FCC PART 27, PART 90

FCC PART 22H, PART 24E

TEST REPORT

For

Sun Cupid Technology (HK) Ltd.

16/F,CEO Tower,77 Wing Hong Street,Cheung Sha Wan,Kowloon,Hong Kong.

FCC ID: 2ADINT1001L

Report Type:	**Product Type:**
Original Report	LTE Tablet

Report Number:	SZ1210628-25933E-RF-00A
Report Date:	2021-09-09
Reviewed By:	Jimmy Xiao RF Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 5F(B-West) ,6F,7F,the 3rd Phase of Wan Li Industrial Building D,Shihua Rd, FuTian Free Trade Zone, Shenzhen, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	LTE Tablet
Tested Model	T1001L
Multiple Models	Tab 10, NUU Tab 10
Model Differences	Refer to the DoS letter
Frequency Range	GSM 850: 824-849MHz(TX); 869-894MHz(RX) PCS 1900: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) LTE Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 7: 2500-2570MHz(TX); 2620-2690MHz(RX) LTE Band 12: 699-716MHz(TX); 729-746MHz(RX) LTE Band 13: 777-787MHz(TX); 746-756MHz(RX) LTE Band 14: 788-798MHz(TX); 758-768MHz(RX) LTE Band 25: 1850-1915MHz(TX); 1930-1995MHz(RX) LTE Band 26: 814-849MHz(TX); 859-894MHz(RX) LTE Band 30: 2305-2315MHz(TX); 2350-2360MHz(RX) LTE Band 41: 2496-2690MHz(TX/RX) LTE Band 66: 1710-1780MHz(TX); 2110-2180MHz(RX) LTE Band 71: 663-698MHz(TX); 617-652MHz(RX)
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM
Antenna Specification*	GSM850/WCDMA Band 5/LTE Band 5/LTE Band 26: -1.0dBi PCS1900/WCDMA Band 2/ LTE Band 2/LTE Band 25: 2.0dBi WCDMA Band 4/ LTE Band 4/LTE Band 66: 1.0dBi LTE Band 7 /LTE Band 41: 1.0dBi LTE Band 12: 0dBi LTE Band 13: 0.5dBi LTE Band 14: -0.5dBi LTE Band 30: 3.0dBi LTE Band 71: -3.0dBi (provided by the applicant)
Voltage Range	DC 3.85V from battery or DC 5.0V/9.0V/12.0V from adapter
Sample number	SZ1210628-25933E-RF-S1(Assigned by BACL, Shenzhen)
Received date	2021-06-28
Sample/EUT Status	Good condition
Adapter information	Model: A138A-120150U-US4 Input: AC 100-240V ~ 50/60Hz, 0.5A Output: DC 5.0V, 3.0A or 9.0V, 2.0A or 12.0V, 1.5A

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H and Part 24-Subpart E and Subpart 27, Part 90 of the Federal Communication Commissions 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 Service
ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.
Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		±5%
RF output power, conducted		±0.73dB
Unwanted Emission, conducted		±1.6dB
Emissions, Radiated	Below 1GHz	±4.75dB
	Above 1GHz	±4.88dB
Temperature		±1℃
Humidity		±6%
Supply voltages		±0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) ,6F,7F,the 3rd Phase of Wan Li Industrial Building D,Shihua Rd, FuTian Free Trade Zone, Shenzhen, 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.: 342867, the FCC Designation No.: CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

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
GSM850	0.25	824.2	836.6	848.8
PCS1900	0.25	1850.2	1880	1909.8
WCDMA B2	4.2	1852.4	1880	1907.6
WCDMA B4	4.2	1712.4	1732.6	1752.6
WCDMA B5	4.2	826.4	836.6	846.6
LTE B2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE B4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE B5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE B7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560
LTE B12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704.0	707.5	711
LTE B13	5	779.5	782	784.5
	10	/	782	/
LTE B14	5	790.5	793	795.5
	10	/	793	/

Frequency band	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
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	1882.5	1910
	15	1857.5	1882.5	1907.5
	20	1860	1882.5	1905
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	831.5	844
	15	821.5	831.5	841.5
LTE B30	5	2307.5	2310	2312.5
	10	/	2310	/
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	1779.3
	3	1711.5	1745	1778.5
	5	1712.5	1745	1777.5
	10	1715	1745	1775
	15	1717.5	1745	1772.5
	20	1720	1745	1770
LTE B71	5	665.5	680.5	695.5
	10	668	680.5	693
	15	670.5	680.5	690.5
	20	673	680.5	688

Equipment Modifications

No modification was made to the EUT.

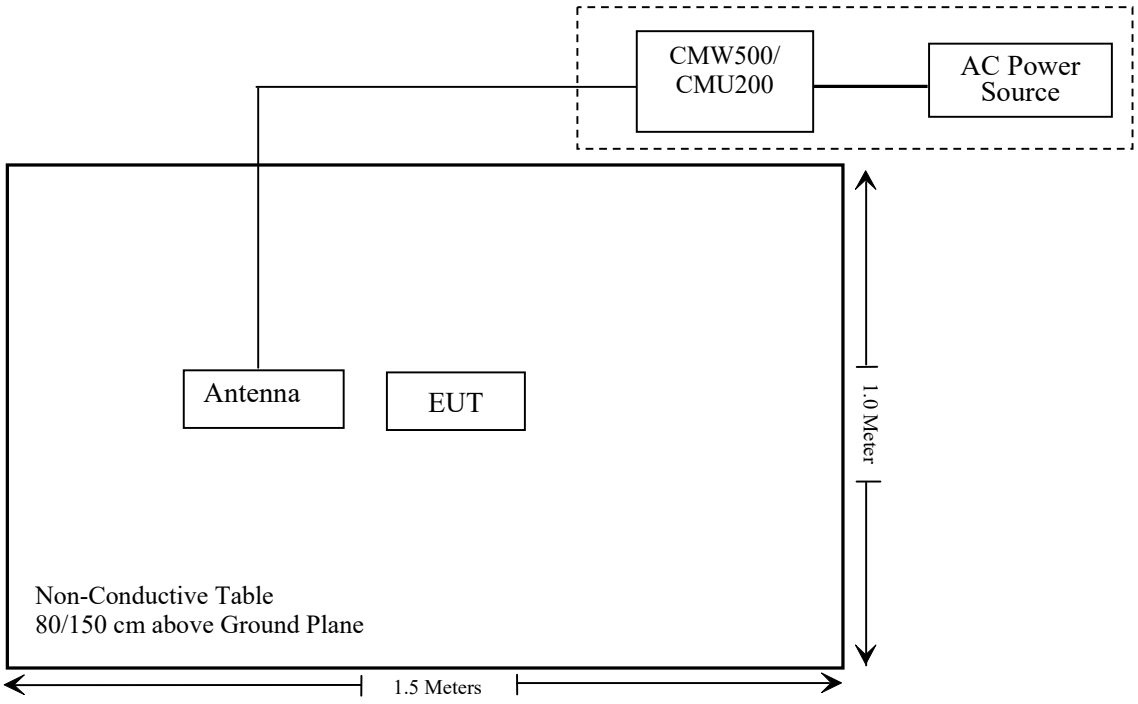
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605
Rohde & Schwarz	Wideband Radio Communication tester	CMW500	146520

Support Cable Description

Cable Description	Length (m)	From / Port	To
Un-Shielded 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; §90.635; §90.542(a)(7)	RF Output Power	Compliant
§2.1047	Modulation Characteristics	Not Applicable
§2.1049; §22.905; §22.917; §24.238; §27.53; §90.209	Occupied Bandwidth	Compliant
§2.1051; §22.917 (a); §24.238 (a); §27.53; §90.691; §90.543(e)	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); § 24.238 (a); §27.53 §90.691; §90.543(e)	Field Strength of Spurious Radiation	Compliant
§ 22.917 (a); § 24.238 (a); §27.53 §90.691; §90.543(e)	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54; §90.213; §90.539(e)	Frequency stability	Compliant

Note: * Please refer to SAR report released by BACL, report number: SZ1210628-25933E-SA.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2020/08/04	2022/08/03
Sonoma instrument	Pre-amplifier	310 N	186238	2020/08/04	2022/08/03
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2020/12/22	2023/12/21
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Unknown	Cable 2	RF Cable 2	F-03-EM197	2020/11/29	2021/11/28
Unknown	Cable	Chamber Cable 4	EC-007	2020/11/29	2021/11/28
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	102259	2020/08/04	2022/08/03
COM-POWER	Pre-amplifier	PA-122	181919	2020/11/29	2021/11/28
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2020/11/28	2021/11/27
Sunol Sciences	Horn Antenna	3115	9107-3694	2021/01/15	2024/01/14
A.H.System	Horn Antenna	SAS-200/571	135	2018/09/01	2021/08/31
Insulted Wire Inc.	RF Cable	SPS-2503-3150	02222010	2020/11/29	2021/11/28
Unknown	RF Cable	W1101-EQ1 OUT	F-19-EM005	2020/11/29	2021/11/28
Unknown	Signal Cable	RG-214	2	2020/11/29	2021/11/28
MICRO-TRONICS	Passband filter	HPM50111	F-19-EM006	2021/04/20	2022/04/20
Unknown	High Pass filter	1.3GHz	101120	2021/04/20	2022/04/20
the electro-Mechanics Co	Horn Antenna	3116	9510-2270	2019/10/13	2022/10/12
Agilent	Signal Generator	N5183A	MY51040755	2020/12/29	2021/12/28

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200120	2021/04/02	2022/04/01
Unknown	RF Cable	Unknown	0501 067	2020/11/29	2021/11/28
Weinschel	Power divider	1515	RH386	2021/04/20	2022/04/20
ESPEC	Temperature & Humidity Chamber	EL-10KA	9107726	2021/02/23	2022/02/22
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	115500	2020/07/31	2022/07/30
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	1201.002K50-146520-wh	2020/08/04	2022/08/03
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2020/07/23	2022/07/22

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

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

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: SZ1210628-25933E-SA.

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E & 27 & Part 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, §90.635, §90.542(a)(7) - RF OUTPUT POWER

Applicable Standard

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

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

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

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

According to §27.50(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(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 2500-2570MHz & 2496-2690MHz.

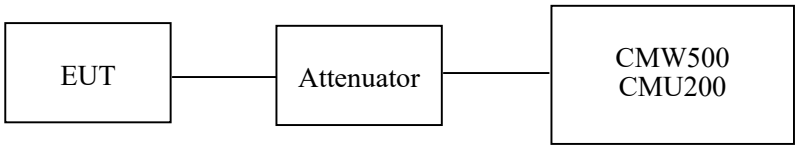
According to §27.50(a)(3), (i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

According to §90.542(a)(7), Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

Test Procedure

Conducted method:

The RF output of the transmitter was connected to the CMW500/CMU200 through sufficient attenuation.



Test Data

Environmental Conditions

Temperature:	28~29.4 ℃
Relative Humidity:	52~-60 %
ATM Pressure:	101.0 ~102.0kPa

The testing was performed by Pedro Yun from 2021-07-08 to 2021-09-03.

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				ERP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	128	824.2	33.31	32.48	30.51	29.41	30.16	29.33	27.36	26.26	38.45
	190	836.6	33.36	32.54	30.61	29.51	30.21	29.39	27.46	26.36	38.45
	251	848.8	33.29	32.51	30.60	29.45	30.14	29.36	27.45	26.30	38.45

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				ERP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	128	824.2	26.64	25.41	23.19	21.87	23.49	22.26	20.04	18.72	38.45
	190	836.6	26.79	25.51	23.22	22.03	23.64	22.36	20.07	18.88	38.45
	251	848.8	26.84	25.67	23.31	22.75	23.69	22.52	20.16	19.60	38.45

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 5)	RMC12.2k		23.87	23.94	23.90	20.72	20.79	20.75
	HSDPA	1	22.98	22.94	22.96	19.83	19.79	19.81
		2	22.58	22.54	22.56	19.43	19.39	19.41
		3	22.78	22.44	22.46	19.63	19.29	19.31
		4	22.88	22.74	22.96	19.73	19.59	19.81
	HSUPA	1	23.01	23.47	23.24	19.86	20.32	20.09
		2	23.51	23.17	23.34	20.36	20.02	20.19
		3	23.41	23.47	23.64	20.26	20.32	20.49
		4	23.71	23.47	23.14	20.56	20.32	19.99
		5	23.01	23.07	23.44	19.86	19.92	20.29
	HSPA+	1	22.45	23.56	23.75	19.30	20.41	20.60

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For GSM850/WCDMA Band5: Antenna Gain = -1.0dBi = -3.15dBd (0dBd=2.15dBi)
Limit: ERP≤38.45dBm

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP (dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
GPRS	512	1850.2	29.55	28.84	27.16	25.61	31.55	30.84	29.16	27.61	33
	661	1880.0	29.30	28.58	26.89	25.87	31.30	30.58	28.89	27.87	33
	810	1909.8	29.08	28.37	26.65	25.63	31.08	30.37	28.65	27.63	33

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)				EIRP(dBm)				Limit (dBm)
			1 slot	2 slots	3 slots	4 slots	1 slot	2 slots	3 slots	4 slots	
EGPRS	512	1850.2	25.68	24.56	22.54	20.98	27.68	26.56	24.54	22.98	33
	661	1880.0	25.14	24.10	21.90	20.50	27.14	26.10	23.90	22.50	33
	810	1909.8	24.70	23.10	21.87	20.04	26.70	25.10	23.87	22.04	33

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 2)	RMC12.2k		22.84	22.95	22.92	24.84	24.95	24.92
	HSDPA	1	21.87	21.91	21.88	23.87	23.91	23.88
		2	21.47	21.61	21.58	23.47	23.61	23.58
		3	21.47	21.41	21.58	23.47	23.41	23.58
		4	21.57	21.41	21.58	23.57	23.41	23.58
	HSUPA	1	21.88	22.06	22.02	23.88	24.06	24.02
		2	21.48	22.16	22.02	23.48	24.16	24.02
		3	21.48	22.46	22.42	23.48	24.46	24.42
		4	21.68	22.46	22.02	23.68	24.46	24.02
		5	21.78	22.06	22.42	23.78	24.06	24.42
	HSPA+	1	21.46	21.45	21.47	23.46	23.45	23.47

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For PCS1900/WCDMA Band 2: Antenna Gain = 2.0dBi
Limit: EIRP≤33dBm

AWS Band (Part 27)

Mode	Test Mode	3GPP Sub Test	Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
WCDMA (Band 4)	RMC12.2k		24.12	24.04	24.15	25.12	25.04	25.15
	HSDPA	1	23.05	23.09	23.12	24.05	24.09	24.12
		2	23.17	23.64	22.44	24.17	24.64	23.44
		3	23.21	23.35	23.21	24.21	24.35	24.21
		4	23.14	23.52	23.55	24.14	24.52	24.55
	HSUPA	1	22.64	22.68	22.71	23.64	23.68	23.71
		2	22.46	22.24	22.81	23.46	23.24	23.81
		3	22.07	22.76	22.41	23.07	23.76	23.41
		4	23.08	22.72	22.64	24.08	23.72	23.64
		5	23.07	23.35	22.65	24.07	24.35	23.65
	HSPA+	1	23.29	22.46	22.21	24.29	23.46	23.21

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For WCDMA Band 4: Antenna Gain = 1.0dBi
Limit: EIRP≤30dBm

Peak-to-average ratio (PAR)

Cellular Band

Mode	Channel	PAR (dB)	Limit (dB)
GPRS	Low	3.15	13
	Middle	3.21	13
	High	3.36	13
EGPRS	Low	3.45	13
	Middle	3.25	13
	High	3.47	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.27	13
	Middle	3.29	13
	High	3.25	13
HSDPA (16QAM)	Low	3.24	13
	Middle	3.41	13
	High	3.51	13
HSUPA (BPSK)	Low	3.36	13
	Middle	3.47	13
	High	3.44	13
HSPA+	Low	3.21	13
	Middle	3.25	13
	High	3.46	13

PCS Band

Mode	Channel	PAR (dB)	Limit (dB)
GPRS	Low	3.56	13
	Middle	3.17	13
	High	3.25	13
EGPRS	Low	3.56	13
	Middle	3.27	13
	High	3.54	13

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.41	13
	Middle	3.29	13
	High	3.45	13
HSDPA (16QAM)	Low	3.66	13
	Middle	3.45	13
	High	3.61	13
HSUPA (BPSK)	Low	3.45	13
	Middle	3.26	13
	High	3.47	13
HSPA+	Low	3.45	13
	Middle	3.61	13
	High	3.47	13

AWS Band

Mode	Channel	PAR (dB)	Limit (dB)
RMC (BPSK)	Low	3.71	13
	Middle	3.59	13
	High	3.44	13
HSDPA (16QAM)	Low	3.76	13
	Middle	3.45	13
	High	3.74	13
HSUPA (BPSK)	Low	3.47	13
	Middle	3.55	13
	High	3.47	13
HSPA+	Low	3.76	13
	Middle	3.65	13
	High	3.47	13

LTE Band 2:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.20	23.14	23.12	25.20	25.14	25.12
		RB1#3	23.35	23.26	23.23	25.35	25.26	25.23
		RB1#5	23.19	23.16	23.08	25.19	25.16	25.08
		RB3#0	23.25	23.22	23.16	25.25	25.22	25.16
		RB3#3	23.22	23.18	23.11	25.22	25.18	25.11
		RB6#0	22.22	22.19	22.19	24.22	24.19	24.19
	16QAM	RB1#0	22.21	22.23	22.09	24.21	24.23	24.09
		RB1#3	22.31	22.35	22.22	24.31	24.35	24.22
		RB1#5	22.17	22.23	22.08	24.17	24.23	24.08
		RB3#0	22.34	22.10	22.14	24.34	24.10	24.14
		RB3#3	22.28	22.15	22.13	24.28	24.15	24.13
		RB6#0	21.30	21.25	21.13	23.30	23.25	23.13
3.0	QPSK	RB1#0	23.31	23.27	23.26	25.31	25.27	25.26
		RB1#8	23.26	23.24	23.20	25.26	25.24	25.20
		RB1#14	23.27	23.24	23.24	25.27	25.24	25.24
		RB6#0	22.29	22.22	22.19	24.29	24.22	24.19
		RB6#9	22.28	22.21	22.20	24.28	24.21	24.20
		RB15#0	22.25	22.20	22.16	24.25	24.20	24.16
	16QAM	RB1#0	22.77	22.36	22.23	24.77	24.36	24.23
		RB1#8	22.72	22.33	22.13	24.72	24.33	24.13
		RB1#14	22.74	22.31	22.17	24.74	24.31	24.17
		RB6#0	21.37	21.25	21.14	23.37	23.25	23.14
		RB6#9	21.30	21.26	21.17	23.30	23.26	23.17
		RB15#0	21.31	21.20	21.23	23.31	23.20	23.23

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.26	23.20	23.14	25.26	25.20	25.14
		RB1#13	23.29	23.28	23.21	25.29	25.28	25.21
		RB1#24	23.23	23.20	23.13	25.23	25.20	25.13
		RB15#0	22.29	22.20	22.14	24.29	24.20	24.14
		RB15#10	22.28	22.23	22.21	24.28	24.23	24.21
		RB25#0	22.24	22.19	22.15	24.24	24.19	24.15
	16QAM	RB1#0	22.11	22.45	22.20	24.11	24.45	24.20
		RB1#13	22.17	22.50	22.27	24.17	24.50	24.27
		RB1#24	22.10	22.44	22.15	24.10	24.44	24.15
		RB15#0	21.31	21.18	21.16	23.31	23.18	23.16
		RB15#10	21.33	21.25	21.26	23.33	23.25	23.26
		RB25#0	21.31	21.21	21.18	23.31	23.21	23.18
10.0	QPSK	RB1#0	23.27	23.21	23.21	25.27	25.21	25.21
		RB1#25	23.46	23.40	23.44	25.46	25.40	25.44
		RB1#49	23.23	23.18	23.18	25.23	25.18	25.18
		RB25#0	22.32	22.23	22.17	24.32	24.23	24.17
		RB25#25	22.30	22.25	22.33	24.30	24.25	24.33
		RB50#0	22.29	22.26	22.22	24.29	24.26	24.22
	16QAM	RB1#0	22.77	22.32	22.16	24.77	24.32	24.16
		RB1#25	22.95	22.54	22.41	24.95	24.54	24.41
		RB1#49	22.77	22.30	22.15	24.77	24.30	24.15
		RB25#0	21.39	21.31	21.32	23.39	23.31	23.32
		RB25#25	21.36	21.31	21.44	23.36	23.31	23.44
		RB50#0	21.31	21.24	21.31	23.31	23.24	23.31

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.22	23.16	23.16	25.22	25.16	25.16
		RB1#38	23.24	23.21	23.23	25.24	25.21	25.23
		RB1#74	23.09	23.08	23.08	25.09	25.08	25.08
		RB36#0	22.31	22.21	22.26	24.31	24.21	24.26
		RB36#39	22.28	22.24	22.34	24.28	24.24	24.34
		RB75#0	22.28	22.23	22.35	24.28	24.23	24.35
	16QAM	RB1#0	22.73	22.29	22.45	24.73	24.29	24.45
		RB1#38	22.80	22.32	22.54	24.80	24.32	24.54
		RB1#74	22.65	22.19	22.42	24.65	24.19	24.42
		RB36#0	21.36	21.22	21.25	23.36	23.22	23.25
		RB36#39	21.30	21.26	21.28	23.30	23.26	23.28
		RB75#0	21.27	21.27	21.30	23.27	23.27	23.30
20.0	QPSK	RB1#0	23.20	23.19	23.00	25.20	25.19	25.00
		RB1#50	23.40	23.38	23.30	25.40	25.38	25.30
		RB1#99	23.15	23.07	23.03	25.15	25.07	25.03
		RB50#0	22.23	22.12	22.22	24.23	24.12	24.22
		RB50#50	22.14	22.17	22.24	24.14	24.17	24.24
		RB100#0	22.19	22.15	22.27	24.19	24.15	24.27
	16QAM	RB1#0	22.44	22.31	22.52	24.44	24.31	24.52
		RB1#50	22.66	22.53	22.81	24.66	24.53	24.81
		RB1#99	22.41	22.25	22.50	24.41	24.25	24.50
		RB50#0	21.23	21.16	21.24	23.23	23.16	23.24
		RB50#50	21.16	21.14	21.23	23.16	23.14	23.23
		RB100#0	21.25	21.17	21.28	23.25	23.17	23.28

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 2: Antenna Gain =2.0dBi
Limit: EIRP≤33dBm

Peak-to-average ratio (PAR)

20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.23	4.81	4.58	13	Pass
QPSK (100RB Size)	5.42	5.38	5.42	13	Pass
16QAM (1RB Size)	5.16	6.06	5.32	13	Pass
16QAM (100RB Size)	6.15	6.25	6.19	13	Pass

LTE Band 4

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	24.06	24.03	23.96	25.06	25.03	24.96
		RB1#3	24.23	24.18	24.08	25.23	25.18	25.08
		RB1#5	24.05	23.99	23.94	25.05	24.99	24.94
		RB3#0	24.11	24.07	23.96	25.11	25.07	24.96
		RB3#3	24.12	24.07	24.01	25.12	25.07	25.01
		RB6#0	23.24	23.14	23.07	24.24	24.14	24.07
	16QAM	RB1#0	23.07	23.12	22.92	24.07	24.12	23.92
		RB1#3	23.26	23.32	23.09	24.26	24.32	24.09
		RB1#5	23.07	23.15	22.94	24.07	24.15	23.94
		RB3#0	23.28	23.05	23.01	24.28	24.05	24.01
		RB3#3	23.22	23.07	23.02	24.22	24.07	24.02
		RB6#0	22.16	22.08	21.96	23.16	23.08	22.96
3.0	QPSK	RB1#0	24.10	24.03	24.00	25.10	25.03	25.00
		RB1#8	24.03	24.01	24.01	25.03	25.01	25.01
		RB1#14	24.01	23.99	23.96	25.01	24.99	24.96
		RB6#0	23.09	23.03	22.98	24.09	24.03	23.98
		RB6#9	23.11	23.03	22.94	24.11	24.03	23.94
		RB15#0	23.05	23.05	22.97	24.05	24.05	23.97
	16QAM	RB1#0	23.58	23.21	22.96	24.58	24.21	23.96
		RB1#8	23.50	23.15	22.96	24.50	24.15	23.96
		RB1#14	23.50	23.19	22.93	24.50	24.19	23.93
		RB6#0	22.14	22.02	21.88	23.14	23.02	22.88
		RB6#9	22.12	22.05	21.86	23.12	23.05	22.86
		RB15#0	22.07	22.00	22.00	23.07	23.00	23.00

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	24.00	23.98	23.84	25.00	24.98	24.84
		RB1#13	24.06	24.05	23.97	25.06	25.05	24.97
		RB1#24	23.94	23.96	23.86	24.94	24.96	24.86
		RB15#0	23.04	23.06	23.02	24.04	24.06	24.02
		RB15#10	23.14	23.10	22.99	24.14	24.10	23.99
		RB25#0	23.04	23.05	22.94	24.04	24.05	23.94
	16QAM	RB1#0	22.94	23.27	22.89	23.94	24.27	23.89
		RB1#13	22.98	23.33	22.98	23.98	24.33	23.98
		RB1#24	22.84	23.24	22.93	23.84	24.24	23.93
		RB15#0	22.02	22.02	22.01	23.02	23.02	23.01
		RB15#10	22.14	22.04	21.96	23.14	23.04	22.96
		RB25#0	22.05	22.01	21.96	23.05	23.01	22.96
10.0	QPSK	RB1#0	24.05	24.03	23.98	25.05	25.03	24.98
		RB1#25	24.18	24.19	24.13	25.18	25.19	25.13
		RB1#49	24.07	24.02	24.01	25.07	25.02	25.01
		RB25#0	23.01	23.10	23.03	24.01	24.10	24.03
		RB25#25	23.10	23.11	22.97	24.10	24.11	23.97
		RB50#0	23.09	23.07	22.98	24.09	24.07	23.98
	16QAM	RB1#0	23.55	23.17	22.96	24.55	24.17	23.96
		RB1#25	23.61	23.31	23.07	24.61	24.31	24.07
		RB1#49	23.51	23.18	22.93	24.51	24.18	23.93
		RB25#0	22.04	22.08	22.09	23.04	23.08	23.09
		RB25#25	22.13	22.10	22.04	23.13	23.10	23.04
		RB50#0	22.05	22.09	22.00	23.05	23.09	23.00

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.99	23.97	23.93	24.99	24.97	24.93
		RB1#38	24.06	24.07	24.04	25.06	25.07	25.04
		RB1#74	23.97	23.91	23.92	24.97	24.91	24.92
		RB36#0	23.15	23.15	23.17	24.15	24.15	24.17
		RB36#39	23.22	23.17	23.12	24.22	24.17	24.12
		RB75#0	23.17	23.19	23.12	24.17	24.19	24.12
	16QAM	RB1#0	23.52	23.11	23.30	24.52	24.11	24.30
		RB1#38	23.52	23.21	23.33	24.52	24.21	24.33
		RB1#74	23.46	23.08	23.21	24.46	24.08	24.21
		RB36#0	22.04	22.06	22.04	23.04	23.06	23.04
		RB36#39	22.12	22.14	21.98	23.12	23.14	22.98
		RB75#0	22.10	22.13	22.03	23.10	23.13	23.03
20.0	QPSK	RB1#0	23.94	23.97	23.84	24.94	24.97	24.84
		RB1#50	24.22	24.22	24.12	25.22	25.22	25.12
		RB1#99	23.94	23.93	23.84	24.94	24.93	24.84
		RB50#0	22.94	23.03	23.03	23.94	24.03	24.03
		RB50#50	23.03	23.05	22.90	24.03	24.05	23.90
		RB100#0	23.04	23.06	22.98	24.04	24.06	23.98
	16QAM	RB1#0	23.24	23.10	23.39	24.24	24.10	24.39
		RB1#50	23.47	23.42	23.63	24.47	24.42	24.63
		RB1#99	23.25	23.12	23.33	24.25	24.12	24.33
		RB50#0	21.91	22.07	21.98	22.91	23.07	22.98
		RB50#50	22.02	22.06	21.92	23.02	23.06	22.92
		RB100#0	22.05	22.11	21.96	23.05	23.11	22.96

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 4: Antenna Gain =1.0dBi
Limit: EIRP≤30dBm

Peak-to-average ratio (PAR)

20MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.01	3.62	3.75	13	Pass
QPSK (100RB Size)	5.19	5.35	5.10	13	Pass
16QAM (1RB Size)	4.90	4.39	4.81	13	Pass
16QAM (100RB Size)	6.03	6.12	5.99	13	Pass

LTE Band 5:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.69	23.68	23.62	20.54	20.53	20.47
		RB1#3	23.89	23.87	23.94	20.74	20.72	20.79
		RB1#5	23.73	23.68	23.63	20.58	20.53	20.48
		RB3#0	23.77	23.70	23.68	20.62	20.55	20.53
		RB3#3	23.76	23.73	23.69	20.61	20.58	20.54
		RB6#0	22.73	22.77	22.70	19.58	19.62	19.55
	16QAM	RB1#0	22.70	22.82	22.56	19.55	19.67	19.41
		RB1#3	22.92	23.00	22.79	19.77	19.85	19.64
		RB1#5	22.72	22.77	22.61	19.57	19.62	19.46
		RB3#0	22.88	22.70	22.68	19.73	19.55	19.53
		RB3#3	22.92	22.74	22.68	19.77	19.59	19.53
		RB6#0	21.80	21.83	21.69	18.65	18.68	18.54
3.0	QPSK	RB1#0	23.78	23.79	23.77	20.63	20.64	20.62
		RB1#8	23.76	23.71	23.69	20.61	20.56	20.54
		RB1#14	23.78	23.71	23.74	20.63	20.56	20.59
		RB6#0	22.71	22.69	22.65	19.56	19.54	19.50
		RB6#9	22.74	22.67	22.66	19.59	19.52	19.51
		RB15#0	22.76	22.71	22.66	19.61	19.56	19.51
	16QAM	RB1#0	23.32	22.93	22.69	20.17	19.78	19.54
		RB1#8	23.35	22.86	22.64	20.20	19.71	19.49
		RB1#14	23.36	22.84	22.67	20.21	19.69	19.52
		RB6#0	21.84	21.75	21.64	18.69	18.60	18.49
		RB6#9	21.87	21.80	21.62	18.72	18.65	18.47
		RB15#0	21.86	21.75	21.75	18.71	18.60	18.60

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.71	23.73	23.65	20.56	20.58	20.50
		RB1#13	23.90	23.78	23.73	20.75	20.63	20.58
		RB1#24	23.74	23.66	23.63	20.59	20.51	20.48
		RB15#0	22.82	22.71	22.78	19.67	19.56	19.63
		RB15#10	22.77	22.74	22.67	19.62	19.59	19.52
		RB25#0	22.80	22.72	22.64	19.65	19.57	19.49
	16QAM	RB1#0	22.61	22.98	22.67	19.46	19.83	19.52
		RB1#13	22.77	23.03	22.74	19.62	19.88	19.59
		RB1#24	22.68	22.88	22.68	19.53	19.73	19.53
		RB15#0	21.90	21.76	21.82	18.75	18.61	18.67
		RB15#10	21.86	21.76	21.69	18.71	18.61	18.54
		RB25#0	21.90	21.76	21.73	18.75	18.61	18.58
10.0	QPSK	RB1#0	23.73	23.78	23.72	20.58	20.63	20.57
		RB1#25	23.89	23.92	23.89	20.74	20.77	20.74
		RB1#49	23.69	23.72	23.73	20.54	20.57	20.58
		RB25#0	22.89	22.76	22.82	19.74	19.61	19.67
		RB25#25	22.87	22.78	22.60	19.72	19.63	19.45
		RB50#0	22.88	22.72	22.74	19.73	19.57	19.59
	16QAM	RB1#0	23.30	22.92	22.67	20.15	19.77	19.52
		RB1#25	23.52	23.04	22.81	20.37	19.89	19.66
		RB1#49	23.38	22.84	22.67	20.23	19.69	19.52
		RB25#0	21.97	21.83	21.92	18.82	18.68	18.77
		RB25#25	21.98	21.82	21.75	18.83	18.67	18.60
		RB50#0	21.96	21.83	21.75	18.81	18.68	18.60

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band5: Antenna Gain =-1.0dBi = -3.15dBd (0dBd=2.15dBi)
Limit: ERP≤38.45dBm

Peak-to-average ratio (PAR)

10MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	5.38	5.16	4.55	13	Pass
QPSK (50RB Size)	5.87	5.54	5.45	13	Pass
16QAM (1RB Size)	6.06	6.12	5.96	13	Pass
16QAM (50RB Size)	6.67	6.41	6.25	13	Pass

LTE Band 7:

Maximum Output Power

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	22.45	22.55	22.88	23.45	23.55	23.88
		RB1#13	22.53	22.66	23.00	23.53	23.66	24.00
		RB1#24	22.40	22.58	22.56	23.40	23.58	23.56
		RB15#0	21.50	21.63	22.08	22.50	22.63	23.08
		RB15#10	21.51	21.58	21.93	22.51	22.58	22.93
		RB25#0	21.47	21.58	21.95	22.47	22.58	22.95
	16QAM	RB1#0	21.32	21.81	21.89	22.32	22.81	22.89
		RB1#13	21.40	21.90	22.01	22.40	22.90	23.01
		RB1#24	21.27	21.80	21.98	22.27	22.80	22.98
		RB15#0	20.50	20.62	21.03	21.50	21.62	22.03
		RB15#10	20.52	20.56	20.87	21.52	21.56	21.87
		RB25#0	20.49	20.57	20.92	21.49	21.57	21.92
10.0	QPSK	RB1#0	22.52	22.60	22.95	23.52	23.60	23.95
		RB1#25	22.67	22.83	23.17	23.67	23.83	24.17
		RB1#49	22.51	22.67	22.66	23.51	23.67	23.66
		RB25#0	21.46	21.68	22.09	22.46	22.68	23.09
		RB25#25	21.56	21.65	21.89	22.56	22.65	22.89
		RB50#0	21.53	21.65	21.99	22.53	22.65	22.99
	16QAM	RB1#0	21.99	21.70	21.78	22.99	22.70	22.78
		RB1#25	22.13	21.91	22.05	23.13	22.91	23.05
		RB1#49	21.97	21.73	21.95	22.97	22.73	22.95
		RB25#0	20.51	20.73	21.10	21.51	21.73	22.10
		RB25#25	20.57	20.64	20.86	21.57	21.64	21.86
		RB50#0	20.52	20.68	20.93	21.52	21.68	21.93

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.44	22.54	22.82	23.44	23.54	23.82
		RB1#38	22.53	22.64	23.04	23.53	23.64	24.04
		RB1#74	22.46	22.56	22.76	23.46	23.56	23.76
		RB36#0	21.55	21.75	22.04	22.55	22.75	23.04
		RB36#39	21.63	21.71	21.99	22.63	22.71	22.99
		RB75#0	21.60	21.71	22.03	22.60	22.71	23.03
	16QAM	RB1#0	21.96	21.62	22.03	22.96	22.62	23.03
		RB1#38	22.01	21.79	22.16	23.01	22.79	23.16
		RB1#74	21.94	21.70	22.13	22.94	22.70	23.13
		RB36#0	20.49	20.67	20.94	21.49	21.67	21.94
		RB36#39	20.60	20.66	20.85	21.60	21.66	21.85
		RB75#0	20.54	20.70	20.92	21.54	21.70	21.92
20.0	QPSK	RB1#0	22.42	22.46	22.65	23.42	23.46	23.65
		RB1#50	22.66	22.82	23.04	23.66	23.82	24.04
		RB1#99	22.42	22.63	22.67	23.42	23.63	23.67
		RB50#0	21.34	21.68	21.81	22.34	22.68	22.81
		RB50#50	21.52	21.53	21.64	22.52	22.53	22.64
		RB100#0	21.43	21.65	21.76	22.43	22.65	22.76
	16QAM	RB1#0	21.68	21.62	22.13	22.68	22.62	23.13
		RB1#50	21.91	21.98	22.46	22.91	22.98	23.46
		RB1#99	21.65	21.72	22.25	22.65	22.72	23.25
		RB50#0	20.37	20.72	20.74	21.37	21.72	21.74
		RB50#50	20.53	20.53	20.62	21.53	21.53	21.62
		RB100#0	20.48	20.62	20.69	21.48	21.62	21.69

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 7: Antenna Gain =1.0dBi
Limit: EIRP≤33dBm

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.20	4.20	3.30	13	Pass
QPSK (100RB Size)	5.32	5.29	5.00	13	Pass
16QAM (1RB Size)	4.90	5.29	4.29	13	Pass
16QAM (100RB Size)	6.19	6.22	5.90	13	Pass

LTE Band12

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
1.4	QPSK	RB1#0	23.84	23.83	23.75	21.69	21.68	21.60
		RB1#3	23.99	23.99	23.90	21.84	21.84	21.75
		RB1#5	23.83	23.83	23.71	21.68	21.68	21.56
		RB3#0	23.96	23.91	24.01	21.81	21.76	21.86
		RB3#3	23.98	23.91	24.03	21.83	21.76	21.88
		RB6#0	22.89	22.90	22.82	20.74	20.75	20.67
	16QAM	RB1#0	22.81	22.94	22.86	20.66	20.79	20.71
		RB1#3	23.05	23.12	23.06	20.90	20.97	20.91
		RB1#5	22.88	22.98	22.91	20.73	20.83	20.76
		RB3#0	23.12	22.88	23.07	20.97	20.73	20.92
		RB3#3	23.13	22.87	23.08	20.98	20.72	20.93
		RB6#0	21.94	21.94	21.87	19.79	19.79	19.72
3.0	QPSK	RB1#0	23.82	23.84	23.88	21.67	21.69	21.73
		RB1#8	23.81	23.81	23.77	21.66	21.66	21.62
		RB1#14	23.78	23.86	23.76	21.63	21.71	21.61
		RB6#0	22.78	22.77	22.79	20.63	20.62	20.64
		RB6#9	22.76	22.81	22.74	20.61	20.66	20.59
		RB15#0	22.88	22.85	22.85	20.73	20.70	20.70
	16QAM	RB1#0	23.38	23.01	22.88	21.23	20.86	20.73
		RB1#8	23.40	22.93	22.88	21.25	20.78	20.73
		RB1#14	23.39	22.97	22.91	21.24	20.82	20.76
		RB6#0	21.90	21.80	21.81	19.75	19.65	19.66
		RB6#9	21.92	21.82	21.80	19.77	19.67	19.65
		RB15#0	21.95	21.82	21.94	19.80	19.67	19.79

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	23.77	23.81	23.78	21.62	21.66	21.63
		RB1#13	23.91	23.85	23.84	21.76	21.70	21.69
		RB1#24	23.80	23.80	23.70	21.65	21.65	21.55
		RB15#0	22.85	22.82	22.92	20.70	20.67	20.77
		RB15#10	22.95	22.81	22.80	20.80	20.66	20.65
		RB25#0	22.89	22.79	22.85	20.74	20.64	20.70
	16QAM	RB1#0	22.68	23.11	22.79	20.53	20.96	20.64
		RB1#13	22.79	23.13	22.95	20.64	20.98	20.80
		RB1#24	22.74	23.05	22.88	20.59	20.90	20.73
		RB15#0	21.95	21.81	21.95	19.80	19.66	19.80
		RB15#10	21.99	21.81	21.86	19.84	19.66	19.71
		RB25#0	21.98	21.83	21.93	19.83	19.68	19.78
10.0	QPSK	RB1#0	23.79	23.83	23.89	21.64	21.68	21.74
		RB1#25	23.91	23.99	24.02	21.76	21.84	21.87
		RB1#49	23.86	23.86	23.79	21.71	21.71	21.64
		RB25#0	22.83	22.82	22.97	20.68	20.67	20.82
		RB25#25	22.95	22.84	22.78	20.80	20.69	20.63
		RB50#0	22.94	22.83	22.94	20.79	20.68	20.79
	16QAM	RB1#0	23.39	23.02	22.84	21.24	20.87	20.69
		RB1#25	23.56	23.11	23.00	21.41	20.96	20.85
		RB1#49	23.34	23.00	22.92	21.19	20.85	20.77
		RB25#0	21.90	21.87	22.05	19.75	19.72	19.90
		RB25#25	22.04	21.83	21.98	19.89	19.68	19.83
		RB50#0	21.94	21.86	21.96	19.79	19.71	19.81

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

Peak-to-average ratio (PAR)

10MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.04	4.65	4.52	13	Pass
QPSK (50RB Size)	5.51	5.51	5.58	13	Pass
16QAM (1RB Size)	5.03	5.74	5.64	13	Pass
16QAM (50RB Size)	6.44	6.35	6.41	13	Pass

LTE Band 13:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	RB1#0	23.92	23.94	23.89	22.27	22.29	22.24
		RB1#13	24.02	24.06	24.04	22.37	22.41	22.39
		RB1#24	23.94	23.91	23.84	22.29	22.26	22.19
		RB15#0	22.98	22.89	22.99	21.33	21.24	21.34
		RB15#10	23.09	23.04	22.98	21.44	21.39	21.33
		RB25#0	23.04	22.95	22.96	21.39	21.30	21.31
	16QAM	RB1#0	22.82	23.19	23.03	21.17	21.54	21.38
		RB1#13	22.91	23.34	23.06	21.26	21.69	21.41
		RB1#24	22.81	23.15	22.90	21.16	21.50	21.25
		RB15#0	22.11	21.97	22.02	20.46	20.32	20.37
		RB15#10	22.26	22.08	22.06	20.61	20.43	20.41
		RB25#0	22.13	22.00	22.00	20.48	20.35	20.35
10	QPSK	RB1#0	/	24.01	/	/	22.36	/
		RB1#25	/	24.11	/	/	22.46	/
		RB1#49	/	23.98	/	/	22.33	/
		RB25#0	/	22.94	/	/	21.29	/
		RB25#25	/	23.05	/	/	21.40	/
		RB50#0	/	23.08	/	/	21.43	/
	16QAM	RB1#0	/	23.51	/	/	21.86	/
		RB1#25	/	23.68	/	/	22.03	/
		RB1#49	/	23.44	/	/	21.79	/
		RB25#0	/	22.10	/	/	20.45	/
		RB25#25	/	22.15	/	/	20.50	/
		RB50#0	/	22.10	/	/	20.45	/

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band 13: Antenna Gain = 0.5dBi = -1.65dBd (0dBd=2.15dBi)
Limit: ERP≤34.77dBm

Peak-to-average ratio (PAR)

10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	/	4.01	/	13	Pass
QPSK (50RB Size)	/	5.32	/	13	Pass
16QAM (1RB Size)	/	4.90	/	13	Pass
16QAM (50RB Size)	/	6.25	/	13	Pass

LTE Band 14:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	RB1#0	23.69	23.70	23.66	21.04	21.05	21.01
		RB1#13	23.81	23.79	23.75	21.16	21.14	21.10
		RB1#24	23.62	23.65	23.68	20.97	21.00	21.03
		RB15#0	22.74	22.76	22.80	20.09	20.11	20.15
		RB15#10	22.79	22.73	22.74	20.14	20.08	20.09
		RB25#0	22.77	22.74	22.71	20.12	20.09	20.06
	16QAM	RB1#0	22.58	22.97	22.73	19.93	20.32	20.08
		RB1#13	22.74	23.06	22.81	20.09	20.41	20.16
		RB1#24	22.53	22.86	22.74	19.88	20.21	20.09
		RB15#0	21.89	21.78	21.90	19.24	19.13	19.25
		RB15#10	21.92	21.76	21.76	19.27	19.11	19.11
		RB25#0	21.91	21.80	21.78	19.26	19.15	19.13
10	QPSK	RB1#0	/	23.73	/	/	21.08	/
		RB1#25	/	23.86	/	/	21.21	/
		RB1#49	/	23.74	/	/	21.09	/
		RB25#0	/	22.70	/	/	20.05	/
		RB25#25	/	22.67	/	/	20.02	/
		RB50#0	/	22.72	/	/	20.07	/
	16QAM	RB1#0	/	23.32	/	/	20.67	/
		RB1#25	/	23.36	/	/	20.71	/
		RB1#49	/	23.22	/	/	20.57	/
		RB25#0	/	21.83	/	/	19.18	/
		RB25#25	/	21.79	/	/	19.14	/
		RB50#0	/	21.82	/	/	19.17	/

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band14: Antenna Gain = -0.5dBi = -2.65dBd (0dBd=2.15dBi)
Limit: ERP≤34.77dBm

Peak-to-average ratio (PAR)

10MHz Bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	/	4.87	/	13	Pass
QPSK (50RB Size)	/	5.54	/	13	Pass
16QAM (1RB Size)	/	5.61	/	13	Pass
16QAM (50RB Size)	/	6.31	/	13	Pass

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	QP SK	RB1#0	23.51	23.40	23.48	25.51	25.40	25.48
		RB1#3	23.64	23.61	23.63	25.64	25.61	25.63
		RB1#5	23.48	23.41	23.47	25.48	25.41	25.47
		RB3#0	23.60	23.46	23.44	25.60	25.46	25.44
		RB3#3	23.51	23.43	23.47	25.51	25.43	25.47
		RB6#0	22.61	22.51	22.50	24.61	24.51	24.50
	16QAM	RB1#0	22.46	22.49	22.38	24.46	24.49	24.38
		RB1#3	22.56	22.70	22.53	24.56	24.70	24.53
		RB1#5	22.50	22.52	22.42	24.50	24.52	24.42
		RB3#0	22.70	22.38	22.42	24.70	24.38	24.42
		RB3#3	22.68	22.38	22.42	24.68	24.38	24.42
		RB6#0	21.59	21.53	21.46	23.59	23.53	23.46
3.0	QPSK	RB1#0	23.53	23.42	23.49	25.53	25.42	25.49
		RB1#8	23.51	23.47	23.53	25.51	25.47	25.53
		RB1#14	23.44	23.42	23.51	25.44	25.42	25.51
		RB6#0	22.48	22.42	22.48	24.48	24.42	24.48
		RB6#9	22.53	22.42	22.48	24.53	24.42	24.48
		RB15#0	22.50	22.40	22.45	24.50	24.40	24.45
	16QAM	RB1#0	22.99	22.56	22.44	24.99	24.56	24.44
		RB1#8	22.99	22.56	22.43	24.99	24.56	24.43
		RB1#14	22.94	22.55	22.39	24.94	24.55	24.39
		RB6#0	21.61	21.45	21.42	23.61	23.45	23.42
		RB6#9	21.58	21.48	21.41	23.58	23.48	23.41
		RB15#0	21.58	21.39	21.48	23.58	23.39	23.48

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QP SK	RB1#0	23.42	23.37	23.33	25.42	25.37	25.33
		RB1#13	23.52	23.49	23.50	25.52	25.49	25.50
		RB1#24	23.38	23.35	23.37	25.38	25.35	25.37
		RB15#0	22.50	22.44	22.57	24.50	24.44	24.57
		RB15#10	22.54	22.42	22.35	24.54	24.42	24.35
		RB25#0	22.45	22.41	22.38	24.45	24.41	24.38
	16QAM	RB1#0	22.29	22.59	22.36	24.29	24.59	24.36
		RB1#13	22.42	22.75	22.54	24.42	24.75	24.54
		RB1#24	22.26	22.60	22.37	24.26	24.60	24.37
		RB15#0	21.60	21.42	21.59	23.60	23.42	23.59
		RB15#10	21.55	21.42	21.36	23.55	23.42	23.36
		RB25#0	21.56	21.40	21.46	23.56	23.40	23.46
10.0	QPSK	RB1#0	23.50	23.44	23.48	25.50	25.44	25.48
		RB1#25	23.63	23.57	23.62	25.63	25.57	25.62
		RB1#49	23.50	23.40	23.49	25.50	25.40	25.49
		RB25#0	22.51	22.45	22.42	24.51	24.45	24.42
		RB25#25	22.53	22.43	22.23	24.53	24.43	24.23
		RB50#0	22.50	22.43	22.30	24.50	24.43	24.30
	16QAM	RB1#0	22.98	22.55	22.44	24.98	24.55	24.44
		RB1#25	23.15	22.67	22.56	25.15	24.67	24.56
		RB1#49	22.96	22.51	22.39	24.96	24.51	24.39
		RB25#0	21.59	21.49	21.46	23.59	23.49	23.46
		RB25#25	21.58	21.49	21.38	23.58	23.49	23.38
		RB50#0	21.54	21.47	21.37	23.54	23.47	23.37

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.40	23.42	23.41	25.40	25.42	25.41
		RB1#38	23.48	23.42	23.48	25.48	25.42	25.48
		RB1#74	23.39	23.30	23.39	25.39	25.30	25.39
		RB36#0	22.56	22.50	22.45	24.56	24.50	24.45
		RB36#39	22.56	22.46	22.44	24.56	24.46	24.44
		RB75#0	22.54	22.52	22.43	24.54	24.52	24.43
	16QAM	RB1#0	22.91	22.50	22.76	24.91	24.50	24.76
		RB1#38	23.02	22.53	22.83	25.02	24.53	24.83
		RB1#74	22.91	22.41	22.60	24.91	24.41	24.60
		RB36#0	21.58	21.50	21.42	23.58	23.50	23.42
		RB36#39	21.55	21.49	21.39	23.55	23.49	23.39
		RB75#0	21.55	21.52	21.39	23.55	23.52	23.39
20.0	QPSK	RB1#0	23.41	23.36	23.33	25.41	25.36	25.33
		RB1#50	23.64	23.61	23.58	25.64	25.61	25.58
		RB1#99	23.37	23.35	23.30	25.37	25.35	25.30
		RB50#0	22.49	22.35	22.47	24.49	24.35	24.47
		RB50#50	22.43	22.35	22.36	24.43	24.35	24.36
		RB100#0	22.45	22.34	22.41	24.45	24.34	24.41
	16QAM	RB1#0	22.65	22.53	22.82	24.65	24.53	24.82
		RB1#50	22.97	22.74	23.08	24.97	24.74	25.08
		RB1#99	22.60	22.48	22.74	24.60	24.48	24.74
		RB50#0	21.47	21.36	21.50	23.47	23.36	23.50
		RB50#50	21.44	21.38	21.41	23.44	23.38	23.41
		RB100#0	21.53	21.38	21.45	23.53	23.38	23.45

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 25: Antenna Gain =2.0dBi
Limit: EIRP≤33dBm

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	4.10	4.74	4.42	13	Pass
QPSK (100RB Size)	5.26	5.45	5.16	13	Pass
16QAM (1RB Size)	4.87	5.61	5.35	13	Pass
16QAM (100RB Size)	6.09	6.25	6.12	13	Pass

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	RB1#0	23.99	23.99	23.97	20.84	20.84	20.82
		RB1#3	24.17	24.01	24.17	21.02	20.86	21.02
		RB1#5	23.97	23.98	23.94	20.82	20.83	20.79
		RB3#0	24.10	24.04	23.98	20.95	20.89	20.83
		RB3#3	24.10	24.03	24.00	20.95	20.88	20.85
		RB6#0	23.05	23.02	23.03	19.90	19.87	19.88
	16QAM	RB1#0	23.06	23.13	22.89	19.91	19.98	19.74
		RB1#3	23.22	23.35	23.09	20.07	20.20	19.94
		RB1#5	23.07	23.16	22.93	19.92	20.01	19.78
		RB3#0	23.23	23.05	22.96	20.08	19.90	19.81
		RB3#3	23.22	23.06	22.98	20.07	19.91	19.83
		RB6#0	22.18	22.16	21.92	19.03	19.01	18.77
3.0	QPSK	RB1#0	24.13	24.07	24.07	20.98	20.92	20.92
		RB1#8	24.08	24.05	24.09	20.93	20.90	20.94
		RB1#14	24.06	24.09	24.03	20.91	20.94	20.88
		RB6#0	23.06	23.01	22.99	19.91	19.86	19.84
		RB6#9	23.06	23.04	23.00	19.91	19.89	19.85
		RB15#0	23.12	23.11	23.02	19.97	19.96	19.87
	16QAM	RB1#0	23.70	23.25	23.05	20.55	20.10	19.90
		RB1#8	23.67	23.26	22.99	20.52	20.11	19.84
		RB1#14	23.66	23.28	23.01	20.51	20.13	19.86
		RB6#0	22.20	22.11	21.95	19.05	18.96	18.80
		RB6#9	22.19	22.18	21.89	19.04	19.03	18.74
		RB15#0	22.24	22.12	22.03	19.09	18.97	18.88

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP (dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QPSK	RB1#0	24.18	24.21	24.08	21.03	21.06	20.93
		RB1#13	24.30	24.23	24.22	21.15	21.08	21.07
		RB1#24	24.19	24.16	24.10	21.04	21.01	20.95
		RB15#0	23.25	23.25	23.25	20.10	20.10	20.10
		RB15#10	23.27	23.27	23.11	20.12	20.12	19.96
		RB25#0	23.29	23.27	23.17	20.14	20.12	20.02
	16QAM	RB1#0	23.11	23.52	23.10	19.96	20.37	19.95
		RB1#13	23.13	23.60	23.24	19.98	20.45	20.09
		RB1#24	23.08	23.48	23.16	19.93	20.33	20.01
		RB15#0	22.35	22.27	22.22	19.20	19.12	19.07
		RB15#10	22.37	22.29	22.10	19.22	19.14	18.95
		RB25#0	22.36	22.33	22.17	19.21	19.18	19.02
10.0	QPSK	RB1#0	24.22	24.23	24.20	21.07	21.08	21.05
		RB1#25	24.41	24.43	24.43	21.26	21.28	21.28
		RB1#49	24.24	24.21	24.21	21.09	21.06	21.06
		RB25#0	23.35	23.36	23.26	20.20	20.21	20.11
		RB25#25	23.32	23.36	23.09	20.17	20.21	19.94
		RB50#0	23.35	23.38	23.21	20.20	20.23	20.06
	16QAM	RB1#0	23.83	23.44	23.17	20.68	20.29	20.02
		RB1#25	24.03	23.58	23.32	20.88	20.43	20.17
		RB1#49	23.81	23.34	23.16	20.66	20.19	20.01
		RB25#0	22.43	22.42	22.33	19.28	19.27	19.18
		RB25#25	22.44	22.42	22.16	19.29	19.27	19.01
		RB50#0	22.36	22.40	22.20	19.21	19.25	19.05

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP (dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	24.21	24.24	24.18	21.06	21.09	21.03
		RB1#38	24.28	24.24	24.25	21.13	21.09	21.10
		RB1#74	24.19	24.18	24.13	21.04	21.03	20.98
		RB36#0	23.29	23.29	23.25	20.14	20.14	20.10
		RB36#39	23.27	23.27	23.18	20.12	20.12	20.03
		RB75#0	23.29	23.28	23.25	20.14	20.13	20.10
	16QAM	RB1#0	23.80	23.35	23.58	20.65	20.20	20.43
		RB1#38	23.86	23.40	23.53	20.71	20.25	20.38
		RB1#74	23.83	23.30	23.40	20.68	20.15	20.25
		RB36#0	22.37	22.36	22.20	19.22	19.21	19.05
		RB36#39	22.30	22.28	22.09	19.15	19.13	18.94
		RB75#0	22.32	22.35	22.16	19.17	19.20	19.01

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band 26: Antenna Gain =-1.0dBi* = -3.15dBd (0dBd=2.15dBi)(provided by the applicant)
Limit: ERP≤38.45dBm

Peak-to-average ratio (PAR)

15MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	/	4.68	/	13	Pass
QPSK (75RB Size)	/	5.54	/	13	Pass
16QAM (1RB Size)	/	5.67	/	13	Pass
16QAM (75RB Size)	/	6.41	/	13	Pass

LTE Band 30:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5	QPSK	RB1#0	20.86	20.89	20.88	23.86	23.89	23.88
		RB1#13	20.96	20.89	20.86	23.96	23.89	23.86
		RB1#24	20.87	20.89	20.85	23.87	23.89	23.85
		RB15#0	20.01	19.97	20.00	23.01	22.97	23.00
		RB15#10	19.97	19.98	19.97	22.97	22.98	22.97
		RB25#0	20.06	20.04	20.03	23.06	23.04	23.03
	16QAM	RB1#0	20.33	20.30	20.35	23.33	23.30	23.35
		RB1#13	20.55	20.60	20.56	23.55	23.60	23.56
		RB1#24	20.40	20.32	20.34	23.40	23.32	23.34
		RB15#0	19.06	19.05	19.05	22.06	22.05	22.05
		RB15#10	19.01	19.02	19.01	22.01	22.02	22.01
		RB25#0	19.10	19.08	19.10	22.10	22.08	22.10
10	QPSK	RB1#0	/	20.90	/	/	23.90	/
		RB1#25	/	20.89	/	/	23.89	/
		RB1#49	/	20.88	/	/	23.88	/
		RB25#0	/	20.05	/	/	23.05	/
		RB25#25	/	19.99	/	/	22.99	/
		RB50#0	/	19.97	/	/	22.97	/
	16QAM	RB1#0	/	20.37	/	/	23.37	/
		RB1#25	/	20.57	/	/	23.57	/
		RB1#49	/	20.33	/	/	23.33	/
		RB25#0	/	19.08	/	/	22.08	/
		RB25#25	/	19.00	/	/	22.00	/
		RB50#0	/	19.00	/	/	22.00	/

Note: EIRP (dBm) = Conducted Power (dBm) + Antenna Gain(dBd)
For Band 30: Antenna Gain = 3.0dBi
Limit: EIRP≤24dBm/5MHz

Peak-to-average ratio (PAR)

10MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	/	3.88	/	13	Pass
QPSK (50RB Size)	/	5.42	/	13	Pass
16QAM (1RB Size)	/	4.87	/	13	Pass
16QAM (50RB Size)	/	6.22	/	13	Pass

LTE Band 41:

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QP SK	RB1#0	22.61	23.70	23.97	23.61	24.70	24.97
		RB1#13	22.77	23.84	24.15	23.77	24.84	25.15
		RB1#24	22.58	23.74	24.00	23.58	24.74	25.00
		RB15#0	21.64	22.77	23.09	22.64	23.77	24.09
		RB15#10	21.66	22.86	23.04	22.66	23.86	24.04
		RB25#0	21.62	22.80	23.01	22.62	23.80	24.01
	16QAM	RB1#0	21.81	22.64	22.94	22.81	23.64	23.94
		RB1#13	21.92	22.86	23.11	22.92	23.86	24.11
		RB1#24	21.82	22.71	22.96	22.82	23.71	23.96
		RB15#0	20.67	21.67	22.03	21.67	22.67	23.03
		RB15#10	20.68	21.76	22.00	21.68	22.76	23.00
		RB25#0	20.61	21.79	22.07	21.61	22.79	23.07
10.0	QPSK	RB1#0	22.62	23.70	24.09	23.62	24.70	25.09
		RB1#25	22.92	24.06	24.38	23.92	25.06	25.38
		RB1#49	22.61	23.78	24.08	23.61	24.78	25.08
		RB25#0	21.65	22.76	23.09	22.65	23.76	24.09
		RB25#25	21.63	22.86	23.05	22.63	23.86	24.05
		RB50#0	21.59	22.75	23.06	22.59	23.75	24.06
	16QAM	RB1#0	21.79	22.59	23.07	22.79	23.59	24.07
		RB1#25	22.07	22.95	23.29	23.07	23.95	24.29
		RB1#49	21.80	22.67	23.05	22.80	23.67	24.05
		RB25#0	20.67	21.77	22.08	21.67	22.77	23.08
		RB25#25	20.65	21.87	22.07	21.65	22.87	23.07
		RB50#0	20.57	21.75	22.08	21.57	22.75	23.08

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	22.56	23.57	24.00	23.56	24.57	25.00
		RB1#38	22.67	23.81	24.17	23.67	24.81	25.17
		RB1#74	22.55	23.64	24.00	23.55	24.64	25.00
		RB36#0	21.70	22.76	23.17	22.70	23.76	24.17
		RB36#39	21.64	22.83	23.15	22.64	23.83	24.15
		RB75#0	21.67	22.81	23.16	22.67	23.81	24.16
	16QAM	RB1#0	21.73	22.46	23.09	22.73	23.46	24.09
		RB1#38	21.82	22.73	23.23	22.82	23.73	24.23
		RB1#74	21.70	22.56	23.06	22.70	23.56	24.06
		RB36#0	20.60	21.66	22.15	21.60	22.66	23.15
		RB36#39	20.59	21.72	22.11	21.59	22.72	23.11
		RB75#0	20.57	21.77	22.07	21.57	22.77	23.07
20.0	QPSK	RB1#0	22.53	23.51	23.97	23.53	24.51	24.97
		RB1#50	22.89	24.03	24.36	23.89	25.03	25.36
		RB1#99	22.62	23.62	23.97	23.62	24.62	24.97
		RB50#0	21.64	22.64	23.02	22.64	23.64	24.02
		RB50#50	21.57	22.77	22.96	22.57	23.77	23.96
		RB100#0	21.62	22.70	23.00	22.62	23.70	24.00
	16QAM	RB1#0	21.57	22.45	23.10	22.57	23.45	24.10
		RB1#50	21.92	23.00	23.49	22.92	24.00	24.49
		RB1#99	21.58	22.61	23.11	22.58	23.61	24.11
		RB50#0	20.57	21.69	22.07	21.57	22.69	23.07
		RB50#50	20.59	21.82	22.00	21.59	22.82	23.00
		RB100#0	20.53	21.68	21.98	21.53	22.68	22.98

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 41: Antenna Gain =1.0dBi
Limit: EIRP≤33dBm

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	9.47	7.15	9.86	13	Pass
QPSK (100RB Size)	7.69	8.68	6.96	13	Pass
16QAM (1RB Size)	8.25	8.37	9.23	13	Pass
16QAM (100RB Size)	8.33	6.89	9.61	13	Pass

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	QP SK	RB1#0	23.59	23.64	23.75	24.59	24.64	24.75
		RB1#3	23.76	23.85	23.95	24.76	24.85	24.95
		RB1#5	23.61	23.63	23.80	24.61	24.63	24.80
		RB3#0	23.62	23.72	23.70	24.62	24.72	24.70
		RB3#3	23.66	23.67	23.56	24.66	24.67	24.56
		RB6#0	22.72	22.72	22.86	23.72	23.72	23.86
	16QAM	RB1#0	22.57	22.59	22.76	23.57	23.59	23.76
		RB1#3	22.75	22.76	22.93	23.75	23.76	23.93
		RB1#5	22.63	22.62	22.74	23.63	23.62	23.74
		RB3#0	22.67	22.81	22.59	23.67	23.81	23.59
		RB3#3	22.68	22.82	22.59	23.68	23.82	23.59
		RB6#0	21.70	21.76	21.85	22.70	22.76	22.85
3.0	QPSK	RB1#0	23.68	23.74	23.89	24.68	24.74	24.89
		RB1#8	23.66	23.75	23.89	24.66	24.75	24.89
		RB1#14	23.62	23.74	23.93	24.62	24.74	24.93
		RB6#0	22.67	22.66	22.82	23.67	23.66	23.82
		RB6#9	22.67	22.70	22.79	23.67	23.70	23.79
		RB15#0	22.59	22.67	22.77	23.59	23.67	23.77
	16QAM	RB1#0	23.12	22.82	22.80	24.12	23.82	23.80
		RB1#8	23.09	22.81	22.74	24.09	23.81	23.74
		RB1#14	23.03	22.81	22.71	24.03	23.81	23.71
		RB6#0	21.78	21.73	21.75	22.78	22.73	22.75
		RB6#9	21.68	21.75	21.69	22.68	22.75	22.69
		RB15#0	21.69	21.65	21.81	22.69	22.65	22.81

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QP SK	RB1#0	23.59	23.65	23.73	24.59	24.65	24.73
		RB1#13	23.66	23.75	23.83	24.66	24.75	24.83
		RB1#24	23.55	23.67	23.75	24.55	24.67	24.75
		RB15#0	22.58	22.70	22.81	23.58	23.70	23.81
		RB15#10	22.68	22.76	22.79	23.68	23.76	23.79
		RB25#0	22.61	22.65	22.76	23.61	23.65	23.76
	16QAM	RB1#0	22.50	22.85	22.74	23.50	23.85	23.74
		RB1#13	22.54	22.97	22.80	23.54	23.97	23.80
		RB1#24	22.40	22.86	22.68	23.40	23.86	23.68
		RB15#0	21.66	21.71	21.82	22.66	22.71	22.82
		RB15#10	21.74	21.77	21.82	22.74	22.77	22.82
		RB25#0	21.67	21.70	21.79	22.67	22.70	22.79
10.0	QPSK	RB1#0	23.69	23.77	23.90	24.69	24.77	24.90
		RB1#25	23.81	23.93	24.11	24.81	24.93	25.11
		RB1#49	23.68	23.77	24.00	24.68	24.77	25.00
		RB25#0	22.63	22.77	22.87	23.63	23.77	23.87
		RB25#25	22.71	22.79	22.90	23.71	23.79	23.90
		RB50#0	22.64	22.79	22.92	23.64	23.79	23.92
	16QAM	RB1#0	23.18	22.84	22.84	24.18	23.84	23.84
		RB1#25	23.24	23.03	23.03	24.24	24.03	24.03
		RB1#49	23.07	22.89	22.77	24.07	23.89	23.77
		RB25#0	21.66	21.86	21.99	22.66	22.86	22.99
		RB25#25	21.80	21.88	22.01	22.80	22.88	23.01
		RB50#0	21.70	21.83	21.95	22.70	22.83	22.95

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			EIRP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.72	23.77	23.90	24.72	24.77	24.90
		RB1#38	23.79	23.82	23.99	24.79	24.82	24.99
		RB1#74	23.72	23.81	23.95	24.72	24.81	24.95
		RB36#0	22.78	22.92	22.86	23.78	23.92	23.86
		RB36#39	22.89	22.96	23.07	23.89	23.96	24.07
		RB75#0	22.83	22.95	23.07	23.83	23.95	24.07
	16QAM	RB1#0	23.19	22.87	23.07	24.19	23.87	24.07
		RB1#38	23.16	22.95	23.24	24.16	23.95	24.24
		RB1#74	23.09	22.84	23.01	24.09	23.84	24.01
		RB36#0	21.78	21.90	21.96	22.78	22.90	22.96
		RB36#39	21.82	21.91	22.02	22.82	22.91	23.02
		RB75#0	21.82	21.96	22.04	22.82	22.96	23.04
20.0	QPSK	RB1#0	23.70	23.71	23.75	24.70	24.71	24.75
		RB1#50	23.94	24.05	24.04	24.94	25.05	25.04
		RB1#99	23.72	23.83	23.82	24.72	24.83	24.82
		RB50#0	22.63	22.75	22.98	23.63	23.75	23.98
		RB50#50	22.65	22.74	22.96	23.65	23.74	23.96
		RB100#0	22.67	22.78	22.97	23.67	23.78	23.97
	16QAM	RB1#0	22.93	22.85	23.09	23.93	23.85	24.09
		RB1#50	23.10	23.15	23.43	24.10	24.15	24.43
		RB1#99	22.93	22.88	23.16	23.93	23.88	24.16
		RB50#0	21.60	21.81	22.03	22.60	22.81	23.03
		RB50#50	21.70	21.82	22.03	22.70	22.82	23.03
		RB100#0	21.73	21.82	21.98	22.73	22.82	22.98

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi)
For Band 66: Antenna Gain =1.0dBi
Limit: EIRP≤30dBm

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	8.46	3.85	4.58	13	Pass
QPSK (100RB Size)	5.10	5.16	5.29	13	Pass
16QAM (1RB Size)	4.71	5.27	6.71	13	Pass
16QAM (100RB Size)	5.93	5.66	6.32	13	Pass

LTE Band 71

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
5.0	QP SK	RB1#0	23.19	23.09	22.83	18.04	17.94	17.68
		RB1#13	23.28	23.10	22.69	18.13	17.95	17.54
		RB1#24	23.21	23.12	22.73	18.06	17.97	17.58
		RB15#0	22.24	22.06	21.82	17.09	16.91	16.67
		RB15#10	22.21	22.01	21.90	17.06	16.86	16.75
		RB25#0	22.27	22.08	21.80	17.12	16.93	16.65
	16QAM	RB1#0	21.57	22.16	21.66	16.42	17.01	16.51
		RB1#13	21.60	22.15	21.51	16.45	17.00	16.36
		RB1#24	21.61	22.24	21.54	16.46	17.09	16.39
		RB15#0	21.41	21.11	20.98	16.26	15.96	15.83
		RB15#10	21.37	21.15	21.03	16.22	16.00	15.88
		RB25#0	21.40	21.20	20.97	16.25	16.05	15.82
10.0	QPSK	RB1#0	23.04	23.08	23.10	17.89	17.93	17.95
		RB1#25	23.05	23.01	23.06	17.90	17.86	17.91
		RB1#49	23.06	22.97	22.91	17.91	17.82	17.76
		RB25#0	22.10	22.10	21.92	16.95	16.95	16.77
		RB25#25	22.15	22.09	21.86	17.00	16.94	16.71
		RB50#0	22.26	21.99	22.02	17.11	16.84	16.87
	16QAM	RB1#0	22.43	22.45	21.54	17.28	17.30	16.39
		RB1#25	22.42	22.38	21.61	17.27	17.23	16.46
		RB1#49	22.40	22.35	21.39	17.25	17.20	16.24
		RB25#0	21.34	21.27	21.16	16.19	16.12	16.01
		RB25#25	21.29	21.27	21.12	16.14	16.12	15.97
		RB50#0	21.30	21.33	21.15	16.15	16.18	16.00

Bandwidth (MHz)	Modulation	RB size/ RB Offset	Conducted Average Output Power (dBm)			ERP(dBm)		
			Low	Mid	High	Low	Mid	High
15.0	QPSK	RB1#0	23.10	23.08	23.11	17.95	17.93	17.96
		RB1#38	22.99	23.04	23.02	17.84	17.89	17.87
		RB1#74	23.02	22.97	22.92	17.87	17.82	17.77
		RB36#0	22.13	22.13	22.01	16.98	16.98	16.86
		RB36#39	22.11	22.01	21.82	16.96	16.86	16.67
		RB75#0	22.07	22.12	21.91	16.92	16.97	16.76
	16QAM	RB1#0	22.50	22.55	22.45	17.35	17.40	17.30
		RB1#38	22.40	22.53	22.35	17.25	17.38	17.20
		RB1#74	22.41	22.43	22.29	17.26	17.28	17.14
		RB36#0	21.43	21.32	21.10	16.28	16.17	15.95
		RB36#39	21.35	21.31	21.03	16.20	16.16	15.88
		RB75#0	21.34	21.25	21.03	16.19	16.10	15.88
20.0	QPSK	RB1#0	23.26	23.17	23.17	18.11	18.02	18.02
		RB1#50	23.18	23.14	23.19	18.03	17.99	18.04
		RB1#99	23.31	23.06	23.01	18.16	17.91	17.86
		RB50#0	22.23	22.17	22.12	17.08	17.02	16.97
		RB50#50	22.06	22.06	21.90	16.91	16.91	16.75
		RB100#0	22.25	22.02	22.02	17.10	16.87	16.87
	16QAM	RB1#0	22.07	22.76	22.67	16.92	17.61	17.52
		RB1#50	22.02	22.72	22.61	16.87	17.57	17.46
		RB1#99	22.05	22.53	22.49	16.90	17.38	17.34
		RB50#0	21.32	21.45	21.18	16.17	16.30	16.03
		RB50#50	21.33	21.30	21.09	16.18	16.15	15.94
		RB100#0	21.27	21.15	21.21	16.12	16.00	16.06

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)
For Band 71: Antenna Gain = -3.0dBi = -5.15dBd (0dBd=2.15dBi)
Limit: ERP≤34.77dBm

Peak-to-average ratio (PAR)

20MHz bandwidth

Modulation	Low channel (dB)	Middle channel (dB)	High channel (dB)	PAR Limit (dB)	Result
QPSK (1RB Size)	3.64	4.01	3.91	13	Pass
QPSK (100RB Size)	5.31	5.35	5.21	13	Pass
16QAM (1RB Size)	4.08	4.88	4.48	13	Pass
16QAM (100RB Size)	6.06	6.18	6.20	13	Pass

FCC §2.1049, §22.917, §22.905 & §24.238 & §27.53, §90.209- OCCUPIED BANDWIDTH

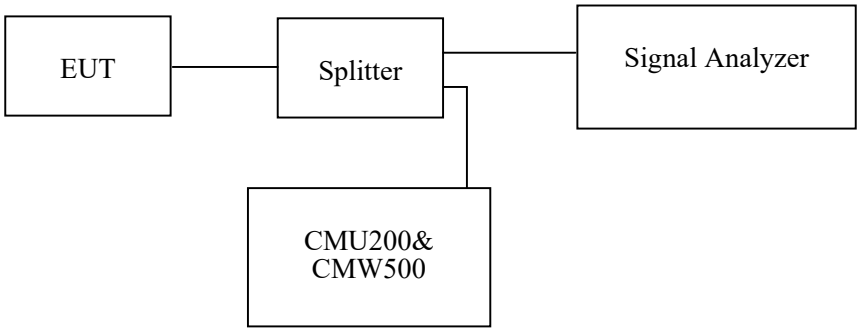
Applicable Standard

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

Test Procedure

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

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



Test Data

Environmental Conditions

Temperature:	28~29.4 ℃
Relative Humidity:	52~60 %
ATM Pressure:	101.0 ~102.0kPa

The testing was performed by Pedro Yun from 2021-07-05 to 2021-09-03.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

Cellular Band (Part 22H)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GPRS(GMSK)	128	824.2	248.00	316.46
	190	836.6	246.00	313.46
	251	848.8	246.00	320.83
EGPRS(8PSK)	128	824.2	248.39	317.31
	190	836.6	243.59	309.29
	251	848.8	245.19	310.90

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	826.4	4.18	4.70
	836.6	4.20	4.73
	846.6	4.16	4.69
HSDPA	826.4	4.18	4.73
	836.6	4.18	4.73
	846.6	4.18	4.74
HSUPA	826.4	4.18	4.76
	836.6	4.18	4.73
	846.6	4.18	4.74

PCS Band (Part 24E)

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
GPRS(GMSK)	512	1850.2	246.00	319.40
	661	1880.0	248.00	319.23
	810	1909.8	244.00	316.99
EGPRS(8PSK)	512	1850.2	256.41	322.12
	661	1880.0	250.00	318.91
	810	1909.8	251.60	320.51

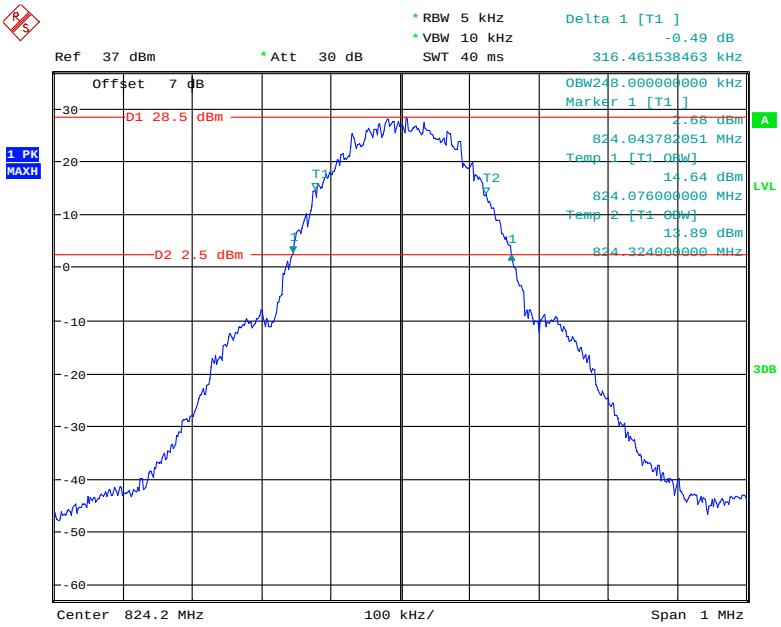
Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1852.4	4.18	4.73
	1880.0	4.17	4.76
	1907.6	4.17	4.73
HSDPA	1852.4	4.18	4.73
	1880.0	4.18	4.73
	1907.6	4.18	4.73
HSUPA	1852.4	4.18	4.73
	1880.0	4.18	4.73
	1907.6	4.18	4.73

AWS Band (Part 27)

Frequency (MHz)		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
RMC	1712.4	4.18	4.74
	1732.6	4.17	4.73
	1752.6	4.17	4.73
HSDPA	1712.4	4.18	4.74
	1732.6	4.18	4.71
	1752.6	4.18	4.73
HSUPA	1712.4	4.20	4.73
	1732.6	4.18	4.73
	1752.6	4.17	4.73

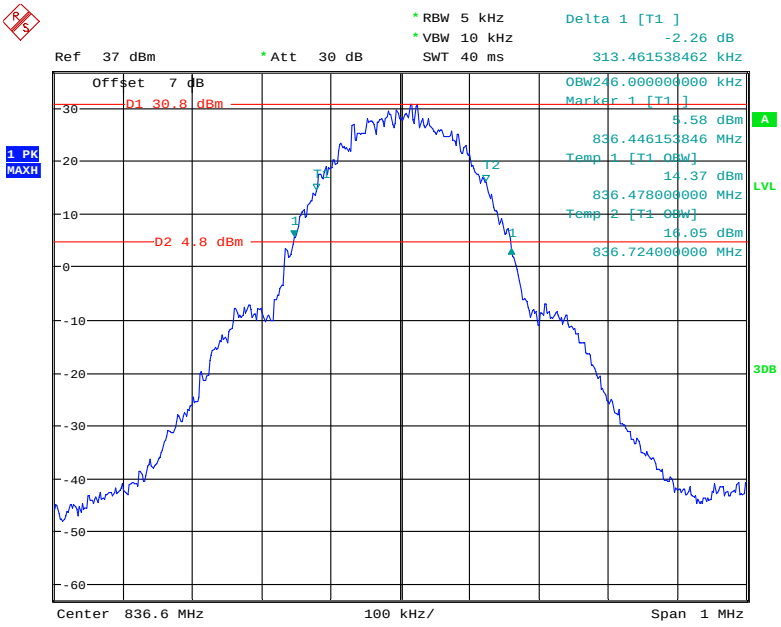
Cellular Band (Part 22H)

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



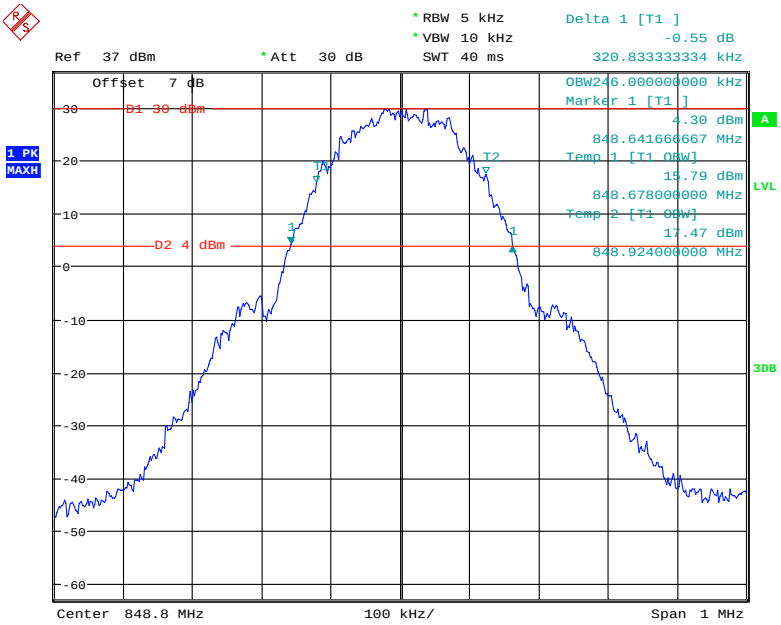
Date: 22.AUG.2021 19:43:51

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



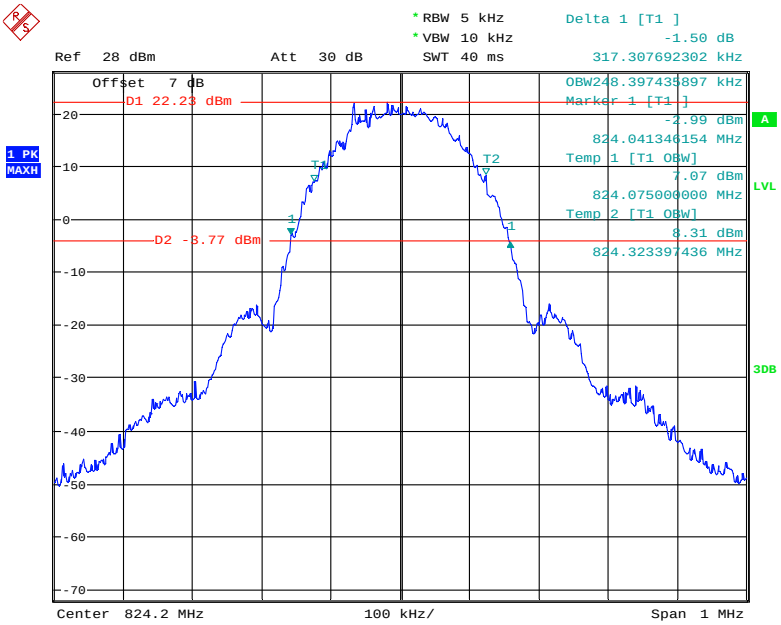
Date: 22.AUG.2021 19:45:42

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



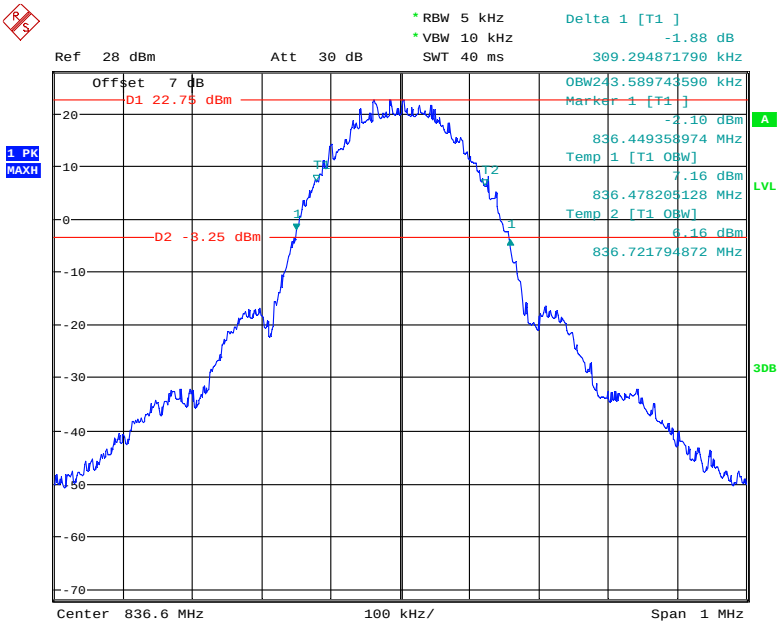
Date: 22.AUG.2021 19:46:45

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



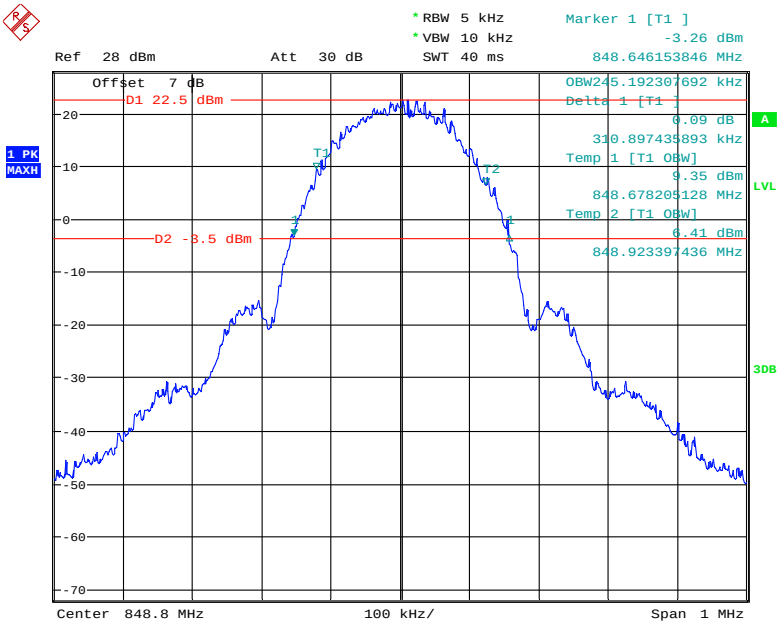
Date: 8.JUL.2021 11:20:35

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



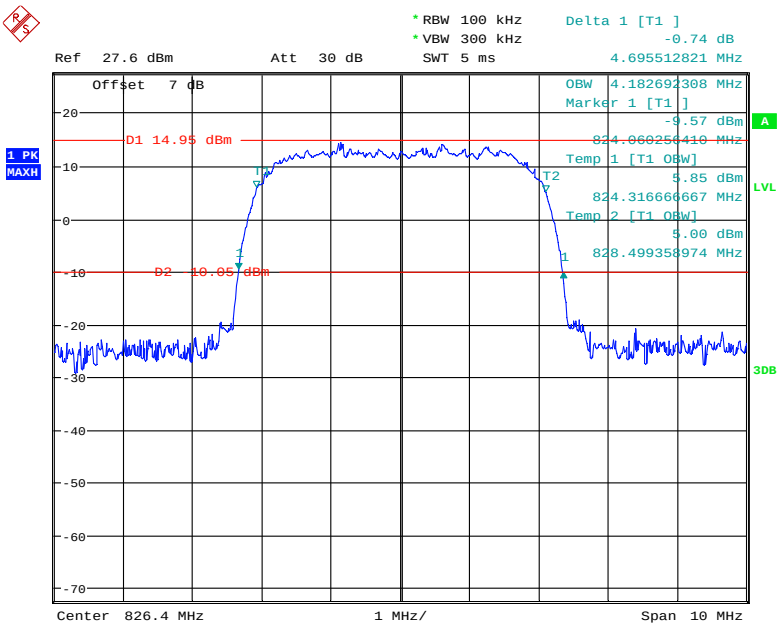
Date: 8.JUL.2021 11:22:41

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



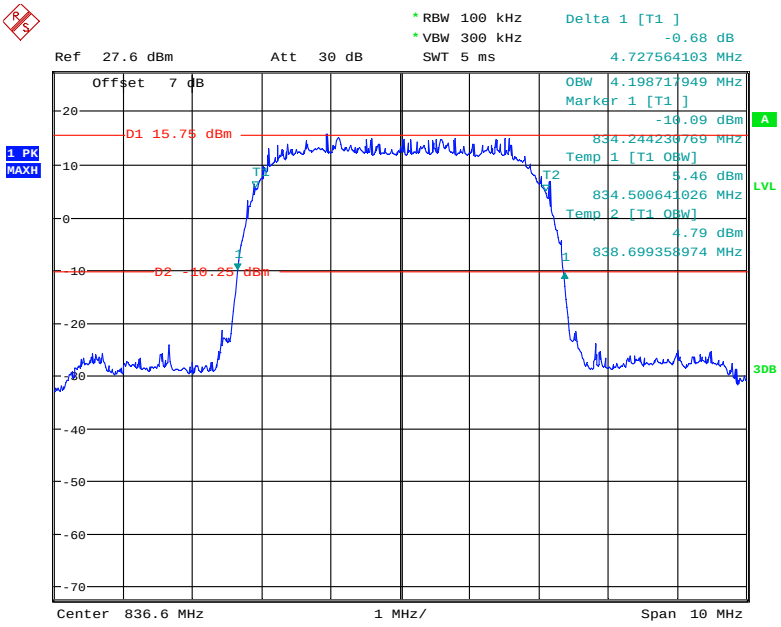
Date: 8.JUL.2021 11:25:21

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



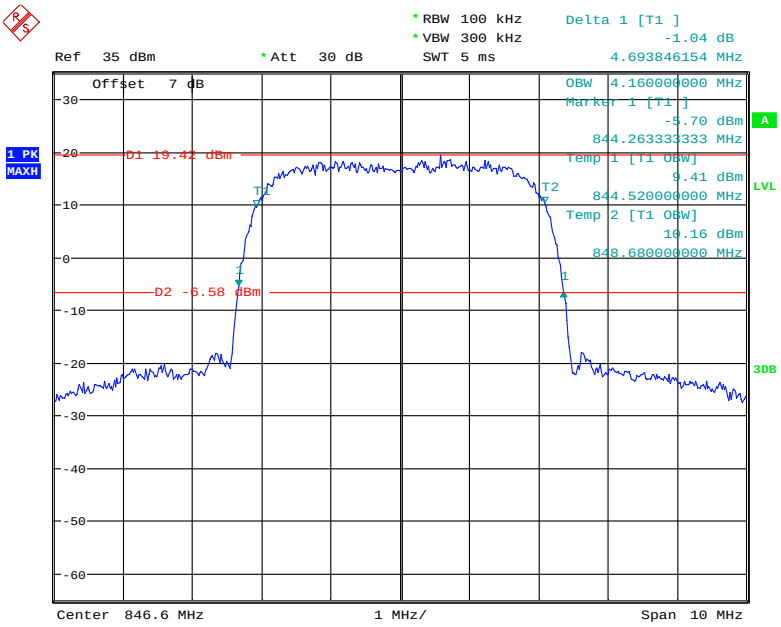
Date: 8.JUL.2021 14:27:51

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



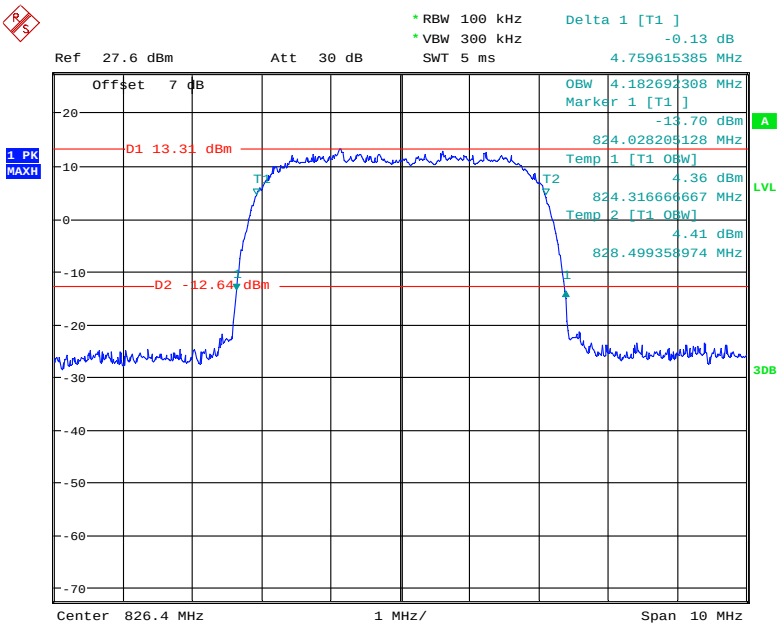
Date: 8.JUL.2021 14:25:47

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



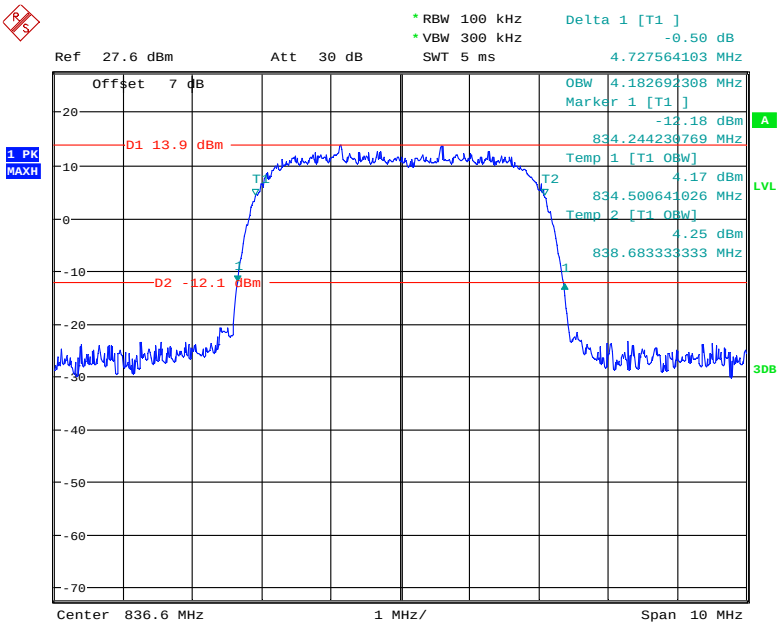
Date: 5.JUL.2021 15:48:23

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



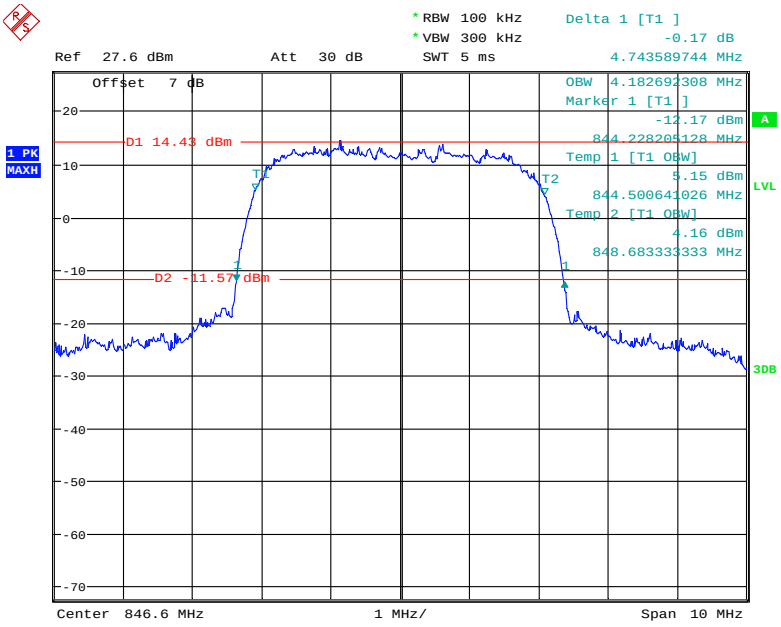
Date: 8.JUL.2021 14:07:13

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



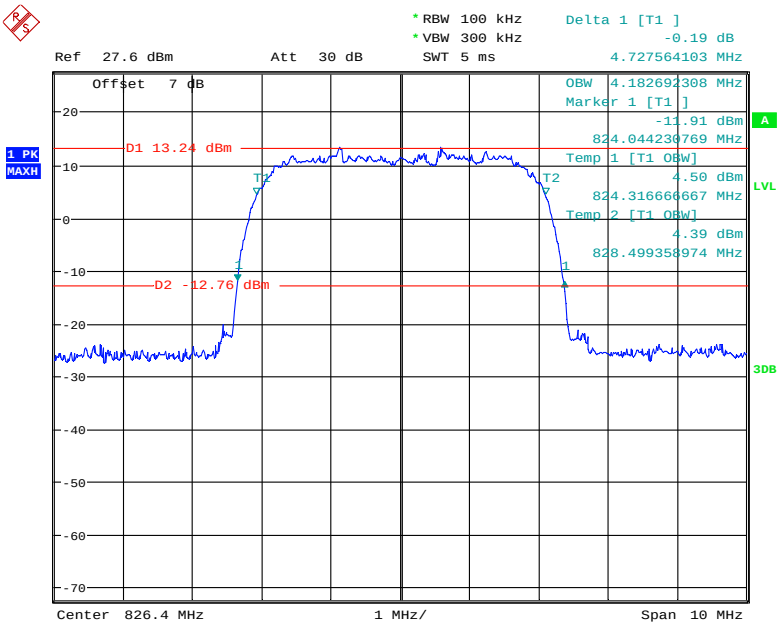
Date: 8.JUL.2021 14:09:37

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



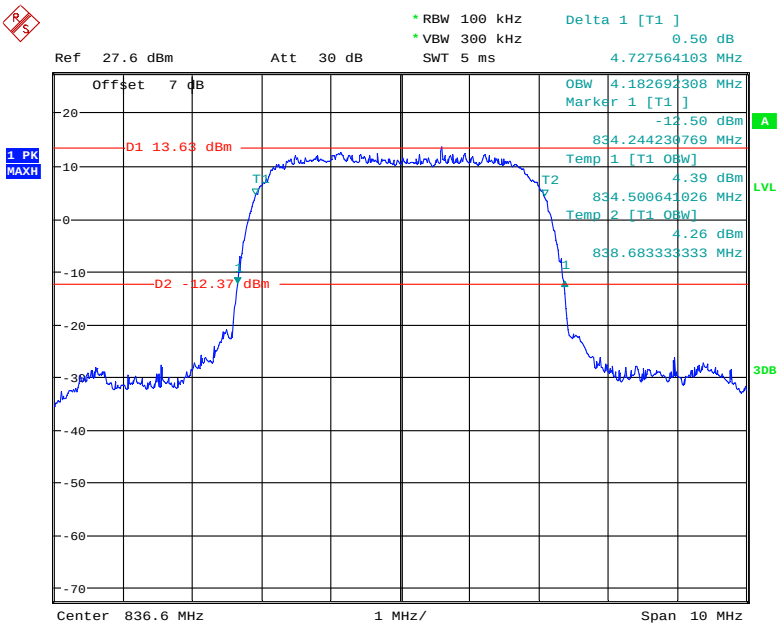
Date: 8.JUL.2021 14:12:09

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



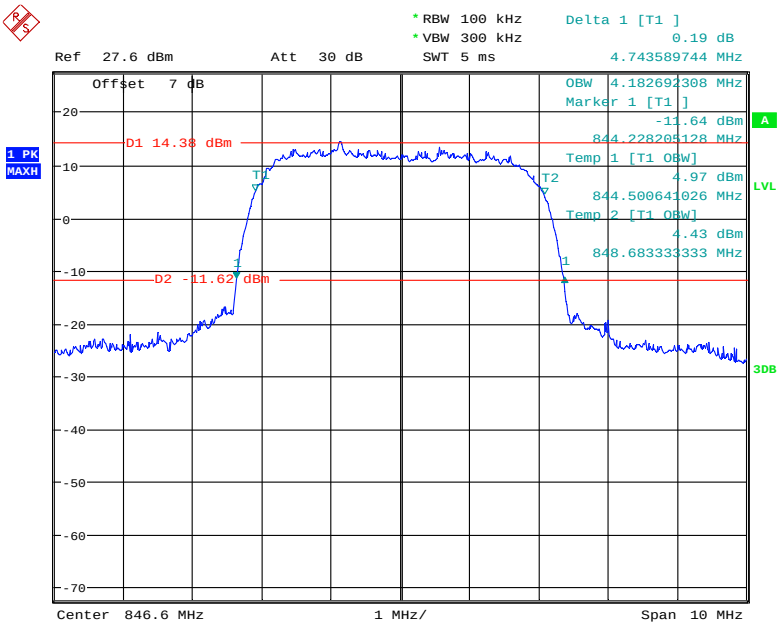
Date: 8.JUL.2021 14:21:26

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



Date: 8.JUL.2021 14:17:30

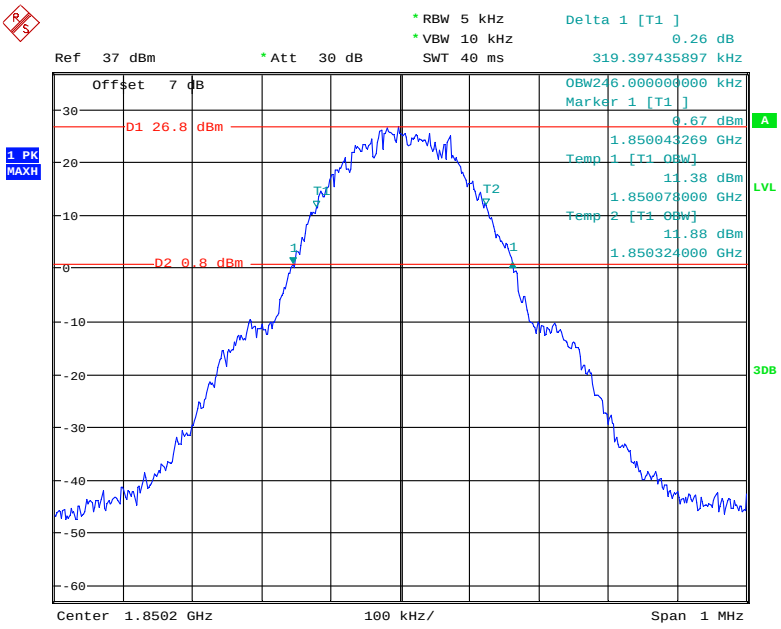
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 8.JUL.2021 14:15:33

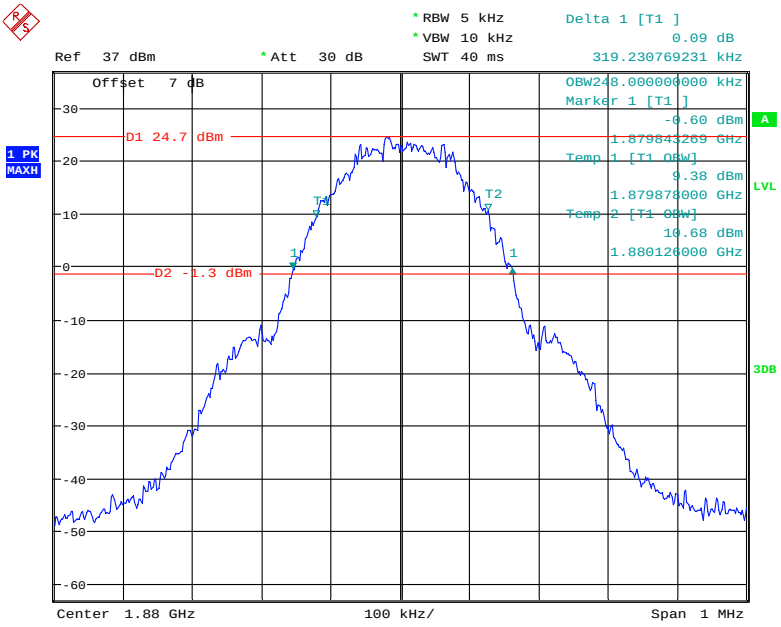
PCS Band (Part 24E)

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



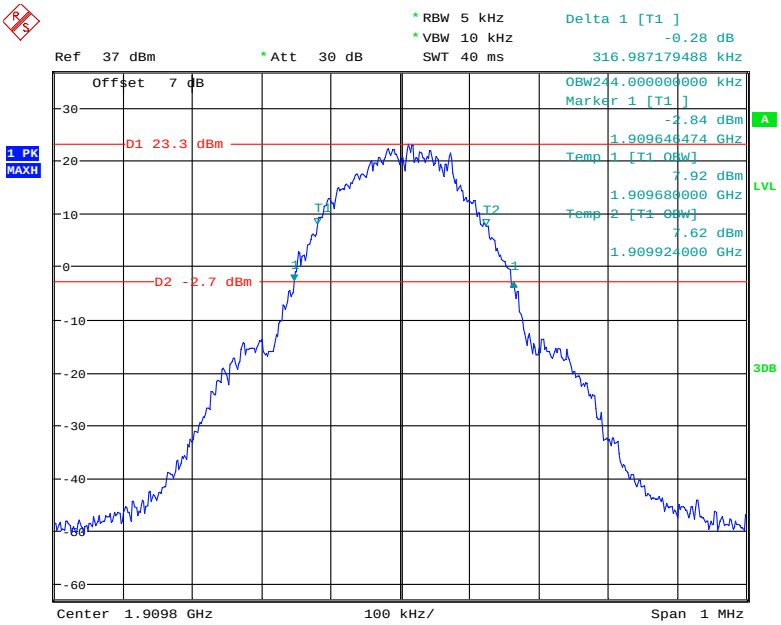
Date: 22.AUG.2021 20:02:23

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



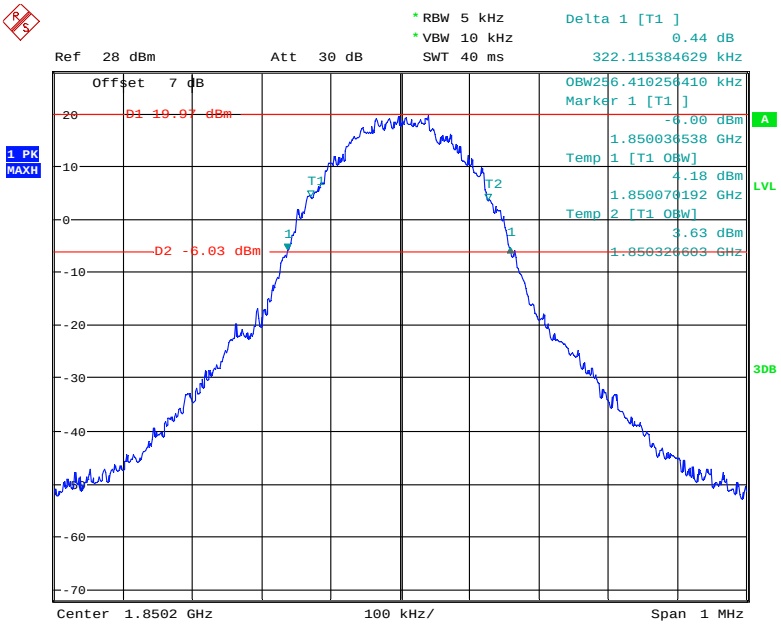
Date: 22.AUG.2021 20:03:33

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



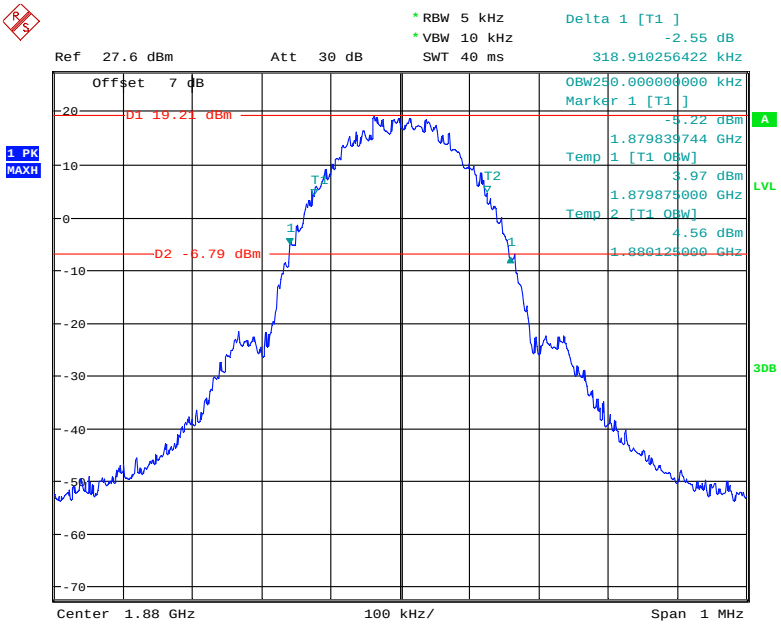
Date: 22.AUG.2021 20:04:26

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



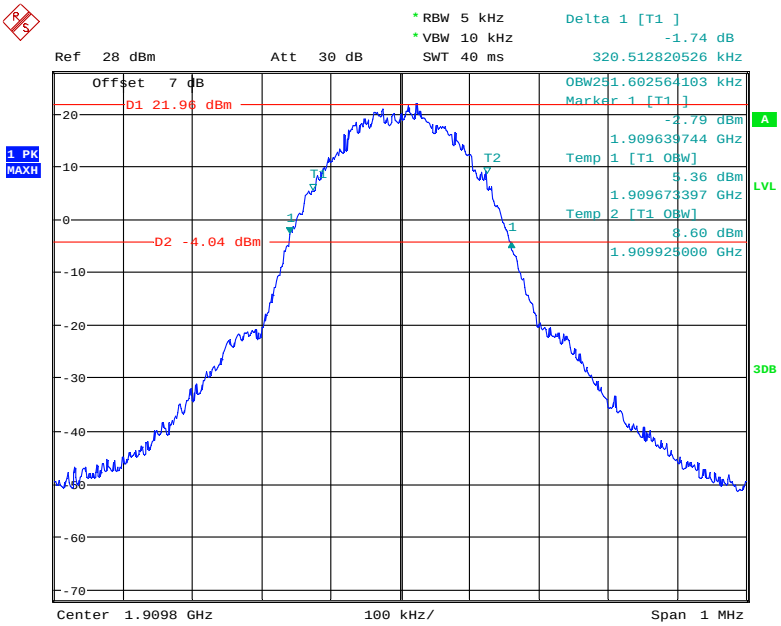
Date: 8.JUL.2021 11:10:13

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



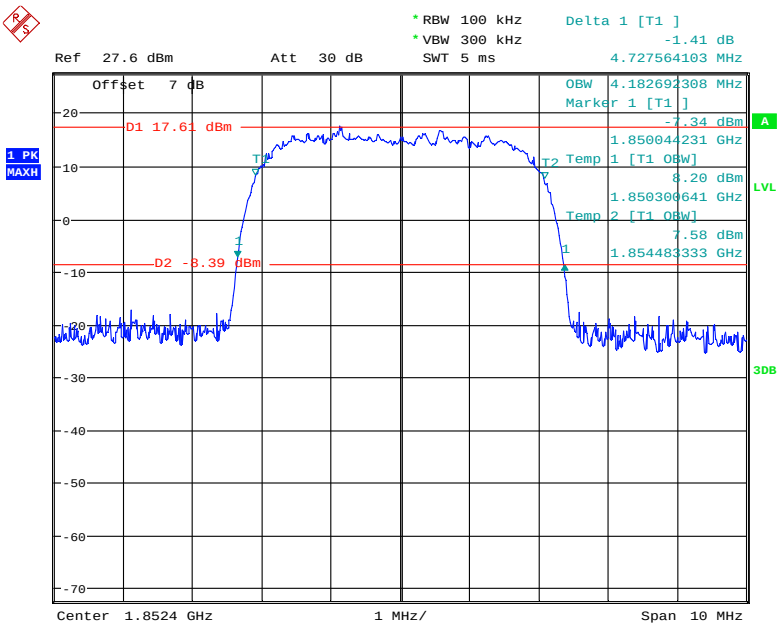
Date: 8.JUL.2021 17:13:59

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



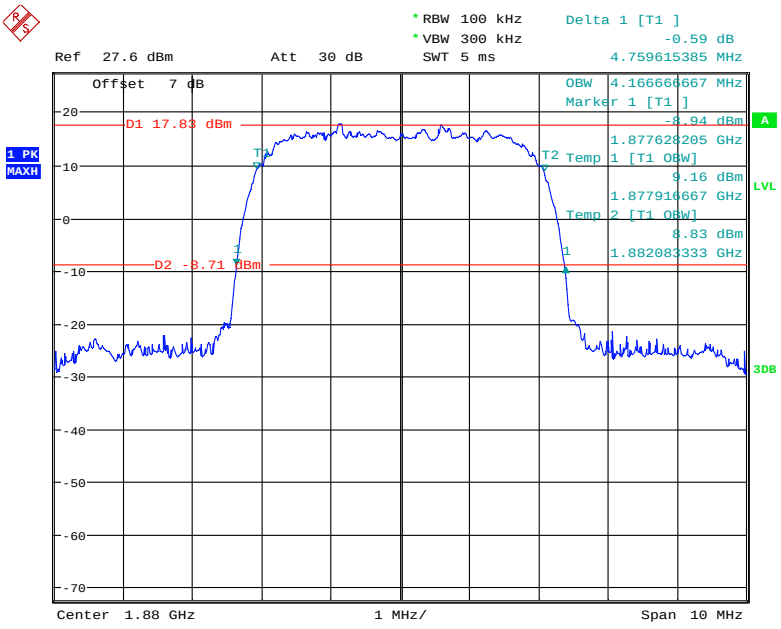
Date: 8.JUL.2021 11:04:56

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



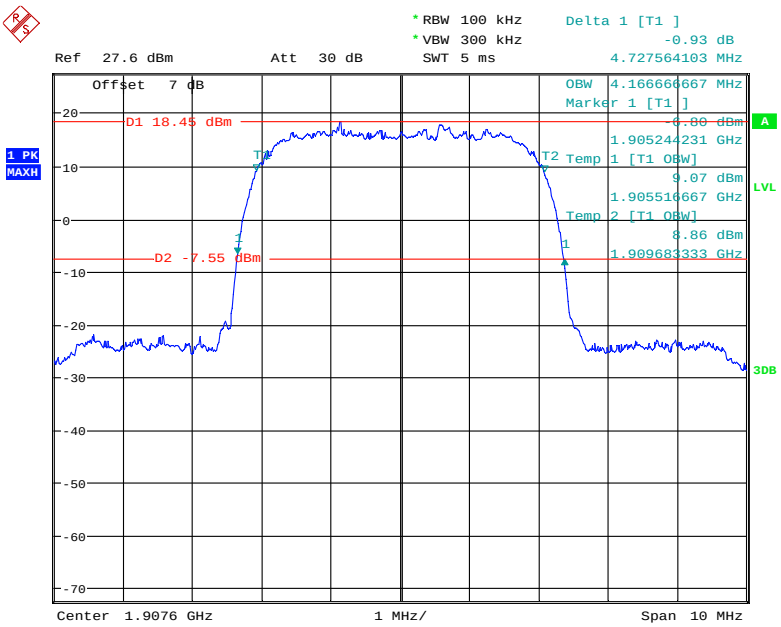
Date: 8.JUL.2021 14:35:16

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



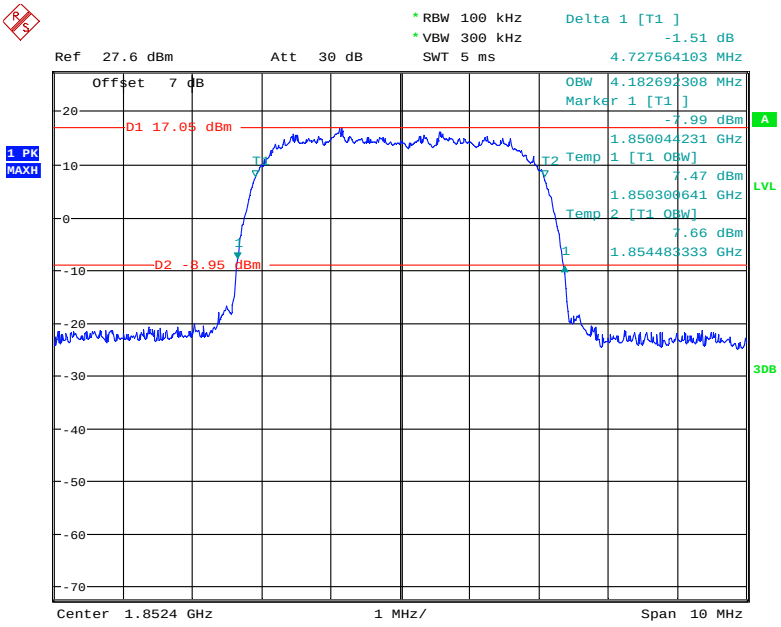
Date: 8.JUL.2021 14:33:40

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



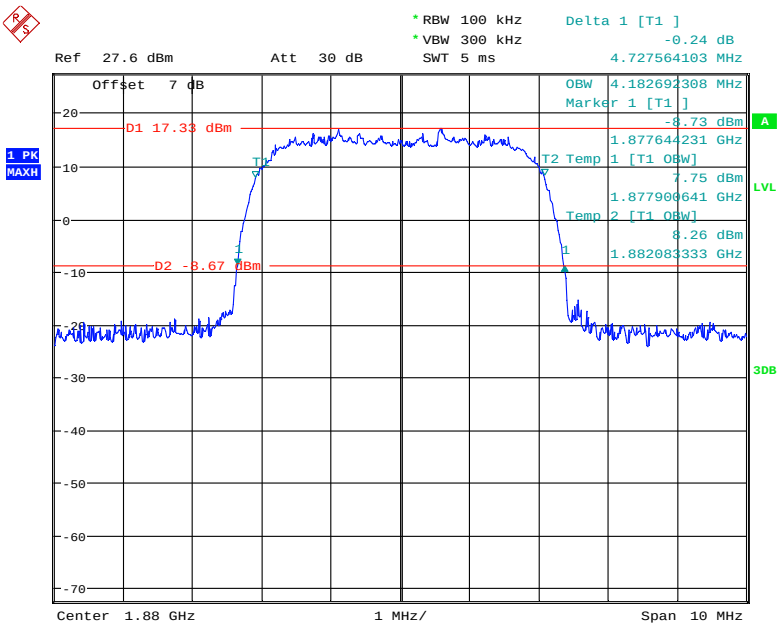
Date: 8.JUL.2021 14:31:24

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



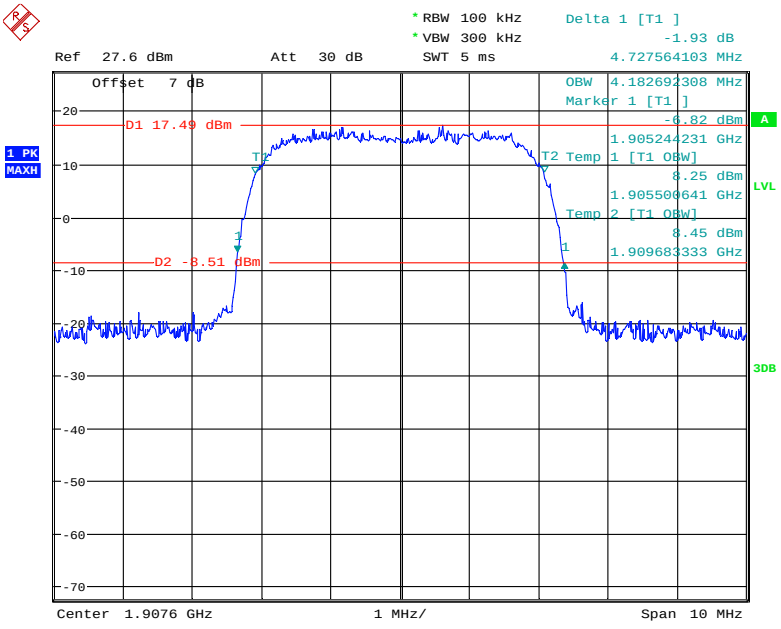
Date: 8.JUL.2021 14:50:55

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



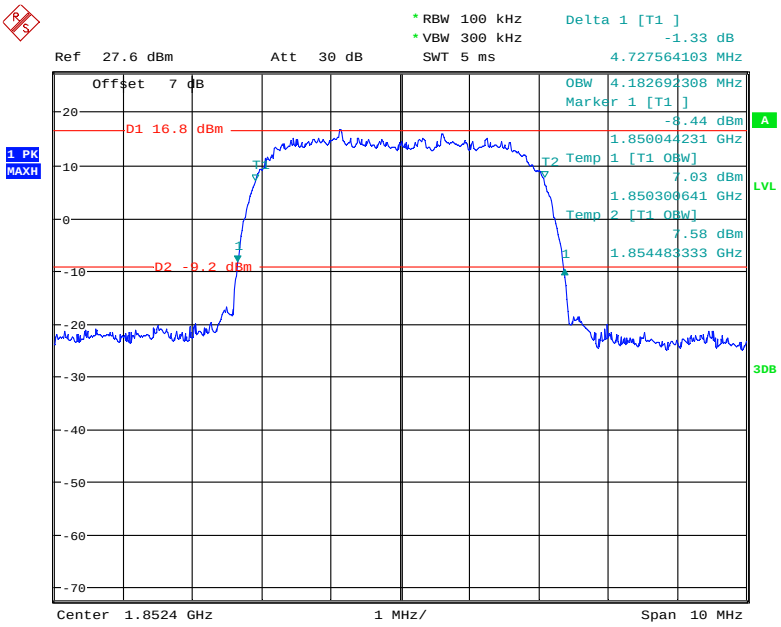
Date: 8.JUL.2021 14:48:50

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



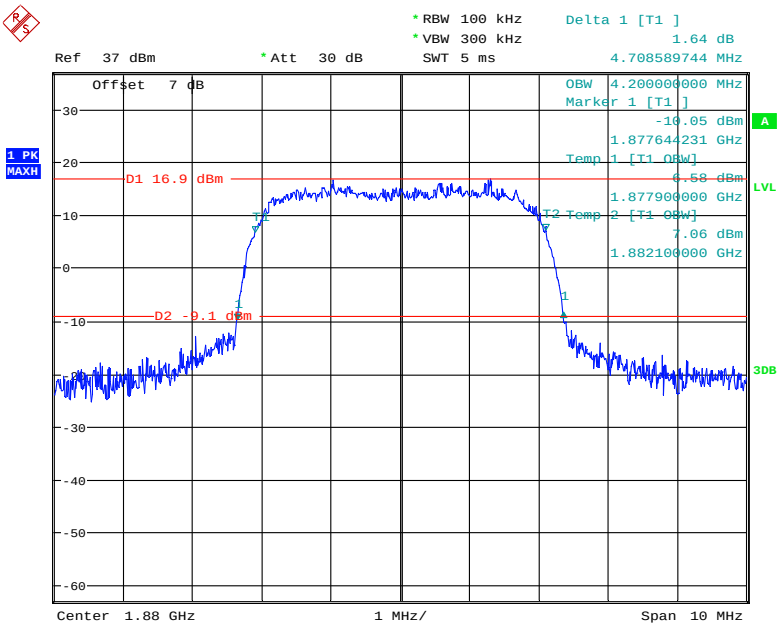
Date: 8.JUL.2021 14:47:02

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



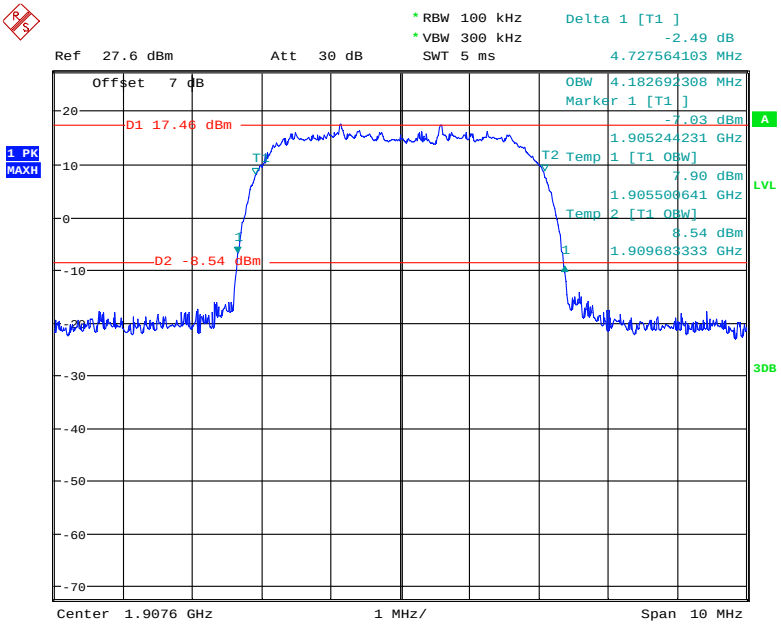
Date: 8.JUL.2021 14:37:30

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



Date: 3.SEP.2021 00:18:18

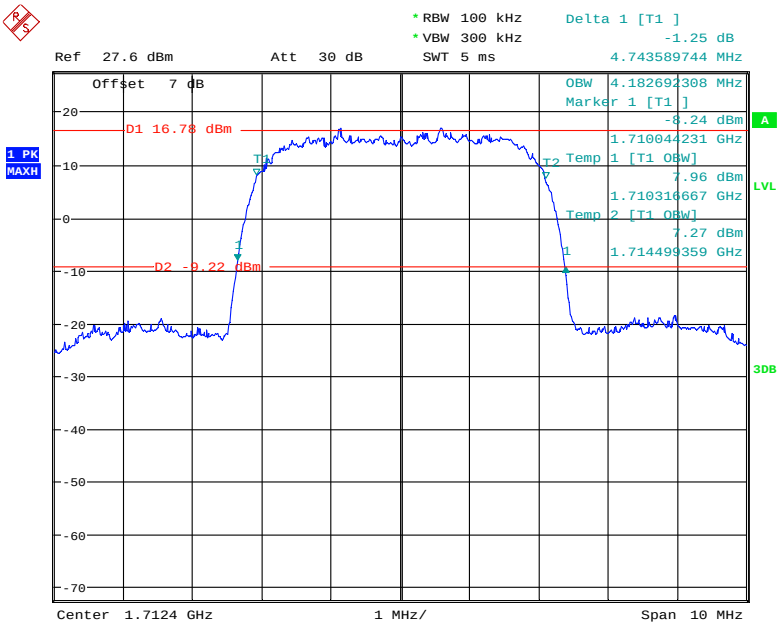
26 dB Emissions &99% Occupied Bandwidth for HSDPA (16QAM) Mode, High channel



Date: 8.JUL.2021 14:45:02

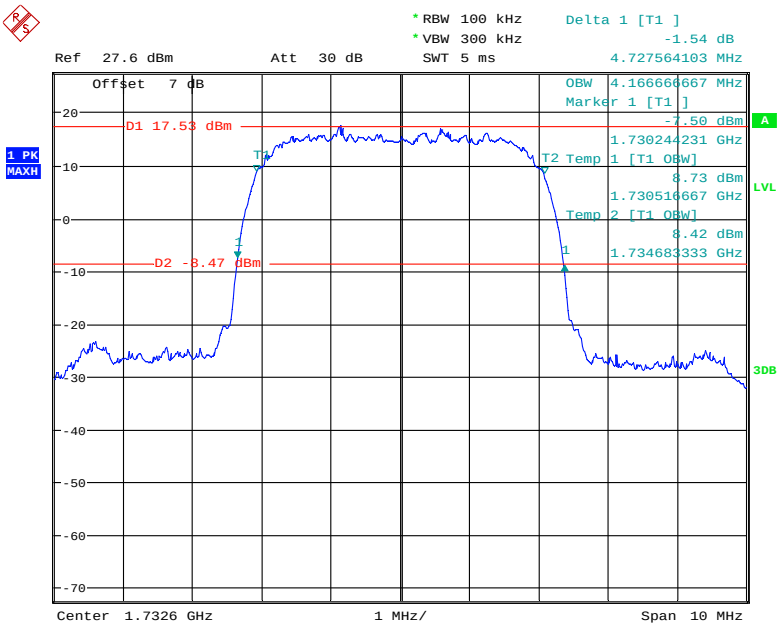
AWS Band (Part 27)

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



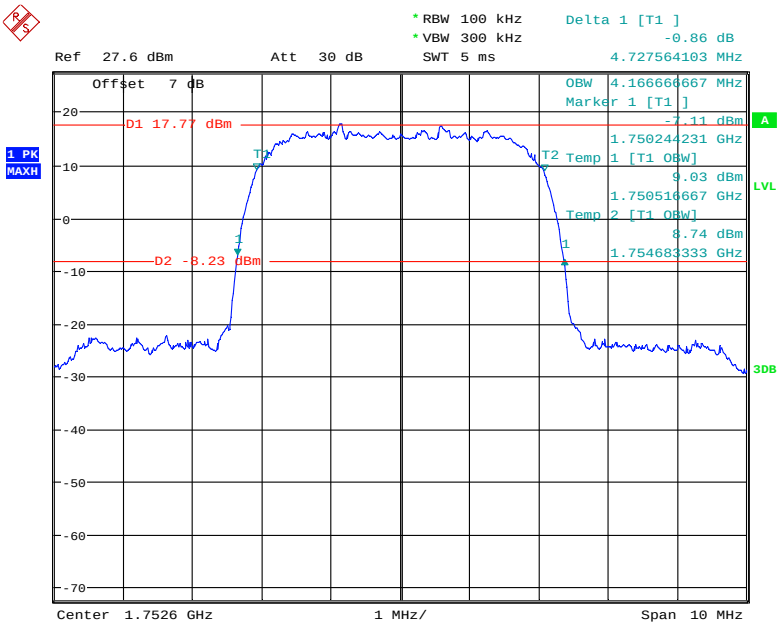
Date: 8.JUL.2021 15:32:55

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



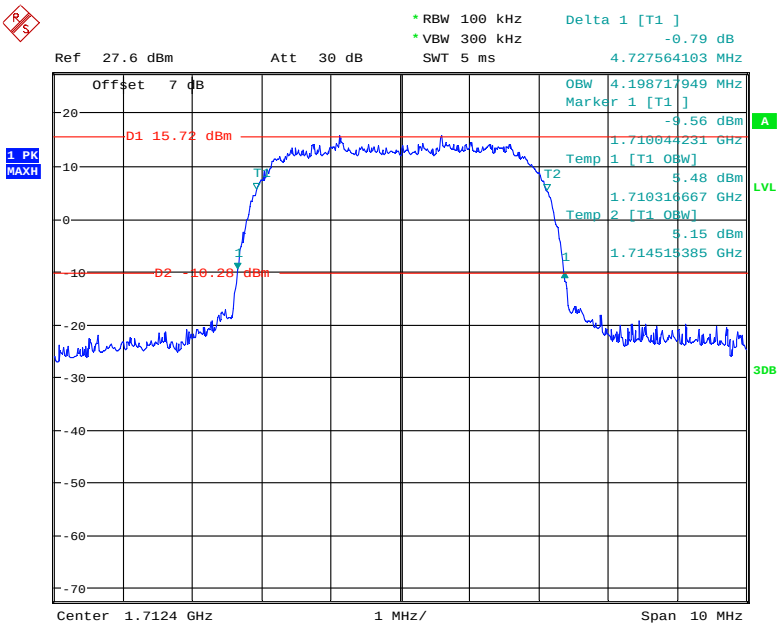
Date: 8.JUL.2021 15:30:37

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



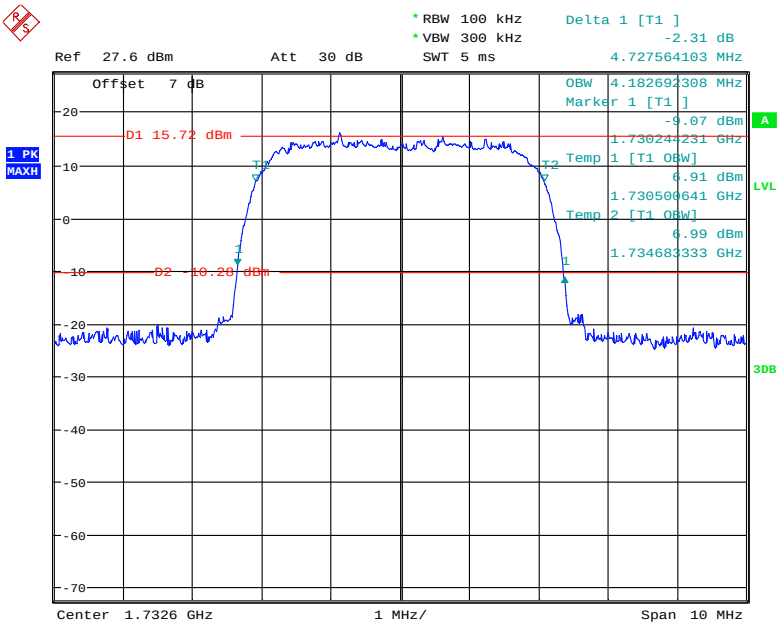
Date: 8.JUL.2021 15:28:06

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



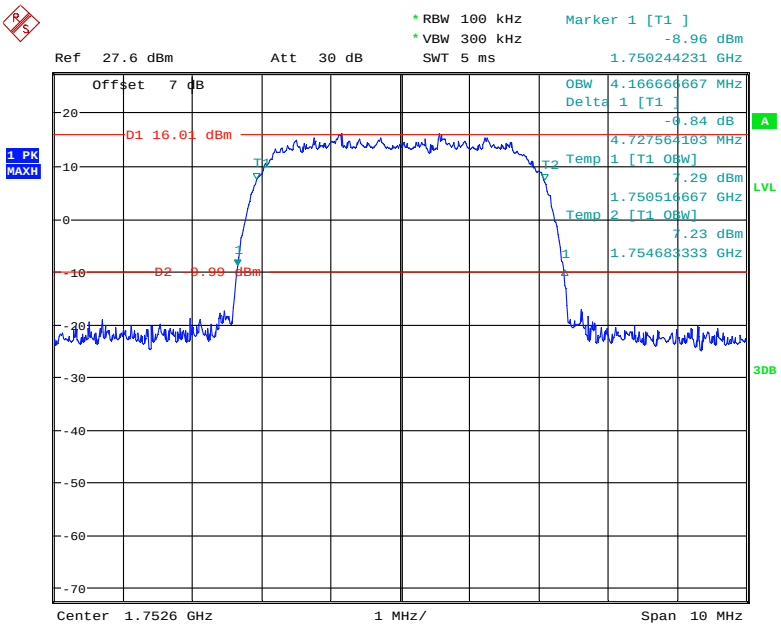
Date: 8.JUL.2021 15:47:54

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



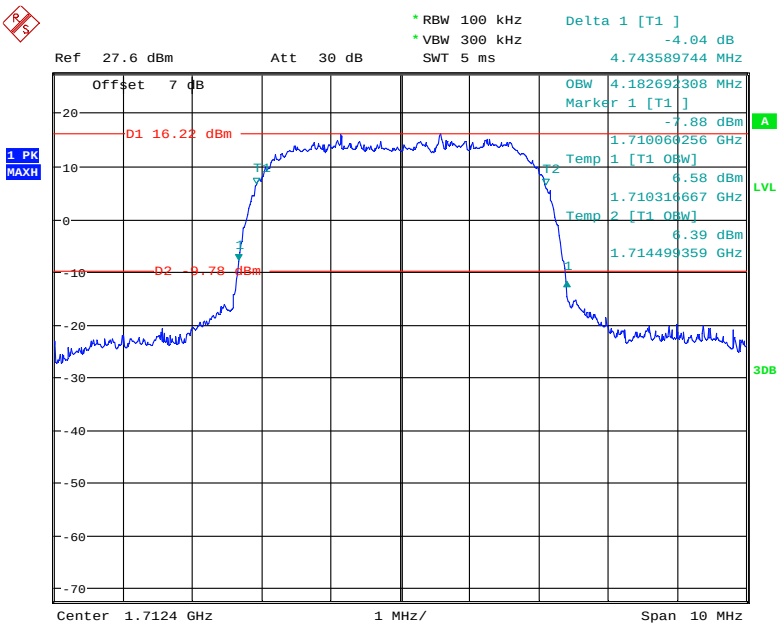
Date: 8.JUL.2021 15:46:09

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



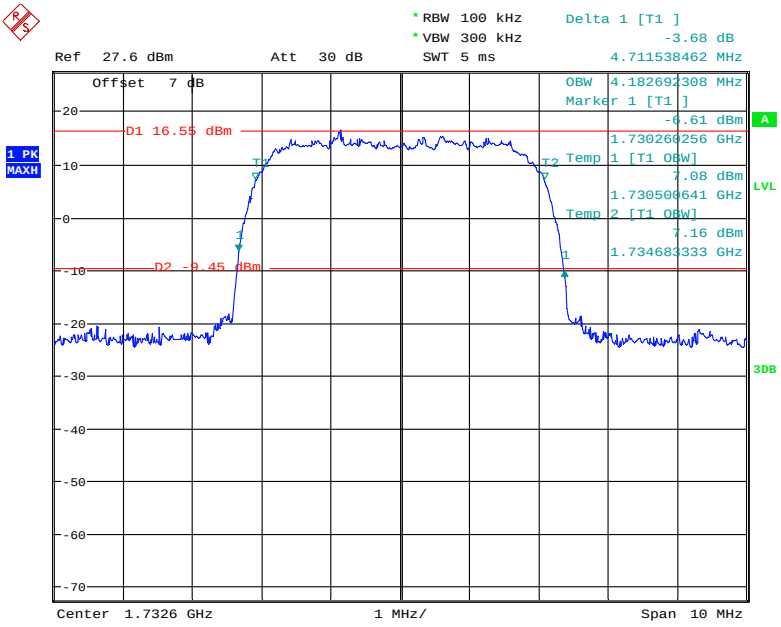
Date: 8.JUL.2021 15:43:49

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



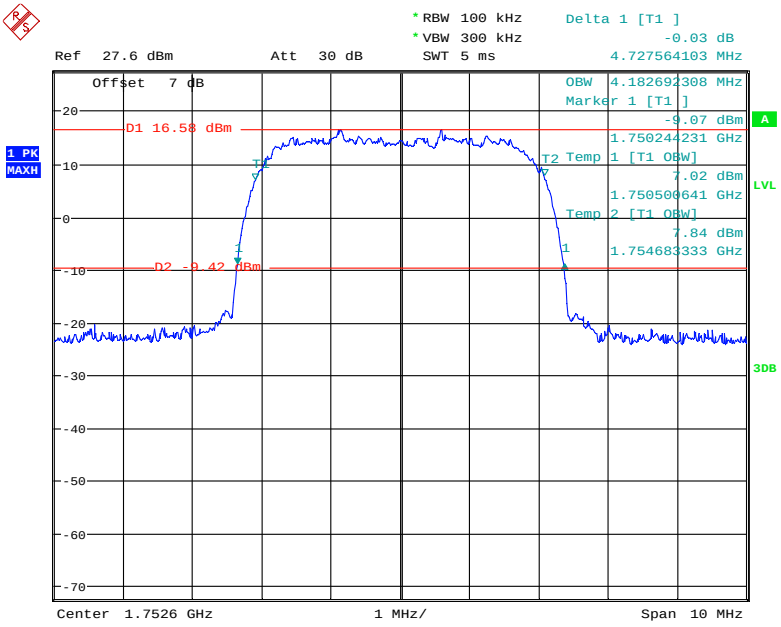
Date: 8.JUL.2021 15:36:45

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



Date: 8.JUL.2021 15:38:46

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



Date: 8.JUL.2021 15:41:32

LTE Band 2:

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.110	1.296
		Middle	1.098	1.302
		High	1.104	1.314
	16QAM	Low	1.104	1.296
		Middle	1.110	1.314
		High	1.098	1.290
3	QPSK	Low	2.688	2.880
		Middle	2.688	2.880
		High	2.688	2.892
	16QAM	Low	2.688	2.892
		Middle	2.688	2.880
		High	2.688	2.892
5	QPSK	Low	4.520	4.940
		Middle	4.500	4.940
		High	4.500	4.920
	16QAM	Low	4.500	4.945
		Middle	4.520	5.000
		High	4.500	4.960
10	QPSK	Low	8.960	9.640
		Middle	8.960	9.600
		High	8.960	9.560
	16QAM	Low	8.960	9.560
		Middle	8.960	9.600
		High	8.960	9.560
15	QPSK	Low	13.560	14.820
		Middle	13.440	14.700
		High	13.560	14.820
	16QAM	Low	13.620	14.820
		Middle	13.500	14.760
		High	13.560	14.820
20	QPSK	Low	18.000	19.360
		Middle	17.920	19.360
		High	18.000	19.600
	16QAM	Low	18.000	19.360
		Middle	18.000	19.440
		High	18.000	19.440

LTE Band 4:

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.098	1.344
		Middle	1.104	1.314
		High	1.110	1.314
	16QAM	Low	1.110	1.314
		Middle	1.098	1.290
		High	1.104	1.290
3	QPSK	Low	2.688	2.868
		Middle	2.688	2.880
		High	2.688	2.892
	16QAM	Low	2.688	2.892
		Middle	2.688	2.880
		High	2.688	2.880
5	QPSK	Low	4.520	4.940
		Middle	4.520	4.960
		High	4.500	4.920
	16QAM	Low	4.500	4.920
		Middle	4.520	4.960
		High	4.540	5.000
10	QPSK	Low	8.960	9.640
		Middle	9.000	9.560
		High	8.960	9.560
	16QAM	Low	8.960	9.560
		Middle	8.960	9.640
		High	8.960	9.560
15	QPSK	Low	13.560	14.700
		Middle	13.500	14.760
		High	13.500	14.820
	16QAM	Low	13.560	14.760
		Middle	13.560	14.820
		High	13.500	14.820
20	QPSK	Low	17.920	19.200
		Middle	18.000	19.440
		High	18.000	19.360
	16QAM	Low	18.000	19.280
		Middle	18.000	19.440
		High	17.920	19.280

LTE Band 5:

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.098	1.308
		Middle	1.104	1.314
		High	1.104	1.302
	16QAM	Low	1.104	1.320
		Middle	1.092	1.284
		High	1.104	1.296
3	QPSK	Low	2.688	2.868
		Middle	2.688	2.868
		High	2.688	2.892
	16QAM	Low	2.688	2.904
		Middle	2.688	2.856
		High	2.676	2.880
5	QPSK	Low	4.520	4.920
		Middle	4.520	4.920
		High	4.500	4.920
	16QAM	Low	4.500	4.900
		Middle	4.500	4.920
		High	4.520	4.960
10	QPSK	Low	8.960	9.600
		Middle	8.960	9.480
		High	8.920	9.560
	16QAM	Low	8.960	9.560
		Middle	8.960	9.640
		High	9.000	9.520

LTE Band 7:

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.520	4.960
		Middle	4.520	4.960
		High	4.520	4.920
	16QAM	Low	4.500	4.920
		Middle	4.540	4.940
		High	4.520	4.940
10	QPSK	Low	9.000	9.640
		Middle	8.960	9.600
		High	8.960	9.600
	16QAM	Low	8.960	9.560
		Middle	8.960	9.640
		High	8.920	9.560
15	QPSK	Low	13.500	14.880
		Middle	13.500	14.820
		High	13.500	14.760
	16QAM	Low	13.500	14.700
		Middle	13.500	14.700
		High	13.500	14.700
20	QPSK	Low	17.920	19.200
		Middle	18.000	19.440
		High	18.000	19.360
	16QAM	Low	17.920	19.360
		Middle	17.920	19.440
		High	17.920	19.280

LTE Band 12

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.098	1.296
		Middle	1.104	1.314
		High	1.098	1.302
	16QAM	Low	1.110	1.314
		Middle	1.098	1.290
		High	1.098	1.302
3	QPSK	Low	2.676	2.880
		Middle	2.688	2.892
		High	2.688	2.892
	16QAM	Low	2.676	2.904
		Middle	2.688	2.868
		High	2.676	2.868
5	QPSK	Low	4.540	5.140
		Middle	4.520	5.100
		High	4.520	5.100
	16QAM	Low	4.540	5.200
		Middle	4.520	5.160
		High	4.520	5.200
10	QPSK	Low	8.960	9.960
		Middle	8.960	9.760
		High	8.960	9.840
	16QAM	Low	8.960	9.800
		Middle	8.960	9.880
		High	9.000	9.920

LTE Band 13

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.540	5.140
		Middle	4.540	5.140
		High	4.520	5.160
	16QAM	Low	4.540	5.180
		Middle	4.540	5.200
		High	4.540	5.200
10	QPSK	Middle	9.000	9.840
	16QAM	Middle	9.000	9.720

LTE Band 14

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.540	5.180
		Middle	4.520	5.180
		High	4.520	5.240
	16QAM	Low	4.520	5.140
		Middle	4.540	5.160
		High	4.520	5.260
10	QPSK	Middle	8.960	9.960
	16QAM	Middle	8.960	9.800

LTE Band 25

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.098	1.314
		Middle	1.104	1.314
		High	1.110	1.314
	16QAM	Low	1.110	1.314
		Middle	1.092	1.290
		High	1.104	1.314
3	QPSK	Low	2.688	2.880
		Middle	2.676	2.880
		High	2.688	2.892
	16QAM	Low	2.688	2.892
		Middle	2.688	2.880
		High	2.688	2.880
5	QPSK	Low	4.520	5.160
		Middle	4.520	5.200
		High	4.520	5.160
	16QAM	Low	4.520	5.140
		Middle	4.540	5.140
		High	4.540	5.180
10	QPSK	Low	9.000	9.920
		Middle	8.960	9.800
		High	8.960	9.720
	16QAM	Low	8.960	9.840
		Middle	9.000	9.880
		High	8.960	9.760
15	QPSK	Low	13.620	15.060
		Middle	13.560	15.060
		High	13.500	15.120
	16QAM	Low	13.620	15.120
		Middle	13.560	15.120
		High	13.500	15.060
20	QPSK	Low	18.000	19.840
		Middle	17.920	19.680
		High	17.920	20.320
	16QAM	Low	18.000	19.600
		Middle	17.920	19.760
		High	17.920	19.680

LTE Band 26:

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.098	1.302
		Middle	1.104	1.326
		High	1.110	1.302
	16QAM	Low	1.104	1.308
		Middle	1.098	1.284
		High	1.098	1.296
3	QPSK	Low	2.688	2.856
		Middle	2.688	2.880
		High	2.688	2.892
	16QAM	Low	2.688	2.892
		Middle	2.688	2.880
		High	2.688	2.880
5	QPSK	Low	4.520	4.960
		Middle	4.520	4.940
		High	4.500	4.920
	16QAM	Low	4.500	4.920
		Middle	4.500	4.940
		High	4.520	4.960
10	QPSK	Low	8.960	9.640
		Middle	8.960	9.560
		High	8.960	9.520
	16QAM	Low	8.960	9.520
		Middle	8.960	9.520
		High	8.920	9.560
15	QPSK	Low	13.500	14.880
		Middle	13.500	14.820
		High	13.440	14.760
	16QAM	Low	13.500	14.700
		Middle	13.500	14.760
		High	13.560	14.760

LTE Band 30

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.500	4.955
		Middle	4.520	4.955
		High	4.520	4.939
	16QAM	Low	4.500	4.939
		Middle	4.500	4.907
		High	4.520	4.939
10	QPSK	Middle	8.960	9.680
	16QAM	Middle	8.960	9.560

LTE Band 41

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.500	5.000
		Middle	4.520	5.020
		High	4.520	4.880
	16QAM	Low	4.500	4.940
		Middle	4.520	5.240
		High	4.520	5.080
10	QPSK	Low	8.960	10.080
		Middle	8.960	9.720
		High	8.960	9.880
	16QAM	Low	8.960	9.680
		Middle	8.960	9.440
		High	8.960	9.680
15	QPSK	Low	13.500	15.712
		Middle	13.500	15.780
		High	13.560	14.940
	16QAM	Low	13.560	16.865
		Middle	13.620	17.067
		High	13.620	16.000
20	QPSK	Low	18.000	19.280
		Middle	18.000	19.200
		High	18.080	19.520
	16QAM	Low	17.920	19.360
		Middle	18.000	20.400
		High	18.000	19.200

LTE Band 66

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
1.4	QPSK	Low	1.104	1.322
		Middle	1.098	1.296
		High	1.104	1.326
	16QAM	Low	1.104	1.290
		Middle	1.110	1.314
		High	1.098	1.290
3	QPSK	Low	2.700	2.868
		Middle	2.688	2.880
		High	2.688	2.904
	16QAM	Low	2.688	2.892
		Middle	2.688	2.868
		High	2.688	2.880
5	QPSK	Low	4.540	5.220
		Middle	4.520	5.160
		High	4.520	5.180
	16QAM	Low	4.540	5.120
		Middle	4.540	5.220
		High	4.540	5.240
10	QPSK	Low	9.000	10.080
		Middle	8.960	9.840
		High	8.960	9.920
	16QAM	Low	8.960	9.680
		Middle	8.960	9.920
		High	8.960	9.880
15	QPSK	Low	13.560	15.060
		Middle	13.500	15.180
		High	13.620	15.180
	16QAM	Low	13.560	15.180
		Middle	13.560	15.180
		High	13.620	15.180
20	QPSK	Low	17.920	19.600
		Middle	18.000	19.680
		High	18.000	19.840
	16QAM	Low	18.000	19.680
		Middle	18.000	19.760
		High	18.080	19.680

LTE Band 71

Bandwidth (MHz)	Modulation	Channel	99% Occupied Bandwidth (MHz)	26 dB Emission Bandwidth (MHz)
5	QPSK	Low	4.52	5.20
		Middle	4.52	5.14
		High	4.54	5.22
	16QAM	Low	4.55	5.15
		Middle	4.55	5.21
		High	4.52	5.12
10	QPSK	Low	9.03	10.17
		Middle	8.97	9.84
		High	8.94	9.81
	16QAM	Low	9.03	10.03
		Middle	8.94	9.74
		High	8.94	9.75
15	QPSK	Low	13.51	14.81
		Middle	13.41	14.29
		High	13.41	14.44
	16QAM	Low	13.51	14.52
		Middle	13.37	14.29
		High	13.41	14.39
20	QPSK	Low	17.88	18.85
		Middle	18.01	19.17
		High	17.95	19.49
	16QAM	Low	17.88	18.98
		Middle	17.88	18.98
		High	18.01	19.24

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, §90.543(e) - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

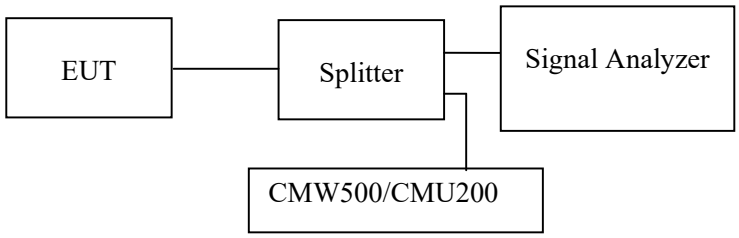
Applicable Standard

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

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

Test Procedure

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



Test Data

Environmental Conditions

Temperature:	28~29.4 ℃
Relative Humidity:	52~60 %
ATM Pressure:	101.0 ~102.0kPa

The testing was performed by Pedro Yun from 2021-07-05 to 2021-09-03.

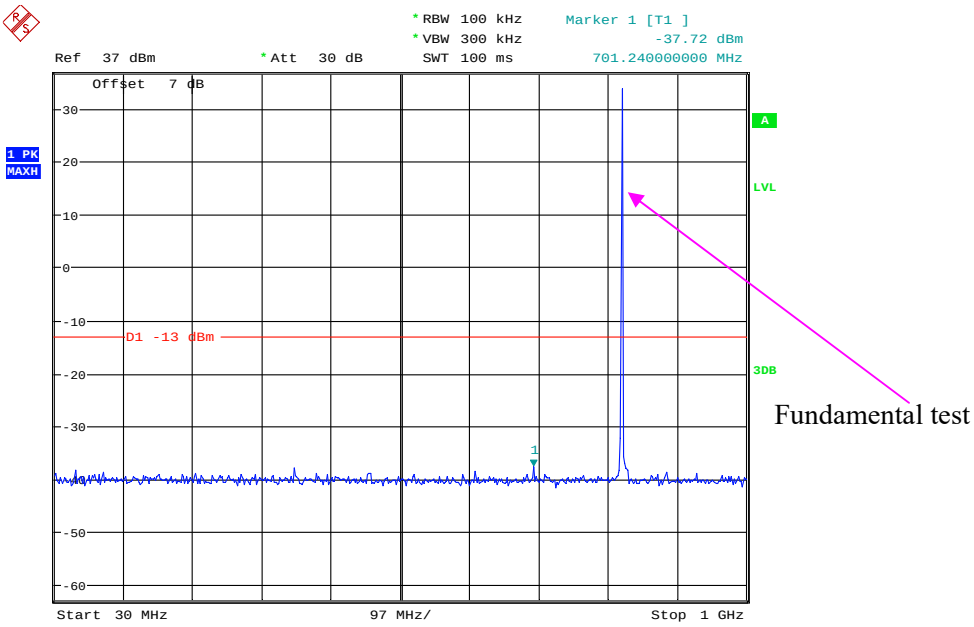
EUT operation mode: Transmitting

Test result: Pass

Please refer to the following plots.

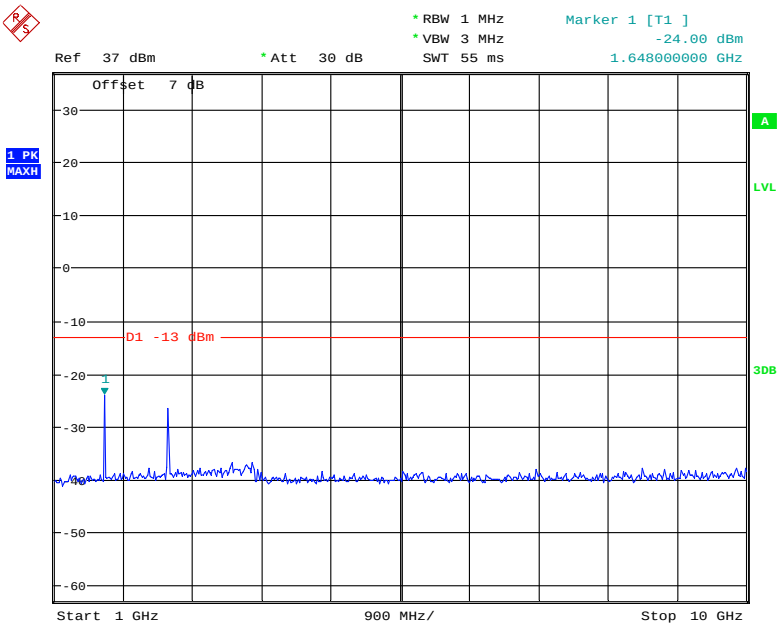
Cellular Band (Part 22H)
Low Channel:

30 MHz – 1 GHz (GPRS Mode)



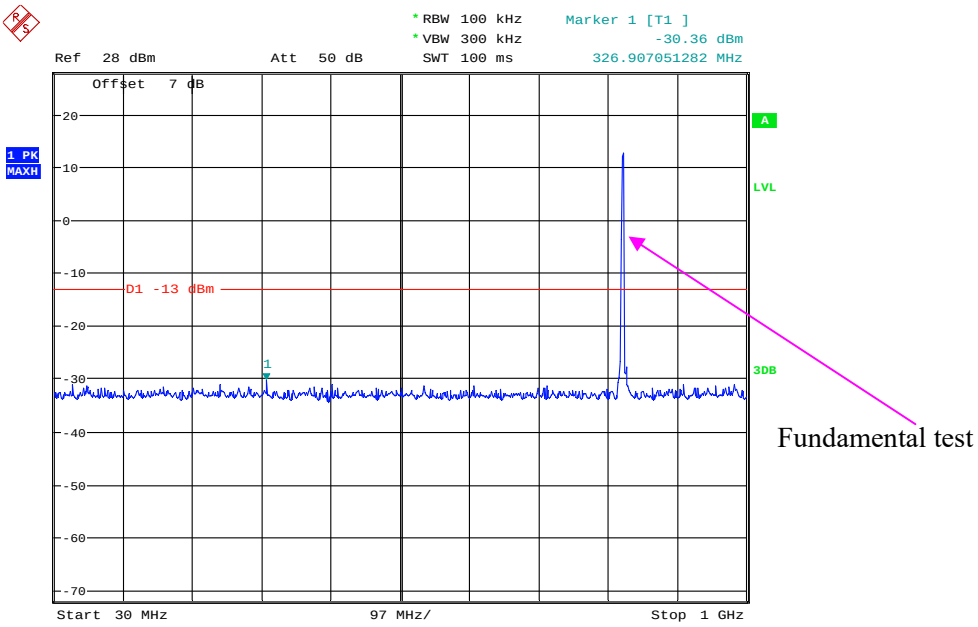
Date: 22.AUG.2021 19:52:08

1 GHz – 10 GHz (GPRS Mode)



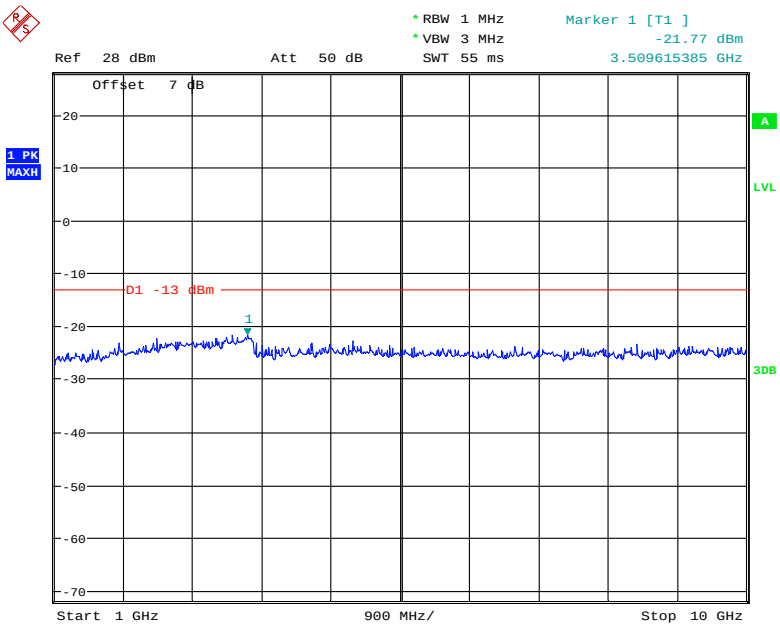
Date: 22.AUG.2021 19:54:58

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:30:56

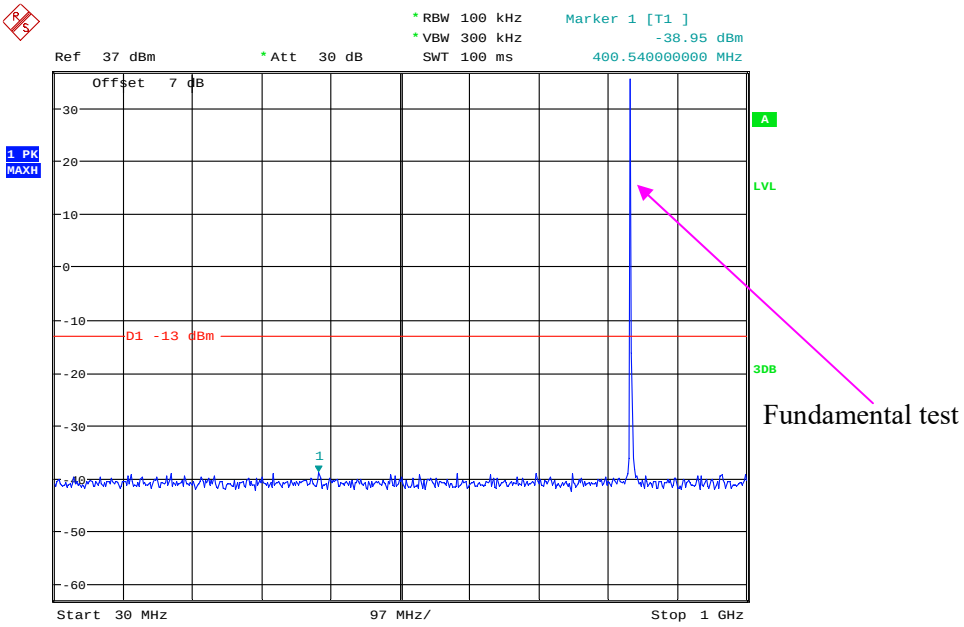
1 GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:32:17

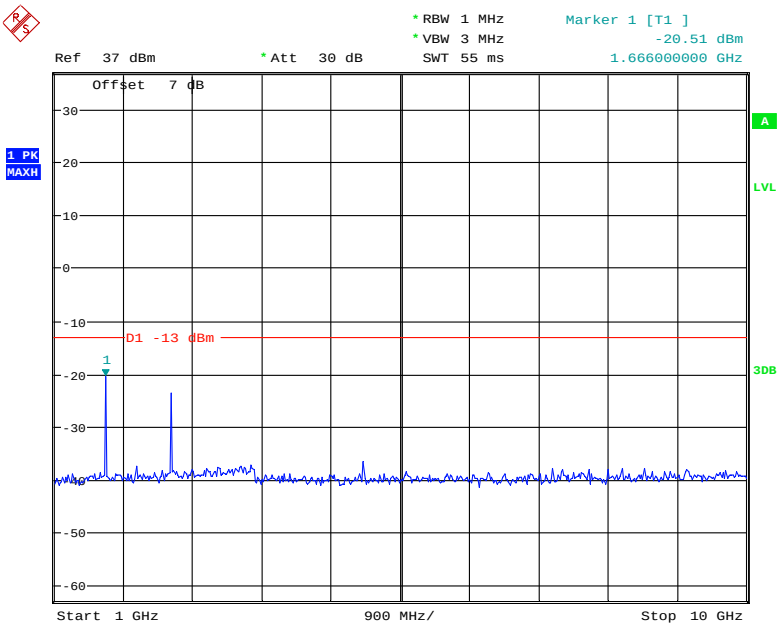
Middle Channel:

30 MHz – 1 GHz (GPRS Mode)



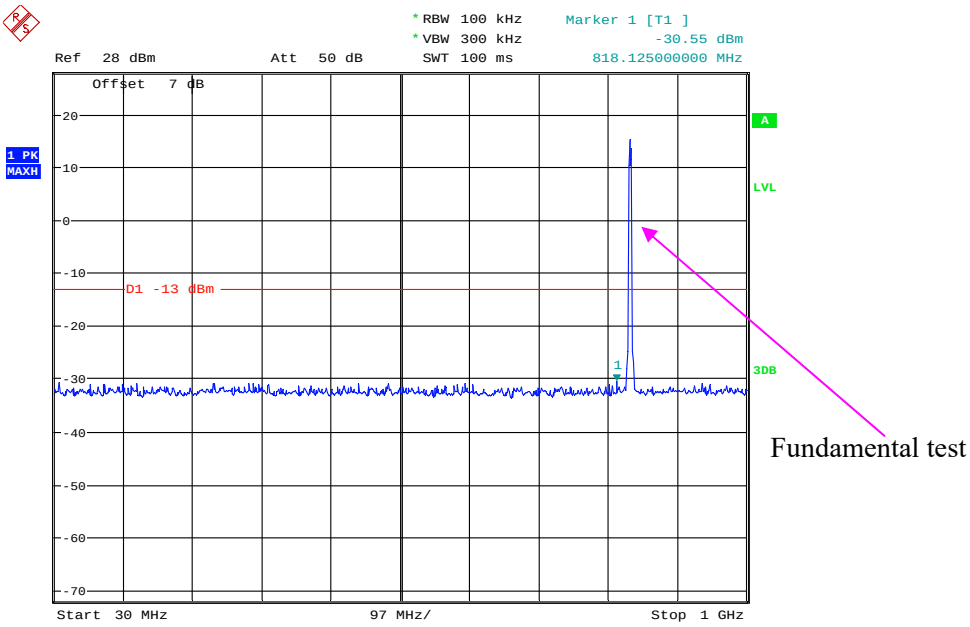
Date: 22.AUG.2021 19:53:36

1 GHz – 10 GHz (GPRS Mode)



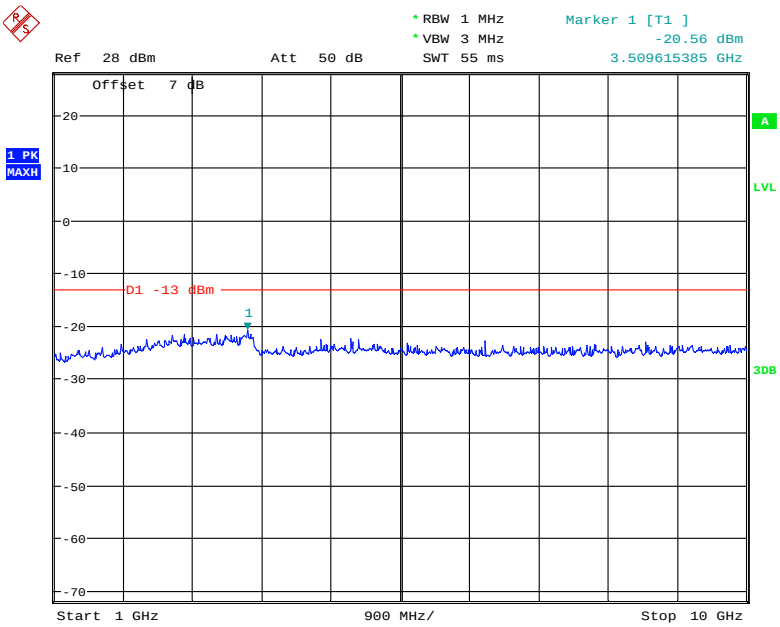
Date: 22.AUG.2021 19:54:41

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:30:18

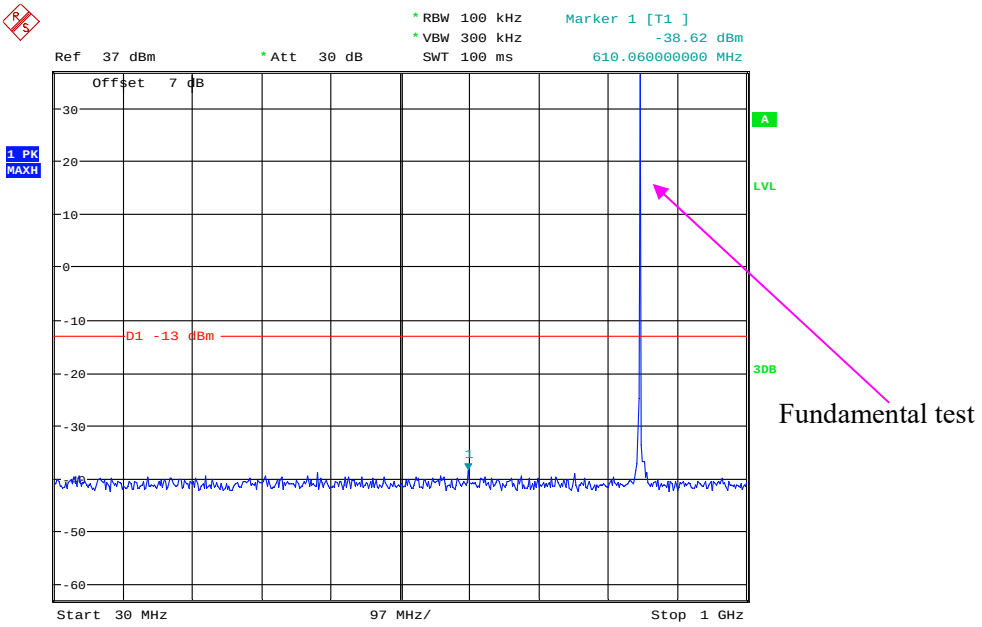
1 GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:33:16

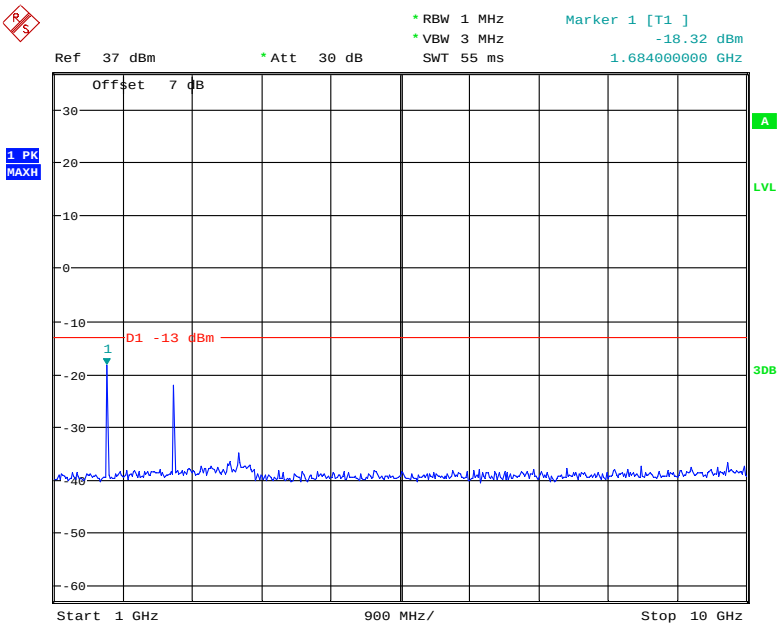
High Channel:

30 MHz – 1 GHz (GPRS Mode)



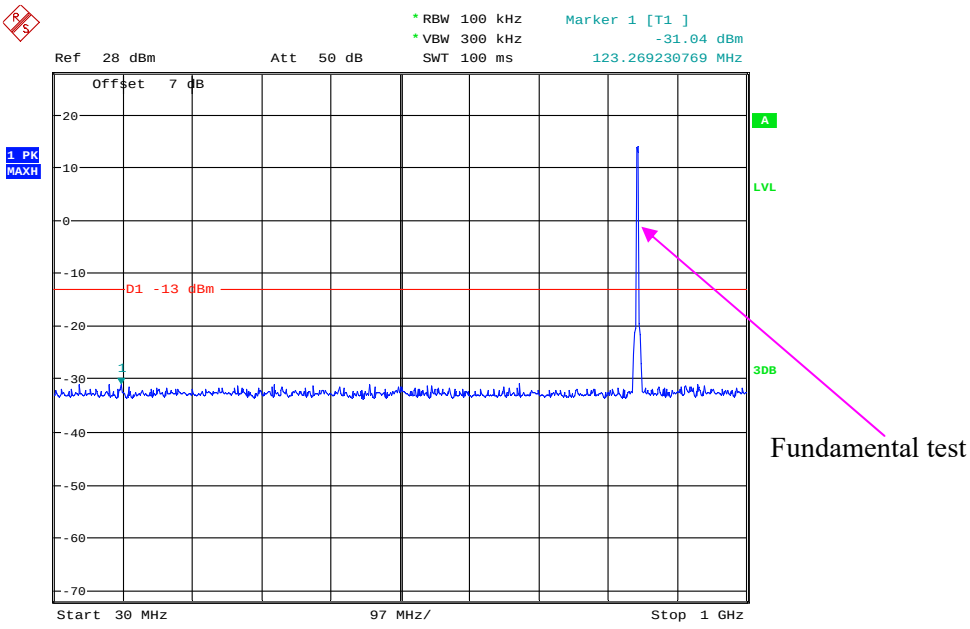
Date: 22.AUG.2021 19:53:55

1 GHz – 10 GHz (GPRS Mode)



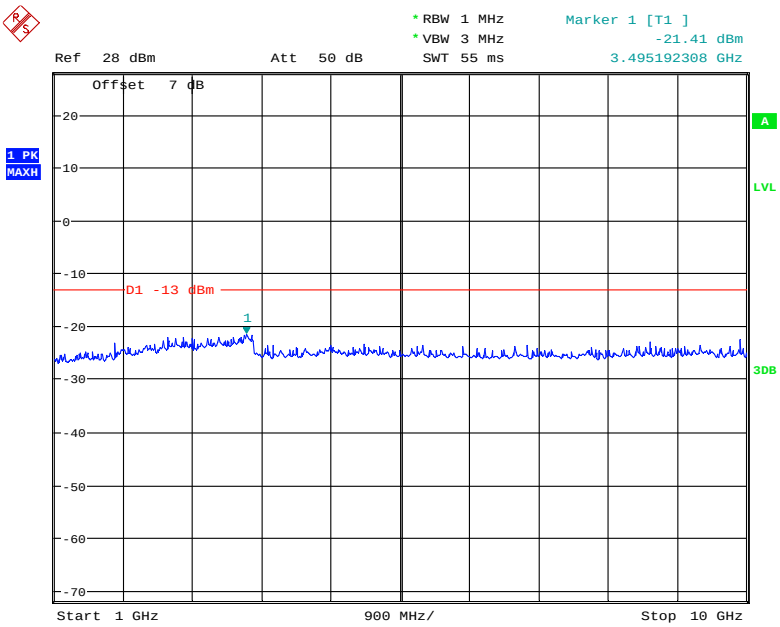
Date: 22.AUG.2021 19:54:21

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:29:01

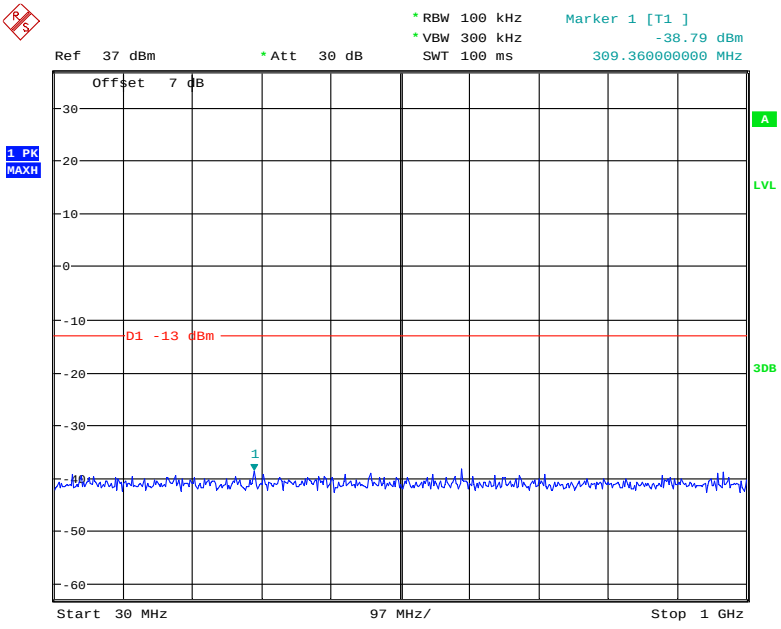
1 GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:33:59

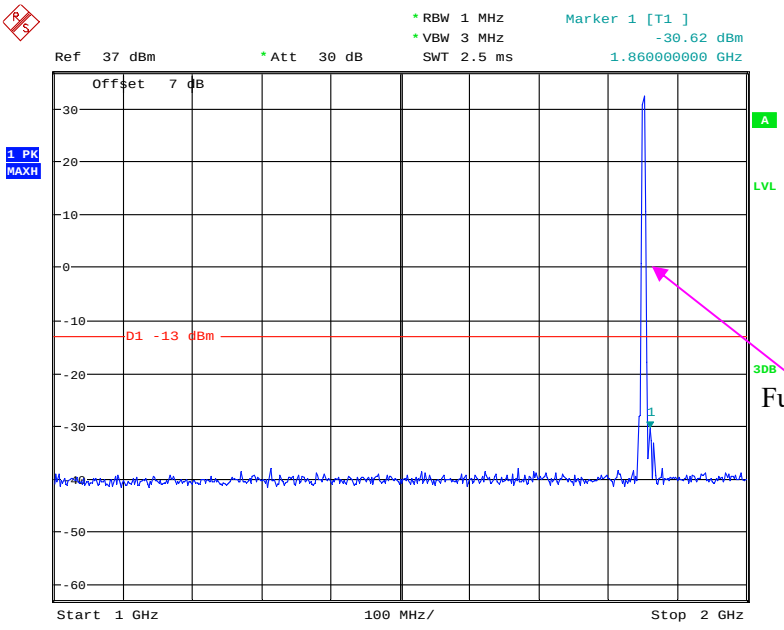
PCS Band (Part 24E) Low Channel:

30 MHz – 1 GHz (GPRS Mode)



Date: 22.AUG.2021 20:00:10

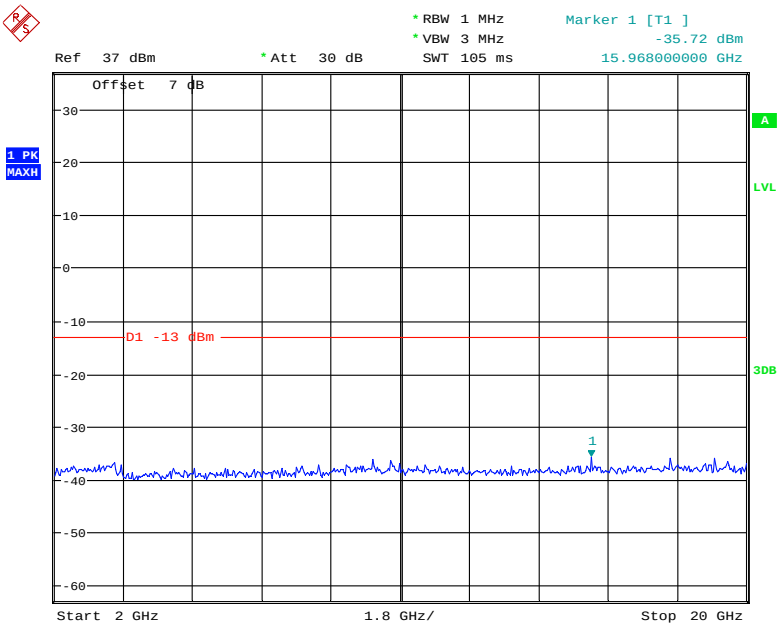
1 GHz – 2 GHz (GPRS Mode)



Fundamental test

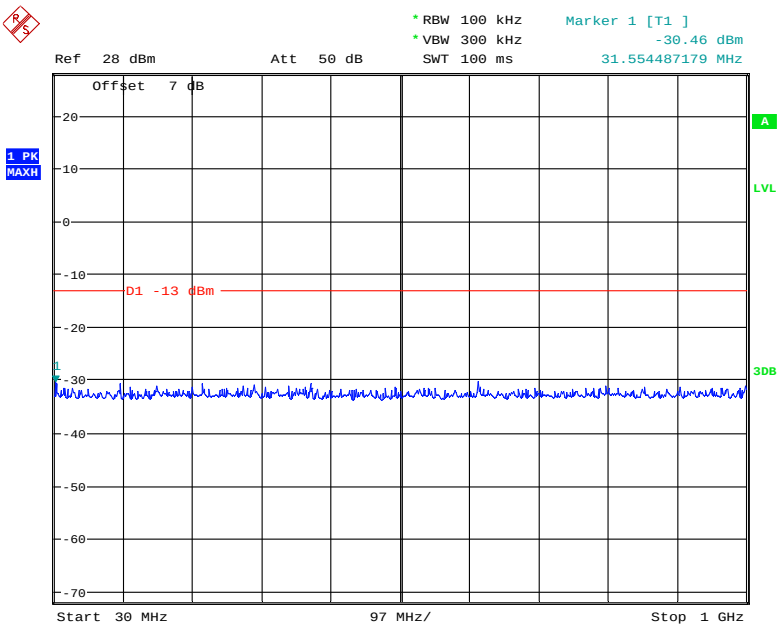
Date: 22.AUG.2021 19:57:54

2 GHz – 20 GHz (GPRS Mode)



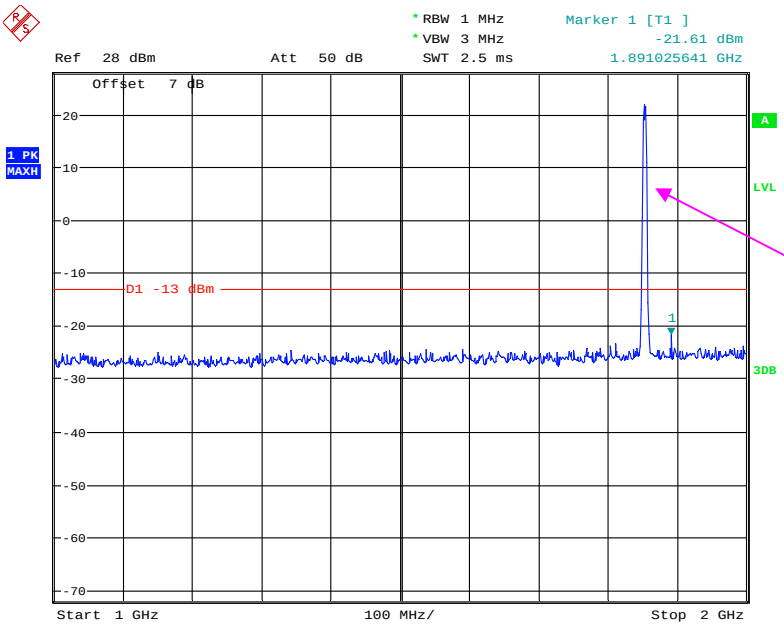
Date: 22.AUG.2021 19:59:47

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:26:44

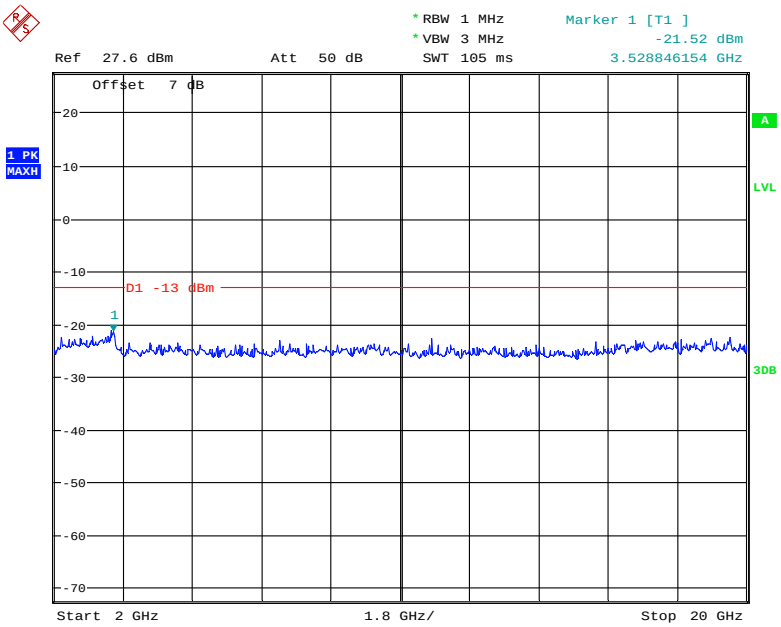
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 8.JUL.2021 13:37:28

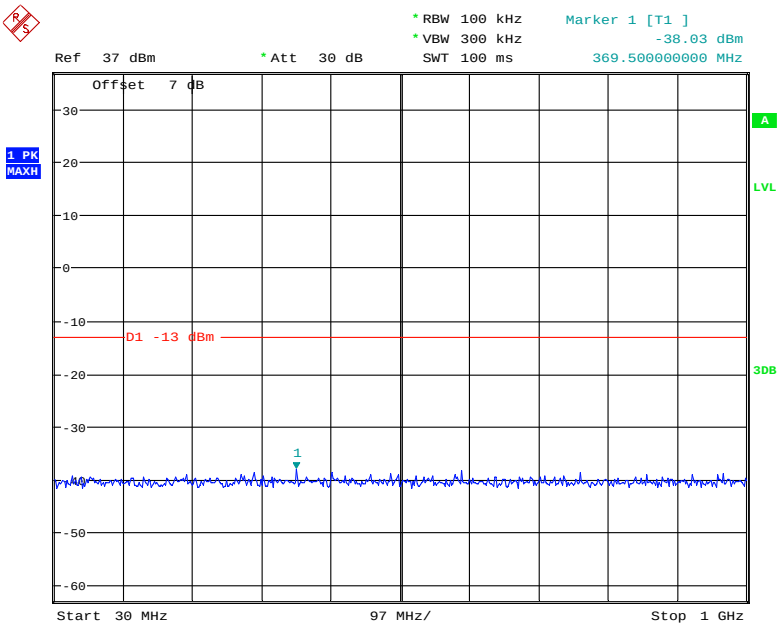
2 GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:41:57

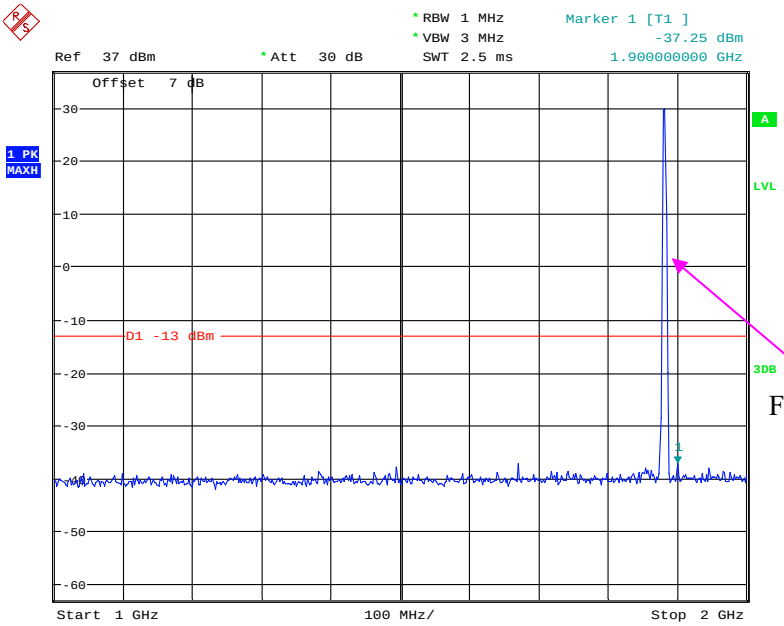
Middle Channel:

30 MHz – 1 GHz (GPRS Mode)



Date: 22.AUG.2021 20:00:22

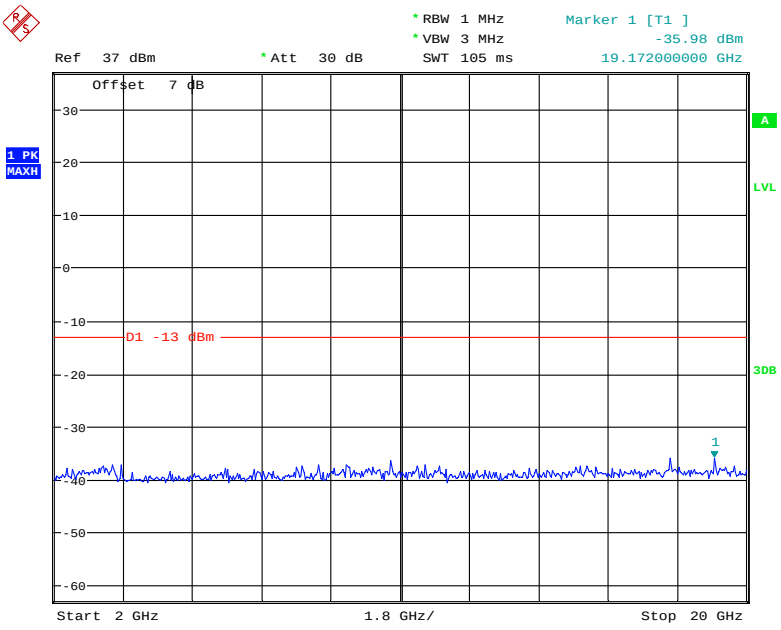
1 GHz – 2 GHz (GPRS Mode)



Fundamental test

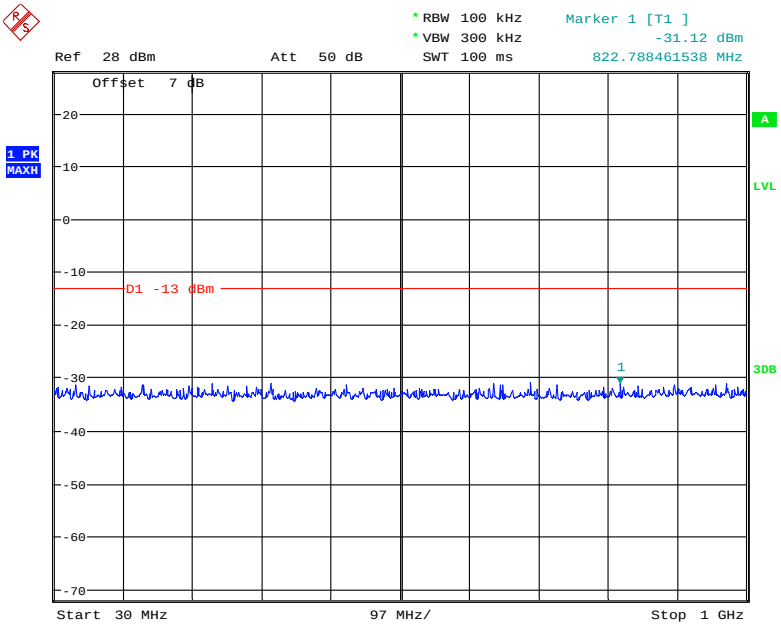
Date: 22.AUG.2021 19:58:18

2 GHz – 20 GHz (GPRS Mode)



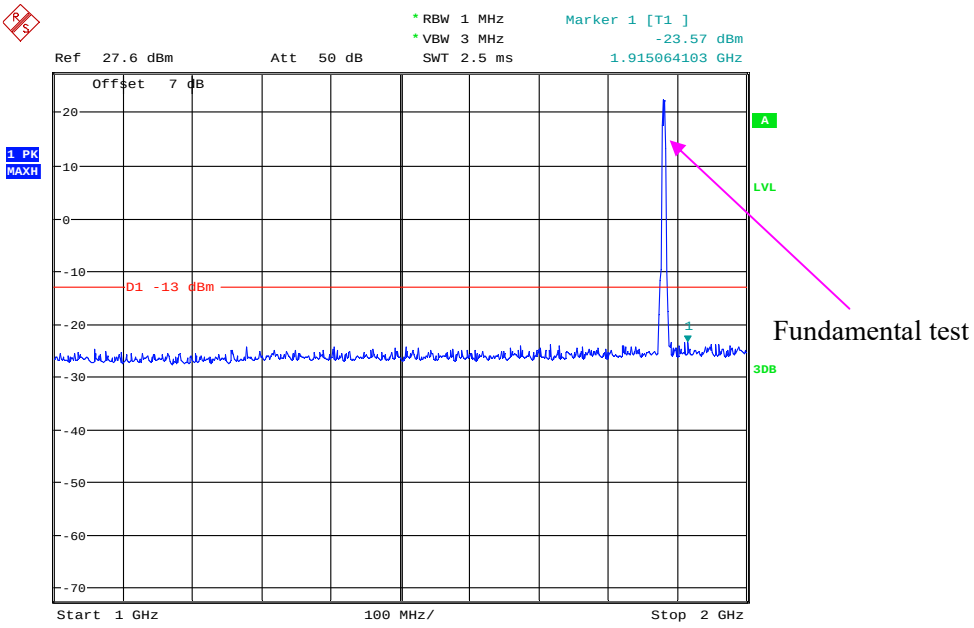
Date: 22.AUG.2021 19:59:34

30 MHz – 1 GHz (WCDMA Mode)



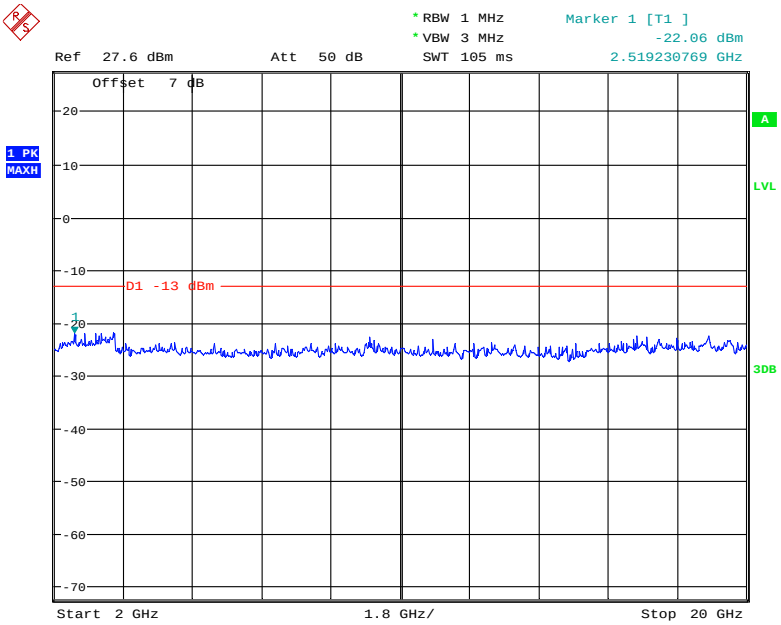
Date: 8.JUL.2021 13:25:44

1 GHz – 2 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:38:48

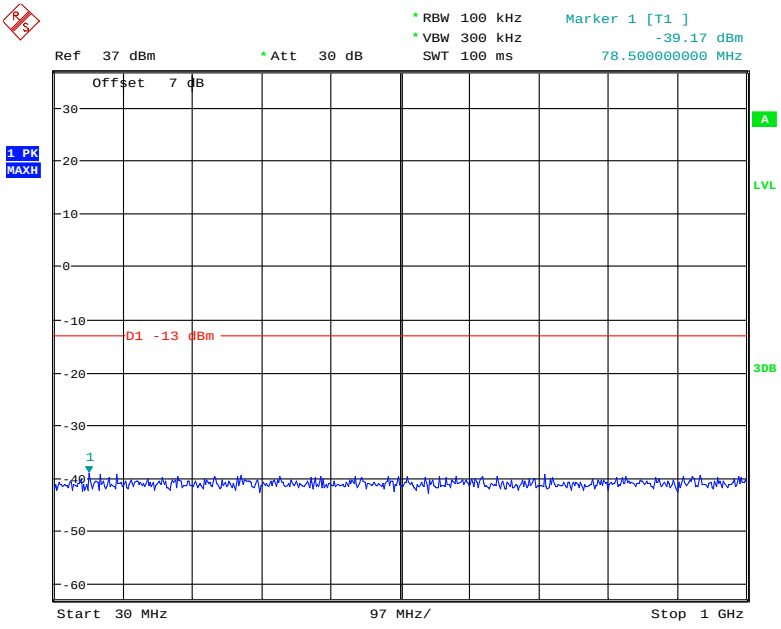
2 GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:41:21

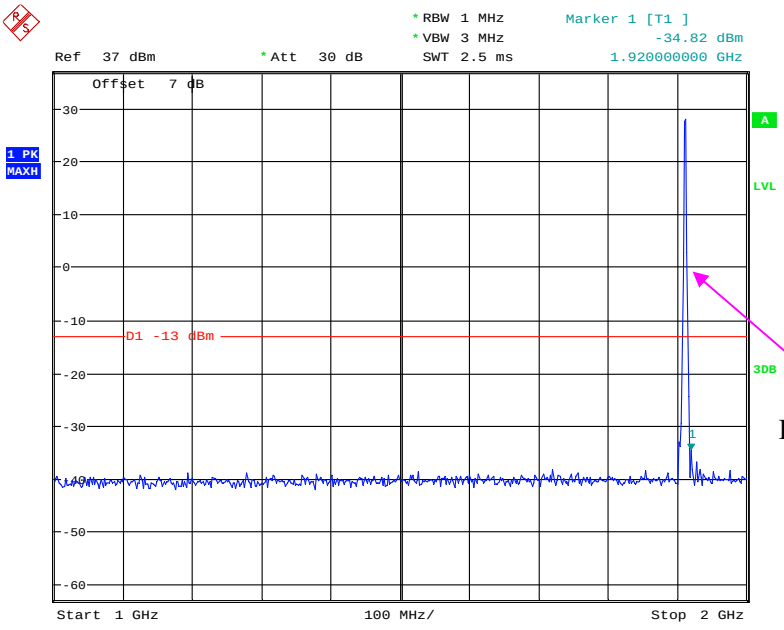
High Channel:

30 MHz – 1 GHz (GPRS Mode)



Date: 22.AUG.2021 20:00:39

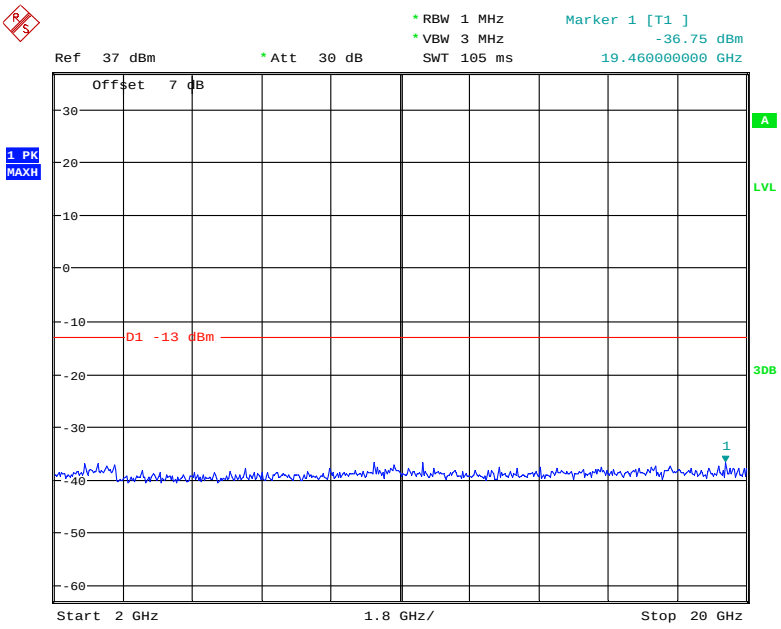
1 GHz – 2 GHz (GPRS Mode)



Fundamental test

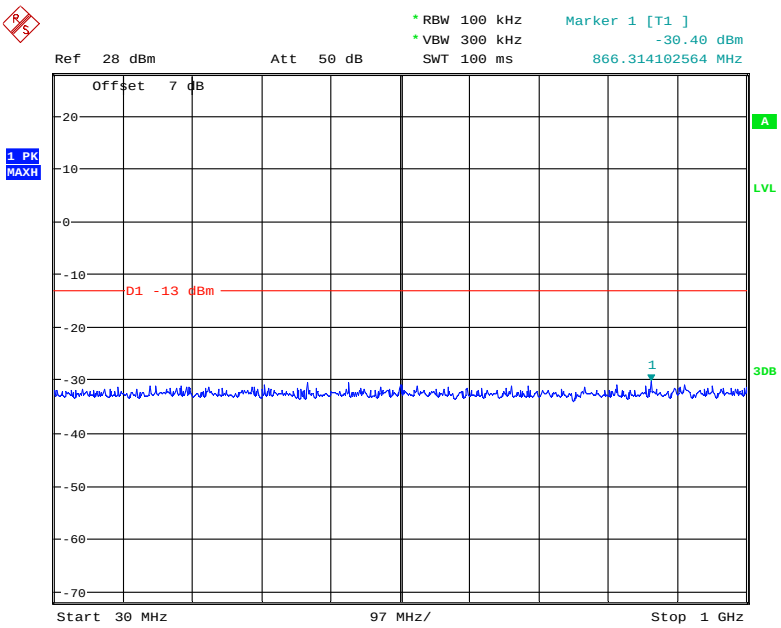
Date: 22.AUG.2021 19:58:36

2 GHz – 20 GHz (GPRS Mode)



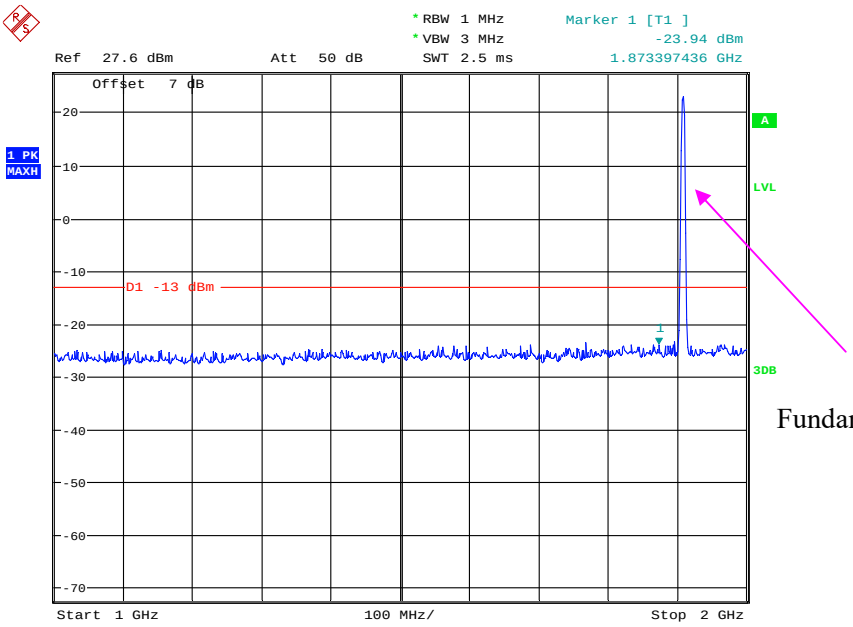
Date: 22.AUG.2021 19:59:06

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:23:28

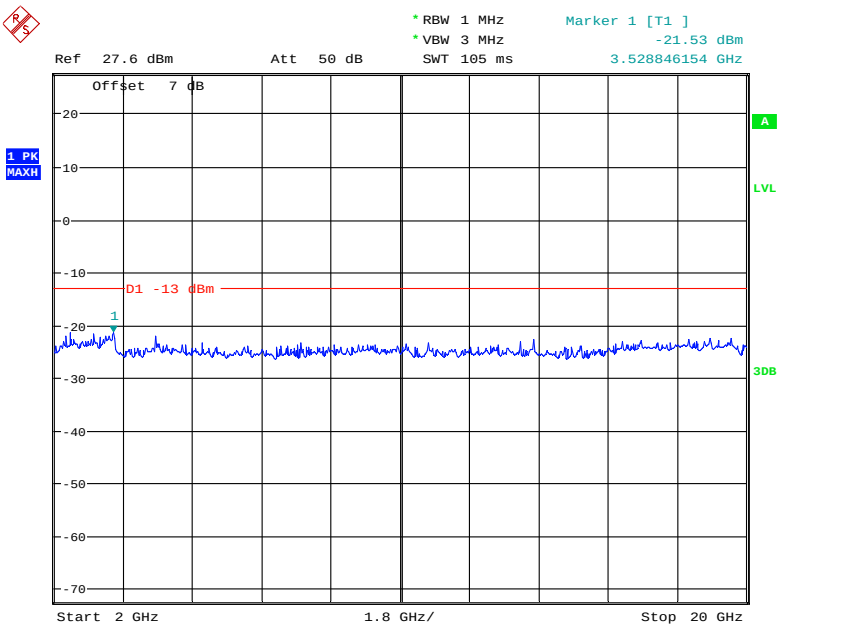
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 8.JUL.2021 13:39:38

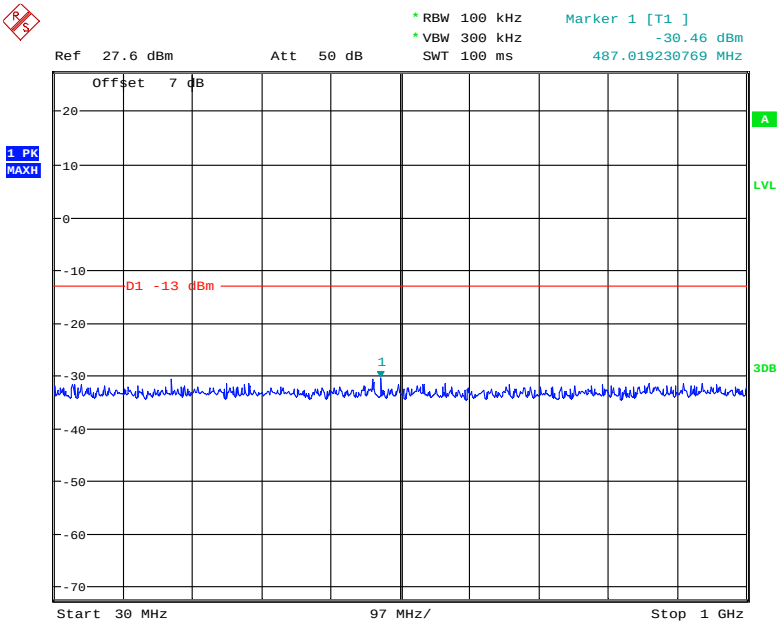
2GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 13:40:42

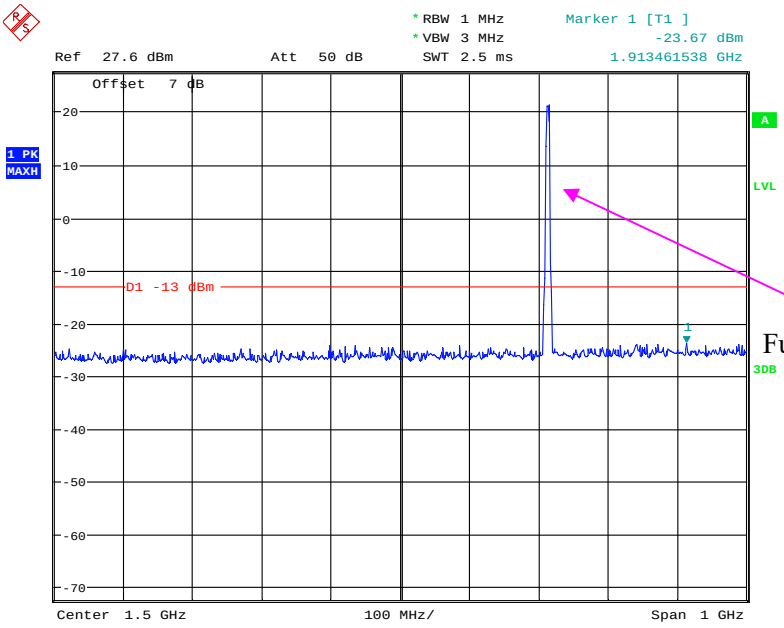
AWS Band (Part 27)
Low Channel:

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 16:04:03

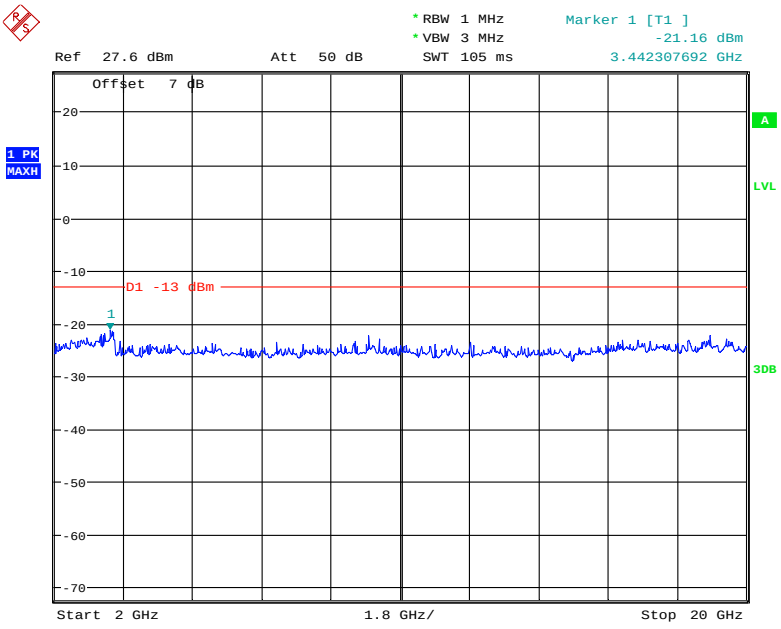
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 8.JUL.2021 16:11:21

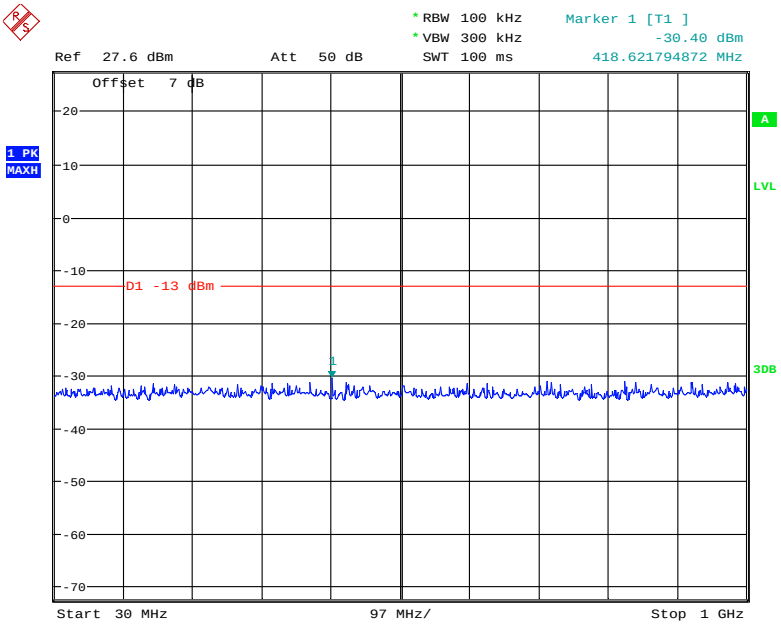
2 GHz – 20GHz (WCDMA Mode)



Date: 8.JUL.2021 16:11:54

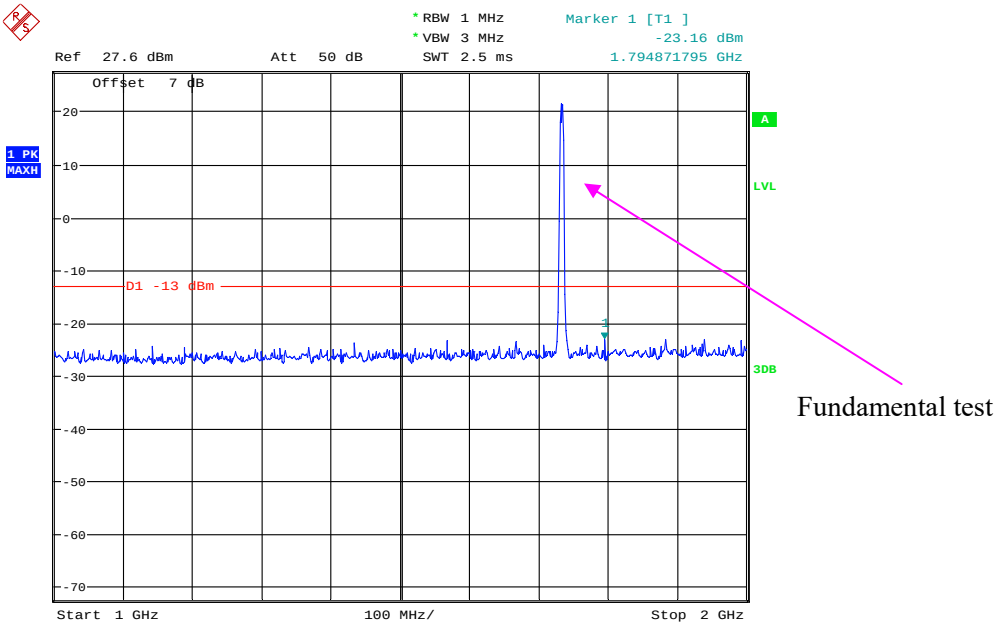
Middle Channel

30 MHz – 1 GHz (WCDMA Mode)



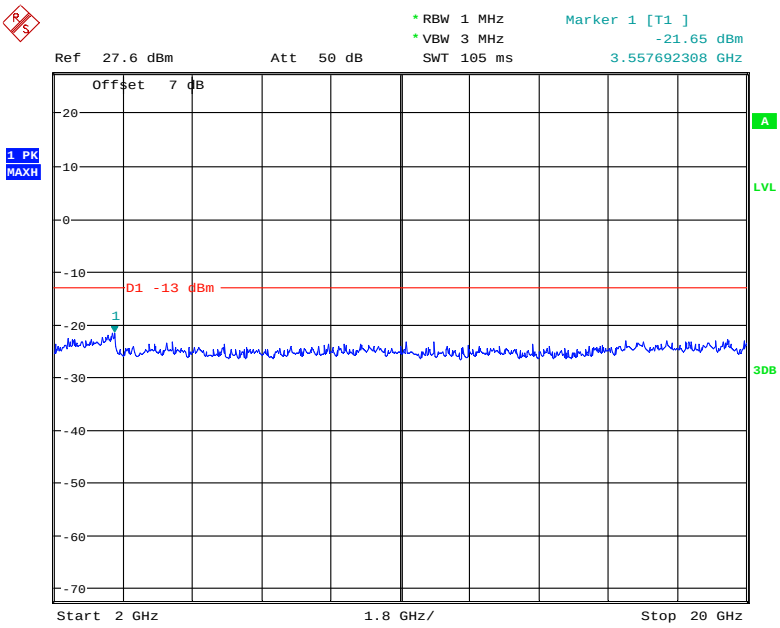
Date: 8.JUL.2021 16:05:32

1 GHz – 2 GHz (WCDMA Mode)



Date: 8.JUL.2021 16:10:19

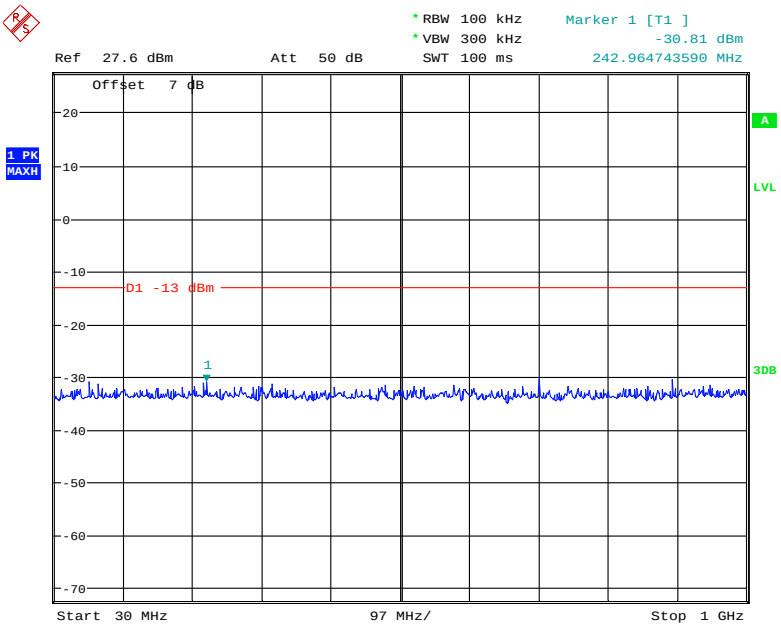
1 GHz – 20 GHz (WCDMA Mode)



Date: 8.JUL.2021 16:09:44

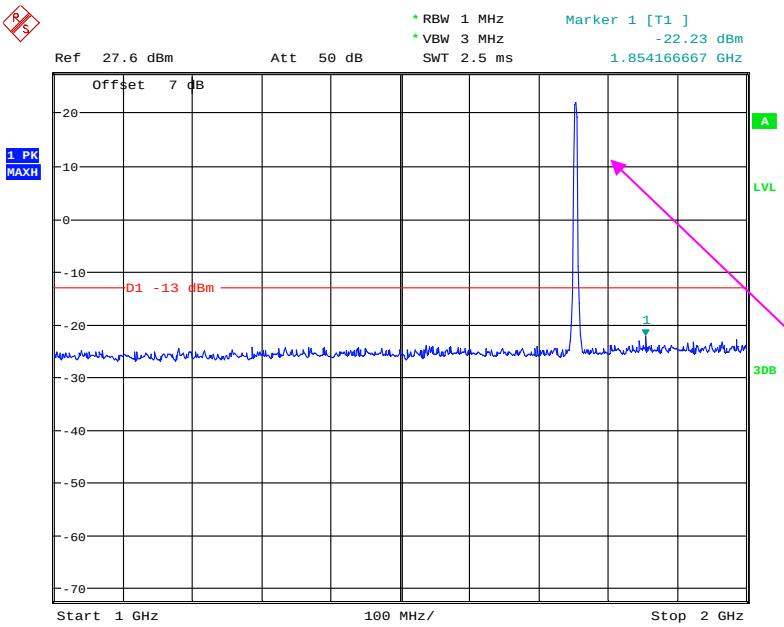
High Channel:

30 MHz – 1 GHz (WCDMA Mode)



Date: 8.JUL.2021 16:06:15

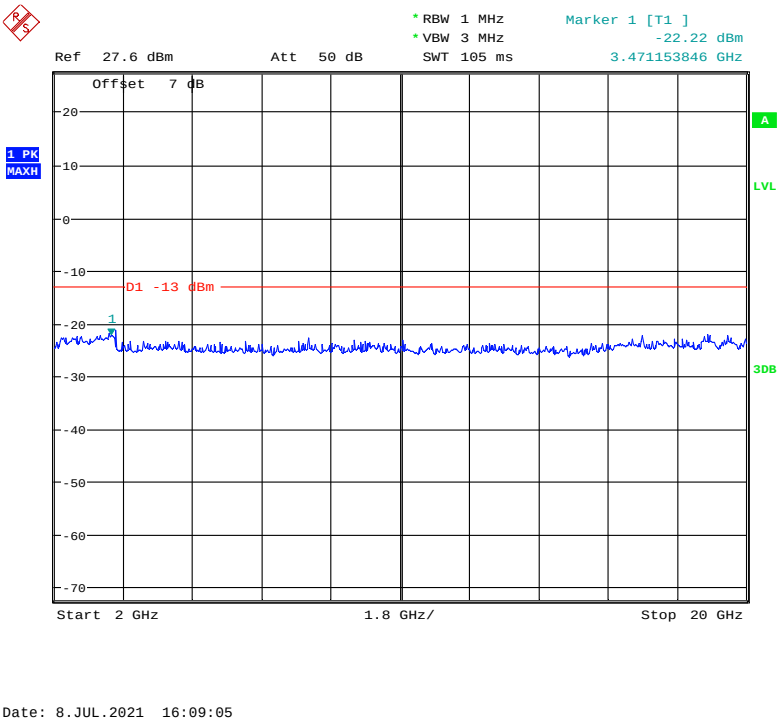
1 GHz – 2 GHz (WCDMA Mode)



Fundamental test

Date: 8.JUL.2021 16:08:04

2 GHz – 20 GHz (WCDMA Mode)



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

FCC § 2.1053, § 22.917 (a),§ 24.238 (a), §27.53, §90.691,§90.543(e)-SPURIOUS RADIATED EMISSIONS

Applicable Standard

FCC § 2.1053, §22.917(a) and § 24.238(a) and § 27.53

Test Procedure

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

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

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

Test Data

Environmental Conditions

Temperature:	26~28.1 ℃
Relative Humidity:	52~56 %
ATM Pressure:	101.0~101.1 kPa

The testing was performed by Cloud Qiu on 2021-07-10 for below 1GHz and Brule Lin on 2021-07-13 for above 1GHz.

EUT operation mode: Transmitting

30 MHz ~ 10 GHz:

Cellular Band

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	FCC Part 22H	
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
GPRS Mode										
Low channel										
952.3	30.76	216	1.0	H	-65.7	1.36	0.0	-67.06	-13	54.06
952.3	31.89	302	1.6	V	-62.2	1.36	0.0	-63.56	-13	50.56
1648.40	61.37	55	1.7	H	-46.7	1.40	8.70	-39.40	-13	26.40
1648.40	51.91	48	1.6	V	-55.9	1.40	8.70	-48.60	-13	35.60
2472.60	58.35	238	1.3	H	-45.0	2.60	10.20	-37.40	-13	24.40
2472.60	59.01	344	1.0	V	-43.7	2.60	10.20	-36.10	-13	23.10
3296.80	50.62	188	1.2	H	-50.3	1.50	11.70	-40.10	-13	27.10
3296.80	46.58	165	1.2	V	-54.3	1.50	11.70	-44.10	-13	31.10
Middle channel										
950.1	30.71	271	1.8	H	-65.8	1.36	0.0	-67.16	-13	54.16
950.1	31.95	223	2.5	V	-62.1	1.36	0.0	-63.46	-13	50.46
1673.20	64.51	21	2.4	H	-41.8	1.30	8.90	-34.20	-13	21.20
1673.20	53.25	314	2.5	V	-52.5	1.30	8.90	-44.90	-13	31.90
2509.80	56.25	331	2.2	H	-47.1	2.60	10.20	-39.50	-13	26.50
2509.80	60.25	83	1.6	V	-42.5	2.60	10.20	-34.90	-13	21.90
3346.40	54.75	166	2.1	H	-46.1	1.50	11.70	-35.90	-13	22.90
3346.40	49.36	68	1.8	V	-51.6	1.50	11.70	-41.40	-13	28.40
High channel										
955.8	30.65	270	1.0	H	-65.9	1.36	0.0	-67.26	-13	54.26
955.8	31.78	290	1.7	V	-62.3	1.36	0.0	-63.66	-13	50.66
1697.60	60.41	88	1.7	H	-45.9	1.30	8.90	-38.30	-13	25.30
1697.60	48.85	11	1.5	V	-56.9	1.30	8.90	-49.30	-13	36.30
2546.40	56.09	203	2.2	H	-47.3	2.60	10.20	-39.70	-13	26.70
2546.40	57.48	42	2.3	V	-45.3	2.60	10.20	-37.70	-13	24.70
3395.20	49.31	352	1.5	H	-51.9	1.40	11.80	-41.50	-13	28.50
3395.20	45.74	59	1.4	V	-55.3	1.40	11.80	-44.90	-13	31.90

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	FCC Part 22H	
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
WCDMA Mode										
Low channel										
952.9	30.59	136	2.2	H	-65.9	1.36	0.0	-67.26	-13	54.26
952.9	31.54	312	1.4	V	-62.5	1.36	0.0	-63.86	-13	50.86
1652.80	43.85	230	1.6	H	-62.5	1.30	8.90	-54.90	-13	41.90
1652.80	43.25	210	1.1	V	-62.5	1.30	8.90	-54.90	-13	41.90
2479.20	43.26	223	1.7	H	-60.1	2.60	10.20	-52.50	-13	39.50
2479.20	42.89	179	1.5	V	-59.9	2.60	10.20	-52.30	-13	39.30
3305.60	43.25	42	1.1	H	-57.6	1.50	11.70	-47.40	-13	34.40
3305.60	43.28	115	1.4	V	-57.6	1.50	11.70	-47.40	-13	34.40
Middle channel										
951.6	30.62	137	1.6	H	-65.9	1.36	0.0	-67.26	-13	54.26
951.6	31.63	170	2.5	V	-62.4	1.36	0.0	-63.76	-13	50.76
1673.20	44.02	213	2.4	H	-62.3	1.30	8.90	-54.70	-13	41.70
1673.20	43.25	213	1.5	V	-62.5	1.30	8.90	-54.90	-13	41.90
2509.80	43.74	298	2.0	H	-59.6	2.60	10.20	-52.00	-13	39.00
2509.80	43.36	282	2.0	V	-59.4	2.60	10.20	-51.80	-13	38.80
3346.40	43.06	175	1.3	H	-57.8	1.50	11.70	-47.60	-13	34.60
3346.40	43.58	183	1.3	V	-57.3	1.50	11.70	-47.10	-13	34.10
High channel										
954.8	30.56	324	2.0	H	-65.9	1.36	0.0	-67.26	-13	54.26
954.8	31.76	151	1.3	V	-62.3	1.36	0.0	-63.66	-13	50.66
1693.20	43.68	19	1.9	H	-62.7	1.30	8.90	-55.10	-13	42.10
1693.20	43.55	55	1.0	V	-62.2	1.30	8.90	-54.60	-13	41.60
2539.80	43.59	273	1.4	H	-59.8	2.60	10.20	-52.20	-13	39.20
2539.80	43.26	307	1.5	V	-59.5	2.60	10.20	-51.90	-13	38.90
3386.40	43.87	119	2.3	H	-57.4	1.40	11.80	-47.00	-13	34.00
3386.40	43.82	124	2.3	V	-57.2	1.40	11.80	-46.80	-13	33.80

30 MHz ~ 20 GHz:

PCS Band

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	FCC Part 24E	
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
GPRS Mode										
Low channel										
952.1	30.57	147	1.9	H	-65.9	1.36	0.0	-67.26	-13	54.26
952.1	31.45	145	1.9	V	-62.6	1.36	0.0	-63.96	-13	50.96
3700.40	44.25	120	1.2	H	-57.6	1.60	11.90	-47.30	-13	34.30
3700.40	43.85	142	1.9	V	-57.4	1.60	11.90	-47.10	-13	34.10
Middle channel										
953.2	30.44	251	1.5	H	-66.1	1.36	0.0	-67.46	-13	54.46
953.2	31.37	65	2.0	V	-62.7	1.36	0.0	-64.06	-13	51.06
3760.00	43.95	125	2.0	H	-58.1	1.50	11.80	-47.80	-13	34.80
3760.00	43.58	187	1.9	V	-58.0	1.50	11.80	-47.70	-13	34.70
High channel										
952.8	30.36	300	2.1	H	-66.1	1.36	0.0	-67.46	-13	54.46
952.8	31.47	83	2.4	V	-62.6	1.36	0.0	-63.96	-13	50.96
3819.60	44.16	211	1.1	H	-57.9	1.50	11.80	-47.60	-13	34.60
3819.60	43.86	332	2.3	V	-57.7	1.50	11.80	-47.40	-13	34.40
WCDMA Mode										
Low Channel										
952.7	30.39	257	2.5	H	-66.1	1.36	0.0	-67.46	-13	54.46
952.7	31.67	103	2.1	V	-62.4	1.36	0.0	-63.76	-13	50.76
3704.80	43.56	136	1.6	H	-58.2	1.60	11.90	-47.90	-13	34.90
3704.80	43.25	114	1.0	V	-58.0	1.60	11.90	-47.70	-13	34.70
Middle channel										
951.8	30.55	180	2.4	H	-66.0	1.36	0.0	-67.36	-13	54.36
951.8	31.73	7	1.5	V	-62.3	1.36	0.0	-63.66	-13	50.66
3760.00	43.47	342	1.6	H	-58.6	1.50	11.80	-48.30	-13	35.30
3760.00	43.15	75	1.9	V	-58.4	1.50	11.80	-48.10	-13	35.10
High channel										
951.4	30.34	353	1.0	H	-66.2	1.36	0.0	-67.56	-13	54.56
951.4	31.79	349	2.2	V	-62.3	1.36	0.0	-63.66	-13	50.66
3815.20	43.57	312	1.5	H	-58.5	1.50	11.80	-48.20	-13	35.20
3815.20	43.26	310	1.5	V	-58.3	1.50	11.80	-48.00	-13	35.00

30 MHz ~ 20 GHz:

AWS Band

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	FCC Part 27	
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
WCDMA Mode										
Low channel										
952.3	30.62	302	1.8	H	-65.9	1.36	0.0	-67.26	-13	54.26
952.3	31.84	108	1.0	V	-62.2	1.36	0.0	-63.56	-13	50.56
3424.80	43.71	159	1.7	H	-57.1	1.40	11.80	-46.70	-13	33.70
3424.80	43.27	150	2.3	V	-57.3	1.40	11.80	-46.90	-13	33.90
Middle channel										
950.6	30.77	182	2.0	H	-65.7	1.36	0.0	-67.06	-13	54.06
950.6	31.88	171	1.1	V	-62.2	1.36	0.0	-63.56	-13	50.56
3465.20	43.67	233	2.5	H	-57.1	1.50	12.00	-46.60	-13	33.60
3465.20	43.29	202	1.5	V	-58.2	1.50	12.00	-47.70	-13	34.70
High channel										
953.8	30.73	81	1.9	H	-65.8	1.36	0.0	-67.16	-13	54.16
953.8	31.96	130	1.3	V	-62.1	1.36	0.0	-63.46	-13	50.46
3505.20	43.52	239	2.4	H	-57.2	1.50	12.00	-46.70	-13	33.70
3505.20	43.44	225	2.2	V	-58.1	1.50	12.00	-47.60	-13	34.60

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

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBµV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 2										
Test frequency range: 30 MHz ~ 20 GHz										
1.4MHz, Low channel										
951.1	30.51	276	1.7	H	-66.0	1.36	0.0	-67.36	-13	54.36
951.1	31.76	12	1.2	V	-62.3	1.36	0.0	-63.66	-13	50.66
3701.40	44.57	344	1.7	H	-57.2	1.60	11.90	-46.90	-13	33.90
3701.40	44.37	94	1.4	V	-56.9	1.60	11.90	-46.60	-13	33.60
1.4MHz, Middle channel										
950.3	30.45	191	2.4	H	-66.1	1.36	0.0	-67.46	-13	54.46
950.3	31.71	32	1.9	V	-62.3	1.36	0.0	-63.66	-13	50.66
3760.00	45.15	159	2.4	H	-56.9	1.50	11.80	-46.60	-13	33.60
3760.00	44.57	142	1.9	V	-57.0	1.50	11.80	-46.70	-13	33.70
1.4MHz, High channel										
952.4	30.34	330	2.3	H	-66.2	1.36	0.0	-67.56	-13	54.56
952.4	31.65	89	1.0	V	-62.4	1.36	0.0	-63.76	-13	50.76
3818.60	45.12	122	1.1	H	-56.9	1.50	11.80	-46.60	-13	33.60
3818.60	44.67	126	1.2	V	-56.9	1.50	11.80	-46.60	-13	33.60

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 4										
Test frequency range:30 MHz ~ 20 GHz										
1.4MHz, Low channel										
953.9	30.39	13	2.2	H	-66.1	1.36	0.0	-67.46	-13	54.46
953.9	31.62	181	1.6	V	-62.4	1.36	0.0	-63.76	-13	50.76
3421.40	46.37	130	2.3	H	-54.4	1.40	11.80	-44.00	-13	31.00
3421.40	43.67	189	2.4	V	-56.9	1.40	11.80	-46.50	-13	33.50
1.4MHz, Middle channel										
948.6	30.27	340	1.0	H	-66.2	1.36	0.0	-67.56	-13	54.56
948.6	31.58	26	1.1	V	-62.5	1.36	0.0	-63.86	-13	50.86
3465.00	46.25	225	1.0	H	-54.5	1.50	12.00	-44.00	-13	31.00
3465.00	45.87	9	2.3	V	-55.6	1.50	12.00	-45.10	-13	32.10
1.4MHz, High channel										
949.7	30.44	352	1.4	H	-66.1	1.36	0.0	-67.46	-13	54.46
949.7	31.71	256	1.8	V	-62.3	1.36	0.0	-63.66	-13	50.66
3468.60	45.82	140	1.7	H	-54.9	1.50	12.00	-44.40	-13	31.40
3468.60	44.29	25	1.2	V	-57.2	1.50	12.00	-46.70	-13	33.70

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 5										
Test frequency range:30 MHz ~ 10 GHz										
1.4MHz, Low channel										
956.1	30.46	216	1.3	H	-66.0	1.36	0.0	-67.36	-13	54.36
956.1	31.81	31	1.8	V	-62.2	1.36	0.0	-63.56	-13	50.56
1649.40	51.25	152	1.2	H	-55.1	1.30	8.90	-47.50	-13	34.50
1649.40	46.25	109	1.2	V	-59.5	1.30	8.90	-51.90	-13	38.90
2474.10	47.25	224	2.5	H	-56.1	2.60	10.20	-48.50	-13	35.50
2474.10	46.38	315	1.2	V	-56.4	2.60	10.20	-48.80	-13	35.80
3298.80	44.15	268	1.5	H	-56.7	1.50	11.70	-46.50	-13	33.50
3298.80	44.07	265	2.2	V	-56.9	1.50	11.70	-46.70	-13	33.70
1.4MHz, Middle channel										
954.1	30.35	282	1.1	H	-66.2	1.36	0.0	-67.56	-13	54.56
954.1	31.85	288	1.6	V	-62.2	1.36	0.0	-63.56	-13	50.56
1673.00	54.94	8	1.9	H	-51.4	1.30	8.90	-43.80	-13	30.80
1673.00	46.58	233	1.2	V	-59.2	1.30	8.90	-51.60	-13	38.60
2509.50	47.25	7	2.2	H	-56.1	2.60	10.20	-48.50	-13	35.50
2509.50	46.28	139	2.3	V	-56.5	2.60	10.20	-48.90	-13	35.90
3346.00	45.02	339	2.5	H	-55.9	1.50	11.70	-45.70	-13	32.70
3346.00	44.57	256	1.8	V	-56.4	1.50	11.70	-46.20	-13	33.20
1.4MHz, High channel										
951.2	30.77	202	1.9	H	-65.7	1.36	0.0	-67.06	-13	54.06
951.2	31.47	337	1.1	V	-62.6	1.36	0.0	-63.96	-13	50.96
1696.60	54.82	179	2.1	H	-51.5	1.30	8.90	-43.90	-13	30.90
1696.60	46.11	305	1.7	V	-59.6	1.30	8.90	-52.00	-13	39.00
2544.90	46.24	49	2.3	H	-57.1	2.60	10.20	-49.50	-13	36.50
2544.90	45.27	79	2.0	V	-57.5	2.60	10.20	-49.90	-13	36.90
3393.20	44.15	138	1.6	H	-57.1	1.40	11.80	-46.70	-13	33.70
3393.20	44.12	72	1.5	V	-56.9	1.40	11.80	-46.50	-13	33.50

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 7										
Test frequency range: 30 MHz ~ 26.5 GHz										
5MHz, Low channel										
957.3	30.86	90	1.2	H	-65.6	1.36	0.0	-66.96	-25	41.96
957.3	31.66	346	2.2	V	-62.4	1.36	0.0	-63.76	-25	38.76
5005.00	45.92	34	2.3	H	-54.7	1.70	12.00	-44.40	-25	19.40
5005.00	45.17	191	2.5	V	-54.9	1.70	12.00	-44.60	-25	19.60
5MHz, Middle channel										
957.6	30.67	314	2.4	H	-65.8	1.36	0.0	-67.16	-25	42.16
957.6	31.76	211	1.5	V	-62.3	1.36	0.0	-63.66	-25	38.66
5070.00	45.87	70	2.3	H	-54.1	1.60	12.10	-43.60	-25	18.60
5070.00	44.81	253	2.1	V	-55.2	1.60	12.10	-44.70	-25	19.70
5MHz, High channel										
956.2	30.55	320	2.1	H	-66.0	1.36	0.0	-67.36	-25	42.36
956.2	31.73	185	1.3	V	-62.3	1.36	0.0	-63.66	-25	38.66
5135.00	45.86	70	1.6	H	-54.1	1.60	12.10	-43.60	-25	18.60
5135.00	45.26	358	1.5	V	-54.8	1.60	12.10	-44.30	-25	19.30

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 12										
Test frequency range: 30 MHz ~ 10GHz										
5MHz, Low channel										
952.5	30.48	77	1.6	H	-66.0	1.36	0.0	-67.36	-13	54.36
952.5	31.78	163	2.0	V	-62.3	1.36	0.0	-63.66	-13	50.66
1399.40	49.76	193	2.3	H	-58.4	1.60	7.90	-52.10	-13	39.10
1399.40	45.88	25	1.5	V	-62.6	1.60	7.90	-56.30	-13	43.30
2099.10	46.57	251	1.7	H	-54.6	1.30	9.70	-46.20	-13	33.20
2099.10	44.87	47	1.5	V	-57.1	1.30	9.70	-48.70	-13	35.70
2798.80	44.25	259	2.0	H	-59.7	1.80	10.50	-51.00	-13	38.00
2798.80	44.14	230	1.5	V	-59.5	1.80	10.50	-50.80	-13	37.80
5MHz, Middle channel										
951.7	30.24	84	2.0	H	-66.3	1.36	0.0	-67.66	-13	54.66
951.7	31.51	275	1.1	V	-62.5	1.36	0.0	-63.86	-13	50.86
1415.00	44.30	222	2.0	H	-63.9	1.60	7.90	-57.60	-13	44.60
1415.00	43.75	8	2.0	V	-64.7	1.60	7.90	-58.40	-13	45.40
2122.50	45.93	130	1.4	H	-55.2	1.30	9.70	-46.80	-13	33.80
2122.50	44.16	323	2.0	V	-57.8	1.30	9.70	-49.40	-13	36.40
2830.00	44.59	272	2.3	H	-59.4	1.80	10.50	-50.70	-13	37.70
2830.00	44.15	50	1.1	V	-59.5	1.80	10.50	-50.80	-13	37.80
5MHz, High channel										
953.6	30.54	89	2.1	H	-66.0	1.36	0.0	-67.36	-13	54.36
953.6	31.83	335	1.5	V	-62.2	1.36	0.0	-63.56	-13	50.56
1430.60	46.25	118	2.3	H	-61.9	1.60	7.90	-55.60	-13	42.60
1430.60	45.28	258	1.4	V	-63.2	1.60	7.90	-56.90	-13	43.90
2145.90	50.42	189	2.5	H	-50.7	1.30	9.70	-42.30	-13	29.30
2145.90	45.28	230	1.9	V	-56.7	1.30	9.70	-48.30	-13	35.30
2861.20	44.25	33	1.8	H	-60.4	1.70	10.70	-51.40	-13	38.40
2861.20	44.21	338	1.4	V	-60.5	1.70	10.70	-51.50	-13	38.50

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 13										
Test frequency range: 30 MHz ~ 10GHz										
5MHz, Low channel										
952.8	30.42	116	1.1	H	-66.1	1.36	0.0	-67.46	-13	54.46
952.8	31.77	175	2.0	V	-62.3	1.36	0.0	-63.66	-13	50.66
1559.00	47.77	8	1.2	H	-60.3	1.40	8.70	-53.00	-40	13.00
1559.00	45.27	243	2.1	V	-62.6	1.40	8.70	-55.30	-40	15.30
2338.50	50.71	273	1.4	H	-54.6	1.30	10.00	-45.90	-13	32.90
2338.50	45.07	224	1.9	V	-60.1	1.30	10.00	-51.40	-13	38.40
3118.00	44.52	168	1.1	H	-57.1	1.70	11.30	-47.50	-13	34.50
3118.00	44.09	9	1.6	V	-57.4	1.70	11.30	-47.80	-13	34.80
5MHz, Middle channel										
949.5	30.47	222	1.6	H	-66.0	1.36	0.0	-67.36	-13	54.36
949.5	31.78	295	1.8	V	-62.3	1.36	0.0	-63.66	-13	50.66
1564.00	47.25	25	1.7	H	-60.8	1.40	8.70	-53.50	-40	13.50
1564.00	44.85	118	1.1	V	-63.0	1.40	8.70	-55.70	-40	15.70
2346.00	50.59	263	1.1	H	-54.7	1.30	10.00	-46.00	-13	33.00
2346.00	44.29	121	2.3	V	-60.9	1.30	10.00	-52.20	-13	39.20
3128.00	44.24	248	1.2	H	-57.3	1.70	11.30	-47.70	-13	34.70
3128.00	44.38	302	2.0	V	-57.1	1.70	11.30	-47.50	-13	34.50
5MHz, High channel										
950.1	30.27	187	1.8	H	-66.2	1.36	0.0	-67.56	-13	54.56
950.1	31.58	252	1.1	V	-62.5	1.36	0.0	-63.86	-13	50.86
1569.00	46.25	124	2.4	H	-61.8	1.40	8.70	-54.50	-40	14.50
1569.00	45.02	121	1.7	V	-62.8	1.40	8.70	-55.50	-40	15.50
2353.50	51.23	302	2.4	H	-53.1	2.30	10.10	-45.30	-13	32.30
2353.50	44.75	1	2.4	V	-58.6	2.30	10.10	-50.80	-13	37.80
3138.00	44.35	199	2.0	H	-57.2	1.70	11.30	-47.60	-13	34.60
3138.00	44.21	229	1.7	V	-57.2	1.70	11.30	-47.60	-13	34.60

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 14										
Test frequency range: 30 MHz ~ 10GHz										
5MHz, Low channel										
955.3	30.36	140	2.1	H	-66.1	1.36	0.0	-67.46	-13	54.46
955.3	31.64	61	2.4	V	-62.4	1.36	0.0	-63.76	-13	50.76
1581.00	44.01	238	1.3	H	-64.1	1.40	8.70	-56.80	-40	16.80
1581.00	43.82	314	1.1	V	-64.0	1.40	8.70	-56.70	-40	16.70
5MHz, Middle channel										
950.6	30.25	287	1.8	H	-66.3	1.36	0.0	-67.66	-13	54.66
950.6	31.75	100	2.0	V	-62.3	1.36	0.0	-63.66	-13	50.66
1586.00	43.58	259	1.7	H	-64.5	1.40	8.70	-57.20	-40	17.20
1586.00	43.67	204	2.1	V	-64.2	1.40	8.70	-56.90	-40	16.90
5MHz, High channel										
958.8	30.74	119	2.2	H	-65.8	1.36	0.0	-67.16	-13	54.16
958.8	31.83	349	1.9	V	-62.2	1.36	0.0	-63.56	-13	50.56
1591.00	44.29	42	2.2	H	-63.8	1.40	8.70	-56.50	-40	16.50
1591.00	43.76	297	2.0	V	-64.1	1.40	8.70	-56.80	-40	16.80

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 25										
Test frequency range: 30 MHz ~ 20GHz										
5MHz, Low channel										
953.8	30.78	212	2.0	H	-65.7	1.36	0.0	-67.06	-13	54.06
953.8	31.57	148	1.0	V	-62.5	1.36	0.0	-63.86	-13	50.86
3701.40	44.85	99	1.8	H	-57.0	1.60	11.90	-46.70	-13	33.70
3701.40	44.57	78	1.2	V	-56.7	1.60	11.90	-46.40	-13	33.40
5MHz, Middle Channel										
952.9	30.71	144	1.8	H	-65.8	1.36	0.0	-67.16	-13	54.16
952.9	31.52	211	1.5	V	-62.5	1.36	0.0	-63.86	-13	50.86
3765.00	45.67	36	2.2	H	-56.4	1.50	11.80	-46.10	-13	33.10
3765.00	44.74	119	2.0	V	-56.8	1.50	11.80	-46.50	-13	33.50
5MHz, High Channel										
956.8	30.66	352	1.9	H	-65.8	1.36	0.0	-67.16	-13	54.16
956.8	31.45	104	2.4	V	-62.6	1.36	0.0	-63.96	-13	50.96
3828.60	44.84	23	1.7	H	-57.2	1.50	11.80	-46.90	-13	33.90
3828.60	44.36	64	2.1	V	-57.2	1.50	11.80	-46.90	-13	33.90

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 26										
Test frequency range: 30 MHz ~ 10GHz										
5MHz, Low channel										
952.8	30.34	175	1.5	H	-66.2	1.36	0.0	-67.56	-13	54.56
952.8	31.68	253	2.2	V	-62.4	1.36	0.0	-63.76	-13	50.76
1629.40	52.07	231	1.3	H	-56.0	1.40	8.70	-48.70	-13	35.70
1629.40	46.44	268	1.5	V	-61.4	1.40	8.70	-54.10	-13	41.10
2444.10	48.68	99	2.4	H	-55.7	2.30	10.10	-47.90	-13	34.90
2444.10	47.24	283	1.6	V	-56.1	2.30	10.10	-48.30	-13	35.30
3258.80	44.22	70	2.2	H	-56.7	1.50	11.70	-46.50	-13	33.50
3258.80	44.04	205	1.2	V	-56.9	1.50	11.70	-46.70	-13	33.70
5MHz, Middle Channel										
952.6	30.52	211	1.4	H	-66.0	1.36	0.0	-67.36	-13	54.36
952.6	31.45	265	2.1	V	-62.6	1.36	0.0	-63.96	-13	50.96
1663.00	50.91	190	1.8	H	-55.4	1.30	8.90	-47.80	-13	34.80
1663.00	47.43	208	1.1	V	-58.3	1.30	8.90	-50.70	-13	37.70
2494.50	49.25	308	1.2	H	-54.1	2.60	10.20	-46.50	-13	33.50
2494.50	45.77	260	1.3	V	-57.0	2.60	10.20	-49.40	-13	36.40
3326.00	44.74	21	2.1	H	-56.2	1.50	11.70	-46.00	-13	33.00
3326.00	44.53	180	2.2	V	-56.4	1.50	11.70	-46.20	-13	33.20
5MHz, High Channel										
956.6	30.68	100	2.3	H	-65.8	1.36	0.0	-67.16	-13	54.16
956.6	31.49	123	1.1	V	-62.6	1.36	0.0	-63.96	-13	50.96
1696.60	54.79	235	1.7	H	-51.5	1.30	8.90	-43.90	-13	30.90
1696.60	45.13	44	2.5	V	-60.6	1.30	8.90	-53.00	-13	40.00
2544.90	44.25	177	1.5	H	-59.1	2.60	10.20	-51.50	-13	38.50
2544.90	43.86	261	2.0	V	-58.9	2.60	10.20	-51.30	-13	38.30
3393.20	44.22	207	2.3	H	-57.0	1.40	11.80	-46.60	-13	33.60
3393.20	44.04	8	1.9	V	-57.0	1.40	11.80	-46.60	-13	33.60

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 30										
Test frequency range: 30 MHz ~ 26.5GHz										
5MHz, Low channel										
957.7	30.74	172	1.7	H	-65.8	1.36	0.0	-67.16	-40	27.16
957.7	31.82	270	1.9	V	-62.2	1.36	0.0	-63.56	-40	23.56
4615.00	45.05	275	1.4	H	-56.1	1.60	12.00	-45.70	-40	5.70
4615.00	46.43	63	2.3	V	-53.5	1.60	12.00	-43.10	-40	3.10
5MHz, Middle Channel										
958.7	30.21	111	1.4	H	-66.3	1.36	0.0	-67.66	-40	27.66
958.7	31.66	214	1.8	V	-62.4	1.36	0.0	-63.76	-40	23.76
4620.00	45.22	302	2.3	H	-55.7	1.60	12.00	-45.30	-40	5.30
4620.00	46.29	111	1.4	V	-53.7	1.60	12.00	-43.30	-40	3.30
5MHz, High Channel										
959.9	30.24	277	1.9	H	-66.3	1.36	0.0	-67.66	-40	27.66
959.9	31.88	274	1.1	V	-62.2	1.36	0.0	-63.56	-40	23.56
4625.00	45.33	214	1.4	H	-55.8	1.60	12.00	-45.40	-40	5.40
4625.00	46.57	196	1.7	V	-53.4	1.60	12.00	-43.00	-40	3.00

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 41										
Test frequency range: 30 MHz ~ 26.5GHz										
5MHz, Low channel										
960.5	30.76	280	1.4	H	-65.7	1.36	0.0	-67.06	-25	42.06
960.5	31.83	323	1.4	V	-62.2	1.36	0.0	-63.56	-25	38.56
4997.00	43.84	357	1.2	H	-56.8	1.70	12.00	-46.50	-25	21.50
4997.00	43.77	196	1.5	V	-56.3	1.70	12.00	-46.00	-25	21.00
7495.50	45.44	288	1.6	H	-50.5	1.90	10.70	-41.70	-25	16.70
7495.50	44.07	45	1.9	V	-51.4	1.90	10.70	-42.60	-25	17.60
5MHz, Middle Channel										
960.9	30.33	347	2.3	H	-66.2	1.36	0.0	-67.56	-25	42.56
960.9	31.78	194	2.5	V	-62.3	1.36	0.0	-63.66	-25	38.66
5186.00	44.21	153	1.3	H	-55.9	1.60	12.10	-45.40	-25	20.40
5186.00	43.72	170	1.9	V	-55.9	1.60	12.10	-45.40	-25	20.40
7779.00	44.86	102	2.0	H	-51.4	2.00	10.50	-42.90	-25	17.90
7779.00	44.63	28	1.1	V	-51.6	2.00	10.50	-43.10	-25	18.10
5MHz, High Channel										
950.6	30.56	196	2.4	H	-65.9	1.36	0.0	-67.26	-25	42.26
950.6	31.49	28	1.9	V	-62.6	1.36	0.0	-63.96	-25	38.96
5375.00	45.21	149	1.2	H	-54.8	1.60	12.30	-44.10	-25	19.10
5375.00	45.02	351	1.7	V	-54.2	1.60	12.30	-43.50	-25	18.50
8062.50	44.36	76	2.0	H	-53.7	2.10	10.70	-45.10	-25	20.10
8062.50	44.62	215	2.1	V	-53.4	2.10	10.70	-44.80	-25	19.80

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBµV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 66										
Test frequency range: 30 MHz ~ 20GHz										
5MHz, Low channel										
949.6	30.69	89	1.9	H	-65.8	1.36	0.0	-67.16	-13	54.16
949.6	31.39	297	2.3	V	-62.7	1.36	0.0	-64.06	-13	51.06
3421.40	46.98	112	2.0	H	-53.8	1.40	11.80	-43.40	-13	30.40
3421.40	46.15	339	1.9	V	-54.5	1.40	11.80	-44.10	-13	31.10
5MHz, Middle Channel										
958.4	30.59	25	1.7	H	-65.9	1.36	0.0	-67.26	-13	54.26
958.4	31.48	3	2.4	V	-62.6	1.36	0.0	-63.96	-13	50.96
3490.00	46.57	360	2.1	H	-54.2	1.50	12.00	-43.70	-13	30.70
3490.00	45.86	165	2.3	V	-55.6	1.50	12.00	-45.10	-13	32.10
5MHz, High Channel										
960.6	30.51	319	1.0	H	-66.0	1.36	0.0	-67.36	-13	54.36
960.6	31.54	168	1.7	V	-62.5	1.36	0.0	-63.86	-13	50.86
3558.60	46.66	220	2.0	H	-54.9	1.50	12.10	-44.30	-13	31.30
3558.60	46.08	253	1.7	V	-54.9	1.50	12.10	-44.30	-13	31.30

Frequency	Receiver	Turntable	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
(MHz)	Reading (dBμV)	Angle Degree	Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Band 71										
Test frequency range: 30 MHz ~10GHz										
5MHz, Low channel										
962.9	30.26	340	2.4	H	-66.2	1.36	0.0	-67.56	-13	54.56
962.9	31.43	173	2.3	V	-62.6	1.36	0.0	-63.96	-13	50.96
1331.00	43.91	286	2.2	H	-64.6	1.60	7.30	-58.90	-13	45.90
1331.00	43.79	180	2.3	V	-64.6	1.60	7.30	-58.90	-13	45.90
1996.50	43.97	89	1.9	H	-56.6	1.30	9.60	-48.30	-13	35.30
1996.50	44.62	163	2.2	V	-56.3	1.30	9.60	-48.00	-13	35.00
2662.00	43.69	55	1.5	H	-59.4	2.00	10.40	-51.00	-13	38.00
2662.00	43.71	209	2.0	V	-59.0	2.00	10.40	-50.60	-13	37.60
5MHz, Middle Channel										
947.8	30.59	212	2.4	H	-65.9	1.36	0.0	-67.26	-13	54.26
947.8	31.49	35	2.0	V	-62.6	1.36	0.0	-63.96	-13	50.96
1361.00	44.99	164	2.1	H	-63.2	1.60	7.90	-56.90	-13	43.90
1361.00	45.17	117	2.3	V	-63.3	1.60	7.90	-57.00	-13	44.00
2041.50	45.58	42	1.8	H	-55.0	1.30	9.60	-46.70	-13	33.70
2041.50	45.38	47	1.7	V	-55.6	1.30	9.60	-47.30	-13	34.30
2722.00	43.69	23	2.1	H	-59.4	2.00	10.40	-51.00	-13	38.00
2722.00	43.55	320	2.3	V	-59.1	2.00	10.40	-50.70	-13	37.70
5MHz, High Channel										
955.5	30.54	271	1.1	H	-66.0	1.36	0.0	-67.36	-13	54.36
955.5	31.63	277	2.0	V	-62.4	1.36	0.0	-63.76	-13	50.76
1391.00	43.63	131	1.9	H	-64.5	1.60	7.90	-58.20	-13	45.20
1391.00	43.87	358	2.2	V	-64.6	1.60	7.90	-58.30	-13	45.30
2086.50	44.53	354	1.2	H	-56.6	1.30	9.70	-48.20	-13	35.20
2086.50	43.94	256	1.1	V	-58.0	1.30	9.70	-49.60	-13	36.60
2782.00	43.91	238	1.7	H	-60.0	1.80	10.50	-51.30	-13	38.30
2782.00	43.26	200	2.4	V	-60.4	1.80	10.50	-51.70	-13	38.70

Note:
Absolute Level = Substituted Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level
dBd is for the ERP, dBi is for EIRP.

FCC § 22.917 (a), § 24.238 (a), §27.53, §90.691, §90.543(e) - 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.

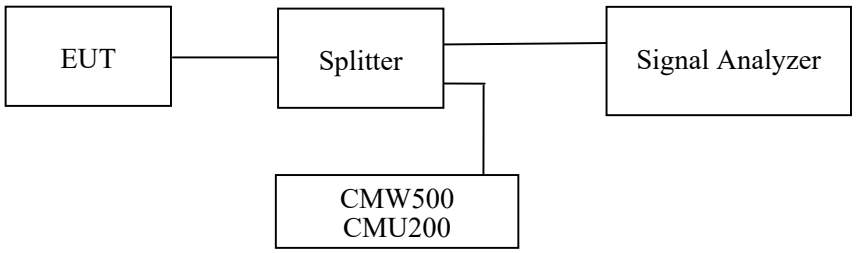
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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

Test Procedure

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

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



Test Data

Environmental Conditions

Temperature:	28~29.4 ℃
Relative Humidity:	52~60%
ATM Pressure:	101.0~102.0 kPa

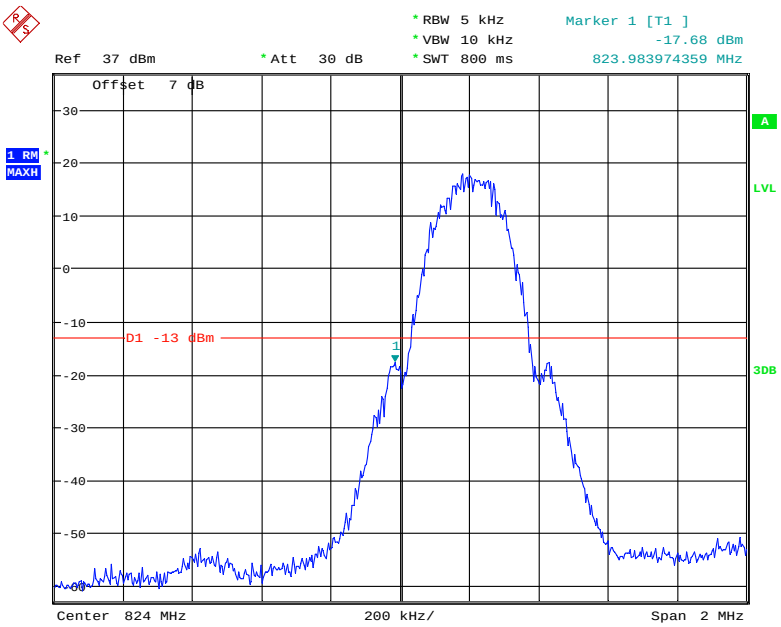
The testing was performed by Pedro Yun from 2021-07-08 to 2021-09-09.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

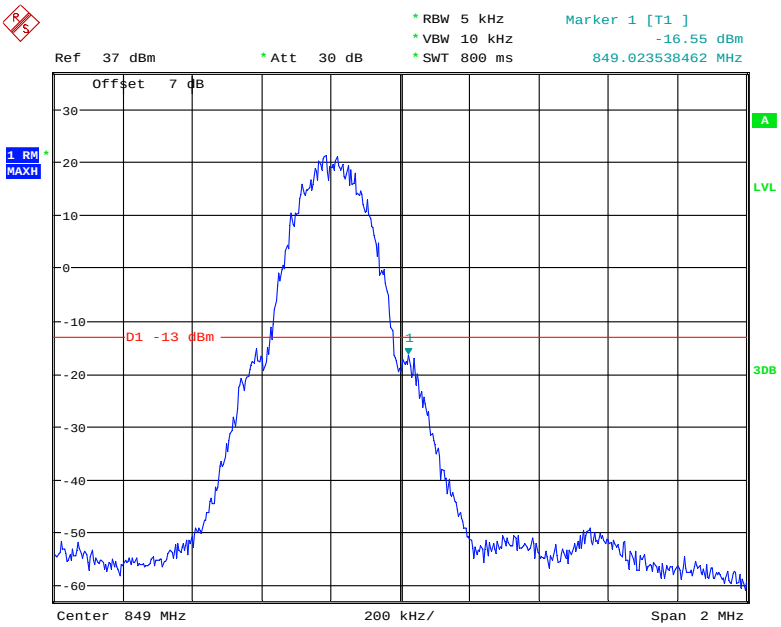
Please refer to the following plots.

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



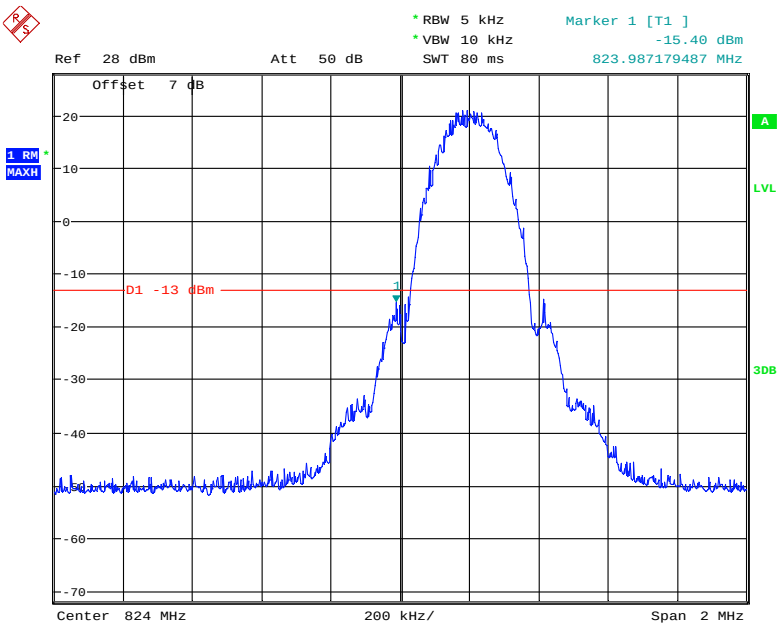
Date: 22.AUG.2021 19:50:04

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



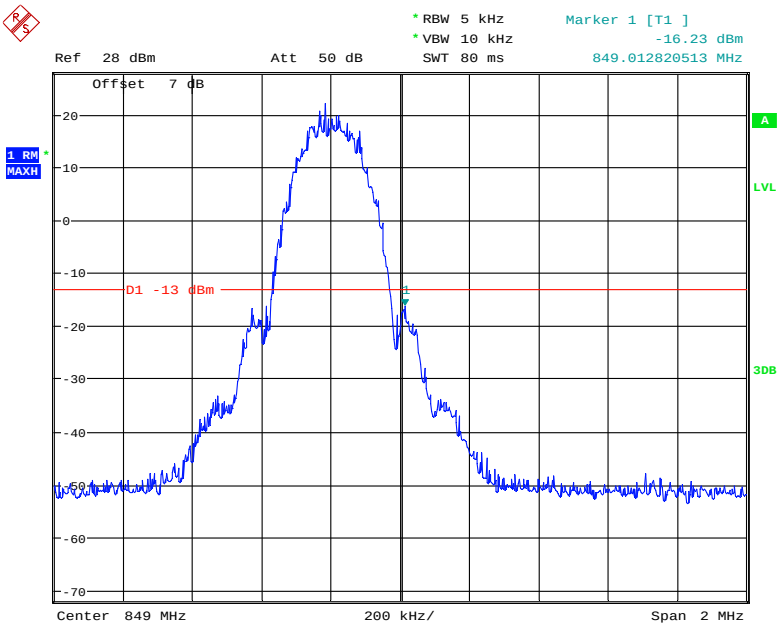
Date: 22.AUG.2021 19:49:22

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



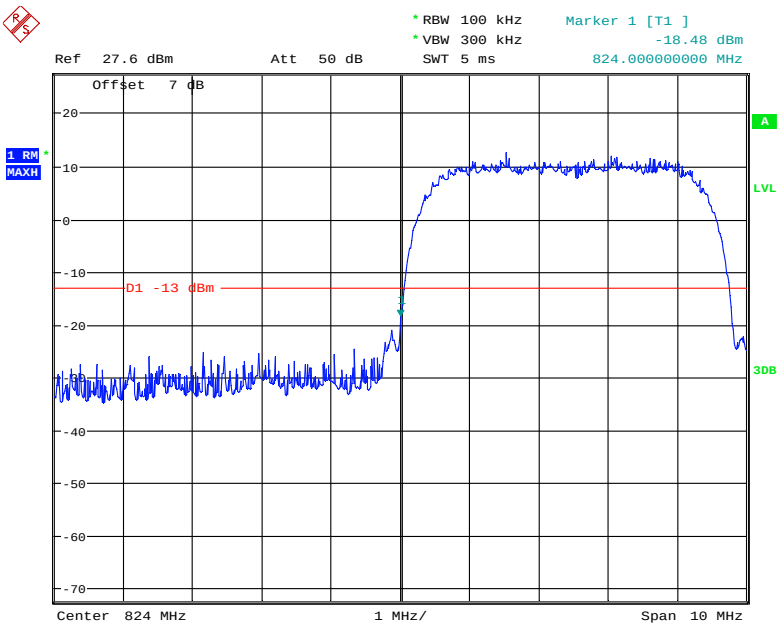
Date: 8.JUL.2021 10:53:20

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



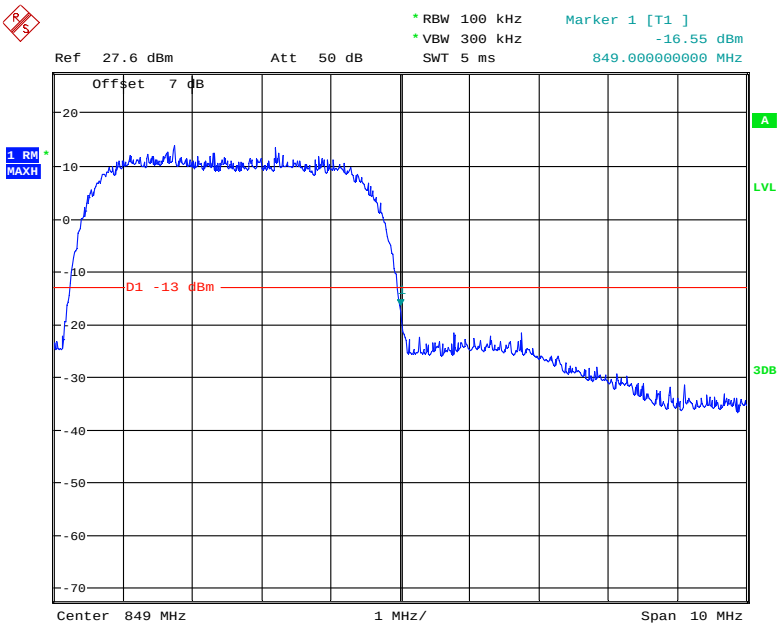
Date: 8.JUL.2021 10:55:05

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



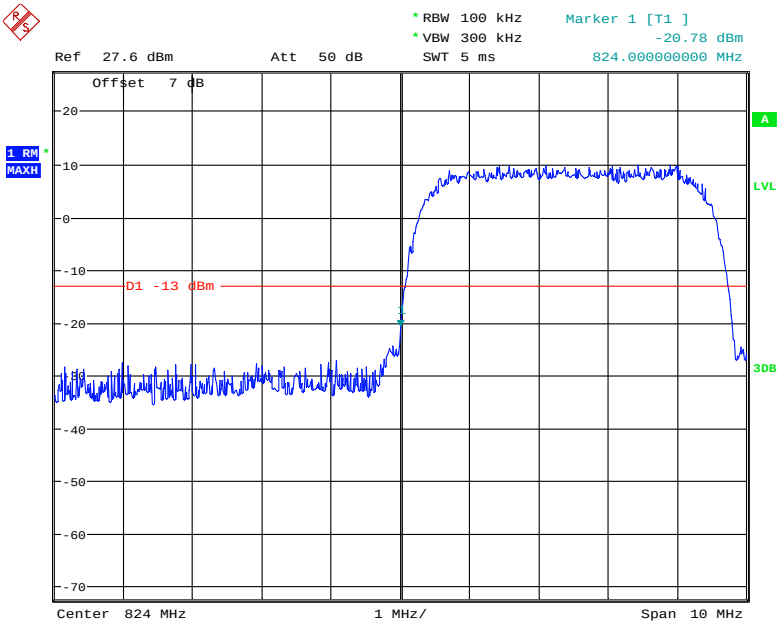
Date: 8.JUL.2021 13:57:21

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



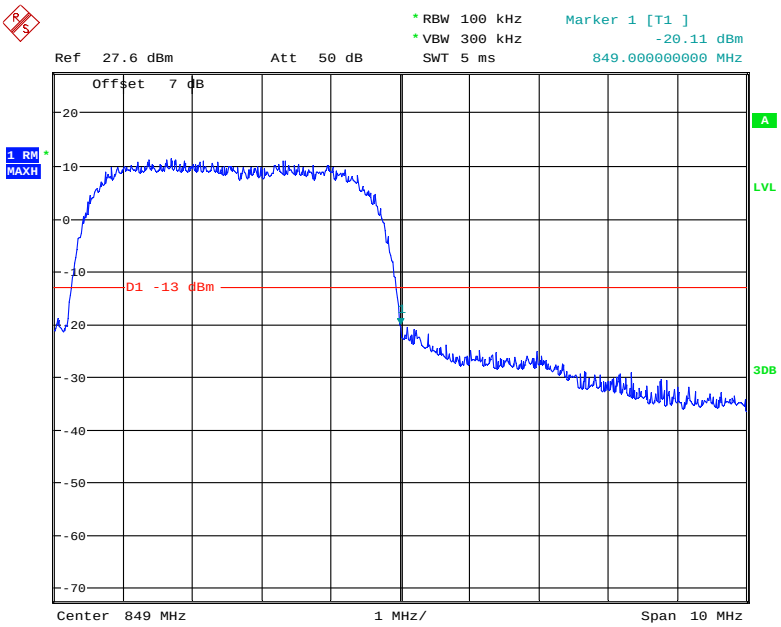
Date: 8.JUL.2021 13:56:16

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



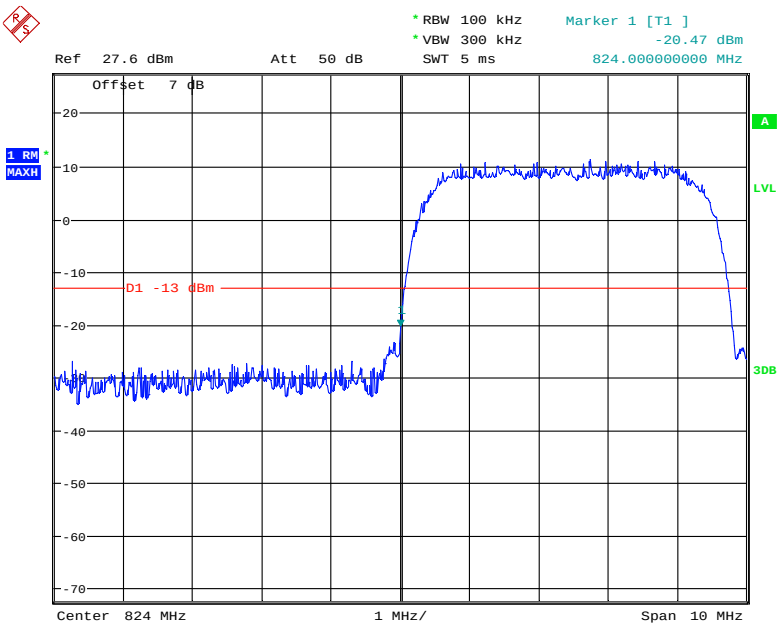
Date: 8.JUL.2021 13:59:35

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



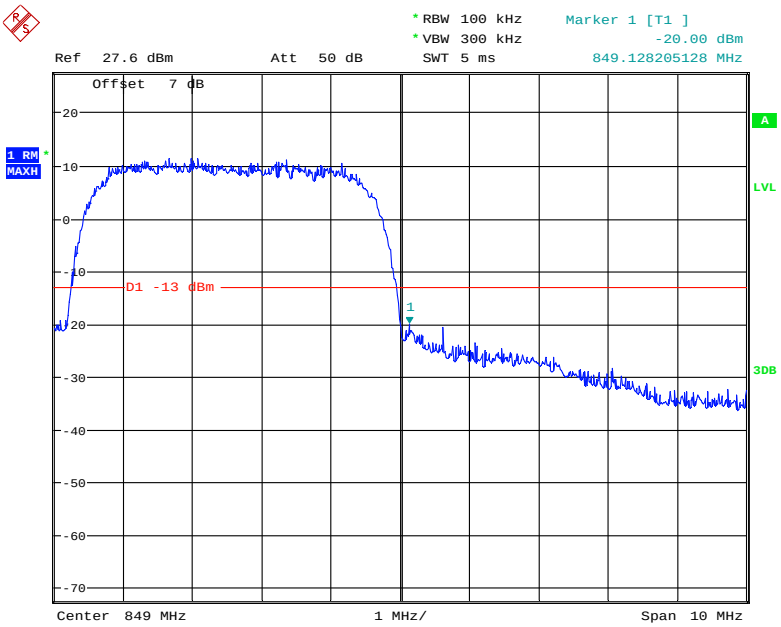
Date: 8.JUL.2021 14:00:46

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



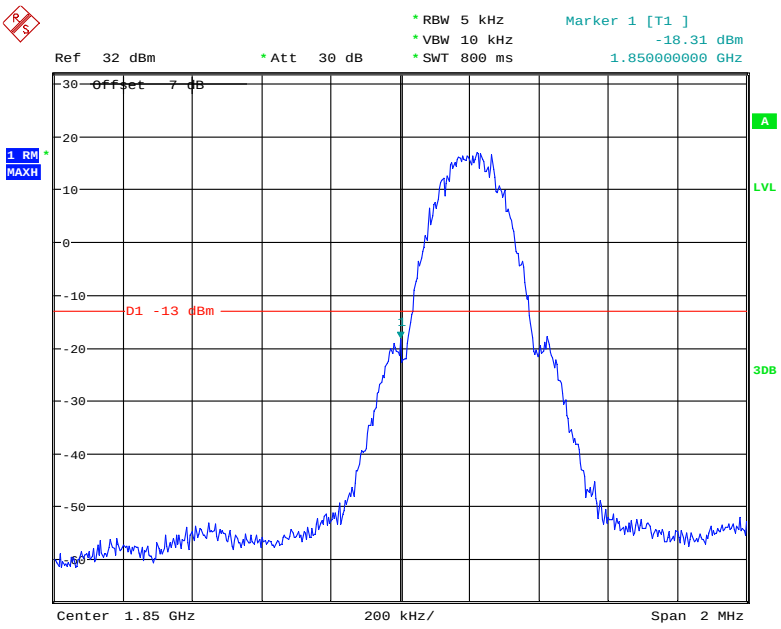
Date: 8.JUL.2021 14:03:31

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



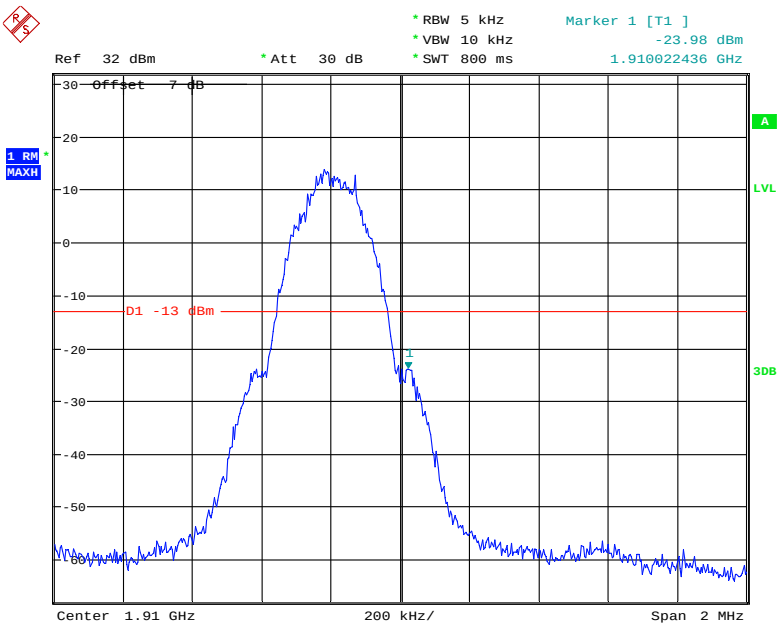
Date: 8.JUL.2021 14:01:52

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



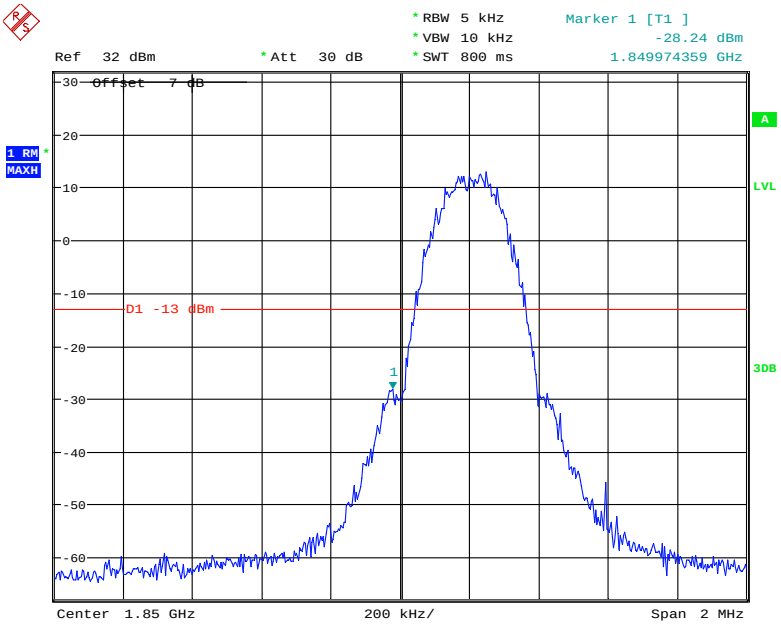
Date: 22.AUG.2021 20:06:49

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



Date: 22.AUG.2021 20:06:02

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



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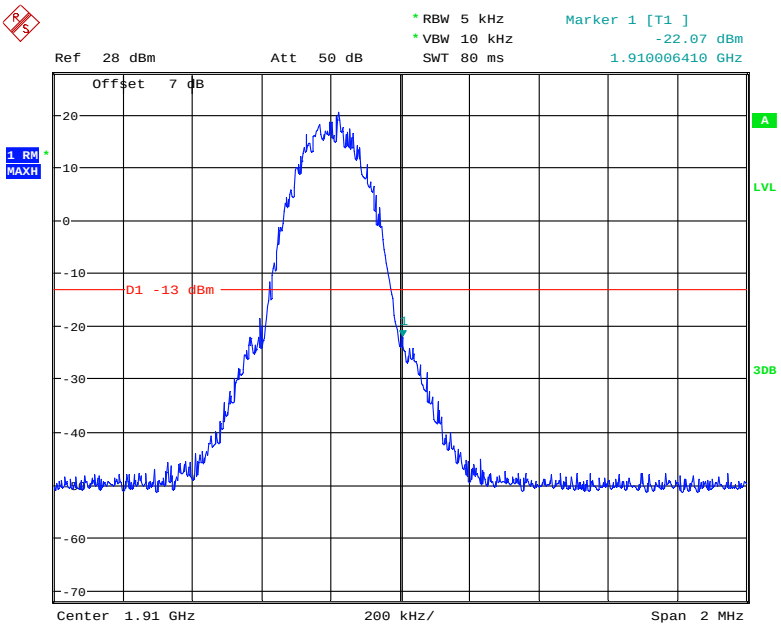
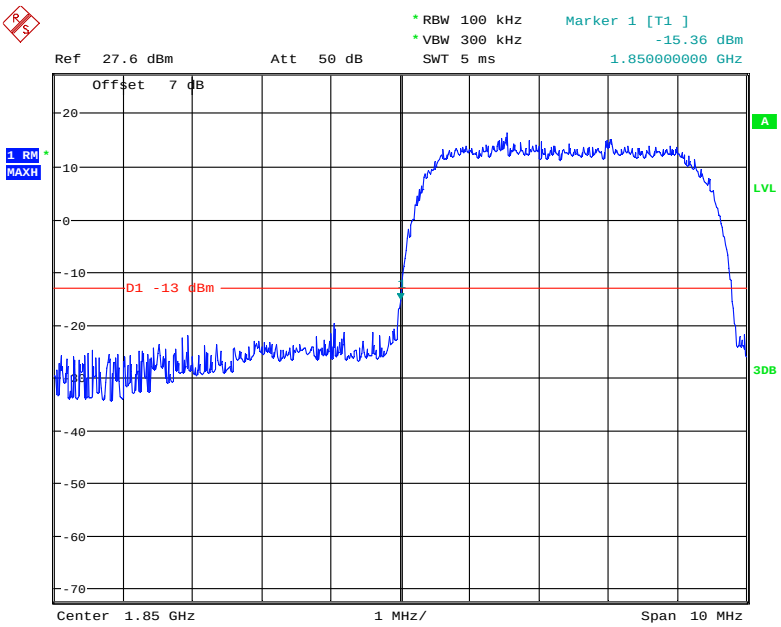
PCS Band, Right Band Edge for EGPRS (8PSK) Mode



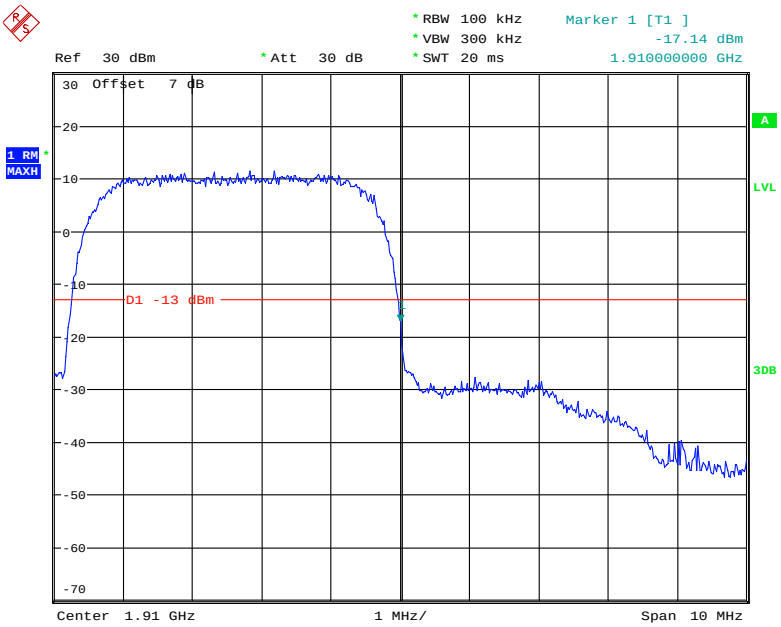
Date: 8.JUL.2021 10:59:43

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



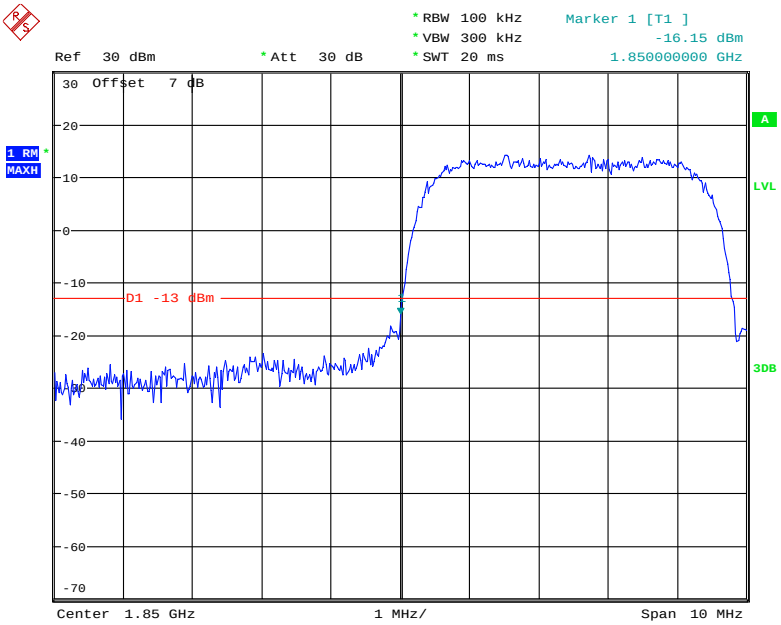
Date: 8.JUL.2021 13:53:30

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



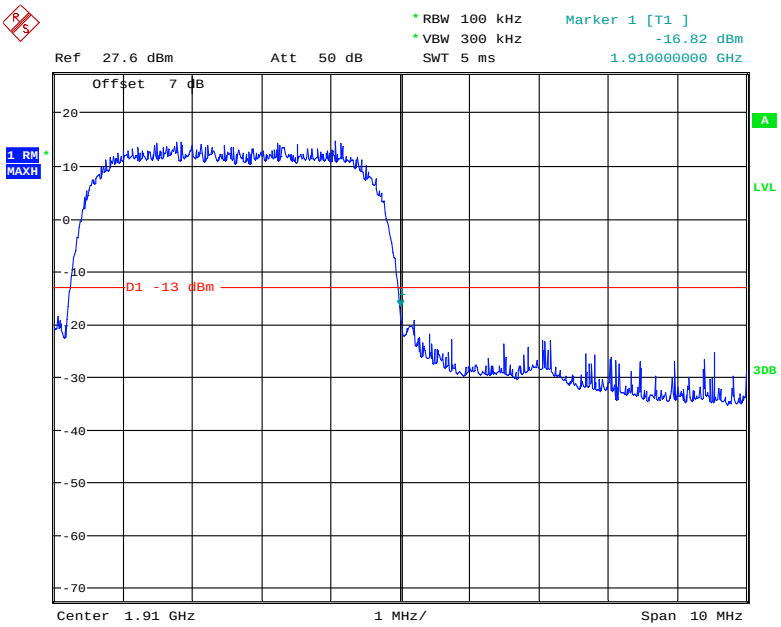
Date: 22.AUG.2021 20:17:30

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



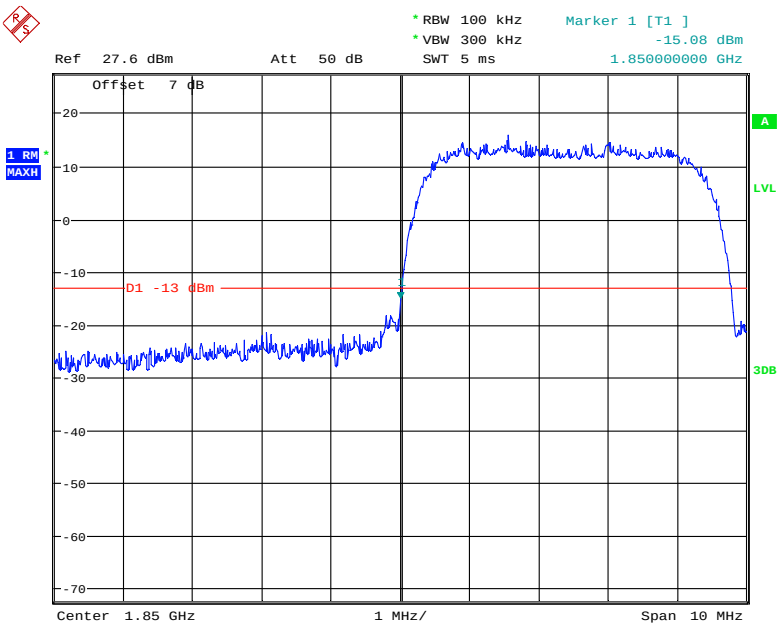
Date: 22.AUG.2021 20:16:39

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



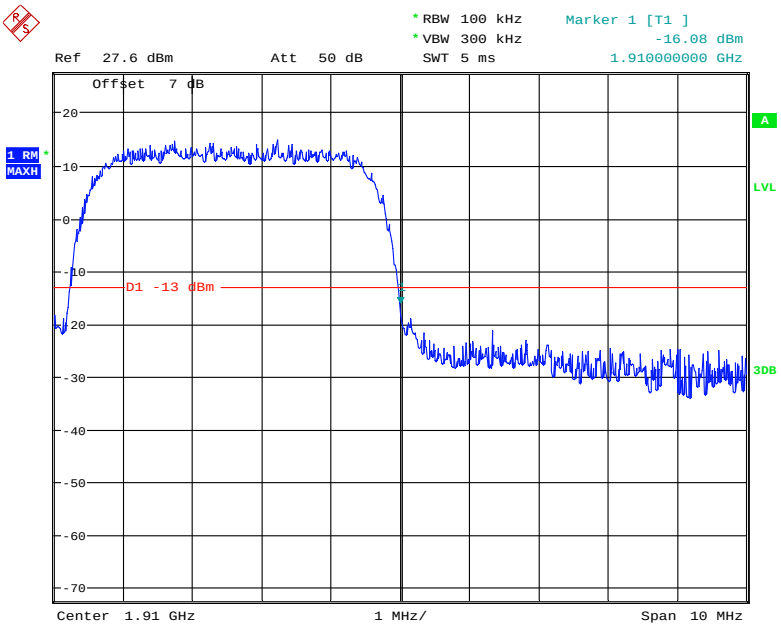
Date: 8.JUL.2021 13:51:48

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



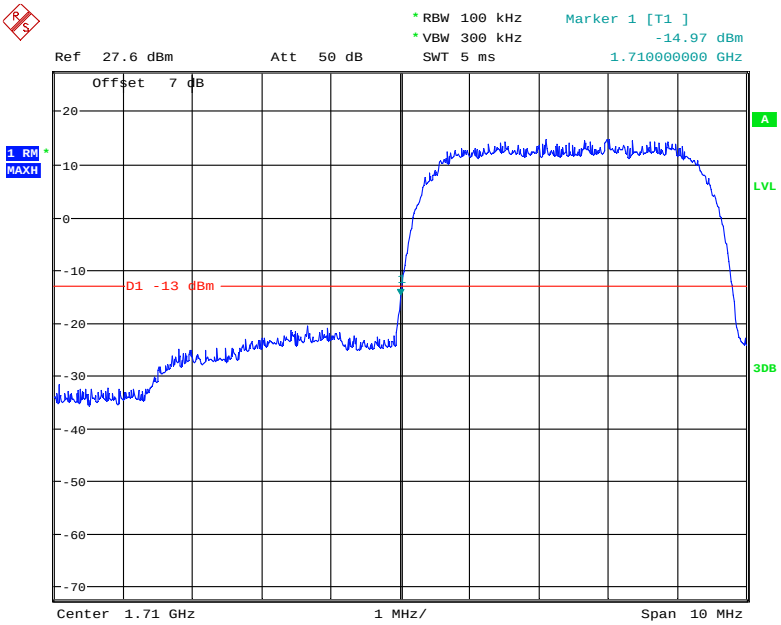
Date: 8.JUL.2021 13:46:51

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



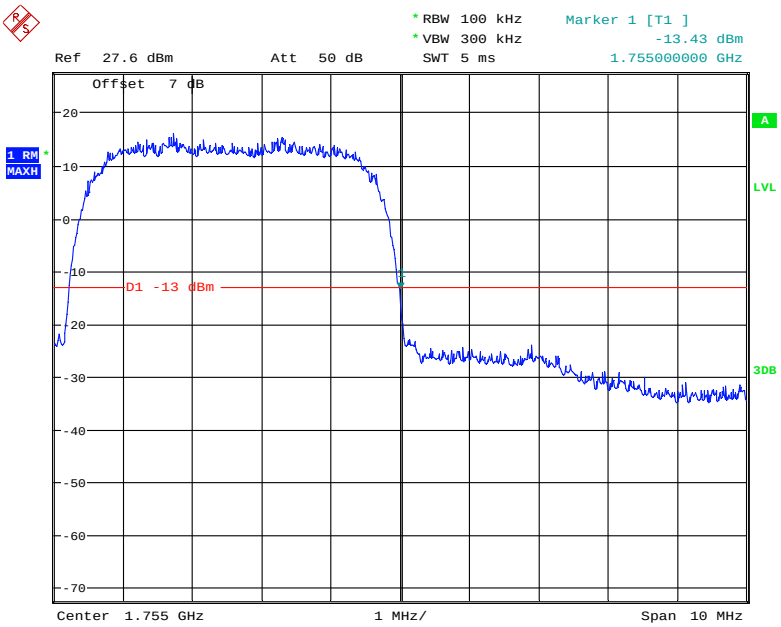
Date: 8.JUL.2021 13:50:03

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



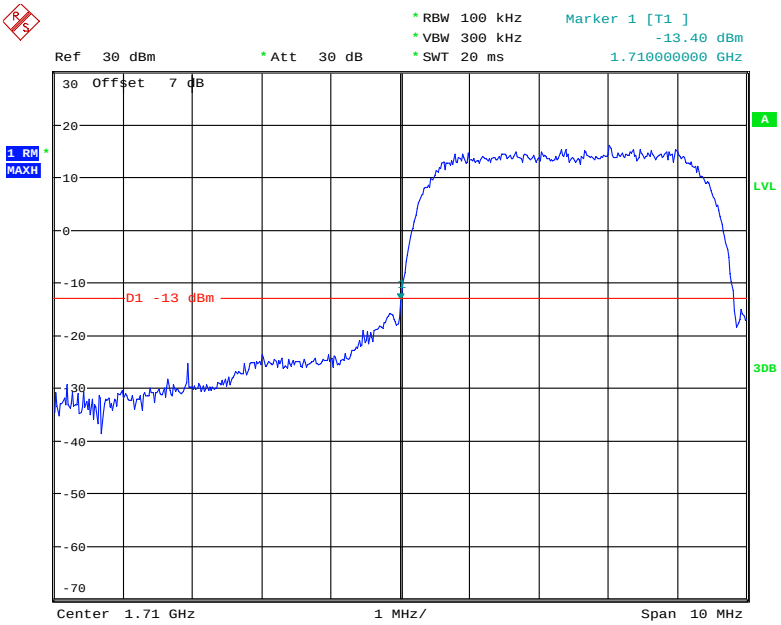
Date: 8.JUL.2021 15:56:02

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



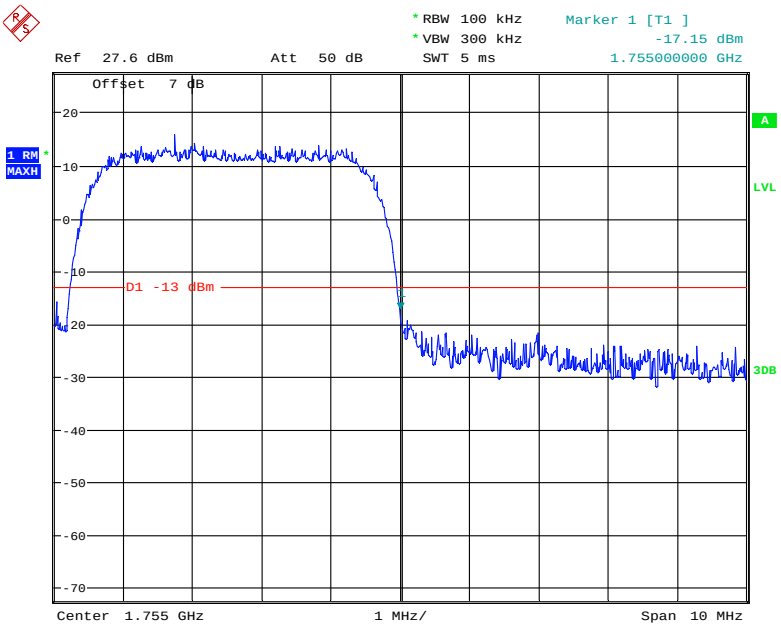
Date: 8.JUL.2021 15:56:58

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



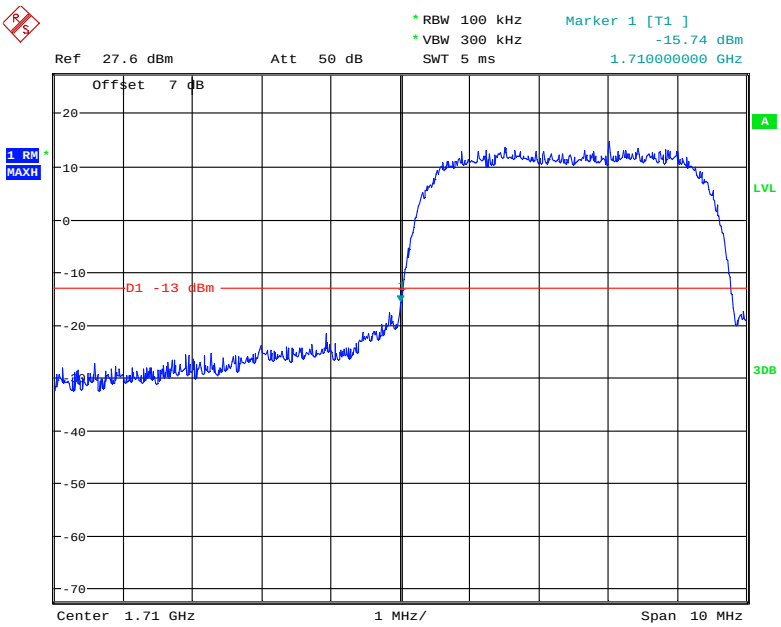
Date: 22.AUG.2021 20:19:21

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



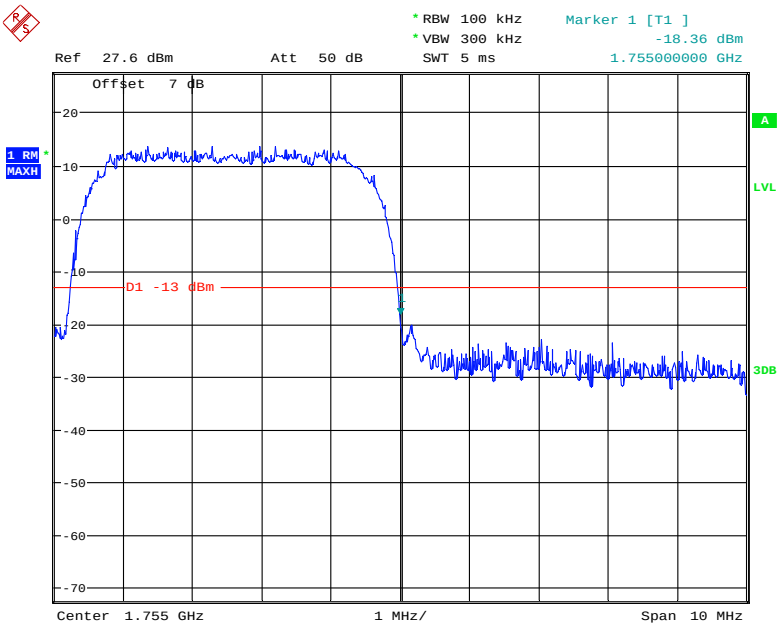
Date: 8.JUL.2021 15:58:53

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



Date: 8.JUL.2021 15:54:54

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



Date: 8.JUL.2021 15:52:35

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

FCC § 2.1055, § 22.355, § 24.235, §27.54, §90.213, §90.539(e)- FREQUENCY STABILITY

Applicable Standard

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

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

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

Frequency Tolerance for Transmitters in the Public Mobile Services

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

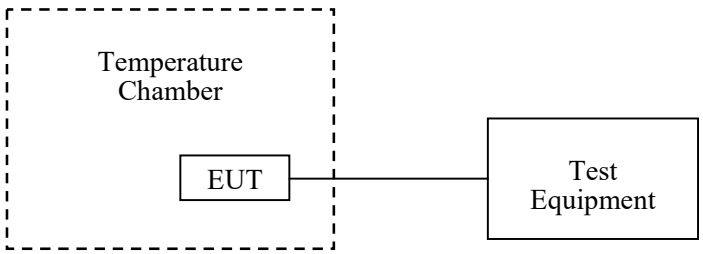
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

Test Procedure

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

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

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



Test Data

Temperature:	28~29.4 ℃
Relative Humidity:	52~60%
ATM Pressure:	101.0~102.0 kPa

The testing was performed by Pedro Yun from 2021-07-08 to 2021-09-03.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

Please refer to the following tables.

Cellular Band (Part 22H)

GPRS Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.85	-15	-0.0179	2.5
-20		-8	-0.0096	2.5
-10		-6	-0.0072	2.5
0		-11	-0.0131	2.5
10		-15	-0.0179	2.5
20		-17	-0.0203	2.5
30		-10	-0.0120	2.5
40		1	0.0012	2.5
50		-2	-0.0024	2.5
20	3.60	6	0.0072	2.5
	4.40	11	0.0131	2.5

EDGE Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.85	-14	-0.0167	2.5
-20		-7	-0.0084	2.5
-10		-5	-0.0060	2.5
0		-12	-0.0143	2.5
10		-14	-0.0167	2.5
20		-16	-0.0191	2.5
30		-11	-0.0131	2.5
40		3	0.0036	2.5
50		-4	-0.0048	2.5
20	3.60	5	0.0060	2.5
	4.40	13	0.0155	2.5

WCDMA Mode

Middle Channel, f_o =836.6MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.85	1	0.0012	2.5
-20		2	0.0024	2.5
-10		5	0.0060	2.5
0		7	0.0084	2.5
10		11	0.0131	2.5
20		12	0.0143	2.5
30		14	0.0167	2.5
40		17	0.0203	2.5
50		19	0.0227	2.5
20	3.60	6	0.0072	2.5
	4.40	10	0.0120	2.5

PCS Band (Part 24E)

GPRS Mode

Middle Channel, f_o =1880.0 MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	-9	-0.0048	Pass
-20		-8	-0.0043	Pass
-10		-7	-0.0037	Pass
0		-24	-0.0128	Pass
10		-21	-0.0112	Pass
20		-21	-0.0112	Pass
30		-10	-0.0053	Pass
40		-9	-0.0048	Pass
50		1	0.0005	Pass
20	3.60	4	0.0021	Pass
	4.40	5	0.0027	Pass

EDGE Mode

Middle Channel, f_o =1880.0 MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	-6	-0.0032	Pass
-20		-7	-0.0037	Pass
-10		-5	-0.0027	Pass
0		-2	-0.0011	Pass
10		-2	-0.0011	Pass
20		-2	-0.0011	Pass
30		4	0.0021	Pass
40		-9	-0.0048	Pass
50		2	0.0011	Pass
20	3.60	3	0.0016	Pass
	4.40	5	0.0027	Pass

WCDMA Mode

Middle Channel, f_o =1880.0 MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	-6	-0.0032	Pass
-20		-7	-0.0037	Pass
-10		-5	-0.0027	Pass
0		-20	-0.0106	Pass
10		-20	-0.0106	Pass
20		-20	-0.0106	Pass
30		-14	-0.0074	Pass
40		-9	-0.0048	Pass
50		2	0.0011	Pass
20	3.60	3	0.0016	Pass
	4.40	5	0.0027	Pass

AWS Band (Part 27)

Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	1710.0473	1754.3792	1710	1755
-20		1710.0796	1754.2018	1710	1755
-10		1710.0395	1754.5403	1710	1755
0		1710.0682	1754.4973	1710	1755
10		1710.0490	1754.4925	1710	1755
20		1710.1527	1754.5687	1710	1755
30		1710.0191	1754.3436	1710	1755
40		1710.0978	1754.4683	1710	1755
50		1710.0326	1754.4586	1710	1755
20	3.60	1710.0989	17544805	1710	1755
	4.40	1710.1965	1754.4913	1710	1755

LTE:
QPSK:

Band 2:

10.0 MHz Middle Channel, f_o =1880MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	-5.72	-0.0030	Pass
-20		-9.65	-0.0051	Pass
-10		-6.02	-0.0032	Pass
0		6.09	0.0032	Pass
10		7.87	0.0042	Pass
20		6.36	0.0034	Pass
30		-6.56	-0.0035	Pass
40		7.21	0.0038	Pass
50		-9.64	-0.0051	Pass
20	3.60	-8.04	-0.0043	Pass
	4.40	-7.05	-0.0038	Pass

Band 4:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	1710.3452	1754.0747	1710	1755
-20		1710.2640	1754.0735	1710	1755
-10		1710.3975	1754.5281	1710	1755
0		1710.1783	1754.0903	1710	1755
10		1710.3370	1754.0999	1710	1755
20		1710.3605	1754.0342	1710	1755
30		1710.0355	1754.4147	1710	1755
40		1710.5454	1754.4383	1710	1755
50		1710.3629	1754.0189	1710	1755
20	3.60	1710.2008	1754.1968	1710	1755
	4.40	1710.2406	1754.0541	1710	1755

Band 5:

10.0 MHz Middle Channel, f_o=836.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.85	-8.88	-0.0106	2.5
-20		9.27	0.0111	2.5
-10		8.57	0.0102	2.5
0		-7.28	-0.0087	2.5
10		-5.24	-0.0063	2.5
20		7.06	0.0084	2.5
30		-5.74	-0.0069	2.5
40		5.40	0.0065	2.5
50		6.90	0.0082	2.5
20	3.60	9.65	0.0115	2.5
	4.40	9.71	0.0116	2.5

Band 7:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	2500.3909	2569.2644	2500	2570
-20		2500.3535	2569.3905	2500	2570
-10		2500.4729	2569.5763	2500	2570
0		2500.4116	2569.4757	2500	2570
10		2500.4639	2569.4699	2500	2570
20		2500.4295	2569.4386	2500	2570
30		2500.4823	2569.5391	2500	2570
40		2500.5962	2569.0893	2500	2570
50		2500.4329	2569.0238	2500	2570
20	3.60	2500.3680	2569.5424	2500	2570
	4.40	2500.1794	2569.2805	2500	2570

Band 12:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	699.2986	715.5707	699	716
-20		699.2351	715.0478	699	716
-10		699.4721	715.5749	699	716
0		699.0942	715.4065	699	716
10		699.5299	715.5997	699	716
20		699.5226	715.2893	699	716
30		699.4492	715.3943	699	716
40		699.4833	715.0032	699	716
50		699.0525	715.3316	699	716
20	3.60	699.3587	715.0839	699	716
	4.40	699.2897	715.3863	699	716

Band 13

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	777.3402	786.0098	777	787
-20		777.3365	786.0045	777	787
-10		777.3385	786.0306	777	787
0		777.5126	786.5646	777	787
10		777.1005	786.0283	777	787
20		777.2979	786.0418	777	787
30		777.0431	786.5800	777	787
40		777.1900	786.0751	777	787
50		777.3835	786.4789	777	787
20	3.60	777.1241	786.4949	777	787
	4.40	777.3149	786.0347	777	787

Band 14:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	788.3574	797.4855	788	798
-20		788.4761	797.3139	788	798
-10		788.4721	797.5749	788	798
0		788.0540	797.3827	788	798
10		788.3429	797.5495	788	798
20		788.4813	797.5285	788	798
30		788.4049	797.4683	788	798
40		788.5542	797.0852	788	798
50		788.0046	797.5114	788	798
20	3.60	788.5078	797.5490	788	798
	4.40	788.3438	797.4073	788	798

Band 25

10.0 MHz Middle Channel, f_o=1882.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	5	0.0027	Pass
-20		8	0.0042	Pass
-10		3	0.0016	Pass
0		6	0.0032	Pass
10		4	0.0021	Pass
20		8	0.0042	Pass
30		5	0.0027	Pass
40		6	0.0032	Pass
50		8	0.0042	Pass
20	3.60	5	0.0027	Pass
	4.40	5	0.0027	Pass

Band 26:

10.0 MHz Middle Channel, f_o=831.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.85	-4.79	-0.0058	2.5
-20		-9.97	-0.0120	2.5
-10		-6.13	-0.0074	2.5
0		6.17	0.0074	2.5
10		7.92	0.0095	2.5
20		6.46	0.0078	2.5
30		-6.52	-0.0078	2.5
40		7.18	0.0086	2.5
50		-9.69	-0.0117	2.5
20	3.60	-8.17	-0.0098	2.5
	4.40	-7.05	-0.0085	2.5

Band 30:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	2305.3784	2314.5065	2305	2315
-20		2305.4971	2314.3349	2305	2315
-10		2305.4931	2314.5959	2305	2315
0		2305.0750	2314.4037	2305	2315
10		2305.3639	2314.0705	2305	2315
20		2305.5023	2314.0495	2305	2315
30		2305.4259	2314.4893	2305	2315
40		2305.5752	2314.1062	2305	2315
50		2305.0256	2314.0324	2305	2315
20	3.60	2305.0288	2314.0700	2305	2315
	4.40	2305.3648	2314.4283	2305	2315

Band 41

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	2496.4283	2689.5420	2496	2690
-20		2496.4805	2689.0821	2496	2690
-10		2496.3385	2689.0096	2496	2690
0		2496.2047	2689.0398	2496	2690
10		2496.0088	2689.0752	2496	2690
20		2496.3283	2689.4637	2496	2690
30		2496.4084	2689.4885	2496	2690
40		2496.3974	2689.4455	2496	2690
50		2496.3941	2689.0234	2496	2690
20	3.60	2496.3023	2689.3806	2496	2690
	4.40	2496.3509	2689.0235	2496	2690

Band 66

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	1710.2061	1779.0253	1710	1780
-20		1710.0686	1779.0597	1710	1780
-10		1710.3595	1779.0306	1710	1780
0		1710.2088	1779.0636	1710	1780
10		1710.0981	1779.0539	1710	1780
20		1710.0443	1779.0528	1710	1780
30		1710.4318	1779.5664	1710	1780
40		1710.4174	1779.0046	1710	1780
50		1710.0206	1779.0562	1710	1780
20	3.60	1710.0160	1779.4349	1710	1780
	4.40	1710.2101	1779.0902	1710	1780

Band 71:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	663.31	697.84	663	698
-20		663.42	697.73	663	698
-10		663.42	697.92	663	698
0		663.72	697.60	663	698
10		663.70	697.41	663	698
20		663.04	697.48	663	698
30		663.09	697.08	663	698
40		663.93	697.39	663	698
50		663.47	697.17	663	698
20	3.60	663.09	697.85	663	698
	4.40	663.14	697.92	663	698

16QAM:

Band 2:

10.0 MHz Middle Channel, f_o =1880MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	-5	-0.0027	Pass
-20		-3	-0.0016	Pass
-10		9	0.0048	Pass
0		-3	-0.0016	Pass
10		6	0.0032	Pass
20		-7	-0.0037	Pass
30		-5	-0.0027	Pass
40		-6	-0.0032	Pass
50		10	0.0053	Pass
20	3.60	9	0.0048	Pass
	4.40	11	0.0059	Pass

Band 4:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	1710.1330	1754.4940	1710	1755
-20		1710.2696	1754.0172	1710	1755
-10		1710.5282	1754.0852	1710	1755
0		1710.3533	1754.0524	1710	1755
10		1710.5367	1754.7264	1710	1755
20		1710.2211	1754.4829	1710	1755
30		1710.4777	1754.0919	1710	1755
40		1710.0668	1754.0260	1710	1755
50		1710.0544	1754.5435	1710	1755
20	3.60	1710.2620	1754.0437	1710	1755
	4.40	1710.0351	1754.3151	1710	1755

Band 5:

10.0 MHz Middle Channel, f_o =836.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.85	-3.56	-0.0043	2.5
-20		6.79	0.0081	2.5
-10		-9.77	-0.0117	2.5
0		-8.30	-0.0099	2.5
10		-8.84	-0.0106	2.5
20		-9.55	-0.0114	2.5
30		8.09	0.0097	2.5
40		6.72	0.0080	2.5
50		-5.81	-0.0069	2.5
20	3.60	9.07	0.0108	2.5
	4.40	-7.95	-0.0095	2.5

Band 7:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	2500.4436	2569.2733	2500	2570
-20		2500.5800	2569.4811	2500	2570
-10		2500.5312	2569.5596	2500	2570
0		2500.5449	2569.0594	2500	2570
10		2500.0252	2569.0168	2500	2570
20		2500.5246	2569.4789	2500	2570
30		2500.0341	2569.0316	2500	2570
40		2500.2812	2569.4159	2500	2570
50		2500.5502	2569.0700	2500	2570
20	3.60	2500.0227	2569.4956	2500	2570
	4.40	2500.3049	2569.0604	2500	2570

Band 12:

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	699.5853	715.0406	699	716
-20		699.0789	715.0582	699	716
-10		699.4931	715.0959	699	716
0		699.5505	715.0596	699	716
10		699.3286	715.0186	699	716
20		699.0211	715.0610	699	716
30		699.4677	715.4941	699	716
40		699.0744	715.0404	699	716
50		699.3056	715.4865	699	716
20	3.60	699.3579	715.3728	699	716
	4.40	699.3191	715.0509	699	716

Band 13

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	777.0597	786.0857	777	787
-20		777.3107	786.0093	777	787
-10		777.3595	786.0306	777	787
0		777.1342	786.5015	777	787
10		777.2231	786.0655	777	787
20		777.4552	786.0472	777	787
30		777.2804	786.0357	777	787
40		777.2150	786.0725	777	787
50		777.3108	786.0969	777	787
20	3.60	777.0756	786.0960	777	787
	4.40	777.4188	786.0303	777	787

Band 14

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	788.0387	797.0647	788	798
-20		788.2897	797.0883	788	798
-10		788.3385	797.0096	788	798
0		788.1132	797.4805	788	798
10		788.2021	797.0445	788	798
20		788.4342	797.0262	788	798
30		788.2594	797.0147	788	798
40		788.1940	797.0515	788	798
50		788.2898	797.0759	788	798
20	3.60	788.0546	797.0750	788	798
	4.40	788.3978	797.0093	788	798

Band 25

10.0 MHz Middle Channel, f_o =1882.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	7	0.0037	Pass
-20		6	0.0032	Pass
-10		8	0.0042	Pass
0		4	0.0021	Pass
10		5	0.0027	Pass
20		4	0.0021	Pass
30		6	0.0032	Pass
40		8	0.0042	Pass
50		10	0.0053	Pass
20	3.60	11	0.0058	Pass
	4.40	11	0.0058	Pass

Band 26

10.0 MHz Middle Channel, f_o =831.5MHz				
Temperature (℃)	**Voltage Supplied (V_{DC})**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.85	-8.33	-0.0100	Pass
-20		-6.68	-0.0080	Pass
-10		9.77	0.0117	Pass
0		-7.62	-0.0092	Pass
10		-9.91	-0.0119	Pass
20		-9.82	-0.0118	Pass
30		-6.68	-0.0080	Pass
40		-8.85	-0.0106	Pass
50		5.67	0.0068	Pass
20	3.60	6.05	0.0073	Pass
	4.40	7.52	0.0090	Pass

Band 30

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	2305.0387	2314.0647	2305	2315
-20		2305.2897	2314.0883	2305	2315
-10		2305.3385	2314.0096	2305	2315
0		2305.1132	2314.4805	2305	2315
10		2305.2021	2314.5445	2305	2315
20		2305.4342	2314.0262	2305	2315
30		2305.2594	2314.0147	2305	2315
40		2305.1940	2314.0515	2305	2315
50		2305.2898	2314.0059	2305	2315
20	3.60	2305.0546	2314.0750	2305	2315
	4.40	2305.3978	2314.0093	2305	2315

Band 41

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	2496.4283	2689.0420	2496	2690
-20		2496.4805	2689.0821	2496	2690
-10		2496.3385	2689.0096	2496	2690
0		2496.2047	2689.0398	2496	2690
10		2496.0088	2689.0752	2496	2690
20		2496.3283	2689.4637	2496	2690
30		2496.4084	2689.4885	2496	2690
40		2496.3974	2689.4455	2496	2690
50		2496.3941	2689.0234	2496	2690
20	3.60	2496.0323	2689.3806	2496	2690
	4.40	2496.3509	2689.0235	2496	2690

Band 66

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	1710.2061	1779.0253	1710	1780
-20		1710.0686	1779.0597	1710	1780
-10		1710.3595	1779.0306	1710	1780
0		1710.2088	1779.0636	1710	1780
10		1710.0981	1779.0539	1710	1780
20		1710.5443	1779.0528	1710	1780
30		1710.4318	1779.5664	1710	1780
40		1710.4174	1779.0046	1710	1780
50		1710.5206	1779.0562	1710	1780
20	3.60	1710.5160	1779.4349	1710	1780
	4.40	1710.2101	1779.0902	1710	1780

Band 71

10 MHz Bandwidth					
Temperature (℃)	**Power Supplied (V_{DC})**	**F_L (MHz)**	**F_H (MHz)**	**F_L Limit (MHz)**	**F_H Limit (MHz)**
-30	3.85	663.23	697.24	663	698
-20		663.24	697.01	663	698
-10		663.57	697.07	663	698
0		663.21	697.81	663	698
10		663.48	697.48	663	698
20		663.77	697.54	663	698
30		663.28	697.14	663	698
40		663.54	697.51	663	698
50		663.24	697.24	663	698
20	3.60	663.50	697.58	663	698
	4.40	663.19	697.21	663	698

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