



TESTING LABORATORY
CERTIFICATE #4820.01



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

For

HONGKONG U-CLOUDLINK NETWORK TECHNOLOGY LIMITED

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FCC ID: 2AC88-GLMU20A01


Report Type: Original Report	Product Type: TD-LTE Wireless Data Terminal
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	TD-LTE Wireless Data Terminal
EUT Model:	GLMU20A01
Operation modes:	GPRS/EDGE Data, WCDMA(R99 (Data), HSDPA,HSUPA) FDD-LTE,TDD-LTE
Operation Frequency:	GSM 850: 824-849 MHz(TX); 869-894 MHz(RX) PCS 1900: 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 13: 777-787 MHz(TX), 746-756 MHz(RX) LTE Band 26: 814-849 MHz(TX), 859-894 MHz(RX) LTE Band 38: 2570-2620 MHz(TX&RX) LTE Band 40 Lower: 2305-2315 MHz(TX&RX) LTE Band 40 Upper: 2350-2360 MHz(TX&RX) LTE Band 41: 2496-2690 MHz(TX&RX) LTE Band 66: 1710-1780 MHz(TX), 2110-2180 MHz(RX)
Antenna Gain▲:	GSM850/WCDMA B5/LTE B5/B26:0.29 dBi(-1.86dBd) PCS1900/WCDMA B2/LTE B2: 2.1 dBi LTE B4/B66: 1.44 dBi LTE B7/B38/B41: 2.14 dBi LTE B12: 0.15 dBi(-2.0dBd) LTE B13: 0.41 dBi(-1.74dBd) LTE B40: 1.71 dBi
Modulation Type:	GMSK,8PSK, BPSK, QPSK, 16QAM
Rated Input Voltage:	DC 3.85V from battery or 5V form USB port
Serial Number:	RDG200911002-RF -S1
EUT Received Date:	2020.09.14
EUT Received Status:	Good

Objective

This report is prepared on behalf of **HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED** in accordance with: Part 2-Subpart J, Part 22-Subpart H, Part 24-Subpart E, Part 27, Part 90 of the Federal Communications Commission's rules.

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

Related Submittal(s)/Grant(s)

FCC Part 15C DTS submissions with FCC ID:2AC88-GLMU20A01.

Test Methodology

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

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

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

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

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61 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, WCDMA Band 2/5, and LTE band 2/4/5/7/12/13/26/38/40/41/66, test was performed with channels as below table:

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GPRS/EDGE850	0.25	824.2	836.6	848.8
GPRS/EDGE1900	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 13	5	779.5	782	784.5
	10	/	782	/

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
LTE Band 26	1.4	814.7	831.5	848.3
	3	815.5	831.5	847.5
	5	816.5	831.5	846.5
	10	819	831.5	844
	15	821.5	831.5	841.5
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 40 Lower 2305-2315MHz	5	2307.5	2310	2312.5
	10	/	2310	/
LTE Band 40 Upper 2350-2360MHz	5	2352.5	2355	2357.5
	10	/	2355	/
LTE Band 41	5	2498.5	2593	2687.5
	10	2501	2593	2685
	15	2503.5	2593	2682.5
	20	2506	2593	2680
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

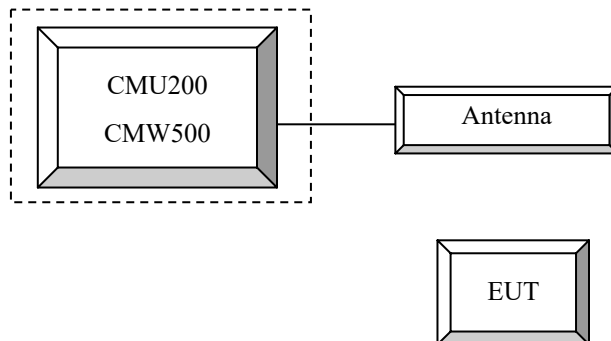
Equipment Modifications

No modification was made to the EUT.

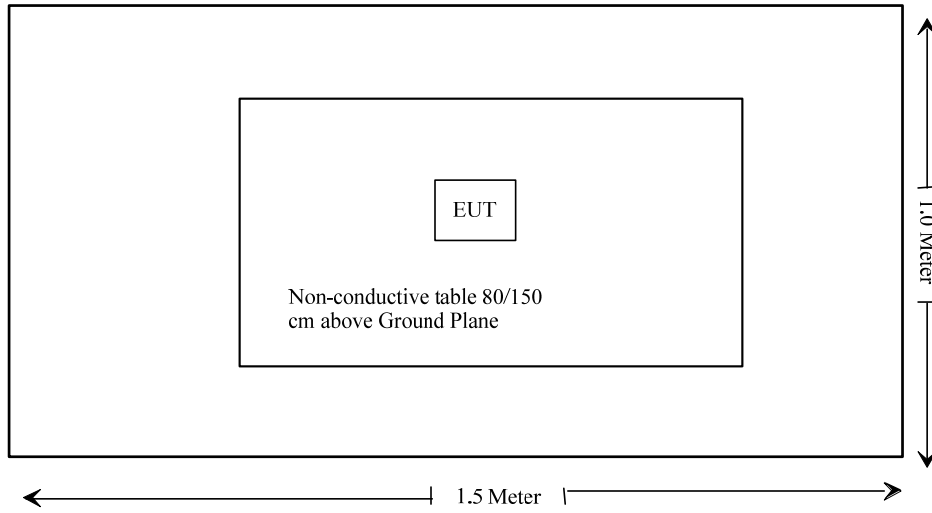
Support Equipment List and Details

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

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

FCC §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: RDG200911002-SA.

FCC §2.1047 - MODULATION CHARACTERISTIC

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

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

Applicable Standard

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

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

According to §24.232 (d) Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

According to §27.50

(a)(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.

According to §90.635

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

Test Procedure

GSM/GPRS/EGPRS

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

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

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

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

WCDMA-Release 99

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

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	β_c / β_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			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c / β_d	2/15	12/15	15/8	15/4
	β_{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
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c / β_d	11/15	6/15	15/9	2/15	-
	β_{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	
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				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCIs	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

HSPA+

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

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{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 β_c is set to 1 and $\beta_d = 0$ by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

DC-HSDPA

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

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

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

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.

Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

LTE (FDD):

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

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

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

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

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

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

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

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

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

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	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
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_s) 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_s = 1/(15000 x 2048) seconds

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2020-07-07	2021-07-07
R&S	Spectrum Analyzer	FSV40	101474	2020-01-09	2021-01-09
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	Each time	N/A
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	147473	2020-09-23	2021-09-22
E-Microwave	Blocking Control	EMDCB-00036	0E01201047	Each time	N/A
Unknown	Attenuator	UNAT-3+	15529	Each time	N/A
R&S	Universal Radio Communication Tester	CMU200	106 891	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**

Temperature:	22.1 °C
Relative Humidity:	40 %
ATM Pressure:	102.2kPa
Tester:	Theshy Xie
Test Date:	2020-12-06

Test Result: Compliance

GPRS/EDGE**Conducted Output Power:**

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	31.96	30.34	27.79	25.25	24.93	24.42	22.73	19.91
	190	32.27	30.20	28.05	25.51	24.89	24.43	22.54	19.83
	251	32.56	30.52	27.90	25.57	25.05	24.62	22.61	20.02
PCS	512	30.42	29.37	27.41	25.08	25.87	23.90	21.56	18.84
	661	30.57	30.03	27.48	25.79	26.18	24.21	21.84	19.20
	810	30.96	30.10	27.81	26.09	26.23	24.31	21.85	19.25

ERP/EIRP:

Band	Mode	Channel	Conducted Power (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
Cellular	GSM	Low	31.96	-1.86	0.2	29.9	38.45
		Middle	32.27	-1.86	0.2	30.21	38.45
		High	32.56	-1.86	0.2	30.5	38.45
	EDGE	Low	24.93	-1.86	0.2	22.87	38.45
		Middle	24.89	-1.86	0.2	22.83	38.45
		High	25.05	-1.86	0.2	22.99	38.45
PCS	GSM	Low	30.42	2.1	0.4	32.12	33.00
		Middle	30.57	2.1	0.4	32.27	33.00
		High	30.96	2.1	0.4	32.66	33.00
	EDGE	Low	25.87	2.1	0.4	27.57	33.00
		Middle	26.18	2.1	0.4	27.88	33.00
		High	26.23	2.1	0.4	27.93	33.00

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

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	22.89	3.25	23.16	3.16	23.22	3.25
HSDPA	1	21.84	3.42	22.02	3.39	22.06	3.57
	2	20.45	3.23	21.55	3.23	21.01	3.21
	3	19.88	3.12	20.79	3.12	20.45	3.34
	4	18.26	3.20	18.99	3.45	18.12	3.12
HSUPA	1	22.08	4.17	22.24	3.39	22.21	3.54
	2	21.03	4.12	21.55	3.21	21.15	3.13
	3	20.55	4.10	20.56	3.33	20.45	3.24
	4	19.56	4.23	19.00	3.18	18.89	3.54
	5	18.65	4.12	18.54	3.19	18.12	3.65
DC-HSDPA	1	21.22	4.02	21.03	3.25	21.00	3.56
	2	18.56	4.03	19.45	3.31	19.16	3.25
	3	17.67	4.12	17.16	3.15	17.10	3.22
	4	16.55	4.12	16.23	3.21	16.10	3.58
HSPA+ (16QAM)	1	20.89	3.25	20.78	3.55	20.45	3.74

EIRP:

Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
Low	22.89	2.1	0.4	24.59	33
Middle	23.16	2.1	0.4	24.86	33
High	23.22	2.1	0.4	24.92	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	22.30	3.22	22.21	3.22	22.20	3.19
HSDPA	1	21.16	3.54	21.08	3.48	21.13	4.03
	2	20.45	3.45	20.35	3.47	20.34	4.12
	3	19.89	3.21	19.78	3.24	19.55	4.20
	4	18.78	3.12	18.68	3.56	18.46	4.03
HSUPA	1	21.49	4.61	21.60	3.36	21.44	3.51
	2	20.78	4.62	20.74	3.52	20.45	3.56
	3	19.63	4.23	19.64	3.42	19.64	3.25
	4	18.64	4.12	18.45	3.65	18.21	3.13
	5	17.49	4.62	17.42	3.45	17.12	3.33
DC-HSDPA	1	20.89	4.32	20.78	3.02	20.46	3.89
	2	19.56	4.12	19.54	3.04	19.24	3.12
	3	18.78	4.51	18.55	3.21	18.35	3.72
	4	17.65	4.15	17.54	3.08	17.28	3.18
HSPA+ (16QAM)	1	20.78	3.21	20.45	3.32	20.12	3.29

ERP:

Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
Low	22.30	-1.86	0.4	20.04	38.45
Middle	22.21	-1.86	0.4	19.95	38.45
High	22.20	-1.86	0.4	19.94	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	23.85	24.02	23.98
		RB1#3	23.88	23.86	23.97
		RB1#5	23.89	24.02	23.94
		RB3#0	23.73	24.08	24.08
		RB3#3	23.83	24.06	24.06
		RB6#0	22.84	23.07	23.25
	16QAM	RB1#0	23.01	23.31	23.15
		RB1#3	23.17	23.72	23.19
		RB1#5	22.92	23.36	23.11
		RB3#0	23.70	24.00	24.21
		RB3#3	23.80	24.15	24.13
		RB6#0	21.88	22.12	21.95
3MHz	QPSK	RB1#0	23.70	24.02	23.92
		RB1#8	23.92	23.99	23.83
		RB1#14	23.97	23.93	24.03
		RB6#0	22.76	23.10	23.18
		RB6#9	22.76	23.14	23.12
		RB15#0	22.90	23.12	23.19
	16QAM	RB1#0	23.12	23.62	23.12
		RB1#8	23.05	23.35	22.90
		RB1#14	23.07	23.26	22.68
		RB6#0	21.98	22.15	22.37
		RB6#9	21.74	22.23	21.73
		RB15#0	21.71	22.02	22.22
5MHz	QPSK	RB1#0	23.79	24.07	24.08
		RB1#13	23.69	24.09	23.99
		RB1#24	23.69	24.00	23.99
		RB15#0	22.92	23.05	23.16
		RB15#10	22.86	23.10	23.10
		RB25#0	22.90	23.06	23.18
	16QAM	RB1#0	22.24	23.33	22.96
		RB1#13	22.40	23.42	22.99
		RB1#24	22.14	23.31	22.92
		RB15#0	22.81	23.05	23.14
		RB15#10	22.84	23.09	23.08
		RB25#0	21.97	21.98	22.01

10MHz	QPSK	RB1#0	23.72	23.95	24.31
		RB1#25	23.84	24.16	24.37
		RB1#49	23.79	24.05	24.12
		RB25#0	22.90	23.12	23.17
		RB25#25	22.84	23.19	23.18
		RB50#0	22.88	23.11	23.20
	16QAM	RB1#0	23.10	23.72	23.04
		RB1#25	23.32	23.43	23.20
		RB1#49	22.98	23.58	22.84
		RB25#0	23.00	23.11	23.28
		RB25#25	22.82	23.17	23.08
		RB50#0	21.79	22.15	22.08
15MHz	QPSK	RB1#0	23.70	24.09	24.02
		RB1#38	24.07	23.89	23.96
		RB1#74	23.90	23.76	23.88
		RB36#0	22.92	23.18	23.21
		RB36#39	22.95	23.06	23.18
		RB75#0	22.88	23.04	23.20
	16QAM	RB1#0	23.16	23.27	23.23
		RB1#38	23.33	23.93	23.32
		RB1#74	23.28	23.48	22.96
		RB36#0	22.97	23.15	23.28
		RB36#39	22.91	23.16	23.15
		RB75#0	21.88	22.11	22.11
20MHz	QPSK	RB1#0	23.48	24.12	24.03
		RB1#50	23.98	24.69	24.21
		RB1#99	23.62	24.23	23.90
		RB50#0	22.95	23.19	23.24
		RB50#50	22.97	23.14	23.16
		RB100#0	22.94	23.17	23.23
	16QAM	RB1#0	23.21	23.11	23.92
		RB1#50	23.75	23.07	24.25
		RB1#99	23.39	22.97	23.25
		RB50#0	22.92	23.19	23.23
		RB50#50	22.95	23.23	23.24
		RB100#0	21.96	22.21	22.27

PAR:

Test Modulation		Channel Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.44	4.56	4.60	13.00
	100 RB		5.16	5.20	5.20	13.00
16QAM	1 RB	20 MHz	5.28	5.56	5.64	13.00
	100 RB		6.20	6.24	6.24	13.00

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	23.89	2.1	0.4	25.59	33.00
		Middle	24.08	2.1	0.4	25.78	33.00
		High	24.08	2.1	0.4	25.78	33.00
	16QAM	Low	23.8	2.1	0.4	25.5	33.00
		Middle	24.15	2.1	0.4	25.85	33.00
		High	24.21	2.1	0.4	25.91	33.00
3MHz	QPSK	Low	23.97	2.1	0.4	25.67	33.00
		Middle	24.02	2.1	0.4	25.72	33.00
		High	24.03	2.1	0.4	25.73	33.00
	16QAM	Low	23.12	2.1	0.4	24.82	33.00
		Middle	23.62	2.1	0.4	25.32	33.00
		High	23.12	2.1	0.4	24.82	33.00
5MHz	QPSK	Low	23.79	2.1	0.4	25.49	33.00
		Middle	24.09	2.1	0.4	25.79	33.00
		High	24.08	2.1	0.4	25.78	33.00
	16QAM	Low	22.84	2.1	0.4	24.54	33.00
		Middle	23.42	2.1	0.4	25.12	33.00
		High	23.14	2.1	0.4	24.84	33.00
10MHz	QPSK	Low	23.84	2.1	0.4	25.54	33.00
		Middle	24.16	2.1	0.4	25.86	33.00
		High	24.37	2.1	0.4	26.07	33.00
	16QAM	Low	23.32	2.1	0.4	25.02	33.00
		Middle	23.72	2.1	0.4	25.42	33.00
		High	23.28	2.1	0.4	24.98	33.00
15MHz	QPSK	Low	24.07	2.1	0.4	25.77	33.00
		Middle	24.09	2.1	0.4	25.79	33.00
		High	24.02	2.1	0.4	25.72	33.00
	16QAM	Low	23.33	2.1	0.4	25.03	33.00
		Middle	23.93	2.1	0.4	25.63	33.00
		High	23.32	2.1	0.4	25.02	33.00
20MHz	QPSK	Low	23.98	2.1	0.4	25.68	33.00
		Middle	24.69	2.1	0.4	26.39	33.00
		High	24.21	2.1	0.4	25.91	33.00
	16QAM	Low	23.75	2.1	0.4	25.45	33.00
		Middle	23.23	2.1	0.4	24.93	33.00
		High	24.25	2.1	0.4	25.95	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	22.78	24.11	23.84
		RB1#3	22.65	24.11	23.76
		RB1#5	23.71	24.05	23.77
		RB3#0	23.49	23.86	23.92
		RB3#3	23.67	23.83	23.99
		RB6#0	22.73	22.93	22.99
	16QAM	RB1#0	22.62	23.28	23.17
		RB1#3	22.93	23.31	23.44
		RB1#5	22.72	23.26	23.28
		RB3#0	23.76	23.83	24.00
		RB3#3	23.60	23.79	23.98
		RB6#0	21.65	22.05	21.94
3MHz	QPSK	RB1#0	23.47	23.85	23.75
		RB1#8	23.92	23.87	23.79
		RB1#14	23.64	23.76	23.80
		RB6#0	22.77	22.96	22.90
		RB6#9	22.84	22.94	23.00
		RB15#0	22.79	22.95	23.00
	16QAM	RB1#0	22.78	23.16	23.14
		RB1#8	22.36	23.24	23.24
		RB1#14	22.36	23.16	23.20
		RB6#0	21.64	22.05	21.86
		RB6#9	21.73	22.04	22.08
		RB15#0	21.76	22.12	21.85
5MHz	QPSK	RB1#0	23.82	23.86	23.76
		RB1#13	23.71	24.06	23.76
		RB1#24	23.62	23.85	23.82
		RB15#0	22.88	22.98	23.03
		RB15#10	22.83	22.96	23.03
		RB25#0	22.76	22.93	23.02
	16QAM	RB1#0	22.90	22.52	23.22
		RB1#13	22.95	22.48	23.37
		RB1#24	22.84	22.41	23.41
		RB15#0	22.84	22.97	23.02
		RB15#10	22.85	22.95	23.12
		RB25#0	21.78	22.09	21.83
10MHz	QPSK	RB1#0	23.49	23.82	23.85
		RB1#25	23.74	24.06	24.04
		RB1#49	23.66	23.81	24.00
		RB25#0	22.81	23.05	22.90
		RB25#25	22.86	22.95	22.99
		RB50#0	22.82	22.95	22.99
	16QAM	RB1#0	22.78	23.17	23.38
		RB1#25	22.77	23.31	23.30
		RB1#49	22.46	23.03	23.70
		RB25#0	22.77	22.95	22.90
		RB25#25	22.82	22.93	22.98
		RB50#0	21.71	21.92	22.01

15MHz	QPSK	RB1#0	23.50	23.74	23.74
		RB1#38	23.79	24.09	23.95
		RB1#74	23.77	23.84	23.87
		RB36#0	22.78	22.97	23.16
		RB36#39	22.92	22.99	23.10
		RB75#0	22.86	22.97	23.07
	16QAM	RB1#0	22.80	23.46	23.24
		RB1#38	22.87	23.29	23.48
		RB1#74	22.37	23.22	23.85
		RB36#0	22.81	23.08	23.13
		RB36#39	22.94	23.09	23.08
		RB75#0	21.89	22.11	22.10
20MHz	QPSK	RB1#0	23.47	23.69	24.22
		RB1#50	23.85	24.22	24.20
		RB1#99	23.71	23.63	24.21
		RB50#0	22.87	22.93	23.11
		RB50#50	23.15	22.95	23.20
		RB100#0	22.88	22.95	23.10
	16QAM	RB1#0	23.31	23.56	23.05
		RB1#50	23.96	23.84	23.04
		RB1#99	23.83	22.97	23.03
		RB50#0	22.80	23.10	23.03
		RB50#50	23.10	23.01	23.12
		RB100#0	22.07	21.96	21.95

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.24	4.72	4.36	13
	100 RB		5.20	5.20	5.12	13
16QAM	1 RB	20 MHz	5.28	5.60	5.36	13
	100 RB		6.20	6.28	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	23.71	1.44	0.40	24.75	30.00
		Middle	24.11	1.44	0.40	25.15	30.00
		High	23.99	1.44	0.40	25.03	30.00
	16QAM	Low	23.76	1.44	0.40	24.80	30.00
		Middle	23.83	1.44	0.40	24.87	30.00
		High	24.00	1.44	0.40	25.04	30.00
3MHz	QPSK	Low	23.92	1.44	0.40	24.96	30.00
		Middle	23.87	1.44	0.40	24.91	30.00
		High	23.80	1.44	0.40	24.84	30.00
	16QAM	Low	22.78	1.44	0.40	23.82	30.00
		Middle	23.24	1.44	0.40	24.28	30.00
		High	23.24	1.44	0.40	24.28	30.00
5MHz	QPSK	Low	23.82	1.44	0.40	24.86	30.00
		Middle	24.06	1.44	0.40	25.10	30.00
		High	23.82	1.44	0.40	24.86	30.00
	16QAM	Low	22.95	1.44	0.40	23.99	30.00
		Middle	22.97	1.44	0.40	24.01	30.00
		High	23.41	1.44	0.40	24.45	30.00
10MHz	QPSK	Low	23.74	1.44	0.40	24.78	30.00
		Middle	24.06	1.44	0.40	25.10	30.00
		High	24.04	1.44	0.40	25.08	30.00
	16QAM	Low	22.82	1.44	0.40	23.86	30.00
		Middle	23.31	1.44	0.40	24.35	30.00
		High	23.70	1.44	0.40	24.74	30.00
15MHz	QPSK	Low	23.79	1.44	0.40	24.83	30.00
		Middle	24.09	1.44	0.40	25.13	30.00
		High	23.95	1.44	0.40	24.99	30.00
	16QAM	Low	22.94	1.44	0.40	23.98	30.00
		Middle	23.46	1.44	0.40	24.50	30.00
		High	23.85	1.44	0.40	24.89	30.00
20MHz	QPSK	Low	23.85	1.44	0.40	24.89	30.00
		Middle	24.22	1.44	0.40	25.26	30.00
		High	24.22	1.44	0.40	25.26	30.00
	16QAM	Low	23.96	1.44	0.40	25.00	30.00
		Middle	23.84	1.44	0.40	24.88	30.00
		High	23.12	1.44	0.40	24.16	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	23.64	24.11	23.71
		RB1#3	23.62	24.20	23.73
		RB1#5	23.71	24.07	23.65
		RB3#0	23.78	23.89	23.91
		RB3#3	23.77	23.96	23.90
		RB6#0	22.87	22.91	22.87
	16QAM	RB1#0	22.84	23.23	23.52
		RB1#3	22.97	23.14	23.47
		RB1#5	22.86	23.04	23.62
		RB3#0	23.67	23.93	24.10
		RB3#3	23.84	23.96	23.96
		RB6#0	21.57	21.87	21.84
3MHz	QPSK	RB1#0	23.68	23.86	23.69
		RB1#8	23.85	23.95	24.01
		RB1#14	23.92	23.81	23.88
		RB6#0	22.96	22.94	22.86
		RB6#9	22.88	22.91	22.87
		RB15#0	22.90	22.94	22.91
	16QAM	RB1#0	23.11	23.10	22.70
		RB1#8	23.04	23.23	22.73
		RB1#14	23.03	23.06	22.48
		RB6#0	22.08	21.91	21.58
		RB6#9	22.01	21.72	21.71
		RB15#0	21.70	21.68	21.85
5MHz	QPSK	RB1#0	23.86	23.65	23.76
		RB1#13	23.86	23.98	23.84
		RB1#24	23.67	23.73	23.82
		RB15#0	22.86	22.97	22.84
		RB15#10	22.88	22.87	22.89
		RB25#0	22.87	22.85	22.86
	16QAM	RB1#0	22.39	23.08	22.61
		RB1#13	22.34	23.24	22.62
		RB1#24	22.33	23.09	22.61
		RB15#0	22.86	22.90	22.92
		RB15#10	22.87	22.88	22.88
		RB25#0	21.98	21.79	21.85
10MHz	QPSK	RB1#0	23.55	23.93	23.91
		RB1#25	23.88	23.93	23.88
		RB1#49	23.60	23.80	23.79
		RB25#0	22.77	23.04	22.99
		RB25#25	22.83	22.87	22.89
		RB50#0	22.79	22.92	22.86
	16QAM	RB1#0	22.69	23.02	23.21
		RB1#25	22.85	23.24	23.76
		RB1#49	22.38	23.06	23.26
		RB25#0	22.83	22.95	22.95
		RB25#25	22.91	22.95	22.95
		RB50#0	21.66	21.93	21.88

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	4.64	4.96	4.40	13
	50 RB		5.40	5.28	5.48	13
16QAM	1 RB	10 MHz	5.64	5.92	5.12	13
	50 RB		6.44	6.36	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	23.78	-1.86	0.2	21.72	38.45
		Middle	24.2	-1.86	0.2	22.14	38.45
		High	23.91	-1.86	0.2	21.85	38.45
	16QAM	Low	23.84	-1.86	0.2	21.78	38.45
		Middle	23.96	-1.86	0.2	21.9	38.45
		High	24.1	-1.86	0.2	22.04	38.45
3MHz	QPSK	Low	23.92	-1.86	0.2	21.86	38.45
		Middle	23.95	-1.86	0.2	21.89	38.45
		High	24.01	-1.86	0.2	21.95	38.45
	16QAM	Low	23.11	-1.86	0.2	21.05	38.45
		Middle	23.23	-1.86	0.2	21.17	38.45
		High	22.73	-1.86	0.2	20.67	38.45
5MHz	QPSK	Low	23.86	-1.86	0.2	21.8	38.45
		Middle	23.98	-1.86	0.2	21.92	38.45
		High	23.84	-1.86	0.2	21.78	38.45
	16QAM	Low	22.87	-1.86	0.2	20.81	38.45
		Middle	23.24	-1.86	0.2	21.18	38.45
		High	22.92	-1.86	0.2	20.86	38.45
10MHz	QPSK	Low	23.88	-1.86	0.2	21.82	38.45
		Middle	23.93	-1.86	0.2	21.87	38.45
		High	23.91	-1.86	0.2	21.85	38.45
	16QAM	Low	22.91	-1.86	0.2	20.85	38.45
		Middle	23.24	-1.86	0.2	21.18	38.45
		High	23.76	-1.86	0.2	21.7	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	24.08	24.08	23.37
		RB1#13	24.34	24.16	22.85
		RB1#24	24.24	23.96	21.86
		RB15#0	23.38	23.29	22.92
		RB15#10	23.35	23.24	22.36
		RB25#0	23.24	23.26	22.59
	16QAM	RB1#0	22.77	23.59	22.41
		RB1#13	22.84	23.63	21.99
		RB1#24	22.79	23.43	21.16
		RB15#0	23.27	23.31	22.86
		RB15#10	23.35	23.33	23.37
		RB25#0	22.42	22.21	22.41
10 MHz	QPSK	RB1#0	23.61	23.90	23.46
		RB1#25	24.70	24.44	23.74
		RB1#49	24.16	23.44	21.83
		RB25#0	23.31	23.33	23.76
		RB25#25	23.21	23.32	22.96
		RB50#0	23.22	23.36	23.36
	16QAM	RB1#0	23.19	23.13	22.56
		RB1#25	24.17	23.77	22.95
		RB1#49	23.35	22.77	21.08
		RB25#0	23.27	23.29	23.74
		RB25#25	23.24	23.27	22.89
		RB50#0	22.25	22.36	22.61
15 MHz	QPSK	RB1#0	23.39	23.76	23.25
		RB1#38	24.39	24.05	23.71
		RB1#74	24.09	23.04	21.53
		RB36#0	23.43	23.42	23.70
		RB36#39	23.34	23.36	22.86
		RB75#0	23.30	23.39	23.28
	16QAM	RB1#0	23.01	22.98	22.76
		RB1#38	23.59	23.38	23.30
		RB1#74	23.56	22.38	21.20
		RB36#0	23.33	23.44	23.68
		RB36#39	23.32	23.39	22.82
		RB75#0	22.30	22.31	22.52
20MHz	QPSK	RB1#0	22.94	23.37	22.79
		RB1#50	24.42	23.92	23.90
		RB1#99	23.64	22.63	21.39
		RB50#0	23.52	23.46	23.56
		RB50#50	23.45	23.43	23.08
		RB100#0	23.44	23.46	23.33
	16QAM	RB1#0	22.30	22.79	22.51
		RB1#50	23.86	23.45	23.65
		RB1#99	23.06	22.11	21.24
		RB50#0	23.50	23.44	23.56
		RB50#50	23.42	23.48	23.05
		RB100#0	22.39	22.34	22.57

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.48	4.48	4.52	13
	100 RB		5.20	5.20	5.20	13
16QAM	1 RB	20 MHz	5.44	5.44	5.48	13
	100 RB		6.08	6.24	6.20	13

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	24.34	2.14	0.5	25.98	33.00
		Middle	24.16	2.14	0.5	25.8	33.00
		High	23.37	2.14	0.5	25.01	33.00
	16QAM	Low	23.35	2.14	0.5	24.99	33.00
		Middle	23.63	2.14	0.5	25.27	33.00
		High	23.37	2.14	0.5	25.01	33.00
10MHz	QPSK	Low	24.7	2.14	0.5	26.34	33.00
		Middle	24.44	2.14	0.5	26.08	33.00
		High	23.76	2.14	0.5	25.4	33.00
	16QAM	Low	24.17	2.14	0.5	25.81	33.00
		Middle	23.77	2.14	0.5	25.41	33.00
		High	23.74	2.14	0.5	25.38	33.00
15MHz	QPSK	Low	24.39	2.14	0.5	26.03	33.00
		Middle	24.05	2.14	0.5	25.69	33.00
		High	23.71	2.14	0.5	25.35	33.00
	16QAM	Low	23.59	2.14	0.5	25.23	33.00
		Middle	23.44	2.14	0.5	25.08	33.00
		High	23.68	2.14	0.5	25.32	33.00
20MHz	QPSK	Low	24.42	2.14	0.5	26.06	33.00
		Middle	23.92	2.14	0.5	25.56	33.00
		High	23.9	2.14	0.5	25.54	33.00
	16QAM	Low	23.86	2.14	0.5	25.5	33.00
		Middle	23.48	2.14	0.5	25.12	33.00
		High	23.65	2.14	0.5	25.29	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	23.80	23.97	23.58
		RB1#3	23.94	23.83	24.03
		RB1#5	24.04	23.84	23.90
		RB3#0	24.01	24.01	23.57
		RB3#3	23.96	23.94	23.70
		RB6#0	23.03	22.91	22.87
	16QAM	RB1#0	23.05	21.67	23.12
		RB1#3	23.35	22.60	23.21
		RB1#5	23.27	22.55	23.02
		RB3#0	23.90	23.80	23.73
		RB3#3	23.85	23.91	23.84
		RB6#0	22.16	21.68	21.90
3MHz	QPSK	RB1#0	23.80	23.60	23.57
		RB1#8	23.70	23.76	23.81
		RB1#14	23.66	23.74	23.75
		RB6#0	22.95	22.85	22.76
		RB6#9	22.72	22.89	22.88
		RB15#0	22.89	22.87	22.81
	16QAM	RB1#0	23.05	23.35	22.66
		RB1#8	23.19	23.43	22.64
		RB1#14	23.02	23.07	22.90
		RB6#0	21.85	21.90	21.86
		RB6#9	21.92	21.74	21.90
		RB15#0	21.76	21.77	21.93
5MHz	QPSK	RB1#0	23.77	23.60	23.71
		RB1#13	23.81	23.89	23.58
		RB1#24	23.76	23.96	23.57
		RB15#0	22.92	22.82	22.84
		RB15#10	22.76	22.94	22.74
		RB25#0	22.78	22.94	22.70
	16QAM	RB1#0	22.44	23.14	22.61
		RB1#13	22.33	23.29	22.44
		RB1#24	22.22	23.09	22.54
		RB15#0	22.84	22.92	22.82
		RB15#10	22.66	22.93	22.72
		RB25#0	21.86	21.85	21.77
10MHz	QPSK	RB1#0	24.04	23.70	24.01
		RB1#25	24.09	24.01	24.23
		RB1#49	24.19	23.66	23.73
		RB25#0	22.78	22.84	22.96
		RB25#25	22.91	22.82	22.73
		RB50#0	22.84	22.84	22.89
	16QAM	RB1#0	23.04	23.29	22.54
		RB1#25	23.37	23.29	22.89
		RB1#49	22.98	23.17	22.36
		RB25#0	22.80	22.84	22.96
		RB25#25	22.92	22.83	22.72
		RB50#0	21.87	21.85	21.80

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	4.24	4.84	4.48	13
	50 RB		5.28	5.44	5.28	13
16QAM	1 RB	10 MHz	5.28	5.84	5.28	13
	50 RB		6.40	6.44	6.40	13

ERP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	24.04	-2.0	0.2	21.84	34.77
		Middle	24.01	-2.0	0.2	21.81	34.77
		High	24.03	-2.0	0.2	21.83	34.77
	16QAM	Low	23.9	-2.0	0.2	21.7	34.77
		Middle	23.91	-2.0	0.2	21.71	34.77
		High	23.84	-2.0	0.2	21.64	34.77
3MHz	QPSK	Low	23.8	-2.0	0.2	21.6	34.77
		Middle	23.76	-2.0	0.2	21.56	34.77
		High	23.81	-2.0	0.2	21.61	34.77
	16QAM	Low	23.19	-2.0	0.2	20.99	34.77
		Middle	23.43	-2.0	0.2	21.23	34.77
		High	22.9	-2.0	0.2	20.7	34.77
5MHz	QPSK	Low	23.81	-2.0	0.2	21.61	34.77
		Middle	23.96	-2.0	0.2	21.76	34.77
		High	23.71	-2.0	0.2	21.51	34.77
	16QAM	Low	22.84	-2.0	0.2	20.64	34.77
		Middle	23.29	-2.0	0.2	21.09	34.77
		High	22.82	-2.0	0.2	20.62	34.77
10MHz	QPSK	Low	24.19	-2.0	0.2	21.99	34.77
		Middle	24.01	-2.0	0.2	21.81	34.77
		High	24.23	-2.0	0.2	22.03	34.77
	16QAM	Low	23.37	-2.0	0.2	21.17	34.77
		Middle	23.29	-2.0	0.2	21.09	34.77
		High	22.96	-2.0	0.2	20.76	34.77

LTE Band 13

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	23.58	23.38	23.68
		RB1#13	23.73	23.46	23.73
		RB1#24	23.74	23.65	23.64
		RB15#0	22.64	22.81	22.83
		RB15#10	22.71	22.76	22.82
		RB25#0	22.76	22.83	22.70
	16QAM	RB1#0	23.02	22.45	22.21
		RB1#13	22.97	22.42	22.09
		RB1#24	23.24	22.60	22.48
		RB15#0	22.70	22.79	22.73
		RB15#10	22.76	22.75	22.82
		RB25#0	21.90	21.69	21.69
10 MHz	QPSK	RB1#0	/	21.50	/
		RB1#25	/	22.15	/
		RB1#49	/	22.05	/
		RB25#0	/	21.19	/
		RB25#25	/	21.21	/
		RB50#0	/	21.24	/
	16QAM	RB1#0	/	20.70	/
		RB1#25	/	22.27	/
		RB1#49	/	21.51	/
		RB25#0	/	20.31	/
		RB25#25	/	20.16	/
		RB50#0	/	20.23	/

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	/	3.44	/	13
	50RB		/	4.88	/	13
16QAM	1 RB	10 MHz	/	4.24	/	13
	50 RB		/	5.92	/	13

ERP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	23.74	-1.74	0.2	21.8	34.77
		Middle	23.65	-1.74	0.2	21.71	34.77
		High	23.73	-1.74	0.2	21.79	34.77
	16QAM	Low	23.24	-1.74	0.2	21.3	34.77
		Middle	22.79	-1.74	0.2	20.85	34.77
		High	22.82	-1.74	0.2	20.88	34.77
10MHz	QPSK	Middle	22.15	-1.74	0.2	20.21	34.77
	16QAM	Middle	22.27	-1.74	0.2	20.33	34.77

LTE Band 26

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4MHz	QPSK	RB1#0	23.98	23.79	24.00
		RB1#3	24.06	23.89	23.97
		RB1#5	24.19	23.90	23.83
		RB3#0	23.94	23.96	23.97
		RB3#3	23.96	24.15	23.85
		RB6#0	23.02	22.95	23.07
	16QAM	RB1#0	23.06	23.26	23.01
		RB1#3	23.37	23.42	23.09
		RB1#5	23.44	23.43	22.94
		RB3#0	24.08	24.12	23.98
		RB3#3	24.01	24.19	23.86
		RB6#0	22.06	22.17	21.79
3MHz	QPSK	RB1#0	23.86	23.88	23.94
		RB1#8	23.97	23.89	24.07
		RB1#14	24.01	23.90	23.81
		RB6#0	23.12	23.01	22.99
		RB6#9	23.29	23.00	22.88
		RB15#0	23.09	23.01	22.93
	16QAM	RB1#0	23.37	23.30	23.14
		RB1#8	23.23	23.59	22.95
		RB1#14	23.30	23.46	22.84
		RB6#0	21.87	21.76	21.77
		RB6#9	22.14	21.93	21.69
		RB15#0	22.15	21.94	21.85
5MHz	QPSK	RB1#0	23.71	23.68	23.67
		RB1#13	23.86	23.99	24.03
		RB1#24	23.65	23.82	23.86
		RB15#0	22.99	22.89	23.00
		RB15#10	23.03	22.84	22.96
		RB25#0	22.95	22.89	22.94
	16QAM	RB1#0	22.26	23.12	22.61
		RB1#13	22.42	23.27	22.74
		RB1#24	22.23	23.19	22.69
		RB15#0	22.99	22.94	23.01
		RB15#10	23.02	22.88	22.95
		RB25#0	22.09	21.79	21.93
10MHz	QPSK	RB1#0	23.76	23.81	23.82
		RB1#25	23.92	23.87	24.17
		RB1#49	24.03	23.71	23.57
		RB25#0	23.00	22.88	22.89
		RB25#25	23.00	22.96	22.96
		RB50#0	23.03	22.87	22.87
	16QAM	RB1#0	23.25	23.02	22.54
		RB1#25	23.21	23.53	22.93
		RB1#49	23.30	23.26	22.64
		RB25#0	23.03	22.98	22.90
		RB25#25	22.92	22.99	22.95
		RB50#0	21.96	21.89	21.93

15MHz	QPSK	RB1#0	23.73	23.75	23.54
		RB1#38	24.37	23.86	23.77
		RB1#74	23.67	23.86	23.51
		RB36#0	23.03	22.94	22.92
		RB36#39	22.91	22.99	22.89
		RB75#0	22.99	22.95	22.99
	16QAM	RB1#0	23.17	23.29	22.76
		RB1#38	23.22	23.75	23.03
		RB1#74	23.19	23.57	22.30
		RB36#0	23.03	22.92	22.94
		RB36#39	22.89	22.97	22.91
		RB75#0	21.81	21.99	21.91

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	15 MHz	4.96	4.92	4.24	13
	75 RB		5.20	5.40	5.52	13
16QAM	1 RB	15 MHz	5.96	5.88	5.32	13
	75 RB		6.32	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	24.19	-1.86	0.2	22.13	38.45
		Middle	24.15	-1.86	0.2	22.09	38.45
		High	24	-1.86	0.2	21.94	38.45
	16QAM	Low	24.08	-1.86	0.2	22.02	38.45
		Middle	24.19	-1.86	0.2	22.13	38.45
		High	23.98	-1.86	0.2	21.92	38.45
3MHz	QPSK	Low	24.01	-1.86	0.2	21.95	38.45
		Middle	23.9	-1.86	0.2	21.84	38.45
		High	24.07	-1.86	0.2	22.01	38.45
	16QAM	Low	23.37	-1.86	0.2	21.31	38.45
		Middle	23.59	-1.86	0.2	21.53	38.45
		High	23.14	-1.86	0.2	21.08	38.45
5MHz	QPSK	Low	23.86	-1.86	0.2	21.8	38.45
		Middle	23.99	-1.86	0.2	21.93	38.45
		High	24.03	-1.86	0.2	21.97	38.45
	16QAM	Low	23.02	-1.86	0.2	20.96	38.45
		Middle	23.27	-1.86	0.2	21.21	38.45
		High	23.01	-1.86	0.2	20.95	38.45
10MHz	QPSK	Low	24.03	-1.86	0.2	21.97	38.45
		Middle	23.87	-1.86	0.2	21.81	38.45
		High	24.17	-1.86	0.2	22.11	38.45
	16QAM	Low	23.3	-1.86	0.2	21.24	38.45
		Middle	23.53	-1.86	0.2	21.47	38.45
		High	22.95	-1.86	0.2	20.89	38.45
15MHz	QPSK	Low	24.37	-1.86	0.2	22.31	38.45
		Middle	23.86	-1.86	0.2	21.8	38.45
		High	23.77	-1.86	0.2	21.71	38.45
	16QAM	Low	23.22	-1.86	0.2	21.16	38.45
		Middle	23.75	-1.86	0.2	21.69	38.45
		High	23.03	-1.86	0.2	20.97	38.45

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	23.90	23.54	23.68
		RB1#13	23.94	23.85	23.71
		RB1#24	23.79	23.64	23.57
		RB15#0	23.00	22.89	22.91
		RB15#10	23.01	22.88	22.91
		RB25#0	23.01	22.88	22.90
	16QAM	RB1#0	23.13	22.14	23.14
		RB1#13	22.91	22.56	23.27
		RB1#24	22.72	22.22	23.12
		RB15#0	21.87	21.62	21.83
		RB15#10	21.67	21.77	21.75
		RB25#0	21.81	21.85	21.76
10MHz	QPSK	RB1#0	23.82	23.81	23.80
		RB1#25	23.76	23.85	24.04
		RB1#49	23.63	23.82	23.81
		RB25#0	22.94	22.96	22.86
		RB25#25	22.89	22.93	22.91
		RB50#0	22.92	22.97	22.91
	16QAM	RB1#0	23.14	22.97	23.35
		RB1#25	23.36	23.14	23.55
		RB1#49	23.00	22.95	23.27
		RB25#0	22.02	21.75	21.95
		RB25#25	22.06	21.74	21.96
		RB50#0	21.79	21.75	21.78
15MHz	QPSK	RB1#0	23.71	23.61	23.91
		RB1#38	23.79	23.80	23.80
		RB1#74	23.44	23.77	23.75
		RB36#0	22.82	23.06	23.00
		RB36#39	22.98	22.98	22.97
		RB75#0	22.73	22.86	22.89
	16QAM	RB1#0	22.89	22.81	23.17
		RB1#38	22.81	22.79	23.78
		RB1#74	22.71	22.71	23.33
		RB36#0	21.89	21.96	21.94
		RB36#39	21.86	21.73	21.87
		RB75#0	21.89	21.73	21.90
20MHz	QPSK	RB1#0	23.85	23.42	23.71
		RB1#50	23.91	23.84	24.25
		RB1#99	23.87	23.47	23.64
		RB50#0	22.91	22.88	22.94
		RB50#50	22.89	23.13	22.94
		RB100#0	22.71	22.87	22.95
	16QAM	RB1#0	23.52	23.00	22.51
		RB1#50	23.72	23.27	22.68
		RB1#99	23.26	22.98	22.29
		RB50#0	21.89	21.97	22.06
		RB50#50	21.92	21.94	21.89
		RB100#0	21.99	21.88	21.80

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	5.44	5.52	5.56	13
	100 RB		6.96	6.19	6.08	13
16QAM	1 RB	20 MHz	5.12	5.04	5.84	13
	100 RB		6.11	6.72	6.84	13

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	23.94	2.14	0.5	25.58	33.00
		Middle	23.85	2.14	0.5	25.49	33.00
		High	23.71	2.14	0.5	25.35	33.00
	16QAM	Low	23.13	2.14	0.5	24.77	33.00
		Middle	22.56	2.14	0.5	24.2	33.00
		High	23.27	2.14	0.5	24.91	33.00
10MHz	QPSK	Low	23.82	2.14	0.5	25.46	33.00
		Middle	23.85	2.14	0.5	25.49	33.00
		High	24.04	2.14	0.5	25.68	33.00
	16QAM	Low	23.36	2.14	0.5	25	33.00
		Middle	23.14	2.14	0.5	24.78	33.00
		High	23.55	2.14	0.5	25.19	33.00
15MHz	QPSK	Low	23.79	2.14	0.5	25.43	33.00
		Middle	23.8	2.14	0.5	25.44	33.00
		High	23.91	2.14	0.5	25.55	33.00
	16QAM	Low	22.89	2.14	0.5	24.53	33.00
		Middle	22.81	2.14	0.5	24.45	33.00
		High	23.78	2.14	0.5	25.42	33.00
20MHz	QPSK	Low	23.91	2.14	0.5	25.55	33.00
		Middle	23.84	2.14	0.5	25.48	33.00
		High	24.25	2.14	0.5	25.89	33.00
	16QAM	Low	23.72	2.14	0.5	25.36	33.00
		Middle	23.27	2.14	0.5	24.91	33.00
		High	22.68	2.14	0.5	24.32	33.00

LTE Band 40 Lower

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	22.11	22.15	22.39
		RB1#13	22.23	22.4	22.49
		RB1#24	22.39	22.39	22.42
		RB15#0	21.39	21.4	21.58
		RB15#10	21.41	21.44	21.45
		RB25#0	21.39	21.42	21.45
	16QAM	RB1#0	21.47	21.67	21.08
		RB1#13	21.82	21.66	21.05
		RB1#24	21.72	21.86	21.08
		RB15#0	20.24	20.35	20.25
		RB15#10	20.29	20.23	20.23
		RB25#0	20.34	20.29	20.5
10 MHz	QPSK	RB1#0	/	22.09	/
		RB1#25	/	22.45	/
		RB1#49	/	22.37	/
		RB25#0	/	21.42	/
		RB25#25	/	21.45	/
		RB50#0	/	21.47	/
	16QAM	RB1#0	/	21.24	/
		RB1#25	/	21.63	/
		RB1#49	/	21.07	/
		RB25#0	/	20.18	/
		RB25#25	/	20.31	/
		RB50#0	/	20.44	/

Note: the device is a mobile station. For 5MHz mode, the channel power is equal to the test result in dBm/5MHz. For 10MHz mode, the PSD as below:

Channel Bandwidth	Modulation	Resource Block & RB offset	Middle Channel (dBm/5MHz)
10MHz	QPSK	RB1#0	19.22
		RB1#25	19.31
		RB1#49	19.46
		RB25#0	18.98
		RB25#25	18.87
		RB50#0	18.68
	16QAM	RB1#0	18.64
		RB1#25	18.36
		RB1#49	18.63
		RB25#0	17.22
		RB25#25	17.68
		RB50#0	17.97

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm/5MHz)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm/5MHz)	Limit (dBm/5MHz)
5MHz	QPSK	Low	22.39	1.71	0.5	23.6	24.00
		Middle	22.4	1.71	0.5	23.61	24.00
		High	22.49	1.71	0.5	23.7	24.00
	16QAM	Low	21.82	1.71	0.5	23.03	24.00
		Middle	21.86	1.71	0.5	23.07	24.00
		High	21.08	1.71	0.5	22.29	24.00
10MHz	QPSK	Middle	19.46	1.71	0.5	20.67	24.00
	16QAM	Middle	18.64	1.71	0.5	19.85	24.00

Duty Cycle

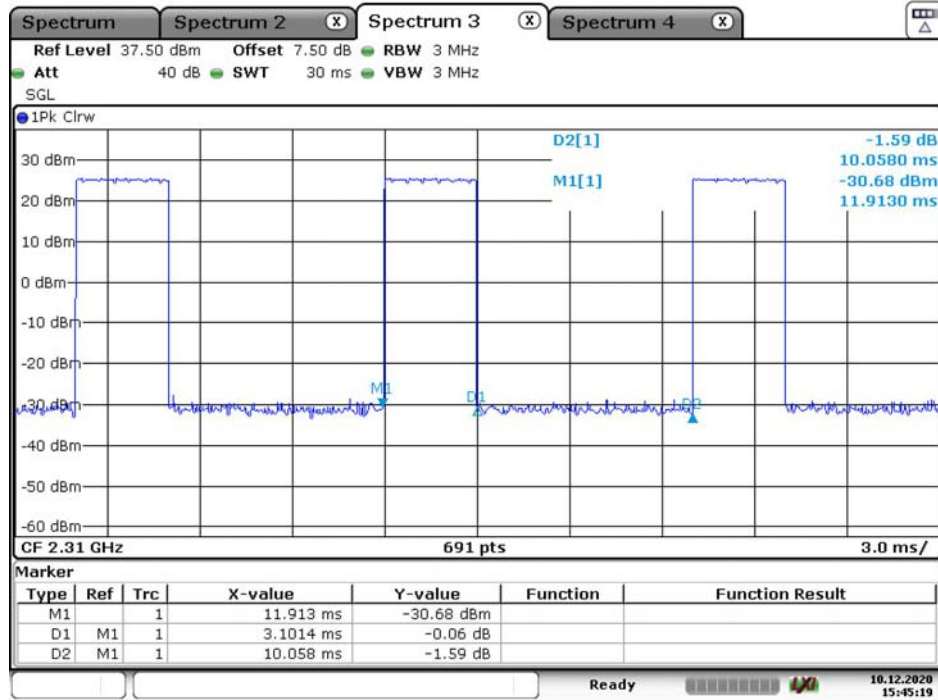
Test Modulation	Test Bandwidth	Ton (ms)	Total (ms)	Duty Cycle (%)	Limit (%)
QPSK	5M	3.101	10.058	30.83	38
	10M	3.101	10.058	30.83	
16-QAM	5M	3.145	10.058	31.27	
	10M	3.101	10.015	30.96	

Note: EUT setup is as following:

Uplink Downlink configuration	Subframe number									
	0	1	2	3	4	5	6	7	8	9
3	D	S	U	U	U	D	D	D	D	D

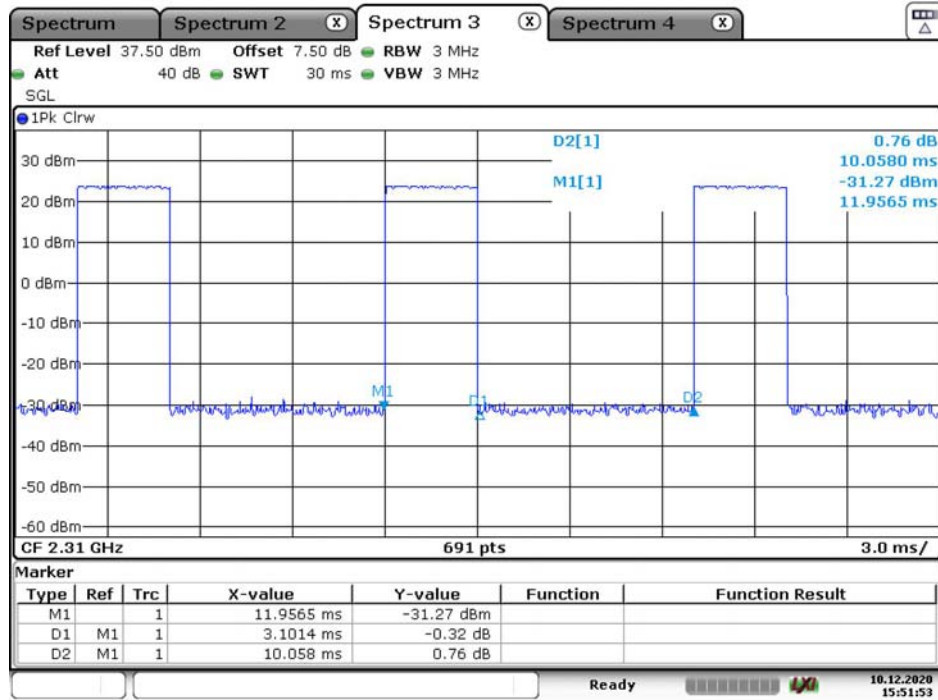
Duty Cycle:

QPSK, 5MHz



Date: 10.DEC.2020 15:45:19

QPSK, 10MHz



Date: 10.DEC.2020 15:51:53

LTE Band 40 Upper

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	22.16	22.02	22.04
		RB1#13	22.14	22.10	22.12
		RB1#24	21.76	22.04	21.93
		RB15#0	21.27	21.27	21.16
		RB15#10	21.25	21.20	21.08
		RB25#0	21.24	21.22	21.11
	16QAM	RB1#0	21.46	21.15	20.74
		RB1#13	21.60	21.43	20.76
		RB1#24	21.29	21.39	20.65
		RB15#0	20.25	20.09	19.94
		RB15#10	20.04	19.98	19.98
		RB25#0	20.29	20.03	20.08
10 MHz	QPSK	RB1#0	/	22.14	/
		RB1#25	/	22.28	/
		RB1#49	/	22.09	/
		RB25#0	/	21.16	/
		RB25#25	/	21.21	/
		RB50#0	/	21.19	/
	16QAM	RB1#0	/	20.71	/
		RB1#25	/	21.55	/
		RB1#49	/	21.00	/
		RB25#0	/	20.08	/
		RB25#25	/	19.90	/
		RB50#0	/	20.17	/

Note: the device is a mobile station. For 5MHz mode, the channel power is equal to the test result in dBm/5MHz. For 10MHz mode, the PSD as below:

Channel Bandwidth	Modulation	Resource Block & RB offset	Middle Channel (dBm/5MHz)
10MHz	QPSK	RB1#0	22.12
		RB1#25	22.23
		RB1#49	22.01
		RB25#0	21.12
		RB25#25	21.13
		RB50#0	19.58
	16QAM	RB1#0	20.43
		RB1#25	21.22
		RB1#49	20.69
		RB25#0	20.01
		RB25#25	19.54
		RB50#0	18.01

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm/5MHz)	Antenna Gain (dBd)	Cable Loss (dB)	Result (dBm/5MHz)	Limit (dBm/5MHz)
5MHz	QPSK	Low	22.16	1.71	0.5	23.37	24.00
		Middle	22.1	1.71	0.5	23.31	24.00
		High	22.12	1.71	0.5	23.33	24.00
	16QAM	Low	21.6	1.71	0.5	22.81	24.00
		Middle	21.43	1.71	0.5	22.64	24.00
		High	20.76	1.71	0.5	21.97	24.00
10MHz	QPSK	Middle	22.23	1.71	0.5	23.44	24.00
	16QAM	Middle	21.22	1.71	0.5	22.43	24.00

Duty Cycle

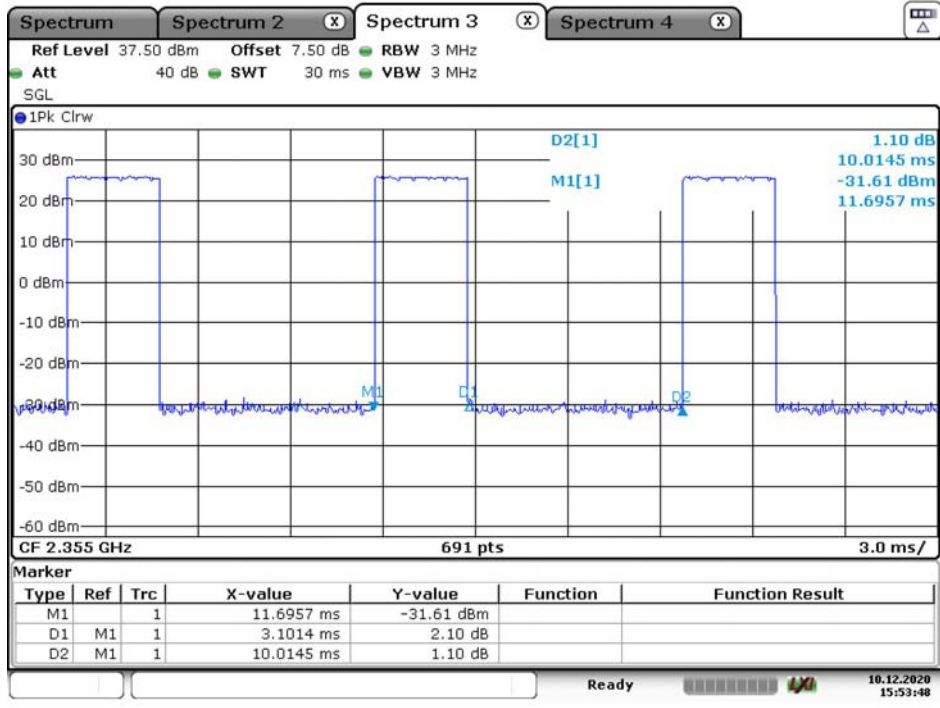
Test Modulation	Test Bandwidth	Ton (ms)	Total (ms)	Duty Cycle (%)	Limit (%)
QPSK	5M	3.101	10.015	30.96	38
	10M	3.101	10.015	30.96	
16-QAM	5M	3.101	10.015	30.96	
	10M	3.101	10.015	30.96	

Note: EUT setup is as following:

Uplink Downlink configuration	Subframe number									
	0	1	2	3	4	5	6	7	8	9
3	D	S	U	U	U	D	D	D	D	D

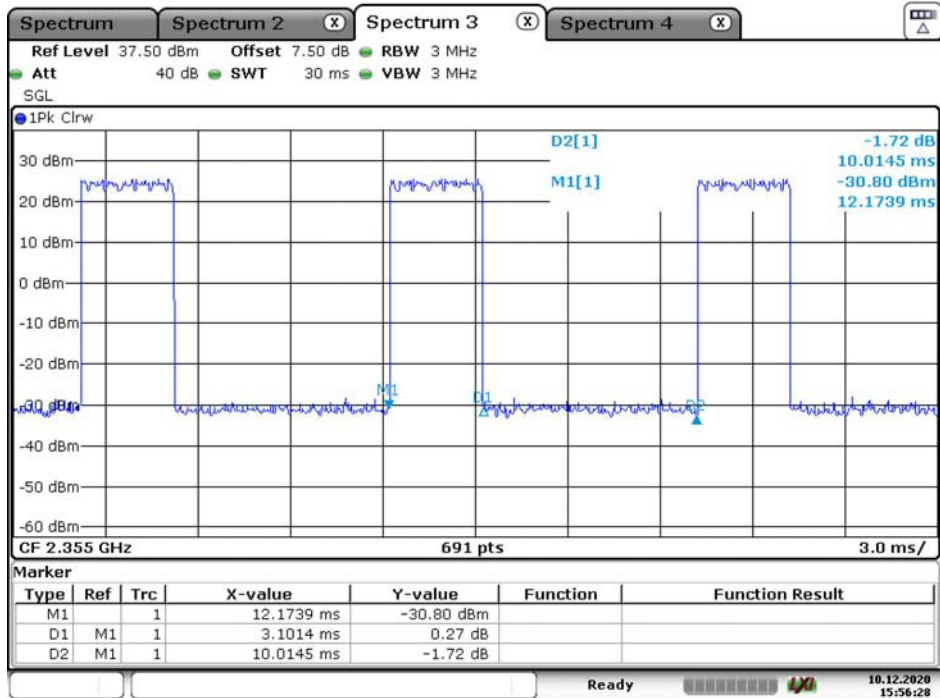
Duty Cycle:

QPSK, 5MHz



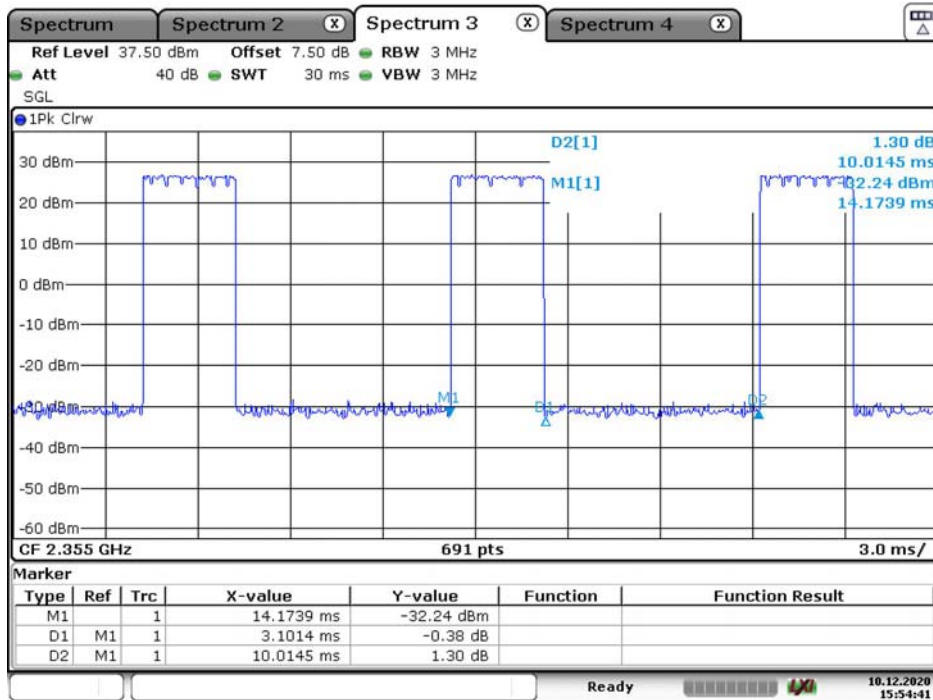
Date: 10.DEC.2020 15:53:49

QPSK, 10MHz



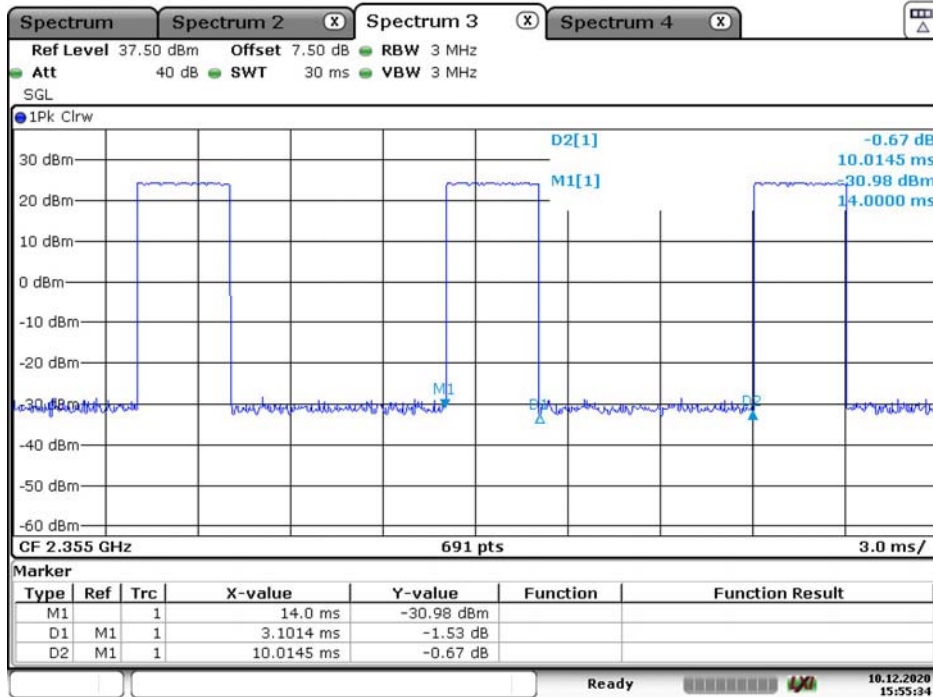
Date: 10.DEC.2020 15:56:28

16-QAM, 5MHz



Date: 10.DEC.2020 15:54:41

16-QAM, 10MHz



Date: 10.DEC.2020 15:55:34

LTE Band 41

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	23.57	23.59	23.76
		RB1#13	23.79	23.63	23.94
		RB1#24	23.75	23.71	23.76
		RB15#0	22.69	22.83	23.00
		RB15#10	22.64	22.93	23.03
		RB25#0	22.69	22.81	22.94
	16QAM	RB1#0	22.83	22.34	23.03
		RB1#13	23.03	22.23	23.37
		RB1#24	22.99	22.13	23.31
		RB15#0	21.68	21.51	21.84
		RB15#10	21.63	21.58	21.90
		RB25#0	21.55	21.65	21.94
10 MHz	QPSK	RB1#0	23.72	23.93	24.03
		RB1#25	23.88	24.22	23.93
		RB1#49	23.75	23.93	23.89
		RB25#0	22.73	22.92	23.03
		RB25#25	22.80	22.91	22.97
		RB50#0	22.85	22.92	23.11
	16QAM	RB1#0	22.72	23.22	23.30
		RB1#25	23.10	23.67	23.47
		RB1#49	22.43	23.26	22.82
		RB25#0	21.42	21.84	22.11
		RB25#25	21.54	21.84	22.16
		RB50#0	21.63	21.83	21.85
15 MHz	QPSK	RB1#0	22.32	23.27	23.29
		RB1#38	23.00	22.89	23.82
		RB1#74	23.37	22.44	23.69
		RB36#0	21.79	22.14	22.63
		RB36#39	22.42	21.62	22.79
		RB75#0	22.29	21.91	22.60
	16QAM	RB1#0	21.39	22.32	22.69
		RB1#38	21.93	21.76	23.19
		RB1#74	22.52	21.27	22.69
		RB36#0	20.67	20.93	21.54
		RB36#39	21.23	20.43	21.74
		RB75#0	21.02	20.92	21.62
20MHz	QPSK	RB1#0	23.10	23.54	23.99
		RB1#50	23.83	23.80	24.41
		RB1#99	23.41	23.53	23.88
		RB50#0	22.70	22.81	23.06
		RB50#50	22.78	22.83	23.14
		RB100#0	22.75	22.88	22.91
	16QAM	RB1#0	22.85	22.92	22.56
		RB1#50	23.34	23.56	22.88
		RB1#99	23.33	22.86	22.44
		RB50#0	21.63	21.81	21.93
		RB50#50	21.63	21.97	21.93
		RB100#0	21.57	21.80	21.73

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	5.60	5.19	5.28	13
	100 RB		6.88	6.56	6.04	13
16QAM	1 RB	20 MHz	5.48	5.44	5.76	13
	100 RB		6.12	6.72	6.00	13

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	23.79	2.14	0.5	25.43	33.00
		Middle	23.71	2.14	0.5	25.35	33.00
		High	23.94	2.14	0.5	25.58	33.00
	16QAM	Low	23.03	2.14	0.5	24.67	33.00
		Middle	22.34	2.14	0.5	23.98	33.00
		High	23.37	2.14	0.5	25.01	33.00
10MHz	QPSK	Low	23.88	2.14	0.5	25.52	33.00
		Middle	24.22	2.14	0.5	25.86	33.00
		High	24.03	2.14	0.5	25.67	33.00
	16QAM	Low	23.1	2.14	0.5	24.74	33.00
		Middle	23.67	2.14	0.5	25.31	33.00
		High	23.47	2.14	0.5	25.11	33.00
15MHz	QPSK	Low	23.37	2.14	0.5	25.01	33.00
		Middle	23.27	2.14	0.5	24.91	33.00
		High	23.82	2.14	0.5	25.46	33.00
	16QAM	Low	22.52	2.14	0.5	24.16	33.00
		Middle	22.32	2.14	0.5	23.96	33.00
		High	23.19	2.14	0.5	24.83	33.00
20MHz	QPSK	Low	23.83	2.14	0.5	25.47	33.00
		Middle	23.8	2.14	0.5	25.44	33.00
		High	24.41	2.14	0.5	26.05	33.00
	16QAM	Low	23.34	2.14	0.5	24.98	33.00
		Middle	23.56	2.14	0.5	25.2	33.00
		High	22.88	2.14	0.5	24.52	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	23.23	23.55	23.35
		RB1#3	23.21	23.72	23.52
		RB1#5	23.42	23.74	23.50
		RB3#0	23.32	23.58	23.58
		RB3#3	23.35	23.71	23.56
		RB6#0	22.49	22.62	22.57
	16QAM	RB1#0	22.51	22.99	23.07
		RB1#3	22.58	23.09	22.96
		RB1#5	22.47	22.94	23.21
		RB3#0	22.38	22.71	22.98
		RB3#3	22.73	22.54	22.71
		RB6#0	21.48	21.64	21.62
3MHz	QPSK	RB1#0	23.50	23.71	23.61
		RB1#8	23.47	23.54	23.44
		RB1#14	23.50	23.61	23.45
		RB6#0	22.62	22.64	22.61
		RB6#9	22.49	22.64	22.61
		RB15#0	22.55	22.68	22.60
	16QAM	RB1#0	22.82	22.96	22.62
		RB1#8	22.74	23.29	22.56
		RB1#14	22.70	22.96	22.57
		RB6#0	21.53	21.76	21.52
		RB6#9	21.59	21.52	21.45
		RB15#0	21.54	21.48	21.52
5MHz	QPSK	RB1#0	23.55	23.60	23.61
		RB1#13	23.51	23.51	23.66
		RB1#24	23.19	23.59	23.69
		RB15#0	22.62	22.64	22.61
		RB15#10	22.48	22.71	22.61
		RB25#0	22.52	22.73	22.58
	16QAM	RB1#0	22.15	22.97	22.35
		RB1#13	22.09	23.06	22.44
		RB1#24	21.89	22.93	22.45
		RB15#0	21.32	21.67	21.47
		RB15#10	21.47	21.54	21.43
		RB25#0	21.45	21.57	21.48
10MHz	QPSK	RB1#0	23.49	23.79	23.63
		RB1#25	23.55	23.73	23.86
		RB1#49	23.46	23.58	23.98
		RB25#0	22.62	22.67	22.69
		RB25#25	22.47	22.75	22.61
		RB50#0	22.54	22.70	22.57
	16QAM	RB1#0	22.91	23.28	22.51
		RB1#25	22.93	23.05	22.66
		RB1#49	22.56	22.96	22.52
		RB25#0	21.58	21.82	21.62
		RB25#25	21.46	21.90	21.75
		RB50#0	21.56	21.74	21.57

15MHz	QPSK	RB1#0	23.63	23.57	23.41
		RB1#38	23.44	23.64	23.46
		RB1#74	23.55	23.53	23.43
		RB36#0	22.54	22.76	22.59
		RB36#39	22.60	22.76	22.70
		RB75#0	22.47	22.65	22.62
	16QAM	RB1#0	22.92	23.49	22.48
		RB1#38	22.83	23.16	22.74
		RB1#74	22.71	23.59	22.47
		RB36#0	21.43	21.66	21.55
		RB36#39	21.43	21.69	21.56
		RB75#0	21.40	21.70	21.53
20MHz	QPSK	RB1#0	23.51	23.95	23.57
		RB1#50	23.64	24.32	23.87
		RB1#99	23.74	23.74	23.52
		RB50#0	22.57	22.79	22.62
		RB50#50	22.77	22.87	22.65
		RB100#0	22.72	22.79	22.64
	16QAM	RB1#0	23.02	22.87	23.29
		RB1#50	23.32	22.99	23.29
		RB1#99	23.15	22.91	22.82
		RB50#0	21.57	21.73	21.48
		RB50#50	21.71	21.73	21.46
		RB100#0	21.68	21.75	21.56

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	4.40	4.64	4.60	13
	100 RB		5.16	5.28	5.20	13
16QAM	1 RB	20 MHz	5.40	5.60	5.52	13
	100 RB		6.20	6.32	6.24	13

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	23.42	1.44	0.4	24.46	30.00
		Middle	23.74	1.44	0.4	24.78	30.00
		High	23.58	1.44	0.4	24.62	30.00
	16QAM	Low	22.73	1.44	0.4	23.77	30.00
		Middle	23.09	1.44	0.4	24.13	30.00
		High	23.21	1.44	0.4	24.25	30.00
3MHz	QPSK	Low	23.5	1.44	0.4	24.54	30.00
		Middle	23.71	1.44	0.4	24.75	30.00
		High	23.61	1.44	0.4	24.65	30.00
	16QAM	Low	22.82	1.44	0.4	23.86	30.00
		Middle	23.29	1.44	0.4	24.33	30.00
		High	22.62	1.44	0.4	23.66	30.00
5MHz	QPSK	Low	23.55	1.44	0.4	24.59	30.00
		Middle	23.6	1.44	0.4	24.64	30.00
		High	23.69	1.44	0.4	24.73	30.00
	16QAM	Low	22.15	1.44	0.4	23.19	30.00
		Middle	23.06	1.44	0.4	24.1	30.00
		High	22.45	1.44	0.4	23.49	30.00
10MHz	QPSK	Low	23.55	1.44	0.4	24.59	30.00
		Middle	23.79	1.44	0.4	24.83	30.00
		High	23.98	1.44	0.4	25.02	30.00
	16QAM	Low	22.93	1.44	0.4	23.97	30.00
		Middle	23.28	1.44	0.4	24.32	30.00
		High	22.66	1.44	0.4	23.7	30.00
15MHz	QPSK	Low	23.63	1.44	0.4	24.67	30.00
		Middle	23.64	1.44	0.4	24.68	30.00
		High	23.46	1.44	0.4	24.5	30.00
	16QAM	Low	22.92	1.44	0.4	23.96	30.00
		Middle	23.59	1.44	0.4	24.63	30.00
		High	22.74	1.44	0.4	23.78	30.00
20MHz	QPSK	Low	23.74	1.44	0.4	24.78	30.00
		Middle	24.32	1.44	0.4	25.36	30.00
		High	23.87	1.44	0.4	24.91	30.00
	16QAM	Low	23.32	1.44	0.4	24.36	30.00
		Middle	22.99	1.44	0.4	24.03	30.00
		High	23.29	1.44	0.4	24.33	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&§90.209- OCCUPIED BANDWIDTH

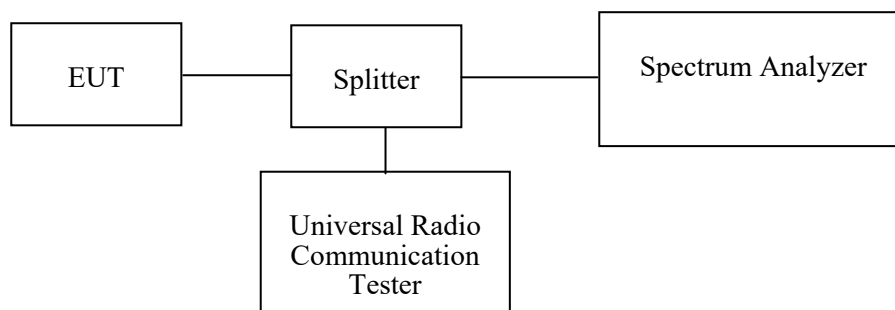
Applicable Standard

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

Test Procedure

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

The 26 dB & 99% bandwidth was recorded.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2020-07-07	2021-07-07
R&S	Spectrum Analyzer	FSV40	101474	2020-01-09	2021-01-09
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	Each time	N/A
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
E-Microwave	Two-way Splitter	ODP-1-6-2S	OE0120142	Each Time	N/A
E-Microwave	Blocking Control	EMDCB-00036	0E01201047	Each time	N/A
Unknown	Attenuator	UNAT-3+	15529	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

Temperature:	22.1~24.2 °C
Relative Humidity:	35~42%
ATM Pressure:	101.2~102.4kPa
Tester:	Theshy Xie
Test Date:	2020-12-03~2020-12-10

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	0.241	0.243	0.245	0.321	0.320	0.320
	EDGE	0.245	0.248	0.248	0.315	0.321	0.314
PCS	GPRS	0.243	0.245	0.245	0.320	0.320	0.321
	EDGE	0.245	0.246	0.245	0.315	0.315	0.313

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	4.143	4.126	4.126	4.743	4.725	4.742
	HSDPA	4.160	4.226	4.143	4.759	5.857	4.742
	HSUPA	4.143	4.243	4.193	4.775	5.857	6.057
PCS	Rel 99	4.110	4.126	4.126	4.709	4.759	4.710
	HSDPA	4.126	4.160	4.126	4.759	4.759	4.725
	HSUPA	4.143	4.126	4.126	4.742	4.742	4.767

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	1.104	1.110	1.098	1.302	1.302	1.290
		16QAM	1.098	1.098	1.110	1.308	1.296	1.302
	3 MHz	QPSK	2.688	2.700	2.688	2.952	2.916	2.928
		16QAM	2.688	2.700	2.700	2.940	2.952	2.952
	5 MHz	QPSK	4.500	4.540	4.500	4.980	5.020	4.980
		16QAM	4.500	4.520	4.500	5.020	5.000	4.980
	10 MHz	QPSK	8.960	8.960	8.960	9.640	9.760	9.600
		16QAM	8.960	8.960	8.960	9.600	9.600	9.600
	15 MHz	QPSK	13.440	13.500	13.440	14.820	14.820	14.640
		16QAM	13.440	13.440	13.440	14.820	14.820	14.760
	20 MHz	QPSK	17.920	17.920	17.920	19.440	19.440	19.440
		16QAM	17.920	17.920	17.840	19.440	19.440	19.280
LTE Band 4	1.4 MHz	QPSK	1.110	1.098	1.104	1.290	1.290	1.302
		16QAM	1.092	1.104	1.092	1.290	1.308	1.302
	3 MHz	QPSK	2.688	2.688	2.688	2.940	2.916	2.940
		16QAM	2.688	2.688	2.688	2.940	2.952	2.964
	5 MHz	QPSK	4.520	4.540	4.520	5.020	5.000	5.000
		16QAM	4.520	4.520	4.540	5.040	5.060	5.020
	10 MHz	QPSK	8.960	8.960	8.960	9.720	9.680	9.720
		16QAM	8.960	8.960	8.960	9.640	9.600	9.720
	15 MHz	QPSK	13.440	13.500	13.440	14.880	14.880	14.760
		16QAM	13.500	13.500	13.440	14.880	14.880	14.820
	20 MHz	QPSK	17.920	17.920	17.920	19.360	19.440	19.520
		16QAM	18.000	17.920	17.920	19.360	19.360	19.440

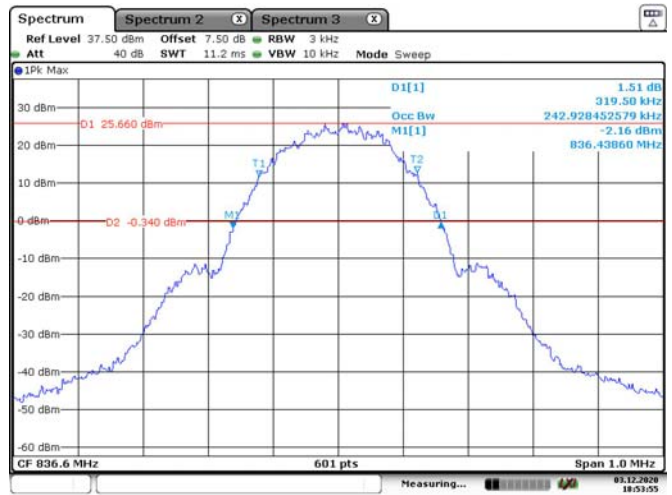
Band	Bandwidth (MHz)	Modulation mode	99% Occupied Bandwidth(MHz)			26 dB Occupied Bandwidth(MHz)		
			Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
LTE Band 5	1.4 MHz	QPSK	1.110	1.098	1.098	1.284	1.302	1.314
		16QAM	1.098	1.104	1.092	1.296	1.296	1.272
	3 MHz	QPSK	2.700	2.688	2.700	2.928	2.916	2.940
		16QAM	2.700	2.688	2.688	2.940	2.940	2.928
	5 MHz	QPSK	4.520	4.520	4.520	5.000	5.000	5.020
		16QAM	4.520	4.520	4.520	5.040	4.940	5.040
10 MHz	QPSK	8.960	8.920	8.960	9.760	9.720	9.720	
	16QAM	8.960	8.920	8.960	9.720	9.640	9.720	
LTE Band 7	5 MHz	QPSK	4.540	4.520	4.520	5.000	5.020	4.980
		16QAM	4.520	4.540	4.520	4.960	5.020	5.040
	10 MHz	QPSK	8.960	8.960	8.960	9.720	9.640	9.600
		16QAM	8.920	8.960	8.960	9.560	9.600	9.600
	15 MHz	QPSK	13.560	13.440	13.500	14.880	14.820	14.820
		16QAM	13.500	13.500	13.500	14.880	14.880	14.760
20 MHz	QPSK	17.920	17.920	17.920	19.360	19.360	19.440	
	16QAM	17.920	17.920	17.920	19.440	19.360	19.440	
LTE Band 12	1.4 MHz	QPSK	1.098	1.092	1.098	1.290	1.314	1.278
		16QAM	1.098	1.098	1.098	1.302	1.284	1.314
	3 MHz	QPSK	2.688	2.700	2.688	2.940	2.928	2.940
		16QAM	2.688	2.688	2.688	2.952	2.940	2.928
	5 MHz	QPSK	4.500	4.520	4.520	5.040	4.960	4.980
		16QAM	4.520	4.520	4.520	4.960	5.020	5.020
10 MHz	QPSK	8.960	8.960	8.960	9.760	9.760	9.680	
	16QAM	8.960	8.960	8.960	9.600	9.640	9.720	
LTE Band 13	5 MHz	QPSK	4.500	4.520	4.520	5.000	5.020	5.020
		16QAM	4.500	4.540	4.540	5.000	4.980	5.040
	10 MHz	QPSK	/	8.960	/	/	9.720	/
16QAM		/	8.920	/	/	9.600	/	
LTE Band 26	1.4 MHz	QPSK	1.098	1.104	1.104	1.296	1.296	1.284
		16QAM	1.110	1.098	1.104	1.296	1.296	1.278
	3 MHz	QPSK	2.700	2.700	2.688	2.928	2.928	2.940
		16QAM	2.700	2.688	2.688	2.952	2.928	2.928
	5 MHz	QPSK	4.520	4.520	4.500	5.000	5.040	4.980
		16QAM	4.500	4.540	4.520	4.960	5.040	5.020
10 MHz	QPSK	8.920	8.960	8.960	9.680	9.720	9.720	
	16QAM	8.960	9.000	9.000	9.680	9.720	9.760	
15 MHz	QPSK	13.440	13.560	13.560	14.700	15.060	14.880	
	16QAM	13.440	13.560	13.440	14.760	14.640	14.880	
LTE Band 38	5 MHz	QPSK	4.520	4.520	4.520	4.960	5.040	4.980
		16QAM	4.500	4.520	4.520	4.980	5.020	4.980
	10 MHz	QPSK	8.960	8.960	8.960	9.640	9.760	9.760
		16QAM	8.960	8.960	8.960	9.680	9.560	9.560
	15 MHz	QPSK	13.560	13.560	13.560	22.800	15.840	15.840
		16QAM	13.620	13.560	13.560	23.100	20.280	21.660
20 MHz	QPSK	18.000	17.920	17.920	19.680	19.440	19.840	
	16QAM	17.920	17.920	18.000	24.480	19.520	20.560	

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 40 Lower	5 MHz	QPSK	4.526	/	4.526	5.058	/	4.984
		16QAM	4.526	/	4.524	5.058	/	5.050
	10 MHz	QPSK	/	8.982	/	/	9.900	/
		16QAM	/	8.982	/	/	9.990	/
LTE Band 40 Upper	5 MHz	QPSK	4.511	/	4.491	4.950	/	5.150
		16QAM	4.491	/	4.511	4.970	/	5.170
	10 MHz	QPSK	/	8.918	/	/	9.651	/
		16QAM	/	8.952	/	/	9.684	/
LTE Band 41	5 MHz	QPSK	4.520	4.520	4.520	5.020	4.980	4.960
		16QAM	4.520	4.520	4.520	5.000	5.140	5.000
	10 MHz	QPSK	8.960	8.960	8.960	9.640	10.160	9.760
		16QAM	8.960	8.960	8.960	9.680	9.640	9.520
	15 MHz	QPSK	13.560	13.500	13.500	15.660	15.240	16.020
		16QAM	13.560	13.560	13.500	16.560	15.240	15.540
	20 MHz	QPSK	17.920	17.920	17.920	19.520	19.440	19.360
		16QAM	17.920	17.920	18.000	19.280	19.760	20.320
LTE Band 66	1.4 MHz	QPSK	1.104	1.092	1.098	1.290	1.302	1.308
		16QAM	1.098	1.098	1.098	1.296	1.296	1.296
	3 MHz	QPSK	2.688	2.688	2.688	2.928	2.952	2.952
		16QAM	2.688	2.688	2.688	2.940	2.940	2.928
	5 MHz	QPSK	4.520	4.520	4.520	5.020	5.000	5.020
		16QAM	4.520	4.540	4.520	4.980	5.060	5.080
	10 MHz	QPSK	9.000	8.960	8.960	9.720	9.680	9.720
		16QAM	8.960	8.960	8.960	9.640	9.600	9.720
	15 MHz	QPSK	13.500	13.440	13.500	14.880	14.880	14.880
		16QAM	13.440	13.500	13.500	14.880	14.820	14.880
	20 MHz	QPSK	17.920	17.920	17.920	19.360	19.440	19.520
		16QAM	17.920	17.920	17.920	19.440	19.440	19.360

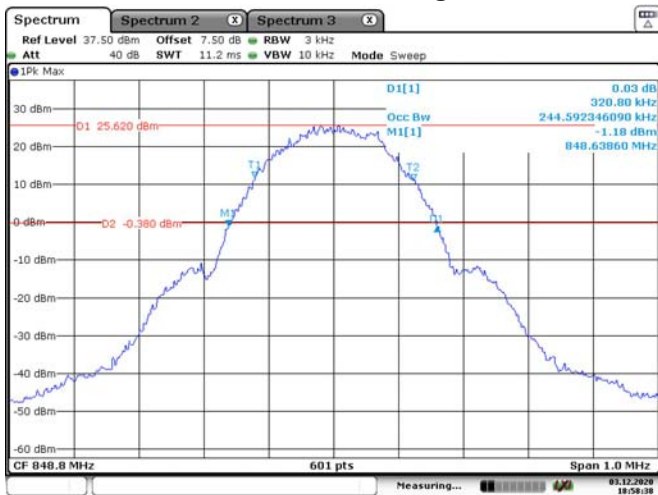
Cellular 850 Band, GPRS, Low Channel



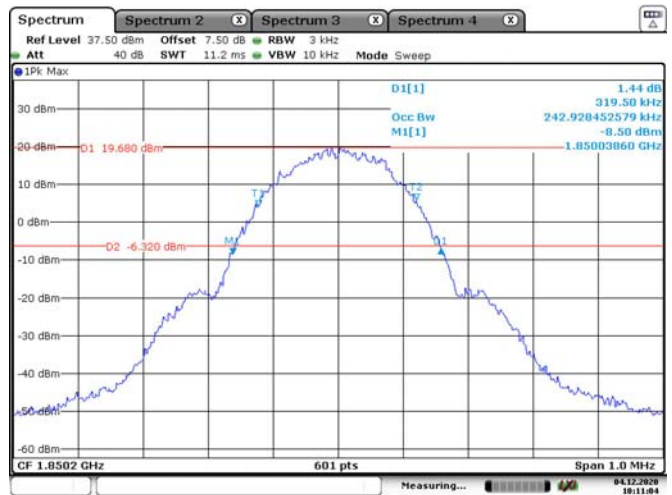
Cellular 850 Band, GPRS, Middle Channel



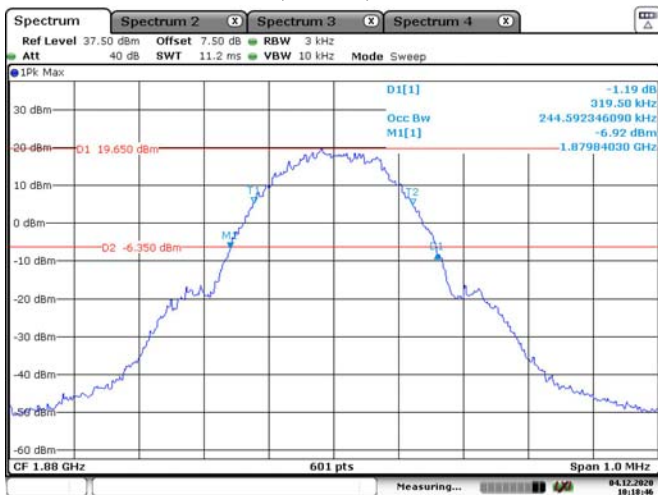
Cellular 850 Band, GPRS, High Channel



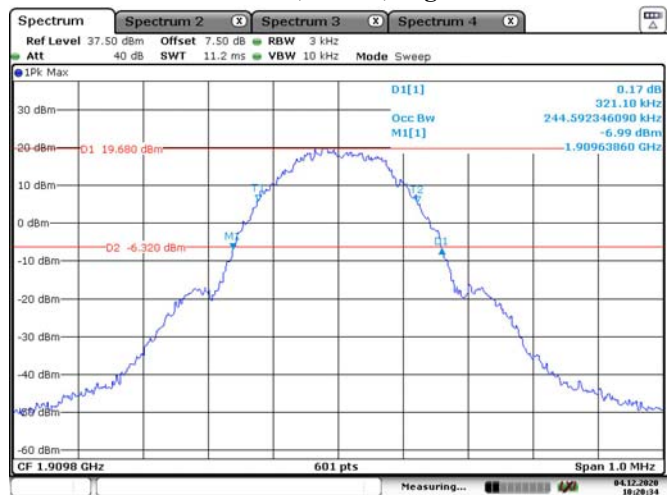
PCS 1900 Band, GPRS, Low Channel



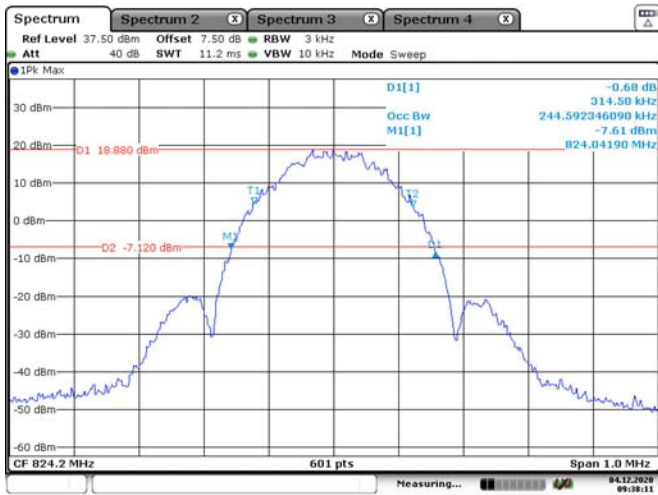
PCS 1900 Band, GPRS, Middle Channel



PCS 1900 Band, GPRS, High Channel

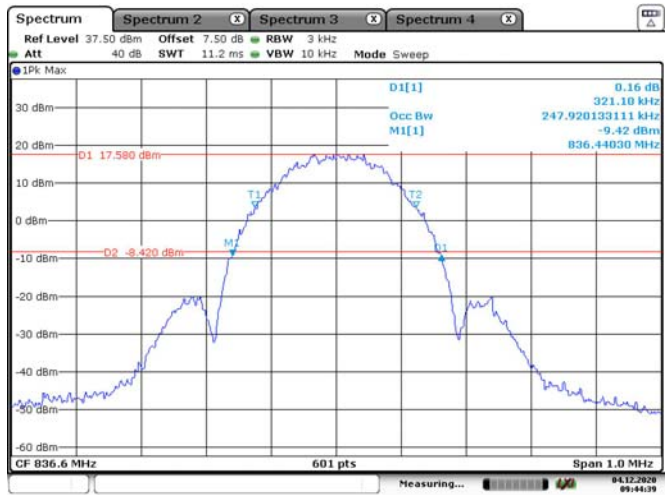


Cellular 850 Band, EDGE, Low Channel



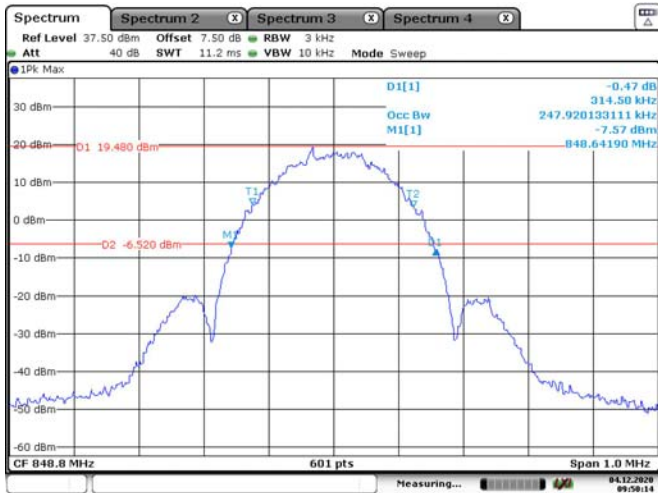
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Cellular 850 Band, EDGE, Middle Channel



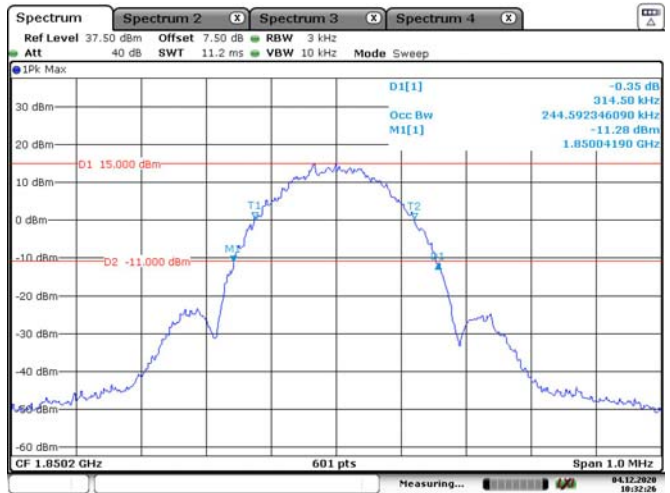
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Cellular 850 Band, EDGE, High Channel



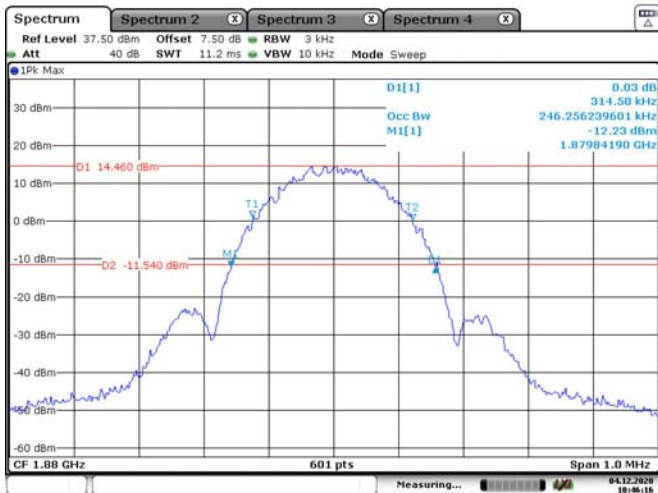
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PCS 1900 Band, EDGE, Low Channel



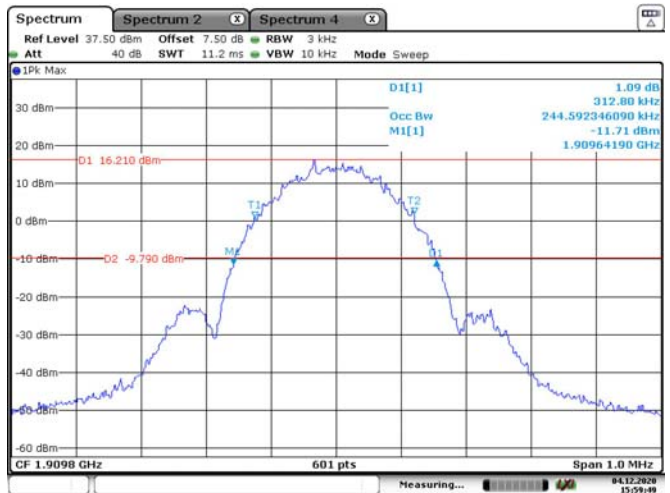
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PCS 1900 Band, EDGE, Middle Channel



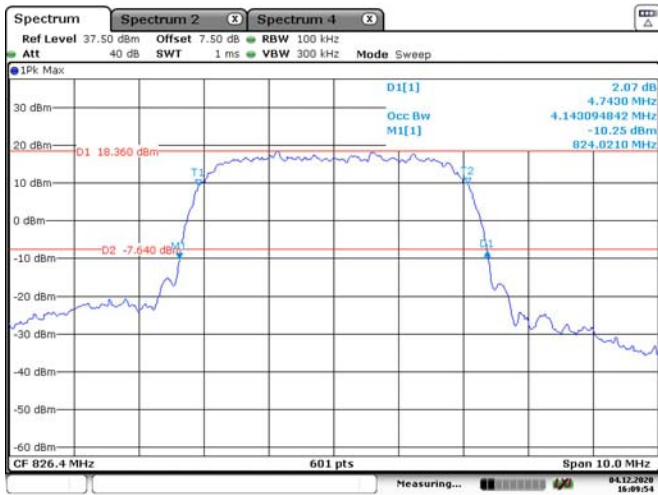
Date: 4. DEC. 2020 10:46:16

PCS 1900 Band, EDGE, High Channel



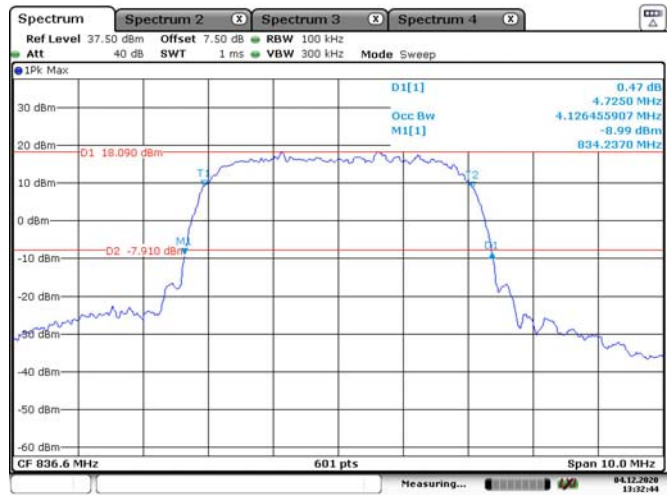
Date: 4. DEC. 2020 15:59:49

WCDMA Band V, Rel99, Low Channel



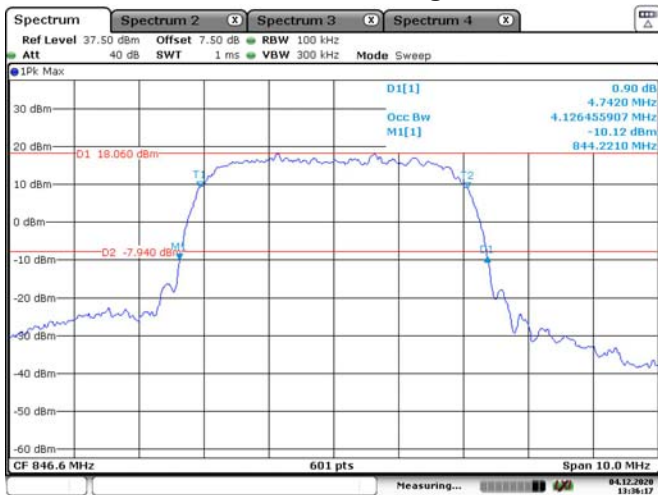
Date: 4. DEC. 2020 16:09:54

WCDMA Band V, Rel99, Middle Channel



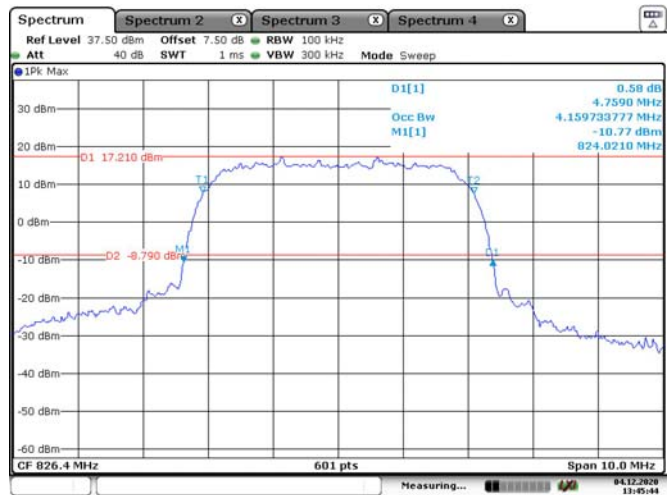
Date: 4. DEC. 2020 13:32:44

WCDMA Band V, Rel99, High Channel



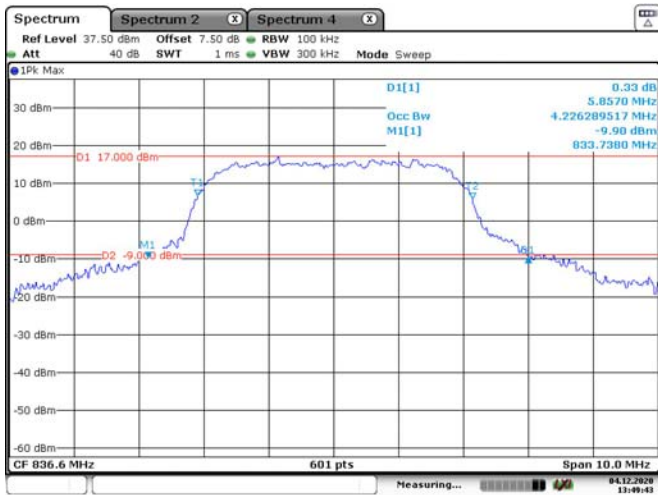
Date: 4. DEC. 2020 13:36:17

WCDMA Band V, HSDPA, Low Channel



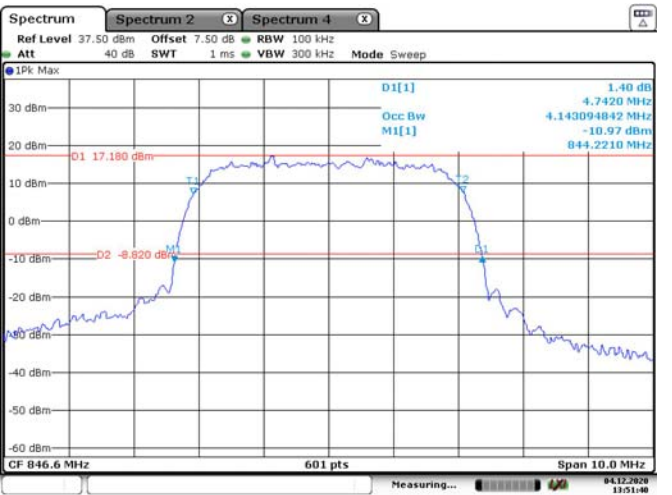
Date: 4. DEC. 2020 13:45:44

WCDMA Band V, HSDPA, Middle Channel



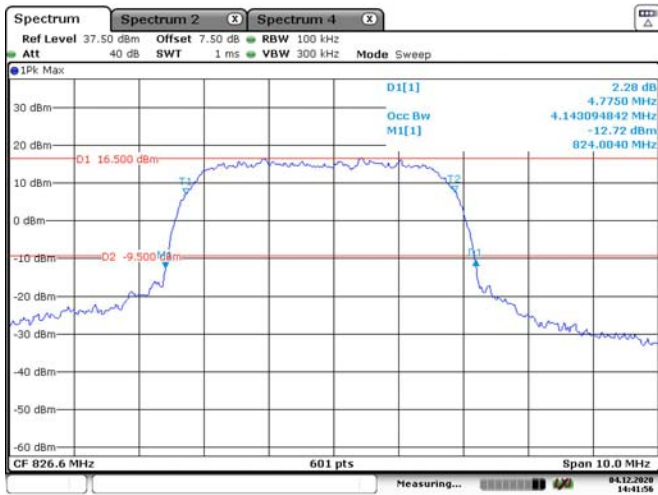
Date: 4. DEC. 2020 13:49:43

WCDMA Band V, HSDPA, High Channel



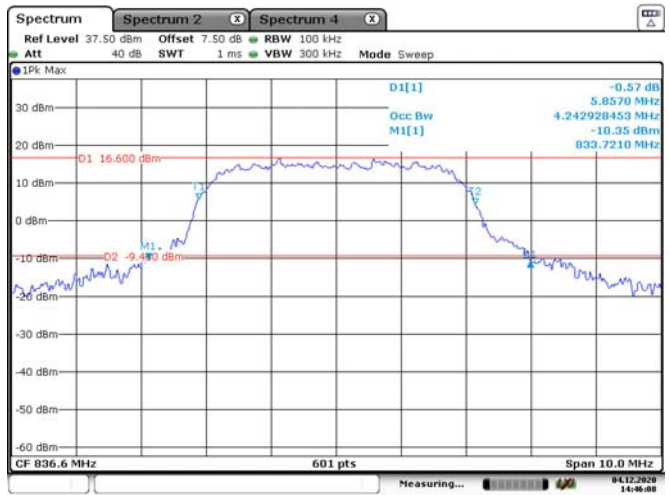
Date: 4. DEC. 2020 13:51:40

WCDMA Band V, HSUPA, Low Channel



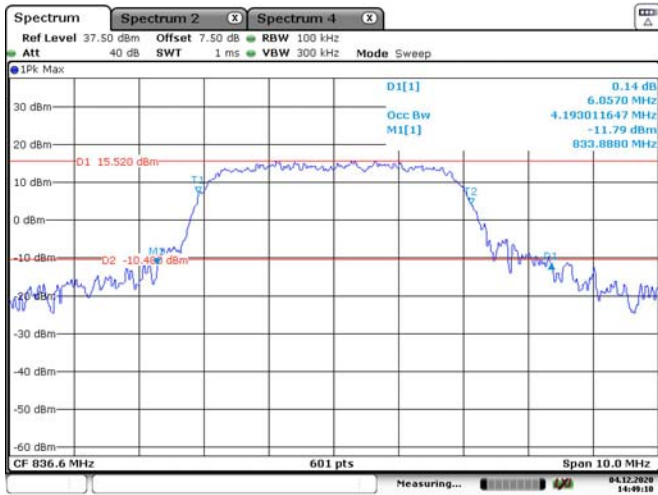
Date: 4. DEC. 2020 14:41:57

WCDMA Band V, HSUPA, Middle Channel



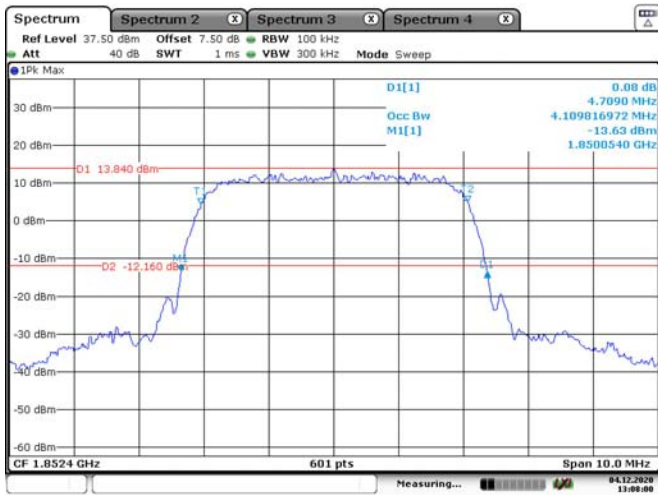
Date: 4. DEC. 2020 14:46:08

WCDMA Band V, HSUPA, High Channel



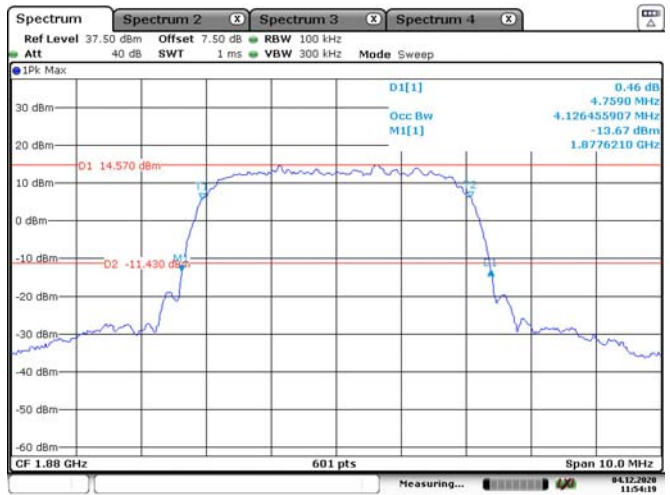
Date: 4. DEC. 2020 14:49:10

WCDMA Band II, Rel99, Low Channel



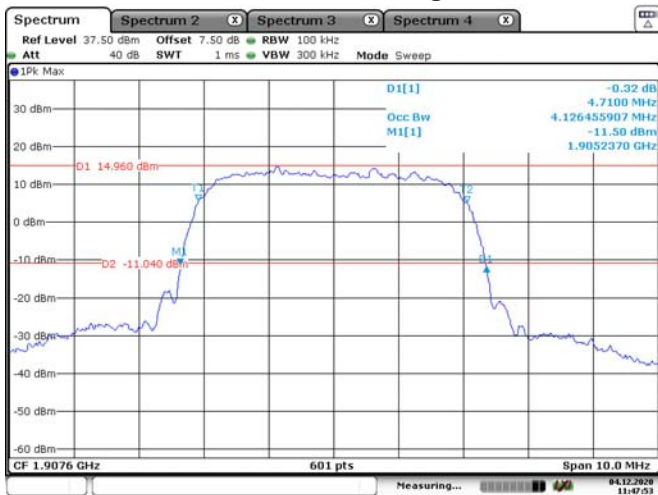
Date: 4. DEC. 2020 13:08:00

WCDMA Band II, Rel99, Middle Channel



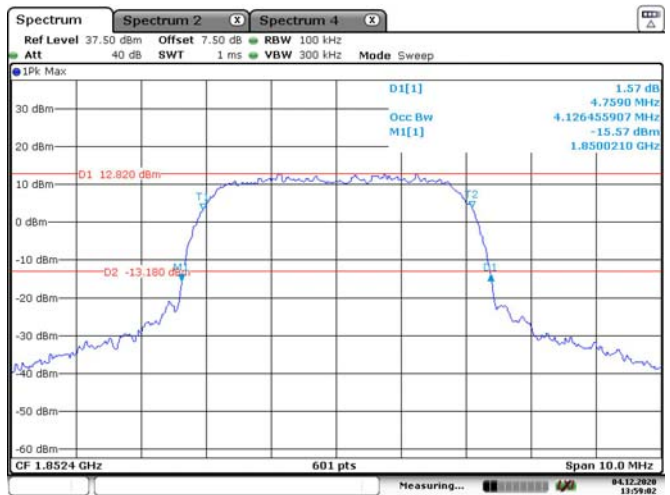
Date: 4. DEC. 2020 11:54:19

WCDMA Band II, Rel99, High Channel



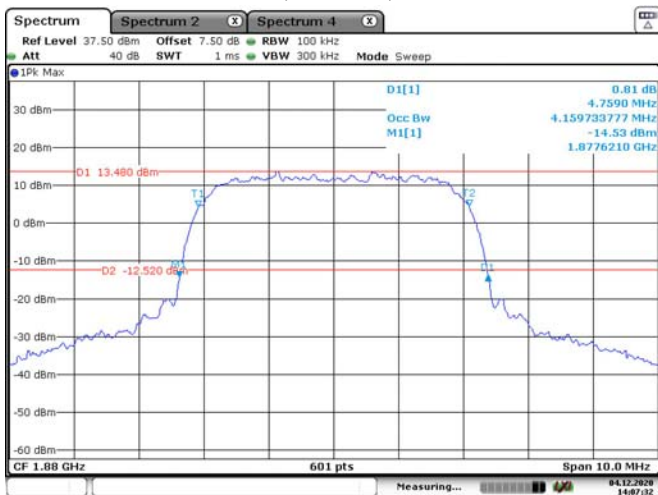
Date: 4. DEC. 2020 11:47:53

WCDMA Band II, HSDPA, Low Channel



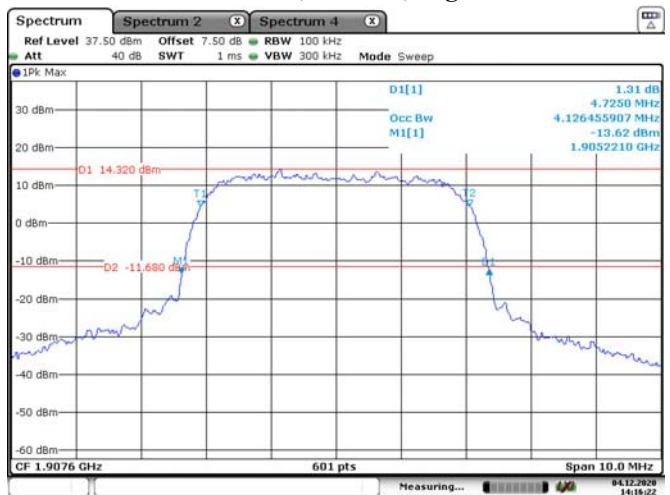
Date: 4. DEC. 2020 13:59:02

WCDMA Band II, HSDPA, Middle Channel



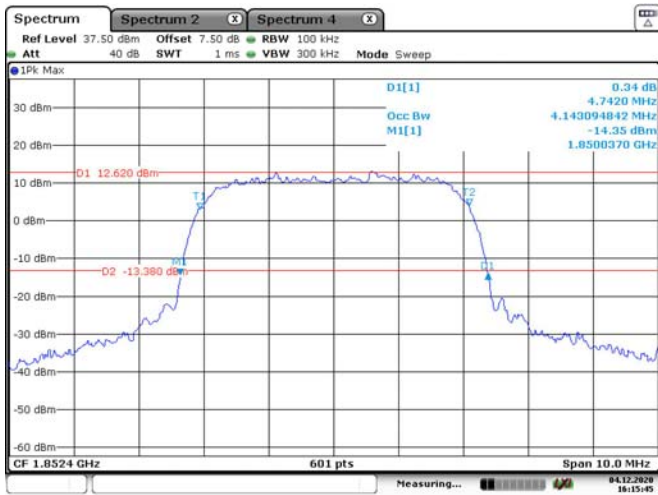
Date: 4. DEC. 2020 14:07:32

WCDMA Band II, HSDPA, High Channel

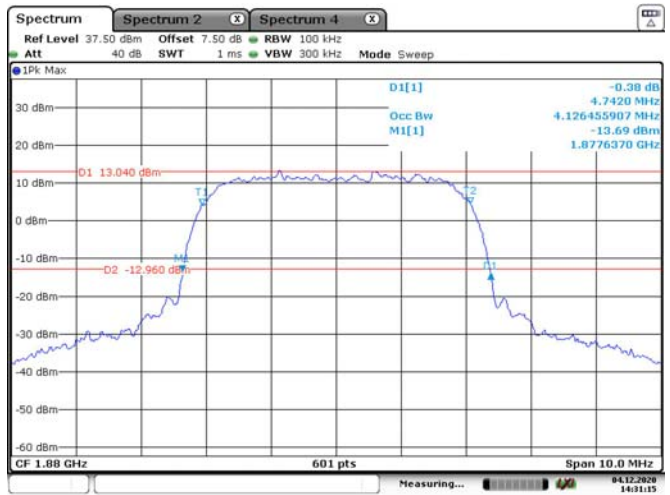


Date: 4. DEC. 2020 14:16:22

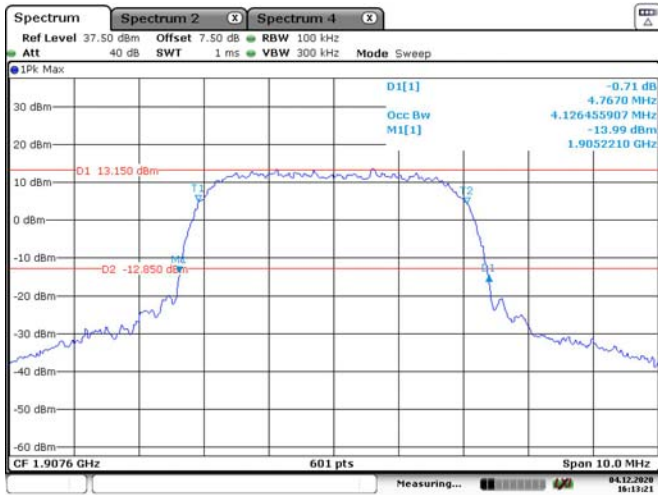
WCDMA Band II, HSUPA, Low Channel



WCDMA Band II, HSUPA, Middle Channel

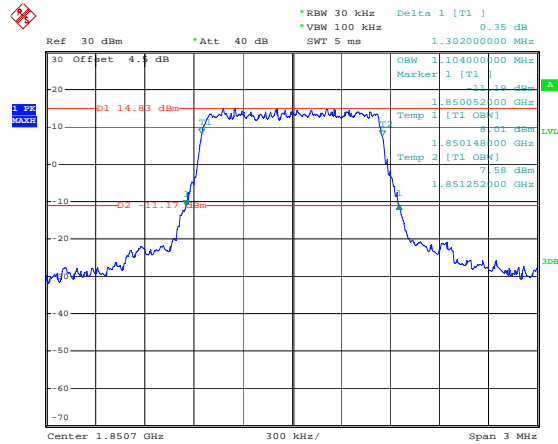


WCDMA Band II, HSUPA, High Channel



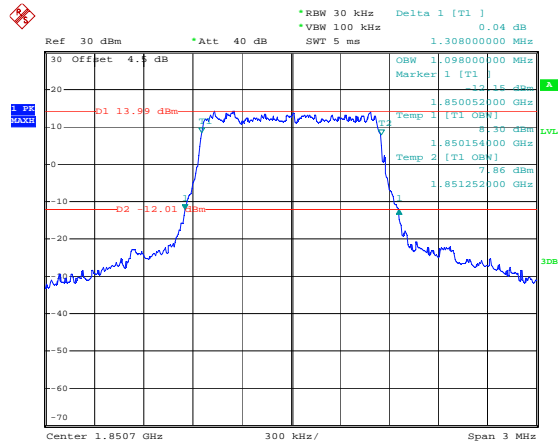
LTE Band 2

1.4M, QPSK, Low Channel



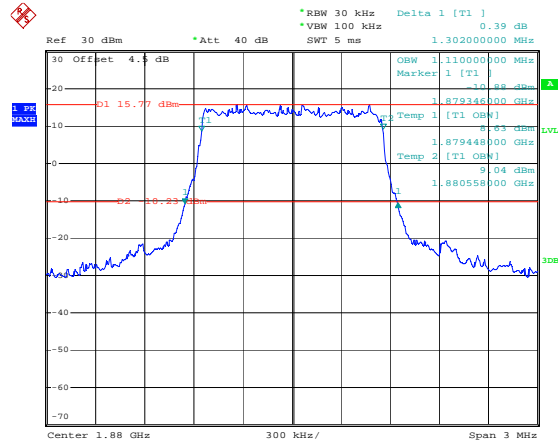
Date: 6.DEC.2020 10:52:45

1.4M, 16QAM, Low Channel



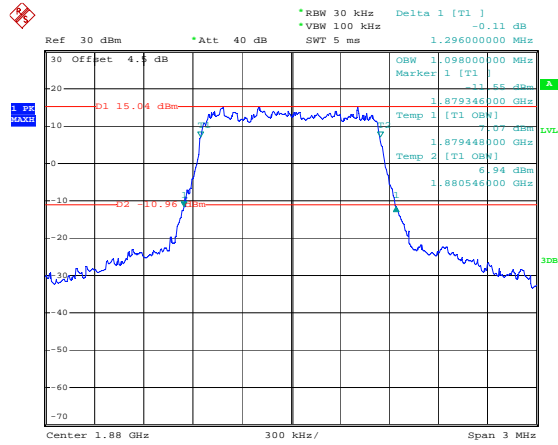
Date: 6.DEC.2020 10:53:03

1.4M, QPSK, Middle Channel



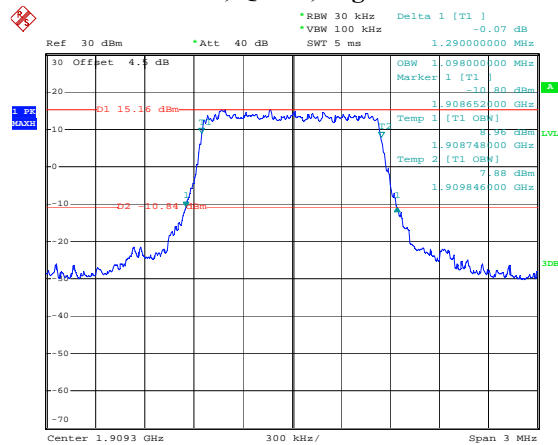
Date: 6.DEC.2020 10:53:22

1.4M, 16QAM, Middle Channel



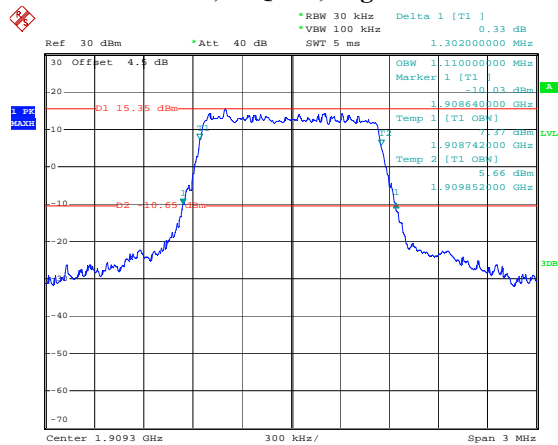
Date: 6.DEC.2020 10:53:40

1.4M, QPSK, High Channel



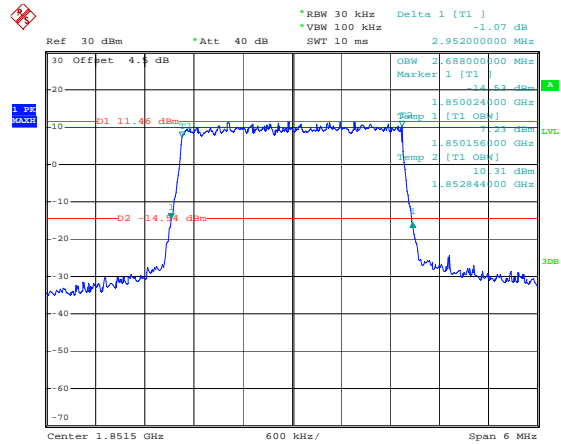
Date: 6.DEC.2020 10:53:59

1.4M, 16QAM, High Channel



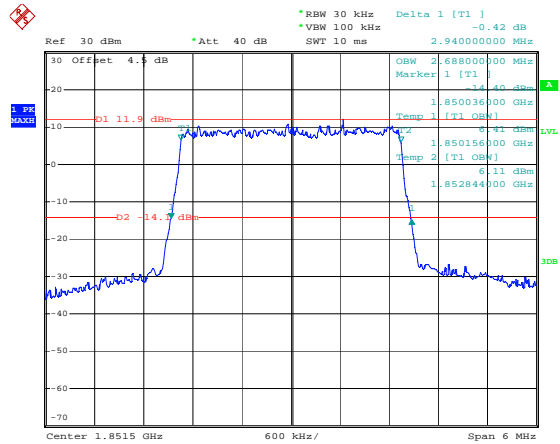
Date: 6.DEC.2020 10:54:19

3M, QPSK, Low Channel



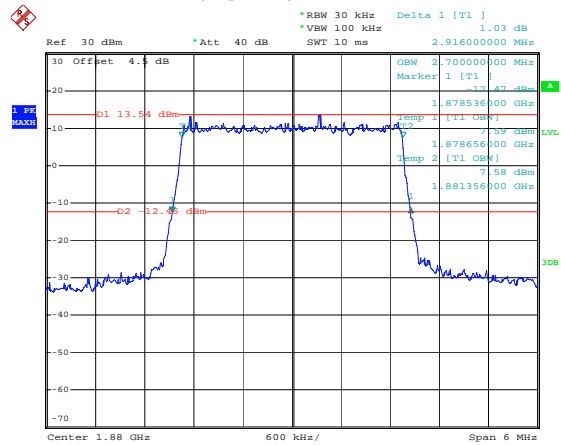
Date: 6.DEC.2020 10:56:28

3M, 16QAM, Low Channel



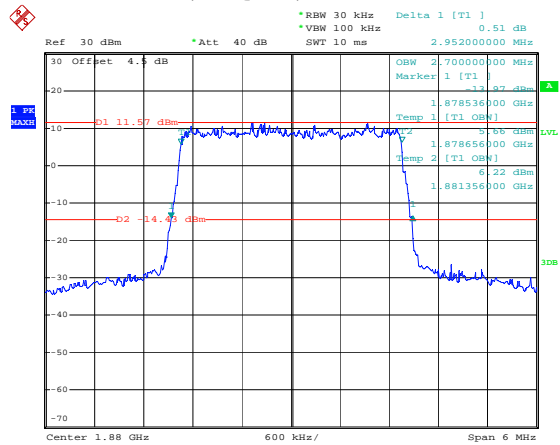
Date: 6.DEC.2020 10:56:49

3M, QPSK, Middle Channel



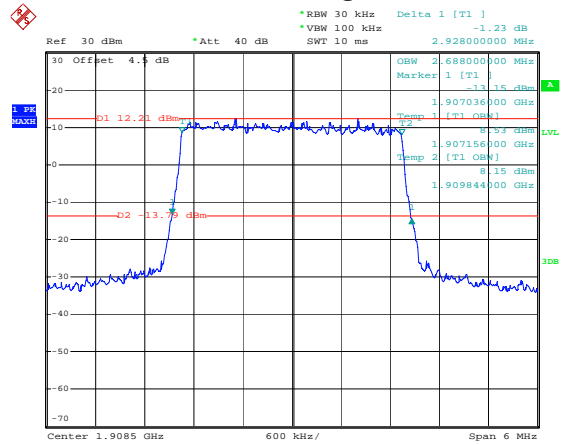
Date: 6.DEC.2020 10:57:08

3M, 16QAM, Middle Channel



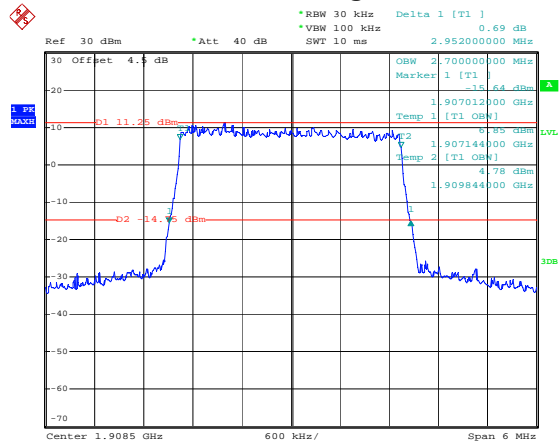
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3M, QPSK, High Channel



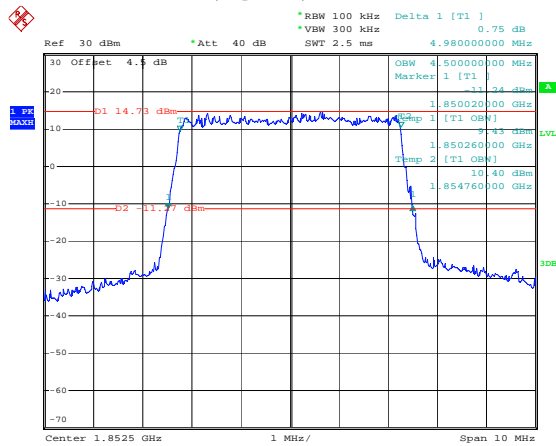
Date: 6.DEC.2020 10:57:47

3M, 16QAM, High Channel



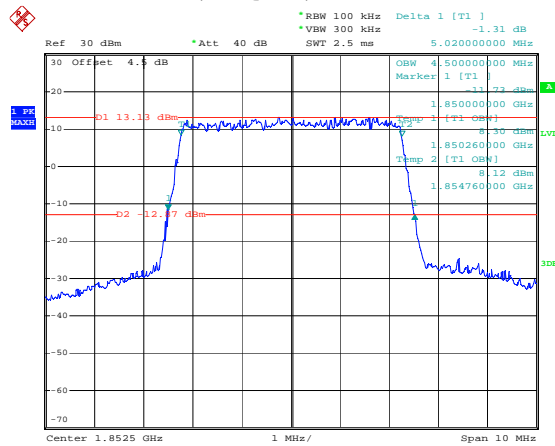
Date: 6.DEC.2020 10:58:05

5M, QPSK, Low Channel



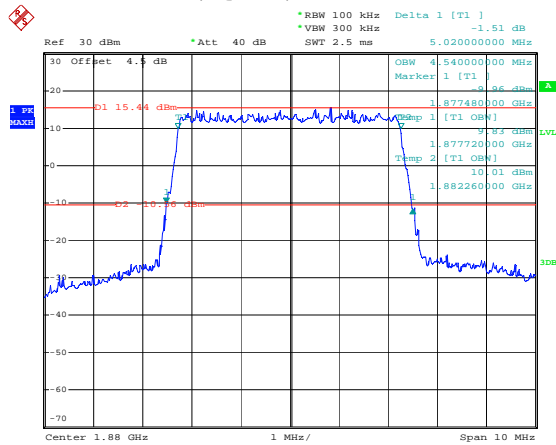
Date: 6.DEC.2020 10:58:47

5M, 16QAM, Low Channel



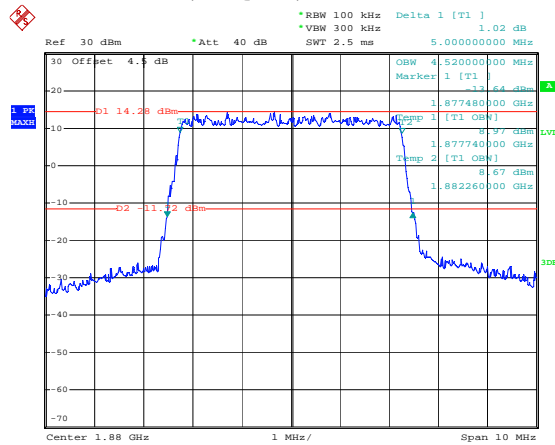
Date: 6.DEC.2020 10:59:09

5M, QPSK, Middle Channel



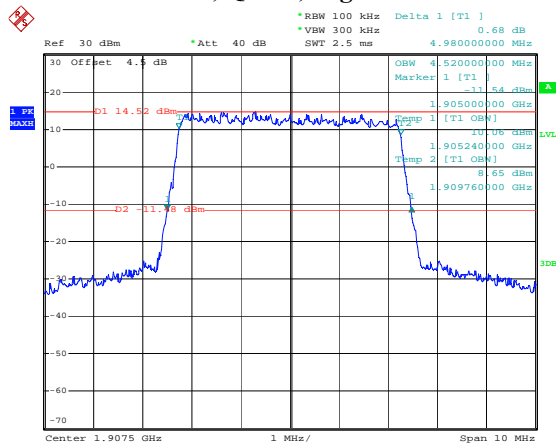
Date: 6.DEC.2020 10:59:31

5M, 16QAM, Middle Channel



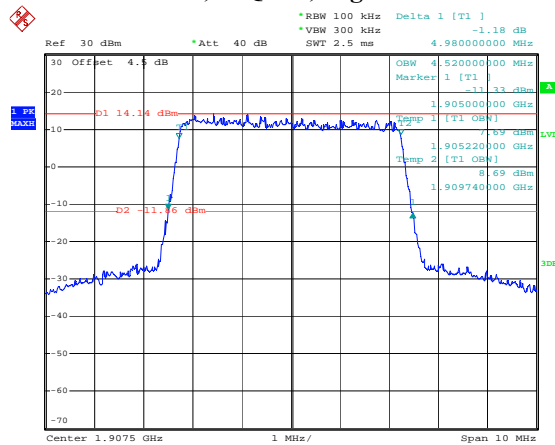
Date: 6.DEC.2020 10:59:52

5M, QPSK, High Channel



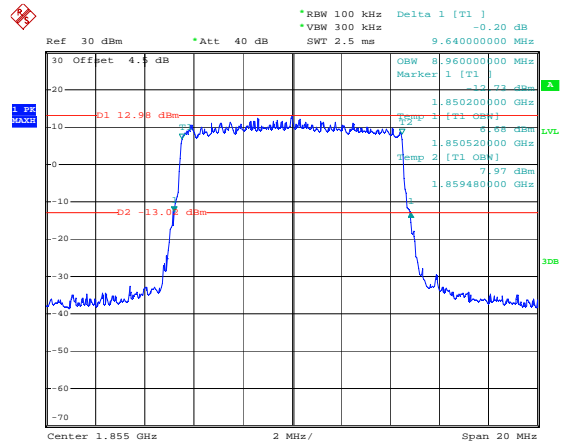
Date: 6.DEC.2020 11:00:14

5M, 16QAM, High Channel



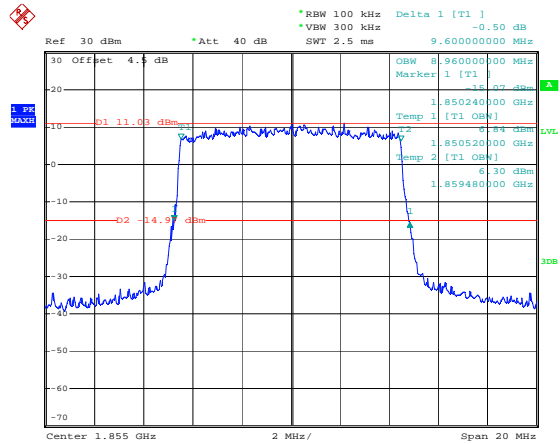
Date: 6.DEC.2020 11:00:36

10M, QPSK, Low Channel



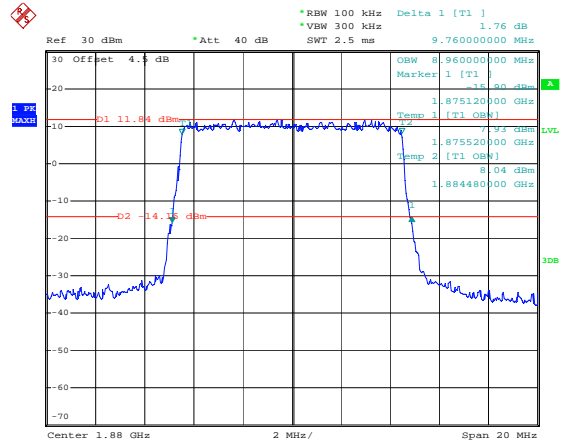
Date: 6.DEC.2020 11:02:55

10M, 16QAM, Low Channel



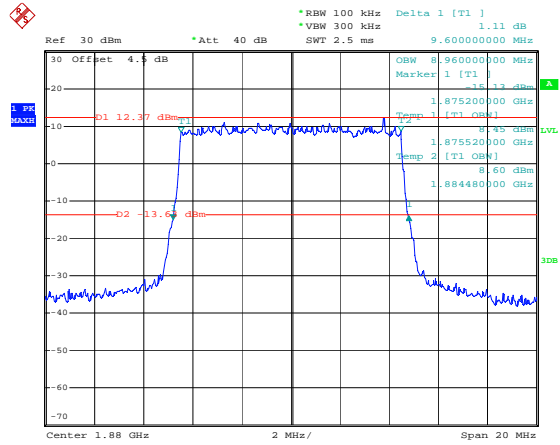
Date: 6.DEC.2020 11:03:14

10M, QPSK, Middle Channel



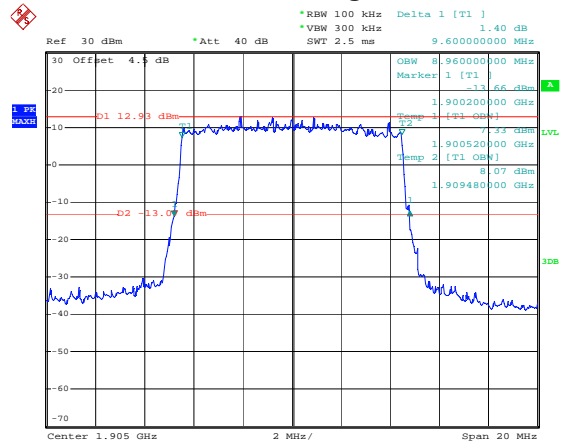
Date: 6.DEC.2020 11:03:37

10M, 16QAM, Middle Channel



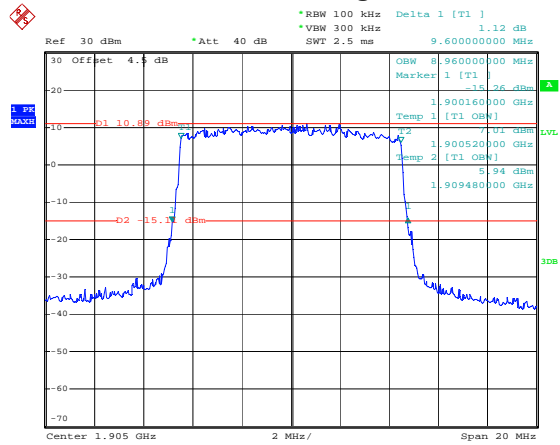
Date: 6.DEC.2020 11:04:00

10M, QPSK, High Channel



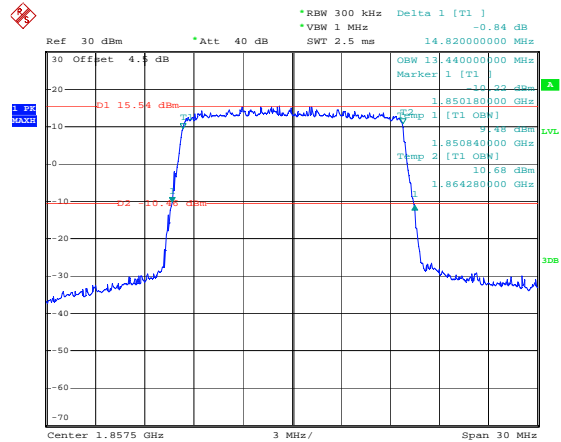
Date: 6.DEC.2020 11:04:23

10M, 16QAM, High Channel



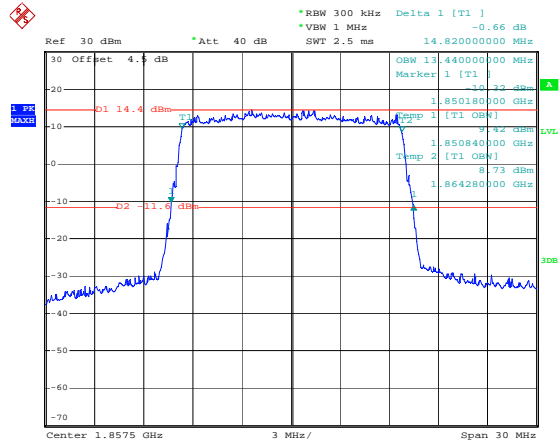
Date: 6.DEC.2020 11:04:45

15M, QPSK, Low Channel



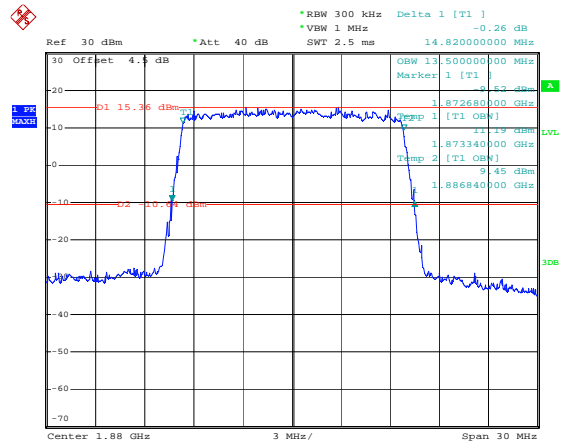
Date: 6.DEC.2020 11:07:20

15M, 16QAM, Low Channel



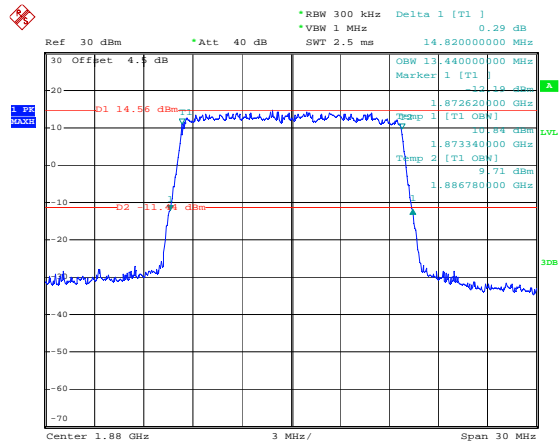
Date: 6.DEC.2020 11:07:45

15M, QPSK, Middle Channel



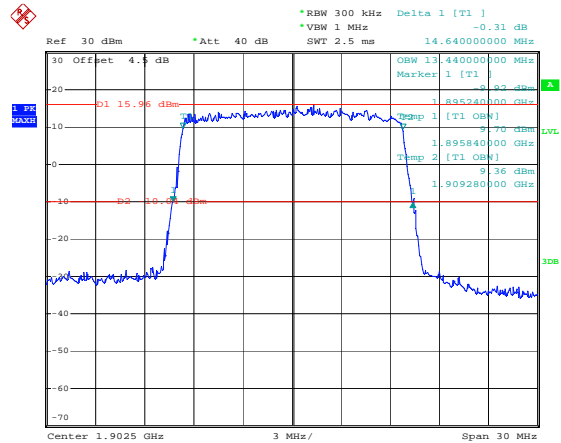
Date: 6.DEC.2020 11:08:10

15M, 16QAM, Middle Channel



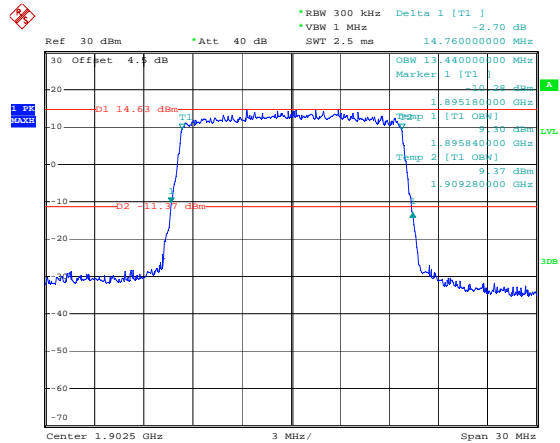
Date: 6.DEC.2020 11:08:35

15M, QPSK, High Channel



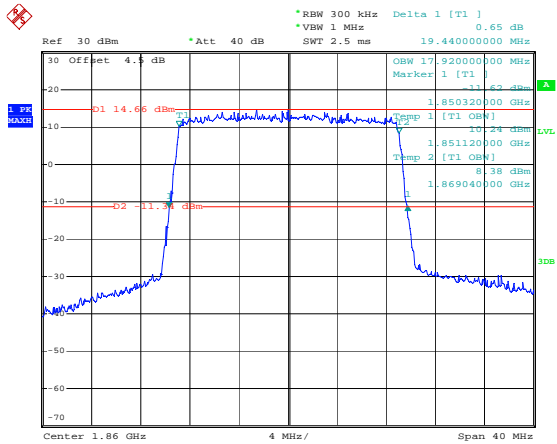
Date: 6.DEC.2020 11:08:57

15M, 16QAM, High Channel



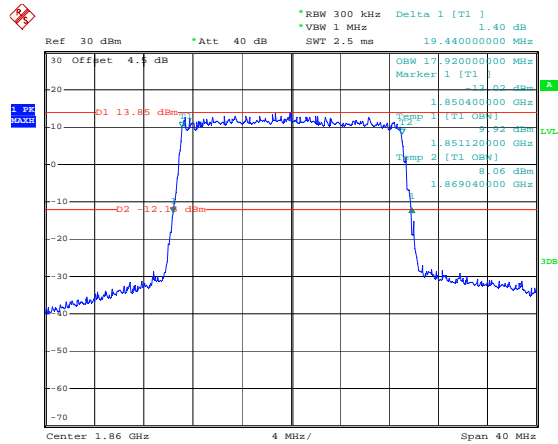
Date: 6.DEC.2020 11:09:22

20M, QPSK, Low Channel



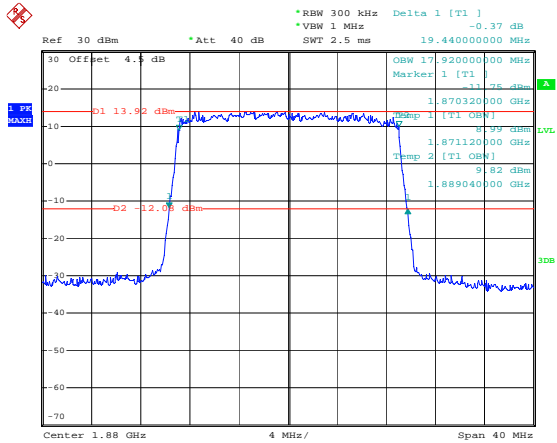
Date: 6.DEC.2020 11:10:07

20M, 16QAM, Low Channel



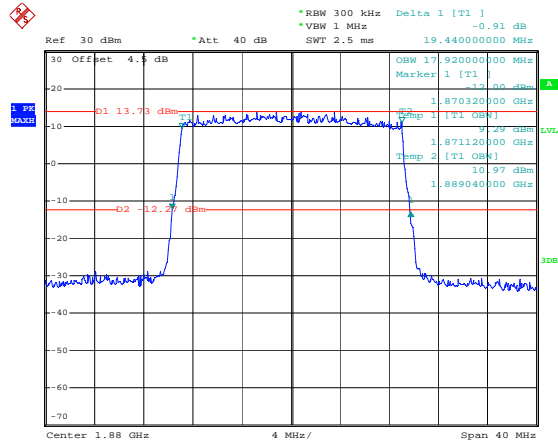
Date: 6.DEC.2020 11:10:32

20M, QPSK, Middle Channel



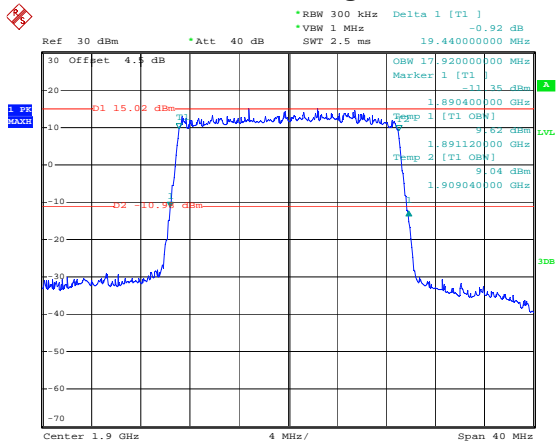
Date: 6.DEC.2020 11:10:57

20M, 16QAM, Middle Channel



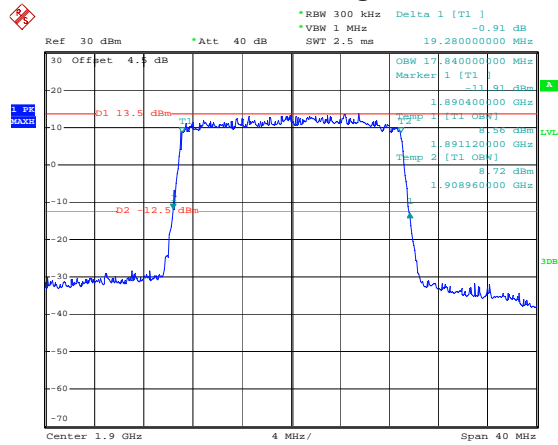
Date: 6.DEC.2020 11:11:22

20M, QPSK, High Channel



Date: 6.DEC.2020 11:11:44

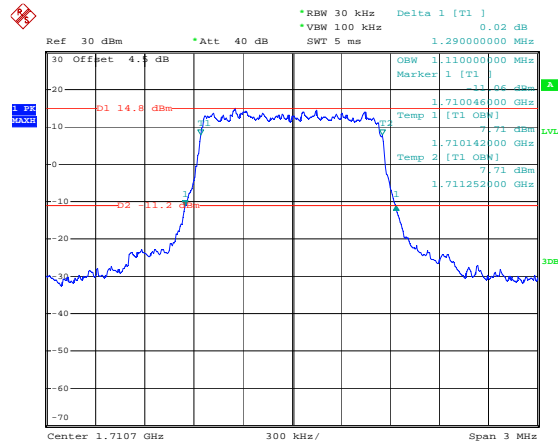
20M, 16QAM, High Channel



Date: 6.DEC.2020 11:12:06

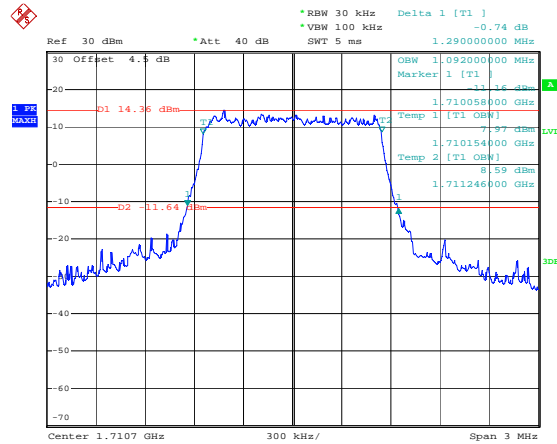
LTE Band 4:

1.4M, QPSK, Low Channel



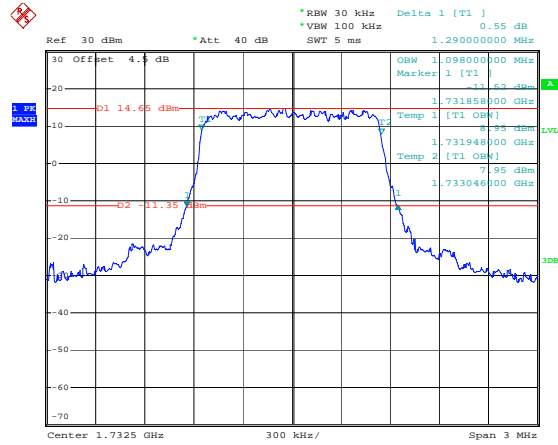
Date: 6.DEC.2020 11:12:54

1.4M, 16QAM, Low Channel



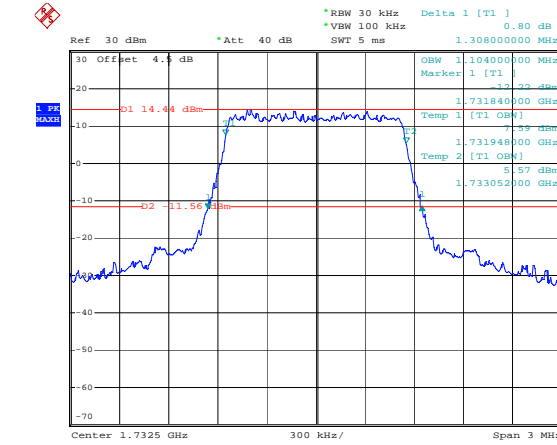
Date: 6.DEC.2020 11:13:16

1.4M, QPSK, Middle Channel



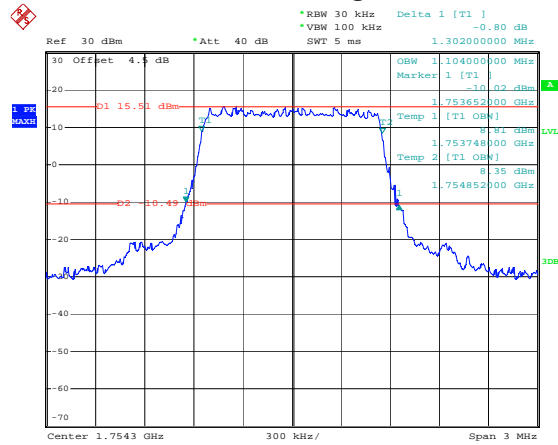
Date: 6.DEC.2020 11:13:38

1.4M, 16QAM, Middle Channel



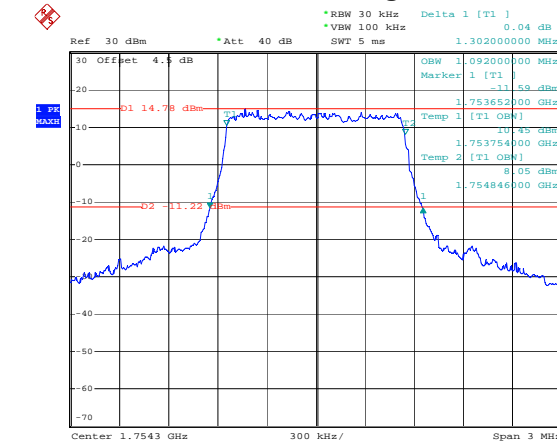
Date: 6.DEC.2020 11:13:59

1.4M, QPSK, High Channel



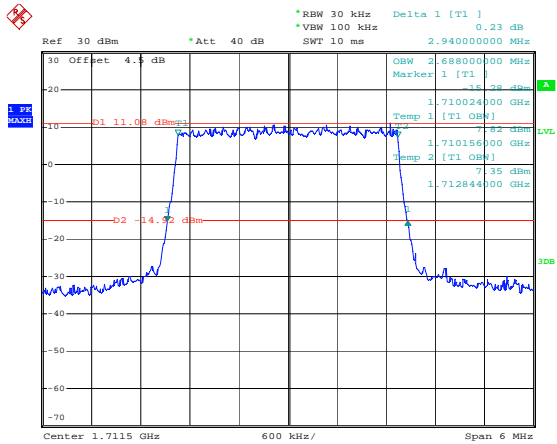
Date: 6.DEC.2020 11:14:19

1.4M, 16QAM, High Channel



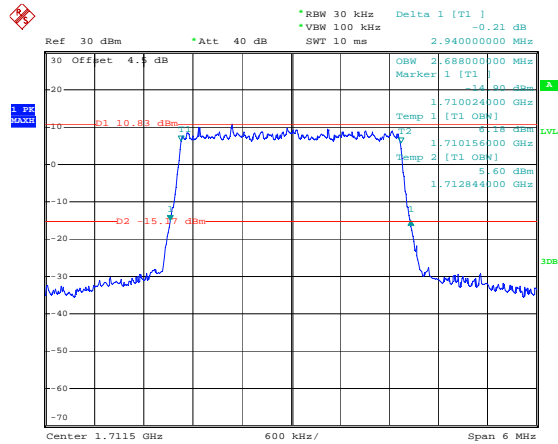
Date: 6.DEC.2020 11:14:40

3M, QPSK, Low Channel



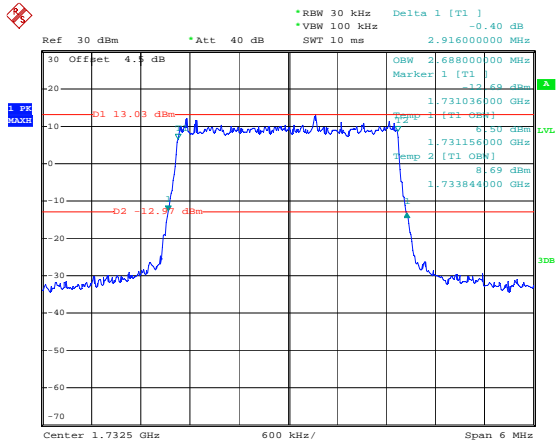
Date: 6.DEC.2020 11:15:27

3M, 16QAM, Low Channel



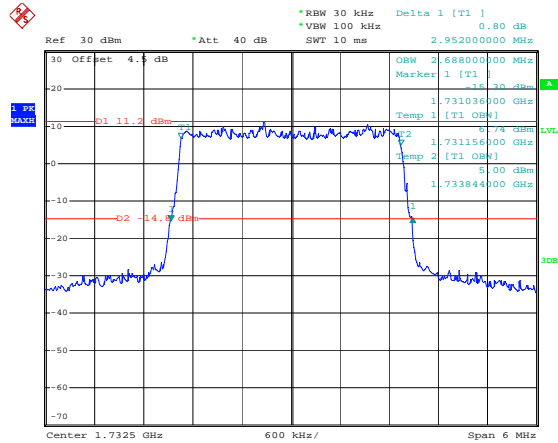
Date: 6.DEC.2020 11:15:49

3M, QPSK, Middle Channel



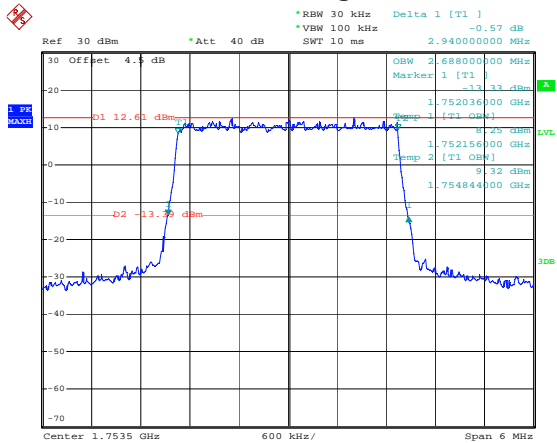
Date: 6.DEC.2020 11:16:08

3M, 16QAM, Middle Channel



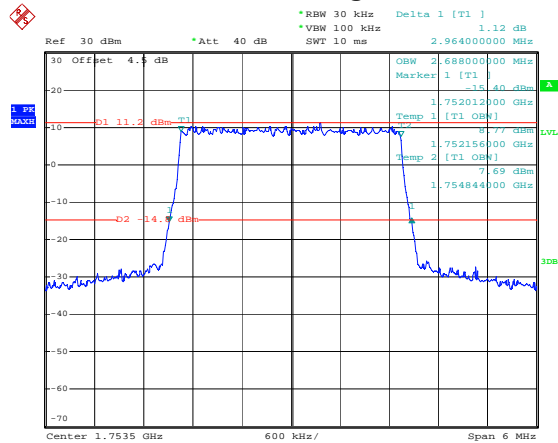
Date: 6.DEC.2020 11:16:26

3M, QPSK, High Channel



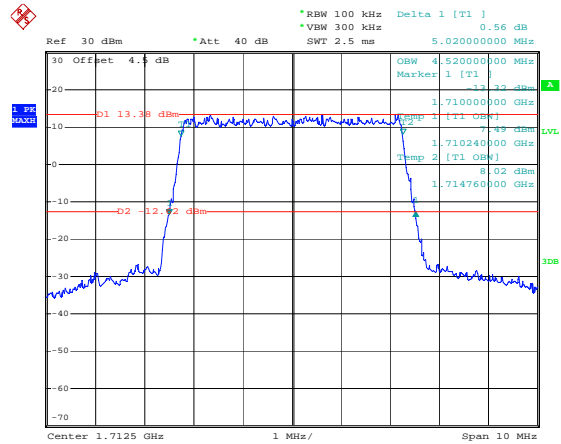
Date: 6.DEC.2020 11:16:48

3M, 16QAM, High Channel



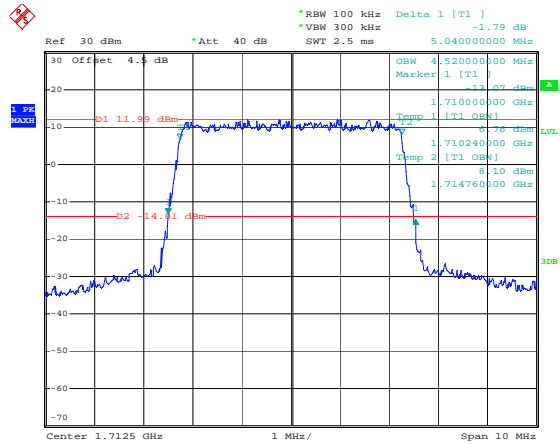
Date: 6.DEC.2020 11:17:09

5M, QPSK, Low Channel



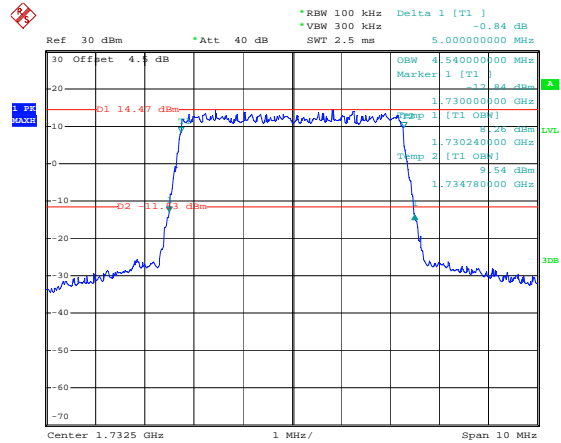
Date: 6.DEC.2020 11:17:59

5M, 16QAM, Low Channel



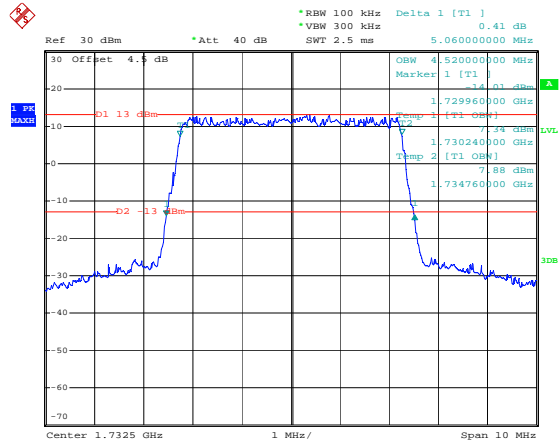
Date: 6.DEC.2020 11:18:18

5M, QPSK, Middle Channel



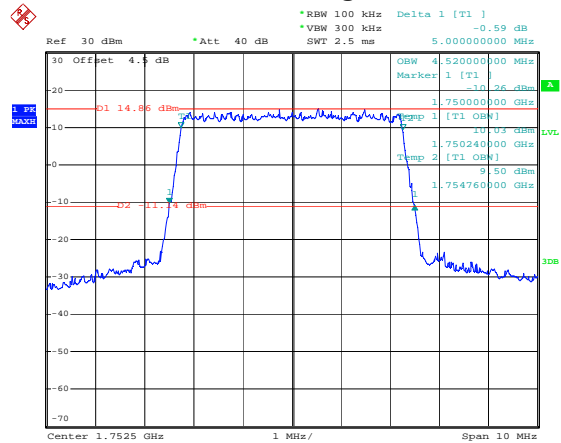
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5M, 16QAM, Middle Channel



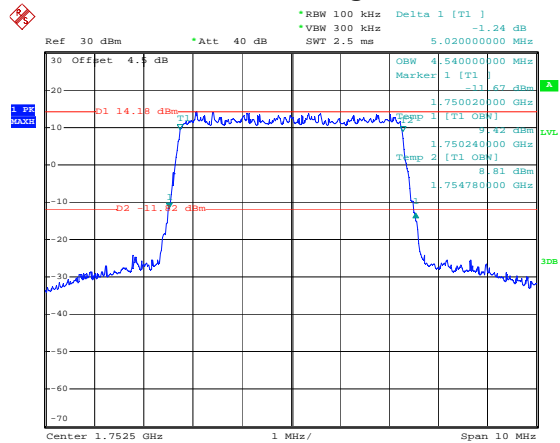
Date: 6.DEC.2020 11:19:02

5M, QPSK, High Channel



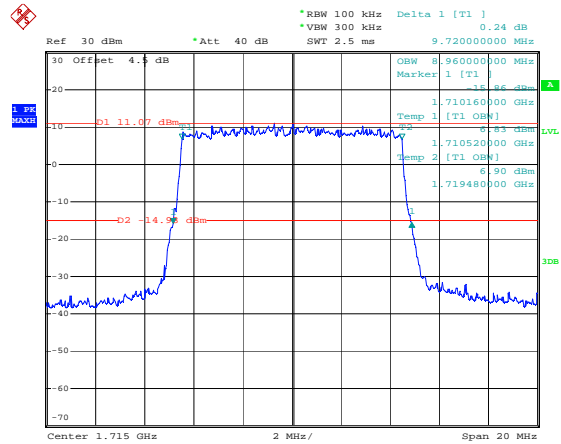
Date: 6.DEC.2020 11:19:24

5M, 16QAM, High Channel



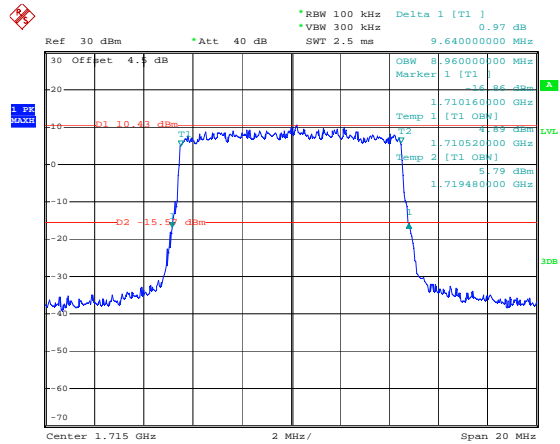
Date: 6.DEC.2020 11:19:45

10M, QPSK, Low Channel



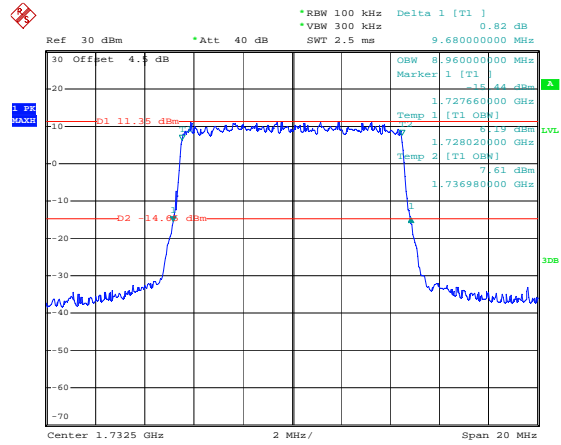
Date: 6.DEC.2020 11:20:35

10M, 16QAM, Low Channel



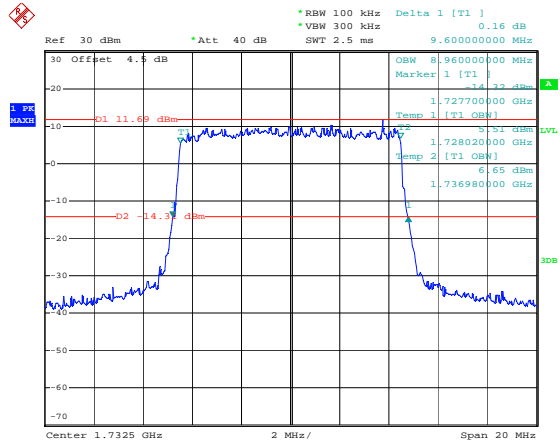
Date: 6.DEC.2020 11:20:58

10M, QPSK, Middle Channel



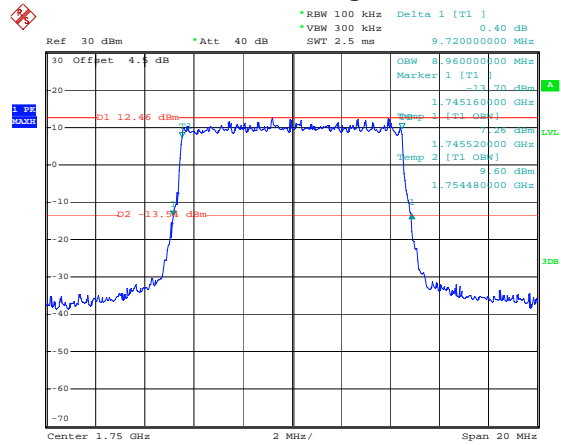
Date: 6.DEC.2020 11:21:21

10M, 16QAM, Middle Channel



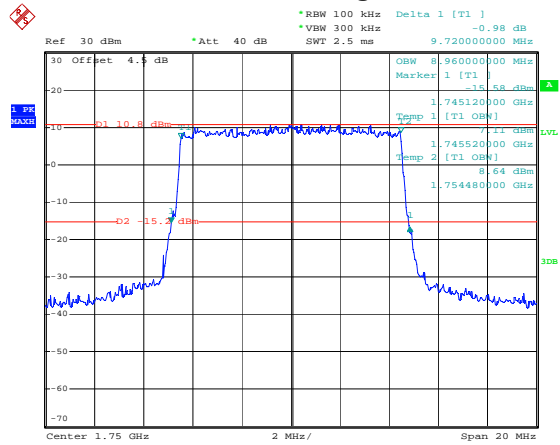
Date: 6.DEC.2020 11:21:40

10M, QPSK, High Channel



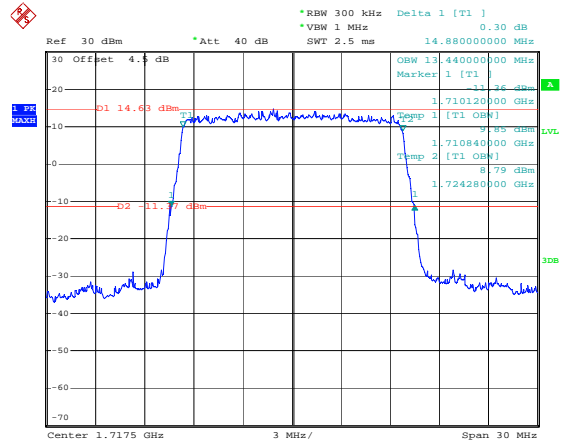
Date: 6.DEC.2020 11:22:03

10M, 16QAM, High Channel



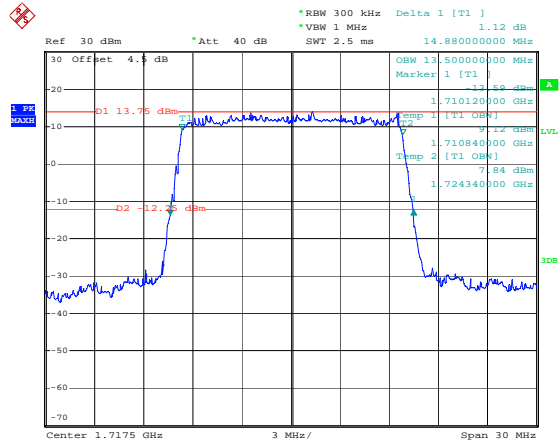
Date: 6.DEC.2020 11:22:26

15M, QPSK, Low Channel



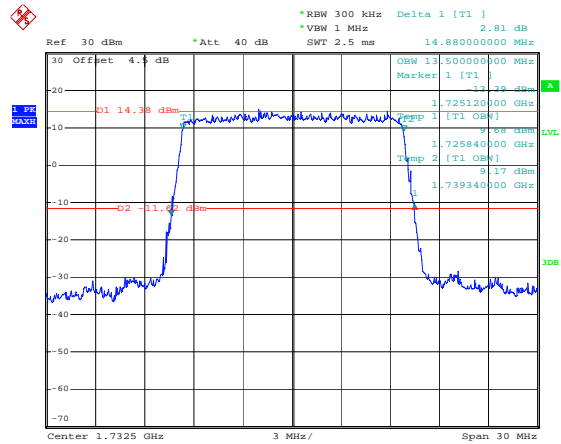
Date: 6.DEC.2020 11:23:14

15M, 16QAM, Low Channel



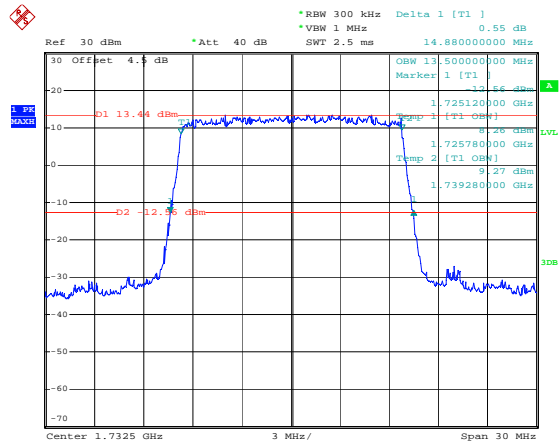
Date: 6.DEC.2020 11:23:42

15M, QPSK, Middle Channel



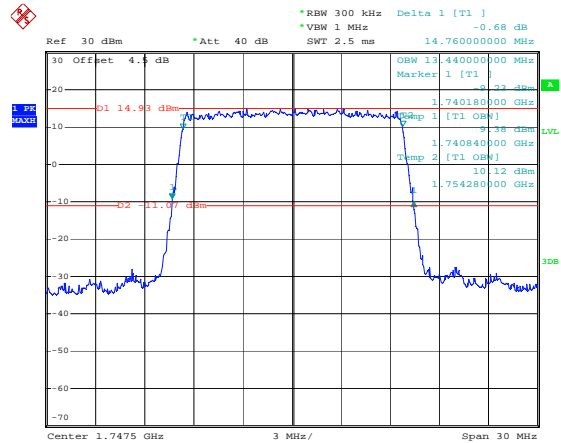
Date: 6.DEC.2020 11:24:04

15M, 16QAM, Middle Channel



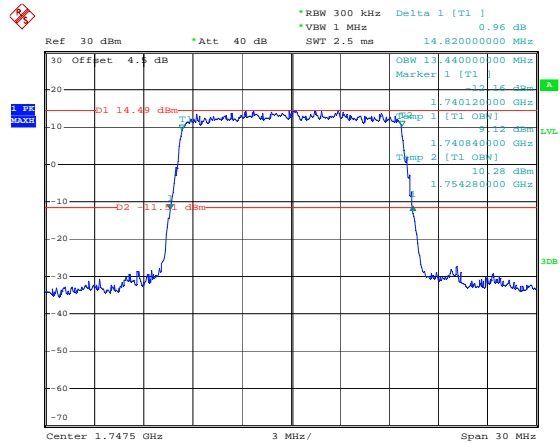
Date: 6.DEC.2020 11:24:29

15M, QPSK, High Channel



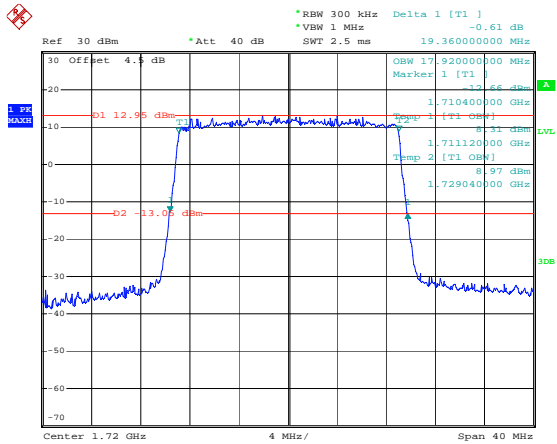
Date: 6.DEC.2020 11:24:54

15M, 16QAM, High Channel



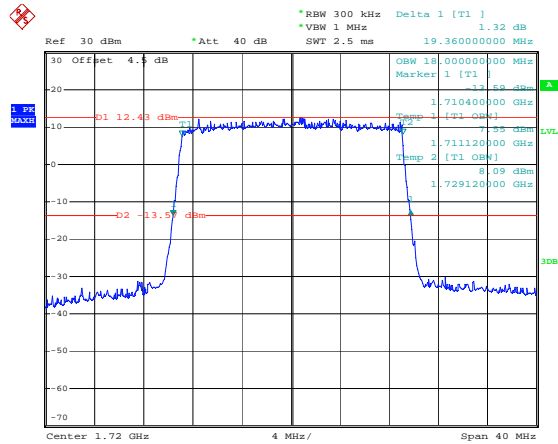
Date: 6.DEC.2020 11:25:19

20M, QPSK, Low Channel



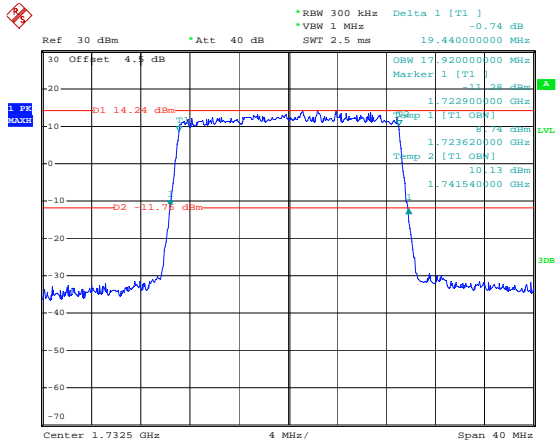
Date: 6.DEC.2020 11:25:46

20M, 16QAM, Low Channel



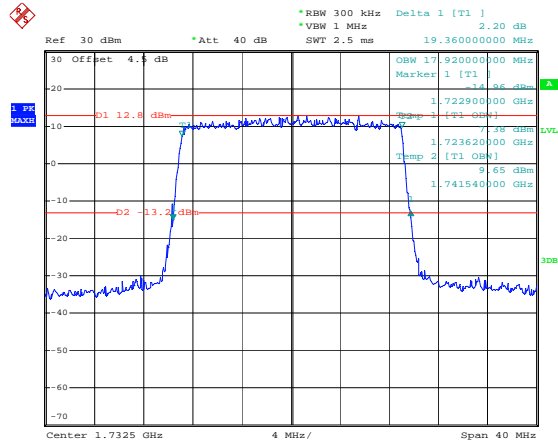
Date: 6.DEC.2020 11:26:11

20M, QPSK, Middle Channel



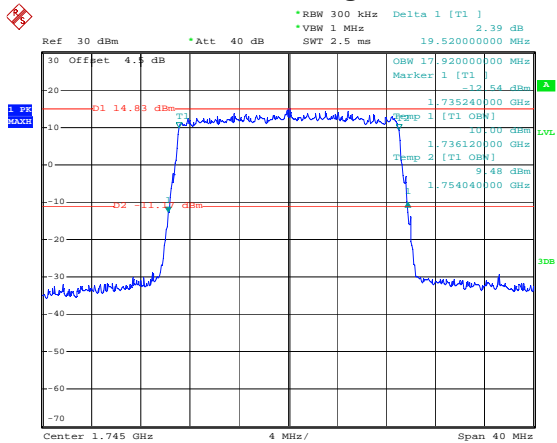
Date: 6.DEC.2020 11:26:37

20M, 16QAM, Middle Channel



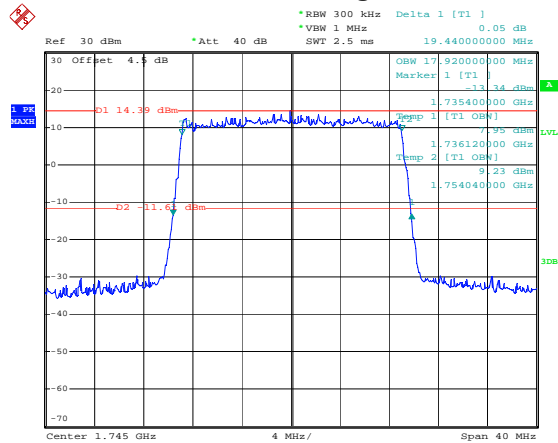
Date: 6.DEC.2020 11:27:02

20M, QPSK, High Channel



Date: 6.DEC.2020 11:27:27

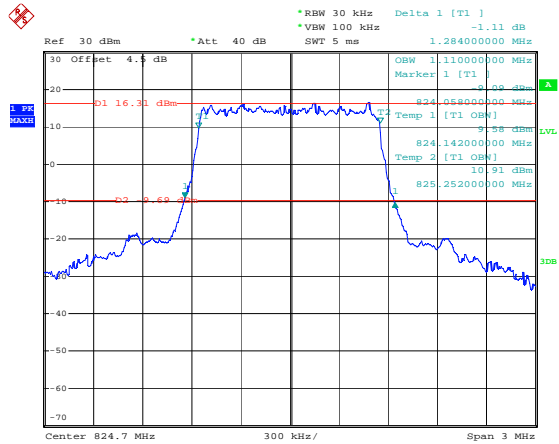
20M, 16QAM, High Channel



Date: 6.DEC.2020 11:27:52

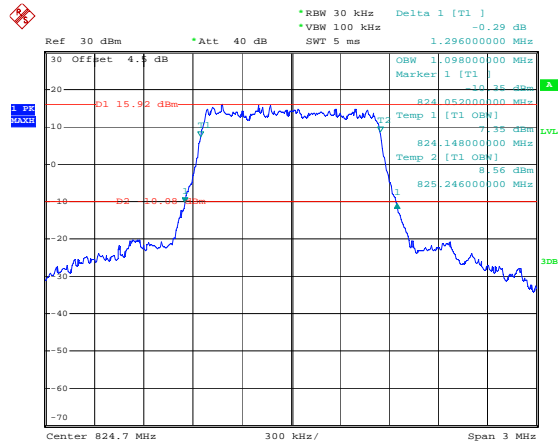
LTE Band 5:

1.4M, QPSK, Low Channel



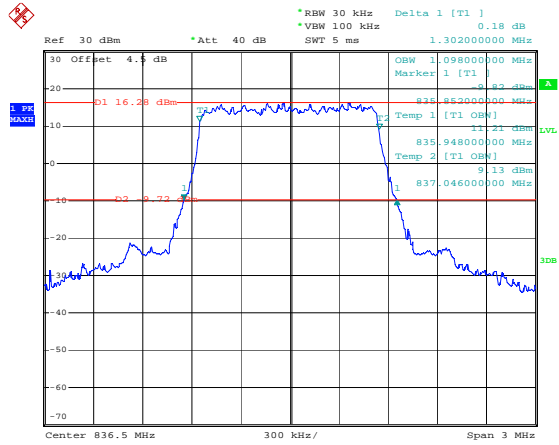
Date: 6.DEC.2020 11:28:29

1.4M, 16QAM, Low Channel



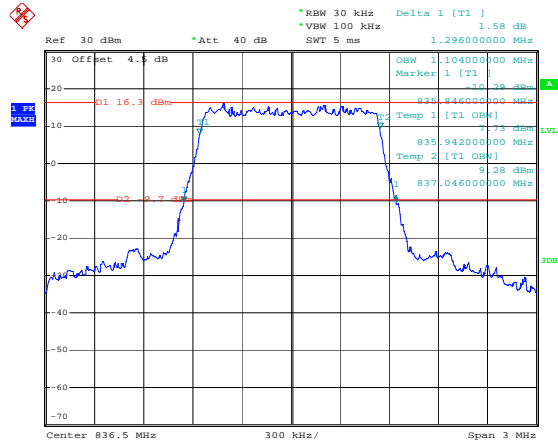
Date: 6.DEC.2020 11:28:50

1.4M, QPSK, Middle Channel



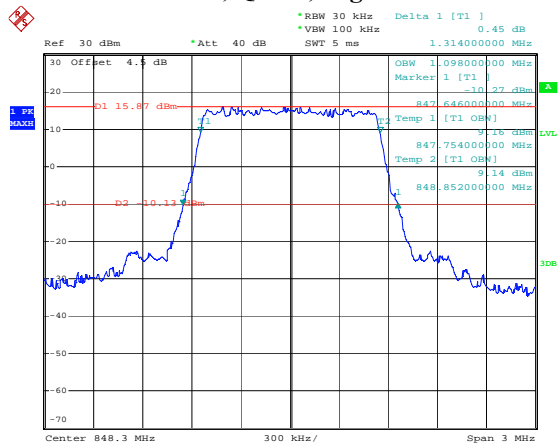
Date: 6.DEC.2020 11:29:09

1.4M, 16QAM, Middle Channel



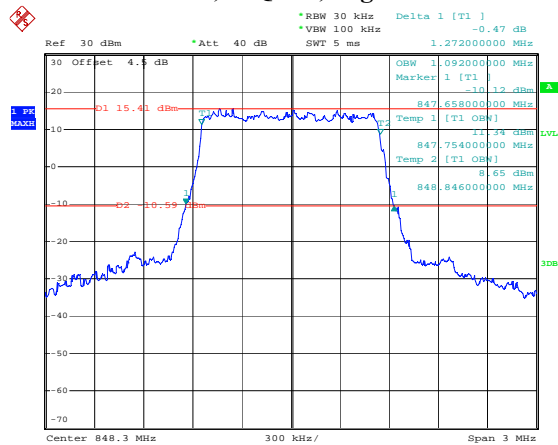
Date: 6.DEC.2020 11:29:30

1.4M, QPSK, High Channel



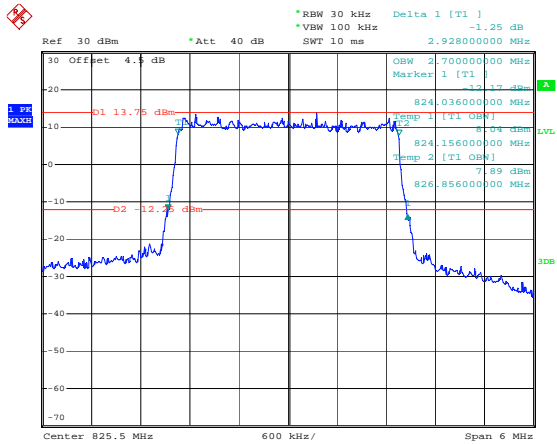
Date: 6.DEC.2020 11:29:53

1.4M, 16QAM, High Channel



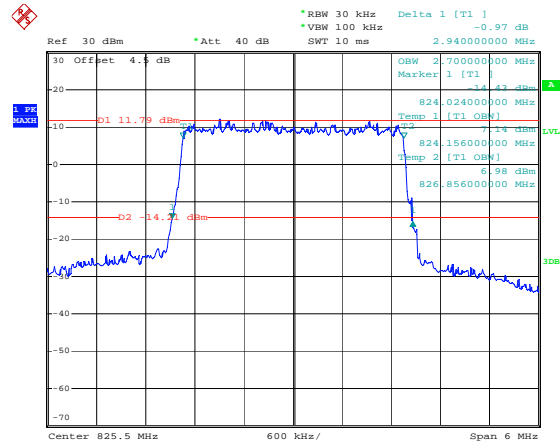
Date: 6.DEC.2020 11:30:11

3M, QPSK, Low Channel



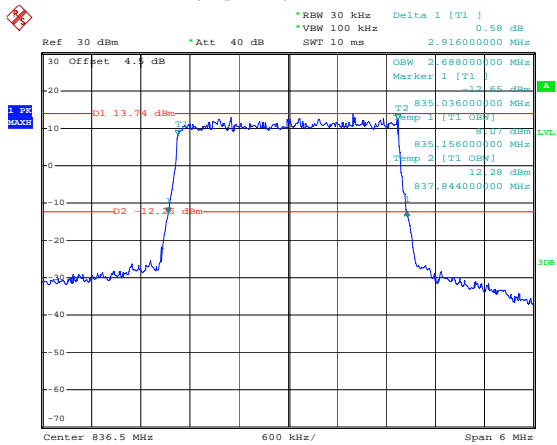
Date: 6.DEC.2020 11:32:21

3M, 16QAM, Low Channel



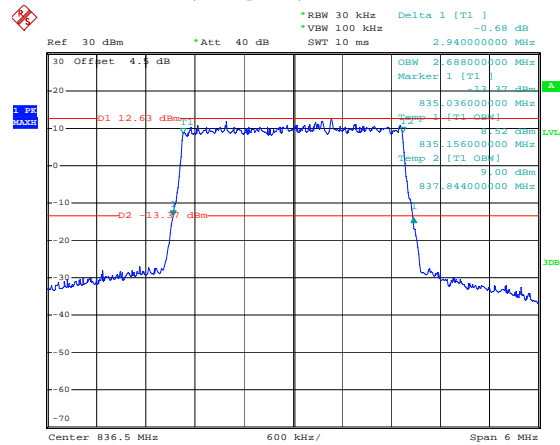
Date: 6.DEC.2020 11:32:42

3M, QPSK, Middle Channel



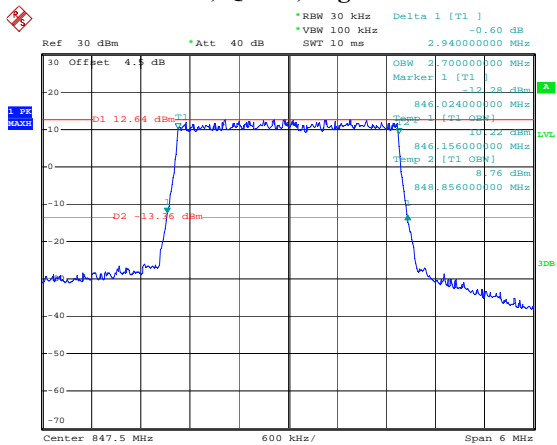
Date: 6.DEC.2020 11:33:04

3M, 16QAM, Middle Channel



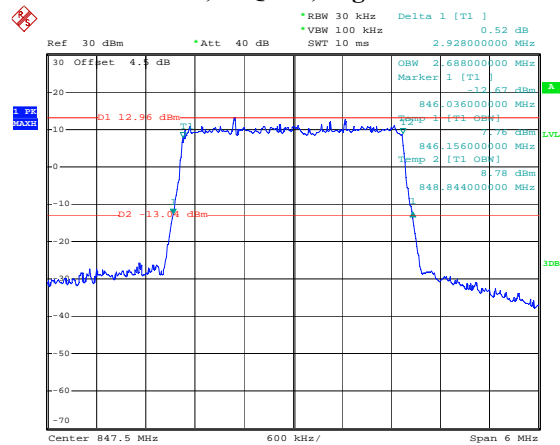
Date: 6.DEC.2020 11:33:26

3M, QPSK, High Channel



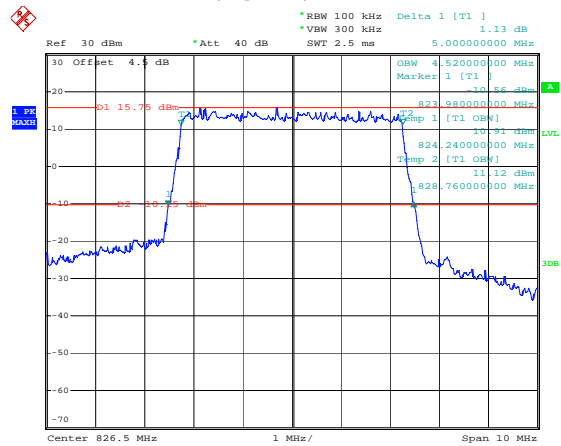
Date: 6.DEC.2020 11:33:48

3M, 16QAM, High Channel



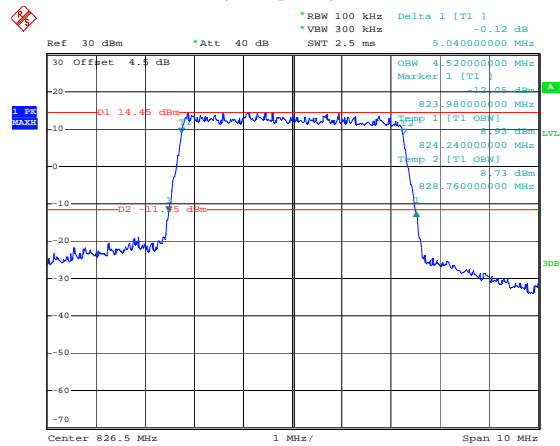
Date: 6.DEC.2020 11:34:09

5M, QPSK, Low Channel



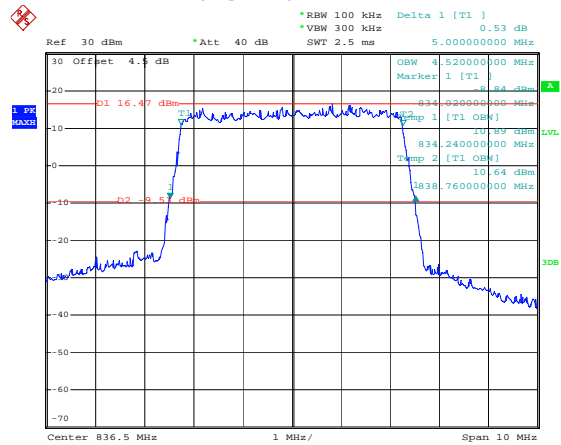
Date: 6.DEC.2020 11:34:51

5M, 16QAM, Low Channel



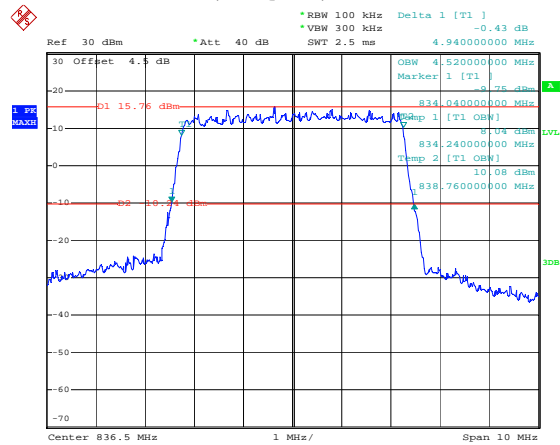
Date: 6.DEC.2020 11:35:12

5M, QPSK, Middle Channel



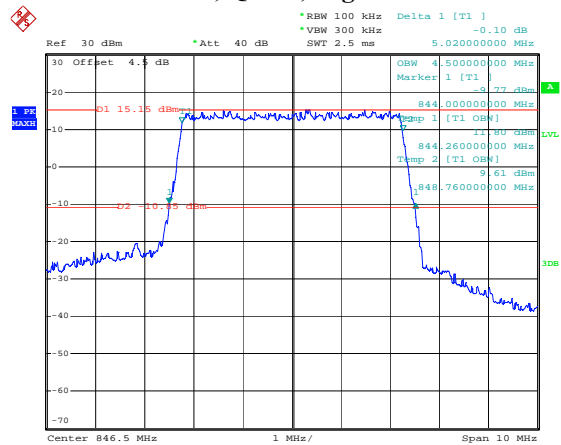
Date: 6.DEC.2020 11:35:34

5M, 16QAM, Middle Channel



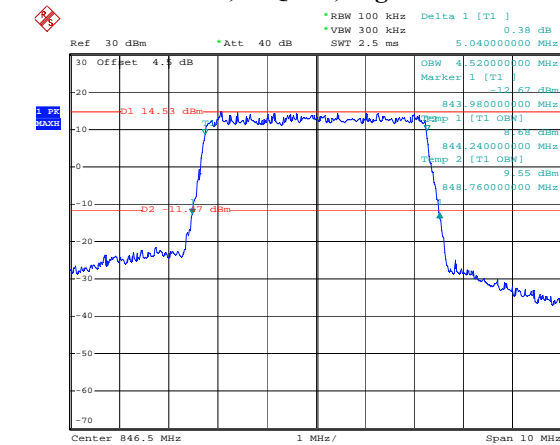
Date: 6.DEC.2020 11:35:56

5M, QPSK, High Channel



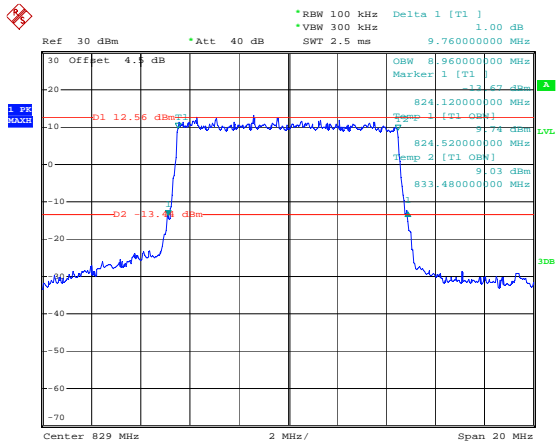
Date: 6.DEC.2020 11:36:18

5M, 16QAM, High Channel



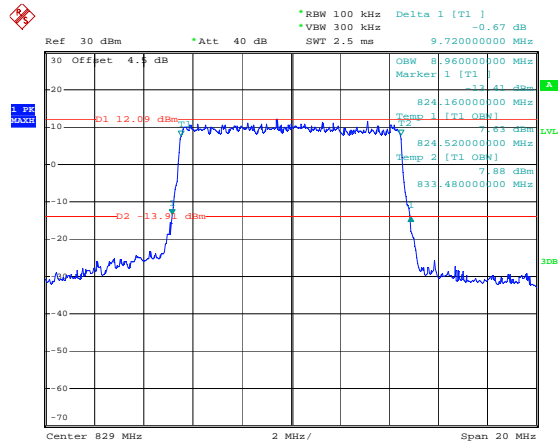
Date: 6.DEC.2020 11:36:39

10M, QPSK, Low Channel



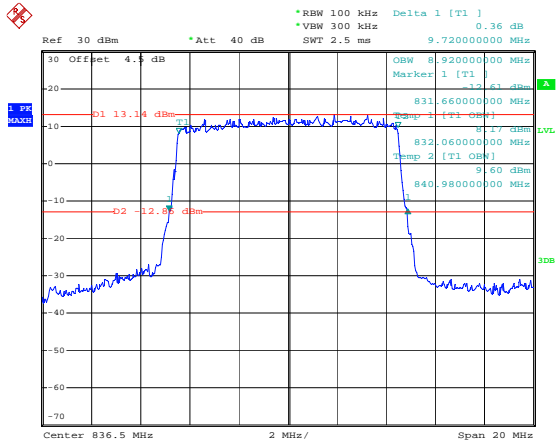
Date: 6.DEC.2020 11:38:46

10M, 16QAM, Low Channel



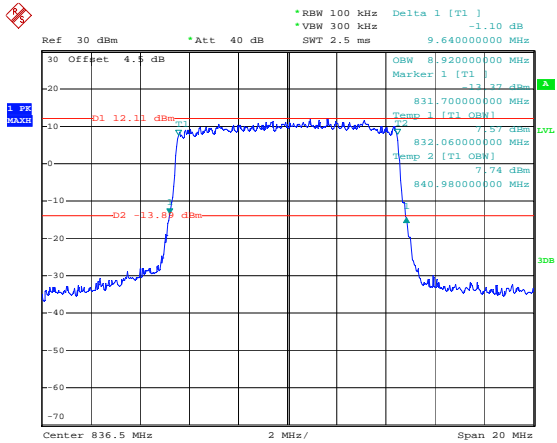
Date: 6.DEC.2020 11:39:09

10M, QPSK, Middle Channel



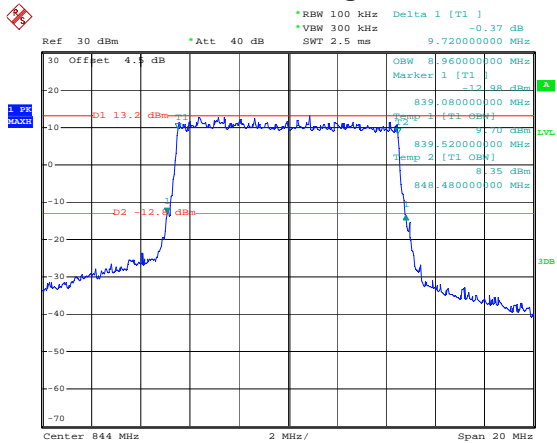
Date: 6.DEC.2020 11:39:32

10M, 16QAM, Middle Channel



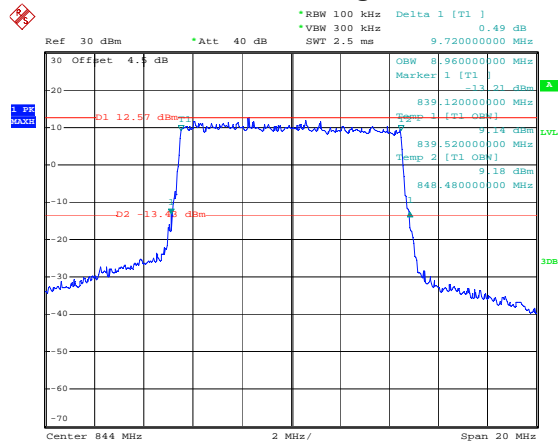
Date: 6.DEC.2020 11:39:54

10M, QPSK, High Channel



Date: 6.DEC.2020 11:40:15

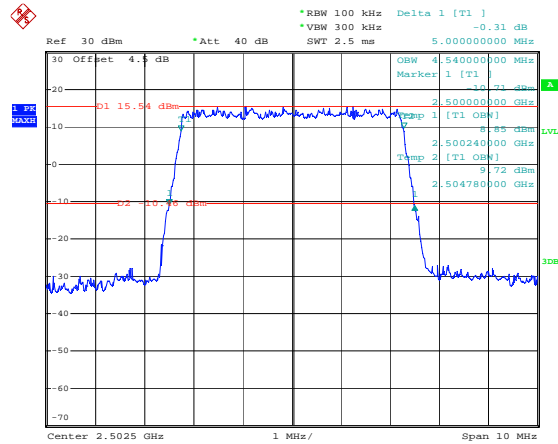
10M, 16QAM, High Channel



Date: 6.DEC.2020 11:40:40

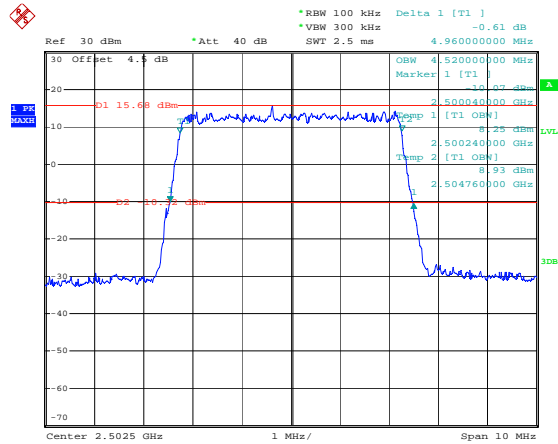
LTE Band 7:

5M, QPSK, Low Channel



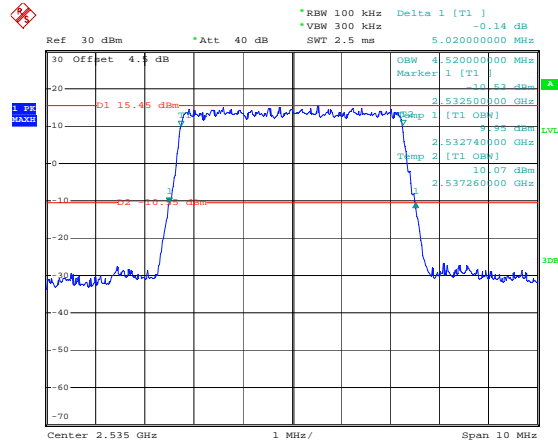
Date: 6.DEC.2020 11:41:12

5M, 16QAM, Low Channel



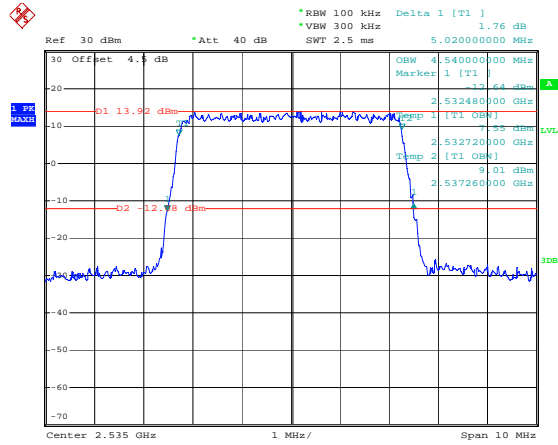
Date: 6.DEC.2020 11:41:33

5M, QPSK, Middle Channel



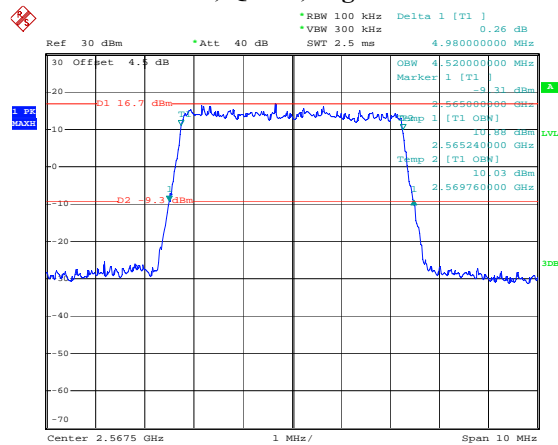
Date: 6.DEC.2020 11:41:55

5M, 16QAM, Middle Channel



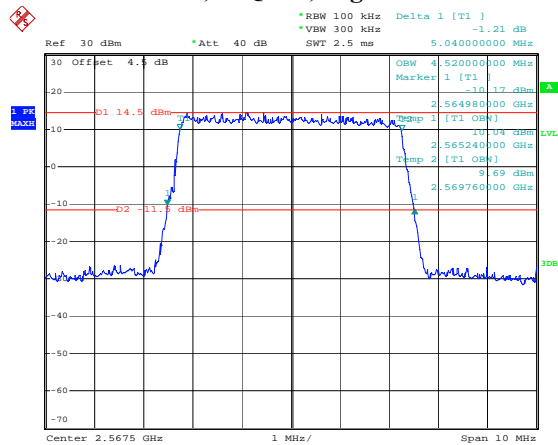
Date: 6.DEC.2020 11:42:17

5M, QPSK, High Channel



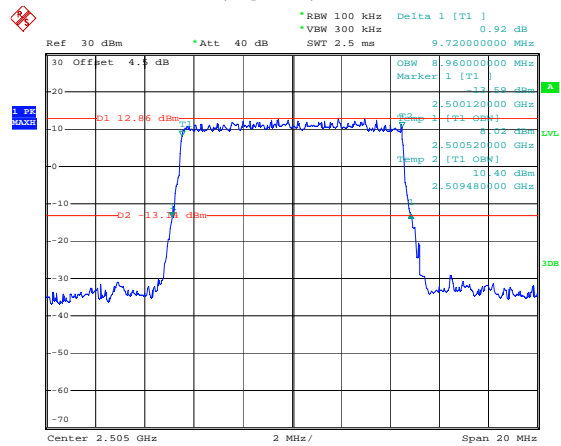
Date: 6.DEC.2020 11:42:39

5M, 16QAM, High Channel



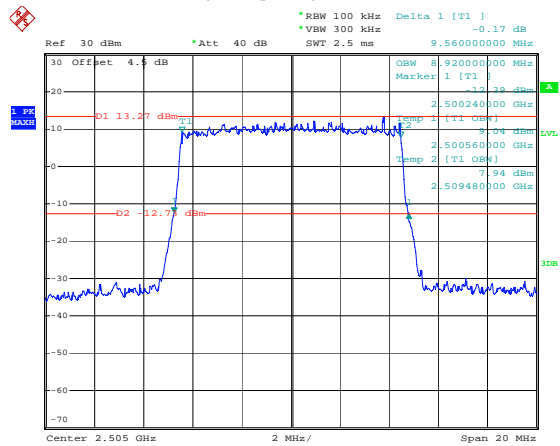
Date: 6.DEC.2020 11:42:57

10M, QPSK, Low Channel



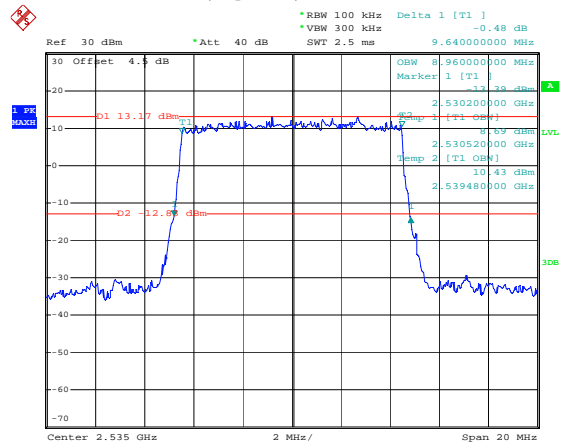
Date: 6.DEC.2020 11:43:23

10M, 16QAM, Low Channel



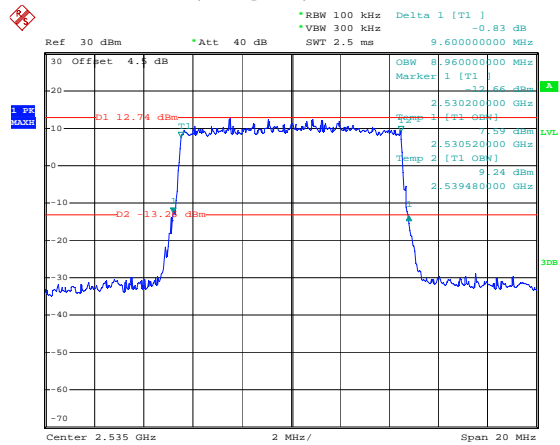
Date: 6.DEC.2020 11:43:45

10M, QPSK, Middle Channel



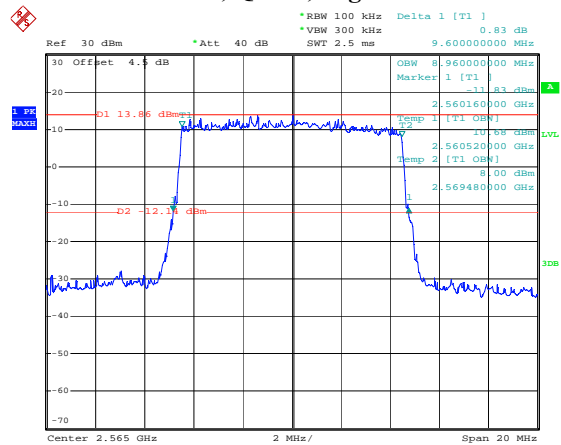
Date: 6.DEC.2020 11:44:09

10M, 16QAM, Middle Channel



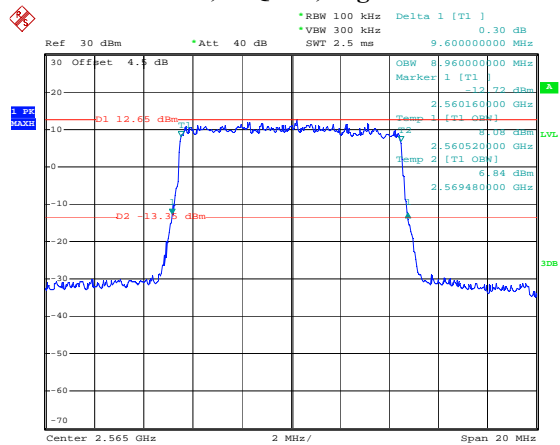
Date: 6.DEC.2020 11:44:31

10M, QPSK, High Channel



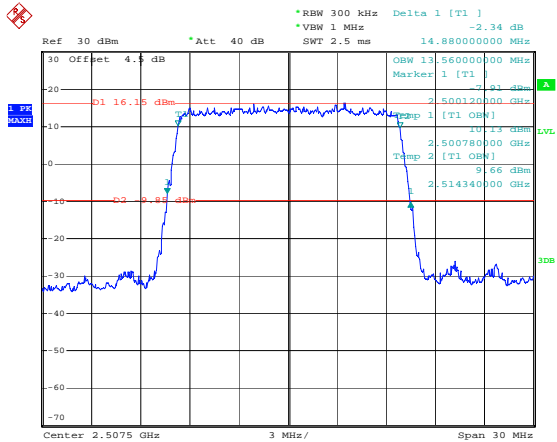
Date: 6.DEC.2020 11:44:55

10M, 16QAM, High Channel



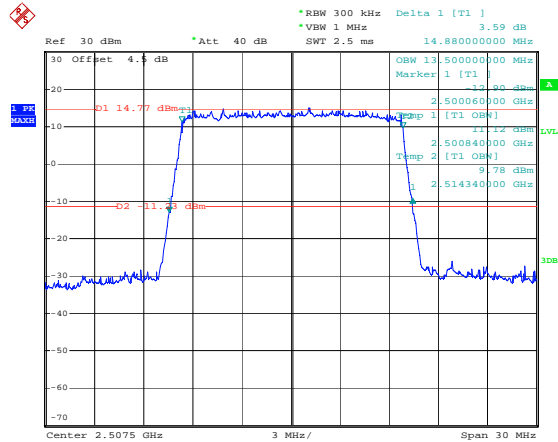
Date: 6.DEC.2020 11:45:17

15M, QPSK, Low Channel



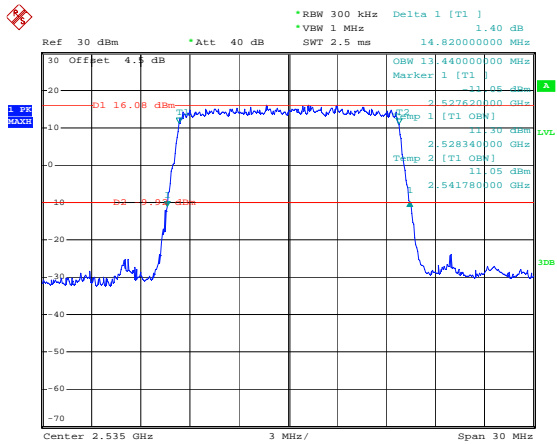
Date: 6.DEC.2020 11:45:45

15M, 16QAM, Low Channel



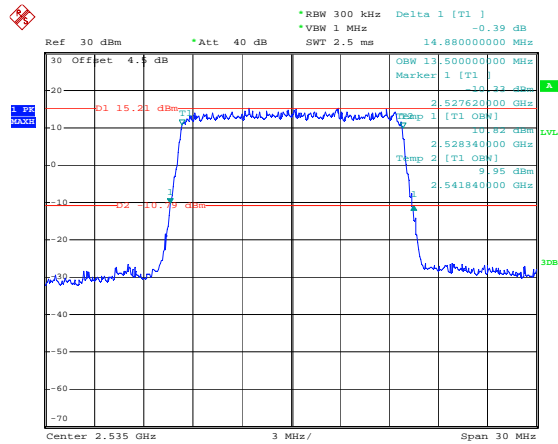
Date: 6.DEC.2020 11:46:07

15M, QPSK, Middle Channel



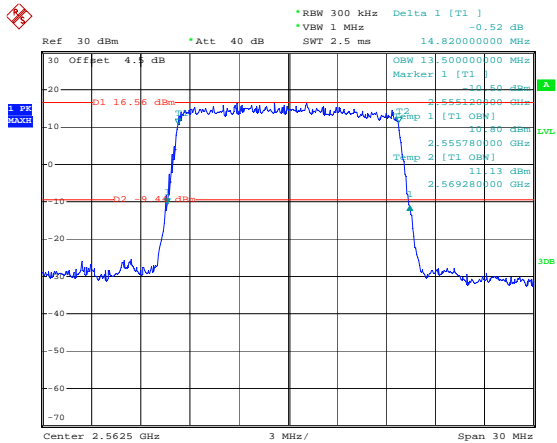
Date: 6.DEC.2020 11:46:32

15M, 16QAM, Middle Channel



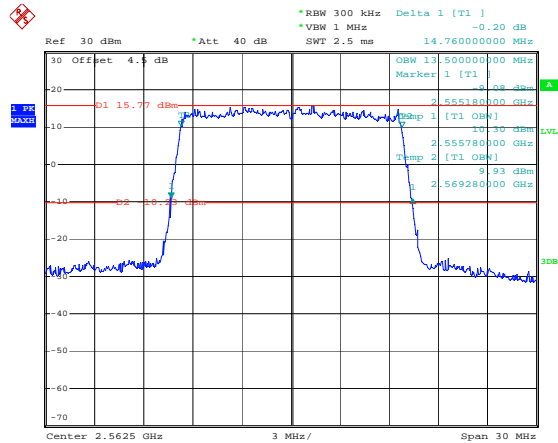
Date: 6.DEC.2020 11:46:54

15M, QPSK, High Channel



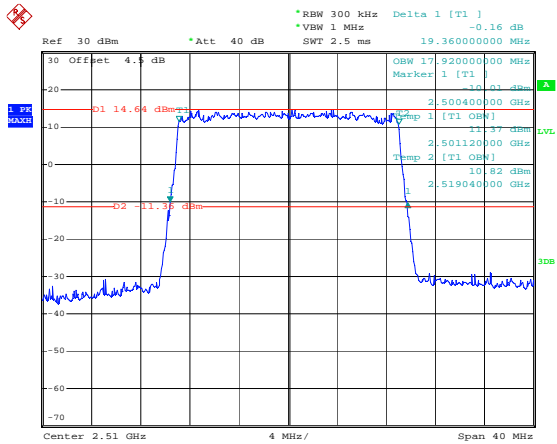
Date: 6.DEC.2020 11:47:16

15M, 16QAM, High Channel



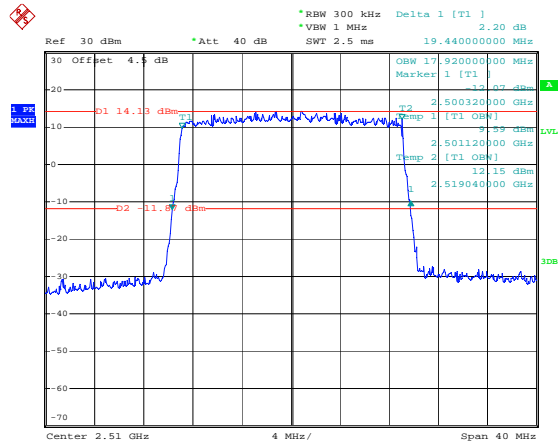
Date: 6.DEC.2020 11:47:41

20M, QPSK, Low Channel



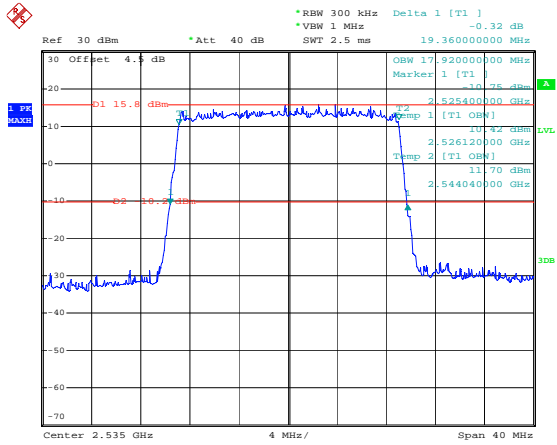
Date: 6.DEC.2020 11:48:10

20M, 16QAM, Low Channel



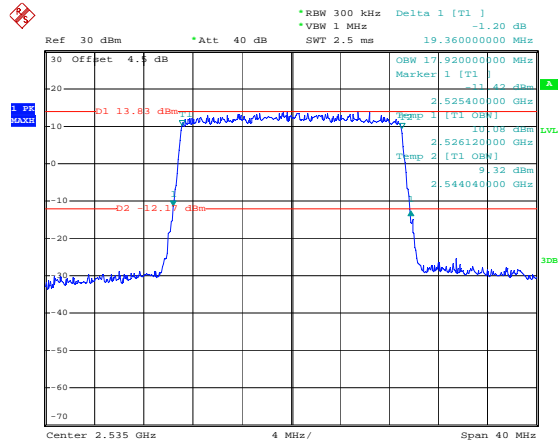
Date: 6.DEC.2020 11:48:34

20M, QPSK, Middle Channel



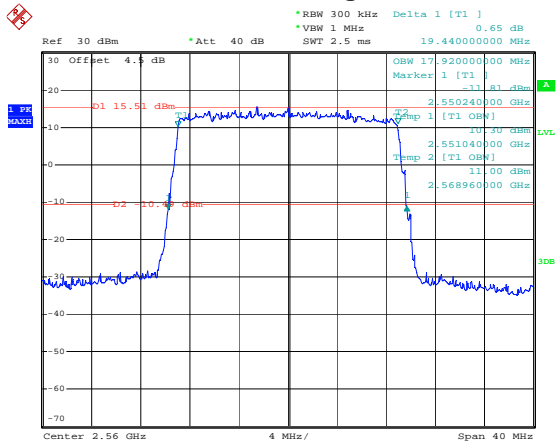
Date: 6.DEC.2020 11:49:00

20M, 16QAM, Middle Channel



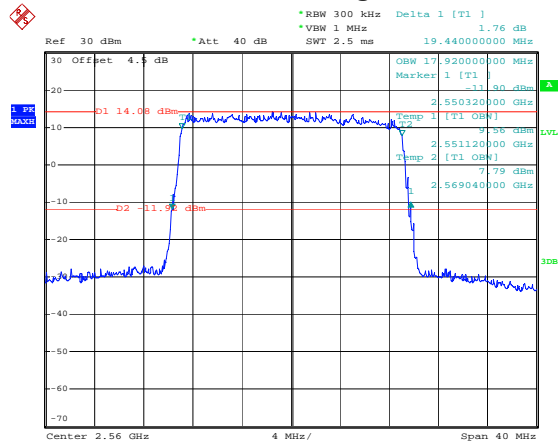
Date: 6.DEC.2020 11:49:21

20M, QPSK, High Channel



Date: 6.DEC.2020 11:49:47

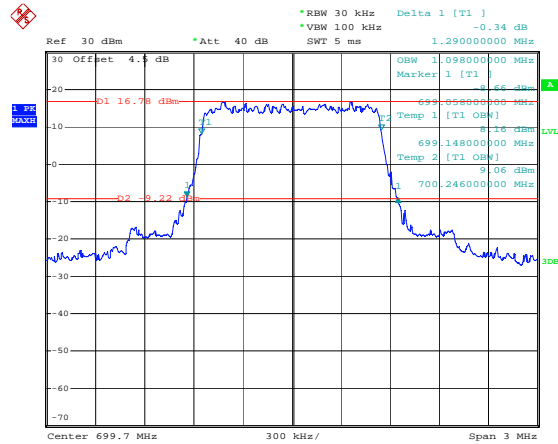
20M, 16QAM, High Channel



Date: 6.DEC.2020 11:50:09

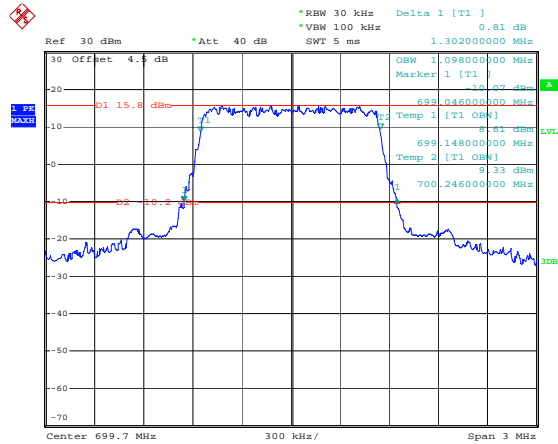
LTE Band 12:

1.4M, QPSK, Low Channel



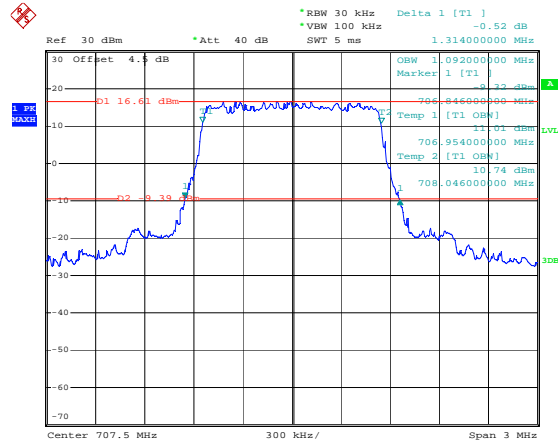
Date: 6.DEC.2020 11:59:23

1.4M, 16QAM, Low Channel



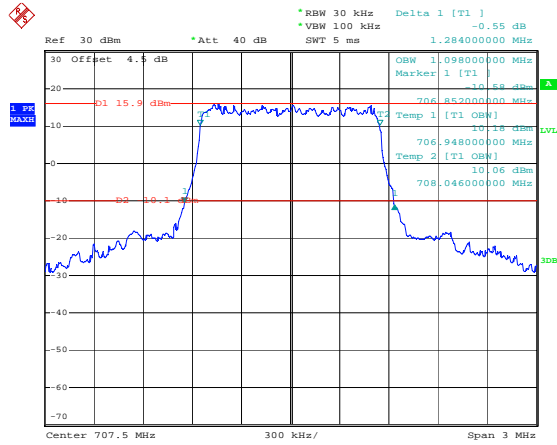
Date: 6.DEC.2020 11:59:45

1.4M, QPSK, Middle Channel



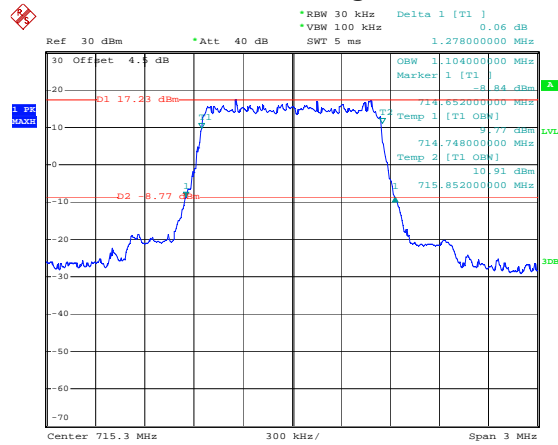
Date: 6.DEC.2020 12:00:03

1.4M, 16QAM, Middle Channel



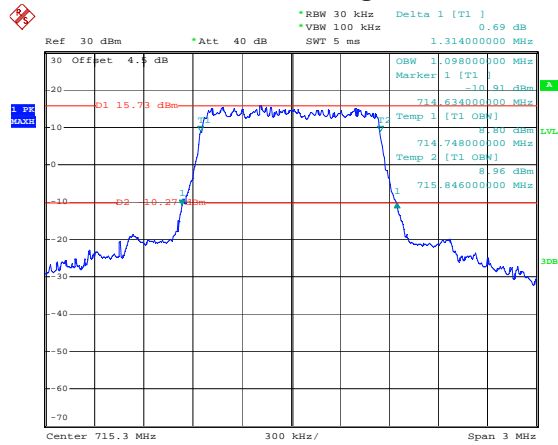
Date: 6.DEC.2020 12:00:21

1.4M, QPSK, High Channel



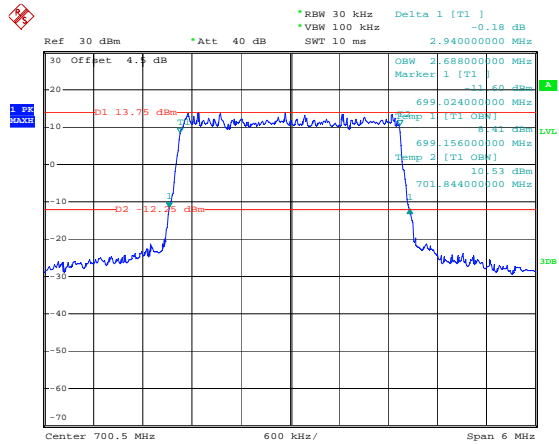
Date: 6.DEC.2020 12:00:40

1.4M, 16QAM, High Channel



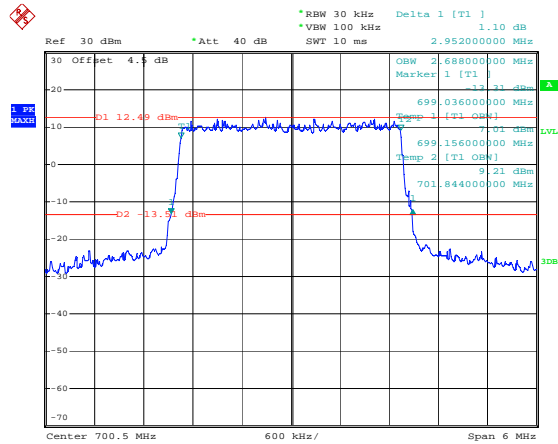
Date: 6.DEC.2020 12:00:58

3M, QPSK, Low Channel



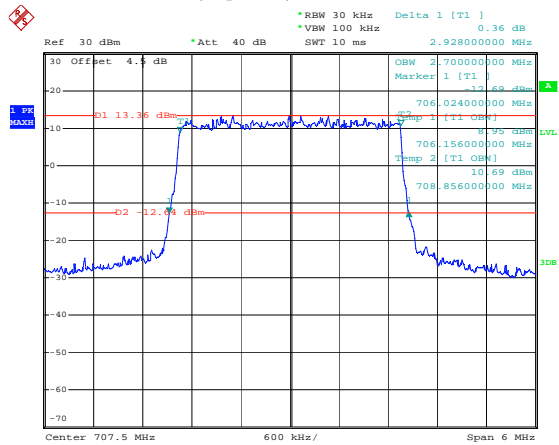
Date: 6.DEC.2020 12:01:24

3M, 16QAM, Low Channel



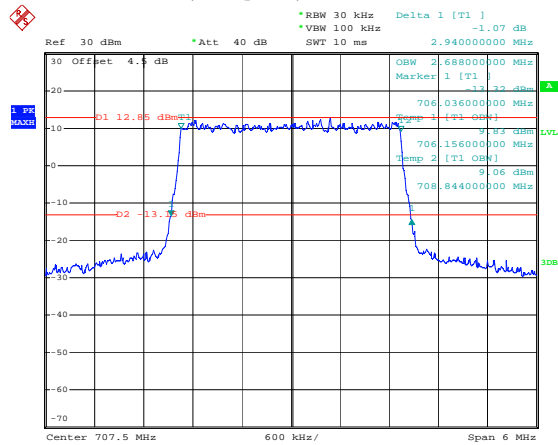
Date: 6.DEC.2020 12:01:45

3M, QPSK, Middle Channel



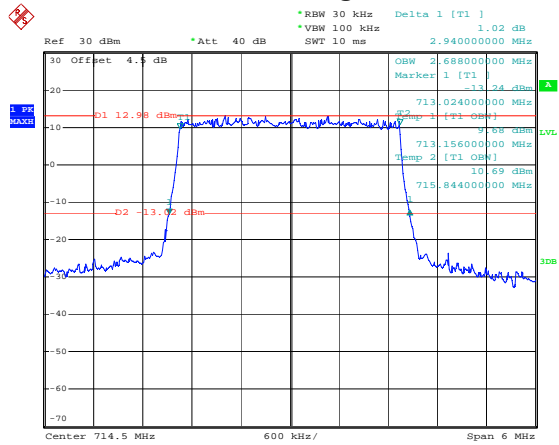
Date: 6.DEC.2020 12:02:04

3M, 16QAM, Middle Channel



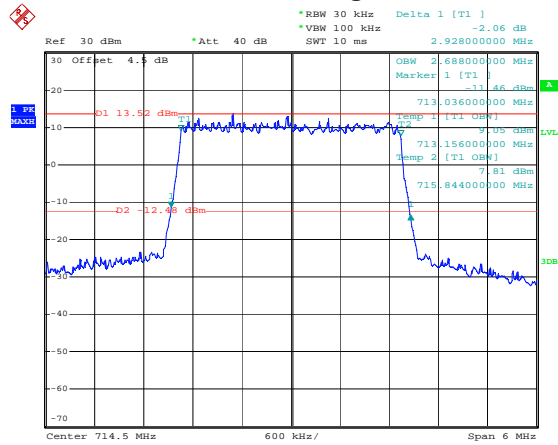
Date: 6.DEC.2020 12:02:25

3M, QPSK, High Channel



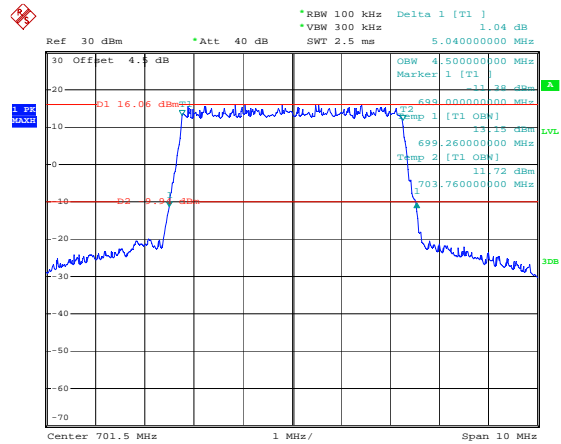
Date: 6.DEC.2020 12:02:47

3M, 16QAM, High Channel



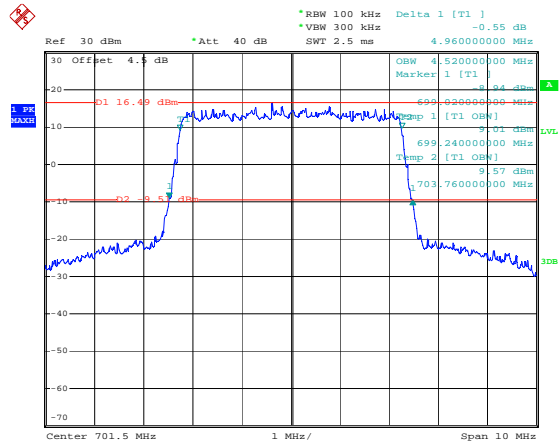
Date: 6.DEC.2020 12:03:05

5M, QPSK, Low Channel



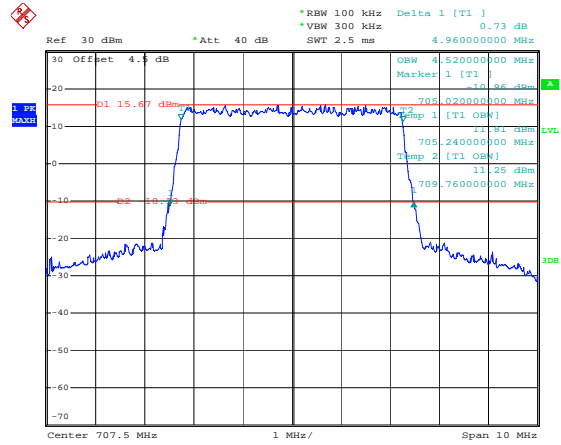
Date: 6.DEC.2020 12:03:30

5M, 16QAM, Low Channel



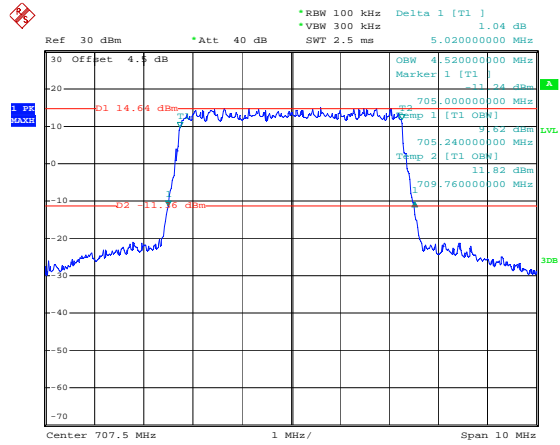
Date: 6.DEC.2020 12:03:55

5M, QPSK, Middle Channel



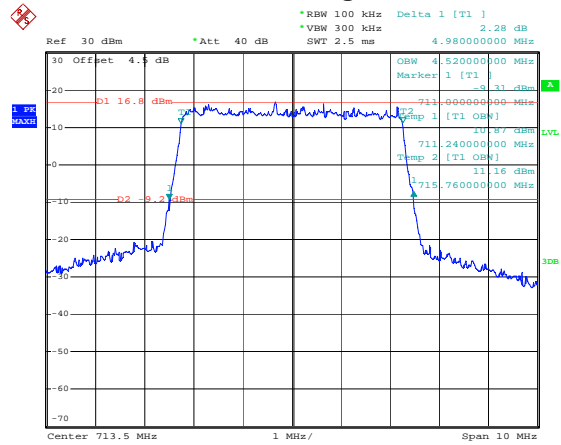
Date: 6.DEC.2020 12:04:17

5M, 16QAM, Middle Channel



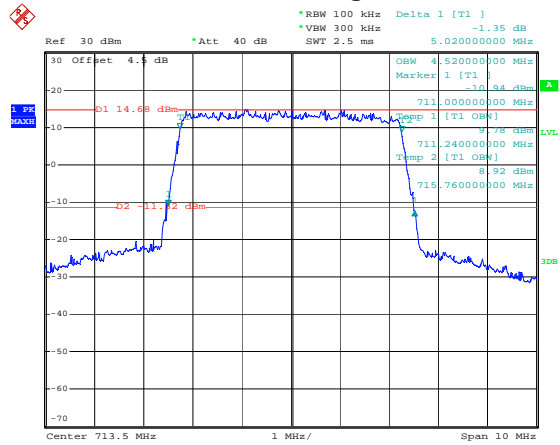
Date: 6.DEC.2020 12:04:38

5M, QPSK, High Channel



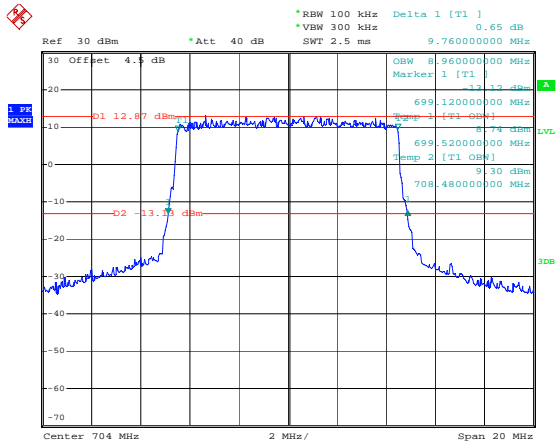
Date: 6.DEC.2020 12:05:00

5M, 16QAM, High Channel



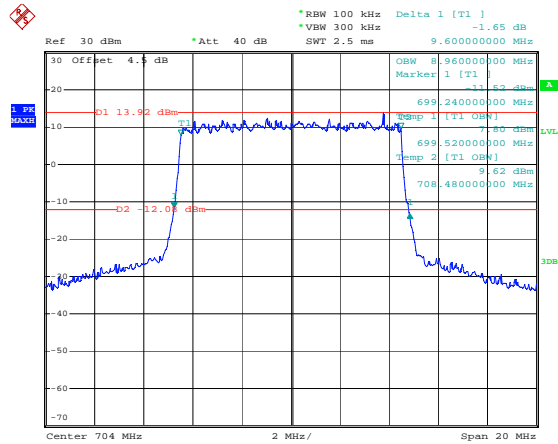
Date: 6.DEC.2020 12:05:25

10M, QPSK, Low Channel



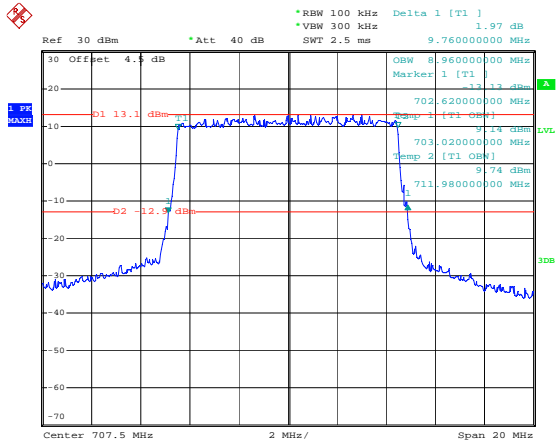
Date: 6.DEC.2020 12:05:48

10M, 16QAM, Low Channel



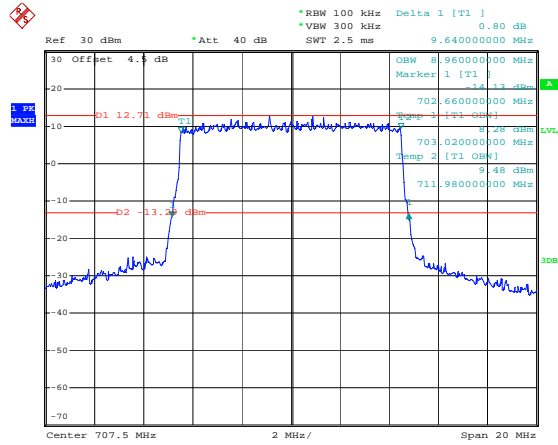
Date: 6.DEC.2020 12:06:10

10M, QPSK, Middle Channel



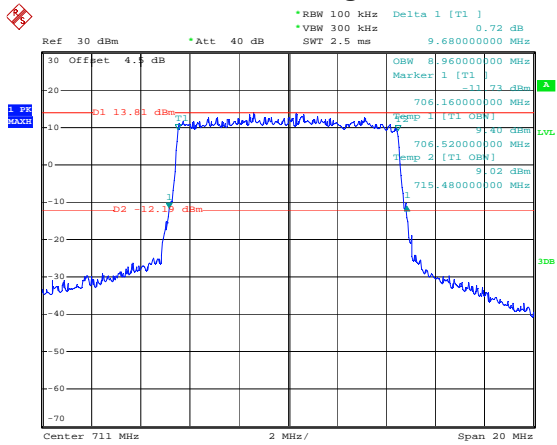
Date: 6.DEC.2020 12:06:33

10M, 16QAM, Middle Channel



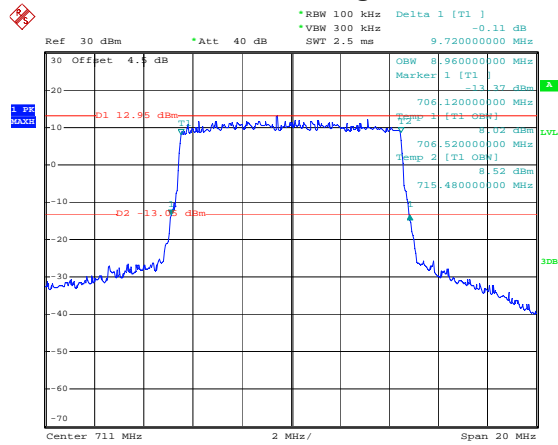
Date: 6.DEC.2020 12:06:53

10M, QPSK, High Channel



Date: 6.DEC.2020 12:07:16

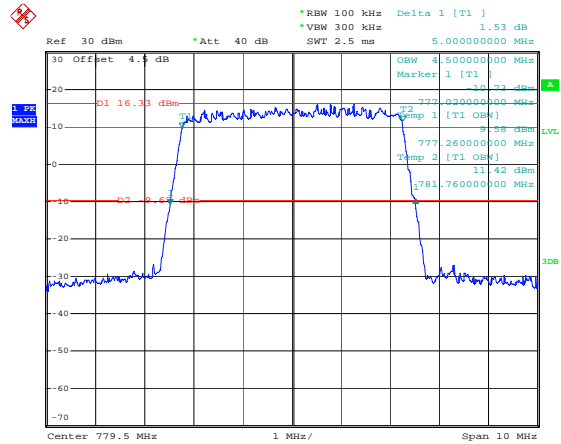
10M, 16QAM, High Channel



Date: 6.DEC.2020 12:07:38

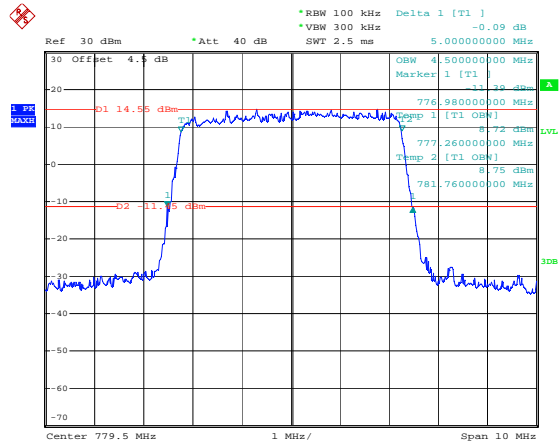
LTE Band 13:

5M, QPSK, Low Channel



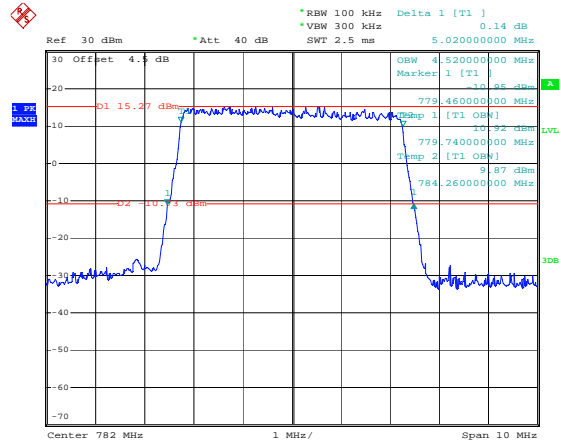
Date: 6.DEC.2020 12:08:12

5M, 16QAM, Low Channel



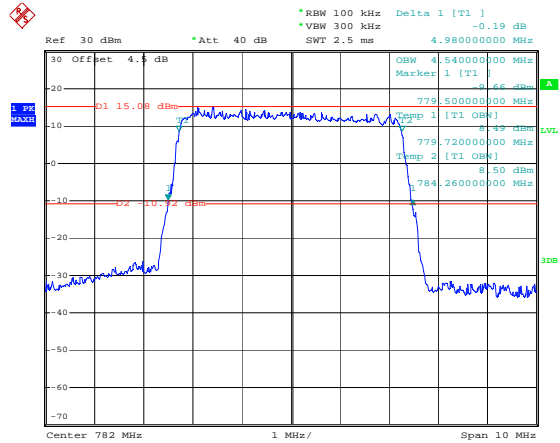
Date: 6.DEC.2020 12:08:33

5M, QPSK, Middle Channel



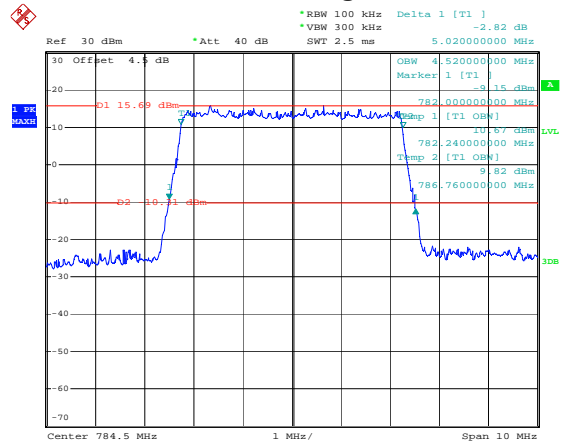
Date: 6.DEC.2020 12:08:55

5M, 16QAM, Middle Channel



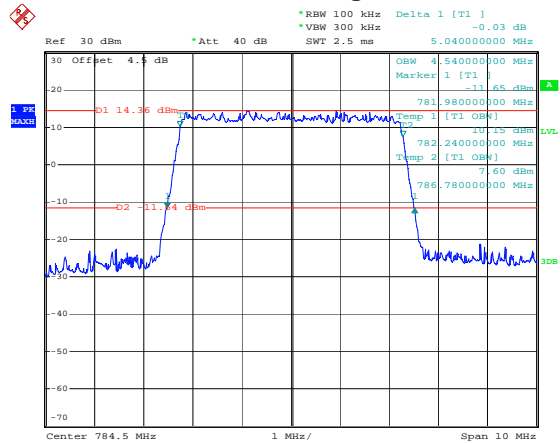
Date: 6.DEC.2020 12:09:17

5M, QPSK, High Channel



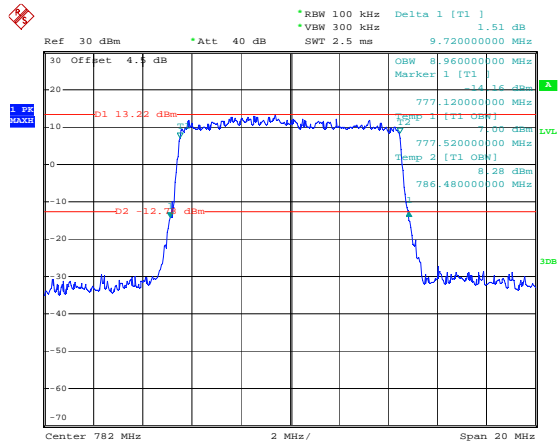
Date: 6.DEC.2020 12:09:38

5M, 16QAM, High Channel



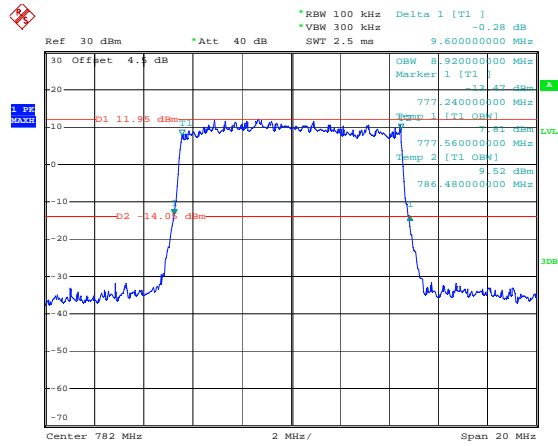
Date: 6.DEC.2020 12:10:03

10M, QPSK, Middle Channel



Date: 6.DEC.2020 12:10:31

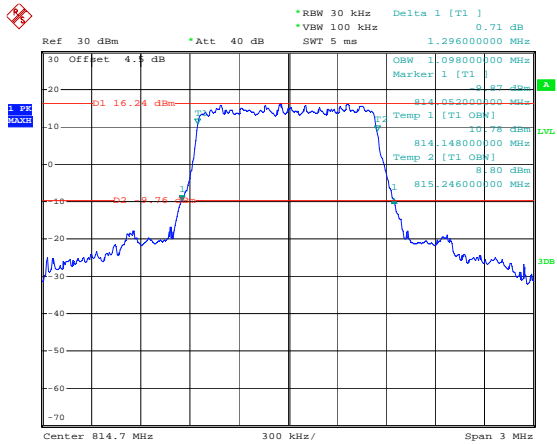
10M, 16QAM, Middle Channel



Date: 6.DEC.2020 12:10:53

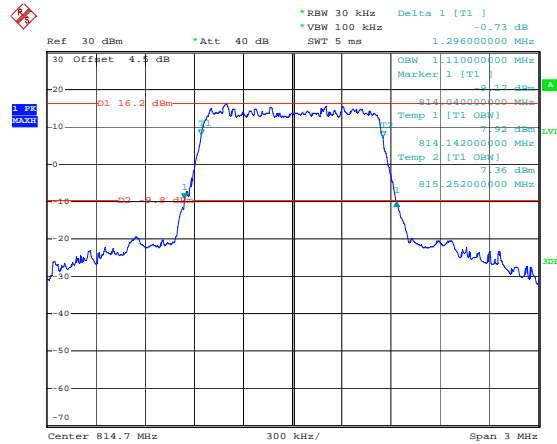
LTE Band 26:

1.4M, QPSK, Low Channel



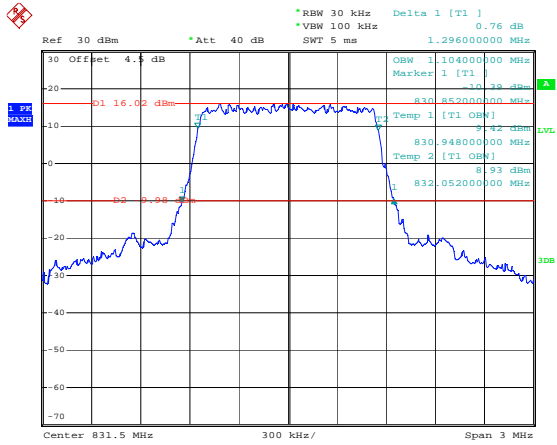
Date: 6.DEC.2020 12:32:02

1.4M, 16QAM, Low Channel



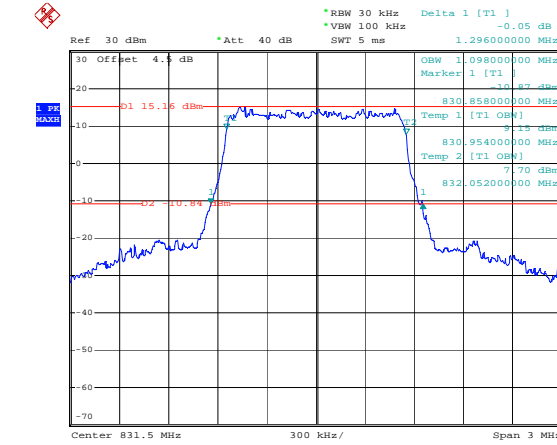
Date: 6.DEC.2020 12:32:26

1.4M, QPSK, Middle Channel



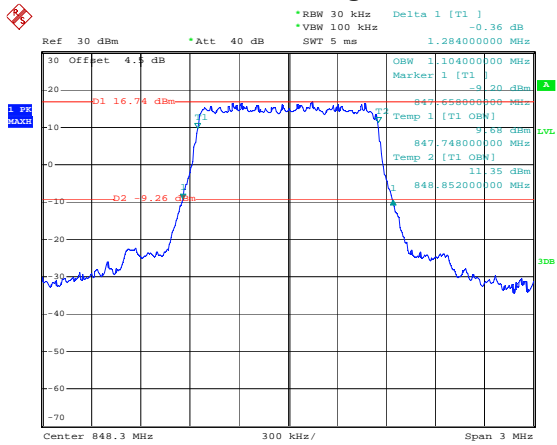
Date: 6.DEC.2020 12:32:48

1.4M, 16QAM, Middle Channel



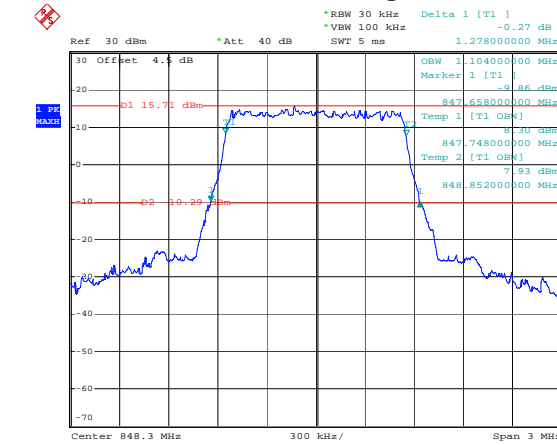
Date: 6.DEC.2020 12:33:09

1.4M, QPSK, High Channel



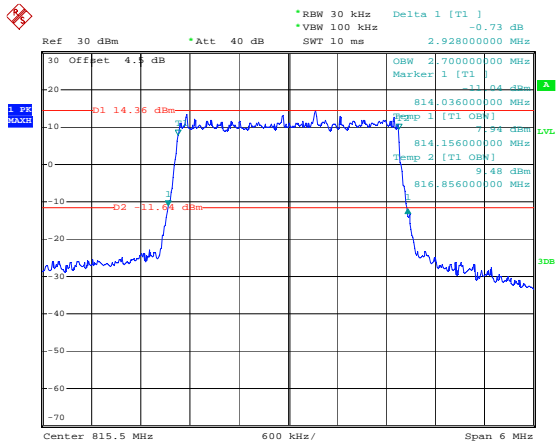
Date: 6.DEC.2020 12:33:31

1.4M, 16QAM, High Channel



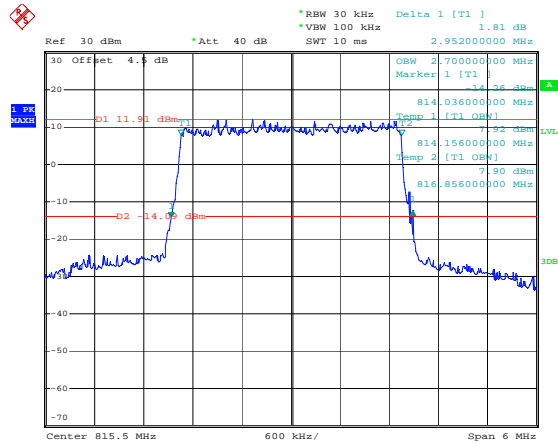
Date: 6.DEC.2020 12:33:52

3M, QPSK, Low Channel



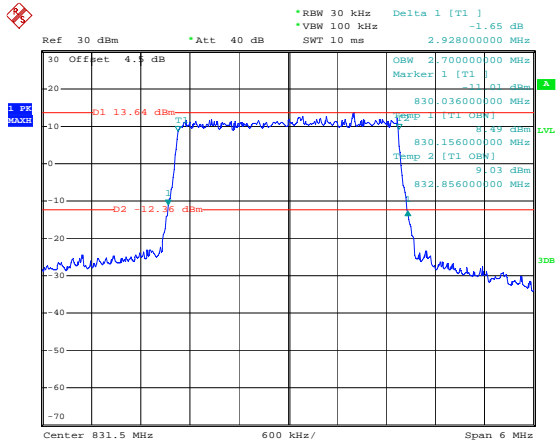
Date: 6.DEC.2020 12:34:17

3M, 16QAM, Low Channel



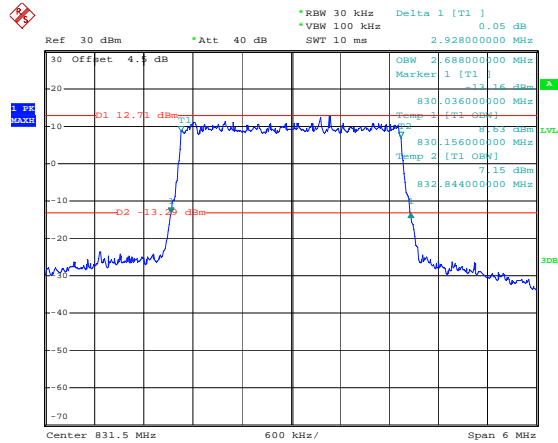
Date: 6.DEC.2020 12:34:34

3M, QPSK, Middle Channel



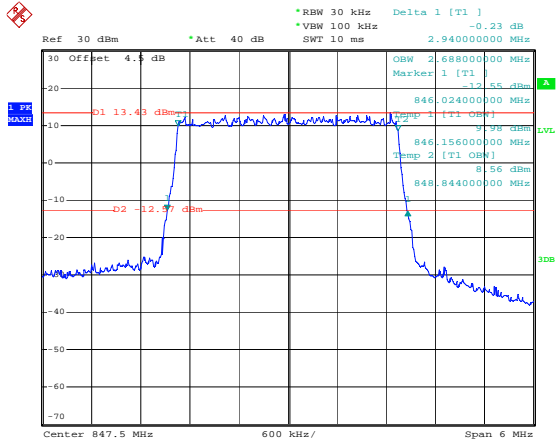
Date: 6.DEC.2020 12:34:56

3M, 16QAM, Middle Channel



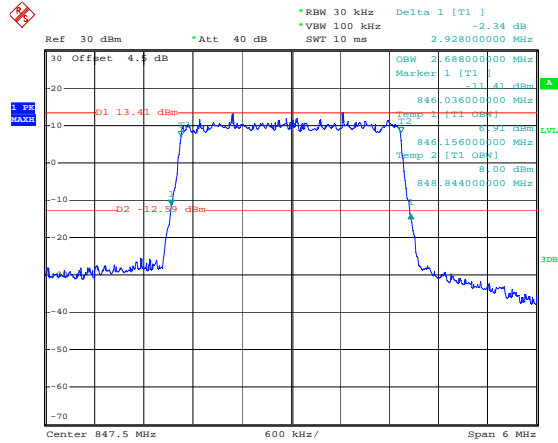
Date: 6.DEC.2020 12:35:14

3M, QPSK, High Channel



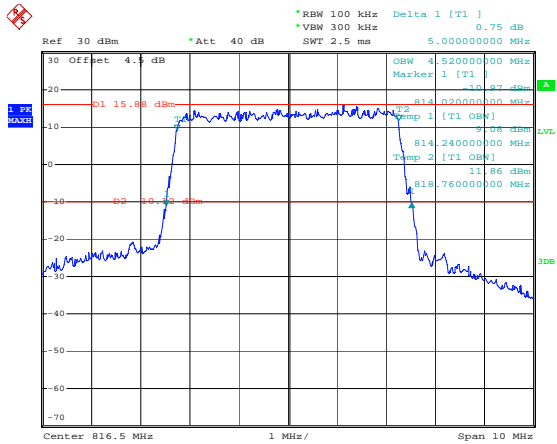
Date: 6.DEC.2020 12:35:36

3M, 16QAM, High Channel



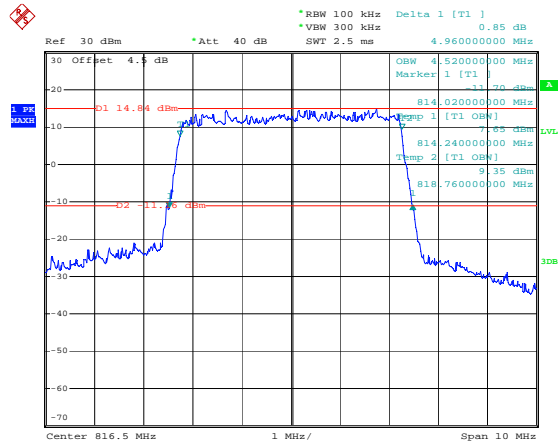
Date: 6.DEC.2020 12:35:53

5M, QPSK, Low Channel



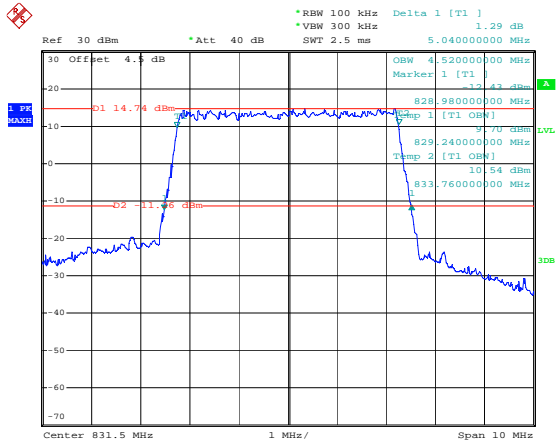
Date: 6.DEC.2020 12:36:18

5M, 16QAM, Low Channel



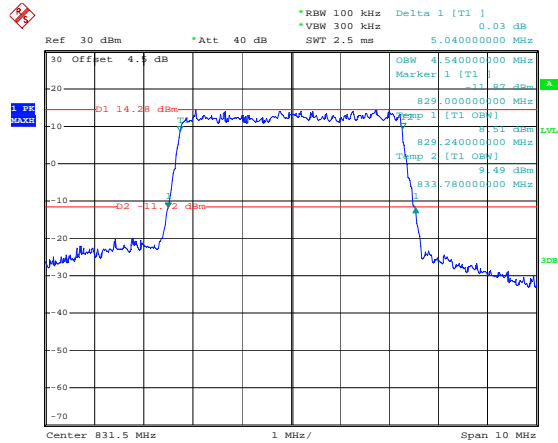
Date: 6.DEC.2020 12:36:39

5M, QPSK, Middle Channel



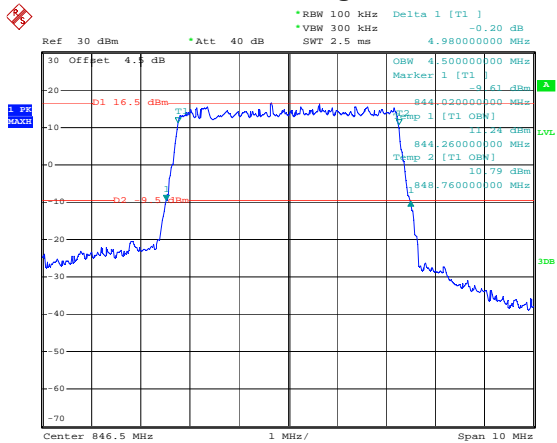
Date: 6.DEC.2020 12:37:01

5M, 16QAM, Middle Channel



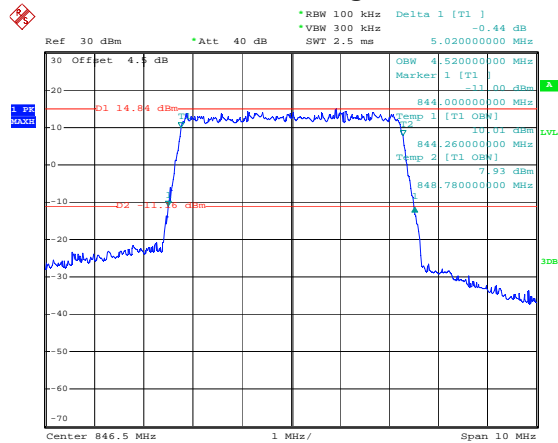
Date: 6.DEC.2020 12:37:22

5M, QPSK, High Channel



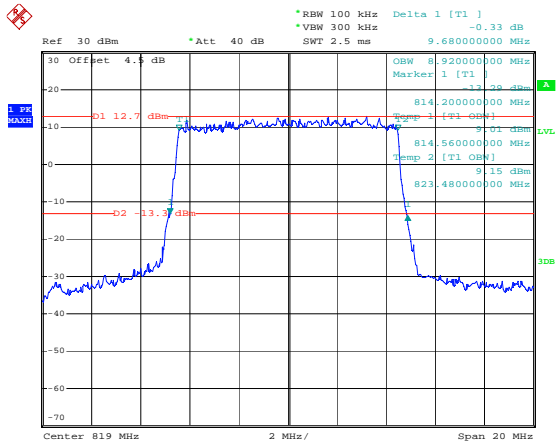
Date: 6.DEC.2020 12:37:47

5M, 16QAM, High Channel



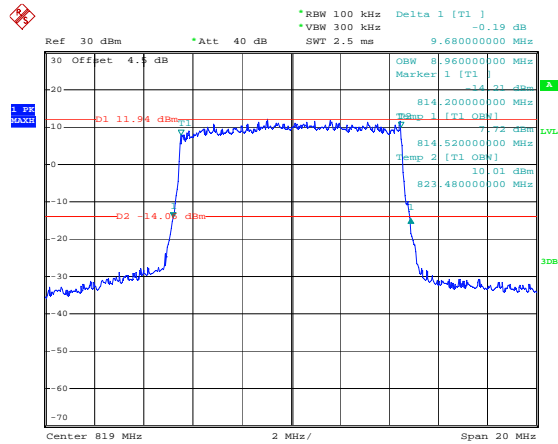
Date: 6.DEC.2020 12:38:08

10M, QPSK, Low Channel



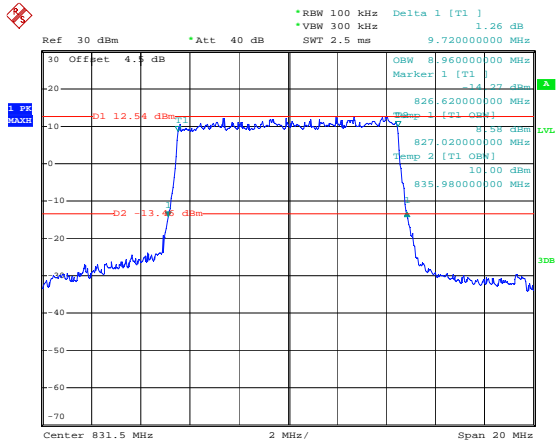
Date: 6.DEC.2020 12:38:35

10M, 16QAM, Low Channel



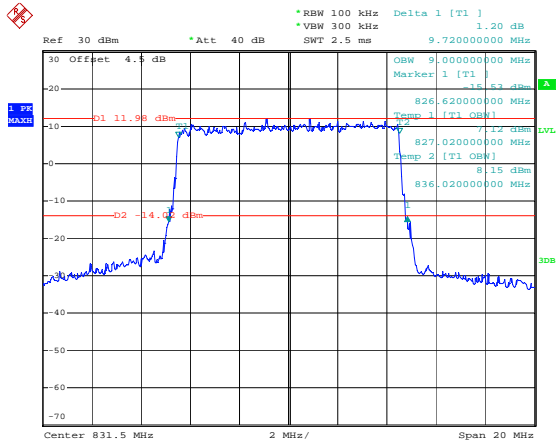
Date: 6.DEC.2020 12:38:57

10M, QPSK, Middle Channel



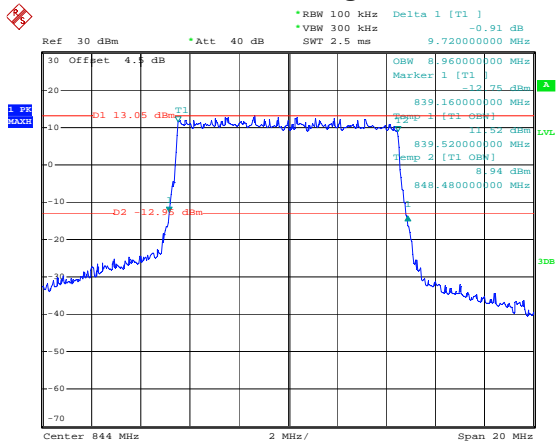
Date: 6.DEC.2020 12:39:17

10M, 16QAM, Middle Channel



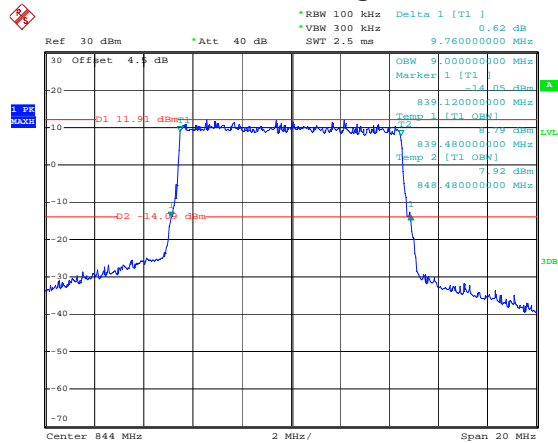
Date: 6.DEC.2020 12:39:37

10M, QPSK, High Channel



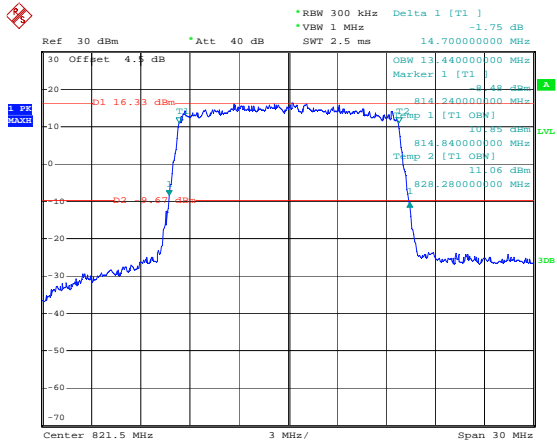
Date: 6.DEC.2020 12:40:00

10M, 16QAM, High Channel



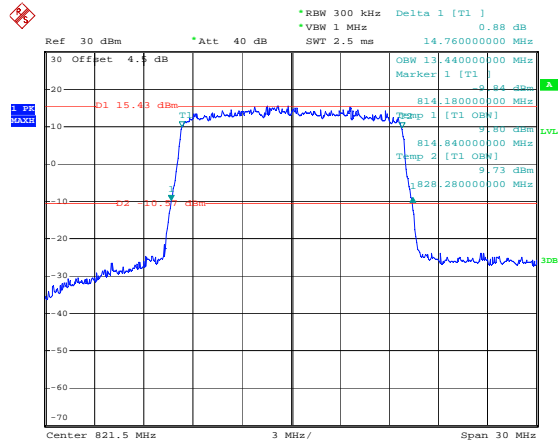
Date: 6.DEC.2020 12:40:22

15M, QPSK, Low Channel



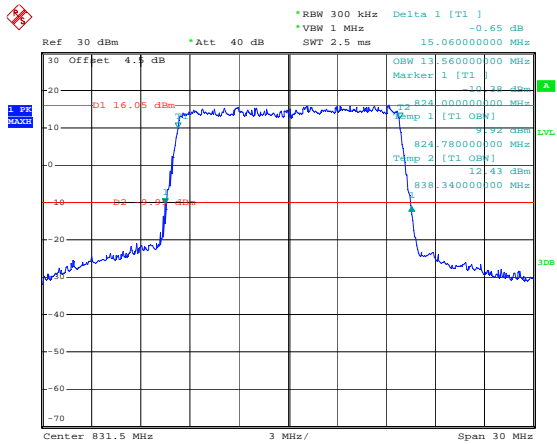
Date: 6.DEC.2020 12:42:49

15M, 16QAM, Low Channel



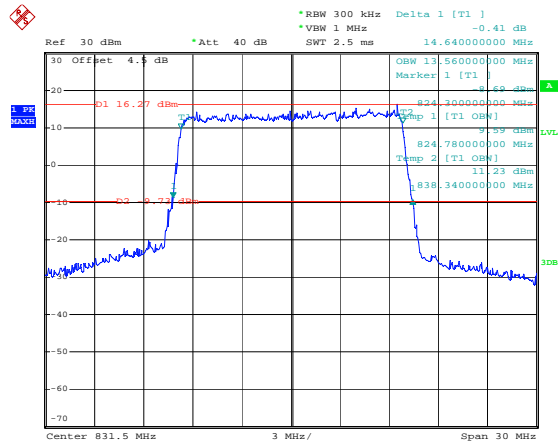
Date: 6.DEC.2020 12:43:14

15M, QPSK, Middle Channel



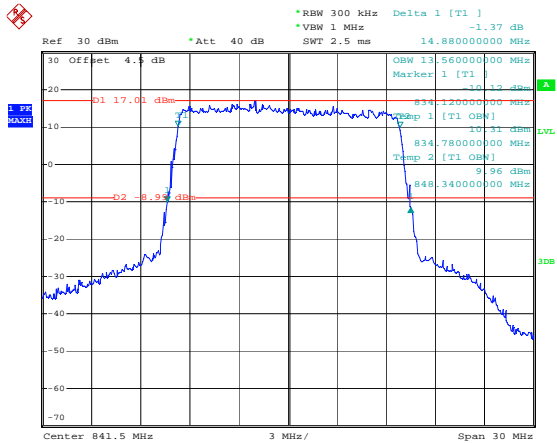
Date: 6.DEC.2020 12:43:39

15M, 16QAM, Middle Channel



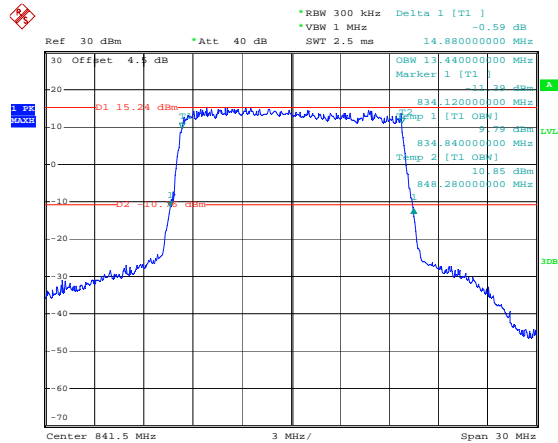
Date: 6.DEC.2020 12:44:00

15M, QPSK, High Channel



Date: 6.DEC.2020 12:44:25

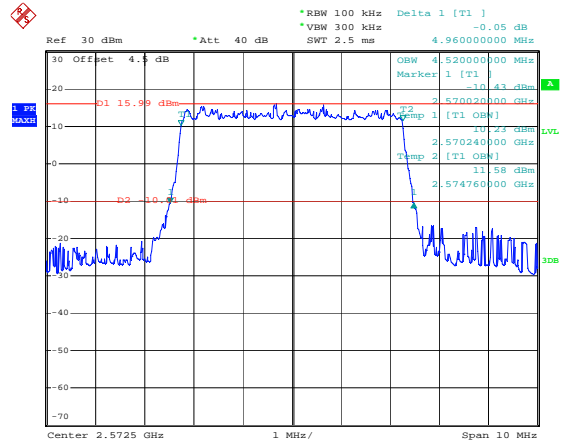
15M, 16QAM, High Channel



Date: 6.DEC.2020 12:44:46

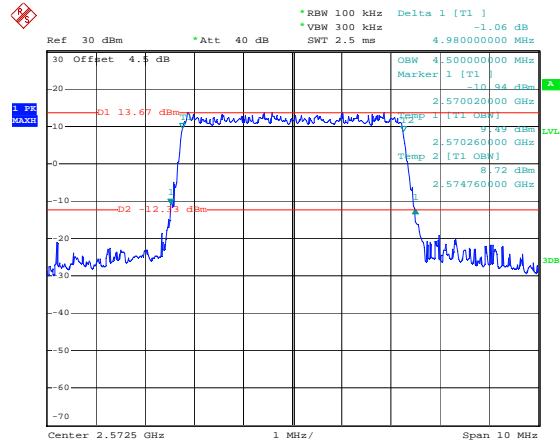
LTE Band 38:

5M, QPSK, Low Channel



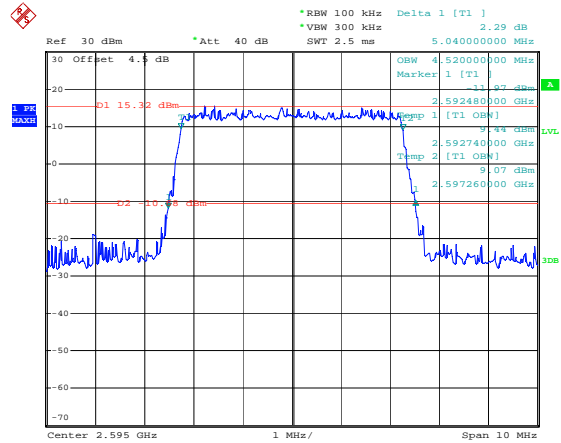
Date: 6.DEC.2020 12:45:37

5M, 16QAM, Low Channel



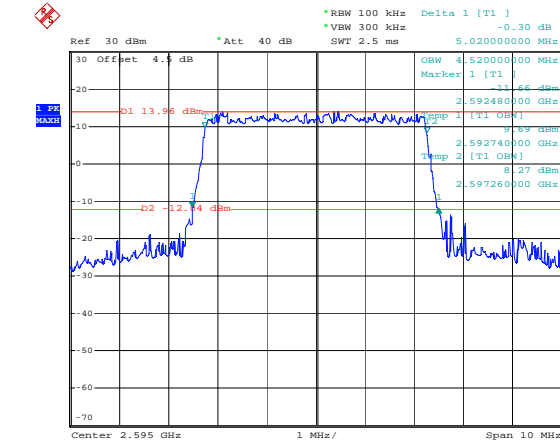
Date: 6.DEC.2020 12:45:59

5M, QPSK, Middle Channel



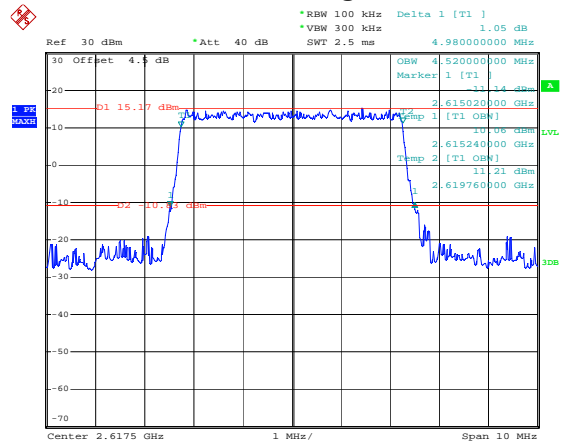
Date: 6.DEC.2020 12:46:23

5M, 16QAM, Middle Channel



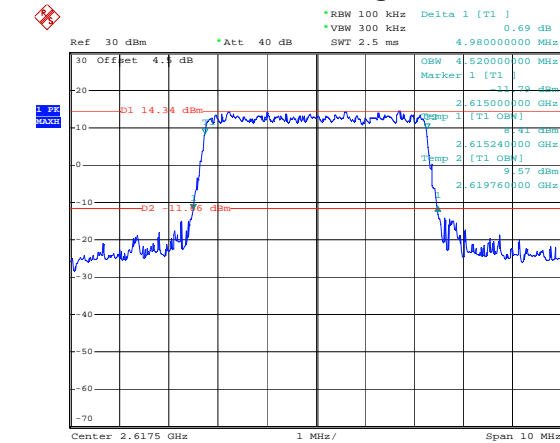
Date: 6.DEC.2020 12:46:51

5M, QPSK, High Channel



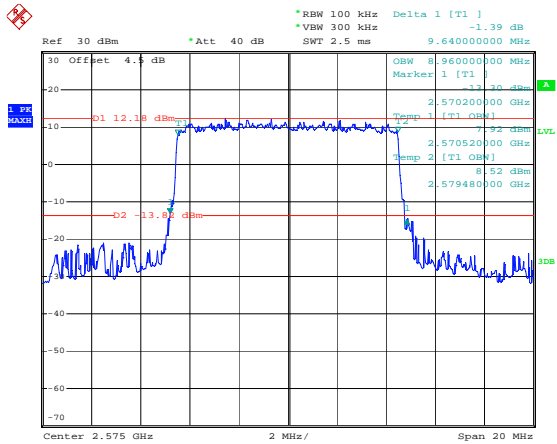
Date: 6.DEC.2020 12:47:12

5M, 16QAM, High Channel



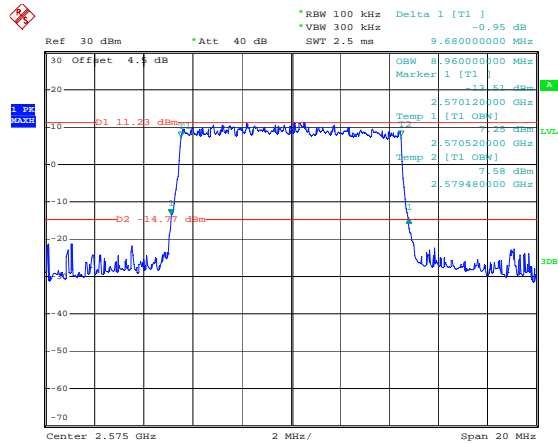
Date: 6.DEC.2020 12:47:40

10M, QPSK, Low Channel



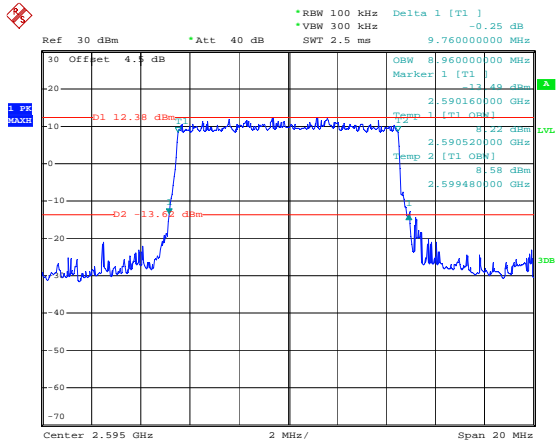
Date: 6.DEC.2020 12:50:37

10M, 16QAM, Low Channel



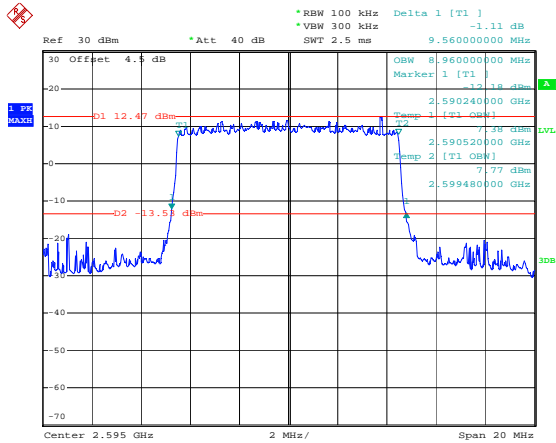
Date: 6.DEC.2020 12:51:03

10M, QPSK, Middle Channel



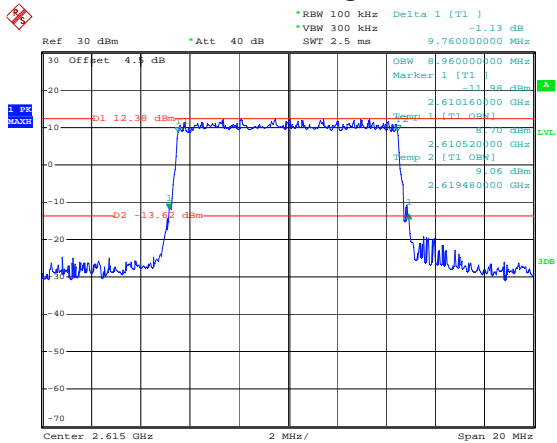
Date: 6.DEC.2020 12:51:26

10M, 16QAM, Middle Channel



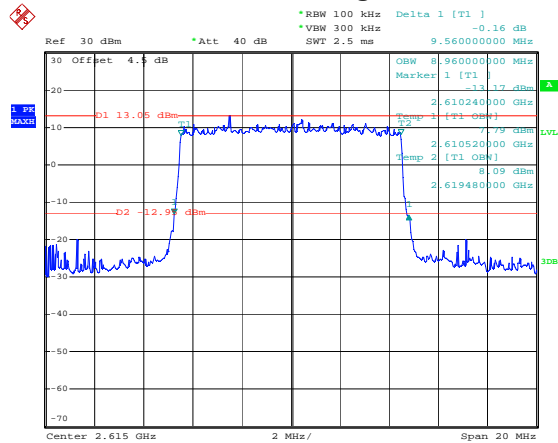
Date: 6.DEC.2020 12:51:51

10M, QPSK, High Channel



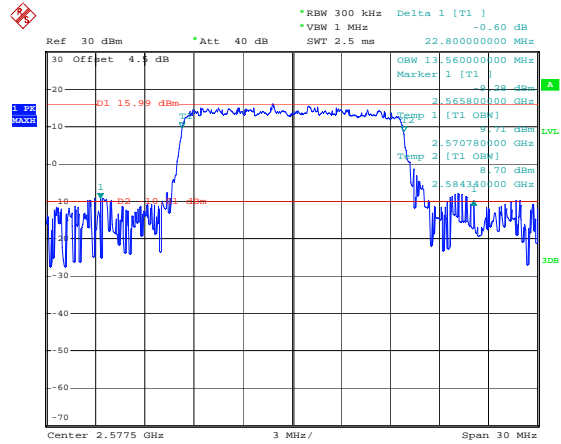
Date: 6.DEC.2020 12:52:17

10M, 16QAM, High Channel



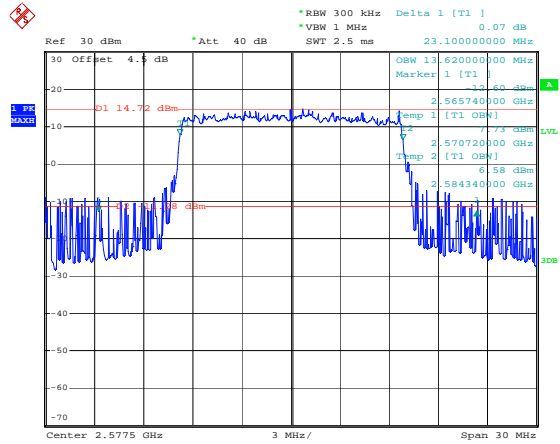
Date: 6.DEC.2020 12:52:39

15M, QPSK, Low Channel



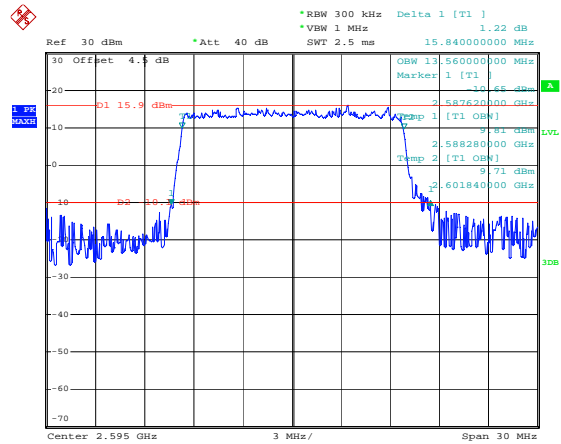
Date: 6.DEC.2020 12:57:36

15M, 16QAM, Low Channel



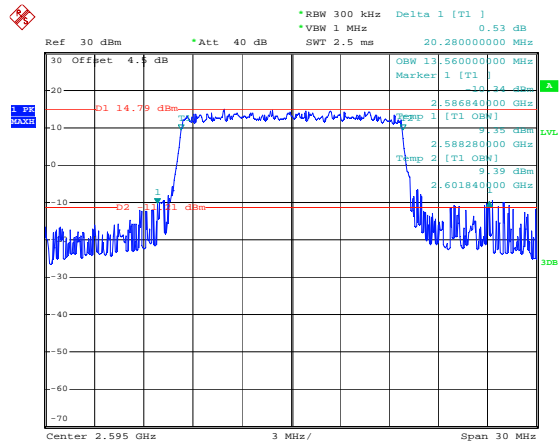
Date: 6.DEC.2020 12:58:04

15M, QPSK, Middle Channel



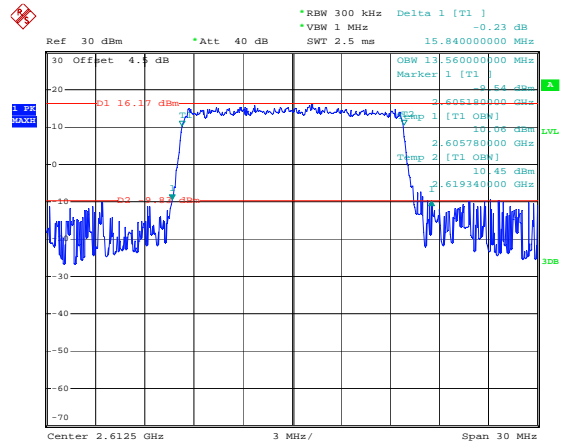
Date: 6.DEC.2020 12:58:42

15M, 16QAM, Middle Channel



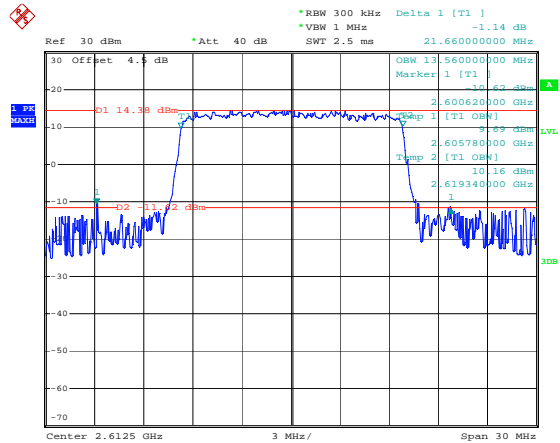
Date: 6.DEC.2020 12:59:15

15M, QPSK, High Channel



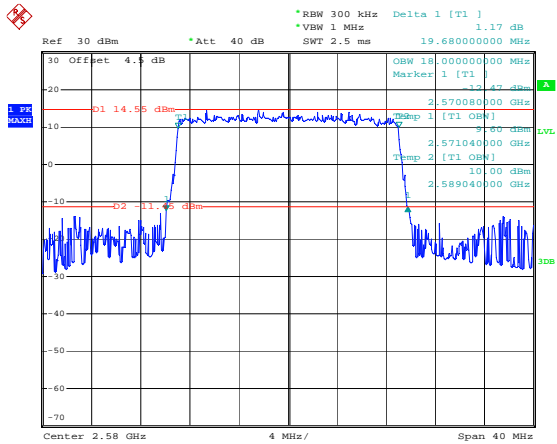
Date: 6.DEC.2020 12:59:50

15M, 16QAM, High Channel



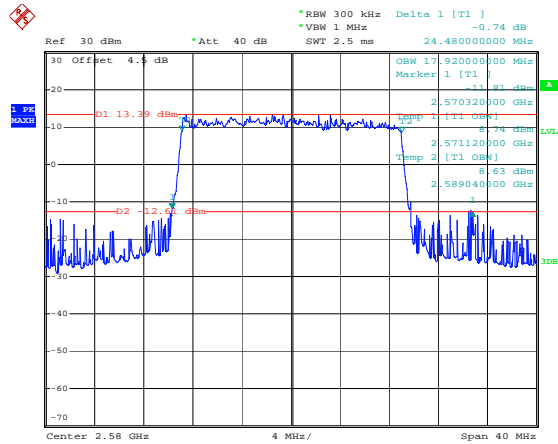
Date: 6.DEC.2020 13:00:30

20M, QPSK, Low Channel



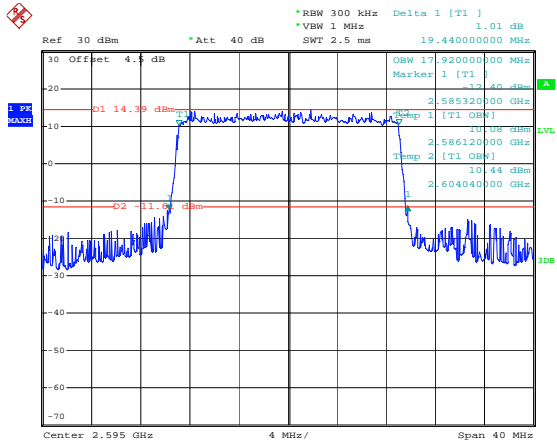
Date: 6.DEC.2020 13:01:28

20M, 16QAM, Low Channel



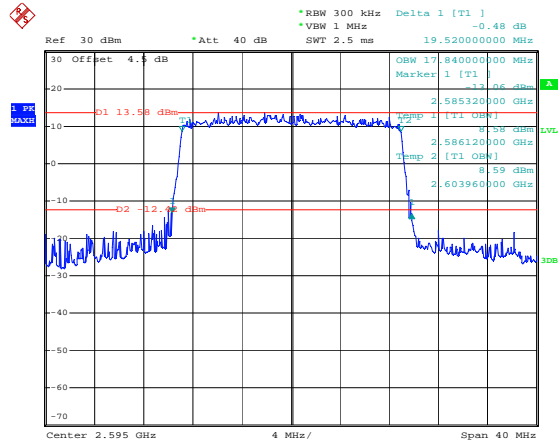
Date: 6.DEC.2020 13:01:56

20M, QPSK, Middle Channel



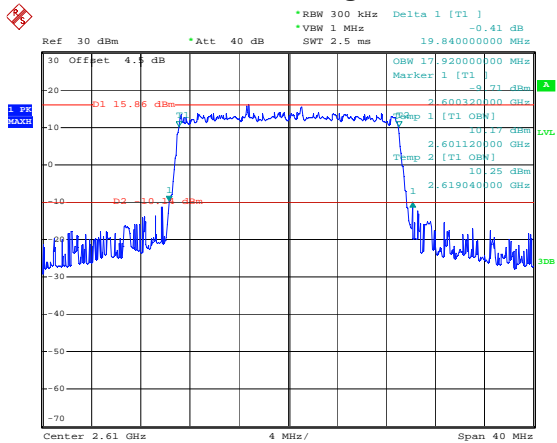
Date: 6.DEC.2020 13:02:24

20M, 16QAM, Middle Channel



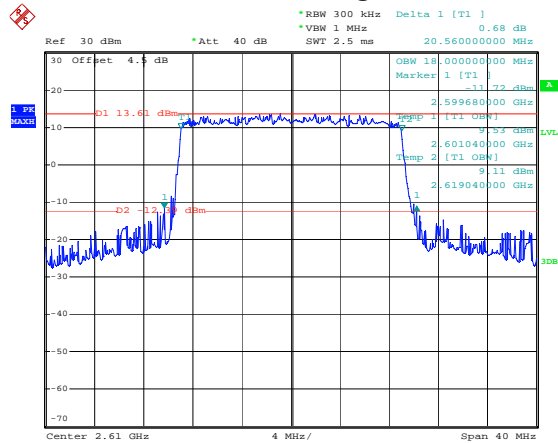
Date: 6.DEC.2020 13:02:52

20M, QPSK, High Channel



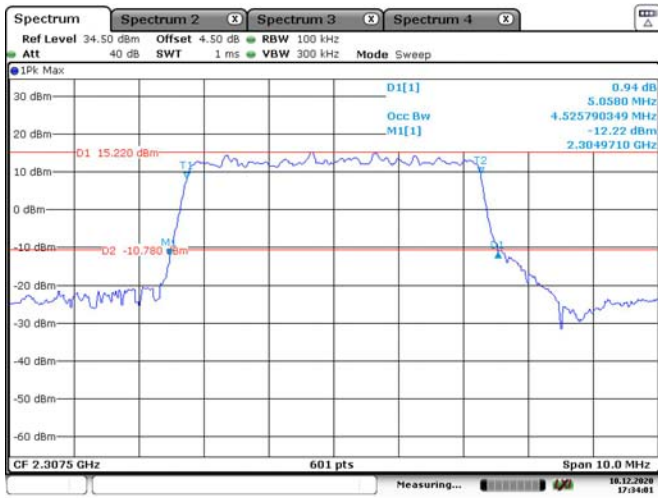
Date: 6.DEC.2020 13:03:20

20M, 16QAM, High Channel



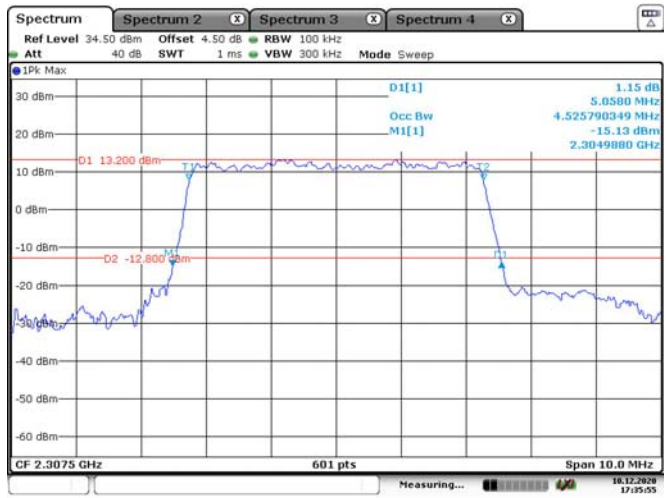
Date: 6.DEC.2020 13:03:51

LTE Band 40 Lower:
5M, QPSK, Low Channel



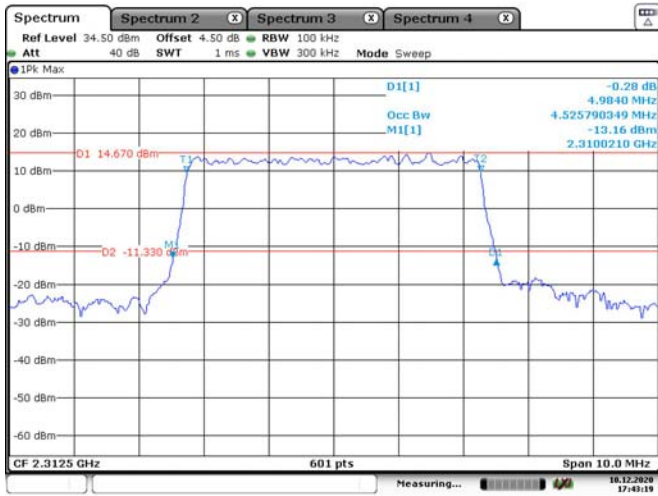
Date: 10, DEC, 2020 17:34:01

5M, 16QAM, Low Channel



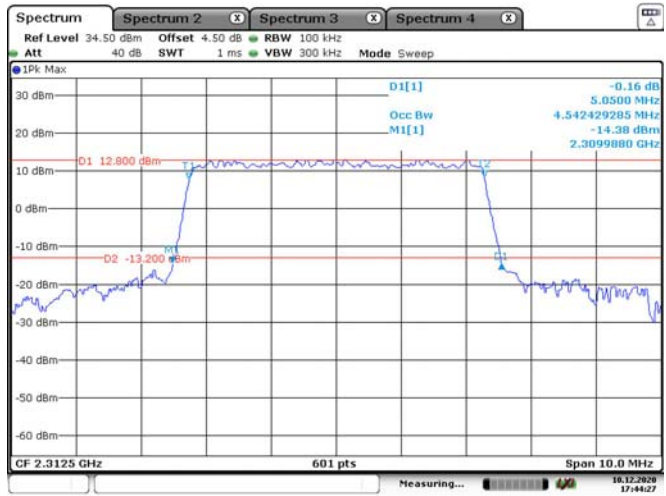
Date: 10, DEC, 2020 17:35:55

5M, QPSK, High Channel



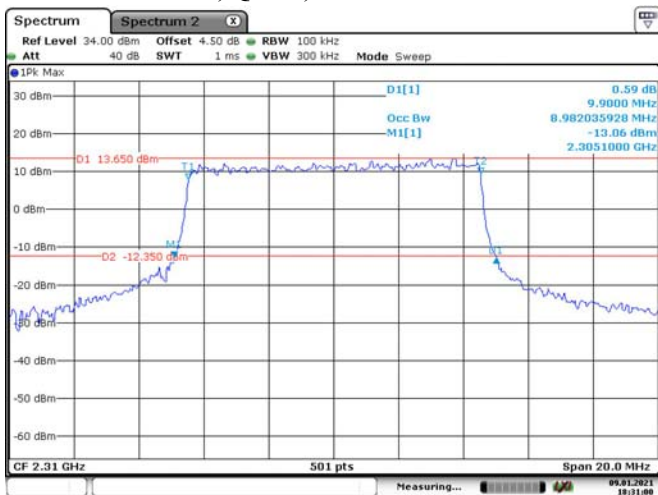
Date: 10, DEC, 2020 17:43:19

5M, 16QAM, High Channel



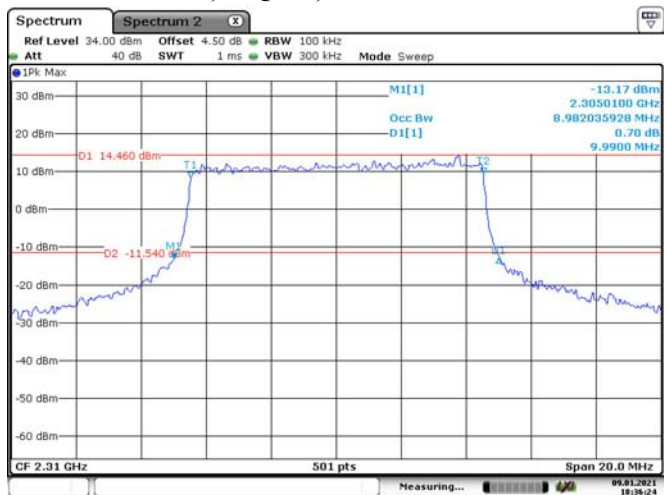
Date: 10, DEC, 2020 17:44:27

10M, QPSK, Middle Channel



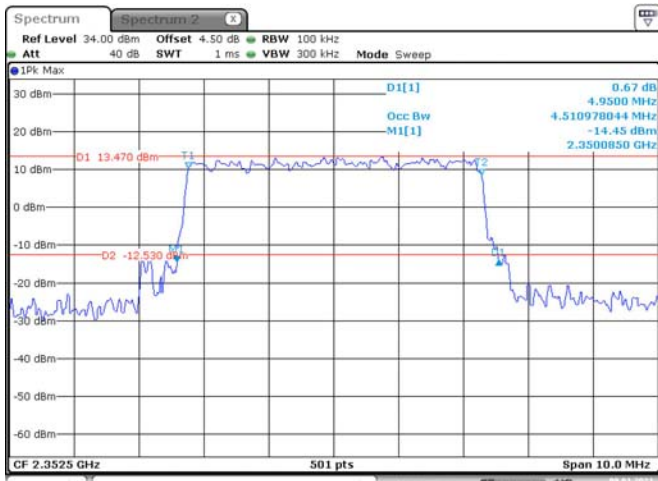
Date: 9, JAN, 2021 18:31:01

10M, 16QAM, Middle Channel



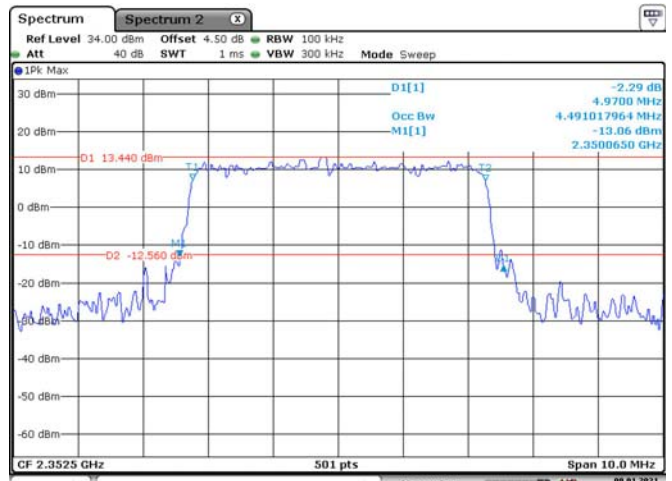
Date: 9, JAN, 2021 18:36:25

LTE Band 40 Upper:
5M, QPSK, Low Channel



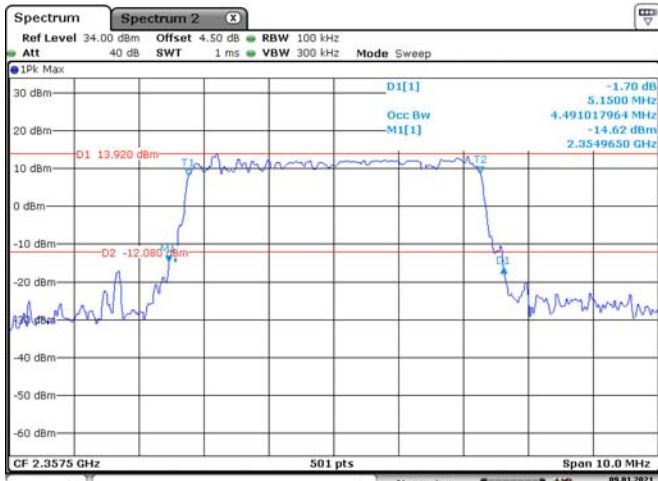
Date: 9, JAN, 2021 17:27:34

5M, 16QAM, Low Channel



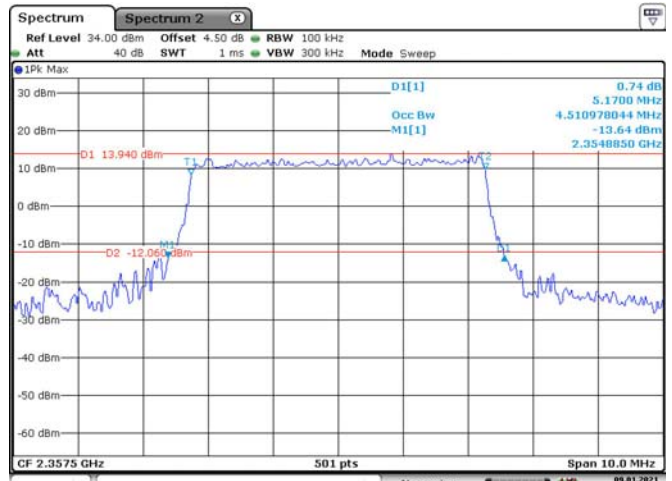
Date: 9, JAN, 2021 17:33:14

5M, QPSK, High Channel



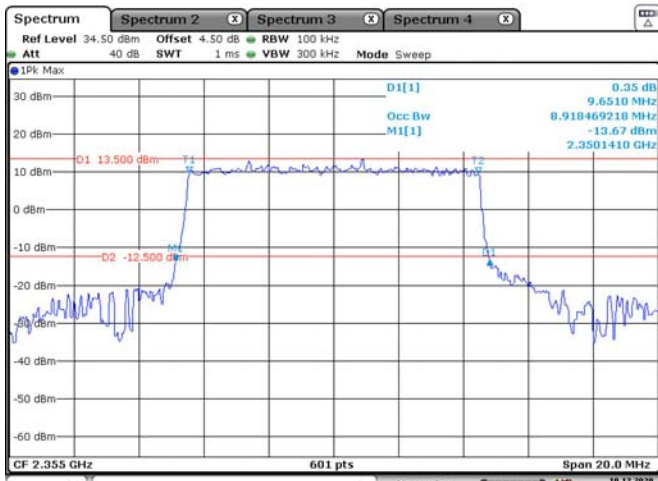
Date: 9, JAN, 2021 17:35:42

5M, 16QAM, High Channel



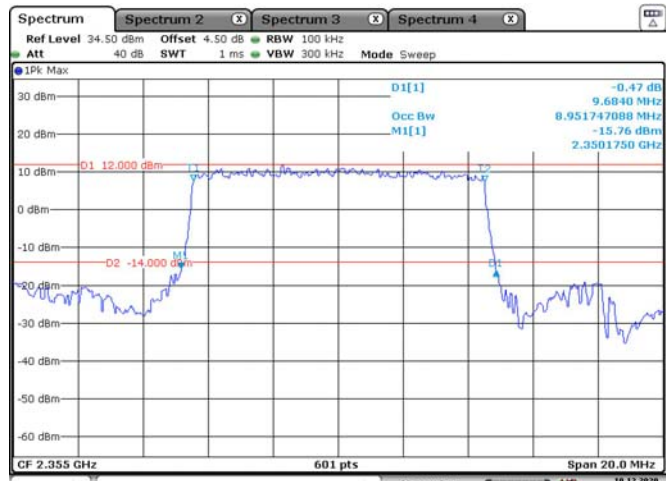
Date: 9, JAN, 2021 17:33:17

10M, QPSK, Middle Channel



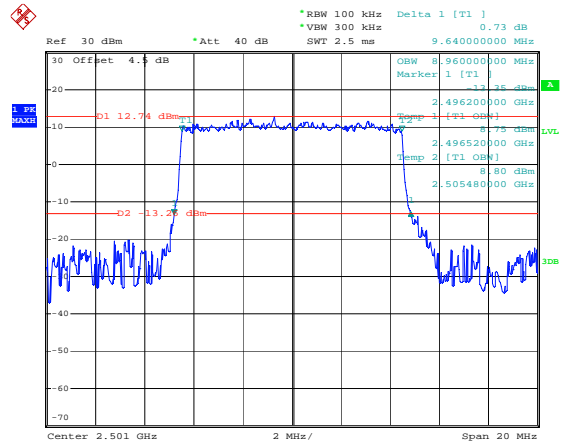
Date: 10, DEC, 2020 17:46:09

10M, 16QAM, Middle Channel



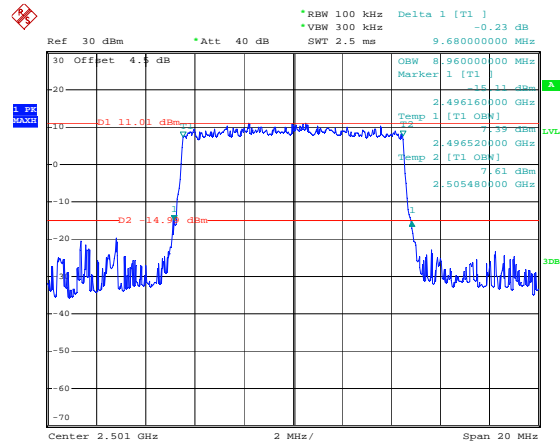
Date: 10, DEC, 2020 17:48:17

10M, QPSK, Low Channel



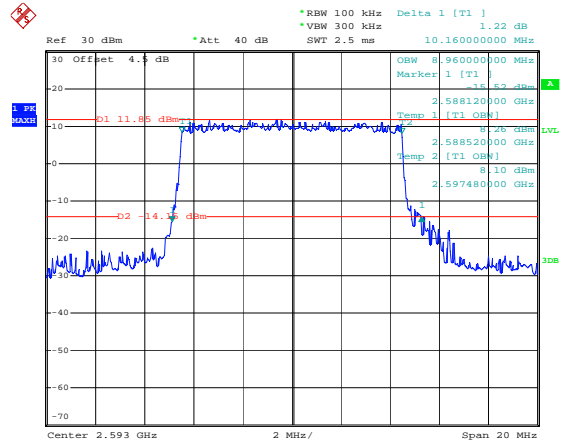
Date: 6.DEC.2020 13:23:54

10M, 16QAM, Low Channel



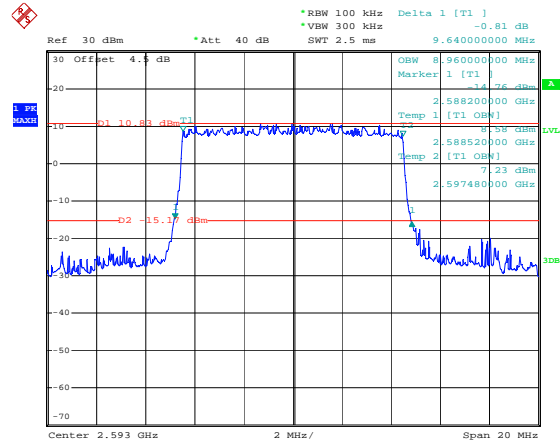
Date: 6.DEC.2020 13:24:19

10M, QPSK, Middle Channel



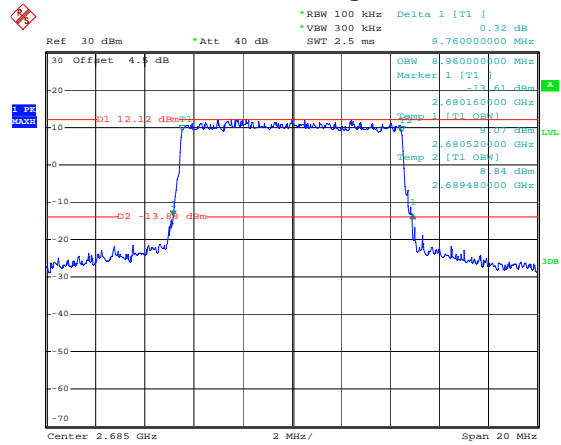
Date: 6.DEC.2020 13:24:46

10M, 16QAM, Middle Channel



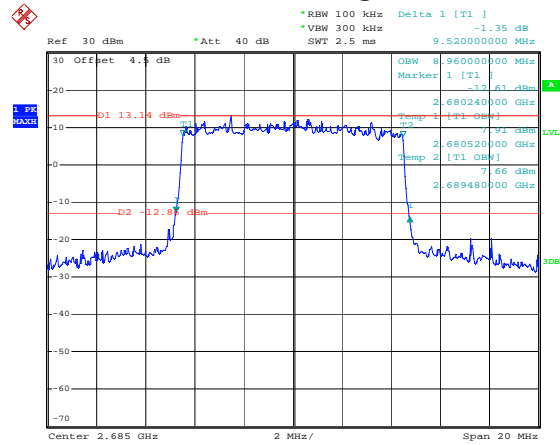
Date: 6.DEC.2020 13:25:08

10M, QPSK, High Channel



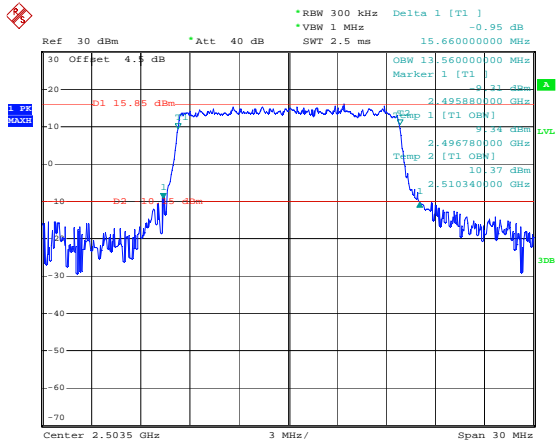
Date: 6.DEC.2020 13:25:30

10M, 16QAM, High Channel



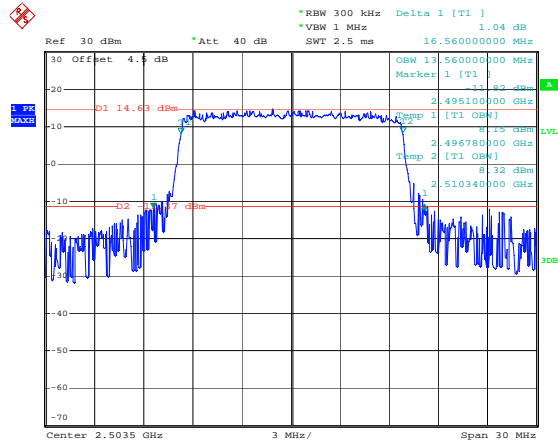
Date: 6.DEC.2020 13:25:53

15M, QPSK, Low Channel



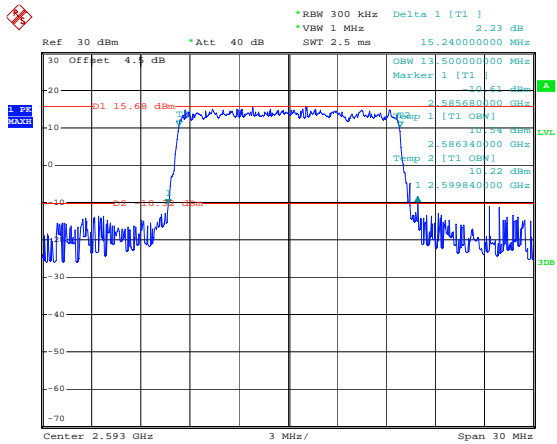
Date: 6.DEC.2020 13:33:06

15M, 16QAM, Low Channel



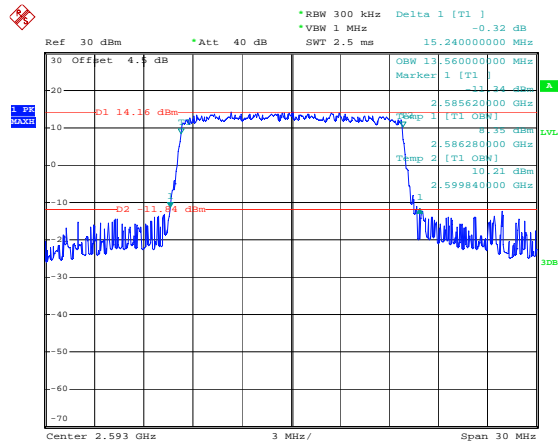
Date: 6.DEC.2020 13:33:39

15M, QPSK, Middle Channel



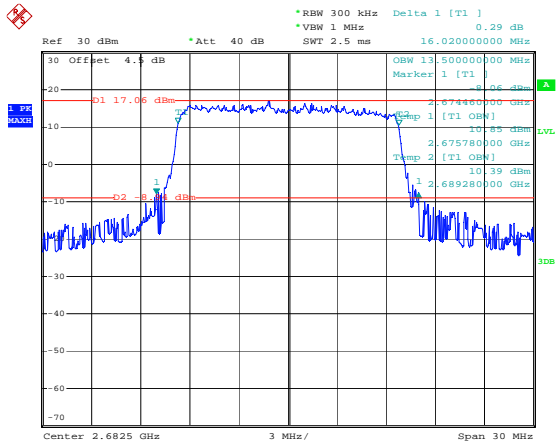
Date: 6.DEC.2020 13:34:14

15M, 16QAM, Middle Channel



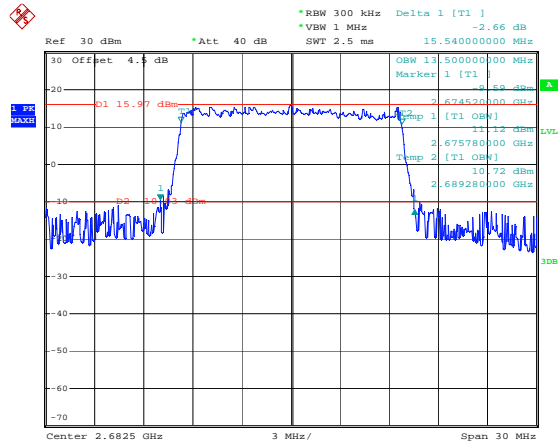
Date: 6.DEC.2020 13:34:48

15M, QPSK, High Channel



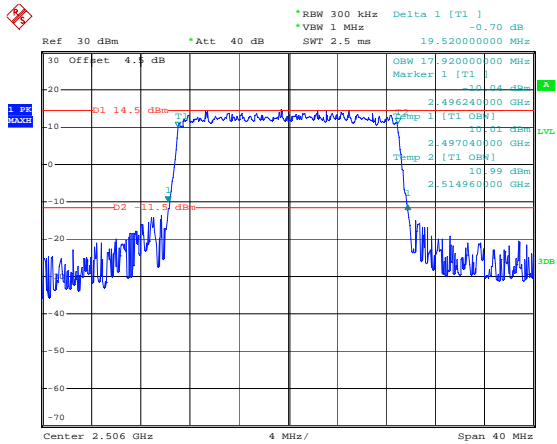
Date: 6.DEC.2020 13:35:28

15M, 16QAM, High Channel



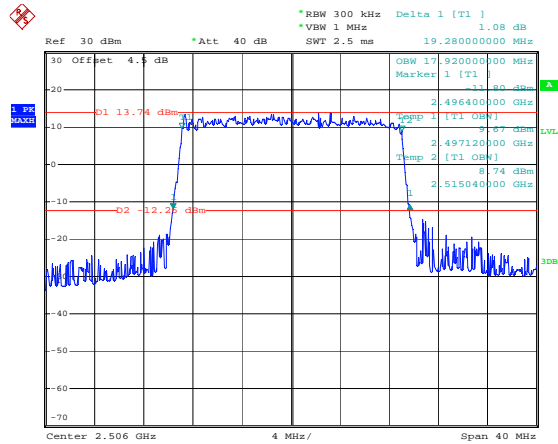
Date: 6.DEC.2020 13:36:11

20M, QPSK, Low Channel



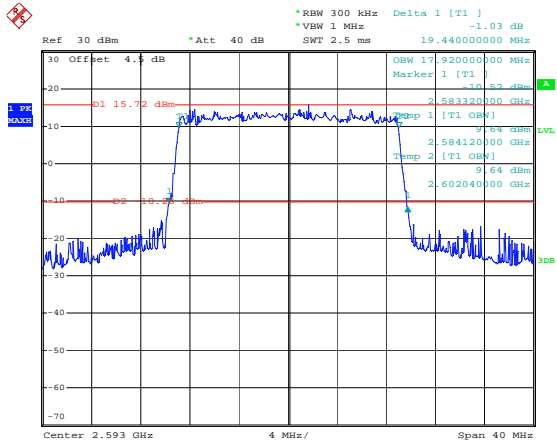
Date: 6.DEC.2020 13:38:53

20M, 16QAM, Low Channel



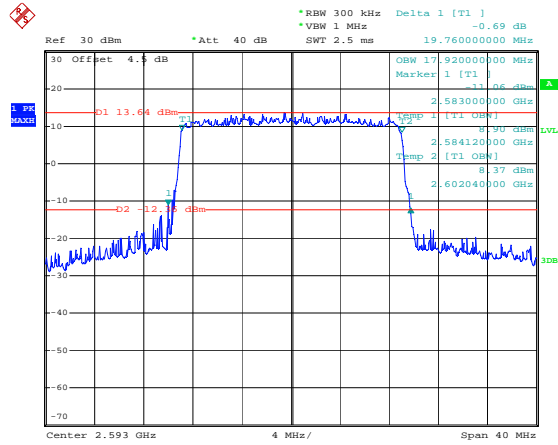
Date: 6.DEC.2020 13:39:20

20M, QPSK, Middle Channel



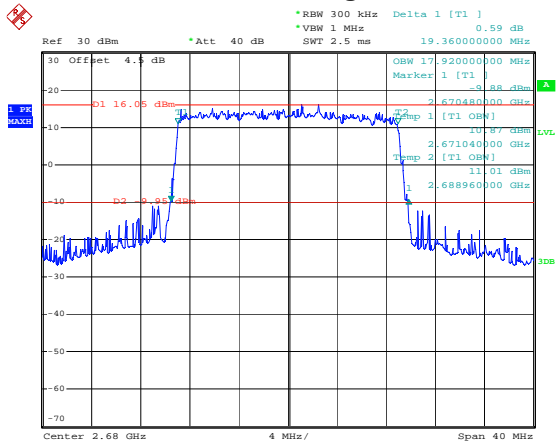
Date: 6.DEC.2020 13:39:48

20M, 16QAM, Middle Channel



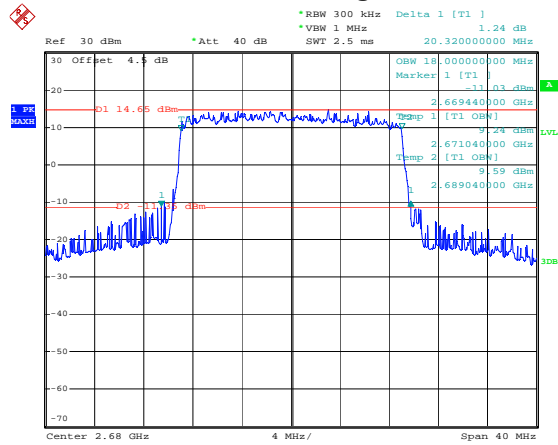
Date: 6.DEC.2020 13:40:13

20M, QPSK, High Channel



Date: 6.DEC.2020 13:40:38

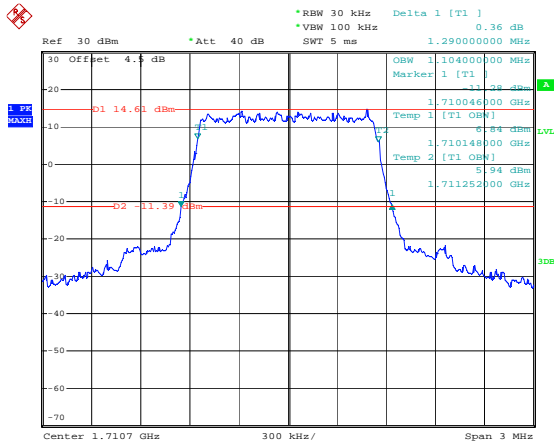
20M, 16QAM, High Channel



Date: 6.DEC.2020 13:41:05

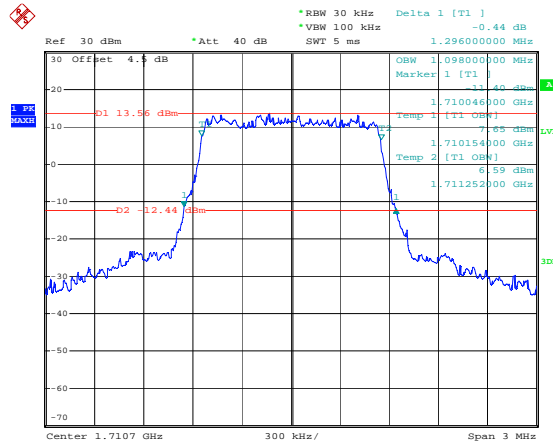
LTE Band 66

1.4M, QPSK, Low Channel



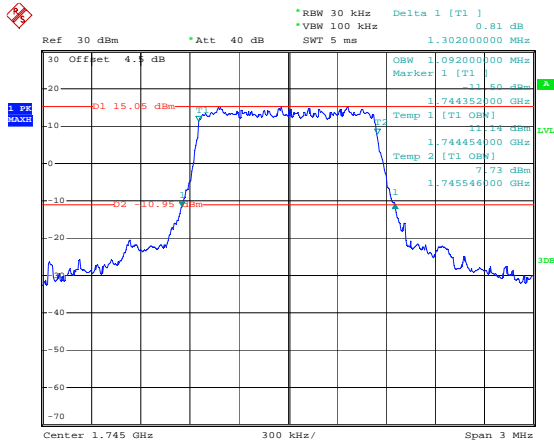
Date: 6.DEC.2020 13:41:50

1.4M, 16QAM, Low Channel



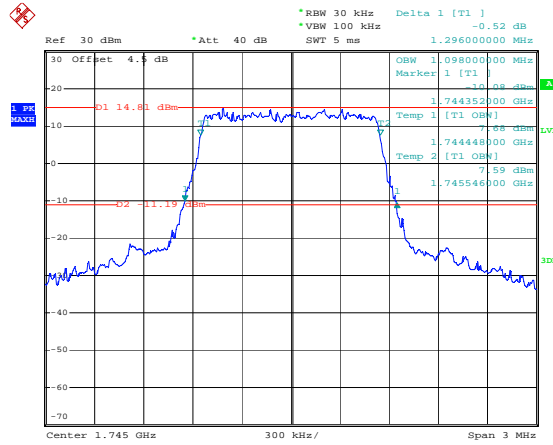
Date: 6.DEC.2020 13:42:08

1.4M, QPSK, Middle Channel



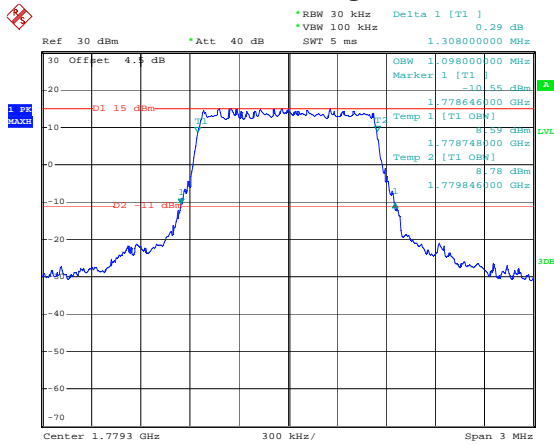
Date: 6.DEC.2020 13:42:30

1.4M, 16QAM, Middle Channel



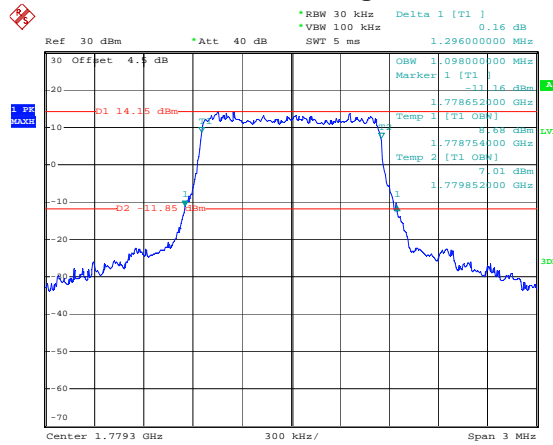
Date: 6.DEC.2020 13:42:51

1.4M, QPSK, High Channel



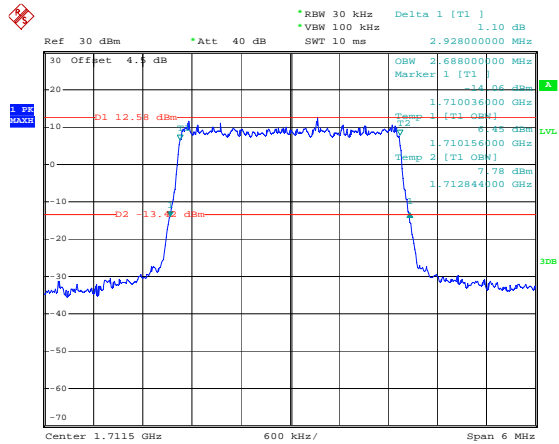
Date: 6.DEC.2020 13:43:13

1.4M, 16QAM, High Channel



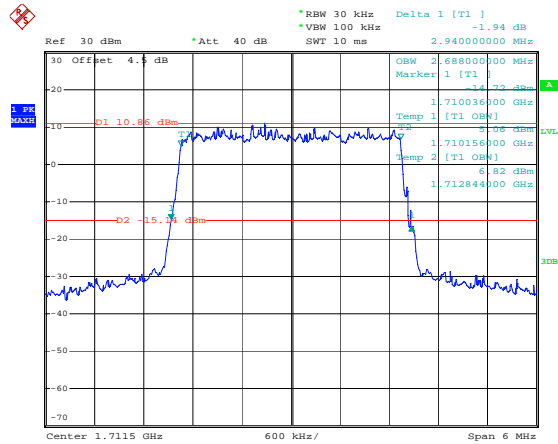
Date: 6.DEC.2020 13:43:31

3M, QPSK, Low Channel



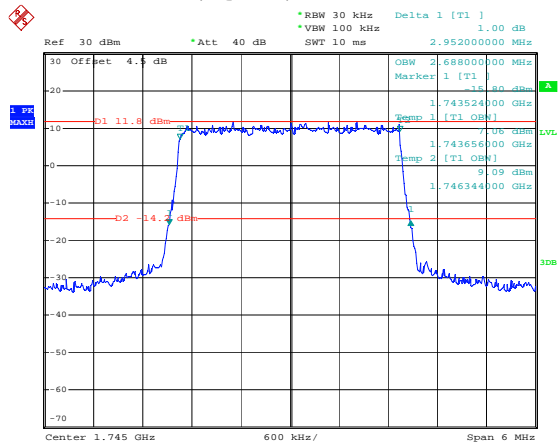
Date: 6.DEC.2020 13:43:55

3M, 16QAM, Low Channel



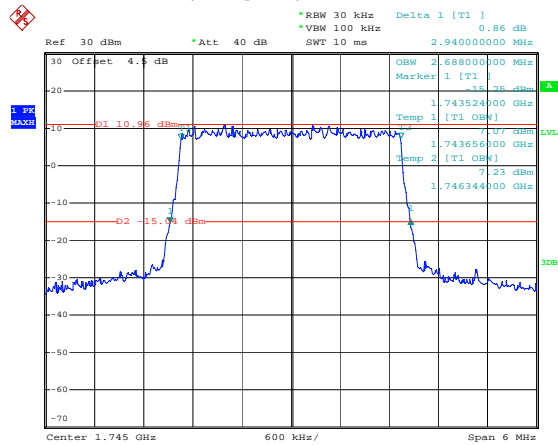
Date: 6.DEC.2020 13:44:13

3M, QPSK, Middle Channel



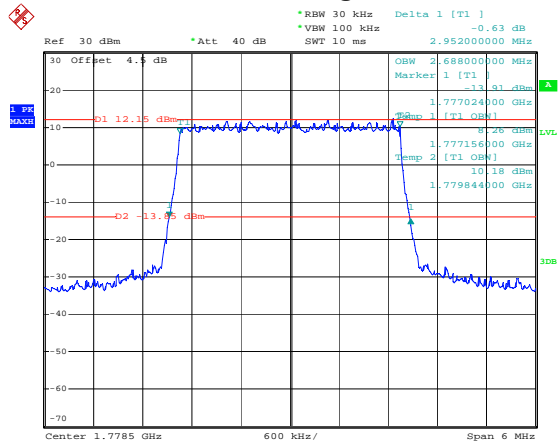
Date: 6.DEC.2020 13:44:32

3M, 16QAM, Middle Channel



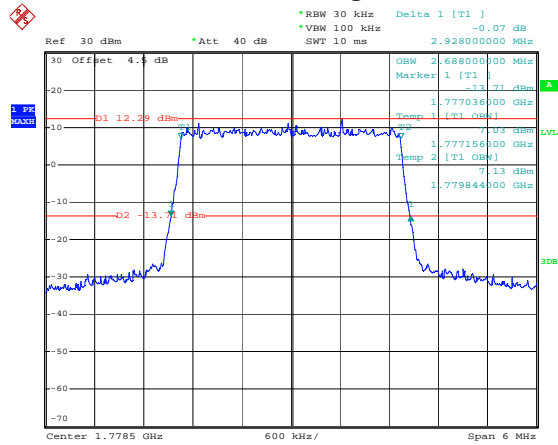
Date: 6.DEC.2020 13:44:49

3M, QPSK, High Channel



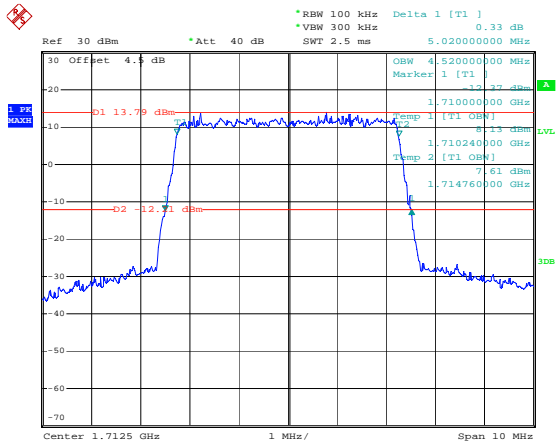
Date: 6.DEC.2020 13:45:11

3M, 16QAM, High Channel



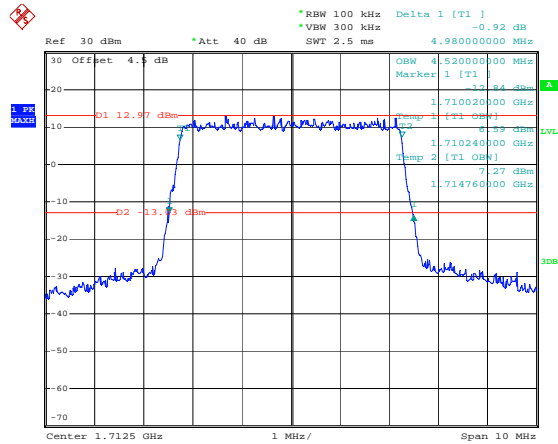
Date: 6.DEC.2020 13:45:32

5M, QPSK, Low Channel



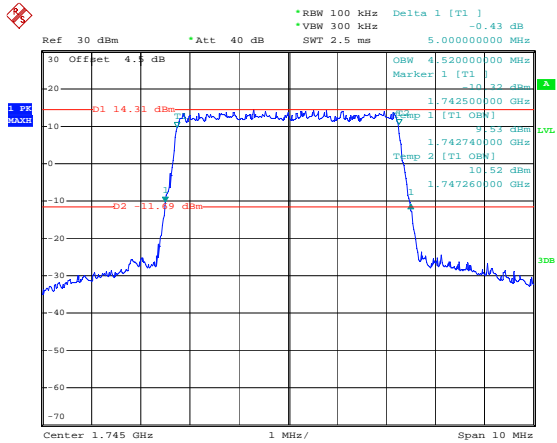
Date: 6.DEC.2020 13:45:57

5M, 16QAM, Low Channel



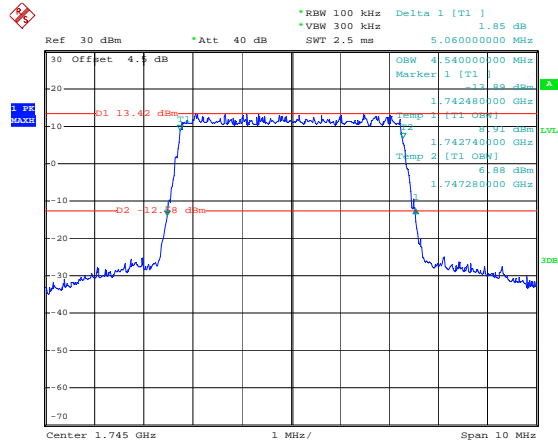
Date: 6.DEC.2020 13:46:15

5M, QPSK, Middle Channel



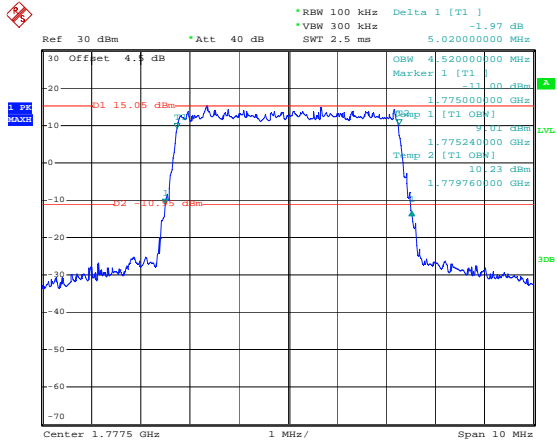
Date: 6.DEC.2020 13:46:37

5M, 16QAM, Middle Channel



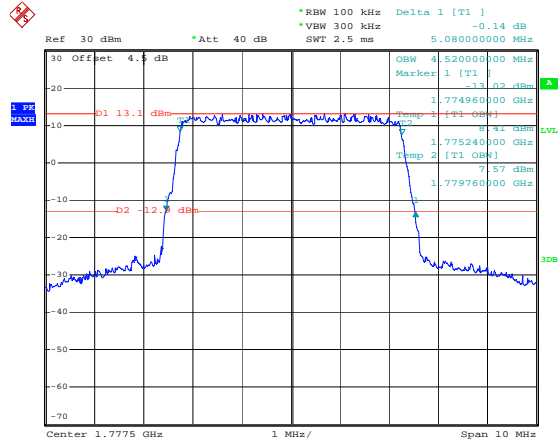
Date: 6.DEC.2020 13:46:58

5M, QPSK, High Channel



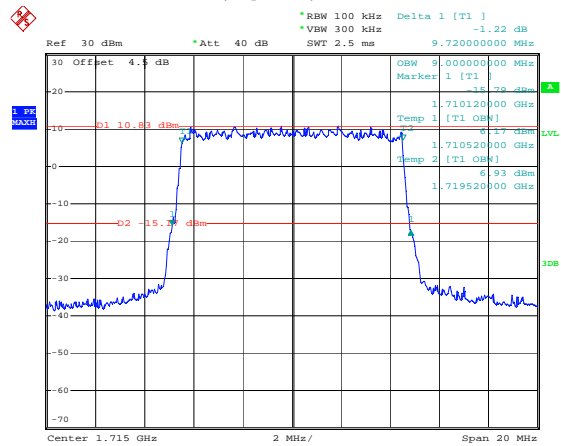
Date: 6.DEC.2020 13:47:20

5M, 16QAM, High Channel



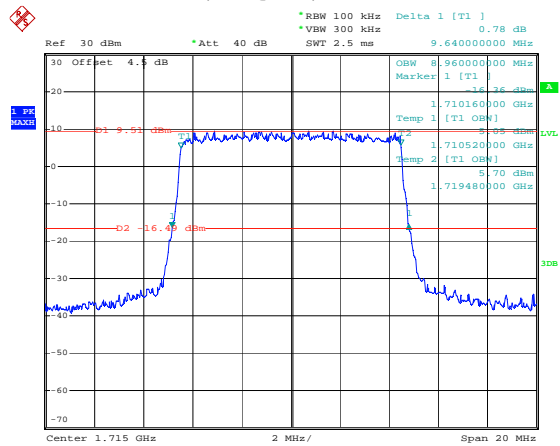
Date: 6.DEC.2020 13:47:44

10M, QPSK, Low Channel



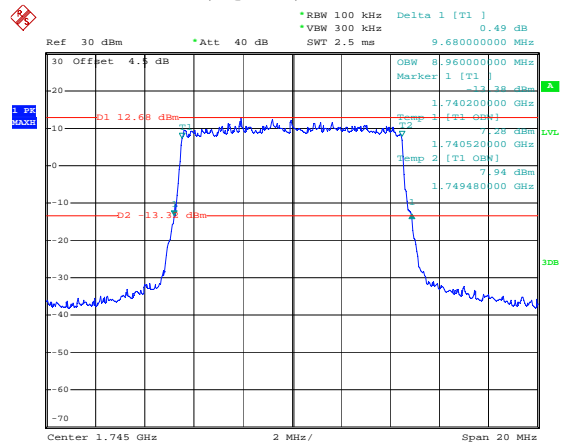
Date: 6.DEC.2020 13:48:11

10M, 16QAM, Low Channel



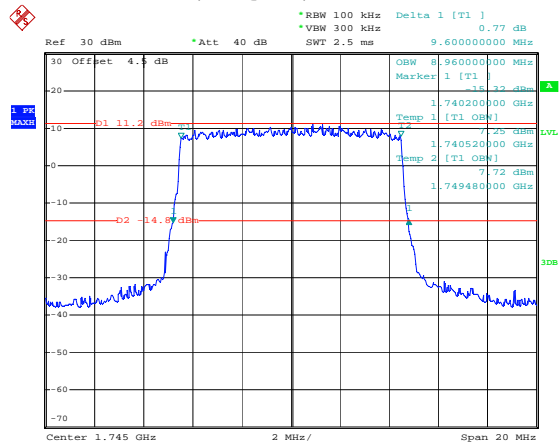
Date: 6.DEC.2020 13:48:33

10M, QPSK, Middle Channel



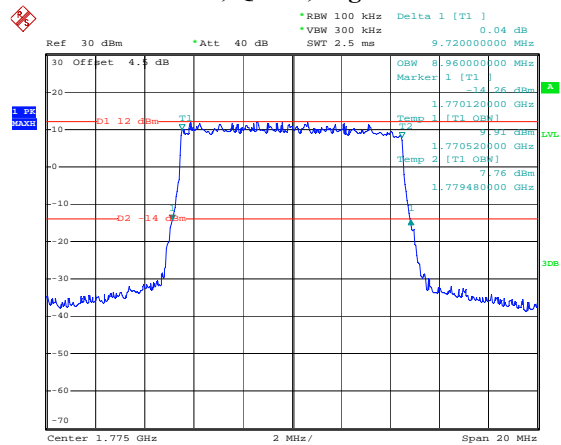
Date: 6.DEC.2020 13:48:57

10M, 16QAM, Middle Channel



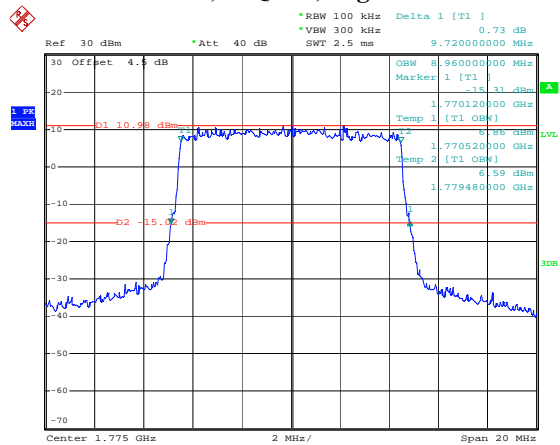
Date: 6.DEC.2020 13:49:19

10M, QPSK, High Channel



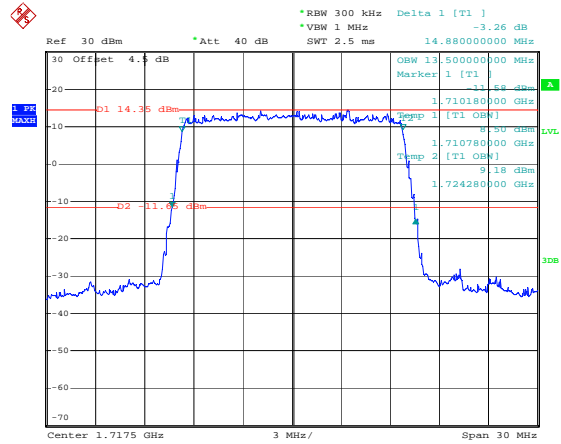
Date: 6.DEC.2020 13:49:42

10M, 16QAM, High Channel



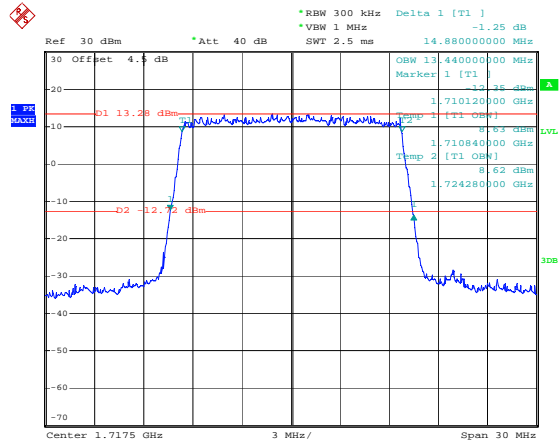
Date: 6.DEC.2020 13:50:04

15M, QPSK, Low Channel



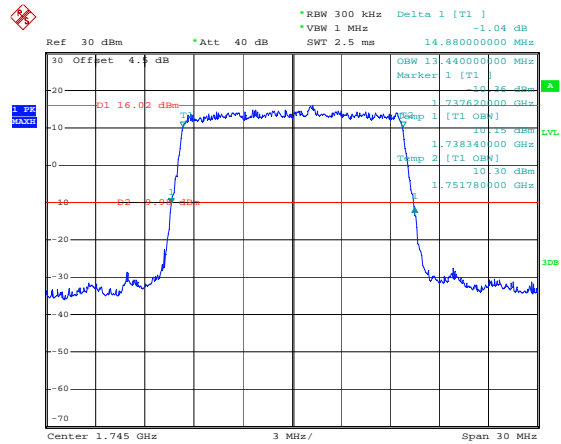
Date: 6.DEC.2020 13:50:32

15M, 16QAM, Low Channel



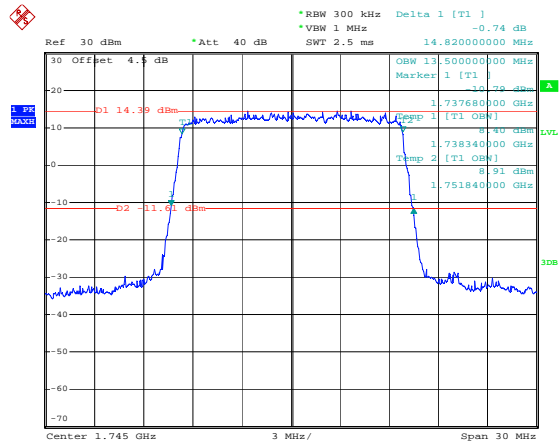
Date: 6.DEC.2020 13:50:55

15M, QPSK, Middle Channel



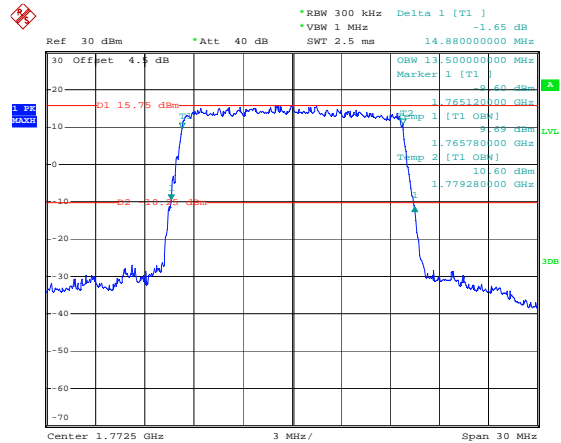
Date: 6.DEC.2020 13:51:16

15M, 16QAM, Middle Channel



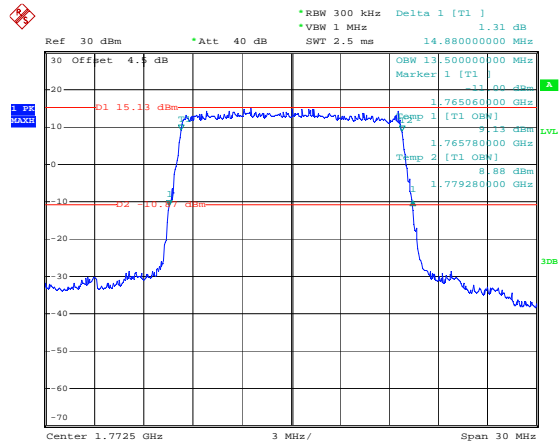
Date: 6.DEC.2020 13:51:38

15M, QPSK, High Channel



Date: 6.DEC.2020 13:52:02

15M, 16QAM, High Channel



Date: 6.DEC.2020 13:52:25