



TESTREPORT

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Report Number: KS1220428-17332E-RF-00C
FCC ID: 2AXOJ-P5

Test Standard (s)

FCC PART 27; FCC PART 22H; FCC PART 24E; FCC PART 90

Sample Description

Product Name: Smart Payment Terminal
Model Name.: P5
Trade Mark: Wiseasy
Date Received: 2022/04/08
Report Date: 2022/09/05

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

Prepared and Checked By:

Ting Lü
EMC Engineer

Approved By:

Robert Li
EMC Engineer

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

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FCC -2G,3G,4G

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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 II: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band IV: 1710-1755 MHz(TX), 2110-2155MHz(RX) WCDMA Band V: 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); 2620-2690 MHz(RX) LTE Band 12: 699-716MHz(TX); 729-746MHz(RX) LTE Band 17: 704-716MHz(TX); 734-746MHz(RX) LTE Band 25: 1850-1915MHz(TX); 1930-1995MHz(RX) LTE Band 26: 814-849MHz(TX); 859-894MHz(RX) LTE Band 41: 2496-2690MHz(TX/RX) LTE Band 66: 1710-1780MHz(TX);2110-2200MHz(RX)
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification*	GSM 850/WCDMA Band V/LTE B5/LTE B26: -2.77dBi WCDMA Band IV/LTE B4: -0.52dBi WCDMA Band II/PCS 1900/LTE B2/LTE B25: -0.06dBi LTE B7/LTE B41: 1.65dBi LTE B12/LTE B17: -3.82dBi LTE B66: -0.06dBi
Voltage Range	DC 7.4V by battery and DC 5V charging from adapter
Sample serial number	KS1220428-17332E-RF-S1 for Radiated Emissions KS1220428-17332E-RF-S2 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter information	Adapter 1: Model: ASSA107w-050200 Input: AC 100-240V, 50/60Hz, 0.45A Output: DC 5 V, 2A Adapter 2: Model: RD0502000-USBA-87MG Input: AC 100-240V, 50/60Hz, 300mA Output: DC 5 V, 2000mA
Normal/Extreme Condition	L.V.: Low Voltage 6.66V _{DC} N.V.: Normal Voltage 7.4V _{DC} H.V.: High Voltage 8.14V _{DC}

Note: The product has two versions, one is with fingerprints, and the other is without fingerprints. The Lab selected the version with fingerprints for all tests, which completely covered the version without fingerprints.

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H, Part 24-Subpart E, Subpart 27 and Subpart 90 of the Federal Communications Commission 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
 Part 90 Private Land Mobile Radio Services

ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd.
 The radiated testing was performed at an antenna-to-EUT distance of 3 meters.
 Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		0.082×10^{-7}
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz - 18GHz	4.98dB
	18GHz -26.5GHz	5.06dB
	26.5GHz -40GHz	4.72dB
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.

Frequency band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
GSM 850	0.25	824.2	836.6	848.8
PCS 1900	0.25	1850.2	1880	1909.8
WCDMA Band II	4.2	1852.4	1880	1907.6
WCDMA Band IV	4.2	1712.4	1732.6	1752.6
WCDMA Band V	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	1715.0	1732.5	1750.0
	15	1717.5	1732.5	1747.5
	20	1720.0	1732.5	1745.0
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	2535.0	2567.5
	10	2505.0	2535.0	2565.0
	15	2507.5	2535.0	2562.5
	20	2510.0	2535.0	2560.0
LTE B12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704.0	707.5	711.0

LTE B17	5	706.5	710.0	713.5
	10	709.0	710.0	711.0
LTE B25	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
	5	1852.5	1882.5	1912.5
	10	1855.0	1882.5	1910.0
	15	1857.5	1882.5	1907.5
	20	1860.0	1882.5	1905.0
LTE B26	1.4	814.7	831.5	848.3
	3	815.5	831.5	847.5
	5	816.5	831.5	846.5
	10	819.0	831.5	844.0
	15	821.5	831.5	841.5
LTE B41	5	2498.5	2593	2687.5
	10	2501	2593	2685
	15	2503.5	2593	2682.5
	20	2506	2593	2680
LTE B66	1.4	1710.7	1745.0	1779.3
	3	1711.5	1745.0	1778.5
	5	1712.5	1745.0	1777.5
	10	1715.0	1745.0	1775.0
	15	1717.5	1745.0	1772.5
	20	1720.0	1745.0	1770.0

Equipment Modifications

No modification was made to the EUT.

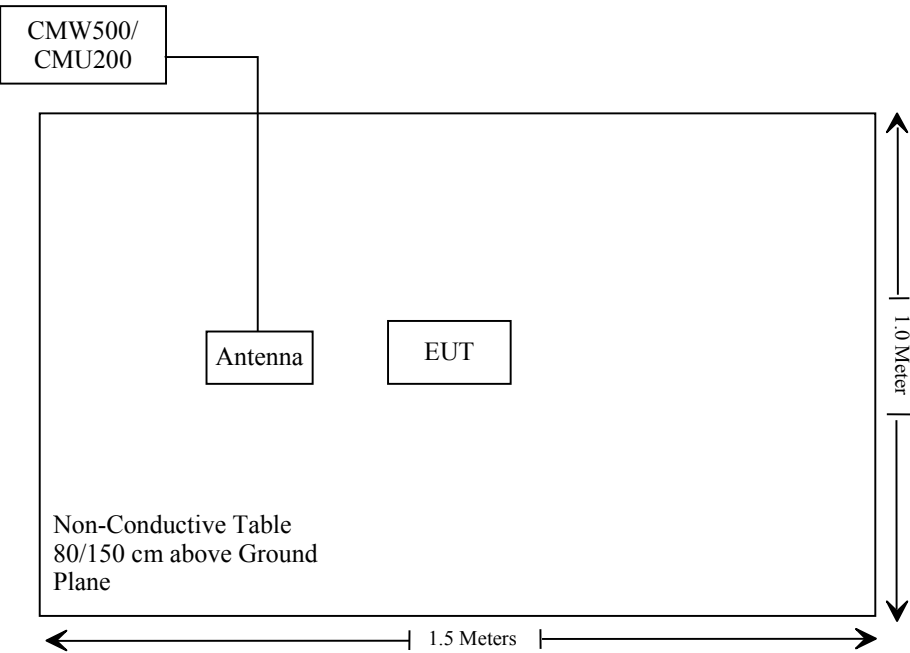
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	1201.002K50-11621 8-UY
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605

Support Cable Description

Cable Description	Length (m)	From / Port	To
Unshielded Un-detachable AC Cable	1.2	AC Power	CMW500/ CMU200

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307, §2.1093	RF Exposure (SAR)	Compliant
§2.1046; § 22.913 (a); § 24.232 (c); §27.50 (b) (c) (d) (h); §90.635 (b)	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049	Occupied Bandwidth	Compliant
§ 2.1051; §22.917 (a); § 24.238 (a); §27.53; § 90.691	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); § 24.238 (a); §27.53; §90.691	Field Strength of Spurious Radiation	Compliant
§ 22.917 (a); § 24.238 (a); §27.53 (c) (h) (m); §90.691	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54; §90.213	Frequency stability	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Rohde & Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2021/11/09	2022/11/08
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2021/11/11	2022/11/10
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.15	N600	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N650	2021/12/14	2022/12/13
Unknown	Band Reject Filter	MSF824-862MS-1147	201706003	2021/12/14	2022/12/13
Unknown	Band Reject Filter	MSF1850-1910MS-1148	201706003	2021/12/14	2022/12/13
Unknown	Band Reject Filter	MSF700-800MS-1153	201706003	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 Antenna	PE9852/2F-20	1120	2020/01/05	2023/01/04
PASTERNAK	Horn Antenna	PE9852/2F-20	1120	2020/01/05	2023/01/04
Agilent	Signal Generator	N5183A	MY51040755	2021/12/13	2022/12/12
Radiated Emission Test Software: e3 19821b (V9)					
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101495	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
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	/
HP	6dB Attenuator	8493B 6dB Attenuator	06151	2021/12/14	2022/12/13

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

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

Applicable Standard

FCC§1.1307 and §2.1093.

Test Result

Compliant, please refer to the SAR report: CR22080010-20A.

FCC§2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H, 24E, 27 & 90, there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046, § 22.913 (a)&§ 24.232 (c); §27.50(c)(h); § 90.635(b)- 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.

According to §27.50(b), Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

According to §27.50(c), Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP. And Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

According to §27.50(d), the maximum EIRP must not exceed 1Watts (30dBm) for 1710-1780MHz.

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

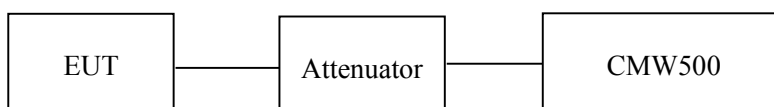
According to FCC §2.1046 and §90.635 (b), The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

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

Test Procedure

Conducted method:

The RF output of the transmitter was connected to the CMW500 through sufficient attenuation. (The path loss is 6 dB between EUT and CMW500)



ANSI C63.26-2015 Section 5.5.

Test Data

Environmental Conditions

Temperature:	23.5~26.5 °C
Relative Humidity:	56~61 %
ATM Pressure:	101.0~101.2 kPa

The testing was performed by Black Ding from 2022-06-02 to 2022-06-04.

Conducted Power**GSM 850**

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	824.20	32.90	32.53	32.25	31.91	27.98	27.61	27.33	26.99	38.45
	190	836.60	33.15	32.82	32.53	32.26	28.23	27.90	27.61	27.34	38.45
	251	848.80	33.12	32.79	32.55	32.32	28.20	27.87	27.63	27.40	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	824.20	26.48	26.21	25.96	25.62	21.56	21.29	21.04	20.70	38.45
	190	836.60	26.83	26.51	26.26	25.88	21.91	21.59	21.34	20.96	38.45
	251	848.80	27.25	26.97	26.68	26.30	22.33	22.05	21.76	21.38	38.45

WCDMA Band V

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band V)	RMC12.2k		22.13	22.07	22.16	17.21	17.15	17.24
	HSDPA	1	21.95	22.23	22.31	17.03	17.31	17.39
		2	21.99	22.20	22.18	17.07	17.28	17.26
		3	21.93	22.05	22.09	17.01	17.13	17.17
		4	21.98	22.07	22.13	17.06	17.15	17.21
	HSUPA	1	22.07	22.21	22.35	17.15	17.29	17.43
		2	22.02	22.22	22.31	17.10	17.30	17.39
		3	22.07	22.16	22.26	17.15	17.24	17.34
		4	22.02	22.09	22.18	17.10	17.17	17.26
		5	21.99	22.13	22.19	17.07	17.21	17.27
	HSPA+	/	22.01	22.15	22.23	17.09	17.23	17.31

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) + Path Loss(dB)

For GSM 850/WCDMA Band V:

Antenna Gain = -2.77dBi = -4.92dBd (0dBd = 2.15dBi), Path Loss = 0dB

Limit: ERP ≤ 38.45dBm

PCS 1900

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	1850.20	29.90	29.78	29.59	29.40	29.84	29.72	29.53	29.34	33.00
	661	1880.00	30.04	29.88	29.69	29.48	29.98	29.82	29.63	29.42	33.00
	810	1909.80	29.78	29.63	29.41	29.25	29.72	29.57	29.35	29.19	33.00

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	1850.20	25.82	25.66	25.42	25.20	25.76	25.60	25.36	25.14	33.00
	661	1880.00	25.42	25.19	25.01	24.74	25.36	25.13	24.95	24.68	33.00
	810	1909.80	26.29	26.07	25.83	25.64	26.23	26.01	25.77	25.58	33.00

WCDMA Band II

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band II)	RMC12.2k		22.29	22.19	22.1	22.23	22.13	22.04
	HSDPA	1	22.03	22.07	21.34	21.97	22.01	21.28
		2	22.04	22.16	21.46	21.98	22.10	21.40
		3	22.03	22.13	21.28	21.97	22.07	21.22
		4	22.08	22.11	21.30	22.02	22.05	21.24
	HSUPA	1	21.95	22.16	21.35	21.89	22.10	21.29
		2	22.09	22.08	21.44	22.03	22.02	21.38
		3	22.03	22.14	21.47	21.97	22.08	21.41
		4	21.97	22.21	21.28	21.91	22.15	21.22
		5	22.08	22.13	21.23	22.02	22.07	21.17
	HSPA+	/	22.00	22.09	21.45	21.94	22.03	21.39

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)+ Path Loss(dB)
 For PCS 1900 / WCDMA Band II: Antenna Gain = -0.06dBi, Path Loss= 0dB
 Limit: EIRP≤33dBm

WCDMA Band IV

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band IV)	RMC12.2k		22.19	22.10	22.21	21.67	21.58	21.69
	HSDPA	1	21.97	22.15	21.86	21.45	21.63	21.34
		2	21.97	22.15	21.84	21.45	21.63	21.32
		3	22.00	22.27	21.68	21.48	21.75	21.16
		4	22.10	22.15	21.84	21.58	21.63	21.32
	HSUPA	1	22.13	22.26	21.84	21.61	21.74	21.32
		2	22.00	22.17	21.75	21.48	21.65	21.23
		3	22.04	22.07	21.79	21.52	21.55	21.27
		4	22.18	22.06	21.87	21.66	21.54	21.35
		5	22.09	22.18	21.81	21.57	21.66	21.29
	HSPA+	/	22.16	22.14	21.82	21.64	21.62	21.30

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For WCDMA Band IV: Antenna Gain = -0.52dBi, Path Loss= 0dB

Limit: EIRP ≤ 30dBm

LTE Band 2

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	1#0	22.19	22.06	21.65	22.13	22.00	21.59
		1#2	21.80	21.64	21.76	21.74	21.58	21.70
		1#5	22.09	21.87	21.66	22.03	21.81	21.60
		3#0	22.25	21.72	21.67	22.19	21.66	21.61
		3#1	21.81	21.83	21.99	21.75	21.77	21.93
		3#2	21.95	21.89	21.96	21.89	21.83	21.90
		6#0	22.07	21.72	21.88	22.01	21.66	21.82
	16QAM	1#0	21.80	21.99	21.28	21.74	21.93	21.22
		1#2	21.94	21.32	21.25	21.88	21.26	21.19
		1#5	21.49	21.98	21.42	21.43	21.92	21.36
		3#0	21.34	21.76	21.38	21.28	21.70	21.32
		3#1	21.29	21.49	21.62	21.23	21.43	21.56
		3#2	21.76	21.50	21.59	21.70	21.44	21.53
		6#0	21.52	21.22	21.94	21.46	21.16	21.88
3.0	QPSK	1#0	21.59	21.87	21.28	21.53	21.81	21.22
		1#7	21.44	21.93	21.35	21.38	21.87	21.29
		1#14	21.44	21.19	21.42	21.38	21.13	21.36
		8#0	22.08	21.89	21.19	22.02	21.83	21.13
		8#4	22.15	21.93	21.75	22.09	21.87	21.69
		8#7	21.86	21.30	21.22	21.80	21.24	21.16
		15#0	21.52	21.95	21.31	21.46	21.89	21.25
	16QAM	1#0	21.58	22.04	21.41	21.52	21.98	21.35
		1#7	21.31	21.95	21.08	21.25	21.89	21.02
		1#14	21.95	21.31	21.51	21.89	21.25	21.45
		8#0	22.23	21.53	21.45	22.17	21.47	21.39
		8#4	21.66	21.78	21.33	21.60	21.72	21.27
		8#7	21.93	21.38	21.70	21.87	21.32	21.64
		15#0	21.75	21.70	21.87	21.69	21.64	21.81

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	1#0	21.52	21.16	21.89	21.46	21.10	21.83
		1#12	21.45	21.85	21.70	21.39	21.79	21.64
		1#24	21.76	21.98	21.99	21.70	21.92	21.93
		12#0	22.00	21.73	21.39	21.94	21.67	21.33
		12#6	21.61	21.67	21.87	21.55	21.61	21.81
		12#11	22.04	21.44	21.41	21.98	21.38	21.35
		25#0	21.65	21.48	21.09	21.59	21.42	21.03
	16QAM	1#0	21.31	21.25	21.31	21.25	21.19	21.25
		1#12	21.72	21.63	21.51	21.66	21.57	21.45
		1#24	21.66	21.76	21.11	21.60	21.70	21.05
		12#0	21.44	21.38	21.60	21.38	21.32	21.54
		12#6	21.26	21.94	21.42	21.20	21.88	21.36
		12#11	21.47	21.75	21.05	21.41	21.69	20.99
		25#0	21.91	21.22	21.42	21.85	21.16	21.36
10.0	QPSK	1#0	21.27	21.22	21.35	21.21	21.16	21.29
		1#24	21.59	21.68	21.83	21.53	21.62	21.77
		1#49	21.69	21.77	21.22	21.63	21.71	21.16
		25#0	22.06	21.75	21.06	22.00	21.69	21.00
		25#12	21.61	21.98	21.86	21.55	21.92	21.80
		25#24	21.99	21.45	21.06	21.93	21.39	21.00
		50#0	21.56	21.52	21.32	21.50	21.46	21.26
	16QAM	1#0	21.81	21.3	21.09	21.75	21.24	21.03
		1#24	22.16	21.47	21.97	22.10	21.41	21.91
		1#49	21.59	21.13	21.06	21.53	21.07	21.00
		25#0	21.60	21.29	21.96	21.54	21.23	21.90
		25#12	21.71	21.89	21.33	21.65	21.83	21.27
		25#24	21.62	22.10	21.88	21.56	22.04	21.82
		50#0	21.64	21.43	21.67	21.58	21.37	21.61

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	1#0	21.69	21.23	21.42	21.63	21.17	21.36
		1#37	21.75	21.3	21.24	21.69	21.24	21.18
		1#74	21.75	21.26	21.24	21.69	21.20	21.18
		36#0	22.15	21.73	21.58	22.09	21.67	21.52
		36#18	21.54	21.12	21.97	21.48	21.06	21.91
		36#37	21.96	21.19	21.04	21.90	21.13	20.98
		75#0	22.10	21.58	21.37	22.04	21.52	21.31
	16QAM	1#0	22.19	21.49	21.74	22.13	21.43	21.68
		1#37	21.76	21.46	21.90	21.70	21.40	21.84
		1#74	21.30	21.76	21.80	21.24	21.70	21.74
		36#0	21.64	21.72	21.20	21.58	21.66	21.14
		36#18	22.06	21.38	21.63	22.00	21.32	21.57
		36#37	21.99	21.55	21.45	21.93	21.49	21.39
		75#0	21.59	21.54	21.62	21.53	21.48	21.56
20.0	QPSK	1#0	21.99	22.06	21.31	21.93	22.00	21.25
		1#49	21.47	21.99	21.68	21.41	21.93	21.62
		1#99	21.88	21.78	21.62	21.82	21.72	21.56
		50#0	21.46	21.81	21.92	21.40	21.75	21.86
		50#24	22.19	21.19	21.34	22.13	21.13	21.28
		50#49	22.06	21.11	21.72	22.00	21.05	21.66
		100#0	21.27	21.60	21.67	21.21	21.54	21.61
	16QAM	1#0	22.10	21.16	21.19	22.04	21.10	21.13
		1#49	21.96	21.49	21.88	21.90	21.43	21.82
		1#99	21.56	21.98	22.00	21.50	21.92	21.94
		50#0	21.66	21.46	21.17	21.60	21.40	21.11
		50#24	21.81	21.34	21.88	21.75	21.28	21.82
		50#49	21.26	21.38	21.51	21.20	21.32	21.45
		100#0	21.93	21.70	21.68	21.87	21.64	21.62

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For Band 2: Antenna Gain = -0.06dBi, Path Loss = 0dB

Limit: EIRP ≤ 33dBm

LTE Band 4

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	1#0	21.90	21.66	21.55	21.38	21.14	21.03
		1#2	21.65	21.25	21.48	21.13	20.73	20.96
		1#5	21.49	21.13	21.59	20.97	20.61	21.07
		3#0	22.15	21.56	21.73	21.63	21.04	21.21
		3#1	21.60	21.86	21.34	21.08	21.34	20.82
		3#2	21.37	22.04	21.3	20.85	21.52	20.78
		6#0	21.31	21.41	21.82	20.79	20.89	21.30
	16QAM	1#0	22.04	21.60	21.28	21.52	21.08	20.76
		1#2	22.09	21.35	21.62	21.57	20.83	21.10
		1#5	22.06	21.49	21.71	21.54	20.97	21.19
		3#0	21.43	22.07	21.6	20.91	21.55	21.08
		3#1	21.73	21.81	21.88	21.21	21.29	21.36
		3#2	21.59	21.9	21.2	21.07	21.38	20.68
		6#0	21.66	21.12	21.04	21.14	20.60	20.52
3.0	QPSK	1#0	22.15	21.57	21.18	21.63	21.05	20.66
		1#7	21.61	21.68	21.72	21.09	21.16	21.20
		1#14	21.71	21.13	21.20	21.19	20.61	20.68
		8#0	21.80	21.6	21.90	21.28	21.08	21.38
		8#4	21.69	21.51	21.50	21.17	20.99	20.98
		8#7	21.46	22.1	21.68	20.94	21.58	21.16
		15#0	21.37	21.3	21.24	20.85	20.78	20.72
	16QAM	1#0	21.96	22.08	21.29	21.44	21.56	20.77
		1#7	21.29	21.92	21.46	20.77	21.40	20.94
		1#14	21.59	22.01	21.40	21.07	21.49	20.88
		8#0	21.57	21.14	21.93	21.05	20.62	21.41
		8#4	21.34	21.29	21.38	20.82	20.77	20.86
		8#7	21.62	22.05	21.59	21.10	21.53	21.07
		15#0	22.12	21.83	21.11	21.60	21.31	20.59

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	1#0	21.93	21.45	21.92	21.41	20.93	21.40
		1#12	21.33	21.26	21.38	20.81	20.74	20.86
		1#24	22.26	21.16	21.34	21.74	20.64	20.82
		12#0	22.21	22.10	21.07	21.69	21.58	20.55
		12#6	21.39	21.59	21.02	20.87	21.07	20.50
		12#11	21.34	21.50	21.21	20.82	20.98	20.69
		25#0	21.93	21.51	21.9	21.41	20.99	21.38
	16QAM	1#0	21.55	21.90	21.85	21.03	21.38	21.33
		1#12	22.09	21.20	21.13	21.57	20.68	20.61
		1#24	21.69	21.6	21.58	21.17	21.08	21.06
		12#0	21.93	21.22	21.83	21.41	20.70	21.31
		12#6	21.47	21.82	21.28	20.95	21.30	20.76
		12#11	21.39	22.04	21.71	20.87	21.52	21.19
		25#0	21.72	21.78	21.59	21.20	21.26	21.07
10.0	QPSK	1#0	21.45	21.34	21.48	20.93	20.82	20.96
		1#24	22.14	21.82	21.23	21.62	21.30	20.71
		1#49	22.16	21.55	21.9	21.64	21.03	21.38
		25#0	22.11	21.8	21.09	21.59	21.28	20.57
		25#12	21.95	21.27	21.58	21.43	20.75	21.06
		25#24	21.65	21.47	21.15	21.13	20.95	20.63
		50#0	22.01	21.71	21.38	21.49	21.19	20.86
	16QAM	1#0	21.75	22.08	21.29	21.23	21.56	20.77
		1#24	22.00	22.08	21.41	21.48	21.56	20.89
		1#49	21.92	21.53	21.49	21.40	21.01	20.97
		25#0	21.99	22.08	21.32	21.47	21.56	20.80
		25#12	21.36	22.03	21.62	20.84	21.51	21.10
		25#24	21.80	21.16	21.59	21.28	20.64	21.07
		50#0	21.31	21.14	21.09	20.79	20.62	20.57

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	1#0	21.72	21.90	21.38	21.20	21.38	20.86
		1#37	21.85	21.18	21.11	21.33	20.66	20.59
		1#74	21.42	21.68	21.44	20.90	21.16	20.92
		36#0	21.74	22.01	21.99	21.22	21.49	21.47
		36#18	21.66	21.57	22.00	21.14	21.05	21.48
		36#37	21.56	21.65	21.93	21.04	21.13	21.41
		75#0	21.86	21.93	21.08	21.34	21.41	20.56
	16QAM	1#0	21.73	21.56	21.13	21.21	21.04	20.61
		1#37	22.22	21.30	21.37	21.70	20.78	20.85
		1#74	22.05	21.35	21.05	21.53	20.83	20.53
		36#0	21.67	21.77	21.25	21.15	21.25	20.73
		36#18	21.95	21.86	21.43	21.43	21.34	20.91
		36#37	21.39	21.63	21.86	20.87	21.11	21.34
		75#0	21.84	21.57	21.29	21.32	21.05	20.77
20.0	QPSK	1#0	21.87	21.37	21.29	21.35	20.85	20.77
		1#49	21.86	21.54	21.54	21.34	21.02	21.02
		1#99	21.67	22.02	21.67	21.15	21.50	21.15
		50#0	21.82	21.42	21.20	21.30	20.90	20.68
		50#24	21.83	21.52	22.00	21.31	21.00	21.48
		50#49	21.81	21.12	21.26	21.29	20.60	20.74
		100#0	22.06	21.58	21.56	21.54	21.06	21.04
	16QAM	1#0	21.83	21.69	21.14	21.31	21.17	20.62
		1#49	21.92	21.57	21.79	21.40	21.05	21.27
		1#99	22.23	21.81	21.84	21.71	21.29	21.32
		50#0	21.68	21.41	21.77	21.16	20.89	21.25
		50#24	21.60	21.66	21.99	21.08	21.14	21.47
		50#49	21.34	21.16	21.67	20.82	20.64	21.15
		100#0	21.48	21.29	22.02	20.96	20.77	21.50

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For Band 4: Antenna Gain = -0.52dBi, Path Loss = 0dB

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	1#0	21.34	21.49	21.72	16.42	16.57	16.80
		1#2	21.52	21.67	21.99	16.60	16.75	17.07
		1#5	22.02	21.15	21.35	17.10	16.23	16.43
		3#0	22.00	21.58	21.19	17.08	16.66	16.27
		3#1	21.70	21.30	21.50	16.78	16.38	16.58
		3#2	22.15	21.95	21.53	17.23	17.03	16.61
		6#0	21.84	21.67	21.62	16.92	16.75	16.70
	16QAM	1#0	21.77	22.01	21.58	16.85	17.09	16.66
		1#2	21.76	21.99	21.11	16.84	17.07	16.19
		1#5	21.61	21.83	22.01	16.69	16.91	17.09
		3#0	21.5	21.54	21.53	16.58	16.62	16.61
		3#1	21.62	22.11	21.89	16.70	17.19	16.97
		3#2	22.08	21.54	21.22	17.16	16.62	16.30
		6#0	21.55	21.50	21.69	16.63	16.58	16.77
3.0	QPSK	1#0	22.14	21.82	21.88	17.22	16.90	16.96
		1#7	21.91	21.41	21.35	16.99	16.49	16.43
		1#14	21.39	21.38	21.72	16.47	16.46	16.80
		8#0	21.53	21.58	21.37	16.61	16.66	16.45
		8#4	22.03	21.82	21.46	17.11	16.90	16.54
		8#7	21.69	21.53	21.34	16.77	16.61	16.42
		15#0	22.25	22.00	21.45	17.33	17.08	16.53
	16QAM	1#0	21.64	21.62	21.49	16.72	16.70	16.57
		1#7	22.25	21.11	21.76	17.33	16.19	16.84
		1#14	22.22	21.99	21.03	17.30	17.07	16.11
		8#0	22.02	21.99	21.08	17.10	17.07	16.16
		8#4	21.46	21.79	21.65	16.54	16.87	16.73
		8#7	21.63	21.62	21.47	16.71	16.70	16.55
		15#0	21.55	21.91	21.81	16.63	16.99	16.89

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	1#0	21.85	21.30	21.74	16.93	16.38	16.82
		1#12	22.24	21.29	21.64	17.32	16.37	16.72
		1#24	21.60	21.43	21.35	16.68	16.51	16.43
		12#0	21.76	21.78	21.05	16.84	16.86	16.13
		12#6	22.15	21.74	21.27	17.23	16.82	16.35
		12#11	21.47	21.47	21.09	16.55	16.55	16.17
		25#0	21.73	21.11	21.22	16.81	16.19	16.30
	16QAM	1#0	21.92	21.84	21.32	17.00	16.92	16.40
		1#12	22.01	21.16	21.63	17.09	16.24	16.71
		1#24	21.50	21.14	21.10	16.58	16.22	16.18
		12#0	21.43	21.16	21.81	16.51	16.24	16.89
		12#6	21.95	21.92	21.31	17.03	17.00	16.39
		12#11	21.66	21.27	21.26	16.74	16.35	16.34
		25#0	22.23	21.71	21.40	17.31	16.79	16.48
10.0	QPSK	1#0	21.8	21.99	21.92	16.88	17.07	17.00
		1#24	21.38	21.60	21.37	16.46	16.68	16.45
		1#49	22.03	21.33	21.57	17.11	16.41	16.65
		25#0	21.60	21.89	21.30	16.68	16.97	16.38
		25#12	22.22	21.40	21.69	17.30	16.48	16.77
		25#24	21.35	21.28	21.45	16.43	16.36	16.53
		50#0	21.67	21.58	21.85	16.75	16.66	16.93
	16QAM	1#0	21.75	22.11	21.27	16.83	17.19	16.35
		1#24	21.59	21.68	21.84	16.67	16.76	16.92
		1#49	22.00	21.90	21.56	17.08	16.98	16.64
		25#0	21.88	21.80	21.54	16.96	16.88	16.62
		25#12	22.24	21.17	21.25	17.32	16.25	16.33
		25#24	21.42	21.46	21.69	16.50	16.54	16.77
		50#0	21.29	21.73	22.00	16.37	16.81	17.08

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) + Path Loss(dB)

For Band5: Antenna Gain = -2.77dBi = -4.92dBd (0dBd = 2.15dBi), Path Loss = 0dB

Limit: ERP ≤ 38.45dBm

LTE Band 7

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	1#0	21.95	21.32	22.00	23.60	22.97	23.65
		1#12	22.12	21.49	21.43	23.77	23.14	23.08
		1#24	21.92	21.16	21.53	23.57	22.81	23.18
		12#0	21.37	21.36	21.63	23.02	23.01	23.28
		12#6	21.42	21.46	21.71	23.07	23.11	23.36
		12#11	21.87	21.37	21.76	23.52	23.02	23.41
		25#0	22.11	21.30	21.12	23.76	22.95	22.77
	16QAM	1#0	22.03	21.94	21.07	23.68	23.59	22.72
		1#12	21.3	22.09	21.56	22.95	23.74	23.21
		1#24	22.26	22.04	21.38	23.91	23.69	23.03
		12#0	21.95	21.51	21.42	23.60	23.16	23.07
		12#6	22.03	21.40	21.38	23.68	23.05	23.03
		12#11	22.01	21.84	21.05	23.66	23.49	22.70
		25#0	21.43	21.83	21.34	23.08	23.48	22.99
10	QPSK	1#0	21.52	21.19	21.8	23.17	22.84	23.45
		1#24	21.53	22.02	21.50	23.18	23.67	23.15
		1#49	21.45	21.50	21.02	23.10	23.15	22.67
		25#0	21.48	22.09	21.72	23.13	23.74	23.37
		25#12	21.74	22.05	21.53	23.39	23.70	23.18
		25#24	22.11	22.06	21.14	23.76	23.71	22.79
		50#0	21.60	21.25	21.78	23.25	22.90	23.43
	16QAM	1#0	21.65	21.91	21.68	23.30	23.56	23.33
		1#24	21.65	21.22	21.62	23.30	22.87	23.27
		1#49	21.99	21.91	21.77	23.64	23.56	23.42
		25#0	21.33	22.04	21.84	22.98	23.69	23.49
		25#12	22.16	21.17	21.16	23.81	22.82	22.81
		25#24	21.86	21.23	21.75	23.51	22.88	23.40
		50#0	21.65	21.81	21.1	23.30	23.46	22.75

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15	QPSK	1#0	22.08	21.65	21.58	23.73	23.30	23.23
		1#37	21.84	21.82	21.51	23.49	23.47	23.16
		1#74	21.42	21.59	21.25	23.07	23.24	22.90
		36#0	22.11	21.22	21.13	23.76	22.87	22.78
		36#18	21.52	22	21.71	23.17	23.65	23.36
		36#37	21.61	21.29	21.73	23.26	22.94	23.38
		75#0	21.83	22	21.2	23.48	23.65	22.85
	16QAM	1#0	21.93	21.93	21.54	23.58	23.58	23.19
		1#37	22.02	21.87	21.73	23.67	23.52	23.38
		1#74	21.48	21.39	21.72	23.13	23.04	23.37
		36#0	21.4	21.29	21.89	23.05	22.94	23.54
		36#18	21.49	21.28	21.04	23.14	22.93	22.69
		36#37	21.47	21.83	21.07	23.12	23.48	22.72
		75#0	21.78	21.27	21.96	23.43	22.92	23.61
20	QPSK	1#0	21.27	21.59	21.57	22.92	23.24	23.22
		1#49	21.41	21.79	21.14	23.06	23.44	22.79
		1#99	21.57	21.65	21.17	23.22	23.30	22.82
		50#0	21.32	21.87	21.07	22.97	23.52	22.72
		50#24	22.16	21.18	21.22	23.81	22.83	22.87
		50#49	22.14	21.11	21.35	23.79	22.76	23.00
		100#0	22.22	21.68	21.96	23.87	23.33	23.61
	16QAM	1#0	21.79	21.65	21.82	23.44	23.30	23.47
		1#49	21.49	21.36	21.49	23.14	23.01	23.14
		1#99	22.02	21.72	21.04	23.67	23.37	22.69
		50#0	21.72	21.69	21.32	23.37	23.34	22.97
		50#24	22.06	22.01	21.27	23.71	23.66	22.92
		50#49	21.59	21.73	21.03	23.24	23.38	22.68
		100#0	22.1	21.34	21.82	23.75	22.99	23.47

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For Band 7: Antenna Gain = 1.65dBi, Path Loss = 0dB

Limit: EIRP ≤ 33dBm

LTE Band 12

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	1#0	22.08	21.42	21.21	16.11	15.45	15.24
		1#2	21.99	21.47	21.18	16.02	15.50	15.21
		1#5	21.73	21.54	21.46	15.76	15.57	15.49
		3#0	22.1	22.1	21.93	16.13	16.13	15.96
		3#1	22.18	21.21	21.16	16.21	15.24	15.19
		3#2	22.08	21.78	21.57	16.11	15.81	15.60
		6#0	21.41	21.57	21.65	15.44	15.60	15.68
	16QAM	1#0	21.51	21.31	21.05	15.54	15.34	15.08
		1#2	22.08	21.58	21.48	16.11	15.61	15.51
		1#5	21.58	21.45	21.62	15.61	15.48	15.65
		3#0	21.94	21.55	21.39	15.97	15.58	15.42
		3#1	21.34	22.06	21.37	15.37	16.09	15.40
		3#2	21.84	21.33	21.86	15.87	15.36	15.89
		6#0	21.66	21.51	21.06	15.69	15.54	15.09
3.0	QPSK	1#0	21.82	21.54	22.00	15.85	15.57	16.03
		1#7	22.23	22.03	21.17	16.26	16.06	15.20
		1#14	21.36	21.43	21.61	15.39	15.46	15.64
		8#0	21.96	21.91	21.59	15.99	15.94	15.62
		8#4	21.97	21.76	21.44	16.00	15.79	15.47
		8#7	21.93	22.02	21.95	15.96	16.05	15.98
		15#0	22.11	21.16	21.7	16.14	15.19	15.73
	16QAM	1#0	21.39	21.17	21.79	15.42	15.20	15.82
		1#7	22.22	21.82	21.05	16.25	15.85	15.08
		1#14	21.55	21.28	21.39	15.58	15.31	15.42
		8#0	22.13	21.69	21.47	16.16	15.72	15.50
		8#4	22.16	21.43	21.33	16.19	15.46	15.36
		8#7	21.39	21.7	21.21	15.42	15.73	15.24
		15#0	22.04	21.57	21.34	16.07	15.60	15.37

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	1#0	21.81	21.75	21.67	15.84	15.78	15.70
		1#12	21.39	22.07	21.74	15.42	16.10	15.77
		1#24	21.76	21.12	21.16	15.79	15.15	15.19
		12#0	21.38	21.32	21.84	15.41	15.35	15.87
		12#6	22.05	21.73	21.13	16.08	15.76	15.16
		12#11	22.09	21.54	21.47	16.12	15.57	15.50
		25#0	21.91	21.53	21.35	15.94	15.56	15.38
	16QAM	1#0	21.33	21.14	21.24	15.36	15.17	15.27
		1#12	21.32	21.5	21.11	15.35	15.53	15.14
		1#24	21.76	21.85	21.78	15.79	15.88	15.81
		12#0	21.68	21.35	21.65	15.71	15.38	15.68
		12#6	21.69	21.35	21.86	15.72	15.38	15.89
		12#11	21.4	21.5	21.39	15.43	15.53	15.42
		25#0	21.33	21.87	21.39	15.36	15.90	15.42
10.0	QPSK	1#0	21.51	21.99	21.33	15.54	16.02	15.36
		1#24	22.24	21.47	21.84	16.27	15.50	15.87
		1#49	21.66	21.83	21.66	15.69	15.86	15.69
		25#0	21.31	21.39	21.52	15.34	15.42	15.55
		25#12	21.61	22.06	21.14	15.64	16.09	15.17
		25#24	21.64	21.7	21.9	15.67	15.73	15.93
		50#0	22.01	21.19	22.01	16.04	15.22	16.04
	16QAM	1#0	22.26	21.99	21.49	16.29	16.02	15.52
		1#24	21.52	21.48	21.19	15.55	15.51	15.22
		1#49	21.75	21.38	22.01	15.78	15.41	16.04
		25#0	21.38	21.31	21.79	15.41	15.34	15.82
		25#12	21.43	21.69	21.8	15.46	15.72	15.83
		25#24	21.54	21.77	21.65	15.57	15.80	15.68
		50#0	21.93	21.97	21.18	15.96	16.00	15.21

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) + Path Loss(dB)

For Band 12: Antenna Gain = -3.82dBi = -5.97dBd (0dBd=2.15dBi), Path Loss = 0dB

Limit: ERP ≤ 34.77dBm

LTE Band 17

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	1#0	21.57	21.86	21.05	15.60	15.89	15.08
		1#12	21.6	21.9	21.65	15.63	15.93	15.68
		1#24	21.59	21.86	21.89	15.62	15.89	15.92
		12#0	21.84	21.53	21.5	15.87	15.56	15.53
		12#6	21.27	21.25	21.31	15.30	15.28	15.34
		12#11	21.78	21.73	21.4	15.81	15.76	15.43
		25#0	22.11	21.48	21.72	16.14	15.51	15.75
	16QAM	1#0	22.03	21.28	21.51	16.06	15.31	15.54
		1#12	21.48	21.33	21.12	15.51	15.36	15.15
		1#24	21.85	21.39	21.69	15.88	15.42	15.72
		12#0	21.82	21.24	21.48	15.85	15.27	15.51
		12#6	21.88	21.27	21.92	15.91	15.30	15.95
		12#11	22.04	21.24	21.03	16.07	15.27	15.06
		25#0	21.63	21.91	21.92	15.66	15.94	15.95
10.0	QPSK	1#0	21.78	21.26	21.88	15.81	15.29	15.91
		1#24	21.56	21.5	21.84	15.59	15.53	15.87
		1#49	22.07	21.31	21.12	16.10	15.34	15.15
		25#0	21.28	21.33	21.79	15.31	15.36	15.82
		25#12	21.42	21.52	21.14	15.45	15.55	15.17
		25#24	21.82	21.22	21.58	15.85	15.25	15.61
		50#0	21.33	21.69	21.43	15.36	15.72	15.46
	16QAM	1#0	21.41	21.41	21.13	15.44	15.44	15.16
		1#24	21.43	21.68	21.29	15.46	15.71	15.32
		1#49	22.11	21.37	21.23	16.14	15.40	15.26
		25#0	21.73	21.95	21.64	15.76	15.98	15.67
		25#12	21.54	22.02	21.15	15.57	16.05	15.18
		25#24	21.88	21.84	21.71	15.91	15.87	15.74
		50#0	21.88	21.89	21.1	15.91	15.92	15.13

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) + Path Loss(dB)

For Band 17: Antenna Gain = -3.82dBi = -5.97dBd (0dBd= 2.15dBi), Path Loss = 0dB

Limit: ERP ≤ 34.77dBm

LTE Band 25:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	1#0	21.61	21.47	21.1	21.55	21.41	21.04
		1#2	21.58	21.94	21.45	21.52	21.88	21.39
		1#5	21.73	21.61	21.54	21.67	21.55	21.48
		3#0	21.46	21.72	21.12	21.40	21.66	21.06
		3#1	22.15	21.46	21.16	22.09	21.40	21.10
		3#2	21.55	21.6	21.19	21.49	21.54	21.13
		6#0	21.26	21.46	21.47	21.20	21.40	21.41
	16QAM	1#0	21.89	21.94	21.73	21.83	21.88	21.67
		1#2	21.93	21.92	21.98	21.87	21.86	21.92
		1#5	22.1	21.59	21.24	22.04	21.53	21.18
		3#0	22.13	21.74	21.29	22.07	21.68	21.23
		3#1	21.26	21.46	21.16	21.20	21.40	21.10
		3#2	21.46	21.5	21.76	21.40	21.44	21.70
		6#0	21.35	22.02	21.32	21.29	21.96	21.26
3	QPSK	1#0	21.82	21.54	21.12	21.76	21.48	21.06
		1#7	21.96	22.1	21.34	21.90	22.04	21.28
		1#14	21.63	21.81	21.69	21.57	21.75	21.63
		8#0	22.02	21.26	21.68	21.96	21.20	21.62
		8#4	21.74	21.54	22	21.68	21.48	21.94
		8#7	22.24	21.63	21.92	22.18	21.57	21.86
		15#0	21.41	21.39	21.28	21.35	21.33	21.22
	16QAM	1#0	21.3	22.02	21.48	21.24	21.96	21.42
		1#7	21.72	21.36	21.65	21.66	21.30	21.59
		1#14	21.3	21.45	21.76	21.24	21.39	21.70
		8#0	21.52	21.24	21.86	21.46	21.18	21.80
		8#4	21.79	22.1	21.57	21.73	22.04	21.51
		8#7	21.28	21.39	21.76	21.22	21.33	21.70
		15#0	21.38	21.77	21.05	21.32	21.71	20.99

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	1#0	21.94	21.62	21.73	21.88	21.56	21.67
		1#12	21.54	21.35	21.36	21.48	21.29	21.30
		1#24	21.39	21.72	21.6	21.33	21.66	21.54
		12#0	21.33	21.97	21.59	21.27	21.91	21.53
		12#6	21.88	21.83	21.14	21.82	21.77	21.08
		12#11	21.62	21.86	21.84	21.56	21.80	21.78
		25#0	21.78	21.52	21.47	21.72	21.46	21.41
	16QAM	1#0	21.59	21.72	21.09	21.53	21.66	21.03
		1#12	21.81	22.07	21.38	21.75	22.01	21.32
		1#24	21.88	21.11	21.28	21.82	21.05	21.22
		12#0	21.81	21.85	21.16	21.75	21.79	21.10
		12#6	21.38	21.28	21.47	21.32	21.22	21.41
		12#11	21.8	21.8	21.46	21.74	21.74	21.40
		25#0	21.62	21.31	21.65	21.56	21.25	21.59
10	QPSK	1#0	22.18	21.3	21.47	22.12	21.24	21.41
		1#24	21.8	21.29	21.49	21.74	21.23	21.43
		1#49	21.31	21.23	21.53	21.25	21.17	21.47
		25#0	21.6	21.75	21.12	21.54	21.69	21.06
		25#12	21.52	21.14	21.42	21.46	21.08	21.36
		25#24	21.72	21.44	21.46	21.66	21.38	21.40
		50#0	21.51	21.81	21.8	21.45	21.75	21.74
	16QAM	1#0	21.5	21.55	21.93	21.44	21.49	21.87
		1#24	22.19	21.78	21.34	22.13	21.72	21.28
		1#49	21.53	21.41	21.07	21.47	21.35	21.01
		25#0	21.44	21.98	22.01	21.38	21.92	21.95
		25#12	22.17	21.33	21.41	22.11	21.27	21.35
		25#24	21.67	21.37	21.46	21.61	21.31	21.40
		50#0	21.27	22.08	21.44	21.21	22.02	21.38

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15	QPSK	1#0	22.23	21.84	21.26	22.17	21.78	21.20
		1#37	21.7	21.18	21.69	21.64	21.12	21.63
		1#74	21.34	21.45	21.19	21.28	21.39	21.13
		36#0	22.22	22	21.5	22.16	21.94	21.44
		36#18	21.98	22.05	21.15	21.92	21.99	21.09
		36#37	21.78	21.78	21.26	21.72	21.72	21.20
		75#0	21.63	21.28	21.91	21.57	21.22	21.85
	16QAM	1#0	21.38	22.03	21.27	21.32	21.97	21.21
		1#37	21.34	21.4	21.49	21.28	21.34	21.43
		1#74	21.72	21.83	21.29	21.66	21.77	21.23
		36#0	21.62	21.73	21.38	21.56	21.67	21.32
		36#18	22.19	21.69	21.8	22.13	21.63	21.74
		36#37	21.32	21.66	21.27	21.26	21.60	21.21
		75#0	22.22	21.92	21.69	22.16	21.86	21.63
20	QPSK	1#0	22.01	21.35	21.41	21.95	21.29	21.35
		1#49	21.36	22.04	21.28	21.30	21.98	21.22
		1#99	22.15	22.03	21.72	22.09	21.97	21.66
		50#0	21.59	21.82	21.05	21.53	21.76	20.99
		50#24	21.75	21.21	21.45	21.69	21.15	21.39
		50#49	22.25	22.09	21.73	22.19	22.03	21.67
		100#0	21.37	21.93	21.93	21.31	21.87	21.87
	16QAM	1#0	21.69	21.43	21.5	21.63	21.37	21.44
		1#49	21.69	21.12	21.76	21.63	21.06	21.70
		1#99	22.14	21.12	21.86	22.08	21.06	21.80
		50#0	21.29	21.68	21.42	21.23	21.62	21.36
		50#24	22.09	21.79	21.72	22.03	21.73	21.66
		50#49	21.81	21.92	21.23	21.75	21.86	21.17
		100#0	21.46	21.63	21.48	21.40	21.57	21.42

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For Band 25: Antenna Gain = -0.06dBi, Path Loss= 0dB

Limit: EIRP≤33dBm

LTE Band 26:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	1#0	22.14	21.59	21.57	17.22	16.67	16.65
		1#2	21.84	21.64	21.84	16.92	16.72	16.92
		1#5	21.53	21.99	21.82	16.61	17.07	16.90
		3#0	21.6	21.84	21.52	16.68	16.92	16.60
		3#1	21.53	21.63	21.76	16.61	16.71	16.84
		3#2	21.37	21.47	21.33	16.45	16.55	16.41
		6#0	21.61	21.38	22	16.69	16.46	17.08
	16QAM	1#0	21.67	21.4	21.44	16.75	16.48	16.52
		1#2	22.16	21.52	21.86	17.24	16.60	16.94
		1#5	21.79	21.67	22	16.87	16.75	17.08
		3#0	21.91	21.31	21.27	16.99	16.39	16.35
		3#1	21.38	21.95	21.89	16.46	17.03	16.97
		3#2	22.01	21.15	21.34	17.09	16.23	16.42
		6#0	21.88	22	21.41	16.96	17.08	16.49
3	QPSK	1#0	21.43	21.35	21.36	16.51	16.43	16.44
		1#7	21.55	21.97	21.65	16.63	17.05	16.73
		1#14	22.03	21.33	21.09	17.11	16.41	16.17
		8#0	22.21	21.15	21.45	17.29	16.23	16.53
		8#4	22.09	21.35	21.25	17.17	16.43	16.33
		8#7	21.6	21.65	21.48	16.68	16.73	16.56
		15#0	22.07	21.8	21.68	17.15	16.88	16.76
	16QAM	1#0	21.4	21.4	21.43	16.48	16.48	16.51
		1#7	21.95	21.38	21.56	17.03	16.46	16.64
		1#14	21.41	21.94	21.41	16.49	17.02	16.49
		8#0	21.85	21.94	21.3	16.93	17.02	16.38
		8#4	21.39	21.51	22.01	16.47	16.59	17.09
		8#7	21.61	21.41	22	16.69	16.49	17.08
		15#0	21.54	21.51	21.29	16.62	16.59	16.37

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	1#0	21.42	21.71	21.96	16.50	16.79	17.04
		1#12	22.22	21.83	21.35	17.30	16.91	16.43
		1#24	22.09	21.56	21.08	17.17	16.64	16.16
		12#0	21.58	22.07	21.83	16.66	17.15	16.91
		12#6	21.94	22.10	21.26	17.02	17.18	16.34
		12#11	21.98	21.23	21.89	17.06	16.31	16.97
		25#0	21.28	21.54	21.96	16.36	16.62	17.04
	16QAM	1#0	21.48	21.54	21.30	16.56	16.62	16.38
		1#12	21.30	21.99	21.86	16.38	17.07	16.94
		1#24	21.75	21.13	21.36	16.83	16.21	16.44
		12#0	21.32	21.46	21.05	16.40	16.54	16.13
		12#6	21.95	21.75	21.77	17.03	16.83	16.85
		12#11	22.07	21.43	21.16	17.15	16.51	16.24
		25#0	22.16	21.41	21.03	17.24	16.49	16.11
10	QPSK	1#0	21.61	21.89	21.25	16.69	16.97	16.33
		1#24	21.90	21.55	21.41	16.98	16.63	16.49
		1#49	21.51	21.61	21.49	16.59	16.69	16.57
		25#0	21.54	21.78	21.29	16.62	16.86	16.37
		25#12	22.07	21.83	21.85	17.15	16.91	16.93
		25#24	22.00	21.14	21.67	17.08	16.22	16.75
		50#0	21.36	21.77	21.93	16.44	16.85	17.01
	16QAM	1#0	21.49	21.32	21.62	16.57	16.40	16.70
		1#24	22.01	21.25	21.31	17.09	16.33	16.39
		1#49	21.27	21.76	21.41	16.35	16.84	16.49
		25#0	21.69	22.00	21.10	16.77	17.08	16.18
		25#12	21.31	21.14	21.75	16.39	16.22	16.83
		25#24	22.03	21.26	21.07	17.11	16.34	16.15
		50#0	21.93	21.26	21.31	17.01	16.34	16.39

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
15	QPSK	1#0	21.32	21.48	21.61	16.40	16.56	16.69
		1#37	21.80	21.87	21.27	16.88	16.95	16.35
		1#74	21.82	22.04	21.36	16.90	17.12	16.44
		36#0	21.60	21.25	21.31	16.68	16.33	16.39
		36#18	21.98	21.38	21.41	17.06	16.46	16.49
		36#37	22.21	21.88	21.62	17.29	16.96	16.70
		75#0	21.98	21.59	21.56	17.06	16.67	16.64
	16QAM	1#0	21.41	21.39	21.13	16.49	16.47	16.21
		1#37	21.53	21.69	21.62	16.61	16.77	16.70
		1#74	22.19	21.18	21.11	17.27	16.26	16.19
		36#0	21.78	21.27	21.73	16.86	16.35	16.81
		36#18	21.75	21.62	22.00	16.83	16.70	17.08
		36#37	21.66	21.42	21.86	16.74	16.50	16.94
		75#0	22.01	21.20	21.07	17.09	16.28	16.15

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) + Path Loss(dB)
For Band 26: Antenna Gain = -2.77dBi = -4.92dBd (0dBd=2.15dBi), Path Loss = 0dB
Limit: ERP ≤ 34.77dBm

LTE Band 41:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	1#0	21.42	22.03	21.41	23.07	23.68	23.06
		1#12	22.16	21.87	21.62	23.81	23.52	23.27
		1#24	21.79	21.39	21.6	23.44	23.04	23.25
		12#0	21.78	21.88	21.68	23.43	23.53	23.33
		12#6	22.11	22.04	21.5	23.76	23.69	23.15
		12#11	21.31	21.89	21.9	22.96	23.54	23.55
		25#0	21.94	21.96	21.13	23.59	23.61	22.78
	16QAM	1#0	21.34	21.42	21.41	22.99	23.07	23.06
		1#12	21.47	21.34	21.68	23.12	22.99	23.33
		1#24	21.56	21.49	21.29	23.21	23.14	22.94
		12#0	21.28	21.84	21.96	22.93	23.49	23.61
		12#6	21.98	21.92	21.45	23.63	23.57	23.10
		12#11	21.93	21.27	21.42	23.58	22.92	23.07
		25#0	21.52	21.4	21.79	23.17	23.05	23.44
10	QPSK	1#0	21.96	21.35	21.46	23.61	23.00	23.11
		1#24	22.05	21.92	21.66	23.70	23.57	23.31
		1#49	22.05	21.68	21.86	23.70	23.33	23.51
		25#0	21.26	21.9	21.14	22.91	23.55	22.79
		25#12	22.13	21.41	21.18	23.78	23.06	22.83
		25#24	21.67	21.65	21.27	23.32	23.30	22.92
		50#0	22.26	21.89	21.44	23.91	23.54	23.09
	16QAM	1#0	21.29	21.32	21.29	22.94	22.97	22.94
		1#24	21.53	21.68	21.65	23.18	23.33	23.30
		1#49	21.32	22.03	21.72	22.97	23.68	23.37
		25#0	21.28	21.38	21.43	22.93	23.03	23.08
		25#12	21.62	21.29	21.86	23.27	22.94	23.51
		25#24	22.07	21.75	21.42	23.72	23.40	23.07
		50#0	21.96	21.25	21.31	23.61	22.90	22.96

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	1#0	21.88	22.08	21.12	23.53	23.73	22.77
		1#37	21.30	21.65	21.97	22.95	23.30	23.62
		1#74	21.60	21.93	22.01	23.25	23.58	23.66
		36#0	22.20	21.19	21.88	23.85	22.84	23.53
		36#18	22.22	21.89	21.67	23.87	23.54	23.32
		36#37	22.20	21.57	21.62	23.85	23.22	23.27
		75#0	21.61	22.06	21.39	23.26	23.71	23.04
	16QAM	1#0	22.12	21.38	21.09	23.77	23.03	22.74
		1#37	21.62	21.31	21.54	23.27	22.96	23.19
		1#74	21.59	21.40	21.16	23.24	23.05	22.81
		36#0	21.70	21.15	21.45	23.35	22.80	23.10
		36#18	21.33	21.81	21.86	22.98	23.46	23.51
		36#37	22.13	21.14	21.78	23.78	22.79	23.43
		75#0	22.21	21.19	21.16	23.86	22.84	22.81
20.0	QPSK	1#0	22.10	21.47	21.32	23.75	23.12	22.97
		1#49	21.35	21.86	21.61	23.00	23.51	23.26
		1#99	21.69	22.09	21.88	23.34	23.74	23.53
		50#0	22.19	21.20	21.11	23.84	22.85	22.76
		50#24	22.22	21.58	21.48	23.87	23.23	23.13
		50#49	21.93	21.16	21.34	23.58	22.81	22.99
		100#0	21.66	21.27	21.32	23.31	22.92	22.97
	16QAM	1#0	21.62	22.04	21.45	23.27	23.69	23.10
		1#49	21.69	21.36	21.04	23.34	23.01	22.69
		1#99	21.39	21.61	22.01	23.04	23.26	23.66
		50#0	21.71	21.24	21.84	23.36	22.89	23.49
		50#24	21.73	21.75	21.90	23.38	23.40	23.55
		50#49	22.21	21.34	21.90	23.86	22.99	23.55
		100#0	21.53	21.61	21.08	23.18	23.26	22.73

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For Band 41: Antenna Gain = 1.65dBi, Path Loss = 0dB

Limit: EIRP ≤ 33dBm

LTE Band 66:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	1#0	22.11	21.66	21.47	22.05	21.60	21.41
		1#12	21.4	21.78	21.08	21.34	21.72	21.02
		1#24	21.59	21.56	21.38	21.53	21.50	21.32
		12#0	21.65	22.05	21.13	21.59	21.99	21.07
		12#6	21.84	21.21	21.15	21.78	21.15	21.09
		12#11	21.92	22.05	21.5	21.86	21.99	21.44
		25#0	21.36	21.73	21.78	21.30	21.67	21.72
	16QAM	1#0	21.37	21.24	21.25	21.31	21.18	21.19
		1#12	21.92	21.34	21.33	21.86	21.28	21.27
		1#24	21.31	21.27	21.18	21.25	21.21	21.12
		12#0	22.16	21.85	21.76	22.10	21.79	21.70
		12#6	21.29	21.51	21.41	21.23	21.45	21.35
		12#11	21.66	21.85	21.72	21.60	21.79	21.66
		25#0	21.38	21.36	22.01	21.32	21.30	21.95
3	QPSK	1#0	22.22	21.52	21.87	22.16	21.46	21.81
		1#24	22.11	21.17	21.73	22.05	21.11	21.67
		1#49	22.04	22.05	21.84	21.98	21.99	21.78
		25#0	21.67	21.28	21.2	21.61	21.22	21.14
		25#12	21.85	21.93	21.3	21.79	21.87	21.24
		25#24	21.28	21.81	21.5	21.22	21.75	21.44
		50#0	21.92	21.5	21.32	21.86	21.44	21.26
	16QAM	1#0	22.2	21.28	21.6	22.14	21.22	21.54
		1#24	21.9	21.39	21.35	21.84	21.33	21.29
		1#49	22.21	21.88	21.49	22.15	21.82	21.43
		25#0	22.12	21.21	21.55	22.06	21.15	21.49
		25#12	21.97	21.93	21.47	21.91	21.87	21.41
		25#24	21.49	21.75	21.09	21.43	21.69	21.03
		50#0	21.99	21.67	22.02	21.93	21.61	21.96

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	1#0	21.34	21.14	21.54	21.28	21.08	21.48
		1#12	21.32	21.87	21.43	21.26	21.81	21.37
		1#24	21.63	21.67	21.07	21.57	21.61	21.01
		12#0	21.91	21.49	21.20	21.85	21.43	21.14
		12#6	21.26	21.30	21.48	21.20	21.24	21.42
		12#11	21.38	21.56	21.29	21.32	21.50	21.23
		25#0	21.92	21.62	21.05	21.86	21.56	20.99
	16QAM	1#0	21.54	21.75	21.34	21.48	21.69	21.28
		1#12	21.91	21.12	21.09	21.85	21.06	21.03
		1#24	21.47	21.50	21.91	21.41	21.44	21.85
		12#0	22.26	21.31	21.33	22.20	21.25	21.27
		12#6	21.63	21.69	21.58	21.57	21.63	21.52
		12#11	21.85	21.51	21.62	21.79	21.45	21.56
		25#0	21.83	21.83	21.33	21.77	21.77	21.27
10	QPSK	1#0	21.48	22.08	21.25	21.42	22.02	21.19
		1#24	21.29	21.80	21.87	21.23	21.74	21.81
		1#49	22.22	21.37	21.44	22.16	21.31	21.38
		25#0	21.91	22.09	21.77	21.85	22.03	21.71
		25#12	22.13	21.99	21.64	22.07	21.93	21.58
		25#24	21.68	21.61	21.32	21.62	21.55	21.26
		50#0	22.05	21.47	21.70	21.99	21.41	21.64
	16QAM	1#0	22.08	22.04	22.00	22.02	21.98	21.94
		1#24	22.01	21.68	21.40	21.95	21.62	21.34
		1#49	22.26	21.36	21.24	22.20	21.30	21.18
		25#0	21.85	21.16	21.33	21.79	21.10	21.27
		25#12	21.27	21.77	21.79	21.21	21.71	21.73
		25#24	22.15	21.51	21.37	22.09	21.45	21.31
		50#0	21.69	21.53	21.85	21.63	21.47	21.79

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	1#0	21.57	21.45	21.56	21.51	21.39	21.50
		1#37	21.64	21.39	21.19	21.58	21.33	21.13
		1#74	21.27	21.69	21.76	21.21	21.63	21.70
		36#0	21.64	21.53	21.58	21.58	21.47	21.52
		36#18	21.33	21.30	21.18	21.27	21.24	21.12
		36#37	21.96	21.57	21.38	21.90	21.51	21.32
		75#0	21.37	21.49	21.97	21.31	21.43	21.91
	16QAM	1#0	22.07	21.42	21.75	22.01	21.36	21.69
		1#37	21.26	21.52	21.78	21.20	21.46	21.72
		1#74	21.72	21.90	21.61	21.66	21.84	21.55
		36#0	21.87	21.26	21.44	21.81	21.20	21.38
		36#18	21.87	22.06	21.48	21.81	22.00	21.42
		36#37	21.95	22.04	21.31	21.89	21.98	21.25
		75#0	22.24	21.77	21.45	22.18	21.71	21.39
20.0	QPSK	1#0	21.58	21.86	21.29	21.52	21.80	21.23
		1#49	21.62	21.59	21.48	21.56	21.53	21.42
		1#99	21.73	22.00	21.95	21.67	21.94	21.89
		50#0	21.26	21.61	21.29	21.20	21.55	21.23
		50#24	21.30	21.23	21.66	21.24	21.17	21.60
		50#49	21.91	21.98	21.97	21.85	21.92	21.91
		100#0	21.95	21.89	21.87	21.89	21.83	21.81
	16QAM	1#0	21.57	21.30	21.14	21.51	21.24	21.08
		1#49	21.32	21.79	21.06	21.26	21.73	21.00
		1#99	22.05	21.73	21.48	21.99	21.67	21.42
		50#0	21.54	21.83	22.00	21.48	21.77	21.94
		50#24	21.42	21.12	21.96	21.36	21.06	21.90
		50#49	21.95	22.04	21.83	21.89	21.98	21.77
		100#0	21.41	21.62	21.72	21.35	21.56	21.66

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) + Path Loss(dB)

For Band 66: Antenna Gain = -0.06dBi, Path Loss = 0dB

Limit: EIRP ≤ 30dBm

Peak-to-average ratio (PAR)**GSM 850**

Mode	Channel	PAR (dB)	Limit (dB)
GPRS	Low	2.13	13
	Middle	1.93	13
	High	2.16	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	2.15	13
	Middle	2.14	13
	High	2.22	13

PCS 1900

Mode	Channel	PAR (dB)	Limit (dB)
GPRS	Low	2.02	13
	Middle	2.21	13
	High	2.02	13

Mode	Channel	PAR (dB)	Limit (dB)
EGPRS	Low	2.08	13
	Middle	2.17	13
	High	2.15	13

WCDMA Band V

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	2.01	13
	Middle	2.06	13
	High	2.22	13
HSDPA (16QAM)	Low	2.08	13
	Middle	2.13	13
	High	2.24	13
HSUPA (BPSK)	Low	2.16	13
	Middle	2.22	13
	High	1.99	13
HSPA+	Low	2.21	13
	Middle	2.08	13
	High	1.99	13

WCDMA Band IV

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	2.07	13
	Middle	1.96	13
	High	2.17	13
HSDPA (16QAM)	Low	2.2	13
	Middle	2.17	13
	High	1.97	13
HSUPA (BPSK)	Low	2.17	13
	Middle	2.07	13
	High	2.02	13
HSPA+	Low	2.08	13
	Middle	1.95	13
	High	2.18	13

WCDMA Band II

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	2.06	13
	Middle	2.19	13
	High	2.22	13
HSDPA (16QAM)	Low	2.17	13
	Middle	2.07	13
	High	2.21	13
HSUPA (BPSK)	Low	2.04	13
	Middle	2.23	13
	High	2.24	13
HSPA+	Low	2.18	13
	Middle	2.14	13
	High	2.06	13

LTE Band 2 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.14	3.16	3.17	13	Pass
QPSK	5.01	5.04	5.02	13	Pass
16QAM	4.07	4.03	4.08	13	Pass
16QAM	6.09	6.2	6.16	13	Pass

LTE Band 4 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.11	3.06	3.16	13	3.11
QPSK	5.17	5.08	5.05	13	5.17
16QAM	4.1	4.07	4.16	13	4.1
16QAM	6.14	6.09	6.09	13	6.14

LTE Band 5 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.13	3.03	3.11	13	Pass
QPSK	5.11	5.07	5.07	13	Pass
16QAM	4.02	4.06	4.02	13	Pass
16QAM	6.19	6.10	6.12	13	Pass

LTE Band 7 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.18	3.15	3.00	13	Pass
QPSK	5.18	5.11	5.06	13	Pass
16QAM	4.00	4.09	4.17	13	Pass
16QAM	6.04	6.11	6.16	13	Pass

LTE Band 12 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.10	3.14	3.14	13	Pass
QPSK	5.05	5.12	5.04	13	Pass
16QAM	4.05	4.13	4.19	13	Pass
16QAM	6.16	6.17	6.04	13	Pass

LTE Band 17 10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.05	3.07	3.12	13	Pass
QPSK	5.02	5.19	5.14	13	Pass
16QAM	4.02	4.13	4.11	13	Pass
16QAM	6.16	6.03	6.05	13	Pass

LTE Band 25 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.06	3.17	3.17	13	Pass
QPSK	5.00	5.09	5.19	13	Pass
16QAM	4.19	4.03	4.05	13	Pass
16QAM	6.15	6.05	6.14	13	Pass

LTE Band 26 15MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.12	3.16	3.14	13	Pass
QPSK	5.1	5.09	5.08	13	Pass
16QAM	4.03	4.07	4.19	13	Pass
16QAM	6.02	6.01	6.01	13	Pass

LTE Band 41 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.07	3.07	3.11	13	Pass
QPSK	5.06	5.01	5.04	13	Pass
16QAM	4.03	4.01	4.06	13	Pass
16QAM	6.04	6.14	6.11	13	Pass

LTE Band 66 20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK	3.15	3.14	3.14	13	Pass
QPSK	5.16	5.05	5.06	13	Pass
16QAM	4.03	4.15	4.16	13	Pass
16QAM	6.01	6.05	6.02	13	Pass

FCC §2.1049 - OCCUPIED BANDWIDTH

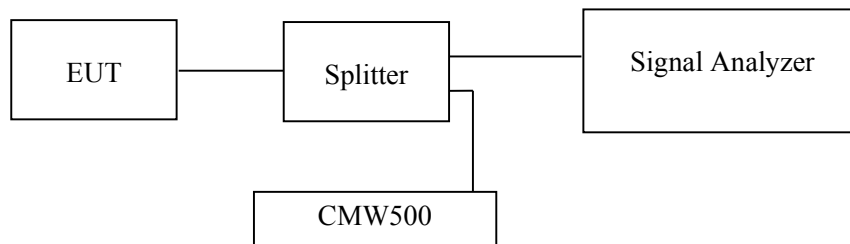
Applicable Standard

FCC 47 §2.1049.

Test Procedure

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

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



Note: The path loss is 6 dB between EUT and Signal Analyzer

Test Data

Environmental Conditions

Temperature:	24~26.5 °C
Relative Humidity:	48~58 %
ATM Pressure:	100.8~101.2 kPa

The testing was performed by Black Ding from 2022-04-22 to 2022-4-26.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

GSM 850

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GPRS	128	824.2	243.1	322.7
	190	836.6	246.0	316.9
	251	848.8	244.6	321.3

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
EGPRS	128	824.2	237.3	315.5
	190	836.6	237.3	315.5
	251	848.8	237.3	315.5

PCS 1900

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GPRS	512	1850.2	244.6	318.4
	661	1880.0	244.6	316.9
	810	1909.8	244.6	321.3

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
EGPRS	512	1850.2	237.3	315.5
	661	1880.0	237.3	315.5
	810	1909.8	237.3	315.5

WCDMA Band V

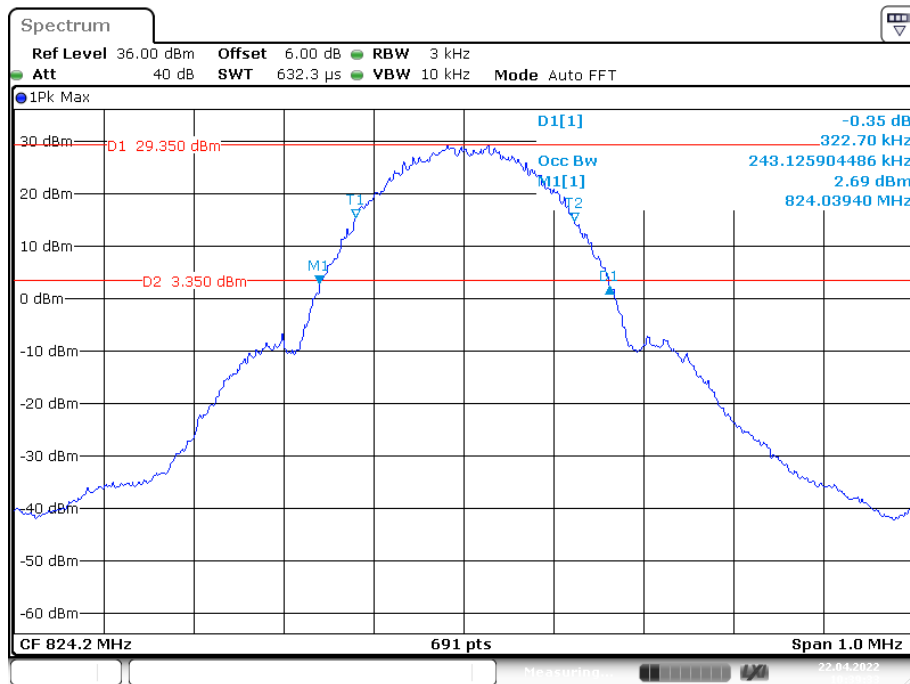
	Frequency (MHz)	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.12	4.69
	836.6	4.11	4.70
	846.6	4.12	4.70
HSDPA	826.4	4.12	4.69
	836.6	4.11	4.70
	846.6	4.12	4.70
HSUPA	826.4	4.11	4.69
	836.6	4.12	4.69
	846.6	4.12	4.70
HSPA+	826.4	4.11	4.69
	836.6	4.12	4.67
	846.6	4.12	4.70

WCDMA Band IV

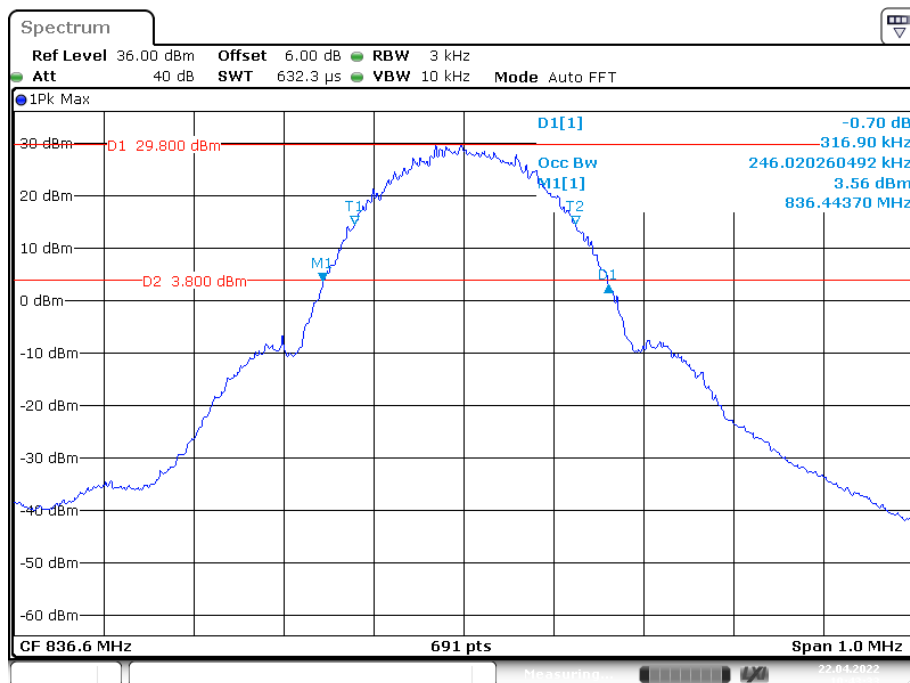
	Frequency (MHz)	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.12	4.72
	1732.6	4.11	4.70
	1752.6	4.11	4.72
HSDPA	1712.4	4.12	4.72
	1732.6	4.12	4.70
	1752.6	4.12	4.72
HSUPA	1712.4	4.12	4.72
	1732.6	4.11	4.70
	1752.6	4.11	4.72
HSPA+	1712.4	4.12	4.70
	1732.6	4.12	4.70
	1752.6	4.12	4.72

WCDMA Band II

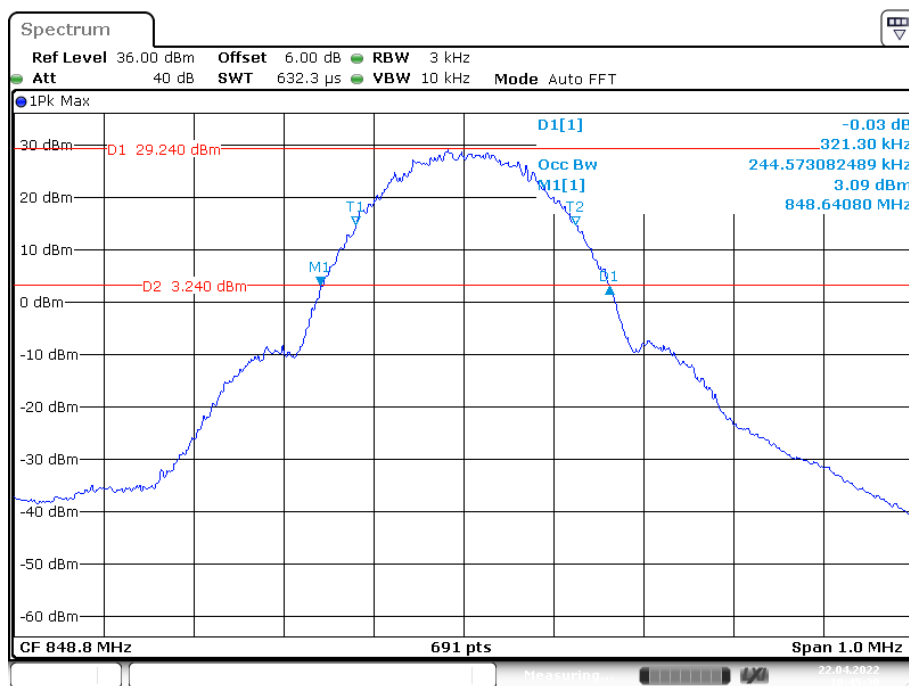
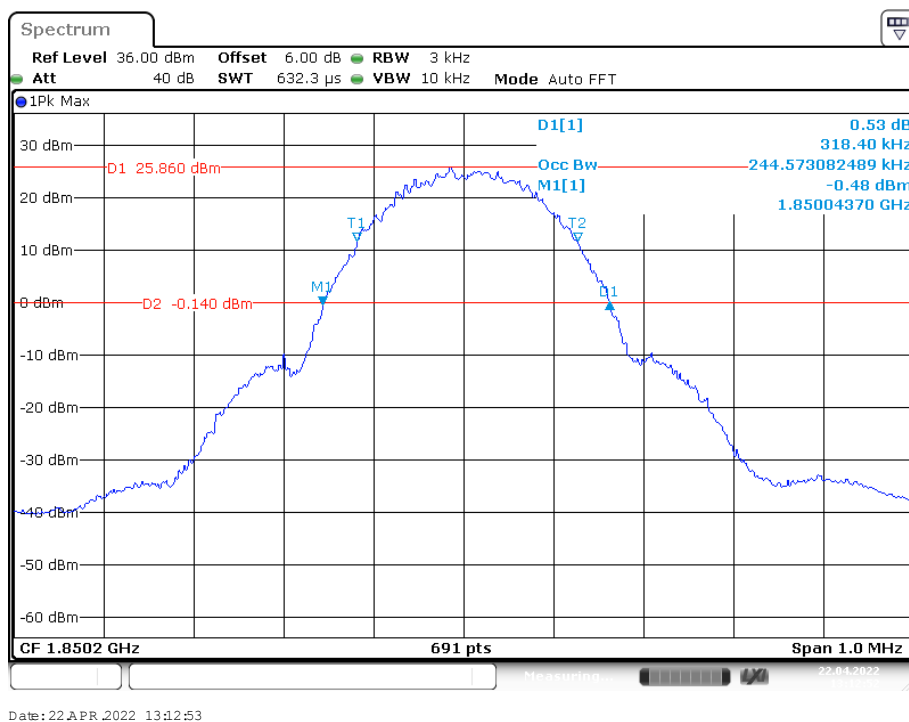
Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.12	4.72
	1880	4.12	4.72
	1907.6	4.12	4.73
HSDPA	1852.4	4.12	4.72
	1880	4.12	4.72
	1907.6	4.12	4.72
HSUPA	1852.4	4.12	4.72
	1880	4.12	4.72
	1907.6	4.12	4.73
HSPA+	1852.4	4.12	4.72
	1880	4.12	4.72
	1907.6	4.12	4.73

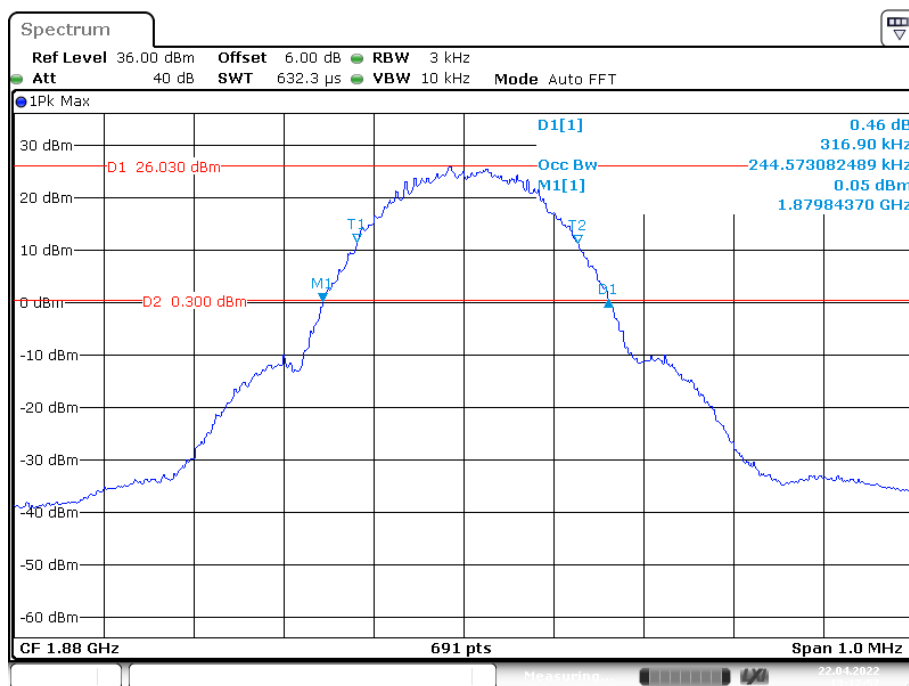
26 dB Emissions & 99% Occupied Bandwidth for GSM 850 (GPRS) Mode, Low channel

Date: 22 APR 2022 10:39:34

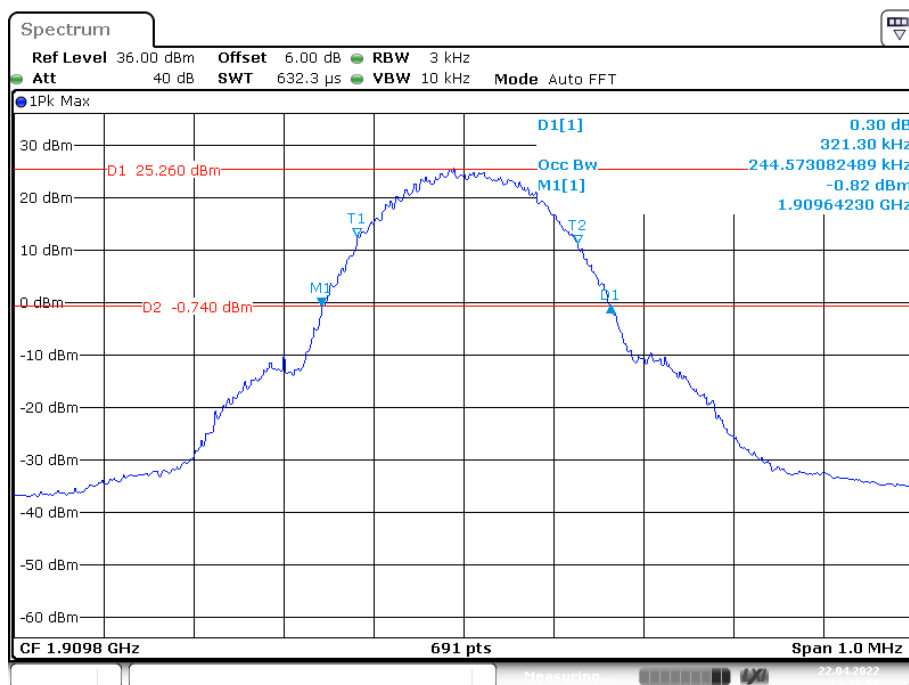
26 dB Emissions & 99% Occupied Bandwidth for GSM 850 (GPRS) Mode, Middle channel

Date: 22 APR 2022 10:43:33

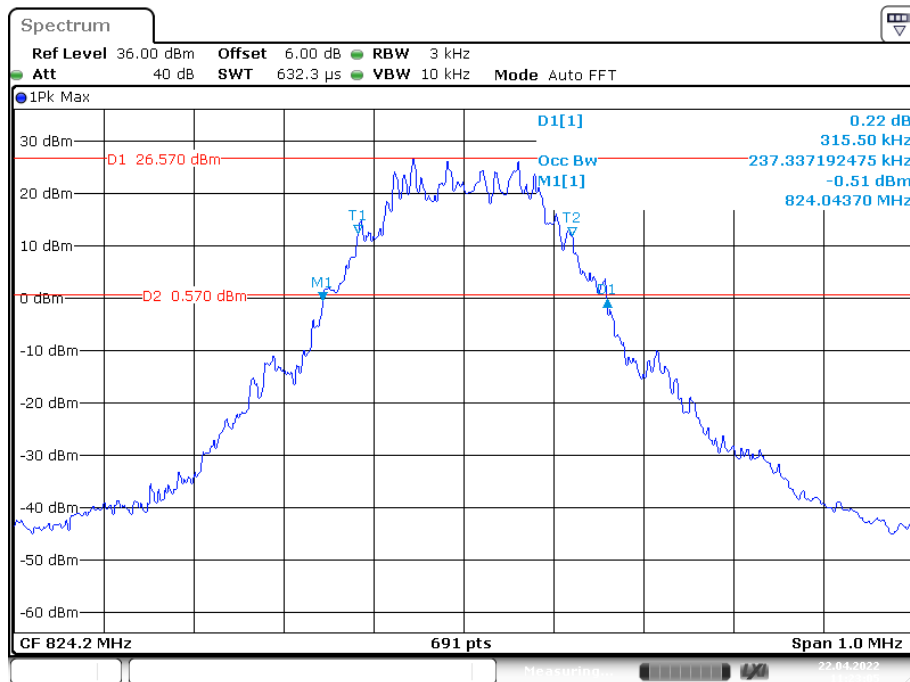
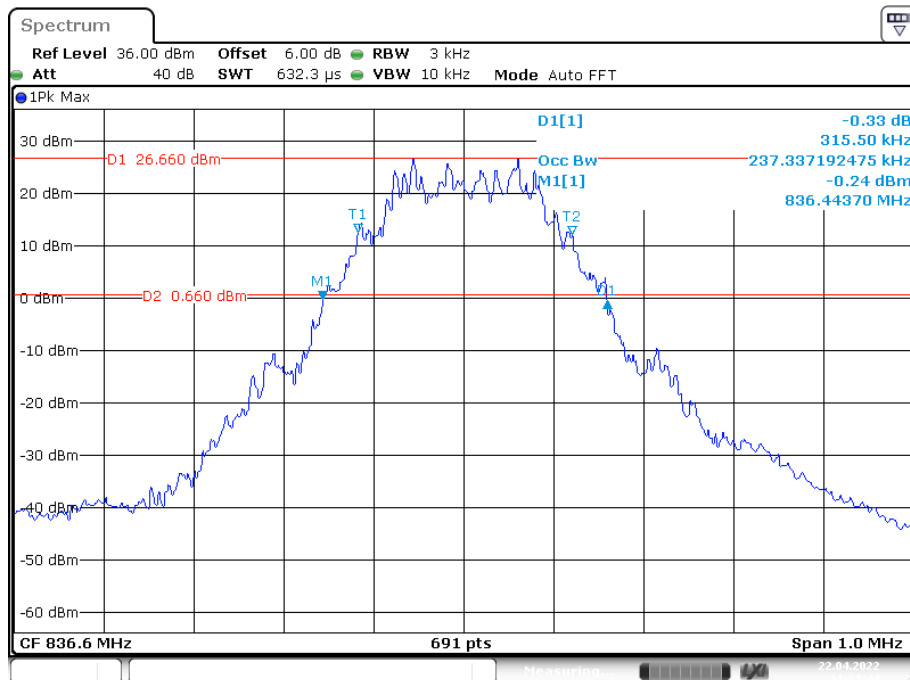
26 dB Emissions & 99% Occupied Bandwidth for GSM 850 (GPRS) Mode, High channel**26 dB Emissions & 99% Occupied Bandwidth for PCS 1900 (GPRS) Mode, Low channel**

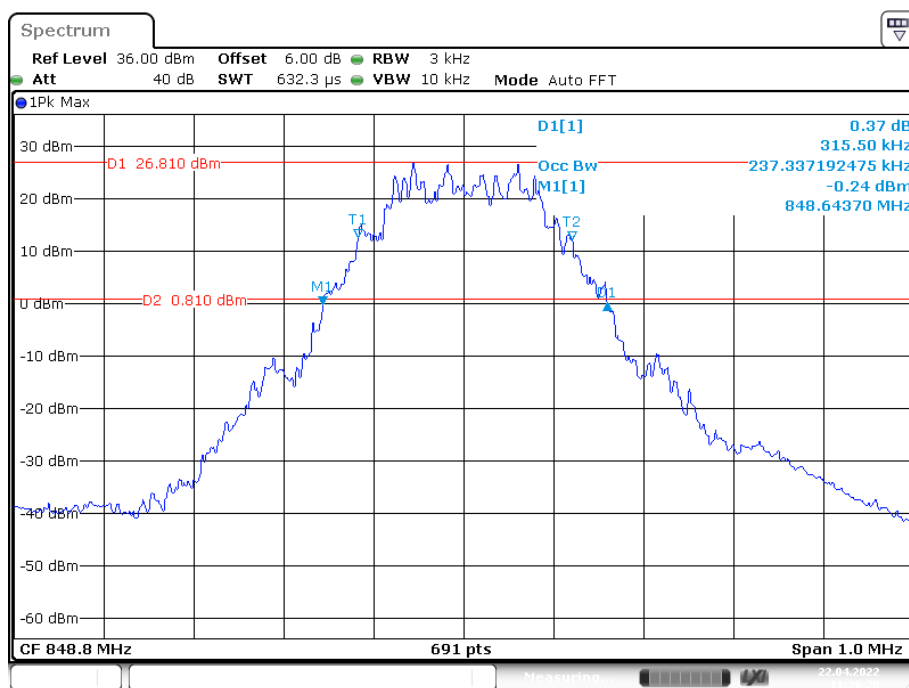
26 dB Emissions & 99% Occupied Bandwidth for PCS 1900 (GPRS) Mode, Middle channel

Date: 22 APR 2022 13:17:57

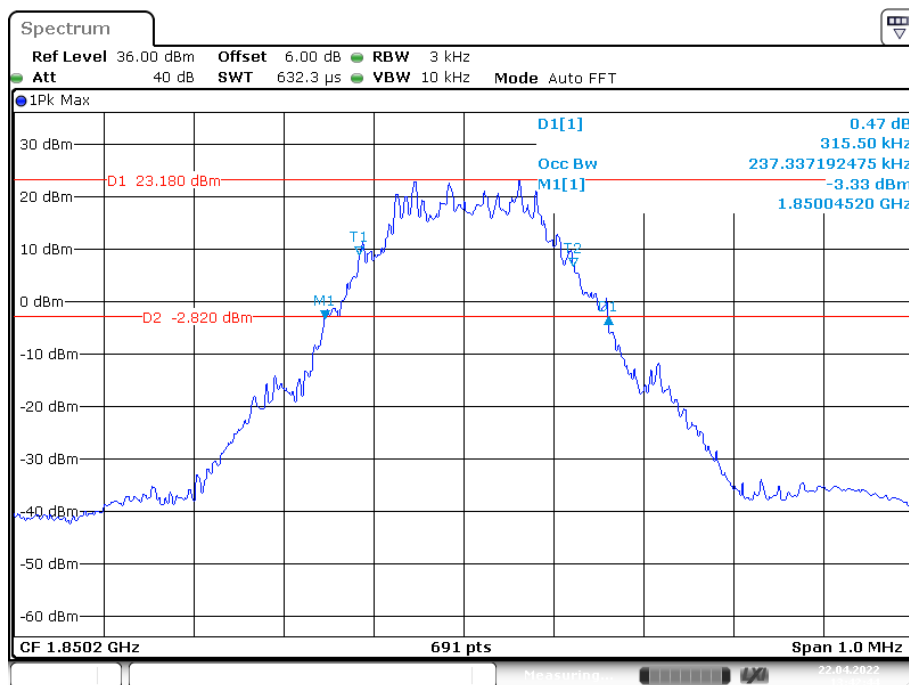
26 dB Emissions & 99% Occupied Bandwidth for PCS 1900 (GPRS) Mode, High channel

Date: 22 APR 2022 13:19:56

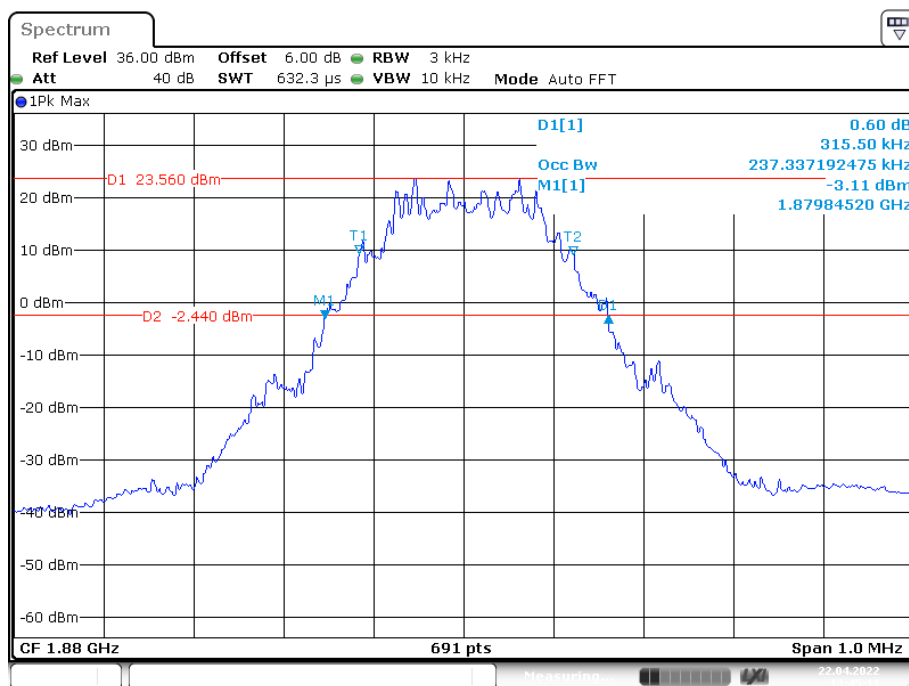
26 dB Emissions & 99% Occupied Bandwidth for GSM 850 (EGPRS) Mode, Low channel**26 dB Emissions & 99% Occupied Bandwidth for GSM 850 (EGPRS) Mode, Middle channel**

26 dB Emissions & 99% Occupied Bandwidth for GSM 850 (EGPRS) Mode, High channel

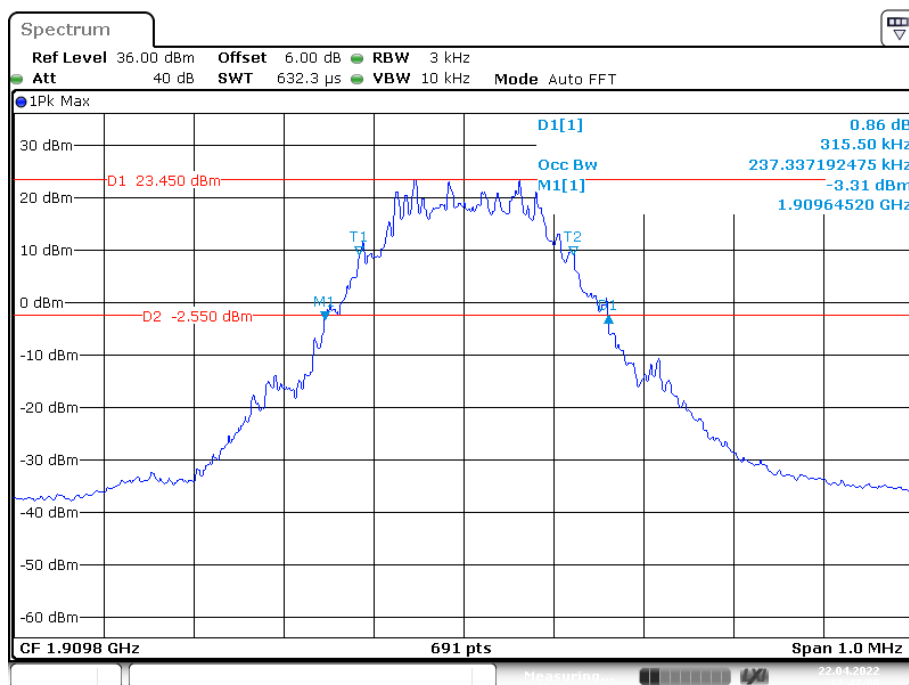
Date: 22 APR. 2022 11:26:20

26 dB Emissions & 99% Occupied Bandwidth for PCS 1900 (EGPRS) Mode, Low channel

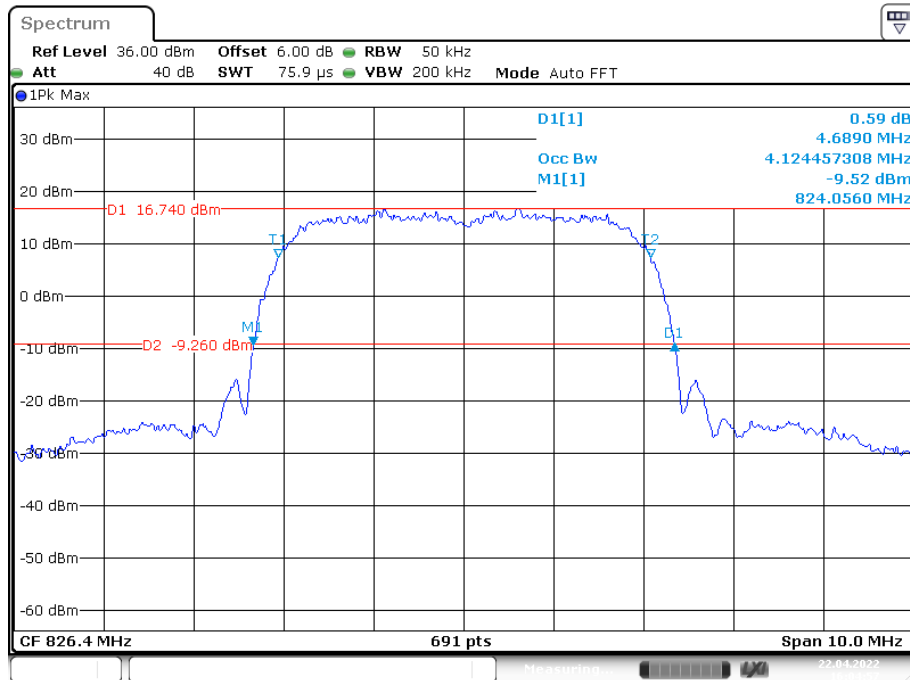
Date: 22 APR. 2022 13:42:44

26 dB Emissions & 99% Occupied Bandwidth for PCS 1900 (EGPRS) Mode, Middle channel

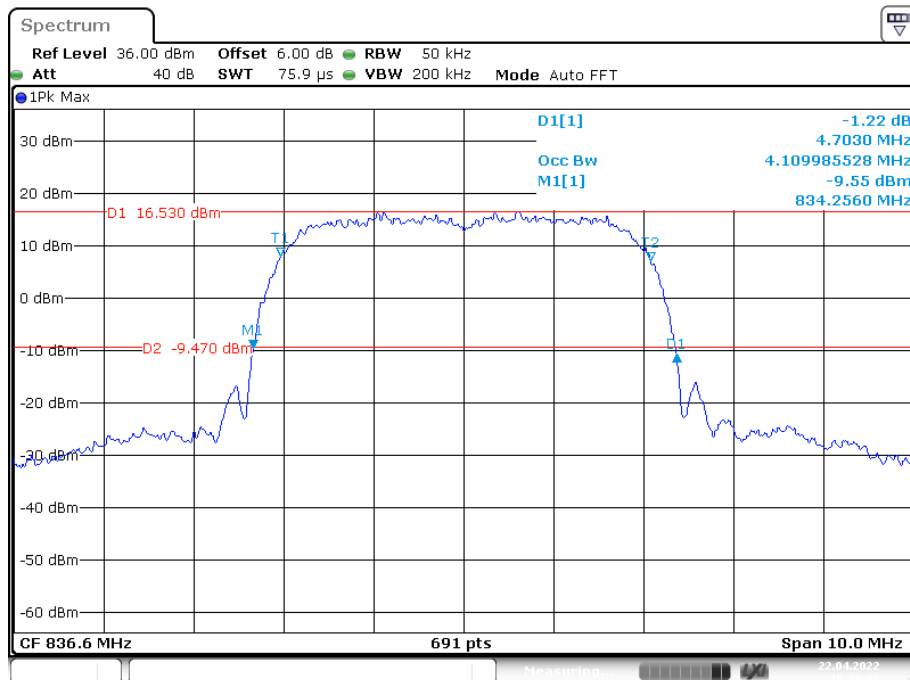
Date: 22 APR 2022 13:45:11

26 dB Emissions & 99% Occupied Bandwidth for PCS 1900 (EGPRS) Mode, High channel

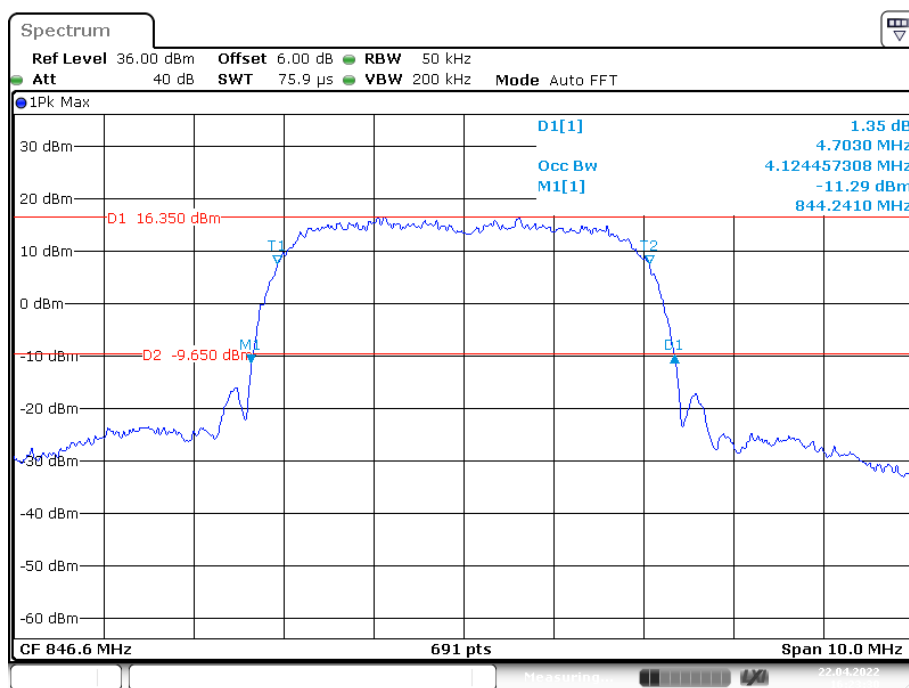
Date: 22 APR 2022 13:47:00

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

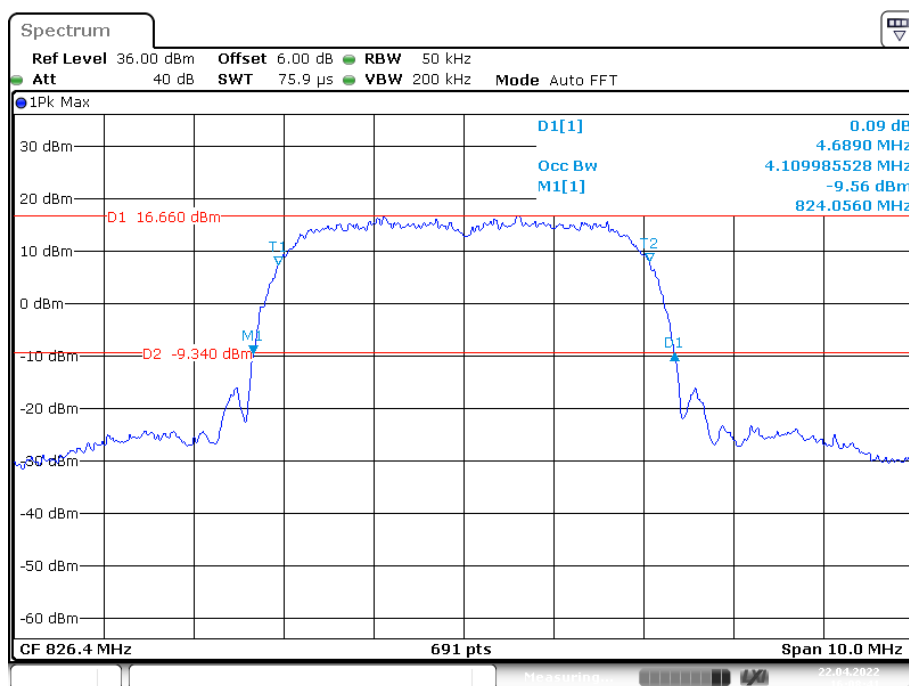
Date: 22.APR.2022 16:04:57

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

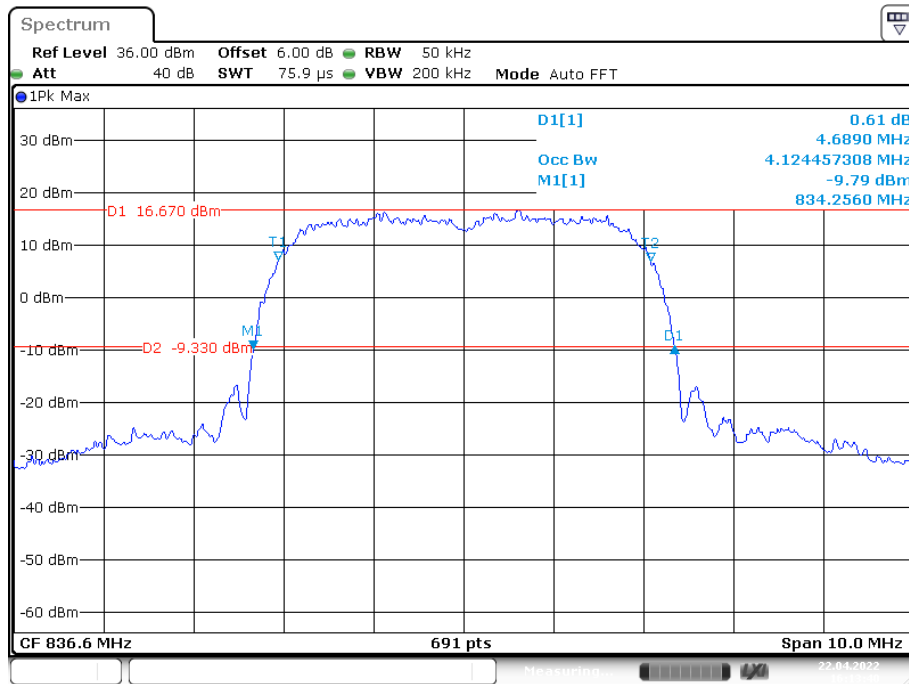
Date: 22.APR.2022 16:20:02

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

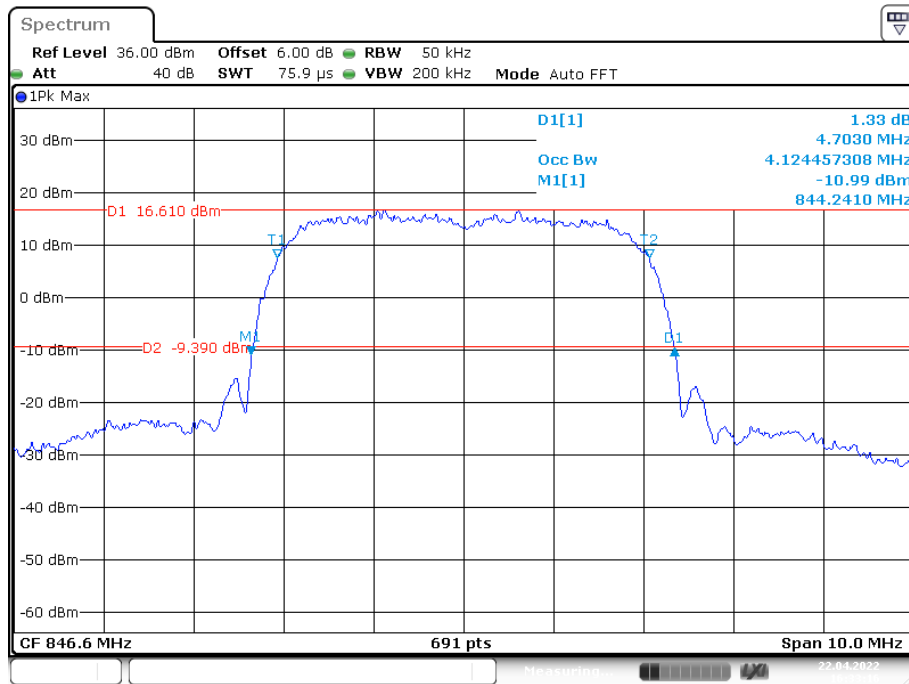
Date: 22 APR 2022 16:23:30

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

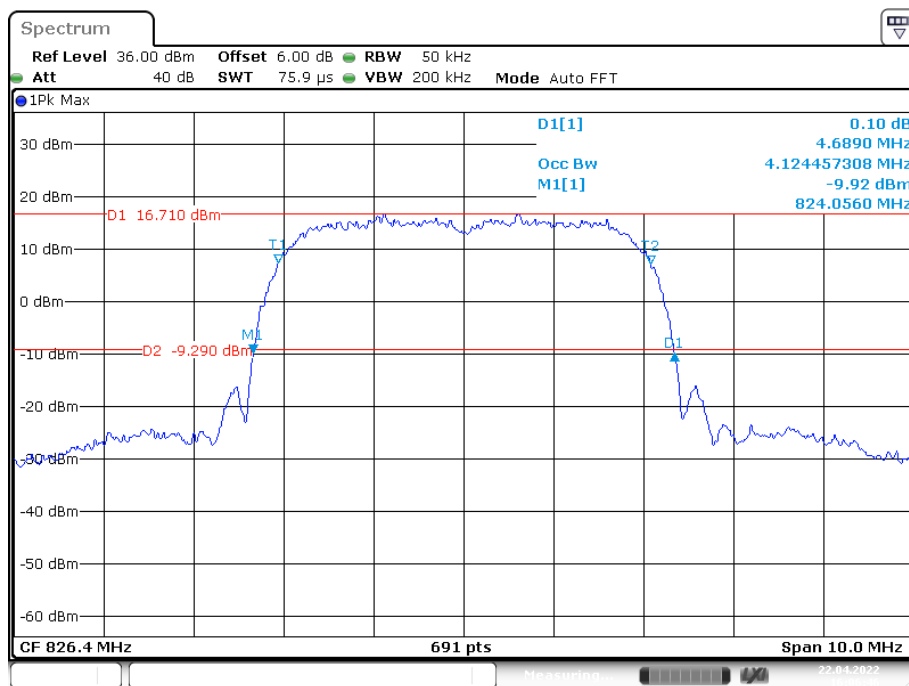
Date: 22 APR 2022 16:08:41

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

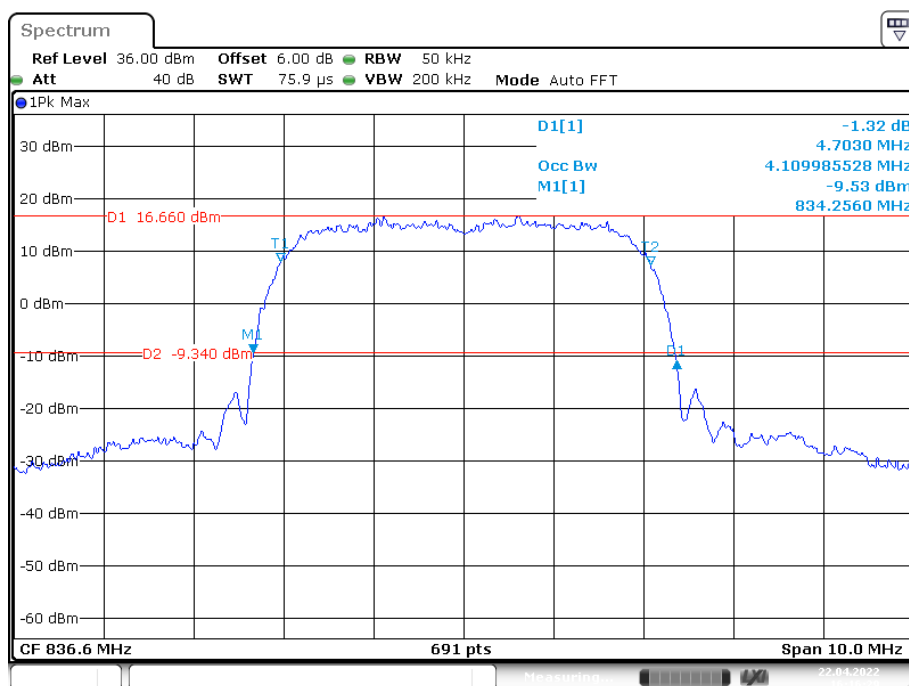
Date: 22 APR 2022 16:13:41

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

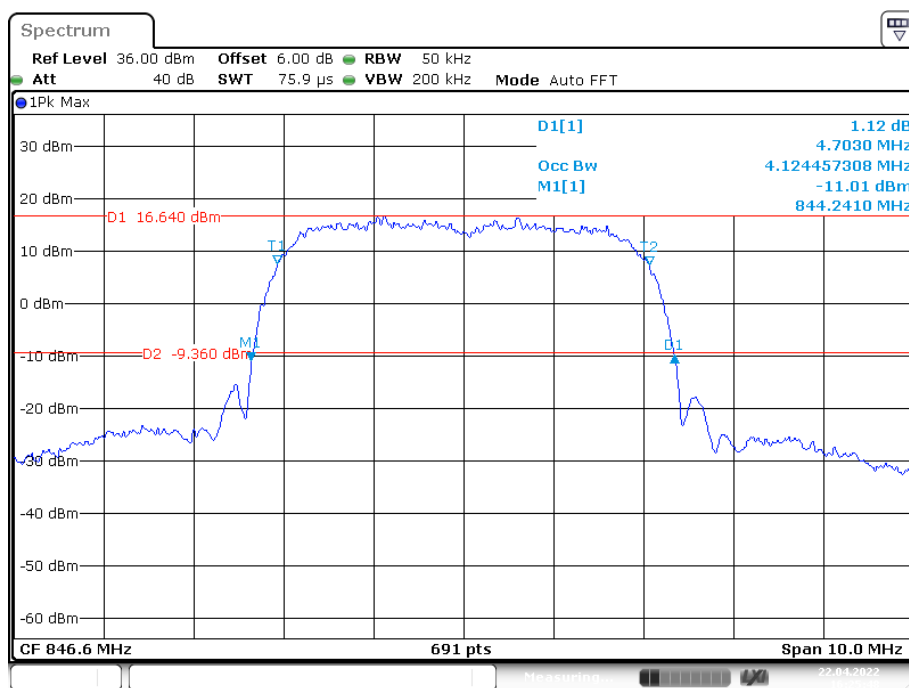
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA(HSDPA) Mode, Low channel

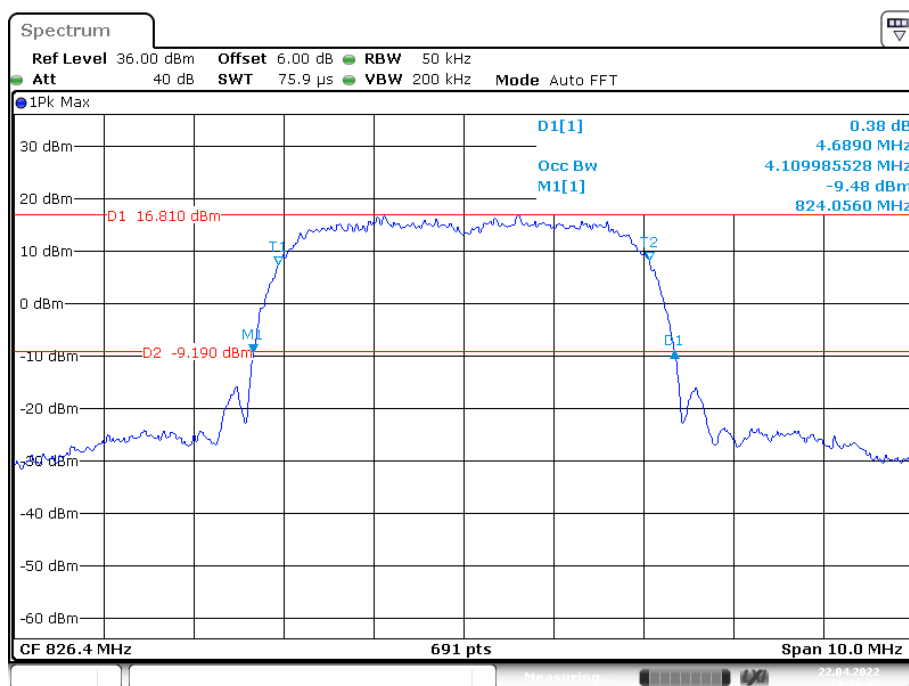
Date: 22 APR 2022 16:06:46

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

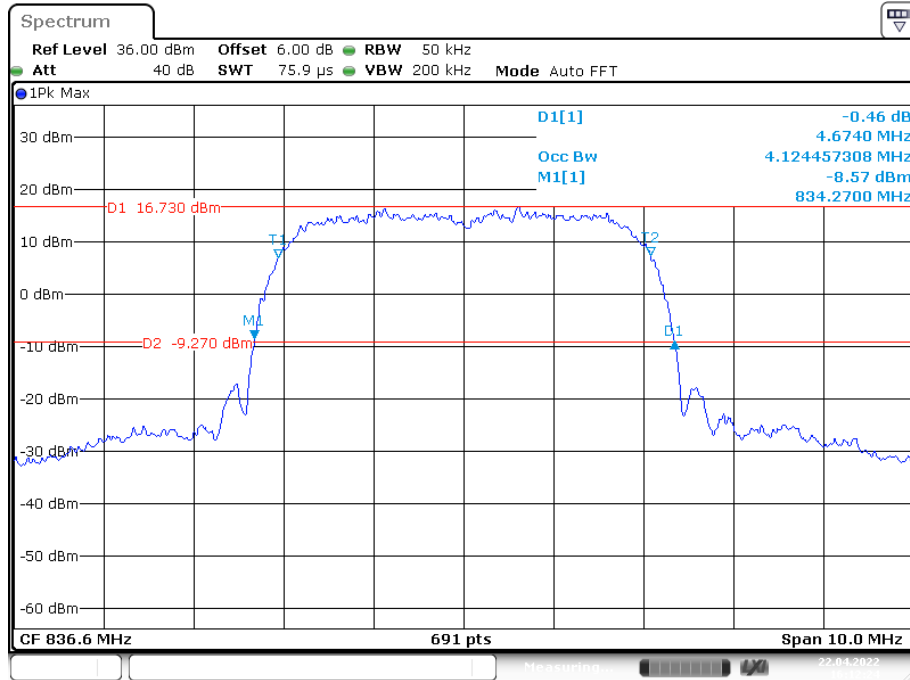
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA(HSDPA) Mode, High channel

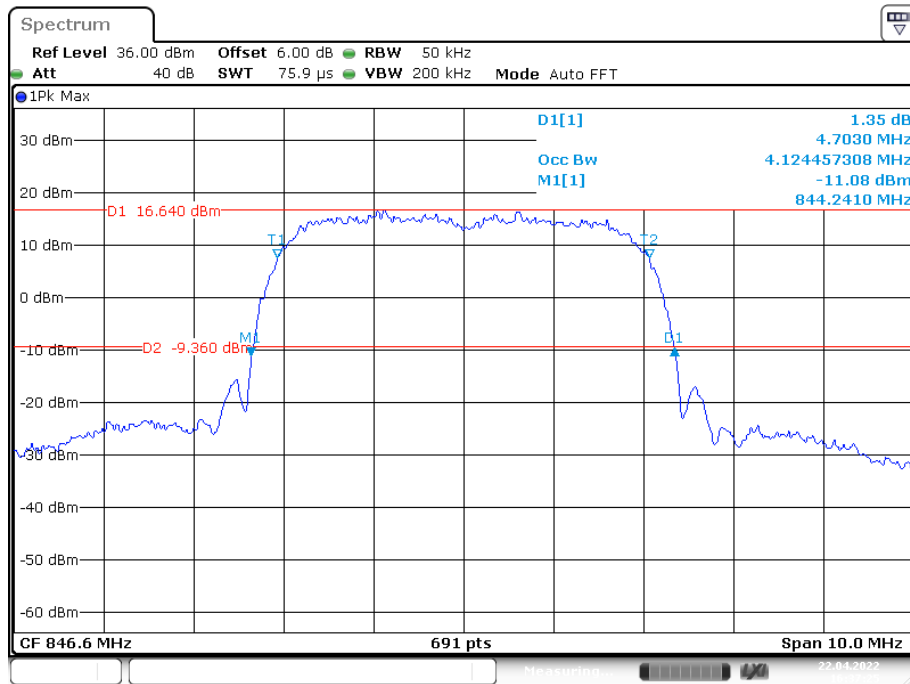
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA(HSPA+) Mode, Low channel

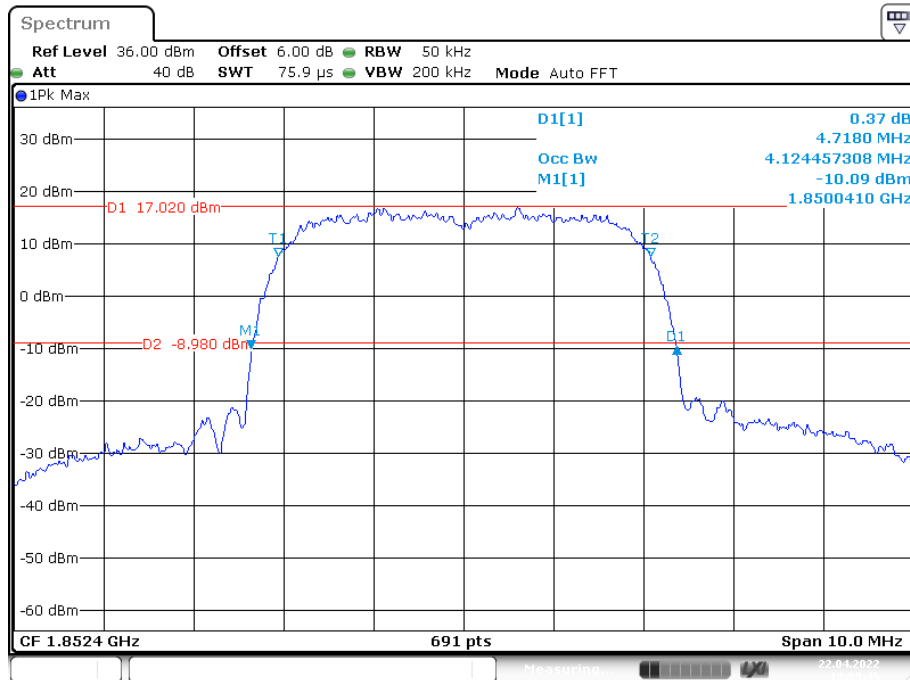
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA(HSPA+) Mode, Middle channel

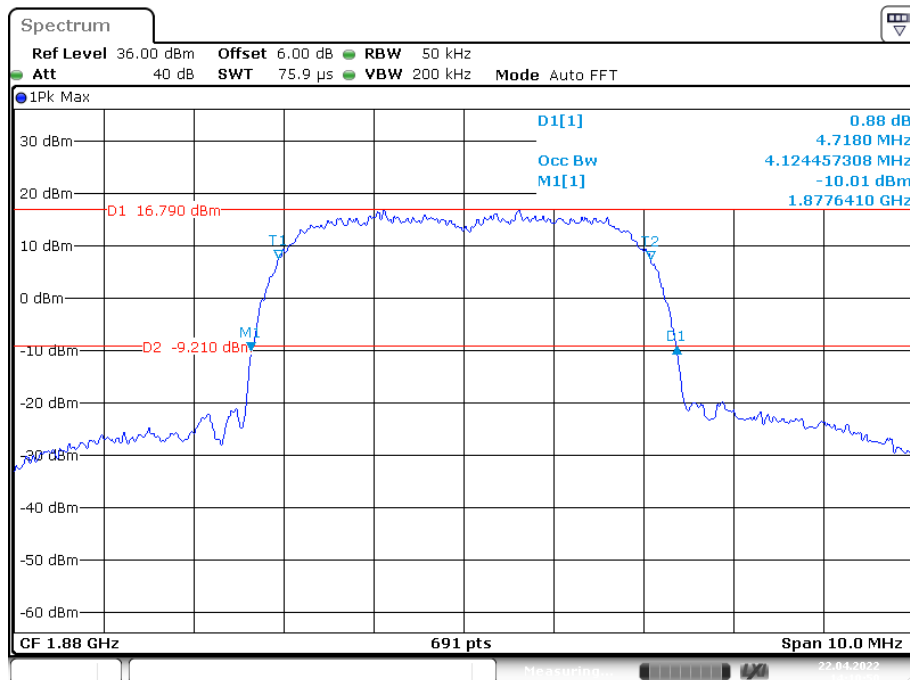
Date: 22 APR 2022 16:12:24

26 dB Emissions & 99% Occupied Bandwidth for WCDMA(HSPA+) Mode, High channel

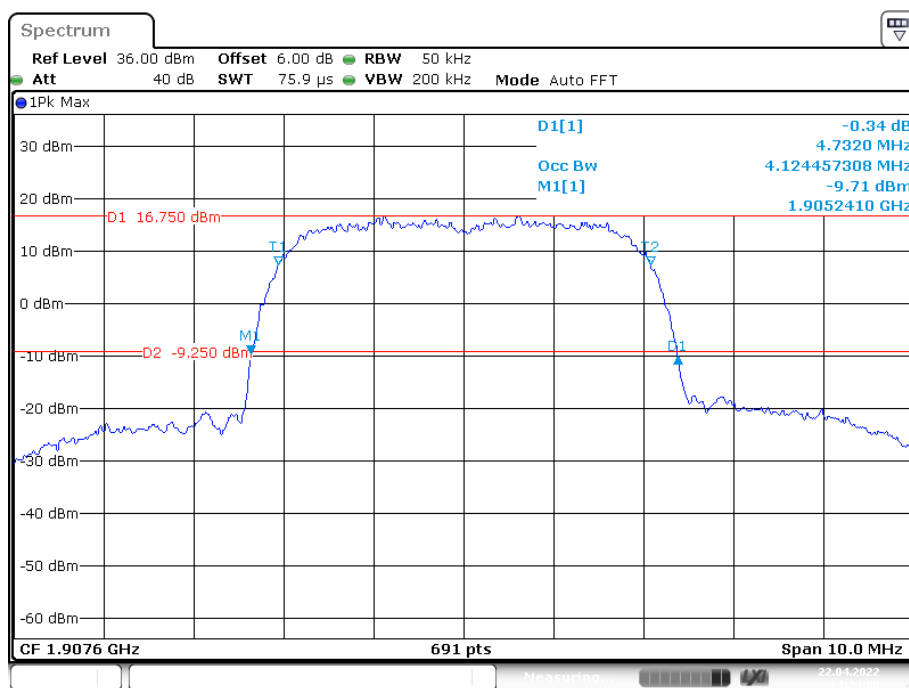
Date: 22 APR 2022 16:37:25

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

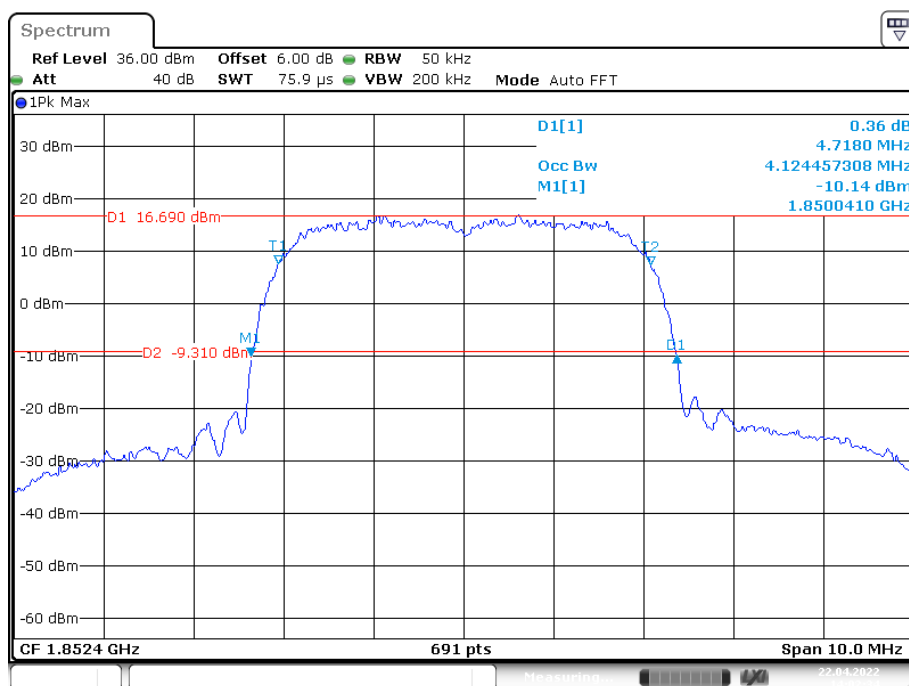
Date: 22 APR 2022 13:59:46

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

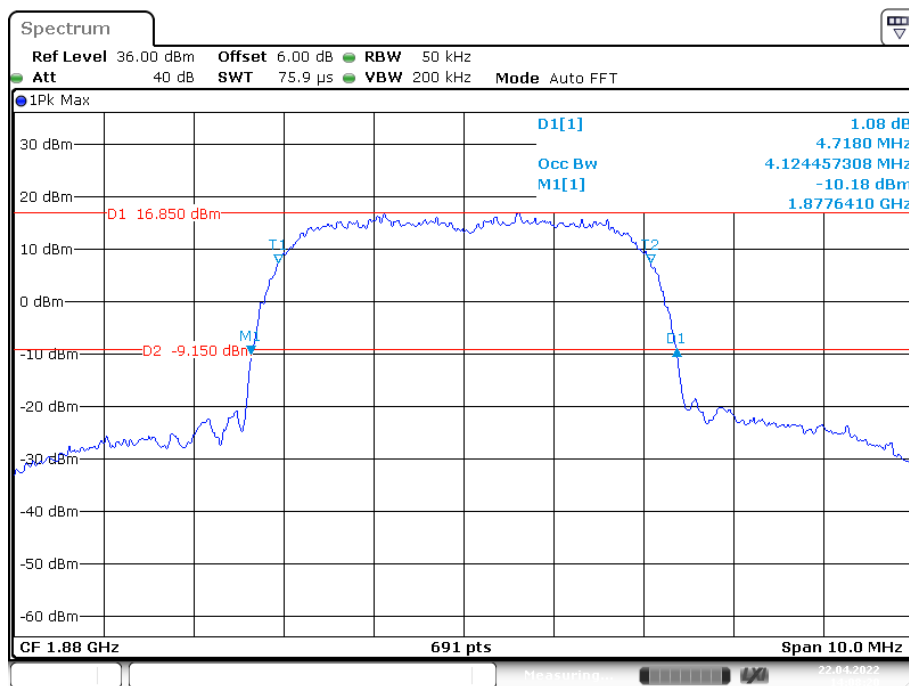
Date: 22 APR 2022 14:10:50

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

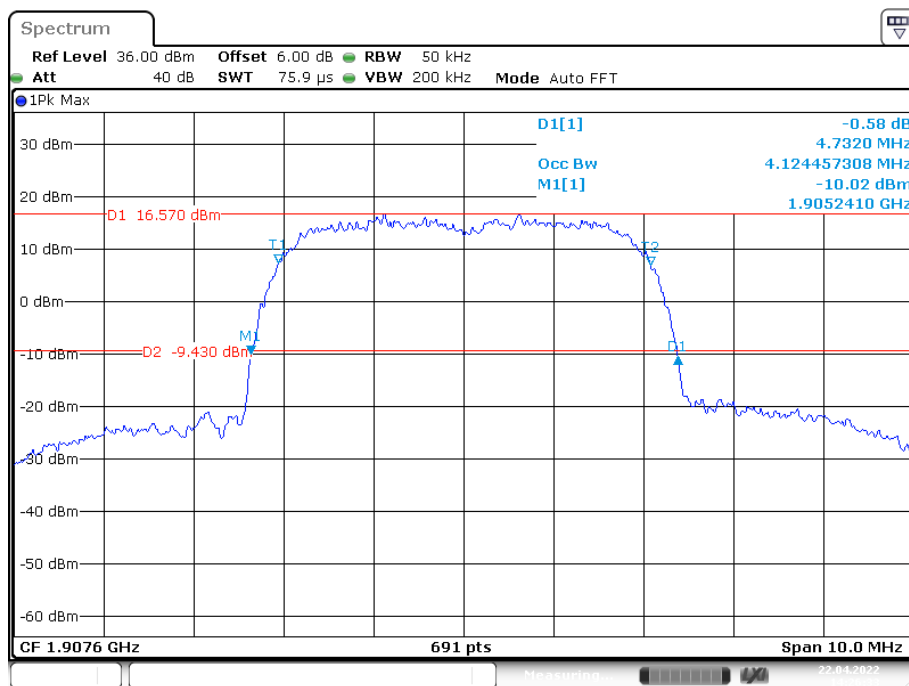
Date: 22 APR 2022 14:24:00

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

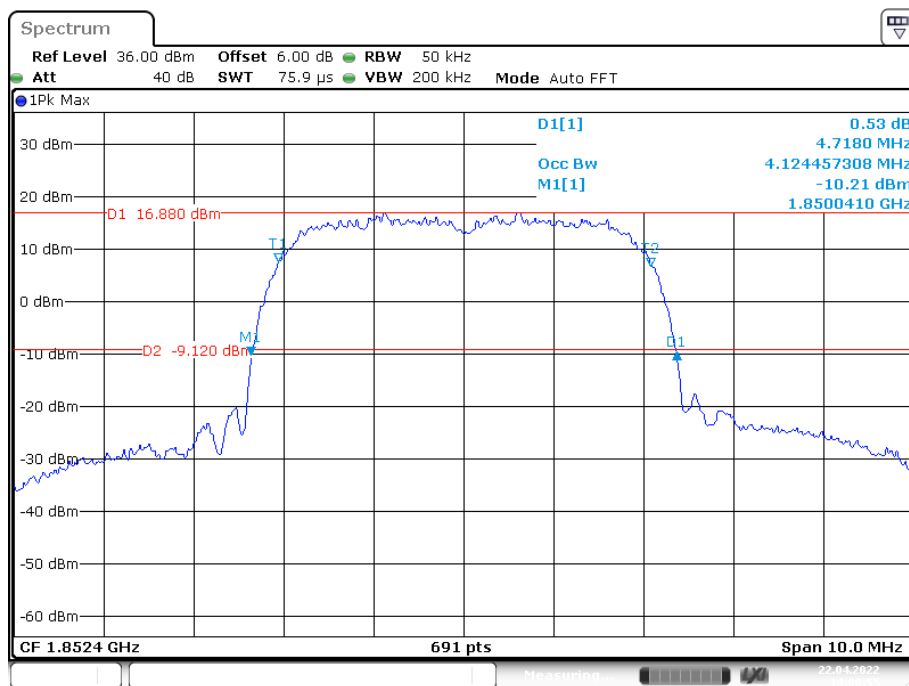
Date: 22 APR 2022 14:02:34

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

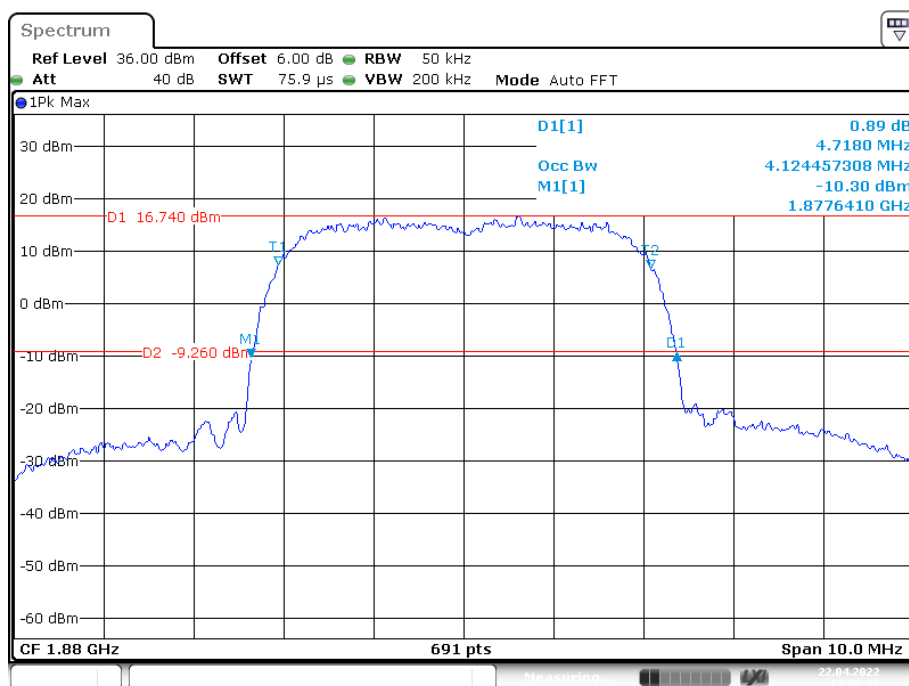
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSUPA) Mode, High channel

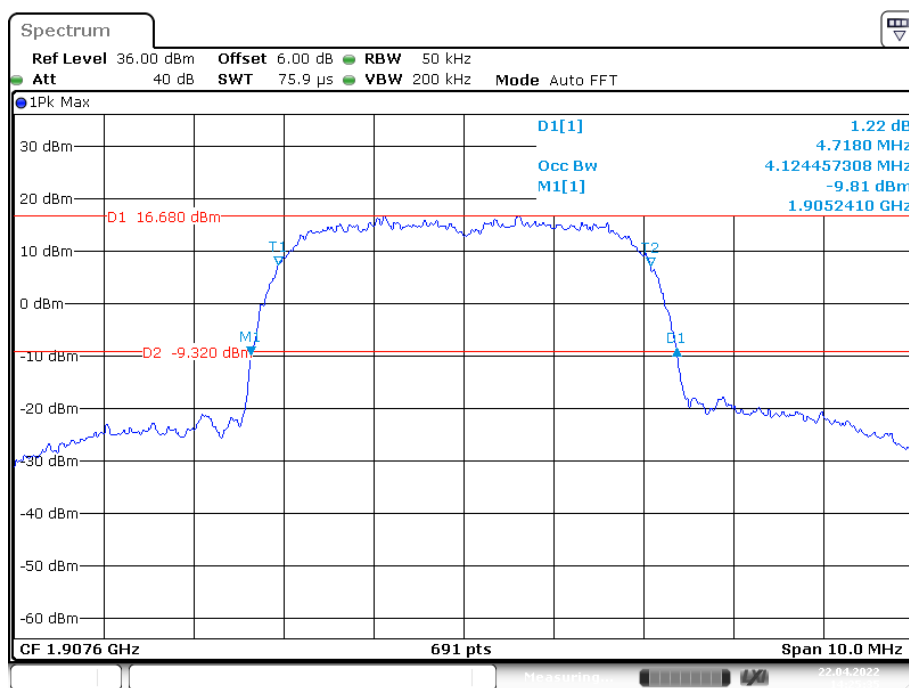
Date: 22 APR 2022 14:26:33

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

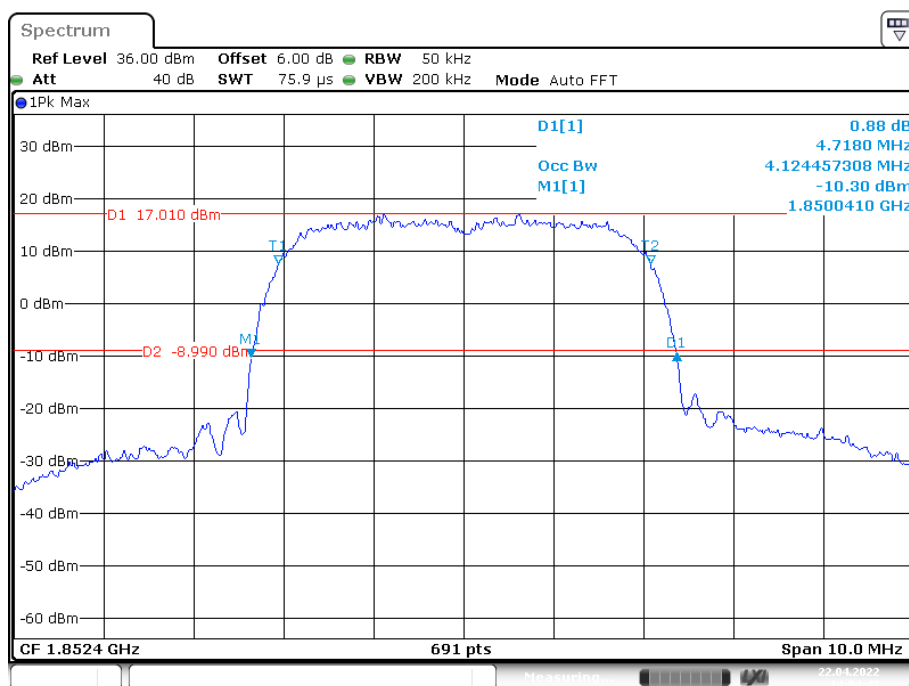
Date: 22 APR 2022 14:00:55

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

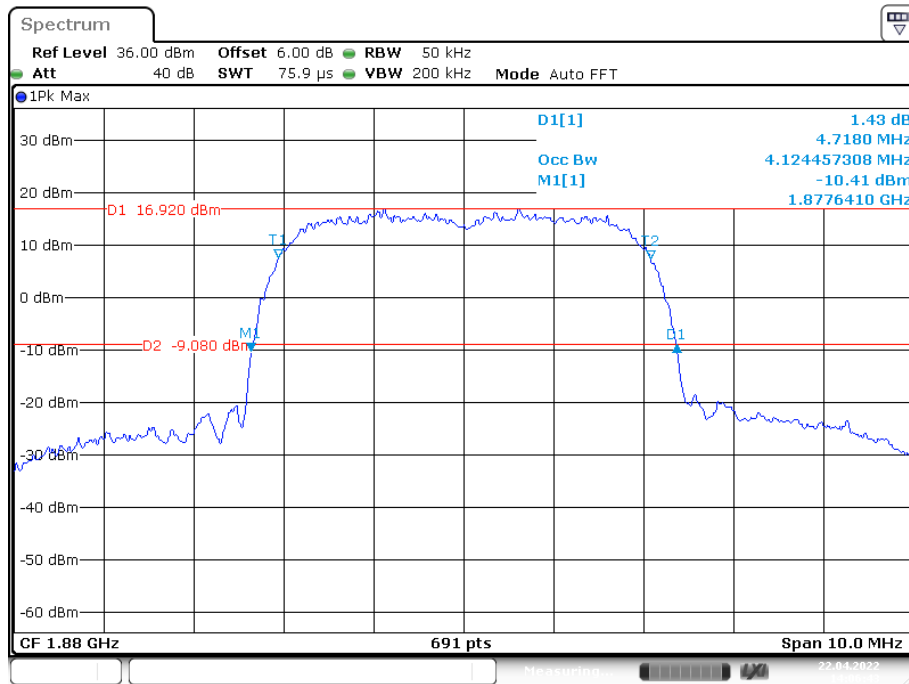
Date: 22 APR 2022 14:09:39

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

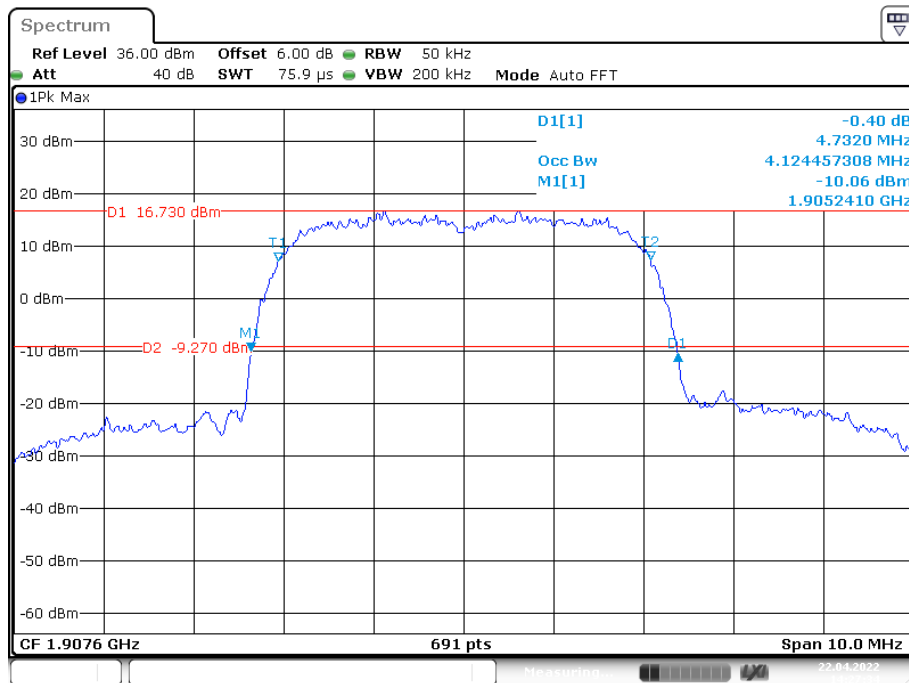
Date: 22 APR 2022 14:25:35

26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSPA+) Mode, Low channel

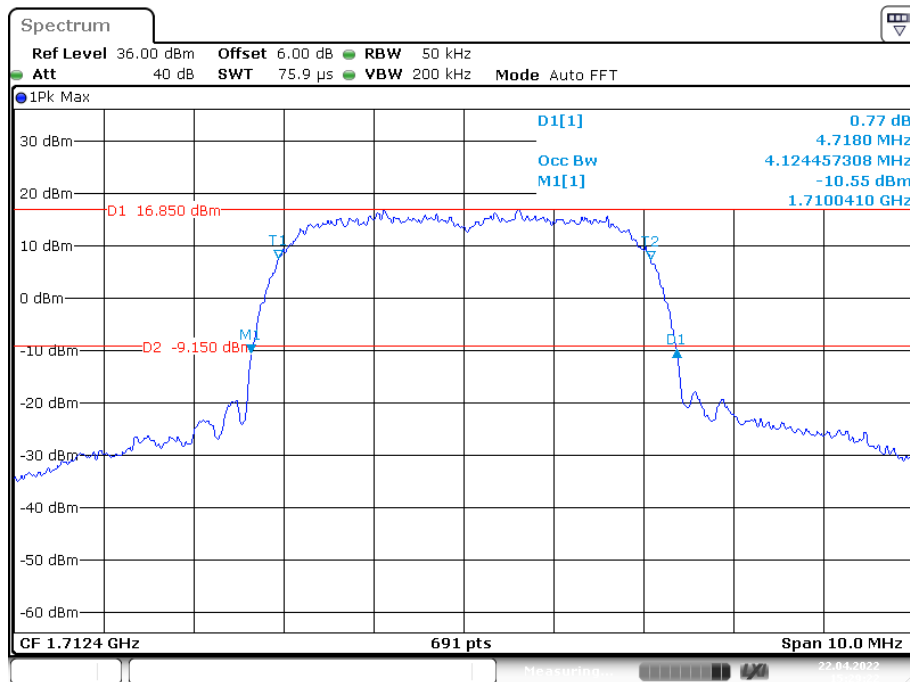
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSPA+) Mode, Middle channel

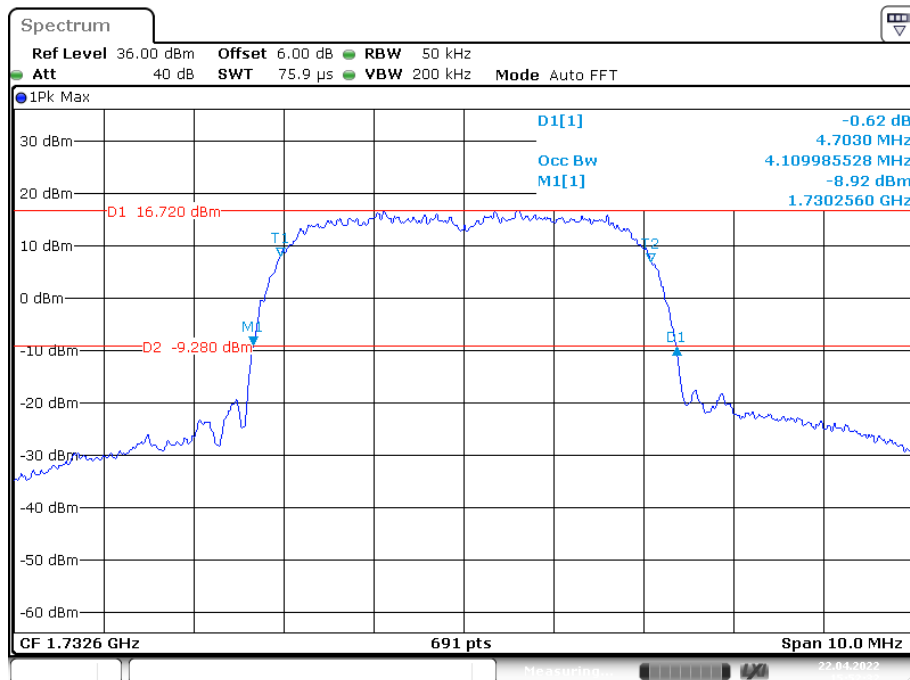
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSPA+) Mode, High channel

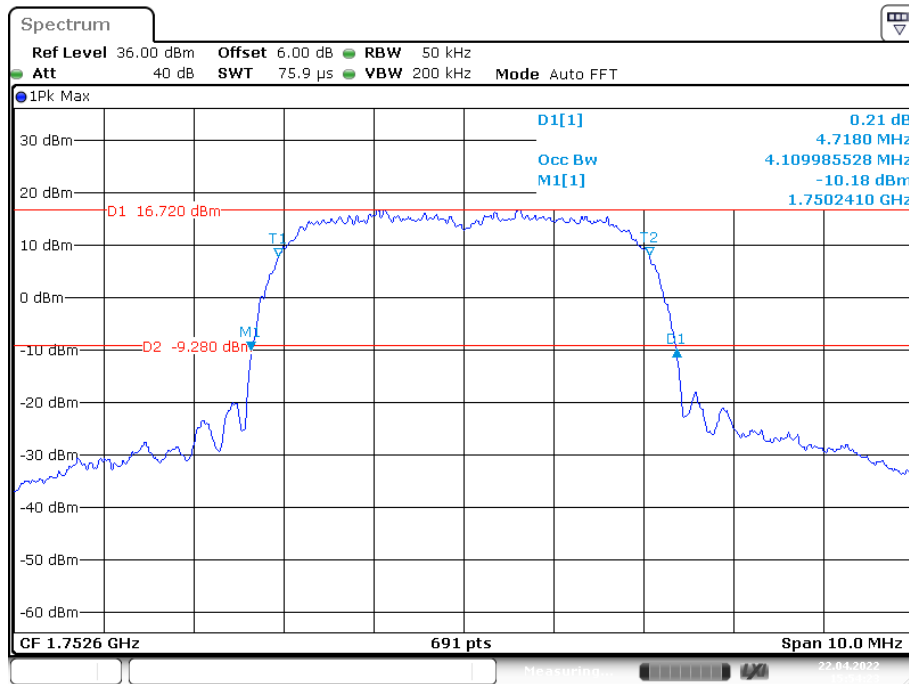
Date: 22 APR 2022 14:27:34

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

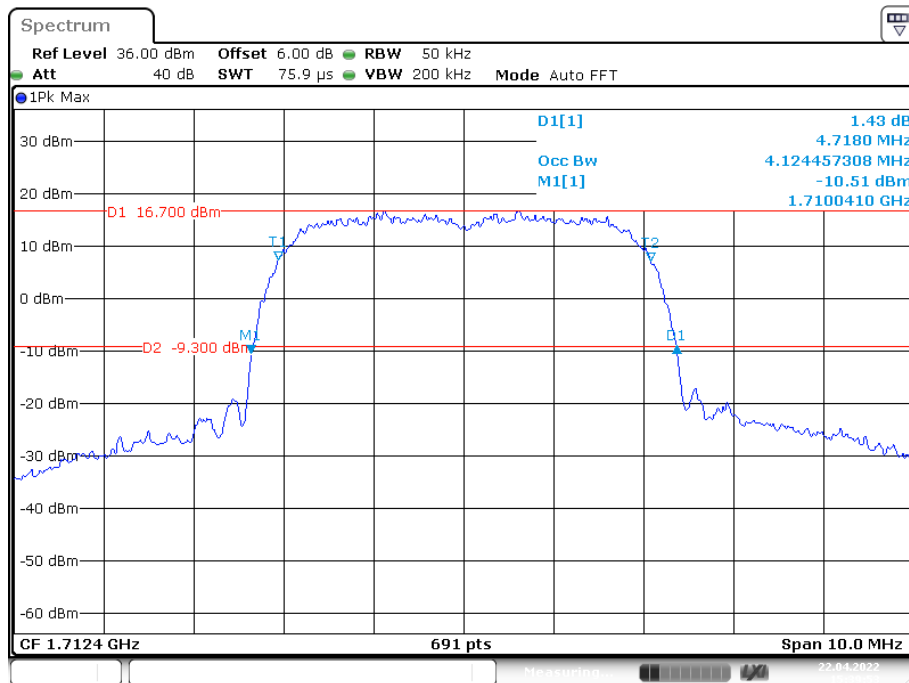
Date: 22.APR.2022 15:29:22

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

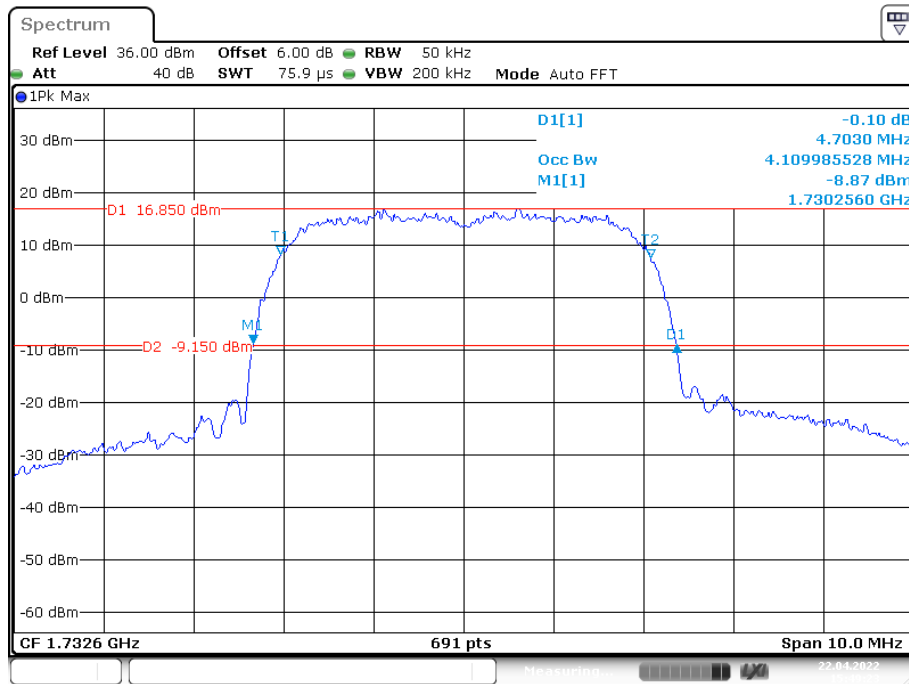
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA (RMC) Mode, High channel

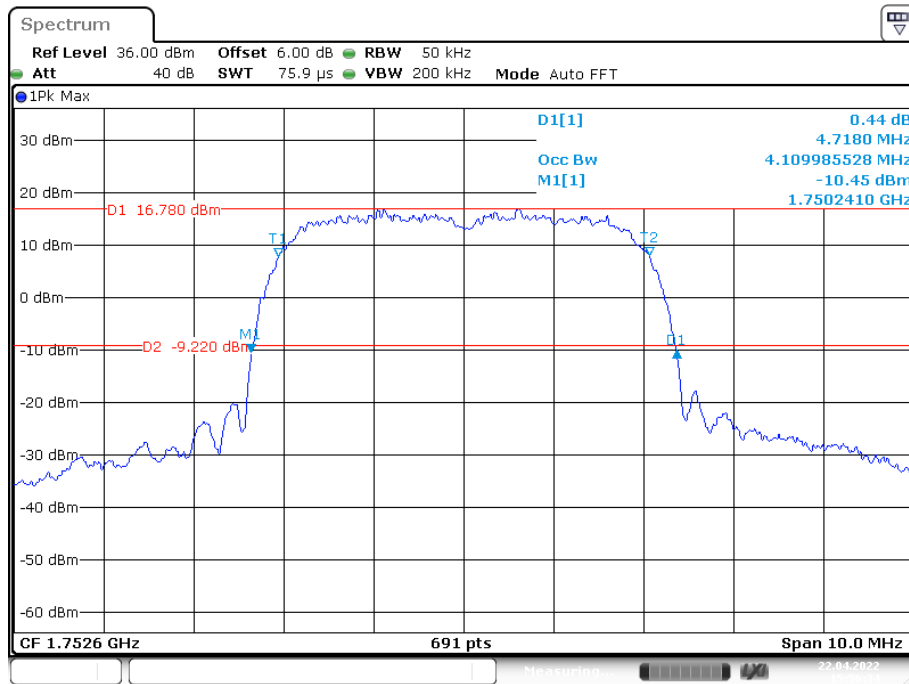
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26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSUPA) Mode, Low channel

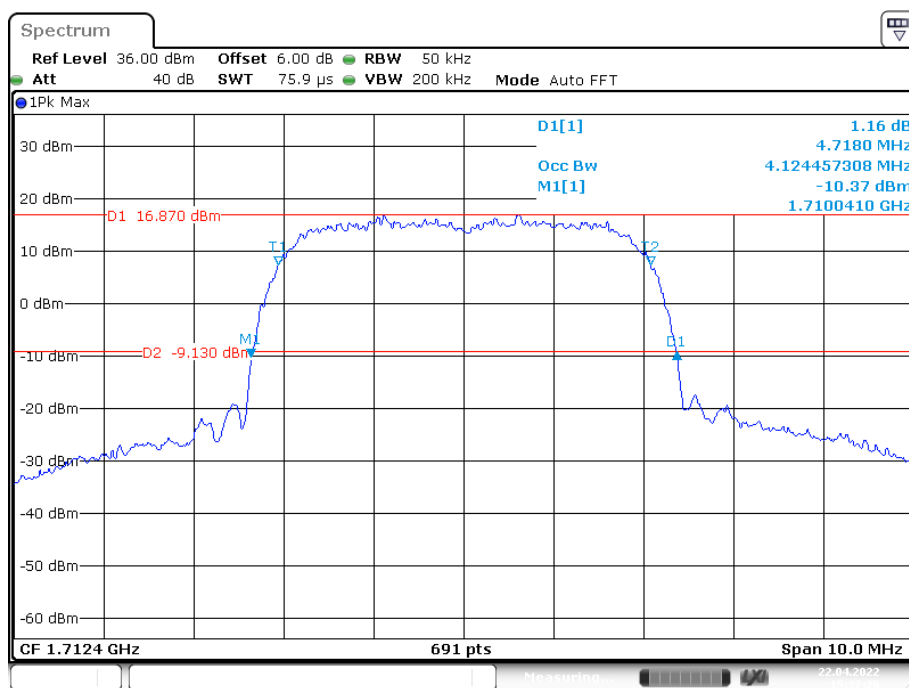
Date: 22 APR 2022 15:59:53

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

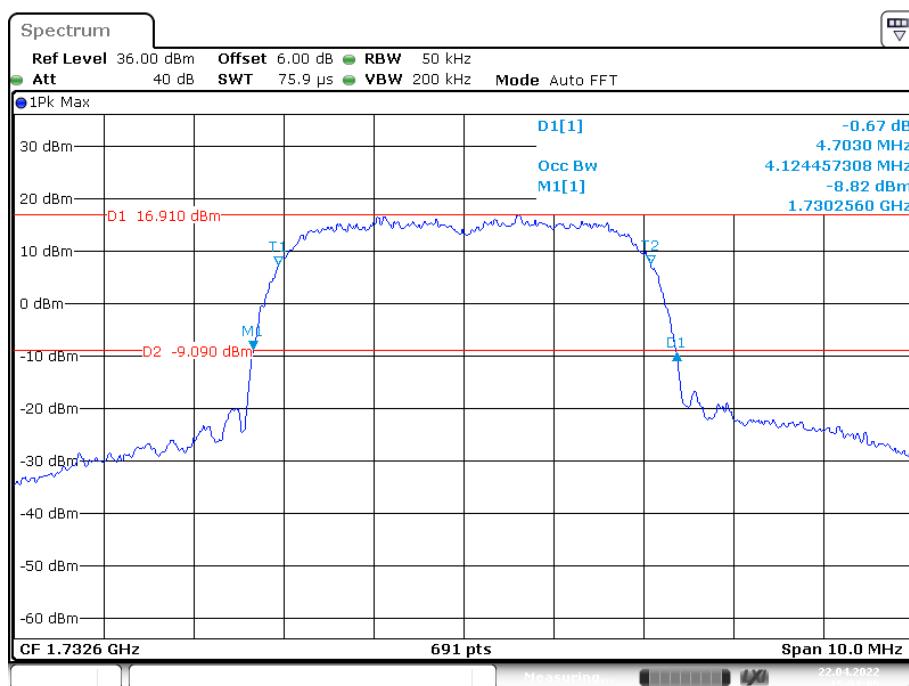
Date: 22 APR 2022 15:49:24

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

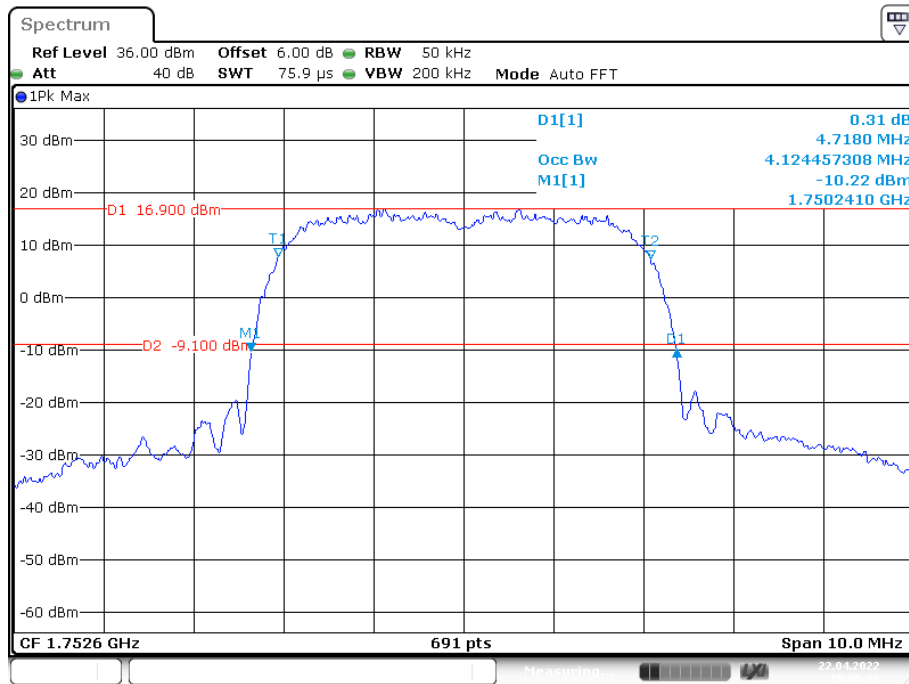
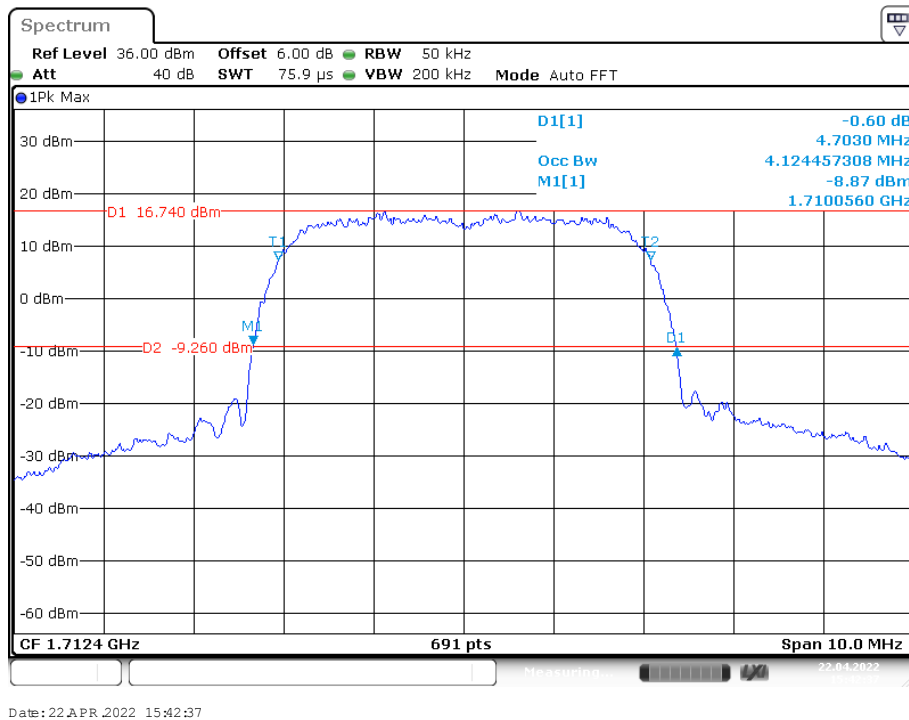
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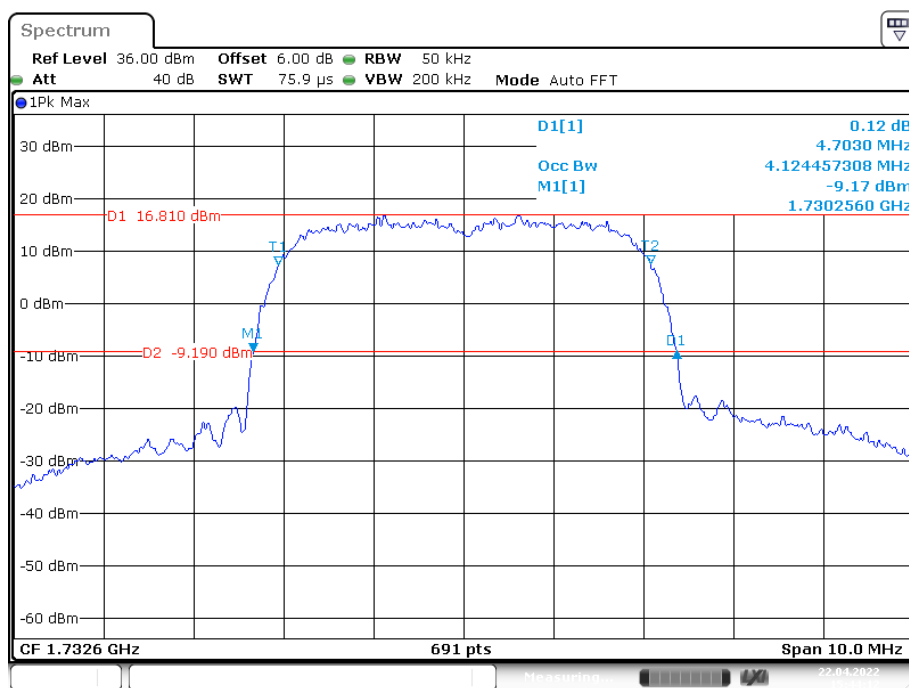
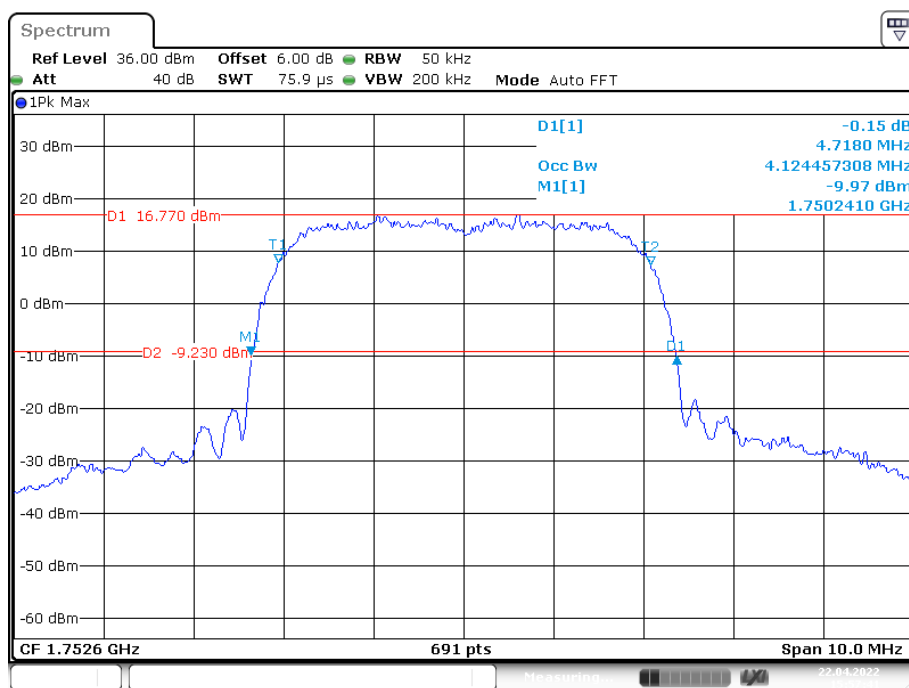
26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSDPA) Mode, Low channel

Date: 22 APR 2022 15:37:26

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

Date: 22 APR 2022 15:51:06

26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSDPA) Mode, High channel**26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSPA+) Mode, Low channel**

26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSPA+) Mode, Middle channel**26 dB Emissions & 99% Occupied Bandwidth for WCDMA (HSPA+) Mode, High channel**

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	1.081	1.281	1.094	1.263	1.094	1.411
	16QAM	1.081	1.281	1.094	1.259	1.094	1.407
3 MHz	QPSK	2.683	2.935	2.692	2.935	2.683	2.961
	16QAM	2.683	2.935	2.692	2.935	2.683	2.961
5 MHz	QPSK	4.472	4.906	4.486	4.920	4.486	4.978
	16QAM	4.472	4.891	4.486	4.920	4.486	4.978
10 MHz	QPSK	8.944	9.696	8.915	9.783	8.944	9.812
	16QAM	8.944	9.696	8.915	9.812	8.944	9.812
15 MHz	QPSK	13.372	14.544	13.415	14.588	13.372	14.544
	16QAM	13.372	14.414	13.415	14.588	13.372	14.544
20 MHz	QPSK	17.829	19.045	17.829	19.276	17.887	19.045
	16QAM	17.887	19.161	17.829	19.276	17.829	19.103

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	1.09	1.303	1.094	1.285	1.085	1.276
	16QAM	1.09	1.298	1.094	1.285	1.085	1.276
3 MHz	QPSK	2.683	2.944	2.692	2.922	2.683	2.926
	16QAM	2.683	2.944	2.692	2.922	2.683	2.926
5 MHz	QPSK	4.472	4.906	4.486	4.935	4.486	4.920
	16QAM	4.472	4.906	4.486	4.949	4.486	4.920
10 MHz	QPSK	8.944	9.725	8.915	9.725	8.944	9.783
	16QAM	8.915	9.696	8.915	9.754	8.944	9.783
15 MHz	QPSK	13.415	14.631	13.415	14.588	13.329	14.457
	16QAM	13.415	14.631	13.415	14.544	13.329	14.501
20 MHz	QPSK	17.887	19.161	17.887	19.038	17.887	19.334
	16QAM	17.887	19.161	17.887	19.096	17.829	19.45

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	1.09	1.268	1.085	1.276	1.090	1.281
	16QAM	1.09	1.268	1.085	1.276	1.090	1.281
3 MHz	QPSK	2.683	2.961	2.683	2.935	2.692	2.935
	16QAM	2.683	2.952	2.683	2.935	2.692	2.935
5 MHz	QPSK	4.472	4.906	4.486	4.920	4.472	4.906
	16QAM	4.472	4.906	4.486	4.920	4.472	4.906
10 MHz	QPSK	8.944	9.696	8.915	9.692	8.944	9.703
	16QAM	8.944	9.725	8.944	9.664	8.944	9.674

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	4.472	4.906	4.486	4.920	4.486	4.906
	16QAM	4.472	4.906	4.486	4.920	4.486	4.906
10 MHz	QPSK	8.915	9.783	8.944	9.754	8.944	9.667
	16QAM	8.915	9.725	8.944	9.783	8.944	9.667
15 MHz	QPSK	13.415	14.588	13.415	14.544	13.329	14.501
	16QAM	13.415	14.631	13.415	14.544	13.372	14.457
20 MHz	QPSK	17.887	19.276	17.887	19.161	17.829	19.038
	16QAM	17.887	19.45	17.887	19.045	17.829	19.096

LTE Band 12:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.094	1.272	1.085	1.263	1.085	1.276
	16QAM	1.094	1.268	1.085	1.263	1.085	1.276
3 MHz	QPSK	2.683	2.952	2.692	2.926	2.692	2.926
	16QAM	2.683	2.952	2.692	2.926	2.692	2.935
5 MHz	QPSK	4.472	4.891	4.501	4.955	4.472	4.873
	16QAM	4.472	4.981	4.501	4.955	4.472	4.858
10 MHz	QPSK	8.973	9.783	9.001	9.785	8.915	9.588
	16QAM	8.973	9.783	9.001	9.814	8.915	9.617

LTE Band 17:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
5 MHz	QPSK	4.486	4.935	4.457	4.908	4.472	4.891
	16QAM	4.486	4.935	4.457	4.894	4.472	4.906
10 MHz	QPSK	8.944	9.729	8.915	9.713	8.915	9.639
	16QAM	8.944	9.729	8.915	9.713	8.915	9.581

LTE Band 25:

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	1.094	1.268	1.085	1.281	1.090	1.298
	16QAM	1.094	1.268	1.085	1.281	1.090	1.303
3 MHz	QPSK	2.683	2.944	2.683	2.935	2.692	2.935
	16QAM	2.683	2.944	2.683	2.935	2.692	2.944
5 MHz	QPSK	4.472	4.891	4.486	4.920	4.472	4.906
	16QAM	4.472	4.891	4.486	4.920	4.472	4.891
10 MHz	QPSK	8.944	9.696	8.944	9.783	8.915	9.696
	16QAM	8.944	9.667	8.973	9.841	8.915	9.725
15 MHz	QPSK	13.372	14.588	13.372	14.501	13.329	14.457
	16QAM	13.372	14.588	13.372	14.588	13.329	14.457
20 MHz	QPSK	17.829	19.219	17.771	19.005	17.829	19.153
	16QAM	17.829	19.392	17.829	19.005	17.829	19.096

LTE Band 26:

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	1.090	1.285	1.090	1.268	1.085	1.285
	16QAM	1.090	1.285	1.090	1.272	1.081	1.276
3 MHz	QPSK	2.683	2.961	2.683	2.935	2.683	2.926
	16QAM	2.683	2.952	2.683	2.935	2.683	2.944
5 MHz	QPSK	4.486	4.948	4.486	4.920	4.457	4.891
	16QAM	4.457	4.933	4.486	4.906	4.457	4.891
10 MHz	QPSK	8.944	9.667	8.944	9.754	8.944	9.783
	16QAM	8.944	9.725	8.944	9.754	8.944	9.783
15 MHz	QPSK	13.459	14.631	13.372	14.544	13.329	14.53
	16QAM	13.459	14.588	13.372	14.544	13.329	14.573

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	5.04	4.511	5.080	4.511	5.020
	16QAM	4.531	5.12	4.511	5.120	4.511	4.980
10 MHz	QPSK	8.981	9.72	8.981	10.000	8.942	9.840
	16QAM	8.942	9.72	8.942	9.720	8.942	9.800
15 MHz	QPSK	13.533	14.76	13.473	14.760	13.473	14.820
	16QAM	13.533	14.76	13.533	14.760	13.533	14.640
20 MHz	QPSK	17.884	19.44	17.964	19.520	17.884	19.760
	16QAM	17.884	19.52	17.884	19.600	17.884	19.680

LTE Band 66:

Bandwidth	Modulation	Low channel		Middle channel		High channel	
		OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)	OBW (MHz)	26dB EBW (MHz)
1.4 MHz	QPSK	1.090	1.303	1.094	1.281	1.085	1.281
	16QAM	1.090	1.303	1.094	1.281	1.085	1.281
3 MHz	QPSK	2.683	2.944	2.683	2.926	2.683	2.926
	16QAM	2.683	2.944	2.683	2.926	2.683	2.935
5 MHz	QPSK	4.472	4.906	4.486	4.935	4.486	4.906
	16QAM	4.472	4.891	4.486	4.949	4.486	4.906
10 MHz	QPSK	8.915	9.725	8.944	9.783	8.915	9.696
	16QAM	8.915	9.754	8.944	9.783	8.915	9.667
15 MHz	QPSK	13.415	14.588	13.415	14.588	13.329	14.457
	16QAM	13.415	14.588	13.372	14.501	13.329	14.501
20 MHz	QPSK	17.887	19.392	17.829	18.936	17.829	18.980
	16QAM	17.887	19.382	17.829	18.994	17.829	19.038

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

FCC §2.1051, §22.917(a) & §24.238(a)& §27.53 & §90.691 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

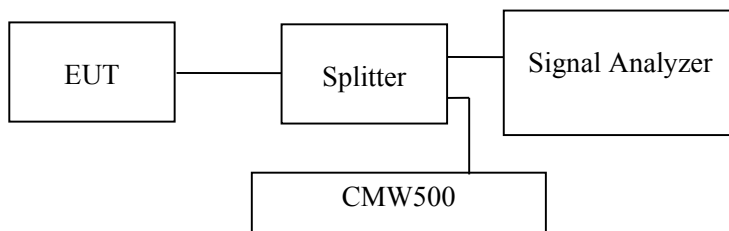
Applicable Standard

FCC §2.1051, §22.917(a) & §24.238(a) & §27.53 & §90.691.

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

Test Procedure

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



Note: The path loss is 6 dB between EUT and Signal Analyzer

Test Data

Environmental Conditions

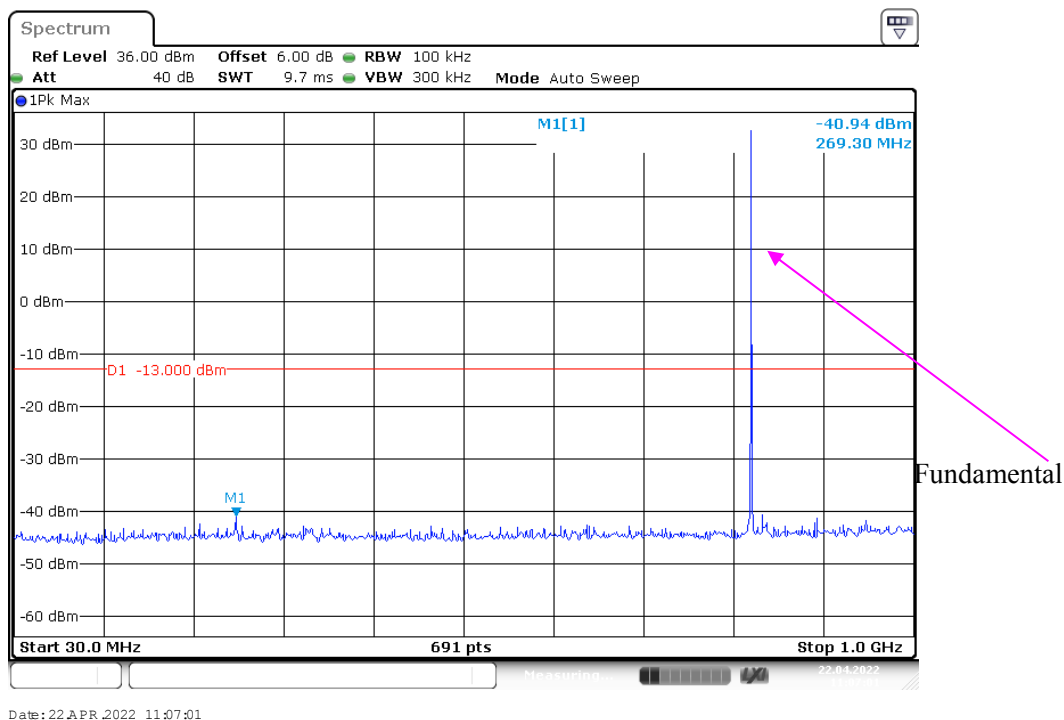
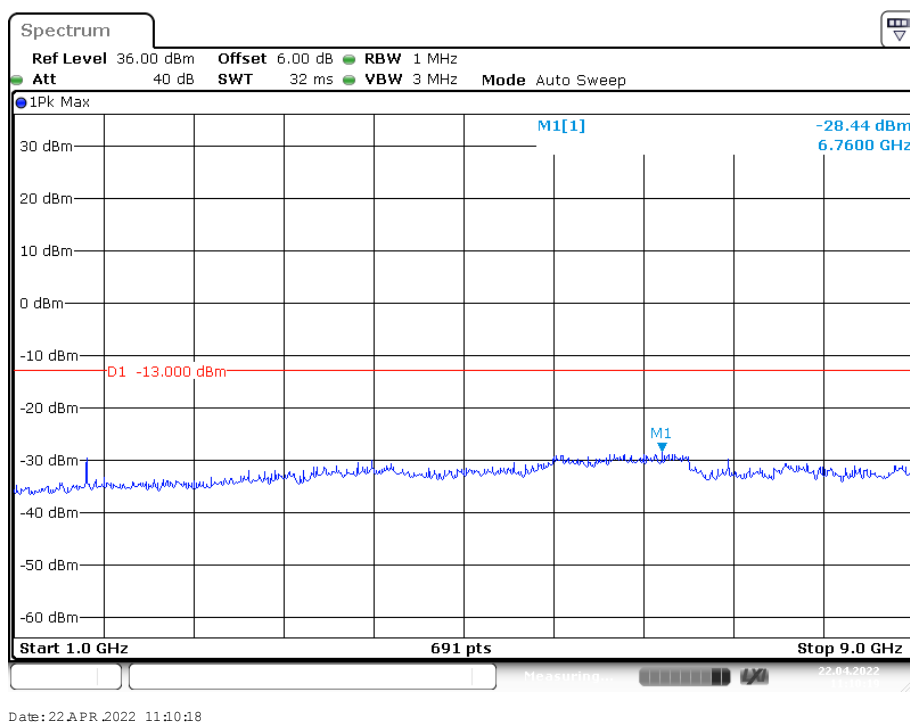
Temperature:	24~26.5 °C
Relative Humidity:	48~58 %
ATM Pressure:	100.8~101.2 kPa

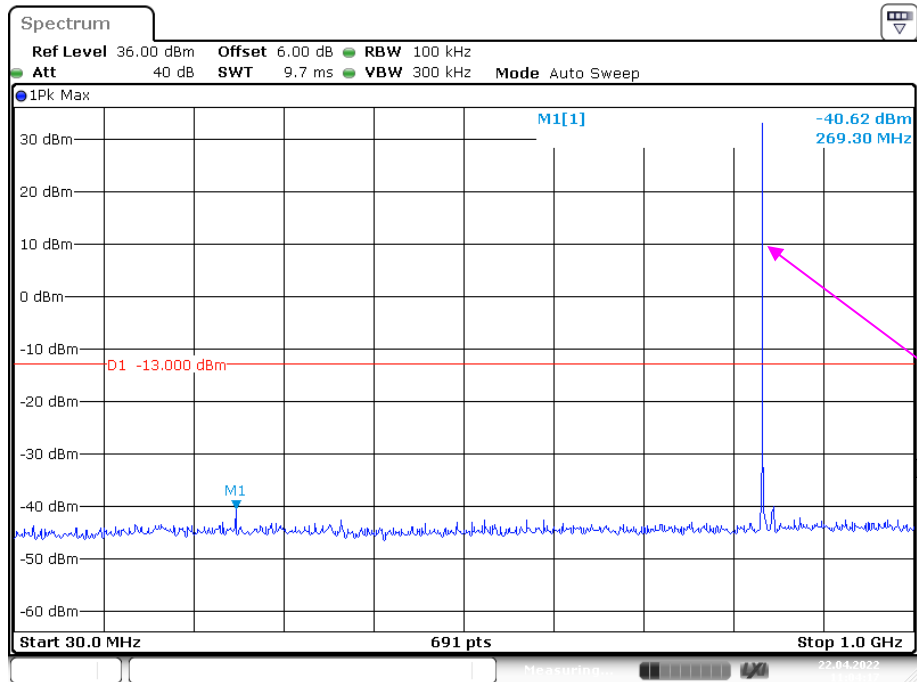
The testing was performed by Black Ding from 2022-04-22 to 2022-4-26.

EUT operation mode: Transmitting

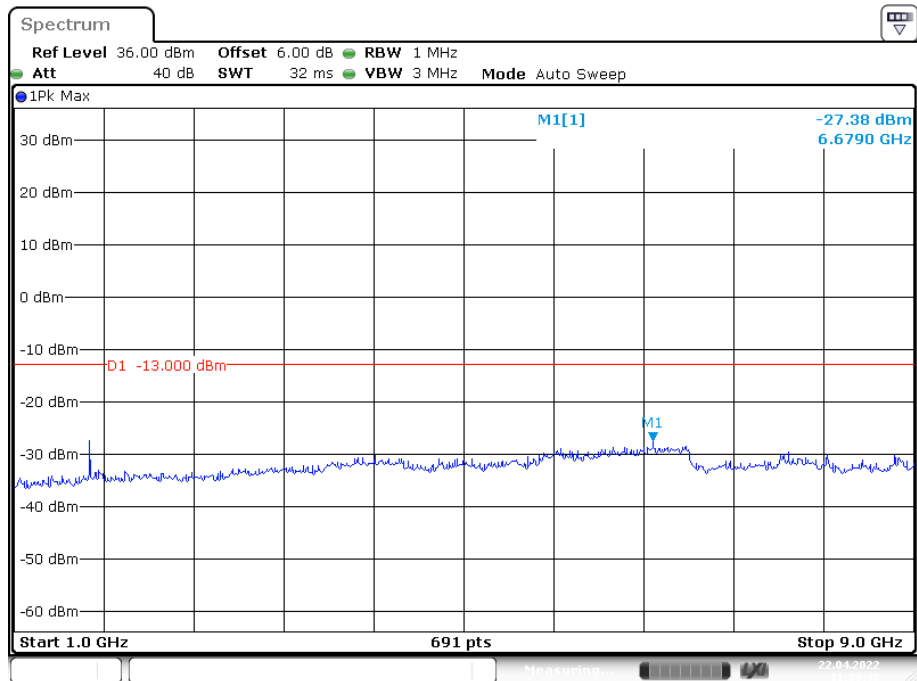
Test result: Pass

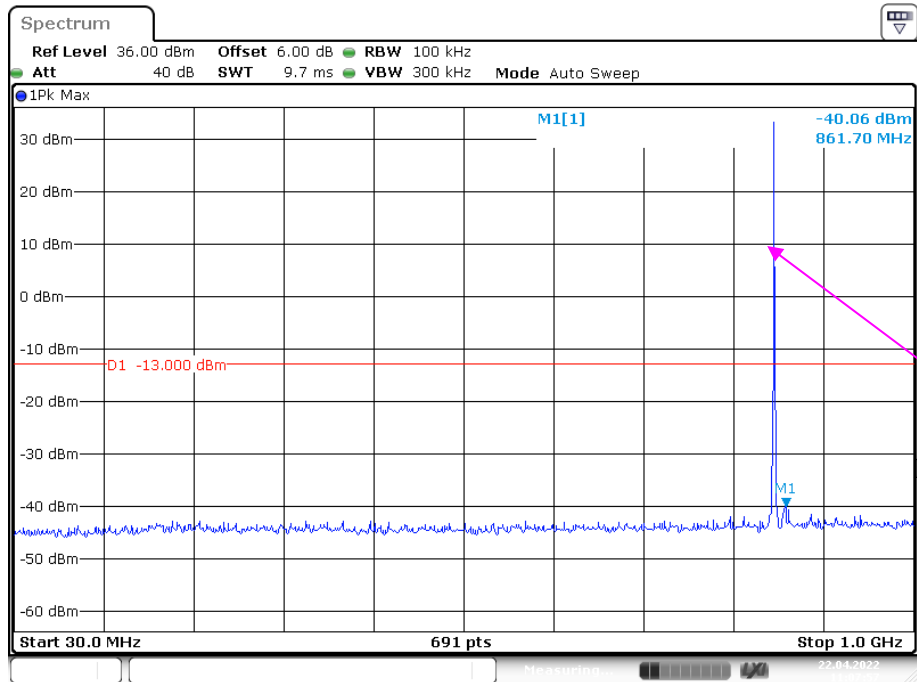
Please refer to the following plots.

GSM 850:**Low Channel:****30 MHz – 1 GHz (GPRS Mode)****1 GHz – 9 GHz (GPRS Mode)**

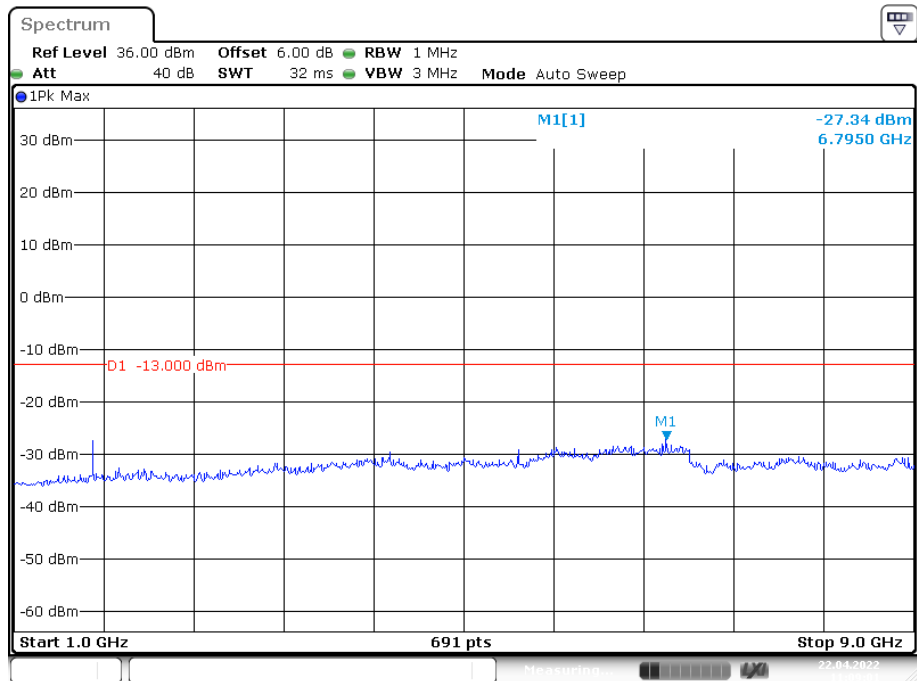
Middle Channel:**30 MHz – 1 GHz (GPRS Mode)**

Fundamental

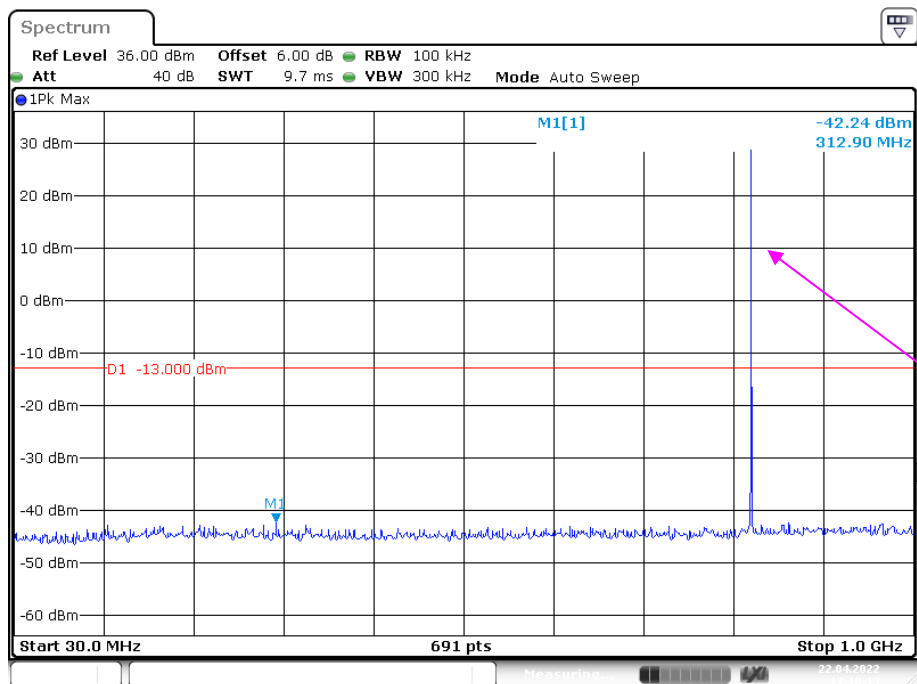
1 GHz – 9 GHz (GPRS Mode)

High Channel:**30 MHz – 1 GHz (GPRS Mode)**

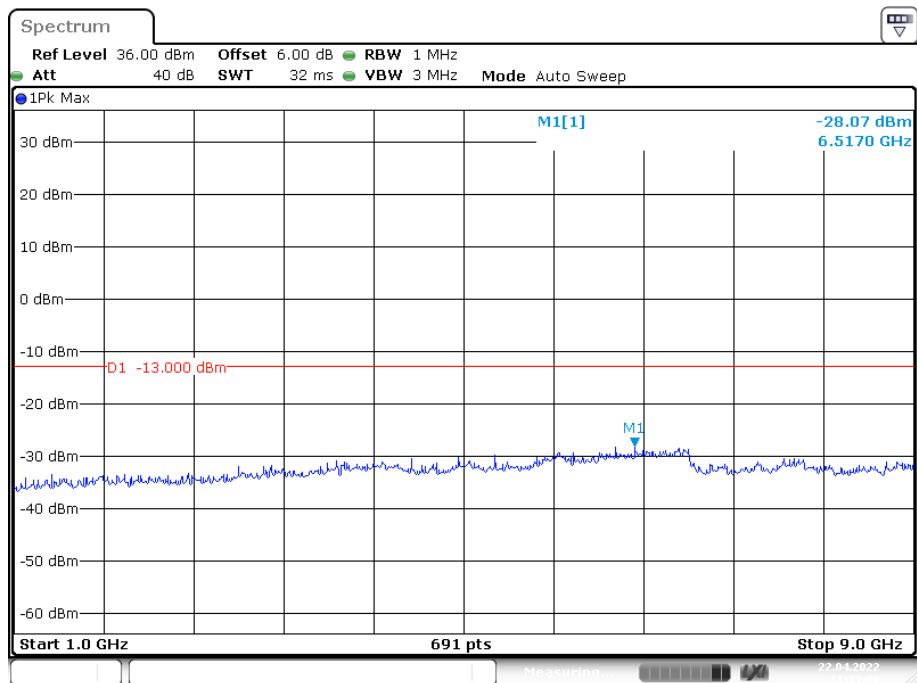
Date: 22 APR. 2022 11:07:57

1 GHz – 9 GHz (GPRS Mode)

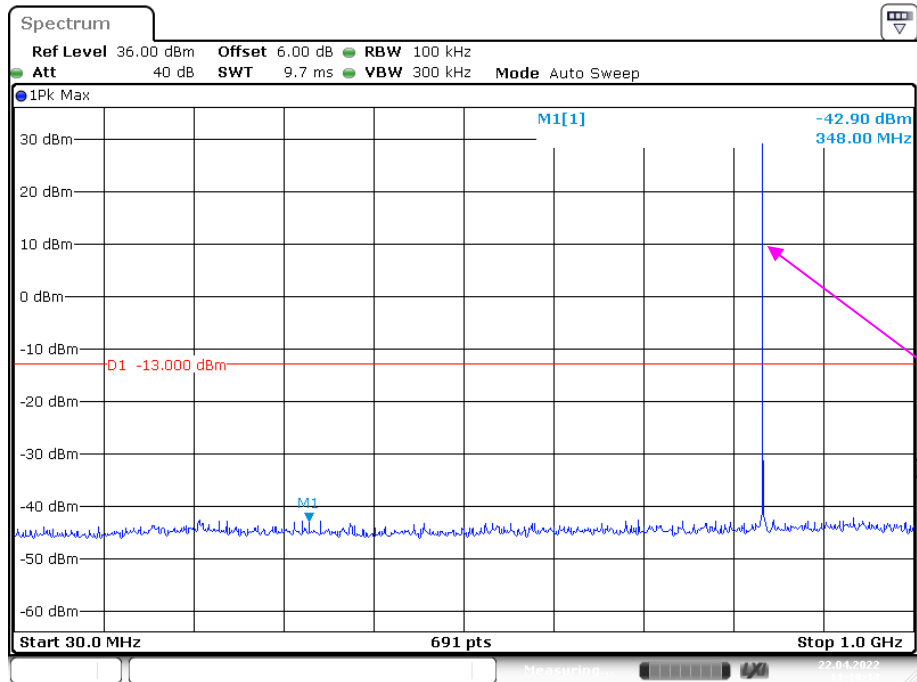
Date: 22 APR. 2022 11:09:00

Low Channel:**30 MHz – 1 GHz (EGPRS Mode)**

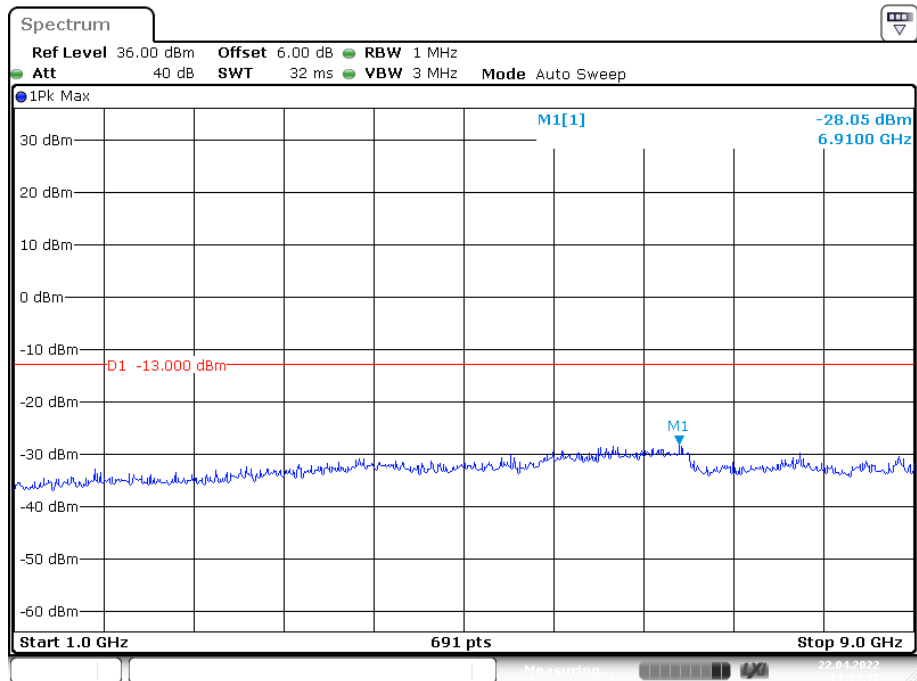
Date: 22 APR 2022 11:18:14

1 GHz – 9 GHz (EGPRS Mode)

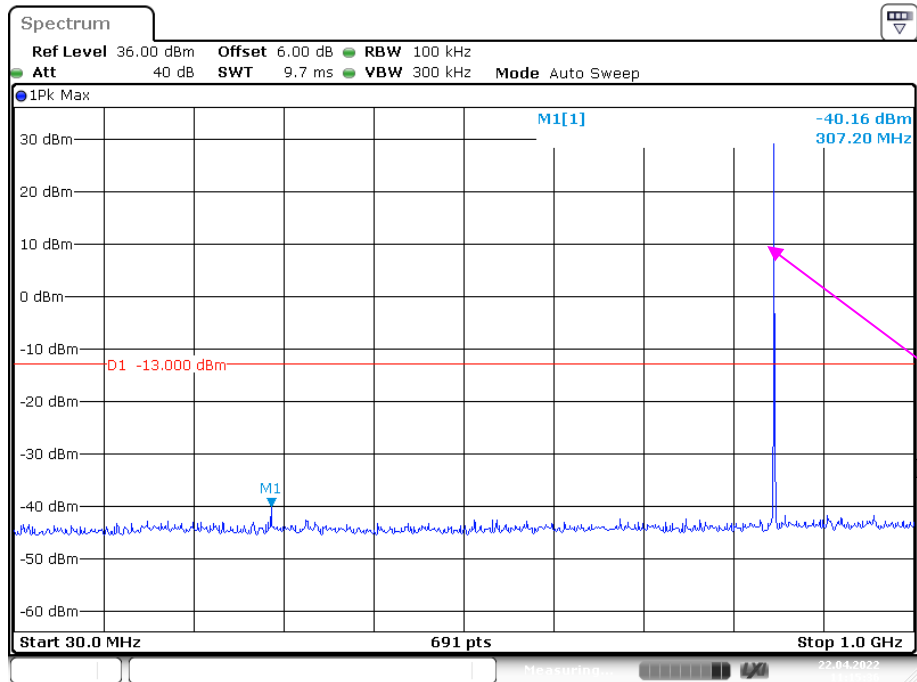
Date: 22 APR 2022 11:13:08

Middle Channel:**30 MHz – 1 GHz (EGPRS Mode)**

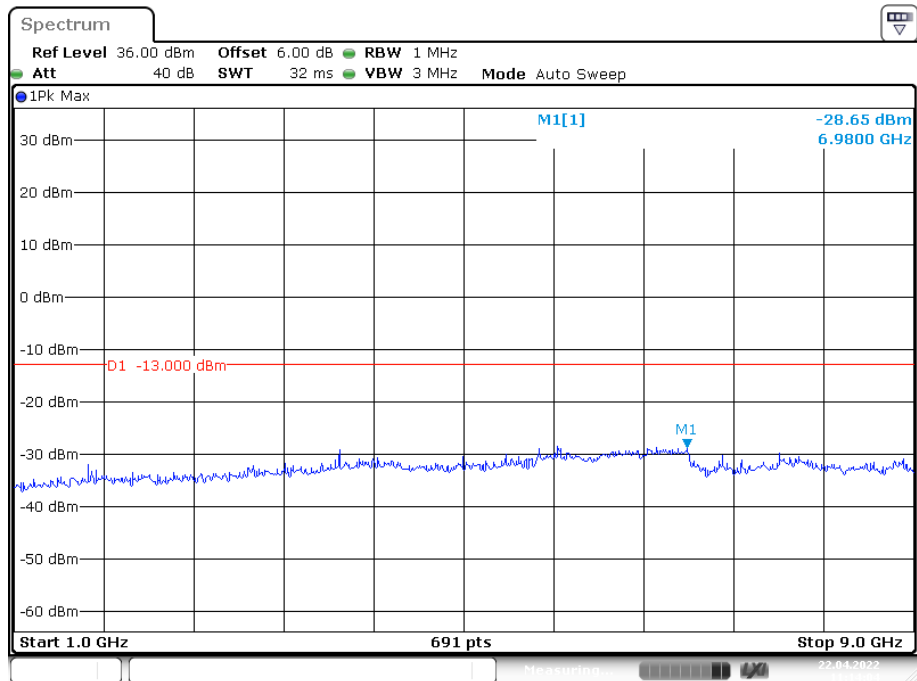
Date: 22 APR. 2022 11:19:14

1 GHz – 9 GHz (EGPRS Mode)

Date: 22 APR. 2022 11:13:38

High Channel:**30 MHz – 1 GHz (EGPRS Mode)**

Date: 22 APR. 2022 11:15:36

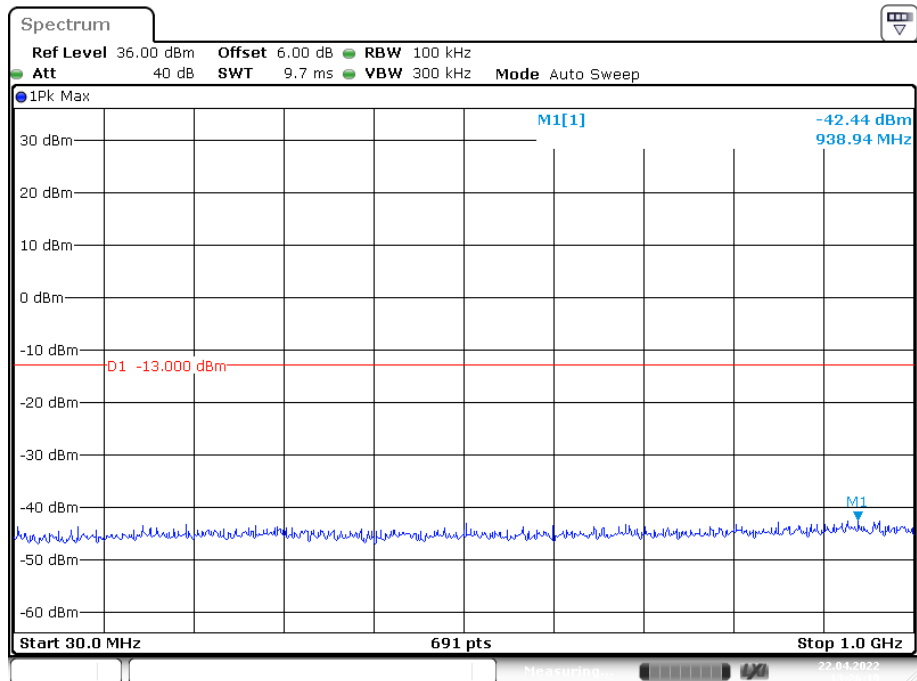
1 GHz – 9 GHz (EGPRS Mode)

Date: 22 APR. 2022 11:14:04

PCS 1900:

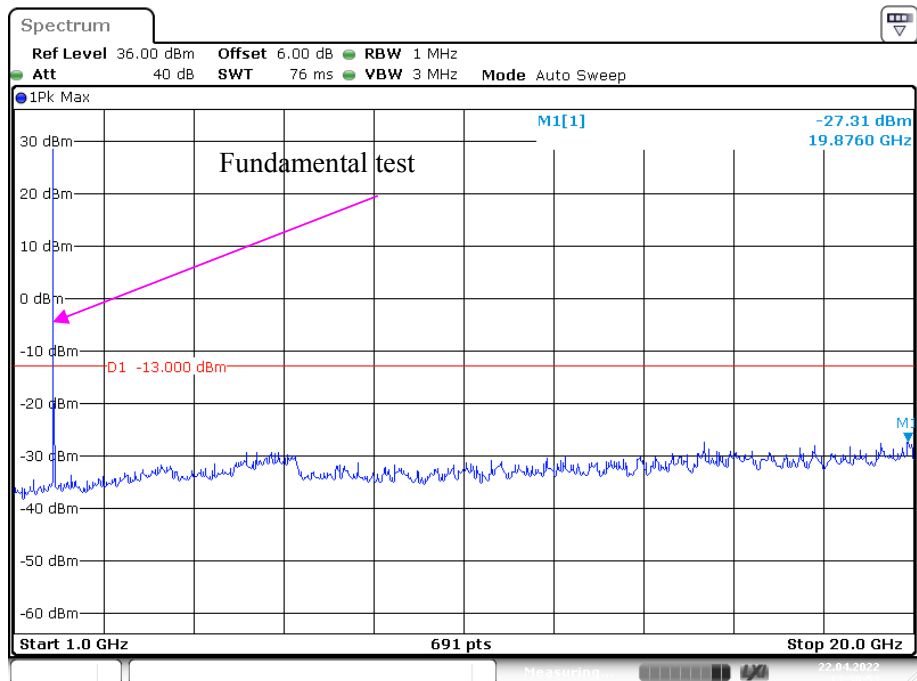
Low Channel:

30 MHz – 1 GHz (GPRS Mode)

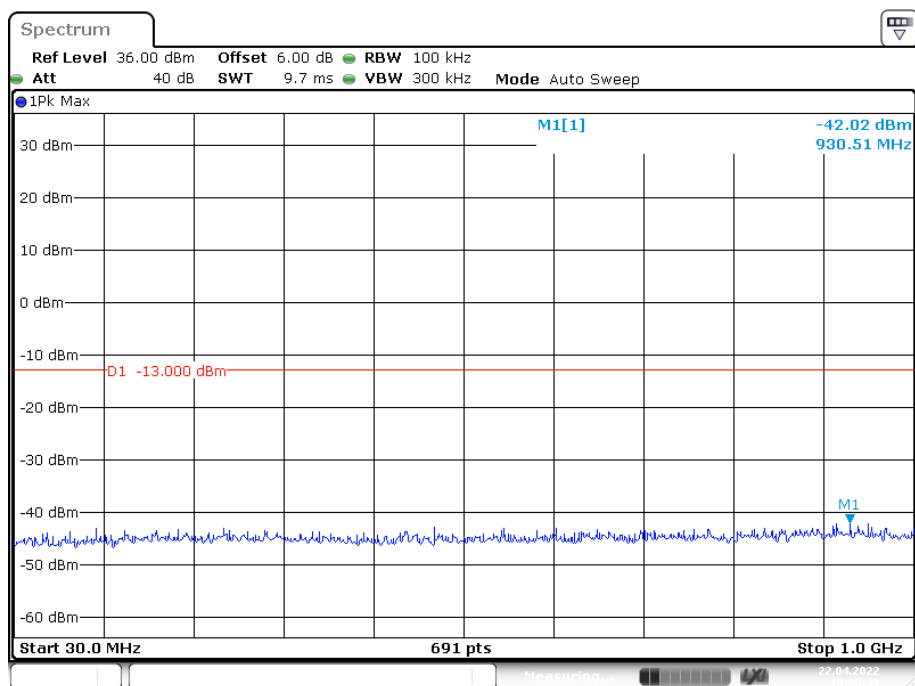


Date: 22 APR 2022 13:26:20

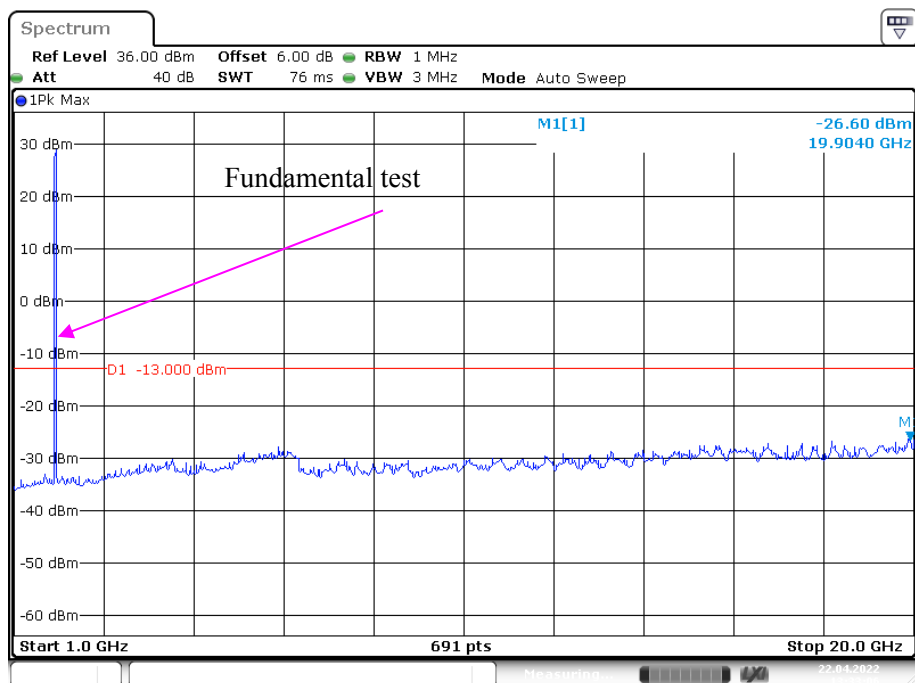
1 GHz – 20 GHz (GPRS Mode)



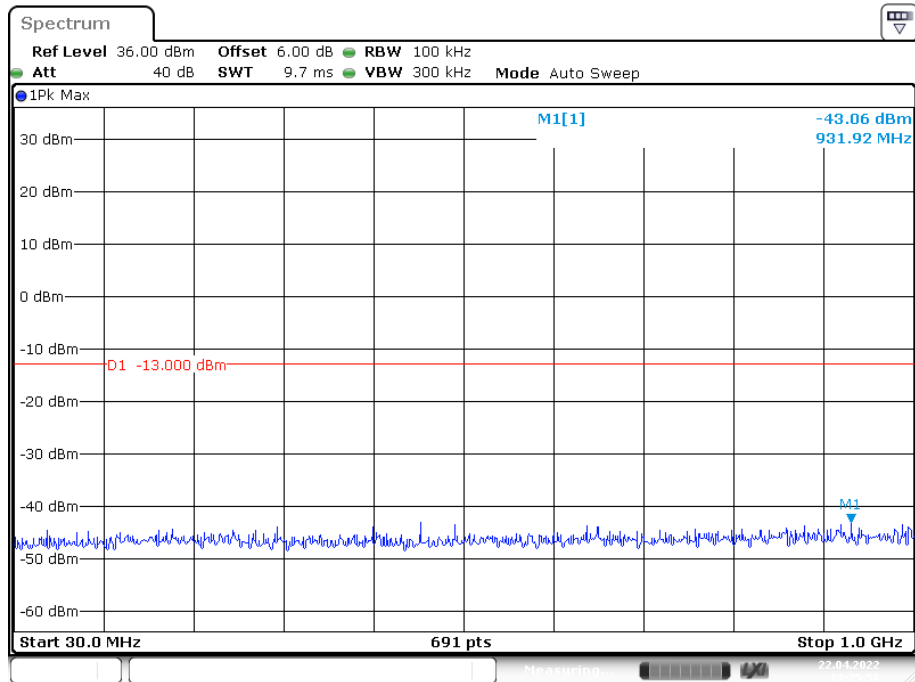
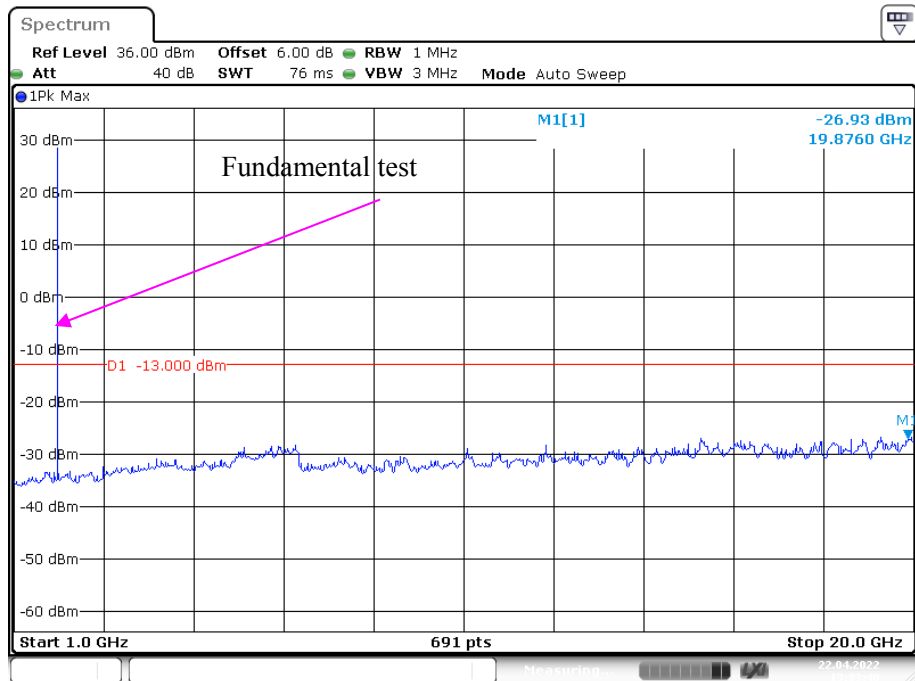
Date: 22 APR 2022 13:30:53

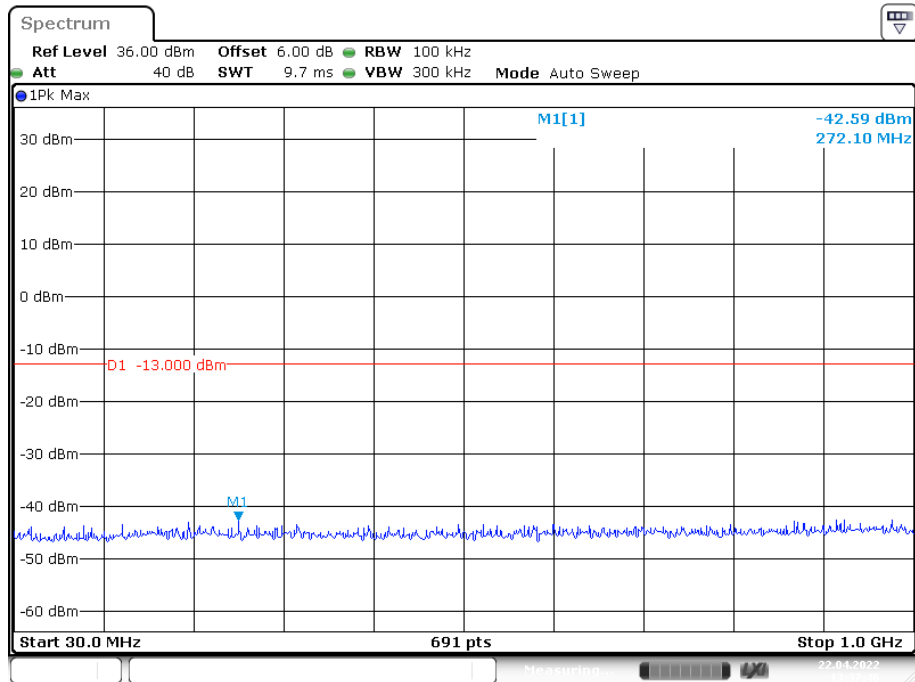
Middle Channel:**30 MHz – 1 GHz (GPRS Mode)**

Date: 22 APR 2022 13:26:41

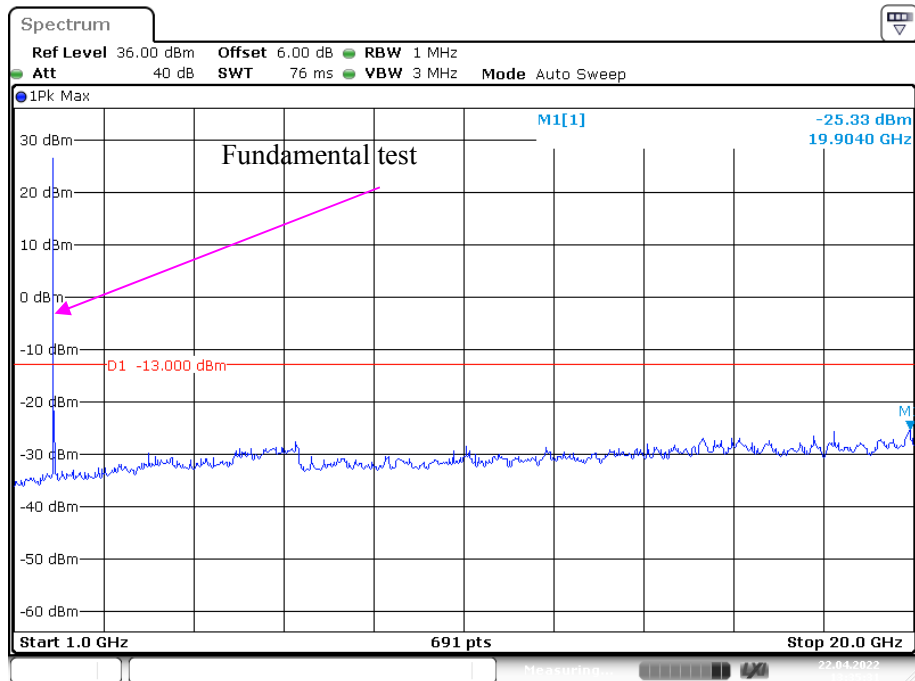
1 GHz – 20 GHz (GPRS Mode)

Date: 22 APR 2022 13:33:06

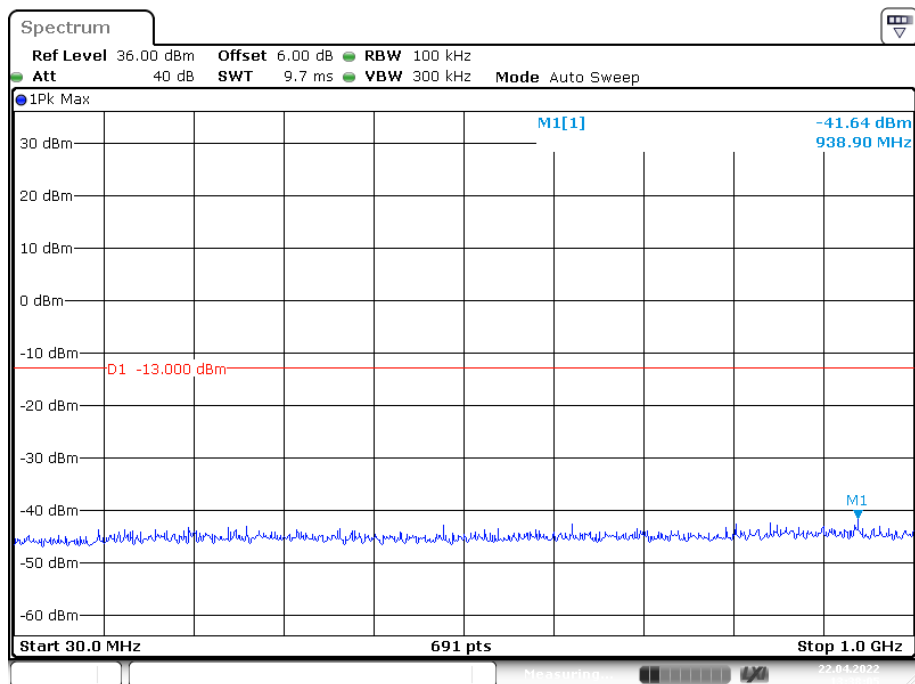
High Channel:**30 MHz – 1 GHz (GPRS Mode)****1 GHz – 20 GHz (GPRS Mode)**

Low Channel:**30 MHz – 1 GHz (EGPRS Mode)**

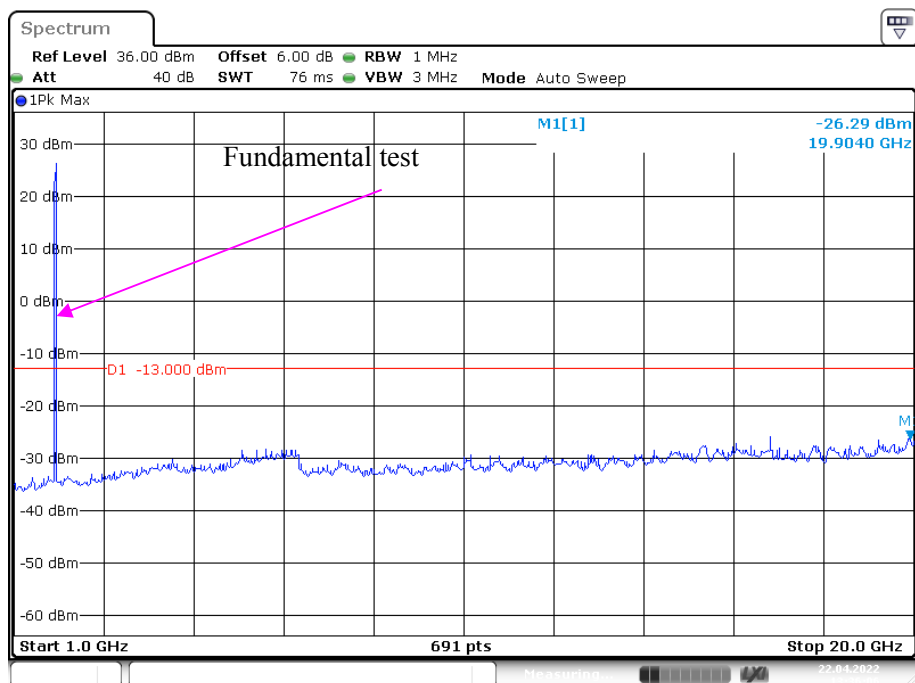
Date: 22 APR 2022 13:37:46

1 GHz – 20 GHz (EGPRS Mode)

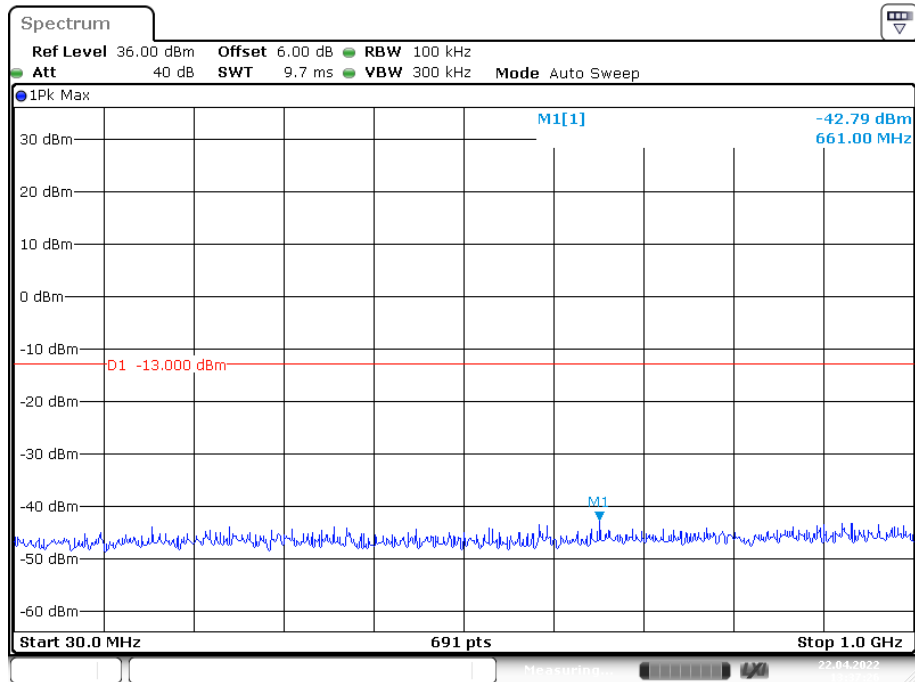
Date: 22 APR 2022 13:35:31

Middle Channel:**30 MHz – 1 GHz (EGPRS Mode)**

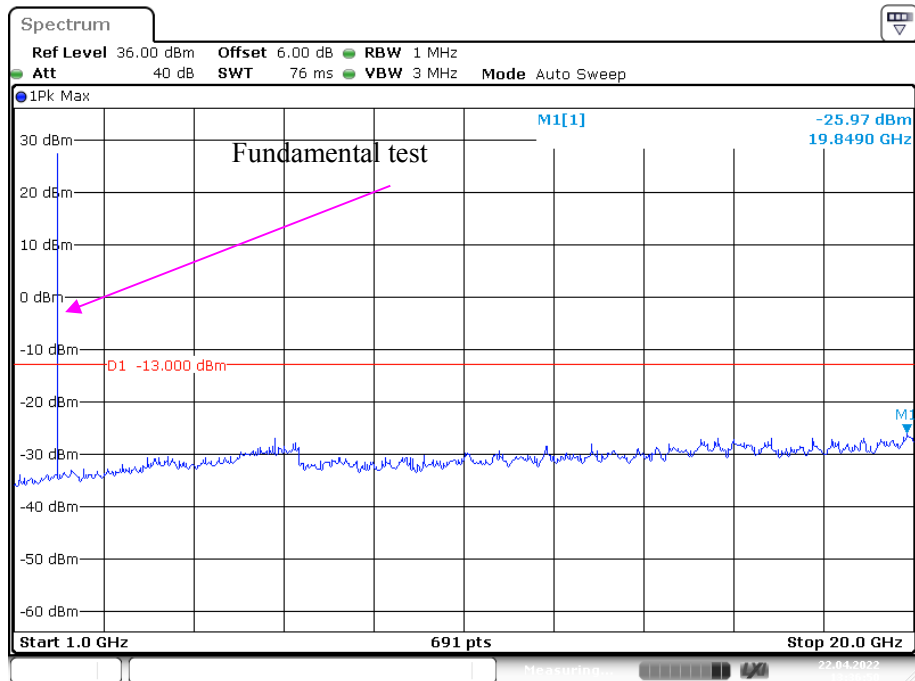
Date: 22 APR 2022 13:38:05

1 GHz – 20 GHz (EGPRS Mode)

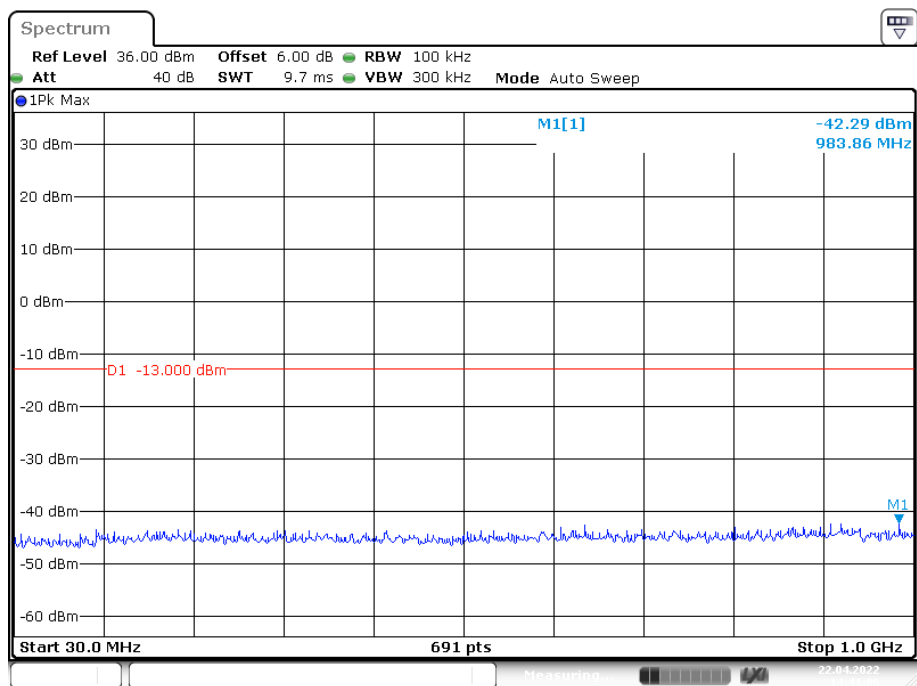
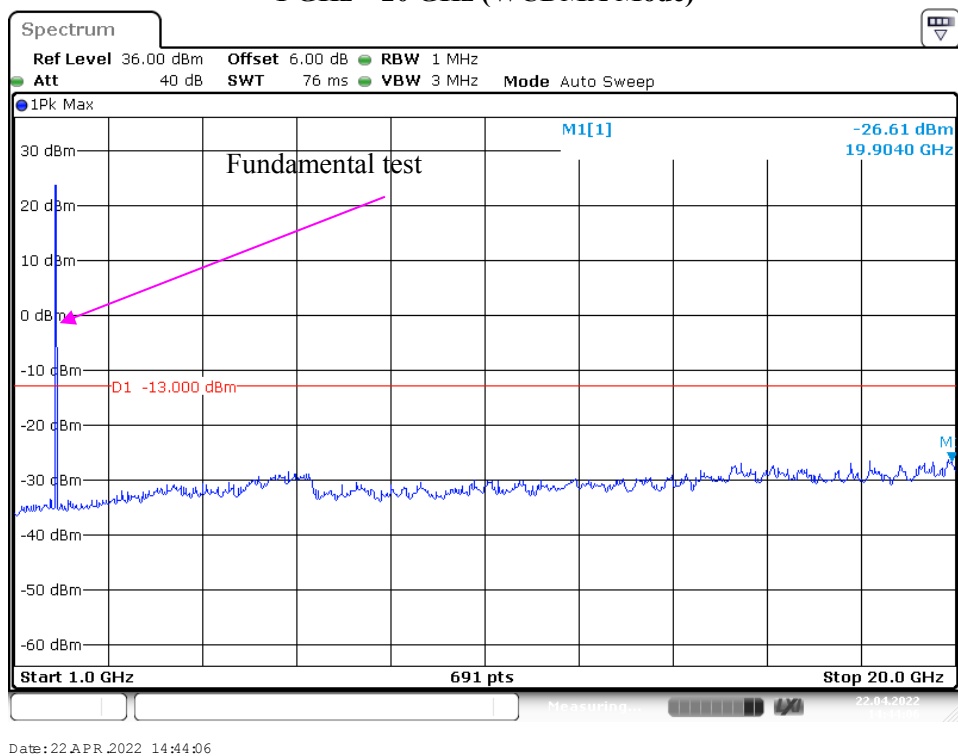
Date: 22 APR 2022 13:36:06

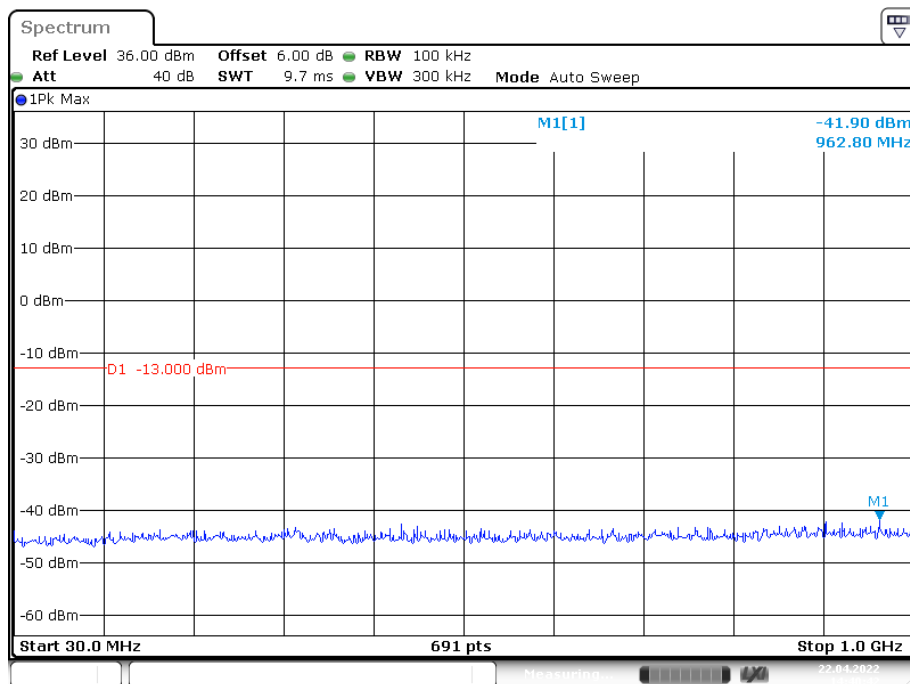
High Channel:**30 MHz – 1 GHz (EGPRS Mode)**

Date: 22 APR 2022 13:37:26

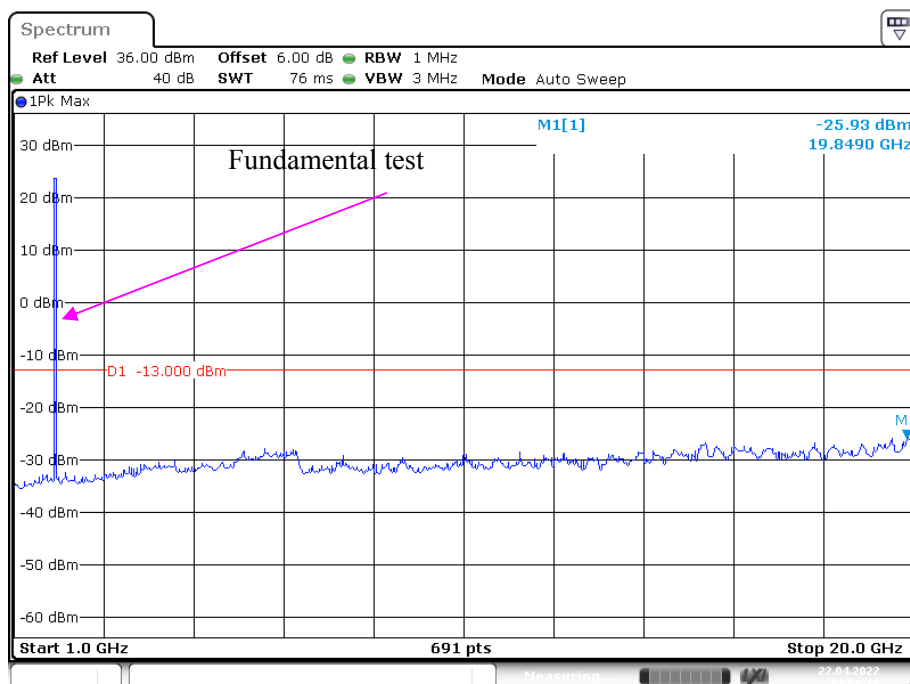
1 GHz – 20 GHz (EGPRS Mode)

Date: 22 APR 2022 13:36:51

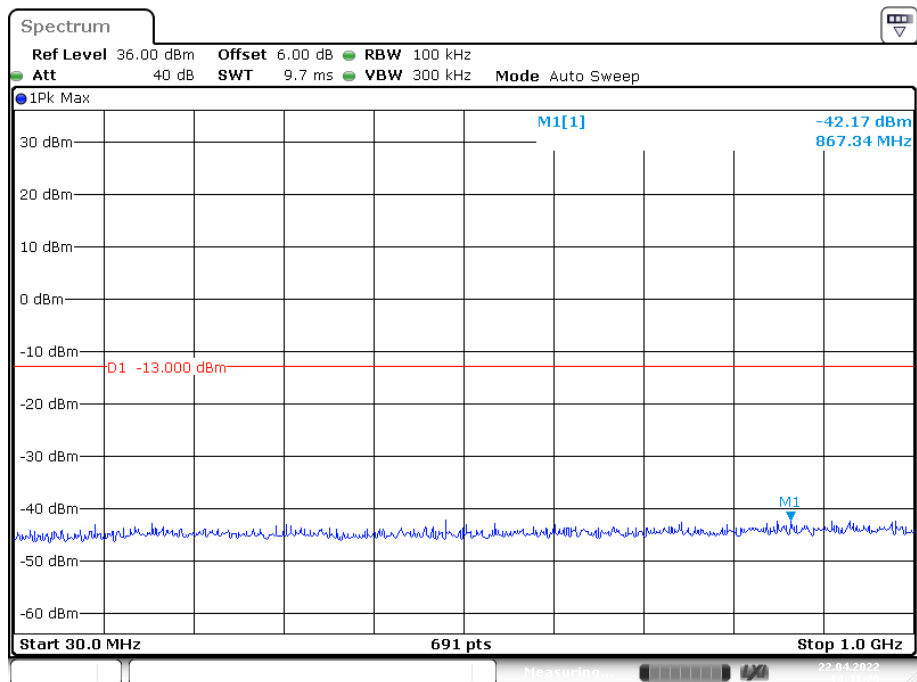
WCDMA Band II:**HSDPA: Low channel****30 MHz – 1 GHz (WCDMA Mode)****1 GHz – 20 GHz (WCDMA Mode)**

Middle Channel:**30 MHz – 1 GHz (WCDMA Mode)**

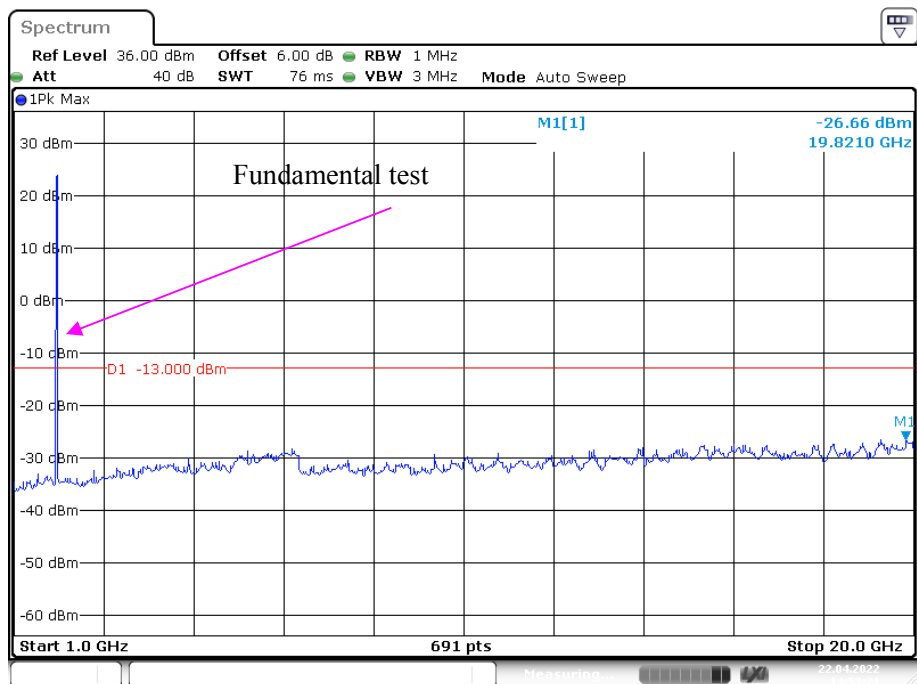
Date: 22 APR 2022 14:40:42

1 GHz – 20 GHz (WCDMA Mode)

Date: 22 APR 2022 14:50:13

High Channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 14:41:29

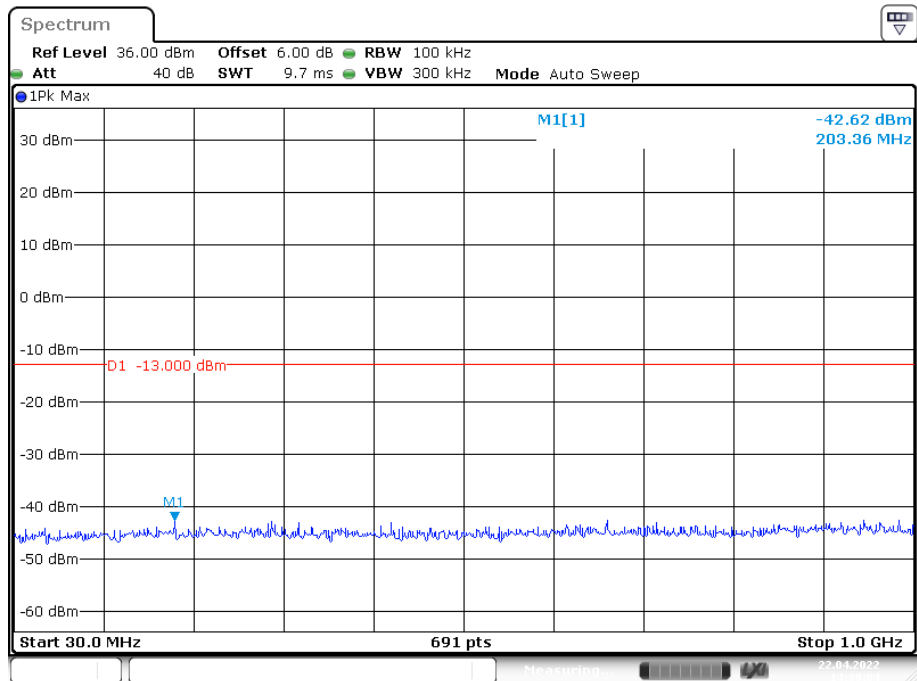
1 GHz – 20 GHz (WCDMA Mode)

Date: 22 APR 2022 14:53:21

HSPA+:

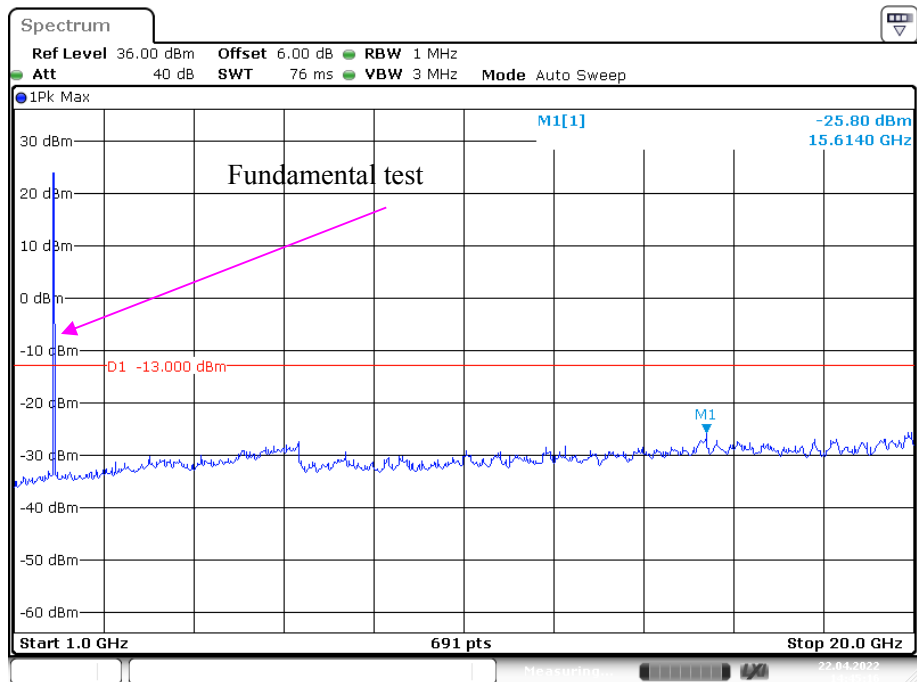
Low Channel:

30 MHz – 1 GHz (WCDMA Mode)

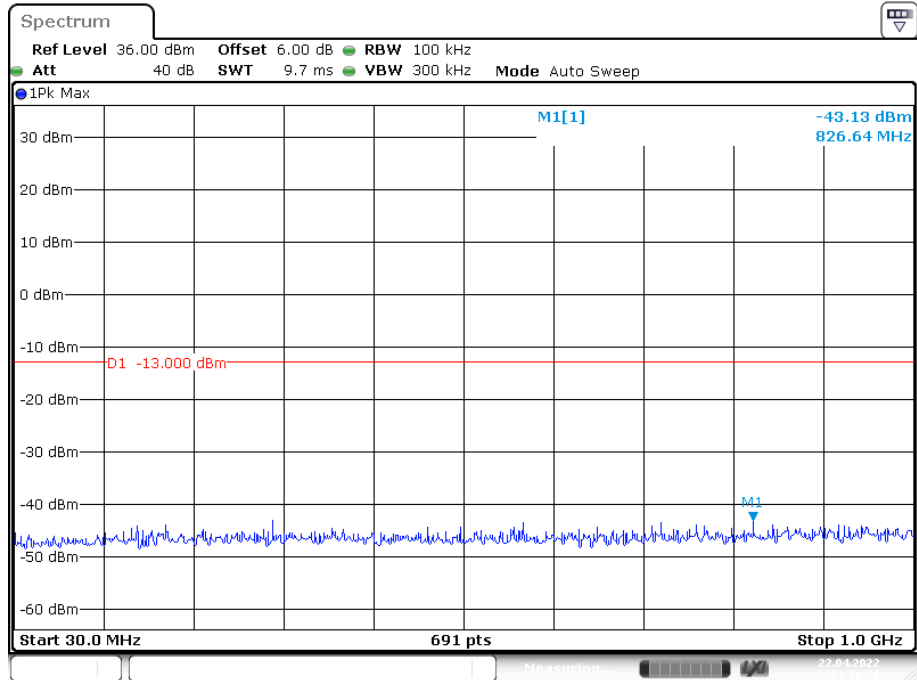


Date: 22 APR 2022 14:39:04

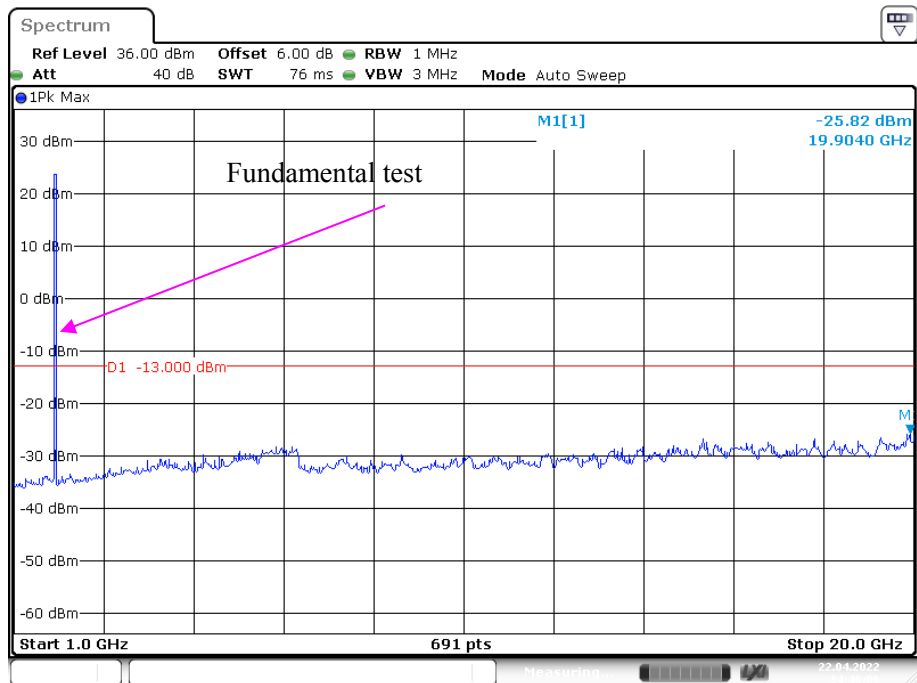
1 GHz – 20 GHz (WCDMA Mode)



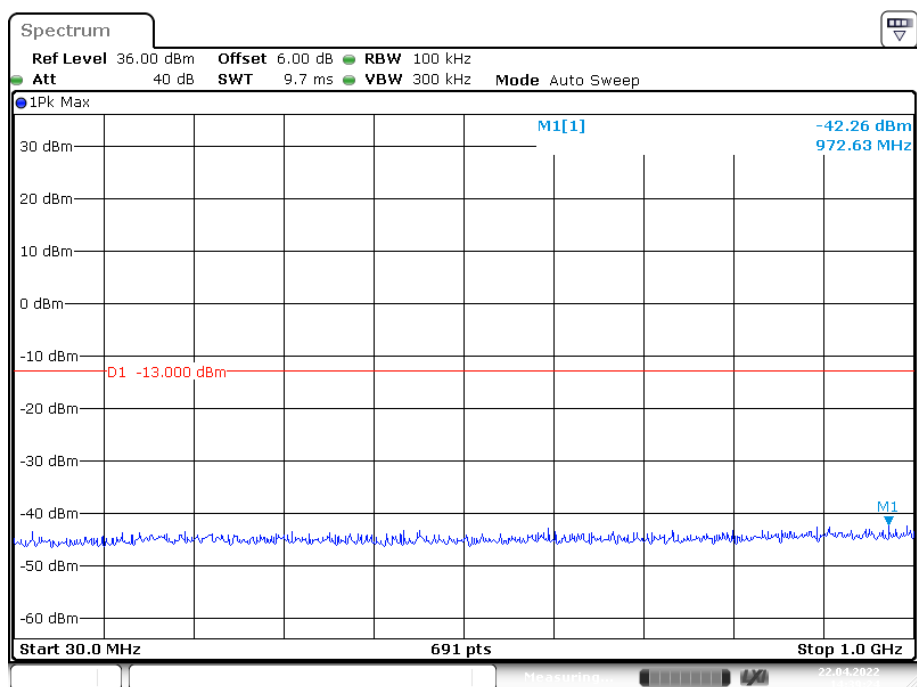
Date: 22 APR 2022 14:45:16

Middle Channel:**30 MHz – 1 GHz (WCDMA Mode)**

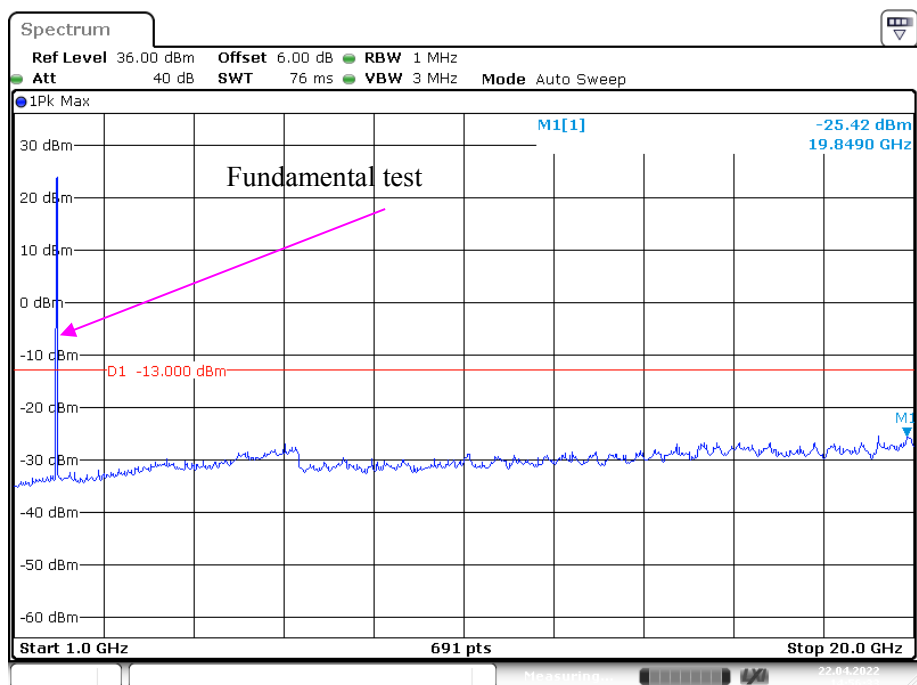
Date: 22 APR 2022 14:38:29

1 GHz – 20 GHz (WCDMA Mode)

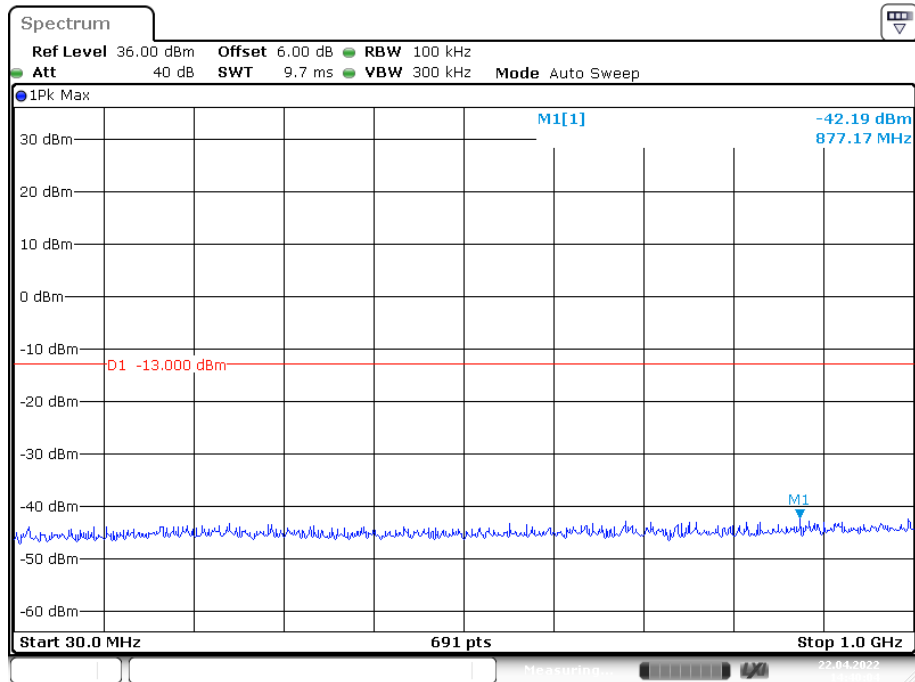
Date: 22 APR 2022 14:46:07

High Channel:**30 MHz – 1 GHz (WCDMA Mode)**

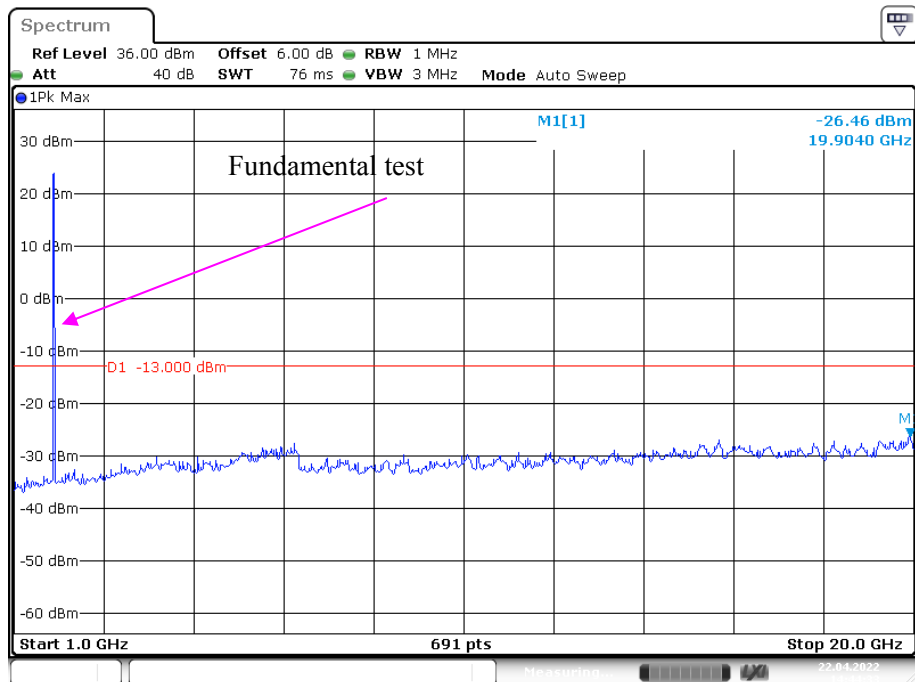
Date: 22 APR 2022 14:39:24

1 GHz – 20 GHz (WCDMA Mode)

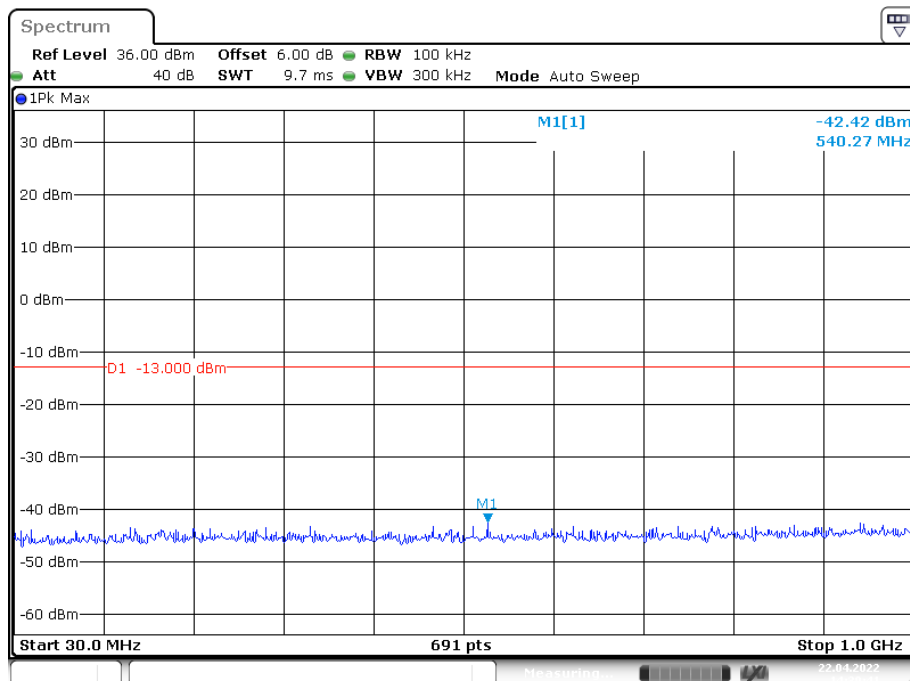
Date: 22 APR 2022 14:56:33

HSUPA: Low channel**30 MHz– 1 GHz (WCDMA Mode)**

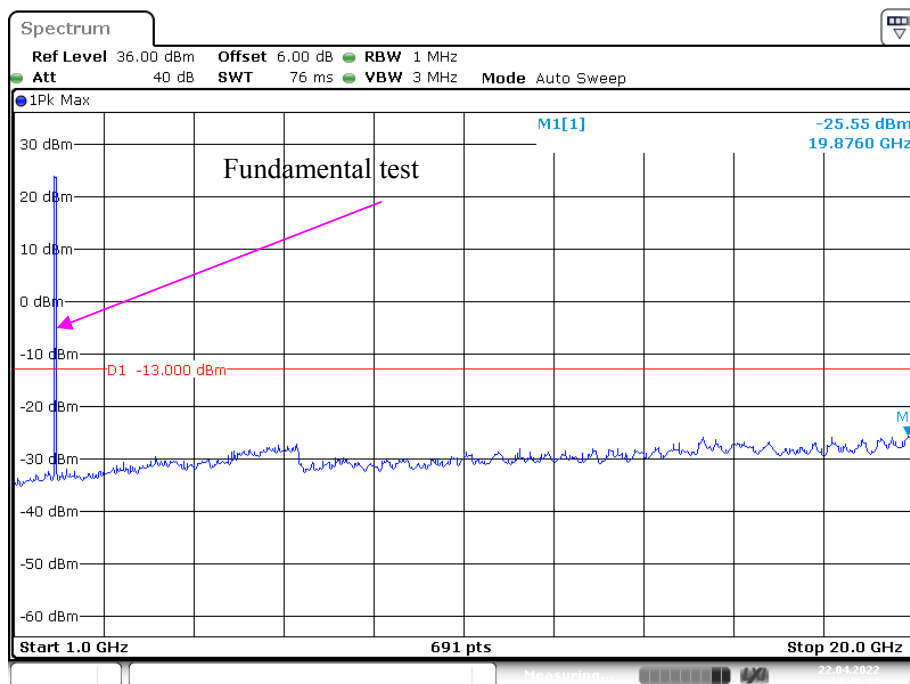
Date: 22 APR 2022 14:40:05

1 GHz – 20 GHz (WCDMA Mode)

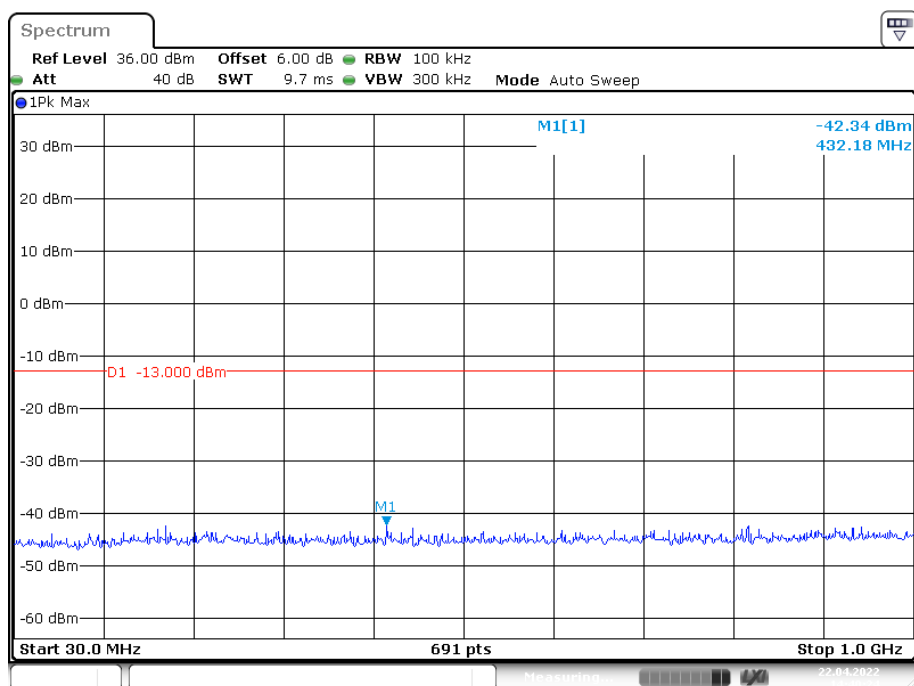
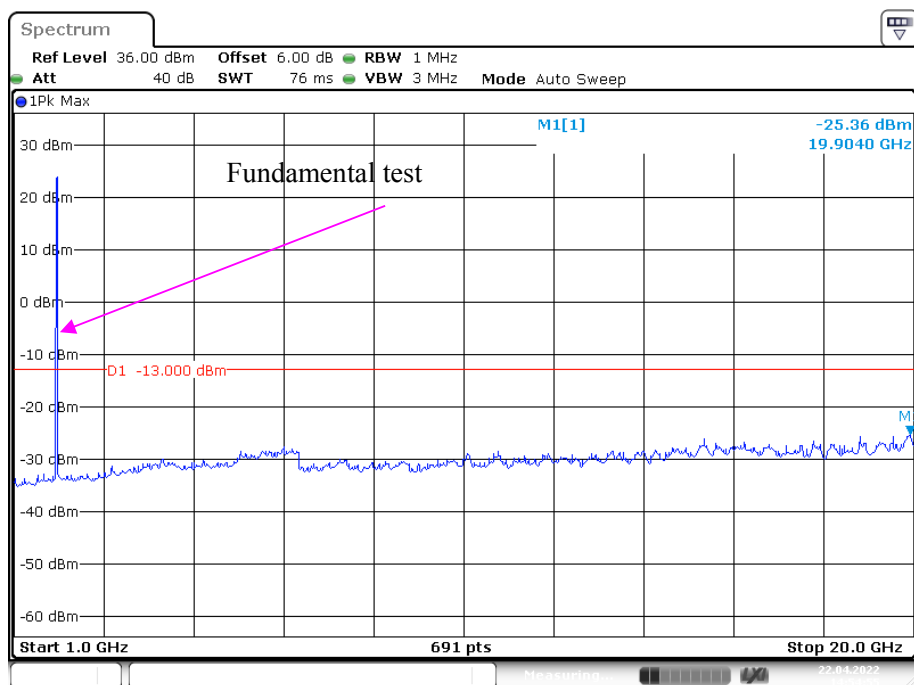
Date: 22 APR 2022 14:44:33

Middle channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 14:39:41

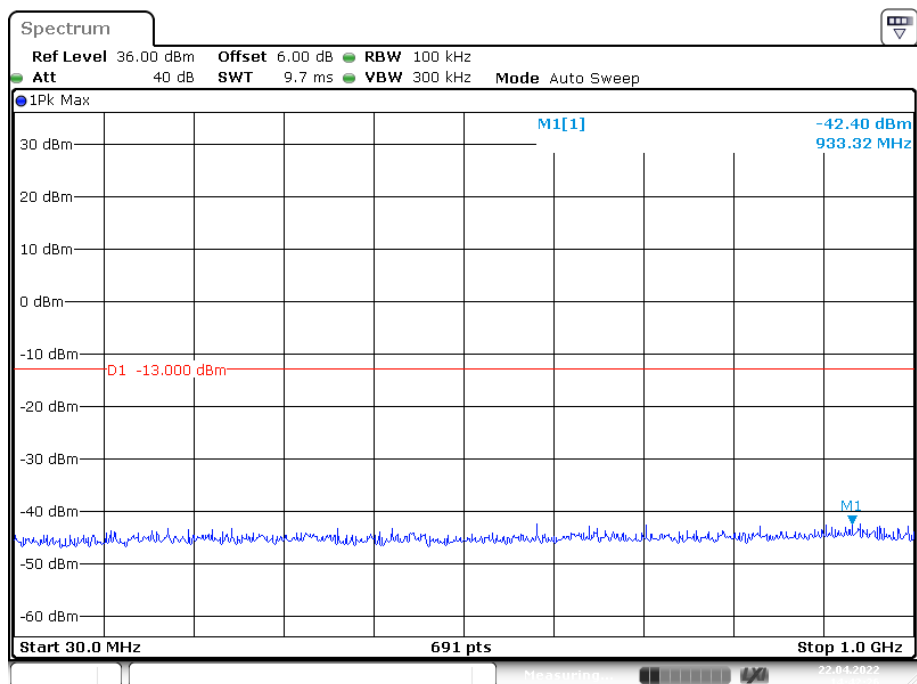
1 GHz – 20 GHz (WCDMA Mode)

Date: 22 APR 2022 14:49:12

High Channel:**30 MHz – 1 GHz (WCDMA Mode)****1 GHz– 20 GHz (WCDMA Mode)**

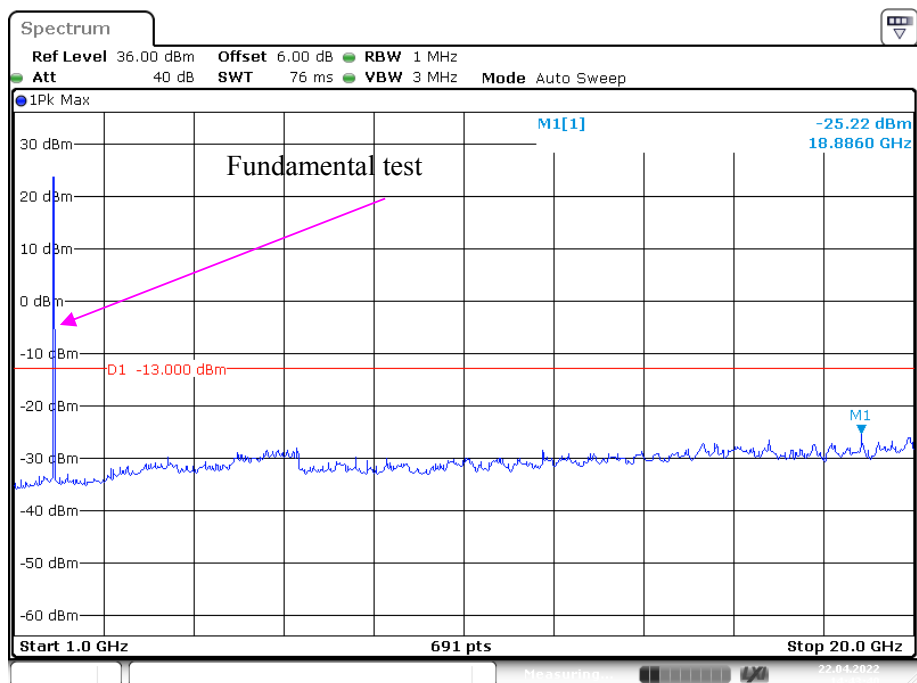
Rel 99: Low channel

30 MHz– 1 GHz (WCDMA Mode)

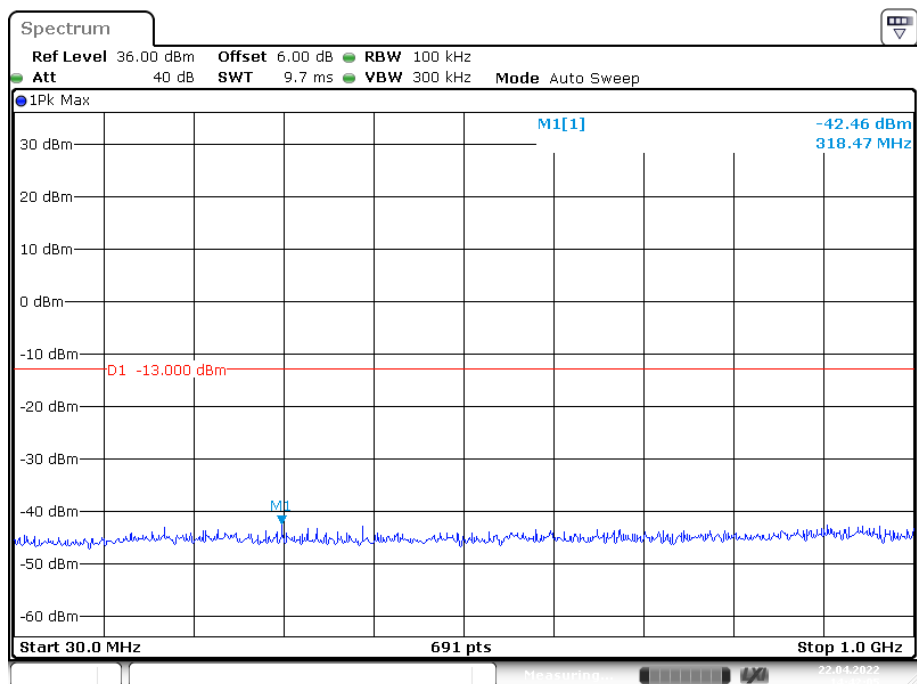


Date: 22 APR. 2022 14:42:27

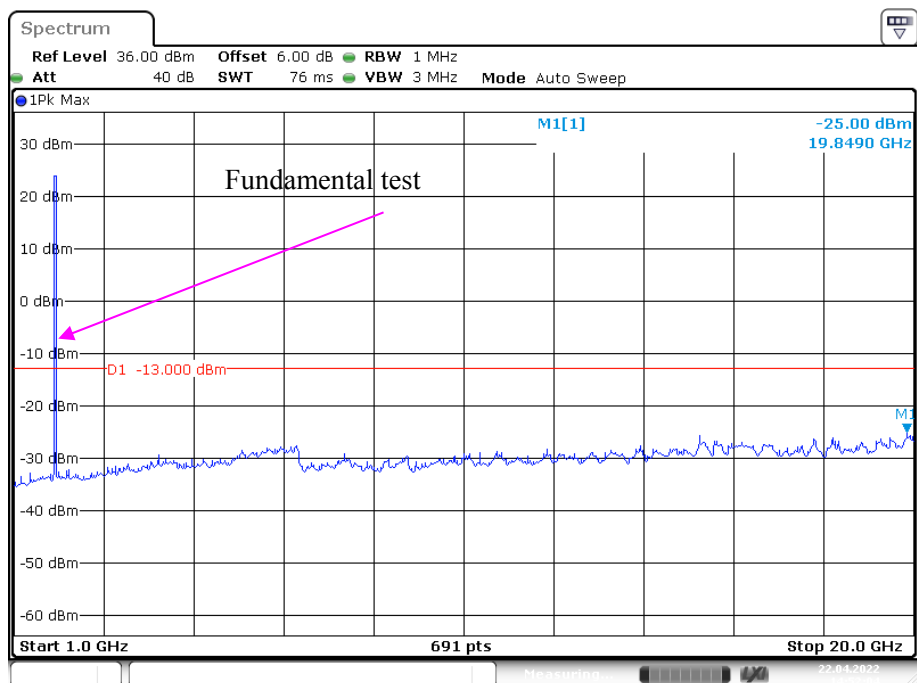
1 GHz – 20 GHz (WCDMA Mode)



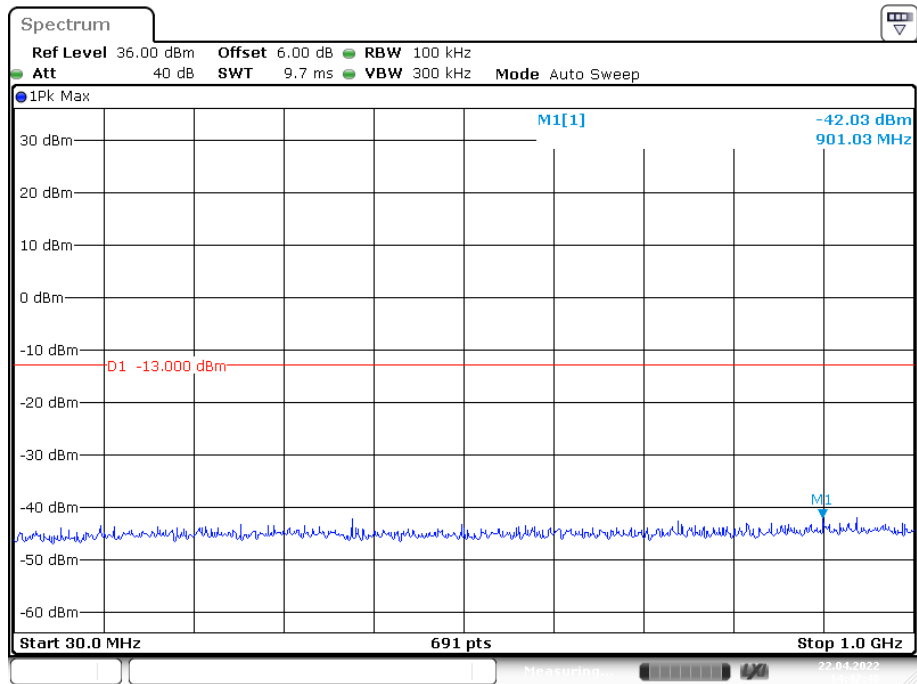
Date: 22 APR. 2022 14:43:41

Middle channel:**30 MHz – 1 GHz (WCDMA Mode)**

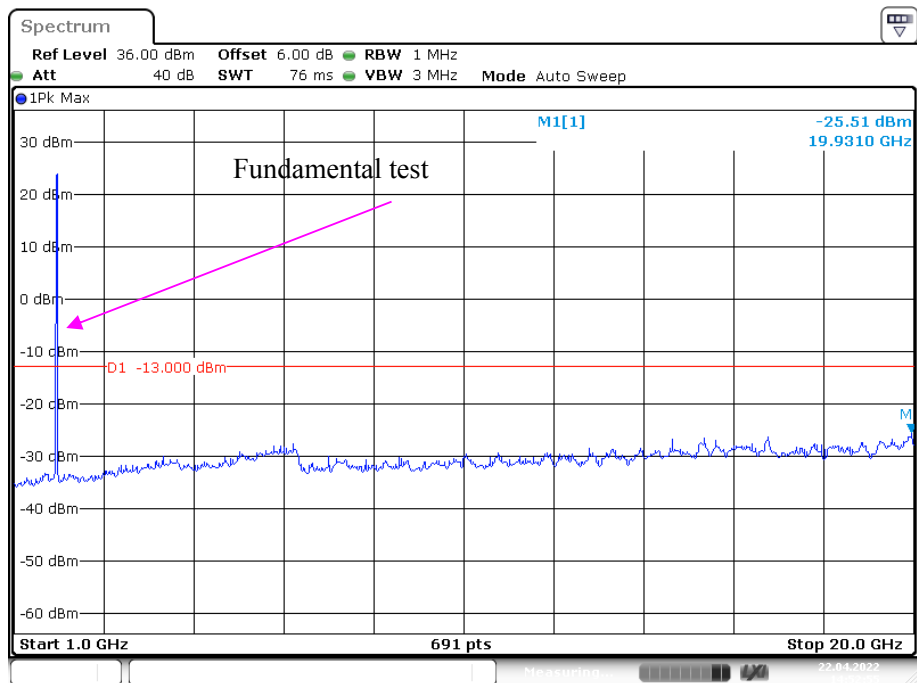
Date: 22 APR. 2022 14:42:06

1GHz – 20 GHz (WCDMA Mode)

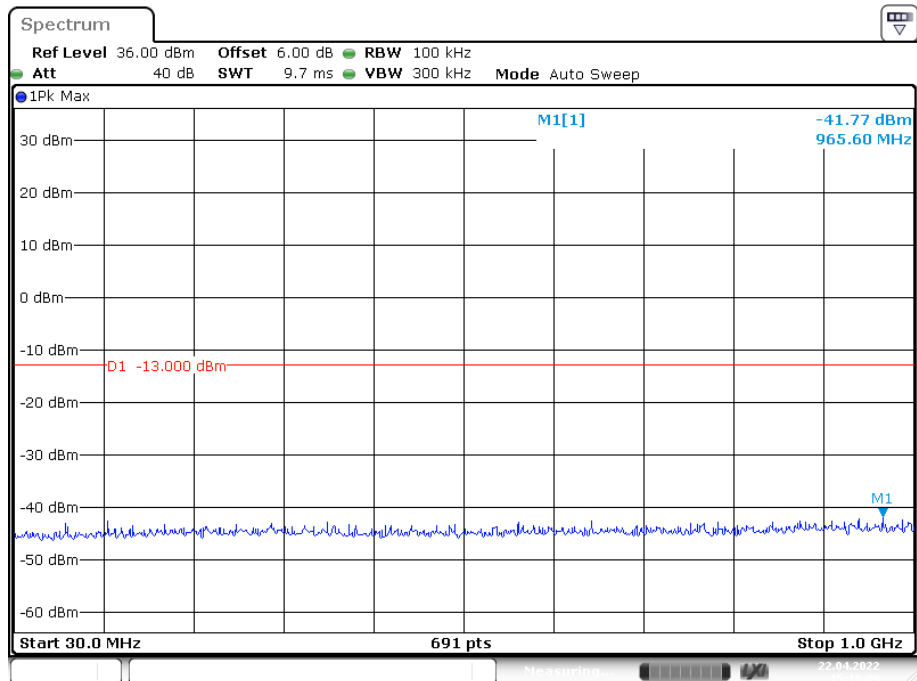
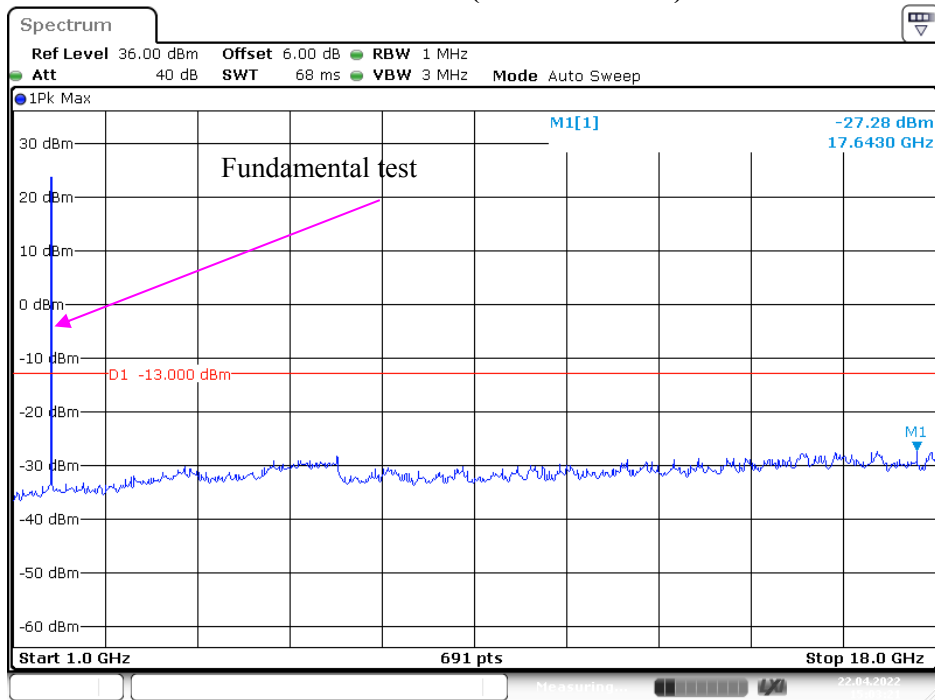
Date: 22 APR. 2022 14:52:05

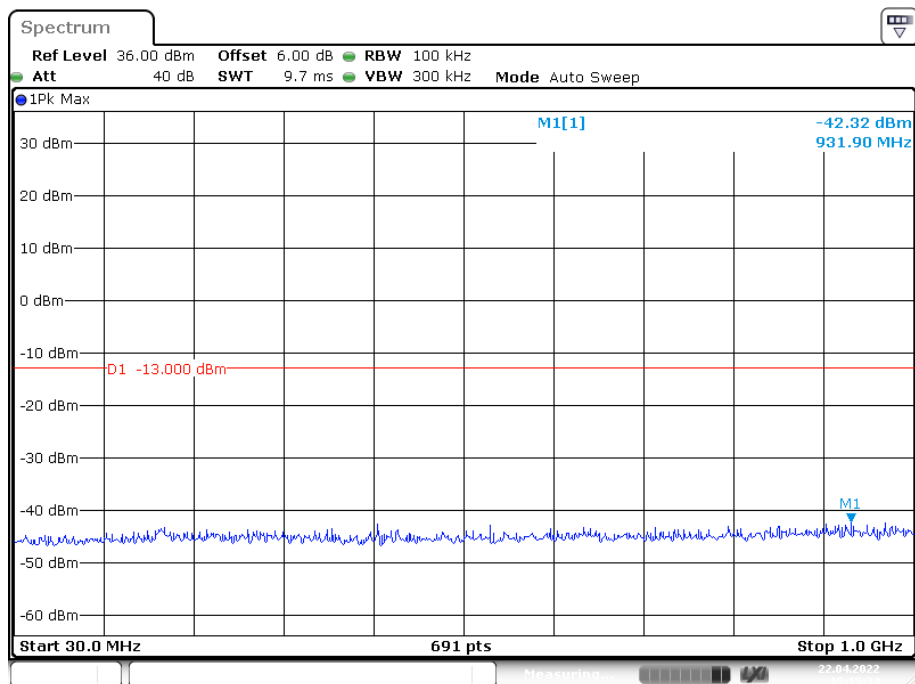
High channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 14:42:48

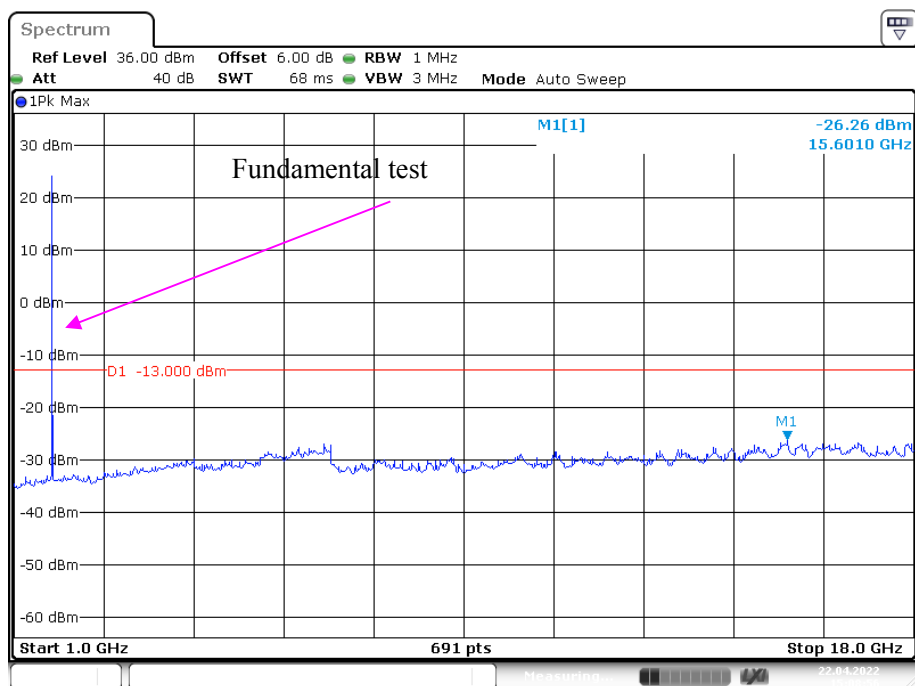
1GHz – 20 GHz (WCDMA Mode)

Date: 22 APR 2022 14:52:55

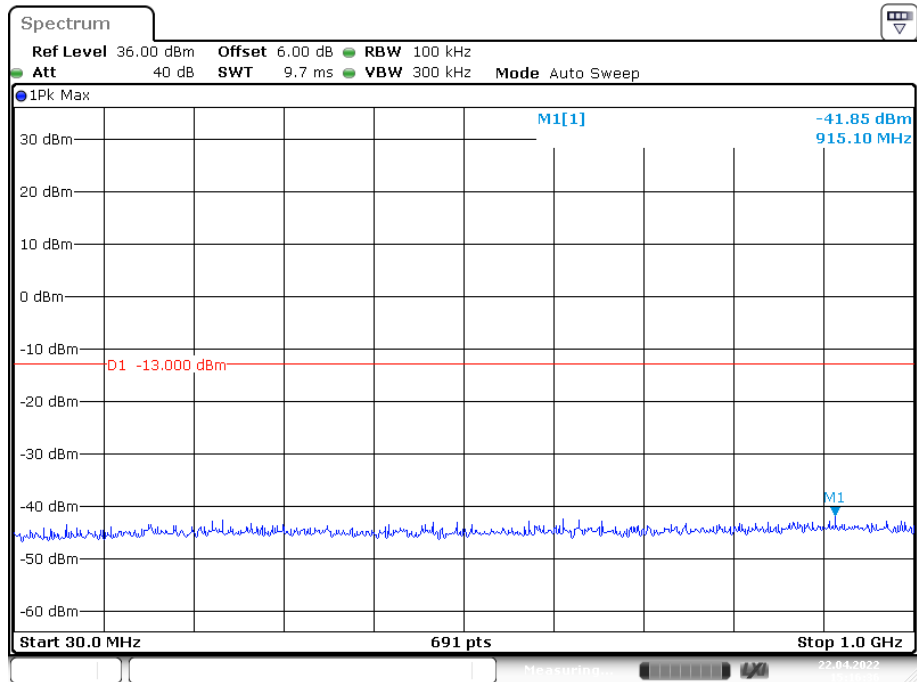
WCDMA Band IV:**HSDPA: Low channel****30 MHz – 1 GHz (WCDMA Mode)****1 GHz – 18 GHz (WCDMA Mode)**

Middle Channel:**30 MHz – 1 GHz (WCDMA Mode)**

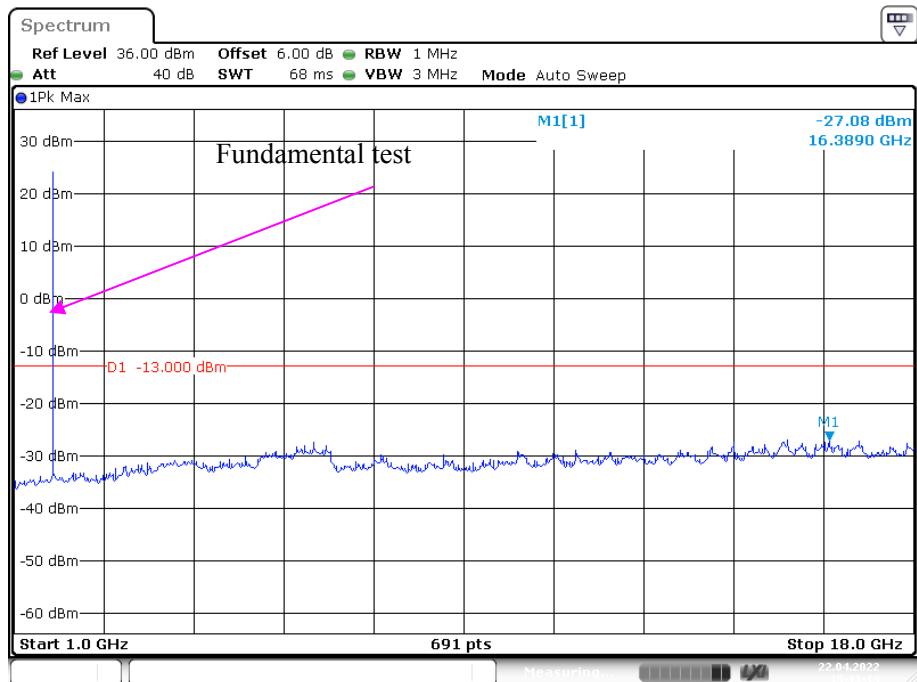
Date: 22 APR 2022 15:15:34

1 GHz – 18 GHz (WCDMA Mode)

Date: 22 APR 2022 15:08:56

High Channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 15:16:36

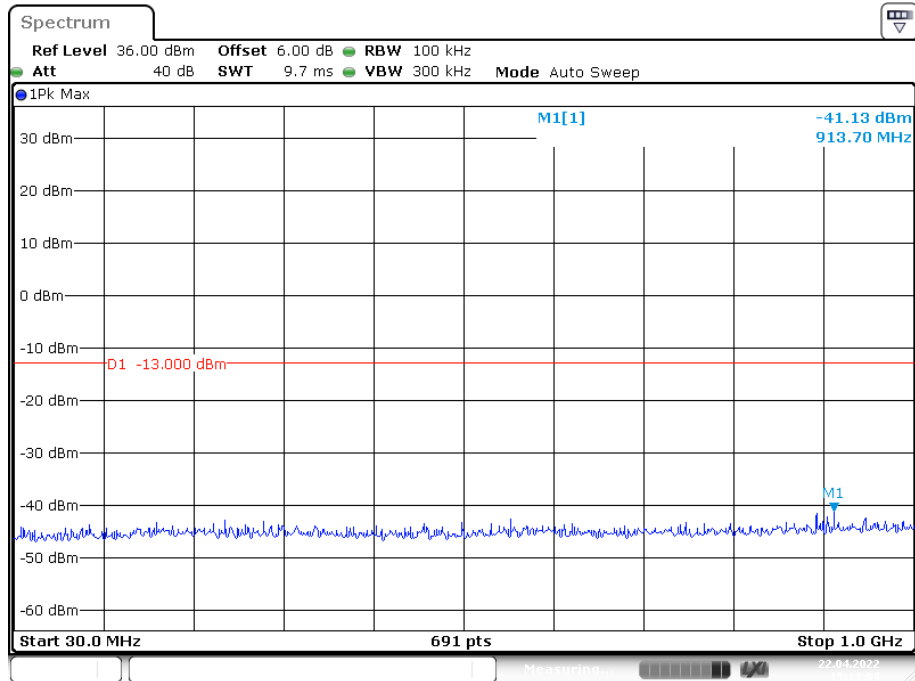
1 GHz – 18 GHz (WCDMA Mode)

Date: 22 APR 2022 15:11:13

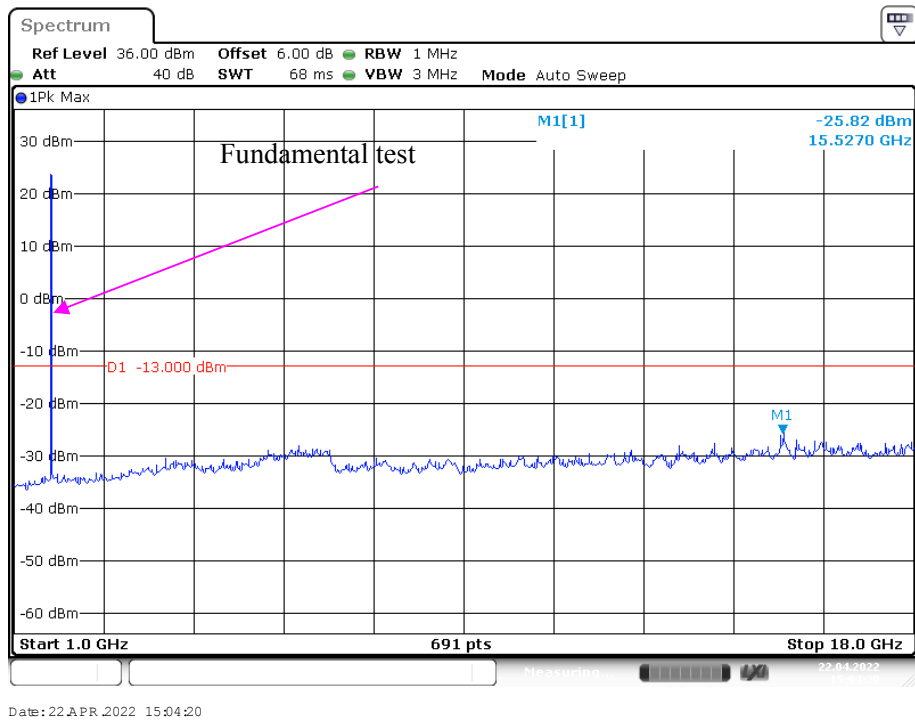
HSPA+:

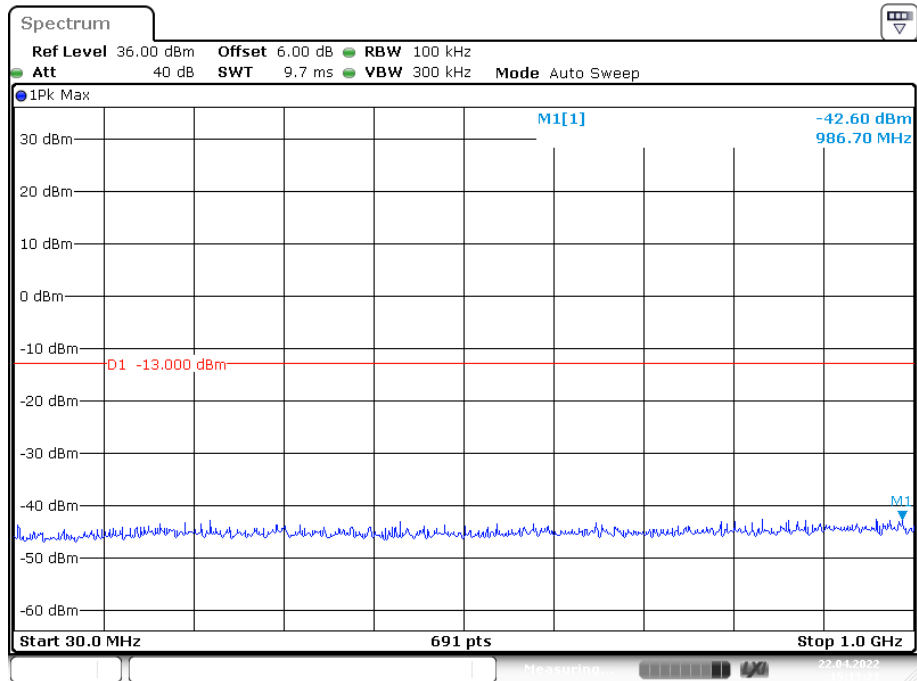
Low Channel:

30 MHz – 1 GHz (WCDMA Mode)

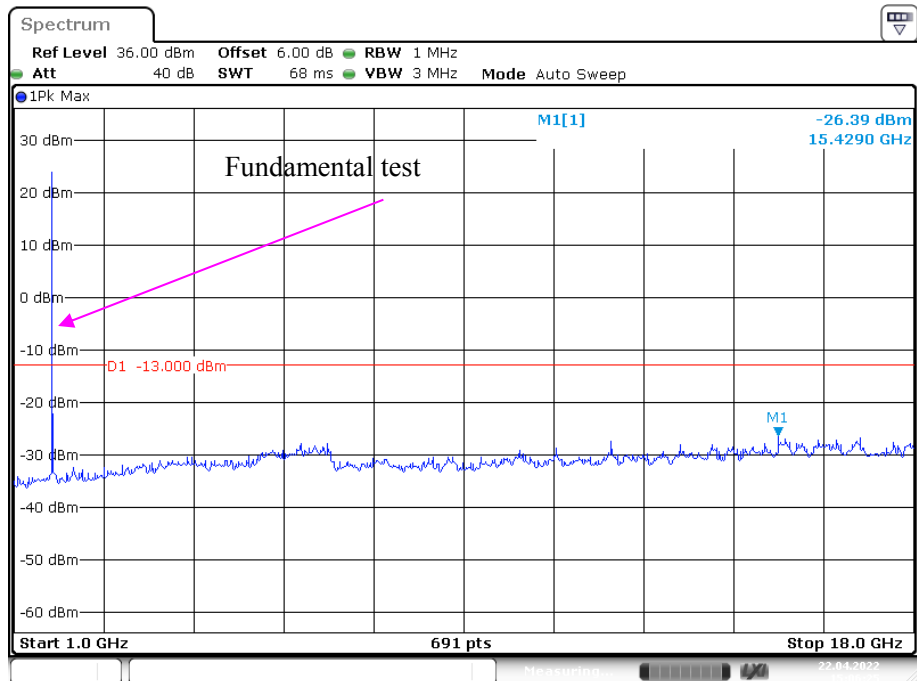


1 GHz – 18 GHz (WCDMA Mode)

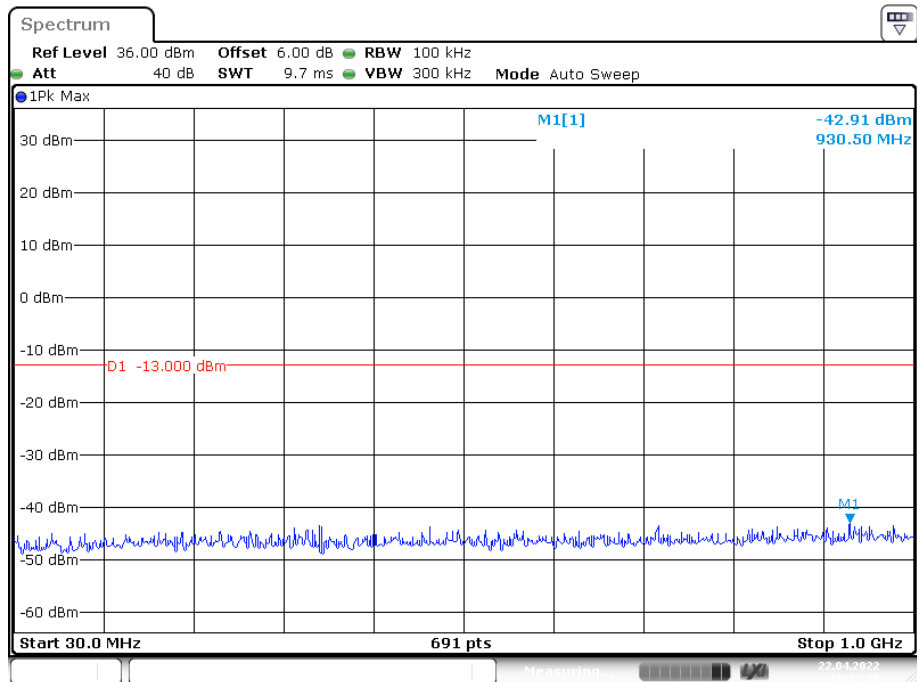


Middle Channel:**30 MHz – 1 GHz (WCDMA Mode)**

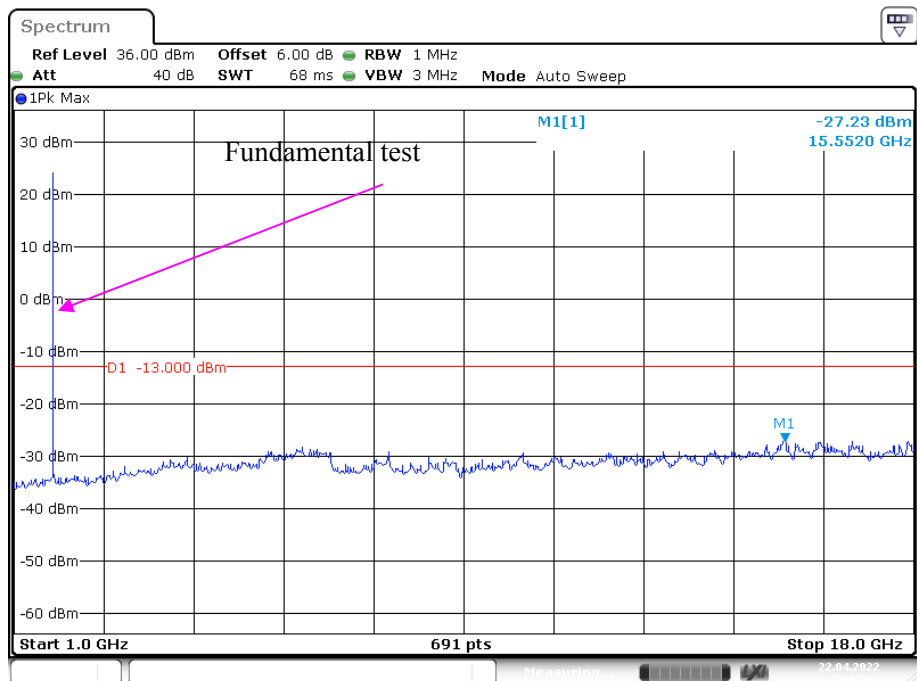
Date: 22 APR 2022 15:13:21

1 GHz – 18 GHz (WCDMA Mode)

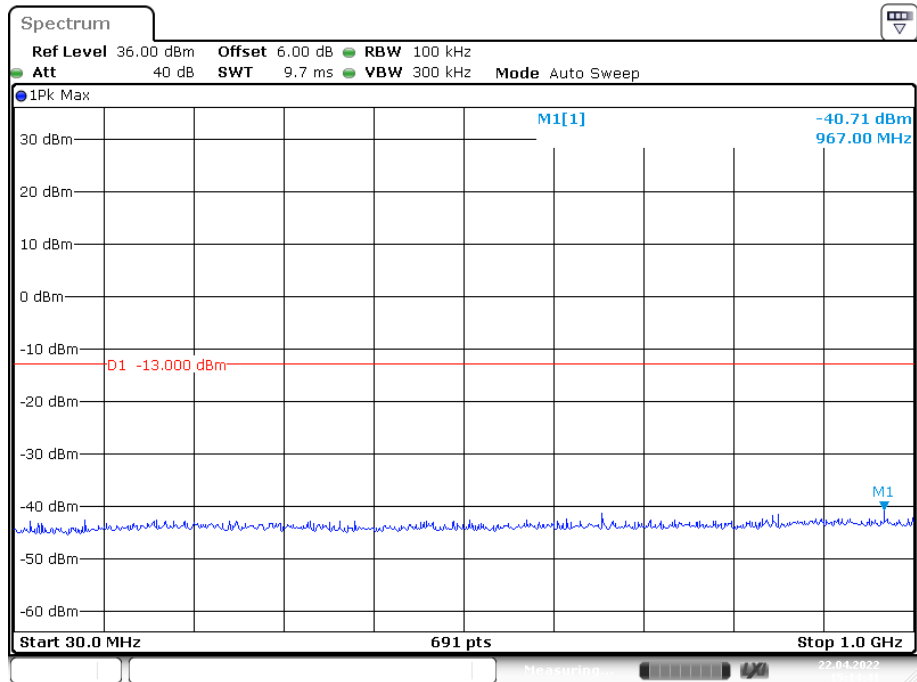
Date: 22 APR 2022 15:06:26

High channel:**30 MHz – 1 GHz (WCDMA Mode)**

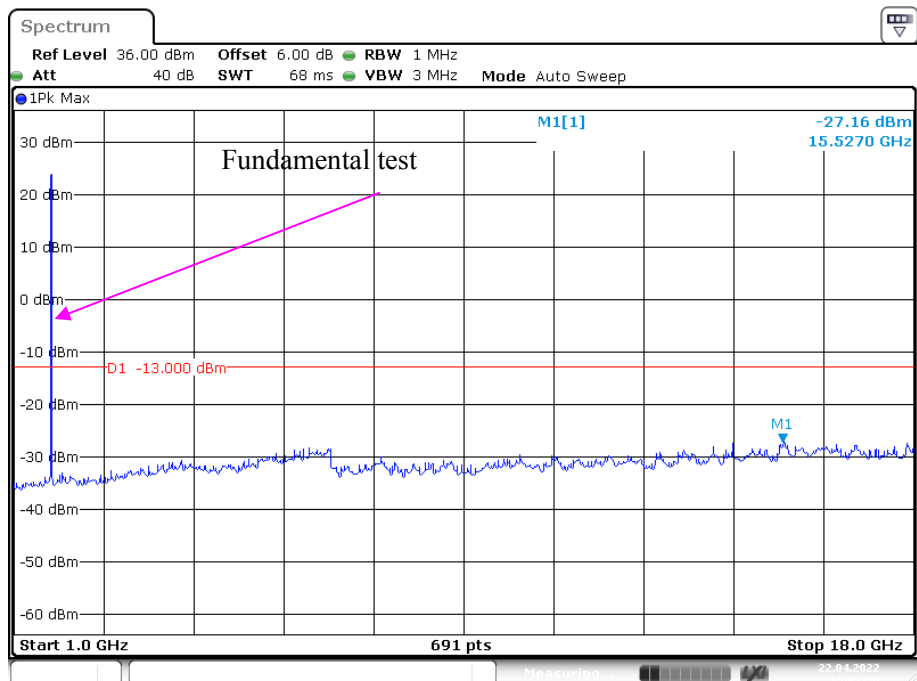
Date: 22 APR 2022 15:12:40

1 GHz – 18 GHz (WCDMA Mode)

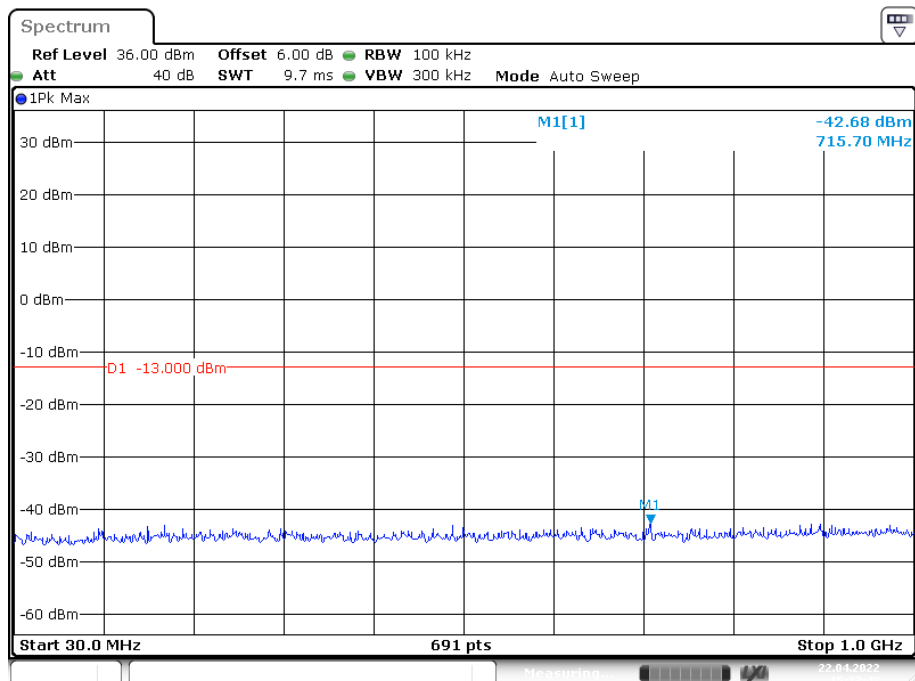
Date: 22 APR 2022 15:12:06

HSUPA: Low channel**30 MHz– 1 GHz (WCDMA Mode)**

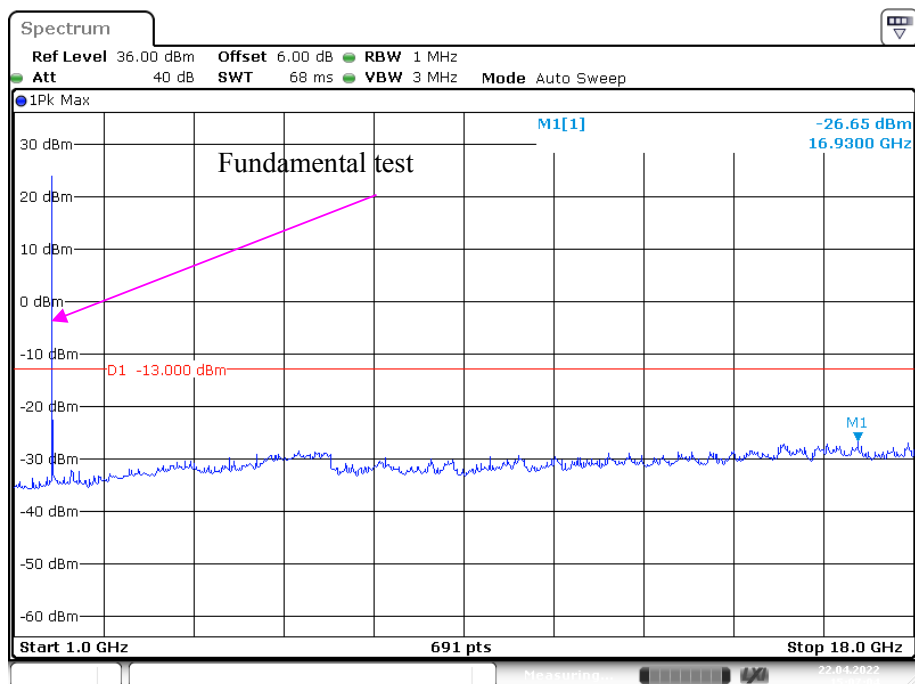
Date: 22 APR 2022 15:14:42

1 GHz–18 GHz (WCDMA Mode)

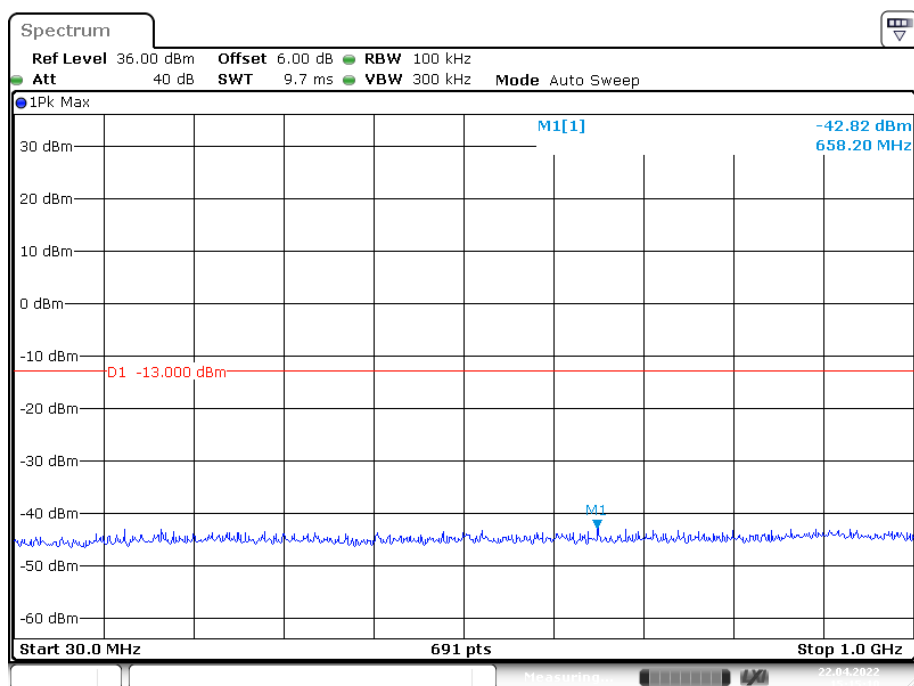
Date: 22 APR 2022 15:03:51

Middle channel:**30 MHz – 1 GHz (WCDMA Mode)**

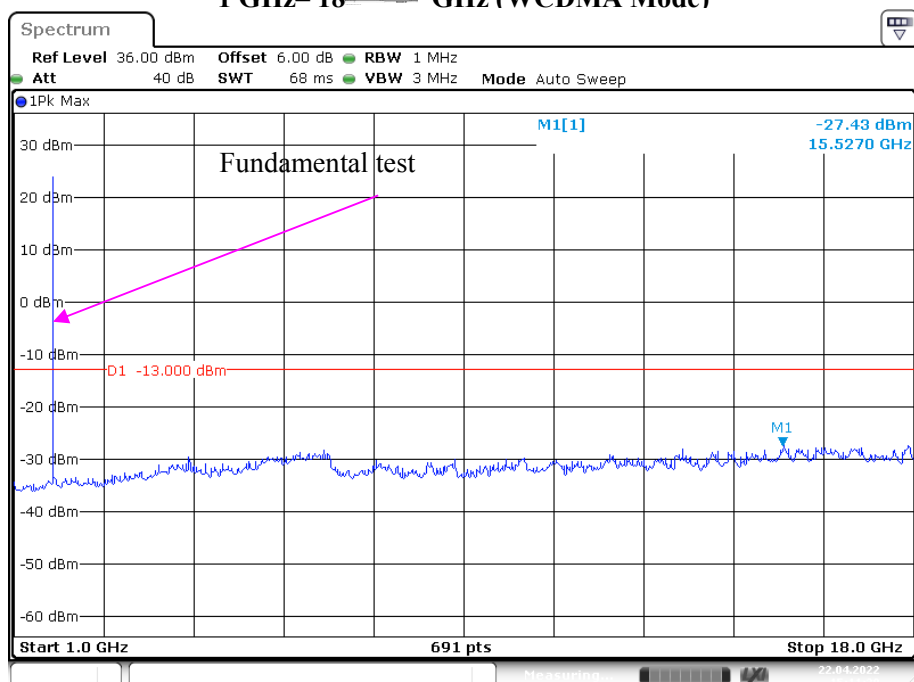
Date: 22 APR 2022 15:13:42

1 GHz – 18 GHz (WCDMA Mode)

Date: 22 APR 2022 15:07:04

High Channel:**30 MHz – 1 GHz (WCDMA Mode)**

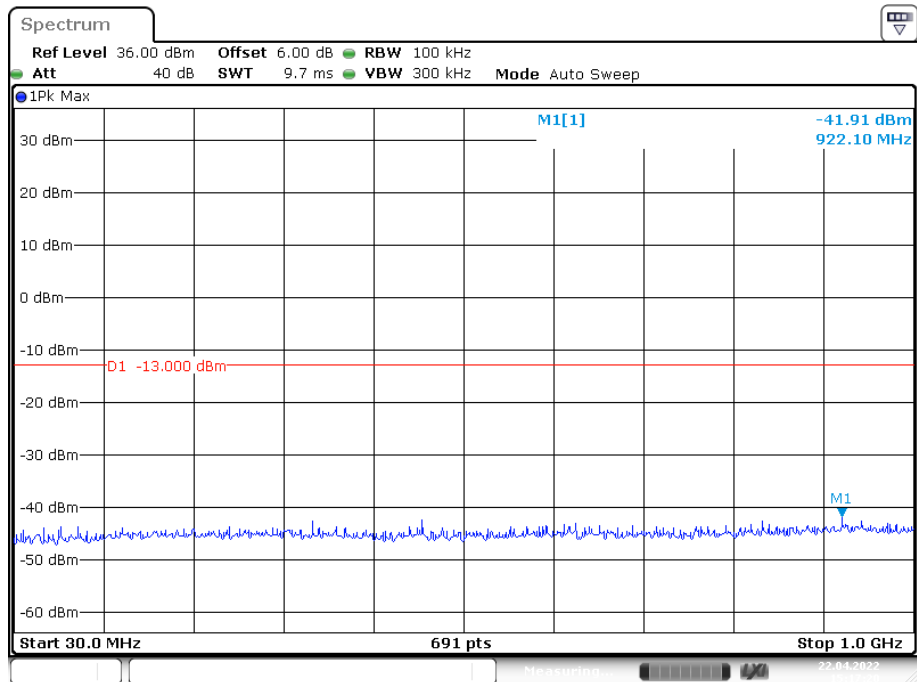
Date: 22 APR 2022 15:15:10

1 GHz – 18 GHz (WCDMA Mode)

Date: 22 APR 2022 15:11:39

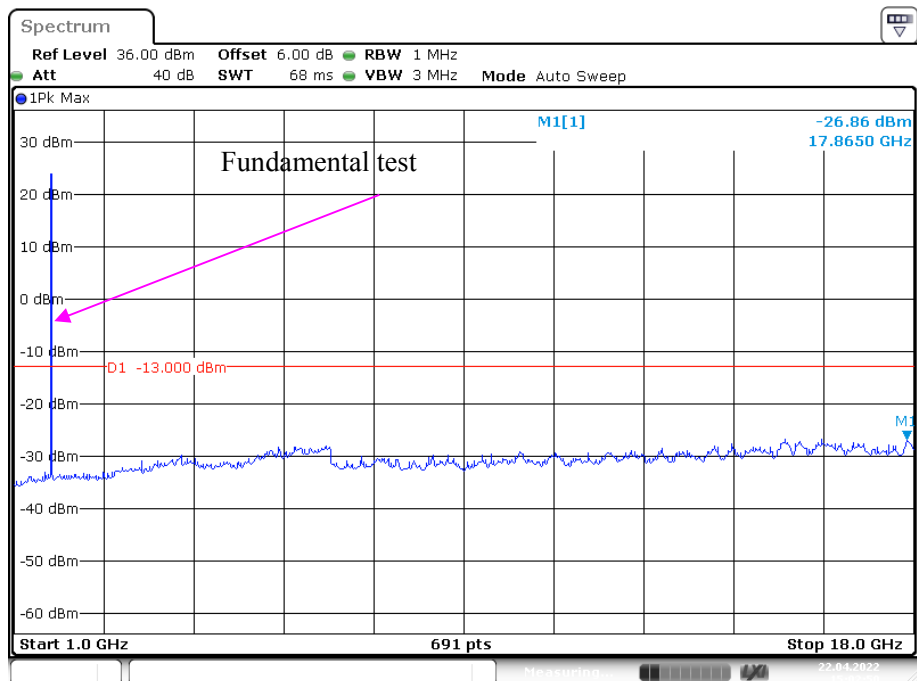
Rel 99: Low channel

30 MHz– 1 GHz (WCDMA Mode)

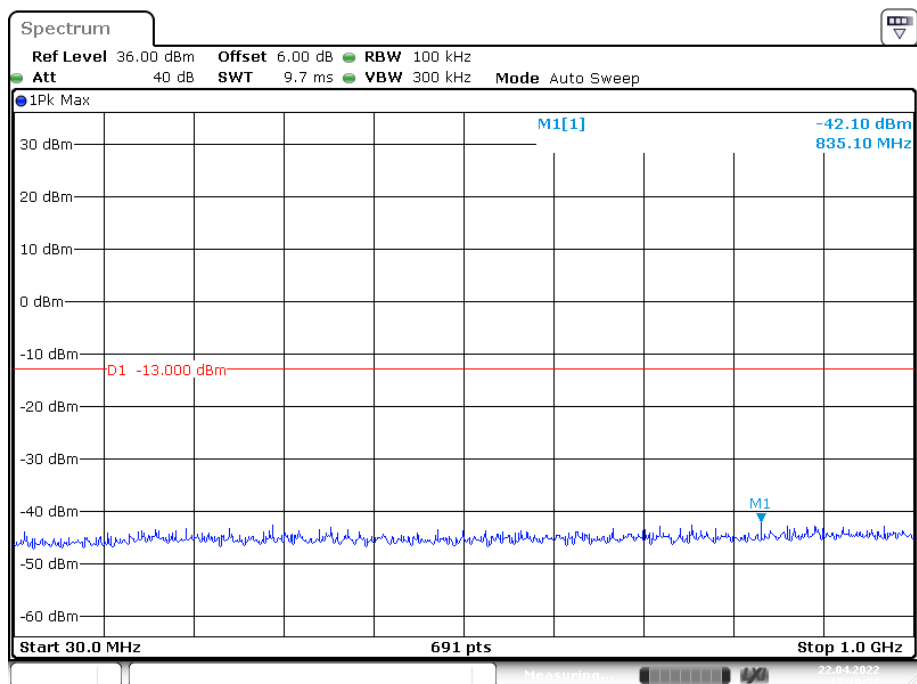
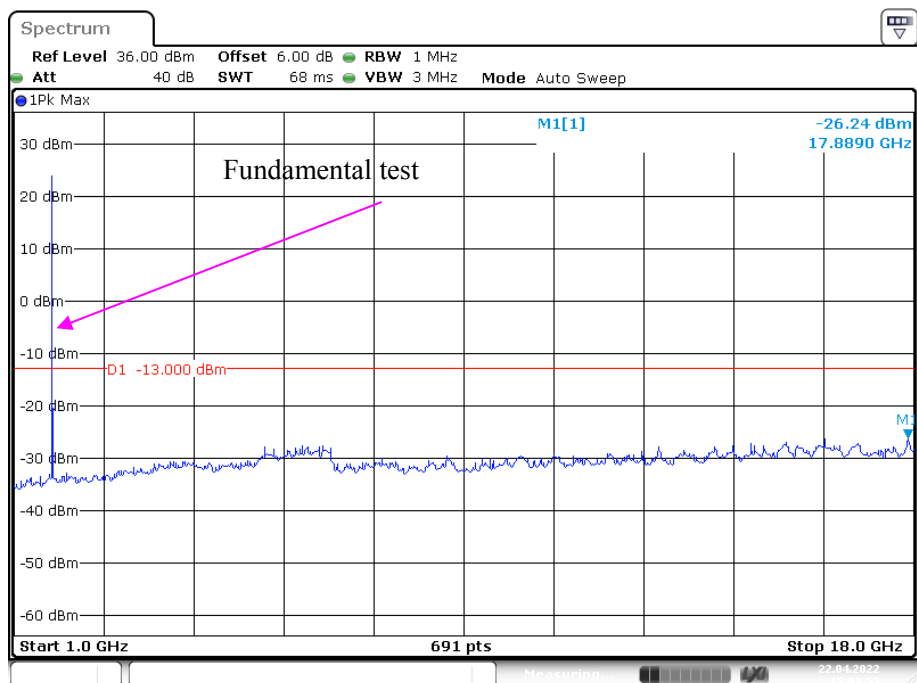


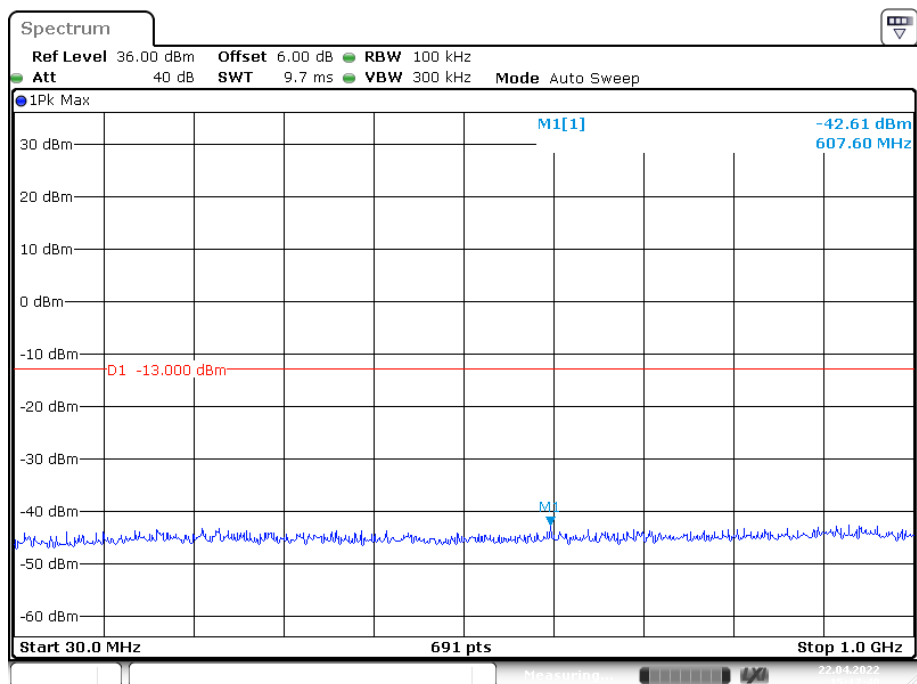
Date: 22 APR. 2022 15:17:21

1 GHz – 18 GHz (WCDMA Mode)

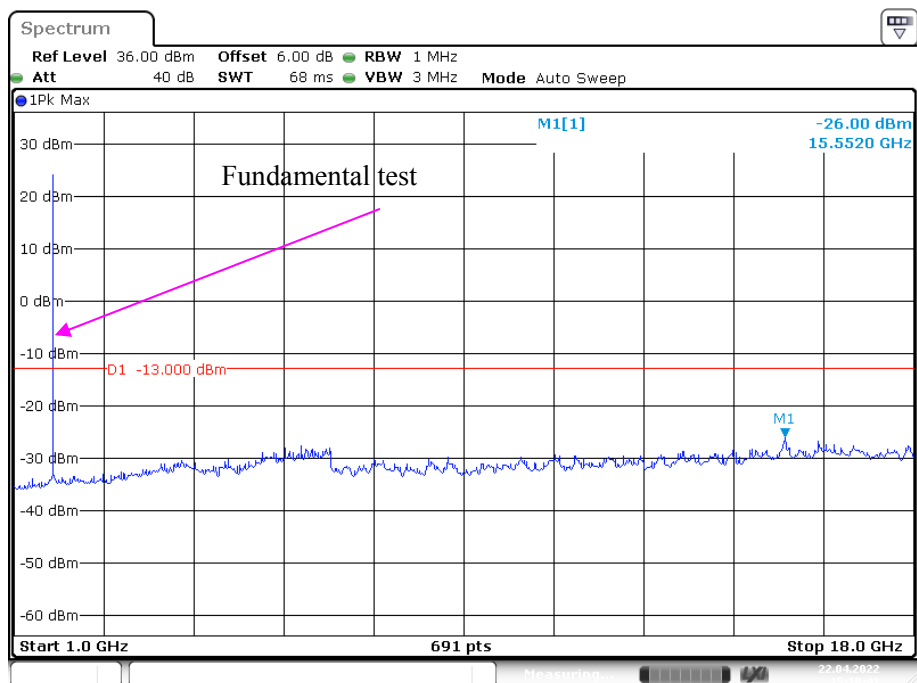


Date: 22 APR. 2022 15:02:51

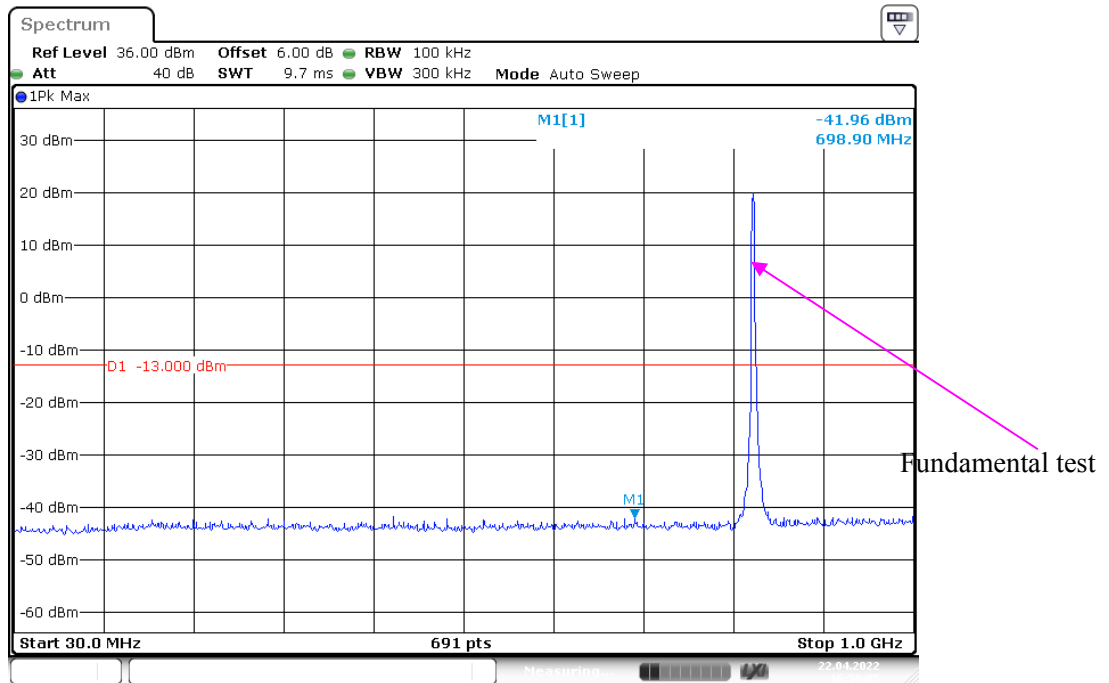
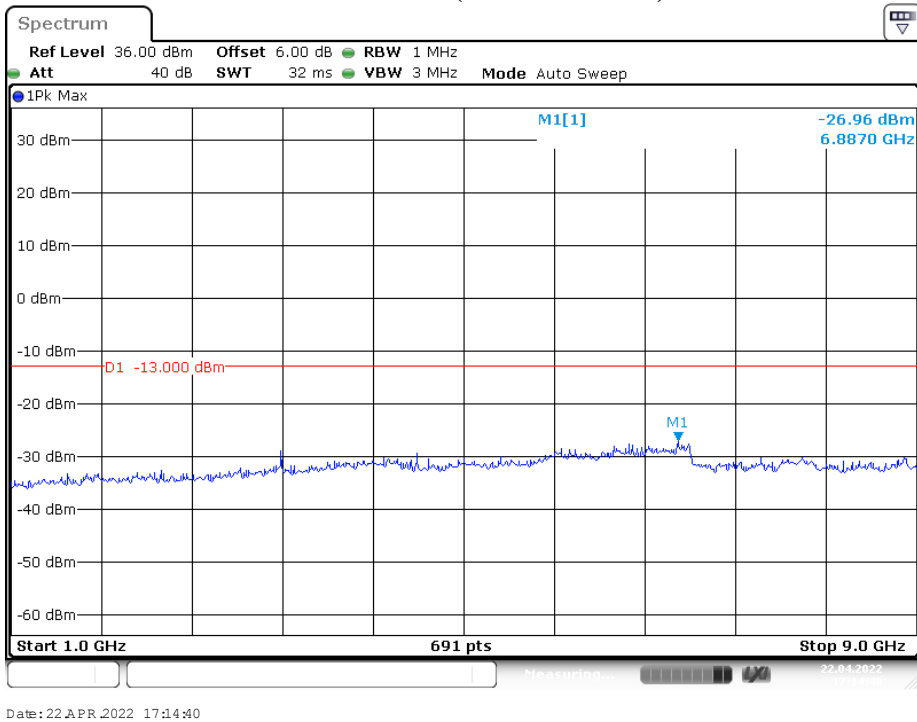
Middle channel:**30 MHz – 1 GHz (WCDMA Mode)****1GHz – 20 GHz (WCDMA Mode)**

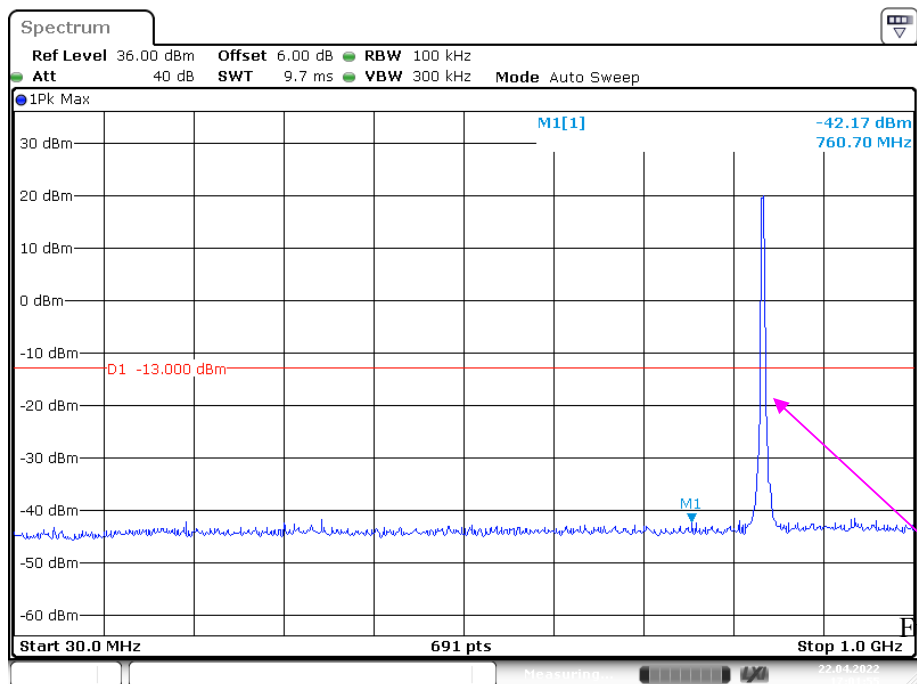
High channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 15:17:40

1GHz – 20 GHz (WCDMA Mode)

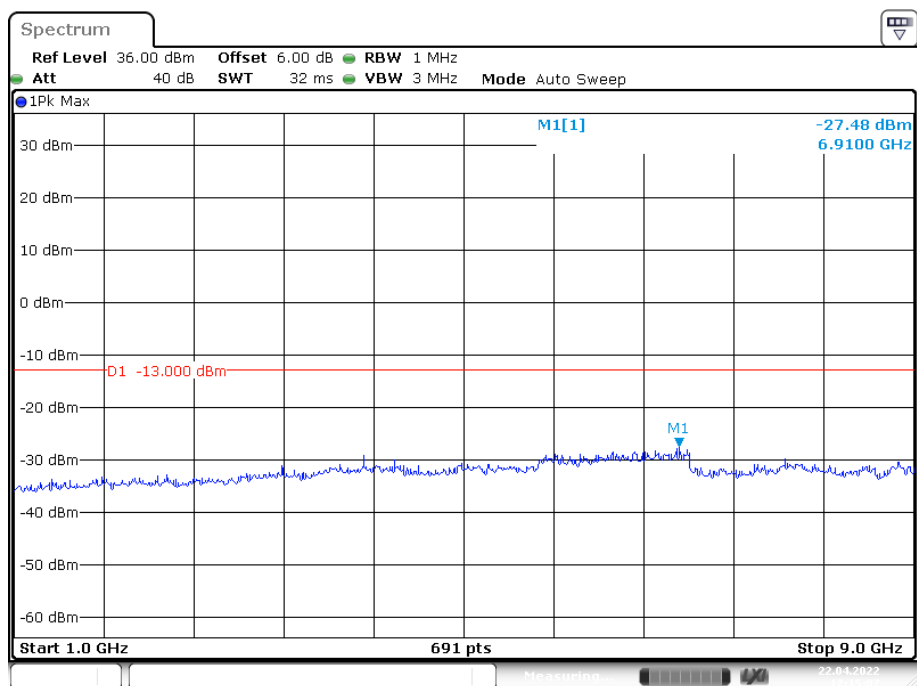
Date: 22 APR 2022 15:10:41

WCDMA Band V:**HSDPA: Low channel****30 MHz – 1 GHz (WCDMA Mode)****1 GHz – 9 GHz (WCDMA Mode)**

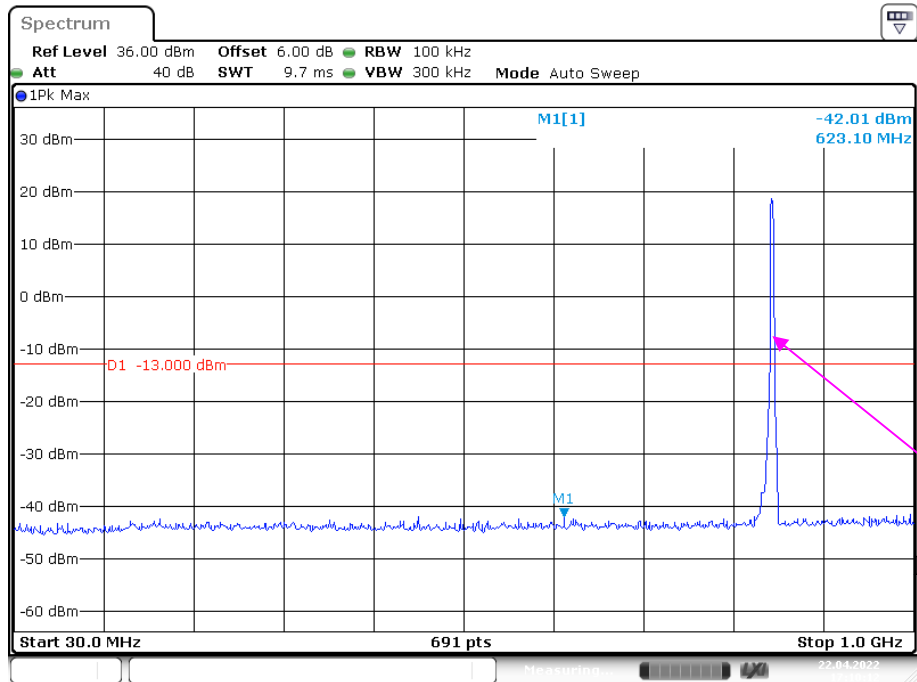
Middle Channel:**30 MHz – 1 GHz (WCDMA Mode)**

Fundamental test

Date: 22 APR 2022 17:01:55

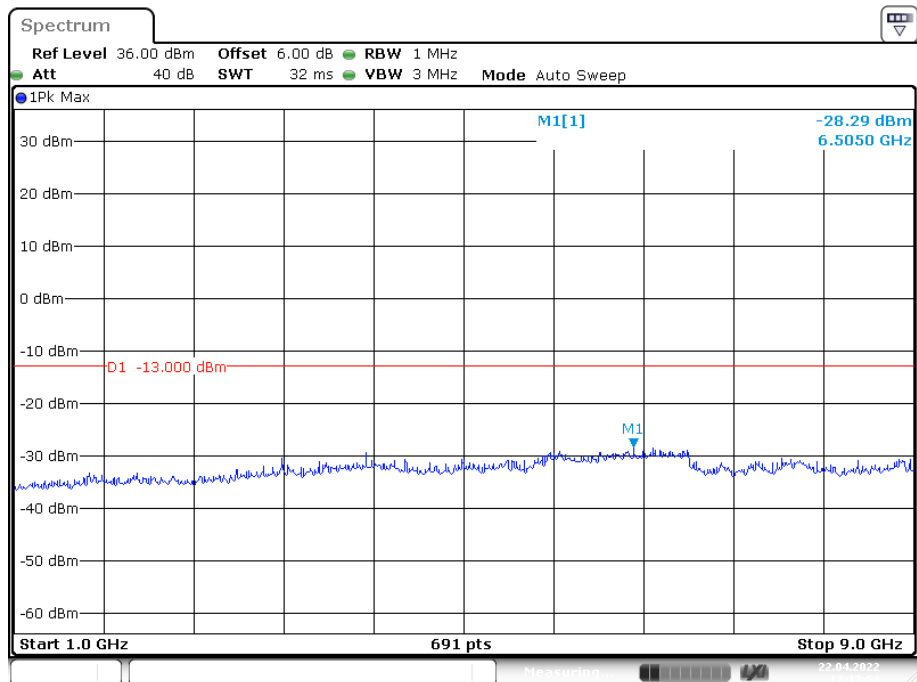
1 GHz – 9 GHz (WCDMA Mode)

Date: 22 APR 2022 17:15:07

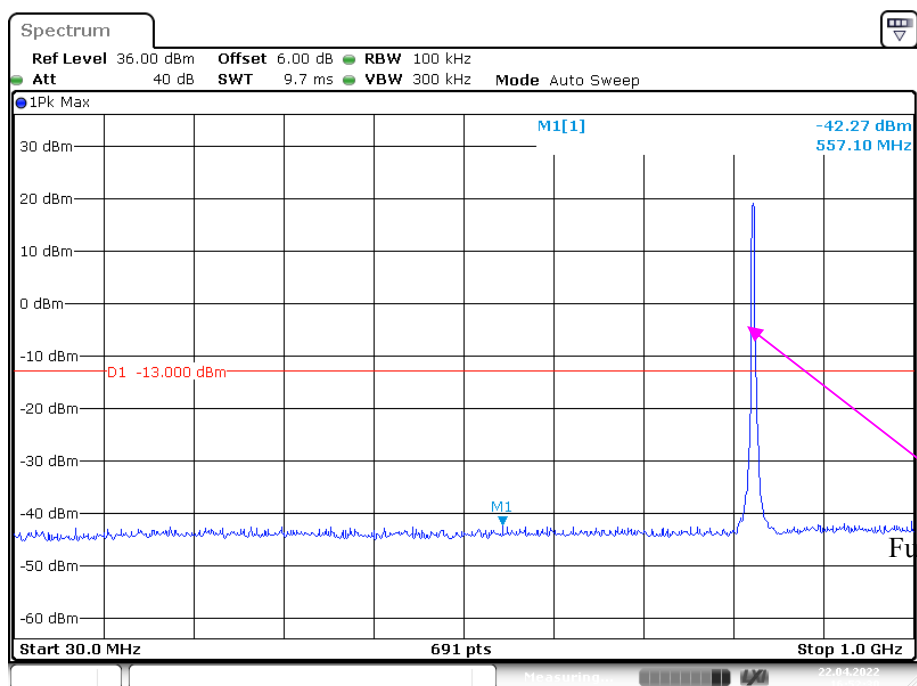
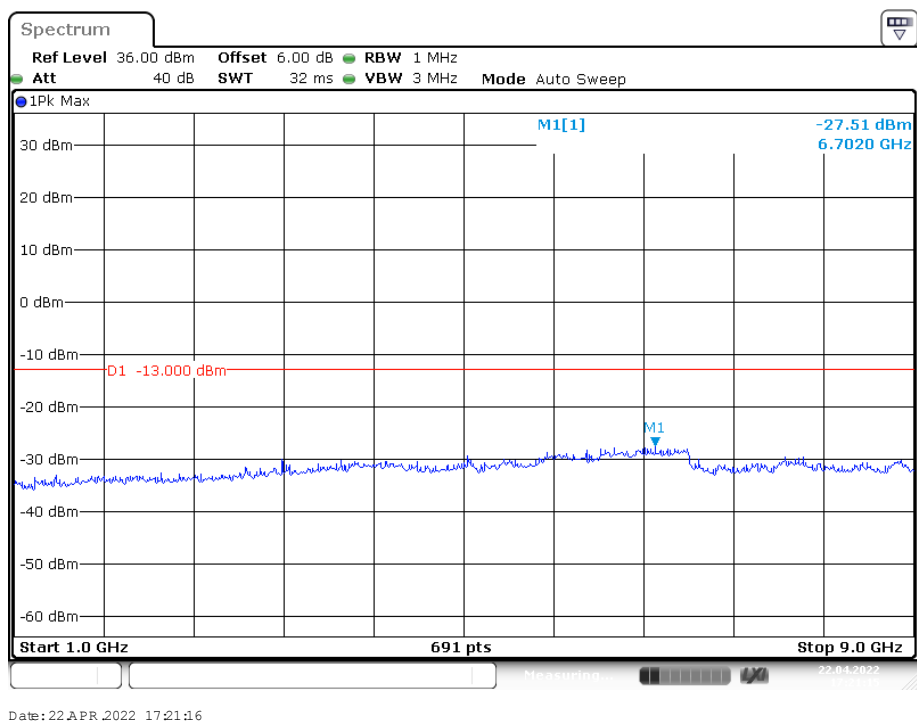
High Channel:**30 MHz – 1 GHz (WCDMA Mode)**

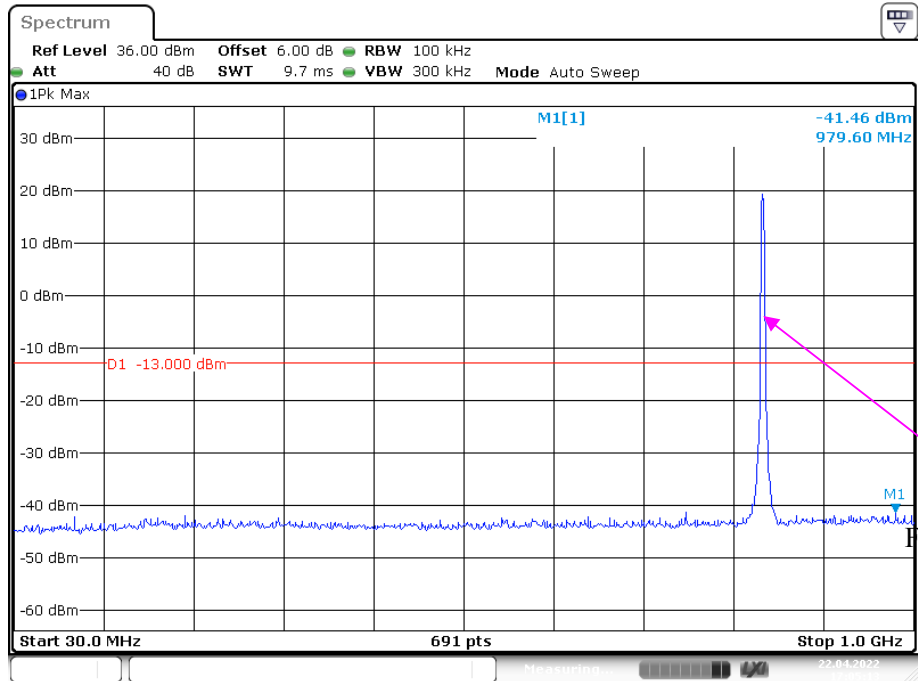
Date: 22 APR 2022 17:10:12

Fundamental test

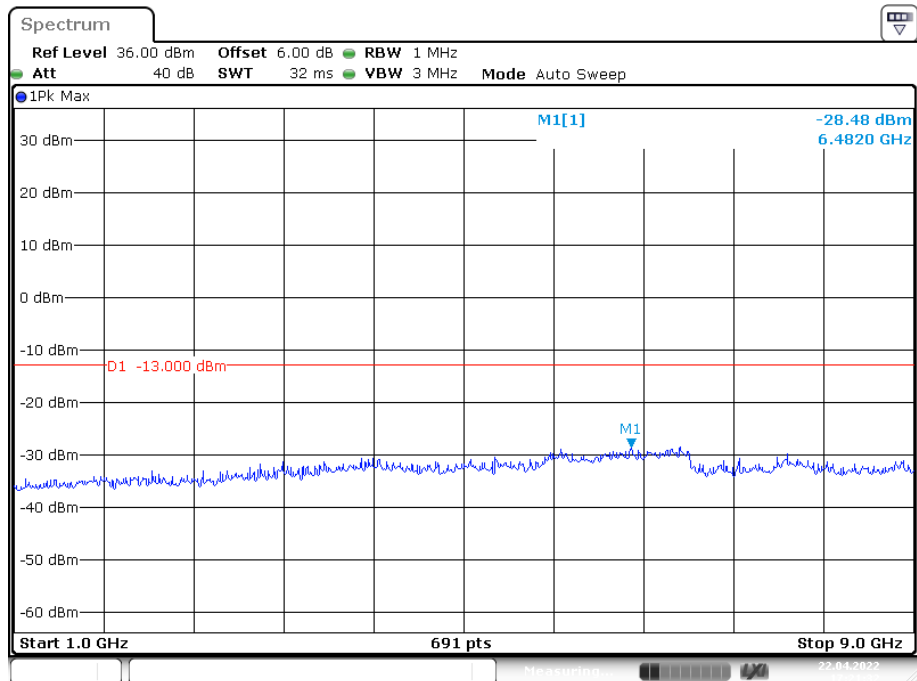
1 GHz – 9 GHz (WCDMA Mode)

Date: 22 APR 2022 17:13:53

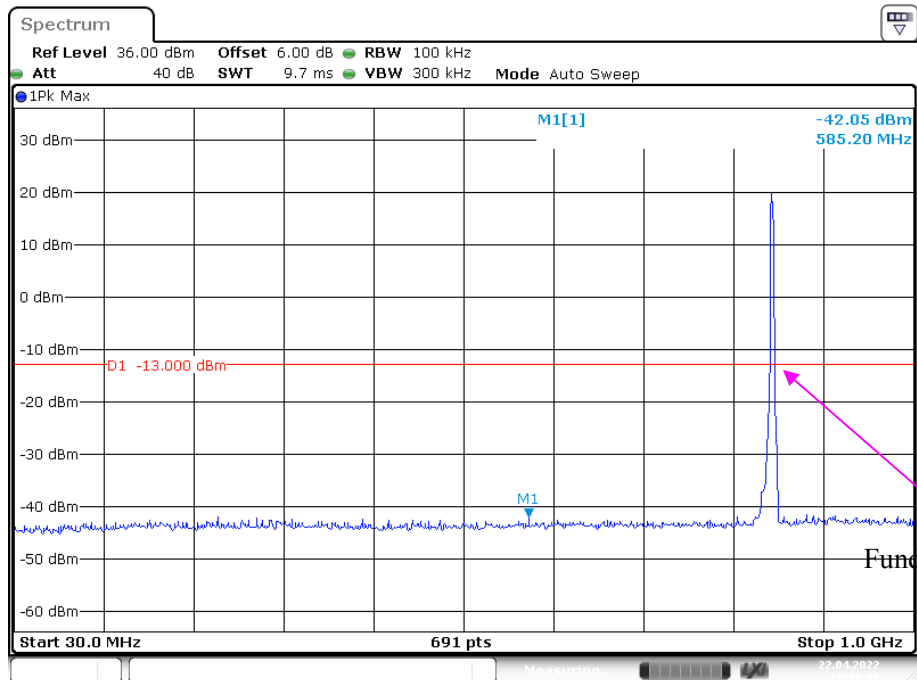
HSPA+: Low Channel:**30 MHz – 1 GHz (WCDMA Mode)****1 GHz – 9 GHz (WCDMA Mode)**

Middle Channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 17:05:12

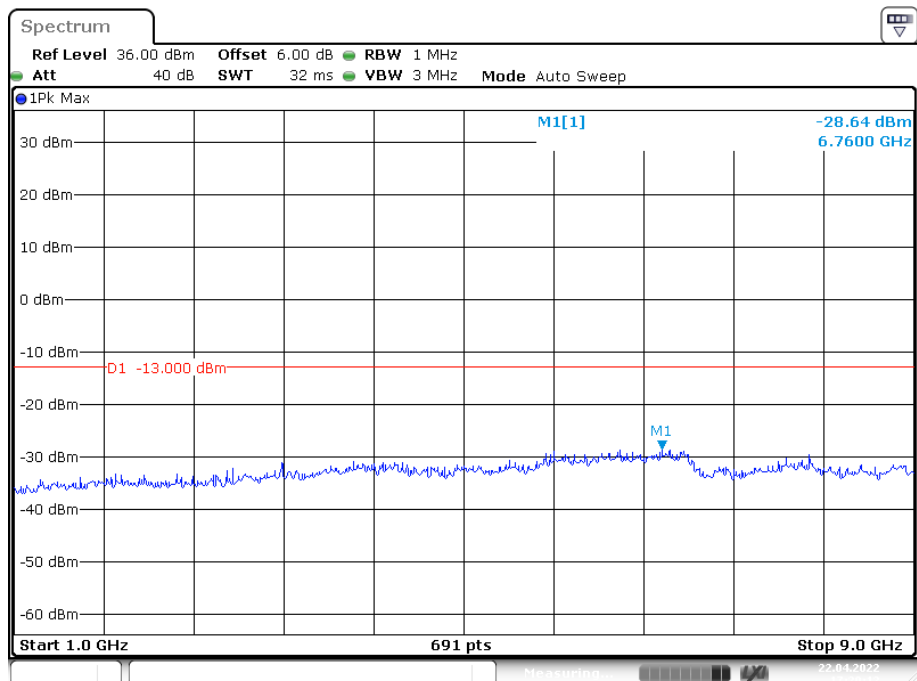
1 GHz – 9 GHz (WCDMA Mode)

Date: 22 APR 2022 17:21:33

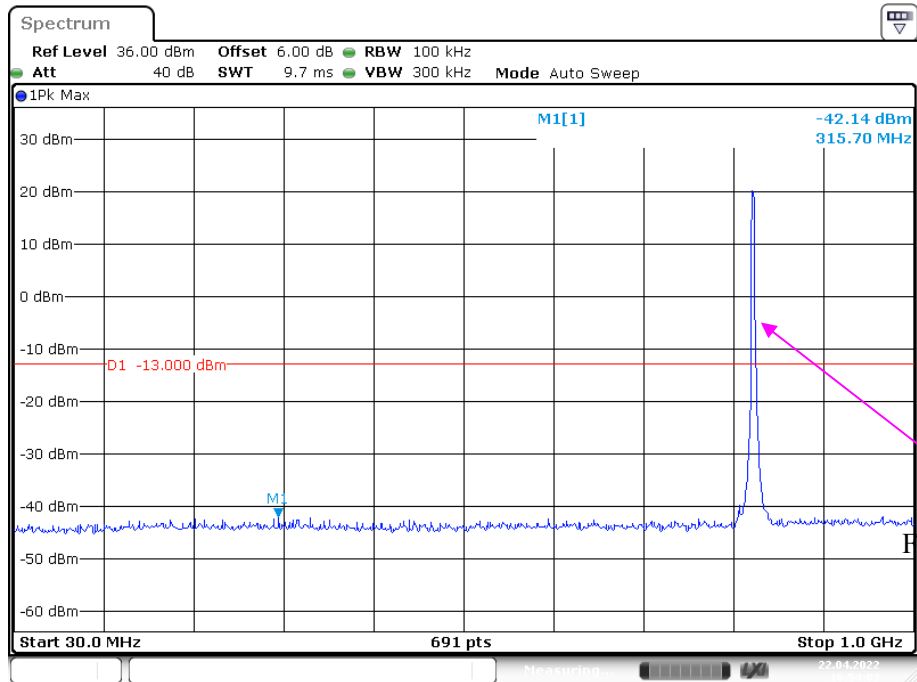
High channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 17:07:31

Fundamental test

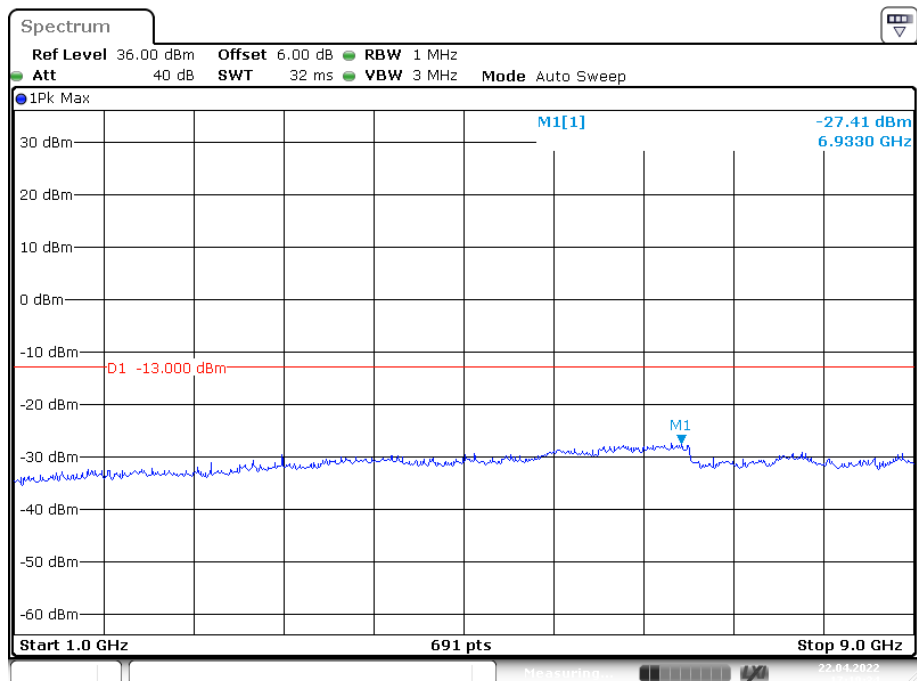
1 GHz – 9 GHz (WCDMA Mode)

Date: 22 APR 2022 17:20:12

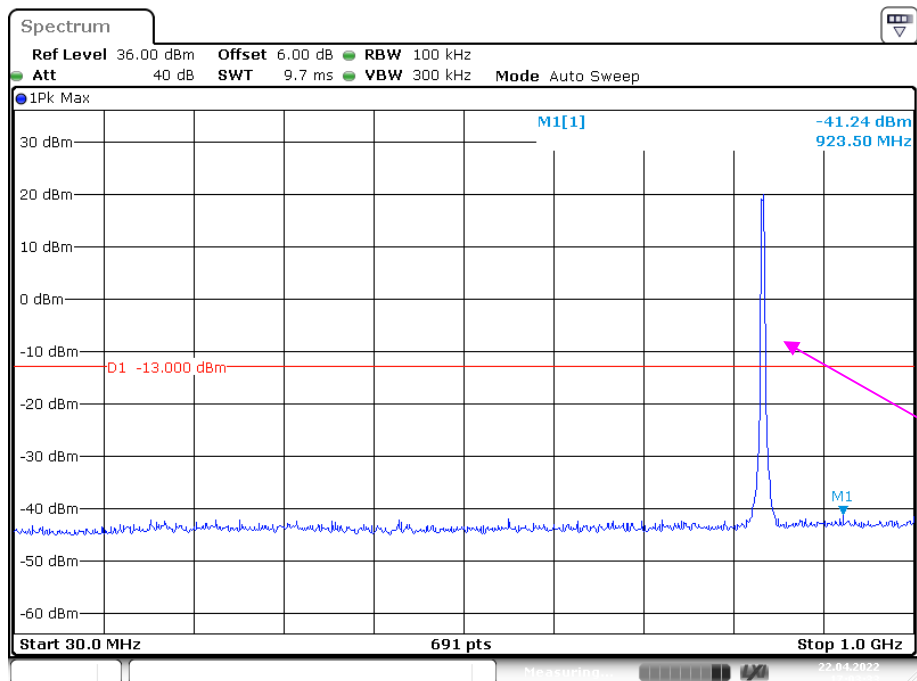
HSUPA: Low channel**30 MHz– 1 GHz (WCDMA Mode)**

Date: 22 APR 2022 16:54:03

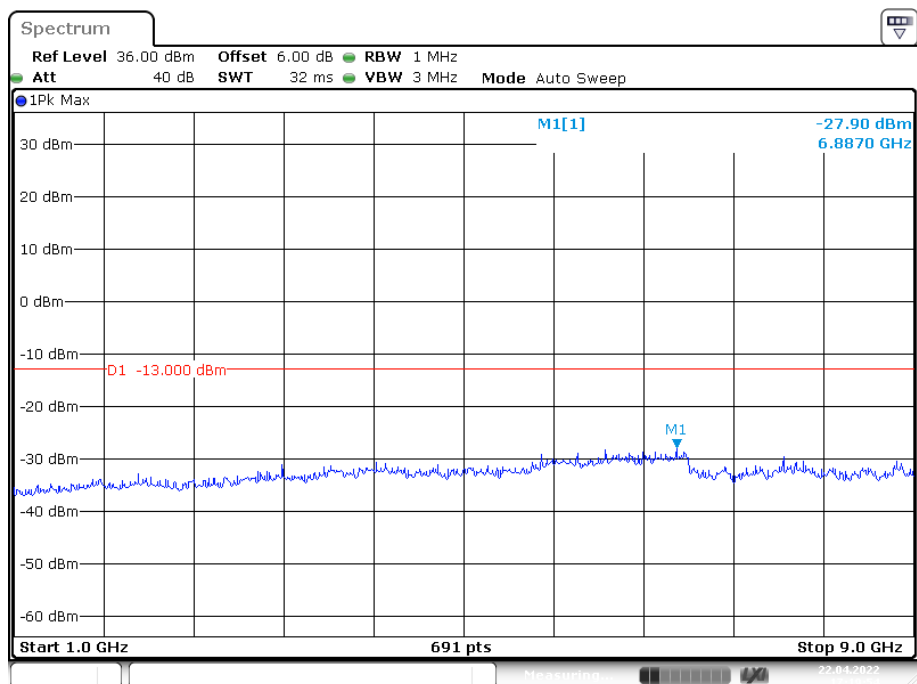
Fundamental test

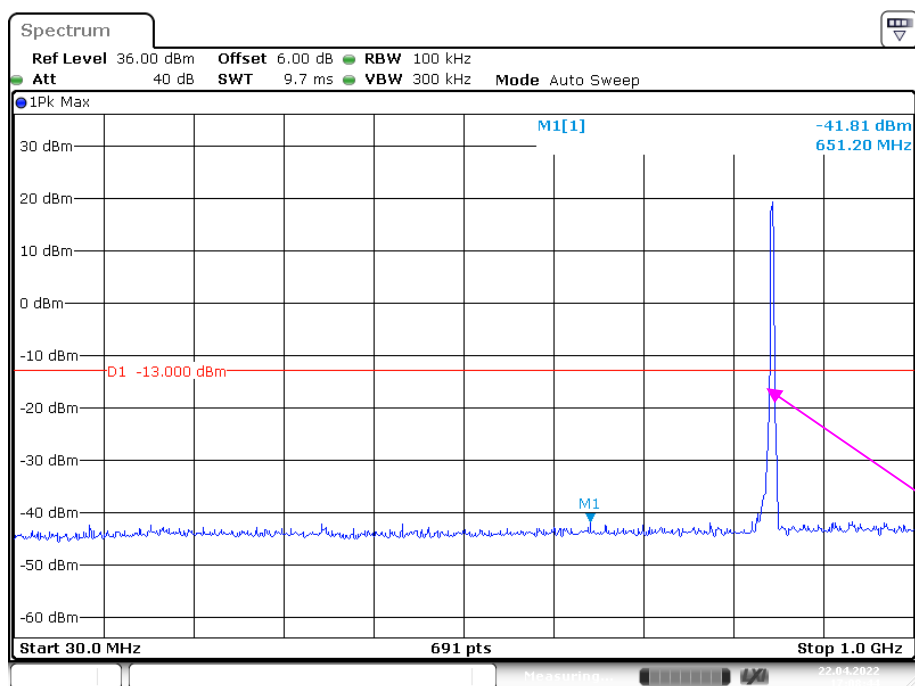
1 GHz–9 GHz (WCDMA Mode)

Date: 22 APR 2022 17:19:33

Middle channel:**30 MHz – 1 GHz (WCDMA Mode)**

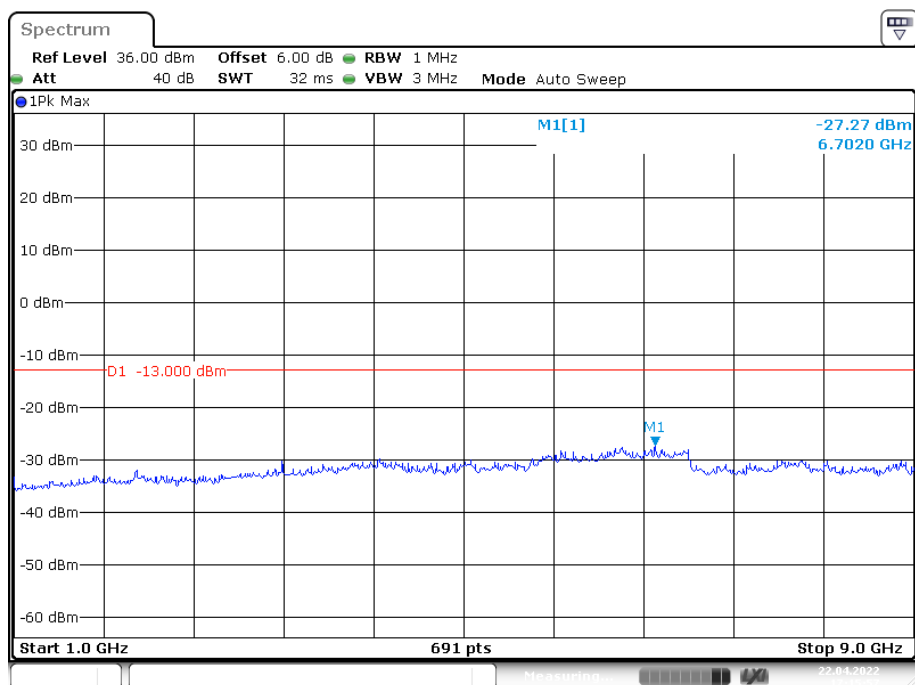
Fundamental test

1 GHz – 9 GHz (WCDMA Mode)

High Channel:**30 MHz – 1 GHz (WCDMA Mode)**

Fundamental test

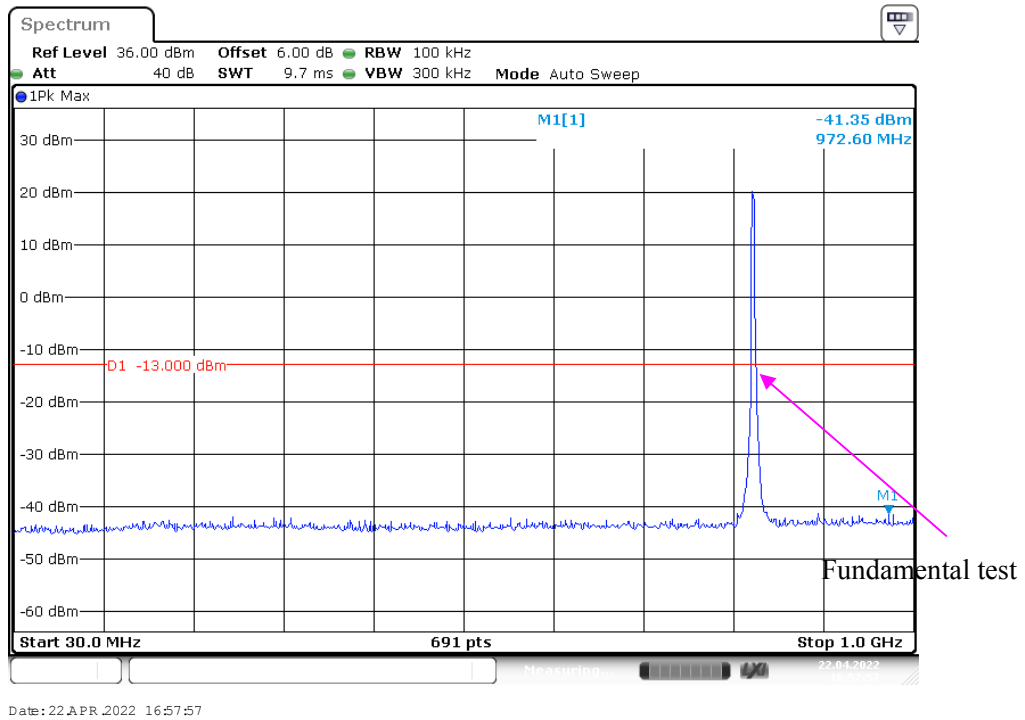
Date: 22 APR 2022 17:08:44

1 GHz – 9 GHz (WCDMA Mode)

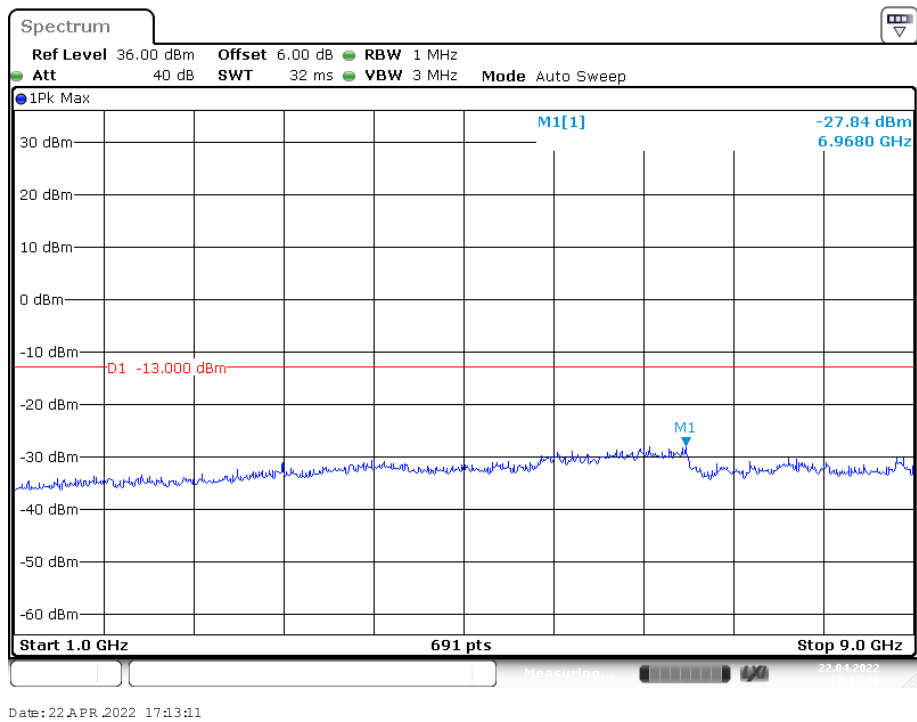
Date: 22 APR 2022 17:15:57

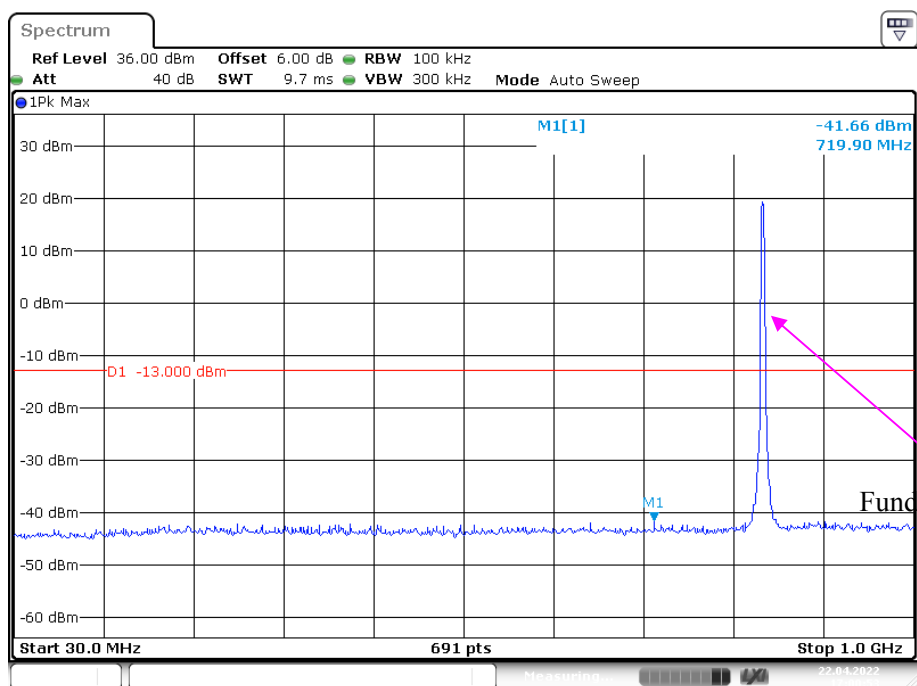
Rel 99: Low channel

30 MHz– 1 GHz (WCDMA Mode)

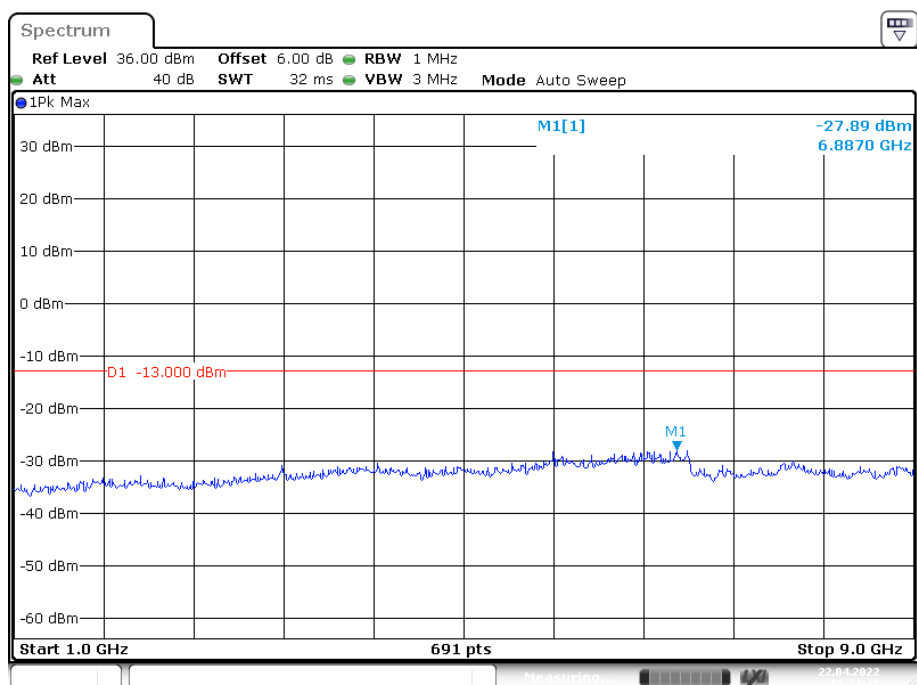


1 GHz – 9 GHz (WCDMA Mode)

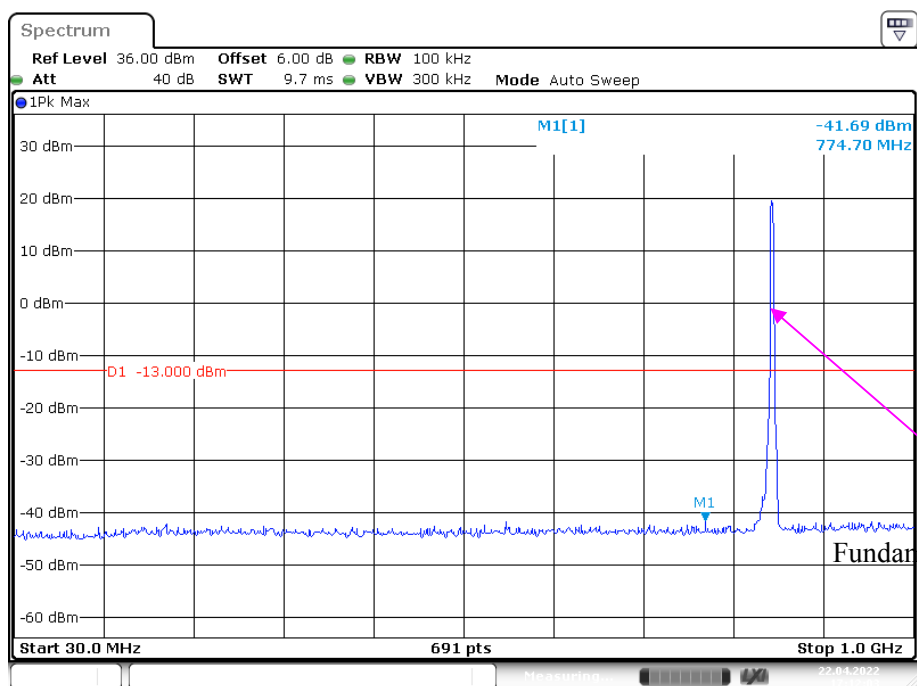


Middle channel:**30 MHz – 1 GHz (WCDMA Mode)**

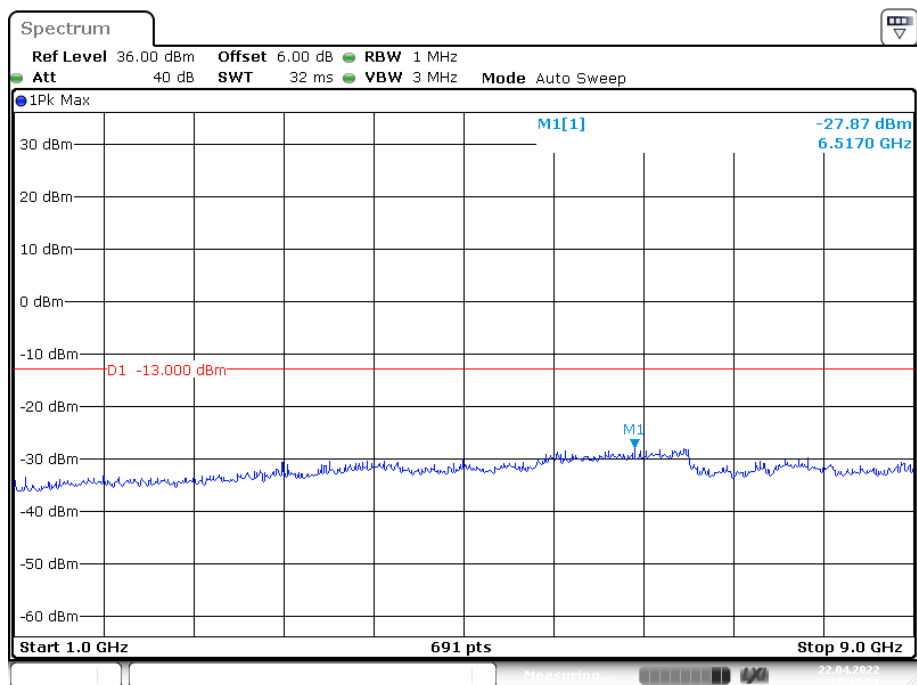
Date: 22 APR 2022 17:00:54

1GHz – 9 GHz (WCDMA Mode)

Date: 22 APR 2022 17:13:32

High channel:**30 MHz – 1 GHz (WCDMA Mode)**

Date: 22 APR. 2022 17:12:03

1GHz –9 GHz (WCDMA Mode)

Date: 22 APR. 2022 17:12:51

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

FCC § 2.1053; § 22.917 (a); § 24.238 (a); § 27.53; § 90.691 - SPURIOUS RADIATED EMISSIONS**Applicable Standard**

FCC § 2.1053, § 22.917(a) & § 24.238(a) & § 27.53 & § 90.691.

Test Procedure

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

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

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

Test Data**Environmental Conditions**

Temperature:	23.5~25.5℃
Relative Humidity:	48~61%
ATM Pressure:	100.8~101.2 kPa

The testing was performed by Level Li from 2022-04-16 to 2022-04-26.

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

The worst case is 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)				
GSM850								
Test frequency range: 30MHz-9GHz								
GPRS Mode Low channel								
236.49	-70.24	271	2.3	H	6.78	-63.46	-13	-50.46
236.49	-63.50	26	2.4	V	-1.39	-64.89	-13	-51.89
1648.40	-48.75	115	1.3	H	3.52	-45.23	-13	-32.23
1648.40	-46.49	340	1.1	V	3.10	-43.39	-13	-30.39
GPRS Mode Middle channel								
236.49	-70.19	309	1.3	H	6.78	-63.41	-13	-50.41
236.49	-63.45	262	1.3	V	-1.39	-64.84	-13	-51.84
1673.20	-48.69	118	1.9	H	3.78	-44.91	-13	-31.91
1673.20	-46.36	44	2	V	3.1	-43.26	-13	-30.26
GPRS Mode High channel								
236.49	-70.34	78	1.1	H	6.78	-63.56	-13	-50.56
236.49	-63.54	74	1.8	V	-1.39	-64.93	-13	-51.93
1697.6	-48.74	129	1.6	H	4.07	-44.67	-13	-31.67
1697.6	-46.22	265	2.2	V	3.10	-43.12	-13	-30.12

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
PCS1900								
Test frequency range: 30MHz-20GHz								
GPRS Mode Low channel								
236.49	-70.37	360	1.3	H	6.78	-63.59	-13	-50.59
236.49	-63.59	75	1.9	V	-1.39	-64.98	-13	-51.98
3700.40	-45.97	208	1.6	H	8.11	-37.86	-13	-24.86
3700.40	-46.24	278	1.3	V	7.60	-38.64	-13	-25.64
GPRS Mode Middle channel								
236.49	-70.52	87	2.3	H	6.78	-63.74	-13	-50.74
236.49	-63.82	264	1.2	V	-1.39	-65.21	-13	-52.21
3760.00	-46.31	157	1.1	H	8.84	-37.47	-13	-24.47
3760.00	-46.52	178	1.7	V	7.96	-38.56	-13	-25.56
GPRS Mode High channel								
236.49	-70.15	344	1.9	H	6.78	-63.37	-13	-50.37
236.49	-63.30	203	2.1	V	-1.39	-64.69	-13	-51.69
3819.60	-46.17	261	2.1	H	8.68	-37.49	-13	-24.49
3819.60	-46.57	209	1.9	V	7.96	-38.61	-13	-25.61

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 V								
Test frequency range: 30MHz-9GHz								
Low channel								
236.49	-70.37	216	2.1	H	6.78	-63.59	-13	-50.59
236.49	-63.69	4	1.5	V	-1.39	-65.08	-13	-52.08
3305.60	-47.77	33	1.7	H	6.42	-41.35	-13	-28.35
3305.60	-46.78	103	2.2	V	5.67	-41.11	-13	-28.11
Middle channel								
236.49	-70.29	123	2.0	H	6.78	-63.51	-13	-50.51
236.49	-63.62	201	1.8	V	-1.39	-65.01	-13	-52.01
3346.40	-48.48	49	1.2	H	6.59	-41.89	-13	-28.89
3346.40	-46.92	84	2.4	V	5.42	-41.50	-13	-28.50
High channel								
236.49	-70.45	272	1.3	H	6.78	-63.67	-13	-50.67
236.49	-63.72	179	1.4	V	-1.39	-65.11	-13	-52.11
3386.40	-47.65	143	1.1	H	6.31	-41.34	-13	-28.34
3386.40	-46.58	211	2.2	V	5.40	-41.18	-13	-28.18

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
WCDMA Band II								
Test frequency range: 30MHz-20GHz								
Low channel								
236.49	-70.34	343	1.7	H	6.78	-63.56	-13	-50.56
236.49	-63.6	357	2.0	V	-1.39	-64.99	-13	-51.99
3704.80	-59.07	155	2.2	H	8.18	-50.89	-13	-37.89
3704.80	-58.47	208	1.9	V	7.64	-50.83	-13	-37.83
Middle channel								
236.49	-70.61	221	2.0	H	6.78	-63.83	-13	-50.83
236.49	-63.95	272	2.4	V	-1.39	-65.34	-13	-52.34
3760.00	-59.35	116	1.2	H	8.84	-50.51	-13	-37.51
3760.00	-58.42	147	1.0	V	7.96	-50.46	-13	-37.46
High channel								
236.49	-70.45	160	2.4	H	6.78	-63.67	-13	-50.67
236.49	-63.77	347	1.1	V	-1.39	-65.16	-13	-52.16
3815.20	-58.79	320	2.1	H	8.66	-50.13	-13	-37.13
3815.20	-57.93	252	1.2	V	7.92	-50.01	-13	-37.01

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 IV								
Test frequency range: 30MHz-18GHz								
Low channel								
236.49	-70.24	102	1.9	H	6.78	-63.46	-13	-50.46
236.49	-63.59	11	1.7	V	-1.39	-64.98	-13	-51.98
3424.8	-56.08	94	2.4	H	6.4	-49.68	-13	-36.68
3424.8	-55.39	156	1.5	V	5.75	-49.64	-13	-36.64
Middle channel								
236.49	-70.59	150	2.2	H	6.78	-63.81	-13	-50.81
236.49	-64	265	1.5	V	-1.39	-65.39	-13	-52.39
3465.2	-56.34	193	2.2	H	6.96	-49.38	-13	-36.38
3465.2	-55.53	309	2.5	V	6.22	-49.31	-13	-36.31
High channel								
236.49	-70.45	92	2.3	H	6.78	-63.67	-13	-50.67
236.49	-63.72	10	2.5	V	-1.39	-65.11	-13	-52.11
3505.2	-56.8	152	1.8	H	7.79	-49.01	-13	-36.01
3505.2	-55.58	58	1.7	V	6.54	-49.04	-13	-36.04

LTE Bands: (pre-scan all bandwidths of QPSK and 16QAM, the worst case as below)

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 2								
Test frequency range: 30MHz-20GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.34	217	2.3	H	6.78	-63.56	-13	-50.56
236.49	-63.74	187	1.3	V	-1.39	-65.13	-13	-52.13
3701.40	-57.81	104	2.1	H	8.12	-49.69	-13	-36.69
3701.40	-57.33	170	2.2	V	7.61	-49.72	-13	-36.72
QPSK 1.4MHz, Middle channel								
236.49	-70.66	356	1.6	H	6.78	-63.88	-13	-50.88
236.49	-64.07	100	2.1	V	-1.39	-65.46	-13	-52.46
3760.00	-58.22	204	2.5	H	8.84	-49.38	-13	-36.38
3760.00	-57.3	329	1.8	V	7.96	-49.34	-13	-36.34
QPSK 1.4MHz, High channel								
236.49	-70.31	187	1.3	H	6.78	-63.53	-13	-50.53
236.49	-63.60	223	1.6	V	-1.39	-64.99	-13	-51.99
3818.60	-57.78	267	2.0	H	8.67	-49.11	-13	-36.11
3818.60	-57.01	150	1.6	V	7.95	-49.06	-13	-36.06

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 4								
Test frequency range: 30MHz-18GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.45	44	2.1	H	6.78	-63.67	-13	-50.67
236.49	-63.95	350	2.1	V	-1.39	-65.34	-13	-52.34
3421.40	-52.74	180	1.6	H	6.37	-46.37	-13	-33.37
3421.40	-52.26	287	2.5	V	5.70	-46.56	-13	-33.56
QPSK 1.4MHz, Middle channel								
236.49	-70.42	93	1.1	H	6.78	-63.64	-13	-50.64
236.49	-63.72	106	2.0	V	-1.39	-65.11	-13	-52.11
3465.00	-53.08	181	2.1	H	6.96	-46.12	-13	-33.12
3465.00	-52.43	66	1.8	V	6.22	-46.21	-13	-33.21
QPSK 1.4MHz, High channel								
236.49	-70.31	323	1	H	6.78	-63.53	-13	-50.53
236.49	-63.65	192	1.5	V	-1.39	-65.04	-13	-52.04
3508.60	-53.61	82	2.2	H	7.78	-45.83	-13	-32.83
3508.60	-52.45	115	2	V	6.57	-45.88	-13	-32.88

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 5								
Test frequency range: 30MHz-9GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.42	29	2.2	H	6.78	-63.64	-13	-50.64
236.49	-63.82	83	1.5	V	-1.39	-65.21	-13	-52.21
3298.80	-46.09	170	2.2	H	6.41	-39.68	-13	-26.68
3298.80	-46.27	80	1.2	V	5.71	-40.56	-13	-27.56
QPSK 1.4MHz, Middle channel								
236.49	-70.42	329	2.5	H	6.78	-63.64	-13	-50.64
236.49	-63.84	122	1.0	V	-1.39	-65.23	-13	-52.23
3346.00	-46.10	94	2.4	H	6.58	-39.52	-13	-26.52
3346.00	-45.78	174	1.0	V	5.42	-40.36	-13	-27.36
QPSK 1.4MHz, High channel								
236.49	-70.33	27	1.7	H	6.78	-63.55	-13	-50.55
236.49	-63.67	44	1.2	V	-1.39	-65.06	-13	-52.06
3393.20	-45.69	311	2.0	H	6.25	-39.44	-13	-26.44
3393.20	-45.66	81	1.8	V	5.40	-40.26	-13	-27.26

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 7								
Test frequency range: 30MHz-26GHz								
QPSK 5MHz, Low channel								
236.49	-70.45	298	1.3	H	6.78	-63.67	-25	-38.67
236.49	-63.95	127	1.3	V	-1.39	-65.34	-25	-40.34
5005.00	-56.48	34	2.4	H	10.83	-45.65	-25	-20.65
5005.00	-55.71	282	2.1	V	10.16	-45.55	-25	-20.55
QPSK 5MHz, Middle channel								
236.49	-70.45	38	2.5	H	6.78	-63.67	-25	-38.67
236.49	-63.95	162	1.9	V	-1.39	-65.34	-25	-40.34
5070.00	-56.70	133	1.3	H	11.14	-45.56	-25	-20.56
5070.00	-56.19	241	1.4	V	10.78	-45.41	-25	-20.41
QPSK 5MHz, High channel								
236.49	-70.47	348	1.2	H	6.78	-63.69	-25	-38.69
236.49	-63.94	158	1.8	V	-1.39	-65.33	-25	-40.33
5135.00	-56.75	201	1.2	H	11.34	-45.41	-25	-20.41
5135.00	-56.11	41	1.9	V	10.76	-45.35	-25	-20.35

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band12								
Test frequency range: 30MHz-8GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.62	33	2.3	H	6.78	-63.84	-13	-50.84
236.49	-64.07	198	1.2	V	-1.39	-65.46	-13	-52.46
1399.40	-54.16	342	1.4	H	5.91	-48.25	-13	-35.25
1399.40	-55.14	242	2.4	V	5.90	-49.24	-13	-36.24
QPSK 1.4MHz, Middle channel								
236.49	-70.15	40	1.8	H	6.78	-63.37	-13	-50.37
236.49	-63.47	196	1.5	V	-1.39	-64.86	-13	-51.86
1415.00	-53.77	224	1.9	H	5.66	-48.11	-13	-35.11
1415.00	-54.41	257	2.4	V	5.36	-49.05	-13	-36.05
QPSK 1.4MHz, High channel								
236.49	-70.42	17	1.7	H	6.78	-63.64	-13	-50.64
236.49	-63.74	74	1.2	V	-1.39	-65.13	-13	-52.13
1430.60	-53.49	315	1.2	H	5.41	-48.08	-13	-35.08
1430.60	-53.81	340	1.1	V	4.80	-49.01	-13	-36.01

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band17								
Test frequency range: 30MHz-8GHz								
QPSK 5MHz, Low channel								
236.49	-70.45	60	1.1	H	6.78	-63.67	-13	-50.67
236.49	-63.90	10	1.2	V	-1.39	-65.29	-13	-52.29
1413.00	-54.33	114	2.3	H	5.69	-48.64	-13	-35.64
1413.00	-54.04	189	2.3	V	5.43	-48.61	-13	-35.61
QPSK 5MHz, Middle channel								
236.49	-70.39	175	2	H	6.78	-63.61	-13	-50.61
236.49	-63.67	219	1.2	V	-1.39	-65.06	-13	-52.06
1420.00	-54.16	301	1.1	H	5.58	-48.58	-13	-35.58
1420.00	-53.67	128	1.2	V	5.18	-48.49	-13	-35.49
QPSK 5MHz, High channel								
236.49	-70.33	238	2.2	H	6.78	-63.55	-13	-50.55
236.49	-63.77	117	1.9	V	-1.39	-65.16	-13	-52.16
1427.00	-53.93	258	1.4	H	5.47	-48.46	-13	-35.46
1427.00	-53.27	194	1.3	V	4.93	-48.34	-13	-35.34

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 25								
Test frequency range: 30MHz-20GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.46	283	1.5	H	6.78	-63.68	-13	-50.68
236.49	-63.88	226	2.0	V	-1.39	-65.27	-13	-52.27
3701.40	-56.48	255	2.5	H	8.12	-48.36	-13	-35.36
3701.40	-55.92	27	1.8	V	7.61	-48.31	-13	-35.31
QPSK 1.4MHz, Middle channel								
236.49	-70.47	2	1.8	H	6.78	-63.69	-13	-50.69
236.49	-63.83	310	2	V	-1.39	-65.22	-13	-52.22
3765.00	-57.02	115	1.2	H	8.81	-48.21	-13	-35.21
3765.00	-56.1	177	1.1	V	7.94	-48.16	-13	-35.16
QPSK 1.4MHz, High channel								
236.49	-70.45	140	2.2	H	6.78	-63.67	-13	-50.67
236.49	-63.77	211	1.9	V	-1.39	-65.16	-13	-52.16
3828.60	-56.72	111	2.4	H	8.71	-48.01	-13	-35.01
3828.60	-56.08	171	1.3	V	8.03	-48.05	-13	-35.05

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 26								
Test frequency range: 30MHz-9GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.32	173	1.7	H	6.78	-63.54	-13	-50.54
236.49	-63.66	40	2	V	-1.39	-65.05	-13	-52.05
1629.40	-52.06	211	1.1	H	3.75	-48.31	-13	-35.31
1629.40	-51.43	143	1.4	V	3.14	-48.29	-13	-35.29
QPSK 1.4MHz, Middle channel								
236.49	-70.39	142	1.9	H	6.78	-63.61	-13	-50.61
236.49	-63.75	172	2.5	V	-1.39	-65.14	-13	-52.14
1663.00	-48.78	97	1.8	H	3.66	-45.12	-13	-32.12
1663.00	-48.16	330	2	V	3.10	-45.06	-13	-32.06
QPSK 1.4MHz, High channel								
236.49	-70.16	336	1.6	H	6.78	-63.38	-13	-50.38
236.49	-63.55	321	1.8	V	-1.39	-64.94	-13	-51.94
1696.60	-49.04	270	1.9	H	4.06	-44.98	-13	-31.98
1696.60	-48.07	321	1.4	V	3.10	-44.97	-13	-31.97

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 41								
Test frequency range: 30MHz-27GHz								
QPSK 5MHz, Low channel								
236.49	-70.36	150	2.1	H	6.78	-63.58	-25	-38.58
236.49	-63.55	235	1.6	V	-1.39	-64.94	-25	-39.94
4997.00	-55.81	59	1.1	H	10.75	-45.06	-25	-20.06
4997.00	-55.15	187	1.7	V	10.04	-45.11	-25	-20.11
QPSK 5MHz, Middle channel								
236.49	-70.45	78	2.4	H	6.78	-63.67	-25	-38.67
236.49	-63.88	243	2.4	V	-1.39	-65.27	-25	-40.27
5186.00	-55.52	71	1.5	H	10.61	-44.91	-25	-19.91
5186.00	-54.98	77	2.5	V	10.05	-44.93	-25	-19.93
QPSK 5MHz, High channel								
236.49	-70.42	179	2.0	H	6.78	-63.64	-25	-38.64
236.49	-63.72	264	1.8	V	-1.39	-65.11	-25	-40.11
5375.00	-54.17	211	1.8	H	9.50	-44.67	-25	-19.67
5375.00	-53.49	25	2.1	V	8.85	-44.64	-25	-19.64

Frequency (MHz)	Receiver Reading (dBm)	Turntable Degree	Rx Antenna		Substituted Factor (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)				
LTE Band 66								
Test frequency range: 30MHz-18GHz								
QPSK 1.4MHz, Low channel								
236.49	-70.44	329	2.5	H	6.78	-63.66	-13	-50.66
236.49	-63.86	59	1.2	V	-1.39	-65.25	-13	-52.25
3421.40	-47.69	104	1.8	H	6.37	-41.32	-13	-28.32
3421.40	-48.31	112	2.2	V	5.7	-42.61	-13	-29.61
QPSK 1.4MHz, Middle channel								
236.49	-70.36	54	1.9	H	6.78	-63.58	-13	-50.58
236.49	-63.67	182	1.3	V	-1.39	-65.06	-13	-52.06
3490.00	-48.68	286	1.8	H	7.56	-41.12	-13	-28.12
3490.00	-48.91	169	2.2	V	6.42	-42.49	-13	-29.49
QPSK 1.4MHz, High channel								
236.49	-70.28	57	2.4	H	6.78	-63.5	-13	-50.5
236.49	-63.58	68	1.4	V	-1.39	-64.97	-13	-51.97
3558.60	-48.85	350	1.1	H	7.79	-41.06	-13	-28.06
3558.60	-49.34	264	1.1	V	6.97	-42.37	-13	-29.37

Note:

Absolute Level = Reading Level + Substituted Factor

Substituted Factor contains: SG Level - Cable loss+ Antenna Gain

Margin = Absolute Level - Limit

FCC§ 22.917 (a); § 24.238 (a); §27.53 (c)(h)(m); §90.691 - BAND EDGES**Applicable Standard**

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

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

According to FCC §27.53 (c), For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

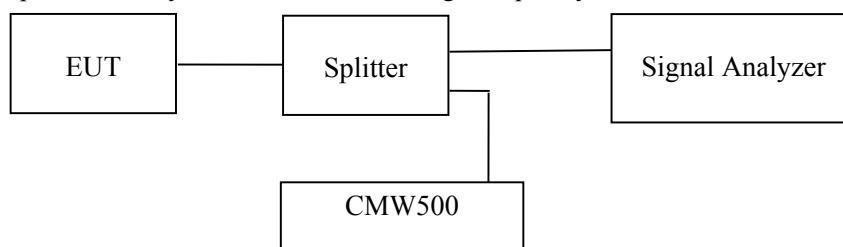
According to FCC §27.53 (h)(m), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

FCC §2.1051 and §90.691(a).The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or less, but at least one percent of the emission bandwidth of the fundamental emission of the transmitter, provided the measured energy is integrated over a 1 MHz bandwidth.

Test Procedure

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

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



Note: The path loss is 6 dB between EUT and Signal Analyzer

Test Data**Environmental Conditions**

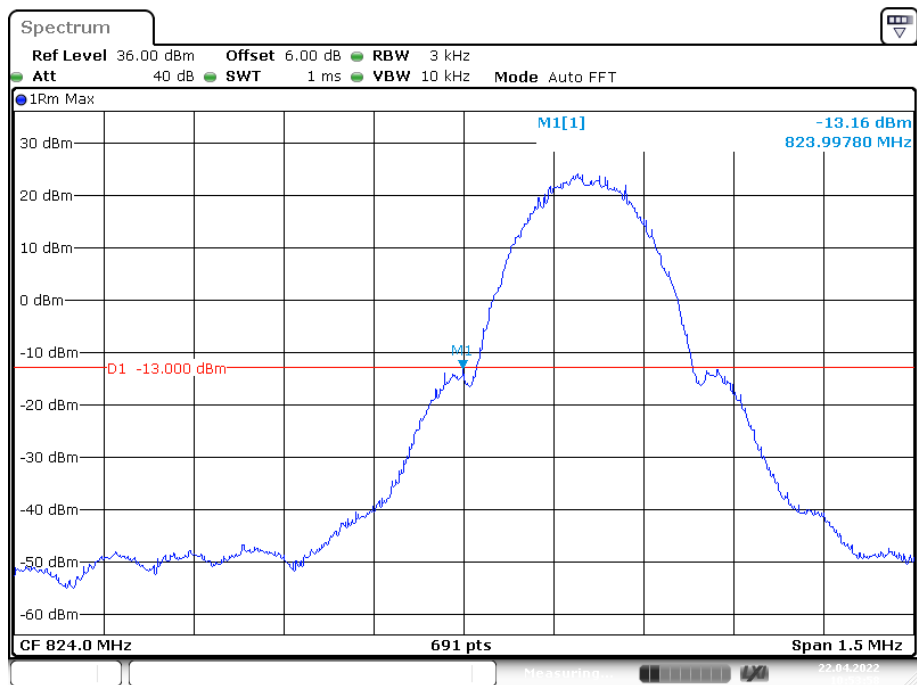
Temperature:	24~26.5 °C
Relative Humidity:	48~58 %
ATM Pressure:	100.8~101.2 kPa

The testing was performed by Black Ding from 2022-04-22 to 2022-4-26.

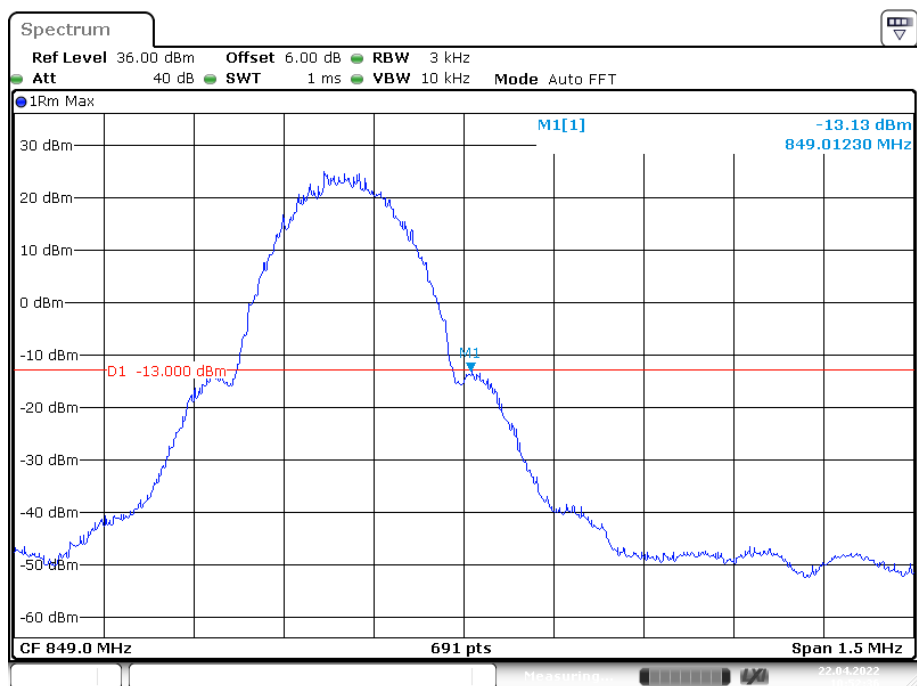
EUT operation mode: Transmitting (Worst case)

Test Result: Pass

Please refer to the following plots.

GSM 850:**Left Band Edge for GPRS Mode**

Date: 22 APR 2022 10:53:58

Right Band Edge for GPRS Mode

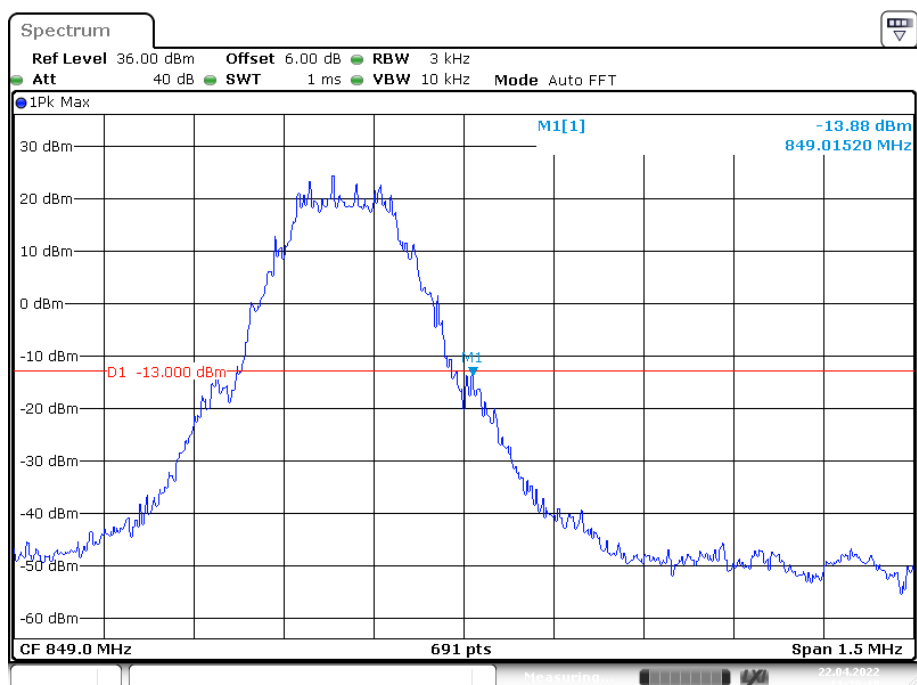
Date: 22 APR 2022 10:52:36

Left Band Edge for EGPRS Mode



Date: 22 APR 2022 11:35:25

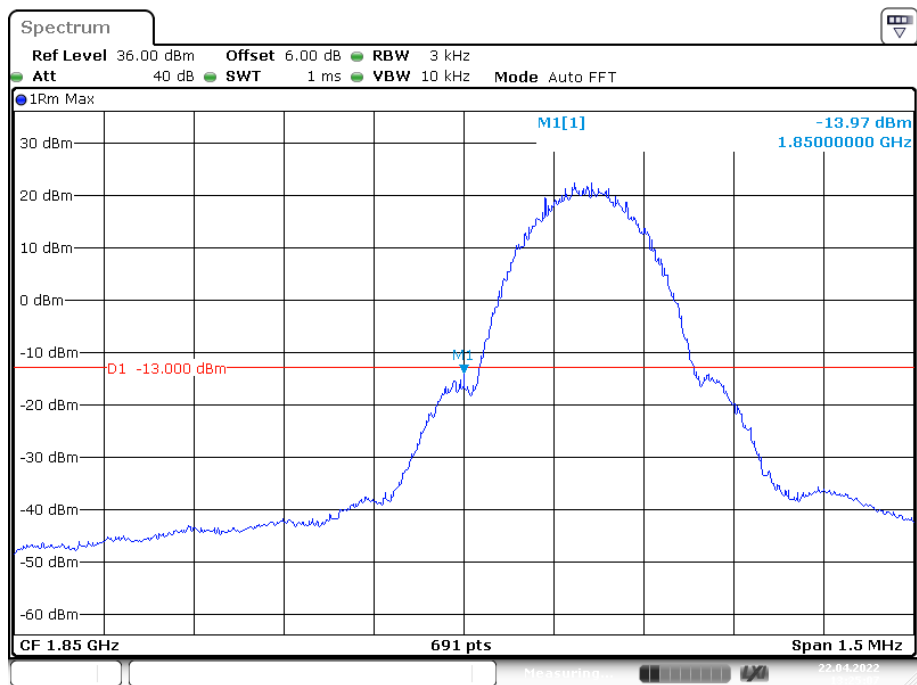
Right Band Edge for GPRS Mode



Date: 22 APR 2022 11:29:20

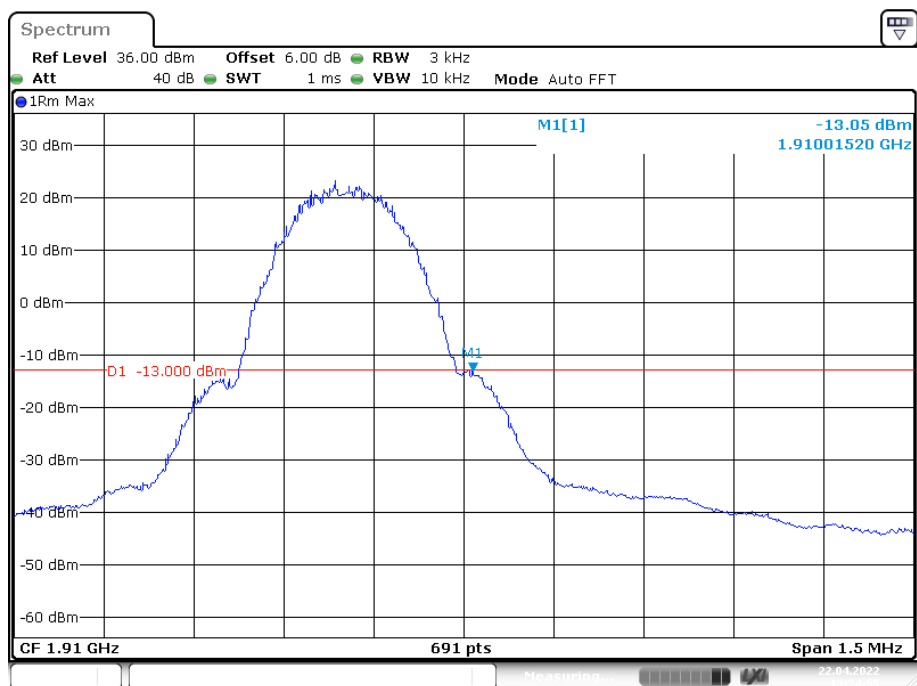
PCS 1900:

Left Band Edge for GPRS Mode



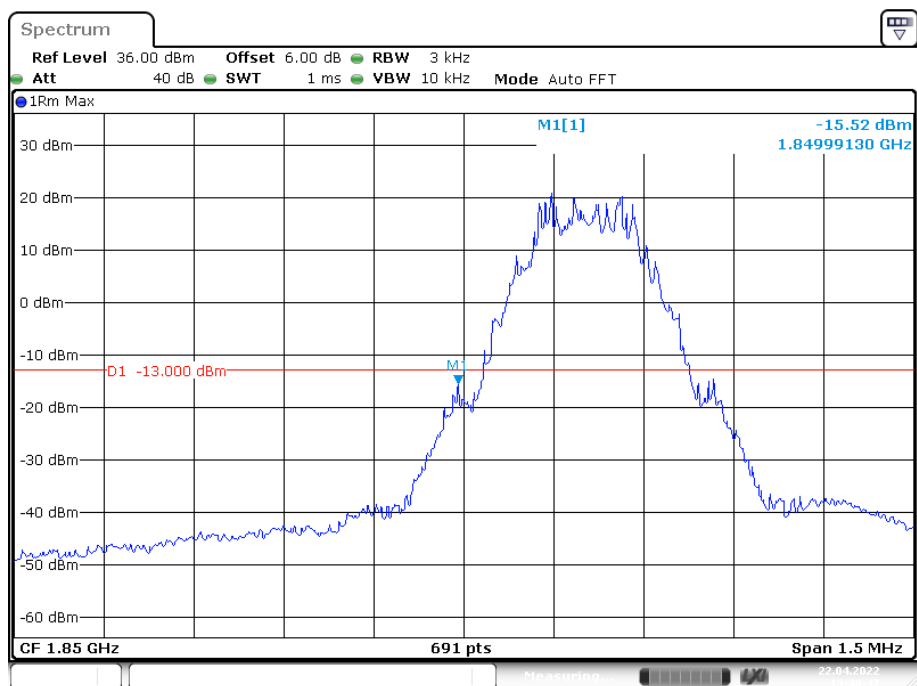
Date: 22 APR. 2022 13:25:08

Right Band Edge for GPRS Mode



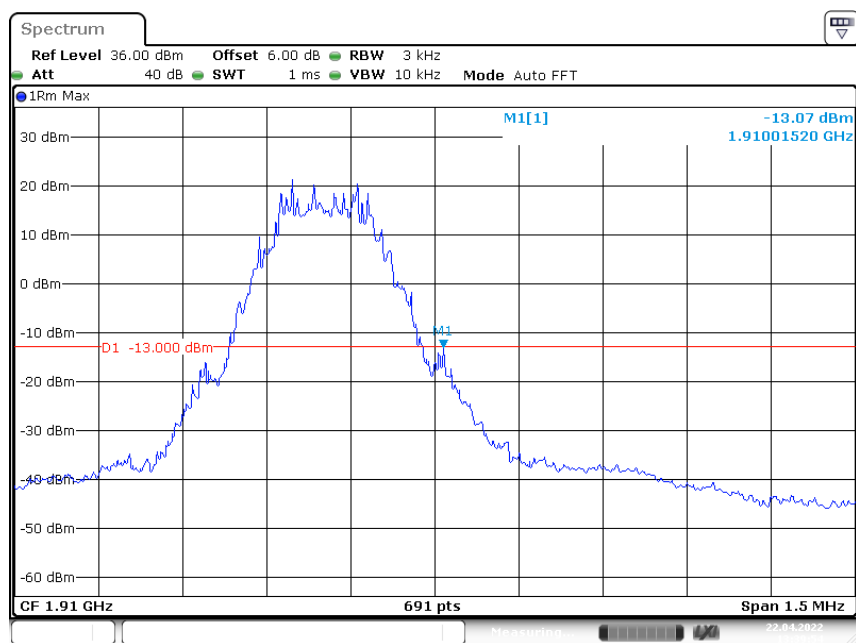
Date: 22 APR. 2022 13:24:06

Left Band Edge for EGPRS Mode

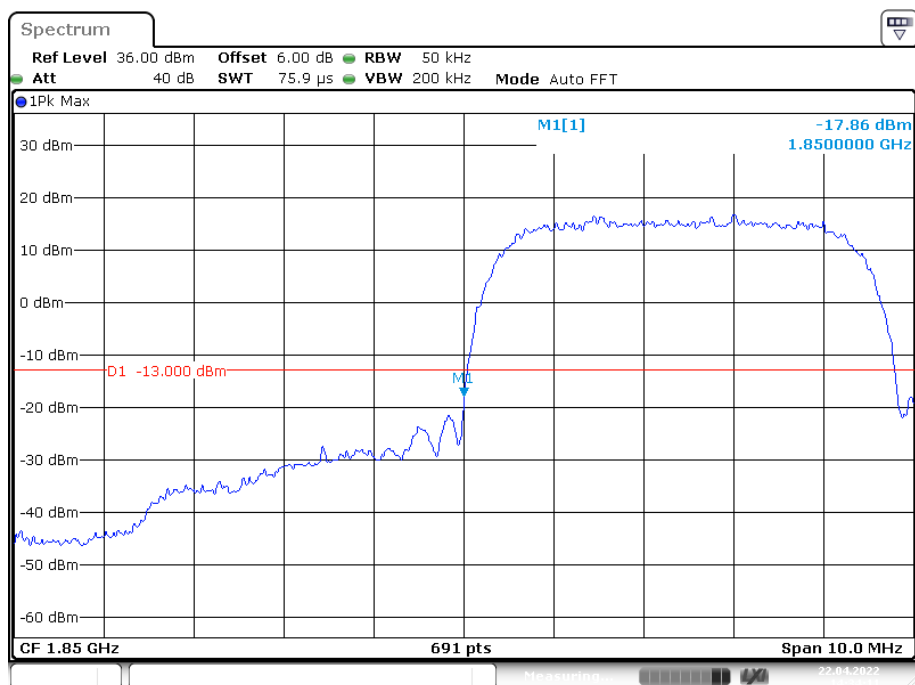


Date: 22 APR 2022 13:40:48

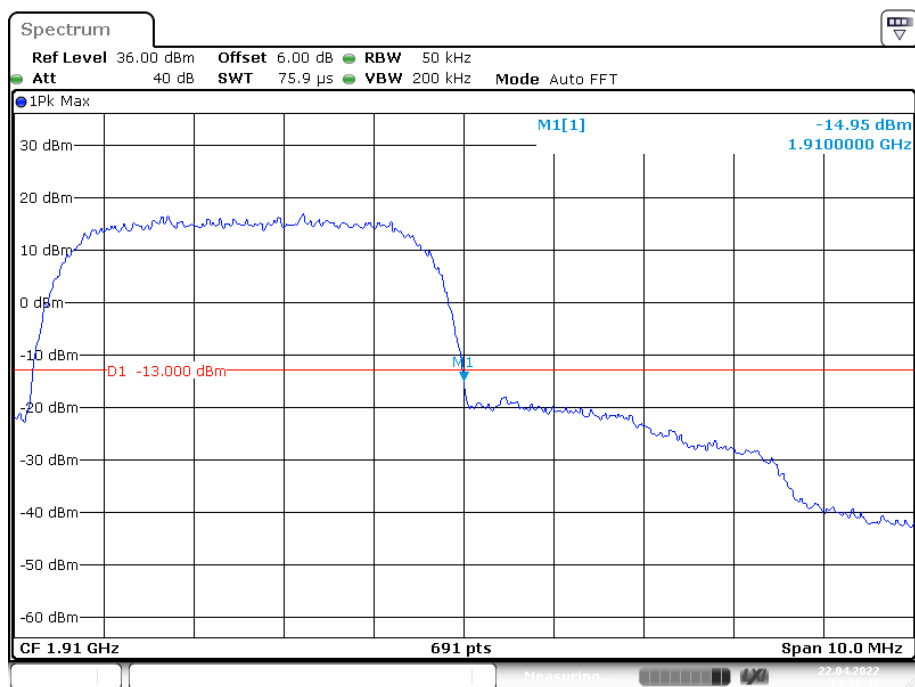
Right Band Edge for EGPRS Mode



Date: 22 APR 2022 13:39:54

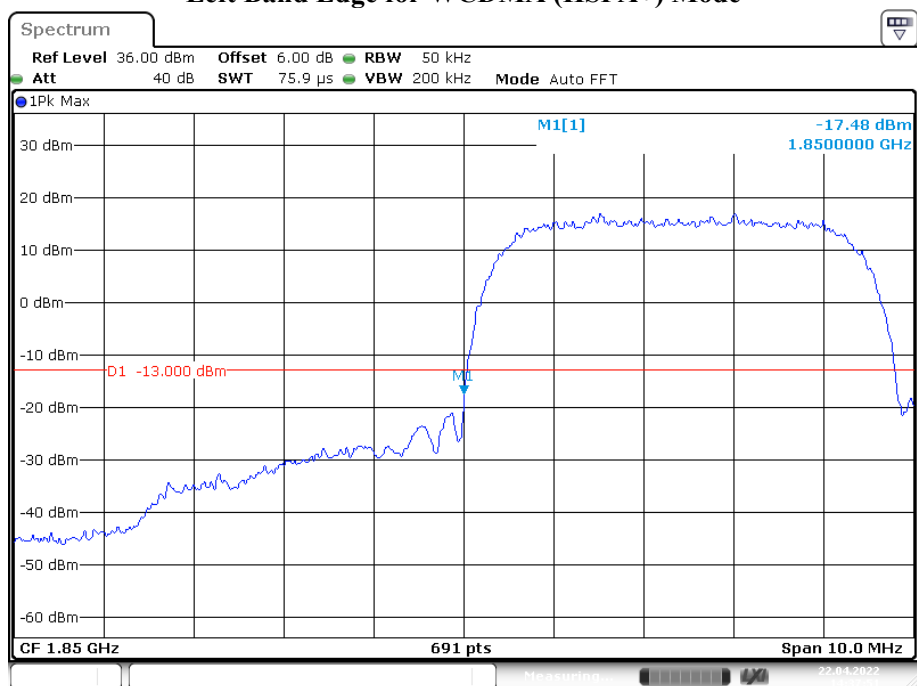
WCDMA Band II:**Left Band Edge for WCDMA (HSDPA) Mode**

Date: 22 APR 2022 14:34:11

Left Band Edge for WCDMA (HSDPA) Mode

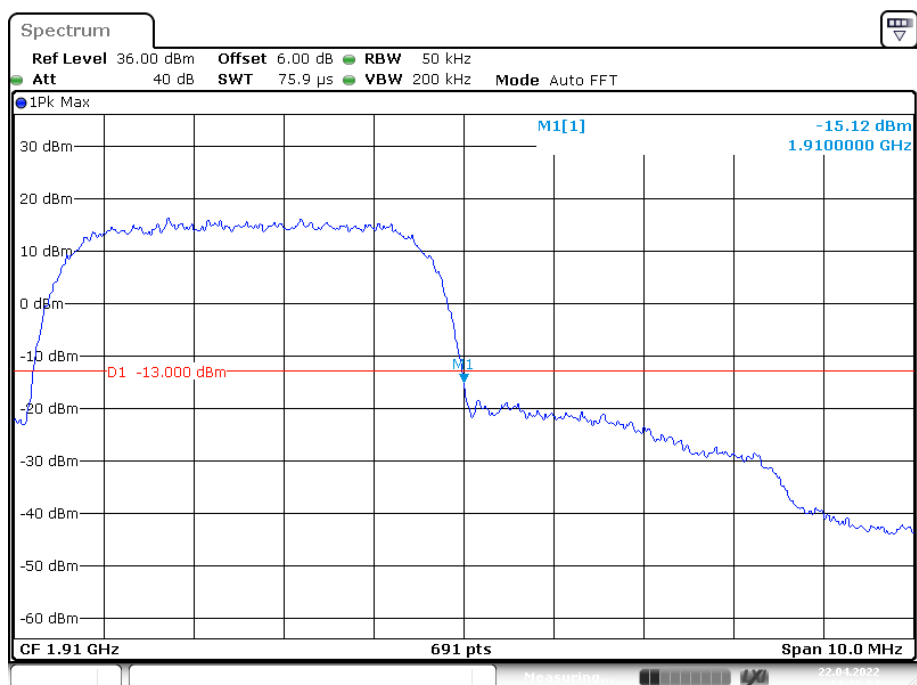
Date: 22 APR 2022 14:30:47

Left Band Edge for WCDMA (HSPA+) Mode



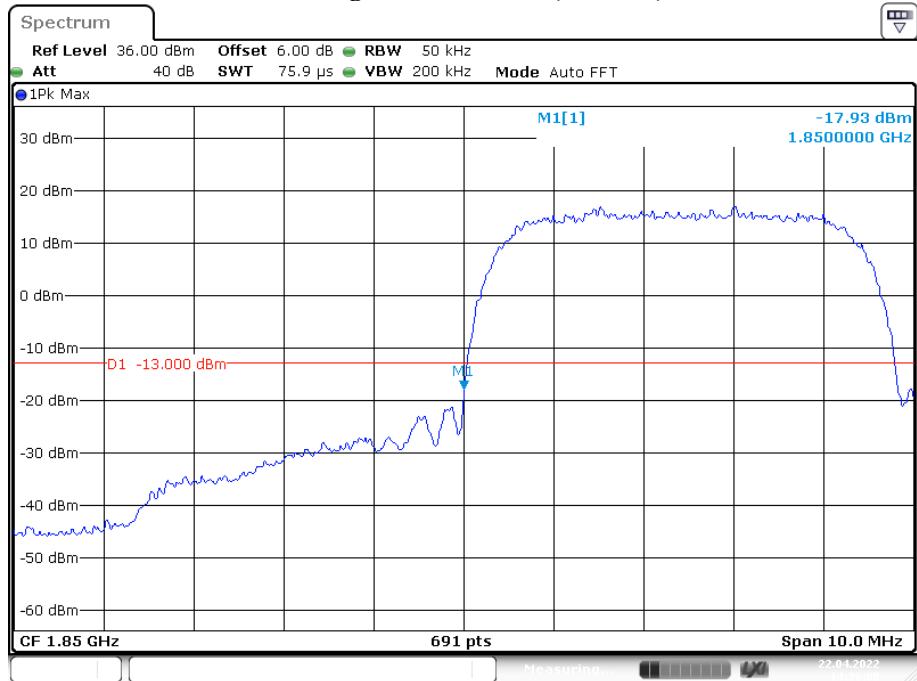
Date: 22 APR 2022 14:37:50

Right Band Edge for WCDMA (HSPA+) Mode



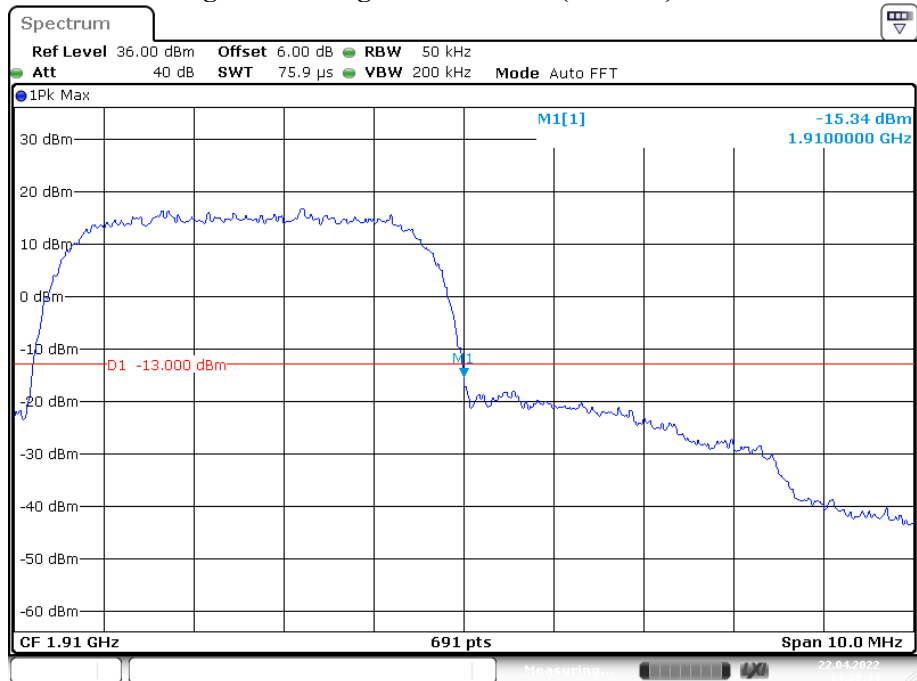
Date: 22 APR 2022 14:28:54

Left Band Edge for WCDMA (HSUPA) Mode



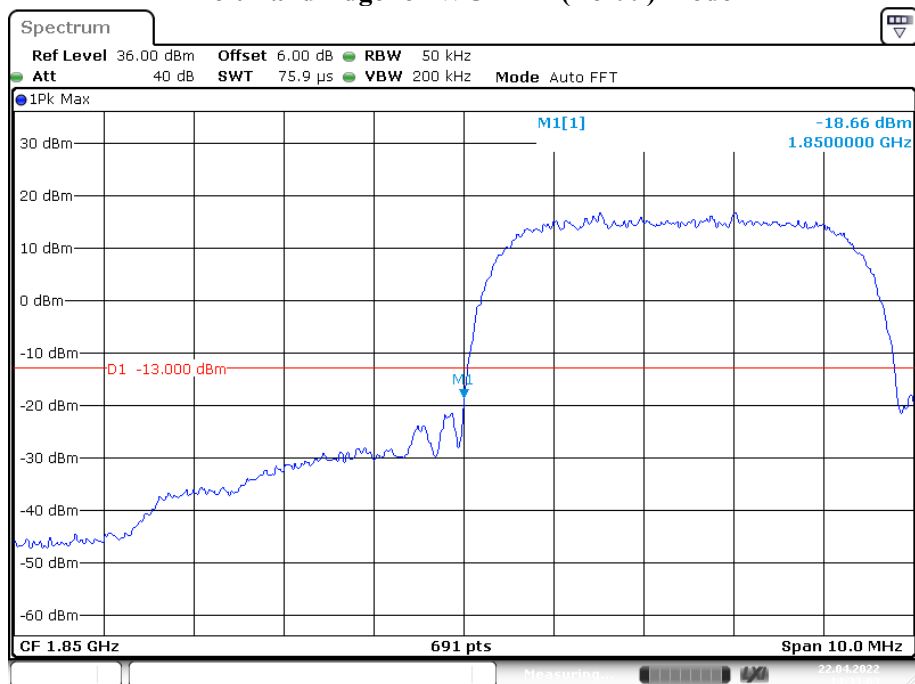
Date: 22 APR 2022 14:36:00

Right Band Edge for WCDMA (HSUPA) Mode



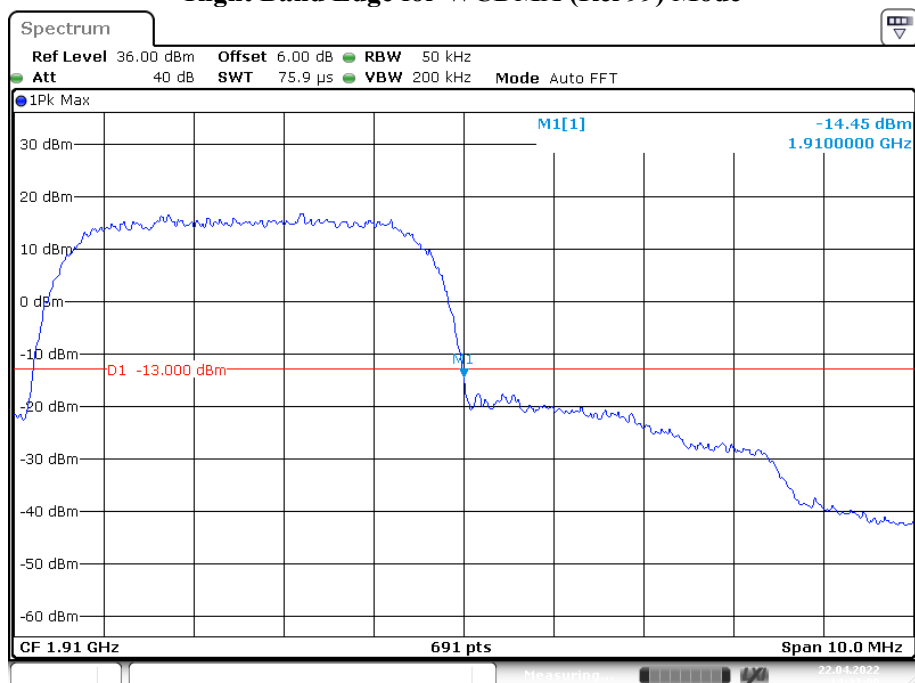
Date: 22 APR 2022 14:29:34

Left Band Edge for WCDMA (Rel 99) Mode

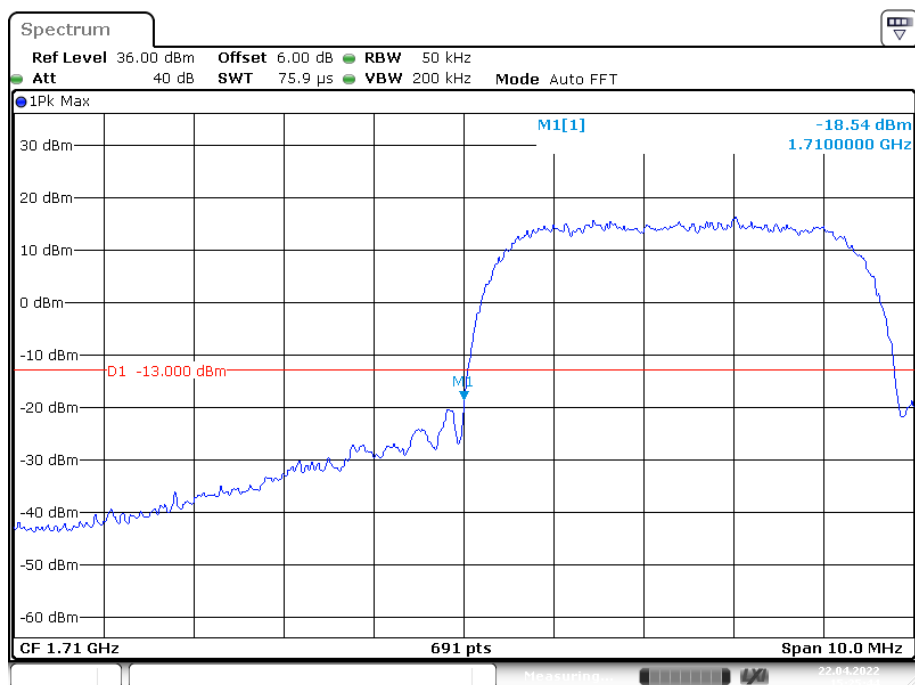


Date: 22 APR 2022 14:33:03

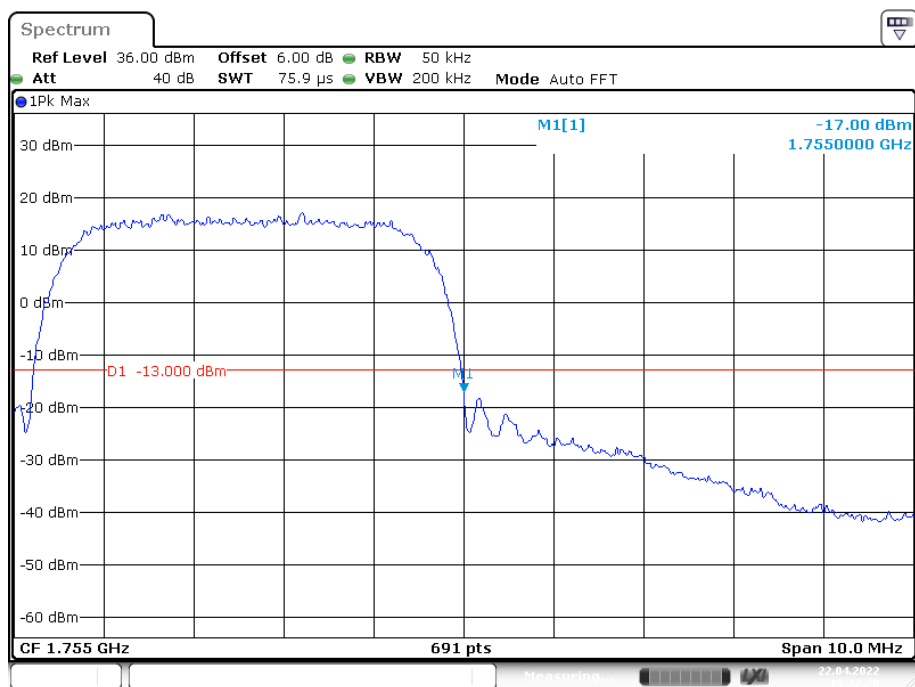
Right Band Edge for WCDMA (Rel 99) Mode



Date: 22 APR 2022 14:32:00

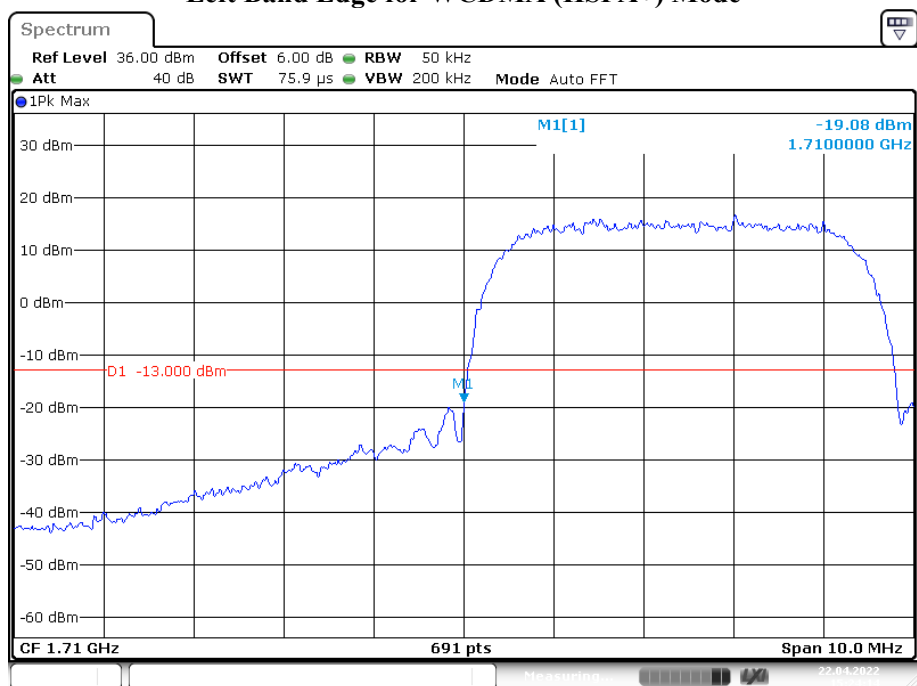
WCDMA Band IV:**Left Band Edge for WCDMA (HSDPA) Mode**

Date: 22 APR 2022 15:25:44

Left Band Edge for WCDMA (HSDPA) Mode

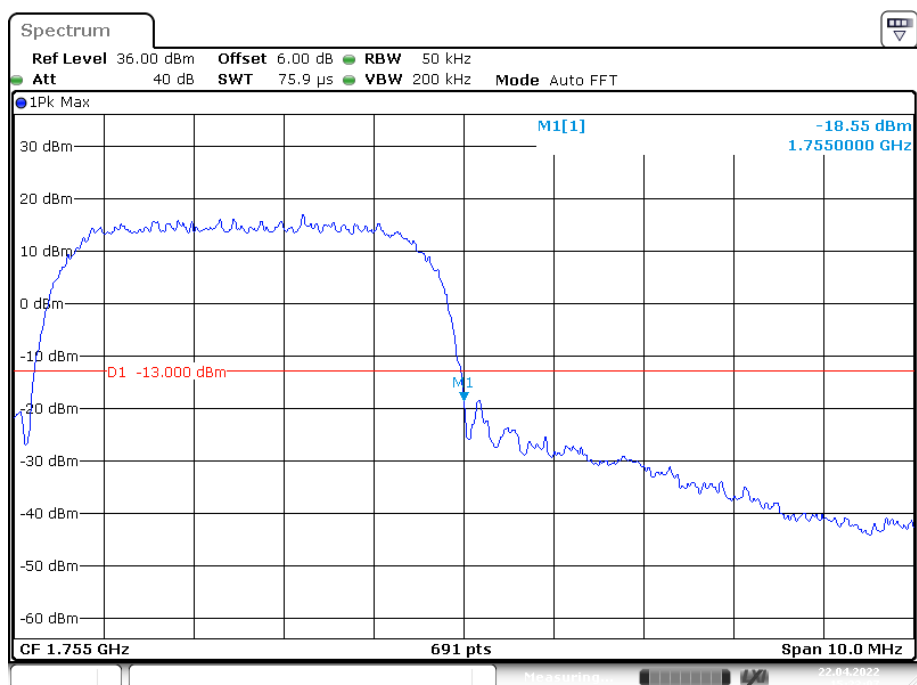
Date: 22 APR 2022 15:22:21

Left Band Edge for WCDMA (HSPA+) Mode



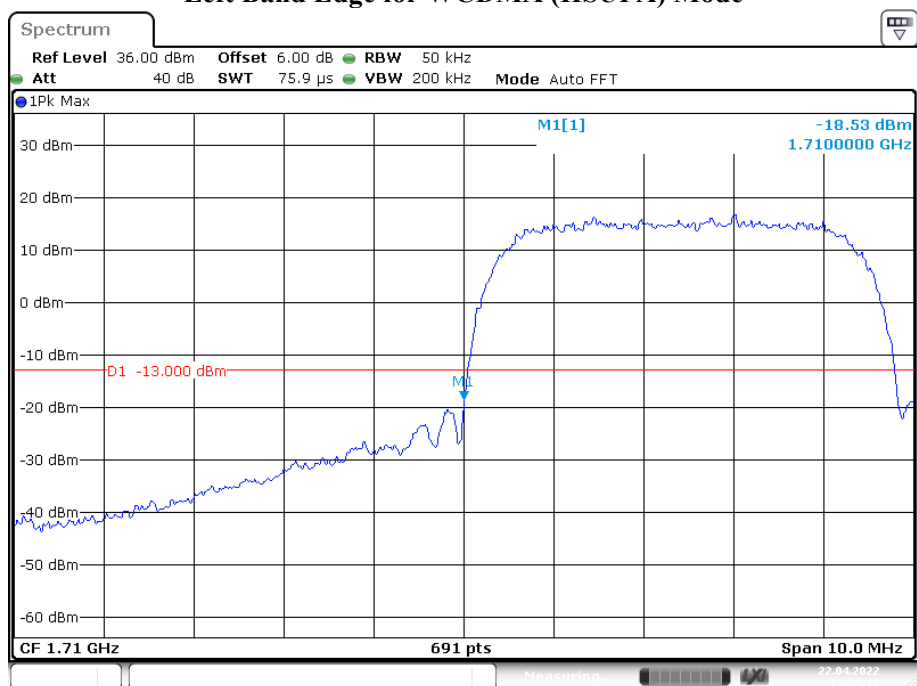
Date: 22 APR 2022 15:24:14

Right Band Edge for WCDMA (HSPA+) Mode



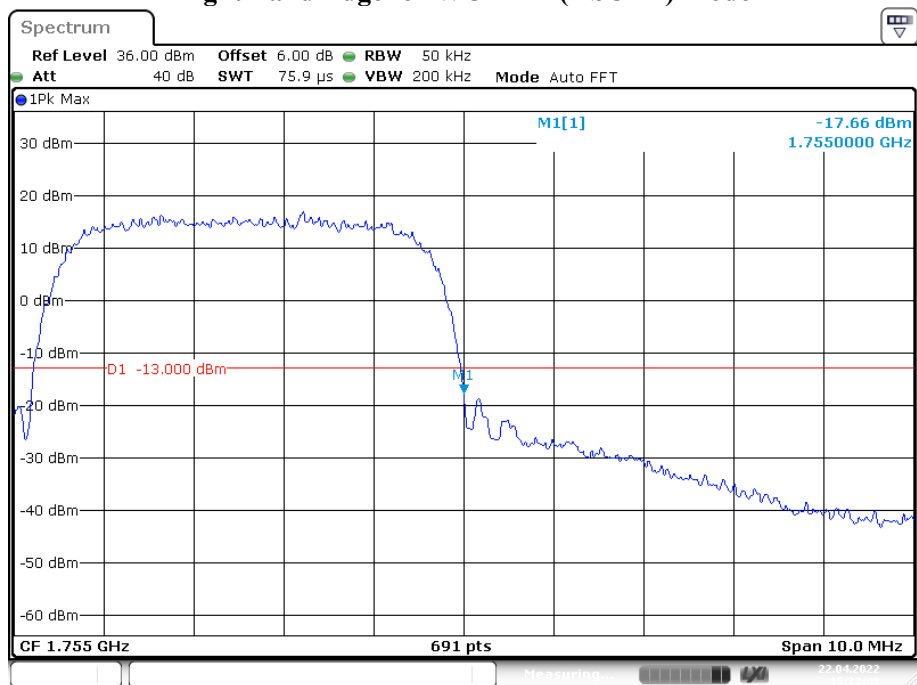
Date: 22 APR 2022 15:23:08

Left Band Edge for WCDMA (HSUPA) Mode



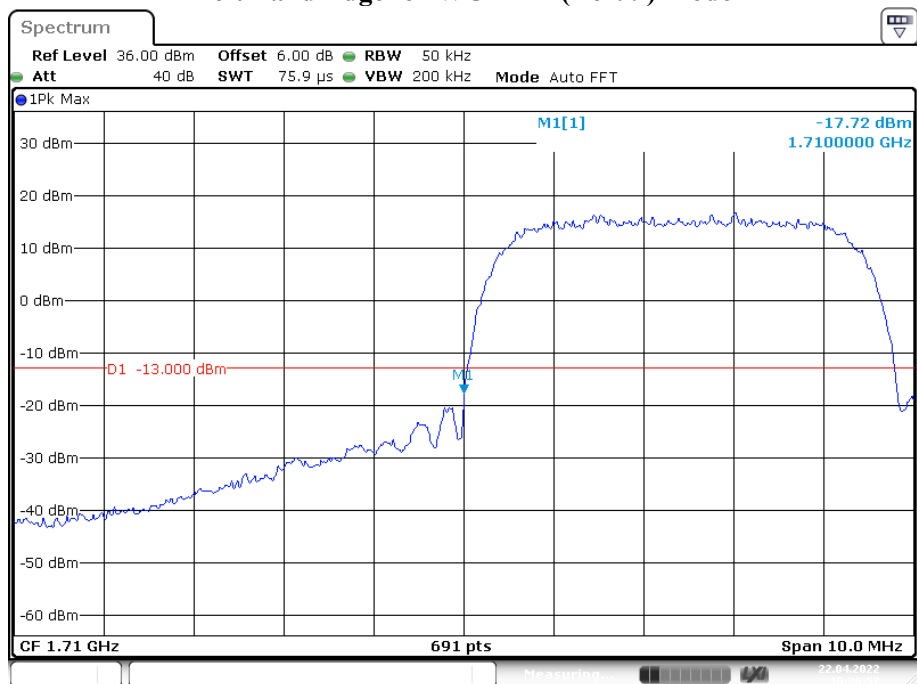
Date: 22 APR 2022 15:25:16

Right Band Edge for WCDMA (HSUPA) Mode



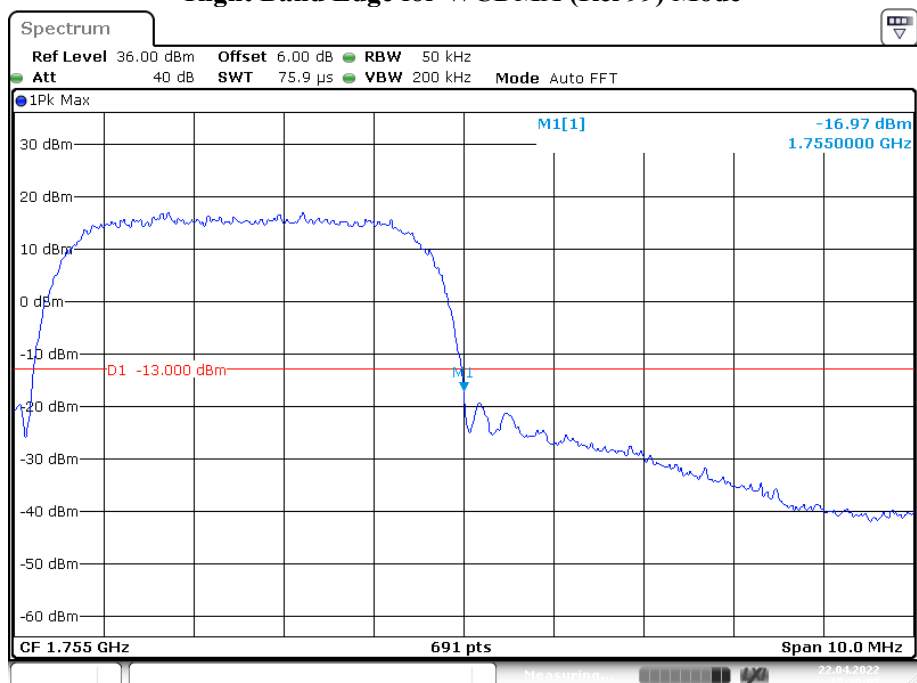
Date: 22 APR 2022 15:22:48

Left Band Edge for WCDMA (Rel 99) Mode

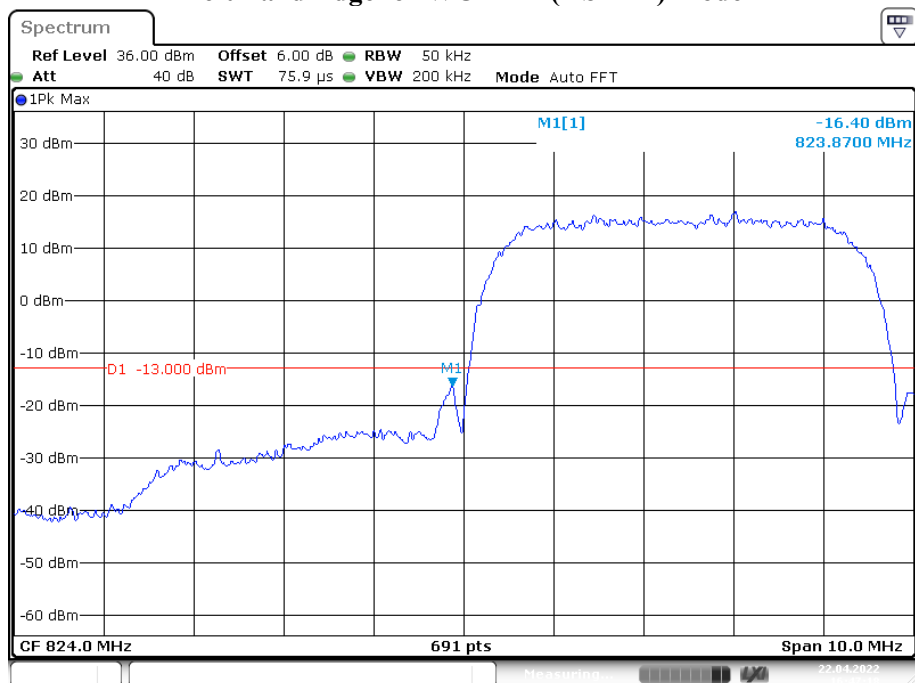


Date: 22 APR 2022 15:26:57

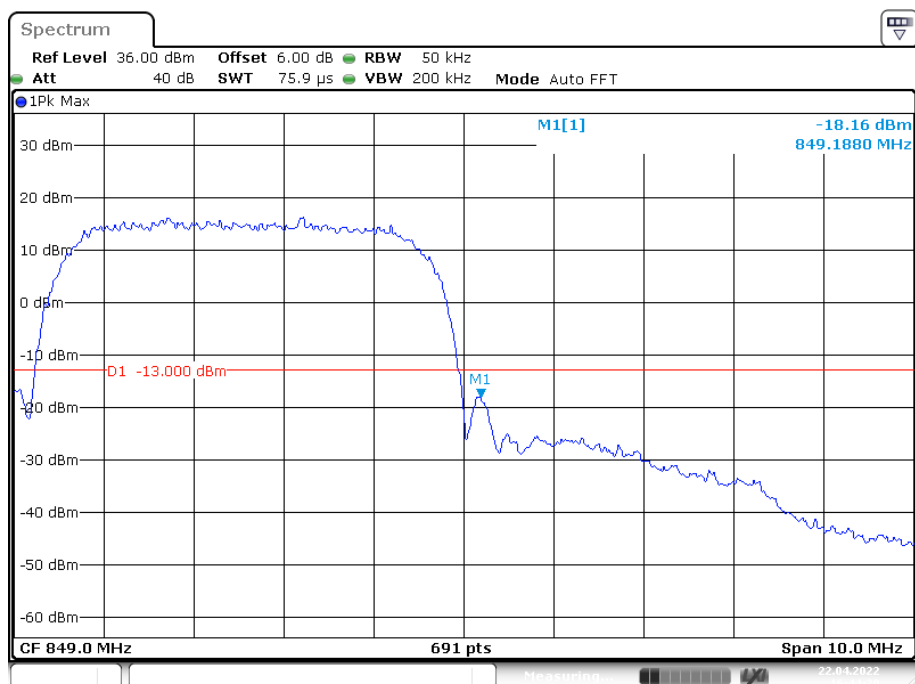
Right Band Edge for WCDMA (Rel 99) Mode



Date: 22 APR 2022 15:20:05

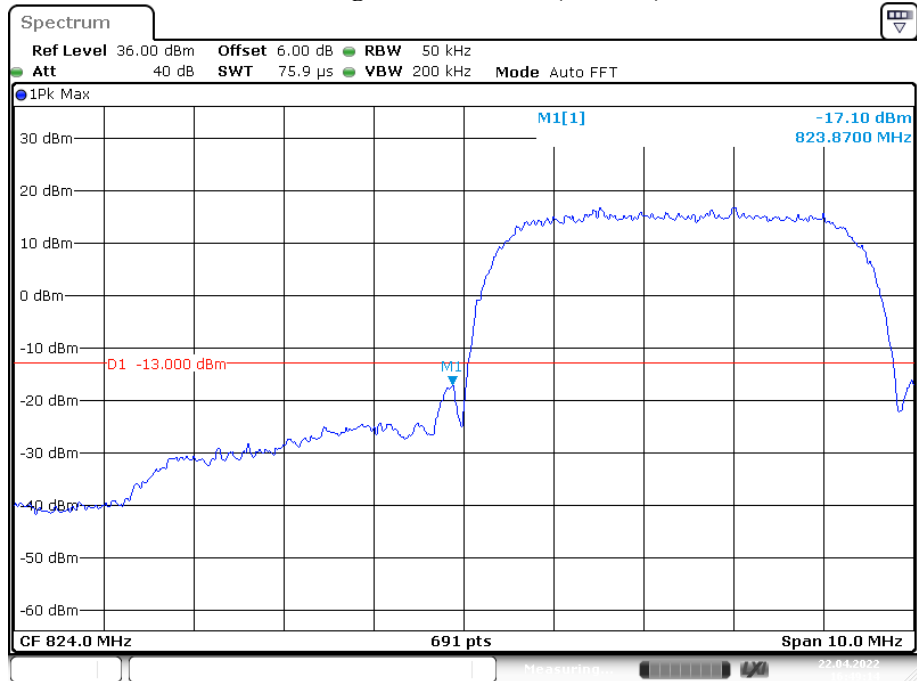
WCDMA Band V:**Left Band Edge for WCDMA (HSDPA) Mode**

Date: 22 APR 2022 16:47:18

Left Band Edge for WCDMA (HSDPA) Mode

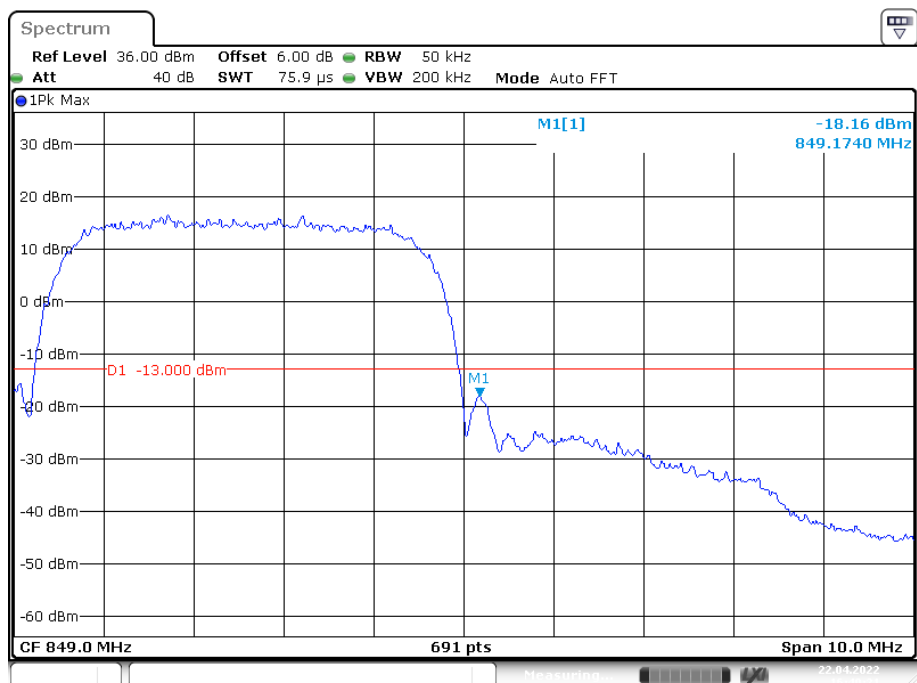
Date: 22 APR 2022 16:44:21

Left Band Edge for WCDMA (HSPA+) Mode



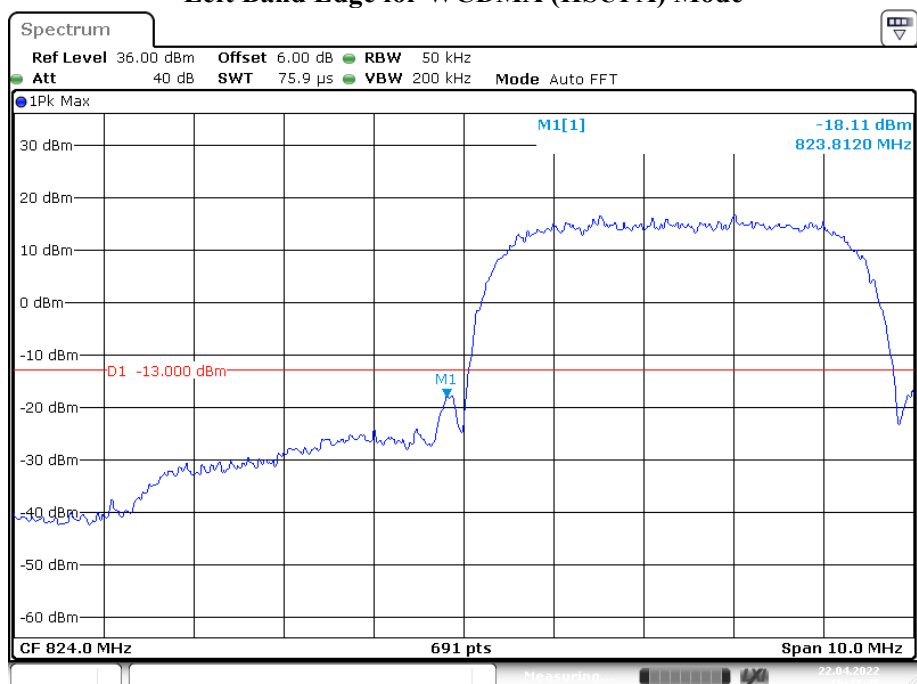
Date: 22 APR 2022 16:49:15

Right Band Edge for WCDMA (HSPA+) Mode



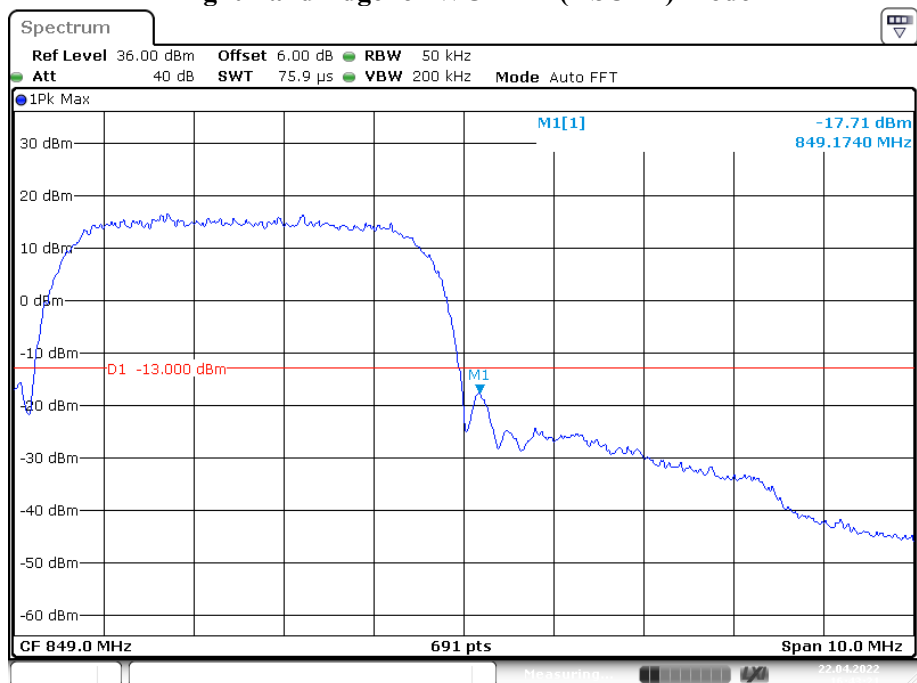
Date: 22 APR 2022 16:40:21

Left Band Edge for WCDMA (HSUPA) Mode



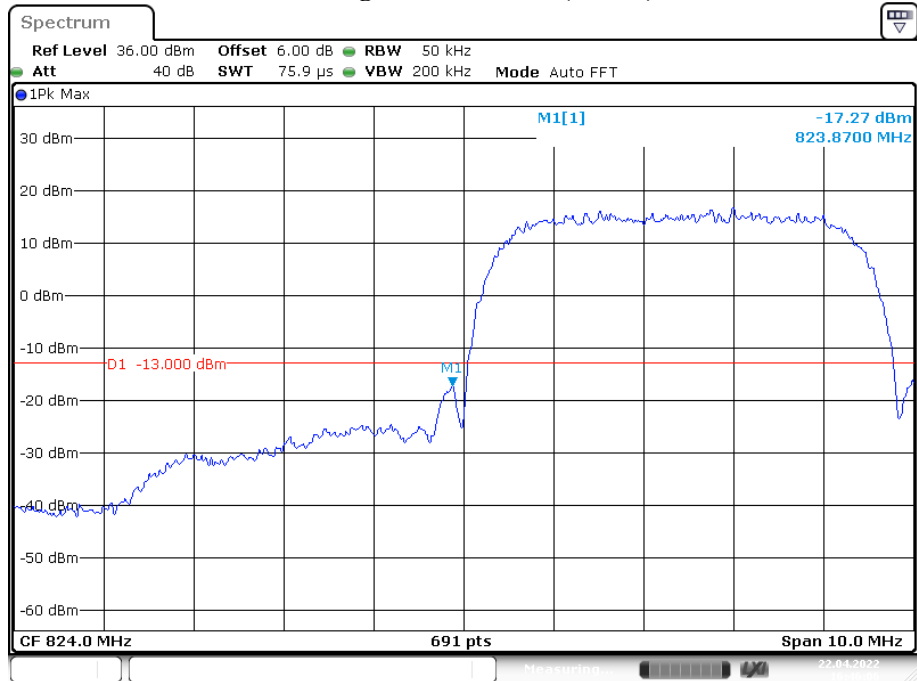
Date: 22 APR 2022 16:47:45

Right Band Edge for WCDMA (HSUPA) Mode



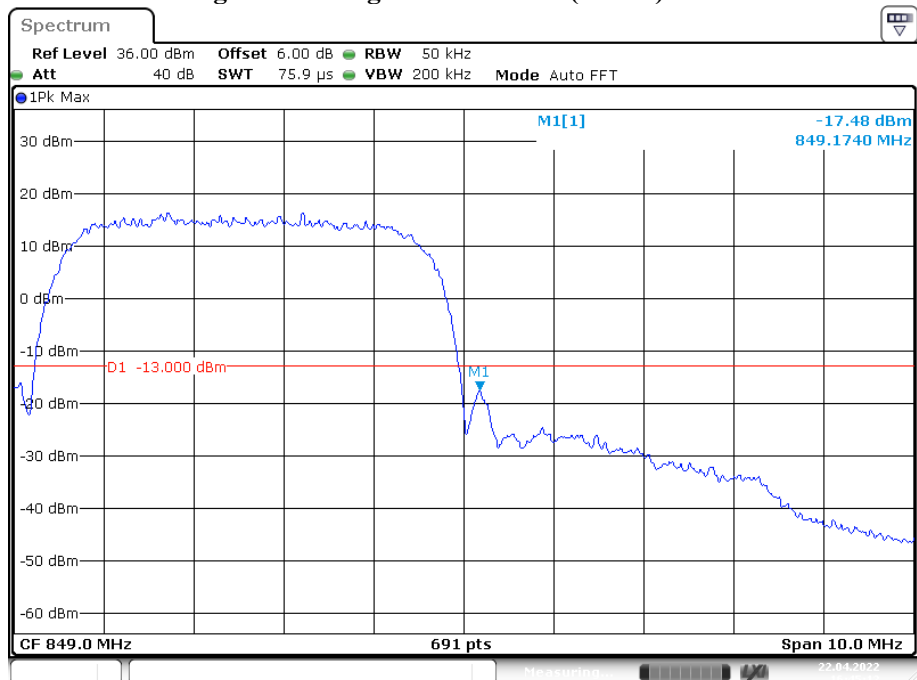
Date: 22 APR 2022 16:43:21

Left Band Edge for WCDMA (Rel 99) Mode



Date: 22 APR 2022 16:46:06

Right Band Edge for WCDMA (Rel 99) Mode



Date: 22 APR 2022 16:45:12

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

FCC § 2.1055; § 22.355; § 24.235; §27.54; §90.213 - FREQUENCY STABILITY

Applicable Standard

FCC § 2.1055, §22.355, §24.235 & §27.54 & §90.213.

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

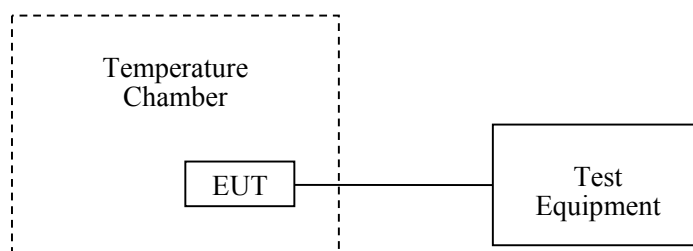
According to §24.235&§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency block.

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:	23~26 °C
Relative Humidity:	48~56 %
ATM Pressure:	100.7~101.0 kPa

The testing was performed by Gala Liu from 2022-04-26 to 2022-04-30.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

GSM 850

GPRS 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.	18	0.02152	2.5
-20		11	0.01315	2.5
-10		11	0.01315	2.5
0		16	0.01913	2.5
10		11	0.01315	2.5
20		17	0.02032	2.5
30		8	0.00956	2.5
40		22	0.02630	2.5
50		13	0.01554	2.5
20	L.V.	15	0.01793	2.5
	H.V.	21	0.02510	2.5

EGPRS 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.	16	0.01913	2.5
-20		16	0.01913	2.5
-10		13	0.01554	2.5
0		7	0.00837	2.5
10		19	0.02271	2.5
20		18	0.02152	2.5
30		17	0.02032	2.5
40		20	0.02391	2.5
50		16	0.01913	2.5
20	L.V.	22	0.02630	2.5
	H.V.	15	0.01793	2.5

PCS 1900

GPRS Mode, Middle Channel, $f_0=1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-15	-0.00798	Pass
-20		-13	-0.00691	Pass
-10		-20	-0.01064	Pass
0		-17	-0.00904	Pass
10		-10	-0.00532	Pass
20		-19	-0.01011	Pass
30		-16	-0.00851	Pass
40		-14	-0.00745	Pass
50		-10	-0.00532	Pass
20	L.V.	-10	-0.00532	Pass
	H.V.	-15	-0.00798	Pass

EGPRS Mode, Middle Channel, $f_0=1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	-21	-0.01117	Pass
-20		-16	-0.00851	Pass
-10		-20	-0.01064	Pass
0		-7	-0.00372	Pass
10		-12	-0.00638	Pass
20		-12	-0.00638	Pass
30		-8	-0.00426	Pass
40		-21	-0.01117	Pass
50		-16	-0.00851	Pass
20	L.V.	-17	-0.00904	Pass
	H.V.	-9	-0.00479	Pass

WCDMA Band V

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.	16	0.01913	2.5
-20		11	0.01315	2.5
-10		13	0.01554	2.5
0		14	0.01673	2.5
10		20	0.02391	2.5
20		16	0.01913	2.5
30		20	0.02391	2.5
40		18	0.02152	2.5
50		8	0.00956	2.5
20	L.V.	14	0.01673	2.5
	H.V.	15	0.01793	2.5

WCDMA Band IV

Low Channel & High Channel					
Temperature	Voltage Supplied	FL	FH	FL Limit	FH Limit
(°C)	(VAC)	(MHz)	(MHz)	(MHz)	(MHz)
-30	N.V.	1710.0459	1754.7469	1710	1755
-20		1710.0415	1754.7459	1710	1755
-10		1710.0484	1754.7479	1710	1755
0		1710.0488	1754.7483	1710	1755
10		1710.0411	1754.7472	1710	1755
20		1710.0498	1754.7427	1710	1755
30		1710.0496	1754.7429	1710	1755
40		1710.0474	1754.7484	1710	1755
50		1710.0457	1754.7498	1710	1755
20	L.V.	1710.0468	1754.7446	1710	1755
	H.V.	1710.0499	1754.7474	1710	1755

WCDMA Band II

Middle Channel, $f_0 = 1880.0$ MHz				
Temperature (°C)	Voltage Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	N.V.	20	0.01064	Pass
-20		16	0.00851	Pass
-10		15	0.00798	Pass
0		14	0.00745	Pass
10		20	0.01064	Pass
20		11	0.00585	Pass
30		21	0.01117	Pass
40		11	0.00585	Pass
50		10	0.00532	Pass
20	L.V.	15	0.00798	Pass
	H.V.	15	0.00798	Pass

LTE Band 2:**QPSK:**

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.	17	0.00904	Pass
-20		8	0.00426	Pass
-10		12	0.00638	Pass
0		14	0.00745	Pass
10		11	0.00585	Pass
20		17	0.00904	Pass
30		14	0.00745	Pass
40		14	0.00745	Pass
50		21	0.01117	Pass
20	L.V.	22	0.01170	Pass
	H.V.	11	0.00585	Pass

16QAM:

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.	16	0.00851	Pass
-20		18	0.00957	Pass
-10		14	0.00745	Pass
0		9	0.00479	Pass
10		16	0.00851	Pass
20		9	0.00479	Pass
30		12	0.00638	Pass
40		16	0.00851	Pass
50		10	0.00532	Pass
20	L.V.	16	0.00851	Pass
	H.V.	12	0.00638	Pass

LTE Band 4:**QPSK:**

Low Channel & High Channel 20 MHz Bandwidth					
Temperature	Power Supplied	F _L	F _H	F _L Limit	F _H Limit
(°C)	(V _{DC})	(MHz)	(MHz)	(MHz)	(MHz)
-30	N.V.	1710.1396	1754.8624	1710	1755
-20		1710.1354	1754.8677	1710	1755
-10		1710.1326	1754.8629	1710	1755
0		1710.1354	1754.8608	1710	1755
10		1710.1311	1754.8627	1710	1755
20		1710.1375	1754.8675	1710	1755
30		1710.1369	1754.8623	1710	1755
40		1710.1388	1754.8697	1710	1755
50		1710.1327	1754.8668	1710	1755
20	L.V.	1710.1372	1754.8617	1710	1755
	H.V.	1710.1396	1754.8641	1710	1755

16QAM:

Low Channel & High Channel 20 MHz Bandwidth					
Temperature	Voltage Supplied	F _L	F _H	F _L Limit	F _H Limit
(°C)	(V _{DC})	(MHz)	(MHz)	(MHz)	(MHz)
-30	N.V.	1710.1377	1754.8653	1710	1755
-20		1710.1372	1754.8638	1710	1755
-10		1710.1305	1754.8685	1710	1755
0		1710.1381	1754.8667	1710	1755
10		1710.1366	1754.8661	1710	1755
20		1710.1342	1754.8604	1710	1755
30		1710.1343	1754.8661	1710	1755
40		1710.1307	1754.8677	1710	1755
50		1710.1329	1754.8663	1710	1755
20	L.V.	1710.1329	1754.8666	1710	1755
	H.V.	1710.1343	1754.8662	1710	1755

LTE Band 5:**QPSK:**

10.0 MHz Middle Channel, $f_o=836.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	15	0.01793	2.5
-20		12	0.01435	2.5
-10		8	0.00956	2.5
0		22	0.02630	2.5
10		20	0.02391	2.5
20		14	0.01674	2.5
30		19	0.02271	2.5
40		13	0.01554	2.5
50		12	0.01435	2.5
20	L.V.	11	0.01315	2.5
	H.V.	16	0.01913	2.5

16QAM:

10.0 MHz Middle Channel, $f_o=836.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	11	0.01315	2.5
-20		13	0.01554	2.5
-10		14	0.01674	2.5
0		22	0.02630	2.5
10		18	0.02152	2.5
20		10	0.01195	2.5
30		7	0.00837	2.5
40		19	0.02271	2.5
50		13	0.01554	2.5
20	L.V.	17	0.02032	2.5
	H.V.	18	0.02152	2.5

LTE Band 7:**QPSK:**

Low Channel & High Channel 20 MHz Bandwidth					
Temperature	Power Supplied	F _L	F _H	F _L Limit	F _H Limit
(°C)	(V _{DC})	(MHz)	(MHz)	(MHz)	(MHz)
-30	N.V.	2500.1023	2569.8041	2500	2570
-20		2500.1021	2569.8049	2500	2570
-10		2500.1014	2569.8025	2500	2570
0		2500.1092	2569.8048	2500	2570
10		2500.1080	2569.8021	2500	2570
20		2500.1076	2569.8035	2500	2570
30		2500.1069	2569.8015	2500	2570
40		2500.1001	2569.8048	2500	2570
50		2500.1022	2569.8049	2500	2570
20	L.V.	2500.1069	2569.8015	2500	2570
	H.V.	2500.1012	2569.8007	2500	2570

16QAM:

Low Channel & High Channel 20 MHz Bandwidth					
Temperature	Voltage Supplied	F _L	F _H	F _L Limit	F _H Limit
(°C)	(V _{DC})	(MHz)	(MHz)	(MHz)	(MHz)
-30	N.V.	2500.1076	2569.8074	2500	2570
-20		2500.1079	2569.8047	2500	2570
-10		2500.1054	2569.8060	2500	2570
0		2500.1074	2569.8068	2500	2570
10		2500.1074	2569.8093	2500	2570
20		2500.1093	2569.8095	2500	2570
30		2500.1088	2569.8097	2500	2570
40		2500.1091	2569.8089	2500	2570
50		2500.1080	2569.8053	2500	2570
20	L.V.	2500.1079	2569.8069	2500	2570
	H.V.	2500.1054	2569.8085	2500	2570

LTE Band 12:**QPSK:**

Low Channel & High Channel 10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	699.0568	715.8169	699	716
-20		699.0544	715.8114	699	716
-10		699.0511	715.8112	699	716
0		699.0531	715.8109	699	716
10		699.0599	715.8182	699	716
20		699.0598	715.8122	699	716
30		699.0565	715.8109	699	716
40		699.0553	715.8139	699	716
50		699.0556	715.8176	699	716
20	L.V.	699.0528	715.8135	699	716
	H.V.	699.0591	715.8145	699	716

16QAM:

Low Channel & High Channel 10 MHz Bandwidth					
Temperature (°C)	Power Supplied (V _{DC})	F _L (MHz)	F _H (MHz)	F _L Limit (MHz)	F _H Limit (MHz)
-30	N.V.	699.0539	715.8134	699	716
-20		699.0592	715.8173	699	716
-10		699.0502	715.8155	699	716
0		699.0513	715.8135	699	716
10		699.0579	715.8102	699	716
20		699.0505	715.8115	699	716
30		699.0543	715.8148	699	716
40		699.0562	715.8147	699	716
50		699.0553	715.8192	699	716
20	L.V.	699.0573	715.8109	699	716
	H.V.	699.0557	715.8154	699	716

LTE Band 17:**QPSK:**

Low Channel & High Channel 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.	704.1688	715.9415	704	716
-20		704.1695	715.9455	704	716
-10		704.1623	715.946	704	716
0		704.1619	715.9435	704	716
10		704.161	715.9423	704	716
20		704.1677	715.9405	704	716
30		704.1671	715.9455	704	716
40		704.1603	715.9476	704	716
50		704.1681	715.9463	704	716
20	L.V.	704.1679	715.9485	704	716
	H.V.	704.1649	715.9481	704	716

16QAM:

Low Channel & High Channel 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.	704.1605	715.8683	704	716
-20		704.1681	715.8644	704	716
-10		704.1645	715.8686	704	716
0		704.1622	715.8611	704	716
10		704.1677	715.8697	704	716
20		704.1609	715.8694	704	716
30		704.1655	715.8602	704	716
40		704.1663	715.8627	704	716
50		704.1651	715.8699	704	716
20	L.V.	704.1652	715.8625	704	716
	H.V.	704.1626	715.8624	704	716

LTE Band 25:**QPSK:**

10.0 MHz Middle Channel, $f_0=1882.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	19	0.010092961	2.5
-20		14	0.007436919	2.5
-10		17	0.009030544	2.5
0		13	0.00690571	2.5
10		16	0.008499336	2.5
20		19	0.010092961	2.5
30		10	0.005312085	2.5
40		18	0.009561753	2.5
50		19	0.010092961	2.5
20	L.V.	14	0.007436919	2.5
	H.V.	17	0.009030544	2.5

16QAM:

10.0 MHz Middle Channel, $f_0=1882.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	15	0.007968127	2.5
-20		9	0.004780876	2.5
-10		13	0.00690571	2.5
0		13	0.00690571	2.5
10		9	0.004780876	2.5
20		18	0.009561753	2.5
30		17	0.009030544	2.5
40		12	0.006374502	2.5
50		9	0.004780876	2.5
20	L.V.	11	0.005843293	2.5
	H.V.	15	0.007968127	2.5

LTE Band 26:**QPSK:**

10.0 MHz Middle Channel, $f_0=831.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	15	0.018039687	2.5
-20		15	0.018039687	2.5
-10		18	0.021647625	2.5
0		15	0.018039687	2.5
10		16	0.019242333	2.5
20		18	0.021647625	2.5
30		12	0.01443175	2.5
40		5	0.006013229	2.5
50		10	0.012026458	2.5
20	L.V.	13	0.015634396	2.5
	H.V.	11	0.013229104	2.5

16QAM:

10.0 MHz Middle Channel, $f_0=831.5\text{MHz}$				
Temperature (°C)	Voltage Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-30	N.V.	14	0.016837041	2.5
-20		18	0.021647625	2.5
-10		15	0.018039687	2.5
0		14	0.016837041	2.5
10		20	0.024052916	2.5
20		10	0.012026458	2.5
30		18	0.021647625	2.5
40		11	0.013229104	2.5
50		15	0.018039687	2.5
20	L.V.	11	0.013229104	2.5
	H.V.	18	0.021647625	2.5

LTE Band 41:**QPSK:**

Low Channel & High Channel 20 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.	2496.1905	2689.8985	2496	2690
-20		2496.1949	2689.8957	2496	2690
-10		2496.1988	2689.8948	2496	2690
0		2496.1968	2689.8964	2496	2690
10		2496.1992	2689.8976	2496	2690
20		2496.1947	2689.8923	2496	2690
30		2496.1954	2689.8963	2496	2690
40		2496.1934	2689.8922	2496	2690
50		2496.1982	2689.8955	2496	2690
20	L.V.	2496.1944	2689.8984	2496	2690
	H.V.	2496.1991	2689.894	2496	2690

16QAM:

Low Channel & High Channel 20 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.	2496.1935	2689.8958	2496	2690
-20		2496.1964	2689.8976	2496	2690
-10		2496.1959	2689.8991	2496	2690
0		2496.1957	2689.8969	2496	2690
10		2496.1960	2689.8918	2496	2690
20		2496.1967	2689.8937	2496	2690
30		2496.1938	2689.8944	2496	2690
40		2496.1936	2689.8953	2496	2690
50		2496.1979	2689.8989	2496	2690
20	L.V.	2496.1943	2689.8968	2496	2690
	H.V.	2496.1951	2689.8928	2496	2690

LTE Band 66:**QPSK:**

Low Channel & High Channel 20 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.	1710.1368	1779.8348	1710	1780
-20		1710.1354	1779.8314	1710	1780
-10		1710.1301	1779.8389	1710	1780
0		1710.1329	1779.8373	1710	1780
10		1710.1369	1779.8343	1710	1780
20		1710.1352	1779.8349	1710	1780
30		1710.1345	1779.8345	1710	1780
40		1710.1375	1779.8305	1710	1780
50		1710.1359	1779.8342	1710	1780
20	L.V.	1710.9502	1779.8311	1710	1780
	H.V.	1710.9564	1779.8323	1710	1780

16QAM:

Low Channel & High Channel 20 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.	1710.1305	1779.8312	1710	1780
-20		1710.1324	1779.8355	1710	1780
-10		1710.1341	1779.8322	1710	1780
0		1710.1359	1779.8381	1710	1780
10		1710.1381	1779.8313	1710	1780
20		1710.1307	1779.8337	1710	1780
30		1710.1389	1779.838	1710	1780
40		1710.1331	1779.8345	1710	1780
50		1710.1384	1779.8307	1710	1780
20	L.V.	1710.1324	1779.8336	1710	1780
	H.V.	1710.137	1779.8354	1710	1780

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