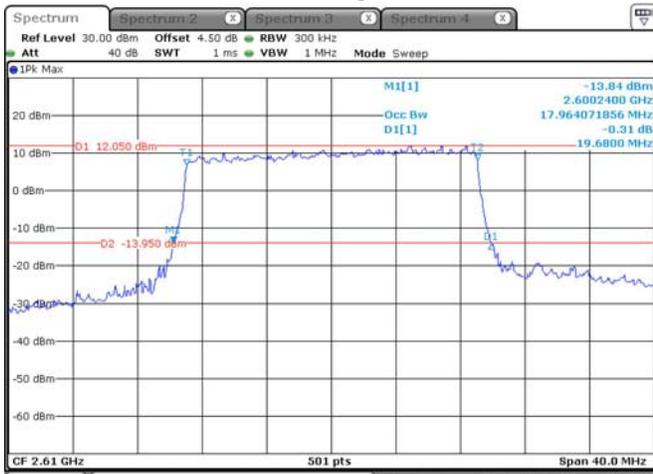
Date: 8, JAN, 2021 00:24:24

20M, 16QAM, Middle Channel



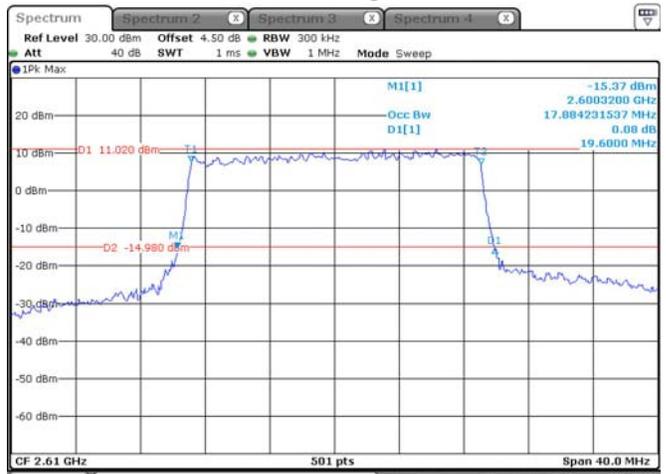
Date: 8, JAN, 2021 00:25:23

20M, QPSK, High Channel



Date: 8, JAN, 2021 00:26:11

20M, 16QAM, High Channel



Date: 8, JAN, 2021 00:26:43

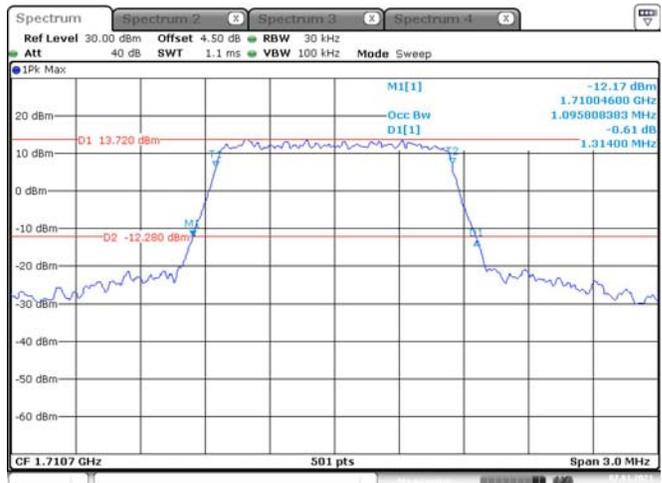
**LTE Band 66**

**1.4M, QPSK, Low Channel**



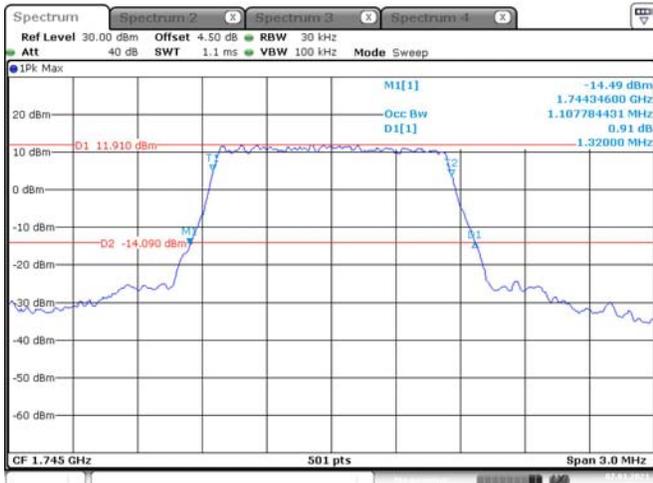
Date: 7, JAN, 2021 23:36:23

**1.4M, 16QAM, Low Channel**



Date: 7, JAN, 2021 23:36:44

**1.4M, QPSK, Middle Channel**



Date: 7, JAN, 2021 23:37:38

**1.4M, 16QAM, Middle Channel**



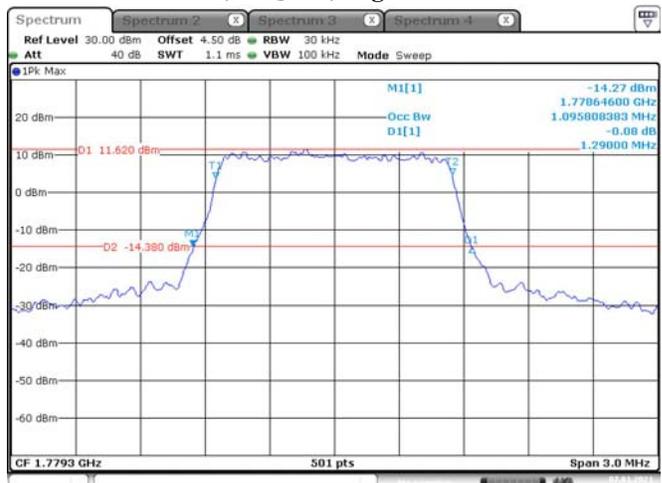
Date: 7, JAN, 2021 23:38:06

**1.4M, QPSK, High Channel**



Date: 7, JAN, 2021 23:38:54

**1.4M, 16QAM, High Channel**



Date: 7, JAN, 2021 23:39:19