TESTREPORT

Applicant Name :	TECNO MOBILE LIMITED
Address :	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Report Number:	RA230324-14521E-RF-00E
FCC ID:	2ADYY-CK6NS

Test Standard (s)

FCC PART 27; FCC PART 22H; FCC PART 24E

Sample Description

Product Type:	Mobile Phone
Model No.:	CK6ns
Multiple Model(s) No.:	N/A
Trade Mark:	TECNO
Date Received:	2023/03/24
Report Date:	2023/05/06

Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Nick Fang
EMC Engineer

Approved By:

Candy Li
EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★ ".
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RA230324-14521E-RF-00E	Original Report	2023-05-06

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Frequency Range	GSM 850: 824-849MHz(TX); 869-894MHz(RX) PCS 1900: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) LTE Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 7: 2500-2570MHz(TX); 2620-2690MHz(RX) LTE Band 12: 699-716MHz(TX); 729-746MHz(RX) LTE Band 13: 777-787MHz(TX);746-756MHz(RX) LTE Band 17: 704-716MHz(TX); 734-746MHz(RX) LTE Band 38: 2570-2620MHz(TX/RX) LTE Band 41: 2535-2655MHz(TX/RX) LTE Band 66: 1710-1780MHz(TX); 2110-2180MHz(RX)
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification*	GSM850/WCDMA Band 5/LTE Band 5: -3.8dBi PCS 1900/WCDMA Band 2/ LTE Band 2: -0.5dBi WCDMA Band 4/ LTE Band 4: -2.3dBi LTE Band 7/ LTE Band 38/LTE Band 41: 0.8dBi LTE Band 12/ LTE Band 13/ LTE Band 17: -5.3dBi LTE Band 66: -2.3dBi (provided by the applicant)
Voltage Range	DC 3.87V from battery or DC 5V or 7.5V from adapter
Sample serial number	23MJ_1 for Radiated Emissions Test 23MJ_5 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Extreme condition*	L.V.: Low Voltage 3.45VDC N.V.: Normal Voltage 3.87VDC H.V.: High Voltage 4.35VDC (provided by the applicant)
Adapter information	Model: U180TSA Input: AC 100-240V, 50/60Hz, 0.6A Output: DC 5.0V, 2.4A or DC 7.5V, 2.4A 18.0W Max

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H, Part24-Subpart E, Part 27 of the Federal Communication Commission's 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 Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		$0.082*10^{-7}$
RF output power, conducted		0.71dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	9kHz - 30MHz	2.06dB
	30MHz - 1GHz	5.08dB
	1GHz - 18GHz	4.96dB
	18GHz - 26.5GHz	5.16dB
	26.5GHz - 40GHz	4.64dB
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 Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, 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.: 708358,the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0016. The Registration Number is 30241.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

Test was performed as below table:

Frequency band	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GSM850	0.25	824.2	836.6	848.8
PCS1900	0.25	1850.2	1880	1909.8
WCDMA B2	4.2	1852.4	1880	1907.6
WCDMA B4	4.2	1712.4	1732.6	1752.6
WCDMA B5	4.2	826.4	836.6	846.6
LTE B2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE B4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE B5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE B7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560
LTE B12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704	707.5	711
LTE B13	5	779.5	782	784.5
	10	-	782	-
LTE B17	5	706.5	710	713.5
	10	709	710	711
LTE B38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610

Frequency band	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
LTE B41	5	2537.5	2595	2652.5
	10	2540	2595	2650
	15	2542.5	2595	2647.5
	20	2545	2595	2645
LTE B66	1.4	1710.7	1745	1779.3
	3	1711.5	1745	1778.5
	5	1712.5	1745	1777.5
	10	1715	1745	1775
	15	1717.5	1745	1772.5
	20	1720	1745	1770

Equipment Modifications

No modification was made to the EUT.

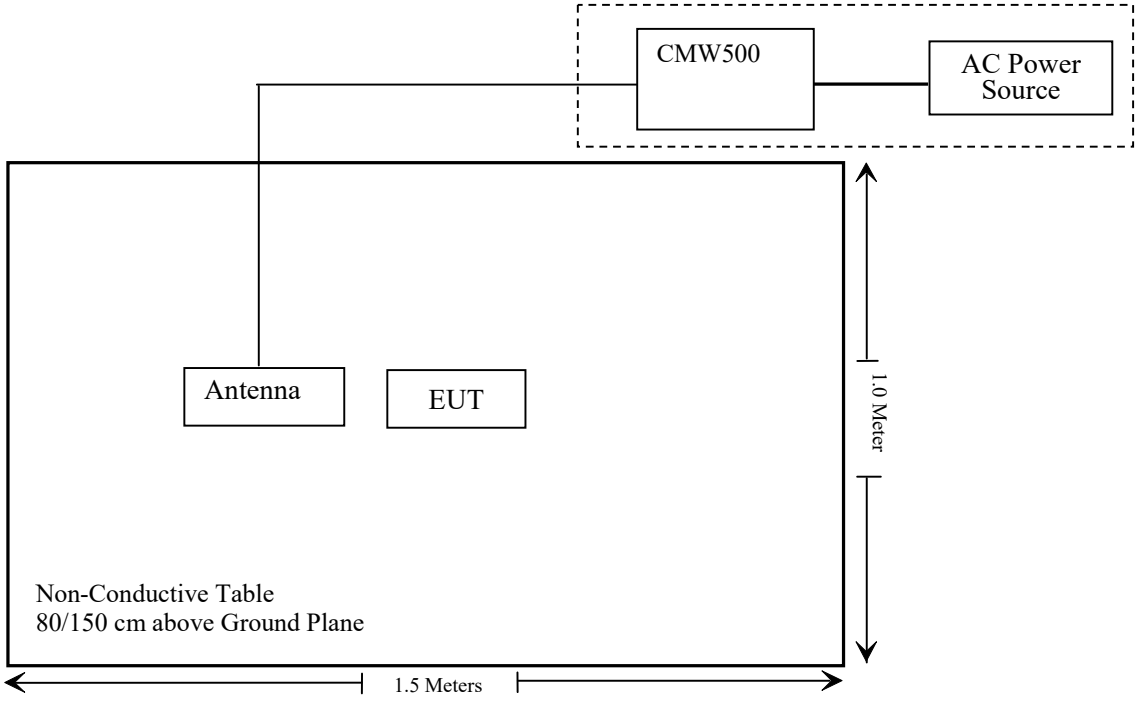
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	154606

Support Cable Description

Cable Description	Length (m)	From / Port	To
Unshielded Un-detachable AC cable	1.2	AC Power	CMW500

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

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

Note: * Please refer to SAR report number: RA230324-14521E -SA.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2022/11/25	2023/11/24
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2022/11/25	2023/11/24
SONOMA INSTRUMENT	Amplifier	310 N	186131	2022/11/08	2023/11/07
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2022/11/08	2023/11/07
Quinstar	Amplifier	QLW-184055 36-J0	15964001002	2022/11/08	2023/11/07
Unknown	RF Coaxial Cable	No.10	N050	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.11	N1000	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.12	N040	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.13	N300	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.14	N800	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.15	N600	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.16	N650	2022/11/25	2023/11/24
Schwarzbeck	Bilog Antenna	VULB9163	9163-194	2022/11/30	2025/11/29
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-655	2022/12/26	2025/12/25
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2022/11/30	2025/11/29
PASTERNACK	Horn Antenna	PE9852/2F-20	1120 (ATC-BA-024-1)	2023/01/04	2026/01/03
PASTERNACK	Horn Antenna	PE9852/2F-20	1120 (ATC-BA-025-1)	2023/01/04	2026/01/03
PASTERNACK	Horn Antenna	PE9850/2F-20	720 (ATC-BA-024)	2023/01/04	2026/01/03
PASTERNACK	Horn Antenna	PE9850/2F-20	720 (ATC-BA-025)	2023/01/04	2026/01/03
Unknown	RF Coaxial Cable	No.16	N200	2022/11/25	2023/11/24
Agilent	Signal Generator	N5183A	MY51040755	2022/11/25	2023/11/24

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101495	2022/11/25	2023/11/24
Rohde&Schwarz	Spectrum Analyzer	FSU26	200982	2022/07/04	2023/07/03
WEINSCHEL	10dB Attenuator	5324	AU 3842	2022/11/25	2023/11/24
Mini-Circuits	Power Splitter	DC-18000MHz	SF10944151S	2022/11/25	2023/11/24
REALE	Temp. & Humid. Chamber	RHP-800BT	R20170318310	2022/11/23	2023/11/22
Fluke	Multi Meter	45	7664009	2022/12/14	2023/12/13
Manson	DC Power Source	KPS-6604	ATCS-205	NCR	NCR
Unknown	RF Coaxial Cable	No.31	RF-01	Each time	

* Statement of Traceability: Shenzhen Accurate Technology Co., Ltd. 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§1.1307 and §2.1093.

Test Result

Compliant, please refer to the SAR report: RA230324-14521E -SA.

FCC§2.1047 - MODULATION CHARACTERISTIC

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

FCC §2.1046,§ 22.913 (a) (d)&§ 24.232(c) (d); §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.

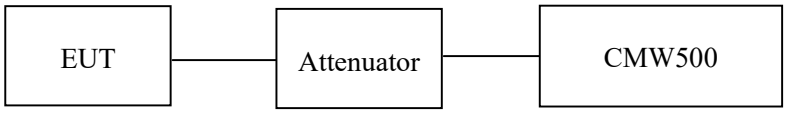
According to §27.50(d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

According to §27.50(h), the maximum EIRP must not exceed 2Watts (33dBm) for 2496-2690 MHz.

Test Procedure

Conducted method:

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



Note: the path loss (cable loss and attenuator) has included in the result.

Test Data

Environmental Conditions

Temperature:	27.9~28.8 ℃
Relative Humidity:	46.8~52.3 %
ATM Pressure:	101.0 kPa

The testing was performed by Jacob Huang from 2023-04-11 to 2023-04-26.

Conducted Power

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	ERP(dBm)	Limit (dBm)
GSM	128	824.2	33.72	27.77	38.45
	190	836.6	33.70	27.75	38.45
	251	848.8	33.75	27.80	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				ERP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	128	824.2	33.67	32.76	30.99	30.00	27.72	26.81	25.04	24.05	38.45
	190	836.6	33.69	32.78	30.98	30.04	27.74	26.83	25.03	24.09	38.45
	251	848.8	33.63	32.73	31.01	29.99	27.68	26.78	25.06	24.04	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				ERP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	128	824.2	27.48	26.22	24.02	22.86	21.53	20.27	18.07	16.91	38.45
	190	836.6	27.71	26.42	24.23	23.06	21.76	20.47	18.28	17.11	38.45
	251	848.8	27.71	26.40	24.23	22.99	21.76	20.45	18.28	17.04	38.45

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 5)	RMC12.2k		24.21	24.27	24.41	18.26	18.32	18.46
	HSDPA	1	23.18	23.26	23.36	17.23	17.31	17.41
		2	23.15	23.16	23.65	17.20	17.21	17.70
		3	23.64	23.64	23.15	17.69	17.69	17.20
		4	23.58	23.57	23.54	17.63	17.62	17.59
	HSUPA	1	23.76	23.86	23.91	17.81	17.91	17.96
		2	23.65	23.54	23.64	17.70	17.59	17.69
		3	23.25	23.25	23.71	17.30	17.30	17.76
		4	23.64	23.69	23.24	17.69	17.74	17.29
		5	23.69	23.19	23.64	17.74	17.24	17.69
	HSPA+	1	23.57	23.48	23.69	17.62	17.53	17.74

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
WCDMA Band5: Antenna Gain = -3.8dBi = -5.95dBd (0dBd=2.15(dBi)
Cable Loss=0dB
Limit: ERP≤38.45dBm

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	EIRP(dBm)	Limit (dBm)
GSM	512	1850.2	28.56	28.06	33
	661	1880.0	28.61	28.11	33
	810	1909.8	28.49	27.99	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	512	1850.2	28.58	27.45	26.30	25.25	28.08	26.95	25.80	24.75	33
	661	1880.0	28.42	27.28	26.16	25.07	27.92	26.78	25.66	24.57	33
	810	1909.8	28.40	27.30	26.13	25.08	27.90	26.80	25.63	24.58	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	512	1850.2	27.37	25.94	24.94	23.57	26.87	25.44	24.44	23.07	33
	661	1880.0	27.12	25.78	24.67	23.34	26.62	25.28	24.17	22.84	33
	810	1909.8	27.08	25.48	24.17	22.95	26.58	24.98	23.67	22.45	33

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 2)	RMC12.2k		19.48	19.41	19.49	18.98	18.91	18.99
	HSDPA	1	18.43	18.34	18.40	17.93	17.84	17.90
		2	18.54	18.31	18.42	18.04	17.81	17.92
		3	18.65	18.39	18.19	18.15	17.89	17.69
		4	18.62	18.36	18.47	18.12	17.86	17.97
	HSUPA	1	19.02	18.95	19.07	18.52	18.45	18.57
		2	19.06	18.95	19.17	18.56	18.45	18.67
		3	19.16	18.97	19.34	18.66	18.47	18.84
		4	19.34	18.69	19.32	18.84	18.19	18.82
		5	19.36	18.64	19.27	18.86	18.14	18.77
	HSPA+	1	19.27	18.94	19.34	18.77	18.44	18.84

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
WCDMA Band2: Antenna Gain = -0.5dBi
Cable Loss=0dB
Limit: EIRP≤33dBm

AWS Band 4

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 4)	RMC12.2k		20.28	20.21	20.23	17.98	17.91	17.93
	HSDPA	1	19.23	19.14	19.14	16.93	16.84	16.84
		2	19.25	19.18	19.16	16.95	16.88	16.86
		3	19.24	19.14	19.13	16.94	16.84	16.83
		4	19.28	19.16	19.14	16.98	16.86	16.84
	HSUPA	1	19.83	19.71	19.79	17.53	17.41	17.49
		2	19.86	19.75	19.68	17.56	17.45	17.38
		3	19.84	19.76	19.75	17.54	17.46	17.45
		4	19.85	19.74	19.85	17.55	17.44	17.55
		5	19.82	19.68	19.69	17.52	17.38	17.39
	HSPA+	1	19.86	19.64	19.85	17.56	17.34	17.55

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)-Cable loss(dB)
For Band4: Antenna Gain = -2.3dBi
Cable Loss=0dB
Limit: EIRP≤30dBm

LTE Band 2

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	22.37	22.27	22.38	21.87	21.77	21.88
		RB1#3	22.60	22.47	22.56	22.10	21.97	22.06
		RB1#5	22.32	22.31	22.40	21.82	21.81	21.90
		RB3#0	22.40	22.38	22.45	21.90	21.88	21.95
		RB3#3	22.50	22.33	22.41	22.00	21.83	21.91
		RB6#0	21.40	21.36	21.44	20.90	20.86	20.94
	16QAM	RB1#0	21.28	21.30	21.51	20.78	20.80	21.01
		RB1#3	21.54	21.48	21.66	21.04	20.98	21.16
		RB1#5	21.36	21.28	21.45	20.86	20.78	20.95
		RB3#0	21.43	21.49	21.35	20.93	20.99	20.85
		RB3#3	21.45	21.49	21.35	20.95	20.99	20.85
		RB6#0	20.32	20.34	20.46	19.82	19.84	19.96
3.0	QPSK	RB1#0	22.41	22.35	22.47	21.91	21.85	21.97
		RB1#8	22.39	22.30	22.45	21.89	21.80	21.95
		RB1#14	22.44	22.31	22.43	21.94	21.81	21.93
		RB6#0	21.36	21.33	21.39	20.86	20.83	20.89
		RB6#9	21.33	21.36	21.39	20.83	20.86	20.89
		RB15#0	21.35	21.33	21.42	20.85	20.83	20.92
	16QAM	RB1#0	21.42	21.87	21.54	20.92	21.37	21.04
		RB1#8	21.37	21.84	21.55	20.87	21.34	21.05
		RB1#14	21.40	21.80	21.54	20.90	21.30	21.04
		RB6#0	20.29	20.39	20.40	19.79	19.89	19.90
		RB6#9	20.33	20.35	20.42	19.83	19.85	19.92
		RB15#0	20.42	20.37	20.34	19.92	19.87	19.84

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	22.24	22.17	22.36	21.74	21.67	21.86
		RB1#13	22.38	22.34	22.44	21.88	21.84	21.94
		RB1#24	22.27	22.24	22.33	21.77	21.74	21.83
		RB15#0	21.32	21.3	21.37	20.82	20.80	20.87
		RB15#10	21.28	21.27	21.35	20.78	20.77	20.85
		RB25#0	21.26	21.25	21.32	20.76	20.75	20.82
	16QAM	RB1#0	21.29	21.14	21.55	20.79	20.64	21.05
		RB1#13	21.48	21.19	21.66	20.98	20.69	21.16
		RB1#24	21.32	21.12	21.55	20.82	20.62	21.05
		RB15#0	20.31	20.31	20.33	19.81	19.81	19.83
		RB15#10	20.34	20.29	20.33	19.84	19.79	19.83
		RB25#0	20.28	20.31	20.29	19.78	19.81	19.79
10.0	QPSK	RB1#0	22.37	22.37	22.40	21.87	21.87	21.90
		RB1#25	22.44	22.48	22.57	21.94	21.98	22.07
		RB1#49	22.37	22.34	22.41	21.87	21.84	21.91
		RB25#0	21.40	21.34	21.38	20.90	20.84	20.88
		RB25#25	21.34	21.30	21.43	20.84	20.80	20.93
		RB50#0	21.38	21.32	21.42	20.88	20.82	20.92
	16QAM	RB1#0	21.47	21.30	21.90	20.97	20.80	21.40
		RB1#25	21.65	21.50	22.09	21.15	21.00	21.59
		RB1#49	21.49	21.32	21.87	20.99	20.82	21.37
		RB25#0	20.39	20.37	20.44	19.89	19.87	19.94
		RB25#25	20.40	20.40	20.46	19.90	19.90	19.96
		RB50#0	20.37	20.32	20.33	19.87	19.82	19.83

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.75	22.72	22.79	22.25	22.22	22.29
		RB1#38	22.88	22.78	22.87	22.38	22.28	22.37
		RB1#74	22.74	22.72	22.77	22.24	22.22	22.27
		RB36#0	21.90	21.84	21.92	21.40	21.34	21.42
		RB36#39	21.90	21.81	22.03	21.40	21.31	21.53
		RB75#0	21.88	21.85	21.96	21.38	21.35	21.46
	16QAM	RB1#0	22.13	22.27	21.92	21.63	21.77	21.42
		RB1#38	22.27	22.32	22.03	21.77	21.82	21.53
		RB1#74	22.08	22.24	21.90	21.58	21.74	21.40
		RB36#0	20.80	20.82	20.95	20.30	20.32	20.45
		RB36#39	20.82	20.81	20.95	20.32	20.31	20.45
		RB75#0	20.82	20.83	20.92	20.32	20.33	20.42
20.0	QPSK	RB1#0	22.56	22.60	22.66	22.06	22.10	22.16
		RB1#50	23.03	23.03	23.10	22.53	22.53	22.60
		RB1#99	22.59	22.65	22.71	22.09	22.15	22.21
		RB50#0	21.90	21.81	21.92	21.40	21.31	21.42
		RB50#50	21.92	21.77	22.03	21.42	21.27	21.53
		RB100#0	21.90	21.81	21.97	21.40	21.31	21.47
	16QAM	RB1#0	22.11	21.91	21.81	21.61	21.41	21.31
		RB1#50	22.52	22.27	22.25	22.02	21.77	21.75
		RB1#99	22.08	21.88	21.83	21.58	21.38	21.33
		RB50#0	20.91	20.77	20.90	20.41	20.27	20.40
		RB50#50	20.86	20.74	21.01	20.36	20.24	20.51
		RB100#0	20.86	20.82	20.97	20.36	20.32	20.47

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band2: Antenna Gain = -0.5dBi
Cable Loss=0dB
Limit: EIRP≤33dBm

LTE Band 4

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.27	23.05	22.90	20.97	20.75	20.60
		RB1#3	23.38	23.24	23.07	21.08	20.94	20.77
		RB1#5	23.25	23.00	22.89	20.95	20.70	20.59
		RB3#0	23.30	23.11	22.97	21.00	20.81	20.67
		RB3#3	23.27	23.13	23.00	20.97	20.83	20.70
		RB6#0	22.33	22.07	21.95	20.03	19.77	19.65
	16QAM	RB1#0	22.31	22.03	21.84	20.01	19.73	19.54
		RB1#3	22.52	22.18	21.99	20.22	19.88	19.69
		RB1#5	22.31	22.06	21.85	20.01	19.76	19.55
		RB3#0	22.19	22.14	22.09	19.89	19.84	19.79
		RB3#3	22.24	22.09	22.09	19.94	19.79	19.79
		RB6#0	21.34	21.03	20.94	19.04	18.73	18.64
3.0	QPSK	RB1#0	23.42	23.14	23.04	21.12	20.84	20.74
		RB1#8	23.38	23.09	23.02	21.08	20.79	20.72
		RB1#14	23.36	23.09	22.99	21.06	20.79	20.69
		RB6#0	22.31	22.11	22.04	20.01	19.81	19.74
		RB6#9	22.31	22.1	21.98	20.01	19.80	19.68
		RB15#0	22.33	22.11	22.02	20.03	19.81	19.72
	16QAM	RB1#0	22.33	22.66	22.10	20.03	20.36	19.80
		RB1#8	22.30	22.59	22.09	20.00	20.29	19.79
		RB1#14	22.30	22.57	22.09	20.00	20.27	19.79
		RB6#0	21.23	21.19	20.98	18.93	18.89	18.68
		RB6#9	21.27	21.11	21.01	18.97	18.81	18.71
		RB15#0	21.36	21.19	20.96	19.06	18.89	18.66

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.29	23.05	22.95	20.99	20.75	20.65
		RB1#13	23.34	23.14	23.06	21.04	20.84	20.76
		RB1#24	23.19	23.02	22.93	20.89	20.72	20.63
		RB15#0	22.31	22.15	22.00	20.01	19.85	19.70
		RB15#10	22.32	22.14	22.00	20.02	19.84	19.70
		RB25#0	22.30	22.09	21.97	20.00	19.79	19.67
	16QAM	RB1#0	22.25	21.93	22.12	19.95	19.63	19.82
		RB1#13	22.37	22.01	22.22	20.07	19.71	19.92
		RB1#24	22.25	21.91	22.16	19.95	19.61	19.86
		RB15#0	21.35	21.14	20.97	19.05	18.84	18.67
		RB15#10	21.36	21.19	20.97	19.06	18.89	18.67
		RB25#0	21.35	21.16	20.99	19.05	18.86	18.69
10.0	QPSK	RB1#0	23.38	23.16	23.06	21.08	20.86	20.76
		RB1#25	23.46	23.23	23.12	21.16	20.93	20.82
		RB1#49	23.26	23.09	22.94	20.96	20.79	20.64
		RB25#0	22.30	22.14	22.05	20.00	19.84	19.75
		RB25#25	22.34	22.13	21.96	20.04	19.83	19.66
		RB50#0	22.28	22.15	21.97	19.98	19.85	19.67
	16QAM	RB1#0	22.31	22.67	22.07	20.01	20.37	19.77
		RB1#25	22.35	22.71	22.15	20.05	20.41	19.85
		RB1#49	22.24	22.51	22.10	19.94	20.21	19.80
		RB25#0	21.36	21.19	21.04	19.06	18.89	18.74
		RB25#25	21.37	21.19	20.98	19.07	18.89	18.68
		RB50#0	21.29	21.14	20.99	18.99	18.84	18.69

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.36	23.10	23.00	21.06	20.80	20.70
		RB1#38	23.31	23.11	23.10	21.01	20.81	20.80
		RB1#74	23.17	22.99	22.85	20.87	20.69	20.55
		RB36#0	22.35	22.24	22.26	20.05	19.94	19.96
		RB36#39	22.38	22.23	22.12	20.08	19.93	19.82
		RB75#0	22.38	22.26	22.19	20.08	19.96	19.89
	16QAM	RB1#0	22.53	22.65	22.06	20.23	20.35	19.76
		RB1#38	22.61	22.61	22.09	20.31	20.31	19.79
		RB1#74	22.53	22.40	21.99	20.23	20.10	19.69
		RB36#0	21.29	21.17	21.14	18.99	18.87	18.84
		RB36#39	21.34	21.21	20.98	19.04	18.91	18.68
		RB75#0	21.32	21.18	21.12	19.02	18.88	18.82
20.0	QPSK	RB1#0	23.16	22.98	22.89	20.86	20.68	20.59
		RB1#50	23.49	23.31	23.27	21.19	21.01	20.97
		RB1#99	23.00	22.79	22.78	20.70	20.49	20.48
		RB50#0	22.23	22.13	22.11	19.93	19.83	19.81
		RB50#50	22.30	22.12	21.88	20.00	19.82	19.58
		RB100#0	22.31	22.13	22.01	20.01	19.83	19.71
	16QAM	RB1#0	22.29	22.53	22.12	19.99	20.23	19.82
		RB1#50	22.6	22.74	22.41	20.30	20.44	20.11
		RB1#99	22.17	22.24	22.02	19.87	19.94	19.72
		RB50#0	21.23	21.15	21.09	18.93	18.85	18.79
		RB50#50	21.3	21.13	20.88	19.00	18.83	18.58
		RB100#0	21.32	21.16	21.06	19.02	18.86	18.76

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band4: Antenna Gain = -2.3dBi
Cable Loss=0dB
Limit: EIRP≤30dBm

LTE Band5

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.64	23.73	23.80	17.69	17.78	17.85
		RB1#3	23.87	23.83	23.97	17.92	17.88	18.02
		RB1#5	23.67	23.70	23.80	17.72	17.75	17.85
		RB3#0	23.81	23.82	23.87	17.86	17.87	17.92
		RB3#3	23.82	23.81	23.86	17.87	17.86	17.91
		RB6#0	22.81	22.83	22.94	16.86	16.88	16.99
	16QAM	RB1#0	22.75	22.78	22.90	16.80	16.83	16.95
		RB1#3	22.87	22.94	23.07	16.92	16.99	17.12
		RB1#5	22.77	22.77	22.95	16.82	16.82	17.00
		RB3#0	23.01	23.03	22.79	17.06	17.08	16.84
		RB3#3	22.88	23.02	22.85	16.93	17.07	16.90
		RB6#0	21.78	21.85	21.93	15.83	15.90	15.98
3.0	QPSK	RB1#0	23.77	23.78	23.88	17.82	17.83	17.93
		RB1#8	23.76	23.76	23.84	17.81	17.81	17.89
		RB1#14	23.75	23.74	23.85	17.80	17.79	17.90
		RB6#0	22.77	22.78	22.87	16.82	16.83	16.92
		RB6#9	22.76	22.81	22.82	16.81	16.86	16.87
		RB15#0	22.77	22.83	22.87	16.82	16.88	16.92
	16QAM	RB1#0	22.87	23.37	22.99	16.92	17.42	17.04
		RB1#8	22.76	23.36	22.94	16.81	17.41	16.99
		RB1#14	22.76	23.42	23.01	16.81	17.47	17.06
		RB6#0	21.71	21.86	21.87	15.76	15.91	15.92
		RB6#9	21.66	21.90	21.89	15.71	15.95	15.94
		RB15#0	21.84	21.91	21.79	15.89	15.96	15.84

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.72	23.71	23.75	17.77	17.76	17.80
		RB1#13	23.75	23.83	23.86	17.80	17.88	17.91
		RB1#24	23.72	23.73	23.78	17.77	17.78	17.83
		RB15#0	22.82	22.84	22.91	16.87	16.89	16.96
		RB15#10	22.81	22.86	22.82	16.86	16.91	16.87
		RB25#0	22.81	22.84	22.81	16.86	16.89	16.86
	16QAM	RB1#0	22.80	22.64	23.00	16.85	16.69	17.05
		RB1#13	22.84	22.74	23.11	16.89	16.79	17.16
		RB1#24	22.81	22.66	23.07	16.86	16.71	17.12
		RB15#0	21.85	21.87	21.87	15.90	15.92	15.92
		RB15#10	21.86	21.93	21.76	15.91	15.98	15.81
		RB25#0	21.84	21.90	21.81	15.89	15.95	15.86
10.0	QPSK	RB1#0	23.82	23.83	23.82	17.87	17.88	17.87
		RB1#25	23.94	24.01	23.92	17.99	18.06	17.97
		RB1#49	23.79	23.83	23.89	17.84	17.88	17.94
		RB25#0	22.89	22.90	22.96	16.94	16.95	17.01
		RB25#25	22.86	22.93	22.85	16.91	16.98	16.90
		RB50#0	22.87	22.92	22.85	16.92	16.97	16.90
	16QAM	RB1#0	22.97	22.84	23.44	17.02	16.89	17.49
		RB1#25	23.08	23.00	23.48	17.13	17.05	17.53
		RB1#49	22.95	22.89	23.43	17.00	16.94	17.48
		RB25#0	21.90	21.96	22.00	15.95	16.01	16.05
		RB25#25	21.87	22.03	21.88	15.92	16.08	15.93
		RB50#0	21.88	21.94	21.86	15.93	15.99	15.91

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band 5: Antenna Gain = -3.8dBi = -5.95dBd (0dBd=2.15dBi)
Cable Loss=0dB
Limit: ERP≤38.45dBm

LTE Band 7

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	22.39	22.20	22.06	23.19	23.00	22.86
		RB1#13	22.47	22.31	22.19	23.27	23.11	22.99
		RB1#24	22.33	22.16	22.04	23.13	22.96	22.84
		RB15#0	21.41	21.32	21.16	22.21	22.12	21.96
		RB15#10	21.42	21.28	21.15	22.22	22.08	21.95
		RB25#0	21.37	21.23	21.11	22.17	22.03	21.91
	16QAM	RB1#0	21.53	21.18	20.92	22.33	21.98	21.72
		RB1#13	21.61	21.33	21.04	22.41	22.13	21.84
		RB1#24	21.53	21.20	20.90	22.33	22.00	21.70
		RB15#0	20.34	20.28	20.17	21.14	21.08	20.97
		RB15#10	20.38	20.26	20.16	21.18	21.06	20.96
		RB25#0	20.34	20.24	20.15	21.14	21.04	20.95
10.0	QPSK	RB1#0	22.47	22.32	22.15	23.27	23.12	22.95
		RB1#25	22.62	22.45	22.27	23.42	23.25	23.07
		RB1#49	22.43	22.25	22.14	23.23	23.05	22.94
		RB25#0	21.40	21.25	21.11	22.20	22.05	21.91
		RB25#25	21.39	21.26	21.16	22.19	22.06	21.96
		RB50#0	21.40	21.25	21.17	22.20	22.05	21.97
	16QAM	RB1#0	21.35	21.74	21.24	22.15	22.54	22.04
		RB1#25	21.47	21.85	21.45	22.27	22.65	22.25
		RB1#49	21.34	21.70	21.21	22.14	22.50	22.01
		RB25#0	20.45	20.27	20.15	21.25	21.07	20.95
		RB25#25	20.45	20.32	20.23	21.25	21.12	21.03
		RB50#0	20.41	20.25	20.17	21.21	21.05	20.97

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.40	22.22	22.10	23.20	23.02	22.90
		RB1#38	22.46	22.29	22.23	23.26	23.09	23.03
		RB1#74	22.32	22.16	22.05	23.12	22.96	22.85
		RB36#0	21.55	21.34	21.20	22.35	22.14	22.00
		RB36#39	21.49	21.38	21.34	22.29	22.18	22.14
		RB75#0	21.49	21.34	21.29	22.29	22.14	22.09
	16QAM	RB1#0	21.62	21.75	21.22	22.42	22.55	22.02
		RB1#38	21.69	21.71	21.33	22.49	22.51	22.13
		RB1#74	21.65	21.6	21.16	22.45	22.40	21.96
		RB36#0	20.44	20.27	20.20	21.24	21.07	21.00
		RB36#39	20.40	20.27	20.25	21.20	21.07	21.05
		RB75#0	20.43	20.32	20.28	21.23	21.12	21.08
20.0	QPSK	RB1#0	22.15	22.11	21.96	22.95	22.91	22.76
		RB1#50	22.51	22.47	22.30	23.31	23.27	23.10
		RB1#99	22.10	22.01	21.93	22.90	22.81	22.73
		RB50#0	21.40	21.16	21.13	22.20	21.96	21.93
		RB50#50	21.37	21.22	21.23	22.17	22.02	22.03
		RB100#0	21.39	21.22	21.21	22.19	22.02	22.01
	16QAM	RB1#0	21.62	21.40	21.07	22.42	22.20	21.87
		RB1#50	22.01	21.69	21.52	22.81	22.49	22.32
		RB1#99	21.64	21.25	21.06	22.44	22.05	21.86
		RB50#0	20.39	20.11	20.13	21.19	20.91	20.93
		RB50#50	20.37	20.19	20.23	21.17	20.99	21.03
		RB100#0	20.41	20.22	20.18	21.21	21.02	20.98

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band4: Antenna Gain = 0.8dBi
Cable Loss=0dB
Limit: EIRP≤30dBm

LTE Band 12

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.69	23.73	23.69	16.24	16.28	16.24
		RB1#3	23.86	23.85	23.82	16.41	16.40	16.37
		RB1#5	23.70	23.73	23.70	16.25	16.28	16.25
		RB3#0	23.86	23.83	23.80	16.41	16.38	16.35
		RB3#3	23.8	23.83	23.75	16.35	16.38	16.30
		RB6#0	22.79	22.81	22.76	15.34	15.36	15.31
	16QAM	RB1#0	22.86	22.82	22.68	15.41	15.37	15.23
		RB1#3	23.06	22.92	22.85	15.61	15.47	15.40
		RB1#5	22.89	22.74	22.74	15.44	15.29	15.29
		RB3#0	22.80	22.88	22.91	15.35	15.43	15.46
		RB3#3	22.85	22.85	22.95	15.40	15.40	15.50
		RB6#0	21.97	21.82	21.81	14.52	14.37	14.36
3.0	QPSK	RB1#0	23.80	23.75	23.79	16.35	16.30	16.34
		RB1#8	23.75	23.74	23.72	16.30	16.29	16.27
		RB1#14	23.71	23.76	23.73	16.26	16.31	16.28
		RB6#0	22.74	22.76	22.73	15.29	15.31	15.28
		RB6#9	22.72	22.78	22.74	15.27	15.33	15.29
		RB15#0	22.81	22.81	22.76	15.36	15.36	15.31
	16QAM	RB1#0	22.90	23.41	22.98	15.45	15.96	15.53
		RB1#8	22.85	23.34	22.92	15.40	15.89	15.47
		RB1#14	22.89	23.26	22.87	15.44	15.81	15.42
		RB6#0	21.78	21.94	21.81	14.33	14.49	14.36
		RB6#9	21.81	21.89	21.82	14.36	14.44	14.37
		RB15#0	21.95	21.90	21.79	14.50	14.45	14.34

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.70	23.69	23.64	16.25	16.24	16.19
		RB1#13	23.80	23.82	23.84	16.35	16.37	16.39
		RB1#24	23.69	23.68	23.66	16.24	16.23	16.21
		RB15#0	22.86	22.79	22.86	15.41	15.34	15.41
		RB15#10	22.83	22.76	22.79	15.38	15.31	15.34
		RB25#0	22.89	22.7	22.79	15.44	15.25	15.34
	16QAM	RB1#0	22.71	23.04	22.74	15.26	15.59	15.29
		RB1#13	22.74	23.13	22.87	15.29	15.68	15.42
		RB1#24	22.74	22.94	22.72	15.29	15.49	15.27
		RB15#0	21.97	21.77	21.92	14.52	14.32	14.47
		RB15#10	21.97	21.75	21.91	14.52	14.30	14.46
		RB25#0	21.99	21.76	21.88	14.54	14.31	14.43
10.0	QPSK	RB1#0	23.76	23.72	23.80	16.31	16.27	16.35
		RB1#25	23.83	23.93	23.92	16.38	16.48	16.47
		RB1#49	23.77	23.74	23.74	16.32	16.29	16.29
		RB25#0	22.90	22.70	22.90	15.45	15.25	15.45
		RB25#25	22.94	22.69	22.78	15.49	15.24	15.33
		RB50#0	22.93	22.68	22.86	15.48	15.23	15.41
	16QAM	RB1#0	23.44	23.05	22.84	15.99	15.60	15.39
		RB1#25	23.57	23.08	22.87	16.12	15.63	15.42
		RB1#49	23.28	22.86	22.75	15.83	15.41	15.30
		RB25#0	22.05	21.79	22.01	14.60	14.34	14.56
		RB25#25	22.03	21.72	21.93	14.58	14.27	14.48
		RB50#0	21.99	21.71	21.94	14.54	14.26	14.49

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band12: Antenna Gain = -5.3dBi = -7.45dBd (0dBd=2.15dBi)
Cable Loss=0dB
Limit: ERP≤34.77dBm

LTE Band 13

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.31	23.26	23.22	15.86	15.81	15.77
		RB1#13	23.40	23.43	23.38	15.95	15.98	15.93
		RB1#24	23.31	23.24	23.26	15.86	15.79	15.81
		RB15#0	22.44	22.39	22.34	14.99	14.94	14.89
		RB15#10	22.42	22.42	22.33	14.97	14.97	14.88
		RB25#0	22.37	22.39	22.31	14.92	14.94	14.86
	16QAM	RB1#0	22.31	22.14	22.55	14.86	14.69	15.10
		RB1#13	22.47	22.35	22.70	15.02	14.90	15.25
		RB1#24	22.34	22.12	22.56	14.89	14.67	15.11
		RB15#0	21.45	21.48	21.30	14.00	14.03	13.85
		RB15#10	21.43	21.46	21.30	13.98	14.01	13.85
		RB25#0	21.42	21.45	21.30	13.97	14.00	13.85
10.0	QPSK	RB1#0	-	23.39	-	-	15.94	-
		RB1#25	-	23.46	-	-	16.01	-
		RB1#49	-	23.35	-	-	15.90	-
		RB25#0	-	22.42	-	-	14.97	-
		RB25#25	-	22.36	-	-	14.91	-
		RB50#0	-	22.41	-	-	14.96	-
	16QAM	RB1#0	-	22.48	-	-	15.03	-
		RB1#25	-	22.68	-	-	15.23	-
		RB1#49	-	22.49	-	-	15.04	-
		RB25#0	-	21.39	-	-	13.94	-
		RB25#25	-	21.40	-	-	13.95	-
		RB50#0	-	21.40	-	-	13.95	-

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band13: Antenna Gain = -5.3dBi = -7.45dBd (0dBd=2.15dBi)
Cable Loss=0dB
Limit: ERP≤34.77dBm

LTE Band 17

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	24.11	24.13	24.07	16.66	16.68	16.62
		RB1#13	24.21	24.19	24.17	16.76	16.74	16.72
		RB1#24	24.14	24.03	24.04	16.69	16.58	16.59
		RB15#0	23.15	23.29	23.26	15.70	15.84	15.81
		RB15#10	23.20	23.10	23.19	15.75	15.65	15.74
		RB25#0	23.21	23.17	23.21	15.76	15.72	15.76
	16QAM	RB1#0	23.51	23.18	22.93	16.06	15.73	15.48
		RB1#13	23.58	23.22	23.09	16.13	15.77	15.64
		RB1#24	23.38	23.15	22.95	15.93	15.70	15.50
		RB15#0	22.19	22.31	22.36	14.74	14.86	14.91
		RB15#10	22.20	22.15	22.31	14.75	14.70	14.86
		RB25#0	22.24	22.20	22.33	14.79	14.75	14.88
10.0	QPSK	RB1#0	24.14	24.17	24.09	16.69	16.72	16.64
		RB1#25	24.34	24.31	24.27	16.89	16.86	16.82
		RB1#49	24.09	24.09	24.13	16.64	16.64	16.68
		RB25#0	23.19	23.22	23.30	15.74	15.77	15.85
		RB25#25	23.08	23.16	23.24	15.63	15.71	15.79
		RB50#0	23.16	23.18	23.22	15.71	15.73	15.77
	16QAM	RB1#0	23.45	23.28	23.77	16.00	15.83	16.32
		RB1#25	23.44	23.27	23.79	15.99	15.82	16.34
		RB1#49	23.34	23.19	23.65	15.89	15.74	16.20
		RB25#0	22.23	22.33	22.36	14.78	14.88	14.91
		RB25#25	22.09	22.24	22.30	14.64	14.79	14.85
		RB50#0	22.15	22.25	22.30	14.70	14.80	14.85

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band17: Antenna Gain = -5.3dBi = -7.45dBd (0dBd=2.15dBi)
Cable Loss=0dB
Limit: ERP≤34.77dBm

LTE Band 38

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	22.29	22.36	22.40	23.09	23.16	23.20
		RB1#13	22.51	22.49	22.52	23.31	23.29	23.32
		RB1#24	22.38	22.36	22.42	23.18	23.16	23.22
		RB15#0	21.37	21.44	21.50	22.17	22.24	22.30
		RB15#10	21.44	21.45	21.51	22.24	22.25	22.31
		RB25#0	21.38	21.42	21.48	22.18	22.22	22.28
	16QAM	RB1#0	21.54	21.36	21.44	22.34	22.16	22.24
		RB1#13	21.71	21.5	21.58	22.51	22.30	22.38
		RB1#24	21.59	21.35	21.45	22.39	22.15	22.25
		RB15#0	20.4	20.38	20.52	21.20	21.18	21.32
		RB15#10	20.48	20.37	20.51	21.28	21.17	21.31
		RB25#0	20.37	20.46	20.54	21.17	21.26	21.34
10.0	QPSK	RB1#0	22.45	22.46	22.46	23.25	23.26	23.26
		RB1#25	22.73	22.7	22.73	23.53	23.50	23.53
		RB1#49	22.49	22.43	22.51	23.29	23.23	23.31
		RB25#0	21.42	21.47	21.52	22.22	22.27	22.32
		RB25#25	21.48	21.47	21.49	22.28	22.27	22.29
		RB50#0	21.44	21.46	21.47	22.24	22.26	22.27
	16QAM	RB1#0	21.54	21.66	21.35	22.34	22.46	22.15
		RB1#25	21.78	21.89	21.64	22.58	22.69	22.44
		RB1#49	21.55	21.63	21.41	22.35	22.43	22.21
		RB25#0	20.42	20.46	20.53	21.22	21.26	21.33
		RB25#25	20.48	20.48	20.56	21.28	21.28	21.36
		RB50#0	20.44	20.45	20.47	21.24	21.25	21.27

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.32	22.38	22.36	23.12	23.18	23.16
		RB1#38	22.47	22.45	23.00	23.27	23.25	23.80
		RB1#74	22.41	22.34	22.90	23.21	23.14	23.70
		RB36#0	21.44	21.49	22.02	22.24	22.29	22.82
		RB36#39	21.53	21.52	22.02	22.33	22.32	22.82
		RB75#0	21.47	21.51	22.05	22.27	22.31	22.85
	16QAM	RB1#0	21.51	21.54	21.79	22.31	22.34	22.59
		RB1#38	21.62	21.66	21.92	22.42	22.46	22.72
		RB1#74	21.60	21.52	21.85	22.40	22.32	22.65
		RB36#0	20.46	20.42	20.91	21.26	21.22	21.71
		RB36#39	20.54	20.45	20.95	21.34	21.25	21.75
		RB75#0	20.44	20.43	21.00	21.24	21.23	21.80
20.0	QPSK	RB1#0	22.76	22.69	22.67	23.56	23.49	23.47
		RB1#50	23.25	23.16	23.15	24.05	23.96	23.95
		RB1#99	22.80	22.7	22.73	23.60	23.50	23.53
		RB50#0	21.81	21.85	21.91	22.61	22.65	22.71
		RB50#50	21.98	21.91	21.92	22.78	22.71	22.72
		RB100#0	21.90	21.89	21.91	22.70	22.69	22.71
	16QAM	RB1#0	21.97	21.75	21.67	22.77	22.55	22.47
		RB1#50	22.45	22.22	22.13	23.25	23.02	22.93
		RB1#99	22.03	21.79	21.72	22.83	22.59	22.52
		RB50#0	20.85	20.85	20.93	21.65	21.65	21.73
		RB50#50	20.98	20.91	20.96	21.78	21.71	21.76
		RB100#0	20.89	20.90	20.91	21.69	21.70	21.71

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band38: Antenna Gain = 0.8dBi
Cable Loss=0dB
Limit: EIRP≤30dBm

LTE Band 41

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.49	23.50	23.53	24.29	24.30	24.33
		RB1#13	23.57	23.58	23.6	24.37	24.38	24.40
		RB1#24	23.45	23.46	23.43	24.25	24.26	24.23
		RB15#0	22.55	22.54	22.55	23.35	23.34	23.35
		RB15#10	22.55	22.56	22.56	23.35	23.36	23.36
		RB25#0	22.52	22.56	22.55	23.32	23.36	23.35
	16QAM	RB1#0	22.47	22.52	22.74	23.27	23.32	23.54
		RB1#13	22.59	22.58	22.82	23.39	23.38	23.62
		RB1#24	22.43	22.52	22.68	23.23	23.32	23.48
		RB15#0	21.49	21.57	21.56	22.29	22.37	22.36
		RB15#10	21.49	21.6	21.64	22.29	22.40	22.44
		RB25#0	21.55	21.6	21.53	22.35	22.40	22.33
10.0	QPSK	RB1#0	23.60	23.59	23.56	24.40	24.39	24.36
		RB1#25	23.85	23.9	23.78	24.65	24.70	24.58
		RB1#49	23.52	23.57	23.43	24.32	24.37	24.23
		RB25#0	22.59	22.59	22.59	23.39	23.39	23.39
		RB25#25	22.60	22.60	22.55	23.40	23.40	23.35
		RB50#0	22.58	22.57	22.46	23.38	23.37	23.26
	16QAM	RB1#0	22.46	22.67	22.78	23.26	23.47	23.58
		RB1#25	22.74	22.94	22.99	23.54	23.74	23.79
		RB1#49	22.42	22.64	22.72	23.22	23.44	23.52
		RB25#0	21.61	21.61	21.60	22.41	22.41	22.40
		RB25#25	21.60	21.61	21.51	22.40	22.41	22.31
		RB50#0	21.56	21.57	21.53	22.36	22.37	22.33

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.53	23.53	23.52	24.33	24.33	24.32
		RB1#38	23.59	23.61	23.56	24.39	24.41	24.36
		RB1#74	23.43	23.48	23.38	24.23	24.28	24.18
		RB36#0	22.61	22.59	22.62	23.41	23.39	23.42
		RB36#39	22.59	22.64	22.57	23.39	23.44	23.37
		RB75#0	22.61	22.61	22.63	23.41	23.41	23.43
	16QAM	RB1#0	22.42	22.71	22.68	23.22	23.51	23.48
		RB1#38	22.46	22.75	22.73	23.26	23.55	23.53
		RB1#74	22.33	22.66	22.57	23.13	23.46	23.37
		RB36#0	21.52	21.61	21.57	22.32	22.41	22.37
		RB36#39	21.5	21.64	21.51	22.30	22.44	22.31
		RB75#0	21.58	21.58	21.53	22.38	22.38	22.33
20.0	QPSK	RB1#0	23.35	23.42	23.37	24.15	24.22	24.17
		RB1#50	23.74	23.87	23.77	24.54	24.67	24.57
		RB1#99	23.18	23.34	23.19	23.98	24.14	23.99
		RB50#0	22.47	22.50	22.55	23.27	23.30	23.35
		RB50#50	22.48	22.54	22.52	23.28	23.34	23.32
		RB100#0	22.51	22.51	22.54	23.31	23.31	23.34
	16QAM	RB1#0	22.32	22.65	22.40	23.12	23.45	23.20
		RB1#50	22.72	23.06	22.83	23.52	23.86	23.63
		RB1#99	22.19	22.56	22.29	22.99	23.36	23.09
		RB50#0	21.52	21.52	21.54	22.32	22.32	22.34
		RB50#50	21.50	21.55	21.52	22.30	22.35	22.32
		RB100#0	21.49	21.51	21.51	22.29	22.31	22.31

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band41: Antenna Gain = 0.8dBi
Cable Loss=0dB
Limit: EIRP≤30dBm

LTE Band 66:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.15	22.95	22.74	20.85	20.65	20.44
		RB1#3	23.41	23.15	22.9	21.11	20.85	20.60
		RB1#5	23.14	22.91	22.74	20.84	20.61	20.44
		RB3#0	23.22	22.86	22.8	20.92	20.56	20.50
		RB3#3	23.19	22.88	22.76	20.89	20.58	20.46
		RB6#0	22.20	21.94	21.75	19.90	19.64	19.45
	16QAM	RB1#0	22.22	21.79	21.64	19.92	19.49	19.34
		RB1#3	22.38	21.96	21.78	20.08	19.66	19.48
		RB1#5	22.22	21.79	21.64	19.92	19.49	19.34
		RB3#0	22.10	21.84	21.90	19.80	19.54	19.60
		RB3#3	22.13	21.82	21.88	19.83	19.52	19.58
		RB6#0	21.24	20.76	20.75	18.94	18.46	18.45
3.0	QPSK	RB1#0	23.23	22.98	22.81	20.93	20.68	20.51
		RB1#8	23.21	22.95	22.78	20.91	20.65	20.48
		RB1#14	23.19	22.93	22.76	20.89	20.63	20.46
		RB6#0	22.17	21.92	21.78	19.87	19.62	19.48
		RB6#9	22.17	21.89	21.72	19.87	19.59	19.42
		RB15#0	22.15	21.9	21.77	19.85	19.60	19.47
	16QAM	RB1#0	22.19	22.29	21.91	19.89	19.99	19.61
		RB1#8	22.16	22.24	21.84	19.86	19.94	19.54
		RB1#14	22.15	22.26	21.84	19.85	19.96	19.54
		RB6#0	21.06	20.89	20.80	18.76	18.59	18.50
		RB6#9	21.07	20.88	20.78	18.77	18.58	18.48
		RB15#0	21.20	20.89	20.75	18.90	18.59	18.45

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.14	22.88	22.71	20.84	20.58	20.41
		RB1#13	23.25	22.96	22.84	20.95	20.66	20.54
		RB1#24	23.11	22.78	22.73	20.81	20.48	20.43
		RB15#0	22.17	21.95	21.86	19.87	19.65	19.56
		RB15#10	22.20	21.87	21.73	19.90	19.57	19.43
		RB25#0	22.15	21.84	21.77	19.85	19.54	19.47
	16QAM	RB1#0	22.10	21.64	21.90	19.80	19.34	19.60
		RB1#13	22.22	21.73	22.02	19.92	19.43	19.72
		RB1#24	22.13	21.59	21.89	19.83	19.29	19.59
		RB15#0	21.17	20.94	20.80	18.87	18.64	18.50
		RB15#10	21.21	20.83	20.70	18.91	18.53	18.40
		RB25#0	21.18	20.89	20.77	18.88	18.59	18.47
10.0	QPSK	RB1#0	23.20	22.96	22.81	20.90	20.66	20.51
		RB1#25	23.35	23.10	22.93	21.05	20.80	20.63
		RB1#49	23.07	22.91	22.81	20.77	20.61	20.51
		RB25#0	22.14	21.97	21.90	19.84	19.67	19.60
		RB25#25	22.23	21.85	21.78	19.93	19.55	19.48
		RB50#0	22.20	21.90	21.84	19.90	19.60	19.54
	16QAM	RB1#0	22.64	22.00	21.78	20.34	19.70	19.48
		RB1#25	22.75	22.12	21.90	20.45	19.82	19.60
		RB1#49	22.60	21.90	21.70	20.30	19.60	19.40
		RB25#0	21.20	20.94	21.00	18.90	18.64	18.70
		RB25#25	21.25	20.86	20.81	18.95	18.56	18.51
		RB50#0	21.18	20.89	20.83	18.88	18.59	18.53

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.17	22.91	22.76	20.87	20.61	20.46
		RB1#38	23.16	22.95	22.85	20.86	20.65	20.55
		RB1#74	23.01	22.76	22.71	20.71	20.46	20.41
		RB36#0	22.24	22.13	21.91	19.94	19.83	19.61
		RB36#39	22.2	21.98	21.86	19.90	19.68	19.56
		RB75#0	22.24	22.05	21.88	19.94	19.75	19.58
	16QAM	RB1#0	22.41	22.31	21.90	20.11	20.01	19.60
		RB1#38	22.47	22.30	21.94	20.17	20.00	19.64
		RB1#74	22.39	22.15	21.78	20.09	19.85	19.48
		RB36#0	21.18	21.00	20.84	18.88	18.70	18.54
		RB36#39	21.16	20.88	20.81	18.86	18.58	18.51
		RB75#0	21.17	20.99	20.87	18.87	18.69	18.57
20.0	QPSK	RB1#0	22.90	22.78	22.55	20.60	20.48	20.25
		RB1#50	23.19	23.1	22.95	20.89	20.80	20.65
		RB1#99	22.80	22.58	22.49	20.50	20.28	20.19
		RB50#0	22.09	21.96	21.79	19.79	19.66	19.49
		RB50#50	22.14	21.75	21.63	19.84	19.45	19.33
		RB100#0	22.12	21.86	21.75	19.82	19.56	19.45
	16QAM	RB1#0	22.40	21.97	21.79	20.10	19.67	19.49
		RB1#50	22.72	22.27	22.08	20.42	19.97	19.78
		RB1#99	22.33	21.80	21.63	20.03	19.50	19.33
		RB50#0	21.06	20.94	20.76	18.76	18.64	18.46
		RB50#50	21.13	20.72	20.62	18.83	18.42	18.32
		RB100#0	21.12	20.87	20.77	18.82	18.57	18.47

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 66: Antenna Gain = -2.3dBi
Cable Loss=0dB
Limit: EIRP≤30dBm

Peak-to-average ratio (PAR)

Cellular Band 5

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	2.95	13
	Middle	3.01	13
	High	2.69	13
HSDPA (16QAM)	Low	3.62	13
	Middle	3.91	13
	High	3.69	13
HSUPA (BPSK)	Low	3.69	13
	Middle	3.81	13
	High	3.53	13
HSPA+	Low	3.61	13
	Middle	3.25	13
	High	3.84	13
GSM (GMSK)	Low	9.94	13
	Middle	9.71	13
	High	9.26	13
EDGE (8PSK)	Low	9.66	13
	Middle	9.86	13
	High	9.67	13

PCS Band 2

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.21	13
	Middle	3.27	13
	High	3.24	13
HSDPA (16QAM)	Low	3.75	13
	Middle	4.07	13
	High	3.88	13
HSUPA (BPSK)	Low	4.10	13
	Middle	4.01	13
	High	4.07	13
HSPA+	Low	4.21	13
	Middle	4.38	13
	High	4.27	13
GSM (GMSK)	Low	10.45	13
	Middle	9.17	13
	High	9.62	13
EDGE (8PSK)	Low	10.54	13
	Middle	10.31	13
	High	10.92	13

AWS Band 4

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.24	13
	Middle	3.24	13
	High	3.30	13
HSDPA (16QAM)	Low	3.97	13
	Middle	4.10	13
	High	3.94	13
HSUPA (BPSK)	Low	3.40	13
	Middle	4.07	13
	High	4.04	13
HSPA+	Low	4.30	13
	Middle	4.29	13
	High	4.57	13

LTE Band 2 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.57	3.58	3.68	13	Pass
QPSK (100RB Size)	3.78	3.64	3.14	13	Pass
16QAM (1RB Size)	3.69	3.94	3.28	13	Pass
16QAM (100RB Size)	3.97	3.67	3.24	13	Pass

LTE Band 4 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.84	6.93	6.88	13	Pass
QPSK (100RB Size)	6.28	6.15	6.94	13	Pass
16QAM (1RB Size)	6.84	6.38	6.57	13	Pass
16QAM (100RB Size)	6.75	6.39	6.28	13	Pass

LTE Band 5 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.62	4.01	4.36	13	Pass
QPSK (50RB Size)	5.35	5.48	5.26	13	Pass
16QAM (1RB Size)	5.48	4.71	5.35	13	Pass
16QAM (50RB Size)	6.19	6.38	6.15	13	Pass

LTE Band 7 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.96	4.62	4.81	13	Pass
QPSK (100RB Size)	5.38	5.38	5.69	13	Pass
16QAM (1RB Size)	5.67	5.67	5.64	13	Pass
16QAM (100RB Size)	6.31	6.55	6.34	13	Pass

LTE Band 12 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.71	5.29	5.06	13	Pass
QPSK (50RB Size)	5.93	5.48	5.54	13	Pass
16QAM (1RB Size)	5.38	6.19	5.9	13	Pass
16QAM (50RB Size)	6.79	6.44	6.38	13	Pass

LTE Band 13 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	/	4.20	/	13	Pass
QPSK (50RB Size)	/	5.42	/	13	Pass
16QAM (1RB Size)	/	5.00	/	13	Pass
16QAM (50RB Size)	/	6.38	/	13	Pass

LTE Band 17 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.19	5.13	4.81	13	Pass
QPSK (50RB Size)	5.48	5.45	5.48	13	Pass
16QAM (1RB Size)	5.93	5.99	5.67	13	Pass
16QAM (50RB Size)	6.25	6.28	6.31	13	Pass

LTE Band 38 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.85	4.31	4.98	13	Pass
QPSK (100RB Size)	4.67	4.69	4.62	13	Pass
16QAM (1RB Size)	5.21	5.68	5.74	13	Pass
16QAM (100RB Size)	6.37	6.24	6.34	13	Pass

LTE Band 41 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	8.32	8.12	8.31	13	Pass
QPSK (100RB Size)	5.69	5.79	5.41	13	Pass
16QAM (1RB Size)	7.64	7.36	7.26	13	Pass
16QAM (100RB Size)	8.10	8.29	8.47	13	Pass

LTE Band 66 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.95	6.48	6.74	13	Pass
QPSK (100RB Size)	7.54	7.64	7.25	13	Pass
16QAM (1RB Size)	5.87	5.12	5.93	13	Pass
16QAM (100RB Size)	3.51	3.28	3.24	13	Pass

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

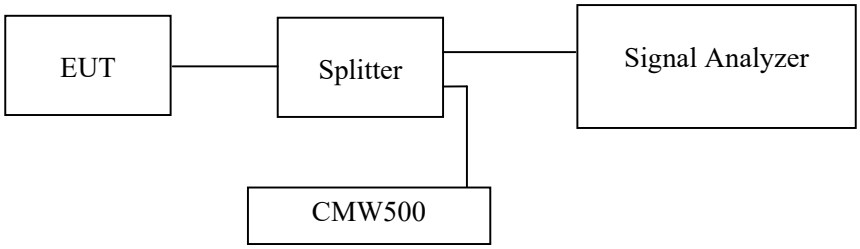
Applicable Standard

FCC 47 §2.1049, §22.917, §22.905, §24.238,§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.



Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range has included in plot.

Test Data

Environmental Conditions

Temperature:	27.9~28.8 ℃
Relative Humidity:	46.8~52.3 %
ATM Pressure:	101.0 kPa

The testing was performed by Jacob Huang from 2023-04-11 to 2023-05-06.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM(GMSK)	128	824.2	245.00	319.00
	190	836.6	245.00	317.00
	251	848.8	246.00	319.00

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
EDGE(8PSK)	128	824.2	250.00	322.00
	190	836.6	251.00	323.00
	251	848.8	249.00	315.00

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.170	4.725
	836.6	4.170	4.740
	846.6	4.170	4.740
HSDPA	826.4	4.170	4.725
	836.6	4.170	4.740
	846.6	4.170	4.725
HSUPA	826.4	4.170	4.740
	836.6	4.170	4.740
	846.6	4.170	4.725

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM(GMSK)	512	1850.2	244.00	318.00
	661	1880.0	244.00	315.00
	810	1909.8	246.00	317.00

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
EDGE(8PSK)	512	1850.2	252.00	322.00
	661	1880.0	252.00	323.00
	810	1909.8	250.00	326.00

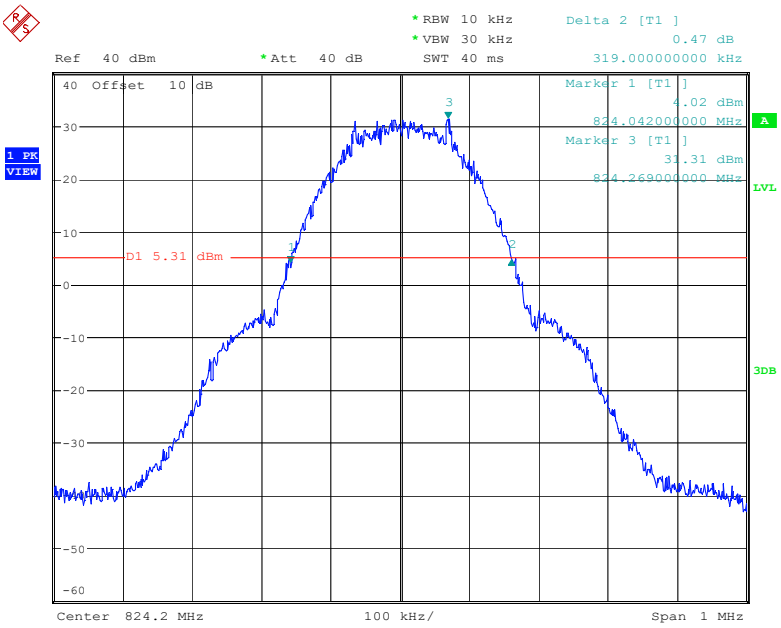
Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.170	4.725
	1880.0	4.170	4.725
	1907.6	4.170	4.725
HSDPA	1852.4	4.200	4.740
	1880.0	4.200	4.740
	1907.6	4.170	4.725
HSUPA	1852.4	4.650	10.305
	1880.0	4.185	4.740
	1907.6	4.560	9.180

AWS Band (Part 27)

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.170	4.725
	1732.6	4.155	4.725
	1752.6	4.170	4.710
HSDPA	1712.4	4.185	4.725
	1732.6	4.170	4.740
	1752.6	4.185	4.740
HSUPA	1712.4	4.185	4.725
	1732.6	4.185	4.725
	1752.6	4.185	4.725

Cellular Band (Part 22H)

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



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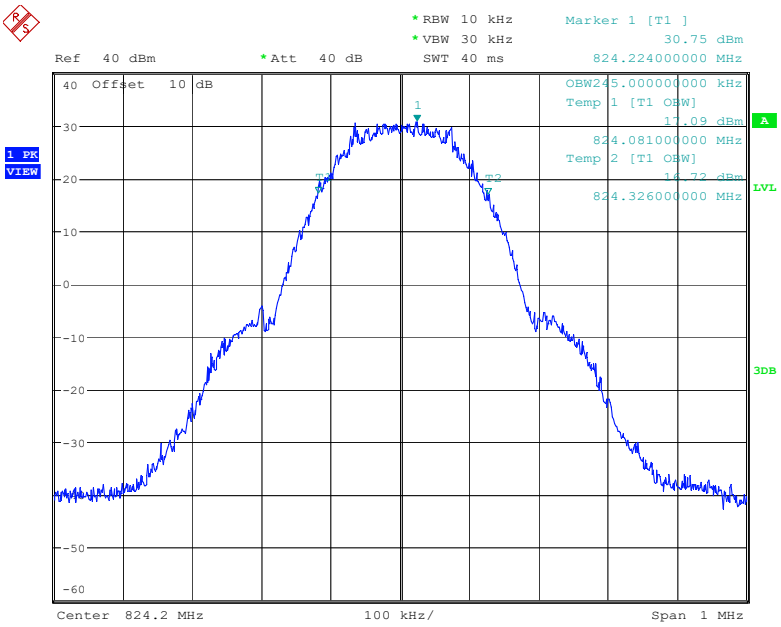

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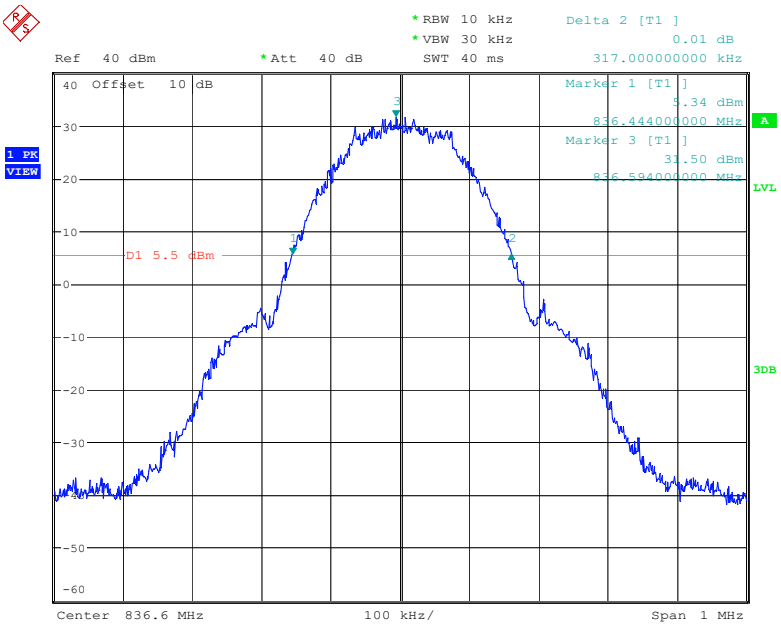
26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, Middle channel



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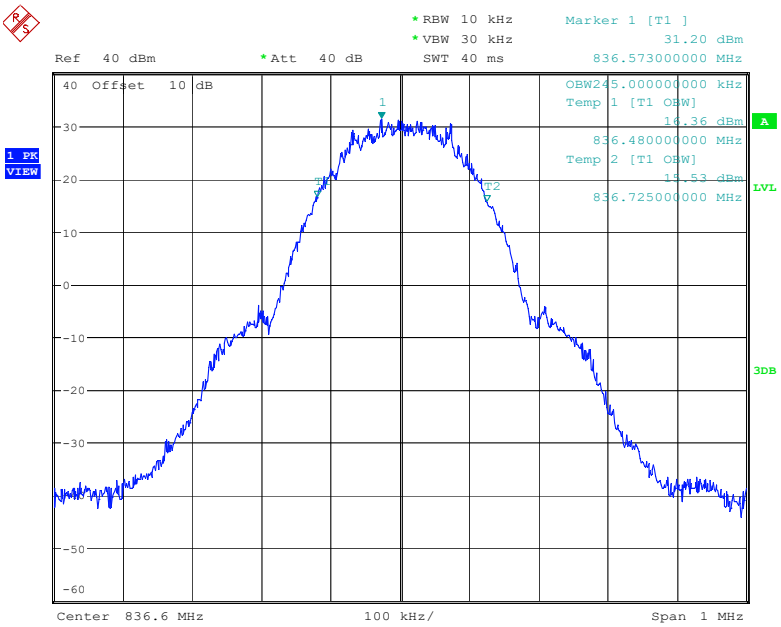

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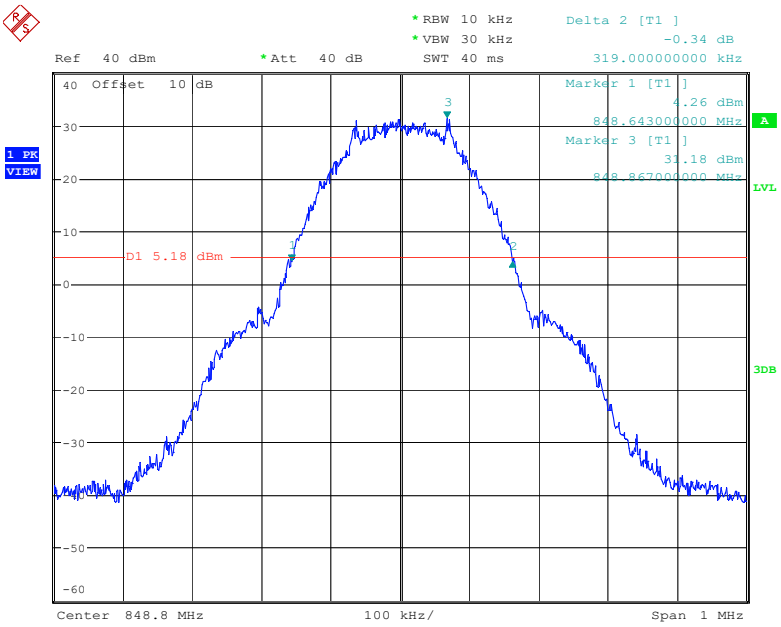
26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, High channel



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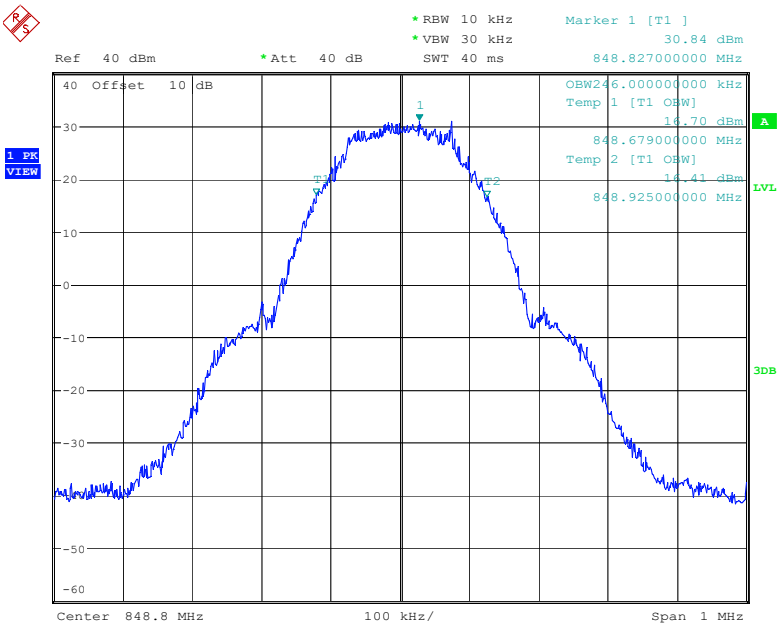
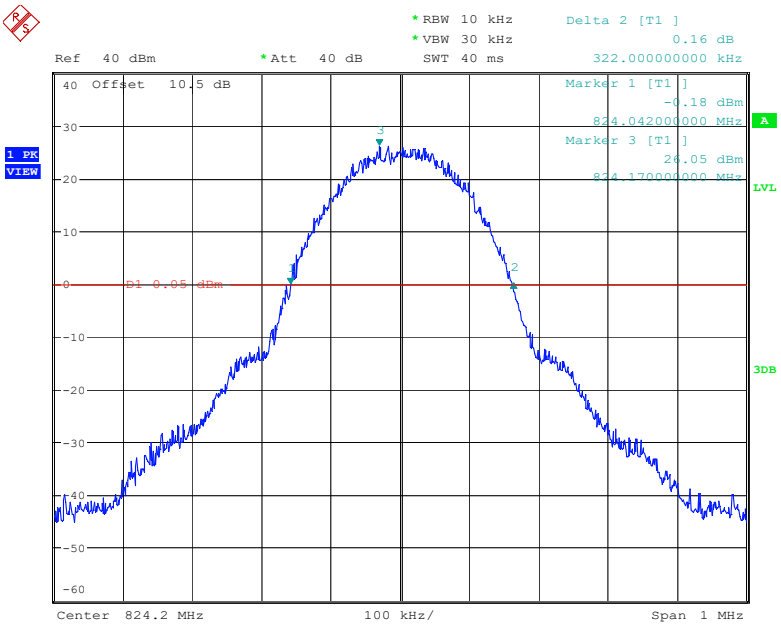


Date: 23.APR.2023 09:25:50

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



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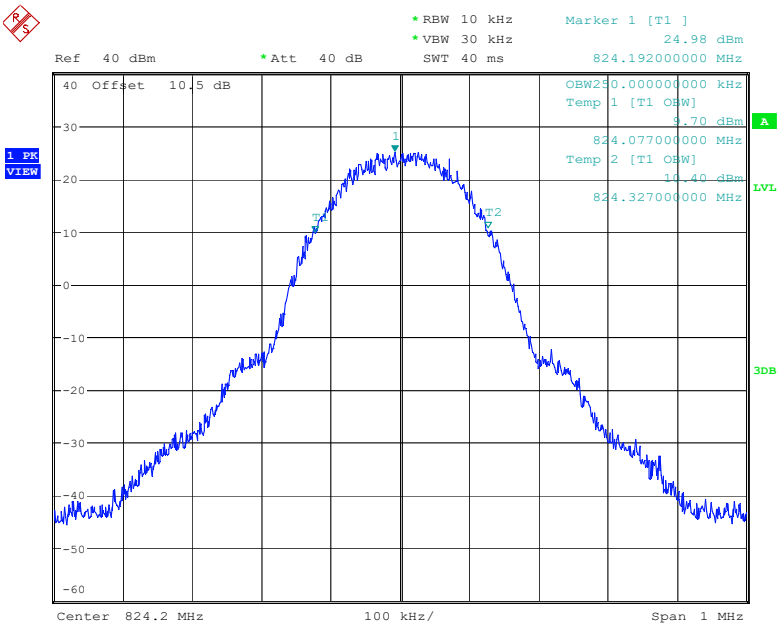
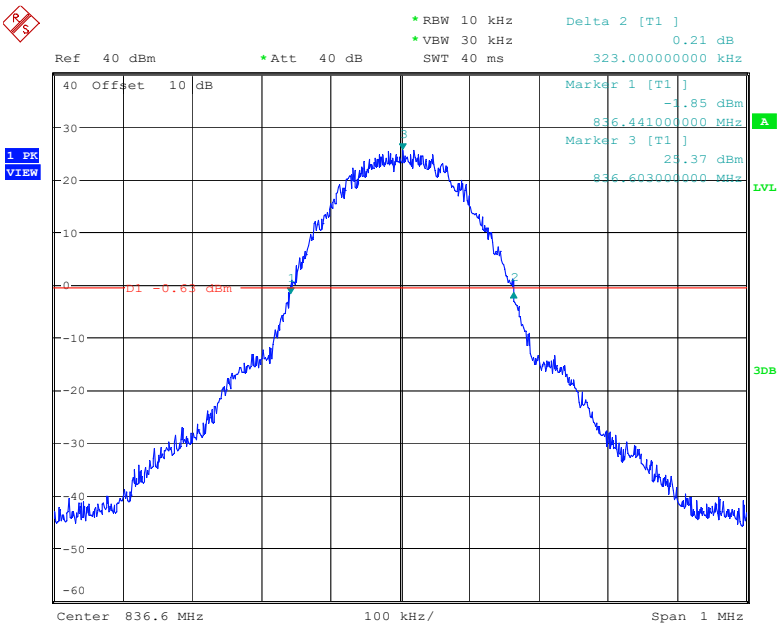


Date: 23.APR.2023 09:58:20

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



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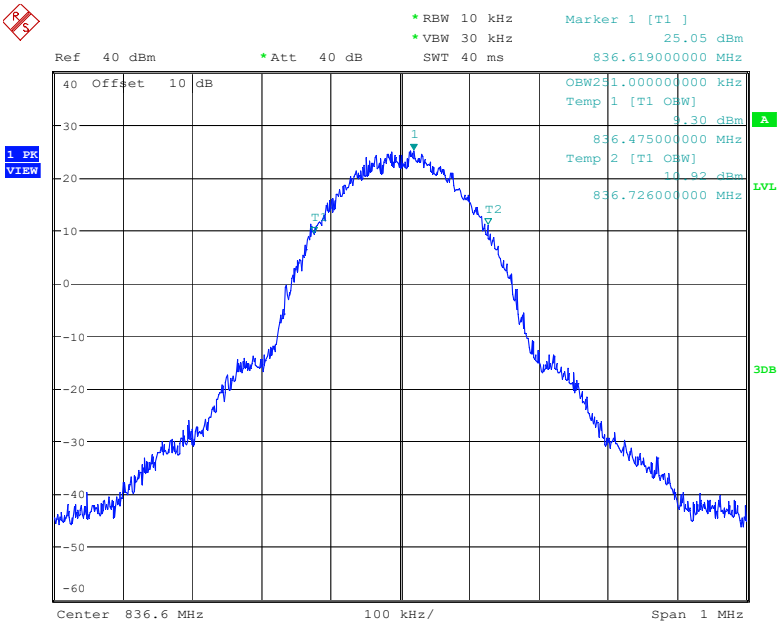

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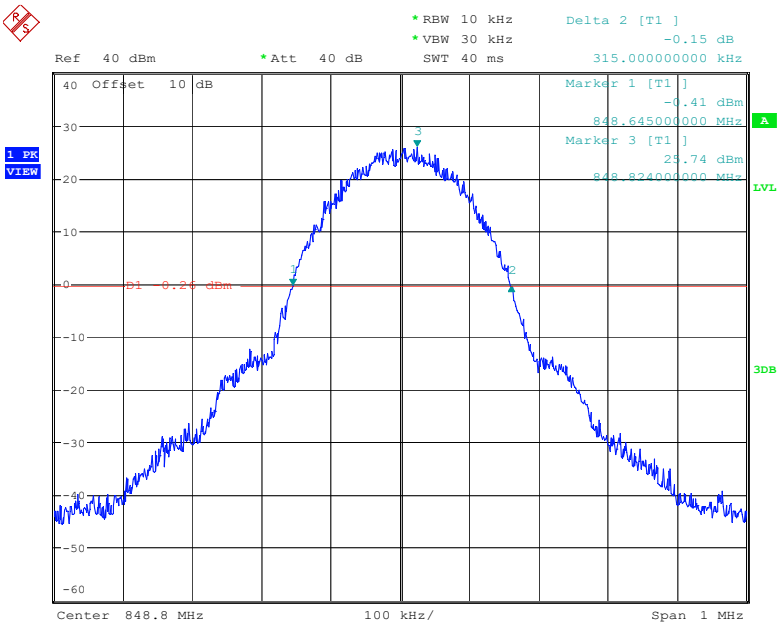
26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, High channel



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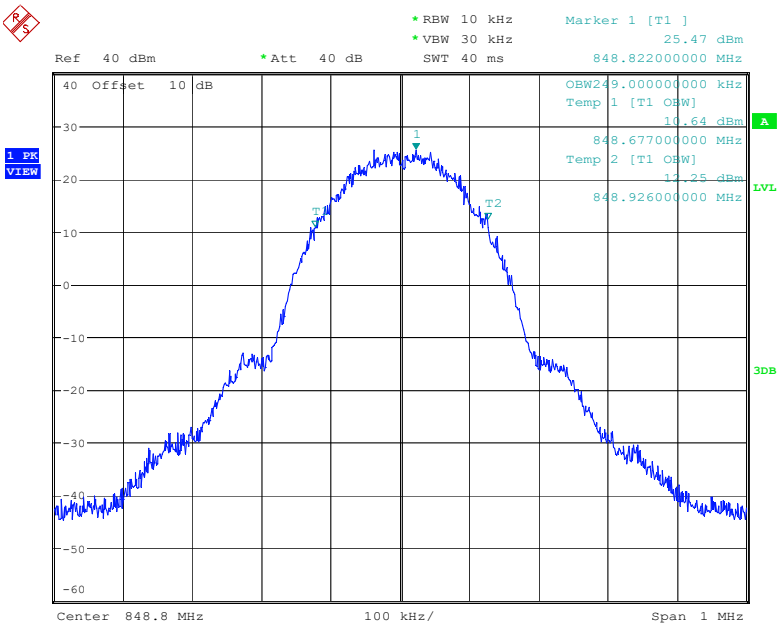

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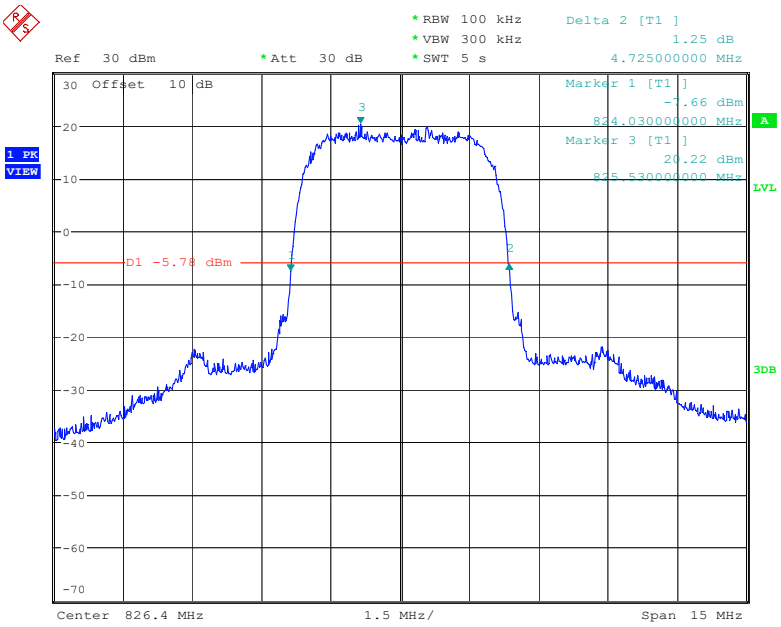
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Low channel



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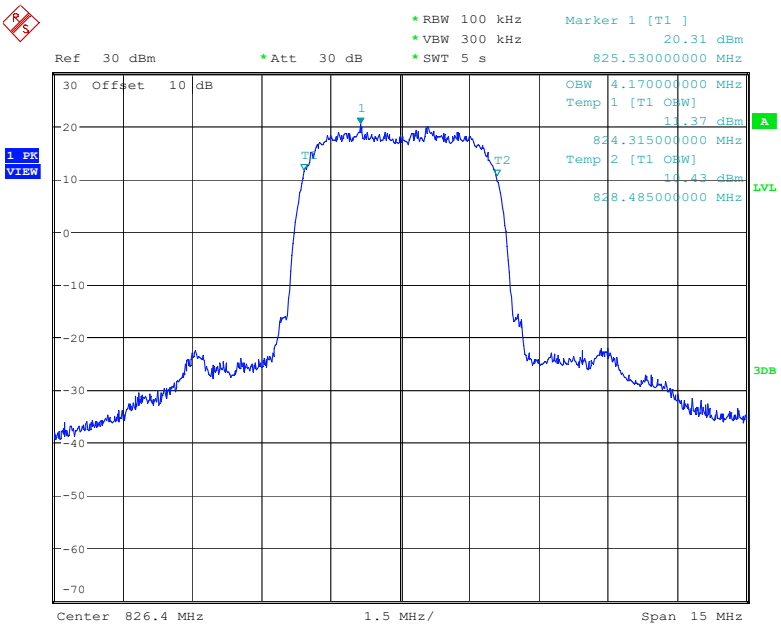

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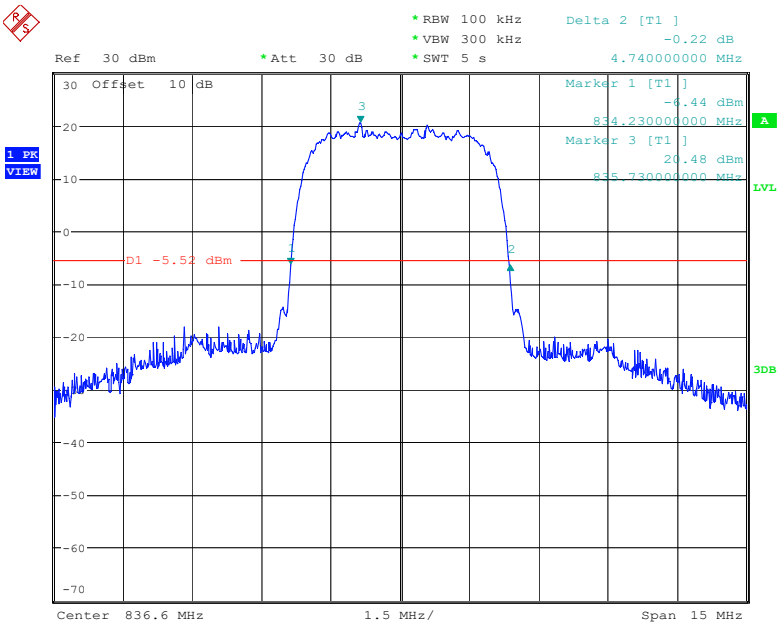
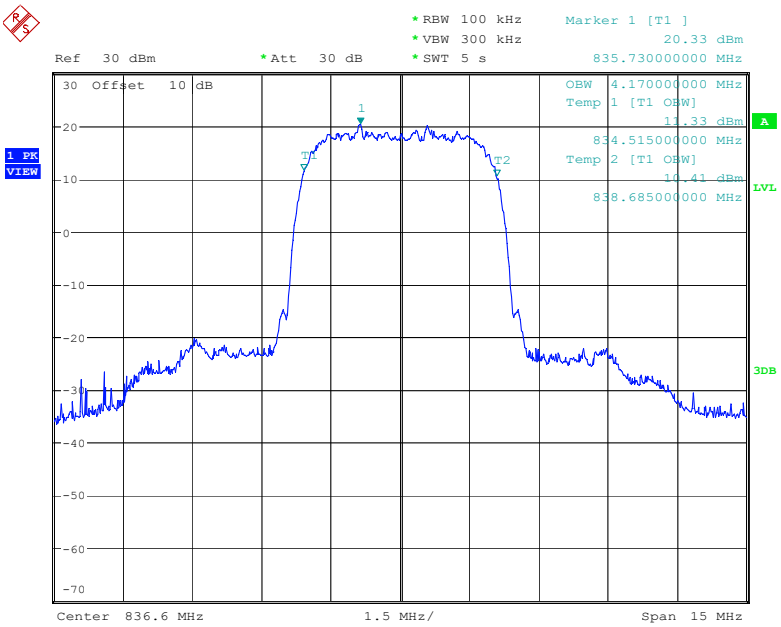
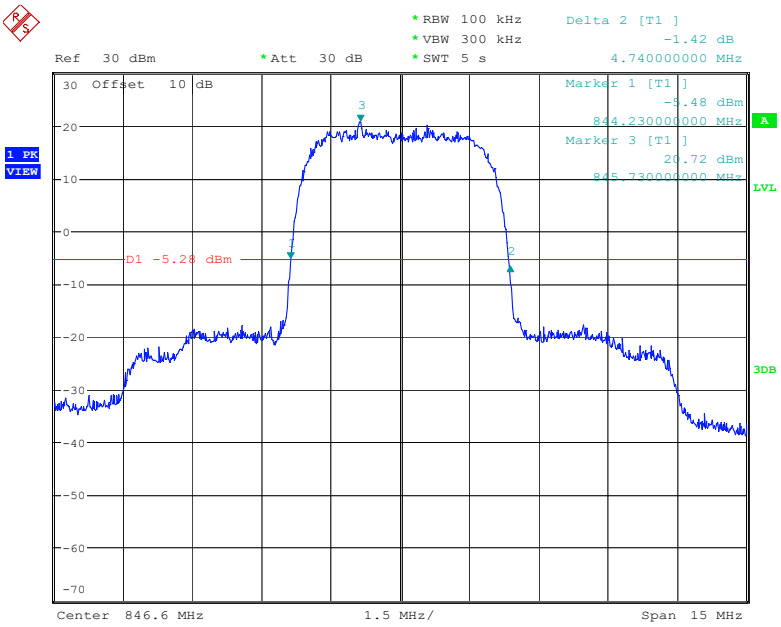
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Middle channel





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



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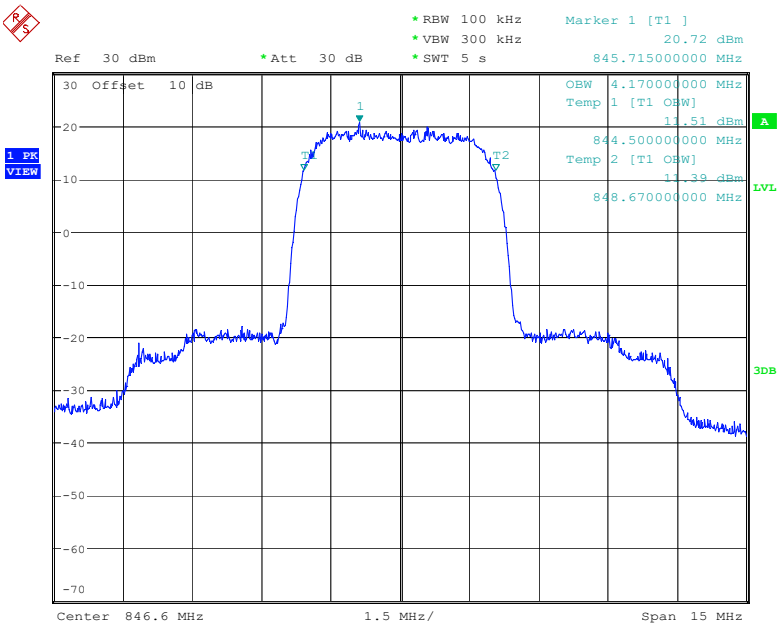

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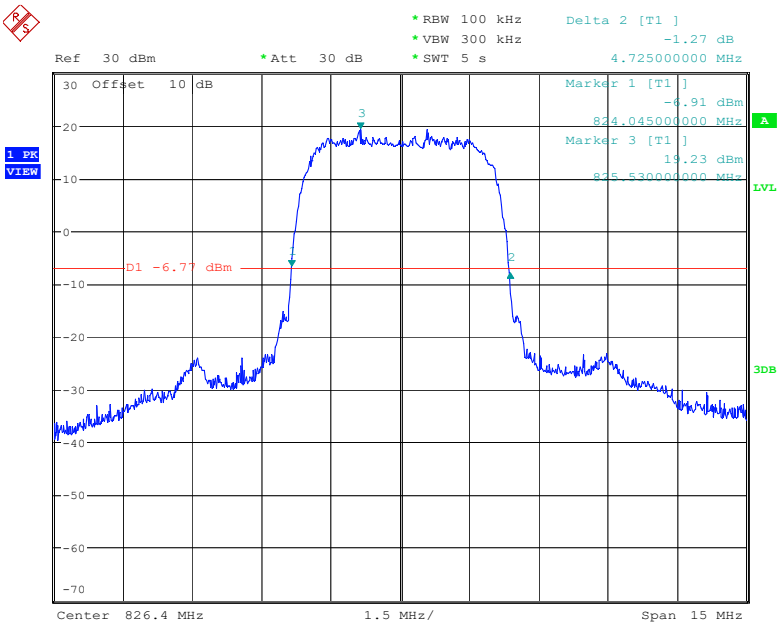
26 dB Emissions &99% Occupied Bandwidth for HSDPA (QPSK) Mode, Low channel



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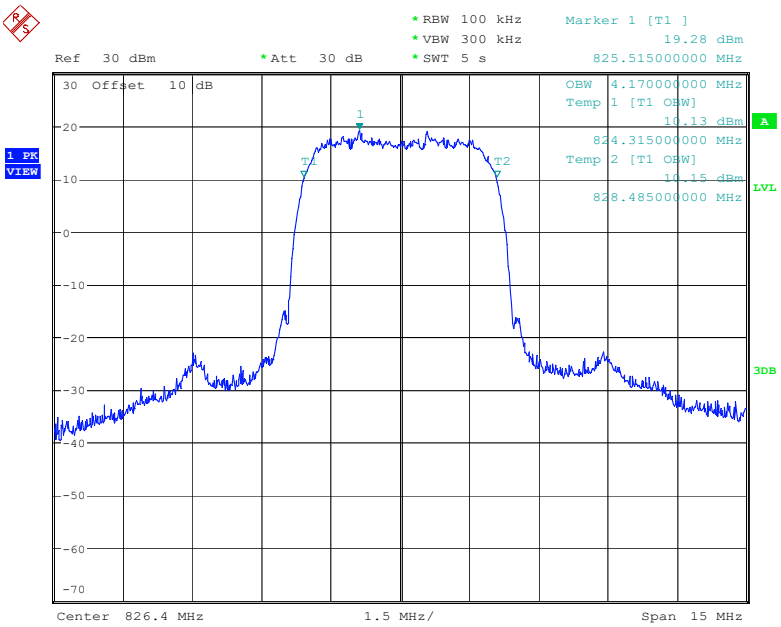

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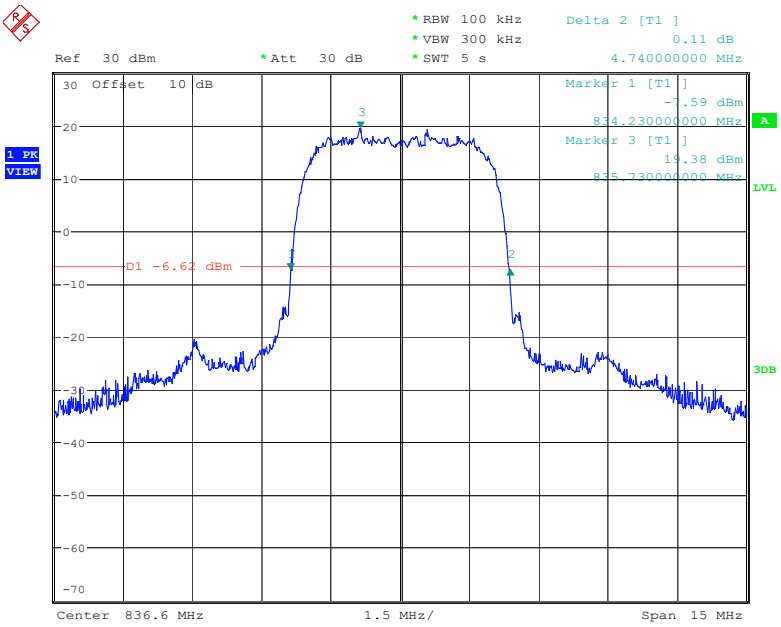
26 dB Emissions &99% Occupied Bandwidth for HSDPA (QPSK) Mode, Middle channel



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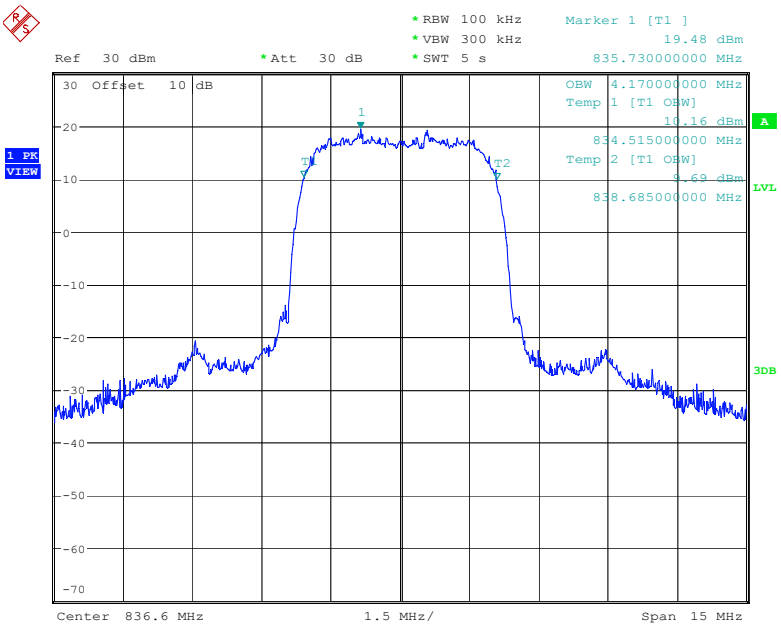
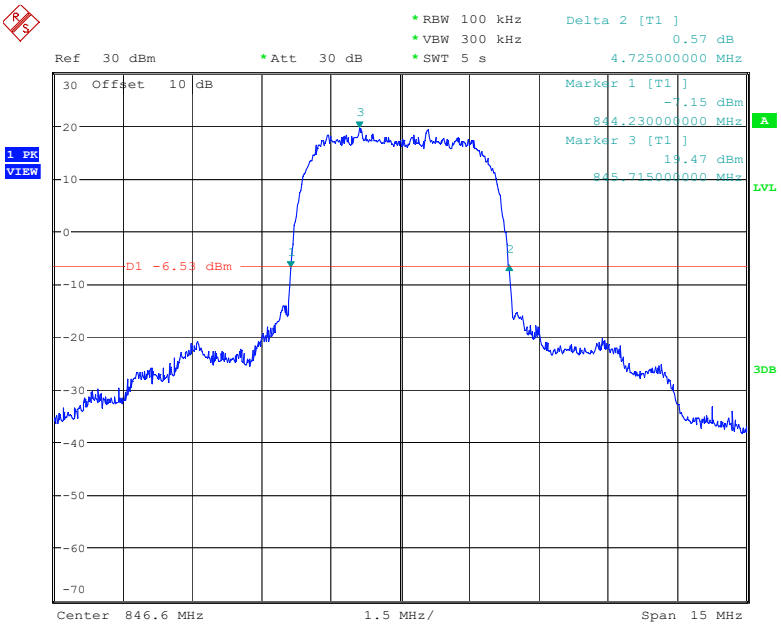
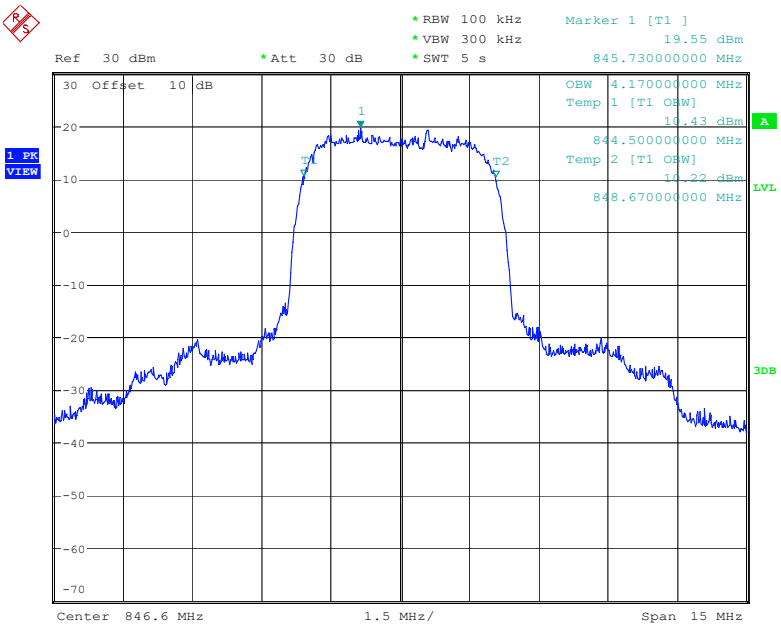


Date: 21.APR.2023 17:28:51

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

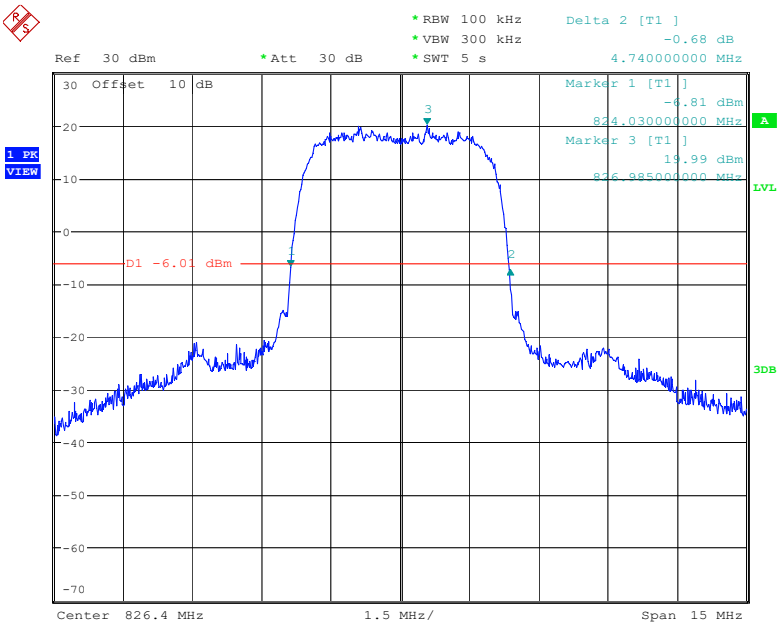


Date: 21.APR.2023 17:45:37

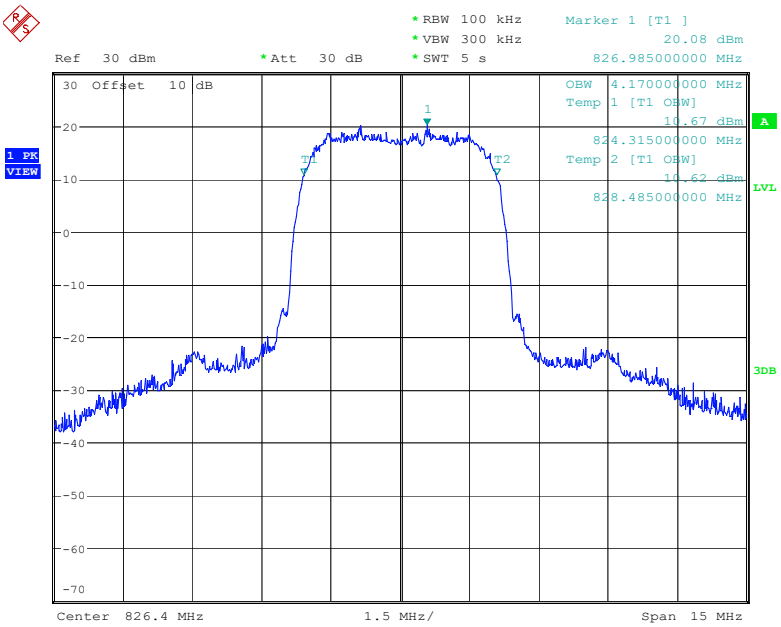


Date: 21.APR.2023 17:44:56

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

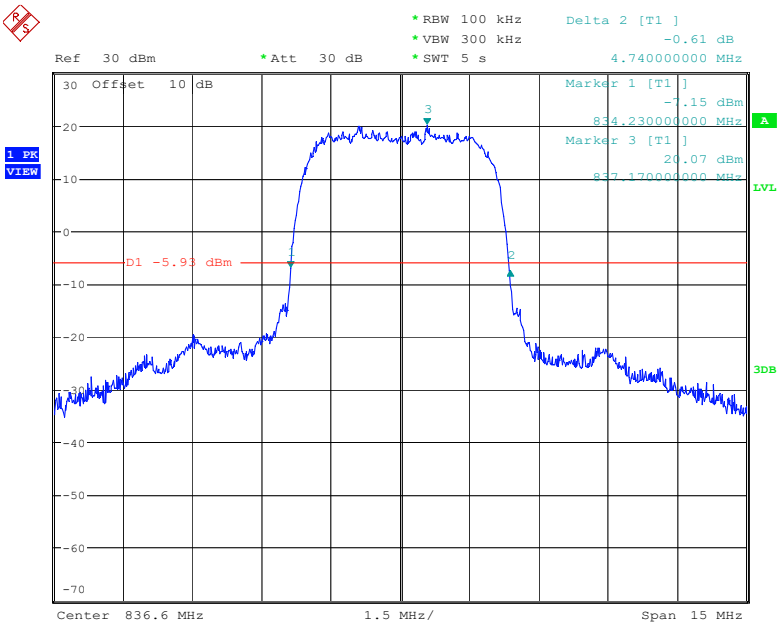


Date: 21.APR.2023 17:50:15

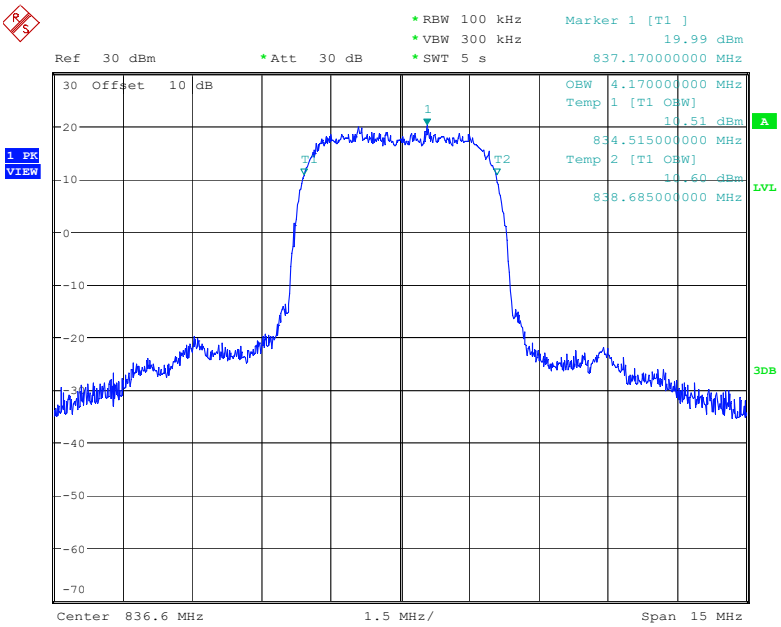


Date: 21.APR.2023 17:49:20

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

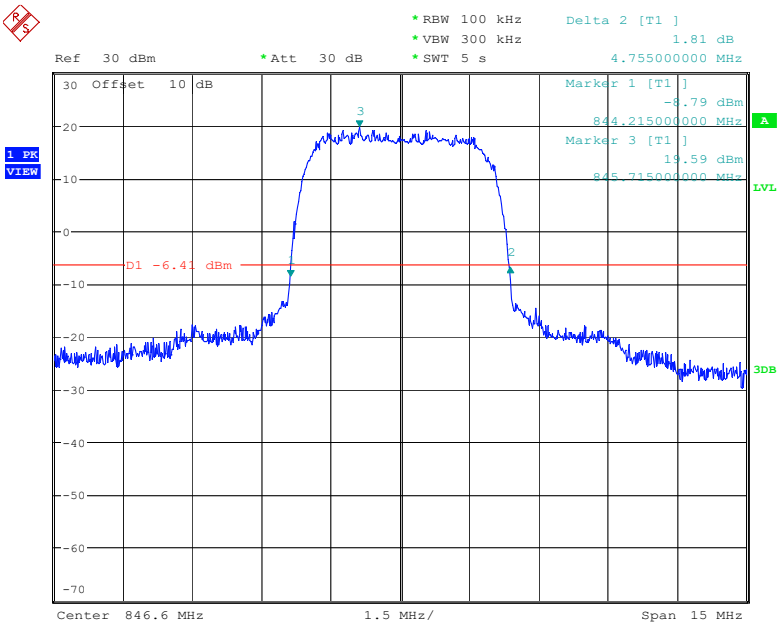


Date: 21.APR.2023 17:55:29

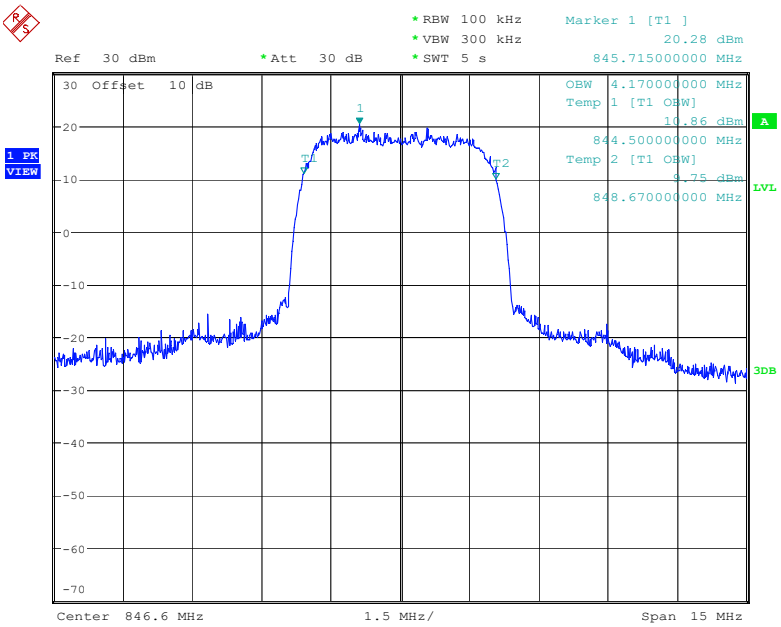


Date: 21.APR.2023 17:54:33

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



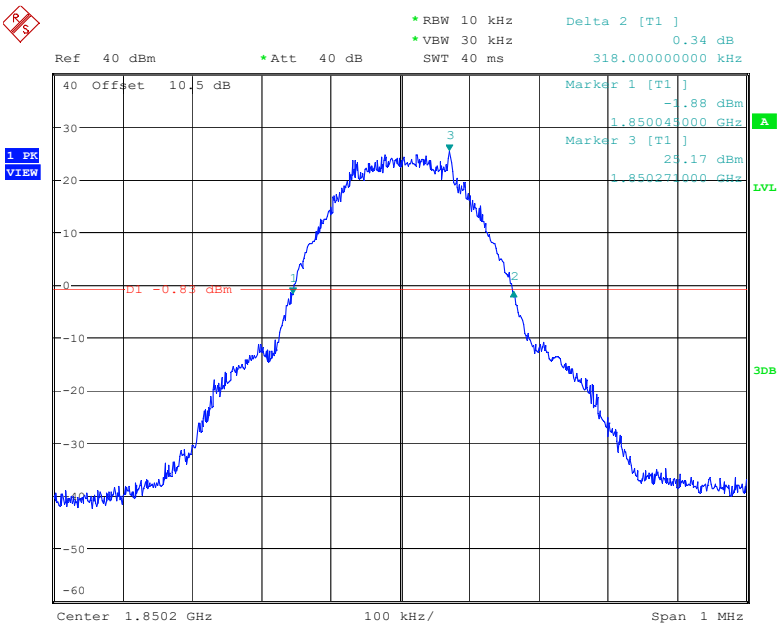
Date: 23.APR.2023 10:30:01



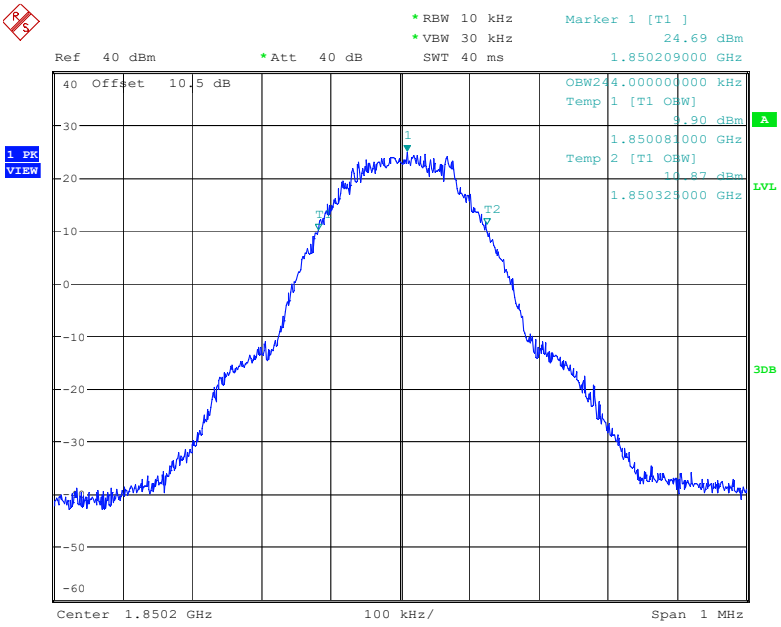
Date: 23.APR.2023 10:29:20

PCS Band (Part 24E)

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

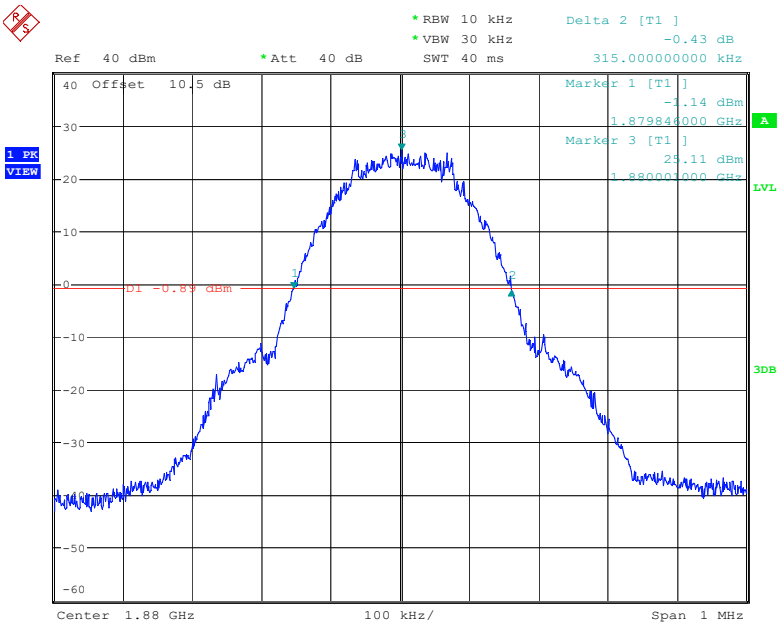


Date: 23.APR.2023 11:52:50

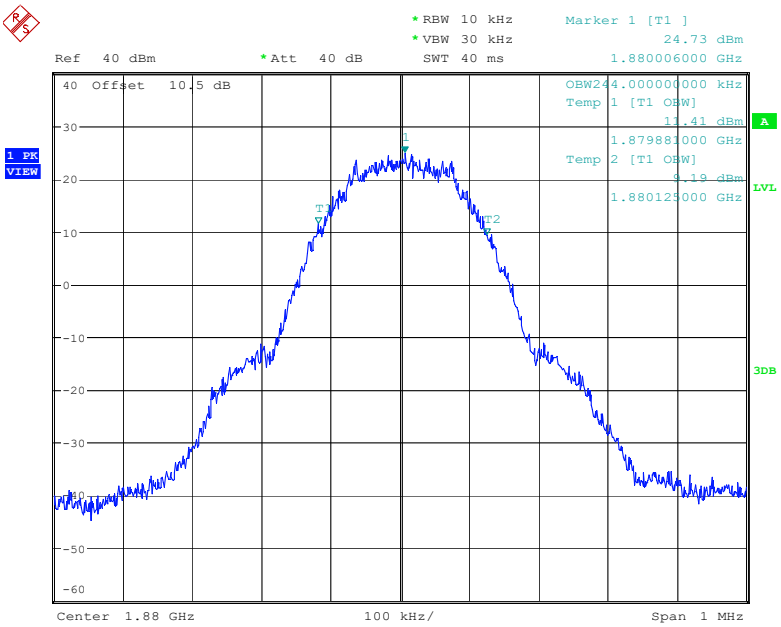


Date: 23.APR.2023 11:51:59

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

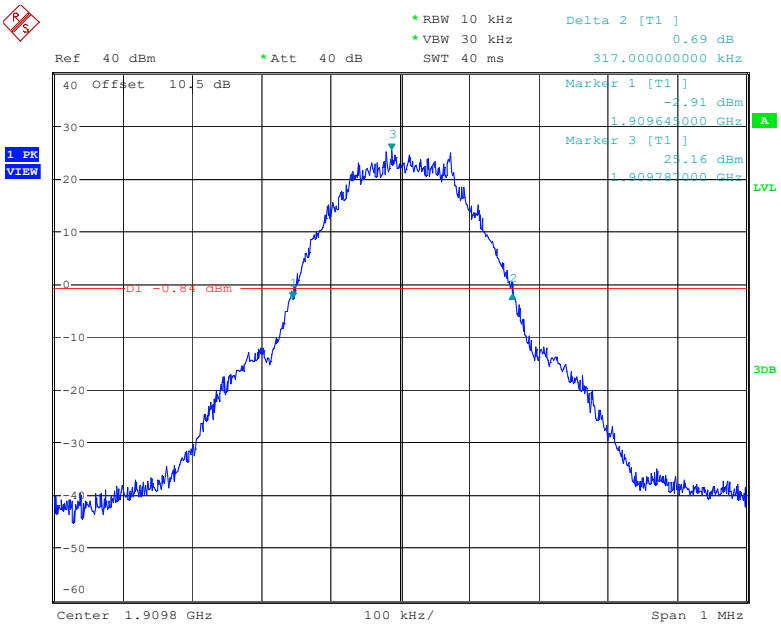


Date: 23.APR.2023 12:00:12

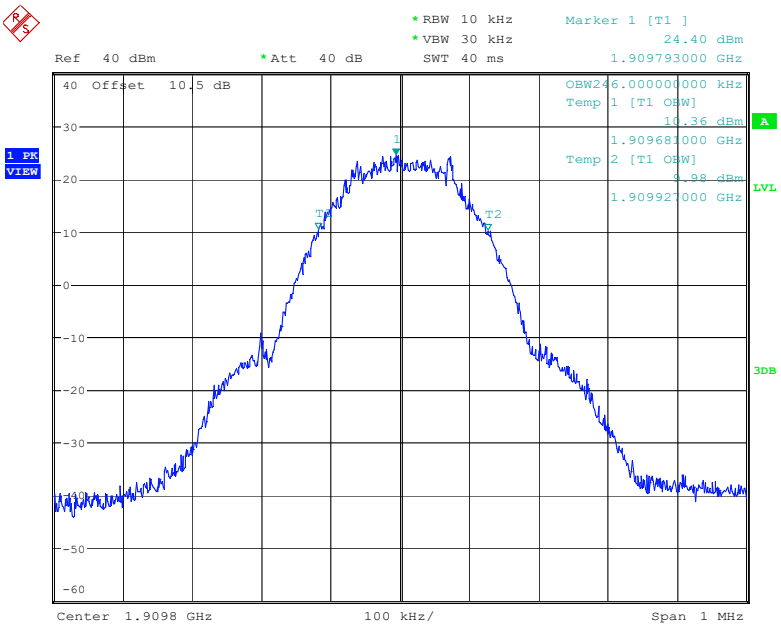


Date: 23.APR.2023 11:59:22

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

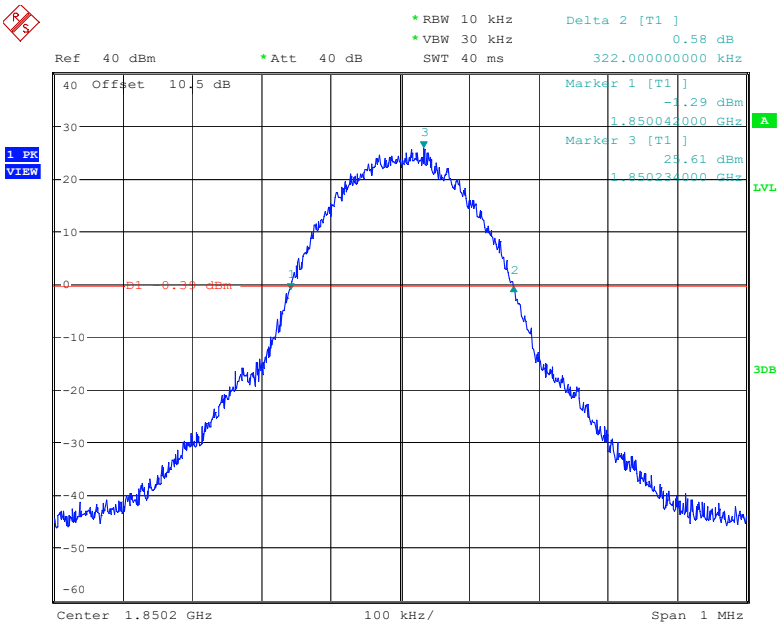


Date: 23.APR.2023 12:05:54

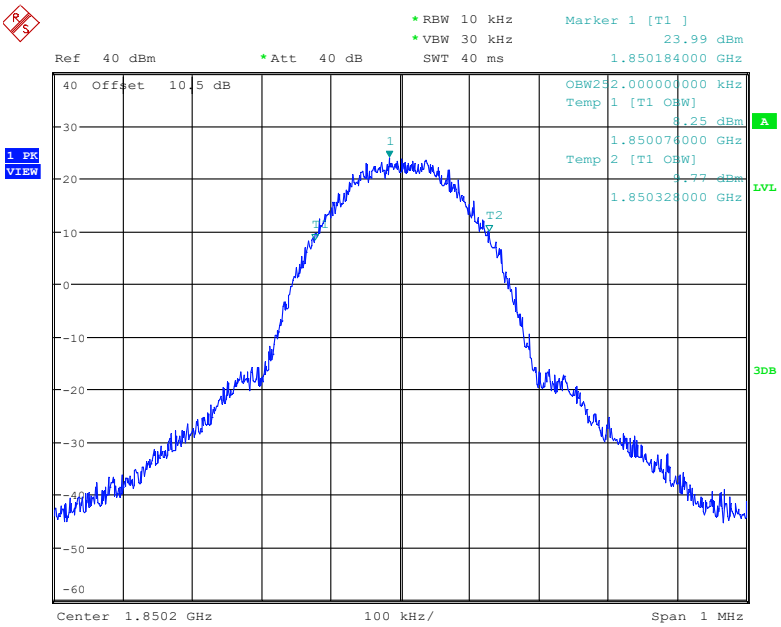


Date: 23.APR.2023 12:05:23

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

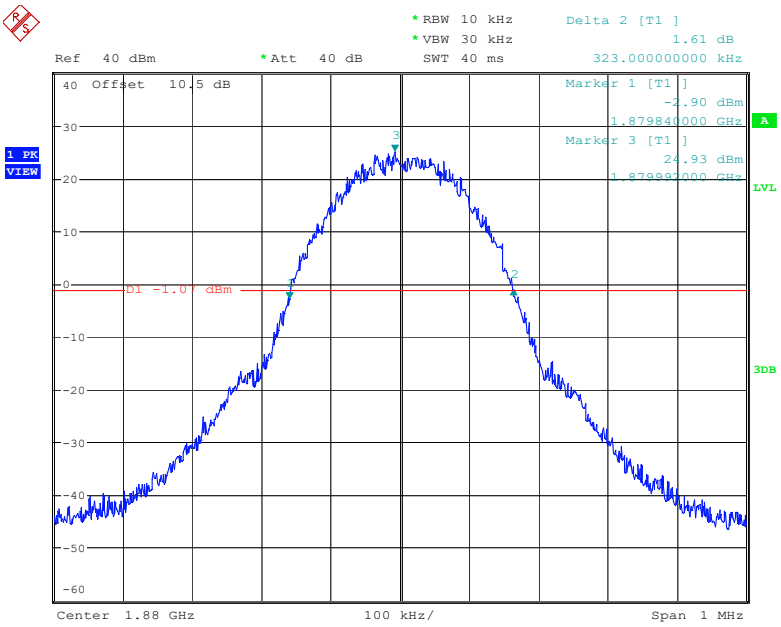


Date: 23.APR.2023 12:50:59

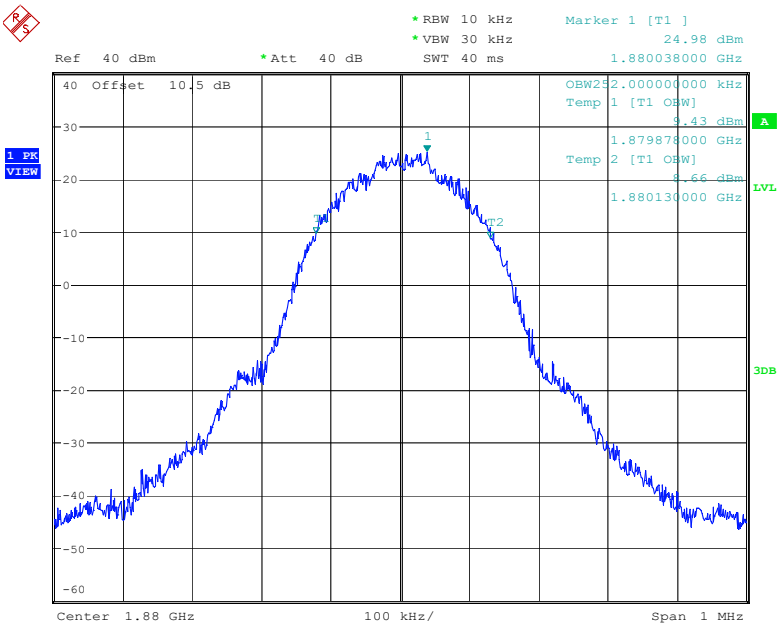


Date: 26.APR.2023 14:22:25

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

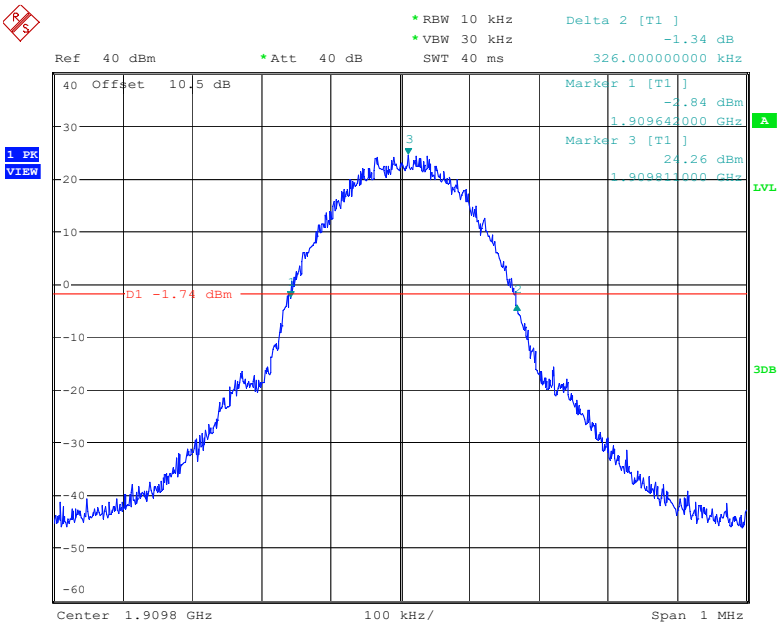


Date: 23.APR.2023 12:59:41

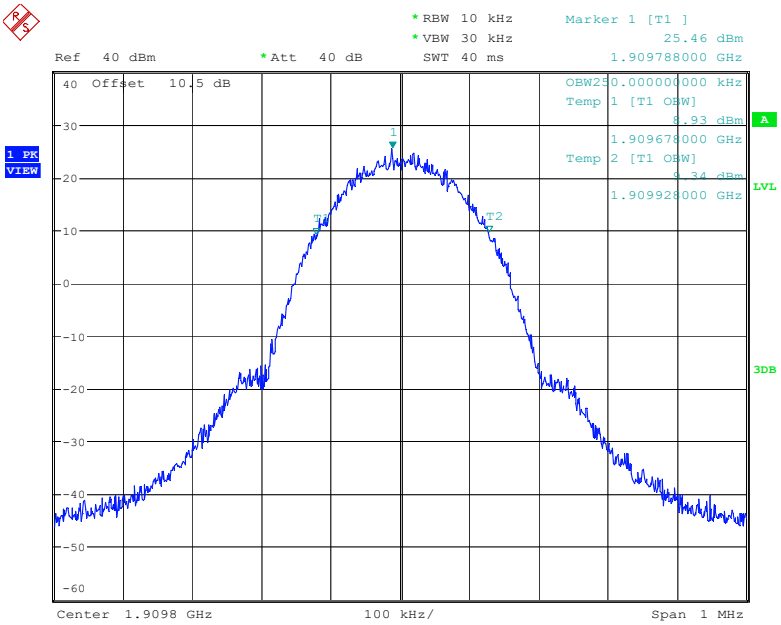


Date: 23.APR.2023 12:59:00

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

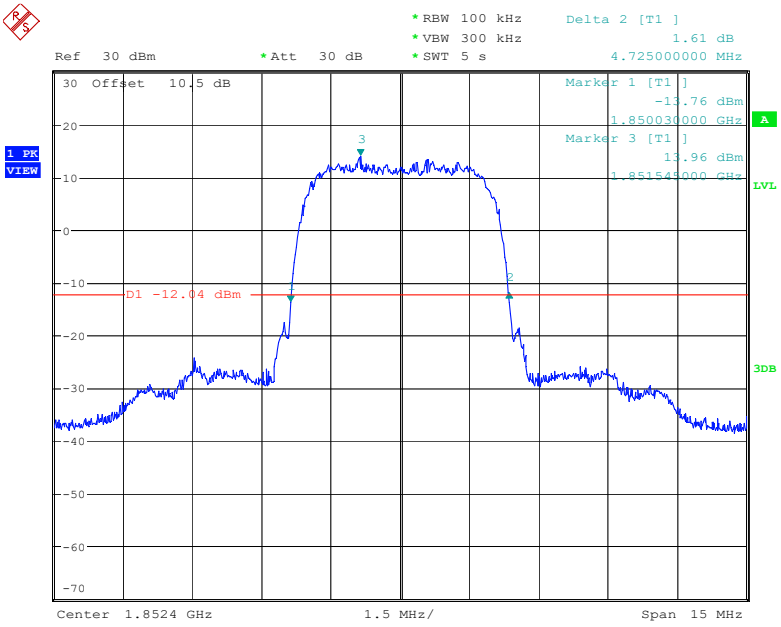


Date: 23.APR.2023 13:04:32

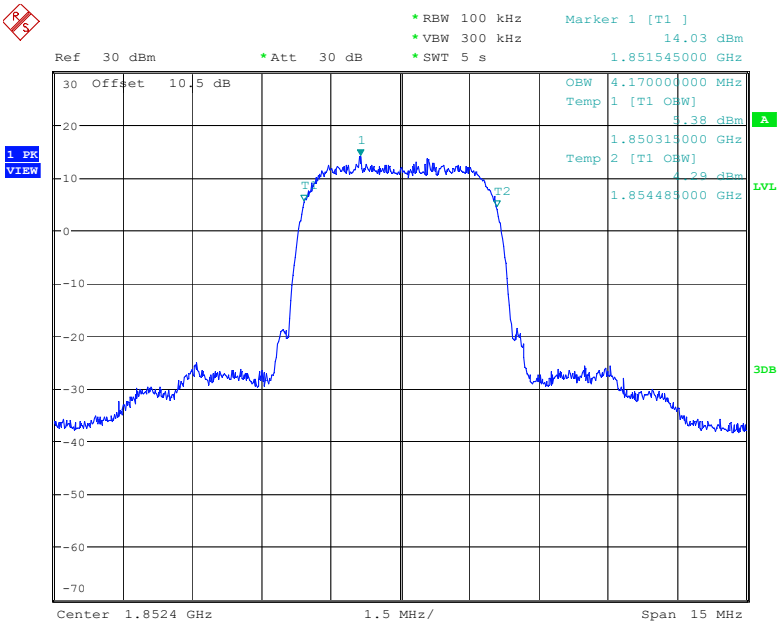


Date: 23.APR.2023 13:03:52

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

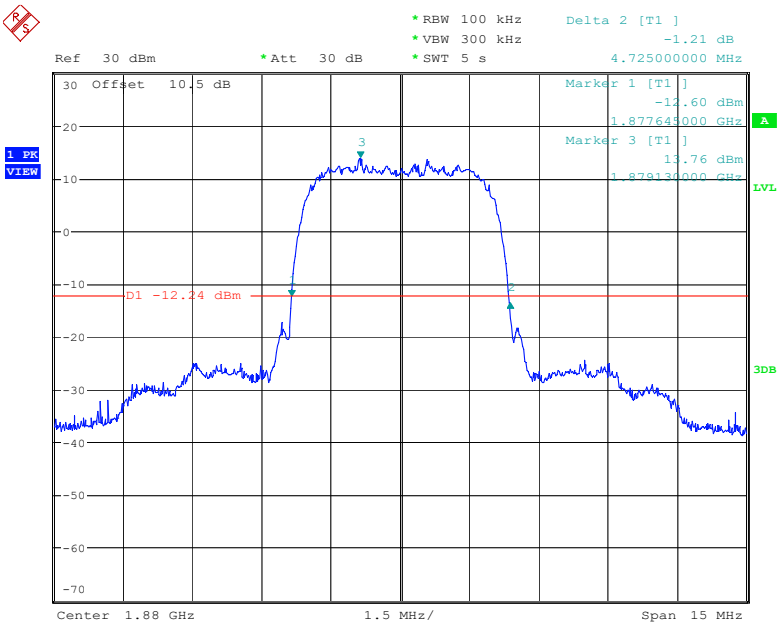


Date: 21.APR.2023 10:19:19

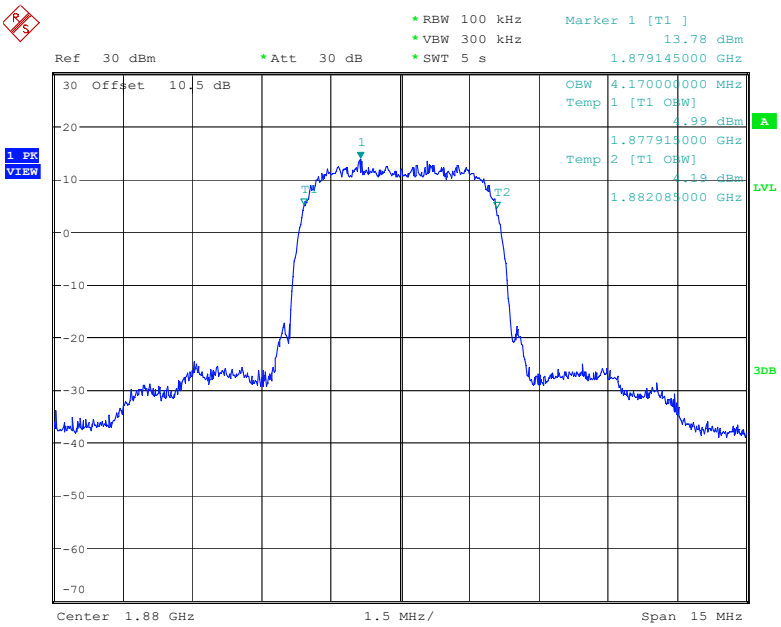


Date: 21.APR.2023 10:18:54

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

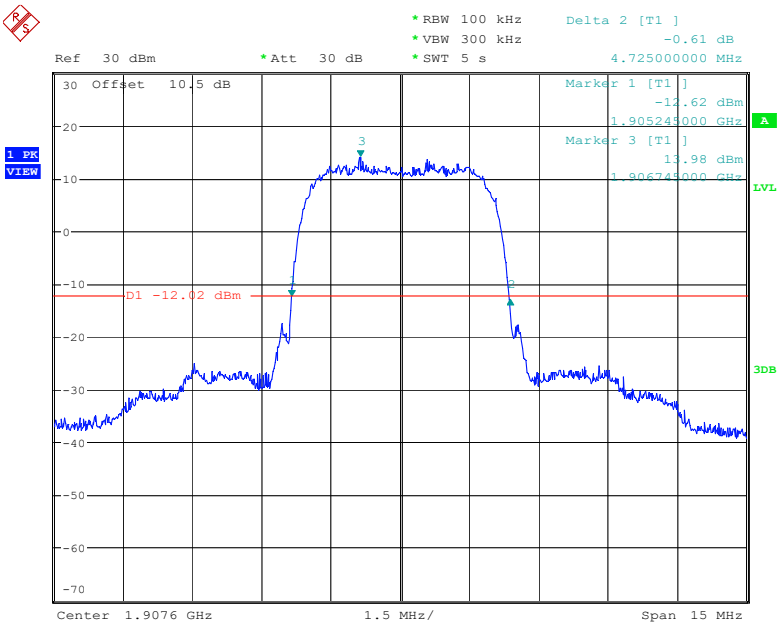


Date: 21.APR.2023 10:23:08

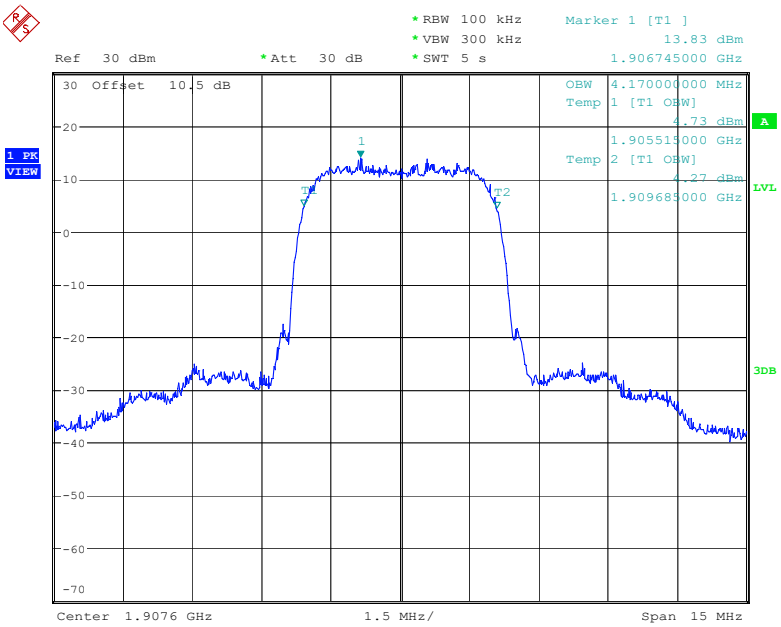


Date: 21.APR.2023 10:22:27

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

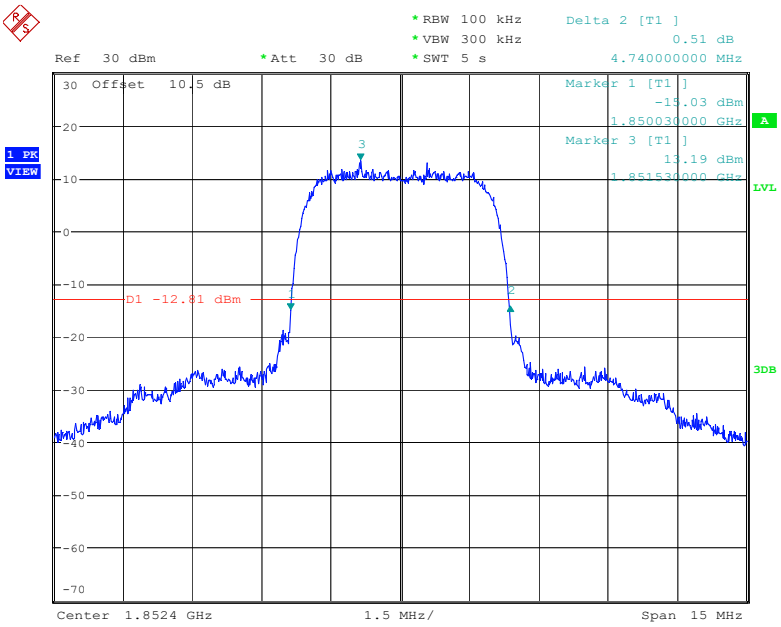


Date: 21.APR.2023 10:25:55

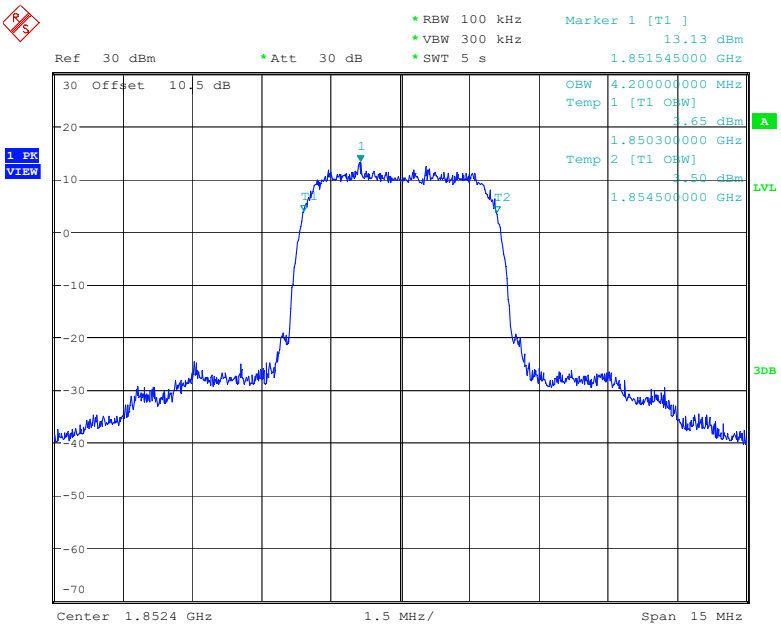


Date: 21.APR.2023 10:25:30

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

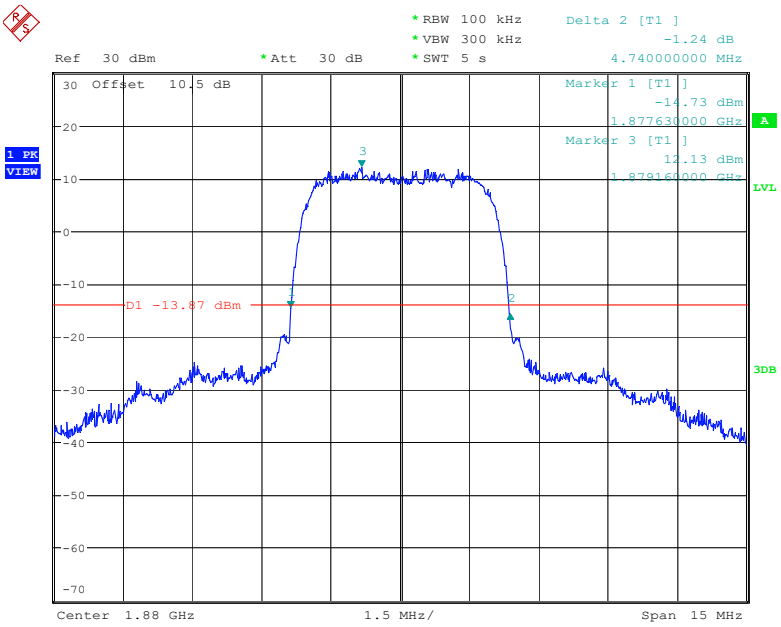


Date: 21.APR.2023 10:30:25

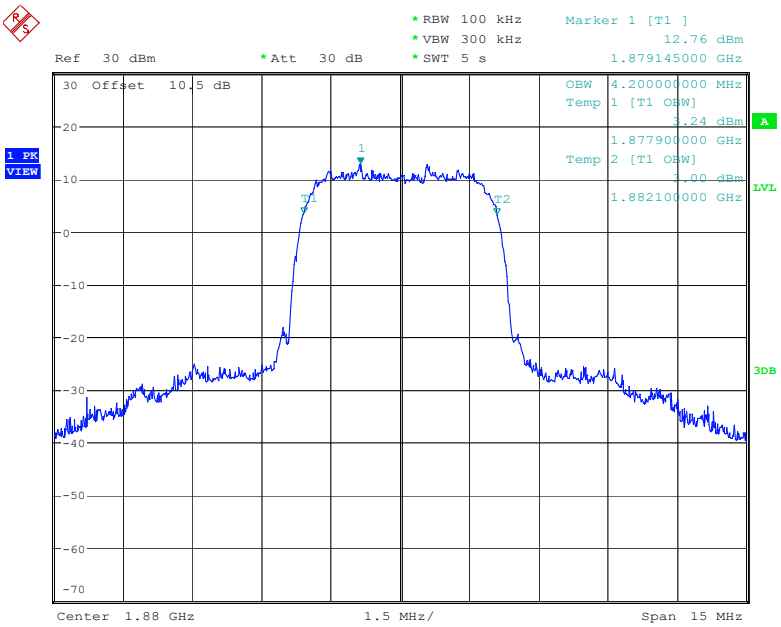


Date: 21.APR.2023 10:29:59

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

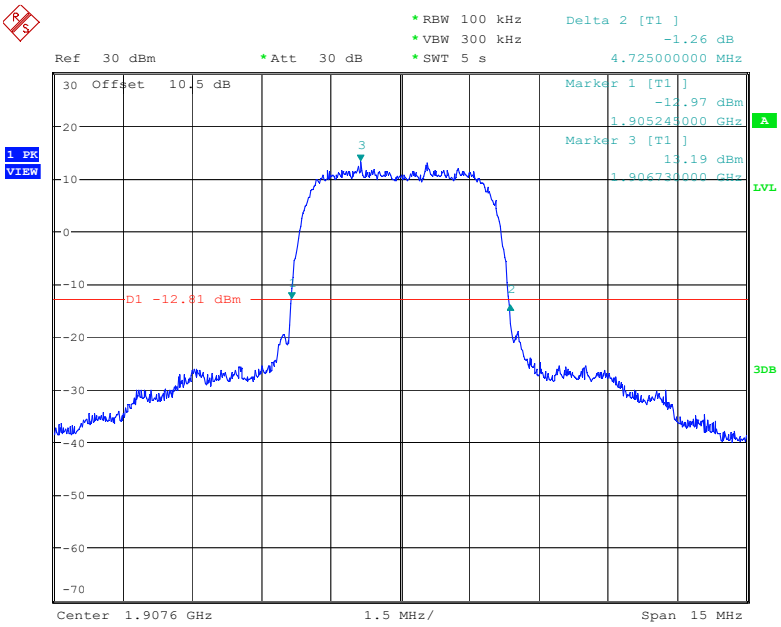


Date: 21.APR.2023 10:35:08

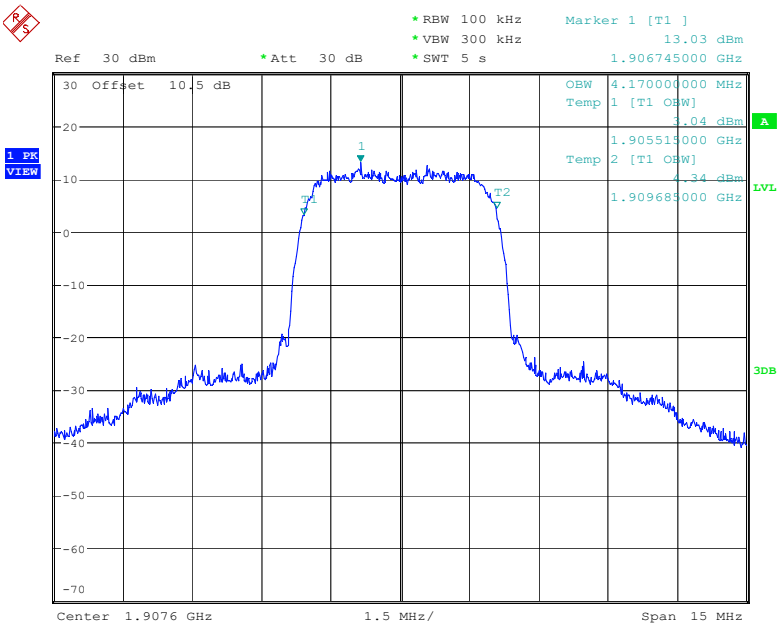


Date: 21.APR.2023 10:34:42

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

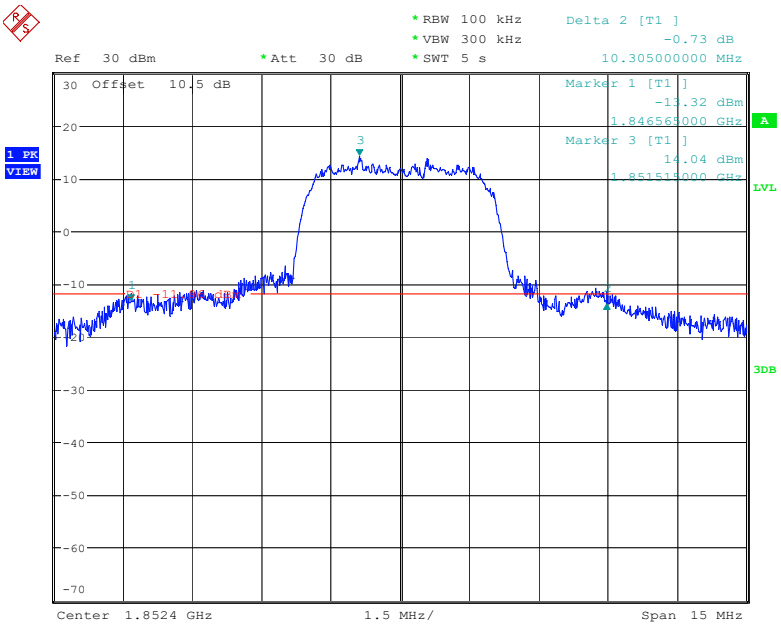


Date: 21.APR.2023 10:39:30

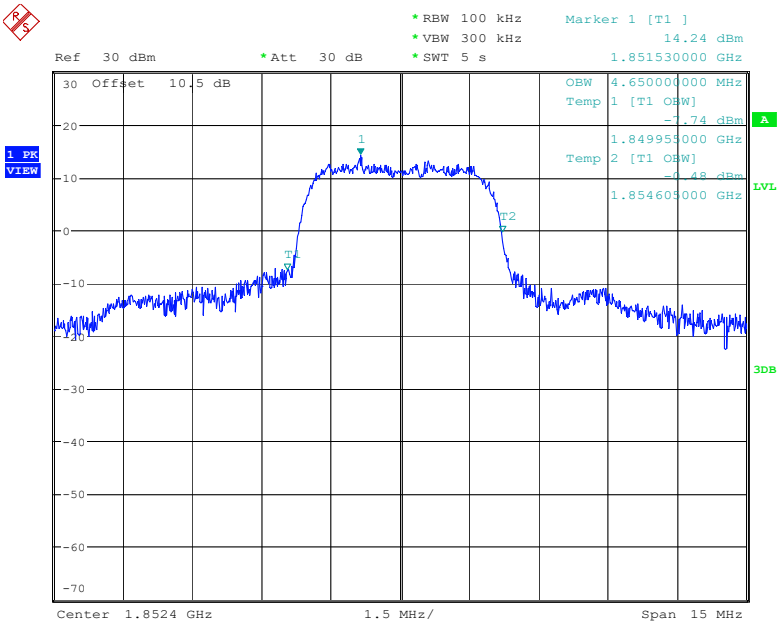


Date: 21.APR.2023 10:38:49

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

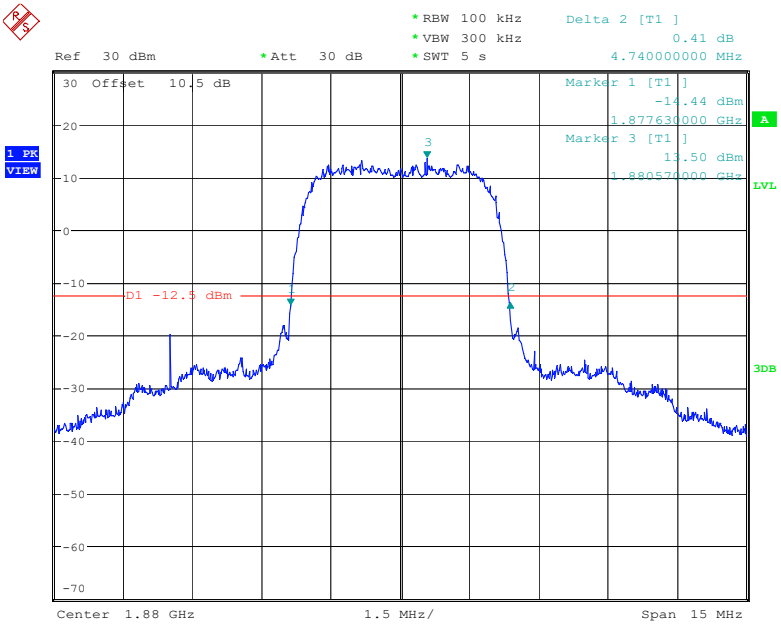


Date: 21.APR.2023 10:45:22

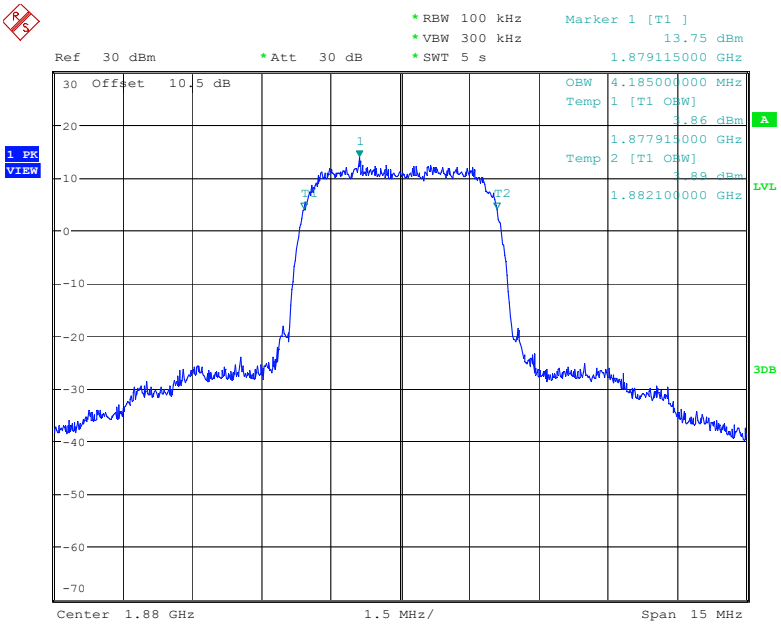


Date: 21.APR.2023 10:44:26

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

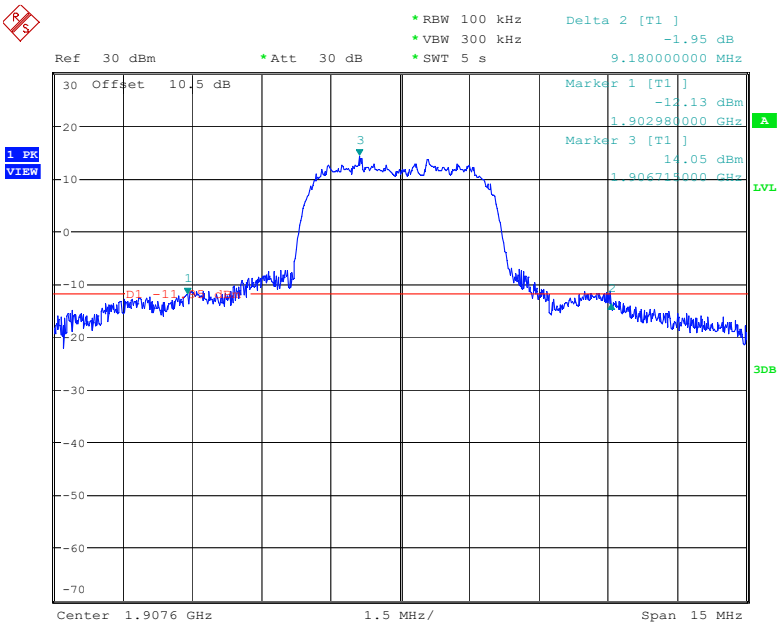


Date: 21.APR.2023 11:34:22

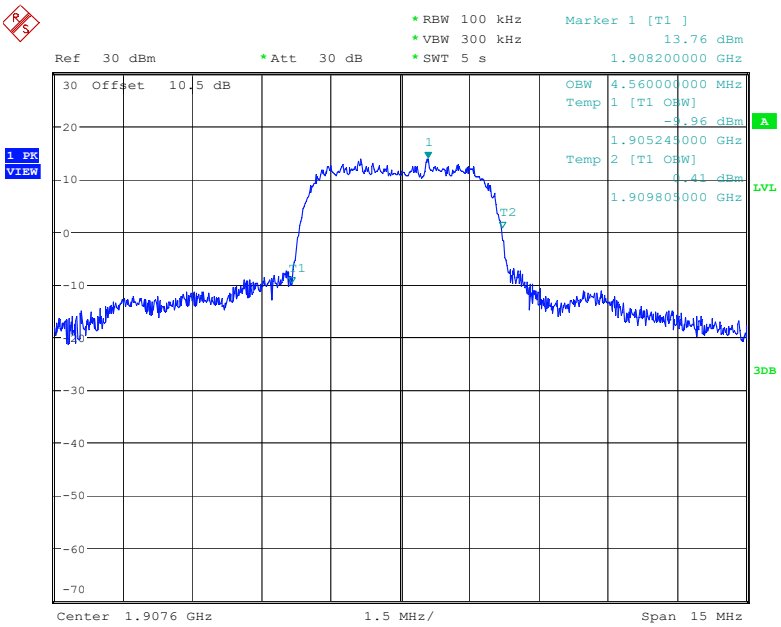


Date: 21.APR.2023 11:33:41

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



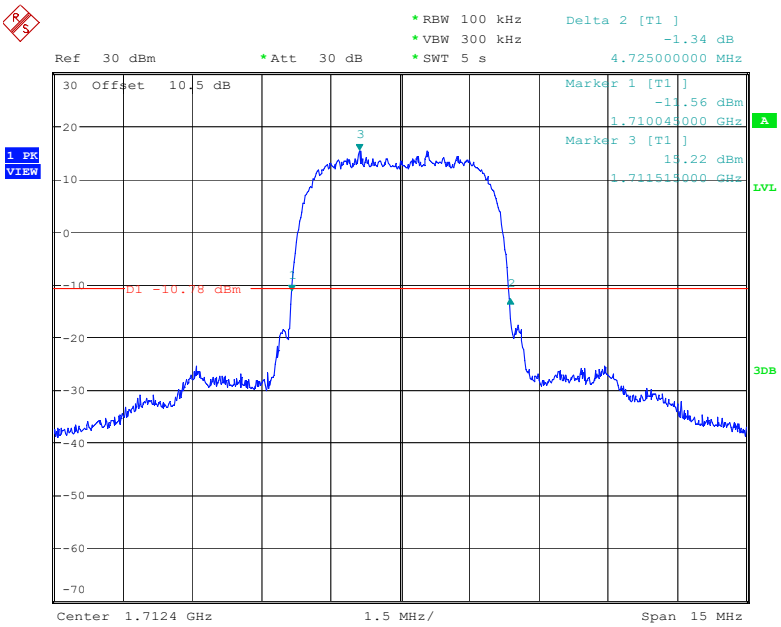
Date: 21.APR.2023 11:39:22



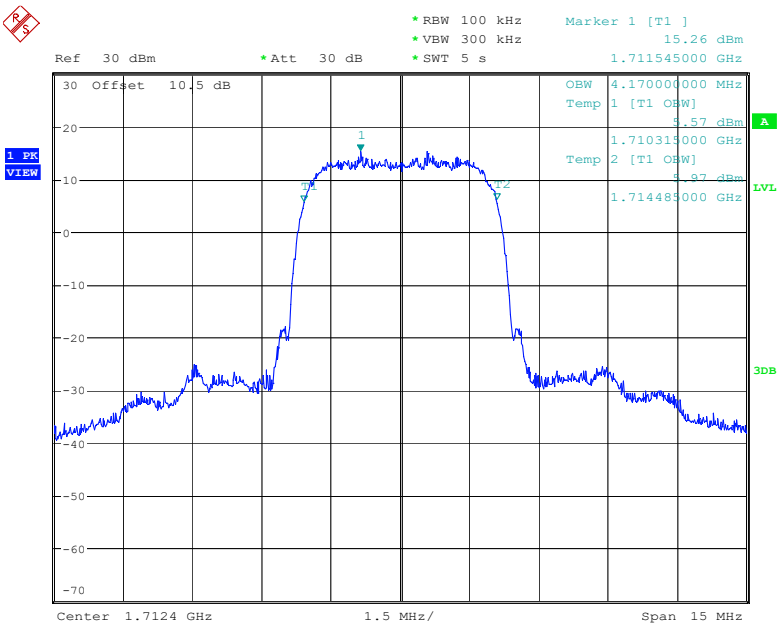
Date: 21.APR.2023 11:37:56

AWS Band

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

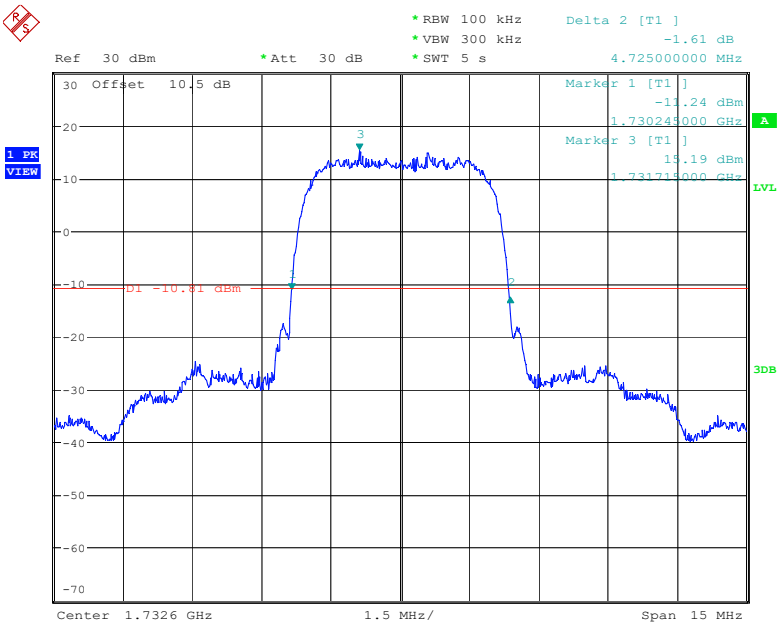


Date: 21.APR.2023 11:46:52

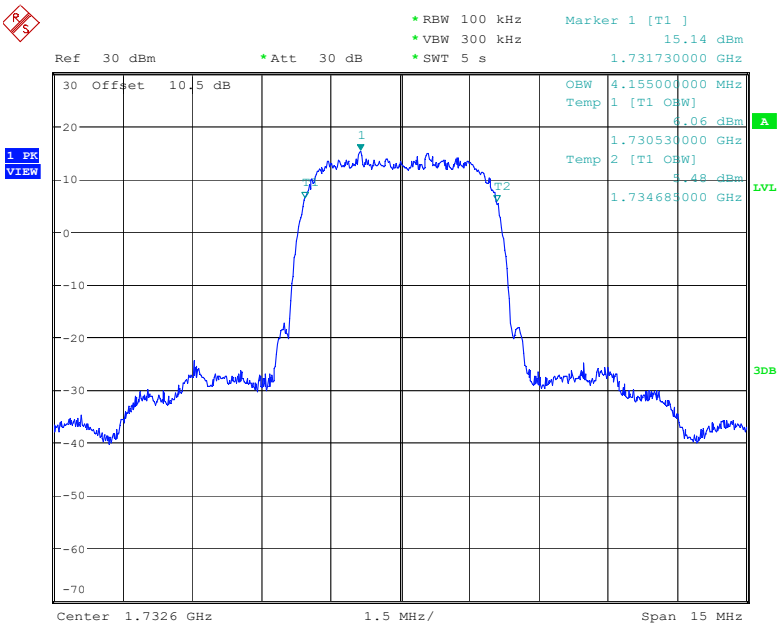


Date: 21.APR.2023 11:46:26

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

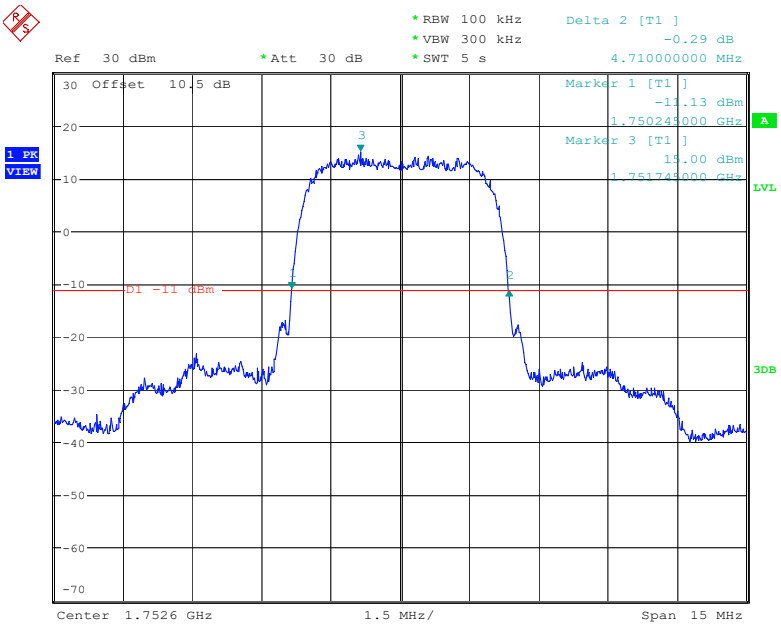


Date: 21.APR.2023 11:52:38

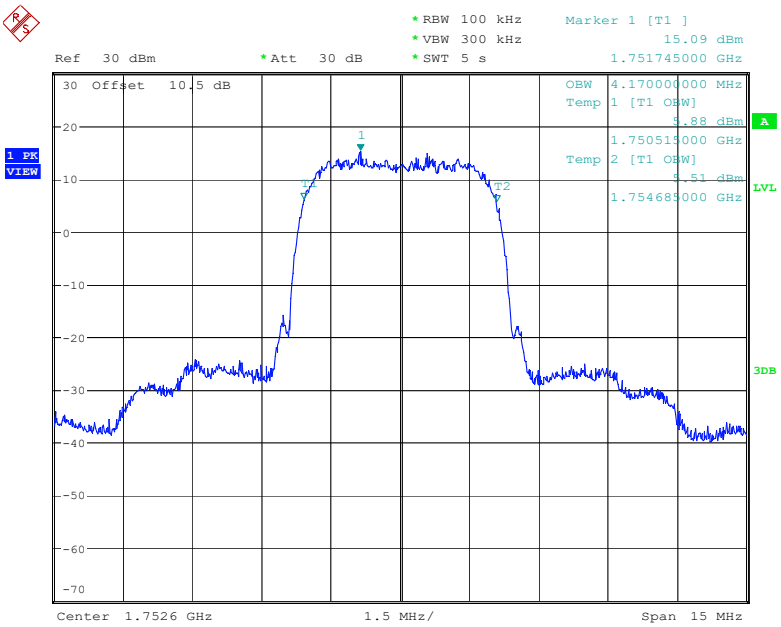


Date: 21.APR.2023 11:52:13

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

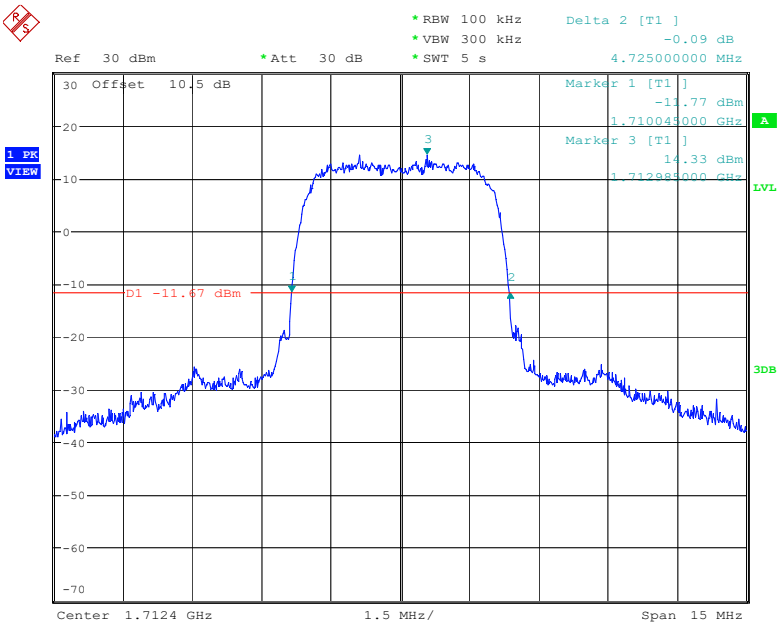


Date: 21.APR.2023 11:59:19

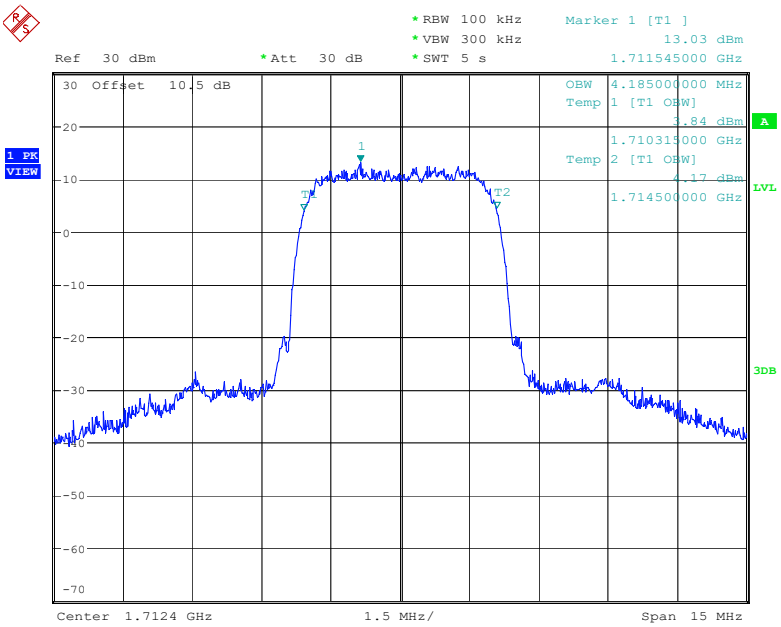


Date: 21.APR.2023 11:58:53

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

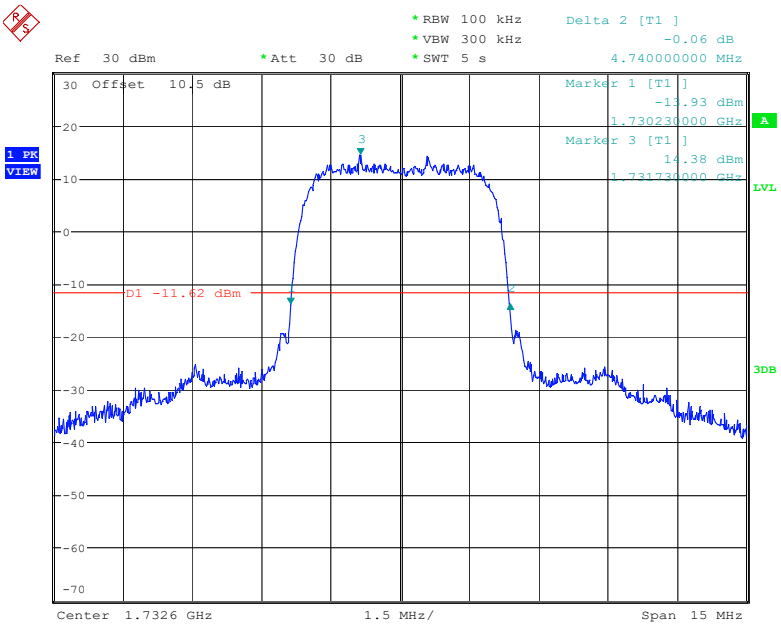


Date: 21.APR.2023 12:30:35

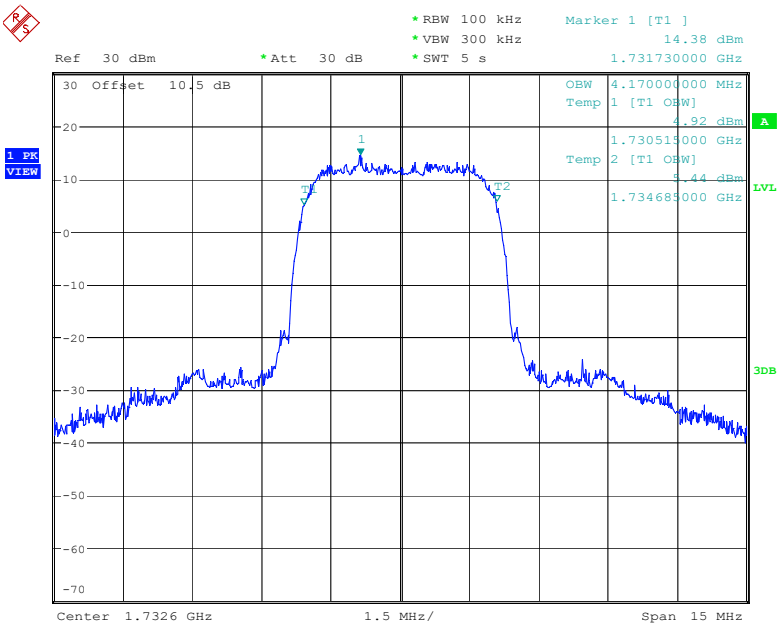


Date: 23.APR.2023 14:45:31

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

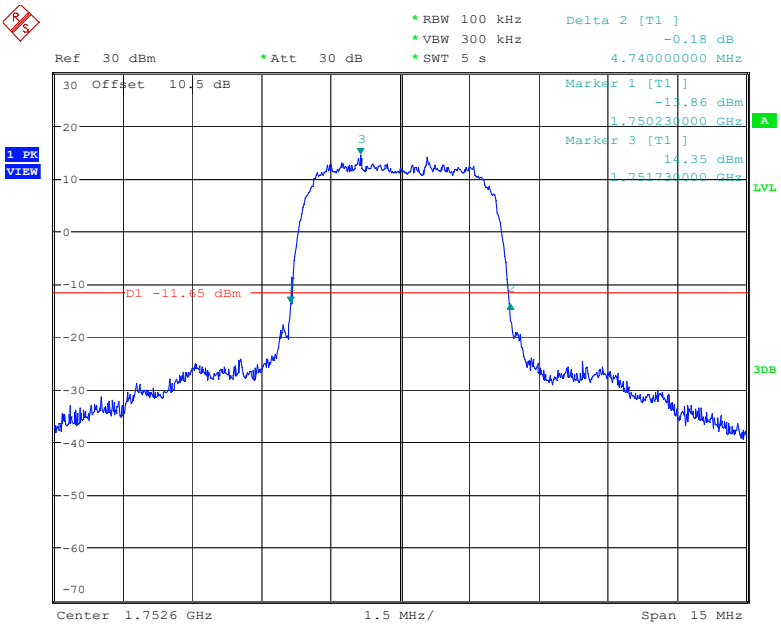


Date: 21.APR.2023 13:00:41

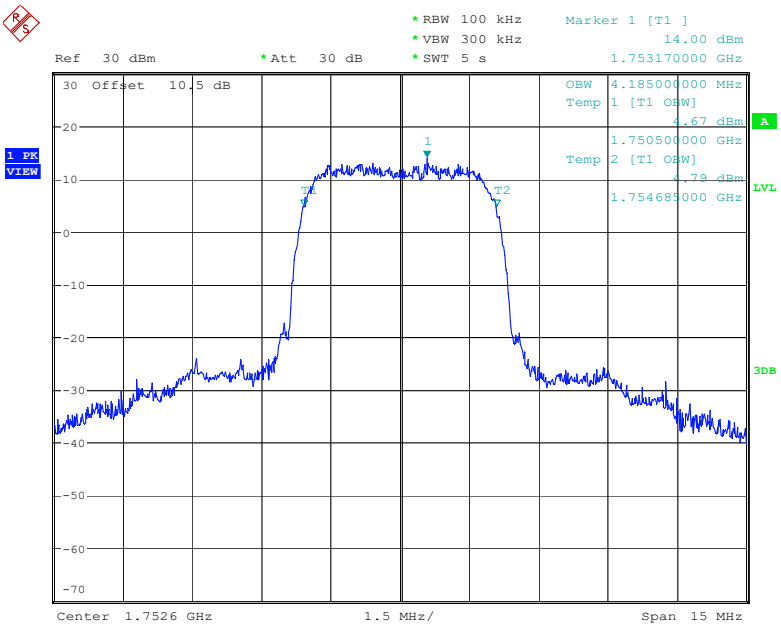


Date: 21.APR.2023 12:59:59

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

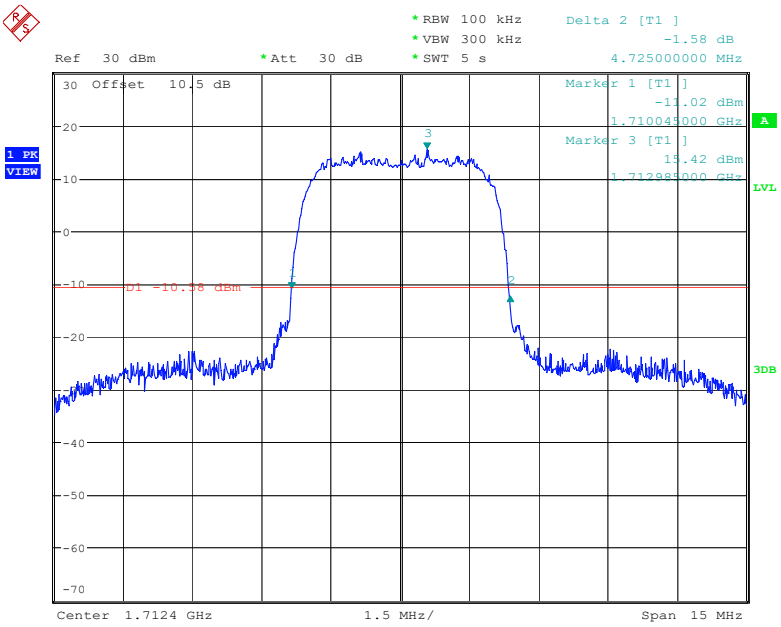


Date: 21.APR.2023 13:20:05

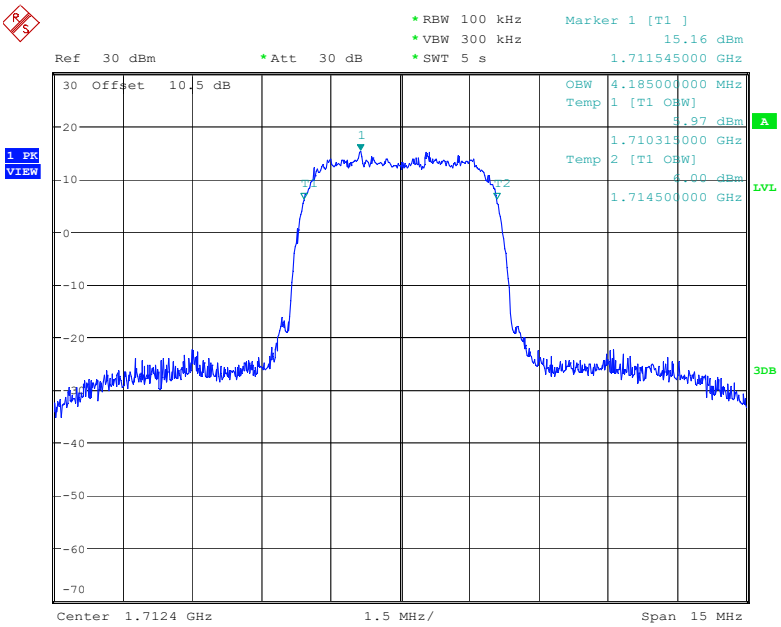


Date: 21.APR.2023 13:19:25

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

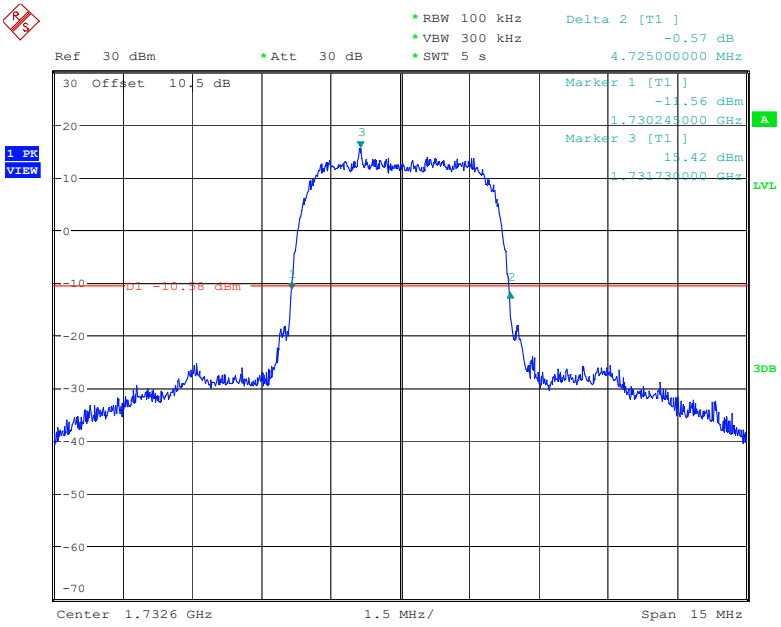


Date: 21.APR.2023 16:44:58

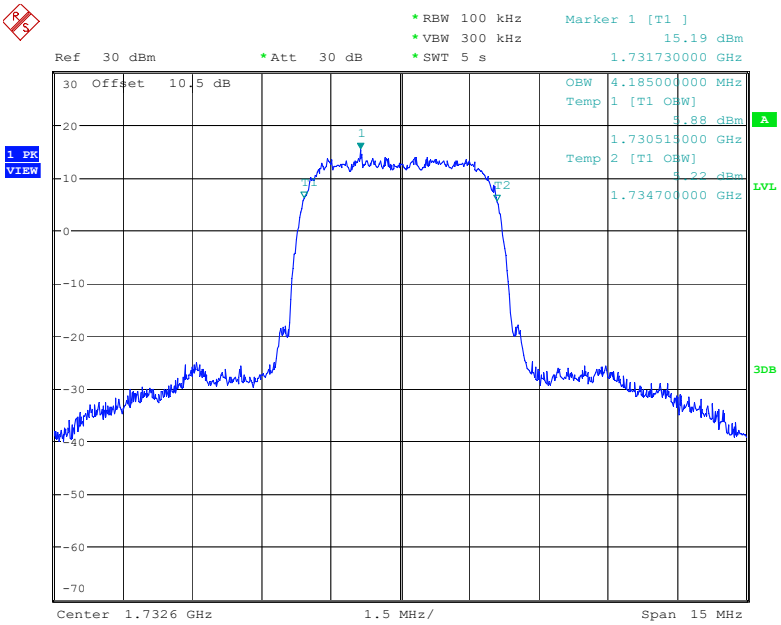


Date: 21.APR.2023 16:43:32

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

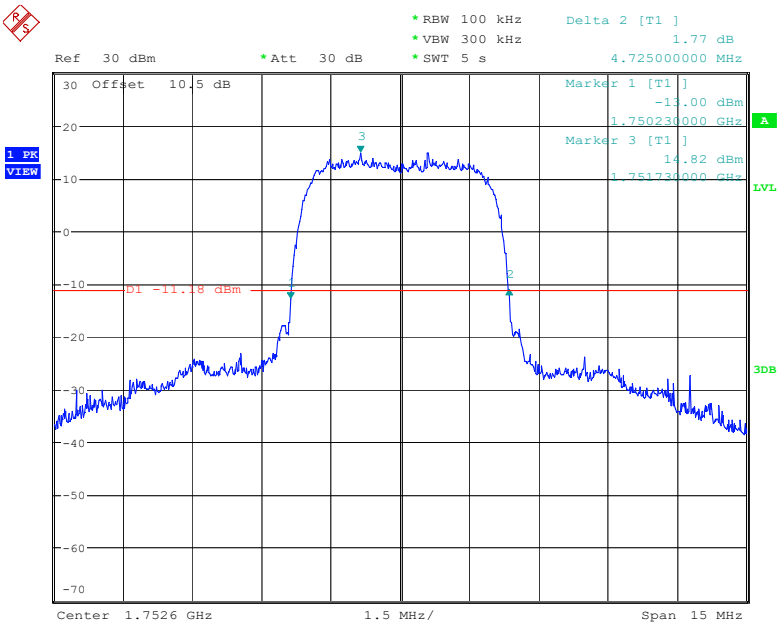


Date: 21.APR.2023 16:55:35

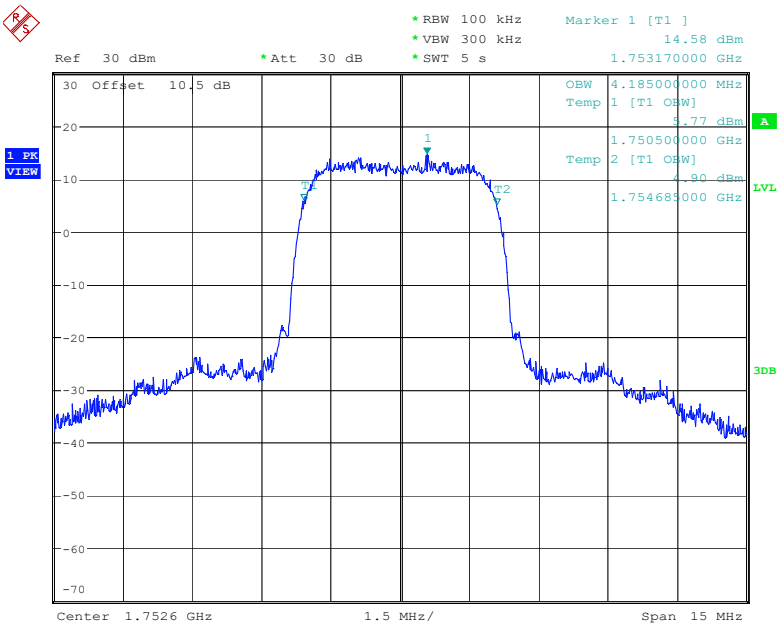


Date: 21.APR.2023 16:55:10

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



Date: 21.APR.2023 16:59:31



Date: 21.APR.2023 16:58:50

LTE Band 2:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.104	1.302	1.11	1.308	1.104	1.308
	16QAM	1.098	1.290	1.098	1.302	1.104	1.332
3 MHz	QPSK	2.688	2.880	2.688	2.892	2.700	2.880
	16QAM	2.676	2.880	2.676	2.880	2.688	2.880
5 MHz	QPSK	4.500	4.900	4.520	4.960	4.520	4.940
	16QAM	4.500	4.960	4.500	4.940	4.520	4.980
10 MHz	QPSK	9.000	9.560	8.960	9.560	8.960	9.600
	16QAM	9.000	9.520	8.960	9.600	8.920	9.520
15 MHz	QPSK	13.560	15.180	13.500	14.880	13.500	14.760
	16QAM	13.560	14.700	13.500	14.700	13.560	18.480
20 MHz	QPSK	18.000	19.440	18.000	19.280	18.000	19.280
	16QAM	18.000	19.440	17.920	19.280	18.000	19.440

LTE Band 4:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.098	1.314	1.104	1.302	1.104	1.374
	16QAM	1.098	1.290	1.098	1.302	1.110	1.338
3 MHz	QPSK	2.688	2.880	2.688	2.868	2.700	2.880
	16QAM	2.688	2.880	2.676	2.868	2.688	2.880
5 MHz	QPSK	4.500	4.900	4.520	4.940	4.520	4.960
	16QAM	4.500	4.980	4.500	4.920	4.540	4.960
10 MHz	QPSK	8.960	9.600	8.960	9.720	8.960	9.600
	16QAM	8.960	9.600	8.960	9.560	8.960	9.560
15 MHz	QPSK	13.560	14.820	13.560	14.880	13.500	14.820
	16QAM	13.500	14.700	13.500	14.860	13.560	14.820
20 MHz	QPSK	18.000	19.440	17.920	19.280	18.000	19.360
	16QAM	18.000	19.360	18.000	19.360	18.000	19.520

TE Band 5:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.104	1.314	1.104	1.302	1.104	1.308
	16QAM	1.098	1.284	1.098	1.308	1.110	1.320
3 MHz	QPSK	2.688	2.892	2.676	2.868	2.688	2.880
	16QAM	2.688	2.928	2.676	2.880	2.688	2.880
5 MHz	QPSK	4.500	4.940	4.520	4.940	4.520	4.960
	16QAM	4.500	4.960	4.500	4.900	4.520	4.940
10 MHz	QPSK	8.960	9.560	8.960	9.720	8.960	9.560
	16QAM	8.960	9.520	8.960	9.600	8.960	9.520

LTE Band 7:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.520	4.940	4.500	4.980	4.540	4.980
	16QAM	4.540	4.960	4.500	5.140	4.520	4.920
10 MHz	QPSK	8.960	9.560	9.000	9.680	8.960	9.600
	16QAM	8.960	9.600	9.000	9.640	8.960	9.600
15 MHz	QPSK	13.500	14.880	13.500	14.880	13.560	14.820
	16QAM	13.560	14.760	13.500	14.820	13.500	14.760
20 MHz	QPSK	18.000	19.360	18.000	19.440	18.000	19.280
	16QAM	18.000	19.440	17.920	19.360	18.080	19.440

LTE Band 12:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.104	1.302	1.104	1.284	1.098	1.314
	16QAM	1.092	1.296	1.098	1.296	1.110	1.320
3 MHz	QPSK	2.676	2.892	2.676	2.868	2.700	2.880
	16QAM	2.676	2.880	2.688	2.892	2.688	2.880
5 MHz	QPSK	4.520	5.140	4.520	5.140	4.540	5.140
	16QAM	4.540	5.160	4.540	5.240	4.520	5.120
10 MHz	QPSK	8.960	9.800	8.960	9.800	8.960	9.680
	16QAM	8.960	9.880	8.960	9.680	8.960	9.840

LTE Band 13:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.520	5.180	4.540	5.200	4.520	5.160
	16QAM	4.560	5.220	4.520	5.140	4.560	5.200
10 MHz	QPSK	/	/	8.960	9.800	/	/
	16QAM	/	/	8.960	9.800	/	/

LTE Band 17:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.540	5.160	4.520	5.160	4.540	5.200
	16QAM	4.540	5.180	4.540	5.220	4.520	5.200
10 MHz	QPSK	8.960	9.800	8.960	9.880	8.960	9.800
	16QAM	8.960	9.840	8.960	9.760	8.960	9.840

LTE Band 38:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.500	5.080	4.500	4.960	4.520	4.920
	16QAM	4.500	4.980	4.500	5.140	4.500	5.000
10 MHz	QPSK	9.000	9.480	8.960	9.640	8.960	9.480
	16QAM	8.960	9.480	8.960	9.480	8.960	9.640
15 MHz	QPSK	13.500	15.420	13.560	15.480	13.500	15.000
	16QAM	13.620	15.960	13.560	16.080	13.560	15.360
20 MHz	QPSK	17.920	19.360	18.000	19.600	18.000	19.520
	16QAM	18.000	19.840	17.920	19.600	17.920	19.360

LTE Band 41:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.500	4.960	4.520	4.900	4.500	5.200
	16QAM	4.500	4.980	4.500	5.040	4.500	5.040
10 MHz	QPSK	9.000	9.560	8.960	9.520	8.960	9.800
	16QAM	8.960	9.520	8.960	9.920	8.960	9.680
15 MHz	QPSK	13.500	15.600	13.560	15.960	13.500	15.780
	16QAM	13.560	16.320	13.560	16.440	13.560	16.140
20 MHz	QPSK	18.000	20.160	18.000	19.600	17.920	19.200
	16QAM	17.840	19.440	18.000	19.600	18.000	20.640

LTE Band 66:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.098	1.320	1.110	1.314	1.104	1.320
	16QAM	1.098	1.290	1.110	1.290	1.110	1.314
3 MHz	QPSK	2.688	2.880	2.700	2.892	2.688	2.964
	16QAM	2.676	2.916	2.688	2.880	2.676	2.880
5 MHz	QPSK	4.540	5.180	4.540	5.200	4.560	5.220
	16QAM	4.540	5.180	4.540	5.260	4.520	5.180
10 MHz	QPSK	8.960	9.880	9.000	9.960	8.960	9.880
	16QAM	8.960	9.800	8.960	9.880	8.960	9.720
15 MHz	QPSK	13.560	15.300	13.560	15.360	13.560	15.240
	16QAM	13.560	15.180	13.560	15.180	13.500	15.300
20 MHz	QPSK	18.000	19.840	18.000	19.680	17.920	19.600
	16QAM	18.000	19.600	18.000	19.840	17.920	19.760

The test plots of LTE band please refer to the Appendix A.

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

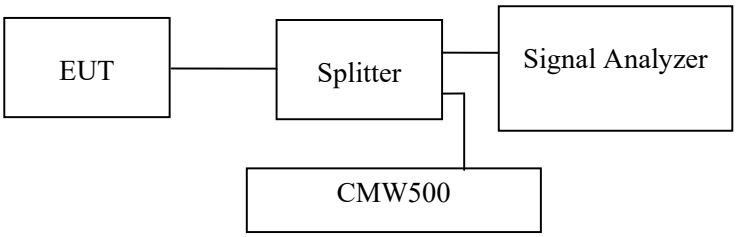
Applicable Standard

FCC §2.1051, §22.917(a) & §24.238(a), §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.



Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range has included in plot.

Test Data

Environmental Conditions

Temperature:	27.9~28.8 ℃
Relative Humidity:	46.8~52.3 %
ATM Pressure:	101.0 kPa

The testing was performed by Jacob Huang from 2023-04-16 to 2023-04-28.

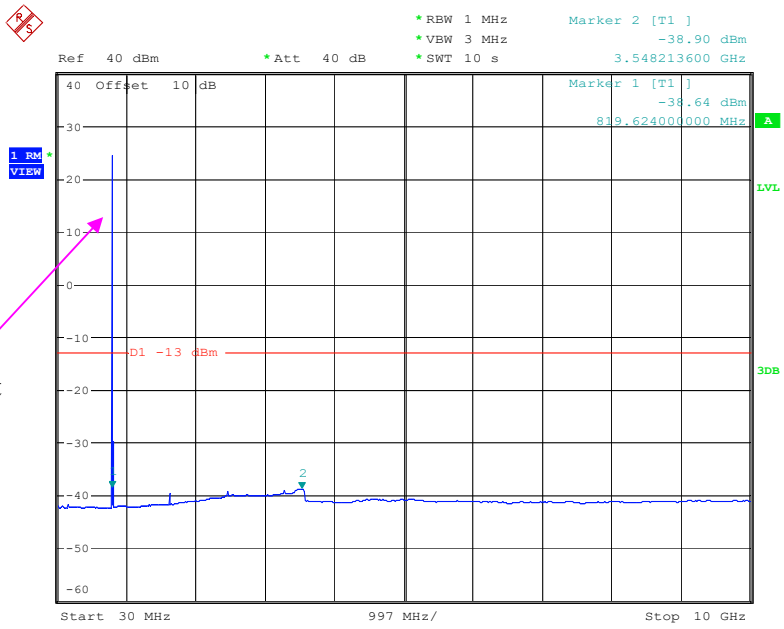
EUT operation mode: Transmitting

Test result: Pass

Please refer to the following plots.

Cellular Band (Part 22H)
Low Channel:

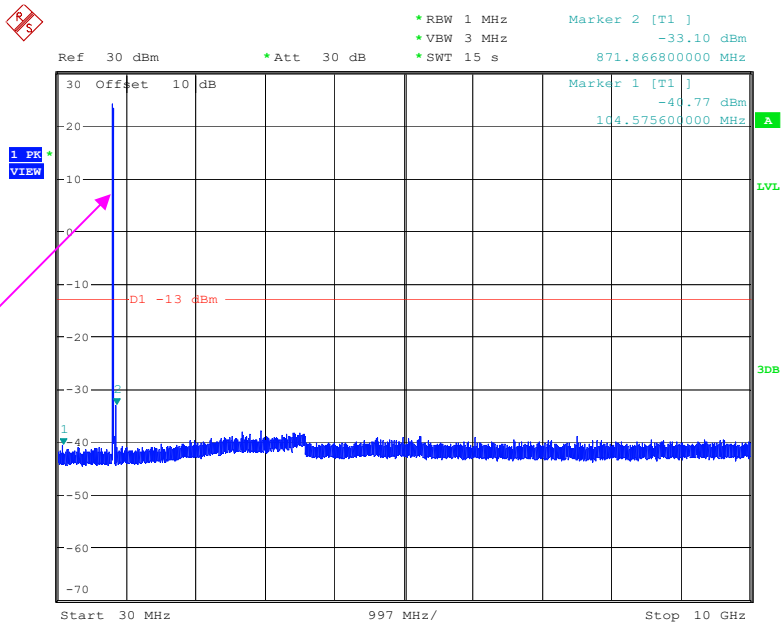
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 23.APR.2023 09:19:50

30 MHz – 10 GHz (WCDMA Mode)

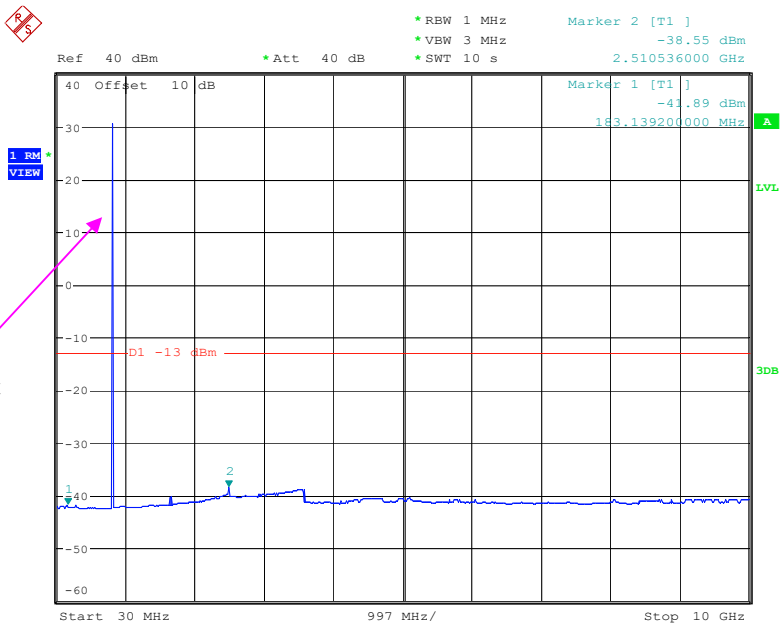


Fundamental test

Date: 21.APR.2023 17:07:16

Middle Channel:

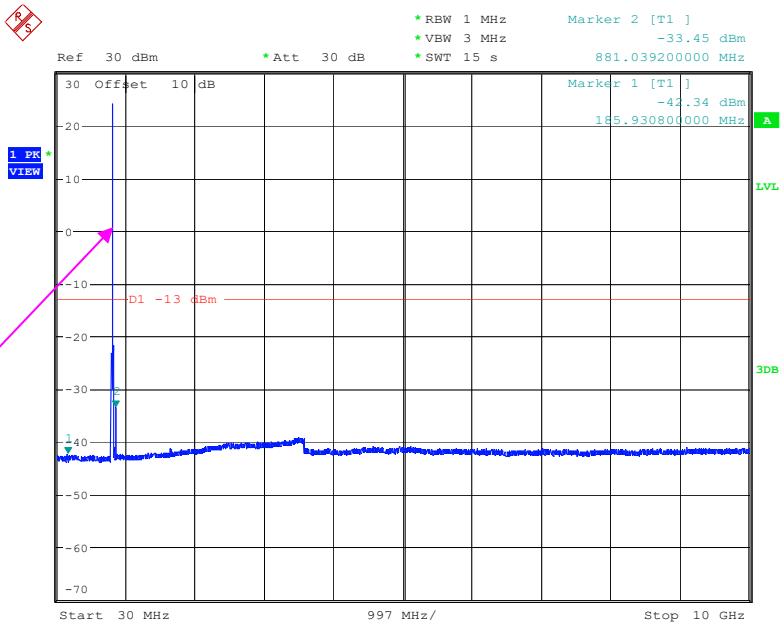
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 23.APR.2023 09:24:10

30 MHz – 10 GHz (WCDMA Mode)

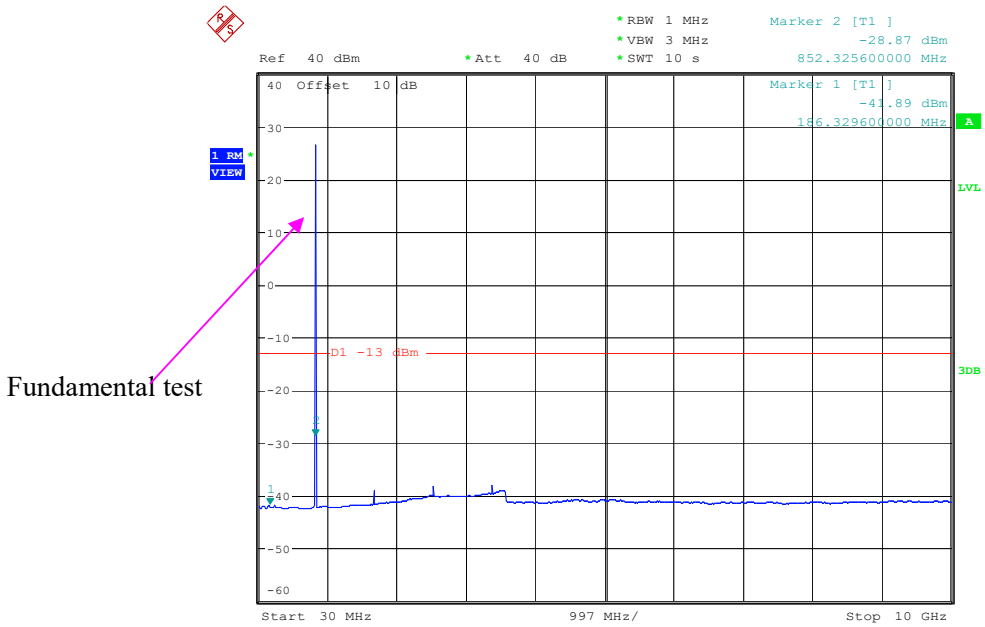


Fundamental test

Date: 21.APR.2023 17:18:44

High Channel:

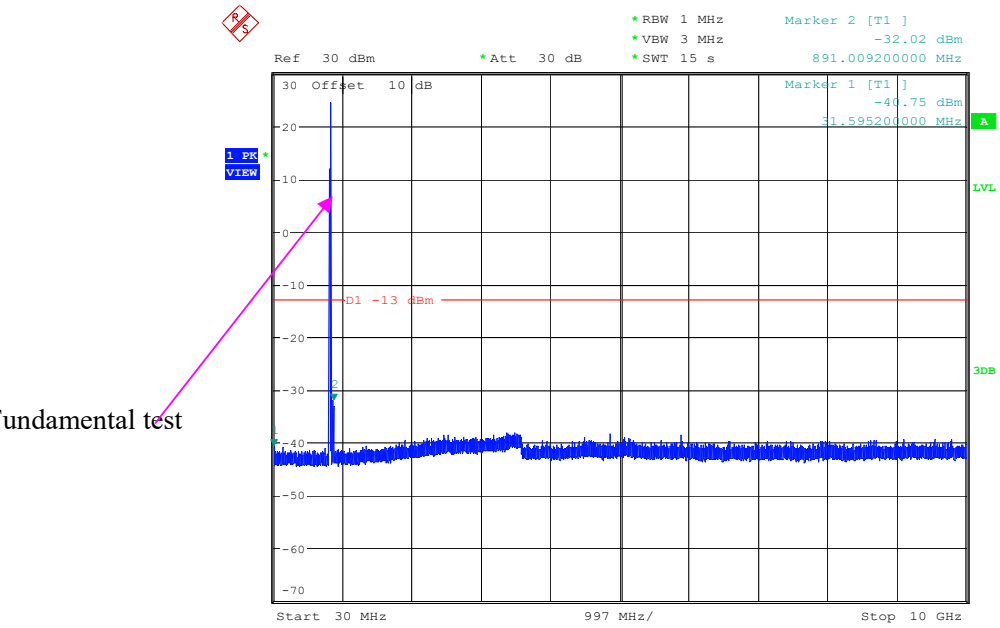
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 23.APR.2023 09:30:32

30 MHz – 10 GHz (WCDMA Mode)

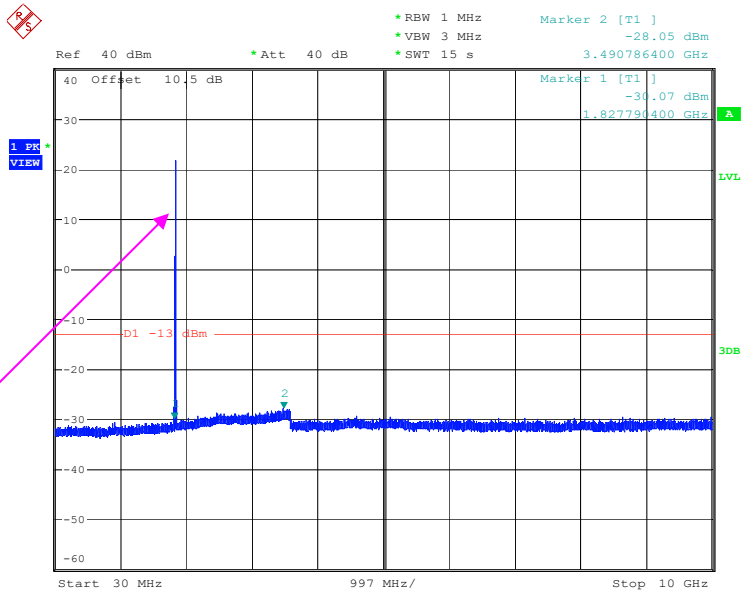


Fundamental test

Date: 21.APR.2023 17:22:26

PCS Band (Part 24E)
Low Channel:

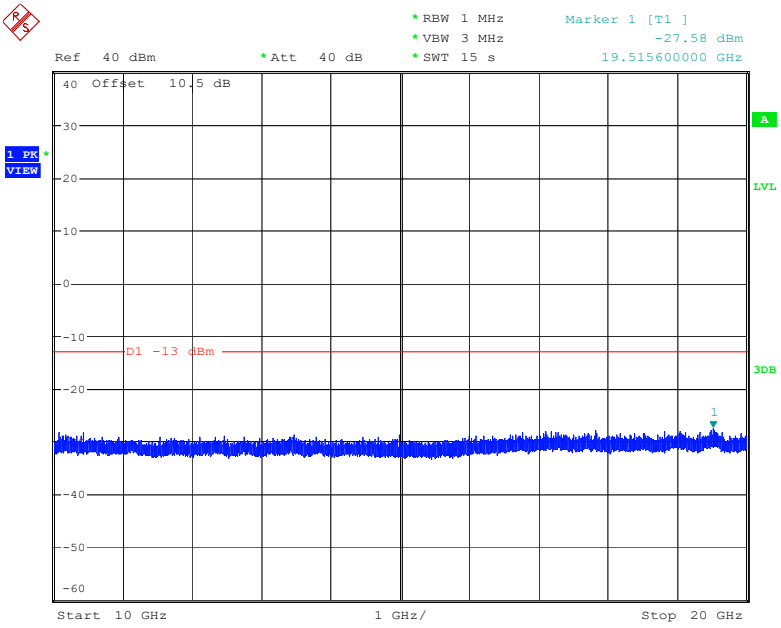
30 MHz – 10 GHz (GSM Mode)



Fundamental test

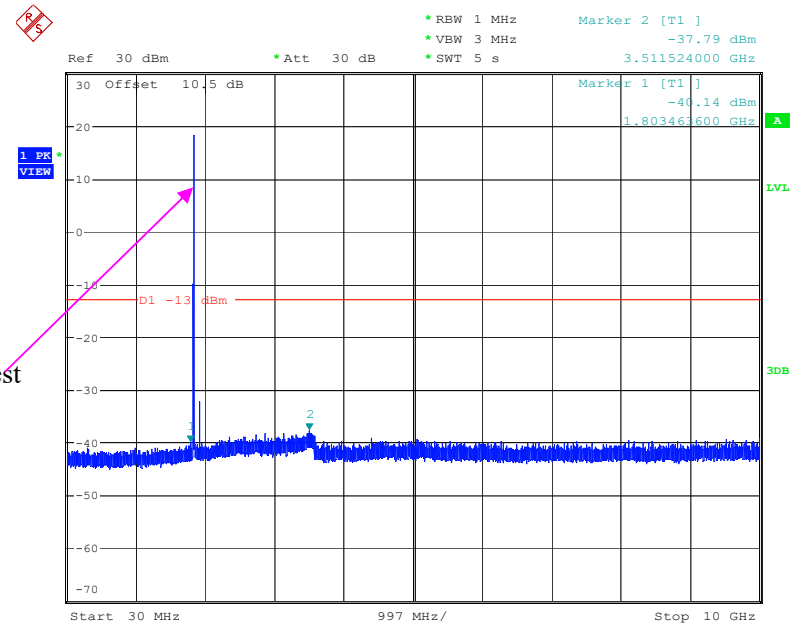
Date: 23.APR.2023 11:56:22

10 GHz – 20 GHz (GSM Mode)



Date: 23.APR.2023 11:57:10

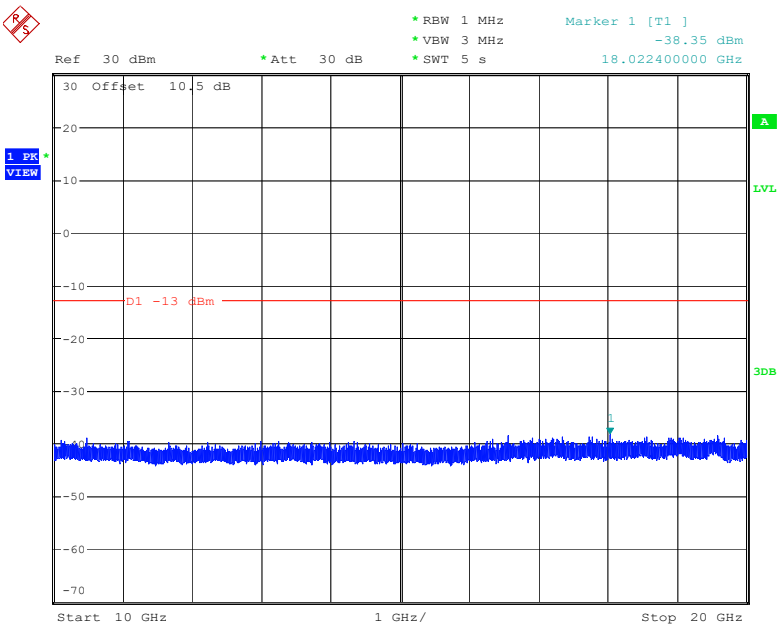
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 21.APR.2023 10:20:12

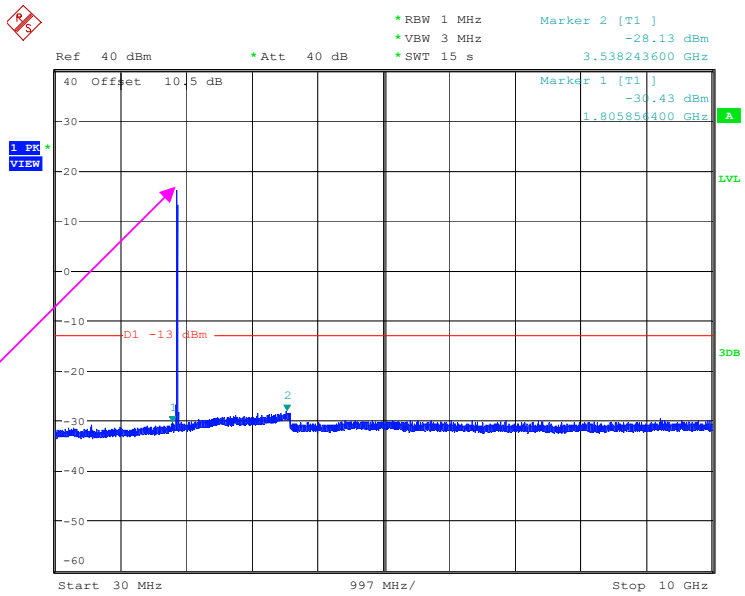
10 GHz – 20 GHz (WCDMA Mode)



Date: 21.APR.2023 10:20:39

Middle Channel:

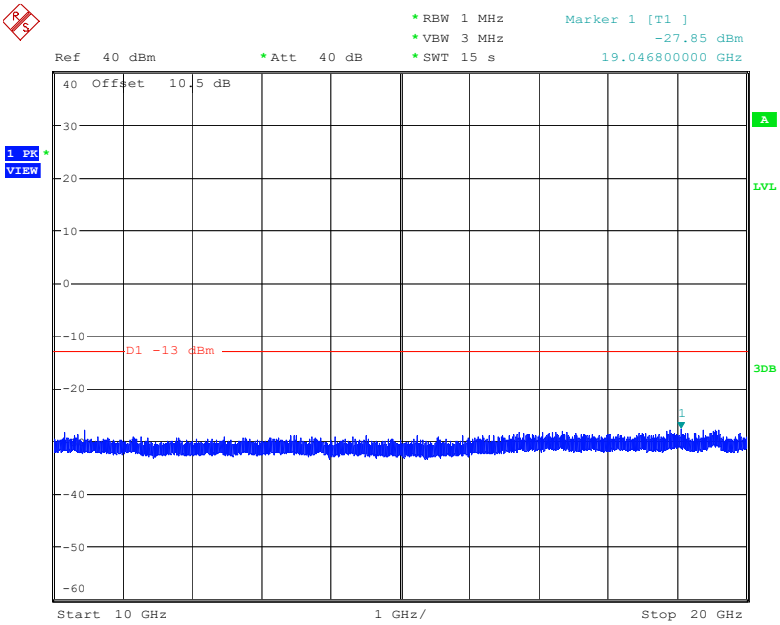
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 23.APR.2023 12:02:47

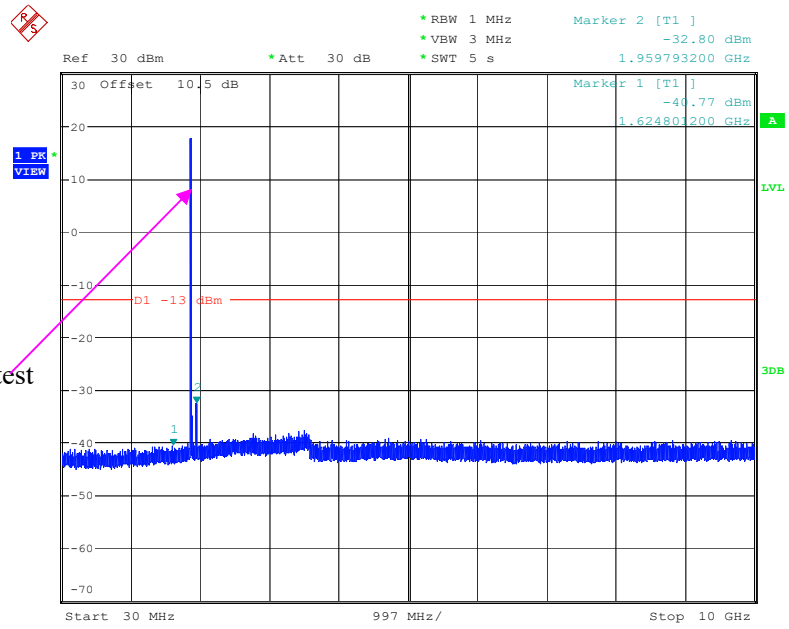
10 GHz – 20 GHz (GSM Mode)



Date: 23.APR.2023 12:03:34

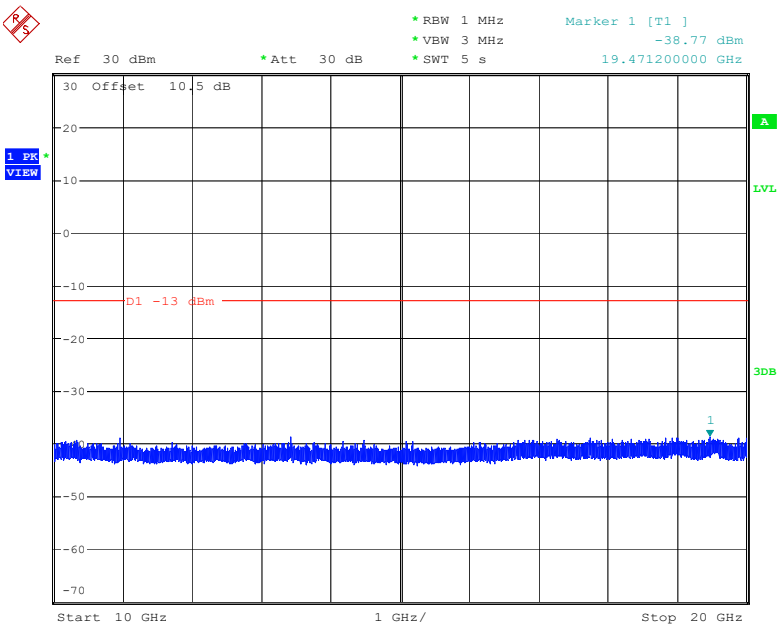
30 MHz – 10 GHz (WCDMA Mode)

Fundamental test



Date: 21.APR.2023 10:23:34

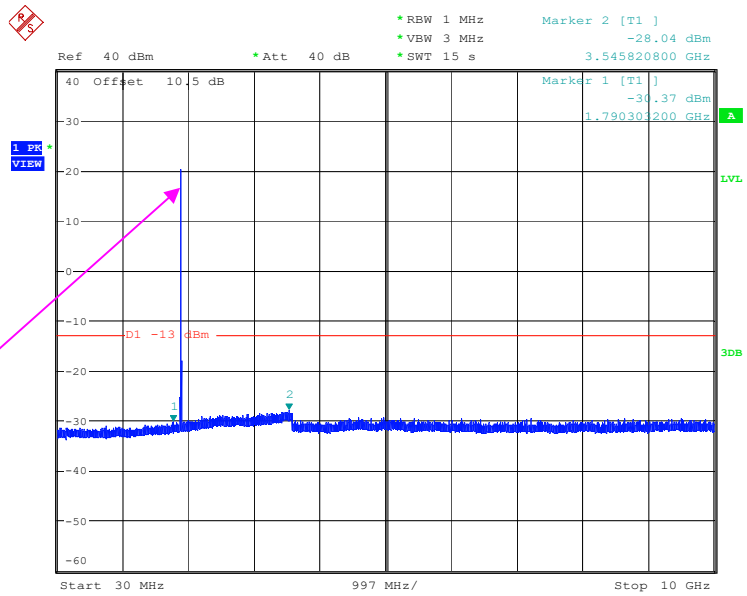
10 GHz – 20 GHz (WCDMA Mode)



Date: 21.APR.2023 10:24:02

High Channel:

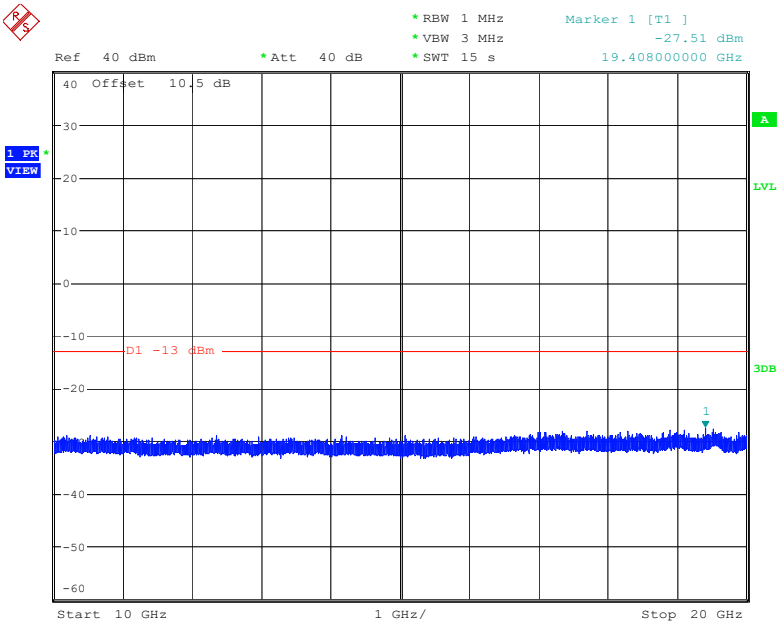
30 MHz – 10 GHz (GSM Mode)



Fundamental test

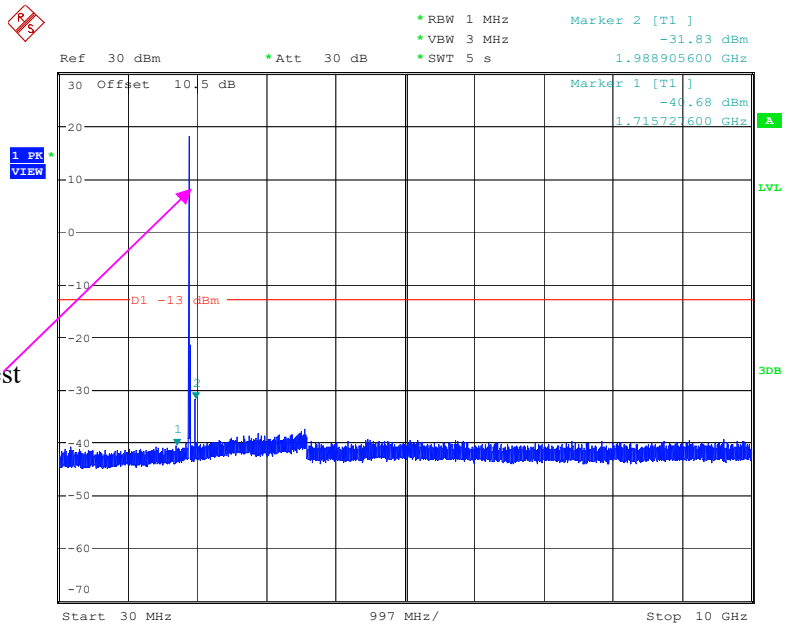
Date: 23.APR.2023 12:09:24

10 GHz – 20 GHz (GSM Mode)



Date: 23.APR.2023 12:10:12

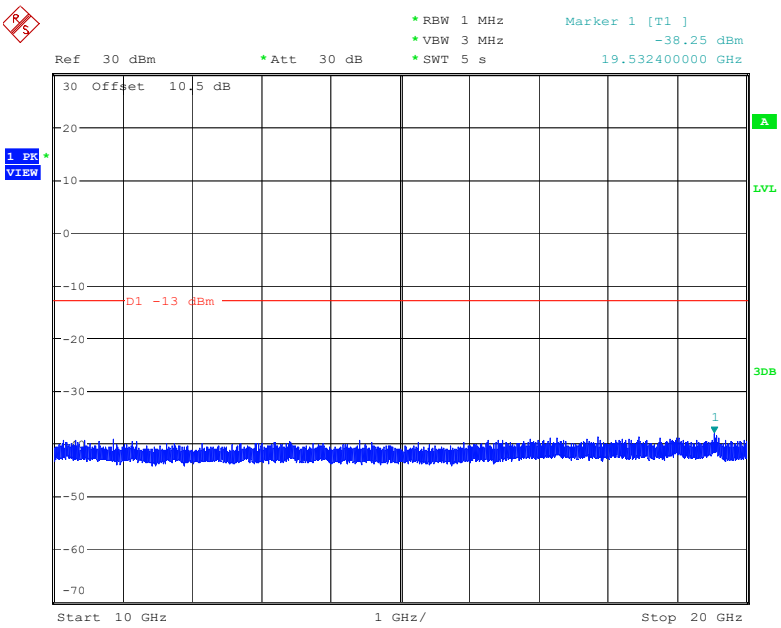
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 21.APR.2023 10:26:48

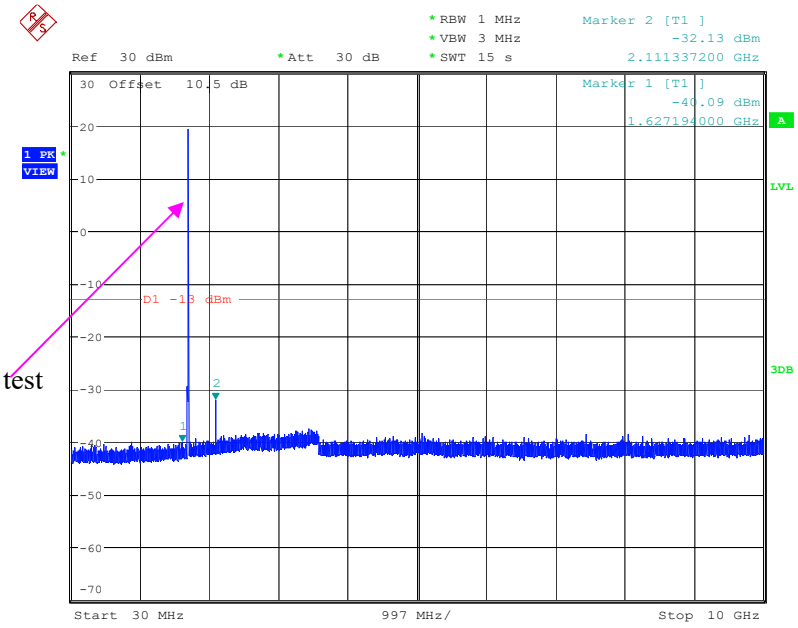
10 GHz – 20 GHz (WCDMA Mode)



Date: 21.APR.2023 10:27:16

AWS BAND
Low Channel:

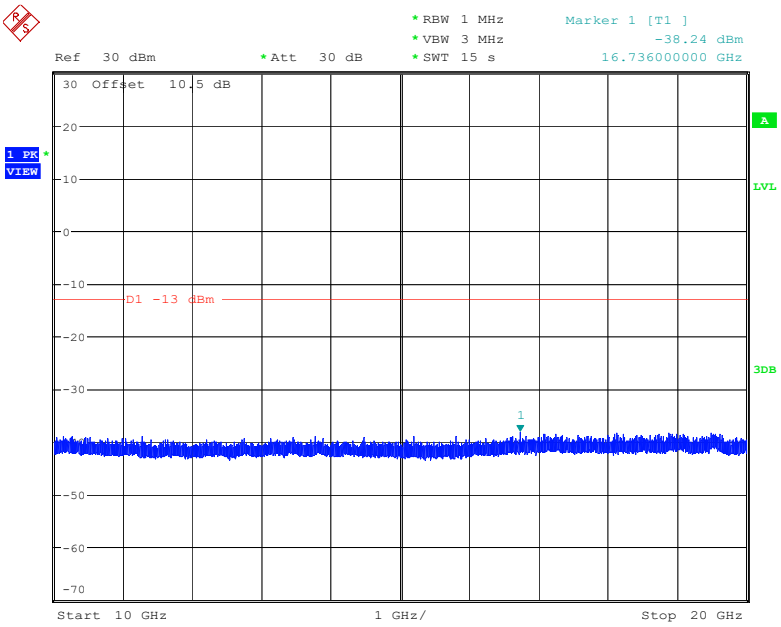
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 21.APR.2023 11:48:05

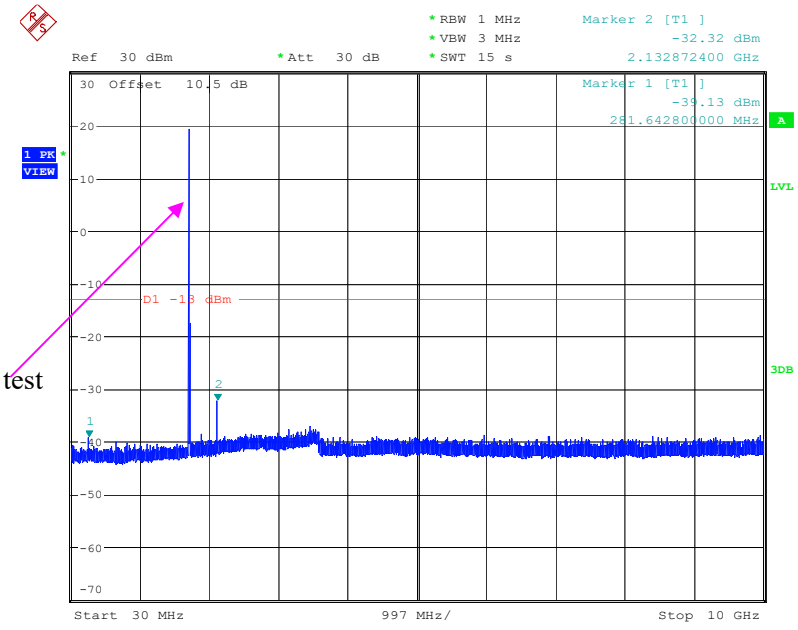
10 GHz – 20 GHz (WCDMA Mode)



Date: 21.APR.2023 11:48:53

Middle Channel:

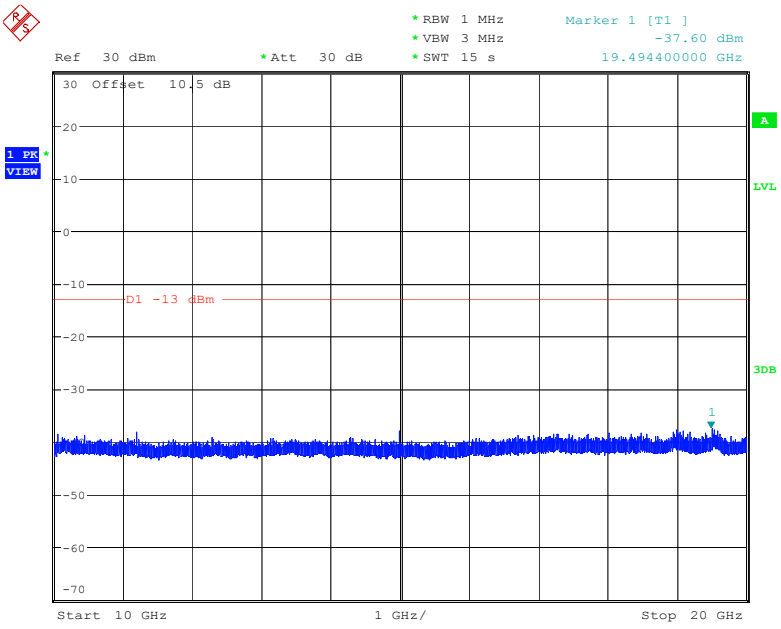
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 21.APR.2023 11:53:25

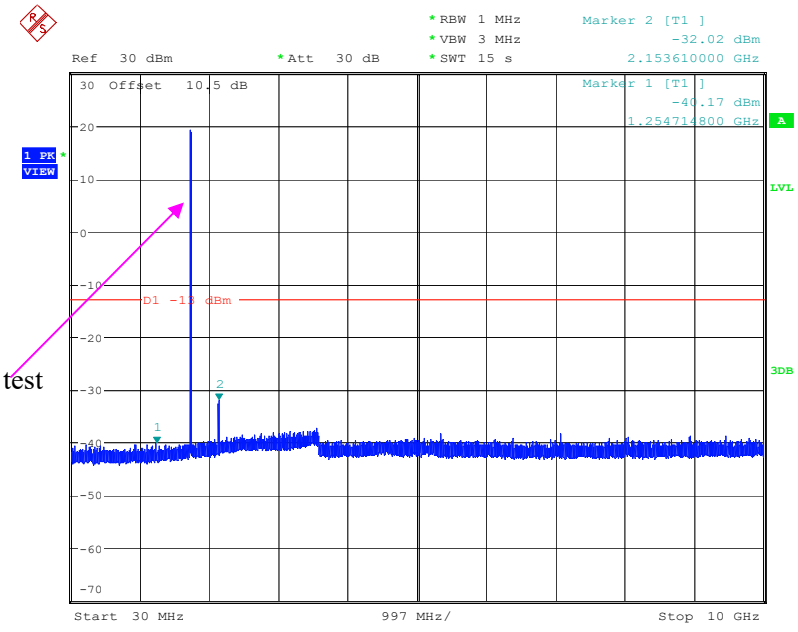
10 GHz – 20 GHz (WCDMA Mode)



Date: 21.APR.2023 11:54:14

High Channel:

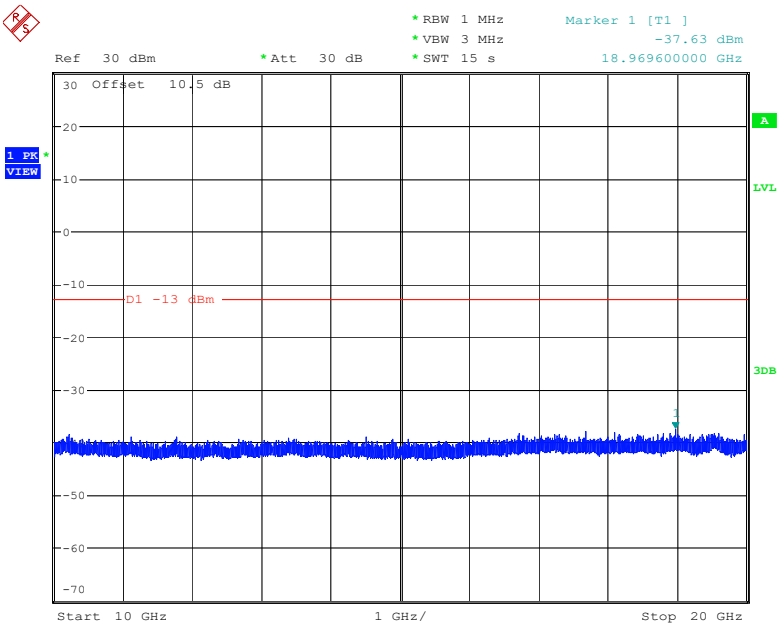
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 21.APR.2023 12:00:31

10 GHz – 20 GHz (WCDMA Mode)



Date: 21.APR.2023 12:01:20

The test plots of LTE band please refer to the Appendix B.

FCC § 2.1053; § 22.917 (a);§ 24.238 (a); §27.53- SPURIOUS RADIATED EMISSIONS

Applicable Standard

FCC § 2.1053, §22.917(a) & § 24.238(a) &§ 27.53.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the receiving antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Jimi Zheng on 2023-04-09.

Test mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case Y-axis of orientation was recorded)

The worst case is as below:

30MHz-10GHz:

Cellular Band (Part 22H)

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
GSM850, 824.2MHz								
1648.4	-40.30	203	1.6	H	3	-37.30	-13	-24.30
1648.4	-41.30	213	2.4	V	2.6	-38.70	-13	-25.70
2472.6	-37.60	110	1.5	H	7.1	-30.50	-13	-17.50
2472.6	-37.10	333	2	V	5.9	-31.20	-13	-18.20
3296.8	-50.90	316	1.7	H	6.7	-44.20	-13	-31.20
3296.8	-51.30	13	1.9	V	6.2	-45.10	-13	-32.10
GSM850, 836.6MHz								
1673.2	-42.90	1	1	H	3.1	-39.80	-13	-26.80
1673.2	-42.40	122	2.4	V	2.5	-39.90	-13	-26.90
2509.8	-40.90	83	1.7	H	7.1	-33.80	-13	-20.80
2509.8	-39.30	315	2.4	V	5.4	-33.90	-13	-20.90
3346.4	-51.30	207	1	H	7.3	-44.00	-13	-31.00
3346.4	-50.30	283	2.2	V	5.4	-44.90	-13	-31.90
GSM850, 848.8MHz								
1697.6	-46.00	165	2.5	H	3.2	-42.80	-13	-29.80
1697.6	-45.30	129	1.4	V	2.4	-42.90	-13	-29.90
2546.4	-43.80	256	1.4	H	6.9	-36.90	-13	-23.90
2546.4	-41.50	15	2.3	V	6.2	-35.30	-13	-22.30
3395.2	-50.10	292	1.7	H	5.9	-44.20	-13	-31.20
3395.2	-50.10	9	2	V	5.2	-44.90	-13	-31.90

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
WCDMA Band5,826.4MHz								
1652.8	-50.80	162	2.1	H	3	-47.80	-13	-34.80
1652.8	-51.10	342	2.3	V	2.6	-48.50	-13	-35.50
2479.2	-56.30	92	2.5	H	7.1	-49.20	-13	-36.20
2479.2	-54.60	9	2.1	V	5.8	-48.80	-13	-35.80
3305.6	-50.90	257	1.3	H	6.7	-44.20	-13	-31.20
3305.6	-51.20	264	1.8	V	6.1	-45.10	-13	-32.10
WCDMA Band5,836.6MHz								
1673.2	-54.40	257	1.2	H	3.1	-51.30	-13	-38.30
1673.2	-53.90	134	2.1	V	2.5	-51.40	-13	-38.40
2509.8	-55.60	113	1.7	H	7.1	-48.50	-13	-35.50
2509.8	-54.20	137	1.9	V	5.4	-48.80	-13	-35.80
3346.4	-51.40	244	2.3	H	7.3	-44.10	-13	-31.10
3346.4	-49.90	34	2.3	V	5.4	-44.50	-13	-31.50
WCDMA Band5,846.6MHz								
1693.2	-56.40	28	2.4	H	3.2	-53.20	-13	-40.20
1693.2	-55.80	195	1.9	V	2.4	-53.40	-13	-40.40
2539.8	-55.40	348	2	H	7	-48.40	-13	-35.40
2539.8	-54.70	300	1.6	V	6	-48.70	-13	-35.70
3386.4	-50.60	359	1.3	H	6.2	-44.40	-13	-31.40
3386.4	-49.30	180	1.8	V	5.2	-44.10	-13	-31.10

30MHz-20GHz:

PCS Band (Part 24E)

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
GSM 1900, 1850.2MHz								
3700.4	-51.40	90	2.5	H	8.2	-43.20	-13	-30.20
3700.4	-50.00	1	1.2	V	6.8	-43.20	-13	-30.20
5550.6	-43.80	317	2	H	9	-34.80	-13	-21.80
5550.6	-45.80	208	1	V	10	-35.80	-13	-22.80
GSM1900, 1880MHz								
3760	-50.90	213	1	H	8.2	-42.70	-13	-29.70
3760	-50.70	82	1.4	V	7.7	-43.00	-13	-30.00
5640	-45.10	149	2.1	H	10.7	-34.40	-13	-21.40
5640	-45.20	123	1.8	V	9.8	-35.40	-13	-22.40
GSM 1900, 1909.8MHz								
3819.6	-50.20	169	1.9	H	8.1	-42.10	-13	-29.10
3819.6	-49.90	174	1.7	V	7.6	-42.30	-13	-29.30
5729.4	-46.00	73	1.2	H	11.4	-34.60	-13	-21.60
5729.4	-45.30	78	1.7	V	10	-35.30	-13	-22.30
WCDMA Band2,1852.4MHz								
3704.8	-52.40	301	1.8	H	8.2	-44.20	-13	-31.20
3704.8	-51.30	76	1.1	V	6.9	-44.40	-13	-31.40
5557.2	-51.80	32	2	H	9.1	-42.70	-13	-29.70
5557.2	-52.30	109	2.1	V	9.9	-42.40	-13	-29.40
WCDMA Band2,1880MHz								
3760	-52.20	112	2.3	H	8.2	-44.00	-13	-31.00
3760	-51.90	18	2.4	V	7.7	-44.20	-13	-31.20
5640	-53.00	212	1.4	H	10.7	-42.30	-13	-29.30
5640	-52.30	25	2.4	V	9.8	-42.50	-13	-29.50
WCDMA Band2,1907.6MHz								
3815.2	-51.50	338	1.5	H	8.2	-43.30	-13	-30.30
3815.2	-51.20	165	2.4	V	7.5	-43.70	-13	-30.70
5722.8	-53.30	192	2.2	H	11.3	-42.00	-13	-29.00
5722.8	-52.60	134	1.2	V	10	-42.60	-13	-29.60

AWS Band (Part 27)

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
WCDMA Band4, 1712.4MHz								
3424.8	-49.10	133	2.3	H	5.8	-43.30	-13	-30.30
3424.8	-49.00	10	1.3	V	6.1	-42.90	-13	-29.90
5137.2	-55.00	141	2.1	H	11.2	-43.80	-13	-30.80
5137.2	-53.90	100	1.4	V	10.5	-43.40	-13	-30.40
WCDMA Band4, 1732.6MHz								
3465.2	-49.30	91	1.5	H	6.5	-42.80	-13	-29.80
3465.2	-50.80	68	1.5	V	6.7	-44.10	-13	-31.10
5197.8	-55.00	61	1.1	H	11.1	-43.90	-13	-30.90
5197.8	-53.00	217	1.2	V	9.8	-43.20	-13	-30.20
WCDMA Band4, 1752.6MHz								
3505.2	-50.70	216	1.9	H	8.1	-42.60	-13	-29.60
3505.2	-50.40	108	2	V	6	-44.40	-13	-31.40
5257.8	-53.30	52	1.2	H	9.7	-43.60	-13	-30.60
5257.8	-52.90	170	2.4	V	9.4	-43.50	-13	-30.50

LTE Band: (Pre-scan all bandwidth/modulation, the worst case as below)

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 2								
Test frequency range: 30MHz-20GHz								
1.4MHz bandwidth, QPSK, Low channel								
3701.4	-51.10	157	1.9	H	8.2	-42.90	-13	-29.90
3701.4	-50.50	200	1.9	V	6.9	-43.60	-13	-30.60
5552.1	-49.90	173	2.3	H	9	-40.90	-13	-27.90
5552.1	-52.10	191	1.5	V	10	-42.10	-13	-29.10
1.4MHz bandwidth, QPSK, Middle channel								
3760	-49.90	215	1.4	H	8.2	-41.70	-13	-28.70
3760	-49.60	240	1.7	V	7.7	-41.90	-13	-28.90
5640	-51.00	79	1.9	H	10.7	-40.30	-13	-27.30
5640	-51.10	267	2.1	V	9.8	-41.30	-13	-28.30
1.4MHz bandwidth, QPSK, High channel								
3818.6	-48.20	83	2	H	8.1	-40.10	-13	-27.10
3818.6	-48.20	242	1.9	V	7.6	-40.60	-13	-27.60
5727.9	-51.60	317	1.4	H	11.4	-40.20	-13	-27.20
5727.9	-51.20	316	2.1	V	10	-41.20	-13	-28.20

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 4								
Test frequency range: 30MHz-20GHz								
1.4MHz bandwidth, QPSK, Low channel								
3421.4	-45.70	143	2	H	5.8	-39.90	-13	-26.90
3421.4	-46.60	7	2.1	V	6	-40.60	-13	-27.60
5132.1	-46.50	158	2.1	H	11.3	-35.20	-13	-22.20
5132.1	-46.50	59	1.6	V	10.6	-35.90	-13	-22.90
1.4MHz bandwidth, QPSK, Middle channel								
3465	-46.10	85	1.2	H	6.5	-39.60	-13	-26.60
3465	-48.10	176	1	V	6.7	-41.40	-13	-28.40
5197.5	-46.30	236	2.1	H	11.1	-35.20	-13	-22.20
5197.5	-45.40	330	2.1	V	9.8	-35.60	-13	-22.60
1.4MHz bandwidth, QPSK, High channel								
3508.6	-47.50	141	2.3	H	8.2	-39.30	-13	-26.30
3508.6	-47.40	163	1.1	V	6	-41.40	-13	-28.40
5262.9	-44.70	108	1.6	H	9.7	-35.00	-13	-22.00
5262.9	-44.70	6	1.4	V	9.3	-35.40	-13	-22.40

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 5								
Test frequency range: 30MHz-10GHz								
1.4MHz bandwidth, QPSK, Low channel								
1649.4	-58.50	46	1.8	H	3	-55.50	-13	-42.50
1649.4	-57.30	310	2.4	V	2.6	-54.70	-13	-41.70
2474.1	-51.40	280	1.6	H	7.1	-44.30	-13	-31.30
2474.1	-48.70	179	1.7	V	5.9	-42.80	-13	-29.80
3298.8	-51.80	130	1.6	H	6.7	-45.10	-13	-32.10
3298.8	-51.00	150	2.1	V	6.2	-44.80	-13	-31.80
1.4MHz bandwidth, QPSK, Middle channel								
1673	-55.50	201	1.7	H	3.1	-52.40	-13	-39.40
1673	-53.90	352	1.5	V	2.5	-51.40	-13	-38.40
2509.5	-49.00	8	2.3	H	7.1	-41.90	-13	-28.90
2509.5	-45.80	79	2.2	V	5.4	-40.40	-13	-27.40
3346	-52.10	116	1.2	H	7.3	-44.80	-13	-31.80
3346	-49.80	340	1.8	V	5.4	-44.40	-13	-31.40
1.4MHz bandwidth, QPSK, High channel								
1696.6	-53.40	265	2.4	H	3.3	-50.10	-13	-37.10
1696.6	-51.80	337	1.5	V	2.4	-49.40	-13	-36.40
2544.9	-46.00	216	2.3	H	6.9	-39.10	-13	-26.10
2544.9	-45.70	332	1.3	V	6.1	-39.60	-13	-26.60
3393.2	-50.70	244	1.9	H	5.9	-44.80	-13	-31.80
3393.2	-49.20	342	2	V	5.2	-44.00	-13	-31.00

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 7								
Test frequency range: 30MHz-26.5GHz								
5MHz bandwidth, QPSK, Low channel								
5005	-47.70	27	1.9	H	10.8	-36.90	-25	-11.90
5005	-47.70	233	2	V	10.2	-37.50	-25	-12.50
7507.5	-52.20	267	2.3	H	19.8	-32.40	-25	-7.40
7507.5	-53.00	218	2.4	V	19.5	-33.50	-25	-8.50
5MHz bandwidth, QPSK, Middle channel								
5070	-47.50	254	2.3	H	11.6	-35.90	-25	-10.90
5070	-48.50	298	1.3	V	11.2	-37.30	-25	-12.30
7605	-58.70	350	1.1	H	21.9	-36.80	-25	-11.80
7605	-57.10	33	1.6	V	19.8	-37.30	-25	-12.30
5MHz bandwidth, QPSK, High channel								
5135	-47.10	233	1.3	H	11.3	-35.80	-25	-10.80
5135	-48.00	93	1.8	V	10.6	-37.40	-25	-12.40
7702.5	-60.30	238	1.7	H	20.8	-39.50	-25	-14.50
7702.5	-62.40	135	1.7	V	21.8	-40.60	-25	-15.60

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 12								
Test frequency range: 30MHz-10GHz								
1.4MHz bandwidth, QPSK, Low channel								
1399.4	-59.80	308	1	H	5.5	-54.30	-13	-41.30
1399.4	-59.70	195	1	V	6.3	-53.40	-13	-40.40
2099.1	-48.80	127	1.2	H	5.8	-43.00	-13	-30.00
2099.1	-47.30	233	1.6	V	4.6	-42.70	-13	-29.70
2798.8	-56.00	351	2.4	H	5.8	-50.20	-13	-37.20
2798.8	-56.40	324	2.2	V	6.9	-49.50	-13	-36.50
1.4MHz bandwidth, QPSK, Middle channel								
1415	-58.90	212	2.3	H	5.1	-53.80	-13	-40.80
1415	-59.50	80	1.2	V	5.6	-53.90	-13	-40.90
2122.5	-48.70	176	1.4	H	6.7	-42.00	-13	-29.00
2122.5	-48.20	68	1.5	V	5.6	-42.60	-13	-29.60
2830	-56.30	94	2.3	H	6.3	-50.00	-13	-37.00
2830	-56.10	345	1.5	V	6.5	-49.60	-13	-36.60
1.4MHz bandwidth, QPSK, High channel								
1430.6	-58.40	66	2.2	H	4.7	-53.70	-13	-40.70
1430.6	-59.50	68	2.4	V	4.9	-54.60	-13	-41.60
2145.9	-49.10	338	2.2	H	7.6	-41.50	-13	-28.50
2145.9	-49.20	147	1.2	V	6.7	-42.50	-13	-29.50
2861.2	-56.70	249	2.3	H	6.7	-50.00	-13	-37.00
2861.2	-56.40	218	1.4	V	6.2	-50.20	-13	-37.20

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 13								
Test frequency range: 30MHz-10GHz								
5 MHz bandwidth, QPSK, Low channel								
1559	-58.50	297	2.1	H	3.6	-54.9	-40	-14.90
1559	-58.60	71	1.9	V	2.8	-55.8	-40	-15.80
2338.5	-53.40	287	2.2	H	7.1	-46.30	-13	-33.30
2338.5	-51.90	17	2.2	V	5.9	-46.00	-13	-33.00
3118	-53.20	92	2.1	H	6.6	-46.60	-13	-33.60
3118	-52.20	303	2.3	V	6.2	-46.00	-13	-33.00
5 MHz bandwidth, QPSK, Middle channel								
1564	-58.30	38	1.5	H	3.6	-54.7	-40	-14.70
1564	-58.60	358	1.5	V	2.9	-55.7	-40	-15.70
2346	-53.20	0	1.1	H	6.9	-46.30	-13	-33.30
2346	-51.30	359	1.9	V	5.6	-45.70	-13	-32.70
3128	-53.10	82	2.1	H	6.7	-46.40	-13	-33.40
3128	-51.20	110	2	V	6.1	-45.10	-13	-32.10
5 MHz bandwidth, QPSK, High channel								
1569	-57.10	114	1.6	H	3.5	-53.6	-40	-13.60
1569	-57.40	107	1.2	V	2.9	-54.5	-40	-14.50
2353.5	-52.40	174	1.8	H	6.8	-45.60	-13	-32.60
2353.5	-50.30	285	2.1	V	5.9	-44.40	-13	-31.40
3138	-53.00	94	1.4	H	6.8	-46.20	-13	-33.20
3138	-50.60	132	2.2	V	5.9	-44.70	-13	-31.70

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 17								
Test frequency range: 30MHz-10GHz								
5MHz bandwidth, QPSK, Low channel								
1413	-59.40	226	1	H	5.2	-54.20	-13	-41.20
1413	-59.80	249	2.2	V	5.7	-54.10	-13	-41.10
2119.5	-50.70	11	1.1	H	6.6	-44.10	-13	-31.10
2119.5	-50.40	303	2.3	V	5.5	-44.90	-13	-31.90
2826	-55.20	222	2.3	H	6.2	-49.00	-13	-36.00
2826	-56.30	272	1.3	V	6.6	-49.70	-13	-36.70
5MHz bandwidth, QPSK, Middle channel								
1420	-60.00	304	1.7	H	5	-55.00	-13	-42.00
1420	-60.00	48	1.8	V	5.4	-54.60	-13	-41.60
2130	-51.10	72	1.4	H	7	-44.10	-13	-31.10
2130	-50.90	239	1.8	V	6	-44.90	-13	-31.90
2840	-55.40	77	1.1	H	6.4	-49.00	-13	-36.00
2840	-56.00	224	1.1	V	6.3	-49.70	-13	-36.70
5MHz bandwidth, QPSK, High channel								
1427	-60.80	276	1	H	4.8	-56.00	-13	-43.00
1427	-60.60	15	1.3	V	5	-55.60	-13	-42.60
2140.5	-46.90	358	2.3	H	7.4	-39.50	-13	-26.50
2140.5	-47.90	222	1.7	V	6.5	-41.40	-13	-28.40
2854	-56.90	337	1.8	H	6.6	-50.30	-13	-37.30
2854	-56.40	155	1.1	V	6.2	-50.20	-13	-37.20

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 38								
Test frequency range: 30MHz-26.5GHz								
5MHz bandwidth, QPSK, Low channel								
5145	-44.90	9	1.1	H	11.1	-33.80	-25	-8.80
5145	-45.70	55	1.8	V	10.5	-35.20	-25	-10.20
7717.5	-61.10	244	1.1	H	20.1	-41.00	-25	-16.00
7717.5	-61.80	227	1.2	V	20.6	-41.20	-25	-16.20
5MHz bandwidth, QPSK, Middle channel								
5190	-46.30	274	2	H	11.1	-35.20	-25	-10.20
5190	-45.30	77	2.2	V	9.9	-35.40	-25	-10.40
7785	-59.00	232	2	H	17.8	-41.20	-25	-16.20
7785	-58.50	90	2	V	17.1	-41.40	-25	-16.40
5MHz bandwidth, QPSK, High channel								
5235	-46.90	353	1.1	H	10.2	-36.70	-25	-11.70
5235	-46.80	55	1.8	V	9.6	-37.20	-25	-12.20
7852.5	-59.90	115	2.5	H	18.3	-41.60	-25	-16.60
7852.5	-60.80	89	1.1	V	18.4	-42.40	-25	-17.40

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 41								
Test frequency range: 30MHz-26.55GHz								
5MHz bandwidth, QPSK, Low channel								
5075	-45.40	96	2	H	11.6	-33.80	-25	-8.80
5075	-45.80	26	1.2	V	11.2	-34.60	-25	-9.60
7612.5	-62.40	228	1.7	H	21.7	-40.70	-25	-15.70
7612.5	-61.60	143	1.7	V	19.9	-41.70	-25	-16.70
5MHz bandwidth, QPSK, Middle channel								
5190	-47.10	208	1	H	11.1	-36.00	-25	-11.00
5190	-46.10	293	1.8	V	9.9	-36.20	-25	-11.20
7785	-57.80	241	2.4	H	17.8	-40.00	-25	-15.00
7785	-58.30	211	1.8	V	17.1	-41.20	-25	-16.20
5MHz bandwidth, QPSK, High channel								
5305	-46.20	182	1.7	H	9.4	-36.80	-25	-11.80
5305	-45.60	19	1.8	V	8.6	-37.00	-25	-12.00
7957.5	-60.00	150	1.6	H	19.4	-40.60	-25	-15.60
7957.5	-60.00	76	2.3	V	18.1	-41.90	-25	-16.90

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 66								
Test frequency range: 30MHz-20GHz								
1.4MHz bandwidth, QPSK, Low channel								
3421.4	-47.00	332	1.4	H	5.8	-41.20	-13	-28.20
3421.4	-46.40	214	2	V	6	-40.40	-13	-27.40
5132.1	-43.90	133	2.4	H	11.3	-32.60	-13	-19.60
5132.1	-44.90	259	2.4	V	10.6	-34.30	-13	-21.30
1.4MHz bandwidth, QPSK, Middle channel								
3490	-47.00	77	1.9	H	7.6	-39.40	-13	-26.40
3490	-46.90	34	2.2	V	6.1	-40.80	-13	-27.80
5235	-46.40	81	2	H	10.2	-36.20	-13	-23.20
5235	-45.80	334	1.1	V	9.6	-36.20	-13	-23.20
1.4MHz bandwidth, QPSK, High channel								
3558.6	-47.80	243	1.1	H	8.4	-39.40	-13	-26.40
3558.6	-47.20	276	2.5	V	7.2	-40.00	-13	-27.00
5337.9	-48.80	293	2.4	H	8.9	-39.90	-13	-26.90
5337.9	-48.20	6	2.2	V	8.2	-40.00	-13	-27.00

Note:
Absolute Level = Reading Level + Substituted Factor
Substituted Factor contains: Substituted Level - Cable loss+ Antenna Gain
Margin = Absolute Level – Limit
Other emissions which was more than 20dB below limit was not recorded

FCC§ 22.917 (a);§ 24.238 (a); §27.53 (g) (h)(m)- BAND EDGES

Applicable Standard

According to § 22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

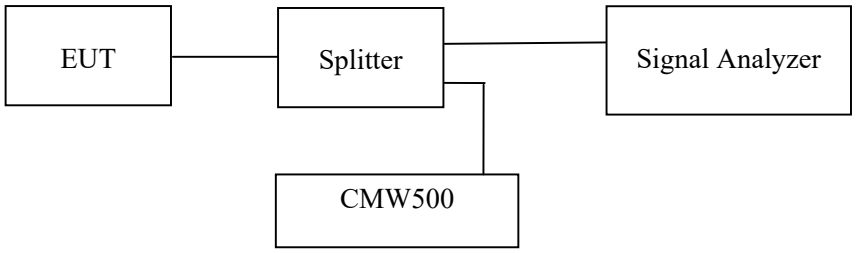
According to FCC §27.53 (g)(h), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to FCC §27.53 (m), the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz.

Test Procedure

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

The center of the spectrum analyzer was set to block edge frequency



Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range has included in plot.

Test Data

Environmental Conditions

Temperature:	27.9~28.8 ℃
Relative Humidity:	46.8~52.3 %
ATM Pressure:	101.0 kPa

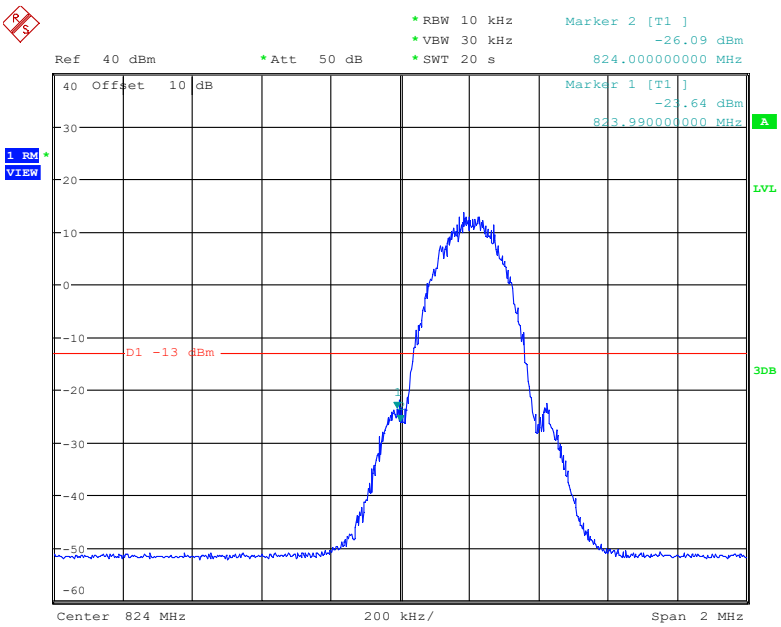
The testing was performed by Jacob Huang from 2023-04-11 to 2023-04-27.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

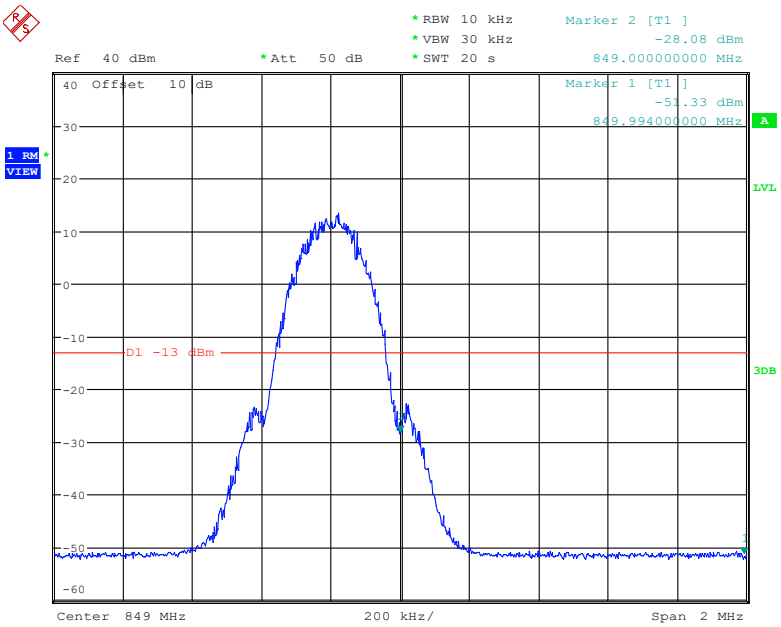
Please refer to the following plots.

Cellular Band, Left Band Edge for GSM (GMSK) Mode



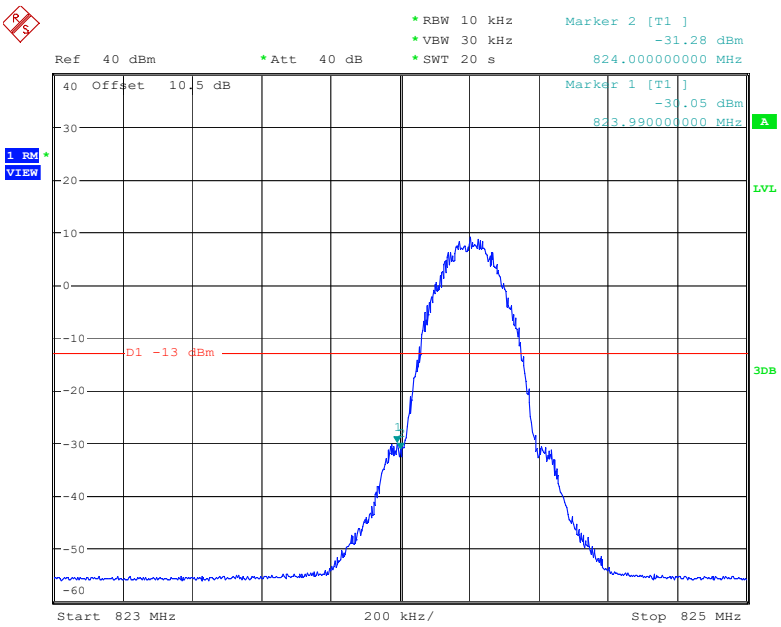
Date: 27.APR.2023 17:06:59

Cellular Band, Right Band Edge for GSM (GMSK) Mode



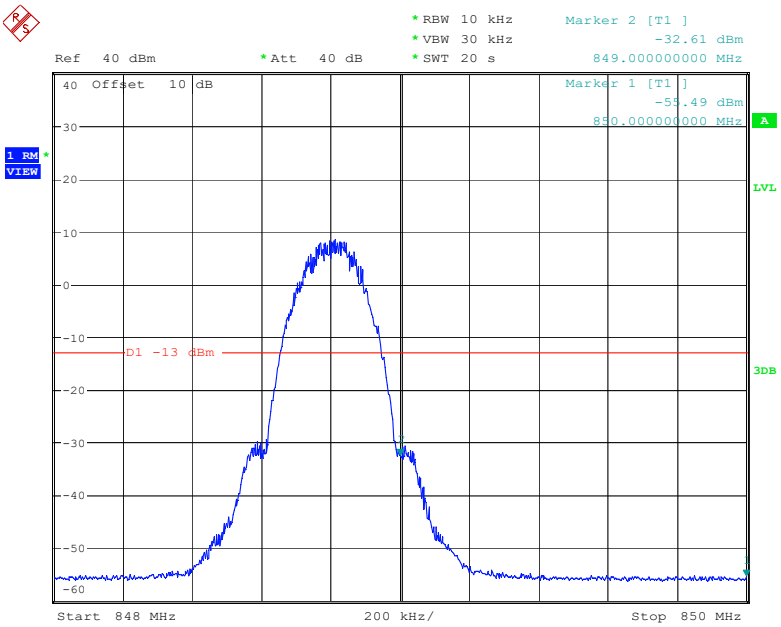
Date: 27.APR.2023 17:19:58

Cellular Band, Left Band Edge for EGPRS (8PSK) Mode



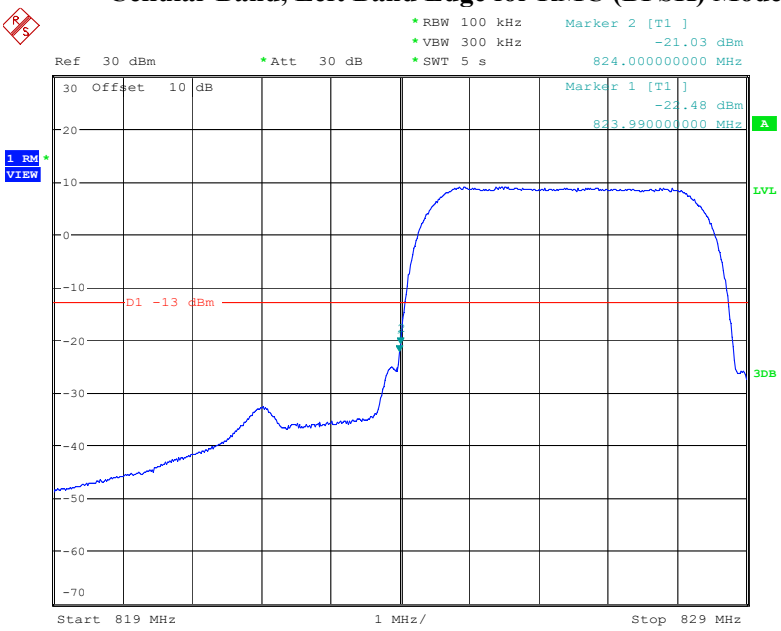
Date: 23.APR.2023 10:01:05

Cellular Band, Right Band Edge for EGPRS (8PSK) Mode



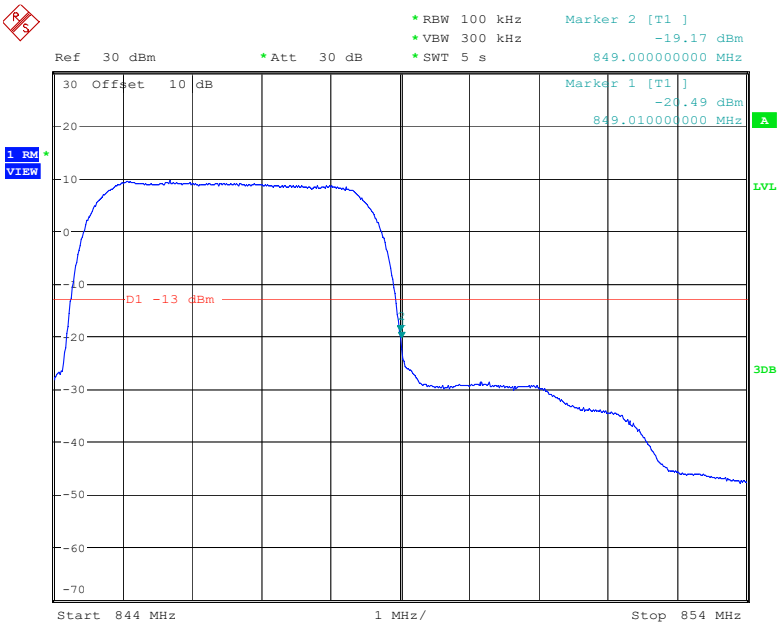
Date: 23.APR.2023 10:13:48

Cellular Band, Left Band Edge for RMC (BPSK) Mode



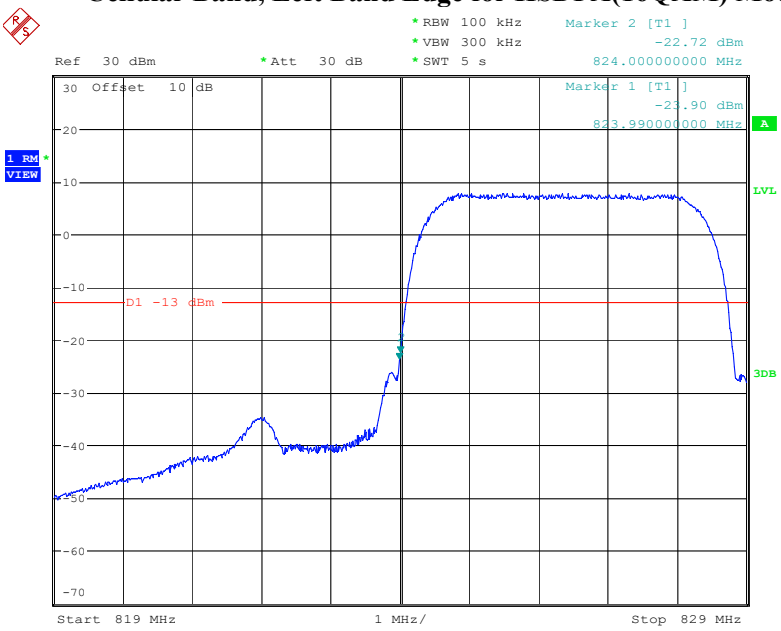
Date: 21.APR.2023 17:06:29

Cellular Band, Right Band Edge for RMC (BPSK) Mode



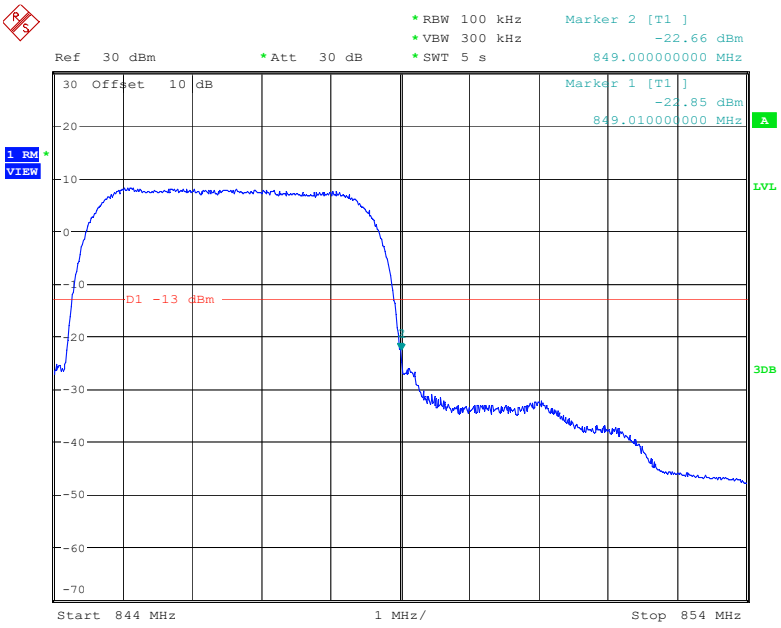
Date: 21.APR.2023 17:21:39

Cellular Band, Left Band Edge for HSDPA(16QAM) Mode



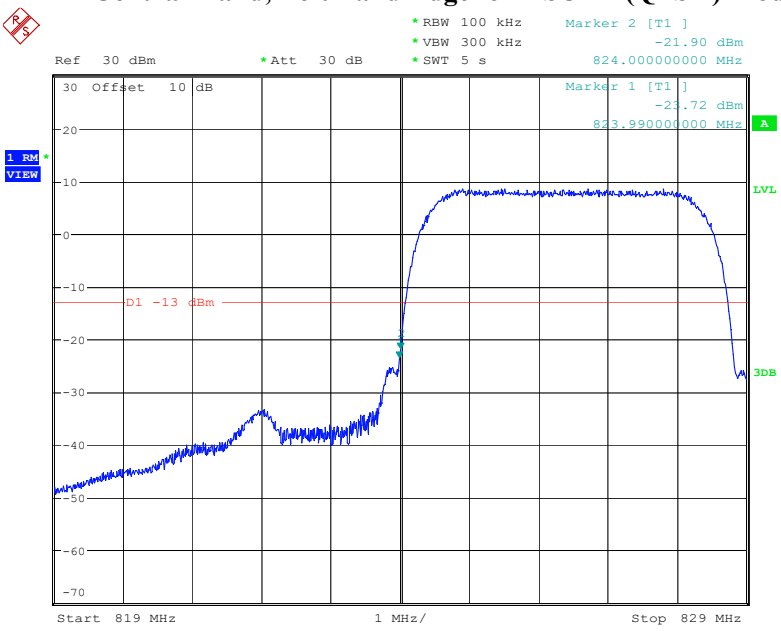
Date: 21.APR.2023 17:26:29

Cellular Band, Right Band Edge for HSDPA (16QAM) Mode



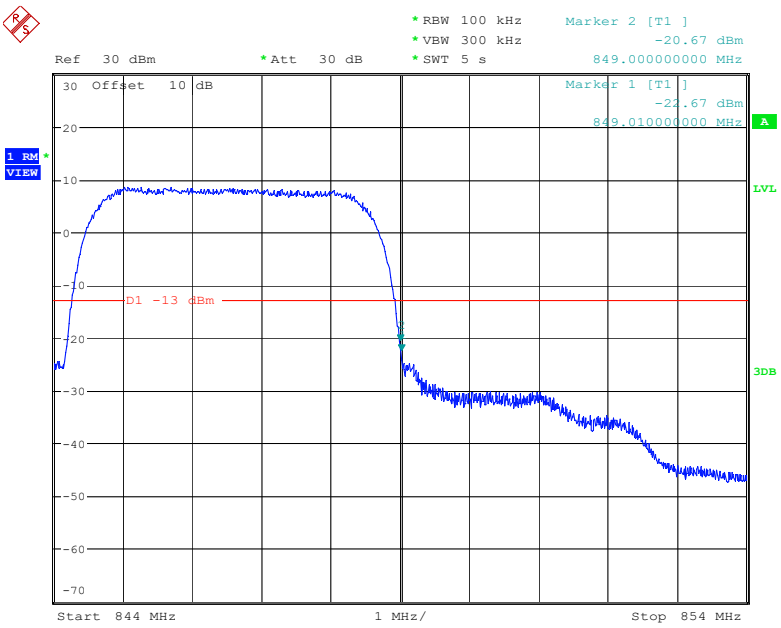
Date: 21.APR.2023 17:46:03

Cellular Band, Left Band Edge for HSUPA (QPSK) Mode



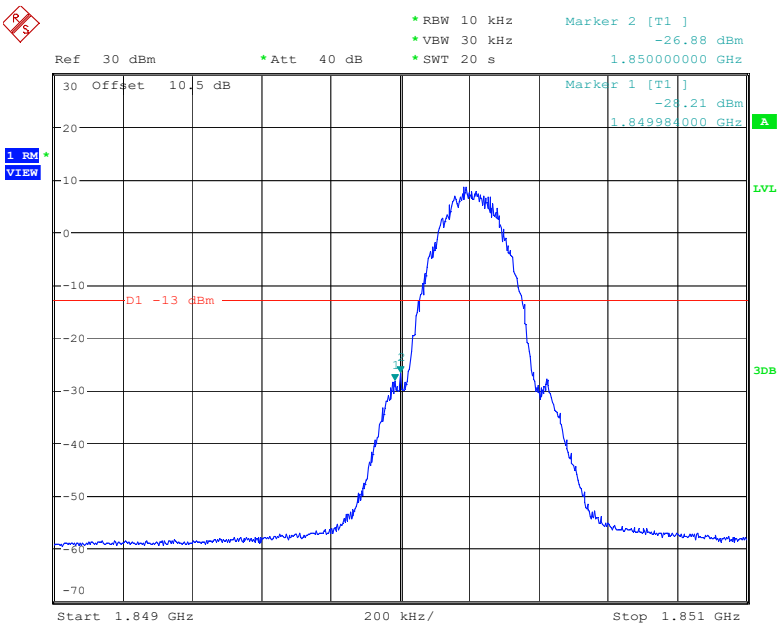
Date: 21.APR.2023 17:50:41

Cellular Band, Right Band Edge for HSUPA (QPSK) Mode



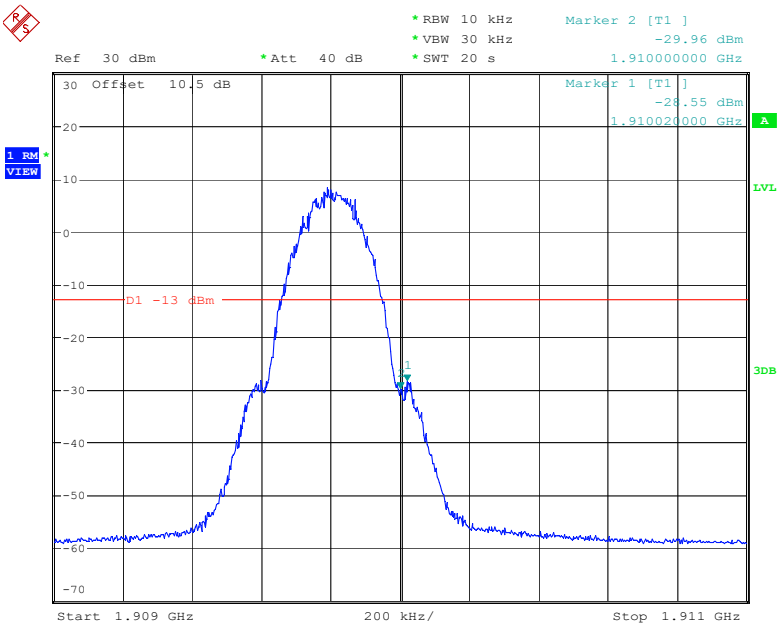
Date: 23.APR.2023 10:30:27

PCS Band, Left Band Edge for GSM (GMSK) Mode



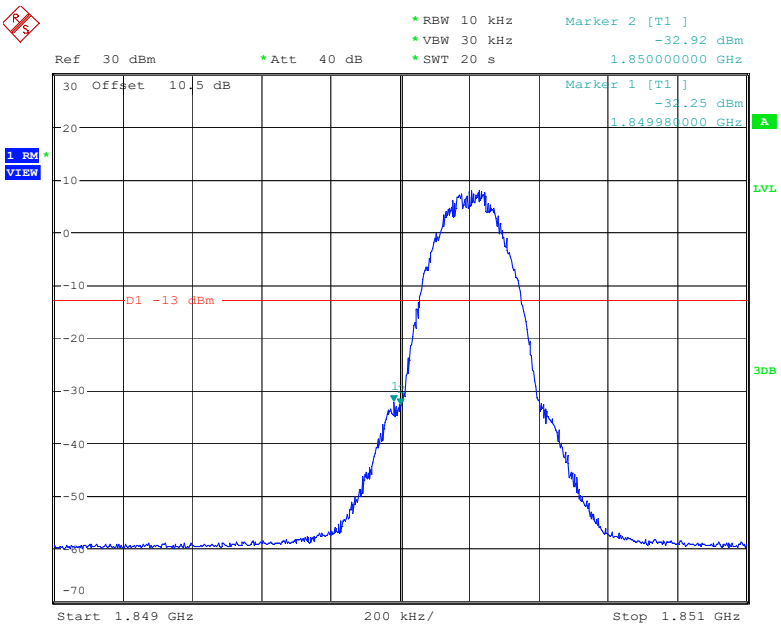
Date: 23.APR.2023 11:54:23

PCS Band, Right Band Edge for GSM (GMSK) Mode



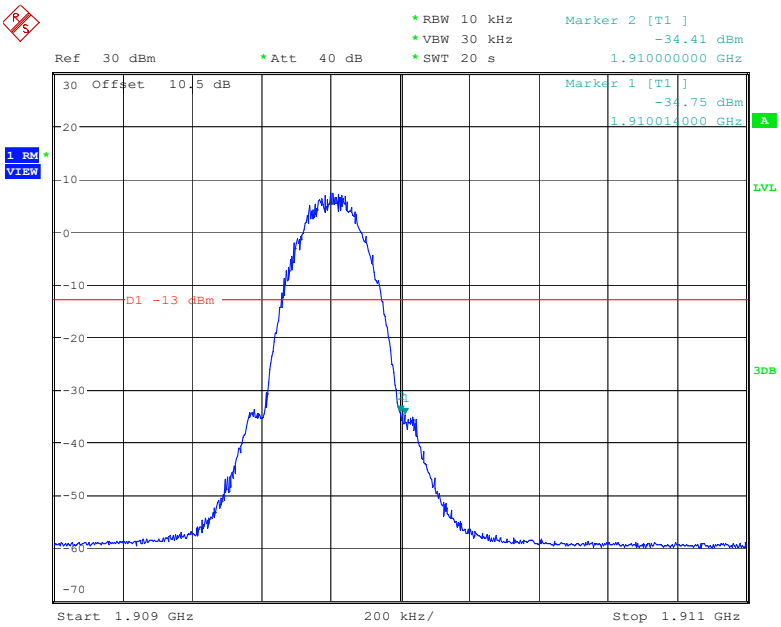
Date: 23.APR.2023 12:07:27

PCS Band, Left Band Edge for EGPRS (8PSK) Mode



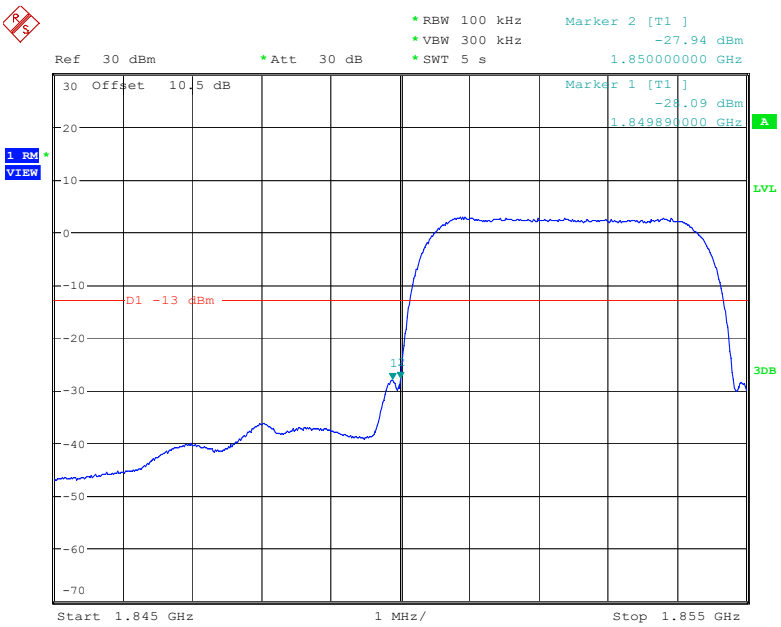
Date: 23.APR.2023 12:52:31

PCS Band, Right Band Edge for EGPRS (8PSK) Mode



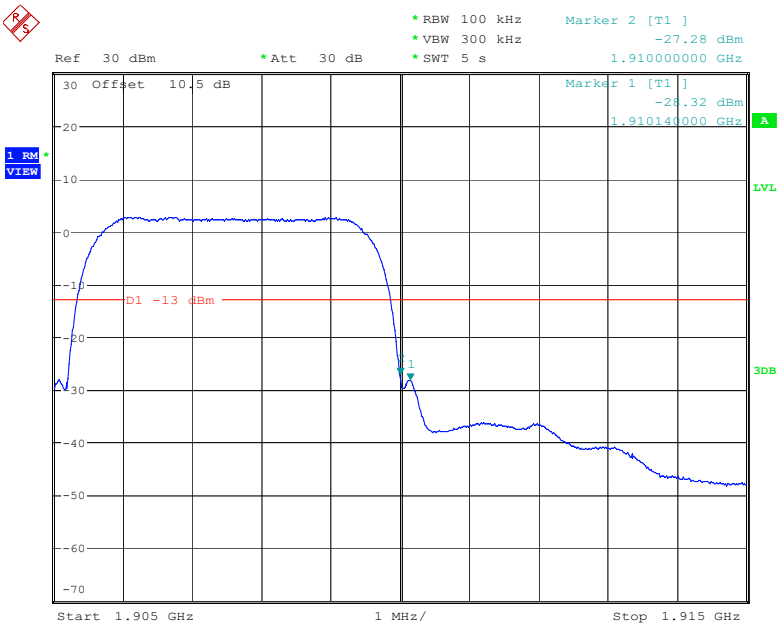
Date: 23.APR.2023 13:06:04

PCS Band, Left Band Edge for RMC (BPSK) Mode



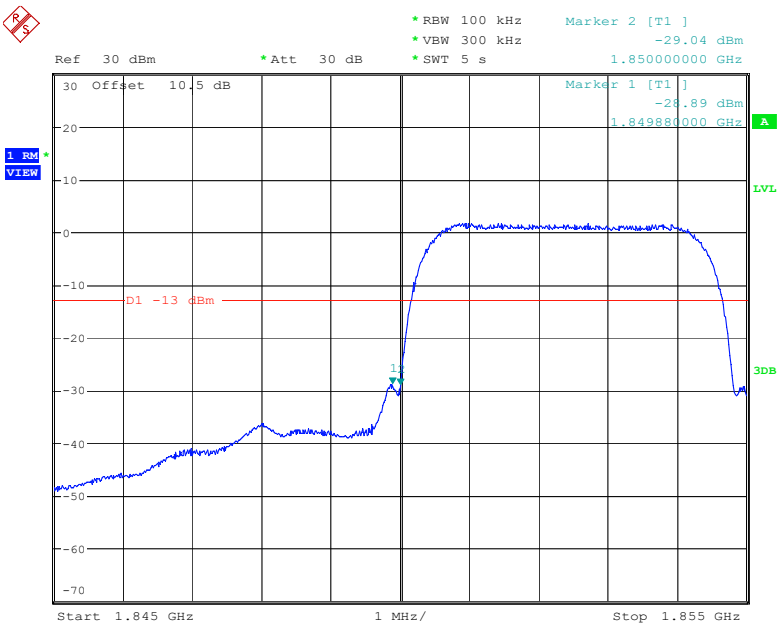
Date: 21.APR.2023 10:19:45

PCS Band, Right Band Edge for RMC (BPSK) Mode



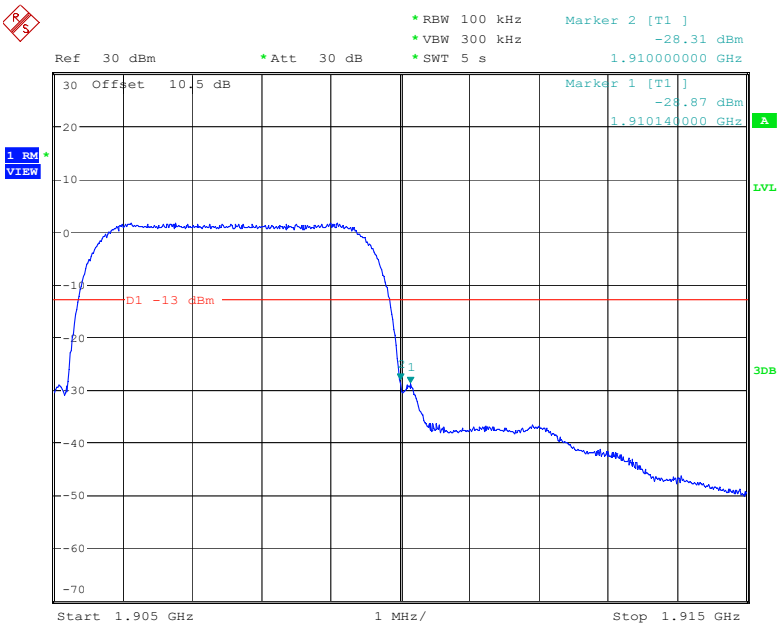
Date: 21.APR.2023 10:26:22

PCS Band, Left Band Edge for HSDPA(16QAM) Mode



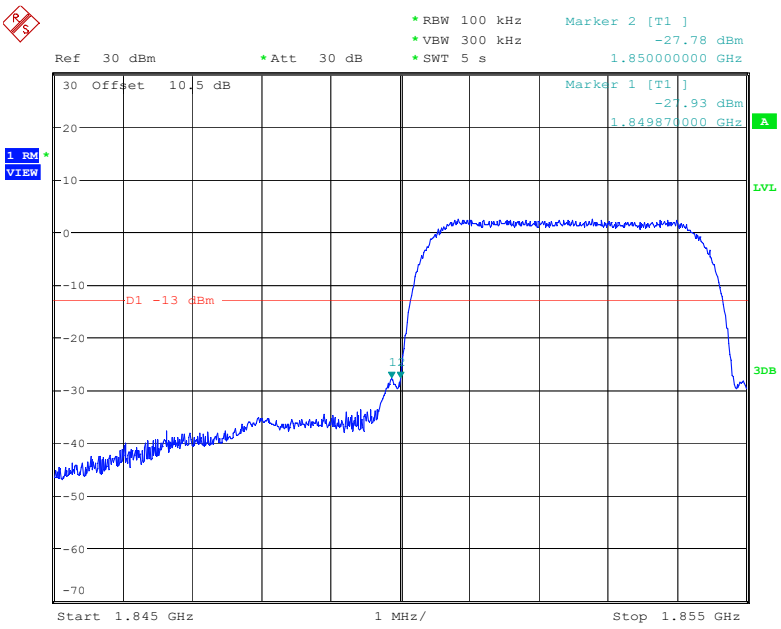
Date: 21.APR.2023 10:30:51

PCS Band, Right Band Edge for HSDPA (16QAM) Mode



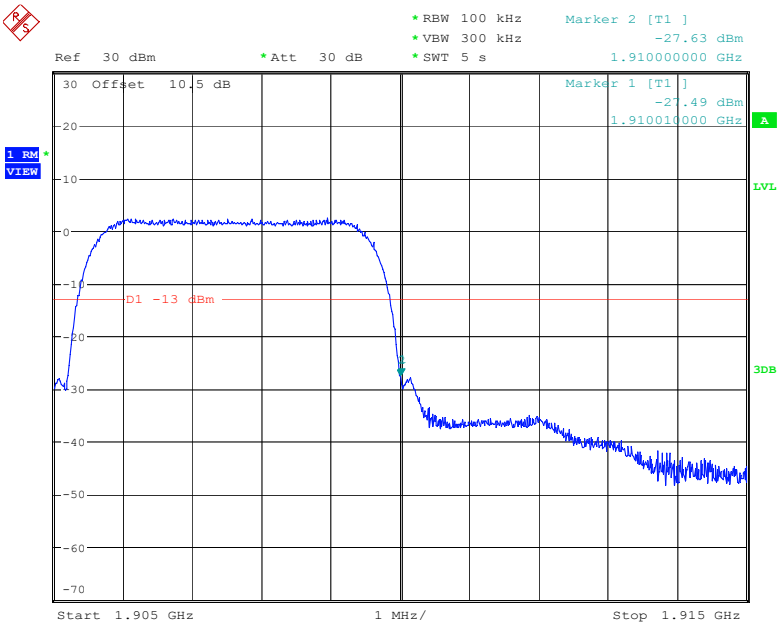
Date: 21.APR.2023 10:39:56

PCS Band, Left Band Edge for HSUPA (QPSK) Mode



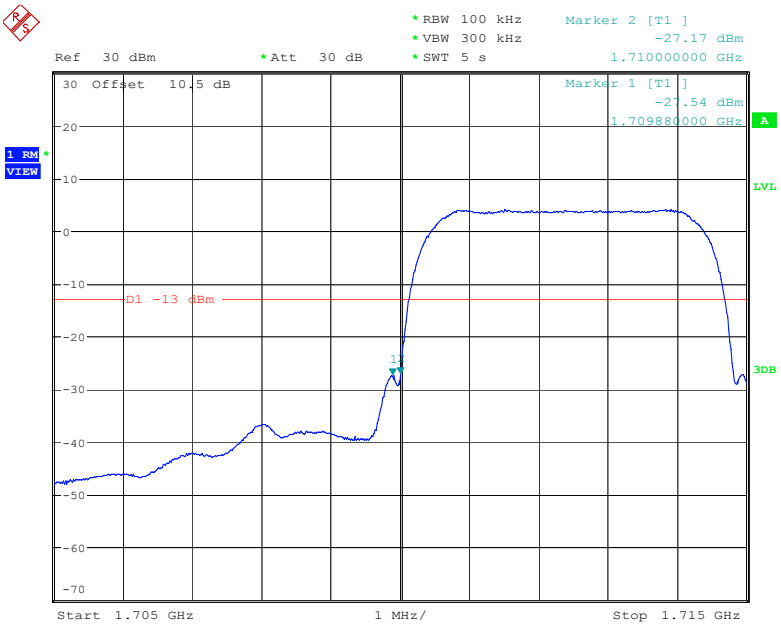
Date: 21.APR.2023 10:45:48

PCS Band, Right Band Edge for HSUPA (QPSK) Mode



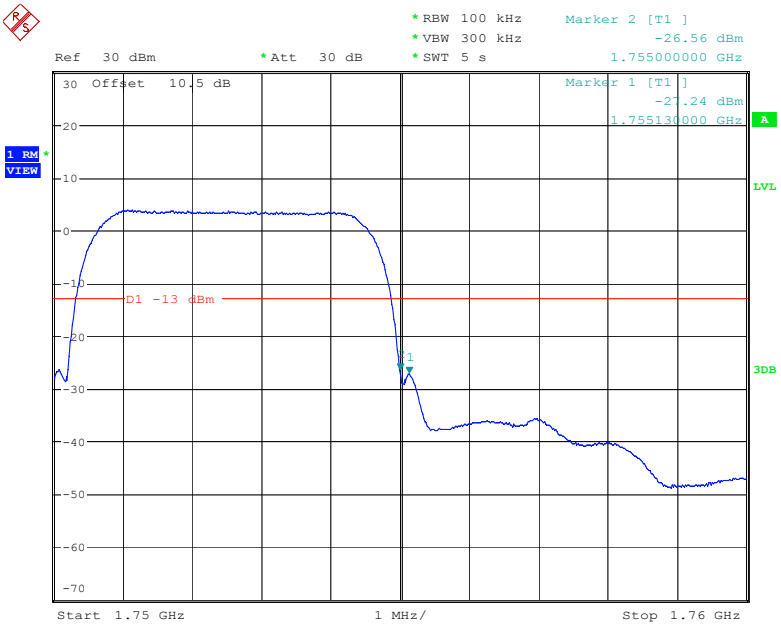
Date: 21.APR.2023 11:39:49

AWS Band, Left Band Edge for RMC (BPSK) Mode



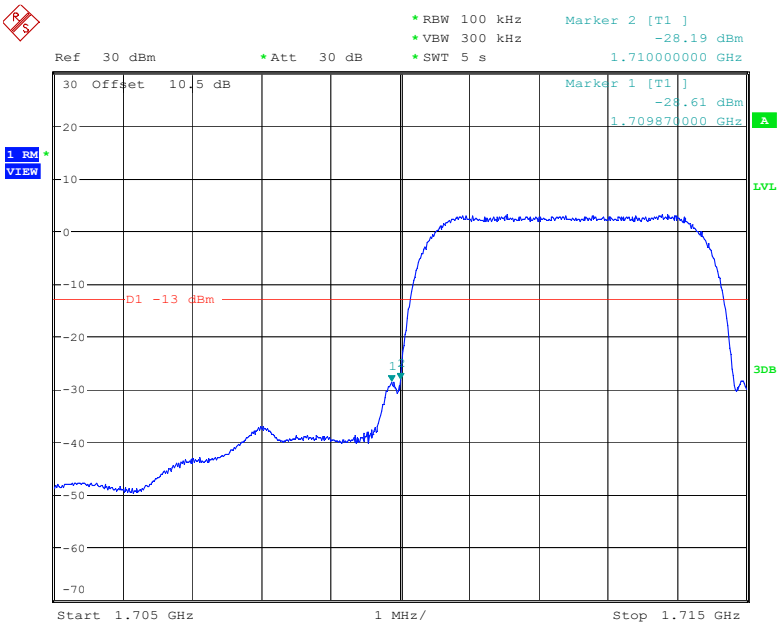
Date: 21.APR.2023 11:47:18

AWS Band, Right Band Edge for RMC (BPSK) Mode



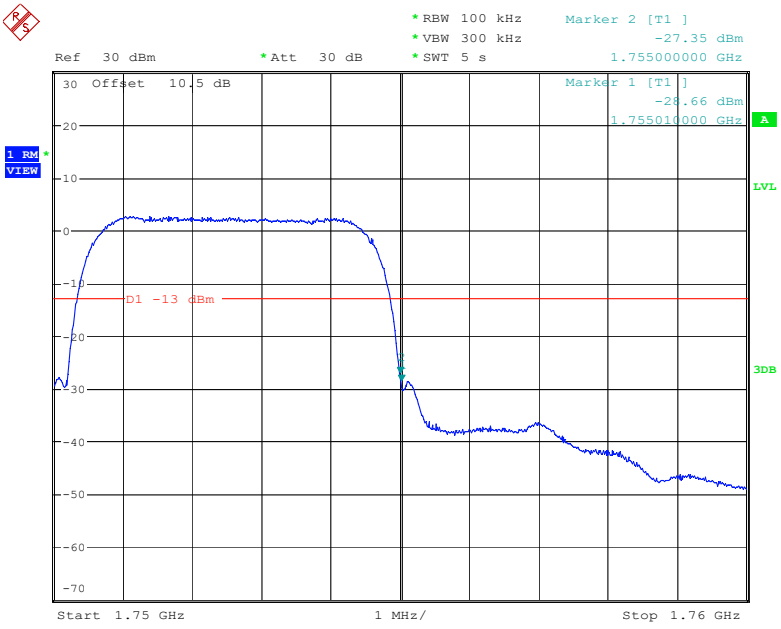
Date: 21.APR.2023 11:59:45

AWS Band, Left Band Edge for HSDPA(16QAM) Mode



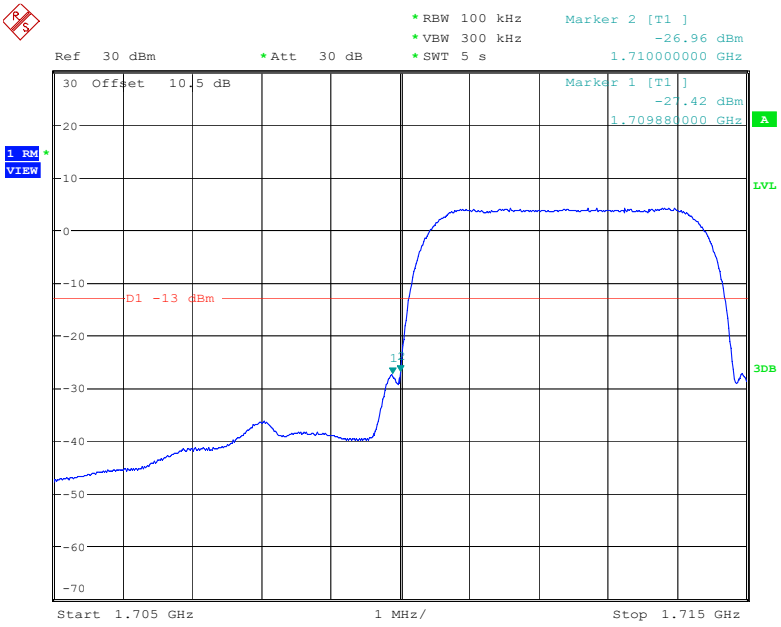
Date: 21.APR.2023 12:31:01

AWS Band, Right Band Edge for HSDPA (16QAM) Mode



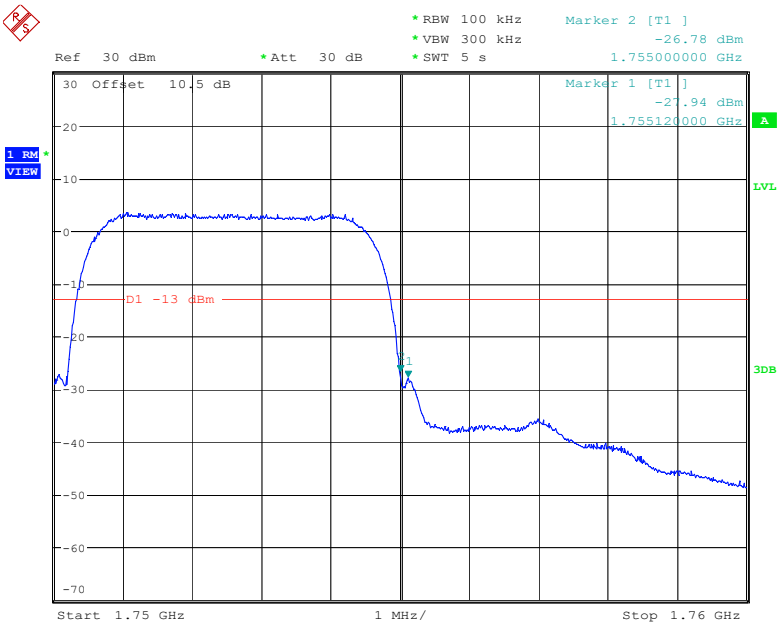
Date: 21.APR.2023 13:20:31

AWS Band, Left Band Edge for HSUPA (QPSK) Mode



Date: 21.APR.2023 16:45:24

AWS Band, Right Band Edge for HSUPA (QPSK) Mode



Date: 21.APR.2023 16:59:57

The test plots of LTE bands please refer to the Appendix C.

FCC § 2.1055; § 22.355; § 24.235; §27.54 - FREQUENCY STABILITY

Applicable Standard

FCC § 2.1055, §22.355, §24.235&§27.54 .

According to FCC §2.1055, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency Range (MHz)	Base, fixed (ppm)	Mobile ≤ 3 watts (ppm)	Mobile > 3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929.	5.0	N/A	N/A
929 to 960.	1.5	N/A	N/A
2110 to 2220	10.0	N/A	N/A

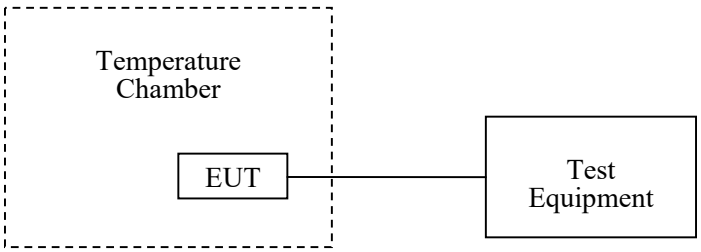
According to §24.235&§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: For hand carried, battery powered equipment; reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.



Test Data

Environmental Conditions

Temperature:	27.9~28.8 ℃
Relative Humidity:	46.8~52.3 %
ATM Pressure:	101.0 kPa

The testing was performed by Jacob Huang from 2023-04-11 to 2023-04-26.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.(worst case listed)

Cellular Band (Part 22H)
GSM Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	9	0.010758	2.5
-20		10	0.011953	2.5
-10		8	0.009563	2.5
0		7	0.008367	2.5
10		11	0.013148	2.5
20		13	0.015539	2.5
30		12	0.014344	2.5
40		8	0.009563	2.5
50		5	0.005977	2.5
20	L.V.	6	0.007172	2.5
	H.V.	7	0.008367	2.5

EDGE Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	9	0.010758	2.5
-20		12	0.014344	2.5
-10		8	0.009563	2.5
0		7	0.008367	2.5
10		15	0.017930	2.5
20		11	0.013148	2.5
30		13	0.015539	2.5
40		10	0.011953	2.5
50		9	0.010758	2.5
20	L.V.	8	0.009563	2.5
	H.V.	6	0.007172	2.5

WCDMA Mode band 5

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	-10	-0.01195	2.5
-20		-13	-0.01554	2.5
-10		-10	-0.01195	2.5
0		-11	-0.01315	2.5
10		-9	-0.01076	2.5
20		-16	-0.01913	2.5
30		-15	-0.01793	2.5
40		-8	-0.00956	2.5
50		-9	-0.01076	2.5
20	L.V.	-7	-0.00837	2.5
	H.V.	-12	-0.01434	2.5

PCS Band (Part 24E)
GSM Mode

Middle Channel, f_o =1880MHz					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1850.0437	1909.9532	1850	1910
-20		1850.0453	1909.9833	1850	1910
-10		1850.0769	1909.9784	1850	1910
0		1850.0669	1909.9535	1850	1910
10		1850.0243	1909.9732	1850	1910
20		1850.0604	1909.9114	1850	1910
30		1850.0476	1909.9655	1850	1910
40		1850.0499	1909.9635	1850	1910
50		1850.0629	1909.9601	1850	1910
20	L.V.	1850.0215	1909.9478	1850	1910
	H.V.	1850.0324	1909.9518	1850	1910

EDGE Mode

Middle Channel, f_o =1880MHz					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1850.0137	1909.9264	1850	1910
-20		1850.0424	1909.9377	1850	1910
-10		1850.0378	1909.9461	1850	1910
0		1850.0279	1909.9872	1850	1910
10		1850.0245	1909.9372	1850	1910
20		1850.0214	1909.9423	1850	1910
30		1850.0684	1909.9655	1850	1910
40		1850.0389	1909.9244	1850	1910
50		1850.0216	1909.9651	1850	1910
20	L.V.	1850.0625	1909.9376	1850	1910
	H.V.	1850.0396	1909.9914	1850	1910

WCDMA Mode band 2

Middle Channel, f_o =1880MHz					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1850.0458	1909.9815	1850	1910
-20		1850.0257	1909.9839	1850	1910
-10		1850.0247	1909.9873	1850	1910
0		1850.0235	1909.9984	1850	1910
10		1850.0334	1909.9367	1850	1910
20		1850.0508	1909.9821	1850	1910
30		1850.0125	1909.9966	1850	1910
40		1850.0303	1909.9326	1850	1910
50		1850.0502	1909.9810	1850	1910
20	L.V.	1850.0751	1909.9716	1850	1910
	H.V.	1850.0124	1909.9148	1850	1910

AWS Band 4 (Part 27)

Middle Channel, f_o =1732.6MHz					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1710.1126	1754.9293	1710	1755
-20		1710.1591	1754.9294	1710	1755
-10		1710.1263	1754.9584	1710	1755
0		1710.1214	1754.9183	1710	1755
10		1710.1217	1754.9698	1710	1755
20		1710.1647	1754.9548	1710	1755
30		1710.1623	1754.9135	1710	1755
40		1710.1573	1754.9594	1710	1755
50		1710.1212	1754.9125	1710	1755
20	L.V.	1710.1596	1754.9263	1710	1755
	H.V.	1710.1534	1754.9554	1710	1755

LTE:
QPSK:
Band 2:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1850.1145	1909.8722	1850	1910
-20		1850.1154	1909.8726	1850	1910
-10		1850.1121	1909.8741	1850	1910
0		1850.1155	1909.8734	1850	1910
10		1850.1138	1909.8736	1850	1910
20		1850.1151	1909.8364	1850	1910
30		1850.1133	1909.8752	1850	1910
40		1850.1138	1909.8754	1850	1910
50		1850.1122	1909.8741	1850	1910
20	L.V.	1850.1139	1909.8358	1850	1910
	H.V.	1850.1044	1909.8745	1850	1910

Band 4:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1710.1166	1754.8738	1710	1755
-20		1710.1158	1754.8736	1710	1755
-10		1710.1152	1754.8737	1710	1755
0		1710.1154	1754.8738	1710	1755
10		1710.1147	1754.8757	1710	1755
20		1710.1142	1754.8755	1710	1755
30		1710.1139	1754.8754	1710	1755
40		1710.1130	1754.8756	1710	1755
50		1710.1129	1754.8749	1710	1755
20	L.V.	1710.1128	1754.8748	1710	1755
	H.V.	1710.1024	1754.8742	1710	1755

Band 5:

10.0 MHz Middle Channel, f_o =836.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	7.94	0.0095	2.5
-20		-7.96	-0.0095	2.5
-10		8.30	0.0099	2.5
0		-6.24	-0.0075	2.5
10		-6.93	-0.0083	2.5
20		-5.21	-0.0062	2.5
30		9.29	0.0111	2.5
40		-7.43	-0.0089	2.5
50		6.09	0.0073	2.5
20	L.V.	6.20	0.0074	2.5
	H.V.	7.96	0.0095	2.5

Band 7:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	2500.7797	2569.9256	2500	2570
-20		2500.8416	2569.9458	2500	2570
-10		2500.8915	2569.9126	2500	2570
0		2500.4054	2569.9125	2500	2570
10		2500.7023	2569.9458	2500	2570
20		2500.3442	2569.9653	2500	2570
30		2500.2615	2569.9364	2500	2570
40		2500.5016	2569.9951	2500	2570
50		2500.6992	2569.9485	2500	2570
20	L.V.	2500.2697	2569.9265	2500	2570
	H.V.	2500.6918	2569.9751	2500	2570

Band 12:

10 MHz Bandwidth					
Temperature (°C)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	699.1433	715.8872	699	716
-20		699.1441	715.8728	699	716
-10		699.1423	715.8458	699	716
0		699.1427	715.8632	699	716
10		699.1332	715.8417	699	716
20		699.1421	715.8284	699	716
30		699.1389	715.8323	699	716
40		699.1347	715.8314	699	716
50		699.1442	715.8454	699	716
20	L.V.	699.1372	715.8672	699	716
	H.V.	699.1374	715.8678	699	716

Band 13:

10 MHz Bandwidth					
Temperature (°C)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	777.7236	786.9561	777	787
-20		777.6952	786.9592	777	787
-10		777.6951	786.9561	777	787
0		777.3249	786.9485	777	787
10		777.6495	786.9165	777	787
20		777.6624	786.9268	777	787
30		777.6954	786.9364	777	787
40		777.6578	786.9265	777	787
50		777.8648	786.9951	777	787
20	L.V.	777.8164	786.9486	777	787
	H.V.	777.8159	786.9364	777	787

Band 17:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	704.1245	715.8872	704	716
-20		704.2365	715.8728	704	716
-10		704.5963	715.8458	704	716
0		704.6587	715.8632	704	716
10		704.2367	715.8417	704	716
20		704.3614	715.8284	704	716
30		704.2519	715.8323	704	716
40		704.2316	715.8314	704	716
50		704.3618	715.8454	704	716
20	L.V.	704.6241	715.8672	704	716
	H.V.	704.3614	715.8678	704	716

Band 38:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	2570.2127	2619.9264	2570	2620
-20		2570.4995	2619.9687	2570	2620
-10		2570.5302	2619.9266	2570	2620
0		2570.5777	2619.9355	2570	2620
10		2570.1756	2619.9142	2570	2620
20		2570.4474	2619.9596	2570	2620
30		2570.2857	2619.9878	2570	2620
40		2570.1370	2619.9456	2570	2620
50		2570.2722	2619.9624	2570	2620
20	L.V.	2570.3893	2619.9598	2570	2620
	H.V.	2570.1715	2619.9682	2570	2620

Band 41:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	2535.2292	2654.9253	2535	2655
-20		2535.2684	2654.9256	2535	2655
-10		2535.2466	2654.9584	2535	2655
0		2535.1931	2654.9457	2535	2655
10		2535.1153	2654.9268	2535	2655
20		2535.2447	2654.9367	2535	2655
30		2535.1189	2654.9253	2535	2655
40		2535.2755	2654.9146	2535	2655
50		2535.1248	2654.9857	2535	2655
20	L.V.	2535.1316	2654.9638	2535	2655
	H.V.	2535.1848	2654.9544	2535	2655

Band 66:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1710.0241	1779.9728	1710	1780
-20		1710.0238	1779.9727	1710	1780
-10		1710.0236	1779.9839	1710	1780
0		1710.0235	1779.9756	1710	1780
10		1710.0237	1779.9755	1710	1780
20		1710.0228	1779.9747	1710	1780
30		1710.0257	1779.9749	1710	1780
40		1710.0256	1779.9756	1710	1780
50		1710.0229	1779.9828	1710	1780
20	L.V.	1710.0225	1779.9727	1710	1780
	H.V.	1710.0226	1779.9775	1710	1780

16QAM:

Band 2:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1850.1162	1909.8735	1850	1910
-20		1850.1154	1909.8732	1850	1910
-10		1850.1195	1909.8723	1850	1910
0		1850.1156	1909.8724	1850	1910
10		1850.1147	1909.8754	1850	1910
20		1850.1156	1909.8743	1850	1910
30		1850.1134	1909.8754	1850	1910
40		1850.1122	1909.8735	1850	1910
50		1850.1124	1909.8742	1850	1910
20	L.V.	1850.1135	1909.8734	1850	1910
	H.V.	1850.1043	1909.8747	1850	1910

Band 4:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1710.2966	1754.7672	1710	1755
-20		1710.2958	1754.7562	1710	1755
-10		1710.2751	1754.7672	1710	1755
0		1710.2652	1754.7452	1710	1755
10		1710.2633	1754.7435	1710	1755
20		1710.2643	1754.7626	1710	1755
30		1710.2572	1754.7625	1710	1755
40		1710.2658	1754.7652	1710	1755
50		1710.2636	1754.7752	1710	1755
20	L.V.	1710.2621	1754.7536	1710	1755
	H.V.	1710.2715	1754.7524	1710	1755

Band 5:

10.0 MHz Middle Channel, f_o=836.5MHz				
Temperature (°C)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	-14.92	-0.0178	2.5
-20		6.60	0.0079	2.5
-10		8.20	0.0098	2.5
0		7.97	0.0095	2.5
10		-5.46	-0.0065	2.5
20		8.38	0.01	2.5
30		-6.67	-0.008	2.5
40		8.44	0.0101	2.5
50		8.89	0.0106	2.5
20	L.V.	8.74	0.0104	2.5
	H.V.	5.51	0.0066	2.5

Band 7:

10 MHz Bandwidth					
Temperature (°C)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	2500.1762	2569.9262	2500	2570
-20		2500.2424	2569.9568	2500	2570
-10		2500.3186	2569.9256	2500	2570
0		2500.2092	2569.9144	2500	2570
10		2500.1981	2569.9586	2500	2570
20		2500.2975	2569.9588	2500	2570
30		2500.1937	2569.9566	2500	2570
40		2500.3146	2569.9547	2500	2570
50		2500.3865	2569.9268	2500	2570
20	L.V.	2500.1658	2569.9246	2500	2570
	H.V.	2500.2826	2569.9154	2500	2570

Band 12:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	699.1325	715.8364	699	716
-20		699.1333	715.8325	699	716
-10		699.1315	715.8354	699	716
0		699.1319	715.8324	699	716
10		699.1324	715.8309	699	716
20		699.1313	715.8376	699	716
30		699.1381	715.8315	699	716
40		699.1339	715.8306	699	716
50		699.1334	715.8346	699	716
20	L.V.	699.1364	715.8364	699	716
	H.V.	699.1366	715.8376	699	716

Band 13:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	777.1236	786.9236	777	787
-20		777.1952	786.9568	777	787
-10		777.2951	786.9951	777	787
0		777.3249	786.9456	777	787
10		777.1495	786.9259	777	787
20		777.3624	786.9685	777	787
30		777.1954	786.9451	777	787
40		777.1578	786.9256	777	787
50		777.3648	786.9559	777	787
20	L.V.	777.2164	786.9541	777	787
	H.V.	777.2159	786.9235	777	787

Band 17:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	704.2192	715.9265	704	716
-20		704.1957	715.9254	704	716
-10		704.3992	715.9125	704	716
0		704.1142	715.9123	704	716
10		704.3237	715.9568	704	716
20		704.3557	715.9512	704	716
30		704.5745	715.9415	704	716
40		704.1562	715.9125	704	716
50		704.1663	715.9412	704	716
20	L.V.	704.1967	715.9452	704	716
	H.V.	704.2846	715.9125	704	716

Band 38:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	2570.1047	2619.9626	2570	2620
-20		2570.1244	2619.9585	2570	2620
-10		2570.1546	2619.9456	2570	2620
0		2570.3918	2619.9123	2570	2620
10		2570.3255	2619.9567	2570	2620
20		2570.2394	2619.9238	2570	2620
30		2570.1442	2619.9584	2570	2620
40		2570.1136	2619.9566	2570	2620
50		2570.1687	2619.9856	2570	2620
20	L.V.	2570.1744	2619.9255	2570	2620
	H.V.	2570.1813	2619.9107	2570	2620

Band 41:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	2535.2293	2654.9268	2535	2655
-20		2535.2682	2654.9253	2535	2655
-10		2535.2464	2654.9156	2535	2655
0		2535.1935	2654.9587	2535	2655
10		2535.1156	2654.9656	2535	2655
20		2535.1444	2654.9454	2535	2655
30		2535.2185	2654.9654	2535	2655
40		2535.1758	2654.9252	2535	2655
50		2535.1249	2654.9475	2535	2655
20	L.V.	2535.1314	2654.9586	2535	2655
	H.V.	2535.1849	2654.9694	2535	2655

Band 66:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	N.V.	1710.0241	1779.9728	1710	1780
-20		1710.0238	1779.9727	1710	1780
-10		1710.0236	1779.9839	1710	1780
0		1710.0235	1779.9756	1710	1780
10		1710.0237	1779.9755	1710	1780
20		1710.0228	1779.9747	1710	1780
30		1710.0257	1779.9749	1710	1780
40		1710.0256	1779.9756	1710	1780
50		1710.0229	1779.9828	1710	1780
20	L.V.	1710.0225	1779.9727	1710	1780
	H.V.	1710.0226	1779.9775	1710	1780

******* END OF REPORT *******