TESTING LABORATORY
CERTIFICATE #4820.01

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

For

MAXWEST COMMUNICATION LIMITED

ROOM 1802B FORTRESS TOWER, 250 KING'S ROAD, NORTH POINT, HONG KONG

FCC ID: 2ASP8NITRO55C

Report Type:	**Product Type:**
Original Report	Phone

Report Number:	DG1210531-20385E-00C
Report Date:	2021-07-21
Reviewed By:	Ivan Cao Assistant Manager
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:		Phone
EUT Model:		nitro 55C
Operation modes:		GSM Voice, GPRS/EDGE Data, WCDMA(R99 (Voice+Data), HSDPA,HSUPA) FDD-LTE
Antenna Gain▲:		GSM850/WCDMA B5/LTE B5: -1.5dBi(-3.65 dBd) PCS1900/WCDMA B2/LTE B2: 0.5 dBi WCDMA B4/LTE B4/B66: -0.2 dBi LTE B12: 0.8 dBi(-1.35 dBd) LTE B17: 0.8 dBi(-1.35 dBd)
Modulation Type:		GMSK, 8PSK, BPSK, QPSK, 16QAM
Adapter#1 Information	**Model:**	nitro 55C
	Input:	100-240Vac 50/60Hz 0.15A
	Output:	5.0Vdc1000mA
Adapter#2 Information	**Model:**	SC/5WM500100-US
	Input:	100-240Vac 50/60Hz 0.4A
	Output:	5.0Vdc1000mA
Rated Input Voltage:		DC 3.7V from battery or DC 5V from Adapter
Serial Number:		DG1210531-20385E-RF-RF-S1
EUT Received Date:		2021.06.01
EUT Received Status:		Good

Objective

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

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

Related Submittal(s)/Grant(s)

FCC Part 15C DSS submissions with FCC ID: 2ASP8NITRO55C.
FCC Part 15C DTS submissions with FCC ID: 2ASP8NITRO55C.

Test Methodology

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

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

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

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

Measurement Uncertainty

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

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, 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 2/4/5, and LTE band 2/4/5/12/17/66, test was performed with channels as below table:

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GSM/GPRS/EDGE 850	0.25	824.2	836.6	848.8
GSM/GPRS/EDGE 1900	0.25	1850.2	1880	1909.8
WCDMA Band 2	4.2	1852.4	1880	1907.6
WCDMA Band 4	4.2	1712.4	1732.6	1752.6
WCDMA Band 5	4.2	826.4	836.6	846.6
LTE Band 2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE Band 12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704	707.5	711
LTE Band 17	5	706.5	710	713.5
	10	709	710	711
LTE Band 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

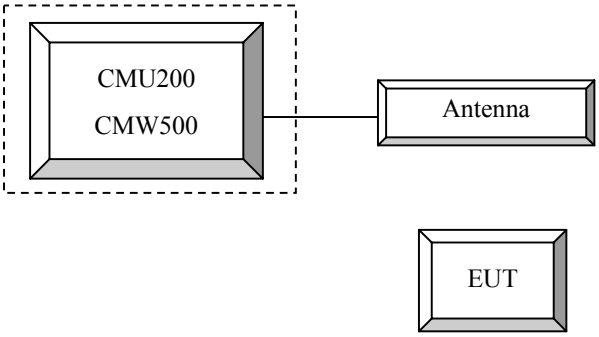
Equipment Modifications

No modification was made to the EUT.

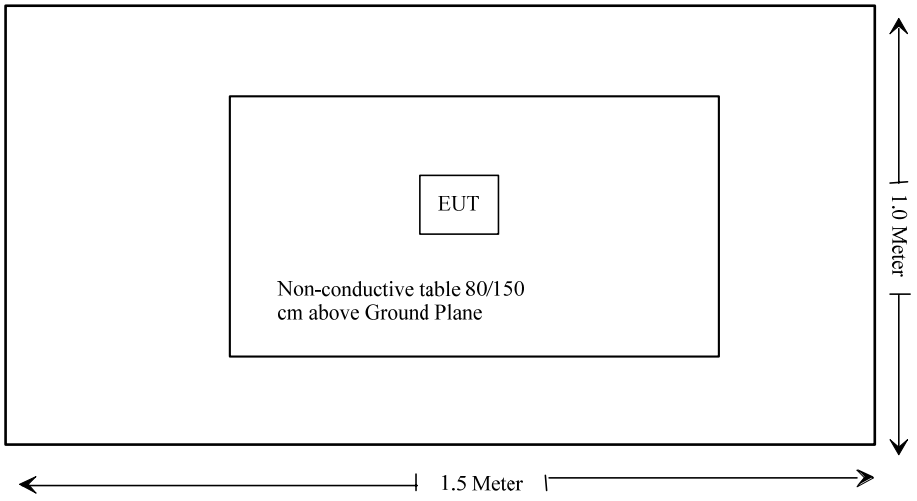
Support Equipment List and Details

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

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

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

FCC §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: DG1210531-20385E-20A.

FCC §2.1047 - MODULATION CHARACTERISTIC

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

FCC § 2.1046, § 22.913 (a) & § 24.232 (c) & § 27.50- 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.

Test Procedure

GSM/GPRS/EGPRS

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

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

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

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

WCDMA-Release 99

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

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

WCDMA HSDPA

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

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

WCDMA HSUPA

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

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

HSPA+

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

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

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

DC-HSDPA

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

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

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

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

LTE (FDD):

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

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

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

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

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

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

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

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

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

Test Equipment List and Details

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

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

Test Data

Environmental Conditions

Temperature:	25.8~26.9 °C
Relative Humidity:	42~49%
ATM Pressure:	100~100.5kPa
Tester:	Lay Lei
Test Date:	2021-06-05~2021-06-25

Test Result: Compliance

Cellular Band & PCS Band

Conducted Output Power

Band	Channel No.	Conducted Peak Output Power (dBm)								
		GSM	GPRS 1TX Slot	GPRS 2TX Slots	GPRS 3TX Slots	GPRS 4TX Slots	EGPRS 1TX Slot	EGPRS 2TX Slots	EGPRS 3TX Slots	EGPRS 4TX Slots
Cellular	128	32.52	32.65	30.24	28.69	27.87	27.13	25.53	23.82	21.89
	190	32.45	32.78	30.89	28.73	27.93	27.16	25.82	23.63	21.86
	251	32.63	32.87	30.92	28.57	27.95	26.94	25.66	23.54	21.83
PCS	512	29.12	29.23	27.85	25.82	23.62	26.65	24.89	22.71	20.92
	661	28.54	29.18	27.53	25.75	23.87	26.24	24.35	22.67	20.79
	810	28.82	29.25	27.47	25.93	23.82	26.41	24.56	22.61	20.85

ERP/EIRP:

Band	Mode	Channel	Conducted Power (dBm)	Antenna Gain (dBi/dBd)	Result (dBm)	Limit (dBm)
Cellular	GSM	Low	32.65	-3.65	29.00	38.45
		Middle	32.78	-3.65	29.13	38.45
		High	32.87	-3.65	**29.22**	38.45
	EGPRS	Low	27.13	-3.65	23.48	38.45
		Middle	27.16	-3.65	**23.51**	38.45
		High	26.94	-3.65	23.29	38.45
PCS	GSM	Low	29.23	0.5	29.73	33
		Middle	29.18	0.5	29.68	33
		High	29.25	0.5	**29.75**	33
	EGPRS	Low	26.65	0.5	**27.15**	33
		Middle	26.24	0.5	26.74	33
		High	26.41	0.5	26.91	33

Note:
1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
2) Result = Conducted Power + 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	22.72	2.81	22.87	2.67	22.62	2.41
HSDPA	1	21.86	3.65	22.06	3.33	22.37	2.75
	2	22.06	3.27	21.83	3.62	22.16	3.21
	3	22.25	3.65	21.85	3.14	22.16	3.42
	4	21.87	2.88	22.14	3.82	21.84	3.83
HSUPA	1	22.34	3.94	22.27	3.54	21.79	0.12
	2	21.92	3.45	22.63	3.51	22.38	2.96
	3	21.96	3.26	22.35	3.26	22.53	3.57
	4	21.88	3.57	22.76	3.49	22.28	3.68
	5	22.04	3.61	21.91	3.53	22.57	3.81
DC-HSDPA	1	22.18	2.76	22.08	3.15	22.16	2.91
	2	22.37	3.48	22.67	3.04	22.25	3.28
	3	22.56	3.92	22.39	3.28	22.37	3.62
	4	22.21	2.95	21.91	3.73	22.49	3.47
HSPA+ (16QAM)	1	21.14	2.42	20.95	2.13	21.23	2.46

EIRP:

Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Result (dBm)	Limit (dBm)
Low	22.72	0.5	23.22	33
Middle	22.87	0.5	**23.37**	33
High	22.62	0.5	23.12	33

WCDMA Band 4

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	22.63	2.70	22.88	2.49	22.86	2.90
HSDPA	1	22.79	3.01	22.78	3.04	22.66	3.19
	2	22.58	3.56	22.58	3.18	22.58	3.17
	3	22.02	3.87	21.89	3.27	21.76	3.58
	4	21.58	3.69	21.58	3.54	21.32	3.67
HSUPA	1	22.62	2.70	22.57	3.22	22.62	2.90
	2	22.17	3.78	22.17	3.47	22.17	3.62
	3	21.73	3.24	21.86	3.68	21.73	2.87
	4	21.15	3.67	21.15	3.71	21.28	3.28
	5	20.67	2.48	20.80	2.92	20.80	3.65
DC-HSDPA	1	22.54	3.87	22.41	2.87	22.54	3.27
	2	21.69	3.82	21.82	3.67	21.82	3.96
	3	21.13	3.27	21.00	3.42	21.13	3.14
	4	20.59	3.69	20.87	3.82	20.83	3.58
HSPA+ (16QAM)	1	21.03	2.26	20.67	2.17	20.84	2.38

EIRP:

Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Result (dBm)	Limit (dBm)
Low	22.79	-0.2	22.59	30
Middle	22.88	-0.2	22.68	30
High	22.86	-0.2	22.66	30

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	22.82	2.84	22.86	2.67	22.89	2.29
HSDPA	1	22.30	3.28	22.51	3.45	22.62	3.16
	2	22.41	3.51	22.67	3.28	22.14	3.47
	3	21.87	3.25	22.82	3.64	21.91	3.61
	4	21.98	3.64	22.46	3.18	22.05	3.82
HSUPA	1	21.47	3.25	22.28	3.91	22.43	3.71
	2	21.76	3.67	22.64	3.57	21.85	3.46
	3	21.82	3.89	22.37	3.62	22.49	3.77
	4	21.78	3.74	22.29	3.83	21.47	3.52
	5	21.95	3.72	22.45	3.47	21.68	3.91
DC-HSDPA	1	22.24	3.64	22.18	3.08	22.73	3.28
	2	22.38	3.18	22.62	3.67	22.31	3.64
	3	22.72	3.06	22.87	3.25	22.53	3.17
	4	22.58	3.87	22.19	3.14	22.82	3.84
HSPA+ (16QAM)	1	21.36	2.16	21.34	2.07	21.22	2.26

ERP:

Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Result (dBm)	Limit (dBm)
Low	22.82	-3.65	19.17	38.45
Middle	22.87	-3.65	19.22	38.45
High	22.89	-3.65	19.24	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	21.39	21.38	20.44
		RB1#3	21.45	21.71	20.61
		RB1#5	21.93	21.35	20.47
		RB3#0	21.95	21.36	20.30
		RB3#3	21.93	21.39	20.27
		RB6#0	21.14	20.47	19.56
	16QAM	RB1#0	21.06	20.37	19.29
		RB1#3	21.26	20.53	19.47
		RB1#5	21.08	20.38	19.28
		RB3#0	20.93	20.49	19.49
		RB3#3	20.97	20.46	19.46
		RB6#0	20.08	19.34	18.41
3MHz	QPSK	RB1#0	22.01	21.38	20.36
		RB1#8	21.96	21.36	20.57
		RB1#14	21.92	21.40	20.31
		RB6#0	21.07	20.40	19.57
		RB6#9	21.01	20.41	19.50
		RB15#0	20.99	20.42	19.48
	16QAM	RB1#0	21.44	20.48	19.58
		RB1#8	21.35	20.49	19.38
		RB1#14	21.36	20.50	19.37
		RB6#0	20.04	19.35	18.35
		RB6#9	19.95	19.40	18.30
		RB15#0	19.96	19.38	18.44
5MHz	QPSK	RB1#0	21.87	21.30	20.02
		RB1#13	21.95	21.37	20.03
		RB1#24	21.79	21.31	20.21
		RB15#0	21.04	20.41	19.53
		RB15#10	21.01	20.47	19.56
		RB25#0	20.95	20.43	19.45
	16QAM	RB1#0	20.78	20.59	19.50
		RB1#13	20.83	20.60	19.47
		RB1#24	20.70	20.56	19.28
		RB15#0	20.00	19.35	18.47
		RB15#10	19.94	19.41	18.43
		RB25#0	19.92	19.38	18.42

10MHz	QPSK	RB1#0	22.03	21.42	20.54
		RB1#25	22.09	21.39	19.77
		RB1#49	21.81	21.52	20.76
		RB25#0	21.02	20.50	19.75
		RB25#25	20.88	20.59	19.62
		RB50#0	20.96	20.56	19.64
	16QAM	RB1#0	21.44	20.67	19.75
		RB1#25	21.47	20.68	19.53
		RB1#49	21.22	20.50	19.47
		RB25#0	19.97	19.48	18.79
		RB25#25	19.87	19.56	18.61
		RB50#0	19.90	19.51	18.63
15MHz	QPSK	RB1#0	21.90	21.34	20.93
		RB1#38	21.86	21.39	19.92
		RB1#74	21.44	21.26	20.34
		RB36#0	21.13	20.65	20.15
		RB36#39	20.87	20.67	19.82
		RB75#0	21.03	20.73	20.00
	16QAM	RB1#0	21.34	20.51	19.88
		RB1#38	21.30	20.56	19.63
		RB1#74	21.05	20.39	19.32
		RB36#0	20.02	19.57	18.88
		RB36#39	19.80	19.62	18.62
		RB75#0	19.92	19.64	18.84
20MHz	QPSK	RB1#0	21.73	21.26	20.87
		RB1#50	21.80	21.31	20.32
		RB1#99	20.97	21.07	20.24
		RB50#0	21.00	20.53	20.26
		RB50#50	20.59	20.62	19.66
		RB100#0	20.82	20.55	19.97
	16QAM	RB1#0	21.01	20.39	20.36
		RB1#50	21.22	20.62	20.31
		RB1#99	20.62	20.27	19.58
		RB50#0	19.92	19.51	19.24
		RB50#50	19.57	19.58	18.61
		RB100#0	19.79	19.56	18.93

PAR:

Test Modulation		Channel Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
QPSK	1 RB	20 MHz	3.25	2.93	2.52	13 .00
	100 RB		4.38	4.12	3.77	13.00
16QAM	1 RB	20 MHz	4.26	3.59	3.39	13.00
	100 RB		5.39	5.07	4.84	13.00

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	21.95	0.50	22.45	33.00
		Middle	21.71	0.50	22.21	33.00
		High	20.61	0.50	21.11	33.00
	16QAM	Low	21.26	0.50	21.76	33.00
		Middle	20.53	0.50	21.03	33.00
		High	19.49	0.50	19.99	33.00
3MHz	QPSK	Low	22.01	0.50	22.51	33.00
		Middle	21.40	0.50	21.9	33.00
		High	20.57	0.50	21.07	33.00
	16QAM	Low	21.44	0.50	21.94	33.00
		Middle	20.50	0.50	21	33.00
		High	19.58	0.50	20.08	33.00
5MHz	QPSK	Low	21.95	0.50	22.45	33.00
		Middle	21.37	0.50	21.87	33.00
		High	20.21	0.50	20.71	33.00
	16QAM	Low	20.83	0.50	21.33	33.00
		Middle	20.60	0.50	21.1	33.00
		High	19.50	0.50	20	33.00
10MHz	QPSK	Low	22.09	0.50	22.59	33.00
		Middle	21.52	0.50	22.02	33.00
		High	20.76	0.50	21.26	33.00
	16QAM	Low	21.47	0.50	21.97	33.00
		Middle	20.68	0.50	21.18	33.00
		High	19.75	0.50	20.25	33.00
15MHz	QPSK	Low	21.90	0.50	22.4	33.00
		Middle	21.39	0.50	21.89	33.00
		High	20.93	0.50	21.43	33.00
	16QAM	Low	21.34	0.50	21.84	33.00
		Middle	20.56	0.50	21.06	33.00
		High	19.88	0.50	20.38	33.00
20MHz	QPSK	Low	21.80	0.50	22.3	33.00
		Middle	21.31	0.50	21.81	33.00
		High	20.87	0.50	21.37	33.00
	16QAM	Low	21.22	0.50	21.72	33.00
		Middle	20.62	0.50	21.12	33.00
		High	20.36	0.50	20.86	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	21.71	22.97	21.90
		RB1#3	21.66	23.21	21.83
		RB1#5	21.43	22.97	21.56
		RB3#0	21.49	22.91	21.58
		RB3#3	21.44	22.84	21.54
		RB6#0	22.60	22.12	21.44
	16QAM	RB1#0	22.23	21.96	21.00
		RB1#3	22.29	22.14	21.18
		RB1#5	22.15	22.02	21.03
		RB3#0	22.09	21.84	21.13
		RB3#3	22.10	21.91	20.71
		RB6#0	21.26	21.00	20.83
3MHz	QPSK	RB1#0	21.76	22.52	21.46
		RB1#8	21.90	22.46	21.38
		RB1#14	21.72	21.96	21.18
		RB6#0	21.61	22.15	22.06
		RB6#9	21.79	22.04	21.89
		RB15#0	21.76	21.96	21.88
	16QAM	RB1#0	21.60	22.21	20.70
		RB1#8	21.90	22.01	20.64
		RB1#14	21.78	22.03	20.60
		RB6#0	21.33	20.93	19.34
		RB6#9	21.25	20.88	19.28
		RB15#0	21.07	20.82	19.23
5MHz	QPSK	RB1#0	22.40	22.30	21.34
		RB1#13	22.49	22.30	21.13
		RB1#24	22.71	22.10	21.07
		RB15#0	21.67	21.40	20.43
		RB15#10	21.74	21.17	20.40
		RB25#0	21.60	21.27	20.32
	16QAM	RB1#0	21.35	21.49	20.40
		RB1#13	21.44	21.44	20.43
		RB1#24	21.41	21.27	20.25
		RB15#0	20.52	20.32	19.24
		RB15#10	20.60	20.09	19.24
		RB25#0	20.51	20.19	19.16
10MHz	QPSK	RB1#0	22.16	22.45	21.46
		RB1#25	22.55	22.29	20.99
		RB1#49	22.93	21.76	21.08
		RB25#0	21.65	21.52	20.62
		RB25#25	21.84	21.12	20.48
		RB50#0	21.72	21.32	20.44
	16QAM	RB1#0	21.90	21.51	20.62
		RB1#25	22.10	21.46	20.44
		RB1#49	22.05	21.14	20.38
		RB25#0	20.52	20.46	19.48
		RB25#25	20.78	20.04	19.35
		RB50#0	20.60	20.25	19.30

15MHz	QPSK	RB1#0	22.03	22.49	21.68
		RB1#38	22.86	22.28	21.02
		RB1#74	22.59	21.56	21.06
		RB36#0	21.84	21.74	20.97
		RB36#39	22.00	21.27	20.80
		RB75#0	21.95	21.51	20.79
	16QAM	RB1#0	21.80	21.51	20.94
		RB1#38	21.99	21.34	20.59
		RB1#74	21.89	20.92	20.37
		RB36#0	20.66	20.60	19.81
		RB36#39	20.85	20.11	19.51
		RB75#0	20.76	20.38	19.64
20MHz	QPSK	RB1#0	22.01	22.40	21.85
		RB1#50	22.92	22.27	20.90
		RB1#99	22.22	21.41	20.93
		RB50#0	21.51	21.55	21.00
		RB50#50	21.64	20.90	20.53
		RB100#0	21.58	21.25	20.74
	16QAM	RB1#0	21.50	21.47	21.20
		RB1#50	22.06	21.49	20.57
		RB1#99	21.42	20.62	20.39
		RB50#0	20.40	20.50	21.24
		RB50#50	20.55	19.87	21.08
		RB100#0	20.51	20.17	21.13

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	2.20	3.04	1.74	13
	100 RB		2.99	4.14	3.16	13
16QAM	1 RB	20 MHz	2.61	4.23	2.90	13
	100 RB		4.52	5.10	4.23	13

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	22.60	-0.20	22.4	30.00
		Middle	23.21	-0.20	23.01	30.00
		High	21.90	-0.20	21.7	30.00
	16QAM	Low	22.29	-0.20	22.09	30.00
		Middle	22.14	-0.20	21.94	30.00
		High	21.18	-0.20	20.98	30.00
3MHz	QPSK	Low	21.90	-0.20	21.7	30.00
		Middle	22.52	-0.20	22.32	30.00
		High	22.06	-0.20	21.86	30.00
	16QAM	Low	21.90	-0.20	21.7	30.00
		Middle	22.21	-0.20	22.01	30.00
		High	20.70	-0.20	20.5	30.00
5MHz	QPSK	Low	22.71	-0.20	22.51	30.00
		Middle	22.30	-0.20	22.1	30.00
		High	21.34	-0.20	21.14	30.00
	16QAM	Low	21.44	-0.20	21.24	30.00
		Middle	21.49	-0.20	21.29	30.00
		High	20.43	-0.20	20.23	30.00
10MHz	QPSK	Low	22.93	-0.20	22.73	30.00
		Middle	22.45	-0.20	22.25	30.00
		High	21.46	-0.20	21.26	30.00
	16QAM	Low	22.10	-0.20	21.9	30.00
		Middle	21.51	-0.20	21.31	30.00
		High	20.62	-0.20	20.42	30.00
15MHz	QPSK	Low	22.86	-0.20	22.66	30.00
		Middle	22.49	-0.20	22.29	30.00
		High	21.68	-0.20	21.48	30.00
	16QAM	Low	21.99	-0.20	21.79	30.00
		Middle	21.51	-0.20	21.31	30.00
		High	20.94	-0.20	20.74	30.00
20MHz	QPSK	Low	22.92	-0.20	22.72	30.00
		Middle	22.40	-0.20	22.2	30.00
		High	21.85	-0.20	21.65	30.00
	16QAM	Low	22.06	-0.20	21.86	30.00
		Middle	21.49	-0.20	21.29	30.00
		High	21.24	-0.20	21.04	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	21.78	22.18	21.55
		RB1#3	21.45	22.31	21.66
		RB1#5	20.97	22.19	21.47
		RB3#0	21.54	21.99	21.43
		RB3#3	21.25	22.02	21.51
		RB6#0	21.43	21.37	21.42
	16QAM	RB1#0	21.27	21.18	21.01
		RB1#3	21.29	21.31	21.29
		RB1#5	21.01	21.17	21.18
		RB3#0	21.31	20.94	21.04
		RB3#3	21.29	21.01	21.05
		RB6#0	20.24	20.17	20.18
3MHz	QPSK	RB1#0	22.04	21.90	22.02
		RB1#8	21.27	22.34	21.68
		RB1#14	20.54	22.15	21.52
		RB6#0	21.40	21.20	21.35
		RB6#9	20.84	21.25	21.37
		RB15#0	21.26	21.13	21.23
	16QAM	RB1#0	21.74	21.31	21.19
		RB1#8	21.51	21.22	21.14
		RB1#14	20.79	21.18	21.20
		RB6#0	20.26	20.03	20.07
		RB6#9	20.17	20.12	20.11
		RB15#0	20.21	19.98	20.15
5MHz	QPSK	RB1#0	22.02	21.40	22.09
		RB1#13	20.82	22.27	21.69
		RB1#24	20.45	22.02	21.56
		RB15#0	21.23	20.97	21.43
		RB15#10	20.69	21.30	21.27
		RB25#0	20.93	21.11	21.23
	16QAM	RB1#0	21.11	21.30	21.16
		RB1#13	20.64	21.35	21.22
		RB1#24	20.23	21.30	21.15
		RB15#0	20.35	19.81	20.30
		RB15#10	20.11	20.19	20.12
		RB25#0	20.23	20.00	20.16
10MHz	QPSK	RB1#0	21.86	20.54	22.16
		RB1#25	20.35	22.25	22.39
		RB1#49	21.07	22.13	21.58
		RB25#0	20.75	20.94	21.51
		RB25#25	20.56	21.34	21.16
		RB50#0	20.57	21.15	21.37
	16QAM	RB1#0	21.62	20.62	21.10
		RB1#25	20.35	21.54	21.32
		RB1#49	21.05	21.31	21.22
		RB25#0	20.43	19.85	20.51
		RB25#25	20.20	20.30	20.11
		RB50#0	20.21	20.12	20.33

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	3.22	2.23	3.71	13
	50 RB		3.59	4.06	4.26	13
16QAM	1 RB	10 MHz	4.14	2.87	4.46	13
	50 RB		4.75	5.10	5.30	13

ERP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	21.78	-3.65	18.13	38.45
		Middle	22.31	-3.65	18.66	38.45
		High	21.66	-3.65	18.01	38.45
	16QAM	Low	21.31	-3.65	17.66	38.45
		Middle	21.31	-3.65	17.66	38.45
		High	21.29	-3.65	17.64	38.45
3MHz	QPSK	Low	22.04	-3.65	18.39	38.45
		Middle	22.34	-3.65	18.69	38.45
		High	22.02	-3.65	18.37	38.45
	16QAM	Low	21.74	-3.65	18.09	38.45
		Middle	21.31	-3.65	17.66	38.45
		High	21.2	-3.65	17.55	38.45
5MHz	QPSK	Low	22.02	-3.65	18.37	38.45
		Middle	22.27	-3.65	18.62	38.45
		High	22.09	-3.65	18.44	38.45
	16QAM	Low	21.11	-3.65	17.46	38.45
		Middle	21.35	-3.65	17.7	38.45
		High	21.22	-3.65	17.57	38.45
10MHz	QPSK	Low	21.86	-3.65	18.21	38.45
		Middle	22.25	-3.65	18.6	38.45
		High	22.39	-3.65	18.74	38.45
	16QAM	Low	21.62	-3.65	17.97	38.45
		Middle	21.54	-3.65	17.89	38.45
		High	21.32	-3.65	17.67	38.45

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	21.48	21.25	21.43
		RB1#3	21.66	21.47	21.65
		RB1#5	21.48	21.22	21.47
		RB3#0	21.44	21.20	21.44
		RB3#3	21.45	21.28	21.47
		RB6#0	20.58	20.73	20.53
	16QAM	RB1#0	20.35	20.52	20.31
		RB1#3	20.50	20.50	20.55
		RB1#5	20.38	20.40	20.36
		RB3#0	20.56	20.26	20.47
		RB3#3	20.60	20.26	20.44
		RB6#0	19.51	19.44	19.43
3MHz	QPSK	RB1#0	21.59	21.41	21.48
		RB1#8	21.53	21.63	21.54
		RB1#14	21.52	21.47	21.55
		RB6#0	20.52	20.50	20.57
		RB6#9	20.45	20.50	20.50
		RB15#0	20.46	20.46	20.53
	16QAM	RB1#0	20.89	20.68	20.46
		RB1#8	20.89	20.52	20.42
		RB1#14	20.92	20.46	20.45
		RB6#0	19.53	19.45	19.47
		RB6#9	19.47	19.47	19.42
		RB15#0	19.54	19.39	19.54
5MHz	QPSK	RB1#0	21.42	21.37	21.27
		RB1#13	21.56	21.34	21.52
		RB1#24	21.46	21.74	21.47
		RB15#0	20.76	20.41	20.80
		RB15#10	20.17	20.75	20.26
		RB25#0	20.41	20.59	20.51
	16QAM	RB1#0	20.19	20.66	20.23
		RB1#13	20.35	20.65	20.51
		RB1#24	20.29	20.51	20.42
		RB15#0	19.73	19.34	19.79
		RB15#10	19.16	19.66	19.28
		RB25#0	19.50	19.53	19.56
10MHz	QPSK	RB1#0	21.49	21.43	21.46
		RB1#25	21.64	21.29	22.12
		RB1#49	21.50	22.11	21.60
		RB25#0	21.15	20.65	19.82
		RB25#25	20.64	21.12	19.90
		RB50#0	20.93	20.96	19.89
	16QAM	RB1#0	20.82	20.49	20.33
		RB1#25	21.03	20.61	20.44
		RB1#49	20.83	20.52	20.50
		RB25#0	20.16	19.64	18.88
		RB25#25	19.61	20.18	18.98
		RB50#0	19.96	20.02	18.93

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	3.54	3.91	3.36	13
	50 RB		4.75	4.78	4.78	13
16QAM	1 RB	10 MHz	4.23	4.87	4.55	13
	50 RB		5.65	5.57	5.77	13

ERP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	21.66	-1.35	20.31	34.77
		Middle	21.47	-1.35	20.12	34.77
		High	21.65	-1.35	20.3	34.77
	16QAM	Low	20.60	-1.35	19.25	34.77
		Middle	20.52	-1.35	19.17	34.77
		High	20.55	-1.35	19.2	34.77
3MHz	QPSK	Low	21.59	-1.35	20.24	34.77
		Middle	21.63	-1.35	20.28	34.77
		High	21.55	-1.35	20.2	34.77
	16QAM	Low	20.92	-1.35	19.57	34.77
		Middle	20.68	-1.35	19.33	34.77
		High	20.46	-1.35	19.11	34.77
5MHz	QPSK	Low	21.56	-1.35	20.21	34.77
		Middle	21.74	-1.35	20.39	34.77
		High	21.52	-1.35	20.17	34.77
	16QAM	Low	20.35	-1.35	19	34.77
		Middle	20.66	-1.35	19.31	34.77
		High	20.51	-1.35	19.16	34.77
10MHz	QPSK	Low	21.64	-1.35	20.29	34.77
		Middle	22.11	-1.35	20.76	34.77
		High	22.12	-1.35	20.77	34.77
	16QAM	Low	21.03	-1.35	19.68	34.77
		Middle	20.61	-1.35	19.26	34.77
		High	20.50	-1.35	19.15	34.77

LTE Band 17

Conducted Output Power:

Channel Bandwidth	Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 MHz	QPSK	RB1#0	21.49	21.38	21.29
		RB1#13	21.34	21.98	21.56
		RB1#24	21.47	21.40	21.57
		RB15#0	20.57	20.03	20.80
		RB15#10	20.67	20.66	20.32
		RB25#0	20.57	20.39	20.51
	16QAM	RB1#0	20.28	20.53	20.28
		RB1#13	20.36	20.57	20.58
		RB1#24	20.19	20.58	20.58
		RB15#0	19.56	19.01	19.81
		RB15#10	19.70	19.65	19.30
		RB25#0	19.61	19.42	19.57
10 MHz	QPSK	RB1#0	21.55	21.48	21.51
		RB1#25	21.56	21.85	22.11
		RB1#49	21.54	21.58	21.68
		RB25#0	20.36	20.01	19.78
		RB25#25	20.60	20.19	19.93
		RB50#0	20.61	20.10	19.92
	16QAM	RB1#0	20.87	20.50	20.35
		RB1#25	20.91	20.55	20.43
		RB1#49	20.94	20.64	20.56
		RB25#0	19.33	19.08	18.91
		RB25#25	19.61	19.14	19.03
		RB50#0	19.52	19.09	18.94

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	10 MHz	3.71	3.33	3.28	13
	50 RB		4.84	4.70	4.72	13
16QAM	1 RB	10 MHz	8.49	4.52	4.26	13
	50 RB		5.65	5.71	5.80	13

ERP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBd)	Result (dBm)	Limit (dBm)
5MHz	QPSK	Low	21.49	-1.35	20.14	34.77
		Middle	21.98	-1.35	20.63	34.77
		High	21.57	-1.35	20.22	34.77
	16QAM	Low	20.36	-1.35	19.01	34.77
		Middle	20.58	-1.35	19.23	34.77
		High	20.58	-1.35	19.23	34.77
10MHz	QPSK	Low	21.56	-1.35	20.21	34.77
		Middle	21.85	-1.35	20.5	34.77
		High	22.11	-1.35	20.76	34.77
	16QAM	Low	20.94	-1.35	19.59	34.77
		Middle	20.64	-1.35	19.29	34.77
		High	20.56	-1.35	19.21	34.77

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	23.16	21.93	21.02
		RB1#3	23.02	21.99	21.19
		RB1#5	22.66	21.70	20.97
		RB3#0	22.80	21.90	21.17
		RB3#3	22.71	21.85	21.18
		RB6#0	22.30	21.79	21.15
	16QAM	RB1#0	21.90	21.46	20.76
		RB1#3	21.99	21.71	20.97
		RB1#5	21.85	21.48	20.76
		RB3#0	21.99	21.56	21.07
		RB3#3	22.02	21.57	21.04
		RB6#0	20.94	20.99	20.79
3MHz	QPSK	RB1#0	22.15	21.61	21.05
		RB1#8	22.29	21.74	21.11
		RB1#14	22.09	21.45	20.88
		RB6#0	22.12	21.63	21.13
		RB6#9	22.25	21.64	21.08
		RB15#0	22.07	21.65	21.17
	16QAM	RB1#0	22.07	21.29	20.90
		RB1#8	22.37	21.55	20.95
		RB1#14	22.26	21.33	20.71
		RB6#0	21.02	20.83	20.64
		RB6#9	21.03	20.88	20.68
		RB15#0	21.01	20.78	20.61
5MHz	QPSK	RB1#0	22.05	21.60	21.06
		RB1#13	22.17	21.50	20.91
		RB1#24	22.48	21.50	20.88
		RB15#0	22.08	21.47	21.09
		RB15#10	22.13	21.52	21.09
		RB25#0	22.03	21.43	21.10
	16QAM	RB1#0	21.54	21.33	21.06
		RB1#13	21.83	21.39	20.95
		RB1#24	21.88	21.44	20.85
		RB15#0	20.98	20.80	20.68
		RB15#10	21.04	20.79	20.58
		RB25#0	21.01	20.78	20.59
10MHz	QPSK	RB1#0	22.24	21.87	22.19
		RB1#25	22.58	21.54	21.17
		RB1#49	23.29	21.74	21.13
		RB25#0	22.07	21.58	21.80
		RB25#25	22.21	21.69	21.29
		RB50#0	22.12	21.56	21.62
	16QAM	RB1#0	22.17	21.48	21.77
		RB1#25	22.56	21.32	21.23
		RB1#49	22.37	21.51	21.00
		RB25#0	21.03	20.89	20.89
		RB25#25	21.23	20.87	20.63
		RB50#0	21.07	20.81	20.74

15MHz	QPSK	RB1#0	22.40	22.09	22.86
		RB1#38	23.14	21.60	22.45
		RB1#74	23.04	21.88	21.64
		RB36#0	22.20	21.57	21.95
		RB36#39	22.30	21.66	21.89
		RB75#0	22.31	22.16	21.94
	16QAM	RB1#0	22.26	22.17	21.76
		RB1#38	22.39	22.29	21.82
		RB1#74	22.32	22.17	21.62
		RB36#0	21.08	21.07	20.86
		RB36#39	21.21	21.11	20.73
		RB75#0	21.20	21.08	20.77
20MHz	QPSK	RB1#0	22.85	22.70	22.75
		RB1#50	23.45	22.01	22.18
		RB1#99	22.77	22.37	21.18
		RB50#0	21.90	22.06	21.70
		RB50#50	22.13	22.02	21.48
		RB100#0	22.01	21.94	21.65
	16QAM	RB1#0	21.93	21.68	21.92
		RB1#50	22.38	21.55	22.23
		RB1#99	21.93	21.73	21.53
		RB50#0	20.87	20.99	20.56
		RB50#50	21.13	20.91	20.40
		RB100#0	21.01	20.90	20.51

PAR:

Test Modulation		Channel Bandwidth	Low Channel PAR (dB)	Middle Channel PAR (dB)	High Channel PAR (dB)	Limit (dB)
QPSK	1 RB	20 MHz	3.01	3.33	3.48	13
	100 RB		4.32	4.20	4.17	13
16QAM	1 RB	20 MHz	3.97	4.32	4.09	13
	100 RB		5.36	5.22	5.22	13

EIRP:

Channel Bandwidth	Modulation	Channel	Conducted Power (dBm)	Antenna Gain (dBi)	Result (dBm)	Limit (dBm)
1.4MHz	QPSK	Low	23.16	-0.20	22.96	30.00
		Middle	21.99	-0.20	21.79	30.00
		High	21.19	-0.20	20.99	30.00
	16QAM	Low	22.02	-0.20	21.82	30.00
		Middle	21.71	-0.20	21.51	30.00
		High	21.07	-0.20	20.87	30.00
3MHz	QPSK	Low	22.29	-0.20	22.09	30.00
		Middle	21.74	-0.20	21.54	30.00
		High	21.17	-0.20	20.97	30.00
	16QAM	Low	22.37	-0.20	22.17	30.00
		Middle	21.55	-0.20	21.35	30.00
		High	20.95	-0.20	20.75	30.00
5MHz	QPSK	Low	22.48	-0.20	22.28	30.00
		Middle	21.60	-0.20	21.4	30.00
		High	21.10	-0.20	20.9	30.00
	16QAM	Low	21.88	-0.20	21.68	30.00
		Middle	21.44	-0.20	21.24	30.00
		High	21.06	-0.20	20.86	30.00
10MHz	QPSK	Low	23.29	-0.20	23.09	30.00
		Middle	21.87	-0.20	21.67	30.00
		High	22.19	-0.20	21.99	30.00
	16QAM	Low	22.56	-0.20	22.36	30.00
		Middle	21.51	-0.20	21.31	30.00
		High	21.77	-0.20	21.57	30.00
15MHz	QPSK	Low	23.14	-0.20	22.94	30.00
		Middle	22.16	-0.20	21.96	30.00
		High	22.86	-0.20	22.66	30.00
	16QAM	Low	22.39	-0.20	22.19	30.00
		Middle	22.29	-0.20	22.09	30.00
		High	21.82	-0.20	21.62	30.00
20MHz	QPSK	Low	23.45	-0.20	23.25	30.00
		Middle	22.70	-0.20	22.5	30.00
		High	22.75	-0.20	22.55	30.00
	16QAM	Low	22.38	-0.20	22.18	30.00
		Middle	21.73	-0.20	21.53	30.00
		High	22.23	-0.20	22.03	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 + Antenna Gain
3) Antenna gain(dBd)= Antenna gain(dBi)-2.15

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

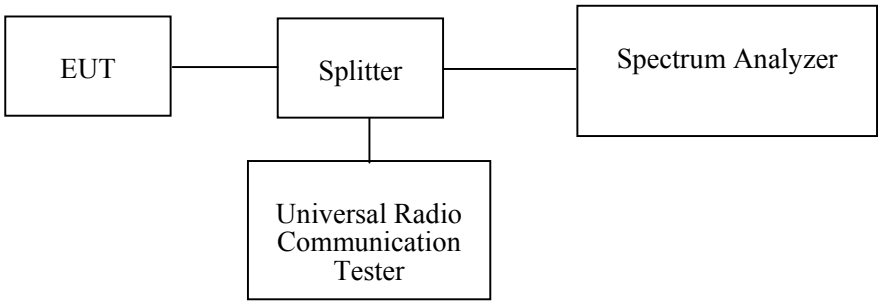
Applicable Standard

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

Test Procedure

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

The 26 dB & 99% bandwidth was recorded.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2020-07-07	2021-07-07
R&S	Spectrum Analyzer	FSV40	101474	2021-07-06	2022-07-05
R&S	Spectrum Analyzer	FSP 38	100478	2020-07-07	2021-07-07
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
E-Microwave	Blocking Control	EMDCB-00036	0E01201048	Each time	N/A
E-Microwave	Coaxial Attenuators	EMCA10-5RN-6	OE01203239	Each time	N/A
E-Microwave	Two-way Spliter	ODP-1-6-2S	OE0120142	Each time	N/A

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

Test Data

Environmental Conditions

Temperature:	25.8~27.4 °C
Relative Humidity:	42~49%
ATM Pressure:	100~100.7kPa
Tester:	Lay Lei
Test Date:	2021-06-02~2021-07-21

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	GSM	0.244	0.242	0.246	0.312	0.310	0.312
	EGPRS	0.242	0.242	0.244	0.320	0.322	0.318
PCS	GSM	0.246	0.246	0.246	0.320	0.316	0.317
	EGPRS	0.246	0.246	0.244	0.321	0.323	0.320

WCDMA:

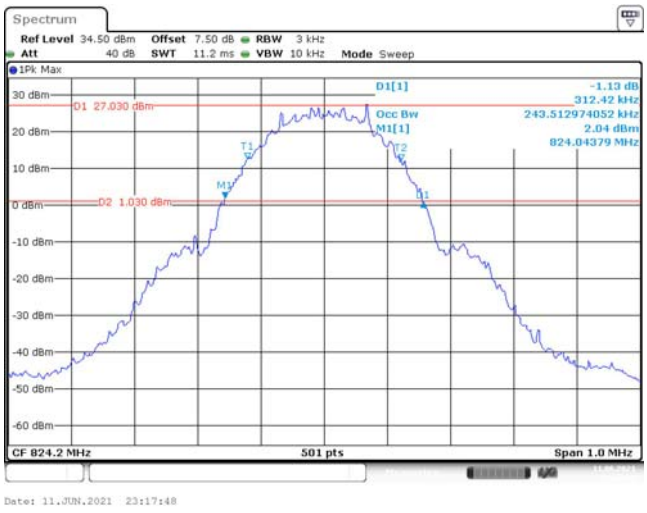
Band	Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
Cellular	Rel 99	4.212	4.232	4.232	4.903	4.932	4.923
	HSDPA	4.212	4.232	4.232	4.914	4.918	4.903
	HSUPA	4.212	4.232	4.212	4.914	4.914	4.894
AWS	Rel 99	4.192	4.192	4.192	4.764	4.782	4.817
	HSDPA	4.172	4.172	4.192	4.750	4.724	4.744
	HSUPA	4.172	4.212	4.192	4.744	4.824	4.750
PCS	Rel 99	4.212	4.212	4.212	4.885	4.894	4.927
	HSDPA	4.152	4.172	4.172	4.721	4.750	4.715
	HSUPA	4.152	4.172	4.172	4.710	4.741	4.710

LTE Bands:

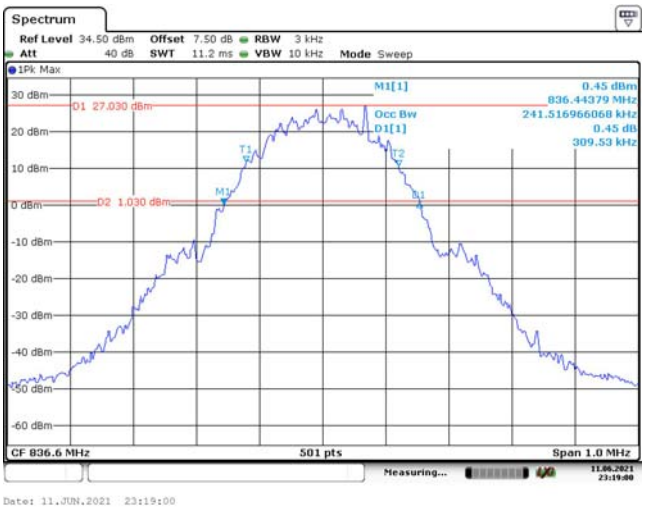
Band	Bandwidth (MHz)	Modulation mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
			Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
LTE Band 2	1.4 MHz	QPSK	1.098	1.098	1.104	1.314	1.302	1.422
		16QAM	1.098	1.104	1.104	1.290	1.308	1.314
	3 MHz	QPSK	2.688	2.700	2.700	2.880	2.880	2.952
		16QAM	2.688	2.688	2.688	2.880	2.868	2.880
	5 MHz	QPSK	4.540	4.540	4.520	5.240	5.140	5.180
		16QAM	4.540	4.560	4.560	5.200	5.220	5.300
	10 MHz	QPSK	8.960	9.000	9.040	10.080	9.880	10.000
		16QAM	8.960	8.960	9.000	9.720	9.840	10.000
	15 MHz	QPSK	13.560	13.560	13.620	15.180	15.180	15.480
		16QAM	13.620	13.620	13.620	15.240	15.240	15.300
	20 MHz	QPSK	18.000	18.080	18.000	19.680	19.920	19.920
		16QAM	18.080	18.080	18.000	19.520	20.000	19.520
LTE Band 4	1.4 MHz	QPSK	1.102	1.108	1.102	1.332	1.338	1.290
		16QAM	1.102	1.090	1.102	1.326	1.290	1.308
	3 MHz	QPSK	2.695	2.695	2.683	2.868	2.892	2.880
		16QAM	2.683	2.683	2.683	2.892	2.880	2.880
	5 MHz	QPSK	4.551	4.511	4.511	5.200	5.120	5.200
		16QAM	4.511	4.531	4.551	5.160	5.160	5.200
	10 MHz	QPSK	8.982	8.942	8.942	10.000	9.800	9.920
		16QAM	8.982	8.942	8.942	9.800	9.840	9.880
	15 MHz	QPSK	13.653	13.473	13.533	15.300	15.120	15.660
		16QAM	13.593	13.533	13.533	15.660	15.060	15.240
	20 MHz	QPSK	17.964	17.964	18.044	19.600	19.680	20.080
		16QAM	18.044	17.964	17.964	19.760	19.760	19.760

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	1.104	1.110	1.158	1.368	1.698	2.052
		16QAM	1.104	1.104	1.122	1.314	1.464	2.022
	3 MHz	QPSK	2.688	2.700	2.712	2.916	3.312	4.548
		16QAM	2.688	2.688	2.688	2.904	3.000	3.900
	5 MHz	QPSK	4.580	4.540	4.560	5.420	5.680	6.920
		16QAM	4.580	4.540	4.580	6.240	5.180	6.440
	10 MHz	QPSK	9.080	8.960	9.000	15.920	9.920	10.080
		16QAM	9.120	8.960	9.000	15.800	9.720	9.840
LTE Band 12	1.4 MHz	QPSK	1.098	1.104	1.104	1.320	1.362	1.302
		16QAM	1.098	1.098	1.104	1.308	1.302	1.308
	3 MHz	QPSK	2.688	2.700	2.688	2.856	2.892	2.892
		16QAM	2.676	2.700	2.688	2.832	2.880	2.868
	5 MHz	QPSK	4.500	4.560	4.520	5.040	5.240	5.040
		16QAM	4.500	4.580	4.540	5.060	5.200	5.160
	10 MHz	QPSK	9.080	9.000	8.880	9.800	10.000	9.480
		16QAM	9.000	9.040	8.920	9.720	9.720	9.560
LTE Band 17	5 MHz	QPSK	4.600	4.500	4.520	5.900	5.020	5.080
		16QAM	4.560	4.520	4.540	5.400	5.080	5.180
	10 MHz	QPSK	8.960	8.920	8.880	9.600	9.600	9.480
		16QAM	8.960	8.920	8.880	9.600	9.560	9.520
LTE Band 66	1.4 MHz	QPSK	1.116	1.110	1.134	1.650	1.962	2.022
		16QAM	1.110	1.104	1.134	1.434	1.620	2.118
	3 MHz	QPSK	2.688	2.688	2.700	2.880	3.468	4.176
		16QAM	2.688	2.700	2.688	2.976	4.632	3.096
	5 MHz	QPSK	4.560	4.560	4.560	6.240	6.180	5.260
		16QAM	4.540	4.600	4.520	5.400	7.320	5.220
	10 MHz	QPSK	9.000	9.040	9.000	10.040	14.720	10.160
		16QAM	9.000	9.040	9.000	9.920	11.400	10.000
	15 MHz	QPSK	13.680	13.473	13.680	15.480	15.180	16.860
		16QAM	13.560	13.533	13.560	15.120	15.180	15.240
	20 MHz	QPSK	18.000	17.964	18.000	19.600	19.760	19.840
		16QAM	17.920	18.044	18.000	19.520	19.840	19.600

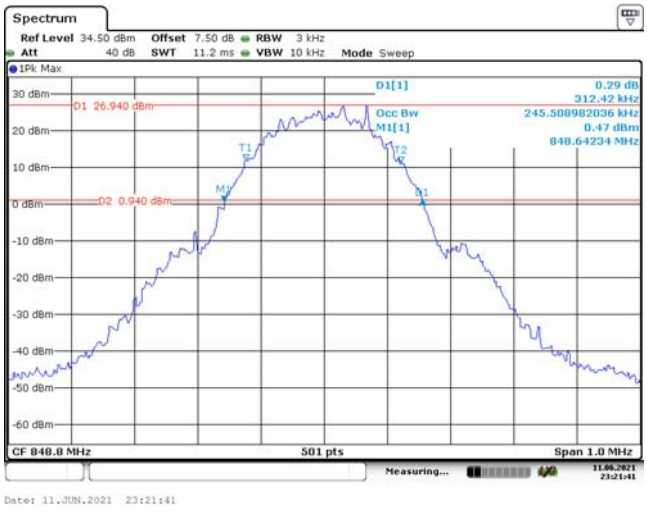
Cellular 850 Band, GSM, Low Channel



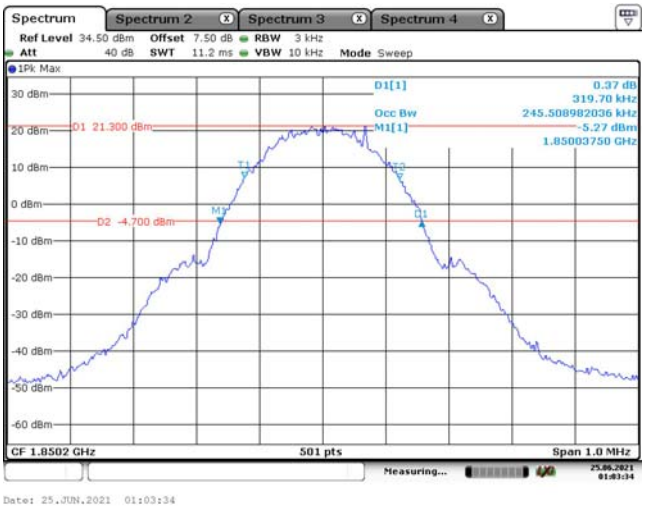
Cellular 850 Band, GSM, Middle Channel



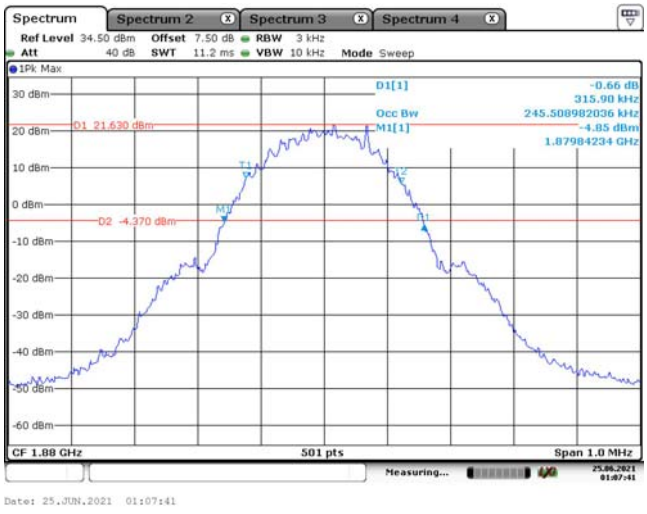
Cellular 850 Band, GSM, High Channel



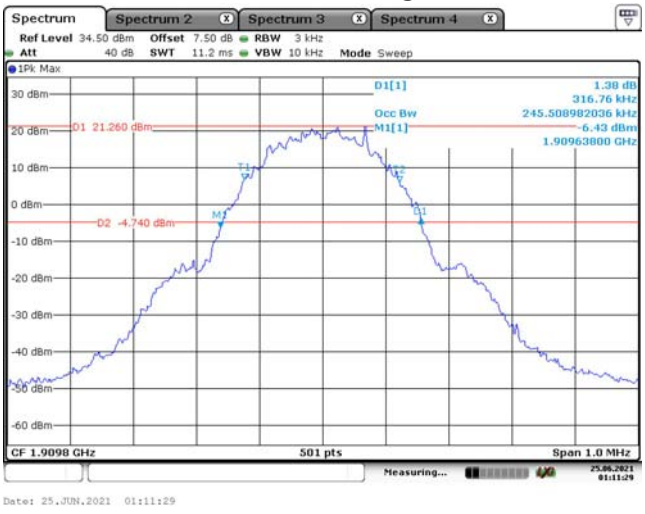
PCS 1900 Band, GSM, Low Channel



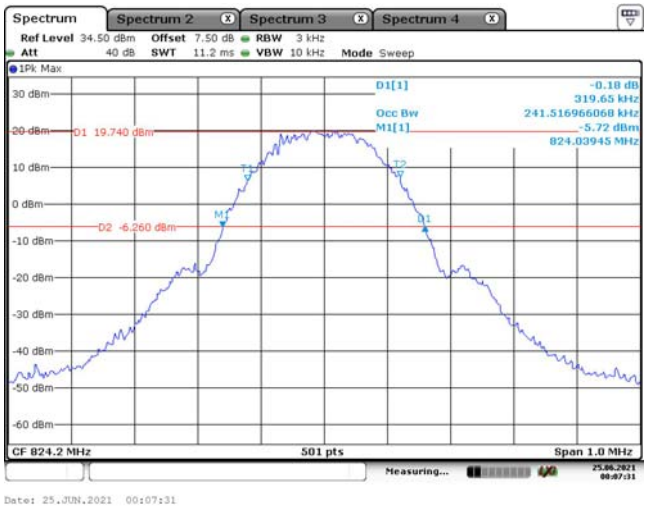
PCS 1900 Band, GSM, Middle Channel



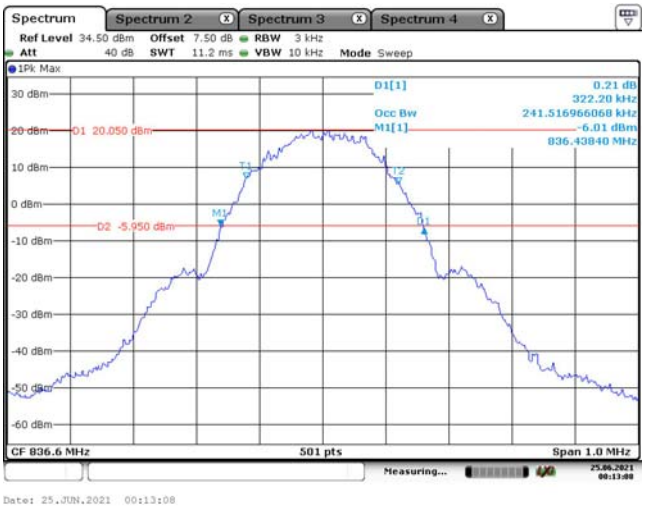
PCS 1900 Band, GSM, High Channel



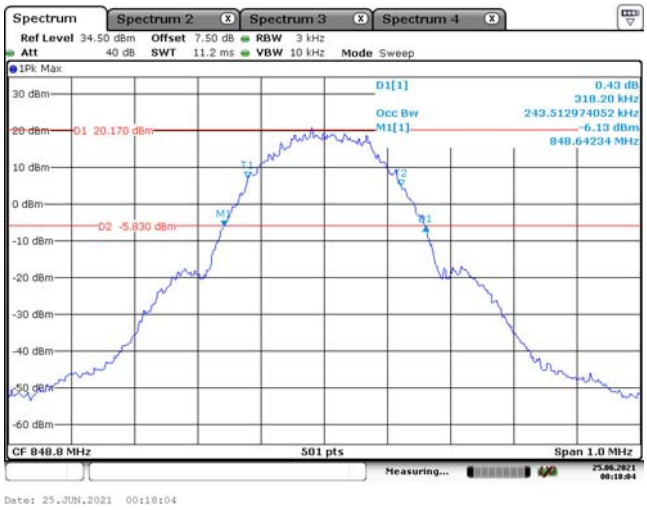
Cellular 850 Band, EGPRS, Low Channel



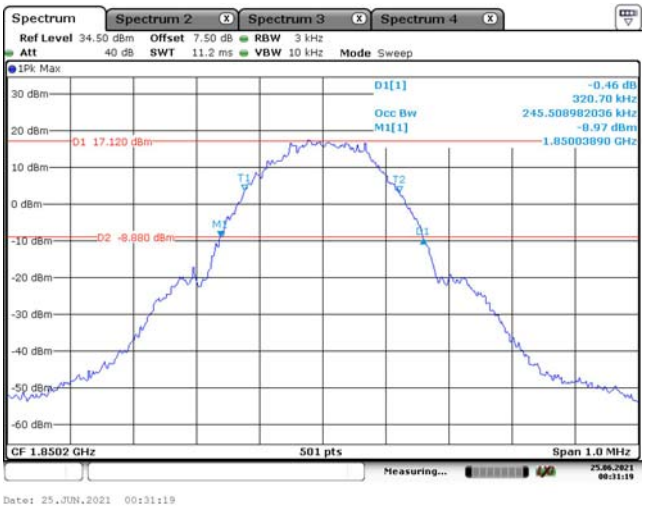
Cellular 850 Band, EGPRS, Middle Channel



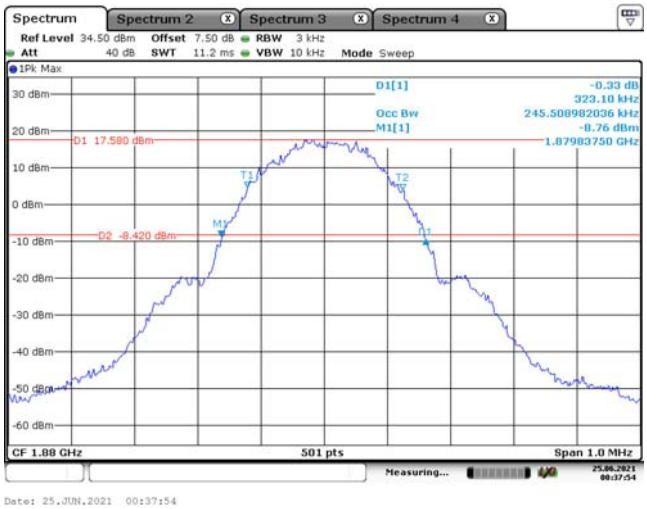
Cellular 850 Band, EGPRS, High Channel



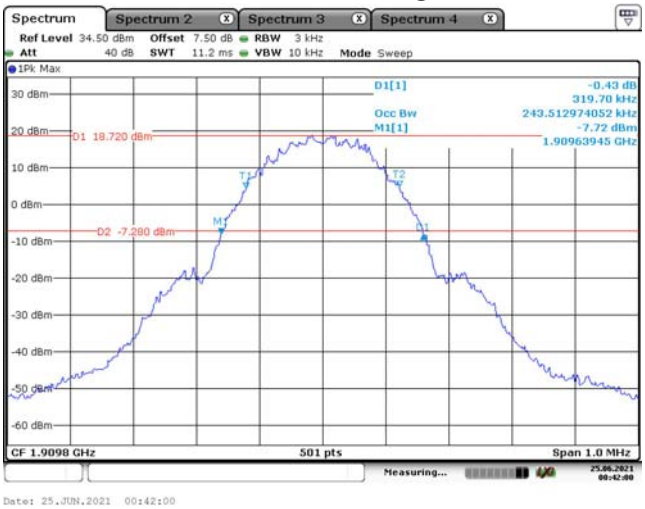
PCS 1900 Band, EGPRS, Low Channel



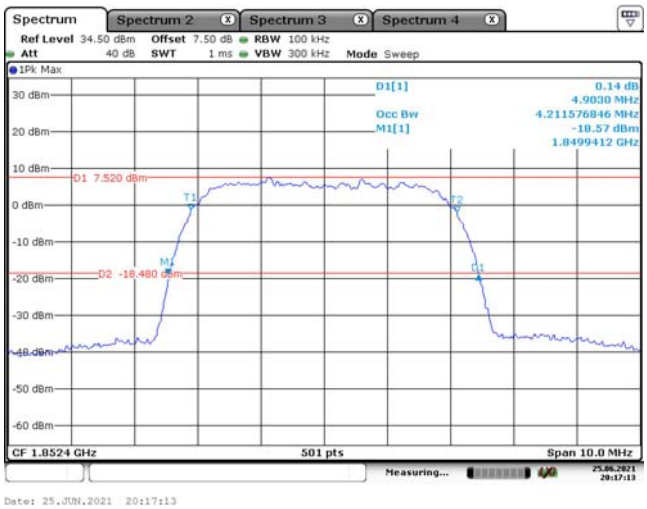
PCS 1900 Band, EGPRS, Middle Channel



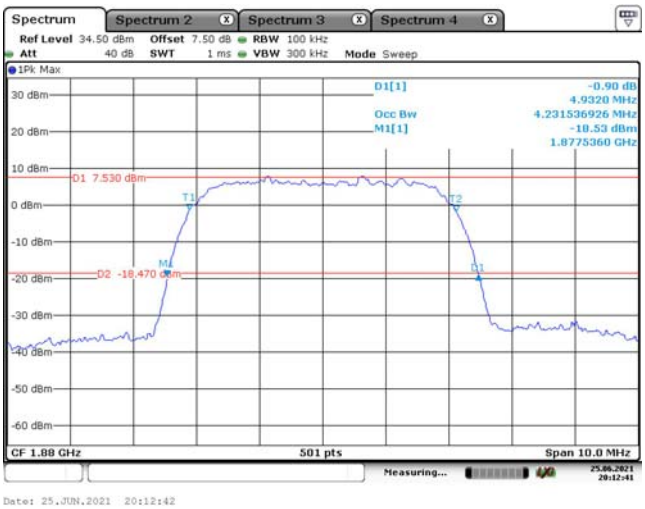
PCS 1900 Band, EGPRS, High Channel



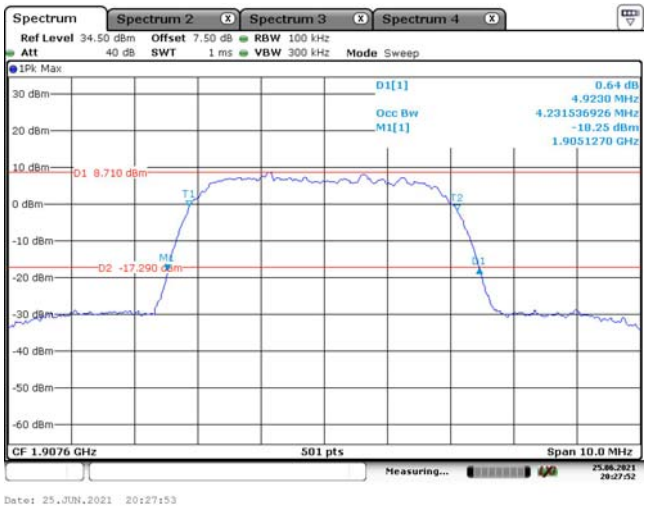
WCDMA Band II, Rel99, Low Channel



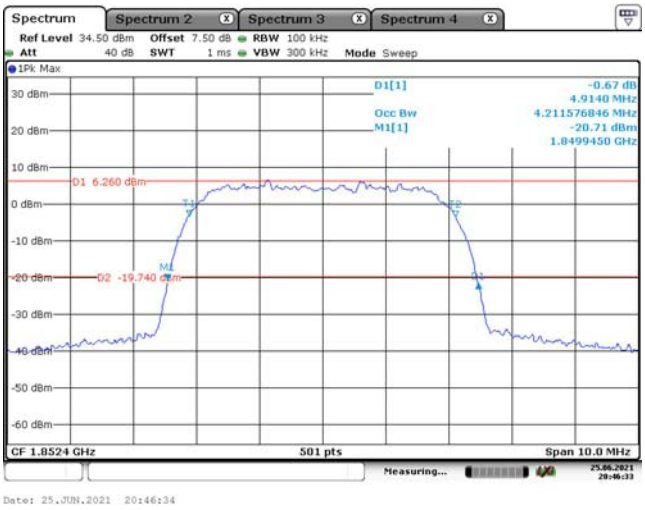
WCDMA Band II, Rel99, Middle Channel



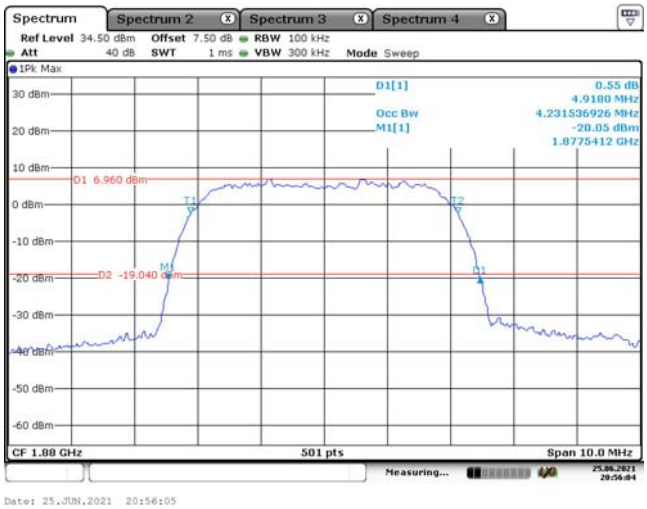
WCDMA Band II, Rel99, High Channel



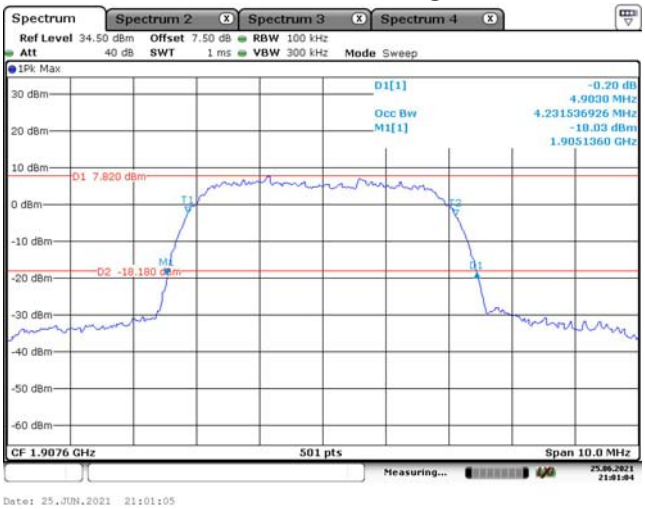
WCDMA Band II, HSDPA, Low Channel



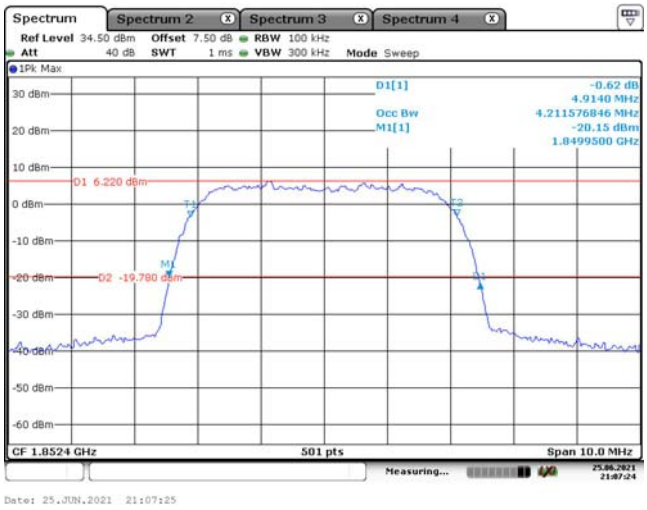
WCDMA Band II, HSDPA, Middle Channel



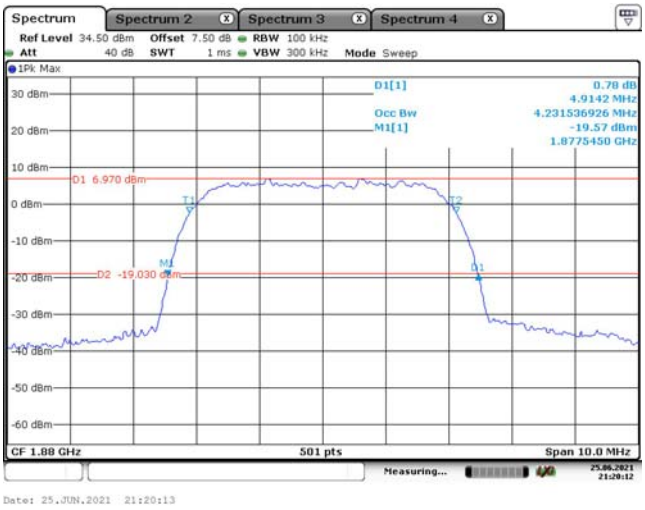
WCDMA Band II, HSDPA, High Channel



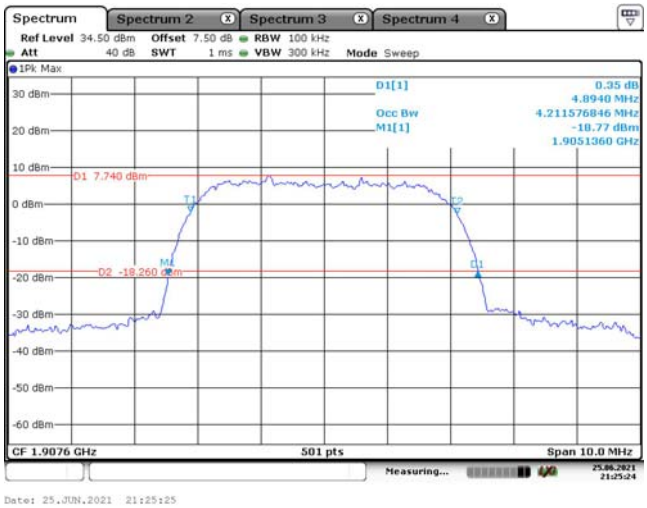
WCDMA Band II, HSUPA, Low Channel



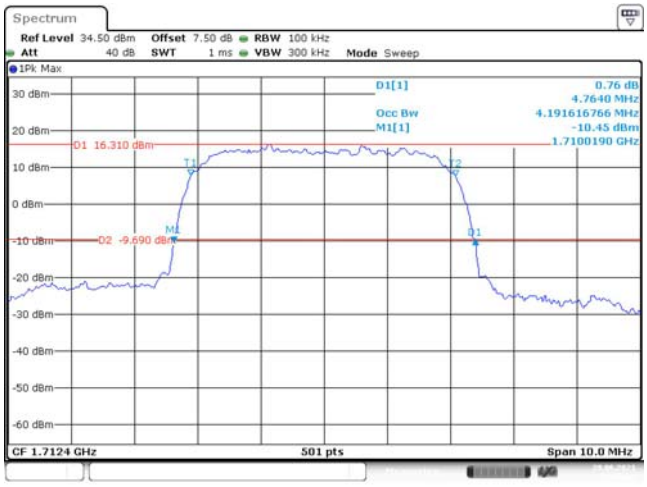
WCDMA Band II, HSUPA, Middle Channel



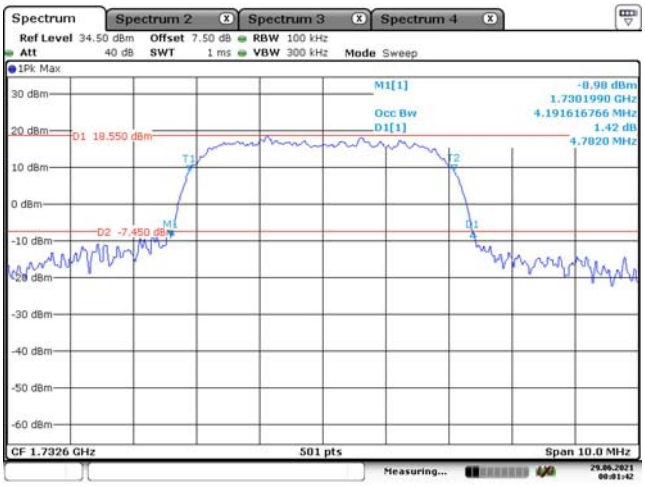
WCDMA Band II, HSUPA, High Channel



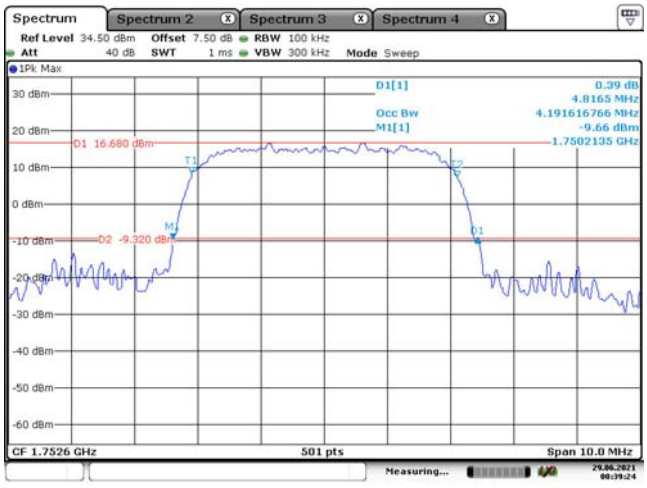
WCDMA Band IV, Rel99, Low Channel



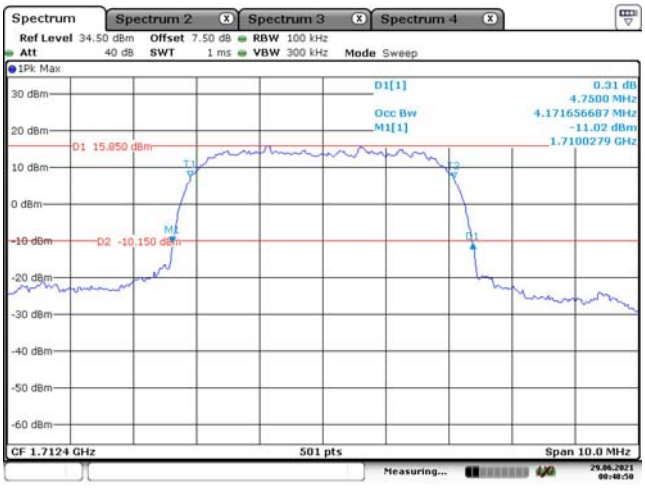
WCDMA Band IV, Rel99, Middle Channel



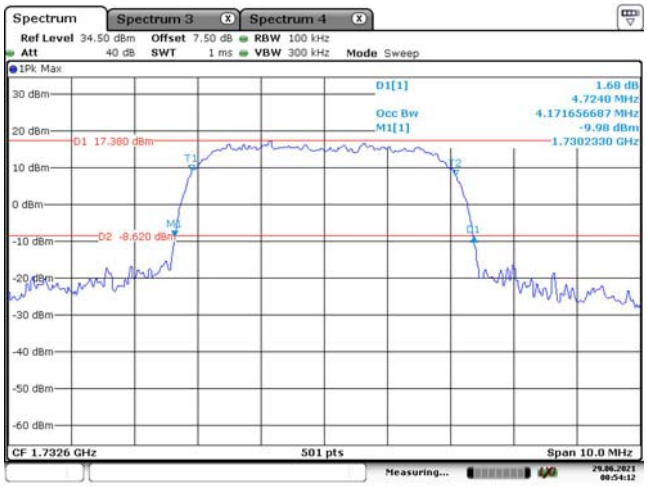
WCDMA Band IV, Rel99, High Channel



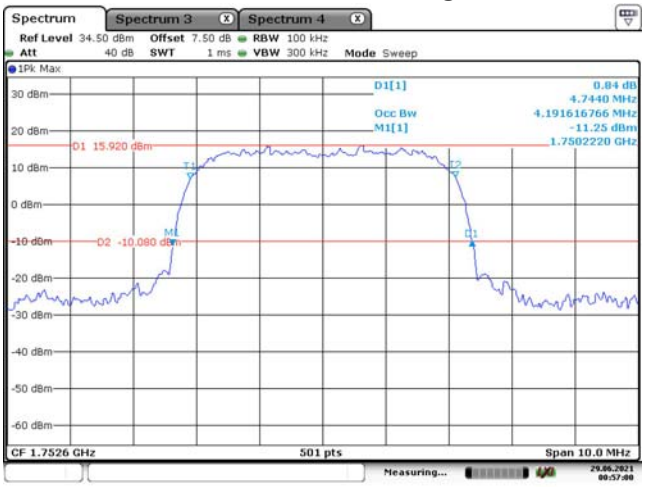
WCDMA Band IV, HSDPA, Low Channel



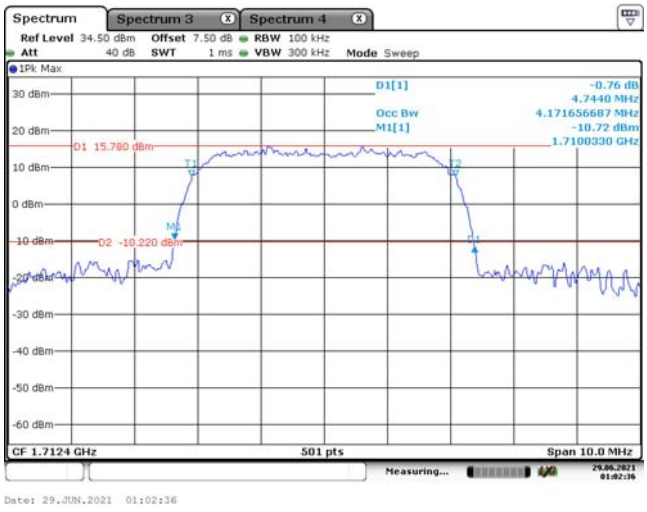
WCDMA Band IV, HSDPA, Middle Channel



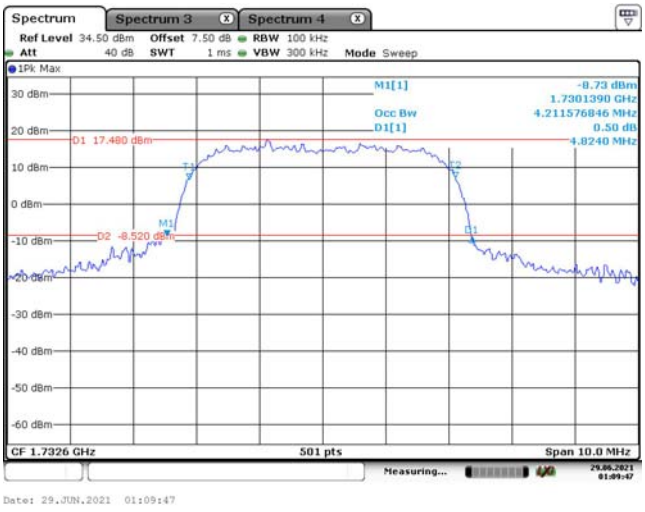
WCDMA Band IV, HSDPA, High Channel



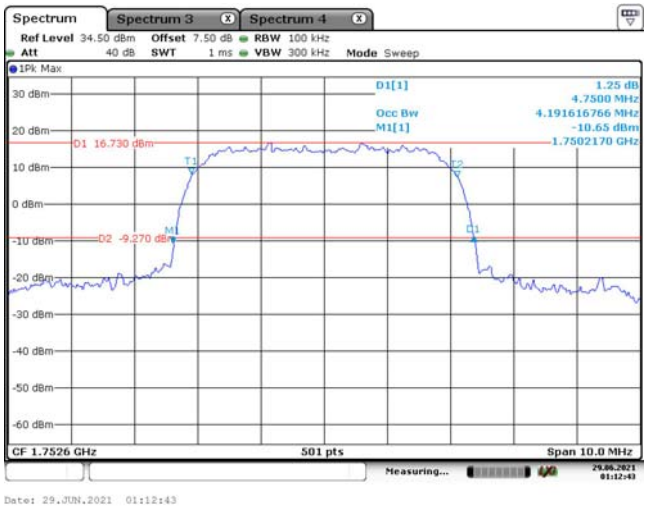
WCDMA Band IV, HSUPA, Low Channel



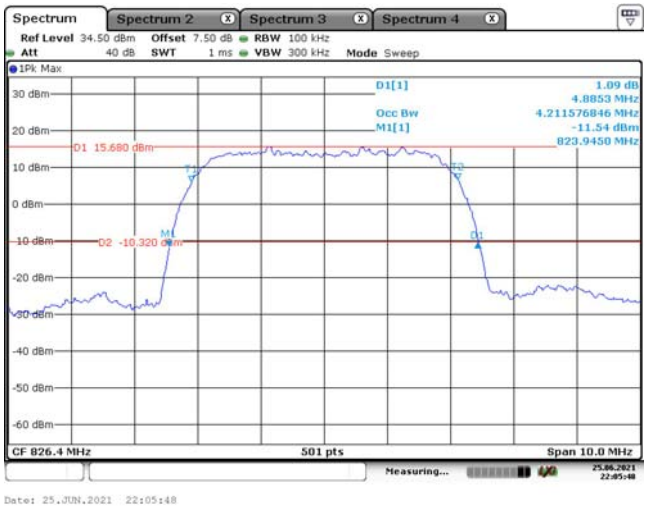
WCDMA Band IV, HSUPA, Middle Channel



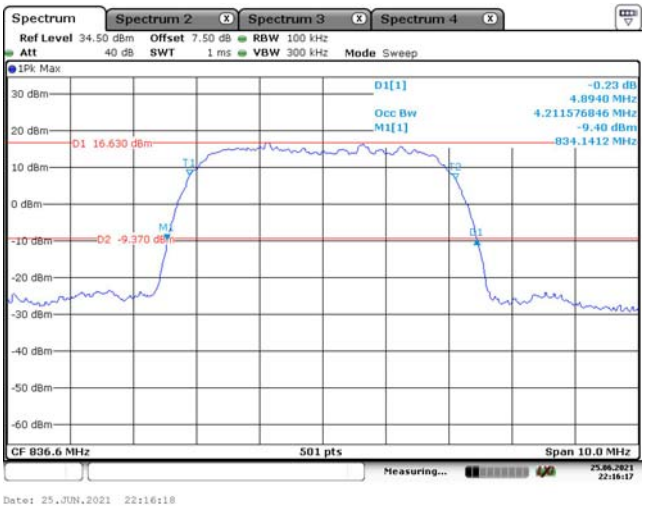
WCDMA Band IV, HSUPA, High Channel



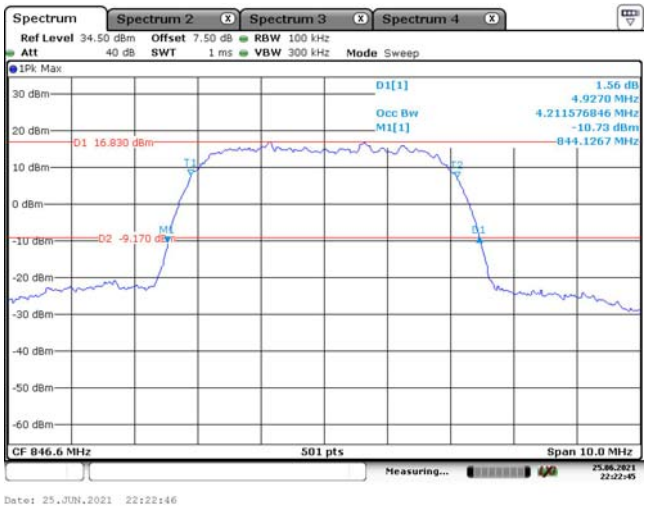
WCDMA Band V, Rel99, Low Channel



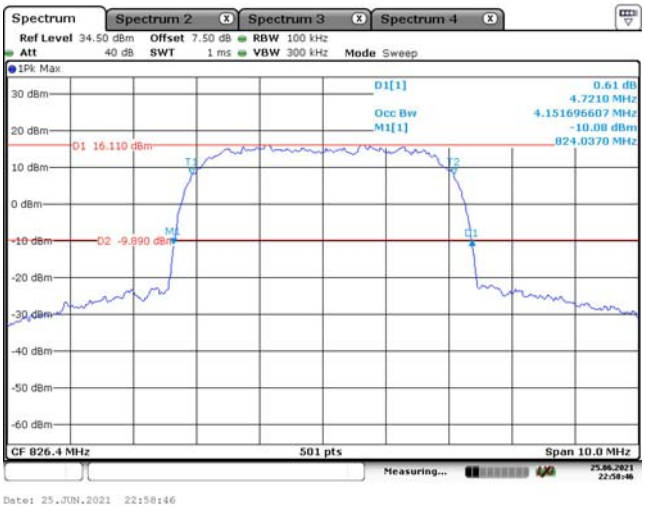
WCDMA Band V, Rel99, Middle Channel



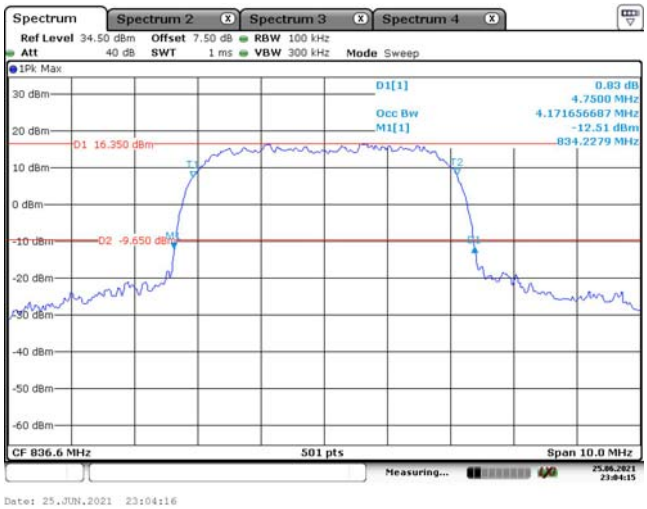
WCDMA Band V, Rel99, High Channel



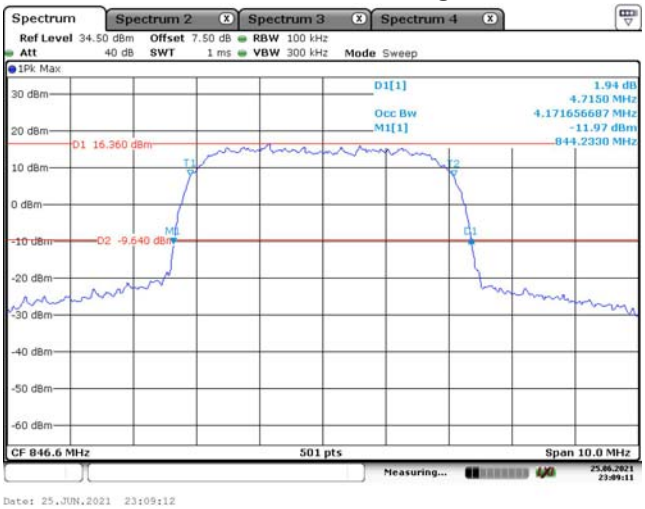
WCDMA Band V, HSDPA, Low Channel



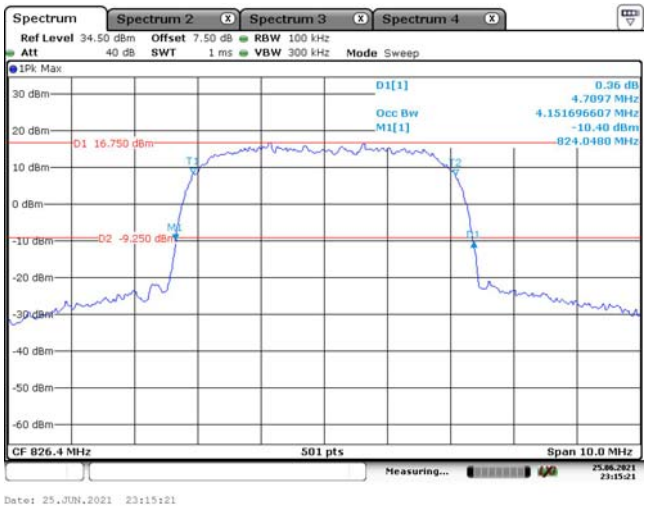
WCDMA Band V, HSDPA, Middle Channel



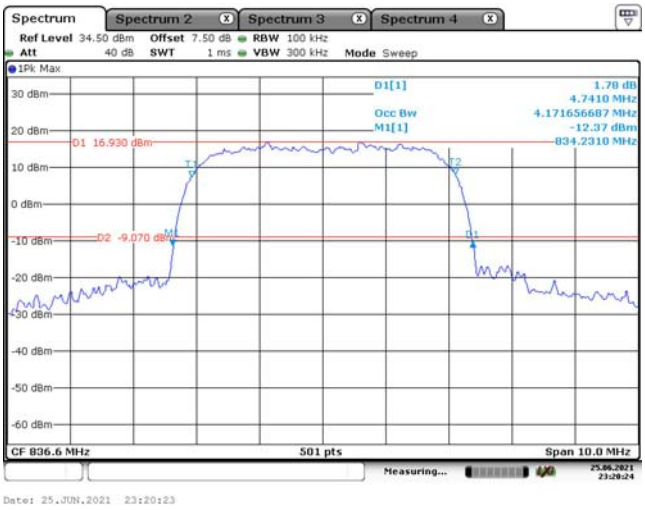
WCDMA Band V, HSDPA, High Channel



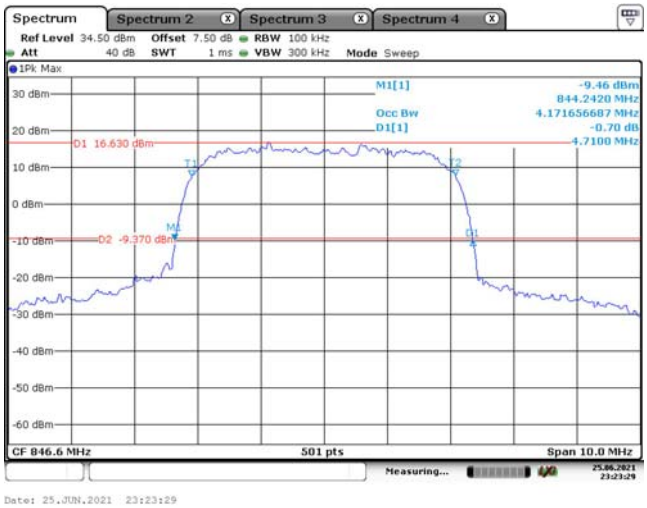
WCDMA Band V, HSUPA, Low Channel



WCDMA Band V, HSUPA, Middle Channel

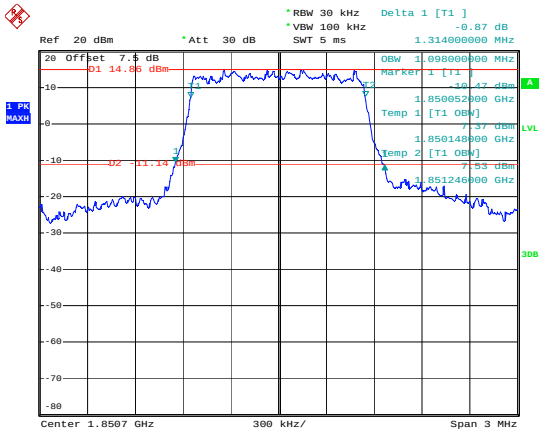


WCDMA Band V, HSUPA, High Channel



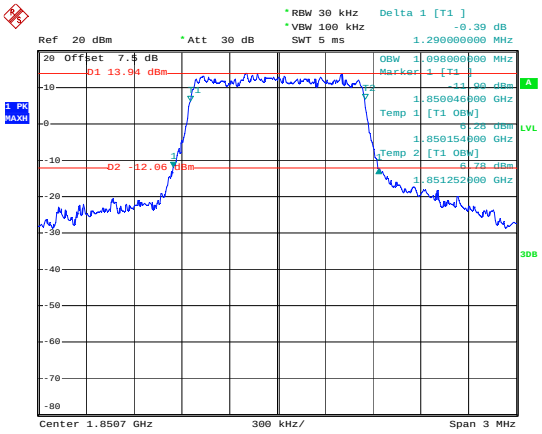
LTE Band 2

1.4M, QPSK, Low Channel



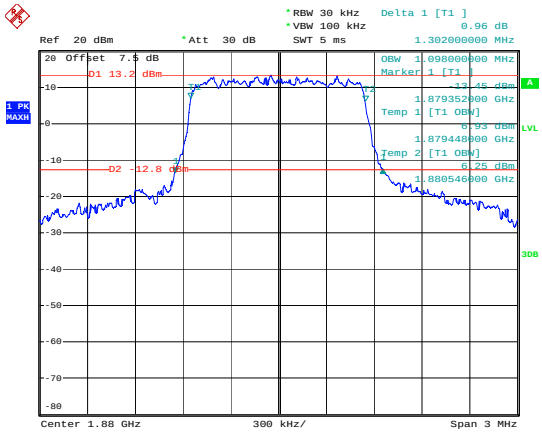
Date: 2.JUN.2021 23:51:25

1.4M, 16QAM, Low Channel



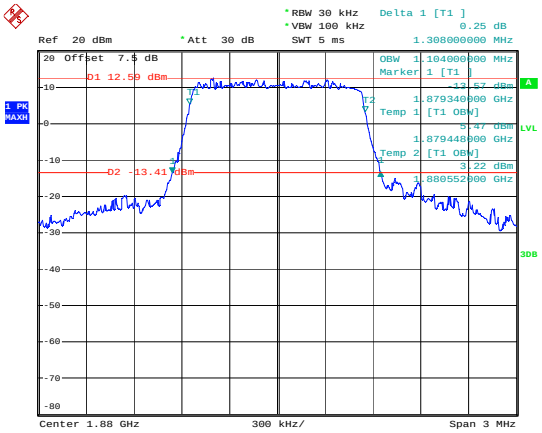
Date: 2.JUN.2021 23:51:45

1.4M, QPSK, Middle Channel



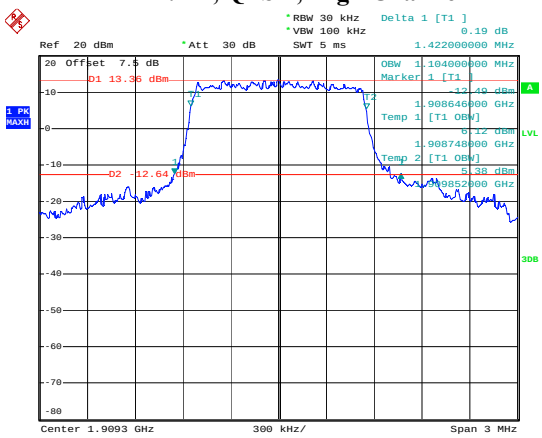
Date: 2.JUN.2021 23:52:05

1.4M, 16QAM, Middle Channel



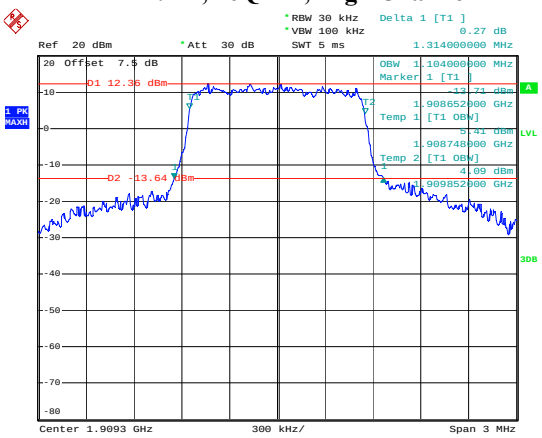
Date: 2.JUN.2021 23:52:28

1.4M, QPSK, High Channel



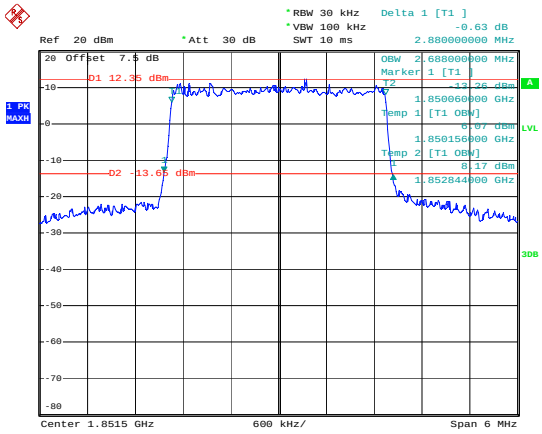
Date: 2.JUN.2021 23:52:48

1.4M, 16QAM, High Channel



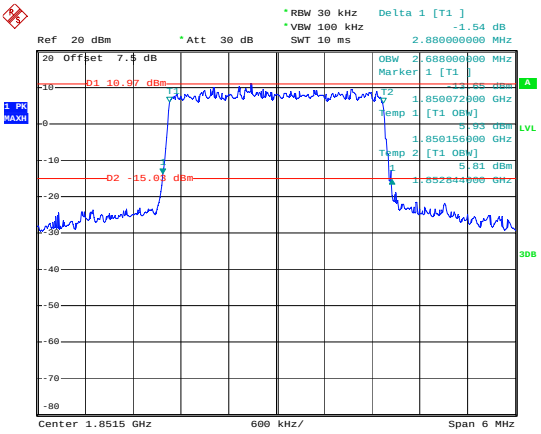
Date: 2.JUN.2021 23:53:07

3M, QPSK, Low Channel



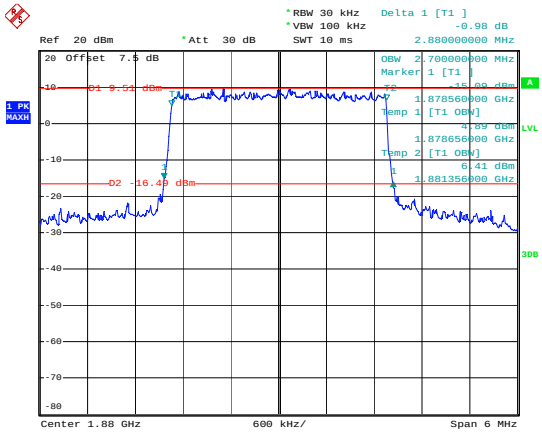
Date: 2.JUN.2021 23:53:29

3M, 16QAM, Low Channel



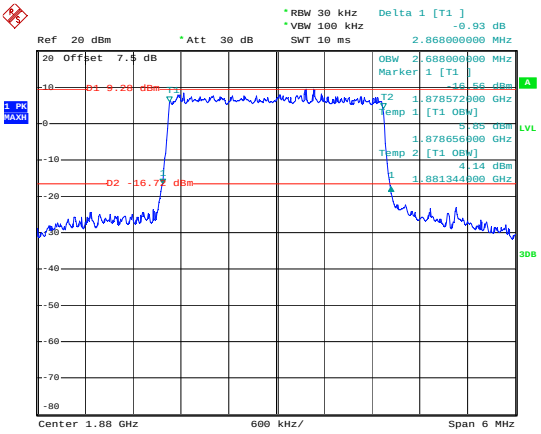
Date: 2.JUN.2021 23:53:49

3M, QPSK, Middle Channel



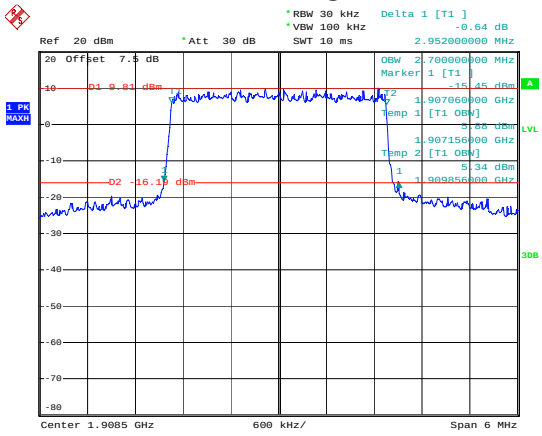
Date: 2.JUN.2021 23:54:09

3M, 16QAM, Middle Channel



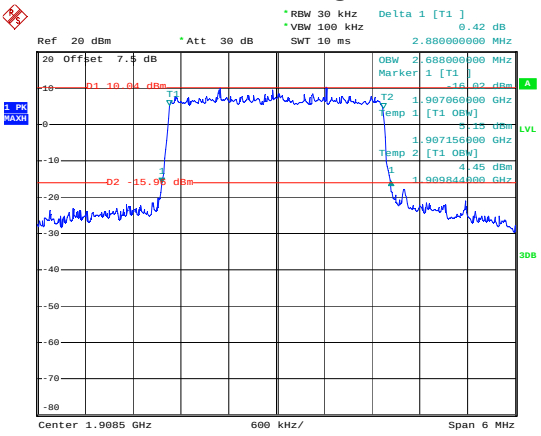
Date: 2.JUN.2021 23:54:29

3M, QPSK, High Channel



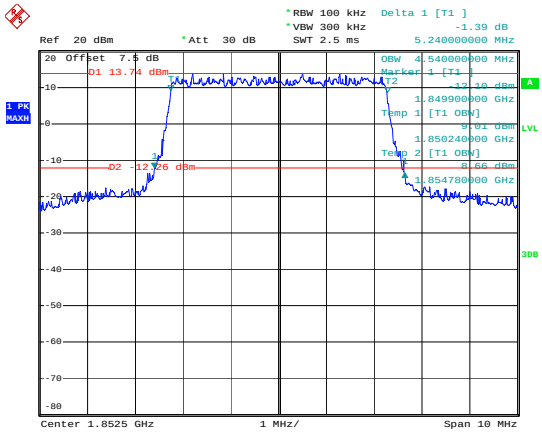
Date: 2.JUN.2021 23:54:46

3M, 16QAM, High Channel



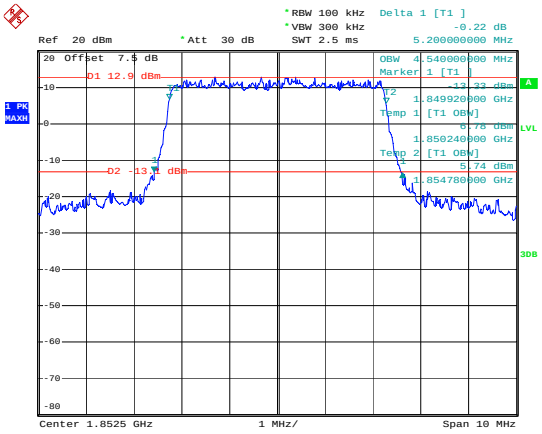
Date: 2.JUN.2021 23:55:05

5M, QPSK, Low Channel



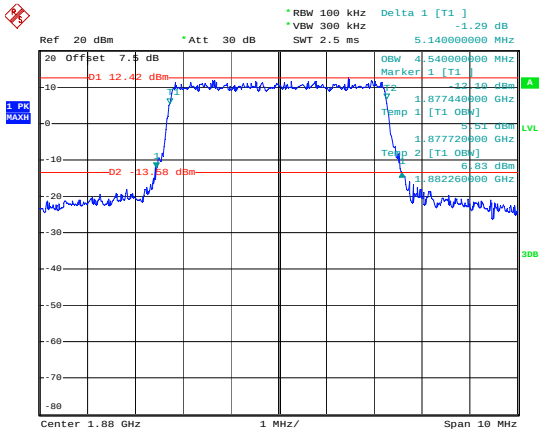
Date: 2.JUN.2021 23:55:28

5M, 16QAM, Low Channel



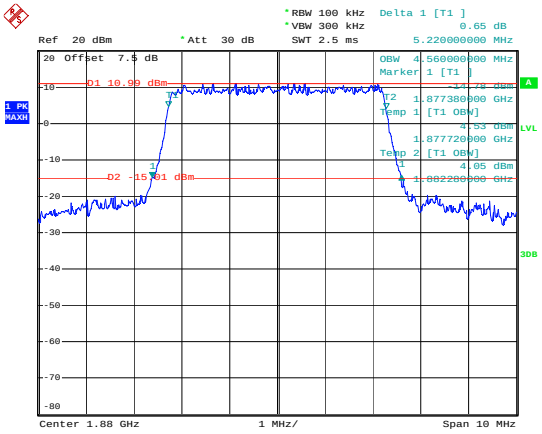
Date: 2.JUN.2021 23:55:47

5M, QPSK, Middle Channel



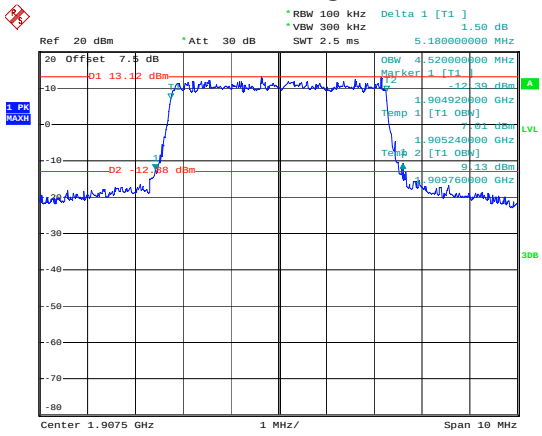
Date: 2.JUN.2021 23:56:08

5M, 16QAM, Middle Channel



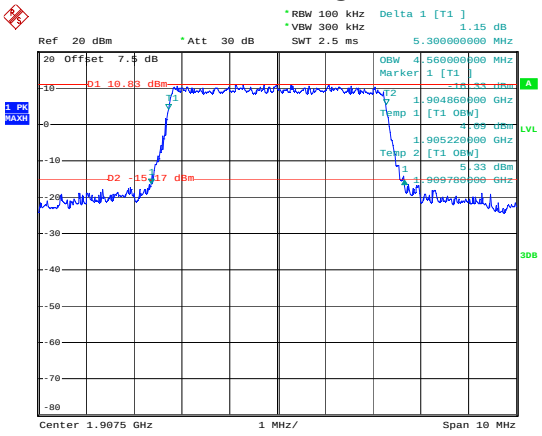
Date: 2.JUN.2021 23:56:27

5M, QPSK, High Channel



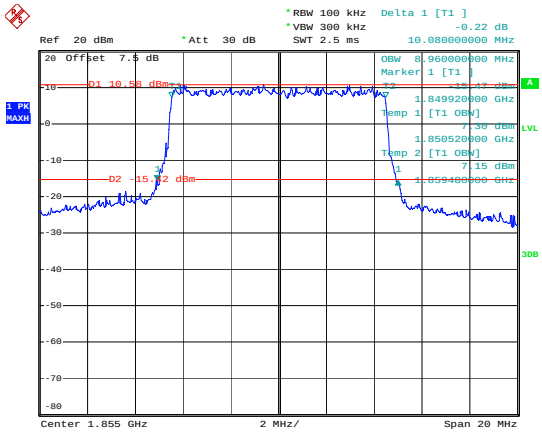
Date: 2.JUN.2021 23:56:48

5M, 16QAM, High Channel



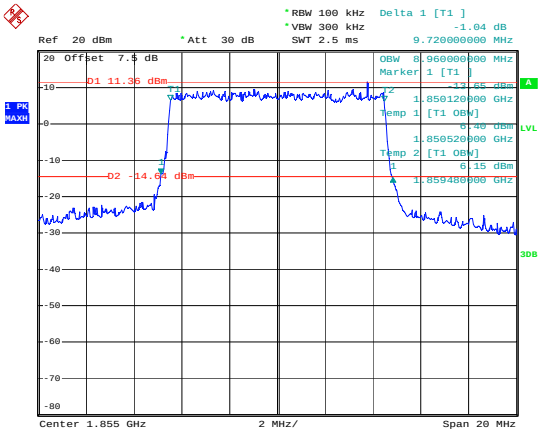
Date: 2.JUN.2021 23:57:10

10M, QPSK, Low Channel



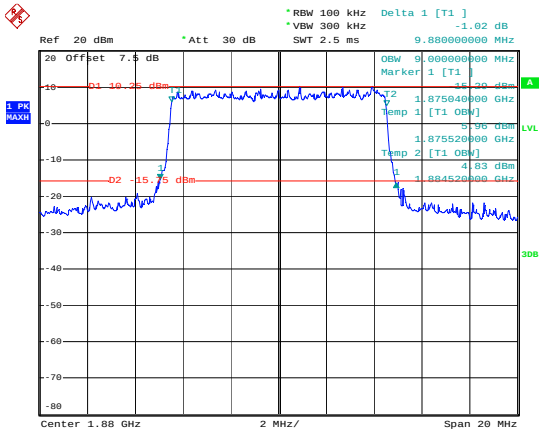
Date: 2.JUN.2021 23:57:37

10M, 16QAM, Low Channel



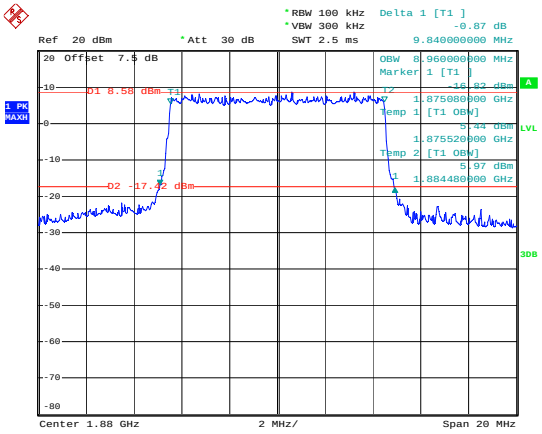
Date: 2.JUN.2021 23:57:58

10M, QPSK, Middle Channel



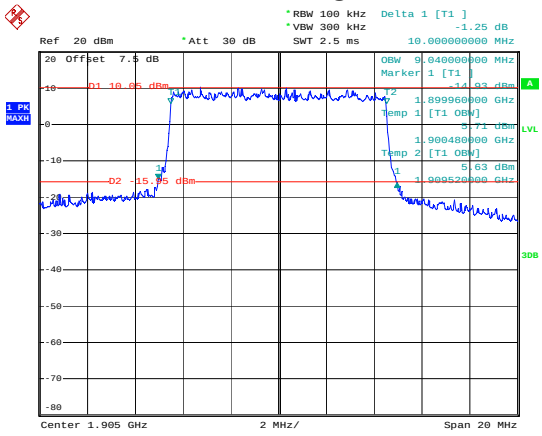
Date: 2.JUN.2021 23:58:22

10M, 16QAM, Middle Channel



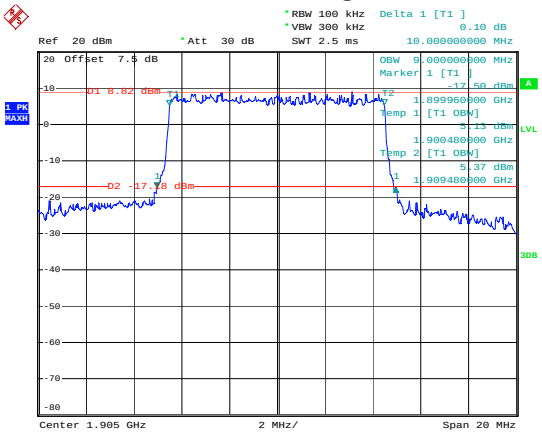
Date: 2.JUN.2021 23:58:43

10M, QPSK, High Channel



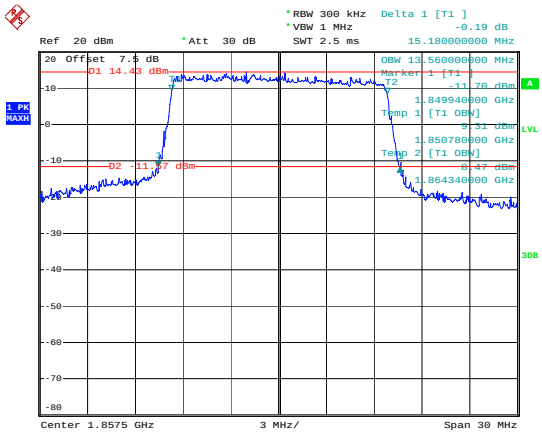
Date: 2.JUN.2021 23:59:04

10M, 16QAM, High Channel



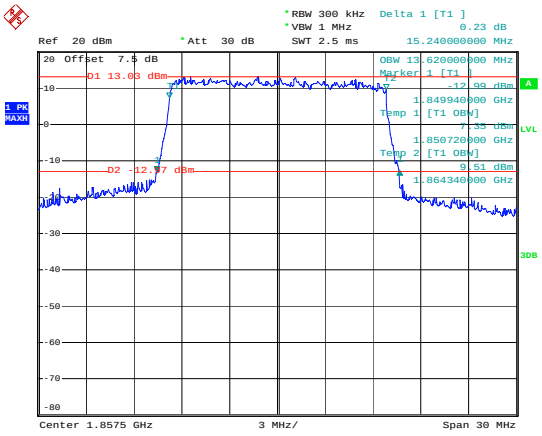
Date: 2.JUN.2021 23:59:25

15M, QPSK, Low Channel



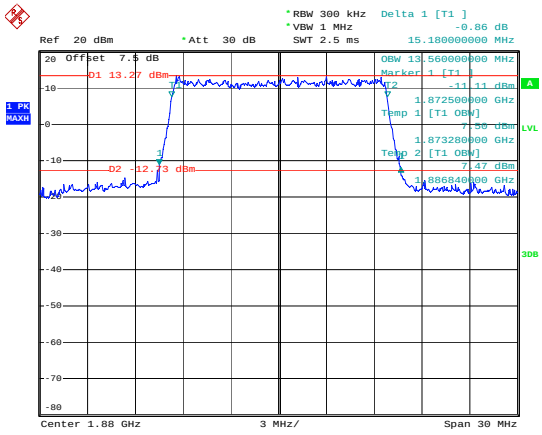
Date: 2.JUN.2021 23:59:51

15M, 16QAM, Low Channel



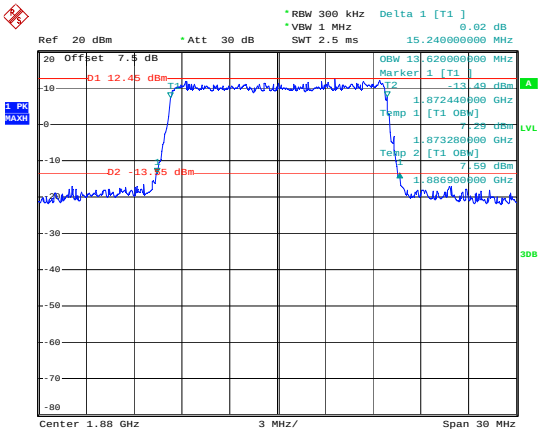
Date: 3.JUN.2021 00:00:14

15M, QPSK, Middle Channel



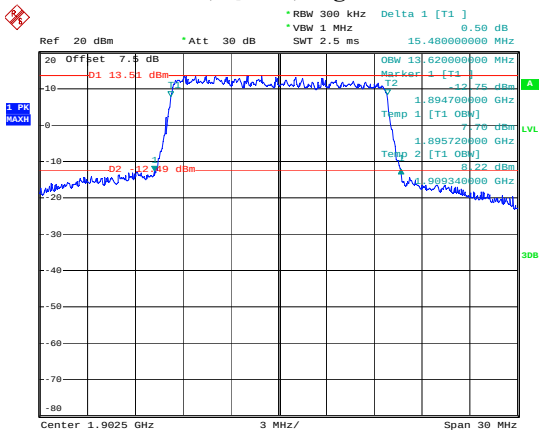
Date: 3.JUN.2021 00:00:37

15M, 16QAM, Middle Channel



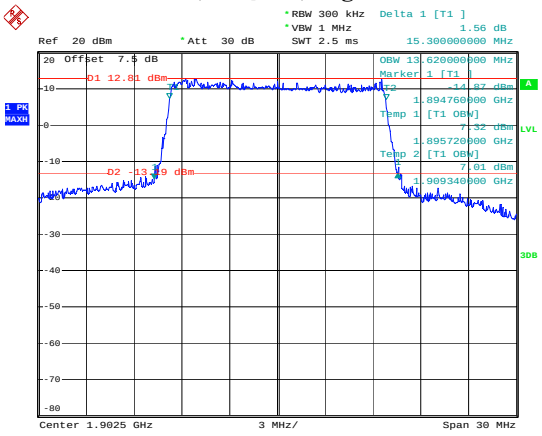
Date: 3.JUN.2021 00:01:00

15M, QPSK, High Channel



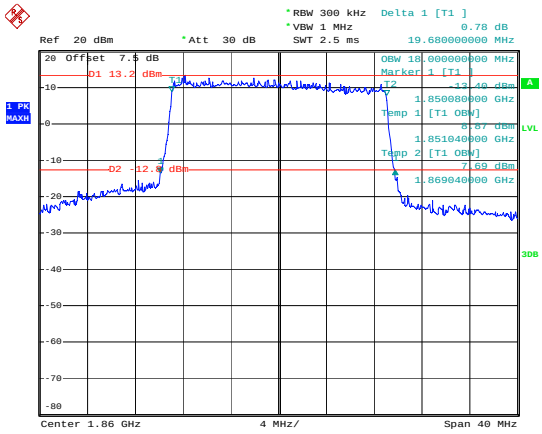
Date: 3.JUN.2021 00:01:24

15M, 16QAM, High Channel



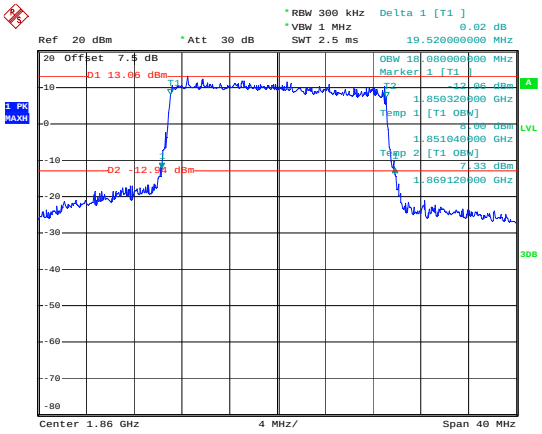
Date: 3.JUN.2021 00:01:47

20M, QPSK, Low Channel



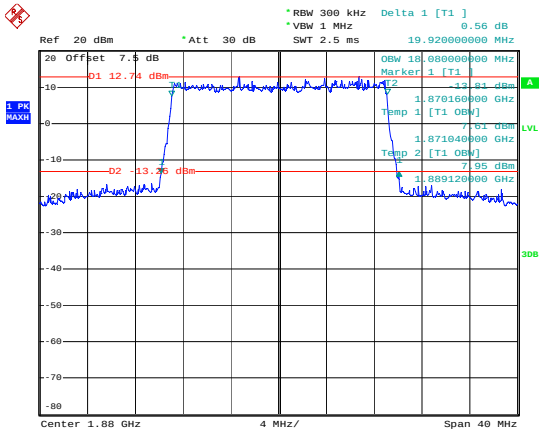
Date: 3.JUN.2021 00:02:09

20M, 16QAM, Low Channel



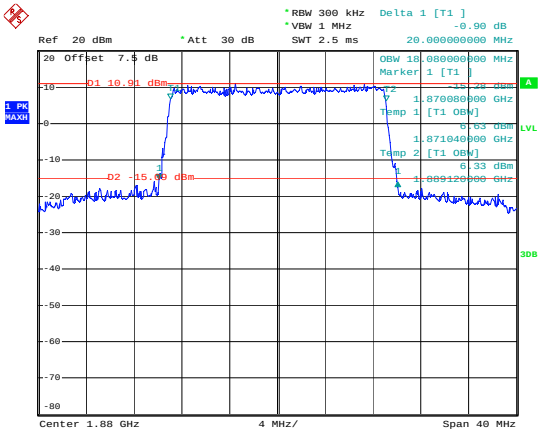
Date: 3.JUN.2021 00:02:32

20M, QPSK, Middle Channel



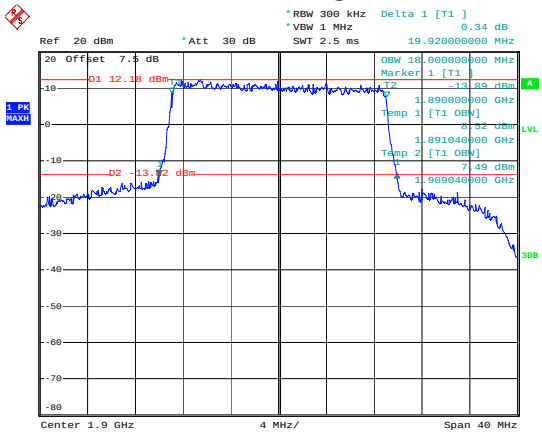
Date: 3.JUN.2021 00:02:56

20M, 16QAM, Middle Channel



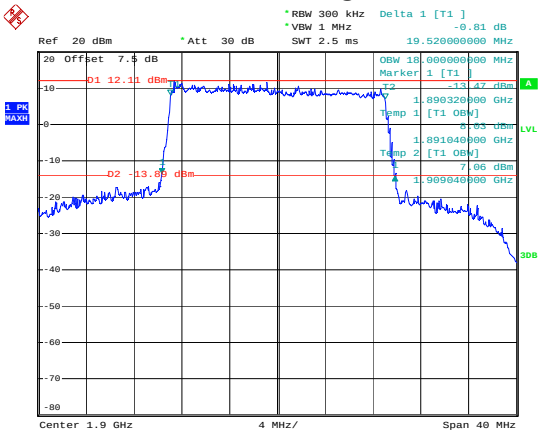
Date: 3.JUN.2021 00:03:22

20M, QPSK, High Channel



Date: 3.JUN.2021 00:03:46

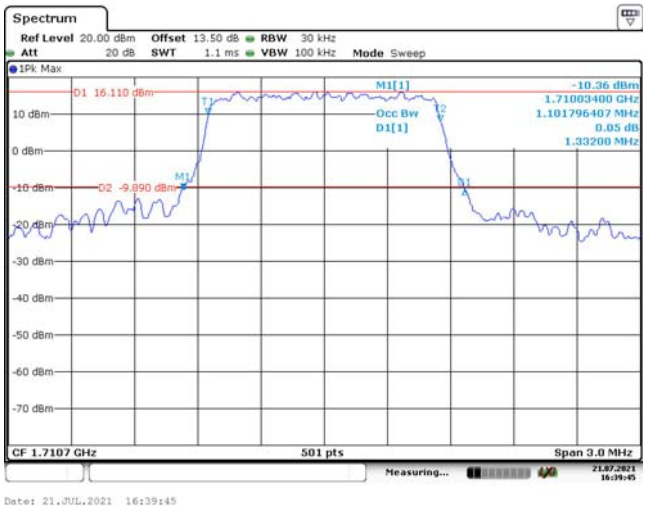
20M, 16QAM, High Channel



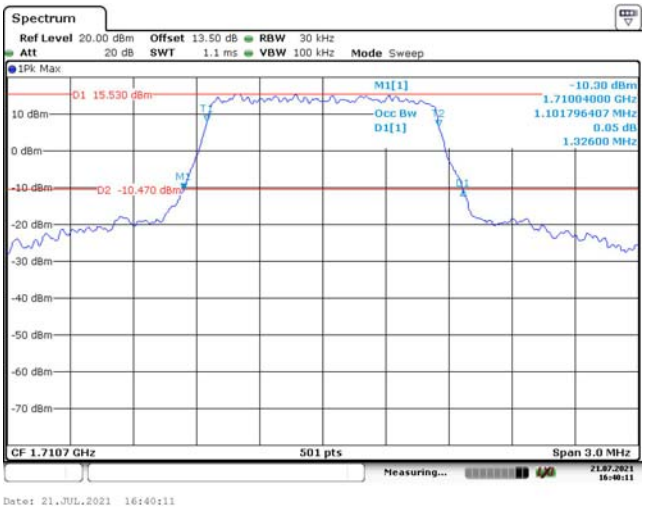
Date: 3.JUN.2021 00:04:09

LTE Band 4:

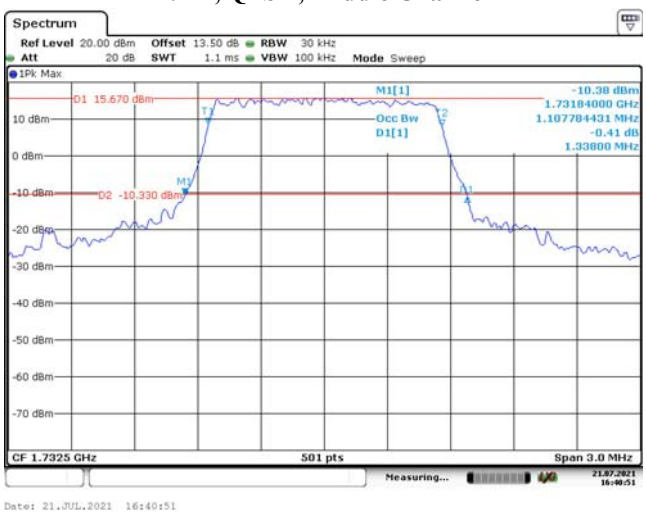
1.4M, QPSK, Low Channel



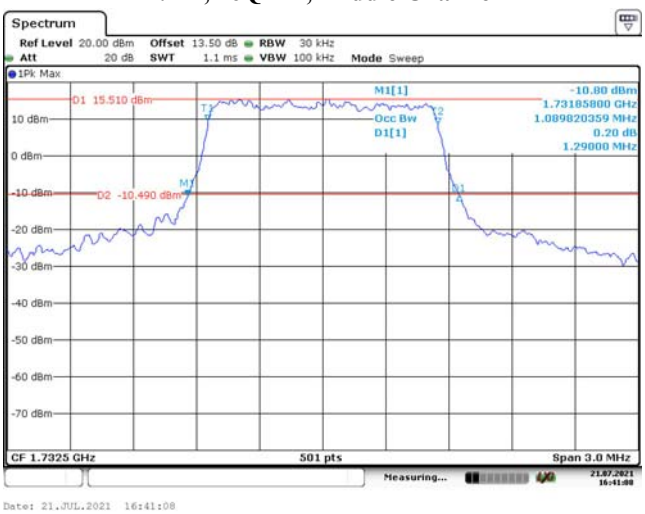
1.4M, 16QAM, Low Channel



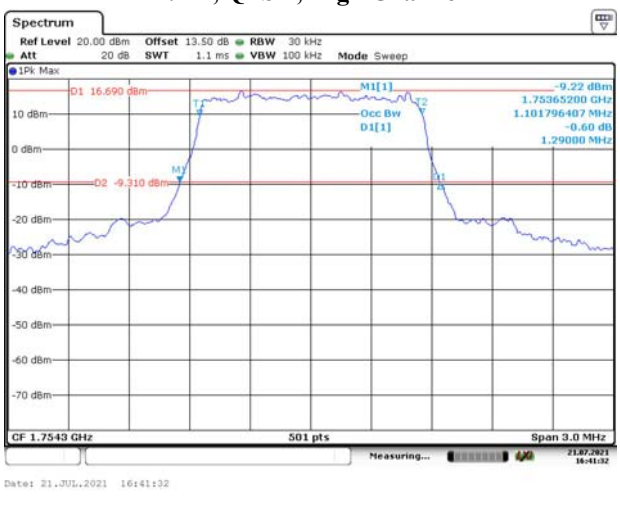
1.4M, QPSK, Middle Channel



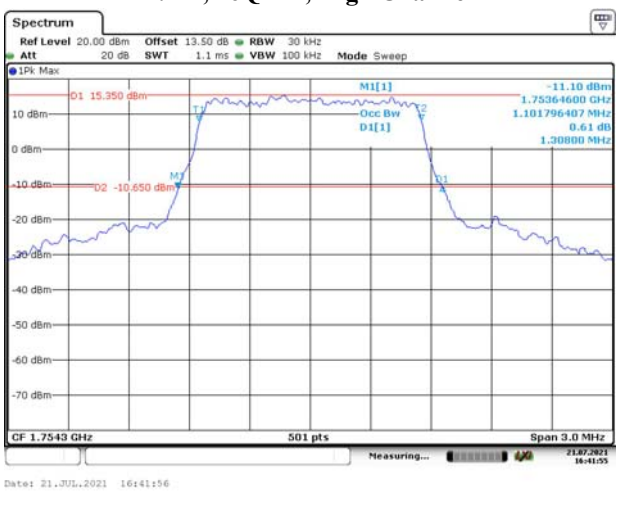
1.4M, 16QAM, Middle Channel



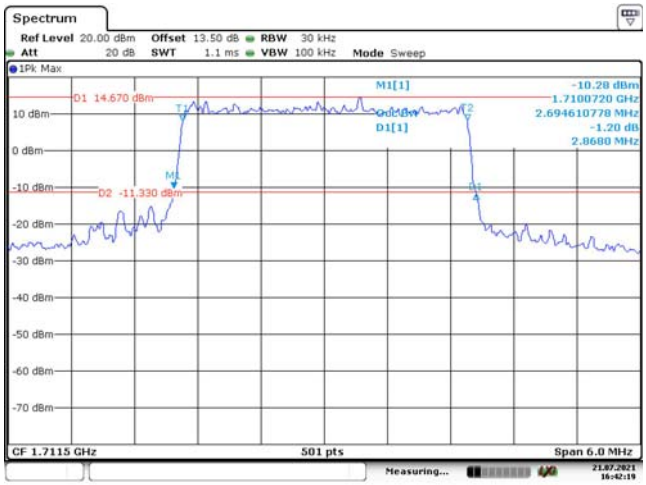
1.4M, QPSK, High Channel



1.4M, 16QAM, High Channel

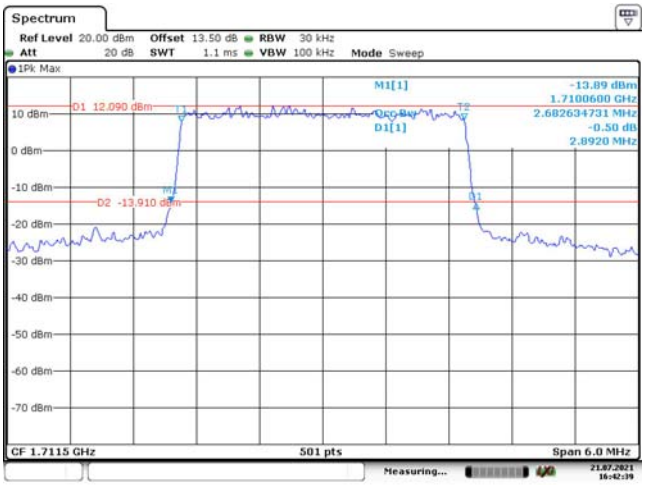


3M, QPSK, Low Channel



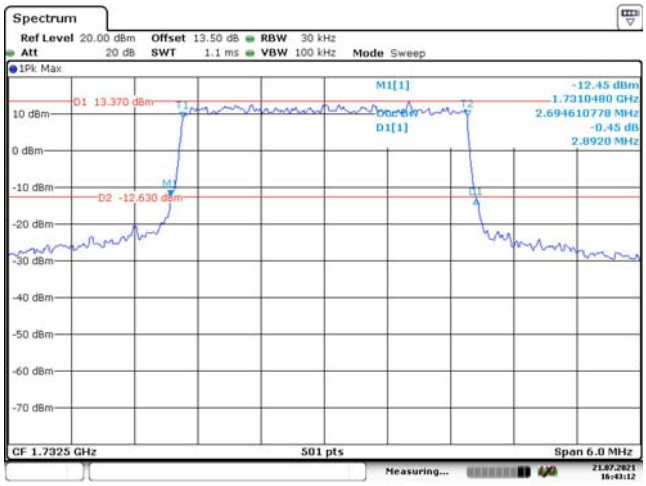
Date: 21.JUL.2021 16:42:19

3M, 16QAM, Low Channel



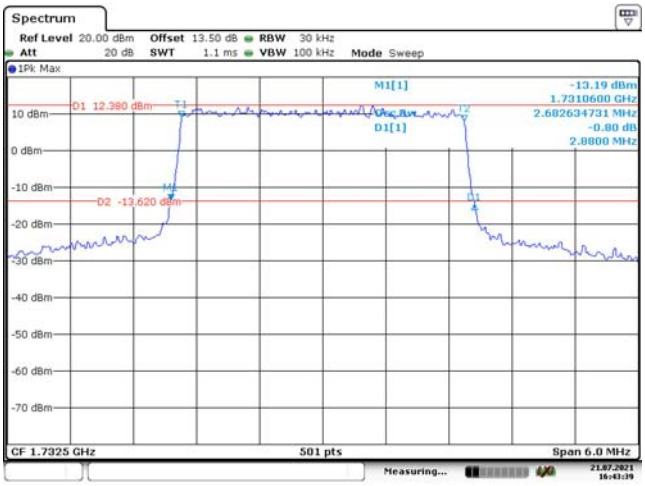
Date: 21.JUL.2021 16:42:39

3M, QPSK, Middle Channel



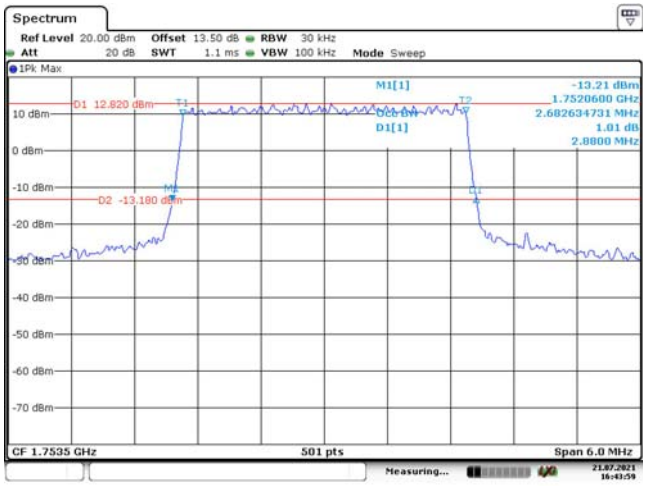
Date: 21.JUL.2021 16:43:12

3M, 16QAM, Middle Channel



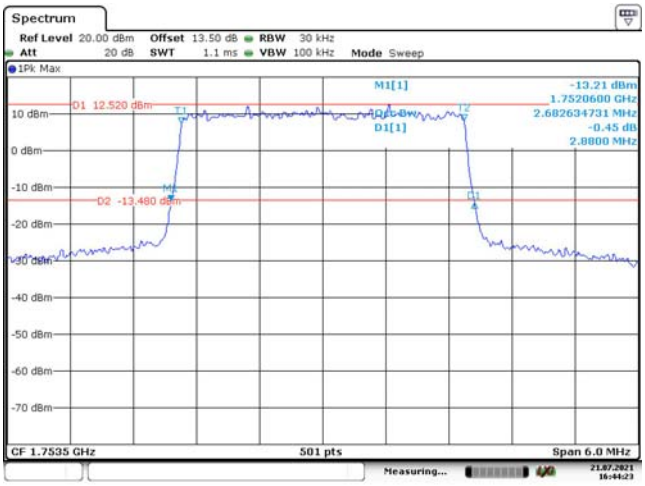
Date: 21.JUL.2021 16:43:39

3M, QPSK, High Channel



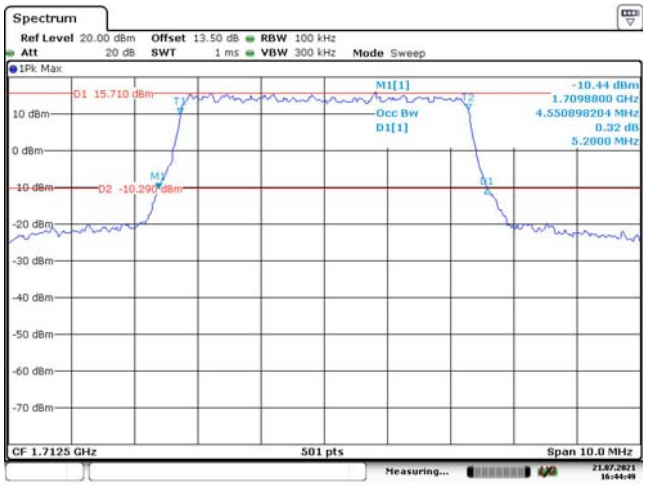
Date: 21.JUL.2021 16:44:00

3M, 16QAM, High Channel



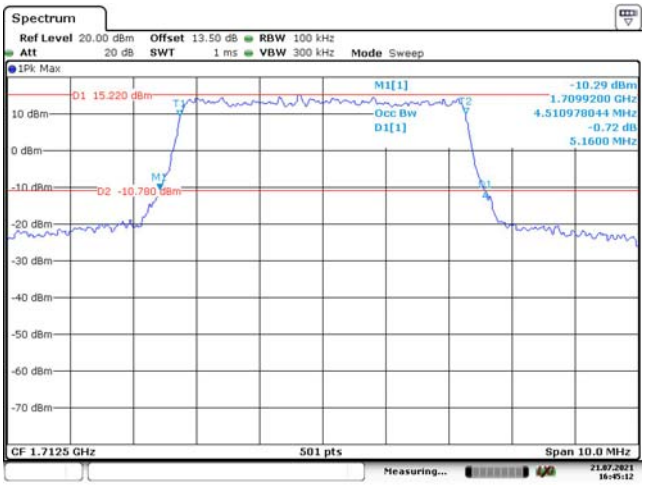
Date: 21.JUL.2021 16:44:23

5M, QPSK, Low Channel



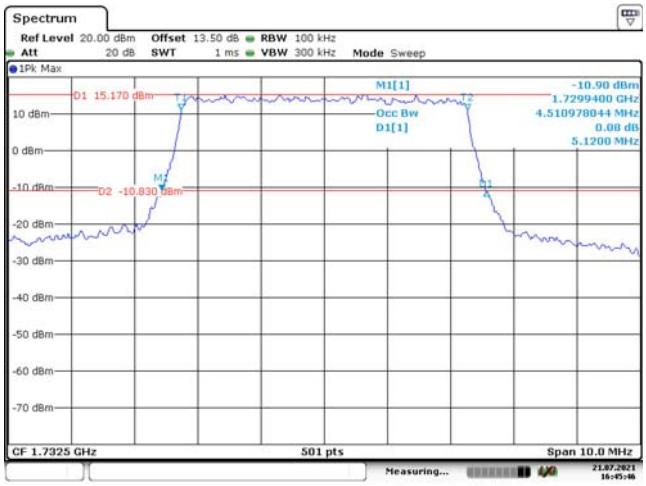
Date: 21.JUL.2021 16:44:49

5M, 16QAM, Low Channel



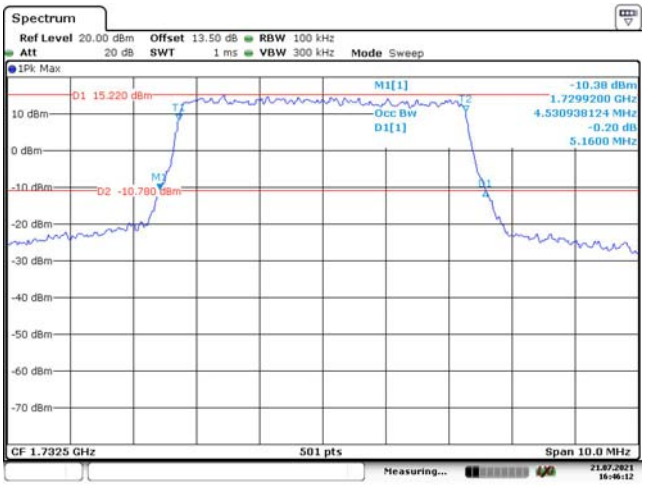
Date: 21.JUL.2021 16:45:12

5M, QPSK, Middle Channel



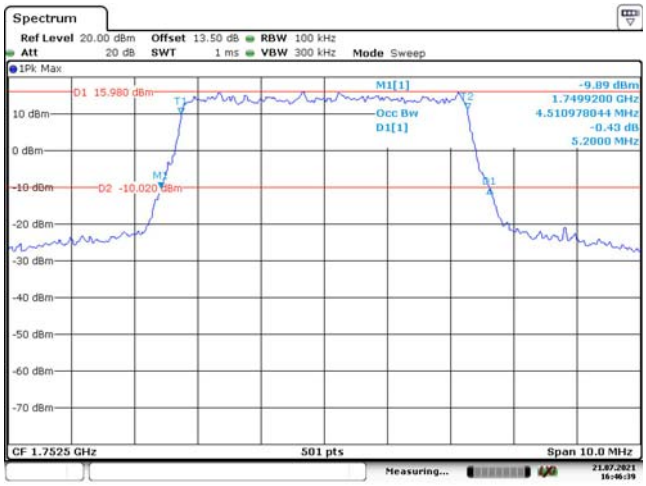
Date: 21.JUL.2021 16:45:46

5M, 16QAM, Middle Channel



Date: 21.JUL.2021 16:46:12

5M, QPSK, High Channel



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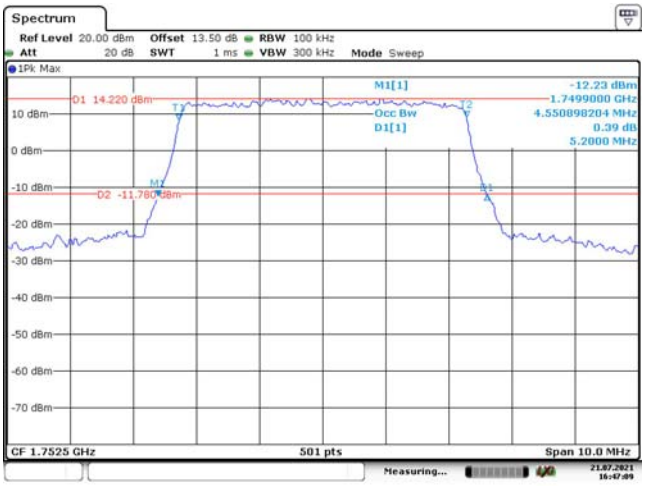
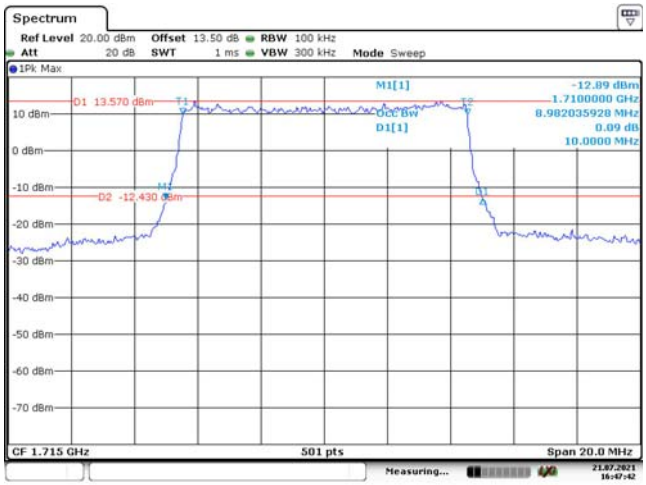
5M, 16QAM, High Channel



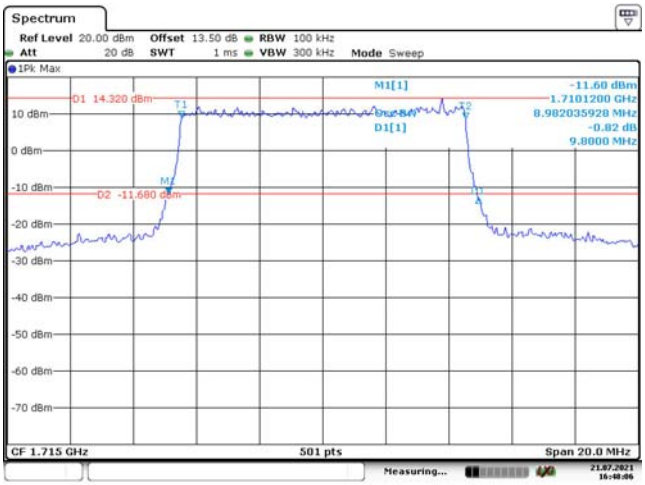
Date: 21.JUL.2021 16:47:09

10M, QPSK, Low Channel



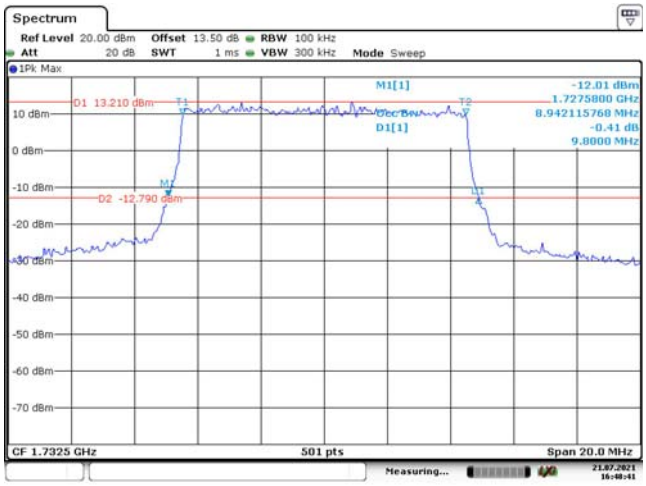
Date: 21.JUL.2021 16:47:42

10M, 16QAM, Low Channel



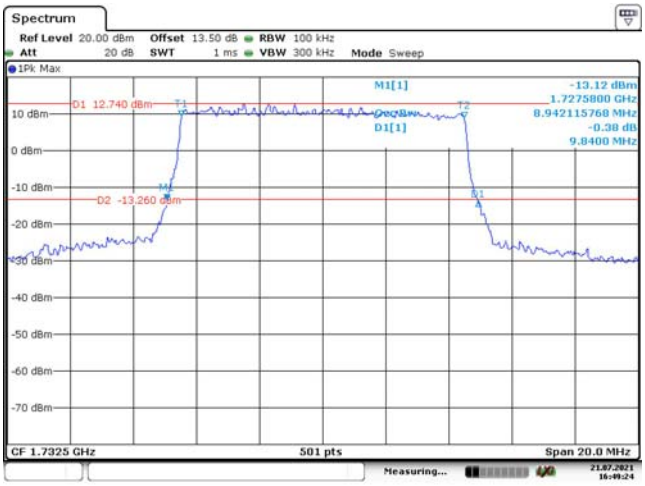
Date: 21.JUL.2021 16:48:06

10M, QPSK, Middle Channel



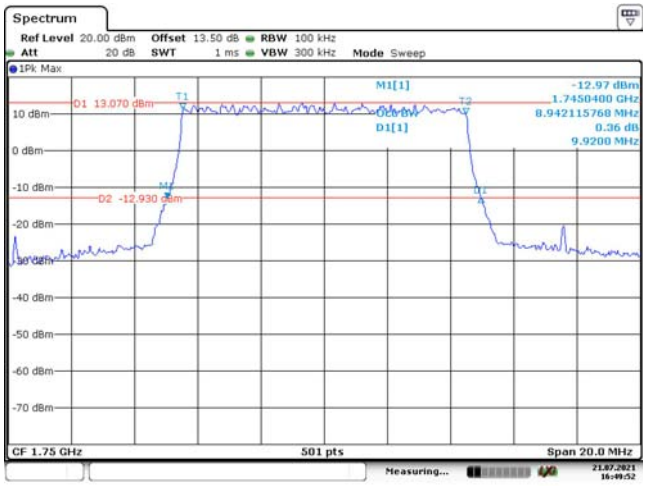
Date: 21.JUL.2021 16:48:41

10M, 16QAM, Middle Channel



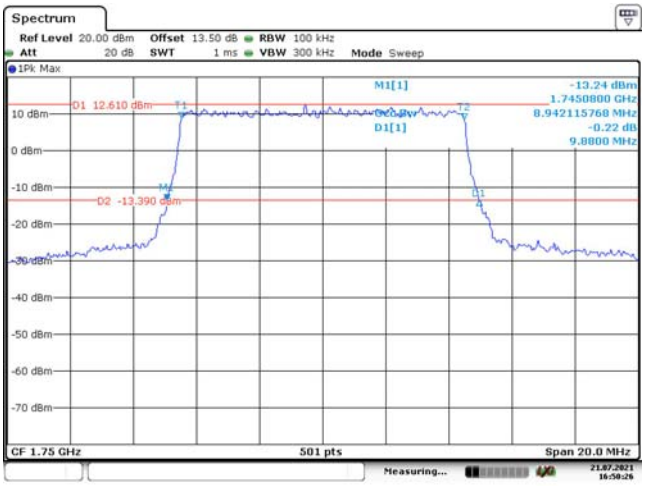
Date: 21.JUL.2021 16:49:24

10M, QPSK, High Channel



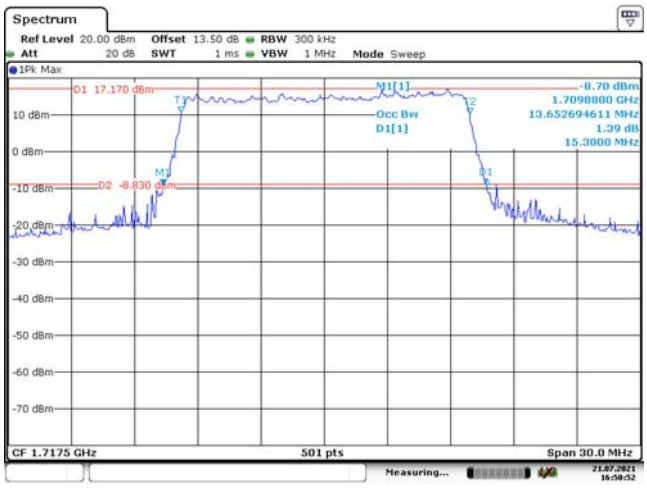
Date: 21.JUL.2021 16:49:52

10M, 16QAM, High Channel

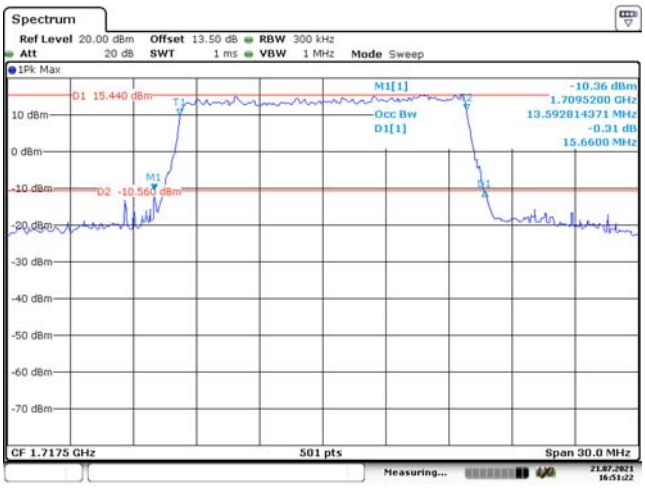


Date: 21.JUL.2021 16:50:26

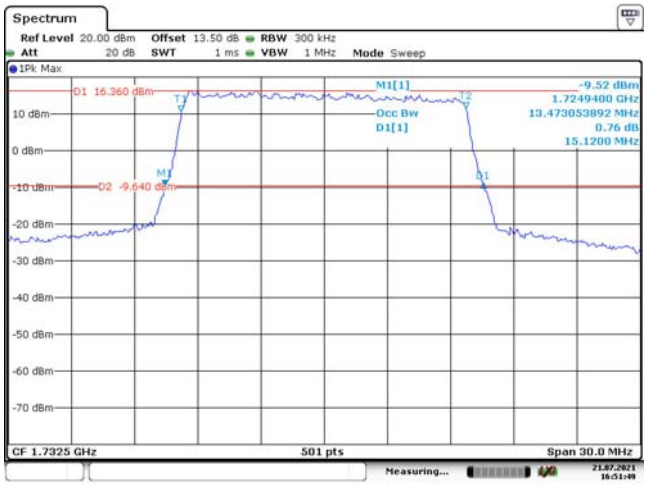
15M, QPSK, Low Channel



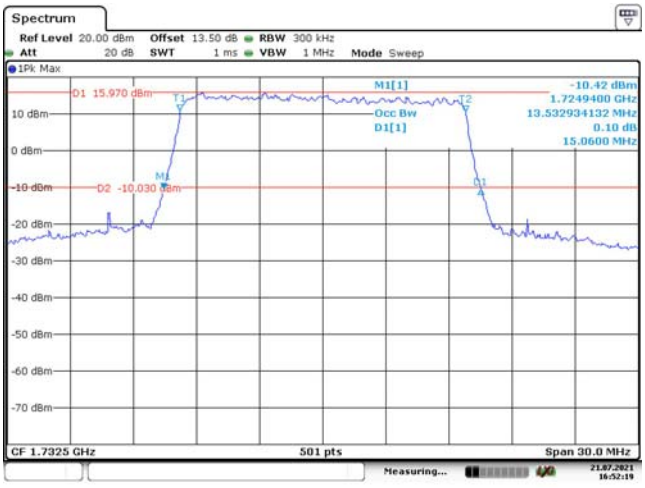
15M, 16QAM, Low Channel



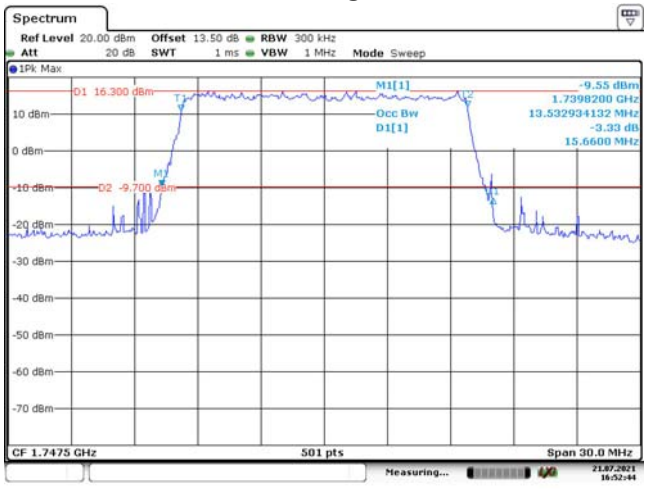
15M, QPSK, Middle Channel



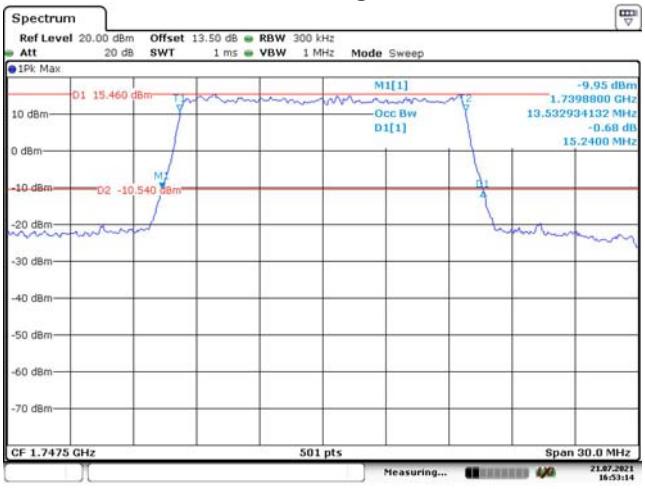
15M, 16QAM, Middle Channel



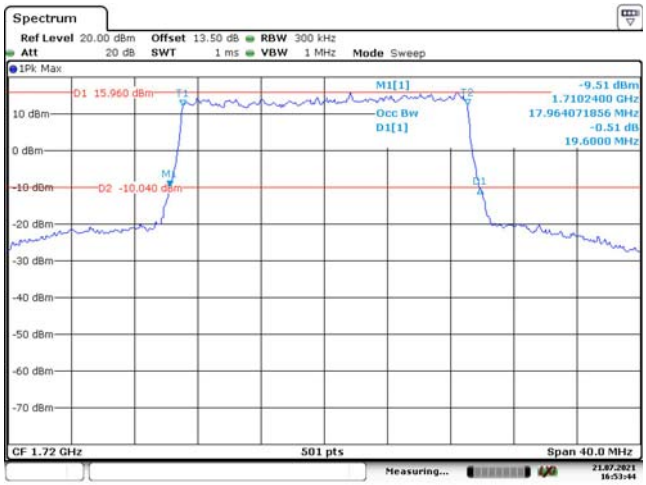
15M, QPSK, High Channel



15M, 16QAM, High Channel

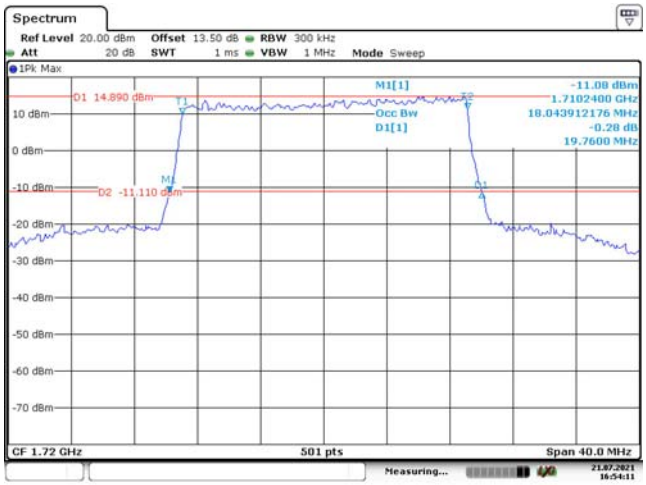


20M, QPSK, Low Channel



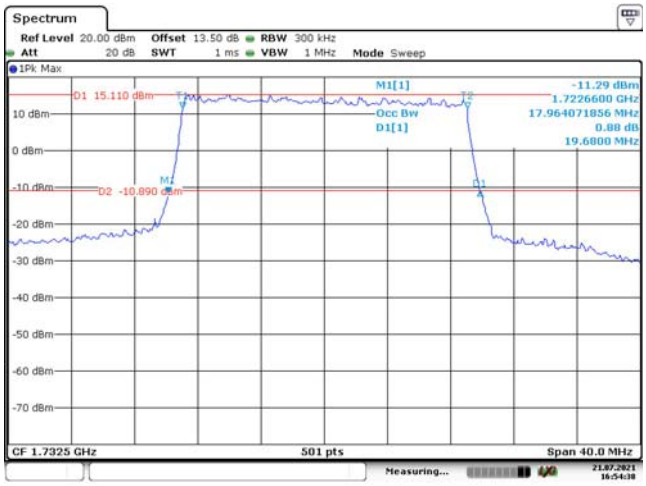
Date: 21.JUL.2021 16:53:44

20M, 16QAM, Low Channel



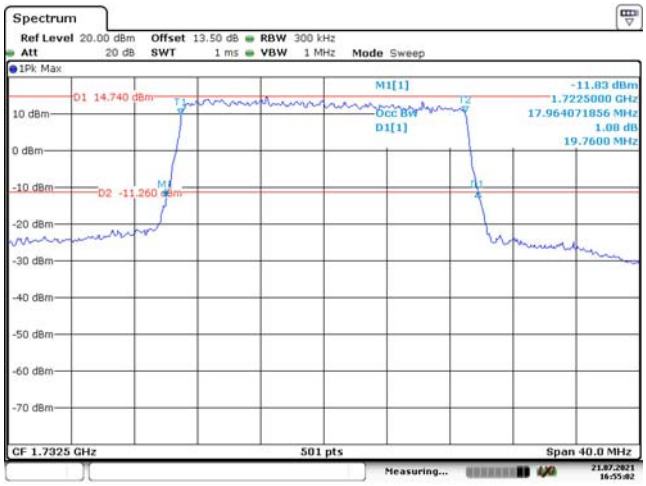
Date: 21.JUL.2021 16:54:11

20M, QPSK, Middle Channel



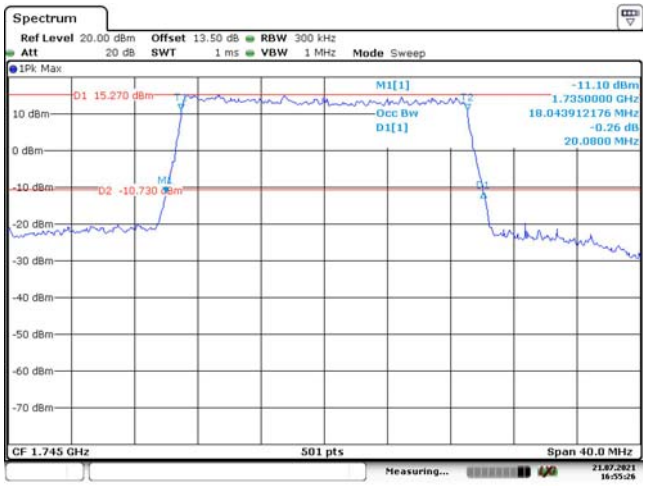
Date: 21.JUL.2021 16:54:38

20M, 16QAM, Middle Channel



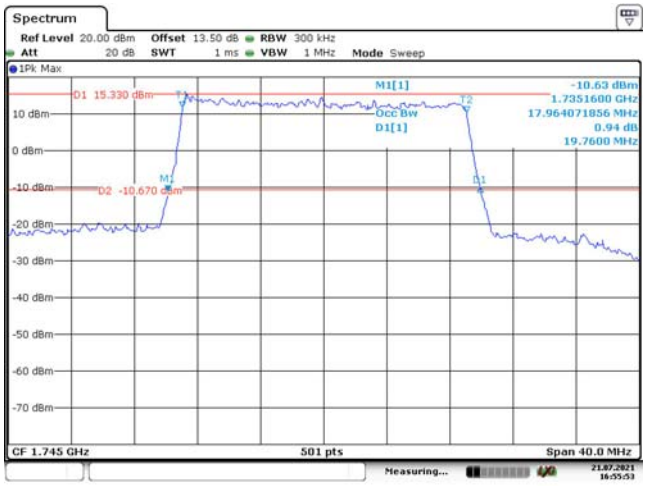
Date: 21.JUL.2021 16:55:02

20M, QPSK, High Channel



Date: 21.JUL.2021 16:55:26

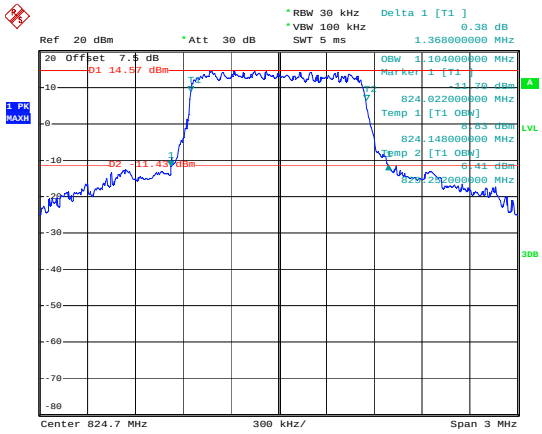
20M, 16QAM, High Channel



Date: 21.JUL.2021 16:55:53

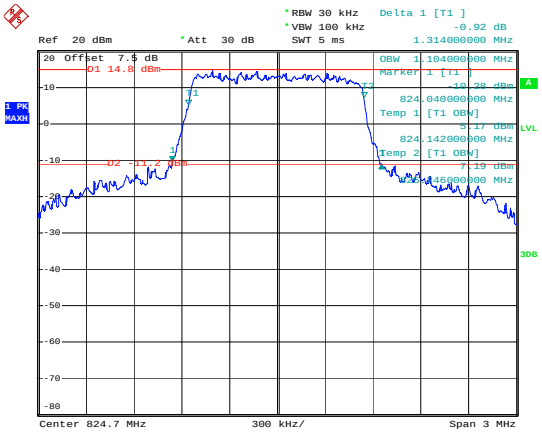
LTE Band 5:

1.4M, QPSK, Low Channel



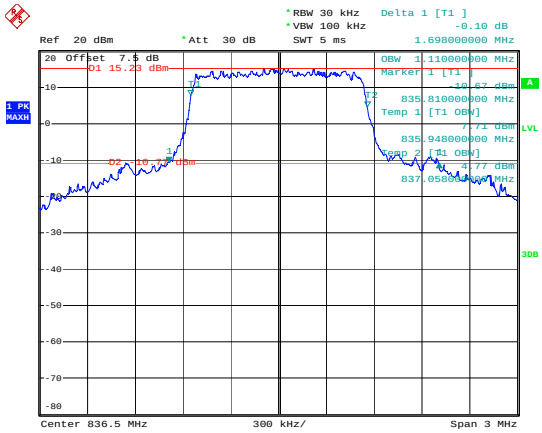
Date: 3.JUN.2021 00:31:53

1.4M, 16QAM, Low Channel



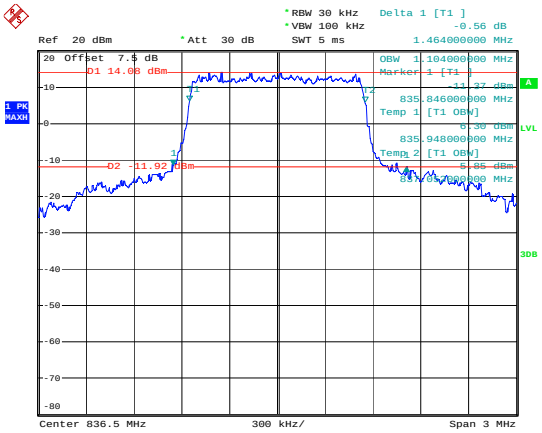
Date: 3.JUN.2021 00:32:13

1.4M, QPSK, Middle Channel



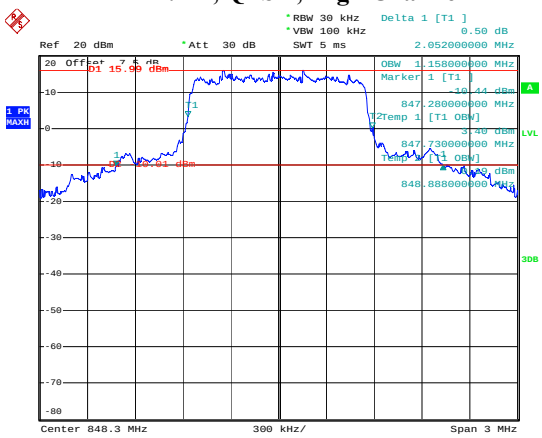
Date: 3.JUN.2021 00:32:33

1.4M, 16QAM, Middle Channel



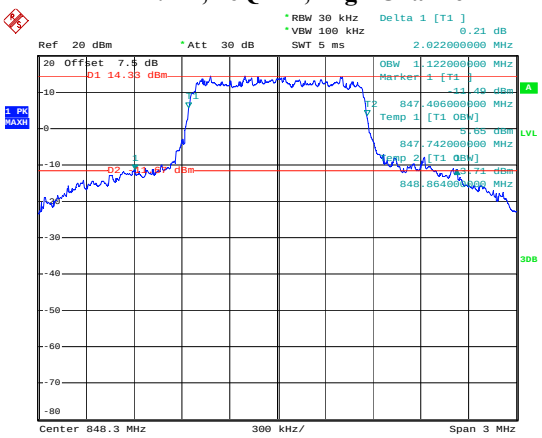
Date: 3.JUN.2021 00:32:53

1.4M, QPSK, High Channel



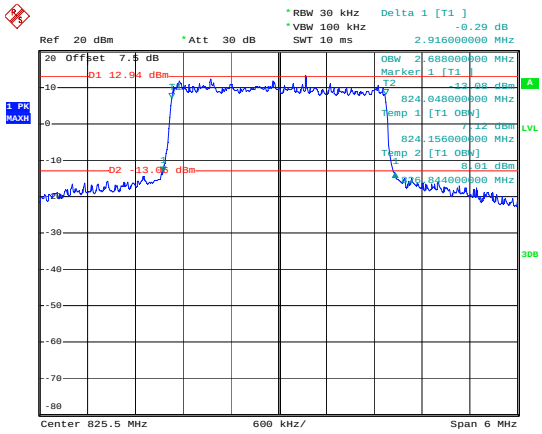
Date: 3.JUN.2021 00:33:13

1.4M, 16QAM, High Channel



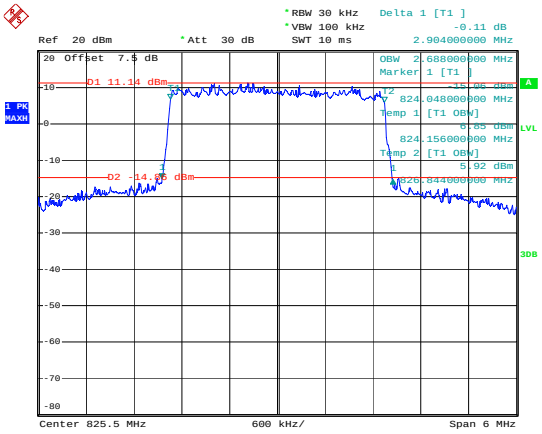
Date: 3.JUN.2021 00:33:33

3M, QPSK, Low Channel



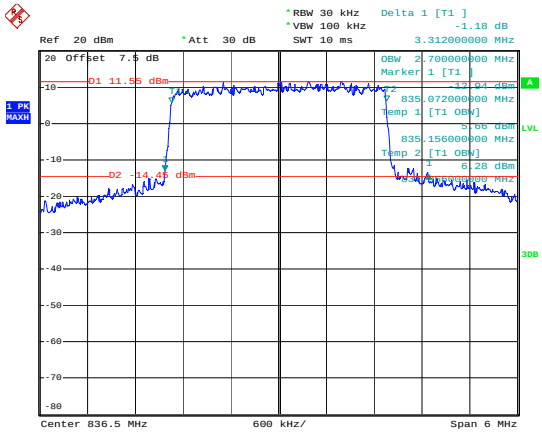
Date: 3.JUN.2021 00:33:52

3M, 16QAM, Low Channel



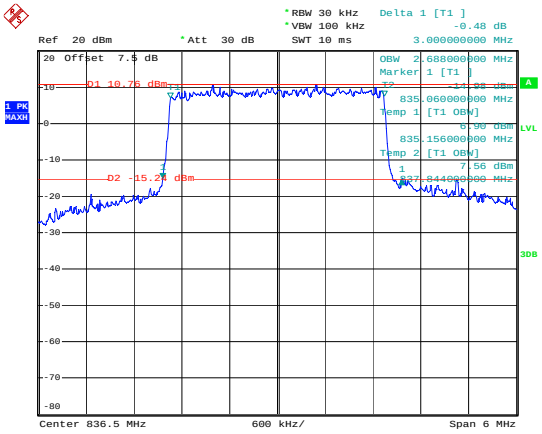
Date: 3.JUN.2021 00:34:12

3M, QPSK, Middle Channel



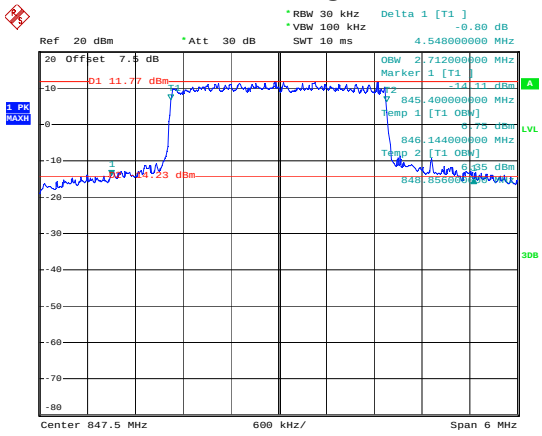
Date: 3.JUN.2021 00:34:29

3M, 16QAM, Middle Channel



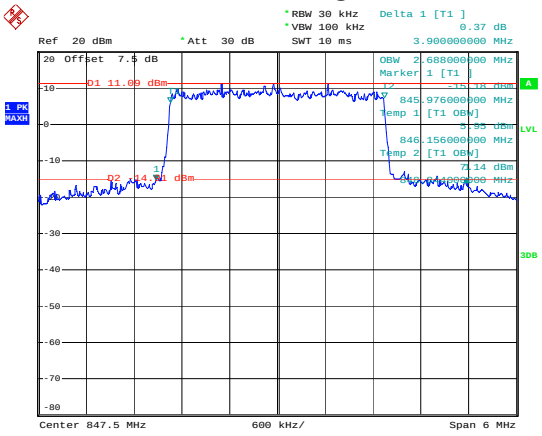
Date: 3.JUN.2021 00:34:49

3M, QPSK, High Channel



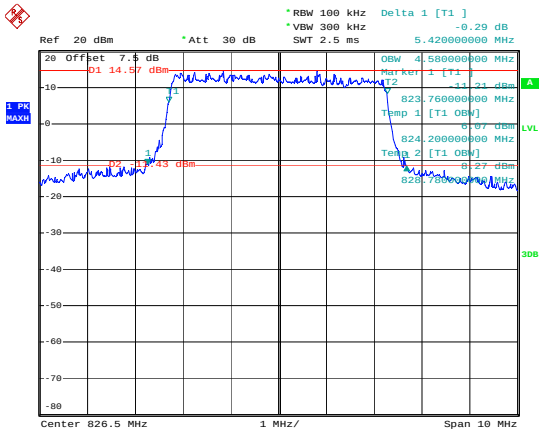
Date: 3.JUN.2021 00:35:16

3M, 16QAM, High Channel



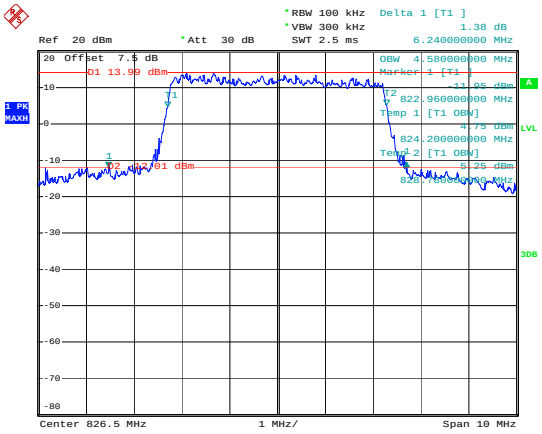
Date: 3.JUN.2021 00:35:32

5M, QPSK, Low Channel



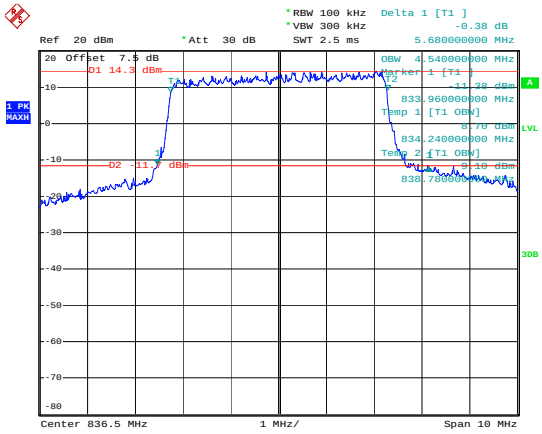
Date: 3.JUN.2021 00:35:58

5M, 16QAM, Low Channel



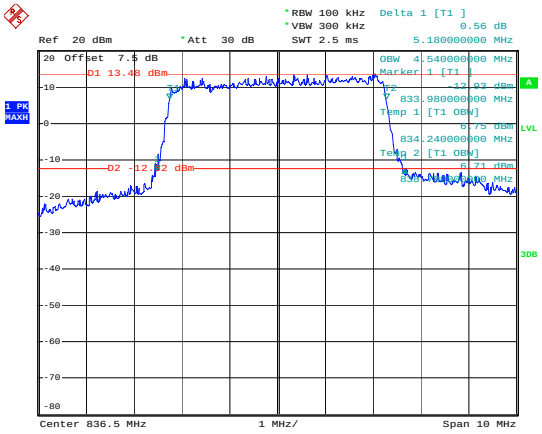
Date: 3.JUN.2021 00:36:21

5M, QPSK, Middle Channel



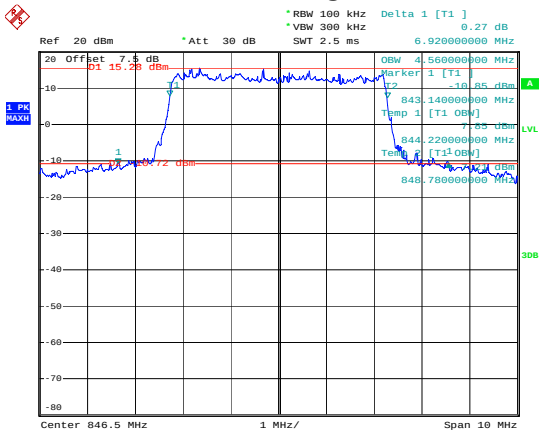
Date: 3.JUN.2021 00:36:41

5M, 16QAM, Middle Channel



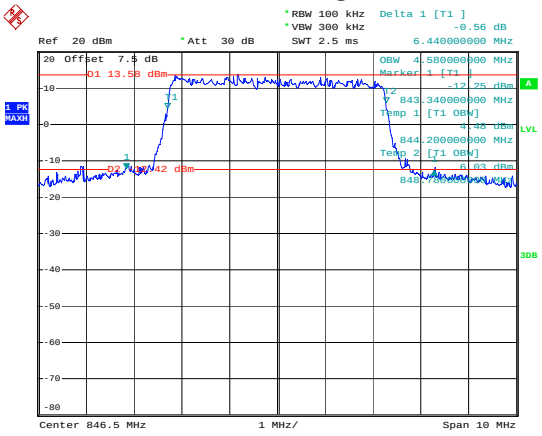
Date: 3.JUN.2021 00:37:01

5M, QPSK, High Channel



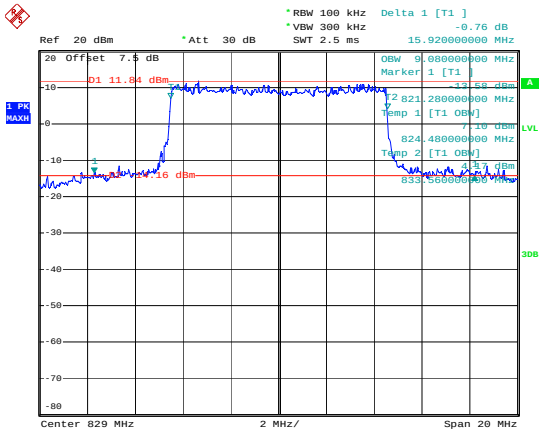
Date: 3.JUN.2021 00:37:28

5M, 16QAM, High Channel



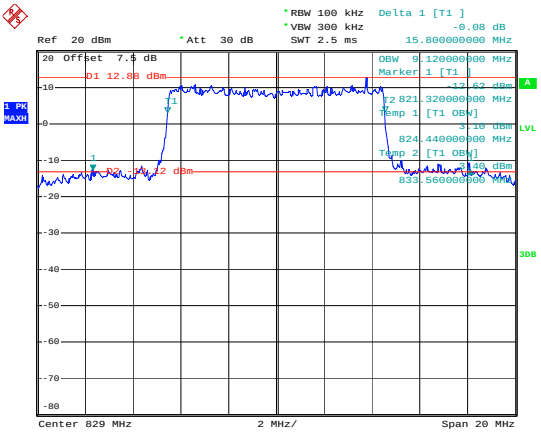
Date: 3.JUN.2021 00:37:54

10M, QPSK, Low Channel



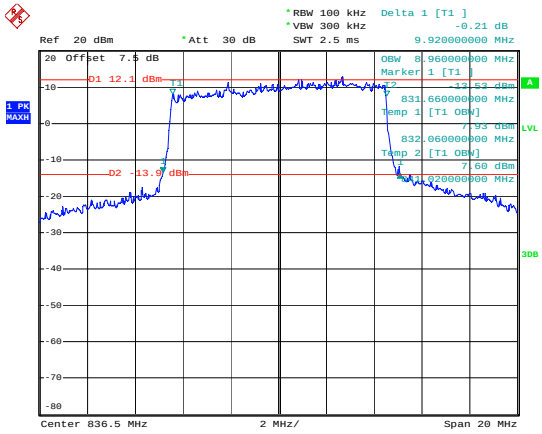
Date: 3.JUN.2021 00:38:18

10M, 16QAM, Low Channel



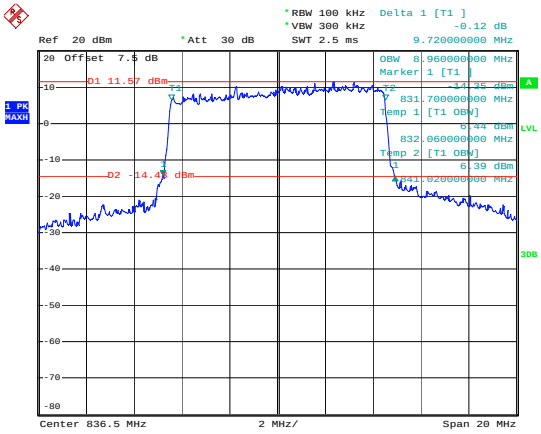
Date: 3.JUN.2021 00:38:41

10M, QPSK, Middle Channel



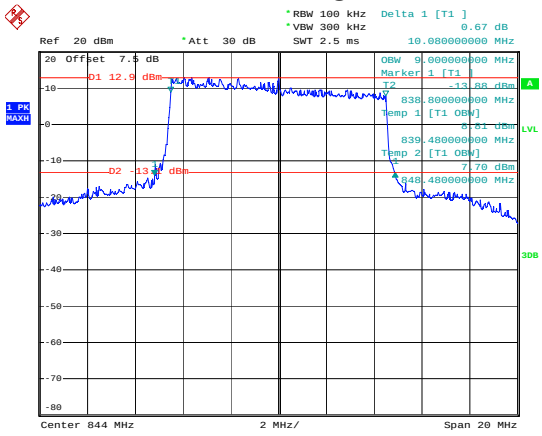
Date: 3.JUN.2021 00:39:03

10M, 16QAM, Middle Channel



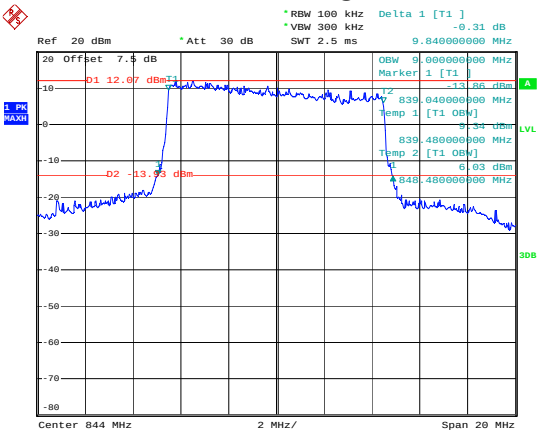
Date: 3.JUN.2021 00:39:24

10M, QPSK, High Channel



Date: 3.JUN.2021 00:39:45

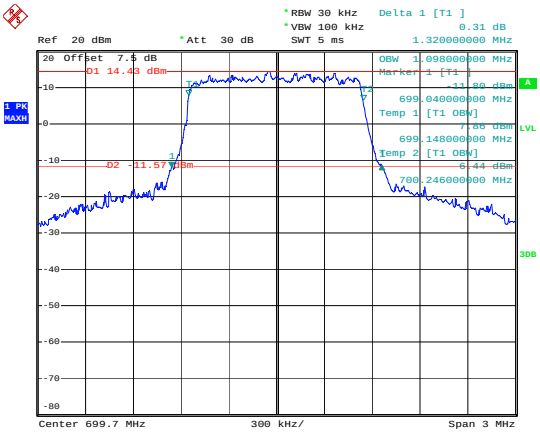
10M, 16QAM, High Channel



Date: 3.JUN.2021 00:40:04

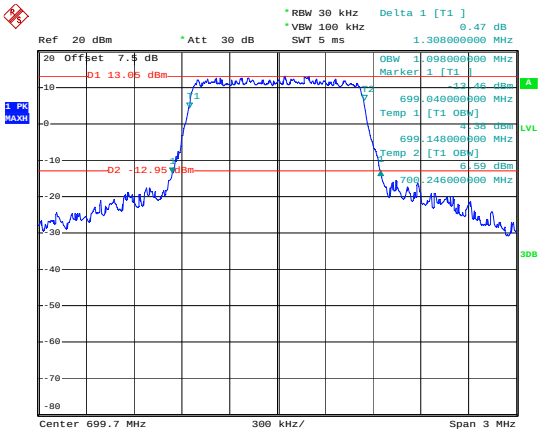
LTE Band 12:

1.4M, QPSK, Low Channel



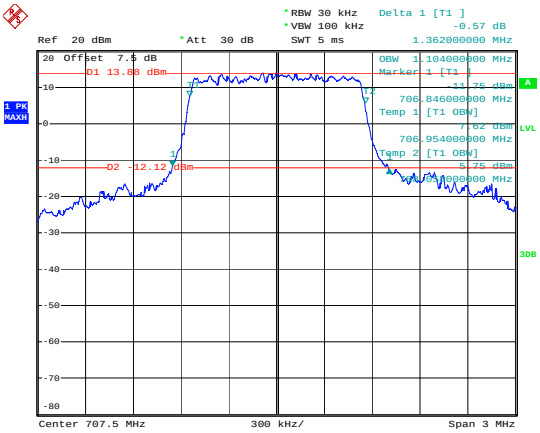
Date: 3.JUN.2021 00:40:25

1.4M, 16QAM, Low Channel



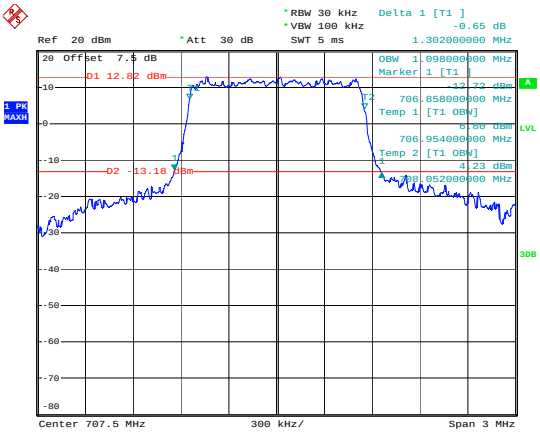
Date: 3.JUN.2021 00:40:44

1.4M, QPSK, Middle Channel



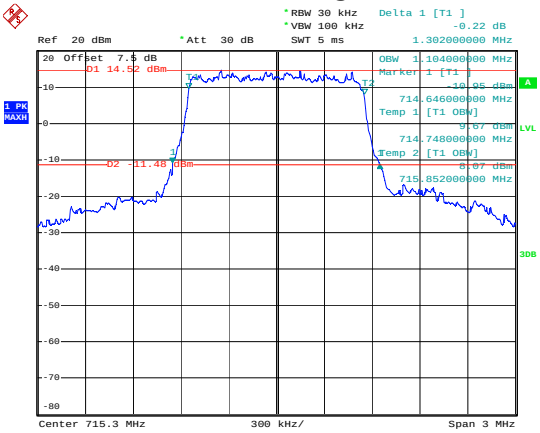
Date: 3.JUN.2021 00:41:03

1.4M, 16QAM, Middle Channel



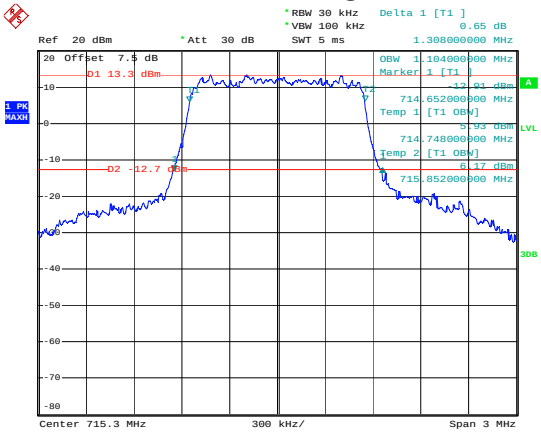
Date: 3.JUN.2021 00:41:17

1.4M, QPSK, High Channel



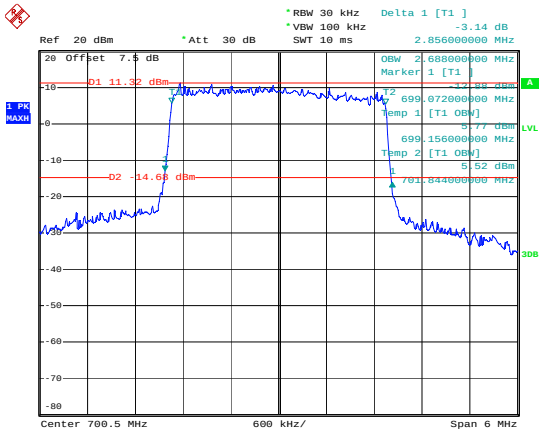
Date: 3.JUN.2021 00:41:37

1.4M, 16QAM, High Channel



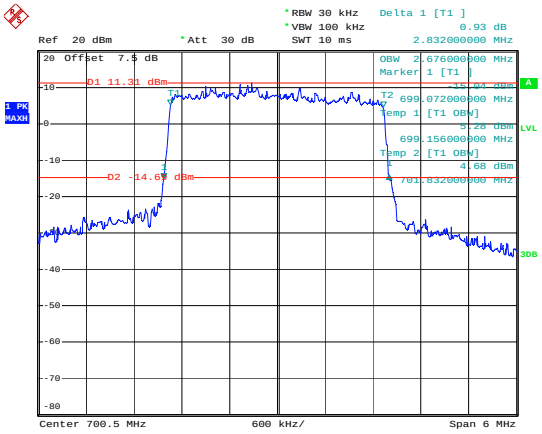
Date: 3.JUN.2021 00:41:55

3M, QPSK, Low Channel



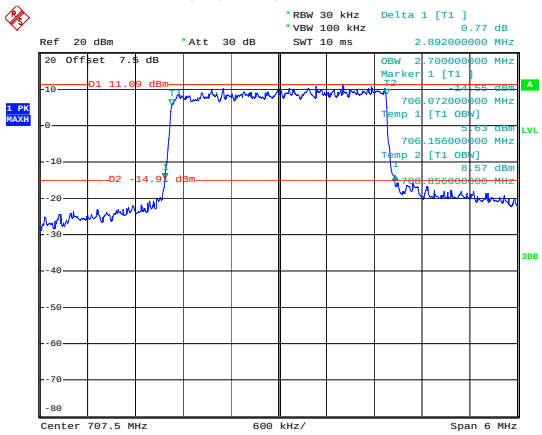
Date: 3.JUN.2021 00:42:16

3M, 16QAM, Low Channel



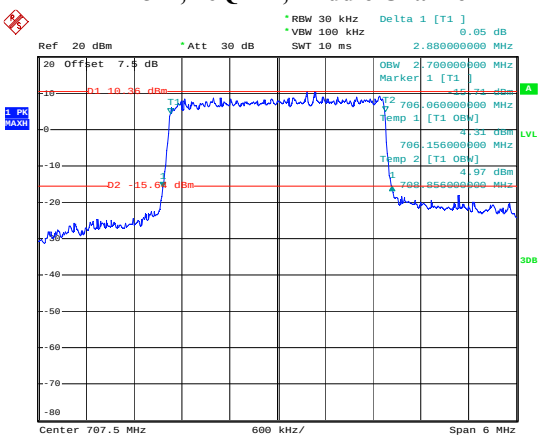
Date: 3.JUN.2021 00:42:34

3M, QPSK, Middle Channel



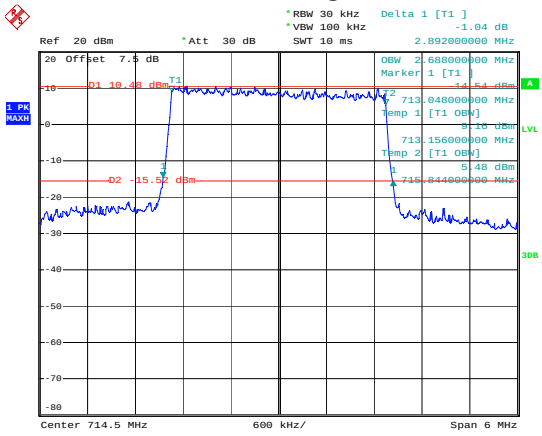
Date: 3.JUN.2021 00:42:53

3M, 16QAM, Middle Channel



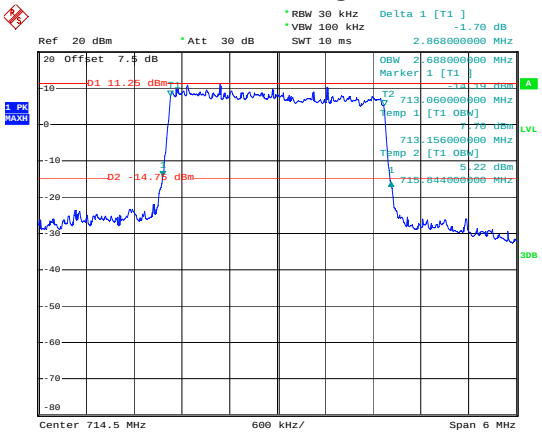
Date: 3.JUN.2021 00:43:11

3M, QPSK, High Channel



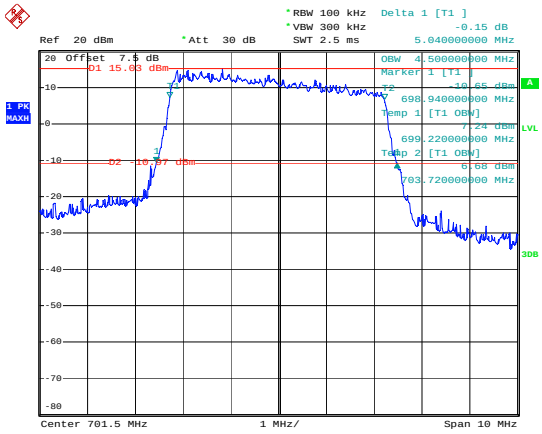
Date: 3.JUN.2021 00:43:30

3M, 16QAM, High Channel



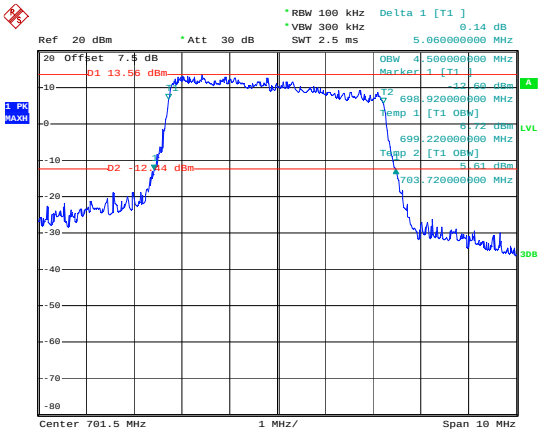
Date: 3.JUN.2021 00:43:48

5M, QPSK, Low Channel



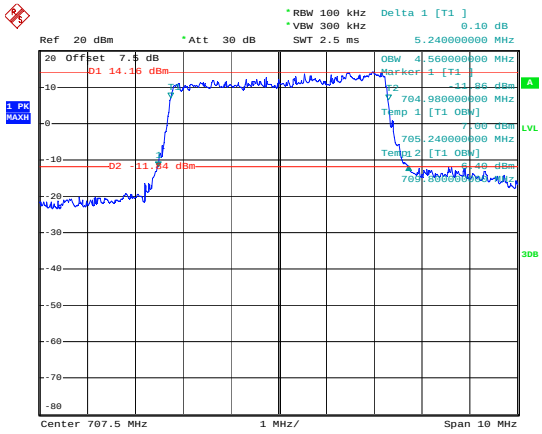
Date: 3.JUN.2021 00:44:10

5M, 16QAM, Low Channel



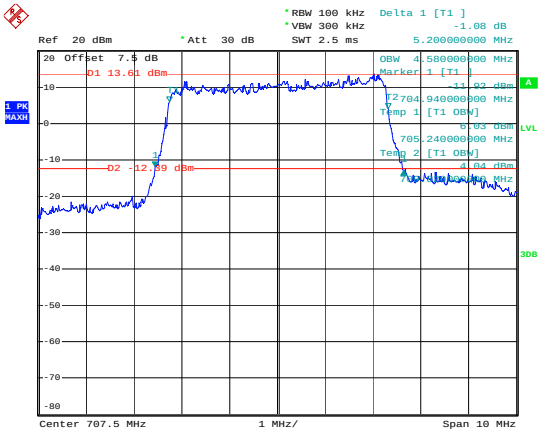
Date: 3.JUN.2021 00:44:28

5M, QPSK, Middle Channel



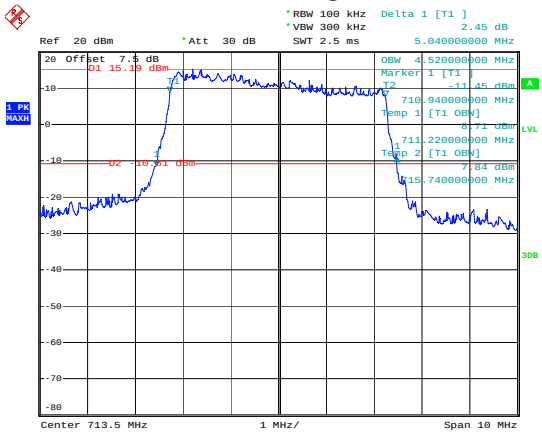
Date: 3.JUN.2021 00:44:50

5M, 16QAM, Middle Channel



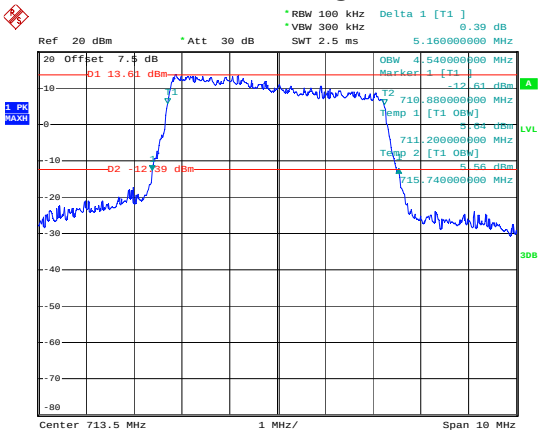
Date: 3.JUN.2021 00:45:08

5M, QPSK, High Channel



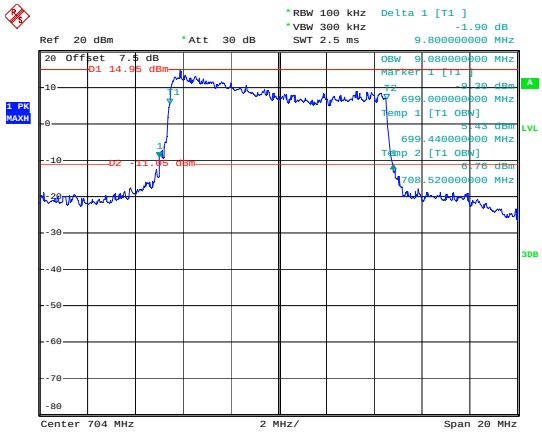
Date: 3.JUN.2021 00:45:24

5M, 16QAM, High Channel



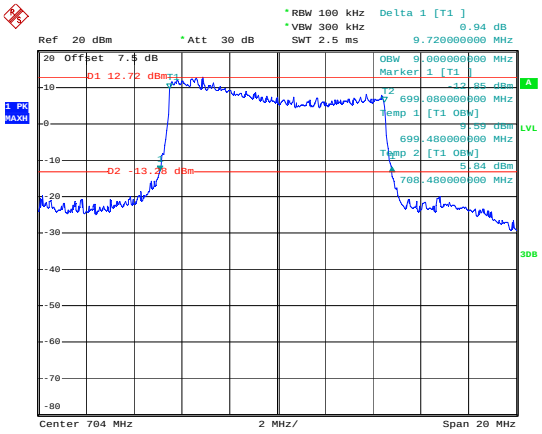
Date: 3.JUN.2021 00:45:42

10M, QPSK, Low Channel



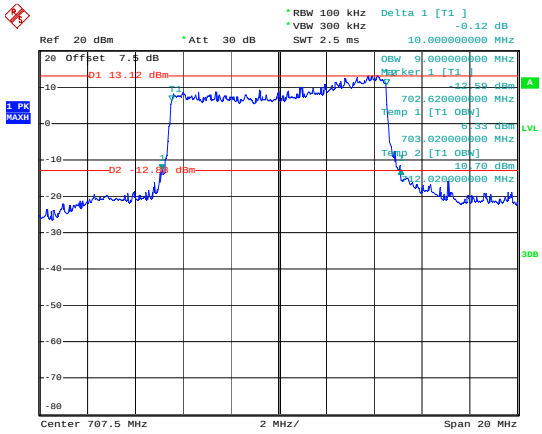
Date: 3.JUN.2021 00:46:05

10M, 16QAM, Low Channel



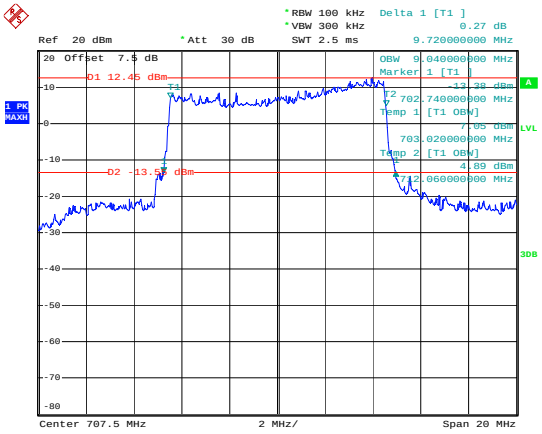
Date: 3.JUN.2021 00:46:24

10M, QPSK, Middle Channel



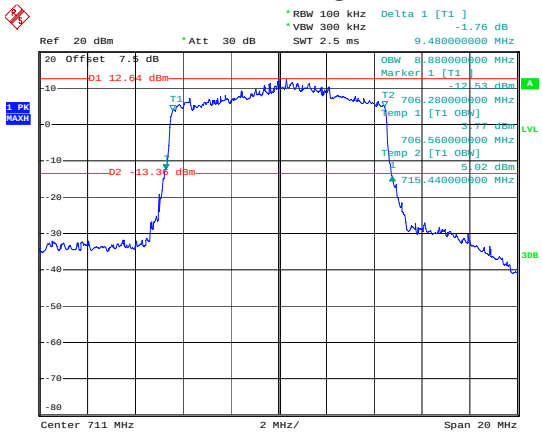
Date: 3.JUN.2021 00:46:41

10M, 16QAM, Middle Channel



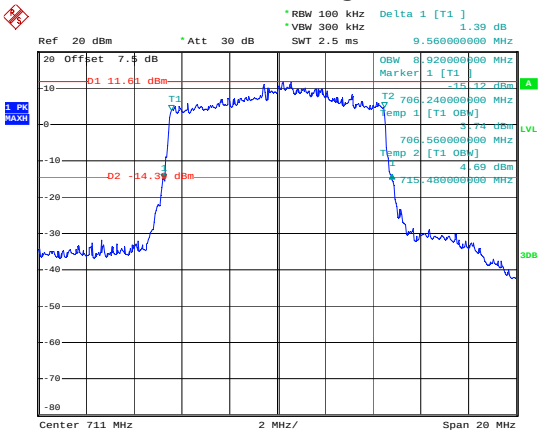
Date: 3.JUN.2021 00:47:01

10M, QPSK, High Channel



Date: 3.JUN.2021 00:47:21

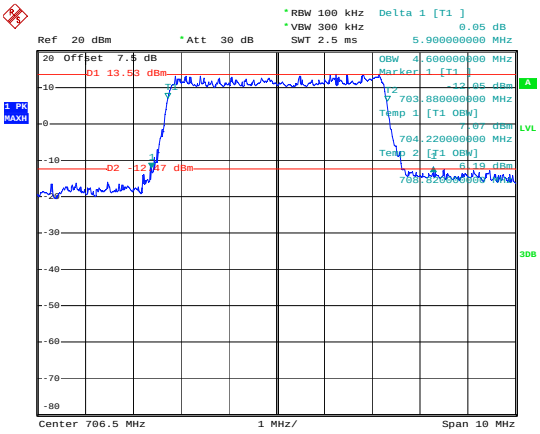
10M, 16QAM, High Channel



Date: 3.JUN.2021 00:47:40

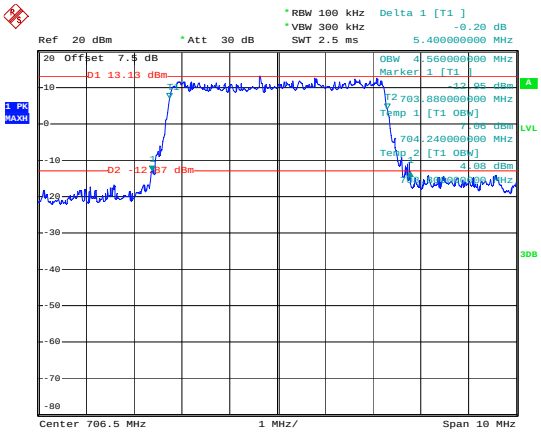
LTE Band 17:

5M, QPSK, Low Channel



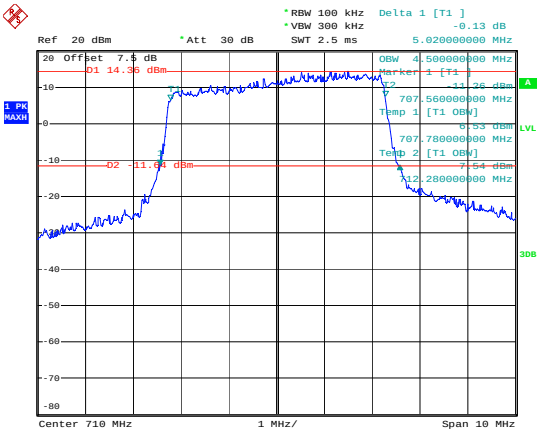
Date: 3.JUN.2021 00:48:05

5M, 16QAM, Low Channel



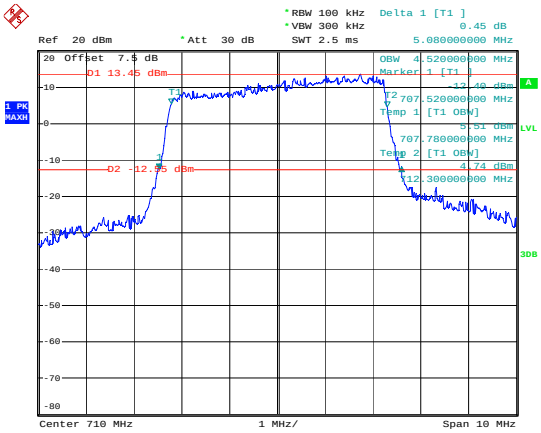
Date: 3.JUN.2021 00:48:24

5M, QPSK, Middle Channel



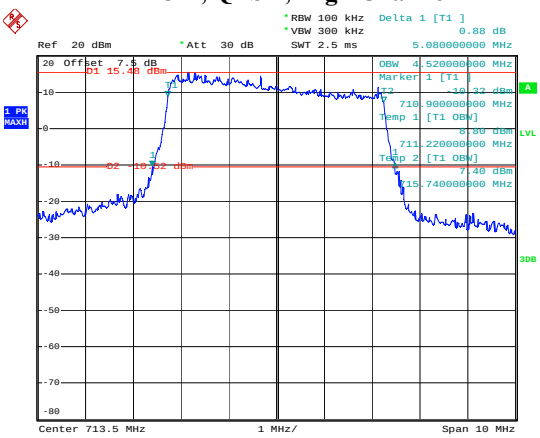
Date: 3.JUN.2021 00:48:43

5M, 16QAM, Middle Channel



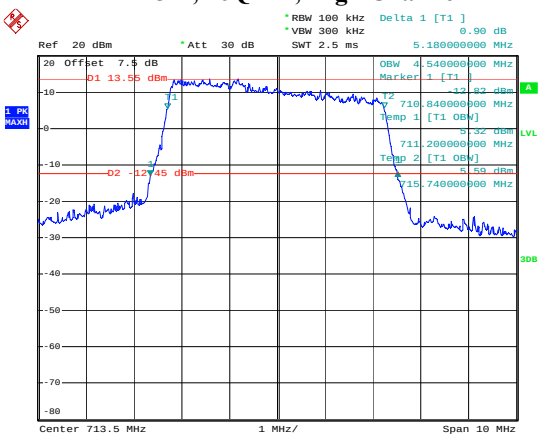
Date: 3.JUN.2021 00:49:01

5M, QPSK, High Channel



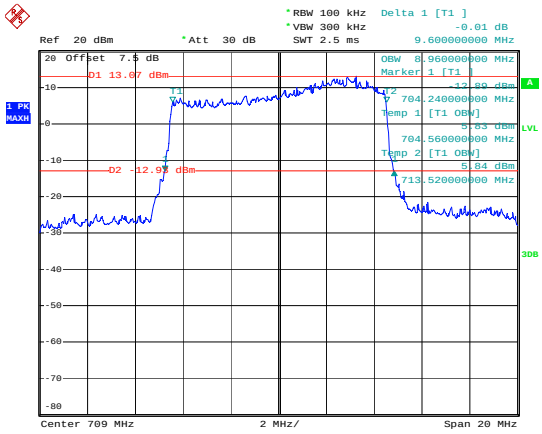
Date: 3.JUN.2021 00:49:20

5M, 16QAM, High Channel



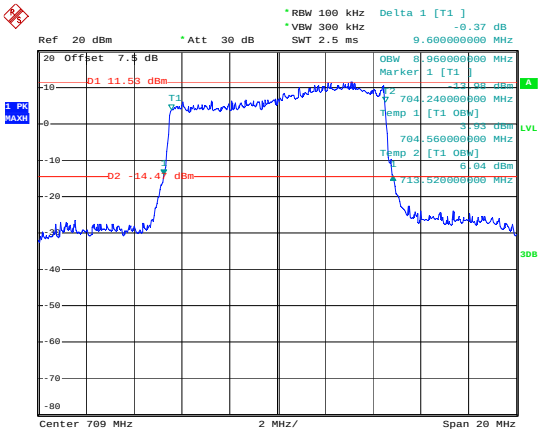
Date: 3.JUN.2021 00:49:41

10M, QPSK, Low Channel



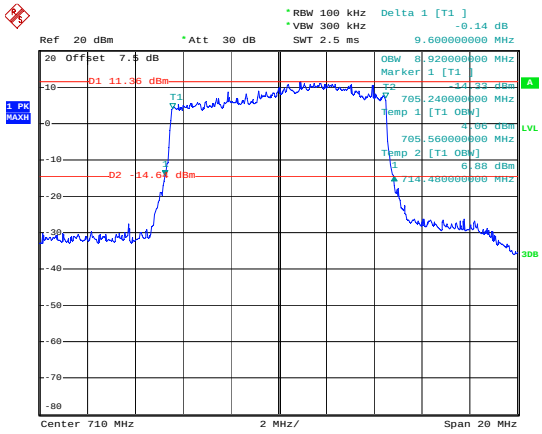
Date: 3.JUN.2021 00:50:05

10M, 16QAM, Low Channel



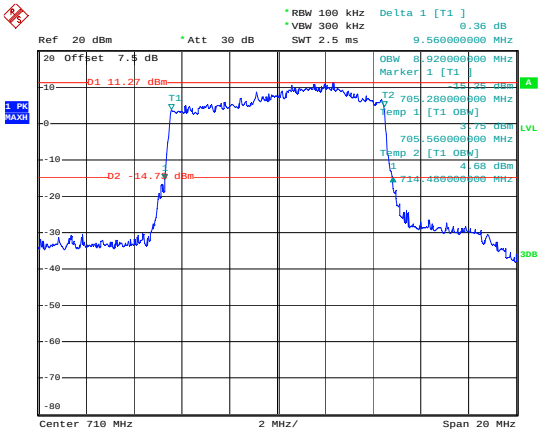
Date: 3.JUN.2021 00:50:24

10M, QPSK, Middle Channel



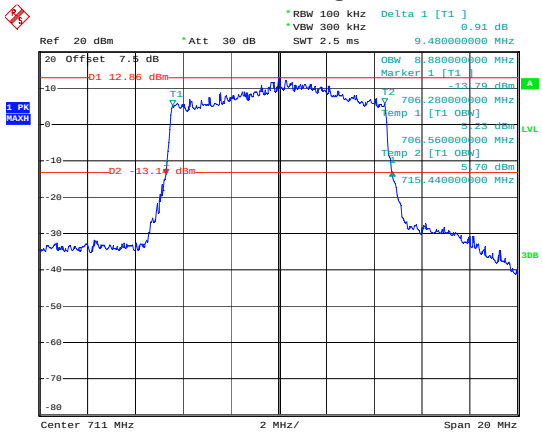
Date: 3.JUN.2021 00:50:41

10M, 16QAM, Middle Channel



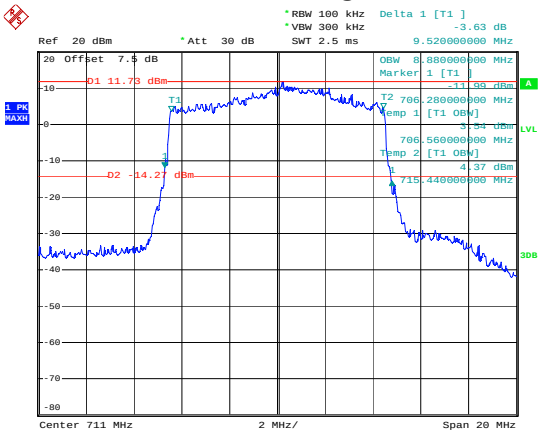
Date: 3.JUN.2021 00:51:00

10M, QPSK, High Channel



Date: 3.JUN.2021 00:51:20

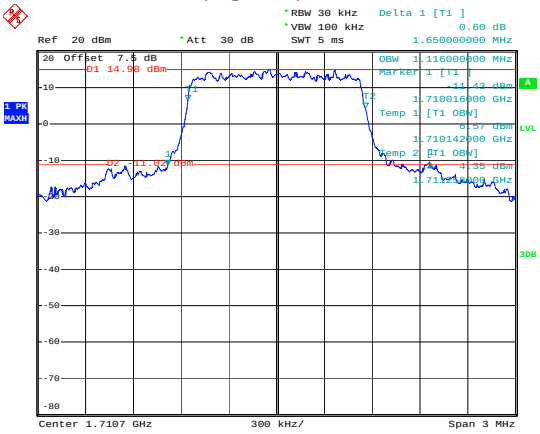
10M, 16QAM, High Channel



Date: 3.JUN.2021 00:51:39

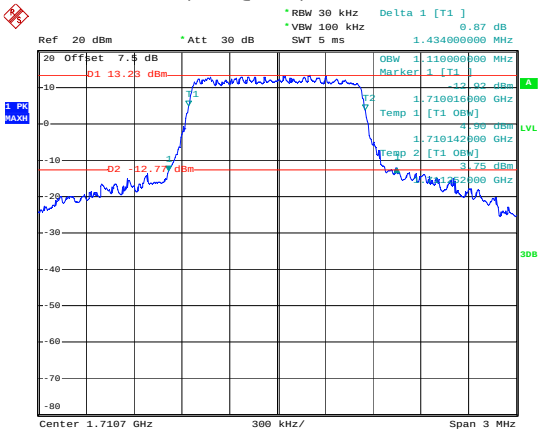
LTE Band 66

1.4M, QPSK, Low Channel



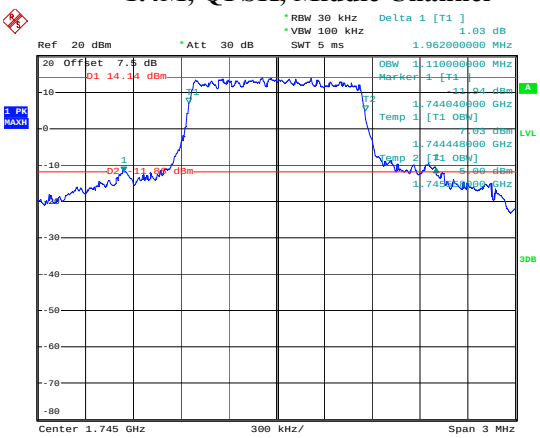
Date: 3.JUN.2021 00:52:04

1.4M, 16QAM, Low Channel



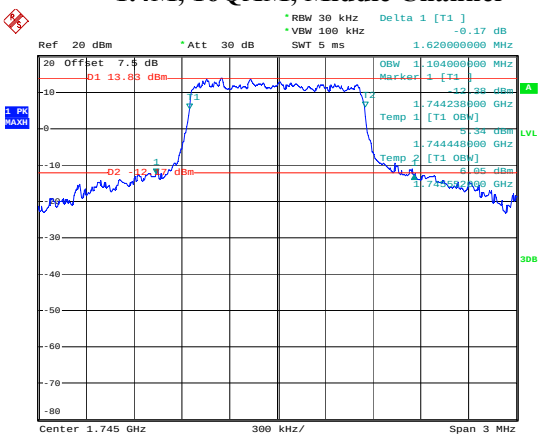
Date: 3.JUN.2021 00:52:22

1.4M, QPSK, Middle Channel



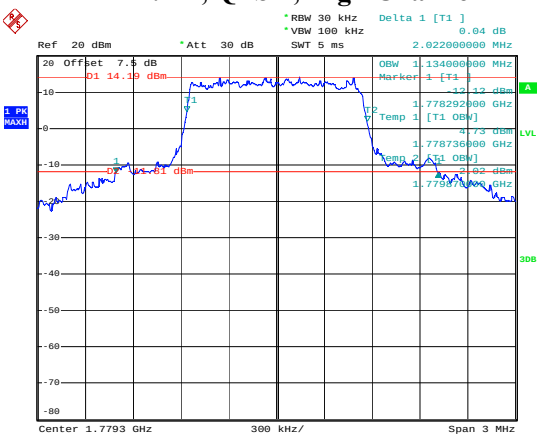
Date: 3.JUN.2021 00:52:41

1.4M, 16QAM, Middle Channel



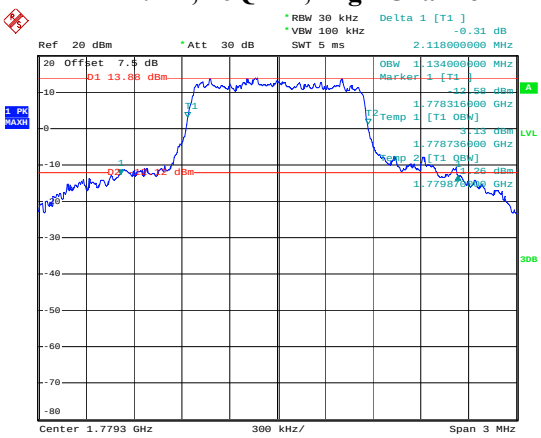
Date: 3.JUN.2021 00:53:00

1.4M, QPSK, High Channel



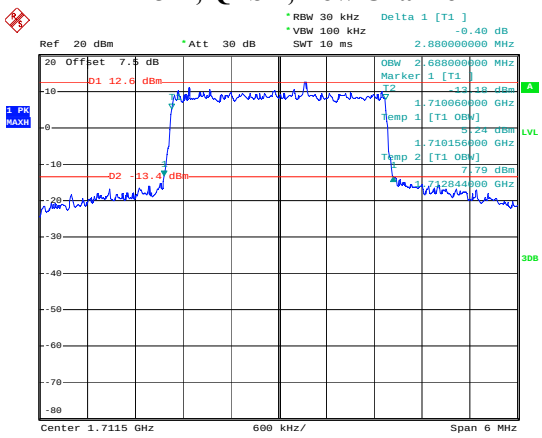
Date: 3.JUN.2021 00:53:18

1.4M, 16QAM, High Channel



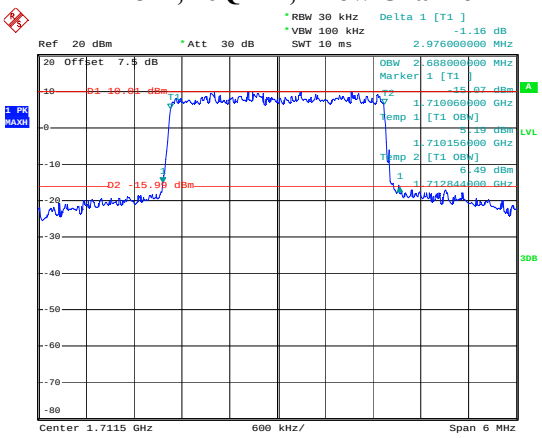
Date: 3.JUN.2021 00:53:40

3M, QPSK, Low Channel



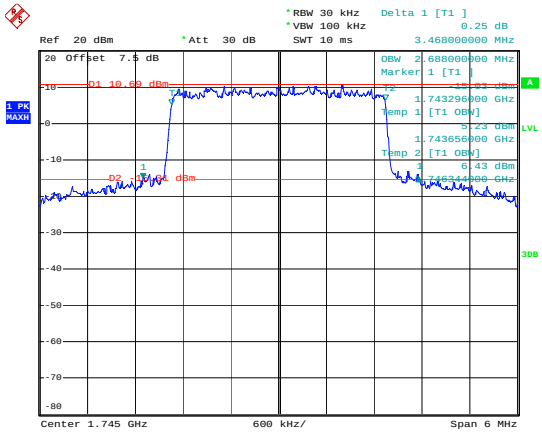
Date: 3.JUN.2021 00:53:58

3M, 16QAM, Low Channel



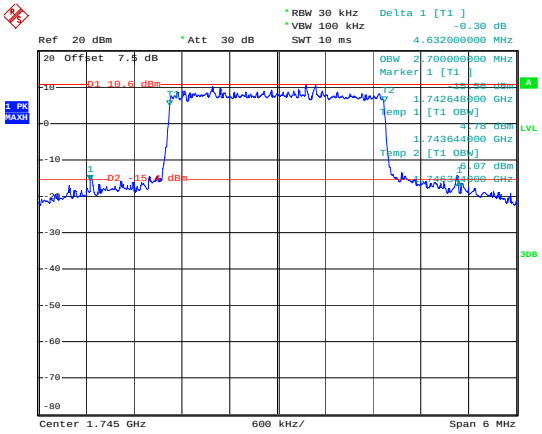
Date: 3.JUN.2021 00:54:13

3M, QPSK, Middle Channel



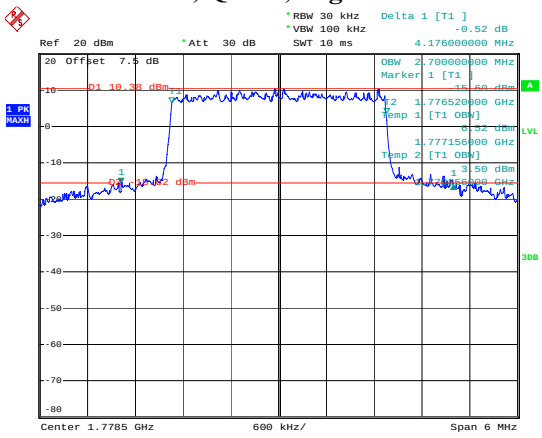
Date: 3.JUN.2021 00:54:28

3M, 16QAM, Middle Channel



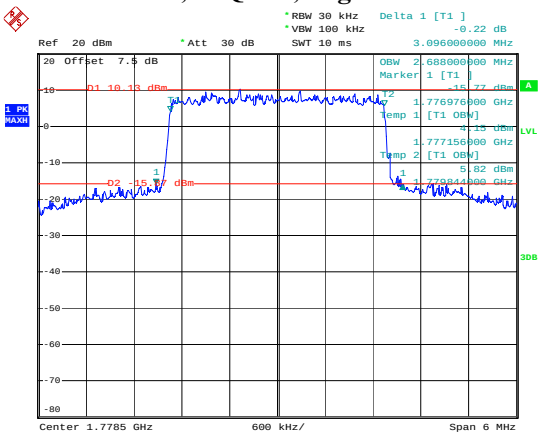
Date: 3.JUN.2021 00:54:44

3M, QPSK, High Channel



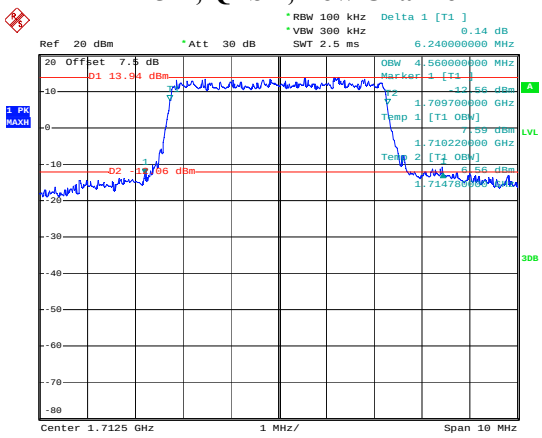
Date: 3.JUN.2021 00:55:00

3M, 16QAM, High Channel



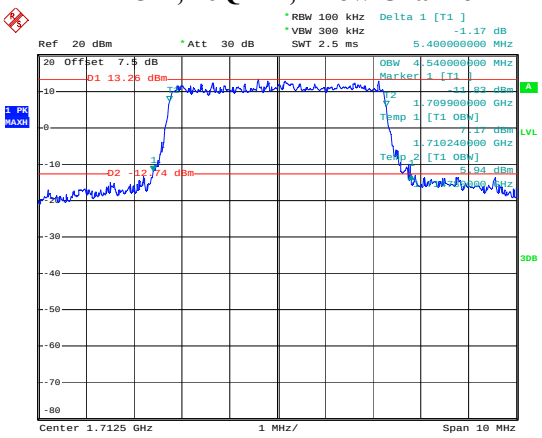
Date: 3.JUN.2021 01:00:29

5M, QPSK, Low Channel



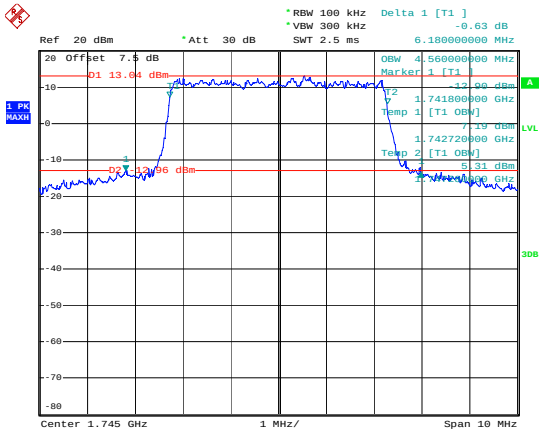
Date: 3.JUN.2021 01:00:55

5M, 16QAM, Low Channel



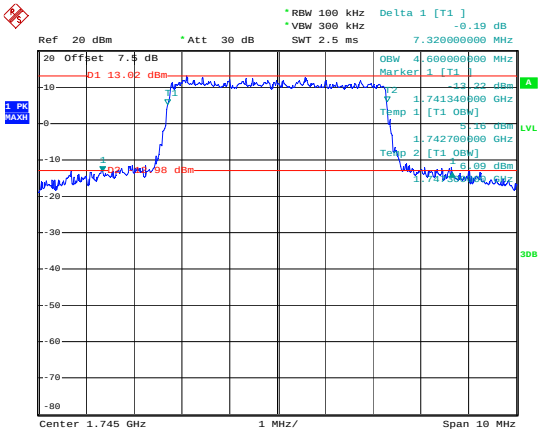
Date: 3.JUN.2021 01:01:17

5M, QPSK, Middle Channel



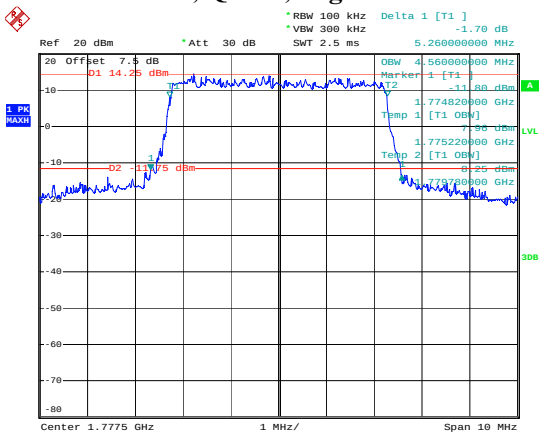
Date: 3.JUN.2021 01:01:38

5M, 16QAM, Middle Channel



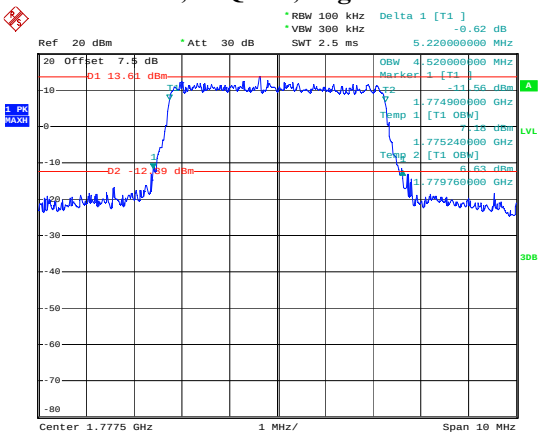
Date: 3.JUN.2021 01:02:01

5M, QPSK, High Channel



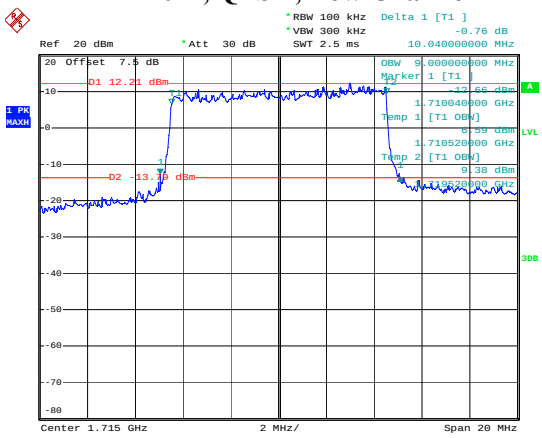
Date: 3.JUN.2021 01:11:55

5M, 16QAM, High Channel



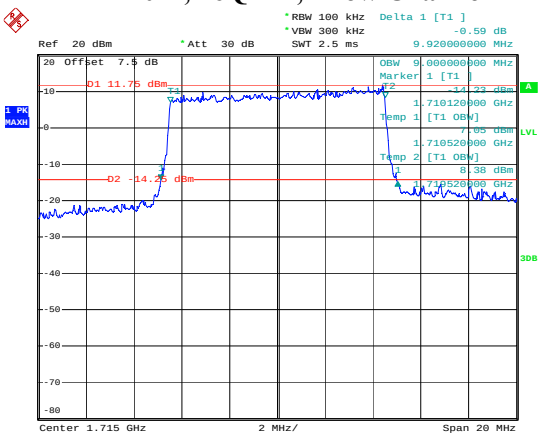
Date: 3.JUN.2021 01:12:14

10M, QPSK, Low Channel



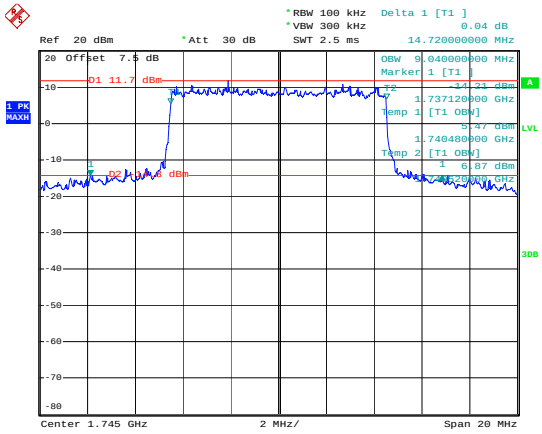
Date: 3.JUN.2021 01:12:38

10M, 16QAM, Low Channel



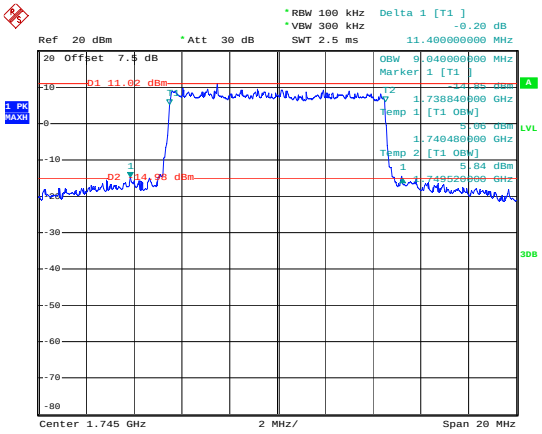
Date: 3.JUN.2021 01:13:25

10M, QPSK, Middle Channel



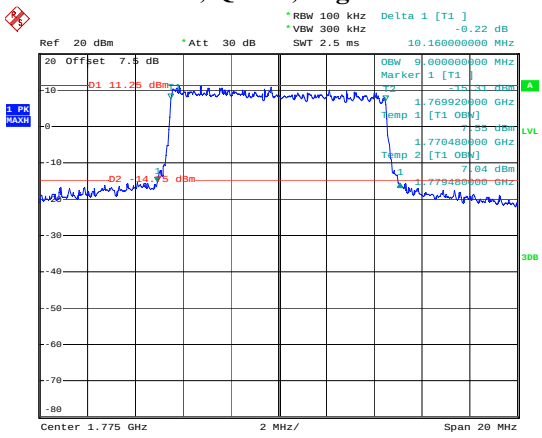
Date: 3.JUN.2021 01:13:47

10M, 16QAM, Middle Channel



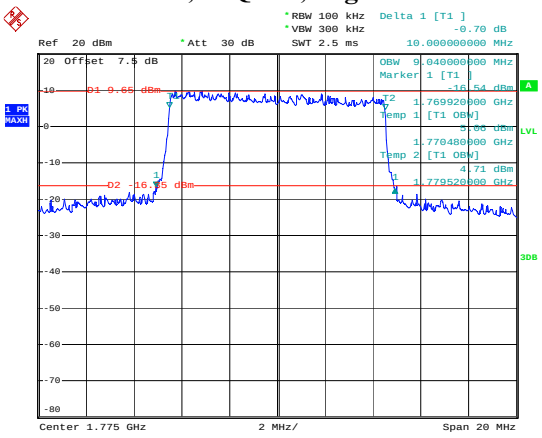
Date: 3.JUN.2021 01:14:08

10M, QPSK, High Channel



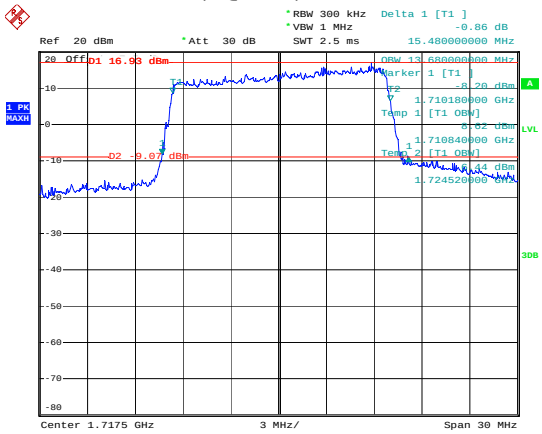
Date: 3.JUN.2021 01:14:29

10M, 16QAM, High Channel



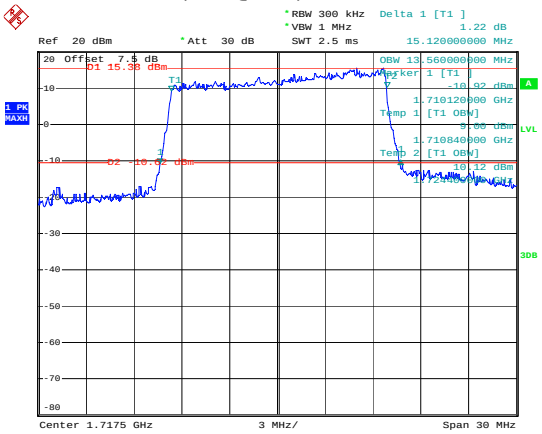
Date: 3.JUN.2021 01:14:47

15M, QPSK, Low Channel



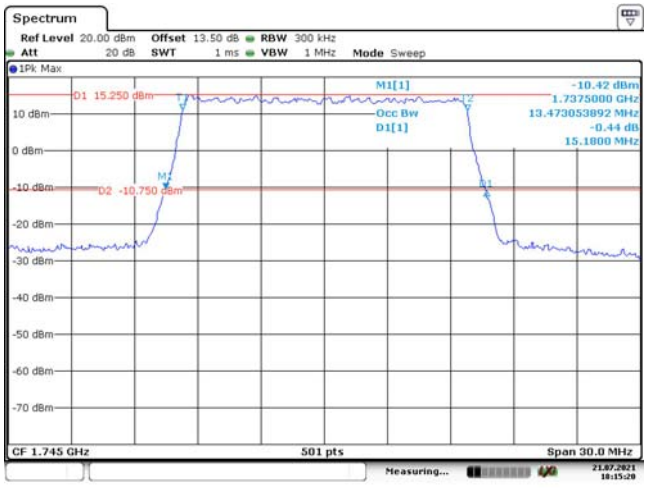
Date: 3.JUN.2021 01:15:16

15M, 16QAM, Low Channel



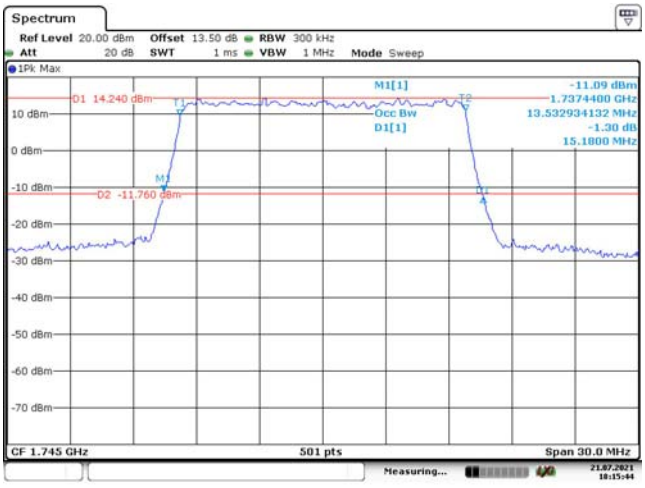
Date: 3.JUN.2021 01:15:42

15M, QPSK, Middle Channel



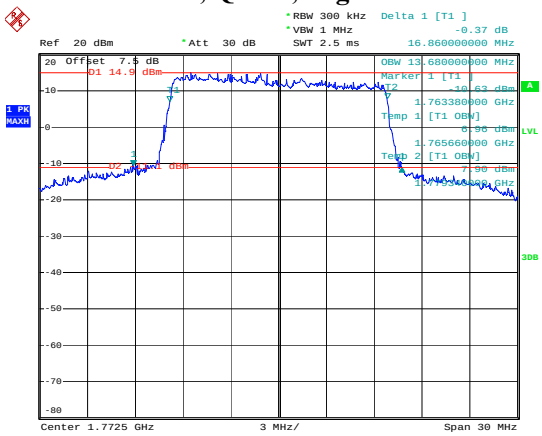
Date: 21.JUL.2021 18:15:21

15M, 16QAM, Middle Channel



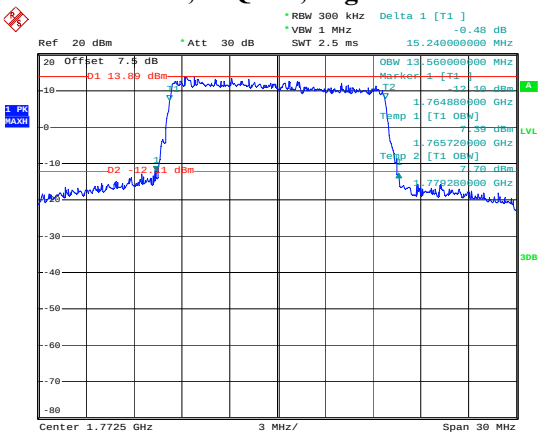
Date: 21.JUL.2021 18:15:44

15M, QPSK, High Channel



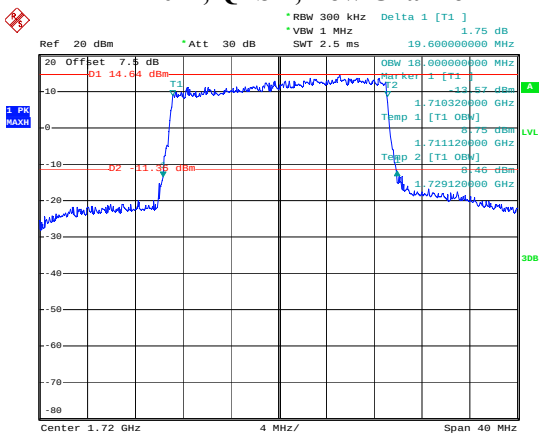
Date: 3.JUN.2021 01:16:59

15M, 16QAM, High Channel



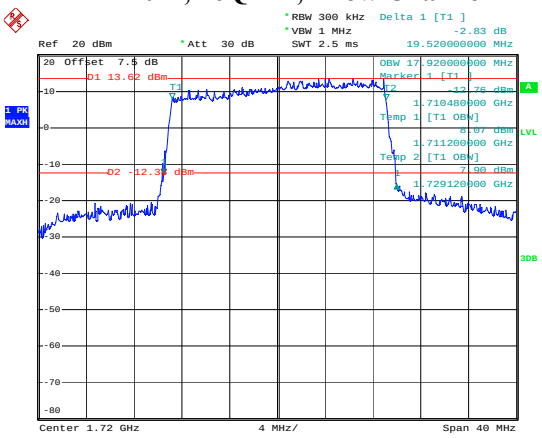
Date: 3.JUN.2021 01:17:22

20M, QPSK, Low Channel



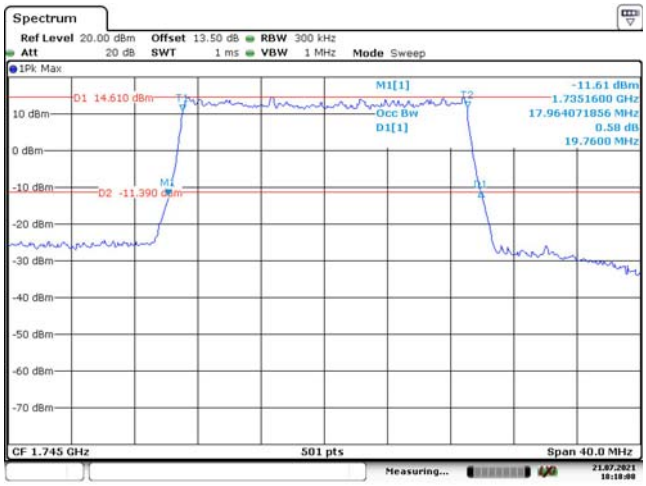
Date: 3.JUN.2021 01:17:48

20M, 16QAM, Low Channel



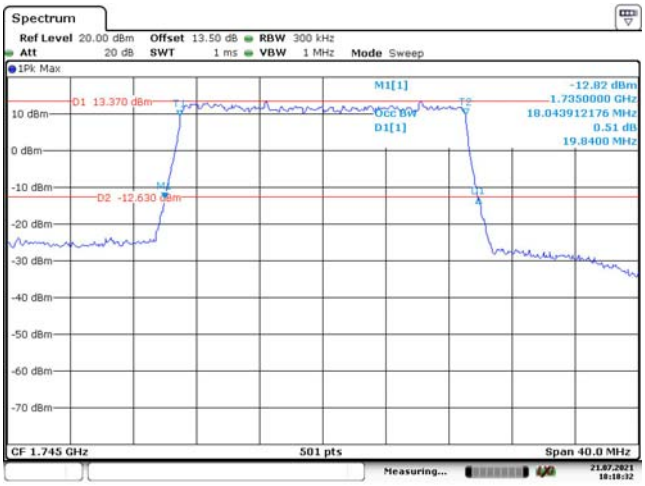
Date: 3.JUN.2021 01:18:11

20M, QPSK, Middle Channel



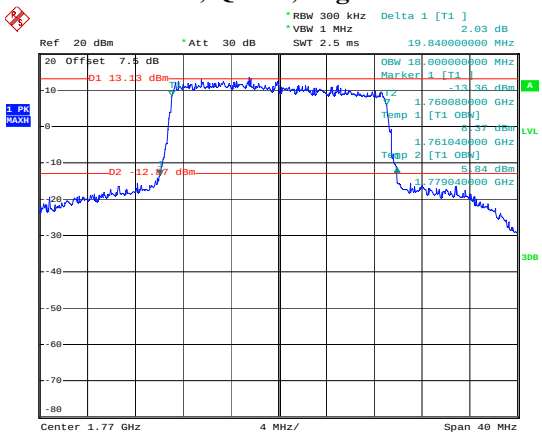
Date: 21.JUL.2021 18:18:08

20M, 16QAM, Middle Channel



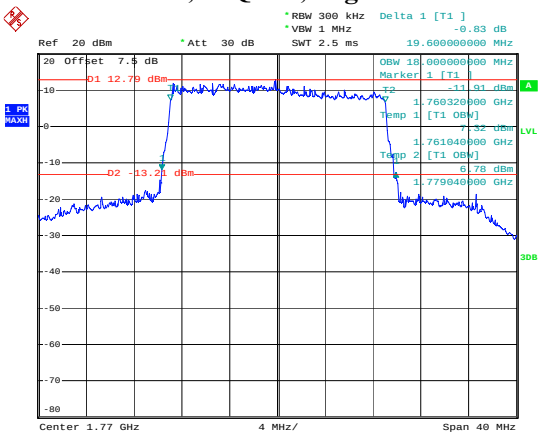
Date: 21.JUL.2021 18:18:32

20M, QPSK, High Channel



Date: 3.JUN.2021 01:19:25

20M, 16QAM, High Channel



Date: 3.JUN.2021 01:19:48

FCC §2.1051, §22.917(a) & §24.238(a) & §27.53- SPURIOUS EMISSIONS AT ANTENNA TERMINALS

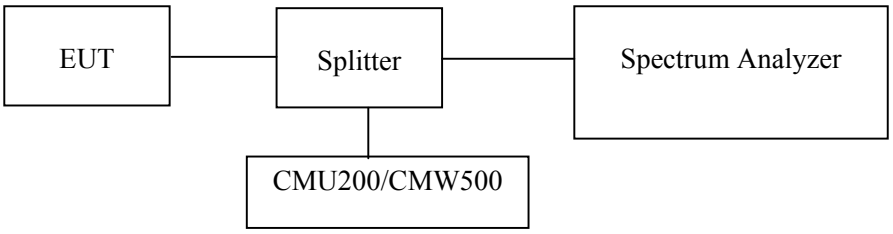
Applicable Standard

FCC §2.1051, §22.917(a) , §24.238(a) and §27.53.

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1051.

Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2020-07-07	2021-07-07
R&S	Spectrum Analyzer	FSV40	101474	2021-07-07	2022-07-07
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
E-Microwave	Blocking Control	EMDCB-00036	0E01201048	Each time	N/A
E-Microwave	Coaxial Attenuators	EMCA10-5RN-6	OE01203239	Each time	N/A
E-Microwave	Two-way Spliter	ODP-1-6-2S	OE0120142	Each time	N/A

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

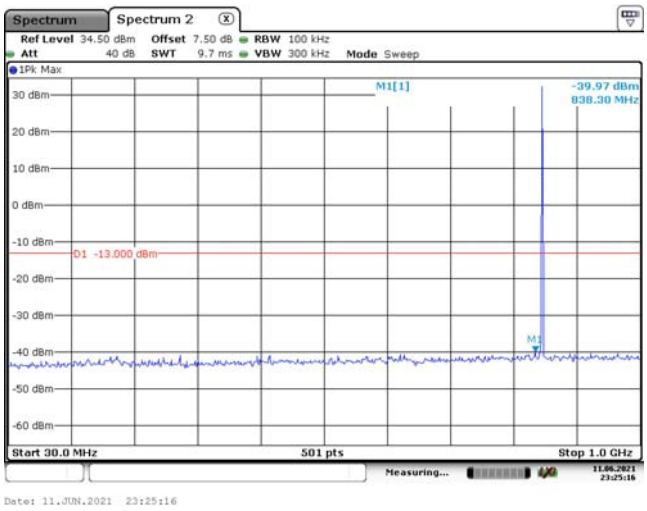
Test Data

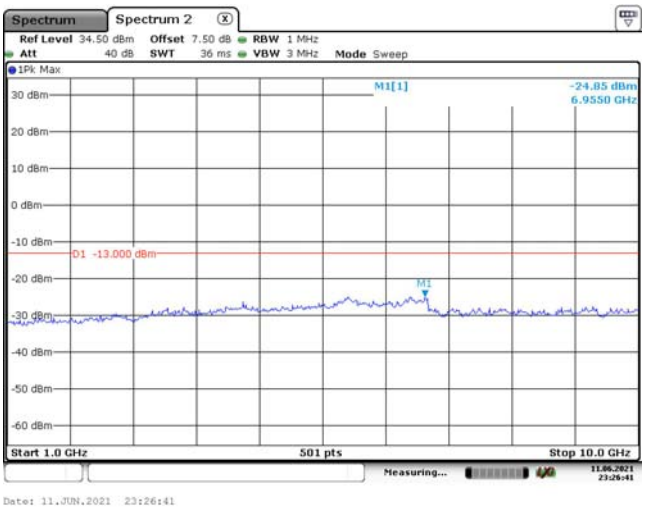
Environmental Conditions

Temperature:	25.8~26.9 °C
Relative Humidity:	42~49%
ATM Pressure:	100~100.7kPa
Tester:	Lay Lei
Test Date:	2021-06-11~2021-07-15

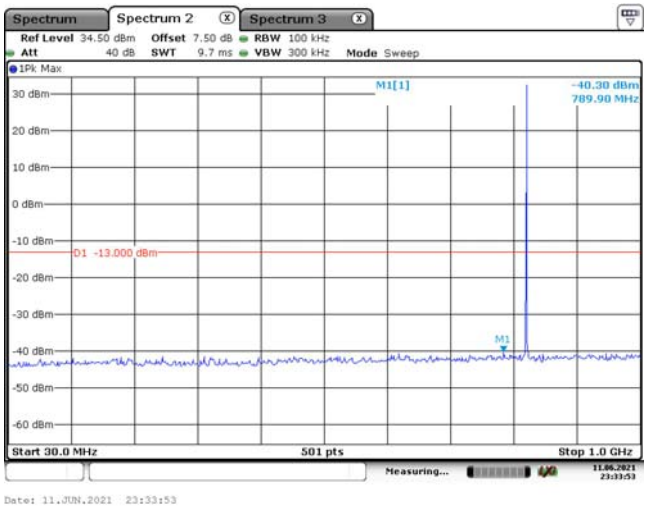
Test Result: Compliance. Please refer to the following plots.

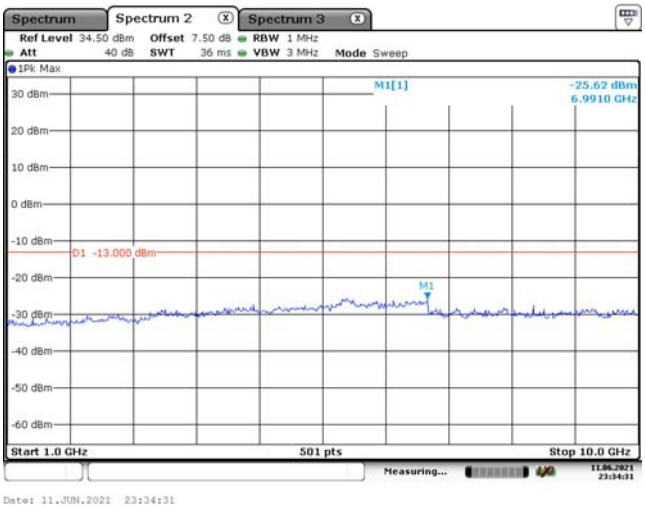
GSM 850, Low Channel



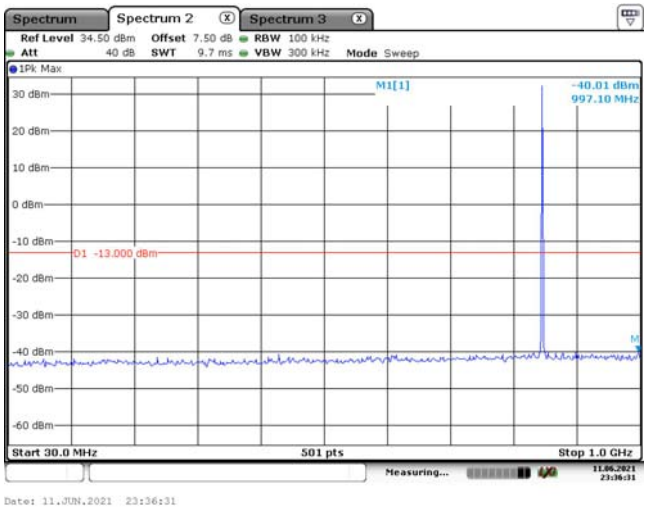


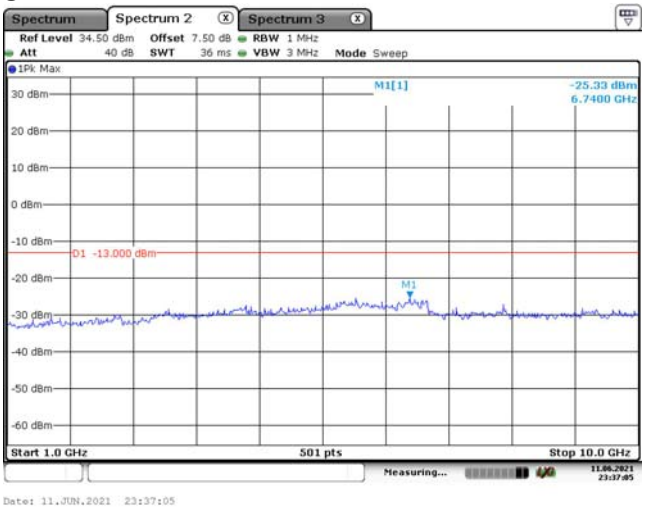
GSM 850, Middle Channel



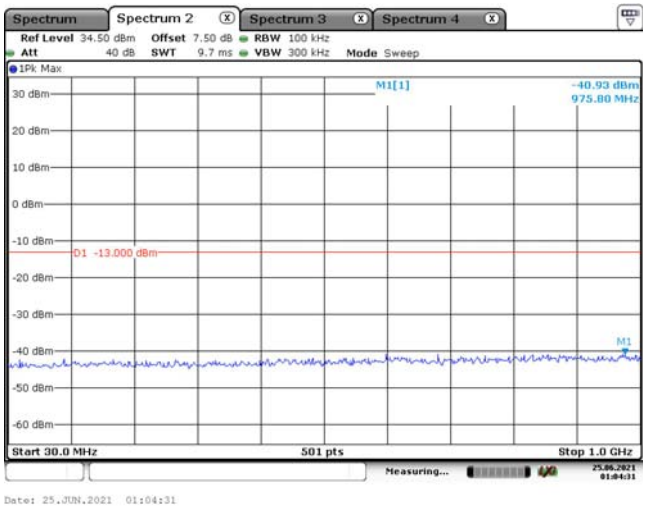


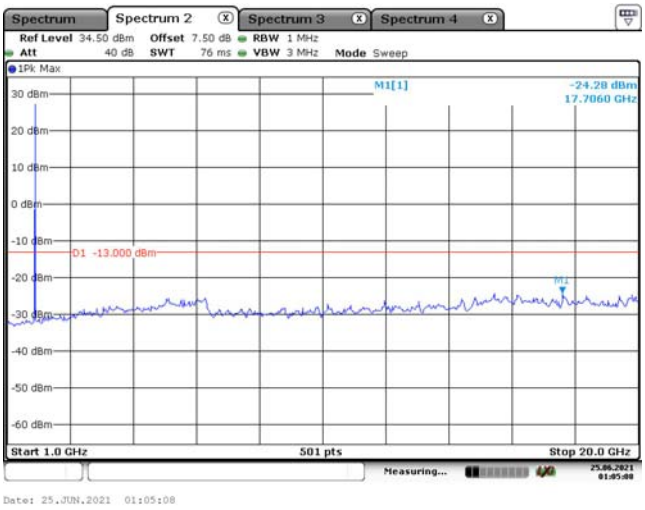
GSM 850, High Channel



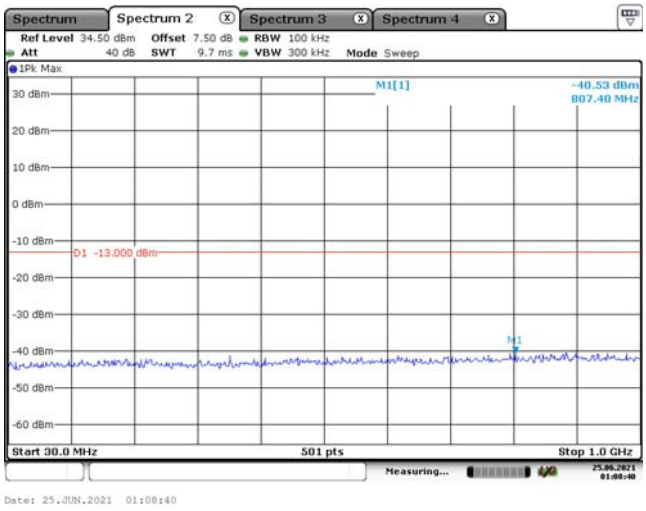


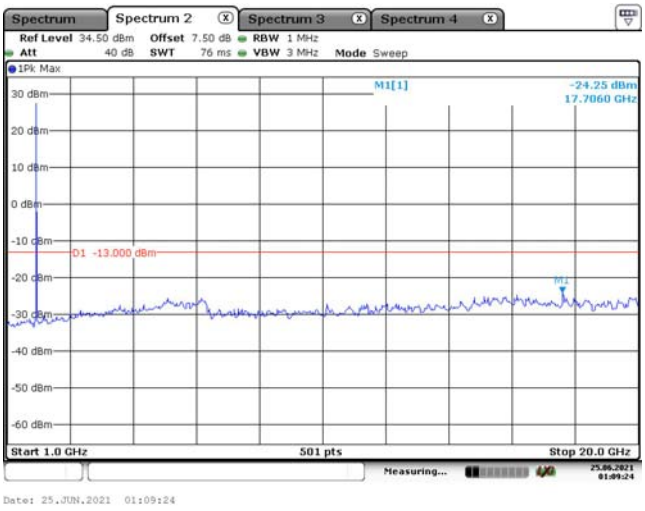
PCS 1900, Low Channel



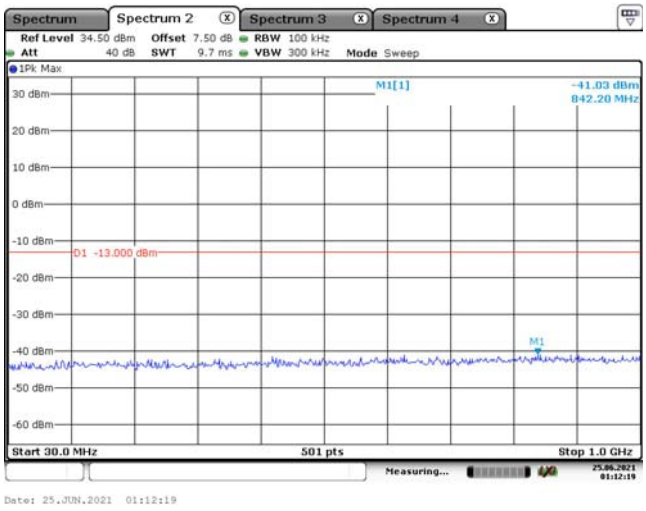


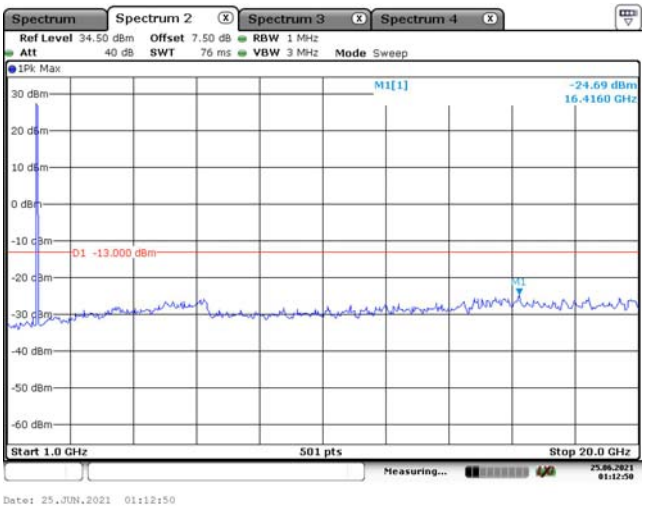
PCS 1900, Middle Channel



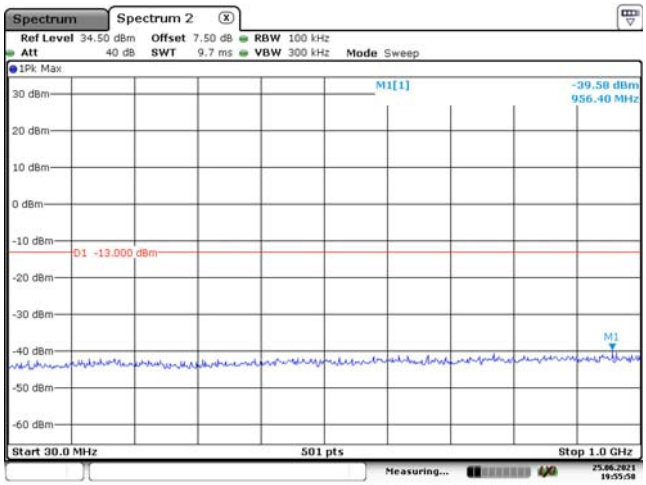


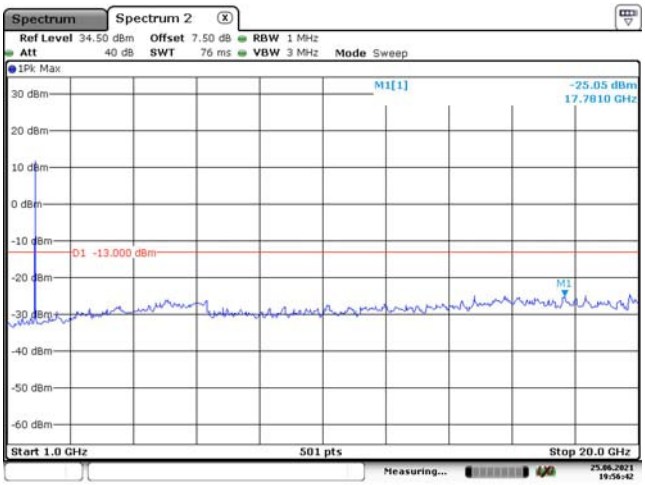
PCS 1900, High Channel



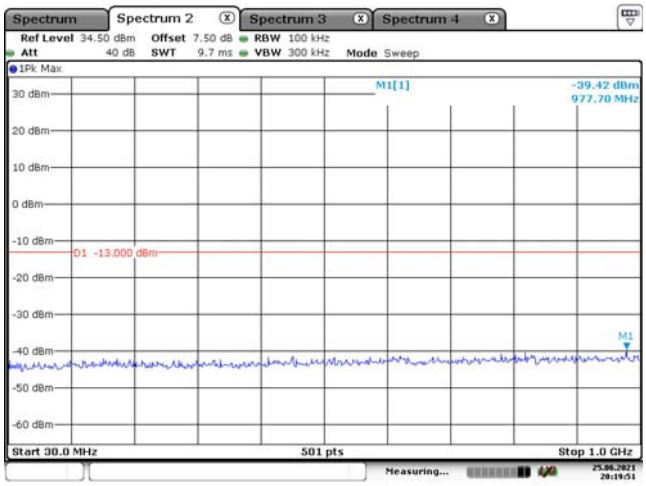


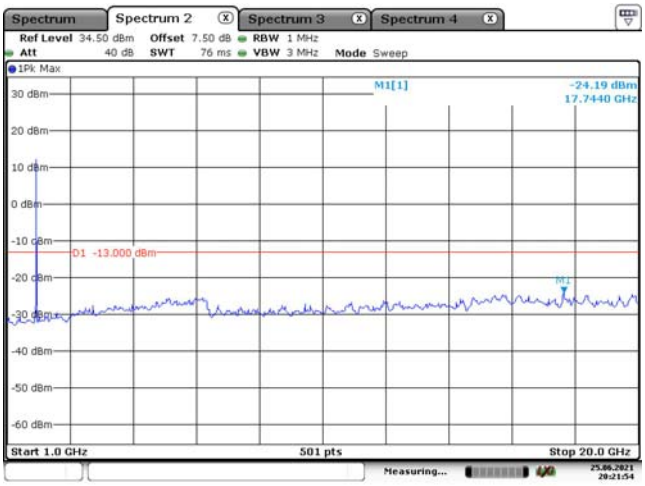
WCDMA Band II, R99, Low Channel





WCDMA Band II, R99, Middle Channel





WCDMA Band II, R99, High Channel