TESTREPORT

Applicant Name :	TECNO MOBILE LIMITED
Address :	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT Hong Kong
Report Number:	SZNS220609-25475E-RF-00D
FCC ID:	2ADYY-CH6IS

Test Standard (s)

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

Sample Description

Product Type:	Mobile Phone
Model No.:	CH6IS
Multiple Model(s) No.:	N/A
Trade Mark:	N/A
Date Received:	2022/06/09
Report Date:	2022/07/18

Test Result:	Pass*

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

Prepared and Checked By:

Audy Yu
EMC Engineer

Approved By:

Robert Li
EMC Engineer

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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: -1.5 dBi PCS1900/WCDMA Band 2/ LTE Band 2: -0.5 dBi WCDMA Band 4/ LTE Band 4/ LTE Band 66: -0.7 dBi LTE Band 7/ LTE Band 38/LTE Band 41: -0.4 dBi LTE Band 12LTE Band 13/LTE Band 17: -1.9 dBi s(provided by the applicant)
Voltage Range	DC 3.85V from battery or DC 5.0V/7.5V from adapter
Sample serial number	SZNS220609-25475E-RF-S1 for Conducted and Radiated Emissions SZNS220609-25475E-RF-S5 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
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
Extreme condition*	L.V.: Low Voltage 3.45V N.V.: Normal Voltage 3.85V H.V.: High Voltage 4.4V (provided by the applicant)

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H,Part24-Subpart E, and Subpart 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 output power, conducted		±0.73dB
Unwanted Emission, conducted		±1.6dB
RF Frequency		$\pm 0.082*10^{-7}$
Emissions, Radiated	30MHz - 1GHz	±4.28dB
	1GHz - 18GHz	±4.98dB
	18GHz - 26.5GHz	±5.06dB
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 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. 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.

Listed by Innovation, Science and Economic Development Canada (ISEDC), the Registration Number is 5077A.

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	836.4	848.8
DCS1900	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	836.4	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

Frequency band	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
LTE B38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610
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.

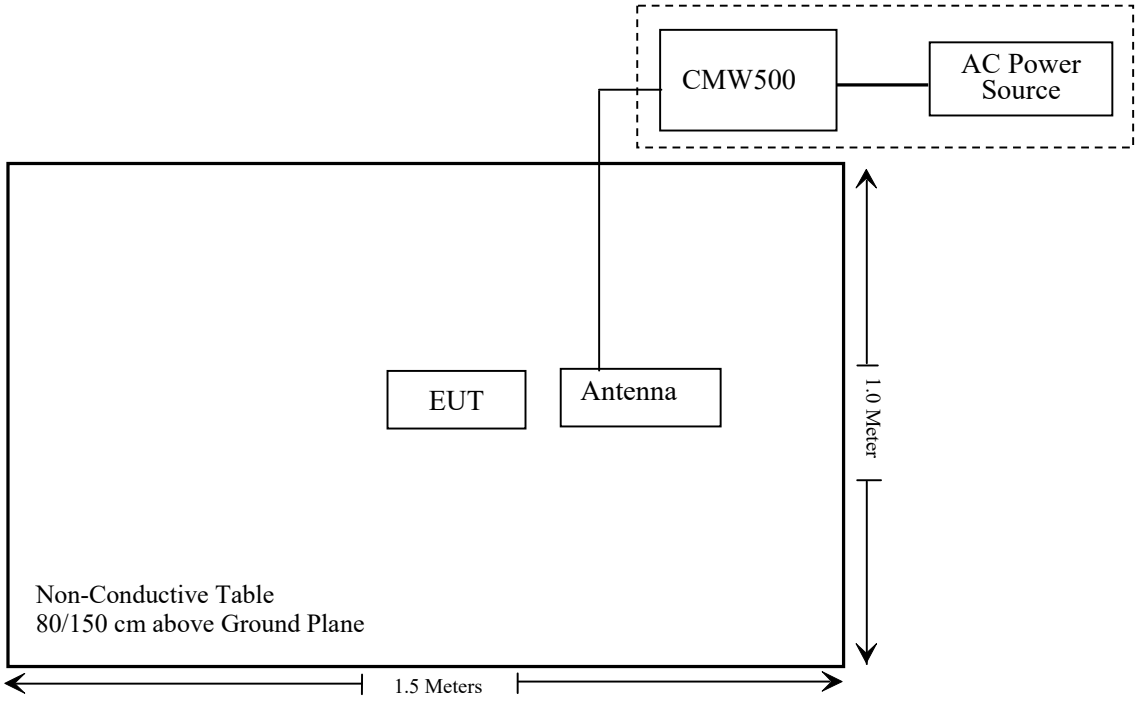
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication tester	CMW500	146520

Support Cable Description

Cable Description	Length (m)	From / Port	To
Un-shielded 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); § 24.232 (c); §27.50(b)(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(c)(g)(h)(m)	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54;	Frequency stability	Compliant

Note: * Please refer to SAR report number: CR22060054-20.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2021/11/09	2022/11/08
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2021/11/11	2022/11/10
Radiated Emission Test Software: e3 19821b (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.11	N1000	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.12	N040	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.13	N300	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.14	N800	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.15	N600	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N650	2021/12/14	2022/12/13
Schwarzbeck	Bilog Antenna	VULB9163	9163-194	2020/01/05	2023/01/04
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-655	2020/01/05	2023/01/04
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2020/01/05	2023/01/04
PASTERNACK	Horn Antenn	PE9852/2F-20	1120 (ATC-BA-024-1)	2020/01/05	2023/01/04
PASTERNACK	Horn Antenn	PE9852/2F-20	1120 (ATC-BA-025-1)	2020/01/05	2023/01/04
Wainwright	High Pass Filter	WHKX3.6/18G-10SS	5	2021/12/14	2022/12/13
CD	High Pass Filter	HPM-1.2/18G-60	110	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N200	2021/12/14	2022/12/13
Agilent	Signal Generator	N5183A	MY51040755	2021/12/13	2022/12/12

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101948	2021/12/13	2022/12/12
SPECTRUM ANALYZER	Rohde & Schwarz	FSU26	200982	2021/07/06	2022/07/05
SPECTRUM ANALYZER	Rohde & Schwarz	FSU26	200982	2022/07/06	2023/07/05
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	154606	2021/12/13	2022/12/12
Mini-Circuits	Power Splitter	DC-18000MHz	SF10944151S	2021/12/14	2022/12/13
Gongwen	Temp. & Humid. Chamber	HSD-500	109	2021/10/14	2022/10/13
WEINSCHEL	10dB Attenuator	5324	AU 3842	2021/12/14	2022/12/13
Fluke	Multi Meter	45	7664009	2021/12/14	2022/12/13
Manson	DC Power Source	KPS-6604	ATCS-205	NCR	NCR
Unknown	RF Coaxial Cable	No.33	RF-03	Each time	
Unknown	RF Coaxial Cable	No.34	RF-04	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§1.1310 and §2.1093.

Test Result

Compliant, please refer to the SAR report: CR22060054-20.

FCC§2.1047 - MODULATION CHARACTERISTIC

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

FCC § 2.1046,§ 22.913 (a)&§ 24.232(c); §27.50(b)(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(b), Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

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.

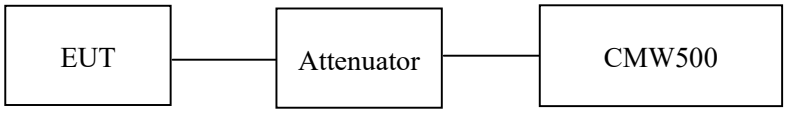
According to §27.50(d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

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.



Test Data

Environmental Conditions

Temperature:	27.2~28 ℃
Relative Humidity:	56.8~62 %
ATM Pressure:	101.0 kPa

The testing was performed by Audy Yu from 2022-06-26 to 2022-07-09.

Conducted Power

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	ERP(dBm)	Limit (dBm)
GSM	128	824.2	33.00	29.35	38.45
	190	836.6	33.10	29.45	38.45
	251	848.8	33.10	29.45	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	33.06	32.02	29.92	28.88	29.41	28.37	26.27	25.23	38.45
	190	836.6	33.16	32.10	30.05	28.98	29.51	28.45	26.40	25.33	38.45
	251	848.8	33.16	32.13	30.13	28.99	29.51	28.48	26.48	25.34	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	27.09	25.84	23.15	21.96	23.44	22.19	19.50	18.31	38.45
	190	836.6	27.10	25.82	23.41	21.95	23.45	22.17	19.76	18.30	38.45
	251	848.8	27.03	25.65	23.30	21.83	23.38	22.00	19.65	18.18	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		23.02	23.06	23.08	19.37	19.41	19.43
	HSDPA	1	21.95	21.98	22.05	18.30	18.33	18.40
		2	21.85	21.82	21.88	18.20	18.17	18.23
		3	21.77	21.86	21.86	18.12	18.21	18.21
		4	21.65	21.69	21.92	18.00	18.04	18.27
	HSUPA	1	21.56	21.60	21.58	17.91	17.95	17.93
		2	21.44	21.59	21.47	17.79	17.94	17.82
		3	21.38	21.36	21.62	17.73	17.71	17.97
		4	21.49	21.41	21.63	17.84	17.76	17.98
		5	21.53	21.55	21.44	17.88	17.90	17.79
	HSPA+	1	21.64	21.48	21.59	17.99	17.83	17.94

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For GSM850 / WCDMA Band5: Antenna Gain = -1.5dBi = -3.65dBd (0dBd=2.15dBi)
Limit: ERP≤38.45dBm

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	EIRP(dBm)	Limit (dBm)
GSM	512	1850.2	26.30	25.80	33
	661	1880.0	26.50	26.00	33
	810	1909.8	26.60	26.10	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	26.42	26.35	26.23	26.11	25.92	25.85	25.73	25.61	33
	661	1880.0	26.65	26.55	26.42	26.31	26.15	26.05	25.92	25.81	33
	810	1909.8	26.74	26.66	26.54	26.46	26.24	26.16	26.04	25.96	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	26.41	25.29	23.33	22.24	25.91	24.79	22.83	21.74	33
	661	1880.0	26.55	25.53	23.57	22.47	26.05	25.03	23.07	21.97	33
	810	1909.8	26.34	25.27	23.31	22.23	25.84	24.77	22.81	21.73	33

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 2)	RMC12.2k		16.57	16.39	16.27	16.07	15.89	15.77
	HSDPA	1	15.74	15.48	15.35	15.24	14.98	14.85
		2	15.72	15.39	15.28	15.22	14.89	14.78
		3	15.66	15.55	15.36	15.16	15.05	14.86
		4	15.69	15.41	15.24	15.19	14.91	14.74
	HSUPA	1	15.34	15.15	15.04	14.84	14.65	14.54
		2	15.22	15.22	15.14	14.72	14.72	14.64
		3	15.34	15.26	15.12	14.84	14.76	14.62
		4	15.26	15.27	15.26	14.76	14.77	14.76
		5	15.28	15.26	15.26	14.78	14.76	14.76
	HSPA+	1	15.34	15.29	15.33	14.84	14.79	14.83

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For PCS1900 / WCDMA Band2: Antenna Gain = -0.5dBi
Limit: EIRP≤33dBm

AWS Band

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 4)	RMC12.2k		16.74	16.76	16.77	16.04	16.06	16.07
	HSDPA	1	15.74	15.95	15.90	15.04	15.25	15.20
		2	15.68	15.88	15.76	14.98	15.18	15.06
		3	15.54	15.77	15.84	14.84	15.07	15.14
		4	15.39	15.72	15.63	14.69	15.02	14.93
	HSUPA	1	15.52	15.52	15.53	14.82	14.82	14.83
		2	15.32	15.36	15.62	14.62	14.66	14.92
		3	15.41	15.29	15.27	14.71	14.59	14.57
		4	15.42	15.24	15.29	14.72	14.54	14.59
		5	15.32	15.39	15.28	14.62	14.69	14.58
	HSPA+	1	15.18	15.37	15.37	14.48	14.67	14.67

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band4: Antenna Gain = -0.7dBi
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	15.57	15.49	15.37	15.07	14.99	14.87
		RB1#3	15.67	15.71	15.56	15.17	15.21	15.06
		RB1#5	15.64	15.46	15.37	15.14	14.96	14.87
		RB3#0	15.74	15.66	15.46	15.24	15.16	14.96
		RB3#3	15.74	15.71	15.46	15.24	15.21	14.96
		RB6#0	14.62	14.55	14.43	14.12	14.05	13.93
	16QAM	RB1#0	14.73	14.55	14.39	14.23	14.05	13.89
		RB1#3	14.87	14.78	14.63	14.37	14.28	14.13
		RB1#5	14.73	14.58	14.40	14.23	14.08	13.90
		RB3#0	14.79	14.79	14.67	14.29	14.29	14.17
		RB3#3	14.88	14.76	14.66	14.38	14.26	14.16
		RB6#0	13.71	13.53	13.44	13.21	13.03	12.94
3.0	QPSK	RB1#0	15.62	15.60	15.43	15.12	15.10	14.93
		RB1#8	15.56	15.55	15.36	15.06	15.05	14.86
		RB1#14	15.58	15.54	15.40	15.08	15.04	14.90
		RB6#0	14.56	14.50	14.33	14.06	14.00	13.83
		RB6#9	14.61	14.51	14.34	14.11	14.01	13.84
		RB15#0	14.65	14.55	14.42	14.15	14.05	13.92
	16QAM	RB1#0	15.29	14.72	14.47	14.79	14.22	13.97
		RB1#8	15.25	14.72	14.43	14.75	14.22	13.93
		RB1#14	15.23	14.65	14.41	14.73	14.15	13.91
		RB6#0	13.67	13.54	13.31	13.17	13.04	12.81
		RB6#9	13.69	13.58	13.29	13.19	13.08	12.79
		RB15#0	13.74	13.56	13.46	13.24	13.06	12.96

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	15.58	15.54	15.39	15.08	15.04	14.89
		RB1#13	15.67	15.56	15.43	15.17	15.06	14.93
		RB1#24	15.60	15.44	15.35	15.10	14.94	14.85
		RB15#0	14.63	14.56	14.46	14.13	14.06	13.96
		RB15#10	14.64	14.52	14.41	14.14	14.02	13.91
		RB25#0	14.62	14.52	14.41	14.12	14.02	13.91
	16QAM	RB1#0	14.48	14.85	14.48	13.98	14.35	13.98
		RB1#13	14.59	14.95	14.55	14.09	14.45	14.05
		RB1#24	14.55	14.76	14.48	14.05	14.26	13.98
		RB15#0	13.73	13.58	13.50	13.23	13.08	13.00
		RB15#10	13.74	13.52	13.51	13.24	13.02	13.01
		RB25#0	13.71	13.53	13.47	13.21	13.03	12.97
10.0	QPSK	RB1#0	15.60	15.62	15.47	15.10	15.12	14.97
		RB1#25	15.85	15.73	15.64	15.35	15.23	15.14
		RB1#49	15.62	15.56	15.45	15.12	15.06	14.95
		RB25#0	14.72	14.66	14.59	14.22	14.16	14.09
		RB25#25	14.74	14.61	14.46	14.24	14.11	13.96
		RB50#0	14.77	14.62	14.55	14.27	14.12	14.05
	16QAM	RB1#0	15.28	14.80	14.52	14.78	14.30	14.02
		RB1#25	15.45	14.89	14.68	14.95	14.39	14.18
		RB1#49	15.32	14.70	14.47	14.82	14.20	13.97
		RB25#0	13.84	13.72	13.72	13.34	13.22	13.22
		RB25#25	13.82	13.66	13.62	13.32	13.16	13.12
		RB50#0	13.79	13.69	13.61	13.29	13.19	13.11

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	15.55	15.55	15.40	15.05	15.05	14.90
		RB1#38	15.62	15.62	15.41	15.12	15.12	14.91
		RB1#74	15.55	15.45	15.35	15.05	14.95	14.85
		RB36#0	14.66	14.61	14.54	14.16	14.11	14.04
		RB36#39	14.64	14.53	14.45	14.14	14.03	13.95
		RB75#0	14.67	14.54	14.53	14.17	14.04	14.03
	16QAM	RB1#0	15.24	14.71	14.86	14.74	14.21	14.36
		RB1#38	15.28	14.77	14.92	14.78	14.27	14.42
		RB1#74	15.23	14.62	14.78	14.73	14.12	14.28
		RB36#0	13.71	13.66	13.55	13.21	13.16	13.05
		RB36#39	13.64	13.56	13.47	13.14	13.06	12.97
		RB75#0	13.68	13.58	13.51	13.18	13.08	13.01
20.0	QPSK	RB1#0	15.47	15.45	15.25	14.97	14.95	14.75
		RB1#50	15.82	15.79	15.59	15.32	15.29	15.09
		RB1#99	15.45	15.36	15.19	14.95	14.86	14.69
		RB50#0	14.71	14.69	14.66	14.21	14.19	14.16
		RB50#50	14.66	14.60	14.44	14.16	14.10	13.94
		RB100#0	14.70	14.67	14.54	14.20	14.17	14.04
	16QAM	RB1#0	14.79	14.71	14.88	14.29	14.21	14.38
		RB1#50	15.14	15.00	15.19	14.64	14.50	14.69
		RB1#99	14.78	14.58	14.84	14.28	14.08	14.34
		RB50#0	13.75	13.71	13.68	13.25	13.21	13.18
		RB50#50	13.65	13.61	13.47	13.15	13.11	12.97
		RB100#0	13.73	13.66	13.61	13.23	13.16	13.11

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band2: Antenna Gain = -0.5dB
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	15.49	15.57	15.50	14.79	14.87	14.80
		RB1#3	15.70	15.75	15.69	15.00	15.05	14.99
		RB1#5	15.54	15.59	15.52	14.84	14.89	14.82
		RB3#0	15.71	15.73	15.59	15.01	15.03	14.89
		RB3#3	15.79	15.71	15.60	15.09	15.01	14.90
		RB6#0	14.63	14.63	14.50	13.93	13.93	13.80
	16QAM	RB1#0	14.64	14.62	14.63	13.94	13.92	13.93
		RB1#3	14.84	14.83	14.84	14.14	14.13	14.14
		RB1#5	14.67	14.64	14.67	13.97	13.94	13.97
		RB3#0	14.85	14.95	14.62	14.15	14.25	13.92
		RB3#3	14.84	14.97	14.69	14.14	14.27	13.99
		RB6#0	13.66	13.74	13.67	12.96	13.04	12.97
3.0	QPSK	RB1#0	15.61	15.62	15.54	14.91	14.92	14.84
		RB1#8	15.60	15.66	15.51	14.90	14.96	14.81
		RB1#14	15.57	15.64	15.46	14.87	14.94	14.76
		RB6#0	14.56	14.57	14.49	13.86	13.87	13.79
		RB6#9	14.60	14.56	14.46	13.90	13.86	13.76
		RB15#0	14.63	14.64	14.55	13.93	13.94	13.85
	16QAM	RB1#0	15.34	14.84	14.64	14.64	14.14	13.94
		RB1#8	15.29	14.83	14.57	14.59	14.13	13.87
		RB1#14	15.30	14.80	14.56	14.60	14.10	13.86
		RB6#0	13.73	13.71	13.53	13.03	13.01	12.83
		RB6#9	13.77	13.71	13.50	13.07	13.01	12.80
		RB15#0	13.81	13.72	13.71	13.11	13.02	13.01

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	15.54	15.53	15.48	14.84	14.83	14.78
		RB1#13	15.66	15.72	15.56	14.96	15.02	14.86
		RB1#24	15.60	15.56	15.45	14.90	14.86	14.75
		RB15#0	14.64	14.62	14.65	13.94	13.92	13.95
		RB15#10	14.66	14.64	14.54	13.96	13.94	13.84
		RB25#0	14.65	14.61	14.55	13.95	13.91	13.85
	16QAM	RB1#0	14.49	14.85	14.57	13.79	14.15	13.87
		RB1#13	14.64	15.04	14.71	13.94	14.34	14.01
		RB1#24	14.52	14.87	14.59	13.82	14.17	13.89
		RB15#0	13.76	13.72	13.72	13.06	13.02	13.02
		RB15#10	13.84	13.74	13.67	13.14	13.04	12.97
		RB25#0	13.81	13.71	13.68	13.11	13.01	12.98
10.0	QPSK	RB1#0	15.59	15.64	15.56	14.89	14.94	14.86
		RB1#25	15.69	15.74	15.65	14.99	15.04	14.95
		RB1#49	15.62	15.61	15.50	14.92	14.91	14.80
		RB25#0	14.65	14.68	14.63	13.95	13.98	13.93
		RB25#25	14.74	14.70	14.59	14.04	14.00	13.89
		RB50#0	14.72	14.67	14.66	14.02	13.97	13.96
	16QAM	RB1#0	15.32	14.81	14.64	14.62	14.11	13.94
		RB1#25	15.49	14.96	14.77	14.79	14.26	14.07
		RB1#49	15.35	14.81	14.56	14.65	14.11	13.86
		RB25#0	13.83	13.82	13.82	13.13	13.12	13.12
		RB25#25	13.91	13.82	13.73	13.21	13.12	13.03
		RB50#0	13.83	13.82	13.77	13.13	13.12	13.07

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	15.54	15.64	15.55	14.84	14.94	14.85
		RB1#38	15.59	15.67	15.58	14.89	14.97	14.88
		RB1#74	15.53	15.53	15.44	14.83	14.83	14.74
		RB36#0	14.61	14.65	14.61	13.91	13.95	13.91
		RB36#39	14.67	14.62	14.54	13.97	13.92	13.84
		RB75#0	14.66	14.59	14.56	13.96	13.89	13.86
	16QAM	RB1#0	15.30	14.79	15.04	14.60	14.09	14.34
		RB1#38	15.31	14.81	15.05	14.61	14.11	14.35
		RB1#74	15.27	14.70	14.95	14.57	14.00	14.25
		RB36#0	13.77	13.73	13.67	13.07	13.03	12.97
		RB36#39	13.79	13.72	13.59	13.09	13.02	12.89
		RB75#0	13.74	13.75	13.63	13.04	13.05	12.93
20.0	QPSK	RB1#0	15.44	15.44	15.38	14.74	14.74	14.68
		RB1#50	15.82	15.81	15.70	15.12	15.11	15.00
		RB1#99	15.47	15.43	15.28	14.77	14.73	14.58
		RB50#0	14.65	14.71	14.69	13.95	14.01	13.99
		RB50#50	14.71	14.66	14.61	14.01	13.96	13.91
		RB100#0	14.72	14.71	14.67	14.02	14.01	13.97
	16QAM	RB1#0	14.83	14.73	15.03	14.13	14.03	14.33
		RB1#50	15.19	15.12	15.37	14.49	14.42	14.67
		RB1#99	14.83	14.69	14.94	14.13	13.99	14.24
		RB50#0	13.78	13.84	13.83	13.08	13.14	13.13
		RB50#50	13.83	13.83	13.74	13.13	13.13	13.04
		RB100#0	13.83	13.82	13.77	13.13	13.12	13.07

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band4: Antenna Gain = -0.7dBi
Limit: EIRP≤30dBm

LTE Band 5

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	23.01	23.09	23.13	19.36	19.44	19.48
		RB1#3	23.21	23.34	23.37	19.56	19.69	19.72
		RB1#5	23.02	23.10	23.17	19.37	19.45	19.52
		RB3#0	23.10	23.15	23.27	19.45	19.50	19.62
		RB3#3	23.08	23.19	23.29	19.43	19.54	19.64
		RB6#0	22.16	22.20	22.25	18.51	18.55	18.60
	16QAM	RB1#0	22.03	22.23	22.22	18.38	18.58	18.57
		RB1#3	22.22	22.41	22.46	18.57	18.76	18.81
		RB1#5	22.08	22.23	22.24	18.43	18.58	18.59
		RB3#0	22.28	22.14	22.40	18.63	18.49	18.75
		RB3#3	22.28	22.09	22.36	18.63	18.44	18.71
		RB6#0	21.11	21.22	21.23	17.46	17.57	17.58
3.0	QPSK	RB1#0	23.09	23.13	23.24	19.44	19.48	19.59
		RB1#8	23.07	23.16	23.21	19.42	19.51	19.56
		RB1#14	23.08	23.16	23.20	19.43	19.51	19.55
		RB6#0	22.05	22.14	22.22	18.40	18.49	18.57
		RB6#9	22.08	22.15	22.23	18.43	18.50	18.58
		RB15#0	22.06	22.14	22.28	18.41	18.49	18.63
	16QAM	RB1#0	22.62	22.28	22.30	18.97	18.63	18.65
		RB1#8	22.63	22.32	22.28	18.98	18.67	18.63
		RB1#14	22.66	22.29	22.22	19.01	18.64	18.57
		RB6#0	21.14	21.09	21.18	17.49	17.44	17.53
		RB6#9	21.11	21.20	21.20	17.46	17.55	17.55
		RB15#0	21.12	21.11	21.32	17.47	17.46	17.67

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	22.94	23.06	23.10	19.29	19.41	19.45
		RB1#13	23.15	23.19	23.25	19.50	19.54	19.60
		RB1#24	23.07	23.08	23.16	19.42	19.43	19.51
		RB15#0	22.07	22.13	22.31	18.42	18.48	18.66
		RB15#10	22.11	22.14	22.30	18.46	18.49	18.65
		RB25#0	22.08	22.14	22.29	18.43	18.49	18.64
	16QAM	RB1#0	21.93	22.36	22.27	18.28	18.71	18.62
		RB1#13	22.05	22.46	22.36	18.40	18.81	18.71
		RB1#24	21.98	22.36	22.28	18.33	18.71	18.63
		RB15#0	21.15	21.12	21.36	17.50	17.47	17.71
		RB15#10	21.14	21.12	21.29	17.49	17.47	17.64
		RB25#0	21.17	21.14	21.30	17.52	17.49	17.65
10.0	QPSK	RB1#0	23.05	23.13	23.15	19.40	19.48	19.50
		RB1#25	23.22	23.28	23.34	19.57	19.63	19.69
		RB1#49	23.12	23.15	23.21	19.47	19.50	19.56
		RB25#0	22.15	22.20	22.29	18.50	18.55	18.64
		RB25#25	22.19	22.23	22.26	18.54	18.58	18.61
		RB50#0	22.15	22.15	22.31	18.50	18.50	18.66
	16QAM	RB1#0	22.62	22.26	22.19	18.97	18.61	18.54
		RB1#25	22.83	22.44	22.43	19.18	18.79	18.78
		RB1#49	22.64	22.34	22.27	18.99	18.69	18.62
		RB25#0	21.17	21.21	21.38	17.52	17.56	17.73
		RB25#25	21.26	21.21	21.34	17.61	17.56	17.69
		RB50#0	21.16	21.18	21.34	17.51	17.53	17.69

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band5: Antenna Gain = -1.5dBi = -3.65dBd (0dBd=2.15dBi)
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	16.98	17.07	17.15	16.58	16.67	16.75
		RB1#13	17.18	17.24	17.39	16.78	16.84	16.99
		RB1#24	16.98	17.07	17.20	16.58	16.67	16.80
		RB15#0	16.05	16.14	16.36	15.65	15.74	15.96
		RB15#10	16.10	16.15	16.37	15.70	15.75	15.97
		RB25#0	16.09	16.17	16.32	15.69	15.77	15.92
	16QAM	RB1#0	15.92	16.34	16.32	15.52	15.94	15.92
		RB1#13	16.08	16.51	16.52	15.68	16.11	16.12
		RB1#24	15.89	16.36	16.36	15.49	15.96	15.96
		RB15#0	15.12	15.11	15.39	14.72	14.71	14.99
		RB15#10	15.15	15.14	15.37	14.75	14.74	14.97
		RB25#0	15.13	15.14	15.34	14.73	14.74	14.94
10.0	QPSK	RB1#0	16.99	17.08	17.19	16.59	16.68	16.79
		RB1#25	17.12	17.28	17.48	16.72	16.88	17.08
		RB1#49	17.04	17.11	17.29	16.64	16.71	16.89
		RB25#0	16.07	16.11	16.29	15.67	15.71	15.89
		RB25#25	16.15	16.17	16.39	15.75	15.77	15.99
		RB50#0	16.10	16.10	16.32	15.70	15.70	15.92
	16QAM	RB1#0	16.66	16.26	16.22	16.26	15.86	15.82
		RB1#25	16.82	16.43	16.52	16.42	16.03	16.12
		RB1#49	16.68	16.25	16.33	16.28	15.85	15.93
		RB25#0	15.15	15.14	15.36	14.75	14.74	14.96
		RB25#25	15.18	15.22	15.46	14.78	14.82	15.06
		RB50#0	15.12	15.13	15.36	14.72	14.73	14.96

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	16.91	17.05	17.11	16.51	16.65	16.71
		RB1#38	17.10	17.16	17.29	16.70	16.76	16.89
		RB1#74	16.96	17.06	17.19	16.56	16.66	16.79
		RB36#0	16.10	16.10	16.24	15.70	15.70	15.84
		RB36#39	16.10	16.13	16.36	15.70	15.73	15.96
		RB75#0	16.09	16.10	16.28	15.69	15.70	15.88
	16QAM	RB1#0	16.65	16.16	16.60	16.25	15.76	16.20
		RB1#38	16.76	16.31	16.71	16.36	15.91	16.31
		RB1#74	16.62	16.18	16.64	16.22	15.78	16.24
		RB36#0	15.10	15.11	15.19	14.70	14.71	14.79
		RB36#39	15.13	15.18	15.33	14.73	14.78	14.93
		RB75#0	15.10	15.15	15.28	14.70	14.75	14.88
20.0	QPSK	RB1#0	16.84	16.87	16.85	16.44	16.47	16.45
		RB1#50	17.30	17.33	17.38	16.90	16.93	16.98
		RB1#99	16.89	16.93	17.03	16.49	16.53	16.63
		RB50#0	16.08	16.10	16.29	15.68	15.70	15.89
		RB50#50	16.12	16.16	16.32	15.72	15.76	15.92
		RB100#0	16.14	16.13	16.30	15.74	15.73	15.90
	16QAM	RB1#0	16.18	16.09	16.51	15.78	15.69	16.11
		RB1#50	16.66	16.56	17.01	16.26	16.16	16.61
		RB1#99	16.21	16.18	16.70	15.81	15.78	16.30
		RB50#0	15.06	15.09	15.30	14.66	14.69	14.90
		RB50#50	15.13	15.14	15.33	14.73	14.74	14.93
		RB100#0	15.16	15.14	15.34	14.76	14.74	14.94

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band7: Antenna Gain = -0.4dBi
Limit: EIRP≤33dBm

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	23.24	23.20	23.07	19.19	19.15	19.02
		RB1#3	23.33	23.33	23.21	19.28	19.28	19.16
		RB1#5	23.19	23.13	23.08	19.14	19.08	19.03
		RB3#0	23.34	23.30	23.15	19.29	19.25	19.10
		RB3#3	23.44	23.19	23.08	19.39	19.14	19.03
		RB6#0	22.27	22.19	22.12	18.22	18.14	18.07
	16QAM	RB1#0	22.25	22.19	22.22	18.20	18.14	18.17
		RB1#3	22.35	22.34	22.35	18.30	18.29	18.30
		RB1#5	22.27	22.19	22.17	18.22	18.14	18.12
		RB3#0	22.42	22.56	22.15	18.37	18.51	18.10
		RB3#3	22.43	22.53	22.12	18.38	18.48	18.07
		RB6#0	21.29	21.28	21.16	17.24	17.23	17.11
3.0	QPSK	RB1#0	23.23	23.24	23.12	19.18	19.19	19.07
		RB1#8	23.17	23.16	23.10	19.12	19.11	19.05
		RB1#14	23.21	23.20	23.04	19.16	19.15	18.99
		RB6#0	22.20	22.13	22.00	18.15	18.08	17.95
		RB6#9	22.19	22.11	22.00	18.14	18.06	17.95
		RB15#0	22.23	22.19	22.09	18.18	18.14	18.04
	16QAM	RB1#0	22.90	22.38	22.16	18.85	18.33	18.11
		RB1#8	22.84	22.37	22.08	18.79	18.32	18.03
		RB1#14	22.78	22.35	22.06	18.73	18.30	18.01
		RB6#0	21.38	21.19	21.01	17.33	17.14	16.96
		RB6#9	21.30	21.22	21.01	17.25	17.17	16.96
		RB15#0	21.39	21.19	21.11	17.34	17.14	17.06

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	23.19	23.17	23.02	19.14	19.12	18.97
		RB1#13	23.29	23.25	23.10	19.24	19.20	19.05
		RB1#24	23.18	23.18	22.98	19.13	19.13	18.93
		RB15#0	22.29	22.22	22.14	18.24	18.17	18.09
		RB15#10	22.26	22.24	22.04	18.21	18.19	17.99
		RB25#0	22.25	22.24	22.05	18.20	18.19	18.00
	16QAM	RB1#0	22.12	22.48	22.11	18.07	18.43	18.06
		RB1#13	22.21	22.55	22.16	18.16	18.50	18.11
		RB1#24	22.11	22.46	22.06	18.06	18.41	18.01
		RB15#0	21.43	21.23	21.19	17.38	17.18	17.14
		RB15#10	21.38	21.25	21.06	17.33	17.20	17.01
		RB25#0	21.42	21.29	21.09	17.37	17.24	17.04
10.0	QPSK	RB1#0	23.25	23.18	23.24	19.20	19.13	19.19
		RB1#25	23.28	23.34	23.24	19.23	19.29	19.19
		RB1#49	23.13	23.11	23.05	19.08	19.06	19.00
		RB25#0	22.36	22.28	22.18	18.31	18.23	18.13
		RB25#25	22.33	22.32	22.08	18.28	18.27	18.03
		RB50#0	22.33	22.32	22.15	18.28	18.27	18.10
	16QAM	RB1#0	22.83	22.41	22.28	18.78	18.36	18.23
		RB1#25	22.99	22.51	22.23	18.94	18.46	18.18
		RB1#49	22.81	22.25	22.07	18.76	18.20	18.02
		RB25#0	21.48	21.37	21.33	17.43	17.32	17.28
		RB25#25	21.40	21.39	21.18	17.35	17.34	17.13
		RB50#0	21.34	21.34	21.17	17.29	17.29	17.12

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band12: Antenna Gain = -1.9dBi = -4.05dBd (0dBd=2.15dBi)
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	23.03	23.03	22.92	18.98	18.98	18.87
		RB1#13	23.06	23.07	23.04	19.01	19.02	18.99
		RB1#24	22.95	22.97	22.95	18.90	18.92	18.90
		RB15#0	22.08	22.02	22.00	18.03	17.97	17.95
		RB15#10	22.17	22.10	21.96	18.12	18.05	17.91
		RB25#0	22.12	22.05	21.94	18.07	18.00	17.89
	16QAM	RB1#0	21.92	22.29	22.00	17.87	18.24	17.95
		RB1#13	22.03	22.34	22.08	17.98	18.29	18.03
		RB1#24	21.81	22.22	22.03	17.76	18.17	17.98
		RB15#0	21.14	21.01	21.03	17.09	16.96	16.98
		RB15#10	21.21	21.07	20.99	17.16	17.02	16.94
		RB25#0	21.18	21.00	20.98	17.13	16.95	16.93
10.0	QPSK	RB1#0	/	23.03	/	/	18.98	/
		RB1#25	/	23.06	/	/	19.01	/
		RB1#49	/	22.95	/	/	18.90	/
		RB25#0	/	22.08	/	/	18.03	/
		RB25#25	/	22.17	/	/	18.12	/
		RB50#0	/	22.12	/	/	18.07	/
	16QAM	RB1#0	/	21.92	/	/	17.87	/
		RB1#25	/	22.03	/	/	17.98	/
		RB1#49	/	21.81	/	/	17.76	/
		RB25#0	/	21.14	/	/	17.09	/
		RB25#25	/	21.21	/	/	17.16	/
		RB50#0	/	21.18	/	/	17.13	/

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band13: Antenna Gain = -1.9dBi =-4.05 dBd (0dBd=2.15dBi)
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	22.99	23.01	22.83	18.94	18.96	18.78
		RB1#13	23.10	23.03	22.94	19.05	18.98	18.89
		RB1#24	23.03	22.83	22.86	18.98	18.78	18.81
		RB15#0	22.11	22.01	22.02	18.06	17.96	17.97
		RB15#10	22.09	22.07	21.89	18.04	18.02	17.84
		RB25#0	22.13	22.01	21.89	18.08	17.96	17.84
	16QAM	RB1#0	21.89	22.33	21.97	17.84	18.28	17.92
		RB1#13	22.00	22.35	22.01	17.95	18.30	17.96
		RB1#24	21.90	22.14	21.93	17.85	18.09	17.88
		RB15#0	21.19	21.04	21.02	17.14	16.99	16.97
		RB15#10	21.19	21.02	20.92	17.14	16.97	16.87
		RB25#0	21.16	21.03	20.97	17.11	16.98	16.92
10.0	QPSK	RB1#0	23.03	23.06	23.03	18.98	19.01	18.98
		RB1#25	23.17	23.19	23.10	19.12	19.14	19.05
		RB1#49	22.89	22.89	22.92	18.84	18.84	18.87
		RB25#0	22.10	22.01	21.97	18.05	17.96	17.92
		RB25#25	22.11	21.96	21.89	18.06	17.91	17.84
		RB50#0	22.11	22.00	21.96	18.06	17.95	17.91
	16QAM	RB1#0	22.65	22.19	22.08	18.60	18.14	18.03
		RB1#25	22.79	22.32	22.10	18.74	18.27	18.05
		RB1#49	22.48	22.05	21.96	18.43	18.00	17.91
		RB25#0	21.18	21.05	21.10	17.13	17.00	17.05
		RB25#25	21.16	21.00	20.99	17.11	16.95	16.94
		RB50#0	21.14	21.00	21.00	17.09	16.95	16.95

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band17: Antenna Gain = -1.9dBi = -4.05dBd (0dBd=2.15dBi)
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	22.12	22.16	22.16	21.72	21.76	21.76
		RB1#13	22.26	22.32	22.26	21.86	21.92	21.86
		RB1#24	22.15	22.21	22.17	21.75	21.81	21.77
		RB15#0	21.14	21.20	21.21	20.74	20.80	20.81
		RB15#10	21.22	21.23	21.19	20.82	20.83	20.79
		RB25#0	21.12	21.24	21.20	20.72	20.84	20.80
	16QAM	RB1#0	21.17	21.39	21.12	20.77	20.99	20.72
		RB1#13	21.33	21.54	21.25	20.93	21.14	20.85
		RB1#24	21.20	21.44	21.12	20.80	21.04	20.72
		RB15#0	20.15	20.25	20.15	19.75	19.85	19.75
		RB15#10	20.21	20.28	20.14	19.81	19.88	19.74
		RB25#0	20.18	20.22	20.20	19.78	19.82	19.80
10.0	QPSK	RB1#0	22.18	22.29	22.31	21.78	21.89	21.91
		RB1#25	22.51	22.57	22.58	22.11	22.17	22.18
		RB1#49	22.21	22.30	22.30	21.81	21.90	21.90
		RB25#0	21.22	21.24	21.29	20.82	20.84	20.89
		RB25#25	21.28	21.31	21.25	20.88	20.91	20.85
		RB50#0	21.24	21.25	21.29	20.84	20.85	20.89
	16QAM	RB1#0	21.40	21.15	21.36	21.00	20.75	20.96
		RB1#25	21.71	21.49	21.62	21.31	21.09	21.22
		RB1#49	21.38	21.19	21.34	20.98	20.79	20.94
		RB25#0	20.18	20.26	20.31	19.78	19.86	19.91
		RB25#25	20.27	20.32	20.27	19.87	19.92	19.87
		RB50#0	20.21	20.25	20.27	19.81	19.85	19.87

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	22.09	22.19	22.18	21.69	21.79	21.78
		RB1#38	22.23	22.32	22.29	21.83	21.92	21.89
		RB1#74	22.14	22.18	22.15	21.74	21.78	21.75
		RB36#0	21.22	21.27	21.30	20.82	20.87	20.90
		RB36#39	21.26	21.36	21.26	20.86	20.96	20.86
		RB75#0	21.26	21.35	21.28	20.86	20.95	20.88
	16QAM	RB1#0	21.27	21.11	21.37	20.87	20.71	20.97
		RB1#38	21.43	21.23	21.48	21.03	20.83	21.08
		RB1#74	21.32	21.09	21.34	20.92	20.69	20.94
		RB36#0	20.17	20.21	20.32	19.77	19.81	19.92
		RB36#39	20.22	20.24	20.30	19.82	19.84	19.90
		RB75#0	20.18	20.28	20.26	19.78	19.88	19.86
20.0	QPSK	RB1#0	21.92	22.00	22.08	21.52	21.60	21.68
		RB1#50	22.49	22.52	22.59	22.09	22.12	22.19
		RB1#99	22.06	22.00	22.09	21.66	21.60	21.69
		RB50#0	21.17	21.24	21.22	20.77	20.84	20.82
		RB50#50	21.24	21.27	21.18	20.84	20.87	20.78
		RB100#0	21.19	21.25	21.21	20.79	20.85	20.81
	16QAM	RB1#0	20.97	20.96	21.27	20.57	20.56	20.87
		RB1#50	21.53	21.49	21.78	21.13	21.09	21.38
		RB1#99	21.10	20.99	21.27	20.70	20.59	20.87
		RB50#0	20.18	20.27	20.21	19.78	19.87	19.81
		RB50#50	20.25	20.28	20.19	19.85	19.88	19.79
		RB100#0	20.19	20.23	20.20	19.79	19.83	19.80

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band38: Antenna Gain = -0.4dBi
Limit: EIRP≤33dBm

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	22.08	22.33	22.24	21.68	21.93	21.84
		RB1#13	22.19	22.42	22.36	21.79	22.02	21.96
		RB1#24	22.12	22.3	22.2	21.72	21.9	21.8
		RB15#0	21.13	21.35	21.27	20.73	20.95	20.87
		RB15#10	21.21	21.33	21.25	20.81	20.93	20.85
		RB25#0	21.15	21.36	21.27	20.75	20.96	20.87
	16QAM	RB1#0	21.08	21.31	21.45	20.68	20.91	21.05
		RB1#13	21.22	21.46	21.57	20.82	21.06	21.17
		RB1#24	21.14	21.32	21.43	20.74	20.92	21.03
		RB15#0	20.13	20.38	20.31	19.73	19.98	19.91
		RB15#10	20.16	20.38	20.29	19.76	19.98	19.89
		RB25#0	20.22	20.43	20.27	19.82	20.03	19.87
10.0	QPSK	RB1#0	22.14	22.42	22.34	21.74	22.02	21.94
		RB1#25	22.46	22.67	22.62	22.06	22.27	22.22
		RB1#49	22.19	22.4	22.35	21.79	22.00	21.95
		RB25#0	21.14	21.41	21.37	20.74	21.01	20.97
		RB25#25	21.28	21.39	21.29	20.88	20.99	20.89
		RB50#0	21.21	21.39	21.34	20.81	20.99	20.94
	16QAM	RB1#0	21.32	21.28	21.38	20.92	20.88	20.98
		RB1#25	21.66	21.56	21.65	21.26	21.16	21.25
		RB1#49	21.44	21.32	21.38	21.04	20.92	20.98
		RB25#0	20.15	20.46	20.4	19.75	20.06	20.00
		RB25#25	20.28	20.44	20.34	19.88	20.04	19.94
		RB50#0	20.25	20.41	20.36	19.85	20.01	19.96

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	22.09	22.28	22.29	21.69	21.88	21.89
		RB1#38	22.22	22.41	22.38	21.82	22.01	21.98
		RB1#74	22.12	22.32	22.24	21.72	21.92	21.84
		RB36#0	21.16	21.35	21.37	20.76	20.95	20.97
		RB36#39	21.24	21.44	21.32	20.84	21.04	20.92
		RB75#0	21.21	21.42	21.36	20.81	21.02	20.96
	16QAM	RB1#0	21.26	21.21	21.44	20.86	20.81	21.04
		RB1#38	21.37	21.34	21.53	20.97	20.94	21.13
		RB1#74	21.31	21.25	21.42	20.91	20.85	21.02
		RB36#0	20.13	20.31	20.43	19.73	19.91	20.03
		RB36#39	20.23	20.37	20.33	19.83	19.97	19.93
		RB75#0	20.15	20.40	20.35	19.75	20.00	19.95
20.0	QPSK	RB1#0	21.93	22.07	22.18	21.53	21.67	21.78
		RB1#50	22.47	22.58	22.65	22.07	22.18	22.25
		RB1#99	22.02	22.12	22.14	21.62	21.72	21.74
		RB50#0	21.07	21.32	21.36	20.67	20.92	20.96
		RB50#50	21.26	21.39	21.22	20.86	20.99	20.82
		RB100#0	21.17	21.33	21.26	20.77	20.93	20.86
	16QAM	RB1#0	20.96	21.06	21.37	20.56	20.66	20.97
		RB1#50	21.53	21.57	21.84	21.13	21.17	21.44
		RB1#99	21.07	21.09	21.33	20.67	20.69	20.93
		RB50#0	20.08	20.38	20.36	19.68	19.98	19.96
		RB50#50	20.31	20.45	20.24	19.91	20.05	19.84
		RB100#0	20.20	20.37	20.24	19.80	19.97	19.84

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band41: Antenna Gain = -0.4dBi
Limit: EIRP≤33dBm

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	15.73	15.67	15.47	15.03	14.97	14.77
		RB1#3	15.93	15.81	15.65	15.23	15.11	14.95
		RB1#5	15.67	15.65	15.44	14.97	14.95	14.74
		RB3#0	15.84	15.78	15.61	15.14	15.08	14.91
		RB3#3	15.86	15.79	15.65	15.16	15.09	14.95
		RB6#0	14.72	14.61	14.50	14.02	13.91	13.80
	16QAM	RB1#0	14.77	14.80	14.55	14.07	14.10	13.85
		RB1#3	14.94	14.86	14.71	14.24	14.16	14.01
		RB1#5	14.81	14.80	14.56	14.11	14.10	13.86
		RB3#0	15.11	14.77	14.74	14.41	14.07	14.04
		RB3#3	15.12	14.74	14.70	14.42	14.04	14.00
		RB6#0	13.90	13.74	13.50	13.20	13.04	12.80
3.0	QPSK	RB1#0	15.73	15.67	15.47	15.03	14.97	14.77
		RB1#8	15.93	15.81	15.65	15.23	15.11	14.95
		RB1#14	15.67	15.65	15.44	14.97	14.95	14.74
		RB6#0	15.84	15.78	15.61	15.14	15.08	14.91
		RB6#9	15.86	15.79	15.65	15.16	15.09	14.95
		RB15#0	14.72	14.61	14.50	14.02	13.91	13.80
	16QAM	RB1#0	14.77	14.80	14.55	14.07	14.10	13.85
		RB1#8	14.94	14.86	14.71	14.24	14.16	14.01
		RB1#14	14.81	14.80	14.56	14.11	14.10	13.86
		RB6#0	15.11	14.77	14.74	14.41	14.07	14.04
		RB6#9	15.12	14.74	14.70	14.42	14.04	14.00
		RB15#0	13.90	13.74	13.50	13.20	13.04	12.80

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	15.75	15.69	15.54	15.05	14.99	14.84
		RB1#13	15.80	15.77	15.60	15.10	15.07	14.90
		RB1#24	15.72	15.65	15.51	15.02	14.95	14.81
		RB15#0	14.79	14.71	14.63	14.09	14.01	13.93
		RB15#10	14.82	14.68	14.62	14.12	13.98	13.92
		RB25#0	14.78	14.71	14.61	14.08	14.01	13.91
	16QAM	RB1#0	14.69	14.97	14.63	13.99	14.27	13.93
		RB1#13	14.74	15.07	14.71	14.04	14.37	14.01
		RB1#24	14.68	14.96	14.62	13.98	14.26	13.92
		RB15#0	13.96	13.77	13.72	13.26	13.07	13.02
		RB15#10	13.98	13.70	13.61	13.28	13.00	12.91
		RB25#0	13.97	13.75	13.67	13.27	13.05	12.97
10.0	QPSK	RB1#0	15.76	15.73	15.61	15.06	15.03	14.91
		RB1#25	15.83	15.85	15.73	15.13	15.15	15.03
		RB1#49	15.74	15.65	15.55	15.04	14.95	14.85
		RB25#0	14.82	14.83	14.72	14.12	14.13	14.02
		RB25#25	14.90	14.76	14.59	14.20	14.06	13.89
		RB50#0	14.88	14.84	14.69	14.18	14.14	13.99
	16QAM	RB1#0	15.49	14.92	14.65	14.79	14.22	13.95
		RB1#25	15.65	15.04	14.82	14.95	14.34	14.12
		RB1#49	15.45	14.85	14.61	14.75	14.15	13.91
		RB25#0	13.99	13.90	13.83	13.29	13.20	13.13
		RB25#25	14.08	13.84	13.71	13.38	13.14	13.01
		RB50#0	14.00	13.84	13.74	13.30	13.14	13.04

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	15.73	15.79	15.57	15.03	15.09	14.87
		RB1#38	15.80	15.80	15.62	15.10	15.10	14.92
		RB1#74	15.66	15.61	15.48	14.96	14.91	14.78
		RB36#0	14.80	14.78	14.72	14.10	14.08	14.02
		RB36#39	14.83	14.72	14.57	14.13	14.02	13.87
		RB75#0	14.83	14.76	14.63	14.13	14.06	13.93
	16QAM	RB1#0	15.44	14.90	15.05	14.74	14.20	14.35
		RB1#38	15.50	14.98	15.10	14.80	14.28	14.40
		RB1#74	15.42	14.75	14.95	14.72	14.05	14.25
		RB36#0	13.90	13.83	13.66	13.20	13.13	12.96
		RB36#39	13.91	13.74	13.57	13.21	13.04	12.87
		RB75#0	13.91	13.80	13.61	13.21	13.10	12.91
20.0	QPSK	RB1#0	15.63	15.59	15.39	14.93	14.89	14.69
		RB1#50	15.96	15.94	15.72	15.26	15.24	15.02
		RB1#99	15.62	15.50	15.31	14.92	14.80	14.61
		RB50#0	14.85	14.87	14.81	14.15	14.17	14.11
		RB50#50	14.84	14.77	14.57	14.14	14.07	13.87
		RB100#0	14.88	14.81	14.71	14.18	14.11	14.01
	16QAM	RB1#0	15.01	14.87	15.06	14.31	14.17	14.36
		RB1#50	15.32	15.18	15.42	14.62	14.48	14.72
		RB1#99	14.93	14.74	14.96	14.23	14.04	14.26
		RB50#0	13.93	13.89	13.83	13.23	13.19	13.13
		RB50#50	14.01	13.79	13.61	13.31	13.09	12.91
		RB100#0	13.96	13.84	13.71	13.26	13.14	13.01

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 66: Antenna Gain = -0.7dBi
Limit: EIRP≤30dBm

Peak-to-average ratio (PAR)

Cellular Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.97	13
	Middle	3.57	13
	High	3.52	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.51	13
	Middle	3.66	13
	High	3.47	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	1.70	13
	Middle	2.95	13
	High	3.08	13
HSDPA (16QAM)	Low	3.17	13
	Middle	3.85	13
	High	3.17	13
HSUPA (QPSK)	Low	3.81	13
	Middle	3.33	13
	High	1.36	13
HSPA+	Low	3.28	13
	Middle	3.51	13
	High	3.57	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.42	13
	Middle	3.57	13
	High	3.64	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.61	13
	Middle	3.45	13
	High	3.48	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.21	13
	Middle	3.17	13
	High	3.17	13
HSDPA (16QAM)	Low	3.43	13
	Middle	3.46	13
	High	4.39	13
HSUPA (QPSK)	Low	3.43	13
	Middle	3.46	13
	High	4.39	13
HSPA+	Low	3.39	13
	Middle	3.57	13
	High	3.46	13

AWS Band

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.27	13
	Middle	3.27	13
	High	3.33	13
HSDPA (16QAM)	Low	4.39	13
	Middle	4.29	13
	High	3.85	13
HSUPA (QPSK)	Low	3.72	13
	Middle	3.46	13
	High	3.81	13
HSPA+	Low	3.46	13
	Middle	3.48	13
	High	3.62	13

LTE Band 2 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.96	5.80	6.22	13	Pass
QPSK (100RB Size)	5.77	5.67	5.87	13	Pass
16QAM (1RB Size)	6.60	6.44	7.40	13	Pass
16QAM (100RB Size)	6.76	6.70	6.67	13	Pass

LTE Band 4 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.26	4.33	4.52	13	Pass
QPSK (100RB Size)	5.58	5.45	5.48	13	Pass
16QAM (1RB Size)	6.12	5.54	5.67	13	Pass
16QAM (100RB Size)	6.38	6.22	6.15	13	Pass

LTE Band 5 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.84	4.65	4.94	13	Pass
QPSK (50RB Size)	5.64	5.64	5.64	13	Pass
16QAM (1RB Size)	6.15	5.99	5.90	13	Pass
16QAM (50RB Size)	6.44	6.51	6.44	13	Pass

LTE Band 7 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.91	4.70	4.67	13	Pass
QPSK (100RB Size)	5.10	5.10	4.90	13	Pass
16QAM (1RB Size)	4.49	5.59	5.80	13	Pass
16QAM (100RB Size)	6.20	6.06	5.97	13	Pass

LTE Band 12 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.90	4.81	5.32	13	Pass
QPSK (50RB Size)	5.77	5.80	5.67	13	Pass
16QAM (1RB Size)	5.90	5.90	5.80	13	Pass
16QAM (50RB Size)	6.60	6.67	6.60	13	Pass

LTE Band 13 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	/	3.77	/	13	Pass
QPSK (50RB Size)	/	4.64	/	13	Pass
16QAM (1RB Size)	/	4.96	/	13	Pass
16QAM (50RB Size)	/	5.54	/	13	Pass

LTE Band 17 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.58	4.03	4.14	13	Pass
QPSK (50RB Size)	4.84	4.87	4.70	13	Pass
16QAM (1RB Size)	5.36	4.87	4.75	13	Pass
16QAM (50RB Size)	5.80	5.74	5.68	13	Pass

LTE Band 38 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.57	4.14	3.68	13	Pass
QPSK (100RB Size)	4.32	4.81	4.84	13	Pass
16QAM (1RB Size)	4.61	4.38	4.41	13	Pass
16QAM (100RB Size)	5.33	5.80	5.88	13	Pass

LTE Band 41 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.16	5.10	5.64	13	Pass
QPSK (100RB Size)	5.74	5.74	5.67	13	Pass
16QAM (1RB Size)	6.54	6.15	6.92	13	Pass
16QAM (100RB Size)	6.54	6.57	6.38	13	Pass

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LTE Band 66 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.51	5.19	5.74	13	Pass
QPSK (100RB Size)	5.54	5.77	5.61	13	Pass
16QAM (1RB Size)	6.06	6.60	6.83	13	Pass
16QAM (100RB Size)	6.51	6.41	6.44	13	Pass

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

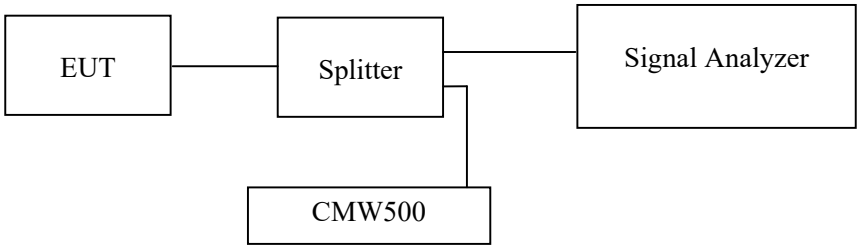
Applicable Standard

FCC 47 §2.1049, §22.917, §22.905, §24.238, and §27.53.

Test Procedure

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

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



Test Data

Environmental Conditions

Temperature:	27.2~28 ℃
Relative Humidity:	56.8~62 %
ATM Pressure:	101.0 kPa

The testing was performed by Audy Yu from 2022-06-26 to 2022-07-18.

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	321.00
	190	836.6	245.00	314.00
	251	848.8	244.00	314.00
EGPRS(8PSK)	128	824.2	248.00	321.00
	190	836.6	248.00	317.00
	251	848.8	246.00	309.00

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.17	4.74
	836.6	4.17	4.73
	846.6	4.16	4.74
HSDPA	826.4	4.22	5.00
	836.6	4.20	5.01
	846.6	4.19	4.73
HSUPA	826.4	4.22	5.13
	836.6	4.23	5.13
	846.6	4.22	5.12

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM (GMSK)	512	1850.2	245.00	314.00
	661	1880.0	245.00	321.00
	810	1909.8	246.00	319.00
EGPRS(8PSK)	512	1850.2	251.00	314.00
	661	1880.0	245.00	312.00
	810	1909.8	250.00	314.00

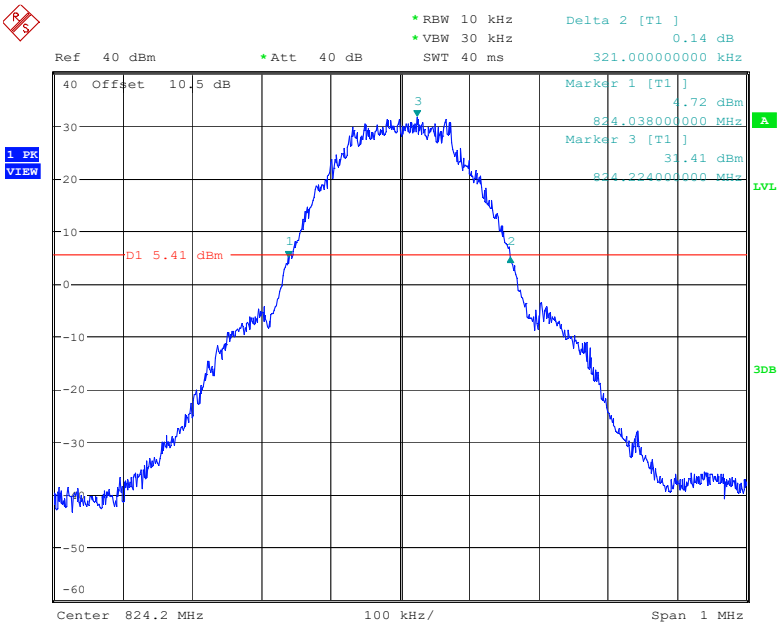
Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.17	4.74
	1880.0	4.17	4.74
	1907.6	4.17	4.71
HSDPA	1852.4	4.17	4.74
	1880.0	4.17	4.74
	1907.6	4.15	4.73
HSUPA	1852.4	4.17	4.74
	1880.0	4.19	4.74
	1907.6	4.18	4.74

AWS Band (Part 27)

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.17	4.73
	1732.6	4.17	4.73
	1752.6	4.17	4.73
HSDPA	1712.4	4.19	4.71
	1732.6	4.19	4.76
	1752.6	4.19	4.73
HSUPA	1712.4	4.19	4.73
	1732.6	4.20	4.74
	1752.6	4.19	4.73

Cellular Band (Part 22H)

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



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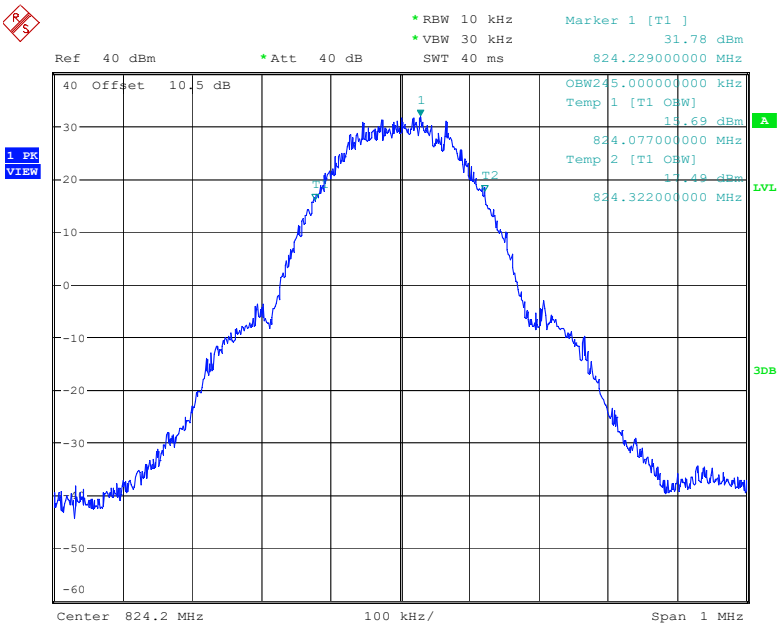

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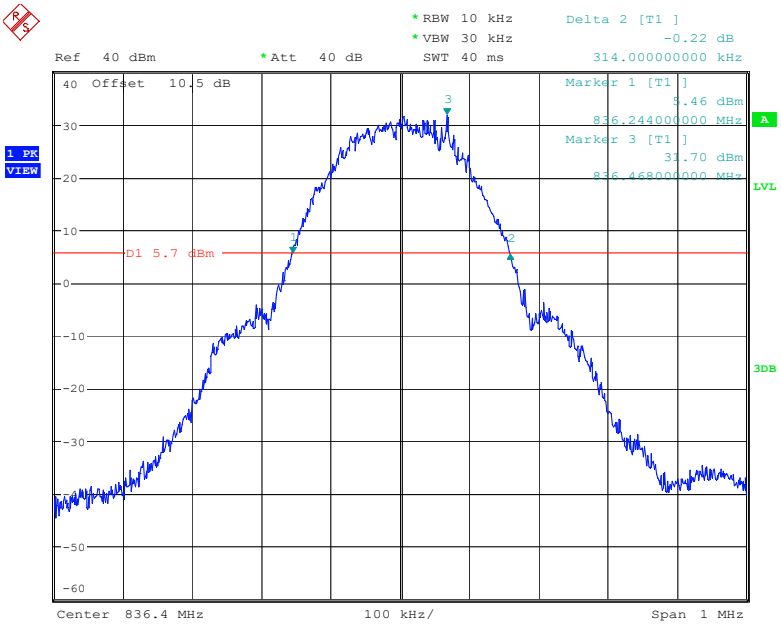
26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, Middle channel



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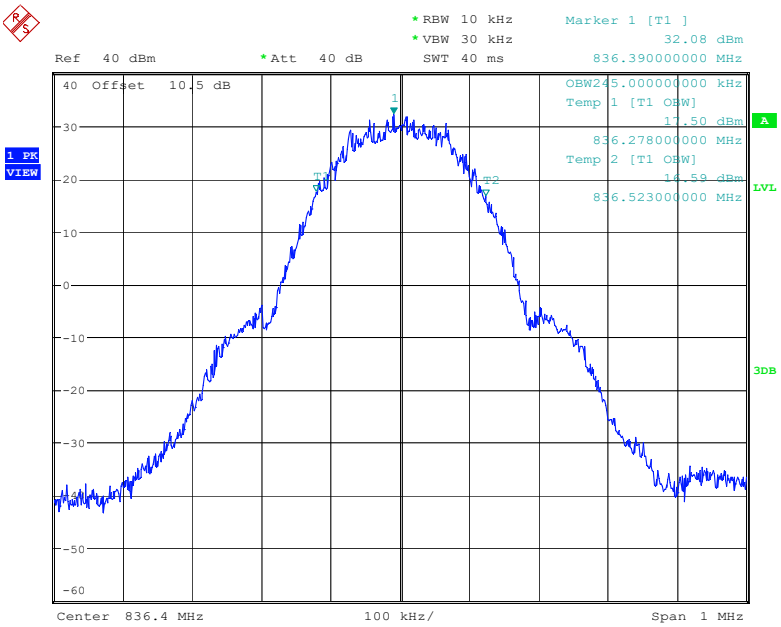

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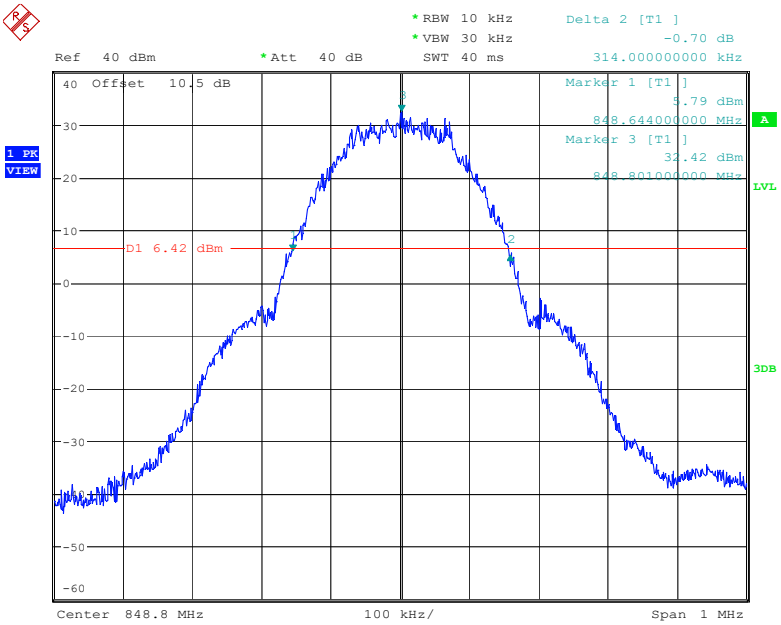
26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, High channel



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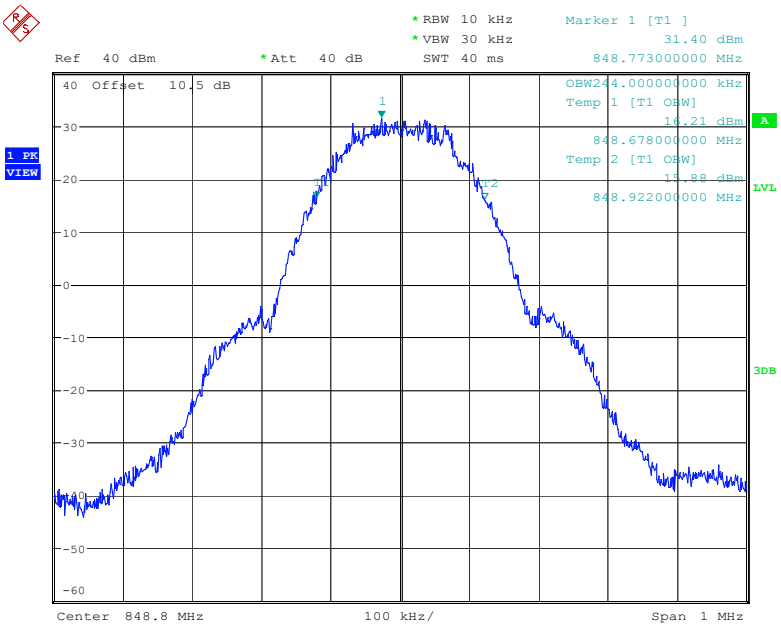
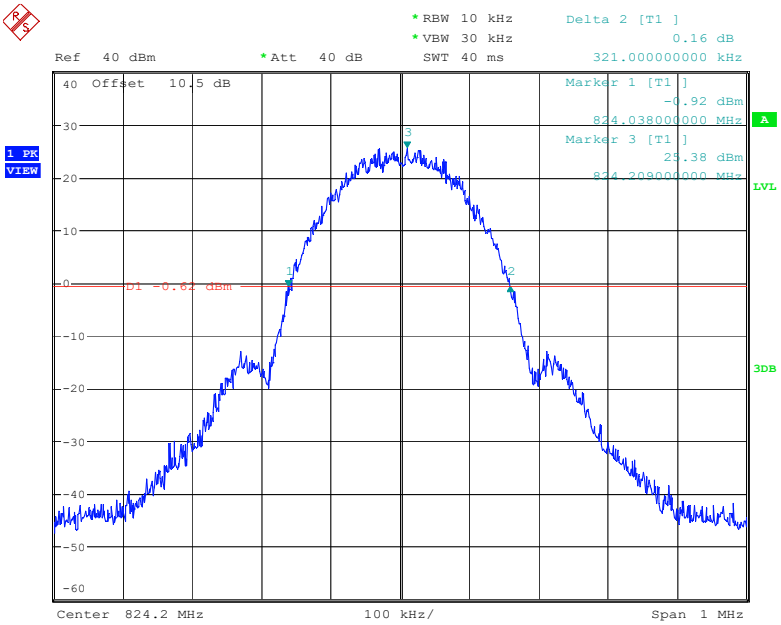
26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, High channel



Date: 28.JUN.2022 15:11:39

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



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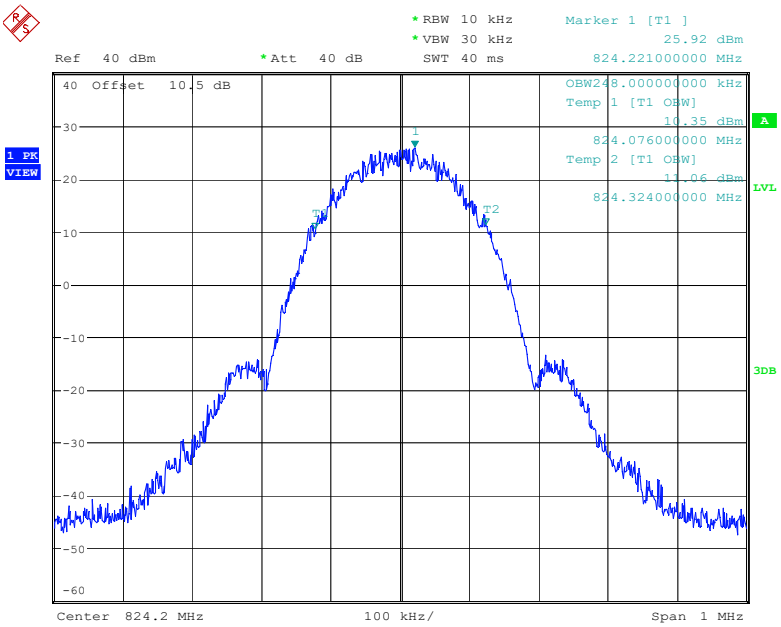

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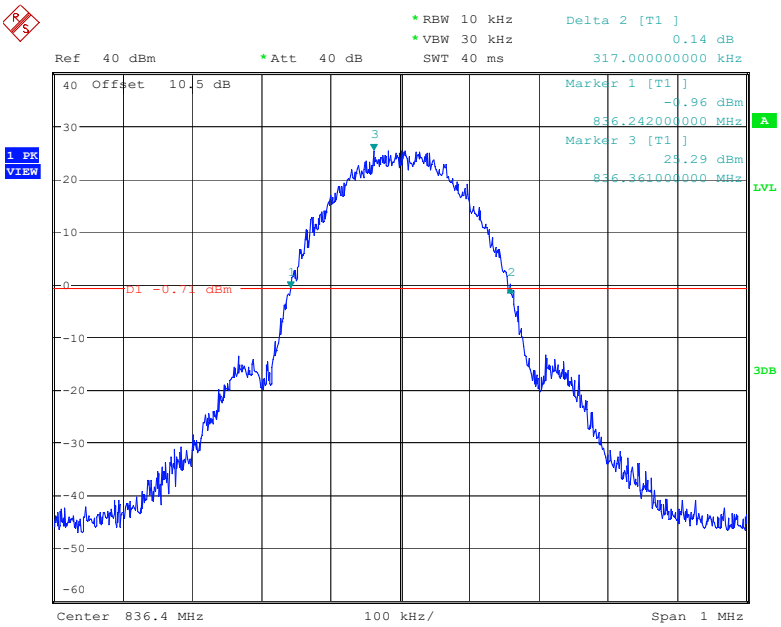
26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, Middle channel



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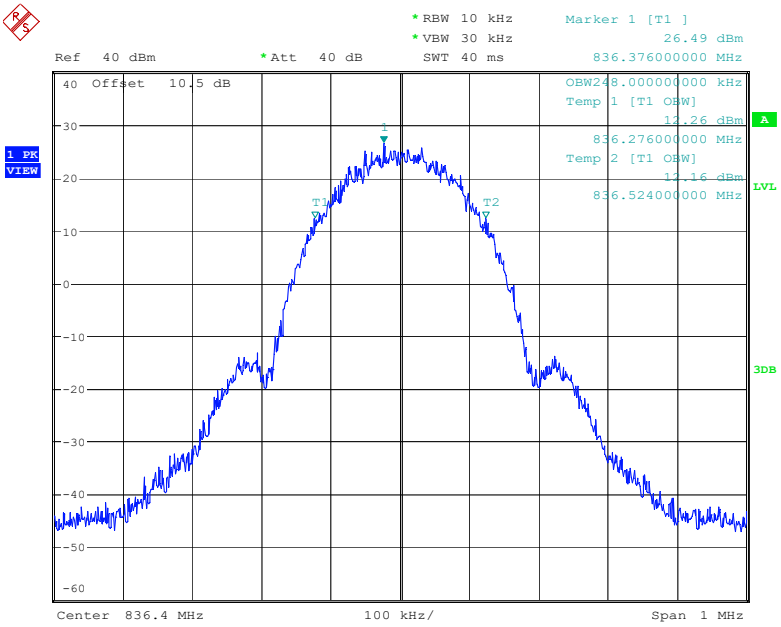

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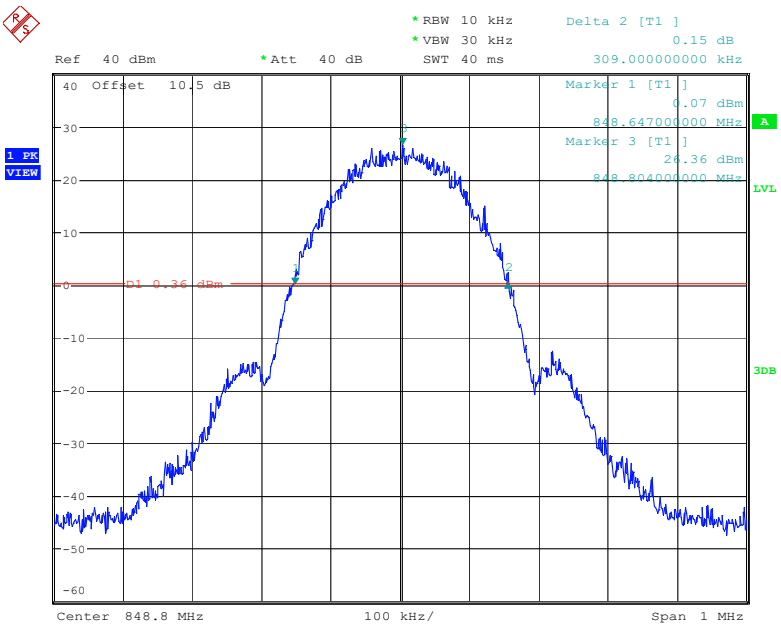
26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, High channel



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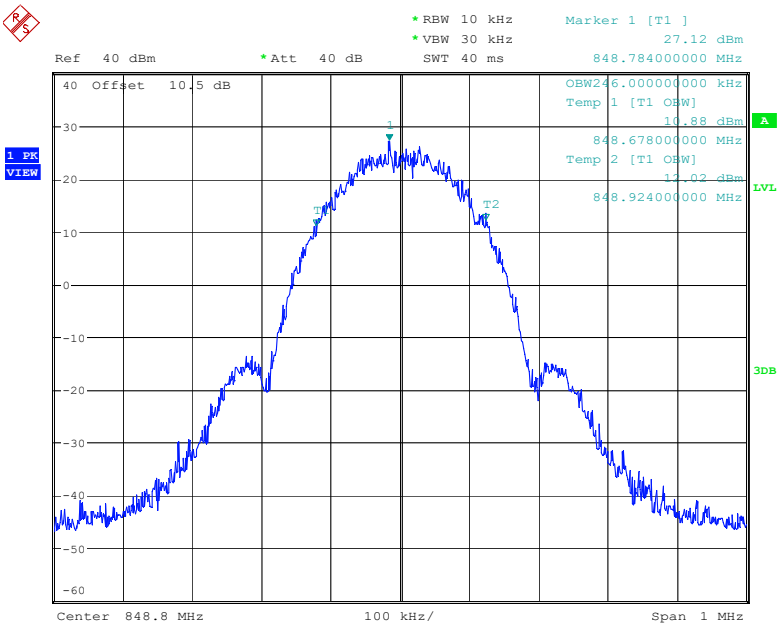

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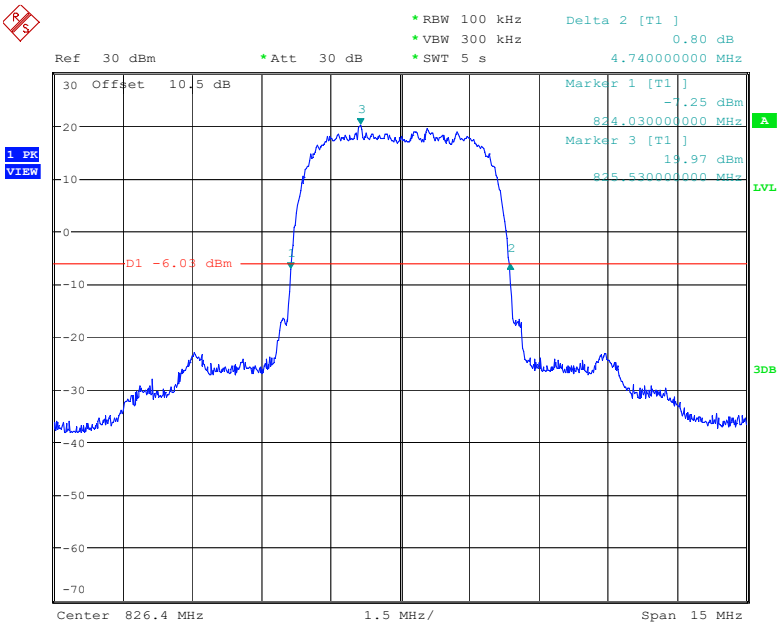
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Low channel



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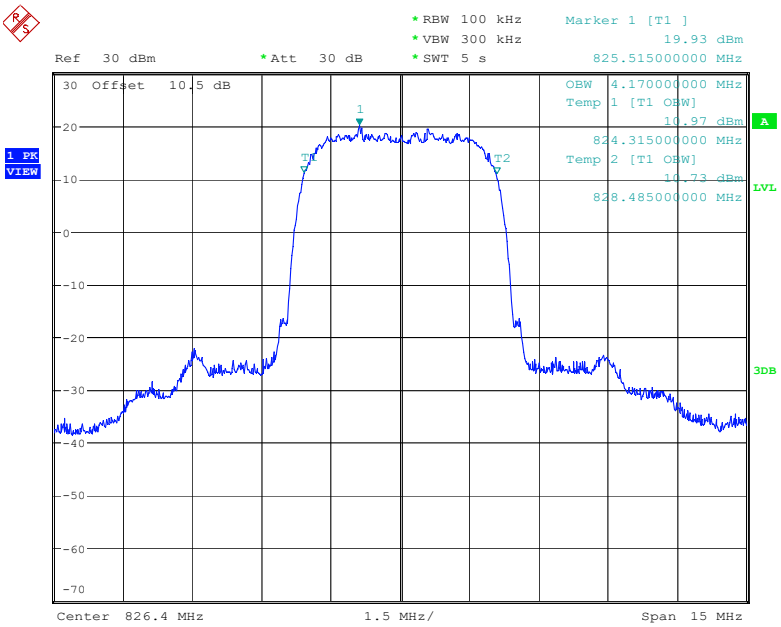

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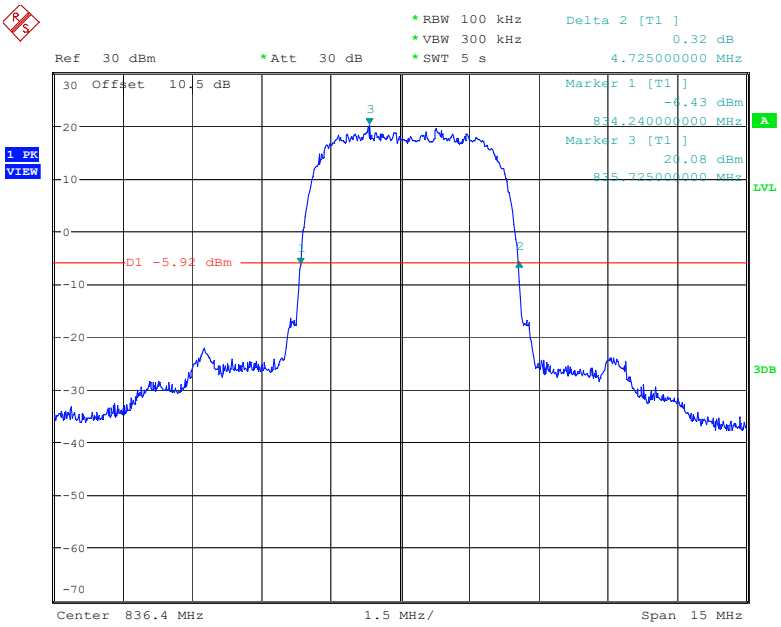
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, Middle channel



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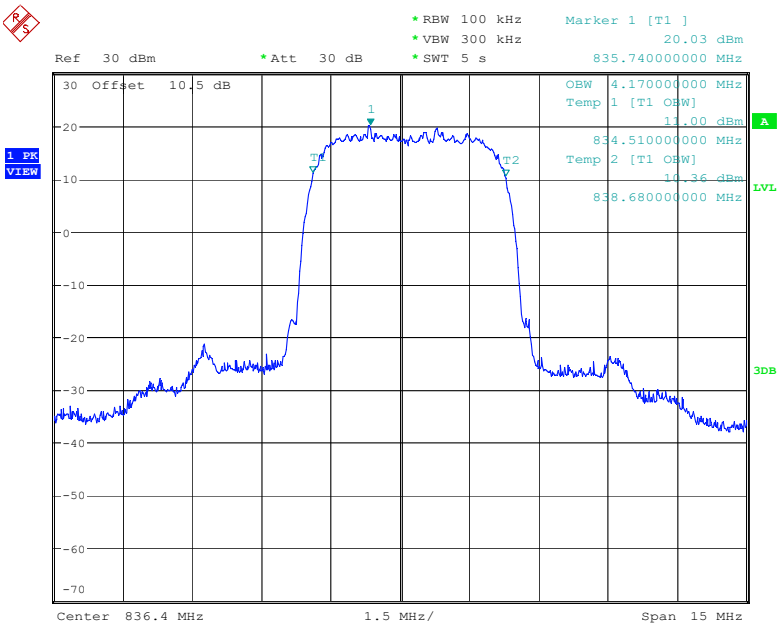

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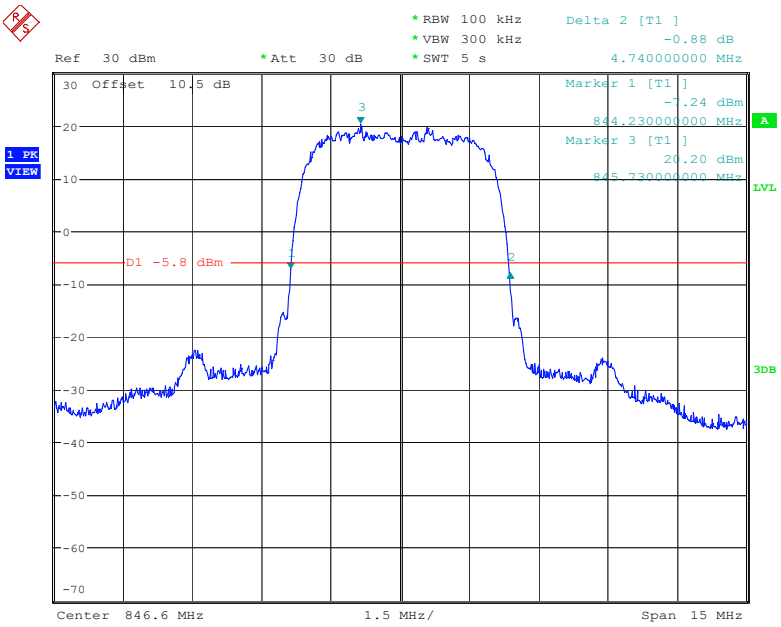
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, High channel



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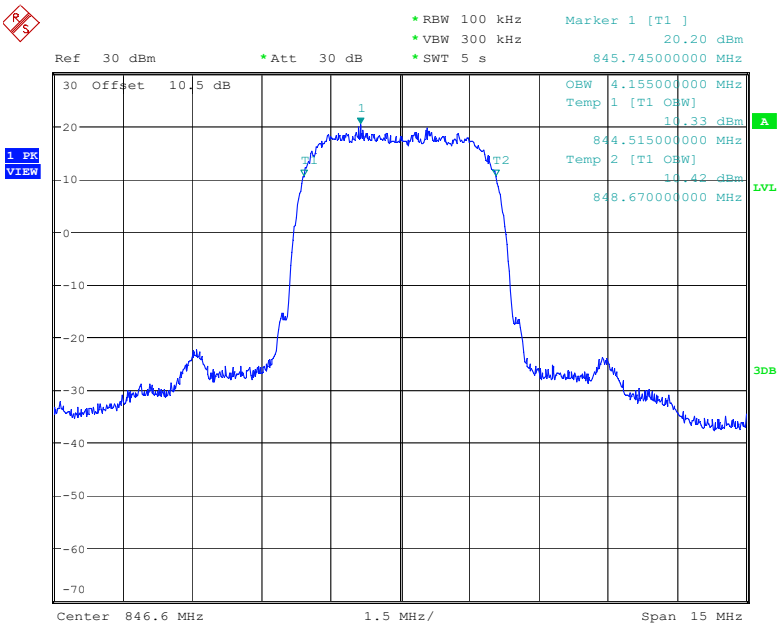

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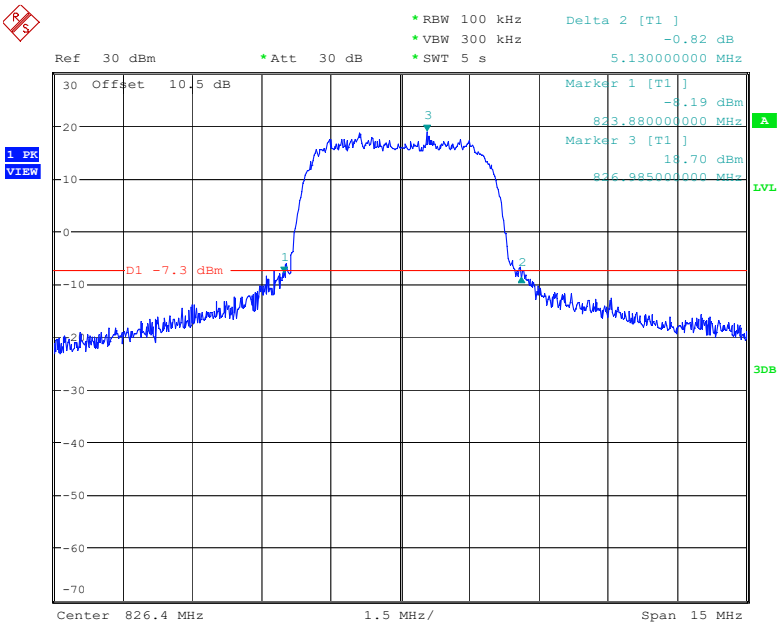
26 dB Emissions &99% Occupied Bandwidth for HSUPA (QPSK) Mode, Low channel



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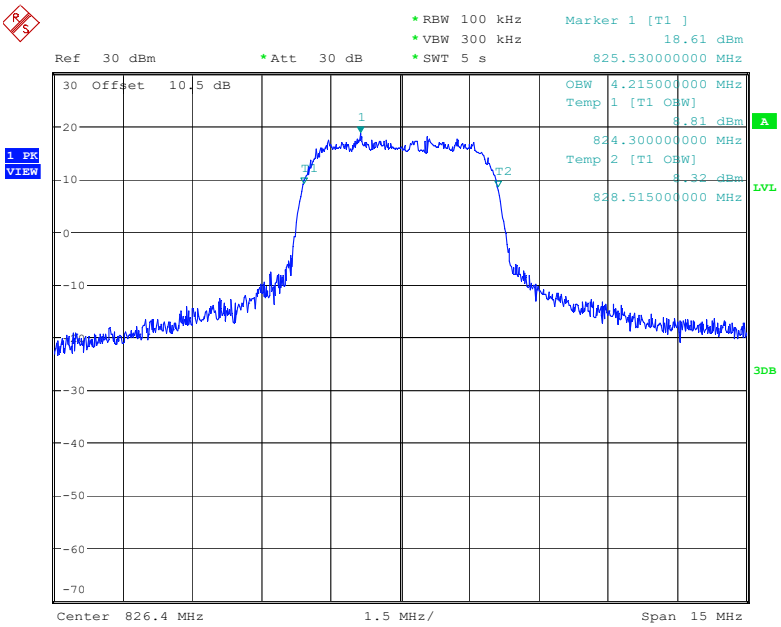

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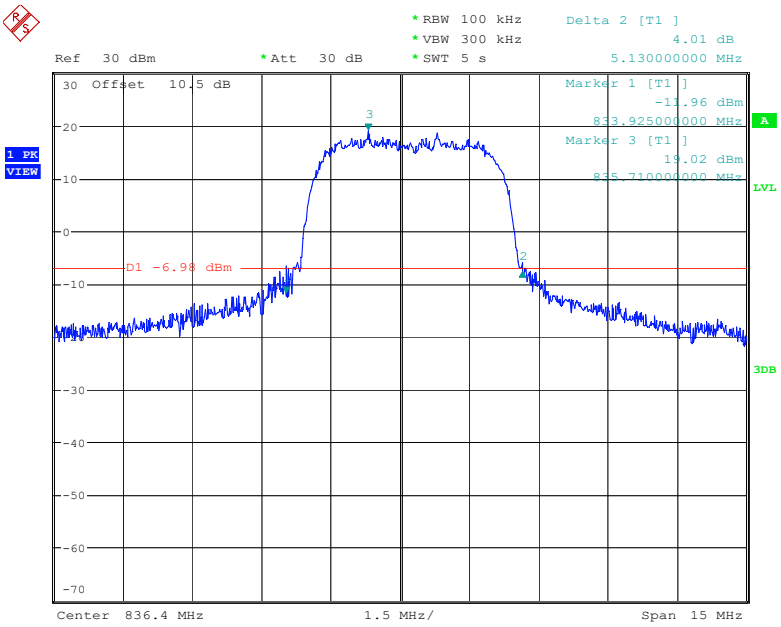
26 dB Emissions &99% Occupied Bandwidth for HSUPA (QPSK) Mode, Middle channel



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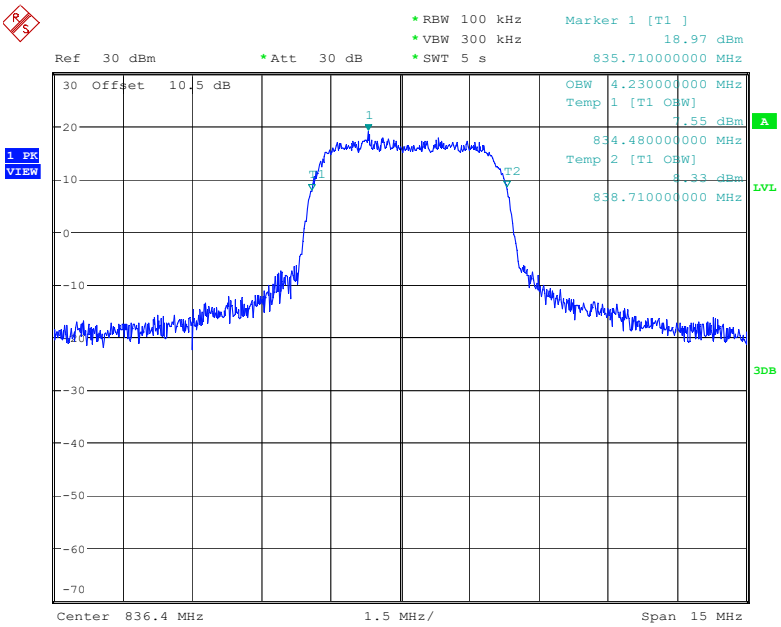

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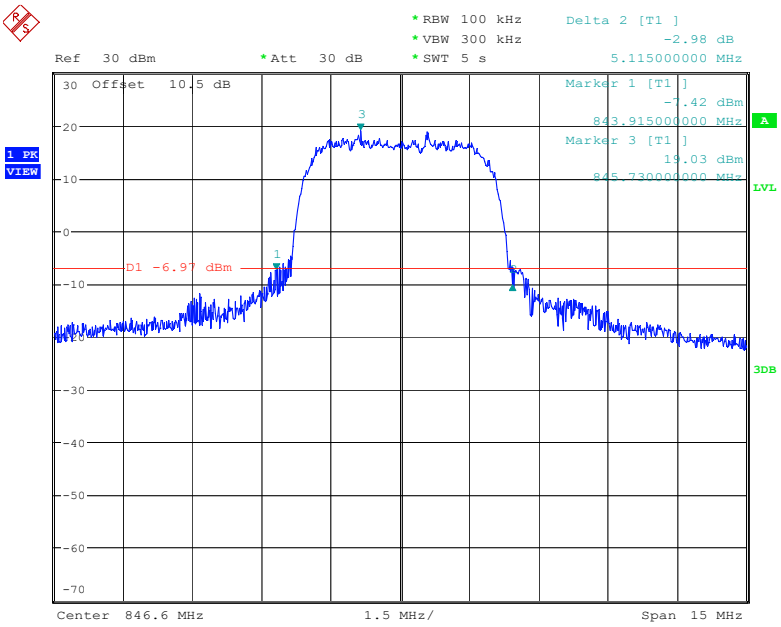
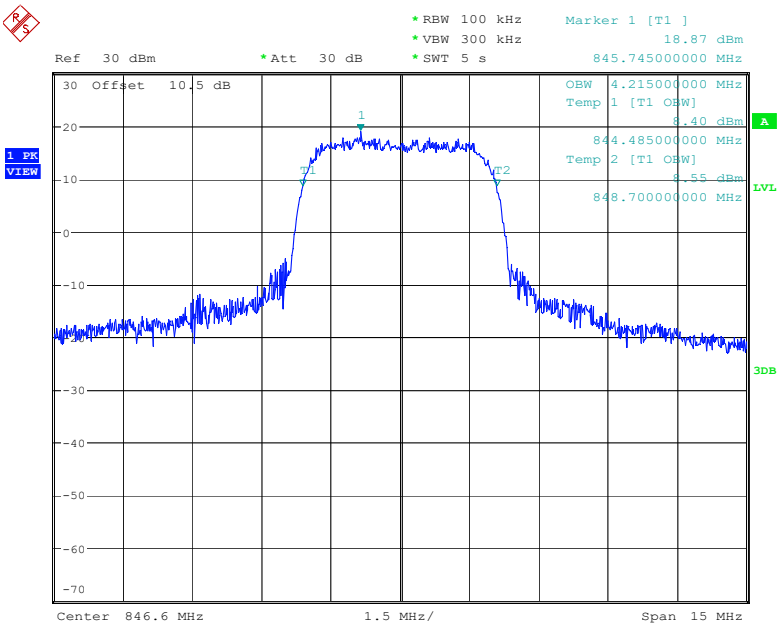
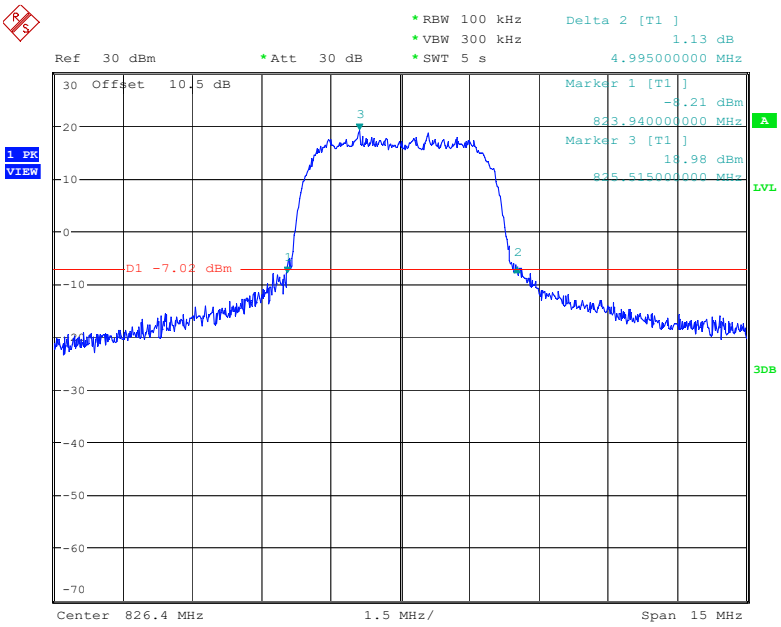
26 dB Emissions &99% Occupied Bandwidth for HSUPA (QPSK) Mode, High channel

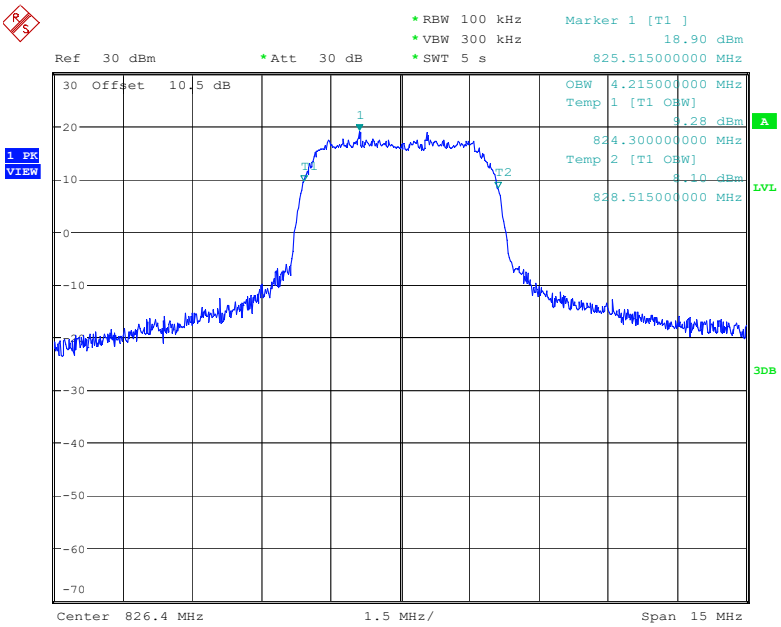




26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, Low channel

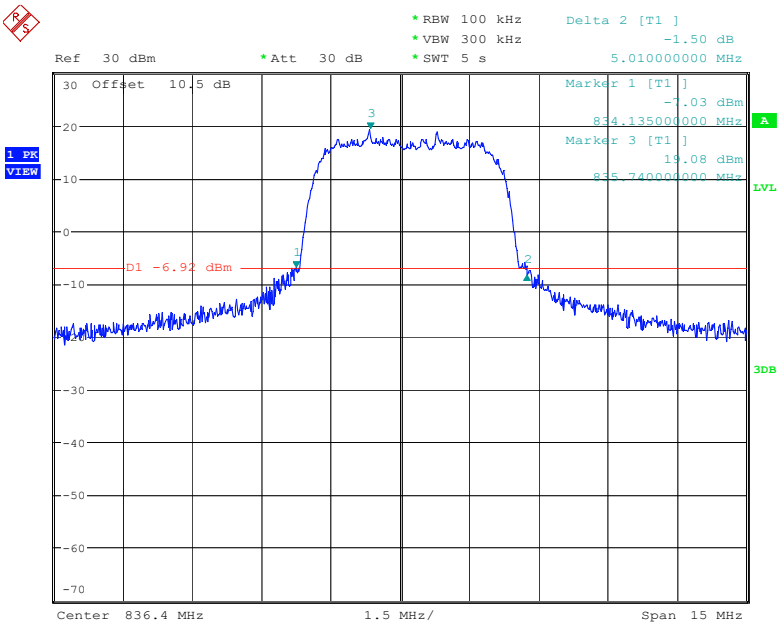


Date: 28.JUN.2022 18:00:25

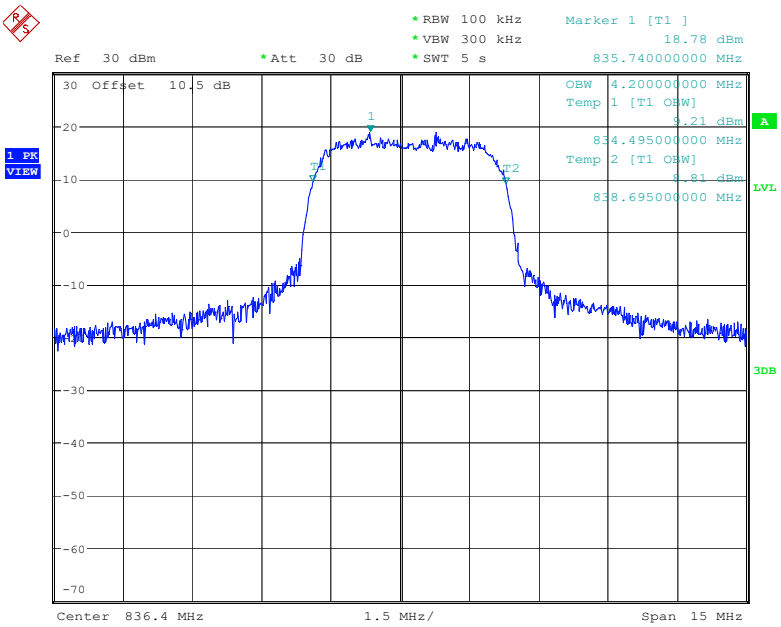


Date: 28.JUN.2022 17:59:47

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

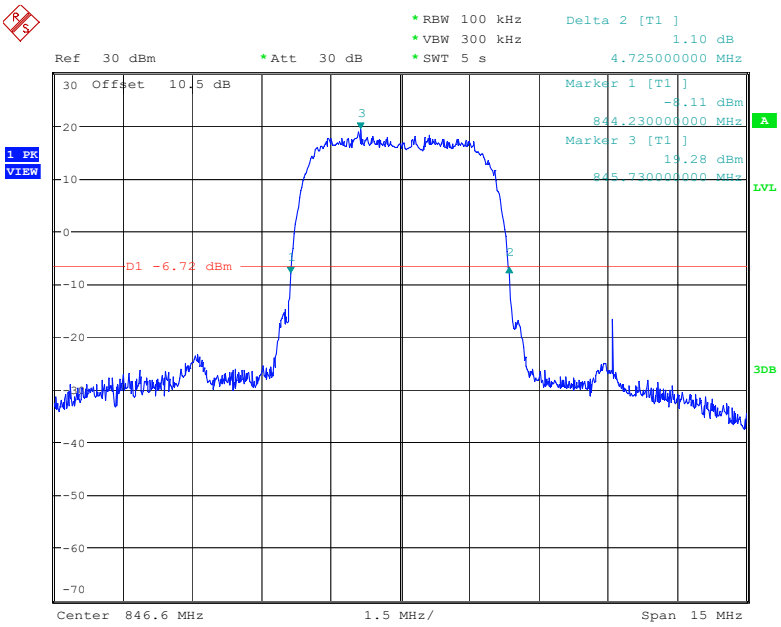


Date: 28.JUN.2022 18:03:39

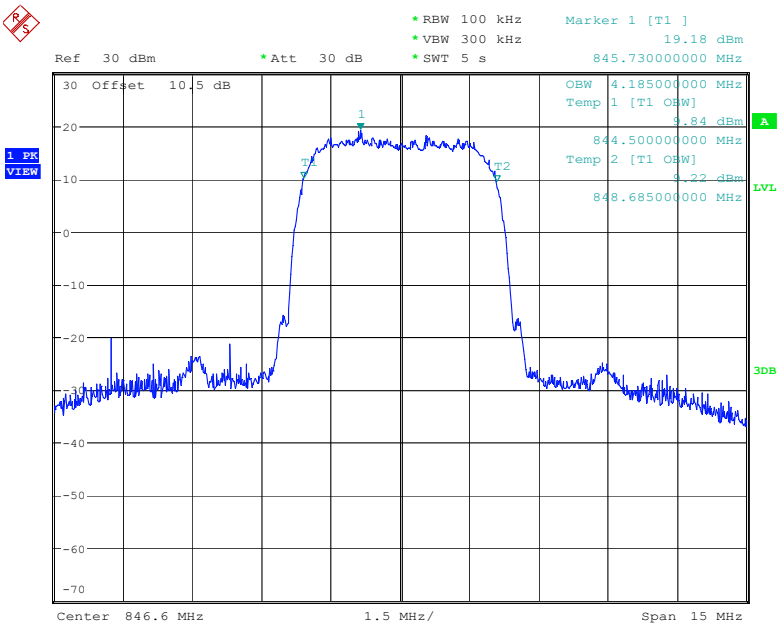


Date: 28.JUN.2022 18:03:01

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



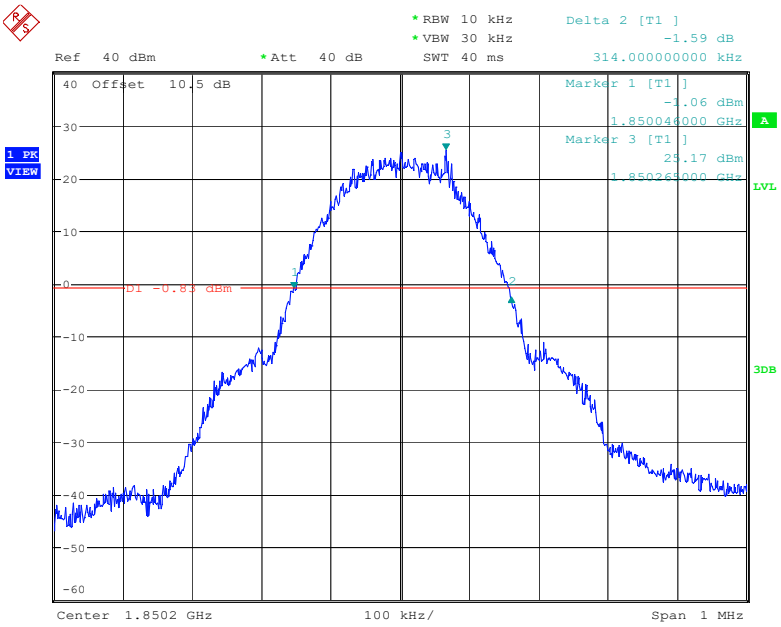
Date: 28.JUN.2022 18:06:35



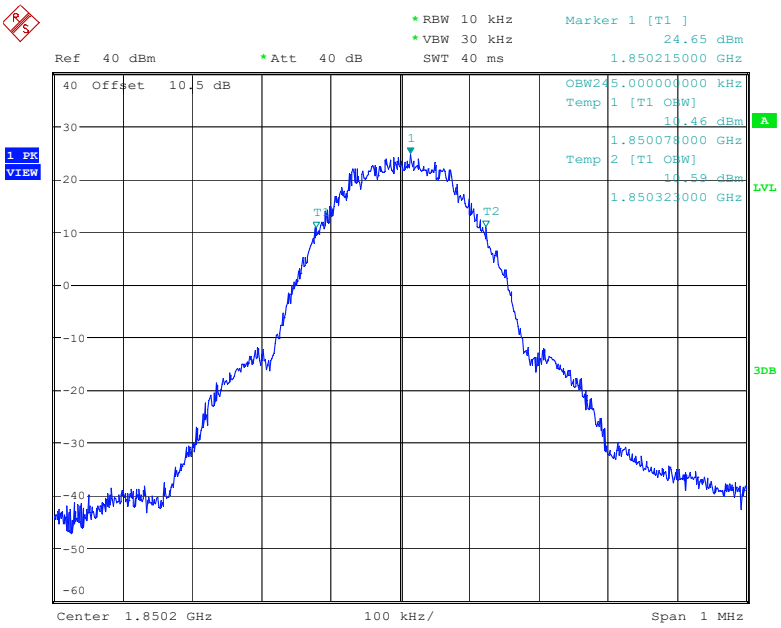
Date: 28.JUN.2022 18:05:58

PCS Band (Part 24E)

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

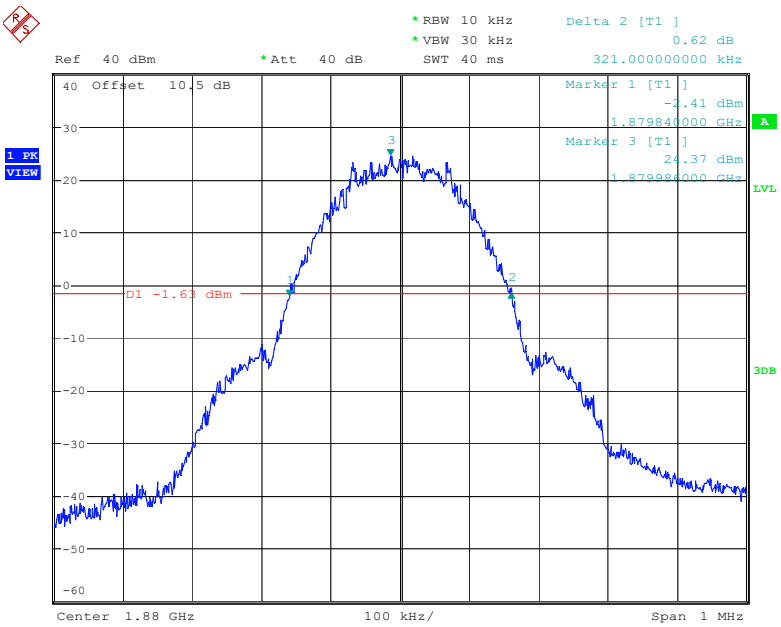


Date: 28.JUN.2022 15:42:29

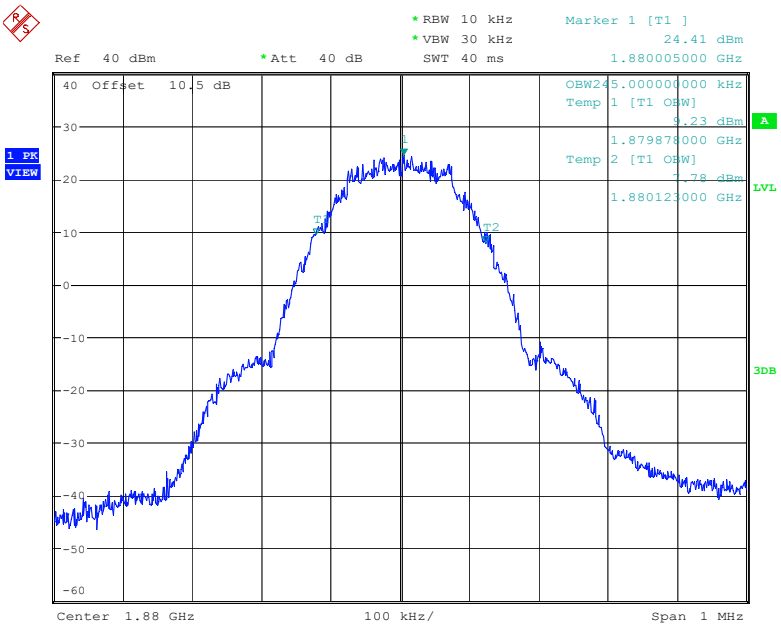


Date: 28.JUN.2022 15:42:02

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

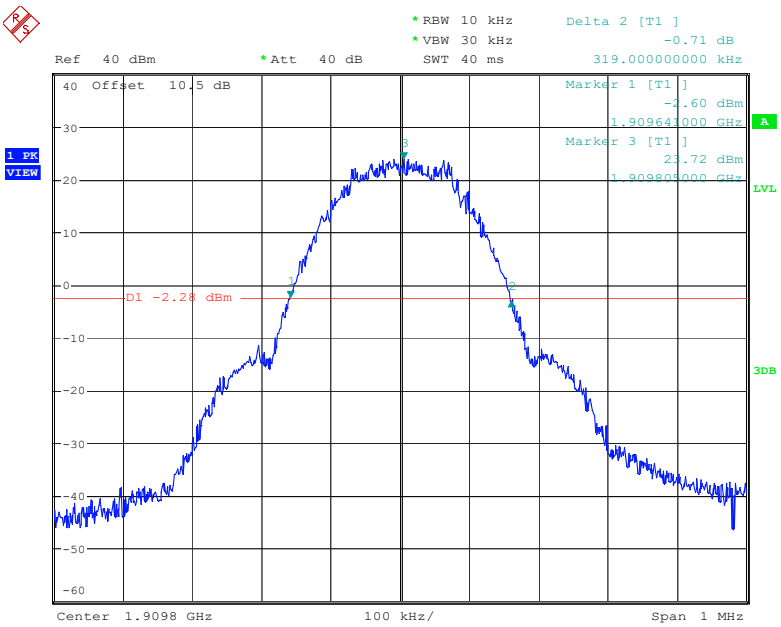


Date: 28.JUN.2022 15:46:10

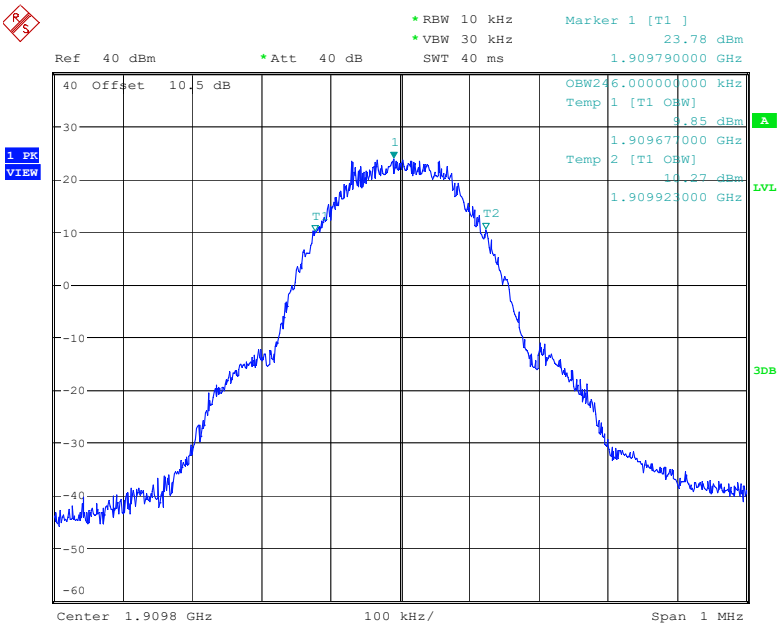


Date: 28.JUN.2022 15:45:43

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

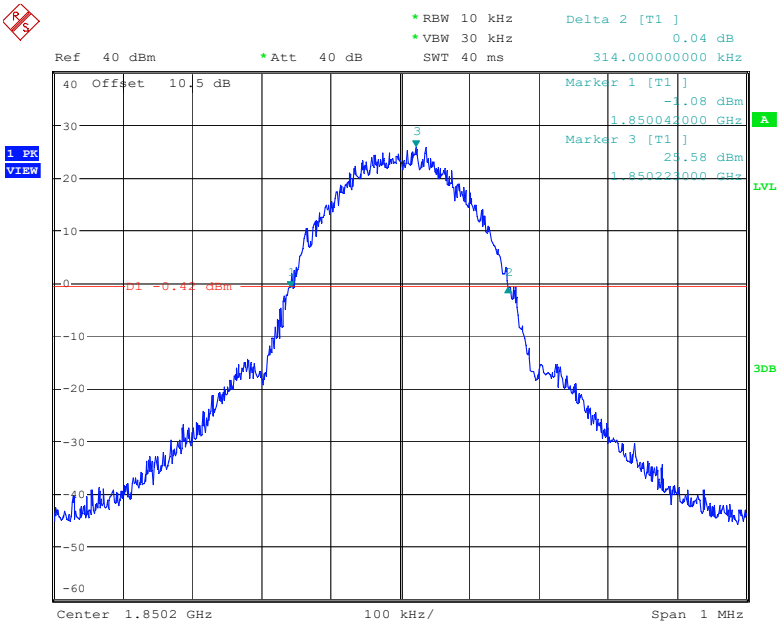


Date: 28.JUN.2022 15:49:25

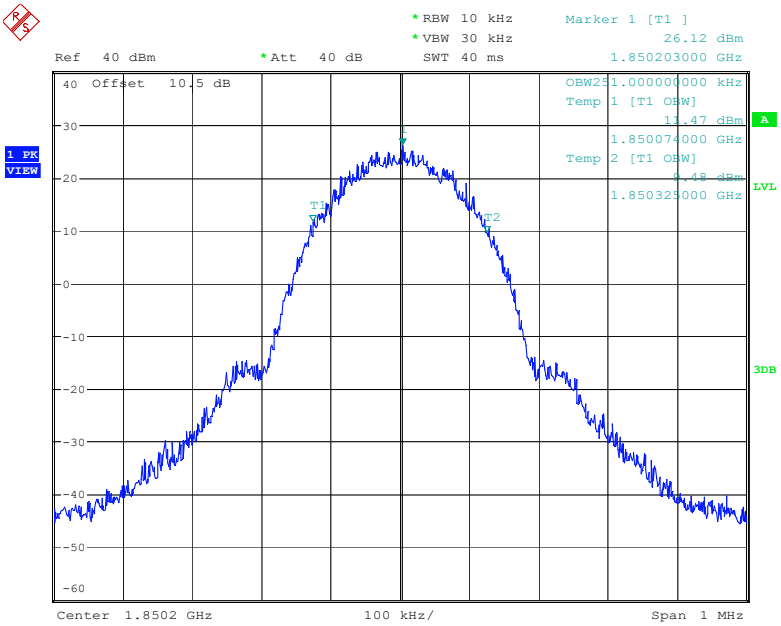


Date: 28.JUN.2022 15:48:58

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

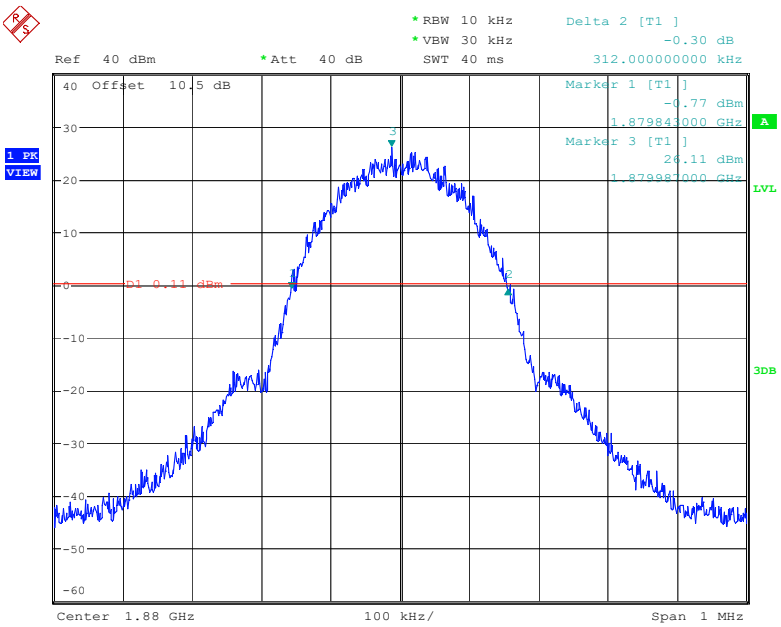


Date: 28.JUN.2022 15:30:13

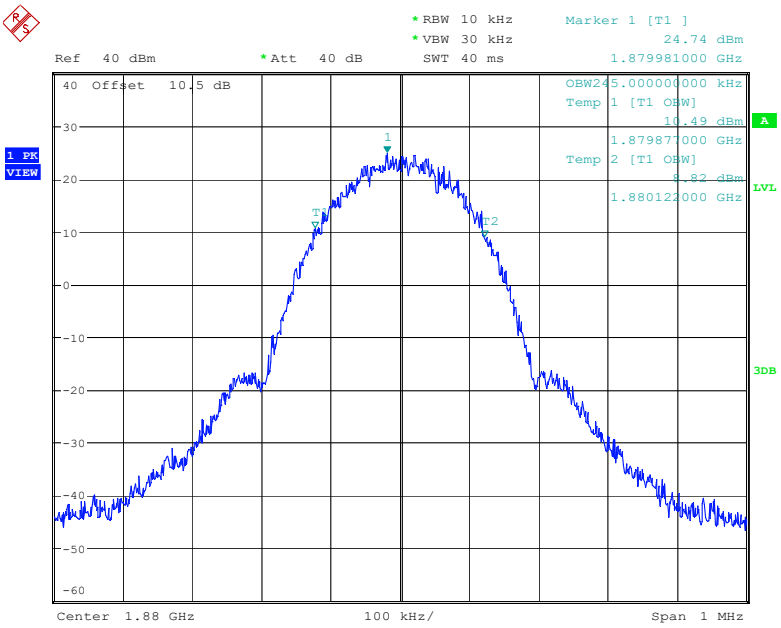


Date: 28.JUN.2022 15:29:46

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

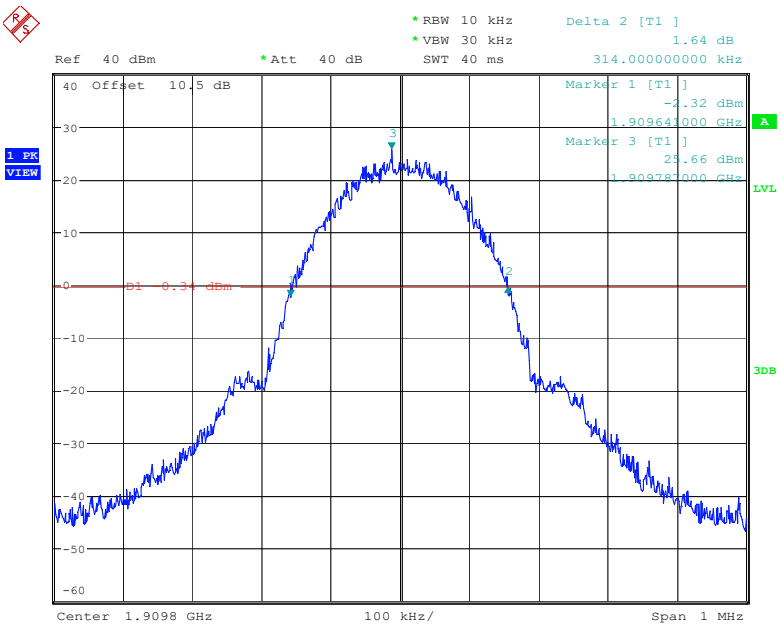


Date: 28.JUN.2022 15:33:50

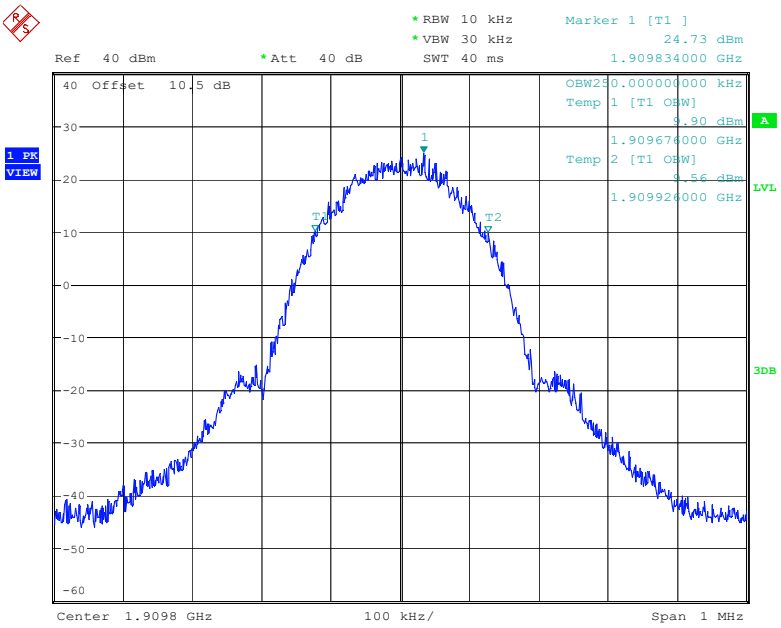


Date: 28.JUN.2022 15:33:22

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

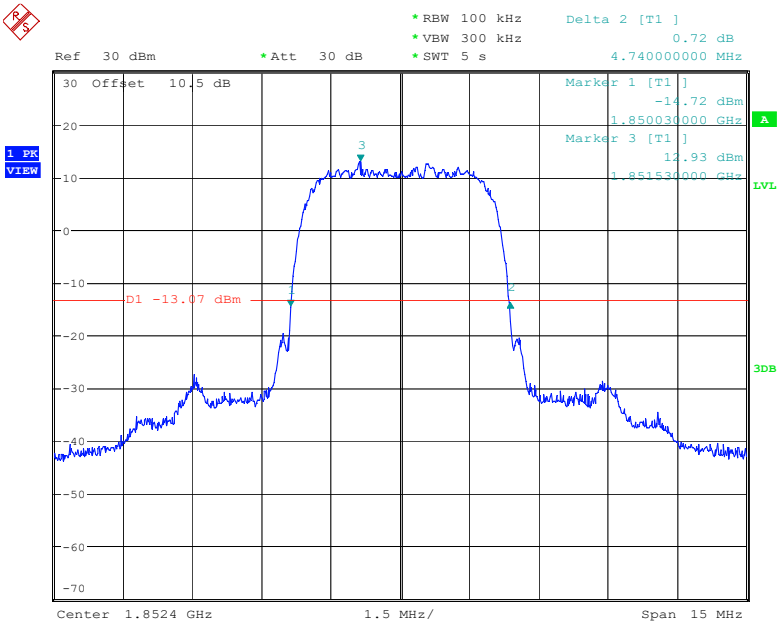


Date: 28.JUN.2022 15:37:31

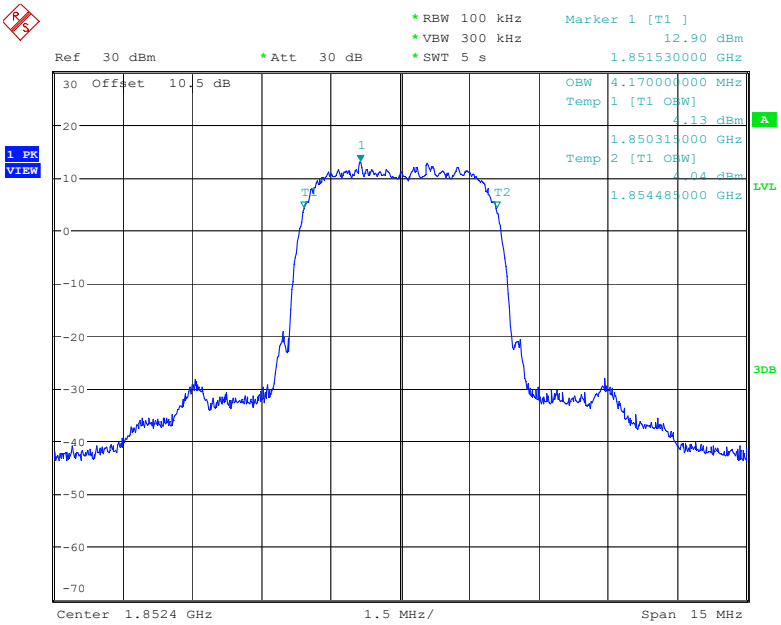


Date: 28.JUN.2022 15:37:04

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

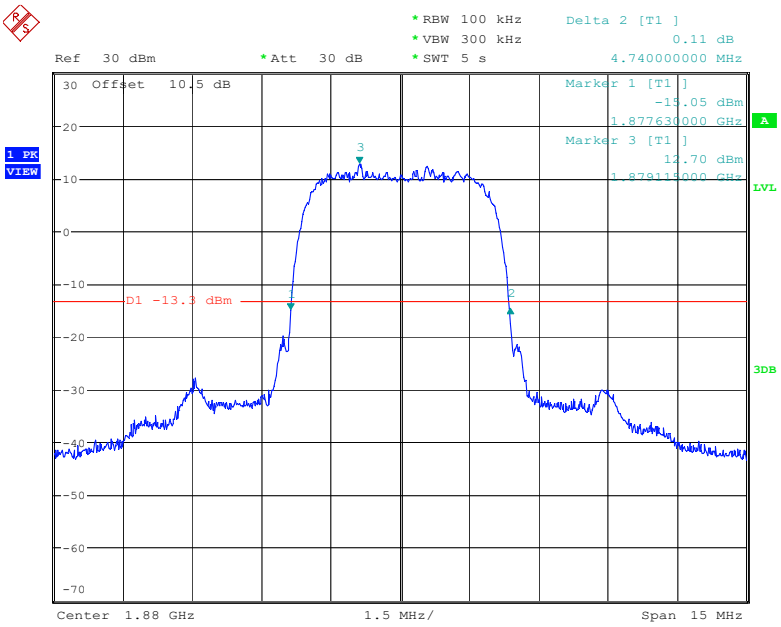


Date: 28.JUN.2022 15:56:59

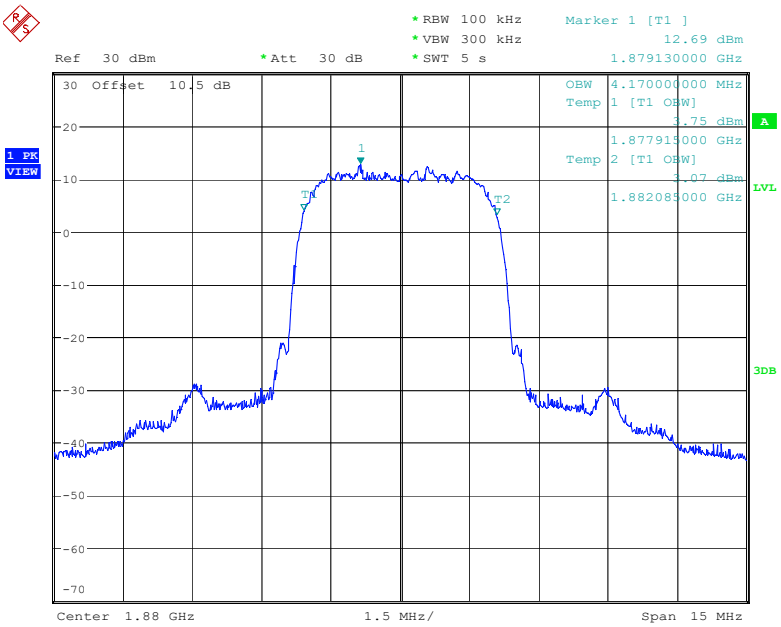


Date: 28.JUN.2022 15:56:21

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

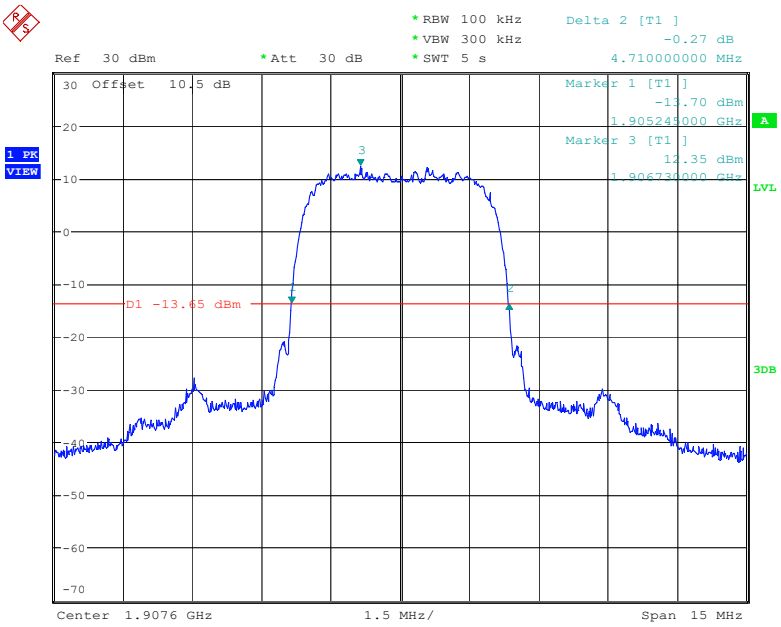


Date: 28.JUN.2022 16:01:12

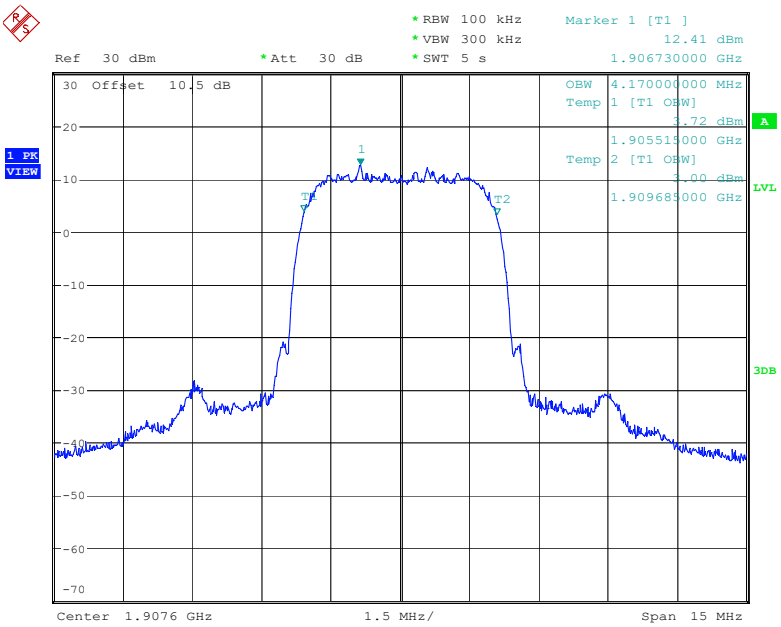


Date: 28.JUN.2022 16:00:35

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

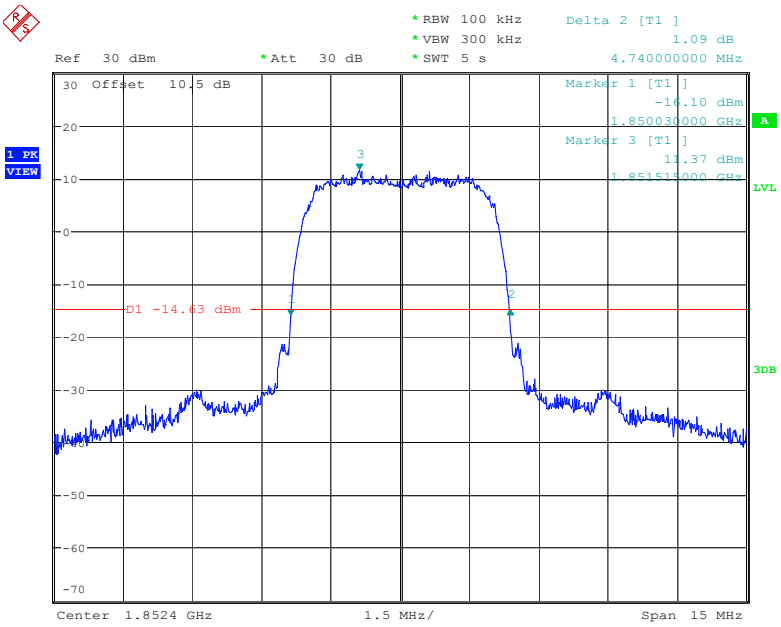


Date: 28.JUN.2022 16:05:09

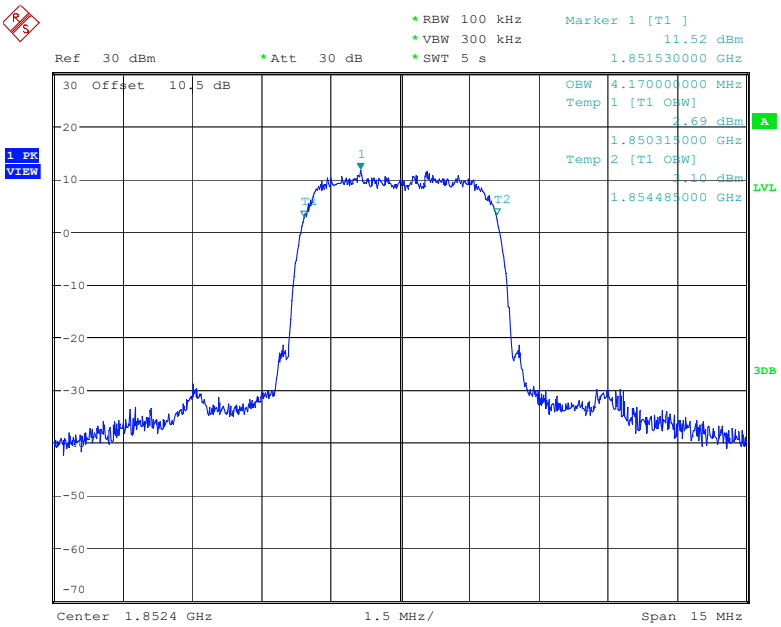


Date: 28.JUN.2022 16:04:32

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

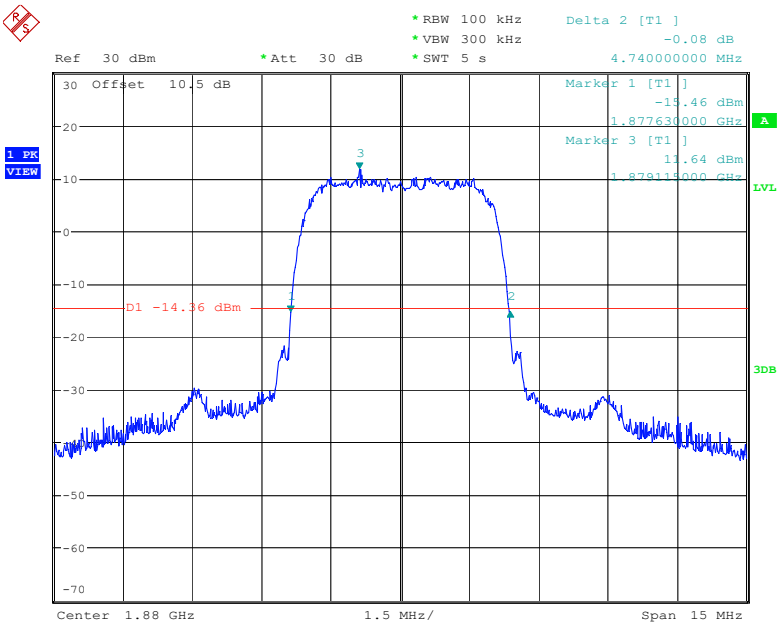


Date: 28.JUN.2022 16:23:56

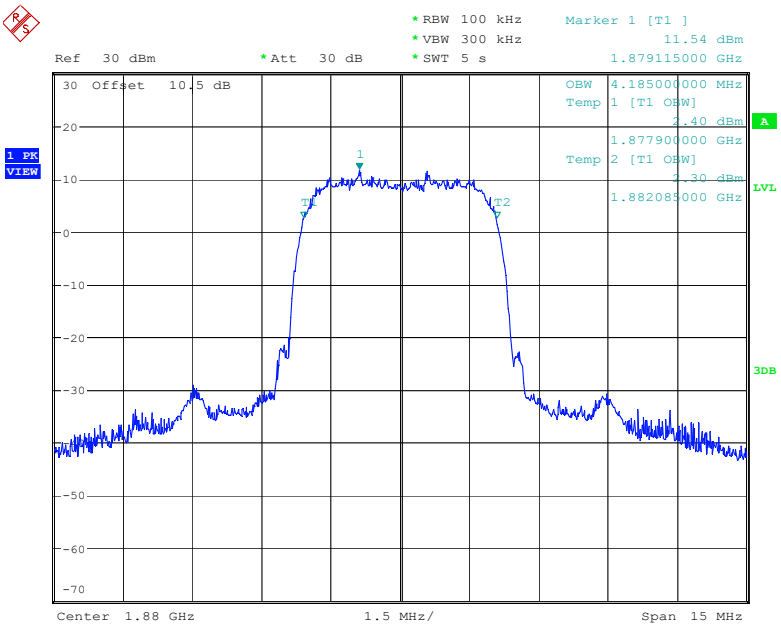


Date: 28.JUN.2022 16:23:18

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

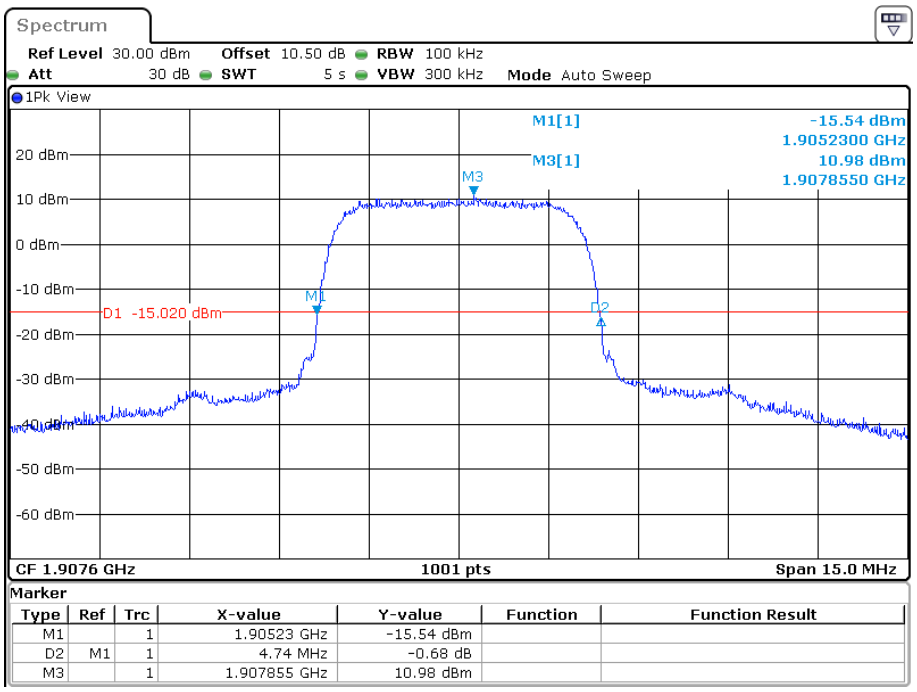


Date: 28.JUN.2022 16:28:26



Date: 28.JUN.2022 16:27:48

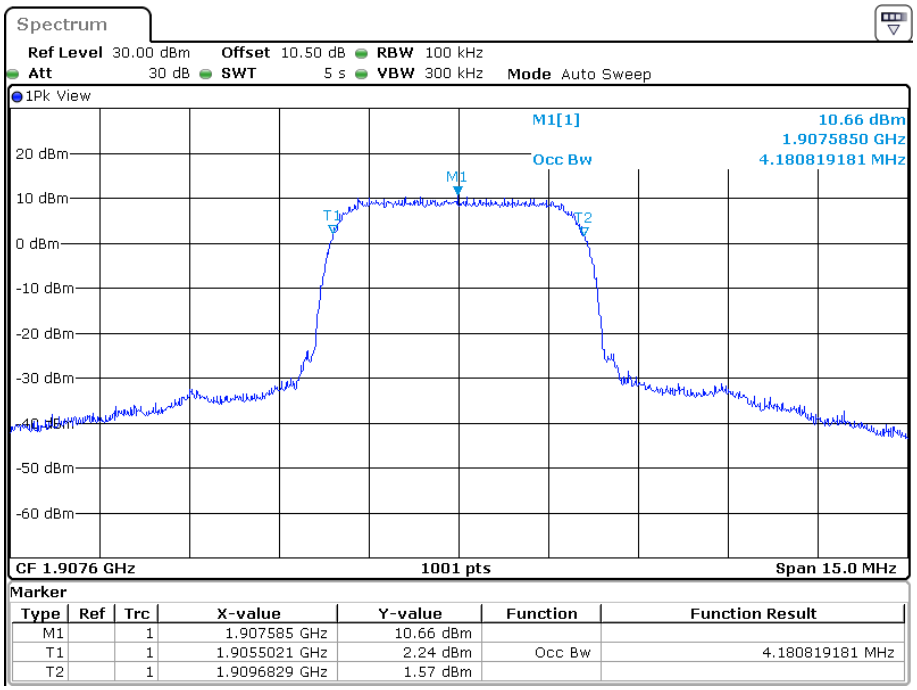
26 dB Emissions &99% Occupied Bandwidth for HSUPA (QPSK) Mode, High channel



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.90523 GHz	-15.54 dBm		
D2	M1	1	4.74 MHz	-0.68 dB		
M3		1	1.907855 GHz	10.98 dBm		

Date: 18.JUL.2022 14:24:49

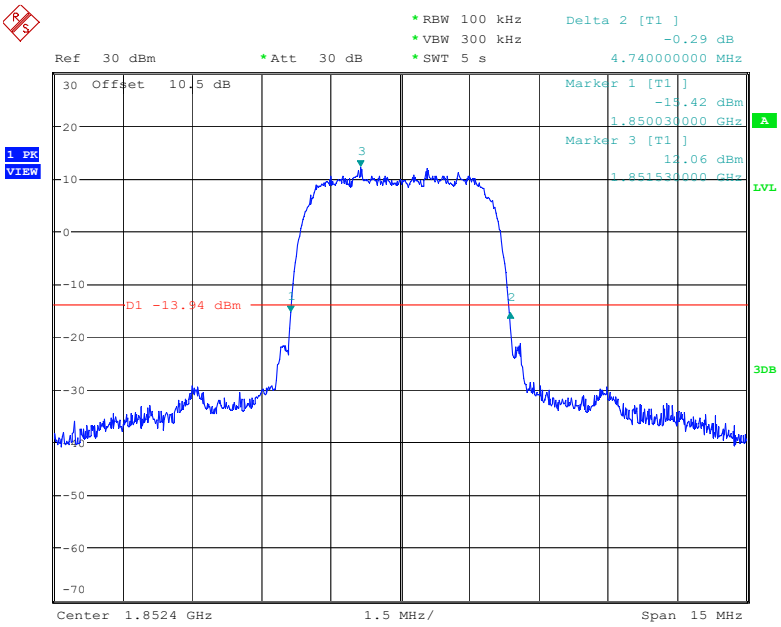


Marker

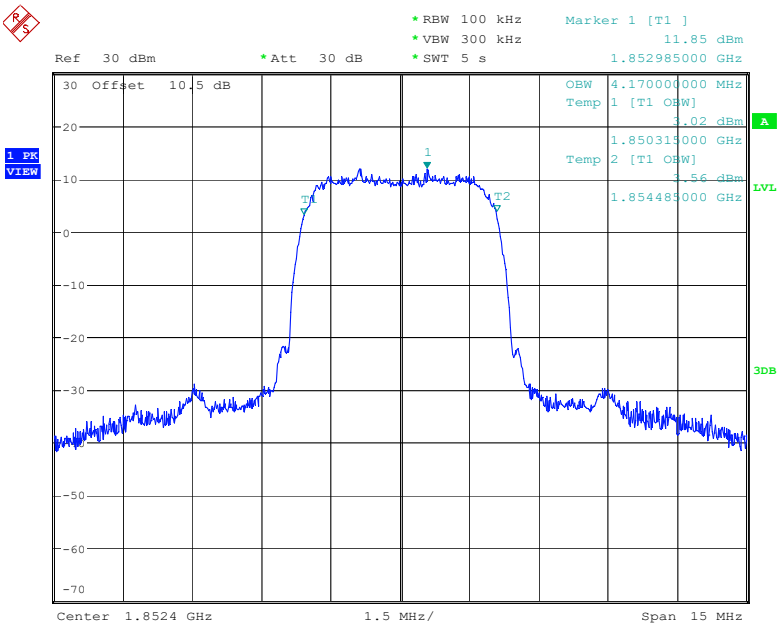
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.907585 GHz	10.66 dBm		
T1		1	1.9055021 GHz	2.24 dBm	Occ Bw	4.180819181 MHz
T2		1	1.9096829 GHz	1.57 dBm		

Date: 18.JUL.2022 14:24:12

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

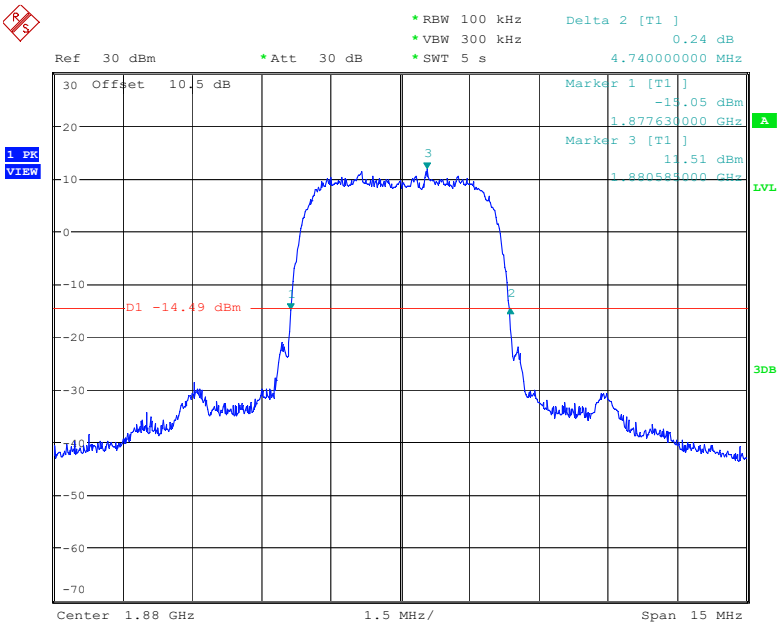


Date: 28.JUN.2022 16:10:50

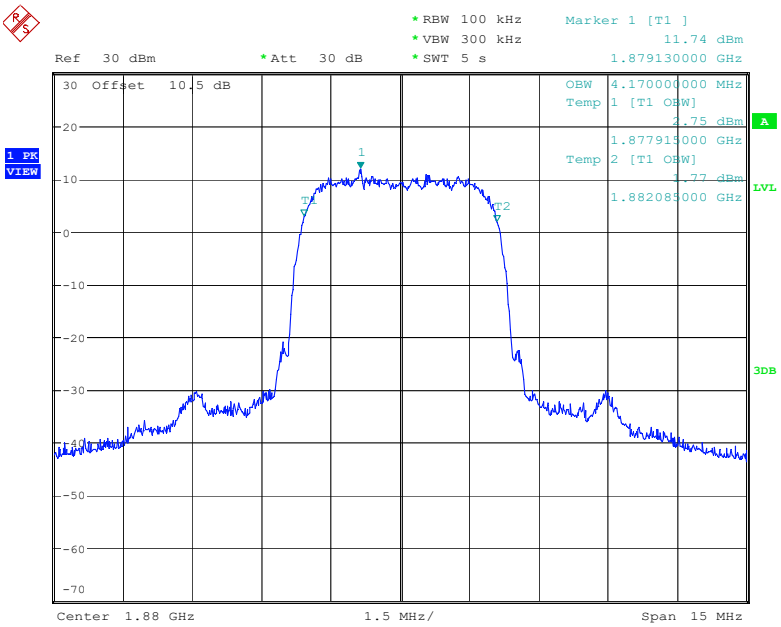


Date: 28.JUN.2022 16:10:12

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

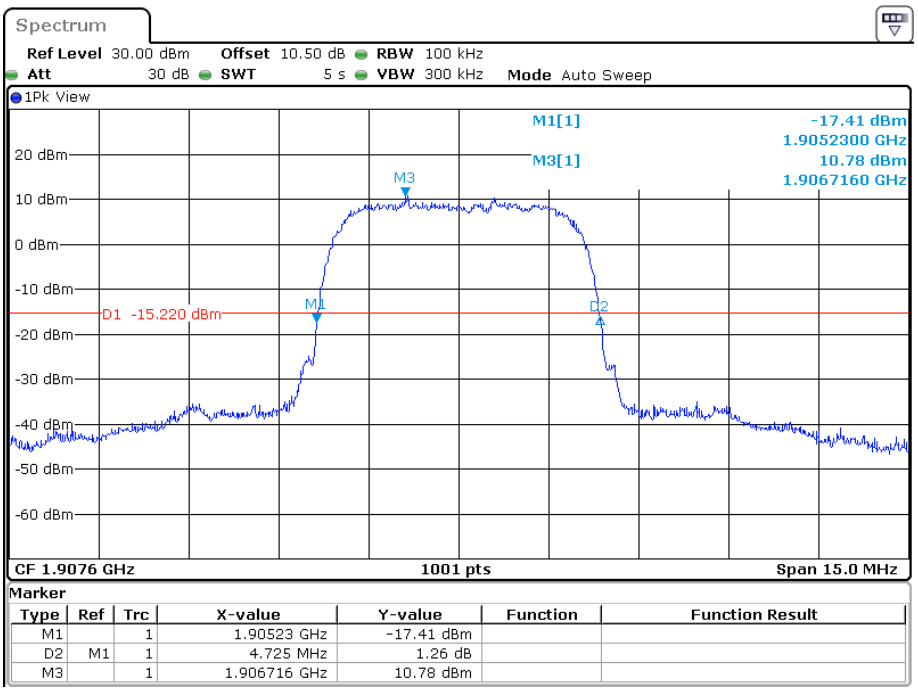


Date: 28.JUN.2022 16:14:57

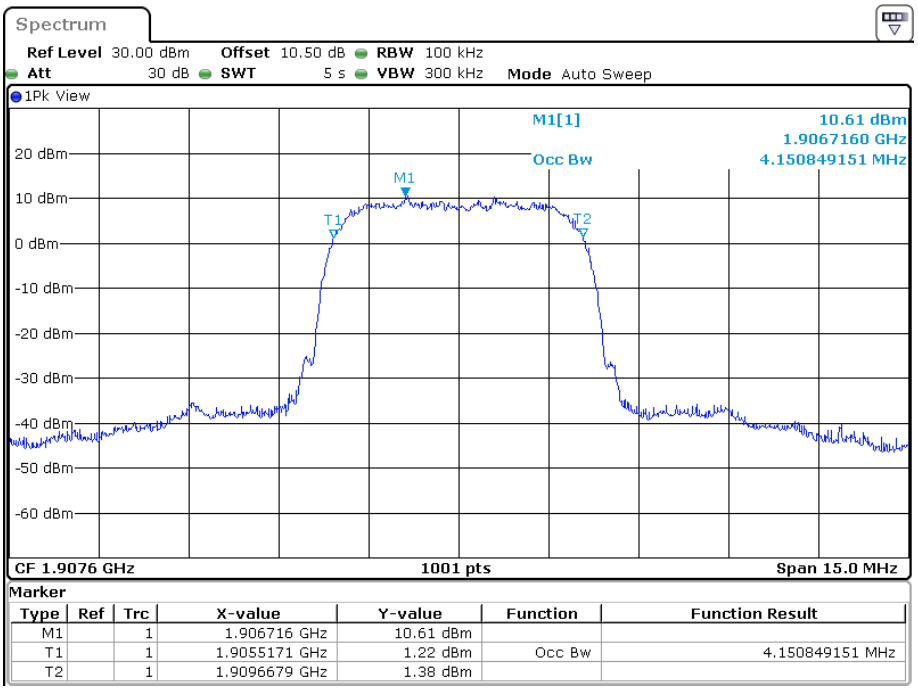


Date: 28.JUN.2022 16:14:20

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



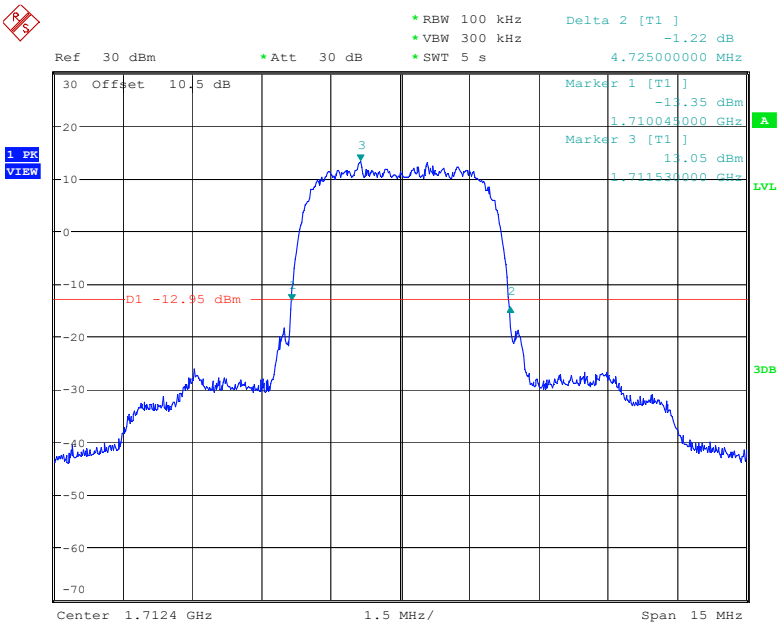
Date: 18.JUL.2022 15:33:10



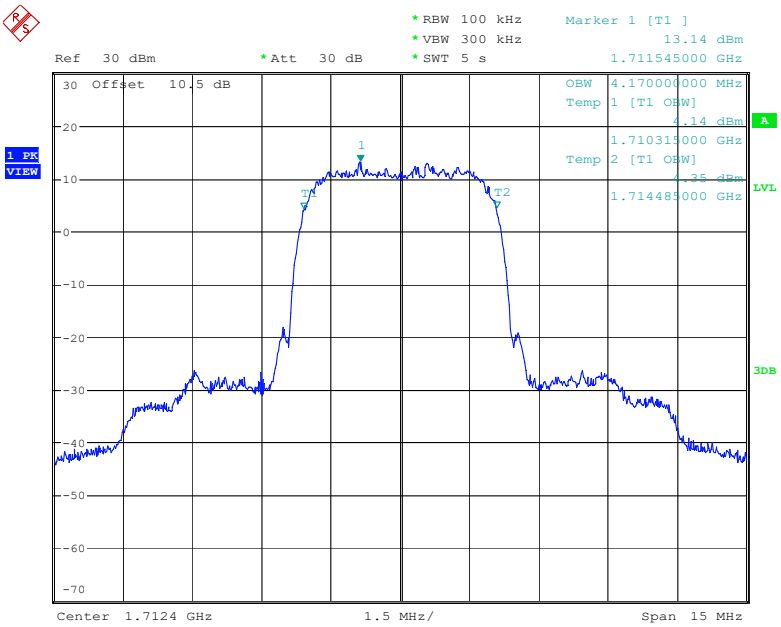
Date: 18.JUL.2022 15:32:33

AWS Band (Part 27)

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

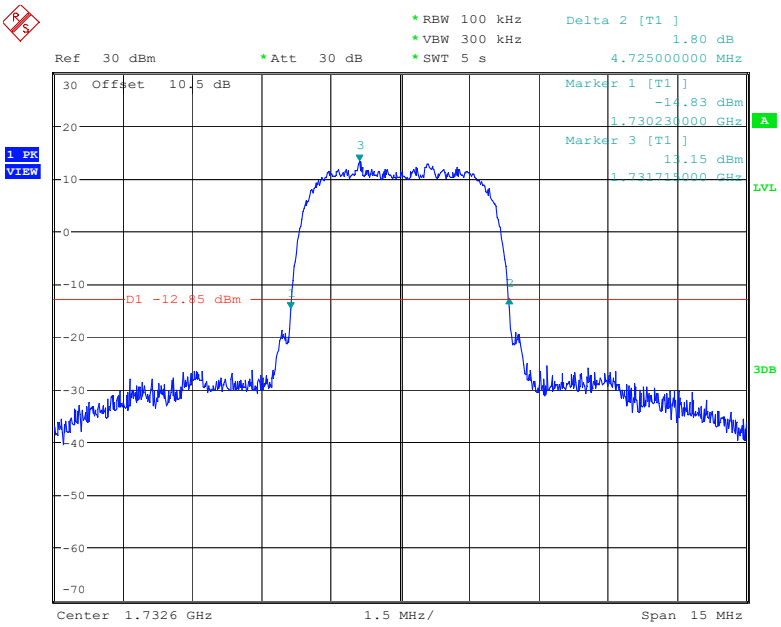


Date: 28.JUN.2022 16:37:43

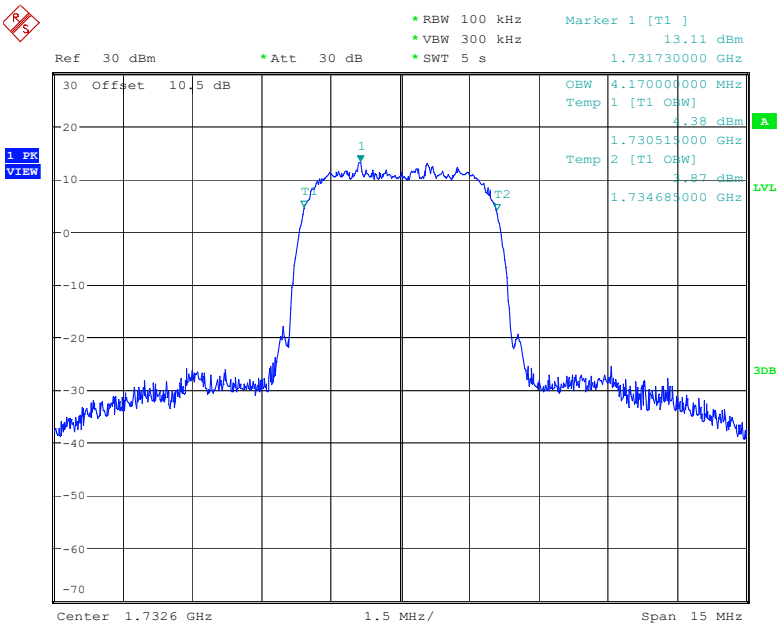


Date: 28.JUN.2022 16:37:06

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

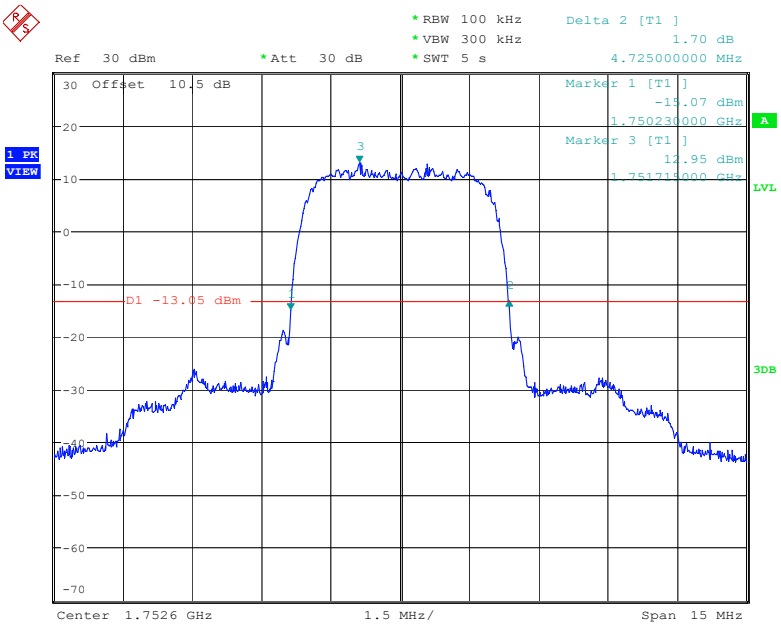


Date: 28.JUN.2022 16:42:12

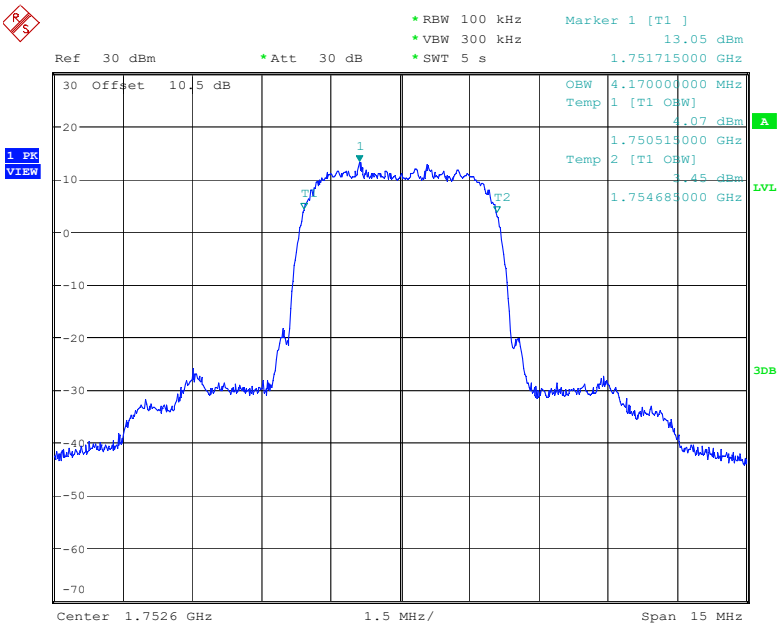


Date: 28.JUN.2022 16:41:35

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

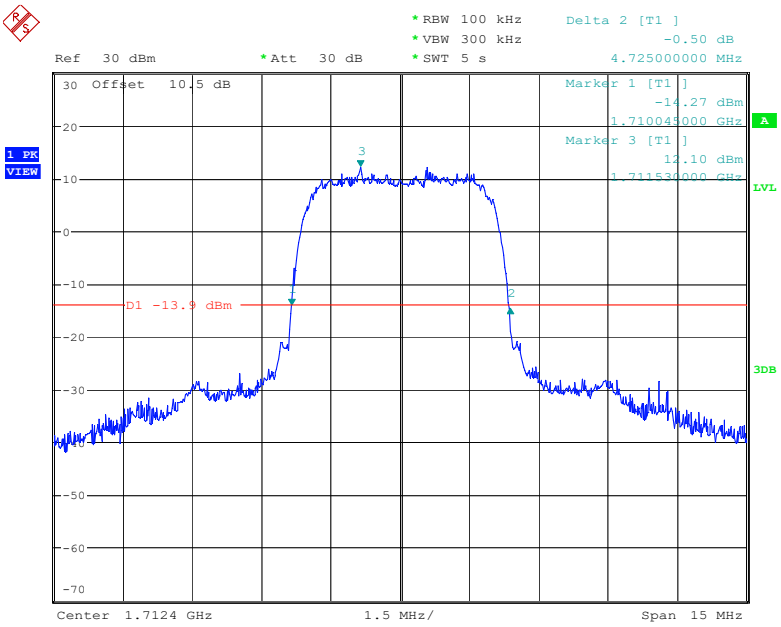


Date: 28.JUN.2022 16:46:49

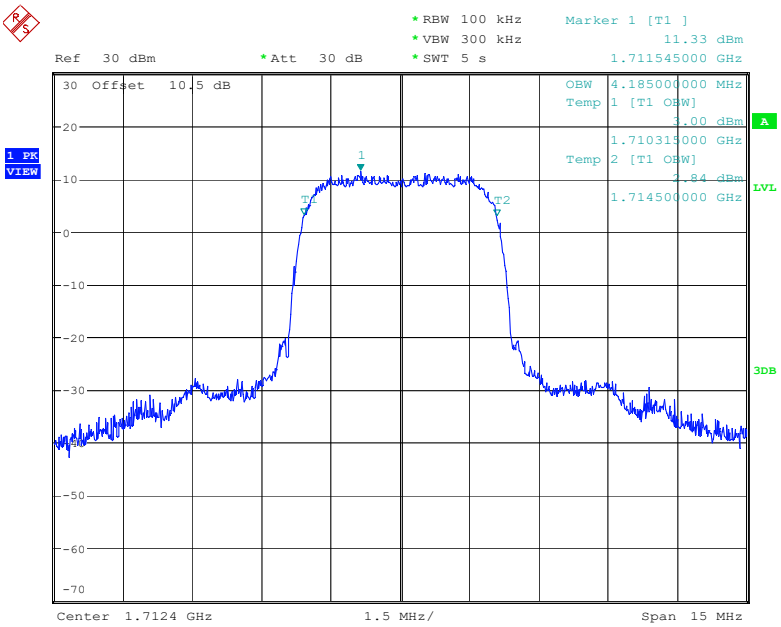


Date: 28.JUN.2022 16:46:12

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

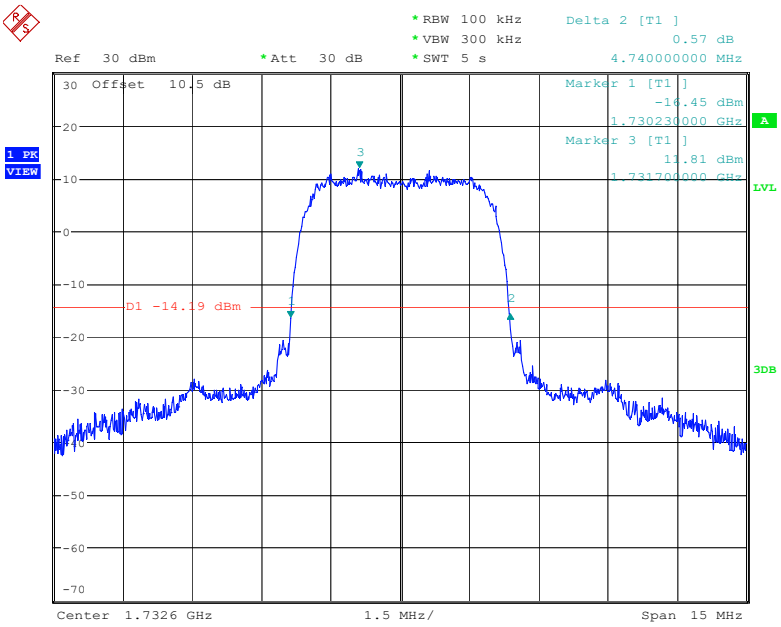


Date: 28.JUN.2022 16:56:01

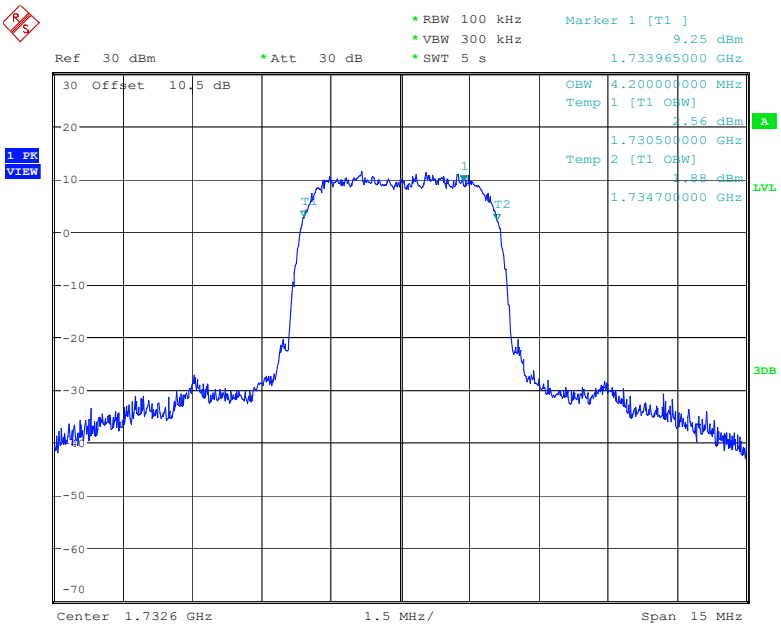


Date: 28.JUN.2022 16:55:24

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

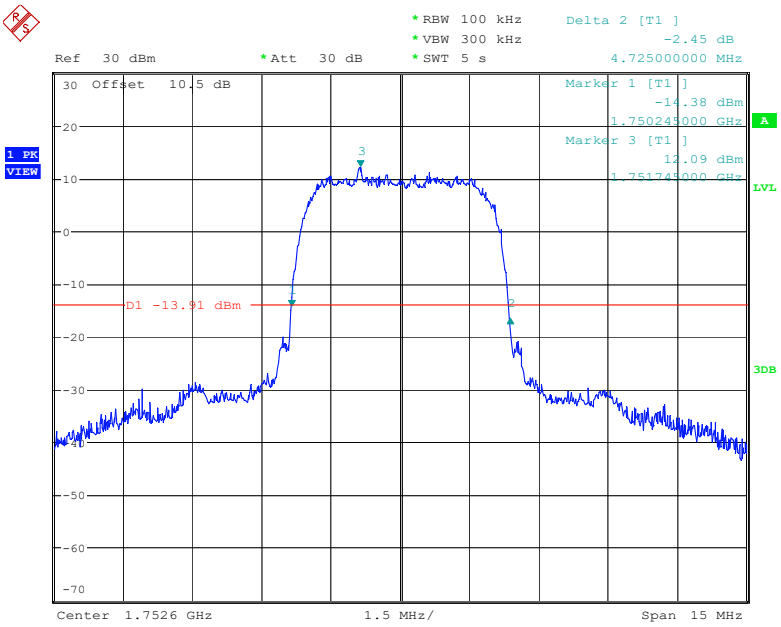


Date: 28.JUN.2022 17:00:02

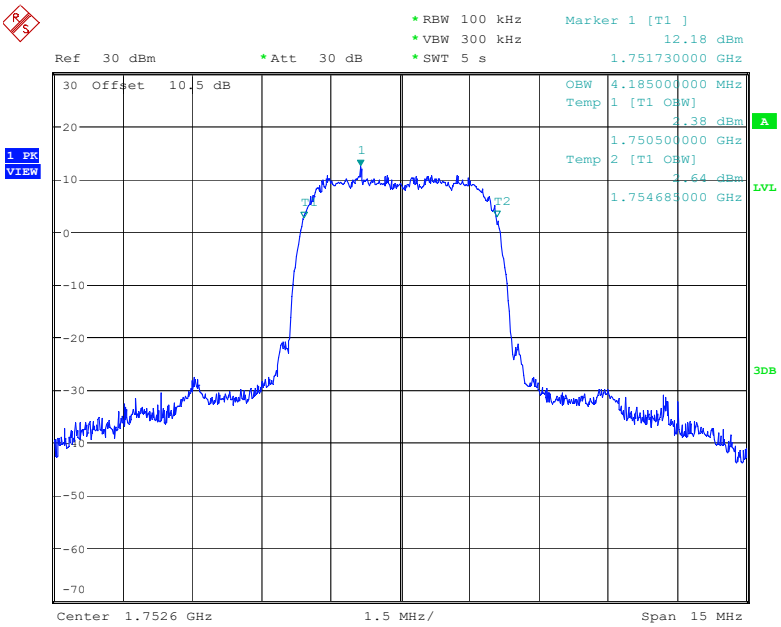


Date: 28.JUN.2022 16:59:24

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

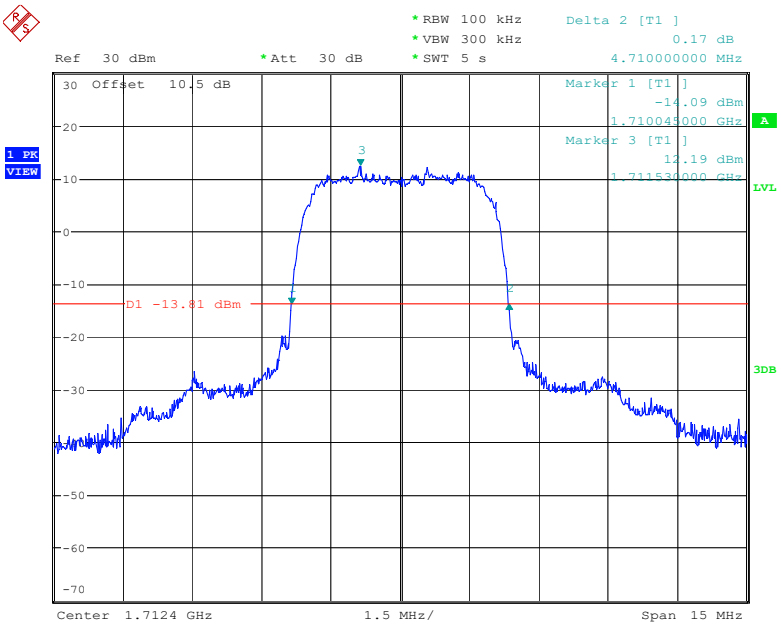


Date: 28.JUN.2022 17:05:17

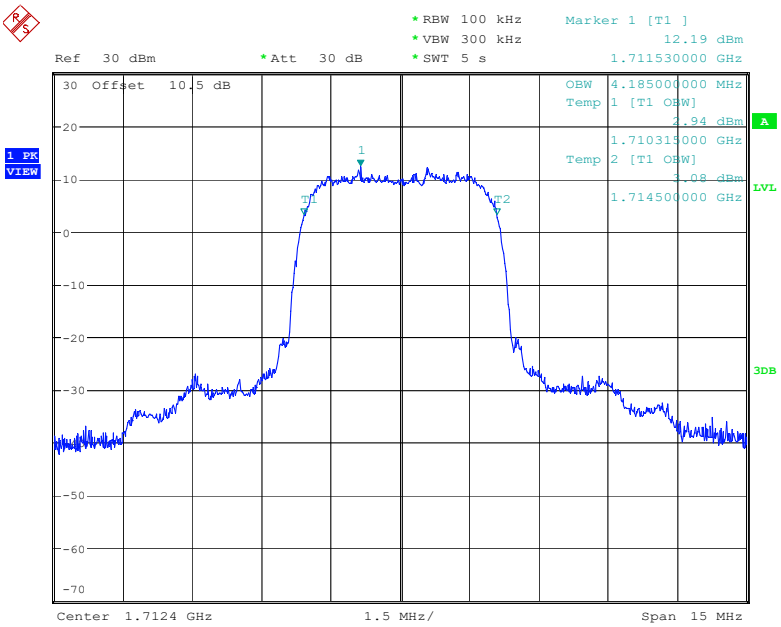


Date: 28.JUN.2022 17:04:40

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

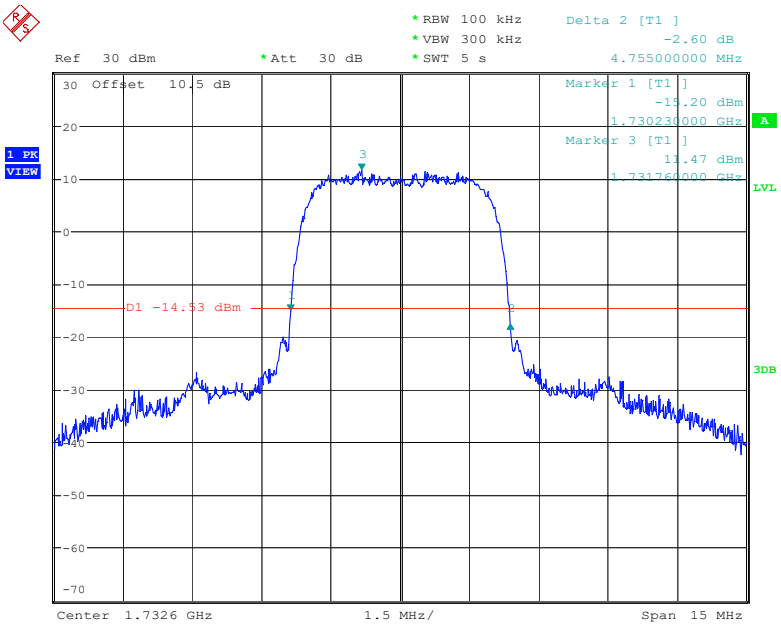


Date: 28.JUN.2022 17:12:08

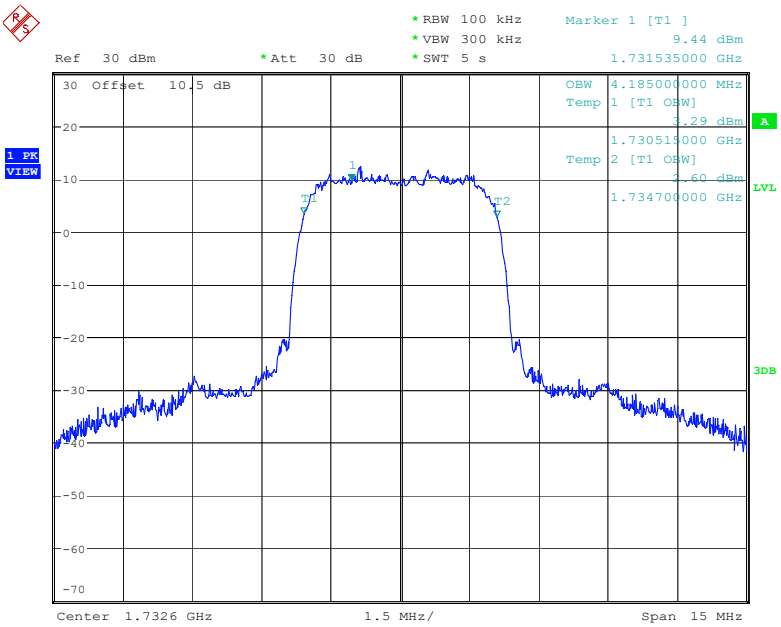


Date: 28.JUN.2022 17:11:31

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

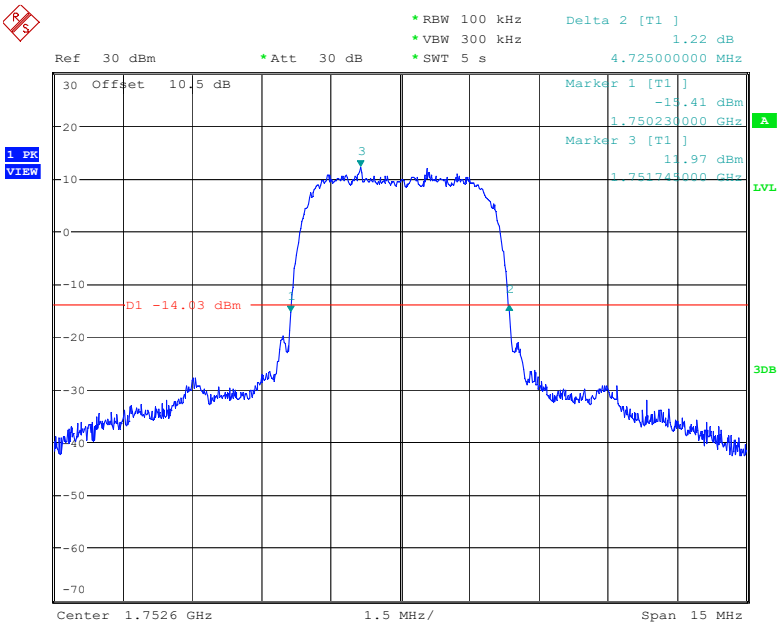


Date: 28.JUN.2022 17:16:27

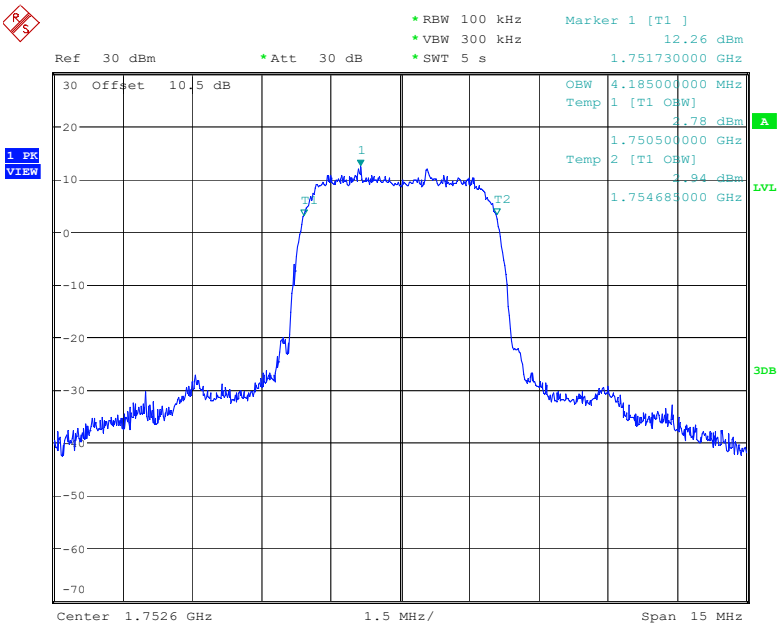


Date: 28.JUN.2022 17:15:49

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



Date: 28.JUN.2022 17:20:09



Date: 28.JUN.2022 17:19:32

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	1.098	1.302	1.104	1.320	1.104	1.296
	16QAM	1.110	1.308	1.092	1.296	1.098	1.302
3 MHz	QPSK	2.688	2.880	2.688	2.904	2.688	2.892
	16QAM	2.688	2.880	2.688	2.880	2.688	2.880
5 MHz	QPSK	4.520	4.940	4.520	4.960	4.520	4.880
	16QAM	4.500	4.900	4.540	4.920	4.520	4.940
10 MHz	QPSK	8.960	9.640	8.960	9.600	8.960	9.640
	16QAM	8.960	9.640	8.960	9.560	8.960	9.640
15 MHz	QPSK	13.500	14.760	13.500	14.820	13.500	14.760
	16QAM	13.500	14.820	13.560	14.760	13.500	14.820
20 MHz	QPSK	18.000	19.280	18.000	19.440	17.920	19.600
	16QAM	18.000	19.360	18.000	24.480	18.000	19.360

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	1.110	1.320	1.104	1.296	1.098	1.296
	16QAM	1.098	1.296	1.098	1.296	1.110	1.320
3 MHz	QPSK	2.688	2.880	2.688	2.880	2.688	2.892
	16QAM	2.688	2.880	2.688	2.880	2.688	2.892
5 MHz	QPSK	4.520	4.940	4.520	4.940	4.520	4.920
	16QAM	4.500	4.940	4.520	4.980	4.520	4.980
10 MHz	QPSK	8.960	9.680	8.960	9.600	8.960	9.640
	16QAM	8.960	9.520	8.960	9.640	8.960	9.680
15 MHz	QPSK	13.560	14.760	13.500	14.820	13.560	14.940
	16QAM	13.560	14.760	13.560	14.760	13.500	14.880
20 MHz	QPSK	18.000	19.280	17.920	19.360	18.000	19.520
	16QAM	18.000	19.360	18.000	19.440	18.000	19.440

LTE 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	1.326	1.104	1.368	1.110	1.338
	16QAM	1.110	1.338	1.098	1.404	1.104	1.302
3 MHz	QPSK	2.688	2.868	2.688	2.880	2.688	2.892
	16QAM	2.688	2.928	2.688	2.880	2.676	2.880
5 MHz	QPSK	4.540	4.960	4.520	4.920	4.500	4.900
	16QAM	4.500	4.920	4.520	4.960	4.520	4.980
10 MHz	QPSK	8.960	9.680	8.960	9.640	8.960	9.560
	16QAM	8.960	9.600	8.960	9.560	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	4.500	4.940	4.520	4.900	4.500	4.900
	16QAM	4.500	4.920	4.500	4.920	4.520	4.940
10 MHz	QPSK	8.960	9.680	8.960	9.560	8.960	9.640
	16QAM	8.920	9.520	8.920	9.560	8.960	9.600
15 MHz	QPSK	13.560	14.880	13.500	14.700	13.500	14.820
	16QAM	13.440	14.820	13.560	14.700	13.500	14.880
20 MHz	QPSK	18.000	19.280	17.920	19.440	18.000	19.600
	16QAM	18.080	19.280	18.000	19.360	18.000	19.360

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	1.098	1.302	1.110	1.470	1.110	1.290
	16QAM	1.104	1.326	1.110	1.644	1.098	1.308
3 MHz	QPSK	2.688	2.868	2.700	2.916	2.688	2.892
	16QAM	2.676	2.892	2.688	2.976	2.676	2.880
5 MHz	QPSK	4.520	5.180	4.540	5.220	4.520	5.140
	16QAM	4.540	5.200	4.540	5.220	4.540	5.180
10 MHz	QPSK	8.960	9.880	8.960	9.920	8.960	9.800
	16QAM	8.960	9.760	9.000	9.920	8.960	9.800

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	4.540	5.220	4.520	5.200	4.540	5.160
	16QAM	4.540	5.180	4.540	5.180	4.520	5.160
10 MHz	QPSK	/	/	8.960	9.920	/	/
	16QAM	/	/	9.000	9.760	/	/

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	4.520	5.240	4.520	5.160	4.520	5.140
	16QAM	4.540	5.100	4.540	5.200	4.540	5.220
10 MHz	QPSK	8.960	9.840	8.960	9.800	8.960	10.000
	16QAM	8.960	9.920	8.960	9.880	8.960	9.920

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	4.920	4.500	5.080	4.520	4.960
	16QAM	4.500	4.980	4.500	5.020	4.520	5.080
10 MHz	QPSK	8.960	9.680	9.000	9.640	8.960	9.800
	16QAM	8.960	9.720	8.960	9.480	8.960	9.840
15 MHz	QPSK	13.560	15.480	13.560	15.360	13.500	15.300
	16QAM	13.560	15.600	13.560	15.720	13.620	16.740
20 MHz	QPSK	18.000	19.520	18.000	21.360	18.000	20.160
	16QAM	18.000	19.760	18.000	20.480	18.000	19.280

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	4.491	4.980	4.511	4.920	4.511	5.080
	16QAM	4.511	5.020	4.491	4.920	4.511	4.940
10 MHz	QPSK	8.982	9.680	8.942	9.640	8.942	9.640
	16QAM	8.982	9.480	8.942	9.560	8.942	9.960
15 MHz	QPSK	13.533	15.120	13.473	15.240	13.413	15.240
	16QAM	13.533	15.780	13.593	15.780	13.533	16.920
20 MHz	QPSK	17.964	19.440	17.964	19.360	17.884	19.840
	16QAM	17.964	19.440	17.964	20.560	17.884	19.600

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	1.308	1.104	1.326	1.110	1.290
	16QAM	1.104	1.320	1.098	1.290	1.104	1.308
3 MHz	QPSK	2.688	2.880	2.688	2.880	2.688	2.892
	16QAM	2.688	2.892	2.688	2.892	2.688	2.880
5 MHz	QPSK	4.540	5.200	4.540	5.200	4.520	5.200
	16QAM	4.520	5.160	4.540	5.180	4.540	5.200
10 MHz	QPSK	9.000	9.840	8.960	9.800	8.960	9.920
	16QAM	9.000	9.960	8.960	9.840	8.960	9.960
15 MHz	QPSK	13.560	15.360	13.560	15.060	13.560	15.060
	16QAM	13.560	15.180	13.620	15.180	13.560	15.180
20 MHz	QPSK	17.920	19.600	18.000	19.600	18.000	19.760
	16QAM	18.080	19.680	18.000	19.760	18.000	19.680

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

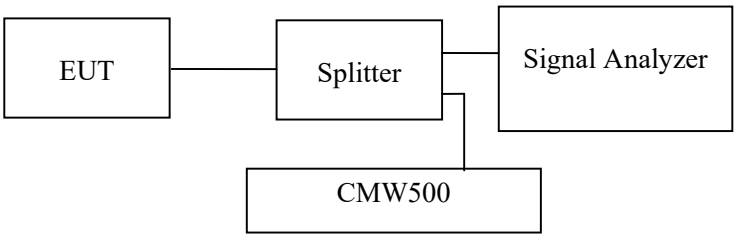
Applicable Standard

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 10^{th} harmonic.



Test Data

Environmental Conditions

Temperature:	27.2~28 ℃
Relative Humidity:	56.8~62 %
ATM Pressure:	101.0 kPa

The testing was performed by Audy Yu from 2022-06-26 to 2022-07-12.

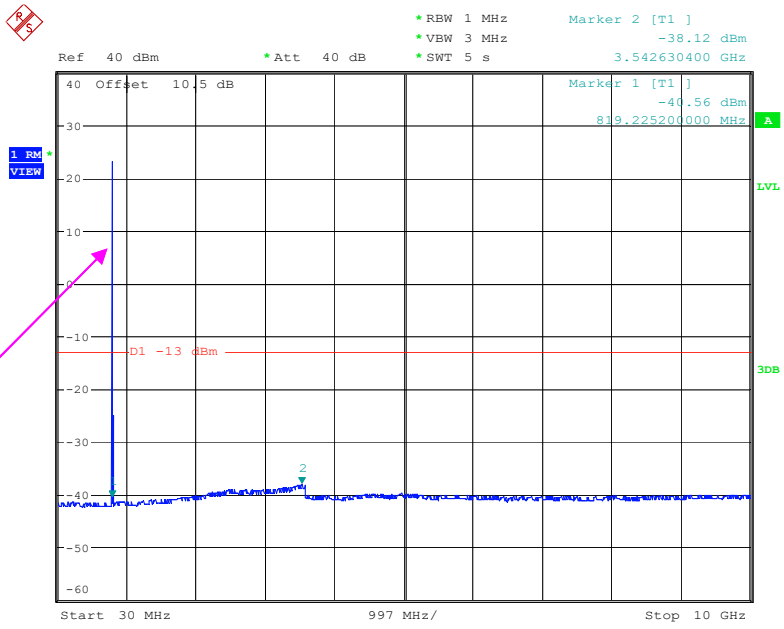
EUT operation mode: Transmitting

Test result: Pass

Please refer to the following plots.

Cellular Band (Part 22H)
Low Channel:

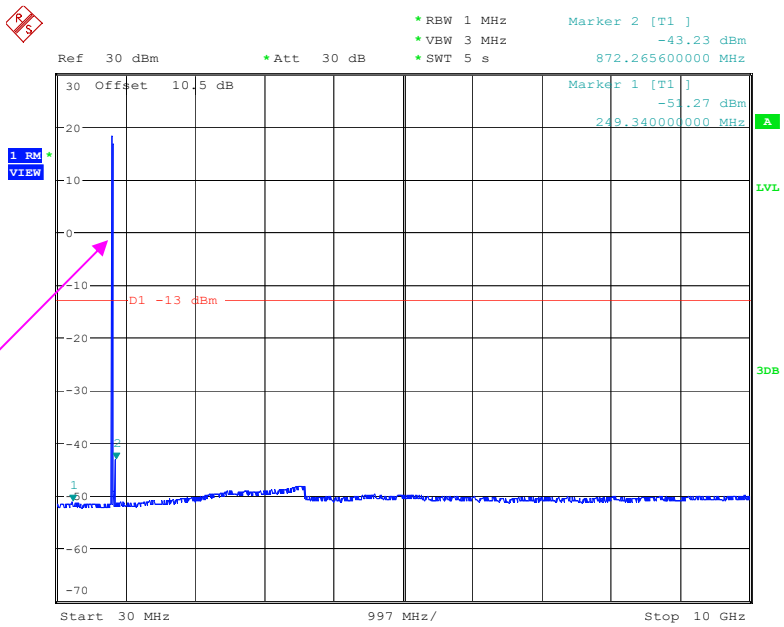
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 28.JUN.2022 15:03:56

30 MHz – 10 GHz (WCDMA Mode)

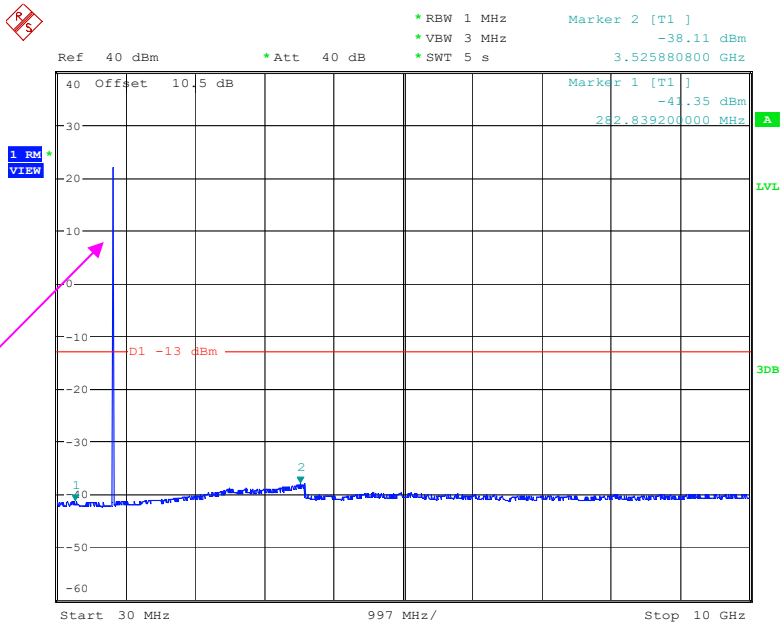


Fundamental test

Date: 28.JUN.2022 17:26:27

Middle Channel:

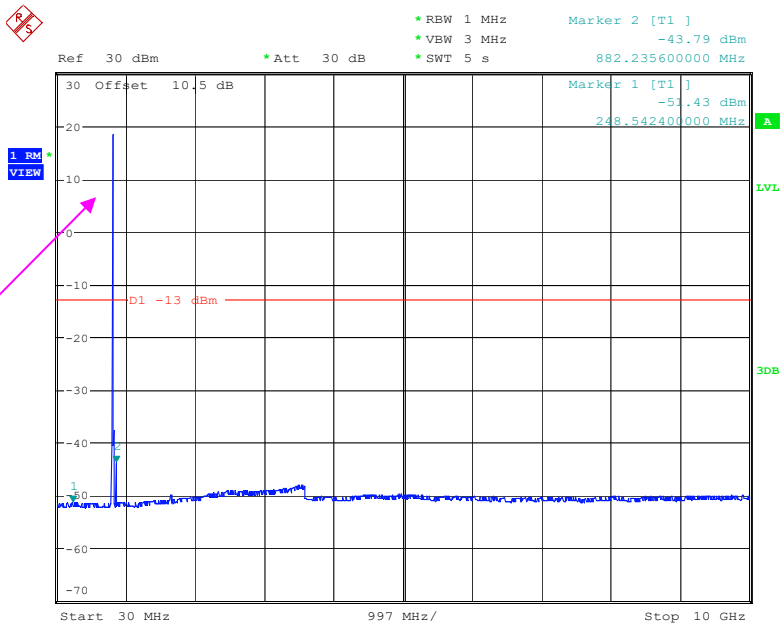
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 28.JUN.2022 15:07:56

30 MHz – 10 GHz (WCDMA Mode)

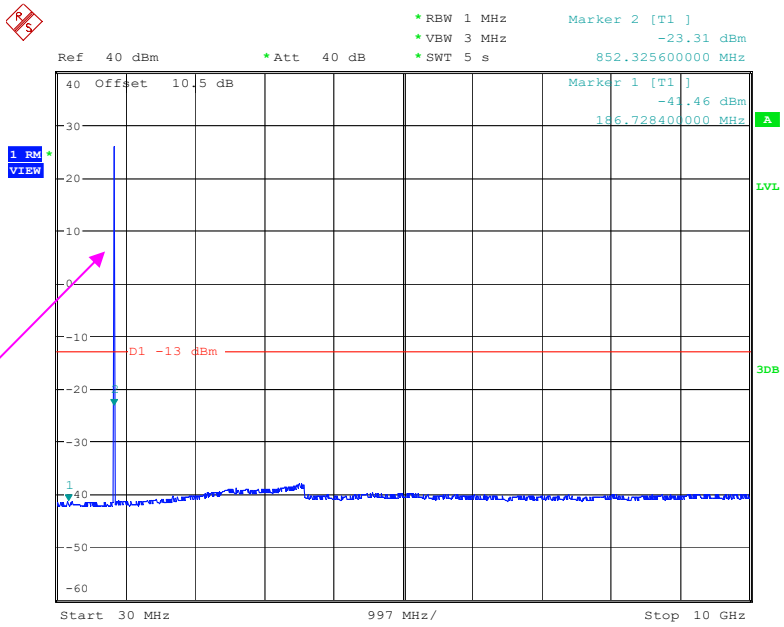


Fundamental test

Date: 28.JUN.2022 17:29:24

High Channel:

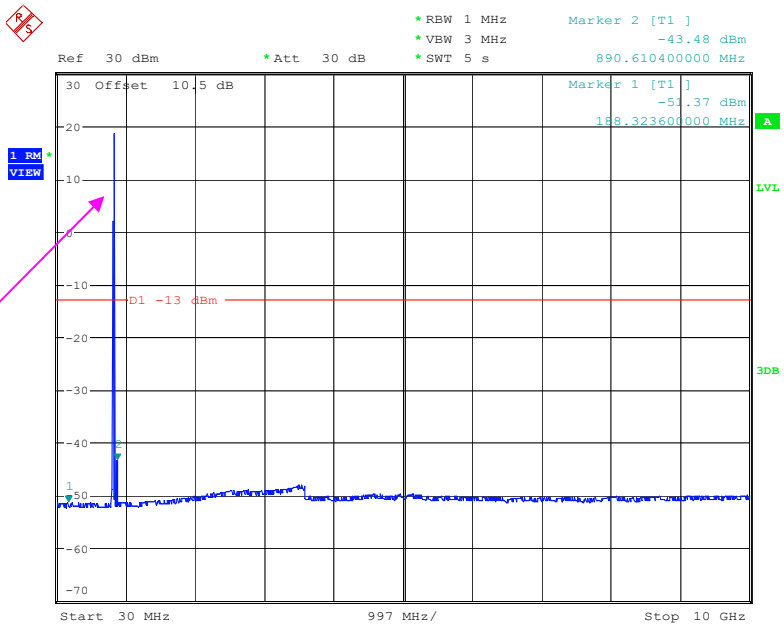
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 28.JUN.2022 15:13:12

30 MHz – 10 GHz (WCDMA Mode)

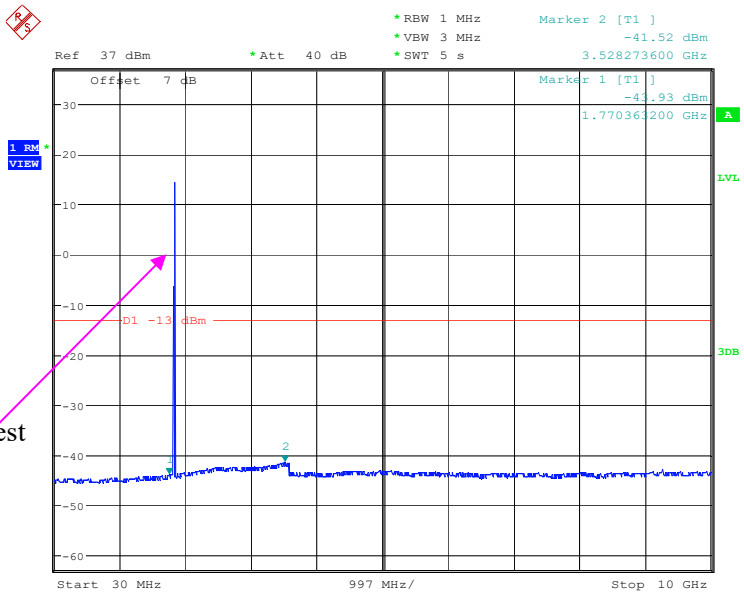


Fundamental test

Date: 28.JUN.2022 17:33:17

PCS Band (Part 24E)
Low Channel:

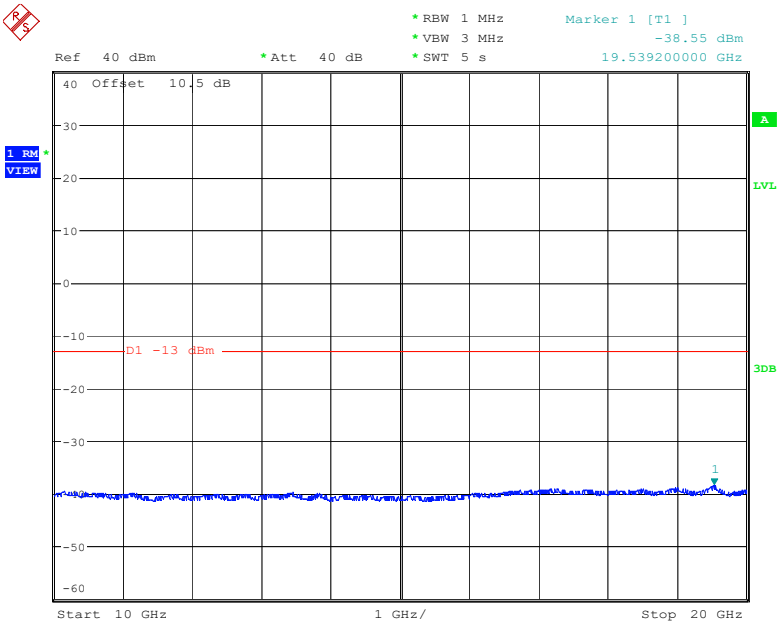
30 MHz – 10 GHz (GSM Mode)



Fundamental test

Date: 12.JUL.2022 19:28:31

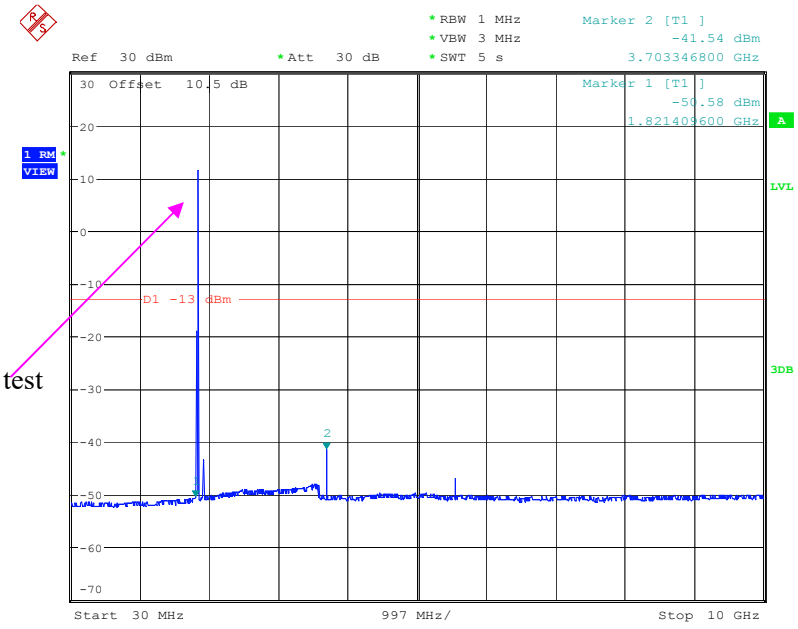
10 GHz – 20 GHz (GSM Mode)



Date: 28.JUN.2022 15:44:24

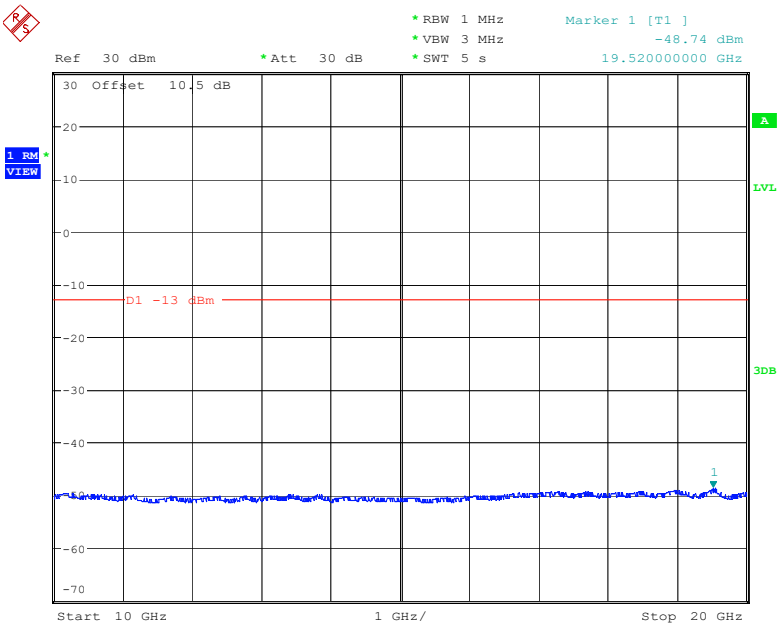
30 MHz – 10 GHz (WCDMA Mode)

Fundamental test



Date: 28.JUN.2022 15:58:14

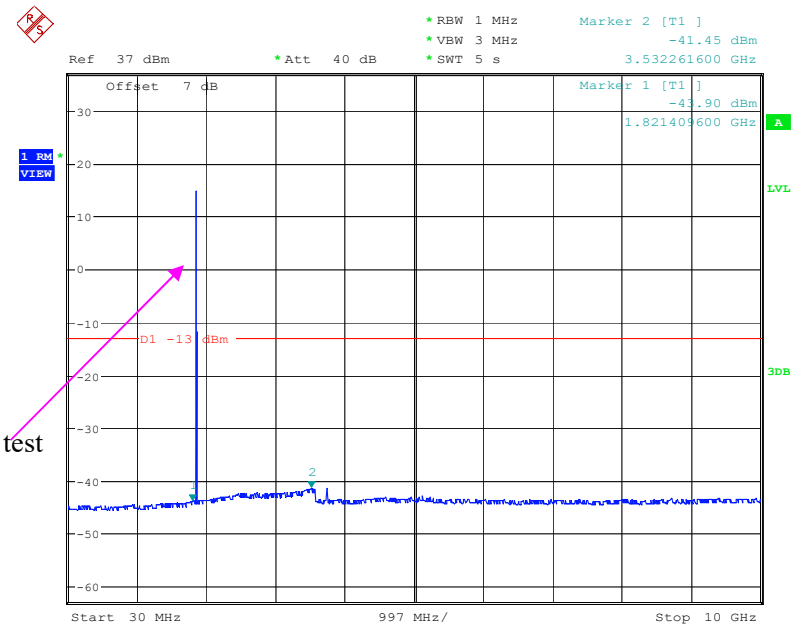
10 GHz – 20 GHz (WCDMA Mode)



Date: 28.JUN.2022 15:58:52

Middle Channel:

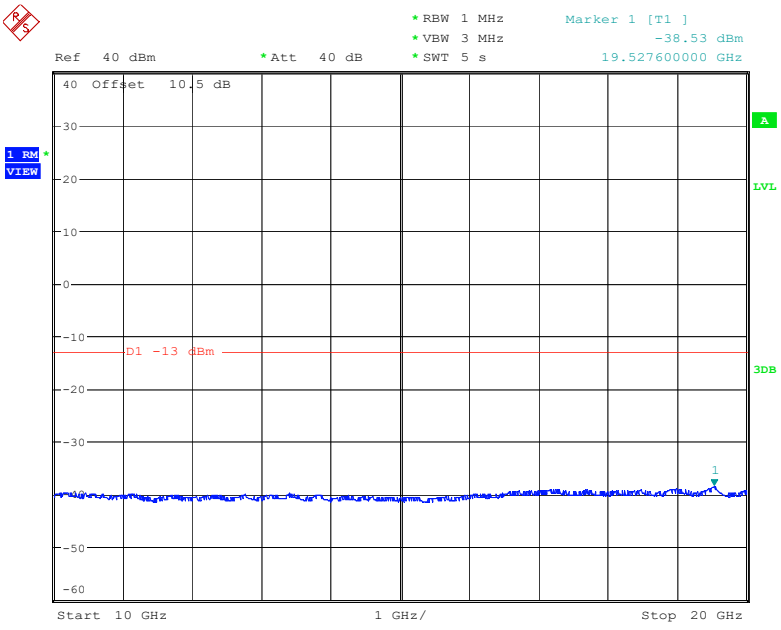
30 MHz – 10 GHz (GSM Mode)



Fundamental test

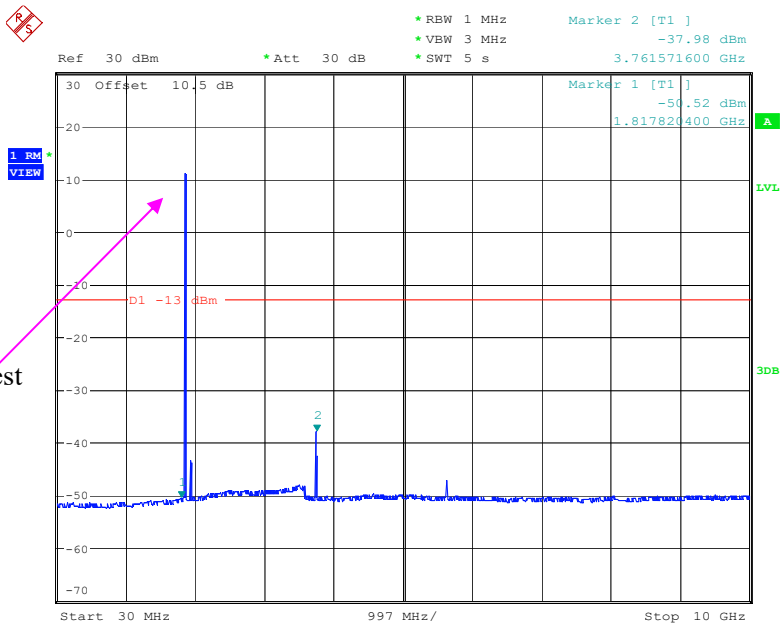
Date: 12.JUL.2022 19:24:30

10 GHz – 20 GHz (GSM Mode)



Date: 28.JUN.2022 15:47:26

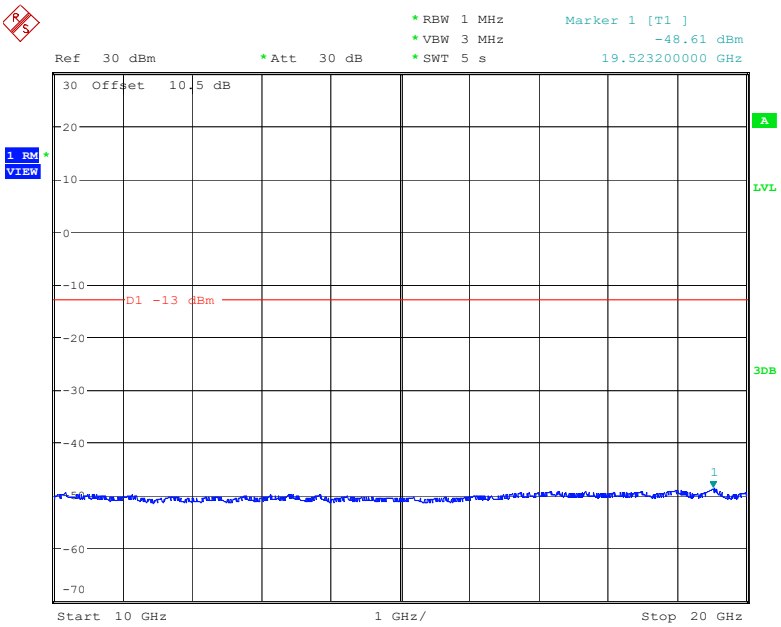
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 28.JUN.2022 16:01:50

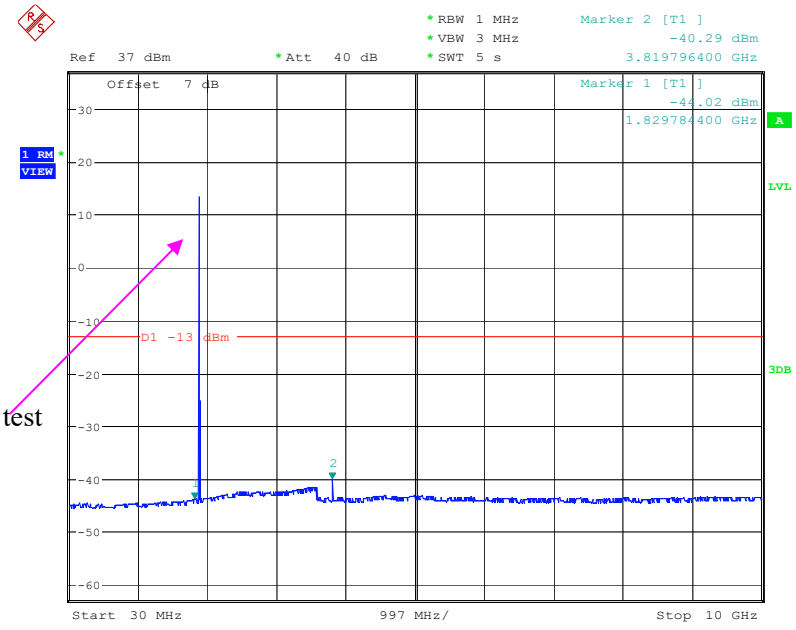
10 GHz – 20GHz (WCDMA Mode)



Date: 28.JUN.2022 16:02:28

High Channel:

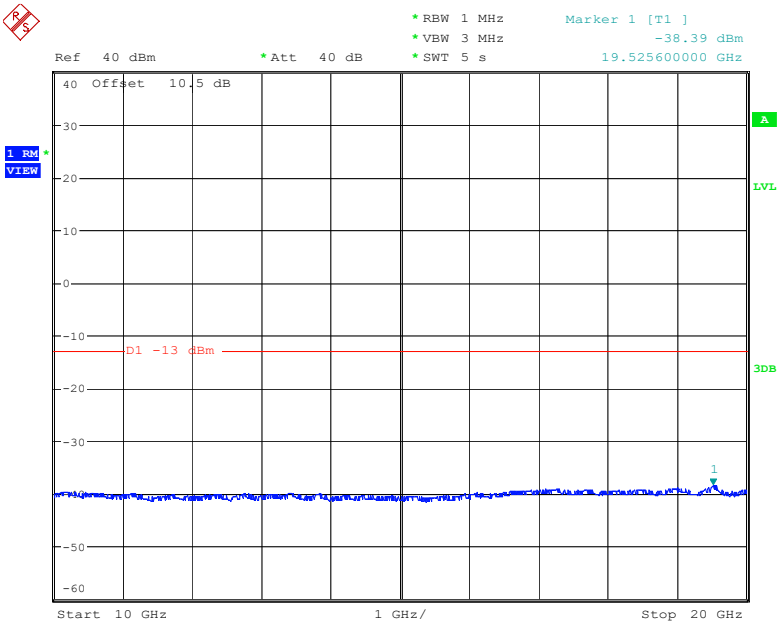
30 MHz – 10 GHz (GSM Mode)



Fundamental test

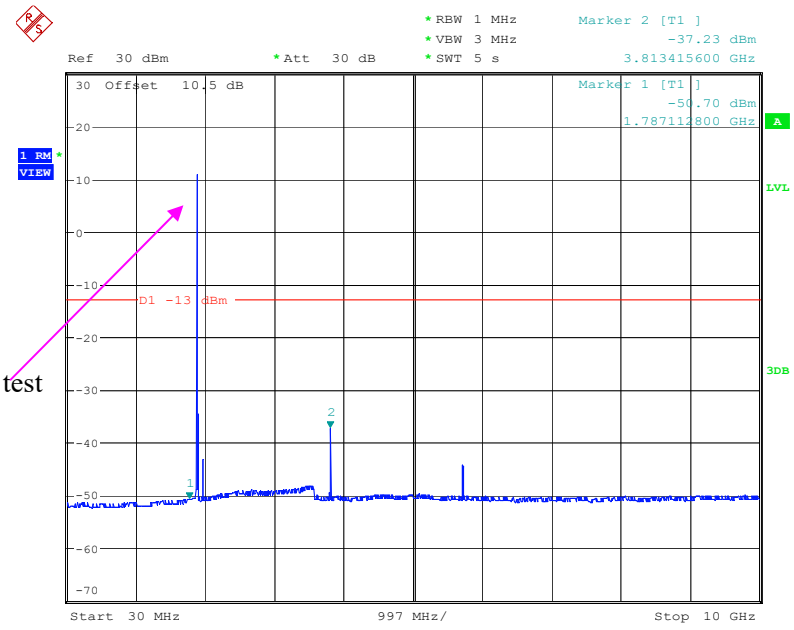
Date: 12.JUL.2022 19:34:42

10 GHz – 20 GHz (GSM Mode)



Date: 28.JUN.2022 15:51:19

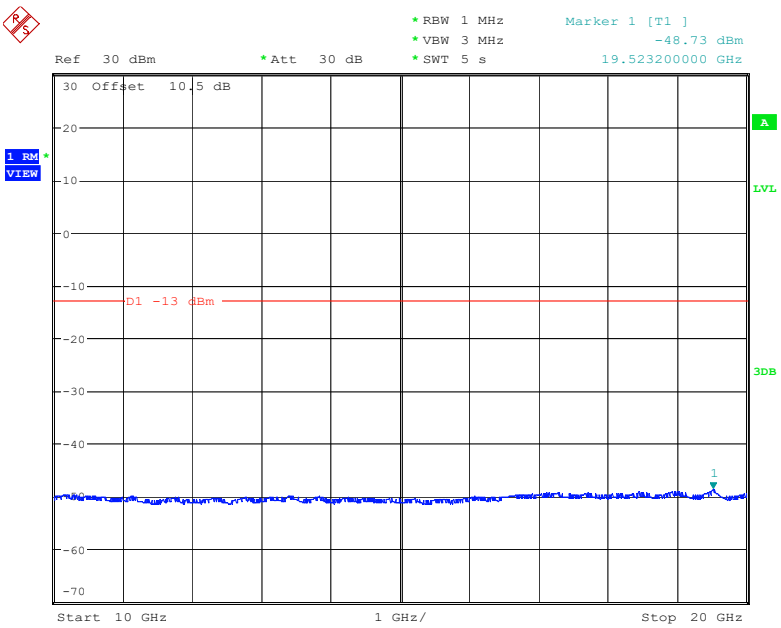
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 28.JUN.2022 16:06:24

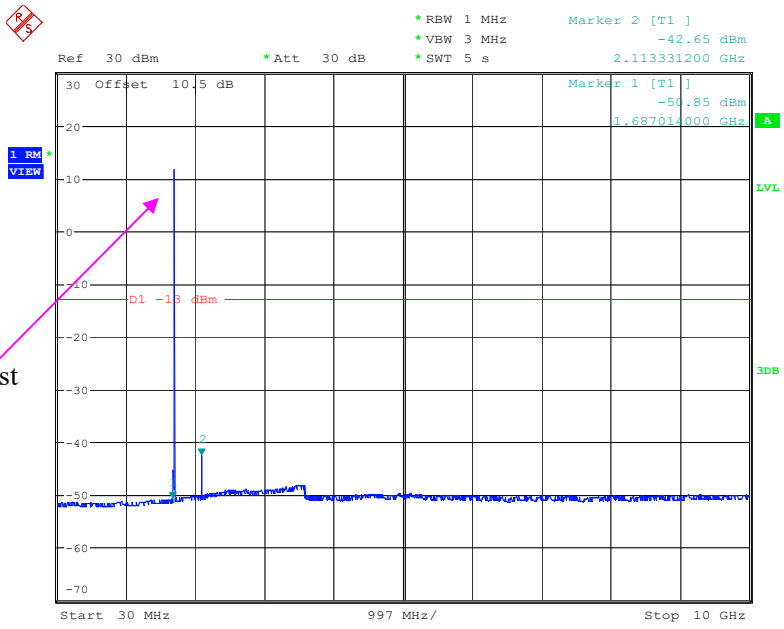
10 GHz – 20 GHz (WCDMA Mode)



Date: 28.JUN.2022 16:07:04

AWS Band (Part 27)
Low Channel:

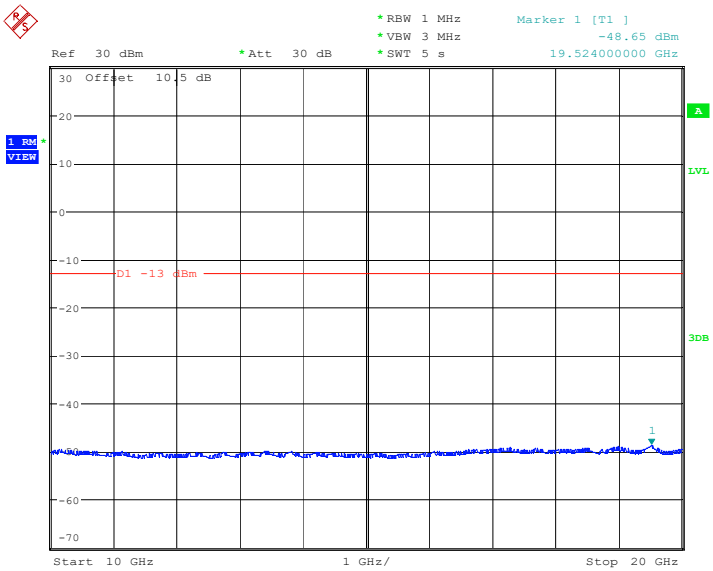
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 28.JUN.2022 16:38:58

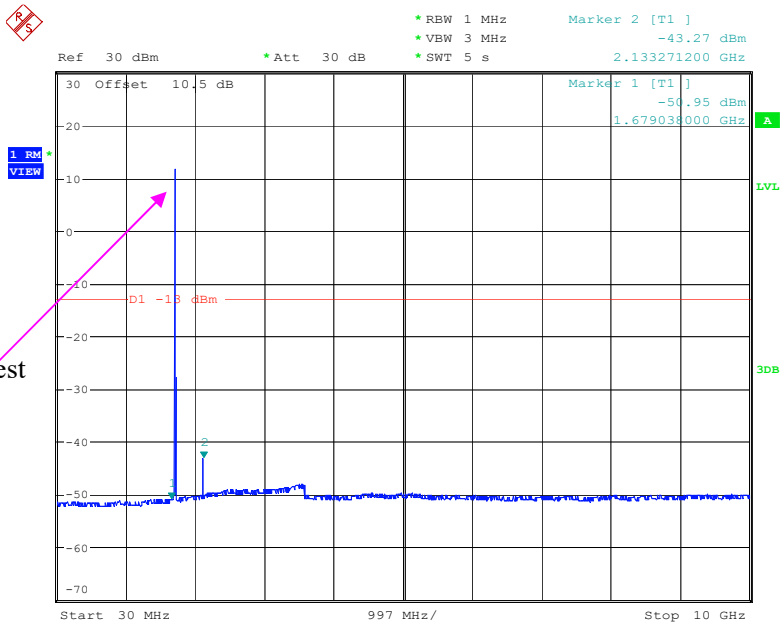
10 GHz – 20 GHz (WCDMA Mode)



Date: 28.JUN.2022 16:39:37

Middle Channel

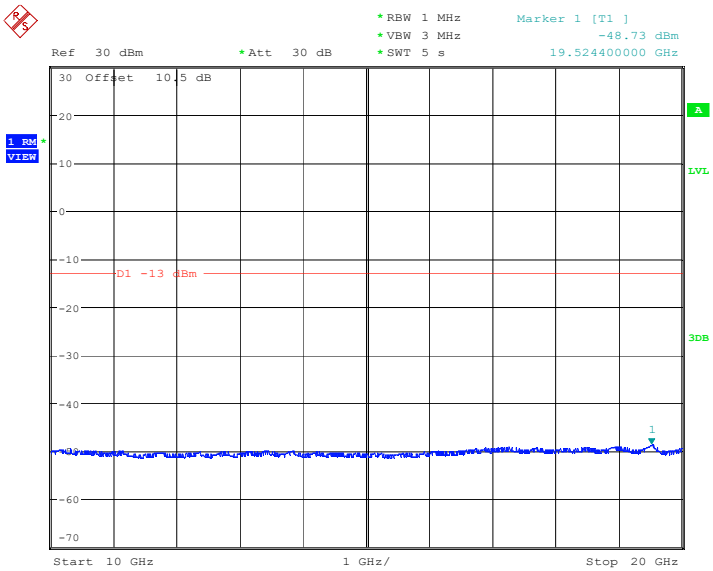
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 28.JUN.2022 16:42:50

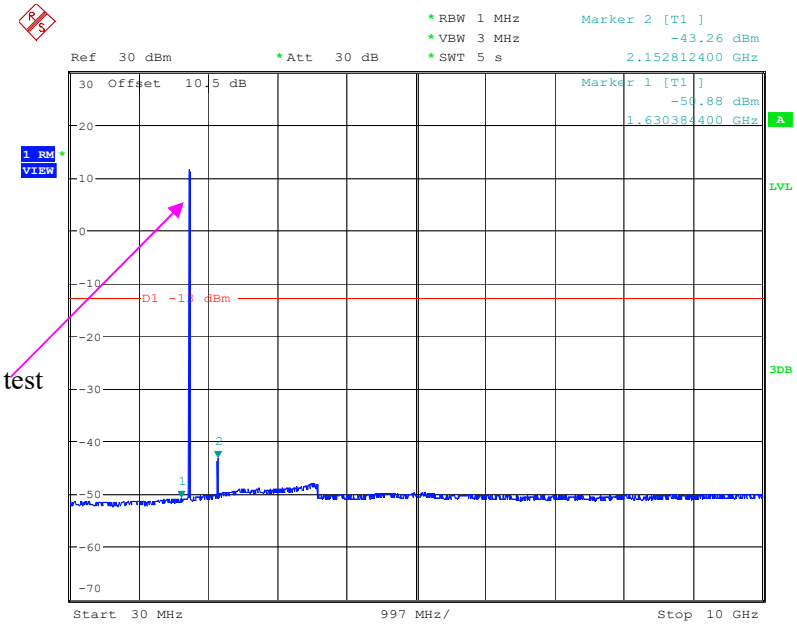
10 GHz – 20 GHz (WCDMA Mode)



Date: 28.JUN.2022 16:43:28

High Channel:

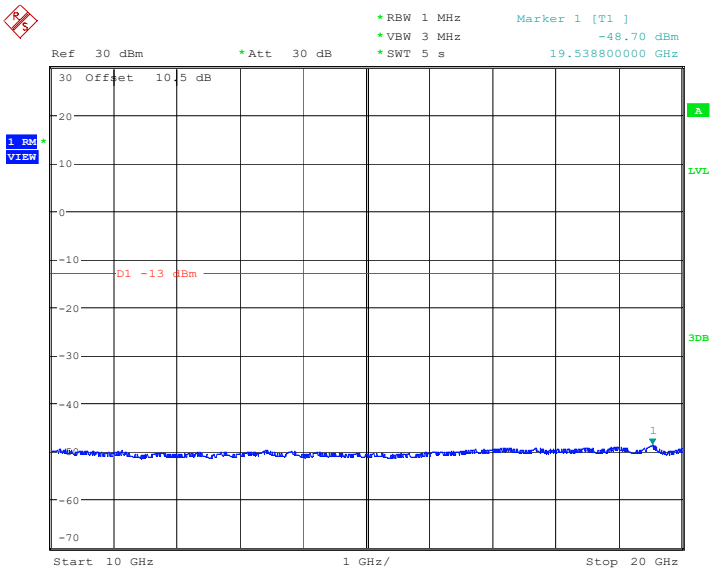
30 MHz – 10 GHz (WCDMA Mode)



Fundamental test

Date: 28.JUN.2022 16:48:04

10 GHz – 20 GHz (WCDMA Mode)



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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:	23~25.6 ℃
Relative Humidity:	52~60 %
ATM Pressure:	101.0 kPa

The testing was performed by Level Li from 2022-07-02 to 2022-07-05.

Test mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case Z-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								
Low Channel								
961.96	-63.2	129	2.3	H	10	-53.2	-13	-40.2
961.96	-64.47	306	2	V	11.7	-52.77	-13	-39.77
1648.4	-54.10	318	2.2	H	3.5	-50.60	-13	-37.60
1648.4	-51.00	200	1.9	V	3.1	-47.90	-13	-34.90
2472.6	-53.60	160	1.8	H	6.6	-47.00	-13	-34.00
2472.6	-52.80	305	1.1	V	5.8	-47.00	-13	-34.00
3296.8	-52.30	305	2	H	6.4	-45.90	-13	-32.90
3296.8	-51.50	35	2	V	5.7	-45.80	-13	-32.80
Middle Channel								
961.45	-62.96	322	1.9	H	10	-52.96	-13	-39.96
961.45	-64.03	224	2.5	V	11.7	-52.33	-13	-39.33
1672.8	-45.90	254	2.4	H	3.8	-42.10	-13	-29.10
1672.8	-47.80	136	2.5	V	3.1	-44.70	-13	-31.70
2509.2	-54.00	255	2.2	H	6.2	-47.80	-13	-34.80
2509.2	-53.00	147	1.4	V	5.6	-47.40	-13	-34.40
3345.6	-53.10	241	1.6	H	6.6	-46.50	-13	-33.50
3345.6	-52.00	6	2.3	V	5.4	-46.60	-13	-33.60
High Channel								
961.82	-63.13	214	2.4	H	10	-53.13	-13	-40.13
961.82	-64.17	207	1.4	V	11.7	-52.47	-13	-39.47
1697.6	-45.20	215	1.5	H	4.1	-41.10	-13	-28.10
1697.6	-42.20	304	1.4	V	3.1	-39.10	-13	-26.10
2546.4	-53.20	88	1.1	H	6.1	-47.10	-13	-34.10
2546.4	-52.30	7	2.5	V	5.8	-46.50	-13	-33.50
3395.2	-52.70	248	1.3	H	6.2	-46.50	-13	-33.50
3395.2	-51.30	135	2.1	V	5.4	-45.90	-13	-32.90

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 Band 5								
Low Channel								
962.08	-63.57	7	1.7	H	10	-53.57	-13	-40.57
962.08	-63.82	281	1.7	V	11.7	-52.12	-13	-39.12
1652.8	-54.10	115	2.2	H	3.5	-50.60	-13	-37.60
1652.8	-54.50	84	1.6	V	3.1	-51.40	-13	-38.40
2479.2	-55.50	243	1.5	H	6.6	-48.90	-13	-35.90
2479.2	-54.00	124	2.3	V	5.8	-48.20	-13	-35.20
3305.6	-52.50	25	1.3	H	6.4	-46.10	-13	-33.10
3305.6	-52.00	271	1.4	V	5.7	-46.30	-13	-33.30
Middle Channel								
961.56	-63.42	235	1.2	H	10	-53.42	-13	-40.42
961.56	-64.08	329	1.5	V	11.7	-52.38	-13	-39.38
1672.8	-54.40	248	1	H	3.8	-50.60	-13	-37.60
1672.8	-55.10	312	2.4	V	3.1	-52.00	-13	-39.00
2509.2	-55.20	340	2.1	H	6.2	-49.00	-13	-36.00
2509.2	-54.60	205	1.8	V	5.6	-49.00	-13	-36.00
3345.6	-52.30	170	2	H	6.6	-45.70	-13	-32.70
3345.6	-51.40	267	1.2	V	5.4	-46.00	-13	-33.00
High Channel								
961.66	-63.62	66	1.5	H	10	-53.62	-13	-40.62
961.66	-64.35	134	1.7	V	11.7	-52.65	-13	-39.65
1693.2	-54.80	212	1.9	H	4.1	-50.70	-13	-37.70
1693.2	-54.60	181	1.1	V	3.1	-51.50	-13	-38.50
2539.8	-55.40	243	2.2	H	6.1	-49.30	-13	-36.30
2539.8	-54.70	206	1.3	V	5.8	-48.90	-13	-35.90
3386.4	-52.30	165	2.4	H	6.2	-46.10	-13	-33.10
3386.4	-51.20	295	2.2	V	5.4	-45.80	-13	-32.80

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								
Low Channel								
961.53	-63.33	97	1.5	H	10	-53.33	-13	-40.33
961.53	-64.74	249	1.7	V	11.7	-53.04	-13	-40.04
3700.4	-48.70	292	1.9	H	8.1	-40.60	-13	-27.60
3700.4	-49.10	232	2.0	V	7.6	-41.50	-13	-28.50
Middle Channel								
961.9	-63.55	171	1.6	H	10	-53.55	-13	-40.55
961.9	-63.81	152	1.9	V	11.7	-52.11	-13	-39.11
3760	-50.00	32	1.7	H	8.8	-41.20	-13	-28.20
3760	-49.60	351	1.8	V	8	-41.60	-13	-28.60
High Channel								
961.48	-63.38	345	1.7	H	10	-53.38	-13	-40.38
961.48	-64.59	15	1.7	V	11.7	-52.89	-13	-39.89
3819.6	-50.30	184	2	H	8.7	-41.60	-13	-28.60
3819.6	-49.80	126	1.9	V	7.9	-41.90	-13	-28.90
WCDMA Band 2								
Low Channel								
962.09	-63.54	231	1	H	10	-53.54	-13	-40.54
962.09	-63.89	214	2.2	V	11.7	-52.19	-13	-39.19
3704.8	-47.20	216	1.9	H	8.1	-39.10	-13	-26.10
3704.8	-44.10	352	2.1	V	7.6	-36.50	-13	-23.50
Middle Channel								
962.12	-62.96	173	1.9	H	10	-52.96	-13	-39.96
962.12	-64.73	247	1.8	V	11.7	-53.03	-13	-40.03
3760	-46.70	212	1.1	H	8.8	-37.90	-13	-24.90
3760	-45.30	251	2.5	V	8	-37.30	-13	-24.30
High Channel								
961.71	-63.18	299	1.1	H	10	-53.18	-13	-40.18
961.71	-63.83	301	2.1	V	11.7	-52.13	-13	-39.13
3815.2	-46.50	349	2.2	H	8.7	-37.80	-13	-24.80
3815.2	-43.20	179	2.5	V	7.9	-35.30	-13	-22.30

30MHz-20GHz:

AWS Band (Part 27E)

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 Band 4								
Low Channel								
961.46	-63.35	250	2.2	H	10	-53.35	-13	-40.35
961.46	-64.11	330	1.2	V	11.7	-52.41	-13	-39.41
3424.8	-49.80	221	1.9	H	6.4	-43.40	-13	-30.40
3424.8	-48.20	88	2	V	5.8	-42.40	-13	-29.40
Middle Channel								
962.2	-62.8	295	1.6	H	10	-52.8	-13	-39.8
962.2	-63.82	310	1.8	V	11.7	-52.12	-13	-39.12
3465.2	-50	2	2	H	7	-43.00	-13	-30.00
3465.2	-49.4	35	2	V	6.2	-43.20	-13	-30.20
High Channel								
961.44	-63.1	295	1.8	H	10	-53.1	-13	-40.1
961.44	-63.98	291	1.8	V	11.7	-52.28	-13	-39.28
3505.2	-50.40	263	2.2	H	7.8	-42.60	-13	-29.60
3505.2	-50.30	273	2.1	V	6.5	-43.80	-13	-30.80

LTE Band: *(Pre-scan with all the bandwidth and modulation, and 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)				
Band 2								
Test frequency range: 30MHz-20GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
961.98	-63.32	234	1.7	H	10	-53.32	-13	-40.32
961.98	-64.47	126	1.3	V	11.7	-52.77	-13	-39.77
3701.4	-46.10	311	1.7	H	8.1	-38.00	-13	-25.00
3701.4	-42.60	319	1.7	V	7.6	-35.00	-13	-22.00
QPSK, 1.4MHz bandwidth, Middle Channel								
961.45	-63.2	25	2.3	H	10	-53.2	-13	-40.2
961.45	-63.87	71	2.4	V	11.7	-52.17	-13	-39.17
3760	-46.20	40	1.6	H	8.8	-37.40	-13	-24.40
3760	-44.00	62	2.1	V	8	-36.00	-13	-23.00
QPSK, 1.4MHz bandwidth, High Channel								
961.93	-63.15	254	1.2	H	10	-53.15	-13	-40.15
961.93	-64.56	165	1.7	V	11.7	-52.86	-13	-39.86
3818.6	-46.10	131	1.3	H	8.7	-37.40	-13	-24.40
3818.6	-42.80	114	2.4	V	7.9	-34.90	-13	-21.90
Band 4								
Test frequency range: 30MHz-20GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
961.88	-62.94	203	1.8	H	10	-52.94	-13	-39.94
961.88	-64.13	59	1.6	V	11.7	-52.43	-13	-39.43
3421.4	-49.60	190	1.7	H	6.4	-43.20	-13	-30.20
3421.4	-50.60	30	1.3	V	5.8	-44.80	-13	-31.80
QPSK, 1.4MHz bandwidth, Middle Channel								
961.55	-63.77	102	1.4	H	10	-53.77	-13	-40.77
961.55	-64.33	319	1.2	V	11.7	-52.63	-13	-39.63
3465	-49.7	328	1.1	H	7	-42.70	-13	-29.70
3465	-52	193	2.2	V	6.2	-45.80	-13	-32.80
QPSK, 1.4MHz bandwidth, High Channel								
961.67	-63.73	359	2.1	H	10	-53.73	-13	-40.73
961.67	-63.92	137	1.9	V	11.7	-52.22	-13	-39.22
3508.6	-50.70	236	1.3	H	7.8	-42.90	-13	-29.90
3508.6	-51.90	301	2	V	6.5	-45.40	-13	-32.40

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 5								
Test frequency range: 30MHz-10GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
962.27	-63.37	162	1.9	H	10	-53.37	-13	-40.37
962.27	-64.29	167	2.2	V	11.7	-52.59	-13	-39.59
1649.4	-54.30	154	1.8	H	3.5	-50.80	-13	-37.80
1649.4	-55.20	33	1.9	V	3.1	-52.10	-13	-39.10
2474.1	-56.30	349	1.3	H	6.6	-49.70	-13	-36.70
2474.1	-54.70	318	1.8	V	5.8	-48.90	-13	-35.90
3298.8	-52.50	25	2.3	H	6.4	-46.10	-13	-33.10
3298.8	-51.60	144	2.5	V	5.7	-45.90	-13	-32.90
QPSK, 1.4MHz bandwidth, Middle Channel								
962	-63.34	0	1.6	H	10	-53.34	-13	-40.34
962	-63.97	188	1	V	11.7	-52.27	-13	-39.27
1673.0	-52.50	325	2.3	H	3.8	-48.70	-13	-35.70
1673.0	-52.50	277	1	V	3.1	-49.40	-13	-36.40
2509.5	-55.10	126	1.6	H	6.2	-48.90	-13	-35.90
2509.5	-53.30	240	1.9	V	5.6	-47.70	-13	-34.70
3346.0	-52.90	318	1.7	H	6.6	-46.30	-13	-33.30
3346.0	-51.70	76	2.1	V	5.4	-46.30	-13	-33.30
QPSK, 1.4MHz bandwidth, High Channel								
962.05	-63.51	310	2.2	H	10	-53.51	-13	-40.51
962.05	-64.47	181	1.4	V	11.7	-52.77	-13	-39.77
1696.6	-53.00	161	2.0	H	4.1	-48.90	-13	-35.90
1696.6	-52.50	175	1.1	V	3.1	-49.40	-13	-36.40
2544.9	-55.00	63	1.3	H	6.1	-48.90	-13	-35.90
2544.9	-54.70	286	1.4	V	5.8	-48.90	-13	-35.90
3393.2	-52.50	153	1.1	H	6.2	-46.30	-13	-33.30
3393.2	-51.60	241	1.6	V	5.4	-46.20	-13	-33.20

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 7								
Test frequency range: 30MHz-26.5GHz								
QPSK, 5MHz bandwidth, Low Channel								
961.42	-63.66	139	2.2	H	10	-53.66	-25	-28.66
961.42	-64.22	323	1.8	V	11.7	-52.52	-25	-27.52
5005	-56.90	142	1.6	H	10.8	-46.10	-25	-21.10
5005	-55.40	0	2.5	V	10.2	-45.20	-25	-20.20
QPSK, 5MHz bandwidth, Middle Channel								
961.46	-63.44	135	1.9	H	10	-53.44	-25	-28.44
961.46	-64.17	331	1.8	V	11.7	-52.47	-25	-27.47
5070	-56.60	148	2.5	H	11.1	-45.50	-25	-20.50
5070	-55.70	51	1.3	V	10.8	-44.90	-25	-19.90
QPSK, 5MHz bandwidth, High Channel								
962.18	-63.31	64	1.3	H	10	-53.31	-25	-28.31
962.18	-64.54	176	2.4	V	11.7	-52.84	-25	-27.84
5135	-56.30	7	1.4	H	11.3	-45.00	-25	-20.00
5135	-55.50	168	1.4	V	10.8	-44.70	-25	-19.70

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 12								
Test frequency range: 30MHz-10GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
962.06	-63.72	5	2.5	H	10	-53.72	-13	-40.72
962.06	-64.05	295	1	V	11.7	-52.35	-13	-39.35
1399.4	-61.9	211	2	H	5.9	-56.00	-13	-43.00
1399.4	-62.9	91	1.6	V	5.9	-57.00	-13	-44.00
2099.1	-41	344	2.5	H	6.3	-34.70	-13	-21.70
2099.1	-38.7	260	1.8	V	5.1	-33.60	-13	-20.60
2798.8	-57.6	100	2.1	H	6.7	-50.90	-13	-37.90
2798.8	-57.6	237	2.1	V	6.7	-50.90	-13	-37.90
QPSK, 1.4MHz bandwidth, Middle Channel								
962.1	-62.86	103	1.3	H	10	-52.86	-13	-39.86
962.1	-64.68	43	2.2	V	11.7	-52.98	-13	-39.98
1415	-62.5	9	1.9	H	5.9	-56.60	-13	-43.60
1415	-62.7	298	2.1	V	5.9	-56.80	-13	-43.80
2122.5	-44.6	150	2	H	6.3	-38.30	-13	-25.30
2122.5	-40.6	27	1.4	V	5.1	-35.50	-13	-22.50
2830	-57.1	76	2	H	6.7	-50.40	-13	-37.40
2830	-57.5	239	1.4	V	6.7	-50.80	-13	-37.80
QPSK, 1.4MHz bandwidth, High Channel								
962.29	-63.01	145	2	H	10	-53.01	-13	-40.01
962.29	-64.72	187	1.9	V	11.7	-53.02	-13	-40.02
1430.6	-58.8	151	2.3	H	5.9	-52.90	-13	-39.90
1430.6	-59.9	316	2.1	V	5.9	-54.00	-13	-41.00
2145.9	-46.4	270	1.2	H	6.3	-40.10	-13	-27.10
2145.9	-43	255	1.5	V	5.1	-37.90	-13	-24.90
2861.2	-58.1	190	2.4	H	6.7	-51.40	-13	-38.40
2861.2	-58.3	0	1.5	V	6.7	-51.60	-13	-38.60

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 13								
Test frequency range: 30MHz-10GHz								
QPSK, 5MHz bandwidth, Low Channel								
962.06	-62.92	73	2.3	H	10	-52.92	-13	-39.92
962.06	-64.44	46	1.1	V	11.7	-52.74	-13	-39.74
1559	-50.09	359	2.1	H	-2.81	-52.90	-40	-12.90
1559	-51.61	155	1.2	V	-2.89	-54.50	-40	-14.50
2338.5	-51.92	270	1.9	H	1.22	-50.70	-13	-37.70
2338.5	-52.28	117	2.3	V	1.18	-51.10	-13	-38.10
3118	-50.44	22	1.5	H	2.84	-47.60	-13	-34.60
3118	-49.87	184	2.3	V	2.97	-46.90	-13	-33.90
QPSK, 5MHz bandwidth, Middle Channel								
961.84	-62.82	111	1.2	H	10	-52.82	-13	-39.82
961.84	-64.79	260	2.5	V	11.7	-53.09	-13	-40.09
1564	-50.79	359	2.1	H	-2.81	-53.60	-40	-13.60
1564	-51.51	155	1.2	V	-2.89	-54.40	-40	-14.40
2346	-52.12	270	1.9	H	1.22	-50.90	-13	-37.90
2346	-52.18	117	2.3	V	1.18	-51.00	-13	-38.00
3128	-50.64	22	1.5	H	2.84	-47.80	-13	-34.80
3128	-50.37	184	2.3	V	2.97	-47.40	-13	-34.40
QPSK, 5MHz bandwidth, High Channel								
961.96	-62.98	191	1.1	H	10	-52.98	-13	-39.98
961.96	-64.13	131	1.2	V	11.7	-52.43	-13	-39.43
1569	-50.59	359	2.1	H	-2.81	-53.40	-40	-13.40
1569	-51.61	155	1.2	V	-2.89	-54.50	-40	-14.50
2353.5	-52.42	270	1.9	H	1.22	-51.20	-13	-38.20
2353.5	-50.88	117	2.3	V	1.18	-49.70	-13	-36.70
3138	-50.24	22	1.5	H	2.84	-47.40	-13	-34.40
3138	-49.97	184	2.3	V	2.97	-47.00	-13	-34.00

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 17								
Test frequency range: 30MHz-8GHz								
QPSK, 5MHz bandwidth, Low Channel								
961.96	-62.96	315	2.2	H	10	-52.96	-13	-39.96
961.96	-64.56	194	2.1	V	11.7	-52.86	-13	-39.86
1413	-53.07	301	1.8	H	-0.53	-53.60	-13	-40.60
1413	-54.46	305	2.2	V	-0.74	-55.20	-13	-42.20
2119.5	-40.11	273	1.8	H	-0.89	-41.00	-13	-28.00
2119.5	-37.18	204	1.1	V	-1.12	-38.30	-13	-25.30
2826	-53.44	354	1.5	H	2.24	-51.20	-13	-38.20
2826	-52.93	167	1.8	V	2.33	-50.60	-13	-37.60
QPSK, 5MHz bandwidth, Middle Channel								
961.68	-63.4	258	1.1	H	10	-53.4	-13	-40.4
961.68	-64.3	286	1.5	V	11.7	-52.6	-13	-39.6
1420	-53.77	80	1.1	H	-0.53	-54.30	-13	-41.30
1420	-55.36	160	2.1	V	-0.74	-56.10	-13	-43.10
2130	-39.71	3	1.6	H	-0.89	-40.60	-13	-27.60
2130	-35.48	14	1.5	V	-1.12	-36.60	-13	-23.60
2840	-52.64	27	1.7	H	2.24	-50.40	-13	-37.40
2840	-53.03	182	1.1	V	2.33	-50.70	-13	-37.70
QPSK, 5MHz bandwidth, High Channel								
961.93	-63.08	134	2.1	H	10	-53.08	-13	-40.08
961.93	-64.47	175	2.4	V	11.7	-52.77	-13	-39.77
1427	-52.57	16	1.4	H	-0.53	-53.10	-13	-40.10
1427	-54.66	76	1.7	V	-0.74	-55.40	-13	-42.40
2140.5	-42.01	126	2.4	H	-0.89	-42.90	-13	-29.90
2140.5	-40.08	29	1.8	V	-1.12	-41.20	-13	-28.20
2854	-53.34	353	1.9	H	2.24	-51.10	-13	-38.10
2854	-53.43	202	1.3	V	2.33	-51.10	-13	-38.10

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 38								
Test frequency range: 30MHz-26.5GHz								
QPSK, 5MHz, Low Channel								
962.06	-62.84	299	1.1	H	10	-52.84	-25	-27.84
962.06	-64.67	275	1.1	V	11.7	-52.97	-25	-27.97
5145	-57	209	2.2	H	11.4	-45.60	-25	-20.60
5145	-57.3	339	1.4	V	10.7	-46.60	-25	-21.60
QPSK, 5MHz, Middle Channel								
961.86	-63.13	84	2.4	H	10	-53.13	-25	-28.13
961.86	-64.4	112	2.5	V	11.7	-52.7	-25	-27.7
5190	-55.1	344	1.4	H	10.5	-44.60	-25	-19.60
5190	-54.2	131	1.5	V	10	-44.20	-25	-19.20
QPSK, 5MHz, High Channel								
961.96	-62.86	325	1.2	H	10	-52.86	-25	-27.86
961.96	-63.95	10	1.1	V	11.7	-52.25	-25	-27.25
5235	-55.1	80	2.2	H	9.7	-45.40	-25	-20.40
5235	-53.7	163	2.4	V	9.2	-44.50	-25	-19.50
Band 41								
Test frequency range: 30-26.5GHz								
QPSK, 5MHz, Low Channel								
962.29	-62.96	167	1.3	H	10	-52.96	-25	-27.96
962.29	-64.75	326	1.6	V	11.7	-53.05	-25	-28.05
5075	-56.5	261	2.5	H	11.2	-45.30	-25	-20.30
5075	-54.5	101	1.1	V	10.8	-43.70	-25	-18.70
QPSK, 5MHz bandwidth, Middle Channel								
962.15	-62.88	56	1.2	H	10	-52.88	-25	-27.88
962.15	-64.45	276	2.3	V	11.7	-52.75	-25	-27.75
5190	-56.1	205	1.1	H	10.5	-45.60	-25	-20.60
5190	-54.9	182	1.6	V	10	-44.90	-25	-19.90
QPSK, 5MHz bandwidth, High Channel								
961.66	-62.82	37	1.4	H	10	-52.82	-25	-27.82
961.66	-63.84	281	2	V	11.7	-52.14	-25	-27.14
5305	-54	74	1.2	H	9.6	-44.40	-25	-19.40
5305	-51.6	343	1.1	V	8.8	-42.80	-25	-17.80

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 66								
Test frequency range: 30-20GHz								
QPSK, 1.4MHz, Low Channel								
961.45	-62.95	89	2.5	H	10	-52.95	-13	-39.95
961.45	-64.15	124	1.9	V	11.7	-52.45	-13	-39.45
3421.4	-49.4	24	1.7	H	6.4	-43.00	-13	-30.00
3421.4	-49.4	271	1.3	V	5.7	-43.70	-13	-30.70
QPSK, 1.4MHz bandwidth, Middle Channel								
961.98	-63.49	345	2.4	H	10	-53.49	-13	-40.49
961.98	-63.81	254	1.6	V	11.7	-52.11	-13	-39.11
3490	-50.3	54	2.3	H	7.6	-42.70	-13	-29.70
3490	-50.7	132	2	V	6.4	-44.30	-13	-31.30
QPSK, 1.4MHz bandwidth, High Channel								
961.92	-63.75	326	2.4	H	10	-53.75	-13	-40.75
961.92	-63.81	33	2	V	11.7	-52.11	-13	-39.11
3598.6	-50.9	175	1.6	H	7.8	-43.10	-13	-30.10
3598.6	-50.8	84	1.6	V	7	-43.80	-13	-30.80

Note:
Absolute Level = Reading Level + Substituted Factor
Substituted Factor contains: SG Level - Cable loss+ Antenna Gain
Margin = Absolute Level - Limit

FCC§ 22.917 (a);§ 24.238 (a); §27.53 (c)(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.

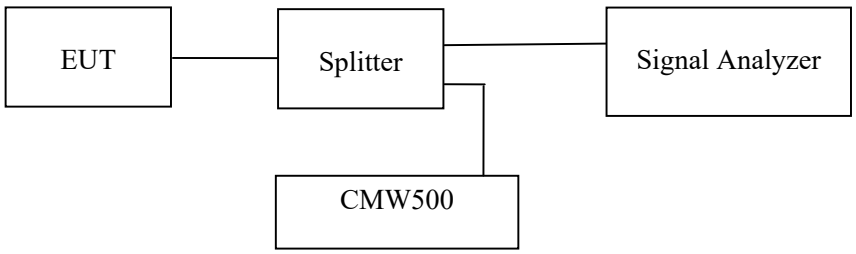
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to FCC §27.53 (c)(g)(h)(m), 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.

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



Test Data

Environmental Conditions

Temperature:	27.2~28 ℃
Relative Humidity:	56.8~62 %
ATM Pressure:	101.0 kPa

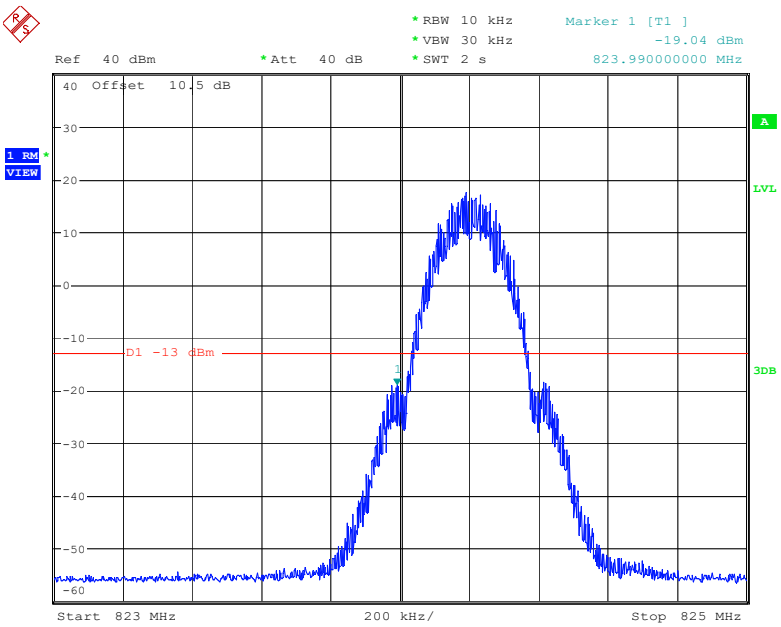
The testing was performed by Audy Yu from 2022-06-26 to 2022-07-09

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

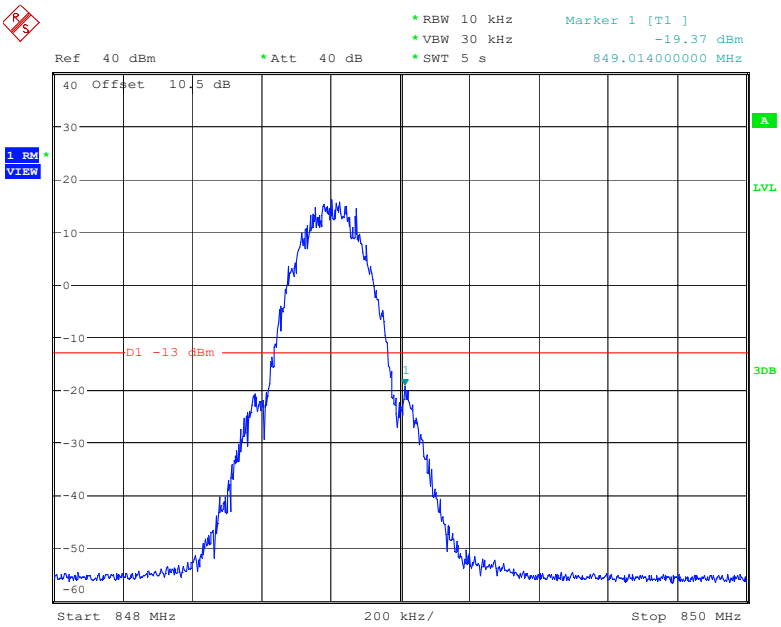
Please refer to the following plots.

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



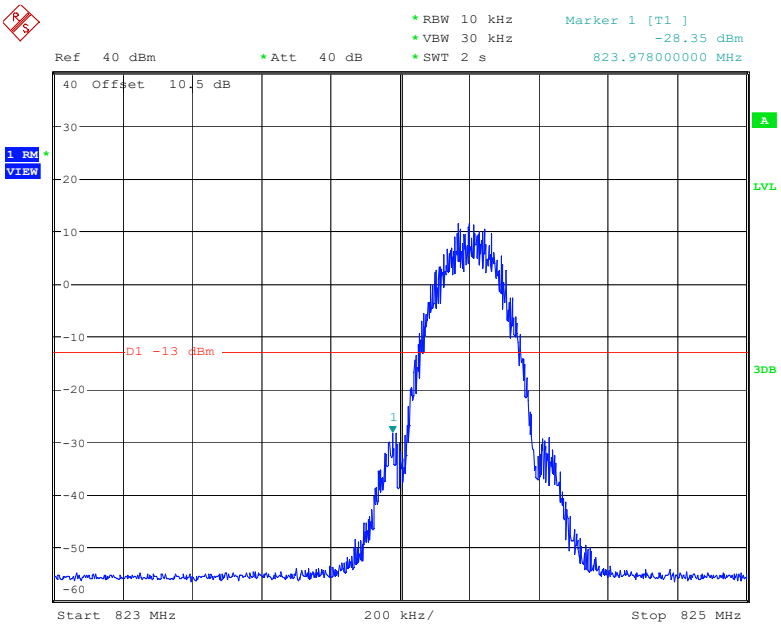
Date: 28.JUN.2022 15:03:18

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



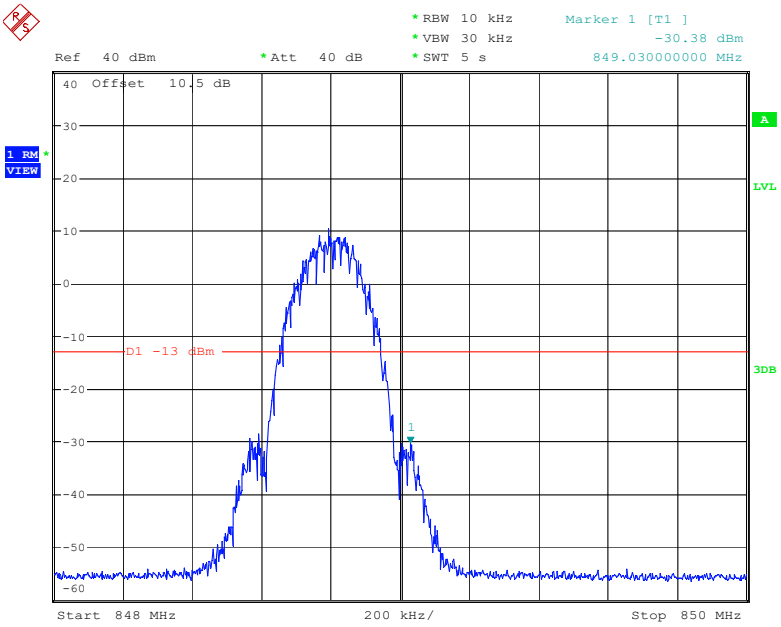
Date: 28.JUN.2022 15:12:34

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



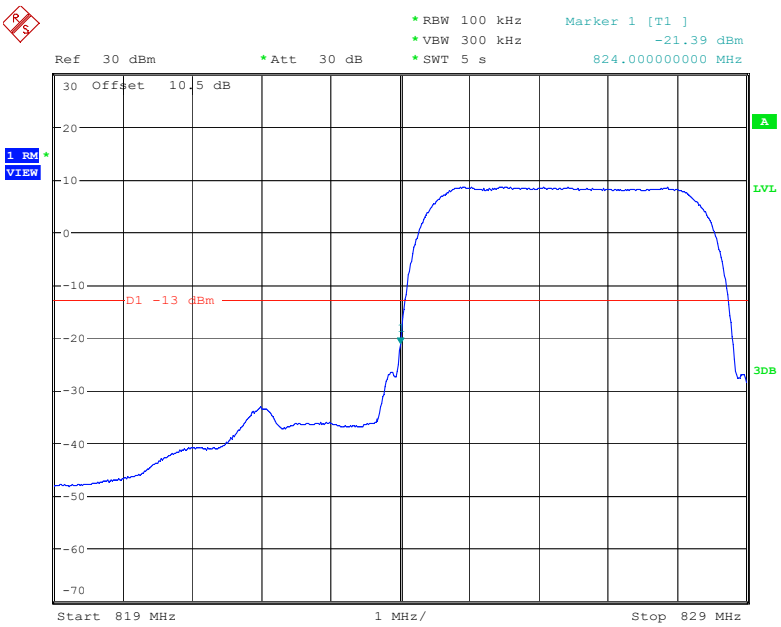
Date: 28.JUN.2022 15:18:52

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



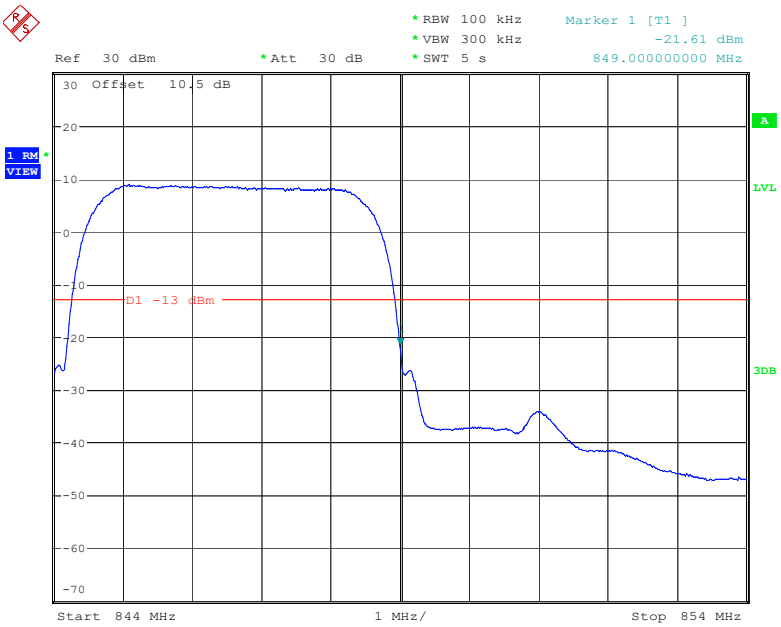
Date: 28.JUN.2022 15:25:05

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



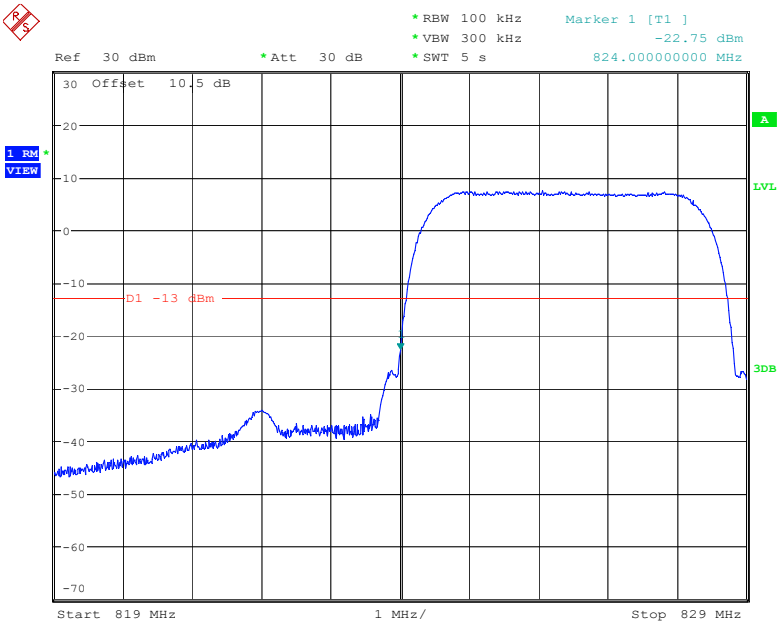
Date: 28.JUN.2022 17:25:49

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



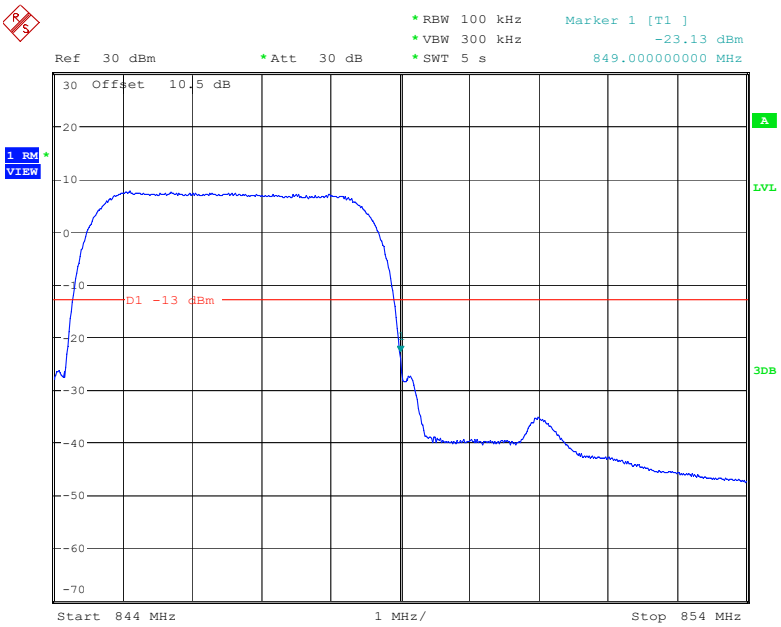
Date: 28.JUN.2022 17:32:39

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



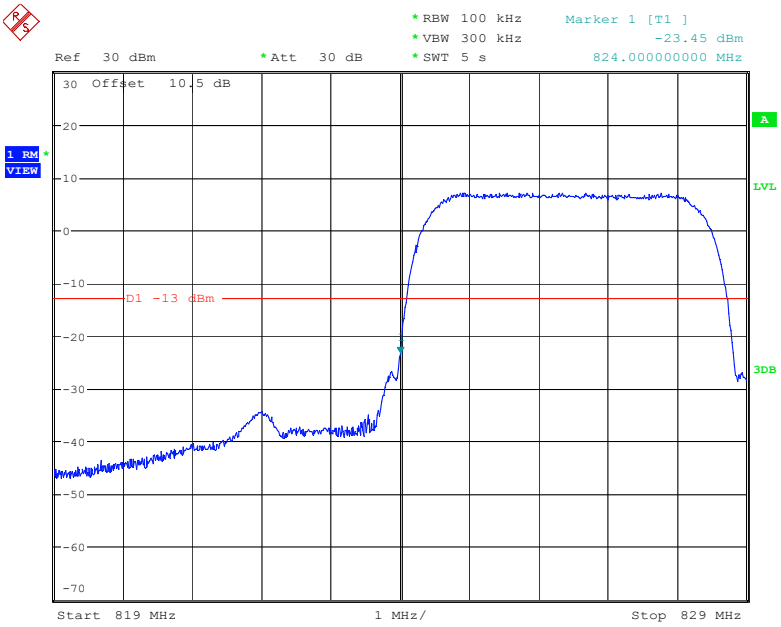
Date: 28.JUN.2022 18:01:03

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



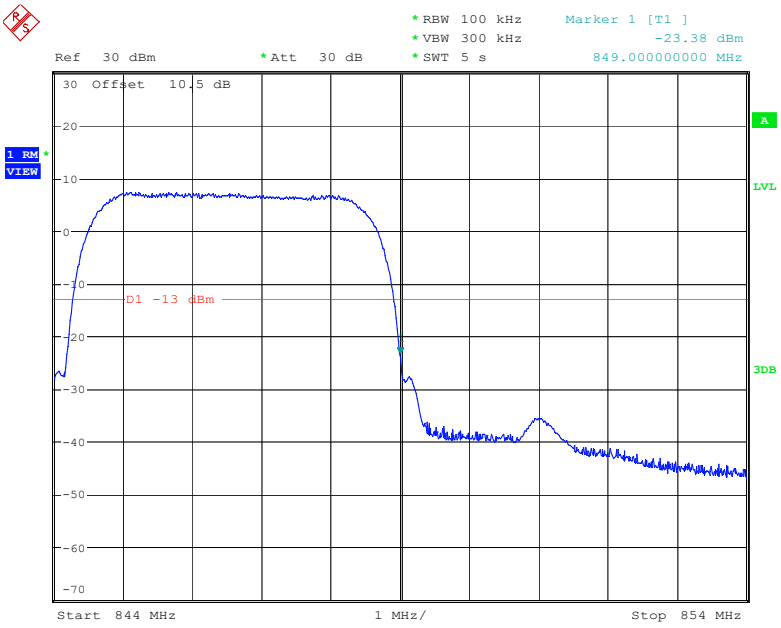
Date: 28.JUN.2022 18:07:12

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



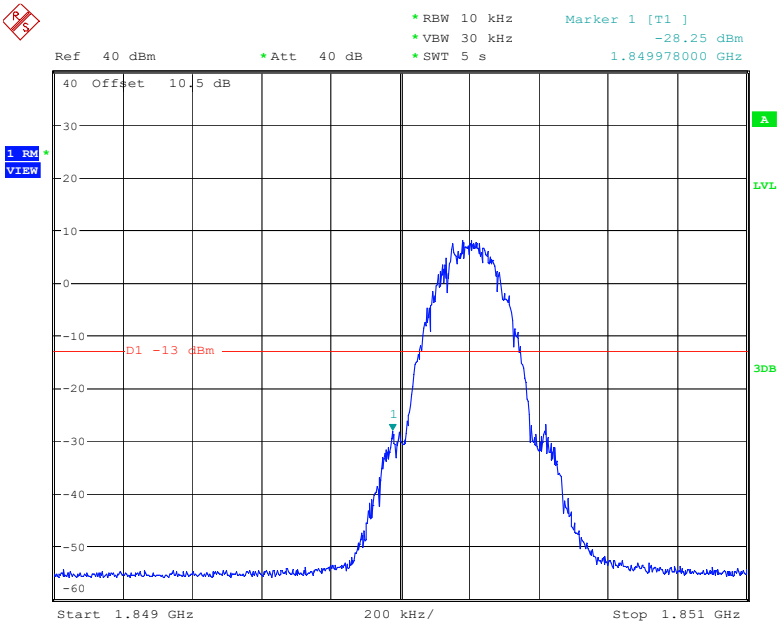
Date: 28.JUN.2022 18:12:36

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



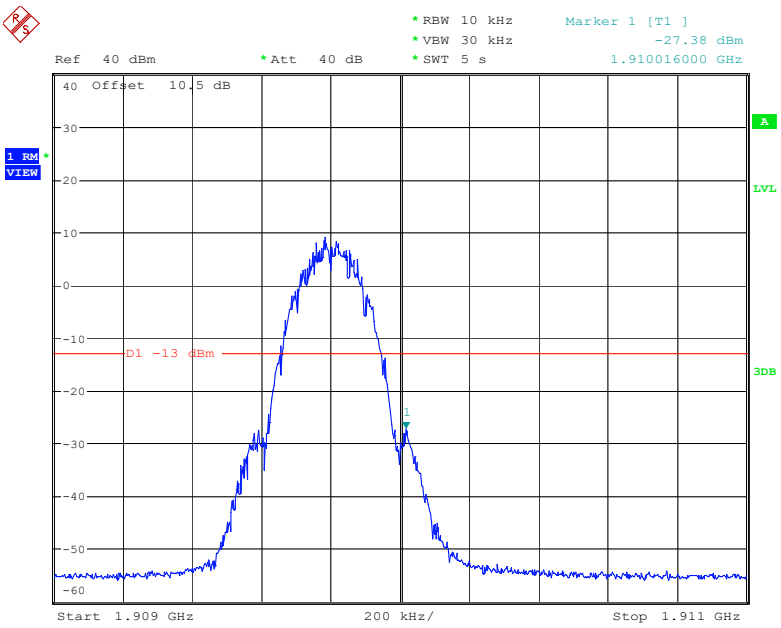
Date: 28.JUN.2022 18:19:57

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



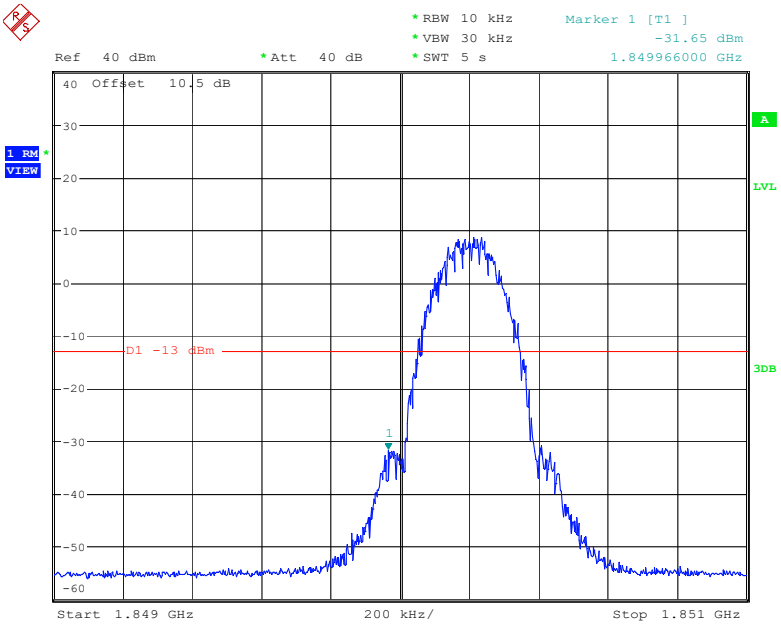
Date: 28.JUN.2022 15:43:07

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



Date: 28.JUN.2022 15:50:02

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



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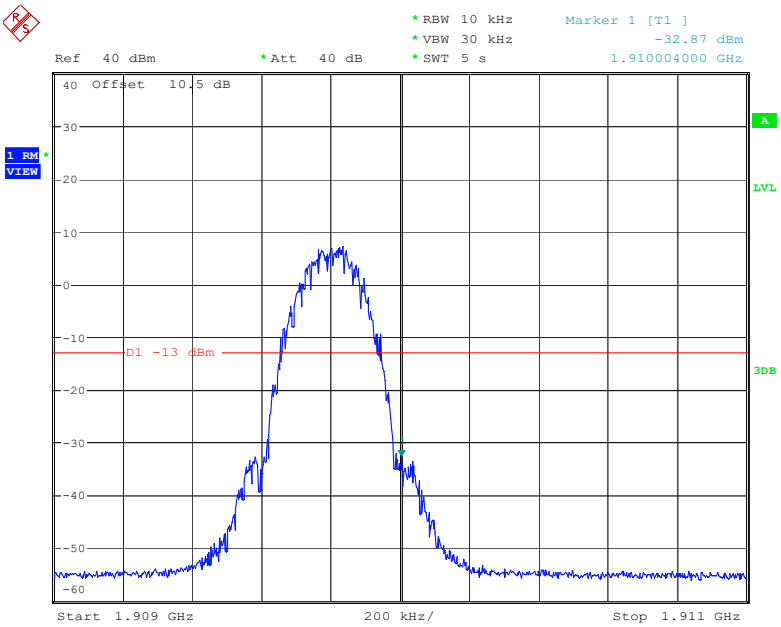
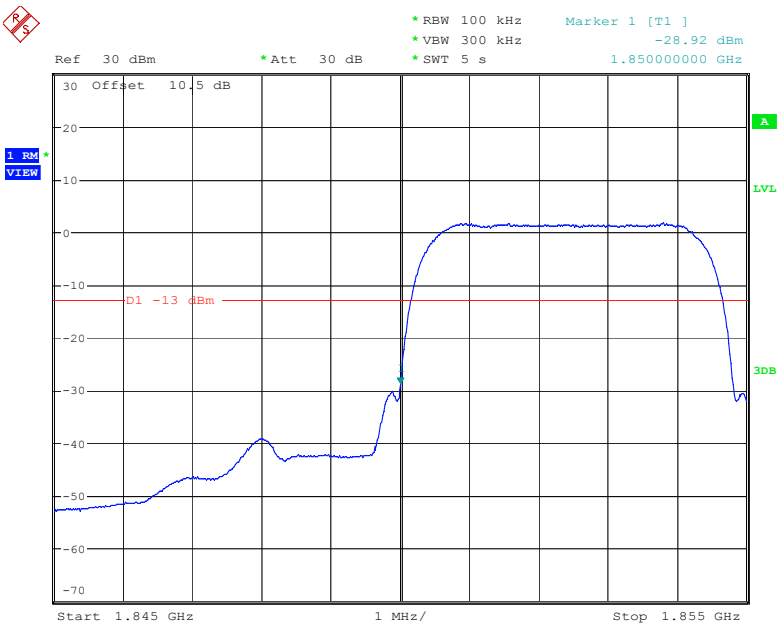
PCS Band, Right Band Edge for EGPRS (8PSK) Mode



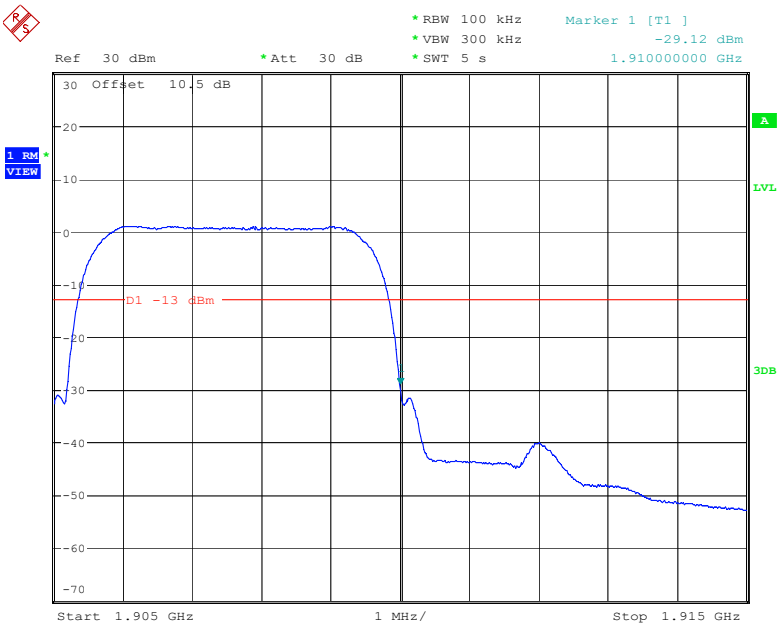
Date: 28.JUN.2022 15:38:08

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



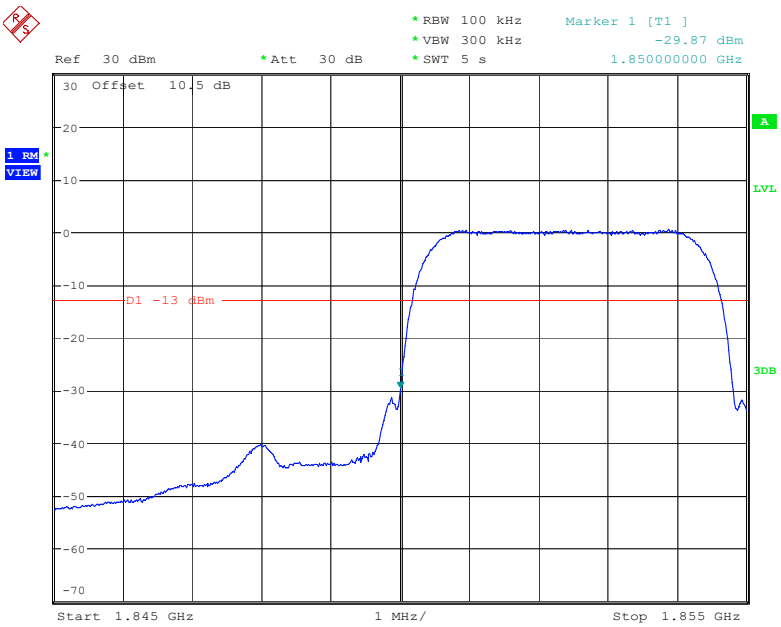
Date: 28.JUN.2022 15:57:36

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



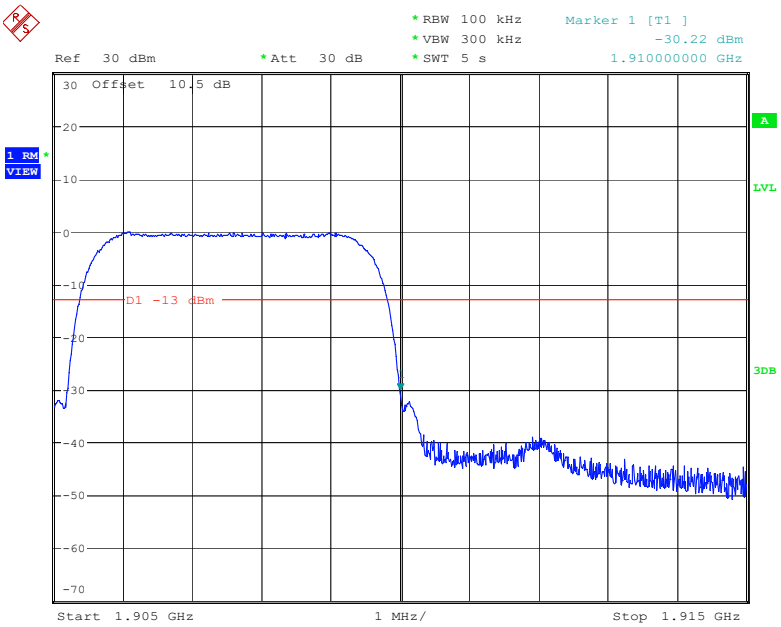
Date: 28.JUN.2022 16:05:47

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



Date: 28.JUN.2022 16:11:28

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



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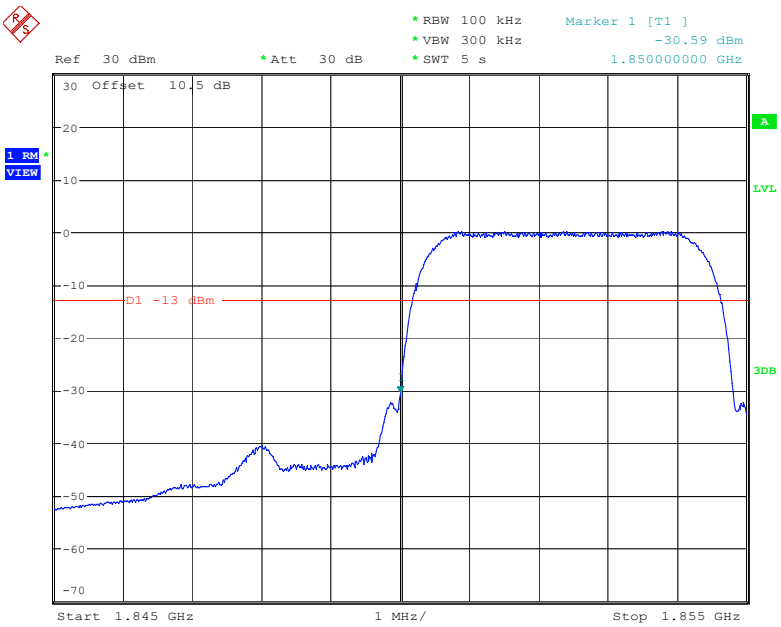
PCS Band, Left Band Edge for HSUPA (QPSK) Mode



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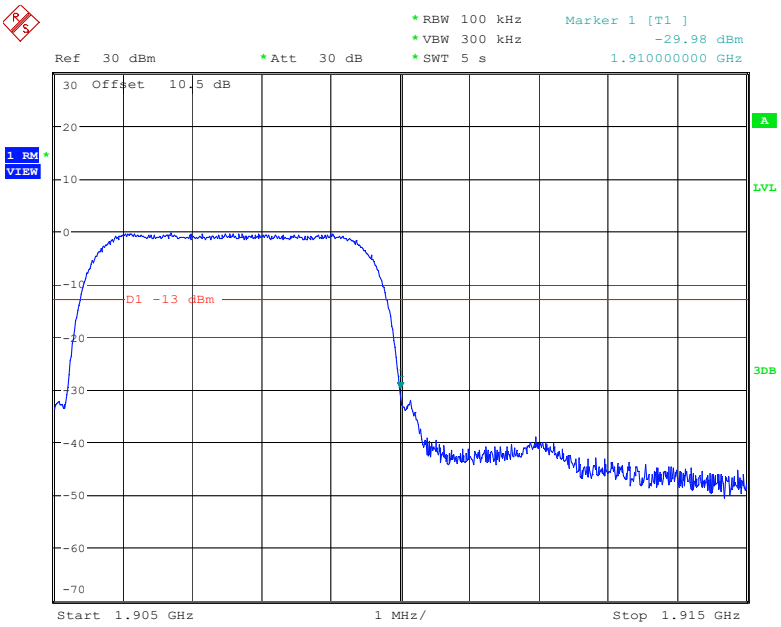
PCS Band, Right Band Edge for HSUPA (QPSK) Mode



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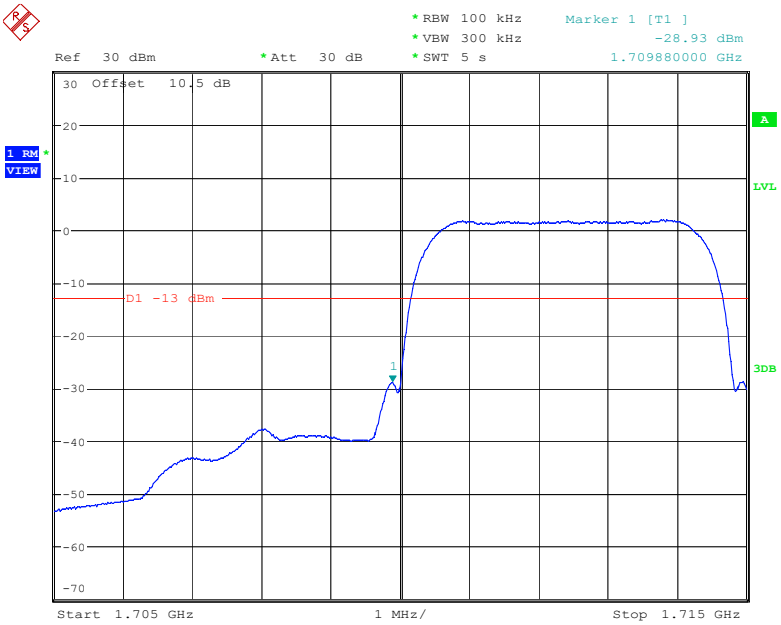
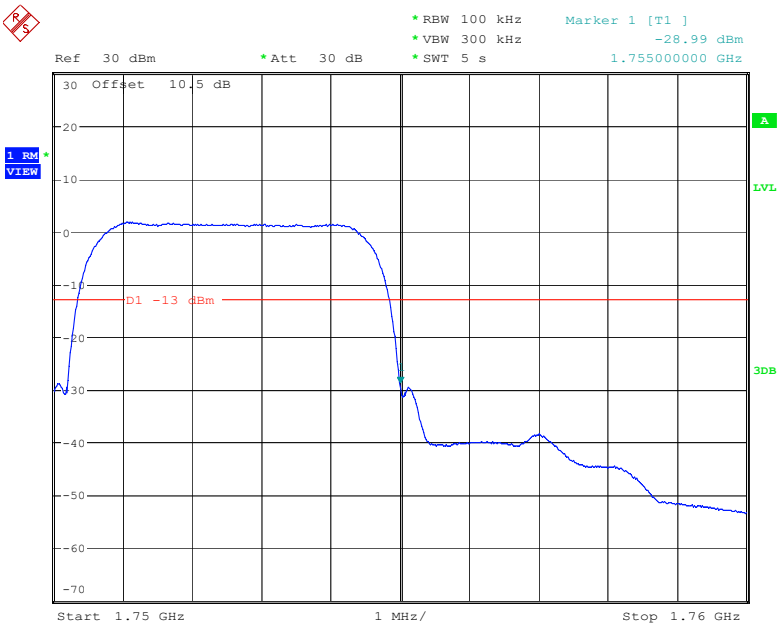
AWS Band, Left Band Edge for RMC (BPSK) Mode



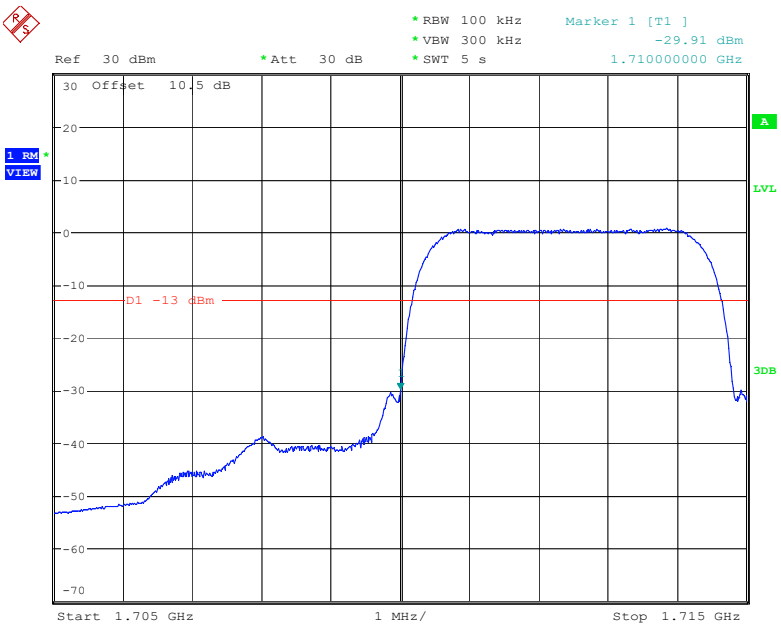
Date: 28.JUN.2022 16:38:20

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



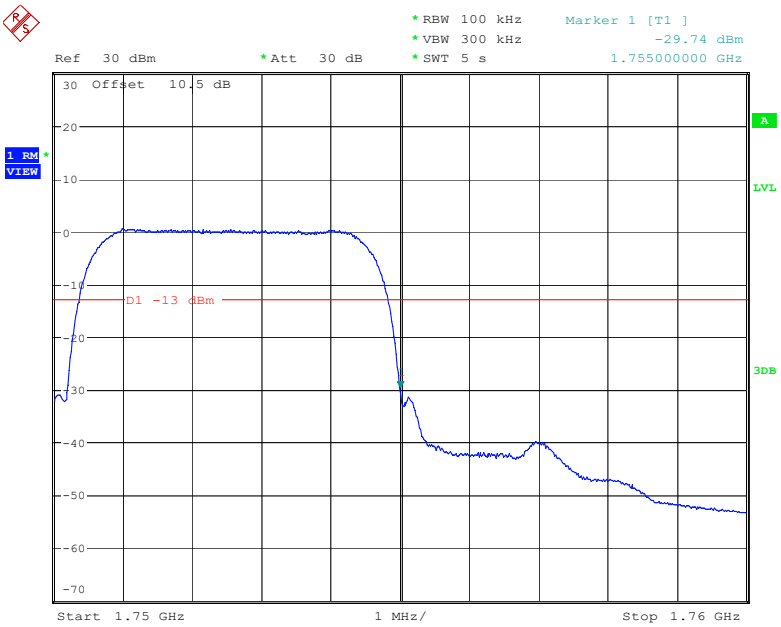
Date: 28.JUN.2022 16:47:27

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



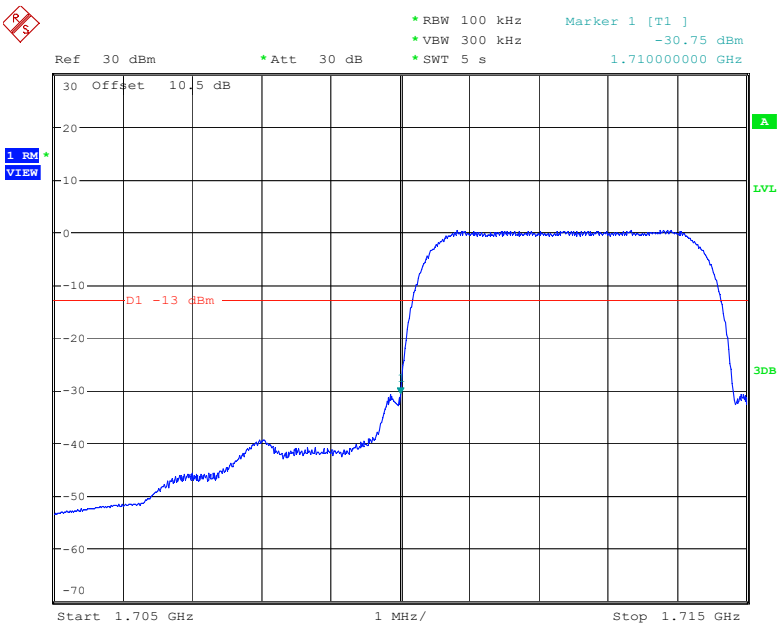
Date: 28.JUN.2022 17:12:46

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



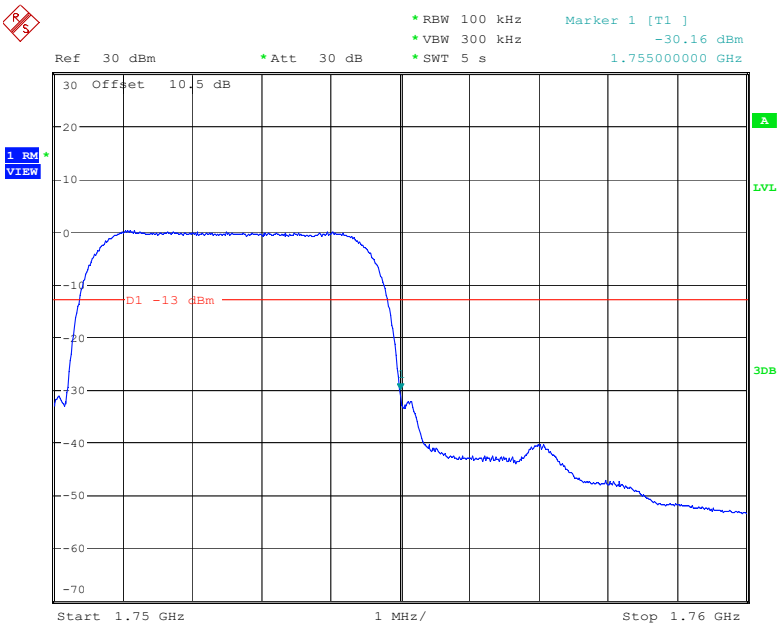
Date: 28.JUN.2022 17:20:46

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



Date: 28.JUN.2022 16:56:38

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



Date: 28.JUN.2022 17:05:55

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

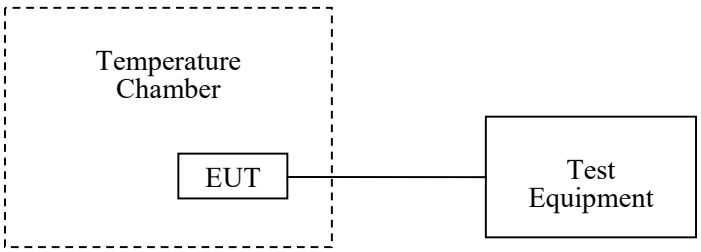
According to §24.235&§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external AC 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 AC 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:	27.2~28 ℃
Relative Humidity:	56.8~62 %
ATM Pressure:	101.0 kPa

The testing was performed by Audy Yu from 2022-06-26 to 2022-07-09.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

Cellular Band (Part 22H)

GSM Mode

Middle Channel, f_o =836.4MHz				
Temperature (℃)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	1	0.0012	2.5
-20		4	0.0048	2.5
-10		3	0.0036	2.5
0		2	0.0024	2.5
10		6	0.0072	2.5
20		0	0.0000	2.5
30		3	0.0036	2.5
40		4	0.0048	2.5
50		3	0.0036	2.5
20	L.V.	2	0.0024	2.5
	H.V.	5	0.0060	2.5

EDGE Mode

Middle Channel, f_o =836.4MHz				
Temperature (℃)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	1.36	0.0016	2.5
-20		1.54	0.0018	2.5
-10		1.62	0.0019	2.5
0		1.45	0.0017	2.5
10		1.28	0.0015	2.5
20		1.30	0.0016	2.5
30		1.28	0.0015	2.5
40		1.55	0.0019	2.5
50		1.41	0.0017	2.5
20	L.V.	1.33	0.0016	2.5
	H.V.	1.26	0.0015	2.5

WCDMA Mode

Middle Channel, f_o =836.4MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	1.11	0.0013	2.5
-20		1.25	0.0015	2.5
-10		1.31	0.0016	2.5
0		1.24	0.0015	2.5
10		1.41	0.0017	2.5
20		1.08	0.0013	2.5
30		1.22	0.0015	2.5
40		1.26	0.0015	2.5
50		1.54	0.0018	2.5
20	L.V.	1.39	0.0017	2.5
	H.V.	1.44	0.0017	2.5

PCS Band (Part 24E)

GSM Mode

Middle Channel, f_o =1880.0 MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	N.V.	8	0.0043	pass
-20		9	0.0048	pass
-10		16	0.0085	pass
0		14	0.0074	pass
10		11	0.0059	pass
20		23	0.0122	pass
30		6	0.0032	pass
40		10	0.0053	pass
50		9	0.0048	pass
20	L.V.	13	0.0069	pass
	H.V.	11	0.0059	pass

EDGE Mode

Middle Channel, f_o =1880.0 MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	N.V.	2.48	0.0013	pass
-20		2.35	0.0013	pass
-10		2.41	0.0013	pass
0		2.55	0.0014	pass
10		2.69	0.0014	pass
20		2.40	0.0013	pass
30		2.56	0.0014	pass
40		2.38	0.0013	pass
50		2.55	0.0014	pass
20	L.V.	2.34	0.0012	pass
	H.V.	2.17	0.0012	pass

WCDMA Mode

Middle Channel, f_o =1880.0 MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	N.V.	1.49	0.0008	pass
-20		1.55	0.0008	pass
-10		1.34	0.0007	pass
0		1.64	0.0009	pass
10		1.28	0.0007	pass
20		1.18	0.0006	pass
30		1.26	0.0007	pass
40		1.37	0.0007	pass
50		1.42	0.0008	pass
20	L.V.	1.36	0.0007	pass
	H.V.	1.54	0.0008	pass

AWS Band (Part 27)

Temperature (℃)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	N.V.	1710.0162	1754.9733	1710	1755
-20		1710.0158	1754.9722	1710	1755
-10		1710.0154	1754.9715	1710	1755
0		1710.0143	1754.9733	1710	1755
10		1710.0137	1754.9745	1710	1755
20		1710.0125	1754.9722	1710	1755
30		1710.0134	1754.9725	1710	1755
40		1710.0123	1754.9736	1710	1755
50		1710.0114	1754.9731	1710	1755
20	L.V.	1710.0135	1754.9724	1710	1755
	H.V.	1710.0146	1754.9732	1710	1755

LTE: (worst case as below)
QPSK:
Band 2:

10.0 MHz Middle Channel, f_o =1880MHz				
Temperature (℃)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-17.37	-0.0092	pass
-20		-9.98	-0.0053	pass
-10		-5.29	-0.0028	pass
0		-8.51	-0.0045	pass
10		9.71	0.0052	pass
20		8.68	0.0046	pass
30		-6.43	-0.0034	pass
40		7.15	0.0038	pass
50		-9.30	-0.0049	pass
20	L.V.	-9.83	-0.0052	pass
	H.V.	6.04	0.0032	pass

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.	1710.1164	1754.8734	1710	1755
-20		1710.1153	1754.8736	1710	1755
-10		1710.1191	1754.8724	1710	1755
0		1710.1152	1754.8731	1710	1755
10		1710.1143	1754.8752	1710	1755
20		1710.1152	1754.8745	1710	1755
30		1710.1134	1754.8755	1710	1755
40		1710.1121	1754.8734	1710	1755
50		1710.1125	1754.8746	1710	1755
20	L.V.	1710.1132	1754.8735	1710	1755
	H.V.	1710.1045	1754.8746	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.	1.12	0.0013	2.5
-20		-9.47	-0.0113	2.5
-10		8.02	0.0096	2.5
0		-5.80	-0.0069	2.5
10		7.23	0.0086	2.5
20		9.28	0.0111	2.5
30		8.99	0.0107	2.5
40		-5.37	-0.0064	2.5
50		-5.34	-0.0064	2.5
20	L.V.	7.95	0.0095	2.5
	H.V.	-5.62	-0.0067	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.	2500.8756	2569.9851	2500	2570
-20		2500.8742	2569.9942	2500	2570
-10		2500.8752	2569.9854	2500	2570
0		2500.8784	2569.9762	2500	2570
10		2500.7937	2569.9825	2500	2570
20		2500.7872	2569.9421	2500	2570
30		2500.7753	2569.9331	2500	2570
40		2500.7654	2569.9922	2500	2570
50		2500.7541	2569.9872	2500	2570
20	L.V.	2500.7526	2569.9834	2500	2570
	H.V.	2500.7432	2569.9745	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.	699.9636	715.8862	699	716
-20		699.9642	715.7724	699	716
-10		699.4525	715.7454	699	716
0		699.4422	715.7631	699	716
10		699.3233	715.5412	699	716
20		699.4421	715.5241	699	716
30		699.2284	715.6324	699	716
40		699.3343	715.6316	699	716
50		699.4242	715.5455	699	716
20	L.V.	699.3376	715.5671	699	716
	H.V.	699.3345	715.5547	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.	777.1286	786.8456	777	787
-20		777.1237	786.8435	777	787
-10		777.1272	786.8423	777	787
0		777.1214	786.8431	777	787
10		777.1246	786.8446	777	787
20		777.1295	786.8458	777	787
30		777.1246	786.8455	777	787
40		777.1292	786.8494	777	787
50		777.1265	786.8434	777	787
20	L.V.	777.1237	786.8452	777	787
	H.V.	777.1252	786.8416	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.	704.3348	715.8824	704	716
-20		704.3156	715.8762	704	716
-10		704.2557	715.8424	704	716
0		704.2612	715.8515	704	716
10		704.5143	715.4683	704	716
20		704.5028	715.4524	704	716
30		704.4561	715.3342	704	716
40		704.3565	715.3626	704	716
50		704.3324	715.2834	704	716
20	L.V.	704.2956	715.2642	704	716
	H.V.	704.3114	715.3315	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.	2570.8375	2619.9826	2570	2620
-20		2570.8065	2619.8721	2570	2620
-10		2570.7242	2619.7636	2570	2620
0		2570.6152	2619.6554	2570	2620
10		2570.5054	2619.5423	2570	2620
20		2570.5934	2619.6324	2570	2620
30		2570.6833	2619.5222	2570	2620
40		2570.4722	2619.6121	2570	2620
50		2570.5614	2619.6323	2570	2620
20	L.V.	2570.5522	2619.6251	2570	2620
	H.V.	2570.5823	2619.6127	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.	2535.8753	2654.1873	2535	2655
-20		2535.8672	2654.1853	2535	2655
-10		2535.7567	2654.1761	2535	2655
0		2535.6424	2654.1652	2535	2655
10		2535.7327	2654.1557	2535	2655
20		2535.8222	2654.1433	2535	2655
30		2535.8156	2654.1354	2535	2655
40		2535.8154	2654.1236	2535	2655
50		2535.7931	2654.1065	2535	2655
20	L.V.	2535.8621	2654.0037	2535	2655
	H.V.	2535.8527	2654.0016	2535	2655

Note: The applicant declared the frequency range is 2535-2655MHz for Band 41.

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.	1710.0246	1779.9751	1710	1780
-20		1710.0234	1779.9725	1710	1780
-10		1710.0242	1779.9836	1710	1780
0		1710.0232	1779.9752	1710	1780
10		1710.0234	1779.9756	1710	1780
20		1710.0227	1779.9745	1710	1780
30		1710.0253	1779.9744	1710	1780
40		1710.0257	1779.9753	1710	1780
50		1710.0234	1779.9841	1710	1780
20	L.V.	1710.0228	1779.9721	1710	1780
	H.V.	1710.0226	1779.9752	1710	1780

16QAM:

Band 2:

10.0 MHz Middle Channel, f_o =1880MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	N.V.	-25.91	-0.0138	pass
-20		-8.17	-0.0043	pass
-10		9.46	0.0050	pass
0		5.81	0.0031	pass
10		-9.19	-0.0049	pass
20		7.63	0.0041	pass
30		-8.63	-0.0046	pass
40		9.69	0.0052	pass
50		-8.51	-0.0045	pass
20	L.V.	-9.64	-0.0051	pass
	H.V.	-9.49	-0.0050	pass

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.	1710.2936	1754.7671	1710	1755
-20		1710.2952	1754.7562	1710	1755
-10		1710.2751	1754.7672	1710	1755
0		1710.2654	1754.7456	1710	1755
10		1710.2632	1754.7432	1710	1755
20		1710.2646	1754.7625	1710	1755
30		1710.2572	1754.7624	1710	1755
40		1710.2654	1754.7657	1710	1755
50		1710.2613	1754.7752	1710	1755
20	L.V.	1710.2625	1754.7536	1710	1755
	H.V.	1710.2712	1754.7527	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.	1.60	0.0019	2.5
-20		-8.58	-0.0103	2.5
-10		6.44	0.0077	2.5
0		-9.33	-0.0112	2.5
10		7.00	0.0084	2.5
20		-6.58	-0.0079	2.5
30		5.12	0.0061	2.5
40		-7.14	-0.0085	2.5
50		-8.32	-0.0099	2.5
20	L.V.	6.71	0.0080	2.5
	H.V.	7.62	0.0091	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.	2500.8459	2569.8373	2500	2570
-20		2500.8421	2569.8555	2500	2570
-10		2500.7642	2569.8421	2500	2570
0		2500.7254	2569.8534	2500	2570
10		2500.6326	2569.8283	2500	2570
20		2500.6231	2569.7824	2500	2570
30		2500.6352	2569.7833	2500	2570
40		2500.6226	2569.8425	2500	2570
50		2500.6224	2569.8456	2500	2570
20	L.V.	2500.6235	2569.8352	2500	2570
	H.V.	2500.6143	2569.8231	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.	699.3123	715.7364	699	716
-20		699.3133	715.6223	699	716
-10		699.3012	715.5952	699	716
0		699.2911	715.6127	699	716
10		699.1724	715.3903	699	716
20		699.2914	715.3771	699	716
30		699.0785	715.4812	699	716
40		699.1836	715.3914	699	716
50		699.2734	715.3943	699	716
20	L.V.	699.1853	715.4161	699	716
	H.V.	699.1861	715.4174	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.	777.0317	786.9215	777	787
-20		777.0362	786.9234	777	787
-10		777.0352	786.9242	777	787
0		777.0363	786.9271	777	787
10		777.0311	786.9234	777	787
20		777.0327	786.9243	777	787
30		777.0332	786.9232	777	787
40		777.0315	786.9244	777	787
50		777.0294	786.9243	777	787
20	L.V.	777.0321	786.9251	777	787
	H.V.	777.0346	786.9211	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.	704.3364	715.8872	704	716
-20		704.5985	715.7656	704	716
-10		704.2983	715.6984	704	716
0		704.2684	715.6434	704	716
10		704.3321	715.4987	704	716
20		704.3592	715.4586	704	716
30		704.6236	715.5932	704	716
40		704.5684	715.5537	704	716
50		704.2692	715.4932	704	716
20	L.V.	704.2851	715.5863	704	716
	H.V.	704.3327	715.5322	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.	2570.9871	2619.9854	2570	2620
-20		2570.8924	2619.8762	2570	2620
-10		2570.7822	2619.7691	2570	2620
0		2570.6735	2619.6553	2570	2620
10		2570.5633	2619.5492	2570	2620
20		2570.4521	2619.4347	2570	2620
30		2570.3412	2619.3292	2570	2620
40		2570.2376	2619.2116	2570	2620
50		2570.1282	2619.1124	2570	2620
20	L.V.	2570.2172	2619.8784	2570	2620
	H.V.	2570.2137	2619.7646	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.	2535.9434	2654.3652	2535	2655
-20		2535.8445	2654.3583	2535	2655
-10		2535.7371	2654.3484	2535	2655
0		2535.6262	2654.2373	2535	2655
10		2535.5136	2654.2287	2535	2655
20		2535.6173	2654.3182	2535	2655
30		2535.5981	2654.3583	2535	2655
40		2535.5889	2654.1981	2535	2655
50		2535.5824	2654.1883	2535	2655
20	L.V.	2535.6615	2654.0762	2535	2655
	H.V.	2535.6574	2654.0341	2535	2655

Note: The applicant declared the frequency range is 2535-2655MHz for Band 41.

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.	1710.0272	1779.8392	1710	1780
-20		1710.0242	1779.8444	1710	1780
-10		1710.0245	1779.8364	1710	1780
0		1710.0274	1779.8355	1710	1780
10		1710.0264	1779.8363	1710	1780
20		1710.0231	1779.8335	1710	1780
30		1710.0244	1779.8346	1710	1780
40		1710.0243	1779.8363	1710	1780
50		1710.0232	1779.8372	1710	1780
20	L.V.	1710.0291	1779.8351	1710	1780
	H.V.	1710.0257	1779.8354	1710	1780

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