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TESTING LABORATORY
CERTIFICATE # 4821.01

BACL
Bay Area Compliance Labs Corp.

FCC PART 27

FCC PART 22H, PART 24E

TEST REPORT

For

TECNO MOBILE LIMITED

ROOM 604 6/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON ROAD TST KL, Hong Kong

FCC ID: 2ADYY-KE5J

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

Report Number: RSZ200723001-00D

Report Date: 2020-09-30

Jimmy Xiao

Reviewed By: RF Engineer

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Mobile Phone
Tested Model	KE5j
Frequency Range	EGSM 850: 824-849MHz(TX); 869-894MHz(RX) PCS 1900: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) LTE Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 7: 2500-2570MHz(TX); 2620-2690MHz(RX) LTE Band 38: 2570-2620MHz(TX); 2570-2620MHz(RX) LTE Band 41: 2535-2655MHz(TX); 2535-2655MHz(RX)
Maximum Target Output Power	EGSM 850: 32.5dBm(GMSK), 25.5dBm(8DPSK) PCS 1900: 29.5dBm(GMSK), 25.0dBm(8DPSK) WCDMA Band 2: 22.0dBm WCDMA Band 4: 22.5dBm WCDMA Band 5: 21.5dBm LTE Band 2: 23.0dBm LTE Band 4: 22.5dBm LTE Band 5: 23.5dBm LTE Band 7: 22.0dBm LTE Band 38: 22.0dBm LTE Band 41: 22.0dBm
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification	2G/3G/4G: FPC Antennas
Voltage Range	DC 3.85V from battery or DC 5V from adapter
Date of Test	2020-07-27 to 2020-09-29
Sample serial number	RSZ200723001-RF-S1 (Assigned by BACL, Shenzhen)
Received date	2020-07-23
Sample/EUT Status	Good condition
Adapter information	Model: U100TSA Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 2.0A

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H and Part 24-Subpart E and Subpart 27 of the Federal Communication Commissions rules.

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

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2-Subpart J as well as the following parts:

Part 22 Subpart H - Public Mobile Services
Part 24 Subpart E - Personal Communication Services
Part 27 – Miscellaneous wireless communications services

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. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		±5%
RF output power, conducted		±0.73dB
Unwanted Emission, conducted		±1.6dB
Emissions, Radiated	Below 1GHz	±4.75dB
	Above 1GHz	±4.88dB
Temperature		±1℃
Humidity		±6%
Supply voltages		±0.4%

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F., West Wing, Third Phase of Wanli Industrial Building, Shihua Road, Futian Free Trade Zone, Shenzhen, Guangdong, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 342867, the FCC Designation No.: CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The final qualification test was performed with the EUT operating at normal mode.

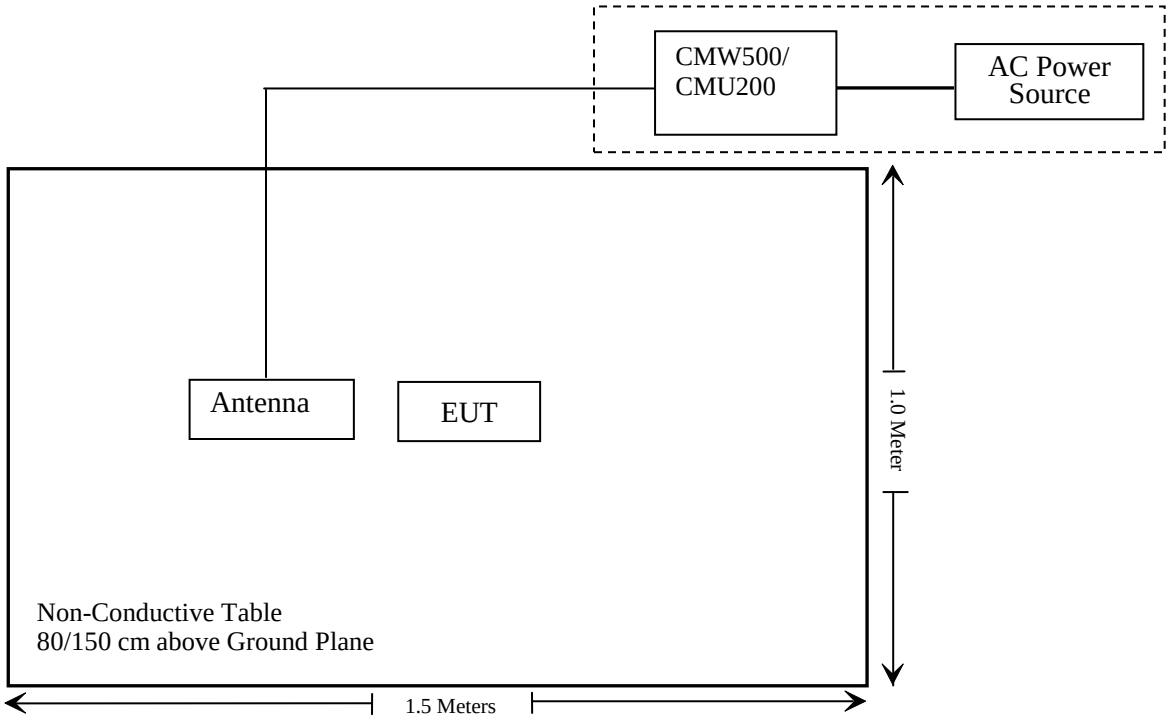
Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	1201.002K50-116218-UY
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§ 1.1307 , §2.1093	RF Exposure (SAR)	Compliance*
§2.1046; § 22.913 (a); § 24.232 (c); §27.50 (d) (h)	RF Output Power	Compliance
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.905; § 22.917; § 24.238; §27.53	Occupied Bandwidth	Compliance
§ 2.1051; § 22.917 (a); § 24.238 (a); §27.53	Spurious Emissions at Antenna Terminal	Compliance
§ 2.1053; § 22.917 (a); § 24.238 (a); §27.53	Field Strength of Spurious Radiation	Compliance
§ 22.917 (a); § 24.238 (a); §27.53(h) (m)	Band Edge	Compliance
§ 2.1055; § 22.355; § 24.235; §27.54;	Frequency stability	Compliance

Note: * Please refer to SAR report released by BACL, report number: RSZ200723001-SA.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2020/7/9	2021/7/8
Sonoma instrument	Pre-amplifier	310 N	186238	2020/4/20	2021/4/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2017/12/22	2020/12/21
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Unknown	Cable 2	RF Cable 2	F-03-EM197	2019/11/29	2020/11/28
Unknown	Cable	Chamber Cable 1	F-03-EM236	2019/11/29	2020/11/28
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	102259	2020/7/22	2021/7/21
COM-POWER	Pre-amplifier	PA-122	181919	2019/11/29	2020/11/28
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2019/11/29	2020/11/28
Sunol Sciences	Horn Antenna	DRH-118	A052604	2017/12/22	2020/12/21
A.H.System	Horn Antenna	SAS-200/571	135	2018/9/1	2021/8/31
Insulted Wire Inc.	RF Cable	SPS-2503-3150	02222010	2019/11/29	2020/11/28
Unknown	RF Cable	W1101-EQ1 OUT	F-19-EM005	2019/11/29	2020/11/28
MICRO-TRONICS	Passband filter	HPM50111	F-19-EM006	2020/4/20	2021/4/20
Unknown	High Pass filter	1.3GHz	101120	2020/4/20	2021/4/20
Ducommun Technolagies	Horn antenna	ARH-4223-02	1007726-02 1304	2017/12/6	2020/12/5
Ducommun Technolagies	Horn antenna	ARH-4223-02	1007726-01 1304	2017/12/6	2020/12/5
Agilent	Signal Generator	N5183A	MY51040755	2019/12/04	2020/12/04

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200120	2020/3/2	2021/3/1
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM121	2019/11/29	2020/11/28
Unknown	RF Cable	Unknown	2301 276	2019/11/29	2020/11/28
Unknown	RF Cable	Unknown	DLO J5/W6102	2019/11/29	2020/11/28
Weinschel	Power divider	1515	MY628	2019/11/29	2020/11/28
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	115500	2020/7/22	2021/7/21
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	1201.002K50-146520-wh	2020/7/9	2021/7/8
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
ESPEC	Temperature & Humidity Chamber	EL-10KA	9107726	2020/01/05	2021/01/05
Fluke	Digital Multimeter	287	19000011	2020/04/12	2021/04/12

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

FCC §1.1307(b) & §2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: RSZ200723001-SA.

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E & 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 (d) (h) - 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.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

According to §27.50(d), the maximum EIRP must not exceed 1Watts (30dBm) for 1710-1755MHz.

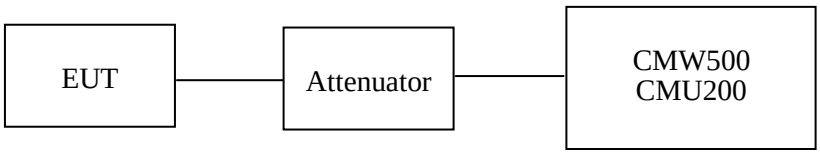
According to §27.50(h)

The maximum EIRP must not exceed 2Watts (33dBm) for 2500-2570MHz & 2496-2690MHz.

Test Procedure

Conducted method:

The RF output of the transmitter was connected to the CMW500/CMU200 through sufficient attenuation.



Radiated method:

TIA 603-D section 2.2.17

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

The testing was performed by George Zhong on 2020-07-27 to 2020-07-29.

Conducted Power

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
GSM	128	824.2	31.5	38.45
	190	836.6	31.7	38.45
	251	848.8	31.7	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
GPRS	128	824.2	31.88	30.82	29.78	28.80	38.45
	190	836.6	32.12	31.11	30.01	29.07	38.45
	251	848.8	32.19	31.19	30.11	29.15	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
EGPRS	128	824.2	23.81	22.57	20.27	18.95	38.45
	190	836.6	24.67	23.40	21.11	19.87	38.45
	251	848.8	25.41	24.11	21.78	20.53	38.45

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band IV)	Normal	RMC12.2k		22.27	22.29	22.21
		HSDPA	1	21.14	21.22	21.24
			2	21.13	21.23	21.23
			3	21.15	21.25	21.22
			4	21.11	21.24	21.25
		HSUPA	1	21.14	21.27	21..18
			2	21.18	21.20	21.15
			3	21.17	21.28	21.21
			4	21.15	21.22	21.22
			5	21.14	21.21	21.24
		HSPA+	/	21.11	21.19	21.23

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
GSM	512	1850.2	28.5	33
	661	1880.0	28.6	33
	810	1909.8	28.7	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
GPRS	512	1850.2	28.78	27.75	25.69	24.59	33
	661	1880.0	28.91	27.88	25.82	24.73	33
	810	1909.8	29.13	28.10	26.05	24.95	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
EGPRS	512	1850.2	24.95	23.75	21.49	20.15	38.45
	661	1880.0	24.71	23.55	21.33	19.95	38.45
	810	1909.8	24.59	23.43	21.17	19.79	38.45

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band II)	Normal	RMC12.2k		21.82	21.81	21.72
		HSDPA	1	20.73	20.75	20.74
			2	20.71	20.77	20.79
			3	20.76	20.77	20.70
			4	20.75	20.75	20.68
		HSUPA	1	20.61	20.70	20.79
			2	20.61	20.66	20.75
			3	20.68	20.63	20.74
			4	20.58	20.65	20.76
			5	20.56	20.69	20.72
		HSPA+	/	20.62	20.66	20.68

AWS Band (Part 27)

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band IV)	Normal	RMC12.2k		22.27	22.29	22.21
		HSDPA	1	21.14	21.22	21.24
			2	21.13	21.23	21.23
			3	21.15	21.25	21.22
			4	21.11	21.24	21.25
		HSUPA	1	21.14	21.27	21..18
			2	21.18	21.20	21.15
			3	21.17	21.28	21.21
			4	21.15	21.22	21.22
			5	21.14	21.21	21.24
		HSPA+	/	21.11	21.19	21.23

Peak-to-average ratio (PAR)

Cellular Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	4.41	13
	Middle	3.85	13
	High	4.33	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	4.25	13
	Middle	3.96	13
	High	4.15	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.45	13
	Middle	3.54	13
	High	3.04	13
HSDPA (16QAM)	Low	4.12	13
	Middle	5.67	13
	High	3.78	13
HSUPA (BPSK)	Low	5.56	13
	Middle	6.62	13
	High	4.15	13
HSPA+	Low	3.77	13
	Middle	4.23	13
	High	4.16	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.84	13
	Middle	3.88	13
	High	3.99	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.75	13
	Middle	3.69	13
	High	4.08	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.55	13
	Middle	3.59	13
	High	3.52	13
HSDPA (16QAM)	Low	3.95	13
	Middle	4.13	13
	High	3.81	13
HSUPA (BPSK)	Low	4.76	13
	Middle	3.87	13
	High	6.45	13
HSPA+	Low	4.16	13
	Middle	3.85	13
	High	4.29	13

AWS Band

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.50	13
	Middle	3.36	13
	High	3.43	13
HSDPA (16QAM)	Low	4.31	13
	Middle	6.10	13
	High	3.68	13
HSUPA (BPSK)	Low	4.18	13
	Middle	3.84	13
	High	4.55	13
HSPA+	Low	3.72	13
	Middle	4.06	13
	High	3.96	13

Radiated Power

GSM Mode:

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
ERP for Cellular Band (Part 22H)										
Low channel										
824.2	84.73	253	1.2	H	25.4	1.90	0.0	23.50	38.45	14.95
824.2	88.87	195	1.4	V	28.9	1.90	0.0	27.00	38.45	11.45
Middle channel										
836.6	83.37	144	2.4	H	24.0	1.90	0.0	22.10	38.45	16.35
836.6	87.07	305	1.6	V	27.1	1.90	0.0	25.20	38.45	13.25
High channel										
848.8	84.56	96	2.4	H	24.6	1.90	0.0	22.70	38.45	15.75
848.8	87.56	269	1.1	V	27.6	1.90	0.0	25.70	38.45	12.75
EIRP for PCS Band (Part 24E)										
Low channel										
1850.2	88.84	49	2.2	H	19.2	1.30	9.40	27.30	33	5.70
1850.2	84.12	287	1.1	V	14.2	1.30	9.40	22.30	33	10.70
Middle channel										
1880.00	88.45	92	1.3	H	18.8	1.30	9.40	26.90	33	6.10
1880.00	83.89	21	1.0	V	14.0	1.30	9.40	22.10	33	10.90
High channel										
1909.8	89.21	57	1.7	H	19.5	1.30	9.40	27.60	33	5.40
1909.8	84.56	186	2.4	V	14.7	1.30	9.40	22.80	33	10.20

EGPRS Mode:

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
ERP for Cellular Band (Part 22H)										
Low channel										
824.2	81.94	232	1.7	H	21.9	1.90	0.0	20.00	38.45	18.45
824.2	86.30	220	2.2	V	26.3	1.90	0.0	24.40	38.45	14.05
Middle channel										
836.6	80.87	277	1.5	H	21.5	1.90	0.0	19.60	38.45	18.85
836.6	84.85	227	1.7	V	24.9	1.90	0.0	23.00	38.45	15.45
High channel										
848.8	80.96	50	2.2	H	21.0	1.90	0.0	19.10	38.45	19.35
848.8	85.67	311	1.0	V	25.7	1.90	0.0	23.80	38.45	14.65
EIRP for PCS Band (Part 24E)										
Low channel										
1850.20	84.87	284	2.2	H	15.2	1.30	9.40	23.30	33	9.7
1850.20	82.31	107	2.3	V	12.4	1.30	9.40	20.50	33	12.5
Middle channel										
1880.00	84.52	269	1.9	H	14.8	1.30	9.40	22.9	33	10.1
1880.00	82.47	81	1.6	V	12.6	1.30	9.40	20.7	33	12.3
High channel										
1909.80	84.27	79	2.0	H	14.6	1.30	9.40	22.7	33	10.3
1909.80	81.98	292	2.0	V	12.1	1.30	9.40	20.2	33	12.8

WCDMA Mode

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi			
ERP for WCDMA Band V (Part 22H), Low channel										
826.4	77.68	85	1.5	H	18.3	1.90	0.0	16.40	38.45	22.05
826.4	80.11	327	2.4	V	20.1	1.90	0.0	18.20	38.45	20.25
ERP for WCDMA Band V (Part 22H), Middle channel										
836.6	75.84	307	1.6	H	16.5	1.90	0.0	14.60	38.45	23.85
836.6	78.03	112	2.3	V	18.0	1.90	0.0	16.10	38.45	22.35
ERP for WCDMA Band V (Part 22H), High channel										
846.6	76.11	115	2.3	H	16.1	1.90	0.0	14.20	38.45	24.25
846.6	78.62	71	2.3	V	18.6	1.90	0.0	16.70	38.45	21.75
EIRP for WCDMA Band II (Part 24E), Low channel										
1852.40	85.41	42	2.2	H	15.7	1.30	9.40	23.80	33	9.20
1852.40	80.27	213	1.2	V	10.4	1.30	9.40	18.50	33	14.50
EIRP for WCDMA Band II (Part 24E), Middle channel										
1880.00	83.18	87	1.3	H	13.5	1.30	9.40	21.60	33	11.40
1880.00	80.23	292	1.3	V	10.3	1.30	9.40	18.40	33	14.60
EIRP for WCDMA Band II (Part 24E), High channel										
1907.60	83.12	187	1.4	H	13.4	1.30	9.40	21.50	33	11.50
1907.60	80.15	332	1.2	V	10.3	1.30	9.40	18.40	33	14.60
EIRP for WCDMA Band IV (Part 27), Low channel										
1712.40	83.98	297	1.3	H	10.7	1.30	8.90	18.30	30	11.70
1712.40	82.49	1	2.5	V	9.8	1.30	8.90	17.40	30	12.60
EIRP for WCDMA Band IV (Part 27), Middle channel										
1732.50	84.12	196	2.1	H	10.8	1.30	8.90	18.40	30	11.60
1732.50	82.55	284	1.1	V	9.8	1.30	8.90	17.40	30	12.60
EIRP for WCDMA Band IV (Part 27), High channel										
1752.60	84.32	131	2.2	H	12.6	1.30	9.30	20.60	30	9.40
1752.60	82.61	173	2.2	V	11.2	1.30	9.30	19.20	30	10.80

Note:
Absolute Level = Substituted Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level
dBd is for the ERP, dBi is for EIRP.

LTE Band 2:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
1.4	QPSK	RB Size=1, RB Offset=0	22.33	22.45	22.55
		RB Size=1, RB Offset=2	22.49	22.54	22.76
		RB Size=1, RB Offset=5	22.39	22.47	22.54
		RB Size=3, RB Offset=0	22.51	22.50	22.56
		RB Size=3, RB Offset=1	22.50	22.53	22.54
		RB Size=3, RB Offset=2	21.45	21.55	21.56
		RB Size=6, RB Offset=0	21.40	21.52	21.47
	16QAM	RB Size=1, RB Offset=0	21.48	21.70	21.61
		RB Size=1, RB Offset=2	21.42	21.53	21.50
		RB Size=1, RB Offset=5	21.66	21.48	21.61
		RB Size=3, RB Offset=0	21.68	21.53	21.55
		RB Size=3, RB Offset=1	20.52	20.58	20.53
		RB Size=3, RB Offset=2	22.47	22.53	22.66
		RB Size=6, RB Offset=0	22.38	22.46	22.60
3.0	QPSK	RB Size=1, RB Offset=0	22.43	22.55	22.68
		RB Size=1, RB Offset=7	21.40	21.48	21.51
		RB Size=1, RB Offset=14	21.42	21.48	21.53
		RB Size=8, RB Offset=0	21.46	21.49	21.55
		RB Size=8, RB Offset=4	22.01	21.62	21.62
		RB Size=8, RB Offset=7	21.92	21.58	21.51
		RB Size=15, RB Offset=0	22.00	21.63	21.52
	16QAM	RB Size=1, RB Offset=0	20.54	20.56	20.52
		RB Size=1, RB Offset=7	20.53	20.56	20.51
		RB Size=1, RB Offset=14	20.56	20.51	20.60
		RB Size=8, RB Offset=0	22.47	22.53	22.66
		RB Size=8, RB Offset=4	22.38	22.46	22.60
		RB Size=8, RB Offset=7	22.43	22.55	22.68
		RB Size=15, RB Offset=0	21.40	21.44	21.51

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
5.0	QPSK	RB Size=1, RB Offset=0	22.46	22.54	22.58
		RB Size=1, RB Offset=12	22.45	22.51	22.53
		RB Size=1, RB Offset=24	22.47	22.57	22.61
		RB Size=12, RB Offset=0	21.45	21.51	21.58
		RB Size=12, RB Offset=6	21.47	21.53	21.52
		RB Size=12, RB Offset=11	21.47	21.50	21.51
		RB Size=25, RB Offset=0	21.37	21.79	21.63
	16QAM	RB Size=1, RB Offset=0	21.34	21.75	21.57
		RB Size=1, RB Offset=12	21.34	21.79	21.57
		RB Size=1, RB Offset=24	20.62	20.50	20.68
		RB Size=12, RB Offset=0	20.61	20.53	20.58
		RB Size=12, RB Offset=6	20.59	20.52	20.61
		RB Size=12, RB Offset=11	22.46	22.54	22.58
		RB Size=25, RB Offset=0	22.45	22.51	22.53
10.0	QPSK	RB Size=1, RB Offset=0	22.47	22.56	22.64
		RB Size=1, RB Offset=24	22.57	22.67	22.78
		RB Size=1, RB Offset=49	22.49	22.54	22.69
		RB Size=25, RB Offset=0	21.51	21.61	21.65
		RB Size=25, RB Offset=12	21.63	21.56	21.57
		RB Size=25, RB Offset=24	21.57	21.59	21.63
		RB Size=50, RB Offset=0	22.00	21.66	21.55
	16QAM	RB Size=1, RB Offset=0	22.13	21.76	21.72
		RB Size=1, RB Offset=24	22.03	21.68	21.60
		RB Size=1, RB Offset=49	20.68	20.65	20.77
		RB Size=25, RB Offset=0	20.74	20.61	20.73
		RB Size=25, RB Offset=12	20.66	20.62	20.68
		RB Size=25, RB Offset=24	22.47	22.56	22.64
		RB Size=50, RB Offset=0	22.57	22.67	22.78

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
15.0	QPSK	RB Size=1, RB Offset=0	22.40	22.52	22.53
		RB Size=1, RB Offset=37	22.40	22.54	22.53
		RB Size=1, RB Offset=74	22.41	22.49	22.19
		RB Size=36, RB Offset=0	21.52	21.66	21.56
		RB Size=36, RB Offset=18	21.62	21.63	21.64
		RB Size=36, RB Offset=37	21.60	21.67	21.58
		RB Size=75, RB Offset=0	21.97	21.60	21.79
	16QAM	RB Size=1, RB Offset=0	21.91	21.65	21.84
		RB Size=1, RB Offset=37	21.99	21.62	21.61
		RB Size=1, RB Offset=74	20.53	20.65	20.46
		RB Size=36, RB Offset=0	20.63	20.63	20.62
		RB Size=36, RB Offset=18	20.62	20.67	20.66
		RB Size=36, RB Offset=37	22.40	22.52	22.53
		RB Size=75, RB Offset=0	22.40	22.54	22.53
20.0	QPSK	RB Size=1, RB Offset=0	22.30	22.38	22.33
		RB Size=1, RB Offset=49	22.55	22.69	22.61
		RB Size=1, RB Offset=99	22.23	22.21	21.96
		RB Size=50, RB Offset=0	21.32	21.53	21.53
		RB Size=50, RB Offset=24	21.61	21.52	21.39
		RB Size=50, RB Offset=49	21.55	21.54	21.40
		RB Size=100, RB Offset=0	21.50	21.50	21.65
	16QAM	RB Size=1, RB Offset=0	21.69	21.82	22.00
		RB Size=1, RB Offset=49	21.55	21.53	21.59
		RB Size=1, RB Offset=99	20.49	20.57	20.55
		RB Size=50, RB Offset=0	20.60	20.56	20.51
		RB Size=50, RB Offset=24	20.60	20.58	20.57
		RB Size=50, RB Offset=49	22.30	22.38	22.33
		RB Size=100, RB Offset=0	22.55	22.69	22.61

Peak-to-average ratio (PAR)

20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.06	6.86	6.60	13	Pass
QPSK (100RB Size)	7.01	6.97	7.07	13	Pass
16QAM (1RB Size)	7.03	7.90	7.07	13	Pass
16QAM (100RB Size)	7.70	8.04	7.90	13	Pass

QPSK:

Frequency (MHz)	Receiver Reading (dBµV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 2 Low channel 1.4M 1850.7 MHz									
1850.70	85.36	85	1.8	H	15.7	1.30	9.40	23.80	33
1850.70	85.94	133	2.0	V	16.0	1.30	9.40	24.10	33
Band 2 Low channel 3M 1851.5 MHz									
1851.50	84.99	19	1.4	H	15.3	1.30	9.40	23.40	33
1851.50	85.53	346	1.4	V	15.6	1.30	9.40	23.70	33
Band 2 Low channel 5M 1852.5 MHz									
1852.50	84.89	164	1.0	H	15.2	1.30	9.40	23.30	33
1852.50	85.57	175	2.2	V	15.7	1.30	9.40	23.80	33
Band 2 Low channel 10M 1855 MHz									
1855.00	84.93	247	1.5	H	15.3	1.30	9.40	23.40	33
1855.00	85.47	168	1.8	V	15.6	1.30	9.40	23.70	33
Band 2 Low channel 15M 1857.5 MHz									
1857.50	84.69	76	2.1	H	15.0	1.30	9.40	23.10	33
1857.50	85.65	262	2.0	V	15.8	1.30	9.40	23.90	33
Band 2 Low channel 20M 1860 MHz									
1860.00	84.59	30	1.7	H	14.9	1.30	9.40	23.00	33
1860.00	85.71	247	1.8	V	15.8	1.30	9.40	23.90	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 2 Middle channel 1.4M 1880 MHz									
1880.00	85.46	230	1.9	H	15.8	1.30	9.40	23.90	33
1880.00	86.51	188	2.5	V	16.6	1.30	9.40	24.70	33
Band 2 Middle channel 3M 1880 MHz									
1880.00	85.39	133	1.7	H	15.7	1.30	9.40	23.80	33
1880.00	86.44	15	1.1	V	16.5	1.30	9.40	24.60	33
Band 2 Middle channel 5M 1880 MHz									
1880.00	84.97	110	1.3	H	15.3	1.30	9.40	23.40	33
1880.00	86.10	133	1.2	V	16.2	1.30	9.40	24.30	33
Band 2 Middle channel 10M 1880 MHz									
1880.00	85.13	58	1.5	H	15.5	1.30	9.40	23.60	33
1880.00	85.89	229	2.1	V	16.0	1.30	9.40	24.10	33
Band 2 Middle channel 15M 1880 MHz									
1880.00	84.81	70	2.0	H	15.1	1.30	9.40	23.20	33
1880.00	86.05	306	2.1	V	16.2	1.30	9.40	24.30	33
Band 2 Middle channel 20M 1880 MHz									
1880.00	84.77	141	2.3	H	15.1	1.30	9.40	23.20	33
1880.00	85.95	348	1.3	V	16.1	1.30	9.40	24.20	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 2 High channel 1.4M 1909.3 MHz									
1909.30	84.59	90	1.7	H	14.9	1.30	9.40	23.00	33
1909.30	85.86	326	1.4	V	16.0	1.30	9.40	24.10	33
Band 2 High channel 3M 1908.5 MHz									
1908.50	84.36	104	2.0	H	14.7	1.30	9.40	22.80	33
1908.50	85.55	334	1.5	V	15.7	1.30	9.40	23.80	33
Band 2 High channel 5M 1907.5 MHz									
1907.50	84.28	153	2.2	H	14.6	1.30	9.40	22.70	33
1907.50	85.57	308	2.3	V	15.7	1.30	9.40	23.80	33
Band 2 High channel 10M 1905 MHz									
1905.00	83.96	359	1.2	H	14.3	1.30	9.40	22.40	33
1905.00	85.39	241	1.4	V	15.5	1.30	9.40	23.60	33
Band 2 High channel 15M 1902.5MHz									
1902.50	83.91	43	1.7	H	14.2	1.30	9.40	22.30	33
1902.50	85.26	251	1.3	V	15.4	1.30	9.40	23.50	33
Band 2 High channel 20M 1900 MHz									
1900.00	83.89	242	1.6	H	14.2	1.30	9.40	22.30	33
1900.00	85.31	325	2.0	V	15.4	1.30	9.40	23.50	33

16QAM:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 2 low channel 1.4M 1850.7 MHz									
1850.70	86.65	184	1.8	H	17.0	1.30	9.40	25.10	33
1850.70	87.12	163	1.9	V	17.2	1.30	9.40	25.30	33
Band 2 low channel 3M 1851.5 MHz									
1851.50	86.47	187	1.9	H	16.8	1.30	9.40	24.90	33
1851.50	86.69	180	2.5	V	16.8	1.30	9.40	24.90	33
Band 2 low channel 5M 1852.5 MHz									
1852.50	86.33	275	1.6	H	16.7	1.30	9.40	24.80	33
1852.50	86.55	20	2.3	V	16.7	1.30	9.40	24.80	33
Band 2 low channel 10M 1855 MHz									
1855.00	85.75	305	2.4	H	16.1	1.30	9.40	24.20	33
1855.00	86.24	47	2.4	V	16.3	1.30	9.40	24.40	33
Band 2 low channel 15M 1857.5 MHz									
1857.50	85.66	249	1.9	H	16.0	1.30	9.40	24.10	33
1857.50	86.31	73	2.1	V	16.4	1.30	9.40	24.50	33
Band 2 low channel 20M 1860 MHz									
1860.00	85.57	125	1.7	H	15.9	1.30	9.40	24.00	33
1860.00	86.19	247	1.1	V	16.3	1.30	9.40	24.40	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 2 middle channel 1.4M 1880 MHz									
1880.00	85.47	269	1.9	H	15.8	1.30	9.40	23.90	33
1880.00	86.71	206	1.6	V	16.8	1.30	9.40	24.90	33
Band 2 middle channel 3M 1880 MHz									
1880.00	85.35	37	2.2	H	15.7	1.30	9.40	23.80	33
1880.00	86.49	234	1.6	V	16.6	1.30	9.40	24.70	33
Band 2 middle channel 5M 1880 MHz									
1880.00	85.22	229	2.5	H	15.5	1.30	9.40	23.60	33
1880.00	86.12	265	2.1	V	16.2	1.30	9.40	24.30	33
Band 2 middle channel 10M 1880 MHz									
1880.00	85.15	182	1.2	H	15.5	1.30	9.40	23.60	33
1880.00	85.96	349	2.0	V	16.1	1.30	9.40	24.20	33
Band 2 middle channel 15M 1880 MHz									
1880.00	84.98	283	1.9	H	15.3	1.30	9.40	23.40	33
1880.00	86.15	114	1.4	V	16.3	1.30	9.40	24.40	33
Band 2 middle channel 20M 1880 MHz									
1880.00	84.92	121	1.4	H	15.2	1.30	9.40	23.30	33
1880.00	86.01	257	1.4	V	16.1	1.30	9.40	24.20	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 2 high channel 1.4M 1909.3 MHz									
1909.30	85.01	69	1.9	H	15.3	1.30	9.40	23.40	33
1909.30	86.37	43	1.4	V	16.5	1.30	9.40	24.60	33
Band 2 high channel 3M 1908.5 MHz									
1908.50	84.87	280	1.3	H	15.2	1.30	9.40	23.30	33
1908.50	86.13	235	1.7	V	16.2	1.30	9.40	24.30	33
Band 2 high channel 5M 1907.5 MHz									
1907.50	84.78	267	1.7	H	15.1	1.30	9.40	23.20	33
1907.50	86.05	156	2.2	V	16.2	1.30	9.40	24.30	33
Band 2 high channel 10M 1905 MHz									
1905.00	84.61	115	1.4	H	14.9	1.30	9.40	23.00	33
1905.00	85.90	33	1.3	V	16.0	1.30	9.40	24.10	33
Band 2 high channel 15M 1902.5MHz									
1902.50	84.55	193	1.1	H	14.9	1.30	9.40	23.00	33
1902.50	85.89	208	2.5	V	16.0	1.30	9.40	24.10	33
Band 2 high channel 20M 1900 MHz									
1900.00	84.59	243	1.4	H	14.9	1.30	9.40	23.00	33
1900.00	85.46	33	2.4	V	15.6	1.30	9.40	23.70	33

LTE Band 4:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
1.4	QPSK	RB Size=1, RB Offset=0	22.18	22.20	22.20
		RB Size=1, RB Offset=2	22.15	22.34	22.30
		RB Size=1, RB Offset=5	21.99	22.22	22.20
		RB Size=3, RB Offset=0	22.15	22.28	22.20
		RB Size=3, RB Offset=1	22.10	22.29	22.22
		RB Size=3, RB Offset=2	21.28	21.24	21.19
		RB Size=6, RB Offset=0	21.03	21.29	21.12
	16QAM	RB Size=1, RB Offset=0	21.14	21.53	21.25
		RB Size=1, RB Offset=2	21.08	21.31	21.19
		RB Size=1, RB Offset=5	21.48	21.28	21.25
		RB Size=3, RB Offset=0	21.49	21.30	21.24
		RB Size=3, RB Offset=1	20.32	20.33	20.21
		RB Size=3, RB Offset=2	22.18	22.20	22.20
		RB Size=6, RB Offset=0	22.15	22.34	22.30
3.0	QPSK	RB Size=1, RB Offset=0	22.25	22.25	22.29
		RB Size=1, RB Offset=7	22.19	22.24	22.22
		RB Size=1, RB Offset=14	22.24	22.27	22.28
		RB Size=8, RB Offset=0	21.24	21.19	21.14
		RB Size=8, RB Offset=4	21.23	21.19	21.17
		RB Size=8, RB Offset=7	21.28	21.26	21.18
		RB Size=15, RB Offset=0	21.86	21.41	21.24
	16QAM	RB Size=1, RB Offset=0	21.74	21.34	21.14
		RB Size=1, RB Offset=7	21.81	21.38	21.20
		RB Size=1, RB Offset=14	20.34	20.28	20.15
		RB Size=8, RB Offset=0	20.36	20.34	20.15
		RB Size=8, RB Offset=4	20.36	20.27	20.28
		RB Size=8, RB Offset=7	22.25	22.25	22.29
		RB Size=15, RB Offset=0	22.19	22.24	22.22

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
5.0	QPSK	RB Size=1, RB Offset=0	22.25	22.27	22.19
		RB Size=1, RB Offset=12	22.29	22.25	22.19
		RB Size=1, RB Offset=24	22.27	22.25	22.23
		RB Size=12, RB Offset=0	21.26	21.28	21.27
		RB Size=12, RB Offset=6	21.31	21.27	21.20
		RB Size=12, RB Offset=11	21.26	21.30	21.20
		RB Size=25, RB Offset=0	21.12	21.51	21.27
	16QAM	RB Size=1, RB Offset=0	21.14	21.53	21.22
		RB Size=1, RB Offset=12	21.14	21.53	21.23
		RB Size=1, RB Offset=24	20.35	20.30	20.33
		RB Size=12, RB Offset=0	20.40	20.32	20.27
		RB Size=12, RB Offset=6	20.38	20.32	20.27
		RB Size=12, RB Offset=11	22.25	22.27	22.19
		RB Size=25, RB Offset=0	22.29	22.25	22.19
10.0	QPSK	RB Size=1, RB Offset=0	22.23	22.23	22.22
		RB Size=1, RB Offset=24	22.33	22.35	22.32
		RB Size=1, RB Offset=49	22.25	22.28	22.26
		RB Size=25, RB Offset=0	21.26	21.32	21.25
		RB Size=25, RB Offset=12	21.33	21.30	21.17
		RB Size=25, RB Offset=24	21.27	21.31	21.19
		RB Size=50, RB Offset=0	21.82	21.37	21.22
	16QAM	RB Size=1, RB Offset=0	21.92	21.52	21.32
		RB Size=1, RB Offset=24	21.81	21.36	21.19
		RB Size=1, RB Offset=49	20.34	20.39	20.36
		RB Size=25, RB Offset=0	20.42	20.39	20.28
		RB Size=25, RB Offset=12	20.34	20.37	20.25
		RB Size=25, RB Offset=24	22.23	22.23	22.22
		RB Size=50, RB Offset=0	22.33	22.35	22.32

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
15.0	QPSK	RB Size=1, RB Offset=0	22.22	22.21	22.21
		RB Size=1, RB Offset=37	22.22	22.24	22.26
		RB Size=1, RB Offset=74	22.18	22.21	22.21
		RB Size=36, RB Offset=0	21.27	21.37	21.29
		RB Size=36, RB Offset=18	21.38	21.31	21.29
		RB Size=36, RB Offset=37	21.32	21.33	21.32
		RB Size=75, RB Offset=0	21.77	21.30	21.58
	16QAM	RB Size=1, RB Offset=0	21.76	21.37	21.53
		RB Size=1, RB Offset=37	21.72	21.33	21.50
		RB Size=1, RB Offset=74	20.33	20.40	20.28
		RB Size=36, RB Offset=0	20.41	20.35	20.23
		RB Size=36, RB Offset=18	20.37	20.40	20.29
		RB Size=36, RB Offset=37	22.22	22.21	22.21
		RB Size=75, RB Offset=0	22.22	22.24	22.26
20.0	QPSK	RB Size=1, RB Offset=0	22.08	22.10	22.03
		RB Size=1, RB Offset=49	22.38	22.43	22.32
		RB Size=1, RB Offset=99	22.14	22.15	22.07
		RB Size=50, RB Offset=0	21.21	21.35	21.22
		RB Size=50, RB Offset=24	21.23	21.29	21.22
		RB Size=50, RB Offset=49	21.23	21.33	21.24
		RB Size=100, RB Offset=0	21.38	21.28	21.60
	16QAM	RB Size=1, RB Offset=0	21.65	21.58	21.88
		RB Size=1, RB Offset=49	21.41	21.32	21.57
		RB Size=1, RB Offset=99	20.24	20.37	20.27
		RB Size=50, RB Offset=0	20.30	20.30	20.22
		RB Size=50, RB Offset=24	20.30	20.38	20.25
		RB Size=50, RB Offset=49	20.08	20.10	20.03
		RB Size=100, RB Offset=0	20.38	20.43	20.32

Peak-to-average ratio (PAR)

20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	7.17	6.64	7.09	13	Pass
QPSK (100RB Size)	7.18	6.11	7.21	13	Pass
16QAM (1RB Size)	8.11	7.82	7.81	13	Pass
16QAM (100RB Size)	7.91	8.10	8.21	13	Pass

QPSK:

Frequency (MHz)	Receiver Reading (dBµV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 4 low channel 1.4M 1710.7 MHz									
1710.70	85.33	339	2.0	H	12.0	1.30	8.90	19.60	30
1710.70	86.53	54	2.2	V	13.8	1.30	8.90	21.40	30
Band 4 low channel 3M 1711.5 MHz									
1711.50	85.27	283	1.3	H	11.9	1.30	8.90	19.50	30
1711.50	86.49	12	1.3	V	13.8	1.30	8.90	21.40	30
Band 4 low channel 5M 1712.5 MHz									
1712.50	85.11	358	2.4	H	11.8	1.30	8.90	19.40	30
1712.50	86.23	156	1.1	V	13.5	1.30	8.90	21.10	30
Band 4 low channel 10M 1715 MHz									
1715.00	85.09	300	2.0	H	11.8	1.30	8.90	19.40	30
1715.00	86.27	181	2.1	V	13.5	1.30	8.90	21.10	30
Band 4 low channel 15M 1717.5 MHz									
1717.50	84.91	81	2.4	H	11.6	1.30	8.90	19.20	30
1717.50	86.18	217	1.6	V	13.5	1.30	8.90	21.10	30
Band 4 low channel 20M 1720 MHz									
1720.00	85.02	178	1.1	H	11.7	1.30	8.90	19.30	30
1720.00	86.09	163	1.6	V	13.4	1.30	8.90	21.00	30

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 4middle channel 1.4M 1732.5 MHz									
1732.50	85.24	140	2.3	H	11.9	1.30	8.90	19.50	30
1732.50	86.17	145	1.8	V	13.4	1.30	8.90	21.00	30
Band 4middle channel 3M 1732.5 MHz									
1732.50	85.34	178	2.1	H	12.0	1.30	8.90	19.60	30
1732.50	86.04	254	2.1	V	13.3	1.30	8.90	20.90	30
Band 4 middle channel 5M 1732.5 MHz									
1732.50	85.19	357	1.7	H	11.9	1.30	8.90	19.50	30
1732.50	85.76	340	1.0	V	13.0	1.30	8.90	20.60	30
Band 4 middle channel 10M 1732.5 MHz									
1732.50	85.69	225	2.4	H	12.4	1.30	8.90	20.00	30
1732.50	85.37	244	1.0	V	12.6	1.30	8.90	20.20	30
Band 4 middle channel 15M 1732.5 MHz									
1732.50	85.72	100	1.2	H	12.4	1.30	8.90	20.00	30
1732.50	85.35	123	2.0	V	12.6	1.30	8.90	20.20	30
Band 4 middle channel 20M 1732.5 MHz									
1732.50	85.09	343	1.3	H	11.8	1.30	8.90	19.40	30
1732.50	85.07	275	1.1	V	12.3	1.30	8.90	19.90	30

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 4 high channel 1.4M 1754.3 MHz									
1754.30	86.15	119	1.1	H	14.4	1.30	9.30	22.40	30
1754.30	86.91	344	2.3	V	15.5	1.30	9.30	23.50	30
Band 4 high channel 3M 1753.5 MHz									
1753.50	85.88	98	1.6	H	14.1	1.30	9.30	22.10	30
1753.50	86.47	161	2.2	V	15.1	1.30	9.30	23.10	30
Band 4 high channel 5M 1752.5 MHz									
1752.50	85.76	294	1.3	H	14.0	1.30	9.30	22.00	30
1752.50	86.44	166	2.2	V	15.1	1.30	9.30	23.10	30
Band 4 high channel 10M 1750 MHz									
1750.00	85.38	298	2.0	H	13.6	1.30	9.30	21.60	30
1750.00	86.27	341	2.4	V	14.9	1.30	9.30	22.90	30
Band 4 high channel 15M 1747.5 MHz									
1747.50	85.24	273	2.4	H	11.9	1.30	8.90	19.50	30
1747.50	85.96	307	1.1	V	13.2	1.30	8.90	20.80	30
Band 4 high channel 20M 1745 MHz									
1745.00	85.18	360	2.0	H	11.9	1.30	8.90	19.50	30
1745.00	85.89	215	2.0	V	13.2	1.30	8.90	20.80	30

16QAM:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 4 low channel 1.4M 1710.7 MHz									
1710.70	85.47	135	2.0	H	12.1	1.30	8.90	19.70	30
1710.70	86.88	347	1.3	V	14.2	1.30	8.90	21.80	30
Band 4 low channel 3M 1711.5 MHz									
1711.50	85.33	64	1.9	H	12.0	1.30	8.90	19.60	30
1711.50	86.62	358	2.2	V	13.9	1.30	8.90	21.50	30
Band 4 low channel 5M 1712.5 MHz									
1712.50	85.21	72	1.1	H	11.9	1.30	8.90	19.50	30
1712.50	86.52	16	1.1	V	13.8	1.30	8.90	21.40	30
Band 4 low channel 10M 1715 MHz									
1715.00	85.11	78	1.7	H	11.8	1.30	8.90	19.40	30
1715.00	86.29	243	2.4	V	13.6	1.30	8.90	21.20	30
Band 4 low channel 15M 1717.5 MHz									
1717.50	84.96	170	2.1	H	11.6	1.30	8.90	19.20	30
1717.50	86.00	62	1.1	V	13.3	1.30	8.90	20.90	30
Band 4 low channel 20M 1720 MHz									
1720.00	84.85	13	2.1	H	11.5	1.30	8.90	19.10	30
1720.00	85.93	70	2.3	V	13.2	1.30	8.90	20.80	30

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 4middle channel 1.4M 1732.5 MHz									
1732.50	85.28	250	2.1	H	12.0	1.30	8.90	19.60	30
1732.50	86.77	299	1.7	V	14.0	1.30	8.90	21.60	30
Band 4middle channel 3M 1732.5 MHz									
1732.50	84.96	43	2.1	H	11.6	1.30	8.90	19.20	30
1732.50	86.27	177	2.2	V	13.5	1.30	8.90	21.10	30
Band 4 middle channel 5M 1732.5 MHz									
1732.50	85.01	248	1.8	H	11.7	1.30	8.90	19.30	30
1732.50	86.19	269	1.1	V	13.5	1.30	8.90	21.10	30
Band 4 middle channel 10M 1732.5 MHz									
1732.50	84.88	145	2.5	H	11.6	1.30	8.90	19.20	30
1732.50	86.05	170	1.1	V	13.3	1.30	8.90	20.90	30
Band 4 middle channel 15M 1732.5 MHz									
1732.50	84.67	247	1.2	H	11.3	1.30	8.90	18.90	30
1732.50	85.92	233	2.5	V	13.2	1.30	8.90	20.80	30
Band 4 middle channel 20M 1732.5 MHz									
1732.50	84.58	123	1.5	H	11.3	1.30	8.90	18.90	30
1732.50	85.87	131	2.0	V	13.1	1.30	8.90	20.70	30

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 4 high channel 1.4M 1754.3 MHz									
1754.30	85.17	71	2.0	H	13.4	1.30	9.30	21.40	30
1754.30	86.24	99	2.5	V	14.9	1.30	9.30	22.90	30
Band 4 high channel 3M 1753.5 MHz									
1753.50	85.05	278	1.7	H	13.3	1.30	9.30	21.30	30
1753.50	86.17	75	1.7	V	14.8	1.30	9.30	22.80	30
Band 4 high channel 5M 1752.5 MHz									
1752.50	84.82	188	2.5	H	13.1	1.30	9.30	21.10	30
1752.50	85.89	21	1.3	V	14.5	1.30	9.30	22.50	30
Band 4 high channel 10M 1750 MHz									
1750.00	84.75	38	1.5	H	13.0	1.30	9.30	21.00	30
1750.00	86.00	293	2.3	V	14.6	1.30	9.30	22.60	30
Band 4 high channel 15M 1747.5 MHz									
1747.50	84.69	20	1.6	H	11.4	1.30	8.90	19.00	30
1747.50	85.86	192	1.9	V	13.1	1.30	8.90	20.70	30
Band 4 high channel 20M 1745 MHz									
1745.00	84.57	204	1.4	H	11.2	1.30	8.90	18.80	30
1745.00	85.78	232	1.8	V	13.1	1.30	8.90	20.70	30

LTE Band 5:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
1.4	QPSK	RB Size=1, RB Offset=0	23.03	23.05	23.00
		RB Size=1, RB Offset=2	23.21	23.22	23.21
		RB Size=1, RB Offset=5	23.01	23.04	23.06
		RB Size=3, RB Offset=0	23.13	23.07	22.99
		RB Size=3, RB Offset=1	23.08	23.05	23.03
		RB Size=3, RB Offset=2	22.11	22.06	22.02
		RB Size=6, RB Offset=0	22.00	22.08	21.88
	16QAM	RB Size=1, RB Offset=0	22.14	22.24	22.06
		RB Size=1, RB Offset=2	22.00	22.09	21.96
		RB Size=1, RB Offset=5	22.28	22.03	22.00
		RB Size=3, RB Offset=0	22.24	22.07	22.04
		RB Size=3, RB Offset=1	21.13	21.08	20.97
		RB Size=3, RB Offset=2	23.03	23.05	23.00
		RB Size=6, RB Offset=0	23.21	23.22	23.21
3.0	QPSK	RB Size=1, RB Offset=0	23.13	23.12	23.07
		RB Size=1, RB Offset=7	23.04	23.07	23.04
		RB Size=1, RB Offset=14	23.04	23.09	23.11
		RB Size=8, RB Offset=0	22.05	22.02	21.94
		RB Size=8, RB Offset=4	22.04	22.01	21.97
		RB Size=8, RB Offset=7	22.09	22.06	21.96
		RB Size=15, RB Offset=0	22.63	22.17	21.97
	16QAM	RB Size=1, RB Offset=0	22.56	22.11	21.92
		RB Size=1, RB Offset=7	22.51	22.16	21.96
		RB Size=1, RB Offset=14	21.13	21.04	20.90
		RB Size=8, RB Offset=0	21.10	21.11	20.90
		RB Size=8, RB Offset=4	21.16	21.03	20.99
		RB Size=8, RB Offset=7	23.13	23.12	23.07
		RB Size=15, RB Offset=0	23.04	23.07	23.04

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
5.0	QPSK	RB Size=1, RB Offset=0	23.08	23.11	23.03
		RB Size=1, RB Offset=12	23.05	23.09	22.99
		RB Size=1, RB Offset=24	23.08	23.08	23.07
		RB Size=12, RB Offset=0	22.10	22.02	22.03
		RB Size=12, RB Offset=6	22.08	22.04	21.97
		RB Size=12, RB Offset=11	22.09	22.06	21.98
		RB Size=25, RB Offset=0	21.97	22.26	22.04
	16QAM	RB Size=1, RB Offset=0	21.94	22.23	22.01
		RB Size=1, RB Offset=12	21.92	22.25	21.97
		RB Size=1, RB Offset=24	21.16	21.04	21.06
		RB Size=12, RB Offset=0	21.15	21.03	20.97
		RB Size=12, RB Offset=6	21.16	21.07	20.99
		RB Size=12, RB Offset=11	23.08	23.11	23.03
		RB Size=25, RB Offset=0	23.05	23.09	22.99
10.0	QPSK	RB Size=1, RB Offset=0	23.09	23.14	23.11
		RB Size=1, RB Offset=24	23.23	23.24	23.21
		RB Size=1, RB Offset=49	23.14	23.07	23.14
		RB Size=25, RB Offset=0	22.14	22.12	22.09
		RB Size=25, RB Offset=12	22.14	22.07	22.00
		RB Size=25, RB Offset=24	22.11	22.11	22.05
		RB Size=50, RB Offset=0	22.59	22.23	22.04
	16QAM	RB Size=1, RB Offset=0	22.68	22.28	22.14
		RB Size=1, RB Offset=24	22.50	22.13	21.99
		RB Size=1, RB Offset=49	21.17	21.14	21.16
		RB Size=25, RB Offset=0	21.22	21.14	21.13
		RB Size=25, RB Offset=12	21.16	21.15	21.10
		RB Size=25, RB Offset=24	23.09	23.14	23.11
		RB Size=50, RB Offset=0	23.23	23.24	23.21

Peak-to-average ratio (PAR)

10MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.72	6.77	6.32	13	Pass
QPSK (50RB Size)	6.62	7.32	6.20	13	Pass
16QAM (1RB Size)	7.28	7.72	7.07	13	Pass
16QAM (50RB Size)	7.64	8.24	7.32	13	Pass

QPSK:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd)		
Low channel									
1.4 MHz Bandwidth									
824.7	77.64	181	1.1	H	18.3	1.90	0.0	16.40	38.45
824.7	78.53	323	1.4	V	18.5	1.90	0.0	16.60	38.45
3 MHz Bandwidth									
825.5	77.51	337	1.9	H	18.1	1.90	0.0	16.20	38.45
825.5	78.42	100	1.3	V	18.4	1.90	0.0	16.50	38.45
5 MHz Bandwidth									
826.5	77.36	190	2.3	H	18.0	1.90	0.0	16.10	38.45
826.5	77.69	276	2.3	V	17.7	1.90	0.0	15.80	38.45
10 MHz Bandwidth									
829.0	77.07	275	1.5	H	17.7	1.90	0.0	15.80	38.45
829.0	77.22	39	1.5	V	17.2	1.90	0.0	15.30	38.45

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd)		
Middle channel									
1.4 MHz Bandwidth									
836.5	77.56	180	1.4	H	17.6	1.90	0.0	15.70	38.45
836.5	78.20	143	1.7	V	18.2	1.90	0.0	16.30	38.45
3 MHz Bandwidth									
836.5	77.65	289	1.5	H	17.7	1.90	0.0	15.80	38.45
836.5	78.02	37	2.3	V	18.0	1.90	0.0	16.10	38.45
5 MHz Bandwidth									
836.5	77.24	122	1.9	H	17.2	1.90	0.0	15.30	38.45
836.5	77.86	294	2.2	V	17.9	1.90	0.0	16.00	38.45
10 MHz Bandwidth									
836.5	76.73	162	2.1	H	16.7	1.90	0.0	14.80	38.45
836.5	77.93	306	2.1	V	17.9	1.90	0.0	16.00	38.45
High channel									
1.4 MHz Bandwidth									
848.3	77.64	181	1.1	H	18.3	1.90	0.0	16.40	38.45
848.3	78.53	323	1.4	V	18.5	1.90	0.0	16.60	38.45
3 MHz Bandwidth									
847.5	77.51	337	1.9	H	18.1	1.90	0.0	16.20	38.45
847.5	78.42	100	1.3	V	18.4	1.90	0.0	16.50	38.45
5 MHz Bandwidth									
846.5	77.36	190	2.3	H	18.0	1.90	0.0	16.10	38.45
846.5	77.69	276	2.3	V	17.7	1.90	0.0	15.80	38.45
10 MHz Bandwidth									
844.0	77.07	275	1.5	H	17.7	1.90	0.0	15.80	38.45
844.0	77.22	39	1.5	V	17.2	1.90	0.0	15.30	38.45

16QAM:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd)		
Low channel									
1.4 MHz Bandwidth									
824.7	77.42	122	1.4	H	18.0	1.90	0.0	16.10	38.45
824.7	78.77	96	1.5	V	18.8	1.90	0.0	16.90	38.45
3 MHz Bandwidth									
825.5	77.33	157	1.1	H	18.0	1.90	0.0	16.10	38.45
825.5	78.24	214	1.2	V	18.2	1.90	0.0	16.30	38.45
5 MHz Bandwidth									
826.5	77.18	133	1.8	H	17.8	1.90	0.0	15.90	38.45
826.5	77.85	287	1.4	V	17.9	1.90	0.0	16.00	38.45
10 MHz Bandwidth									
829.0	76.88	254	1.5	H	17.5	1.90	0.0	15.60	38.45
829.0	77.34	255	1.4	V	17.3	1.90	0.0	15.40	38.45
Middle channel									
1.4 MHz Bandwidth									
836.5	76.74	257	2.0	H	16.7	1.90	0.0	14.80	38.45
836.5	78.13	26	2.3	V	18.1	1.90	0.0	16.20	38.45
3 MHz Bandwidth									
836.5	76.62	0	1.2	H	16.6	1.90	0.0	14.70	38.45
836.5	77.76	157	1.3	V	17.8	1.90	0.0	15.90	38.45
5 MHz Bandwidth									
836.5	76.55	244	1.0	H	16.6	1.90	0.0	14.70	38.45
836.5	78.46	358	1.4	V	18.5	1.90	0.0	16.60	38.45
10 MHz Bandwidth									
836.5	76.47	72	1.6	H	16.5	1.90	0.0	14.60	38.45
836.5	78.06	92	1.1	V	18.1	1.90	0.0	16.20	38.45
High channel									
1.4MHz Bandwidth									
848.3	77.42	122	1.4	H	18.0	1.90	0.0	16.10	38.45
848.3	78.77	96	1.5	V	18.8	1.90	0.0	16.90	38.45
3MHz Bandwidth									
847.5	77.33	157	1.1	H	18.0	1.90	0.0	16.10	38.45
847.5	78.24	214	1.2	V	18.2	1.90	0.0	16.30	38.45
5MHz Bandwidth									
846.5	77.18	133	1.8	H	17.8	1.90	0.0	15.90	38.45
846.5	77.85	287	1.4	V	17.9	1.90	0.0	16.00	38.45
10MHz Bandwidth									
844.0	76.88	254	1.5	H	17.5	1.90	0.0	15.60	38.45
844.0	77.34	255	1.4	V	17.3	1.90	0.0	15.40	38.45

LTE Band 7:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
5	QPSK	RB Size=1, RB Offset=0	21.65	21.32	21.30
		RB Size=1, RB Offset=12	21.29	21.35	21.36
		RB Size=1, RB Offset=24	21.23	21.29	21.36
		RB Size=12, RB Offset=0	20.30	20.33	20.46
		RB Size=12, RB Offset=6	20.32	20.34	20.42
		RB Size=12, RB Offset=11	20.30	20.31	20.40
		RB Size=25, RB Offset=0	20.17	20.65	20.40
	16QAM	RB Size=1, RB Offset=0	20.19	20.64	20.47
		RB Size=1, RB Offset=12	20.15	20.58	20.43
		RB Size=1, RB Offset=24	19.32	19.34	19.48
		RB Size=12, RB Offset=0	19.35	19.33	19.43
		RB Size=12, RB Offset=6	19.33	19.36	19.44
		RB Size=12, RB Offset=11	21.65	21.32	21.30
		RB Size=25, RB Offset=0	21.29	21.35	21.36
10	QPSK	RB Size=1, RB Offset=0	21.28	21.30	21.36
		RB Size=1, RB Offset=24	21.36	21.42	21.49
		RB Size=1, RB Offset=49	21.25	21.33	21.41
		RB Size=25, RB Offset=0	20.29	20.36	20.33
		RB Size=25, RB Offset=12	20.29	20.34	20.37
		RB Size=25, RB Offset=24	20.28	20.32	20.42
		RB Size=50, RB Offset=0	20.82	20.48	20.38
	16QAM	RB Size=1, RB Offset=0	20.93	20.59	20.50
		RB Size=1, RB Offset=24	20.88	20.52	20.42
		RB Size=1, RB Offset=49	19.36	19.38	19.45
		RB Size=25, RB Offset=0	19.37	19.41	19.46
		RB Size=25, RB Offset=12	19.30	19.37	19.42
		RB Size=25, RB Offset=24	21.28	21.30	21.36
		RB Size=50, RB Offset=0	21.36	21.42	21.49

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
15	QPSK	RB Size=1, RB Offset=0	21.22	21.24	21.30
		RB Size=1, RB Offset=37	21.22	21.29	21.34
		RB Size=1, RB Offset=74	21.18	21.27	21.42
		RB Size=36, RB Offset=0	20.28	20.34	20.43
		RB Size=36, RB Offset=18	20.34	20.38	20.49
		RB Size=36, RB Offset=37	20.32	20.38	20.47
		RB Size=75, RB Offset=0	20.78	20.42	20.77
	16QAM	RB Size=1, RB Offset=0	20.80	20.43	20.76
		RB Size=1, RB Offset=37	20.79	20.45	20.73
		RB Size=1, RB Offset=74	19.28	19.37	19.35
		RB Size=36, RB Offset=0	19.31	19.40	19.43
		RB Size=36, RB Offset=18	19.29	19.38	19.44
		RB Size=36, RB Offset=37	21.22	21.24	21.30
		RB Size=75, RB Offset=0	21.22	21.29	21.34
20	QPSK	RB Size=1, RB Offset=0	21.08	21.13	21.19
		RB Size=1, RB Offset=49	21.36	21.49	21.44
		RB Size=1, RB Offset=99	21.09	21.25	21.23
		RB Size=50, RB Offset=0	20.24	20.25	20.36
		RB Size=50, RB Offset=24	20.21	20.26	20.41
		RB Size=50, RB Offset=49	20.23	20.29	20.43
		RB Size=100, RB Offset=0	20.42	20.39	20.80
	16QAM	RB Size=1, RB Offset=0	20.74	20.66	20.95
		RB Size=1, RB Offset=49	20.45	20.43	20.78
		RB Size=1, RB Offset=99	19.23	19.35	19.41
		RB Size=50, RB Offset=0	19.28	19.32	19.42
		RB Size=50, RB Offset=24	19.28	19.29	19.44
		RB Size=50, RB Offset=49	21.08	21.13	21.19
		RB Size=100, RB Offset=0	21.36	21.49	21.44

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.41	7.01	6.75	13	Pass
QPSK (100RB Size)	6.43	6.83	7.12	13	Pass
16QAM (1RB Size)	7.63	7.26	7.53	13	Pass
16QAM (100RB Size)	7.34	7.83	8.35	13	Pass

EIRP:

QPSK:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 7 low channel 5M 2502.5 MHz									
2502.50	77.52	304	2.4	H	7.4	2.60	10.20	15.00	33
2502.50	80.94	284	1.9	V	11.4	2.60	10.20	19.00	33
Band 7 low channel 10M 2505 MHz									
2505.00	77.47	13	2.1	H	7.3	2.60	10.20	14.90	33
2505.00	80.68	57	1.3	V	11.1	2.60	10.20	18.70	33
Band 7 low channel 15M 2507.5 MHz									
2507.50	77.29	85	1.3	H	7.1	2.60	10.20	14.70	33
2507.50	80.49	267	1.3	V	10.9	2.60	10.20	18.50	33
Band 7 low channel 20M 2510 MHz									
2510.00	77.31	251	1.0	H	7.1	2.60	10.20	14.70	33
2510.00	80.52	350	1.7	V	11.0	2.60	10.20	18.60	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 7 middle channel 5M 2535 MHz									
2535.00	78.94	206	2.5	H	8.8	2.60	10.20	16.40	33
2535.00	81.56	80	1.4	V	12.0	2.60	10.20	19.60	33
Band 7 middle channel 10M 2535 MHz									
2535.00	78.85	16	1.8	H	8.7	2.60	10.20	16.30	33
2535.00	81.39	353	1.3	V	11.8	2.60	10.20	19.40	33
Band 7 middle channel 15M 2535 MHz									
2535.00	78.57	298	2.1	H	8.4	2.60	10.20	16.00	33
2535.00	81.11	340	1.5	V	11.6	2.60	10.20	19.20	33
Band 7 middle channel 20M 2535 MHz									
2535.00	78.66	33	1.8	H	8.5	2.60	10.20	16.10	33
2535.00	81.05	12	1.4	V	11.5	2.60	10.20	19.10	33
Band 7 high channel 5M 2567.5 MHz									
2567.50	76.49	204	1.7	H	6.4	2.20	10.20	14.40	33
2567.50	80.38	48	2.0	V	10.7	2.20	10.20	18.70	33
Band 7 high channel 10M 2565 MHz									
2565.00	76.28	83	1.2	H	6.2	2.20	10.20	14.20	33
2565.00	80.17	265	1.2	V	10.5	2.20	10.20	18.50	33
Band 7 high channel 15M 2562.5 MHz									
2562.50	75.98	44	1.7	H	5.9	2.20	10.20	13.90	33
2562.50	79.99	354	1.0	V	10.3	2.20	10.20	18.30	33
Band 7 high channel 20M 2560 MHz									
2560.00	75.91	323	2.4	H	5.8	2.20	10.20	13.80	33
2560.00	80.06	286	1.2	V	10.4	2.20	10.20	18.40	33

16QAM:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 7 low channel 5M 2502.5 MHz									
2502.50	76.38	289	1.4	H	6.2	2.60	10.20	13.80	33
2502.50	80.42	124	1.4	V	10.9	2.60	10.20	18.50	33
Band 7 low channel 10M 2505 MHz									
2505.00	76.22	224	1.3	H	6.1	2.60	10.20	13.70	33
2505.00	80.18	217	2.1	V	10.6	2.60	10.20	18.20	33
Band 7 low channel 15M 2507.5 MHz									
2507.50	76.12	223	1.7	H	6.0	2.60	10.20	13.60	33
2507.50	79.95	101	2.4	V	10.4	2.60	10.20	18.00	33
Band 7 low channel 20M 2510 MHz									
2510.00	75.85	188	2.2	H	5.7	2.60	10.20	13.30	33
2510.00	79.59	190	1.4	V	10.0	2.60	10.20	17.60	33
Band 7 middle channel 5M 2535 MHz									
2535.00	76.35	126	1.5	H	6.2	2.60	10.20	13.80	33
2535.00	80.88	215	1.9	V	11.3	2.60	10.20	18.90	33
Band 7 middle channel 10M 2535 MHz									
2535.00	75.96	184	2.0	H	5.8	2.60	10.20	13.40	33
2535.00	80.28	184	1.2	V	10.7	2.60	10.20	18.30	33
Band 7 middle channel 15M 2535 MHz									
2535.00	75.86	251	1.8	H	5.7	2.60	10.20	13.30	33
2535.00	80.17	268	1.0	V	10.6	2.60	10.20	18.20	33
Band 7 middle channel 20M 2535 MHz									
2535.00	75.75	255	1.1	H	5.6	2.60	10.20	13.20	33
2535.00	79.82	6	1.6	V	10.3	2.60	10.20	17.90	33
Band 7 high channel 5M 2567.5 MHz									
2567.50	76.01	35	1.6	H	5.9	2.20	10.20	13.90	33
2567.50	80.12	240	1.7	V	10.4	2.20	10.20	18.40	33
Band 7 high channel 10M 2565 MHz									
2565.00	75.59	112	2.1	H	5.5	2.20	10.20	13.50	33
2565.00	79.48	113	1.7	V	9.8	2.20	10.20	17.80	33
Band 7 high channel 15M 2562.5 MHz									
2562.50	75.52	151	1.3	H	5.5	2.20	10.20	13.50	33
2562.50	79.62	250	2.0	V	9.9	2.20	10.20	17.90	33
Band 7 high channel 20M 2560 MHz									
2560.00	75.48	254	1.6	H	5.4	2.20	10.20	13.40	33
2560.00	79.58	219	2.2	V	9.9	2.20	10.20	17.90	33

LTE Band 38:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
5	QPSK	RB Size=1, RB Offset=0	21.44	21.39	21.47
		RB Size=1, RB Offset=12	21.44	21.38	21.51
		RB Size=1, RB Offset=24	21.44	21.38	21.50
		RB Size=12, RB Offset=0	20.46	20.40	20.52
		RB Size=12, RB Offset=6	20.43	20.41	20.52
		RB Size=12, RB Offset=11	20.44	20.42	20.54
		RB Size=25, RB Offset=0	21.44	21.39	21.47
	16QAM	RB Size=1, RB Offset=0	20.70	20.42	20.53
		RB Size=1, RB Offset=12	20.68	20.44	20.56
		RB Size=1, RB Offset=24	20.69	20.39	20.54
		RB Size=12, RB Offset=0	19.47	19.35	19.51
		RB Size=12, RB Offset=6	19.48	19.37	19.55
		RB Size=12, RB Offset=11	19.43	19.41	19.56
		RB Size=25, RB Offset=0	20.70	20.42	20.53
10	QPSK	RB Size=1, RB Offset=0	21.43	21.46	21.47
		RB Size=1, RB Offset=24	21.61	21.68	21.73
		RB Size=1, RB Offset=49	21.44	21.43	21.57
		RB Size=25, RB Offset=0	20.48	20.47	20.47
		RB Size=25, RB Offset=12	20.50	20.45	20.52
		RB Size=25, RB Offset=24	20.46	20.44	20.48
		RB Size=50, RB Offset=0	21.43	21.46	21.47
	16QAM	RB Size=1, RB Offset=0	20.66	20.36	20.58
		RB Size=1, RB Offset=24	20.83	20.59	20.79
		RB Size=1, RB Offset=49	20.63	20.36	20.65
		RB Size=25, RB Offset=0	19.45	19.47	19.51
		RB Size=25, RB Offset=12	19.48	19.49	19.54
		RB Size=25, RB Offset=24	19.44	19.43	19.50
		RB Size=50, RB Offset=0	20.66	20.36	20.58

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15	QPSK	RB Size=1, RB Offset=0	21.16	21.33	21.26
		RB Size=1, RB Offset=37	20.86	20.89	21.06
		RB Size=1, RB Offset=74	20.57	20.74	20.95
		RB Size=36, RB Offset=0	20.12	20.26	20.37
		RB Size=36, RB Offset=18	20.22	20.35	20.43
		RB Size=36, RB Offset=37	20.23	20.37	20.45
		RB Size=75, RB Offset=0	20.44	20.71	20.68
	16QAM	RB Size=1, RB Offset=0	20.88	20.65	20.87
		RB Size=1, RB Offset=37	20.63	20.75	20.89
		RB Size=1, RB Offset=74	19.26	19.33	19.41
		RB Size=36, RB Offset=0	19.32	19.36	19.52
		RB Size=36, RB Offset=18	19.39	19.42	19.46
		RB Size=36, RB Offset=37	21.23	21.32	21.41
		RB Size=75, RB Offset=0	21.20	21.16	21.51
20	QPSK	RB Size=1, RB Offset=0	21.11	21.16	21.25
		RB Size=1, RB Offset=49	21.26	21.39	21.67
		RB Size=1, RB Offset=99	21.06	21.29	21.34
		RB Size=50, RB Offset=0	20.35	20.41	20.32
		RB Size=50, RB Offset=24	20.19	20.31	20.43
		RB Size=50, RB Offset=49	20.43	20.59	20.52
		RB Size=100, RB Offset=0	20.06	20.22	20.53
	16QAM	RB Size=1, RB Offset=0	20.82	20.89	20.95
		RB Size=1, RB Offset=49	20.36	20.29	20.39
		RB Size=1, RB Offset=99	19.37	19.43	19.42
		RB Size=50, RB Offset=0	19.16	19.35	19.36
		RB Size=50, RB Offset=24	19.68	19.45	19.44
		RB Size=50, RB Offset=49	20.83	20.96	20.98
		RB Size=100, RB Offset=0	21.26	21.44	21.53

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	7.33	6.61	6.541	13	Pass
QPSK (100RB Size)	6.46	6.44	6.74	13	Pass
16QAM (1RB Size)	7.04	7.44	7.46	13	Pass
16QAM (100RB Size)	7.74	7.54	7.84	13	Pass

QPSK:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 38 Low channel 5M 2572.5 MHz									
2572.50	75.88	309	1.4	H	5.8	2.20	10.20	13.80	33
2572.50	79.82	104	1.4	V	10.1	2.20	10.20	18.10	33
Band 38 Low channel 10M 2575 MHz									
2575.00	75.54	243	1.9	H	5.5	2.20	10.20	13.50	33
2575.00	79.56	97	1.9	V	9.9	2.20	10.20	17.90	33
Band 38 Low channel 15M 2577.5 MHz									
2577.50	75.47	272	1.4	H	5.4	2.20	10.20	13.40	33
2577.50	79.64	357	1.2	V	9.9	2.20	10.20	17.90	33
Band 38 Low channel 20M 2580 MHz									
2580.00	75.39	34	2.1	H	5.3	2.20	10.20	13.30	33
2580.00	79.58	282	2.4	V	9.9	2.20	10.20	17.90	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 38 Middle channel 5M 2595 MHz									
2595.00	76.33	163	2.4	H	6.3	2.20	10.20	14.30	33
2595.00	79.78	192	2.2	V	10.1	2.20	10.20	18.10	33
Band 38 Middle channel 10M 2595 MHz									
2595.00	75.94	312	1.7	H	5.9	2.20	10.20	13.90	33
2595.00	79.48	177	2.4	V	9.8	2.20	10.20	17.80	33
Band 38 Middle channel 15M 2595 MHz									
2595.00	75.89	142	1.4	H	5.8	2.20	10.20	13.80	33
2595.00	79.35	11	1.8	V	9.6	2.20	10.20	17.60	33
Band 38 Middle channel 20M 2595 MHz									
2595.00	75.81	336	1.3	H	5.7	2.20	10.20	13.70	33
2595.00	79.26	333	1.8	V	9.6	2.20	10.20	17.60	33
Band 38 High channel 5M 2617.5 MHz									
2617.50	75.75	203	2.4	H	5.7	2.20	10.20	13.70	33
2617.50	79.04	160	1.8	V	9.3	2.20	10.20	17.30	33
Band 38 High channel 10M 2615 MHz									
2615.00	75.18	103	1.0	H	5.1	2.20	10.20	13.10	33
2615.00	78.77	281	1.0	V	9.1	2.20	10.20	17.10	33
Band 38 High channel 15M 2612.5 MHz									
2612.50	75.35	32	1.4	H	5.3	2.20	10.20	13.30	33
2612.50	78.65	349	1.2	V	8.9	2.20	10.20	16.90	33
Band 38 High channel 20M 2610 MHz									
2610.00	75.41	116	2.4	H	5.3	2.20	10.20	13.30	33
2610.00	78.57	29	2.3	V	8.9	2.20	10.20	16.90	33

16QAM:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 38 low channel 5M 2572.5 MHz									
2572.50	75.84	47	2.4	H	5.8	2.20	10.20	13.80	33
2572.50	78.99	62	1.9	V	9.3	2.20	10.20	17.30	33
Band 38 low channel 10M 2575 MHz									
2575.00	75.45	297	1.9	H	5.4	2.20	10.20	13.40	33
2575.00	78.63	344	2.4	V	8.9	2.20	10.20	16.90	33
Band 38 low channel 15M 2577.5 MHz									
2577.50	75.26	25	1.3	H	5.2	2.20	10.20	13.20	33
2577.50	78.47	319	1.1	V	8.8	2.20	10.20	16.80	33
Band 38 low channel 20M 2580 MHz									
2580.00	75.16	190	2.0	H	5.1	2.20	10.20	13.10	33
2580.00	78.23	314	1.1	V	8.5	2.20	10.20	16.50	33
Band 38 middle channel 5M 2595 MHz									
2595.00	76.23	91	1.3	H	6.2	2.20	10.20	14.20	33
2595.00	79.65	275	2.1	V	9.9	2.20	10.20	17.90	33
Band 38 middle channel 10M 2595 MHz									
2595.00	75.96	5	2.0	H	5.9	2.20	10.20	13.90	33
2595.00	79.42	57	2.2	V	9.7	2.20	10.20	17.70	33
Band 38 middle channel 15M 2595 MHz									
2595.00	75.91	235	1.5	H	5.8	2.20	10.20	13.80	33
2595.00	79.51	286	1.8	V	9.8	2.20	10.20	17.80	33
Band 38 middle channel 20M 2595 MHz									
2595.00	75.78	306	2.0	H	5.7	2.20	10.20	13.70	33
2595.00	79.25	59	1.3	V	9.5	2.20	10.20	17.50	33
Band 38 high channel 5M 2617.5 MHz									
2617.50	75.64	335	2.4	H	5.6	2.20	10.20	13.60	33
2617.50	77.98	64	2.5	V	8.3	2.20	10.20	16.30	33
Band 38 high channel 10M 2615 MHz									
2615.00	75.56	146	1.7	H	5.5	2.20	10.20	13.50	33
2615.00	78.14	172	2.1	V	8.4	2.20	10.20	16.40	33
Band 38 high channel 15M 2612.5 MHz									
2612.50	75.24	266	1.3	H	5.2	2.20	10.20	13.20	33
2612.50	77.51	299	1.0	V	7.8	2.20	10.20	15.80	33
Band 38 high channel 20M 2610 MHz									
2610.00	75.02	96	2.4	H	5.0	2.20	10.20	13.00	33
2610.00	77.42	288	2.3	V	7.7	2.20	10.20	15.70	33

LTE Band 41:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
5	QPSK	RB Size=1, RB Offset=0	20.99	20.67	20.85
		RB Size=1, RB Offset=12	20.58	20.72	20.96
		RB Size=1, RB Offset=24	20.89	20.84	20.60
		RB Size=12, RB Offset=0	20.83	20.79	20.87
		RB Size=12, RB Offset=6	20.65	20.80	20.79
		RB Size=12, RB Offset=11	20.67	20.77	20.88
		RB Size=25, RB Offset=0	20.70	20.73	20.81
	16QAM	RB Size=1, RB Offset=0	20.93	20.91	20.64
		RB Size=1, RB Offset=12	20.76	20.84	20.74
		RB Size=1, RB Offset=24	20.52	20.56	20.68
		RB Size=12, RB Offset=0	20.82	20.53	20.68
		RB Size=12, RB Offset=6	20.55	20.88	20.66
		RB Size=12, RB Offset=11	20.55	20.50	20.79
		RB Size=25, RB Offset=0	20.98	20.58	20.79
10	QPSK	RB Size=1, RB Offset=0	20.67	20.71	20.51
		RB Size=1, RB Offset=24	20.87	20.79	20.72
		RB Size=1, RB Offset=49	20.91	20.98	20.87
		RB Size=25, RB Offset=0	20.97	20.68	20.86
		RB Size=25, RB Offset=12	20.72	20.55	20.60
		RB Size=25, RB Offset=24	20.54	20.53	20.52
		RB Size=50, RB Offset=0	20.62	20.80	20.98
	16QAM	RB Size=1, RB Offset=0	20.73	20.79	20.85
		RB Size=1, RB Offset=24	20.96	20.85	20.82
		RB Size=1, RB Offset=49	20.95	20.51	20.81
		RB Size=25, RB Offset=0	20.95	20.54	20.65
		RB Size=25, RB Offset=12	20.63	20.62	20.51
		RB Size=25, RB Offset=24	20.97	20.55	20.59
		RB Size=50, RB Offset=0	20.88	20.66	20.86

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle channel (dBm)	High Channel (dBm)
15	QPSK	RB Size=1, RB Offset=0	20.57	20.73	20.51
		RB Size=1, RB Offset=24	20.85	20.77	20.73
		RB Size=1, RB Offset=49	20.91	20.78	20.57
		RB Size=25, RB Offset=0	20.27	20.68	20.84
		RB Size=25, RB Offset=12	20.72	20.45	20.64
		RB Size=25, RB Offset=24	20.54	20.54	20.55
		RB Size=50, RB Offset=0	20.64	20.81	20.98
	16QAM	RB Size=1, RB Offset=0	20.74	20.79	20.85
		RB Size=1, RB Offset=24	20.44	20.82	20.85
		RB Size=1, RB Offset=49	20.55	20.51	20.84
		RB Size=25, RB Offset=0	20.95	20.54	20.65
		RB Size=25, RB Offset=12	20.64	20.62	20.54
		RB Size=25, RB Offset=24	20.97	20.54	20.54
		RB Size=50, RB Offset=0	20.82	20.64	20.86
20	QPSK	RB Size=1, RB Offset=0	20.67	20.71	20.55
		RB Size=1, RB Offset=24	20.85	20.79	20.73
		RB Size=1, RB Offset=49	20.41	20.44	20.87
		RB Size=25, RB Offset=0	20.47	20.65	20.84
		RB Size=25, RB Offset=12	20.72	20.55	20.61
		RB Size=25, RB Offset=24	20.54	20.53	20.51
		RB Size=50, RB Offset=0	20.62	20.80	20.18
	16QAM	RB Size=1, RB Offset=0	20.73	20.79	20.85
		RB Size=1, RB Offset=24	20.46	20.85	20.40
		RB Size=1, RB Offset=49	20.44	20.51	20.41
		RB Size=25, RB Offset=0	20.44	20.54	20.65
		RB Size=25, RB Offset=12	20.63	20.65	20.55
		RB Size=25, RB Offset=24	20.47	20.54	20.59
		RB Size=50, RB Offset=0	20.58	20.63	20.53

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.71	6.46	6.56	13	Pass
QPSK (100RB Size)	6.64	6.89	6.85	13	Pass
16QAM (1RB Size)	6.95	7.34	7.48	13	Pass
16QAM (100RB Size)	7.57	7.52	7.65	13	Pass

QPSK:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 41 low channel 5M 2537.5 MHz									
2537.50	76.41	165	1.5	H	6.2	2.60	10.20	13.80	33
2537.50	79.12	49	1.1	V	9.6	2.60	10.20	17.20	33
Band 41 low channel 10M 2540 MHz									
2540.00	76.51	285	2.1	H	6.3	2.60	10.20	13.90	33
2540.00	78.94	202	1.5	V	9.4	2.60	10.20	17.00	33
Band 41 low channel 15M 2542.5 MHz									
2542.50	76.27	127	2.2	H	6.1	2.60	10.20	13.70	33
2542.50	78.83	121	1.9	V	9.3	2.60	10.20	16.90	33
Band 41 low channel 20M 2545 MHz									
2545.00	76.29	36	1.1	H	6.1	2.60	10.20	13.70	33
2545.00	78.85	197	2.2	V	9.3	2.60	10.20	16.90	33

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 41 middle channel 5M 2595 MHz									
2595.00	76.33	51	1.9	H	6.3	2.20	10.20	14.30	33
2595.00	79.03	81	1.3	V	9.3	2.20	10.20	17.30	33
Band 41 middle channel 10M 2595 MHz									
2595.00	76.29	234	1.9	H	6.2	2.20	10.20	14.20	33
2595.00	78.85	303	1.7	V	9.1	2.20	10.20	17.10	33
Band 41 middle channel 15M 2595 MHz									
2595.00	76.22	328	1.4	H	6.2	2.20	10.20	14.20	33
2595.00	78.89	253	1.4	V	9.2	2.20	10.20	17.20	33
Band 41 middle channel 20M 2595 MHz									
2595.00	76.18	220	1.3	H	6.1	2.20	10.20	14.10	33
2595.00	78.76	244	1.6	V	9.1	2.20	10.20	17.10	33
Band 41 high channel 5M 2652.5 MHz									
2652.50	76.86	176	2.2	H	7.0	2.00	10.40	15.40	33
2652.50	78.47	31	1.4	V	9.0	2.00	10.40	17.40	33
Band 41 high channel 10M 2650MHz									
2650.00	76.23	360	1.2	H	6.3	2.00	10.40	14.70	33
2650.00	78.72	254	2.2	V	9.2	2.00	10.40	17.60	33
Band 41 high channel 15M 2647.5 MHz									
2647.50	76.23	226	1.8	H	6.2	2.20	10.20	14.20	33
2647.50	78.72	352	1.8	V	9.0	2.20	10.20	17.00	33
Band 41 high channel 20M 2645 MHz									
2645.00	76.19	233	1.8	H	6.1	2.20	10.20	14.10	33
2645.00	78.68	140	1.7	V	9.0	2.20	10.20	17.00	33

16QAM:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)		
Band 41 low channel 5M 2537.5 MHz									
2537.50	76.41	165	1.5	H	6.2	2.60	10.20	13.80	33
2537.50	79.12	49	1.1	V	9.6	2.60	10.20	17.20	33
Band 41 low channel 10M 2540 MHz									
2540.00	76.51	285	2.1	H	6.3	2.60	10.20	13.90	33
2540.00	78.94	202	1.5	V	9.4	2.60	10.20	17.00	33
Band 41 low channel 15M 2542.5 MHz									
2542.50	76.27	127	2.2	H	6.1	2.60	10.20	13.70	33
2542.50	78.83	121	1.9	V	9.3	2.60	10.20	16.90	33
Band 41 low channel 20M 2545 MHz									
2545.00	76.29	36	1.1	H	6.1	2.60	10.20	13.70	33
2545.00	78.85	197	2.2	V	9.3	2.60	10.20	16.90	33
Band 41 middle channel 5M 2595 MHz									
2595.00	76.33	51	1.9	H	6.3	2.20	10.20	14.30	33
2595.00	79.03	81	1.3	V	9.3	2.20	10.20	17.30	33
Band 41 middle channel 10M 2595 MHz									
2595.00	76.29	234	1.9	H	6.2	2.20	10.20	14.20	33
2595.00	78.85	303	1.7	V	9.1	2.20	10.20	17.10	33
Band 41 middle channel 15M 2595 MHz									
2595.00	76.22	328	1.4	H	6.2	2.20	10.20	14.20	33
2595.00	78.89	253	1.4	V	9.2	2.20	10.20	17.20	33
Band 41 middle channel 20M 2595 MHz									
2595.00	76.18	220	1.3	H	6.1	2.20	10.20	14.10	33
2595.00	78.76	244	1.6	V	9.1	2.20	10.20	17.10	33
Band 41 high channel 5M 2652.5 MHz									
2652.50	76.86	176	2.2	H	7.0	2.00	10.40	15.40	33
2652.50	78.47	31	1.4	V	9.0	2.00	10.40	17.40	33
Band 41 high channel 10M 2650MHz									
2650.00	76.23	360	1.2	H	6.3	2.00	10.40	14.70	33
2650.00	78.72	254	2.2	V	9.2	2.00	10.40	17.60	33
Band 41 high channel 15M 2647.5 MHz									
2647.50	76.23	226	1.8	H	6.2	2.20	10.20	14.20	33
2647.50	78.72	352	1.8	V	9.0	2.20	10.20	17.00	33
Band 41 high channel 20M 2645 MHz									
2645.00	76.19	233	1.8	H	6.1	2.20	10.20	14.10	33
2645.00	78.68	140	1.7	V	9.0	2.20	10.20	17.00	33

Note:
All above data were tested with no amplifier
Absolute Level = Substituted Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

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

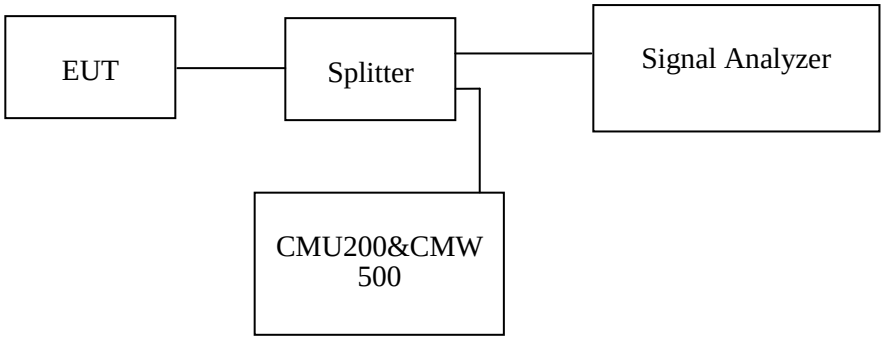
Applicable Standard

FCC 47 §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 resolution bandwidth of the spectrum analyzer was set at 1% to 5% of the anticipated emission bandwidth and the 26 dB & 99% bandwidth was recorded.



Test Data

Environmental Conditions

Temperature:	23 ℃
Relative Humidity:	55 %
ATM Pressure:	101.0 kPa

The testing was performed by George Zhong from 2020-07-25 to 2020-09-24.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM(GMSK)	128	824.2	246.79	318.59
	190	836.6	246.00	320.09
	251	848.8	243.59	308.97
EGPRS(8PSK)	128	824.2	240.38	305.77
	190	836.6	246.00	313.29
	251	848.8	240.38	295.83

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
826.4	RMC	4.17	4.72
	HSDPA	4.20	5.12
	HSUPA	4.21	5.07
836.6	RMC	4.18	4.69
	HSDPA	4.20	4.95
	HSUPA	4.22	4.95
846.6	RMC	4.17	4.74
	HSDPA	4.18	4.82
	HSUPA	4.18	4.79

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM(GMSK)	512	1850.2	243.59	314.42
	661	1880.0	244.00	318.91
	810	1909.8	246.79	316.67
EGPRS(8PSK)	512	1850.2	246.79	303.21
	661	1880.0	250.00	328.21
	810	1909.8	241.99	302.24

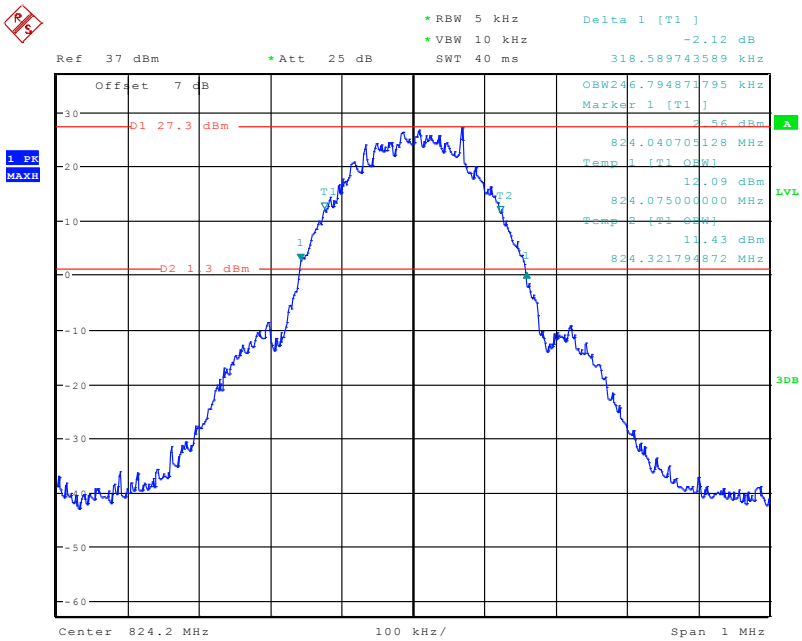
Channel (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
1852.4	RMC	4.17	4.73
	HSDPA	4.20	4.71
	HSUPA	4.21	5.09
1880.0	RMC	4.16	4.71
	HSDPA	4.20	5.17
	HSUPA	4.20	4.71
1907.6	RMC	4.15	4.72
	HSDPA	4.22	5.21
	HSUPA	4.21	5.45

AWS Band (Part 27)

Frequency (MHz)		Occupied Bandwidth(MHz)	26dB Bandwidth (MHz)
1712.4	RMC	4.18	4.69
	HSDPA	4.20	4.79
	HSUPA	4.20	4.72
1732.6	RMC	4.18	4.72
	HSDPA	4.20	5.12
	HSUPA	4.20	5.09
1752.6	RMC	4.17	4.72
	HSDPA	4.20	4.91
	HSUPA	4.21	5.01

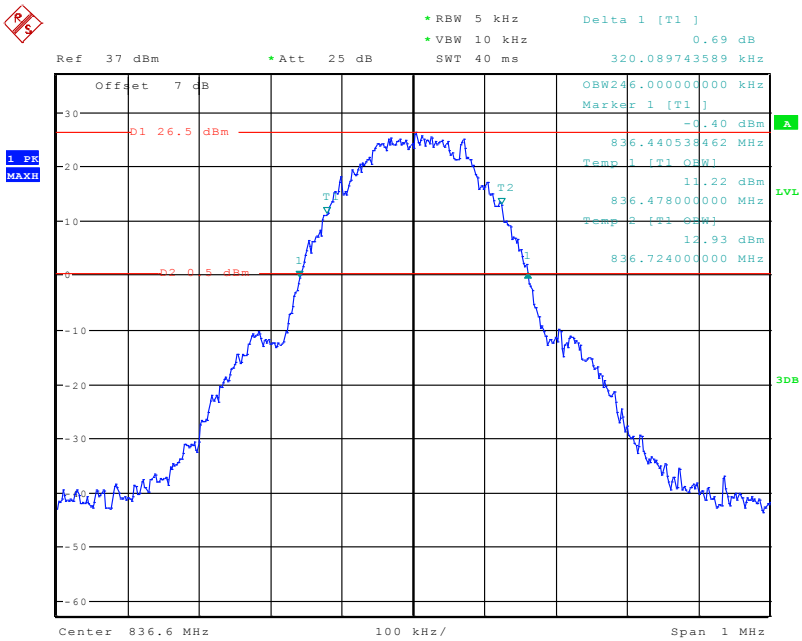
Cellular Band (Part 22H)

26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, Low channel



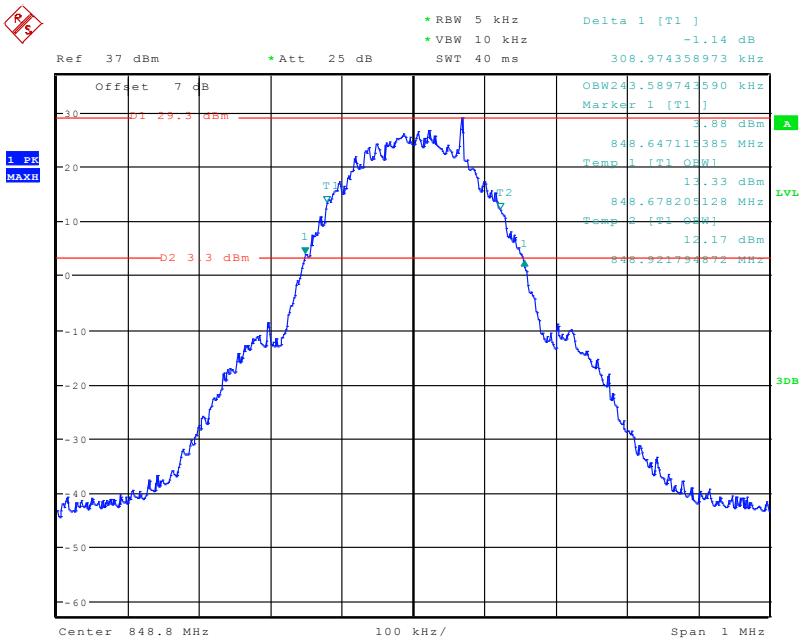
Date: 28.AUG.2020 16:35:59

26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, Middle channel



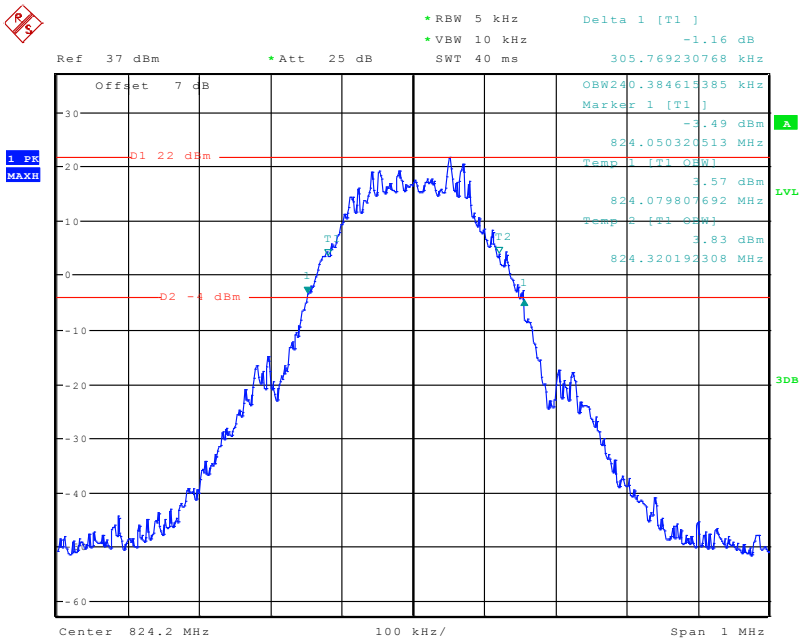
Date: 26.JUL.2020 19:08:49

26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, High channel



Date: 28.AUG.2020 16:38:57

26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, Low channel



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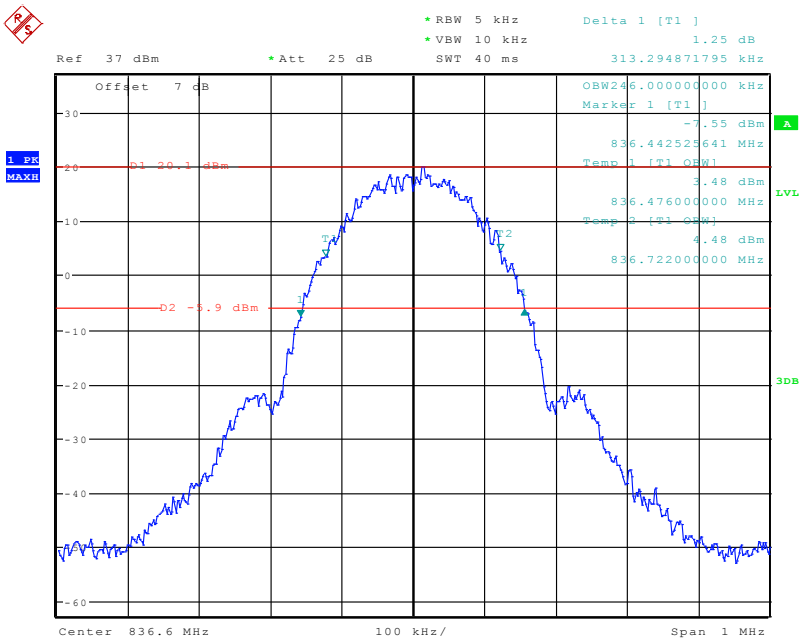
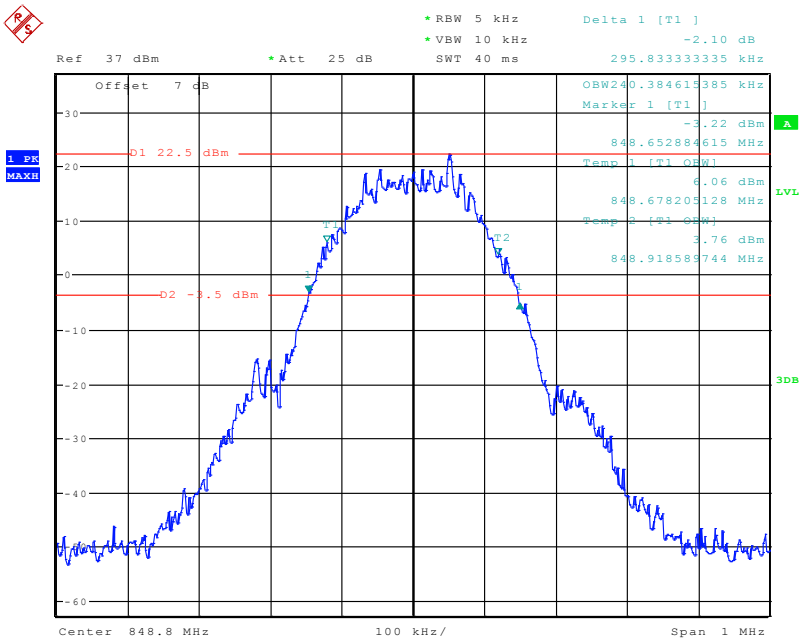
26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, Middle channel



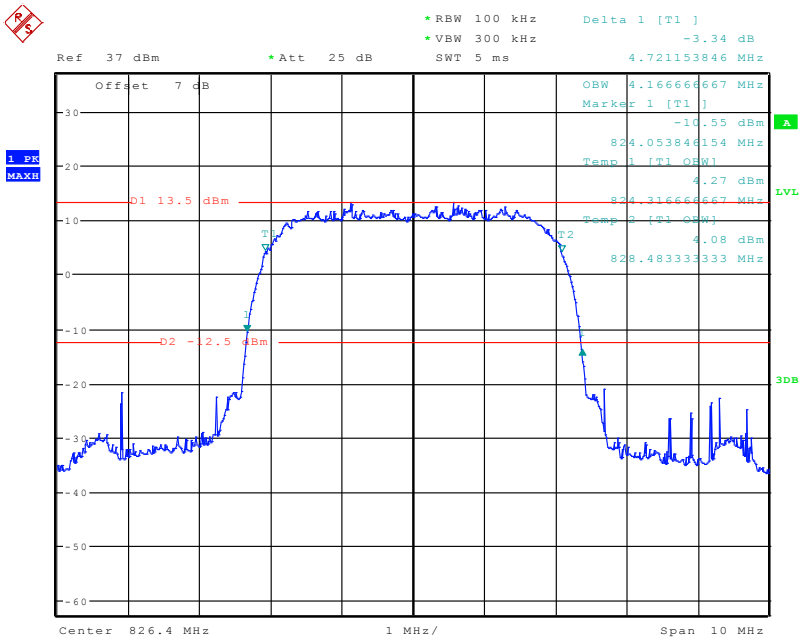
Date: 26.JUL.2020 19:06:58

26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, High channel



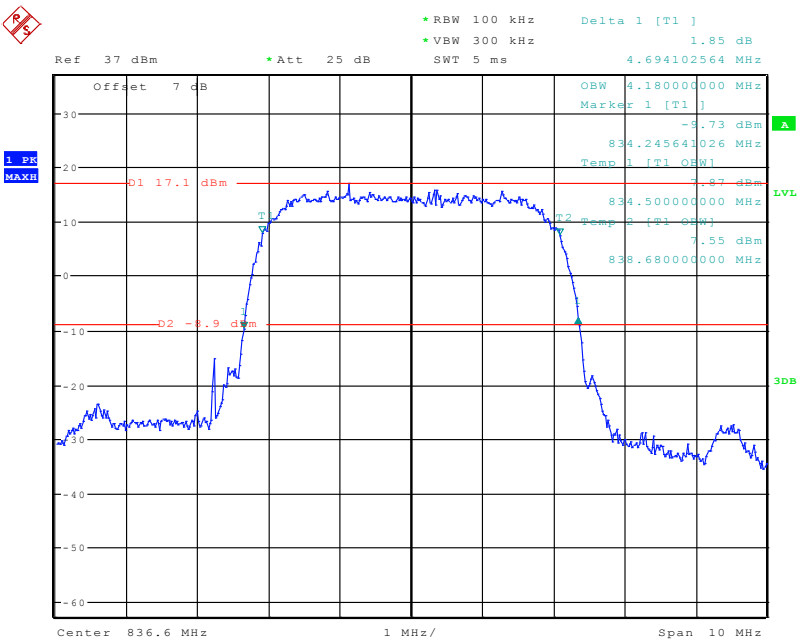
Date: 28.AUG.2020 16:56:56

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Low channel



Date: 28.AUG.2020 16:21:37

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Middle channel



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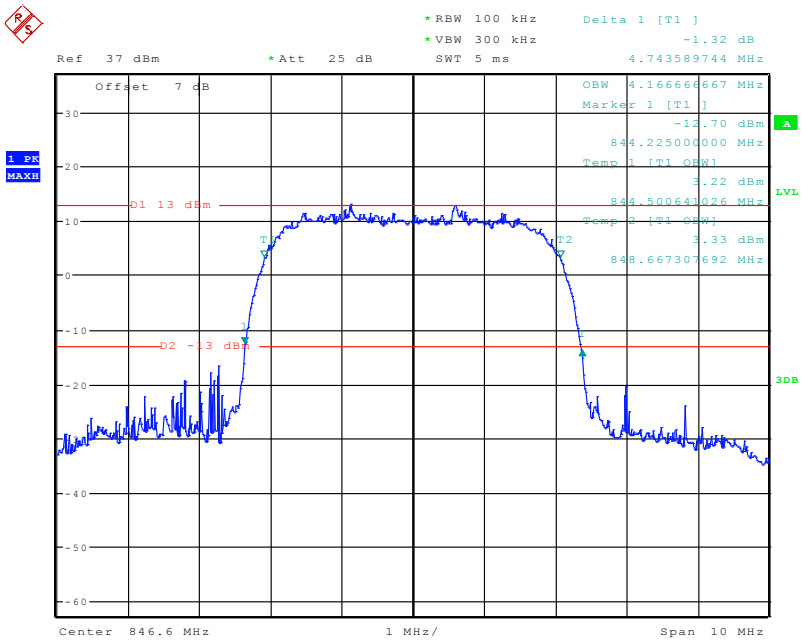
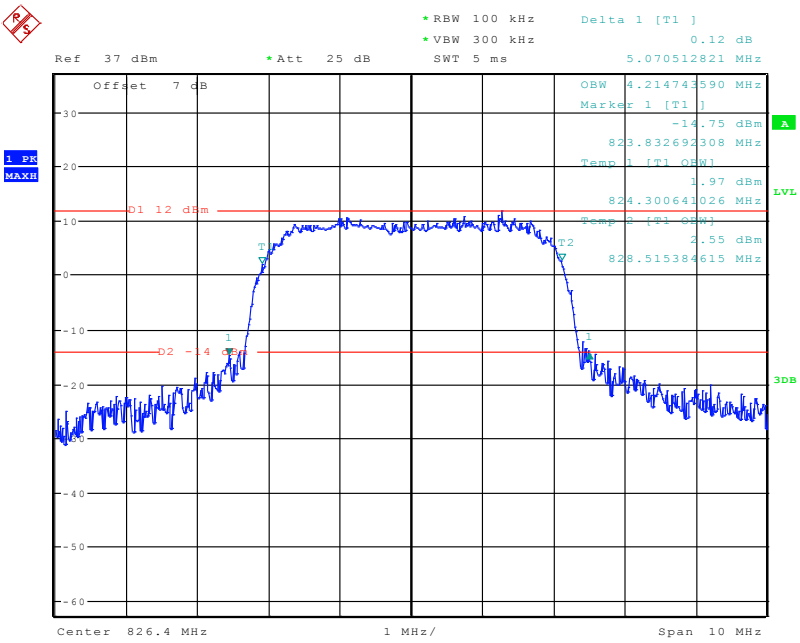
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, High channel



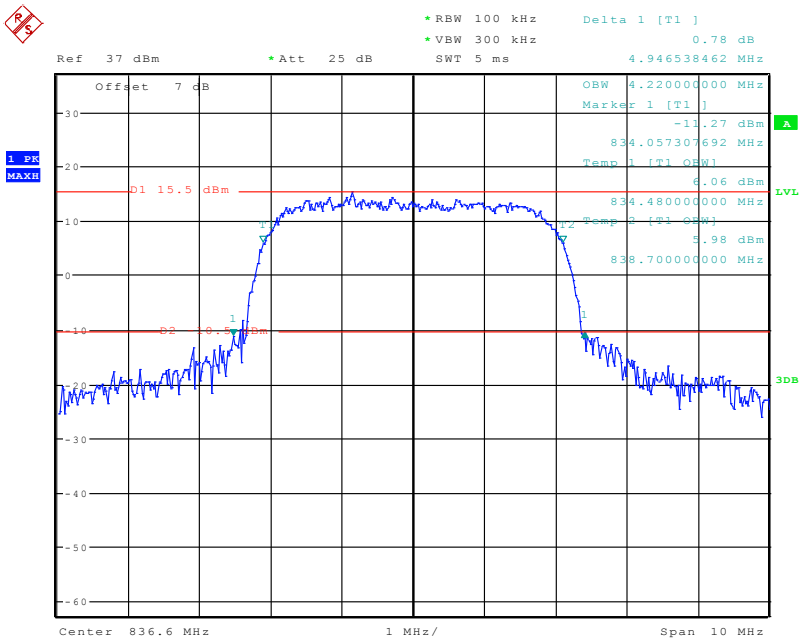
Date: 28.AUG.2020 16:23:37

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, Low channel



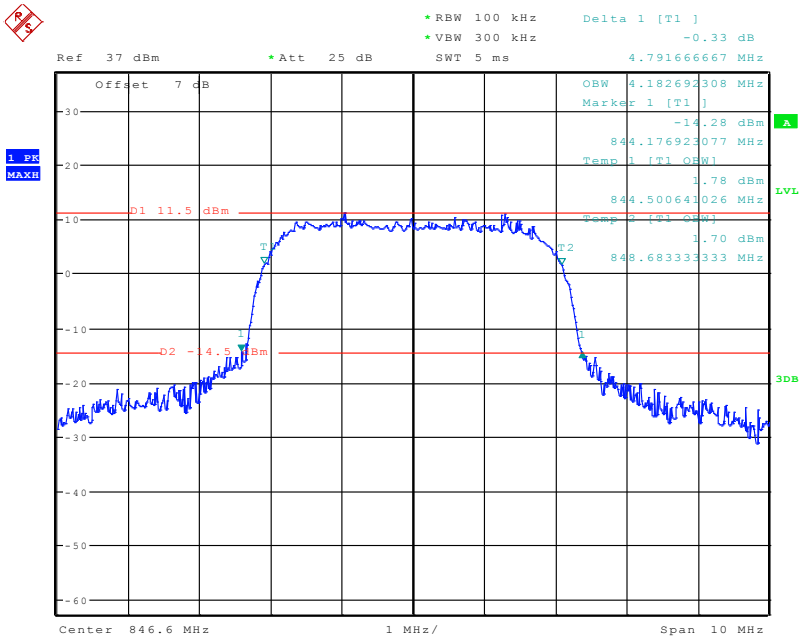
Date: 28.AUG.2020 16:29:16

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, Middle channel



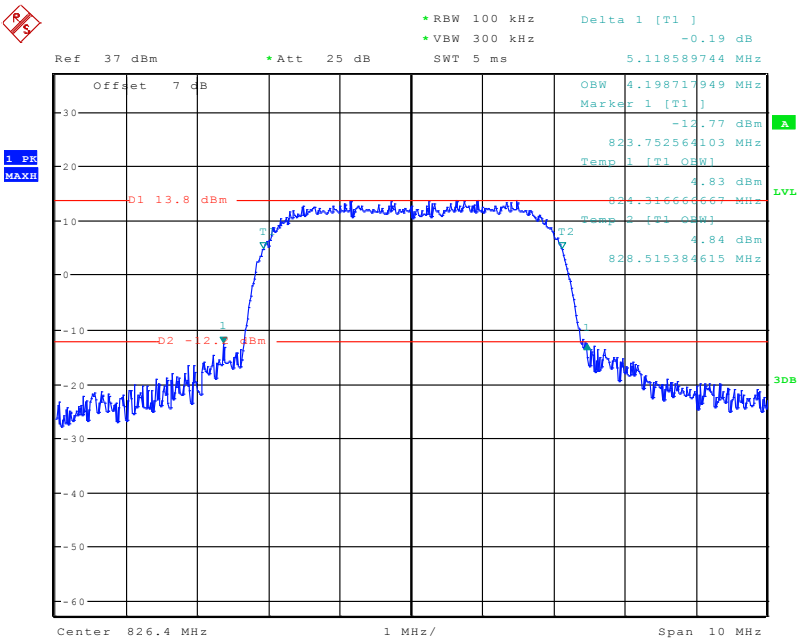
Date: 26.JUL.2020 17:20:53

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, High channel



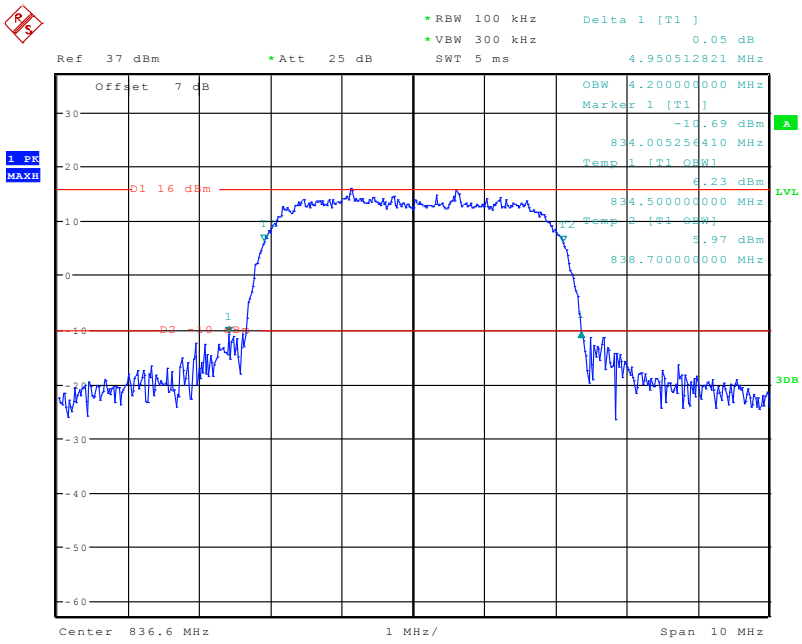
Date: 28.AUG.2020 16:31:35

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Low channel



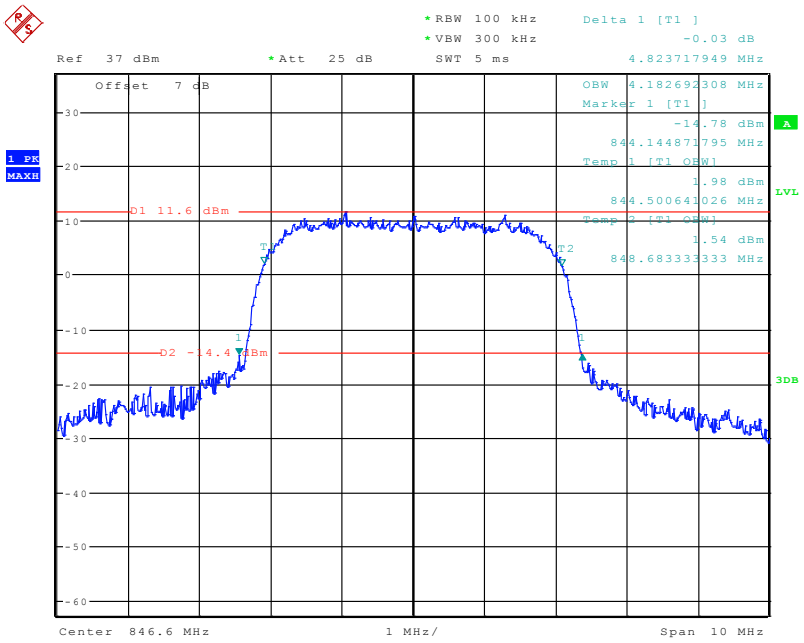
Date: 28.AUG.2020 16:27:59

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Middle channel



Date: 26.JUL.2020 17:18:07

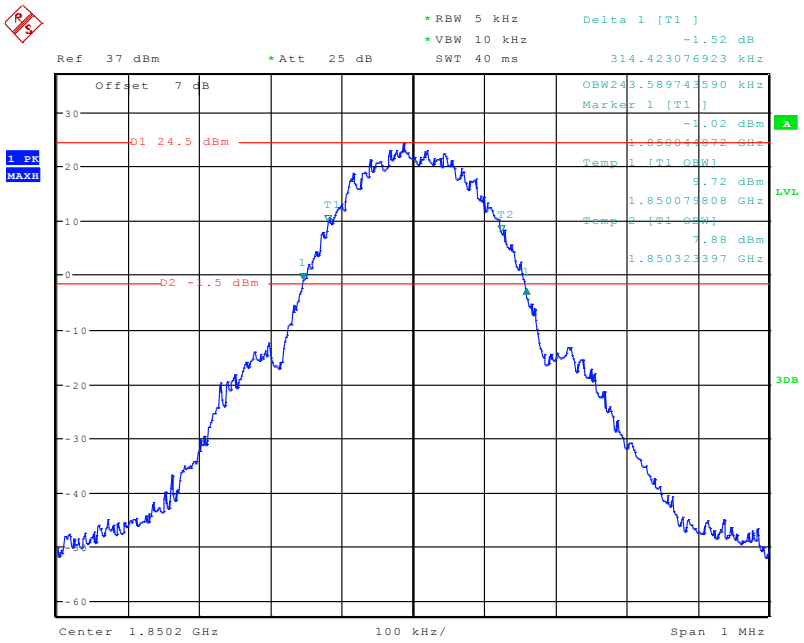
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 28.AUG.2020 16:26:49

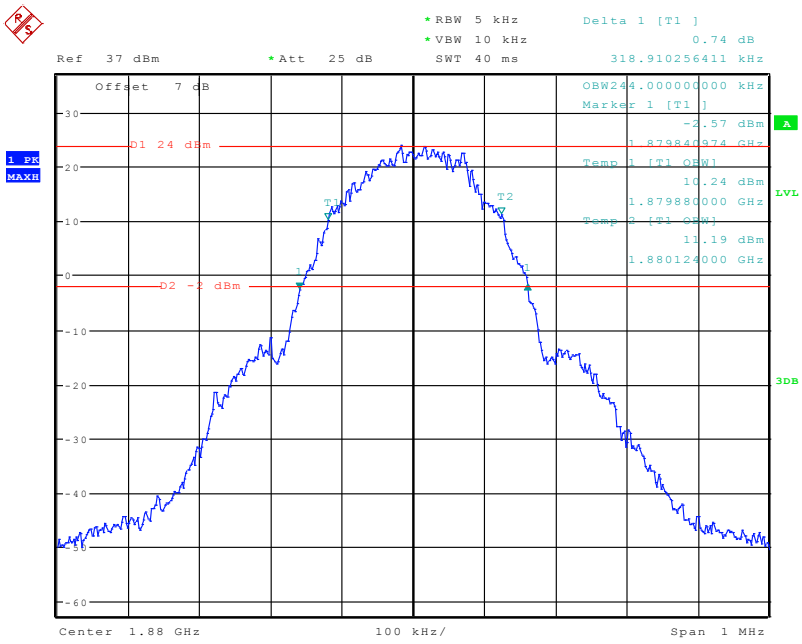
PCS Band (Part 24E)

26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, Low channel



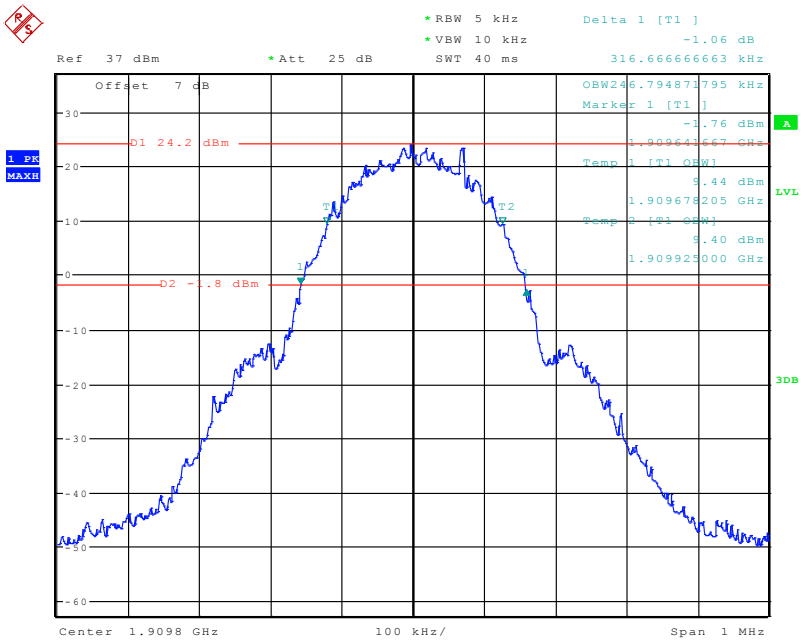
Date: 28.AUG.2020 17:01:03

26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, Middle channel



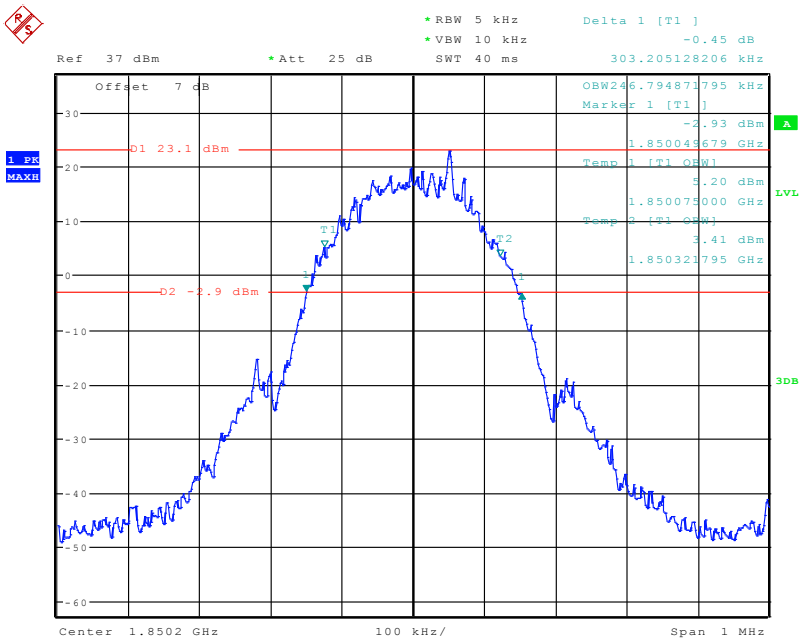
Date: 26.JUL.2020 18:54:13

26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, High channel



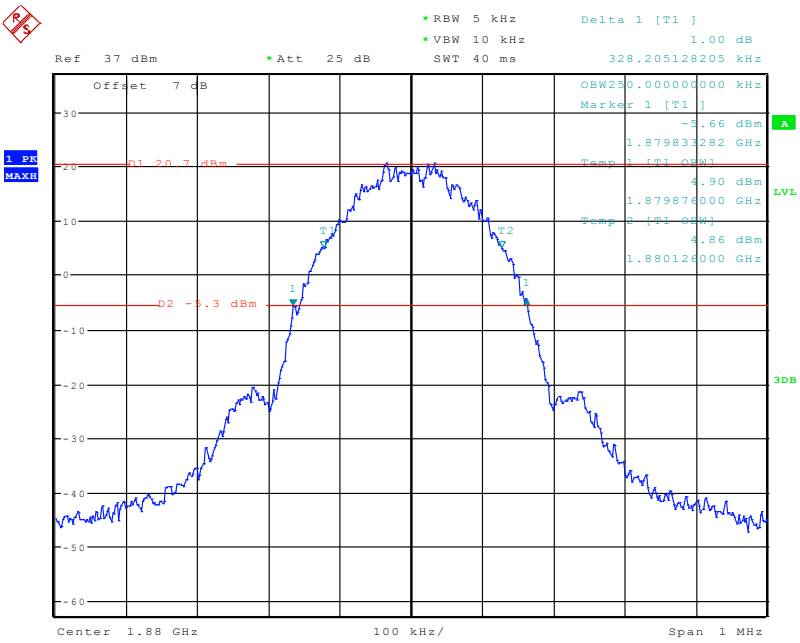
Date: 28.AUG.2020 17:02:27

26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, Low channel



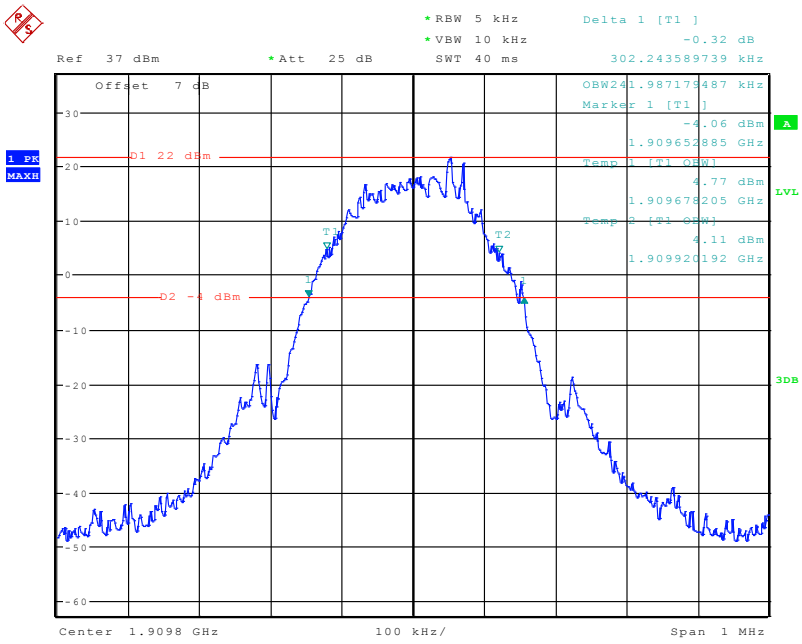
Date: 28.AUG.2020 17:09:52

26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, Middle channel



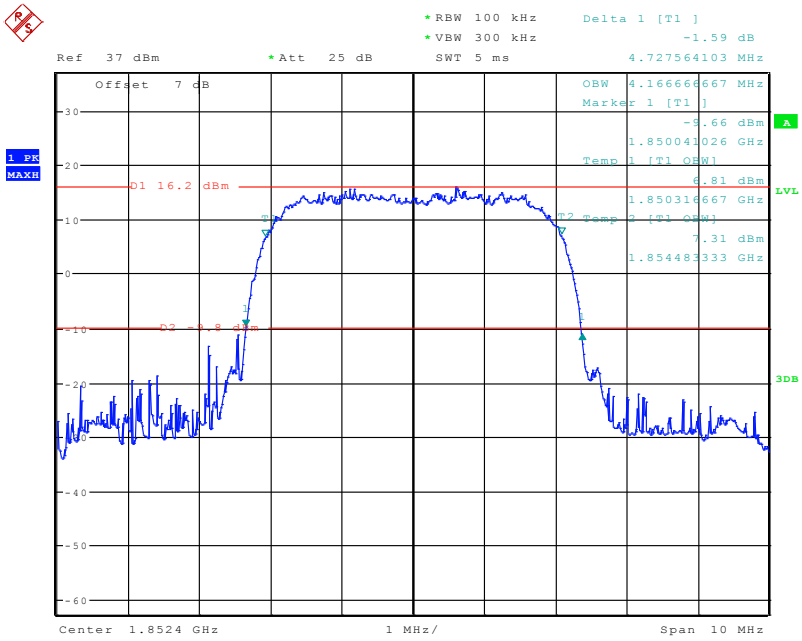
Date: 26.JUL.2020 18:56:45

26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, High channel



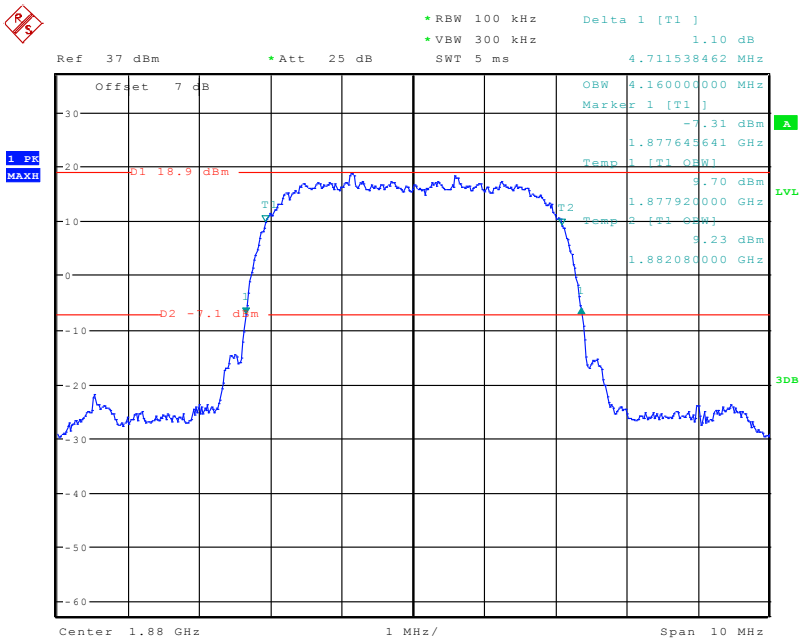
Date: 28.AUG.2020 17:08:21

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Low channel



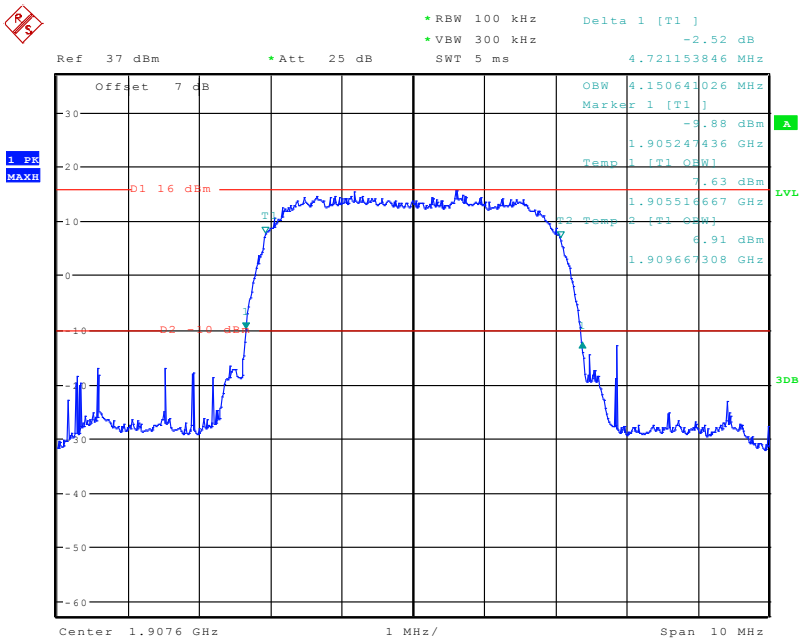
Date: 28.AUG.2020 15:53:07

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Middle channel



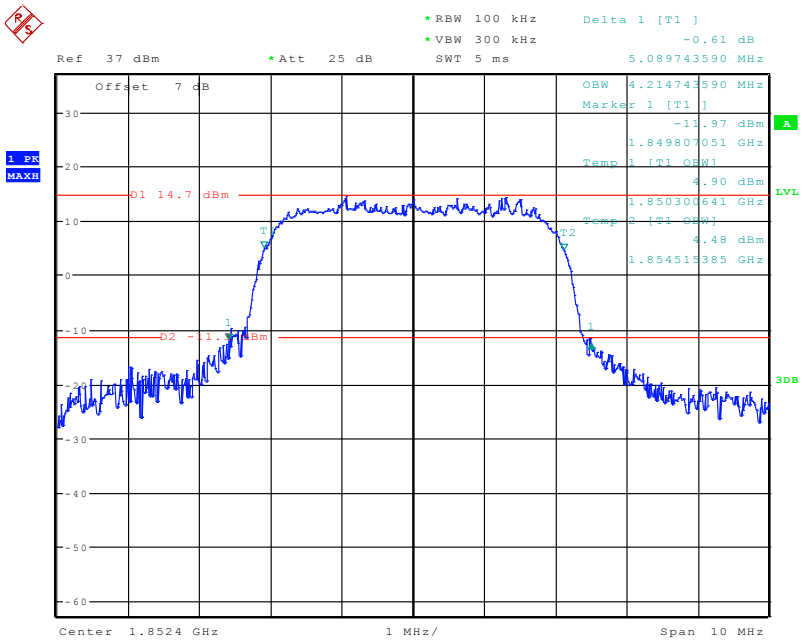
Date: 26.JUL.2020 17:03:03

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, High channel



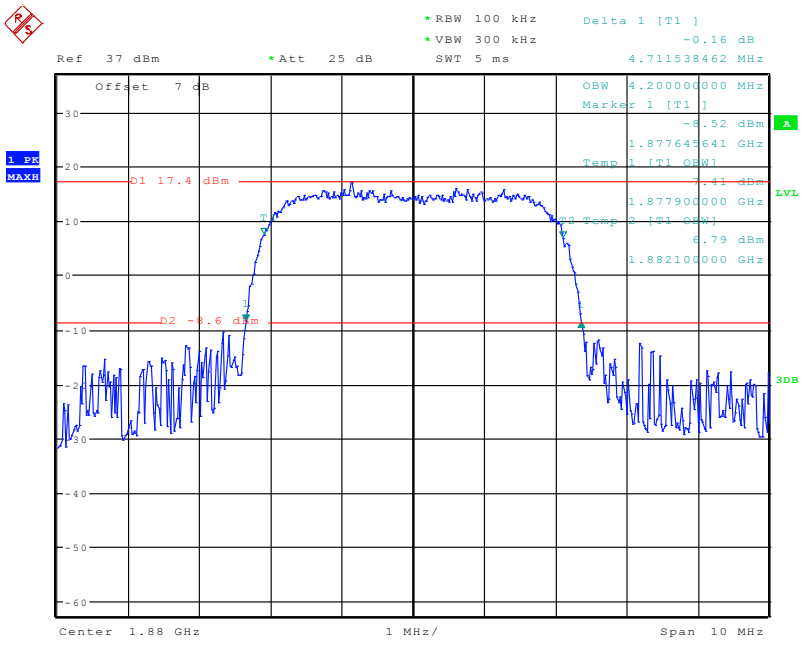
Date: 28.AUG.2020 15:55:11

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, Low channel



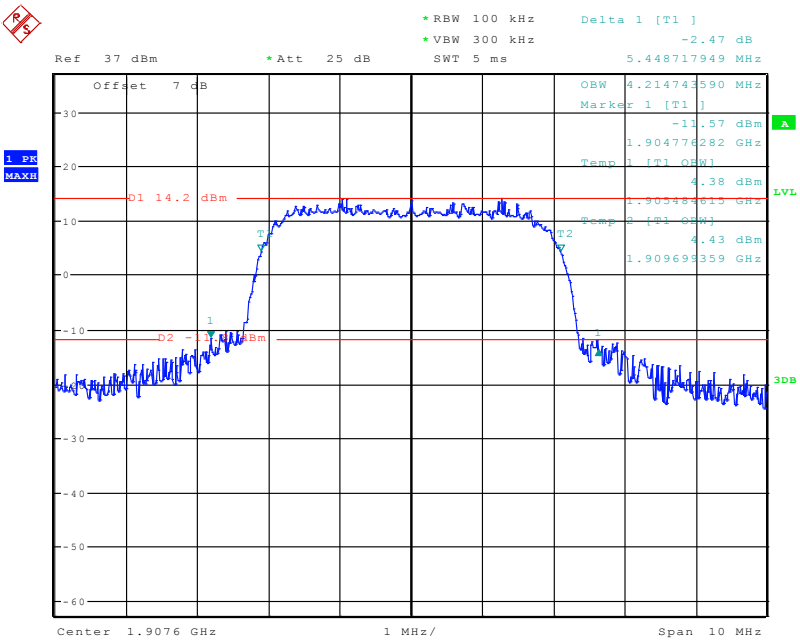
Date: 28.AUG.2020 15:59:58

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, Middle channel



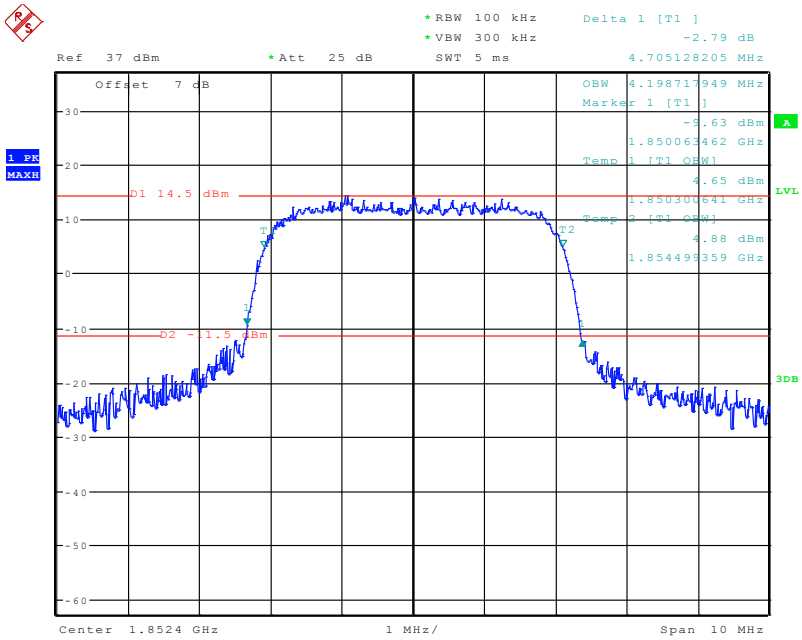
Date: 26.JUL.2020 17:06:19

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, High channel



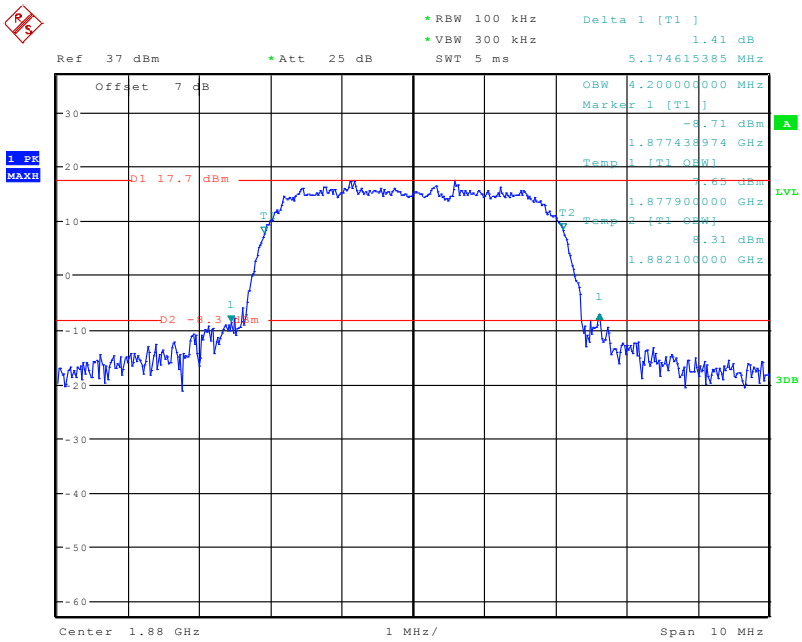
Date: 28.AUG.2020 16:03:43

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Low channel



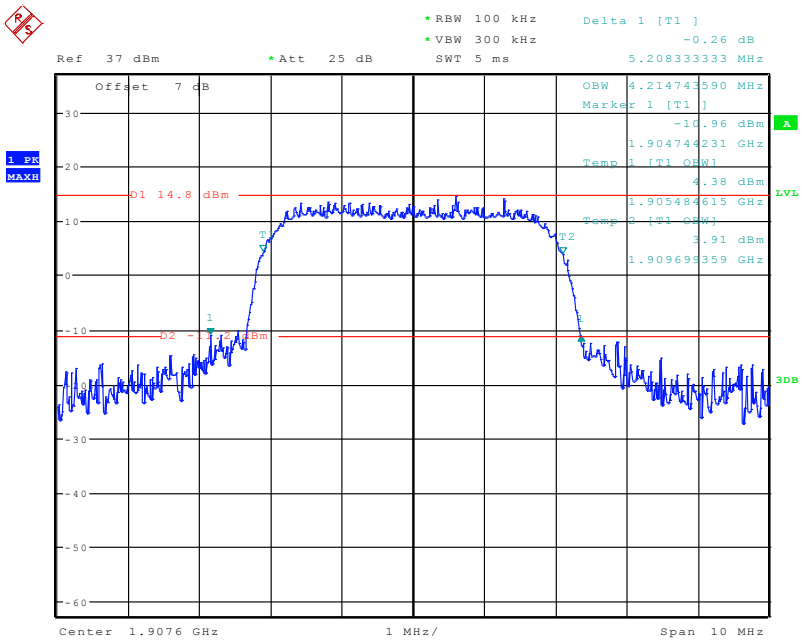
Date: 28.AUG.2020 15:57:44

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Middle channel



Date: 26.JUL.2020 17:04:57

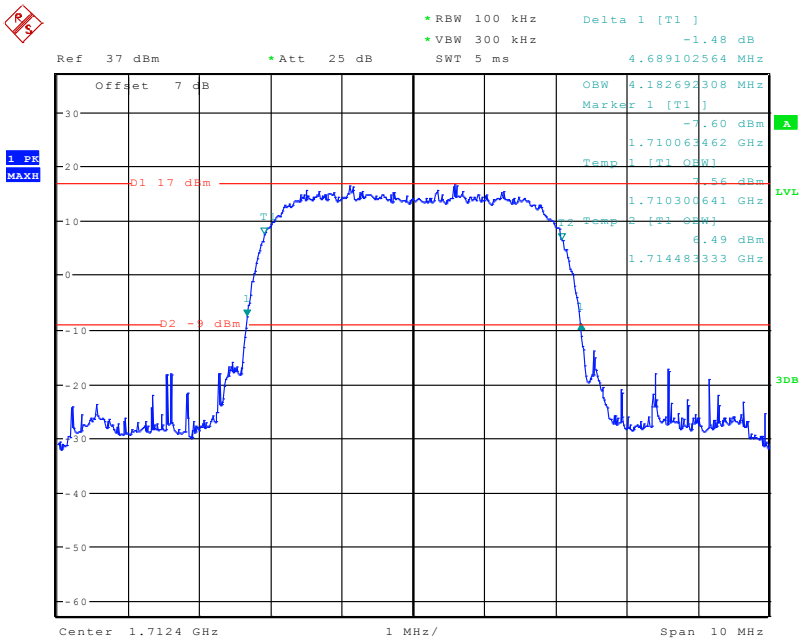
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 28.AUG.2020 15:56:27

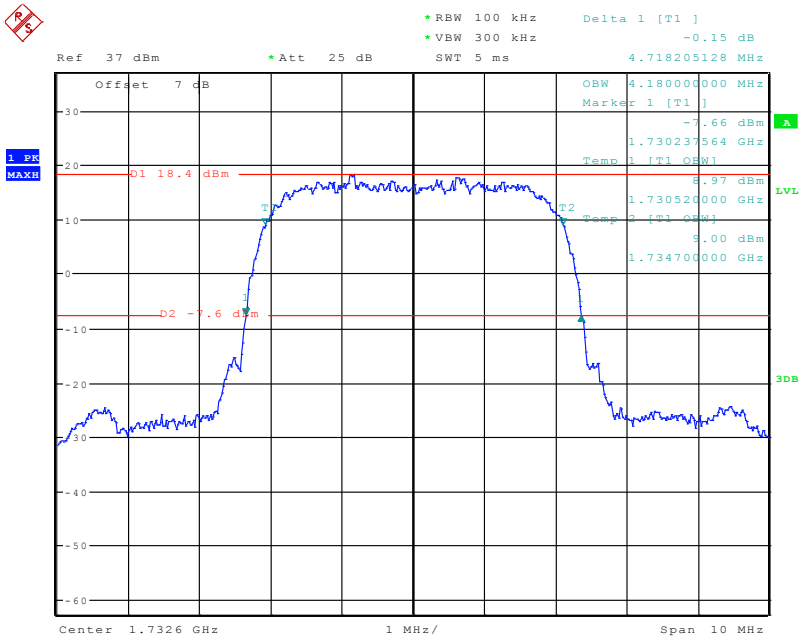
AWS Band (Part 27)

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Low channel



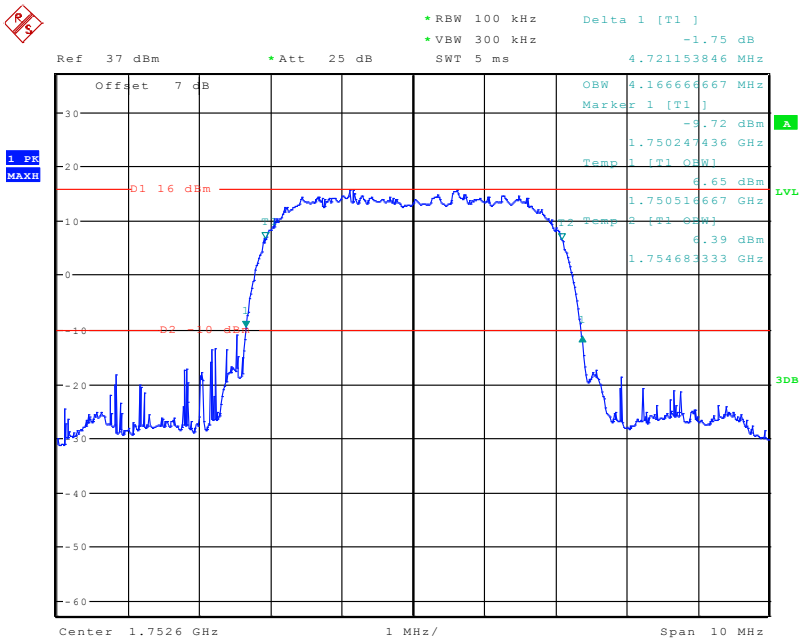
Date: 28.AUG.2020 16:16:46

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Middle channel



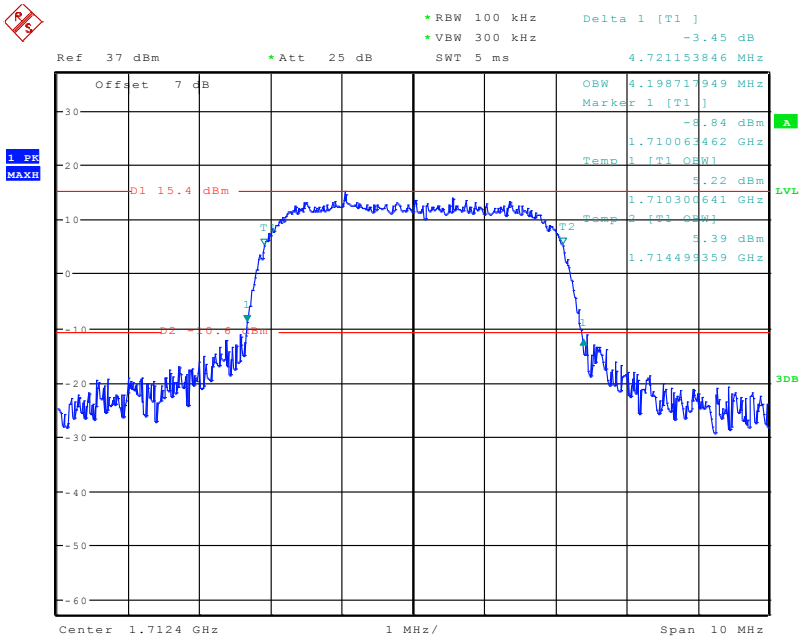
Date: 26.JUL.2020 17:13:21

26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, High channel



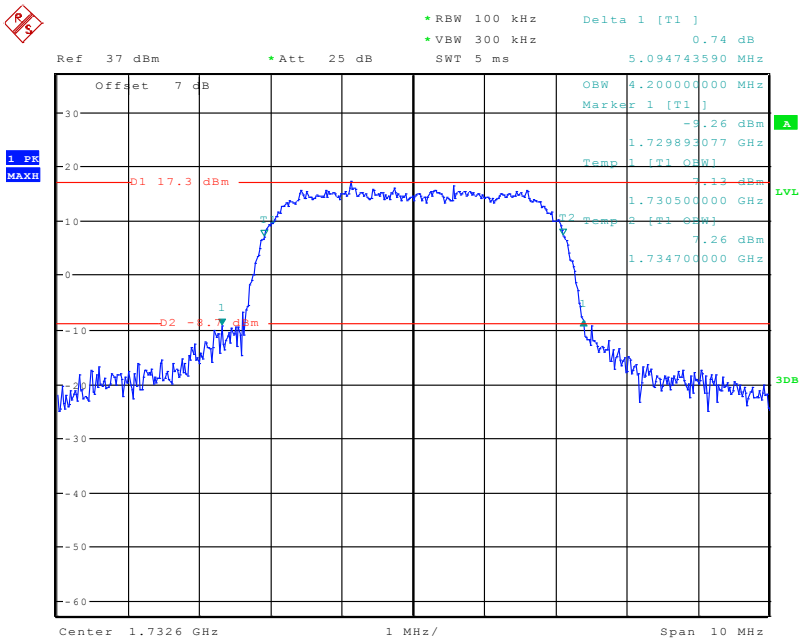
Date: 28.AUG.2020 16:18:27

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, Low channel



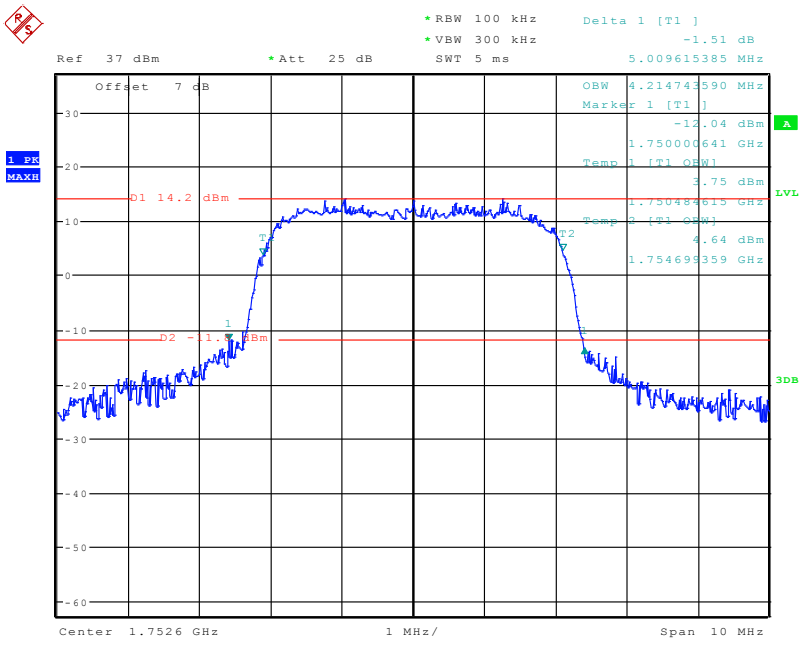
Date: 28.AUG.2020 16:07:55

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, Middle channel



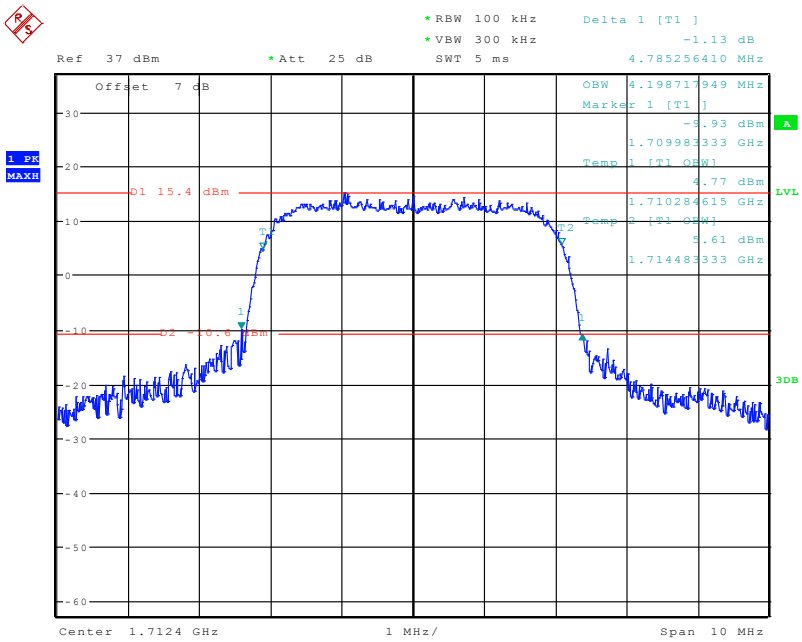
Date: 26.JUL.2020 17:07:30

26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode, High channel



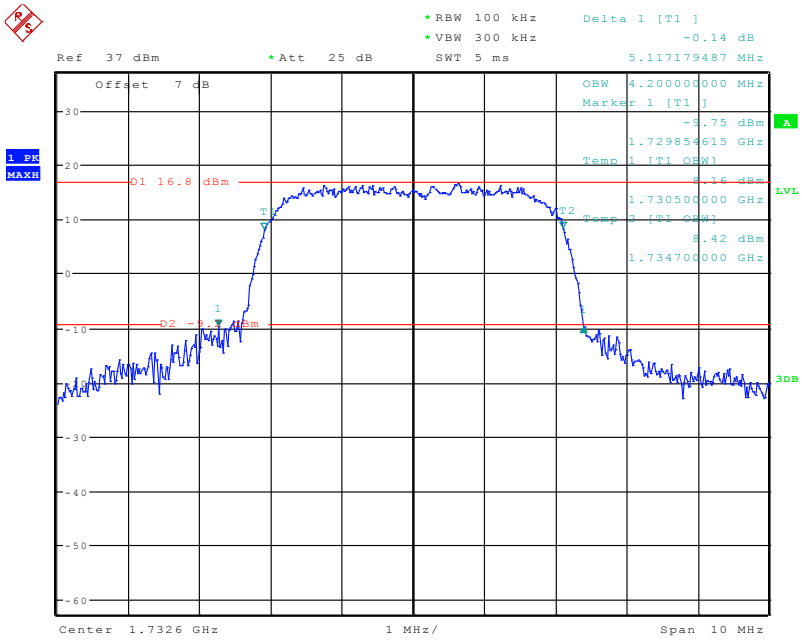
Date: 28.AUG.2020 16:10:49

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Low channel



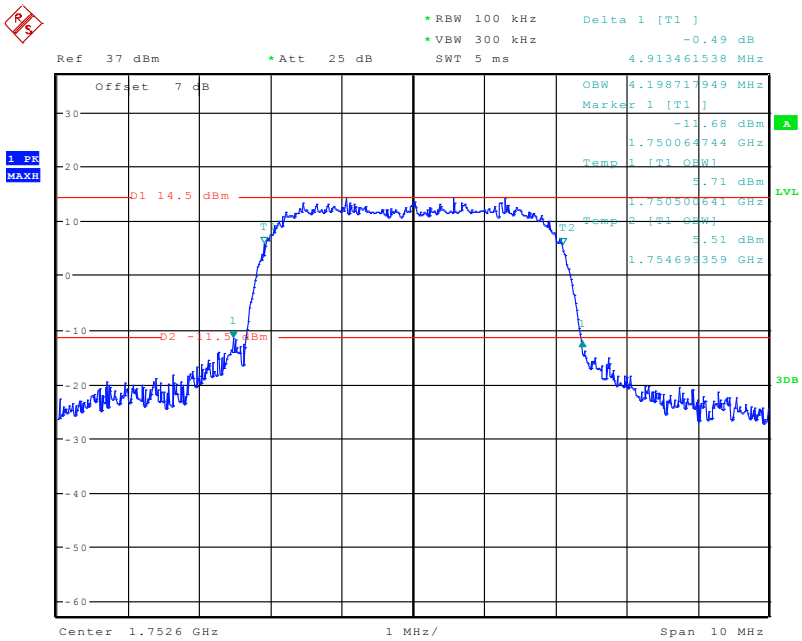
Date: 28.AUG.2020 16:14:34

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Middle channel



Date: 26.JUL.2020 17:08:54

26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel

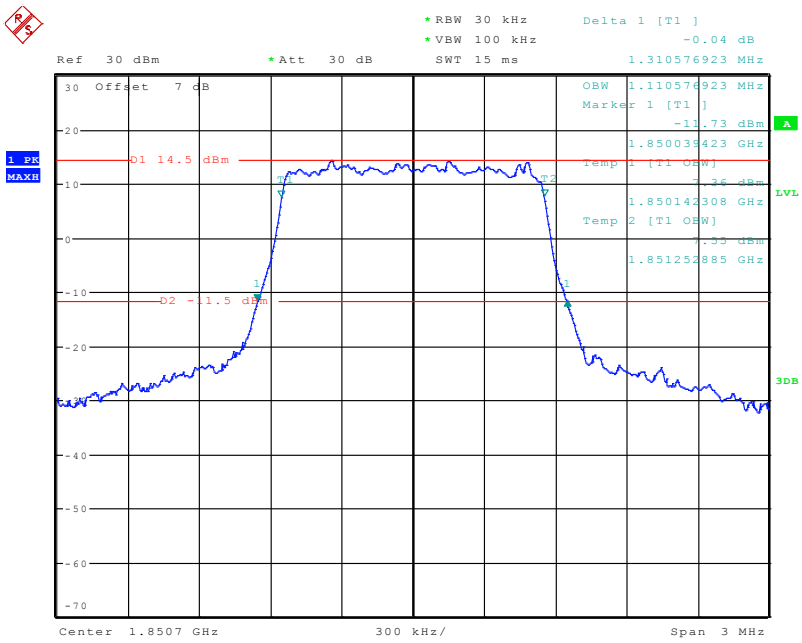


Date: 28.AUG.2020 16:12:04

LTE Band 2:

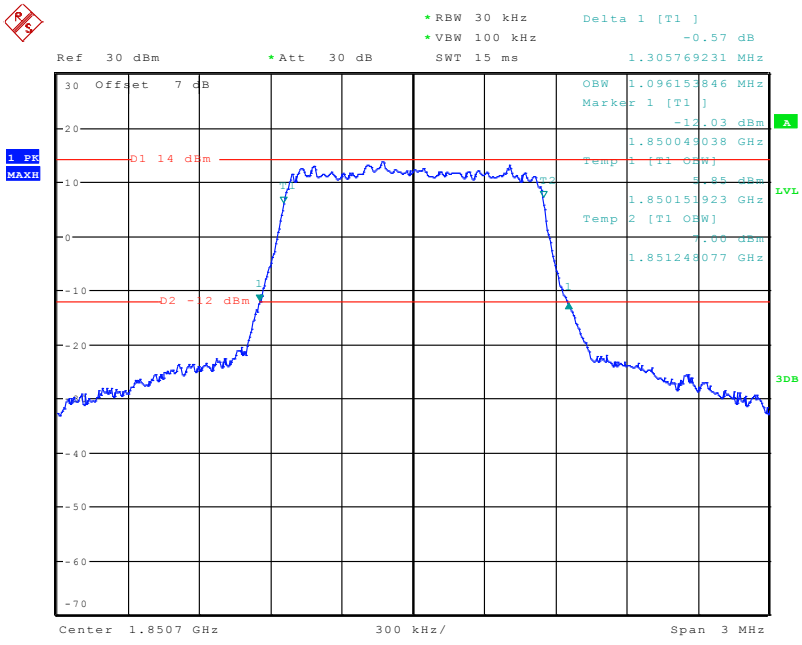
Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.111	1.311
		Middle	1.098	1.290
		High	1.106	1.311
	16QAM	Low	1.096	1.306
		Middle	1.104	1.308
		High	1.101	1.306
3	QPSK	Low	2.683	2.875
		Middle	2.688	2.892
		High	2.683	2.871
	16QAM	Low	2.692	2.885
		Middle	2.688	2.892
		High	2.683	2.881
5	QPSK	Low	4.519	4.974
		Middle	4.500	4.940
		High	4.519	4.962
	16QAM	Low	4.503	4.926
		Middle	4.500	4.920
		High	4.519	4.929
10	QPSK	Low	8.942	9.615
		Middle	8.960	9.680
		High	8.974	9.679
	16QAM	Low	8.942	9.551
		Middle	8.960	9.600
		High	8.974	9.615
15	QPSK	Low	13.606	14.856
		Middle	13.560	14.820
		High	13.510	14.856
	16QAM	Low	13.510	14.760
		Middle	13.500	14.760
		High	13.558	14.856
20	QPSK	Low	17.885	19.295
		Middle	18.000	19.360
		High	17.949	19.359
	16QAM	Low	18.013	19.462
		Middle	18.000	19.360
		High	18.013	19.423

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



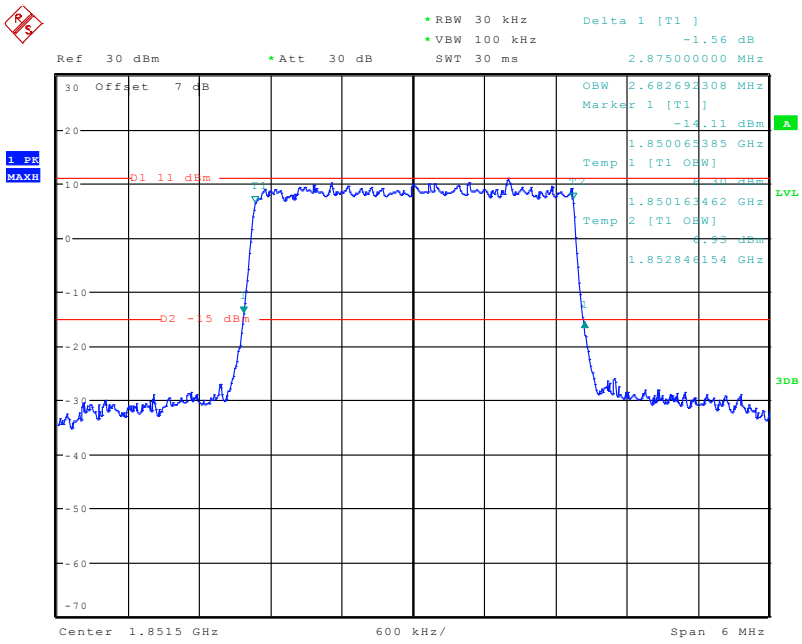
Date: 28.AUG.2020 09:47:35

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



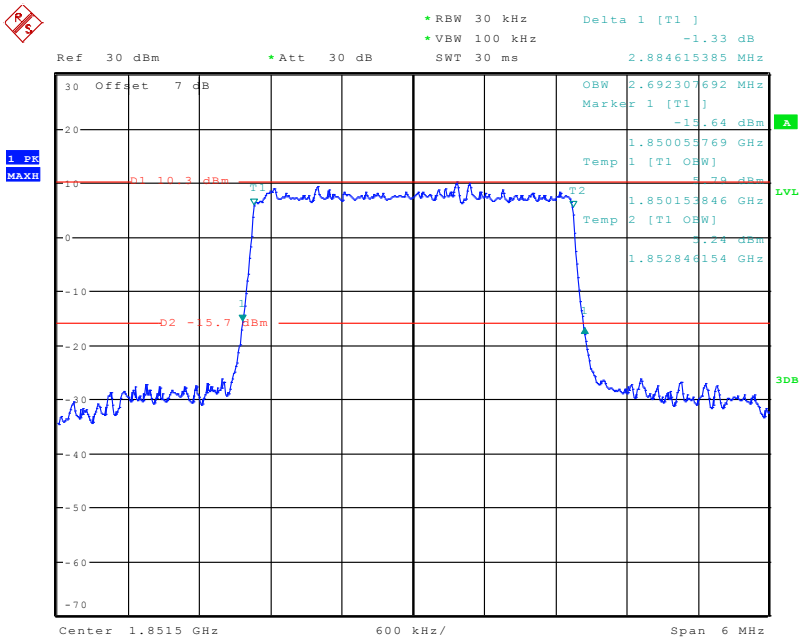
Date: 28.AUG.2020 09:49:52

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



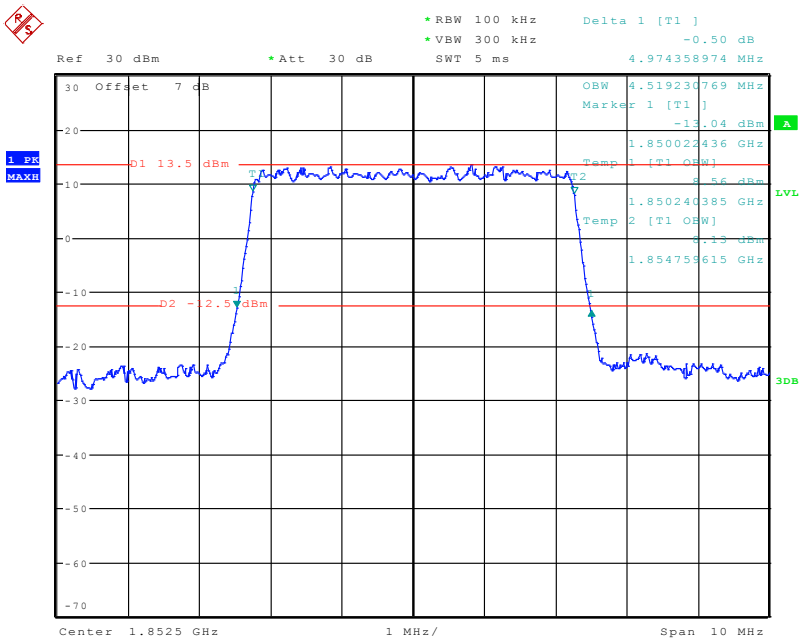
Date: 28.AUG.2020 09:59:58

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



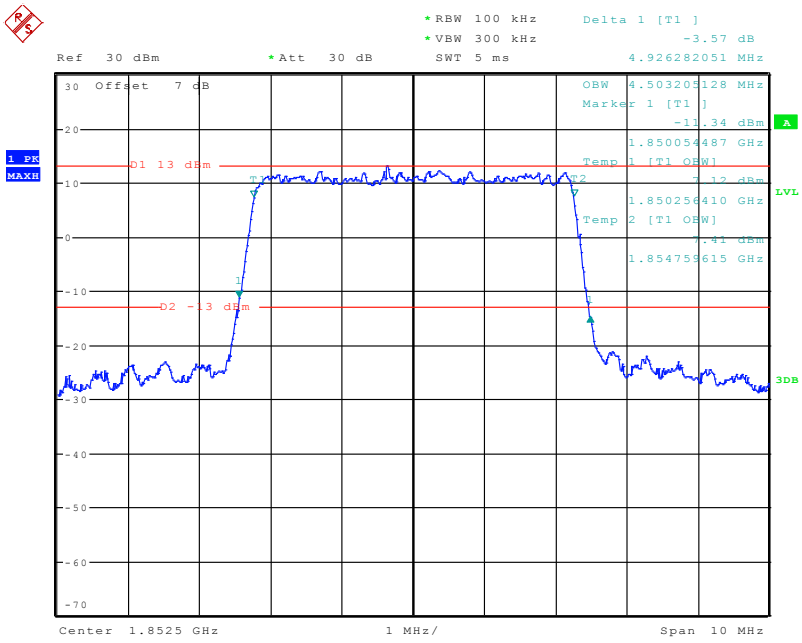
Date: 28.AUG.2020 09:58:59

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



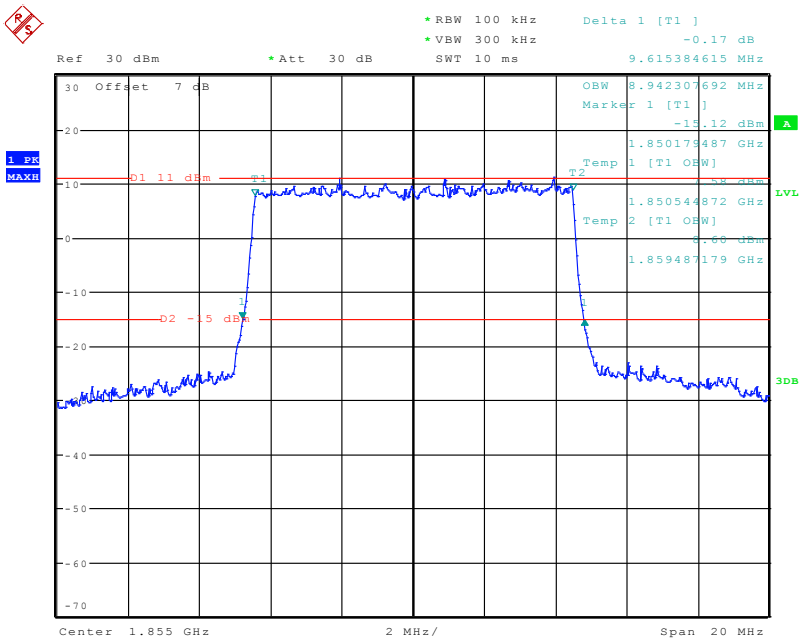
Date: 28.AUG.2020 10:02:16

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



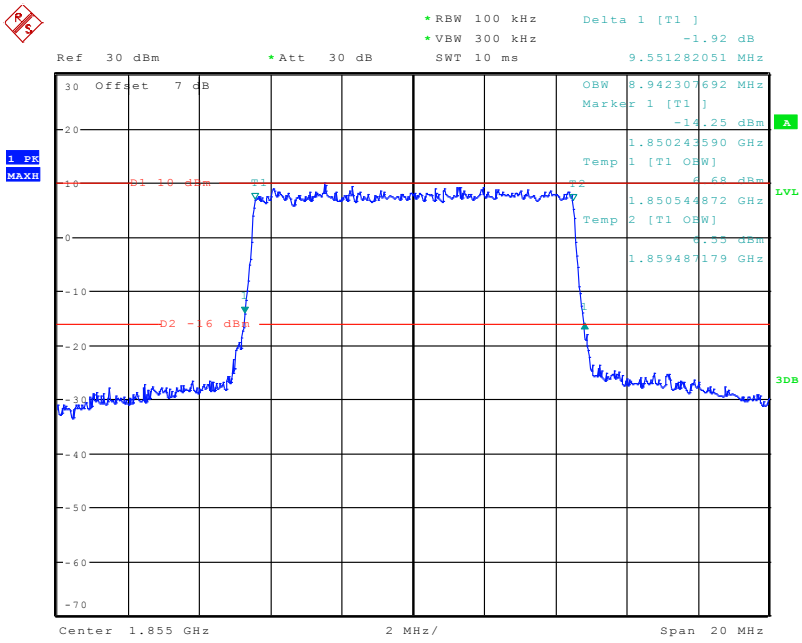
Date: 28.AUG.2020 10:03:16

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



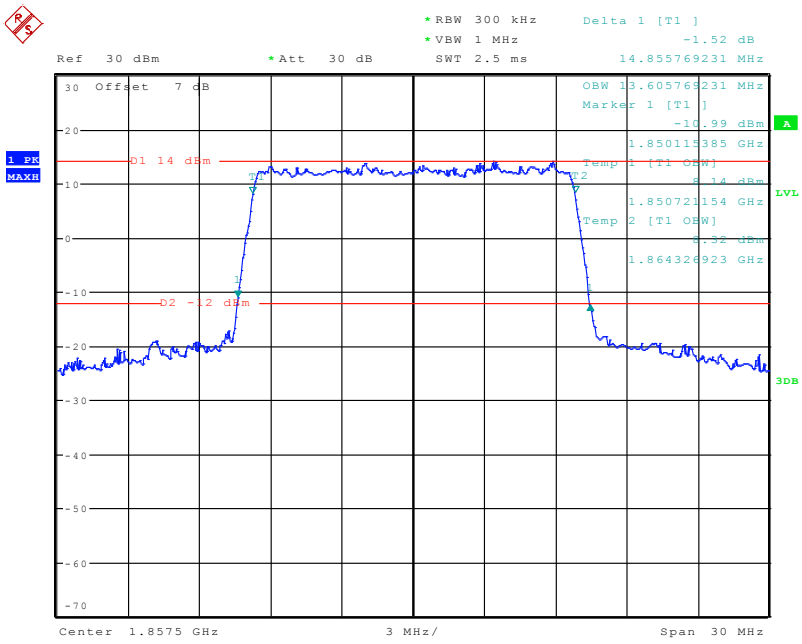
Date: 28.AUG.2020 10:12:08

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



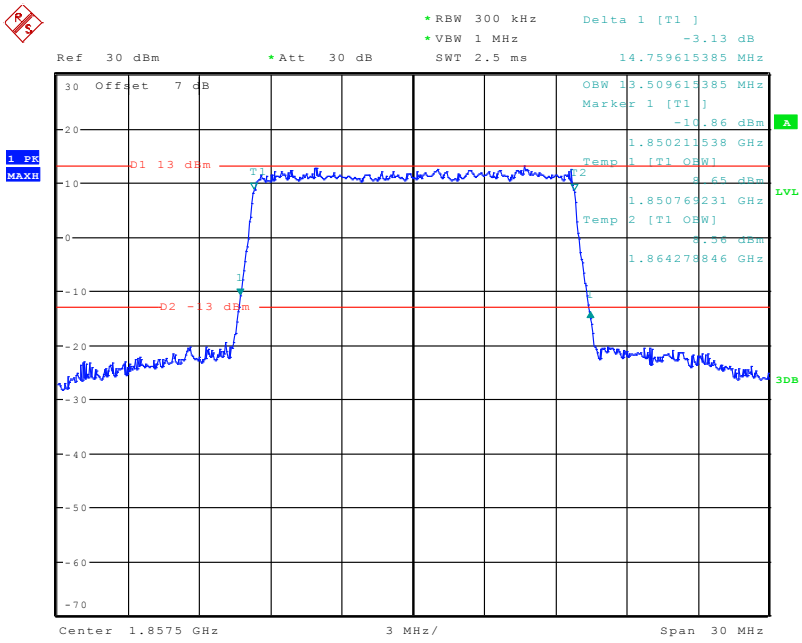
Date: 28.AUG.2020 10:10:45

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



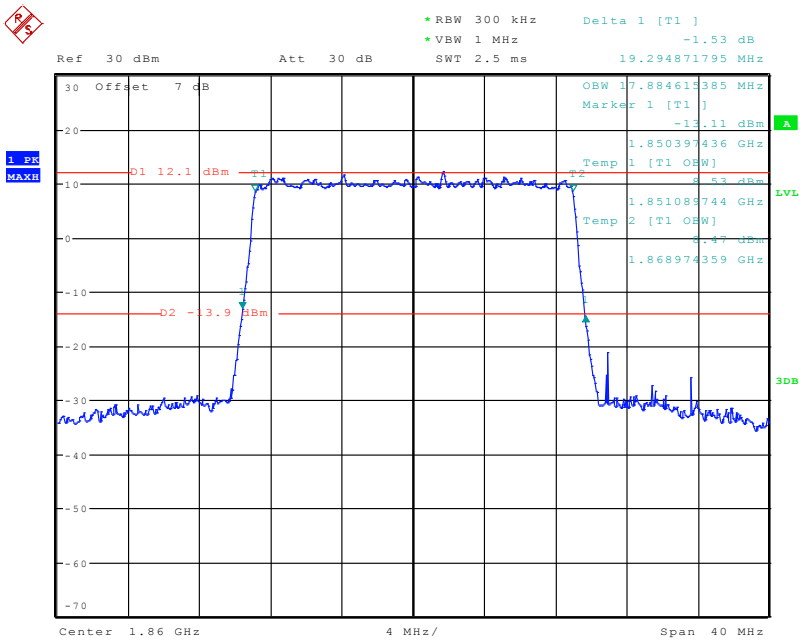
Date: 28.AUG.2020 10:14:30

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



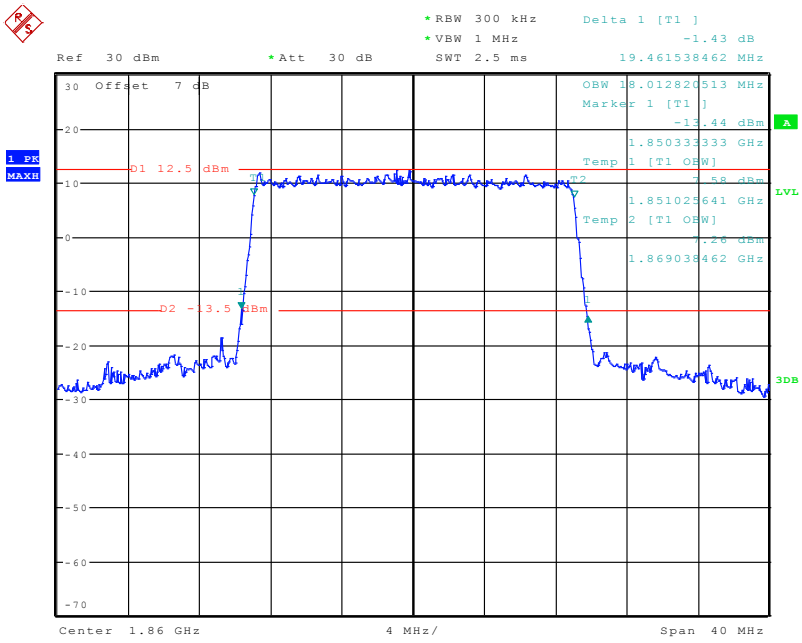
Date: 28.AUG.2020 10:15:09

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



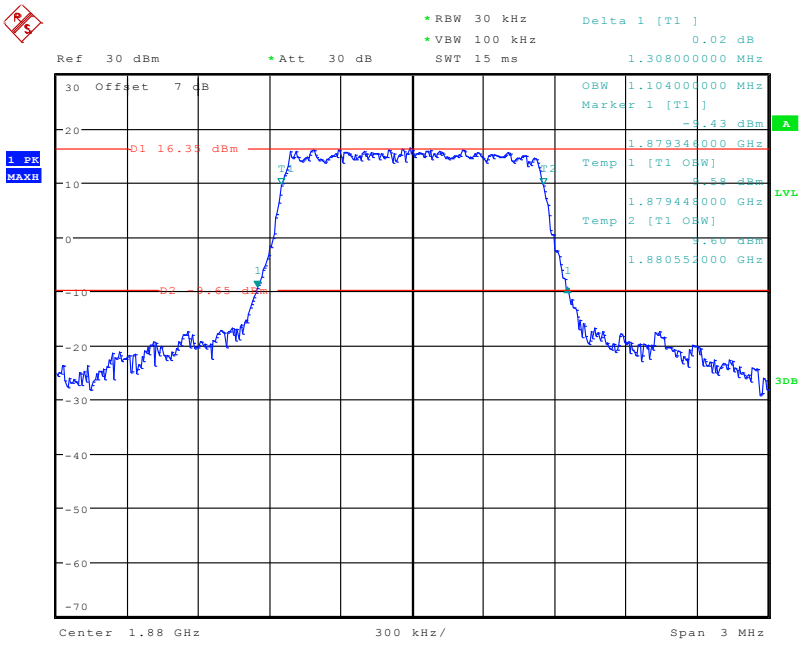
Date: 24.SEP.2020 17:04:57

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



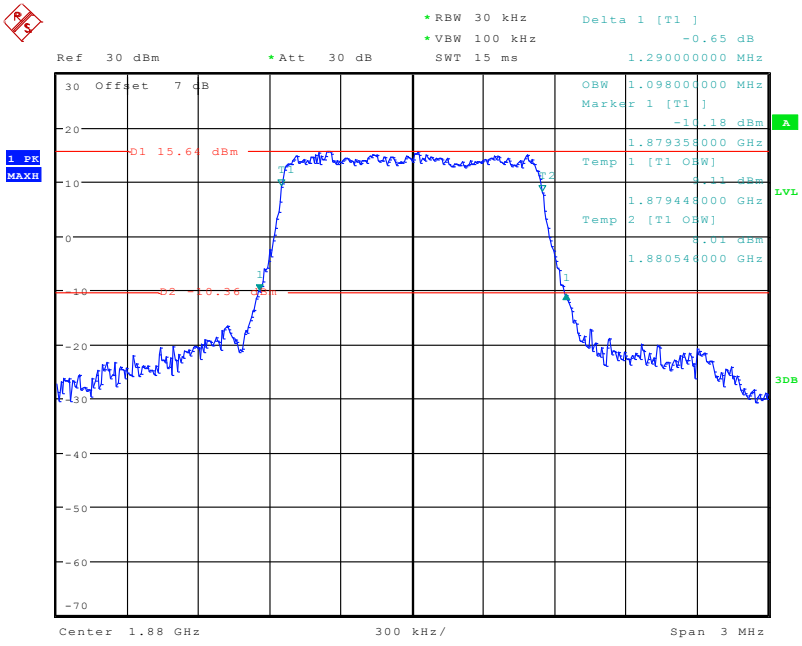
Date: 28.AUG.2020 10:21:13

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



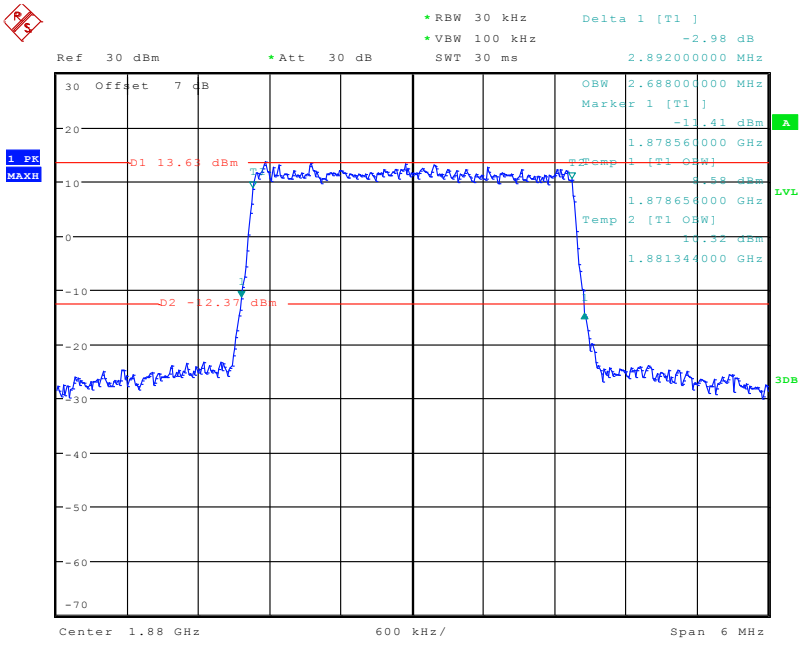
Date: 24.JUL.2020 23:59:22

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



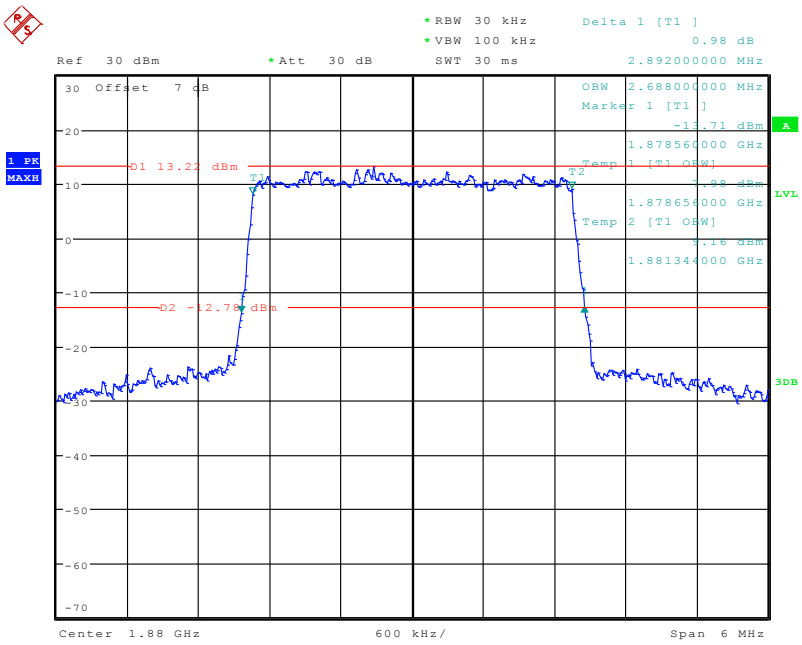
Date: 24.JUL.2020 23:59:45

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



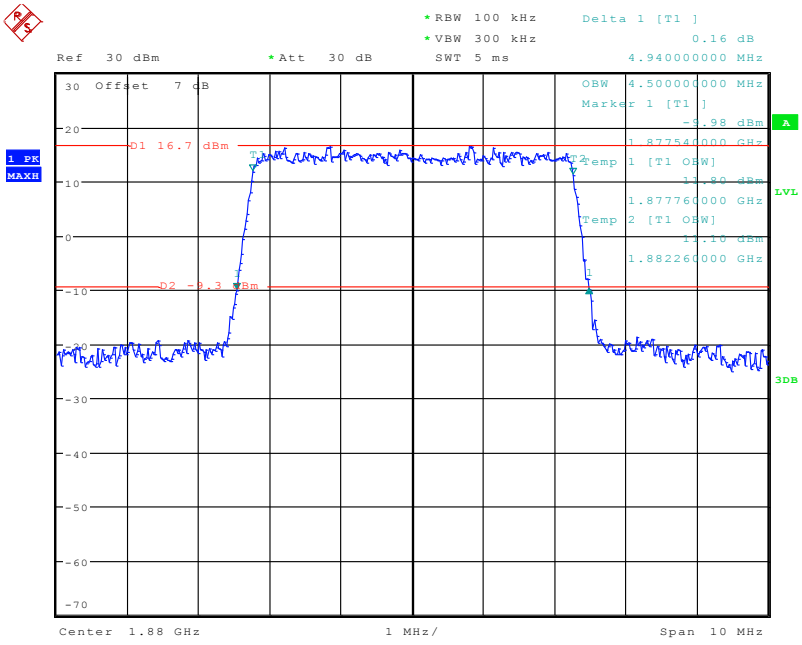
Date: 25.JUL.2020 00:00:05

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



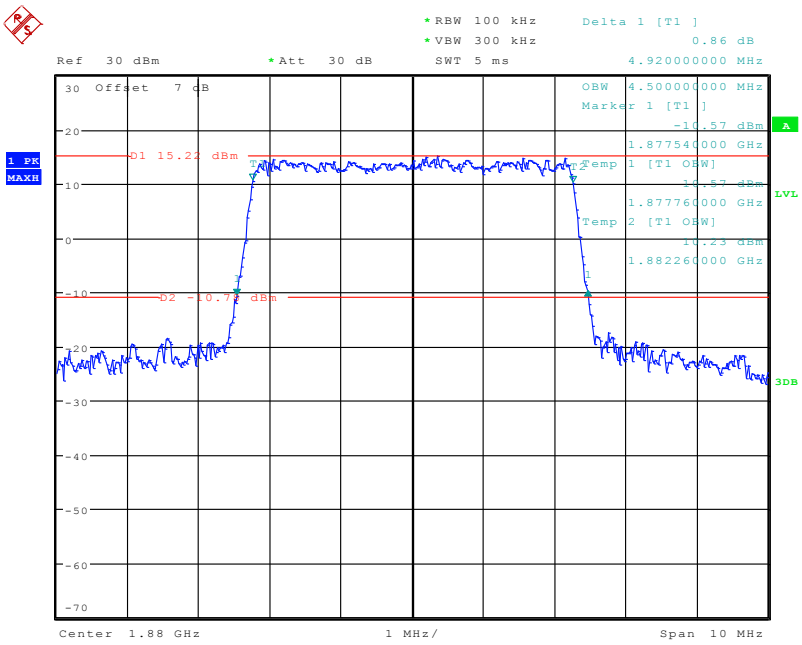
Date: 25.JUL.2020 00:00:26

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



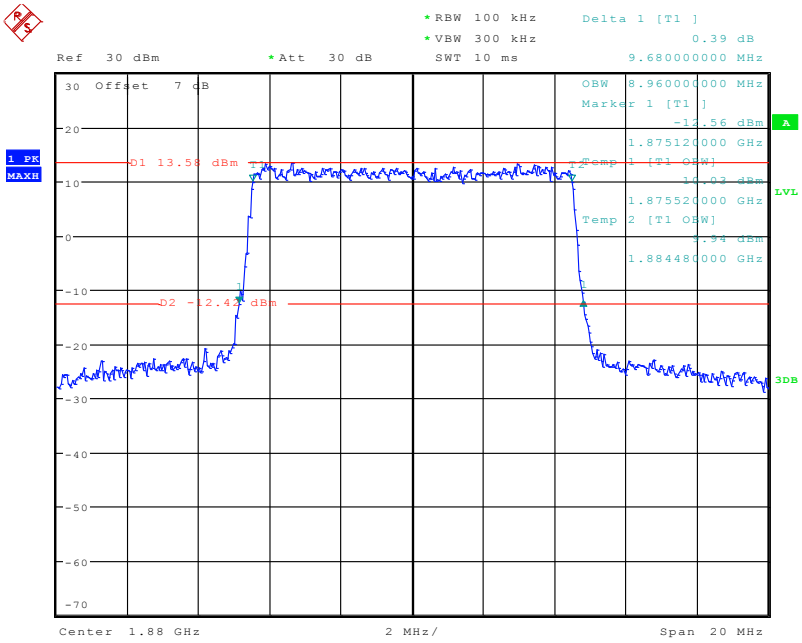
Date: 25.JUL.2020 00:00:49

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



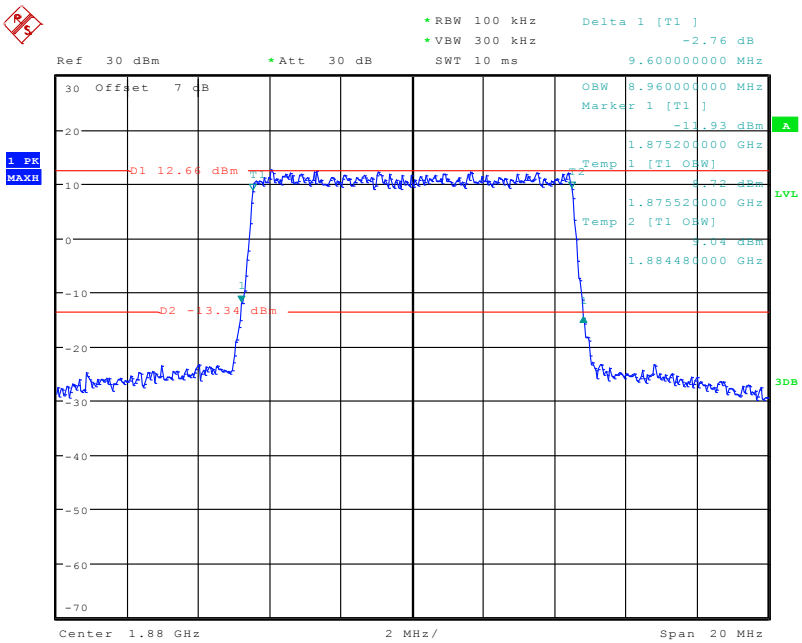
Date: 25.JUL.2020 00:01:09

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



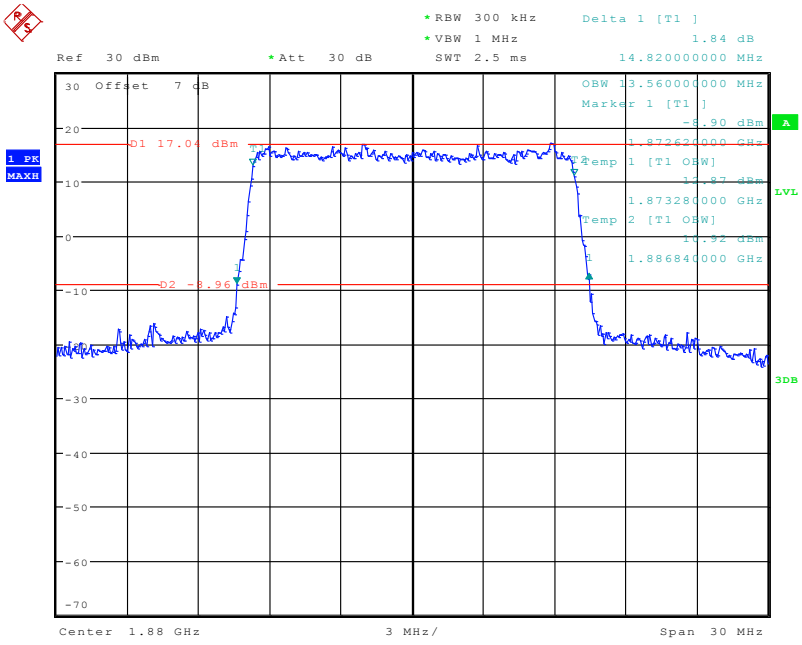
Date: 25.JUL.2020 00:01:33

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



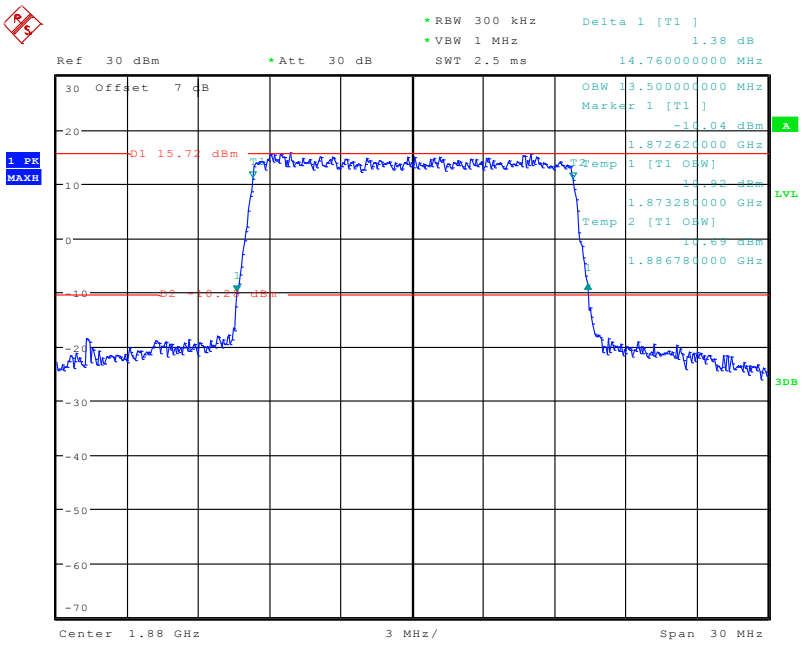
Date: 25.JUL.2020 00:01:55

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



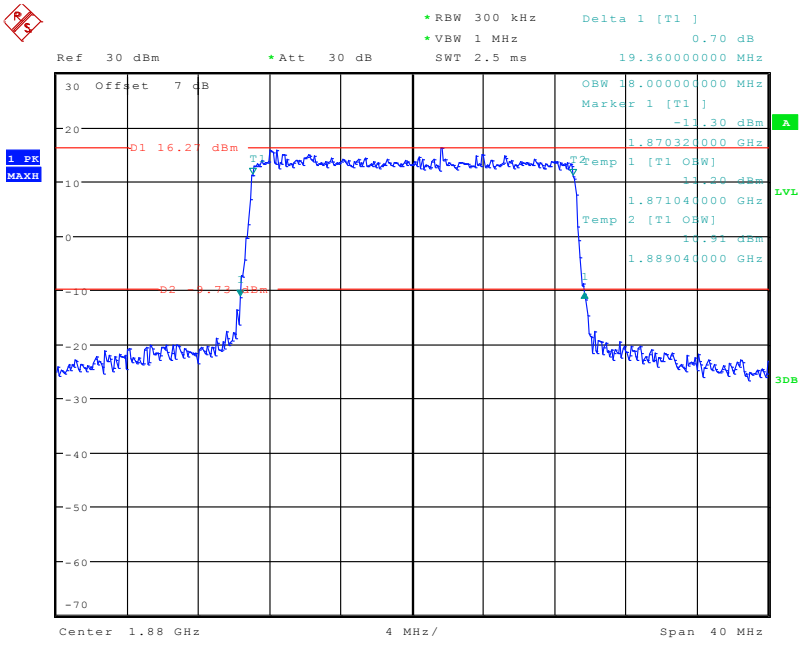
Date: 25.JUL.2020 00:02:21

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



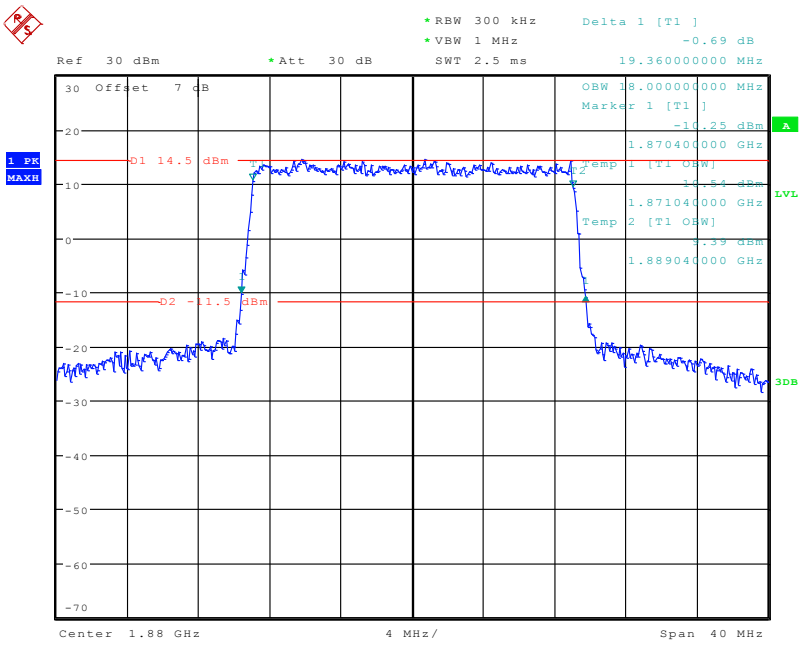
Date: 25.JUL.2020 00:02:43

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



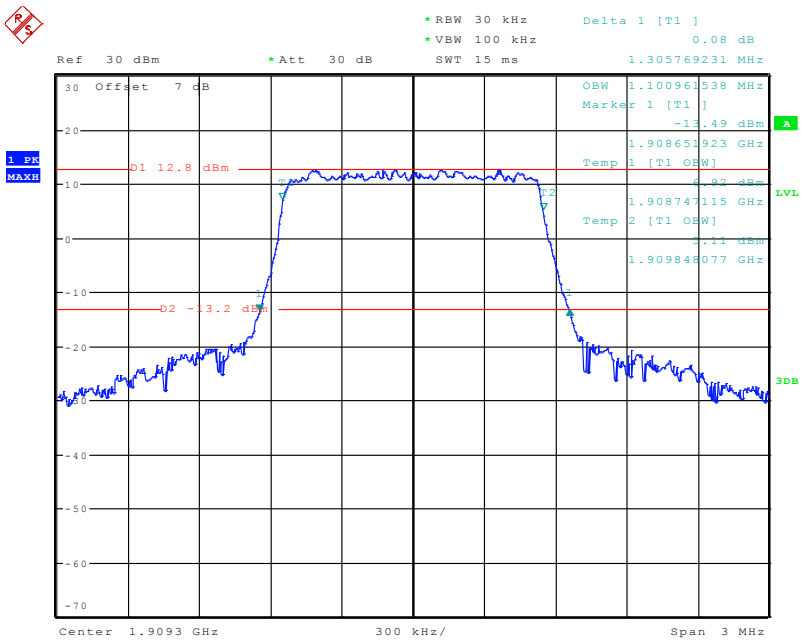
Date: 25.JUL.2020 00:03:06

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



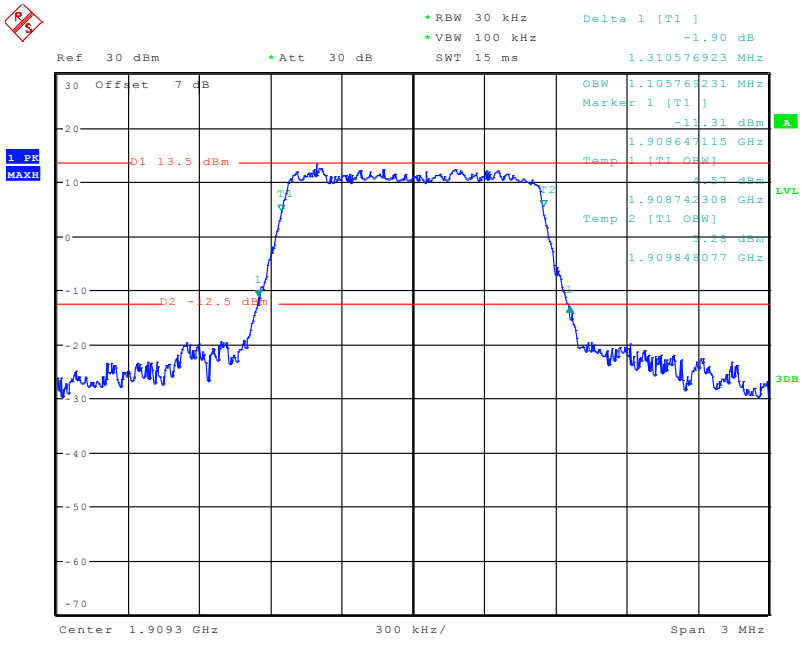
Date: 25.JUL.2020 00:03:30

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



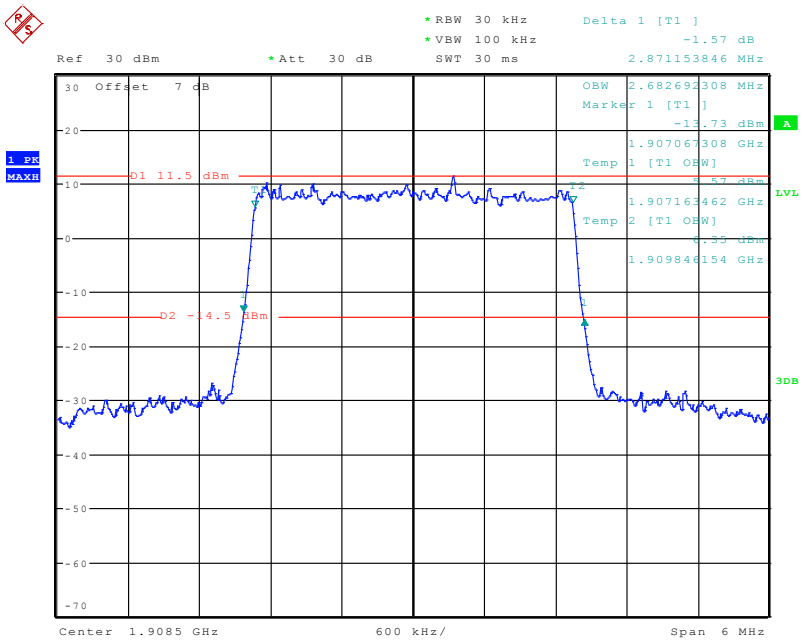
Date: 28.AUG.2020 09:52:20

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



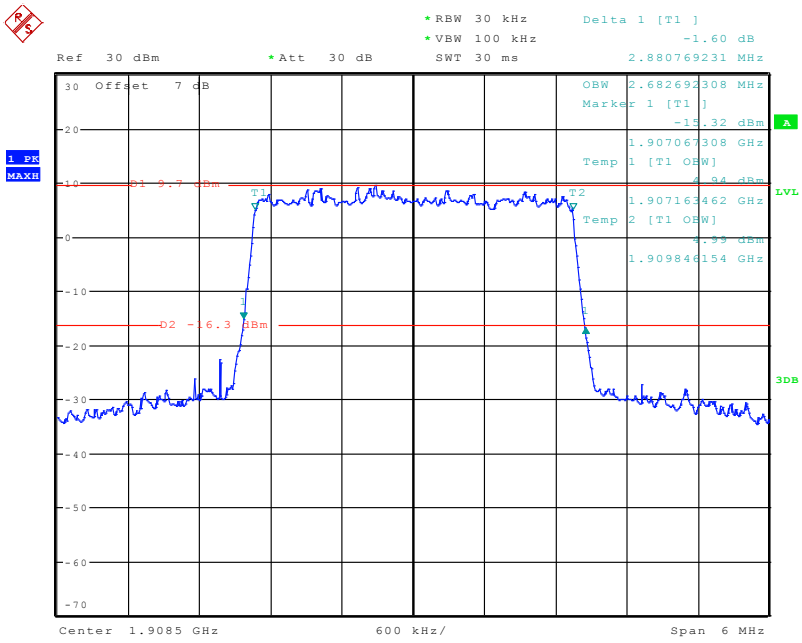
Date: 28.AUG.2020 09:51:16

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



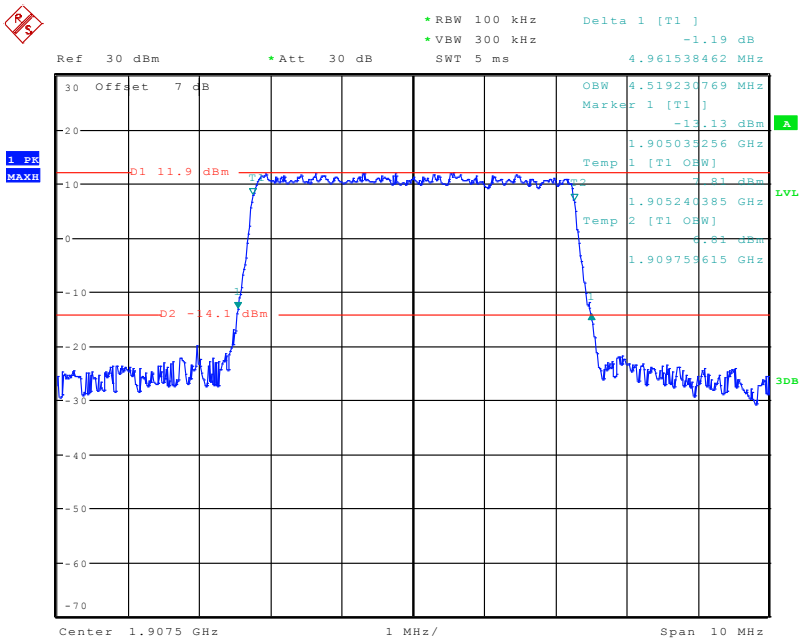
Date: 28.AUG.2020 09:55:52

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



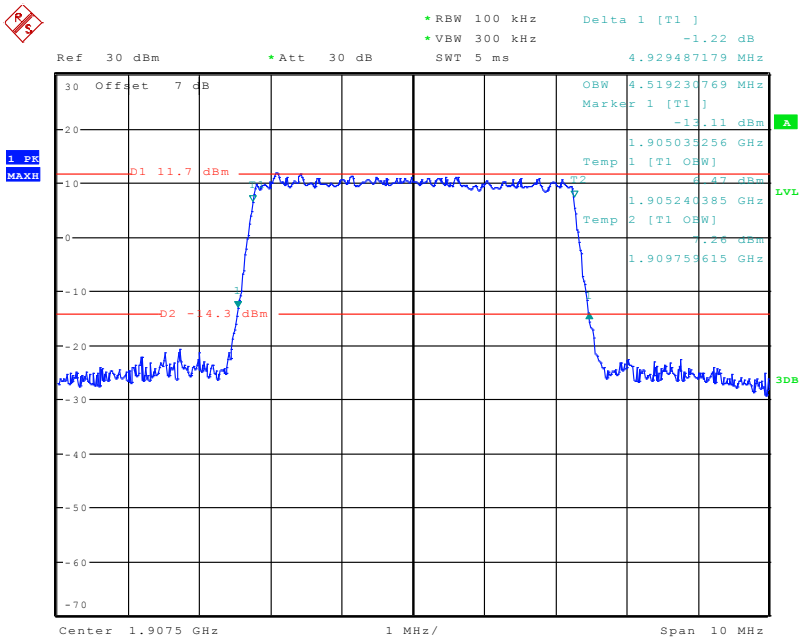
Date: 28.AUG.2020 09:57:26

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



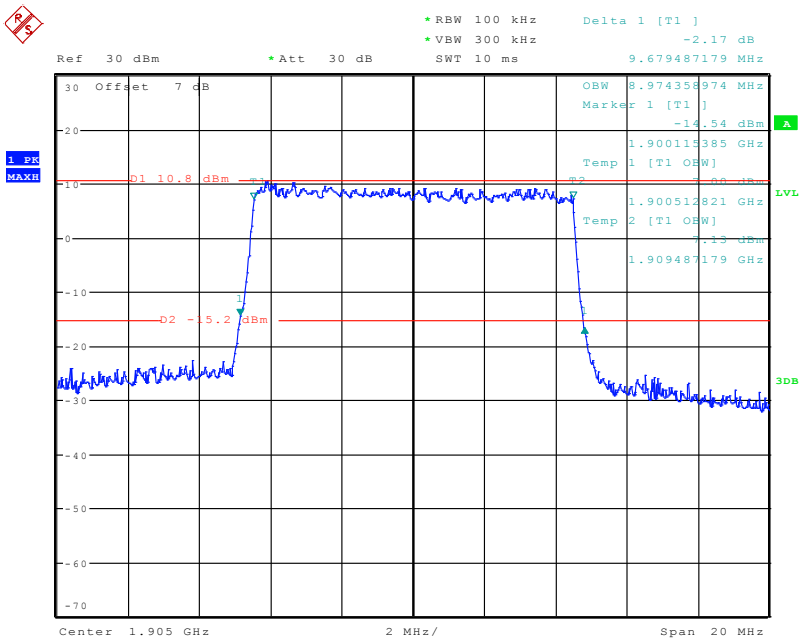
Date: 28.AUG.2020 10:06:06

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



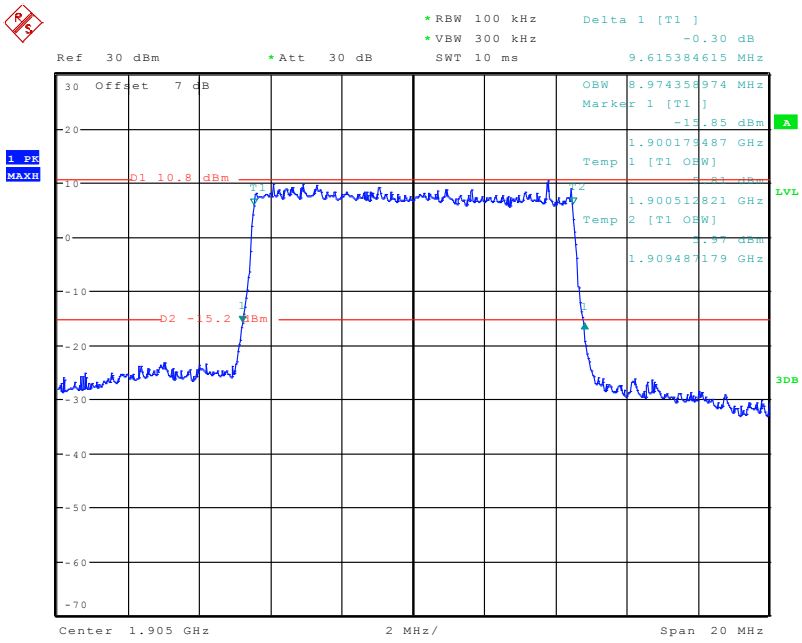
Date: 28.AUG.2020 10:05:01

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



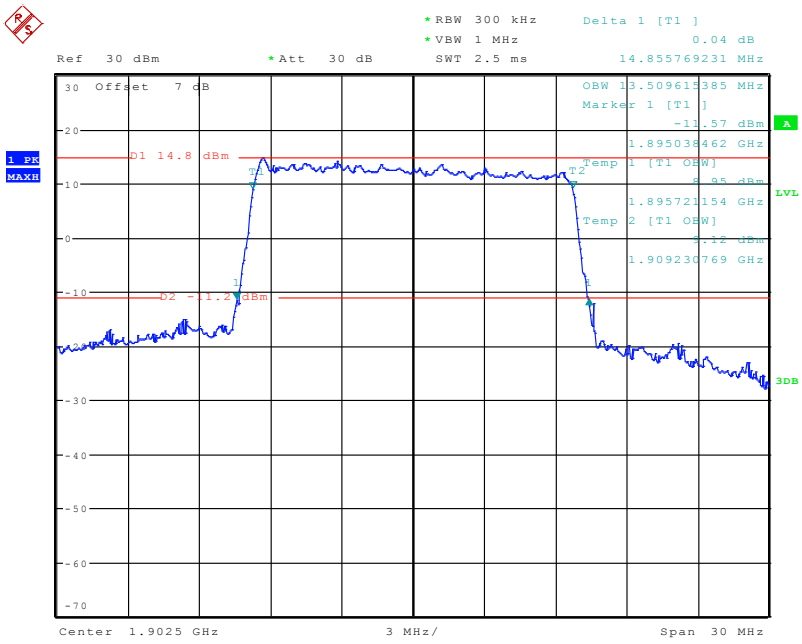
Date: 28.AUG.2020 10:08:52

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



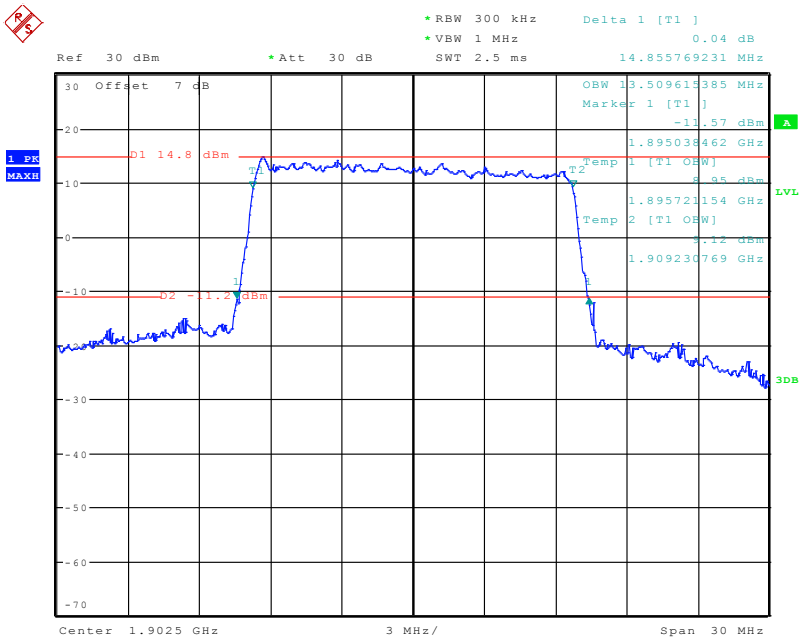
Date: 28.AUG.2020 10:09:55

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



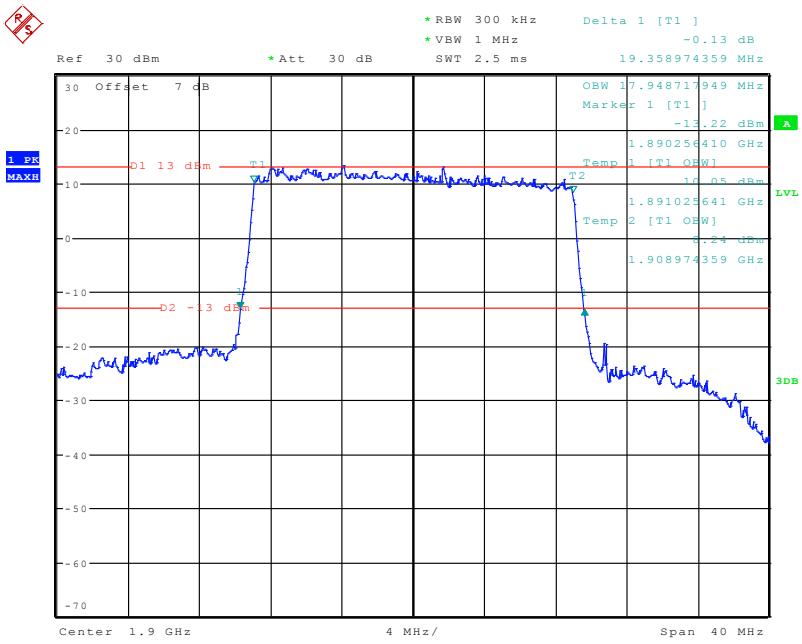
Date: 28.AUG.2020 10:17:27

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



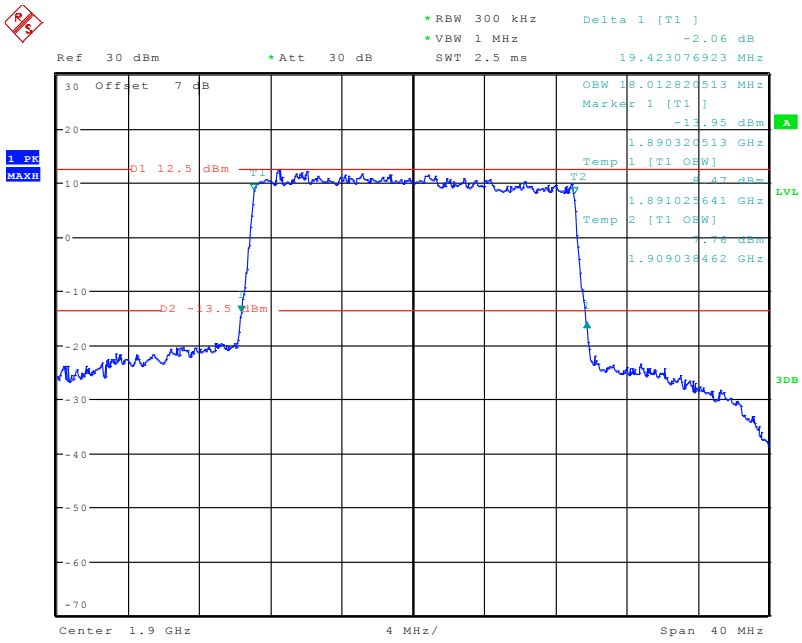
Date: 28.AUG.2020 10:17:27

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



Date: 28.AUG.2020 10:18:48

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel

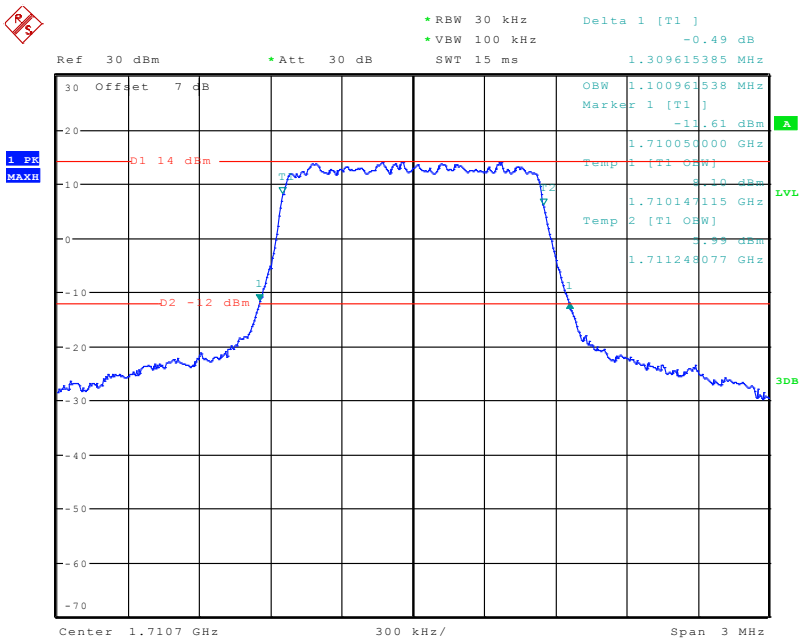


Date: 28.AUG.2020 10:19:45

Band 4:

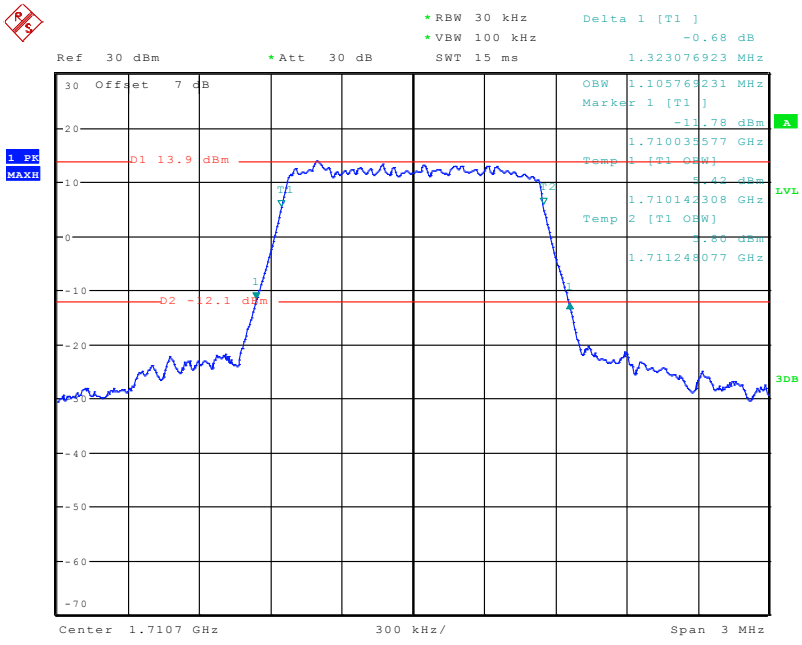
Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.101	1.310
		Middle	1.098	1.296
		High	1.106	1.317
	16QAM	Low	1.106	1.323
		Middle	1.110	1.314
		High	1.096	1.293
3	QPSK	Low	2.683	2.879
		Middle	2.688	2.880
		High	2.683	2.863
	16QAM	Low	2.683	2.900
		Middle	2.688	2.892
		High	2.683	2.904
5	QPSK	Low	4.503	4.955
		Middle	4.520	5.040
		High	4.519	4.952
	16QAM	Low	4.519	5.016
		Middle	4.500	4.920
		High	4.487	4.904
10	QPSK	Low	8.974	9.865
		Middle	8.960	9.680
		High	8.974	9.615
	16QAM	Low	8.974	9.699
		Middle	8.960	9.520
		High	8.974	9.647
15	QPSK	Low	13.510	14.952
		Middle	13.560	14.940
		High	13.510	14.856
	16QAM	Low	13.558	14.837
		Middle	13.560	14.700
		High	13.558	14.712
20	QPSK	Low	18.013	19.462
		Middle	18.000	19.360
		High	17.949	19.311
	16QAM	Low	18.077	19.500
		Middle	18.080	19.280
		High	18.013	19.295

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



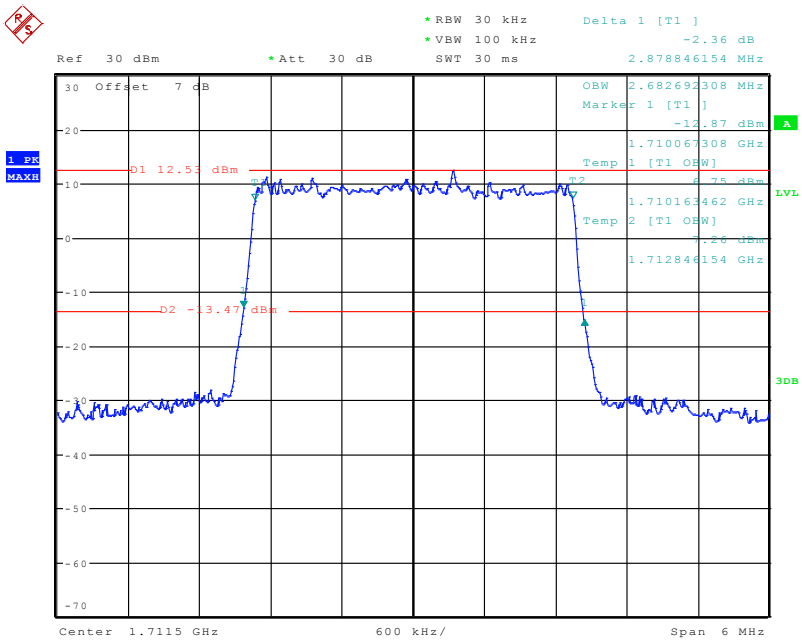
Date: 28.AUG.2020 11:12:40

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



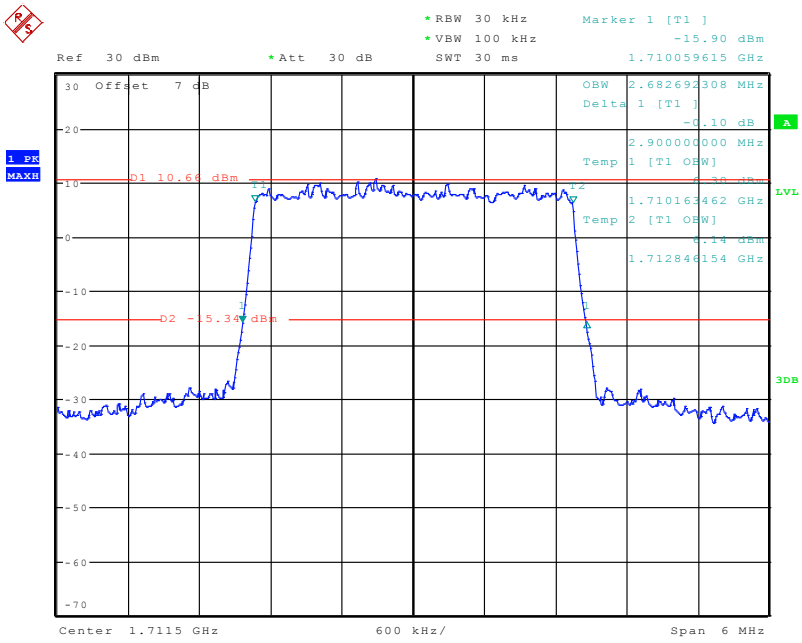
Date: 28.AUG.2020 11:11:10

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



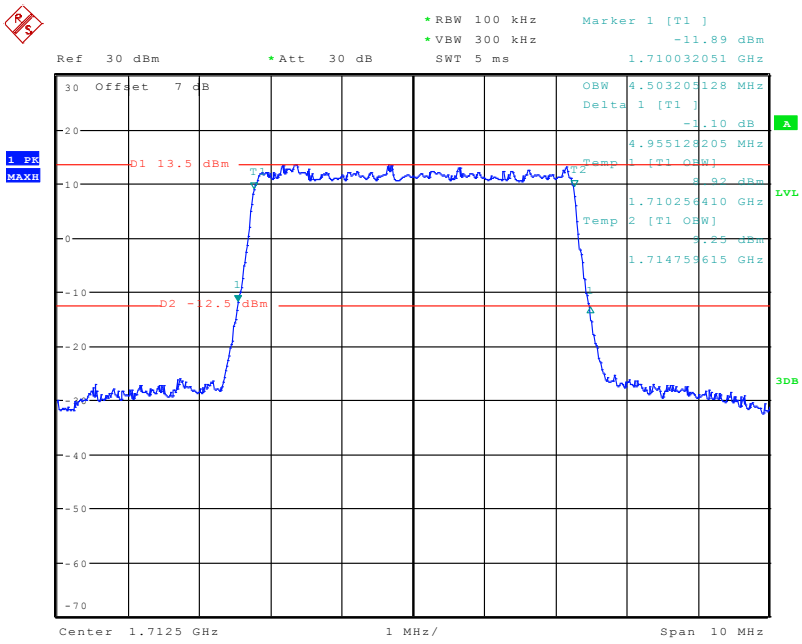
Date: 28.AUG.2020 11:43:40

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



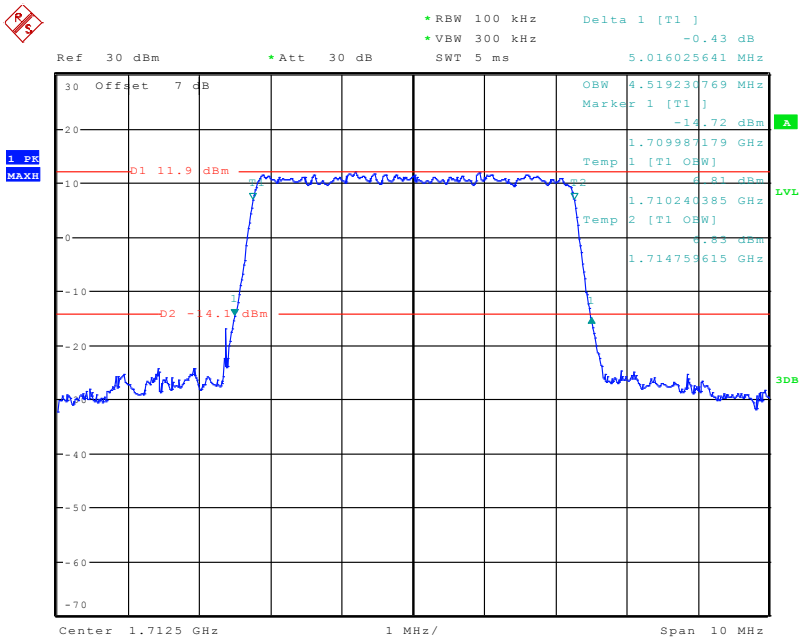
Date: 28.AUG.2020 11:42:20

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



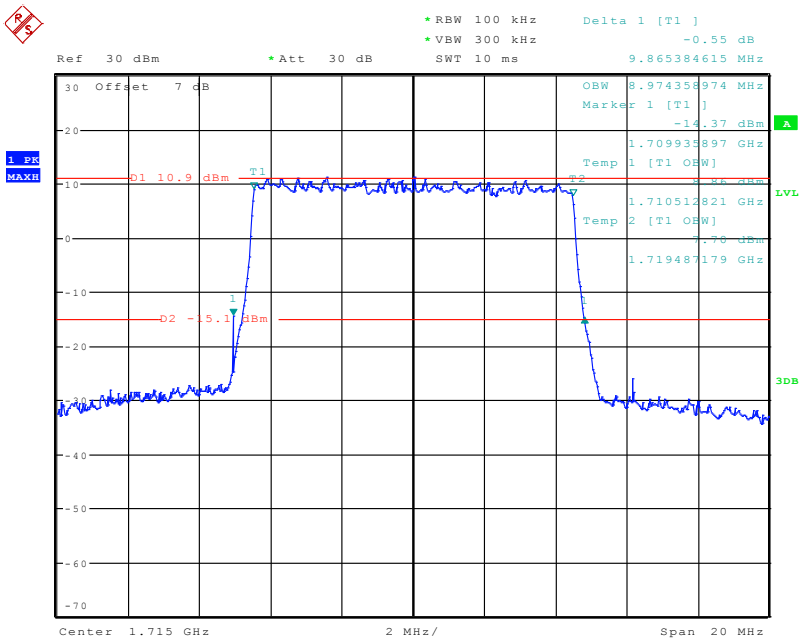
Date: 28.AUG.2020 12:12:15

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



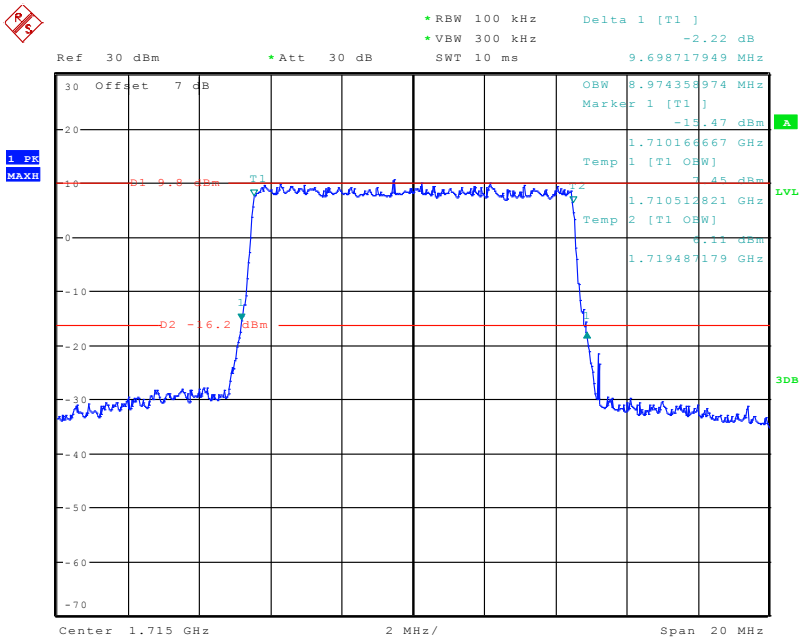
Date: 28.AUG.2020 12:10:45

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



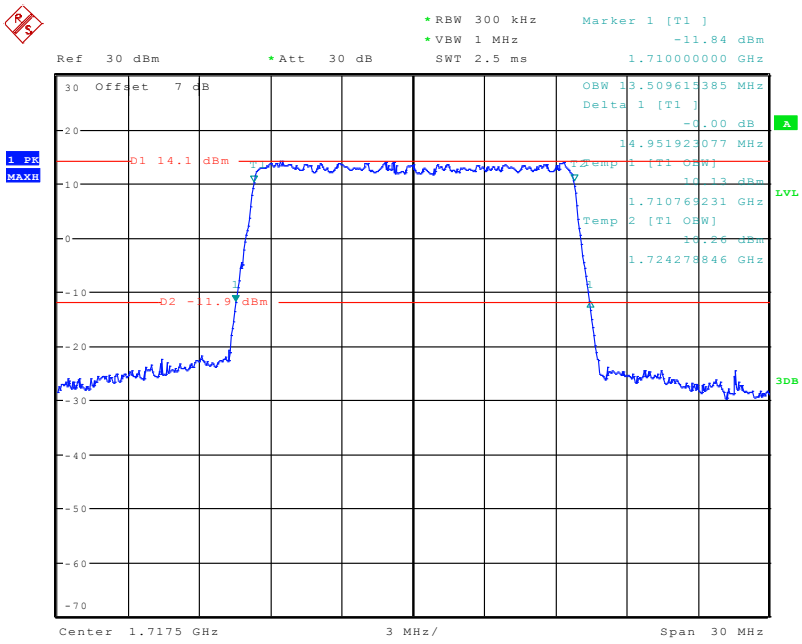
Date: 28.AUG.2020 13:14:04

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



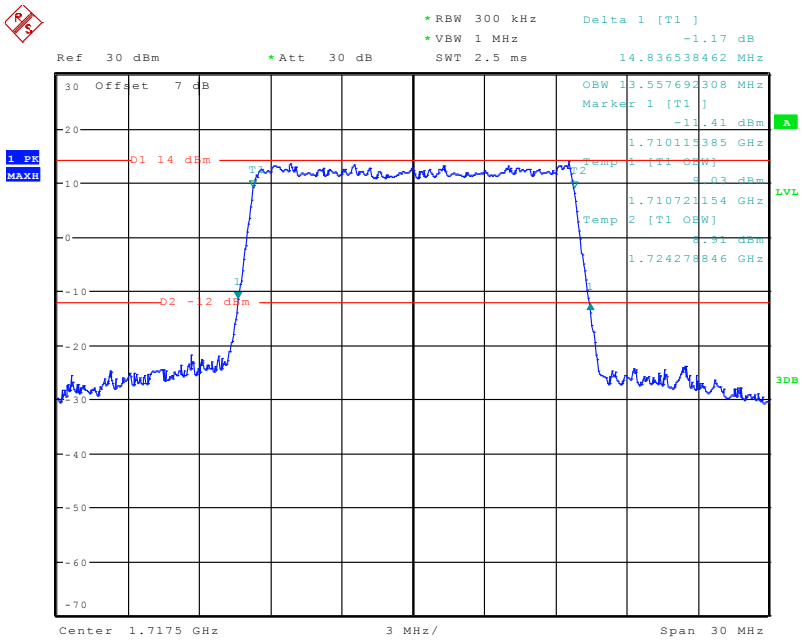
Date: 28.AUG.2020 13:15:24

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



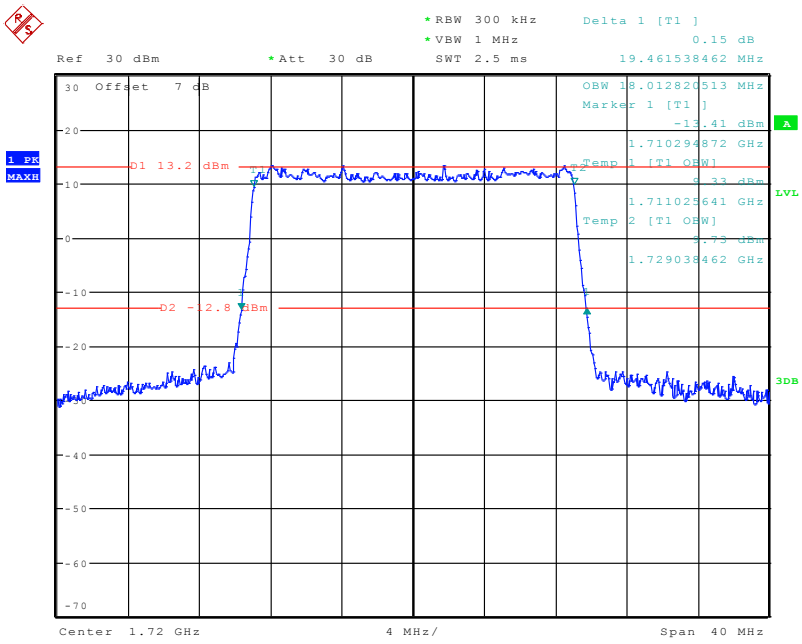
Date: 28.AUG.2020 13:21:38

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



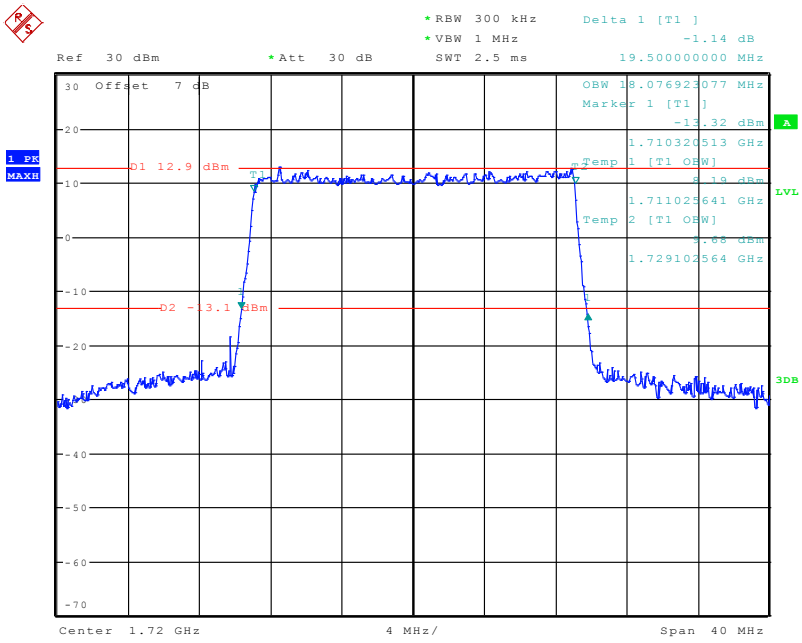
Date: 28.AUG.2020 13:23:11

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



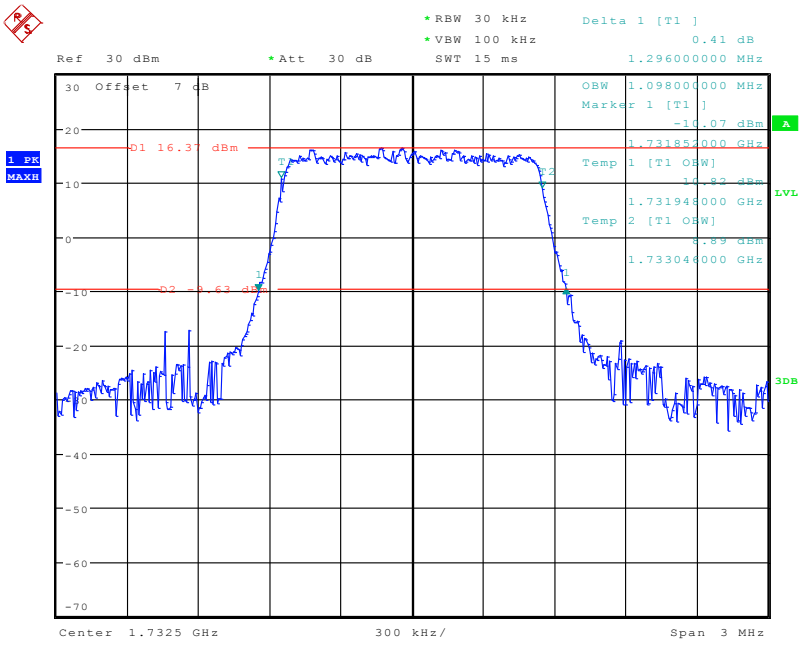
Date: 28.AUG.2020 13:29:53

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



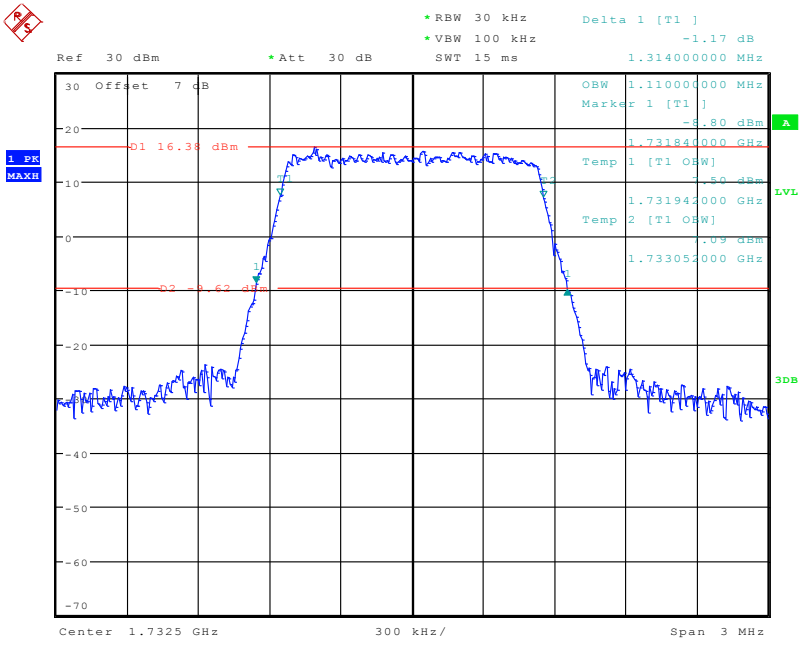
Date: 28.AUG.2020 13:31:00

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



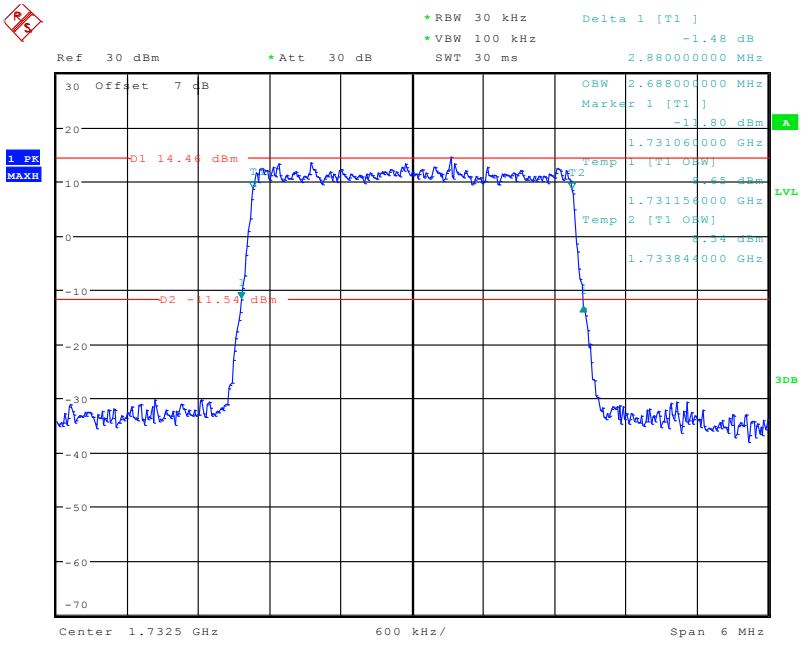
Date: 25.JUL.2020 00:03:50

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



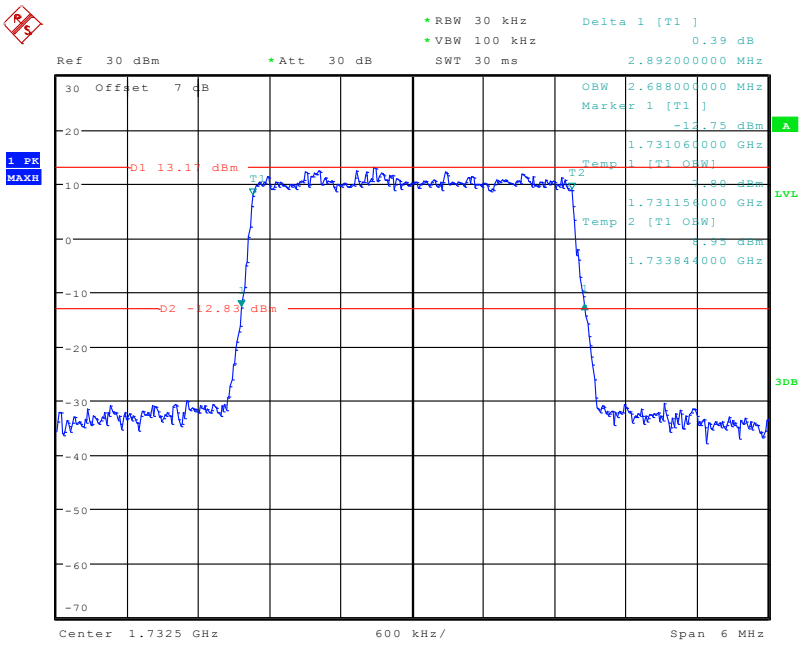
Date: 25.JUL.2020 00:04:11

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



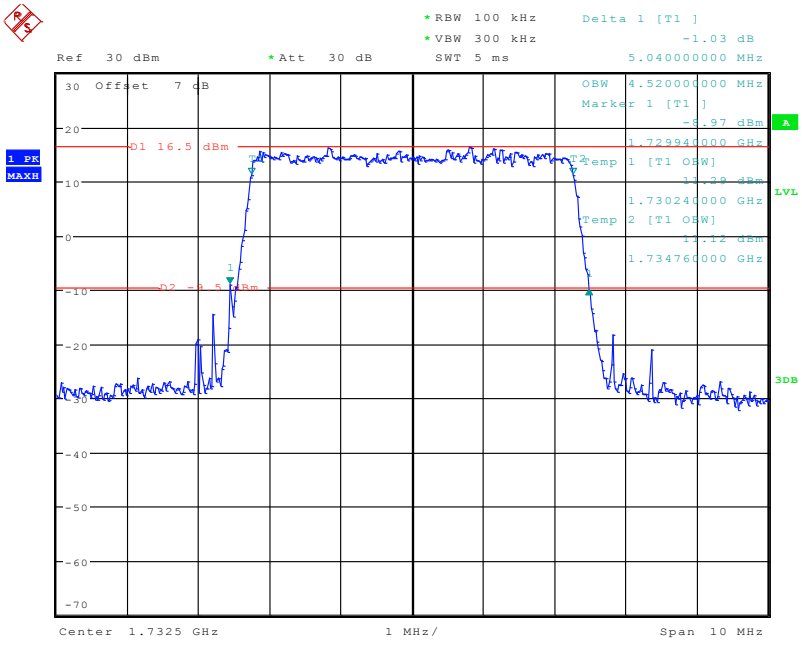
Date: 25.JUL.2020 00:04:31

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



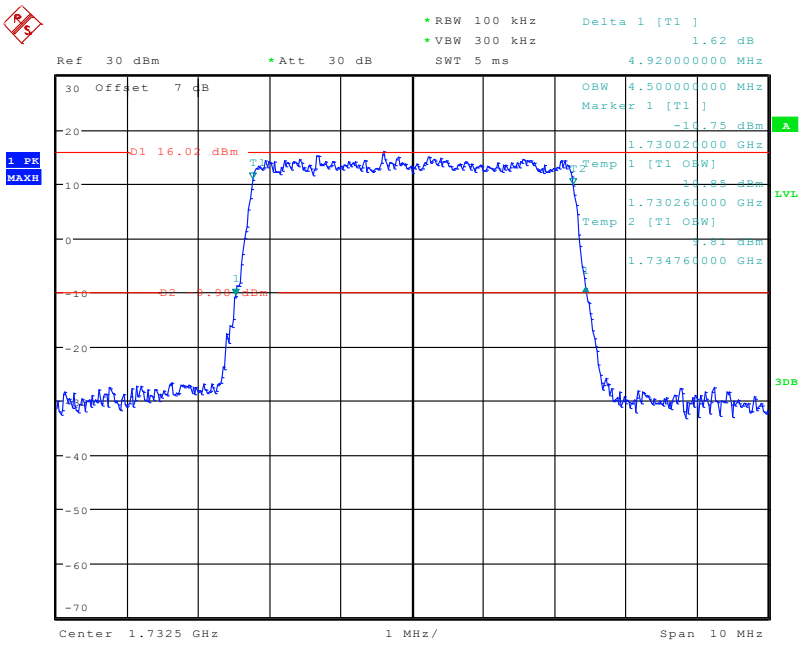
Date: 25.JUL.2020 00:04:51

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



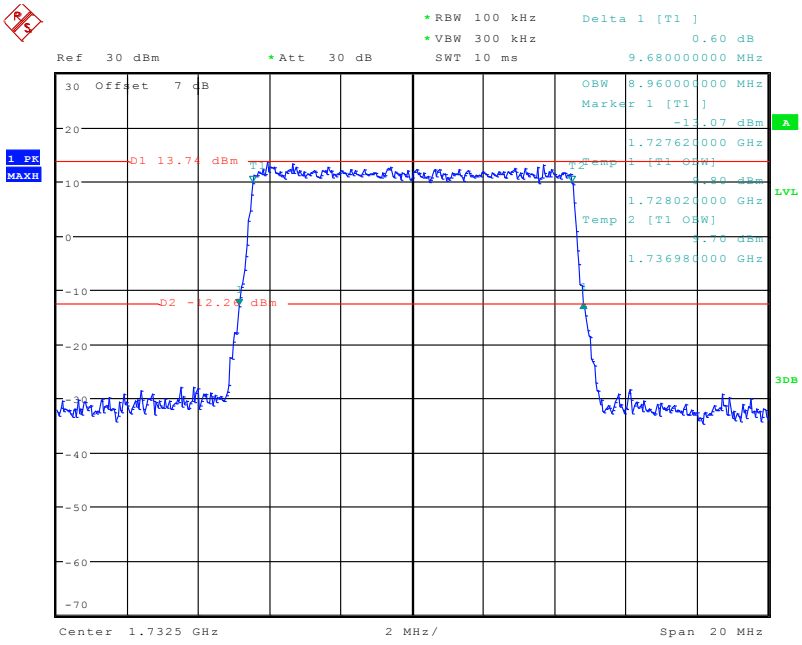
Date: 25.JUL.2020 00:05:17

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



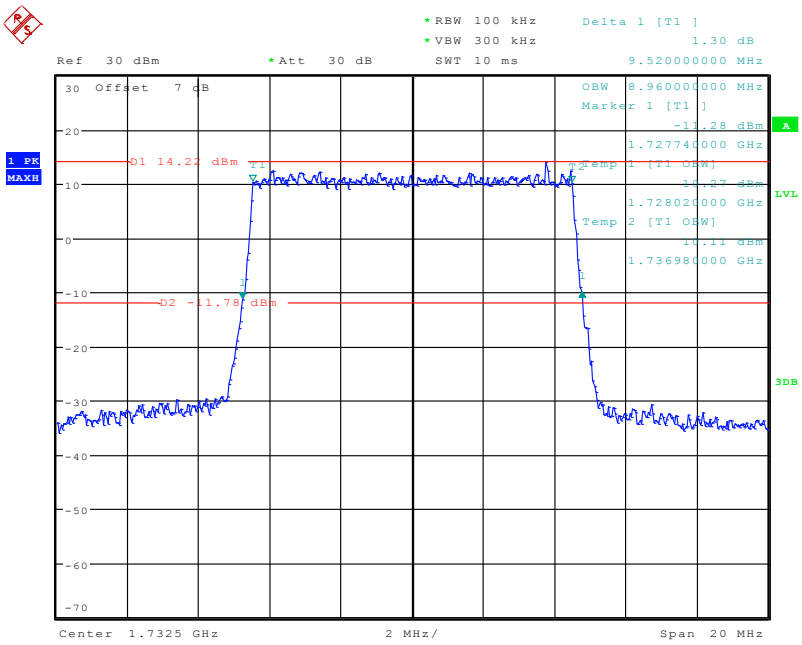
Date: 25.JUL.2020 00:05:38

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



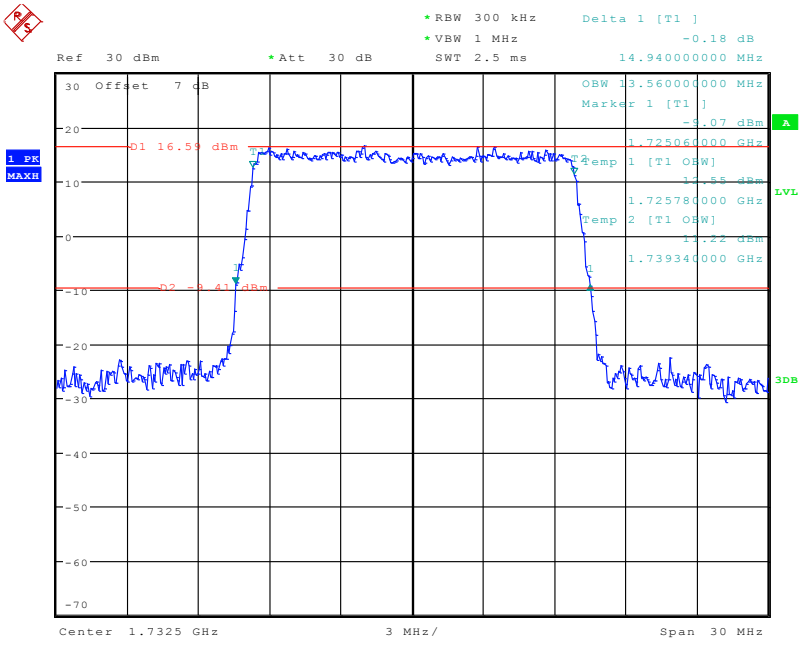
Date: 25.JUL.2020 00:06:03

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



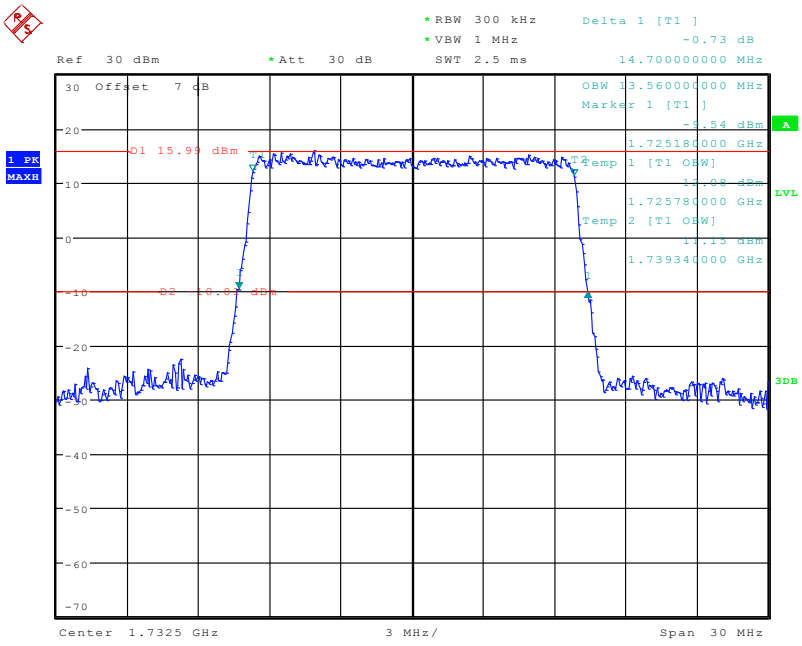
Date: 25.JUL.2020 00:06:24

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



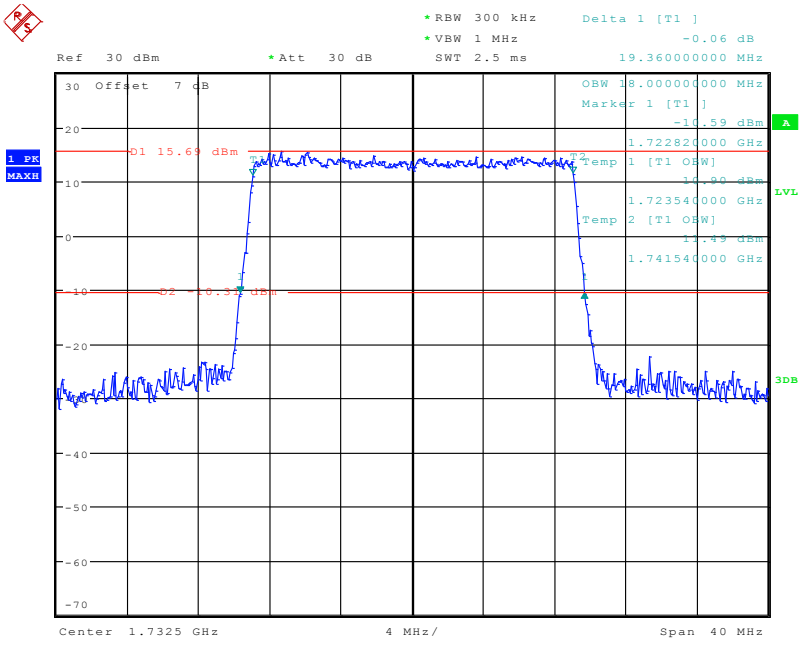
Date: 25.JUL.2020 00:06:50

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



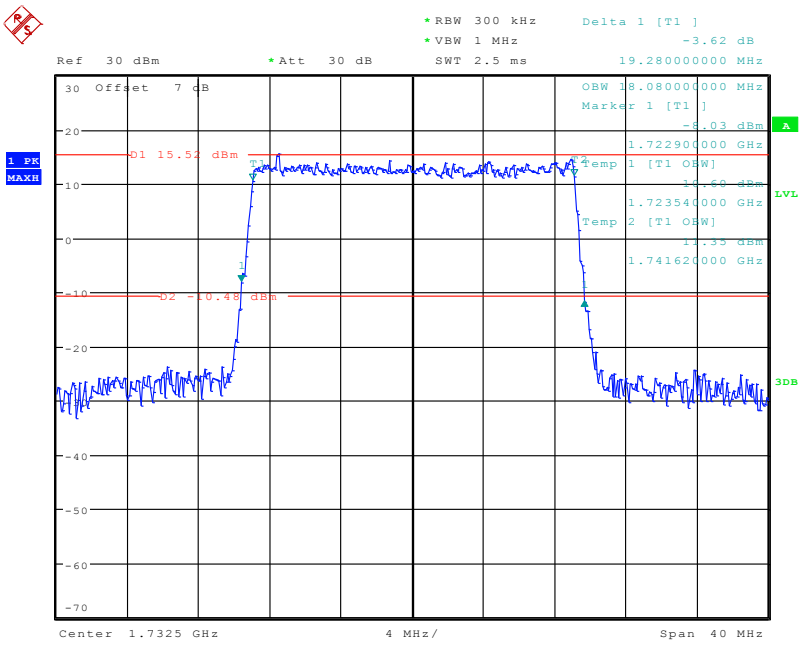
Date: 25.JUL.2020 00:07:17

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



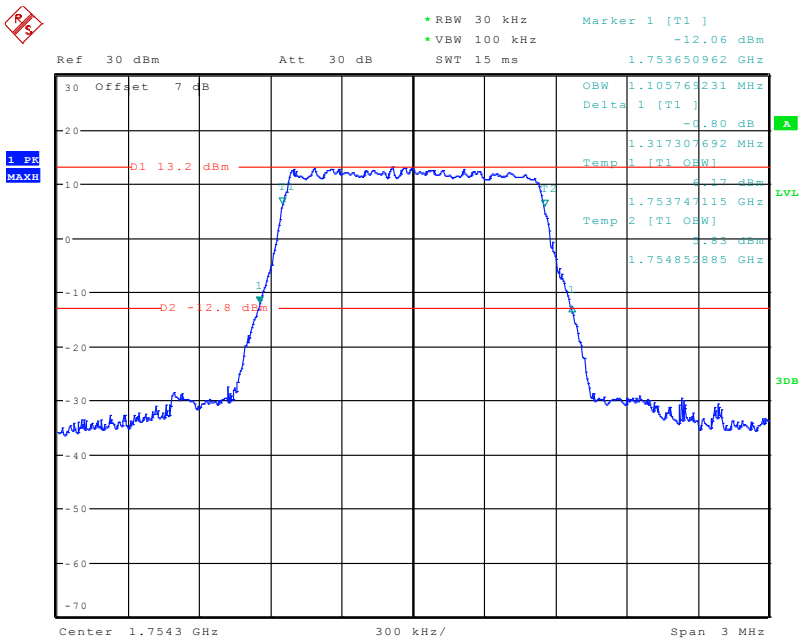
Date: 25.JUL.2020 00:07:44

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



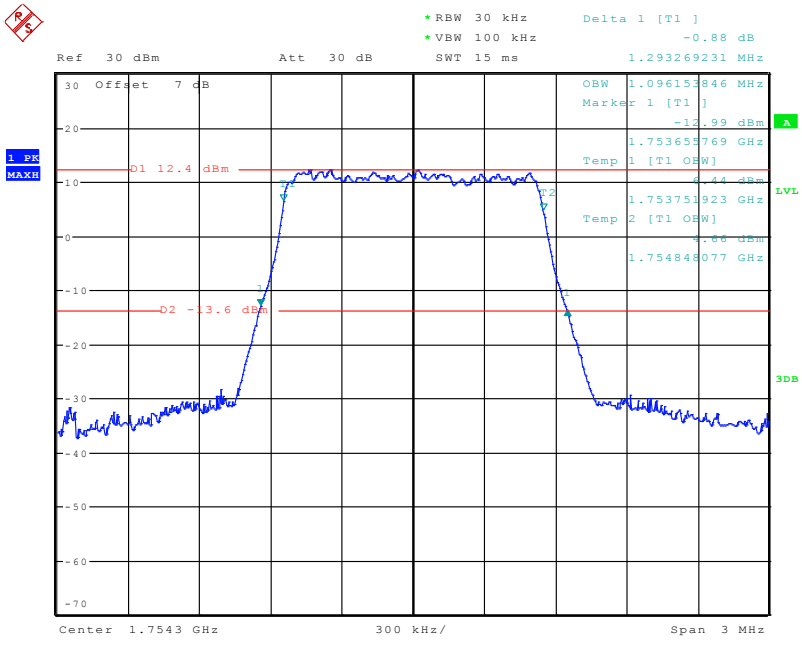
Date: 25.JUL.2020 00:08:08

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



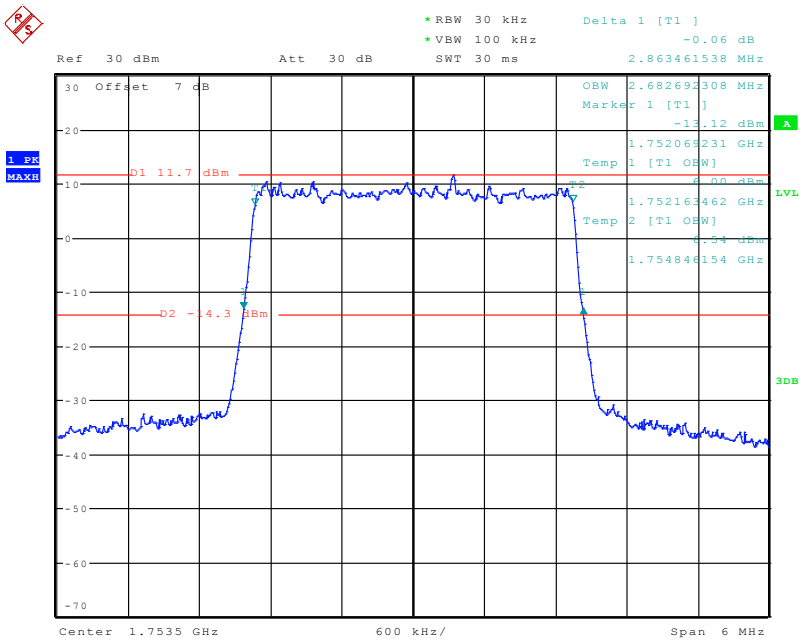
Date: 24.SEP.2020 15:24:30

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



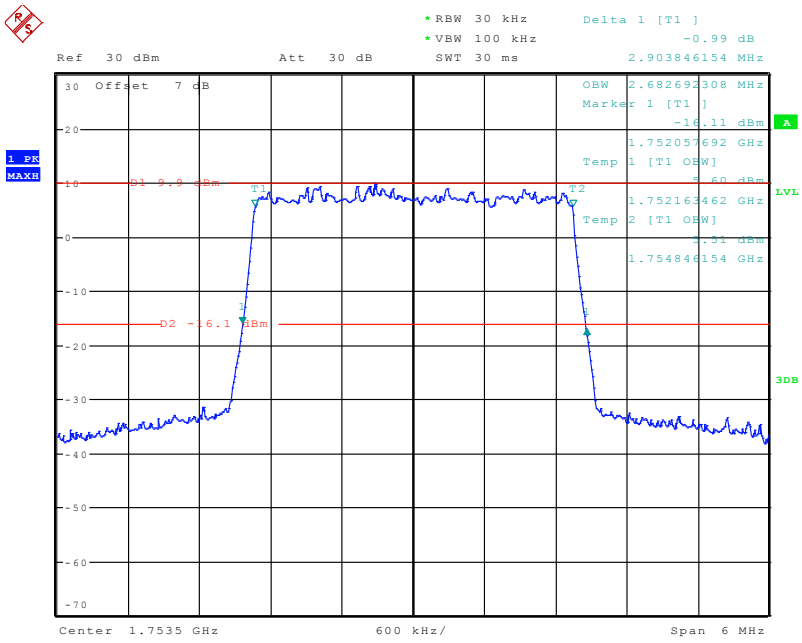
Date: 24.SEP.2020 15:26:16

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



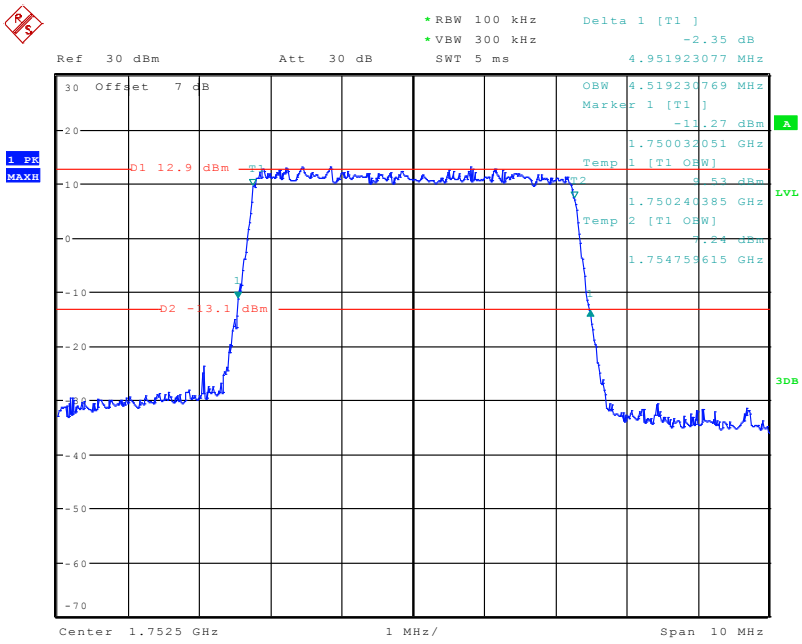
Date: 24.SEP.2020 15:29:05

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



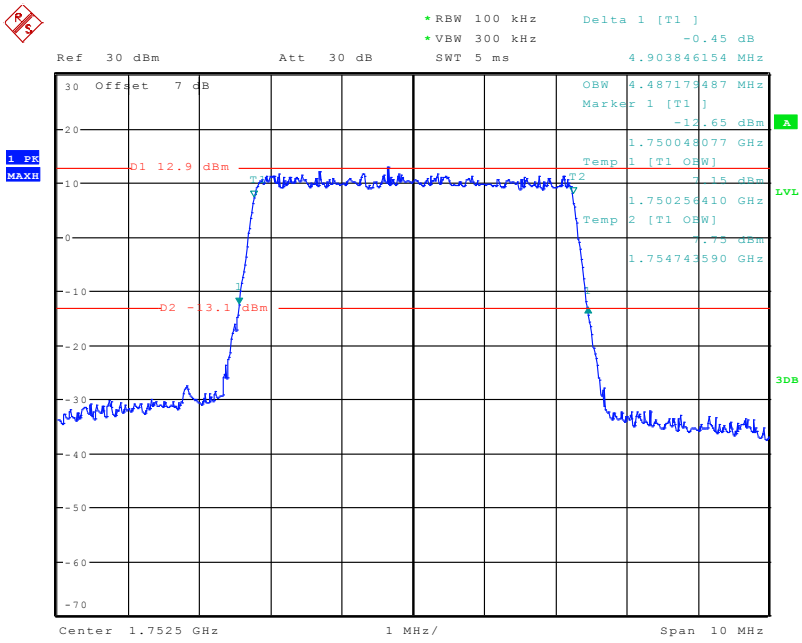
Date: 24.SEP.2020 15:32:20

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



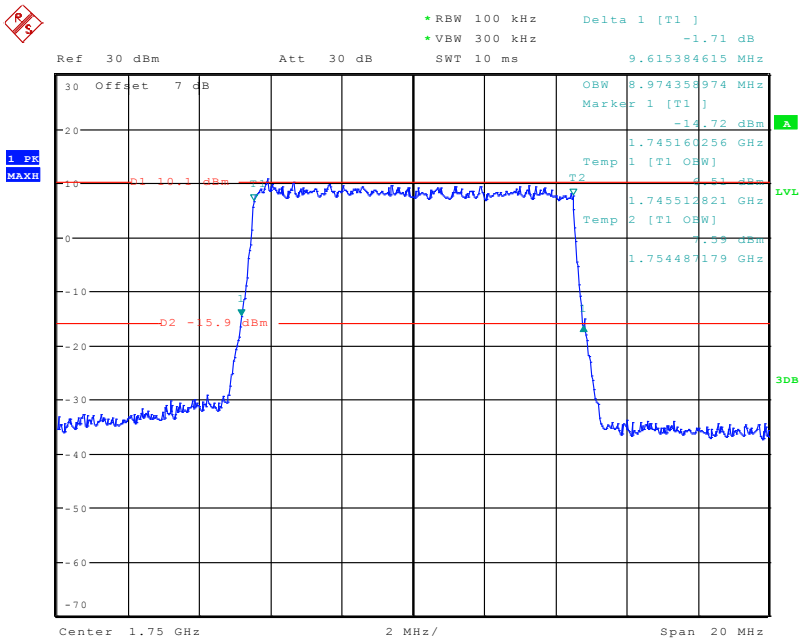
Date: 24.SEP.2020 15:36:28

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



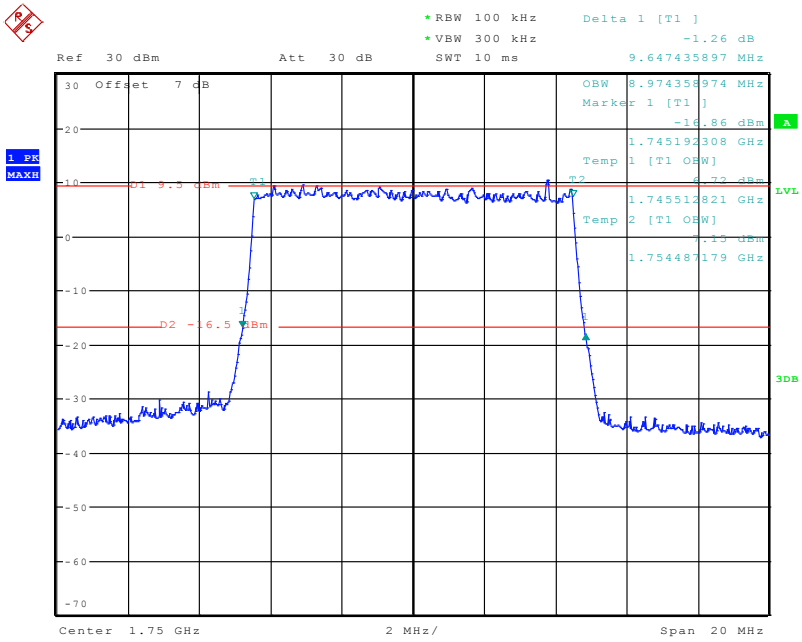
Date: 24.SEP.2020 15:37:23

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



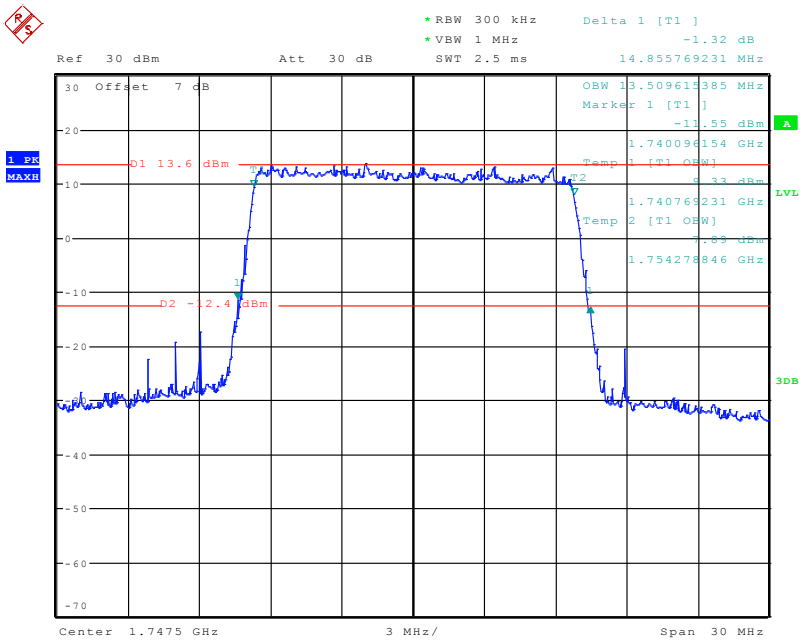
Date: 24.SEP.2020 15:39:51

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



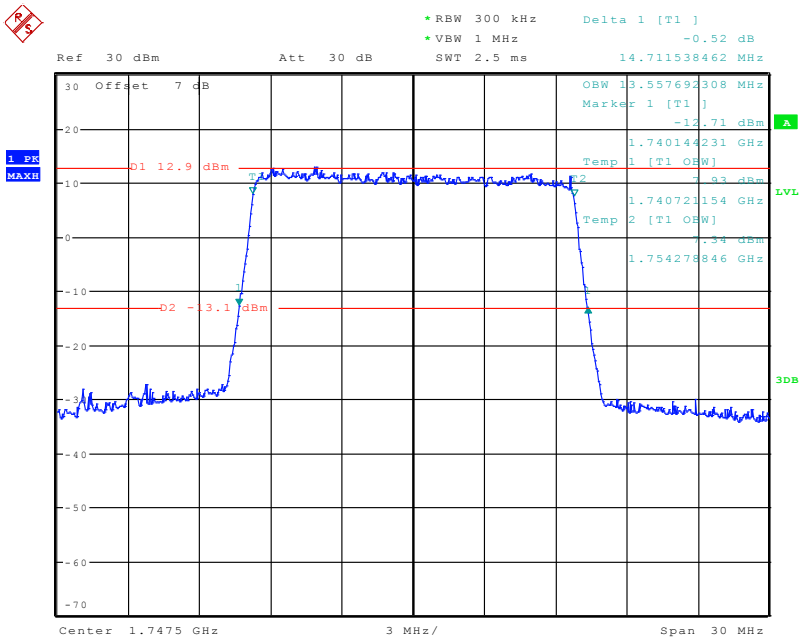
Date: 24.SEP.2020 15:42:20

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



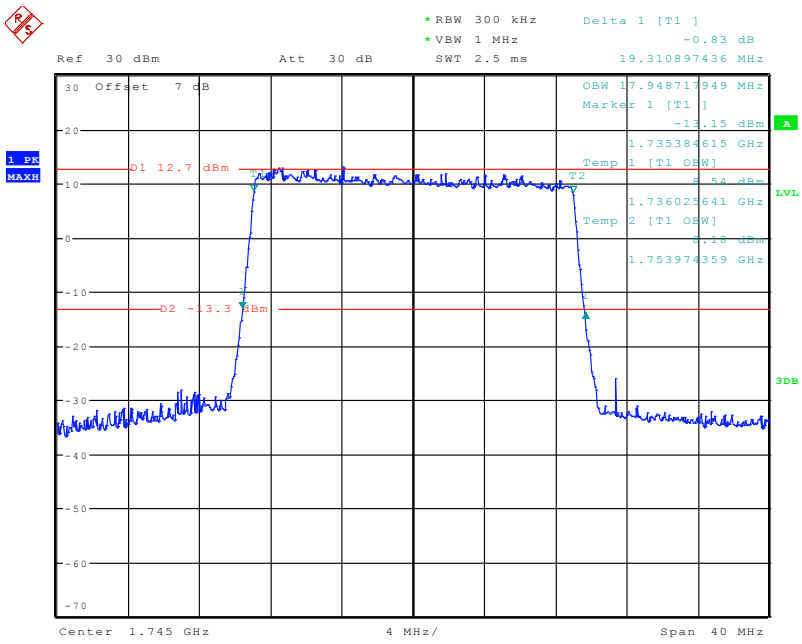
Date: 24.SEP.2020 15:49:46

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



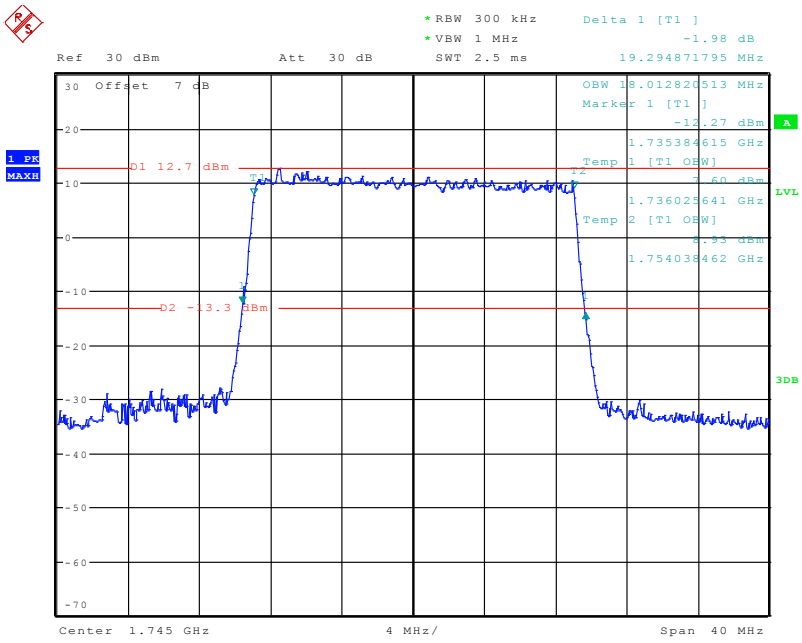
Date: 24.SEP.2020 15:49:03

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



Date: 24.SEP.2020 15:52:06

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel

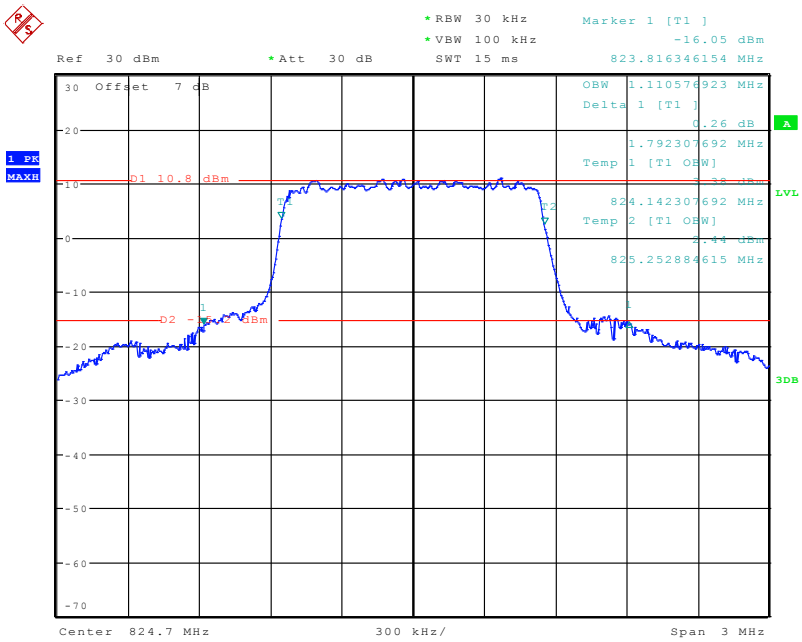


Date: 24.SEP.2020 15:53:26

Band 5:

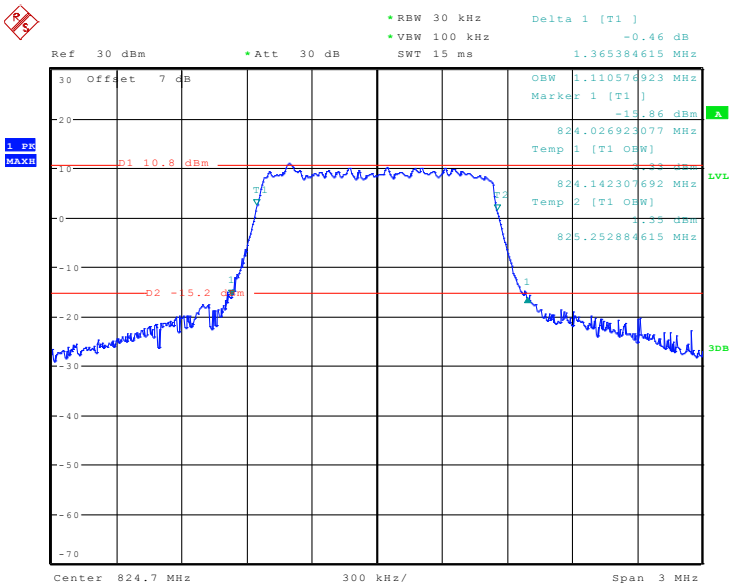
Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.111	1.792
		Middle	1.098	1.302
		High	1.106	1.341
	16QAM	Low	1.111	1.365
		Middle	1.104	1.320
		High	1.101	1.317
3	QPSK	Low	2.683	2.877
		Middle	2.688	2.868
		High	2.683	2.885
	16QAM	Low	2.683	2.892
		Middle	2.688	2.880
		High	2.673	2.894
5	QPSK	Low	4.503	4.904
		Middle	4.520	4.920
		High	4.519	4.952
	16QAM	Low	4.503	4.968
		Middle	4.500	4.900
		High	4.487	4.959
10	QPSK	Low	8.974	9.715
		Middle	8.960	9.680
		High	8.974	9.622
	16QAM	Low	8.974	9.619
		Middle	8.960	9.520
		High	8.974	9.577

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



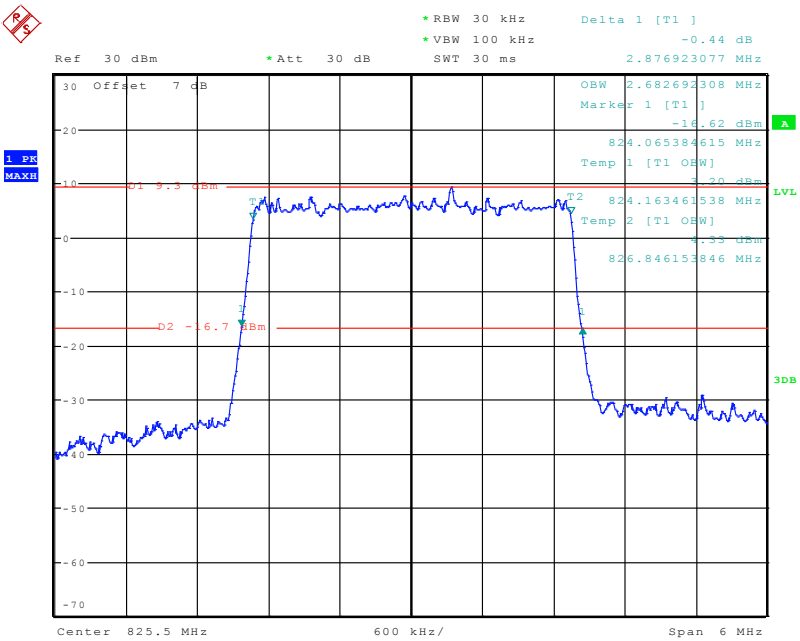
Date: 28.AUG.2020 13:47:17

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



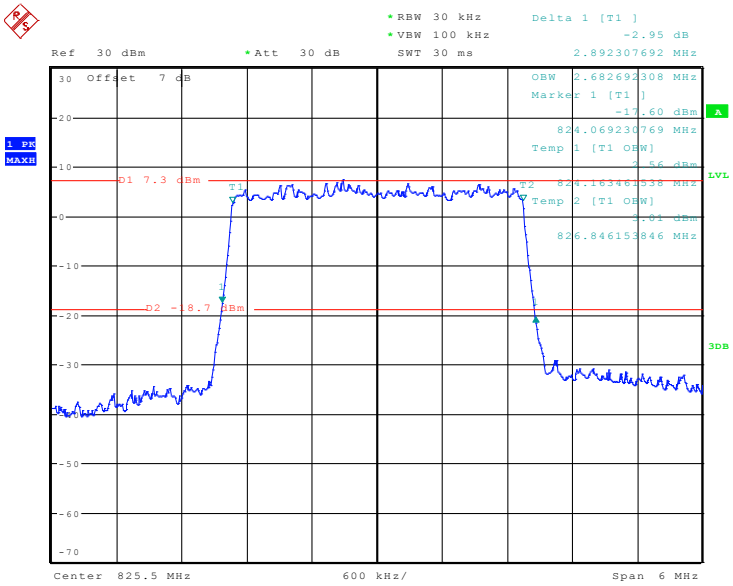
Date: 28.AUG.2020 13:48:53

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



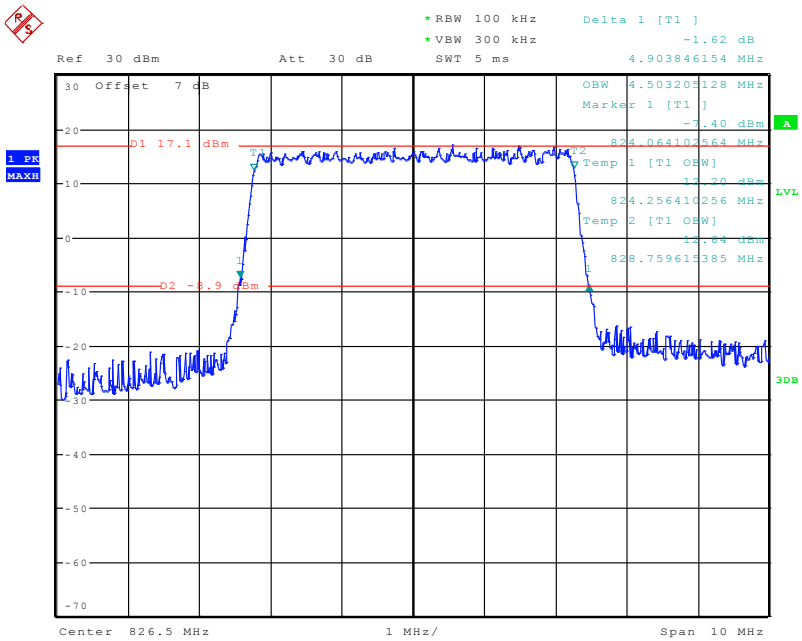
Date: 28.AUG.2020 14:04:00

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



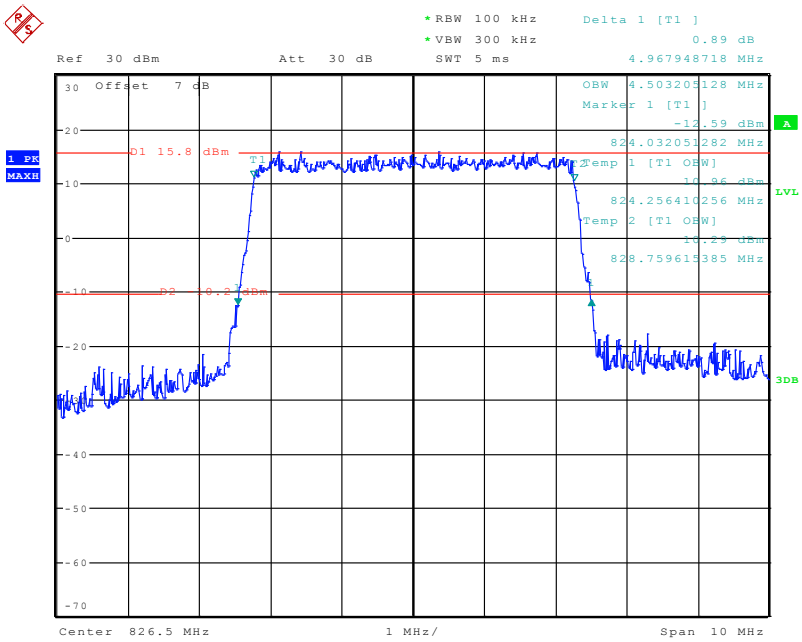
Date: 28.AUG.2020 14:02:25

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



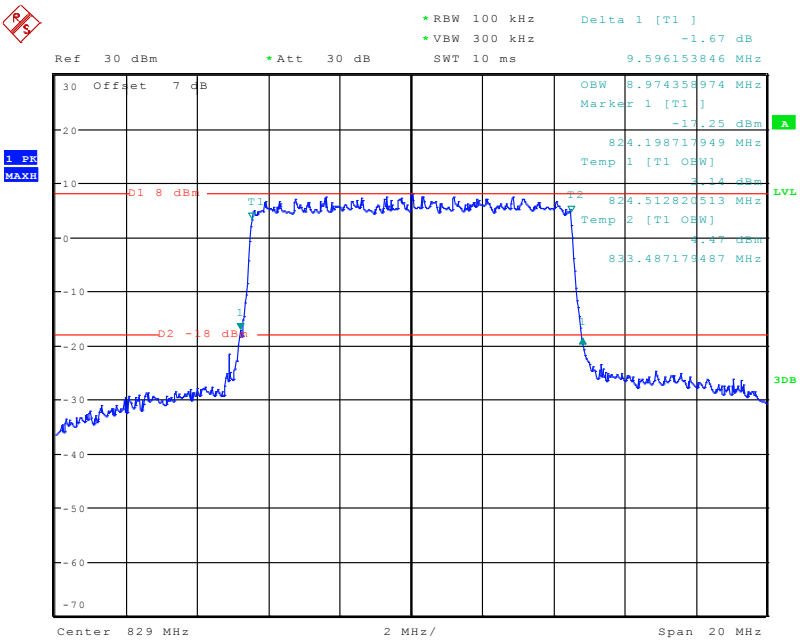
Date: 24.SEP.2020 16:12:17

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



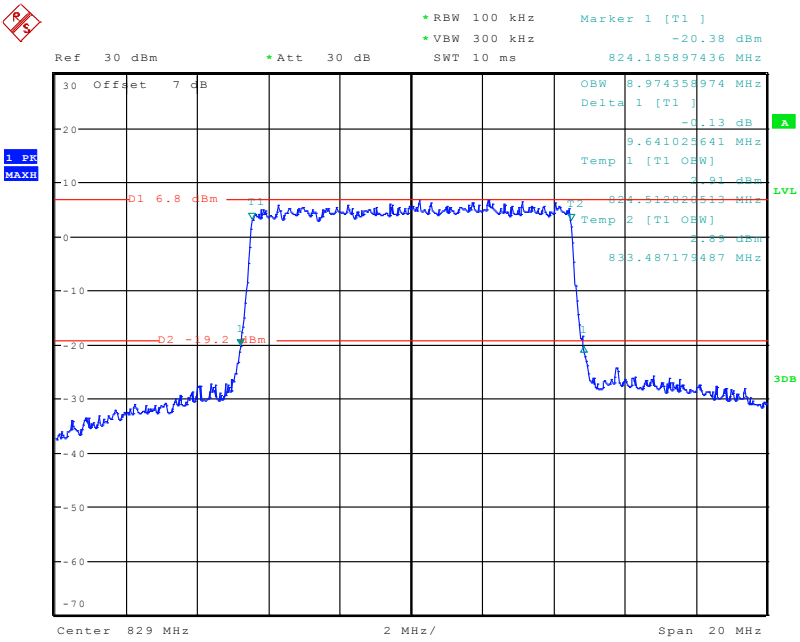
Date: 24.SEP.2020 16:13:16

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



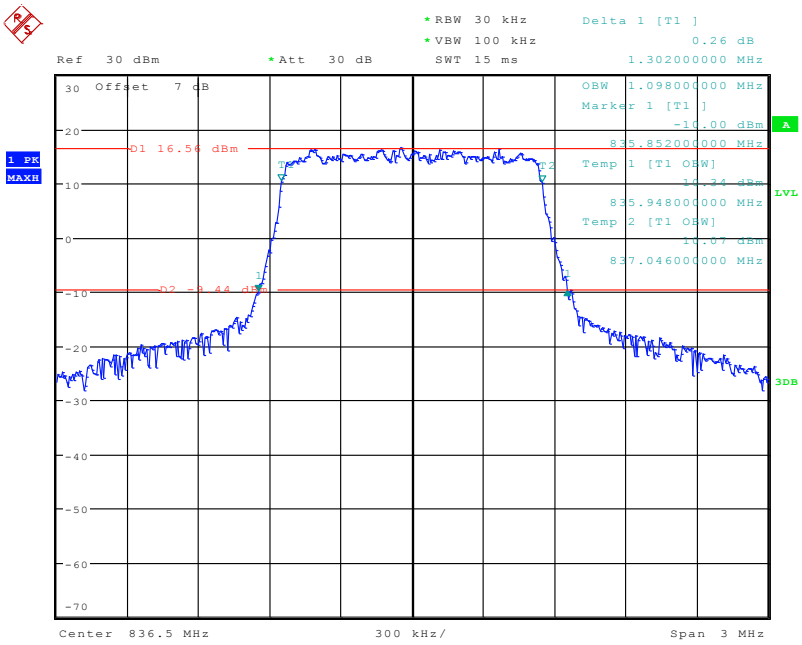
Date: 28.AUG.2020 14:26:39

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



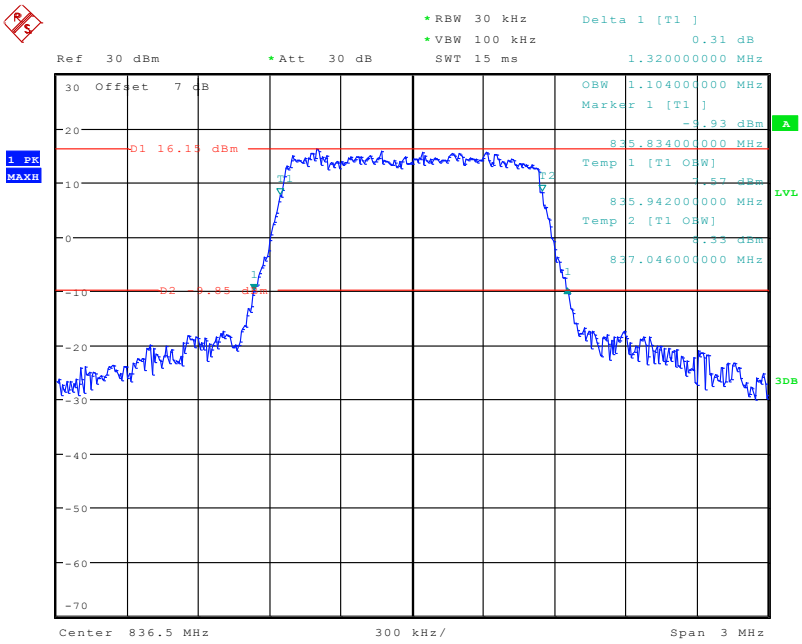
Date: 28.AUG.2020 14:25:41

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



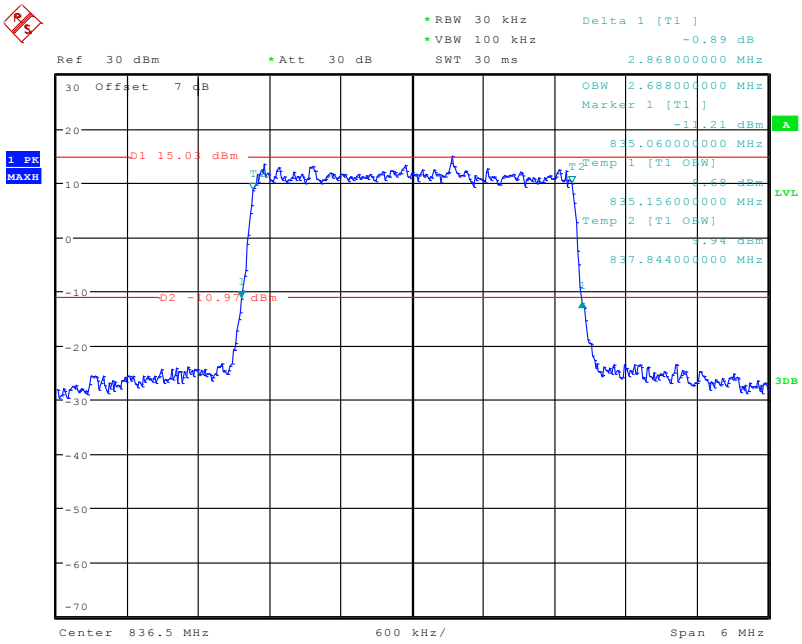
Date: 25.JUL.2020 00:08:34

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



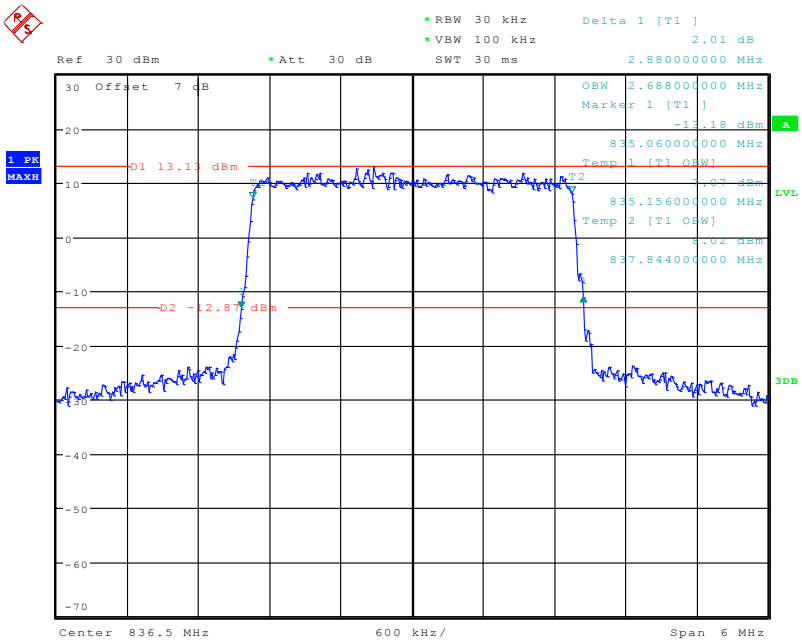
Date: 25.JUL.2020 00:08:58

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



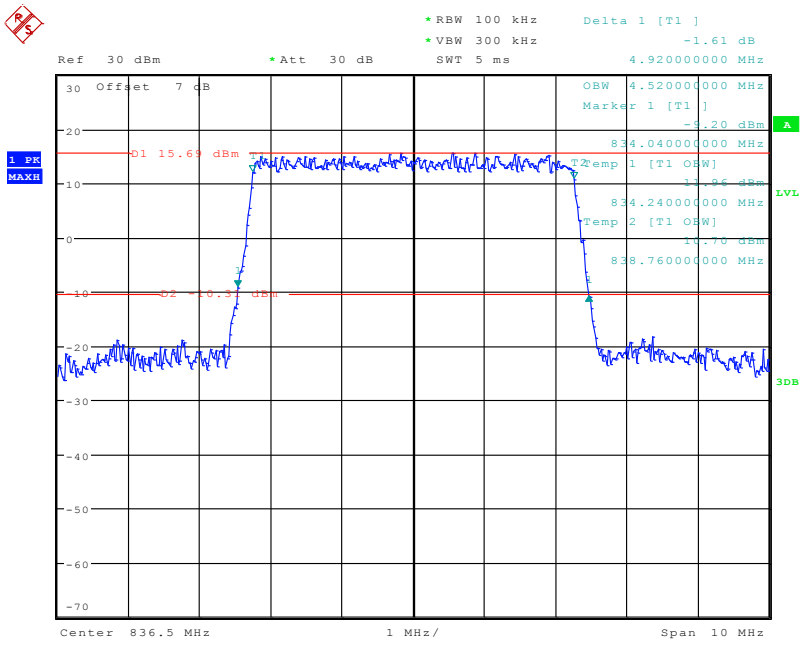
Date: 25.JUL.2020 00:09:20

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



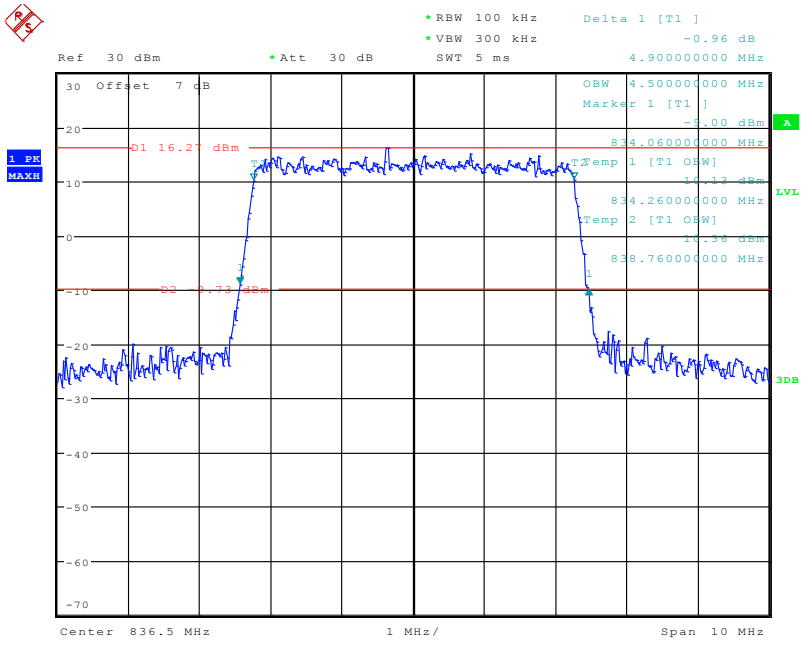
Date: 25.JUL.2020 00:09:41

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



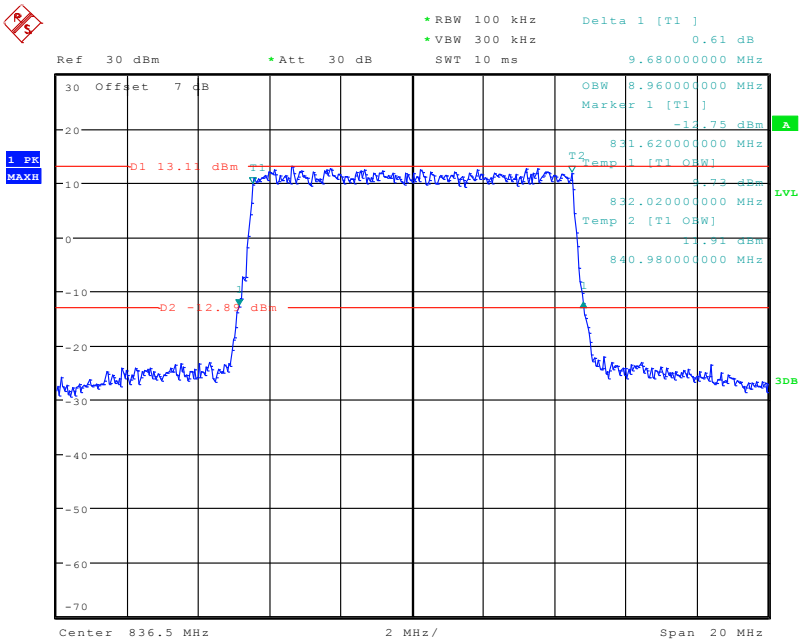
Date: 25.JUL.2020 00:10:04

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



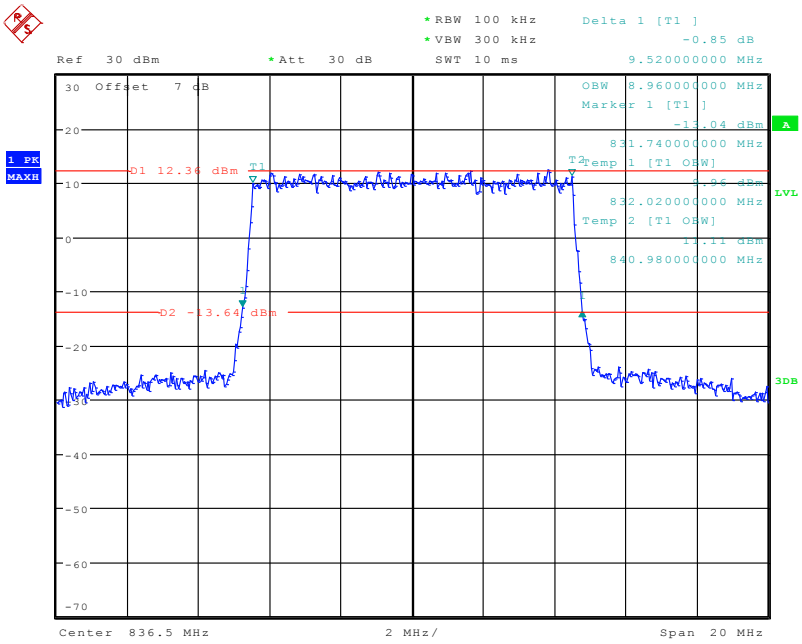
Date: 25.JUL.2020 00:10:24

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



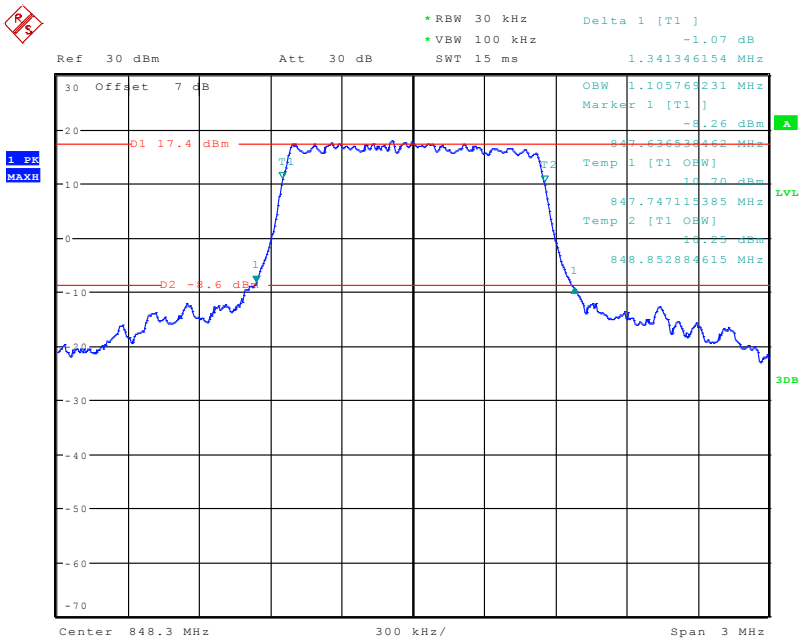
Date: 25.JUL.2020 00:10:48

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



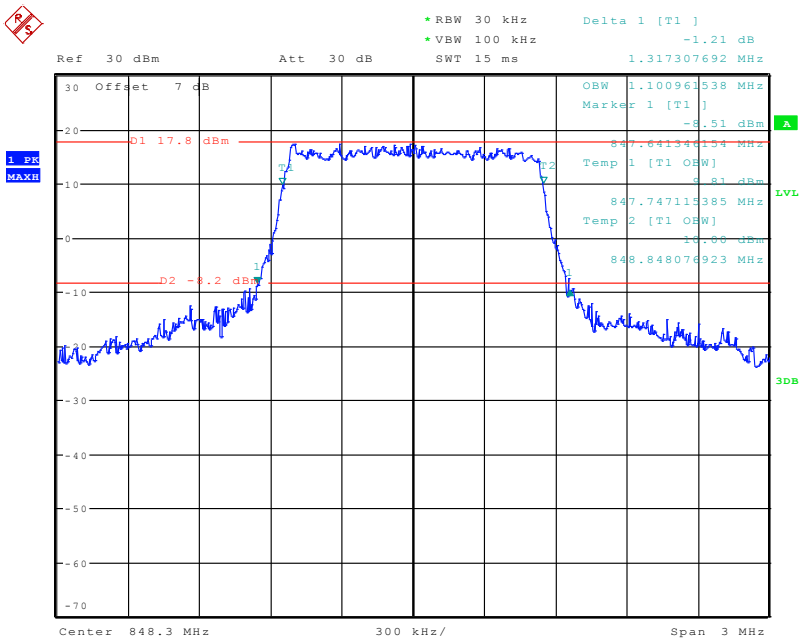
Date: 25.JUL.2020 00:11:10

QPSK (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



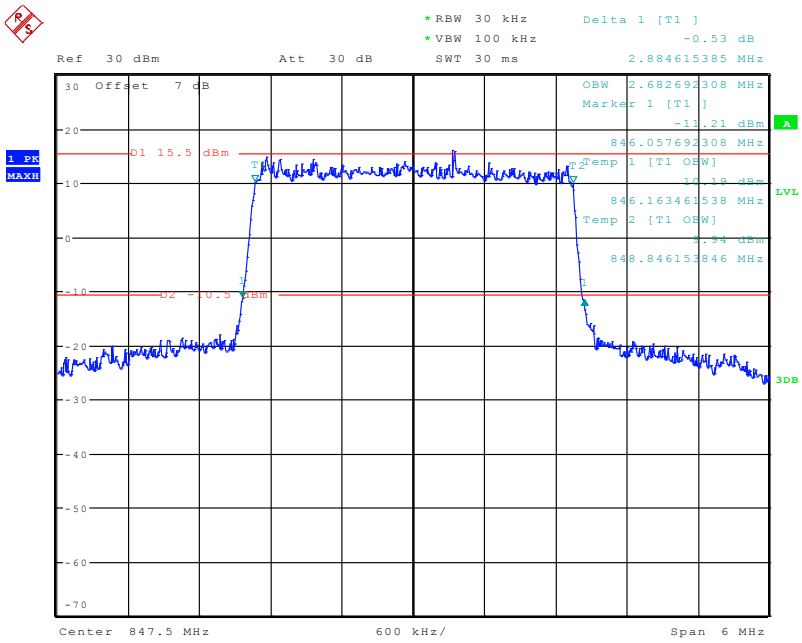
Date: 24.SEP.2020 15:57:21

16-QAM (1.4 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



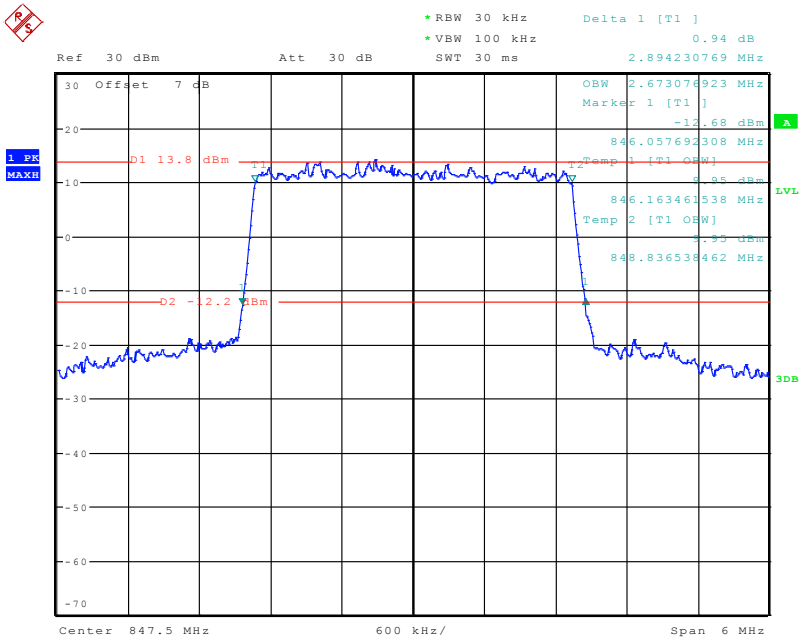
Date: 24.SEP.2020 16:03:08

QPSK (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



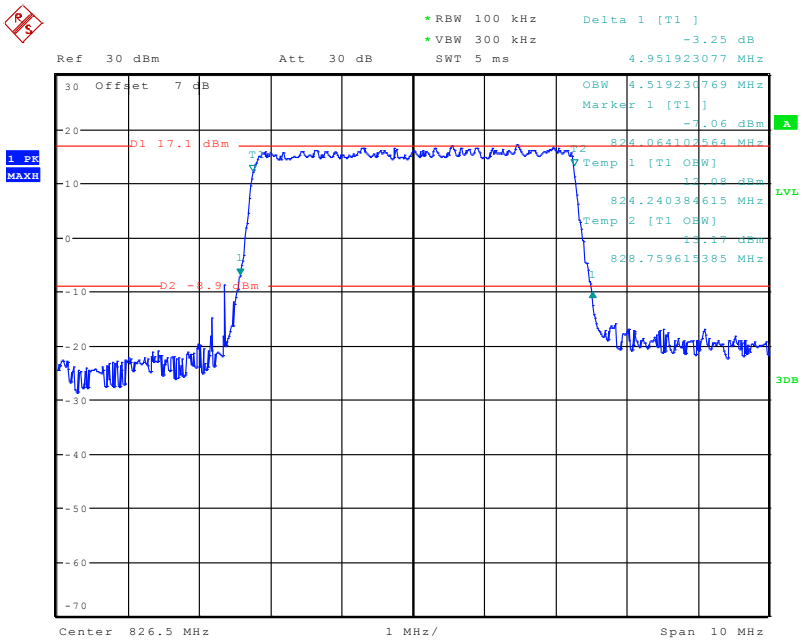
Date: 24.SEP.2020 16:01:26

16-QAM (3.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



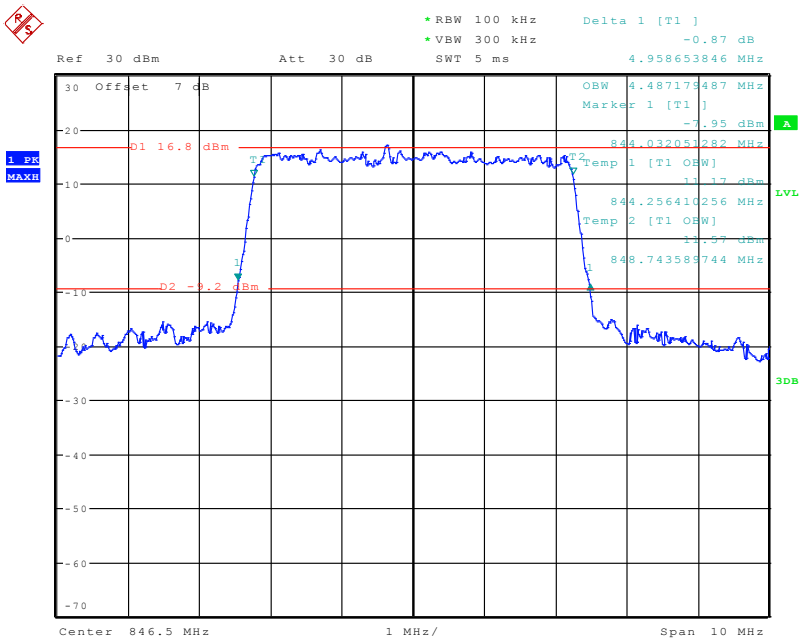
Date: 24.SEP.2020 15:59:48

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



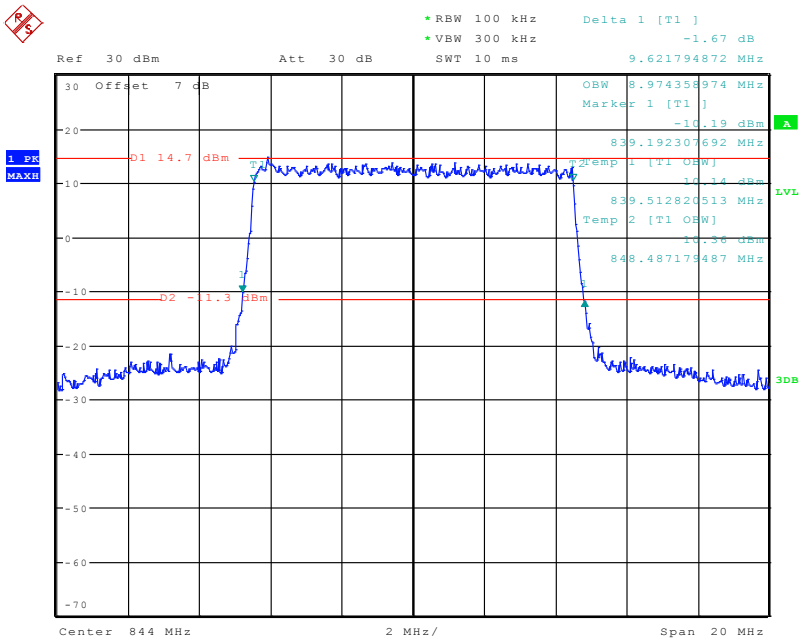
Date: 24.SEP.2020 16:11:43

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



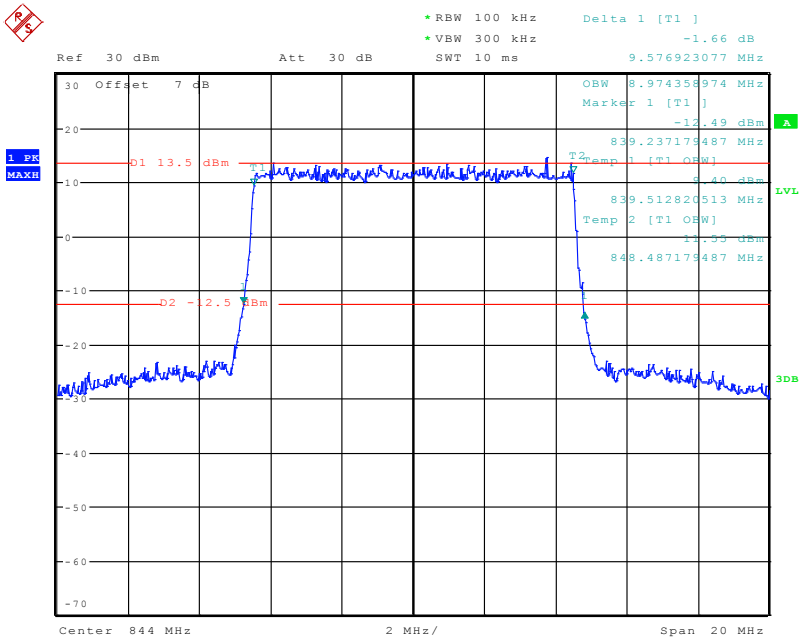
Date: 24.SEP.2020 16:09:13

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



Date: 24.SEP.2020 16:16:15

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel

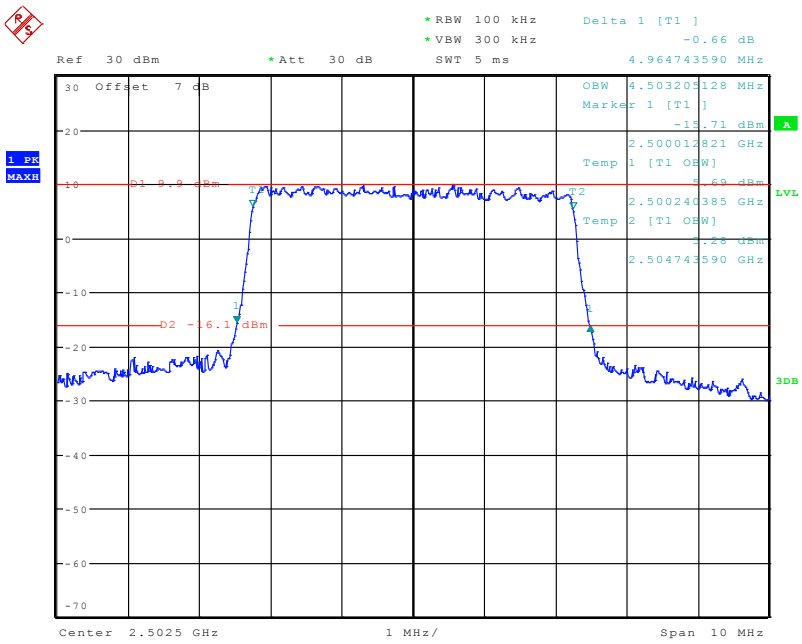


Date: 24.SEP.2020 16:15:19

Band 7

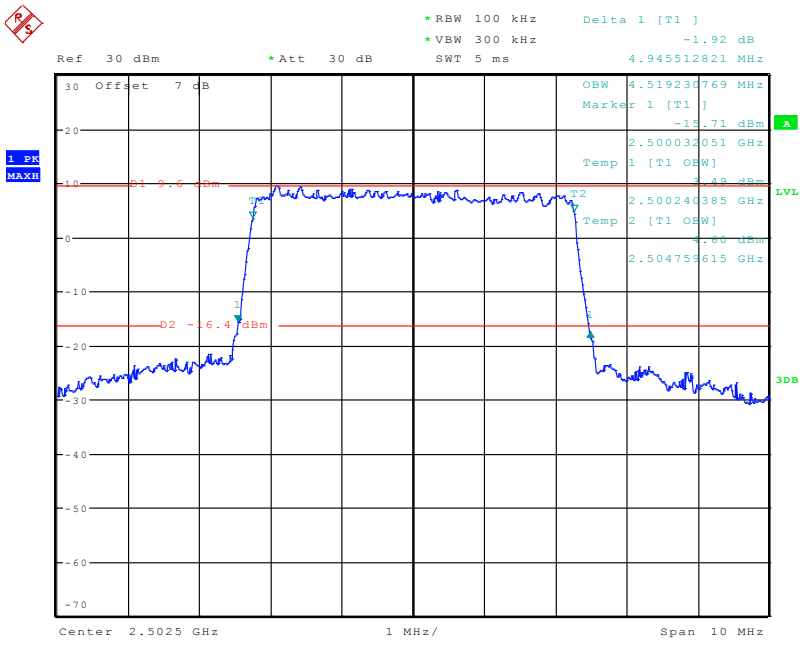
Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.503	4.965
		Middle	4.520	4.980
		High	4.519	4.901
	16QAM	Low	4.519	4.946
		Middle	4.520	4.920
		High	4.519	4.949
10	QPSK	Low	8.974	9.715
		Middle	8.960	9.640
		High	8.942	9.532
	16QAM	Low	8.974	9.619
		Middle	8.960	9.600
		High	8.942	9.532
15	QPSK	Low	13.558	14.875
		Middle	13.500	14.700
		High	13.462	14.654
	16QAM	Low	13.558	14.779
		Middle	13.500	14.700
		High	13.510	14.779
20	QPSK	Low	17.949	17.949
		Middle	18.000	19.360
		High	17.949	19.372
	16QAM	Low	18.013	19.564
		Middle	18.000	19.280
		High	17.949	19.359

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



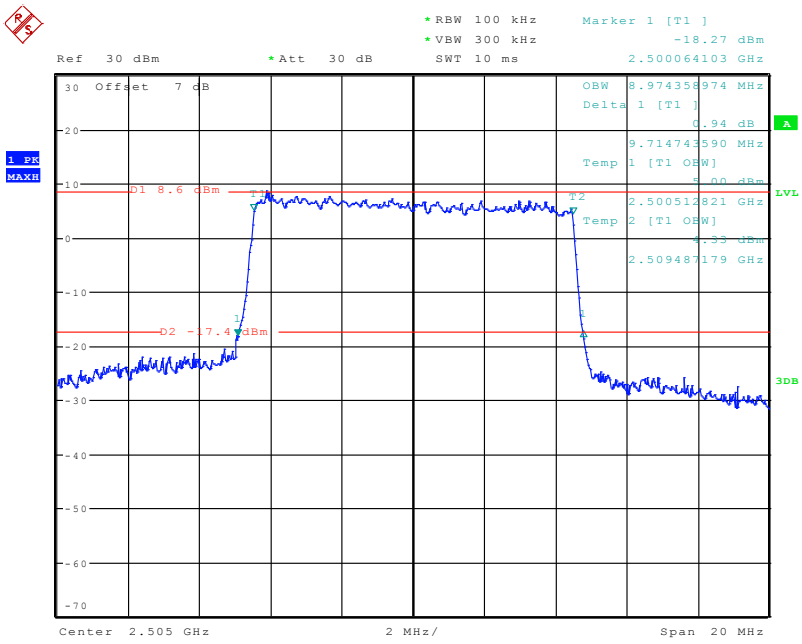
Date: 28.AUG.2020 14:39:40

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



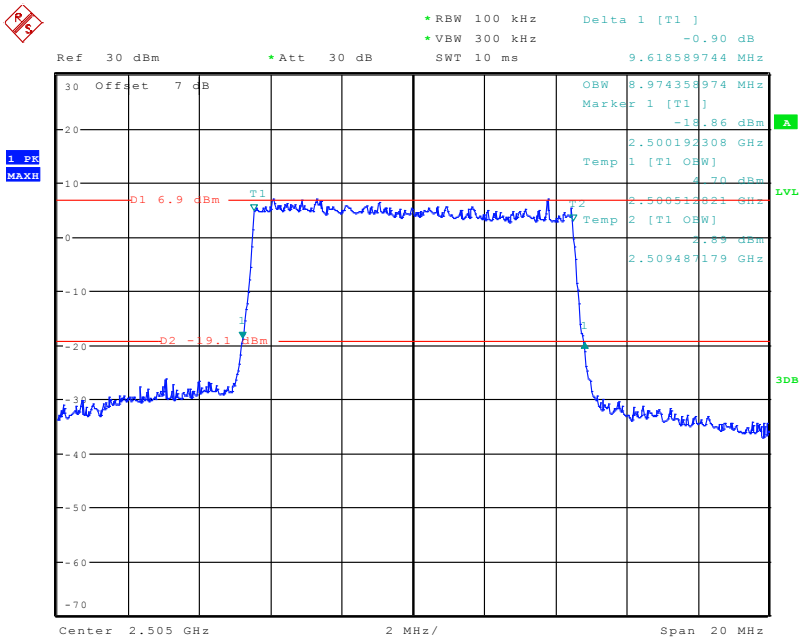
Date: 28.AUG.2020 14:38:23

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



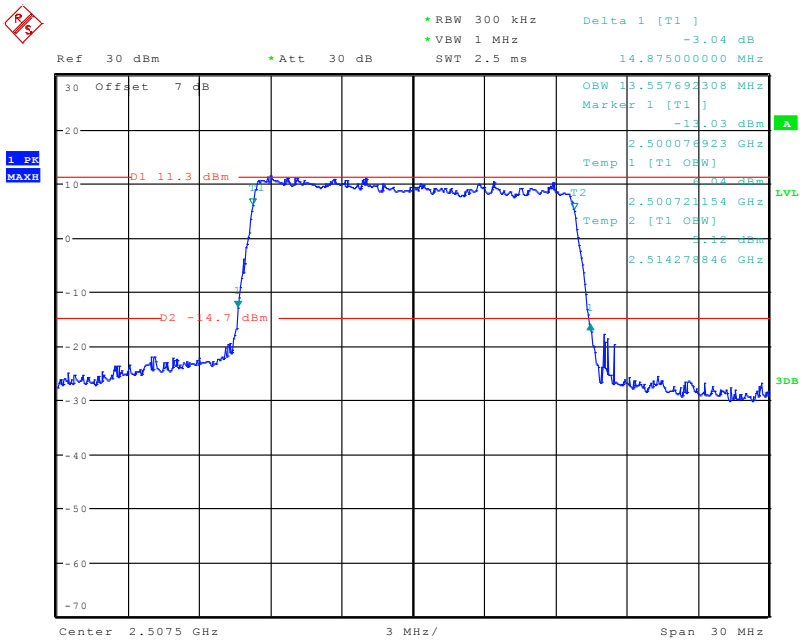
Date: 28.AUG.2020 14:42:58

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



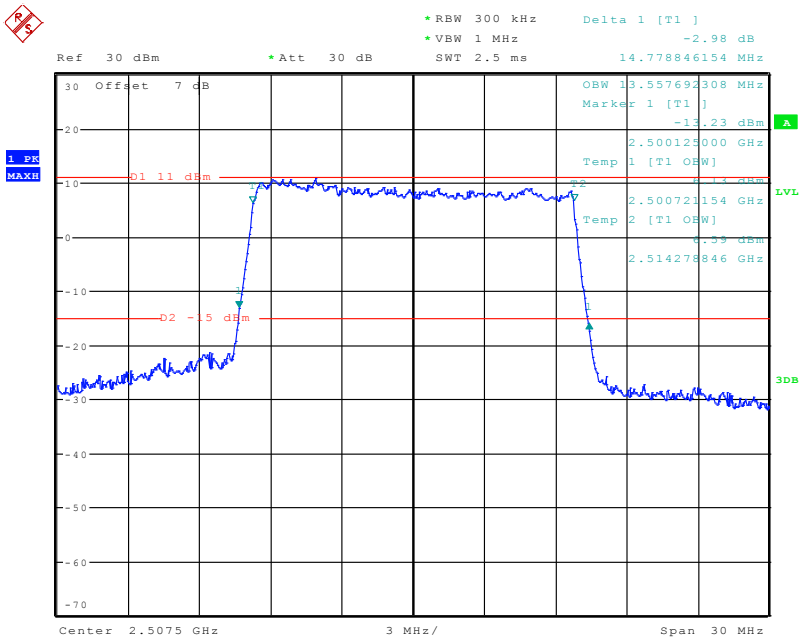
Date: 28.AUG.2020 14:43:54

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



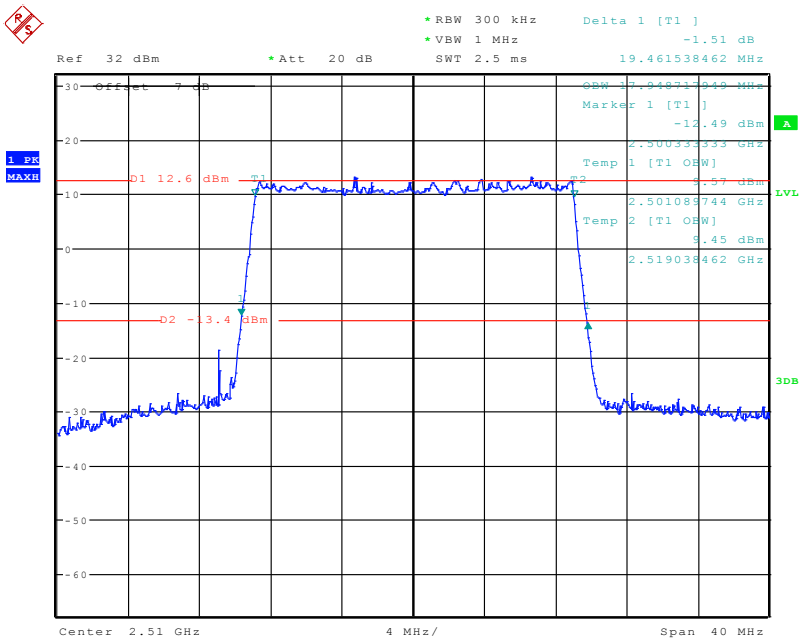
Date: 28.AUG.2020 14:49:55

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



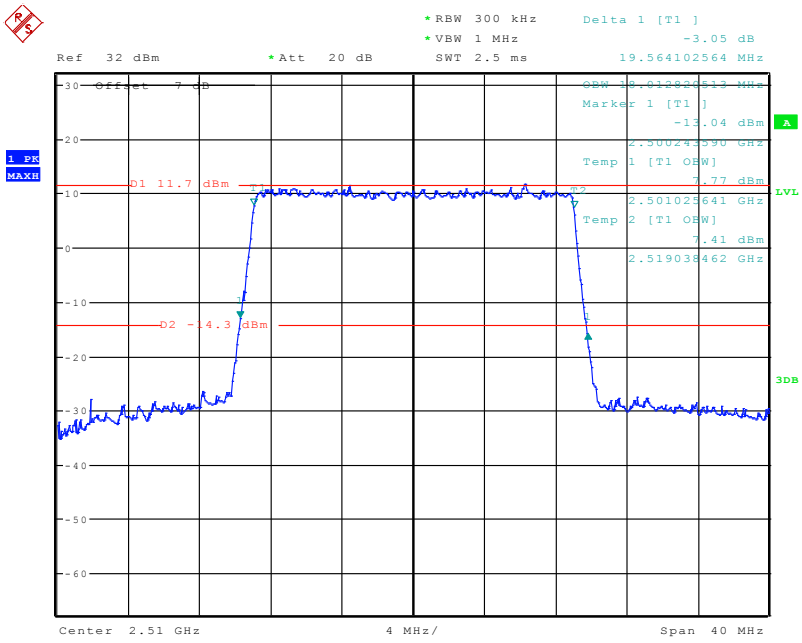
Date: 28.AUG.2020 14:50:55

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



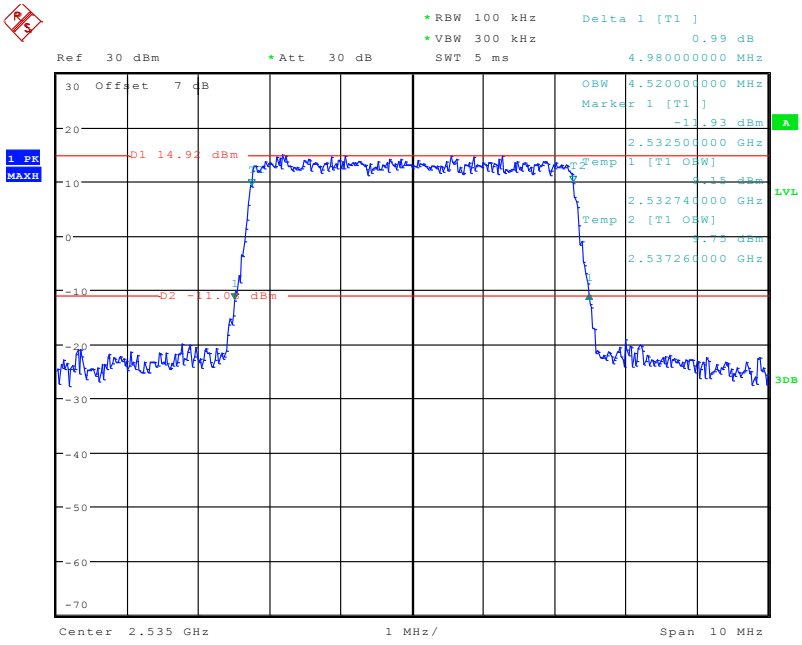
Date: 7.SEP.2020 14:40:49

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



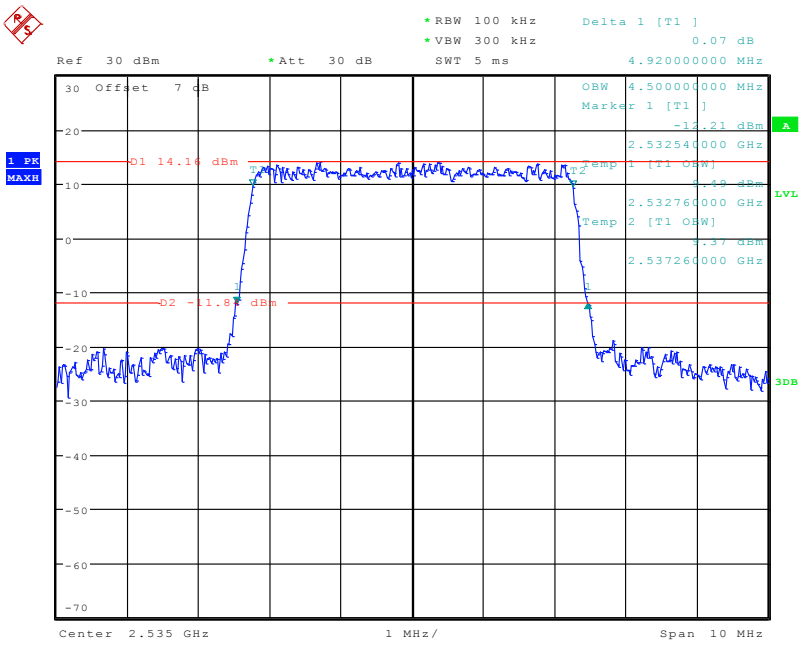
Date: 7.SEP.2020 15:21:42

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



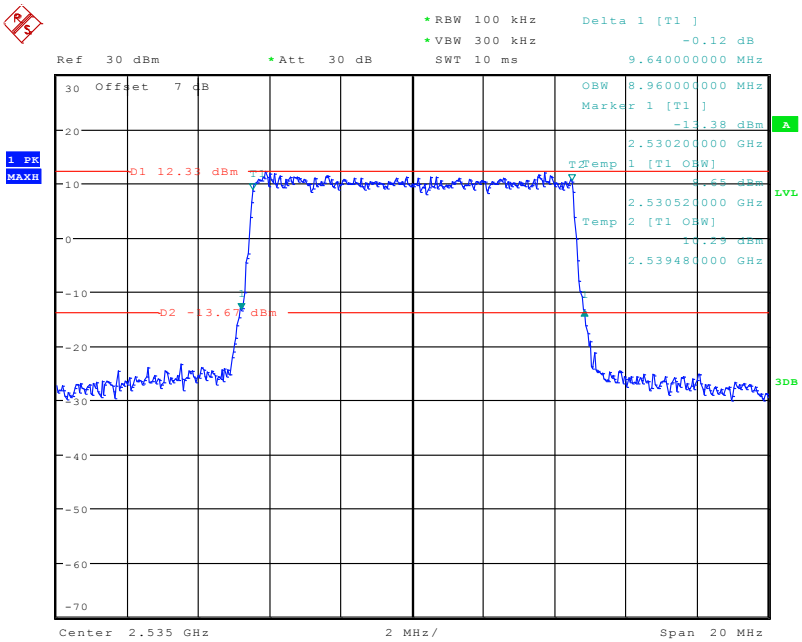
Date: 25.JUL.2020 00:11:33

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



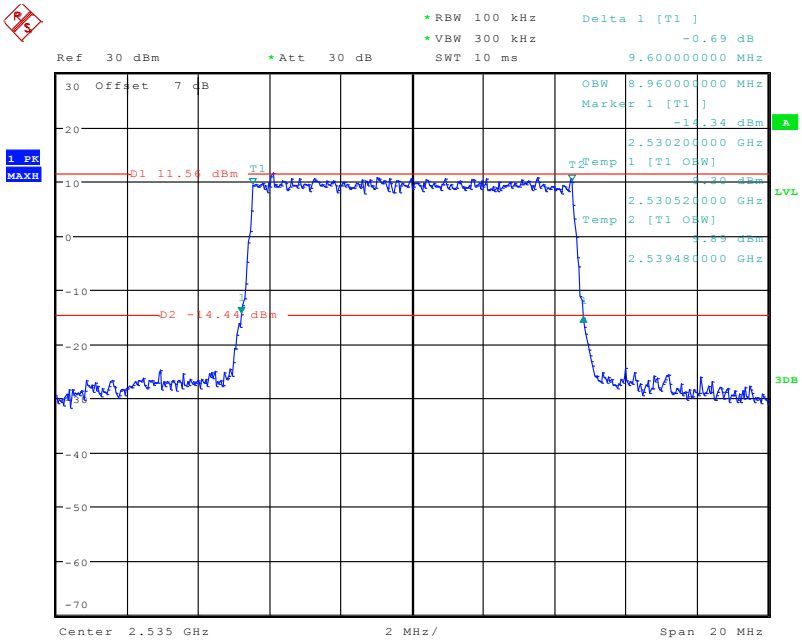
Date: 25.JUL.2020 00:11:56

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



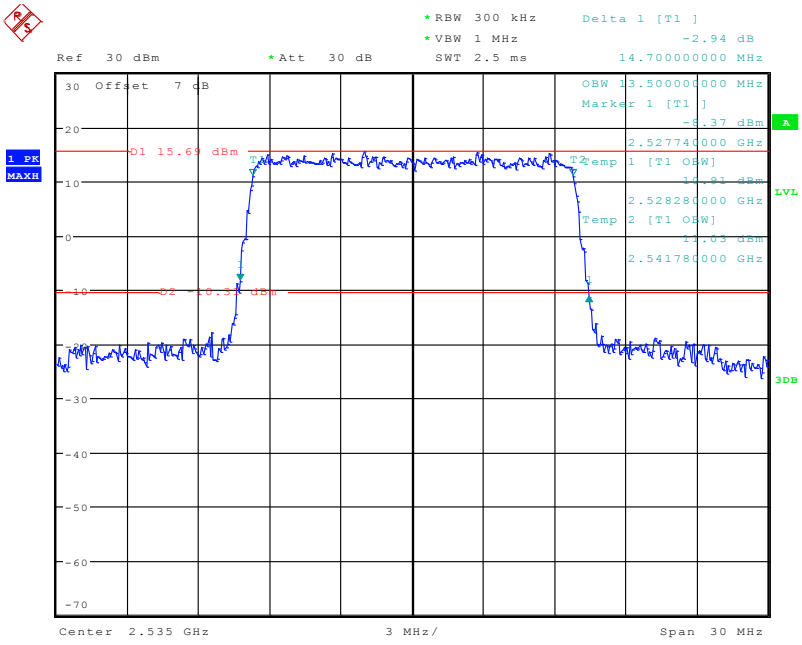
Date: 25.JUL.2020 00:12:20

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



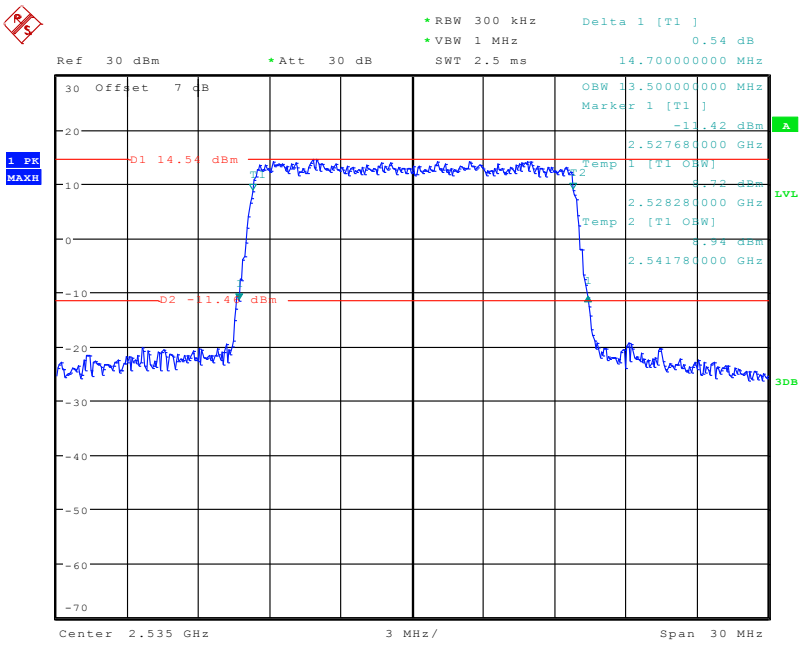
Date: 25.JUL.2020 00:12:42

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



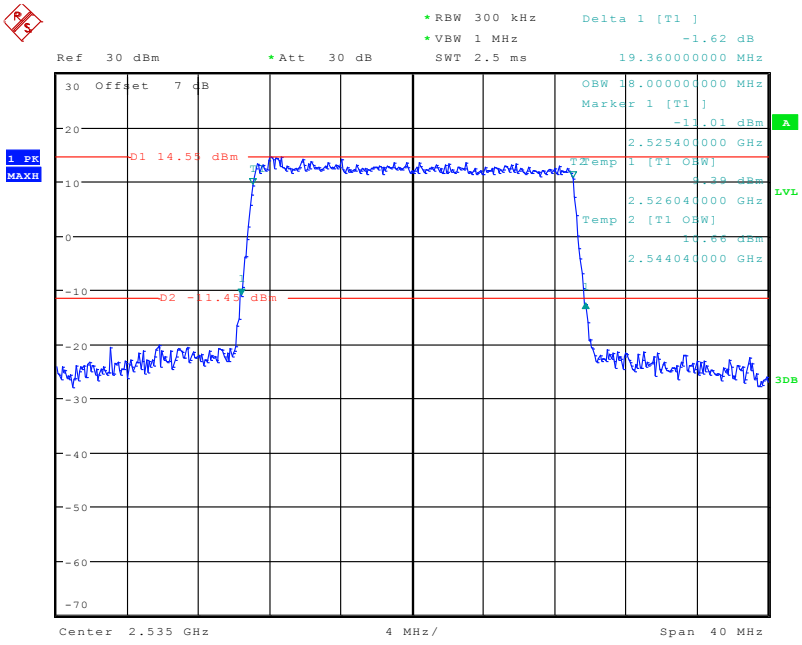
Date: 25.JUL.2020 00:13:08

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



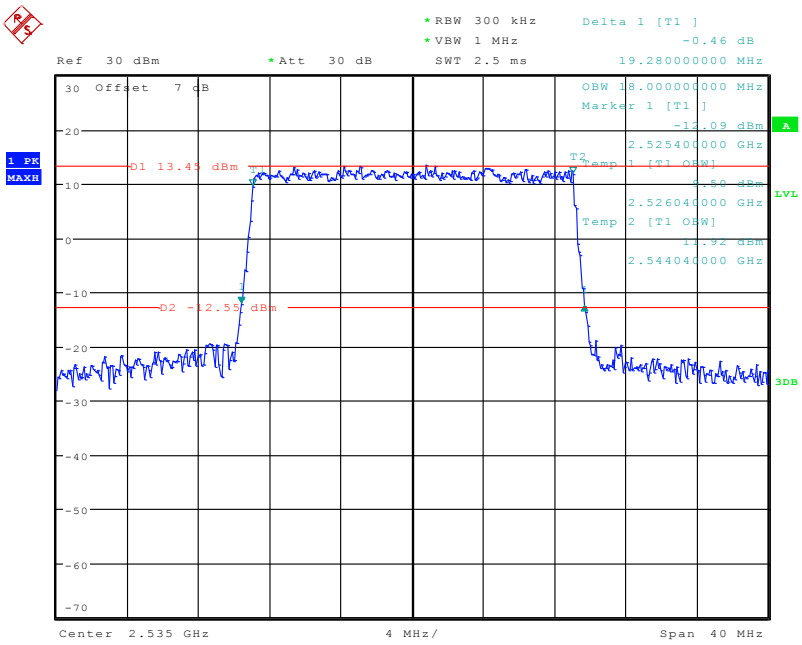
Date: 25.JUL.2020 00:13:32

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



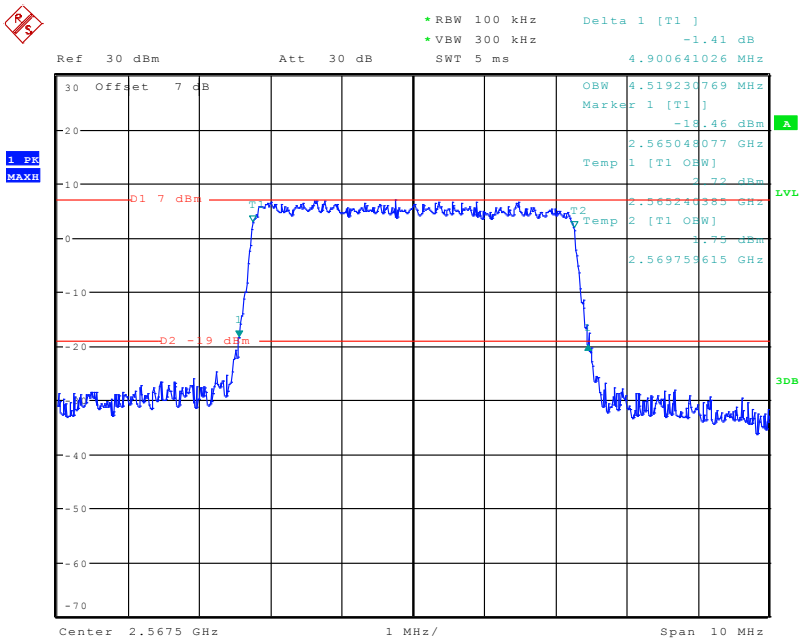
Date: 25.JUL.2020 00:13:59

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



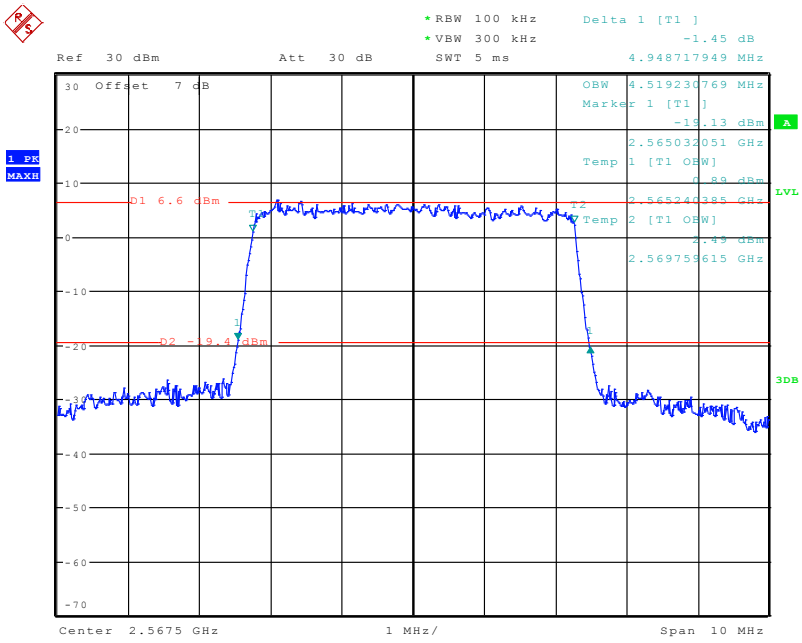
Date: 25.JUL.2020 00:14:22

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



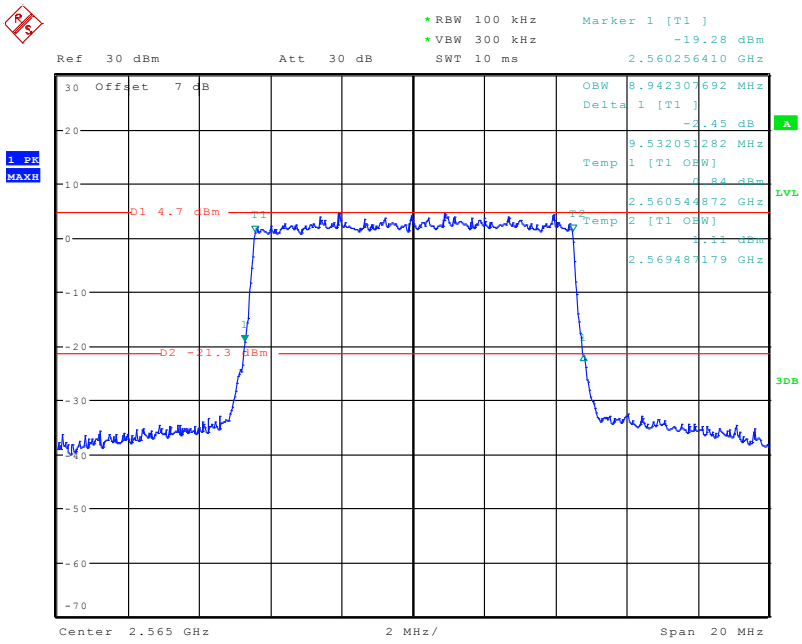
Date: 24.SEP.2020 16:20:50

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel

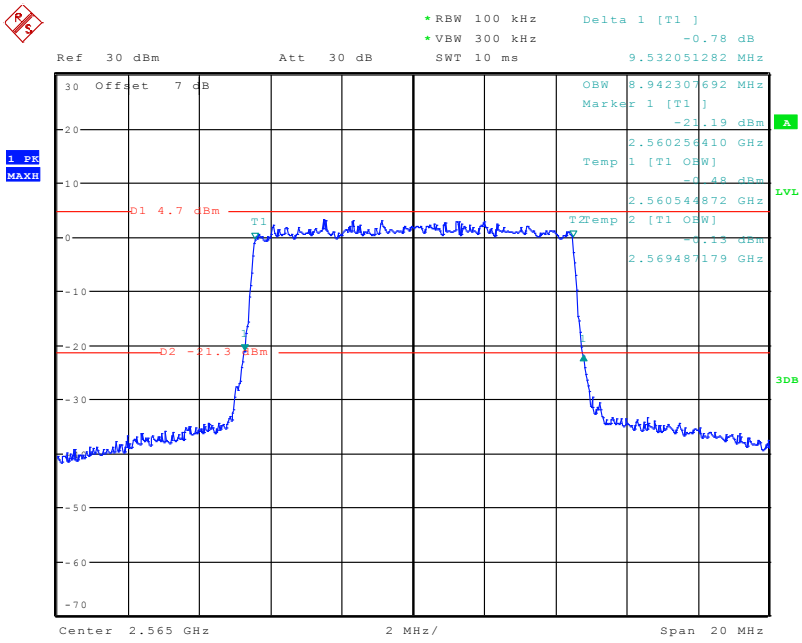


Date: 24.SEP.2020 16:19:50

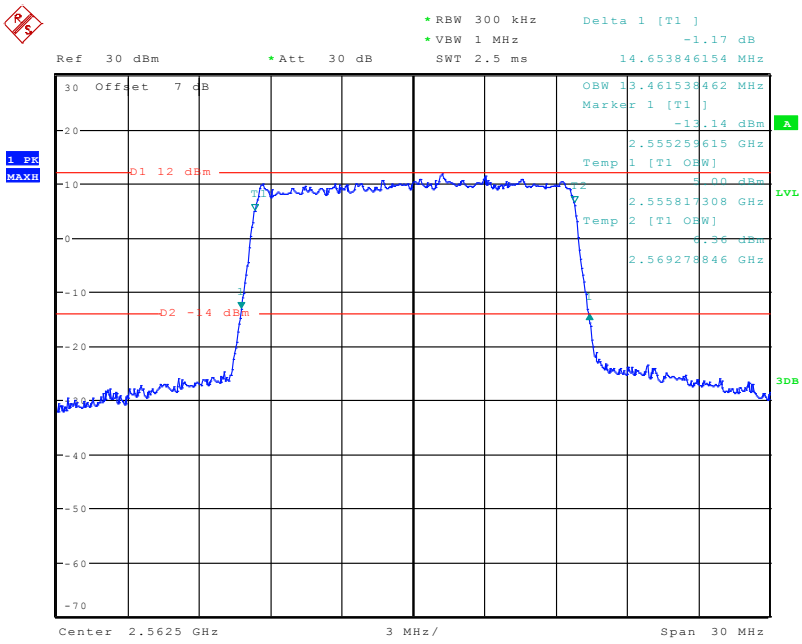
QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel

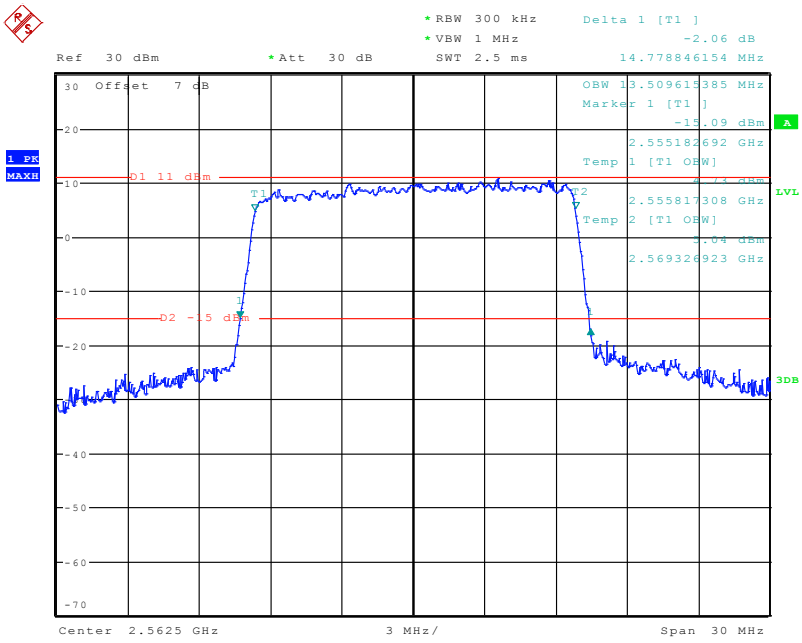


QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



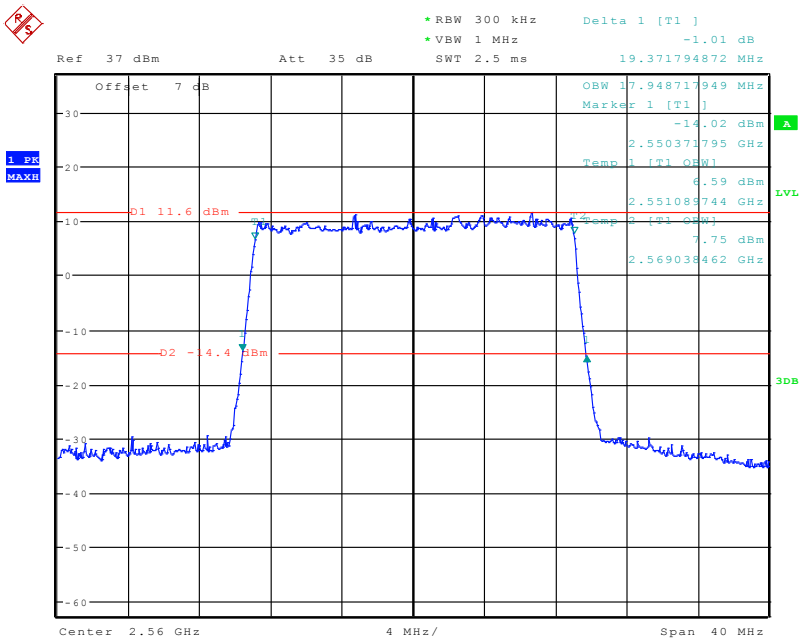
Date: 28.AUG.2020 14:52:53

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



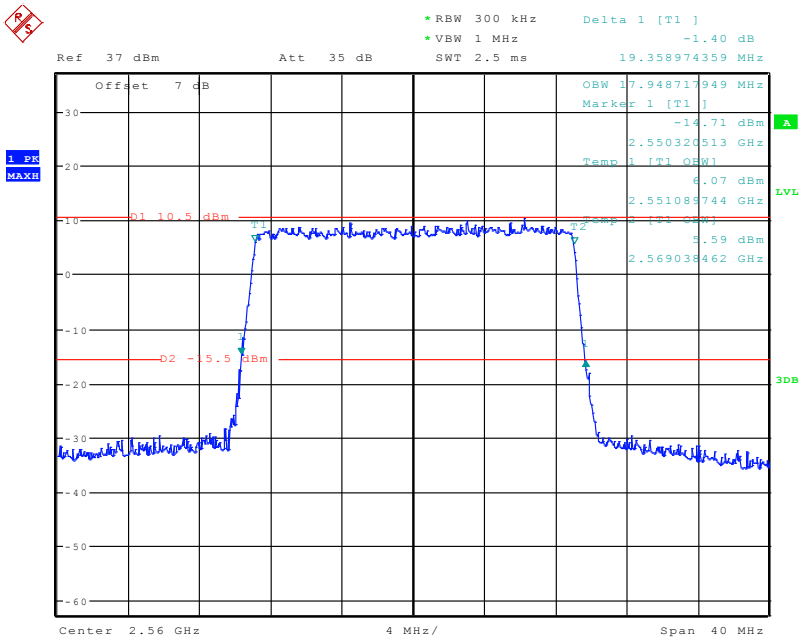
Date: 28.AUG.2020 14:52:07

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel



Date: 24.SEP.2020 19:56:57

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, High channel

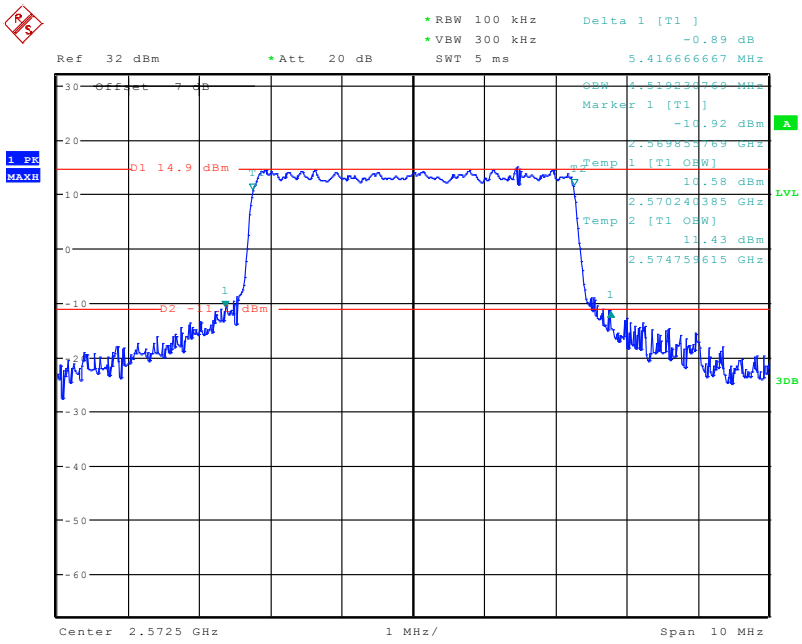


Date: 24.SEP.2020 19:58:22

Band 38:

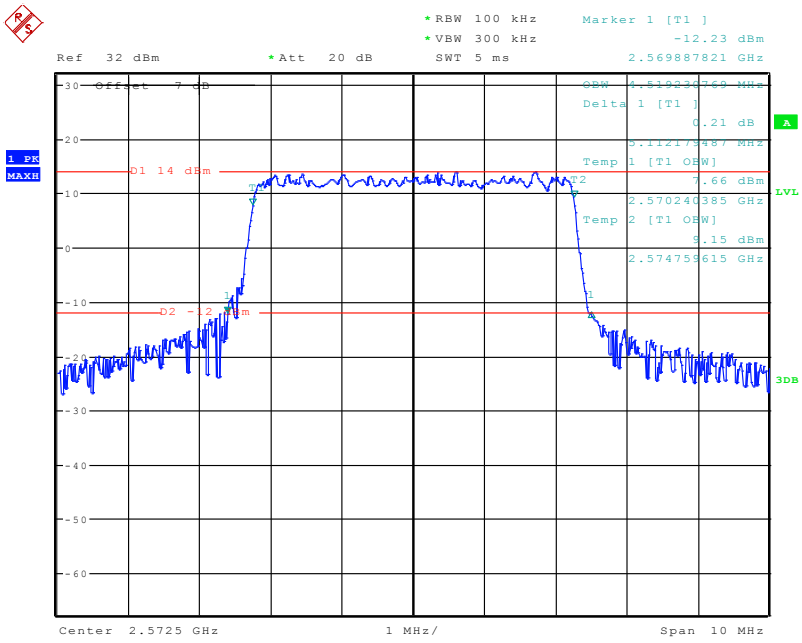
Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.519	5.417
		Middle	4.520	5.020
		High	4.503	4.984
	16QAM	Low	4.519	5.112
		Middle	4.500	5.080
		High	4.519	5.321
10	QPSK	Low	8.942	9.750
		Middle	9.000	10.160
		High	8.974	10.048
	16QAM	Low	8.974	9.590
		Middle	9.000	9.560
		High	8.974	9.824
15	QPSK	Low	13.510	15.770
		Middle	13.560	15.120
		High	13.510	15.801
	16QAM	Low	13.606	17.192
		Middle	13.500	16.140
		High	13.558	17.580
20	QPSK	Low	18.013	20.064
		Middle	18.000	19.680
		High	17.949	20.593
	16QAM	Low	18.013	20.256
		Middle	18.000	19.360
		High	17.949	19.696

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



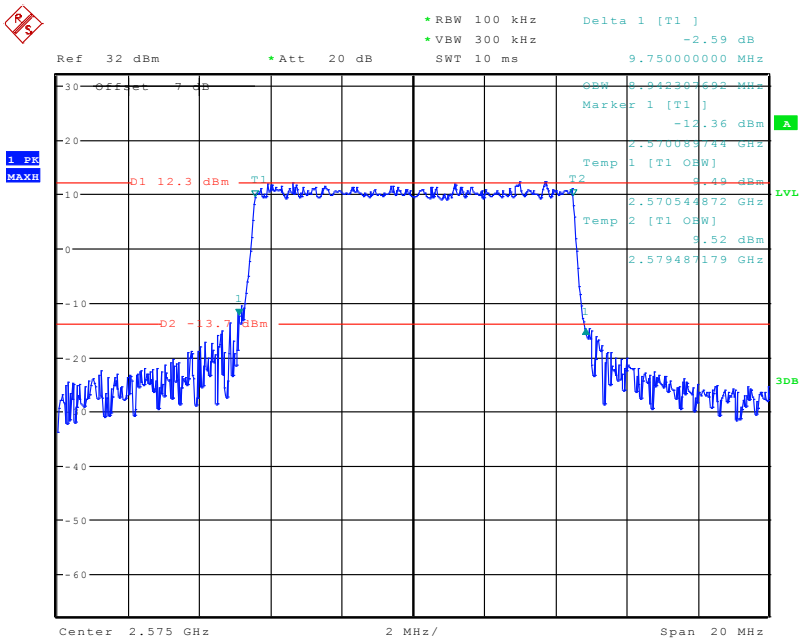
Date: 7.SEP.2020 11:24:58

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



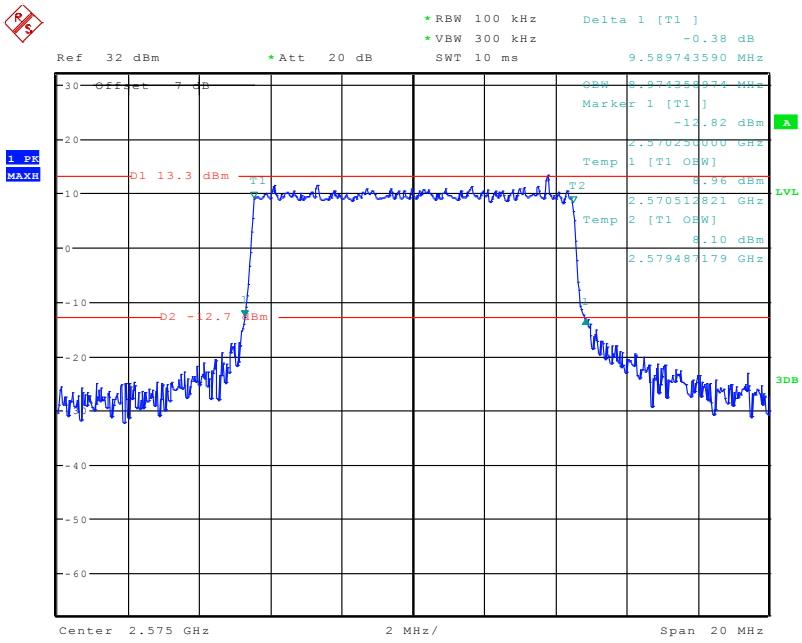
Date: 7.SEP.2020 11:30:39

QPSK (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



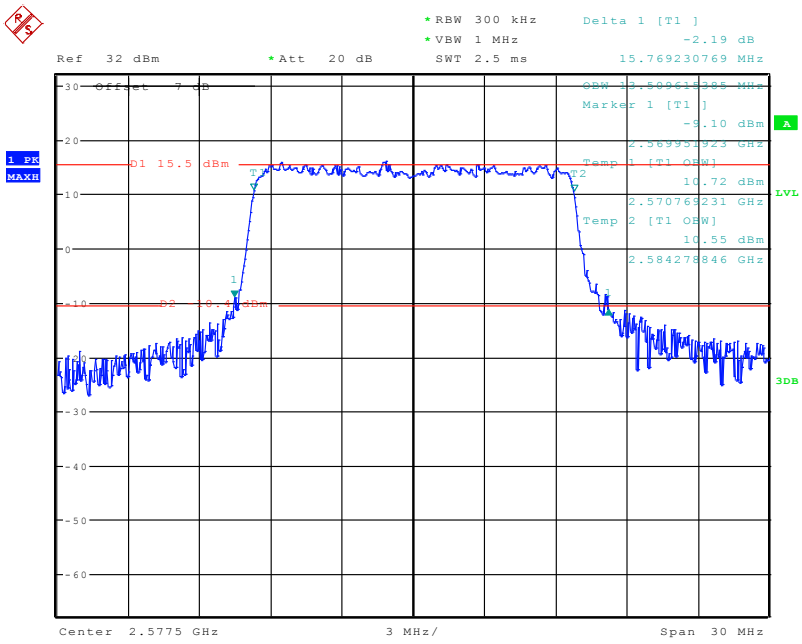
Date: 7.SEP.2020 12:44:28

16-QAM (10.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



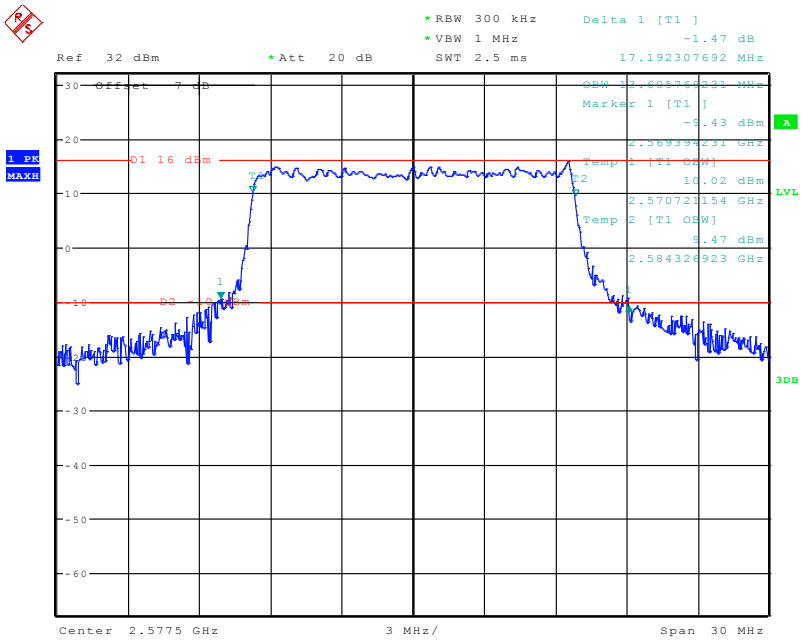
Date: 7.SEP.2020 12:46:13

QPSK (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



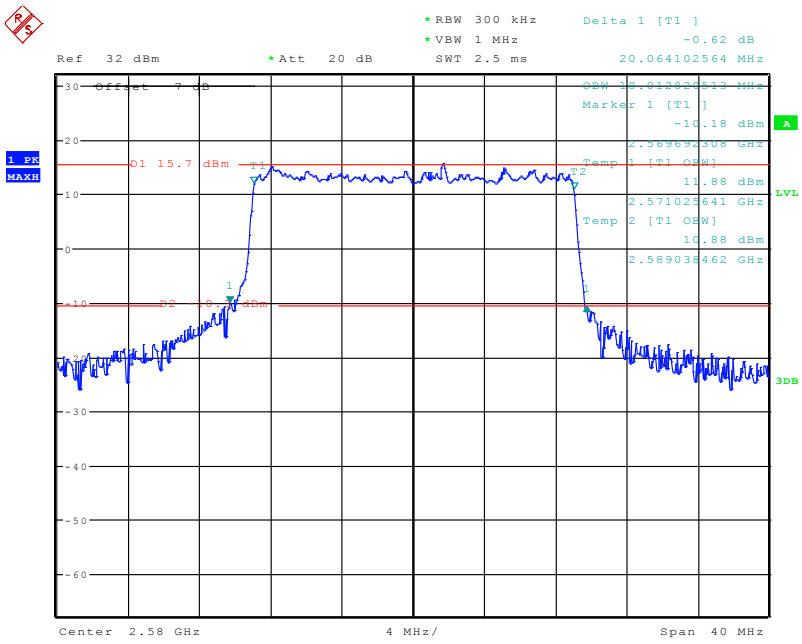
Date: 7.SEP.2020 13:13:21

16-QAM (15.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



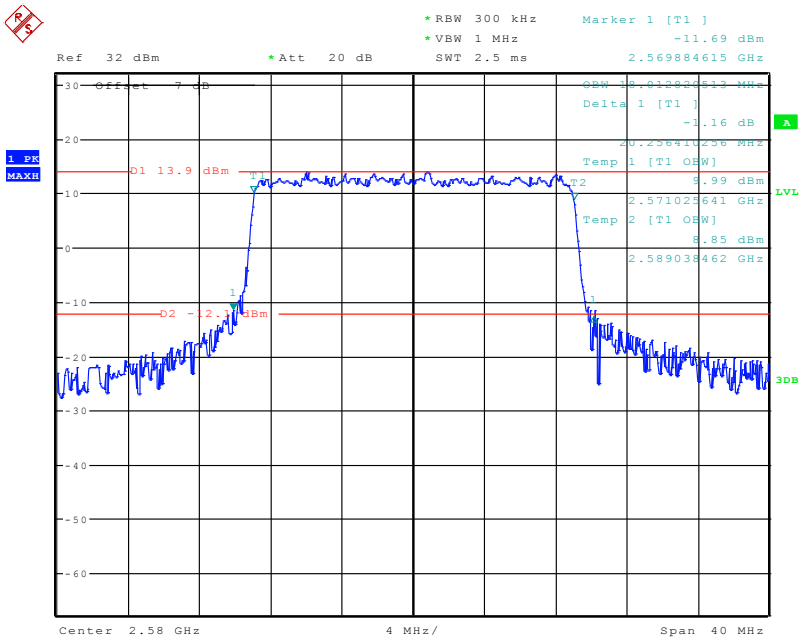
Date: 7.SEP.2020 13:15:39

QPSK (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



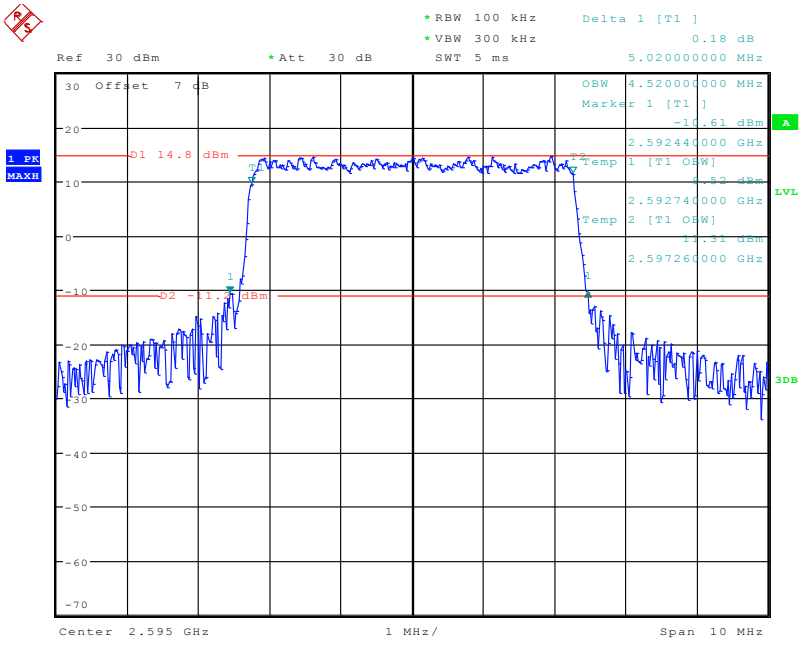
Date: 7.SEP.2020 13:27:39

16-QAM (20.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Low channel



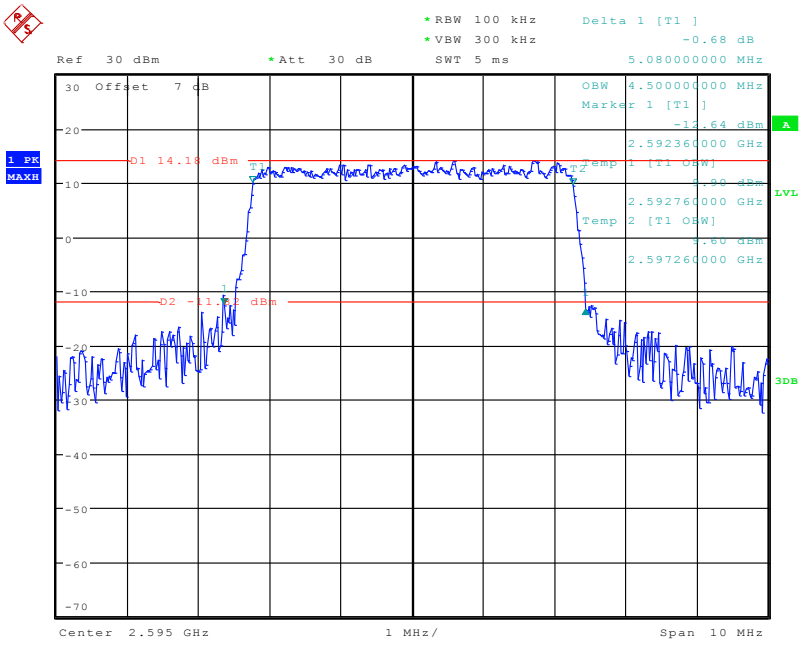
Date: 7.SEP.2020 13:29:16

QPSK (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



Date: 25.JUL.2020 00:14:55

16-QAM (5.0 MHz) - 26 dB Bandwidth & 99% Occupied Bandwidth, Middle channel



Date: 25.JUL.2020 00:15:25