



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 : SZNS220221-05123E-RF-00C
FCC ID: 2AIZN-X6823

Test Standard (s)

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

Sample Description

Product Type: Mobile Phone
Model No.: X6823
Multiple Model(s) No.: N/A
Trade Mark: Infinix
Date Received: 2022/02/21
Date of Test: 2022/03/02~2022/03/29
Report Date: 2022/04/18

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

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EMC Engineer

Approved By:

Robert Li
EMC Engineer

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

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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: -4.2dBi PCS1900/WCDMA Band 2/ LTE Band 2:-0.3dBi WCDMA Band 4/ LTE Band 4: -0.4dBi LTE Band 7/LTE Band 38/LTE Band 41: -0.9dBi (provided by the applicant)
Voltage Range	DC 3.85V from battery or DC 5.0V from adapter
Sample serial number	SZNS220221-05123E-RF-S1 for Conducted and Radiated Emissions SZNS220221-05123E-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 3.4V 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, Part 24-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		±0.082*10 ⁻⁷
Emissions, Radiated	30MHz - 1GHz	±4.28dB
	1GHz - 18GHz	±4.98dB
	18GHz - 26.5GHz	±5.06dB
Temperature		±1°C
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 (ISED), 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.

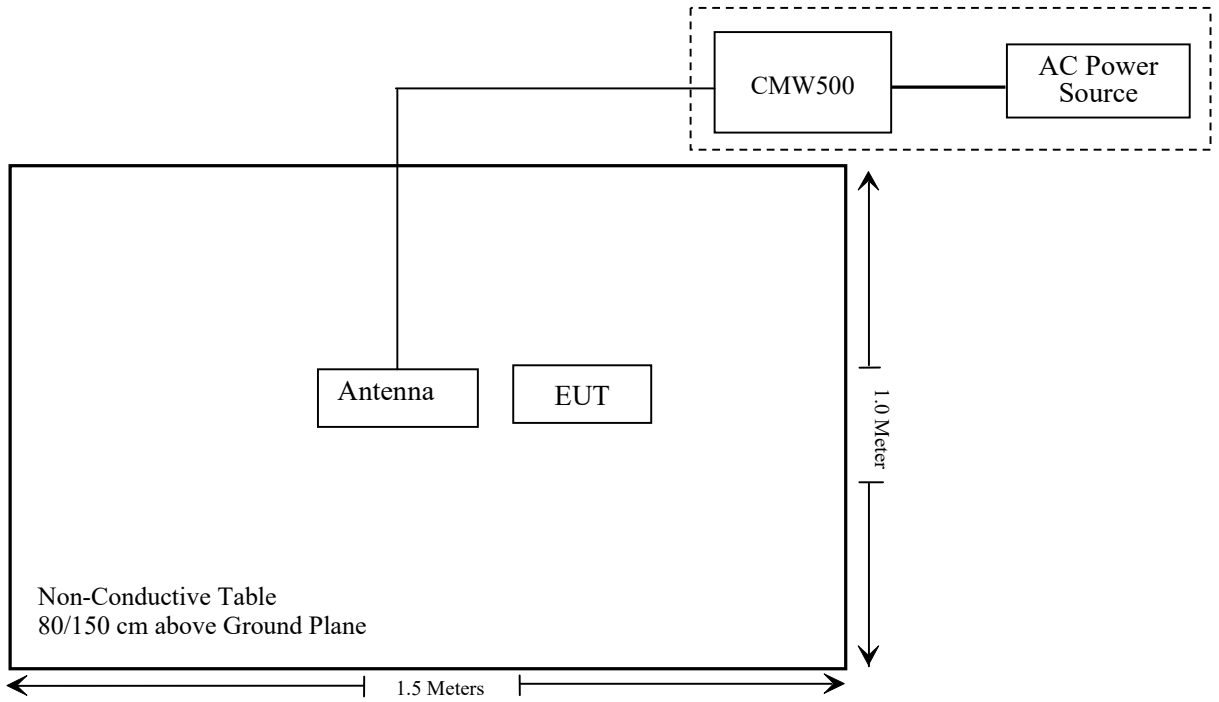
Support Equipment List and Details

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

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: SZNS220221-05123E-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
PASTERNAK	Horn Antenn	PE9852/2F-20	1120	2020/01/05	2023/01/04
PASTERNAK	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					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101948	2021/12/13	2022/12/12
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	
Unknown	RF Coaxial Cable	No.31	RF-01	Each time	

* Statement of Traceability: Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

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

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliant, please refer to the SAR report: SZNS220221-05123E-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.

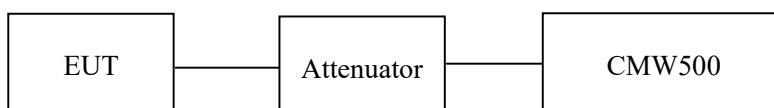
According to §27.50(d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

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:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei from 2022-03-10 to 2022-03-29.

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	ERP(dBm)	Limit (dBm)
GSM	128	824.2	30.80	24.45	38.45
	190	836.6	30.90	24.55	38.45
	251	848.8	30.90	24.55	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	30.64	30.62	29.58	27.26	24.29	24.27	23.23	20.91	38.45
	190	836.6	30.74	30.66	29.63	27.36	24.39	24.31	23.28	21.01	38.45
	251	848.8	30.70	30.62	29.52	27.33	24.35	24.27	23.17	20.98	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	22.55	22.33	21.85	18.29	16.20	15.98	15.50	11.94	38.45
	190	836.6	22.68	22.52	22.00	18.79	16.33	16.17	15.65	12.44	38.45
	251	848.8	22.55	22.36	21.80	18.69	16.20	16.01	15.45	12.34	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		22.31	22.35	22.25	15.96	16.00	15.90
	HSDPA	1	21.22	21.00	20.95	14.87	14.65	14.60
		2	21.02	21.03	20.82	14.67	14.68	14.47
		3	21.25	21.05	20.77	14.90	14.70	14.42
		4	21.16	21.13	20.69	14.81	14.78	14.34
	HSUPA	1	20.69	20.52	20.44	14.34	14.17	14.09
		2	20.55	20.38	20.48	14.20	14.03	14.13
		3	20.48	20.26	20.49	14.13	13.91	14.14
		4	20.49	20.44	20.55	14.14	14.09	14.20
		5	20.57	20.47	20.52	14.22	14.12	14.17
HSPA+	1	20.46	20.53	20.46	14.11	14.18	14.11	

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
 For GSM850 / WCDMA Band5: Antenna Gain = -4.2dBi = -6.35dBd (0dBd=2.15dBi)
 Limit: ERP ≤ 38.45dBm

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	EIRP(dBm)	Limit (dBm)
GSM	512	1850.2	26.60	26.30	33
	661	1880.0	26.20	25.90	33
	810	1909.8	26.20	25.90	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	512	1850.2	26.51	26.50	25.67	23.61	26.21	26.20	25.37	23.31	33
	661	1880.0	26.18	26.16	25.31	23.27	25.88	25.86	25.01	22.97	33
	810	1909.8	26.16	26.12	25.27	23.26	25.86	25.82	24.97	22.96	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	512	1850.2	23.57	22.99	22.66	20.89	23.27	22.69	22.36	20.59	33
	661	1880.0	23.54	22.93	22.64	20.80	23.24	22.63	22.34	20.50	33
	810	1909.8	23.55	22.93	22.62	20.92	23.25	22.63	22.32	20.62	33

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 2)	RMC12.2k		15.95	15.77	15.63	15.65	15.47	15.33
	HSDPA	1	14.96	14.60	14.44	14.66	14.30	14.14
		2	14.92	14.63	14.55	14.62	14.33	14.25
		3	15.12	15.06	14.46	14.82	14.76	14.16
		4	15.26	15.18	14.53	14.96	14.88	14.23
	HSUPA	1	15.17	14.85	14.73	14.87	14.55	14.43
		2	15.07	14.82	14.63	14.77	14.52	14.33
		3	14.98	14.69	14.62	14.68	14.39	14.32
		4	14.92	14.65	14.56	14.62	14.35	14.26
		5	14.68	14.96	14.58	14.38	14.66	14.28
	HSPA+	1	14.81	14.58	14.65	14.51	14.28	14.35

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For PCS1900 / WCDMA Band2: Antenna Gain = -0.3dBi
Limit: EIRP ≤ 33dBm

AWS Band

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 4)	RMC12.2k		15.87	15.91	15.80	15.47	15.51	15.39
	HSDPA	1	15.50	15.53	15.59	15.10	15.13	15.19
		2	15.26	15.44	15.46	14.86	15.04	15.06
		3	15.25	15.42	15.49	14.85	15.02	15.09
		4	15.21	15.26	15.52	14.81	14.86	15.12
	HSUPA	1	15.14	15.13	15.07	14.74	14.73	14.67
		2	15.25	15.22	15.08	14.85	14.82	14.68
		3	15.22	15.52	15.22	14.82	15.12	14.82
		4	15.17	15.51	15.26	14.77	15.11	14.86
		5	15.33	15.24	15.41	14.93	14.84	15.01
	HSPA+	1	15.25	15.16	15.24	14.85	14.76	14.84

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band4: Antenna Gain = -0.4dBi
Limit: EIRP ≤ 30dBm

LTE Band 2

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	17.38	16.46	16.04	17.08	16.16	15.74
		RB1#3	17.60	16.66	16.24	17.30	16.36	15.94
		RB1#5	17.40	16.47	16.06	17.10	16.17	15.76
		RB3#0	17.51	16.57	16.11	17.21	16.27	15.81
		RB3#3	17.52	16.60	16.17	17.22	16.30	15.87
		RB6#0	16.56	15.57	15.15	16.26	15.27	14.85
	16QAM	RB1#0	16.44	15.44	14.99	16.14	15.14	14.69
		RB1#3	16.65	15.67	15.25	16.35	15.37	14.95
		RB1#5	16.46	15.50	15.11	16.16	15.20	14.81
		RB3#0	16.66	15.68	15.23	16.36	15.38	14.93
		RB3#3	16.65	15.69	15.28	16.35	15.39	14.98
		RB6#0	15.52	14.55	14.37	15.22	14.25	14.07
3.0	QPSK	RB1#0	17.37	16.40	15.84	17.07	16.10	15.54
		RB1#8	17.44	16.59	16.15	17.14	16.29	15.85
		RB1#14	17.29	16.51	16.14	16.99	16.21	15.84
		RB6#0	16.52	15.50	15.01	16.22	15.20	14.71
		RB6#9	16.50	15.58	15.23	16.20	15.28	14.93
		RB15#0	16.55	15.59	15.14	16.25	15.29	14.84
	16QAM	RB1#0	17.01	15.53	14.87	16.71	15.23	14.57
		RB1#8	17.13	15.75	15.17	16.83	15.45	14.87
		RB1#14	16.96	15.67	15.19	16.66	15.37	14.89
		RB6#0	15.60	14.55	14.92	15.30	14.25	14.62
		RB6#9	15.59	14.64	14.45	15.29	14.34	14.15
		RB15#0	15.63	14.55	14.46	15.33	14.25	14.16

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	17.15	16.07	15.32	16.85	15.77	15.02
		RB1#13	17.62	16.72	16.03	17.32	16.42	15.73
		RB1#24	17.02	16.32	15.75	16.72	16.02	15.45
		RB15#0	16.58	15.52	14.82	16.28	15.22	14.52
		RB15#10	16.53	15.63	15.02	16.23	15.33	14.72
		RB25#0	16.51	15.54	14.88	16.21	15.24	14.58
	16QAM	RB1#0	16.11	15.36	14.41	15.81	15.06	14.11
		RB1#13	16.59	16.05	15.12	16.29	15.75	14.82
		RB1#24	15.99	15.65	14.87	15.69	15.35	14.57
		RB15#0	15.63	14.51	14.80	15.33	14.21	14.50
		RB15#10	15.57	14.63	14.31	15.27	14.33	14.01
		RB25#0	15.57	14.55	14.37	15.27	14.25	14.07
10.0	QPSK	RB1#0	17.21	16.09	15.93	16.91	15.79	15.63
		RB1#25	17.30	16.58	15.79	17.00	16.28	15.49
		RB1#49	17.53	17.13	16.49	17.23	16.83	16.19
		RB25#0	16.48	15.48	14.93	16.18	15.18	14.63
		RB25#25	16.63	16.03	15.23	16.33	15.73	14.93
		RB50#0	16.55	15.76	15.08	16.25	15.46	14.78
	16QAM	RB1#0	16.29	15.74	15.09	15.99	15.44	14.79
		RB1#25	16.38	16.25	14.95	16.08	15.95	14.65
		RB1#49	16.58	16.79	15.67	16.28	16.49	15.37
		RB25#0	15.54	14.54	14.92	15.24	14.24	14.62
		RB25#25	15.70	15.09	14.63	15.40	14.79	14.33
		RB50#0	15.56	14.78	14.56	15.26	14.48	14.26

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	17.78	16.72	17.54	17.48	16.42	17.24
		RB1#38	17.17	16.58	15.97	16.87	16.28	15.67
		RB1#74	17.22	17.38	16.71	16.92	17.08	16.41
		RB36#0	16.50	15.66	15.72	16.20	15.36	15.42
		RB36#39	16.24	16.09	15.15	15.94	15.79	14.85
		RB75#0	16.37	15.87	15.43	16.07	15.57	15.13
	16QAM	RB1#0	17.36	16.02	16.88	17.06	15.72	16.58
		RB1#38	16.85	15.75	15.40	16.55	15.45	15.10
		RB1#74	16.85	16.72	16.07	16.55	16.42	15.77
		RB36#0	15.62	14.69	14.74	15.32	14.39	14.44
		RB36#39	15.36	15.13	14.16	15.06	14.83	13.86
		RB75#0	15.48	14.90	14.45	15.18	14.60	14.15
20.0	QPSK	RB1#0	17.45	16.89	18.12	17.15	16.59	17.82
		RB1#50	16.87	16.60	16.25	16.57	16.30	15.95
		RB1#99	16.66	17.46	16.50	16.36	17.16	16.20
		RB50#0	16.20	15.83	16.43	15.90	15.53	16.13
		RB50#50	15.76	16.33	15.24	15.46	16.03	14.94
		RB100#0	15.97	16.08	15.87	15.67	15.78	15.57
	16QAM	RB1#0	16.53	16.34	17.65	16.23	16.04	17.35
		RB1#50	16.14	15.85	15.87	15.84	15.55	15.57
		RB1#99	15.77	16.92	16.02	15.47	16.62	15.72
		RB50#0	15.38	14.85	15.48	15.08	14.55	15.18
		RB50#50	14.94	15.35	14.75	14.64	15.05	14.45
		RB100#0	15.19	15.10	14.90	14.89	14.80	14.60

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band2: Antenna Gain = -0.3dB
Limit: EIRP ≤ 33dBm

LTE Band 4

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	16.68	16.00	17.03	16.28	15.60	16.63
		RB1#3	16.73	16.10	17.12	16.33	15.70	16.72
		RB1#5	16.68	15.86	16.85	16.28	15.46	16.45
		RB3#0	16.76	16.06	17.07	16.36	15.66	16.67
		RB3#3	16.73	16.02	17.01	16.33	15.62	16.61
		RB6#0	15.87	15.15	16.15	15.47	14.75	15.75
	16QAM	RB1#0	15.77	15.07	16.10	15.37	14.67	15.70
		RB1#3	15.89	15.25	16.24	15.49	14.85	15.84
		RB1#5	15.87	15.03	16.00	15.47	14.63	15.60
		RB3#0	16.14	15.31	16.30	15.74	14.91	15.90
		RB3#3	16.13	15.26	16.22	15.73	14.86	15.82
		RB6#0	15.04	14.50	15.28	14.64	14.10	14.88
3.0	QPSK	RB1#0	16.65	16.00	17.21	16.25	15.60	16.81
		RB1#8	16.96	16.01	17.20	16.56	15.61	16.80
		RB1#14	17.00	15.78	16.95	16.60	15.38	16.55
		RB6#0	15.89	15.19	16.35	15.49	14.79	15.95
		RB6#9	16.22	15.07	16.20	15.82	14.67	15.80
		RB15#0	16.09	15.18	16.28	15.69	14.78	15.88
	16QAM	RB1#0	16.44	15.30	16.20	16.04	14.90	15.80
		RB1#8	16.80	15.32	16.22	16.40	14.92	15.82
		RB1#14	16.83	15.09	15.97	16.43	14.69	15.57
		RB6#0	15.09	14.63	15.52	14.69	14.23	15.12
		RB6#9	15.42	14.51	15.37	15.02	14.11	14.97
		RB15#0	15.29	14.53	15.40	14.89	14.13	15.00

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	16.44	15.84	16.93	16.04	15.44	16.53
		RB1#13	17.32	16.20	17.33	16.92	15.80	16.93
		RB1#24	17.06	15.48	16.62	16.66	15.08	16.22
		RB15#0	16.04	15.18	16.30	15.64	14.78	15.90
		RB15#10	16.36	15.05	16.19	15.96	14.65	15.79
		RB25#0	16.17	15.08	16.21	15.77	14.68	15.81
	16QAM	RB1#0	15.56	14.99	16.24	15.16	14.59	15.84
		RB1#13	16.49	15.37	16.67	16.09	14.97	16.27
		RB1#24	16.24	14.65	15.96	15.84	14.25	15.56
		RB15#0	15.12	14.60	15.52	14.72	14.20	15.12
		RB15#10	15.43	14.55	15.41	15.03	14.15	15.01
		RB25#0	15.33	14.50	15.38	14.93	14.10	14.98
10.0	QPSK	RB1#0	16.52	16.18	17.02	16.12	15.78	16.62
		RB1#25	17.39	16.12	17.29	16.99	15.72	16.89
		RB1#49	18.04	16.14	17.38	17.64	15.74	16.98
		RB25#0	16.17	15.32	16.37	15.77	14.92	15.97
		RB25#25	17.00	15.29	16.59	16.60	14.89	16.19
		RB50#0	16.59	15.31	16.47	16.19	14.91	16.07
	16QAM	RB1#0	15.58	15.21	16.26	15.18	14.81	15.86
		RB1#25	16.54	15.16	16.61	16.14	14.76	16.21
		RB1#49	17.35	15.17	16.68	16.95	14.77	16.28
		RB25#0	15.28	14.83	15.55	14.88	14.43	15.15
		RB25#25	16.11	14.69	15.81	15.71	14.29	15.41
		RB50#0	15.71	14.58	15.69	15.31	14.18	15.29

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	17.23	17.15	17.61	16.83	16.75	17.21
		RB1#38	17.61	16.08	17.21	17.21	15.68	16.81
		RB1#74	18.25	16.38	17.65	17.85	15.98	17.25
		RB36#0	16.57	15.66	16.48	16.17	15.26	16.08
		RB36#39	17.12	15.21	16.62	16.72	14.81	16.22
		RB75#0	16.85	15.44	16.55	16.45	15.04	16.15
	16QAM	RB1#0	16.53	16.17	17.01	16.13	15.77	16.61
		RB1#38	16.97	15.12	16.66	16.57	14.72	16.26
		RB1#74	17.62	15.38	17.08	17.22	14.98	16.68
		RB36#0	15.66	14.58	15.70	15.26	14.18	15.30
		RB36#39	16.22	14.41	15.85	15.82	14.01	15.45
		RB75#0	15.93	14.68	15.72	15.53	14.28	15.32
20.0	QPSK	RB1#0	17.10	17.05	17.91	16.70	16.65	17.51
		RB1#50	17.51	16.00	17.20	17.11	15.60	16.80
		RB1#99	17.70	16.07	17.87	17.30	15.67	17.47
		RB50#0	16.55	15.84	16.61	16.15	15.44	16.21
		RB50#50	16.84	15.26	16.80	16.44	14.86	16.40
		RB100#0	16.69	15.55	16.69	16.29	15.15	16.29
	16QAM	RB1#0	16.17	16.27	17.16	15.77	15.87	16.76
		RB1#50	16.65	15.25	16.52	16.25	14.85	16.12
		RB1#99	16.81	15.27	17.17	16.41	14.87	16.77
		RB50#0	15.71	14.82	15.77	15.31	14.42	15.37
		RB50#50	16.01	14.44	15.98	15.61	14.04	15.58
		RB100#0	15.86	14.49	15.85	15.46	14.09	15.45

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band4: Antenna Gain = -0.4dBi
Limit: EIRP ≤ 30dBm

LTE Band 5

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	24.46	24.48	24.31	18.11	18.13	17.96
		RB1#3	24.35	24.48	24.37	18.00	18.13	18.02
		RB1#5	24.40	24.45	24.28	18.05	18.10	17.93
		RB3#0	24.53	24.61	24.43	18.18	18.26	18.08
		RB3#3	24.57	24.69	24.40	18.22	18.34	18.05
		RB6#0	23.35	23.62	23.39	17.00	17.27	17.04
	16QAM	RB1#0	24.16	23.50	23.78	17.81	17.15	17.43
		RB1#3	24.12	23.53	23.89	17.77	17.18	17.54
		RB1#5	24.07	23.54	23.83	17.72	17.19	17.48
		RB3#0	23.23	23.60	23.44	16.88	17.25	17.09
		RB3#3	23.26	23.56	23.56	16.91	17.21	17.21
		RB6#0	22.71	22.78	22.62	16.36	16.43	16.27
3.0	QPSK	RB1#0	24.40	24.61	24.42	18.05	18.26	18.07
		RB1#8	24.37	24.60	24.31	18.02	18.25	17.96
		RB1#14	24.44	24.63	24.33	18.09	18.28	17.98
		RB6#0	23.47	23.55	23.49	17.12	17.20	17.14
		RB6#9	23.43	23.61	23.56	17.08	17.26	17.21
		RB15#0	23.43	23.57	23.26	17.08	17.22	16.91
	16QAM	RB1#0	23.84	23.66	24.02	17.49	17.31	17.67
		RB1#8	23.75	23.72	23.94	17.40	17.37	17.59
		RB1#14	23.86	23.68	23.96	17.51	17.33	17.61
		RB6#0	22.46	22.84	22.56	16.11	16.49	16.21
		RB6#9	22.54	22.84	22.58	16.19	16.49	16.23
		RB15#0	22.58	22.65	22.52	16.23	16.30	16.17

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	24.50	24.75	24.32	18.15	18.40	17.97
		RB1#13	24.48	24.74	24.24	18.13	18.39	17.89
		RB1#24	24.61	24.75	24.25	18.26	18.40	17.90
		RB15#0	23.52	23.51	23.34	17.17	17.16	16.99
		RB15#10	23.52	23.57	23.34	17.17	17.22	16.99
		RB25#0	23.54	23.63	23.45	17.19	17.28	17.10
	16QAM	RB1#0	22.88	23.42	23.66	16.53	17.07	17.31
		RB1#13	22.89	23.34	23.59	16.54	16.99	17.24
		RB1#24	22.95	23.35	23.67	16.60	17.00	17.32
		RB15#0	22.49	22.55	22.41	16.14	16.20	16.06
		RB15#10	22.57	22.51	22.35	16.22	16.16	16.00
		RB25#0	22.71	22.58	22.52	16.36	16.23	16.17
10.0	QPSK	RB1#0	24.38	24.52	24.43	18.03	18.17	18.08
		RB1#25	24.44	24.49	24.30	18.09	18.14	17.95
		RB1#49	24.45	24.52	24.31	18.10	18.17	17.96
		RB25#0	23.57	23.55	23.53	17.22	17.20	17.18
		RB25#25	23.63	23.58	23.47	17.28	17.23	17.12
		RB50#0	23.57	23.53	23.50	17.22	17.18	17.15
	16QAM	RB1#0	23.33	24.04	23.52	16.98	17.69	17.17
		RB1#25	23.42	24.03	23.40	17.07	17.68	17.05
		RB1#49	23.44	24.07	23.42	17.09	17.72	17.07
		RB25#0	22.56	22.71	22.68	16.21	16.36	16.33
		RB25#25	22.60	22.72	22.58	16.25	16.37	16.23
		RB50#0	22.61	22.65	22.53	16.26	16.30	16.18

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band5: Antenna Gain = -4.2dBi = -6.35dBd (0dBd=2.15dBi)
Limit: ERP ≤ 38.45dBm

LTE Band 7

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	15.86	16.30	16.15	14.96	15.40	15.25
		RB1#13	16.73	16.93	16.78	15.83	16.03	15.88
		RB1#24	16.30	16.41	16.18	15.40	15.51	15.28
		RB15#0	15.34	15.63	15.63	14.44	14.73	14.73
		RB15#10	15.55	15.69	15.65	14.65	14.79	14.75
		RB25#0	15.43	15.62	15.60	14.53	14.72	14.70
	16QAM	RB1#0	14.93	15.26	15.41	14.03	14.36	14.51
		RB1#13	15.72	15.90	16.03	14.82	15.00	15.13
		RB1#24	15.33	15.41	15.50	14.43	14.51	14.60
		RB15#0	14.92	15.17	15.24	14.02	14.27	14.34
		RB15#10	15.07	15.23	15.26	14.17	14.33	14.36
		RB25#0	15.00	15.19	15.17	14.10	14.29	14.27
10.0	QPSK	RB1#0	15.78	16.16	15.86	14.88	15.26	14.96
		RB1#25	16.55	16.86	16.54	15.65	15.96	15.64
		RB1#49	16.47	17.04	16.77	15.57	16.14	15.87
		RB25#0	15.31	15.61	15.41	14.41	14.71	14.51
		RB25#25	15.64	16.04	15.96	14.74	15.14	15.06
		RB50#0	15.48	15.84	15.68	14.58	14.94	14.78
	16QAM	RB1#0	14.92	15.08	15.16	14.02	14.18	14.26
		RB1#25	15.65	15.72	15.75	14.75	14.82	14.85
		RB1#49	15.68	16.00	16.11	14.78	15.10	15.21
		RB25#0	14.94	15.14	14.99	14.04	14.24	14.09
		RB25#25	15.27	15.58	15.55	14.37	14.68	14.65
		RB50#0	15.11	15.34	15.28	14.21	14.44	14.38

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	16.67	16.64	16.47	15.77	15.74	15.57
		RB1#38	16.43	16.83	16.23	15.53	15.93	15.33
		RB1#74	16.41	17.11	16.95	15.51	16.21	16.05
		RB36#0	15.55	15.66	15.24	14.65	14.76	14.34
		RB36#39	15.30	15.95	15.66	14.40	15.05	14.76
		RB75#0	15.43	15.81	15.45	14.53	14.91	14.55
	16QAM	RB1#0	15.64	15.47	15.70	14.74	14.57	14.80
		RB1#38	15.53	15.69	15.51	14.63	14.79	14.61
		RB1#74	15.46	15.97	16.23	14.56	15.07	15.33
		RB36#0	15.18	15.10	14.98	14.28	14.20	14.08
		RB36#39	14.94	15.40	15.31	14.04	14.50	14.41
		RB75#0	15.04	15.29	15.04	14.14	14.39	14.14
20.0	QPSK	RB1#0	16.49	16.24	16.65	15.59	15.34	15.75
		RB1#50	16.20	16.74	16.13	15.30	15.84	15.23
		RB1#99	16.09	16.77	16.90	15.19	15.87	16.00
		RB50#0	15.43	15.64	15.33	14.53	14.74	14.43
		RB50#50	14.99	15.98	15.66	14.09	15.08	14.76
		RB100#0	15.21	15.81	15.48	14.31	14.91	14.58
	16QAM	RB1#0	15.28	15.25	15.78	14.38	14.35	14.88
		RB1#50	15.12	15.79	15.32	14.22	14.89	14.42
		RB1#99	14.91	15.82	16.09	14.01	14.92	15.19
		RB50#0	15.04	15.16	14.96	14.14	14.26	14.06
		RB50#50	14.98	15.51	15.27	14.08	14.61	14.37
		RB100#0	14.91	15.29	15.09	14.01	14.39	14.19

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band7: Antenna Gain = -0.9dBi
Limit: EIRP ≤ 33dBm

LTE Band 38

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	16.36	15.61	16.64	15.46	14.71	15.74
		RB1#13	16.70	16.16	17.13	15.80	15.26	16.23
		RB1#24	16.06	15.60	16.80	15.16	14.70	15.90
		RB15#0	15.56	15.06	16.07	14.66	14.16	15.17
		RB15#10	15.46	15.04	16.15	14.56	14.14	15.25
		RB25#0	15.46	15.02	16.08	14.56	14.12	15.18
	16QAM	RB1#0	15.46	14.93	15.75	14.56	14.03	14.85
		RB1#13	15.87	15.19	16.27	14.97	14.29	15.37
		RB1#24	15.21	15.15	15.93	14.31	14.25	15.03
		RB15#0	15.21	14.94	15.08	14.31	14.04	14.18
		RB15#10	15.10	14.93	15.15	14.20	14.03	14.25
		RB25#0	15.06	14.98	15.11	14.16	14.08	14.21
10.0	QPSK	RB1#0	16.33	15.96	16.57	15.43	15.06	15.67
		RB1#25	16.37	16.12	17.11	15.47	15.22	16.21
		RB1#49	16.27	16.24	17.46	15.37	15.34	16.56
		RB25#0	15.44	15.14	16.00	14.54	14.24	15.10
		RB25#25	15.35	15.30	16.39	14.45	14.40	15.49
		RB50#0	15.39	15.21	16.18	14.49	14.31	15.28
	16QAM	RB1#0	15.46	14.99	15.69	14.56	14.09	14.79
		RB1#25	15.42	15.06	16.26	14.52	14.16	15.36
		RB1#49	15.30	15.29	16.60	14.40	14.39	15.70
		RB25#0	15.05	14.81	15.01	14.15	13.91	14.11
		RB25#25	14.95	14.98	15.41	14.05	14.08	14.51
		RB50#0	15.01	14.87	15.21	14.11	13.97	14.31

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	17.07	16.88	16.93	16.17	15.98	16.03
		RB1#38	16.11	16.10	16.93	15.21	15.20	16.03
		RB1#74	15.98	16.65	17.53	15.08	15.75	16.63
		RB36#0	15.54	15.42	15.83	14.64	14.52	14.93
		RB36#39	14.92	15.27	16.17	14.02	14.37	15.27
		RB75#0	15.24	15.33	16.00	14.34	14.43	15.10
	16QAM	RB1#0	16.11	15.89	16.17	15.21	14.99	15.27
		RB1#38	15.29	15.05	16.14	14.39	14.15	15.24
		RB1#74	15.05	15.62	16.77	14.15	14.72	15.87
		RB36#0	15.05	14.93	15.37	14.15	14.03	14.47
		RB36#39	14.93	15.07	15.72	14.03	14.17	14.82
		RB75#0	15.23	15.17	15.50	14.33	14.27	14.60
20.0	QPSK	RB1#0	17.03	16.95	16.92	16.13	16.05	16.02
		RB1#50	16.07	16.07	16.81	15.17	15.17	15.91
		RB1#99	15.65	16.61	17.67	14.75	15.71	16.77
		RB50#0	15.62	15.60	15.85	14.72	14.70	14.95
		RB50#50	14.95	15.40	16.29	14.05	14.50	15.39
		RB100#0	15.24	15.49	16.06	14.34	14.59	15.16
	16QAM	RB1#0	15.91	15.98	16.18	15.01	15.08	15.28
		RB1#50	15.12	15.08	16.01	14.22	14.18	15.11
		RB1#99	14.94	15.66	16.93	14.04	14.76	16.03
		RB50#0	15.11	15.18	15.34	14.21	14.28	14.44
		RB50#50	15.12	14.98	15.78	14.22	14.08	14.88
		RB100#0	15.18	15.02	15.53	14.28	14.12	14.63

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band38: Antenna Gain = -0.9dBi
Limit: EIRP ≤ 33dBm

LTE Band 41

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	15.50	15.75	15.60	14.60	14.85	14.70
		RB1#13	15.87	16.24	16.04	14.97	15.34	15.14
		RB1#24	15.48	15.66	15.47	14.58	14.76	14.57
		RB15#0	15.82	16.11	15.90	14.92	15.21	15.00
		RB15#10	15.78	16.10	15.85	14.88	15.20	14.95
		RB25#0	15.77	16.07	15.85	14.87	15.17	14.95
	16QAM	RB1#0	15.62	16.00	15.56	14.72	15.10	14.66
		RB1#13	15.96	16.48	16.03	15.06	15.58	15.13
		RB1#24	15.47	15.94	15.45	14.57	15.04	14.55
		RB15#0	15.09	15.40	15.07	14.19	14.50	14.17
		RB15#10	15.03	15.38	15.02	14.13	14.48	14.12
		RB25#0	15.05	15.31	15.09	14.15	14.41	14.19
10.0	QPSK	RB1#0	15.77	15.93	15.97	14.87	15.03	15.07
		RB1#25	16.01	16.17	16.10	15.11	15.27	15.20
		RB1#49	16.34	16.21	16.13	15.44	15.31	15.23
		RB25#0	14.93	15.15	15.06	14.03	14.25	14.16
		RB25#25	15.28	15.32	15.14	14.38	14.42	14.24
		RB50#0	15.10	15.23	15.10	14.20	14.33	14.20
	16QAM	RB1#0	15.00	14.95	14.97	14.10	14.05	14.07
		RB1#25	15.18	15.12	15.16	14.28	14.22	14.26
		RB1#49	15.59	15.26	15.15	14.69	14.36	14.25
		RB25#0	14.93	15.23	15.14	14.03	14.33	14.24
		RB25#25	15.27	15.39	15.22	14.37	14.49	14.32
		RB50#0	15.10	15.28	15.18	14.20	14.38	14.28

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	16.48	16.77	16.72	15.58	15.87	15.82
		RB1#38	16.05	16.13	15.83	15.15	15.23	14.93
		RB1#74	16.87	16.50	16.01	15.97	15.60	15.11
		RB36#0	15.11	15.37	15.29	14.21	14.47	14.39
		RB36#39	15.39	15.23	14.92	14.49	14.33	14.02
		RB75#0	15.24	15.30	15.10	14.34	14.40	14.20
	16QAM	RB1#0	15.63	15.74	15.99	14.73	14.84	15.09
		RB1#38	15.22	15.08	15.09	14.32	14.18	14.19
		RB1#74	16.03	15.47	15.29	15.13	14.57	14.39
		RB36#0	15.08	15.38	15.28	14.18	14.48	14.38
		RB36#39	15.34	15.23	14.92	14.44	14.33	14.02
		RB75#0	15.18	15.33	15.04	14.28	14.43	14.14
20.0	QPSK	RB1#0	16.41	16.65	16.89	15.51	15.75	15.99
		RB1#50	16.33	16.09	16.05	15.43	15.19	15.15
		RB1#99	17.31	16.35	15.90	16.41	15.45	15.00
		RB50#0	15.22	15.49	15.60	14.32	14.59	14.70
		RB50#50	15.74	15.31	15.05	14.84	14.41	14.15
		RB100#0	15.47	15.39	15.32	14.57	14.49	14.42
	16QAM	RB1#0	15.24	15.69	16.19	14.34	14.79	15.29
		RB1#50	15.28	15.10	15.31	14.38	14.20	14.41
		RB1#99	16.16	15.40	15.20	15.26	14.50	14.30
		RB50#0	15.27	15.58	15.54	14.37	14.68	14.64
		RB50#50	15.77	15.40	14.99	14.87	14.50	14.09
		RB100#0	15.51	15.43	15.24	14.61	14.53	14.34

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band41: Antenna Gain = -0.9dBi
Limit: EIRP ≤ 33dBm

Peak-to-average ratio (PAR)**Cellular Band**

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.59	13
	Middle	3.57	13
	High	3.48	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.57	13
	Middle	3.41	13
	High	3.46	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.55	13
	Middle	3.42	13
	High	3.47	13
HSDPA (16QAM)	Low	3.58	13
	Middle	3.63	13
	High	3.62	13
HSUPA (QPSK)	Low	3.43	13
	Middle	3.47	13
	High	3.52	13
HSPA+	Low	3.52	13
	Middle	3.53	13
	High	3.57	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GSM	Low	3.52	13
	Middle	3.57	13
	High	3.56	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	3.56	13
	Middle	3.54	13
	High	3.46	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.47	13
	Middle	3.56	13
	High	3.42	13
HSDPA (16QAM)	Low	3.57	13
	Middle	3.52	13
	High	3.46	13
HSUPA (QPSK)	Low	3.46	13
	Middle	3.42	13
	High	3.47	13
HSPA+	Low	3.43	13
	Middle	3.57	13
	High	3.59	13

AWS Band

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.47	13
	Middle	3.54	13
	High	3.59	13
HSDPA (16QAM)	Low	3.52	13
	Middle	3.54	13
	High	3.66	13
HSUPA (QPSK)	Low	3.64	13
	Middle	3.52	13
	High	3.63	13
HSPA+	Low	3.52	13
	Middle	3.63	13
	High	3.62	13

LTE Band 2 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.06	6.00	5.62	13	Pass
QPSK (100RB Size)	5.59	5.51	5.54	13	Pass
16QAM (1RB Size)	7.10	6.29	6.17	13	Pass
16QAM (100RB Size)	6.46	6.49	6.46	13	Pass

LTE Band 4 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.09	6.67	6.43	13	Pass
QPSK (100RB Size)	5.68	5.71	5.68	13	Pass
16QAM (1RB Size)	6.52	7.74	7.42	13	Pass
16QAM (100RB Size)	6.61	6.55	6.75	13	Pass

LTE Band 5 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.61	3.91	4.32	13	Pass
QPSK (50RB Size)	4.81	4.75	4.58	13	Pass
16QAM (1RB Size)	5.65	4.58	5.19	13	Pass
16QAM (50RB Size)	5.65	5.77	5.54	13	Pass

LTE Band 7 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.99	6.41	5.48	13	Pass
QPSK (100RB Size)	5.39	5.48	5.39	13	Pass
16QAM (1RB Size)	6.23	7.48	6.93	13	Pass
16QAM (100RB Size)	6.32	6.29	6.43	13	Pass

LTE Band 38 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.36	7.00	11.71	13	Pass
QPSK (100RB Size)	10.00	9.10	9.38	13	Pass
16QAM (1RB Size)	8.41	4.84	10.00	13	Pass
16QAM (100RB Size)	9.19	9.00	8.94	13	Pass

LTE Band 41 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	6.78	10.00	8.49	13	Pass
QPSK (100RB Size)	8.75	12.38	7.80	13	Pass
16QAM (1RB Size)	9	10.38	10.00	13	Pass
16QAM (100RB Size)	8.64	9.30	6.06	13	Pass

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

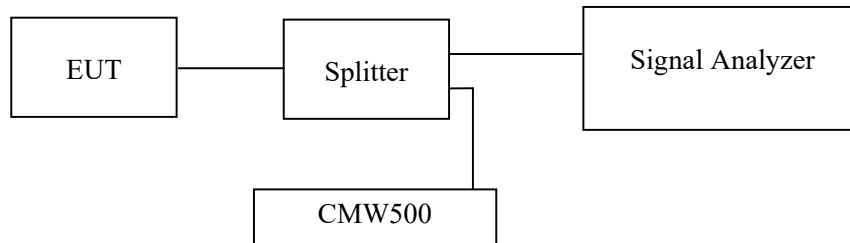
Applicable Standard

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

Test Procedure

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

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



Test Data

Environmental Conditions

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei from 2022-03-10 to 2022-04-18.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM (GMSK)	128	824.2	242.77	314.70
	190	836.6	240.13	311.40
	251	848.8	243.50	315.57
EGPRS(8PSK)	128	824.2	242.23	308.88
	190	836.6	240.63	307.40
	251	848.8	241.37	307.63

	Frequency (MHz)	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.17	4.73
	836.6	4.17	4.73
	846.6	4.15	4.73
HSDPA	826.4	4.19	4.85
	836.6	4.19	4.85
	846.6	4.19	4.79
HSUPA	826.4	4.17	4.71
	836.6	4.17	4.71
	846.6	4.17	4.71

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GSM (GMSK)	512	1850.2	241.60	316.80
	661	1880.0	241.60	312.00
	810	1909.8	243.20	312.00
EGPRS(8PSK)	512	1850.2	243.20	307.20
	661	1880.0	241.60	310.40
	810	1909.8	243.20	308.80

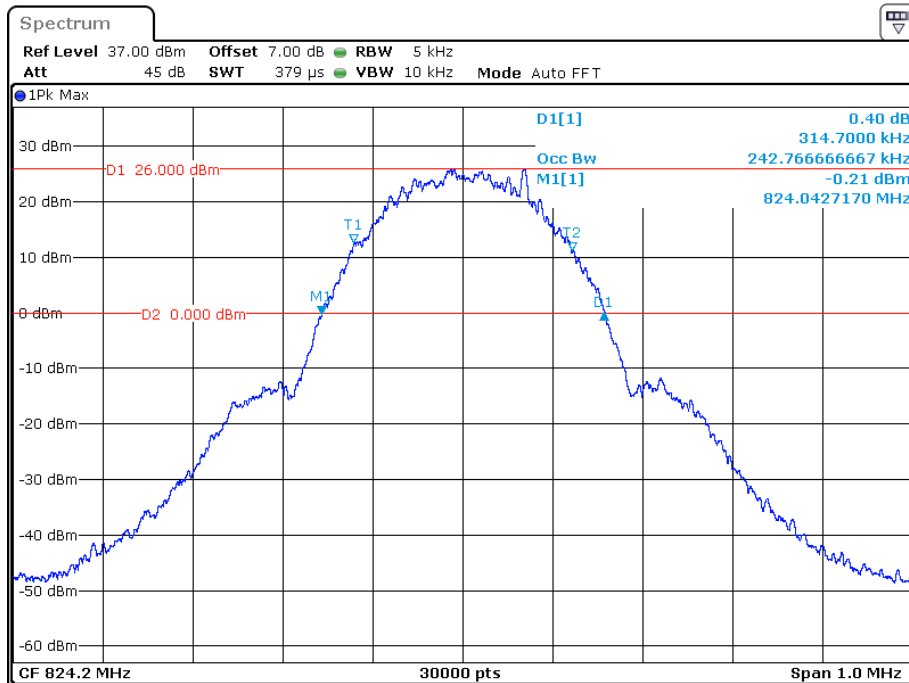
	Frequency (MHz)	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.19	4.71
	1880.0	4.17	4.71
	1907.6	4.15	4.75
HSDPA	1852.4	4.27	6.07
	1880.0	4.23	5.63
	1907.6	4.19	4.71
HSUPA	1852.4	4.17	4.71
	1880.0	4.17	4.71
	1907.6	4.19	4.71

AWS Band (Part 27)

	Frequency (MHz)	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.17	4.71
	1732.6	4.17	4.71
	1752.6	4.17	4.73
HSDPA	1712.4	4.33	6.89
	1732.6	4.15	4.69
	1752.6	4.17	4.73
HSUPA	1712.4	4.15	4.69
	1732.6	4.25	5.99
	1752.6	4.17	4.71

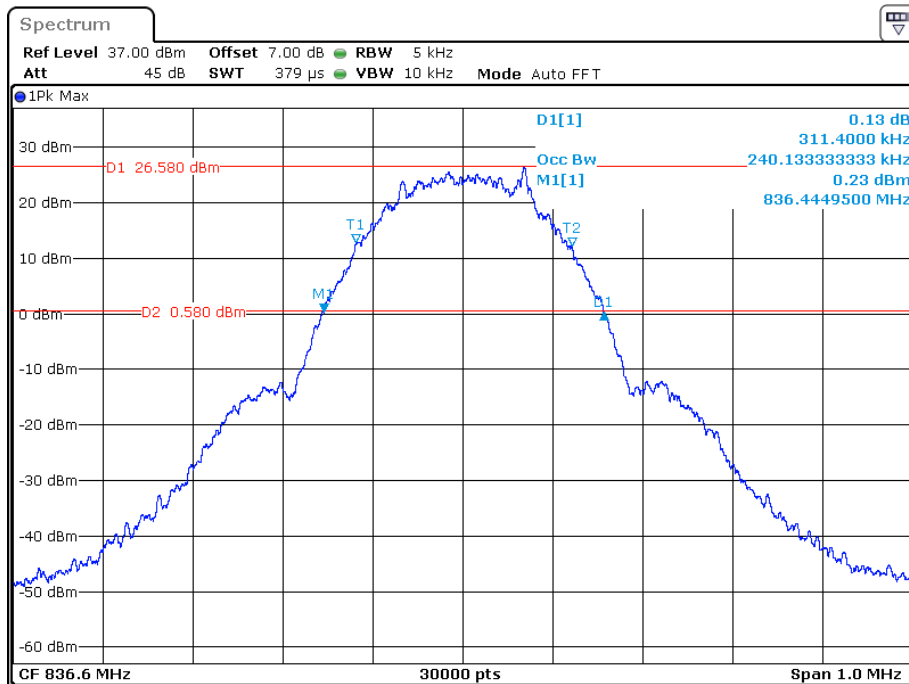
Cellular Band (Part 22H)

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



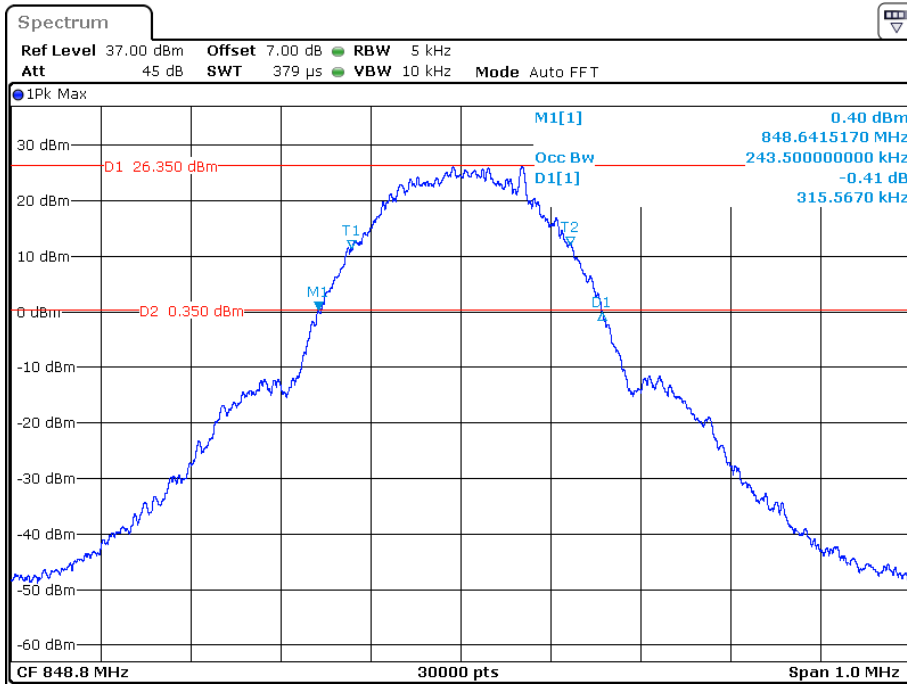
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26 dB Emissions & 99% Occupied Bandwidth for GSM (GMSK) Mode, Middle channel



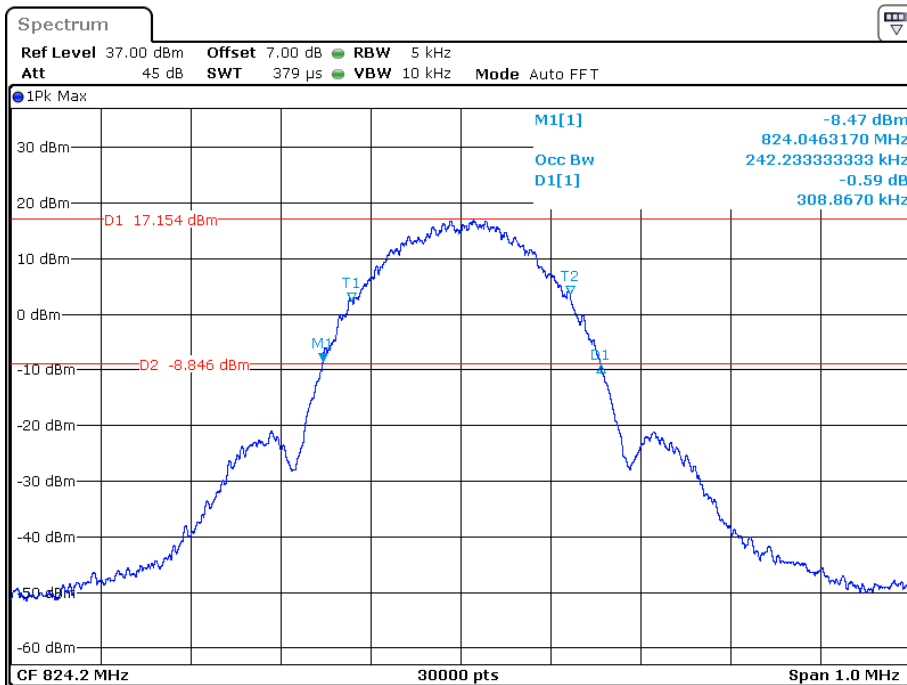
Date: 11.MAR.2022 18:47:12

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



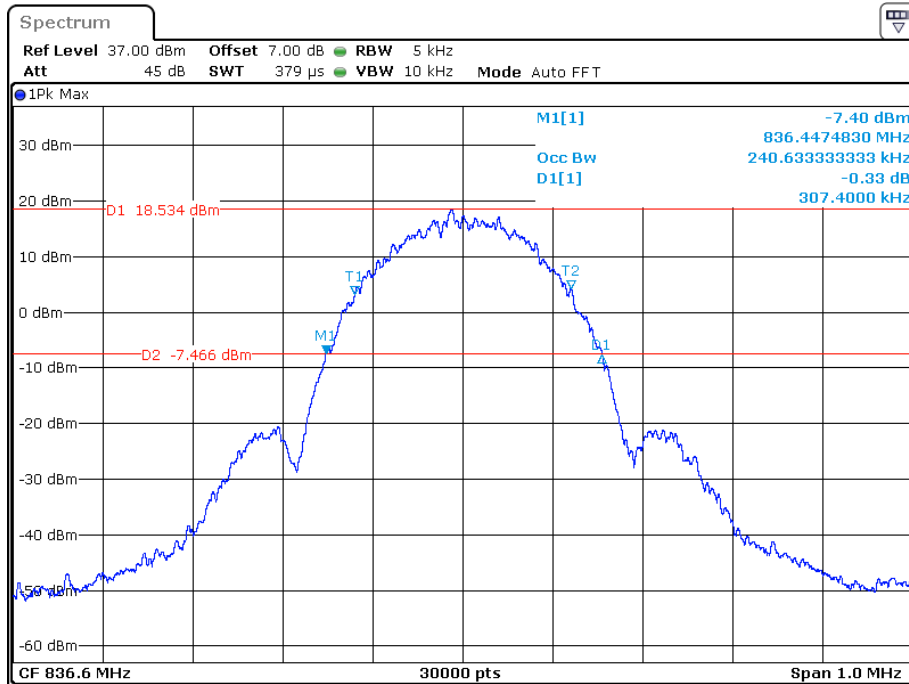
Date: 11.MAR.2022 18:50:30

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



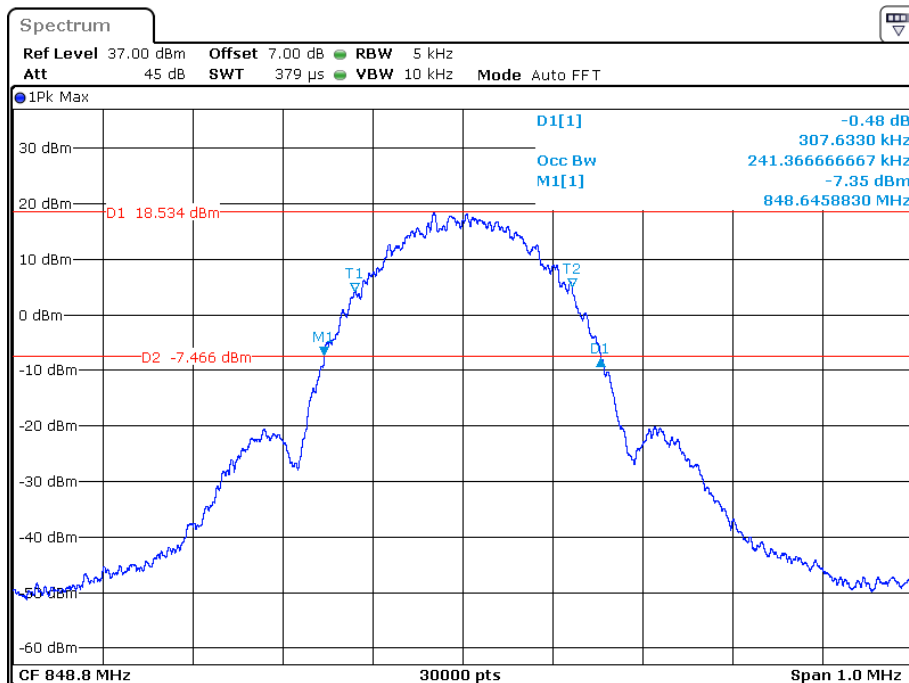
Date: 11.MAR.2022 19:08:26

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



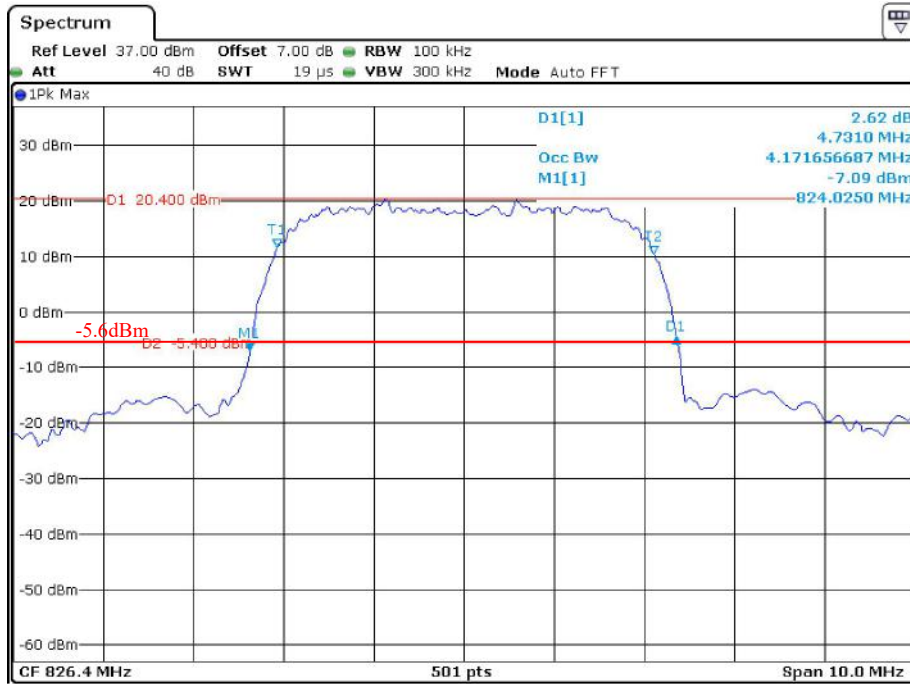
Date: 11.MAR.2022 19:06:30

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



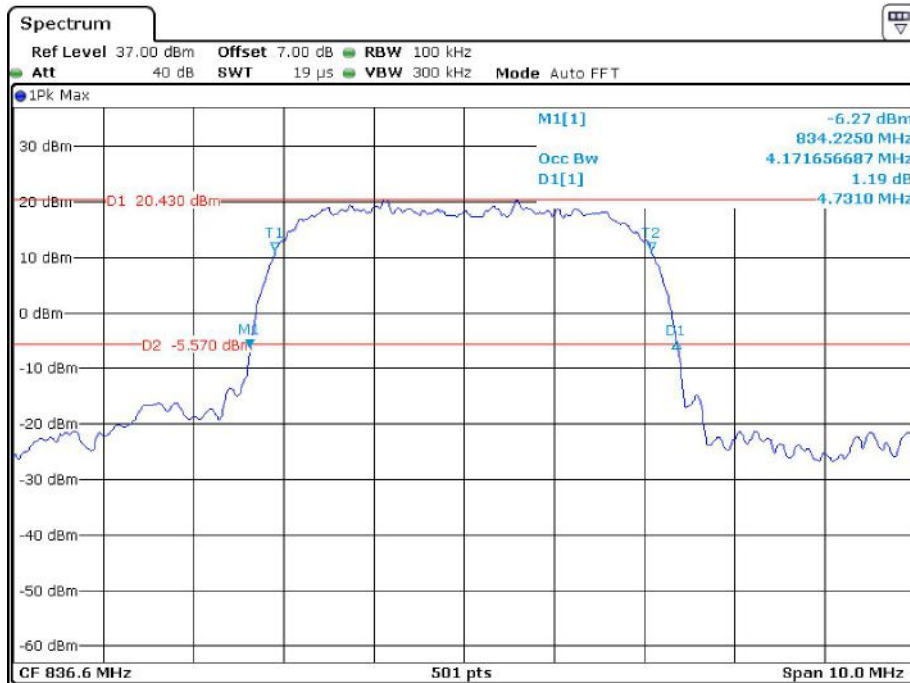
Date: 11.MAR.2022 19:02:46

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



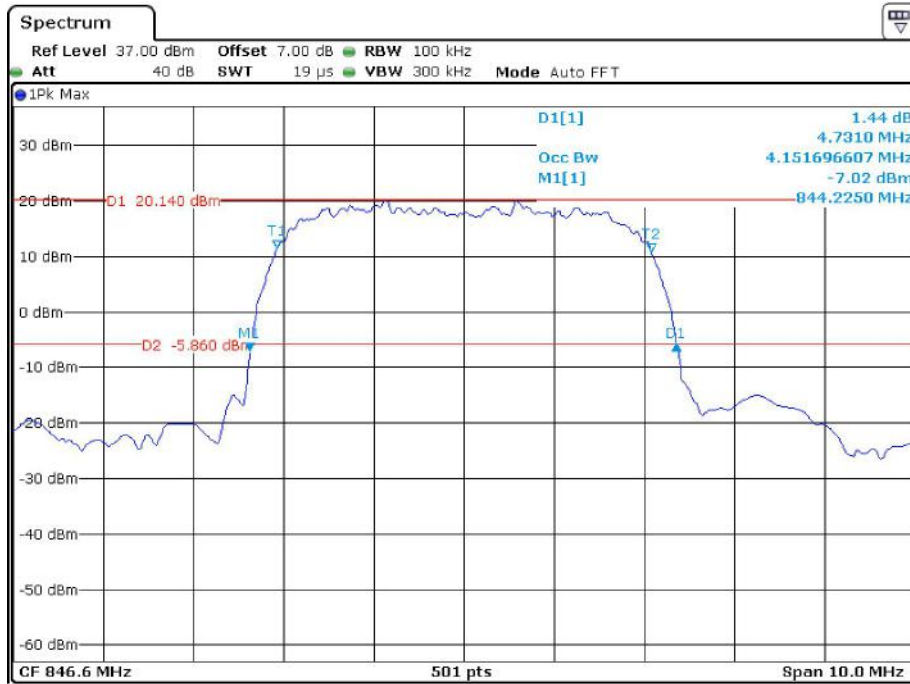
Date: 14.MAR.2022 10:06:51

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



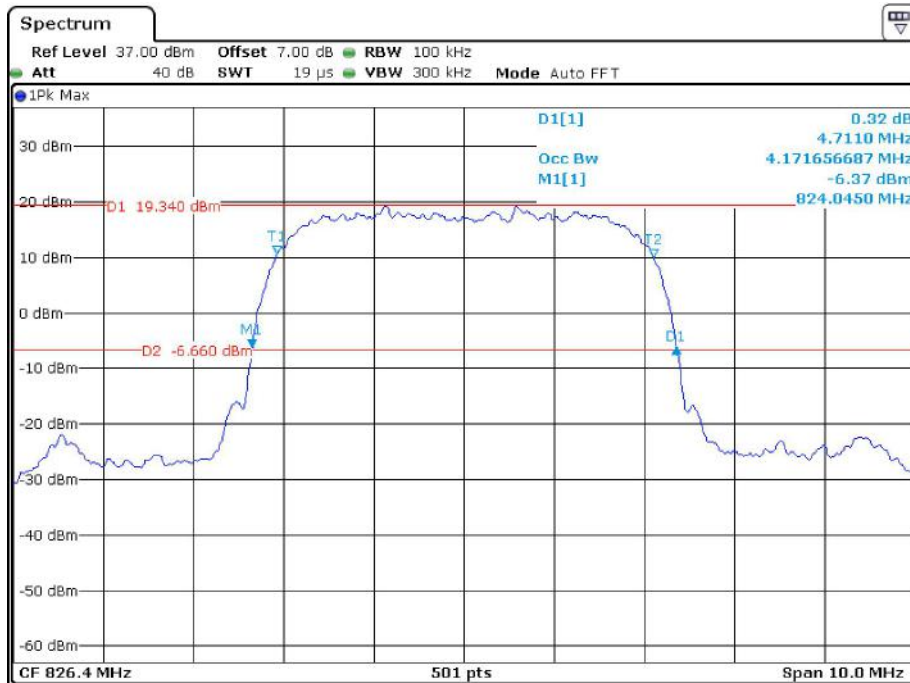
Date: 14.MAR.2022 10:07:34

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



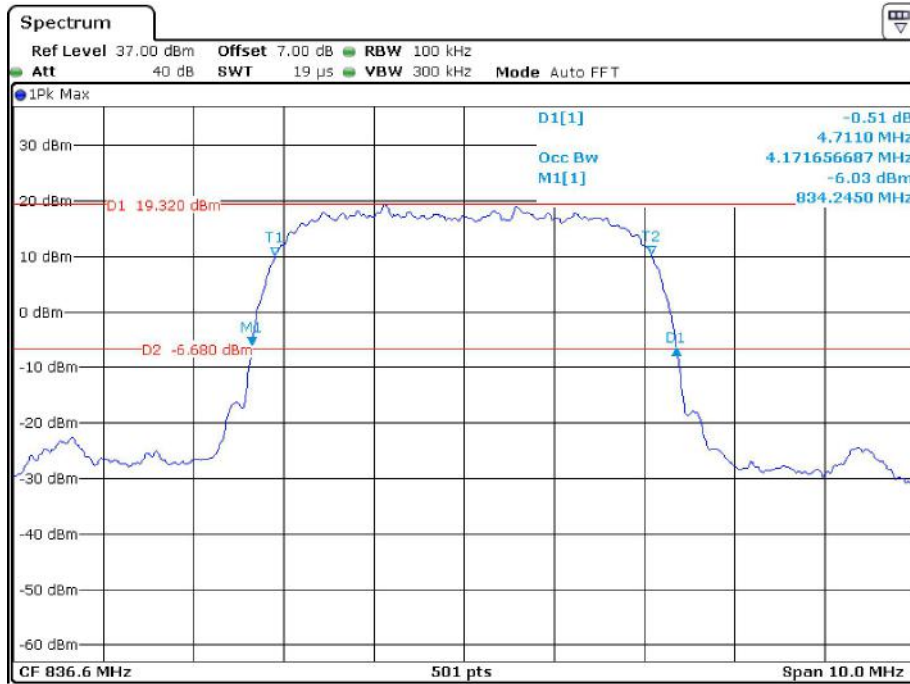
Date: 14.MAR.2022 10:09:36

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



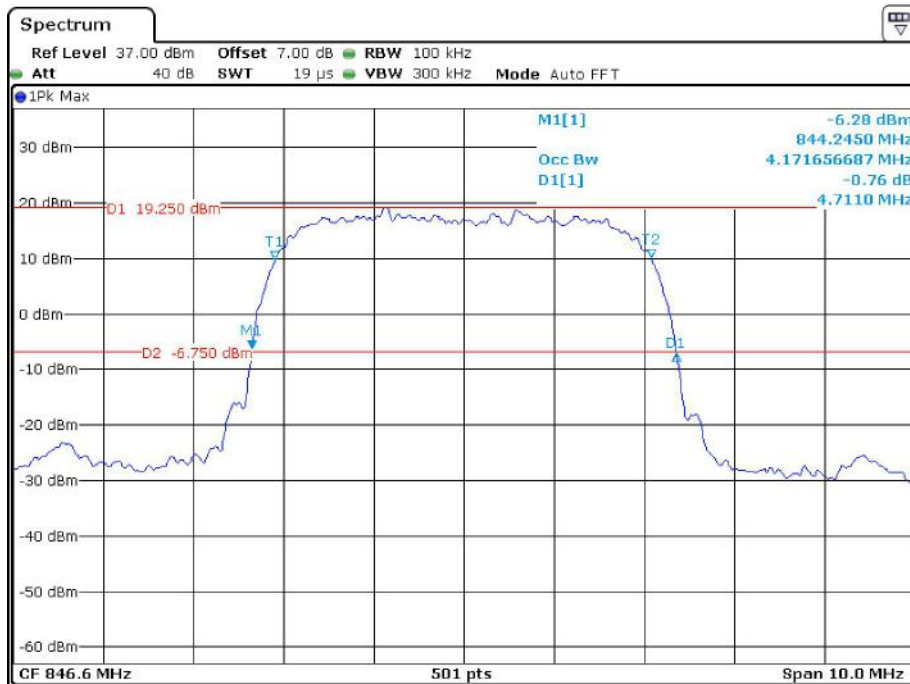
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26 dB Emissions & 99% Occupied Bandwidth for HSUPA (QPSK) Mode, Middle channel



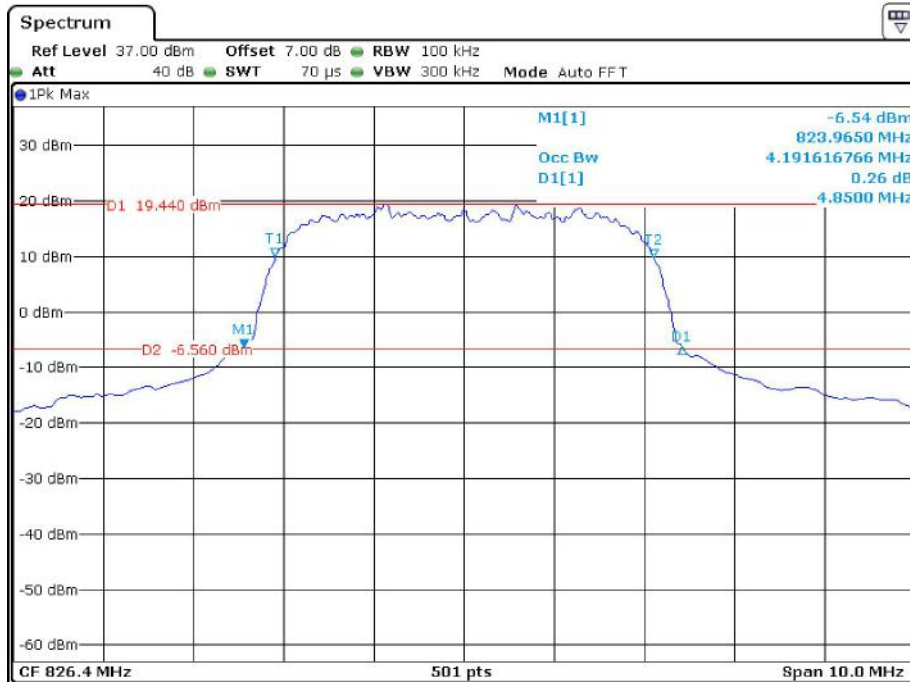
Date: 14.MAR.2022 10:48:05

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



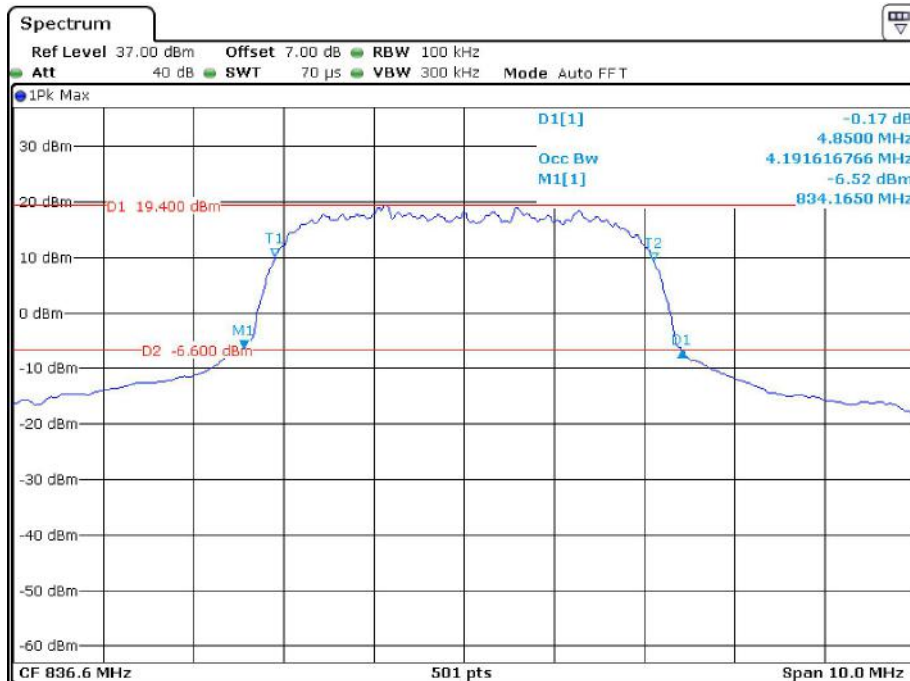
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26 dB Emissions & 99% Occupied Bandwidth for HSDPA (16QAM) Mode, Low channel



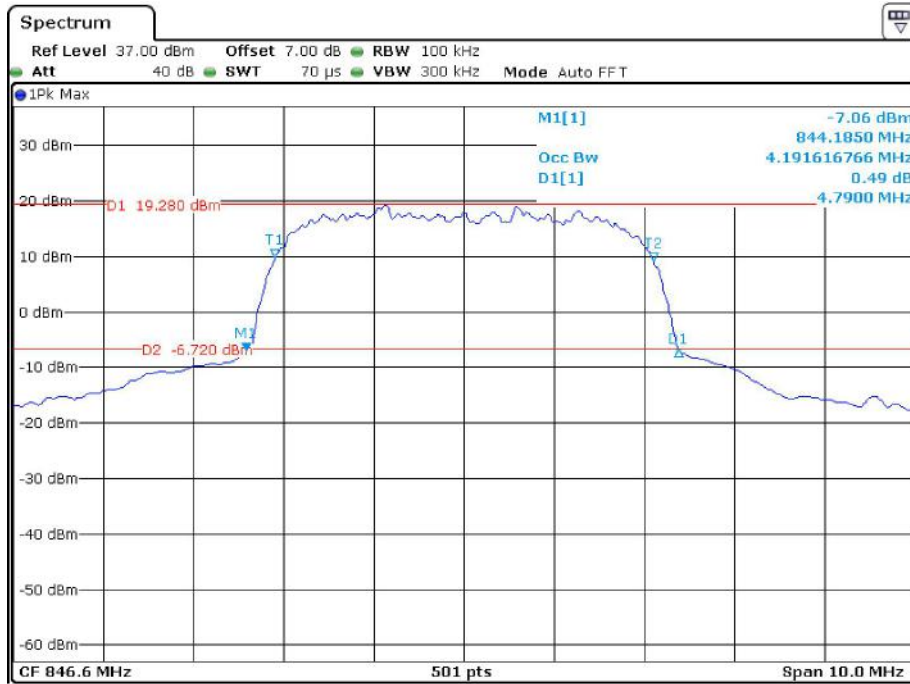
Date: 14.MAR.2022 10:23:35

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



Date: 14.MAR.2022 10:24:47

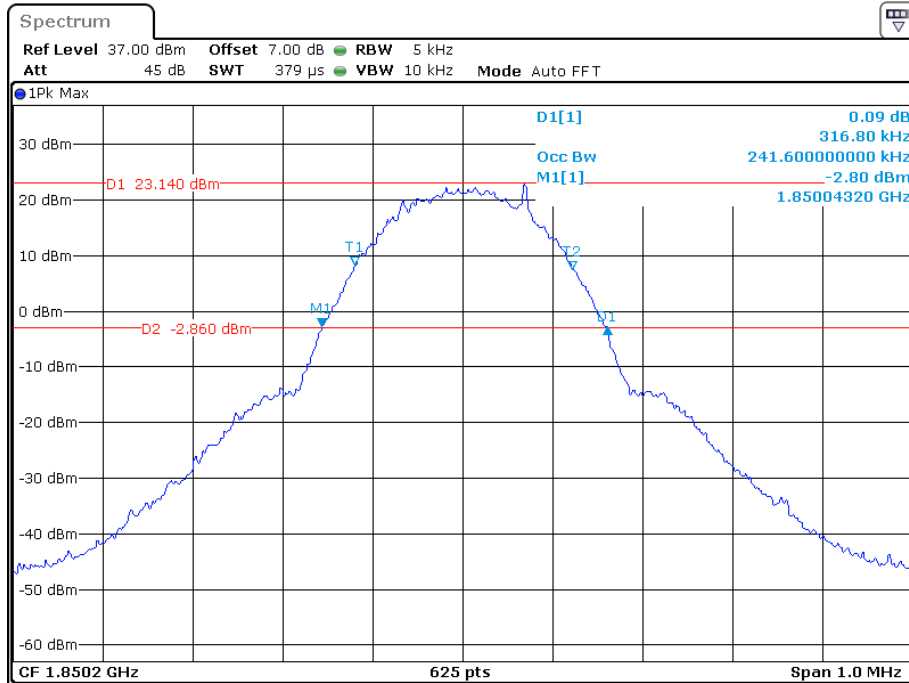
26 dB Emissions & 99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 14.MAR.2022 10:25:42

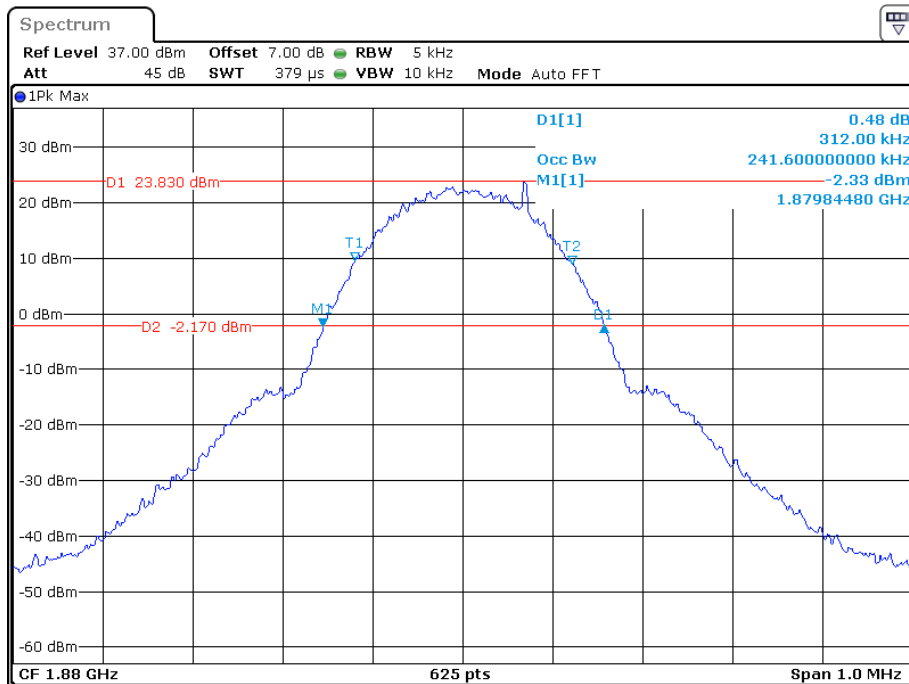
PCS Band (Part 24E)

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



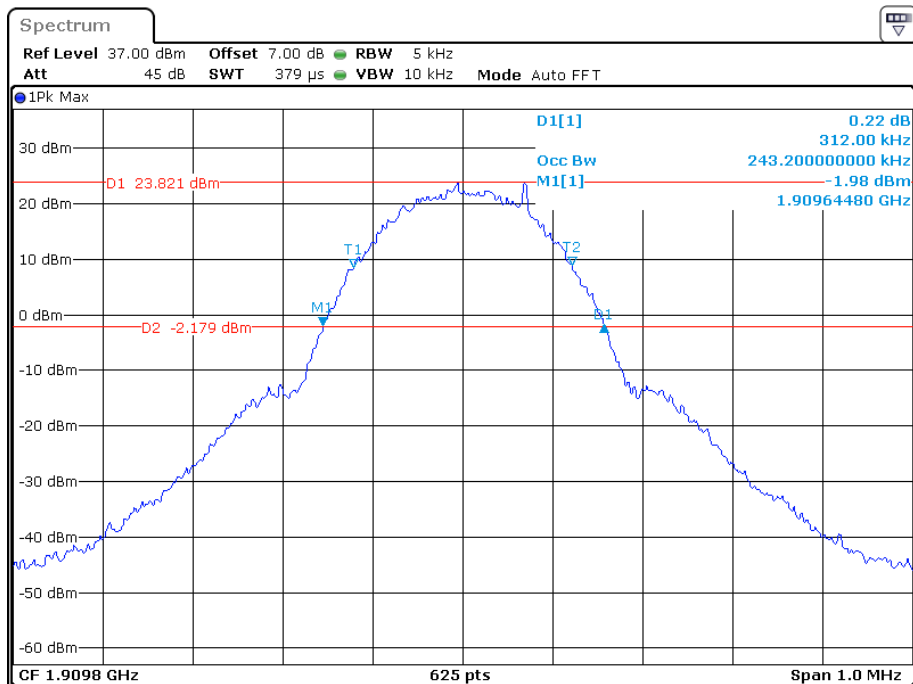
Date: 11.MAR.2022 19:39:45

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



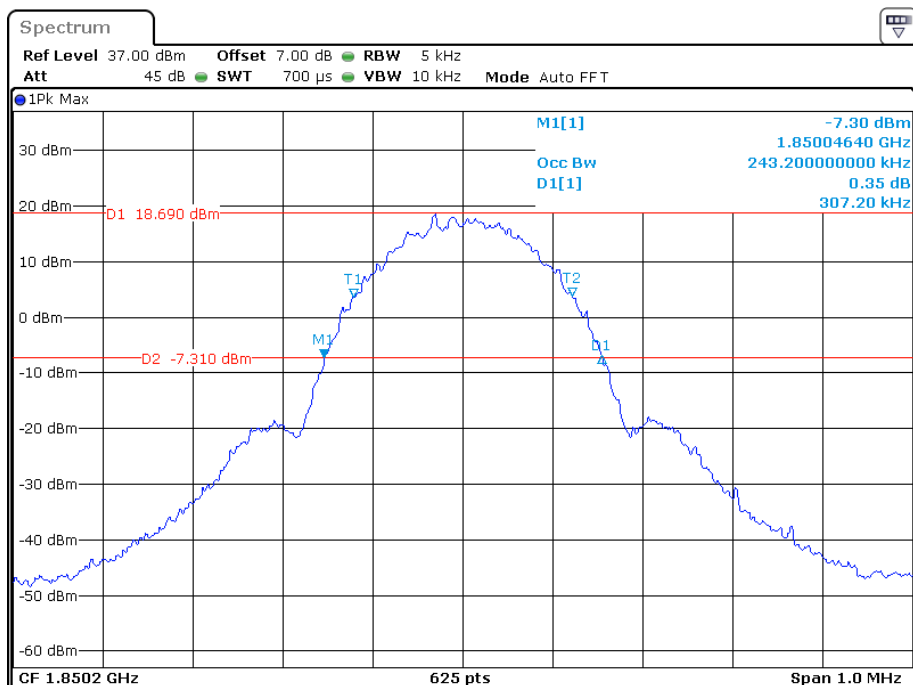
Date: 11.MAR.2022 19:36:22

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



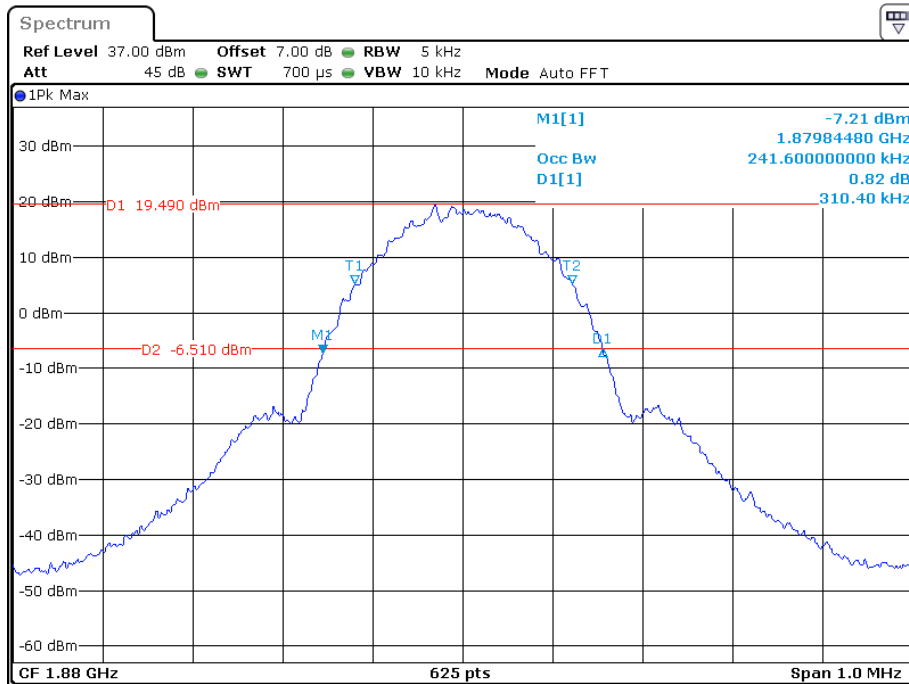
Date: 11.MAR.2022 19:34:40

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



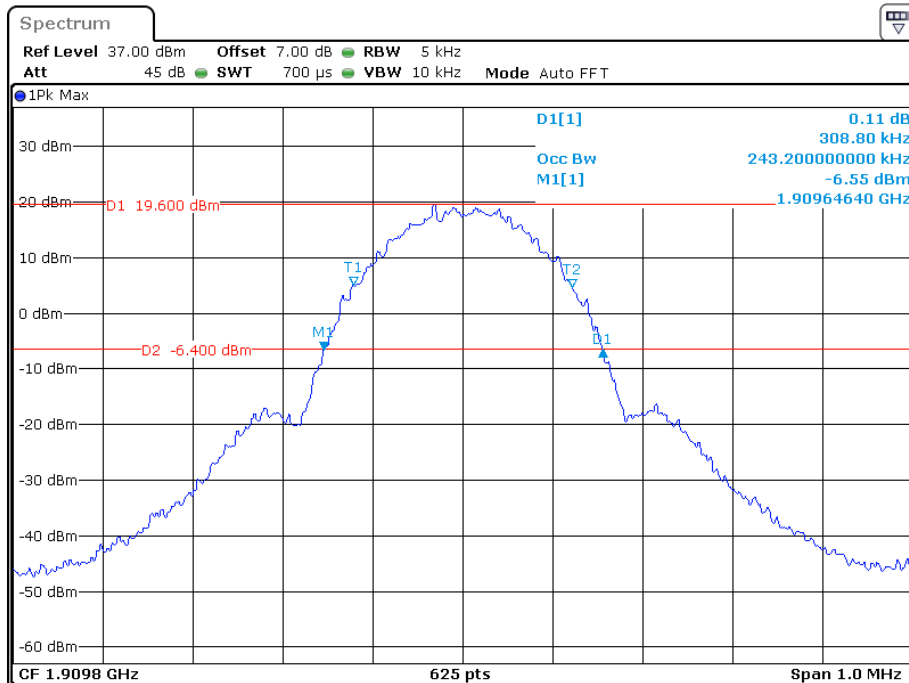
Date: 11.MAR.2022 19:51:11

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



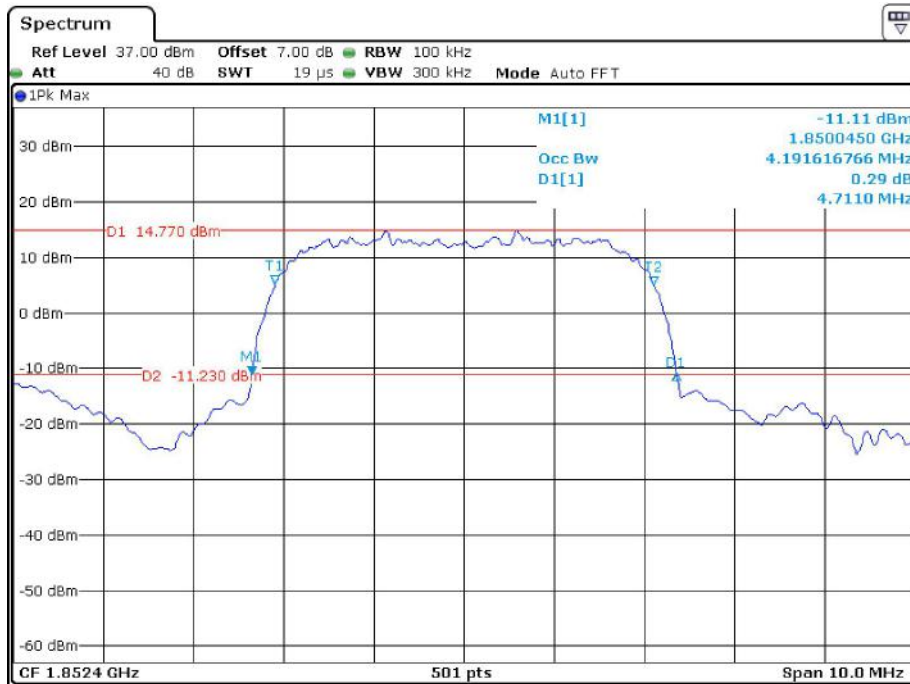
Date: 11.MAR.2022 19:53:45

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



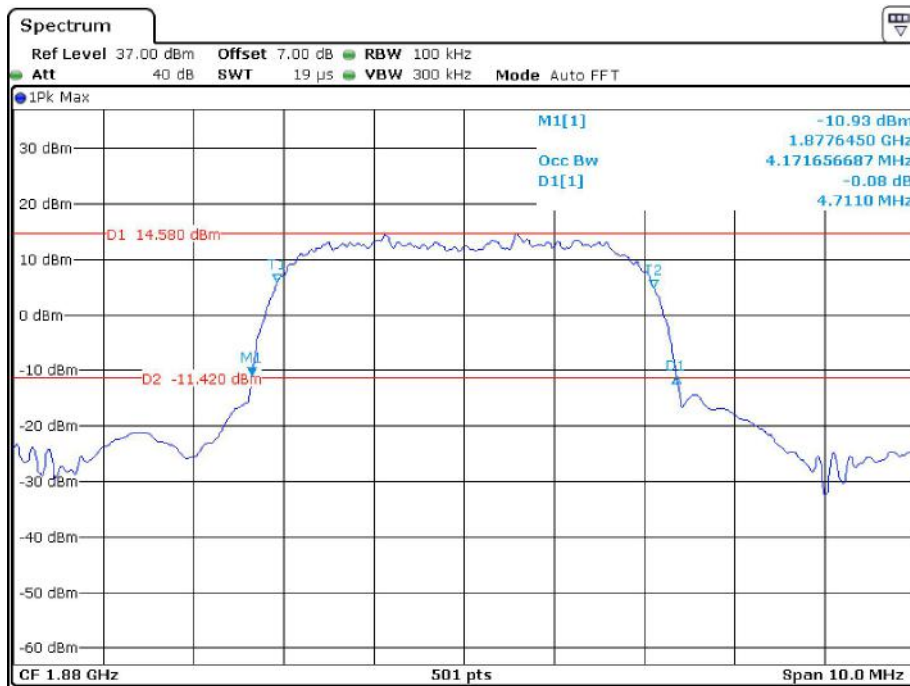
Date: 11.MAR.2022 19:55:11

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



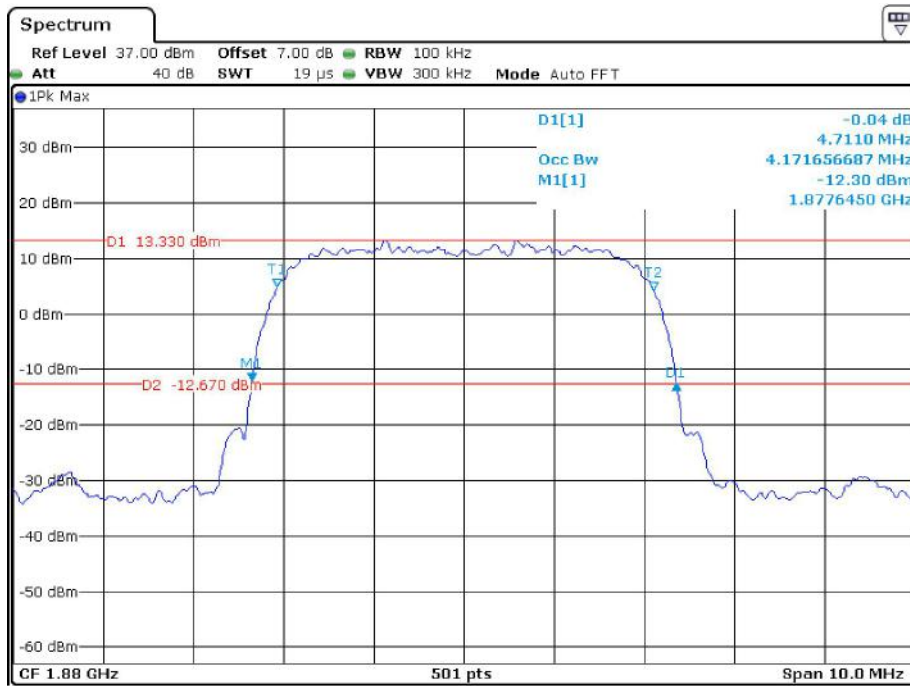
Date: 14.MAR.2022 09:46:11

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



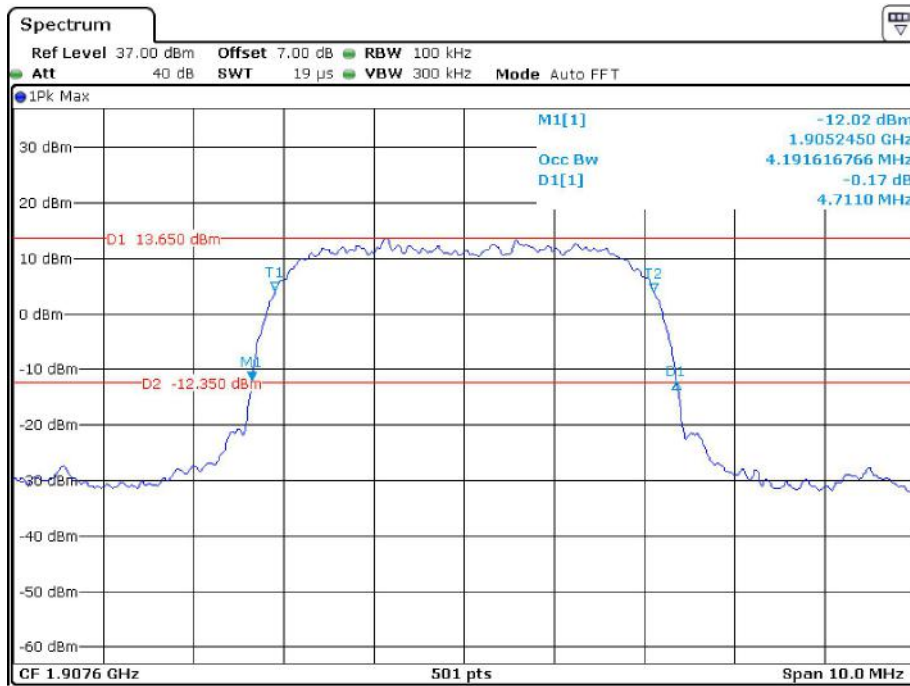
Date: 14.MAR.2022 09:46:56

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



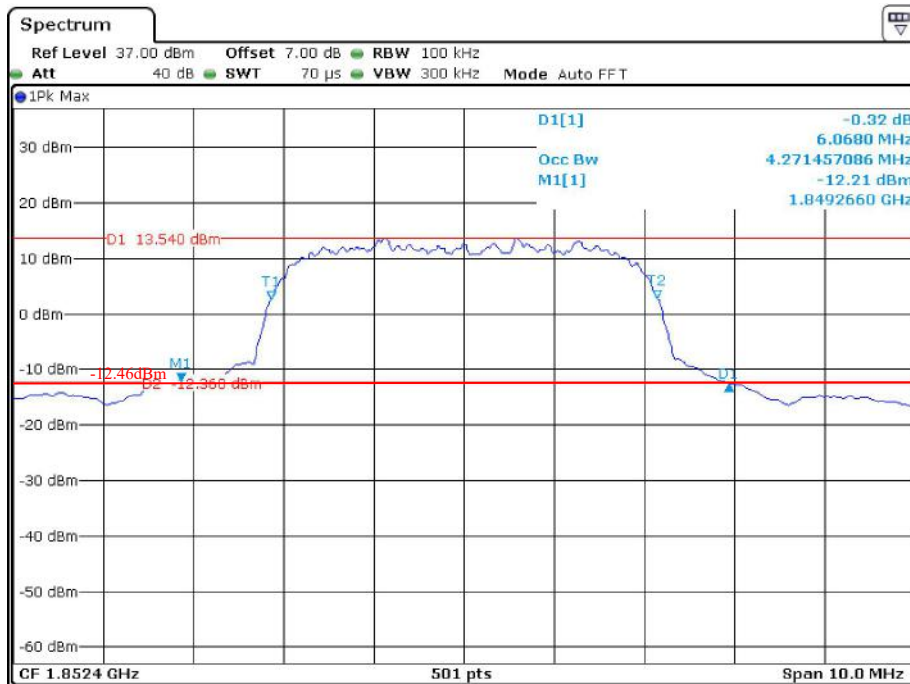
Date: 14.MAR.2022 10:41:43

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



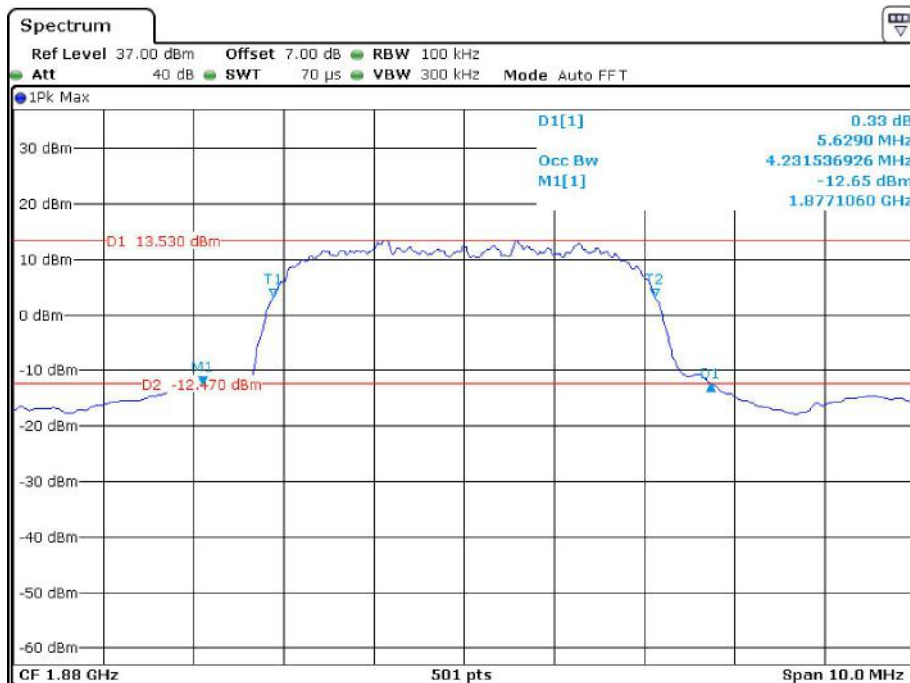
Date: 14.MAR.2022 10:42:20

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



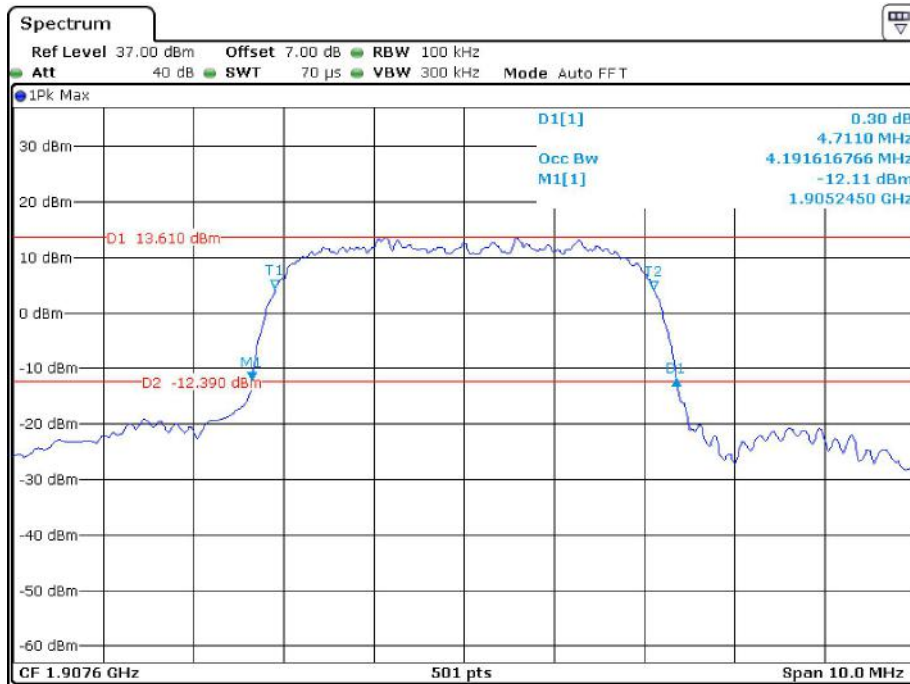
Date: 14.MAR.2022 10:27:45

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



Date: 14.MAR.2022 10:29:12

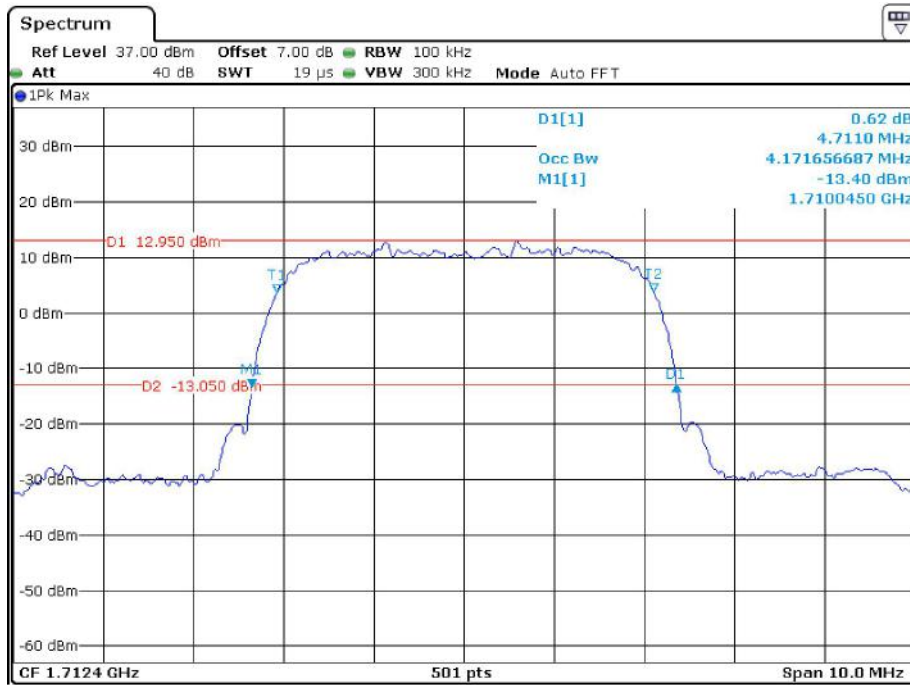
26 dB Emissions & 99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 14.MAR.2022 10:30:31

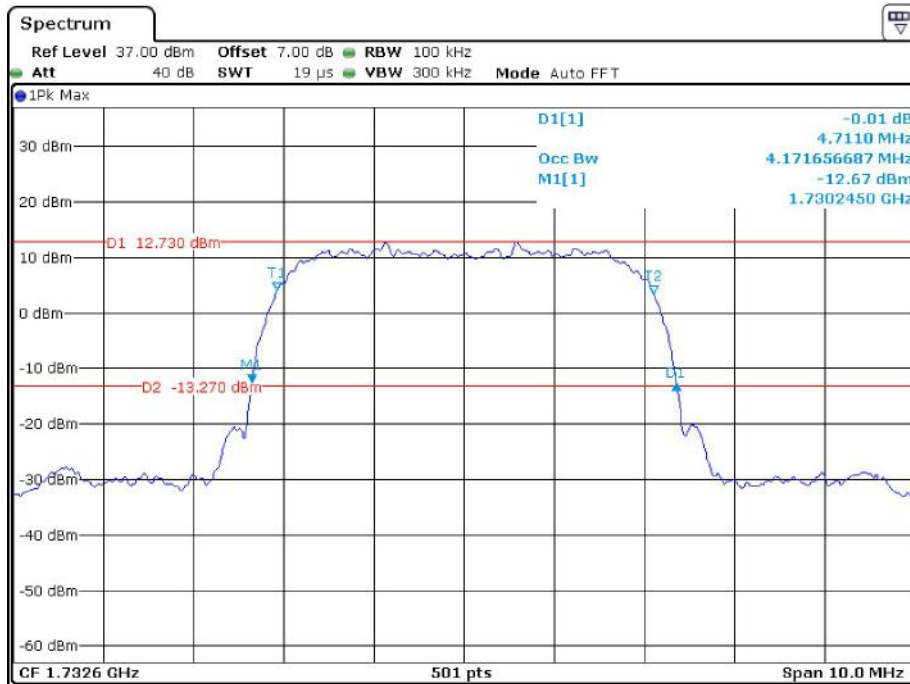
AWS Band (Part 27)

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



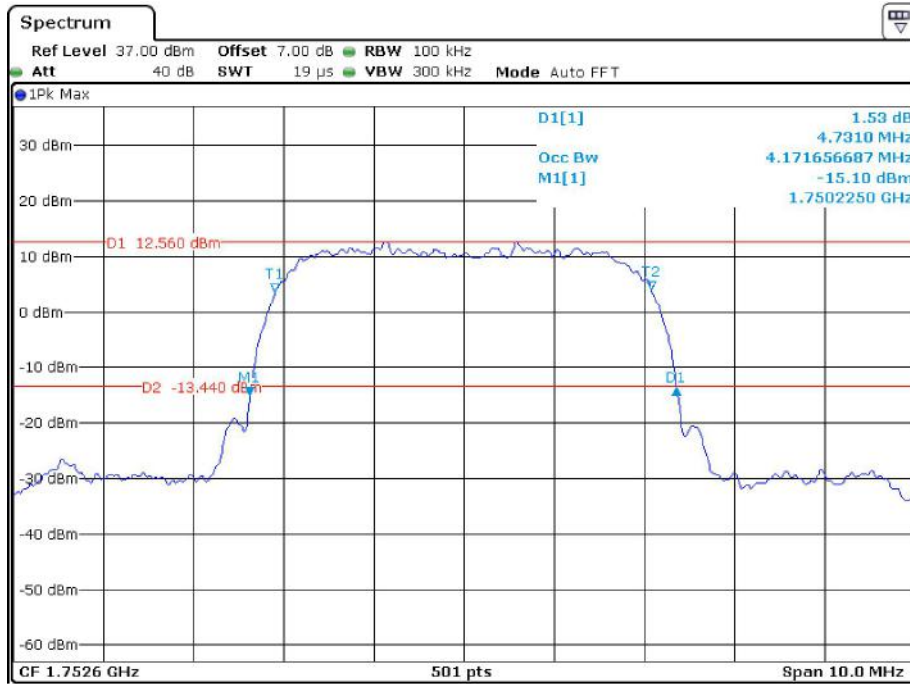
Date: 14.MAR.2022 09:50:32

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



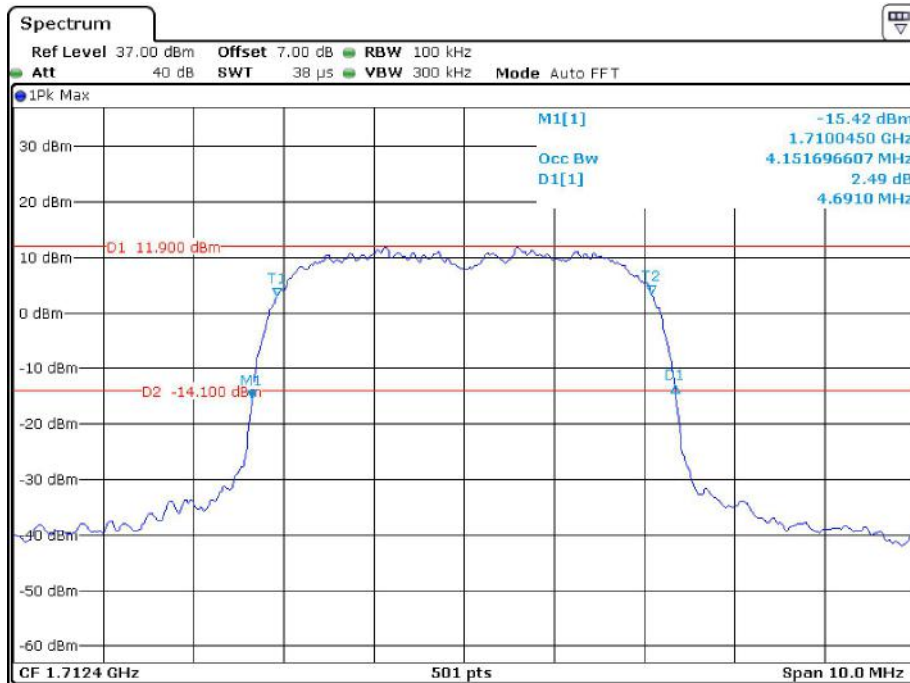
Date: 14.MAR.2022 10:57:37

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



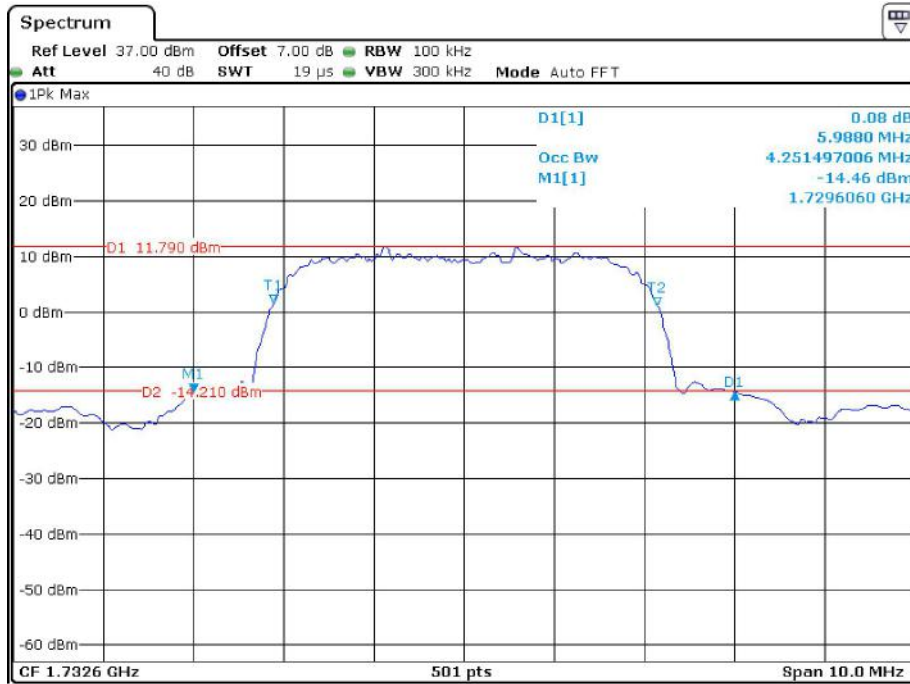
Date: 14.MAR.2022 10:05:55

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



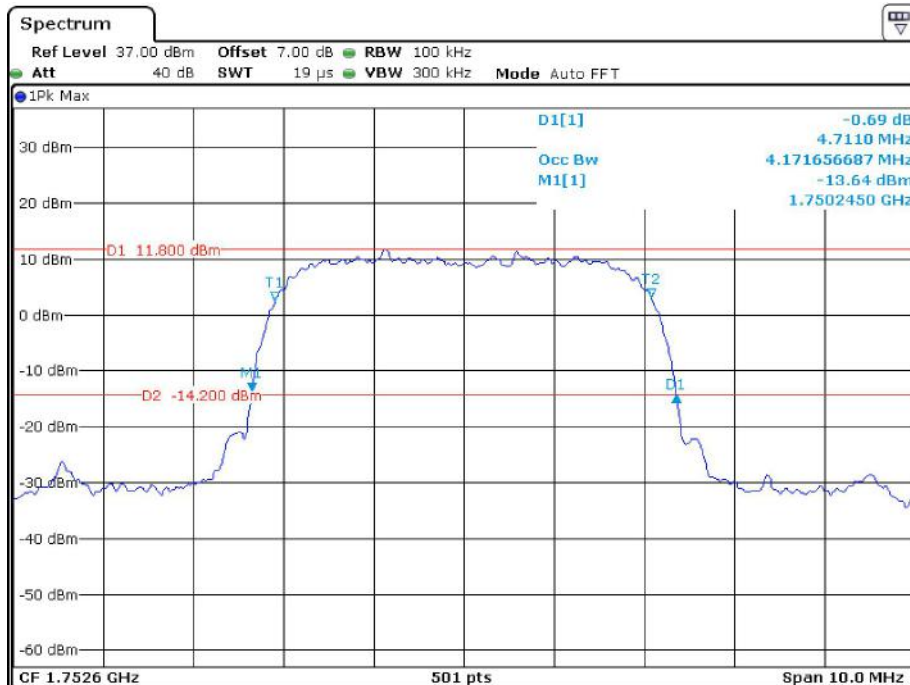
Date: 18.APR.2022 14:57:20

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



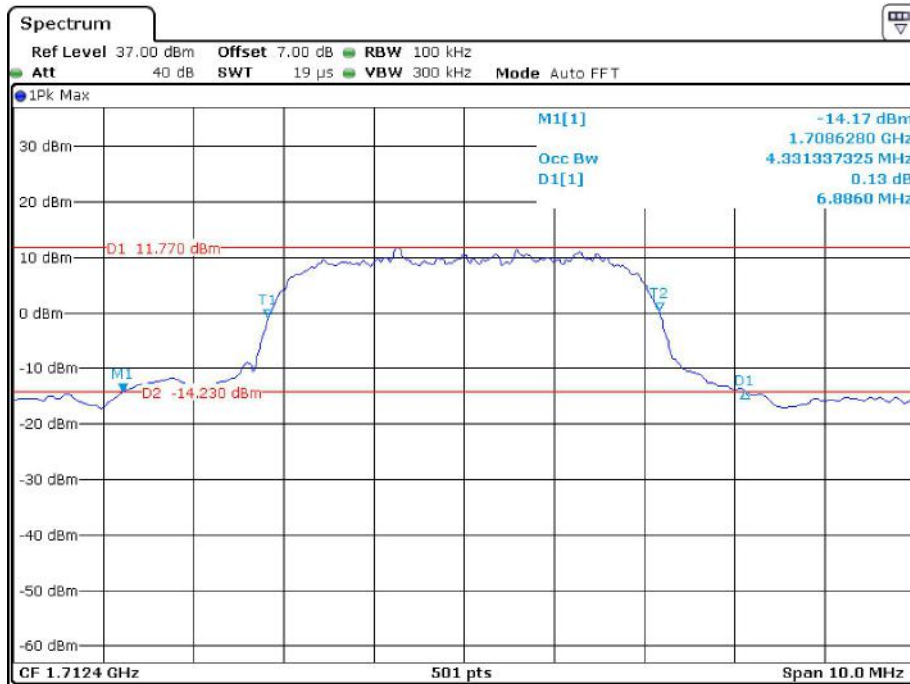
Date: 14.MAR.2022 10:44:45

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



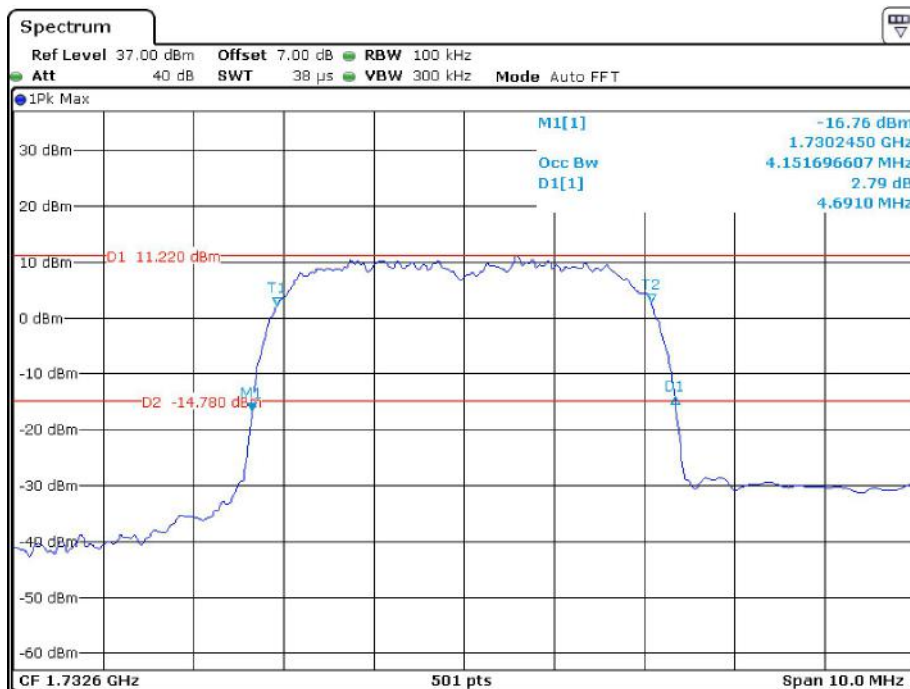
Date: 14.MAR.2022 10:45:44

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



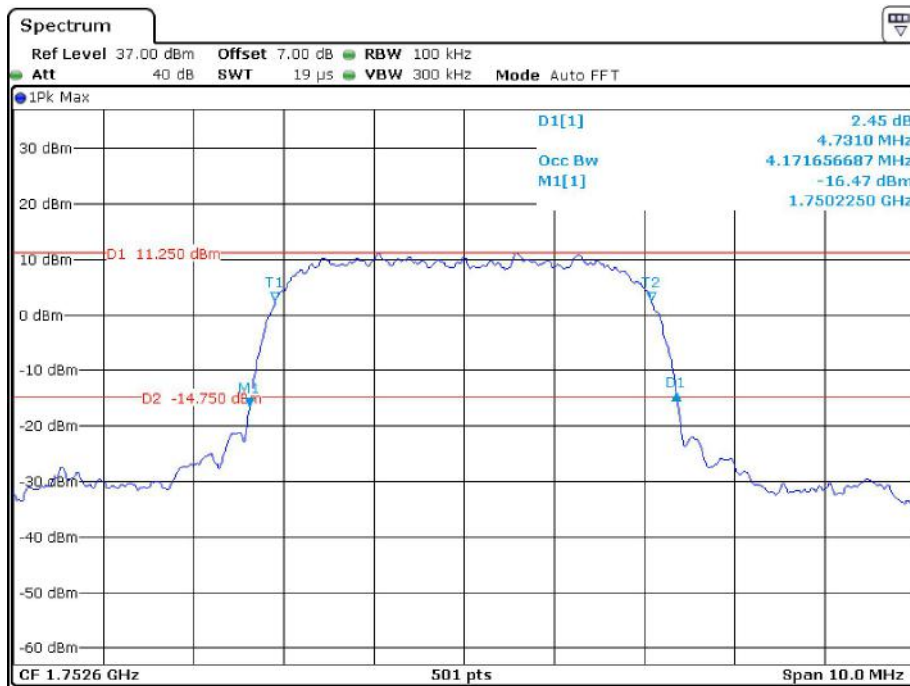
Date: 14.MAR.2022 10:36:27

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



Date: 18.APR.2022 14:52:07

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



Date: 14.MAR.2022 10:37:32

LTE Band 2:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.102	1.260	1.102	1.260	1.096	1.260
	16QAM	1.090	1.260	1.090	1.260	1.108	1.266
3 MHz	QPSK	2.695	3.000	2.695	3.012	2.695	3.024
	16QAM	2.695	3.024	2.683	3.024	2.683	3.024
5 MHz	QPSK	4.511	5.000	4.511	5.020	4.511	5.020
	16QAM	4.511	4.980	4.511	4.980	4.551	5.040
10 MHz	QPSK	8.942	9.760	8.942	9.760	8.942	9.840
	16QAM	8.942	9.760	8.942	9.800	8.942	9.880
15 MHz	QPSK	13.533	14.940	13.533	14.940	13.533	14.940
	16QAM	13.593	15.060	13.533	15.120	13.533	15.120
20 MHz	QPSK	17.964	19.600	17.964	19.600	17.964	19.760
	16QAM	17.964	19.760	18.044	19.760	18.044	19.680

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	1.096	1.266	1.102	1.260	1.102	1.260
	16QAM	1.102	1.266	1.102	1.272	1.102	1.260
3 MHz	QPSK	2.695	3.000	2.695	3.012	2.695	2.988
	16QAM	2.695	3.024	2.683	3.024	2.695	3.024
5 MHz	QPSK	4.511	5.000	4.511	5.000	4.511	5.020
	16QAM	4.511	4.980	4.511	5.040	4.531	5.020
10 MHz	QPSK	8.942	9.760	8.942	9.760	8.942	9.800
	16QAM	8.942	9.720	8.942	9.800	8.942	9.840
15 MHz	QPSK	13.533	15.180	13.533	15.000	13.533	14.940
	16QAM	13.533	14.940	13.533	15.000	13.533	15.060
20 MHz	QPSK	17.964	19.520	17.964	19.600	18.044	19.680
	16QAM	18.044	19.760	17.964	19.680	17.964	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	1.096	1.254	1.096	1.254	1.102	1.266
	16QAM	1.102	1.266	1.102	1.266	1.108	1.272
3 MHz	QPSK	2.695	2.988	2.695	3.012	2.683	3.036
	16QAM	2.695	3.012	2.683	3.000	2.695	3.024
5 MHz	QPSK	4.531	5.000	4.511	5.000	4.511	4.980
	16QAM	4.511	5.000	4.531	5.020	4.531	5.020
10 MHz	QPSK	8.942	9.800	8.942	9.760	8.982	9.800
	16QAM	8.942	9.760	8.942	9.760	8.942	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	4.511	5.000	4.551	5.030	4.511	5.020
	16QAM	4.511	4.990	4.551	5.030	4.531	5.040
10 MHz	QPSK	8.942	9.720	8.942	9.760	8.942	9.800
	16QAM	8.942	9.680	8.982	9.840	8.942	9.880
15 MHz	QPSK	13.533	15.000	13.473	15.000	13.533	15.120
	16QAM	13.473	15.000	13.533	15.120	13.533	15.000
20 MHz	QPSK	17.884	19.600	17.964	19.520	18.044	19.840
	16QAM	17.964	19.680	17.964	19.680	18.044	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	4.511	5.120	4.511	5.120	4.511	4.980
	16QAM	4.511	5.200	4.511	5.120	4.511	5.140
10 MHz	QPSK	8.982	9.800	8.942	9.840	8.942	9.720
	16QAM	8.942	9.760	8.942	9.760	8.942	9.920
15 MHz	QPSK	13.533	15.240	13.533	14.880	13.533	15.420
	16QAM	13.533	15.120	13.593	14.940	13.593	15.480
20 MHz	QPSK	17.964	19.520	17.964	19.680	17.964	19.760
	16QAM	17.964	20.000	17.964	19.600	17.964	19.680

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	4.511	5.100	4.511	5.140	4.511	4.980
	16QAM	4.511	5.240	4.511	5.100	4.531	5.160
10 MHz	QPSK	8.942	9.720	8.942	9.880	8.942	9.800
	16QAM	8.942	9.760	8.942	9.760	8.942	9.840
15 MHz	QPSK	13.533	15.060	13.533	14.820	13.473	15.300
	16QAM	13.533	15.660	13.593	15.120	13.653	15.300
20 MHz	QPSK	17.964	19.600	17.964	20.000	17.964	20.000
	16QAM	17.884	19.600	17.964	19.680	17.884	19.680

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

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

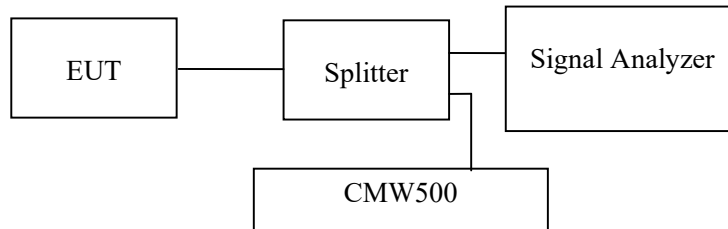
Applicable Standard

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

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

Test Procedure

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



Test Data

Environmental Conditions

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei from 2022-03-10 to 2022-03-29.

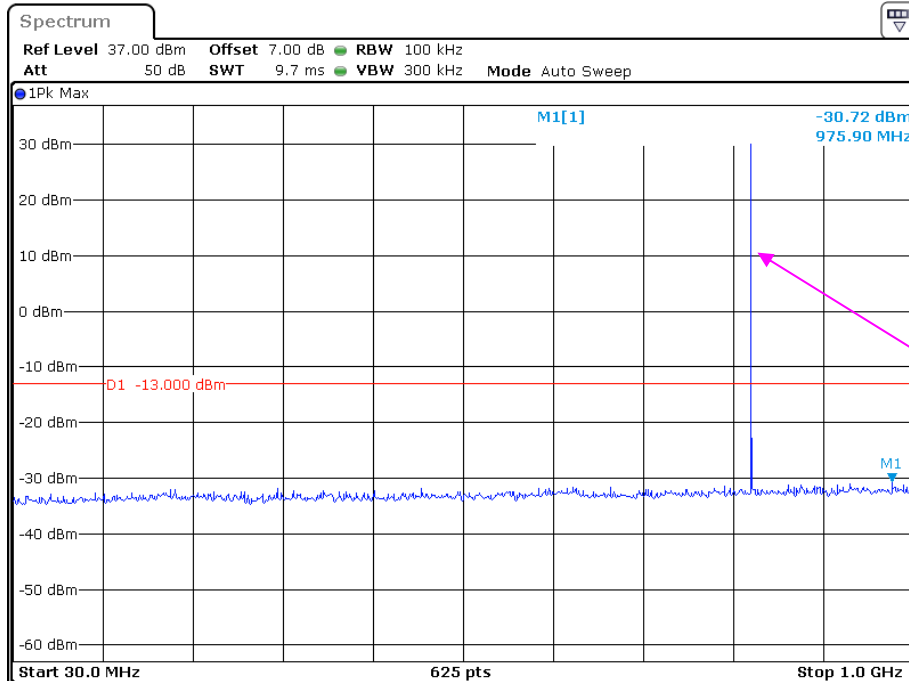
EUT operation mode: Transmitting

Test result: Pass

Please refer to the following plots.

Cellular Band (Part 22H)
Low Channel:

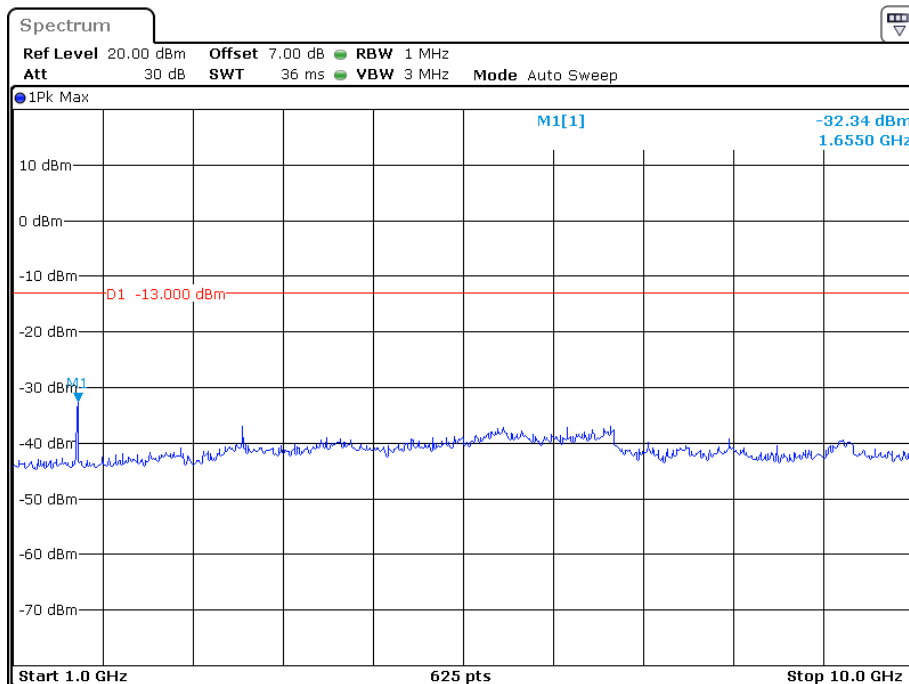
30 MHz – 1 GHz (GSM Mode)



Date: 11.MAR.2022 19:11:41

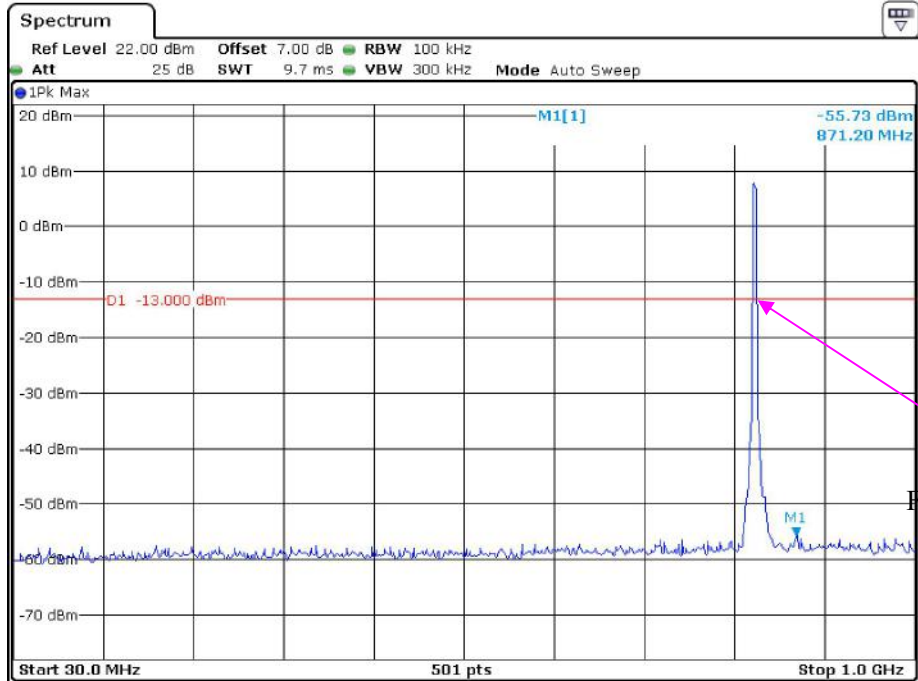
Fundamental test

1 GHz – 10 GHz (GSM Mode)



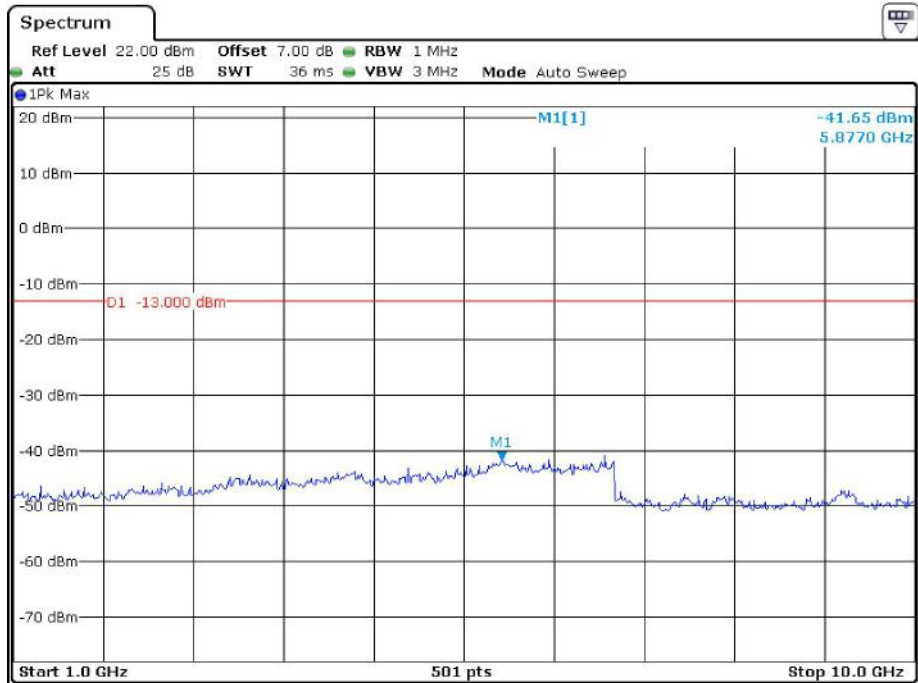
Date: 11.MAR.2022 19:18:03

30 MHz – 1 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:31:35

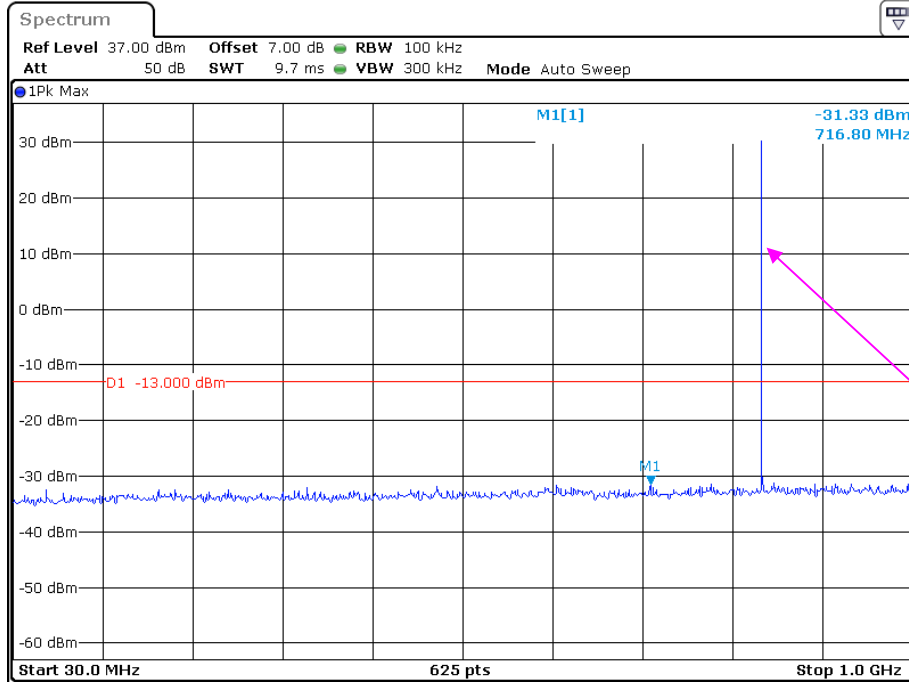
1 GHz – 10 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:29:52

Middle Channel:

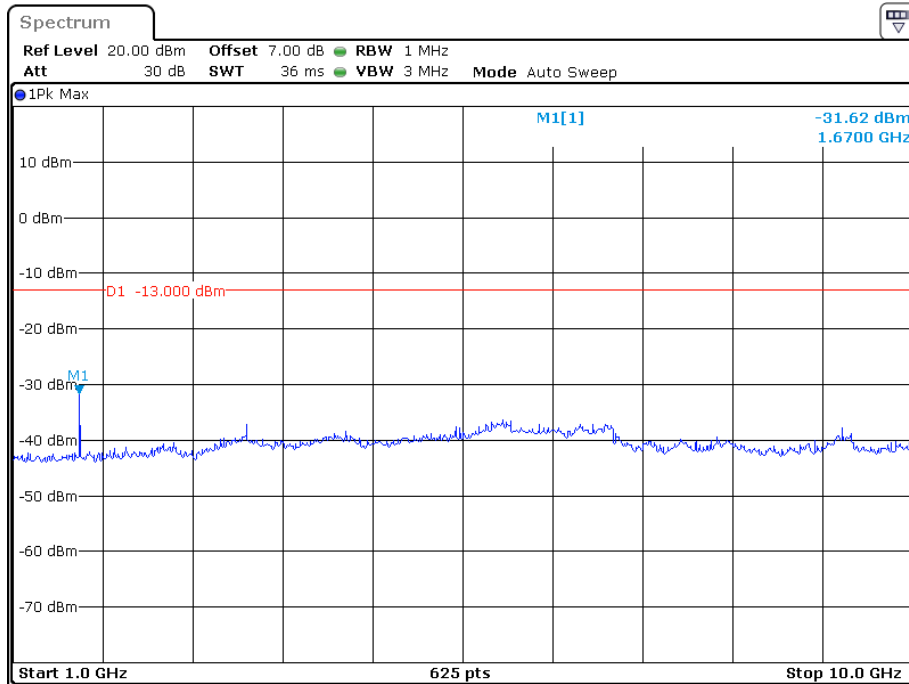
30 MHz – 1 GHz (GSM Mode)



Date: 11.MAR.2022 19:12:49

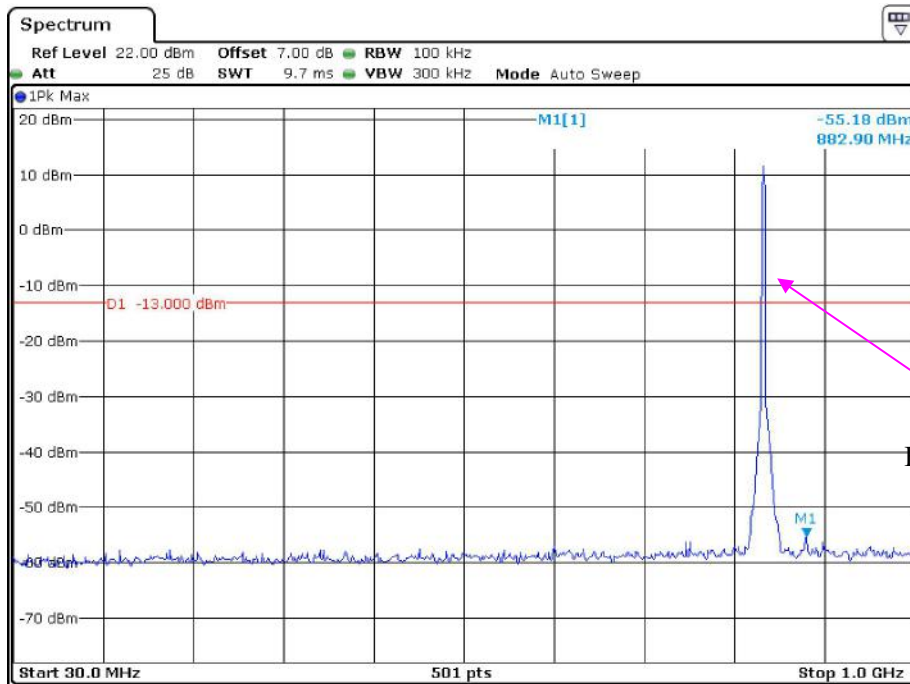
Fundamental test

1 GHz – 10 GHz (GSM Mode)



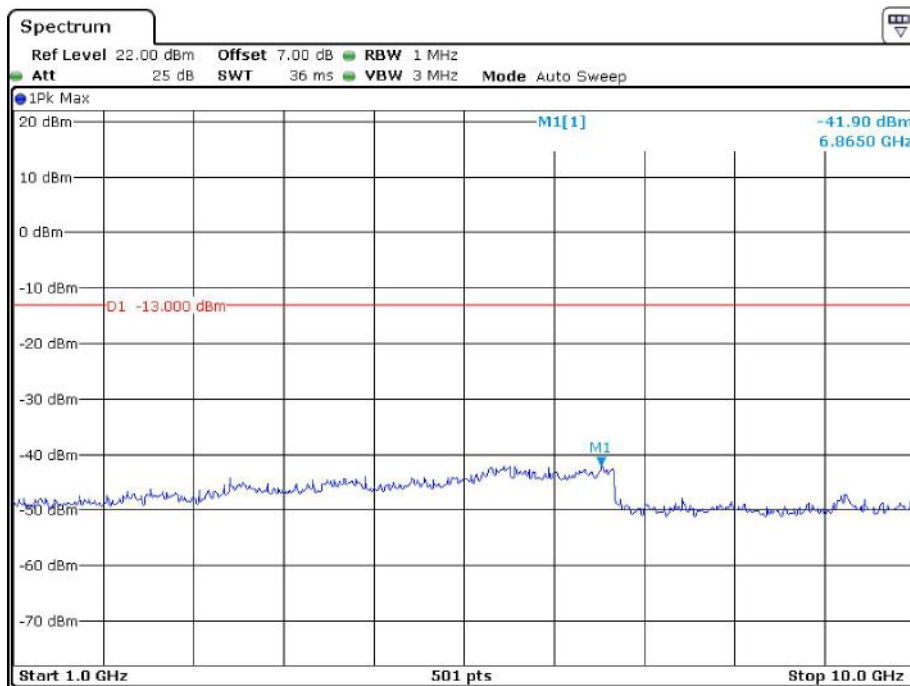
Date: 11.MAR.2022 19:17:29

30 MHz – 1 GHz (WCDMA Mode)



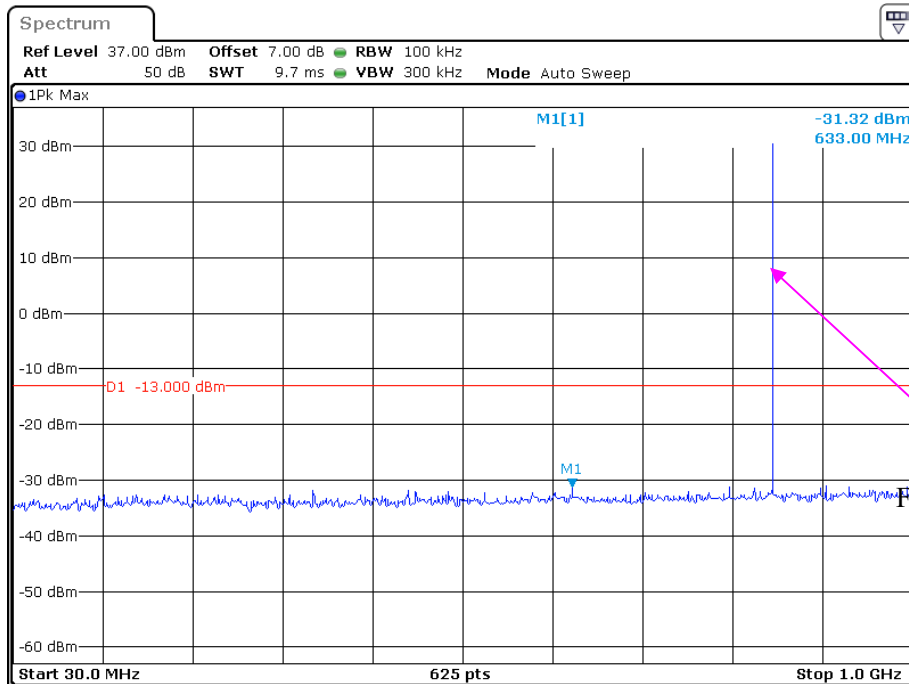
Fundamental test

1 GHz – 10 GHz (WCDMA Mode)



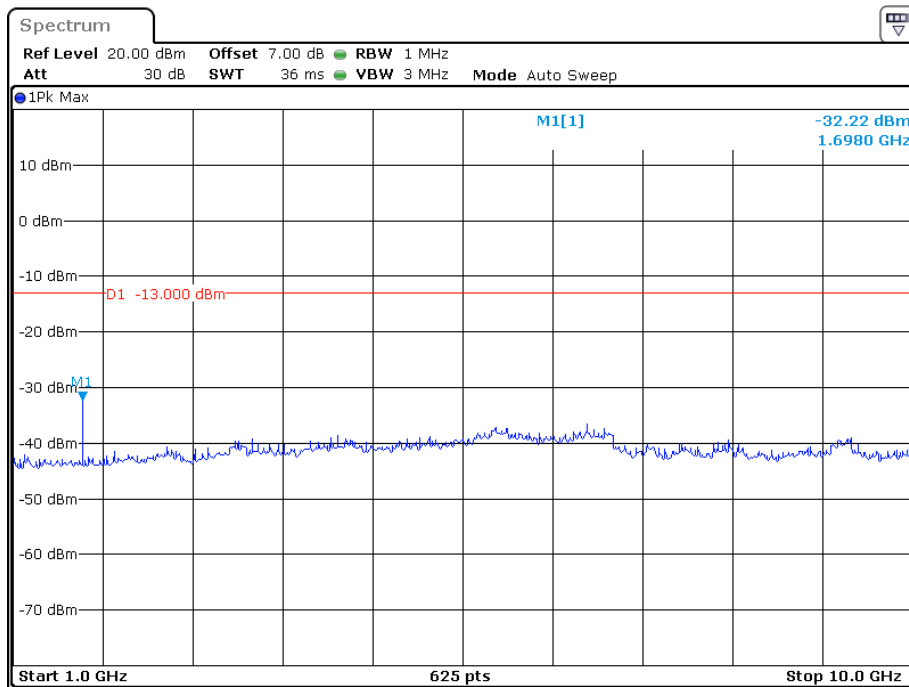
High Channel:

30 MHz – 1 GHz (GSM Mode)



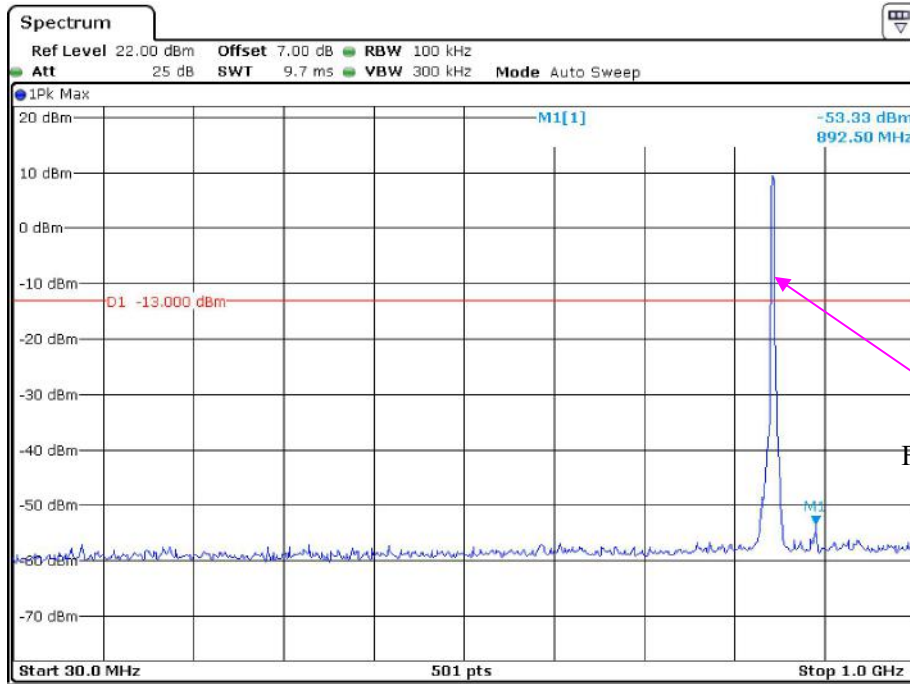
Date: 11.MAR.2022 19:13:33

1 GHz – 10 GHz (GSM Mode)



Date: 11.MAR.2022 19:15:51

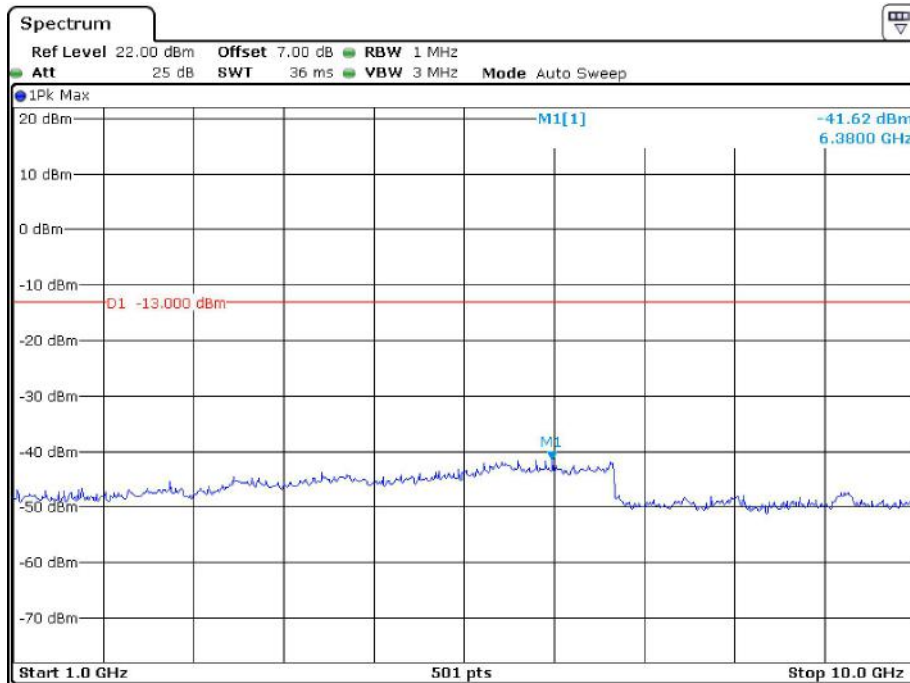
30 MHz – 1 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:31:08

Fundamental test

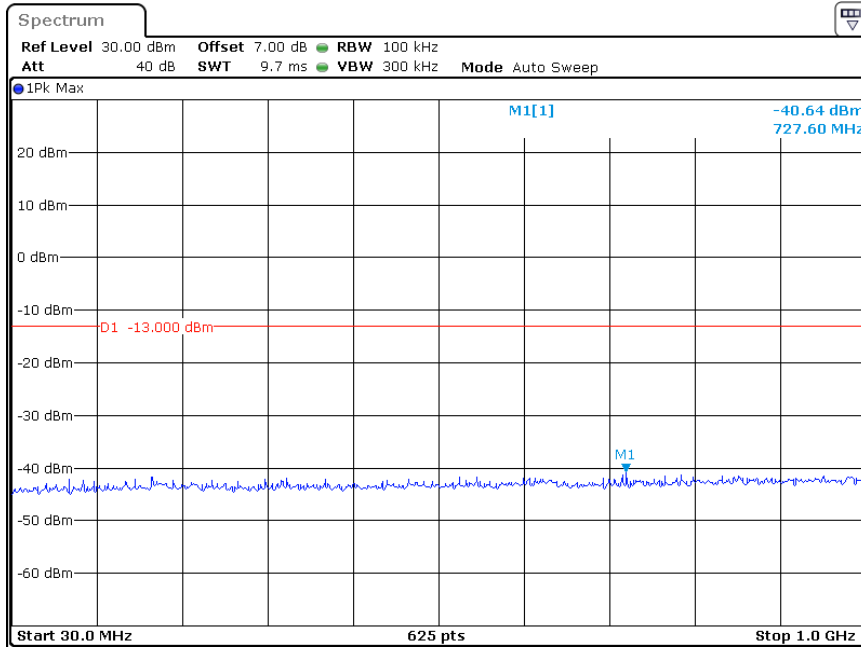
1 GHz – 10 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:30:21

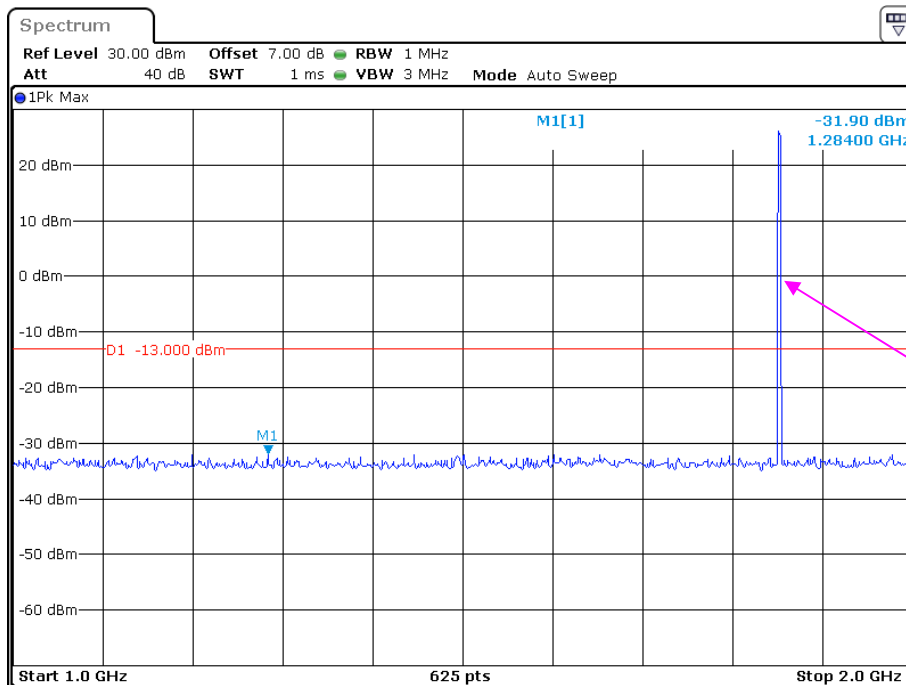
**PCS Band (Part 24E)
Low Channel:**

30 MHz – 1 GHz (GSM Mode)



Date: 11.MAR.2022 19:29:02

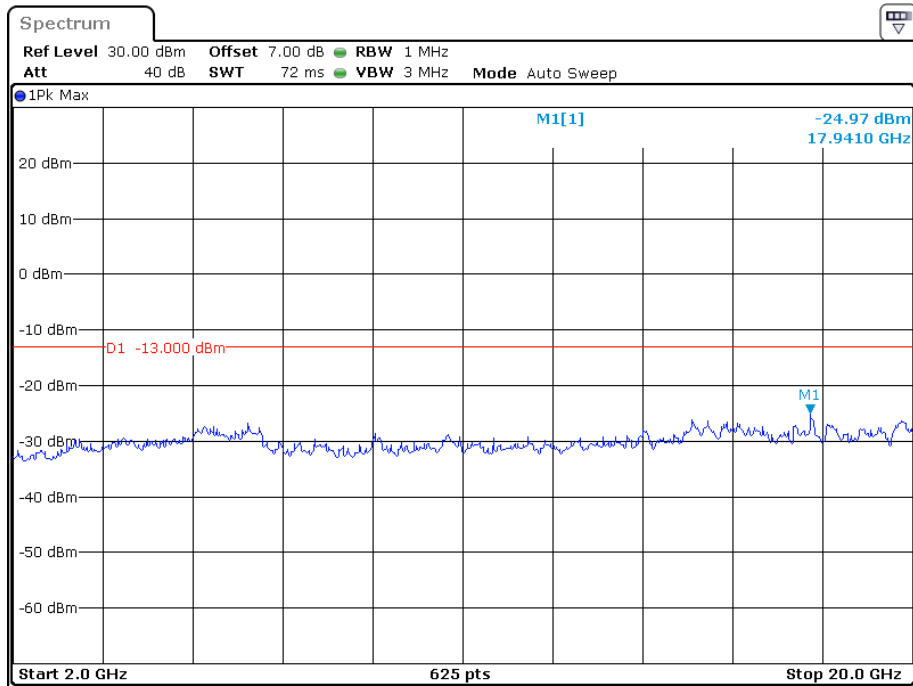
1 GHz – 2 GHz (GSM Mode)



Fundamental test

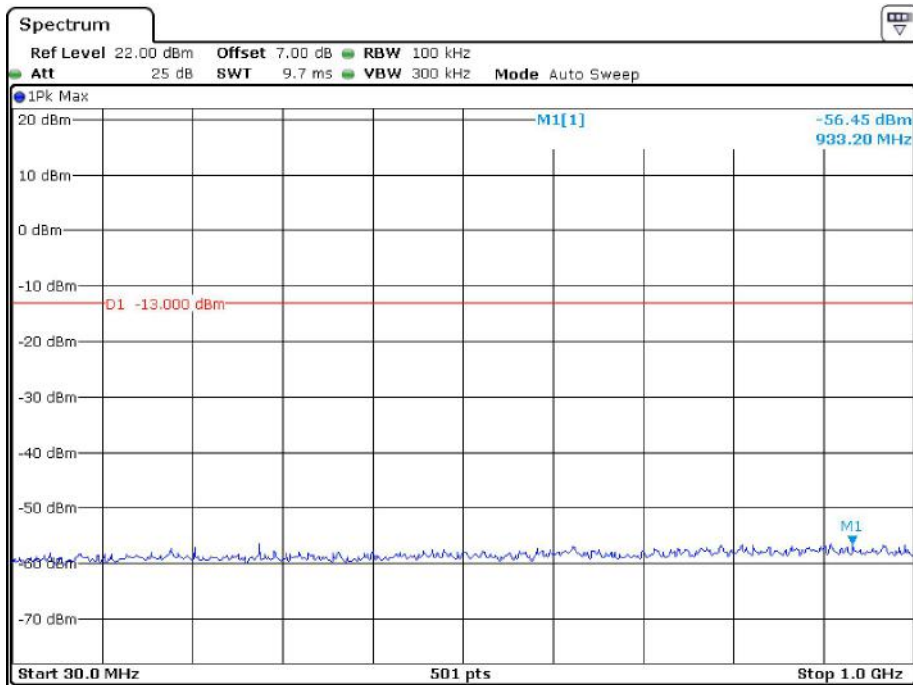
Date: 11.MAR.2022 19:22:00

2 GHz – 20 GHz (GSM Mode)



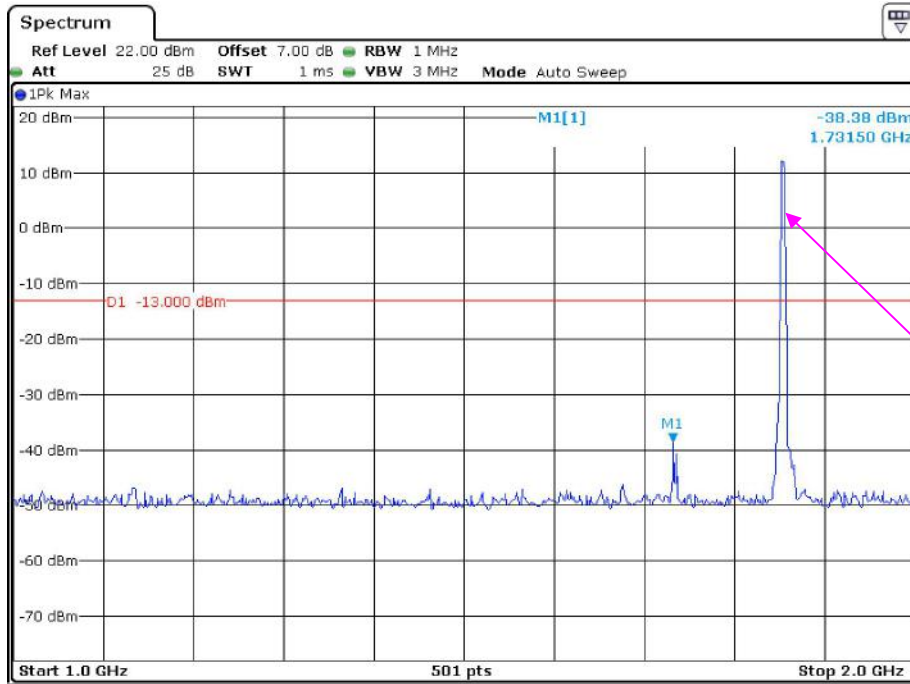
Date: 11.MAR.2022 19:27:14

30 MHz – 1 GHz (WCDMA Mode)



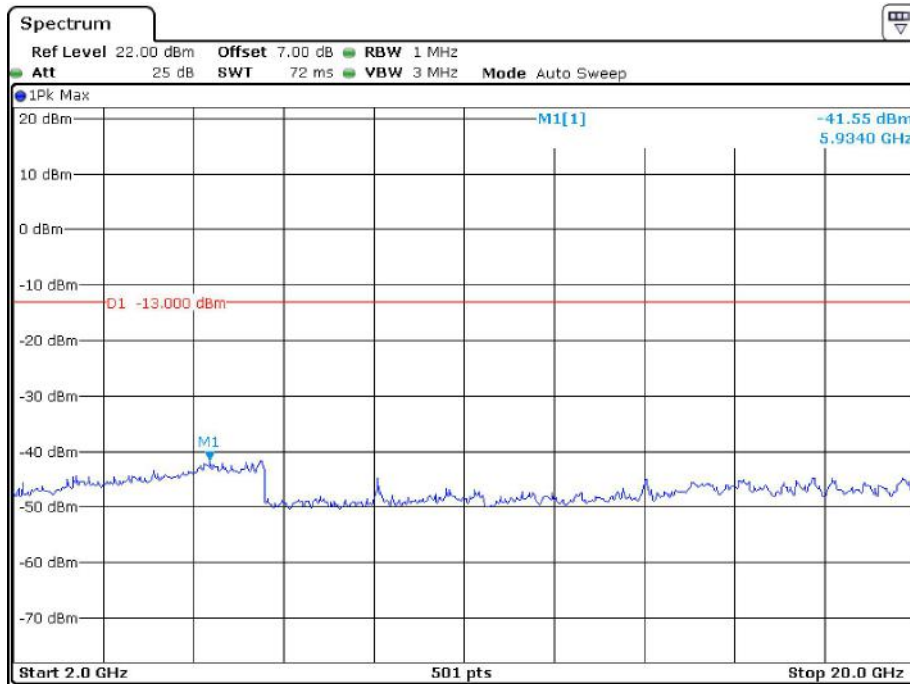
Date: 12.MAR.2022 18:32:18

1 GHz – 2 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:34:01

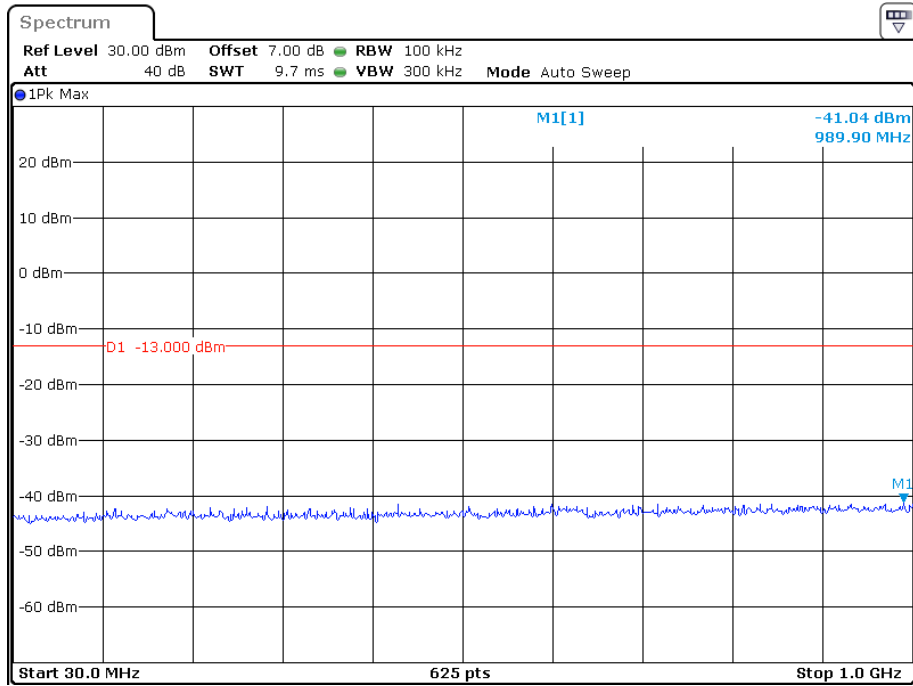
2 GHz – 20 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:34:29

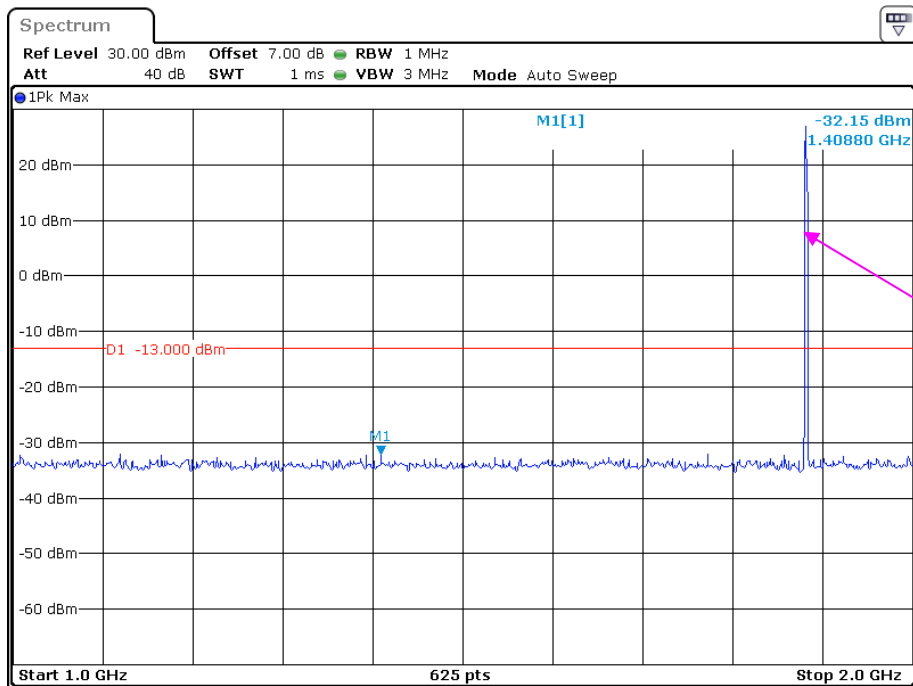
Middle Channel:

30 MHz – 1 GHz (GSM Mode)



Date: 11.MAR.2022 19:30:27

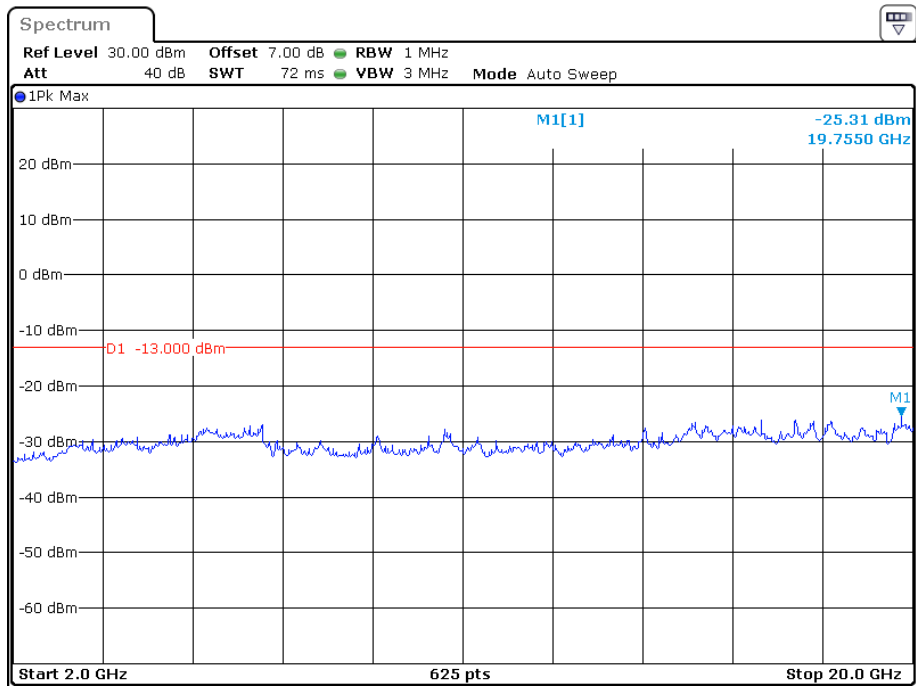
1 GHz – 2GHz (GSM Mode)



Fundamental test

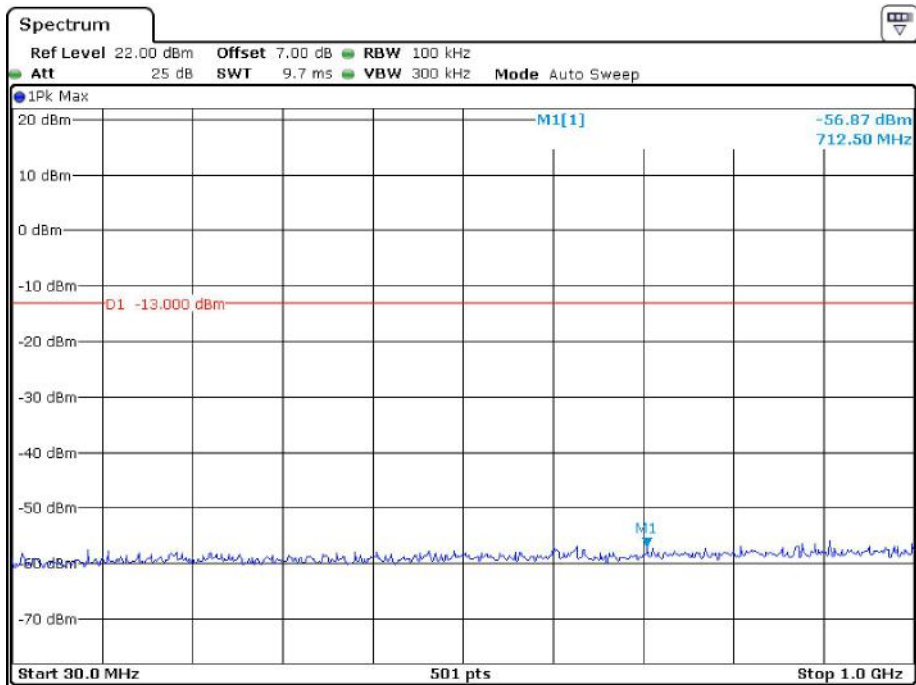
Date: 11.MAR.2022 19:23:04

2 GHz – 20 GHz (GSM Mode)



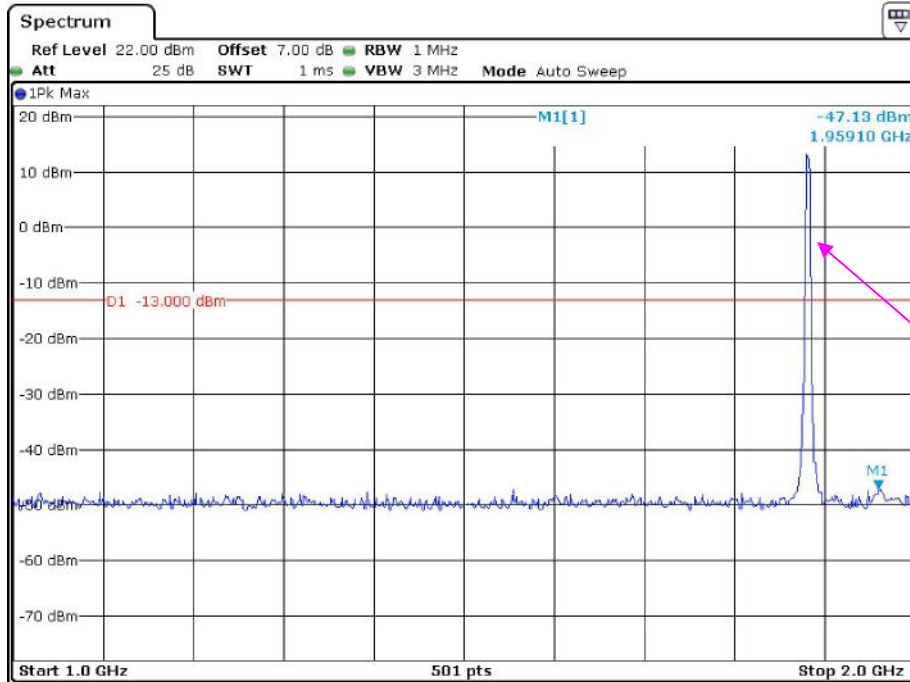
Date: 11.MAR.2022 19:26:04

30 MHz – 1 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:32:33

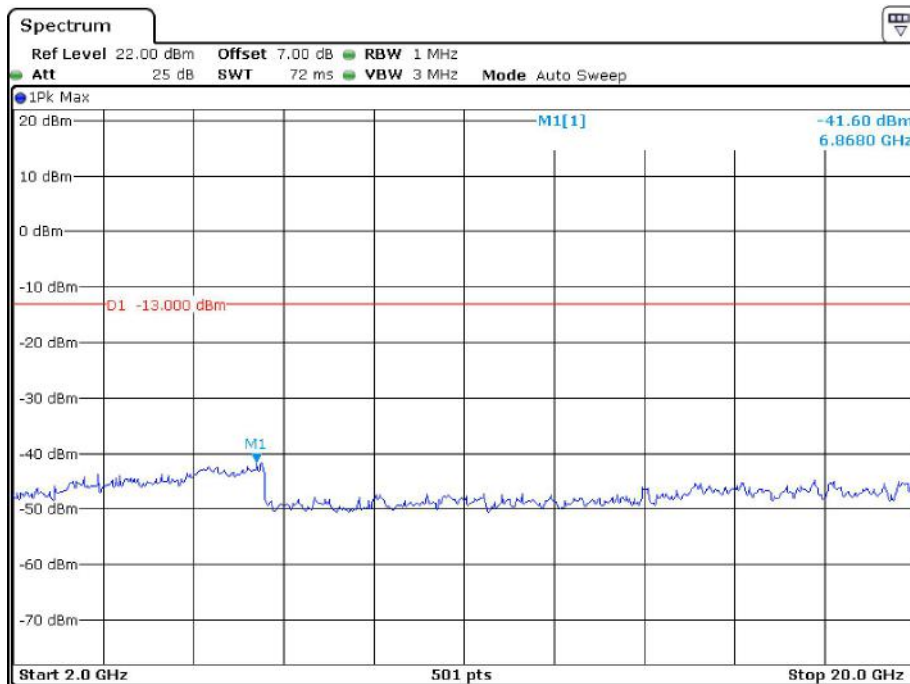
1 GHz – 2GHz (WCDMA Mode)



Fundamental test

Date: 12.MAR.2022 18:33:38

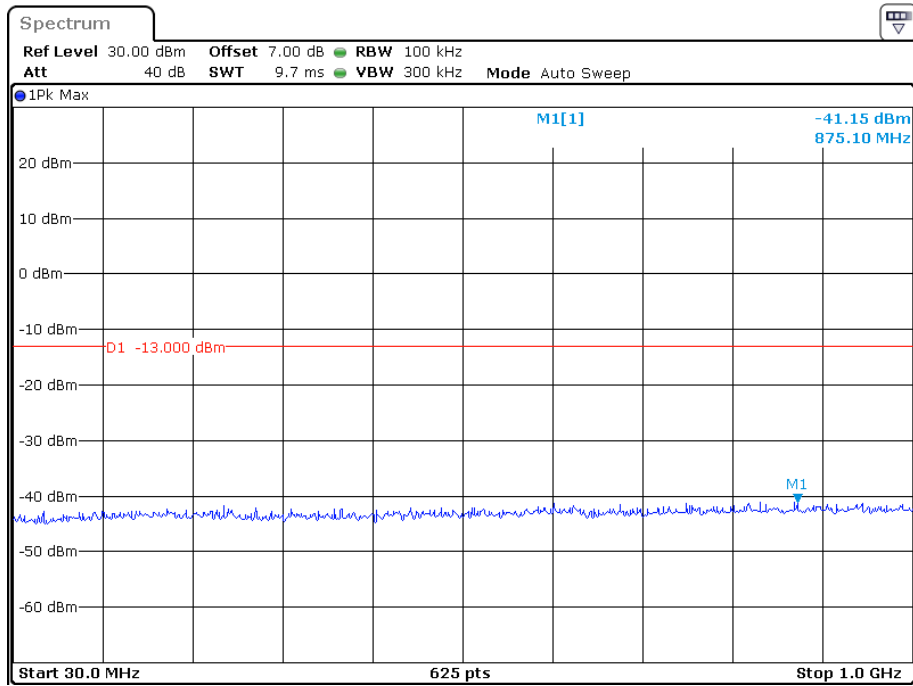
2 GHz – 20GHz (WCDMA Mode)



Date: 12.MAR.2022 18:34:45

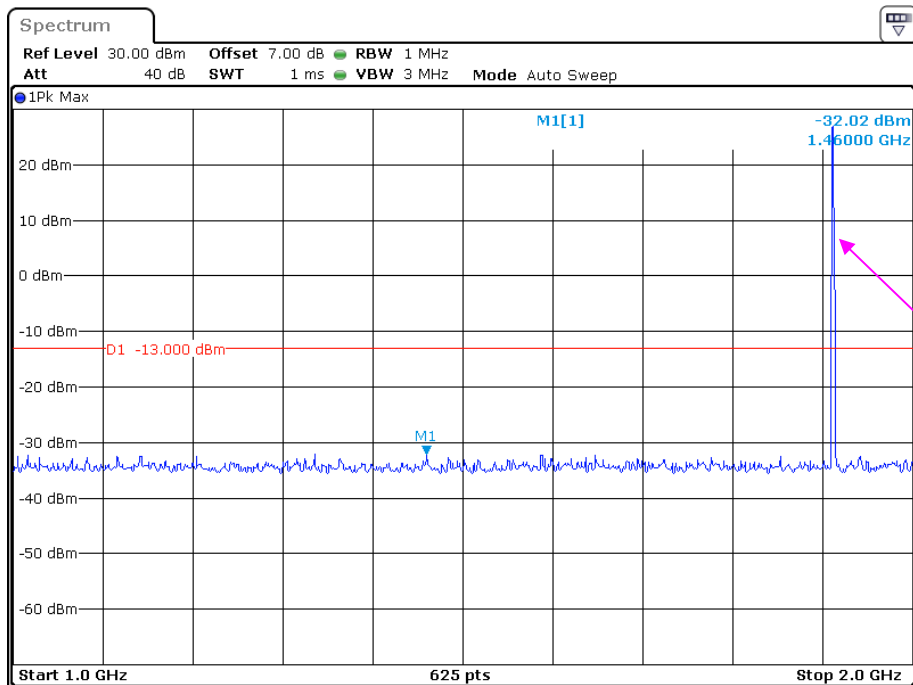
High Channel:

30 MHz – 1 GHz (GSM Mode)



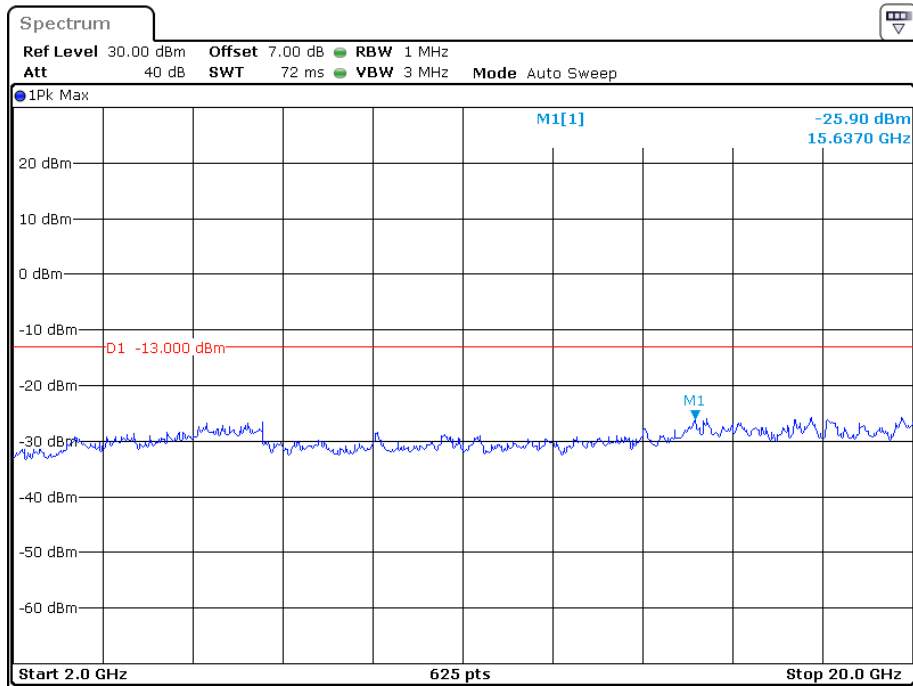
Date: 11.MAR.2022 19:32:05

1 GHz – 2 GHz (GSM Mode)



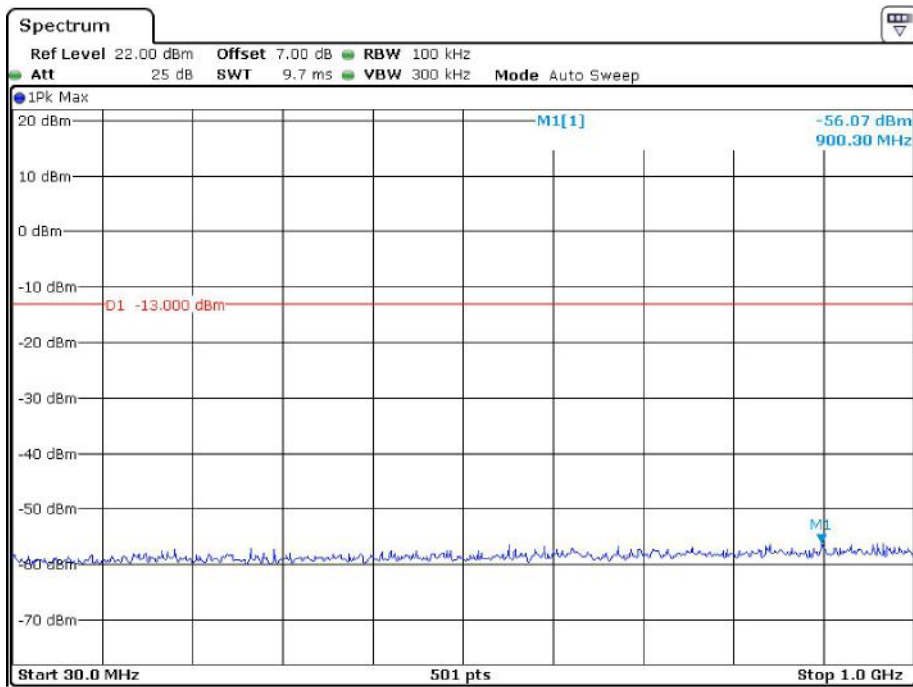
Date: 11.MAR.2022 19:23:57

1 GHz– 20 GHz (GSM Mode)



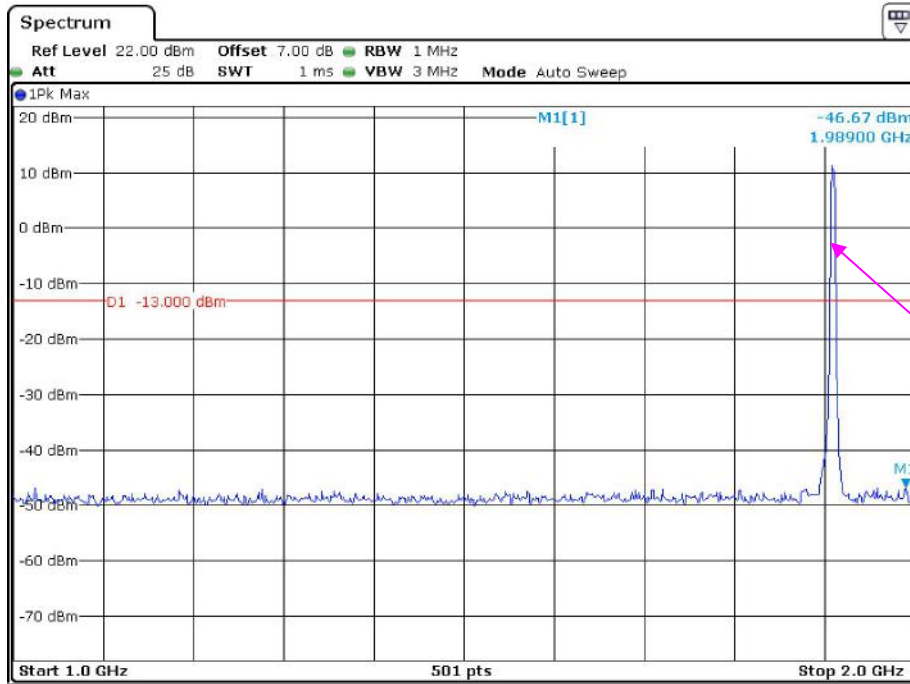
Date: 11.MAR.2022 19:25:19

30 MHz – 1 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:32:52

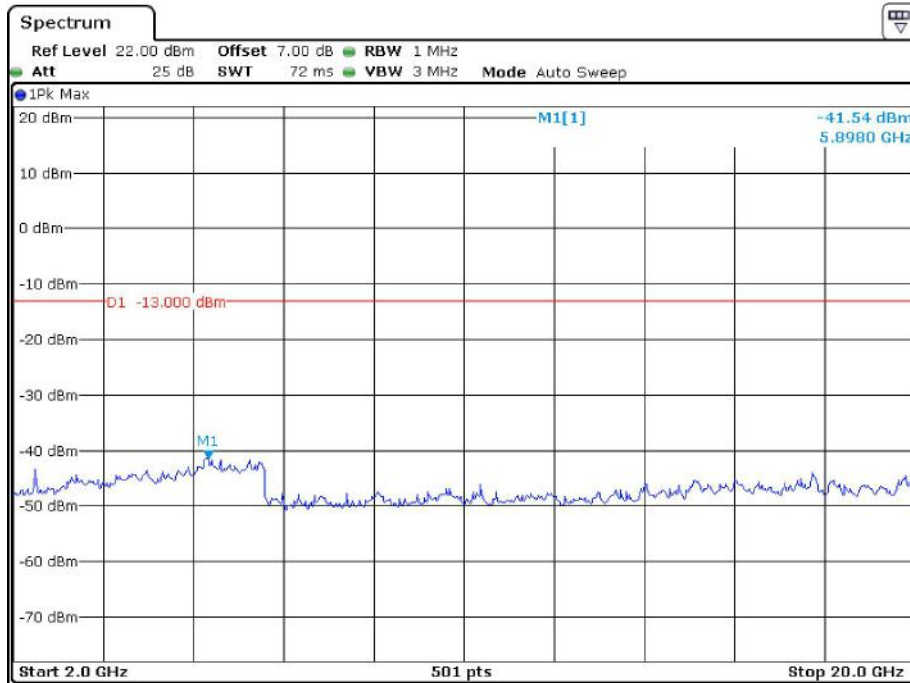
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 12.MAR.2022 18:33:24

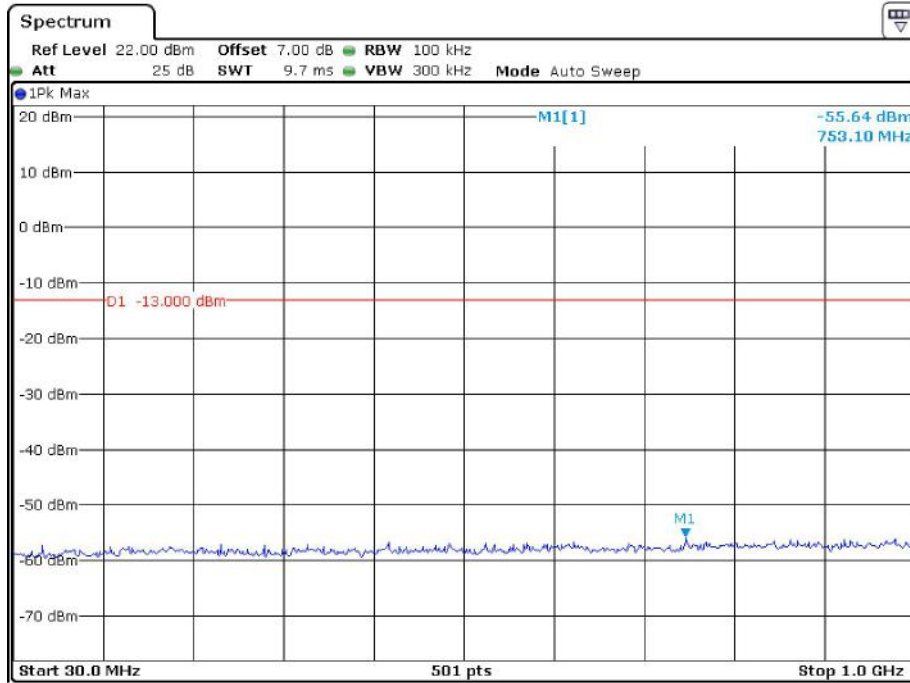
2GHz – 20 GHz (WCDMA Mode)



Date: 12.MAR.2022 18:35:02

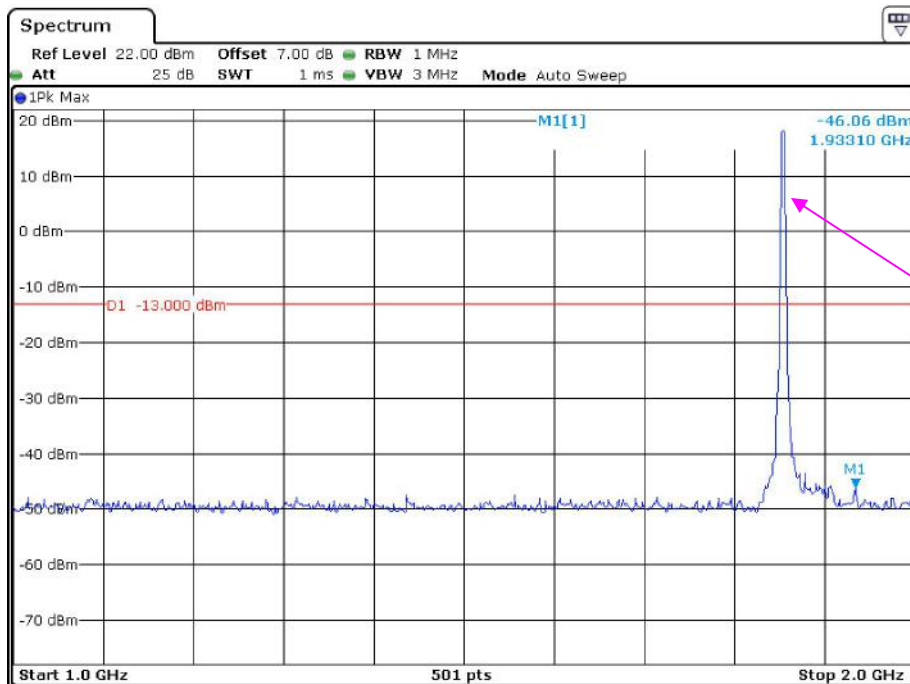
**AWS Band (Part 27)
Low Channel:**

30 MHz – 1 GHz (WCDMA Mode)



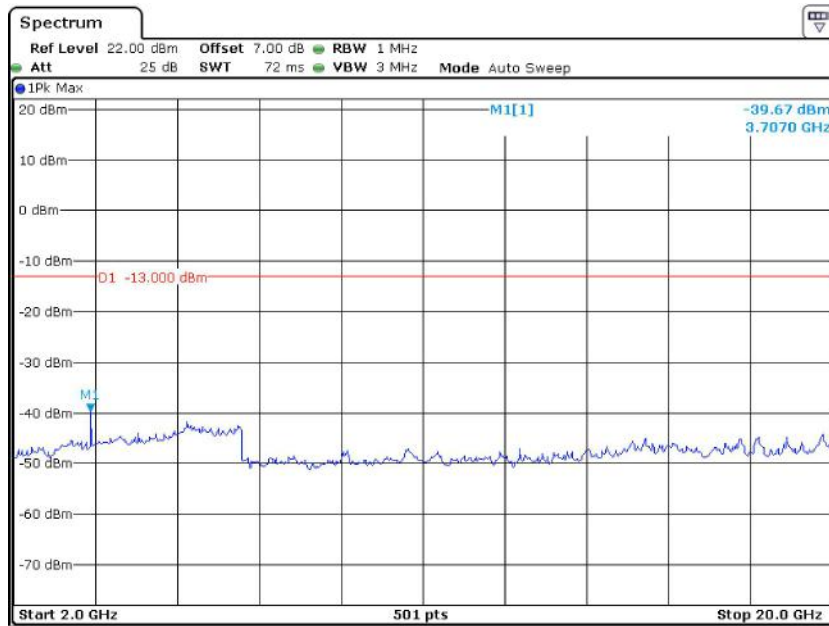
Date: 29.MAR.2022 20:30:21

1 GHz – 2 GHz (WCDMA Mode)



Date: 29.MAR.2022 20:34:27

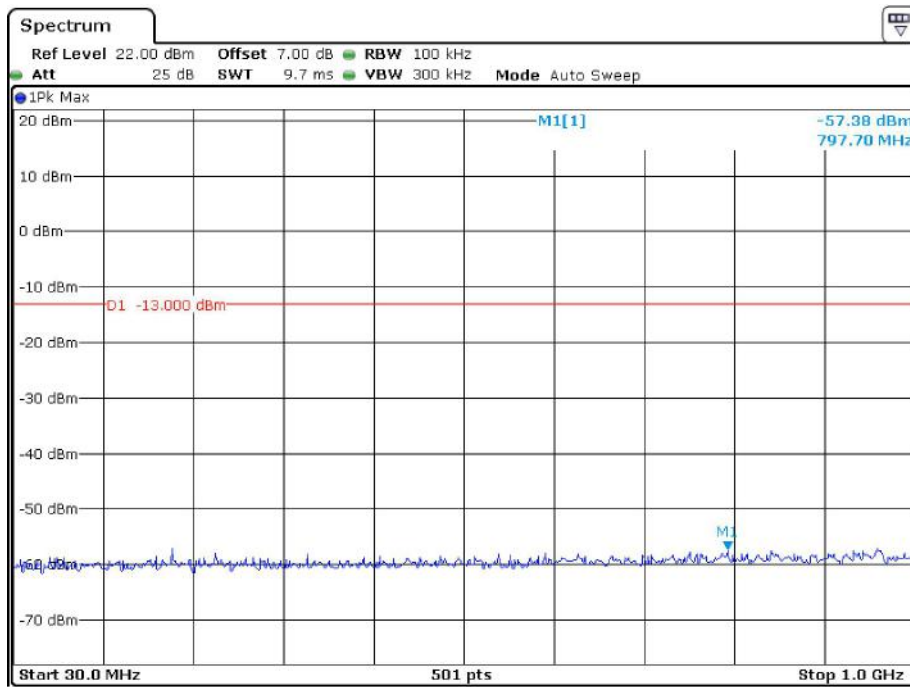
2 GHz – 20 GHz (WCDMA Mode)



Date: 29.MAR.2022 20:35:09

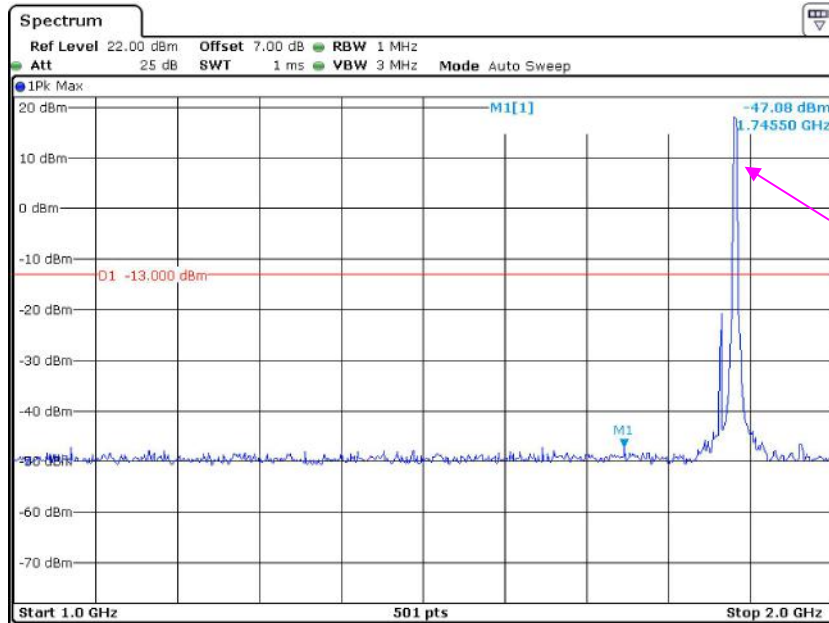
Middle Channel

30 MHz – 1 GHz (WCDMA Mode)



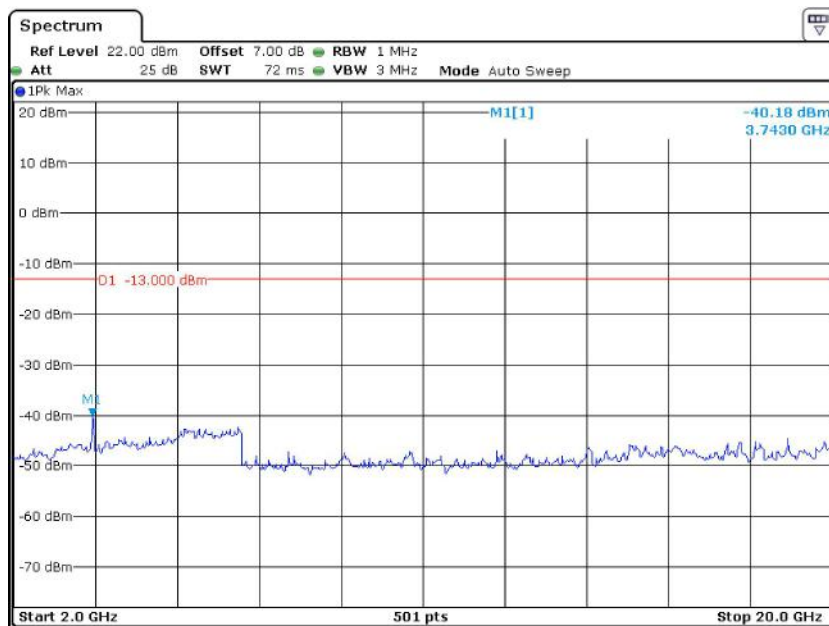
Date: 29.MAR.2022 20:31:03

1 GHz – 2 GHz (WCDMA Mode)



Date: 29.MAR.2022 20:34:10

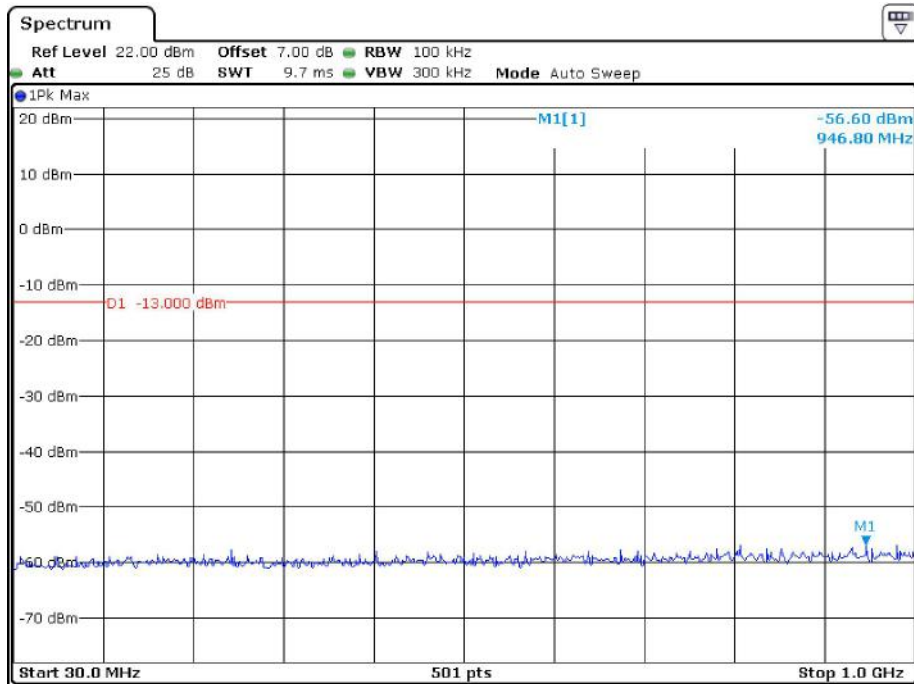
2 GHz – 20 GHz (WCDMA Mode)



Date: 29.MAR.2022 20:35:21

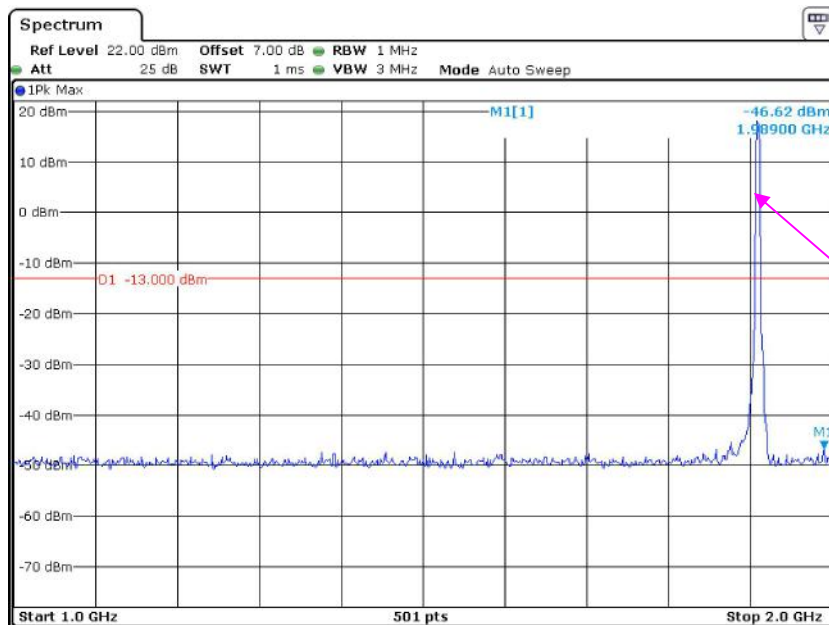
High Channel:

30 MHz – 1 GHz (WCDMA Mode)



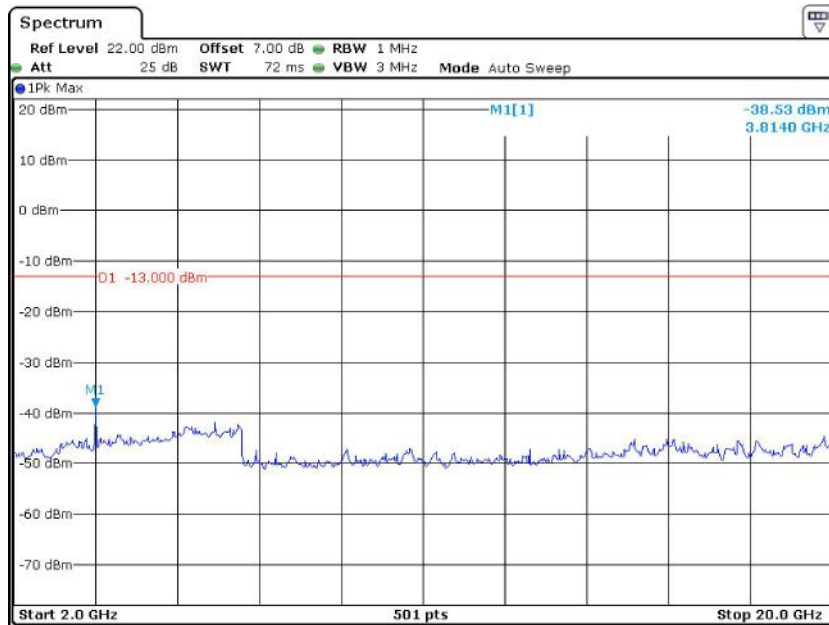
Date: 29.MAR.2022 20:31:22

1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

2 GHz – 20 GHz (WCDMA Mode)



Date: 29.MAR.2022 20:35:39

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

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

Applicable Standard

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

Test Procedure

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

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

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

Test Data**Environmental Conditions**

Temperature:	25.5 °C
Relative Humidity:	50 %
ATM Pressure:	101.0kPa

The testing was performed by Caro Hu from 2022-03-02 to 2022-03-04.

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								
957.9	-75.26	220	2.4	H	9.8	-65.46	-13	-52.46
957.9	-73.56	146	1.8	V	11.7	-61.86	-13	-48.86
1648.4	-43.8	66	2	H	3.5	-40.3	-13	-27.3
1648.4	-44.6	226	1.4	V	3.1	-41.5	-13	-28.5
2472.6	-34.9	97	1	H	6.6	-28.3	-13	-15.3
2472.6	-34.6	312	1.2	V	5.8	-28.8	-13	-15.8
3296.8	-50.1	5	2.1	H	6.4	-43.7	-13	-30.7
3296.8	-50.1	282	1.7	V	5.7	-44.4	-13	-31.4
Middle Channel								
957.9	-76.22	220	2.4	H	9.8	-66.42	-13	-53.42
957.9	-74.07	146	1.8	V	11.7	-62.37	-13	-49.37
1673.2	-42.5	243	1.1	H	3.8	-38.7	-13	-25.7
1673.2	-43.5	12	1.8	V	3.1	-40.4	-13	-27.4
2509.8	-35.6	269	1.4	H	6.2	-29.4	-13	-16.4
2509.8	-37.5	294	1.2	V	5.6	-31.9	-13	-18.9
3346.4	-49	282	1.3	H	6.6	-42.4	-13	-29.4
3346.4	-48.5	87	1.1	V	5.4	-43.1	-13	-30.1
High Channel								
953.4	-76.51	220	2.4	H	9.8	-66.71	-13	-53.71
953.4	-75.02	146	1.8	V	11.7	-63.32	-13	-50.32
1697.6	-41	351	1.2	H	4.1	-36.9	-13	-23.9
1697.6	-41.9	216	1.9	V	3.1	-38.8	-13	-25.8
2546.4	-36	267	1.8	H	6.1	-29.9	-13	-16.9
2546.4	-39.3	162	1.6	V	5.8	-33.5	-13	-20.5
3395.2	-49.4	27	1.4	H	6.2	-43.2	-13	-30.2
3395.2	-48.7	122	1.9	V	5.4	-43.3	-13	-30.3

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 5								
Low Channel								
954.6	-76.57	220	2.4	H	9.8	-66.77	-13	-53.77
954.6	-75.09	146	1.8	V	11.7	-63.39	-13	-50.39
1652.8	-49.9	64	1.3	H	3.5	-46.4	-13	-33.4
1652.8	-47.3	317	2.4	V	3.1	-44.2	-13	-31.2
2479.2	-47.8	49	1.6	H	6.5	-41.3	-13	-28.3
2479.2	-48.2	151	1.4	V	5.7	-42.5	-13	-29.5
3305.6	-49.9	49	1.6	H	6.4	-43.5	-13	-30.5
3305.6	-48.7	151	1.4	V	5.7	-43	-13	-30
Middle Channel								
960.4	-76.64	220	2.4	H	9.8	-66.84	-13	-53.84
960.4	-75.76	146	1.8	V	11.7	-64.06	-13	-51.06
1673.2	-44.4	232	2	H	3.8	-40.6	-13	-27.6
1673.2	-45.3	289	2.1	V	3.1	-42.2	-13	-29.2
2509.8	-44.5	122	1.3	H	6.2	-38.3	-13	-25.3
2509.8	-47.2	16	1.1	V	5.7	-41.5	-13	-28.5
3346.4	-47.8	122	1.3	H	6.6	-41.2	-13	-28.2
3346.4	-46.2	16	1.1	V	5.4	-40.8	-13	-27.8
High Channel								
954.1	-77.06	220	2.4	H	9.8	-67.26	-13	-54.26
954.1	-76.13	146	1.8	V	11.7	-64.43	-13	-51.43
1673.2	-46.8	135	2.1	H	4	-42.8	-13	-29.8
1673.2	-41.4	71	2.2	V	3.1	-38.3	-13	-25.3
2509.8	-44.2	293	2.4	H	6.1	-38.1	-13	-25.1
2509.8	-45.5	139	2	V	5.7	-39.8	-13	-26.8
3386.4	-48.1	293	2.4	H	6.3	-41.8	-13	-28.8
3386.4	-46.6	139	2	V	5.4	-41.2	-13	-28.2

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								
954.6	-77.11	220	2.4	H	9.8	-67.31	-13	-54.31
954.6	-75.72	146	1.8	V	11.7	-64.02	-13	-51.02
3700.4	-54.8	190	1.6	H	8.1	-46.7	-13	-33.7
3700.4	-54.3	22	2.1	V	7.6	-46.7	-13	-33.7
5550.6	-53.3	349	1.9	H	9.6	-43.7	-13	-30.7
5550.6	-53.1	263	2.1	V	9.1	-44	-13	-31
Middle Channel								
959.4	-76.53	220	2.4	H	9.8	-66.73	-13	-53.73
959.4	-75.51	146	1.8	V	11.7	-63.81	-13	-50.81
3760	-54.9	63	1.2	H	8.8	-46.1	-13	-33.1
3760	-54.6	144	1.1	V	8	-46.6	-13	-33.6
5640	-54.7	323	1.6	H	10.2	-44.5	-13	-31.5
5640	-54	90	1.2	V	9.4	-44.6	-13	-31.6
High Channel								
948.6	-76.42	220	2.4	H	9.8	-66.62	-13	-53.62
948.6	-75.73	146	1.8	V	11.7	-64.03	-13	-51.03
3819.6	-54.8	286	1.7	H	8.7	-46.1	-13	-33.1
3819.6	-54	291	2.2	V	8	-46	-13	-33
5729.4	-54.8	50	1	H	10.6	-44.2	-13	-31.2
5729.4	-54.1	216	1.4	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)				
WCDMA Band 2								
Low Channel								
951.9	-76.46	220	2.4	H	9.8	-66.66	-13	-53.66
951.9	-75.97	146	1.8	V	11.7	-64.27	-13	-51.27
3704.8	-55	320	2	H	8.1	-46.9	-13	-33.9
3704.8	-53.4	1	1.8	V	7.6	-45.8	-13	-32.8
5557.2	-53.9	206	1.8	H	9.6	-44.3	-13	-31.3
5557.2	-53.4	246	1	V	9.1	-44.3	-13	-31.3
Middle Channel								
953.7	-77.01	220	2.4	H	9.8	-67.21	-13	-54.21
953.7	-76.73	146	1.8	V	11.7	-65.03	-13	-52.03
3760.0	-56.3	212	1.6	H	8.8	-47.5	-13	-34.5
3760.0	-54.6	17	1.8	V	8	-46.6	-13	-33.6
5640.0	-55.3	210	1.3	H	10.2	-45.1	-13	-32.1
5640.0	-54.7	75	1.9	V	9.4	-45.3	-13	-32.3
High Channel								
956.2	-76.64	220	2.4	H	9.8	-66.84	-13	-53.84
956.2	-75.96	146	1.8	V	11.7	-64.26	-13	-51.26
3815.2	-55	62	1.1	H	8.7	-46.3	-13	-33.3
3815.2	-53	71	2.1	V	8	-45	-13	-32
5722.8	-55.6	4	1.9	H	10.6	-45	-13	-32
5722.8	-55.4	247	1.2	V	10.2	-45.2	-13	-32.2

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								
959.4	-76.93	220	2.4	H	9.8	-67.13	-13	-54.13
959.4	-77.34	146	1.8	V	11.7	-65.64	-13	-52.64
3424.8	-51.3	71	1.2	H	6.4	-44.9	-13	-31.9
3424.8	-50.5	104	1.1	V	5.7	-44.8	-13	-31.8
5137.2	-56.2	51	1	H	11.3	-44.9	-13	-31.9
5137.2	-56.2	25	1.2	V	10.8	-45.4	-13	-32.4
Middle Channel								
958.3	-76.47	220	2.4	H	9.8	-66.67	-13	-53.67
958.3	-76.13	146	1.8	V	11.7	-64.43	-13	-51.43
3465.2	-51	250	1.4	H	7	-44	-13	-31
3465.2	-51.3	352	1.8	V	6.2	-45.1	-13	-32.1
5197.8	-55.3	41	1.8	H	10.4	-44.9	-13	-31.9
5197.8	-53.9	140	2.4	V	9.8	-44.1	-13	-31.1
High Channel								
953.5	-76.46	220	2.4	H	9.8	-66.66	-13	-53.66
953.5	-76.8	146	1.8	V	11.7	-65.1	-13	-52.1
3505.2	-51.9	61	1.9	H	7.8	-44.1	-13	-31.1
3505.2	-51.3	8	1.1	V	6.6	-44.7	-13	-31.7
5257.8	-53.8	63	2	H	9.5	-44.3	-13	-31.3
5257.8	-51.8	43	2.5	V	8.9	-42.9	-13	-29.9

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

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 2								
Test frequency range: 30MHz-20GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
957.5	-76.47	220	2.4	H	9.8	-66.67	-13	-53.67
957.5	-76.77	146	1.8	V	11.7	-65.07	-13	-52.07
3701.4	-54.1	221	1.7	H	8.8	-45.3	-13	-32.3
3701.4	-51.9	342	2	V	7.9	-44	-13	-31
5552.1	-52.1	221	1.7	H	9.7	-42.4	-13	-29.4
5552.1	-53	342	2	V	9.1	-43.9	-13	-30.9
QPSK, 1.4MHz bandwidth, Middle Channel								
955.8	-76.44	220	2.4	H	9.8	-66.64	-13	-53.64
955.8	-75.92	146	1.8	V	11.7	-64.22	-13	-51.22
3760.0	-55.2	119	1.9	H	8.8	-46.4	-13	-33.4
3760.0	-53.6	204	1.2	V	8	-45.6	-13	-32.6
5640.0	-52	119	1.9	H	10.2	-41.8	-13	-28.8
5640.0	-53.5	204	1.2	V	9.4	-44.1	-13	-31.1
QPSK, 1.4MHz bandwidth, High Channel								
960.2	-76.93	220	2.4	H	9.8	-67.13	-13	-54.13
960.2	-75.68	146	1.8	V	11.7	-63.98	-13	-50.98
3818.6	-52.6	337	2.3	H	8.7	-43.9	-13	-30.9
3818.6	-51.1	197	1.7	V	7.9	-43.2	-13	-30.2
5727.9	-52.8	337	2.3	H	10.6	-42.2	-13	-29.2
5727.9	-52.9	197	1.7	V	10.1	-42.8	-13	-29.8

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 4								
Test frequency range: 30MHz-20GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
949.6	-77.33	220	2.4	H	9.8	-67.53	-13	-54.53
949.6	-75.07	146	1.8	V	11.7	-63.37	-13	-50.37
3421.4	-51.4	71	1.2	H	6.4	-45	-13	-32
3421.4	-49.8	104	1.1	V	5.7	-44.1	-13	-31.1
5132.1	-55.4	51	1	H	11.3	-44.1	-13	-31.1
5132.1	-50.3	25	1.2	V	10.8	-39.5	-13	-26.5
QPSK, 1.4MHz bandwidth, Middle Channel								
955.8	-76.44	220	2.4	H	9.8	-66.64	-13	-53.64
955.8	-75.93	146	1.8	V	11.7	-64.23	-13	-51.23
3465.0	-51.6	250	1.4	H	7	-44.6	-13	-31.6
3465.0	-50.8	352	1.8	V	6.2	-44.6	-13	-31.6
5197.5	-54.9	41	1.8	H	10.4	-44.5	-13	-31.5
5197.5	-52	140	2.4	V	9.8	-42.2	-13	-29.2
QPSK, 1.4MHz bandwidth, High Channel								
958.5	-76.93	220	2.4	H	9.8	-67.13	-13	-54.13
958.5	-76.34	146	1.8	V	11.7	-64.64	-13	-51.64
3508.6	-51.7	61	1.9	H	7.8	-43.9	-13	-30.9
3508.6	-50.8	8	1.1	V	6.6	-44.2	-13	-31.2
5262.9	-53.4	63	2	H	9.5	-43.9	-13	-30.9
5262.9	-50.8	43	2.5	V	8.9	-41.9	-13	-28.9

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 5								
Test frequency range: 30MHz-10GHz								
QPSK, 1.4MHz bandwidth, Low Channel								
956.1	-76.64	220	2.4	H	9.8	-66.84	-13	-53.84
956.1	-76.12	146	1.8	V	11.7	-64.42	-13	-51.42
1649.4	-49	64	1.3	H	3.5	-45.5	-13	-32.5
1649.4	-51.8	317	2.4	V	3.1	-48.7	-13	-35.7
2474.1	-37.8	49	1.6	H	6.5	-31.3	-13	-18.3
2474.1	-45.2	151	1.4	V	5.7	-39.5	-13	-26.5
3298.8	-44.5	49	1.6	H	6.4	-38.1	-13	-25.1
3298.8	-43.6	151	1.4	V	5.7	-37.9	-13	-24.9
QPSK, 1.4MHz bandwidth, Middle Channel								
959.2	-76.56	220	2.4	H	9.8	-66.76	-13	-53.76
959.2	-75.72	146	1.8	V	11.7	-64.02	-13	-51.02
1673.0	-41.6	232	2	H	3.8	-37.8	-13	-24.8
1673.0	-42.6	289	2.1	V	3.1	-39.5	-13	-26.5
2509.5	-40	122	1.3	H	6.2	-33.8	-13	-20.8
2509.5	-41.6	16	1.1	V	5.7	-35.9	-13	-22.9
3346.0	-40.8	122	1.3	H	6.6	-34.2	-13	-21.2
3346.0	-39.8	16	1.1	V	5.4	-34.4	-13	-21.4
QPSK, 1.4MHz bandwidth, High Channel								
958.3	-76.64	220	2.4	H	9.8	-66.84	-13	-53.84
958.3	-74.93	146	1.8	V	11.7	-63.23	-13	-50.23
1696.6	-46.5	135	2.1	H	4	-42.5	-13	-29.5
1696.6	-47.7	71	2.2	V	3.1	-44.6	-13	-31.6
2544.9	-42.3	293	2.4	H	6.1	-36.2	-13	-23.2
2544.9	-40.7	139	2	V	5.7	-35	-13	-22
3393.2	-40.9	293	2.4	H	6.3	-34.6	-13	-21.6
3393.2	-39.9	139	2	V	5.4	-34.5	-13	-21.5

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
Band 7								
Test frequency range: 30MHz-26.5GHz								
QPSK, 5MHz bandwidth, Low Channel								
956.6	-78.60	220	2.4	H	9.8	-68.80	-25	-43.80
956.6	-78.26	146	1.8	V	11.7	-66.56	-25	-41.56
5005.0	-56.30	71	1.2	H	10.8	-45.50	-25	-20.50
5005.0	-55.40	104	1.1	V	10.2	-45.20	-25	-20.20
7507.5	-63.30	51	1	H	20.3	-43.00	-25	-18.00
7507.5	-62.30	25	1.2	V	20.1	-42.20	-25	-17.20
QPSK, 5MHz bandwidth, Middle Channel								
960.8	-79.43	220	2.4	H	9.8	-69.63	-25	-44.63
960.8	-78.22	146	1.8	V	11.7	-66.52	-25	-41.52
5070.0	-56.40	250	1.4	H	11.1	-45.30	-25	-20.30
5070.0	-55.20	352	1.8	V	10.8	-44.40	-25	-19.40
7605.0	-66.10	41	1.8	H	21.2	-44.90	-25	-19.90
7605.0	-64.50	140	2.4	V	20.1	-44.40	-25	-19.40
QPSK, 5MHz bandwidth, High Channel								
955.2	-79.61	220	2.4	H	9.8	-69.81	-25	-44.81
955.2	-76.98	146	1.8	V	11.7	-65.28	-25	-40.28
5135.0	-56.10	61	1.9	H	11.3	-44.80	-25	-19.8
5135.0	-54.60	8	1.1	V	10.8	-43.80	-25	-18.8
7702.5	-66.70	63	2	H	21.2	-45.50	-25	-20.5
7702.5	-65.80	43	2.5	V	21	-44.80	-25	-19.8

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 38								
Test frequency range: 30MHz-26.5GHz								
QPSK, 5MHz, Low Channel								
960.5	-79.01	220	2.4	H	9.8	-69.21	-25	-44.21
960.5	-78.05	146	1.8	V	11.7	-66.35	-25	-41.35
5145.0	-53.20	71	1.2	H	11.4	-41.80	-25	-16.8
5145.0	-52.10	104	1.1	V	10.7	-41.40	-25	-16.4
7717.5	-65.20	51	1	H	20.6	-44.60	-25	-19.6
7717.5	-65.30	25	1.2	V	20.4	-44.90	-25	-19.9
QPSK, 5MHz, Middle Channel								
959.3	-78.64	220	2.4	H	9.8	-68.84	-25	-43.84
959.3	-77.01	146	1.8	V	11.7	-65.31	-25	-40.31
5190.0	-53.3	250	1.4	H	10.5	-42.8	-25	-17.8
5190.0	-52.2	352	1.8	V	10	-42.2	-25	-17.2
7785.0	-61.6	41	1.8	H	18.3	-43.3	-25	-18.3
7785.0	-61.8	140	2.4	V	18	-43.8	-25	-18.8
QPSK, 5MHz, High Channel								
956.4	-78.86	220	2.4	H	9.8	-69.06	-25	-44.06
956.4	-78.02	146	1.8	V	11.7	-66.32	-25	-41.32
5235.0	-51.8	61	1.9	H	9.7	-42.1	-25	-17.1
5235.0	-51.8	8	1.1	V	9.3	-42.5	-25	-17.5
7852.5	-61.3	63	2	H	18.2	-43.1	-25	-18.1
7852.5	-61	43	2.5	V	17.6	-43.4	-25	-18.4

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								
QPSK, 5MHz, Low Channel								
956.2	-78.67	220	2.4	H	9.8	-68.87	-25	-43.87
9562	-77.96	146	1.8	V	11.7	-66.26	-25	-41.26
5075.0	-54.60	71	1.2	H	11.1	-43.50	-25	-18.5
5075.0	-54.70	104	1.1	V	10.7	-44.00	-25	-19
7612.5	-66.20	51	1	H	21.2	-45.00	-25	-20
7612.5	-64.20	25	1.2	V	20.2	-44.00	-25	-19
QPSK, 5MHz bandwidth, Middle Channel								
963.5	-78.98	220	2.4	H	9.8	-69.18	-25	-44.18
963.5	-77.32	146	1.8	V	11.7	-65.62	-25	-40.62
5190.0	-52.80	250	1.4	H	10.5	-42.30	-25	-17.3
5190.0	-52.20	352	1.8	V	10	-42.20	-25	-17.2
7785.0	-62.20	41	1.8	H	18.3	-43.90	-25	-18.9
7785.0	-61.10	140	2.4	V	18	-43.10	-25	-18.1
QPSK, 5MHz bandwidth, High Channel								
954.5	-79.31	220	2.4	H	9.8	-69.51	-25	-44.51
954.5	-78.08	146	1.8	V	11.7	-66.38	-25	-41.38
5305.0	-51.50	61	1.9	H	9.6	-41.90	-25	-16.9
5305.0	-48.80	8	1.1	V	8.8	-40.00	-25	-15
7957.5	-64.00	63	2	H	18.9	-45.10	-25	-20.1
7957.5	-63.10	43	2.5	V	18.5	-44.60	-25	-19.6

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.

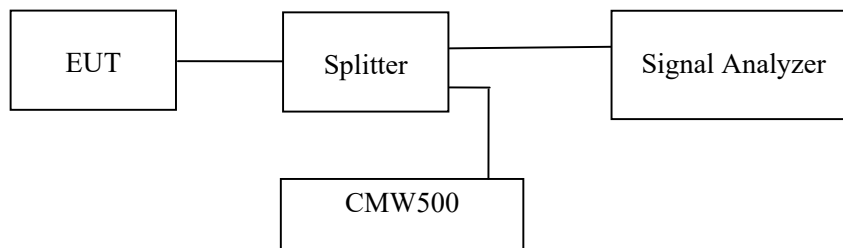
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

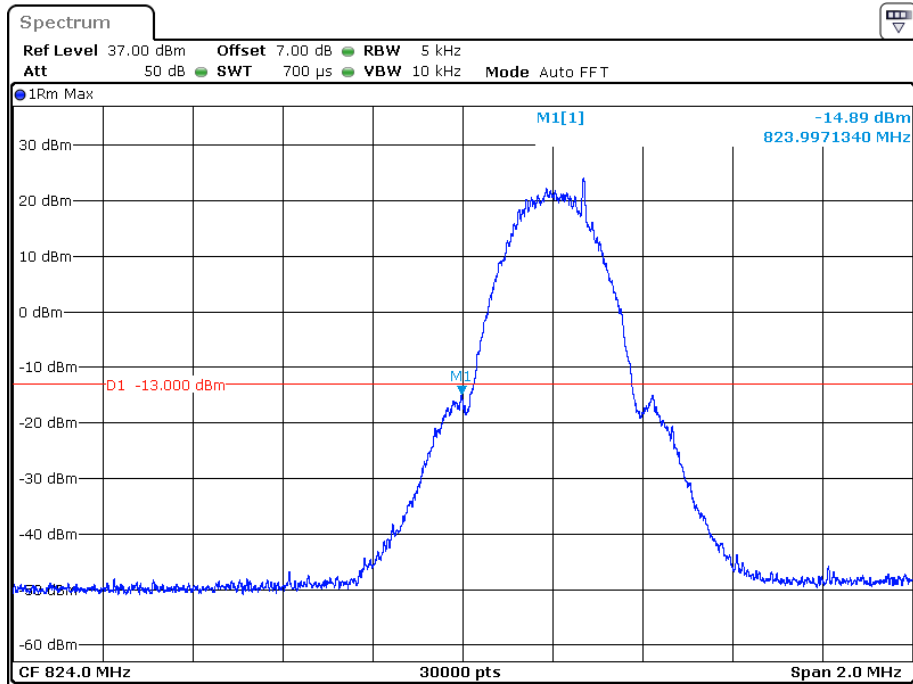
The testing was performed by Key Pei from 2022-03-10 to 2022-03-14.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

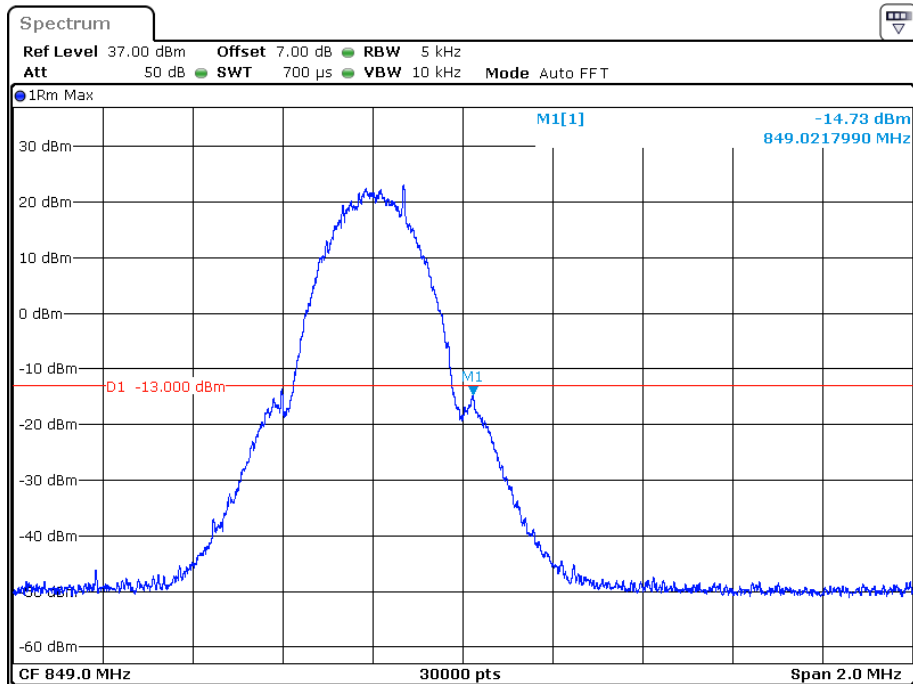
Please refer to the following plots.

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



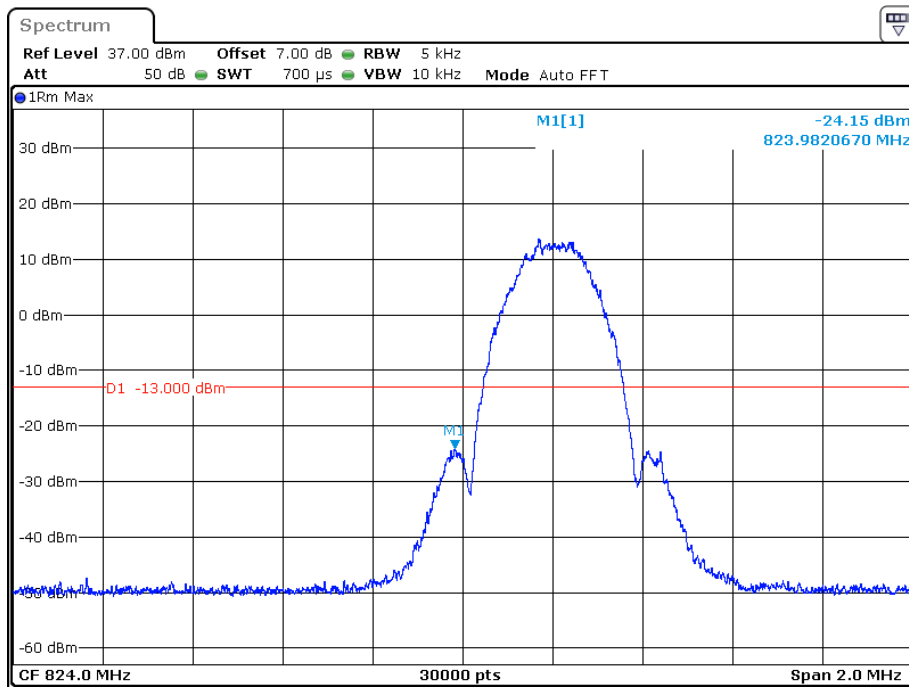
Date: 11.MAR.2022 18:56:06

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



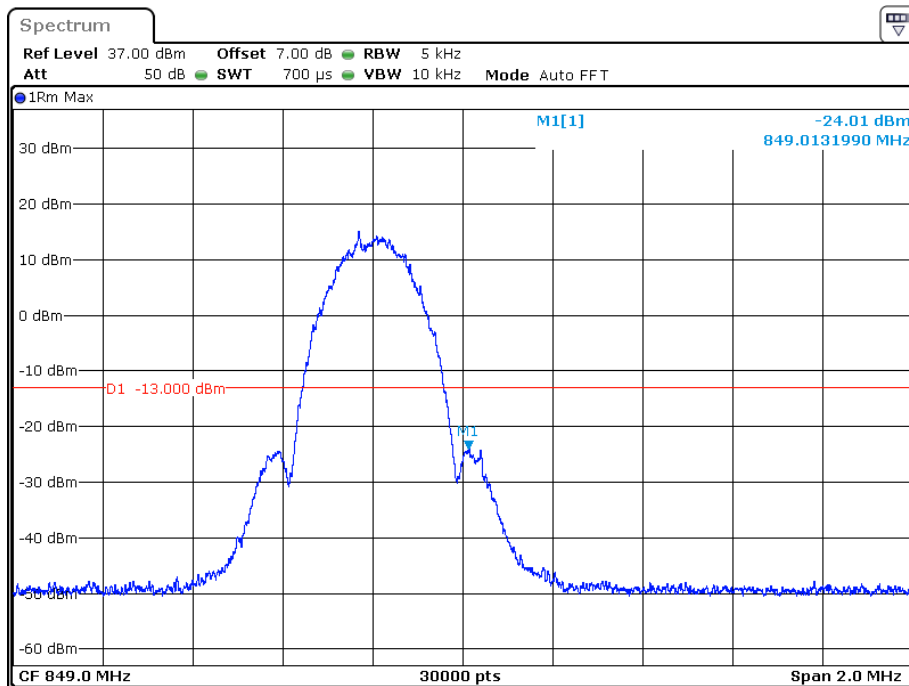
Date: 11.MAR.2022 18:55:18

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



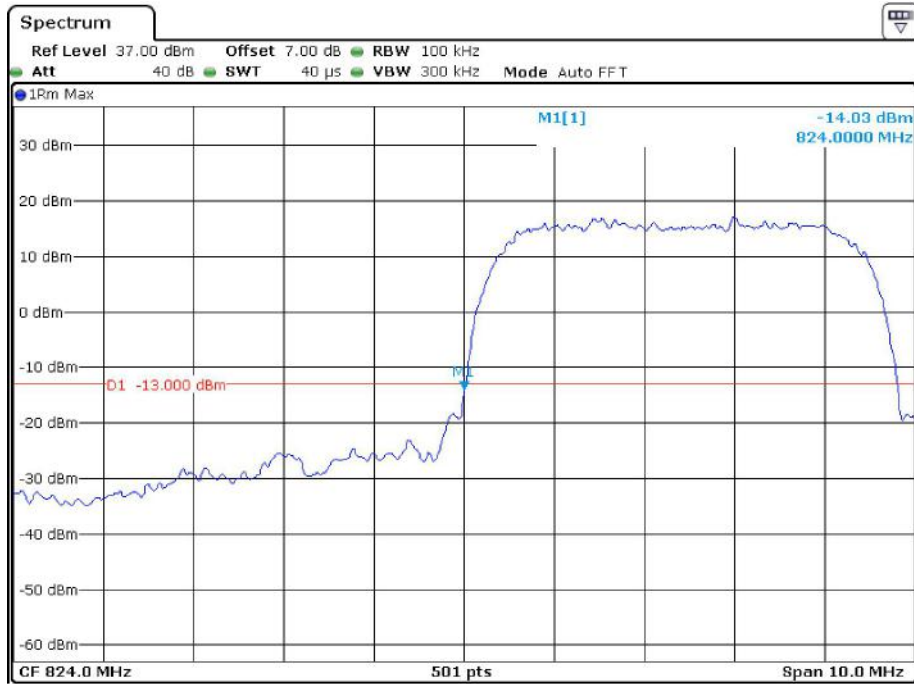
Date: 11.MAR.2022 18:58:07

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



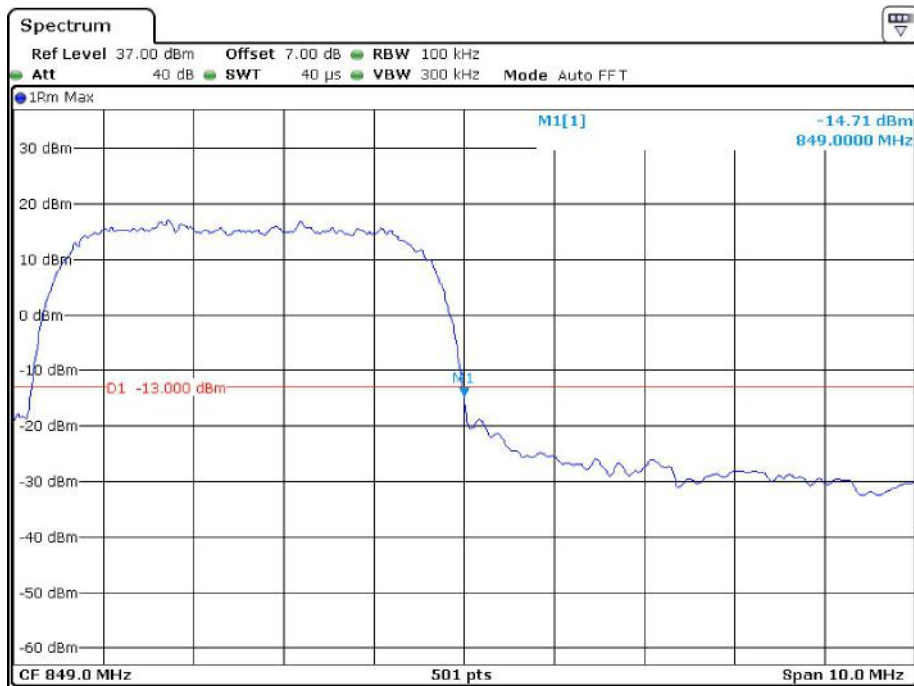
Date: 11.MAR.2022 18:59:44

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



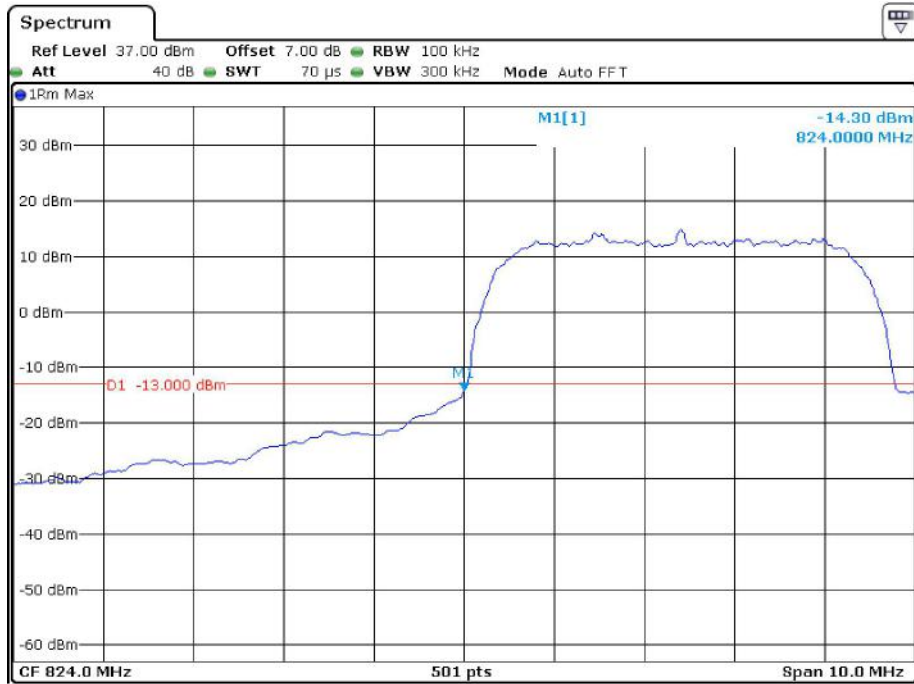
Date: 14.MAR.2022 10:11:02

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



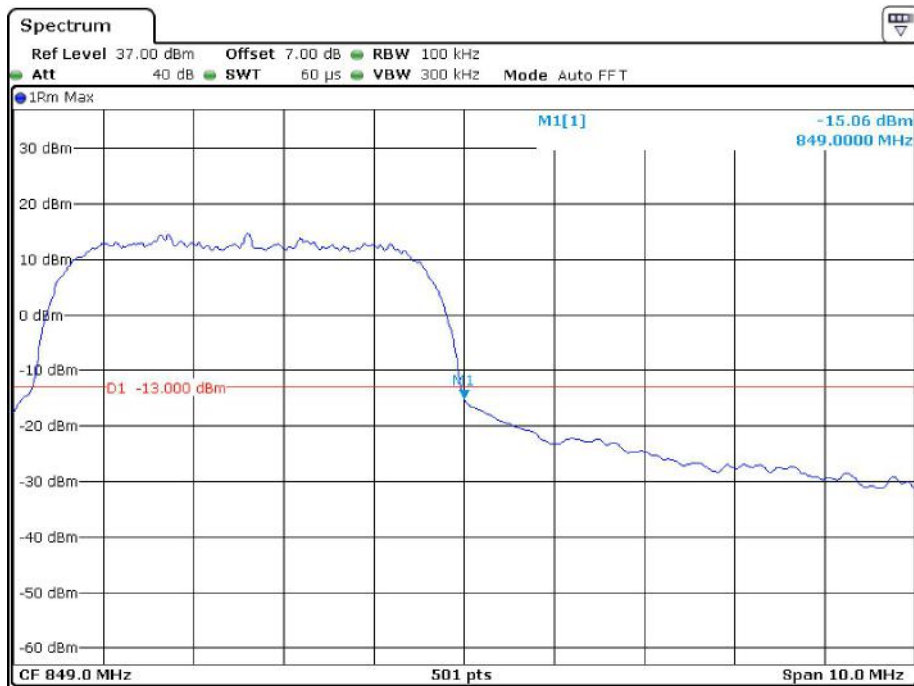
Date: 14.MAR.2022 10:10:45

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



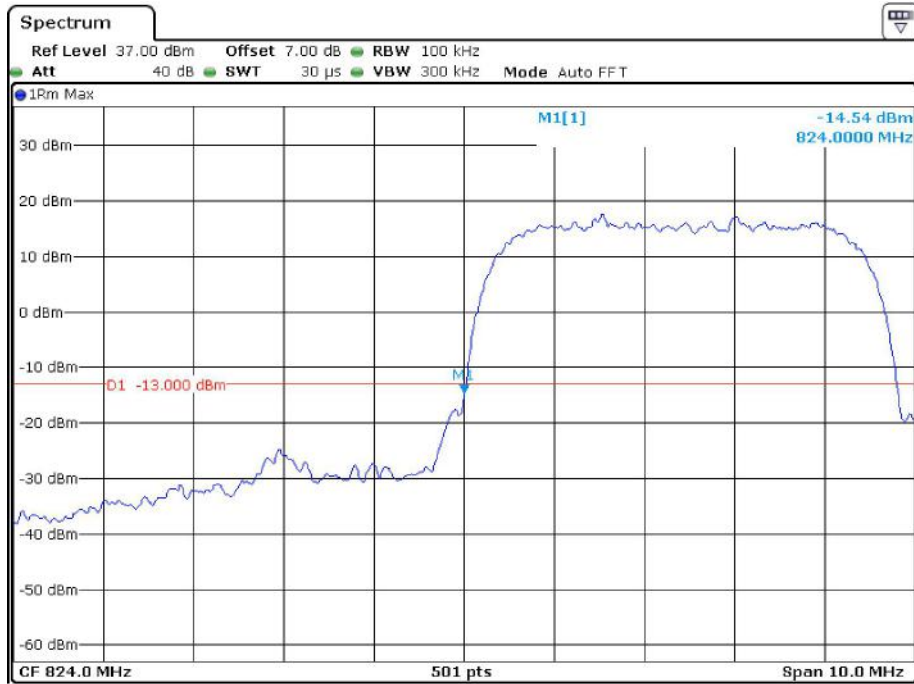
Date: 14.MAR.2022 10:22:00

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



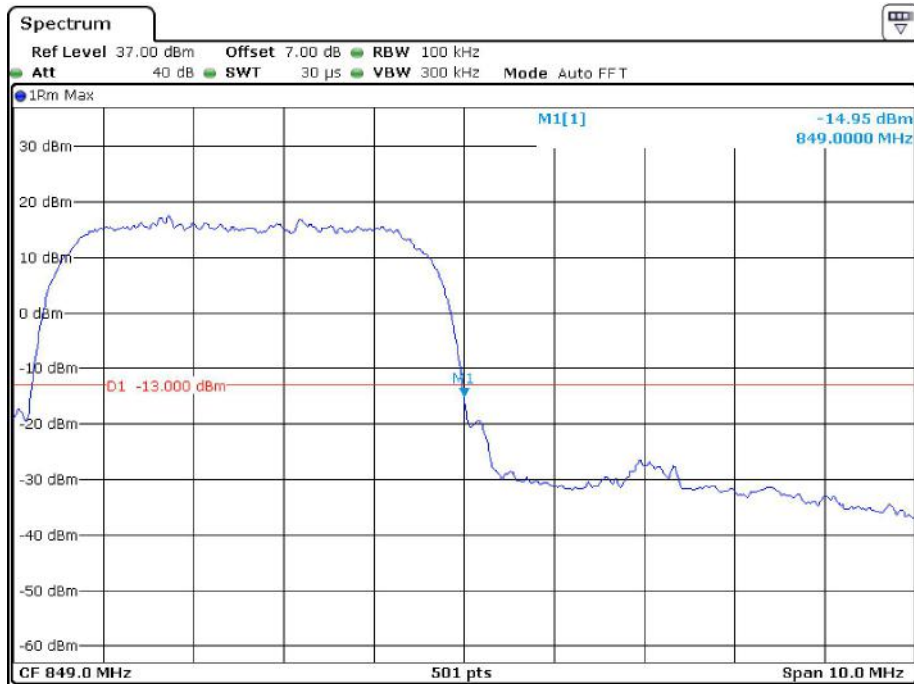
Date: 14.MAR.2022 10:20:35

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



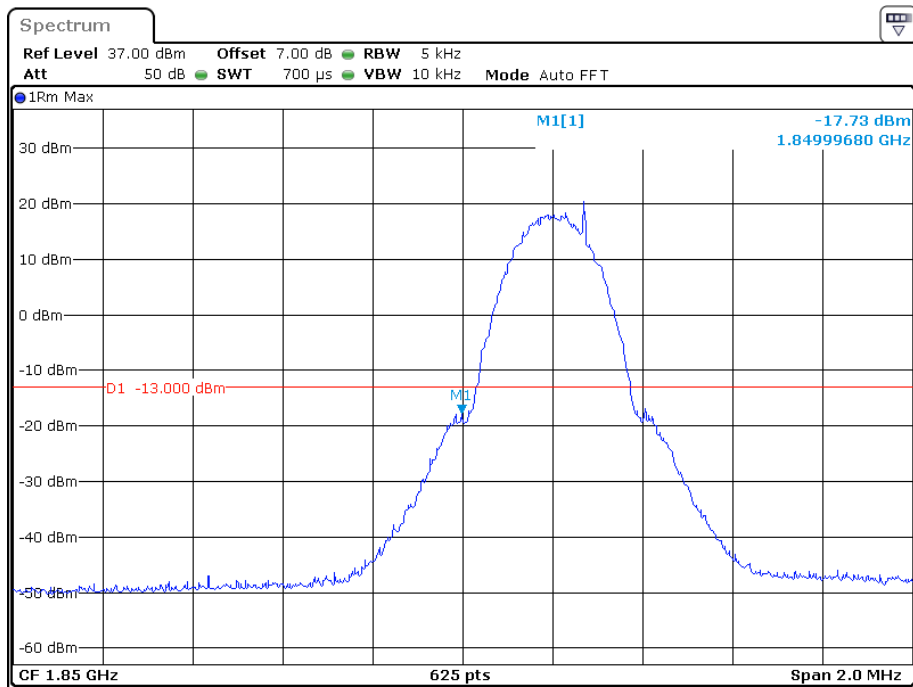
Date: 14.MAR.2022 10:50:17

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



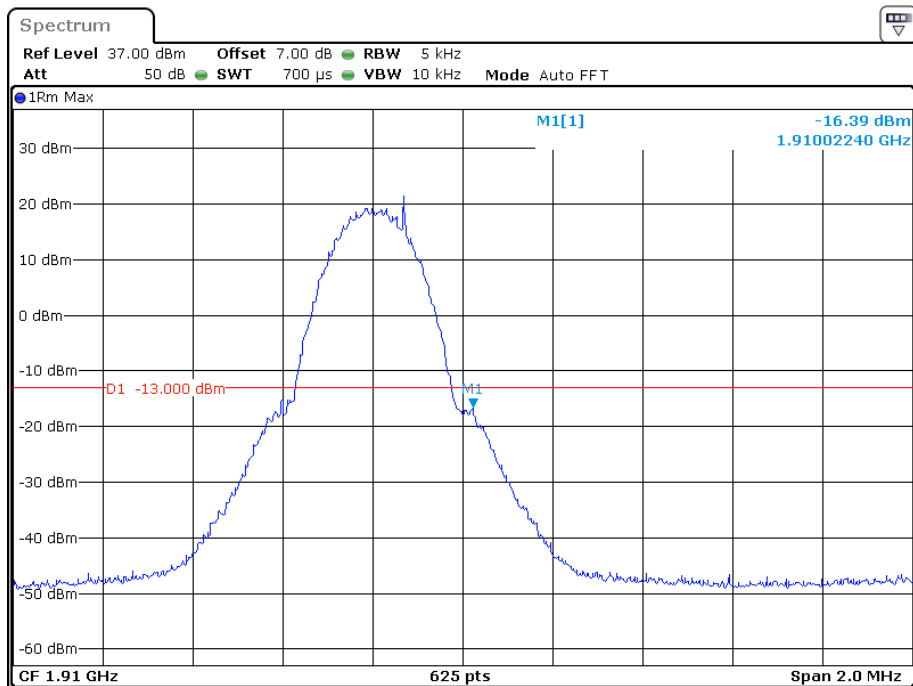
Date: 14.MAR.2022 10:49:57

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



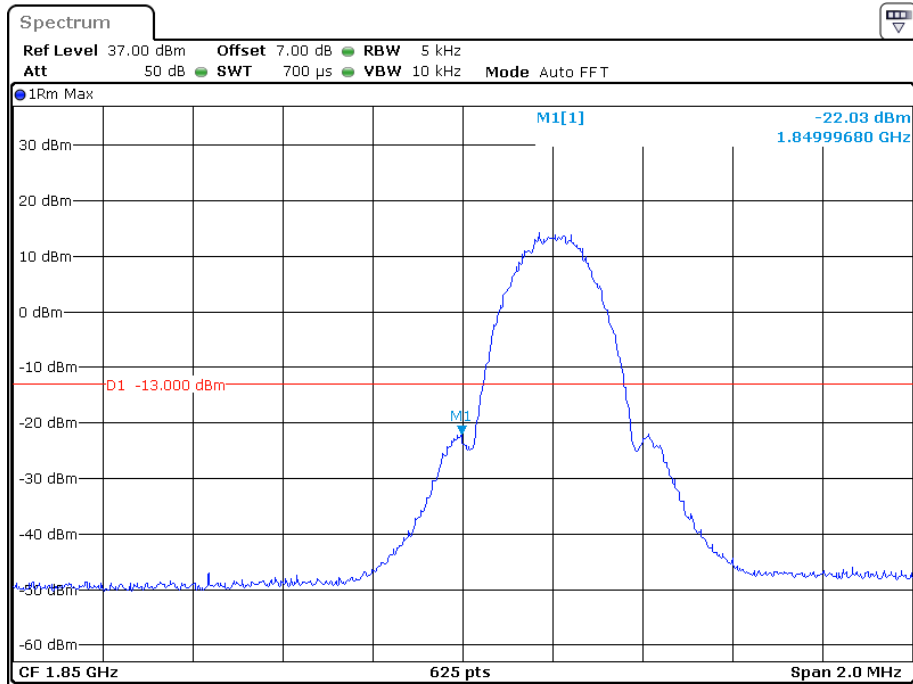
Date: 11.MAR.2022 19:42:27

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



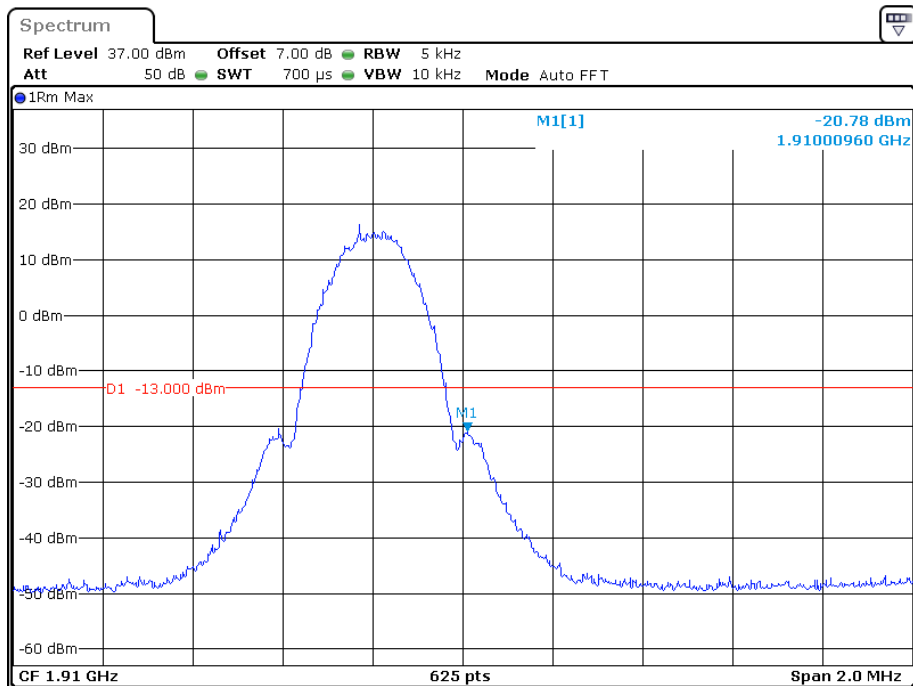
Date: 11.MAR.2022 19:45:18

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



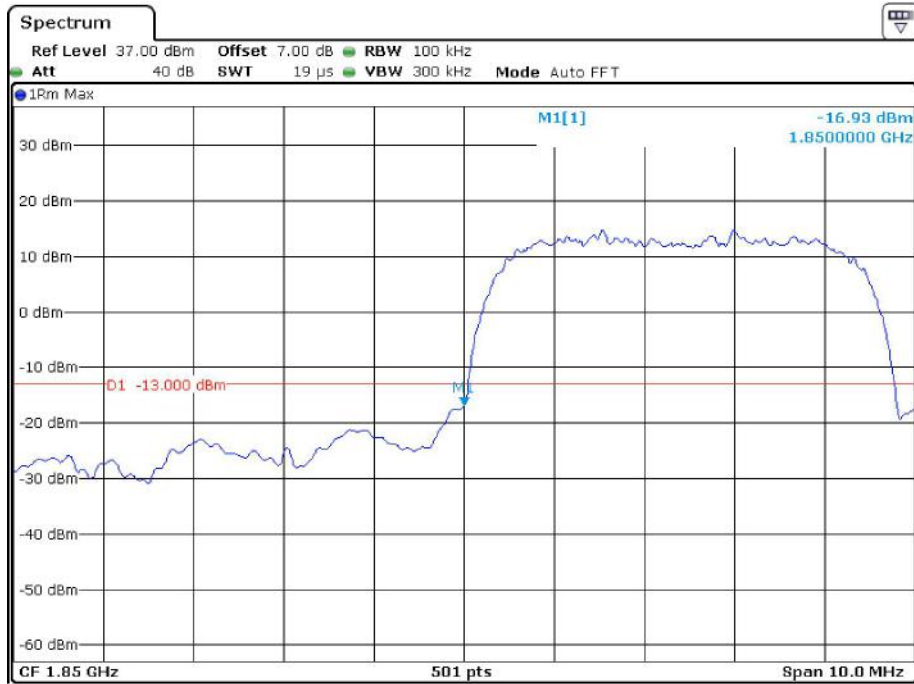
Date: 11.MAR.2022 19:49:11

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



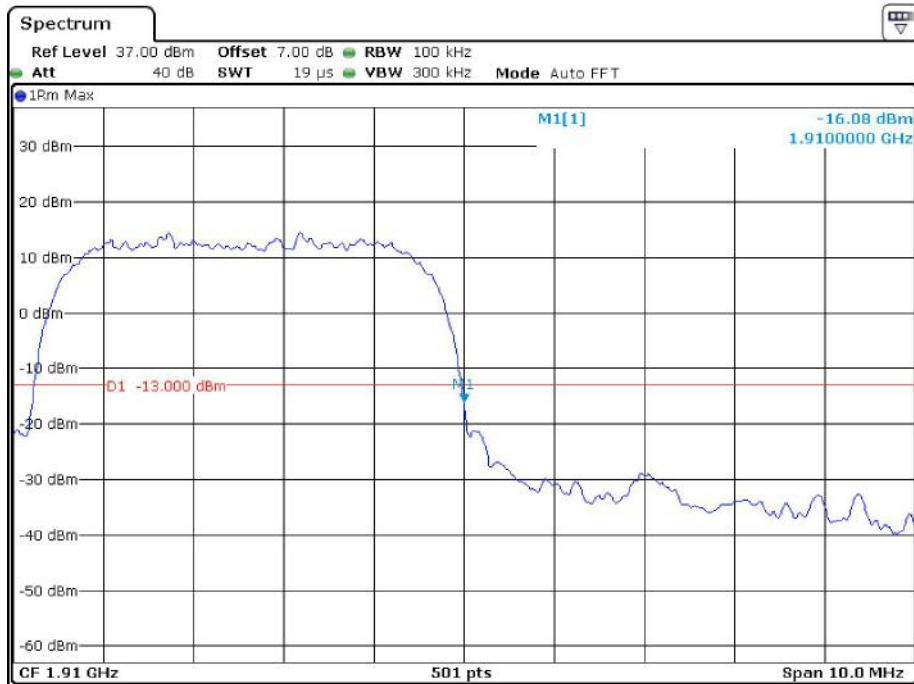
Date: 11.MAR.2022 19:47:25

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



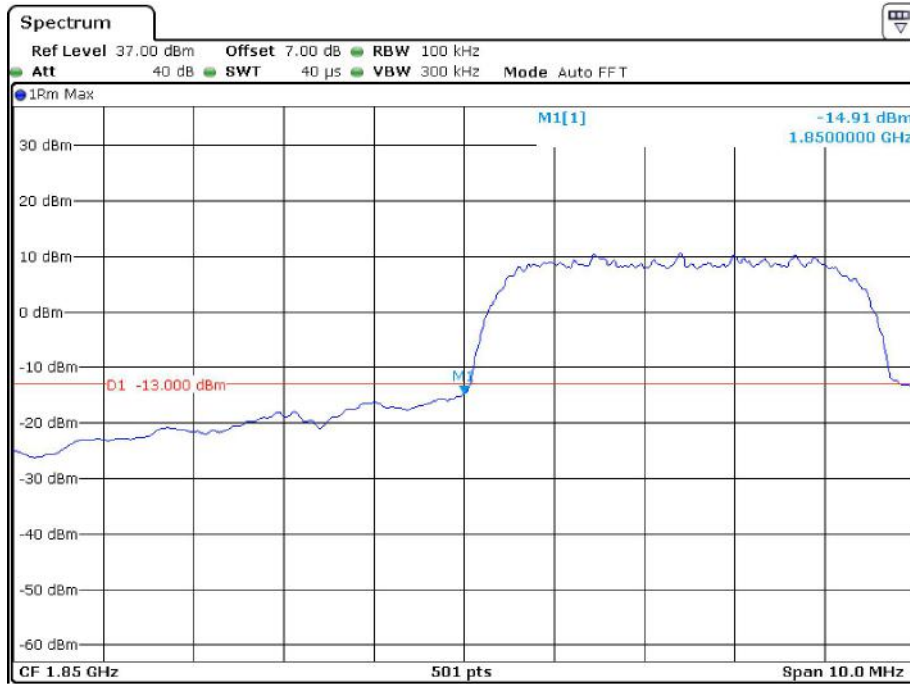
Date: 14.MAR.2022 10:11:45

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



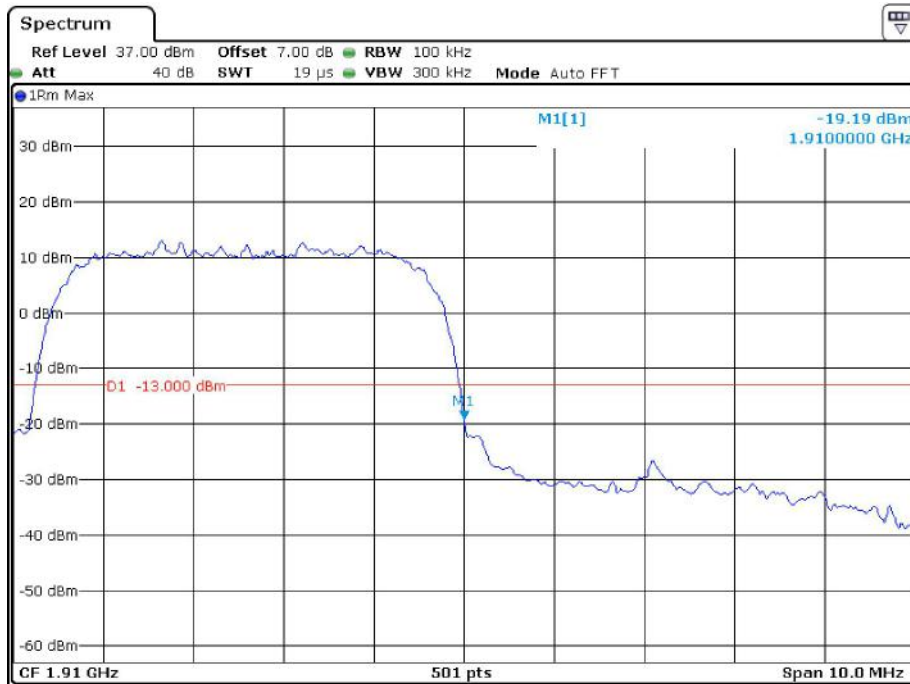
Date: 14.MAR.2022 10:12:03

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



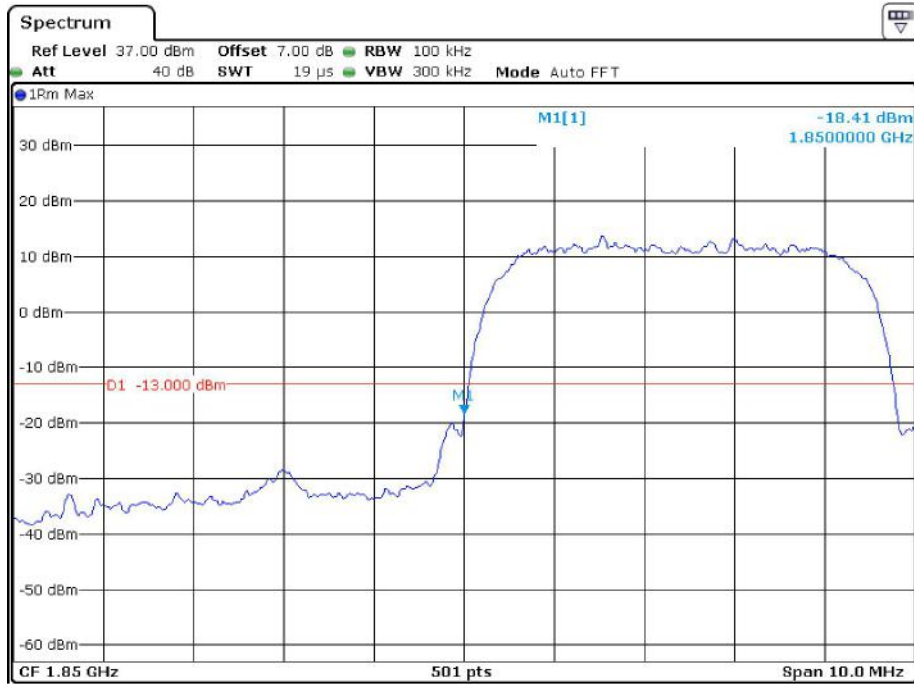
Date: 14.MAR.2022 10:17:10

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



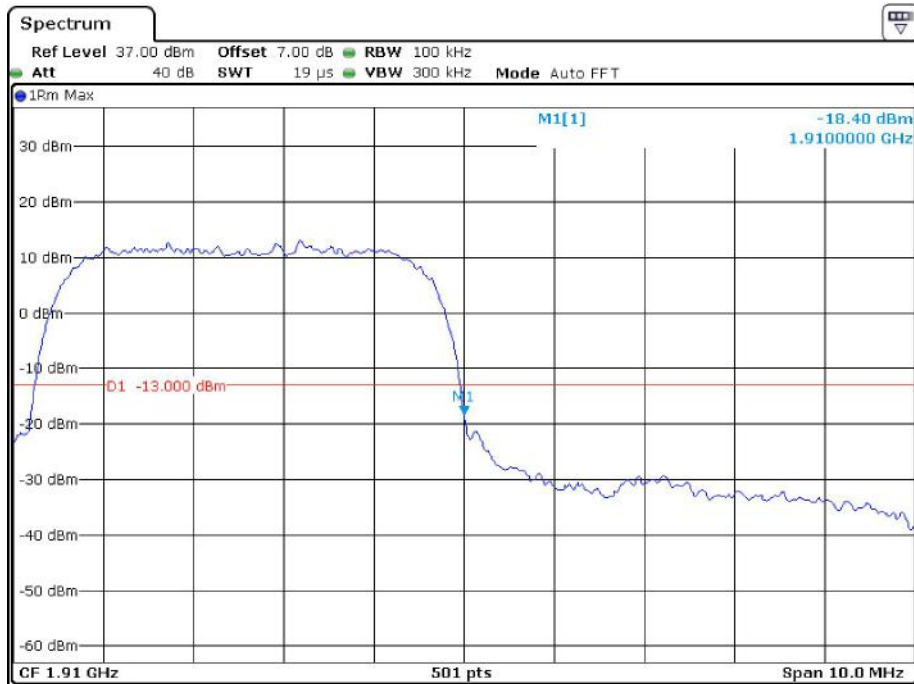
Date: 14.MAR.2022 10:15:59

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



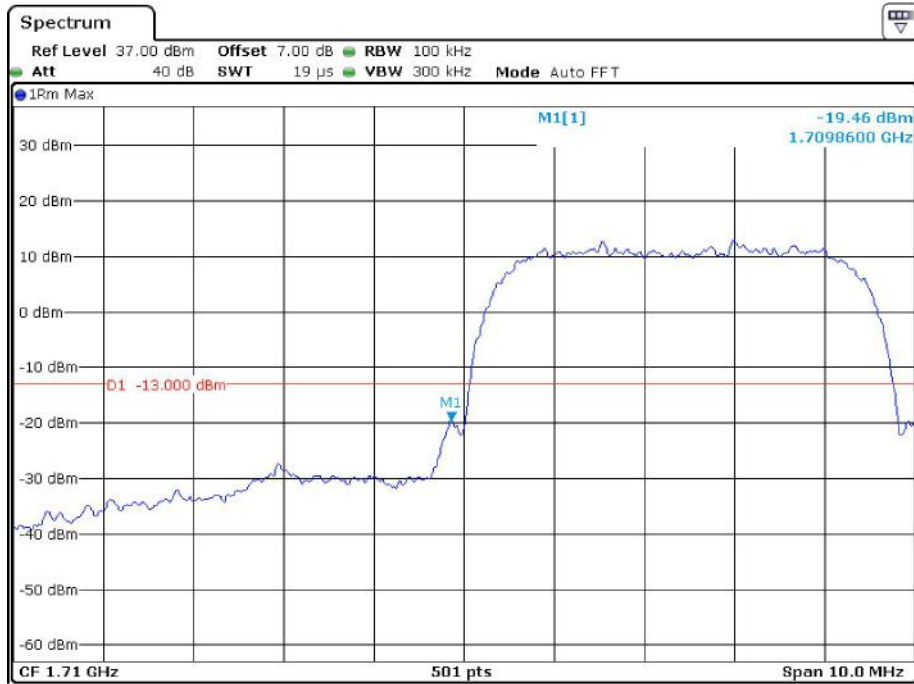
Date: 14.MAR.2022 10:52:57

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



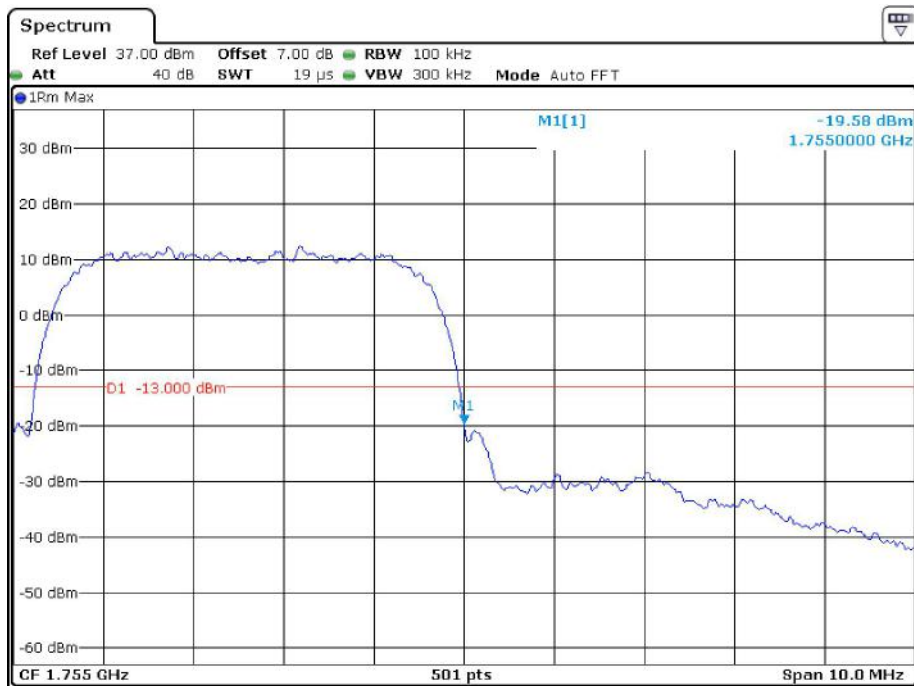
Date: 14.MAR.2022 10:53:13

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



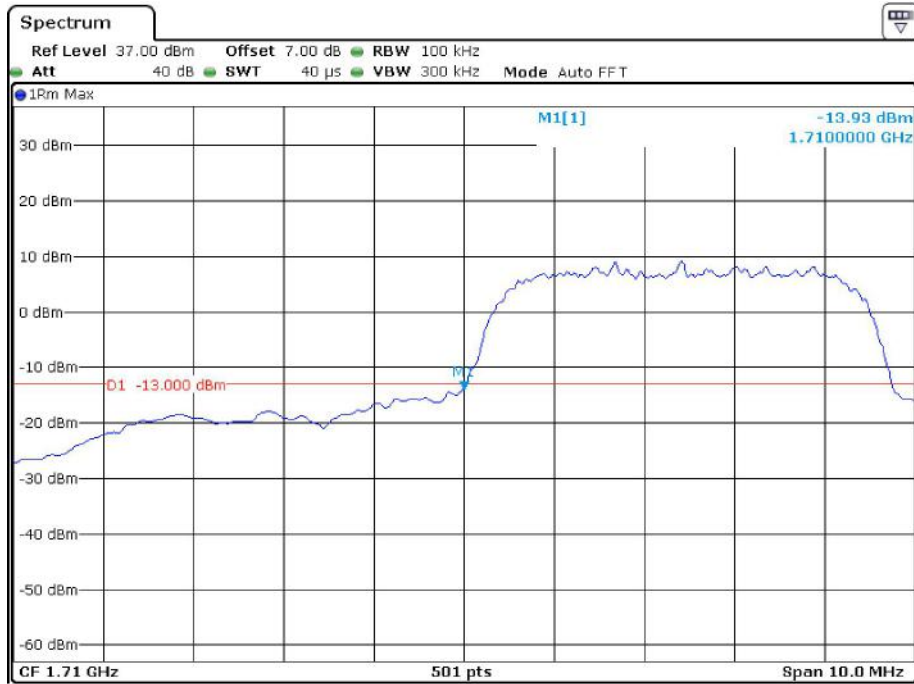
Date: 14.MAR.2022 10:12:56

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



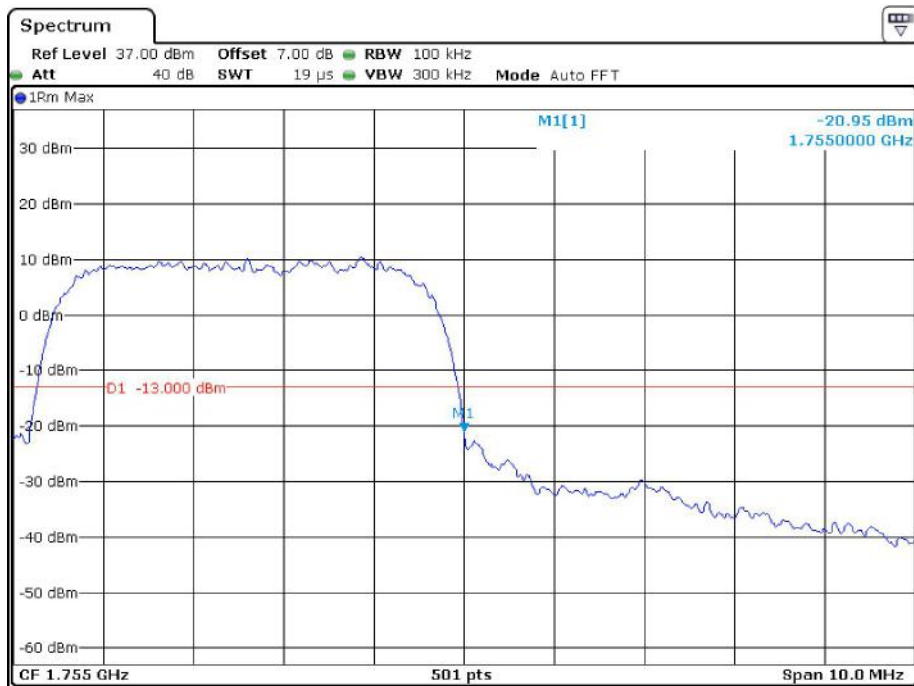
Date: 14.MAR.2022 10:55:38

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



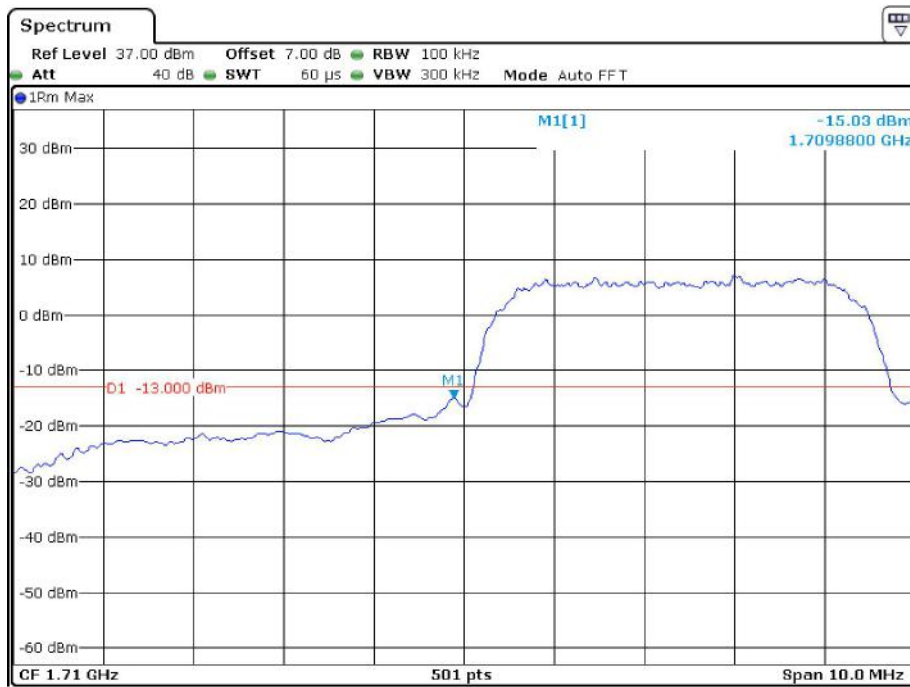
Date: 14.MAR.2022 10:17:47

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



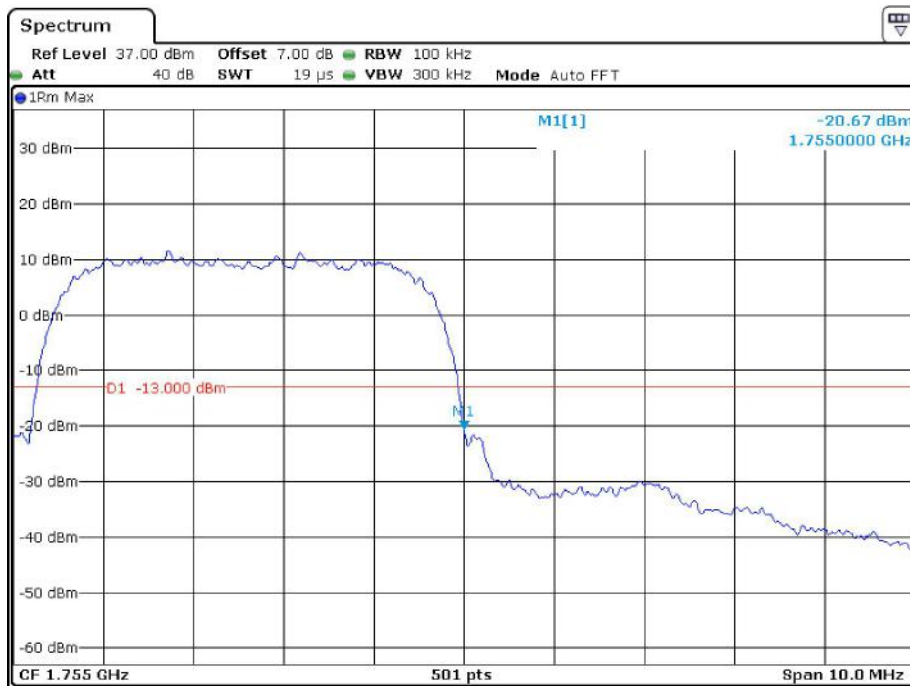
Date: 14.MAR.2022 10:18:11

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



Date: 14.MAR.2022 10:51:11

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



Date: 14.MAR.2022 10:51:39

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

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

Applicable Standard

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

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

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

Frequency Tolerance for Transmitters in the Public Mobile Services

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

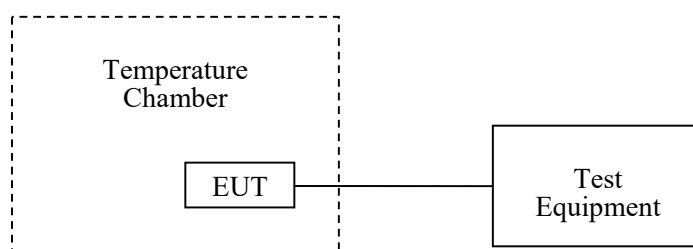
According to §24.235&§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

Test Procedure

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

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

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



Test Data**Environmental Conditions**

Temperature:	27.2 °C
Relative Humidity:	56.8 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei from 2022-03-10 to 2022-03-29.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

Cellular Band (Part 22H)**GSM Mode**

Middle Channel, $f_0 = 836.6\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	7	0.0084	2.5
-20		8	0.0096	2.5
-10		4	0.0048	2.5
0		6	0.0072	2.5
10		3	0.0036	2.5
20		12	0.0144	2.5
30		6	0.0072	2.5
40		4	0.0048	2.5
50		8	0.0096	2.5
20		L.V.	2	0.0024
	H.V.	3	0.0036	2.5

EDGE Mode

Middle Channel, $f_0=836.6\text{MHz}$				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	8	0.0096	2.5
-20		6	0.0072	2.5
-10		-3	-0.0036	2.5
0		-4	-0.0048	2.5
10		6	0.0072	2.5
20		9	0.0108	2.5
30		7	0.0084	2.5
40		3	0.0036	2.5
50		-2	-0.0024	2.5
20	L.V.	4	0.0048	2.5
	H.V.	3	0.0036	2.5

WCDMA Mode

Middle Channel, $f_0=836.6\text{MHz}$				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	-9.46	-0.0113	2.5
-20		-8.49	-0.0101	2.5
-10		-6.58	-0.0079	2.5
0		-8.36	-0.0100	2.5
10		-7.55	-0.0090	2.5
20		-7.62	-0.0091	2.5
30		-6.55	-0.0078	2.5
40		-7.59	-0.0091	2.5
50		-7.77	-0.0093	2.5
20	L.V.	-7.93	-0.0095	2.5
	H.V.	-7.64	-0.0091	2.5

PCS Band (Part 24E)**GSM Mode**

Middle Channel, $f_0 = 1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	3	0.0016	pass
-20		4	0.0021	pass
-10		6	0.0032	pass
0		7	0.0037	pass
10		2	0.0011	pass
20		12	0.0064	pass
30		3	0.0016	pass
40		4	0.0021	pass
50		5	0.0027	pass
20		L.V.	6	0.0032
	H.V.	3	0.0016	pass

EDGE Mode

Middle Channel, $f_0 = 1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	4	0.0021	pass
-20		6	0.0032	pass
-10		8	0.0042	pass
0		10	0.0054	pass
10		4	0.0021	pass
20		10	0.0054	pass
30		3	0.0016	pass
40		5	0.0027	pass
50		7	0.0037	pass
20		L.V.	3	0.0016
	H.V.	4	0.0021	pass

WCDMA Mode

Middle Channel, $f_0 = 1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-8.95	-0.0048	pass
-20		-9.46	-0.0050	pass
-10		-5.68	-0.0030	pass
0		-6.98	-0.0037	pass
10		-7.58	-0.0040	pass
20		-7.41	-0.0039	pass
30		-7.71	-0.0041	pass
40		-7.89	-0.0042	pass
50		-7.83	-0.0042	pass
20		L.V.	-7.99	-0.0043
	H.V.	-8.12	-0.0043	pass

AWS Band (Part 27)

Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	N.V.	1710.0155	1754.9729	1710	1755
-20		1710.0162	1754.9733	1710	1755
-10		1710.0157	1754.9728	1710	1755
0		1710.0159	1754.9736	1710	1755
10		1710.0137	1754.9739	1710	1755
20		1710.0128	1754.9742	1710	1755
30		1710.0136	1754.9746	1710	1755
40		1710.0129	1754.9753	1710	1755
50		1710.0126	1754.9748	1710	1755
20		L.V.	1710.0133	1754.9749	1710
	H.V.	1710.0145	1754.9756	1710	1755

LTE:
QPSK:
Band 2:

10.0 MHz Middle Channel, $f_0=1880\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-9.77	-0.0052	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
	H.V.	-7.05	-0.0038	pass

Band 4:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	1710.1185	1754.8756	1710	1755
-20		1710.1176	1754.8746	1710	1755
-10		1710.1166	1754.8739	1710	1755
0		1710.1154	1754.8738	1710	1755
10		1710.1146	1754.8752	1710	1755
20		1710.1143	1754.8755	1710	1755
30		1710.1144	1754.8757	1710	1755
40		1710.1135	1754.8754	1710	1755
50		1710.1128	1754.8748	1710	1755
20		L.V.	1710.1129	1754.8747	1710
	H.V.	1710.1025	1754.8745	1710	1755

Band 5:

10.0 MHz Middle Channel, $f_0=836.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	-3.10	-0.0037	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
	H.V.	-7.17	-0.0086	2.5

Band 7:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	N.V.	2500.8788	2569.9854	2500	2570
-20		2500.8791	2569.9945	2500	2570
-10		2500.8787	2569.9857	2500	2570
0		2500.8785	2569.9763	2500	2570
10		2500.7986	2569.9828	2500	2570
20		2500.7875	2569.9424	2500	2570
30		2500.7754	2569.9336	2500	2570
40		2500.7653	2569.9927	2500	2570
50		2500.7565	2569.9924	2500	2570
20		L.V.	2500.7529	2569.9836	2500
	H.V.	2500.7432	2569.9745	2500	2570

Band 38:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2570.8355	2619.9836	2570	2620
-20		2570.8072	2619.8733	2570	2620
-10		2570.7247	2619.7634	2570	2620
0		2570.6153	2619.6528	2570	2620
10		2570.5049	2619.5429	2570	2620
20		2570.3955	2619.4321	2570	2620
30		2570.2839	2619.3224	2570	2620
40		2570.1718	2619.2129	2570	2620
50		2570.1619	2619.1327	2570	2620
20	L.V.	2570.1525	2619.1226	2570	2620
	H.V.	2570.1024	2619.1127	2570	2620

Band 41:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2535.9749	2654.9882	2535	2655
-20		2535.8657	2654.8878	2535	2655
-10		2535.7565	2654.7769	2535	2655
0		2535.6426	2654.6652	2535	2655
10		2535.5328	2654.5554	2535	2655
20		2535.4227	2654.4492	2535	2655
30		2535.3152	2654.3338	2535	2655
40		2535.2156	2654.2235	2535	2655
50		2535.2938	2654.1067	2535	2655
20		L.V.	2535.8624	2654.0034	2535
	H.V.	2535.8525	2654.0016	2535	2655

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

16QAM:**Band 2:**

10.0 MHz Middle Channel, $f_0=1880\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-8.73	-0.0046	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
	H.V.	7.52	0.0040	pass

Band 4:

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

Band 5:

10.0 MHz Middle Channel, $f_0=836.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	-19.86	-0.0237	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
	H.V.	-6.89	-0.0082	2.5

Band 7:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V_{DC})	F_L (MHz)	F_H (MHz)	F_L Limit (MHz)	F_H Limit (MHz)
-30	N.V.	2500.8456	2569.8376	2500	2570
-20		2500.8428	2569.8551	2500	2570
-10		2500.7641	2569.8425	2500	2570
0		2500.7255	2569.8537	2500	2570
10		2500.6326	2569.8285	2500	2570
20		2500.6239	2569.7829	2500	2570
30		2500.6351	2569.7836	2500	2570
40		2500.6327	2569.8426	2500	2570
50		2500.6226	2569.8457	2500	2570
20		L.V.	2500.6235	2569.8352	2500
	H.V.	2500.6144	2569.8238	2500	2570

Band 38:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2570.9877	2619.9856	2570	2620
-20		2570.8928	2619.8769	2570	2620
-10		2570.7825	2619.7695	2570	2620
0		2570.6731	2619.6556	2570	2620
10		2570.5636	2619.5492	2570	2620
20		2570.4526	2619.4345	2570	2620
30		2570.3412	2619.3294	2570	2620
40		2570.2375	2619.2113	2570	2620
50		2570.1287	2619.1125	2570	2620
20	L.V.	2570.2178	2619.8785	2570	2620
	H.V.	2570.2134	2619.7643	2570	2620

Band 41:

10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	2535.9456	2654.9655	2535	2655
-20		2535.8442	2654.8582	2535	2655
-10		2535.7372	2654.7486	2535	2655
0		2535.6266	2654.6375	2535	2655
10		2535.5138	2654.5284	2535	2655
20		2535.4175	2654.4182	2535	2655
30		2535.2988	2654.3587	2535	2655
40		2535.1882	2654.1986	2535	2655
50		2535.1829	2654.1882	2535	2655
20	L.V.	2535.1618	2654.0765	2535	2655
	H.V.	2535.0572	2654.0344	2535	2655

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

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