FCC PART 27

FCC PART 22H, PART 24E

TEST REPORT

For

SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD

A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA,SHENZHEN,China

FCC ID: 2ANMU-Y1000-PRO

Report Type:	Product Type:
Original Report	Smart Phone

Report Number:	RSZ200512011-00C
Report Date:	2020-11-17
Reviewed By:	Nancy Wang RF Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F., West Wing, Third Phase of Wanli Industrial Building, Shihua Road, Futian Free Trade Zone, Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Smart Phone
Tested Model	Y1000 Pro
Frequency Range	EGSM 850: 824-849 MHz(TX); 869-894 MHz(RX) PCS 1900: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 4: 1710-1755 MHz(TX) ; 2110-2155 MHz(RX) WCDMA Band 5: 824-849 MHz(TX); 869-894 MHz(RX) LTE Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) LTE Band 4: 1710-1755 MHz(TX) ; 2110-2155 MHz(RX) LTE Band 5: 824-849 MHz(TX) ; 869-894 MHz(RX) LTE Band 7: 2500-2570 MHz(TX); 2620-2690 MHz(RX) LTE Band 12: 699-716 MHz(TX) ; 729-746 MHz(RX) LTE Band 17: 704-716 MHz(TX); 734-746 MHz(RX) LTE Band 19:830-845MHz(TX); 875-890 MHz(RX)
Maximum Target Output Power	EGSM850: 33.5dBm(GMSK), 27.5dBm(8PSK) PCS1900: 31.5dBm(GMSK), 27.5dBm(8PSK) WCDMA Band 2: 25.0dBm WCDMA Band 4: 23.5dBm WCDMA Band 5: 24.0dBm LTE Band 2: 24.5dBm LTE Band 4: 23.5dBm LTE Band 5: 25.0dBm LTE Band 7: 22.2dBm LTE Band 12: 24.5dBm LTE Band 17: 24.5dBm LTE Band 19: 24.5dBm
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification	2G/3G/4G: FPC Antennas
Voltage Range	DC 3.8V from battery
Date of Test	2020-05-19 to 2020-11-17
Sample serial number	RSZ200512011-RF-S1 (Assigned by BACL, Shenzhen)
Received date	2020-05-12
Sample/EUT Status	Good condition

Objective

This test report is prepared on behalf of SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD 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.

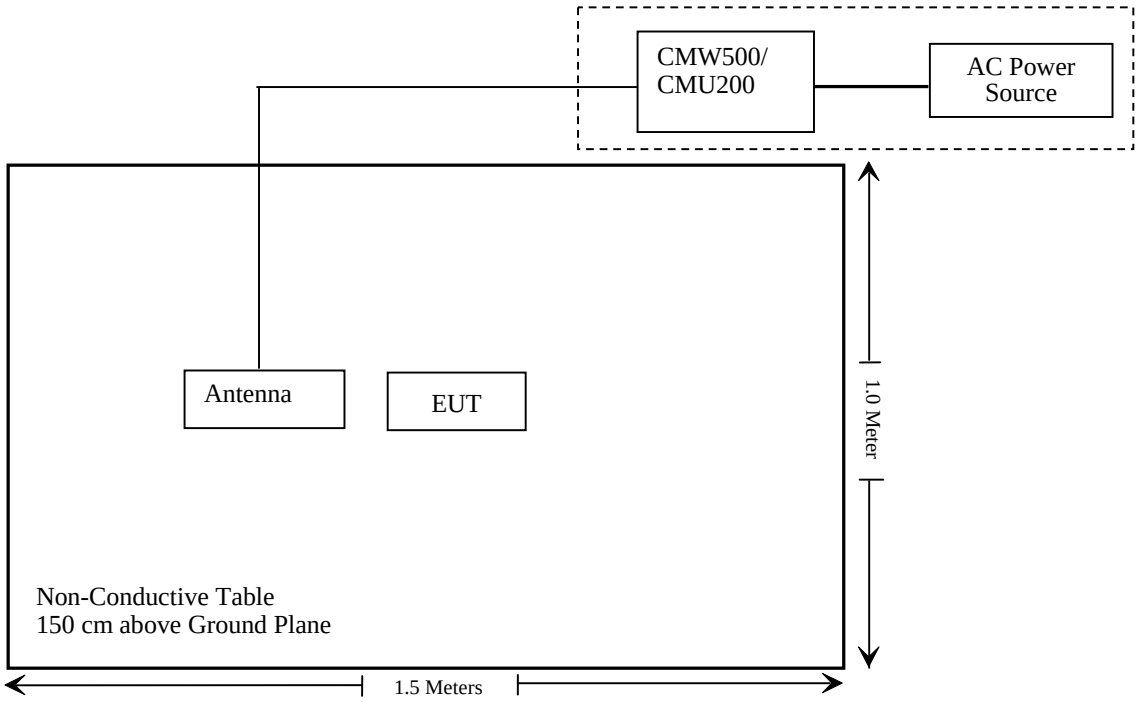
Equipment Modifications

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 (c) (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: RSZ200512011-SAB.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2019/7/9	2020/7/8
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	2019/7/22	2020/7/21
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	NCR	NCR

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
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	2019/7/22	2020/7/21
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	2019/7/9	2020/7/8
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: RSZ200512011-SAB.

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

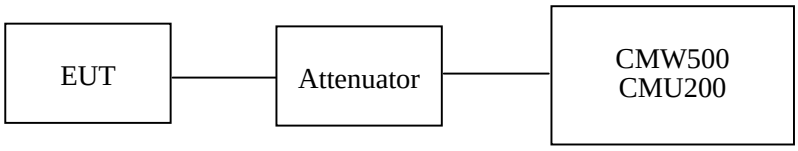
According to §27.50(d), the maximum EIRP must not exceed 1Watts (30dBm) for 1710-1755MHz.

According to §27.50(h), the maximum EIRP must not exceed 2Watts (33dBm) for 2500-2570MHz.

Test Procedure

Conducted method:

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



Radiated method:

ANSI C63.26-2015 section 5.5.3.

Test Data

Environmental Conditions

Temperature:	23~24 ℃
Relative Humidity:	54~56 %
ATM Pressure:	101.0 kPa

The testing was performed by Gavin Guo from 2020-05-21 to 2020-11-10.

EUT operation mode: Transmitting

Conducted Power

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
GSM	128	824.2	33.21	38.45
	190	836.6	33.25	38.45
	251	848.8	33.28	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
GPRS	128	824.2	33.07	32.18	32.02	32.00	38.45
	190	836.6	33.17	32.24	32.11	32.07	38.45
	251	848.8	33.21	33.26	32.21	32.18	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
EGPRS	128	824.2	27.08	25.67	23.11	21.61	38.45
	190	836.6	26.95	25.51	22.96	21.39	38.45
	251	848.8	26.81	25.33	22.66	21.06	38.45

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band V)	Normal	RMC12.2k		23.73	23.68	23.64
		HSDPA	1	22.69	22.64	22.57
			2	22.66	22.62	22.54
			3	22.68	22.63	22.51
			4	22.65	22.61	22.48
		HSUPA	1	22.53	22.52	22.45
			2	22.48	22.51	22.44
			3	22.51	22.47	22.42
			4	22.49	22.45	22.41
			5	22.47	22.43	22.40
		HSPA+	1	22.46	22.38	22.24

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
GSM	512	1850.2	31.02	33
	661	1880.0	31.15	33
	810	1909.8	31.17	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
GPRS	512	1850.2	31.05	30.21	28.45	27.24	33
	661	1880.0	31.08	30.26	28.47	27.31	33
	810	1909.8	31.10	30.23	28.46	27.24	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	
EGPRS	512	1850.2	27.05	25.94	25.85	25.85	33
	661	1880.0	27.16	26.02	25.94	25.92	33
	810	1909.8	27.29	26.11	26.08	26.05	33

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band II)	Normal	RMC12.2k		24.53	24.49	24.57
		HSDPA	1	23.52	23.44	23.53
			2	23.51	23.37	23.49
			3	23.46	23.37	23.50
			4	23.45	23.35	23.48
		HSUPA	1	23.40	23.35	23.43
			2	23.41	23.36	23.45
			3	23.38	23.33	23.44
			4	23.38	23.35	23.46
			5	23.36	23.36	23.42
		HSPA+	1	23.65	23.42	23.38

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		23.33	23.42	23.37
		HSDPA	1	22.47	22.35	22.45
			2	22.41	22.33	22.42
			3	22.45	22.35	22.43
			4	22.41	22.34	22.41
		HSUPA	1	22.51	22.41	22.31
			2	22.48	22.40	22.29
			3	22.47	22.38	22.25
			4	22.48	22.40	22.28
			5	22.44	22.41	22.27
		HSPA+	1	22.54	22.36	22.24

Peak-to-average ratio (PAR)

Cellular Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.41	13
	Middle	3.35	13
	High	3.33	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.13	13
	Middle	3.36	13
	High	3.25	13
HSDPA (16QAM)	Low	4.21	13
	Middle	3.98	13
	High	3.78	13
HSUPA (BPSK)	Low	3.45	13
	Middle	3.64	13
	High	3.61	13
HSPA+	Low	3.31	13
	Middle	3.15	13
	High	3.51	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.44	13
	Middle	3.28	13
	High	3.19	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.23	13
	Middle	3.20	13
	High	2.92	13
HSDPA (16QAM)	Low	3.64	13
	Middle	4.02	13
	High	4.44	13
HSUPA (BPSK)	Low	3.64	13
	Middle	3.72	13
	High	3.86	13
HSPA+	Low	3.33	13
	Middle	3.27	13
	High	3.62	13

AWS Band

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.28	13
	Middle	3.01	13
	High	3.33	13
HSDPA (16QAM)	Low	4.21	13
	Middle	3.45	13
	High	3.64	13
HSUPA (BPSK)	Low	4.12	13
	Middle	3.94	13
	High	3.66	13
HSPA+	Low	3.18	13
	Middle	3.14	13
	High	3.26	13

Radiated Power *Pre-scan with Low, Middle and High channel, the worst case as below:*
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	90.53	268	2.3	H	31.2	1.35	0.0	29.85	38.45	8.60
824.2	93.63	113	2.1	V	33.6	1.35	0.0	32.25	38.45	6.20
Middle Channel										
836.6	90.63	343	1.5	H	31.3	1.35	0.0	29.95	38.45	8.50
836.6	93.12	243	2.3	V	33.7	1.35	0.0	32.35	38.45	6.10
High Channel										
848.8	90.58	154	2.4	H	31.2	1.35	0.0	29.85	38.45	8.60
848.8	92.76	204	1.4	V	32.8	1.35	0.0	31.45	38.45	7.00
EIRP for PCS Band (Part 24E)										
Low Channel										
1850.2	92.52	42	1.0	H	22.5	1.30	8.50	29.70	33	3.30
1850.2	88.63	52	2.2	V	18.4	1.30	8.50	25.60	33	7.40
Middle Channel										
1880.0	92.87	349	1.3	H	22.8	1.30	8.50	30.00	33	3.00
1880.0	88.75	269	1.3	V	18.5	1.30	8.50	25.70	33	7.30
High Channel										
1909.8	93.12	113	1.6	H	23.1	1.30	8.50	30.30	33	2.70
1909.8	88.13	106	1.5	V	17.9	1.30	8.50	25.10	33	7.90

EDGE 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 (dBi)			
ERP, Cellular Band (Part 22H)										
Low Channel										
824.2	81.23	288	1.9	H	21.9	1.35	0.0	20.55	38.45	17.90
824.2	87.45	172	2.4	V	27.5	1.35	0.0	26.15	38.45	12.30
Middle Channel										
836.6	81.61	65	2.1	H	22.2	1.35	0.0	20.85	38.45	17.60
836.6	87.45	18	2.2	V	27.5	1.35	0.0	26.15	38.45	12.30
High Channel										
848.8	81.67	32	1.1	H	22.3	1.35	0.0	20.95	38.45	17.50
848.8	87.63	179	2.3	V	27.6	1.35	0.0	26.25	38.45	12.20
EIRP, PCS Band (Part 24E)										
Low Channel										
1850.2	90.26	141	2.2	H	20.2	1.30	8.50	27.40	33	5.60
1850.2	86.14	328	1.6	V	15.9	1.30	8.50	23.10	33	9.90
Middle Channel										
1880	89.47	292	2.4	H	19.4	1.30	8.50	26.60	33	6.40
1880	85.12	355	2.5	V	14.9	1.30	8.50	22.10	33	10.90
High Channel										
1909.8	89.67	52	2.3	H	19.6	1.30	8.50	26.80	33	6.20
1909.8	86.13	210	2.2	V	15.9	1.30	8.50	23.10	33	9.90

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	80.21	205	2.3	H	20.8	1.35	0.0	19.45	38.45	19.00
826.4	82.96	2	1.3	V	23.0	1.35	0.0	21.65	38.45	16.80
Middle Channel										
836.6	80.12	72	1.2	H	20.7	1.35	0.0	19.35	38.45	19.10
836.6	83.12	276	2.2	V	23.7	1.35	0.0	22.35	38.45	16.10
High Channel										
846.6	80.22	18	1.4	H	20.8	1.35	0.0	19.45	38.45	19.00
846.6	83.25	356	2.3	V	23.3	1.35	0.0	21.95	38.45	16.50
EIRP for WCDMA Band II (Part 24E)										
Low Channel										
1852.4	81.43	277	2.0	H	11.4	1.30	8.50	18.60	33	14.40
1852.4	86.36	278	1.2	V	16.1	1.30	8.50	23.30	33	9.70
Middle Channel										
1880	81.23	18	1.8	H	11.2	1.30	8.50	18.40	33	14.60
1880	86.35	276	2.0	V	16.1	1.30	8.50	23.30	33	9.70
High Channel										
1907.6	81.36	151	1.1	H	11.3	1.30	8.50	18.50	33	14.50
1907.6	86.56	140	1.3	V	16.3	1.30	8.50	23.50	33	9.50
EIRP for WCDMA Band IV (Part 27)										
Low Channel										
1712.4	81.96	140	2.2	H	8.8	1.30	9.10	16.60	30	13.40
1712.4	87.25	225	1.5	V	14.7	1.30	9.10	22.50	30	7.50
Middle Channel										
1732.6	82.45	358	1.1	H	9.3	1.30	9.10	17.10	30	12.9
1732.6	86.96	168	1.2	V	14.4	1.30	9.10	22.20	30	7.8
High Channel										
1752.6	83.63	113	2.0	H	11.6	1.30	8.50	18.80	30	11.20
1752.6	87.12	108	2.4	V	15.4	1.30	8.50	22.60	30	7.40

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	23.87	23.96	24.16
		RB Size=1, RB Offset=3	24.03	24.11	24.38
		RB Size=1, RB Offset=5	23.86	23.94	24.06
		RB Size=3, RB Offset=0	23.84	23.91	23.63
		RB Size=3, RB Offset=3	23.81	23.90	23.59
		RB Size=6, RB Offset=0	22.95	23.01	22.79
	16QAM	RB Size=1, RB Offset=0	22.71	22.93	22.59
		RB Size=1, RB Offset=3	22.92	23.10	22.98
		RB Size=1, RB Offset=5	22.70	22.91	22.70
		RB Size=3, RB Offset=0	22.86	22.74	22.81
		RB Size=3, RB Offset=3	22.90	22.80	22.81
		RB Size=6, RB Offset=0	21.86	21.90	21.93
3.0	QPSK	RB Size=1, RB Offset=0	23.96	24.03	24.34
		RB Size=1, RB Offset=8	23.87	23.98	24.16
		RB Size=1, RB Offset=14	23.93	23.96	23.88
		RB Size=6, RB Offset=0	22.88	22.96	22.73
		RB Size=6, RB Offset=9	22.89	22.91	22.82
		RB Size=15, RB Offset=0	22.82	22.91	22.88
	16QAM	RB Size=1, RB Offset=0	23.22	22.95	22.82
		RB Size=1, RB Offset=8	23.18	22.95	22.76
		RB Size=1, RB Offset=14	23.22	22.95	22.76
		RB Size=6, RB Offset=0	21.84	21.84	21.82
		RB Size=6, RB Offset=9	21.83	21.89	21.86
		RB Size=15, RB Offset=0	21.85	21.78	21.92

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	23.74	23.41	23.62
		RB Size=1, RB Offset=13	23.93	23.48	23.66
		RB Size=1, RB Offset=24	23.81	23.33	23.56
		RB Size=15, RB Offset=0	22.83	22.42	22.57
		RB Size=15, RB Offset=10	22.83	22.42	22.53
		RB Size=25, RB Offset=0	22.32	22.40	22.52
	16QAM	RB Size=1, RB Offset=0	22.09	22.52	22.38
		RB Size=1, RB Offset=13	22.21	22.65	22.52
		RB Size=1, RB Offset=24	22.11	22.57	22.39
		RB Size=15, RB Offset=0	21.33	21.37	21.52
		RB Size=15, RB Offset=10	21.40	21.41	21.51
		RB Size=25, RB Offset=0	21.35	21.38	21.46
10.0	QPSK	RB Size=1, RB Offset=0	23.33	23.55	23.81
		RB Size=1, RB Offset=25	23.65	23.69	24.01
		RB Size=1, RB Offset=49	23.51	23.41	23.69
		RB Size=25, RB Offset=0	22.31	22.49	22.59
		RB Size=25, RB Offset=25	22.40	22.48	22.52
		RB Size=50, RB Offset=0	22.36	22.46	22.52
	16QAM	RB Size=1, RB Offset=0	22.75	22.47	22.40
		RB Size=1, RB Offset=25	22.94	22.69	22.65
		RB Size=1, RB Offset=49	22.68	22.51	22.44
		RB Size=25, RB Offset=0	21.32	21.46	21.57
		RB Size=25, RB Offset=25	21.43	21.50	21.52
		RB Size=50, RB Offset=0	21.33	21.46	21.47

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	23.28	23.52	23.56
		RB Size=1, RB Offset=38	23.53	23.50	23.88
		RB Size=1, RB Offset=74	23.50	23.39	23.55
		RB Size=36, RB Offset=0	22.45	22.72	22.83
		RB Size=36, RB Offset=39	22.60	22.61	22.76
		RB Size=75, RB Offset=0	22.51	22.63	22.71
	16QAM	RB Size=1, RB Offset=0	22.67	22.38	22.50
		RB Size=1, RB Offset=38	22.80	22.59	22.65
		RB Size=1, RB Offset=74	22.56	22.46	22.59
		RB Size=36, RB Offset=0	21.34	21.55	21.56
		RB Size=36, RB Offset=39	21.41	21.51	21.53
		RB Size=75, RB Offset=0	21.42	21.56	21.52
20.0	QPSK	RB Size=1, RB Offset=0	23.10	23.34	23.20
		RB Size=1, RB Offset=50	23.70	23.62	23.86
		RB Size=1, RB Offset=99	23.32	23.26	23.32
		RB Size=50, RB Offset=0	22.25	22.45	22.45
		RB Size=50, RB Offset=50	22.17	22.51	22.31
		RB Size=100, RB Offset=0	22.20	22.47	22.44
	16QAM	RB Size=1, RB Offset=0	22.32	22.21	22.63
		RB Size=1, RB Offset=50	22.74	22.71	22.93
		RB Size=1, RB Offset=99	22.27	22.32	22.65
		RB Size=50, RB Offset=0	21.23	21.39	21.34
		RB Size=50, RB Offset=50	21.09	21.50	21.24
		RB Size=100, RB Offset=0	21.18	21.46	21.32

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	1.57	13	Pass
QPSK (100RB Size)	4.81	13	Pass
16QAM (1RB Size)	2.53	13	Pass
16QAM (100RB Size)	5.67	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)		
Low Channel									
1.4 MHz Bandwidth									
1850.7	84.76	45	1.7	H	14.7	1.30	8.50	21.90	33
1850.7	81.24	136	1.9	V	11.0	1.30	8.50	18.20	33
3 MHz Bandwidth									
1851.5	85.63	297	1.6	H	15.6	1.30	8.50	22.80	33
1851.5	81.57	356	1.9	V	11.3	1.30	8.50	18.50	33
5 MHz Bandwidth									
1852.5	85.47	27	1.9	H	15.4	1.30	8.50	22.60	33
1852.5	82.14	173	1.5	V	11.9	1.30	8.50	19.10	33
10 MHz Bandwidth									
1855	85.64	267	2.3	H	15.6	1.30	8.50	22.80	33
1855	80.78	97	2.0	V	10.5	1.30	8.50	17.70	33
15 MHz Bandwidth									
1857.5	84.96	193	1.1	H	14.9	1.30	8.50	22.10	33
1857.5	80.54	36	1.9	V	10.3	1.30	8.50	17.50	33
20 MHz Bandwidth									
1860	85.75	266	1.1	H	15.7	1.30	8.50	22.90	33
1860	81.24	171	1.6	V	11.0	1.30	8.50	18.20	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)		
Middle Channel									
1.4 MHz Bandwidth									
1880.00	85.69	174	1.9	H	15.6	1.30	8.50	22.80	33
1880.00	80.61	173	1.2	V	10.3	1.30	8.50	17.50	33
3 MHz Bandwidth									
1880.00	85.23	68	1.7	H	15.2	1.30	8.50	22.40	33
1880.00	81.44	341	1.5	V	11.2	1.30	8.50	18.40	33
5 MHz Bandwidth									
1880.00	85.46	22	2.1	H	15.4	1.30	8.50	22.60	33
1880.00	81.24	86	2.2	V	11.0	1.30	8.50	18.20	33
10 MHz Bandwidth									
1880.00	85.24	26	2.0	H	15.2	1.30	8.50	22.40	33
1880.00	80.36	287	2.0	V	10.1	1.30	8.50	17.30	33
15 MHz Bandwidth									
1880.00	84.97	35	2.0	H	14.9	1.30	8.50	22.10	33
1880.00	80.26	316	2.0	V	10.0	1.30	8.50	17.20	33
20 MHz Bandwidth									
1880.00	85.69	256	1.4	H	15.6	1.30	8.50	22.80	33
1880.00	81.02	173	2.4	V	10.8	1.30	8.50	18.00	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)		
High Channel									
1.4 MHz Bandwidth									
1909.3	85.67	28	1.6	H	15.6	1.30	8.50	22.80	33
1909.3	80.79	179	2.4	V	10.5	1.30	8.50	17.70	33
3 MHz Bandwidth									
1908.5	85.67	182	1.6	H	15.6	1.30	8.50	22.80	33
1908.5	81.24	209	1.8	V	11.0	1.30	8.50	18.20	33
5 MHz Bandwidth									
1907.5	85.69	296	2.5	H	15.6	1.30	8.50	22.80	33
1907.5	82.23	153	2.3	V	12.0	1.30	8.50	19.20	33
10 MHz Bandwidth									
1905	84.79	5	1.9	H	14.7	1.30	8.50	21.90	33
1905	81.24	155	1.2	V	11.0	1.30	8.50	18.20	33
15 MHz Bandwidth									
1902.5	83.67	204	1.1	H	13.6	1.30	8.50	20.80	33
1902.5	81.24	306	2.1	V	11.0	1.30	8.50	18.20	33
20 MHz Bandwidth									
1900	85.67	274	1.9	H	15.6	1.30	8.50	22.80	33
1900	82.31	309	2.2	V	12.0	1.30	8.50	19.20	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)		
Low Channel									
1.4 MHz Bandwidth									
1850.7	84.56	276	1.1	H	14.5	1.30	8.50	21.70	33
1850.7	80.86	300	1.1	V	10.6	1.30	8.50	17.80	33
3 MHz Bandwidth									
1851.5	85.12	318	1.6	H	15.1	1.30	8.50	22.30	33
1851.5	80.56	255	1.2	V	10.3	1.30	8.50	17.50	33
5 MHz Bandwidth									
1852.5	84.12	249	1.7	H	14.1	1.30	8.50	21.30	33
1852.5	80.53	162	2.2	V	10.3	1.30	8.50	17.50	33
10 MHz Bandwidth									
1855	83.23	312	2.3	H	13.2	1.30	8.50	20.40	33
1855	80.34	171	2.0	V	10.1	1.30	8.50	17.30	33
15 MHz Bandwidth									
1857.5	84.12	90	1.0	H	14.1	1.30	8.50	21.30	33
1857.5	78.23	205	2.2	V	8.0	1.30	8.50	15.20	33
20 MHz Bandwidth									
1860	84.53	22	1.4	H	14.5	1.30	8.50	21.70	33
1860	78.66	108	2.1	V	8.4	1.30	8.50	15.60	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)		
Middle Channel									
1.4 MHz Bandwidth									
1880	84.85	168	2.3	H	14.8	1.30	8.50	22.00	33
1880	80.86	7	2.4	V	10.6	1.30	8.50	17.80	33
3 MHz Bandwidth									
1880	84.16	351	2.0	H	14.1	1.30	8.50	21.30	33
1880	80.49	111	2.4	V	10.2	1.30	8.50	17.40	33
5 MHz Bandwidth									
1880	84.09	195	2.2	H	14.0	1.30	8.50	21.20	33
1880	80.38	104	2.0	V	10.1	1.30	8.50	17.30	33
10 MHz Bandwidth									
1880	83.87	278	2.1	H	13.8	1.30	8.50	21.00	33
1880	80.24	343	1.9	V	10.0	1.30	8.50	17.20	33
15 MHz Bandwidth									
1880	83.98	69	2.0	H	13.9	1.30	8.50	21.10	33
1880	77.24	233	1.7	V	7.0	1.30	8.50	14.20	33
20 MHz Bandwidth									
1880	84.26	82	2.3	H	14.2	1.30	8.50	21.40	33
1880	78.98	210	2.2	V	8.7	1.30	8.50	15.90	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)		
High Channel									
1.4 MHz Bandwidth									
1909.3	84.36	342	2.4	H	14.3	1.30	8.50	21.50	33
1909.3	80.74	179	1.9	V	10.5	1.30	8.50	17.70	33
3 MHz Bandwidth									
1908.5	84.35	316	2.0	H	14.3	1.30	8.50	21.50	33
1908.5	80.67	318	1.6	V	10.4	1.30	8.50	17.60	33
5 MHz Bandwidth									
1907.5	84.12	229	1.9	H	14.1	1.30	8.50	21.30	33
1907.5	80.46	196	1.2	V	10.2	1.30	8.50	17.40	33
10 MHz Bandwidth									
1905	83.42	205	1.8	H	13.4	1.30	8.50	20.60	33
1905	80.36	330	1.1	V	10.1	1.30	8.50	17.30	33
15 MHz Bandwidth									
1902.5	83.87	101	1.6	H	13.8	1.30	8.50	21.00	33
1902.5	78.54	303	1.6	V	8.3	1.30	8.50	15.50	33
20 MHz Bandwidth									
1900	84.37	232	1.9	H	14.3	1.30	8.50	21.50	33
1900	78.86	189	1.8	V	8.6	1.30	8.50	15.80	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	22.69	22.57	22.53
		RB Size=1, RB Offset=3	22.75	22.75	22.71
		RB Size=1, RB Offset=5	22.64	22.55	22.50
		RB Size=3, RB Offset=0	22.69	22.59	22.56
		RB Size=3, RB Offset=3	22.74	22.59	22.58
		RB Size=6, RB Offset=0	21.77	21.69	21.62
	16QAM	RB Size=1, RB Offset=0	21.65	21.63	21.54
		RB Size=1, RB Offset=3	21.77	21.82	21.72
		RB Size=1, RB Offset=5	21.64	21.67	21.55
		RB Size=3, RB Offset=0	21.85	21.55	21.67
		RB Size=3, RB Offset=3	21.90	21.54	21.68
		RB Size=6, RB Offset=0	20.97	20.65	20.56
3.0	QPSK	RB Size=1, RB Offset=0	22.87	23.05	23.12
		RB Size=1, RB Offset=8	22.70	22.66	23.08
		RB Size=1, RB Offset=14	22.74	22.62	22.84
		RB Size=6, RB Offset=0	21.83	21.78	21.88
		RB Size=6, RB Offset=9	22.11	21.83	21.83
		RB Size=15, RB Offset=0	22.16	21.81	21.86
	16QAM	RB Size=1, RB Offset=0	22.48	21.99	22.02
		RB Size=1, RB Offset=8	22.58	22.08	21.99
		RB Size=1, RB Offset=14	22.58	22.02	22.01
		RB Size=6, RB Offset=0	21.24	21.04	20.95
		RB Size=6, RB Offset=9	21.24	21.12	20.96
		RB Size=15, RB Offset=0	21.22	21.04	21.13

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	23.10	23.10	23.01
		RB Size=1, RB Offset=13	23.23	23.15	23.06
		RB Size=1, RB Offset=24	23.10	23.08	22.98
		RB Size=15, RB Offset=0	22.16	22.03	22.13
		RB Size=15, RB Offset=10	22.16	22.08	22.03
		RB Size=25, RB Offset=0	22.10	22.01	22.02
	16QAM	RB Size=1, RB Offset=0	21.94	22.13	22.04
		RB Size=1, RB Offset=13	22.04	22.36	22.11
		RB Size=1, RB Offset=24	21.93	22.26	22.03
		RB Size=15, RB Offset=0	21.23	21.06	21.20
		RB Size=15, RB Offset=10	21.18	21.04	21.08
		RB Size=25, RB Offset=0	21.21	21.02	21.07
10.0	QPSK	RB Size=1, RB Offset=0	23.22	23.16	23.14
		RB Size=1, RB Offset=25	23.33	23.35	23.29
		RB Size=1, RB Offset=49	23.16	23.16	23.05
		RB Size=25, RB Offset=0	22.16	22.08	22.11
		RB Size=25, RB Offset=25	22.13	22.12	22.00
		RB Size=50, RB Offset=0	22.14	22.07	22.11
	16QAM	RB Size=1, RB Offset=0	22.59	22.23	22.00
		RB Size=1, RB Offset=25	22.80	22.37	22.20
		RB Size=1, RB Offset=49	22.63	22.16	22.03
		RB Size=25, RB Offset=0	21.26	21.09	21.25
		RB Size=25, RB Offset=25	21.22	21.13	21.12
		RB Size=50, RB Offset=0	21.18	21.12	21.10

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	23.12	23.03	23.07
		RB Size=1, RB Offset=38	23.16	23.15	23.15
		RB Size=1, RB Offset=74	23.02	23.04	22.99
		RB Size=36, RB Offset=0	22.27	22.19	22.24
		RB Size=36, RB Offset=39	22.21	22.26	22.09
		RB Size=75, RB Offset=0	22.23	22.22	22.16
	16QAM	RB Size=1, RB Offset=0	22.54	22.13	22.22
		RB Size=1, RB Offset=38	22.63	22.18	22.34
		RB Size=1, RB Offset=74	22.51	22.07	22.30
		RB Size=36, RB Offset=0	21.24	21.16	21.15
		RB Size=36, RB Offset=39	21.20	21.19	21.01
		RB Size=75, RB Offset=0	21.23	21.18	21.11
20.0	QPSK	RB Size=1, RB Offset=0	22.95	22.96	22.85
		RB Size=1, RB Offset=50	23.30	23.31	23.23
		RB Size=1, RB Offset=99	22.89	22.91	22.80
		RB Size=50, RB Offset=0	22.21	22.08	22.13
		RB Size=50, RB Offset=50	22.12	22.08	21.89
		RB Size=100, RB Offset=0	22.16	22.09	22.05
	16QAM	RB Size=1, RB Offset=0	22.17	22.07	22.25
		RB Size=1, RB Offset=50	22.54	22.35	22.65
		RB Size=1, RB Offset=99	22.11	21.90	22.31
		RB Size=50, RB Offset=0	21.24	21.14	21.10
		RB Size=50, RB Offset=50	21.13	21.11	20.91
		RB Size=100, RB Offset=0	21.22	21.13	21.03

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.75	13	Pass
QPSK (100RB Size)	5.13	13	Pass
16QAM (1RB Size)	4.46	13	Pass
16QAM (100RB Size)	5.90	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)		
Low Channel									
1.4 MHz Bandwidth									
1710.7	87.68	20	2.4	H	14.5	1.30	9.10	22.30	30
1710.7	83.66	137	1.3	V	11.1	1.30	9.10	18.90	30
3 MHz Bandwidth									
1711.5	87.63	93	2.0	H	14.5	1.30	9.10	22.30	30
1711.5	83.66	241	2.4	V	11.1	1.30	9.10	18.90	30
5 MHz Bandwidth									
1712.5	87.26	17	1.4	H	14.1	1.30	9.10	21.90	30
1712.5	83.45	319	1.3	V	10.9	1.30	9.10	18.70	30
10 MHz Bandwidth									
1715	86.94	319	1.6	H	13.8	1.30	9.10	21.60	30
1715	83.28	258	1.7	V	10.7	1.30	9.10	18.50	30
15 MHz Bandwidth									
1717.5	85.97	52	1.8	H	12.8	1.30	9.10	20.60	30
1717.5	82.86	323	1.3	V	10.3	1.30	9.10	18.10	30
20 MHz Bandwidth									
1720	85.84	105	1.5	H	12.7	1.30	9.10	20.50	30
1720	81.55	191	2.2	V	9.0	1.30	9.10	16.80	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)		
Middle Channel									
1.4 MHz Bandwidth									
1732.5	86.39	225	2.3	H	13.2	1.30	9.10	21.00	30
1732.5	83.67	252	2.3	V	11.1	1.30	9.10	18.90	30
3 MHz Bandwidth									
1732.5	87.31	61	1.3	H	14.1	1.30	9.10	21.90	30
1732.5	83.55	36	1.2	V	11.0	1.30	9.10	18.80	30
5 MHz Bandwidth									
1732.5	87.18	352	2.4	H	14.0	1.30	9.10	21.80	30
1732.5	83.35	161	2.2	V	10.8	1.30	9.10	18.60	30
10 MHz Bandwidth									
1732.5	86.84	171	2.4	H	13.7	1.30	9.10	21.50	30
1732.5	83.12	193	2.4	V	10.6	1.30	9.10	18.40	30
15 MHz Bandwidth									
1732.5	86.03	312	1.6	H	12.9	1.30	9.10	20.70	30
1732.5	82.94	224	1.9	V	10.4	1.30	9.10	18.20	30
20 MHz Bandwidth									
1732.5	85.91	146	2.2	H	12.7	1.30	9.10	20.50	30
1732.5	82.87	175	2.0	V	10.3	1.30	9.10	18.10	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)		
High Channel									
1.4 MHz Bandwidth									
1754.3	87.32	187	1.5	H	15.2	1.30	8.50	22.40	30
1754.3	82.45	237	2.5	V	10.8	1.30	8.50	18.00	30
3 MHz Bandwidth									
1753.5	87.42	100	1.9	H	15.3	1.30	8.50	22.50	30
1753.5	84.25	305	2.2	V	12.6	1.30	8.50	19.80	30
5 MHz Bandwidth									
1752.5	87.26	340	1.9	H	15.2	1.30	8.50	22.40	30
1752.5	82.75	131	1.2	V	11.1	1.30	8.50	18.30	30
10 MHz Bandwidth									
1750	86.93	190	2.5	H	14.9	1.30	8.50	22.10	30
1750	82.24	358	2.1	V	10.6	1.30	8.50	17.80	30
15 MHz Bandwidth									
1747.5	86.37	36	1.4	H	13.2	1.30	9.10	21.00	30
1747.5	81.23	214	2.4	V	8.7	1.30	9.10	16.50	30
20 MHz Bandwidth									
1745	86.12	301	1.1	H	13.0	1.30	9.10	20.80	30
1745	81.24	59	1.2	V	8.7	1.30	9.10	16.50	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)		
Low Channel									
1.4 MHz Bandwidth									
1710.7	86.35	261	1.5	H	13.2	1.30	9.10	21.00	30
1710.7	84.27	24	1.5	V	11.7	1.30	9.10	19.50	30
3 MHz Bandwidth									
1711.5	87.33	9	2.4	H	14.2	1.30	9.10	22.00	30
1711.5	83.67	15	2.3	V	11.1	1.30	9.10	18.90	30
5 MHz Bandwidth									
1712.5	86.36	102	1.3	H	13.2	1.30	9.10	21.00	30
1712.5	84.56	202	2.4	V	12.0	1.30	9.10	19.80	30
10 MHz Bandwidth									
1715	87.36	33	2.0	H	14.2	1.30	9.10	22.00	30
1715	81.68	41	2.0	V	9.1	1.30	9.10	16.90	30
15 MHz Bandwidth									
1717.5	86.47	238	1.2	H	13.3	1.30	9.10	21.10	30
1717.5	82.23	23	2.3	V	9.7	1.30	9.10	17.50	30
20 MHz Bandwidth									
1720	87.35	274	1.1	H	14.2	1.30	9.10	22.00	30
1720	83.56	321	2.3	V	11.0	1.30	9.10	18.80	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)		
Middle Channel									
1.4 MHz Bandwidth									
1732.5	86.68	281	2.1	H	13.5	1.30	9.10	21.30	30
1732.5	84.15	74	1.5	V	11.6	1.30	9.10	19.40	30
3 MHz Bandwidth									
1732.5	87.24	295	1.9	H	14.1	1.30	9.10	21.90	30
1732.5	83.75	224	1.2	V	11.2	1.30	9.10	19.00	30
5 MHz Bandwidth									
1732.5	86.87	305	1.1	H	13.7	1.30	9.10	21.50	30
1732.5	82.36	81	1.5	V	9.8	1.30	9.10	17.60	30
10 MHz Bandwidth									
1732.5	87.12	36	1.1	H	14.0	1.30	9.10	21.80	30
1732.5	81.24	214	1.1	V	8.7	1.30	9.10	16.50	30
15 MHz Bandwidth									
1732.5	86.89	233	1.6	H	13.7	1.30	9.10	21.50	30
1732.5	82.01	210	2.0	V	9.4	1.30	9.10	17.20	30
20 MHz Bandwidth									
1732.5	87.12	78	2.1	H	14.0	1.30	9.10	21.80	30
1732.5	83.23	172	1.9	V	10.7	1.30	9.10	18.50	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)		
High Channel									
1.4 MHz Bandwidth									
1754.3	86.78	210	1.1	H	14.7	1.30	8.50	21.90	30
1754.3	84.26	69	2.4	V	12.6	1.30	8.50	19.80	30
3 MHz Bandwidth									
1753.5	87.36	91	1.3	H	15.3	1.30	8.50	22.50	30
1753.5	83.67	86	2.0	V	12.0	1.30	8.50	19.20	30
5 MHz Bandwidth									
1752.5	86.75	274	1.3	H	14.7	1.30	8.50	21.90	30
1752.5	82.52	286	1.2	V	10.8	1.30	8.50	18.00	30
10 MHz Bandwidth									
1750	87.35	358	2.4	H	15.3	1.30	8.50	22.50	30
1750	81.47	129	2.0	V	9.8	1.30	8.50	17.00	30
15 MHz Bandwidth									
1747.5	86.67	198	1.8	H	13.5	1.30	9.10	21.30	30
1747.5	82.34	233	1.3	V	9.8	1.30	9.10	17.60	30
20 MHz Bandwidth									
1745	87.42	133	2.1	H	14.3	1.30	9.10	22.10	30
1745	83.65	90	2.1	V	11.1	1.30	9.10	18.90	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	24.37	24.25	24.29
		RB Size=1, RB Offset=3	24.49	24.43	24.49
		RB Size=1, RB Offset=5	24.37	24.27	24.31
		RB Size=3, RB Offset=0	24.24	24.29	24.18
		RB Size=3, RB Offset=3	24.23	24.27	24.21
		RB Size=6, RB Offset=0	23.45	23.33	23.28
	16QAM	RB Size=1, RB Offset=0	23.14	23.27	23.11
		RB Size=1, RB Offset=3	23.30	23.48	23.25
		RB Size=1, RB Offset=5	23.17	23.30	23.10
		RB Size=3, RB Offset=0	23.29	23.17	23.16
		RB Size=3, RB Offset=3	23.29	23.18	23.13
		RB Size=6, RB Offset=0	22.30	22.35	22.16
3.0	QPSK	RB Size=1, RB Offset=0	24.50	24.27	24.38
		RB Size=1, RB Offset=8	24.43	24.35	24.38
		RB Size=1, RB Offset=14	24.43	24.31	24.39
		RB Size=6, RB Offset=0	23.39	23.25	23.30
		RB Size=6, RB Offset=9	23.35	23.27	23.25
		RB Size=15, RB Offset=0	23.27	23.27	23.21
	16QAM	RB Size=1, RB Offset=0	23.64	23.37	23.18
		RB Size=1, RB Offset=8	23.62	23.35	23.16
		RB Size=1, RB Offset=14	23.63	23.38	23.14
		RB Size=6, RB Offset=0	22.32	22.24	22.18
		RB Size=6, RB Offset=9	22.35	22.34	22.14
		RB Size=15, RB Offset=0	22.32	22.25	22.25

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	24.30	24.23	24.21
		RB Size=1, RB Offset=13	24.40	24.32	24.35
		RB Size=1, RB Offset=24	24.24	24.24	24.20
		RB Size=15, RB Offset=0	23.32	23.22	23.25
		RB Size=15, RB Offset=10	23.32	23.31	23.21
		RB Size=25, RB Offset=0	23.26	23.22	23.15
	16QAM	RB Size=1, RB Offset=0	23.00	23.38	23.12
		RB Size=1, RB Offset=13	23.12	23.49	23.24
		RB Size=1, RB Offset=24	23.03	23.37	23.13
		RB Size=15, RB Offset=0	22.34	22.24	22.29
		RB Size=15, RB Offset=10	22.35	22.28	22.26
		RB Size=25, RB Offset=0	22.33	22.27	22.24
10.0	QPSK	RB Size=1, RB Offset=0	24.47	24.32	24.32
		RB Size=1, RB Offset=25	24.50	24.54	24.49
		RB Size=1, RB Offset=49	24.26	24.34	24.38
		RB Size=25, RB Offset=0	23.32	23.28	23.27
		RB Size=25, RB Offset=25	23.26	23.31	23.15
		RB Size=50, RB Offset=0	23.28	23.29	23.20
	16QAM	RB Size=1, RB Offset=0	23.62	23.37	23.20
		RB Size=1, RB Offset=25	23.86	23.51	23.34
		RB Size=1, RB Offset=49	23.70	23.33	23.15
		RB Size=25, RB Offset=0	22.37	22.30	22.39
		RB Size=25, RB Offset=25	22.36	22.32	22.23
		RB Size=50, RB Offset=0	22.32	22.31	22.28

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.40	13	Pass
QPSK (50RB Size)	5.13	13	Pass
16QAM (1RB Size)	4.20	13	Pass
16QAM (50RB Size)	5.90	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)		
Low Channel									
1.4 MHz Bandwidth									
824.7	80.56	52	1.9	H	21.2	1.35	0.0	19.85	38.45
824.7	84.63	246	1.1	V	24.6	1.35	0.0	23.25	38.45
3 MHz Bandwidth									
825.5	80.12	280	1.6	H	20.7	1.35	0.0	19.35	38.45
825.5	83.35	216	1.3	V	23.4	1.35	0.0	22.05	38.45
5 MHz Bandwidth									
826.5	80.21	57	1.8	H	20.8	1.35	0.0	19.45	38.45
826.5	84.24	211	2.3	V	24.2	1.35	0.0	22.85	38.45
10 MHz Bandwidth									
829	79.63	303	1.2	H	20.3	1.35	0.0	18.95	38.45
829	84.35	26	1.9	V	24.4	1.35	0.0	23.05	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 (dBi)		
Middle Channel									
1.4 MHz Bandwidth									
836.5	80.61	295	1.4	H	21.2	1.35	0.0	19.85	38.45
836.5	84.25	341	2.2	V	24.9	1.35	0.0	23.55	38.45
3 MHz Bandwidth									
836.5	80.6	344	1.3	H	21.2	1.35	0.0	19.85	38.45
836.5	83.56	109	1.7	V	24.2	1.35	0.0	22.85	38.45
5 MHz Bandwidth									
836.5	79.92	231	1.5	H	20.5	1.35	0.0	19.15	38.45
836.5	84.15	262	1.3	V	24.8	1.35	0.0	23.45	38.45
10 MHz Bandwidth									
836.5	79.65	68	1.5	H	20.3	1.35	0.0	18.95	38.45
836.5	84.26	35	2.5	V	24.9	1.35	0.0	23.55	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 (dBi)		
High Channel									
1.4 MHz Bandwidth									
848.3	80.56	207	1.4	H	21.2	1.35	0.0	19.85	38.45
848.3	84.68	23	1.2	V	24.7	1.35	0.0	23.35	38.45
3 MHz Bandwidth									
847.5	80.74	359	1.0	H	21.4	1.35	0.0	20.05	38.45
847.5	83.65	150	1.8	V	23.7	1.35	0.0	22.35	38.45
5 MHz Bandwidth									
846.5	80.12	348	2.5	H	20.7	1.35	0.0	19.35	38.45
846.5	84.68	318	2.2	V	24.7	1.35	0.0	23.35	38.45
10 MHz Bandwidth									
844	79.69	301	1.8	H	20.3	1.35	0.0	18.95	38.45
844	84.12	177	1.4	V	24.1	1.35	0.0	22.75	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 (dBi)		
Low Channel									
1.4 MHz Bandwidth									
824.7	80.34	64	1.9	H	21.0	1.35	0.0	19.65	38.45
824.7	84.63	268	1.6	V	24.6	1.35	0.0	23.25	38.45
3 MHz Bandwidth									
825.5	80.12	169	2.2	H	20.7	1.35	0.0	19.35	38.45
825.5	84.45	102	2.2	V	24.5	1.35	0.0	23.15	38.45
5 MHz Bandwidth									
826.5	79.89	227	2.3	H	20.5	1.35	0.0	19.15	38.45
826.5	84.24	145	2.2	V	24.2	1.35	0.0	22.85	38.45
10 MHz Bandwidth									
829	79.68	236	1.4	H	20.3	1.35	0.0	18.95	38.45
829	84.76	195	2.1	V	24.8	1.35	0.0	23.45	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 (dBi)		
Middle Channel									
1.4 MHz Bandwidth									
836.5	80.21	230	1.6	H	20.8	1.35	0.0	19.45	38.45
836.5	84.56	218	1.3	V	25.2	1.35	0.0	23.85	38.45
3 MHz Bandwidth									
836.5	80.09	231	1.2	H	20.7	1.35	0.0	19.35	38.45
836.5	84.27	115	2.3	V	24.3	1.35	0.0	22.95	38.45
5 MHz Bandwidth									
836.5	79.89	257	1.4	H	20.5	1.35	0.0	19.15	38.45
836.5	85.24	114	1.7	V	25.2	1.35	0.0	23.85	38.45
10 MHz Bandwidth									
836.5	79.84	134	2.1	H	20.5	1.35	0.0	19.15	38.45
836.5	85.21	184	1.3	V	25.2	1.35	0.0	23.85	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 (dBi)		
High Channel									
1.4 MHz Bandwidth									
848.3	80.79	136	1.7	H	21.4	1.35	0.0	20.05	38.45
848.3	84.62	334	1.5	V	24.6	1.35	0.0	23.25	38.45
3 MHz Bandwidth									
847.5	81.24	97	1.4	H	21.9	1.35	0.0	20.55	38.45
847.5	84.96	344	1.1	V	25.0	1.35	0.0	23.65	38.45
5 MHz Bandwidth									
846.5	79.68	291	1.6	H	20.3	1.35	0.0	18.95	38.45
846.5	84.67	35	1.9	V	24.7	1.35	0.0	23.35	38.45
10 MHz Bandwidth									
844	79.86	234	1.9	H	20.5	1.35	0.0	19.15	38.45
844	84.96	103	2.2	V	25.0	1.35	0.0	23.65	38.45

LTE Band 7:

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5	QPSK	RB Size=1, RB Offset=0	22.06	21.72	21.85
		RB Size=1, RB Offset=13	21.71	21.79	21.93
		RB Size=1, RB Offset=24	21.62	21.74	21.89
		RB Size=15, RB Offset=0	20.67	20.80	21.01
		RB Size=15, RB Offset=10	20.75	20.80	20.99
		RB Size=25, RB Offset=0	20.70	20.77	20.95
	16QAM	RB Size=1, RB Offset=0	20.43	20.99	20.90
		RB Size=1, RB Offset=13	20.56	21.08	21.02
		RB Size=1, RB Offset=24	20.49	21.01	20.90
		RB Size=15, RB Offset=0	19.74	19.81	20.06
		RB Size=15, RB Offset=10	19.84	19.85	20.07
		RB Size=25, RB Offset=0	19.77	19.88	20.02
10	QPSK	RB Size=1, RB Offset=0	21.66	21.73	21.87
		RB Size=1, RB Offset=25	21.88	22.00	22.14
		RB Size=1, RB Offset=49	21.67	21.79	21.98
		RB Size=25, RB Offset=0	20.61	20.86	20.99
		RB Size=25, RB Offset=25	20.85	20.88	20.94
		RB Size=50, RB Offset=0	20.77	20.84	20.96
	16QAM	RB Size=1, RB Offset=0	21.12	20.90	20.82
		RB Size=1, RB Offset=25	21.33	21.06	21.06
		RB Size=1, RB Offset=49	21.18	20.90	20.91
		RB Size=25, RB Offset=0	19.71	19.94	20.12
		RB Size=25, RB Offset=25	19.98	19.96	20.10
		RB Size=50, RB Offset=0	19.85	19.89	20.03

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15	QPSK	RB Size=1, RB Offset=0	21.55	21.61	21.74
		RB Size=1, RB Offset=38	21.69	21.81	21.91
		RB Size=1, RB Offset=74	21.50	21.67	21.91
		RB Size=36, RB Offset=0	20.67	20.85	21.00
		RB Size=36, RB Offset=39	20.81	20.90	21.04
		RB Size=75, RB Offset=0	20.76	20.90	20.98
	16QAM	RB Size=1, RB Offset=0	21.06	20.74	21.12
		RB Size=1, RB Offset=38	21.22	20.98	21.24
		RB Size=1, RB Offset=74	21.07	20.82	21.19
		RB Size=36, RB Offset=0	19.68	19.85	19.94
		RB Size=36, RB Offset=39	19.78	19.91	19.96
		RB Size=75, RB Offset=0	19.75	19.89	19.94
20	QPSK	RB Size=1, RB Offset=0	21.39	21.47	21.55
		RB Size=1, RB Offset=50	21.86	22.01	22.02
		RB Size=1, RB Offset=99	21.42	21.62	21.70
		RB Size=50, RB Offset=0	20.54	20.81	20.87
		RB Size=50, RB Offset=50	20.68	20.88	20.82
		RB Size=100, RB Offset=0	20.62	20.89	20.87
	16QAM	RB Size=1, RB Offset=0	20.69	20.67	21.14
		RB Size=1, RB Offset=50	21.11	21.17	21.48
		RB Size=1, RB Offset=99	20.73	20.77	21.16
		RB Size=50, RB Offset=0	19.59	19.88	19.93
		RB Size=50, RB Offset=50	19.73	19.93	19.90
		RB Size=100, RB Offset=0	19.67	19.92	19.93

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.75	13	Pass
QPSK (100RB Size)	5.42	13	Pass
16QAM (1RB Size)	4.78	13	Pass
16QAM (100RB Size)	6.28	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)		
Low Channel									
5 MHz Bandwidth									
2502.5	85.12	83	2.3	H	15.6	2.60	9.30	22.30	33
2502.5	78.23	263	1.9	V	9.4	2.60	9.30	16.10	33
10 MHz Bandwidth									
2505	84.53	29	2.1	H	15.0	2.60	9.30	21.70	33
2505	75.21	345	1.7	V	6.3	2.60	9.30	13.00	33
15 MHz Bandwidth									
2507.5	83.63	347	2.0	H	14.1	2.60	9.30	20.80	33
2507.5	75.23	292	1.5	V	6.4	2.60	9.30	13.10	33
20 MHz Bandwidth									
2510	84.56	135	1.3	H	15.1	2.60	9.30	21.80	33
2510	78.12	205	1.9	V	9.2	2.60	9.30	15.90	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)		
Middle Channel									
5 MHz Bandwidth									
2535.00	84.57	219	1.8	H	15.1	2.60	9.30	21.80	33
2535.00	77.36	20	1.7	V	8.5	2.60	9.30	15.20	33
10 MHz Bandwidth									
2535.00	84.12	68	1.7	H	14.6	2.60	9.30	21.30	33
2535.00	75.89	108	2.0	V	7.0	2.60	9.30	13.70	33
15 MHz Bandwidth									
2535.00	83.96	305	2.2	H	14.5	2.60	9.30	21.20	33
2535.00	76.35	84	2.0	V	7.5	2.60	9.30	14.20	33
20 MHz Bandwidth									
2535.00	84.57	221	2.5	H	15.1	2.60	9.30	21.80	33
2535.00	77.21	22	1.3	V	8.3	2.60	9.30	15.00	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)		
High Channel									
5 MHz Bandwidth									
2567.5	84.69	239	1.6	H	15.1	2.20	9.40	22.30	33
2567.5	78.35	252	2.2	V	9.1	2.20	9.40	16.30	33
10 MHz Bandwidth									
2565	83.98	234	2.2	H	14.4	2.20	9.40	21.60	33
2565	77.42	45	2.4	V	8.2	2.20	9.40	15.40	33
15 MHz Bandwidth									
2562.5	82.69	299	1.6	H	13.1	2.20	9.40	20.30	33
2562.5	77.25	302	1.7	V	8.0	2.20	9.40	15.20	33
20 MHz Bandwidth									
2560	85.24	208	1.3	H	15.7	2.20	9.40	22.90	33
2560	78.24	199	1.3	V	9.0	2.20	9.40	16.20	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)		
Low Channel									
5 MHz Bandwidth									
2502.5	83.36	273	1.0	H	13.9	2.60	9.30	20.60	33
2502.5	75.68	183	1.9	V	6.8	2.60	9.30	13.50	33
10 MHz Bandwidth									
2505	83.69	53	2.2	H	14.2	2.60	9.30	20.90	33
2505	74.12	301	1.4	V	5.2	2.60	9.30	11.90	33
15 MHz Bandwidth									
2507.5	83.75	279	2.2	H	14.3	2.60	9.30	21.00	33
2507.5	73.66	342	1.2	V	4.8	2.60	9.30	11.50	33
20 MHz Bandwidth									
2510	82.65	67	2.4	H	13.2	2.60	9.30	19.90	33
2510	74.12	349	1.9	V	5.2	2.60	9.30	11.90	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)		
Middle Channel									
5 MHz Bandwidth									
2535.00	83.12	79	2.0	H	13.6	2.60	9.30	20.30	33
2535.00	75.59	203	1.7	V	6.7	2.60	9.30	13.40	33
10 MHz Bandwidth									
2535.00	84.12	289	2.1	H	14.6	2.60	9.30	21.30	33
2535.00	74.03	311	2.0	V	5.2	2.60	9.30	11.90	33
15 MHz Bandwidth									
2535.00	84.12	109	1.9	H	14.6	2.60	9.30	21.30	33
2535.00	73.58	346	2.1	V	4.7	2.60	9.30	11.40	33
20 MHz Bandwidth									
2535.00	83.56	192	2.3	H	14.1	2.60	9.30	20.80	33
2535.00	73.29	32	1.9	V	4.4	2.60	9.30	11.10	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)		
High Channel									
5 MHz Bandwidth									
2567.5	83.47	124	2.4	H	13.9	2.20	9.40	21.10	33
2567.5	75.96	28	1.5	V	6.8	2.20	9.40	14.00	33
10 MHz Bandwidth									
2565	83.47	2	1.9	H	13.9	2.20	9.40	21.10	33
2565	75.24	2	1.3	V	6.0	2.20	9.40	13.20	33
15 MHz Bandwidth									
2562.5	83.67	7	2.2	H	14.1	2.20	9.40	21.30	33
2562.5	73.63	332	1.3	V	4.4	2.20	9.40	11.60	33
20 MHz Bandwidth									
2560	83.23	64	1.8	H	13.7	2.20	9.40	20.90	33
2560	73.25	266	1.8	V	4.0	2.20	9.40	11.20	33

LTE Band 12:

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	23.39	23.50	23.61
		RB Size=1, RB Offset=3	23.71	23.70	23.67
		RB Size=1, RB Offset=5	23.49	23.52	23.55
		RB Size=3, RB Offset=0	23.55	23.64	23.65
		RB Size=3, RB Offset=3	23.62	23.72	23.68
		RB Size=6, RB Offset=0	22.53	22.68	22.59
	16QAM	RB Size=1, RB Offset=0	22.37	22.62	22.53
		RB Size=1, RB Offset=3	22.58	22.89	22.72
		RB Size=1, RB Offset=5	22.54	22.79	22.54
		RB Size=3, RB Offset=0	22.71	22.71	22.74
		RB Size=3, RB Offset=3	22.73	23.00	22.72
		RB Size=6, RB Offset=0	21.54	22.15	21.56
3.0	QPSK	RB Size=1, RB Offset=0	23.45	23.79	24.05
		RB Size=1, RB Offset=8	23.59	23.61	23.65
		RB Size=1, RB Offset=14	23.63	23.67	23.63
		RB Size=6, RB Offset=0	22.55	22.90	22.62
		RB Size=6, RB Offset=9	22.58	23.10	22.54
		RB Size=15, RB Offset=0	22.63	23.14	22.63
	16QAM	RB Size=1, RB Offset=0	22.99	22.93	22.61
		RB Size=1, RB Offset=8	23.10	23.02	22.61
		RB Size=1, RB Offset=14	23.17	23.12	22.60
		RB Size=6, RB Offset=0	21.89	22.03	21.55
		RB Size=6, RB Offset=9	21.73	22.13	21.53
		RB Size=15, RB Offset=0	22.18	22.10	21.72

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	23.41	23.87	23.99
		RB Size=1, RB Offset=13	23.69	23.66	23.78
		RB Size=1, RB Offset=24	23.54	23.67	23.52
		RB Size=15, RB Offset=0	22.70	22.90	22.82
		RB Size=15, RB Offset=10	22.61	23.05	22.65
		RB Size=25, RB Offset=0	22.62	23.10	22.70
	16QAM	RB Size=1, RB Offset=0	22.29	23.31	22.55
		RB Size=1, RB Offset=13	22.54	23.36	22.70
		RB Size=1, RB Offset=24	22.45	23.21	22.58
		RB Size=15, RB Offset=0	22.01	22.06	21.87
		RB Size=15, RB Offset=10	22.18	22.12	21.71
		RB Size=25, RB Offset=0	22.18	22.10	21.73
10.0	QPSK	RB Size=1, RB Offset=0	23.87	24.02	24.05
		RB Size=1, RB Offset=25	23.89	23.90	24.17
		RB Size=1, RB Offset=49	23.59	23.57	23.62
		RB Size=25, RB Offset=0	22.80	22.57	22.70
		RB Size=25, RB Offset=25	22.84	22.74	22.54
		RB Size=50, RB Offset=0	22.83	23.03	22.68
	16QAM	RB Size=1, RB Offset=0	23.27	23.08	22.65
		RB Size=1, RB Offset=25	23.55	22.93	22.88
		RB Size=1, RB Offset=49	23.30	22.82	22.63
		RB Size=25, RB Offset=0	22.32	22.04	22.13
		RB Size=25, RB Offset=25	22.35	22.08	22.04
		RB Size=50, RB Offset=0	22.28	22.08	22.12

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.04	13	Pass
QPSK (50RB Size)	5.35	13	Pass
16QAM (1RB Size)	4.97	13	Pass
16QAM (50RB Size)	6.28	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)		
Low Channel									
1.4 MHz Bandwidth									
699.7	78.23	176	2.2	H	18.9	1.35	0.0	17.55	34.77
699.7	85.12	203	2.4	V	25.1	1.35	0.0	23.75	34.77
3 MHz Bandwidth									
700.5	77.85	70	1.3	H	18.5	1.35	0.0	17.15	34.77
700.5	82.65	97	2.2	V	22.7	1.35	0.0	21.35	34.77
5 MHz Bandwidth									
701.5	77.44	207	2.4	H	18.1	1.35	0.0	16.75	34.77
701.5	83.63	322	2.4	V	23.6	1.35	0.0	22.25	34.77
10 MHz Bandwidth									
704	78.6	223	2.2	H	19.2	1.35	0.0	17.85	34.77
704	83.4	331	1.2	V	23.4	1.35	0.0	22.05	34.77

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)		
Middle Channel									
1.4 MHz Bandwidth									
707.5	78.23	332	1.8	H	18.9	1.35	0.0	17.55	34.77
707.5	84.25	227	1.6	V	24.3	1.35	0.0	22.95	34.77
3 MHz Bandwidth									
707.5	77.98	10	1.1	H	18.6	1.35	0.0	17.25	34.77
707.5	82.96	278	1.4	V	23.0	1.35	0.0	21.65	34.77
5 MHz Bandwidth									
707.5	77.36	6	1.7	H	18.0	1.35	0.0	16.65	34.77
707.5	83.46	328	1.9	V	23.5	1.35	0.0	22.15	34.77
10 MHz Bandwidth									
707.5	78.26	25	1.4	H	18.9	1.35	0.0	17.55	34.77
707.5	83.56	305	2.2	V	23.6	1.35	0.0	22.25	34.77

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)		
High Channel									
1.4 MHz Bandwidth									
715.3	78.56	212	2.0	H	19.2	1.35	0.0	17.85	34.77
715.3	84.37	178	2.0	V	24.4	1.35	0.0	23.05	34.77
3 MHz Bandwidth									
714.5	78.12	279	2.4	H	18.7	1.35	0.0	17.35	34.77
714.5	82.47	342	2.3	V	22.5	1.35	0.0	21.15	34.77
5 MHz Bandwidth									
713.5	77.24	209	2.1	H	17.9	1.35	0.0	16.55	34.77
713.5	83.64	270	1.7	V	23.6	1.35	0.0	22.25	34.77
10 MHz Bandwidth									
711	78.34	254	1.7	H	19.0	1.35	0.0	17.65	34.77
711	83.61	289	1.2	V	23.6	1.35	0.0	22.25	34.77

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)		
Low Channel									
1.4 MHz Bandwidth									
699.7	77.53	298	1.3	H	18.2	1.35	0.0	16.85	34.77
699.7	83.69	290	1.9	V	23.7	1.35	0.0	22.35	34.77
3 MHz Bandwidth									
700.5	79.12	113	2.4	H	19.7	1.35	0.0	18.35	34.77
700.5	84.73	290	1.2	V	24.7	1.35	0.0	23.35	34.77
5 MHz Bandwidth									
701.5	78.24	85	1.2	H	18.9	1.35	0.0	17.55	34.77
701.5	84.11	161	2.0	V	24.1	1.35	0.0	22.75	34.77
10 MHz Bandwidth									
704	77.12	267	2.4	H	17.7	1.35	0.0	16.35	34.77
704	85.21	140	1.6	V	25.2	1.35	0.0	23.85	34.77

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)		
Middle Channel									
1.4 MHz Bandwidth									
707.5	77.36	281	1.7	H	18.0	1.35	0.0	16.65	34.77
707.5	83.69	168	1.9	V	23.7	1.35	0.0	22.35	34.77
3 MHz Bandwidth									
707.5	78.23	342	2.4	H	18.9	1.35	0.0	17.55	34.77
707.5	84.27	34	2.4	V	24.3	1.35	0.0	22.95	34.77
5 MHz Bandwidth									
707.5	77.36	182	1.9	H	18.0	1.35	0.0	16.65	34.77
707.5	84.01	20	1.5	V	24.0	1.35	0.0	22.65	34.77
10 MHz Bandwidth									
707.5	76.39	43	1.9	H	17.0	1.35	0.0	15.65	34.77
707.5	84.25	177	1.9	V	24.3	1.35	0.0	22.95	34.77

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)		
High Channel									
1.4 MHz Bandwidth									
715.3	77.42	180	2.3	H	18.0	1.35	0.0	16.65	34.77
715.3	83.67	346	2.4	V	23.7	1.35	0.0	22.35	34.77
3 MHz Bandwidth									
714.5	78.42	335	1.3	H	19.0	1.35	0.0	17.65	34.77
714.5	84.37	240	2.5	V	24.4	1.35	0.0	23.05	34.77
5 MHz Bandwidth									
713.5	77.42	260	2.5	H	18.0	1.35	0.0	16.65	34.77
713.5	84.13	166	2.2	V	24.1	1.35	0.0	22.75	34.77
10 MHz Bandwidth									
711	76.48	170	1.5	H	17.1	1.35	0.0	15.75	34.77
711	84.52	256	2.5	V	24.5	1.35	0.0	23.15	34.77

LTE Band 17:

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5	QPSK	RB Size=1, RB Offset=0	24.01	24.06	24.04
		RB Size=1, RB Offset=13	24.15	24.04	23.82
		RB Size=1, RB Offset=24	23.99	23.66	23.56
		RB Size=15, RB Offset=0	23.09	23.08	22.84
		RB Size=15, RB Offset=10	22.84	22.92	22.71
		RB Size=25, RB Offset=0	22.88	22.87	22.72
	16QAM	RB Size=1, RB Offset=0	22.67	23.24	22.59
		RB Size=1, RB Offset=13	22.62	23.40	22.74
		RB Size=1, RB Offset=24	22.78	22.92	22.61
		RB Size=15, RB Offset=0	22.13	22.08	21.88
		RB Size=15, RB Offset=10	22.28	22.02	21.70
		RB Size=25, RB Offset=0	22.22	22.07	21.76
10	QPSK	RB Size=1, RB Offset=0	23.89	24.09	24.09
		RB Size=1, RB Offset=25	23.82	24.08	23.92
		RB Size=1, RB Offset=49	23.61	23.63	23.68
		RB Size=25, RB Offset=0	22.59	22.67	22.70
		RB Size=25, RB Offset=25	22.49	22.47	22.56
		RB Size=50, RB Offset=0	22.88	22.58	22.81
	16QAM	RB Size=1, RB Offset=0	23.32	22.86	22.74
		RB Size=1, RB Offset=25	23.55	23.21	22.83
		RB Size=1, RB Offset=49	23.12	22.76	22.68
		RB Size=25, RB Offset=0	21.99	22.09	21.97
		RB Size=25, RB Offset=25	22.04	21.94	22.17
		RB Size=50, RB Offset=0	22.10	22.08	22.23

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.01	13	Pass
QPSK (50RB Size)	5.29	13	Pass
16QAM (1RB Size)	5.03	13	Pass
16QAM (50RB Size)	6.15	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)		
Low Channel									
5 MHz Bandwidth									
706.5	76.38	331	1.5	H	17.0	1.35	0.0	15.65	34.77
706.5	85.96	273	2.4	V	26.0	1.35	0.0	24.65	34.77
10 MHz Bandwidth									
709	78.21	185	1.4	H	18.8	1.35	0.0	17.45	34.77
709	85.02	299	1.4	V	25.0	1.35	0.0	23.65	34.77

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)		
Middle Channel									
5 MHz Bandwidth									
710	76.12	259	2.0	H	16.7	1.35	0.0	15.35	34.77
710	85.23	172	2.4	V	25.2	1.35	0.0	23.85	34.77
10 MHz Bandwidth									
710	77.25	196	1.6	H	17.9	1.35	0.0	16.55	34.77
710	84.96	180	1.7	V	25.0	1.35	0.0	23.65	34.77

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)		
High Channel									
5 MHz Bandwidth									
713.5	76.67	67	1.4	H	17.3	1.35	0.0	15.95	34.77
713.5	85.42	204	2.0	V	25.4	1.35	0.0	24.05	34.77
10 MHz Bandwidth									
711	78.36	173	1.8	H	19.0	1.35	0.0	17.65	34.77
711	84.36	280	1.2	V	24.4	1.35	0.0	23.05	34.77

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)		
Low Channel									
5 MHz Bandwidth									
706.5	76.86	255	2.2	H	17.5	1.35	0.0	16.15	34.77
706.5	84.36	23	1.2	V	24.4	1.35	0.0	23.05	34.77
10 MHz Bandwidth									
709	77.12	187	1.3	H	17.7	1.35	0.0	16.35	34.77
709	84.96	232	2.2	V	25.0	1.35	0.0	23.65	34.77

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)		
Middle Channel									
5 MHz Bandwidth									
710	76.58	174	1.1	H	17.2	1.35	0.0	15.85	34.77
710	84.26	86	2.2	V	24.3	1.35	0.0	22.95	34.77
10 MHz Bandwidth									
710	77.03	270	2.1	H	17.7	1.35	0.0	16.35	34.77
710	85.12	83	1.4	V	25.1	1.35	0.0	23.75	34.77

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)		
High Channel									
5 MHz Bandwidth									
713.5	76.83	343	2.4	H	17.5	1.35	0.0	16.15	34.77
713.5	84.75	108	1.3	V	24.8	1.35	0.0	23.45	34.77
10 MHz Bandwidth									
711	77.21	115	1.8	H	17.8	1.35	0.0	16.45	34.77
711	85.47	43	1.3	V	25.5	1.35	0.0	24.15	34.77

LTE Band 19:

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5	QPSK	RB Size=1, RB Offset=0	23.27	23.96	24.19
		RB Size=1, RB Offset=13	23.64	24.20	24.39
		RB Size=1, RB Offset=24	24.07	23.76	23.63
		RB Size=15, RB Offset=0	23.94	23.42	23.14
		RB Size=15, RB Offset=10	24.14	23.45	23.40
		RB Size=25, RB Offset=0	23.02	22.97	22.76
	16QAM	RB Size=1, RB Offset=0	22.71	22.54	22.44
		RB Size=1, RB Offset=13	22.41	22.77	22.47
		RB Size=1, RB Offset=24	22.99	22.70	22.65
		RB Size=15, RB Offset=0	22.71	22.44	22.43
		RB Size=15, RB Offset=10	22.49	22.60	22.80
		RB Size=25, RB Offset=0	21.34	22.05	22.06
10	QPSK	RB Size=1, RB Offset=0	23.45	23.86	24.23
		RB Size=1, RB Offset=13	23.65	24.12	24.35
		RB Size=1, RB Offset=24	23.98	23.86	24.01
		RB Size=15, RB Offset=0	23.94	23.68	23.25
		RB Size=15, RB Offset=10	24.14	23.32	23.63
		RB Size=25, RB Offset=0	23.12	22.89	22.86
	16QAM	RB Size=1, RB Offset=0	23.01	22.63	22.53
		RB Size=1, RB Offset=13	22.75	22.87	22.47
		RB Size=1, RB Offset=24	22.89	22.81	22.77
		RB Size=15, RB Offset=0	22.68	22.56	22.54
		RB Size=15, RB Offset=10	22.67	22.54	22.79
		RB Size=25, RB Offset=0	21.98	22.03	22.03

Bandwidth (MHz)	Modulation	RB size/RB Offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15	QPSK	RB Size=1, RB Offset=0	/	23.69	/
		RB Size=1, RB Offset=13	/	25.21	/
		RB Size=1, RB Offset=24	/	23.84	/
		RB Size=15, RB Offset=0	/	23.47	/
		RB Size=15, RB Offset=10	/	23.63	/
		RB Size=25, RB Offset=0	/	22.87	/
	16QAM	RB Size=1, RB Offset=0	/	22.63	/
		RB Size=1, RB Offset=13	/	22.76	/
		RB Size=1, RB Offset=24	/	22.84	/
		RB Size=15, RB Offset=0	/	22.68	/
		RB Size=15, RB Offset=10	/	22.46	/
		RB Size=25, RB Offset=0	/	22.01	/

Peak-to-average ratio (PAR)

Modulation	Middle Channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.13	13	Pass
QPSK (75RB Size)	5.29	13	Pass
16QAM (1RB Size)	4.74	13	Pass
16QAM (75RB Size)	6.15	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)		
Low Channel									
5 MHz Bandwidth									
832.5	79.68	184	1.9	H	20.3	1.35	0.0	18.95	38.45
832.5	84.37	88	1.7	V	24.4	1.35	0.0	23.05	38.45
10 MHz Bandwidth									
835	77.96	60	1.0	H	18.6	1.35	0.0	17.25	38.45
835	84.58	148	1.1	V	24.6	1.35	0.0	23.25	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 (dBi)		
Middle Channel									
5 MHz Bandwidth									
837.5	79.68	303	2.0	H	20.3	1.35	0.0	18.95	38.45
837.5	84.25	148	2.1	V	24.3	1.35	0.0	22.95	38.45
10 MHz Bandwidth									
837.5	77.54	220	2.5	H	18.2	1.35	0.0	16.85	38.45
837.5	84.12	124	1.7	V	24.1	1.35	0.0	22.75	38.45
15 MHz Bandwidth									
837.5	75.89	184	2.3	H	16.5	1.35	0.0	15.15	38.45
837.5	83.68	230	1.2	V	23.7	1.35	0.0	22.35	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 (dBi)		
High Channel									
5 MHz Bandwidth									
842.5	80.12	207	1.5	H	20.7	1.35	0.0	19.35	38.45
842.5	83.67	252	1.3	V	21.7	1.35	0.0	22.35	38.45
10 MHz Bandwidth									
840	77.63	71	1.2	H	18.3	1.35	0.0	16.95	38.45
840	84.47	212	2.3	V	24.5	1.35	0.0	23.15	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 (dBi)		
Low Channel									
5 MHz Bandwidth									
832.5	79.86	342	1.1	H	20.5	1.35	0.0	19.15	38.45
832.5	84.12	12	1.7	V	24.1	1.35	0.0	22.75	38.45
10 MHz Bandwidth									
835	79.63	28	1.4	H	20.3	1.35	0.0	18.95	38.45
835	84.24	213	1.1	V	24.2	1.35	0.0	22.85	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 (dBi)		
Middle Channel									
5 MHz Bandwidth									
837.5	79.61	158	1.1	H	20.2	1.35	0.0	18.85	38.45
837.5	83.96	154	2.1	V	24.0	1.35	0.0	22.65	38.45
10 MHz Bandwidth									
837.5	78.02	18	1.9	H	18.6	1.35	0.0	17.25	38.45
837.5	83.64	192	1.3	V	23.6	1.35	0.0	22.25	38.45
15 MHz Bandwidth									
837.5	76.21	360	2.4	H	16.8	1.35	0.0	15.45	38.45
837.5	83.68	266	2.3	V	23.7	1.35	0.0	22.35	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 (dBi)		
High Channel									
5 MHz Bandwidth									
842.5	80.12	9	2.2	H	20.7	1.35	0.0	19.35	38.45
842.5	84.11	176	1.3	V	24.1	1.35	0.0	22.75	38.45
10 MHz Bandwidth									
840	78.12	122	2.2	H	18.7	1.35	0.0	17.35	38.45
840	83.64	343	2.0	V	23.6	1.35	0.0	22.25	38.45

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

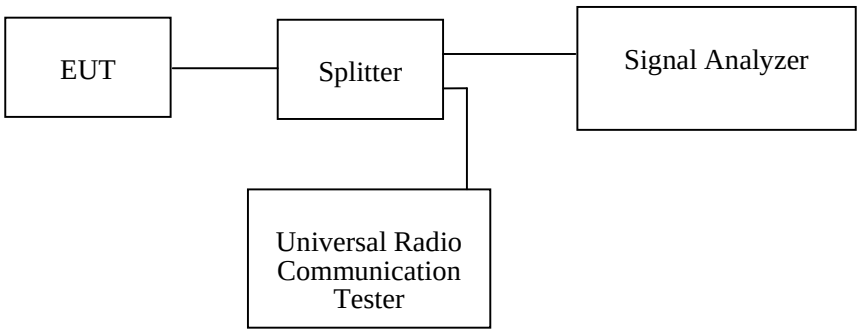
Applicable Standard

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:	22~25 ℃
Relative Humidity:	51~53 %
ATM Pressure:	101.0 kPa

The testing was performed by Gavin Guo from 2020-05-21 to 2020-11-17.

EUT operation mode: Transmitting

Test Result: Compliance

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	310.90
	190	836.6	251.60	315.71
	251	848.8	245.19	312.50
EGPRS(8PSK)	128	824.2	251.60	314.10
	190	836.6	250.00	314.10
	251	848.8	251.60	323.72

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.18	4.76
	836.6	4.17	4.71
	846.6	4.15	4.68
HSDPA	826.4	4.17	4.66
	836.6	4.17	4.73
	846.6	4.13	4.66
HSUPA	826.4	4.17	4.66
	836.6	4.18	4.71
	846.6	4.15	4.66

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM(GMSK)	512	1850.2	246.79	325.32
	661	1880.0	248.40	315.71
	810	1909.8	248.40	323.72
EGPRS(8PSK)	512	1850.2	243.59	309.29
	661	1880.0	262.00	339.35
	810	1909.8	277.24	357.37

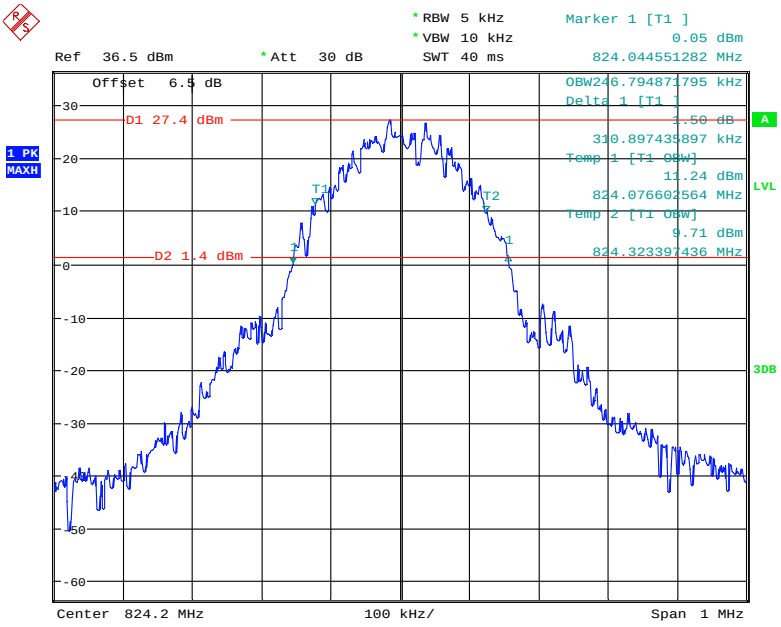
Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.15	4.70
	1880.0	4.17	4.74
	1907.6	4.15	4.66
HSDPA	1852.4	4.15	4.68
	1880.0	4.18	4.74
	1907.6	4.15	4.66
HSUPA	1852.4	4.15	4.70
	1880.0	4.17	4.74
	1907.6	4.13	4.66

AWS Band (Part 27)

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.17	4.71
	1732.6	4.20	4.71
	1752.6	4.18	4.70
HSDPA	1712.4	4.17	4.71
	1732.6	4.18	4.73
	1752.6	4.18	4.71
HSUPA	1712.4	4.20	4.73
	1732.6	4.17	4.73
	1752.6	4.17	4.73

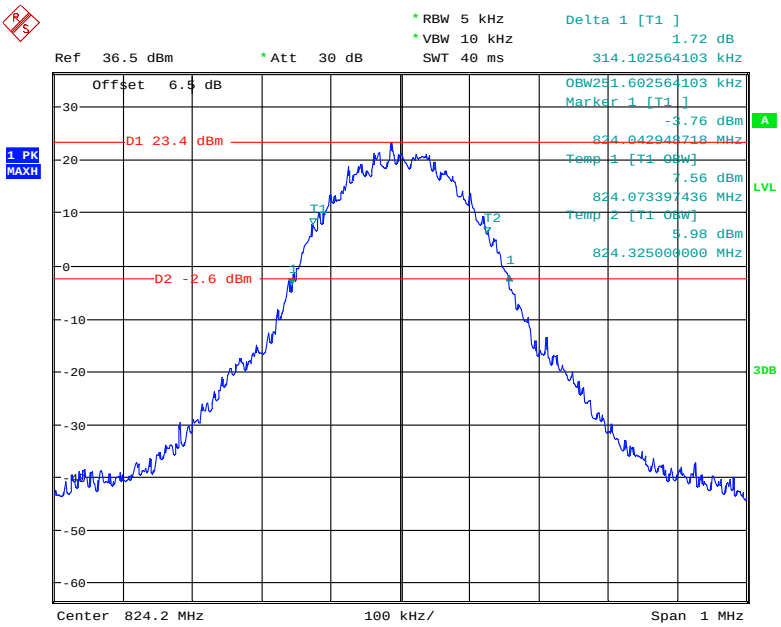
Low Channel
Cellular Band (Part 22H)

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



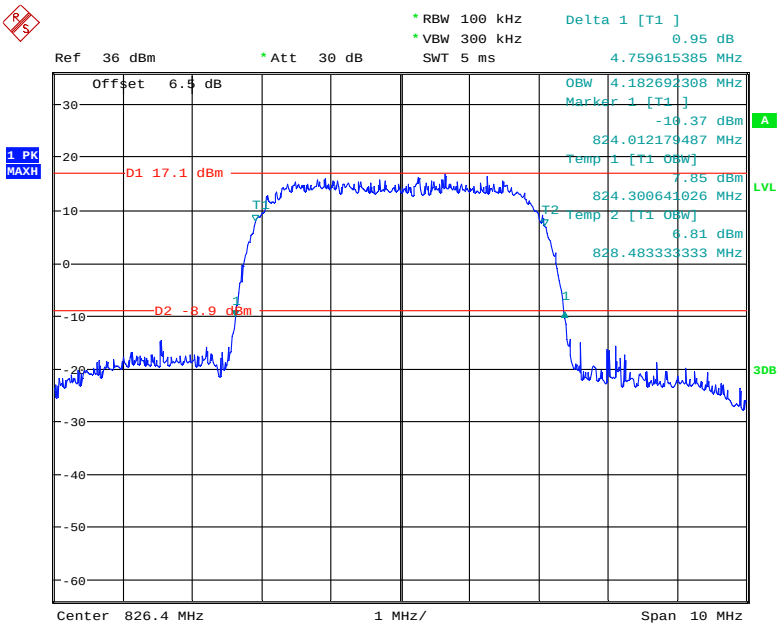
Date: 14.NOV.2020 13:31:39

26 dB Emissions &99% Occupied Bandwidth for EDGE Mode



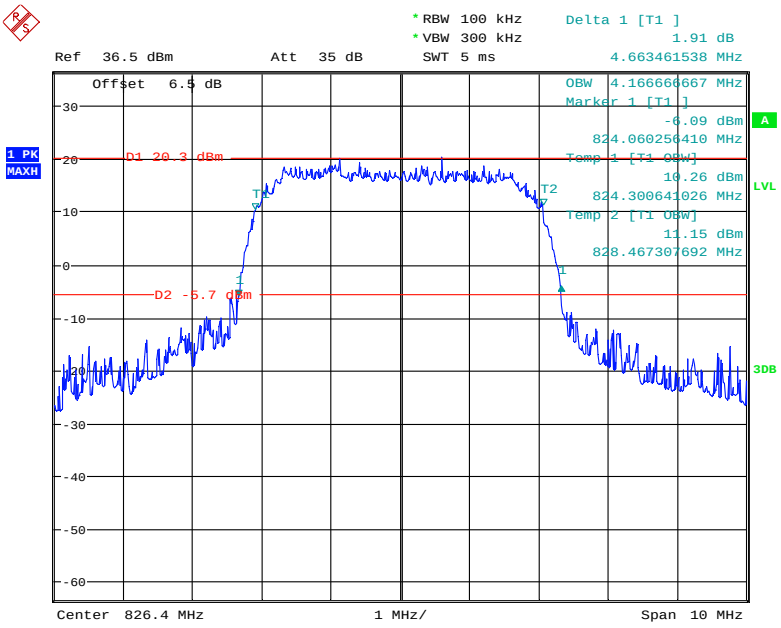
Date: 14.NOV.2020 13:37:47

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



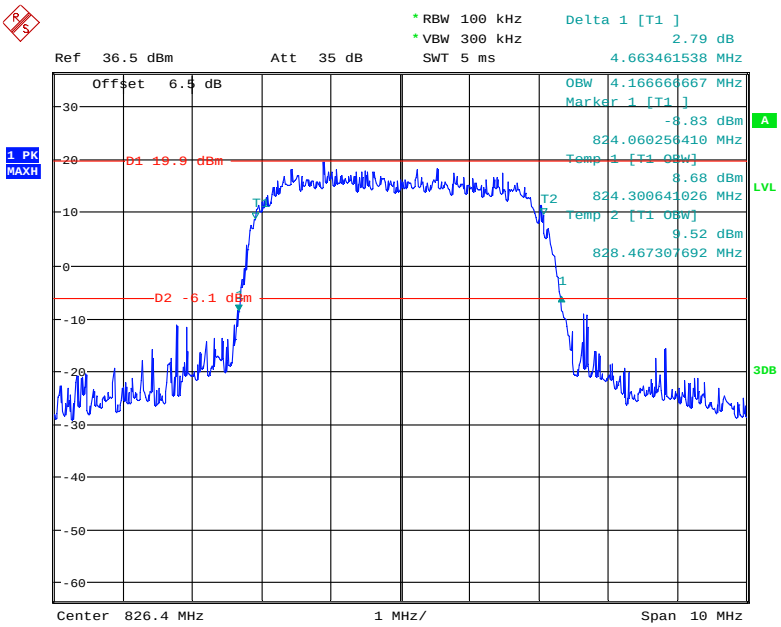
Date: 17.NOV.2020 10:48:43

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



Date: 13.NOV.2020 14:45:15

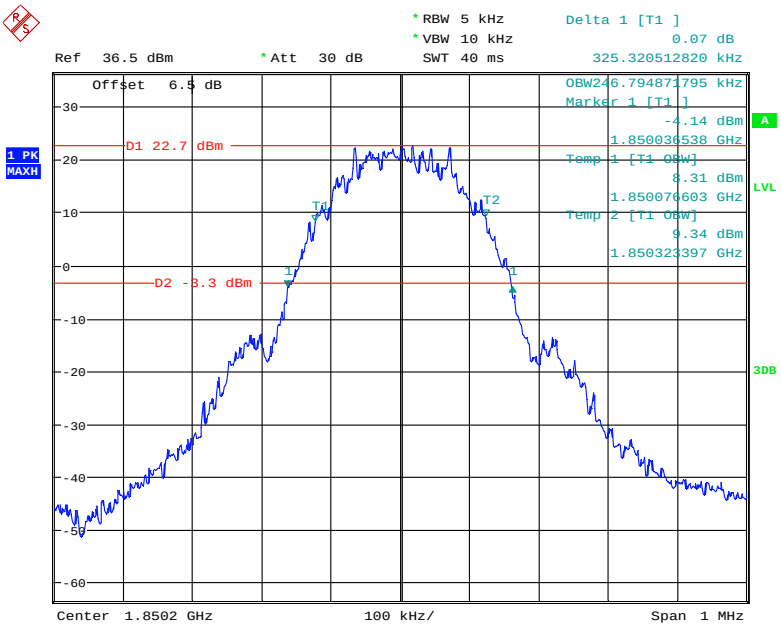
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 13.NOV.2020 14:46:40

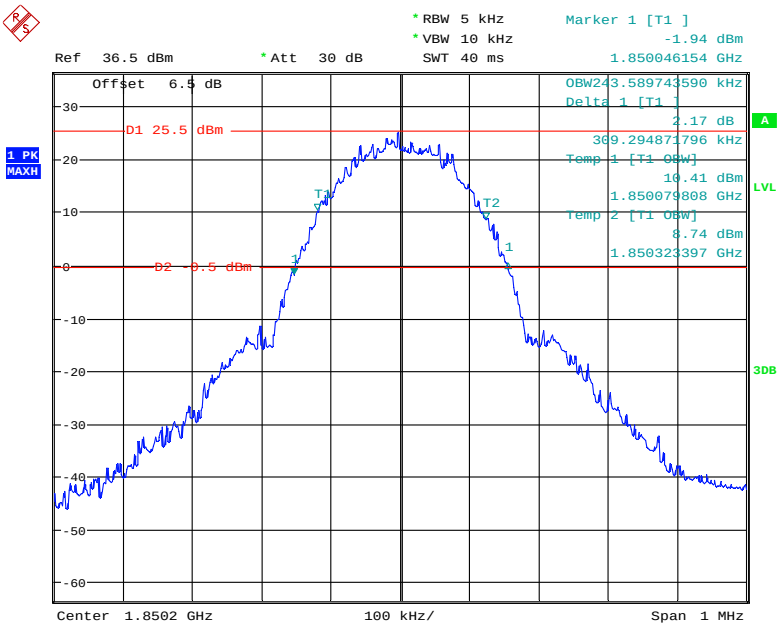
PCS Band (Part 24E)

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



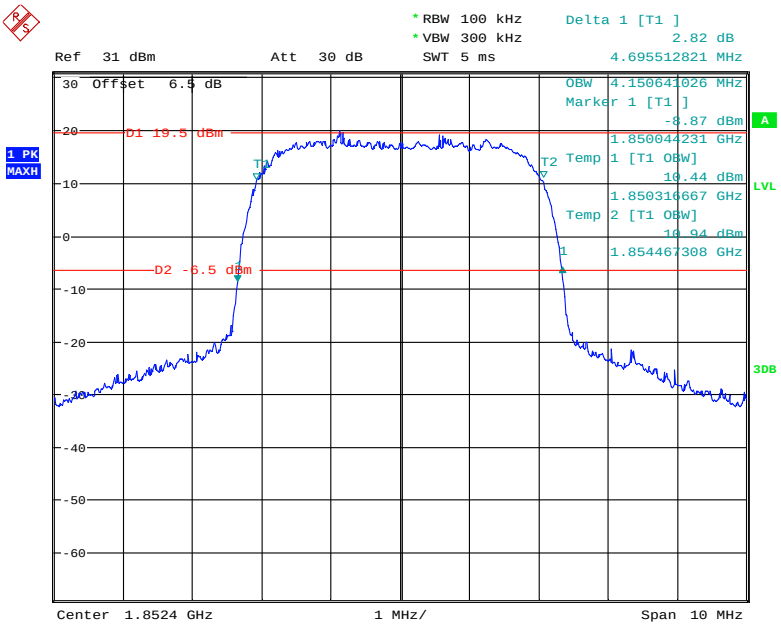
Date: 14.NOV.2020 13:51:50

26 dB Emissions &99% Occupied Bandwidth for EDGE Mode



Date: 14.NOV.2020 13:58:40

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



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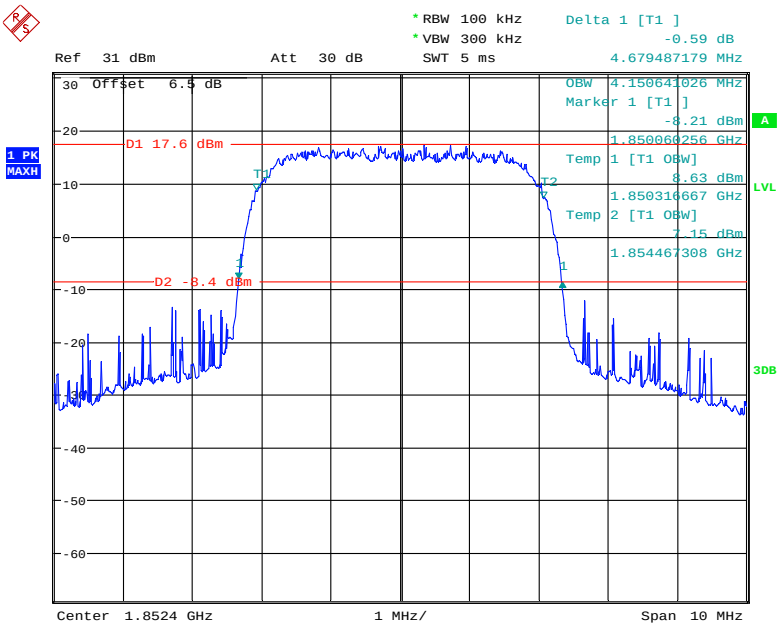
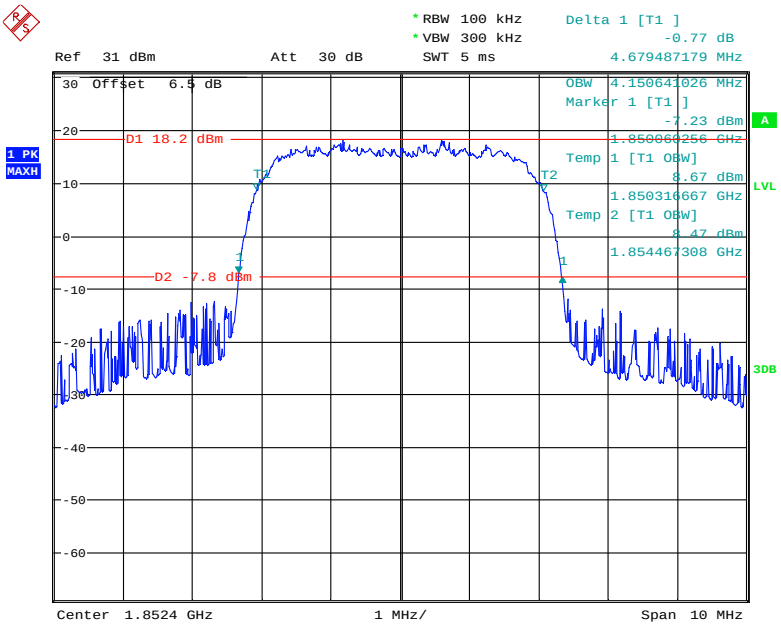
26 dB Emissions &99% Occupied Bandwidth for HSUPA (BPSK) Mode



Date: 13.NOV.2020 14:22:51

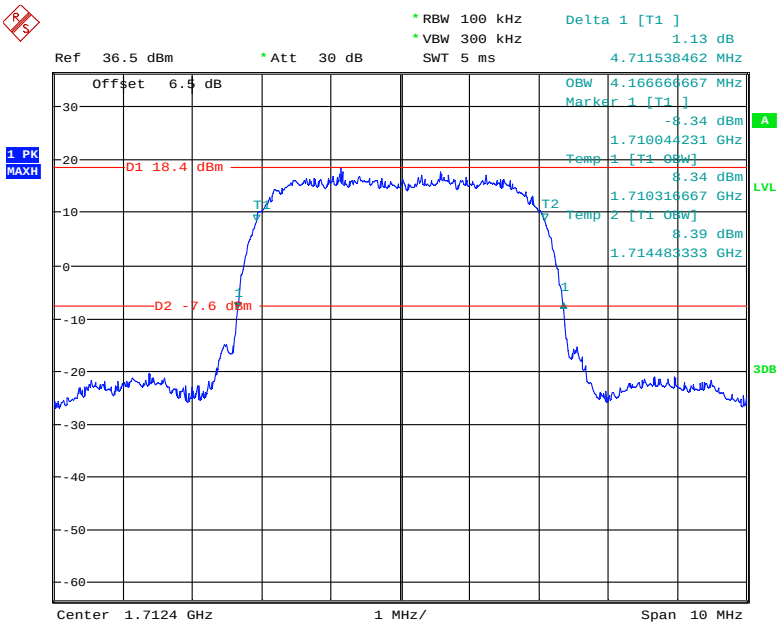
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 13.NOV.2020 14:20:47

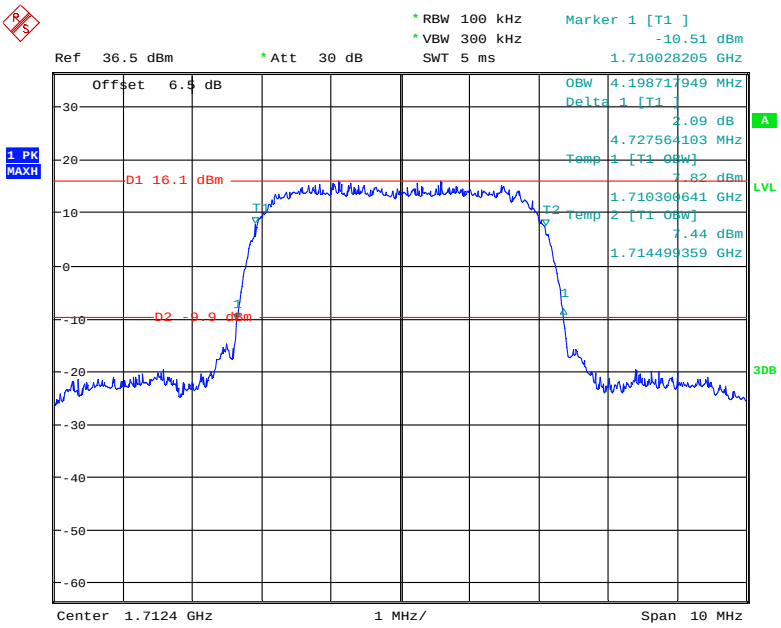
AWS Band (Part 27)

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



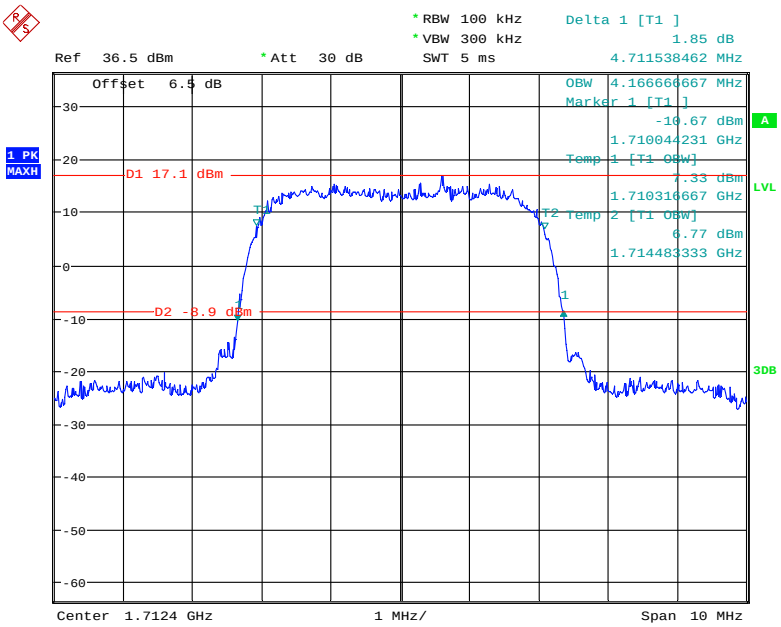
Date: 14.NOV.2020 14:14:28

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



Date: 14.NOV.2020 14:18:35

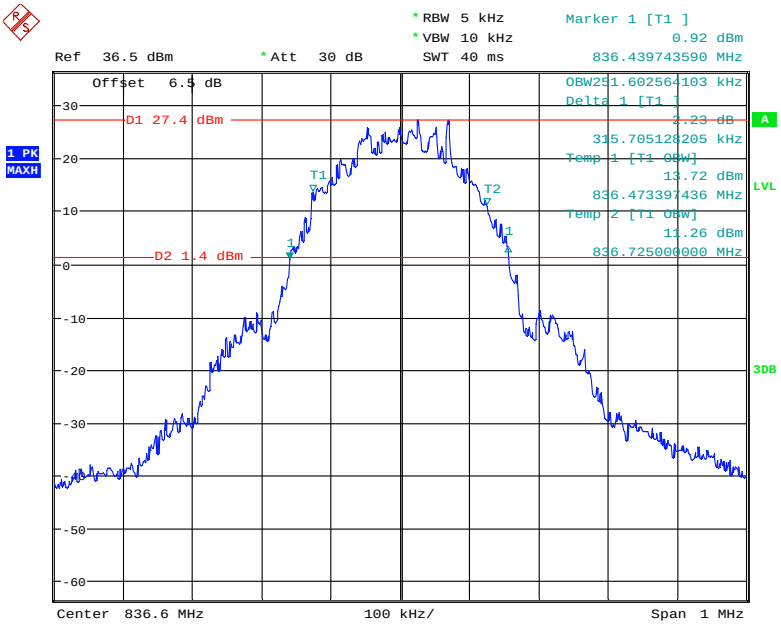
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 14.NOV.2020 14:18:58

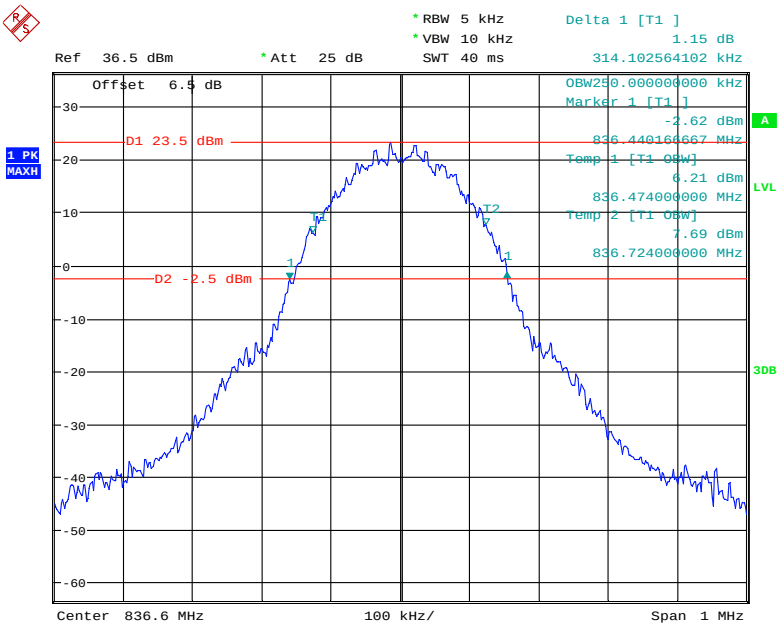
Middle Channel
Cellular Band (Part 22H)

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



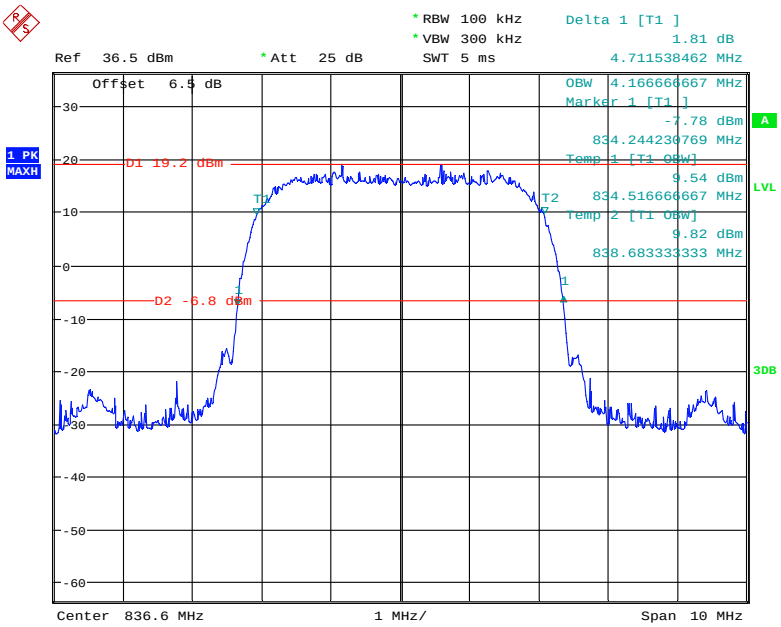
Date: 14.NOV.2020 13:31:01

26 dB Emissions &99% Occupied Bandwidth for EDGE Mode



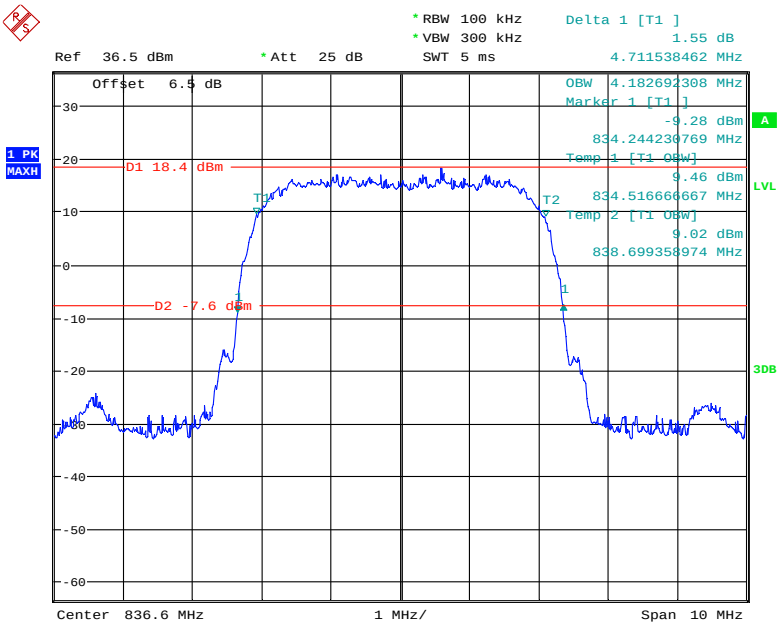
Date: 21.MAY.2020 21:37:08

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



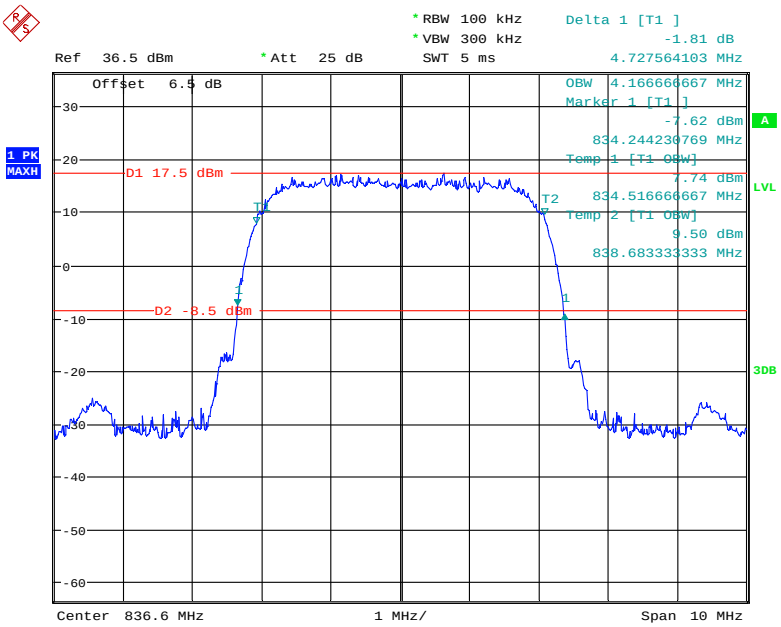
Date: 22.MAY.2020 19:31:47

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



Date: 22.MAY.2020 19:42:08

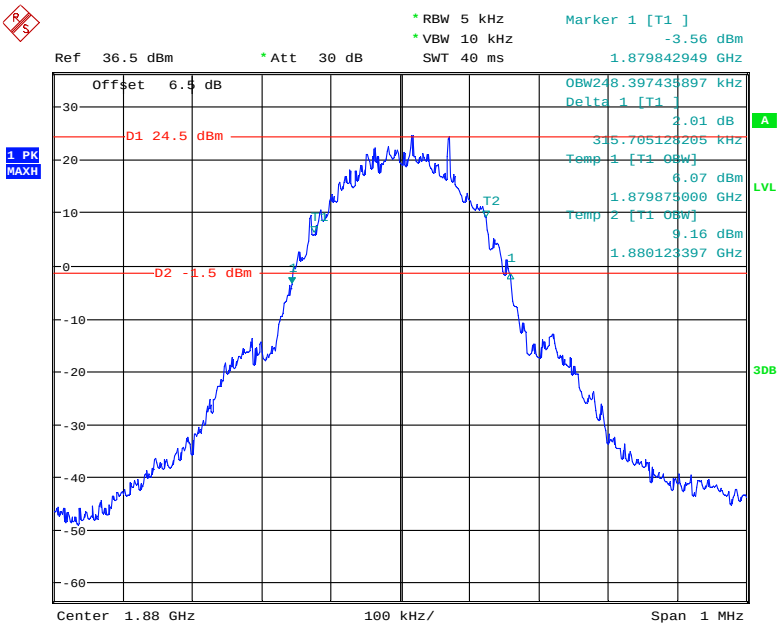
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 22.MAY.2020 19:37:02

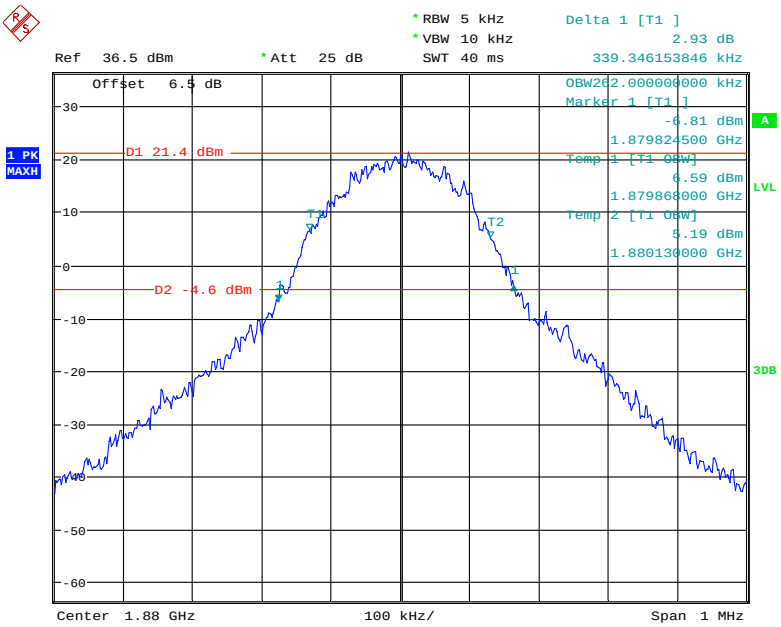
PCS Band (Part 24E)

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



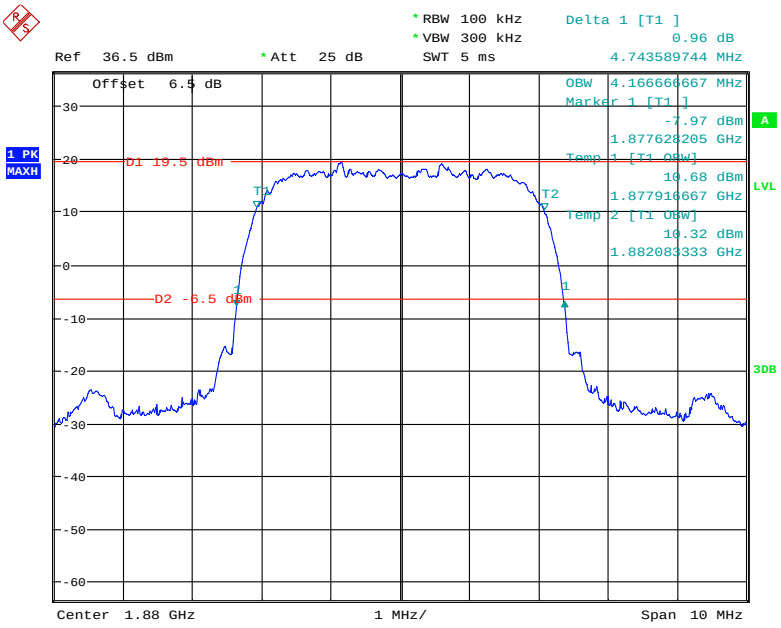
Date: 14.NOV.2020 13:53:16

26 dB Emissions &99% Occupied Bandwidth for EDGE Mode



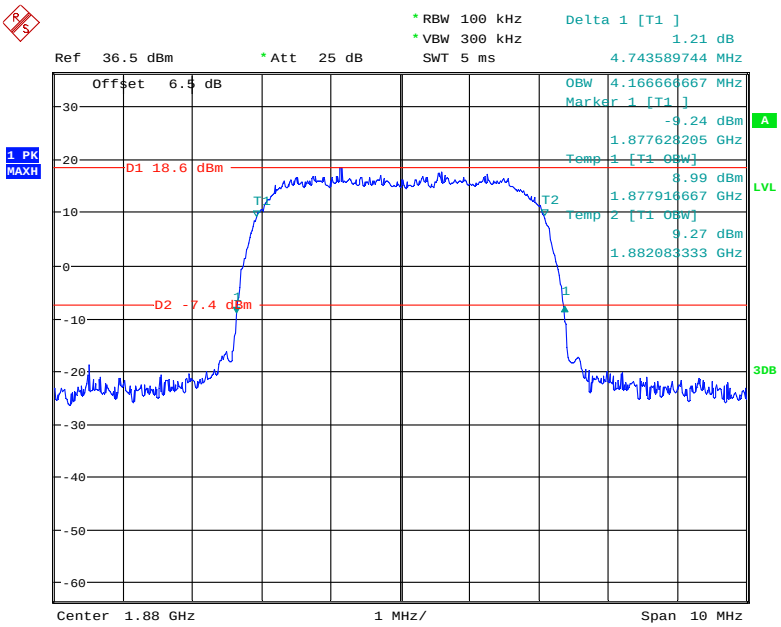
Date: 21.MAY.2020 22:33:31

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



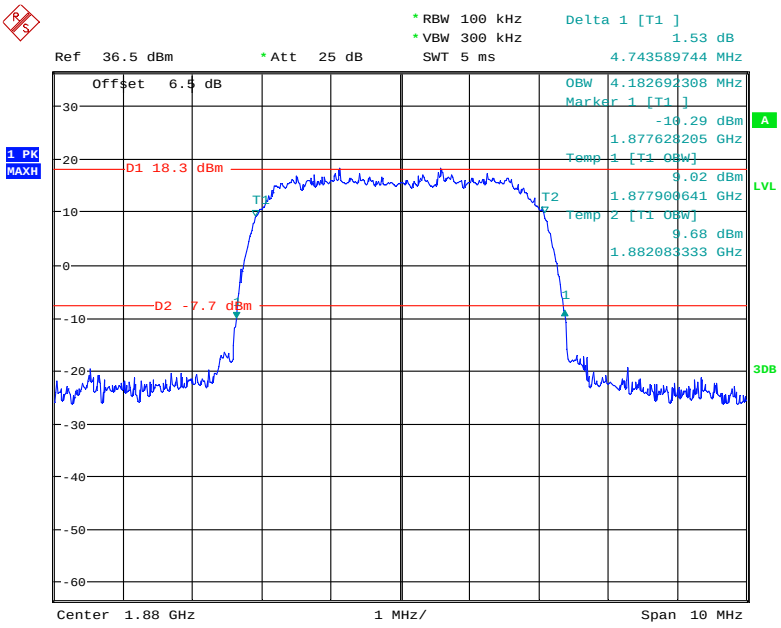
Date: 22.MAY.2020 19:07:46

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



Date: 22.MAY.2020 19:14:28

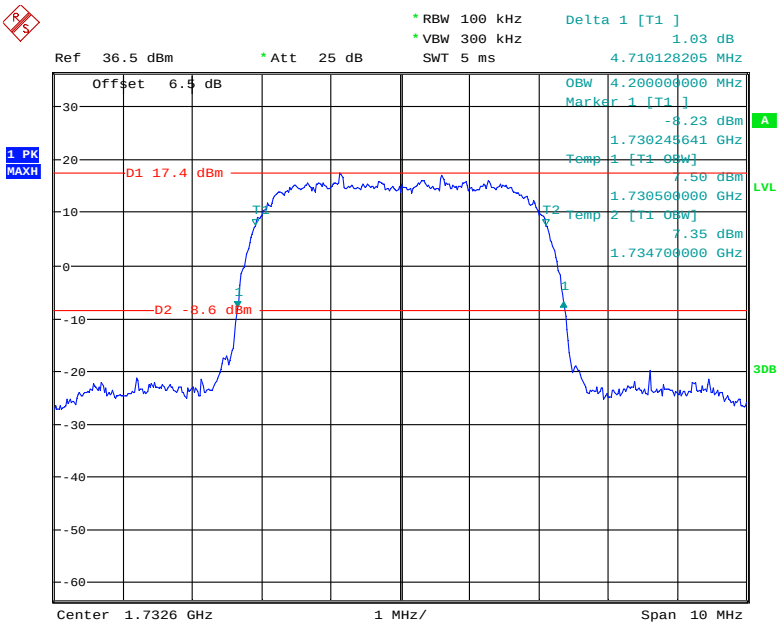
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 22.MAY.2020 19:09:22

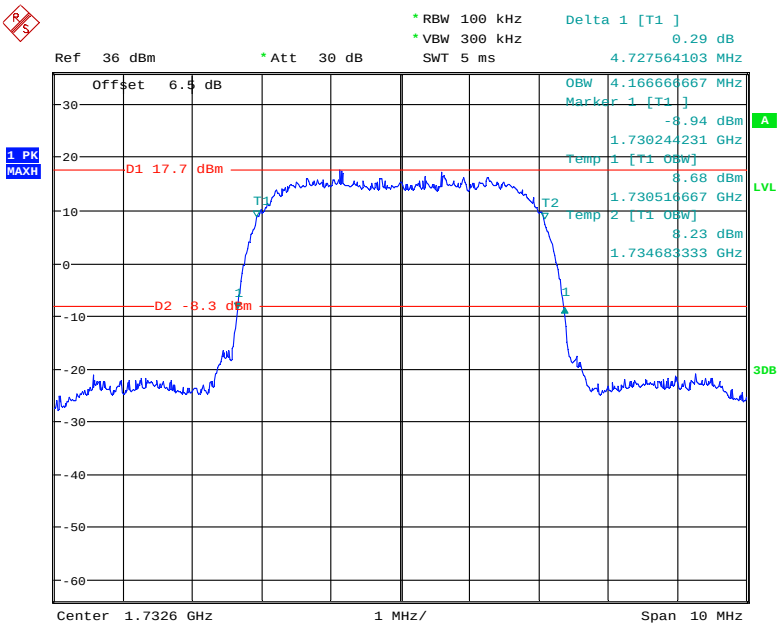
AWS Band (Part 27)

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



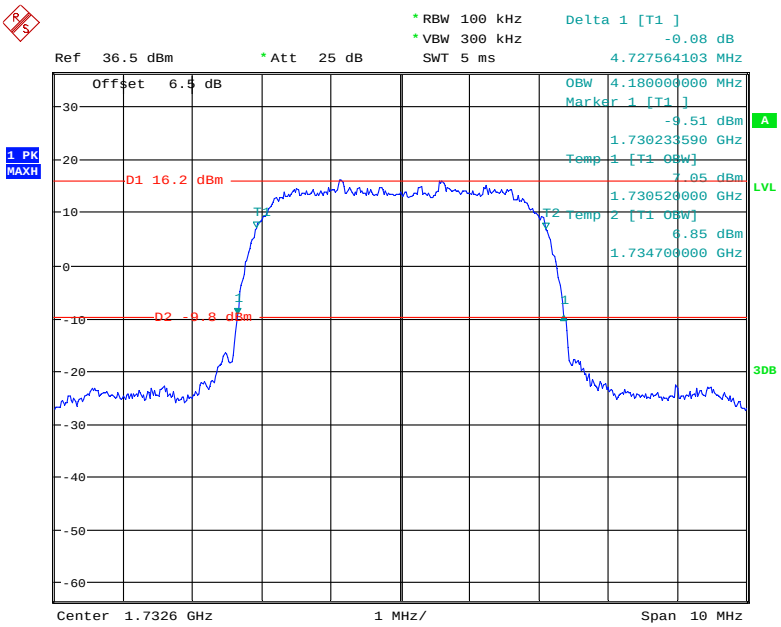
Date: 22.MAY.2020 00:40:02

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



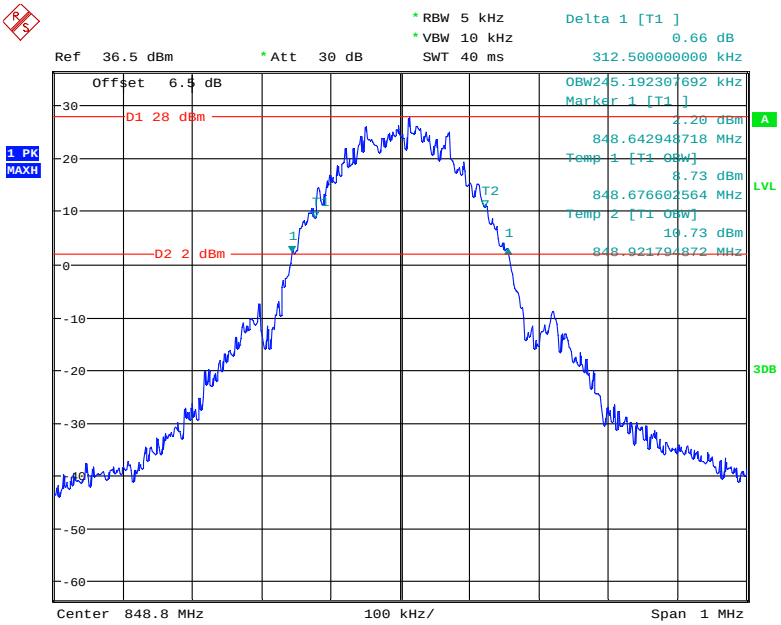
Date: 17.NOV.2020 10:15:27

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



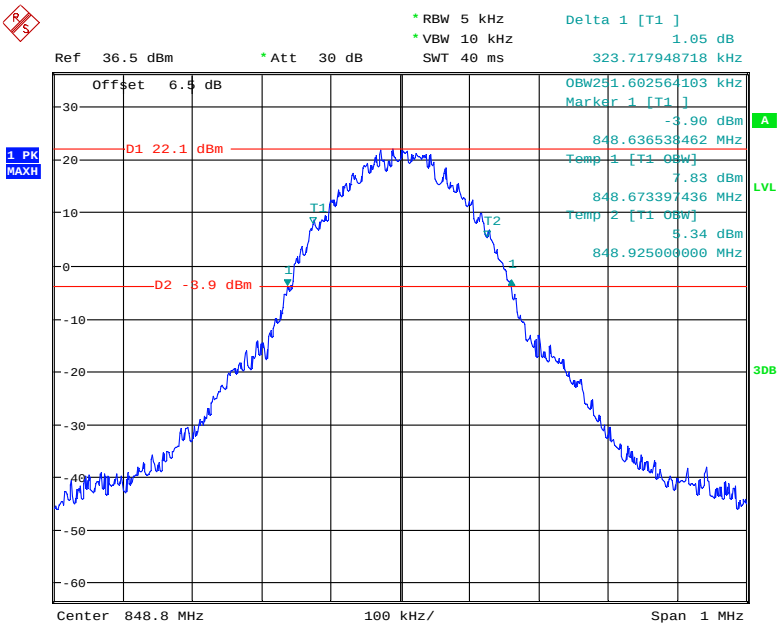
High Channel
Cellular Band (Part 22H)

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



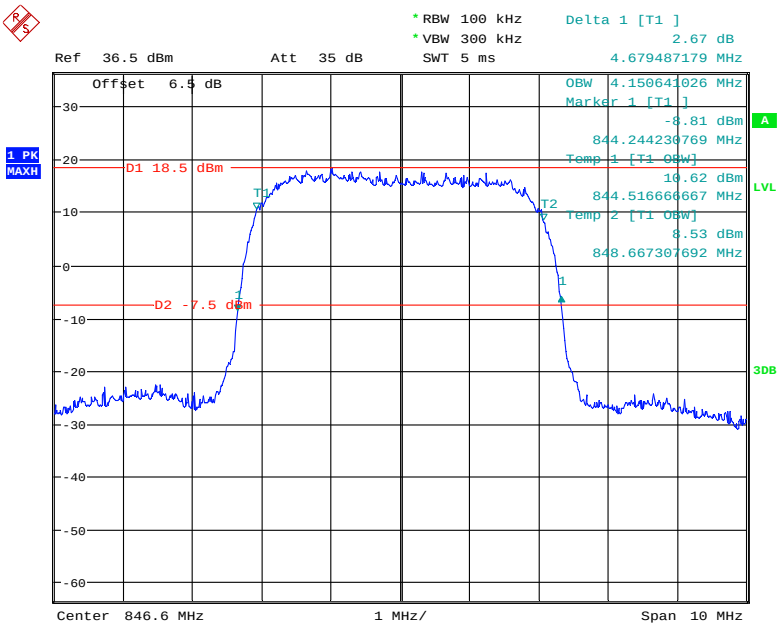
Date: 14.NOV.2020 13:32:25

26 dB Emissions &99% Occupied Bandwidth for EDGE Mode



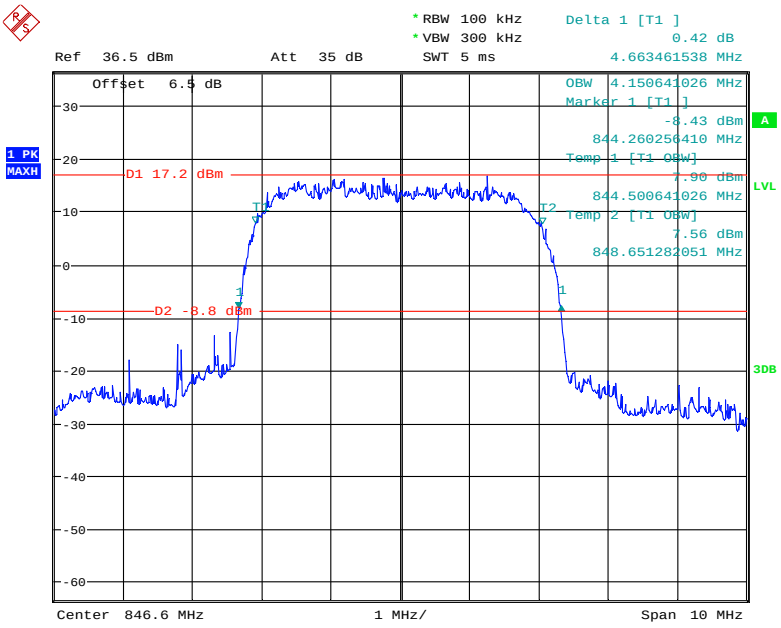
Date: 14.NOV.2020 13:38:59

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



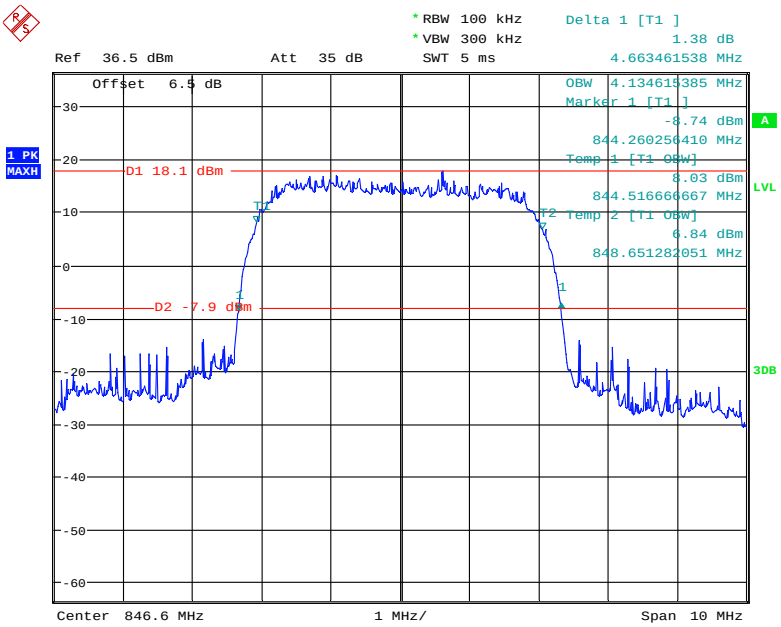
Date: 13.NOV.2020 14:40:44

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



Date: 13.NOV.2020 14:42:47

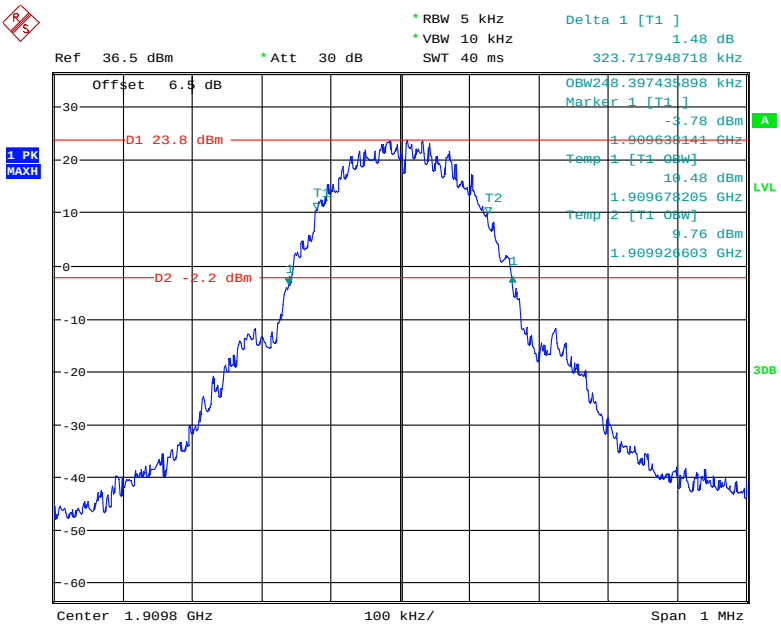
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 13.NOV.2020 14:42:12

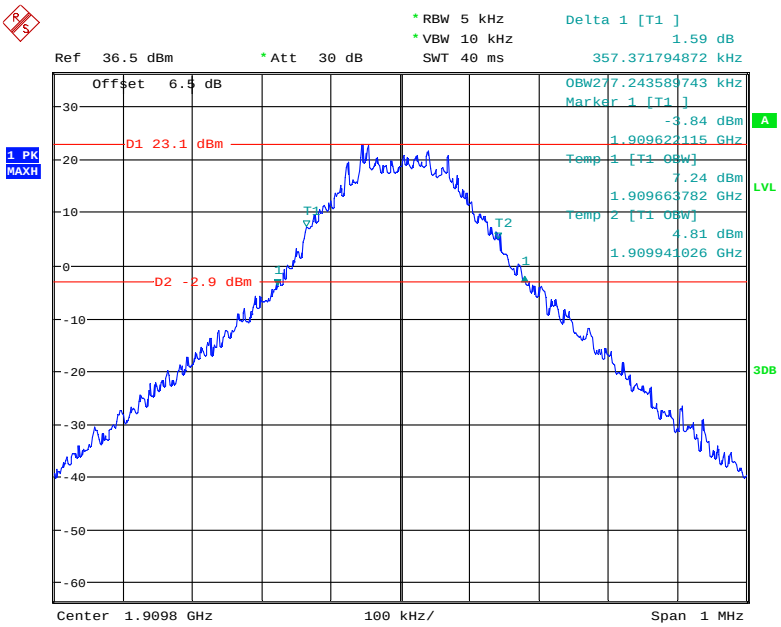
PCS Band (Part 24E)

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



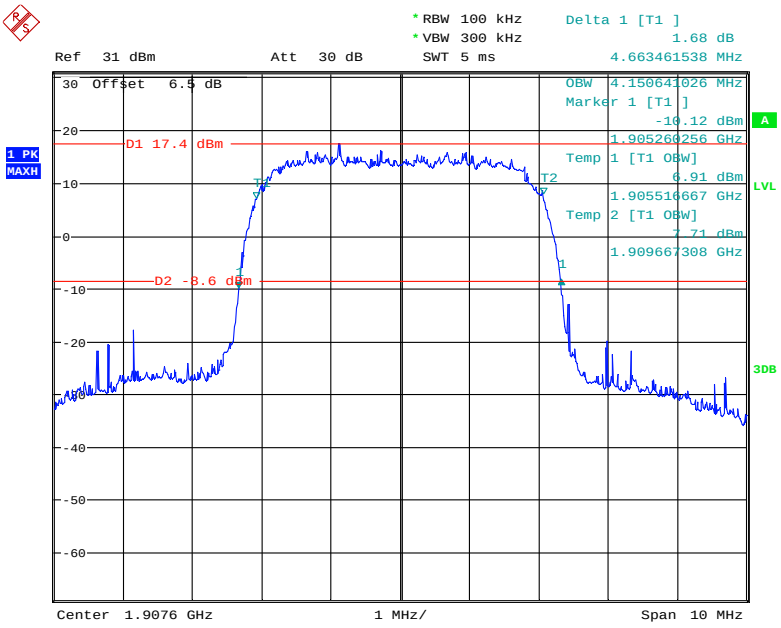
Date: 14.NOV.2020 13:54:27

26 dB Emissions &99% Occupied Bandwidth for EDGE Mode



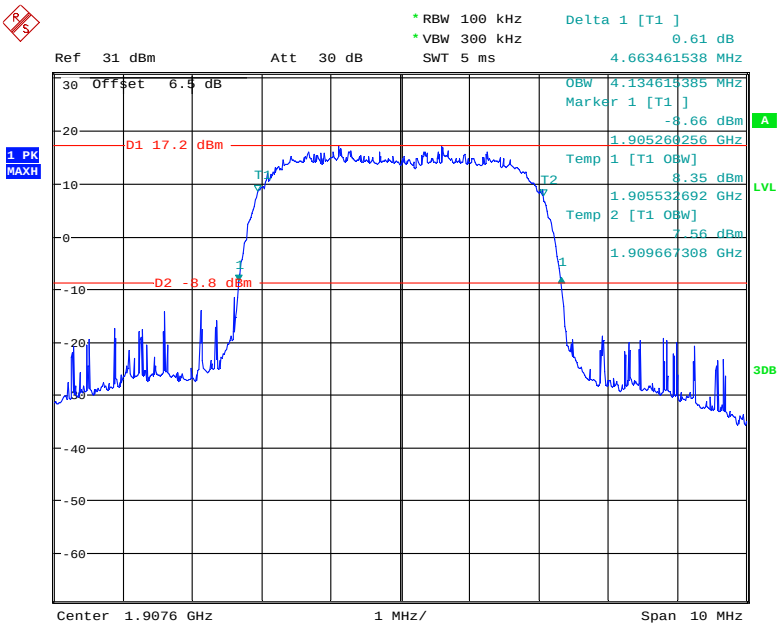
Date: 14.NOV.2020 13:59:55

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



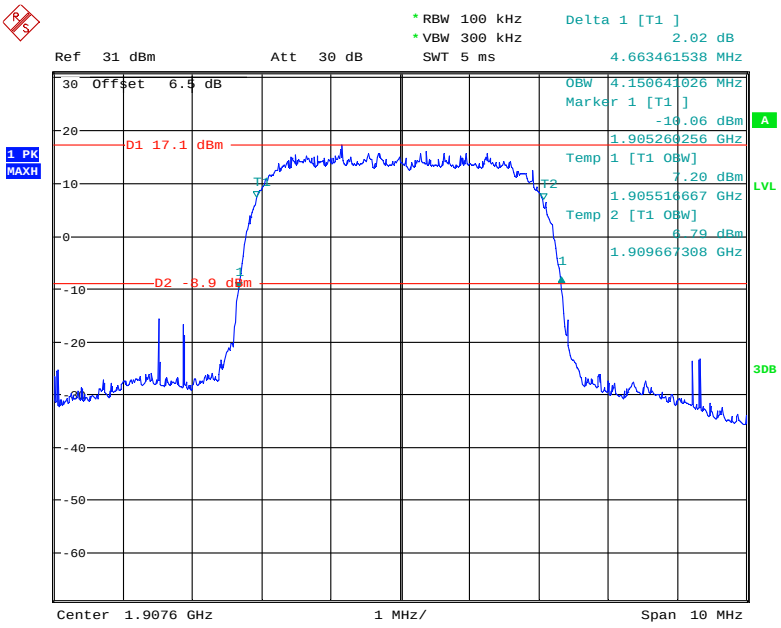
Date: 13.NOV.2020 14:28:30

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



Date: 13.NOV.2020 14:25:07

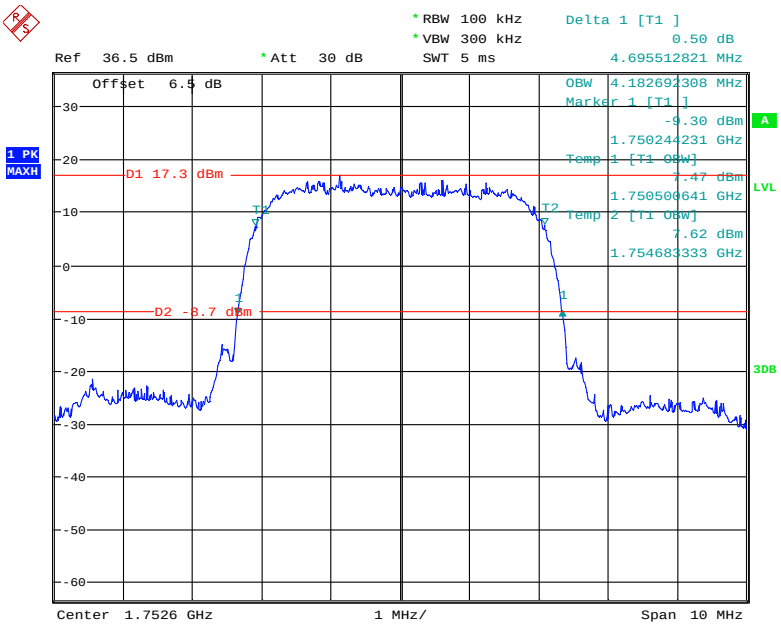
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode



Date: 13.NOV.2020 14:25:54

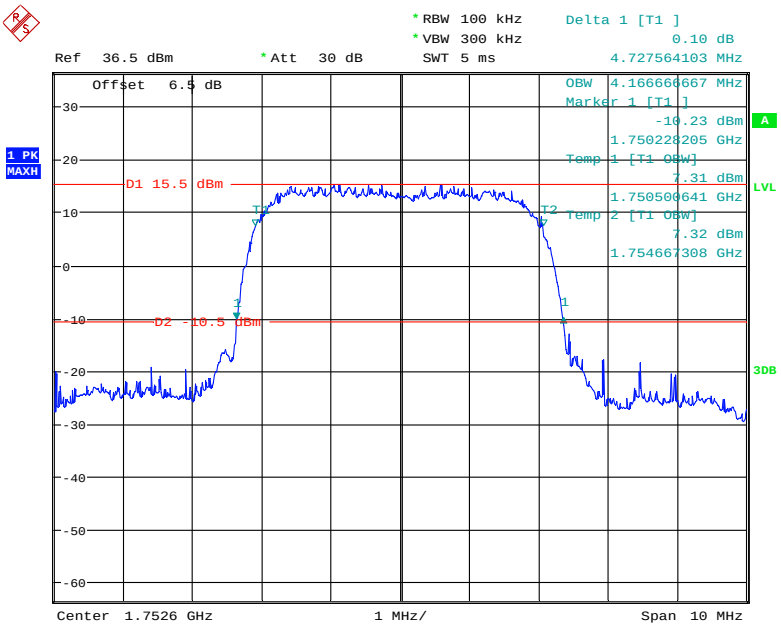
AWS Band (Part 27)

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



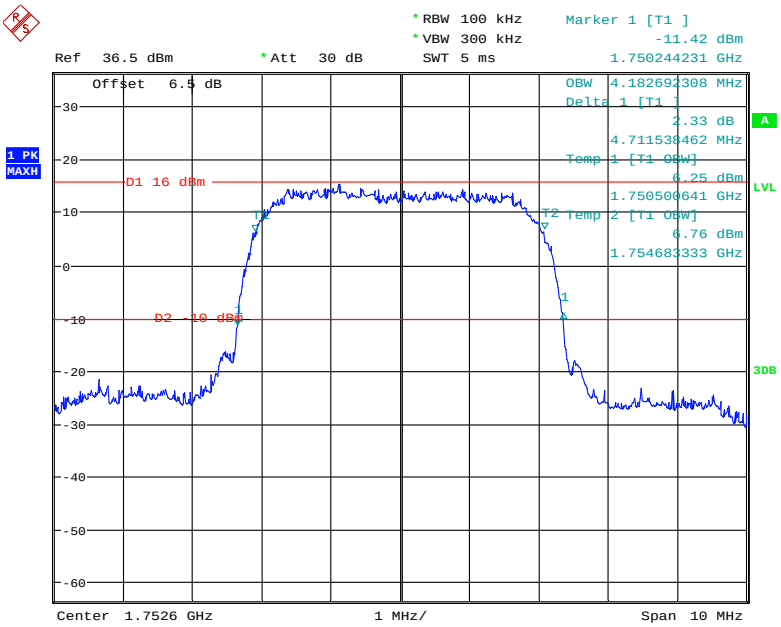
Date: 14.NOV.2020 14:15:54

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



Date: 14.NOV.2020 14:16:51

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

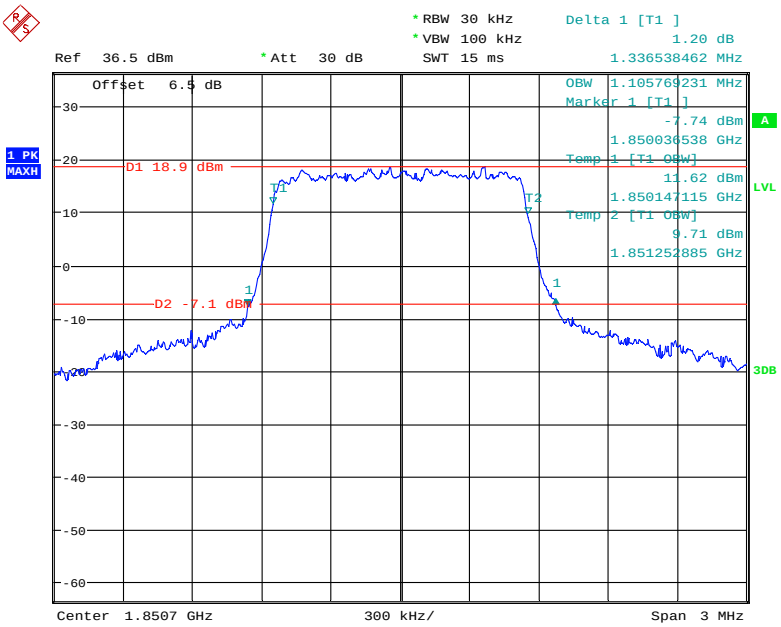


Date: 14.NOV.2020 14:20:09

LTE Band 2: (Low Channel)

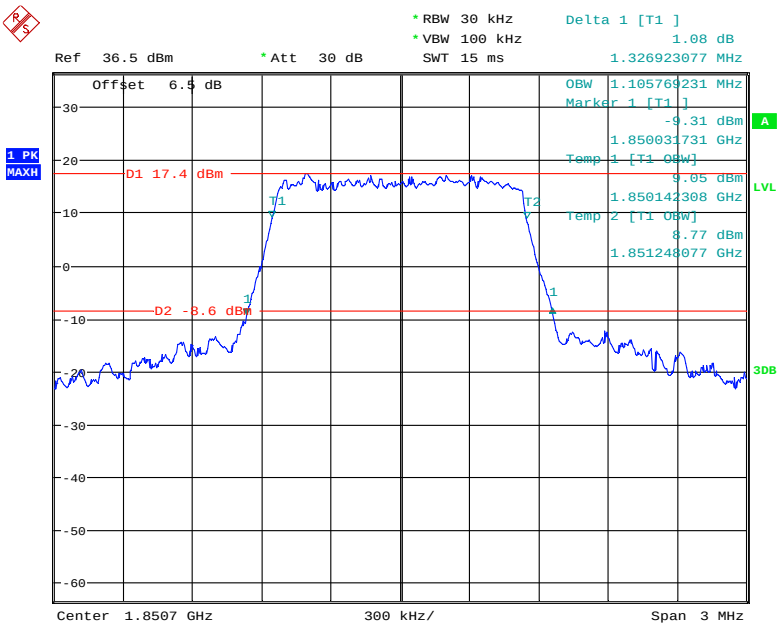
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.106	1.337
	16QAM	1.106	1.327
3.0	QPSK	2.683	2.913
	16QAM	2.683	2.885
5.0	QPSK	4.519	4.920
	16QAM	4.503	4.936
10.0	QPSK	8.942	9.647
	16QAM	8.942	9.551
15.0	QPSK	13.462	16.490
	16QAM	13.510	14.712
20.0	QPSK	17.949	19.359
	16QAM	17.949	19.359

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



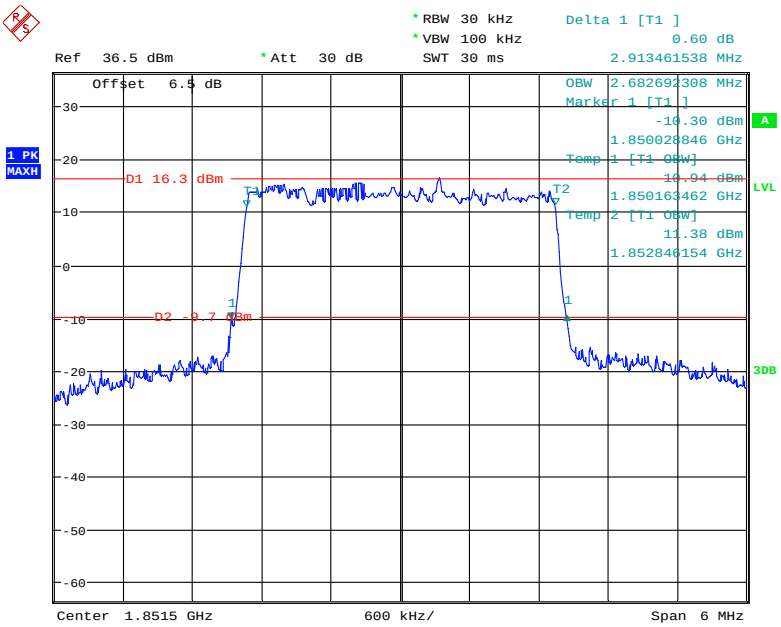
Date: 13.NOV.2020 15:19:47

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



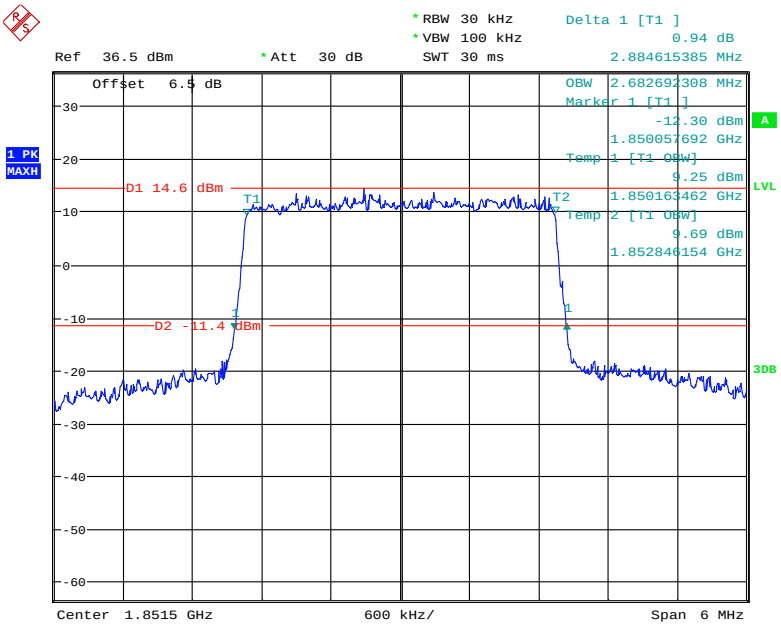
Date: 13.NOV.2020 15:21:29

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



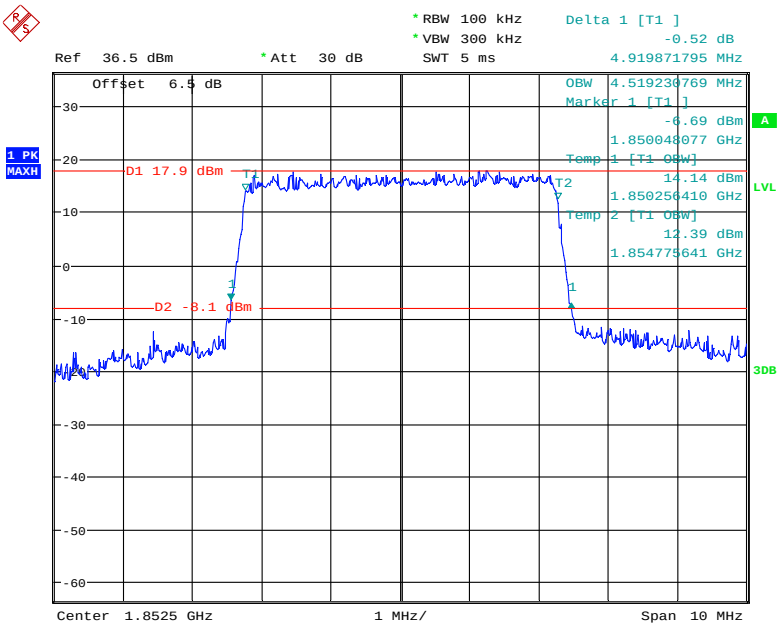
Date: 13.NOV.2020 15:28:09

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



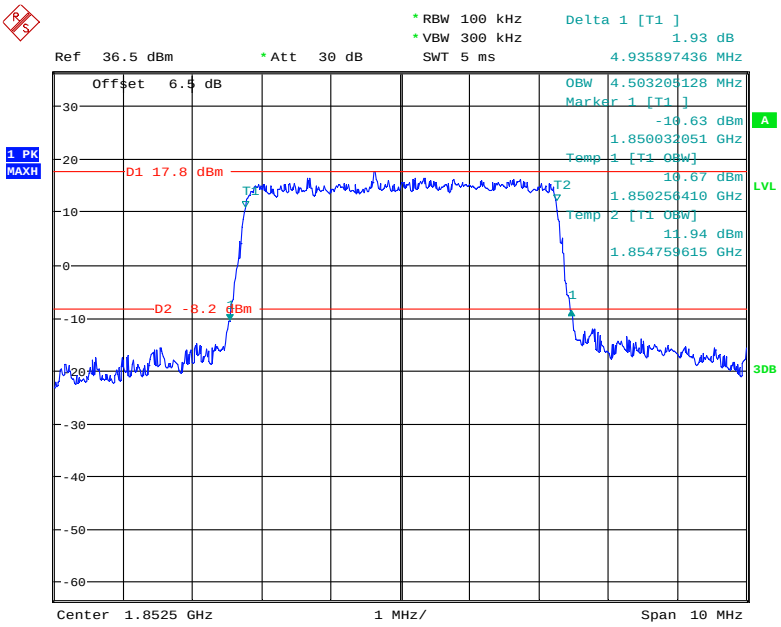
Date: 13.NOV.2020 15:29:33

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



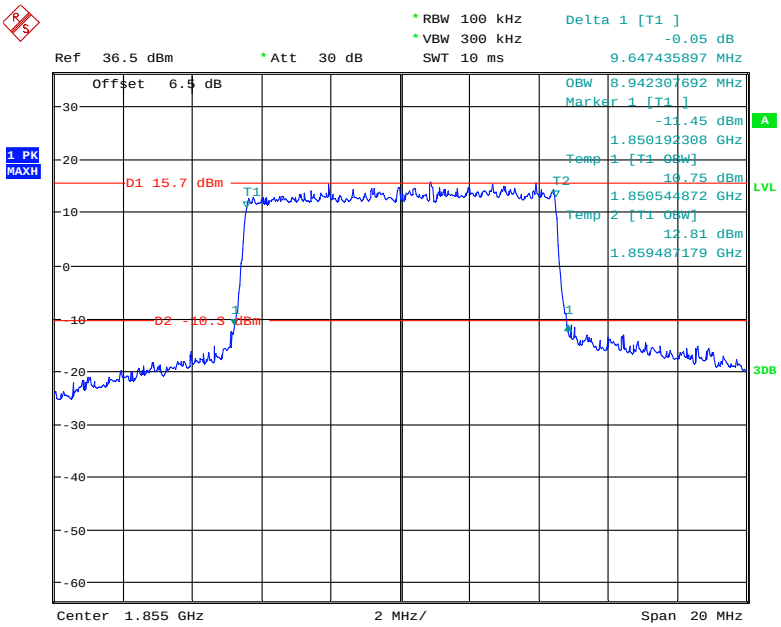
Date: 13.NOV.2020 15:38:36

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



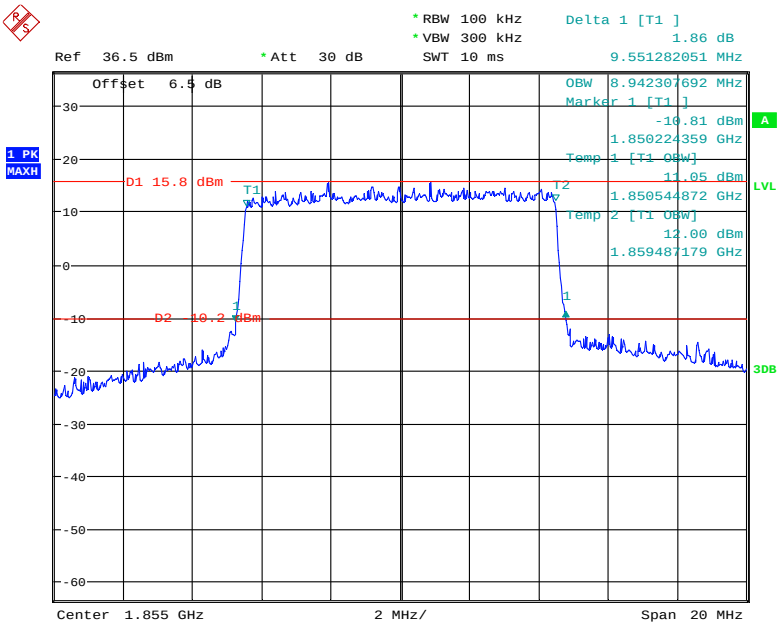
Date: 13.NOV.2020 15:39:30

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



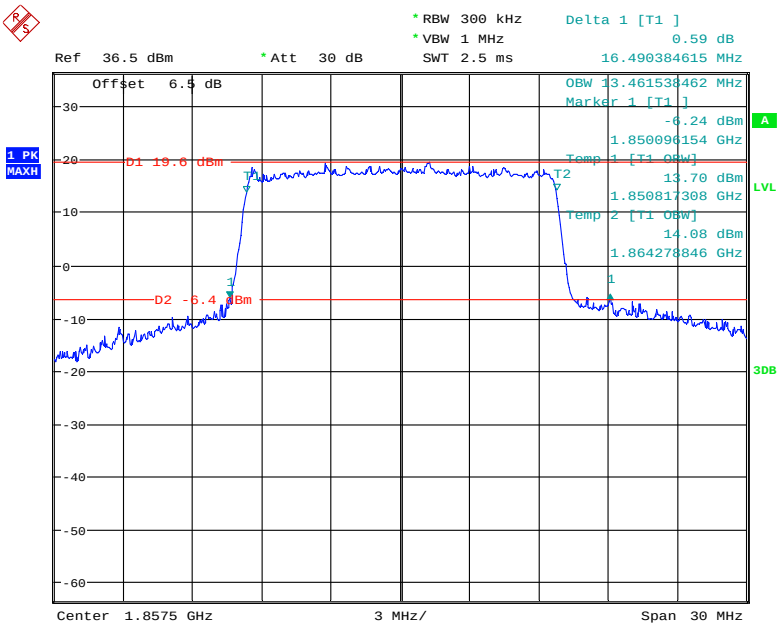
Date: 13.NOV.2020 15:46:04

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



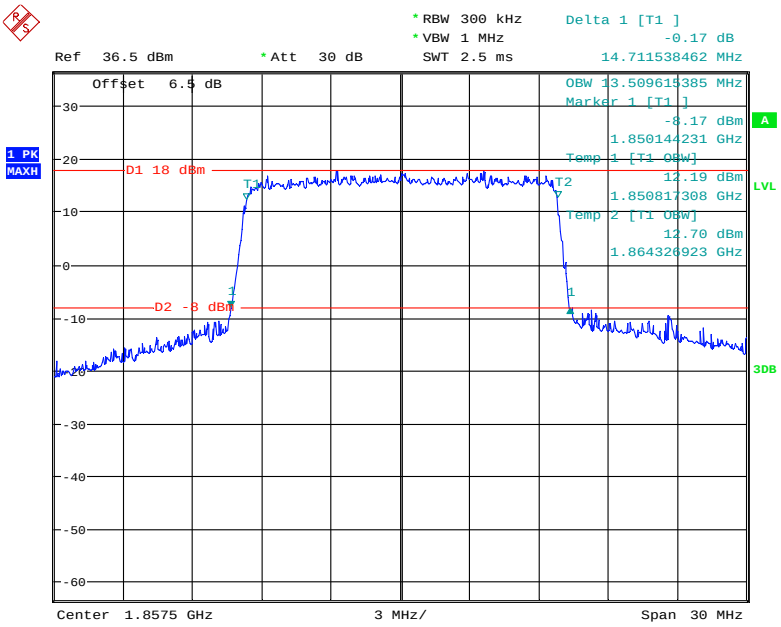
Date: 13.NOV.2020 15:46:54

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



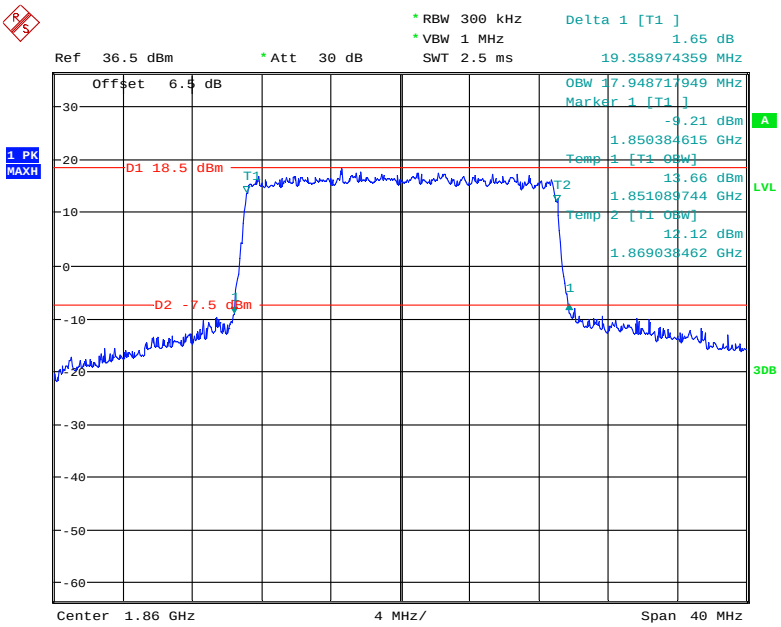
Date: 13.NOV.2020 16:04:10

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



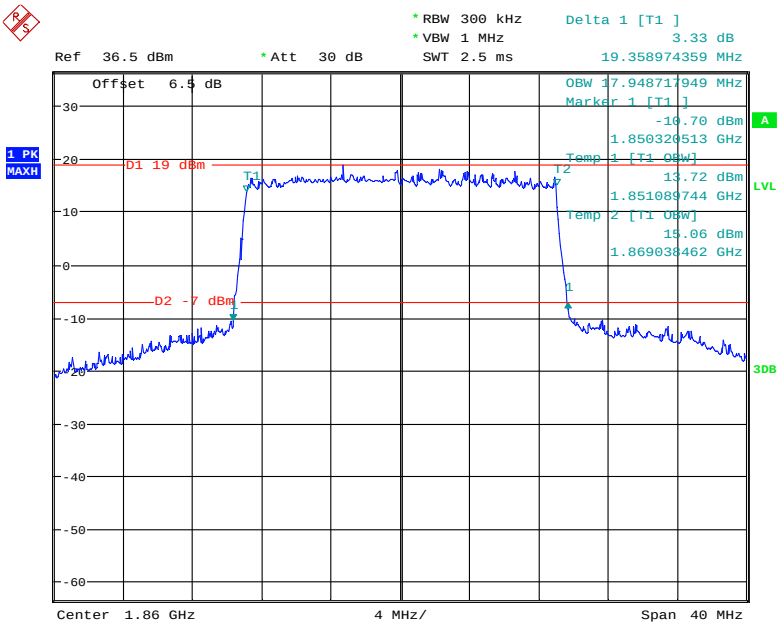
Date: 13.NOV.2020 16:05:05

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



Date: 13.NOV.2020 16:12:36

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

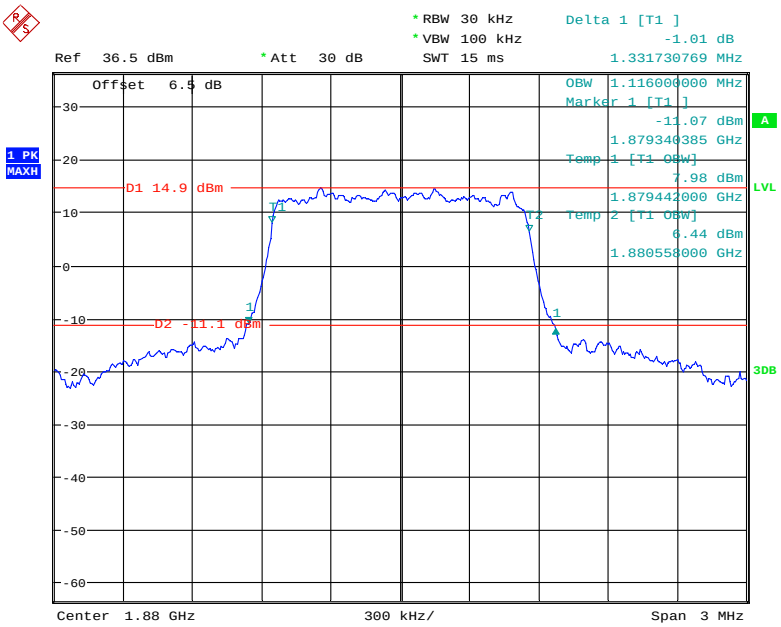


Date: 13.NOV.2020 16:13:24

LTE Band 2: (Middle Channel)

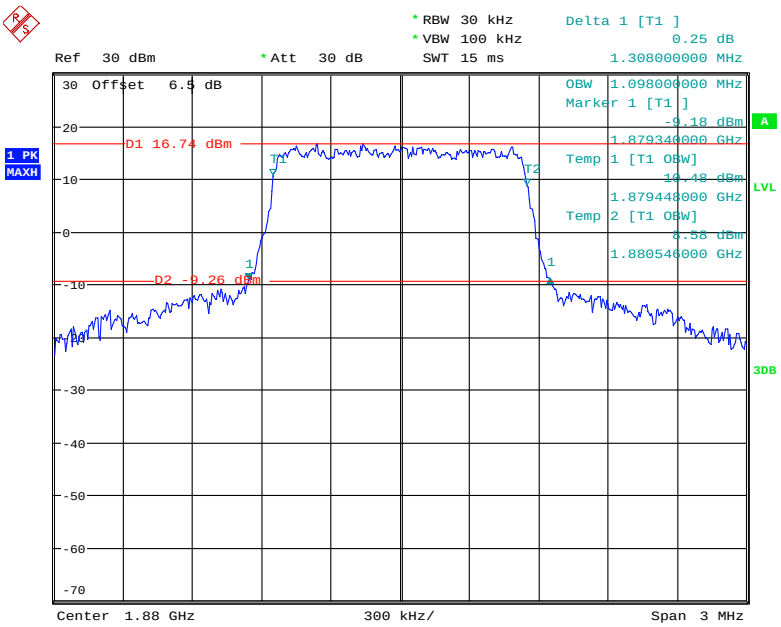
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.116	1.332
	16QAM	1.098	1.308
3.0	QPSK	2.688	2.880
	16QAM	2.688	2.880
5.0	QPSK	4.520	4.940
	16QAM	4.520	4.940
10.0	QPSK	8.960	9.840
	16QAM	8.960	9.583
15.0	QPSK	13.620	15.300
	16QAM	13.620	15.439
20.0	QPSK	18.080	19.600
	16QAM	18.000	20.640

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



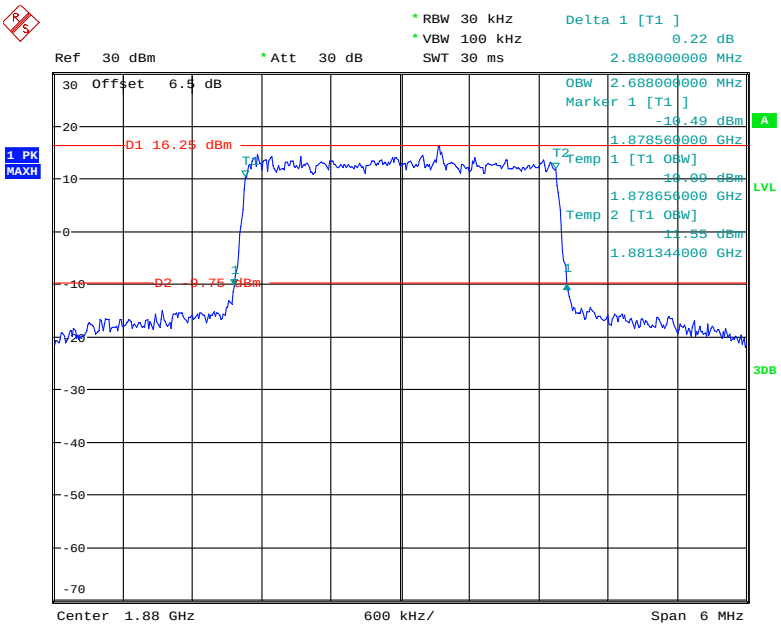
Date: 22.MAY.2020 10:50:22

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



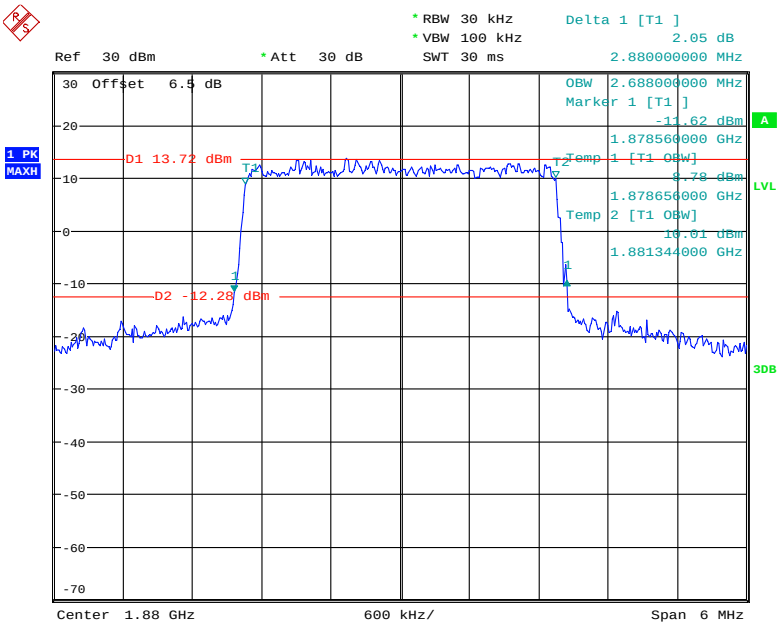
Date: 21.MAY.2020 16:23:44

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



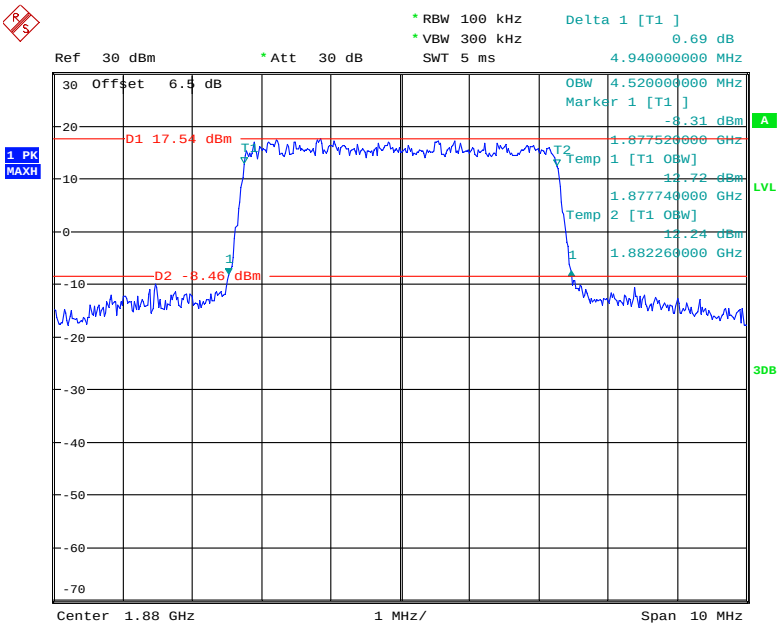
Date: 21.MAY.2020 16:24:07

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



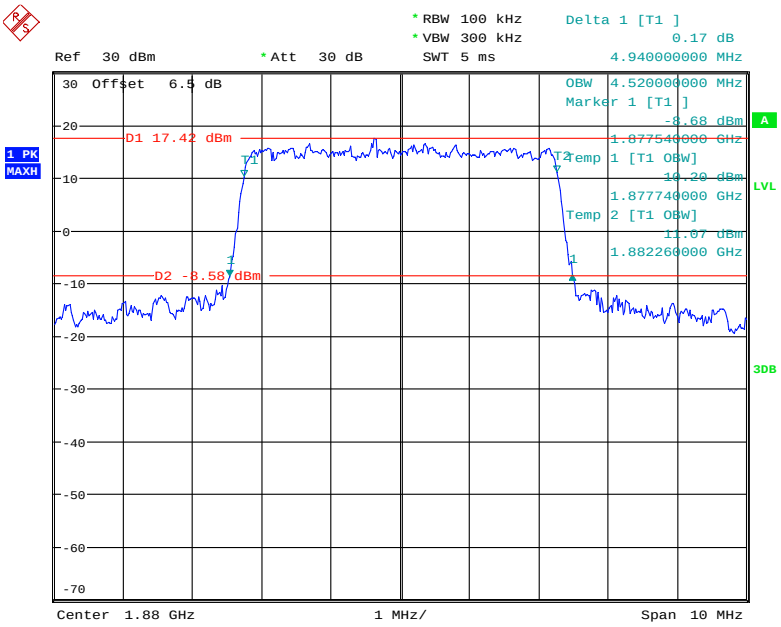
Date: 21.MAY.2020 16:24:24

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



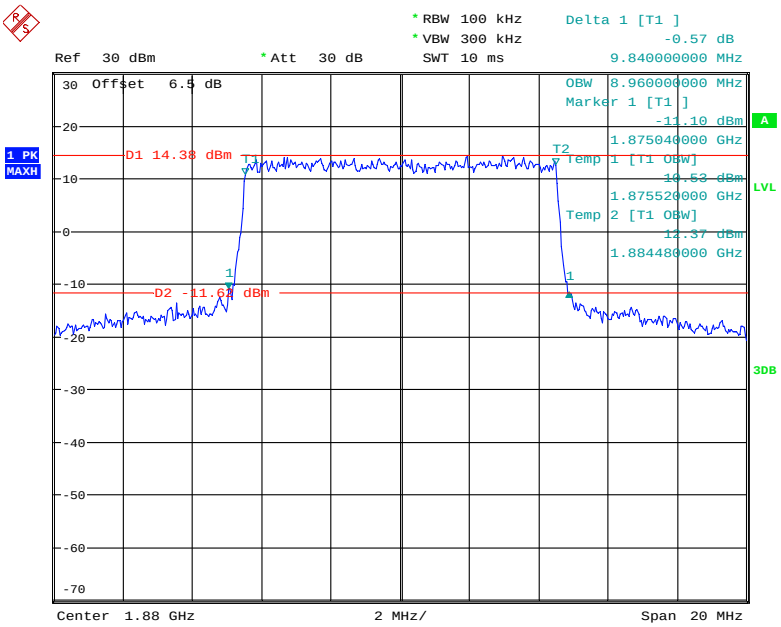
Date: 21.MAY.2020 16:24:47

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



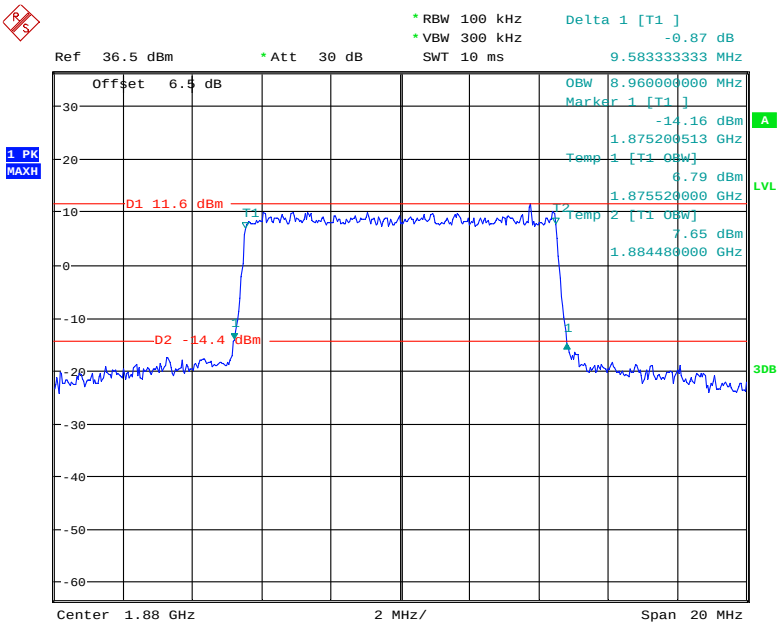
Date: 21.MAY.2020 16:25:17

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



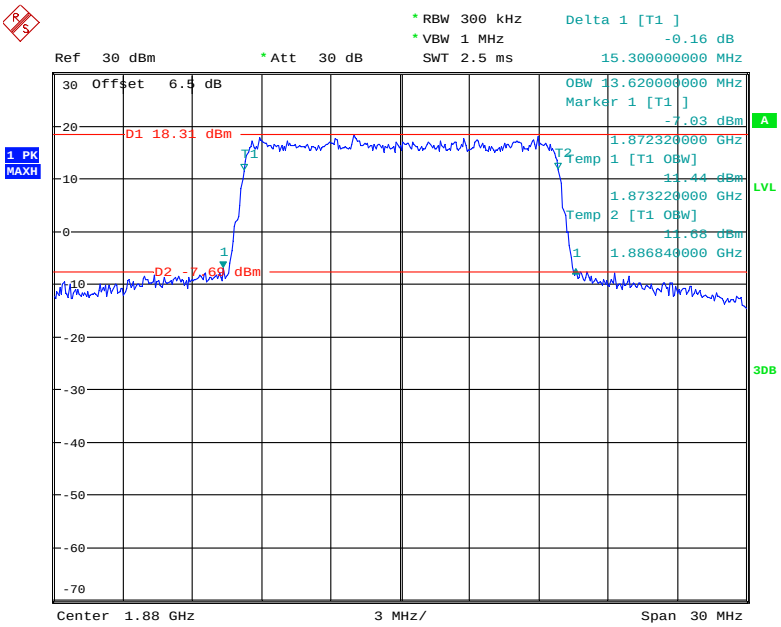
Date: 21.MAY.2020 16:25:42

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



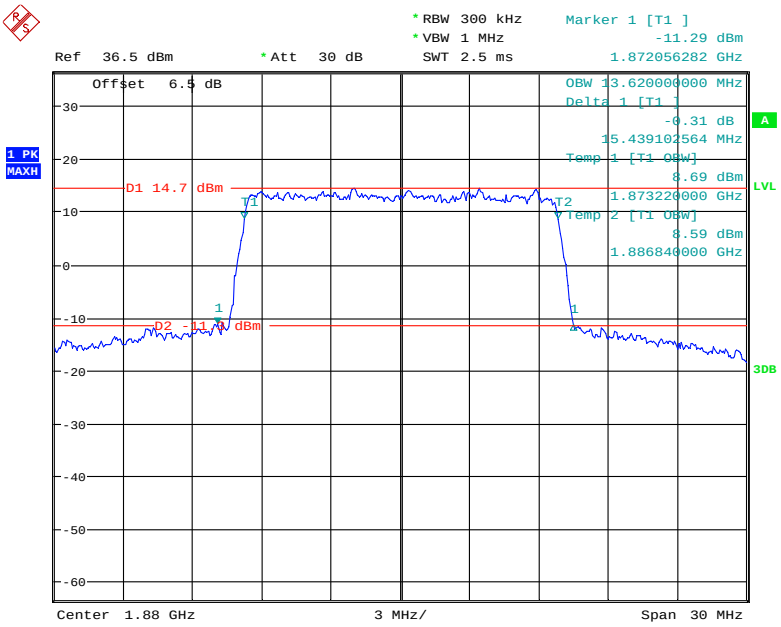
Date: 22.MAY.2020 10:54:11

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



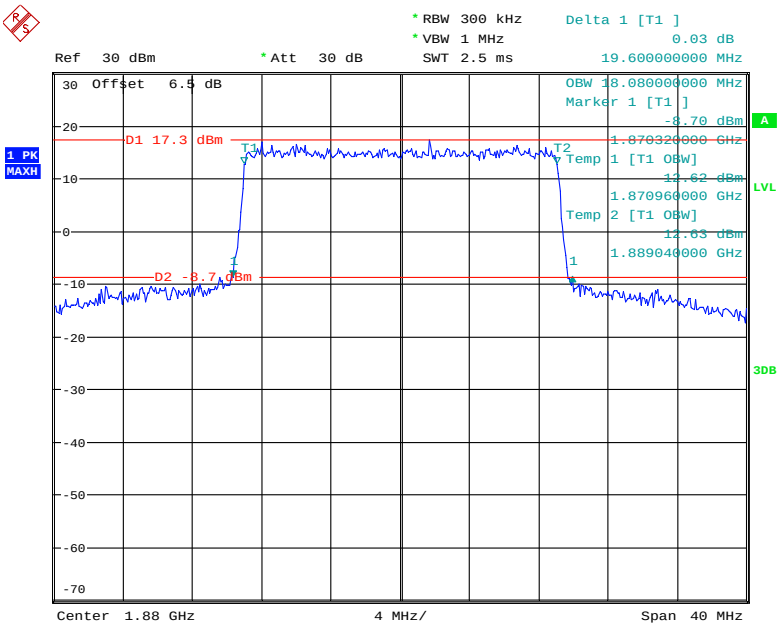
Date: 21.MAY.2020 16:26:33

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



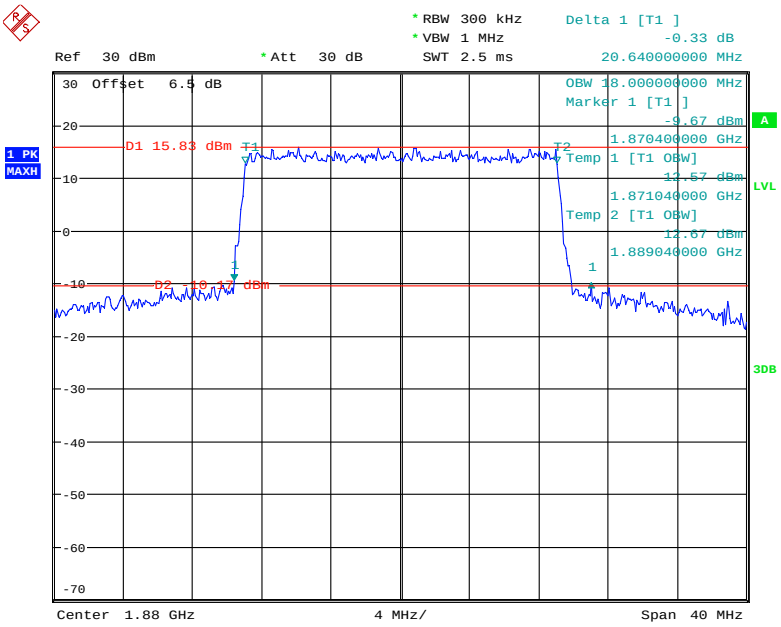
Date: 22.MAY.2020 10:59:25

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



Date: 21.MAY.2020 16:27:33

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

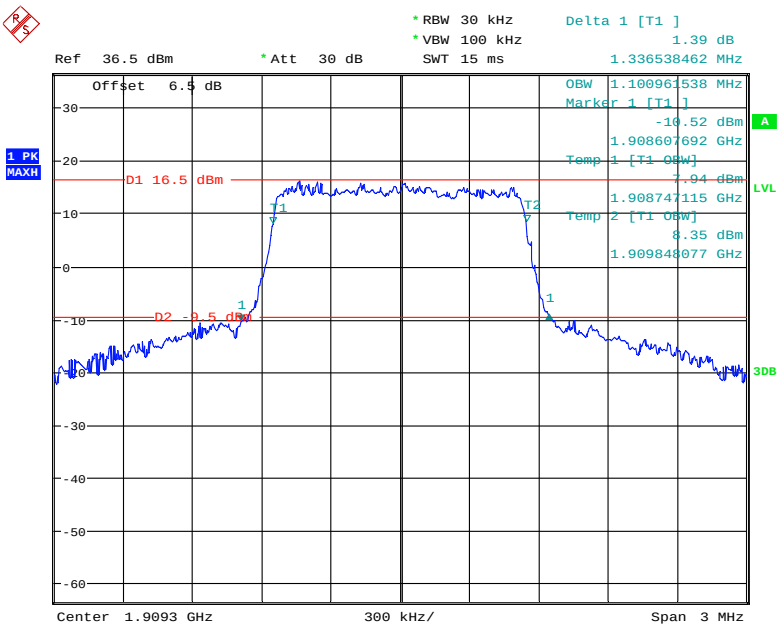


Date: 21.MAY.2020 16:28:03

LTE Band 2: (High Channel)

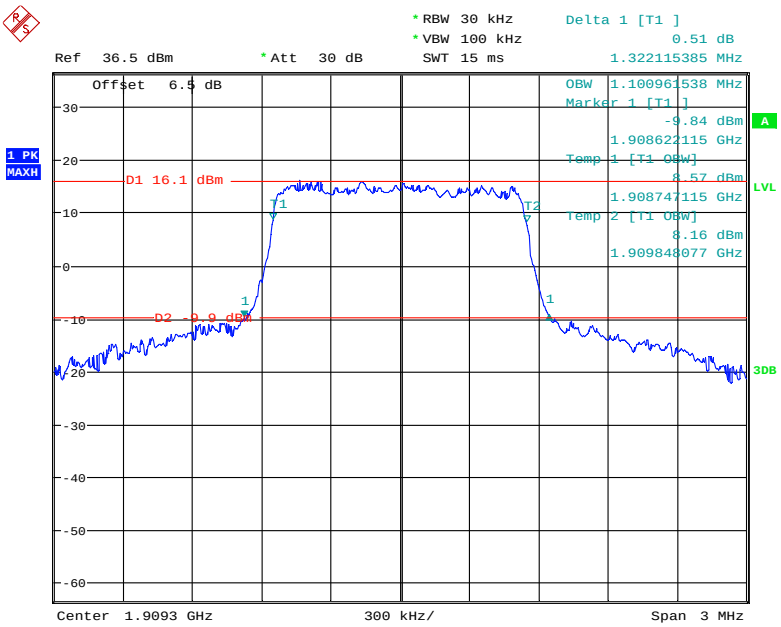
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.101	1.337
	16QAM	1.101	1.322
3.0	QPSK	2.692	2.923
	16QAM	2.683	2.904
5.0	QPSK	4.519	4.952
	16QAM	4.535	4.968
10.0	QPSK	9.006	11.090
	16QAM	8.974	12.372
15.0	QPSK	13.606	21.346
	16QAM	13.558	18.702
20.0	QPSK	17.949	23.205
	16QAM	17.949	23.077

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



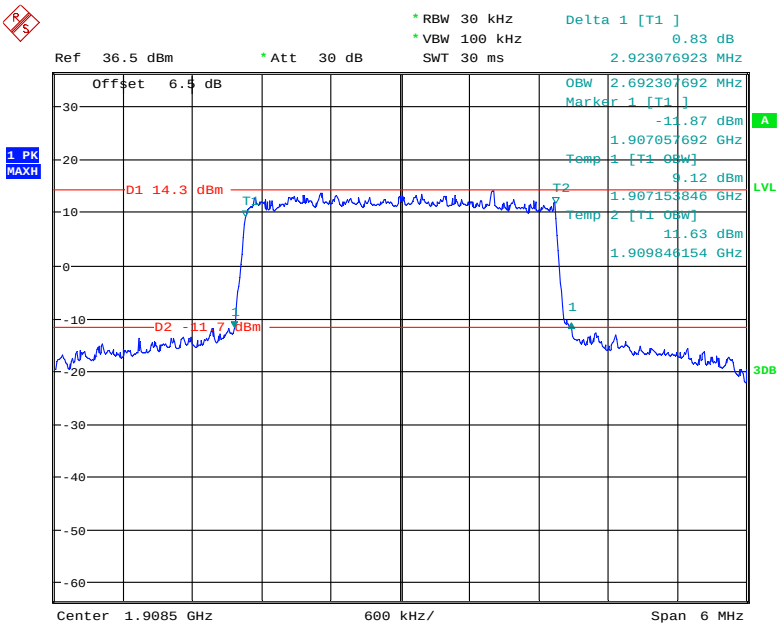
Date: 13.NOV.2020 15:24:49

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



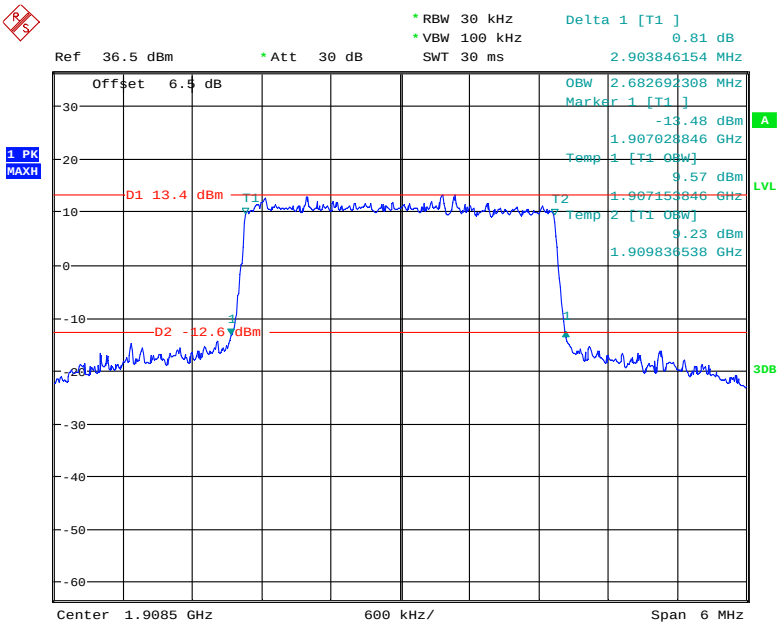
Date: 13.NOV.2020 15:22:58

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



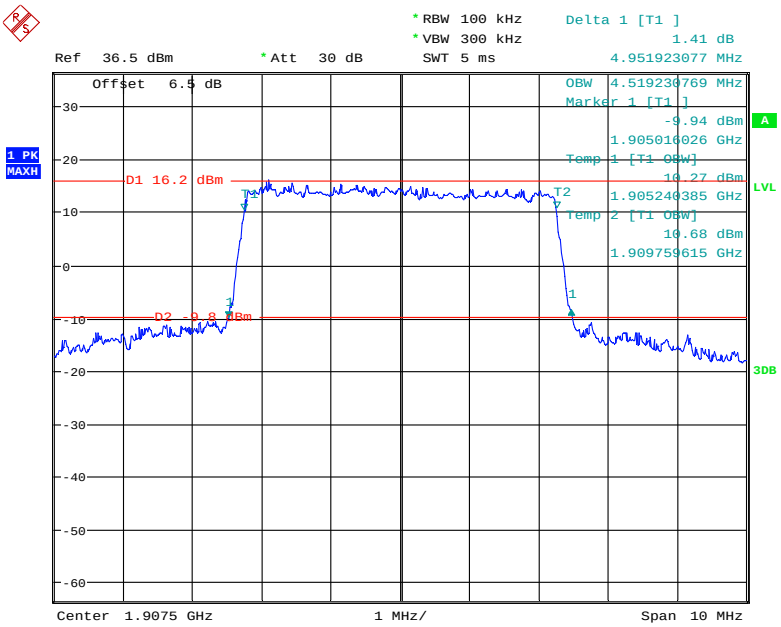
Date: 13.NOV.2020 15:31:39

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



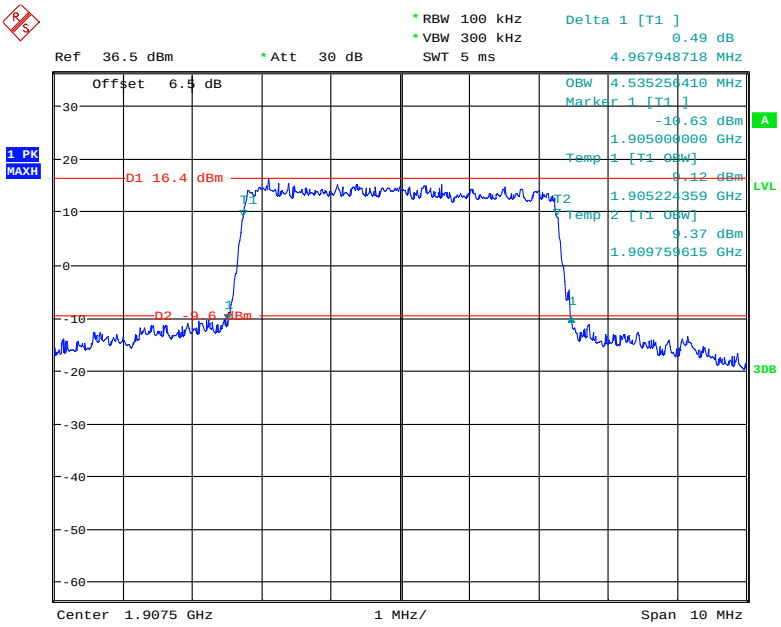
Date: 13.NOV.2020 15:30:46

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



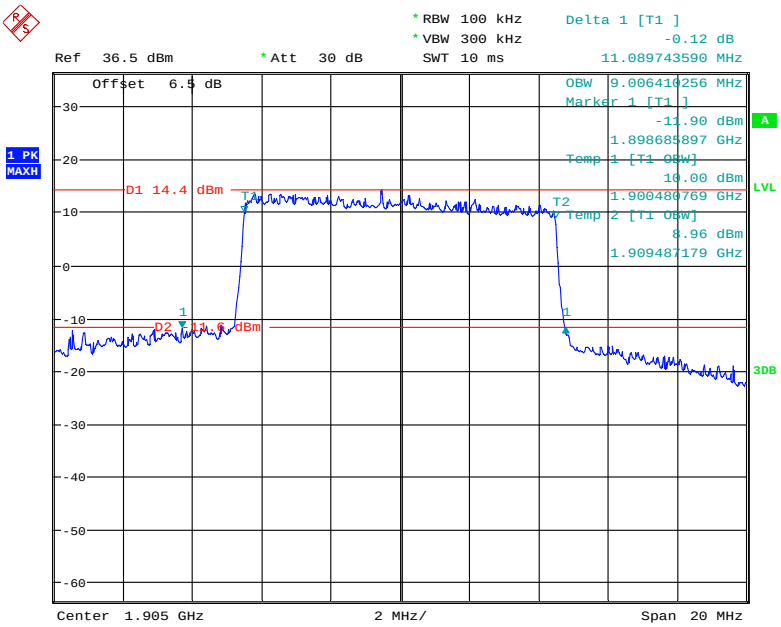
Date: 13.NOV.2020 15:42:34

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



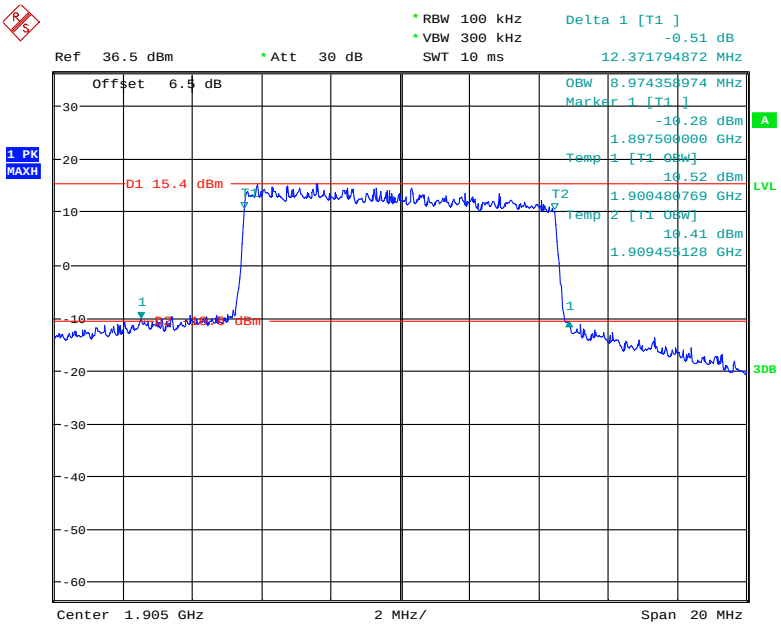
Date: 13.NOV.2020 15:40:40

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



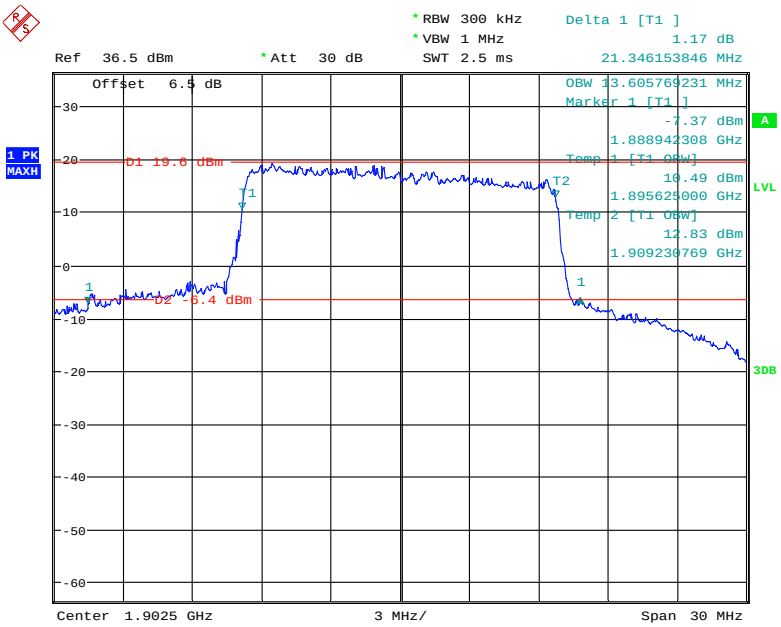
Date: 13.NOV.2020 15:52:34

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



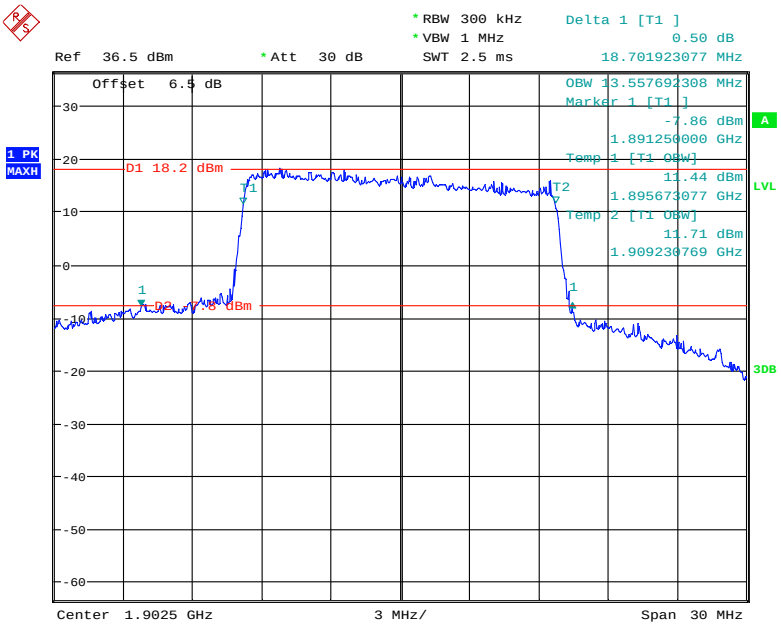
Date: 13.NOV.2020 15:48:31

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



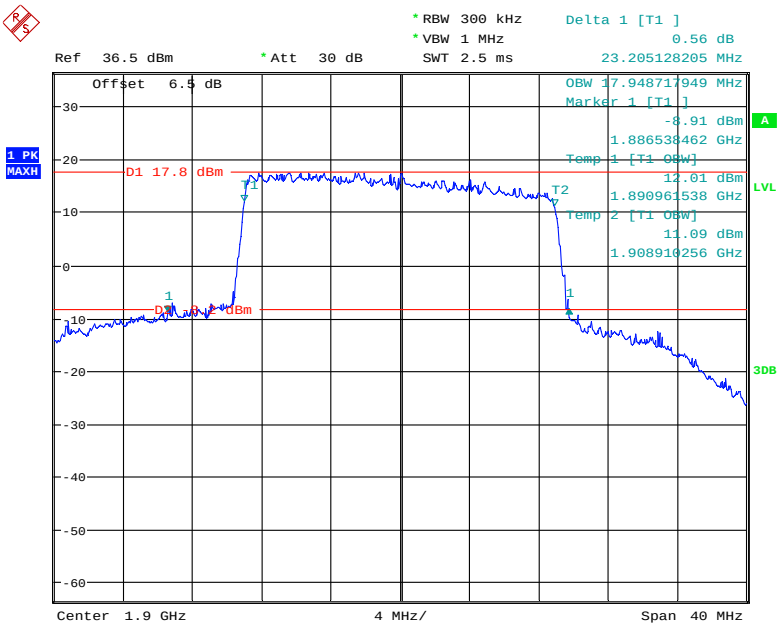
Date: 13.NOV.2020 16:07:44

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



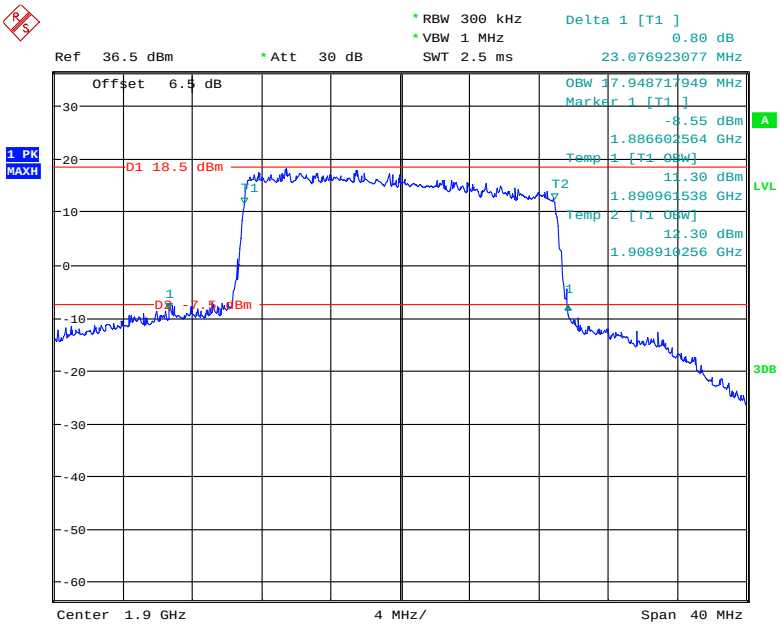
Date: 13.NOV.2020 16:06:12

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



Date: 13.NOV.2020 16:15:25

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

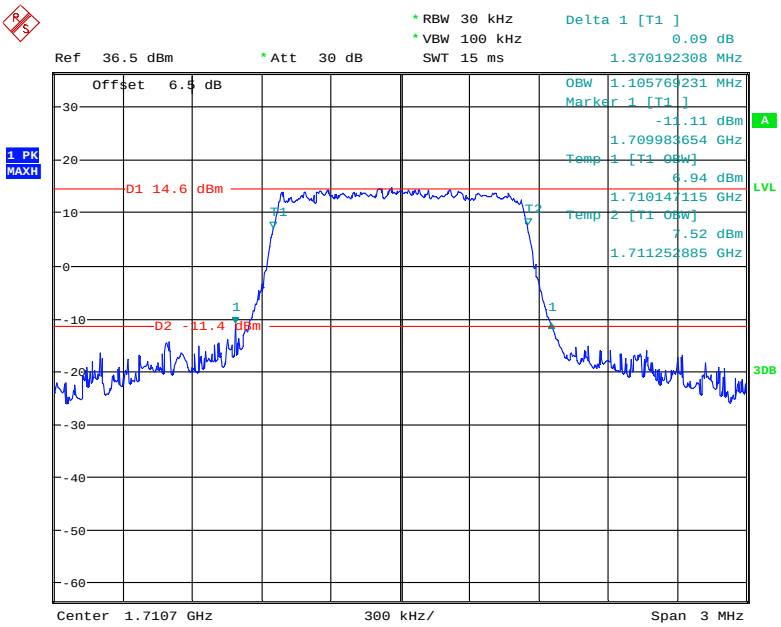


Date: 13.NOV.2020 16:14:26

LTE Band 4: (Low Channel)

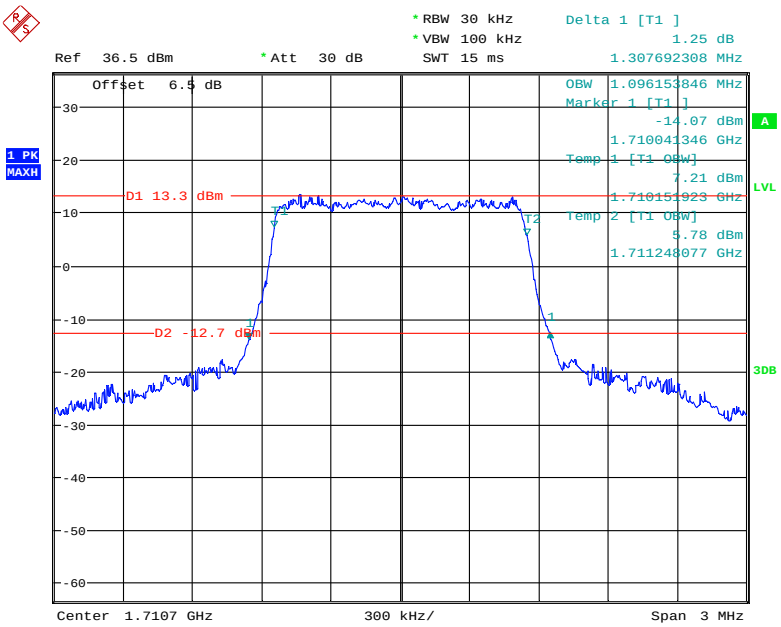
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.106	1.370
	16QAM	1.096	1.308
3.0	QPSK	2.692	2.875
	16QAM	2.683	2.875
5.0	QPSK	4.503	4.952
	16QAM	4.503	4.968
10.0	QPSK	8.974	9.679
	16QAM	8.974	9.615
15.0	QPSK	13.558	14.808
	16QAM	13.510	14.712
20.0	QPSK	18.013	19.487
	16QAM	18.013	19.295

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



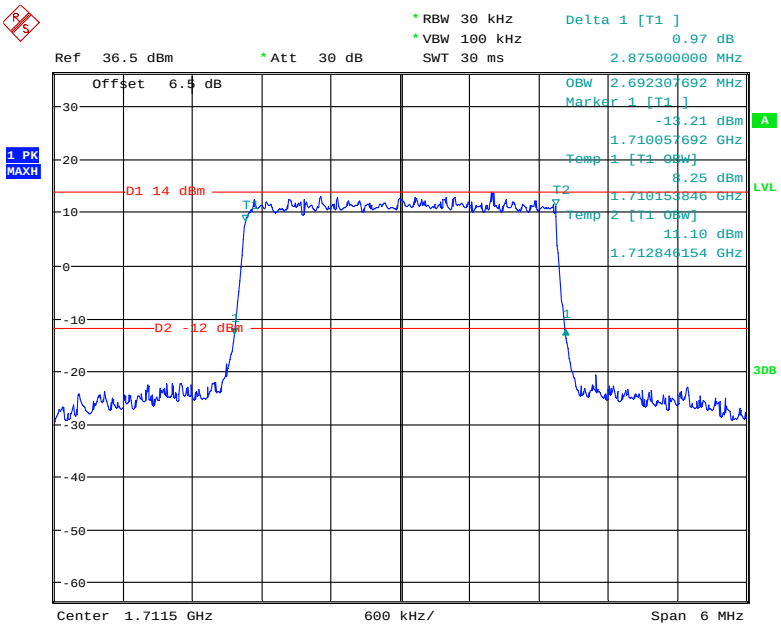
Date: 13.NOV.2020 16:18:19

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



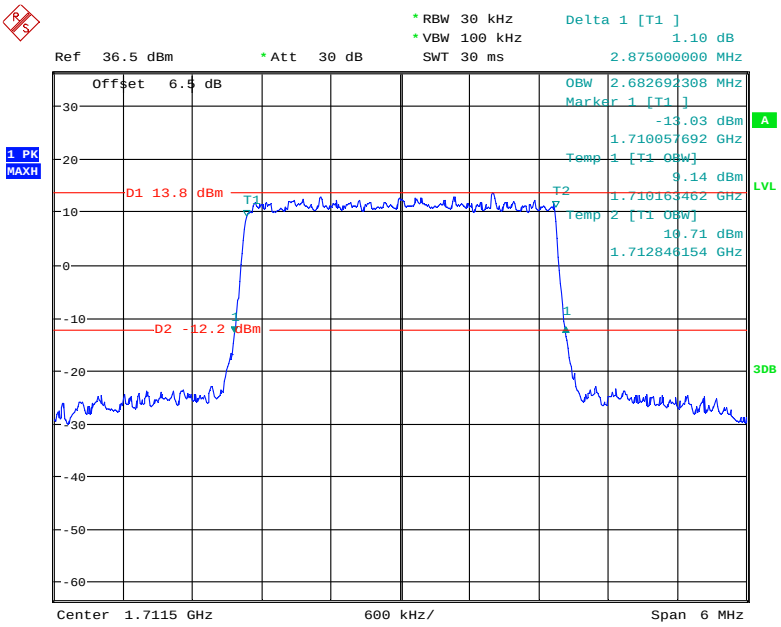
Date: 13.NOV.2020 16:21:36

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



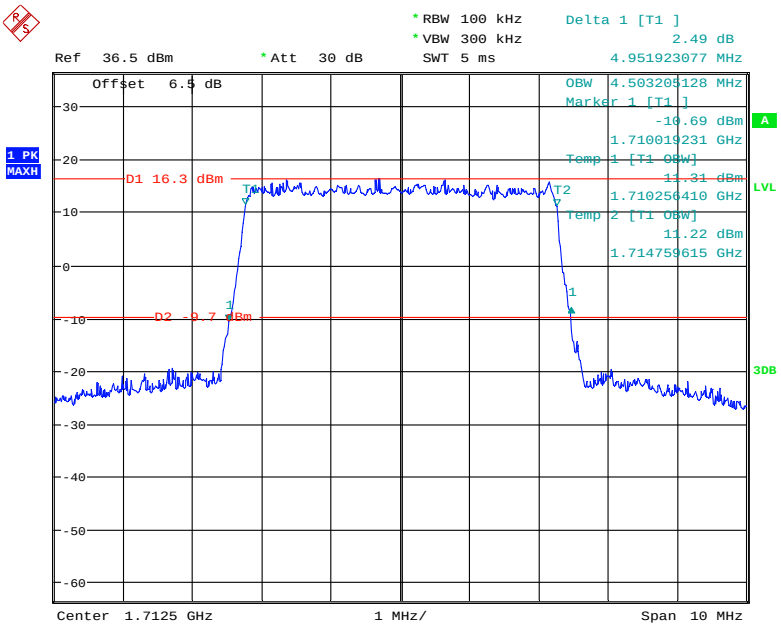
Date: 13.NOV.2020 16:48:36

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



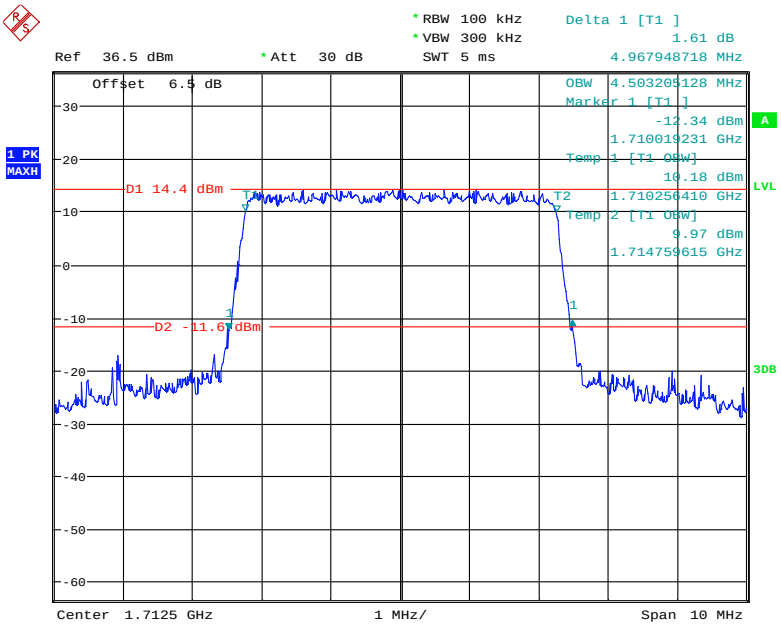
Date: 13.NOV.2020 16:49:17

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



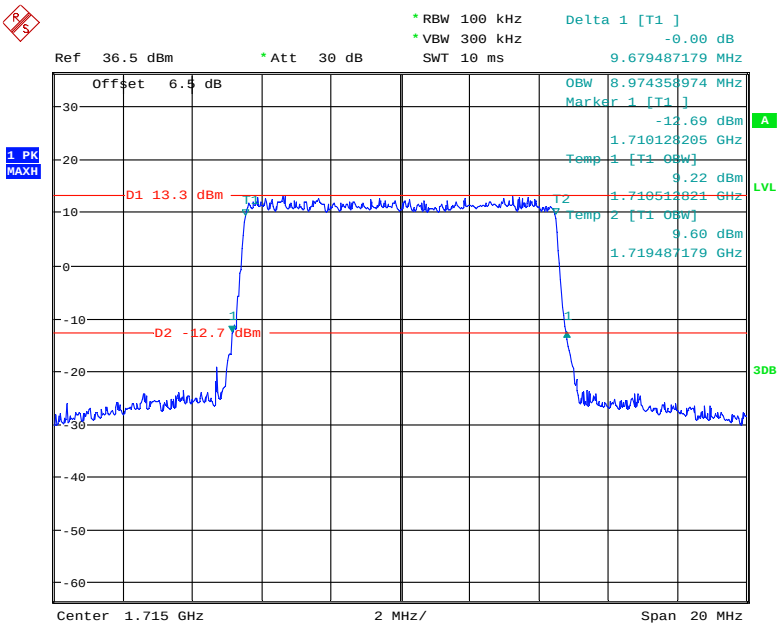
Date: 13.NOV.2020 16:52:09

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



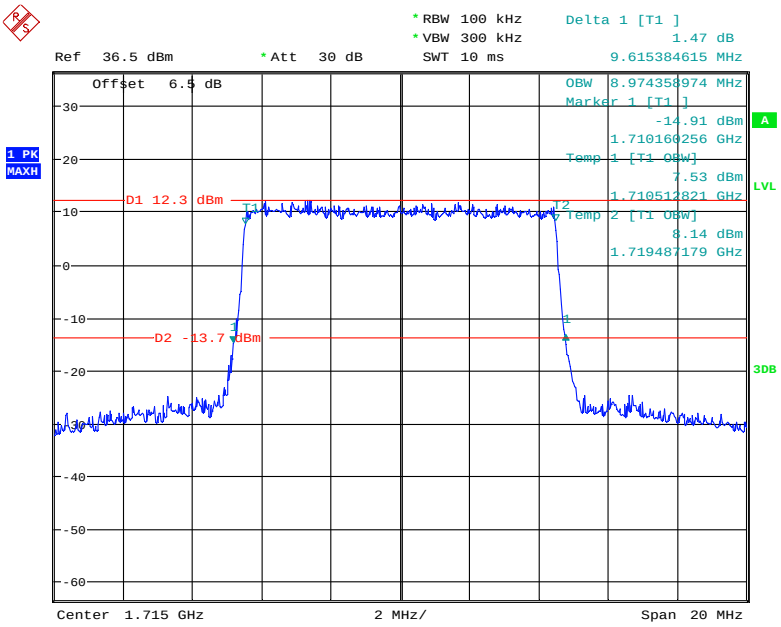
Date: 13.NOV.2020 16:52:49

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



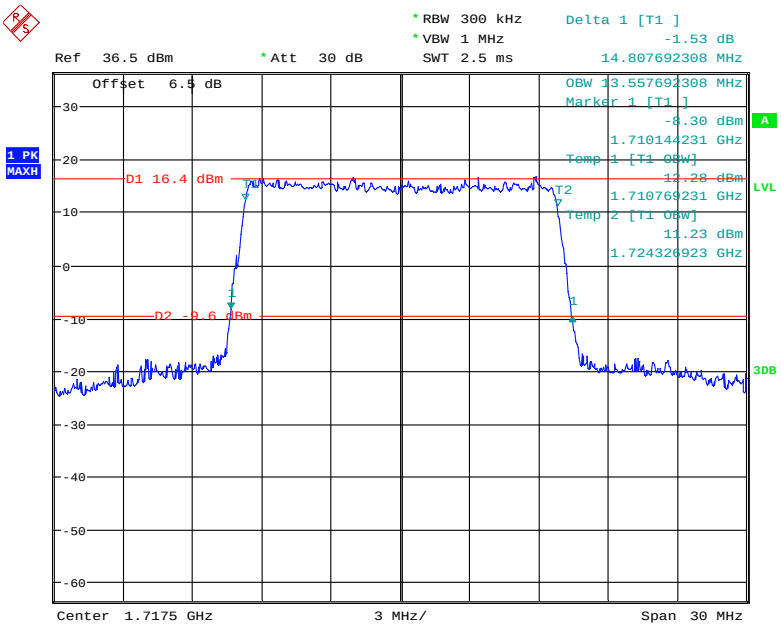
Date: 13.NOV.2020 16:57:21

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



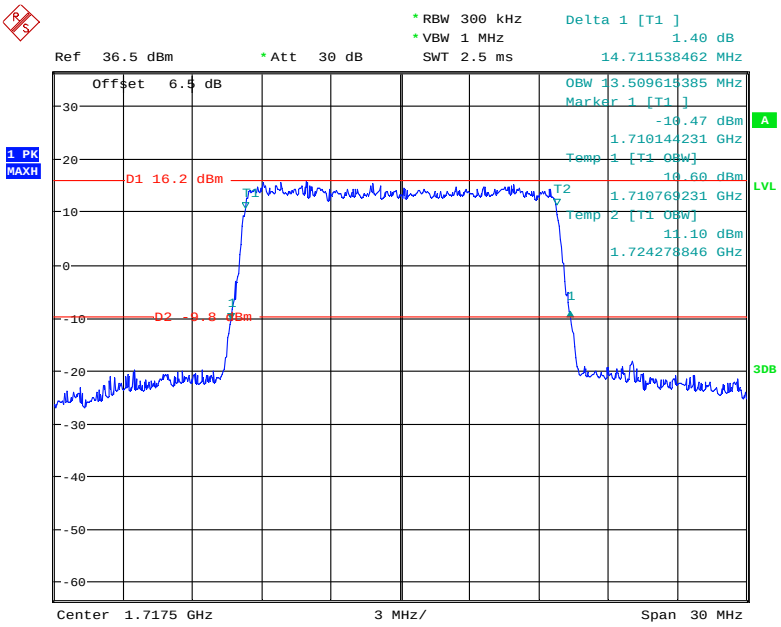
Date: 13.NOV.2020 16:58:35

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



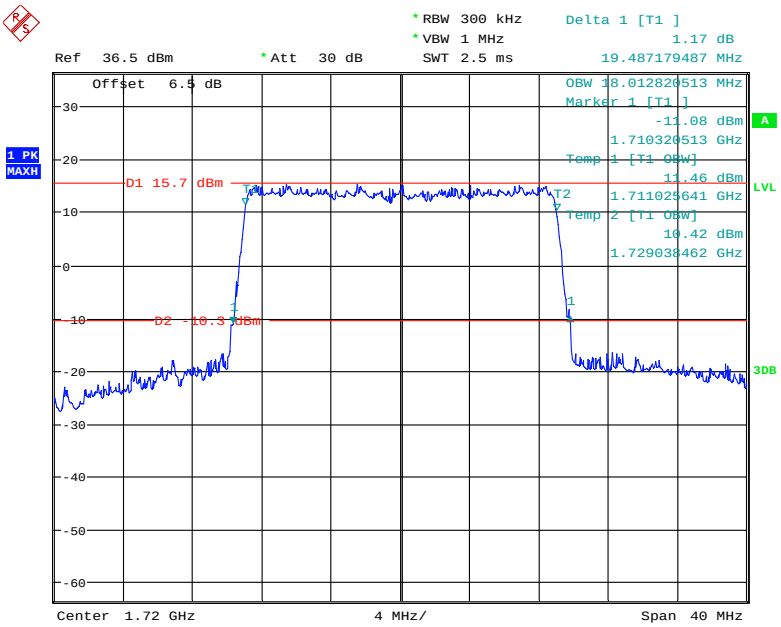
Date: 13.NOV.2020 17:02:36

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



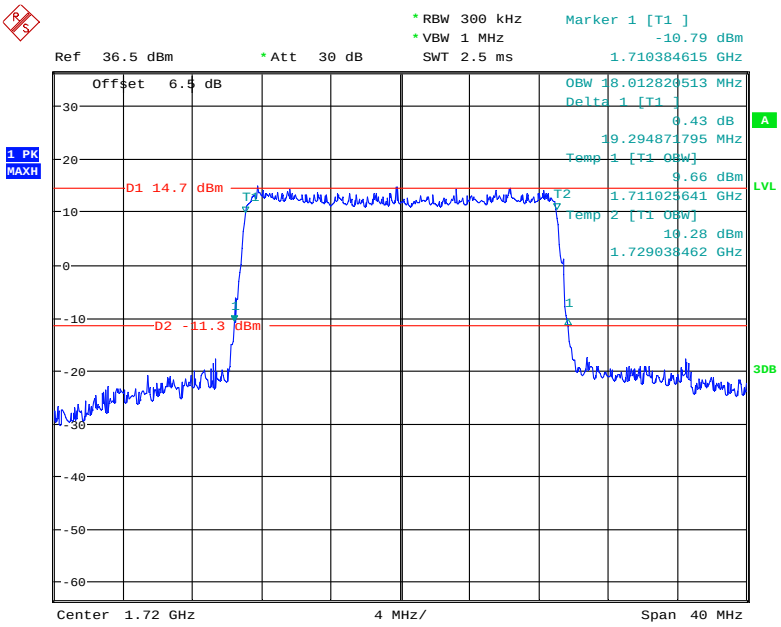
Date: 13.NOV.2020 17:03:22

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



Date: 13.NOV.2020 17:15:21

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

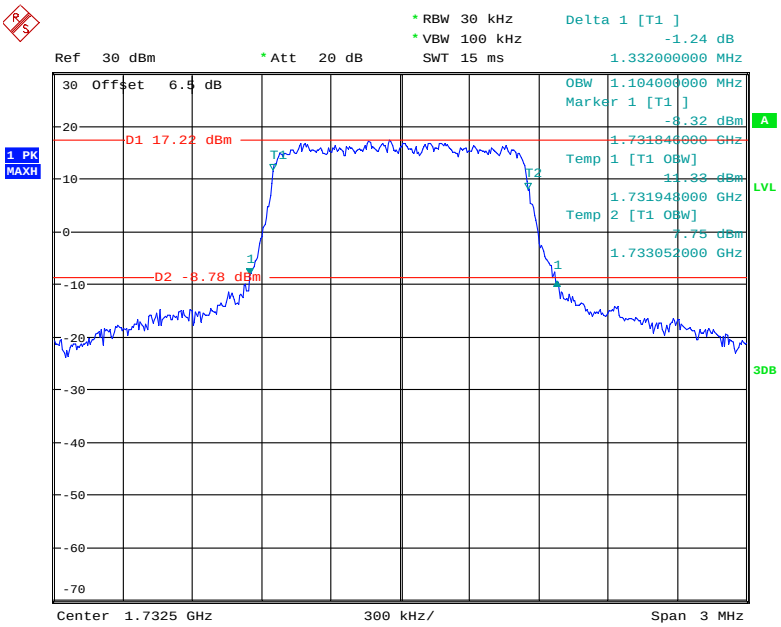


Date: 13.NOV.2020 17:16:00

LTE Band 4: (Middle Channel)

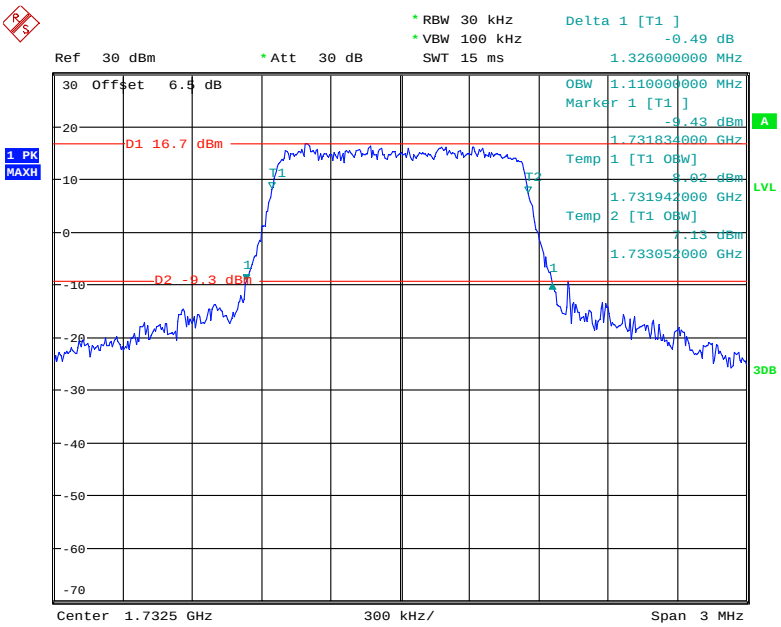
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.104	1.332
	16QAM	1.110	1.326
3.0	QPSK	2.688	2.880
	16QAM	2.688	2.880
5.0	QPSK	4.500	4.960
	16QAM	4.500	4.940
10.0	QPSK	9.000	9.640
	16QAM	8.960	9.600
15.0	QPSK	13.500	14.820
	16QAM	13.500	14.760
20.0	QPSK	18.000	19.280
	16QAM	18.000	19.360

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



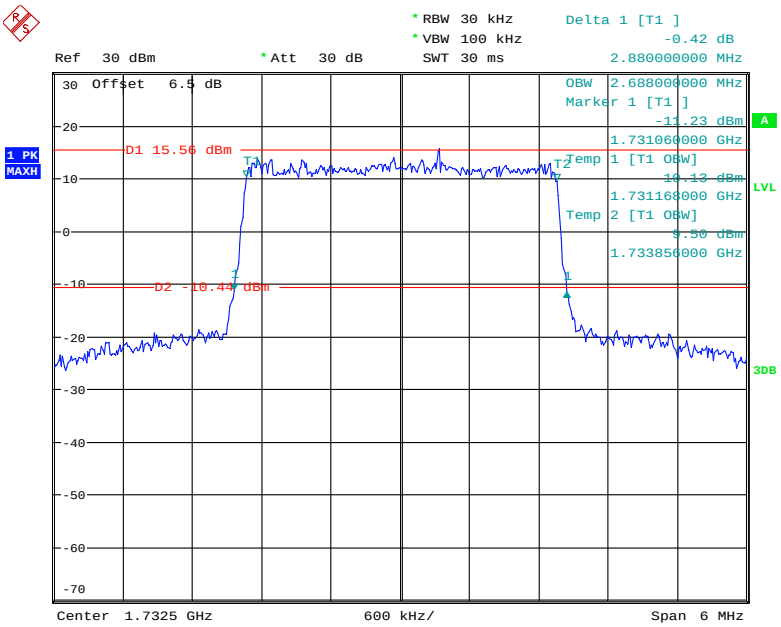
Date: 21.MAY.2020 16:28:41

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



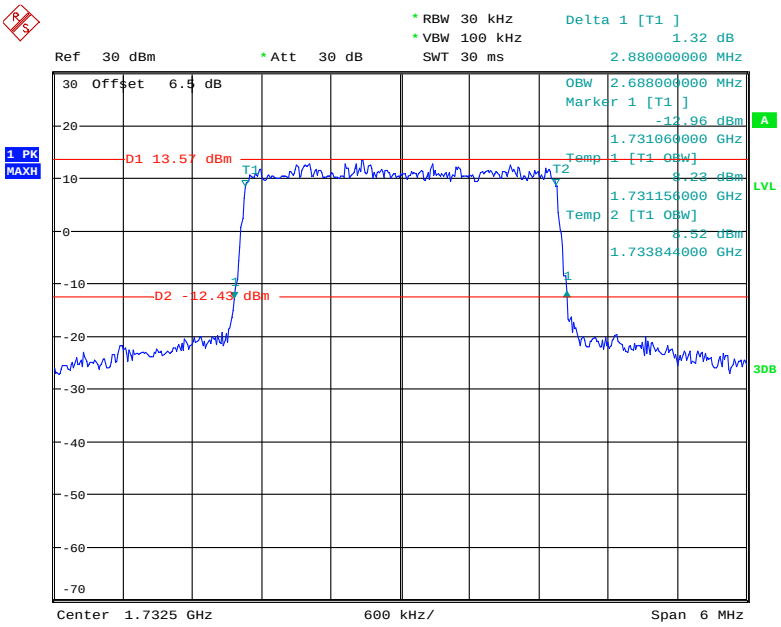
Date: 21.MAY.2020 16:29:02

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



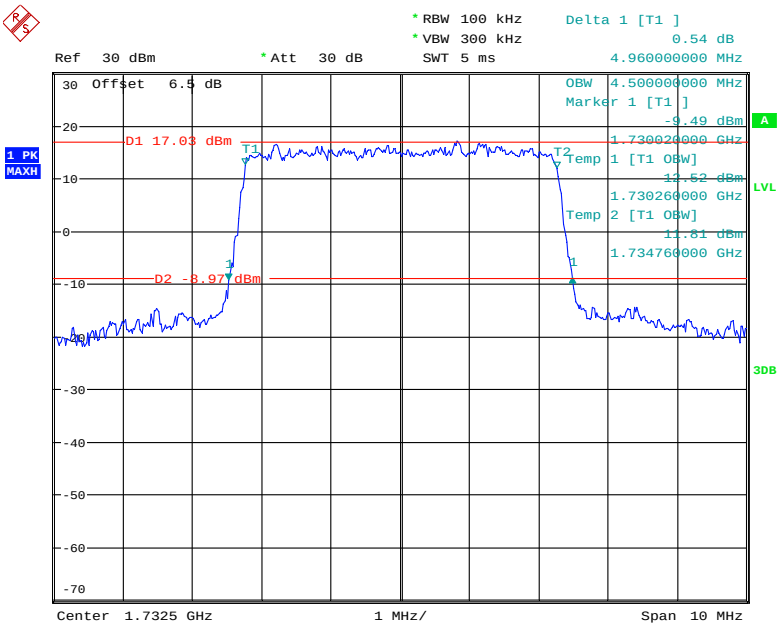
Date: 21.MAY.2020 16:29:21

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



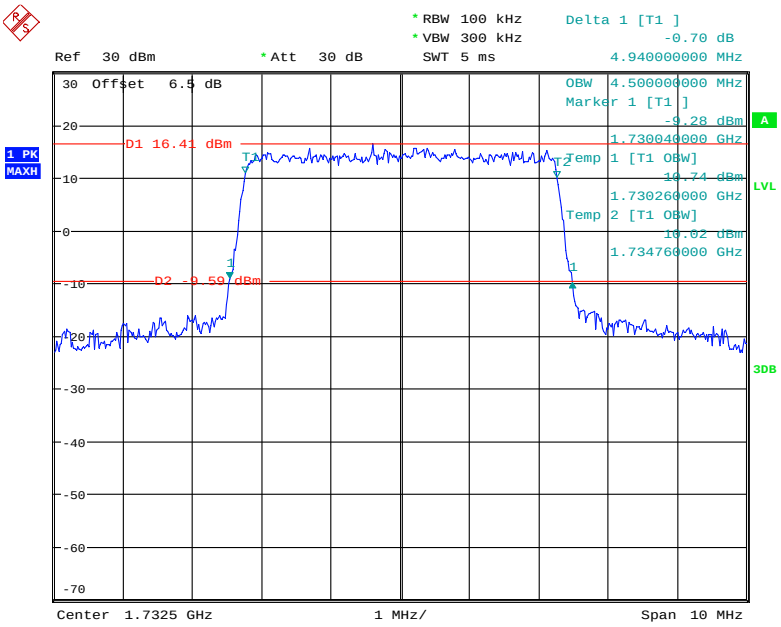
Date: 21.MAY.2020 16:29:42

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



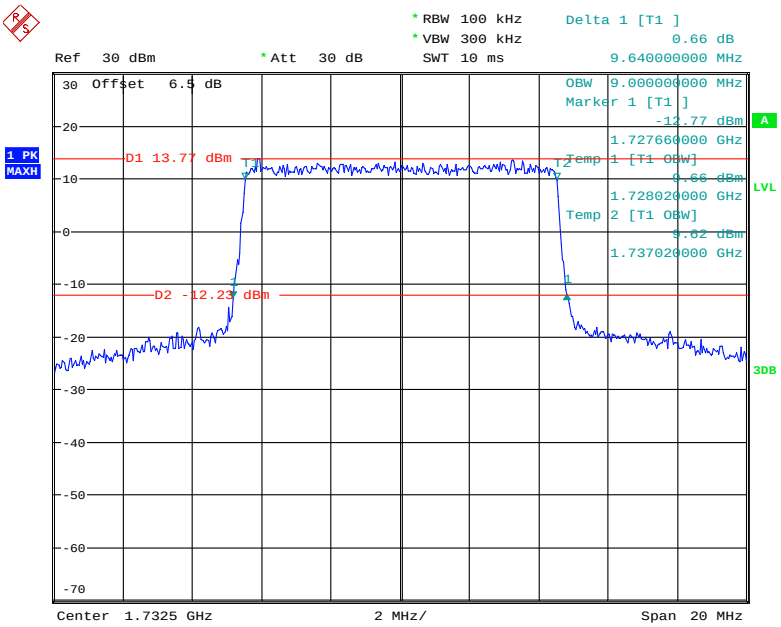
Date: 21.MAY.2020 16:31:13

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



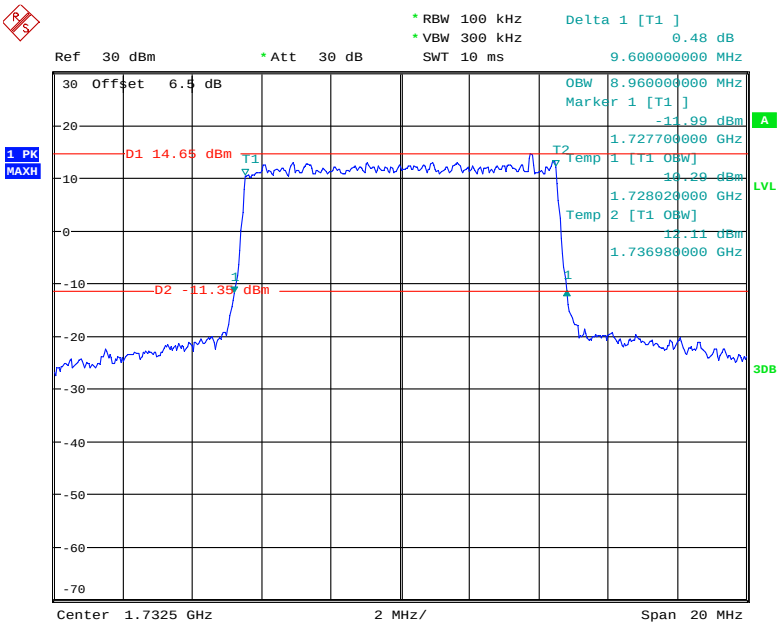
Date: 21.MAY.2020 16:31:37

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



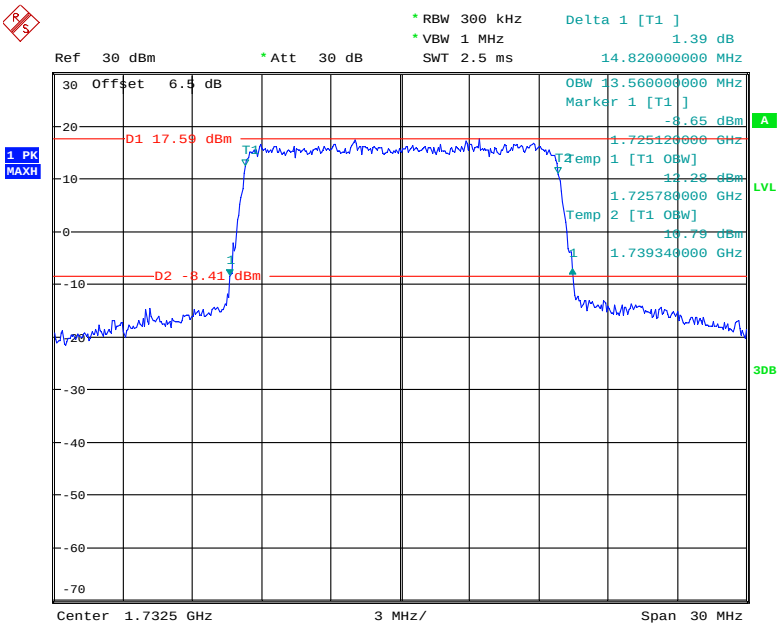
Date: 21.MAY.2020 16:31:58

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



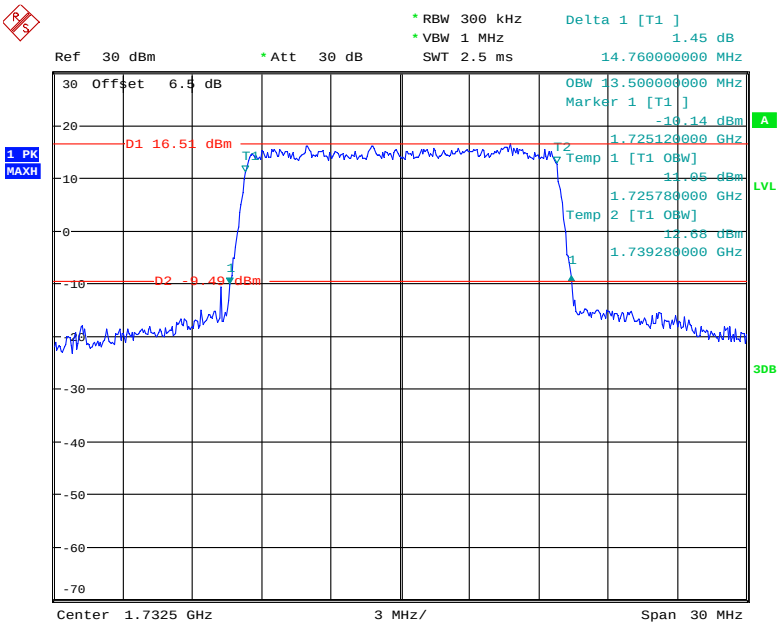
Date: 21.MAY.2020 16:34:34

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



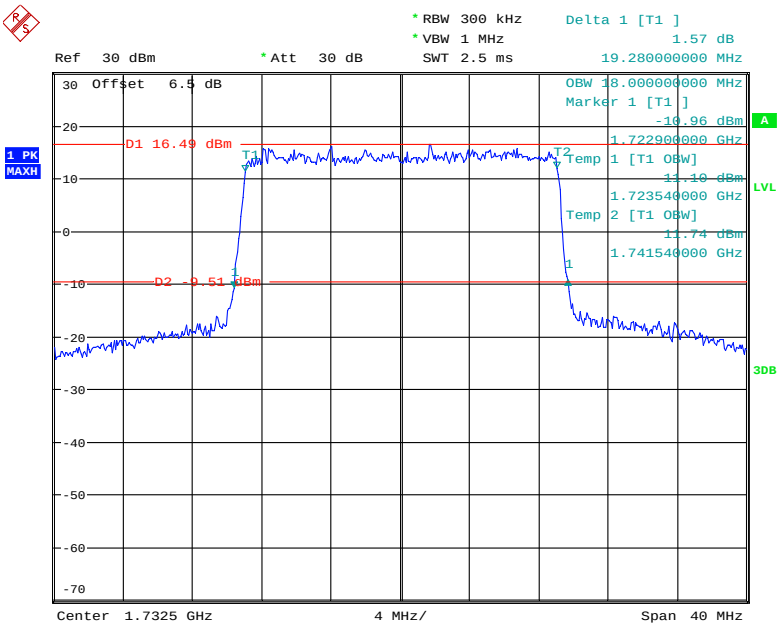
Date: 21.MAY.2020 16:35:04

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



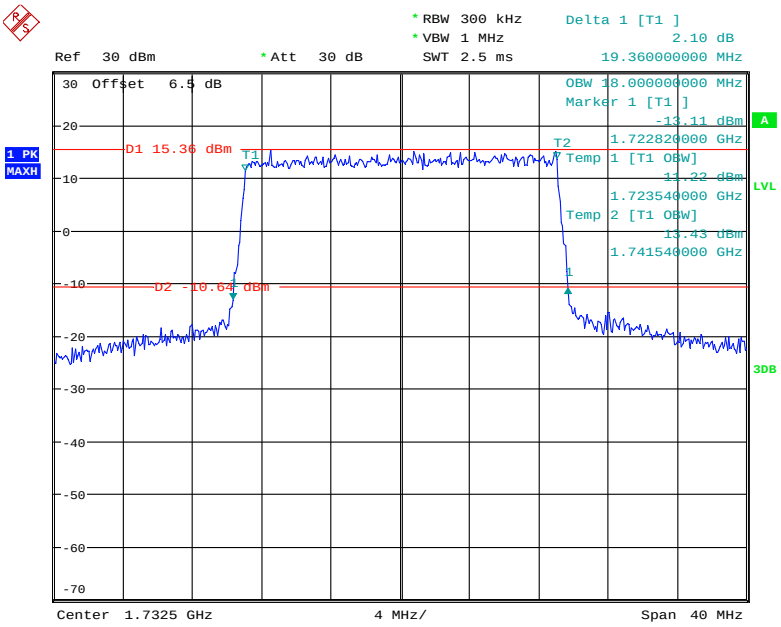
Date: 21.MAY.2020 16:35:31

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



Date: 21.MAY.2020 16:35:57

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

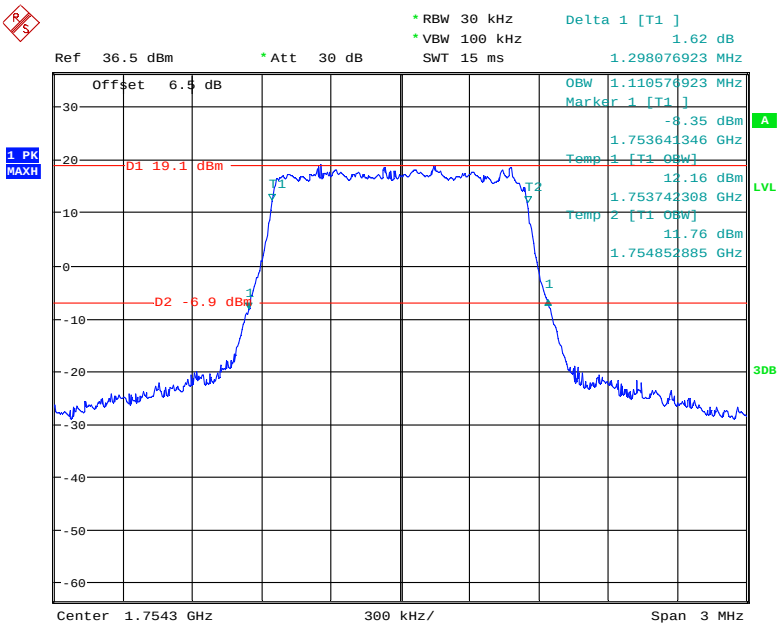


Date: 21.MAY.2020 16:36:21

LTE Band 4: (High Channel)

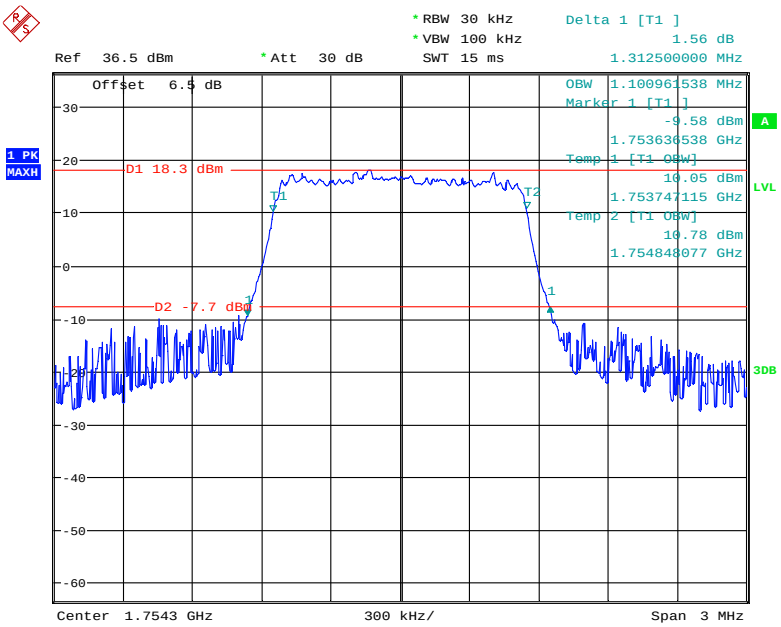
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.111	1.298
	16QAM	1.101	1.313
3.0	QPSK	2.683	2.894
	16QAM	2.692	2.894
5.0	QPSK	4.503	4.952
	16QAM	4.487	4.920
10.0	QPSK	8.974	9.583
	16QAM	8.974	9.583
15.0	QPSK	13.462	14.808
	16QAM	13.558	14.808
20.0	QPSK	17.949	15.359
	16QAM	17.949	15.359

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



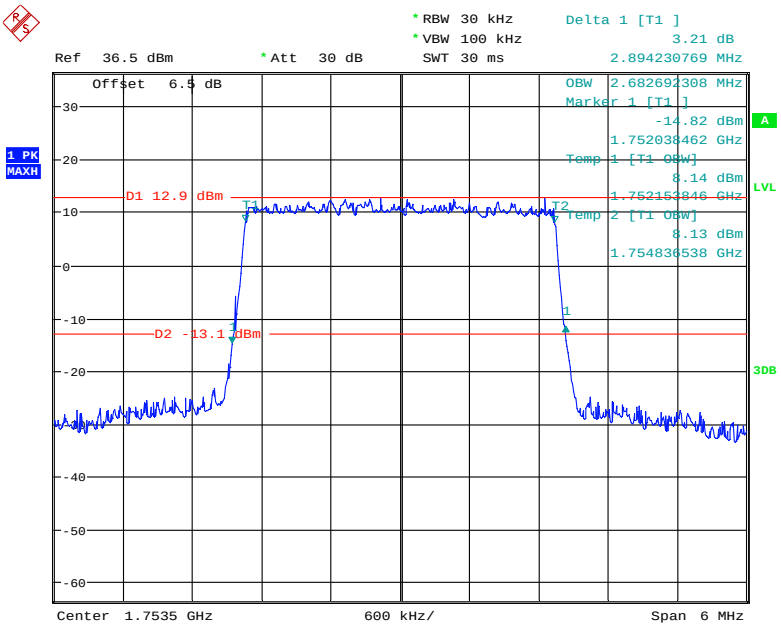
Date: 13.NOV.2020 16:23:21

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



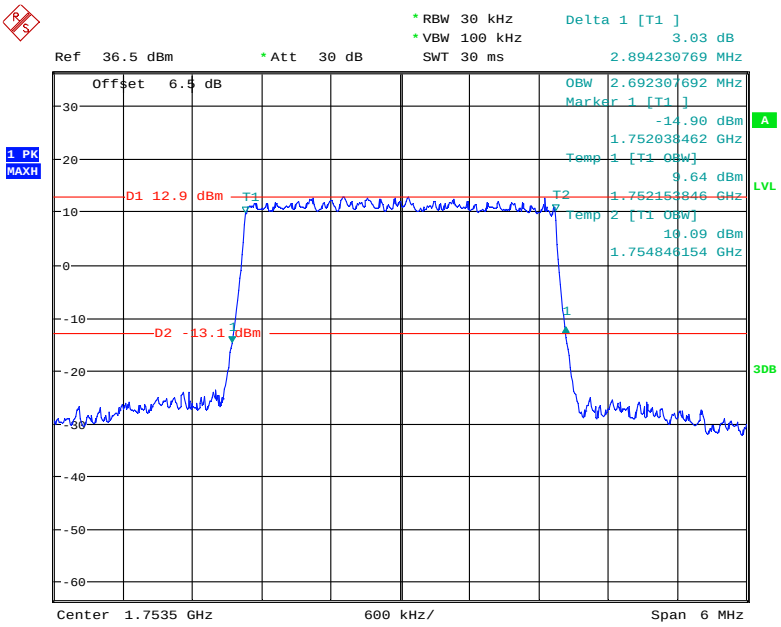
Date: 13.NOV.2020 16:22:35

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



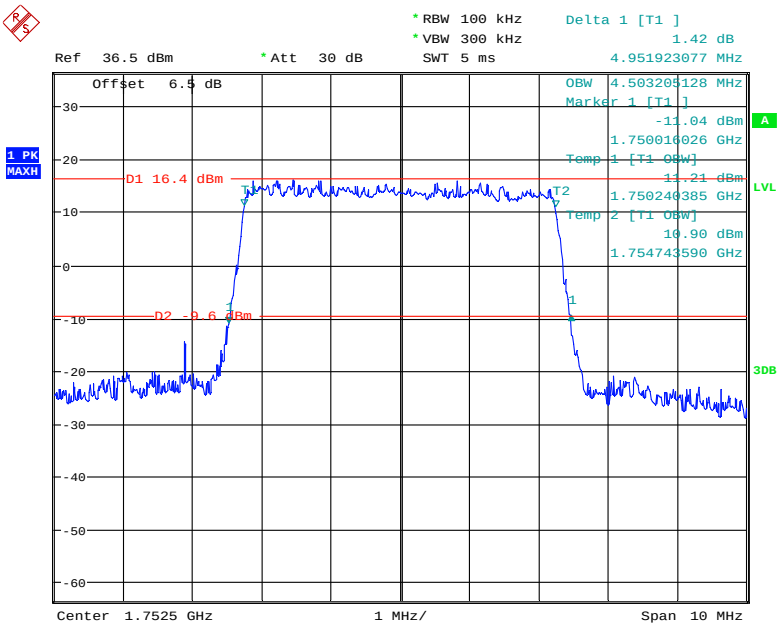
Date: 13.NOV.2020 16:50:28

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



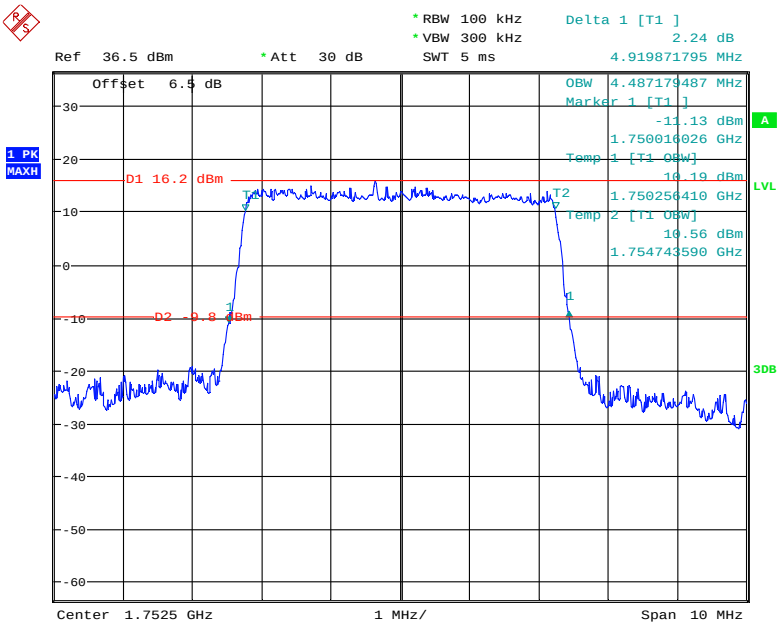
Date: 13.NOV.2020 16:50:11

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



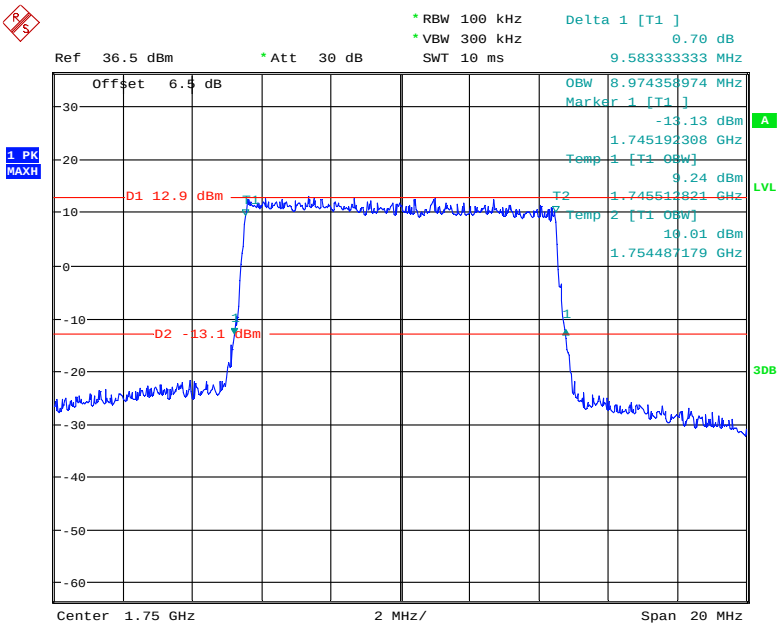
Date: 13.NOV.2020 16:54:59

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



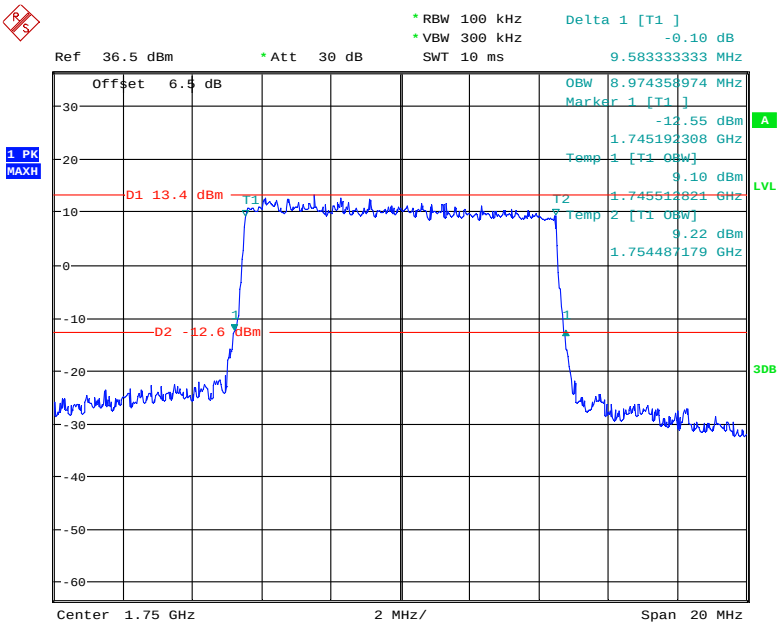
Date: 13.NOV.2020 16:53:48

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



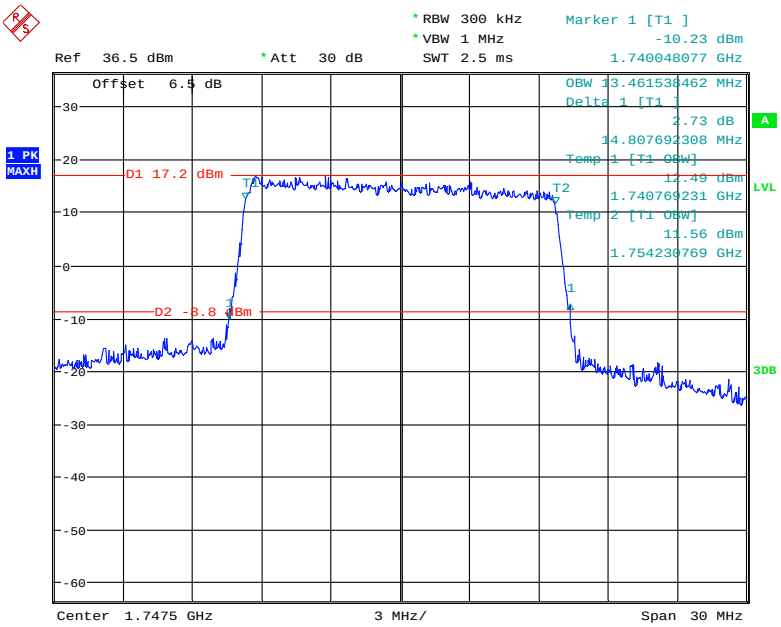
Date: 13.NOV.2020 17:00:01

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



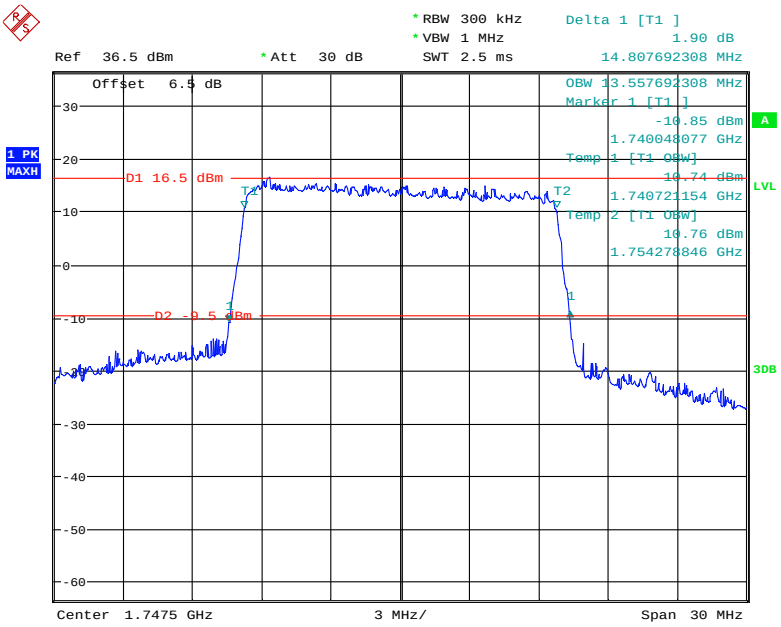
Date: 13.NOV.2020 16:59:32

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



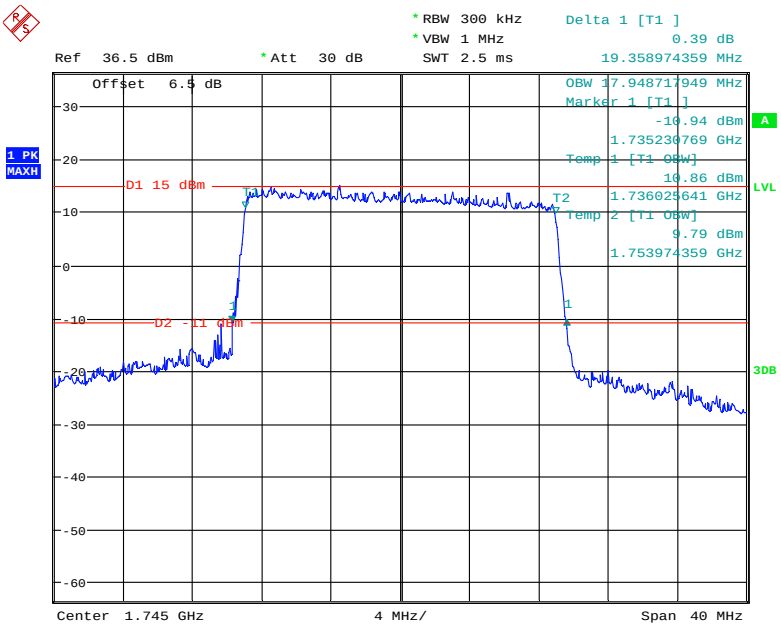
Date: 13.NOV.2020 17:04:58

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



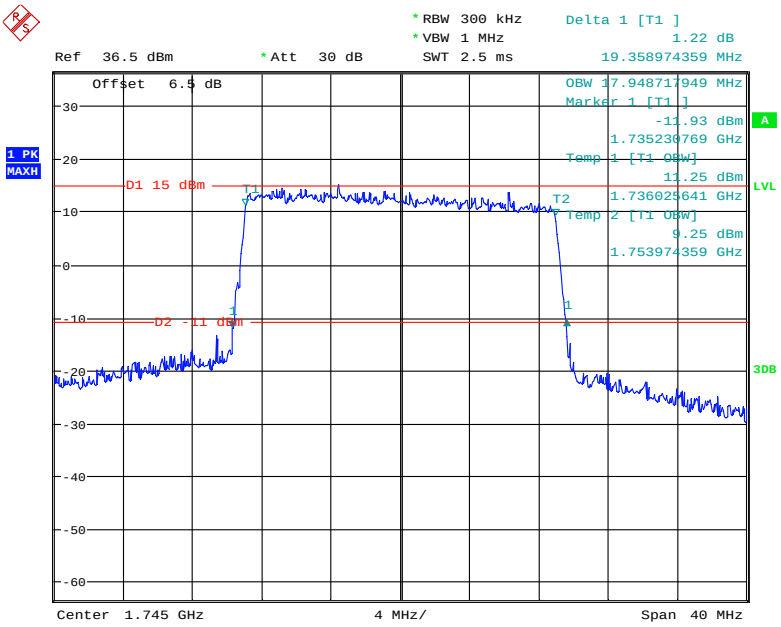
Date: 13.NOV.2020 17:04:28

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



Date: 13.NOV.2020 17:19:46

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

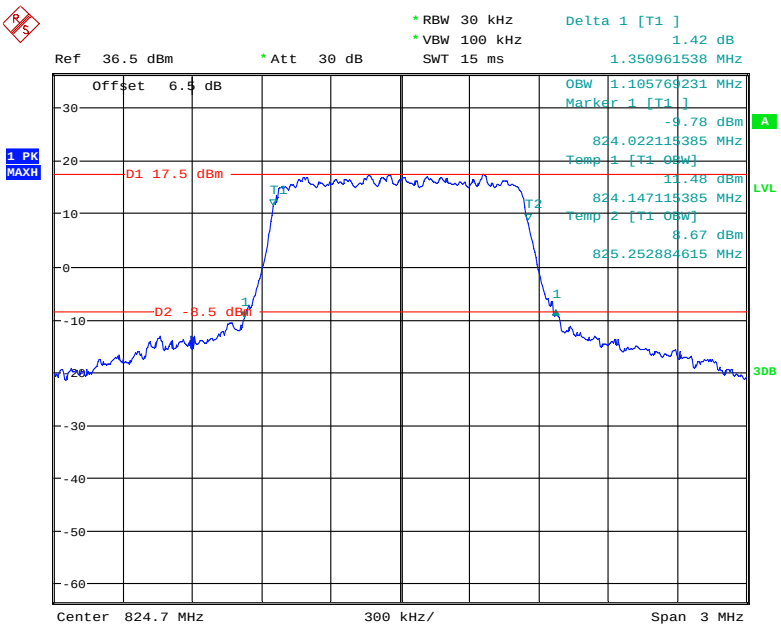


Date: 13.NOV.2020 17:20:20

LTE Band 5: (Low Channel)

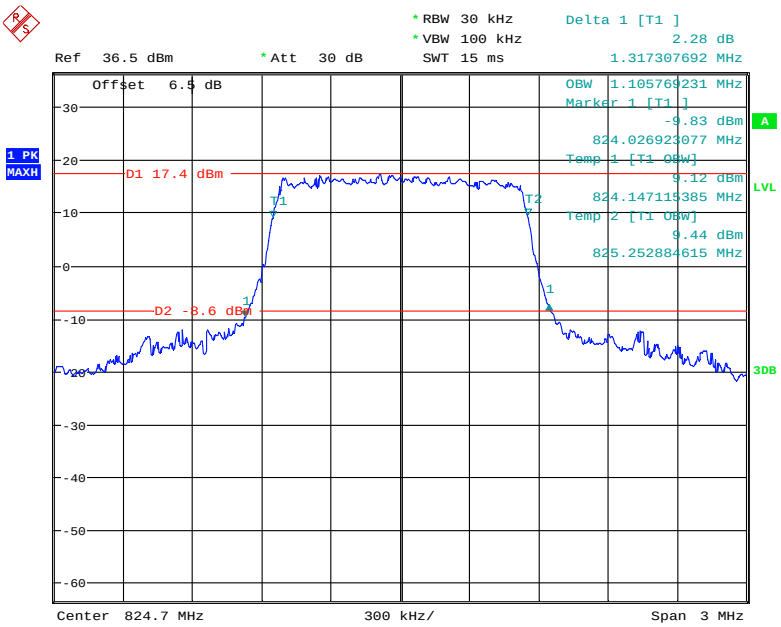
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.106	1.351
	16QAM	1.106	1.317
3.0	QPSK	2.683	2.885
	16QAM	2.683	2.894
5.0	QPSK	4.503	4.952
	16QAM	4.503	4.952
10.0	QPSK	8.974	9.647
	16QAM	8.974	9.647

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



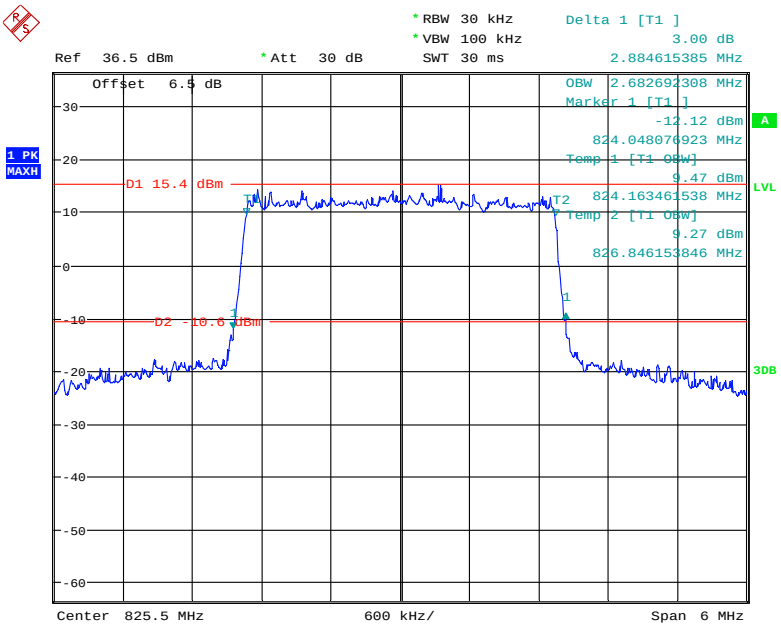
Date: 13.NOV.2020 17:22:02

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



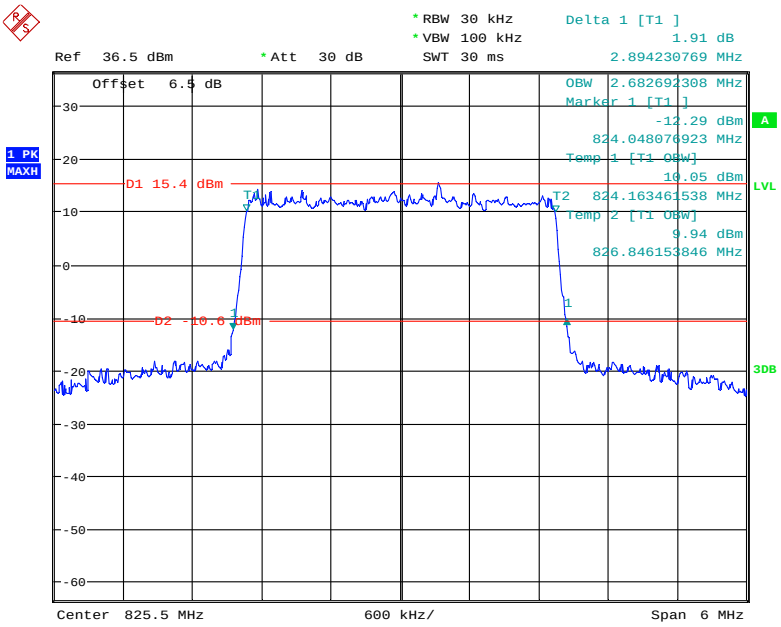
Date: 13.NOV.2020 17:17:47

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



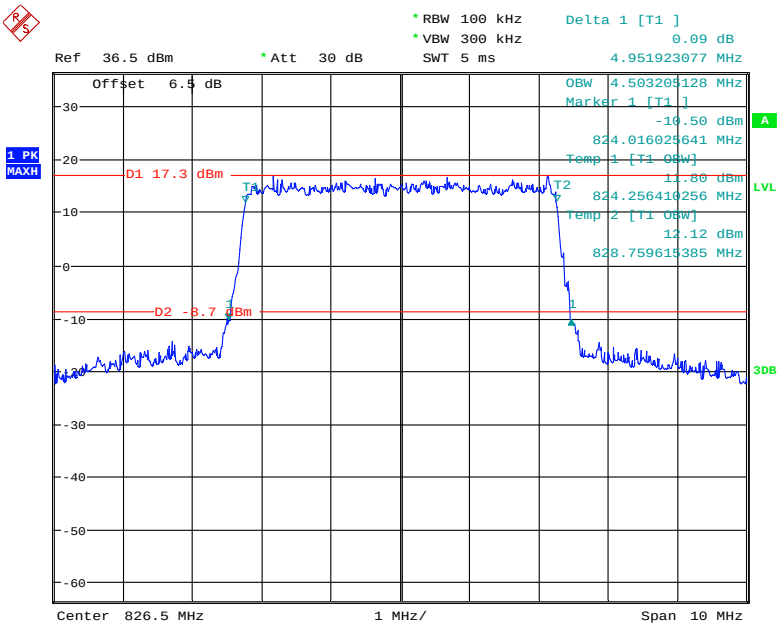
Date: 13.NOV.2020 17:25:50

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



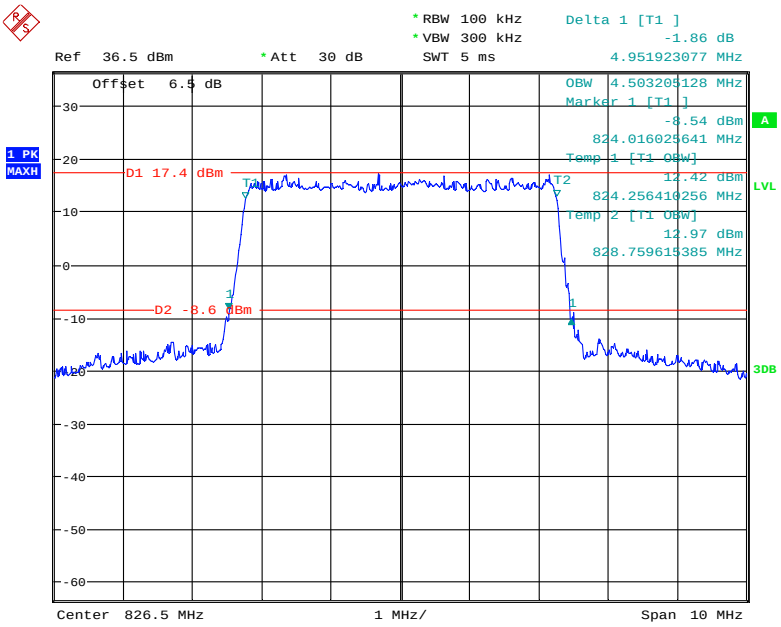
Date: 13.NOV.2020 17:25:13

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



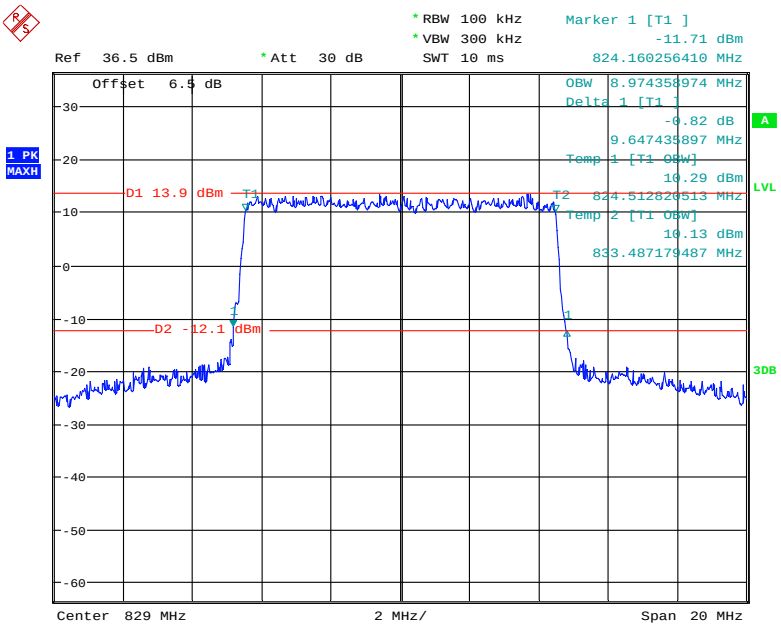
Date: 13.NOV.2020 17:29:38

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



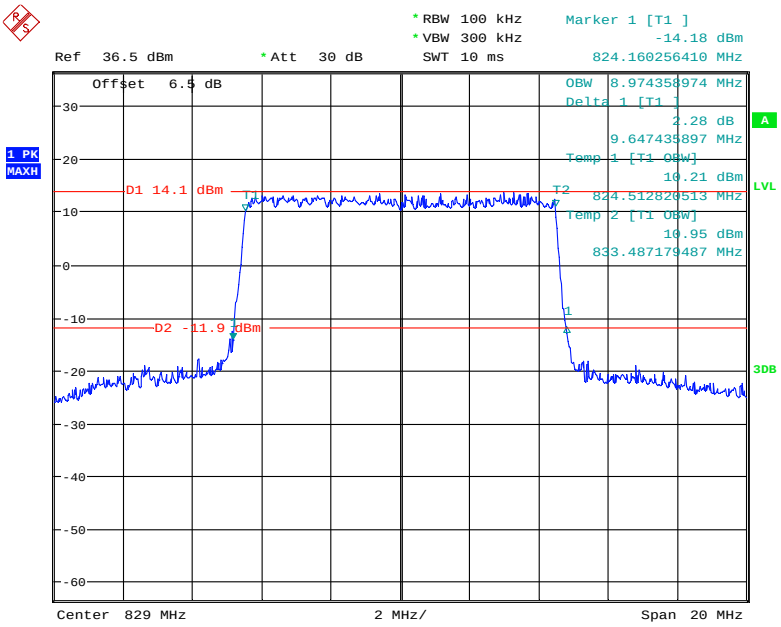
Date: 13.NOV.2020 17:29:09

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



Date: 13.NOV.2020 17:32:49

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

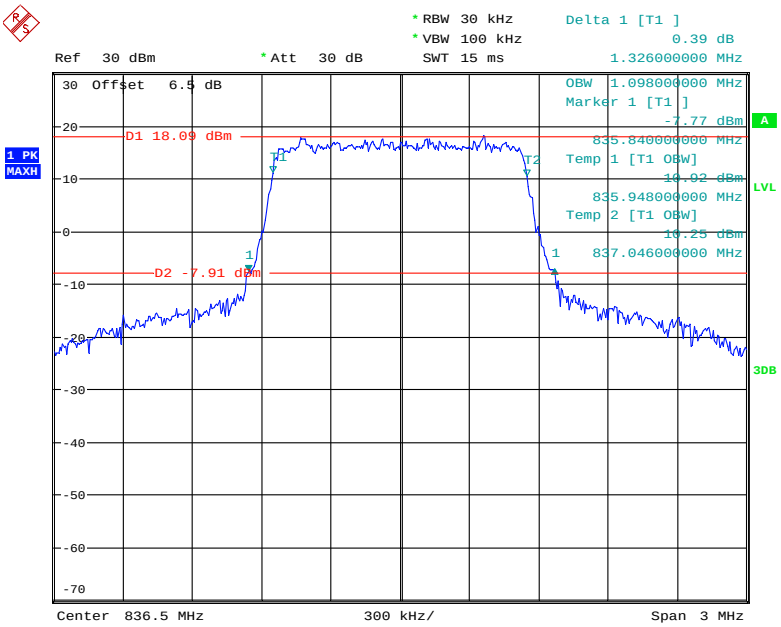


Date: 13.NOV.2020 17:32:20

LTE Band 5: (Middle Channel)

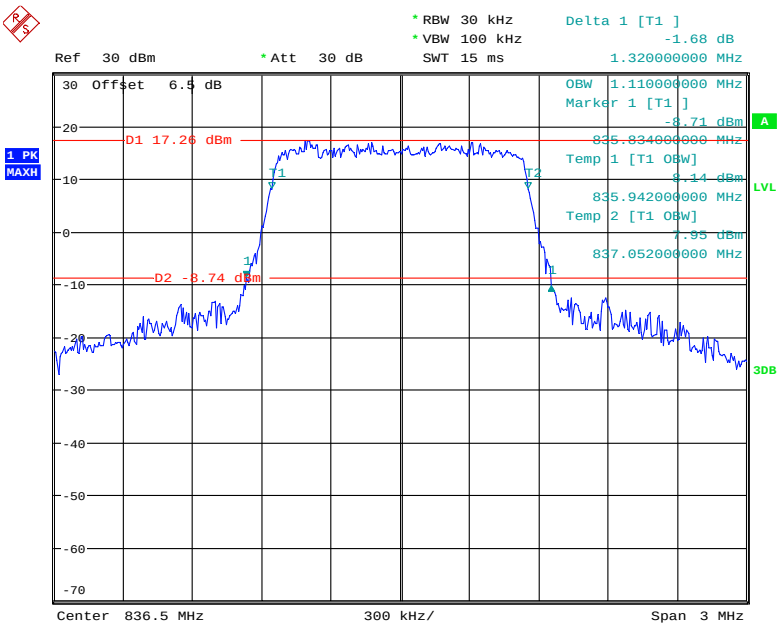
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.098	1.326
	16QAM	1.110	1.320
3.0	QPSK	2.688	2.868
	16QAM	2.688	2.892
5.0	QPSK	4.520	4.940
	16QAM	4.500	4.900
10.0	QPSK	9.000	9.640
	16QAM	8.960	9.560

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



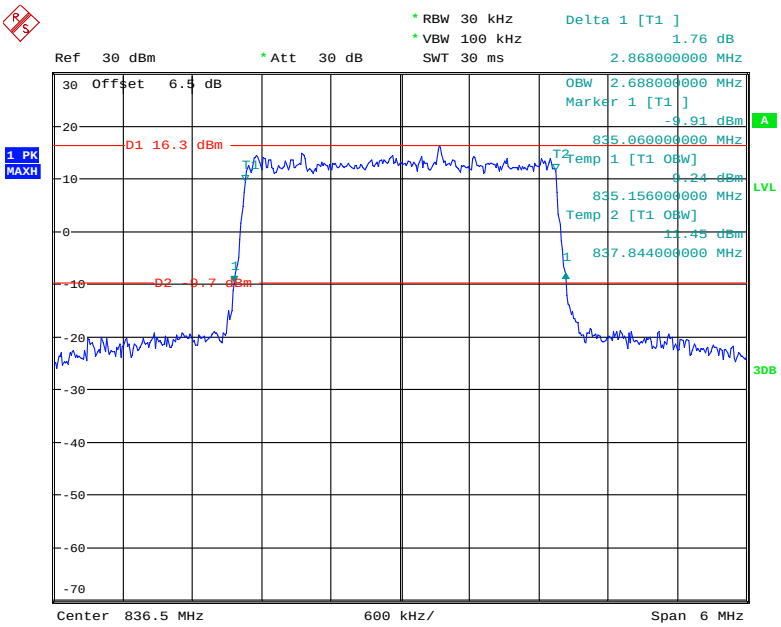
Date: 21.MAY.2020 16:36:45

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



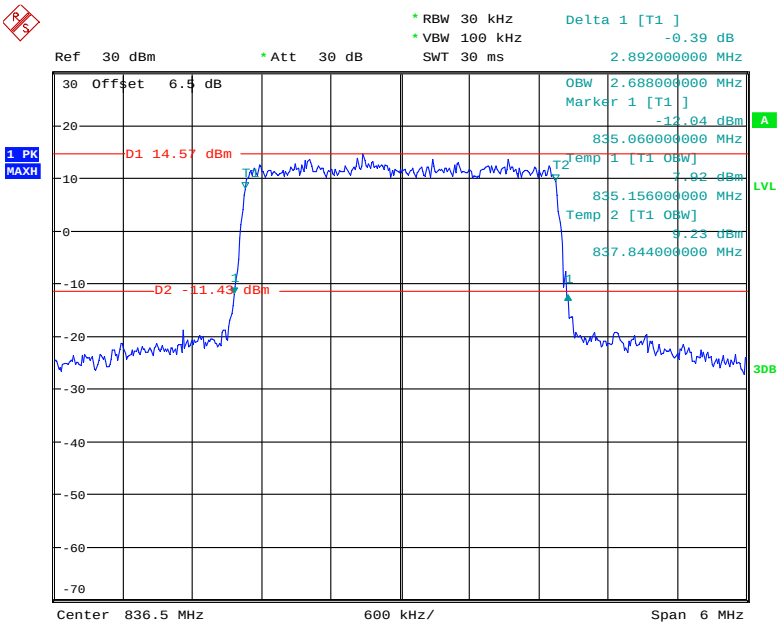
Date: 21.MAY.2020 16:37:05

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



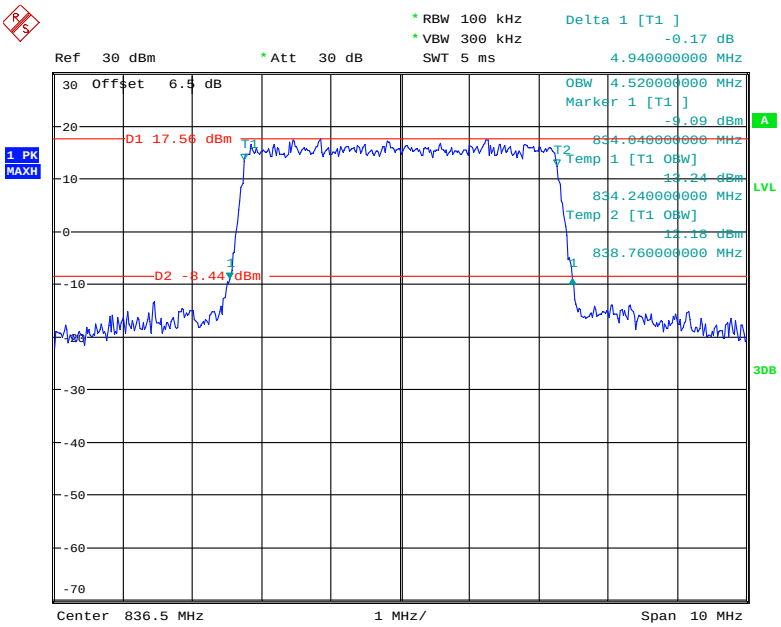
Date: 21.MAY.2020 16:37:28

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



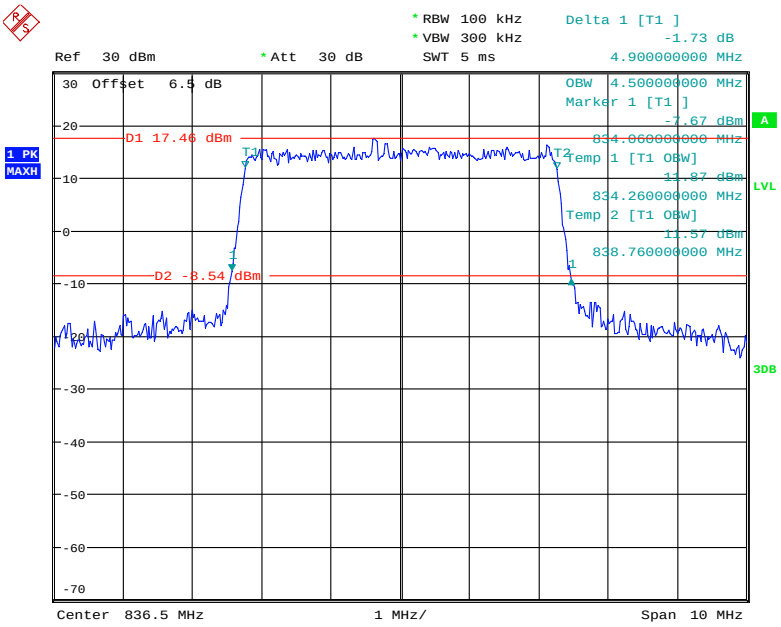
Date: 21.MAY.2020 16:37:49

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



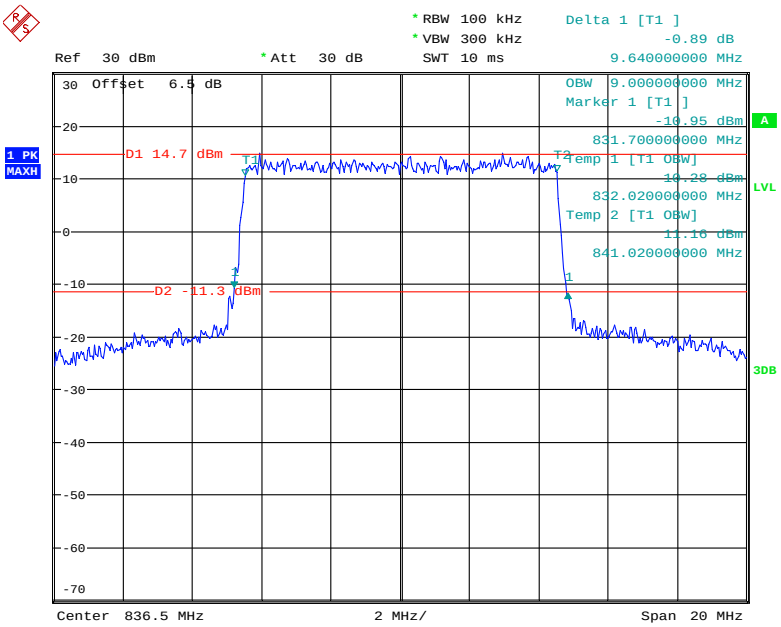
Date: 21.MAY.2020 16:38:21

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



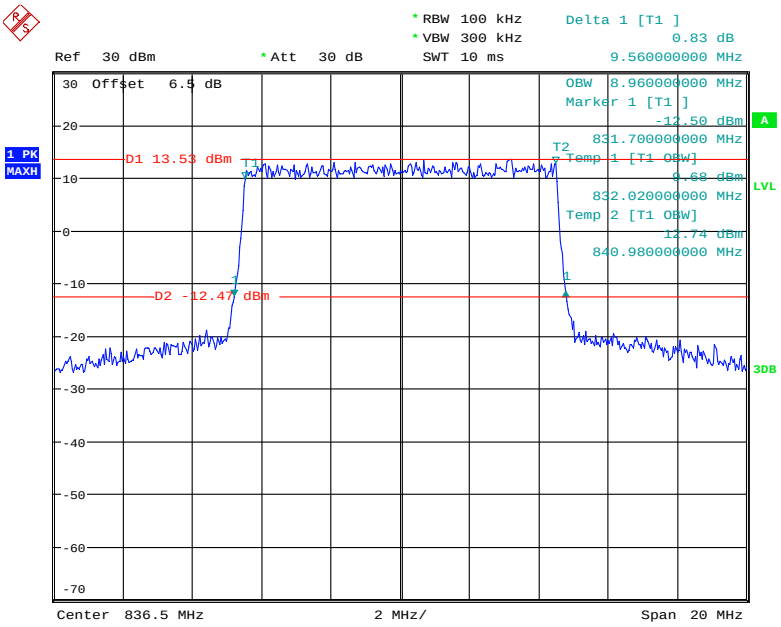
Date: 21.MAY.2020 16:38:48

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



Date: 21.MAY.2020 16:39:12

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

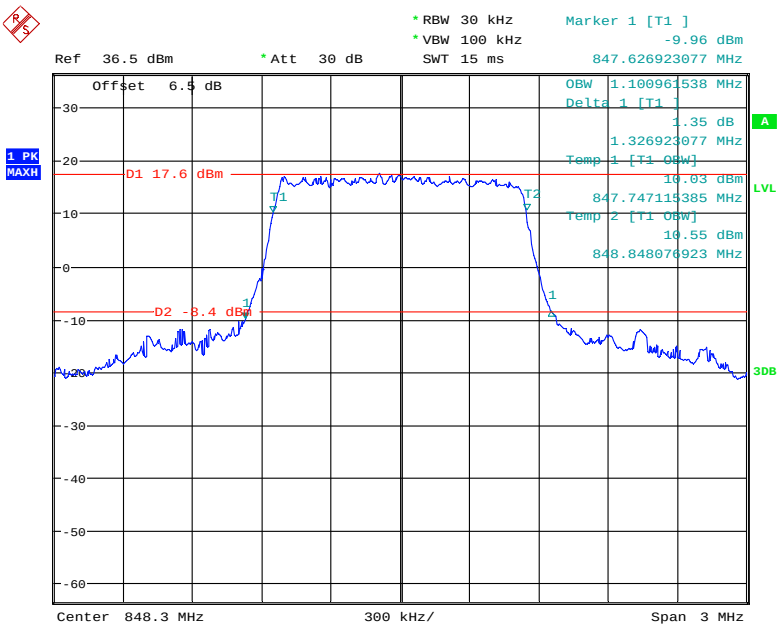


Date: 21.MAY.2020 16:39:34

LTE Band 5: (High Channel)

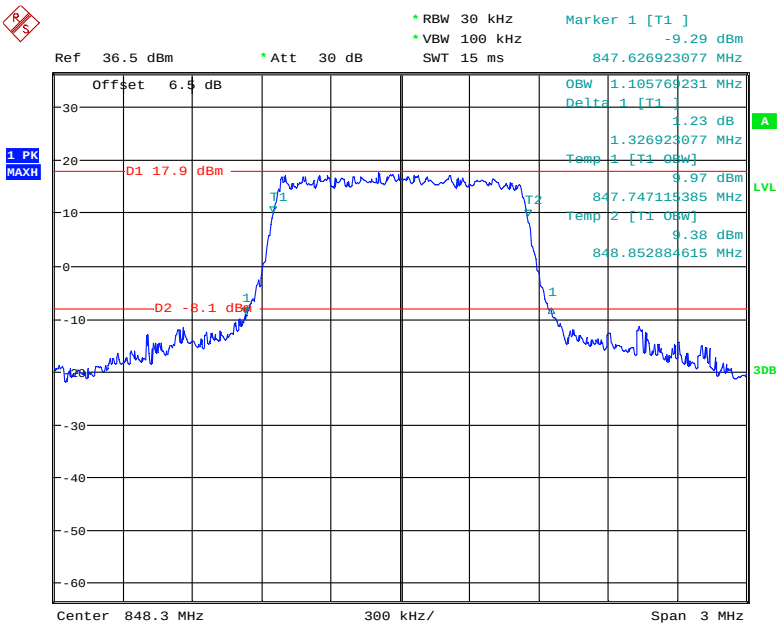
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.101	1.327
	16QAM	1.106	1.327
3.0	QPSK	2.692	2.875
	16QAM	2.692	2.885
5.0	QPSK	4.519	5.000
	16QAM	4.519	4.984
10.0	QPSK	8.974	9.615
	16QAM	8.974	9.519

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



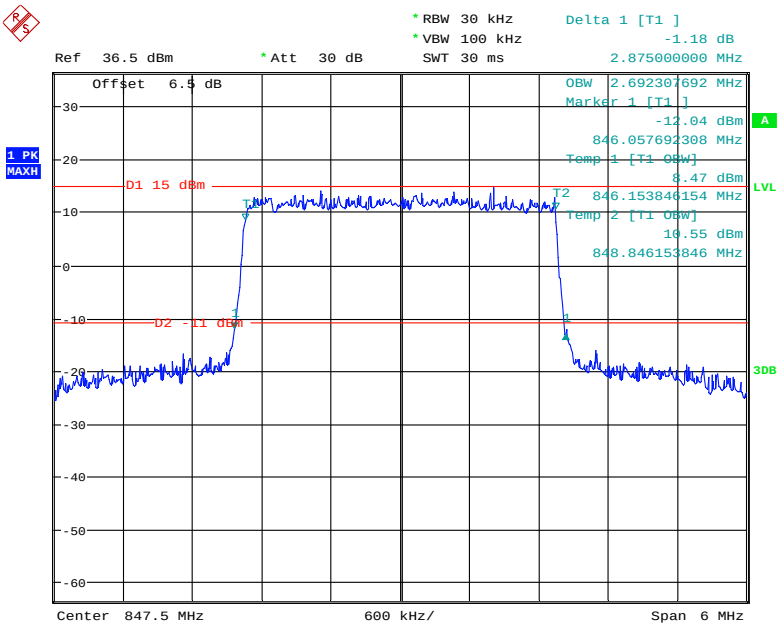
Date: 13.NOV.2020 17:23:08

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



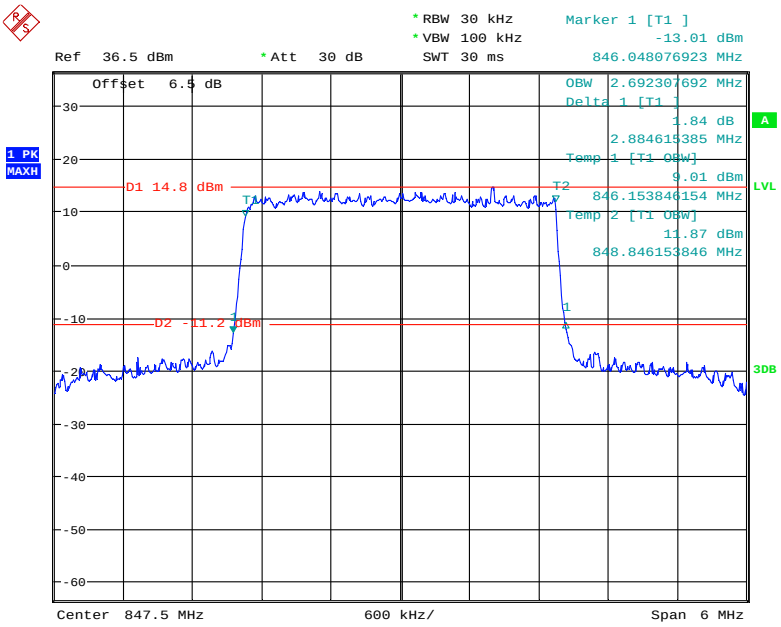
Date: 13.NOV.2020 17:23:37

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



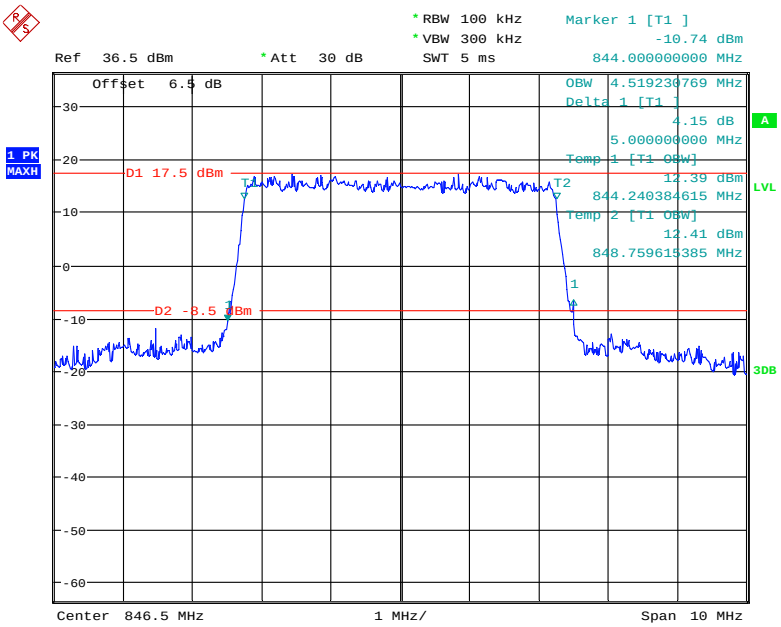
Date: 13.NOV.2020 17:26:43

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



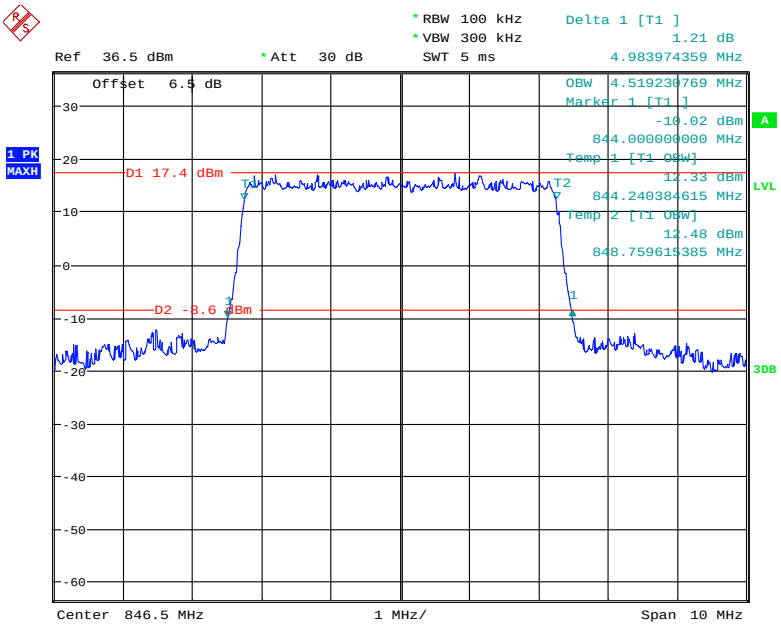
Date: 13.NOV.2020 17:27:26

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



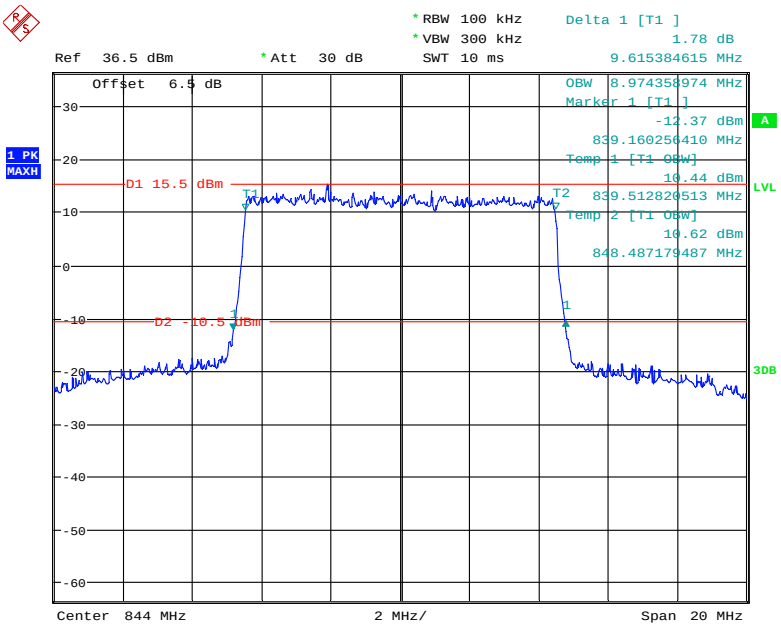
Date: 13.NOV.2020 17:30:32

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



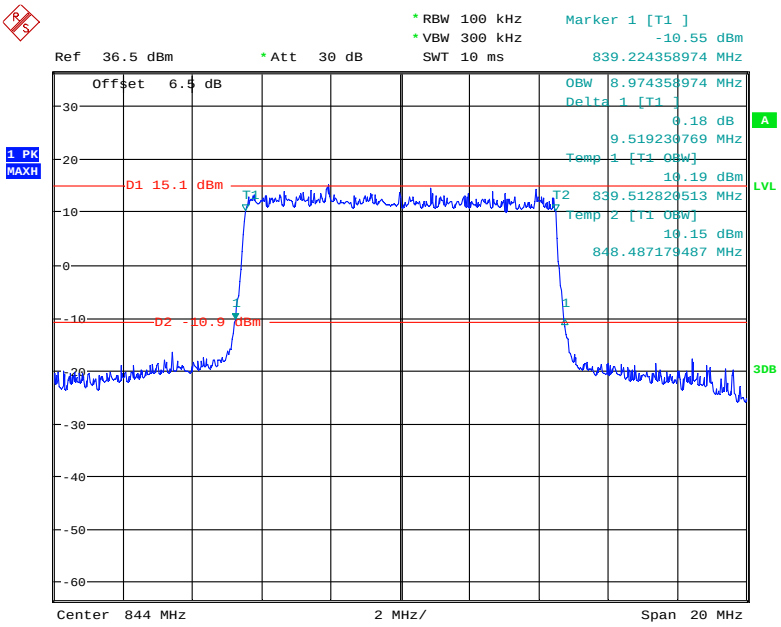
Date: 13.NOV.2020 17:31:10

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



Date: 13.NOV.2020 17:33:58

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

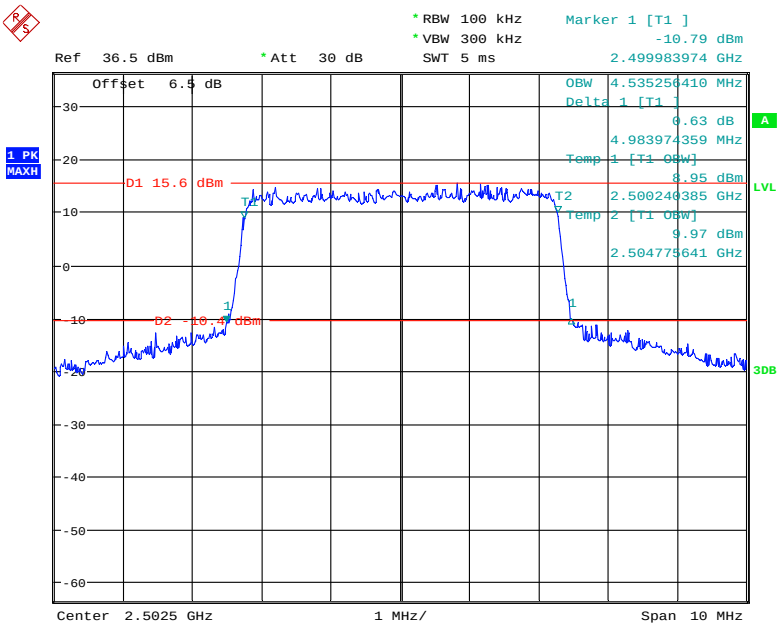


Date: 13.NOV.2020 17:34:30

LTE Band 7: (Low Channel)

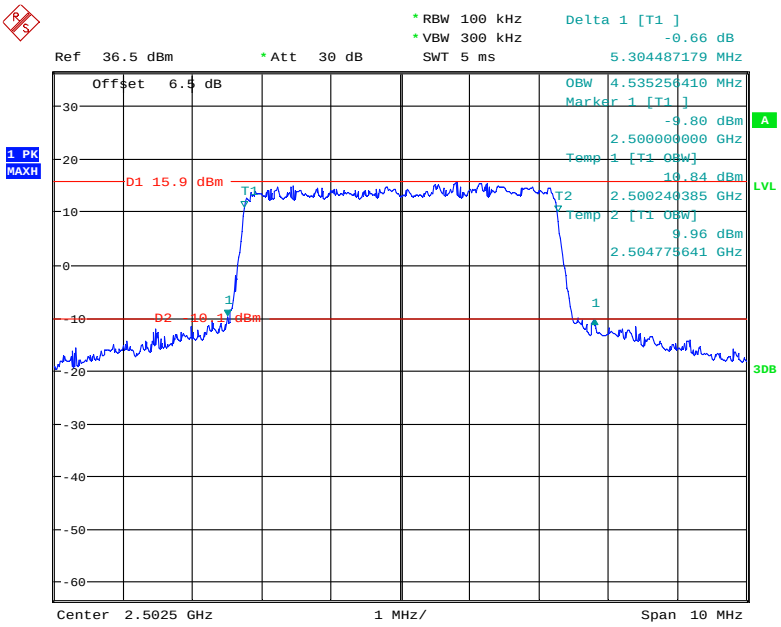
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.535	4.984
	16QAM	4.535	5.304
10.0	QPSK	8.974	9.712
	16QAM	8.974	9.712
15.0	QPSK	13.413	14.760
	16QAM	13.510	14.808
20.0	QPSK	18.885	19.359
	16QAM	17.949	19.423

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



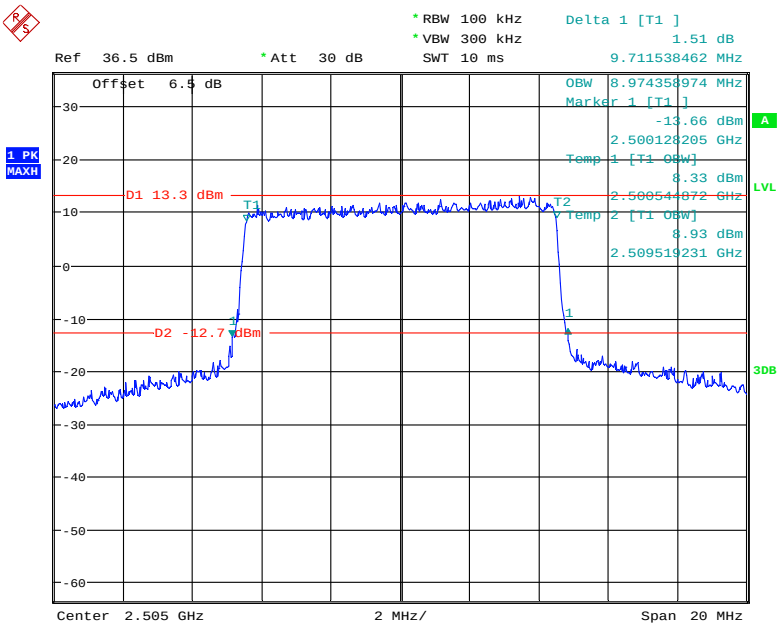
Date: 13.NOV.2020 17:40:50

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



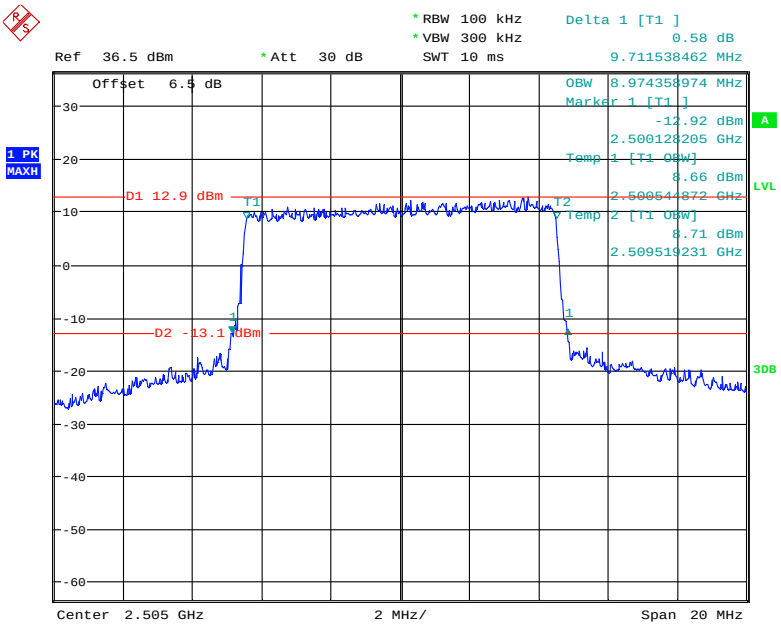
Date: 13.NOV.2020 17:40:16

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



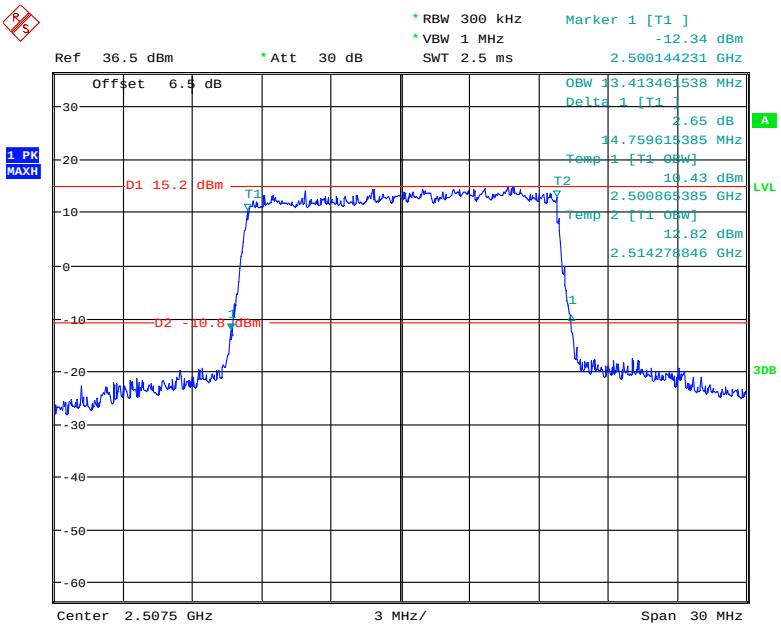
Date: 13.NOV.2020 17:42:16

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



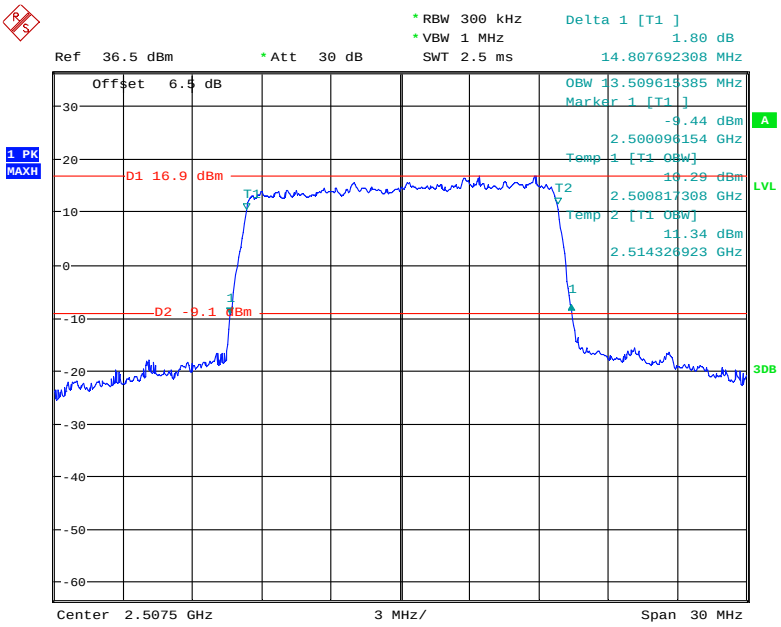
Date: 13.NOV.2020 17:42:46

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



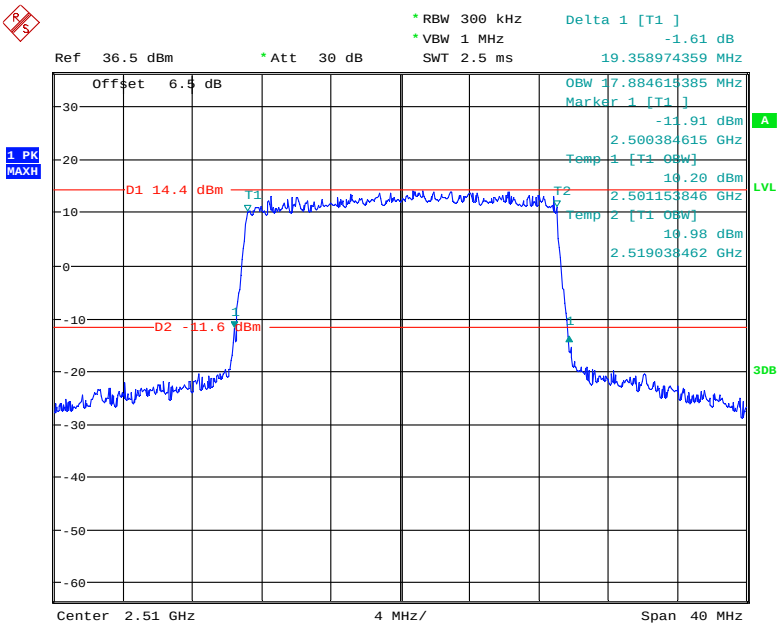
Date: 17.NOV.2020 09:13:12

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



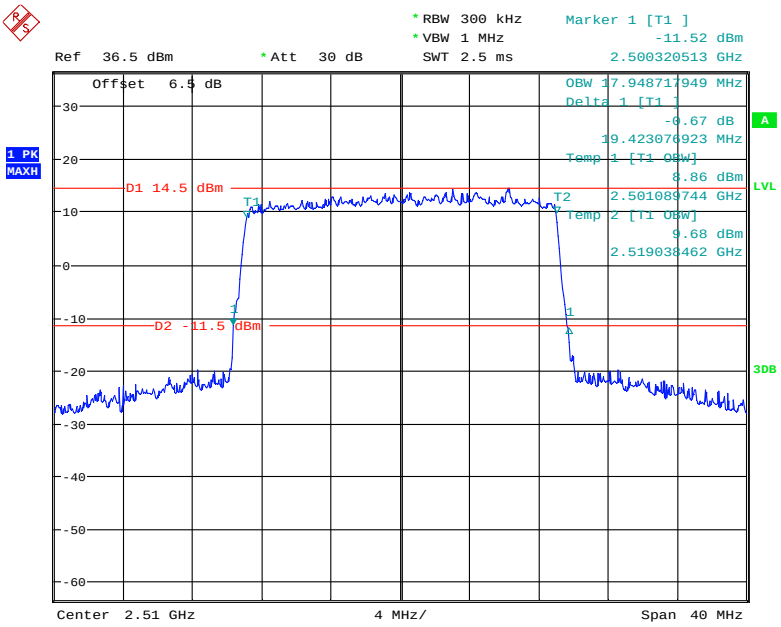
Date: 17.NOV.2020 09:11:57

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



Date: 13.NOV.2020 17:52:52

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

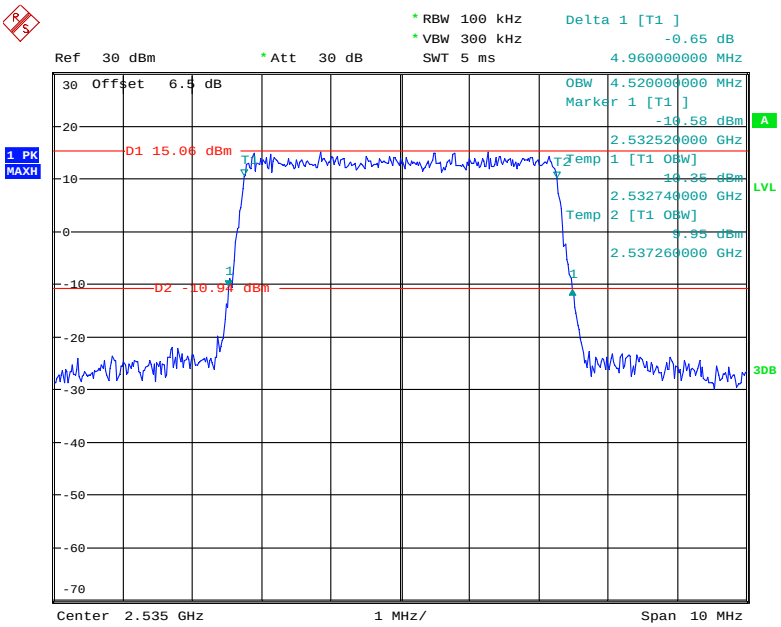


Date: 13.NOV.2020 17:53:56

LTE Band 7: (Middle Channel)

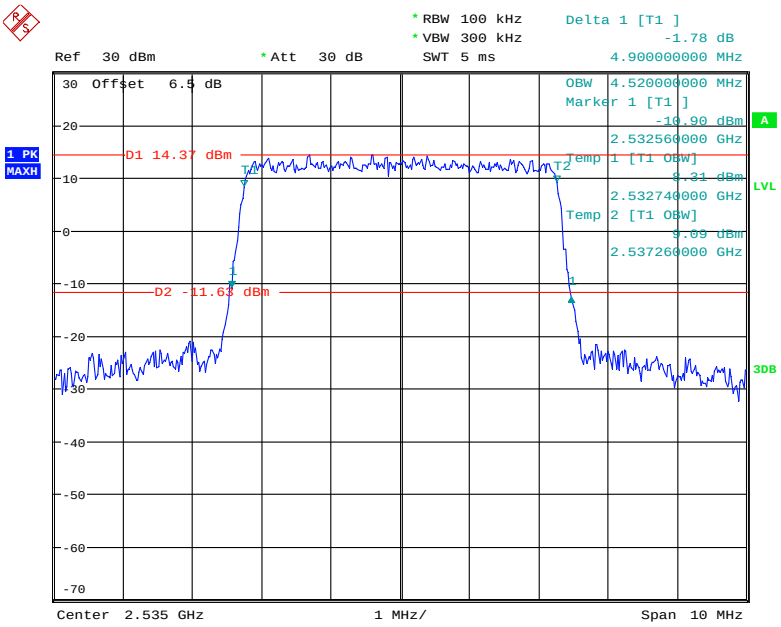
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.520	4.960
	16QAM	4.520	4.900
10.0	QPSK	8.960	9.640
	16QAM	8.960	9.600
15.0	QPSK	13.500	14.820
	16QAM	13.560	14.700
20.0	QPSK	18.000	19.360
	16QAM	18.000	19.440

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



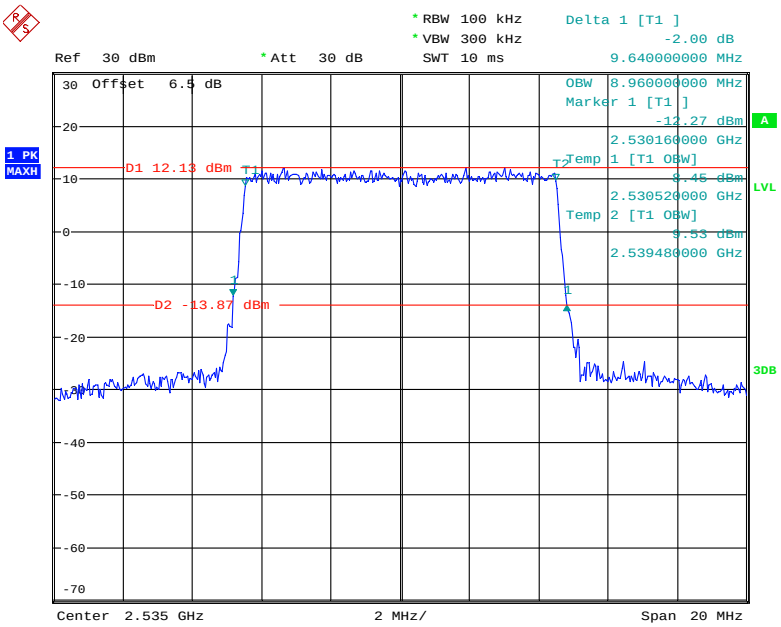
Date: 21.MAY.2020 16:39:57

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



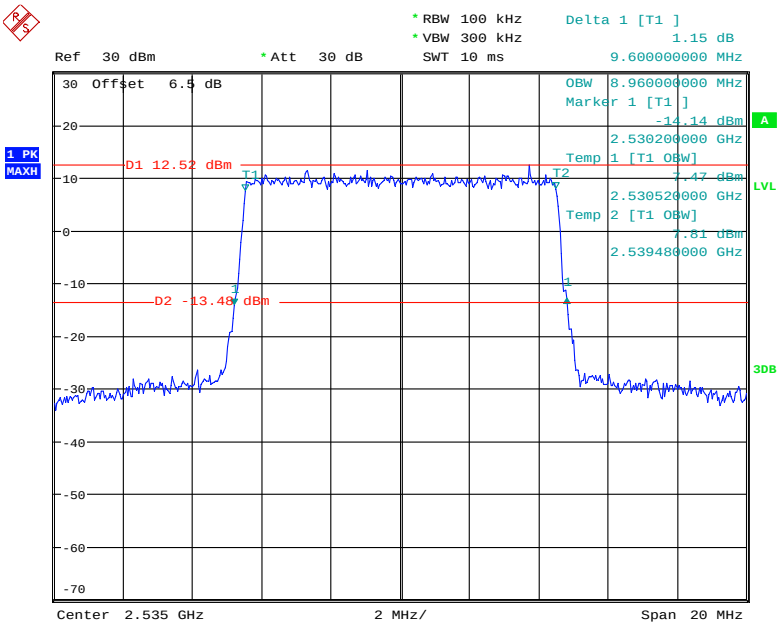
Date: 21.MAY.2020 16:40:21

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



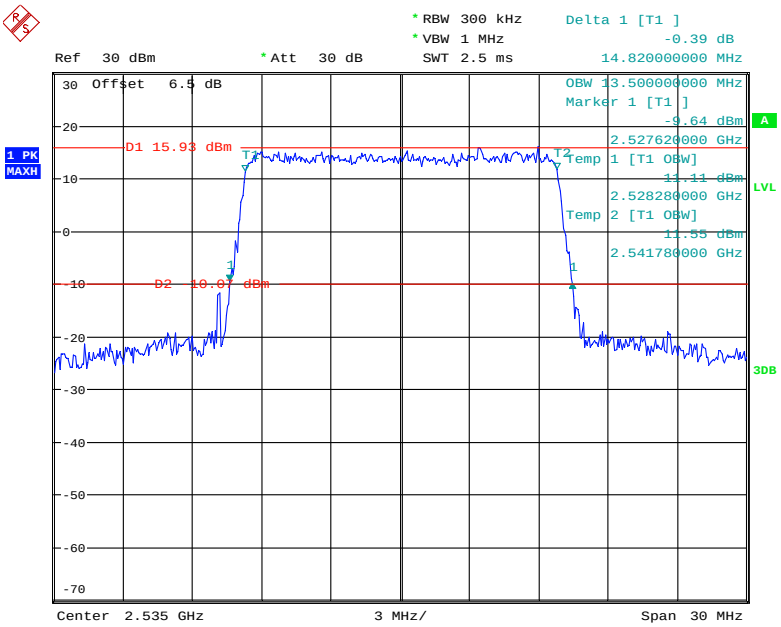
Date: 21.MAY.2020 16:40:45

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



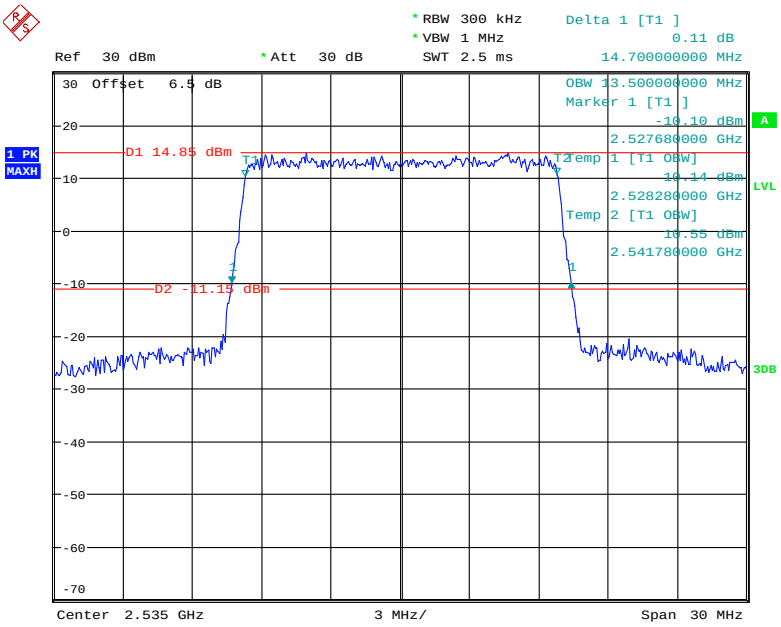
Date: 21.MAY.2020 16:41:07

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



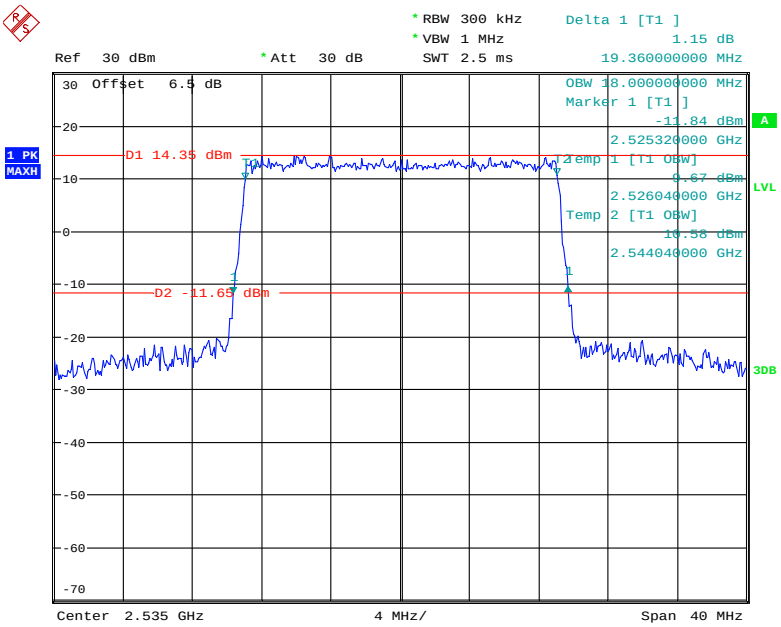
Date: 21.MAY.2020 16:41:33

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



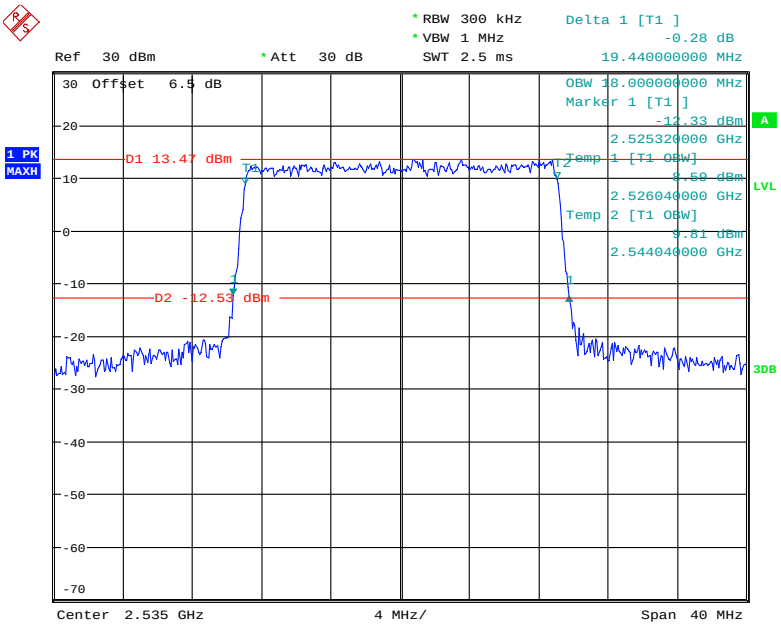
Date: 21.MAY.2020 16:41:57

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



Date: 21.MAY.2020 16:42:23

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

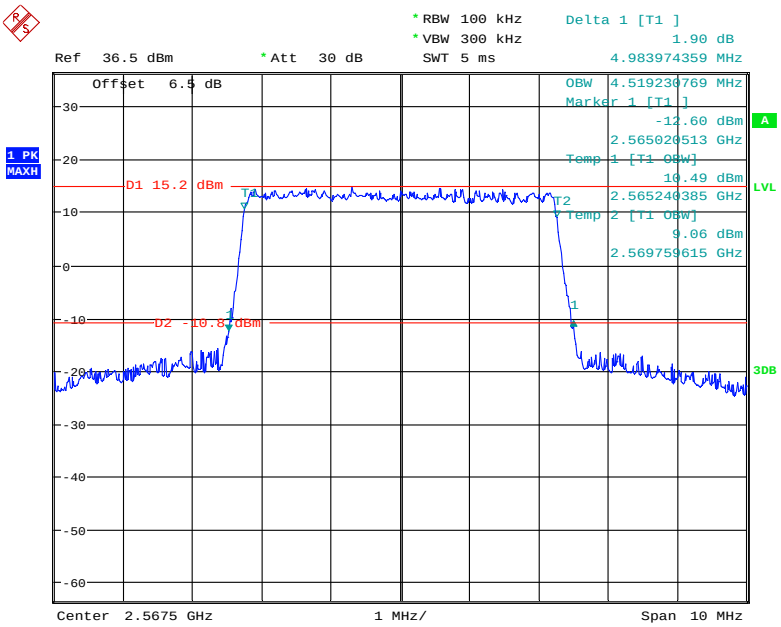


Date: 21.MAY.2020 16:42:50

LTE Band 7: (High Channel)

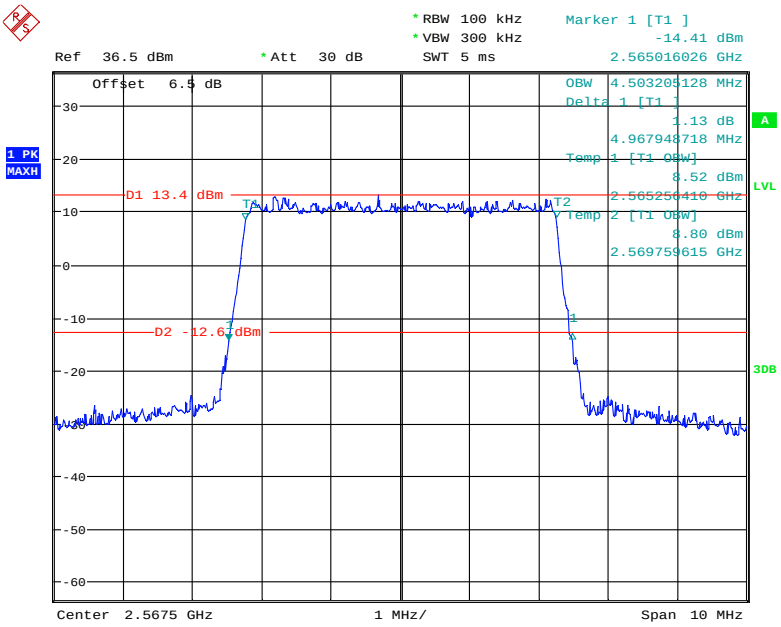
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.519	4.984
	16QAM	4.503	4.968
10.0	QPSK	8.974	9.583
	16QAM	8.974	9.583
15.0	QPSK	13.558	14.712
	16QAM	13.558	14.760
20.0	QPSK	17.949	19.295
	16QAM	17.949	19.295

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



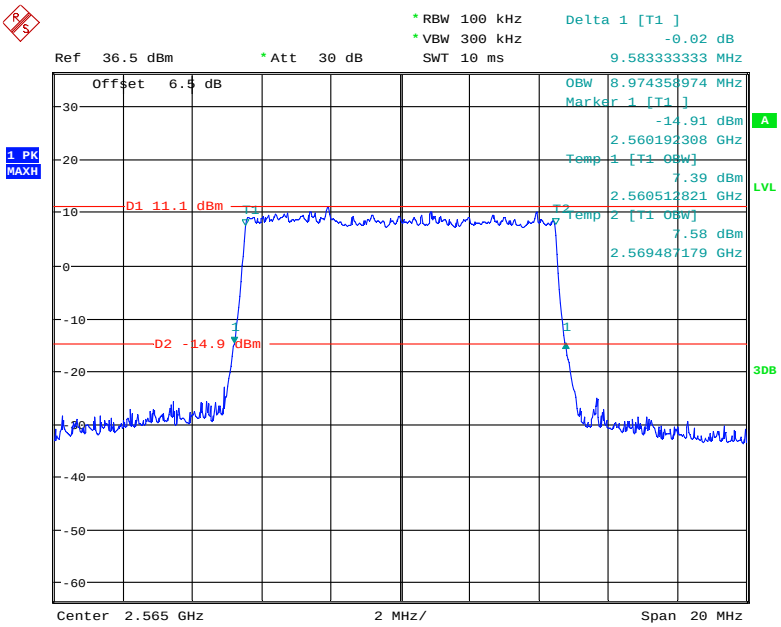
Date: 17.NOV.2020 16:30:17

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



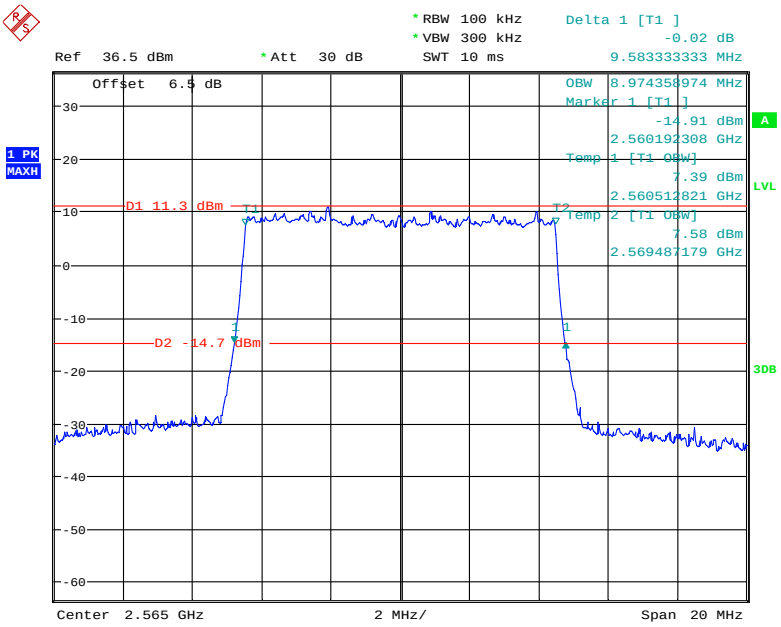
Date: 13.NOV.2020 17:37:47

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



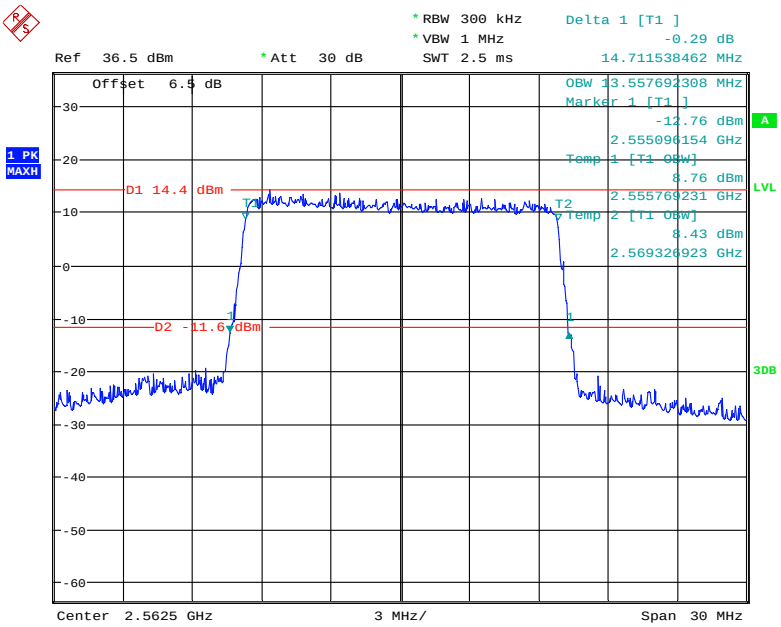
Date: 13.NOV.2020 17:47:44

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



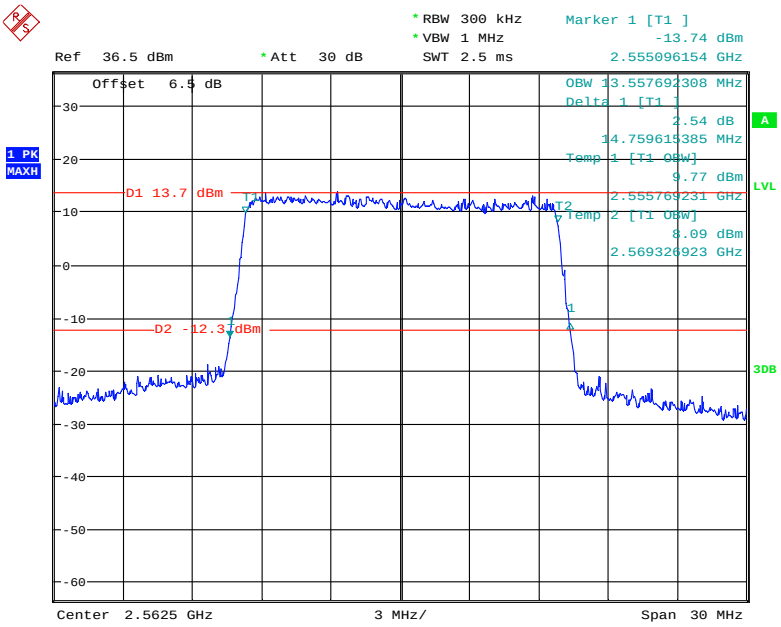
Date: 13.NOV.2020 17:47:05

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



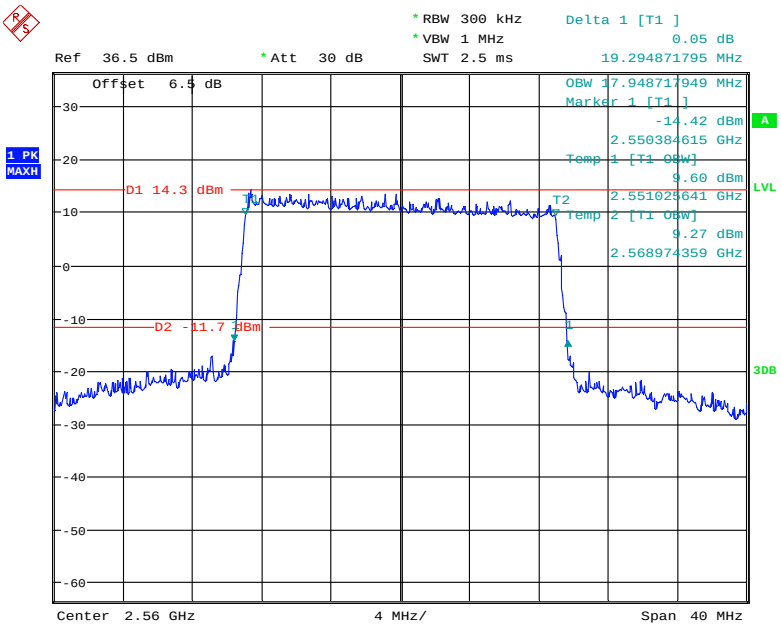
Date: 13.NOV.2020 17:51:10

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



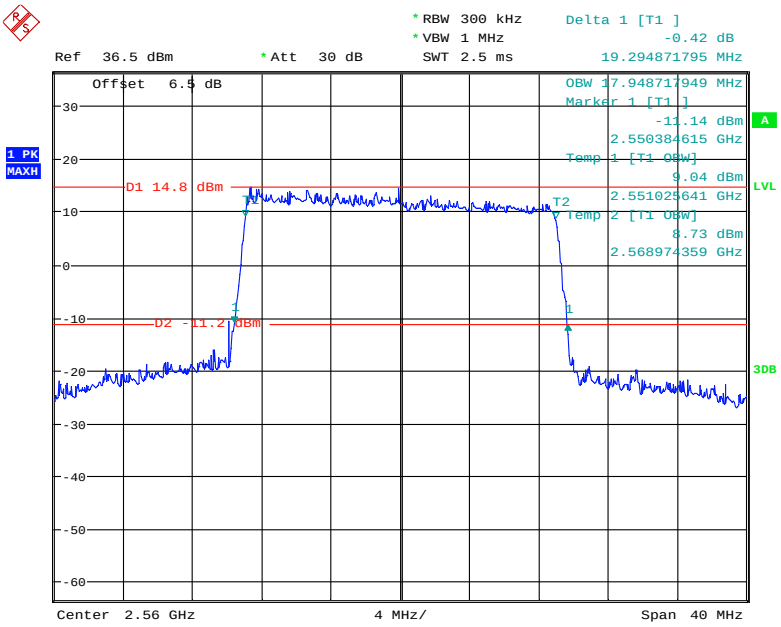
Date: 13.NOV.2020 17:50:48

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



Date: 13.NOV.2020 17:55:57

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

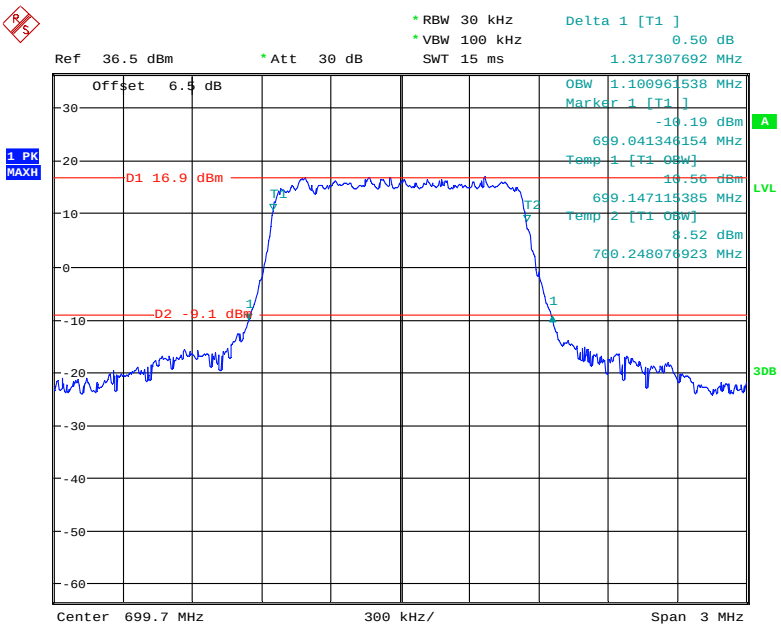


Date: 13.NOV.2020 17:54:43

LTE Band 12: (Low channel)

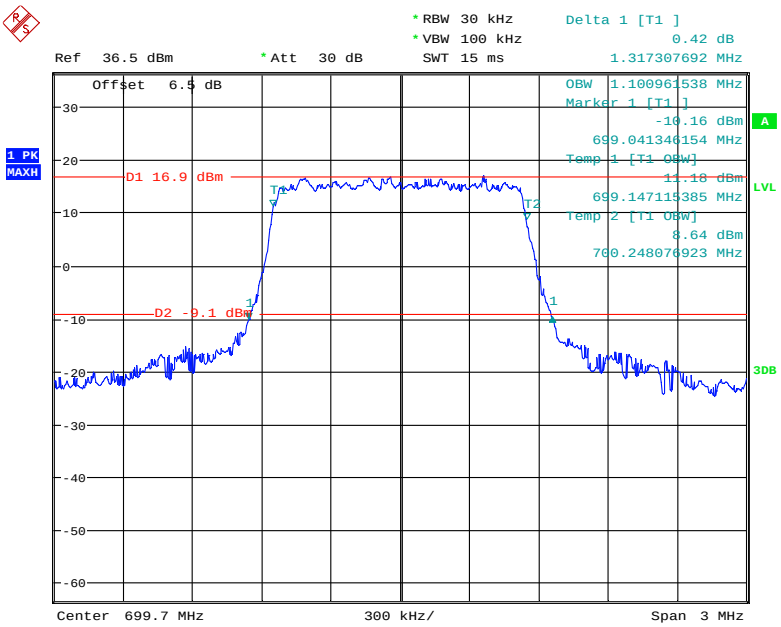
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.101	1.317
	16QAM	1.101	1.317
3.0	QPSK	2.683	2.865
	16QAM	2.683	2.865
5.0	QPSK	4.535	5.224
	16QAM	4.535	5.224
10.0	QPSK	8.974	9.808
	16QAM	8.974	9.712

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



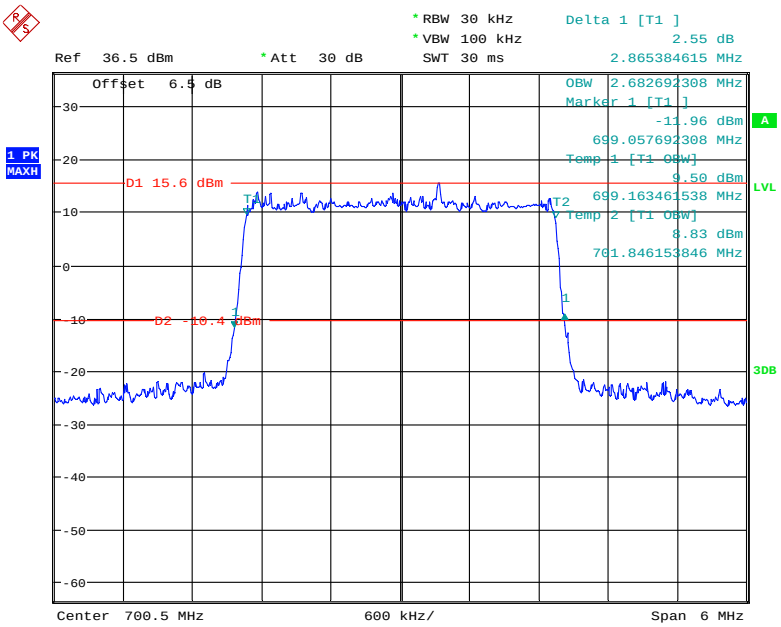
Date: 13.NOV.2020 18:00:17

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



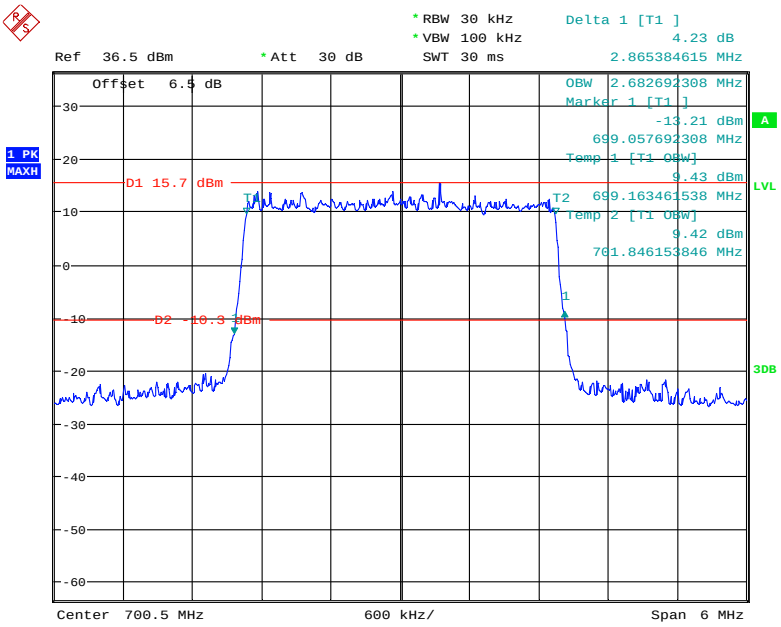
Date: 13.NOV.2020 18:00:56

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



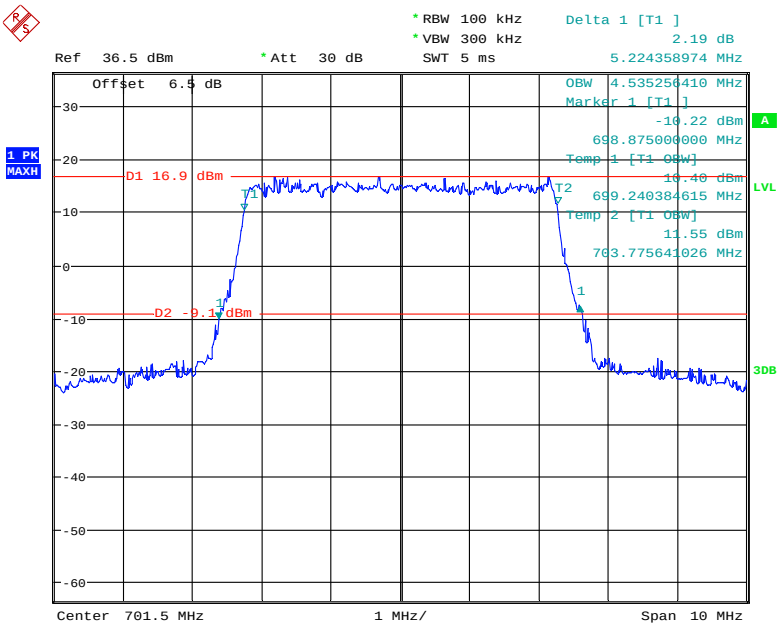
Date: 13.NOV.2020 18:04:11

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



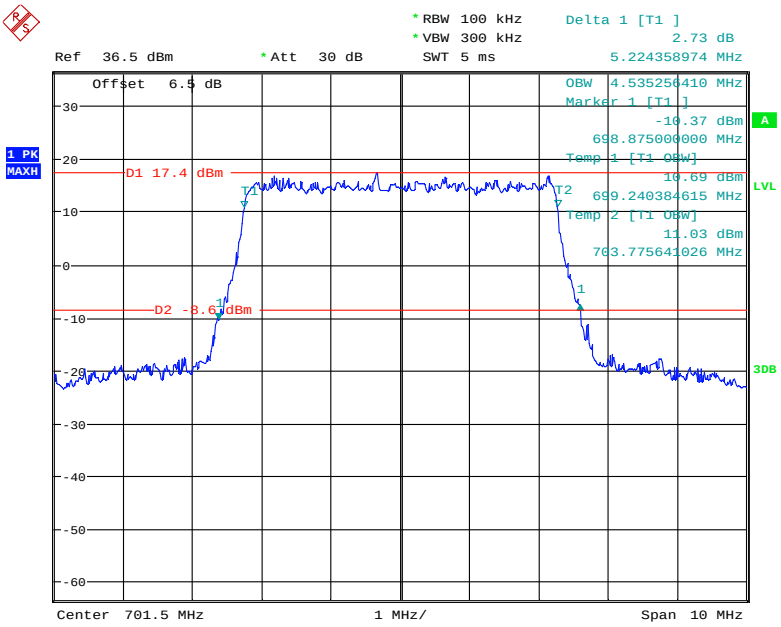
Date: 13.NOV.2020 18:04:43

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



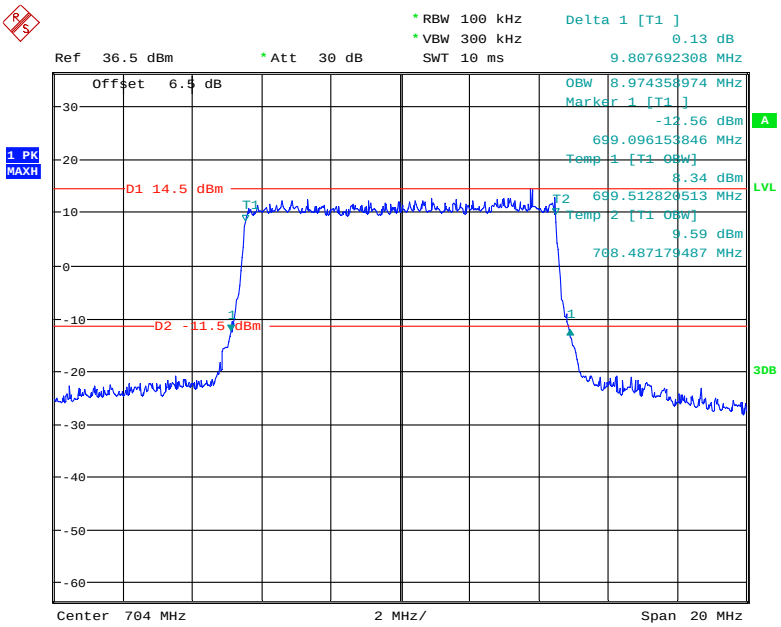
Date: 13.NOV.2020 18:07:32

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



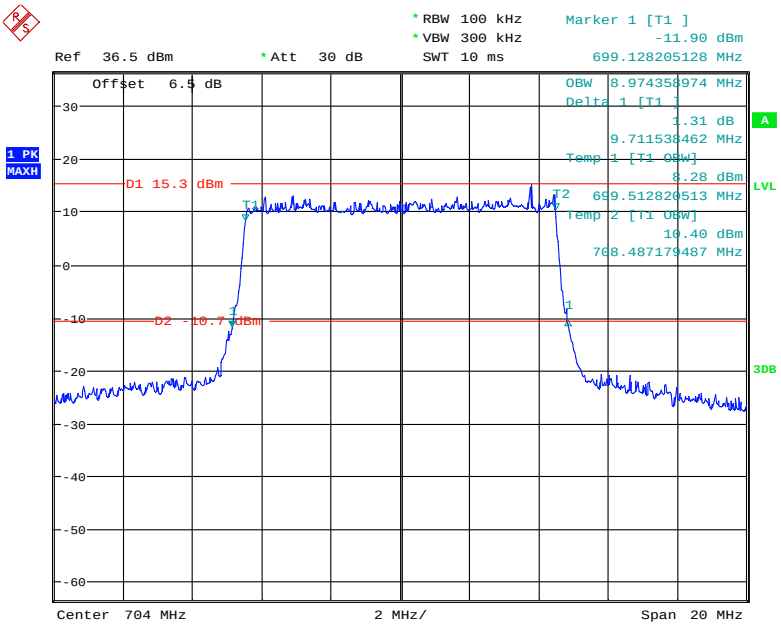
Date: 13.NOV.2020 18:08:22

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



Date: 13.NOV.2020 18:11:25

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

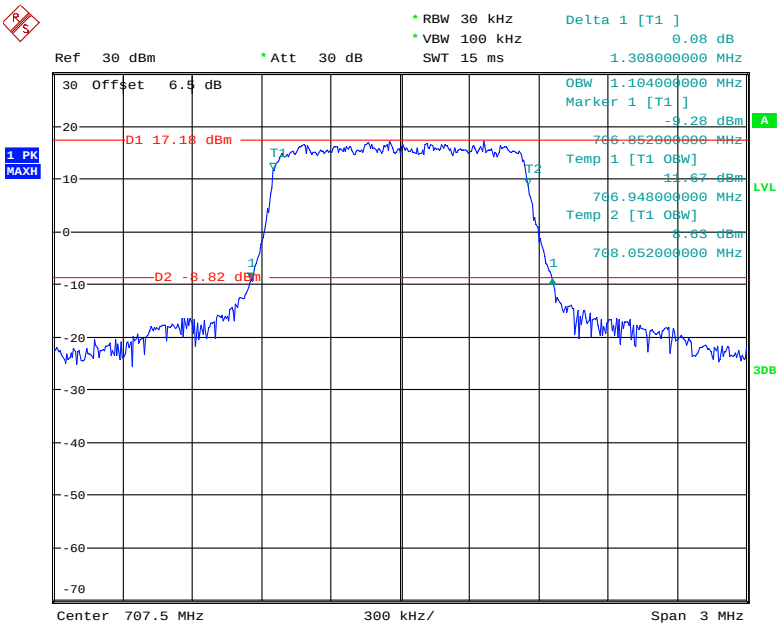


Date: 13.NOV.2020 18:12:07

LTE Band 12: (Middle Channel)

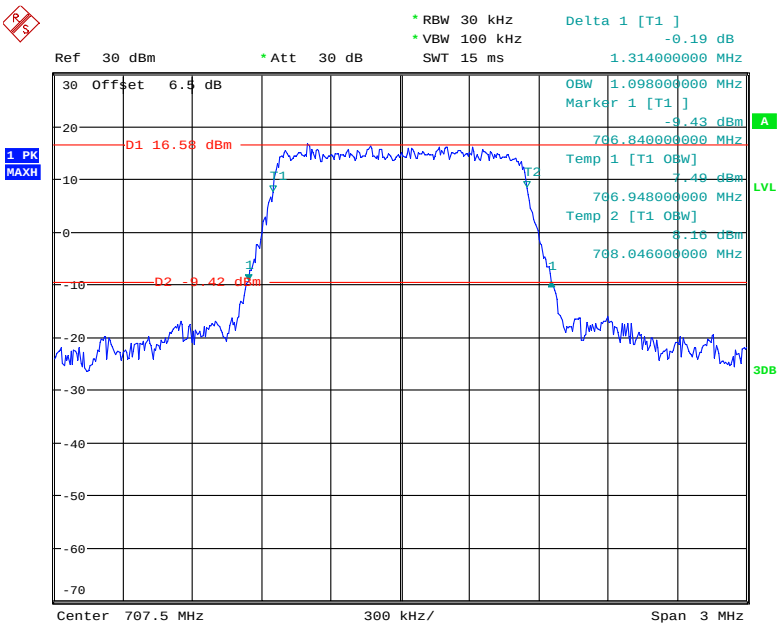
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.104	1.308
	16QAM	1.098	1.314
3.0	QPSK	2.688	2.868
	16QAM	2.688	2.880
5.0	QPSK	4.540	5.127
	16QAM	4.540	5.127
10.0	QPSK	8.960	9.880
	16QAM	8.960	9.916

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



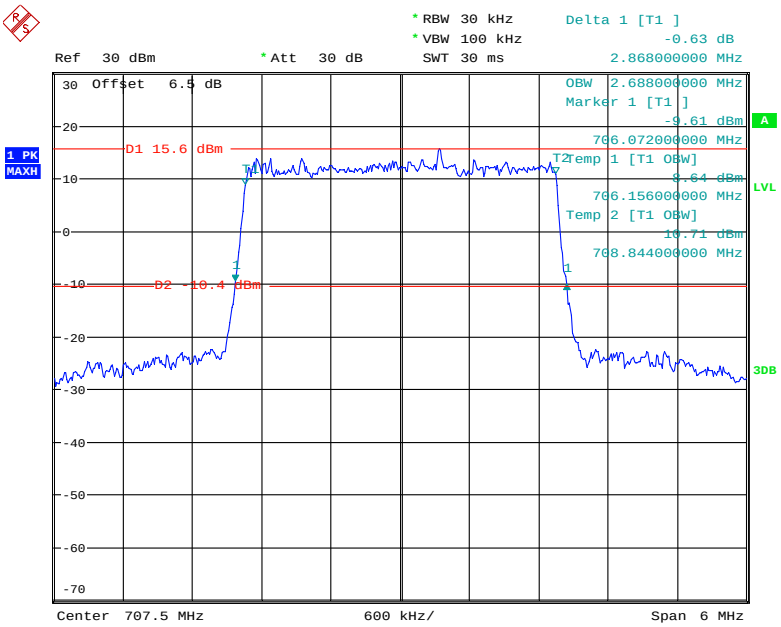
Date: 21.MAY.2020 16:43:13

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



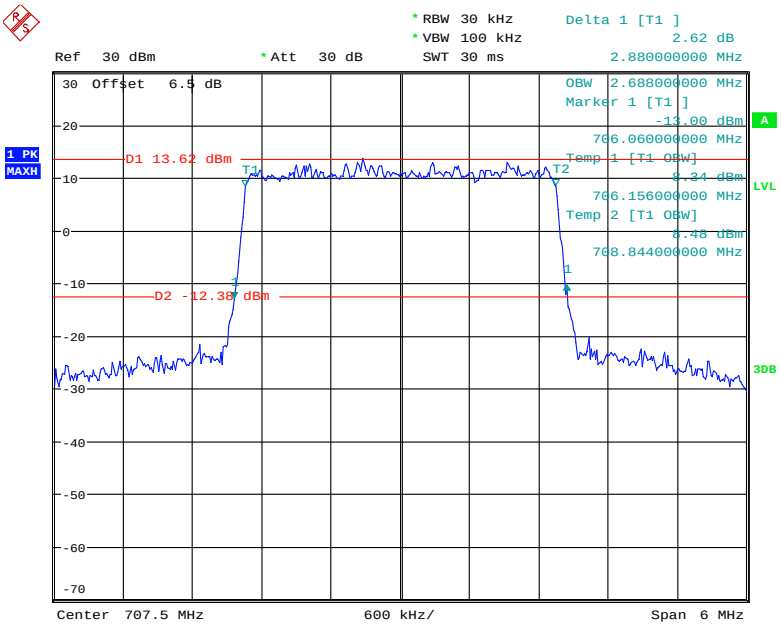
Date: 21.MAY.2020 16:43:34

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



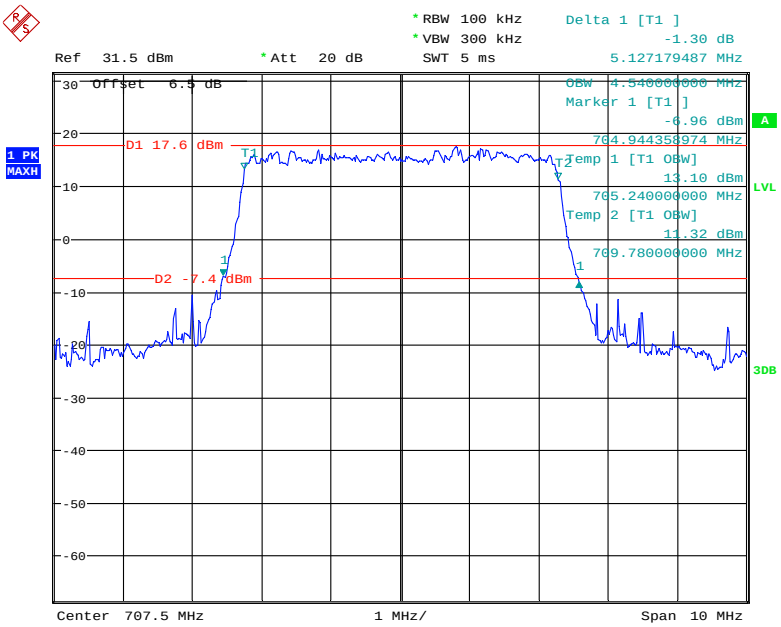
Date: 21.MAY.2020 16:43:57

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



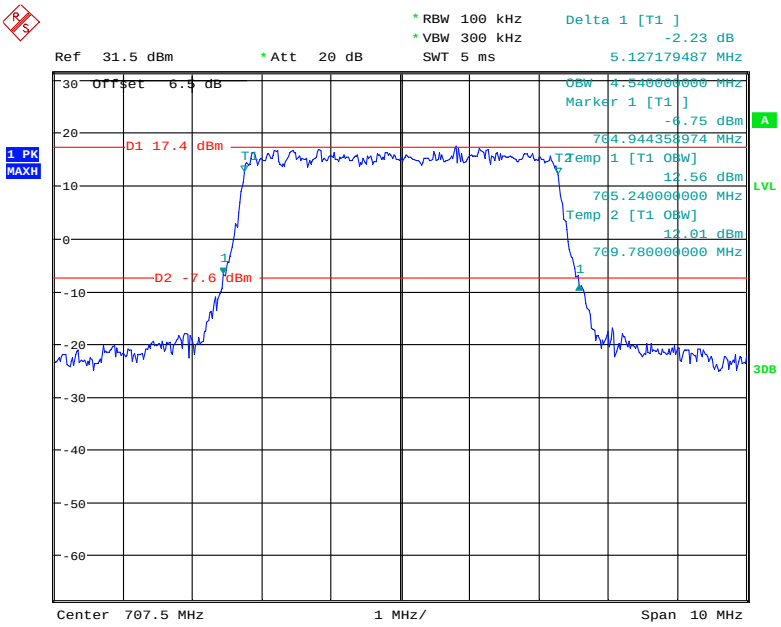
Date: 21.MAY.2020 16:44:17

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



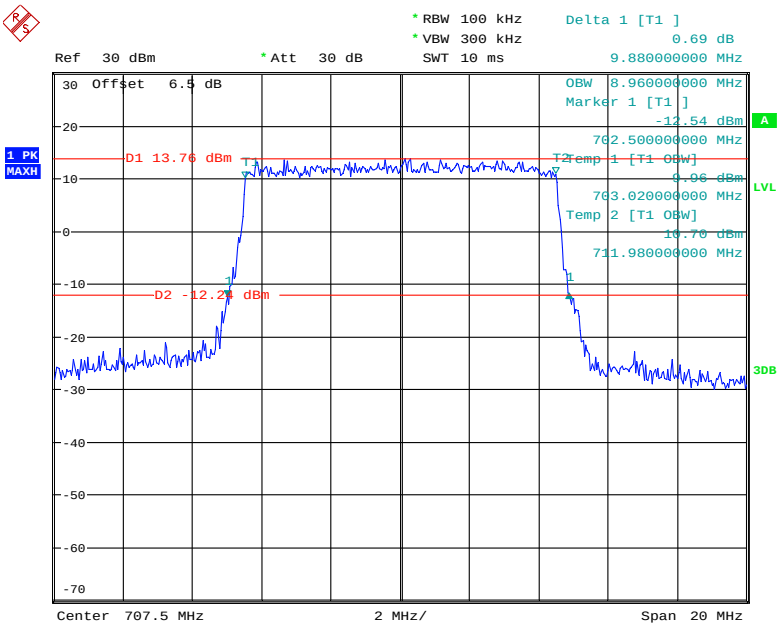
Date: 22.MAY.2020 11:18:21

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



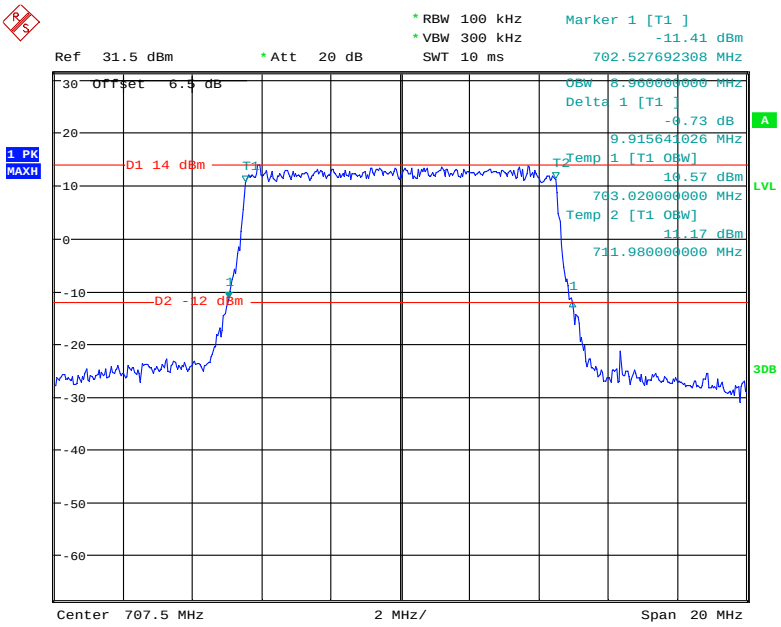
Date: 22.MAY.2020 11:19:34

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



Date: 21.MAY.2020 16:45:53

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

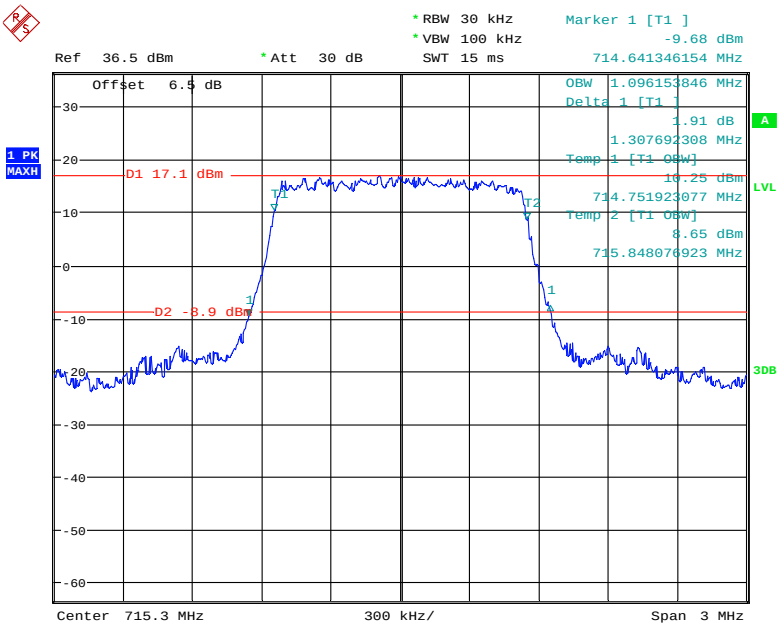


Date: 22.MAY.2020 11:21:04

LTE Band 12: (High channel)

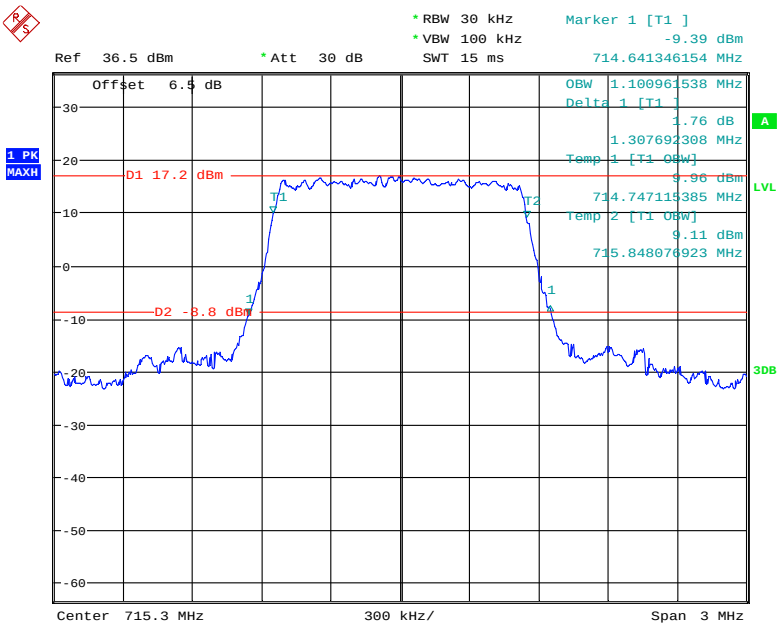
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	1.096	1.308
	16QAM	1.101	1.308
3.0	QPSK	2.692	2.885
	16QAM	2.692	2.885
5.0	QPSK	4.551	5.224
	16QAM	4.551	5.208
10.0	QPSK	8.974	9.763
	16QAM	8.974	9.795

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



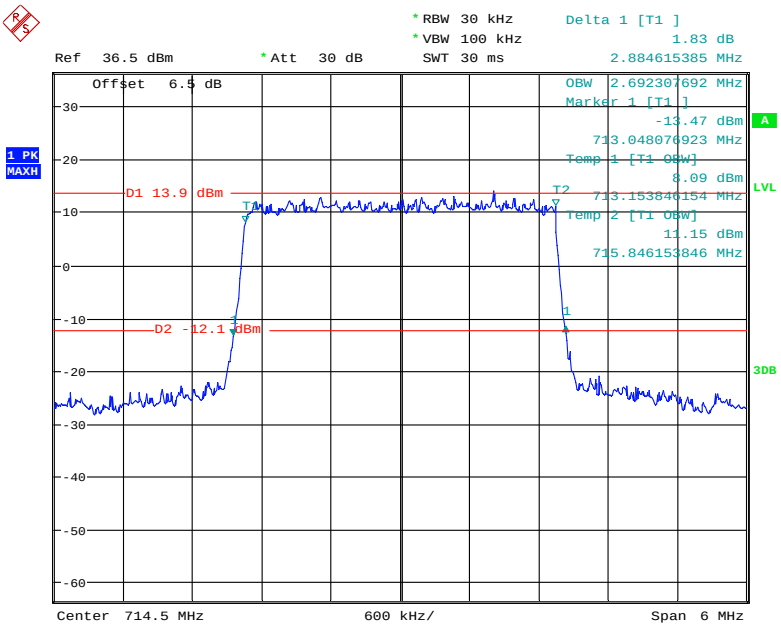
Date: 13.NOV.2020 18:02:24

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



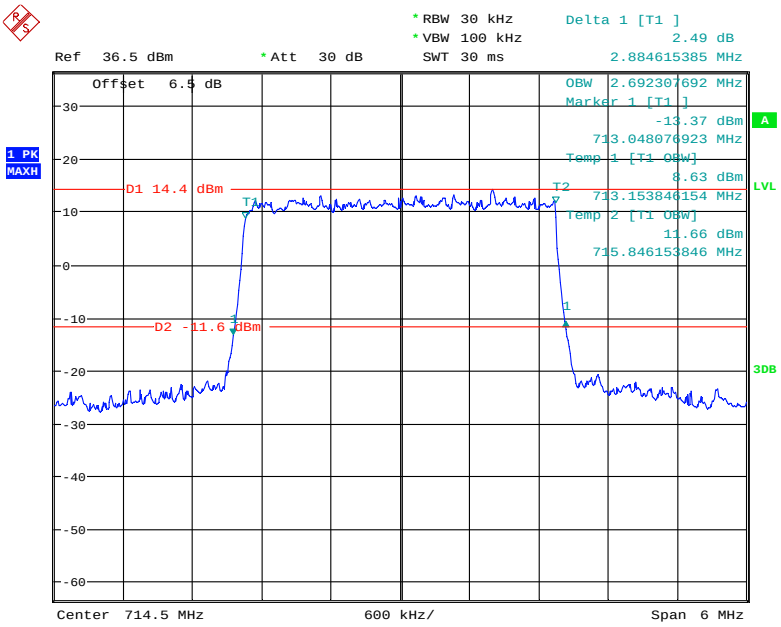
Date: 13.NOV.2020 18:01:51

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



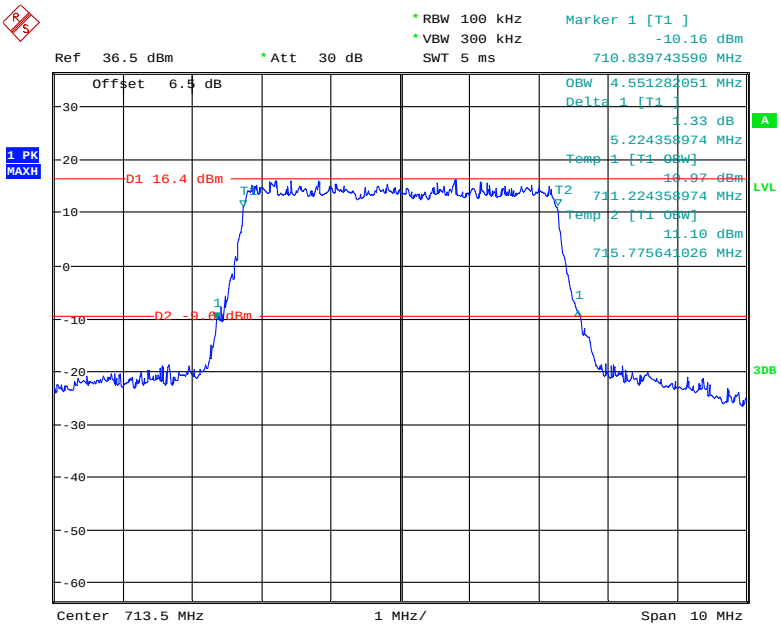
Date: 13.NOV.2020 18:05:50

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



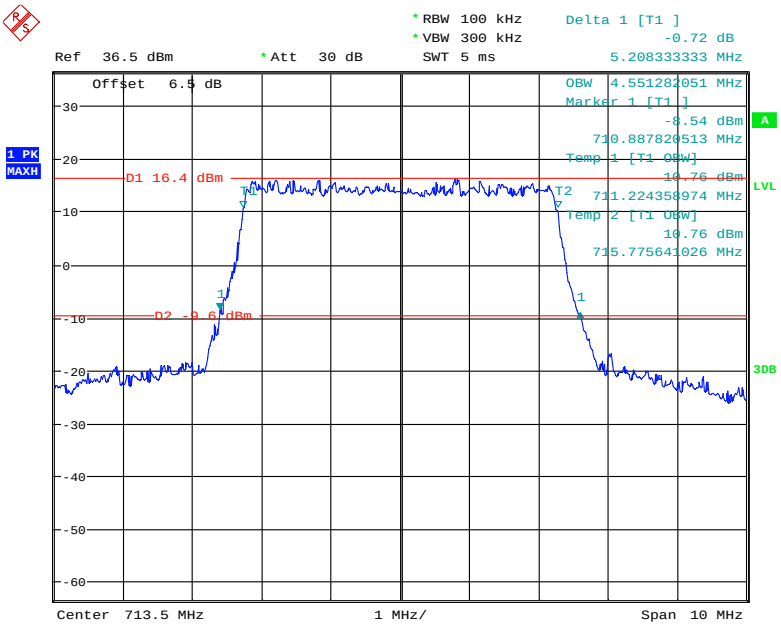
Date: 13.NOV.2020 18:05:29

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



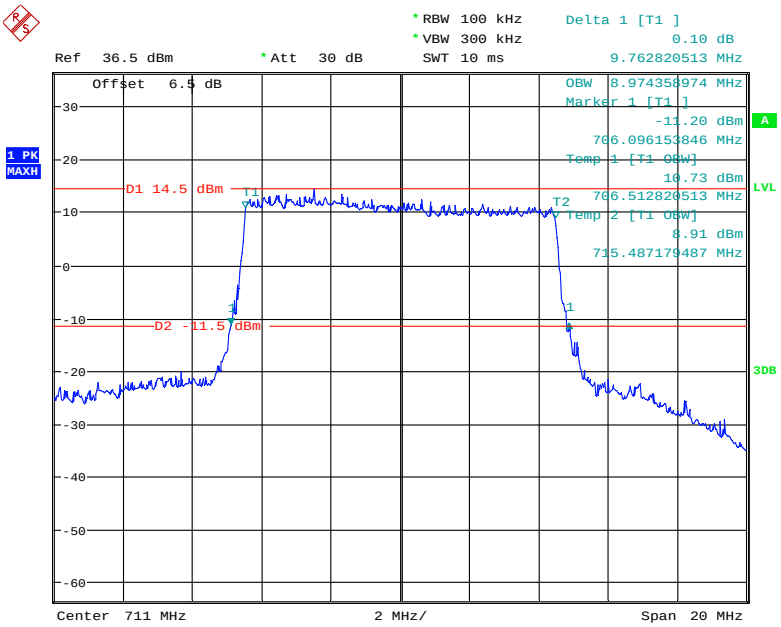
Date: 13.NOV.2020 18:09:48

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



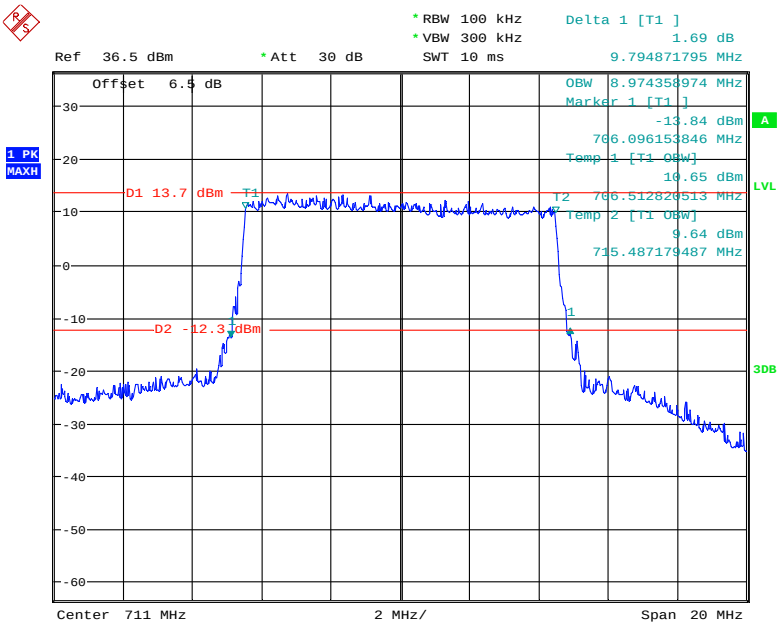
Date: 13.NOV.2020 18:09:18

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



Date: 13.NOV.2020 18:13:31

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

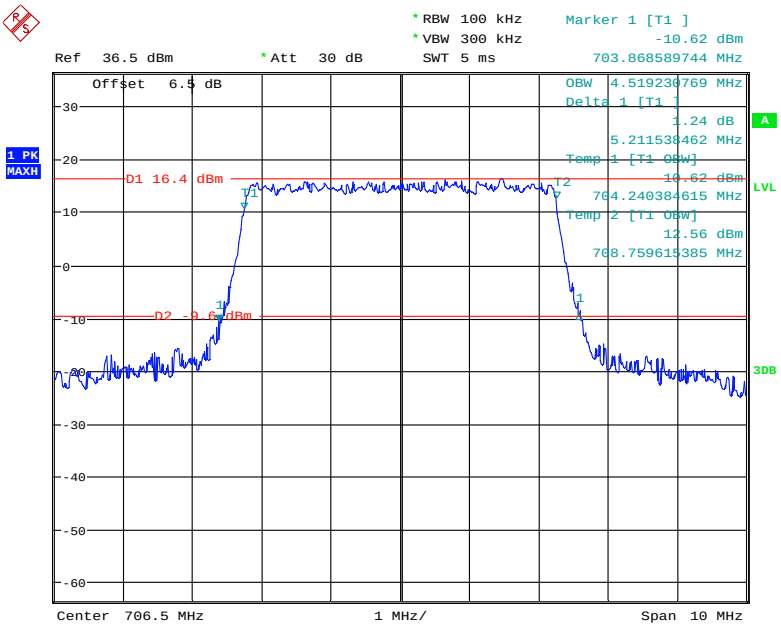


Date: 13.NOV.2020 18:12:52

LTE Band 17: (Low Channel)

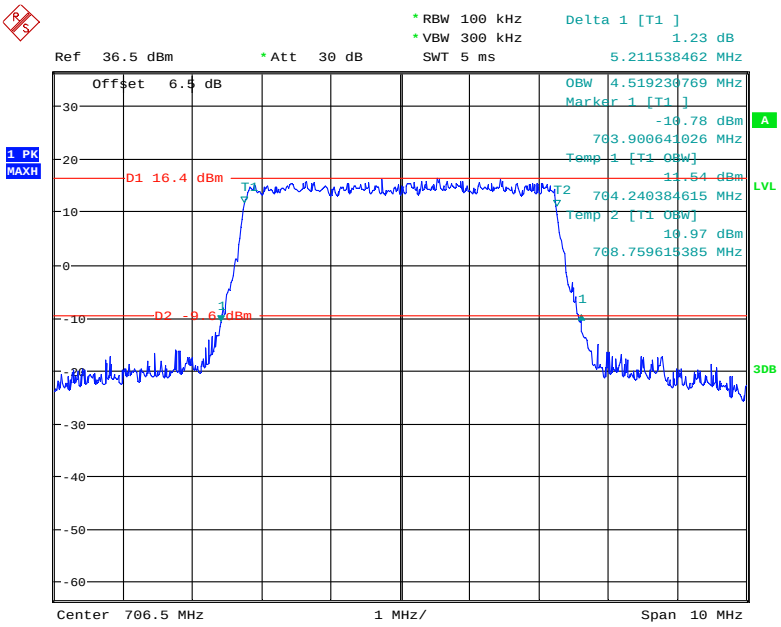
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.519	5.212
	16QAM	4.519	5.212
10.0	QPSK	8.974	9.904
	16QAM	8.974	9.936

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



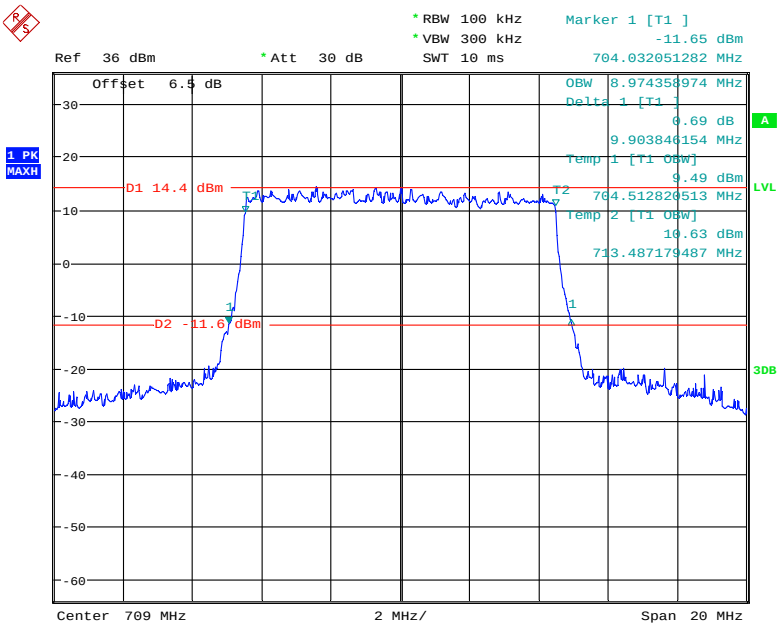
Date: 13.NOV.2020 18:15:19

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



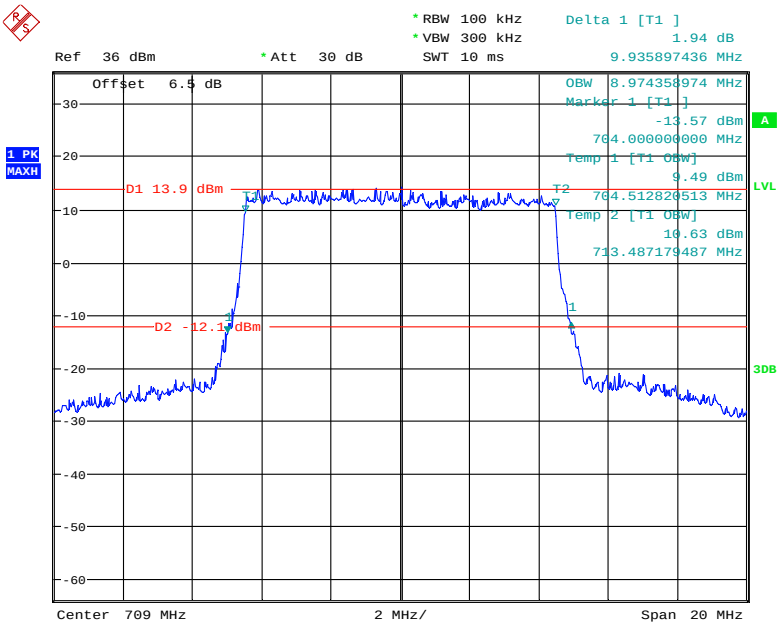
Date: 13.NOV.2020 18:16:05

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



Date: 17.NOV.2020 10:02:24

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

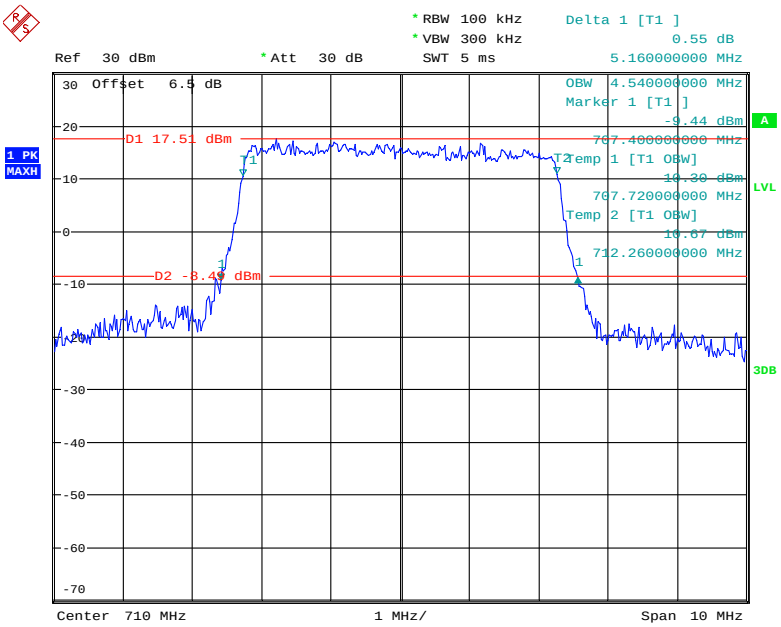


Date: 17.NOV.2020 10:01:40

LTE Band 17: (Middle Channel)

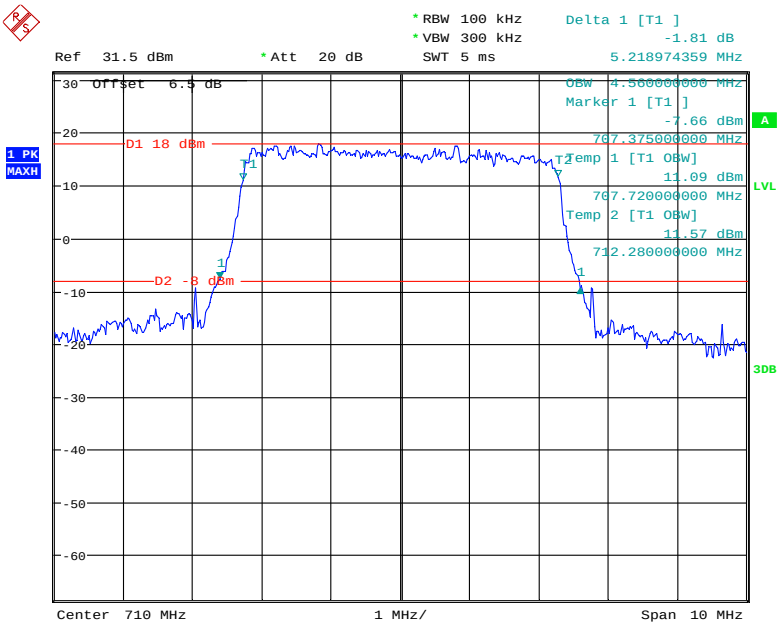
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.540	5.160
	16QAM	4.560	5.219
10.0	QPSK	8.960	9.840
	16QAM	8.960	9.924

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



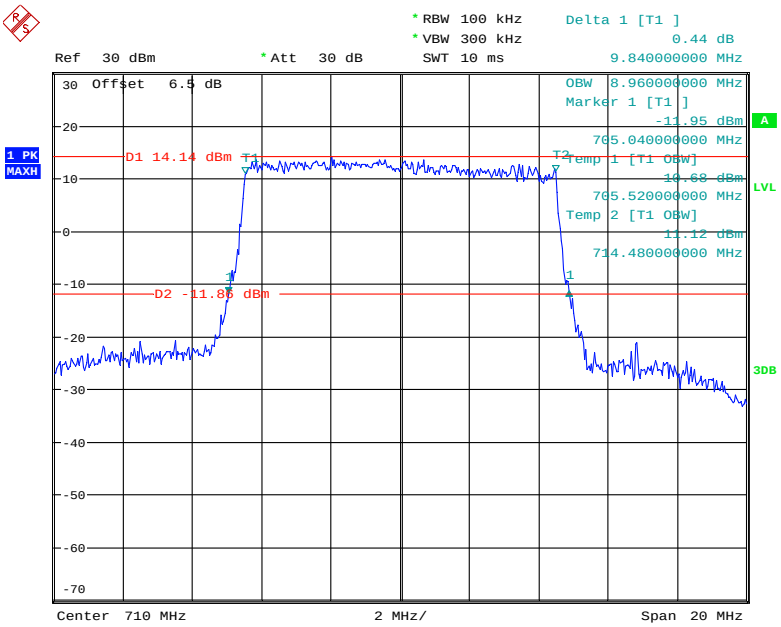
Date: 21.MAY.2020 16:46:44

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



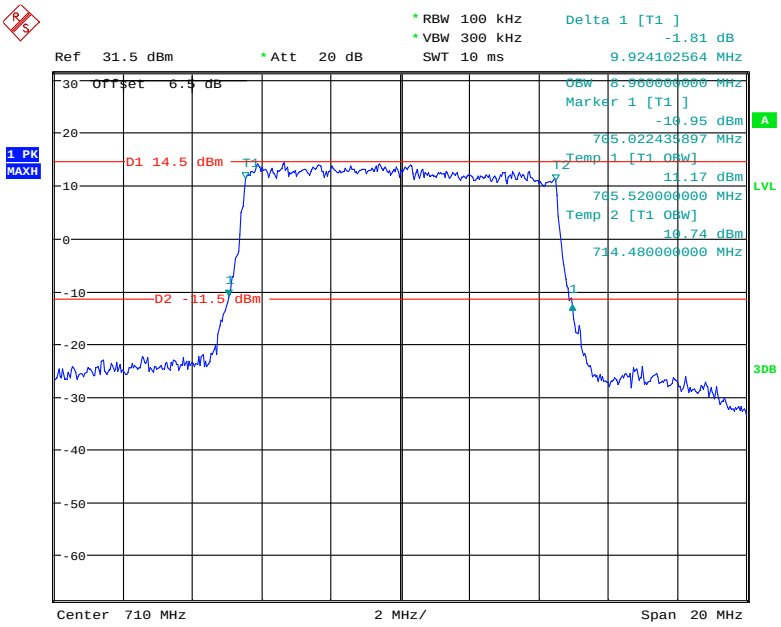
Date: 22.MAY.2020 11:23:13

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



Date: 21.MAY.2020 16:47:32

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

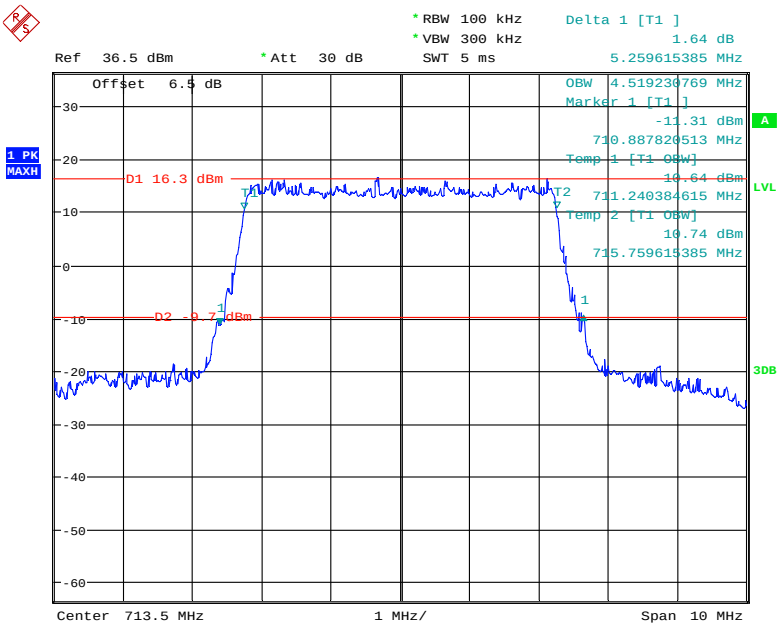


Date: 22.MAY.2020 11:24:59

LTE Band 17: (High Channel)

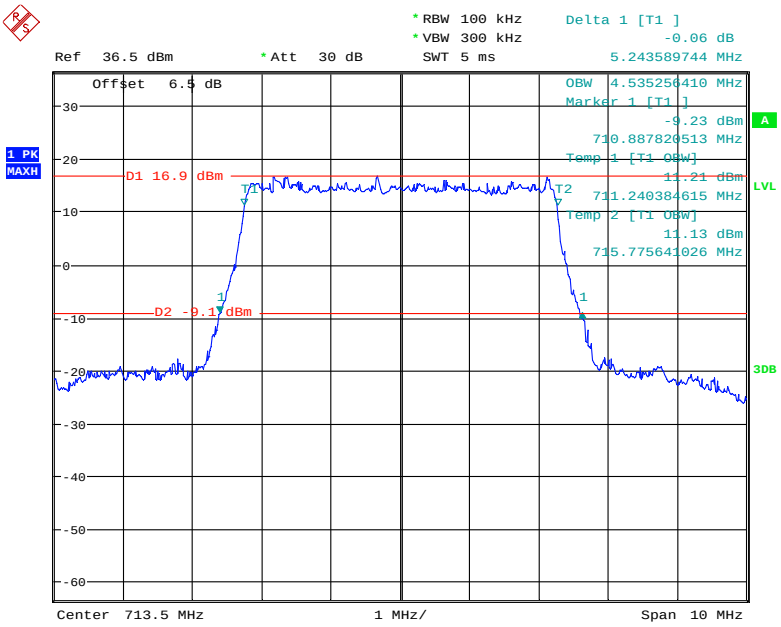
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.519	5.212
	16QAM	4.519	5.212
10.0	QPSK	8.974	9.785
	16QAM	8.942	9.817

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



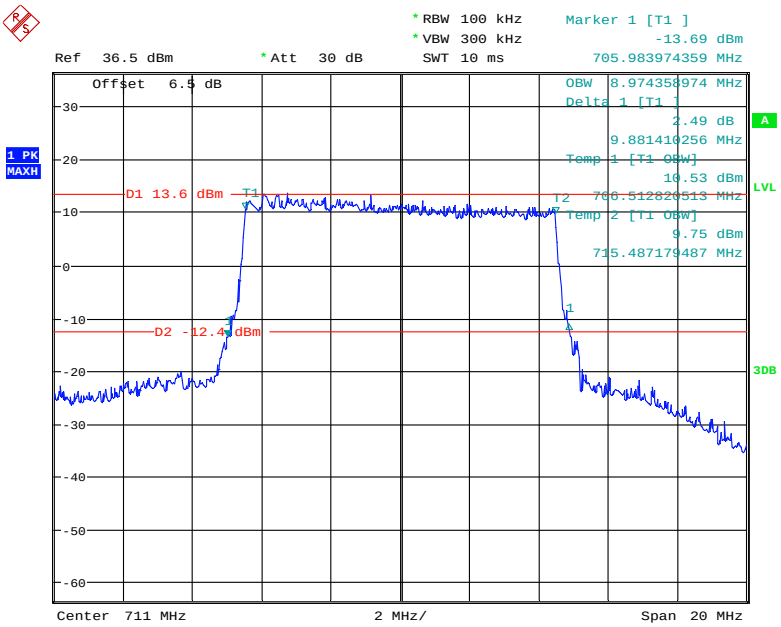
Date: 13.NOV.2020 18:17:28

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



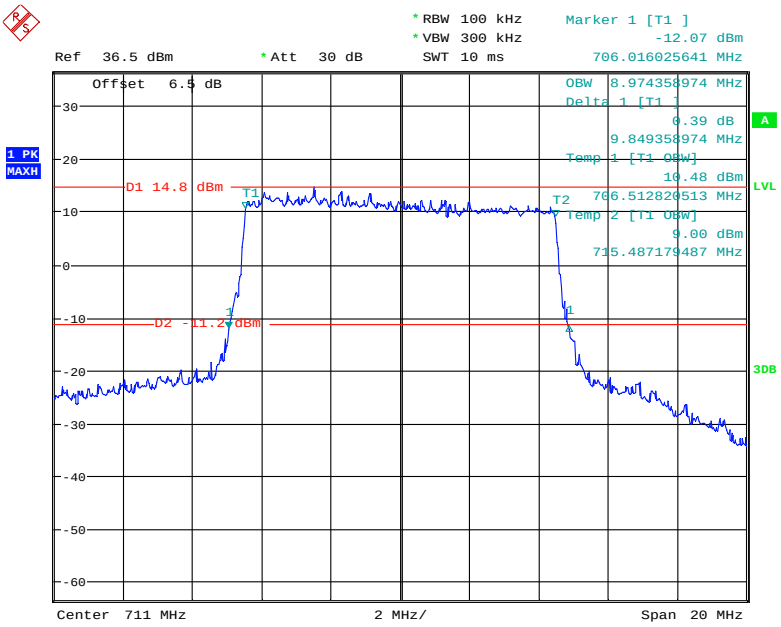
Date: 13.NOV.2020 18:17:01

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



Date: 13.NOV.2020 18:21:19

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

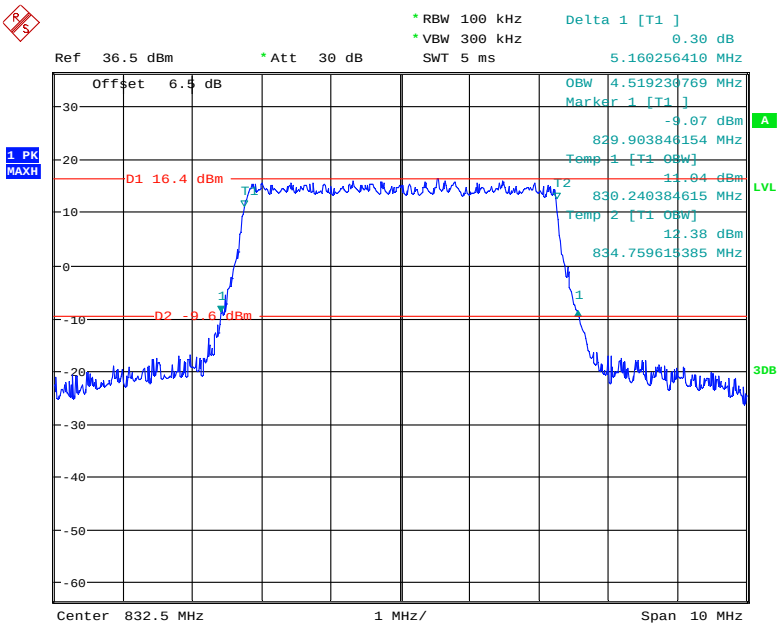


Date: 13.NOV.2020 18:20:39

LTE Band 19: (Low Channel)

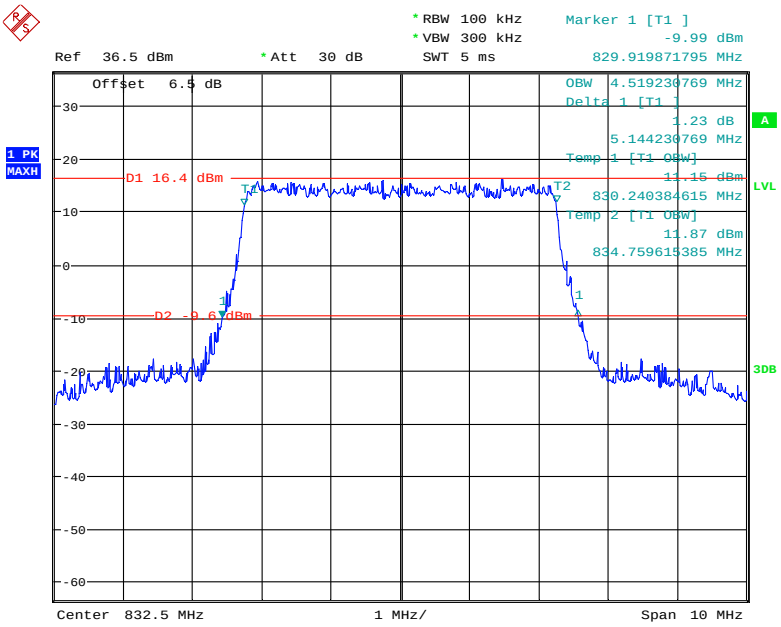
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.519	5.160
	16QAM	4.519	5.144
10.0	QPSK	8.974	9.856
	16QAM	8.974	9.856

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



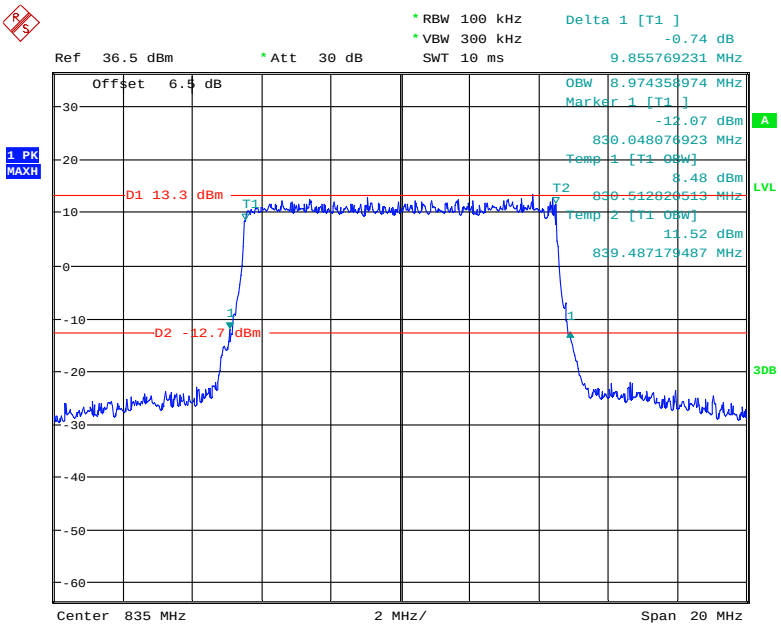
Date: 13.NOV.2020 18:22:54

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



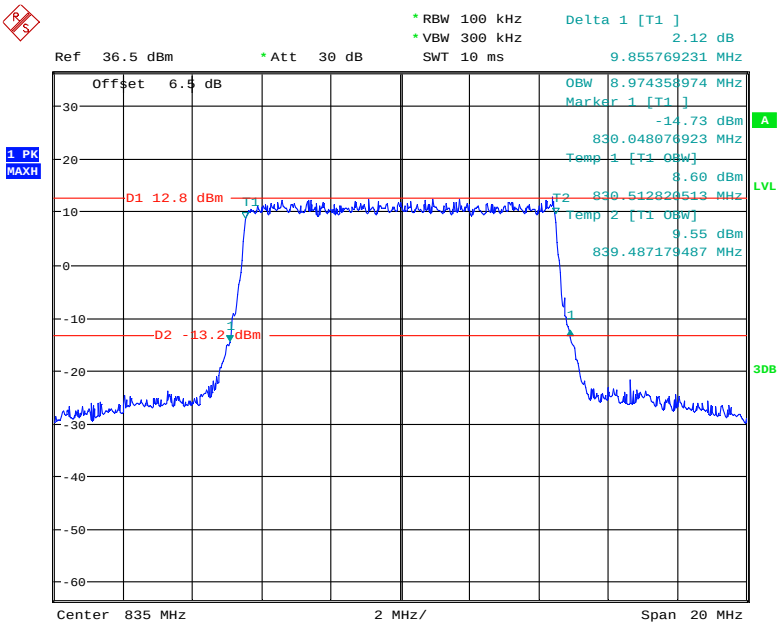
Date: 13.NOV.2020 18:23:26

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



Date: 13.NOV.2020 18:26:24

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

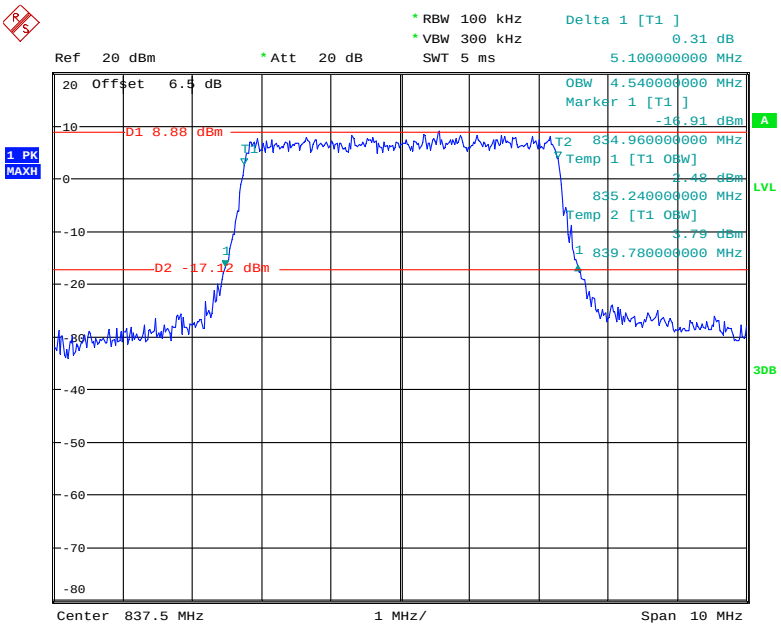


Date: 13.NOV.2020 18:27:02

LTE Band 19: (Middle Channel)

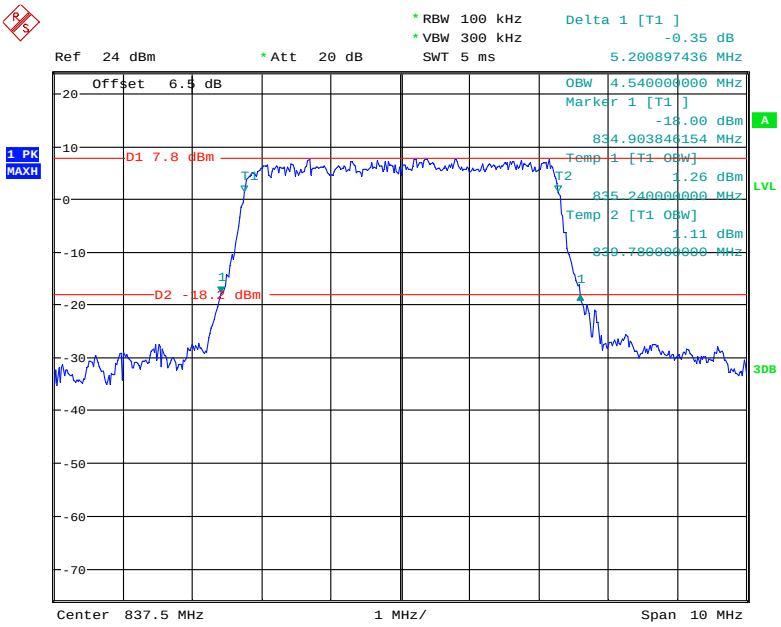
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.540	5.100
	16QAM	4.540	5.201
10.0	QPSK	9.000	9.880
	16QAM	9.000	9.800
15.0	QPSK	13.560	15.120
	16QAM	13.500	15.120

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



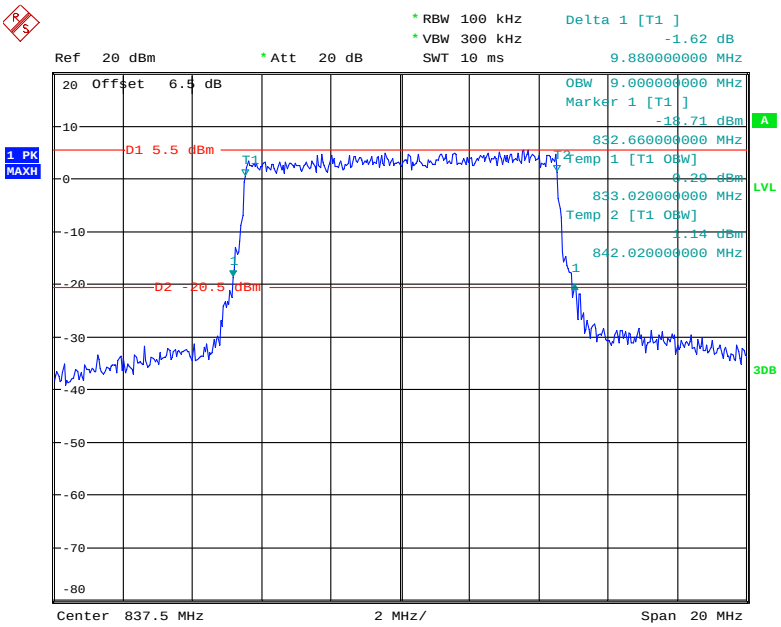
Date: 22.MAY.2020 09:54:01

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



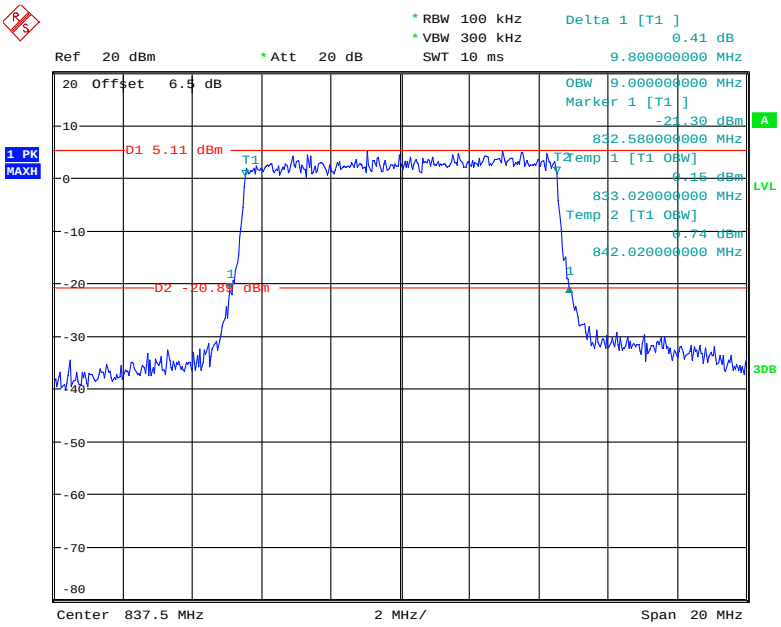
Date: 22.MAY.2020 10:24:50

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



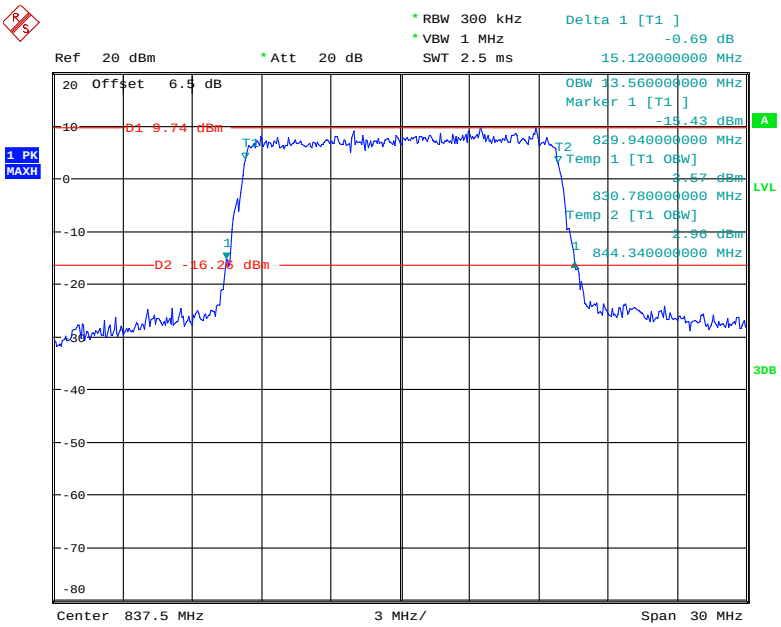
Date: 22.MAY.2020 09:54:48

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



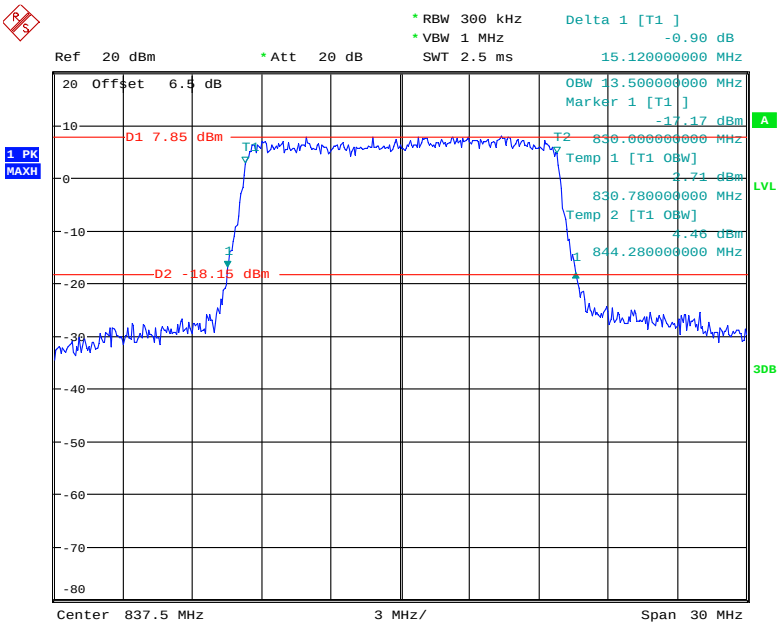
Date: 22.MAY.2020 09:55:10

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



Date: 22.MAY.2020 09:55:36

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

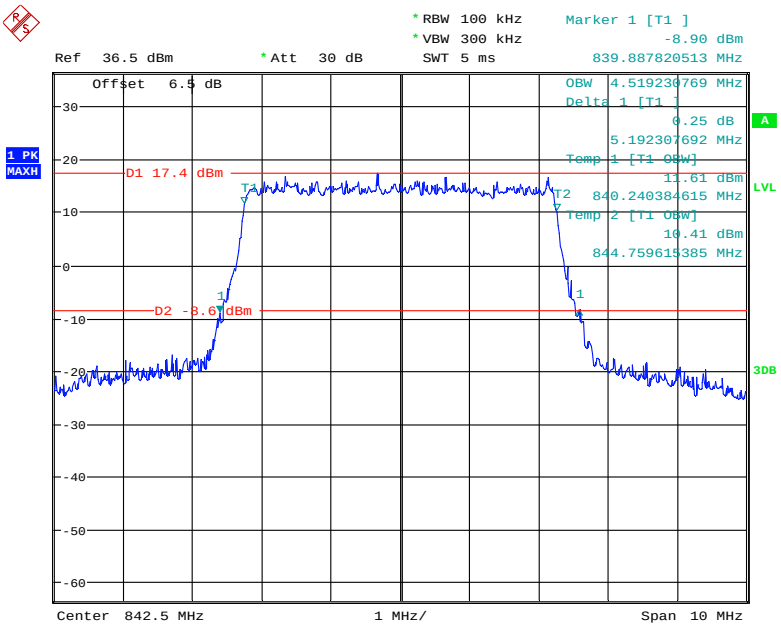


Date: 22.MAY.2020 09:56:00

LTE Band 19: (High Channel)

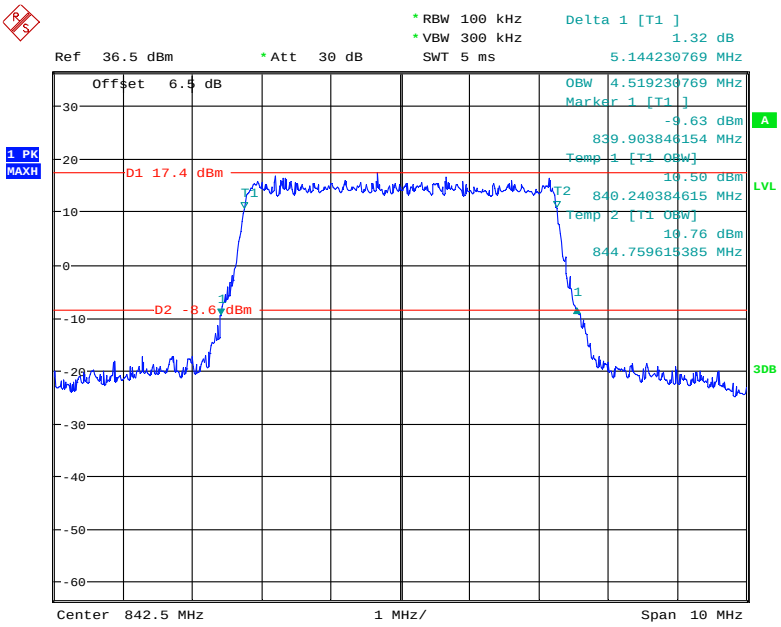
Bandwidth (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5.0	QPSK	4.519	5.192
	16QAM	4.519	5.144
10.0	QPSK	8.974	9.824
	16QAM	8.974	9.824

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



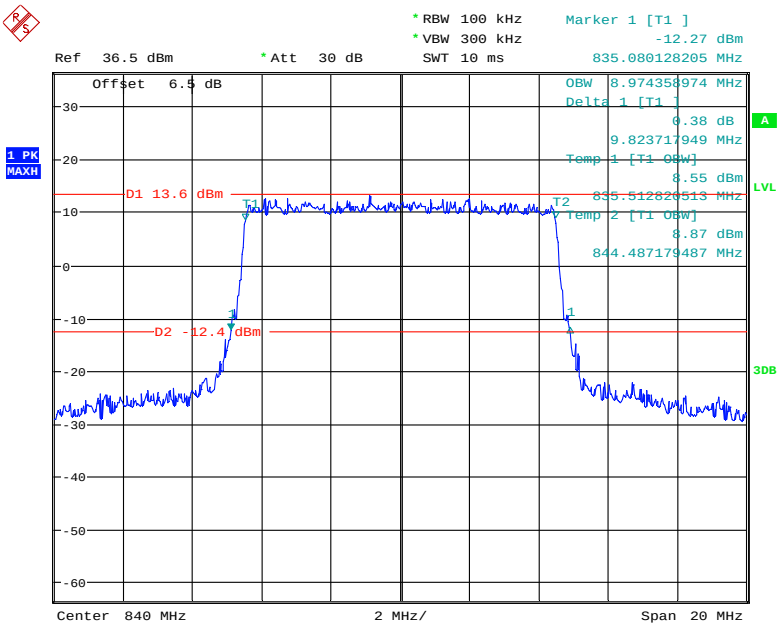
Date: 13.NOV.2020 18:24:50

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



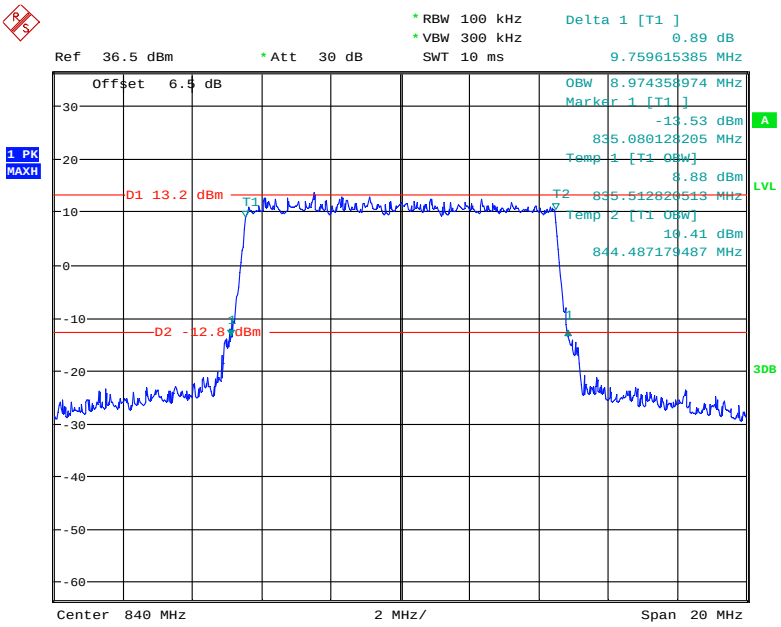
Date: 13.NOV.2020 18:24:14

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



Date: 13.NOV.2020 18:28:32

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



Date: 13.NOV.2020 18:27:51

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

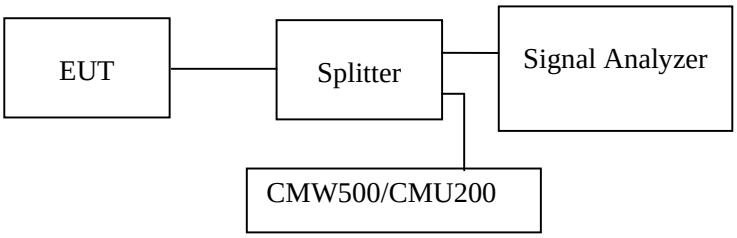
Applicable Standard

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

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

Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.



Test Data

Environmental Conditions

Temperature:	23 ℃
Relative Humidity:	53 %
ATM Pressure:	101.0 kPa

The testing was performed by Gavin Guo from 2020-05-21 to 2020-11-17.

EUT operation mode: transmitting

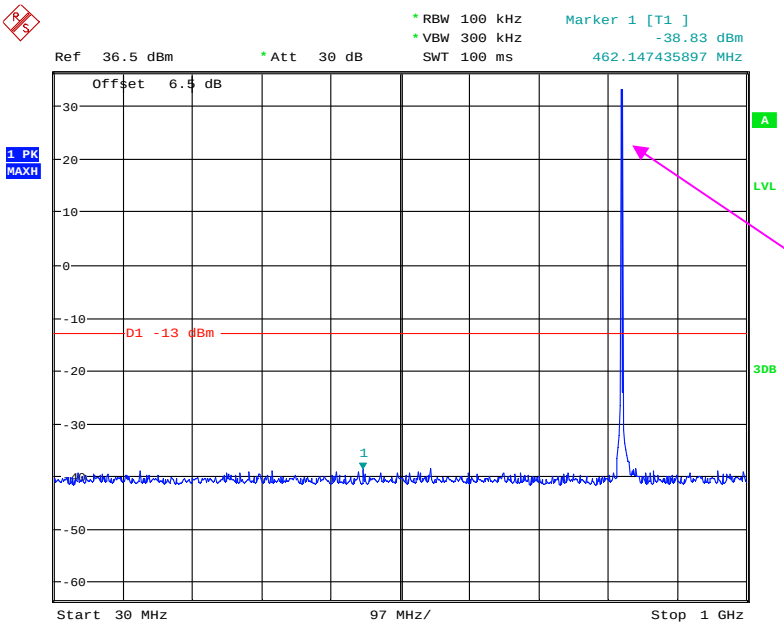
Test result: Compliance

Please refer to the following plots.

Low Channel

Cellular Band (Part 22H)

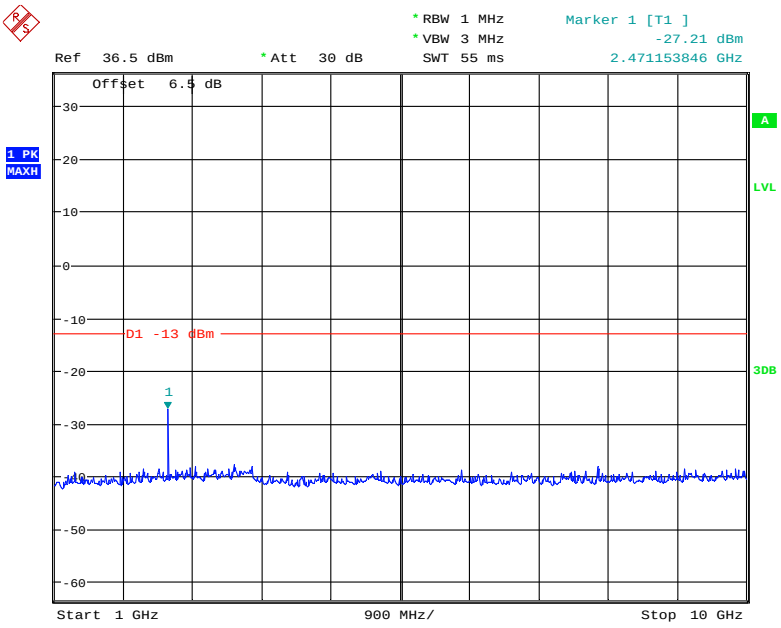
30 MHz – 1 GHz (GSM Mode)



Fundamental test

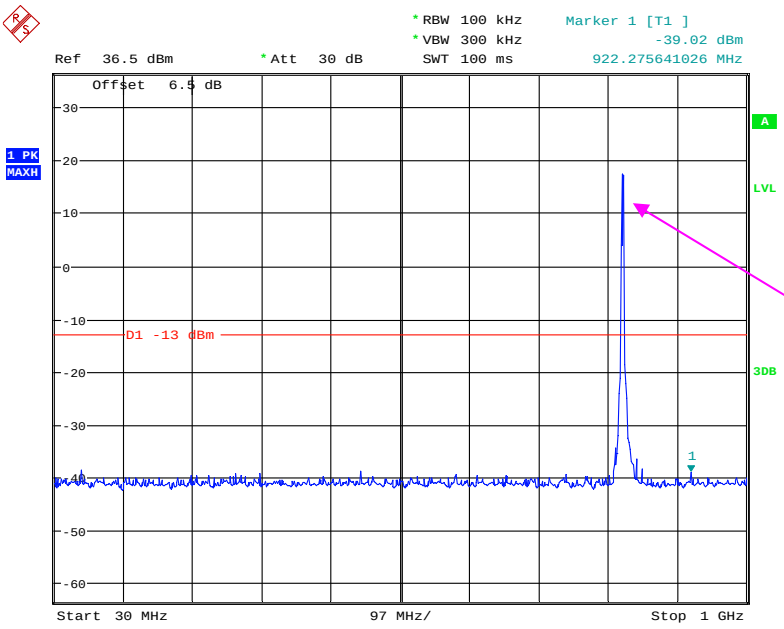
Date: 14.NOV.2020 13:46:04

1 GHz – 10 GHz (GSM Mode)



Date: 14.NOV.2020 13:48:09

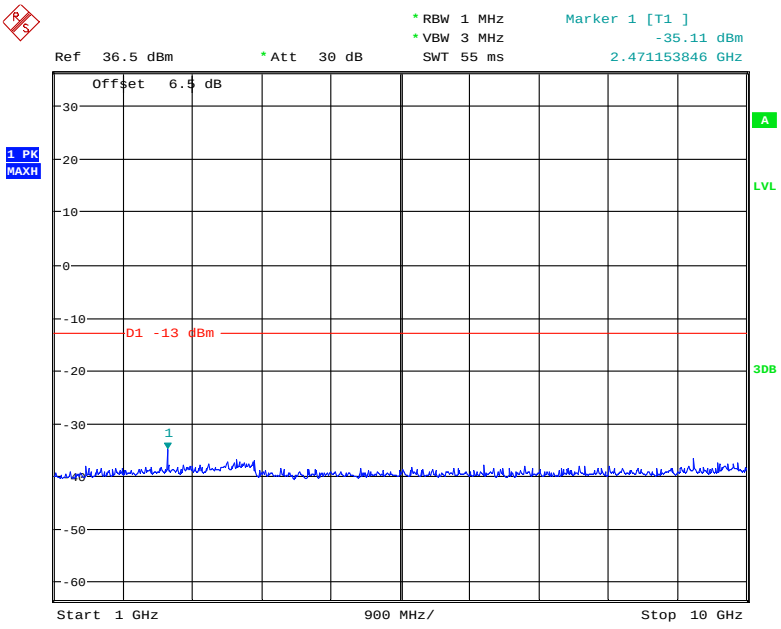
30 MHz – 1 GHz (WCDMA Mode)



Fundamental test

Date: 13.NOV.2020 14:51:40

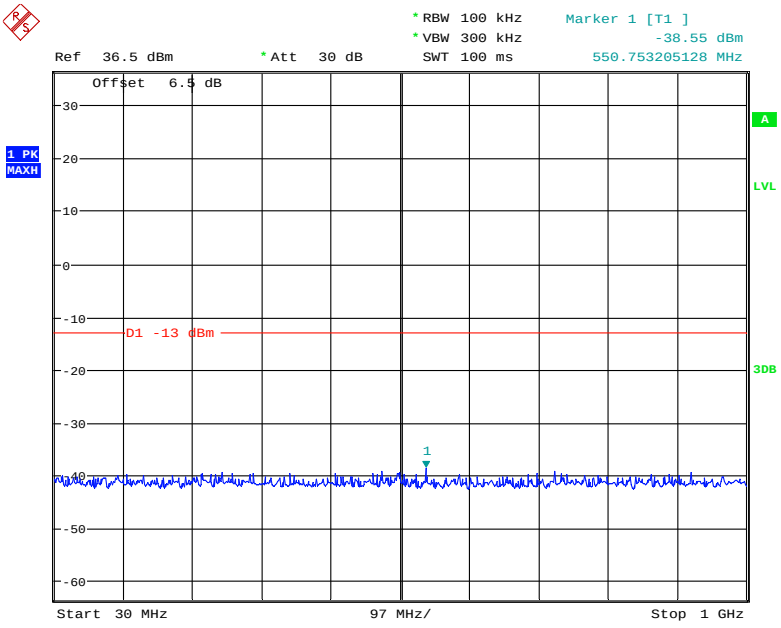
1 GHz – 10 GHz (WCDMA Mode)



Date: 13.NOV.2020 14:48:41

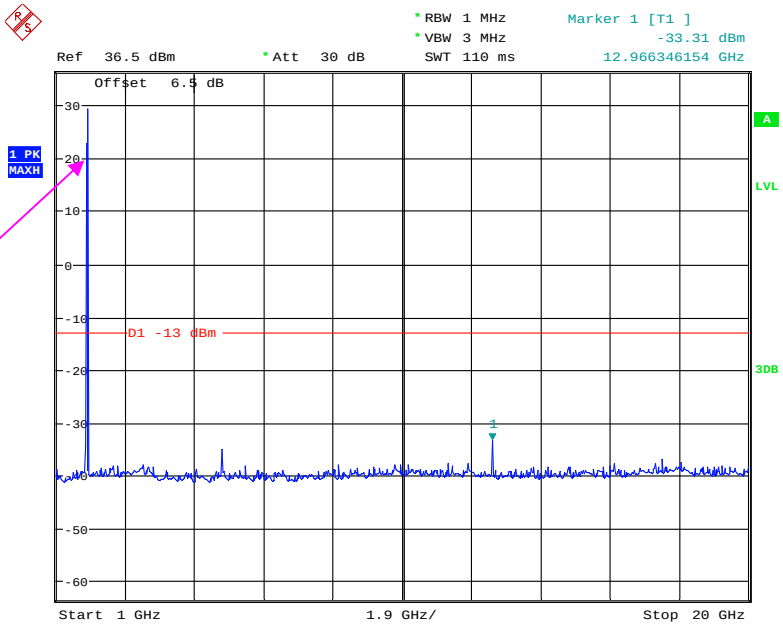
PCS Band (Part 24E)

30 MHz – 1 GHz (GSM Mode)



Date: 14.NOV.2020 14:02:32

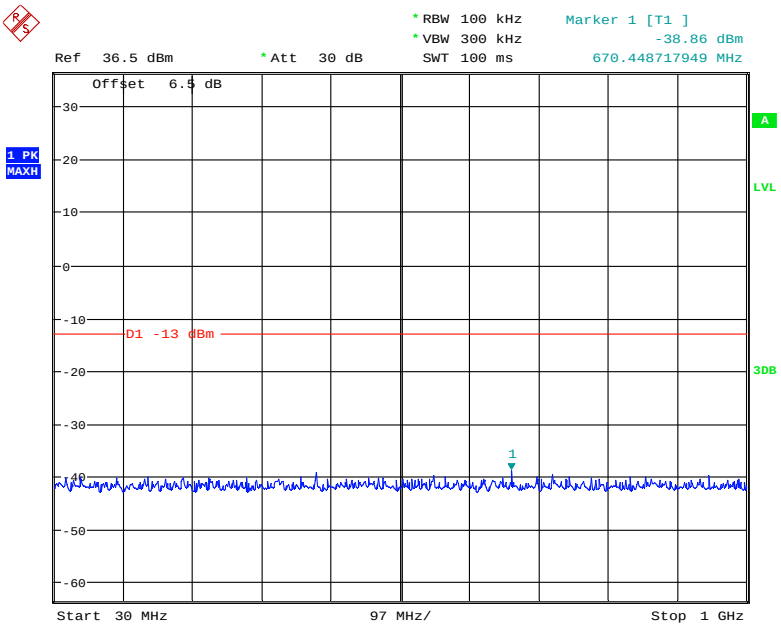
1 GHz – 20 GHz (GSM Mode)



Fundamental test

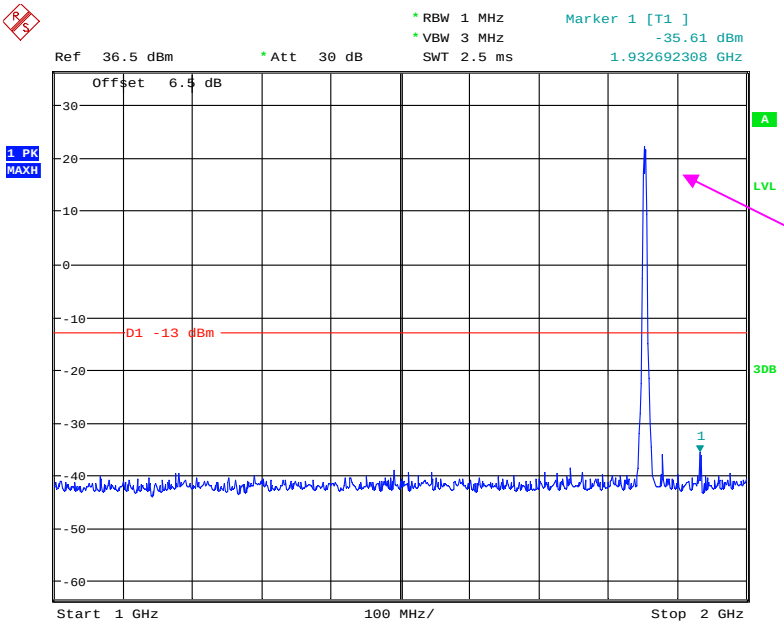
Date: 14.NOV.2020 14:04:43

30 MHz – 1 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:30:11

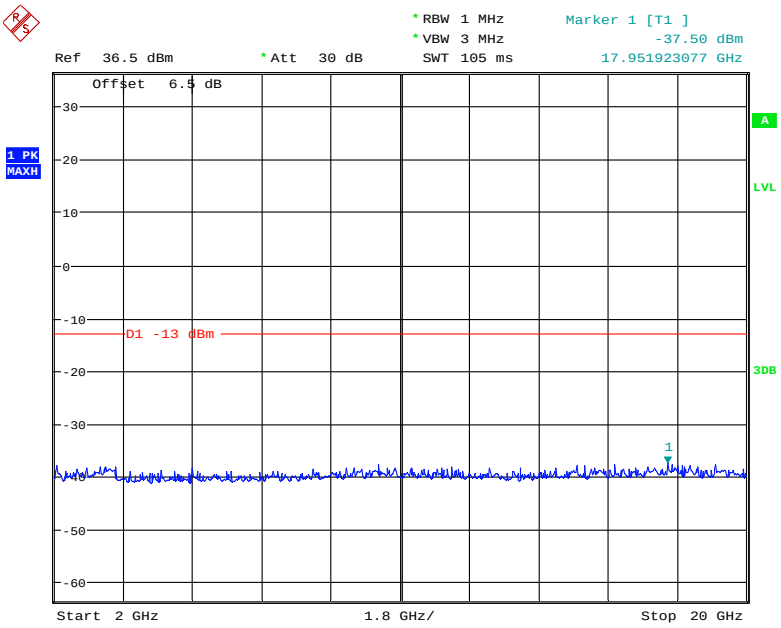
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 14.NOV.2020 14:29:49

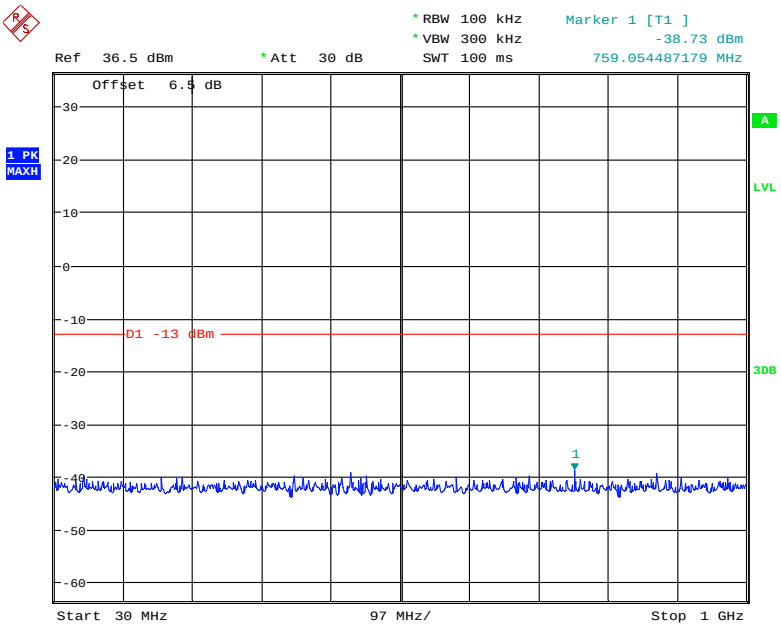
2 GHz – 20 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:28:07

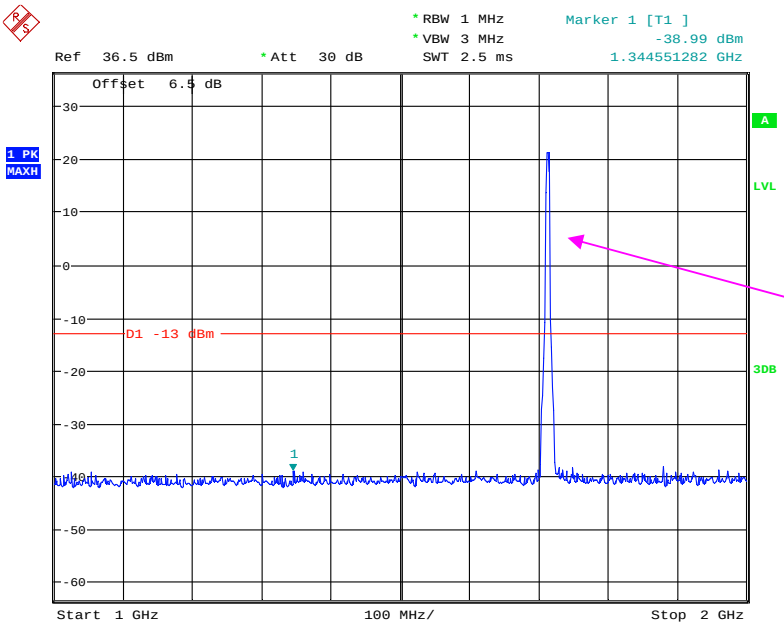
AWS Band (Part 27)

30 MHz – 1 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:23:23

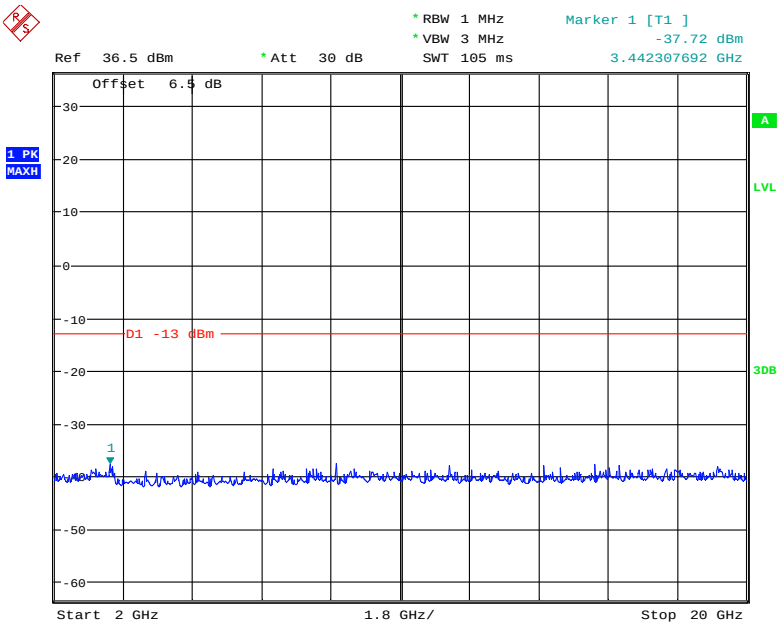
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 14.NOV.2020 14:24:19

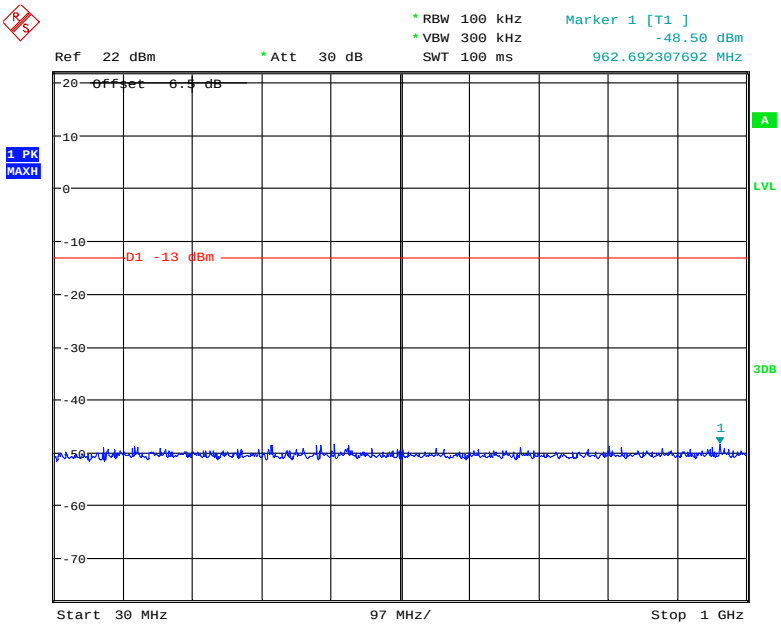
2 GHz – 20 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:26:38

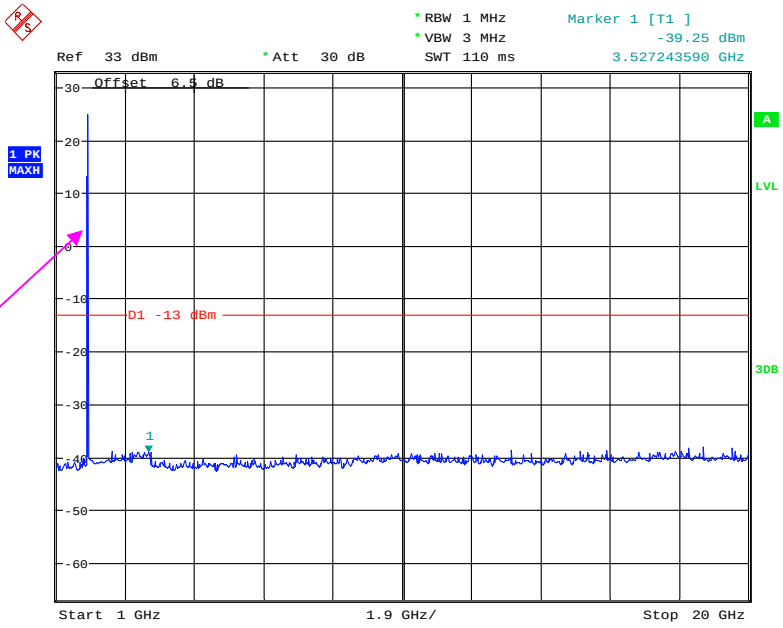
LTE Band 2:

30 MHz - 1 GHz (1.4 MHz, Low Channel)



Date: 14.NOV.2020 08:58:53

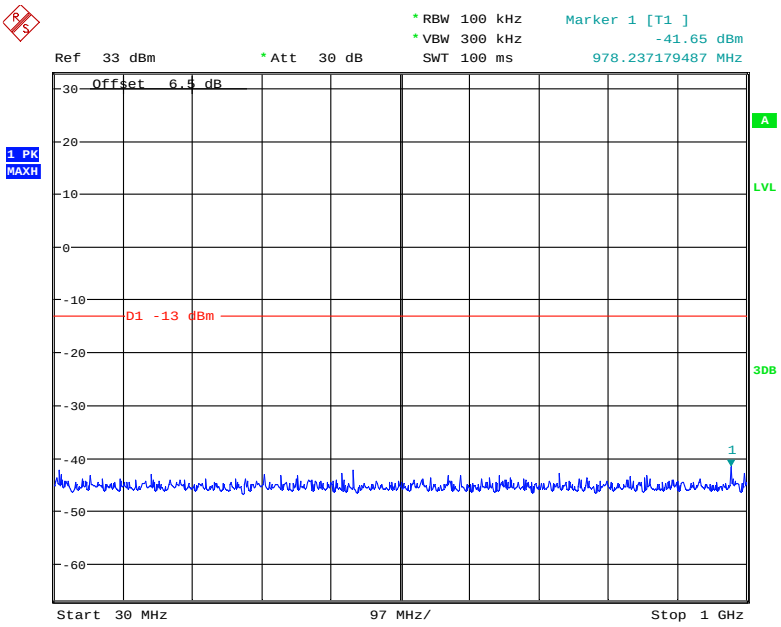
1 GHz – 20 GHz (1.4 MHz, Low Channel)



Fundamental test

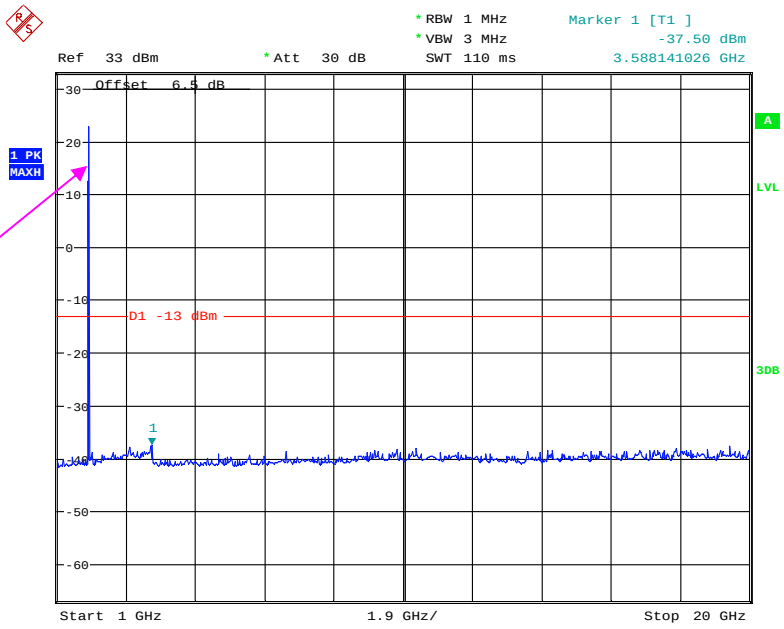
Date: 14.NOV.2020 09:01:47

30 MHz - 1 GHz (3.0 MHz, Low Channel)



Date: 14.NOV.2020 09:11:45

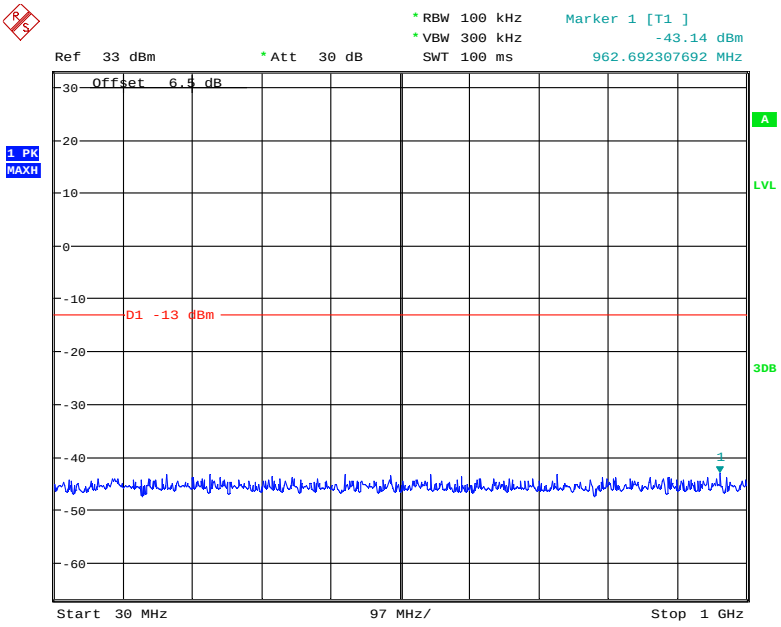
1 GHz – 20 GHz (3.0 MHz, Low Channel)



Fundamental test

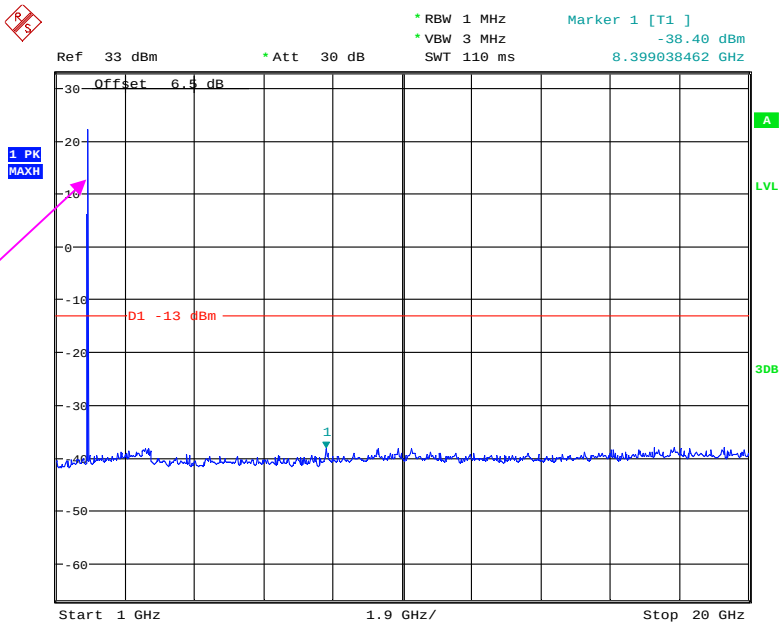
Date: 14.NOV.2020 09:03:28

30 MHz - 1 GHz (5.0 MHz, Low Channel)



Date: 14.NOV.2020 09:12:18

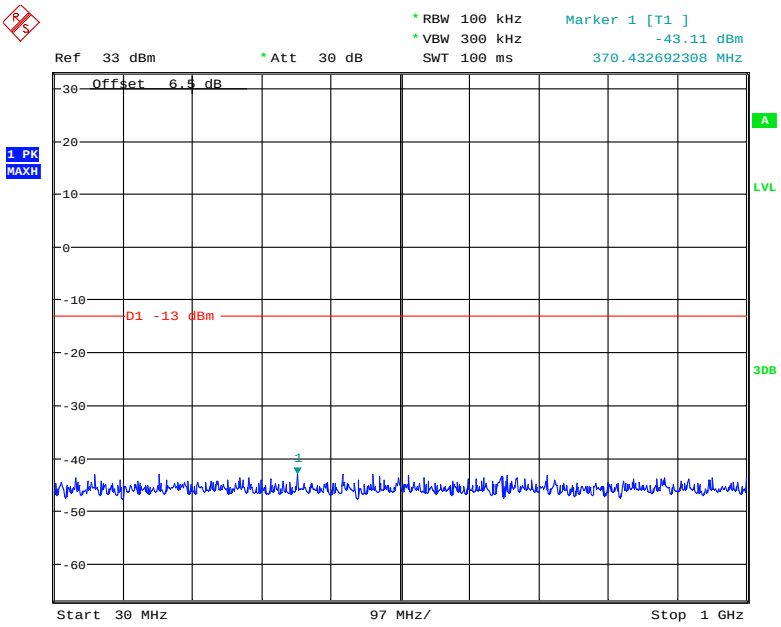
1 GHz – 20 GHz (5.0 MHz, Low Channel)



Fundamental test

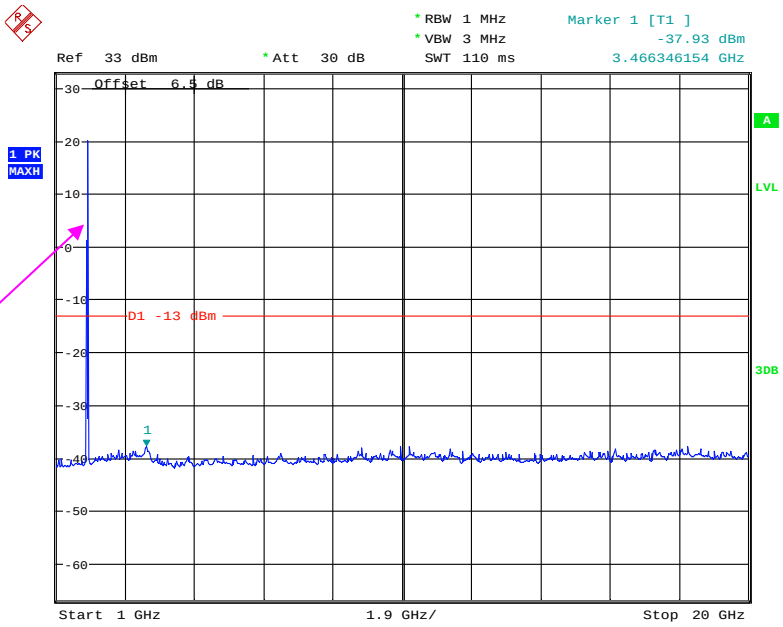
Date: 14.NOV.2020 09:05:25

30 MHz - 1 GHz (10.0 MHz, Low Channel)



Date: 14.NOV.2020 09:12:42

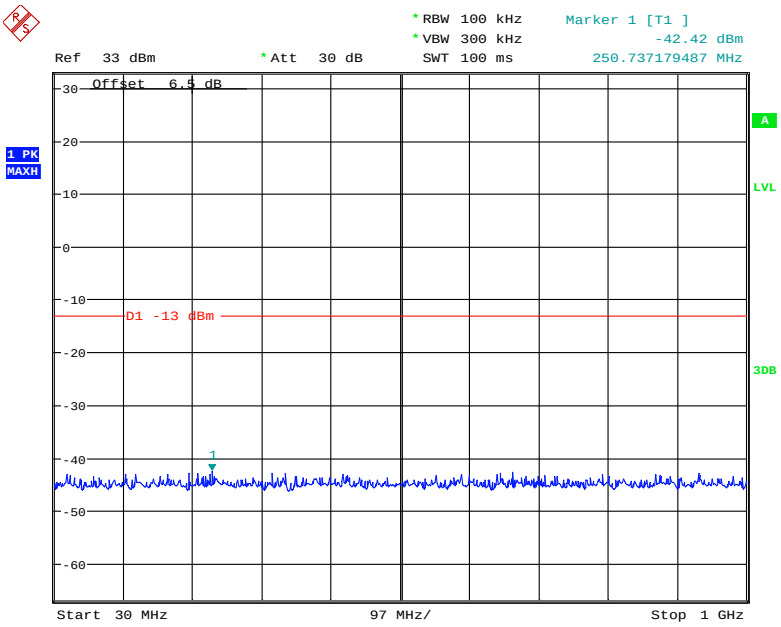
1 GHz – 20 GHz (10.0 MHz, Low Channel)



Fundamental test

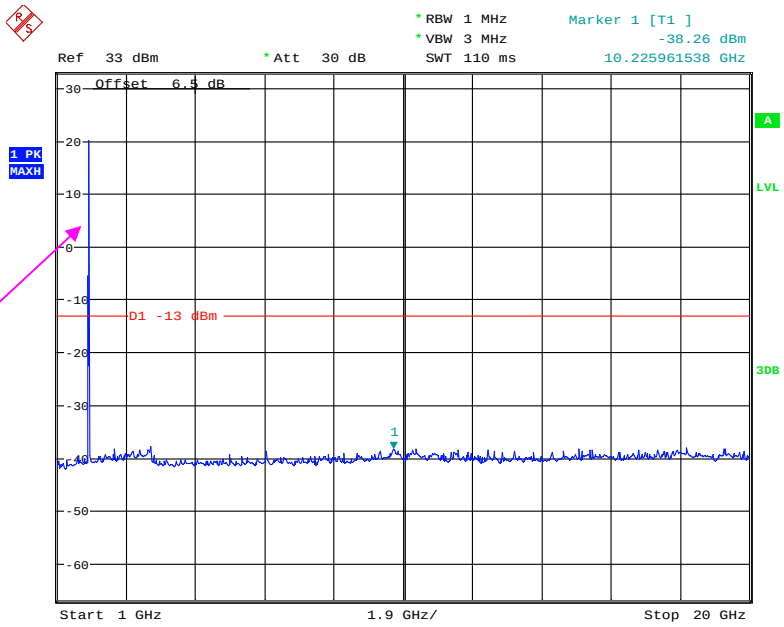
Date: 14.NOV.2020 09:07:04

30 MHz - 1 GHz (15.0 MHz, Low Channel)



Date: 14.NOV.2020 09:13:11

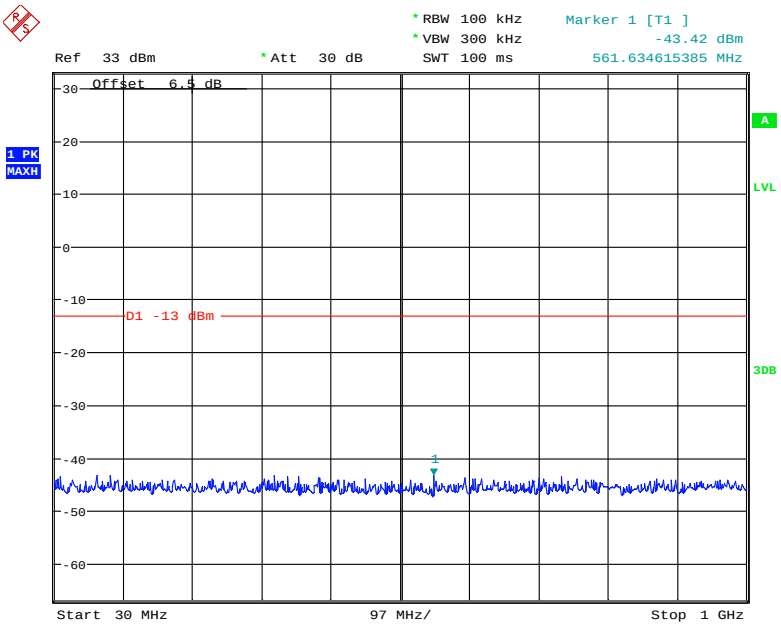
1 GHz – 20 GHz (15.0 MHz, Low Channel)



Fundamental test

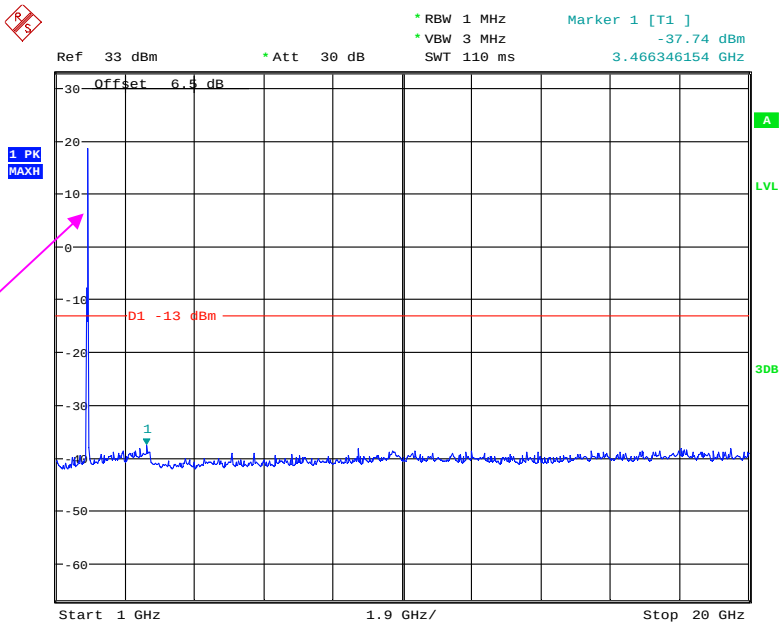
Date: 14.NOV.2020 09:08:34

30 MHz - 1 GHz (20.0 MHz, Low Channel)



Date: 14.NOV.2020 09:13:55

1 GHz – 2 GHz (20.0 MHz, Low Channel)

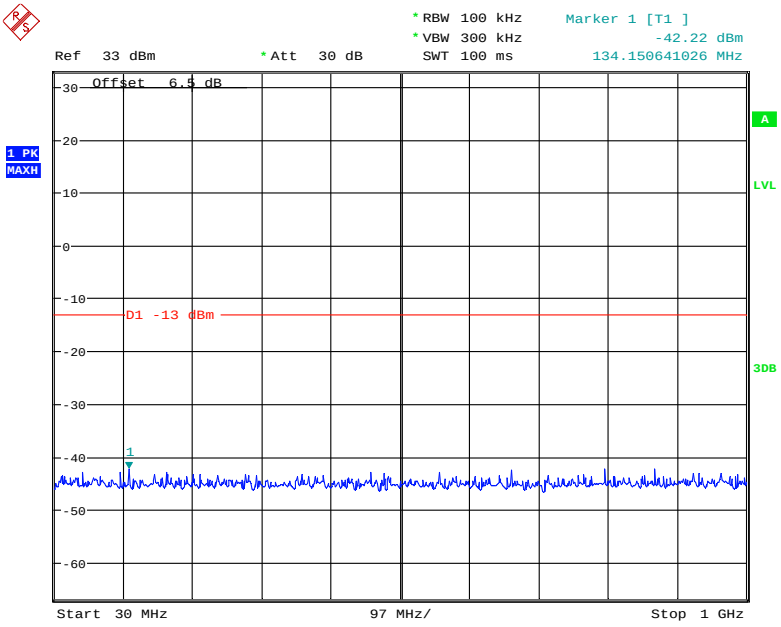


Fundamental test

Date: 14.NOV.2020 09:09:55

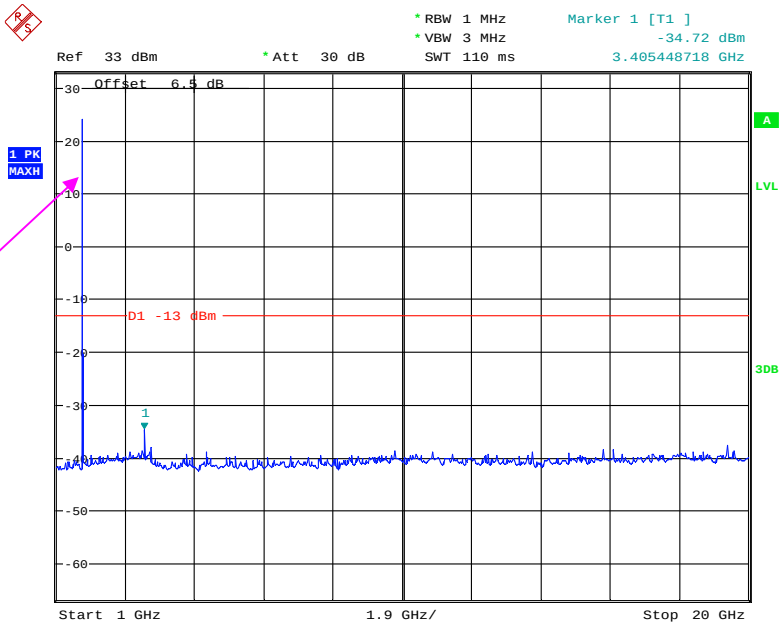
LTE Band 4:

30 MHz - 1 GHz (1.4 MHz, Low Channel)



Date: 14.NOV.2020 09:27:06

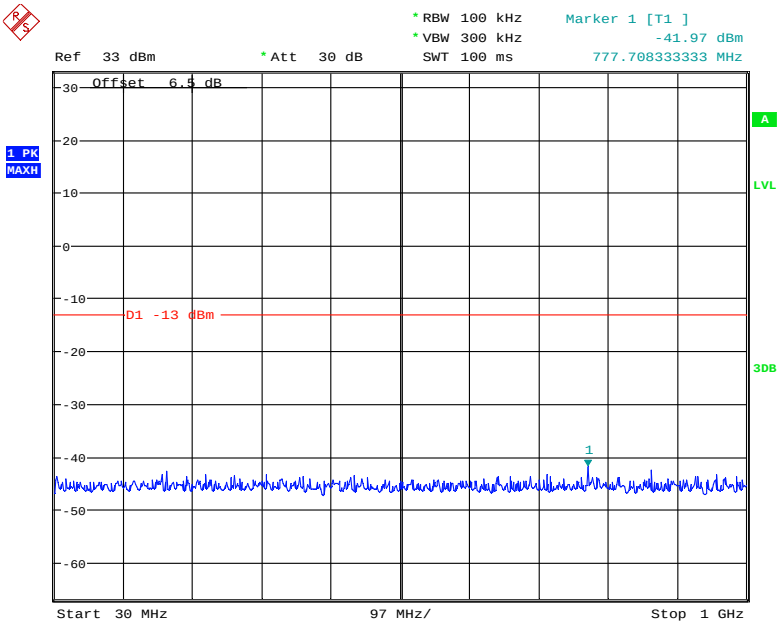
1 GHz – 20 GHz (1.4 MHz, Low Channel)



Fundamental test

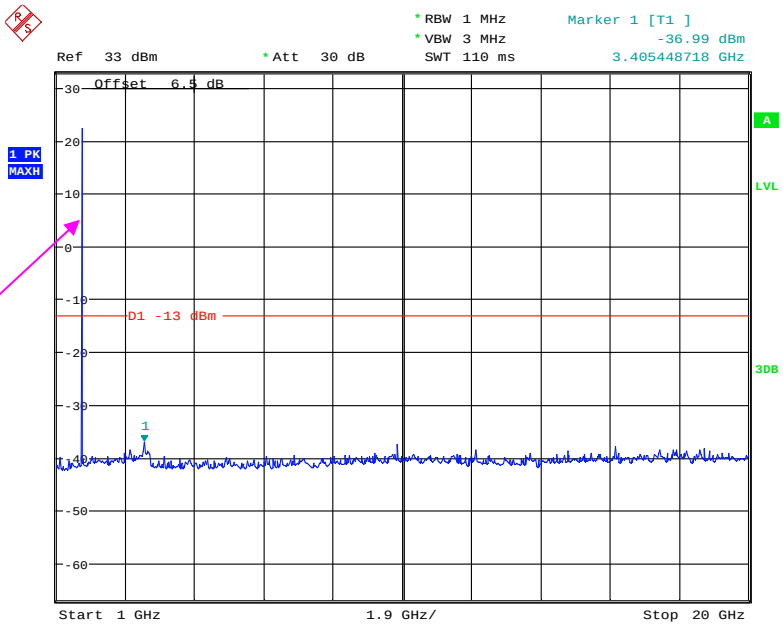
Date: 14.NOV.2020 09:16:10

30 MHz - 1 GHz (3.0 MHz, Low Channel)



Date: 14.NOV.2020 09:27:44

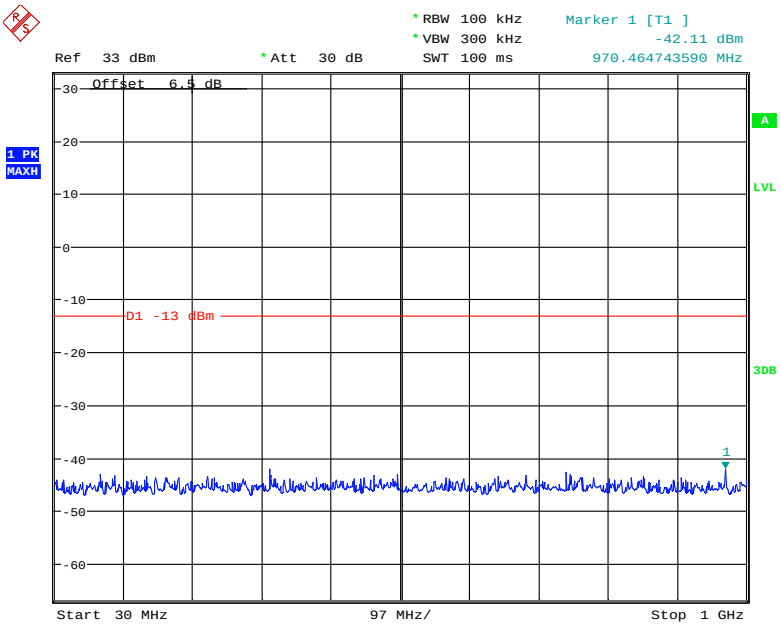
1 GHz – 20 GHz (3.0 MHz, Low Channel)



Fundamental test

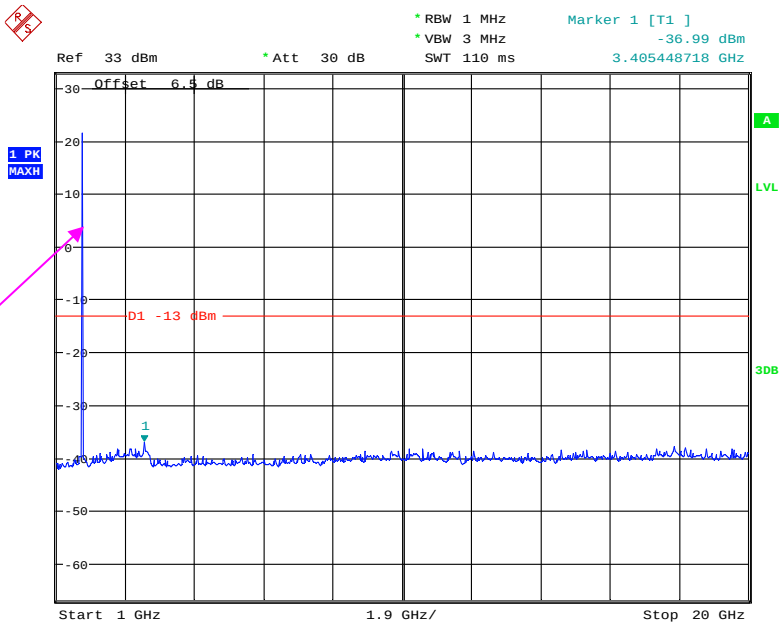
Date: 14.NOV.2020 09:17:52

30 MHz - 1 GHz (5.0 MHz, Low Channel)



Date: 14.NOV.2020 09:28:13

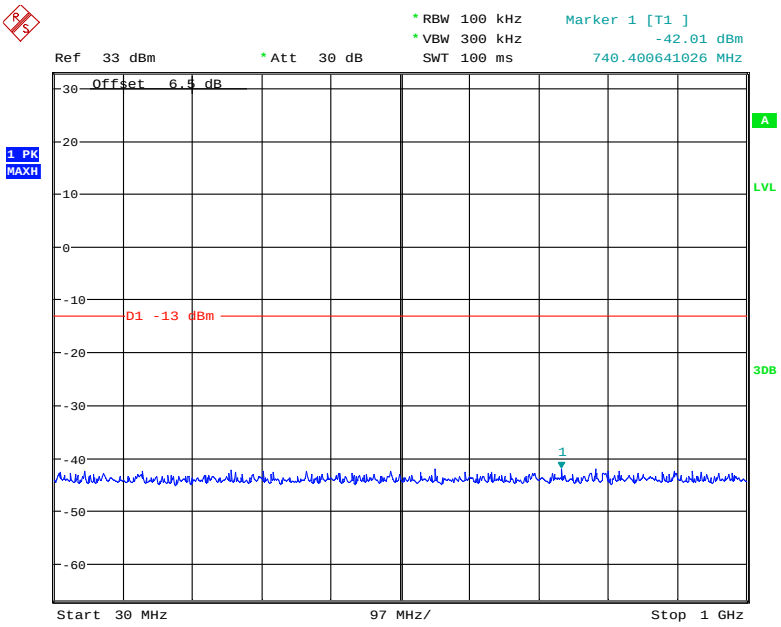
1 GHz – 20 GHz (5.0 MHz, Low Channel)



Fundamental test

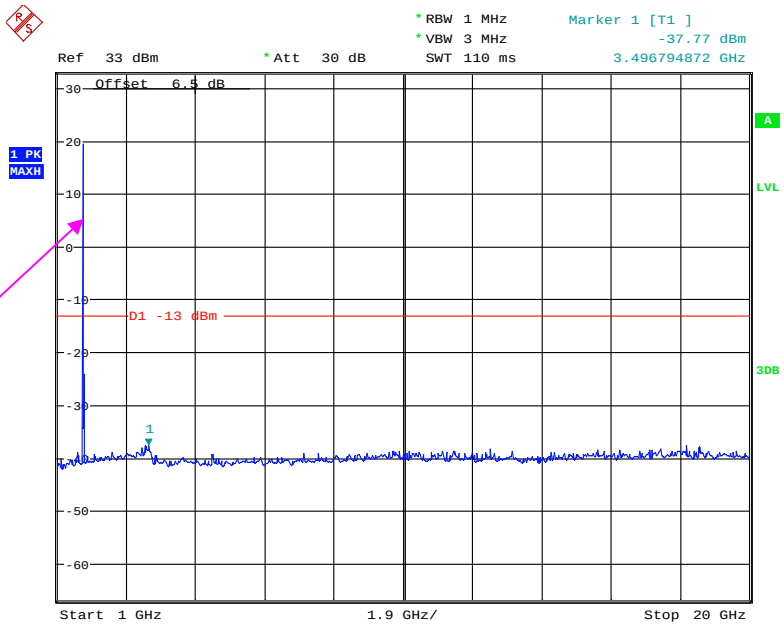
Date: 14.NOV.2020 09:19:44

30 MHz - 1 GHz (10.0 MHz, Low Channel)



Date: 14.NOV.2020 09:29:16

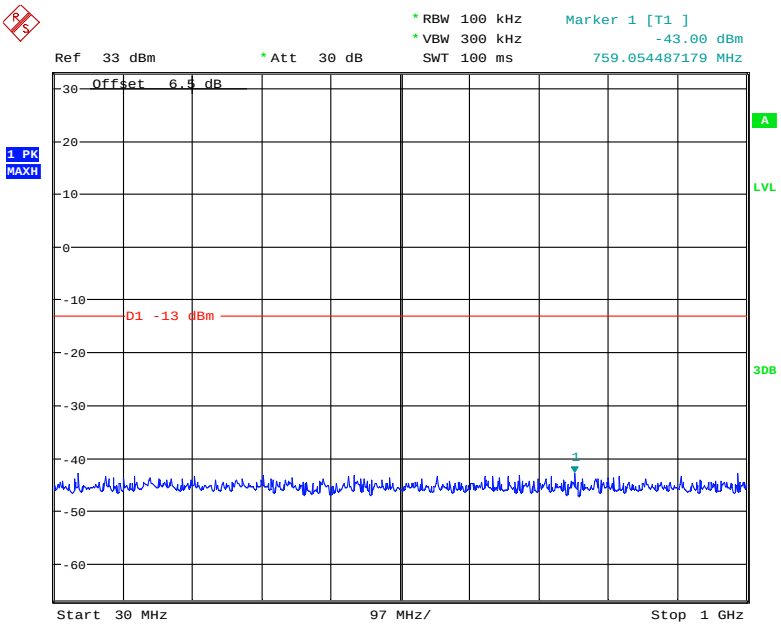
1 GHz – 20 GHz (10.0 MHz, Low Channel)



Fundamental test

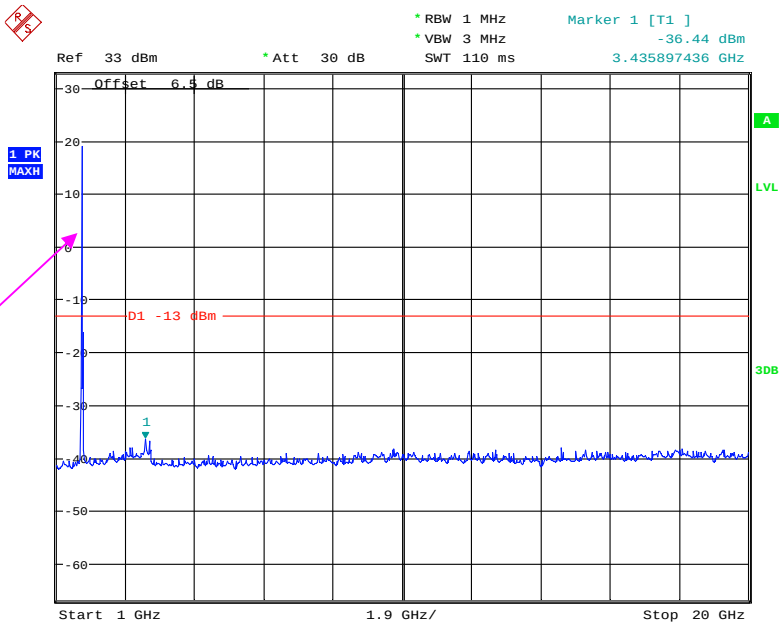
Date: 14.NOV.2020 09:21:22

30 MHz - 1 GHz (15.0 MHz, Low Channel)



Date: 14.NOV.2020 09:30:00

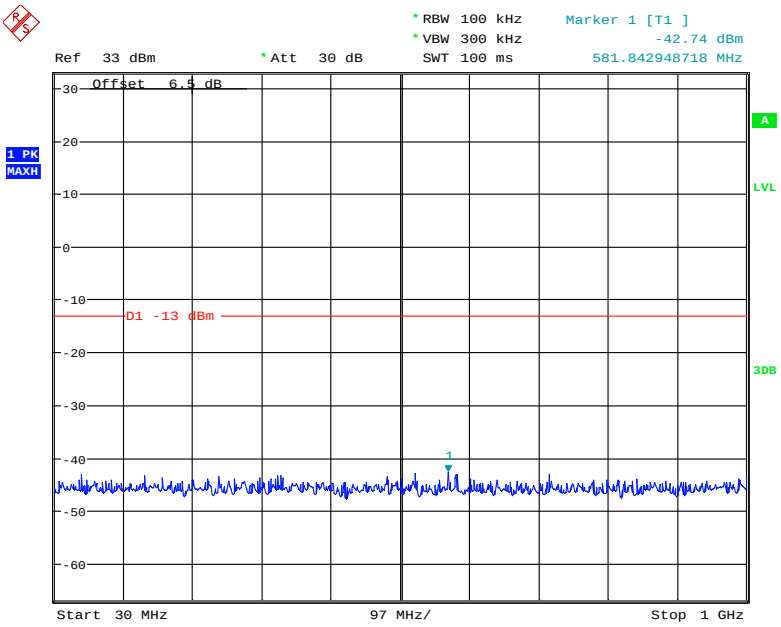
1 GHz – 20 GHz (15.0 MHz, Low Channel)



Fundamental test

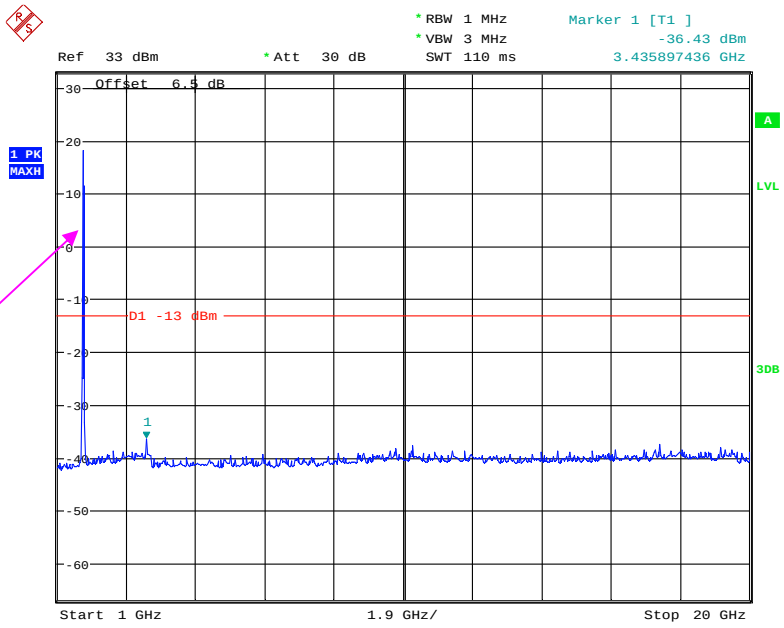
Date: 14.NOV.2020 09:22:46

30 MHz - 1 GHz (20.0 MHz, Low Channel)



Date: 14.NOV.2020 09:30:28

1 GHz – 20 GHz (20.0 MHz, Low Channel)

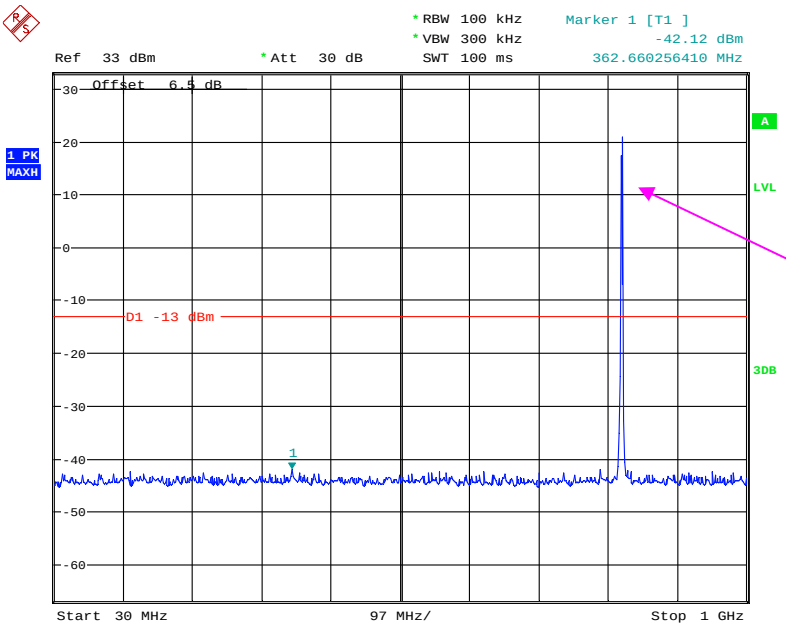


Fundamental test

Date: 14.NOV.2020 09:24:18

LTE Band 5:

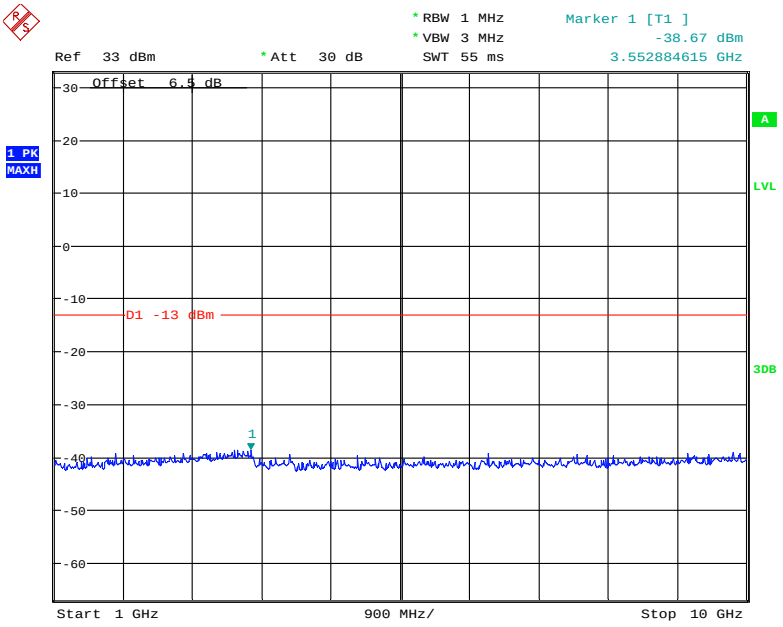
30 MHz - 1 GHz (1.4 MHz, Low Channel)



Fundamental test

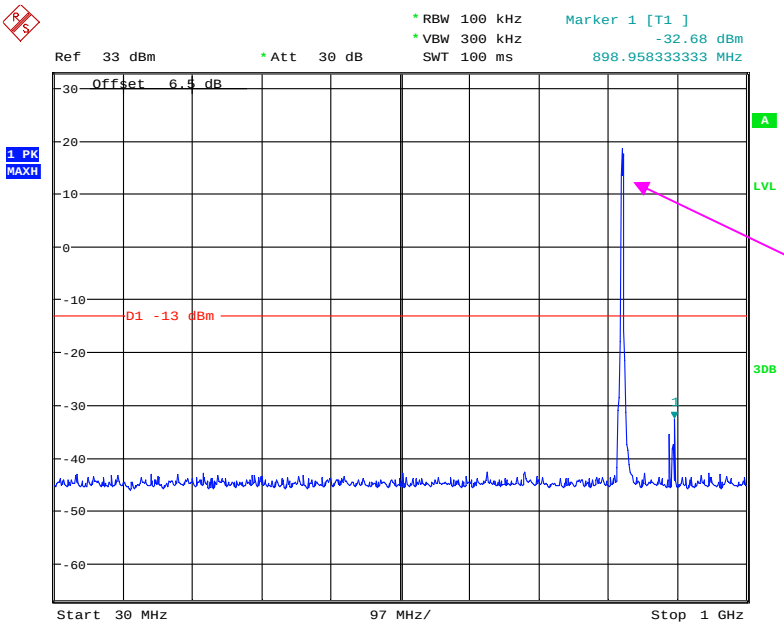
Date: 14.NOV.2020 09:34:11

1 GHz – 10 GHz (1.4 MHz, Low Channel)



Date: 14.NOV.2020 09:44:09

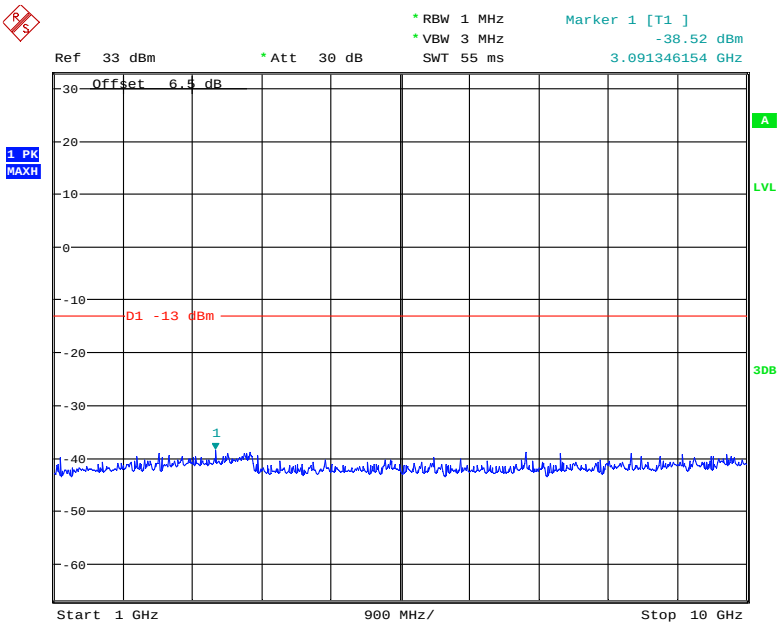
30 MHz - 1 GHz (3.0 MHz, Low Channel)



Fundamental test

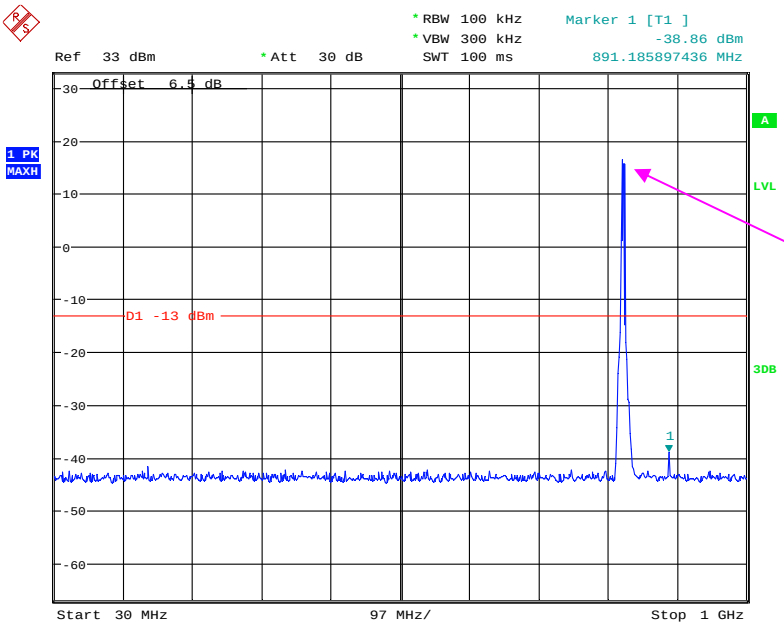
Date: 14.NOV.2020 09:35:56

1 GHz – 10 GHz (3.0 MHz, Low Channel)



Date: 14.NOV.2020 09:49:22

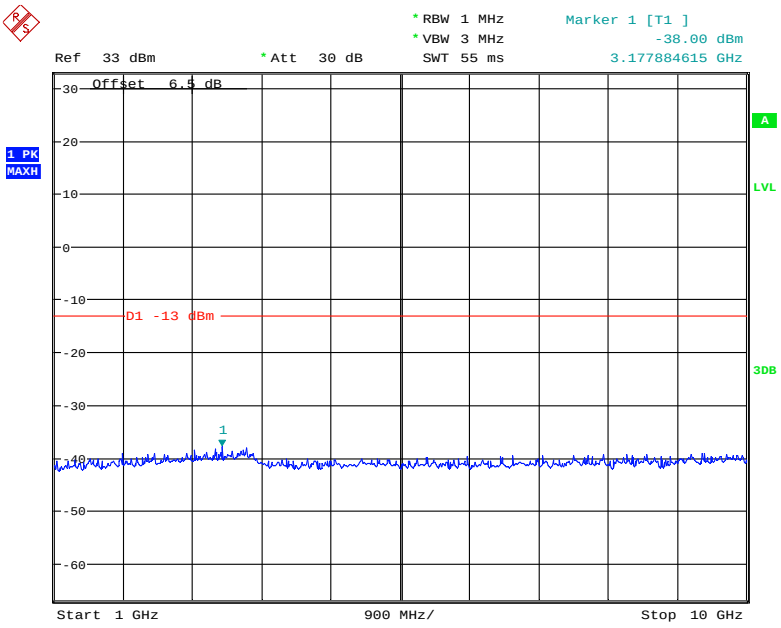
30 MHz - 1 GHz (5.0 MHz, Low Channel)



Fundamental test

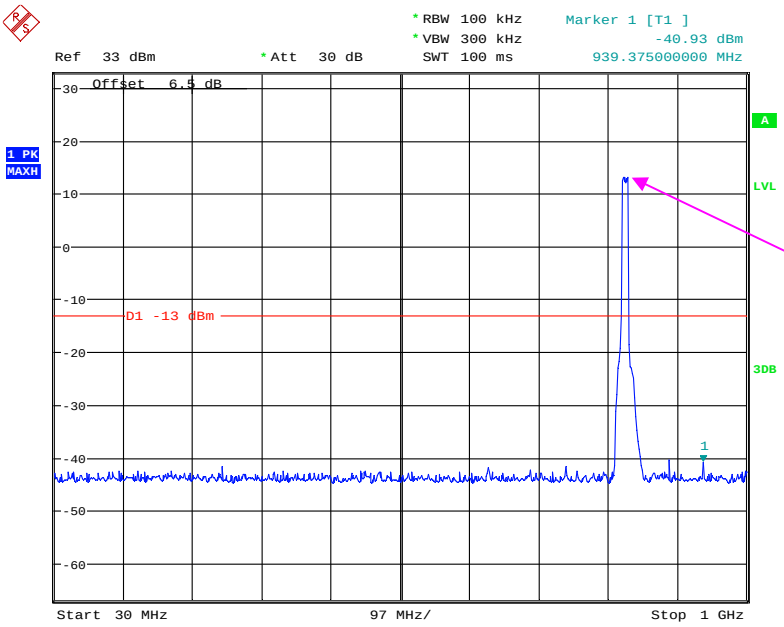
Date: 14.NOV.2020 09:38:04

1 GHz – 10 GHz (5.0 MHz, Low Channel)



Date: 14.NOV.2020 09:50:20

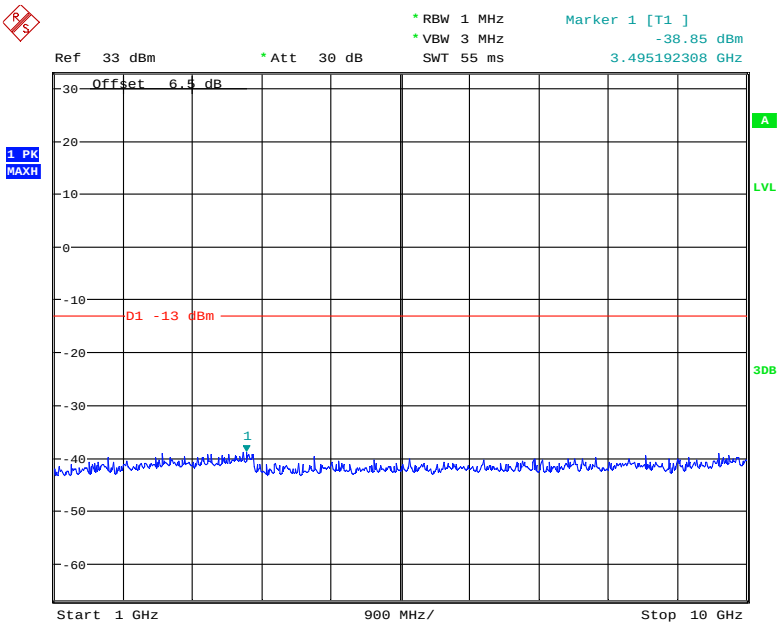
30 MHz - 1 GHz (10.0 MHz, Low Channel)



Fundamental test

Date: 14.NOV.2020 09:40:00

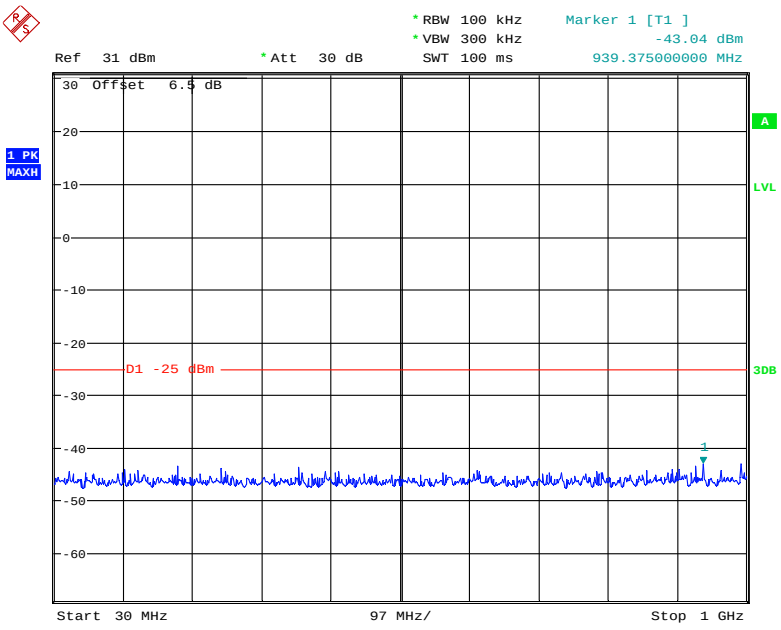
1 GHz – 10 GHz (10.0 MHz, Low Channel)



Date: 14.NOV.2020 09:53:10

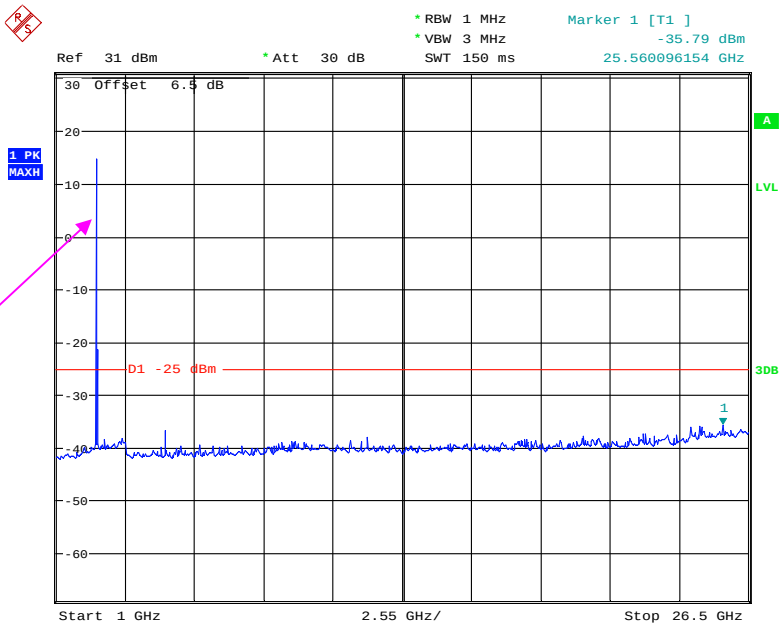
LTE Band 7:

30 MHz - 1 GHz (5.0 MHz, Low Channel)



Date: 17.NOV.2020 09:28:12

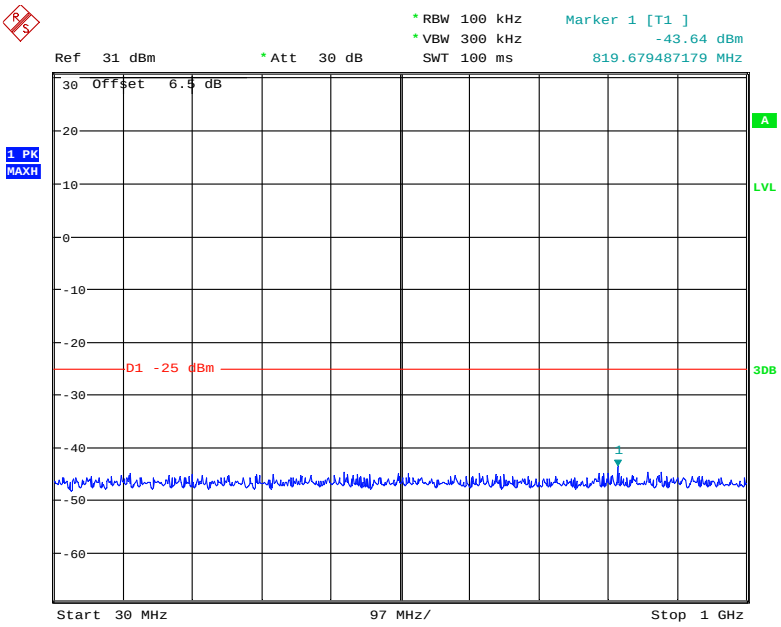
1 GHz – 26.5 GHz (5.0 MHz, Low Channel)



Fundamental test

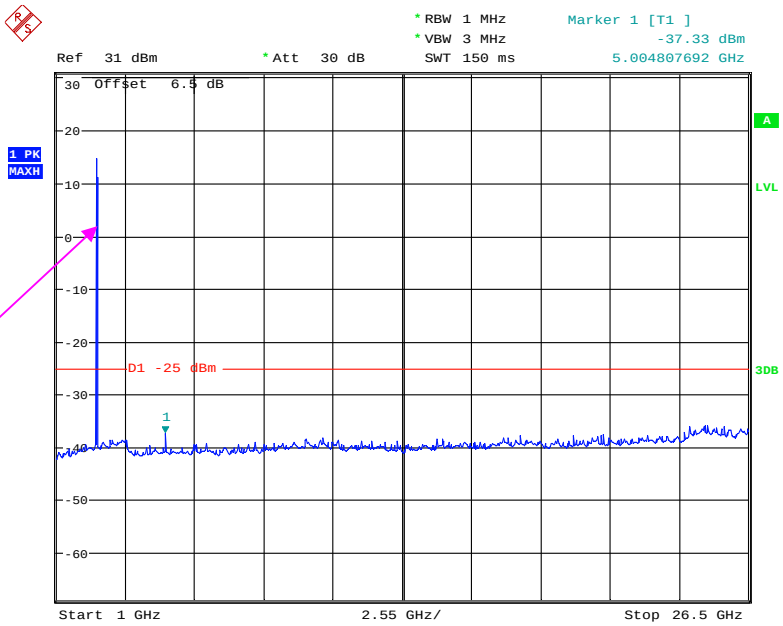
Date: 17.NOV.2020 09:34:59

30 MHz - 1 GHz (10.0 MHz, Low Channel)



Date: 17.NOV.2020 09:29:12

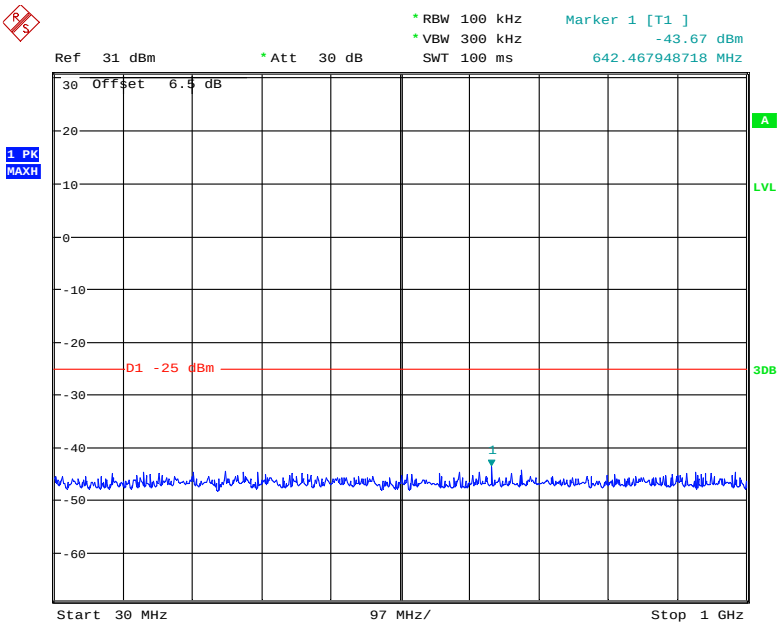
1 GHz – 26.5 GHz (10.0 MHz, Low Channel)



Fundamental test

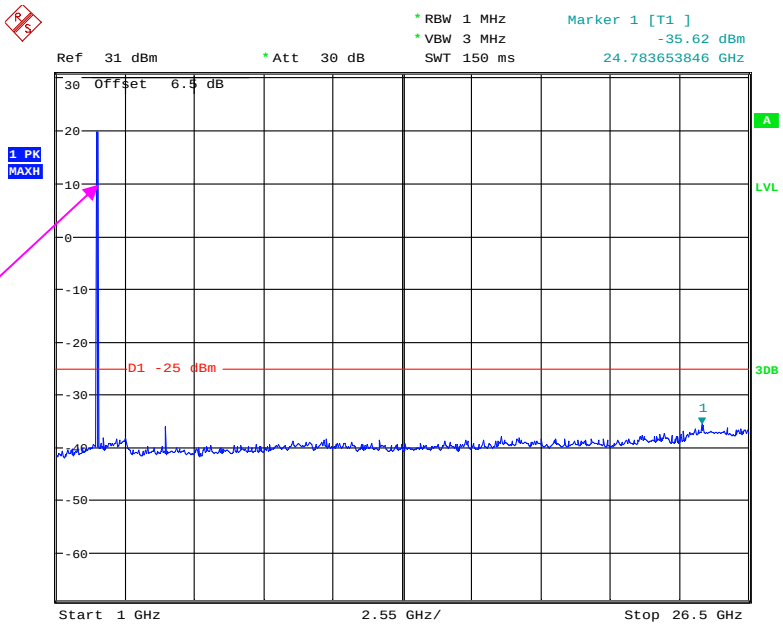
Date: 17.NOV.2020 09:40:32

30 MHz - 1 GHz (15.0 MHz, Low Channel)



Date: 17.NOV.2020 09:29:35

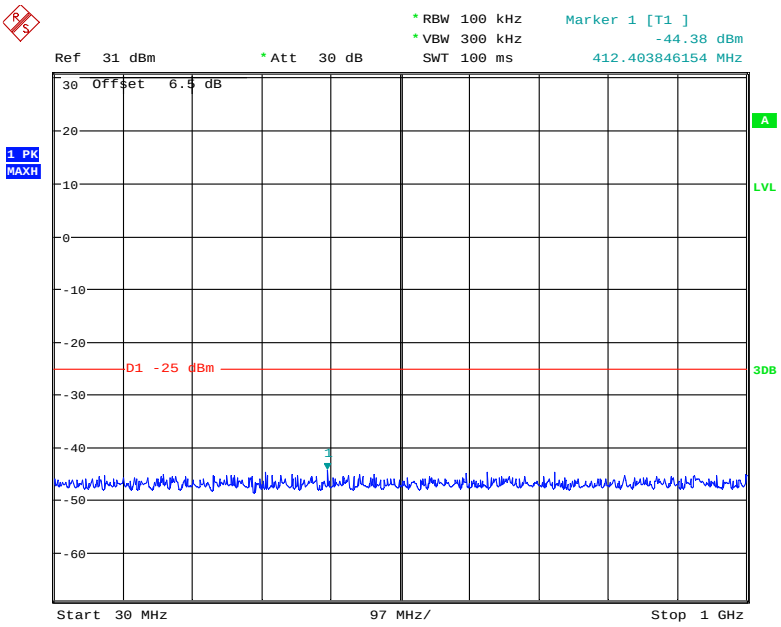
1 GHz – 26.5 GHz (15.0 MHz, Low Channel)



Fundamental test

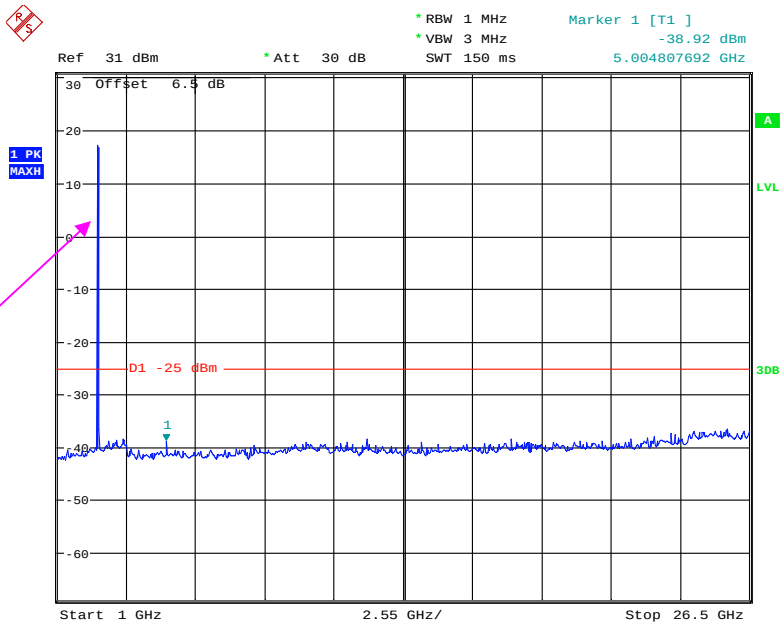
Date: 17.NOV.2020 09:56:39

30 MHz - 1 GHz (20.0 MHz, Low Channel)



Date: 17.NOV.2020 09:29:58

1 GHz – 26.5 GHz (20.0 MHz, Low Channel)

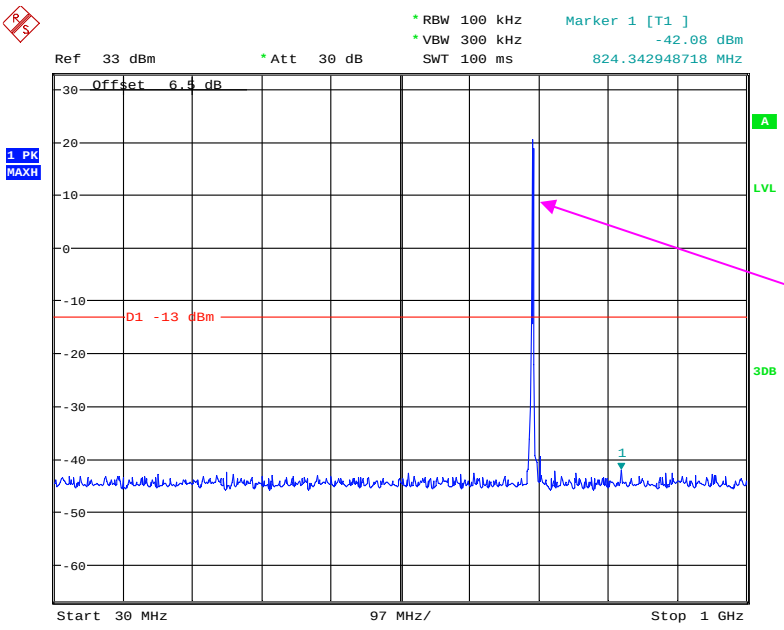


Fundamental test

Date: 17.NOV.2020 09:53:54

LTE Band 12:

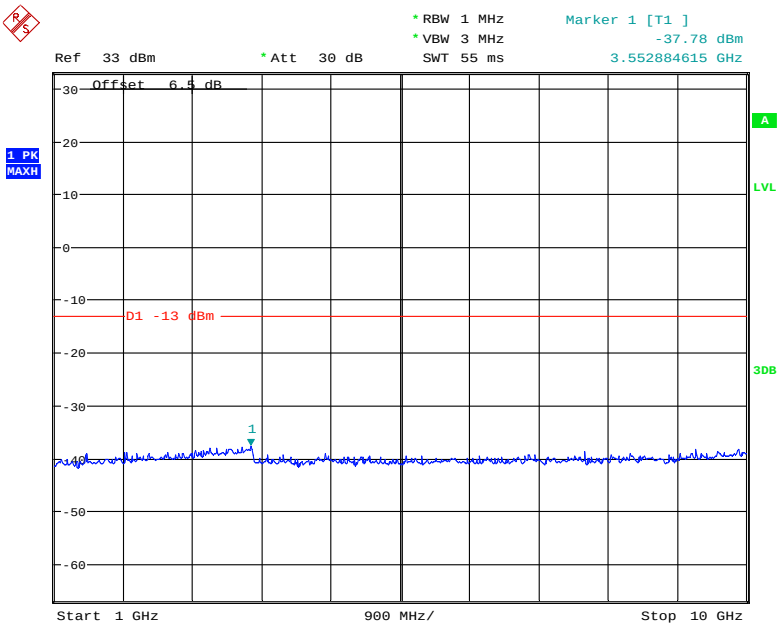
30 MHz - 1 GHz (1.4 MHz, Low Channel)



Fundamental test

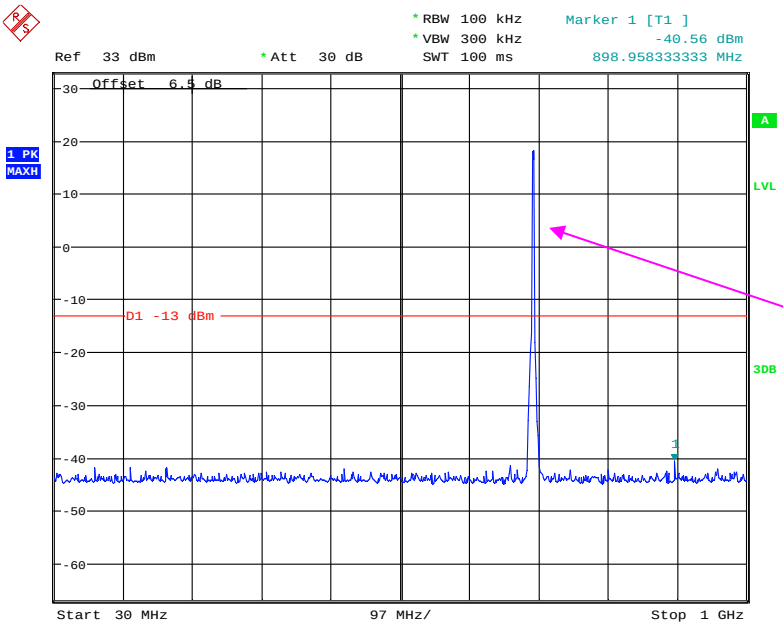
Date: 14.NOV.2020 11:36:46

1 GHz – 10 GHz (1.4 MHz, Low Channel)



Date: 14.NOV.2020 11:48:49

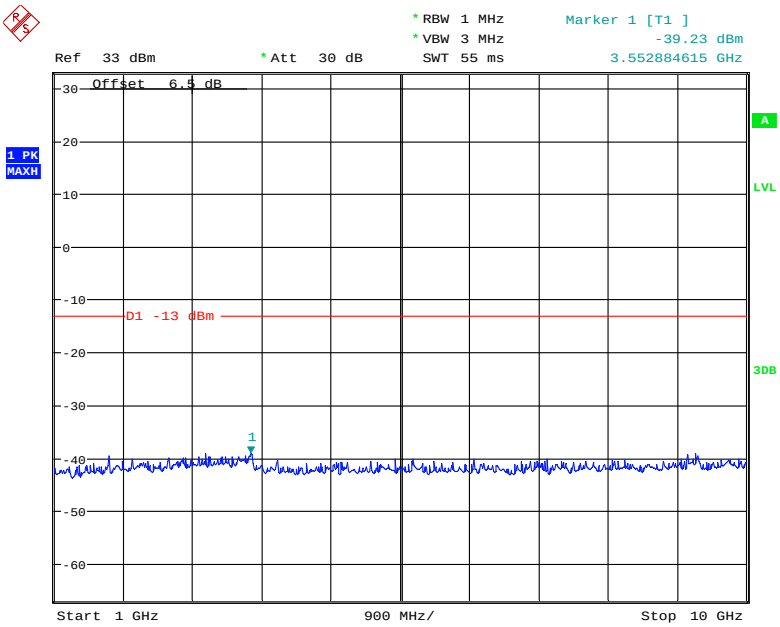
30 MHz - 1 GHz (3.0 MHz, Low Channel)



Fundamental test

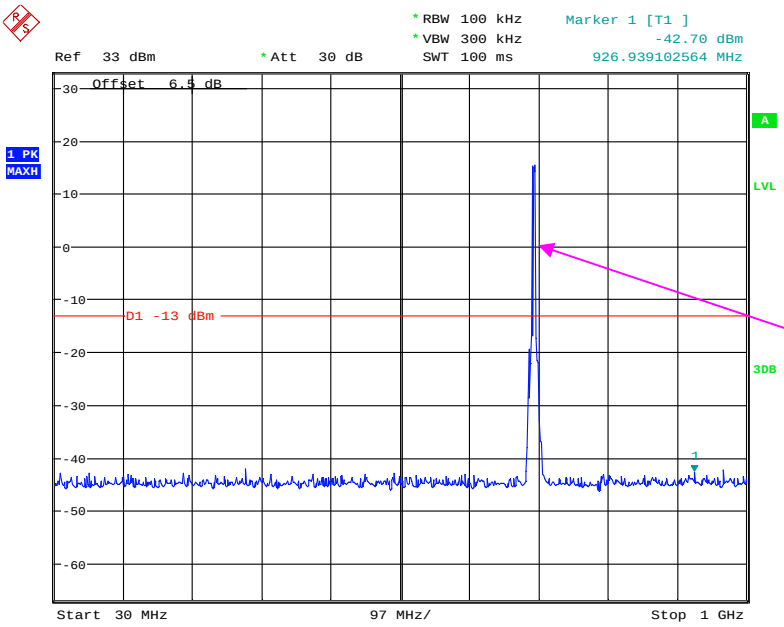
Date: 14.NOV.2020 11:39:20

1 GHz – 20 GHz (3.0 MHz, Low Channel)



Date: 14.NOV.2020 11:50:54

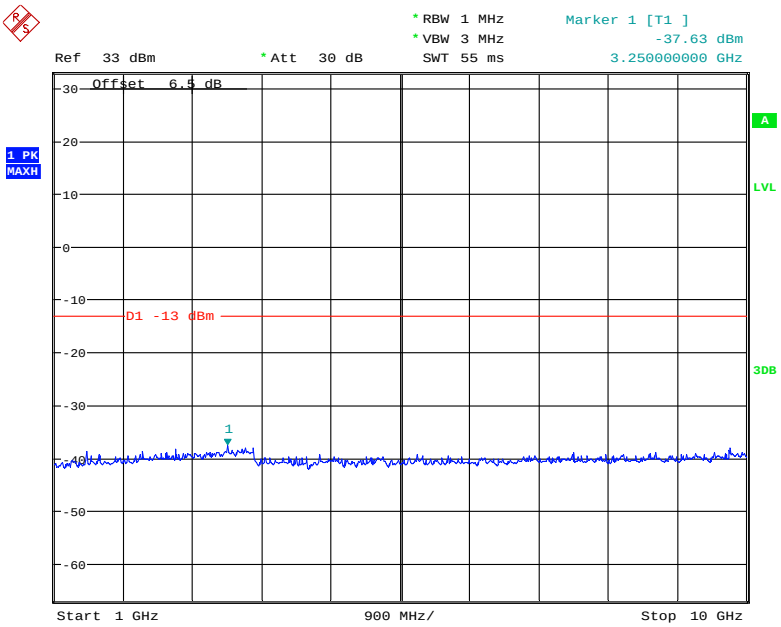
30 MHz - 1 GHz (5.0 MHz, Low Channel)



Fundamental test

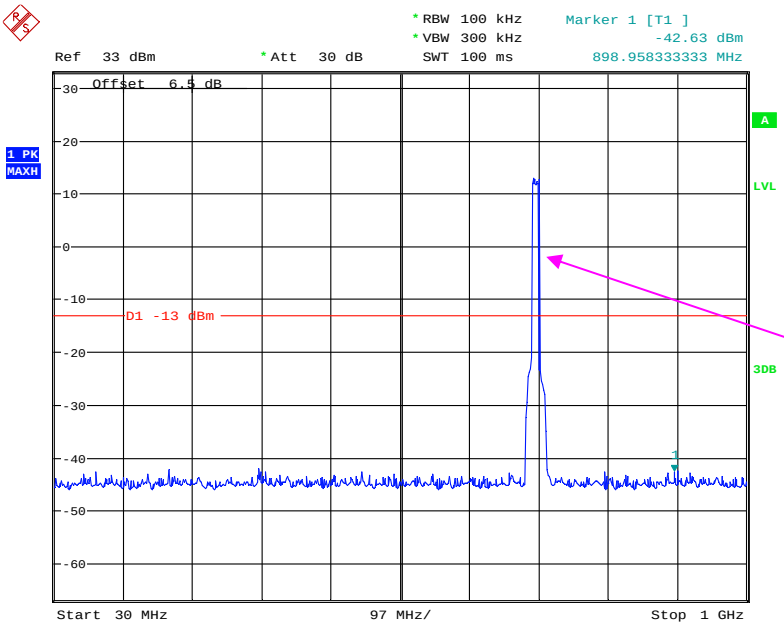
Date: 14.NOV.2020 11:43:45

1 GHz – 10 GHz (5.0 MHz, Low Channel)



Date: 14.NOV.2020 11:52:01

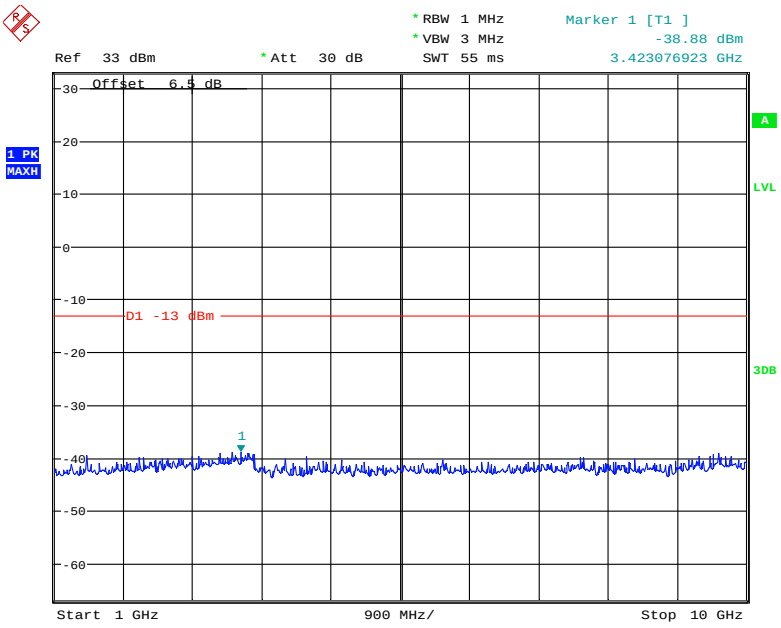
30 MHz - 1 GHz (10.0 MHz, Low Channel)



Fundamental test

Date: 14.NOV.2020 11:44:52

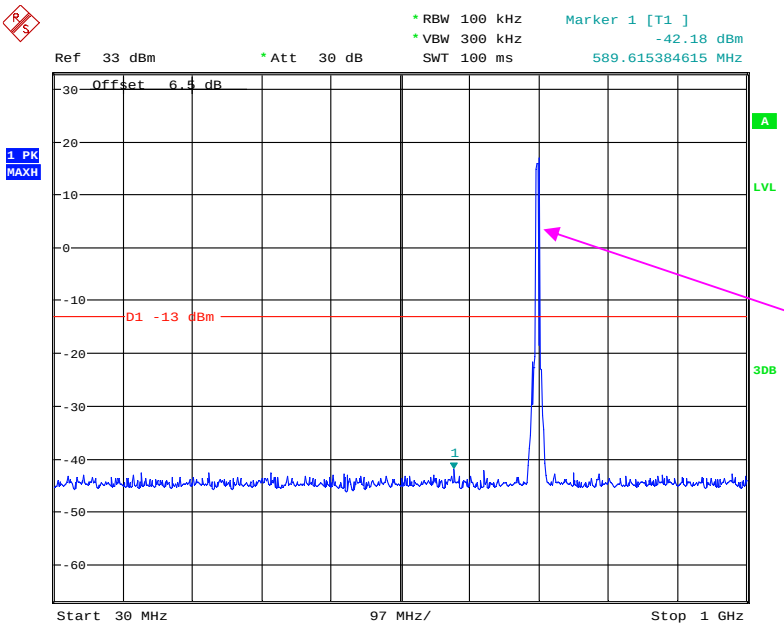
1 GHz – 10 GHz (10.0 MHz, Low Channel)



Date: 14.NOV.2020 11:52:32

LTE Band 17:

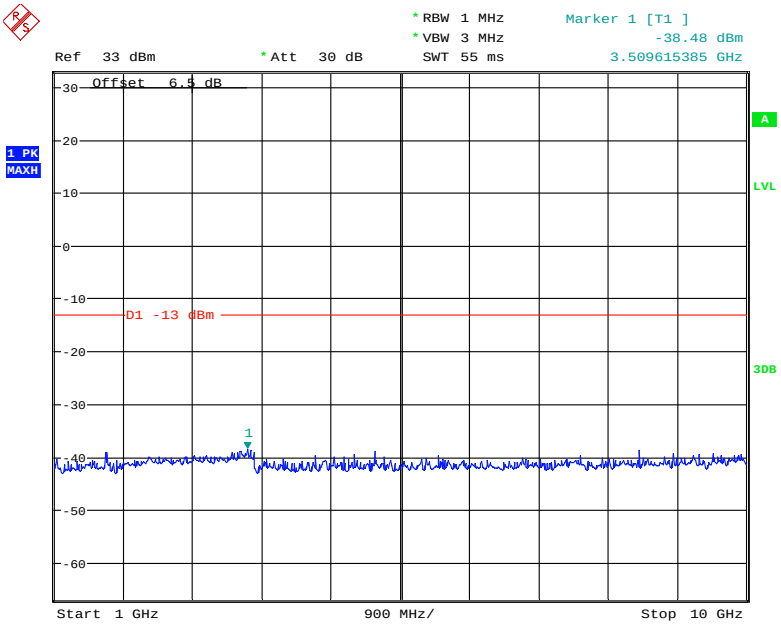
30 MHz - 1 GHz (5.0 MHz, Low Channel)



Fundamental test

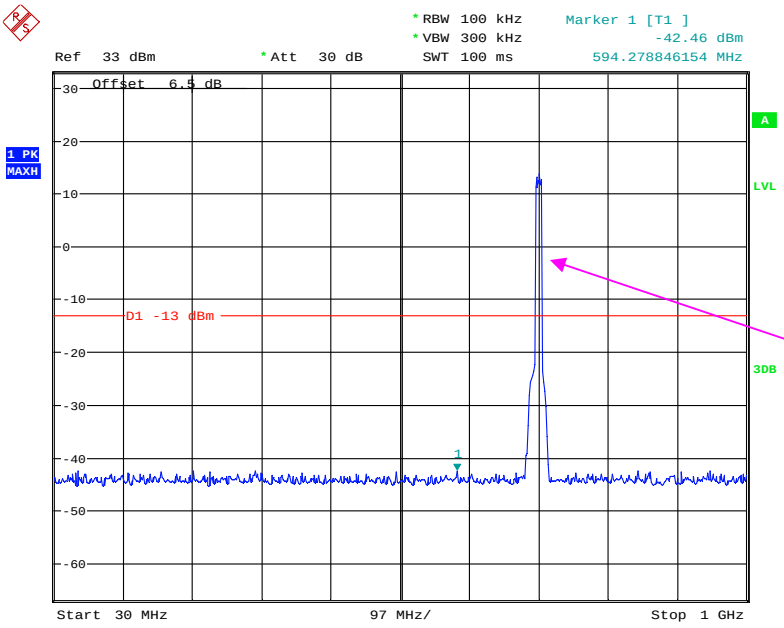
Date: 14.NOV.2020 11:54:28

1 GHz – 10 GHz (5.0 MHz, Low Channel)



Date: 14.NOV.2020 11:57:42

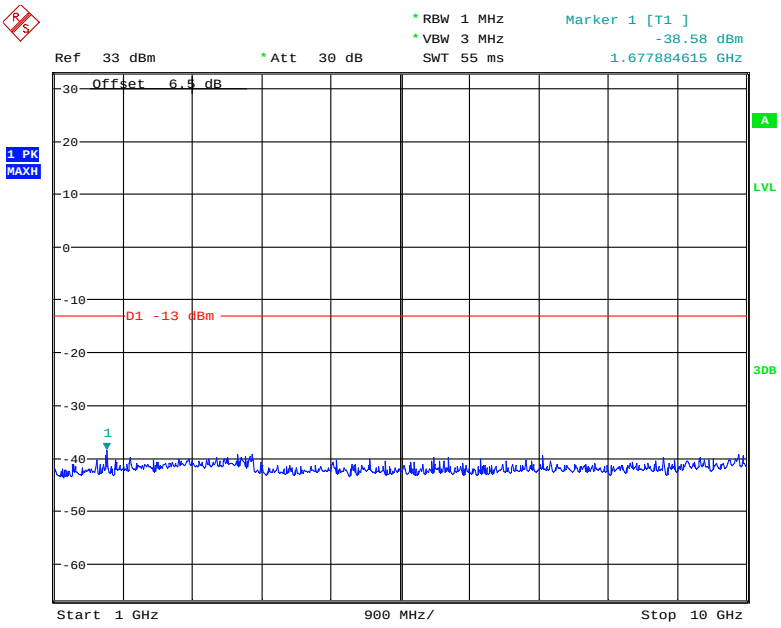
30 MHz - 1 GHz (10.0 MHz, Low Channel)



Fundamental test

Date: 14.NOV.2020 11:56:06

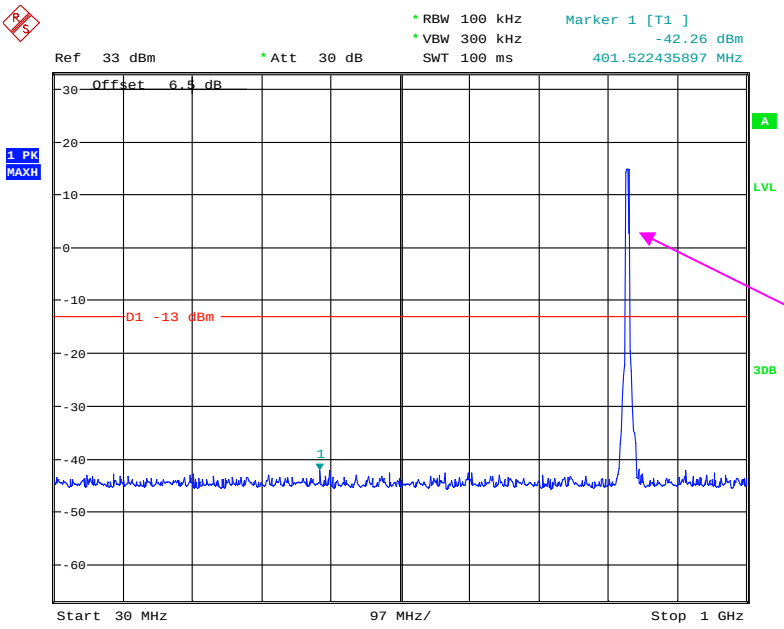
1 GHz – 10 GHz (10.0 MHz, Low Channel)



Date: 14.NOV.2020 11:58:17

LTE Band 19:

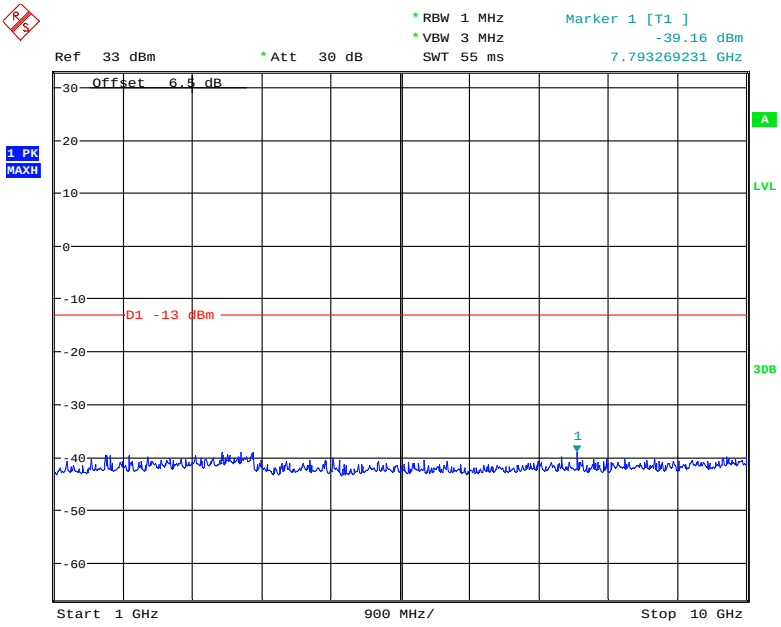
30 MHz - 1 GHz (5.0 MHz, Low Channel)



Fundamental test

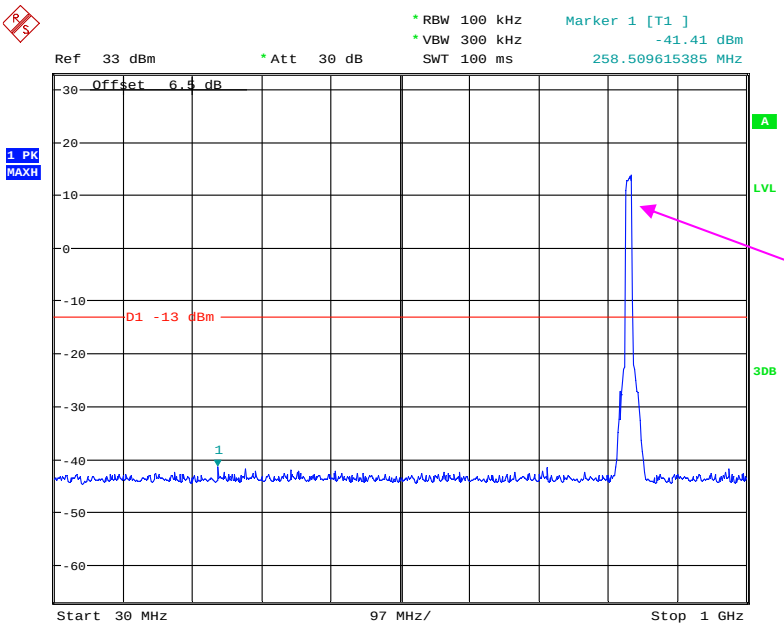
Date: 14.NOV.2020 11:59:36

1 GHz – 10 GHz (5.0 MHz, Low Channel)



Date: 14.NOV.2020 12:06:38

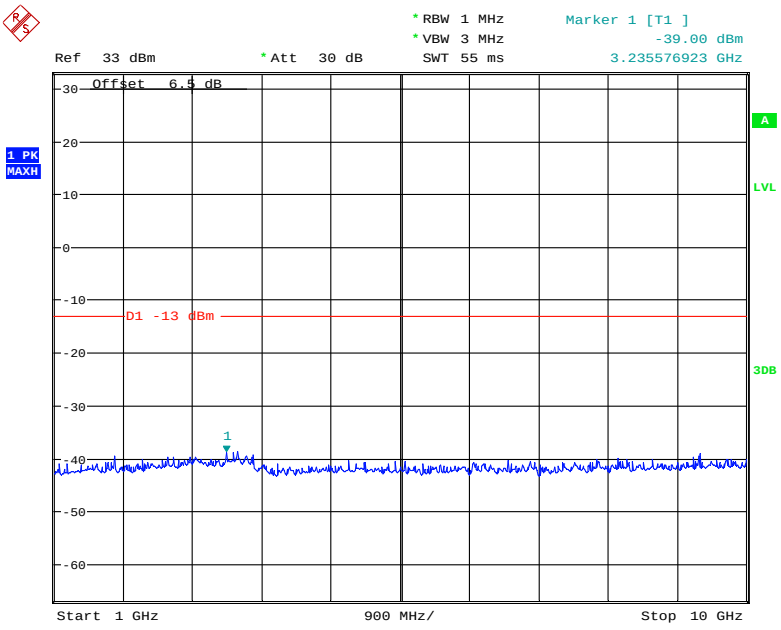
30 MHz - 1 GHz (10.0 MHz, Low Channel)



Fundamental test

Date: 14.NOV.2020 12:02:59

1 GHz – 10 GHz (10.0 MHz, Low Channel)

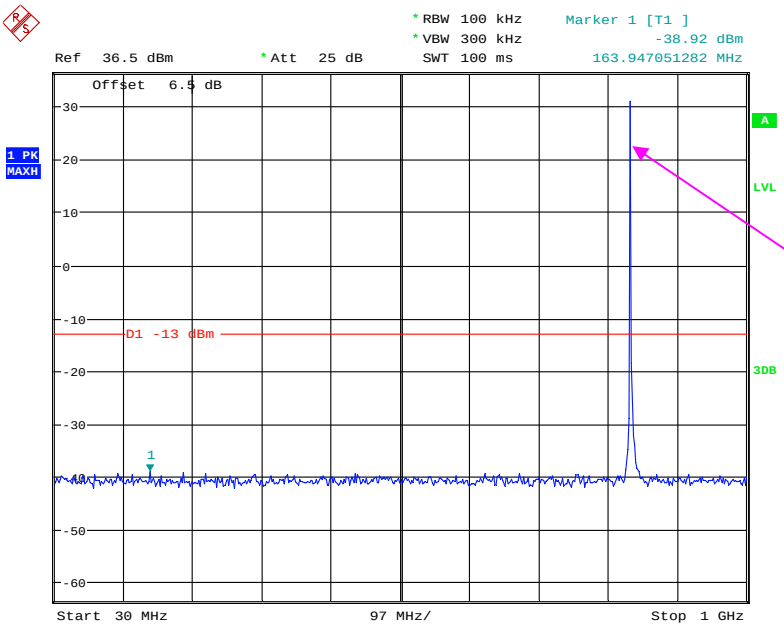


Date: 14.NOV.2020 12:08:05

Middle Channel

Cellular Band (Part 22H)

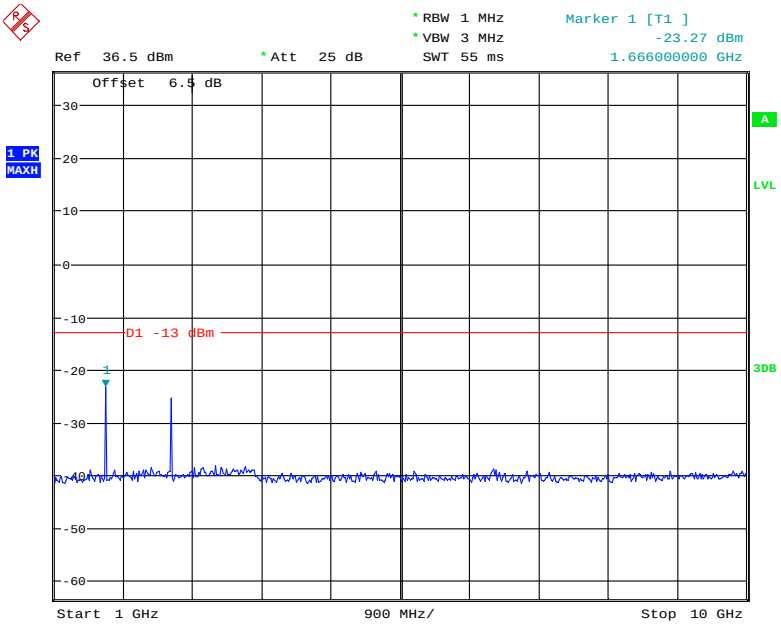
30 MHz – 1 GHz (GSM Mode)



Fundamental test

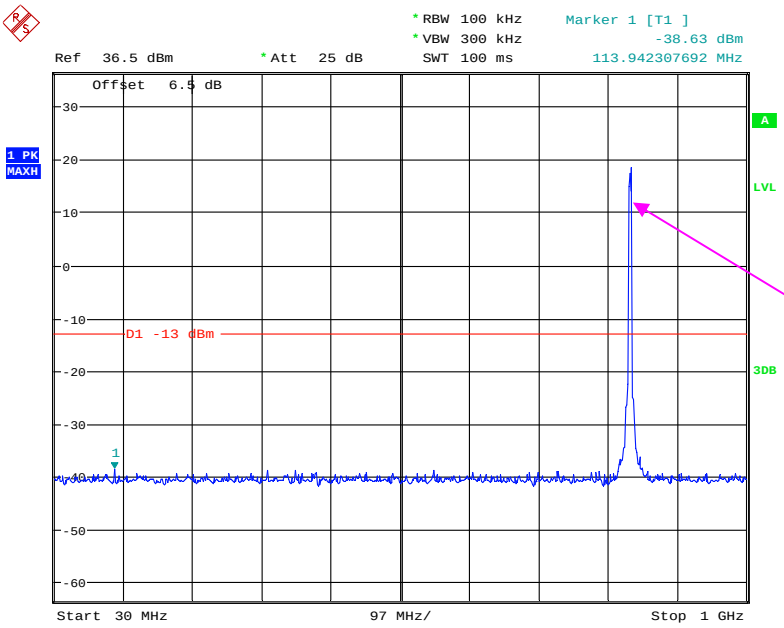
Date: 21.MAY.2020 21:57:48

1 GHz – 10 GHz (GSM Mode)



Date: 21.MAY.2020 21:58:32

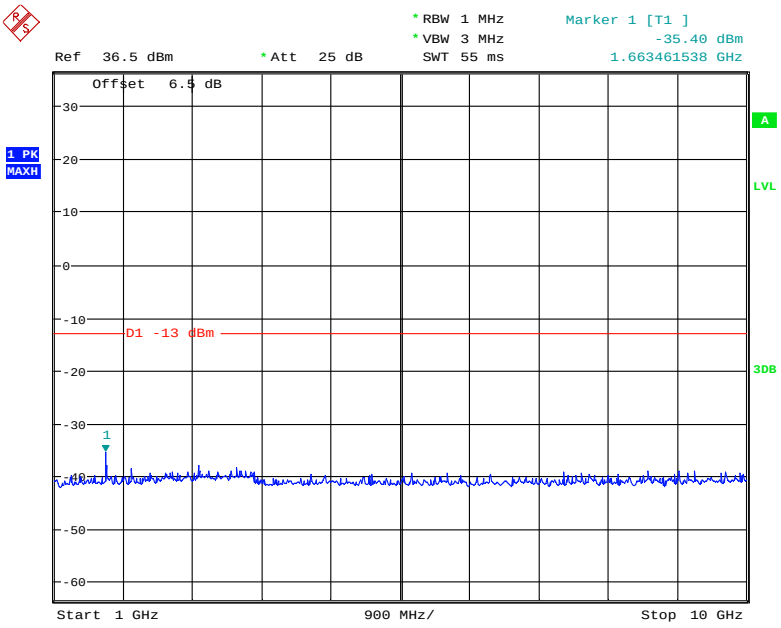
30 MHz – 1 GHz (WCDMA Mode)



Fundamental test

Date: 22.MAY.2020 19:30:16

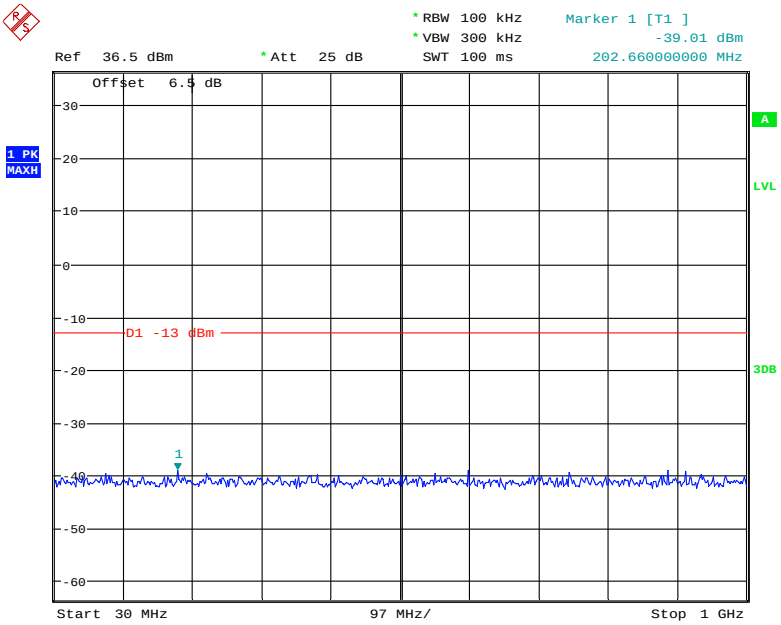
1 GHz – 10 GHz (WCDMA Mode)



Date: 22.MAY.2020 19:30:41

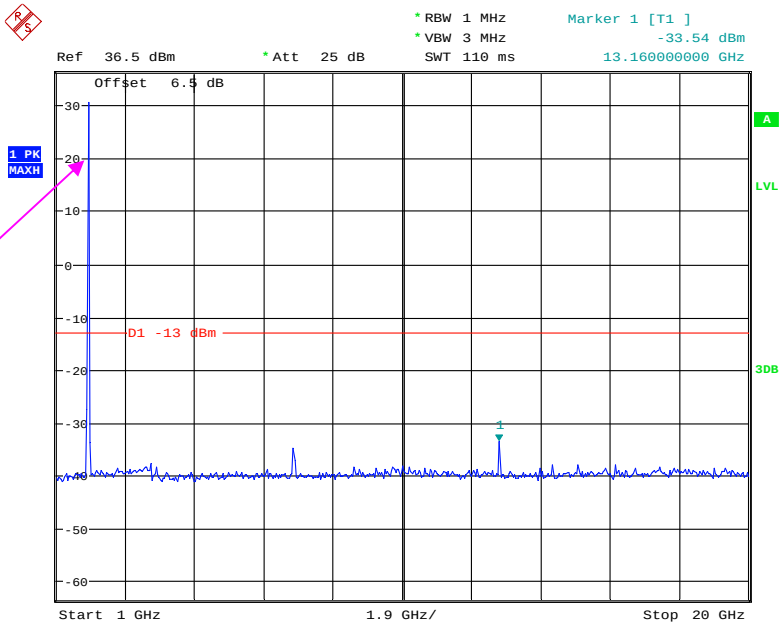
PCS Band (Part 24E)

30 MHz – 1 GHz (GSM Mode)



Date: 21.MAY.2020 22:25:56

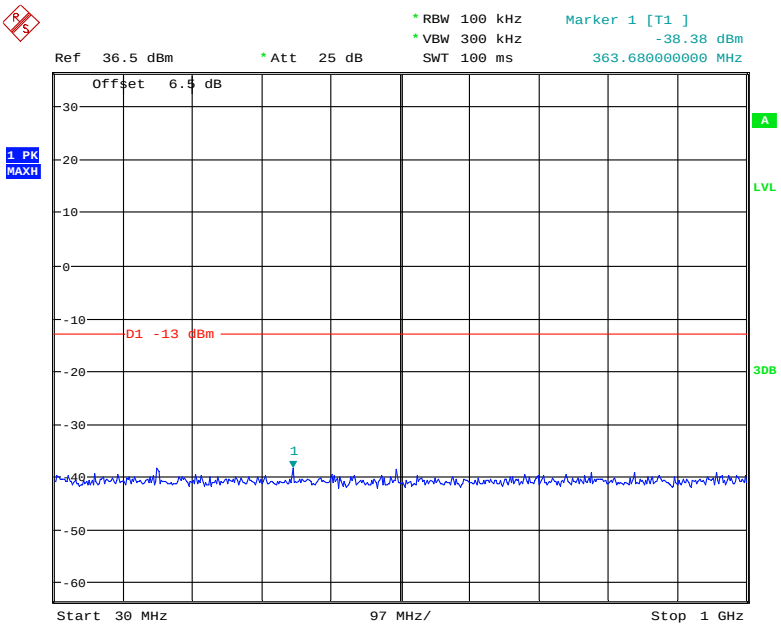
1 GHz – 20 GHz (GSM Mode)



Fundamental test

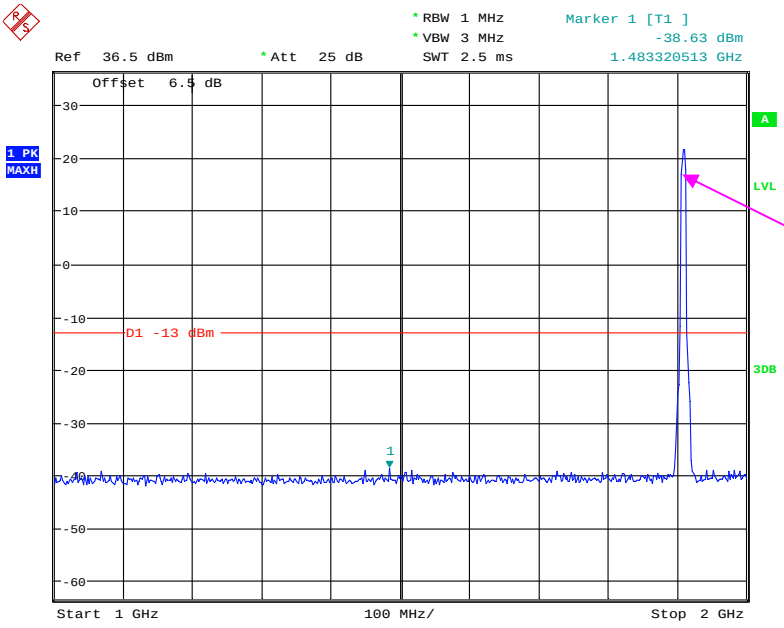
Date: 21.MAY.2020 22:26:42

30 MHz – 1 GHz (WCDMA Mode)



Date: 22.MAY.2020 00:02:10

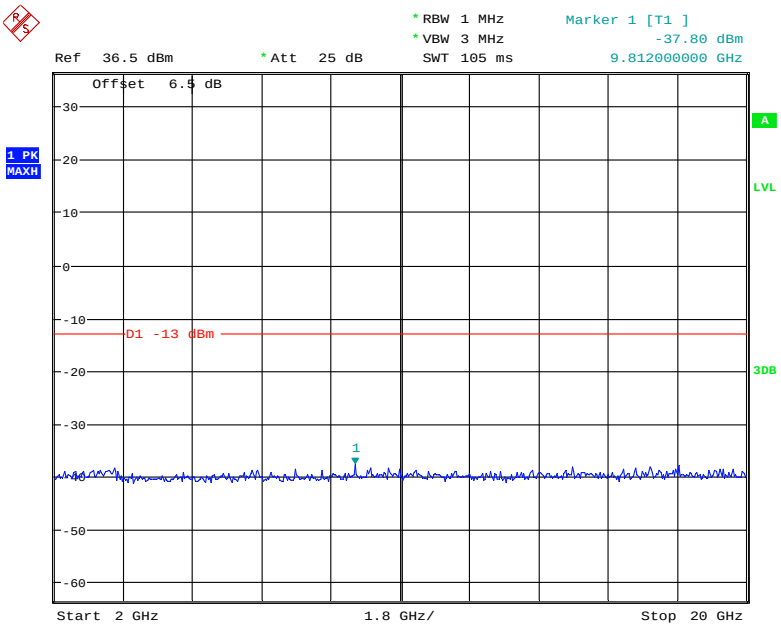
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 22.MAY.2020 00:03:38

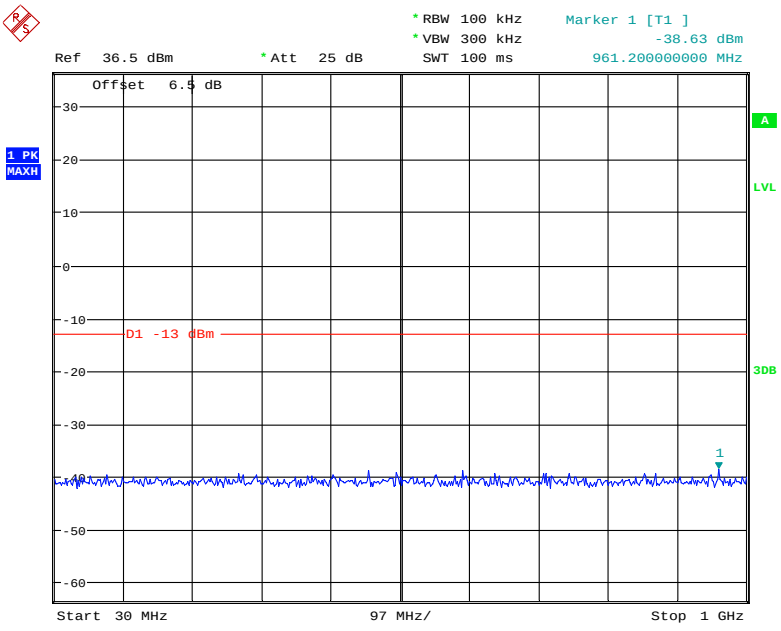
2 GHz – 20 GHz (WCDMA Mode)



Date: 22.MAY.2020 00:04:01

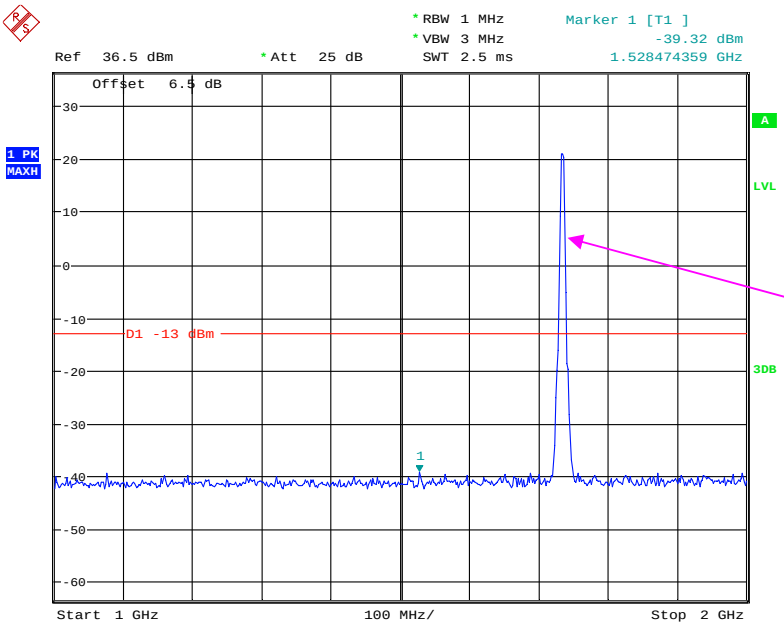
AWS Band (Part 27)

30 MHz – 1 GHz (WCDMA Mode)



Date: 22.MAY.2020 00:41:08

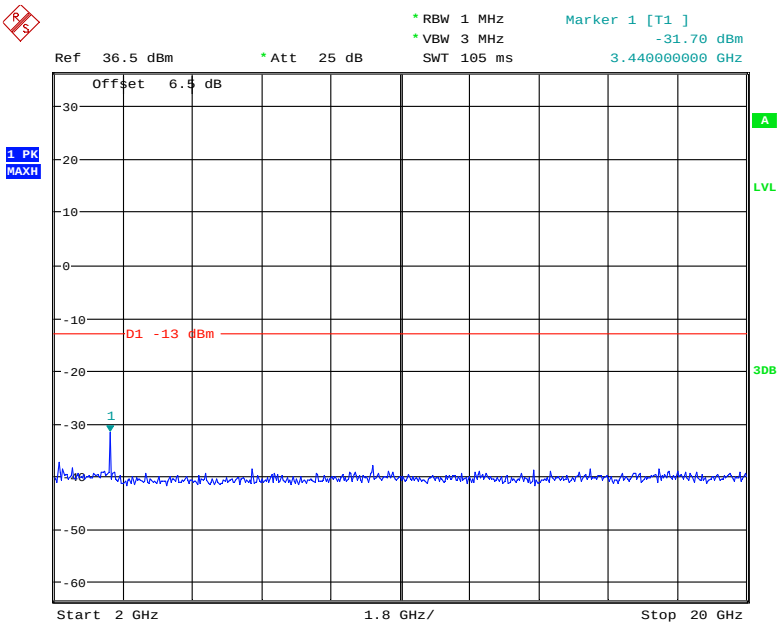
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 22.MAY.2020 00:41:36

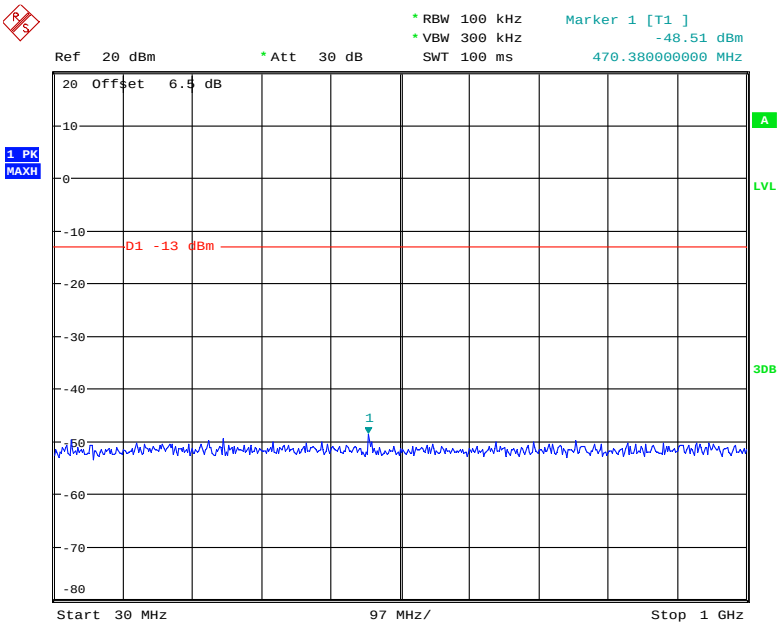
2 GHz – 20 GHz (WCDMA Mode)



Date: 22.MAY.2020 00:41:51

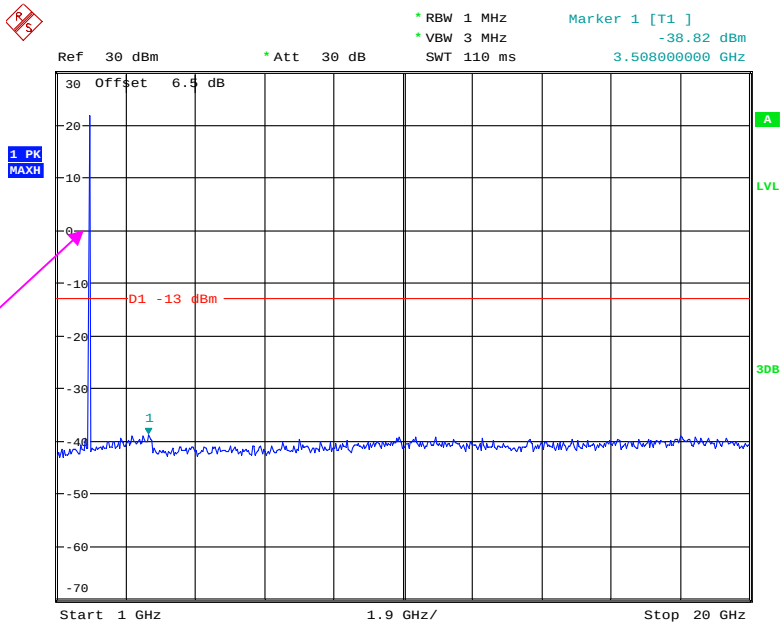
LTE Band 2:

30 MHz - 1 GHz (1.4 MHz, Middle Channel)



Date: 22.MAY.2020 08:46:43

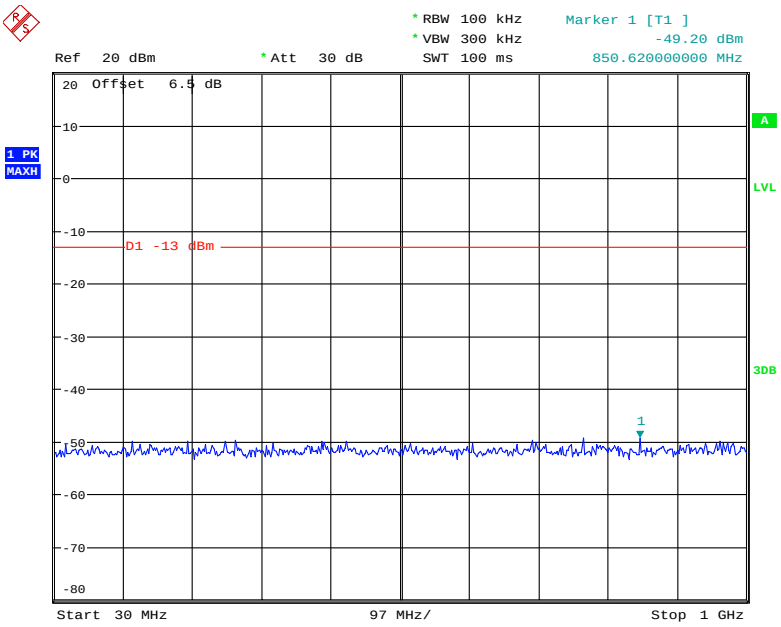
1 GHz – 20 GHz (1.4 MHz, Middle Channel)



Fundamental test

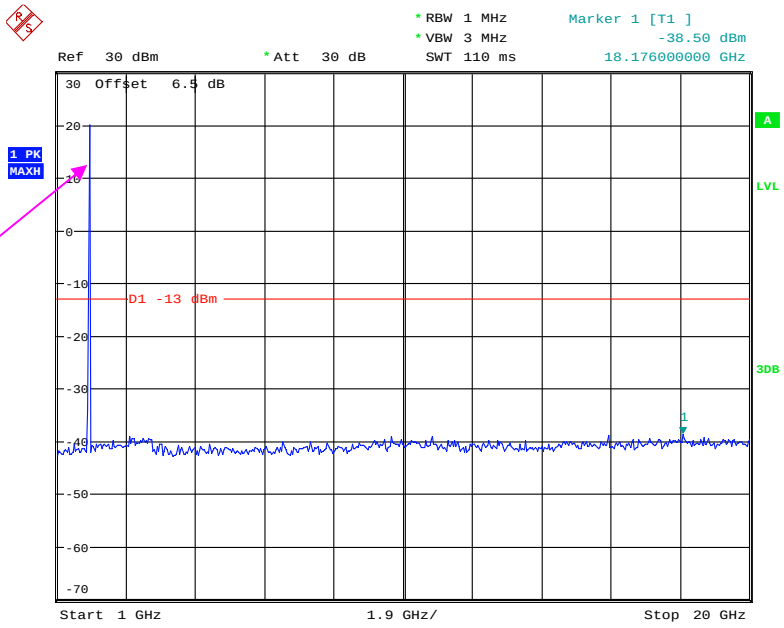
Date: 22.MAY.2020 08:46:54

30 MHz - 1 GHz (3.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:47:15

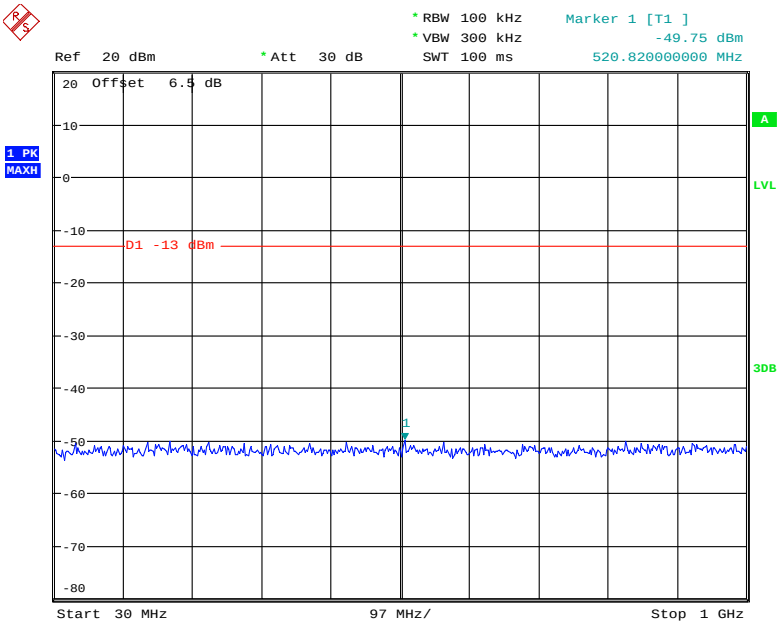
1 GHz – 20 GHz (3.0 MHz, Middle Channel)



Fundamental test

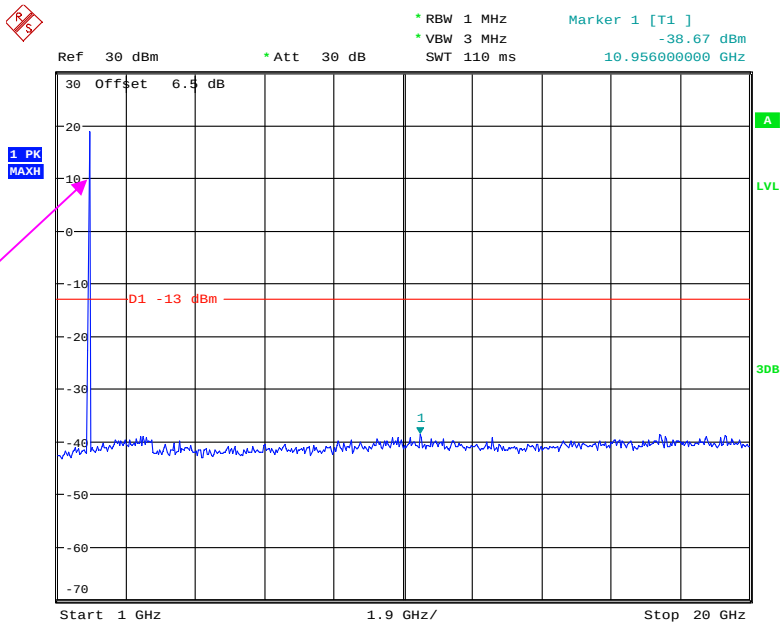
Date: 22.MAY.2020 08:47:27

30 MHz - 1 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:47:45

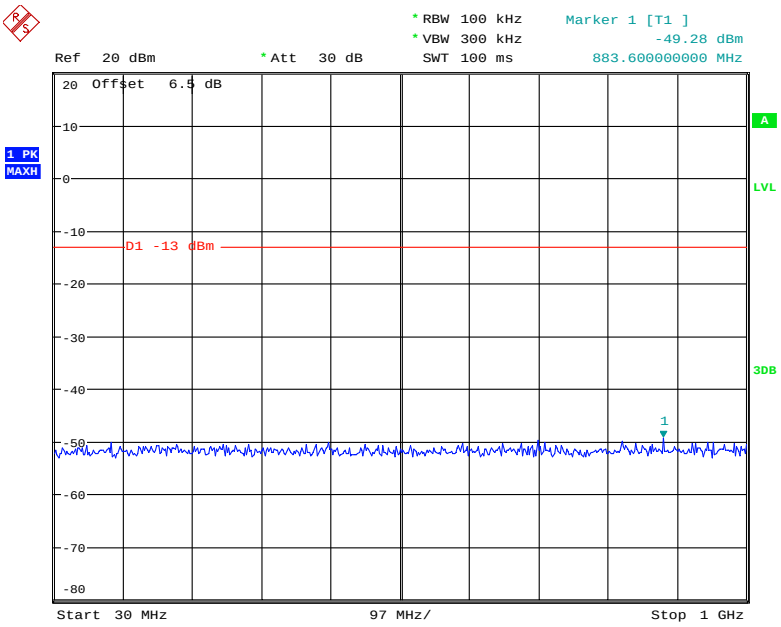
1 GHz – 20 GHz (5.0 MHz, Middle Channel)



Fundamental test

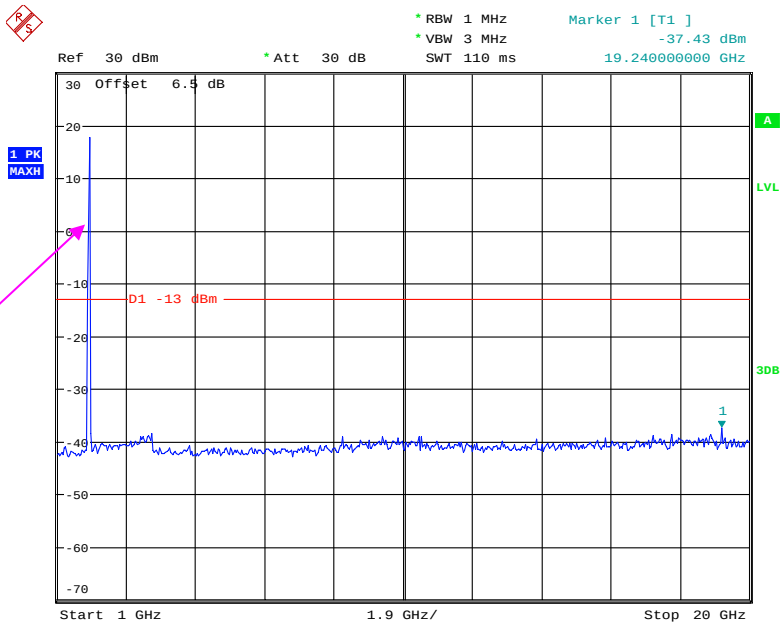
Date: 22.MAY.2020 08:47:56

30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:48:19

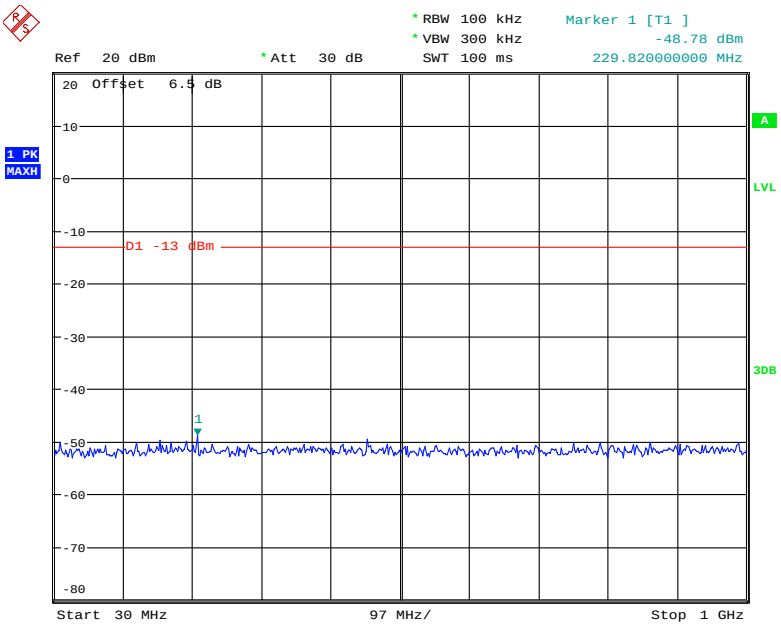
1 GHz – 20 GHz (10.0 MHz, Middle Channel)



Fundamental test

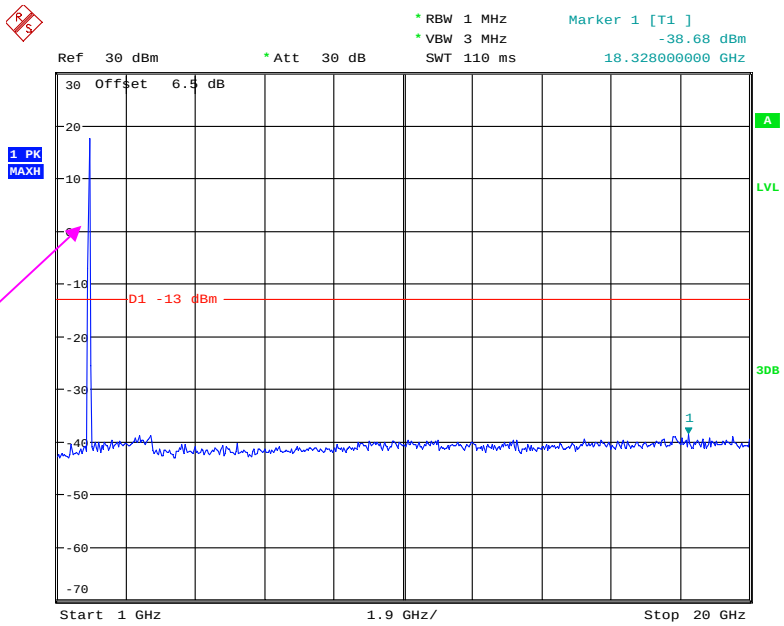
Date: 22.MAY.2020 08:48:30

30 MHz - 1 GHz (15.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:48:55

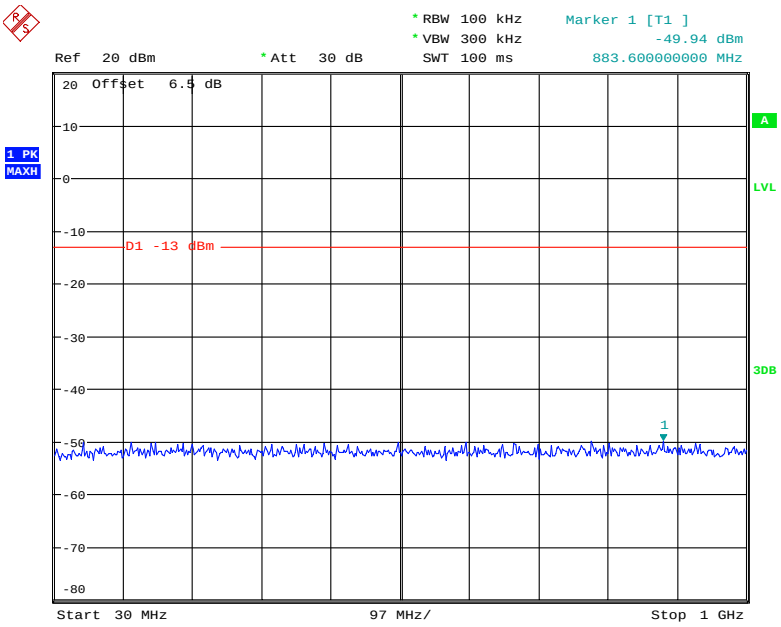
1 GHz – 20 GHz (15.0 MHz, Middle Channel)



Fundamental test

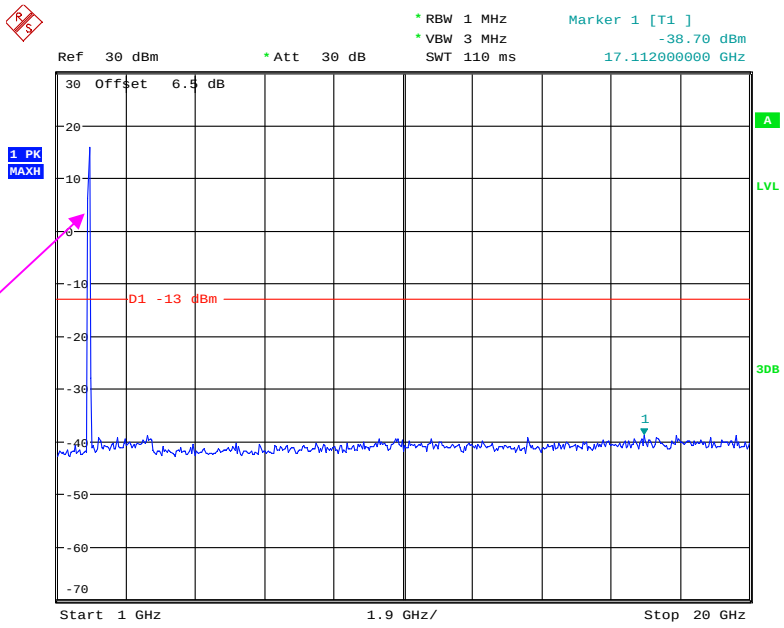
Date: 22.MAY.2020 08:49:07

30 MHz - 1 GHz (20.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:49:28

1 GHz – 2 GHz (20.0 MHz, Middle Channel)

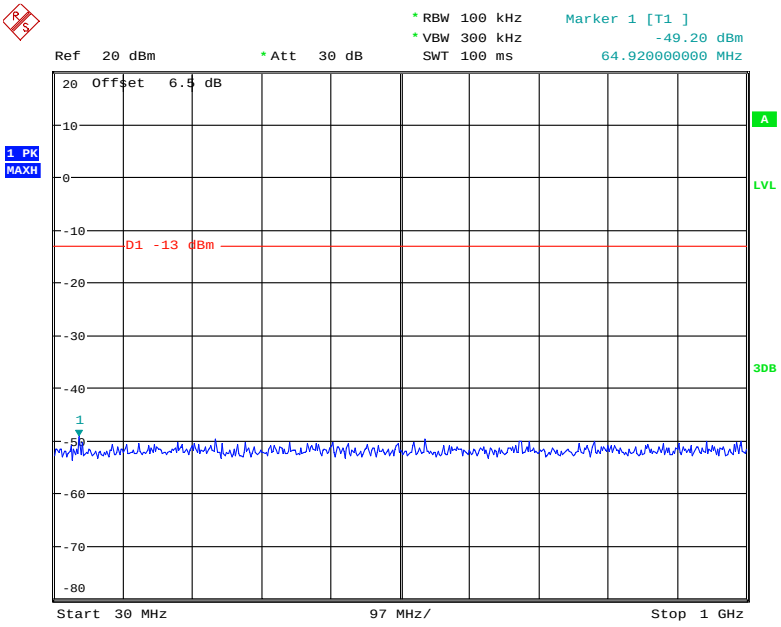


Fundamental test

Date: 22.MAY.2020 08:49:40

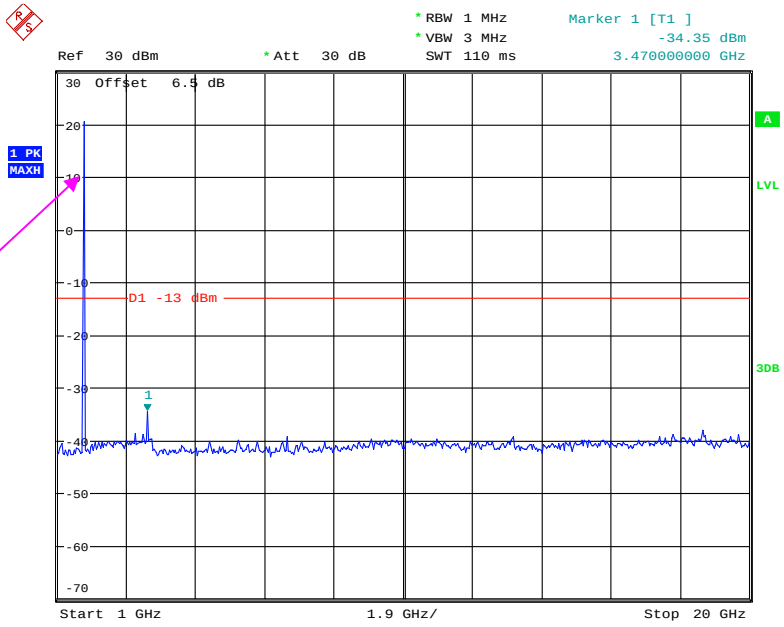
LTE Band 4:

30 MHz - 1 GHz (1.4 MHz, Middle Channel)



Date: 22.MAY.2020 08:49:59

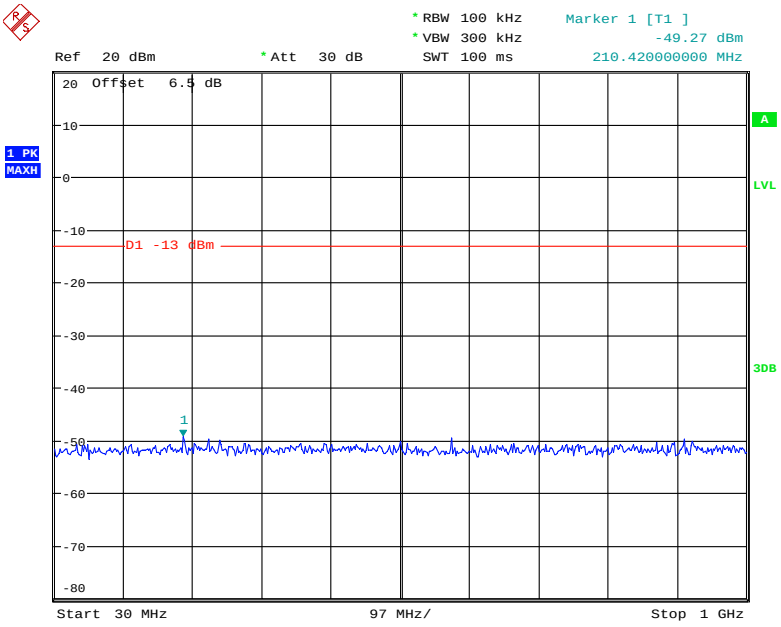
1 GHz – 20 GHz (1.4 MHz, Middle Channel)



Fundamental test

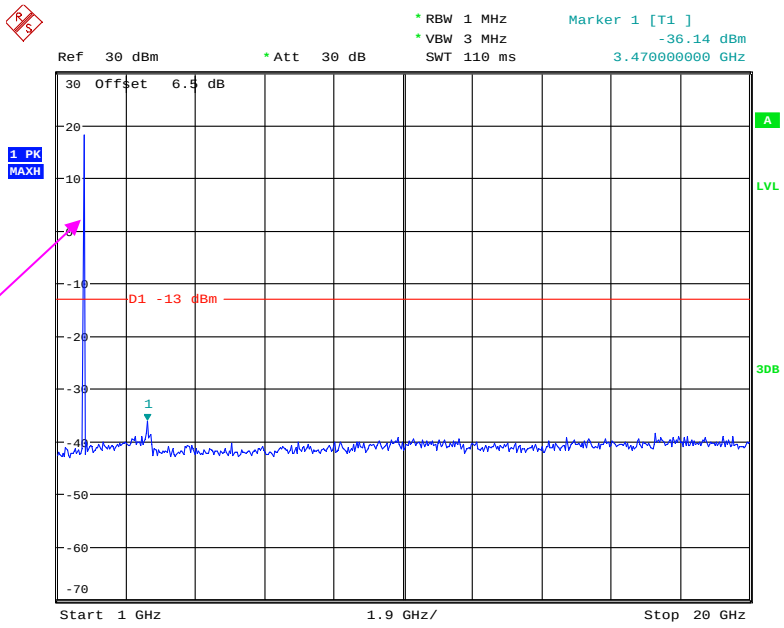
Date: 22.MAY.2020 08:50:11

30 MHz - 1 GHz (3.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:50:32

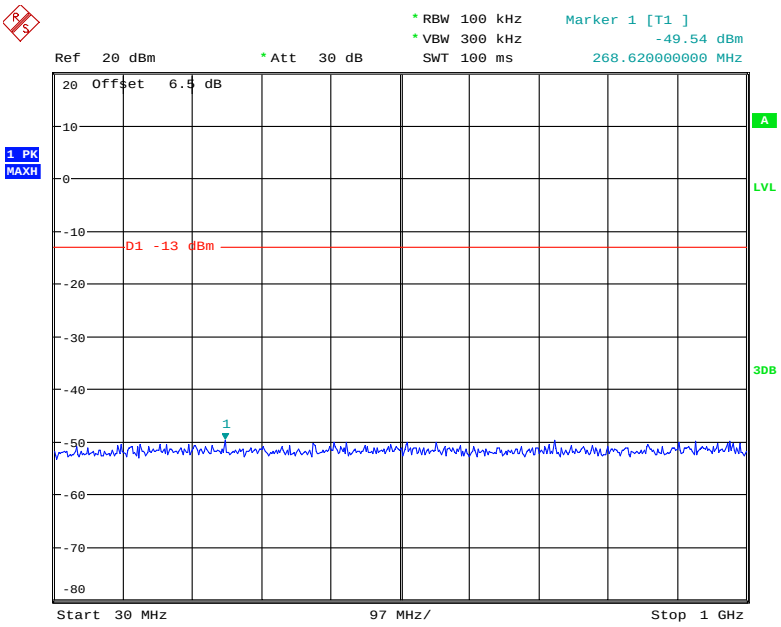
1 GHz – 20 GHz (3.0 MHz, Middle Channel)



Fundamental test

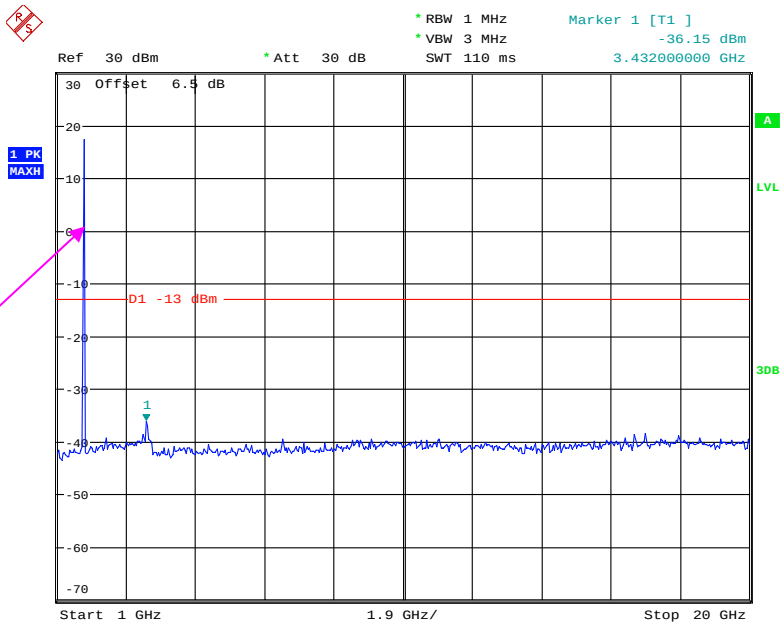
Date: 22.MAY.2020 08:50:44

30 MHz - 1 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:51:05

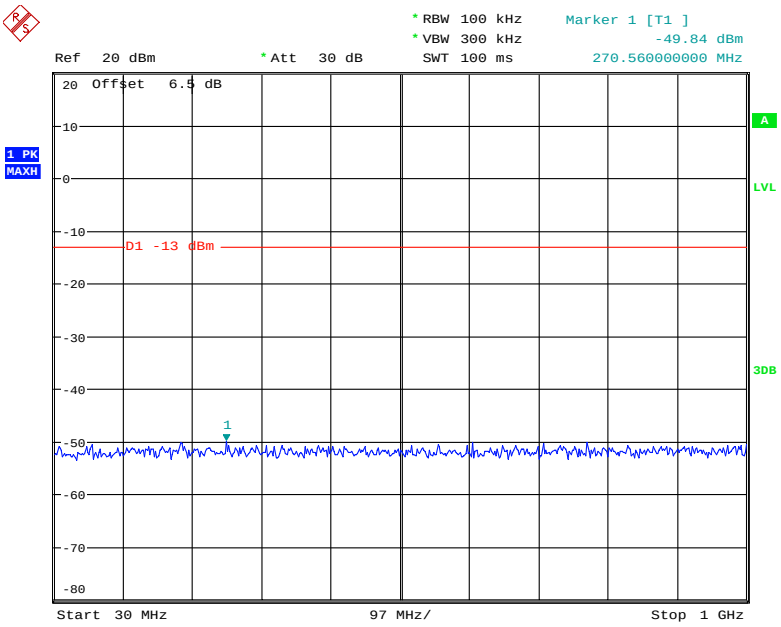
1 GHz – 20 GHz (5.0 MHz, Middle Channel)



Fundamental test

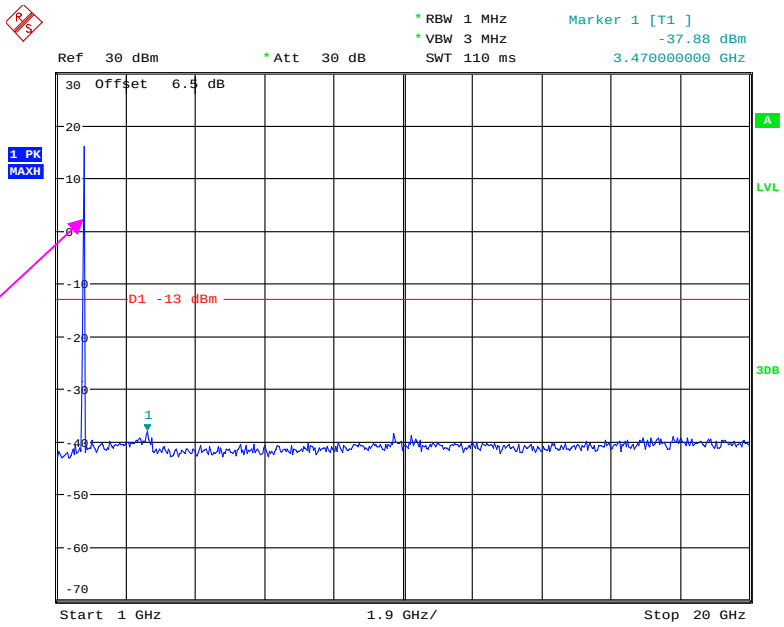
Date: 22.MAY.2020 08:51:16

30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:51:35

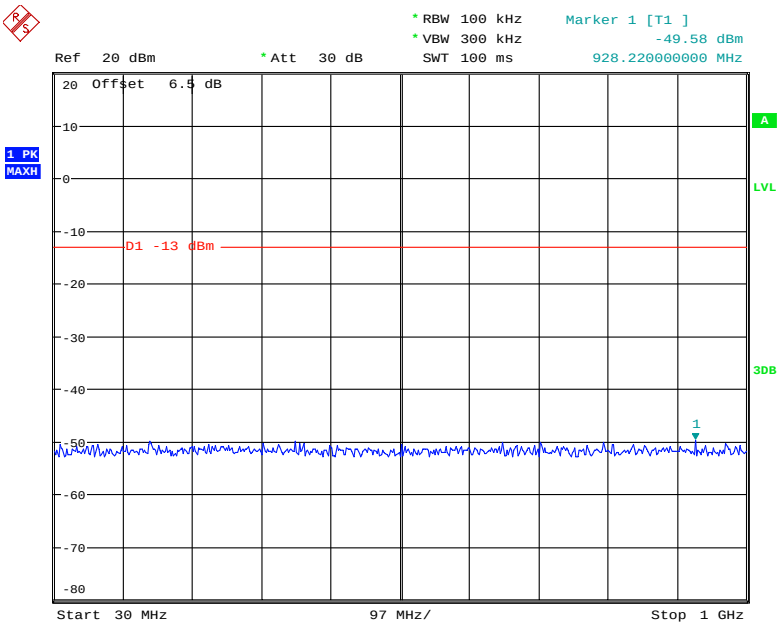
1 GHz – 20 GHz (10.0 MHz, Middle Channel)



Fundamental test

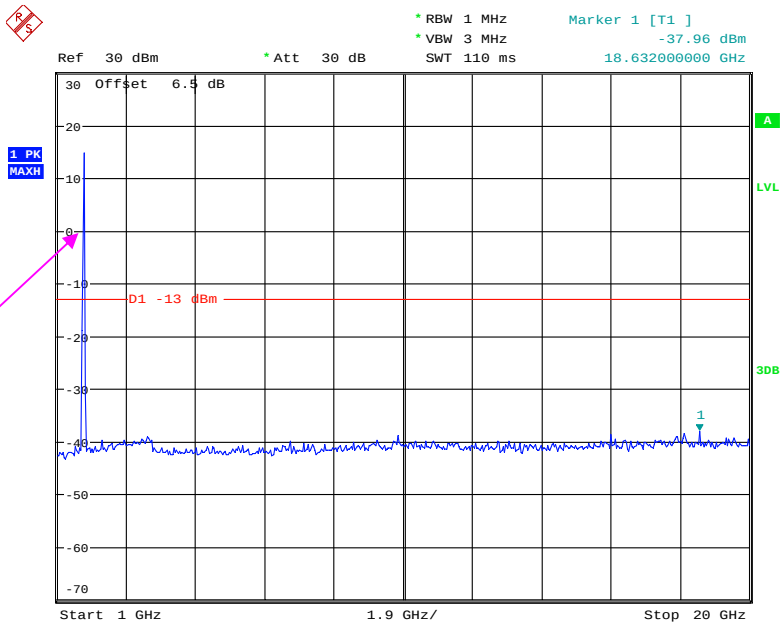
Date: 22.MAY.2020 08:51:47

30 MHz - 1 GHz (15.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:52:12

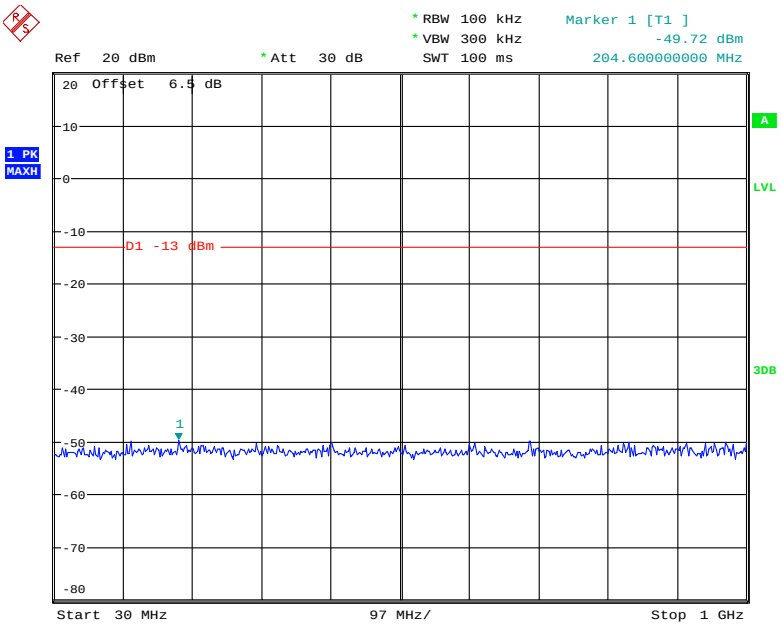
1 GHz – 20 GHz (15.0 MHz, Middle Channel)



Fundamental test

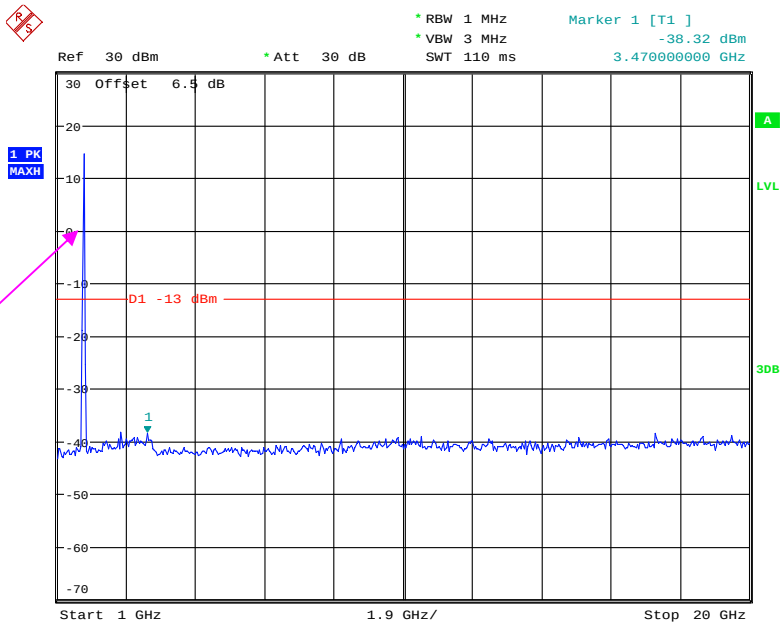
Date: 22.MAY.2020 08:52:23

30 MHz - 1 GHz (20.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:52:45

1 GHz – 20 GHz (20.0 MHz, Middle Channel)

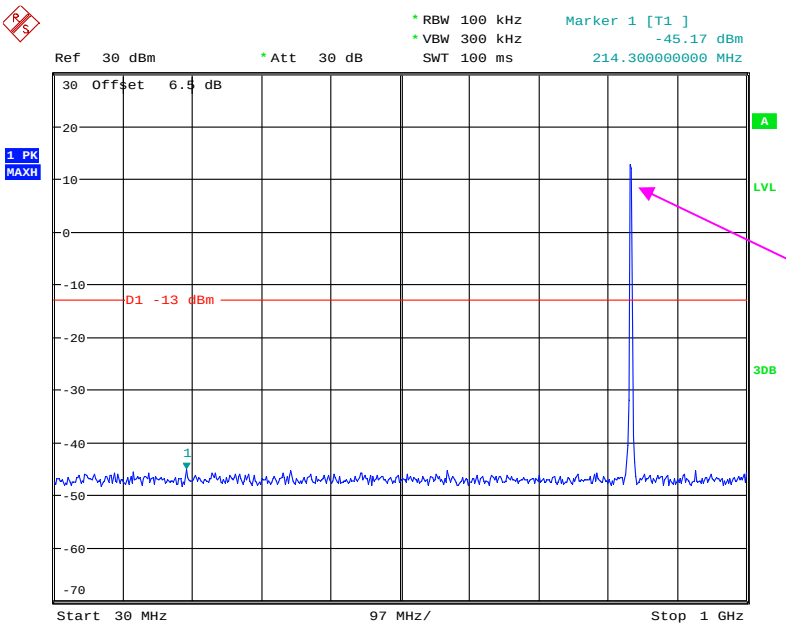


Fundamental test

Date: 22.MAY.2020 08:52:56

LTE Band 5:

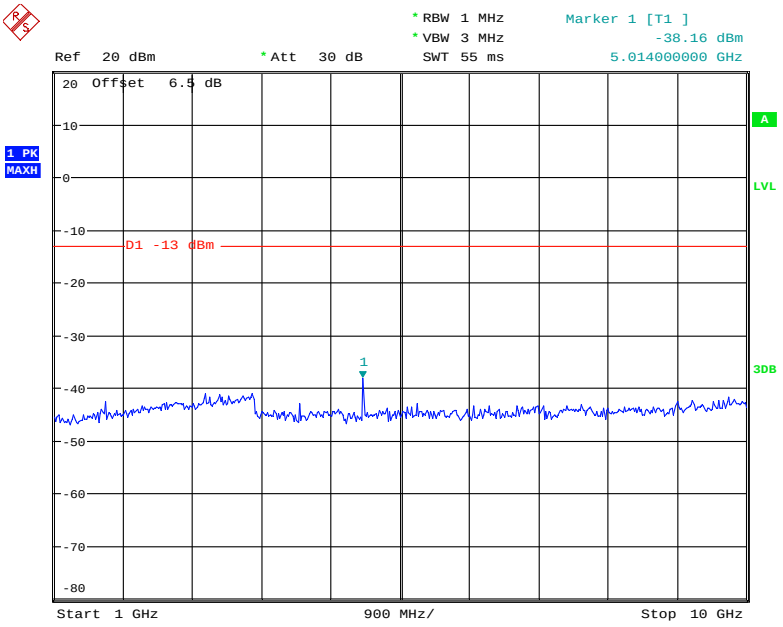
30 MHz - 1 GHz (1.4 MHz, Middle Channel)



Fundamental test

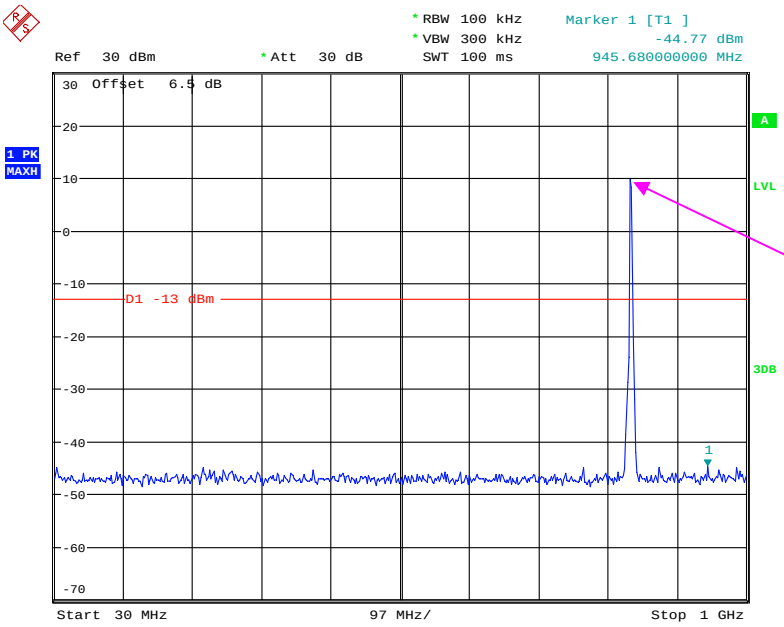
Date: 22.MAY.2020 08:53:15

1 GHz – 10 GHz (1.4 MHz, Middle Channel)



Date: 22.MAY.2020 08:53:26

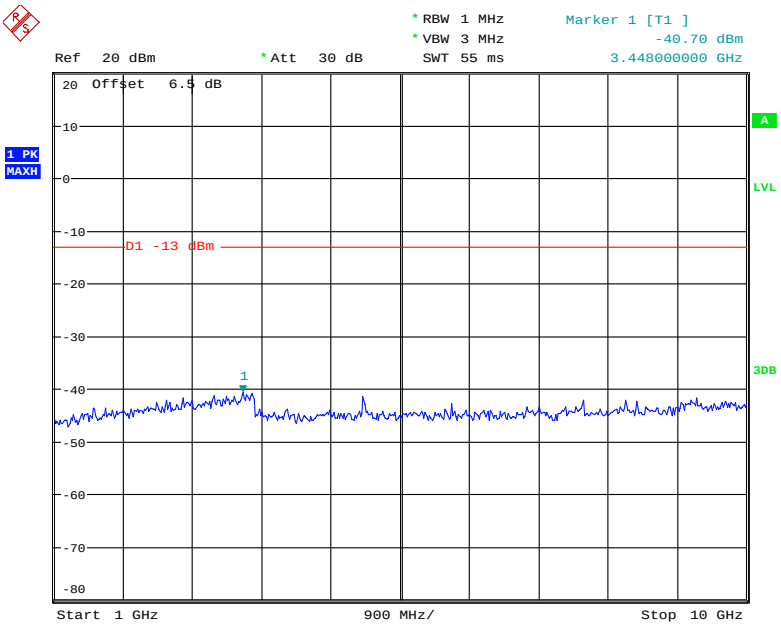
30 MHz - 1 GHz (3.0 MHz, Middle Channel)



Fundamental test

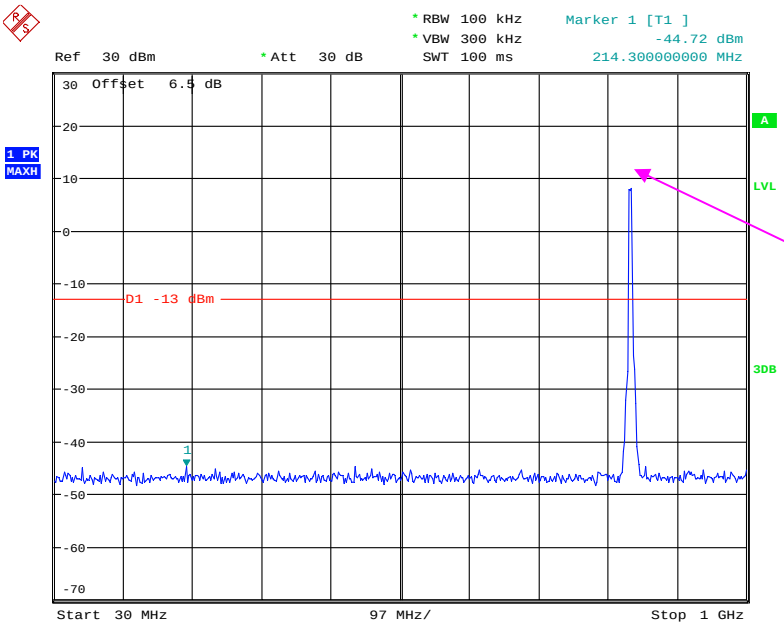
Date: 22.MAY.2020 08:53:44

1 GHz – 10 GHz (3.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:53:56

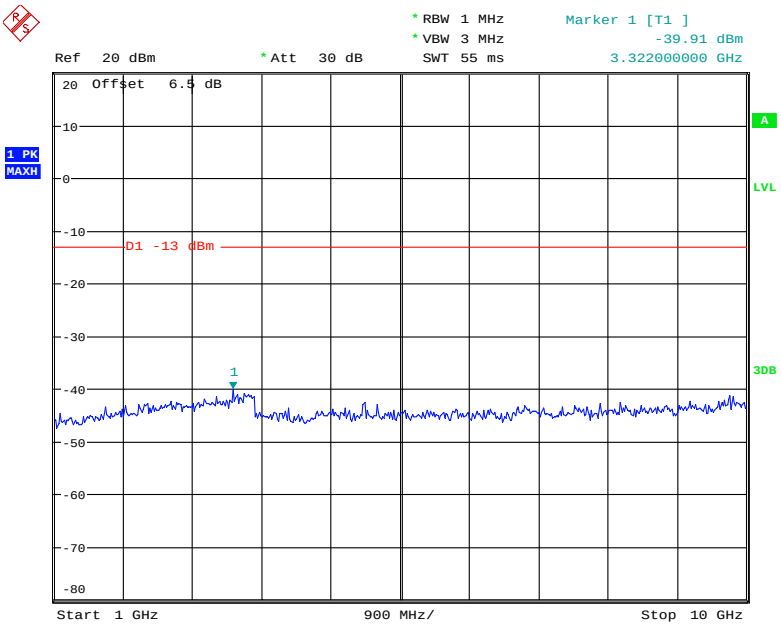
30 MHz - 1 GHz (5.0 MHz, Middle Channel)



Fundamental test

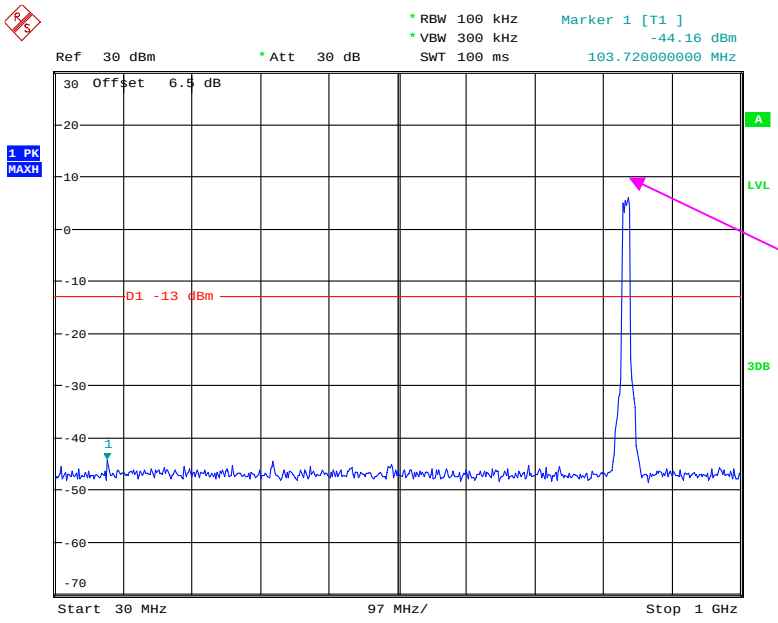
Date: 22.MAY.2020 08:54:17

1 GHz – 10 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:54:28

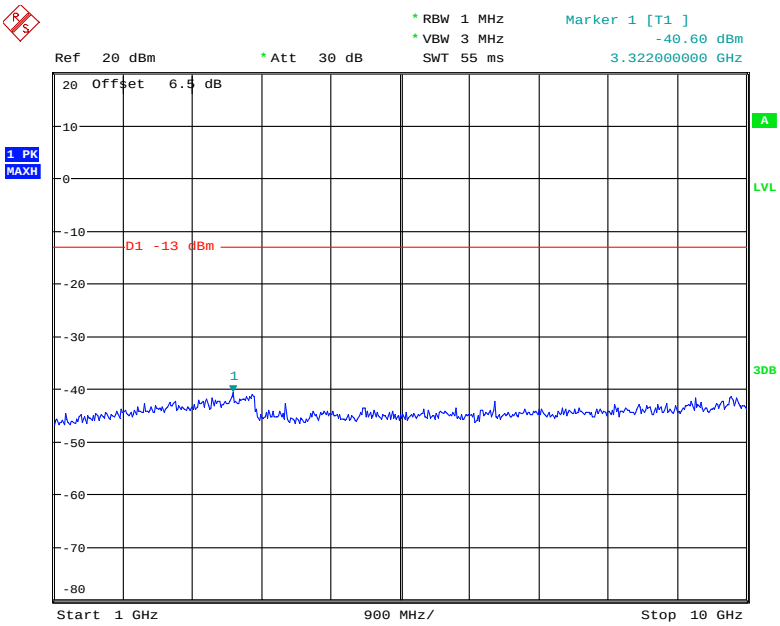
30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Fundamental test

Date: 22.MAY.2020 08:54:47

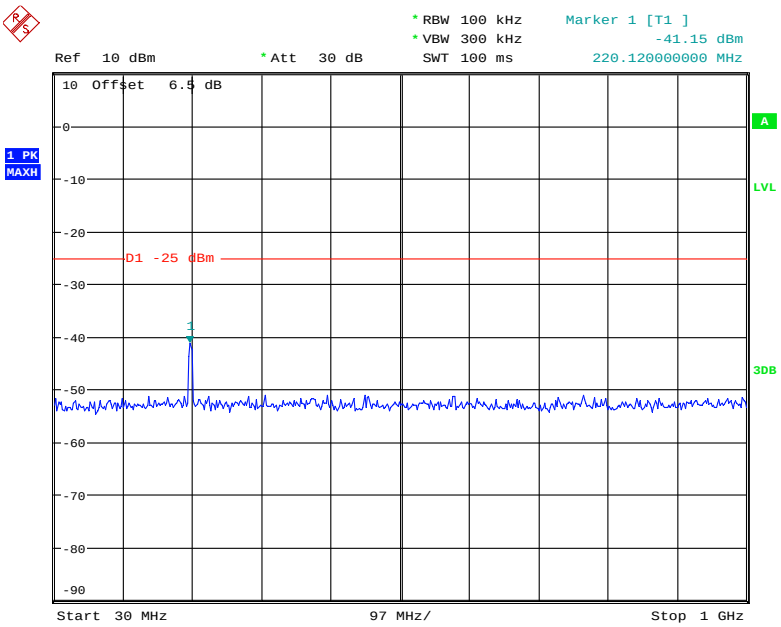
1 GHz – 10 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:54:59

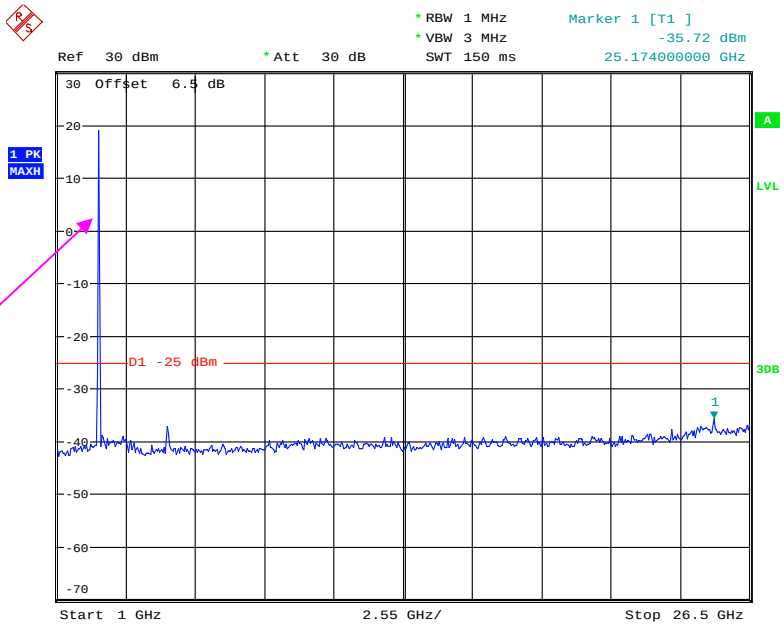
LTE Band 7:

30 MHz - 1 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:55:18

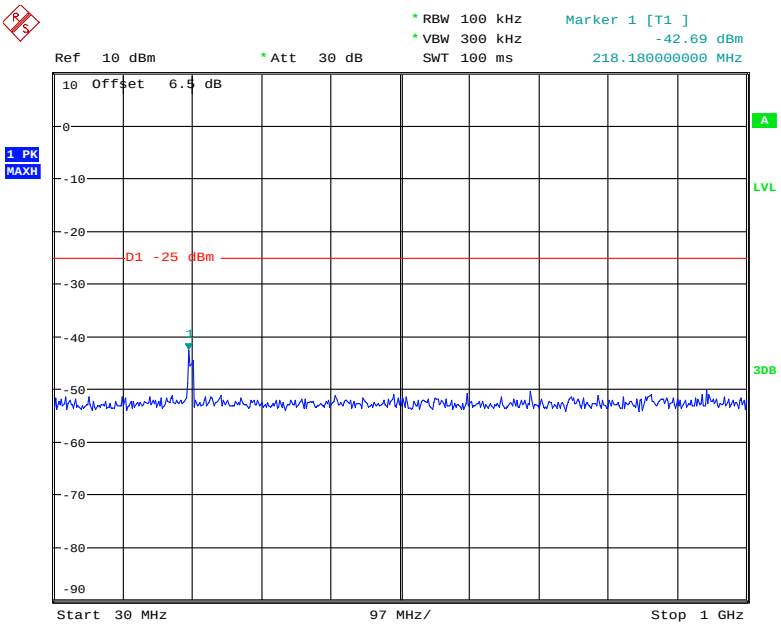
1 GHz – 26.5 GHz (5.0 MHz, Middle Channel)



Fundamental test

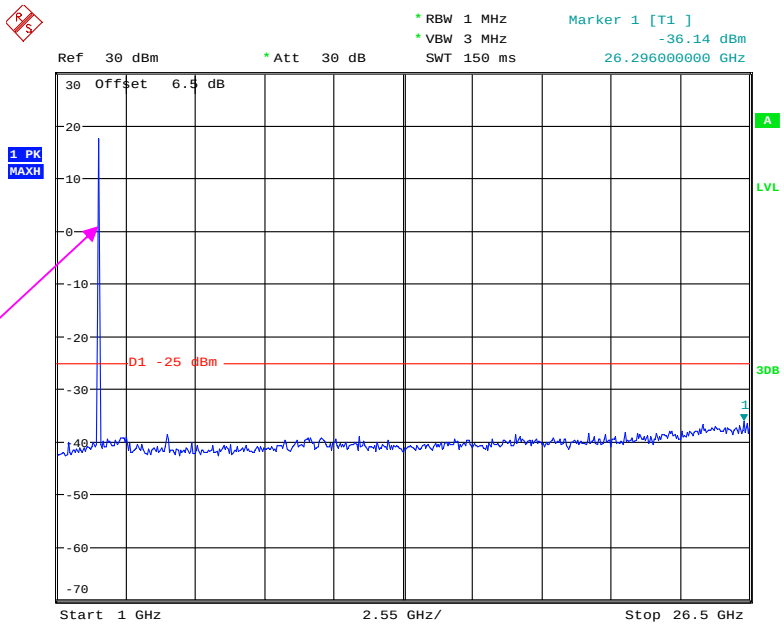
Date: 22.MAY.2020 08:55:29

30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:55:52

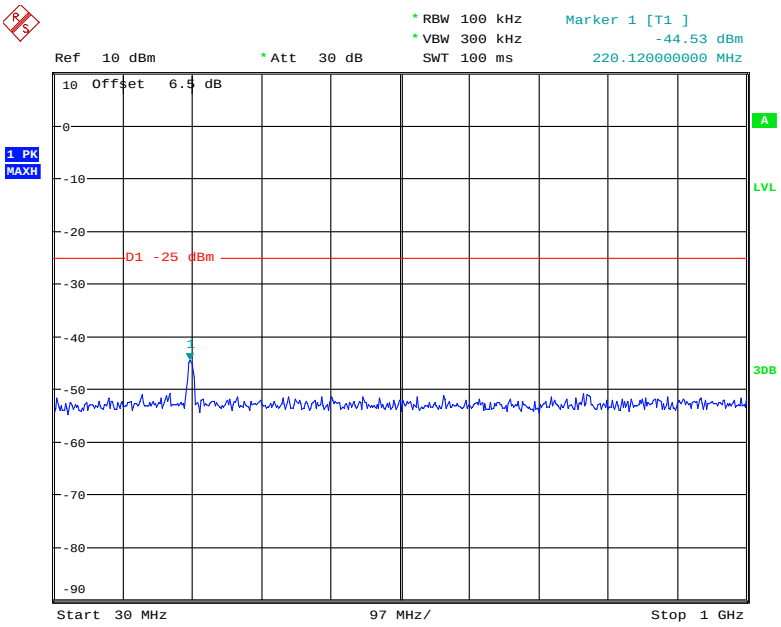
1 GHz – 26.5 GHz (10.0 MHz, Middle Channel)



Fundamental test

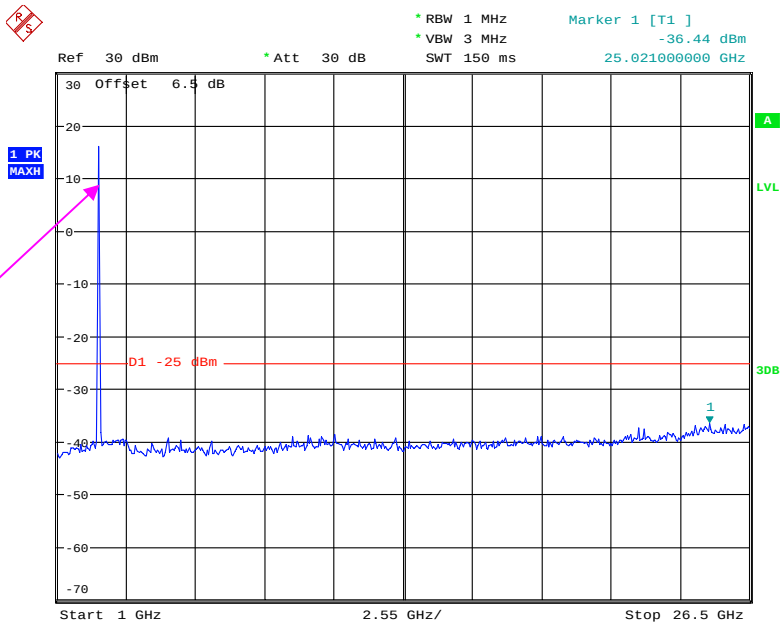
Date: 22.MAY.2020 08:56:03

30 MHz - 1 GHz (15.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:56:25

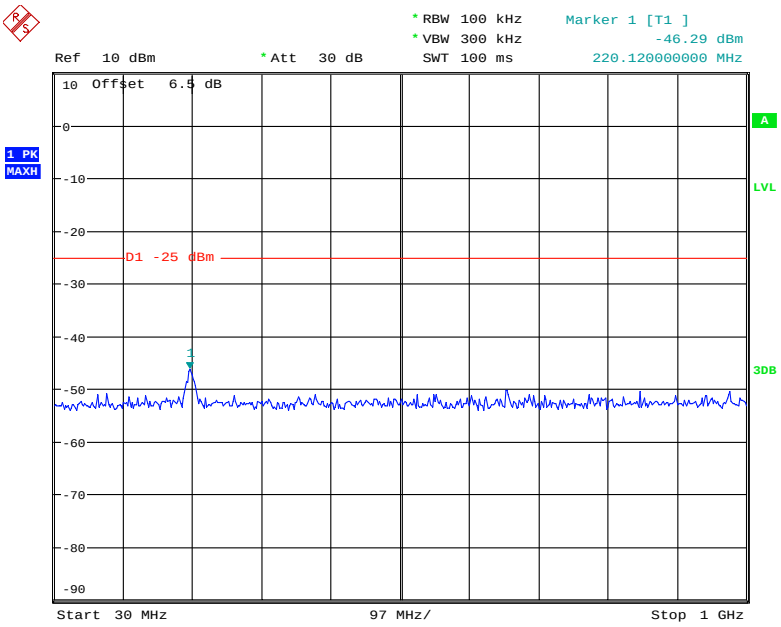
1 GHz – 26.5 GHz (15.0 MHz, Middle Channel)



Fundamental test

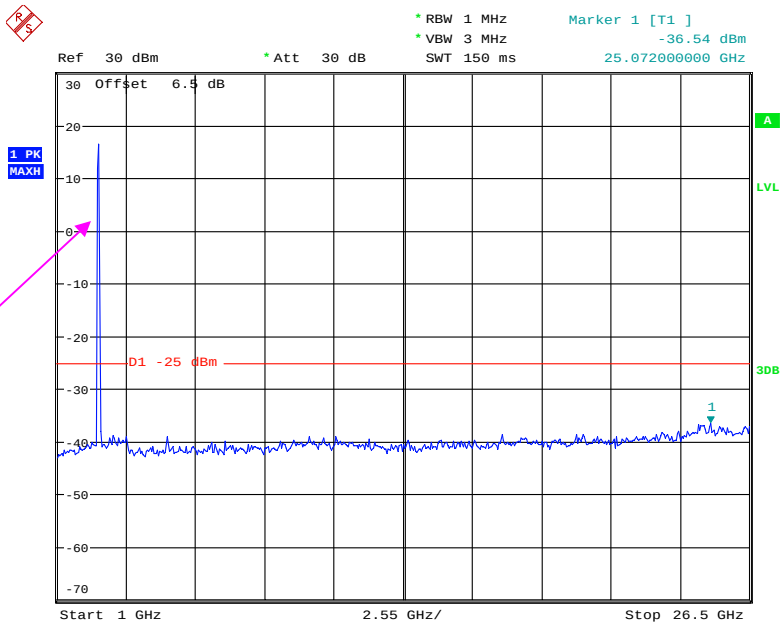
Date: 22.MAY.2020 08:56:36

30 MHz - 1 GHz (20.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:57:01

1 GHz – 26.5 GHz (20.0 MHz, Middle Channel)

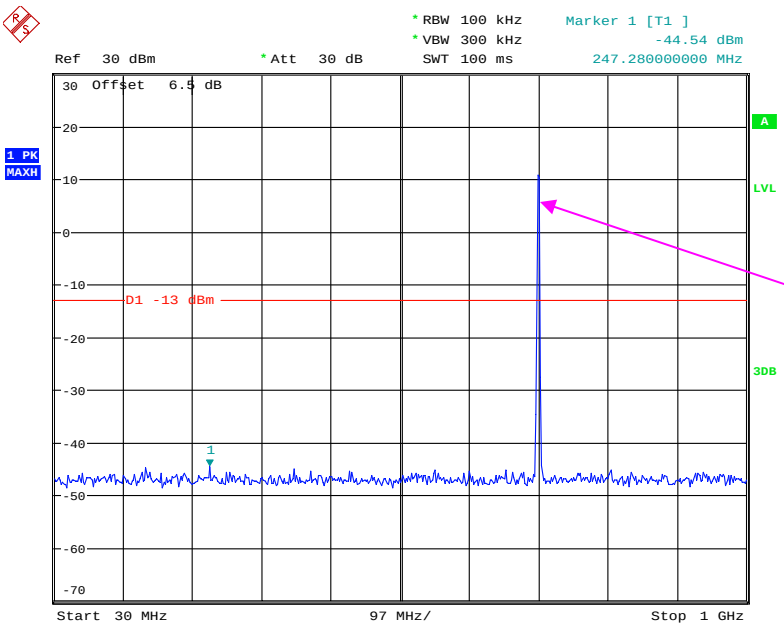


Fundamental test

Date: 22.MAY.2020 08:57:12

LTE Band 12:

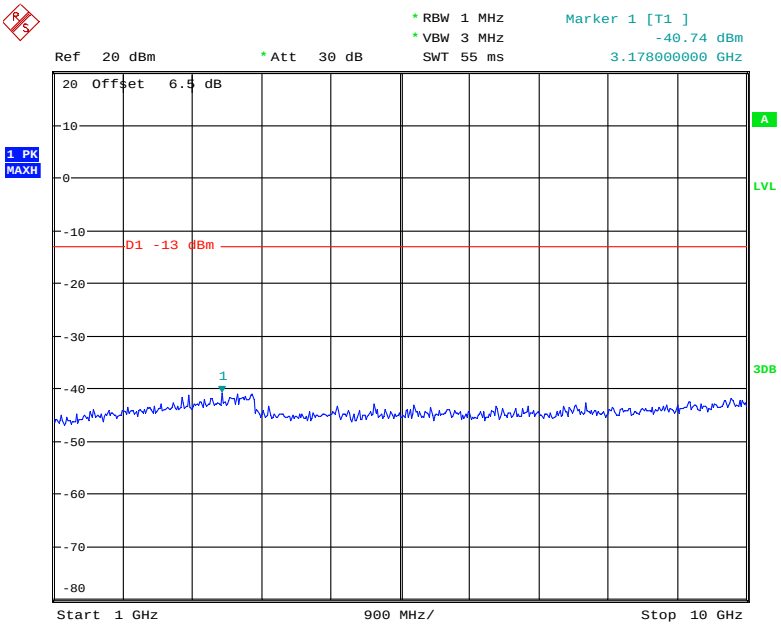
30 MHz - 1 GHz (1.4 MHz, Middle Channel)



Fundamental test

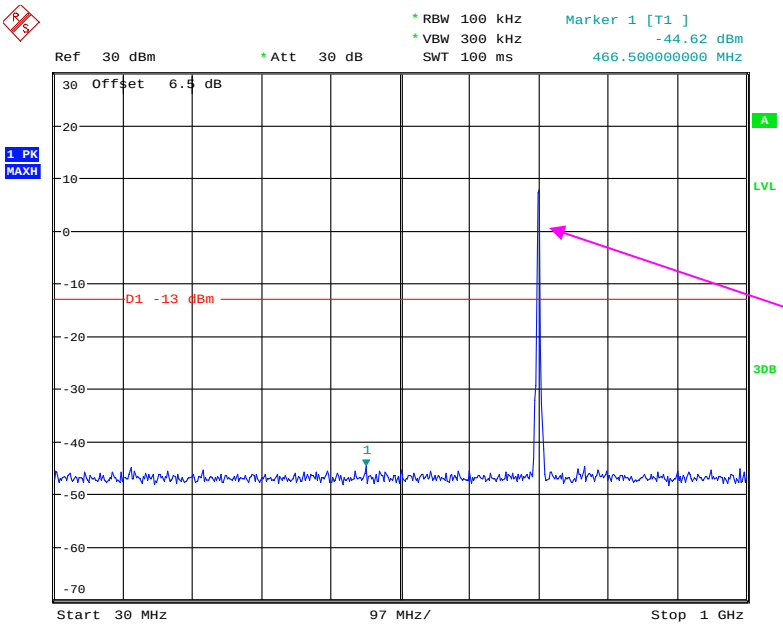
Date: 22.MAY.2020 08:57:32

1 GHz – 10 GHz (1.4 MHz, Middle Channel)



Date: 22.MAY.2020 08:57:44

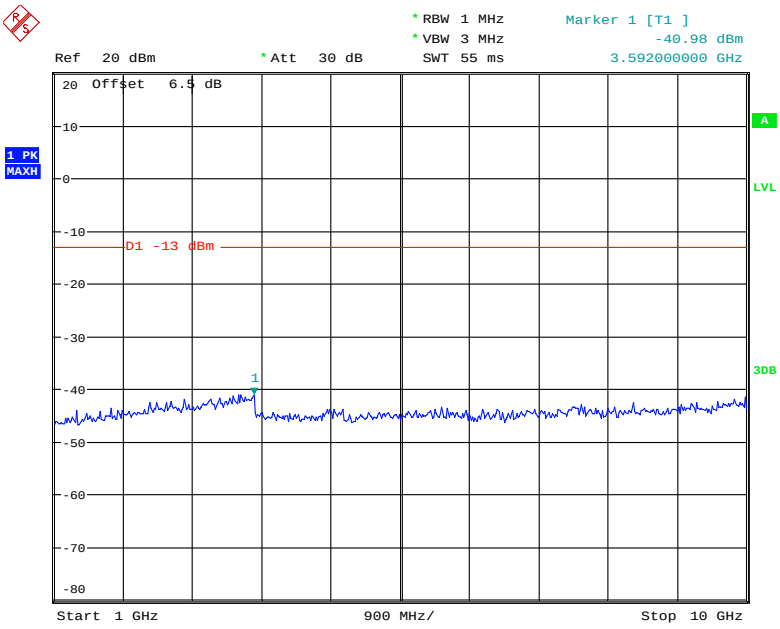
30 MHz - 1 GHz (3.0 MHz, Middle Channel)



Fundamental test

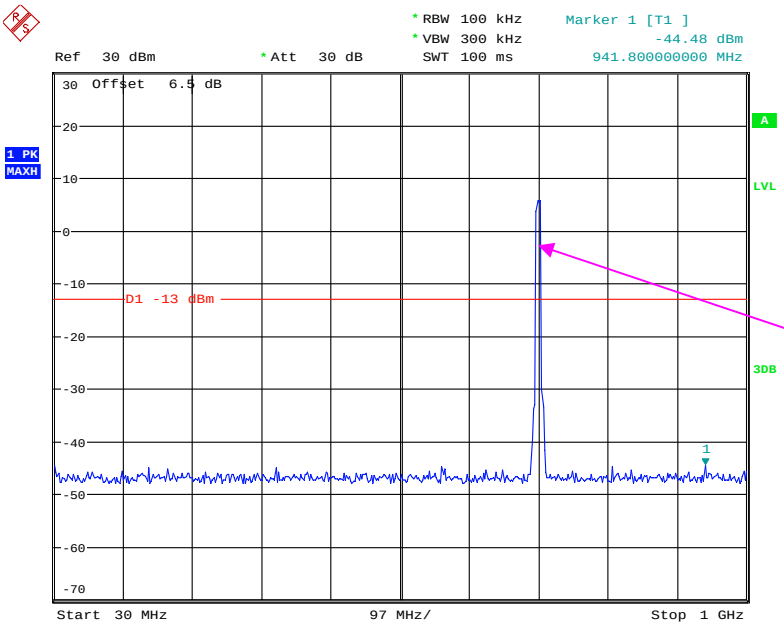
Date: 22.MAY.2020 08:58:05

1 GHz – 20 GHz (3.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:58:16

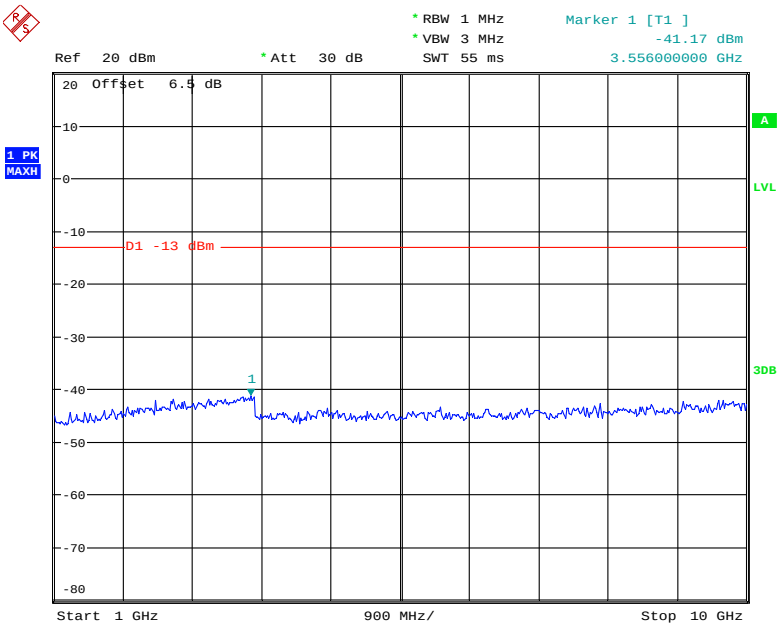
30 MHz - 1 GHz (5.0 MHz, Middle Channel)



Fundamental test

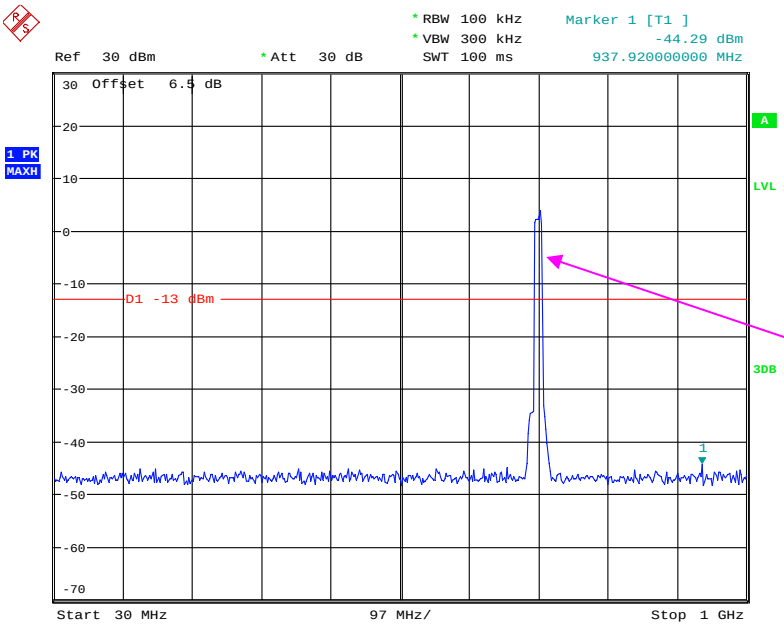
Date: 22.MAY.2020 08:58:38

1 GHz – 10 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:58:49

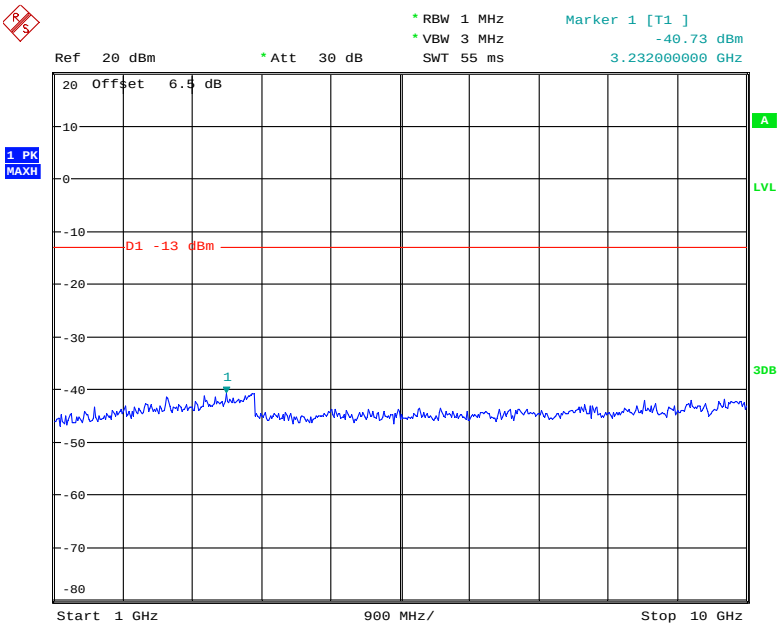
30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Fundamental test

Date: 22.MAY.2020 08:59:12

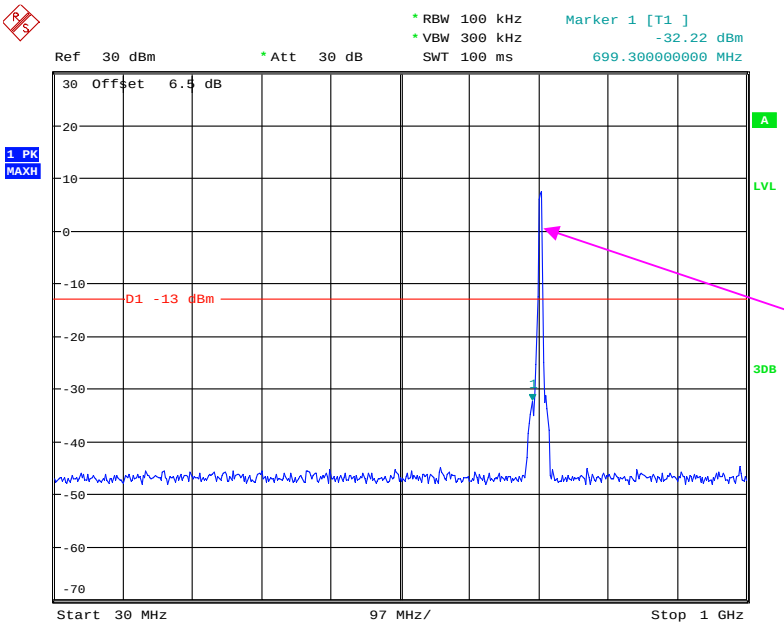
1 GHz – 10 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:59:23

LTE Band 17:

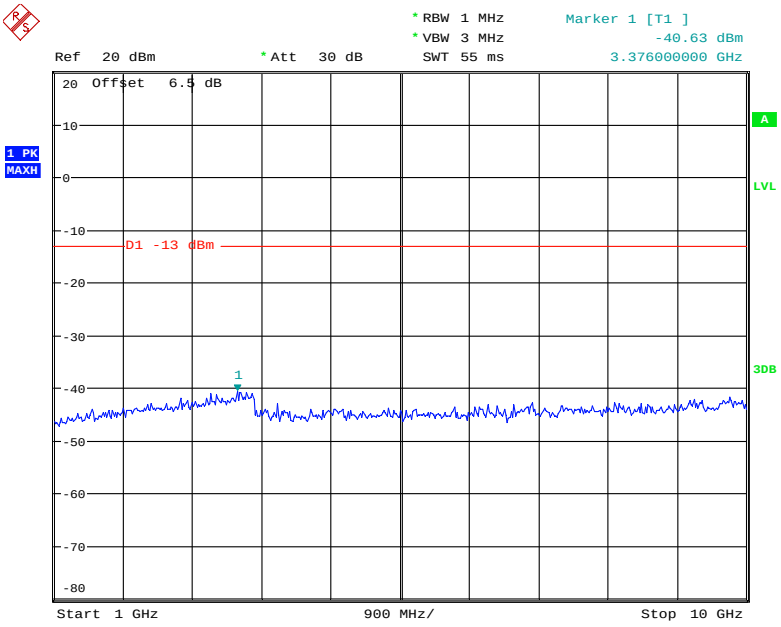
30 MHz - 1 GHz (5.0 MHz, Middle Channel)



Fundamental test

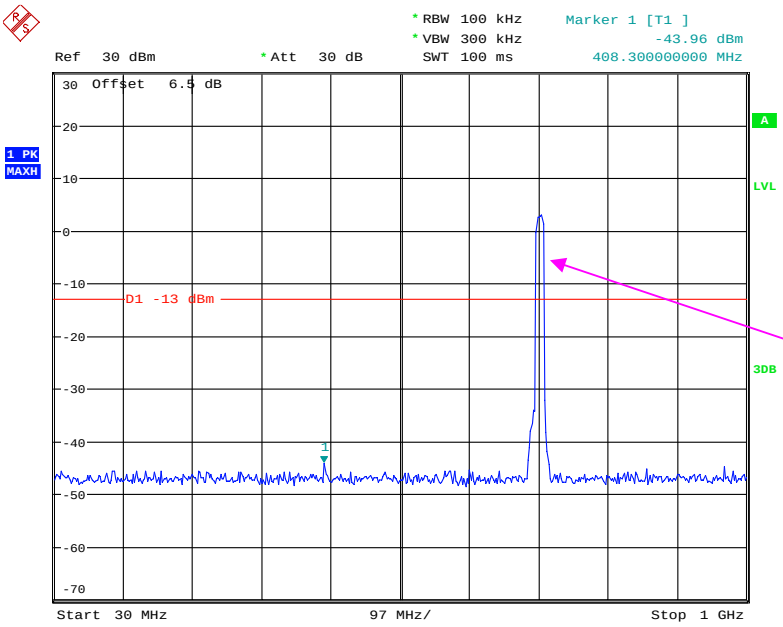
Date: 22.MAY.2020 08:59:46

1 GHz – 10 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 08:59:58

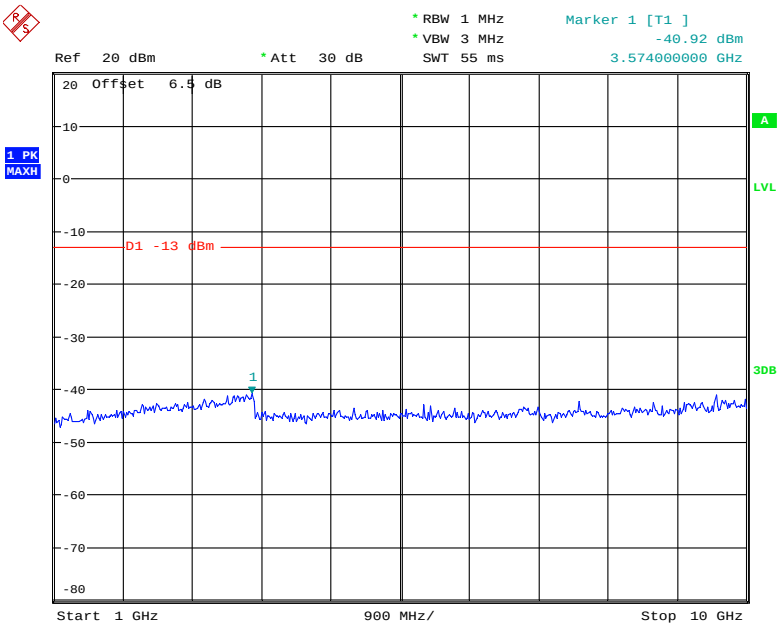
30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Fundamental test

Date: 22.MAY.2020 09:00:17

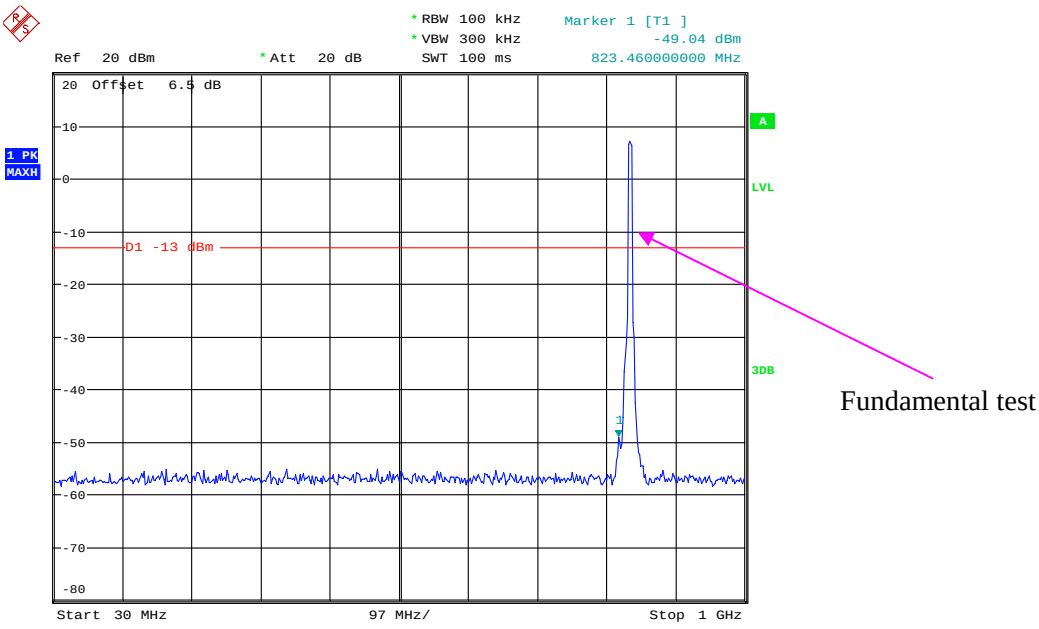
1 GHz – 10 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 09:00:28

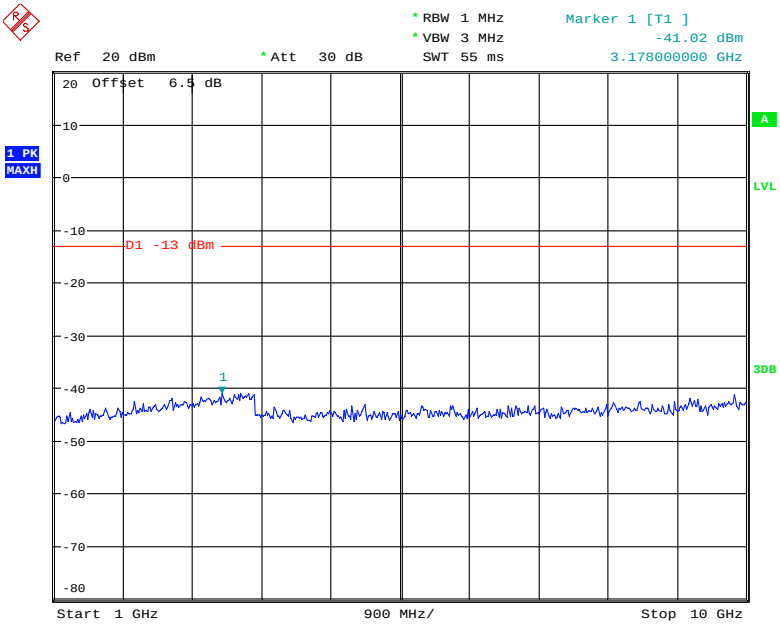
LTE Band 19:

30 MHz - 1 GHz (5.0 MHz, Middle Channel)



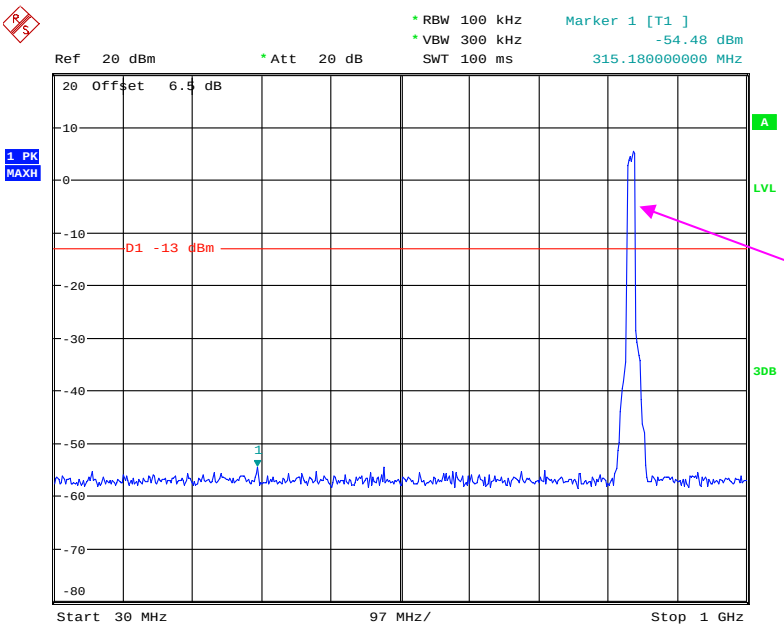
Date: 22.MAY.2020 10:01:56

1 GHz – 10 GHz (5.0 MHz, Middle Channel)



Date: 22.MAY.2020 10:02:08

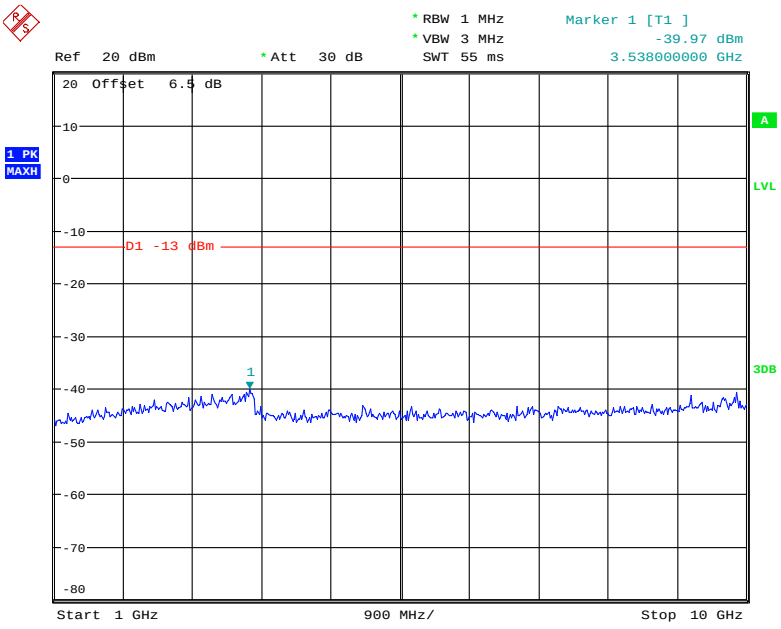
30 MHz - 1 GHz (10.0 MHz, Middle Channel)



Fundamental test

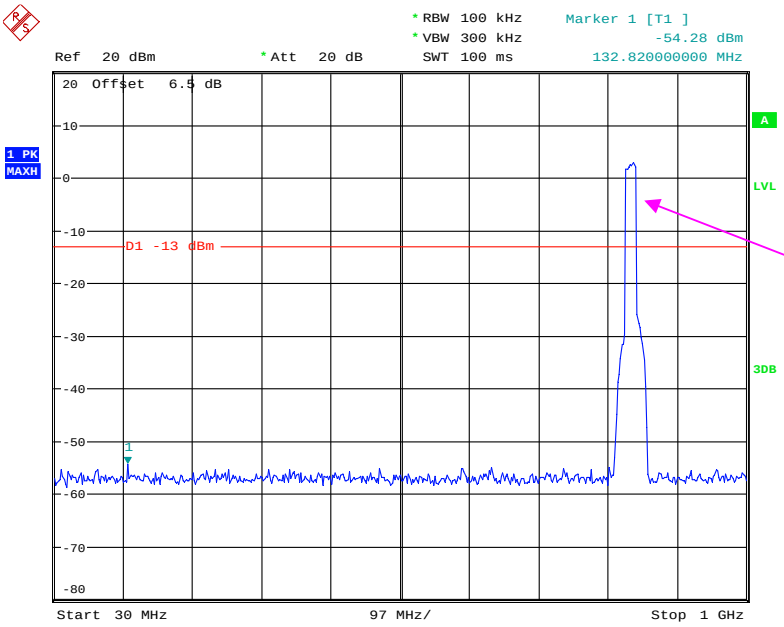
Date: 22.MAY.2020 10:02:27

1 GHz – 10 GHz (10.0 MHz, Middle Channel)



Date: 22.MAY.2020 10:02:38

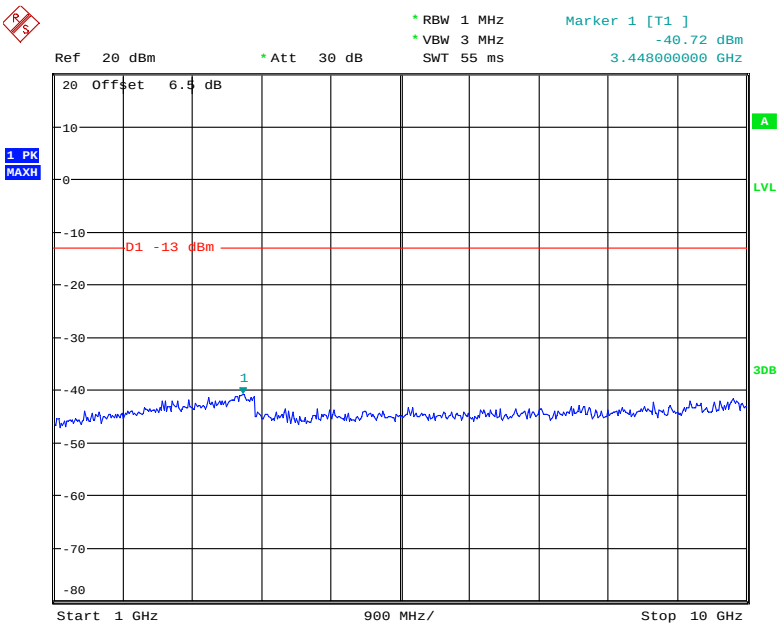
30 MHz - 1 GHz (15.0 MHz, Middle Channel)



Fundamental test

Date: 22.MAY.2020 10:03:00

1 GHz – 10 GHz (15.0 MHz, Middle Channel)

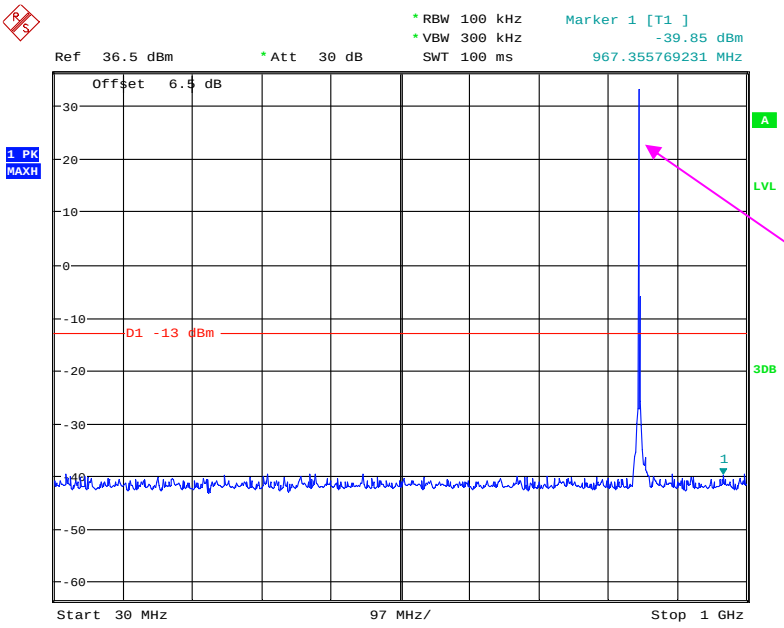


Date: 22.MAY.2020 10:03:12

High Channel

Cellular Band (Part 22H)

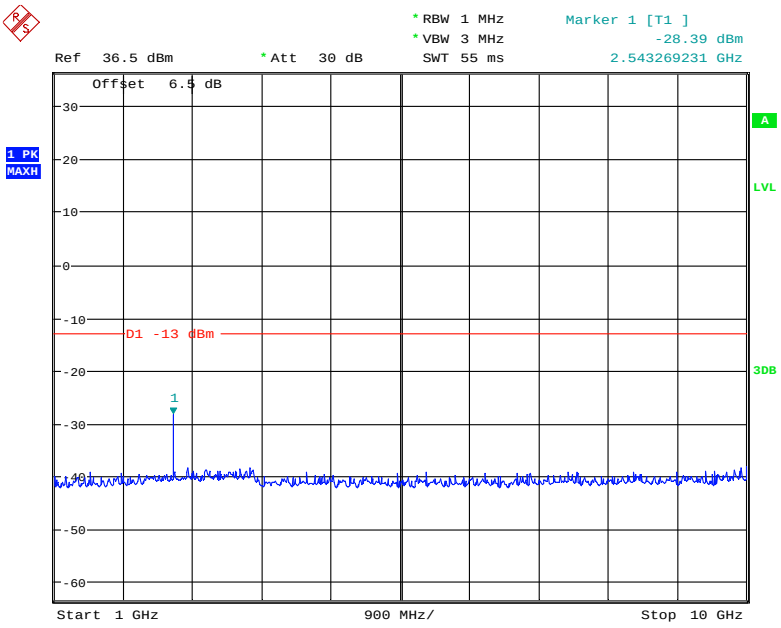
30 MHz – 1 GHz (GSM Mode)



Fundamental test

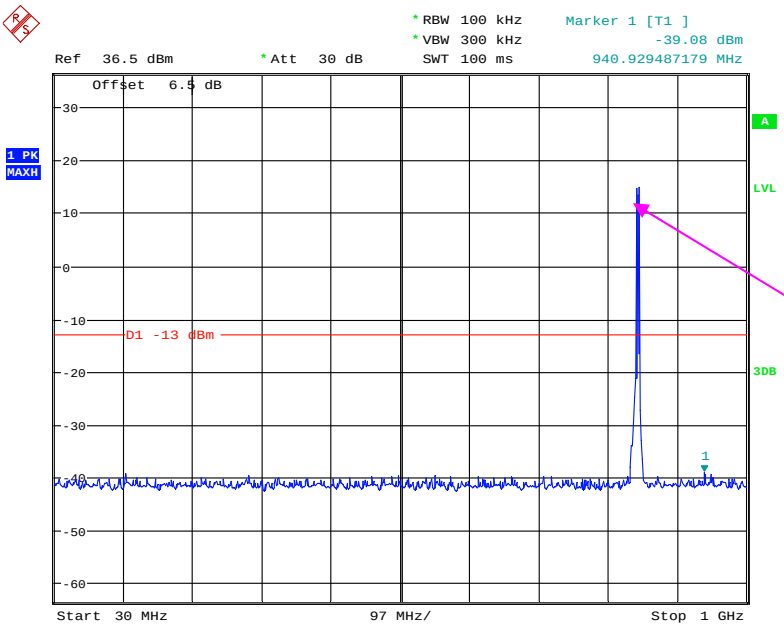
Date: 14.NOV.2020 13:46:38

1 GHz – 10 GHz (GSM Mode)



Date: 14.NOV.2020 13:47:42

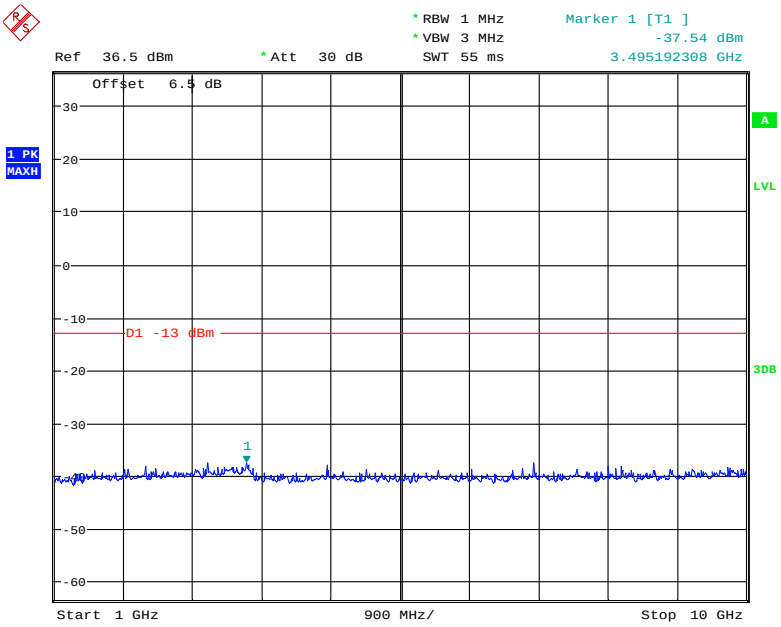
30 MHz – 1 GHz (WCDMA Mode)



Fundamental test

Date: 13.NOV.2020 14:50:45

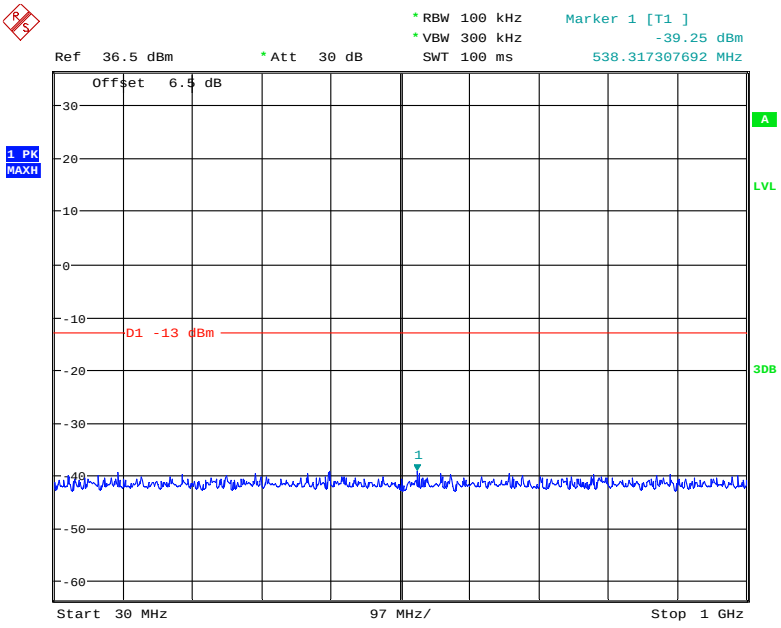
1 GHz – 10 GHz (WCDMA Mode)



Date: 13.NOV.2020 14:49:52

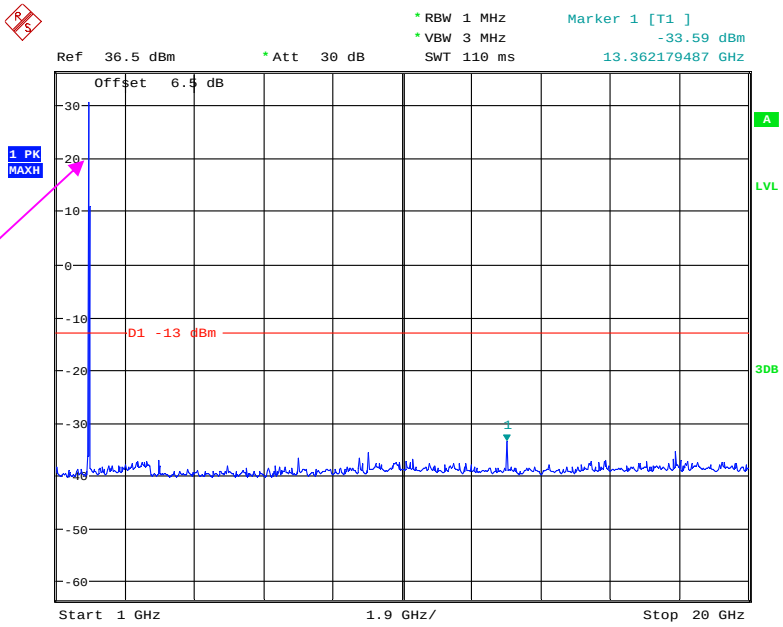
PCS Band (Part 24E)

30 MHz – 1 GHz (GSM Mode)



Date: 14.NOV.2020 14:03:01

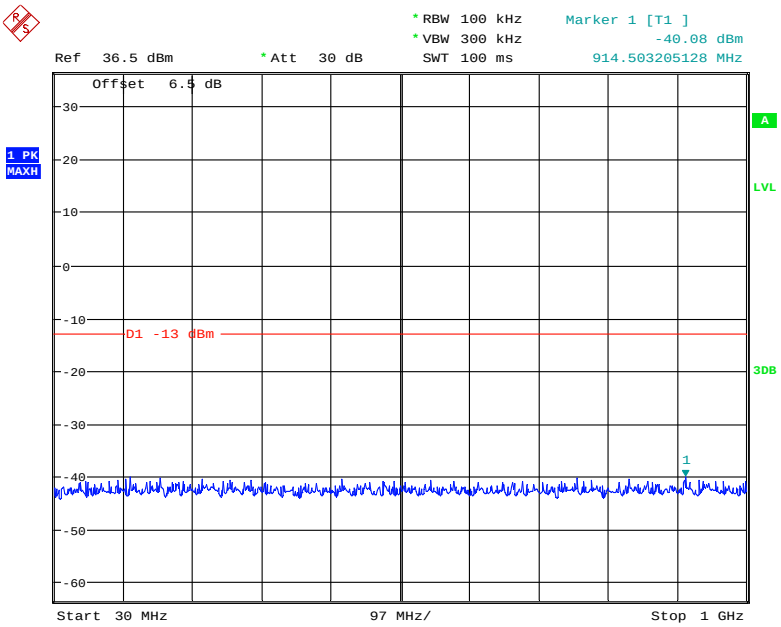
1 GHz – 20 GHz (GSM Mode)



Fundamental test

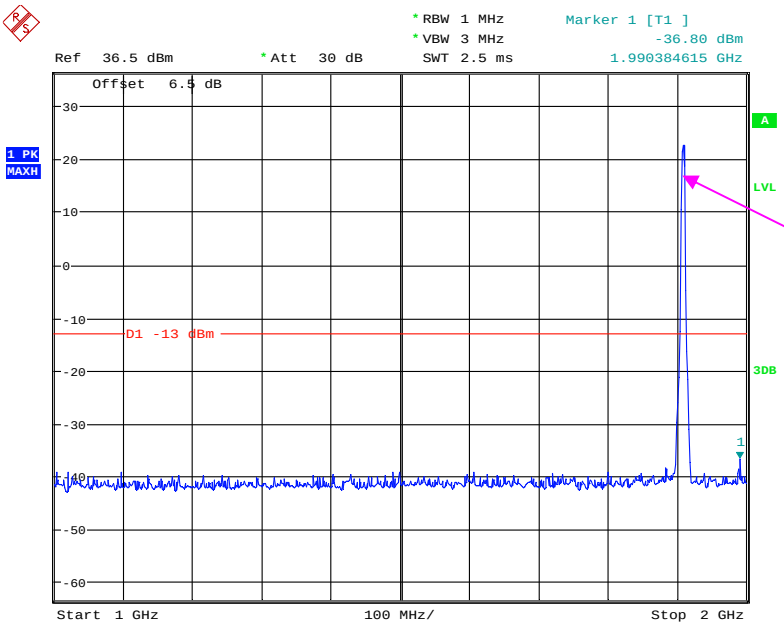
Date: 14.NOV.2020 14:04:19

30 MHz – 1 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:30:21

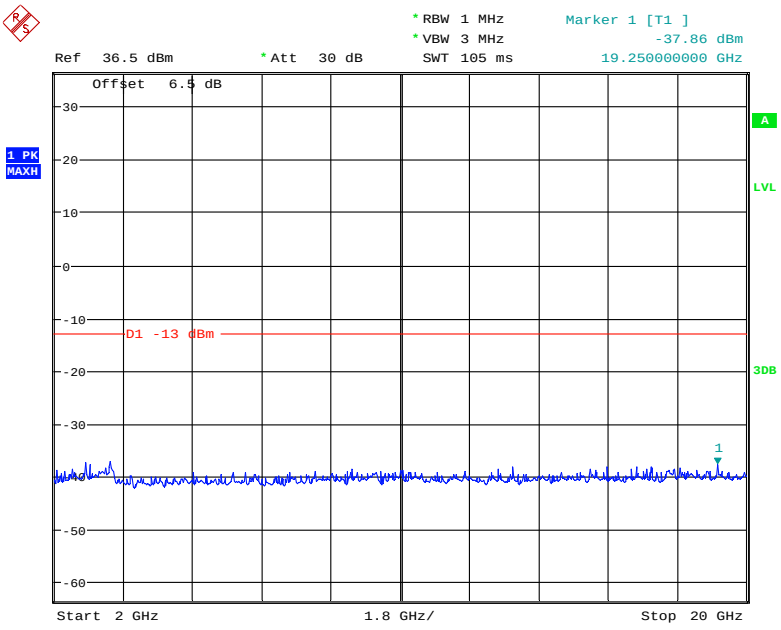
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 14.NOV.2020 14:29:19

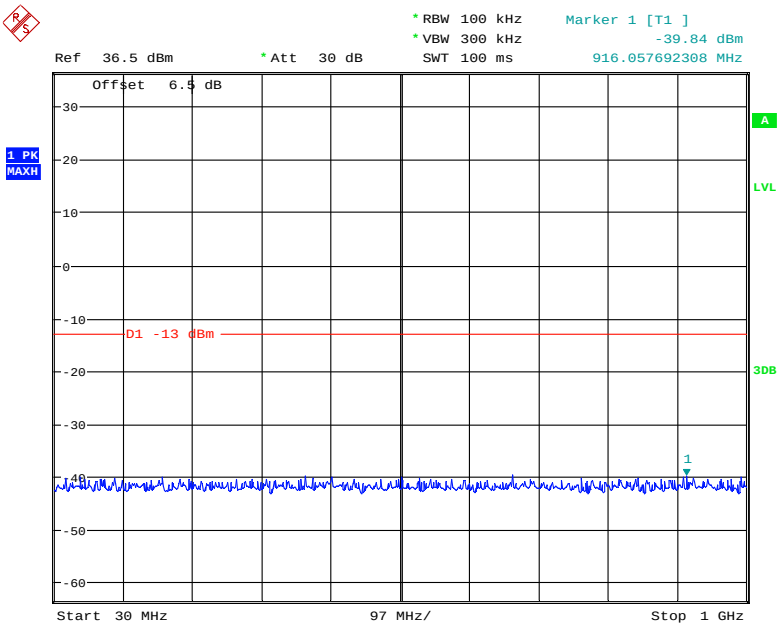
2 GHz – 20 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:28:17

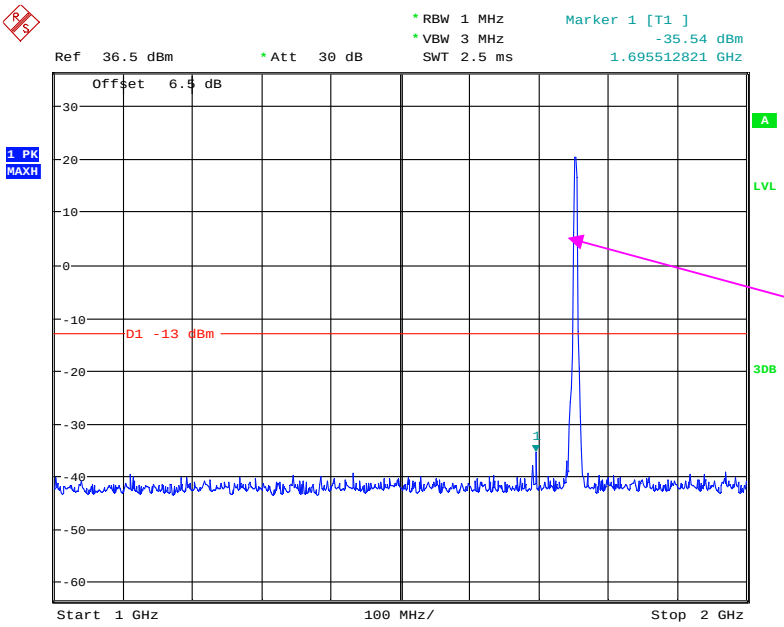
AWS Band (Part 27)

30 MHz – 1 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:22:38

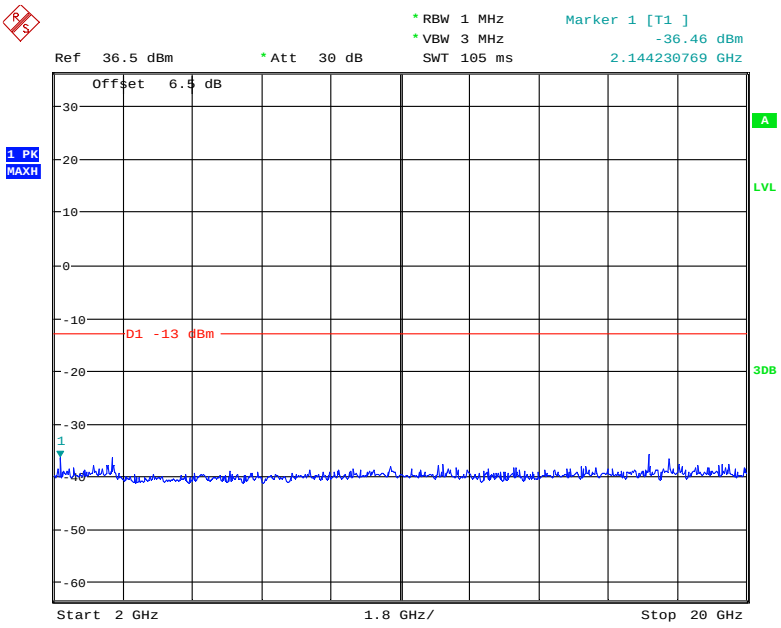
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 14.NOV.2020 14:25:59

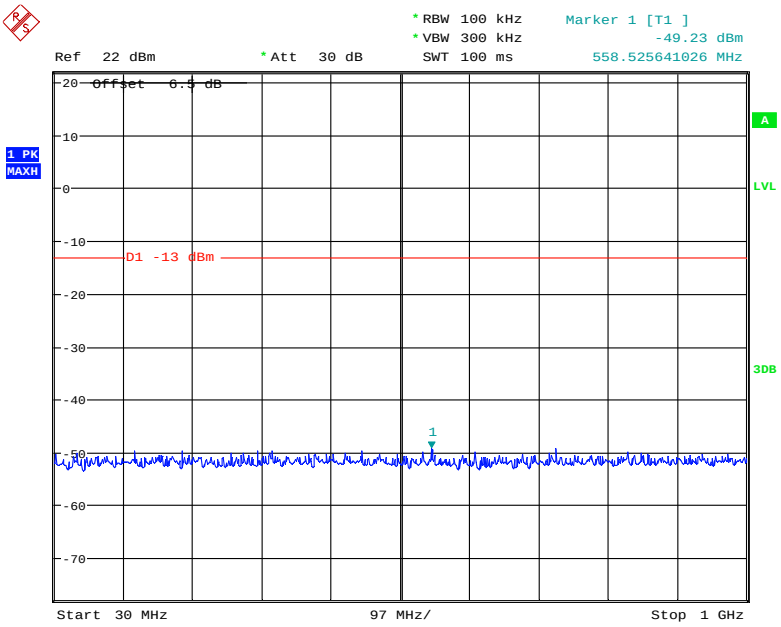
2 GHz – 20 GHz (WCDMA Mode)



Date: 14.NOV.2020 14:26:26

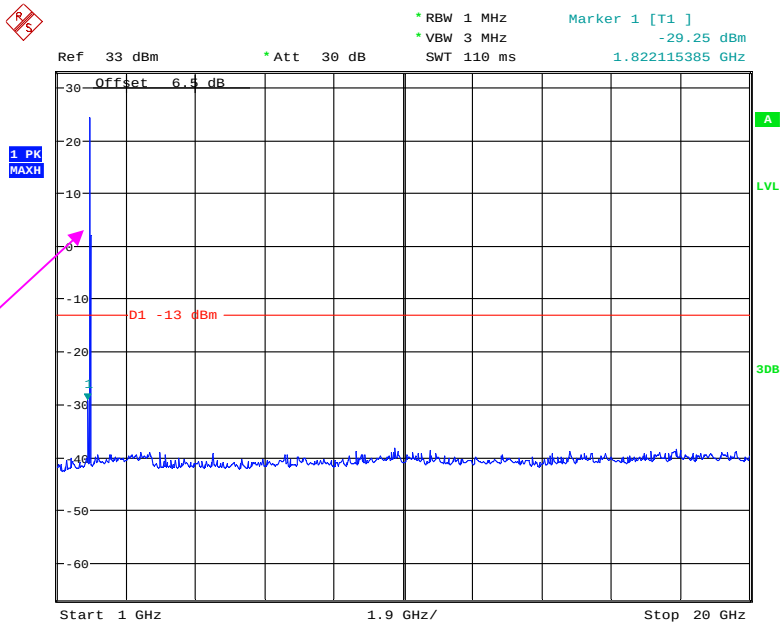
LTE Band 2:

30 MHz - 1 GHz (1.4 MHz, High Channel)



Date: 14.NOV.2020 09:00:06

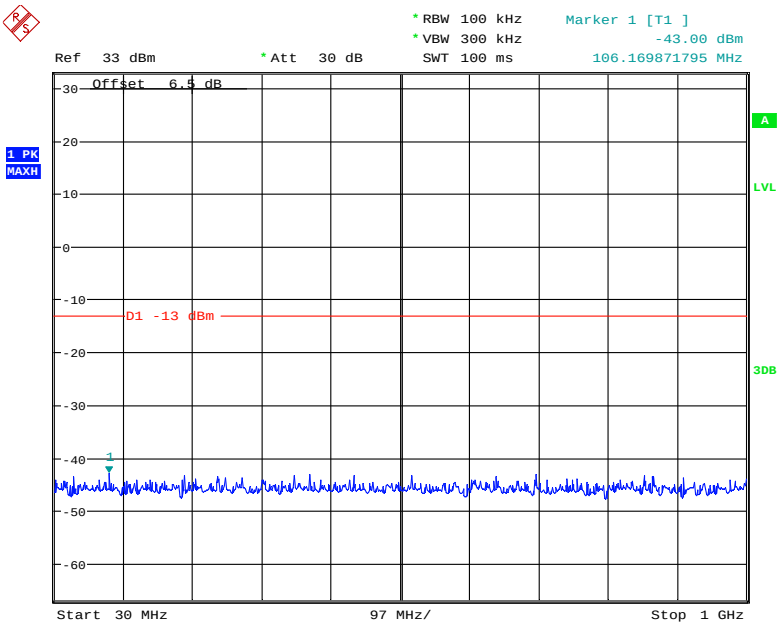
1 GHz – 20 GHz (1.4 MHz, High Channel)



Fundamental test

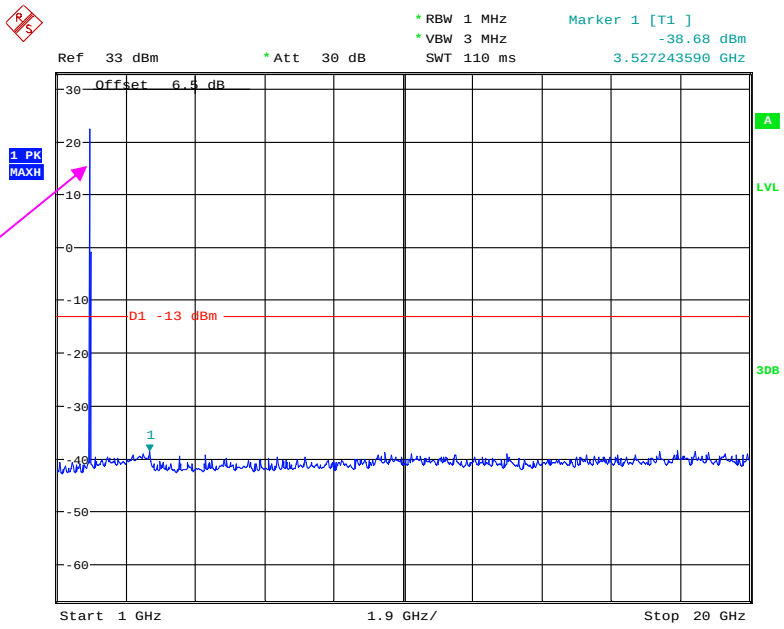
Date: 14.NOV.2020 09:00:45

30 MHz - 1 GHz (3.0 MHz, High Channel)



Date: 14.NOV.2020 09:12:07

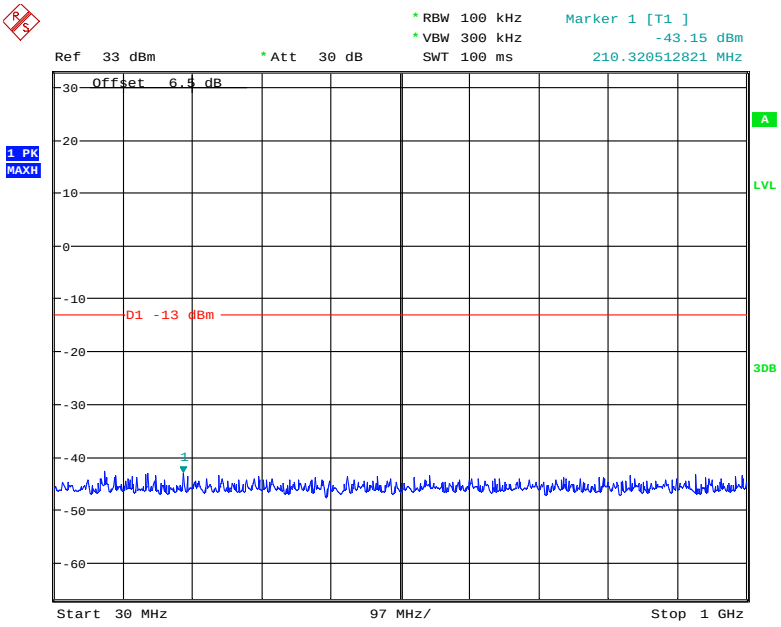
1 GHz – 20 GHz (3.0 MHz, High Channel)



Fundamental test

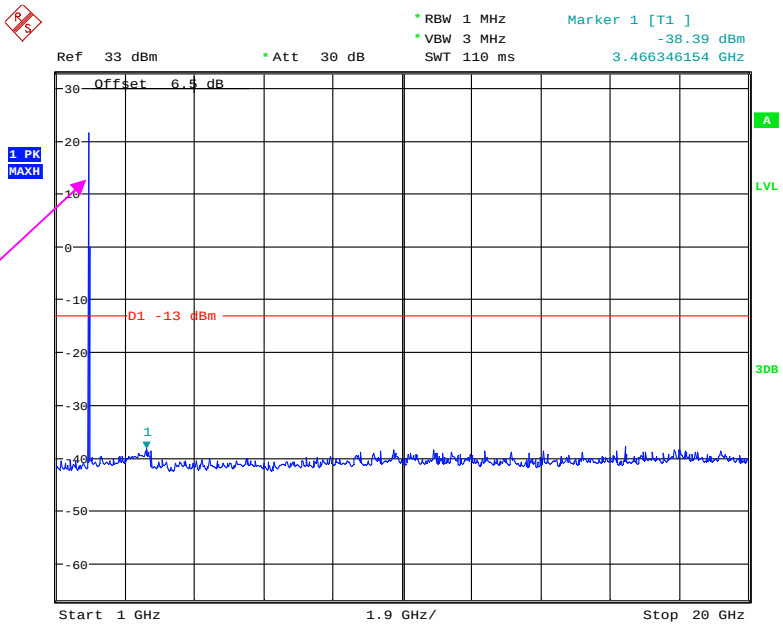
Date: 14.NOV.2020 09:04:15

30 MHz - 1 GHz (5.0 MHz, High Channel)



Date: 14.NOV.2020 09:12:33

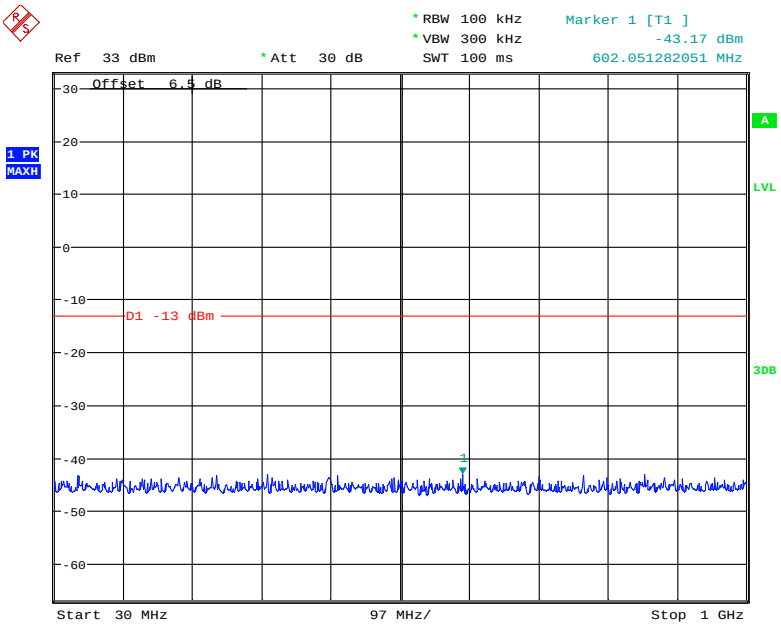
1 GHz – 20 GHz (5.0 MHz, High Channel)



Fundamental test

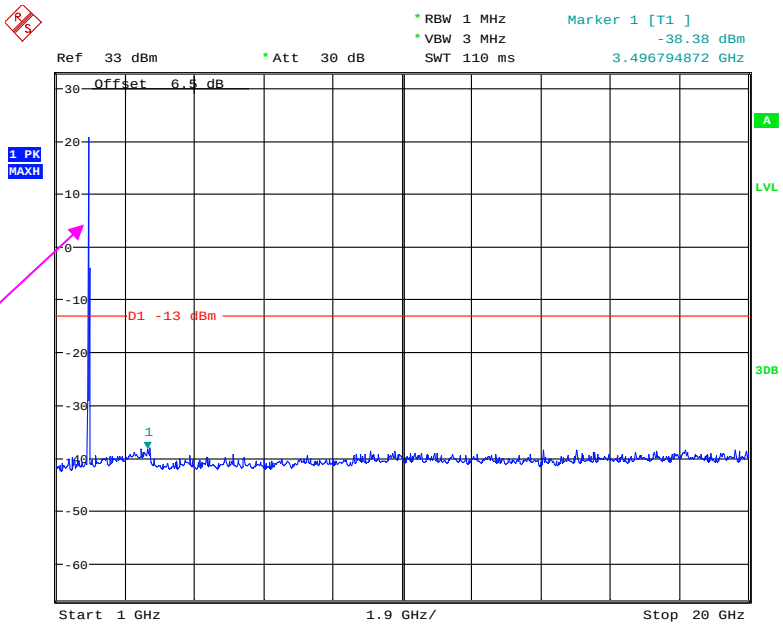
Date: 14.NOV.2020 09:06:01

30 MHz - 1 GHz (10.0 MHz, High Channel)



Date: 14.NOV.2020 09:12:54

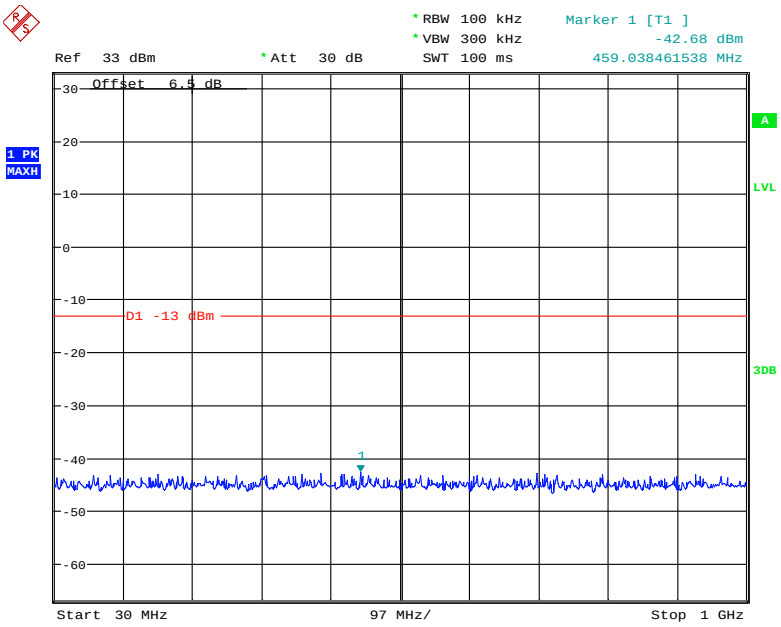
1 GHz – 20 GHz (10.0 MHz, High Channel)



Fundamental test

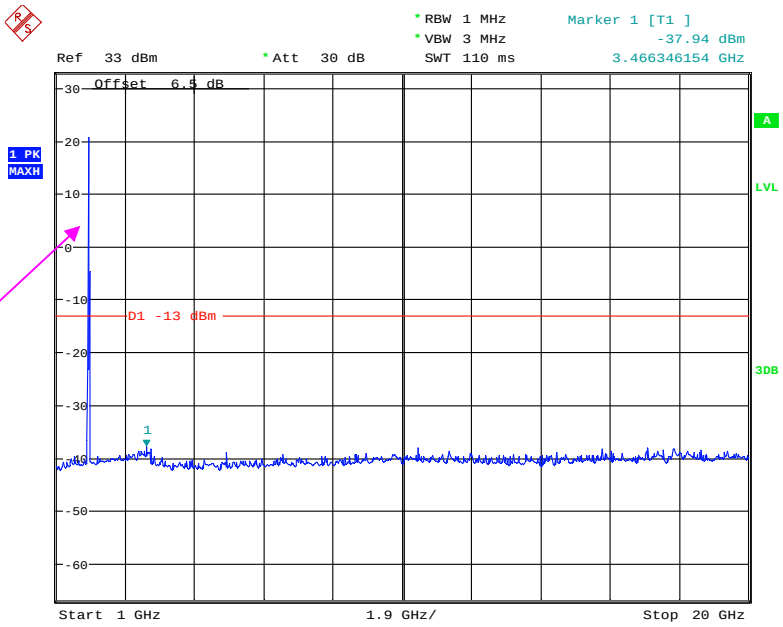
Date: 14.NOV.2020 09:07:37

30 MHz - 1 GHz (15.0 MHz, High Channel)



Date: 14.NOV.2020 09:13:39

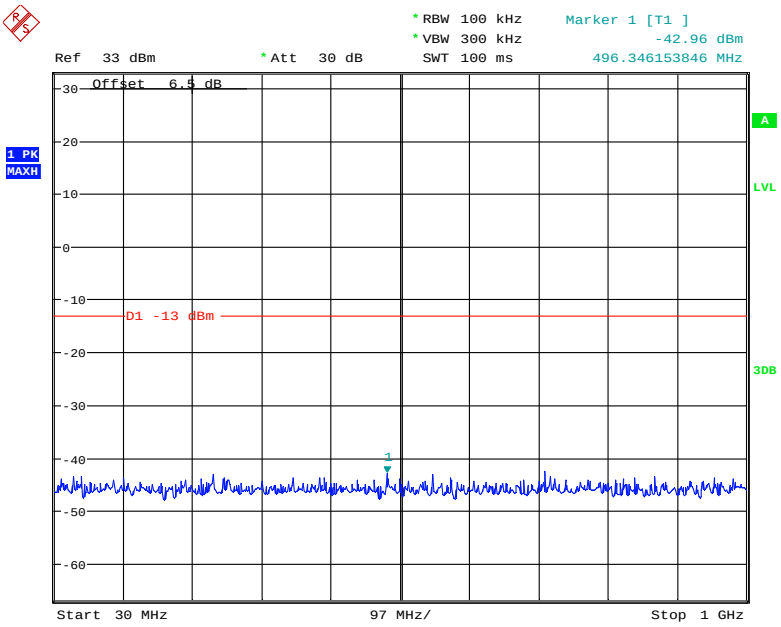
1 GHz – 20 GHz (15.0 MHz, High Channel)



Fundamental test

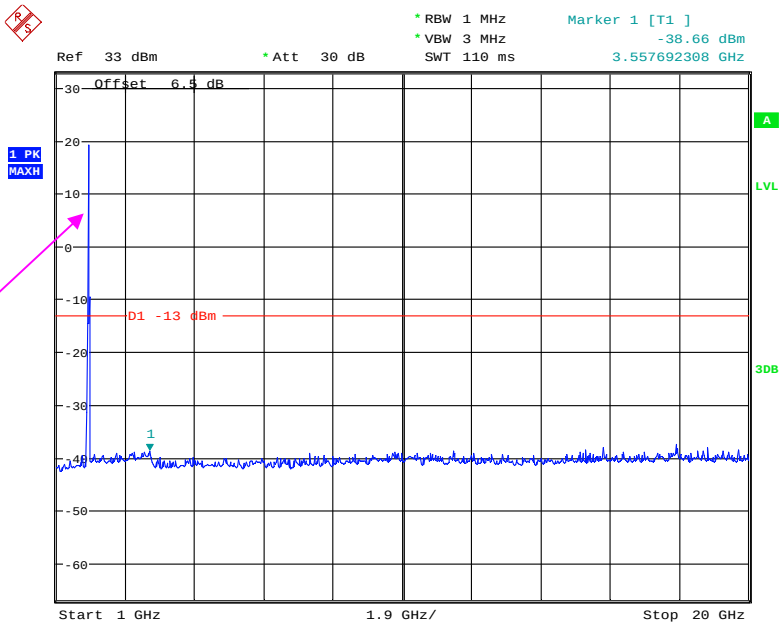
Date: 14.NOV.2020 09:09:09

30 MHz - 1 GHz (20.0 MHz, High Channel)



Date: 14.NOV.2020 09:14:08

1 GHz – 2 GHz (20.0 MHz, High Channel)

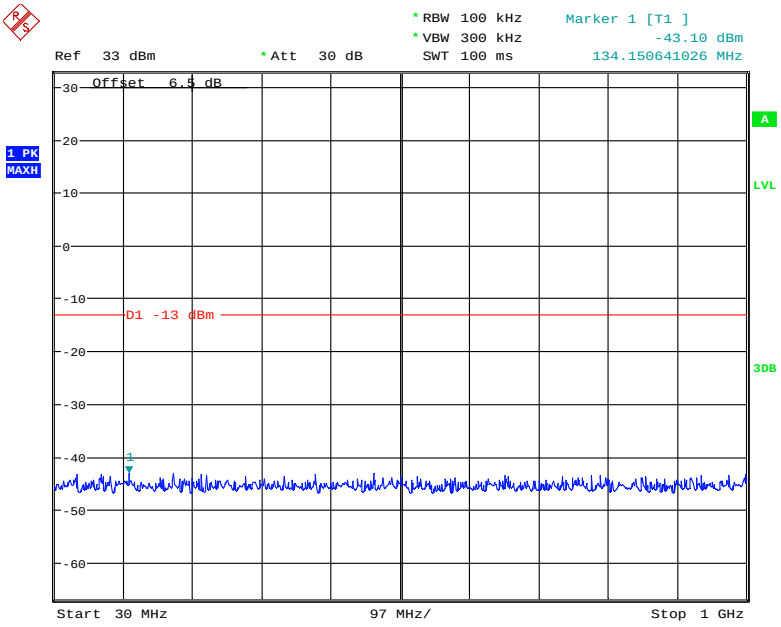


Fundamental test

Date: 14.NOV.2020 09:10:25

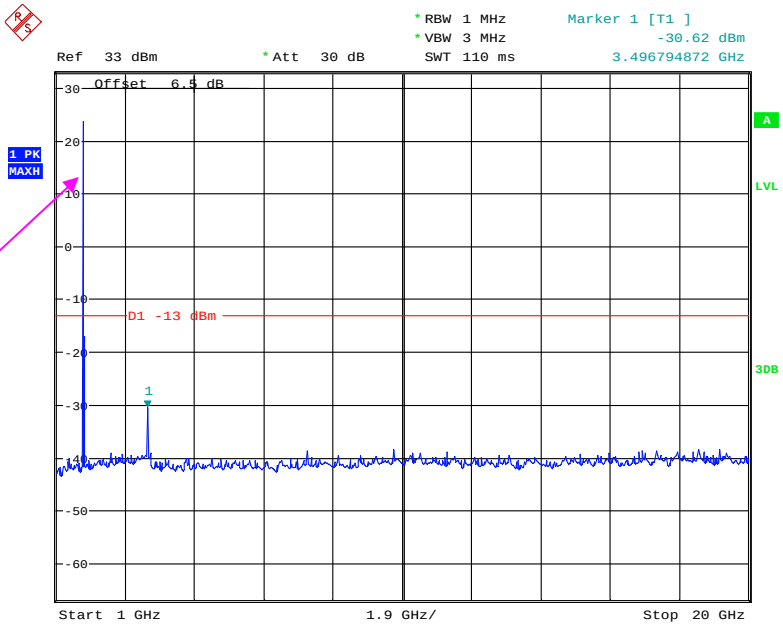
LTE Band 4:

30 MHz - 1 GHz (1.4 MHz, High Channel)



Date: 14.NOV.2020 09:27:33

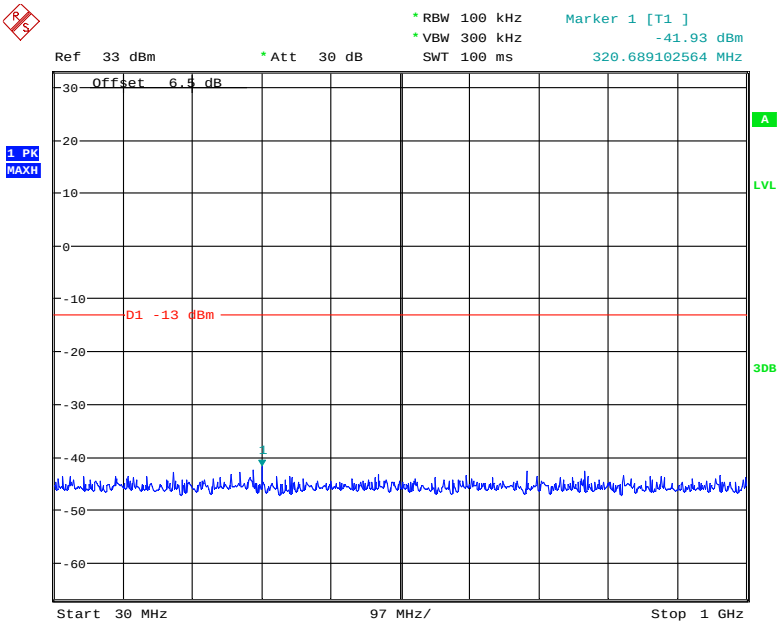
1 GHz – 20 GHz (1.4 MHz, High Channel)



Fundamental test

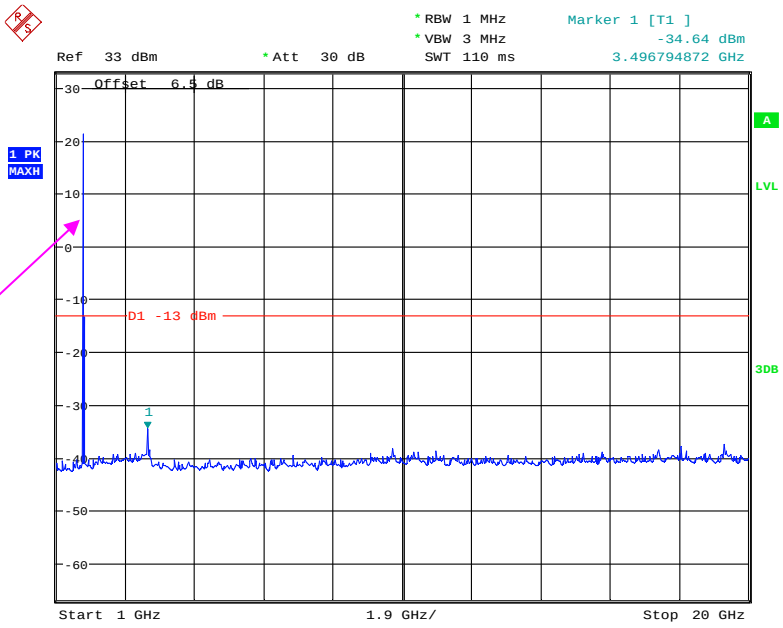
Date: 14.NOV.2020 09:17:00

30 MHz - 1 GHz (3.0 MHz, High Channel)



Date: 14.NOV.2020 09:28:03

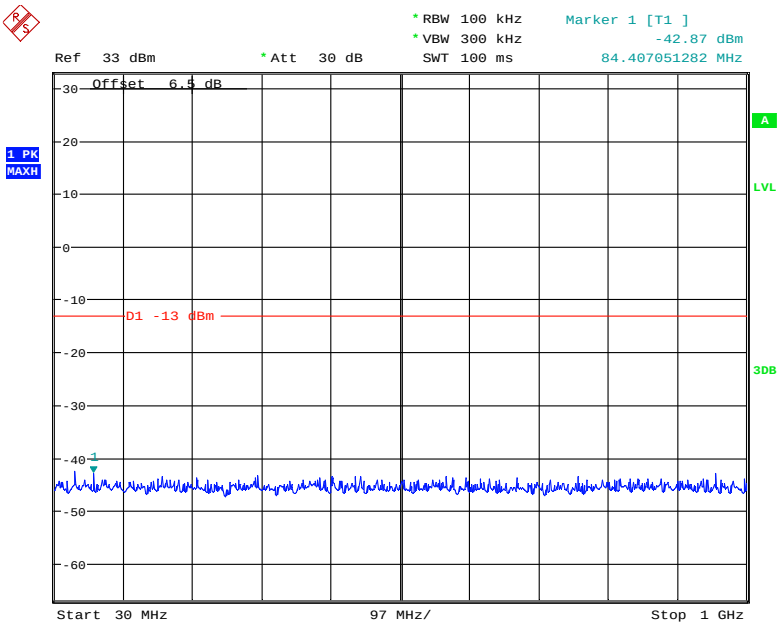
1 GHz – 20 GHz (3.0 MHz, High Channel)



Fundamental test

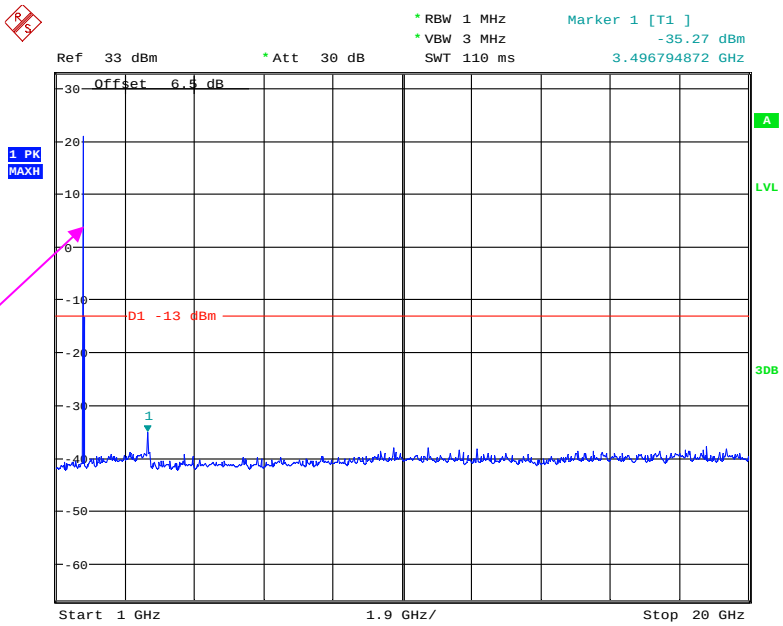
Date: 14.NOV.2020 09:18:49

30 MHz - 1 GHz (5.0 MHz, High Channel)



Date: 14.NOV.2020 09:28:31

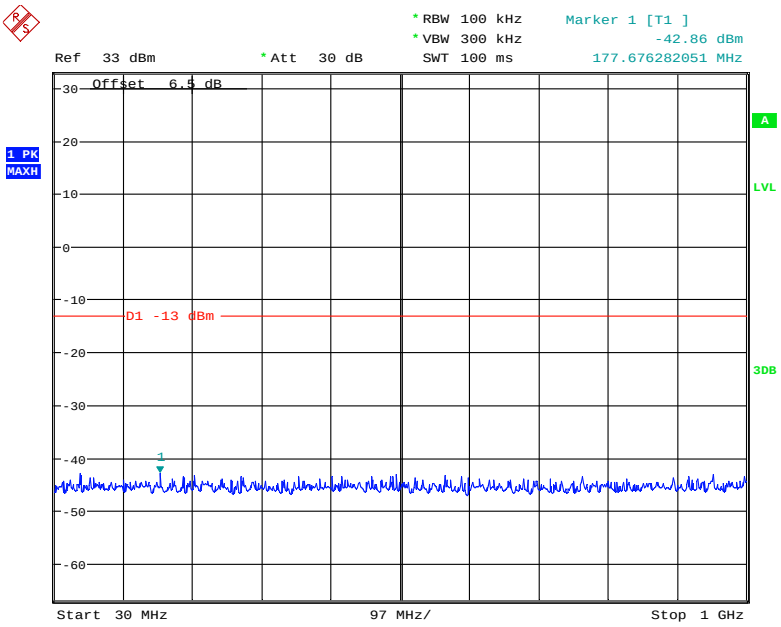
1 GHz – 20 GHz (5.0 MHz, High Channel)



Fundamental test

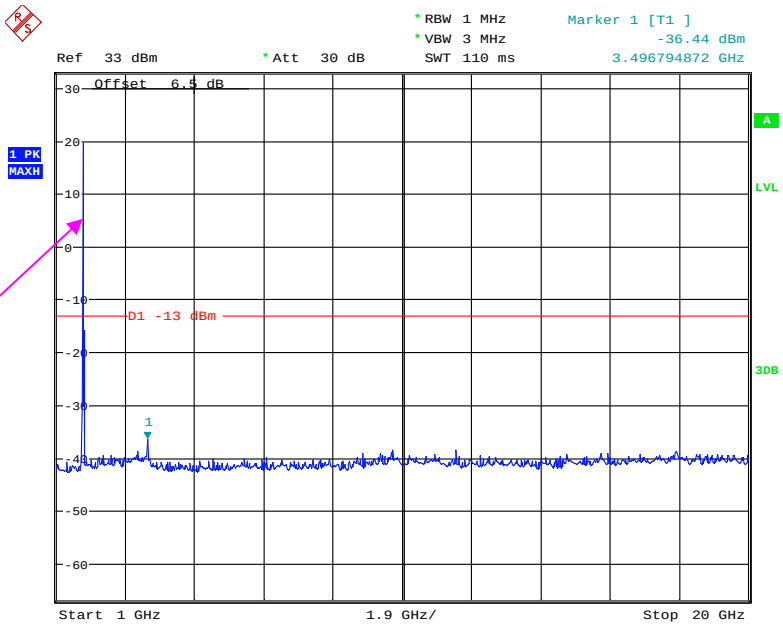
Date: 14.NOV.2020 09:20:24

30 MHz - 1 GHz (10.0 MHz, High Channel)



Date: 14.NOV.2020 09:29:48

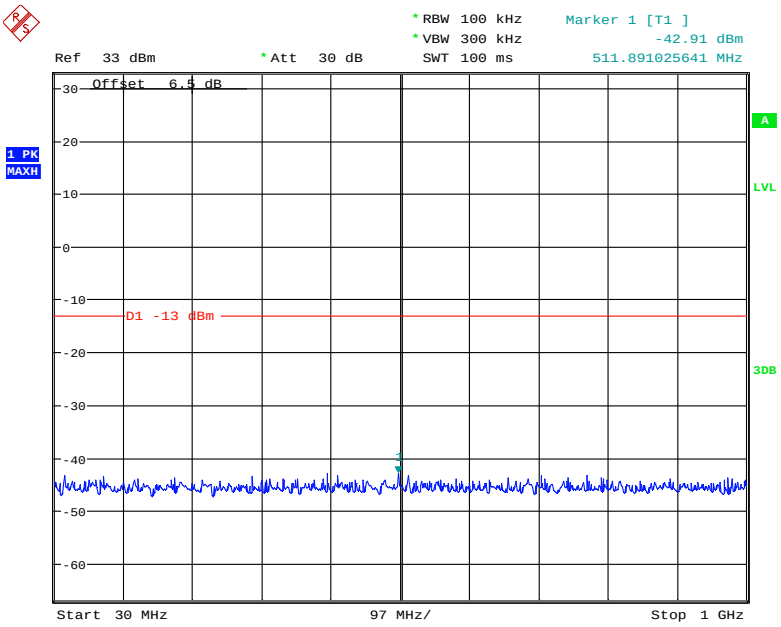
1 GHz – 20 GHz (10.0 MHz, High Channel)



Fundamental test

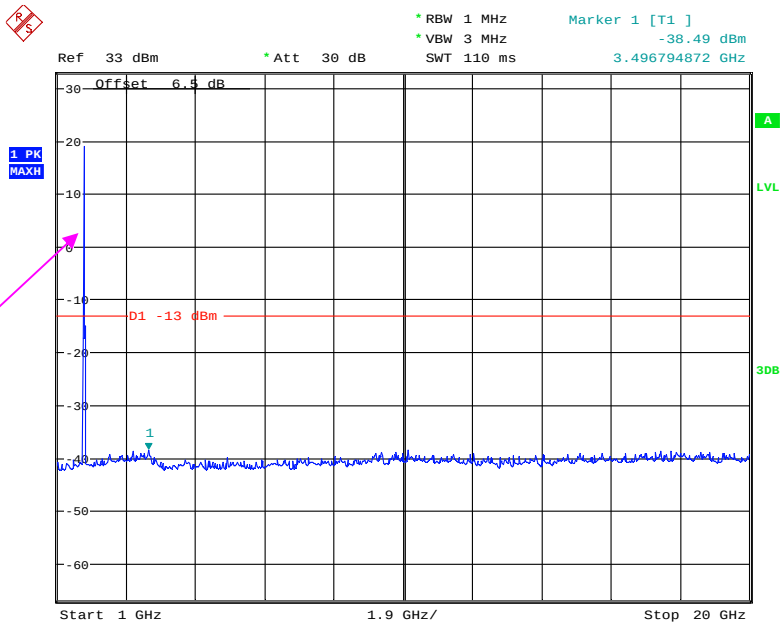
Date: 14.NOV.2020 09:21:56

30 MHz - 1 GHz (15.0 MHz, High Channel)



Date: 14.NOV.2020 09:30:18

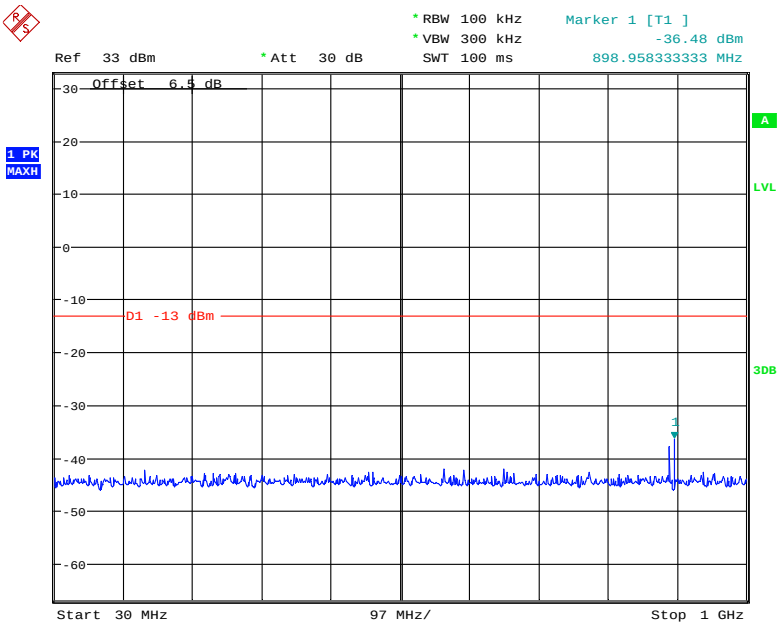
1 GHz – 20 GHz (15.0 MHz, High Channel)



Fundamental test

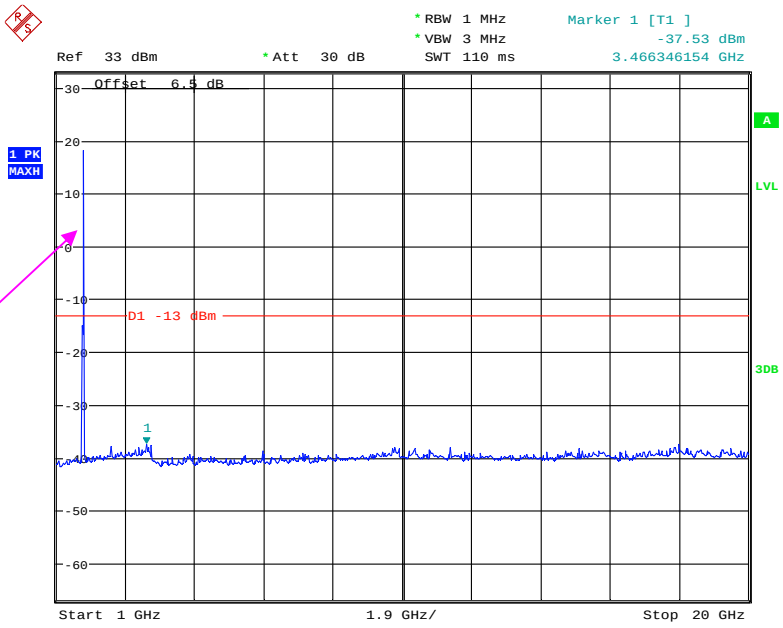
Date: 14.NOV.2020 09:23:24

30 MHz - 1 GHz (20.0 MHz, High Channel)



Date: 14.NOV.2020 09:30:54

1 GHz – 20 GHz (20.0 MHz, High Channel)

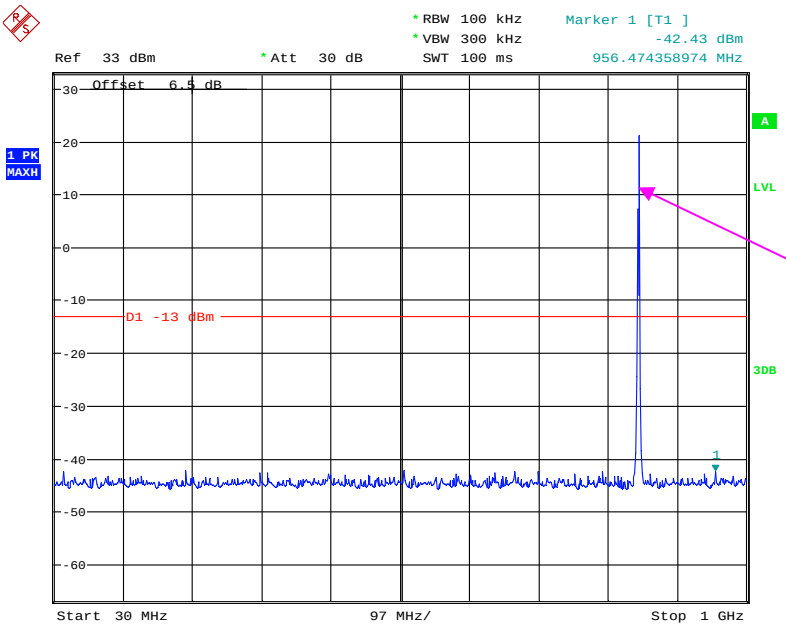


Fundamental test

Date: 14.NOV.2020 09:26:36

LTE Band 5:

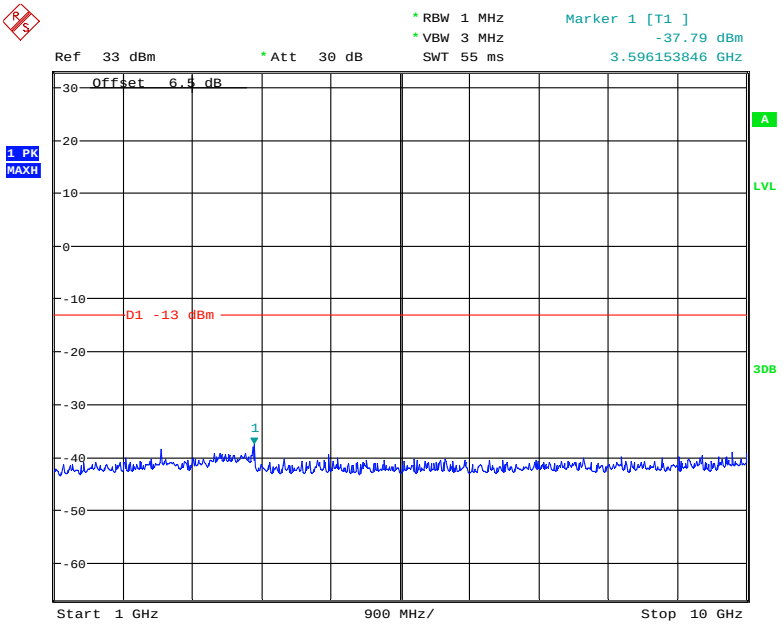
30 MHz - 1 GHz (1.4 MHz, High Channel)



Fundamental test

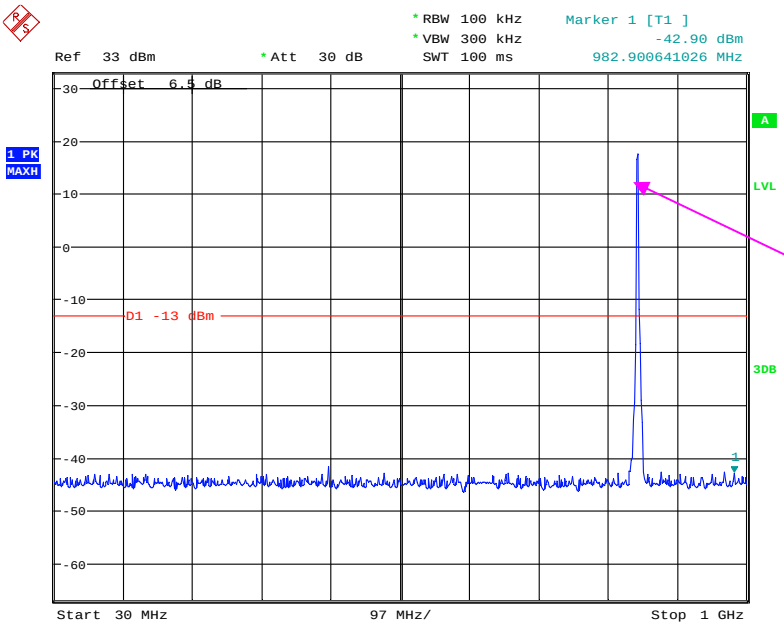
Date: 14.NOV.2020 09:35:00

1 GHz – 10 GHz (1.4 MHz, High Channel)



Date: 14.NOV.2020 09:48:01

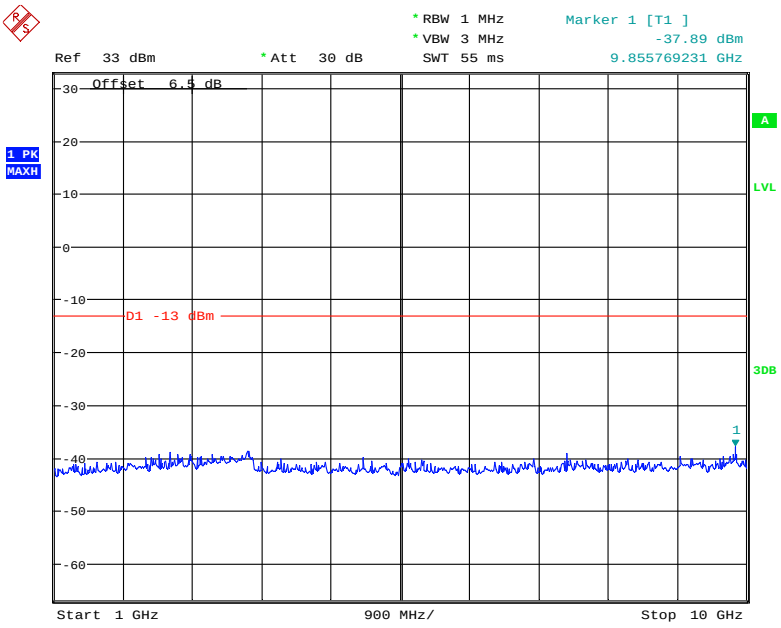
30 MHz - 1 GHz (3.0 MHz, High Channel)



Fundamental test

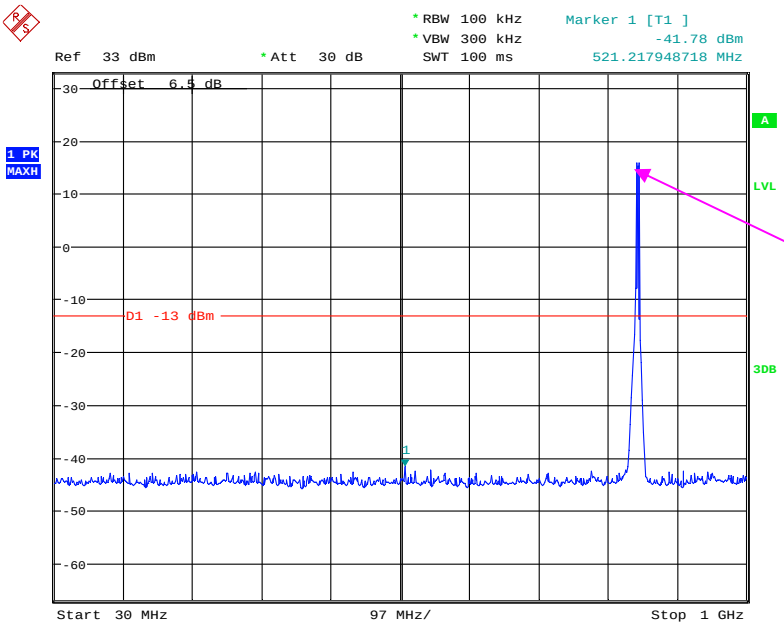
Date: 14.NOV.2020 09:36:26

1 GHz – 10 GHz (3.0 MHz, High Channel)



Date: 14.NOV.2020 09:49:58

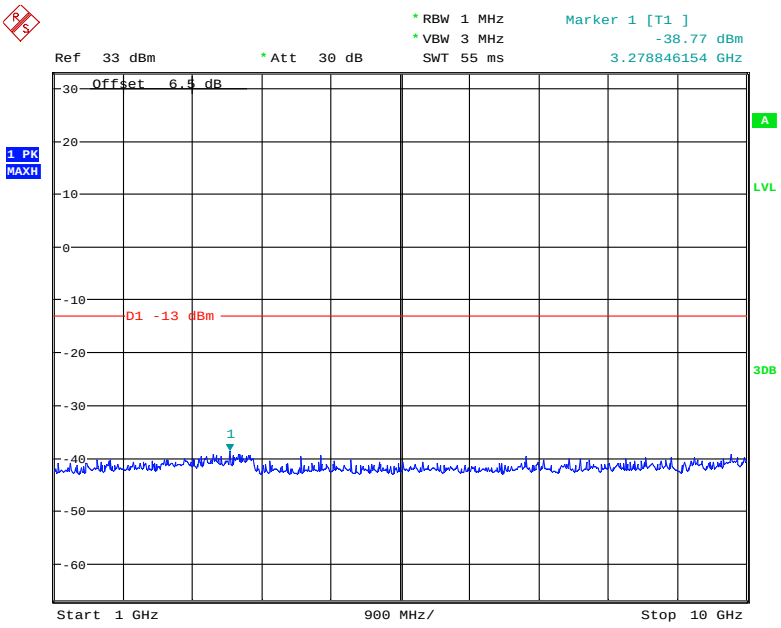
30 MHz - 1 GHz (5.0 MHz, High Channel)



Fundamental test

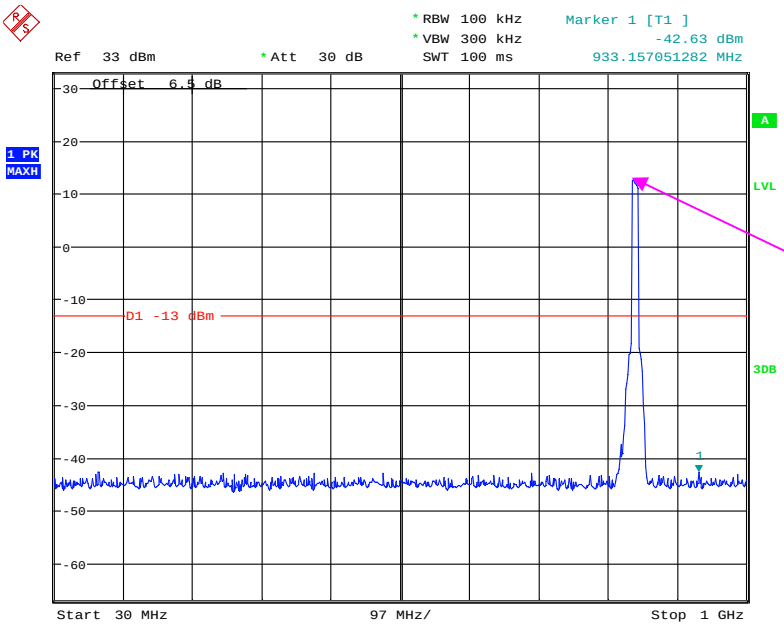
Date: 14.NOV.2020 09:38:48

1 GHz – 10 GHz (5.0 MHz, High Channel)



Date: 14.NOV.2020 09:52:57

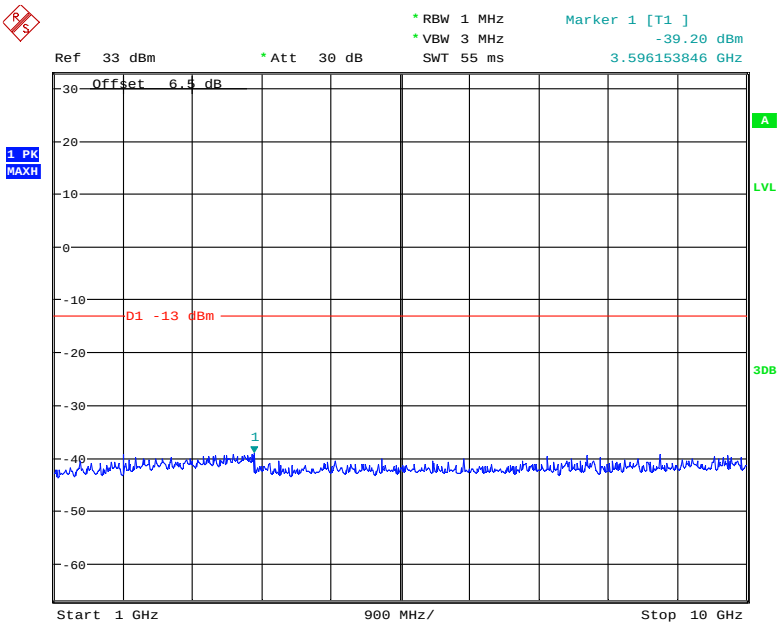
30 MHz - 1 GHz (10.0 MHz, High Channel)



Fundamental test

Date: 14.NOV.2020 09:40:32

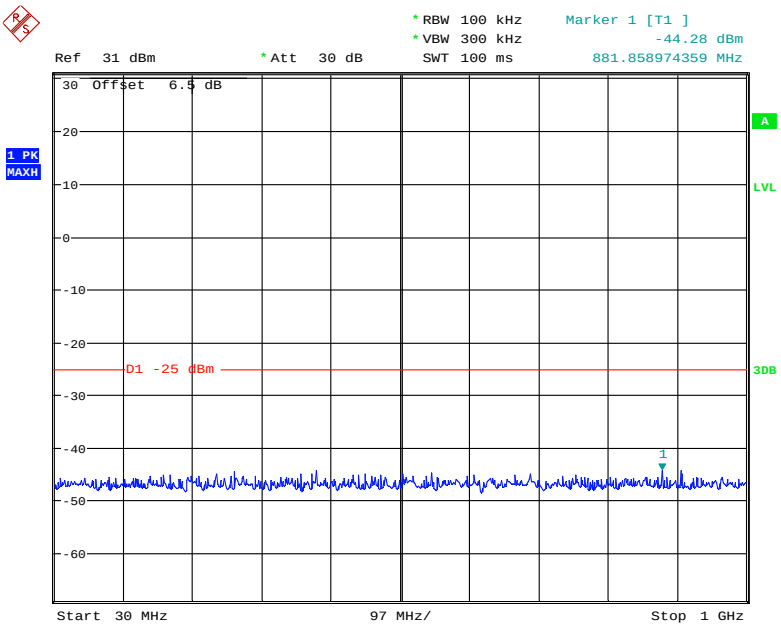
1 GHz – 10 GHz (10.0 MHz, High Channel)



Date: 14.NOV.2020 09:54:08

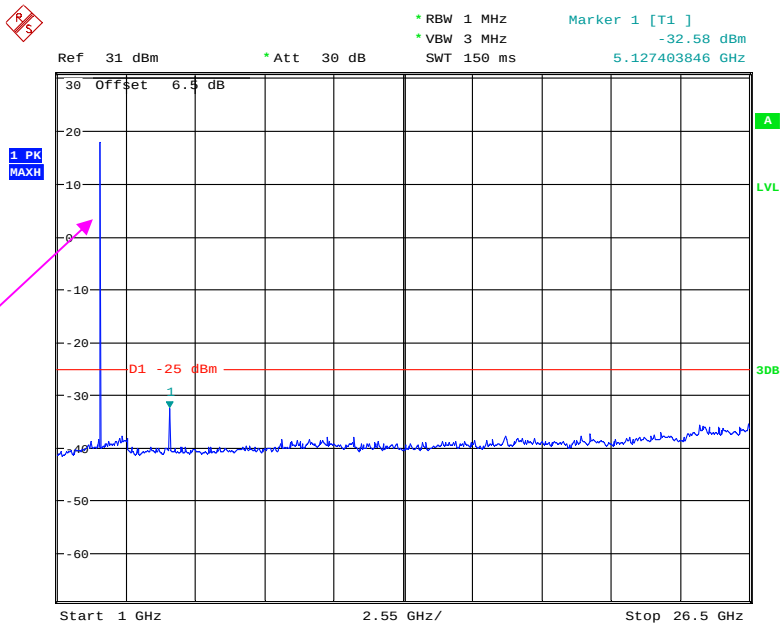
LTE Band 7:

30 MHz - 1 GHz (5.0 MHz, High Channel)



Date: 17.NOV.2020 09:30:34

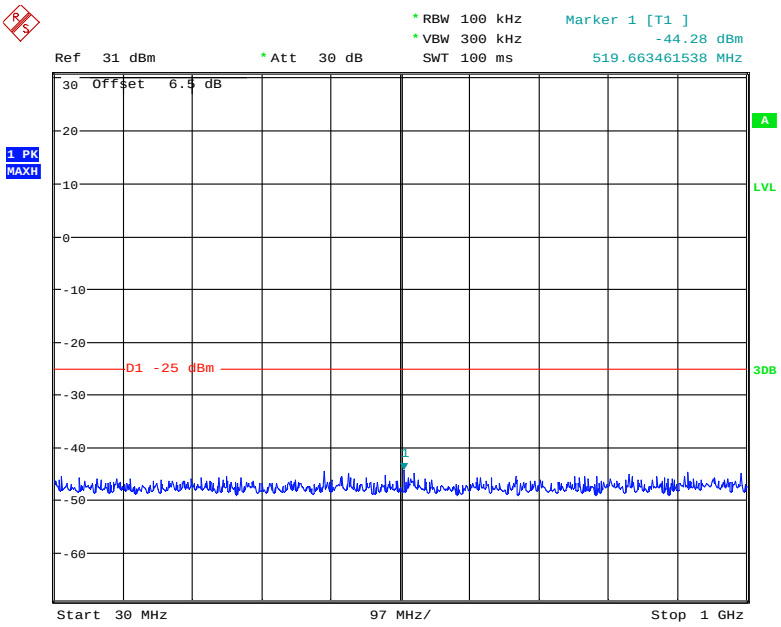
1 GHz – 26.5 GHz (5.0 MHz, High Channel)



Fundamental test

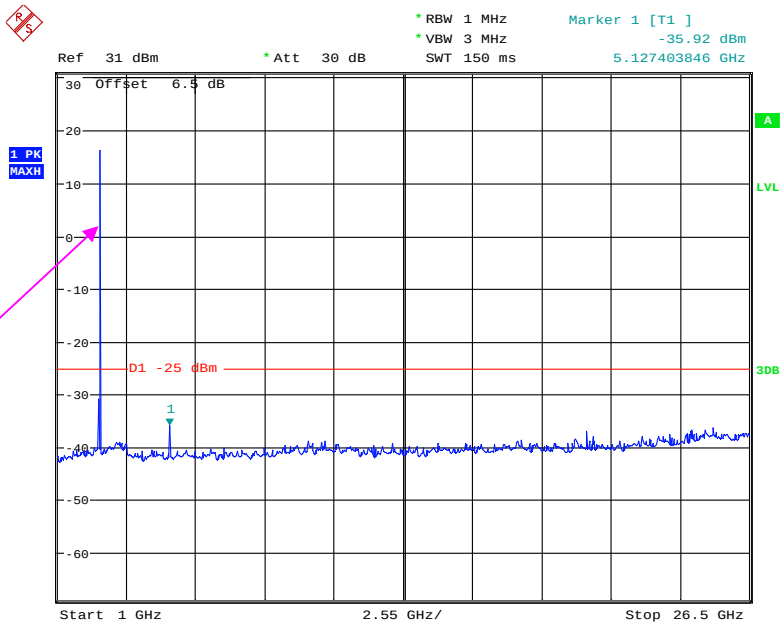
Date: 17.NOV.2020 09:49:13

30 MHz - 1 GHz (10.0 MHz, High Channel)



Date: 17.NOV.2020 09:30:49

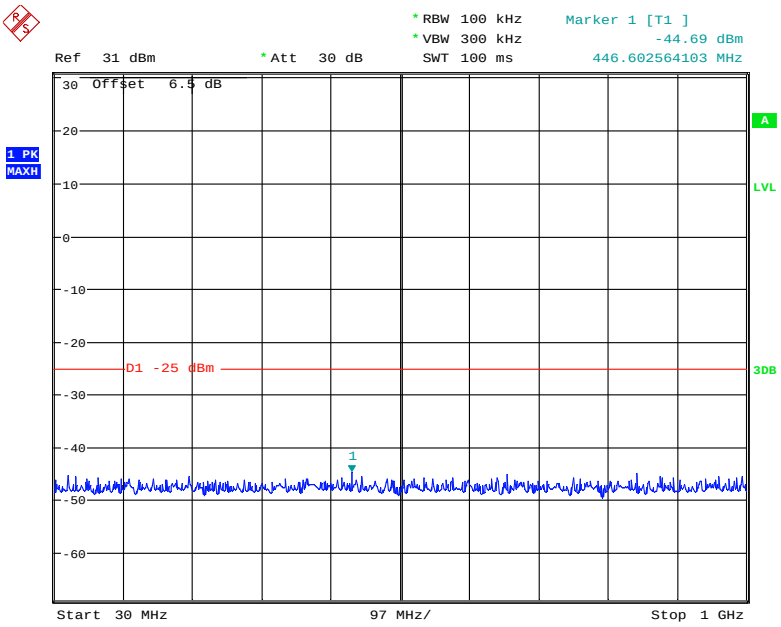
1 GHz – 26.5 GHz (10.0 MHz, High Channel)



Fundamental test

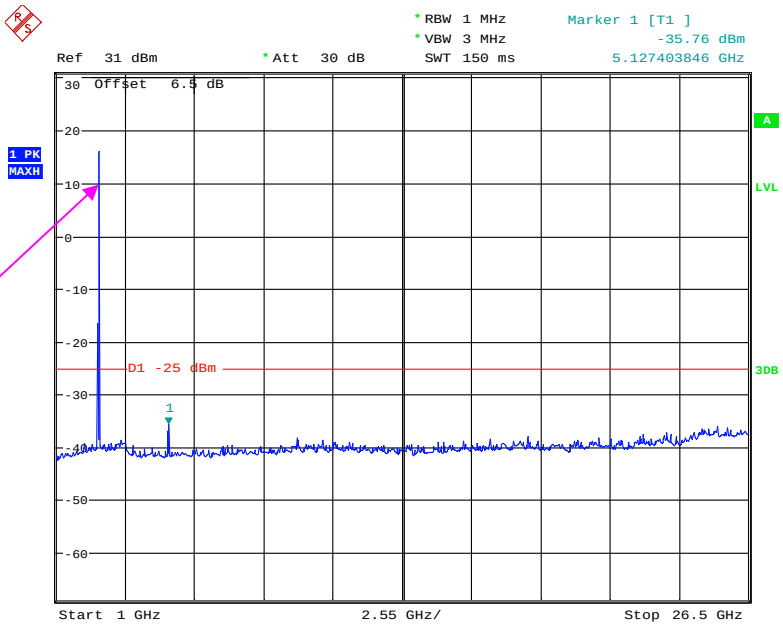
Date: 17.NOV.2020 09:50:09

30 MHz - 1 GHz (15.0 MHz, High Channel)



Date: 17.NOV.2020 09:31:28

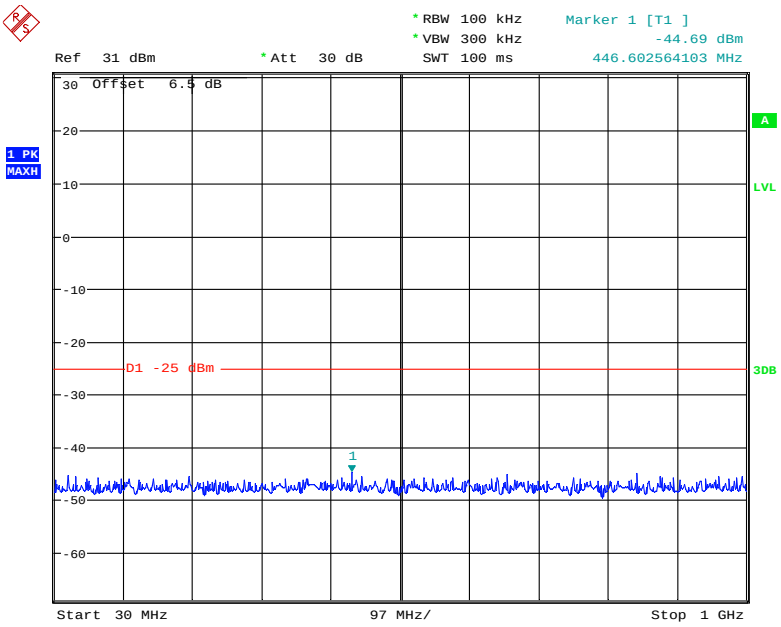
1 GHz – 26.5 GHz (15.0 MHz, High Channel)



Fundamental test

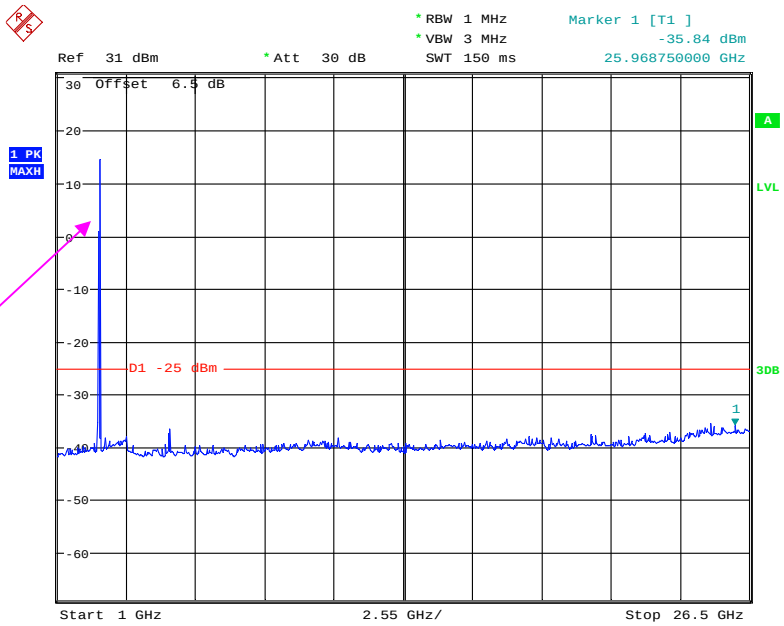
Date: 17.NOV.2020 09:51:15

30 MHz - 1 GHz (20.0 MHz, High Channel)



Date: 17.NOV.2020 09:31:28

1 GHz – 26.5 GHz (20.0 MHz, High Channel)

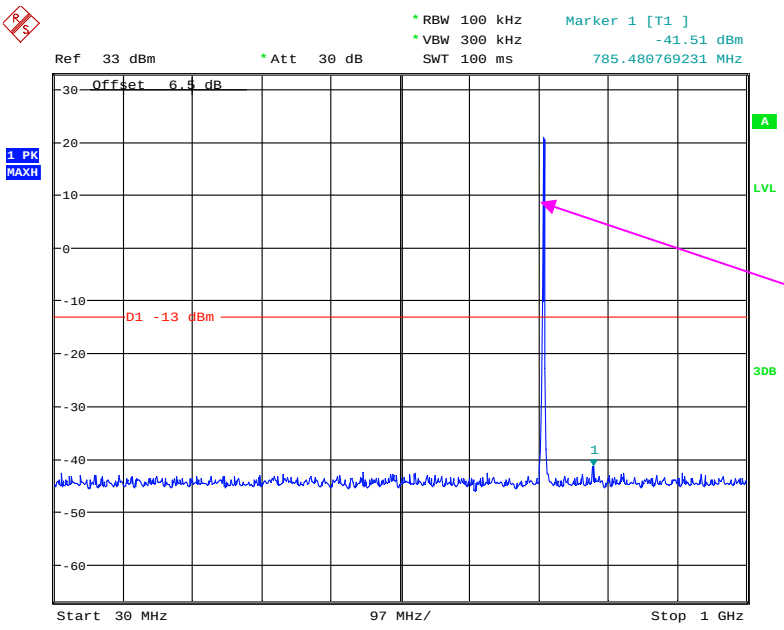


Fundamental test

Date: 17.NOV.2020 09:52:39

LTE Band 12:

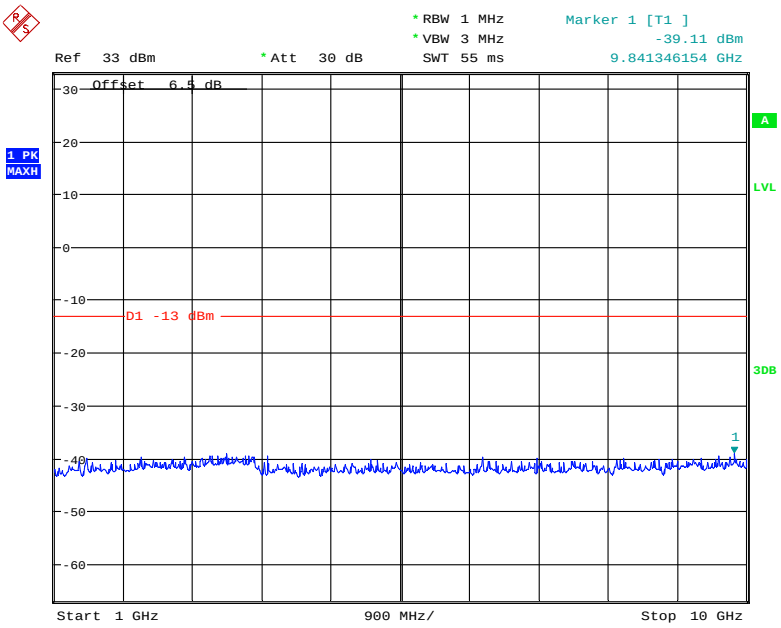
30 MHz - 1 GHz (1.4 MHz, High Channel)



Fundamental test

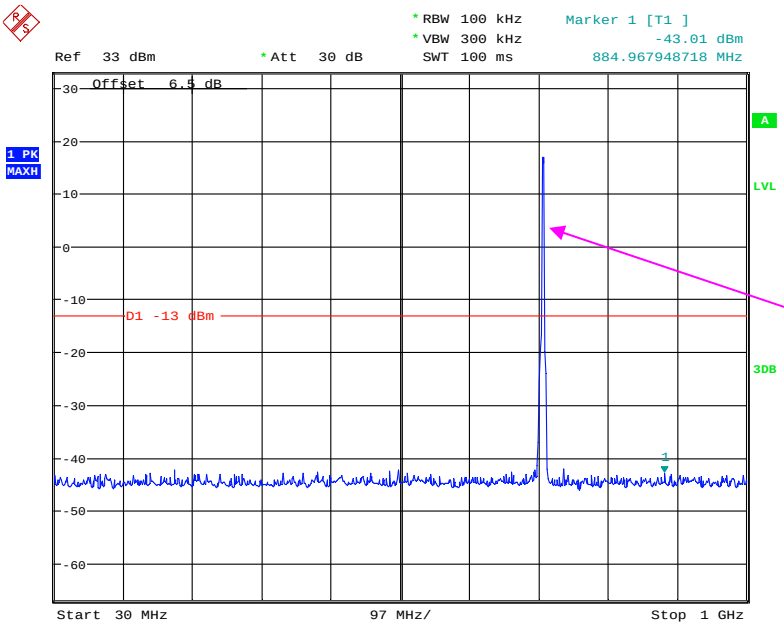
Date: 14.NOV.2020 11:38:03

1 GHz – 10 GHz (1.4 MHz, High Channel)



Date: 14.NOV.2020 11:50:39

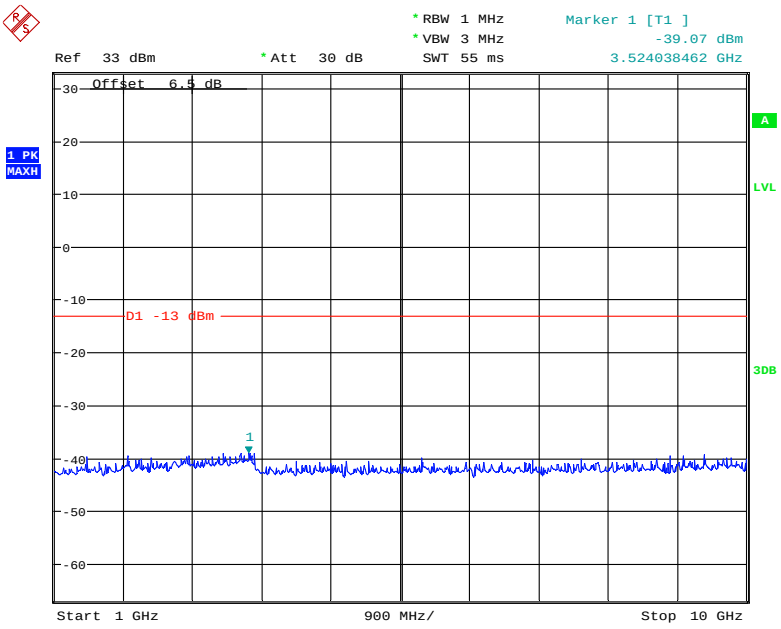
30 MHz - 1 GHz (3.0 MHz, High Channel)



Fundamental test

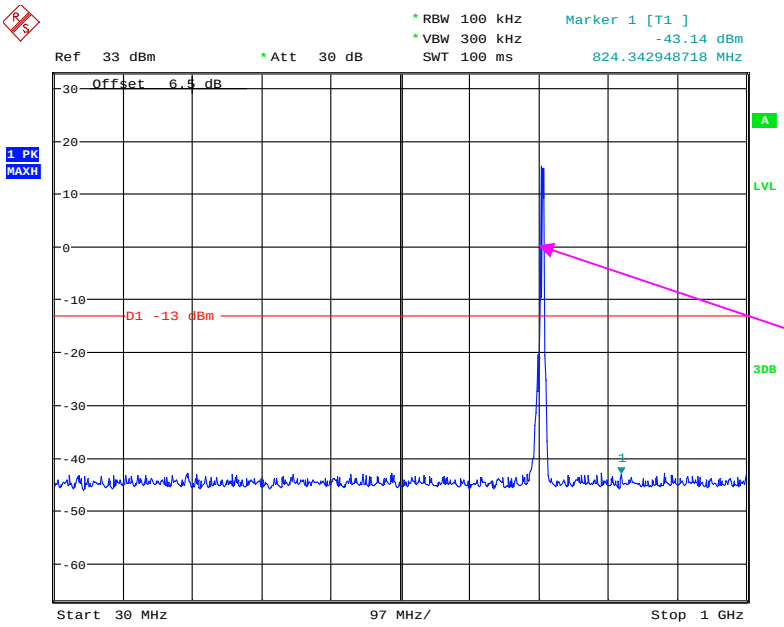
Date: 14.NOV.2020 11:40:22

1 GHz – 20 GHz (3.0 MHz, High Channel)



Date: 14.NOV.2020 11:51:16

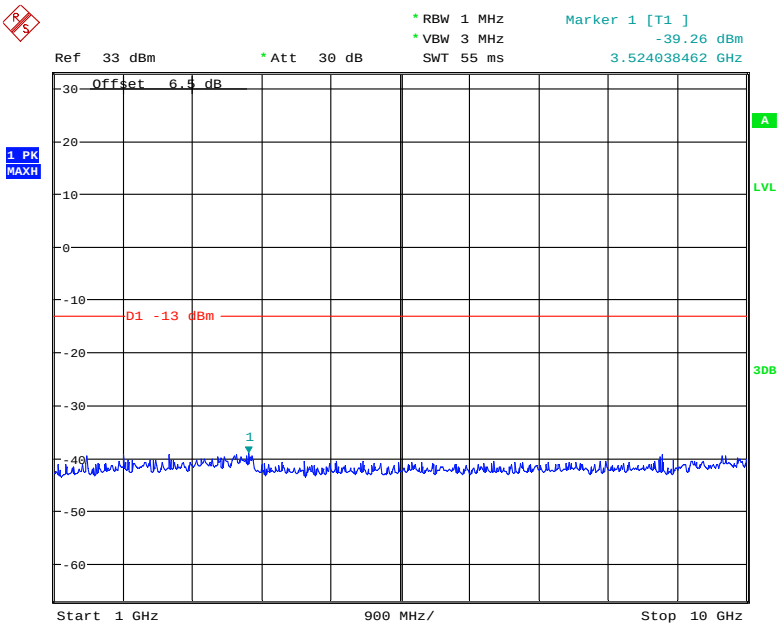
30 MHz - 1 GHz (5.0 MHz, High Channel)



Fundamental test

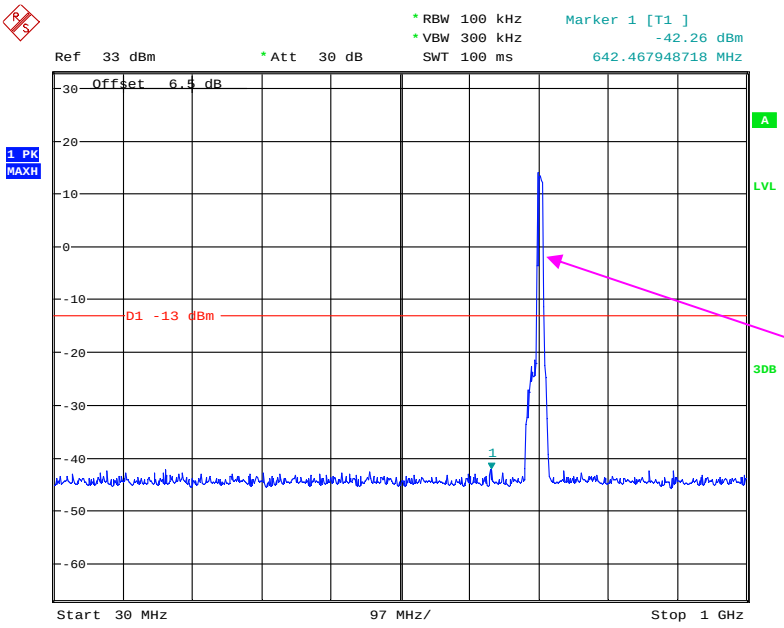
Date: 14.NOV.2020 11:43:08

1 GHz – 10 GHz (5.0 MHz, High Channel)



Date: 14.NOV.2020 11:52:20

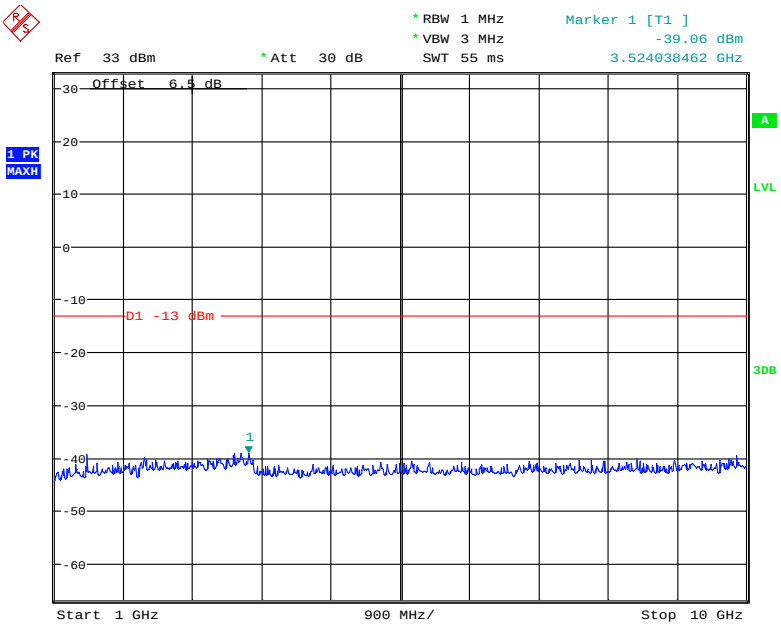
30 MHz - 1 GHz (10.0 MHz, High Channel)



Fundamental test

Date: 14.NOV.2020 11:46:00

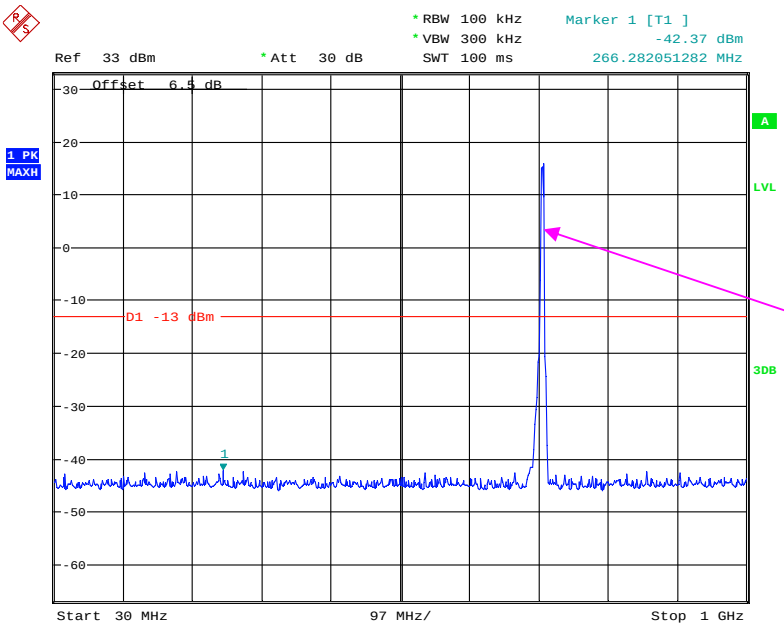
1 GHz – 10 GHz (10.0 MHz, High Channel)



Date: 14.NOV.2020 11:52:44

LTE Band 17:

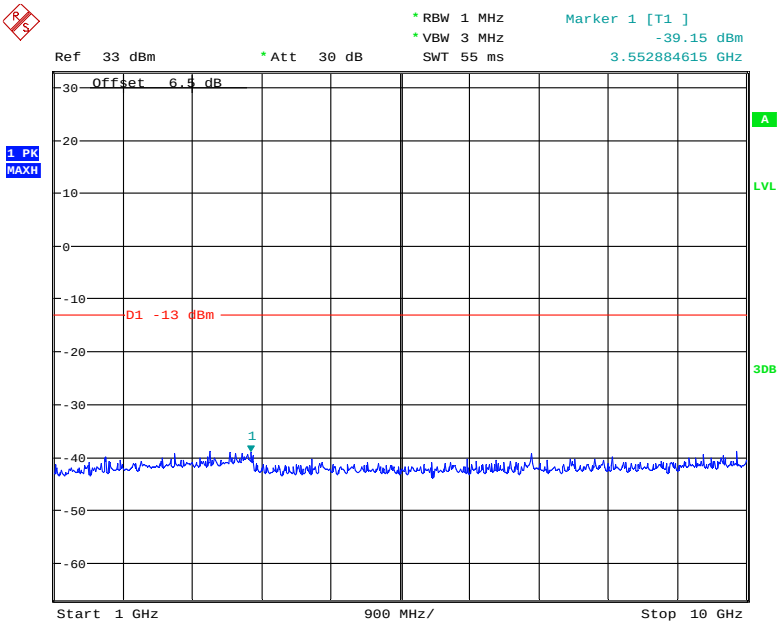
30 MHz - 1 GHz (5.0 MHz, High Channel)



Fundamental test

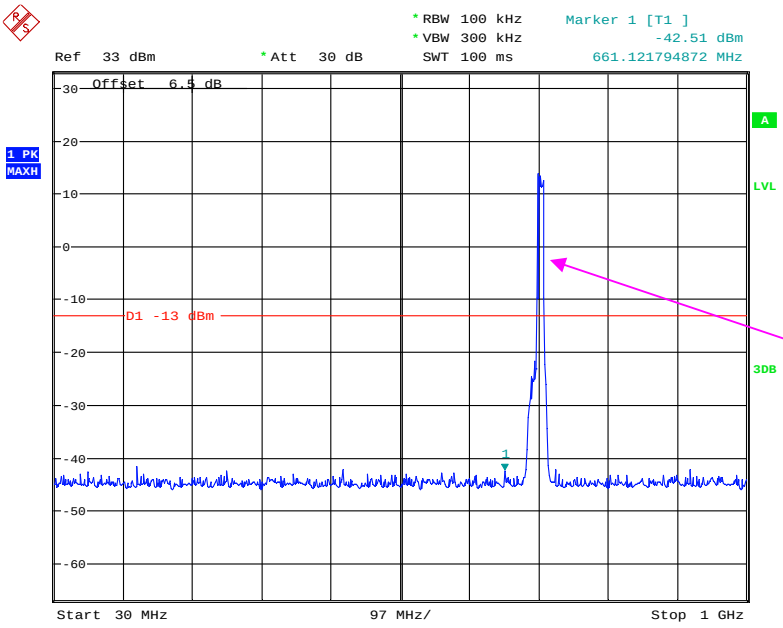
Date: 14.NOV.2020 11:55:16

1 GHz – 10 GHz (5.0 MHz, High Channel)



Date: 14.NOV.2020 11:58:05

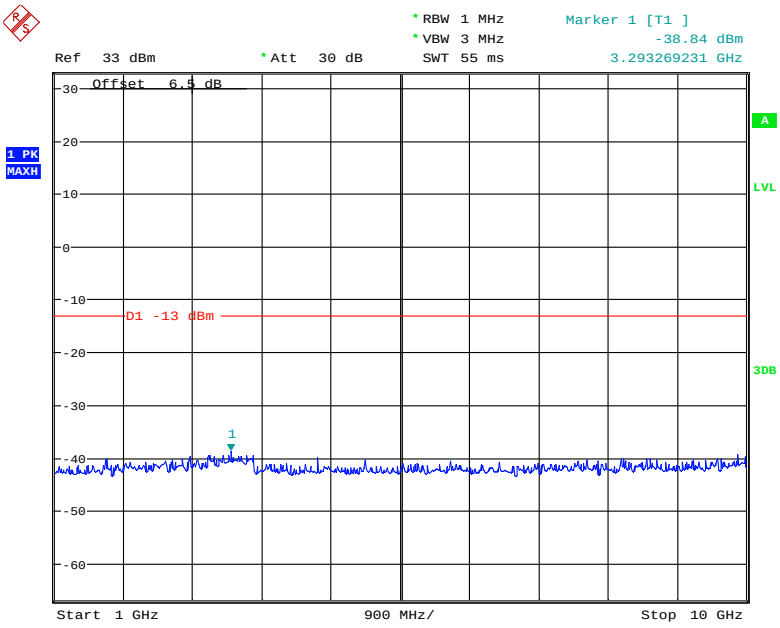
30 MHz - 1 GHz (10.0 MHz, High Channel)



Fundamental test

Date: 14.NOV.2020 11:56:40

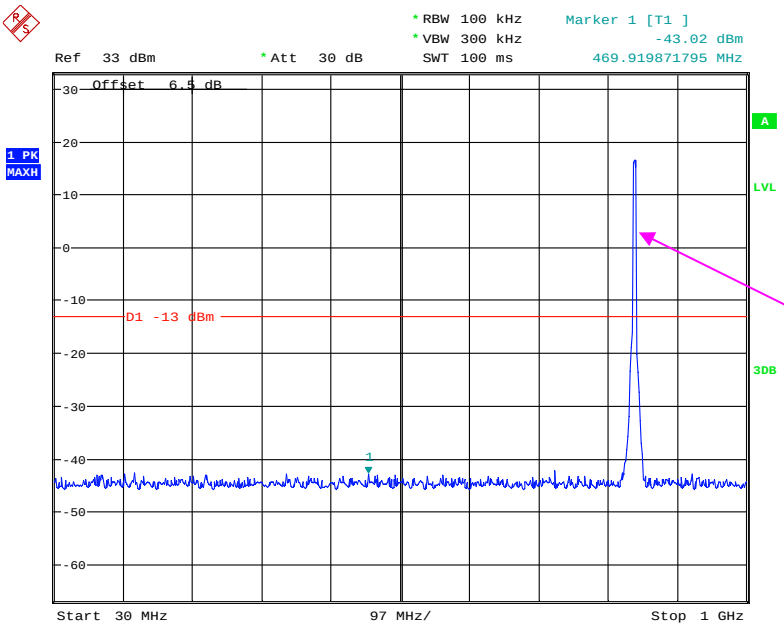
1 GHz – 10 GHz (10.0 MHz, High Channel)



Date: 14.NOV.2020 11:58:30

LTE Band 19:

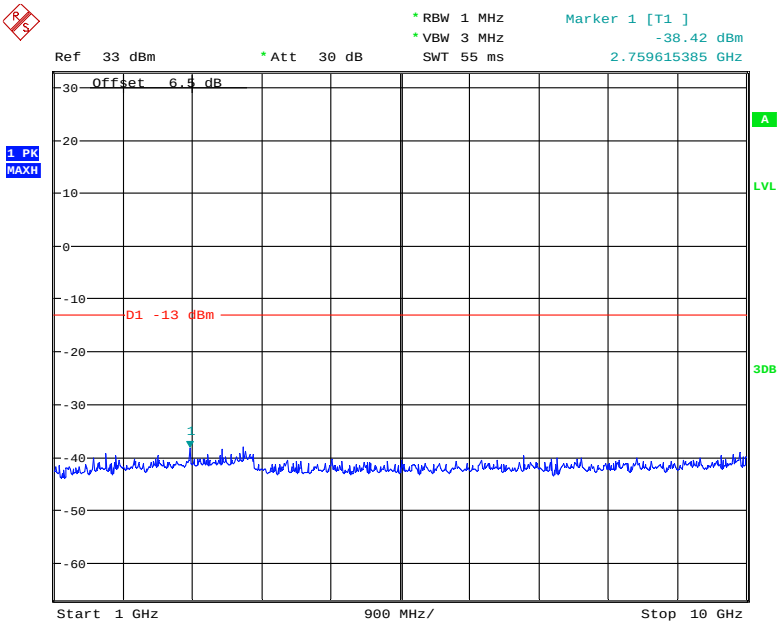
30 MHz - 1 GHz (5.0 MHz, High Channel)



Fundamental test

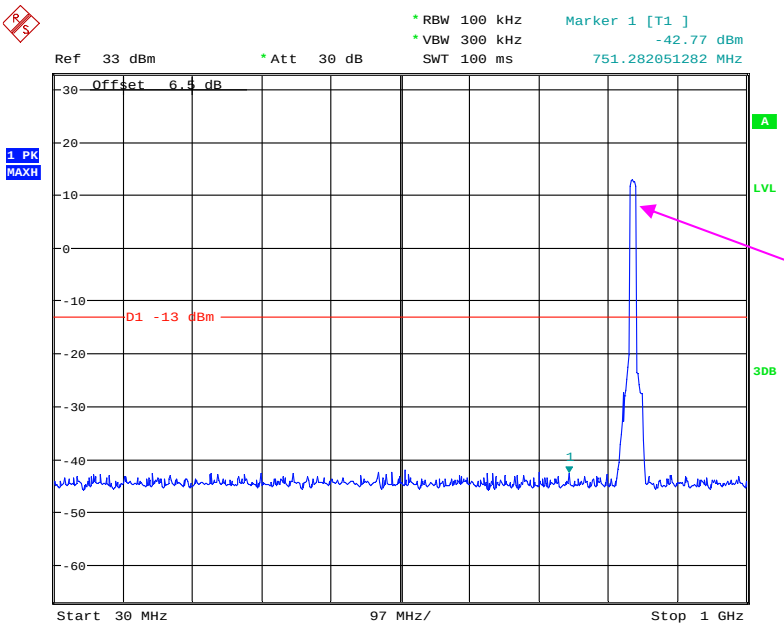
Date: 14.NOV.2020 12:01:15

1 GHz – 10 GHz (5.0 MHz, High Channel)



Date: 14.NOV.2020 12:07:44

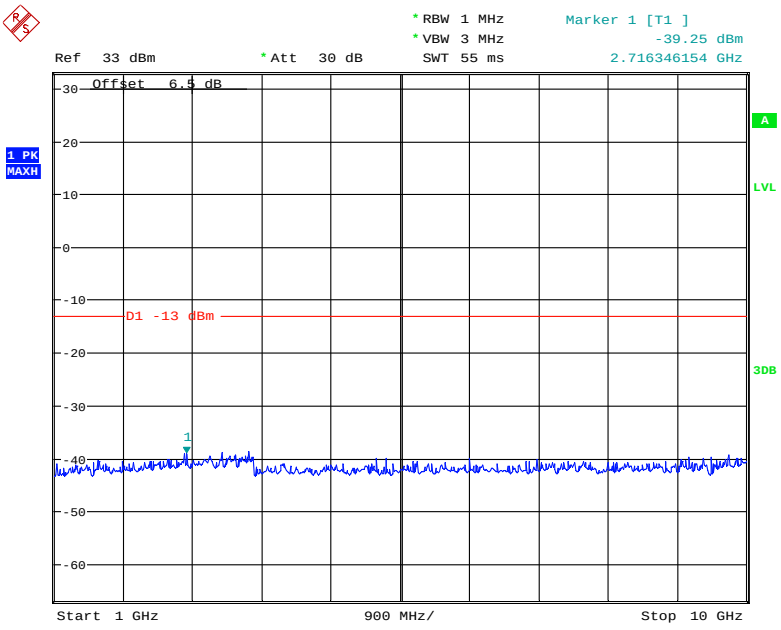
30 MHz - 1 GHz (10.0 MHz, High Channel)



Fundamental test

Date: 14.NOV.2020 12:03:36

1 GHz – 10 GHz (10.0 MHz, High Channel)



Date: 14.NOV.2020 12:08:22