TESTREPORT

Applicant Name :	INFINIX MOBILITY LIMITED
Address :	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT, Hong Kong
Report Number :	SZNS220125-03682E-RF-00C
FCC ID:	2AIZN-X675

Test Standard (s)

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

Sample Description

Product Type:	Mobile Phone
Model No.:	X675
Multiple Model(s) No.:	N/A
Trade Mark:	Infinix
Date Received:	2022/01/25
Date of Test:	2022/01/25~2022/03/11
Report Date:	2022/03/11

Test Result:	Pass*

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

Prepared and Checked By:

Ting Lü
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 38: 2570-2620MHz(TX/RX) LTE Band 41: 2535-2655MHz(TX/RX)
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification*	GSM850/WCDMA Band5/LTE Band 5: -4.35dBi PCS1900/WCDMA Band 2/ LTE Band 2: -0.74dBi WCDMA Band 4/ LTE Band 4: -0.74dBi LTE Band 7: -2.5dBi LTE Band 38/LTE Band 41: -1.8dBi (provided by the applicant)
Voltage Range	DC 3.85V from battery, DC 5.0V from adapter
Sample serial number	SZNS220125-03682E-RF-S1 for Conducted and Radiated Emissions SZNS220125-03682E-RF-S2 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter information	Model: U100XSA Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 2.0A
Extreme condition*	L.V.: Low Voltage 3.5V 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.

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	836.6	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	836.6	846.6
LTE B2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE B4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE B5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE B7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560

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

Equipment Modifications

No modification was made to the EUT.

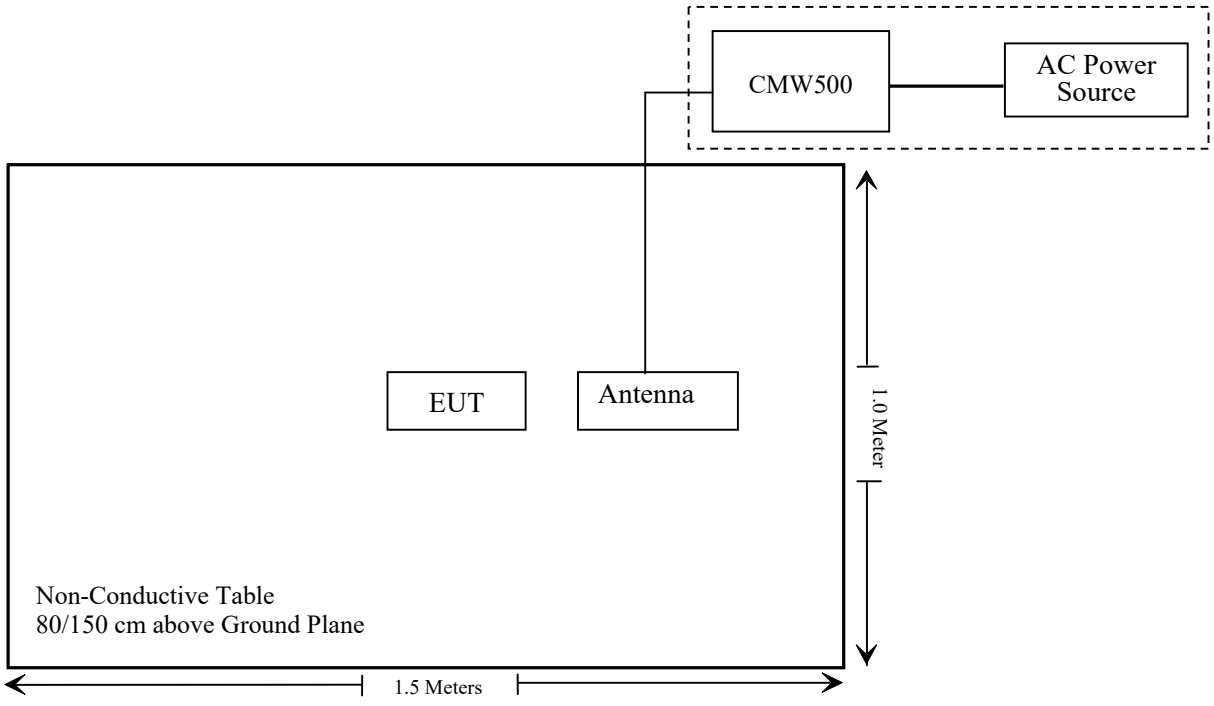
Support Equipment List and Details

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

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 (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 (h) (m)	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54;	Frequency stability	Compliant

Note: * Please refer to SAR report number: SZNS220125-03682E-SA.

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-184055 36-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	2020/01/05	2023/01/04
PASTERNACK	Horn Antenn	PE9852/2F-20	1120	2020/01/05	2023/01/04
Wainwright	High Pass Filter	WHKX3.6/18 G-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					
SPECTRUM ANALYZER	Rohde & Schwarz	FSU26	200982	2021/07/06	2022/07/05
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
HP	6dB Attenuator	8493B 6dB Attenuator	2708A 04769	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 Cable	Unknown	Unknown	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: SZNS220125-03682E-SA.

FCC§2.1047 - MODULATION CHARACTERISTIC

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

FCC § 2.1046,§ 22.913 (a)&§ 24.232(c); §27.50(d)(h)- RF OUTPUT POWER

Applicable Standard

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (c),mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

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

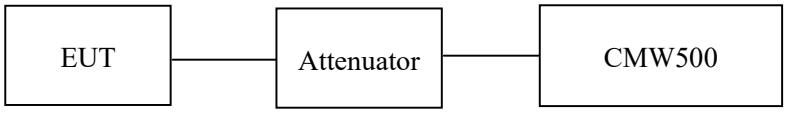
According to §27.50(d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

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:	27.6 ℃
Relative Humidity:	58 %
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu from 2022-02-21 to 2022-02-22.

Conducted Power

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	ERP(dBm)	Limit (dBm)
GSM	128	824.2	32.10	25.09	38.45
	190	836.6	32.10	25.09	38.45
	251	848.8	32.40	25.39	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	32.21	30.30	28.36	26.42	25.20	23.29	21.35	19.41	38.45
	190	836.6	31.90	30.40	28.45	26.60	24.89	23.39	21.44	19.59	38.45
	251	848.8	31.87	30.37	28.57	26.63	24.86	23.36	21.56	19.62	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	25.67	23.92	22.81	20.92	18.66	16.91	15.80	13.91	38.45
	190	836.6	26.21	24.52	23.15	21.18	19.20	17.51	16.14	14.17	38.45
	251	848.8	26.30	24.46	23.27	21.19	19.29	17.45	16.26	14.18	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		23.07	23.04	22.99	16.06	16.03	15.98
	HSDPA	1	21.73	21.83	21.40	14.72	14.82	14.39
		2	21.75	21.72	21.35	14.74	14.71	14.34
		3	21.68	21.84	21.29	14.67	14.83	14.28
		4	21.69	21.63	21.34	14.68	14.62	14.33
	HSUPA	1	22.30	22.43	22.26	15.29	15.42	15.25
		2	22.38	22.41	22.34	15.37	15.40	15.33
		3	22.12	22.36	22.31	15.11	15.35	15.30
		4	22.23	22.37	22.25	15.22	15.36	15.24
		5	22.19	22.34	22.24	15.18	15.33	15.23
	HSPA+	1	22.32	22.28	22.31	15.31	15.27	15.30

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) - Cable loss(dB)
For GSM850 / WCDMA Band5: Antenna Gain = -4.35dBi = -6.50dBd (0dBd=2.15dBi)
Cable Loss=0.51dB* (provided by the applicant)
Limit: ERP≤38.45dBm

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	EIRP(dBm)	Limit (dBm)
GSM	512	1850.2	29.90	28.16	33
	661	1880.0	29.70	27.96	33
	810	1909.8	29.40	27.66	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	29.84	28.19	26.79	24.47	28.10	26.45	25.05	22.73	33
	661	1880.0	29.50	27.70	26.33	24.12	27.76	25.96	24.59	22.38	33
	810	1909.8	29.22	27.20	25.83	23.80	27.48	25.46	24.09	22.06	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	26.27	24.16	22.23	21.00	24.53	22.42	20.49	19.26	33
	661	1880.0	26.20	24.11	22.28	21.21	24.46	22.37	20.54	19.47	33
	810	1909.8	25.90	24.07	22.17	21.01	24.16	22.33	20.43	19.27	33

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 2)	RMC12.2k		22.38	22.29	22.24	20.64	20.55	20.50
	HSDPA	1	21.01	21.14	20.94	19.27	19.40	19.20
		2	21.03	21.12	20.98	19.29	19.38	19.24
		3	21.10	21.05	20.99	19.36	19.31	19.25
		4	21.05	21.09	20.96	19.31	19.35	19.22
	HSUPA	1	21.79	21.72	21.60	20.05	19.98	19.86
		2	21.85	21.45	21.55	20.11	19.71	19.81
		3	21.67	21.44	21.46	19.93	19.70	19.72
		4	21.69	21.63	21.43	19.95	19.89	19.69
		5	21.75	21.42	21.44	20.01	19.68	19.70
	HSPA+	1	21.74	21.46	21.41	20.00	19.72	19.67

Note:
EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)
For PCS1900 / WCDMA Band2: Antenna Gain = -0.74dBi
Cable Loss=1dB*(provided by the applicant)
Limit: EIRP≤33dBm

AWS Band (Part 27)

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 4)	RMC12.2k		22.78	22.76	22.73	21.04	21.02	20.99
	HSDPA	1	21.68	21.56	21.39	19.94	19.82	19.65
		2	21.69	21.58	21.44	19.95	19.84	19.70
		3	21.72	21.63	21.53	19.98	19.89	19.79
		4	21.76	21.64	21.48	20.02	19.90	19.74
	HSUPA	1	22.15	22.05	22.05	20.41	20.31	20.31
		2	22.01	22.12	22.09	20.27	20.38	20.35
		3	22.06	22.06	22.12	20.32	20.32	20.38
		4	22.07	22.14	22.14	20.33	20.40	20.40
		5	22.09	22.09	22.16	20.35	20.35	20.42
	HSPA+	1	22.11	22.07	22.17	20.37	20.33	20.43

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)
For Band4: Antenna Gain = -0.74dBi
Cable Loss=1dB* (provided by the applicant)
Limit: EIRP≤30dBm

LTE Band 2:

Maximum Output Power

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	21.89	22.04	21.74	20.15	20.30	20.00
		RB1#3	21.85	21.99	21.80	20.11	20.25	20.06
		RB1#5	21.92	21.90	21.76	20.18	20.16	20.02
		RB3#0	22.04	22.02	21.76	20.30	20.28	20.02
		RB3#3	22.07	21.89	21.84	20.33	20.15	20.10
		RB6#0	20.95	20.92	20.71	19.21	19.18	18.97
	16QAM	RB1#0	20.61	21.18	21.01	18.87	19.44	19.27
		RB1#3	20.73	21.16	21.09	18.99	19.42	19.35
		RB1#5	20.72	21.16	21.49	18.98	19.42	19.75
		RB3#0	21.16	20.86	20.65	19.42	19.12	18.91
		RB3#3	21.12	20.73	20.67	19.38	18.99	18.93
		RB6#0	20.23	19.97	20.34	18.49	18.23	18.60
3.0	QPSK	RB1#0	21.90	21.85	21.69	20.16	20.11	19.95
		RB1#8	21.93	21.83	21.64	20.19	20.09	19.90
		RB1#14	21.97	21.75	21.66	20.23	20.01	19.92
		RB6#0	20.91	20.95	20.79	19.17	19.21	19.05
		RB6#9	21.01	20.93	20.80	19.27	19.19	19.06
		RB15#0	21.01	20.75	20.73	19.27	19.01	18.99
	16QAM	RB1#0	21.01	21.47	20.48	19.27	19.73	18.74
		RB1#8	21.13	21.38	20.41	19.39	19.64	18.67
		RB1#14	21.15	21.44	20.45	19.41	19.70	18.71
		RB6#0	20.18	20.13	20.13	18.44	18.39	18.39
		RB6#9	20.56	20.00	20.49	18.82	18.26	18.75
		RB15#0	20.09	19.98	20.41	18.35	18.24	18.67

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	21.84	21.97	21.68	20.10	20.23	19.94
		RB1#13	21.91	21.90	21.68	20.17	20.16	19.94
		RB1#24	21.83	21.99	21.70	20.09	20.25	19.96
		RB15#0	21.04	20.88	20.83	19.30	19.14	19.09
		RB15#10	21.04	20.85	20.80	19.30	19.11	19.06
		RB25#0	20.98	20.96	20.83	19.24	19.22	19.09
	16QAM	RB1#0	20.36	21.00	20.34	18.62	19.26	18.60
		RB1#13	20.28	20.90	20.41	18.54	19.16	18.67
		RB1#24	20.36	21.03	20.43	18.62	19.29	18.69
		RB15#0	19.97	19.86	19.92	18.23	18.12	18.18
		RB15#10	20.55	19.80	20.18	18.81	18.06	18.44
		RB25#0	20.56	19.95	19.89	18.82	18.21	18.15
10.0	QPSK	RB1#0	21.90	21.96	21.80	20.16	20.22	20.06
		RB1#25	21.93	22.05	21.75	20.19	20.31	20.01
		RB1#49	21.94	21.87	21.75	20.20	20.13	20.01
		RB25#0	21.00	20.92	20.73	19.26	19.18	18.99
		RB25#25	20.97	20.77	20.88	19.23	19.03	19.14
		RB50#0	20.99	20.84	20.75	19.25	19.10	19.01
	16QAM	RB1#0	21.17	20.98	20.52	19.43	19.24	18.78
		RB1#25	21.11	21.02	20.17	19.37	19.28	18.43
		RB1#49	21.01	20.91	20.24	19.27	19.17	18.50
		RB25#0	20.45	20.06	19.91	18.71	18.32	18.17
		RB25#25	20.02	20.40	19.94	18.28	18.66	18.20
		RB50#0	20.51	19.93	19.86	18.77	18.19	18.12

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	21.89	21.84	21.70	20.15	20.10	19.96
		RB1#37	21.90	21.79	21.78	20.16	20.05	20.04
		RB1#74	21.93	21.65	21.67	20.19	19.91	19.93
		RB36#0	21.03	20.90	20.77	19.29	19.16	19.03
		RB36#18	20.97	20.86	20.75	19.23	19.12	19.01
		RB36#37	20.89	20.86	20.89	19.15	19.12	19.15
		RB75#0	21.42	20.97	20.91	19.68	19.23	19.17
	16QAM	RB1#0	21.41	20.94	21.03	19.67	19.20	19.29
		RB1#37	21.38	20.97	21.02	19.64	19.23	19.28
		RB1#74	20.59	20.11	19.82	18.85	18.37	18.08
		RB36#0	19.90	20.55	19.88	18.16	18.81	18.14
		RB36#18	20.07	20.05	19.95	18.33	18.31	18.21
		RB36#37	21.89	21.84	21.70	20.15	20.10	19.96
		RB75#0	21.90	21.79	21.78	20.16	20.05	20.04
20.0	QPSK	RB1#0	22.01	21.95	21.87	20.27	20.21	20.13
		RB1#49	21.96	22.05	21.84	20.22	20.31	20.10
		RB1#99	22.14	22.10	21.88	20.40	20.36	20.14
		RB50#0	20.76	21.13	20.98	19.02	19.39	19.24
		RB50#24	21.06	20.79	20.94	19.32	19.05	19.20
		RB50#49	20.98	21.06	20.66	19.24	19.32	18.92
		RB100#0	21.03	20.90	21.58	19.29	19.16	19.84
	16QAM	RB1#0	20.99	20.89	21.51	19.25	19.15	19.77
		RB1#49	20.87	20.88	21.49	19.13	19.14	19.75
		RB1#99	20.55	19.92	19.87	18.81	18.18	18.13
		RB50#0	20.02	20.39	19.87	18.28	18.65	18.13
		RB50#24	19.96	20.02	19.90	18.22	18.28	18.16
		RB50#49	22.01	21.95	21.87	20.27	20.21	20.13
		RB100#0	21.96	22.05	21.84	20.22	20.31	20.10

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable Loss(dB)
For Band2: Antenna Gain = -0.74dBi
Cable Loss=1dB*(provided by the applicant)
Limit: EIRP≤33dBm

LTE Band 4

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	22.02	21.95	21.93	20.28	20.21	20.19
		RB1#3	22.04	21.83	21.91	20.30	20.09	20.17
		RB1#5	21.99	21.92	21.93	20.25	20.18	20.19
		RB3#0	22.08	21.96	21.79	20.34	20.22	20.05
		RB3#3	22.09	21.95	21.71	20.35	20.21	19.97
		RB6#0	20.98	20.97	20.85	19.24	19.23	19.11
	16QAM	RB1#0	21.15	21.54	21.16	19.41	19.80	19.42
		RB1#3	21.58	21.20	20.81	19.84	19.46	19.07
		RB1#5	21.61	21.25	20.88	19.87	19.51	19.14
		RB3#0	21.11	20.78	20.76	19.37	19.04	19.02
		RB3#3	21.08	20.79	20.61	19.34	19.05	18.87
		RB6#0	20.24	19.92	20.17	18.50	18.18	18.43
3.0	QPSK	RB1#0	21.96	21.92	21.84	20.22	20.18	20.10
		RB1#8	22.07	21.93	21.83	20.33	20.19	20.09
		RB1#14	21.87	21.99	21.97	20.13	20.25	20.23
		RB6#0	20.95	20.96	20.79	19.21	19.22	19.05
		RB6#9	20.90	20.94	20.95	19.16	19.20	19.21
		RB15#0	21.02	20.86	20.84	19.28	19.12	19.10
	16QAM	RB1#0	21.37	21.12	20.73	19.63	19.38	18.99
		RB1#8	21.04	20.97	20.63	19.30	19.23	18.89
		RB1#14	21.29	21.00	20.51	19.55	19.26	18.77
		RB6#0	19.93	20.09	20.05	18.19	18.35	18.31
		RB6#9	20.33	20.07	20.15	18.59	18.33	18.41
		RB15#0	20.12	20.03	19.83	18.38	18.29	18.09

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	22.06	22.03	21.73	20.32	20.29	19.99
		RB1#13	21.94	21.90	21.64	20.20	20.16	19.90
		RB1#24	21.88	21.99	21.69	20.14	20.25	19.95
		RB15#0	20.99	21.00	20.87	19.25	19.26	19.13
		RB15#10	20.93	20.86	20.86	19.19	19.12	19.12
		RB25#0	20.98	20.91	20.89	19.24	19.17	19.15
	16QAM	RB1#0	20.13	20.98	20.37	18.39	19.24	18.63
		RB1#13	20.07	20.82	20.73	18.33	19.08	18.99
		RB1#24	20.08	20.92	20.92	18.34	19.18	19.18
		RB15#0	20.09	20.10	19.78	18.35	18.36	18.04
		RB15#10	20.53	19.96	19.61	18.79	18.22	17.87
		RB25#0	20.59	20.02	19.92	18.85	18.28	18.18
10.0	QPSK	RB1#0	21.92	22.18	21.98	20.18	20.44	20.24
		RB1#25	21.82	22.00	22.05	20.08	20.26	20.31
		RB1#49	21.92	22.02	22.00	20.18	20.28	20.26
		RB25#0	20.91	20.87	20.91	19.17	19.13	19.17
		RB25#25	20.96	21.02	20.82	19.22	19.28	19.08
		RB50#0	21.16	20.94	20.91	19.42	19.20	19.17
	16QAM	RB1#0	21.39	21.75	20.51	19.65	20.01	18.77
		RB1#25	21.40	21.66	20.56	19.66	19.92	18.82
		RB1#49	21.39	21.22	20.53	19.65	19.48	18.79
		RB25#0	20.65	20.06	20.02	18.91	18.32	18.28
		RB25#25	19.90	20.13	20.03	18.16	18.39	18.29
		RB50#0	20.01	20.08	20.05	18.27	18.34	18.31

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	22.46	22.55	22.53	20.72	20.81	20.79
		RB1#38	22.45	22.42	22.52	20.71	20.68	20.78
		RB1#74	22.35	22.45	22.50	20.61	20.71	20.76
		RB36#0	21.13	20.98	20.78	19.39	19.24	19.04
		RB36#39	20.96	21.16	20.94	19.22	19.42	19.20
		RB75#0	20.92	21.06	20.97	19.18	19.32	19.23
	16QAM	RB1#0	21.67	21.59	21.65	19.93	19.85	19.91
		RB1#38	21.61	22.15	21.56	19.87	20.41	19.82
		RB1#74	21.89	22.10	21.53	20.15	20.36	19.79
		RB36#0	19.95	20.42	19.87	18.21	18.68	18.13
		RB36#39	20.55	19.92	19.77	18.81	18.18	18.03
		RB75#0	19.80	19.98	19.78	18.06	18.24	18.04
20.0	QPSK	RB1#0	22.63	22.49	22.45	20.89	20.75	20.71
		RB1#50	22.59	22.59	22.50	20.85	20.85	20.76
		RB1#99	22.60	22.57	22.40	20.86	20.83	20.66
		RB50#0	20.95	21.08	20.87	19.21	19.34	19.13
		RB50#50	20.96	20.98	21.01	19.22	19.24	19.27
		RB100#0	20.96	20.94	20.86	19.22	19.20	19.12
	16QAM	RB1#0	21.44	21.47	21.93	19.70	19.73	20.19
		RB1#50	21.47	21.45	21.95	19.73	19.71	20.21
		RB1#99	21.47	21.57	21.93	19.73	19.83	20.19
		RB50#0	20.05	20.01	19.96	18.31	18.27	18.22
		RB50#50	20.18	20.05	19.94	18.44	18.31	18.20
		RB100#0	20.07	19.82	19.81	18.33	18.08	18.07

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable Loss(dB)
For Band4: Antenna Gain = -0.74dBi
Cable Loss=1dB*(provided by the applicant)
Limit: EIRP≤30dBm

LTE Band 5:

Maximum Output Power

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	23.35	23.21	23.43	16.34	16.20	16.42
		RB1#3	23.37	23.32	23.44	16.36	16.31	16.43
		RB1#5	23.42	23.33	23.45	16.41	16.32	16.44
		RB3#0	23.38	23.39	23.33	16.37	16.38	16.32
		RB3#3	23.44	23.45	23.24	16.43	16.44	16.23
		RB6#0	22.31	22.27	22.32	15.30	15.26	15.31
	16QAM	RB1#0	22.90	23.04	21.73	15.89	16.03	14.72
		RB1#3	22.92	23.05	21.78	15.91	16.04	14.77
		RB1#5	22.86	23.10	21.75	15.85	16.09	14.74
		RB3#0	22.45	22.24	22.03	15.44	15.23	15.02
		RB3#3	22.48	22.27	22.03	15.47	15.26	15.02
		RB6#0	21.60	21.81	21.35	14.59	14.80	14.34
3.0	QPSK	RB1#0	23.21	23.20	23.42	16.20	16.19	16.41
		RB1#8	23.24	23.20	23.38	16.23	16.19	16.37
		RB1#14	23.23	23.27	23.42	16.22	16.26	16.41
		RB6#0	22.36	22.40	22.37	15.35	15.39	15.36
		RB6#9	22.28	22.35	22.33	15.27	15.34	15.32
		RB15#0	22.40	22.31	22.40	15.39	15.30	15.39
	16QAM	RB1#0	22.78	23.02	22.06	15.77	16.01	15.05
		RB1#8	22.69	23.07	22.01	15.68	16.06	15.00
		RB1#14	22.62	23.06	21.98	15.61	16.05	14.97
		RB6#0	21.38	21.37	21.60	14.37	14.36	14.59
		RB6#9	21.31	21.81	21.51	14.30	14.80	14.50
		RB15#0	21.42	21.84	21.44	14.41	14.83	14.43

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	23.40	23.45	23.19	16.39	16.44	16.18
		RB1#13	23.22	23.42	23.11	16.21	16.41	16.10
		RB1#24	23.27	23.49	23.15	16.26	16.48	16.14
		RB15#0	22.45	22.28	22.39	15.44	15.27	15.38
		RB15#10	22.30	22.36	22.24	15.29	15.35	15.23
		RB25#0	22.39	22.37	22.35	15.38	15.36	15.34
	16QAM	RB1#0	21.56	22.37	22.31	14.55	15.36	15.30
		RB1#13	21.49	22.47	22.32	14.48	15.46	15.31
		RB1#24	21.50	22.52	22.27	14.49	15.51	15.26
		RB15#0	21.52	21.29	21.32	14.51	14.28	14.31
		RB15#10	21.44	21.63	21.35	14.43	14.62	14.34
		RB25#0	21.42	21.76	21.50	14.41	14.75	14.49
10.0	QPSK	RB1#0	23.33	23.43	23.38	16.32	16.42	16.37
		RB1#25	23.13	23.42	23.34	16.12	16.41	16.33
		RB1#49	23.29	23.51	23.49	16.28	16.5	16.48
		RB25#0	22.28	22.36	22.33	15.27	15.35	15.32
		RB25#25	22.45	22.38	22.42	15.44	15.37	15.41
		RB50#0	22.35	22.33	22.36	15.34	15.32	15.35
	16QAM	RB1#0	22.55	22.51	21.79	15.54	15.50	14.78
		RB1#25	22.54	22.43	21.75	15.53	15.42	14.74
		RB1#49	22.54	22.47	21.80	15.53	15.46	14.79
		RB25#0	21.37	21.49	21.96	14.36	14.48	14.95
		RB25#25	21.46	21.54	21.57	14.45	14.53	14.56
		RB50#0	21.40	21.82	21.40	14.39	14.81	14.39

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) - Cable Loss(dB)
For Band5: Antenna Gain = -4.35dBi = -6.50dBd (0dBd=2.15dBi)
Cable Loss=0.51dB* (provided by the applicant)
Limit: ERP≤38.45dBm

LTE Band 7:

Maximum Output Power

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	21.17	21.24	21.04	17.67	17.74	17.54
		RB1#13	21.18	21.14	21.08	17.68	17.64	17.58
		RB1#24	21.36	21.23	21.12	17.86	17.73	17.62
		RB15#0	20.20	20.21	20.21	16.70	16.71	16.71
		RB15#10	20.22	20.22	20.24	16.72	16.72	16.74
		RB25#0	20.16	20.17	20.19	16.66	16.67	16.69
	16QAM	RB1#0	19.26	19.90	20.19	15.76	16.40	16.69
		RB1#13	19.29	19.91	20.22	15.79	16.41	16.72
		RB1#24	19.30	19.91	20.13	15.80	16.41	16.63
		RB15#0	19.22	19.03	19.13	15.72	15.53	15.63
		RB15#10	19.26	19.10	19.13	15.76	15.60	15.63
		RB25#0	19.32	19.10	19.40	15.82	15.60	15.90
10.0	QPSK	RB1#0	21.10	21.14	21.27	17.60	17.64	17.77
		RB1#25	21.03	21.12	21.05	17.53	17.62	17.55
		RB1#49	21.13	21.25	21.33	17.63	17.75	17.83
		RB25#0	20.32	20.36	20.47	16.82	16.86	16.97
		RB25#25	20.15	20.07	20.25	16.65	16.57	16.75
		RB50#0	20.23	20.17	20.25	16.73	16.67	16.75
	16QAM	RB1#0	20.25	20.36	19.92	16.75	16.86	16.42
		RB1#25	20.39	20.51	19.55	16.89	17.01	16.05
		RB1#49	20.38	21.06	19.55	16.88	17.56	16.05
		RB25#0	19.39	19.27	19.38	15.89	15.77	15.88
		RB25#25	19.35	19.37	19.45	15.85	15.87	15.95
		RB50#0	19.22	19.29	19.33	15.72	15.79	15.83

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power(dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	21.04	21.15	21.24	17.54	17.65	17.74
		RB1#38	21.12	21.17	21.36	17.62	17.67	17.86
		RB1#74	21.11	21.24	21.36	17.61	17.74	17.86
		RB36#0	20.21	20.17	20.31	16.71	16.67	16.81
		RB36#39	20.19	20.23	20.28	16.69	16.73	16.78
		RB75#0	20.09	20.26	20.21	16.59	16.76	16.71
	16QAM	RB1#0	20.27	20.98	20.49	16.77	17.48	16.99
		RB1#38	20.34	21.02	20.54	16.84	17.52	17.04
		RB1#74	20.37	21.08	20.49	16.87	17.58	16.99
		RB36#0	19.44	19.31	19.33	15.94	15.81	15.83
		RB36#39	19.38	19.31	19.37	15.88	15.81	15.87
		RB75#0	19.28	19.30	19.40	15.78	15.80	15.90
20.0	QPSK	RB1#0	21.15	21.33	21.37	17.65	17.83	17.87
		RB1#50	21.28	21.35	21.38	17.78	17.85	17.88
		RB1#99	21.31	21.51	21.48	17.81	18.01	17.98
		RB50#0	20.22	20.22	20.24	16.72	16.72	16.74
		RB50#50	20.21	20.27	20.23	16.71	16.77	16.73
		RB100#0	20.23	20.16	20.28	16.73	16.66	16.78
	16QAM	RB1#0	19.64	20.86	20.74	16.14	17.36	17.24
		RB1#50	19.82	20.94	20.83	16.32	17.44	17.33
		RB1#99	19.86	20.86	20.80	16.36	17.36	17.30
		RB50#0	19.37	19.38	19.23	15.87	15.88	15.73
		RB50#50	19.31	19.47	19.33	15.81	15.97	15.83
		RB100#0	19.35	19.22	19.39	15.85	15.72	15.89

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable Loss(dB)
For Band7: Antenna Gain = -2.50dBi
Cable Loss=1dB* (provided by the applicant)
Limit: EIRP≤33dBm

LTE Band 38:

Maximum Output Power

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	21.84	21.87	21.94	19.04	19.07	19.14
		RB1#13	21.98	21.82	21.91	19.18	19.02	19.11
		RB1#24	21.99	21.86	21.98	19.19	19.06	19.18
		RB15#0	20.86	20.68	20.93	18.06	17.88	18.13
		RB15#10	20.90	20.86	20.92	18.10	18.06	18.12
		RB25#0	20.84	20.81	20.89	18.04	18.01	18.09
	16QAM	RB1#0	21.06	21.19	20.97	18.26	18.39	18.17
		RB1#13	21.08	20.93	20.97	18.28	18.13	18.17
		RB1#24	21.06	22.14	20.69	18.26	19.34	17.89
		RB15#0	19.97	20.09	19.97	17.17	17.29	17.17
		RB15#10	20.00	19.67	19.95	17.20	16.87	17.15
		RB25#0	20.12	19.85	20.00	17.32	17.05	17.20
10.0	QPSK	RB1#0	22.07	22.16	21.86	19.27	19.36	19.06
		RB1#25	22.12	22.12	21.84	19.32	19.32	19.04
		RB1#49	22.09	22.17	21.81	19.29	19.37	19.01
		RB25#0	20.83	20.79	20.92	18.03	17.99	18.12
		RB25#25	20.93	20.81	20.89	18.13	18.01	18.09
		RB50#0	20.86	20.67	20.91	18.06	17.87	18.11
	16QAM	RB1#0	20.52	21.27	20.61	17.72	18.47	17.81
		RB1#25	20.53	21.01	20.68	17.73	18.21	17.88
		RB1#49	20.58	22.10	20.66	17.78	19.30	17.86
		RB25#0	19.76	20.03	20.29	16.96	17.23	17.49
		RB25#25	19.86	20.08	20.28	17.06	17.28	17.48
		RB50#0	19.95	19.90	19.85	17.15	17.10	17.05

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	22.02	22.22	21.89	19.22	19.42	19.09
		RB1#38	22.10	22.17	21.93	19.30	19.37	19.13
		RB1#74	22.10	22.25	21.96	19.30	19.45	19.16
		RB36#0	20.83	20.85	20.87	18.03	18.05	18.07
		RB36#39	20.97	20.87	20.81	18.17	18.07	18.01
		RB75#0	20.90	20.86	20.84	18.10	18.06	18.04
	16QAM	RB1#0	21.05	21.38	19.94	18.25	18.58	17.14
		RB1#38	21.13	20.89	20.12	18.33	18.09	17.32
		RB1#74	21.15	21.65	20.37	18.35	18.85	17.57
		RB36#0	19.91	19.77	20.15	17.11	16.97	17.35
		RB36#39	19.93	19.78	20.08	17.13	16.98	17.28
		RB75#0	19.82	19.96	20.05	17.02	17.16	17.25
20.0	QPSK	RB1#0	21.91	22.01	22.17	19.11	19.21	19.37
		RB1#50	21.91	22.02	22.19	19.11	19.22	19.39
		RB1#99	21.93	22.06	22.20	19.13	19.26	19.40
		RB50#0	20.83	20.70	20.84	18.03	17.90	18.04
		RB50#50	20.94	20.81	20.72	18.14	18.01	17.92
		RB100#0	20.87	20.82	20.77	18.07	18.02	17.97
	16QAM	RB1#0	21.03	21.08	21.00	18.23	18.28	18.20
		RB1#50	21.05	20.40	21.10	18.25	17.60	18.30
		RB1#99	20.95	21.32	21.17	18.15	18.52	18.37
		RB50#0	20.03	19.97	19.96	17.23	17.17	17.16
		RB50#50	20.14	19.95	19.96	17.34	17.15	17.16
		RB100#0	19.95	19.77	19.86	17.15	16.97	17.06

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)- Cable Loss(dB)
For Band38: Antenna Gain = -1.80dBi
Cable Loss=1dB* (provided by the applicant)
Limit: EIRP≤33dBm

LTE Band 41:

Maximum Output Power

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	21.55	22.37	22.90	18.75	19.57	20.10
		RB1#13	21.62	22.36	22.96	18.82	19.56	20.16
		RB1#24	21.58	22.44	22.96	18.78	19.64	20.16
		RB15#0	20.56	21.35	21.86	17.76	18.55	19.06
		RB15#10	20.67	21.33	21.93	17.87	18.53	19.13
		RB25#0	20.58	21.31	21.86	17.78	18.51	19.06
	16QAM	RB1#0	20.39	21.41	22.06	17.59	18.61	19.26
		RB1#13	20.38	21.38	22.14	17.58	18.58	19.34
		RB1#24	20.69	21.71	22.13	17.89	18.91	19.33
		RB15#0	19.90	20.38	20.99	17.10	17.58	18.19
		RB15#10	19.87	20.43	21.04	17.07	17.63	18.24
		RB25#0	19.58	20.41	21.13	16.78	17.61	18.33
10.0	QPSK	RB1#0	21.68	22.25	22.83	18.88	19.45	20.03
		RB1#25	21.82	22.42	22.90	19.02	19.62	20.10
		RB1#49	21.93	22.55	22.89	19.13	19.75	20.09
		RB25#0	20.69	21.28	21.94	17.89	18.48	19.14
		RB25#25	20.73	21.36	21.81	17.93	18.56	19.01
		RB50#0	20.63	21.25	21.82	17.83	18.45	19.02
	16QAM	RB1#0	20.67	21.52	22.12	17.87	18.72	19.32
		RB1#25	20.71	21.81	22.48	17.91	19.01	19.68
		RB1#49	20.83	21.82	21.75	18.03	19.02	18.95
		RB25#0	19.59	20.40	21.01	16.79	17.60	18.21
		RB25#25	19.70	20.50	21.07	16.90	17.70	18.27
		RB50#0	19.74	20.36	20.84	16.94	17.56	18.04

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	21.73	22.35	22.70	18.93	19.55	19.90
		RB1#38	21.90	22.36	22.73	19.10	19.56	19.93
		RB1#74	22.05	22.48	22.72	19.25	19.68	19.92
		RB36#0	20.57	21.27	21.66	17.77	18.47	18.86
		RB36#39	20.81	21.34	21.84	18.01	18.54	19.04
		RB75#0	20.69	21.24	21.78	17.89	18.44	18.98
	16QAM	RB1#0	20.76	21.43	21.83	17.96	18.63	19.03
		RB1#38	20.79	21.64	22.00	17.99	18.84	19.20
		RB1#74	20.98	21.63	21.88	18.18	18.83	19.08
		RB36#0	19.68	20.46	20.79	16.88	17.66	17.99
		RB36#39	19.77	20.51	20.84	16.97	17.71	18.04
		RB75#0	19.74	20.46	20.88	16.94	17.66	18.08
20.0	QPSK	RB1#0	21.65	22.21	22.87	18.85	19.41	20.07
		RB1#50	21.81	22.38	22.93	19.01	19.58	20.13
		RB1#99	21.84	22.49	22.98	19.04	19.69	20.18
		RB50#0	20.69	21.20	21.79	17.89	18.40	18.99
		RB50#50	20.79	21.47	21.81	17.99	18.67	19.01
		RB100#0	20.66	21.25	21.88	17.86	18.45	19.08
	16QAM	RB1#0	20.64	20.81	22.88	17.84	18.01	20.08
		RB1#50	20.82	20.97	22.59	18.02	18.17	19.79
		RB1#99	20.94	21.09	22.57	18.14	18.29	19.77
		RB50#0	19.78	20.36	20.86	16.98	17.56	18.06
		RB50#50	20.01	20.47	21.05	17.21	17.67	18.25
		RB100#0	19.75	20.35	20.87	16.95	17.55	18.07

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable Loss(dB)
For Band41: Antenna Gain = -1.8dBi
Cable Loss=1dB* (provided by the applicant)
Limit: EIRP≤33dBm

Peak-to-average ratio (PAR)

Cellular Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.58	13
	Middle	3.49	13
	High	3.55	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.62	13
	Middle	3.72	13
	High	3.87	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.56	13
	Middle	3.68	13
	High	3.44	13
HSDPA (16QAM)	Low	3.52	13
	Middle	3.52	13
	High	3.57	13
HSUPA (BPSK)	Low	3.42	13
	Middle	3.45	13
	High	3.52	13
HSPA+	Low	3.46	13
	Middle	3.57	13
	High	3.52	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.52	13
	Middle	3.54	13
	High	3.46	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.52	13
	Middle	3.56	13
	High	3.53	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.42	13
	Middle	3.57	13
	High	3.56	13
HSDPA (16QAM)	Low	3.55	13
	Middle	3.52	13
	High	3.44	13
HSUPA (BPSK)	Low	3.43	13
	Middle	3.42	13
	High	3.51	13
HSPA+	Low	3.44	13
	Middle	3.52	13
	High	3.43	13

AWS Band

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	4.66	13
	Middle	4.52	13
	High	4.67	13
HSDPA (16QAM)	Low	4.49	13
	Middle	4.57	13
	High	4.59	13
HSUPA (BPSK)	Low	4.73	13
	Middle	4.52	13
	High	4.60	13
HSPA+	Low	4.63	13
	Middle	4.72	13
	High	4.62	13

LTE Band 2 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.74	5.29	5.61	13	Pass
QPSK (100RB Size)	5.80	5.67	5.90	13	Pass
16QAM (1RB Size)	6.60	6.25	6.96	13	Pass
16QAM (100RB Size)	6.54	6.60	6.63	13	Pass

LTE Band 4 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.06	5.00	4.71	13	Pass
QPSK (100RB Size)	5.67	5.51	5.67	13	Pass
16QAM (1RB Size)	6.41	6.06	5.83	13	Pass
16QAM (100RB Size)	6.54	6.41	6.54	13	Pass

LTE Band 5 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.90	5.06	5.10	13	Pass
QPSK (50RB Size)	5.64	5.74	5.64	13	Pass
16QAM (1RB Size)	5.93	6.47	6.47	13	Pass
16QAM (50RB Size)	6.44	6.51	6.38	13	Pass

LTE Band 7 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.71	5.67	5.80	13	Pass
QPSK (100RB Size)	5.77	5.80	5.77	13	Pass
16QAM (1RB Size)	6.92	6.47	6.60	13	Pass
16QAM (100RB Size)	6.57	6.73	6.54	13	Pass

LTE Band 38 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	8.23	9.01	7.08	13	Pass
QPSK (100RB Size)	10.35	7.53	7.98	13	Pass
16QAM (1RB Size)	9.33	9.17	8.49	13	Pass
16QAM (100RB Size)	8.27	8.37	8.40	13	Pass

LTE Band 41 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.70	8.33	7.21	13	Pass
QPSK (100RB Size)	8.04	8.14	8.04	13	Pass
16QAM (1RB Size)	9.65	8.10	8.94	13	Pass
16QAM (100RB Size)	8.30	10.22	7.76	13	Pass

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

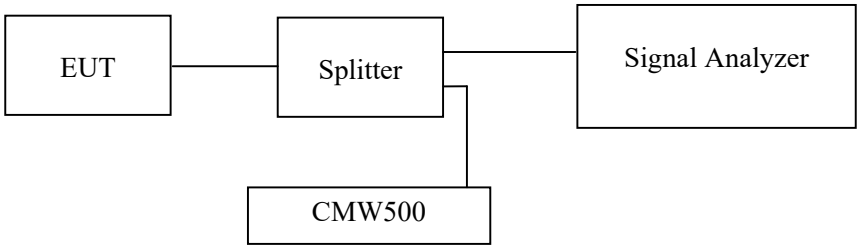
Applicable Standard

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:	27.6 ℃
Relative Humidity:	58 %
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu from 2022-02-21 to 2022-03-11.

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	243.59	315.71
	190	836.6	241.99	314.10
	251	848.8	241.99	310.90
EGPRS(8PSK)	128	824.2	245.19	307.69
	190	836.6	240.38	306.09
	251	848.8	241.99	310.90

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.16	4.71
	836.6	4.16	4.68
	846.6	4.16	4.68
HSDPA	826.4	4.16	4.71
	836.6	4.16	4.70
	846.6	416	4.68
HSUPA	826.4	4.16	4.68
	836.6	4.16	4.71
	846.6	4.16	4.70

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM(GMSK)	512	1850.2	243.59	314.10
	661	1880.0	243.59	309.29
	810	1909.8	241.99	312.50
EGPRS(8PSK)	512	1850.2	243.59	315.71
	661	1880.0	245.19	312.50
	810	1909.8	245.19	312.50

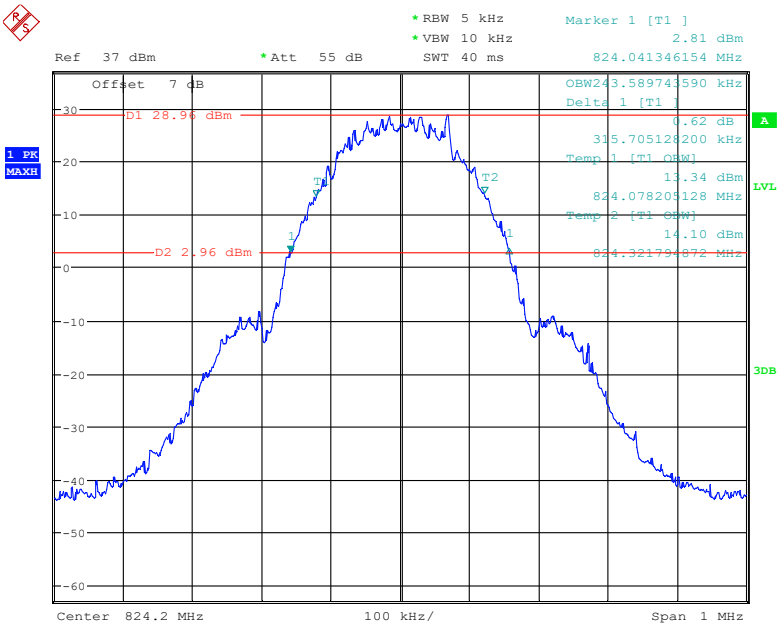
Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.16	4.68
	1880.0	4.16	4.68
	1907.6	4.16	4.68
HSDPA	1852.4	4.16	4.70
	1880.0	4.16	4.69
	1907.6	4.16	4.70
HSUPA	1852.4	4.16	4.67
	1880.0	4.15	4.68
	1907.6	4.16	4.69

AWS Band (Part 27)

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.15	4.68
	1732.6	4.15	4.70
	1752.6	4.17	4.68
HSDPA	1712.4	4.17	4.68
	1732.6	4.17	4.68
	1752.6	4.15	4.70
HSUPA	1712.4	4.15	4.68
	1732.6	4.15	4.68
	1752.6	4.15	4.68

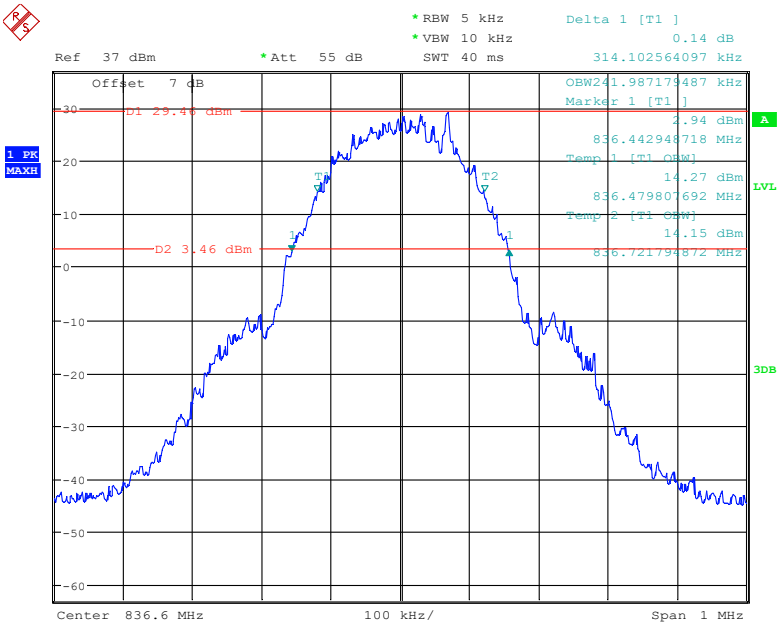
Cellular Band (Part 22H)

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



Date: 22.FEB.2022 09:05:19

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



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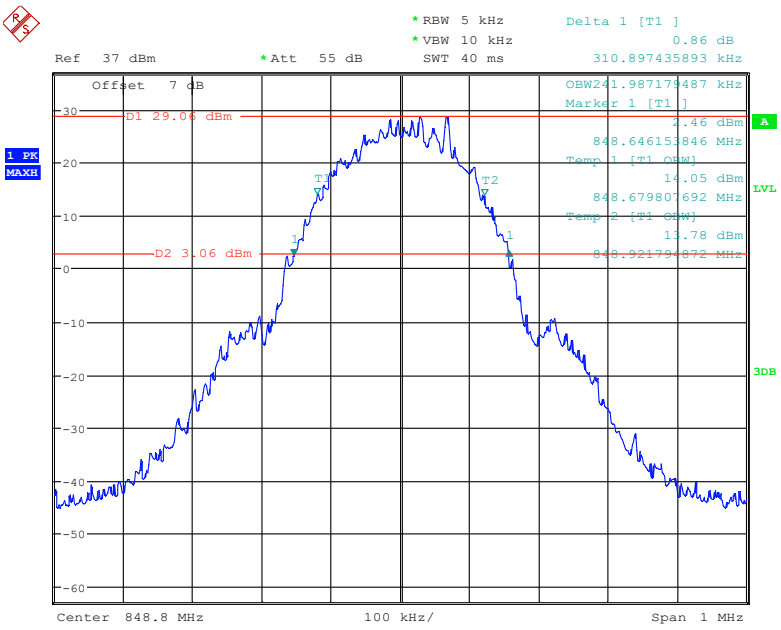
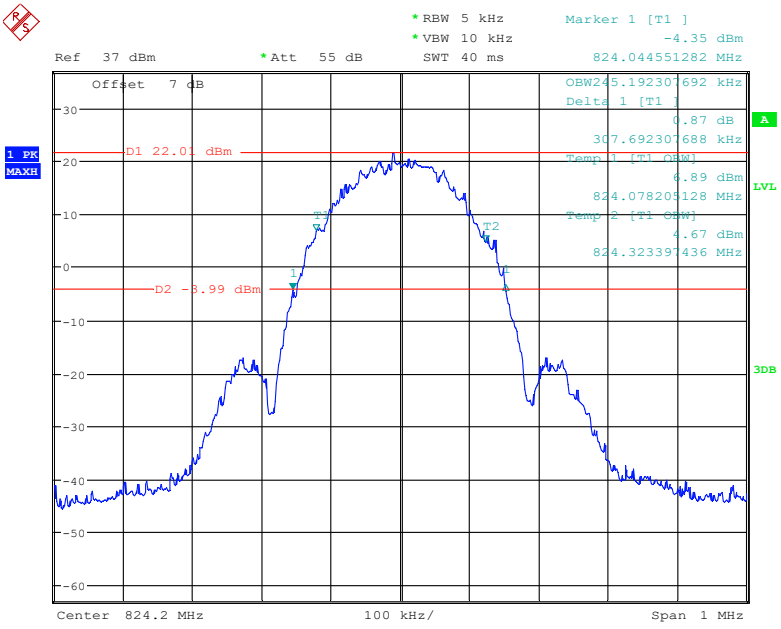
26 dB Emissions &99% Occupied Bandwidth for GSM (GMSK) Mode, High channel



Date: 22.FEB.2022 09:08:13

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



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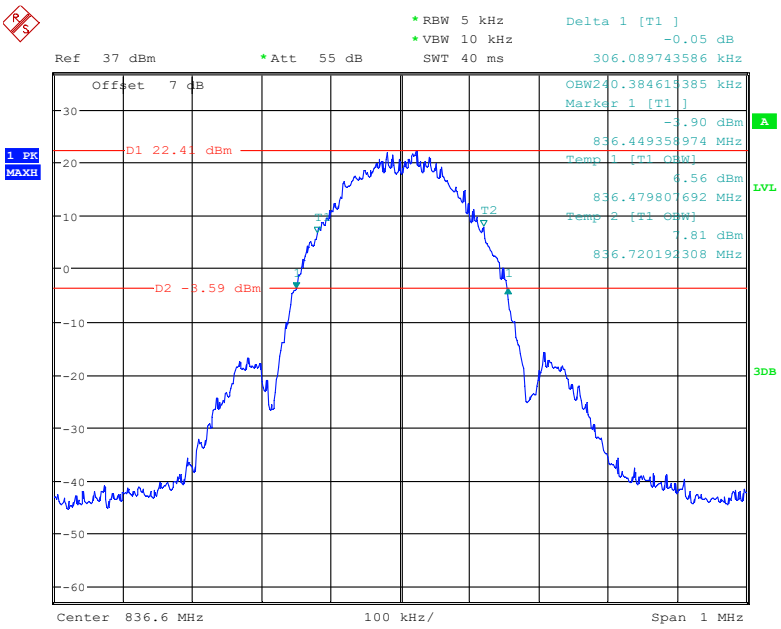
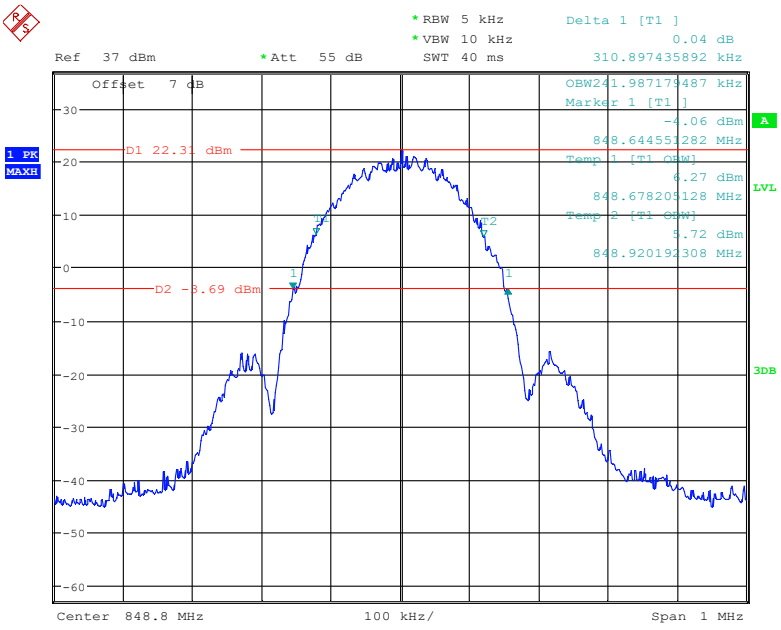
26 dB Emissions &99% Occupied Bandwidth for EGPRS (8PSK) Mode, Middle channel



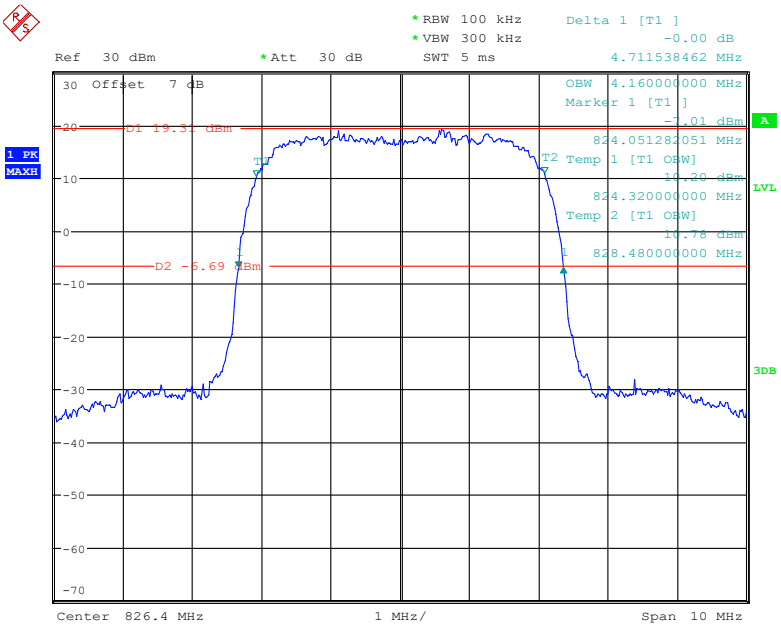
Date: 22.FEB.2022 09:18:58

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



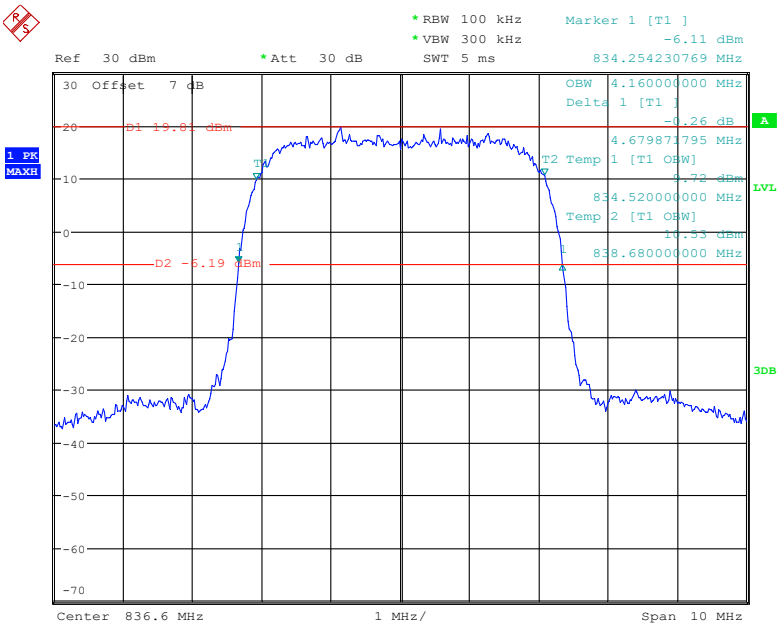
Date: 22.FEB.2022 09:17:27

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



Date: 21.FEB.2022 18:37:57

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



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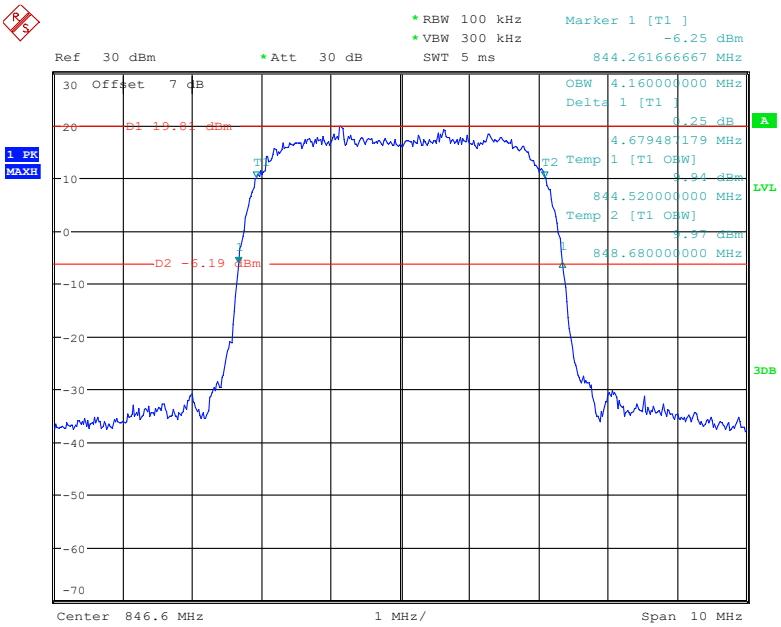
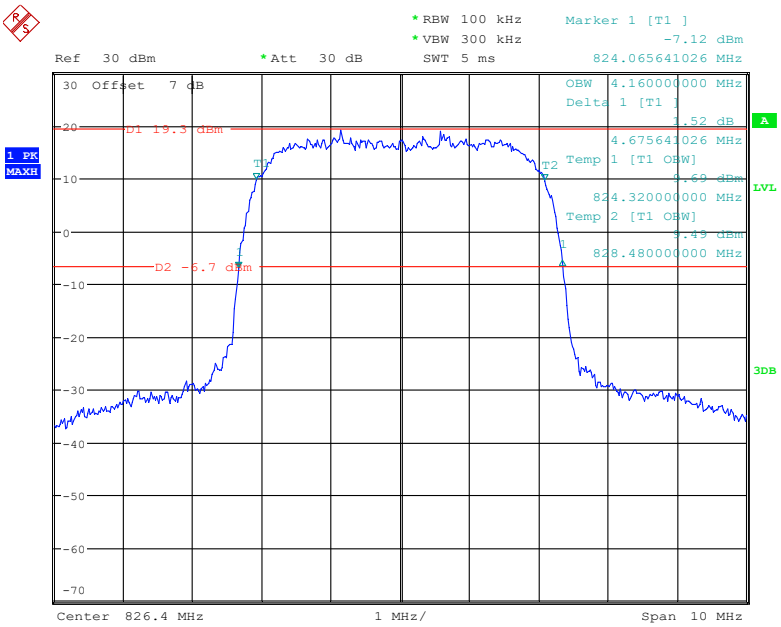
26 dB Emissions &99% Occupied Bandwidth for RMC (BPSK) Mode, High channel



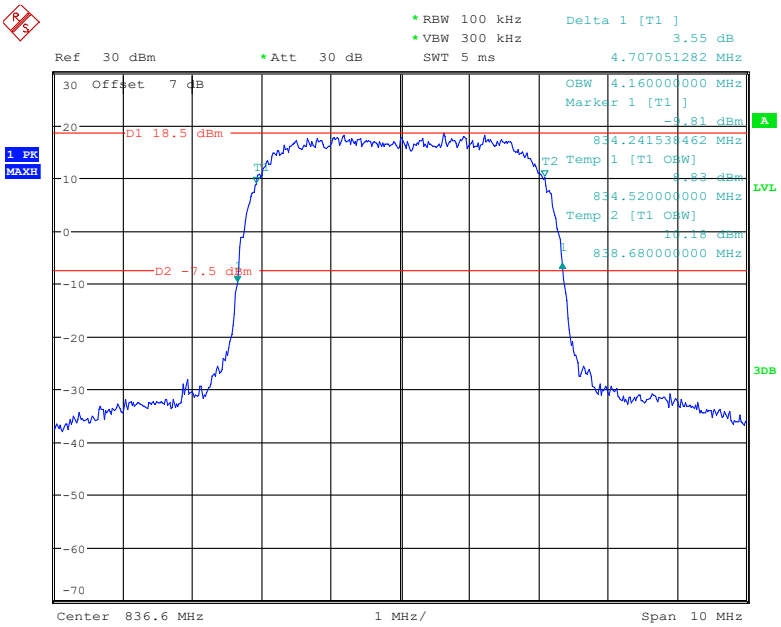
Date: 21.FEB.2022 18:39:55

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



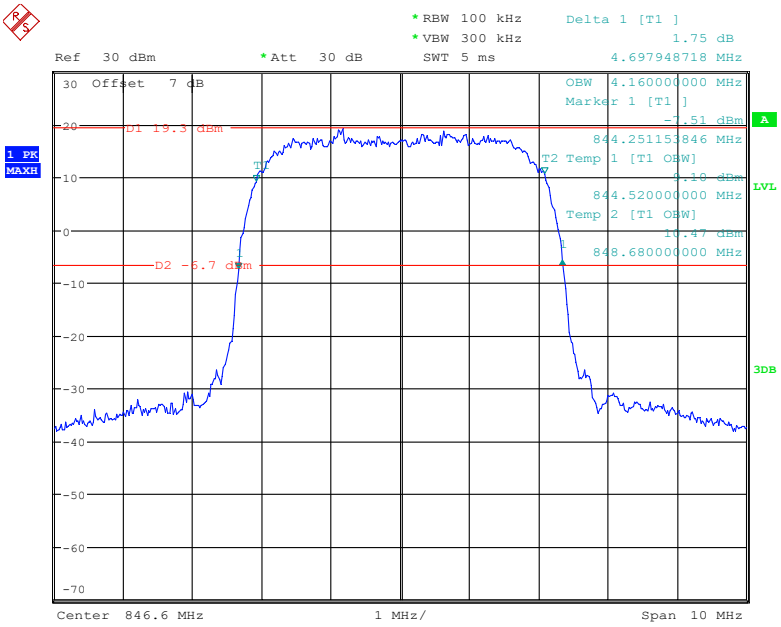
Date: 21.FEB.2022 18:59:10

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



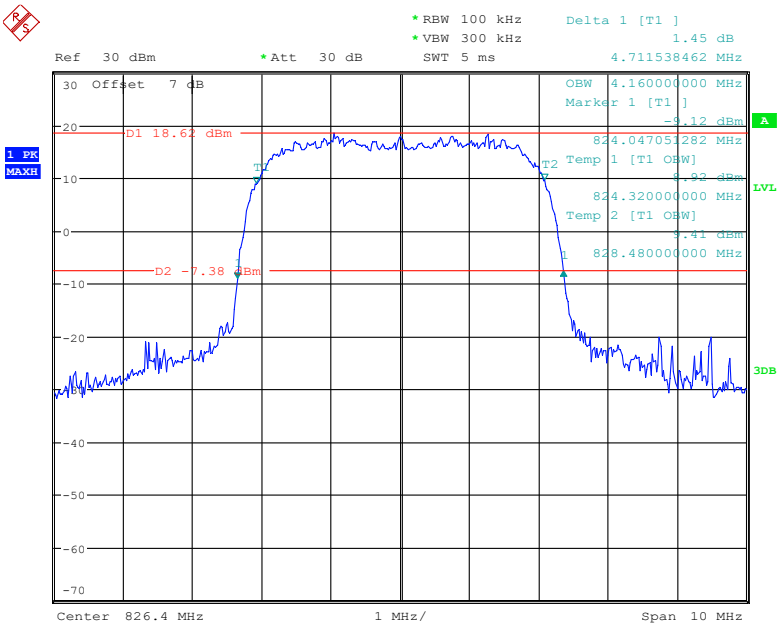
Date: 21.FEB.2022 18:58:23

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



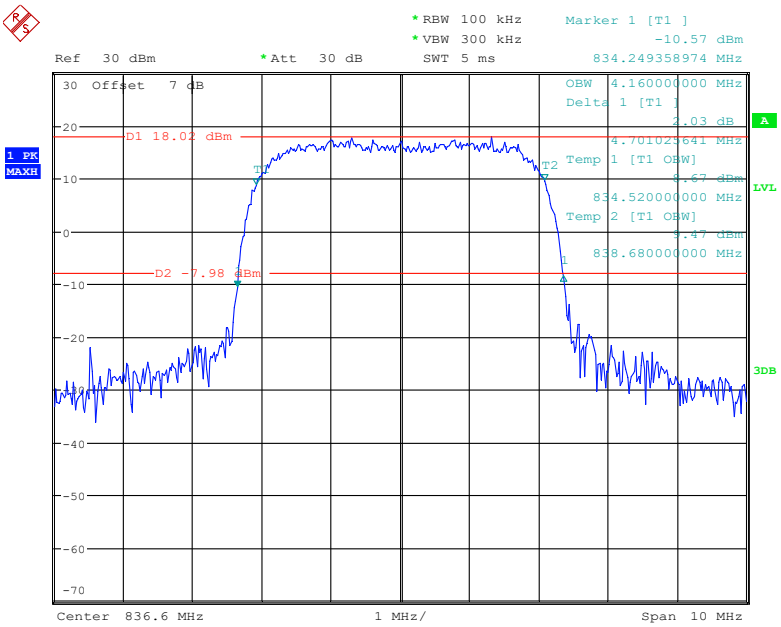
Date: 21.FEB.2022 18:57:16

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



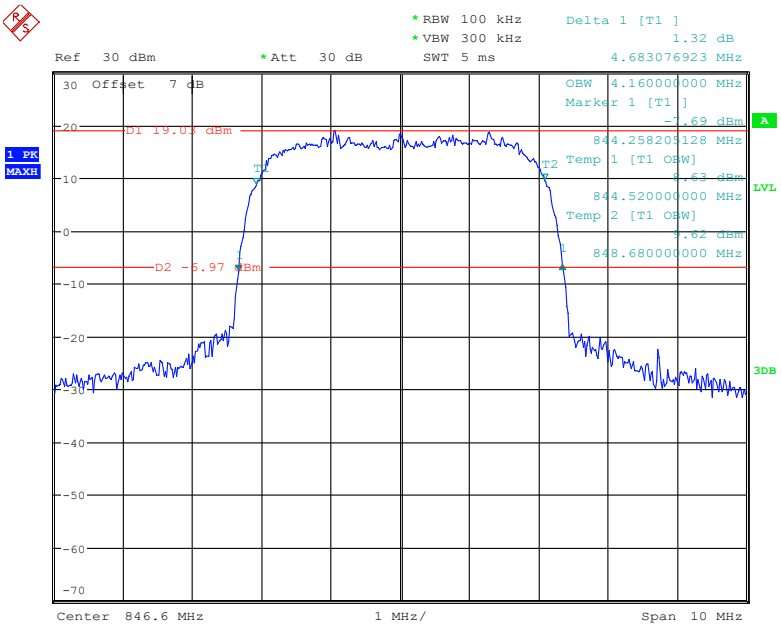
Date: 21.FEB.2022 18:49:05

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



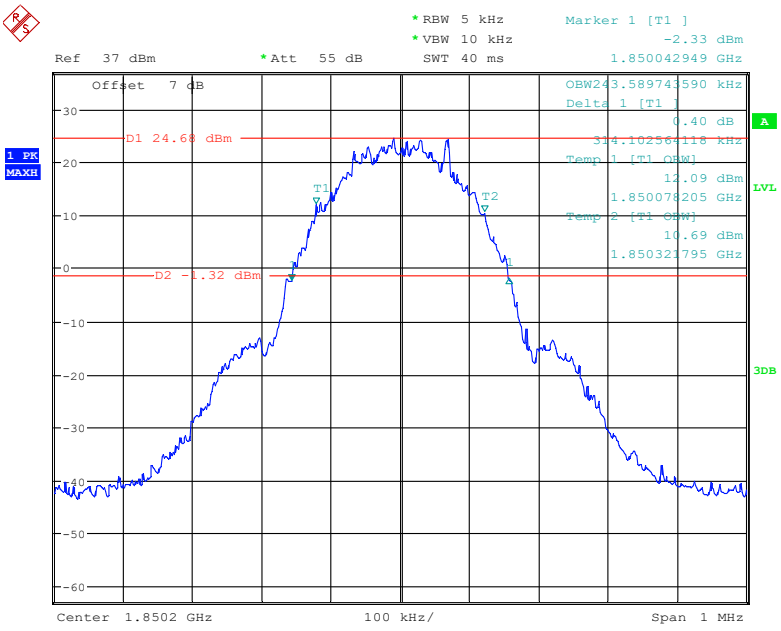
Date: 21.FEB.2022 18:50:00

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



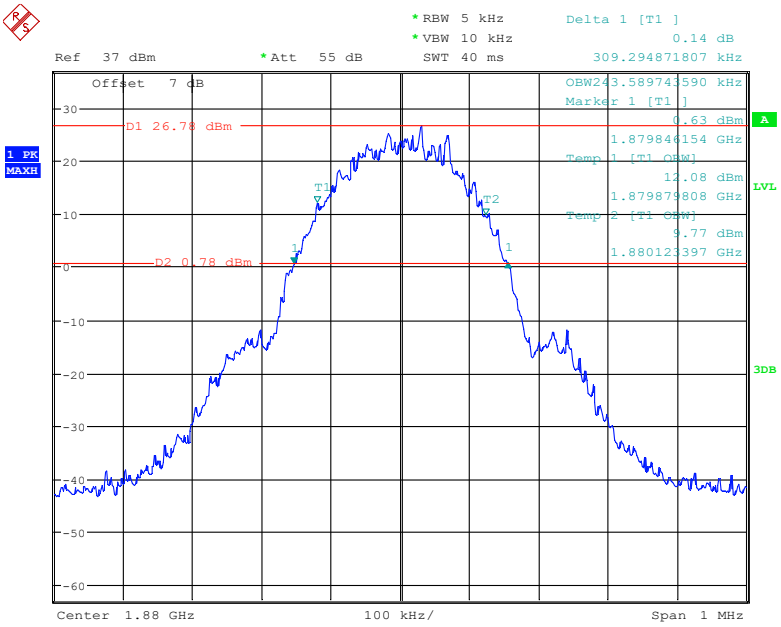
PCS Band (Part 24E)

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



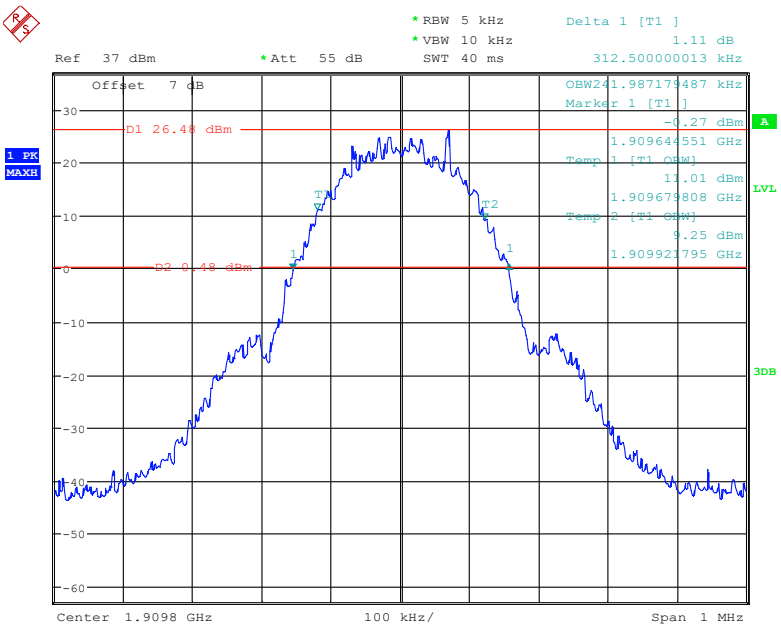
Date: 22.FEB.2022 09:24:09

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



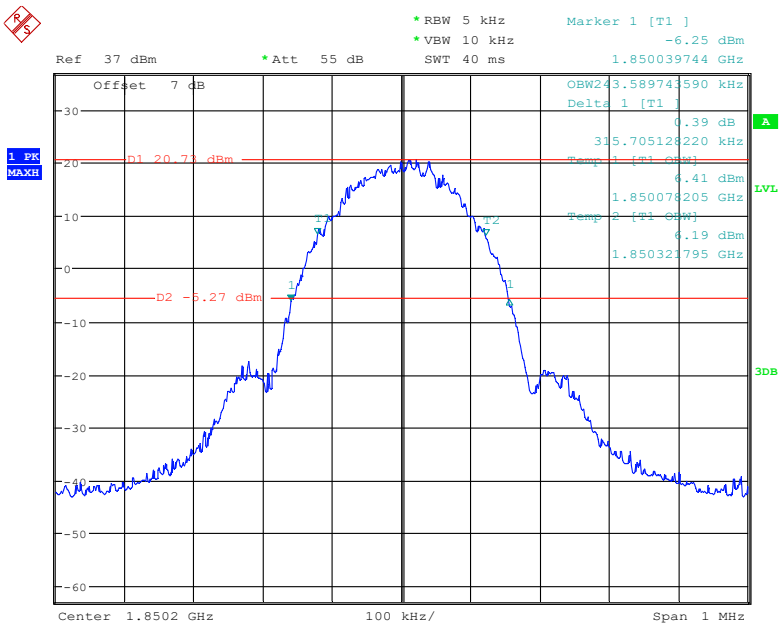
Date: 22.FEB.2022 09:25:19

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



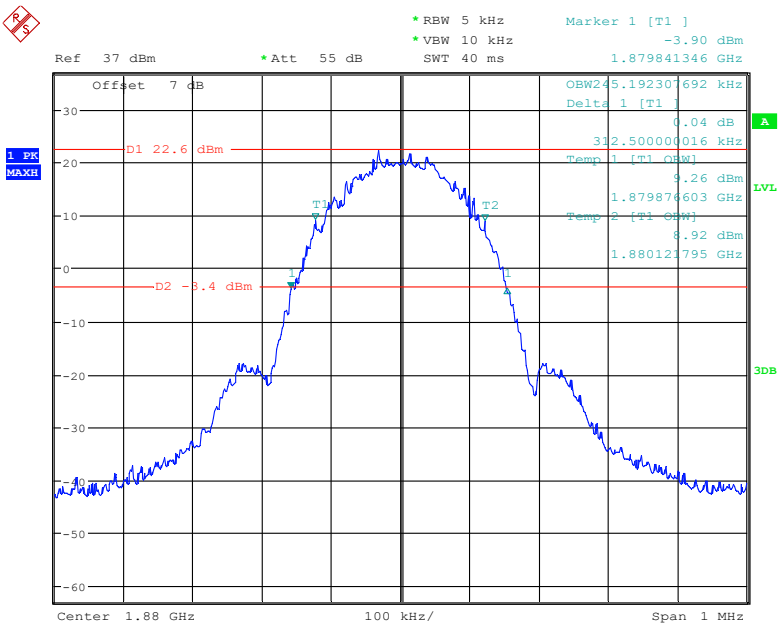
Date: 22.FEB.2022 09:26:13

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



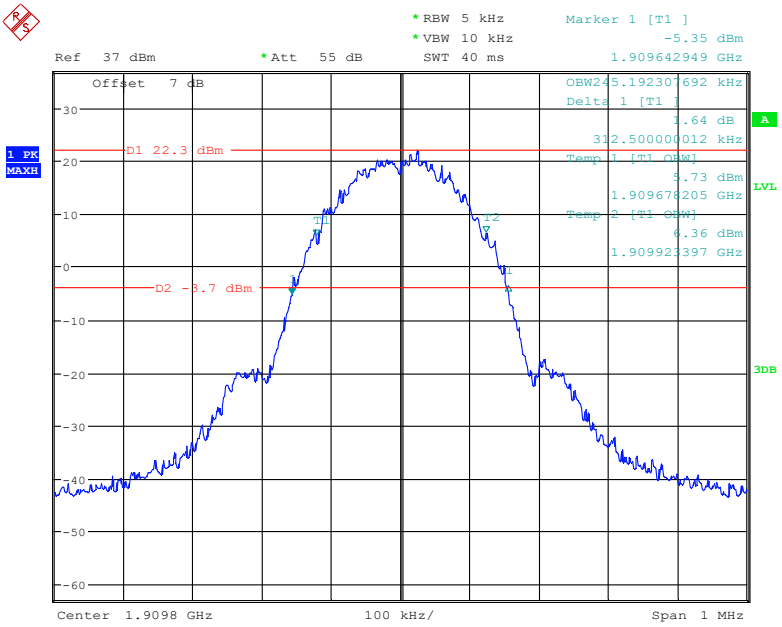
Date: 22.FEB.2022 09:36:33

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



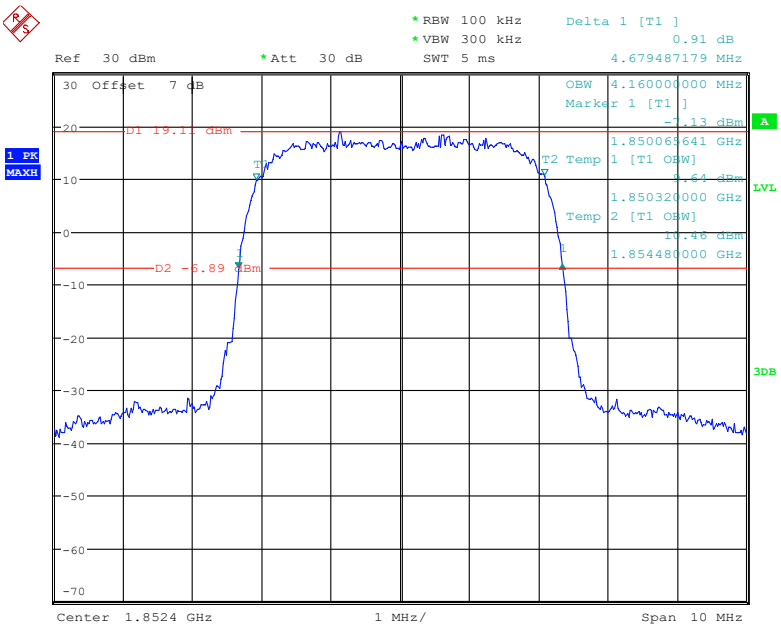
Date: 22.FEB.2022 09:33:57

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



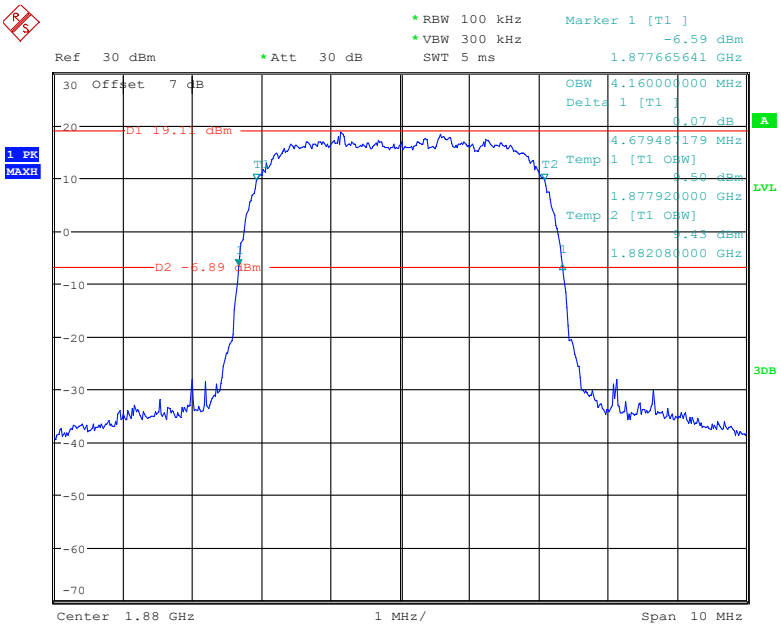
Date: 22.FEB.2022 09:32:31

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



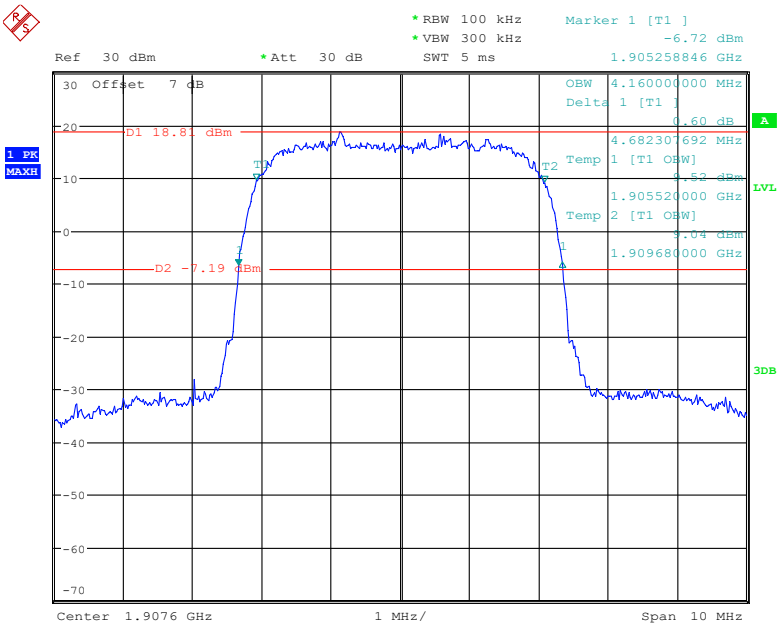
Date: 21.FEB.2022 18:34:13

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



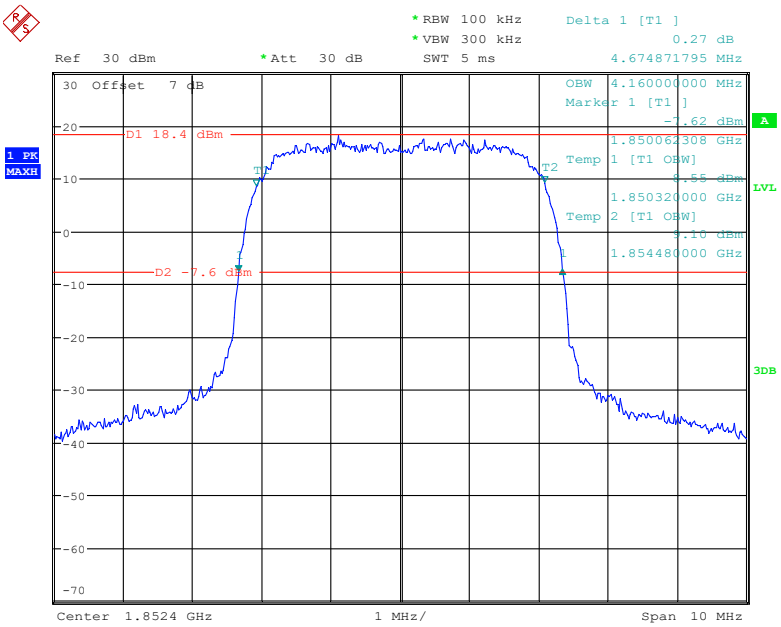
Date: 21.FEB.2022 18:35:15

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



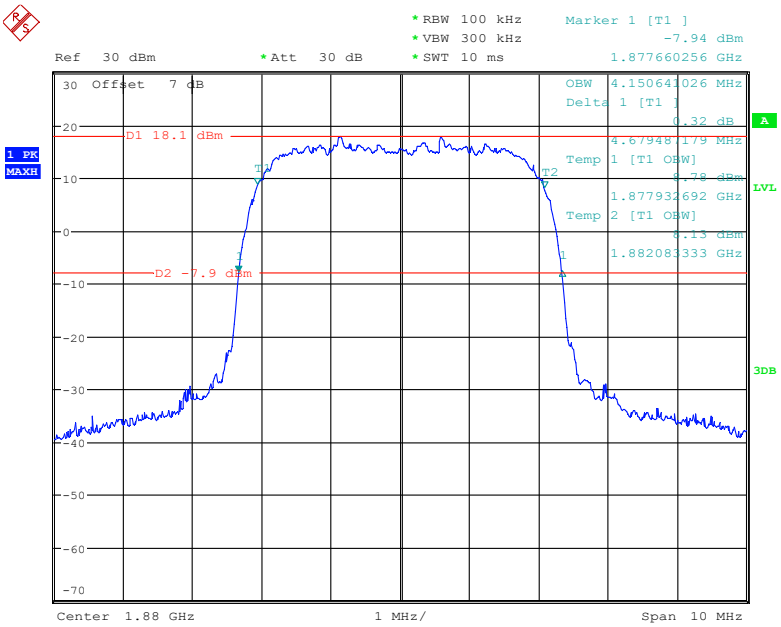
Date: 21.FEB.2022 18:36:26

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



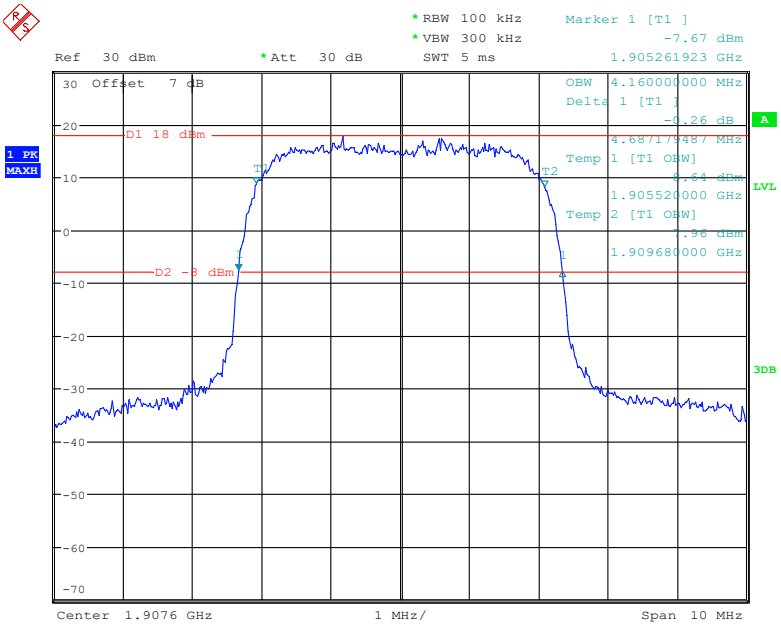
Date: 21.FEB.2022 18:59:50

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



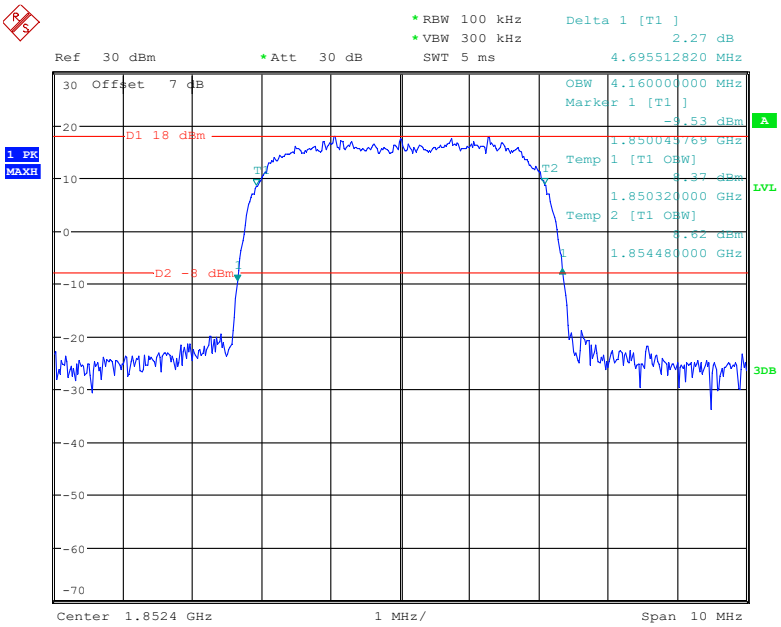
Date: 11.MAR.2022 16:14:53

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



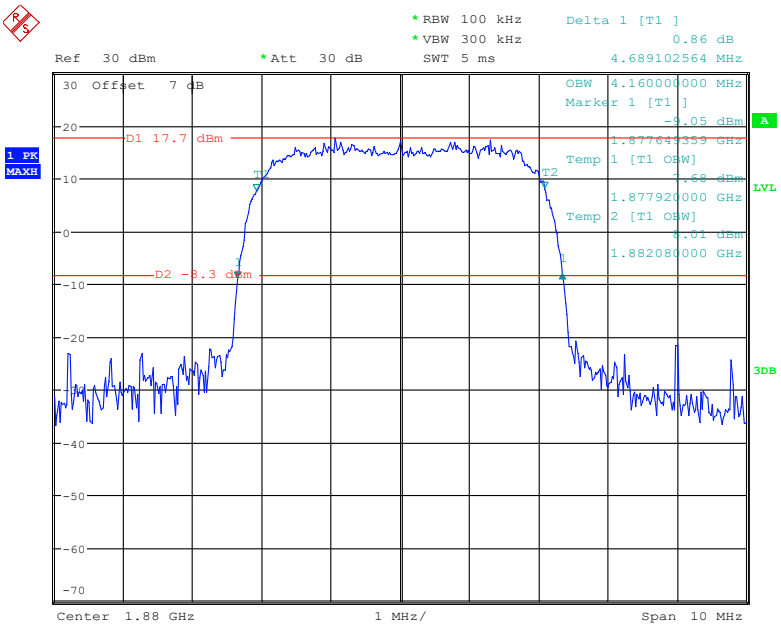
Date: 21.FEB.2022 19:01:52

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



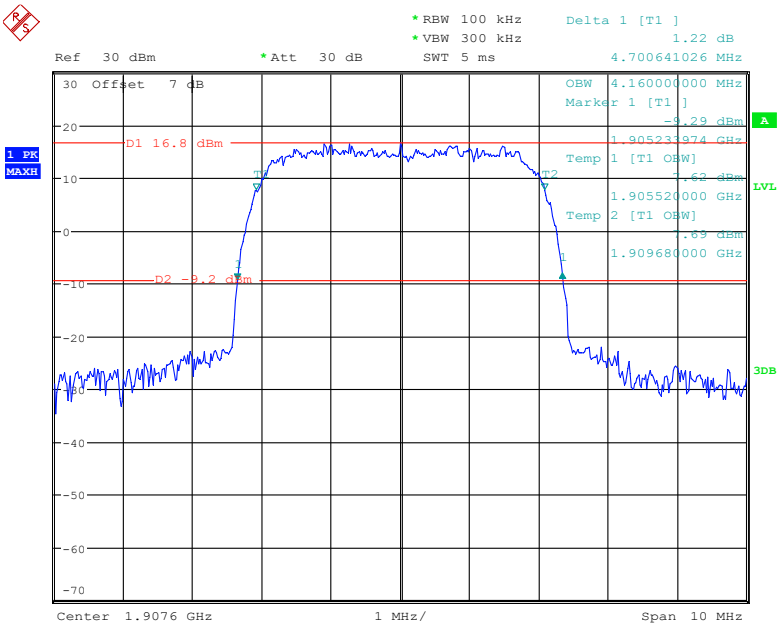
Date: 21.FEB.2022 18:45:32

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



Date: 21.FEB.2022 18:46:28

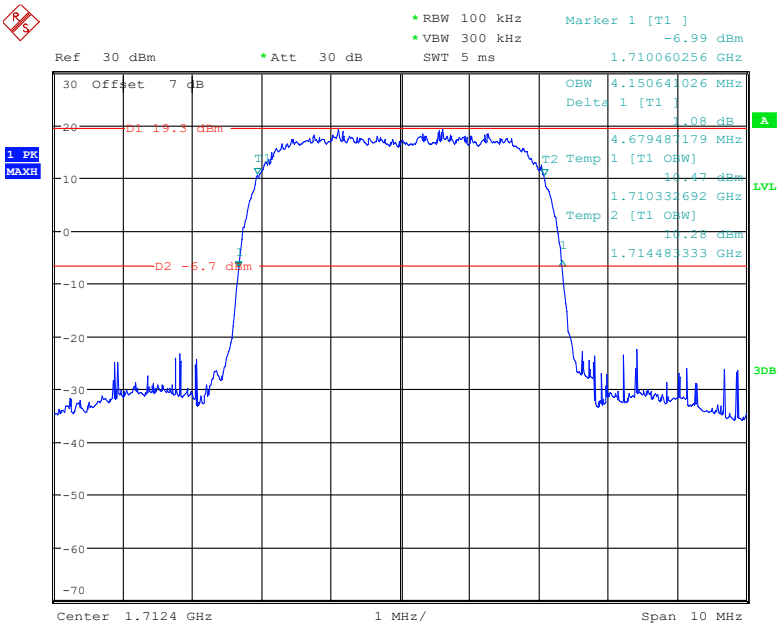
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 21.FEB.2022 18:47:26

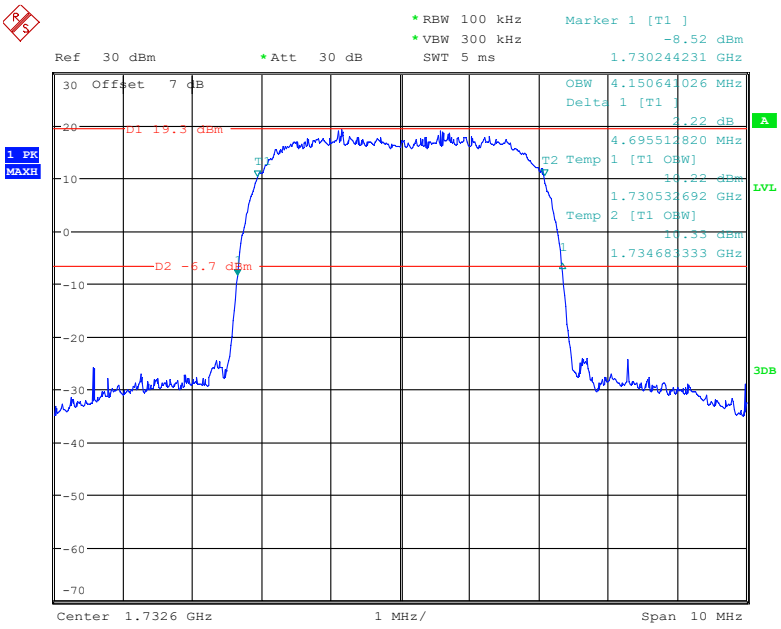
AWS Band (Part 27)

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



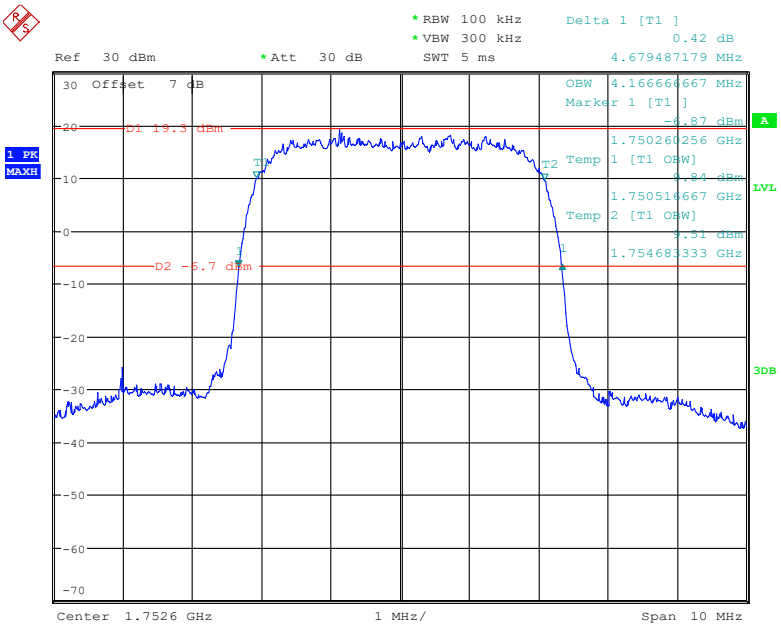
Date: 22.FEB.2022 10:35:16

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



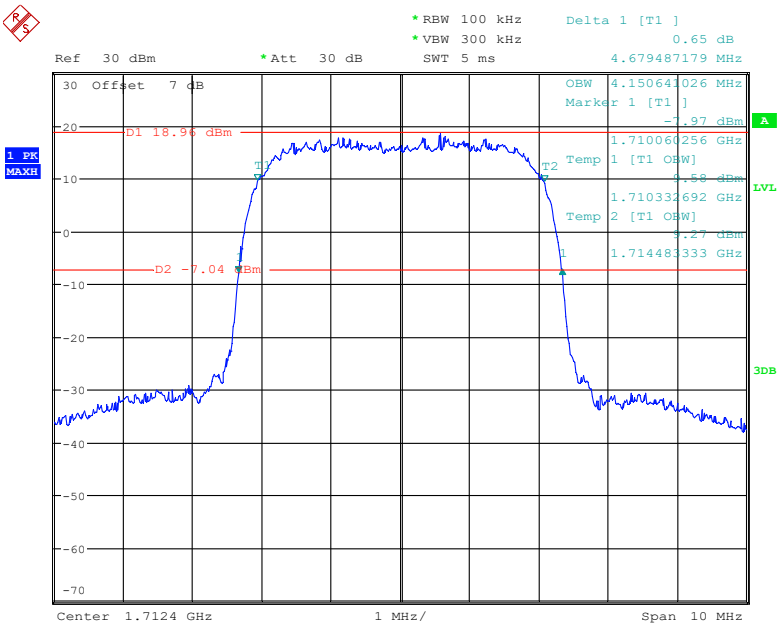
Date: 22.FEB.2022 10:36:24

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



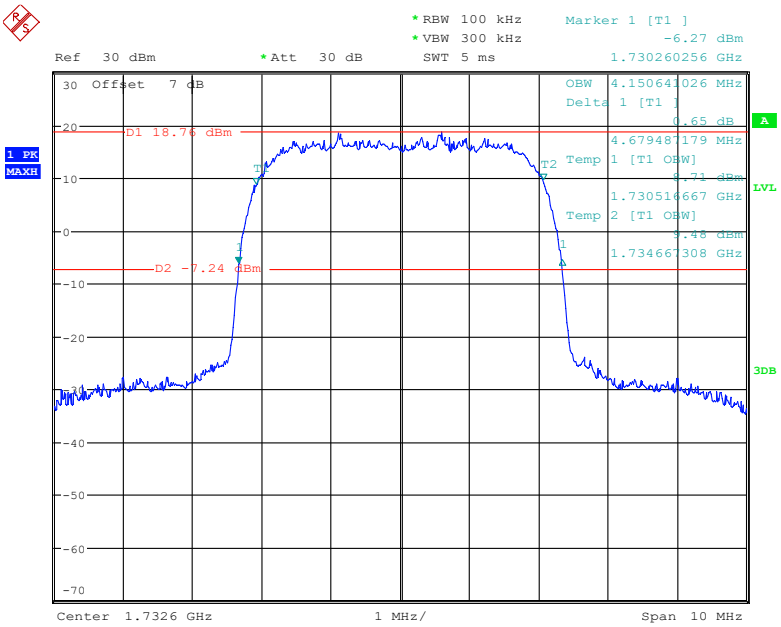
Date: 22.FEB.2022 10:37:05

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



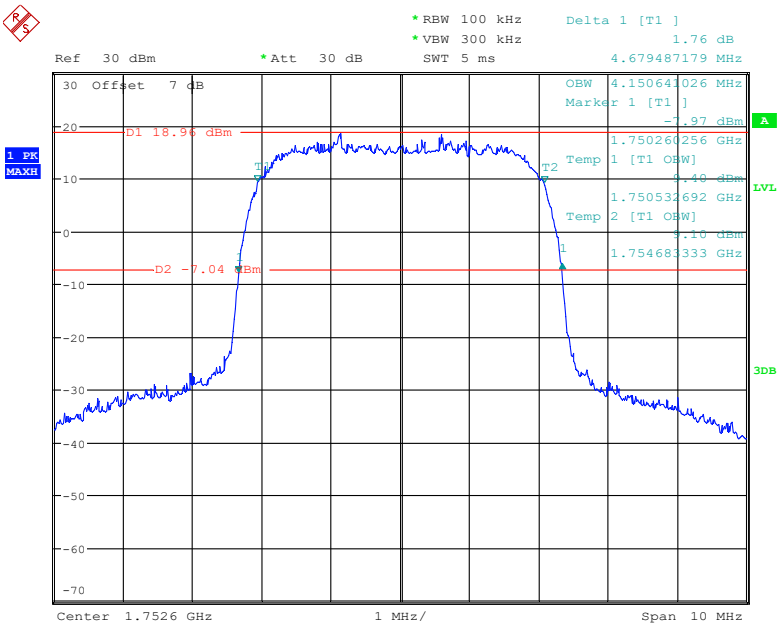
Date: 22.FEB.2022 10:47:56

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



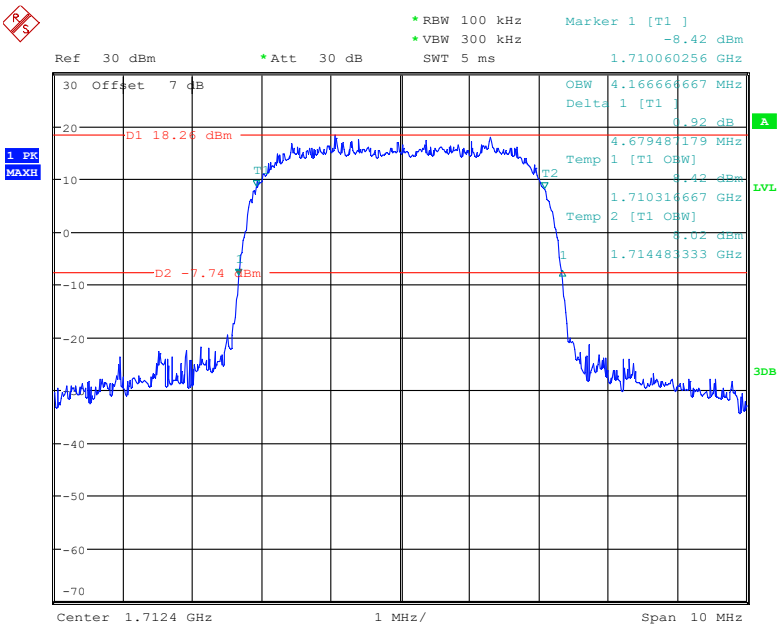
Date: 22.FEB.2022 10:46:59

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



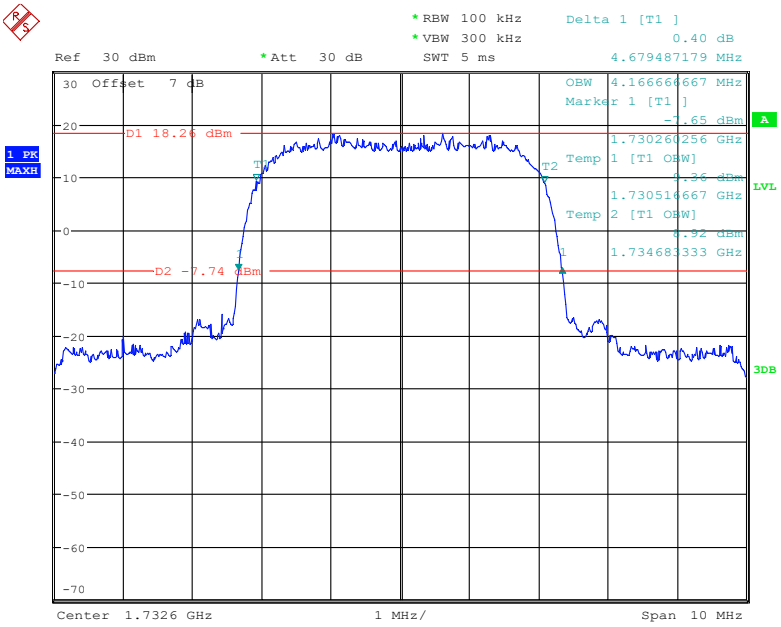
Date: 22.FEB.2022 10:48:36

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



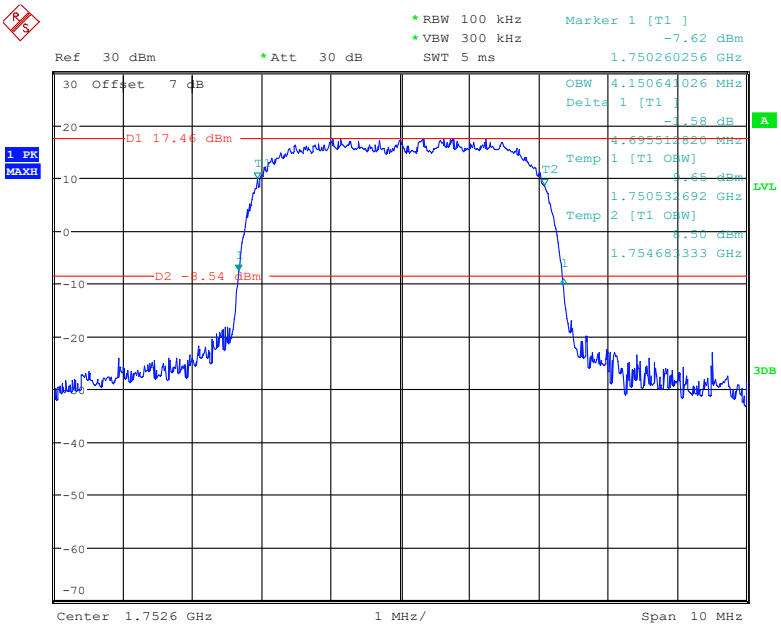
Date: 22.FEB.2022 10:42:18

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



Date: 22.FEB.2022 10:41:43

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



Date: 22.FEB.2022 10:40:45

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	1.110	1.260	1.092	1.260	1.104	1.254
	16QAM	1.104	1.254	1.110	1.260	1.098	1.248
3 MHz	QPSK	2.700	3.000	2.700	2.988	2.688	3.024
	16QAM	2.700	3.012	2.688	3.000	2.712	3.036
5 MHz	QPSK	4.540	5.036	4.520	5.000	4.520	4.960
	16QAM	4.520	5.000	4.540	5.000	4.560	5.000
10 MHz	QPSK	9.000	9.763	8.960	9.720	9.000	9.760
	16QAM	8.960	9.760	8.960	9.800	8.960	9.760
15 MHz	QPSK	13.560	15.120	13.500	15.060	13.560	15.180
	16QAM	13.560	15.120	13.620	15.201	13.560	15.000
20 MHz	QPSK	18.000	19.600	18.080	19.600	18.000	19.840
	16QAM	18.080	19.680	18.000	19.690	18.000	19.760

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	1.104	1.254	1.104	1.260	1.104	1.260
	16QAM	1.110	1.260	1.098	1.254	1.104	1.260
3 MHz	QPSK	2.688	2.988	2.700	3.012	2.688	3.024
	16QAM	2.700	3.000	2.700	3.000	2.688	3.012
5 MHz	QPSK	4.520	5.000	4.520	5.000	4.520	4.980
	16QAM	4.520	4.960	4.560	5.000	4.520	5.000
10 MHz	QPSK	8.960	9.800	8.960	9.760	8.960	9.800
	16QAM	8.960	9.760	8.960	9.760	8.960	9.880
15 MHz	QPSK	13.560	15.060	13.500	15.060	13.560	15.180
	16QAM	13.620	15.120	13.560	15.180	13.560	15.060
20 MHz	QPSK	18.000	19.600	18.000	19.520	18.080	19.760
	16QAM	18.000	19.760	17.920	19.760	18.000	19.680

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	1.098	1.260	1.098	1.254	1.110	1.260
	16QAM	1.116	1.260	1.098	1.248	1.104	1.260
3 MHz	QPSK	2.700	3.000	2.700	3.000	2.688	3.000
	16QAM	2.688	3.012	2.688	3.000	2.700	3.024
5 MHz	QPSK	4.520	5.000	4.520	5.020	4.520	4.980
	16QAM	4.540	5.038	4.540	4.980	4.520	5.020
10 MHz	QPSK	8.960	9.760	8.960	9.720	8.960	9.760
	16QAM	8.960	9.800	9.000	9.800	8.960	9.760

LTE Band 7

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.520	5.020	4.520	4.980	4.520	4.980
	16QAM	4.520	4.960	4.520	5.020	4.540	5.013
10 MHz	QPSK	9.000	9.760	8.960	9.800	8.960	9.800
	16QAM	8.960	9.680	8.960	9.800	8.960	9.800
15 MHz	QPSK	13.560	14.940	13.560	15.060	13.560	15.120
	16QAM	13.500	15.060	13.620	15.120	13.560	15.060
20 MHz	QPSK	18.000	19.600	18.000	19.600	18.080	19.696
	16QAM	18.000	19.680	18.000	19.680	18.000	19.680

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	4.520	4.991	4.520	5.272	4.520	4.980
	16QAM	4.500	4.940	4.520	5.040	4.520	5.040
10 MHz	QPSK	9.000	9.680	8.960	9.880	8.960	9.800
	16QAM	8.960	9.800	8.960	9.760	8.960	10.080
15 MHz	QPSK	13.620	15.060	13.500	15.000	13.620	15.540
	16QAM	13.560	16.440	13.620	15.430	13.620	16.860
20 MHz	QPSK	18.000	19.920	18.000	19.680	18.000	20.160
	16QAM	18.000	19.840	18.000	20.320	18.000	19.840

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	4.520	4.964	4.520	5.060	4.520	4.940
	16QAM	4.500	5.000	4.540	5.180	4.520	5.000
10 MHz	QPSK	9.000	9.760	9.000	9.800	8.960	9.840
	16QAM	9.000	9.720	8.960	9.720	8.960	10.000
15 MHz	QPSK	13.560	15.525	13.620	16.250	13.560	15.426
	16QAM	13.620	15.300	13.560	15.285	13.620	16.140
20 MHz	QPSK	18.000	19.680	18.000	19.600	18.000	19.680
	16QAM	18.000	19.680	18.000	19.440	18.000	19.920

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

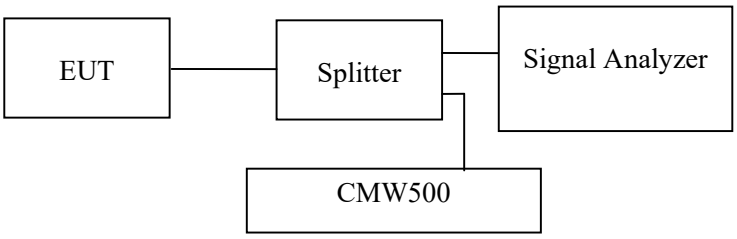
Applicable Standard

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:	27.6 ℃
Relative Humidity:	58 %
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu from 2022-02-21 to 2022-02-22.

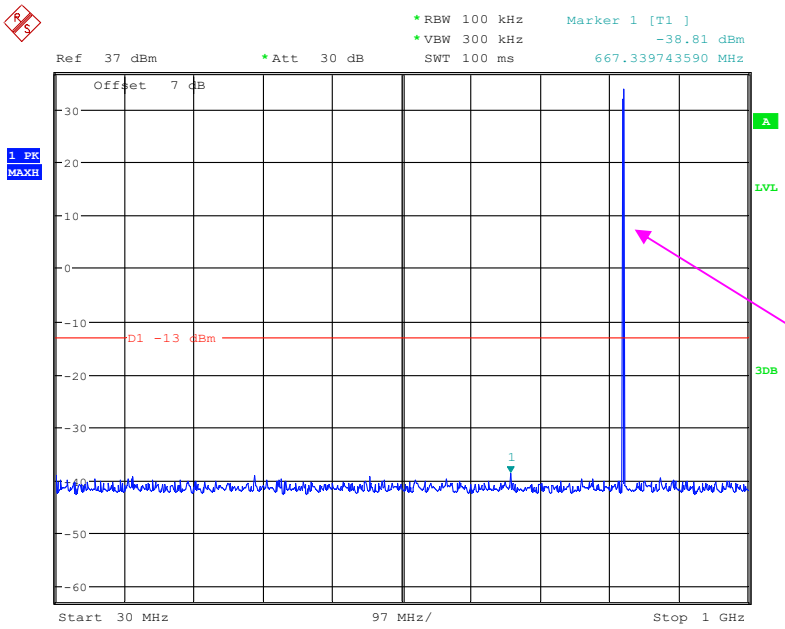
EUT operation mode: Transmitting

Test result: Pass

Please refer to the following plots.

Cellular Band (Part 22H)
Low Channel:

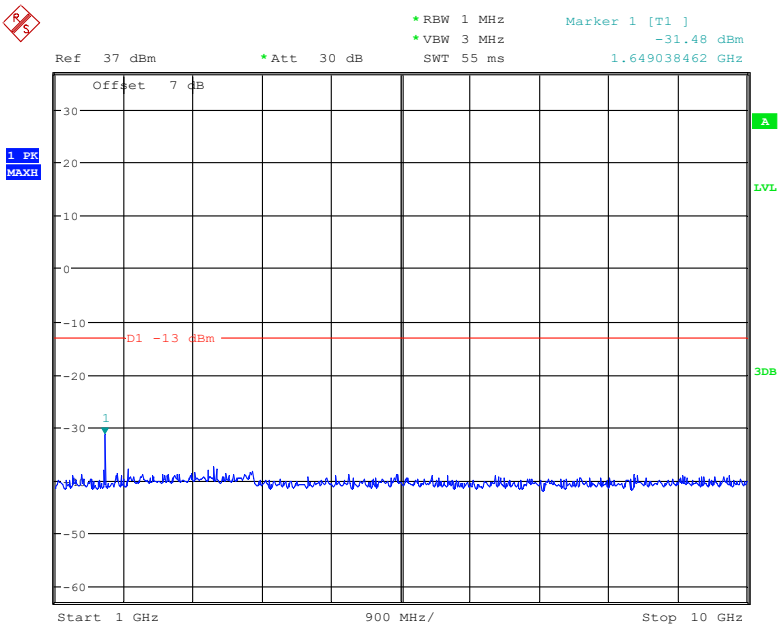
30 MHz – 1 GHz (GSM Mode)



Fundamental test

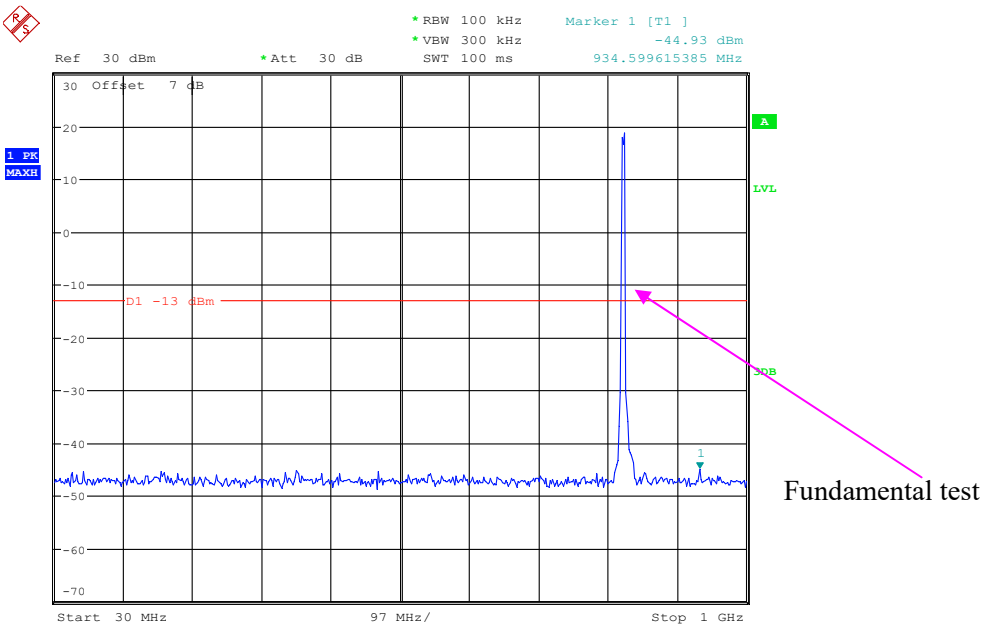
Date: 22.FEB.2022 09:43:47

1 GHz – 10 GHz (GSM Mode)



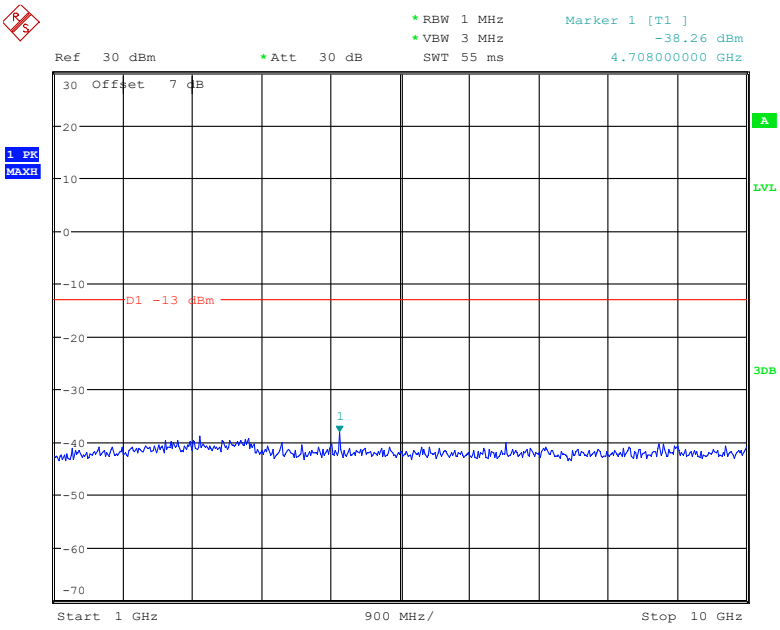
Date: 22.FEB.2022 09:45:59

30 MHz – 1 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:06:34

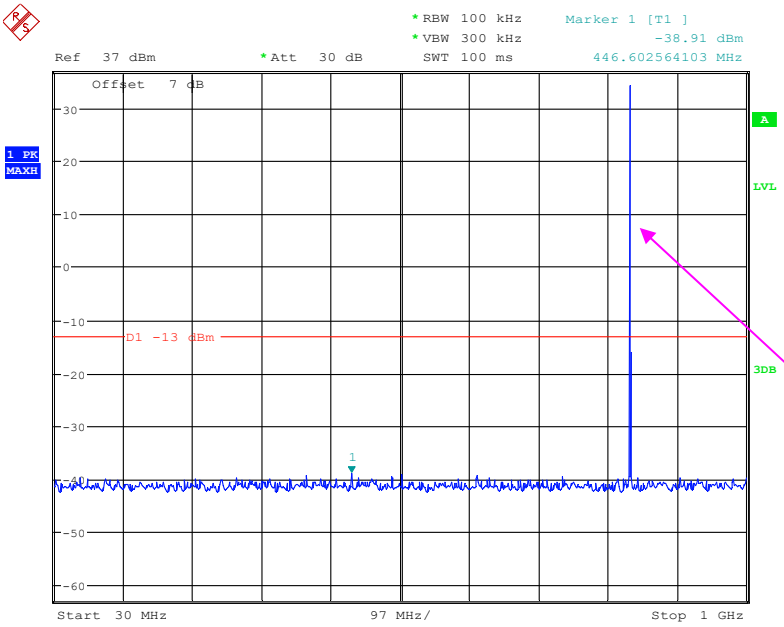
1 GHz – 20 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:08:48

Middle Channel:

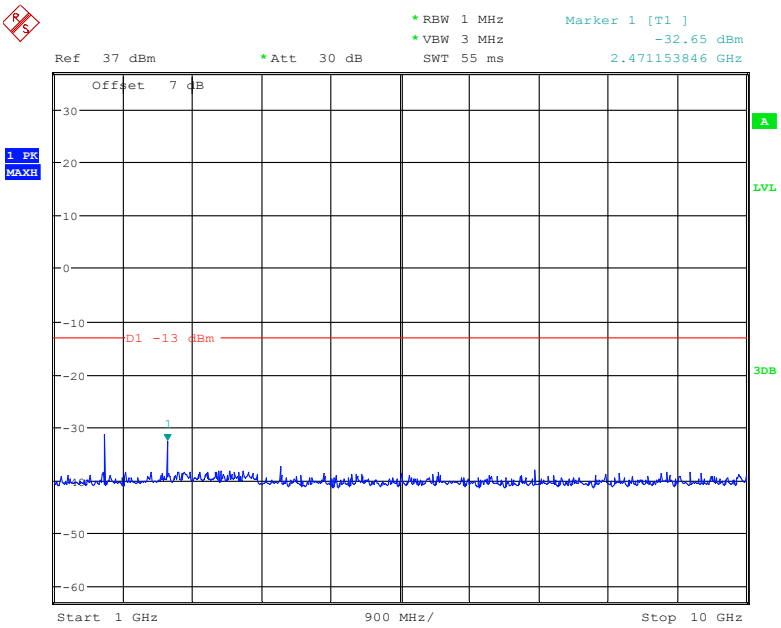
30 MHz – 1 GHz (GSM Mode)



Fundamental test

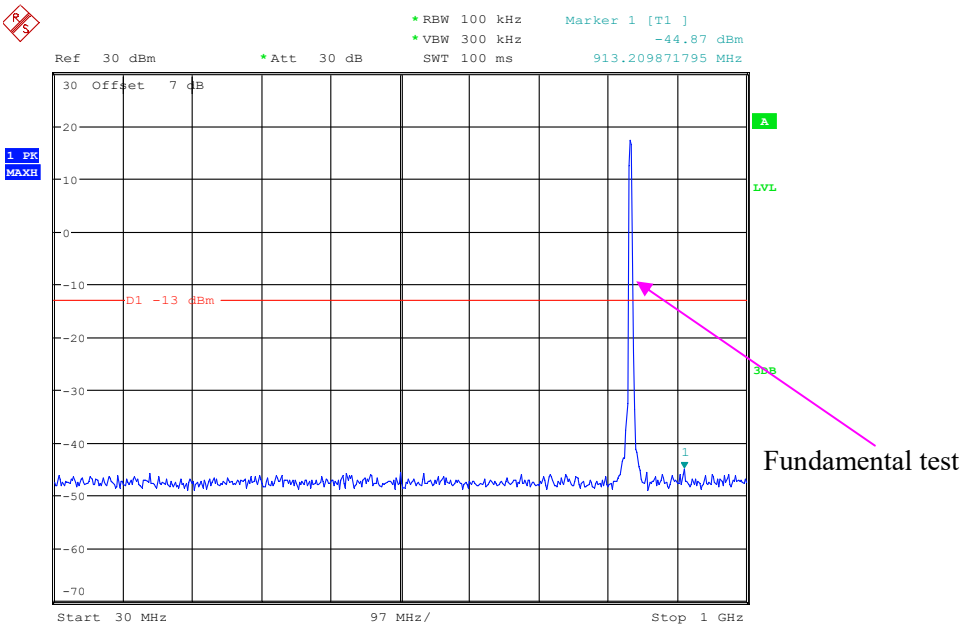
Date: 22.FEB.2022 09:44:29

1 GHz – 10 GHz (GSM Mode)



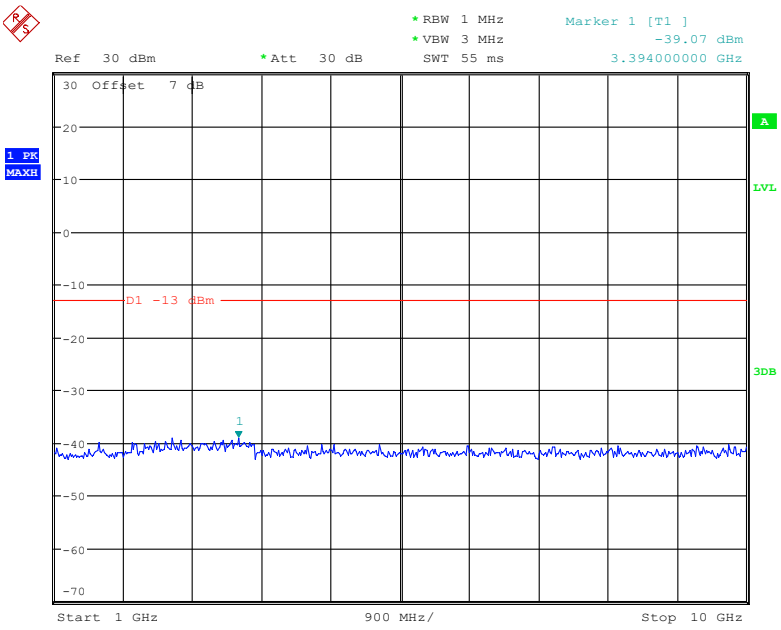
Date: 22.FEB.2022 09:45:51

30 MHz – 1 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:06:56

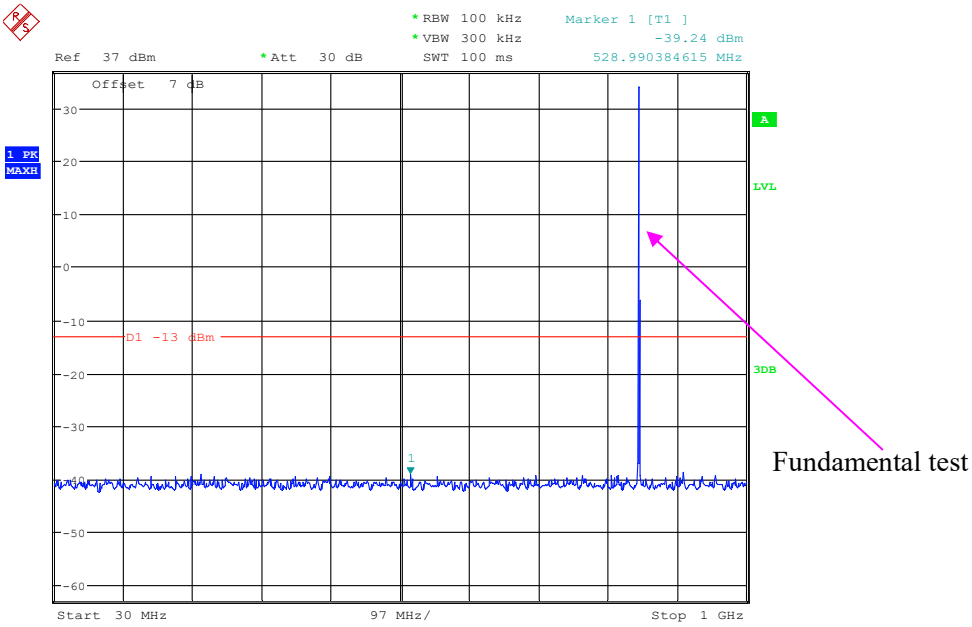
1 GHz – 20 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:08:33

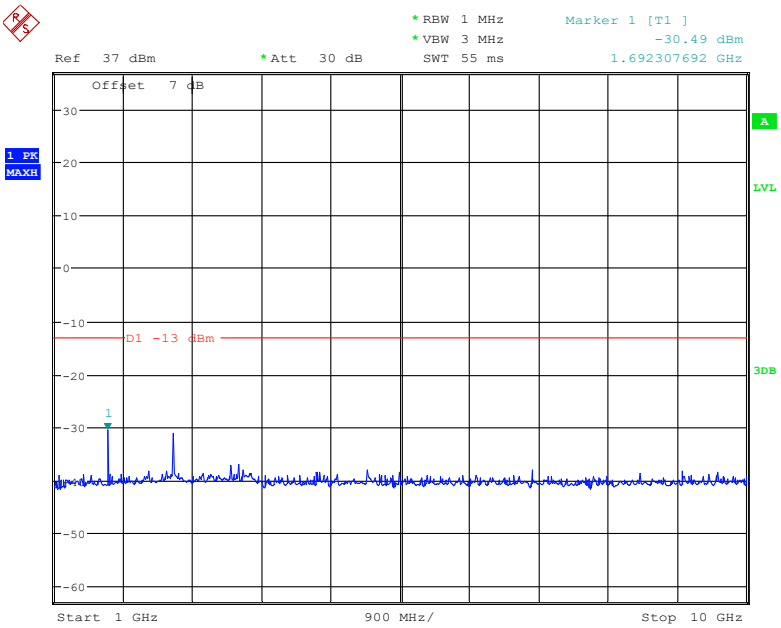
High Channel:

30 MHz – 1 GHz (GSM Mode)



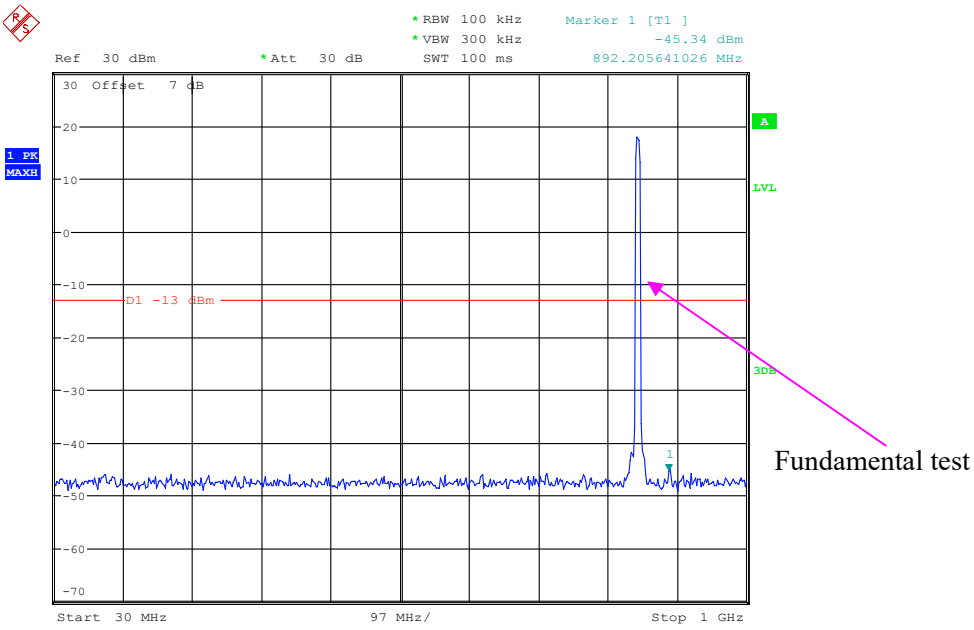
Date: 22.FEB.2022 09:44:52

1 GHz – 10 GHz (GSM Mode)



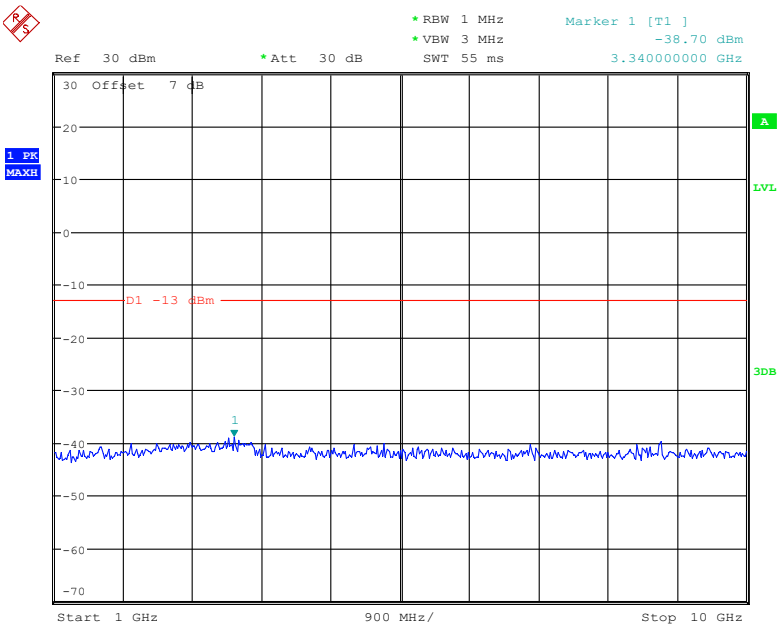
Date: 22.FEB.2022 09:45:17

30 MHz – 1 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:07:46

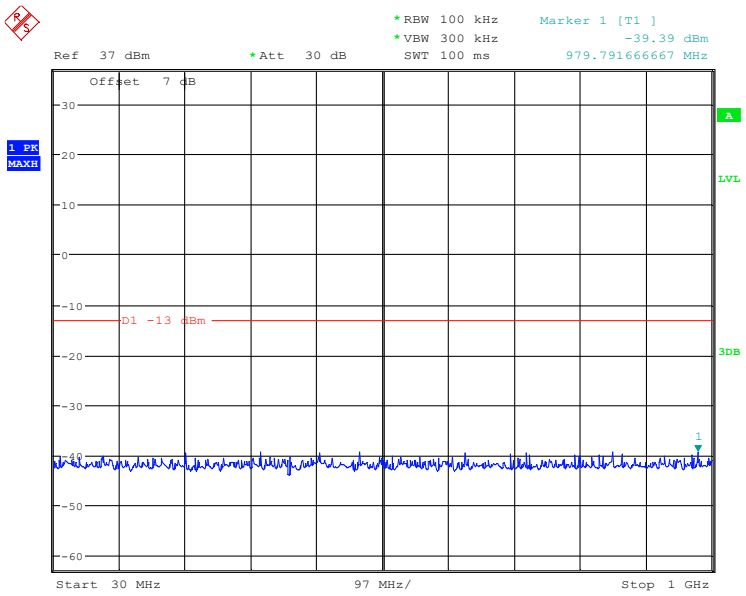
1 GHz – 20 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:08:06

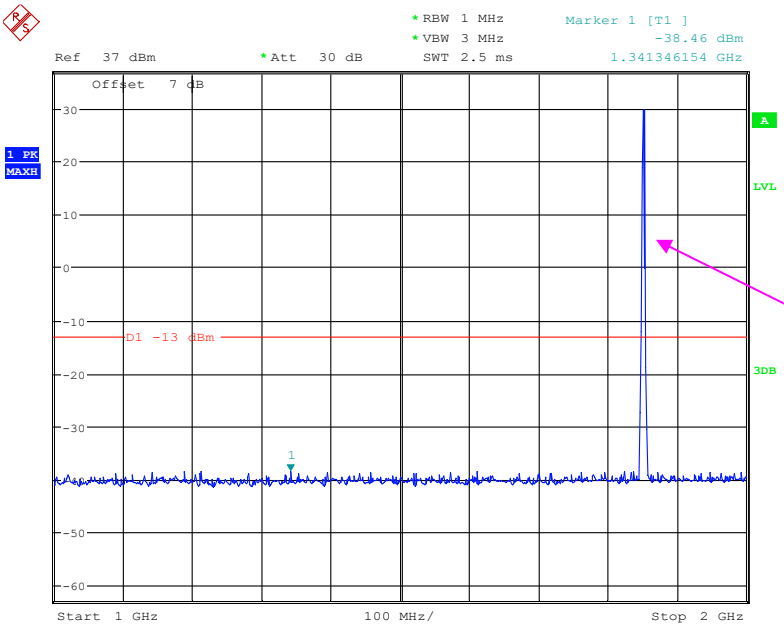
PCS Band (Part 24E)
Low Channel:

30 MHz – 1 GHz (GSM Mode)



Date: 22.FEB.2022 09:38:41

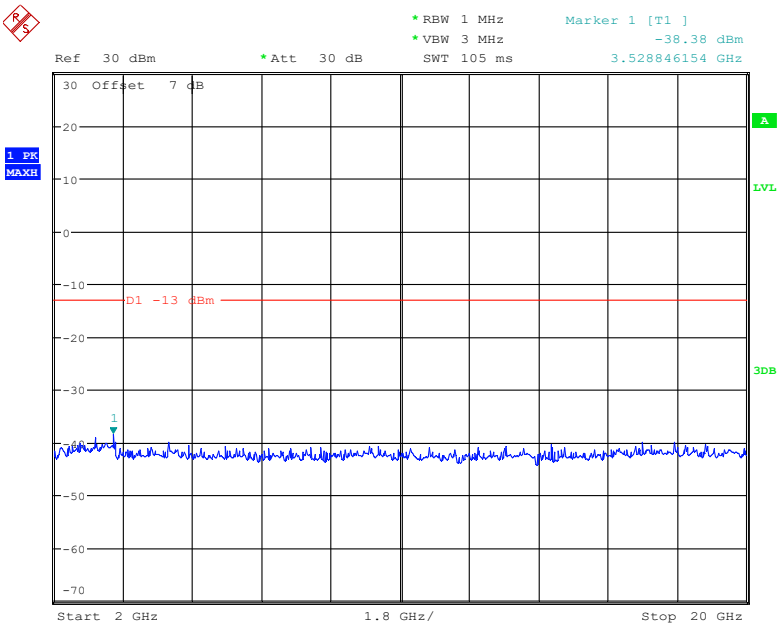
1 GHz – 2 GHz (GSM Mode)



Fundamental test

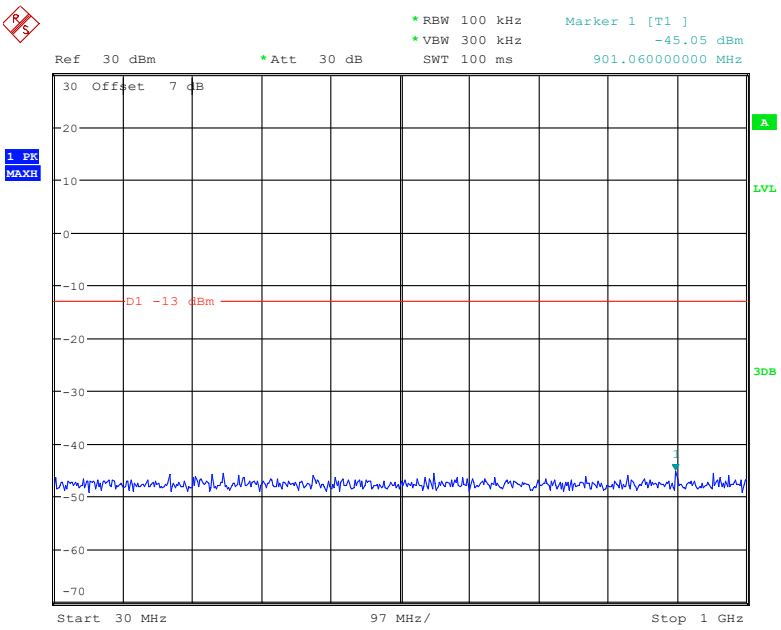
Date: 22.FEB.2022 09:47:23

2 GHz – 20 GHz (GSM Mode)



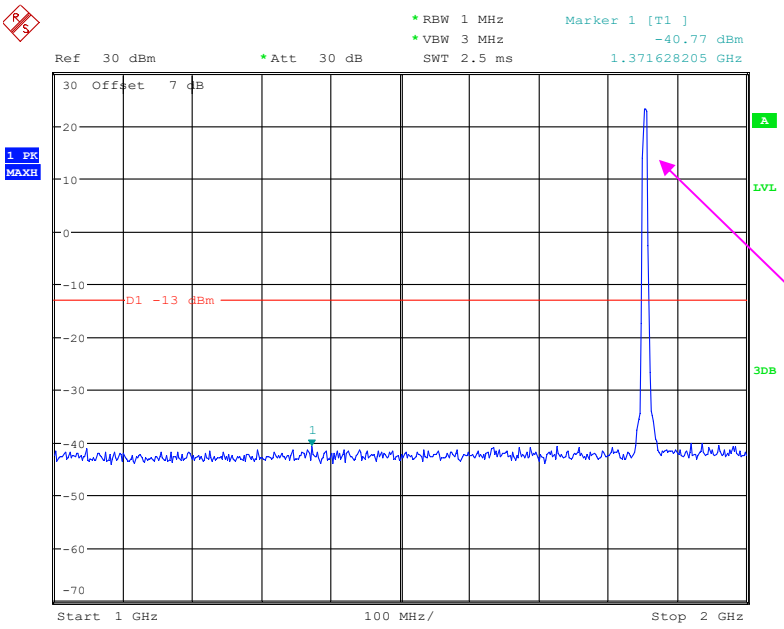
Date: 22.FEB.2022 09:49:20

30 MHz – 1 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:05:16

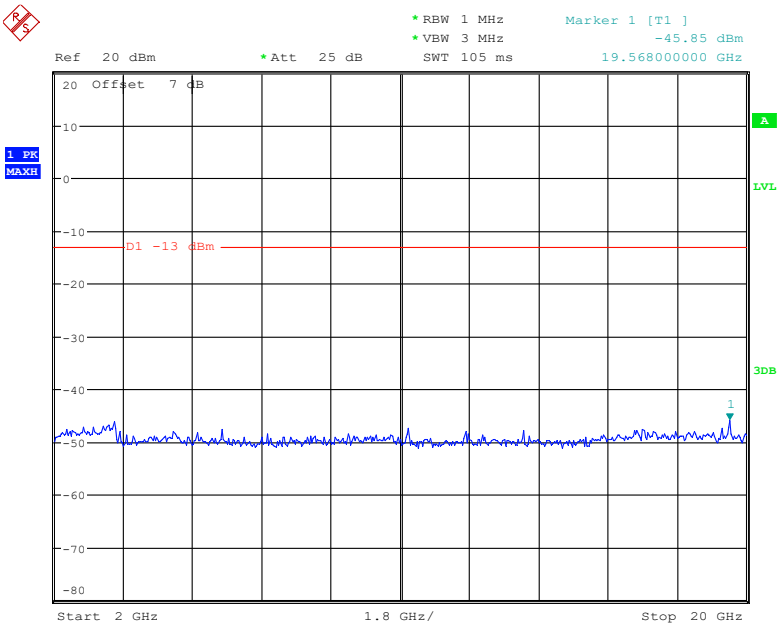
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 21.FEB.2022 19:10:39

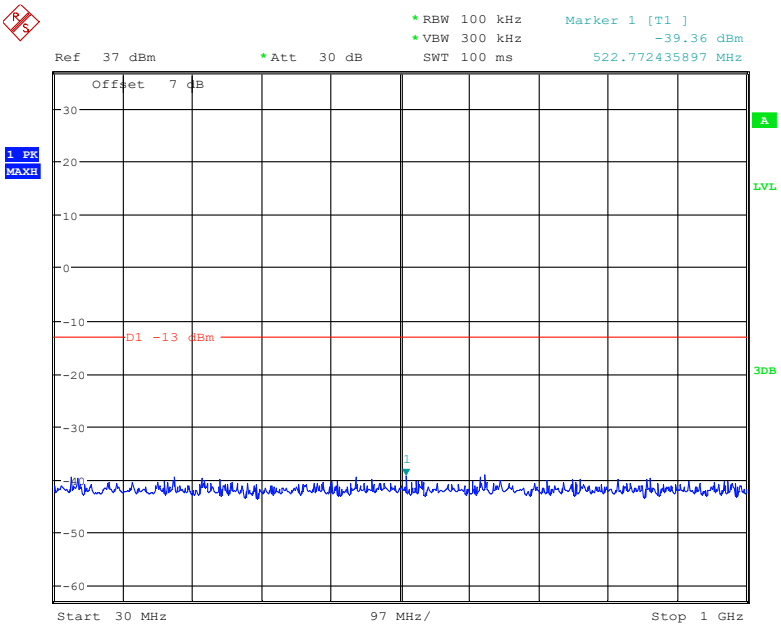
2 GHz – 20 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:12:11

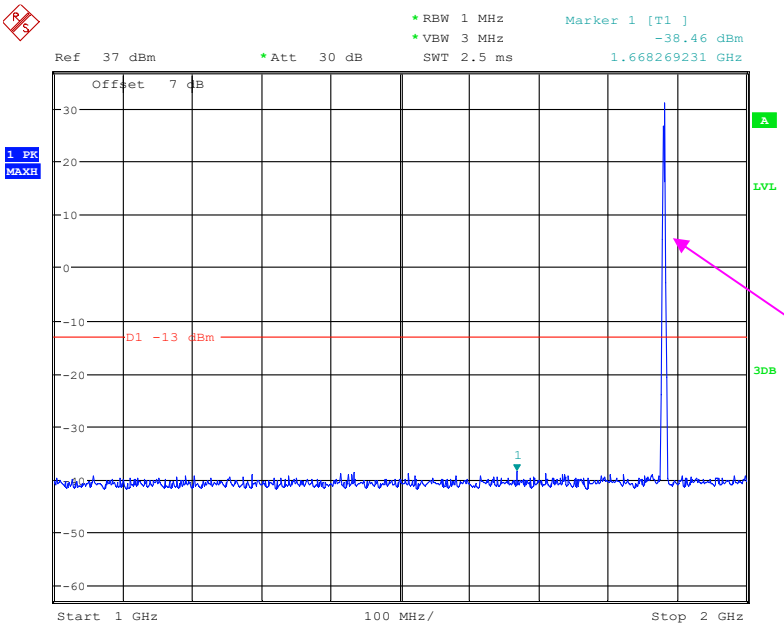
Middle Channel:

30 MHz – 1 GHz (GSM Mode)



Date: 22.FEB.2022 09:39:07

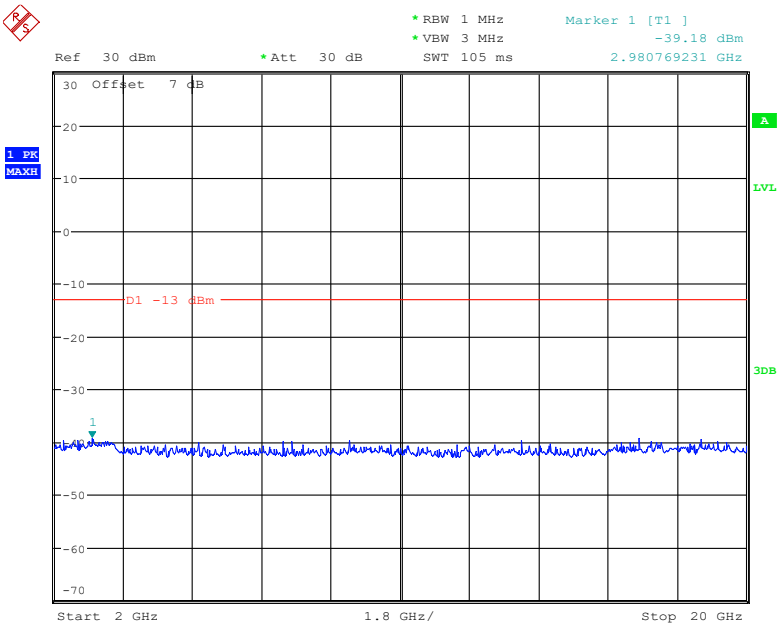
1 GHz – 2 GHz (GSM Mode)



Fundamental test

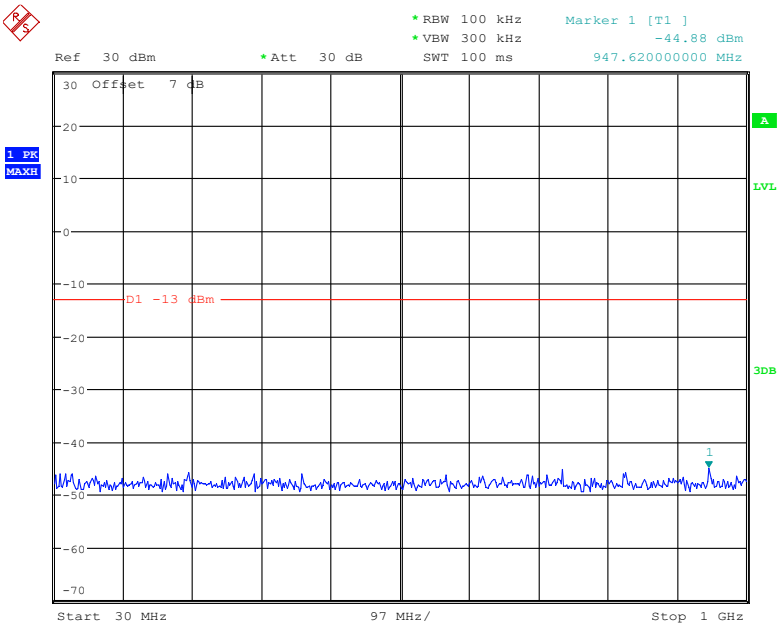
Date: 22.FEB.2022 09:47:57

2 GHz – 20 GHz (GSM Mode)



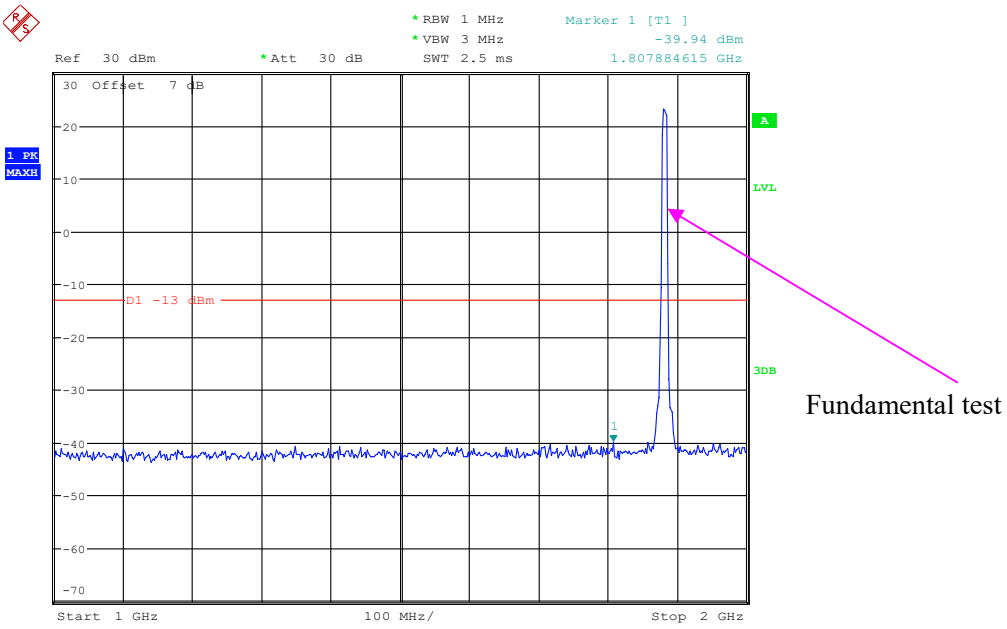
Date: 22.FEB.2022 09:49:07

30 MHz – 1 GHz (WCDMA Mode)



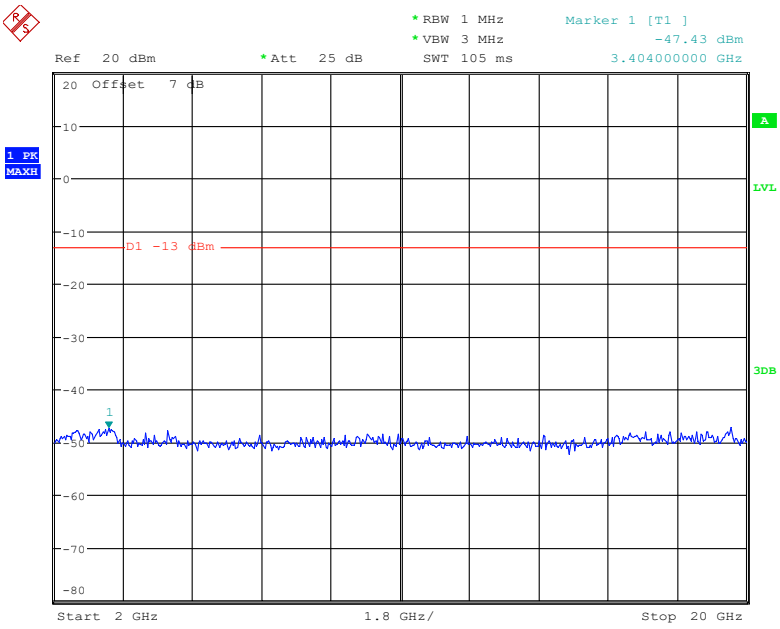
Date: 21.FEB.2022 19:05:35

1 GHz – 2GHz (WCDMA Mode)



Date: 21.FEB.2022 19:09:57

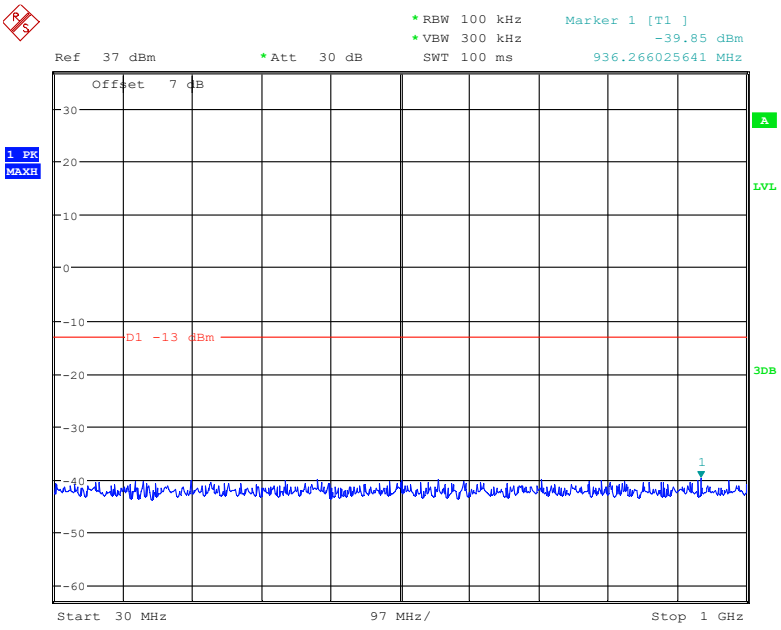
2 GHz – 20GHz (WCDMA Mode)



Date: 21.FEB.2022 19:11:59

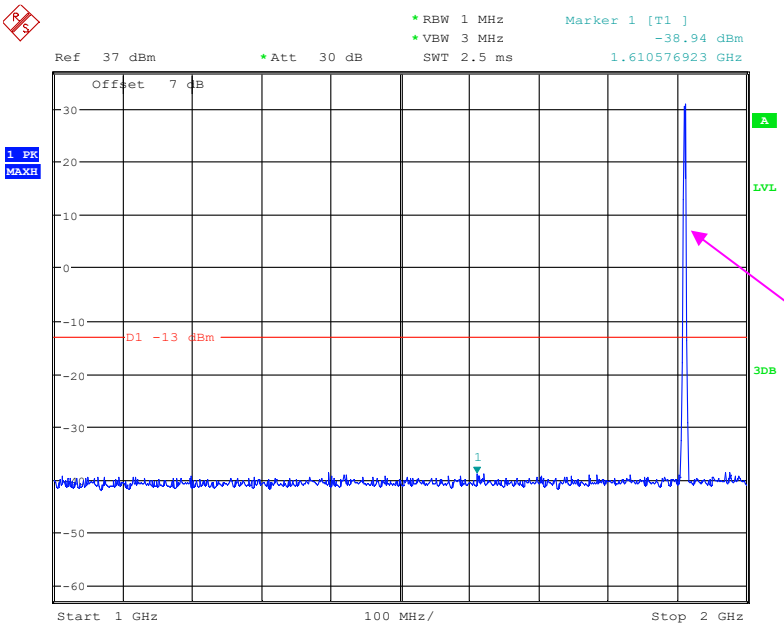
High Channel:

30 MHz – 1 GHz (GSM Mode)



Date: 22.FEB.2022 09:39:20

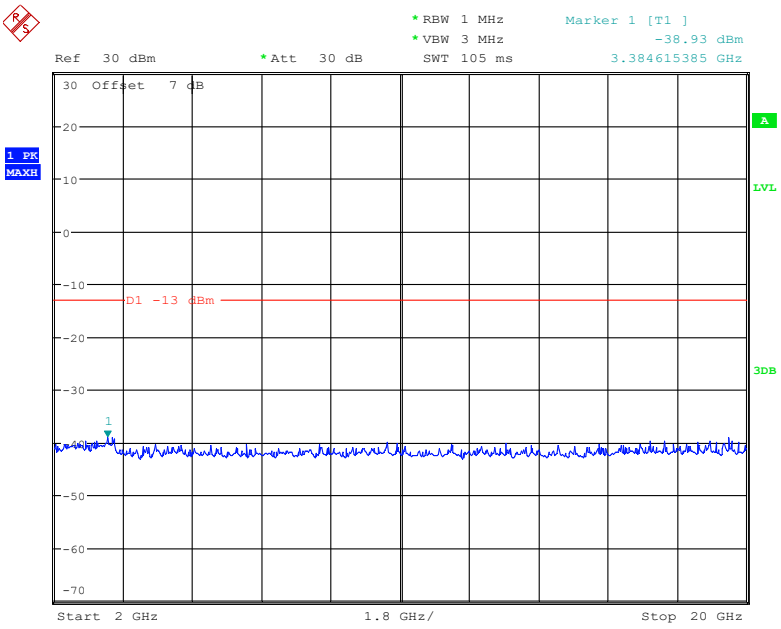
1 GHz – 2 GHz (GSM Mode)



Fundamental test

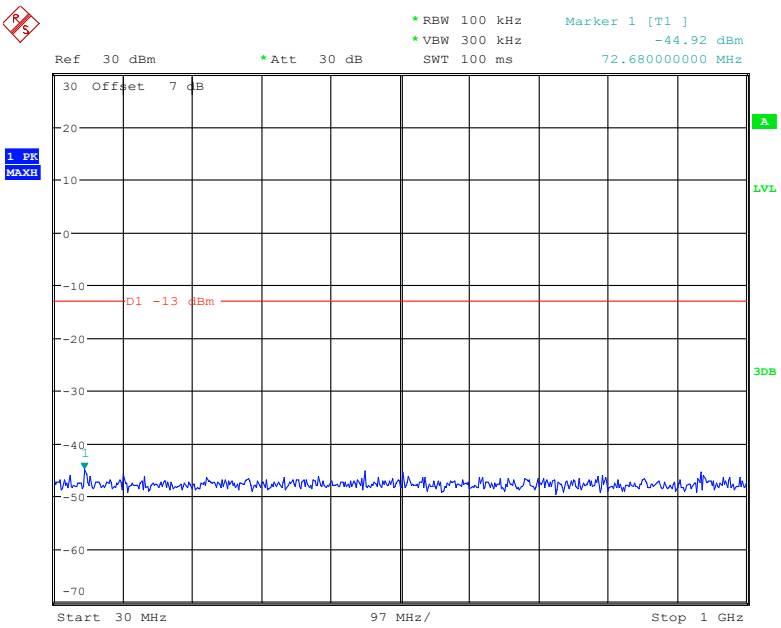
Date: 22.FEB.2022 09:48:19

2 GHz– 20 GHz (GSM Mode)



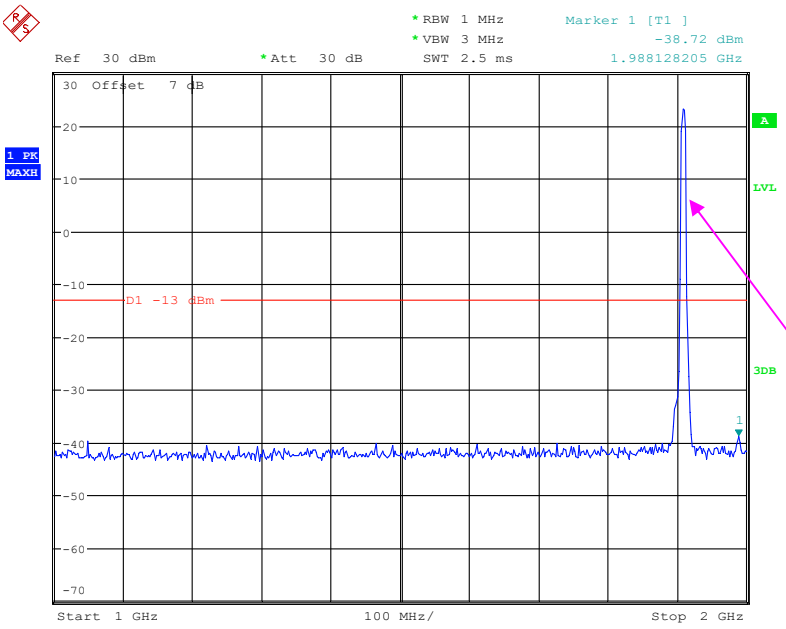
Date: 22.FEB.2022 09:48:48

30 MHz – 1 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:05:50

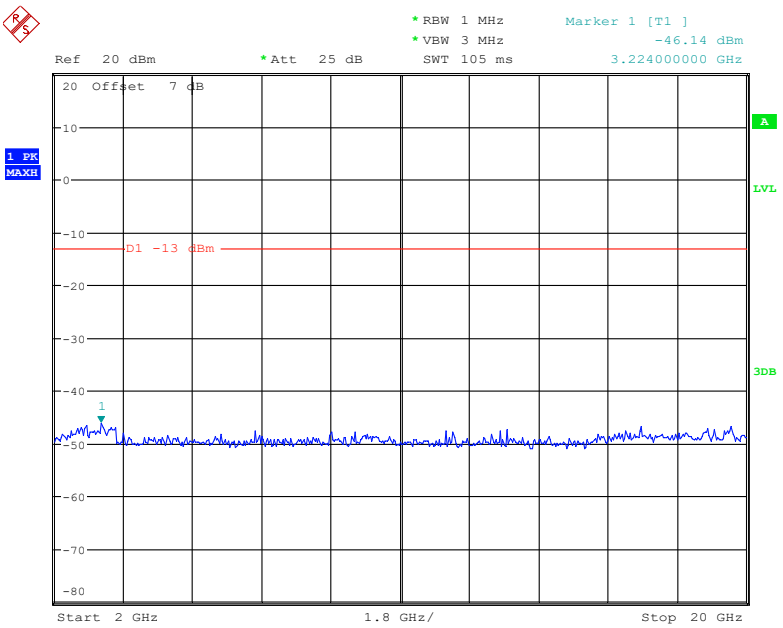
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 21.FEB.2022 19:11:12

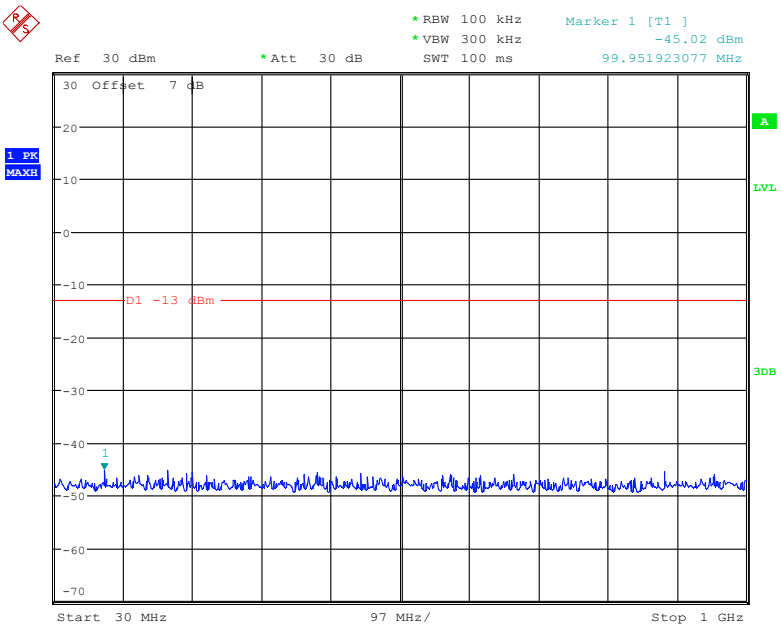
2GHz – 20 GHz (WCDMA Mode)



Date: 21.FEB.2022 19:11:38

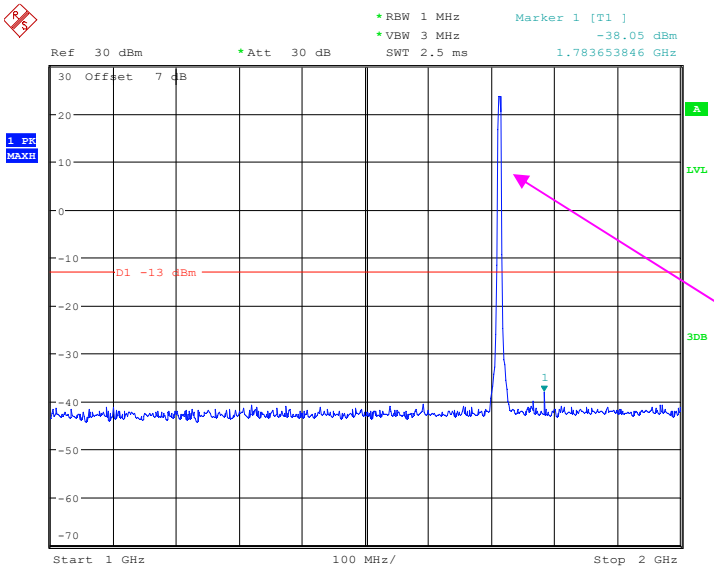
AWS Band (Part 27)
Low Channel:

30 MHz – 1 GHz (WCDMA Mode)



Date: 22.FEB.2022 10:54:48

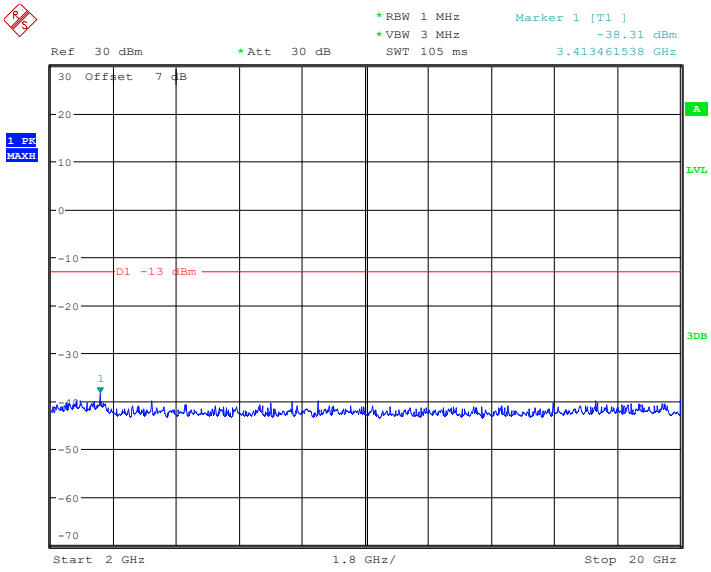
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 22.FEB.2022 10:57:09

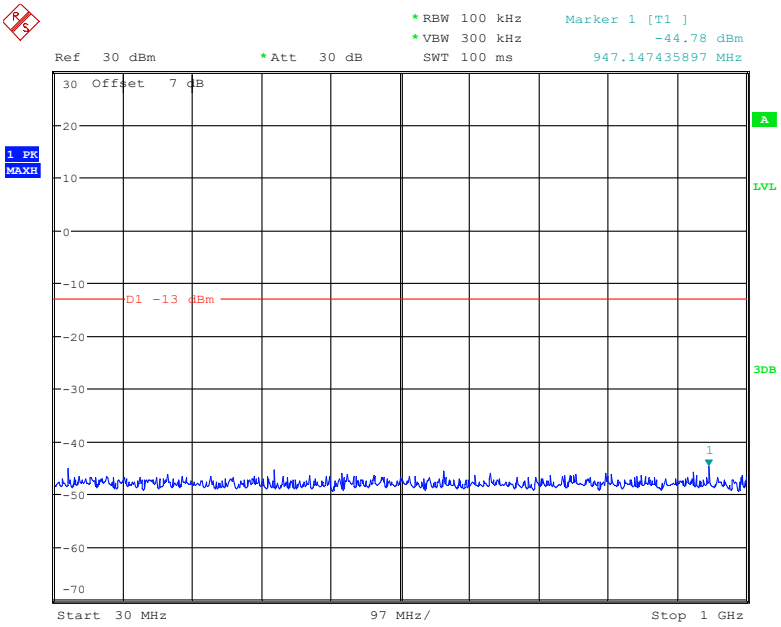
2 GHz – 20 GHz (WCDMA Mode)



Date: 22.FEB.2022 10:57:27

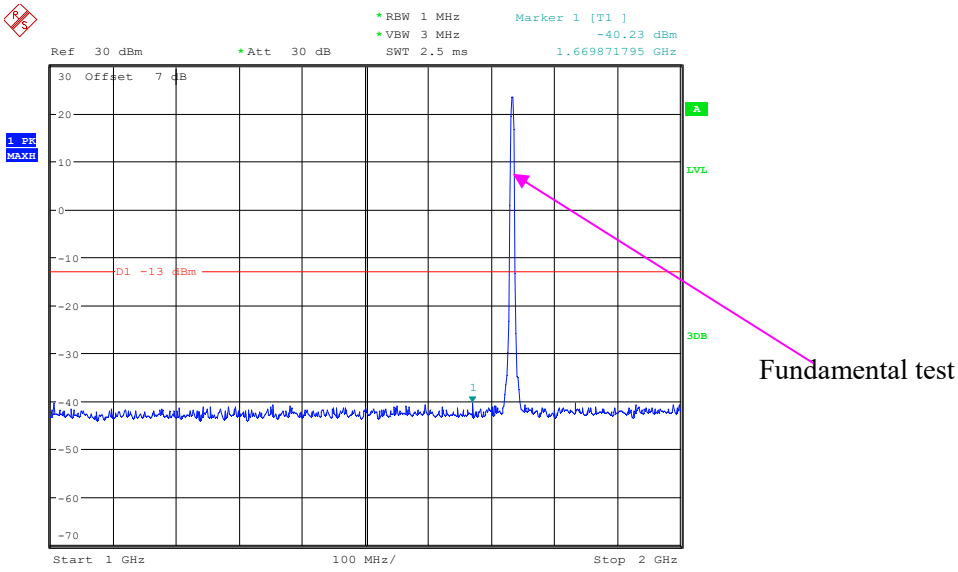
Middle Channel

30 MHz – 1 GHz (WCDMA Mode)



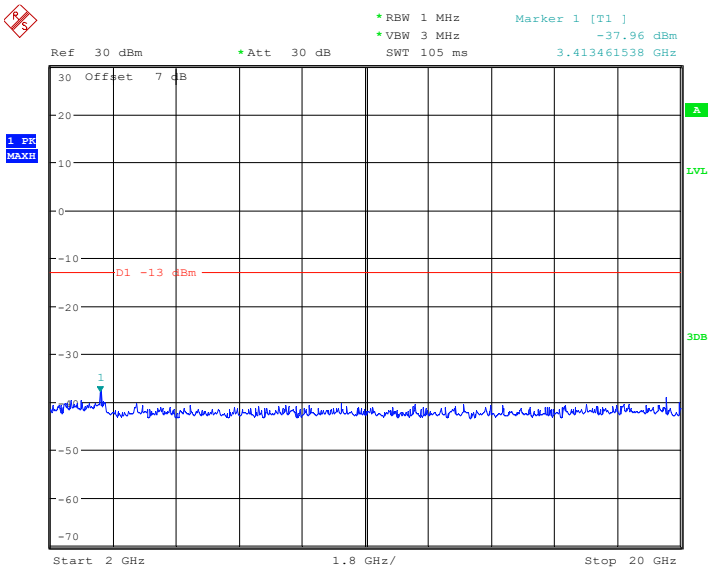
Date: 22.FEB.2022 10:55:11

1 GHz – 2 GHz (WCDMA Mode)



Date: 22.FEB.2022 10:56:27

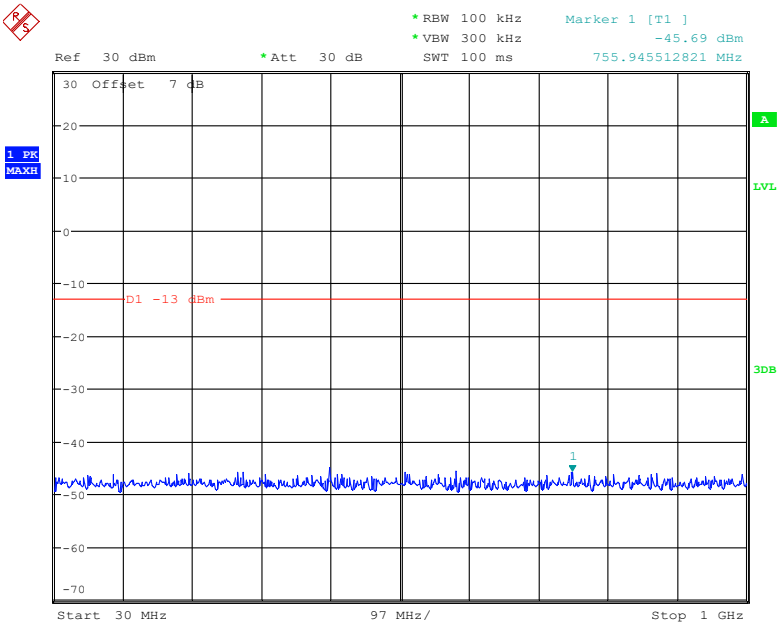
2 GHz – 20 GHz (WCDMA Mode)



Date: 22.FEB.2022 10:57:42

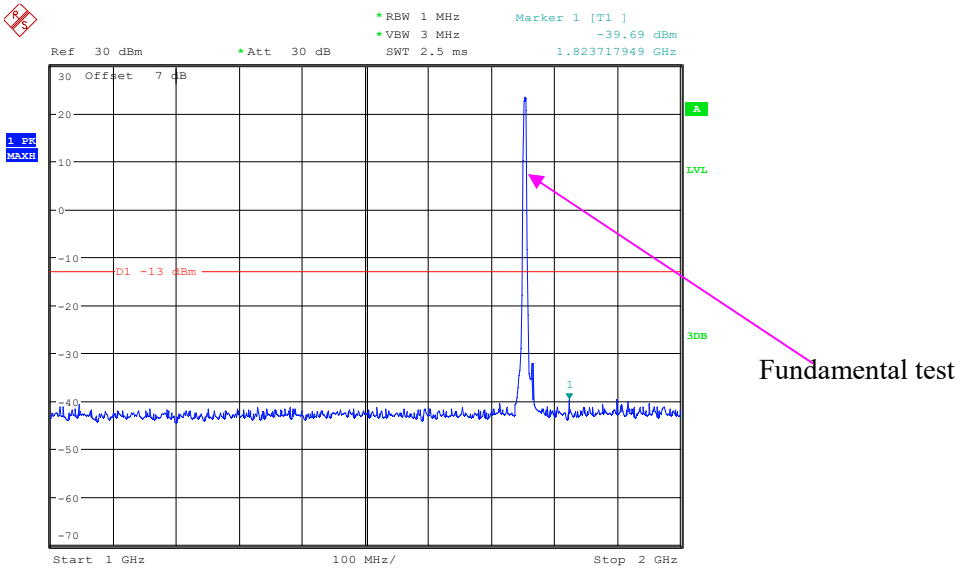
High Channel:

30 MHz – 1 GHz (WCDMA Mode)



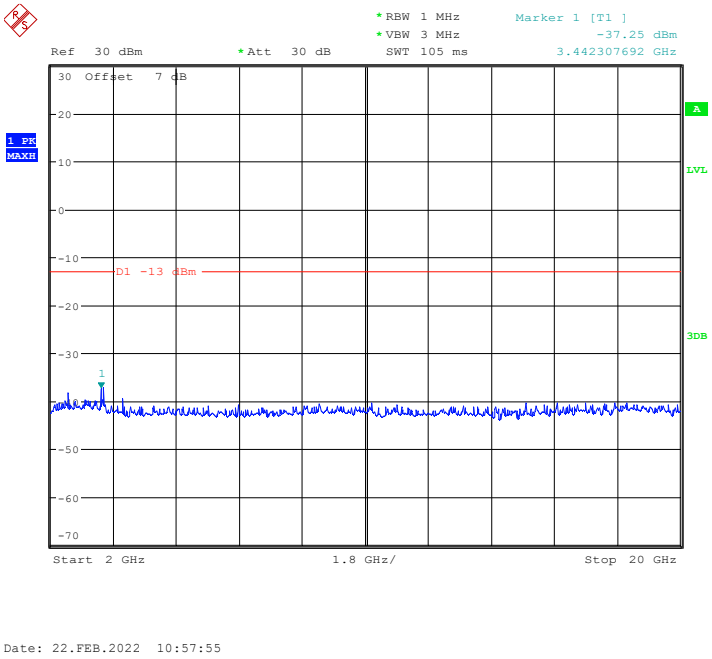
Date: 22.FEB.2022 10:55:25

1 GHz – 2 GHz (WCDMA Mode)



Date: 22.FEB.2022 10:55:47

2 GHz – 20 GHz (WCDMA Mode)



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:	21~25.5℃
Relative Humidity:	50~62 %
ATM Pressure:	101.0kPa

The testing was performed by Bin Deng on 2022-01-25 for below 1GHz and 2022-02-17 for above 1GHz.

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								
42.501	-74.92	297	2.0	H	6.6	-68.32	-13	-55.32
45.012	-69.01	146	1.5	V	1.4	-67.61	-13	-54.61
1648.4	-45.24	48	2.0	H	-9.06	-54.3	-13	-41.3
1648.4	-42.84	335	1.9	V	-9.06	-51.9	-13	-38.9
2472.6	-42.09	79	1.8	H	-7.21	-49.3	-13	-36.3
2472.6	-41.39	81	1.9	V	-7.21	-48.6	-13	-35.6
3296.8	-46.35	309	1.8	H	3.25	-43.1	-13	-30.1
3296.8	-46.76	196	1.6	V	3.16	-43.6	-13	-30.6
Middle Channel								
42.501	-74.49	45	2.0	H	6.6	-67.89	-13	-54.89
45.012	-69.62	58	1.7	V	1.4	-68.22	-13	-55.22
1673.2	-41.1	132	1.7	H	-9	-50.1	-13	-37.1
1673.2	-38.5	158	1.8	V	-9	-47.5	-13	-34.5
2509.8	-41.77	219	1.7	H	-7.13	-48.9	-13	-35.9
2509.8	-40.27	254	1.6	V	-7.13	-47.4	-13	-34.4
3346.4	-44.52	275	1.6	H	3.32	-41.2	-13	-28.2
3346.4	-45.14	307	2.0	V	3.24	-41.9	-13	-28.9
High Channel								
42.501	-74.66	360	1.6	H	6.6	-68.06	-13	-55.06
45.012	-69.55	284	1.5	V	1.4	-68.15	-13	-55.15
1697.6	-36.85	154	1.9	H	-8.95	-45.8	-13	-32.8
1697.6	-34.15	171	2.0	V	-8.95	-43.1	-13	-30.1
2546.4	-39.04	131	2.1	H	-6.96	-46	-13	-33
2546.4	-38.94	310	2.0	V	-6.96	-45.9	-13	-32.9
3395.2	-48.12	147	1.6	H	6.32	-41.8	-13	-28.8
3395.2	-48.71	185	2.0	V	6.21	-42.5	-13	-29.5

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								
42.501	-74.67	339	2.1	H	6.6	-68.07	-13	-55.07
45.012	-68.96	288	2.0	V	1.4	-67.56	-13	-54.56
1652.8	-58.8	226	1.9	H	3.5	-55.3	-13	-42.3
1652.8	-57.4	195	1.7	V	3.1	-54.3	-13	-41.3
2479.2	-56.5	140	1.7	H	6.5	-50	-13	-37
2479.2	-55.5	246	2.1	V	5.7	-49.8	-13	-36.8
3305.6	-51.4	199	1.7	H	6.4	-45	-13	-32
3305.6	-51.4	11	1.6	V	5.7	-45.7	-13	-32.7
Middle Channel								
42.501	-74.46	263	2.0	H	6.6	-67.86	-13	-54.86
45.012	-69.75	23	1.7	V	1.4	-68.35	-13	-55.35
1673.2	-57.2	139	1.9	H	3.8	-53.4	-13	-40.4
1673.2	-55.4	80	1.6	V	3.1	-52.3	-13	-39.3
2509.8	-56.2	31	1.7	H	6.2	-50	-13	-37
2509.8	-55.2	214	1.7	V	5.7	-49.5	-13	-36.5
3346.4	-51.5	334	2.1	H	6.6	-44.9	-13	-31.9
3346.4	-50.4	54	1.6	V	5.4	-45	-13	-32
High Channel								
42.501	-74.76	158	1.5	H	6.6	-68.16	-13	-55.16
45.012	-69.9	51	2.0	V	1.4	-68.5	-13	-55.5
1693.2	-58.6	220	1.8	H	4	-54.6	-13	-41.6
1693.2	-56.6	255	1.8	V	3.1	-53.5	-13	-40.5
2539.8	-55.7	116	2.1	H	6.1	-49.6	-13	-36.6
2539.8	-55	328	1.9	V	5.7	-49.3	-13	-36.3
3386.4	-51.2	123	1.9	H	6.3	-44.9	-13	-31.9
3386.4	-50.3	350	1.7	V	5.4	-44.9	-13	-31.9

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								
42.501	-75	188	1.8	H	6.6	-68.4	-13	-55.4
45.012	-69.27	132	1.8	V	1.4	-67.87	-13	-54.87
3700.4	-41.2	294	1.6	H	-5.7	-46.9	-13	-33.9
3700.4	-40.4	135	1.6	V	-5.7	-46.1	-13	-33.1
Middle Channel								
42.501	-74.96	123	1.5	H	6.6	-68.36	-13	-55.36
45.012	-69.81	128	1.8	V	1.4	-68.41	-13	-55.41
3760	-41.8	228	2.1	H	-5.7	-47.5	-13	-34.5
3760	-41	74	1.7	V	-5.7	-46.7	-13	-33.7
High Channel								
42.501	-74.44	57	1.8	H	6.6	-67.84	-13	-54.84
45.012	-69.7	147	2.1	V	1.4	-68.3	-13	-55.3
3819.6	-41.24	227	2.0	H	-5.66	-46.9	-13	-33.9
3819.6	-40.64	31	1.9	V	-5.66	-46.3	-13	-33.3

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 2								
Low Channel								
42.501	-74.33	353	1.9	H	6.6	-67.73	-13	-54.73
45.012	-68.97	114	1.6	V	1.4	-67.57	-13	-54.57
3704.8	-54.8	91	1.9	H	8.2	-46.6	-13	-33.6
3704.8	-53.7	12	1.9	V	7.6	-46.1	-13	-33.1
Middle Channel								
42.501	-74.17	21	1.7	H	6.6	-67.57	-13	-54.57
45.012	-69.07	115	1.5	V	1.4	-67.67	-13	-54.67
3760	-56.2	42	1.9	H	8.8	-47.4	-13	-34.4
3760	-54.4	159	1.6	V	8	-46.4	-13	-33.4
High Channel								
42.501	-74.64	72	1.7	H	6.6	-68.04	-13	-55.04
45.012	-69.58	22	1.7	V	1.4	-68.18	-13	-55.18
3815.2	-55.6	72	1.6	H	8.7	-46.9	-13	-33.9
3815.2	-53.8	136	1.6	V	7.9	-45.9	-13	-32.9

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								
42.501	-74.5	164	2.1	H	6.6	-67.9	-13	-54.9
45.012	-69.14	355	1.6	V	1.4	-67.74	-13	-54.74
3424.8	-50.4	215	1.8	H	6.4	-44	-13	-31
3424.8	-49.5	77	2.0	V	5.8	-43.7	-13	-30.7
5137.2	-55.9	127	1.9	H	11.4	-44.5	-13	-31.5
5137.2	-55	281	1.8	V	10.8	-44.2	-13	-31.2
Middle Channel								
42.501	-74.52	67	1.9	H	6.6	-67.92	-13	-54.92
45.012	-69.37	96	1.6	V	1.4	-67.97	-13	-54.97
3465.2	-50.8	37	1.5	H	7	-43.8	-13	-30.8
3465.2	-50.2	312	1.7	V	6.2	-44	-13	-31
5197.8	-54.7	269	2.0	H	10.4	-44.3	-13	-31.3
5197.8	-53.1	49	1.5	V	9.8	-43.3	-13	-30.3
High Channel								
42.501	-74.65	23	1.9	H	6.6	-68.05	-13	-55.05
45.012	-69.43	94	2.0	V	1.4	-68.03	-13	-55.03
3505.2	-51.3	302	1.8	H	7.8	-43.5	-13	-30.5
3505.2	-50.3	28	1.6	V	6.5	-43.8	-13	-30.8
5257.8	-53.3	46	1.8	H	9.4	-43.9	-13	-30.9
5257.8	-51.9	66	2.0	V	9	-42.9	-13	-29.9

LTE Band: *(Pre-scan with all the bandwidth, 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								
1.4MHz bandwidth, Low Channel								
42.501	-75.56	265	2.1	H	6.6	-68.96	-13	-55.96
45.012	-70.03	283	2.0	V	1.4	-68.63	-13	-55.63
3701.4	-55.4	128	1.9	H	8.1	-47.3	-13	-34.3
3701.4	-53.5	49	1.9	V	7.6	-46.6	-13	-33.6
5552.1	-53.5	324	2.0	H	9.6	-44	-13	-31
5552.1	-53.7	207	2.1	V	9.1	-44.2	-13	-31.2
1.4MHz bandwidth, Middle Channel								
42.501	-73.83	173	1.9	H	6.6	-67.23	-13	-54.23
45.012	-69.15	321	1.6	V	1.4	-67.75	-13	-54.75
3760	-56.3	205	1.9	H	8.8	-47.5	-13	-34.5
3760	-54.3	54	1.6	V	8.0	-46.9	-13	-33.9
5640	-55.2	48	2.1	H	10.2	-44.9	-13	-31.9
5640	-53.2	303	1.7	V	9.4	-43.8	-13	-30.8
1.4MHz bandwidth, High Channel								
42.501	-74.38	8	2.0	H	6.6	-67.78	-13	-54.78
45.012	-69.04	316	1.8	V	1.4	-67.64	-13	-54.64
3818.6	-56.2	307	1.9	H	8.7	-47.5	-13	-34.5
3818.6	-54.9	26	1.6	V	8	-46.9	-13	-33.9
5727.9	-55.5	100	1.5	H	10.6	-44.9	-13	-31.9
5727.9	-54.1	315	2.0	V	10.2	-43.9	-13	-30.9

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 4								
Test frequency range: 30MHz-20GHz								
1.4MHz bandwidth, Low Channel								
42.501	-74.02	312	1.5	H	6.6	-67.42	-13	-54.42
45.012	-68.55	236	1.6	V	1.4	-67.15	-13	-54.15
3421.4	-51.07	43	2.1	H	6.37	-44.7	-13	-31.7
3421.4	-50.5	80	1.5	V	5.7	-44.8	-13	-31.8
5132.1	-56.63	75	1.5	H	11.33	-45.3	-13	-32.3
5132.1	-56.47	135	1.6	V	10.77	-45.7	-13	-32.7
1.4MHz bandwidth, Middle Channel								
42.501	-74.12	121	1.6	H	6.6	-67.52	-13	-54.52
45.012	-68.99	329	1.5	V	1.4	-67.59	-13	-54.59
3465	-51.06	96	2.0	H	6.96	-44.1	-13	-31.1
3465	-51.32	151	2.0	V	6.22	-45.1	-13	-32.1
5197.5	-55.26	3	1.8	H	10.36	-44.9	-13	-31.9
5197.5	-54.75	211	1.5	V	9.85	-44.9	-13	-31.9
1.4MHz bandwidth, High Channel								
42.501	-74.21	72	1.7	H	6.6	-67.61	-13	-54.61
45.012	-68.73	337	1.8	V	1.4	-67.33	-13	-54.33
3508.6	-52.18	205	1.9	H	7.78	-44.4	-13	-31.4
3508.6	-51.97	56	1.8	V	6.57	-45.4	-13	-32.4
5262.9	-53.55	262	1.8	H	9.45	-44.1	-13	-31.1
5262.9	-52.95	24	1.6	V	8.95	-44	-13	-31

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								
1.4MHz bandwidth, Low Channel								
42.501	-74.63	187	1.9	H	6.6	-68.03	-13	-55.03
45.012	-69.44	216	1.8	V	1.4	-68.04	-13	-55.04
1649.4	-56.1	40	1.6	H	3.2	-52.9	-13	-39.9
1649.4	-53.9	326	1.8	V	3.1	-50.8	-13	-37.8
2474.1	-54.1	153	2.0	H	6.6	-47.5	-13	-34.5
2474.1	-53.6	253	1.6	V	5.8	-47.8	-13	-34.8
3298.8	-48.2	231	1.6	H	6.4	-41.8	-13	-28.8
3298.8	-48.8	11	2.0	V	5.7	-43.1	-13	-30.1
1.4MHz bandwidth, Middle Channel								
42.501	-74.23	164	1.6	H	6.6	-67.63	-13	-54.63
45.012	-69.77	265	1.8	V	1.4	-68.37	-13	-55.37
1673	-53.7	18	1.5	H	3.8	-49.9	-13	-36.9
1673	-51	207	1.7	V	3.1	-47.9	-13	-34.9
2509.5	-54.2	305	1.5	H	6.2	-48	-13	-35
2509.5	-53.5	39	1.6	V	5.6	-47.9	-13	-34.9
3346	-47.3	80	1.8	H	6.6	-40.7	-13	-27.7
3346	-47.8	34	1.6	V	5.4	-42.4	-13	-29.4
1.4MHz bandwidth, High Channel								
42.501	-75.52	94	1.9	H	6.6	-68.92	-13	-55.92
45.012	-69.61	314	1.8	V	1.4	-68.21	-13	-55.21
1696.6	-53.6	311	1.9	H	4.1	-49.5	-13	-36.5
1696.6	-49.9	119	1.7	V	3.1	-46.8	-13	-33.8
2544.9	-52.4	195	1.8	H	6.1	-46.3	-13	-33.3
2544.9	-52.3	351	1.6	V	5.8	-46.5	-13	-33.5
3393.2	-47	4	1.5	H	6.3	-40.7	-13	-27.7
3393.2	-47.2	19	1.9	V	5.4	-41.8	-13	-28.8

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								
5MHz bandwidth, Low Channel								
42.501	-75.04	271	1.8	H	6.6	-68.44	-25	-43.44
45.012	-68.65	295	1.6	V	1.4	-67.25	-25	-42.25
5005	-57.03	348	2.1	H	10.83	-46.2	-25	-21.2
5005	-56.26	98	1.7	V	10.16	-46.1	-25	-21.1
7507.5	-63.25	359	1.8	H	20.35	-42.9	-25	-17.9
7507.5	-62.35	251	1.5	V	20.05	-42.3	-25	-17.3
5MHz bandwidth, Middle Channel								
42.501	-75.13	111	1.7	H	6.6	-68.53	-25	-43.53
45.012	-69.86	188	1.8	V	1.4	-68.46	-25	-43.46
5070	-56.44	307	2.0	H	11.14	-45.3	-25	-20.3
5070	-56.28	59	2.0	V	10.78	-45.5	-25	-20.5
7605	-65.9	64	1.5	H	21.2	-44.7	-25	-19.7
7605	-64.37	14	1.9	V	20.07	-44.3	-25	-19.3
5MHz bandwidth, High Channel								
42.501	-74.88	185	1.8	H	6.6	-68.28	-25	-43.28
45.012	-69.61	313	1.8	V	1.4	-68.21	-25	-43.21
5135	-56.14	206	1.9	H	11.34	-44.8	-25	-19.8
5135	-56.06	216	1.8	V	10.76	-45.3	-25	-20.3
7702.5	-65.39	219	2.0	H	21.19	-44.2	-25	-19.2
7702.5	-64.69	321	1.6	V	20.99	-43.7	-25	-18.7

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								
5MHz, Low Channel								
42.501	-74.55	66	1.7	H	6.6	-67.95	-25	-42.95
45.012	-69.23	338	1.9	V	1.4	-67.83	-25	-42.83
5145	-55.98	281	1.5	H	11.38	-44.6	-25	-19.6
5145	-55.92	14	1.8	V	10.72	-45.2	-25	-20.2
7717.5	-66.7	188	2.0	H	21.2	-45.5	-25	-20.5
7717.5	-64.9	298	1.6	V	20.2	-44.7	-25	-19.7
5MHz, Middle Channel								
42.501	-75.31	60	1.7	H	6.6	-68.71	-25	-43.71
45.012	-69.11	124	2.1	V	1.4	-67.71	-25	-42.71
5190	-54.92	238	2.1	H	10.52	-44.4	-25	-19.4
5190	-54.58	12	2.1	V	9.98	-44.6	-25	-19.6
7785	-62.46	228	1.9	H	18.26	-44.2	-25	-19.2
7785	-61.49	192	2.1	V	17.99	-43.5	-25	-18.5
5MHz, High Channel								
42.501	-74.97	315	1.5	H	6.6	-68.37	-25	-43.37
45.012	-68.53	32	1.8	V	1.4	-67.13	-25	-42.13
5235	-53.57	63	1.9	H	9.67	-43.9	-25	-18.9
5235	-53.14	321	2.0	V	9.24	-43.9	-25	-18.9
7852.5	-61.83	345	2.0	H	18.23	-43.6	-25	-18.6
7852.5	-60.62	235	1.7	V	17.62	-43	-25	-18

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 41								
Test frequency range: 1-26.5GHz								
5MHz, Low Channel								
45.134	-75.94	119	1.5	H	6.58	-69.36	-25	-44.36
40.356	-61.04	44	2.0	V	2.06	-58.98	-25	-33.98
5075	-55.4	73	1.9	H	11.2	-44.2	-25	-19.2
5075	-55.4	351	2.0	V	10.8	-44.6	-25	-19.6
7612.5	-66	327	1.7	H	21.2	-44.8	-25	-19.8
7612.5	-64.6	349	1.9	V	20.2	-44.4	-25	-19.4
5MHz bandwidth, Middle Channel								
45.134	-75.59	302	2.0	H	6.58	-69.01	-25	-44.01
40.356	-60.75	156	1.6	V	2.06	-58.69	-25	-33.69
5190	-54.32	231	2.1	H	10.52	-43.8	-25	-18.8
5190	-53.68	289	2.0	V	9.98	-43.7	-25	-18.7
7785	-61.56	5	1.8	H	18.26	-43.3	-25	-18.3
7785	-60.99	148	1.7	V	17.99	-43	-25	-18
5MHz bandwidth, High Channel								
45.134	-75.66	115	1.7	H	6.58	-69.08	-25	-44.08
40.356	-61.14	328	2.0	V	2.06	-59.08	-25	-34.08
5305	-52.5	232	1.6	H	9.6	-42.9	-25	-17.9
5305	-51.6	71	2.0	V	8.8	-42.8	-25	-17.8
7957.5	-63.5	253	2.1	H	18.9	-44.6	-25	-19.6
7957.5	-62.7	86	1.6	V	18.5	-44.2	-25	-19.2

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

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

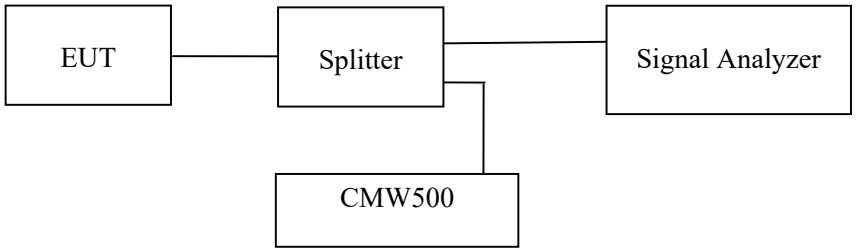
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to FCC §27.53 (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:	27.6 ℃
Relative Humidity:	58 %
ATM Pressure:	101.0 kPa

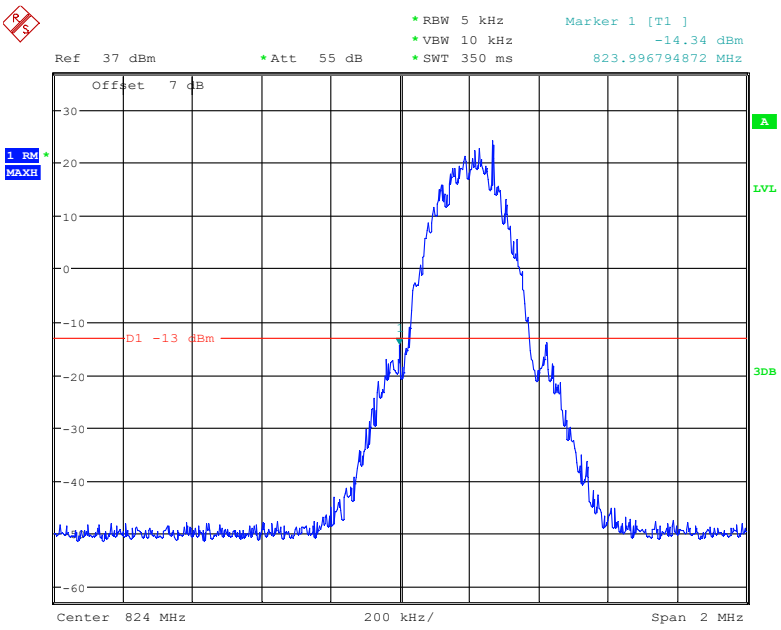
The testing was performed by Gala Liu from 2022-02-21 to 2022-03-11.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

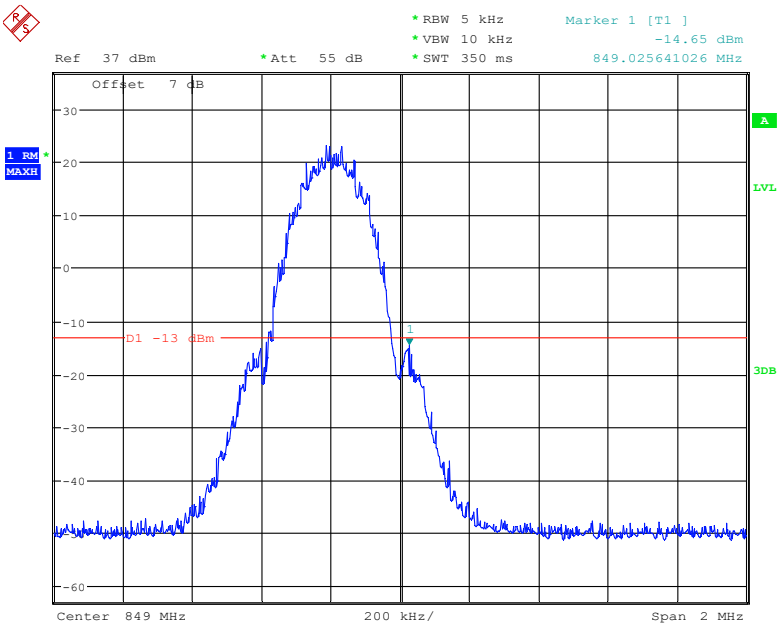
Please refer to the following plots.

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



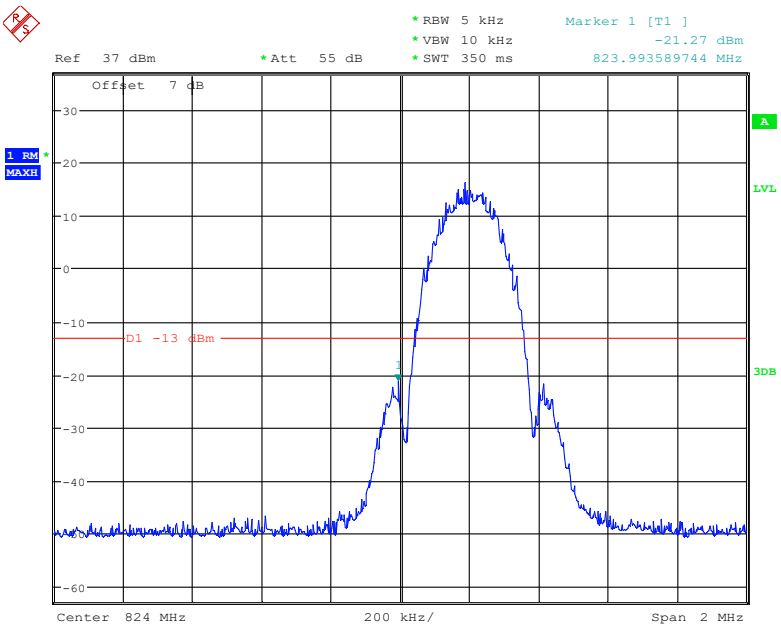
Date: 22.FEB.2022 09:11:56

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



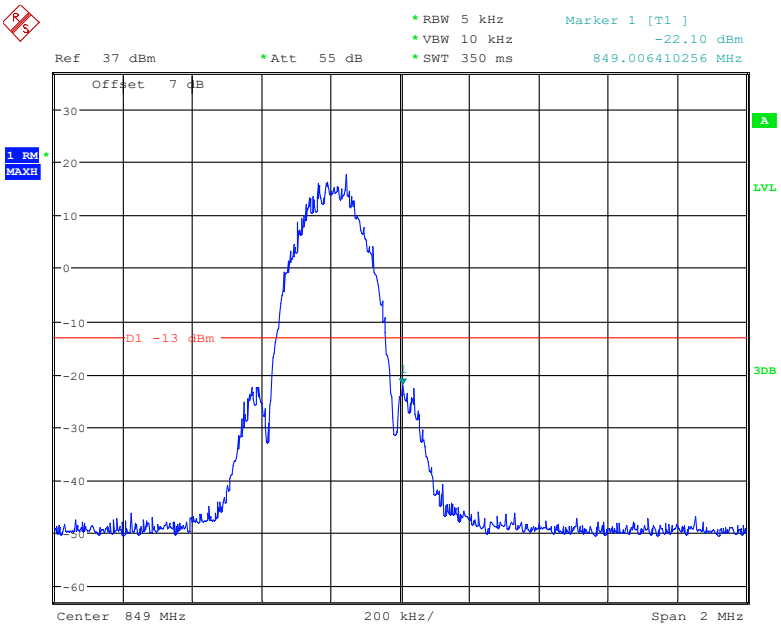
Date: 22.FEB.2022 09:10:10

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



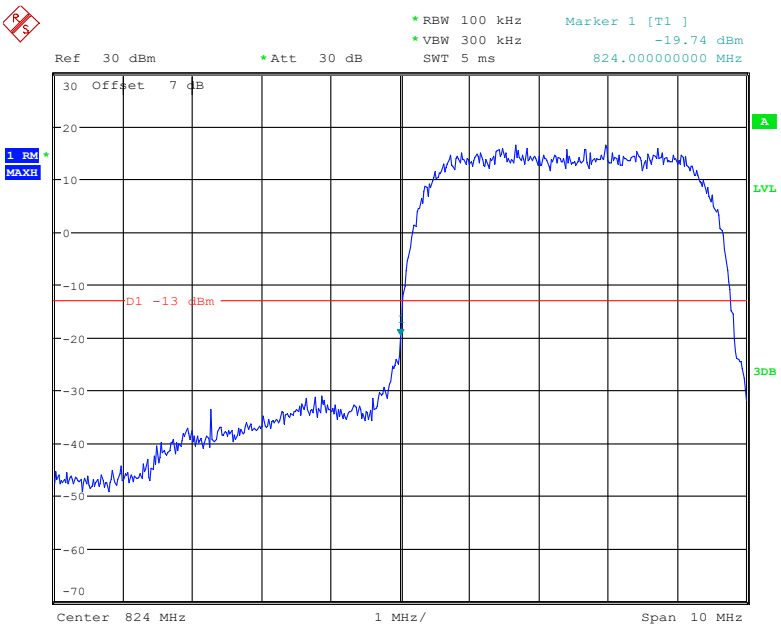
Date: 22.FEB.2022 09:15:05

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



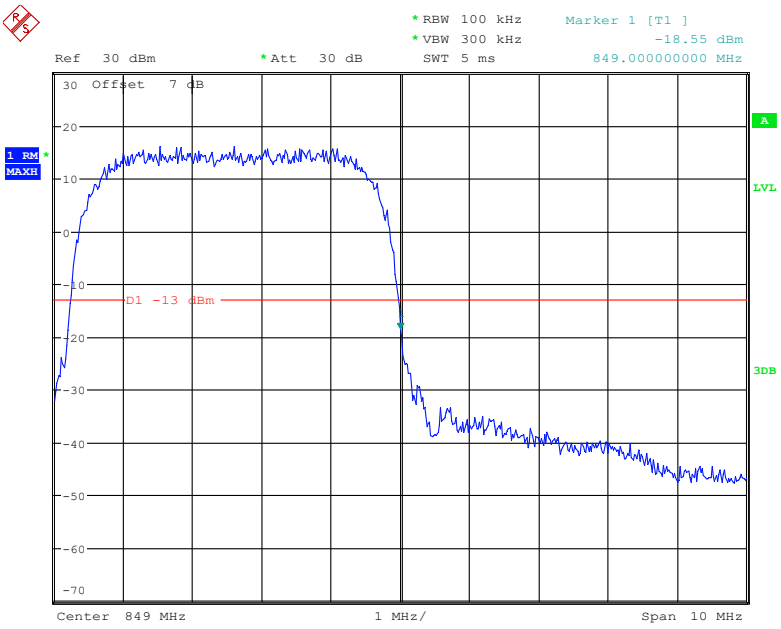
Date: 22.FEB.2022 09:16:06

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



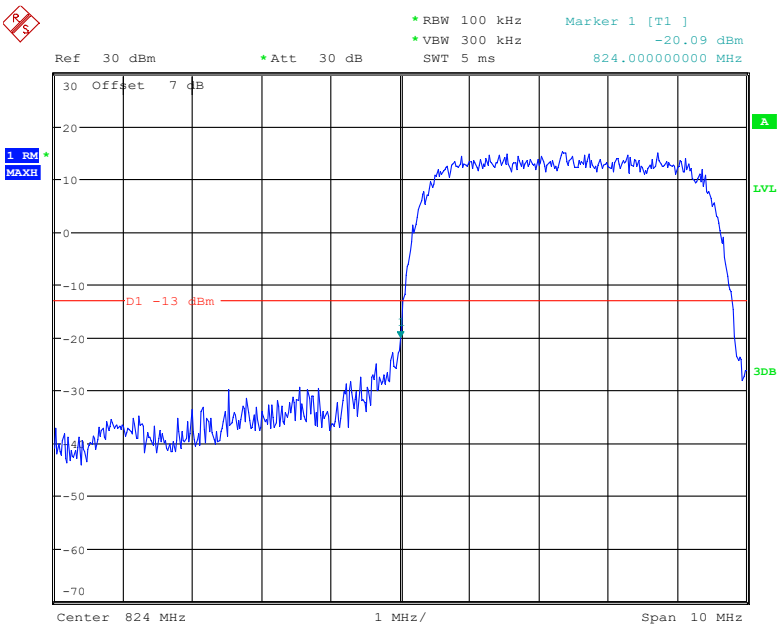
Date: 21.FEB.2022 18:32:51

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



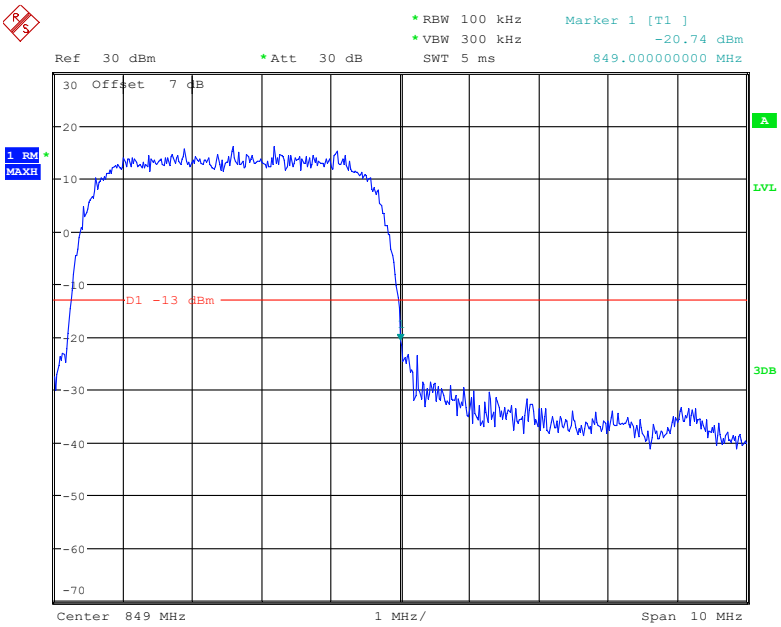
Date: 21.FEB.2022 18:33:09

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



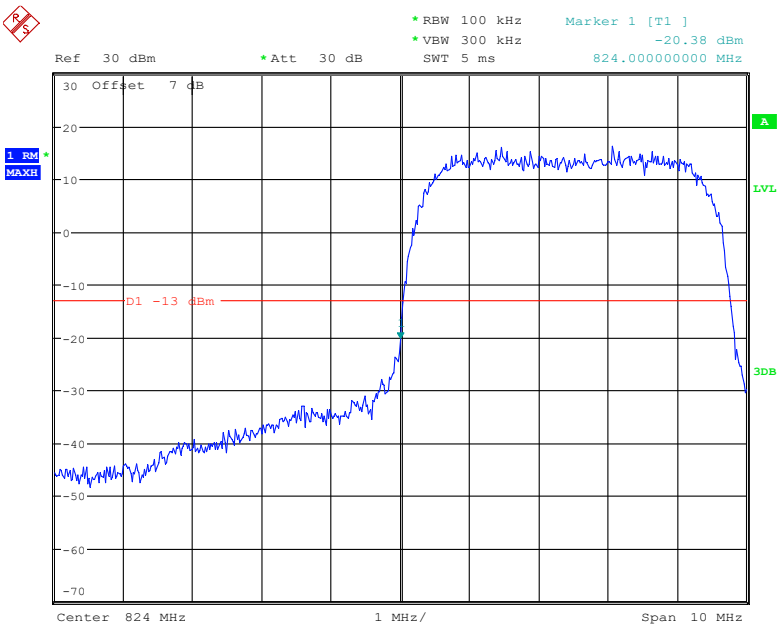
Date: 21.FEB.2022 18:52:14

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



Date: 21.FEB.2022 18:51:54

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



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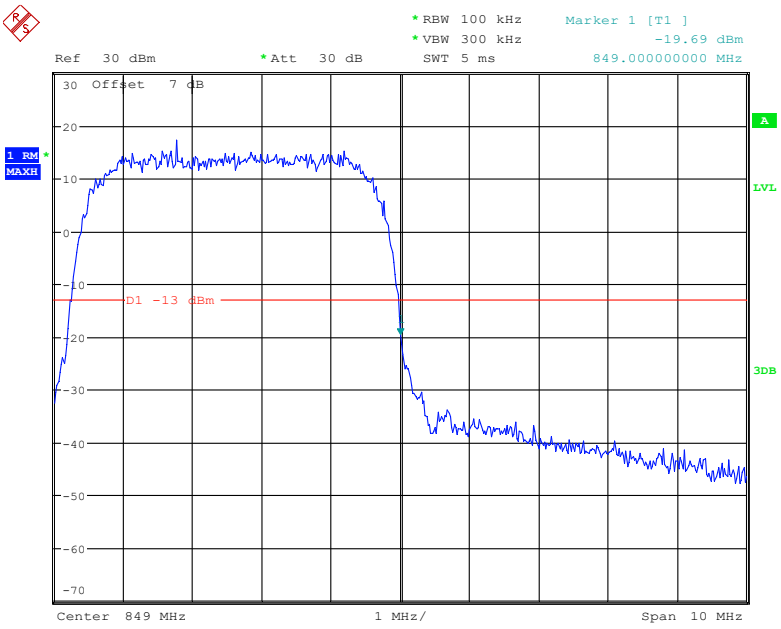
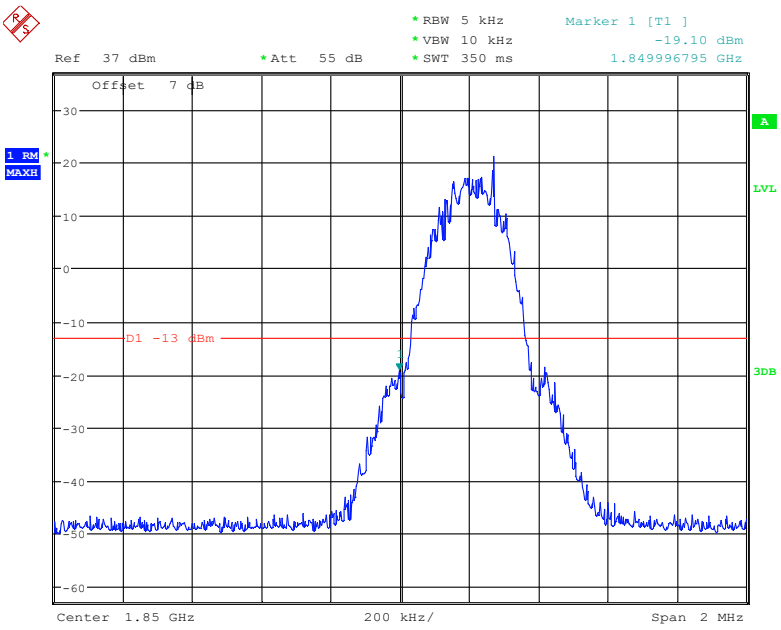
Cellular Band, Right Band Edge for HSUPA (BPSK) Mode

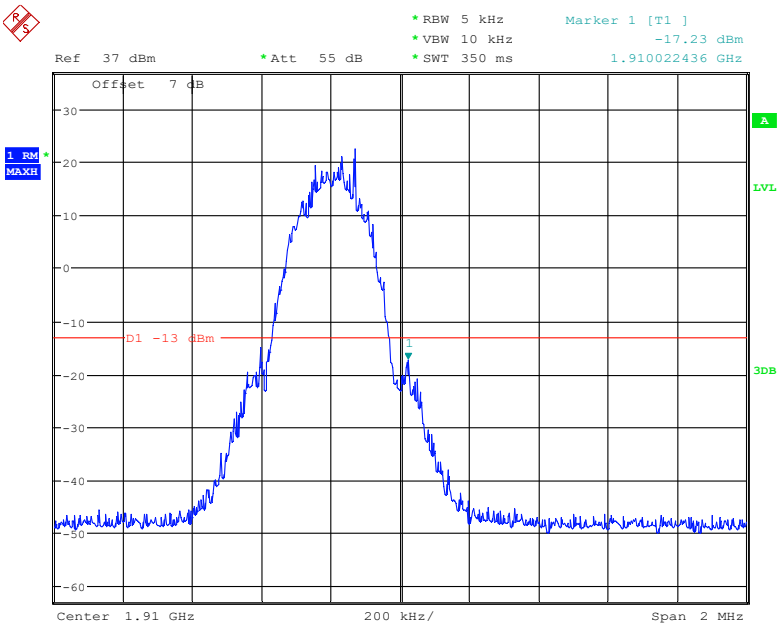


Date: 21.FEB.2022 18:56:13

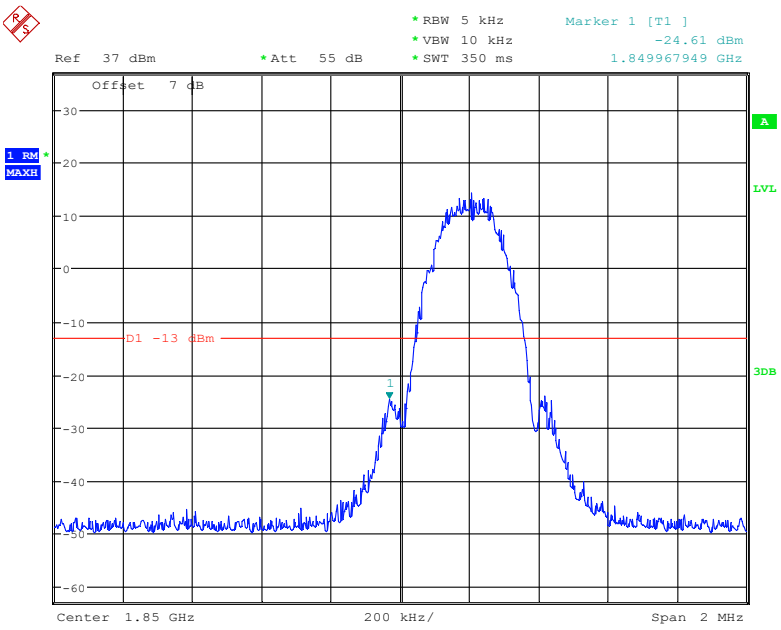
PCS Band, Left Band Edge for GSM (GMSK) Mode



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

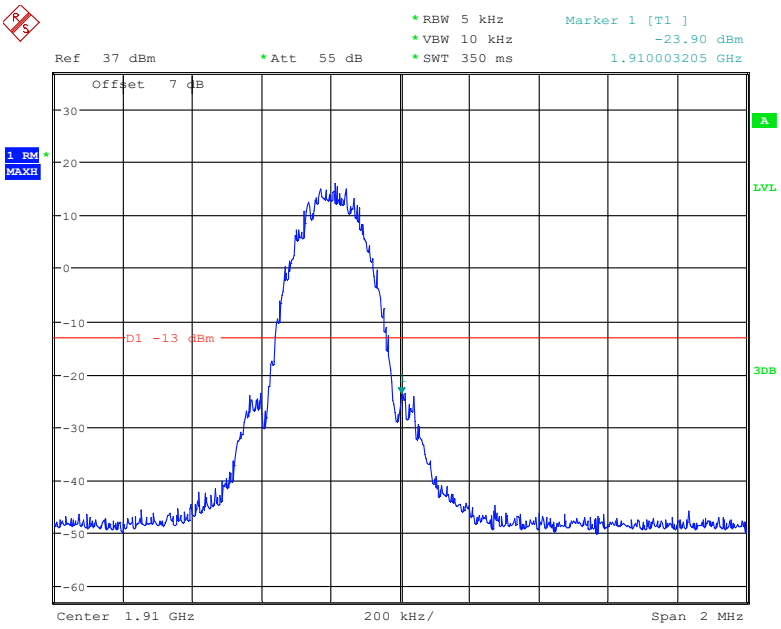


PCS Band, Left Band Edge for EGPRS (8PSK) Mode



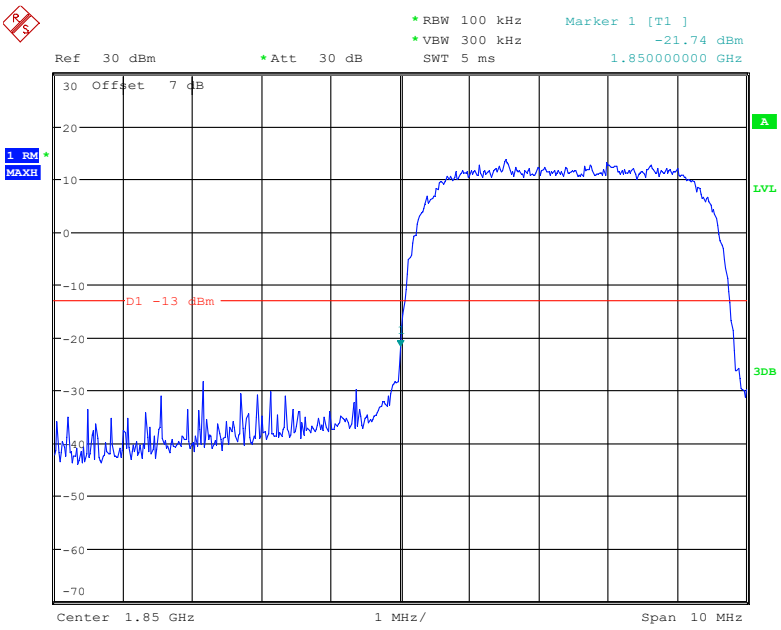
Date: 22.FEB.2022 09:30:04

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



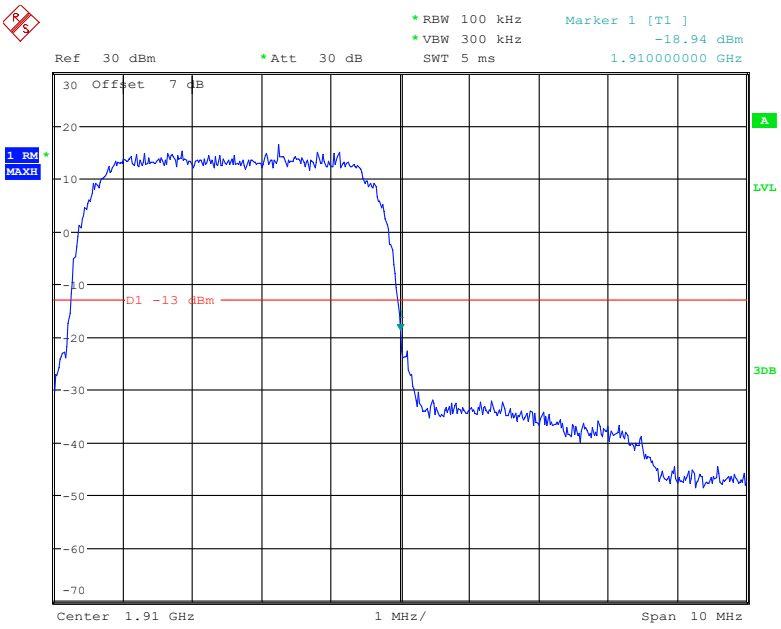
Date: 22.FEB.2022 09:30:49

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



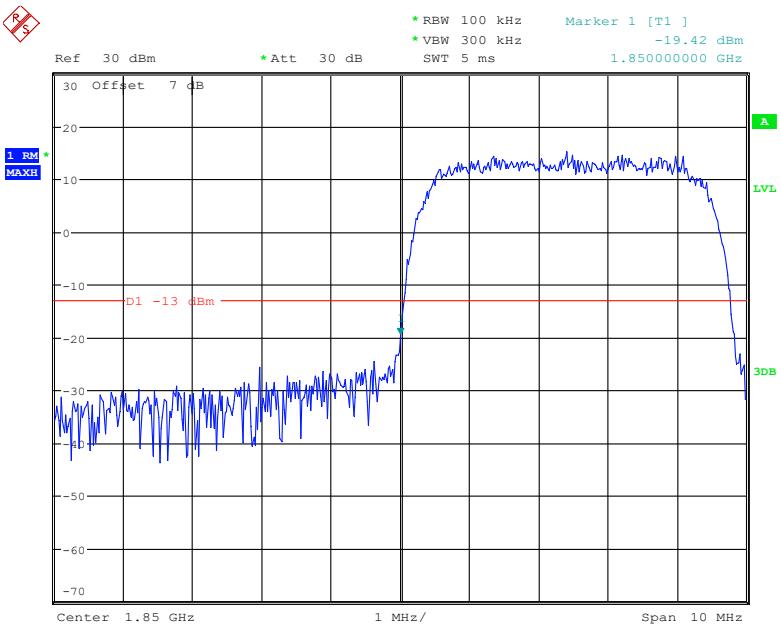
Date: 21.FEB.2022 18:31:28

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



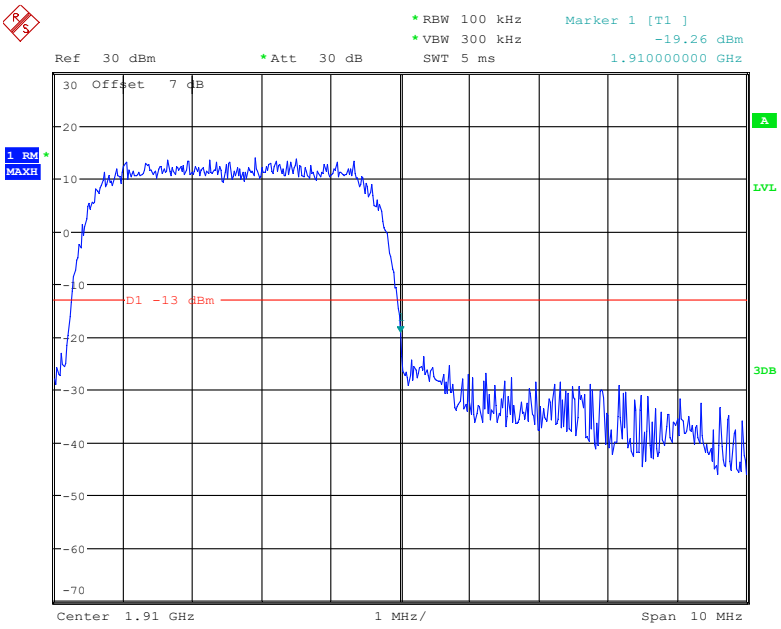
Date: 21.FEB.2022 18:32:30

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



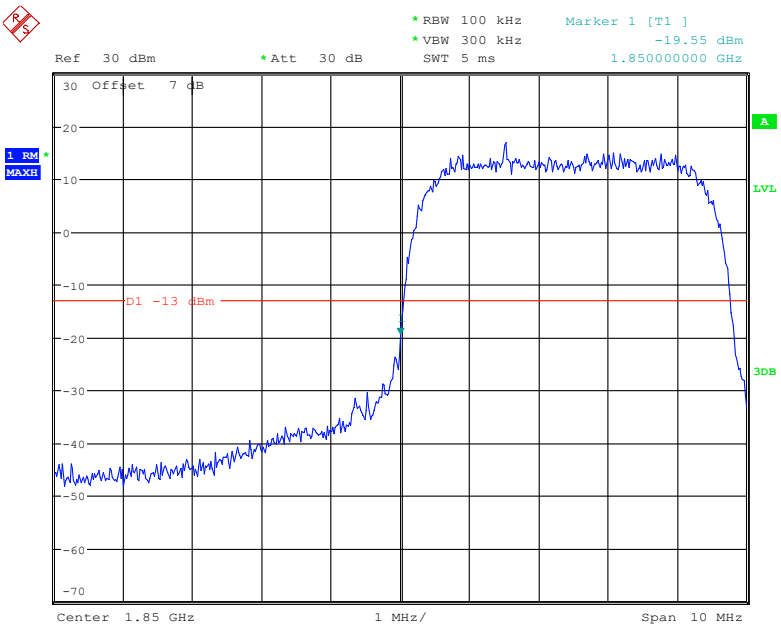
Date: 21.FEB.2022 18:52:33

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



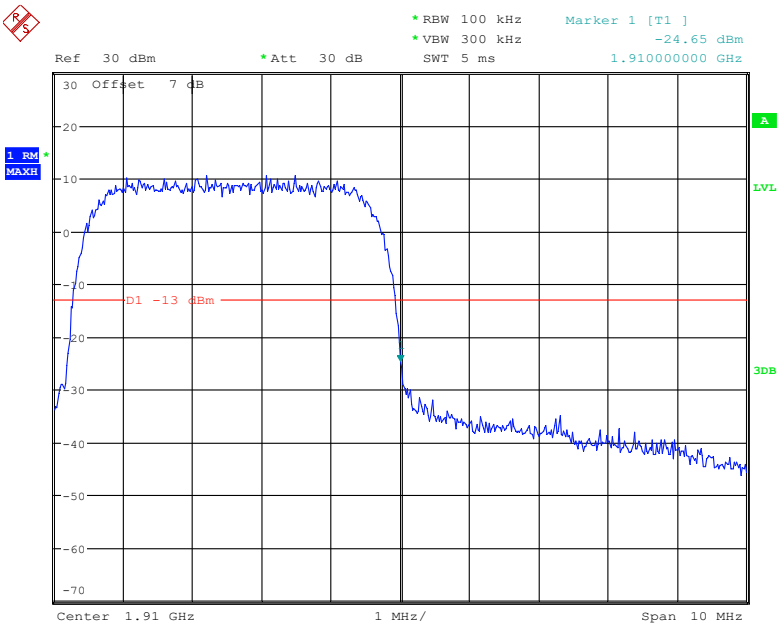
Date: 21.FEB.2022 18:52:50

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



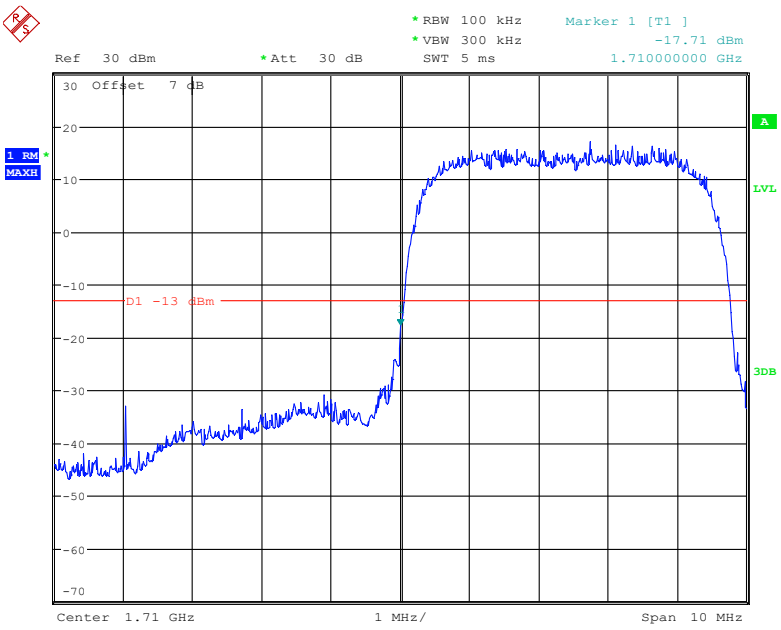
Date: 21.FEB.2022 18:55:41

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



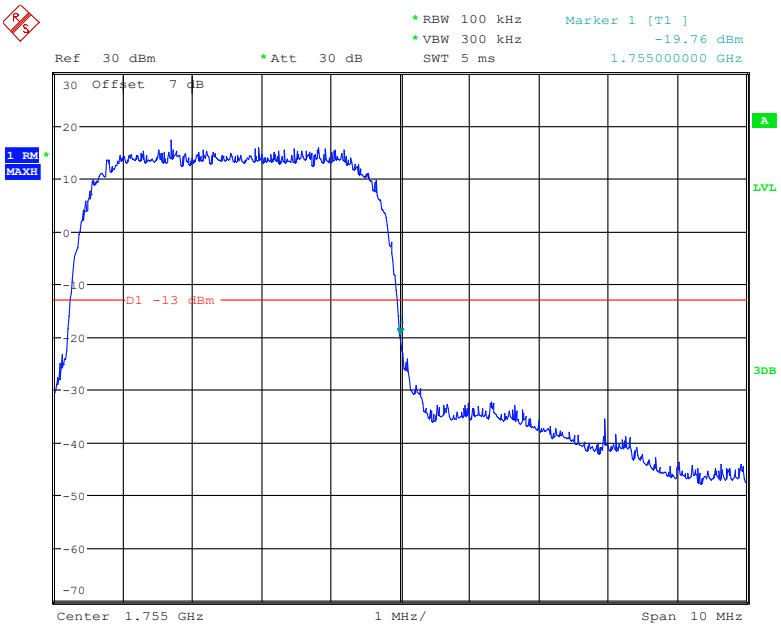
Date: 21.FEB.2022 18:54:51

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



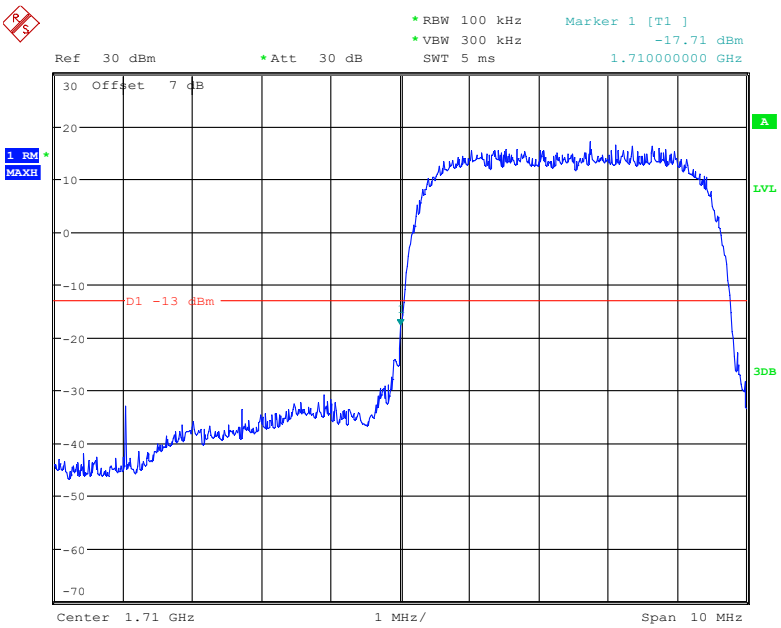
Date: 22.FEB.2022 10:38:01

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



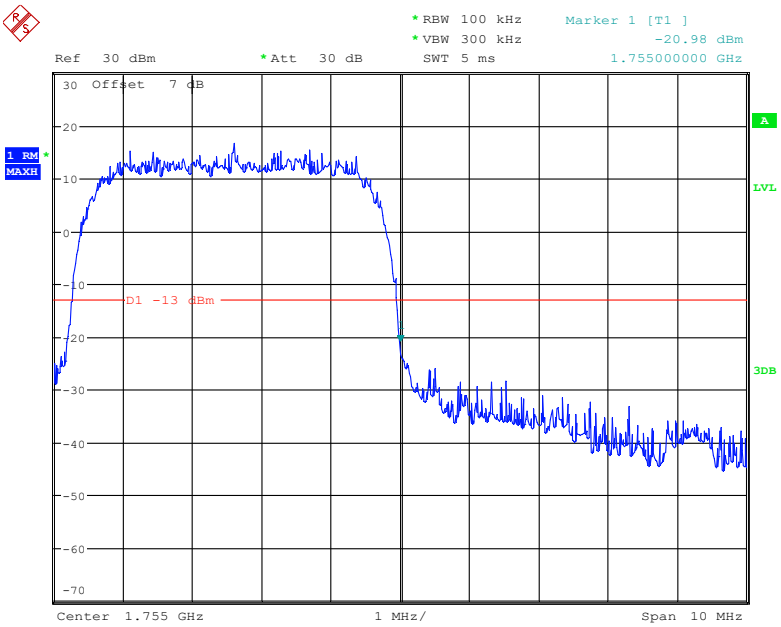
Date: 22.FEB.2022 10:37:41

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



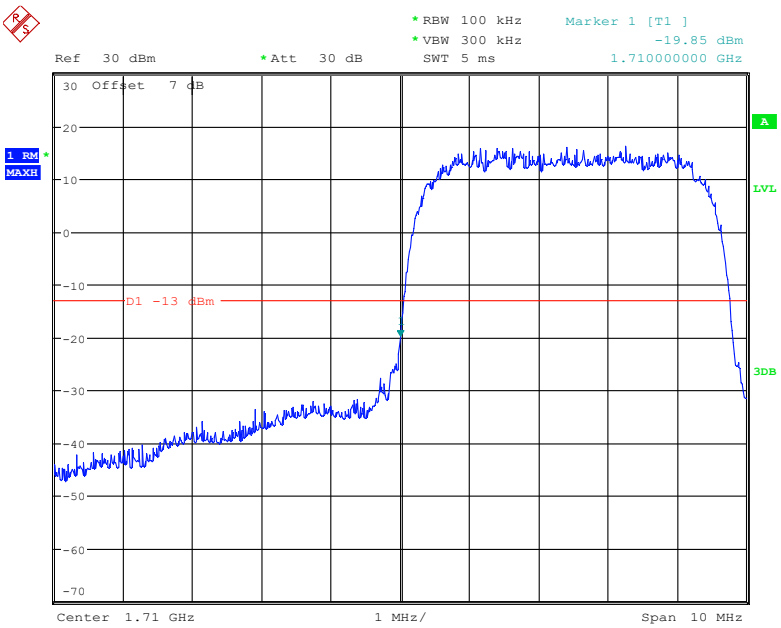
Date: 22.FEB.2022 10:38:01

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



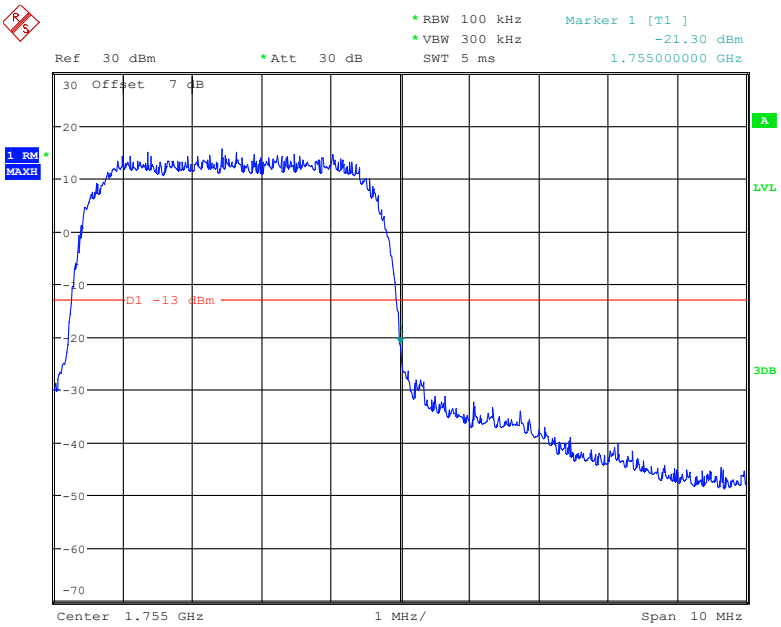
Date: 22.FEB.2022 10:39:38

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



Date: 22.FEB.2022 10:52:55

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



Date: 22.FEB.2022 10:53:18

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

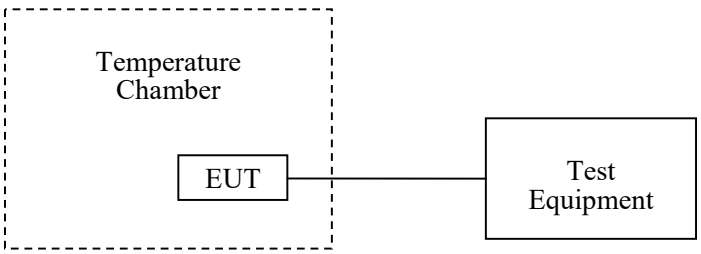
According to §24.235&§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

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:	27.6 ℃
Relative Humidity:	58 %
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu from 2022-02-21 to 2022-02-22.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

Cellular Band (Part 22H)

GSM Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	7	0.0084	2.5
-20		-4	-0.0048	2.5
-10		3	0.0036	2.5
0		6	0.0072	2.5
10		-3	-0.0036	2.5
20		-2	-0.0024	2.5
30		6	0.0072	2.5
40		7	0.0084	2.5
50		-2	-0.0024	2.5
20	L.V.	4	0.0048	2.5
	H.V.	5	0.0060	2.5

EGPRS Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	2	0.0024	2.5
-20		3	0.0036	2.5
-10		-7	-0.0084	2.5
0		-8	-0.0096	2.5
10		9	0.0108	2.5
20		-2	-0.0024	2.5
30		7	0.0084	2.5
40		-6	-0.0072	2.5
50		5	0.0060	2.5
20	L.V.	4	0.0048	2.5
	H.V.	8	0.0096	2.5

WCDMA Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	N.V.	2.02	0.0024	2.5
-20		3.54	0.0042	2.5
-10		1.03	0.0012	2.5
0		2.41	0.0029	2.5
10		1.02	0.0012	2.5
20		0.97	0.0012	2.5
30		0.86	0.0010	2.5
40		1.22	0.0015	2.5
50		2.12	0.0025	2.5
20	L.V.	3.38	0.0040	2.5
	H.V.	2.55	0.0030	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.	-6	-0.0032	pass
-20		8	0.0043	pass
-10		7	0.0037	pass
0		8	0.0043	pass
10		-4	-0.0021	pass
20		4	0.0021	pass
30		-6	-0.0032	pass
40		-7	-0.0037	pass
50		8	0.0043	pass
20	L.V.	10	0.0053	pass
	H.V.	8	0.0043	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.	-5	-0.0027	pass
-20		-7	-0.0037	pass
-10		5	0.0027	pass
0		3	0.0016	pass
10		-4	-0.0021	pass
20		-3	-0.0016	pass
30		-3	-0.0016	pass
40		8	0.0043	pass
50		9	0.0048	pass
20	L.V.	3	0.0016	pass
	H.V.	6	0.0032	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.	-8.25	-0.0044	pass
-20		-10.22	-0.0054	pass
-10		-9.25	-0.0049	pass
0		-8.22	-0.0044	pass
10		-6.17	-0.0033	pass
20		-4.56	-0.0024	pass
30		-5.36	-0.0029	pass
40		-6.68	-0.0036	pass
50		-7.35	-0.0039	pass
20	L.V.	-8.22	-0.0044	pass
	H.V.	-9.21	-0.0049	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.	1710.0578	1754.9777	1710	1755
-20		1710.0465	1754.9756	1710	1755
-10		1710.0244	1754.9748	1710	1755
0		1710.0232	1754.9765	1710	1755
10		1710.0151	1754.9787	1710	1755
20		1710.0145	1754.9772	1710	1755
30		1710.0144	1754.9786	1710	1755
40		1710.0159	1754.9752	1710	1755
50		1710.0145	1754.9788	1710	1755
20	L.V.	1710.0136	1754.9764	1710	1755
	H.V.	1710.0122	1754.9736	1710	1755

LTE:
QPSK:
Band 2:

10.0 MHz Middle Channel, f_o =1880MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	7.6	27.47	0.0146	pass
-20		-9.97	-0.0053	pass
-10		-6.13	-0.0033	pass
0		6.17	0.0033	pass
10		7.92	0.0042	pass
20		6.46	0.0034	pass
30		-6.52	-0.0035	pass
40		7.18	0.0038	pass
50		-9.69	-0.0052	pass
20	L.V.	-8.17	-0.0043	pass
	H.V.	-7.05	-0.0038	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.	1710.3389	1754.8756	1710	1755
-20		1710.3246	1754.8767	1710	1755
-10		1710.2342	1754.8758	1710	1755
0		1710.2239	1754.8744	1710	1755
10		1710.2555	1754.8739	1710	1755
20		1710.3347	1754.8752	1710	1755
30		1710.3462	1754.8745	1710	1755
40		1710.3157	1754.8723	1710	1755
50		1710.2288	1754.8757	1710	1755
20	L.V.	1710.2257	1754.8652	1710	1755
	H.V.	1710.2256	1754.8649	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.	-5.69	-0.0068	2.5
-20		-6.97	-0.0083	2.5
-10		-5.50	-0.0066	2.5
0		6.06	0.0072	2.5
10		9.80	0.0117	2.5
20		5.03	0.0060	2.5
30		-6.62	-0.0079	2.5
40		-8.73	-0.0104	2.5
50		-7.05	-0.0084	2.5
20	L.V.	8.99	0.0107	2.5
	H.V.	-7.17	-0.0086	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.	2500.1958	2569.9875	2500	2570
-20		2500.1952	2569.9862	2500	2570
-10		2500.1837	2569.9857	2500	2570
0		2500.1866	2569.9782	2500	2570
10		2500.1925	2569.9863.	2500	2570
20		2500.1842	2569.9675	2500	2570
30		2500.1756	2569.9586	2500	2570
40		2500.1652	2569.9837	2500	2570
50		2500.1544	2569.9822	2500	2570
20	L.V.	2500.1443	2569.9725	2500	2570
	H.V.	2500.1567	2569.9667	2500	2570

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.	2570.8369	2619.9856	2570	2620
-20		2570.8171	2619.8768	2570	2620
-10		2570.7245	2619.7654	2570	2620
0		2570.6157	2619.6567	2570	2620
10		2570.5145	2619.5445	2570	2620
20		2570.3957	2619.4356	2570	2620
30		2570.2873	2619.3242	2570	2620
40		2570.1747	2619.2157	2570	2620
50		2570.1644	2619.1365	2570	2620
20	L.V.	2570.1531	2619.1256	2570	2620
	H.V.	2570.1356	2619.1152	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.	2535.9776	2654.9862	2535	2655
-20		2535.8685	2654.8855	2535	2655
-10		2535.7565	2654.7744	2535	2655
0		2535.6447	2654.6657	2535	2655
10		2535.5358	2654.554	2535	2655
20		2535.4266	2654.4462	2535	2655
30		2535.3144	2654.3349	2535	2655
40		2535.2155	2654.2252	2535	2655
50		2535.2936	2654.1765	2535	2655
20	L.V.	2535.8652	2654.0156	2535	2655
	H.V.	2535.8535	2654.0252	2535	2655

Note: The applicant declared the operating frequency range is 2535-2655MHz.

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.	-21.04	-0.0112	pass
-20		-6.68	-0.0036	pass
-10		9.77	0.0052	pass
0		-7.62	-0.0041	pass
10		-9.91	-0.0053	pass
20		-9.82	-0.0052	pass
30		-6.68	-0.0036	pass
40		-8.85	-0.0047	pass
50		5.67	0.0030	pass
20	L.V.	6.05	0.0032	pass
	H.V.	7.52	0.0040	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.	1710.2765	1754.7656	1710	1755
-20		1710.2759	1754.7569	1710	1755
-10		1710.2754	1754.7657	1710	1755
0		1710.2646	1754.7458	1710	1755
10		1710.2638	1754.7439	1710	1755
20		1710.2652	1754.7879	1710	1755
30		1710.2549	1754.7658	1710	1755
40		1710.2576	1754.7649	1710	1755
50		1710.2667	1754.7763	1710	1755
20	L.V.	1710.2649	1754.7565	1710	1755
	H.V.	1710.2655	1754.7569	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.	-24.13	-0.0288	2.5
-20		8.10	0.0097	2.5
-10		-8.59	-0.0103	2.5
0		9.33	0.0112	2.5
10		-6.94	-0.0083	2.5
20		7.54	0.0090	2.5
30		6.43	0.0077	2.5
40		-6.17	-0.0074	2.5
50		-6.44	-0.0077	2.5
20	L.V.	6.34	0.0076	2.5
	H.V.	-6.89	-0.0082	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.	2500.7498	2569.8569	2500	2570
-20		2500.7385	2569.8535	2500	2570
-10		2500.7375	2569.8426	2500	2570
0		2500.7245	2569.8528	2500	2570
10		2500.6386	2569.8257	2500	2570
20		2500.6256	2569.7858	2500	2570
30		2500.6345	2569.7856	2500	2570
40		2500.6333	2569.8472	2500	2570
50		2500.6328	2569.8468	2500	2570
20	L.V.	2500.6237	2569.8352	2500	2570
	H.V.	2500.5427	2569.8289	2500	2570

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.	2570.9882	2619.9859	2570	2620
-20		2570.8954	2619.8738	2570	2620
-10		2570.7827	2619.7667	2570	2620
0		2570.6742	2619.6548	2570	2620
10		2570.5638	2619.5489	2570	2620
20		2570.4566	2619.4352	2570	2620
30		2570.3458	2619.3297	2570	2620
40		2570.2372	2619.2152	2570	2620
50		2570.1284	2619.1158	2570	2620
20	L.V.	2570.2176	2619.8762	2570	2620
	H.V.	2570.2135	2619.7659	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.	2535.9457	2654.9658	2535	2655
-20		2535.8444	2654.8571	2535	2655
-10		2535.7363	2654.7481	2535	2655
0		2535.6265	2654.6372	2535	2655
10		2535.5168	2654.5266	2535	2655
20		2535.4172	2654.4558	2535	2655
30		2535.2965	2654.3569	2535	2655
40		2535.1873	2654.1873	2535	2655
50		2535.1836	2654.1872	2535	2655
20	L.V.	2535.1648	2654.0765	2535	2655
	H.V.	2535.0569	2654.0348	2535	2655

Note: The applicant declared the operating frequency range is 2535-2655MHz

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