TEST REPORT

Applicant Name:	Telepower Communication Co., Ltd.
Address:	5 Bld, Zone A, Hantian Technology Town No.17 ShenHai RD, Nanhai District Foshan China
Report Number:	SZ1240308-11533E-RF-00E
FCC ID:	2AJ2B-M10

Test Standard (s)

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

Sample Description

Product Type:	Pos terminal
Model No.:	M10
Multiple Model(s) No.:	M10P
Trade Mark:	Telpo
Date Received:	2024/03/12
Issue Date:	2024/06/11

Test Result:	Pass▲

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

Prepared and Checked By:

Andy Yu

Andy Yu
RF Engineer

Approved By:

Nancy Wang

Nancy Wang
RF Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	SZ1240308-11533E-RF-00E	Original Report	2024/06/11

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Pos terminal			
Tested Model	M10			
Multiple Model(s)	M10P			
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 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(TX) LTE Band 38: 2570-2620MHz(TX/RX) LTE Band 40 Lower: 2305-2315MHz (TX/RX) LTE Band 40 Upper: 2350-2360MHz (TX/RX) LTE Band 41: 2496-2690MHz (TX/RX)			
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK 4G: QPSK, 16QAM			
Antenna Specification#	Antenna	Operation Bands	Antenna Gain (G_T) (dBi)	L_C (dB)
	Main ANT	GSM 850/WCDMA/LTE B5	-0.8	0.5
		PCS1900/WCDMA/LTE B2	3.58	1.2
		LTE B4	3.73	1.2
		LTE B7	5.08	1.2
		LTE B38	5.00	1.2
		LTE B40	5.32	1.2
		LTE B41	5.08	1.2
	Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.			
Voltage Range	DC 24V from adapter			
Sample serial number	2IGW-1 for Radiated Emissions Test 2IGW-3 for RF Conducted Test (Assigned by BACL, Shenzhen)			
Sample/EUT Status	Good condition			
Normal/Extreme Condition#	L.V.: Low Voltage $102V_{AC}$ N.V.: Normal Voltage $120V_{AC}$ H.V.: High Voltage $138V_{AC}$			
Adapter Information	Model: ADS-65HI-19A-3 24060E Input: AC 100-240V~50/60Hz, Max. 1.5A Output: DC 24.0V, 2.5A, 60.0W			
Note: The Multiple models are electrically identical with the test model except for model name. Please refer to the declaration letter# for more detail, which was provided by manufacturer.				

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H, Part24-Subpart E, and Part 27 of the Federal Communication Commission's rules.

The objective is to determine the compliance of the EUT with FCC rules for output power, modulation characteristic, occupied bandwidth, and spurious emission at antenna terminal, spurious radiated emission, frequency stability and band edge.

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2-Subpart J as well as the following parts:

Part 22 Subpart H - Public Mobile Services
Part 24 Subpart E - Personal Communication Services
Part 27 - Miscellaneous Wireless Communications Services

ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
KDB 971168 D01: Power Meas License Digital Systems v03r01

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		0.72 dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.75 dB(k=2, 95% level of confidence)
RF Frequency		213.55 Hz(k=2, 95% level of confidence)
Radiated Emissions	30MHz~200MHz (Horizontal)	4.48dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	4.55dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	4.85dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.05dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.35dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.44dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.16dB(k=2, 95% level of confidence)
Temperature		±1℃
Humidity		±1%
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 lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

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 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 B38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610

Frequency Band	Bandwidth (MHz)	Test Frequency (MHz)		
		Low	Middle	High
LTE B40 Lower	5	2307.5	2310	2312.5
	10	/	2310	/
LTE B40 Upper	5	2352.5	2355	2357.5
	10	/	2355	/
LTE B41	5	2498.5	2593	2687.5
	10	2501	2593	2685
	15	2503.5	2593	2682.5
	20	2506	2593	2680

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

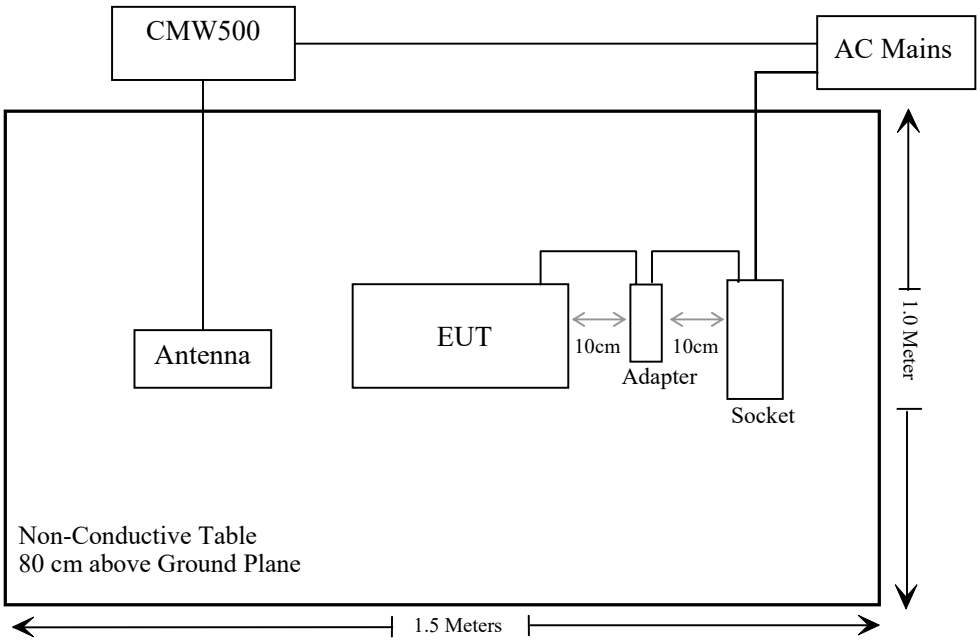
Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Universal Radio Communication Tester	CMW500	146520

Support Cable Description

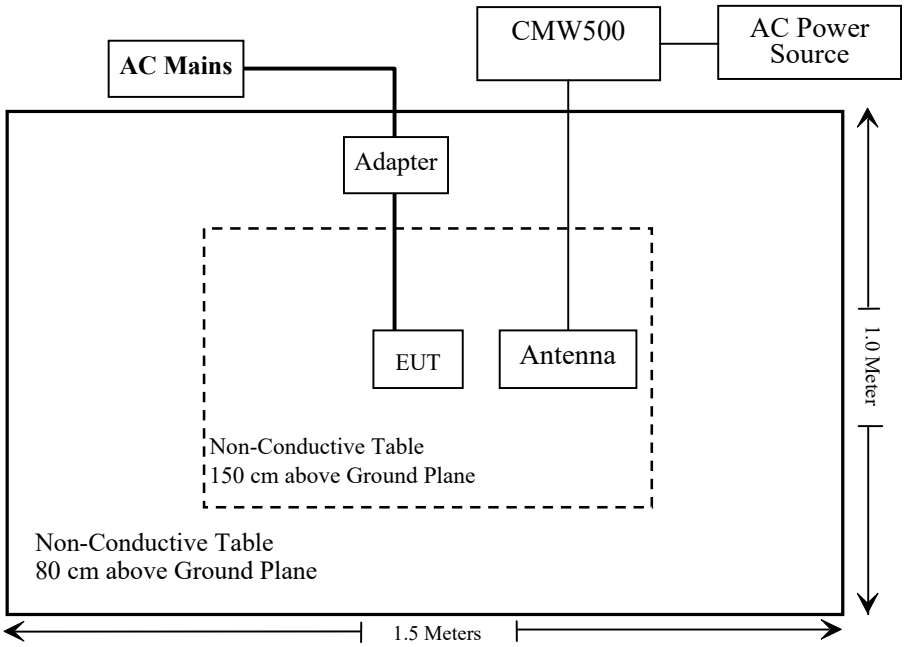
Cable Description	Length (m)	From / Port	To
Un-shielded detachable AC cable	1.2	AC Mains/ Socket	Adapter
Un-shielded un-detachable DC cable	1.8	Adapter	EUT
Un-shielded un-detachable AC cable	1.2	Socket	AC Mains
Un-shielded detachable AC cable	1.2	AC Mains/AC Power Source	CMW500

Block Diagram of Test Setup

For Radiated Emissions (below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307 ,§2.1091	MPE-Based Exemption	Compliant
§ 2.1046, §22.913(a)(d); §24.232(c)(d); §27.50(a)(d)(h)	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.905; § 22.917; § 24.238; §27.53	Occupied Bandwidth	Compliant
§ 2.1051; §22.917 (a); § 24.238 (a); §27.53;	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); § 24.238 (a); §27.53	Field Strength of Spurious Radiation	Compliant
§ 22.917 (a); § 24.238 (a); §27.53 (a) (h) (m)	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54;	Frequency stability	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2023/06/08	2024/06/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber Cable 1	F-03-EM236	2023/08/03	2024/08/02
Unknown	Cable	Chamber Cable 4	EC-007	2023/08/03	2024/08/02
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2023/06/29	2024/06/28
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
A.H.System	Horn Antenna	SAS-200/571	135	2021/07/14	2024/07/13
Unknown	RF Cable	KMSE	0735	2023/10/08	2024/10/07
Unknown	RF Cable	UFA147	219661	2023/10/08	2024/10/07
Unknown	RF Cable	XH750A-N	J-10M	2023/10/08	2024/10/07
Agilent	Signal Generator	N5183A	MY50140588	2023/12/18	2024/12/17
JD	Multiplex Switch Test Control Set	DT7220FSU	DQ77926	NCR	NCR
Unknown	1.3G High Pass filter	1.3GHz	101120	2023/08/03	2024/08/02
SNSD	2.4G Band Reject filter	BSF2402-2480MN-0898-001	2.4G filter	2023/08/03	2024/08/02
A.H.System	Pre-amplifier	PAM-1840VH	190	2023/08/02	2024/08/01
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
Electro-Mechanics Co	Horn Antenna	3116	2026	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2023/08/03	2024/08/02

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
R&S	SPECTRUM ANALYZER	FSV40-N	102259	2024/01/16	2025/01/15
BACL	Temperature & Humidity Chamber	BTH-150-40	30145	2024/01/16	2025/01/15
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520	2023/06/08	2024/06/07
Fluke	Digital Multimeter	287	19000011	2023/06/08	2024/06/07
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2023/07/04	2024/07/03
MARCONI	10dB Attenuator	6534/3	2942	2023/07/04	2024/07/03
WEINSCHEL	Power Splitter	1515	RH386	2023/07/04	2024/07/03
Unknown	RF Cable	65475	01670515	2023/07/04	2024/07/03
HELLVIAO	Contact voltage regulator	TDGC2-5KVA	Unknown	NCR	NCR

* **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) & §2.1091- MPE-BASED EXEMPTION

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemptionfrom further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

For multiple RF sources: Multiple RF sources are exempt if:

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^{a} \frac{P_i}{P_{th,i}} + \sum_{j=1}^{b} \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^{c} \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$$

Result

Mode	Frequency (MHz)	Tune up conducted power#	Antenna Gain#		ERP		Evaluation Distance (m)	ERP Limit (mW)
		(dBm)	(dBi)	(dBd)	(dBm)	(mW)		
BT	2402-2480	11.5	2.97	0.82	12.32	17.06	0.2	768
BLE	2402-2480	2.5	2.97	0.82	3.32	2.15	0.2	768
2.4G Wi-Fi	2412-2462	20.0	2.97	0.82	20.82	120.78	0.2	768
5.2G Wi-Fi	5180-5240	16.5	4.34	2.19	18.69	73.96	0.2	768
GSM850*	824-849	26.24	-0.8	-2.95	23.29	213.30	0.2	422
PCS1900*	1850-1910	20.99	3.58	1.43	22.42	174.58	0.2	768
WCDMA B2	1850-1910	22.5	3.58	1.43	23.93	247.17	0.2	768
WCDMA B5	824-849	24.0	-0.8	-2.95	21.05	127.35	0.2	422
LTE B2	1850-1910	22.0	3.58	1.43	23.43	220.29	0.2	768
LTE B4	1710-1755	22.0	3.73	1.58	23.58	228.03	0.2	768
LTE B5	824-849	23.0	-0.8	-2.95	20.05	101.16	0.2	422
LTE B7	2500-2570	21.5	5.08	2.93	24.43	277.33	0.2	768
LTE B38	2570-2620	21.5	5.00	2.85	24.35	272.27	0.2	768
LTE B40 Lower	2305-2315	19.5	5.32	3.17	22.67	184.93	0.2	768
LTE B40 Upper	2350-2360	19.5	5.32	3.17	22.67	184.93	0.2	768
LTE B41	2496-2690	22.0	5.08	2.93	24.93	311.17	0.2	768

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The BT, 2.4G Wi-Fi and 5G Wi-Fi can transmit at same time.
3. 0dBd=2.15dBi

Note*: It was the time average power according to the duty cycle.

Mode		Tune-up Peak Output Power (dBm)			Tune-up Average Output Power (dBm)		
		Low	Middle	High	Low	Middle	High
GPRS850	1 slot	32.5	32.5	32.5	23.47	23.47	23.47
	2 slots	31.5	31.5	31.5	25.48	25.48	25.48
	3 slots	30.5	30.5	30.5	**26.24**	**26.24**	**26.24**
	4 slots	28.5	28.5	28.5	25.49	25.49	25.49
GPRS1900	1 slot	28.0	28.0	28.0	18.97	18.97	18.97
	2 slots	26.5	26.5	26.5	20.48	20.48	20.48
	3 slots	25.0	25.0	25.0	20.74	20.74	20.74
	4 slots	24.0	24.0	24.0	**20.99**	**20.99**	**20.99**

Note: the duty cycle for 1 slot is 1/8, 2 slots is 1/4, 3 slots is 3/8, 4 slots is 1/2
The average power=Peak power+ duty cycle factor
Duty cycle factor=10*log (duty cycle)

NFC:

Mode	Frequency (MHz)	Maximum E-Field (dBuV/m@3m)	Maximum EIRP (dBm)	ERP		Evaluation Distance (m)	ERP Limit (mW)
				(dBm)	(mW)		
NFC	13.56	72.09	-23.11	-25.26	0.003	0.2	751

Note: EIRP = E-Field – 95.2 @3m, ERP = EIRP-2.15

Simultaneous transmitting consideration (worst case):

The ratio=ERP_{BT}/limit+$ERP_{2.4G\ Wi\text{-}Fi}$/limit+$ERP_{5G\ Wi\text{-}Fi}$/limit +ERP_{GSM850}/limit+ ERP_{NFC}/limit
= 17.06/768+ 120.78/768+ 73.96/768+ 213.3/422+ 0.003/751 =0.781＜1.0

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant.

FCC§2.1047 - MODULATION CHARACTERISTIC

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

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

Applicable Standard

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

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

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

According to §27.50 (a)(3) Mobile and portable stations.
(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.
(ii) Mobile and portable stations are not permitted to transmit in the 2315-2320 MHz and 2345-2350 MHz bands.
(iii) *Automatic transmit power control.* Mobile and portable stations transmitting in the 2305-2315 MHz band or in the 2350-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications.
(iv) *Prohibition on external vehicle-mounted antennas.* The use of external vehicle-mounted antennas for mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band is prohibited.

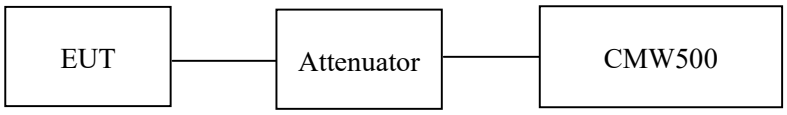
According to §27.50(d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

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

Test Procedure

Conducted method: ANSI C63.26-2015 Section 5.2

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



Test Data

Environmental Conditions

Temperature:	22~24.8 °C
Relative Humidity:	25~61 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan from 2024-03-26 to 2024-04-07.

Test Result: Compliant

Cellular Band (Part 22H)

GSM 850

Test Mode	Conducted Peak Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
GSM	**32.39**	32.08	32.32	**28.94**	38.45
GPRS 1 Slot	32.27	31.91	32.17	28.82	38.45
GPRS 2 Slots	31.05	31.15	31.18	27.73	38.45
GPRS 3 Slots	30.36	29.73	28.80	26.91	38.45
GPRS 4 Slots	28.12	28.09	27.81	24.67	38.45
EDGE 1 Slot	**26.76**	26.43	25.87	**23.31**	38.45
EDGE 2 Slots	25.51	25.59	25.56	22.14	38.45
EDGE 3 Slots	23.84	23.78	23.81	20.39	38.45
EDGE 4 Slots	23.10	23.35	22.99	19.90	38.45

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

WCAMA B5

Test Mode	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	23.55	**23.59**	23.46	20.14	38.45

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

PCS Band (Part 24E)

PCS 1900

Test Mode	Conducted Peak Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
GSM	27.56	**27.82**	27.79	**30.20**	33
GPRS 1 Slot	27.45	27.71	27.74	30.12	33
GPRS 2 Slots	26.22	25.85	26.06	28.60	33
GPRS 3 Slots	24.57	24.80	24.68	27.18	33
GPRS 4 Slots	23.47	23.70	23.23	26.08	33
EDGE 1 Slot	24.29	24.29	**24.45**	**26.83**	33
EDGE 2 Slots	23.57	23.71	23.86	26.24	33
EDGE 3 Slots	21.95	21.92	21.30	24.33	33
EDGE 4 Slots	21.13	21.22	20.66	23.60	33
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)					

WCDMA B2

Test Mode	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	22.05	22.04	**22.38**	24.76	33
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)					

LTE Band 2

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	21.32	21.38	21.33	23.91	33
	RB1#3	21.43	21.47	21.35		
	RB1#5	21.30	21.34	21.31		
	RB3#0	21.49	**21.53**	21.33		
	RB3#3	21.46	21.49	21.31		
	RB6#0	20.27	20.34	20.30		
1.4MHz 16QAM	RB1#0	20.49	20.62	20.38	23.16	33
	RB1#3	20.56	20.73	20.43		
	RB1#5	20.49	20.63	20.38		
	RB3#0	20.74	20.73	20.59		
	RB3#3	**20.78**	20.73	20.59		
	RB6#0	19.44	19.45	19.41		
3MHz QPSK	RB1#0	21.44	**21.49**	21.39	23.87	33
	RB1#8	21.42	21.44	21.36		
	RB1#14	21.38	21.44	21.38		
	RB6#0	20.41	20.46	20.40		
	RB6#9	20.37	20.43	20.36		
	RB15#0	20.48	20.47	20.41		
3MHz 16QAM	RB1#0	**21.14**	20.72	20.44	23.52	33
	RB1#8	21.12	20.71	20.42		
	RB1#14	21.13	20.66	20.39		
	RB6#0	19.67	19.57	19.38		
	RB6#9	19.61	19.61	19.41		
	RB15#0	19.67	19.58	19.49		
5MHz QPSK	RB1#0	21.52	21.50	21.37	23.91	33
	RB1#13	21.51	**21.53**	21.42		
	RB1#24	21.44	21.45	21.42		
	RB15#0	20.54	20.57	20.41		
	RB15#10	20.48	20.50	20.39		
	RB25#0	20.52	20.48	20.37		
5MHz 16QAM	RB1#0	20.64	20.50	20.71	23.16	33
	RB1#13	20.67	20.51	**20.78**		
	RB1#24	20.66	20.48	20.72		
	RB15#0	19.66	19.67	19.50		
	RB15#10	19.65	19.68	19.46		
	RB25#0	19.66	19.69	19.47		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	21.72	**21.81**	21.35	**24.19**	33
	RB1#25	21.48	21.41	21.30		
	RB1#49	21.68	21.69	21.38		
	RB25#0	20.51	20.49	20.39		
	RB25#25	20.49	20.50	20.41		
	RB50#0	20.51	20.54	20.44		
10MHz 16QAM	RB1#0	20.96	20.85	**20.99**	23.37	33
	RB1#25	20.69	20.59	20.88		
	RB1#49	20.89	20.76	20.91		
	RB25#0	19.67	19.72	19.58		
	RB25#25	19.64	19.70	19.57		
	RB50#0	19.65	19.65	19.51		
15MHz QPSK	RB1#0	21.55	**21.61**	21.41	23.99	33
	RB1#38	21.42	21.43	21.27		
	RB1#74	21.44	21.53	21.40		
	RB36#0	20.53	20.53	20.36		
	RB36#39	20.46	20.50	20.40		
	RB75#0	20.46	20.48	20.40		
15MHz 16QAM	RB1#0	20.78	**21.12**	21.07	23.50	33
	RB1#38	20.56	20.98	20.92		
	RB1#74	20.64	21.01	20.95		
	RB36#0	19.54	19.69	19.55		
	RB36#39	19.60	19.61	19.52		
	RB75#0	19.58	19.63	19.50		
20MHz QPSK	RB1#0	21.68	**21.76**	21.42	24.14	33
	RB1#50	21.28	21.46	21.33		
	RB1#99	21.48	21.67	21.40		
	RB50#0	20.48	20.59	20.40		
	RB50#50	20.39	20.47	20.37		
	RB100#0	20.38	20.51	20.40		
20MHz 16QAM	RB1#0	**21.26**	21.14	20.76	**23.64**	33
	RB1#50	20.94	20.85	20.58		
	RB1#99	21.13	21.05	20.63		
	RB50#0	19.58	19.66	19.51		
	RB50#50	19.54	19.63	19.49		
	RB100#0	19.57	19.69	19.46		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 4

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	21.26	21.35	21.29	24.03	30
	RB1#3	21.36	21.43	21.37		
	RB1#5	21.25	21.34	21.37		
	RB3#0	21.45	**21.50**	21.46		
	RB3#3	21.47	21.48	21.46		
	RB6#0	20.24	20.29	20.30		
1.4MHz 16QAM	RB1#0	20.47	20.48	20.56	23.41	30
	RB1#3	20.60	20.58	20.66		
	RB1#5	20.47	20.50	20.56		
	RB3#0	20.68	20.83	20.77		
	RB3#3	20.65	**20.88**	20.80		
	RB6#0	19.36	19.47	19.53		
3MHz QPSK	RB1#0	21.37	**21.43**	21.40	23.96	30
	RB1#8	21.35	**21.43**	21.40		
	RB1#14	21.33	21.41	21.40		
	RB6#0	20.37	20.46	20.48		
	RB6#9	20.35	20.44	20.42		
	RB15#0	20.41	20.50	20.54		
3MHz 16QAM	RB1#0	20.52	**21.14**	20.70	23.67	30
	RB1#8	20.48	**21.14**	20.68		
	RB1#14	20.53	21.12	20.67		
	RB6#0	19.51	19.67	19.60		
	RB6#9	19.49	19.65	19.59		
	RB15#0	19.68	19.74	19.59		
5MHz QPSK	RB1#0	21.46	21.49	21.40	24.03	30
	RB1#13	21.44	**21.50**	21.39		
	RB1#24	21.40	21.44	21.30		
	RB15#0	20.49	20.54	20.42		
	RB15#10	20.46	20.47	20.42		
	RB25#0	20.44	20.48	20.40		
5MHz 16QAM	RB1#0	**20.88**	20.62	20.37	23.41	30
	RB1#13	**20.88**	20.64	20.37		
	RB1#24	20.84	20.58	20.36		
	RB15#0	19.59	19.60	19.56		
	RB15#10	19.53	19.56	19.56		
	RB25#0	19.62	19.56	19.58		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	21.40	**21.48**	21.45	24.01	30
	RB1#25	21.31	21.40	21.30		
	RB1#49	21.33	21.38	21.34		
	RB25#0	20.49	20.51	20.45		
	RB25#25	20.42	20.45	20.44		
	RB50#0	20.49	20.47	20.45		
10MHz 16QAM	RB1#0	20.67	20.55	**21.07**	23.60	30
	RB1#25	20.62	20.46	20.96		
	RB1#49	20.58	20.49	21.01		
	RB25#0	19.61	19.70	19.65		
	RB25#25	19.56	19.68	19.59		
	RB50#0	19.53	19.60	19.54		
15MHz QPSK	RB1#0	**21.60**	21.57	21.46	24.13	30
	RB1#38	21.43	21.37	21.40		
	RB1#74	21.53	21.41	21.48		
	RB36#0	20.58	20.55	20.53		
	RB36#39	20.60	20.47	20.53		
	RB75#0	20.64	20.50	20.49		
15MHz 16QAM	RB1#0	21.11	**21.29**	20.81	23.82	30
	RB1#38	20.97	21.11	20.68		
	RB1#74	21.13	21.08	20.71		
	RB36#0	19.73	19.69	19.62		
	RB36#39	19.73	19.61	19.71		
	RB75#0	19.76	19.67	19.59		
20MHz QPSK	RB1#0	**21.65**	21.63	21.59	**24.18**	30
	RB1#50	21.51	21.47	21.49		
	RB1#99	21.63	21.47	21.51		
	RB50#0	20.70	20.69	20.61		
	RB50#50	20.66	20.55	20.56		
	RB100#0	20.71	20.62	20.51		
20MHz 16QAM	RB1#0	21.04	**21.41**	21.01	**23.94**	30
	RB1#50	20.83	21.18	20.92		
	RB1#99	20.99	21.17	20.98		
	RB50#0	19.79	19.78	19.71		
	RB50#50	19.83	19.66	19.73		
	RB100#0	19.90	19.74	19.64		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 5

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.44	22.45	22.16	19.09	38.45
	RB1#3	22.45	22.53	22.11		
	RB1#5	22.42	22.40	22.21		
	RB3#0	22.52	**22.54**	22.27		
	RB3#3	22.48	22.48	22.43		
	RB6#0	21.46	21.42	21.36		
1.4MHz 16QAM	RB1#0	21.54	21.68	21.49	18.37	38.45
	RB1#3	21.59	21.72	21.53		
	RB1#5	21.56	21.65	21.49		
	RB3#0	21.76	21.70	21.61		
	RB3#3	**21.82**	21.68	21.72		
	RB6#0	20.56	20.45	20.52		
3MHz QPSK	RB1#0	**22.50**	22.45	22.42	19.05	38.45
	RB1#8	22.43	22.41	22.41		
	RB1#14	22.44	22.44	22.37		
	RB6#0	21.52	21.47	21.44		
	RB6#9	21.46	21.40	21.41		
	RB15#0	21.52	21.45	21.41		
3MHz 16QAM	RB1#0	**22.16**	21.67	21.58	**18.71**	38.45
	RB1#8	22.12	21.63	21.51		
	RB1#14	22.06	21.60	21.53		
	RB6#0	20.67	20.59	20.51		
	RB6#9	20.62	20.56	20.48		
	RB15#0	20.63	20.54	20.62		
5MHz QPSK	RB1#0	**22.53**	22.51	22.51	19.08	38.45
	RB1#13	22.52	22.48	22.52		
	RB1#24	22.46	22.46	22.34		
	RB15#0	21.55	21.52	21.55		
	RB15#10	21.50	21.48	21.48		
	RB25#0	21.50	21.52	21.54		
5MHz 16QAM	RB1#0	**21.94**	21.64	21.54	18.49	38.45
	RB1#13	21.91	21.65	21.54		
	RB1#24	21.87	21.58	21.42		
	RB15#0	20.58	20.67	20.65		
	RB15#10	20.54	20.61	20.61		
	RB25#0	20.58	20.65	20.66		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	22.51	**22.56**	22.47	**19.11**	38.45
	RB1#25	22.43	22.48	22.47		
	RB1#49	22.45	22.39	22.38		
	RB25#0	21.51	21.54	21.46		
	RB25#25	21.56	21.47	21.50		
	RB50#0	21.60	21.49	21.45		
10MHz 16QAM	RB1#0	21.74	21.63	**22.15**	18.70	38.45
	RB1#25	21.64	21.53	22.11		
	RB1#49	21.69	21.47	22.06		
	RB25#0	20.67	20.75	20.60		
	RB25#25	20.66	20.65	20.66		
	RB50#0	20.67	20.58	20.53		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

LTE Band 7

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	21.00	21.26	20.86	**25.19**	33
	RB1#13	21.07	**21.31**	20.92		
	RB1#24	21.08	21.21	20.82		
	RB15#0	19.99	20.32	19.94		
	RB15#10	20.08	20.26	19.93		
	RB25#0	20.12	20.28	19.92		
5MHz 16QAM	RB1#0	20.34	20.37	19.81	24.34	33
	RB1#13	20.45	**20.46**	19.95		
	RB1#24	20.42	20.38	19.84		
	RB15#0	19.04	19.44	19.03		
	RB15#10	19.14	19.40	19.04		
	RB25#0	19.21	19.38	19.06		
10MHz QPSK	RB1#0	21.00	21.18	20.90	25.16	33
	RB1#25	21.13	**21.28**	20.82		
	RB1#49	21.10	21.18	20.84		
	RB25#0	20.11	20.33	19.93		
	RB25#25	20.13	20.28	19.89		
	RB50#0	20.10	20.30	19.90		
10MHz 16QAM	RB1#0	20.08	20.80	20.06	**24.74**	33
	RB1#25	20.18	**20.86**	20.08		
	RB1#49	20.12	20.79	20.05		
	RB25#0	19.29	19.46	18.98		
	RB25#25	19.26	19.41	18.97		
	RB50#0	19.22	19.37	18.97		
15MHz QPSK	RB1#0	20.97	21.14	20.88	25.14	33
	RB1#38	21.13	**21.26**	20.84		
	RB1#74	21.12	21.17	20.86		
	RB36#0	20.10	20.25	19.93		
	RB36#39	20.21	20.18	19.89		
	RB75#0	20.08	20.19	19.87		
15MHz 16QAM	RB1#0	20.18	20.67	20.43	24.62	33
	RB1#38	20.33	**20.74**	20.52		
	RB1#74	20.31	20.65	20.47		
	RB36#0	19.18	19.37	19.03		
	RB36#39	19.31	19.28	19.01		
	RB75#0	19.20	19.31	19.00		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
20MHz QPSK	RB1#0	20.90	21.17	20.92	25.15	33
	RB1#50	21.05	**21.27**	20.94		
	RB1#99	21.01	21.09	20.88		
	RB50#0	20.14	20.26	19.93		
	RB50#50	20.21	20.18	19.86		
	RB100#0	20.21	20.27	19.90		
20MHz 16QAM	RB1#0	20.60	20.53	20.23	24.57	33
	RB1#50	**20.69**	20.66	20.17		
	RB1#99	20.66	20.48	20.10		
	RB50#0	19.20	19.36	18.98		
	RB50#50	19.25	19.28	18.95		
	RB100#0	19.24	19.30	18.96		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 38

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	21.01	21.23	20.88	**25.14**	33
	RB1#13	21.08	**21.34**	20.97		
	RB1#24	21.07	21.21	20.84		
	RB15#0	20.04	20.19	19.93		
	RB15#10	20.03	20.24	19.88		
	RB25#0	20.08	20.21	19.91		
5MHz 16QAM	RB1#0	20.12	20.54	20.02	**24.40**	33
	RB1#13	20.22	**20.60**	20.11		
	RB1#24	20.18	20.51	19.99		
	RB15#0	19.13	19.30	18.96		
	RB15#10	19.18	19.37	19.04		
	RB25#0	19.28	19.32	19.00		
10MHz QPSK	RB1#0	21.05	**21.20**	21.08	25.00	33
	RB1#25	21.12	21.19	20.95		
	RB1#49	21.09	21.11	20.89		
	RB25#0	20.14	20.28	20.08		
	RB25#25	20.15	20.23	19.96		
	RB50#0	20.09	20.23	20.07		
10MHz 16QAM	RB1#0	20.19	20.49	20.07	24.30	33
	RB1#25	20.32	**20.50**	19.94		
	RB1#49	20.26	20.44	19.90		
	RB25#0	19.21	19.37	19.18		
	RB25#25	19.20	19.31	19.13		
	RB50#0	19.25	19.30	19.16		
15MHz QPSK	RB1#0	21.02	21.18	21.03	25.10	33
	RB1#38	21.12	**21.30**	21.05		
	RB1#74	21.15	21.07	20.85		
	RB36#0	20.05	20.23	20.01		
	RB36#39	20.12	20.20	20.03		
	RB75#0	20.07	20.18	20.01		
15MHz 16QAM	RB1#0	20.03	20.47	20.33	24.37	33
	RB1#38	20.13	**20.57**	20.36		
	RB1#74	20.17	20.39	20.20		
	RB36#0	19.19	19.40	19.10		
	RB36#39	19.20	19.35	19.13		
	RB75#0	19.17	19.27	19.10		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
20MHz QPSK	RB1#0	20.98	21.13	21.14	25.02	33
	RB1#50	21.13	**21.22**	21.16		
	RB1#99	21.08	21.00	20.89		
	RB50#0	20.11	20.28	20.04		
	RB50#50	20.16	20.20	19.98		
	RB100#0	20.23	20.22	20.09		
20MHz 16QAM	RB1#0	20.16	20.21	20.46	24.28	33
	RB1#50	20.28	20.30	**20.48**		
	RB1#99	20.27	20.08	20.24		
	RB50#0	19.18	19.39	19.15		
	RB50#50	19.21	19.37	19.13		
	RB100#0	19.26	19.29	19.14		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

LTE Band 40 Lower:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	19.32	19.18	19.27	23.45	24
	RB1#13	19.12	19.28	19.17		
	RB1#24	**19.33**	19.22	19.26		
	RB15#0	19.00	19.05	18.97		
	RB15#10	19.02	18.97	18.98		
	RB25#0	18.99	19.01	19.00		
5MHz 16QAM	RB1#0	19.05	9.16	19.10	23.44	24
	RB1#13	19.29	**19.32**	19.22		
	RB1#24	19.14	19.25	19.09		
	RB15#0	18.13	18.12	18.02		
	RB15#10	18.14	18.11	18.04		
	RB25#0	18.10	18.10	18.08		
10MHz QPSK	RB1#0	/	19.13	/	**23.60**	24
	RB1#25	/	**19.48**	/		
	RB1#49	/	19.28	/		
	RB25#0	/	19.05	/		
	RB25#25	/	19.01	/		
	RB50#0	/	18.98	/		
10MHz 16QAM	RB1#0	/	19.29	/	**23.56**	24
	RB1#25	/	**19.44**	/		
	RB1#49	/	19.01	/		
	RB25#0	/	19.23	/		
	RB25#25	/	19.21	/		
	RB50#0	/	19.08	/		

Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)
For 5MHz mode, the channel power is equal to the test result in dBm/5MHz
For 10MHz mode, the channel power is sum of 10MHz bandwidth, the result is less than 24dBm, so in any 5MHz bandwidth, it will not exceed the limit.

LTE Band 40 Upper:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	**19.34**	19.27	19.32	23.46	24
	RB1#13	19.32	19.31	19.16		
	RB1#24	19.33	19.23	19.34		
	RB15#0	19.34	19.27	19.32		
	RB15#10	19.25	19.33	19.28		
	RB25#0	19.32	19.32	19.32		
5MHz 16QAM	RB1#0	19.31	19.30	**19.35**	23.47	24
	RB1#13	19.29	19.31	19.33		
	RB1#24	19.22	19.33	18.92		
	RB15#0	18.43	18.34	18.54		
	RB15#10	18.47	18.40	18.52		
	RB25#0	18.39	18.44	18.59		
10MHz QPSK	RB1#0	/	**19.37**	/	**23.49**	24
	RB1#25	/	19.35	/		
	RB1#49	/	19.32	/		
	RB25#0	/	19.36	/		
	RB25#25	/	19.33	/		
	RB50#0	/	19.34	/		
10MHz 16QAM	RB1#0	/	19.31	/	**23.48**	24
	RB1#25	/	**19.36**	/		
	RB1#49	/	19.29	/		
	RB25#0	/	18.46	/		
	RB25#25	/	18.50	/		
	RB50#0	/	18.47	/		

Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)
For 5MHz mode, the channel power is equal to the test result in dBm/5MHz
For 10MHz mode, the channel power is sum of 10MHz bandwidth, the result is less than 24dBm, so in any 5MHz bandwidth, it will not exceed the limit.

LTE Band 41

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	21.24	21.29	21.37	25.31	33
	RB1#13	21.30	21.37	**21.43**		
	RB1#24	21.17	21.19	21.27		
	RB15#0	20.17	20.16	20.38		
	RB15#10	20.15	20.18	20.40		
	RB25#0	20.16	20.21	20.36		
5MHz 16QAM	RB1#0	20.39	20.64	20.47	24.55	33
	RB1#13	20.40	**20.67**	20.54		
	RB1#24	20.28	20.54	20.39		
	RB15#0	19.31	19.41	19.41		
	RB15#10	19.34	19.32	19.44		
	RB25#0	19.32	19.31	19.48		
10MHz QPSK	RB1#0	21.33	21.26	**21.46**	25.34	33
	RB1#25	21.20	21.22	21.36		
	RB1#49	21.14	21.17	21.39		
	RB25#0	20.26	20.30	20.44		
	RB25#25	20.15	20.22	20.36		
	RB50#0	20.19	20.27	20.43		
10MHz 16QAM	RB1#0	20.48	**20.58**	20.44	24.46	33
	RB1#25	20.42	20.52	20.35		
	RB1#49	20.31	20.47	20.35		
	RB25#0	19.39	19.38	19.52		
	RB25#25	19.28	19.29	19.46		
	RB50#0	19.32	19.35	19.52		
15MHz QPSK	RB1#0	21.32	21.38	**21.48**	25.36	33
	RB1#38	21.20	21.20	21.36		
	RB1#74	21.23	21.10	21.32		
	RB36#0	20.23	20.28	20.42		
	RB36#39	20.19	20.14	20.30		
	RB75#0	20.27	20.18	20.32		
15MHz 16QAM	RB1#0	20.62	**20.64**	20.49	24.52	33
	RB1#38	20.46	20.50	20.37		
	RB1#74	20.45	20.44	20.31		
	RB36#0	19.39	19.39	19.47		
	RB36#39	19.37	19.24	19.39		
	RB75#0	19.37	19.24	19.48		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
20MHz QPSK	RB1#0	21.32	**21.50**	21.49	**25.38**	33
	RB1#50	21.26	21.33	21.36		
	RB1#99	21.14	21.24	21.30		
	RB50#0	20.34	20.37	20.47		
	RB50#50	20.22	20.17	20.42		
	RB100#0	20.28	20.31	20.46		
20MHz 16QAM	RB1#0	20.44	**20.80**	20.65	**24.68**	33
	RB1#50	20.29	20.61	20.54		
	RB1#99	20.17	20.56	20.46		
	RB50#0	19.49	19.45	19.61		
	RB50#50	19.33	19.34	19.45		
	RB100#0	19.39	19.38	19.51		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						

Peak-to-average ratio (PAR)

Cellular Band

GSM 850

Test Mode	Peak-to-average Ratio(dB)			Limit (dB)
	Lowest Channel	Middle Channel	Highest Channel	
GSM	2.59	2.62	2.51	13
EDGE	2.77	2.62	2.80	13

WCDMA Band 5

Test Mode	Peak-to-average Ratio(dB)			Limit (dB)
	Lowest Channel	Middle Channel	Highest Channel	
WCDMA R99	3.33	3.33	3.16	13

PCS Band

PCS1900

Test Mode	Peak-to-average Ratio(dB)			Limit (dB)
	Lowest Channel	Middle Channel	Highest Channel	
GSM	2.65	2.54	2.57	13
EDGE	2.83	2.88	2.68	13

WCDMA Band 2

Test Mode	Peak-to-average Ratio(dB)			Limit (dB)
	Lowest Channel	Middle Channel	Highest Channel	
WCDMA R99	3.22	3.25	3.22	13

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

LTE Band 2 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	3.83	3.71	3.71	13
	RB100#0	4.61	4.7	4.43	13
20MHz 16QAM	RB1#0	5.62	5.3	5.59	13
	RB100#0	6	6.06	5.91	13

LTE Band 4 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	3.77	3.83	3.83	13
	RB100#0	4.75	4.78	4.55	13
20MHz 16QAM	RB1#0	5.65	5.74	5.71	13
	RB100#0	6.2	6.2	5.97	13

LTE Band 5 10MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	3.68	3.68	3.71	13
	RB50#0	4.81	4.84	4.75	13
10MHz 16QAM	RB1#0	5.57	5.54	5.68	13
	RB50#0	6.09	6.09	6.06	13

LTE Band 7 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	3.68	3.65	3.45	13
	RB100#0	4.41	4.46	4.43	13
20MHz 16QAM	RB1#0	5.57	5.54	4.99	13
	RB100#0	5.71	5.83	5.74	13

LTE Band 38 20MHz Bandwidth

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	7.88	7.8	7.8	13
	RB100#0	8.49	8.52	8.52	13
20MHz 16QAM	RB1#0	9.65	9.57	9.48	13
	RB100#0	9.83	9.86	9.86	13

LTE Band 41 20MHz Bandwidth

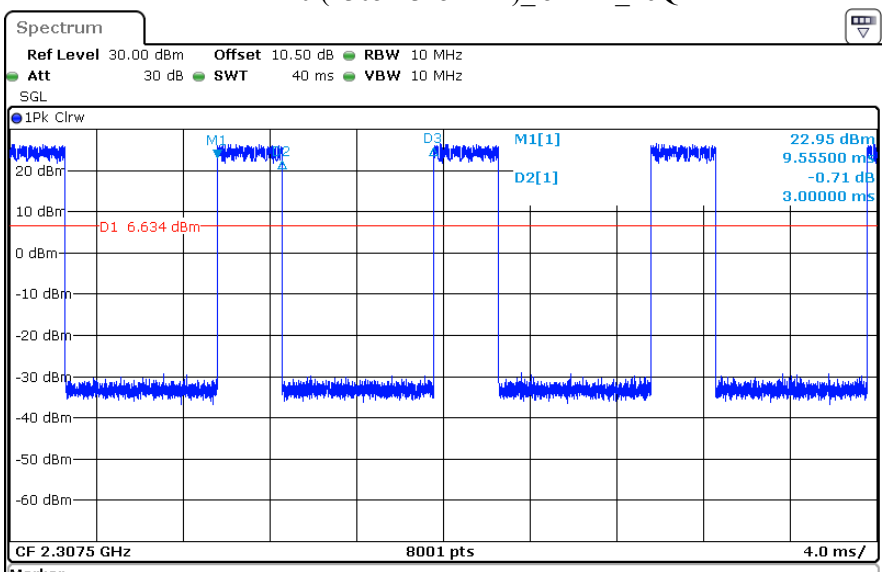
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	7.74	7.83	7.77	13
	RB100#0	8.41	8.52	8.46	13
20MHz 16QAM	RB1#0	9.42	9.59	9.3	13
	RB100#0	9.74	9.86	9.8	13

LTE Band 40 Duty Cycle

Operation Band	Modulation	Bandwidth	Ton (ms)	Ton+off (ms)	Duty Cycle (%)	Limit (%)
LTE Band 40 Lower	QPSK	5M	3	10.005	29.99	38
		10M	3	10.005	29.99	38
	16QAM	5M	3	10.005	29.99	38
		10M	3	10.005	29.99	38
LTE Band 40 Upper	QPSK	5M	3	10.005	29.99	38
		10M	3	10.005	29.99	38
	16QAM	5M	3	10.005	29.99	38
		10M	3	10.005	29.99	38

LTE Band 40 Duty Cycle:

LTE Band 40 (2305-2315MHz)_ 5MHz_16QAM



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	9.555 ms	22.95 dBm		
D2	M1	1	3.0 ms	-0.71 dB		
D3	M1	1	10.005 ms	2.62 dB		

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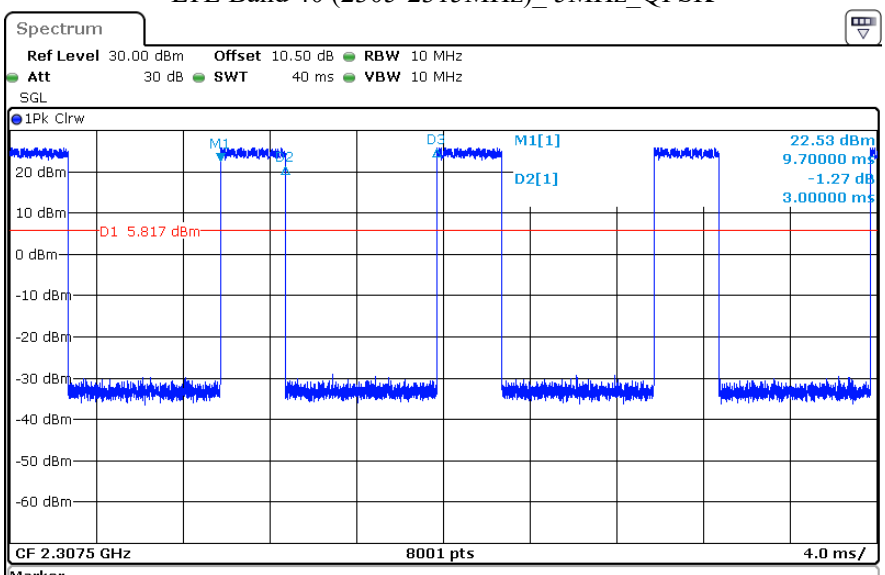
LTE Band 40 (2305-2315MHz)_ 5MHz_QPSK



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	9.7 ms	22.53 dBm		
D2	M1	1	3.0 ms	-1.27 dB		
D3	M1	1	10.005 ms	3.00 dB		

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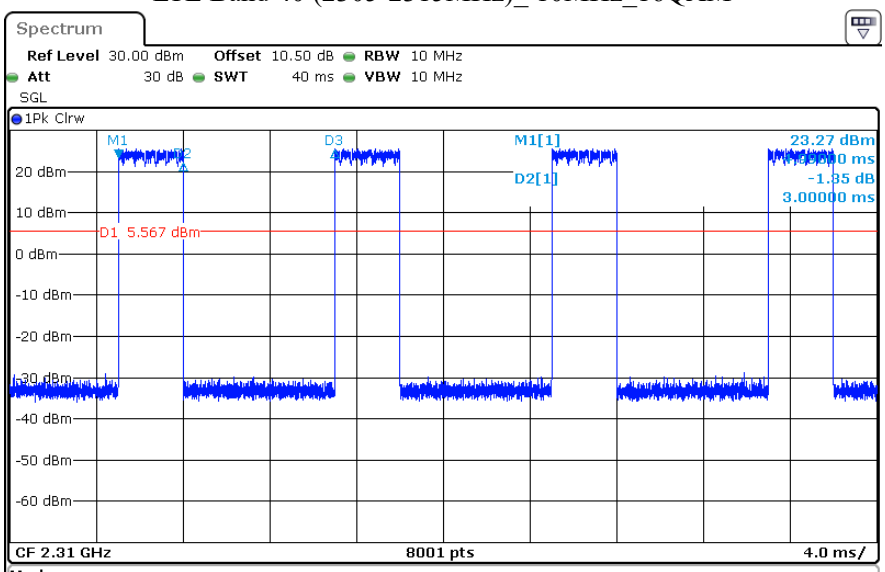
LTE Band 40 (2305-2315MHz)_ 10MHz_16QAM



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	4.99 ms	23.27 dBm		
D2	M1	1	3.0 ms	-1.35 dB		
D3	M1	1	10.005 ms	1.85 dB		

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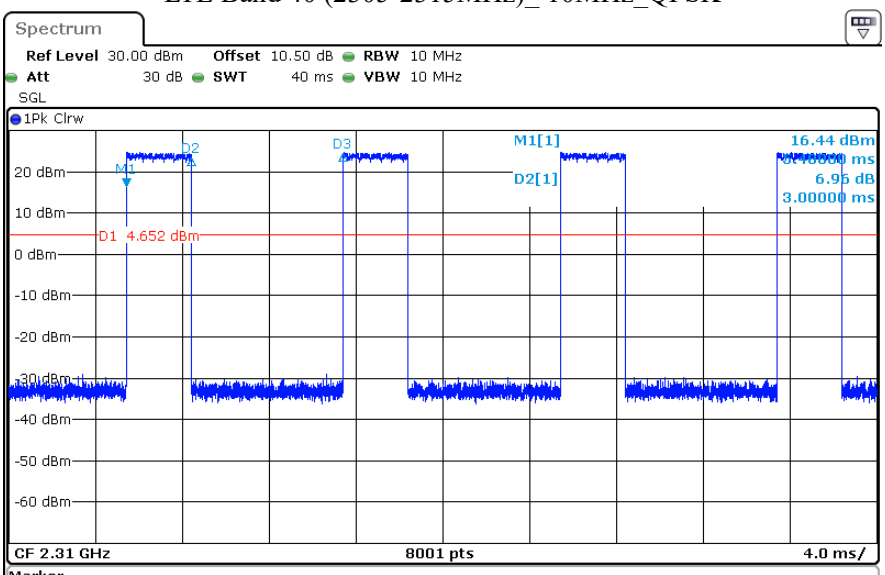
LTE Band 40 (2305-2315MHz)_ 10MHz_QPSK



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.4 ms	16.44 dBm		
D2	M1	1	3.0 ms	6.96 dB		
D3	M1	1	10.005 ms	8.09 dB		

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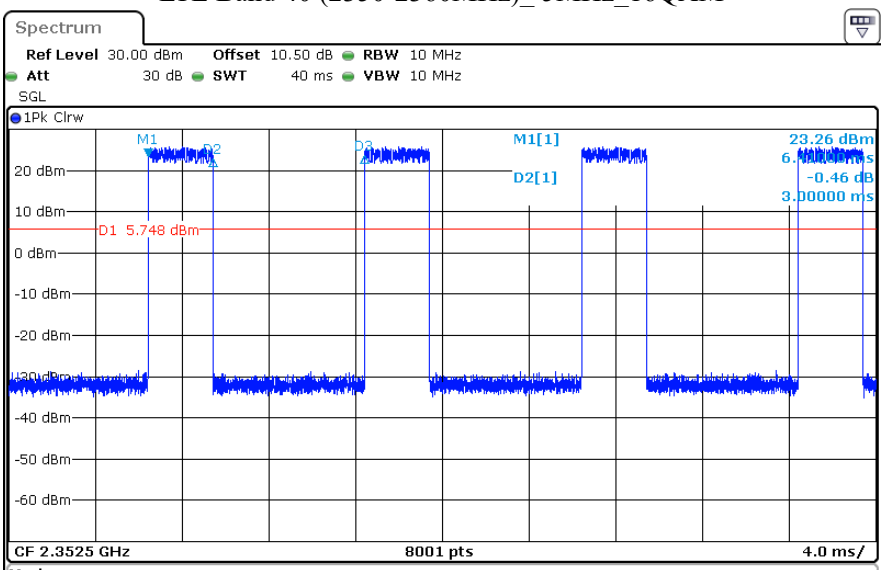
LTE Band 40 (2350-2360MHz)_ 5MHz_16QAM



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Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	6.41 ms	23.26 dBm		
D2	M1	1	3.0 ms	-0.46 dB		
D3	M1	1	10.005 ms	0.37 dB		

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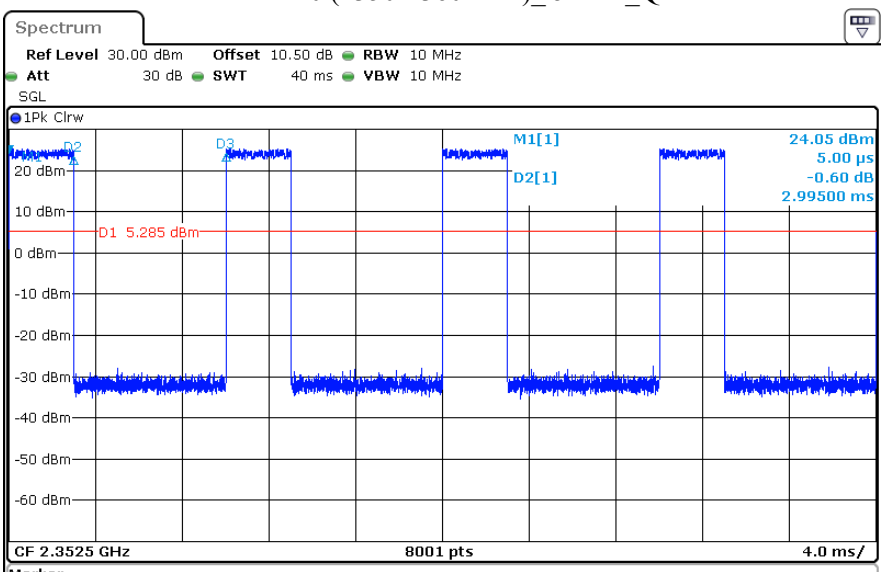
LTE Band 40 (2350-2360MHz)_ 5MHz_QPSK



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.0 µs	24.05 dBm		
D2	M1	1	2.995 ms	-0.60 dB		
D3	M1	1	10.005 ms	-0.01 dB		

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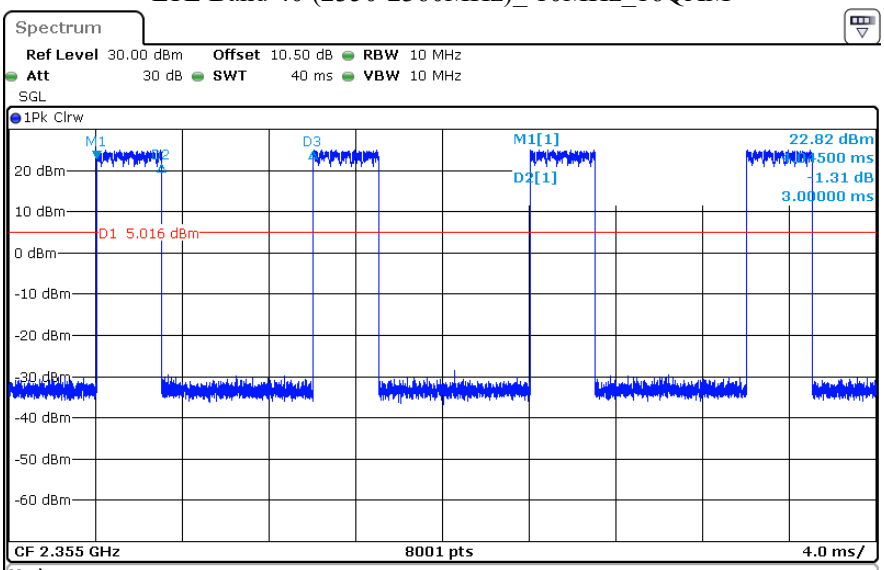
LTE Band 40 (2350-2360MHz)_ 10MHz_16QAM



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	4.045 ms	22.82 dBm		
D2	M1	1	3.0 ms	-1.31 dB		
D3	M1	1	10.005 ms	1.82 dB		

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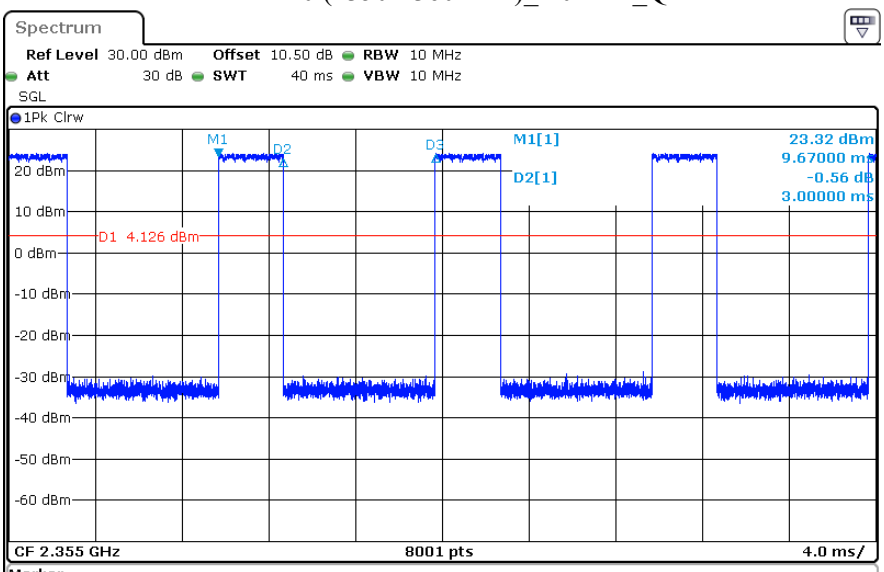
LTE Band 40 (2350-2360MHz)_ 10MHz_QPSK



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	9.67 ms	23.32 dBm		
D2	M1	1	3.0 ms	-0.56 dB		
D3	M1	1	10.005 ms	0.61 dB		

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

Applicable Standard

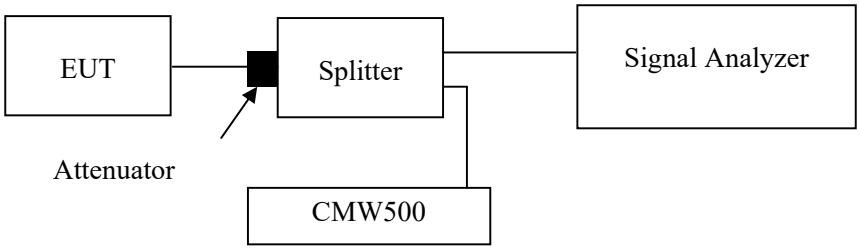
FCC 47 §2.1049, §22.917, §22.905, §24.238 and §27.53.

Test Procedure

ANSI C63.26-2015 Section 5.4.4

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:	22~24.8 °C
Relative Humidity:	25~61 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan from 2024-03-29 to 2024-04-04.

EUT operation mode: Transmitting

Test Result: Compliant

Please refer to the following tables and plots.

Cellular Band (Part 22H)

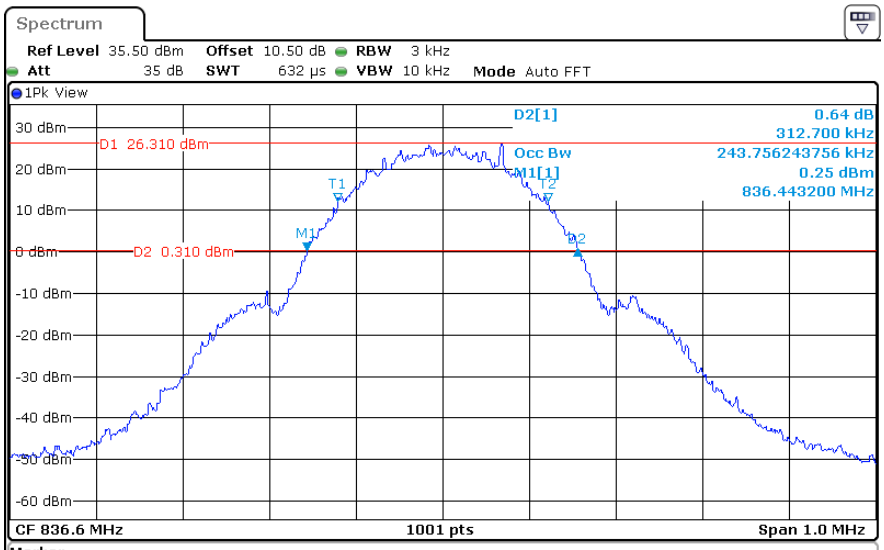
Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
GSM 850		
GSM	0.244	0.313
EDGE	0.243	0.314
WCDMA Band5		
WCDMA R99	4.126	4.695

PCS Band (Part 24E)

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
PCS1900		
GSM	0.245	0.313
EDGE	0.244	0.314
WCDMA Band2		
WCDMA R99	4.126	4.695

Cellular Band

GSM(GMSK) Mode, Middle channel



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.4432 MHz	0.25 dBm		
T1		1	836.478122 MHz	12.13 dBm	Occ Bw	243.756243756 kHz
T2		1	836.721878 MHz	12.20 dBm		
D2	M1	1	312.7 kHz	0.64 dB		

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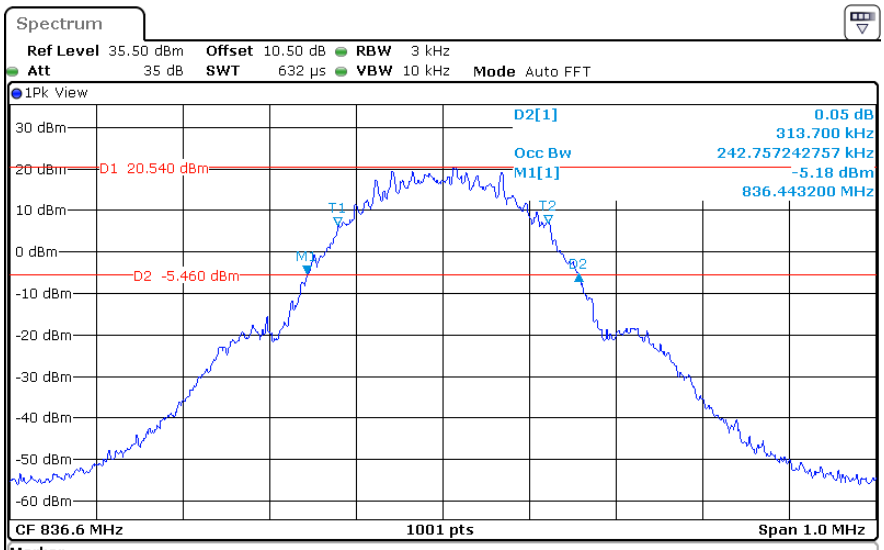
EDGE(8PSK) Mode, Middle channel



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.4432 MHz	-5.18 dBm		
T1		1	836.479121 MHz	6.29 dBm	Occ Bw	242.757242757 kHz
T2		1	836.721878 MHz	6.92 dBm		
D2	M1	1	313.7 kHz	0.05 dB		

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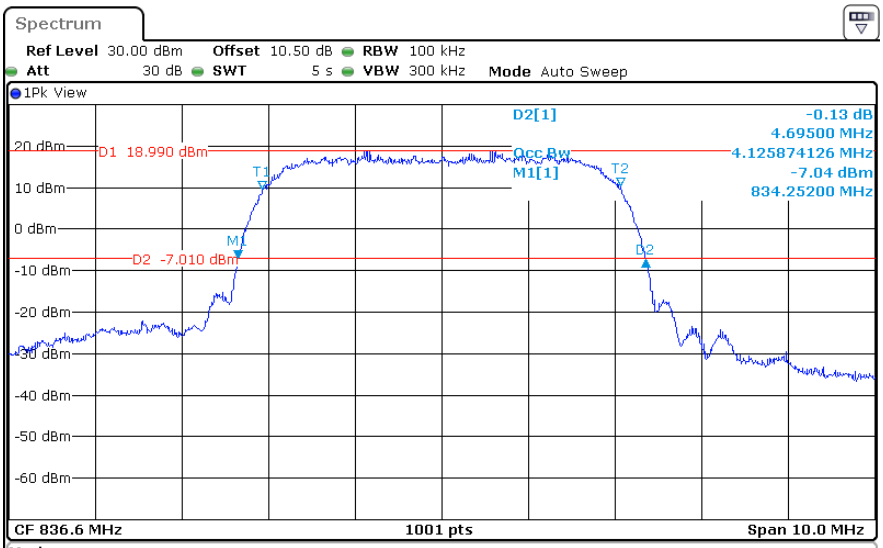
RMC (BPSK) Mode, Middle channel



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	834.252 MHz	-7.04 dBm		
T1		1	834.53207 MHz	9.60 dBm	Occ Bw	4.125874126 MHz
T2		1	838.65794 MHz	10.37 dBm		
D2	M1	1	4.695 MHz	-0.13 dB		

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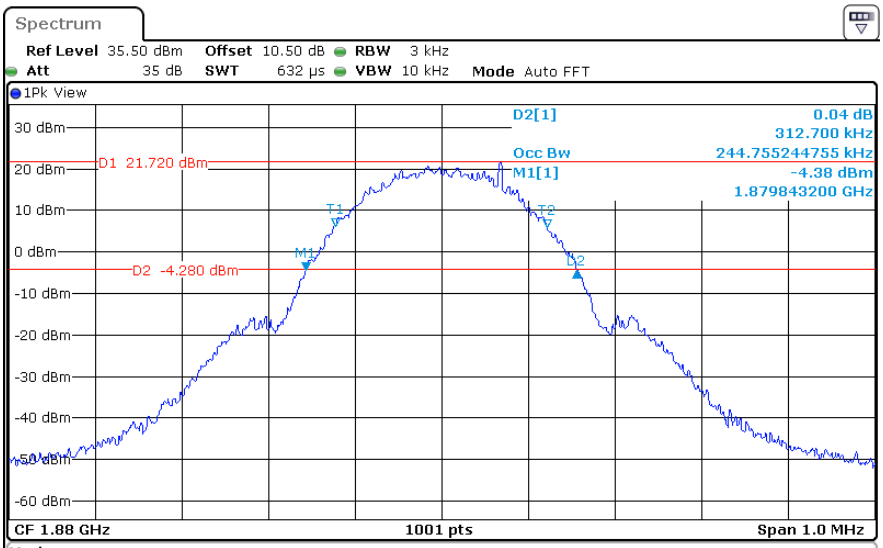
PCS Band

GSM(GMSK) Mode, Middle channel



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.8798432 GHz	-4.38 dBm		
T1		1	1.87987712 GHz	6.12 dBm	Occ Bw	244.755244755 kHz
T2		1	1.88012188 GHz	5.89 dBm		
D2	M1	1	312.7 kHz	0.04 dB		

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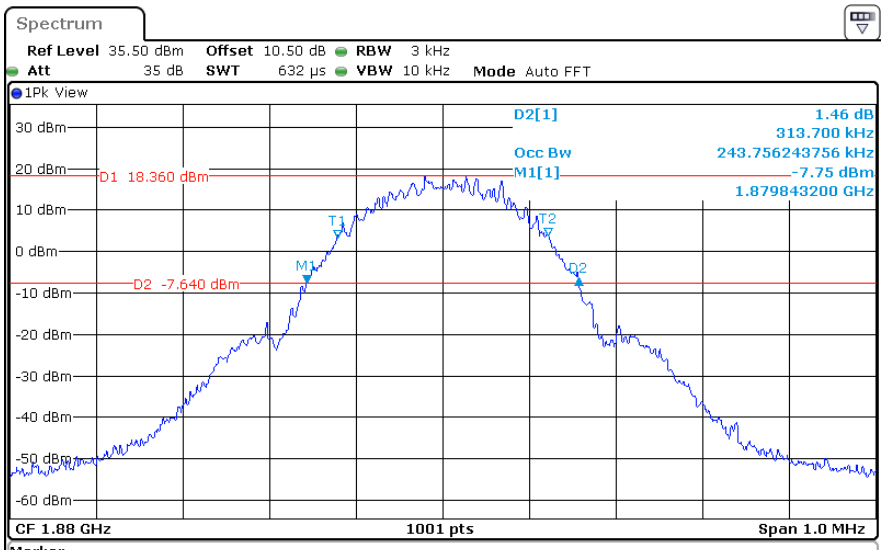
Date: 4.APR.2024 16:40:38

EDGE(8PSK) Mode, Middle channel



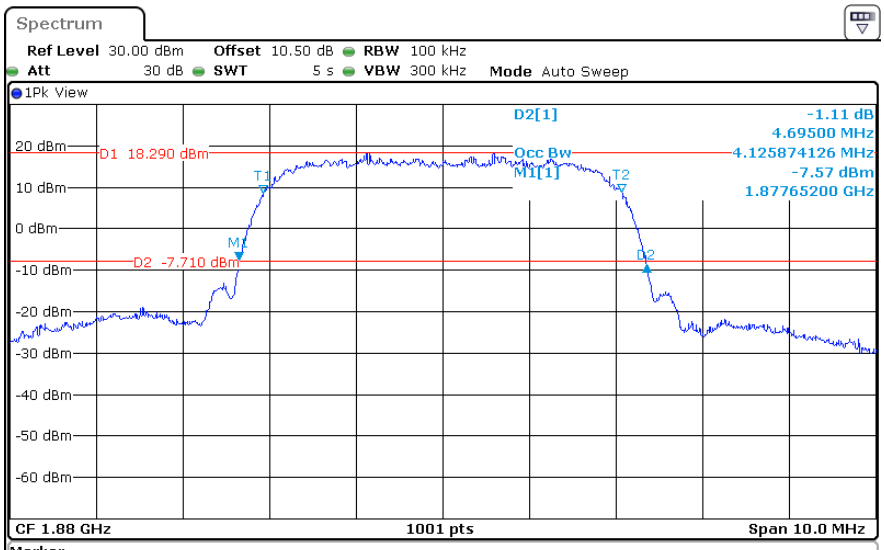
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.8798432 GHz	-7.75 dBm		
T1		1	1.87987812 GHz	3.13 dBm	Occ Bw	243.756243756 kHz
T2		1	1.88012188 GHz	3.67 dBm		
D2	M1	1	313.7 kHz	1.46 dB		

ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:59:18

RMC (BPSK) Mode, Middle channel



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.877652 GHz	-7.57 dBm		
T1		1	1.8779321 GHz	8.62 dBm	Occ Bw	4.125874126 MHz
T2		1	1.8820579 GHz	8.83 dBm		
D2	M1	1	4.695 MHz	-1.11 dB		

ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:07:48

LTE Band 2

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
1.4MHz QPSK	1.096	1.254
1.4MHz 16QAM	1.090	1.236
3MHz QPSK	2.683	2.940
3MHz 16QAM	2.683	2.964
5MHz QPSK	4.531	5.020
5MHz 16QAM	4.511	5.000
10MHz QPSK	8.942	9.760
10MHz 16QAM	8.942	9.720
15MHz QPSK	13.473	14.820
15MHz 16QAM	13.473	14.760
20MHz QPSK	17.884	19.280
20MHz 16QAM	17.964	19.200

LTE Band 4

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
1.4MHz QPSK	1.102	1.236
1.4MHz 16QAM	1.096	1.248
3MHz QPSK	2.695	2.952
3MHz 16QAM	2.695	2.964
5MHz QPSK	4.511	4.980
5MHz 16QAM	4.531	5.020
10MHz QPSK	8.942	9.720
10MHz 16QAM	8.942	9.720
15MHz QPSK	13.413	14.640
15MHz 16QAM	13.533	14.700
20MHz QPSK	17.884	19.440
20MHz 16QAM	17.964	19.360

LTE Band 5

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
1.4MHz QPSK	1.096	1.248
1.4MHz 16QAM	1.096	1.254
3MHz QPSK	2.695	2.940
3MHz 16QAM	2.683	2.952
5MHz QPSK	4.511	5.000
5MHz 16QAM	4.511	5.000
10MHz QPSK	8.942	9.800
10MHz 16QAM	8.942	9.640

LTE Band 7:

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
5MHz QPSK	4.511	5.000
5MHz 16QAM	4.511	5.000
10MHz QPSK	8.942	9.680
10MHz 16QAM	8.942	9.640
15MHz QPSK	13.473	14.760
15MHz 16QAM	13.473	14.700
20MHz QPSK	17.964	19.440
20MHz 16QAM	17.884	19.360

LTE Band 38

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
5MHz QPSK	4.511	4.940
5MHz 16QAM	4.511	4.980
10MHz QPSK	8.942	9.760
10MHz 16QAM	8.942	9.560
15MHz QPSK	13.413	14.760
15MHz 16QAM	13.413	14.700
20MHz QPSK	17.884	19.120
20MHz 16QAM	17.884	19.360

LTE Band 40 Lower:

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
5MHz QPSK	4.511	4.940
5MHz 16QAM	4.511	5.000
10MHz QPSK	8.942	9.640
10MHz 16QAM	8.942	9.600

LTE Band 40 Upper:

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
5MHz QPSK	4.511	5.160
5MHz 16QAM	4.511	5.040
10MHz QPSK	8.942	9.760
10MHz 16QAM	8.942	9.560

LTE Band 41

Operation Mode	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
	Middle channel	Middle Channel
5MHz QPSK	4.511	4.960
5MHz 16QAM	4.511	5.000
10MHz QPSK	8.942	9.760
10MHz 16QAM	8.942	9.560
15MHz QPSK	13.413	14.700
15MHz 16QAM	13.473	14.580
20MHz QPSK	17.884	19.360
20MHz 16QAM	17.884	19.280

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

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

Applicable Standard

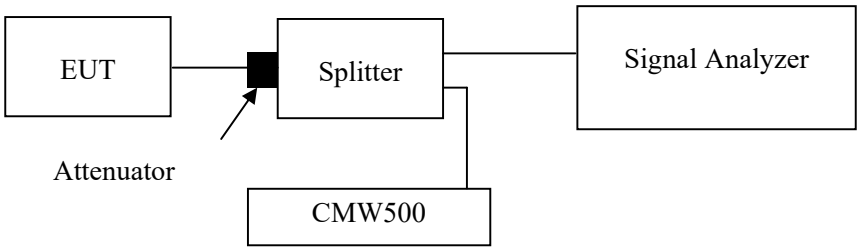
FCC §2.1051, §22.917(a) & §24.238(a) & §27.53.

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

Test Procedure

ANSI C63.26-2015 Section 5.7

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



Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range was added into plots.

Test Data

Environmental Conditions

Temperature:	22~24.8 °C
Relative Humidity:	25~61 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan from 2024-03-29 to 2024-04-04.

EUT operation mode: Transmitting

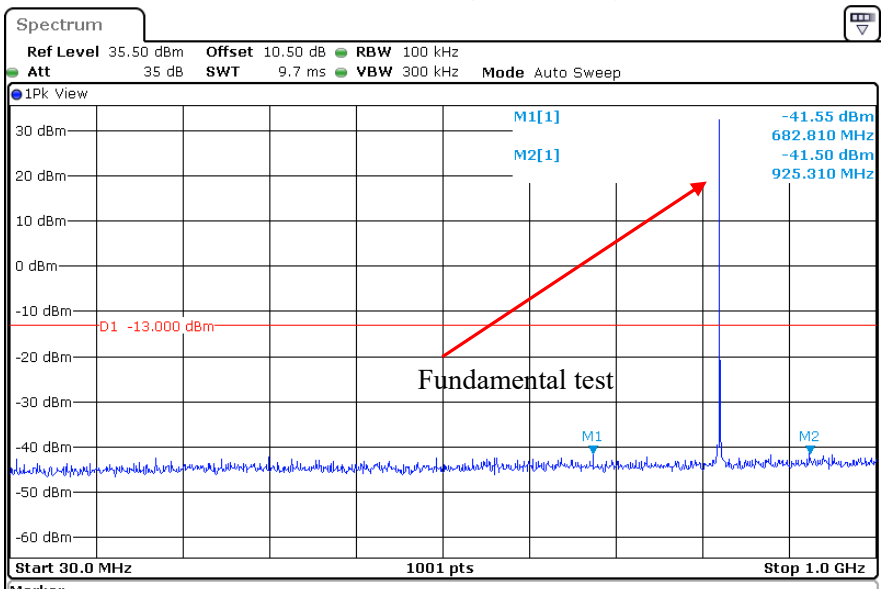
Test result: Compliant

Please refer to the following plots.

Cellular Band

Low Channel:

30 MHz – 1GHz (GSM Mode)



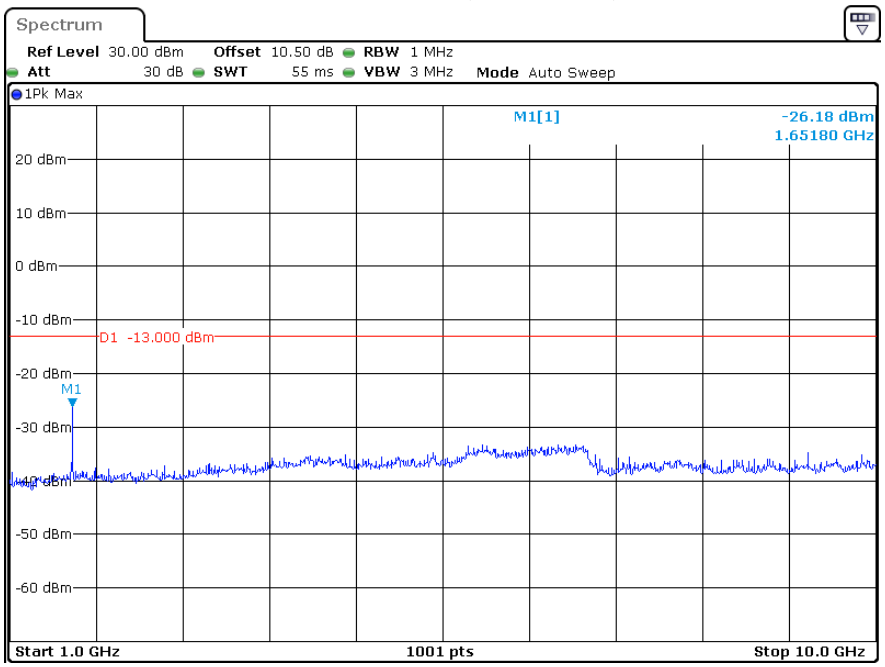
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	682.81 MHz	-41.55 dBm		
M2		1	925.31 MHz	-41.50 dBm		

ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:03:22

1GHz – 10GHz (GSM Mode)

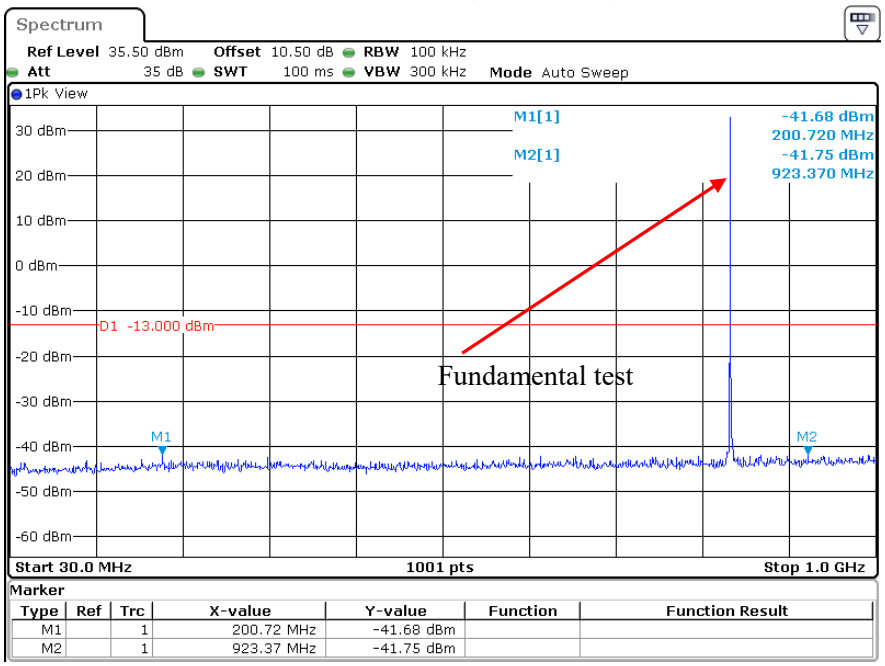


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:03:43

Middle Channel:

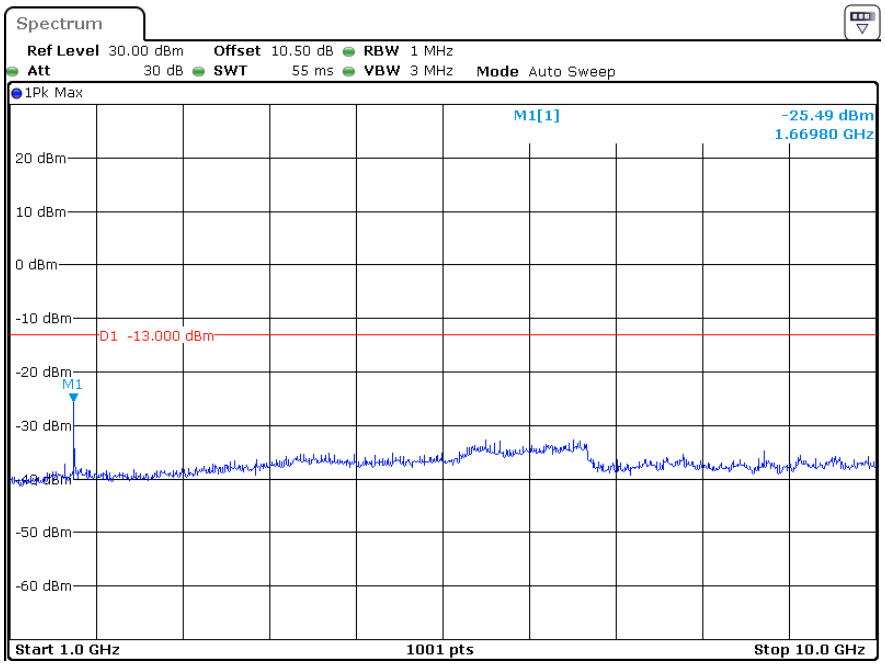
30 MHz – 1GHz (GSM Mode)



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:07:43

1GHz – 10GHz (GSM Mode)

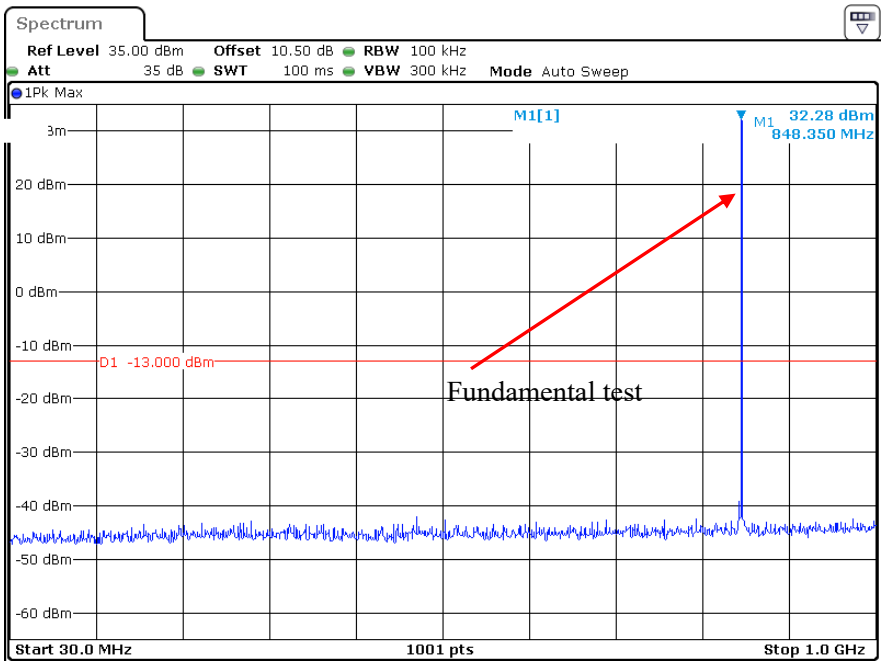


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:08:04

High Channel:

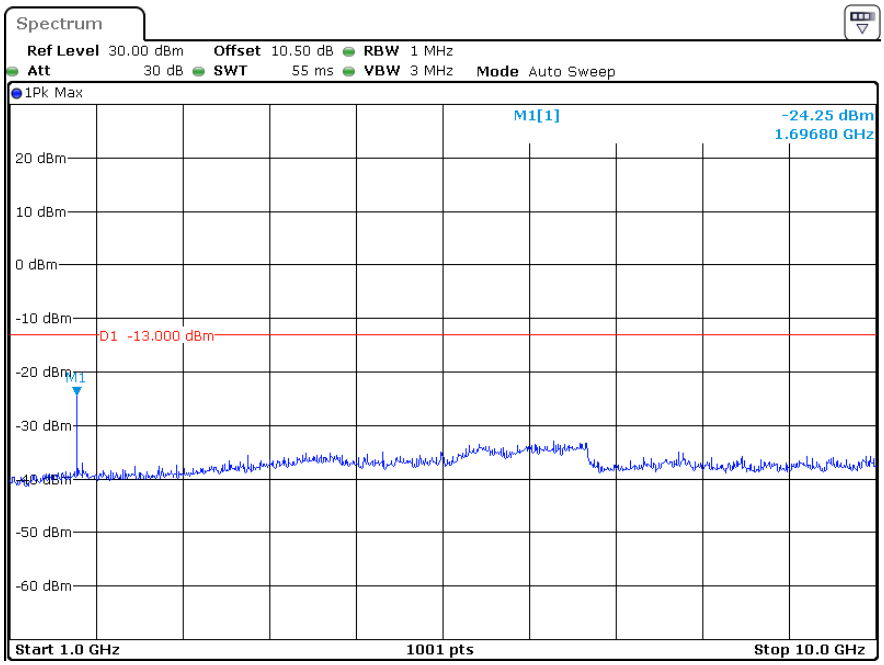
30 MHz – 10GHz (GSM Mode)



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:10:14

1GHz – 10GHz (GSM Mode)

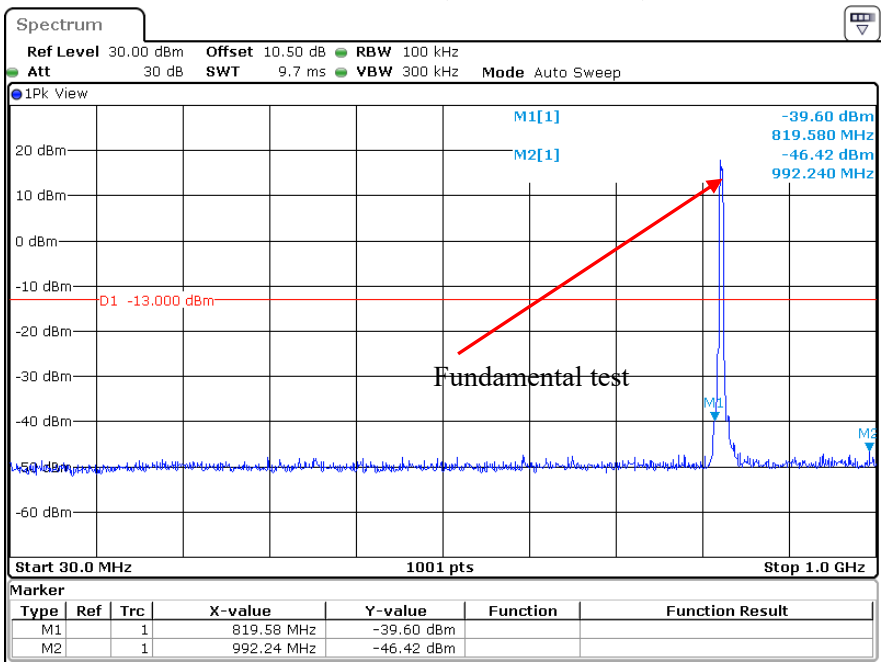


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:10:35

Low Channel:

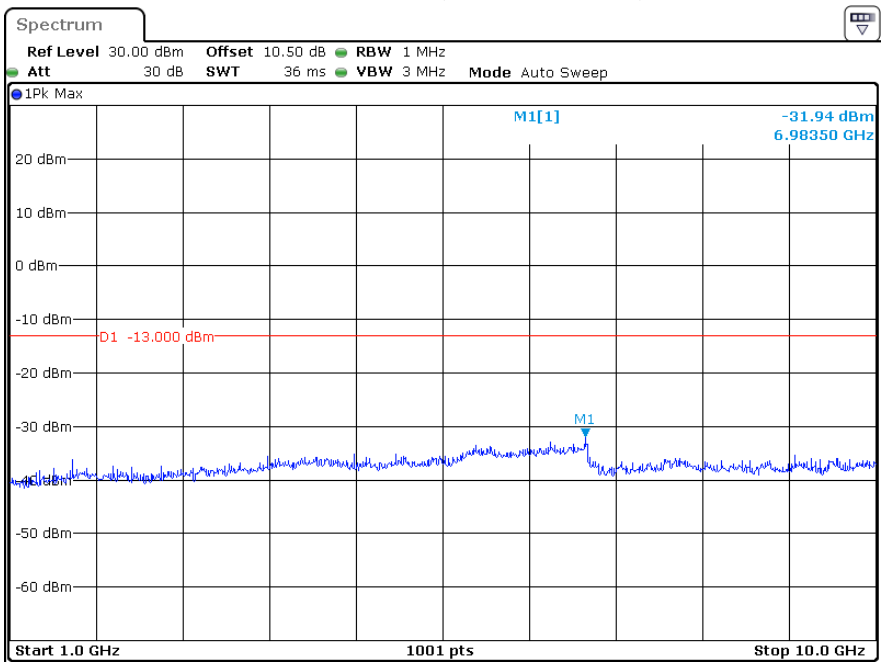
30 MHz – 1GHz (WCDMA Mode)



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:47:56

1GHz – 10GHz (WCDMA Mode)

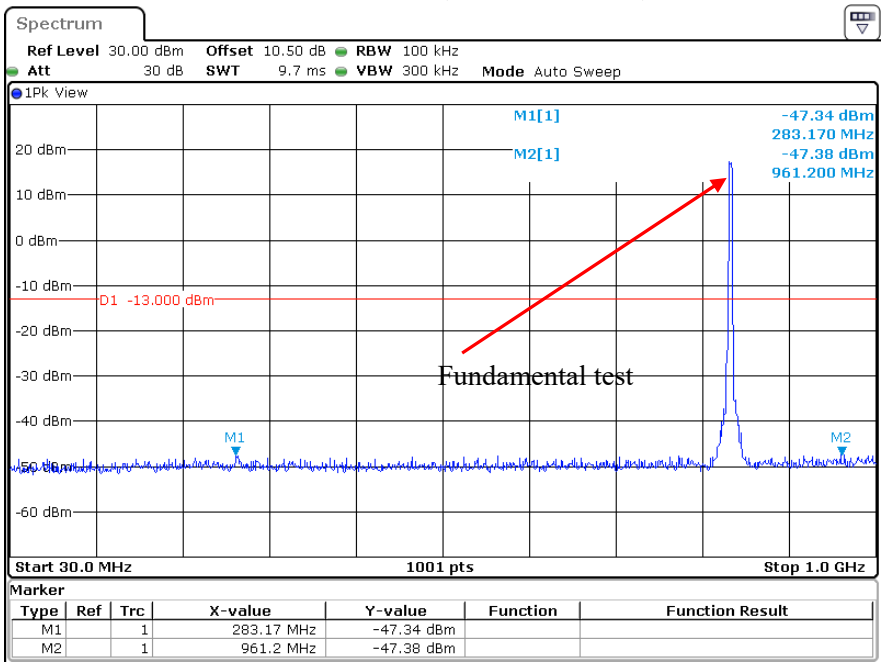


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:48:18

Middle Channel:

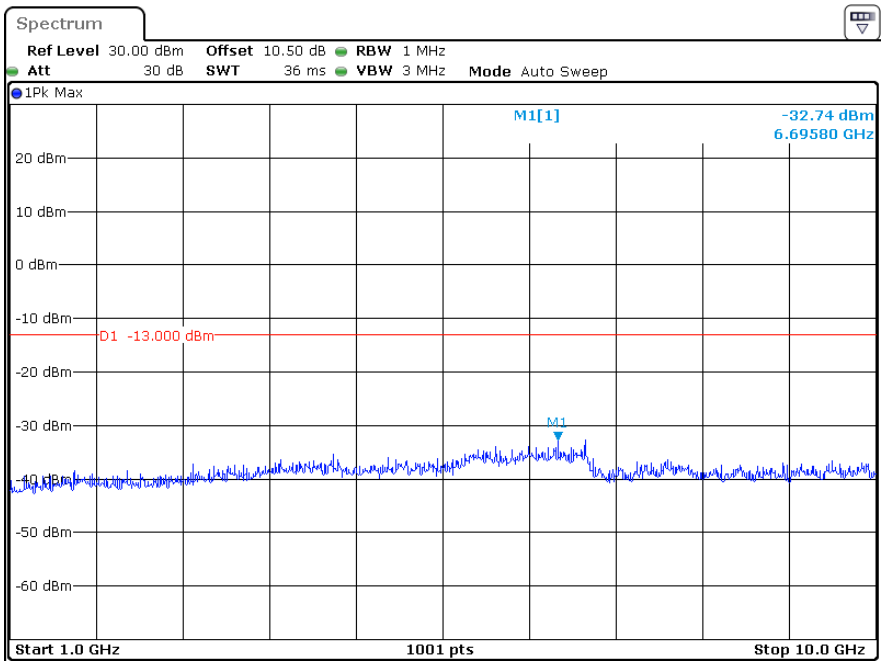
30 MHz – 1GHz (WCDMA Mode)



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:45:32

1GHz – 10GHz (WCDMA Mode)

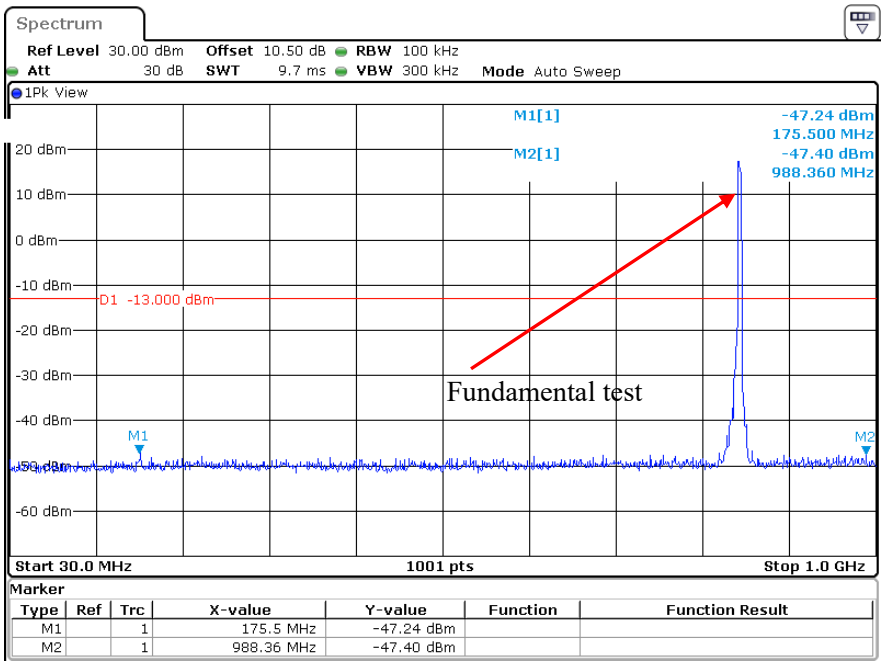


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:45:42

High Channel:

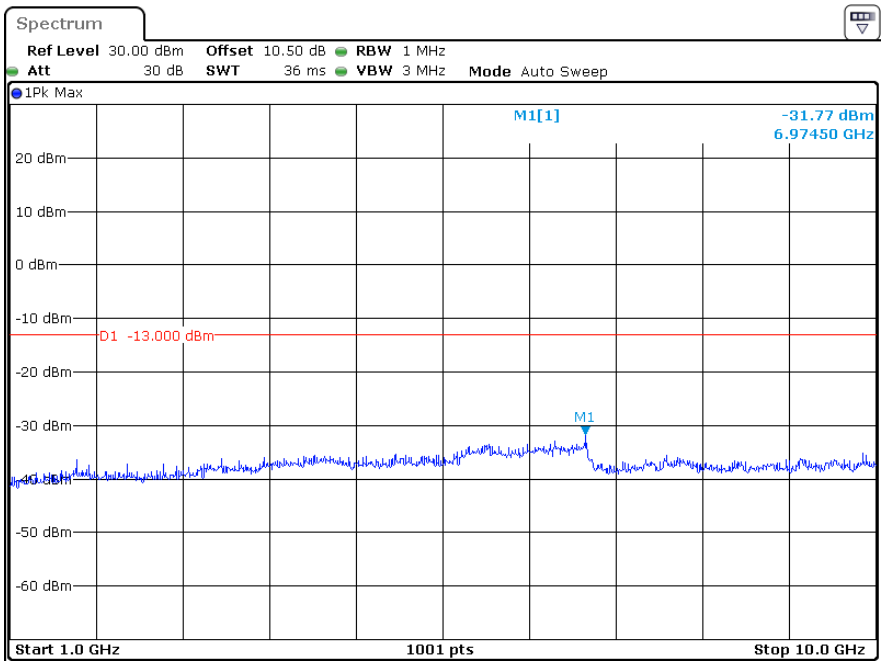
30 MHz – 10GHz (WCDMA Mode)



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:43:04

1GHz – 10GHz (WCDMA Mode)



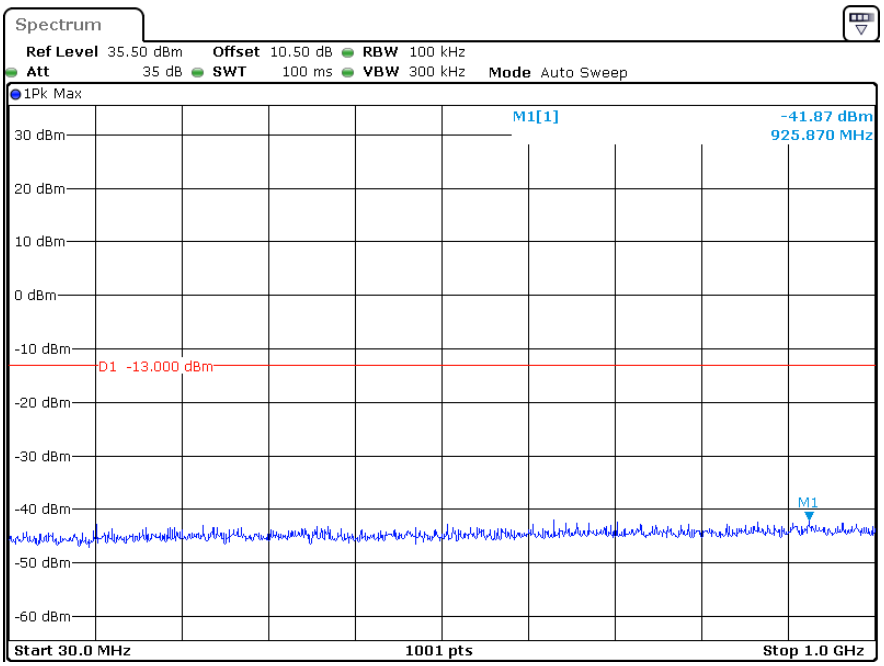
ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:43:25

PCS Band

Low Channel:

30 MHz – 1GHz (GSM Mode)

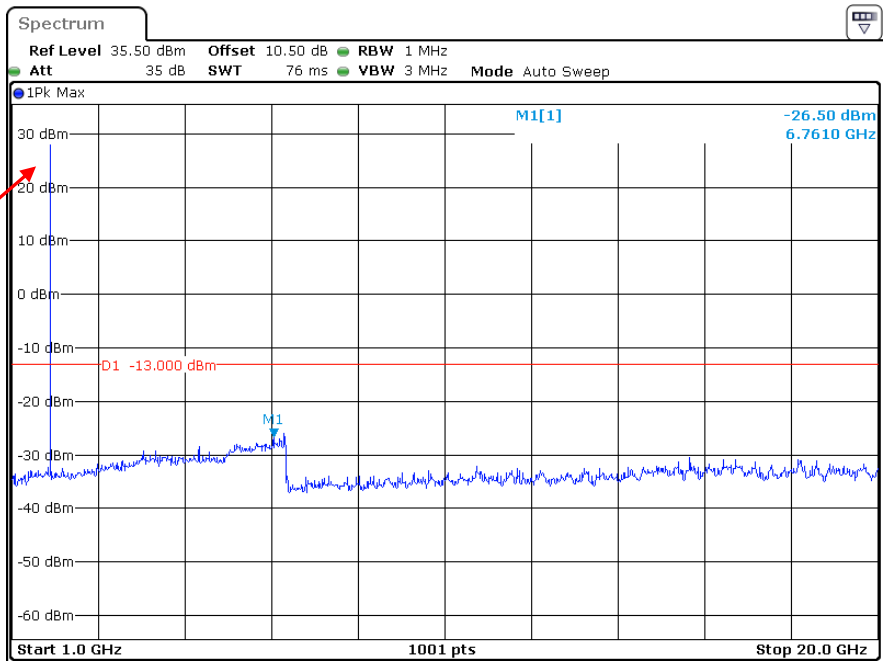


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:37:17

1GHz – 20GHz (GSM Mode)

Fundamental test

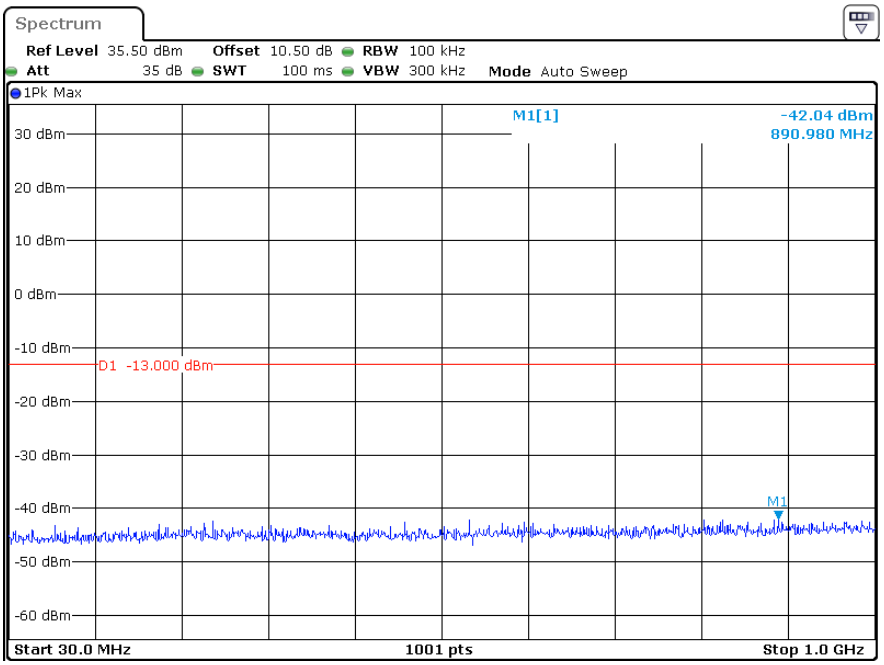


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:38:10

Middle Channel:

30 MHz – 1GHz (GSM Mode)

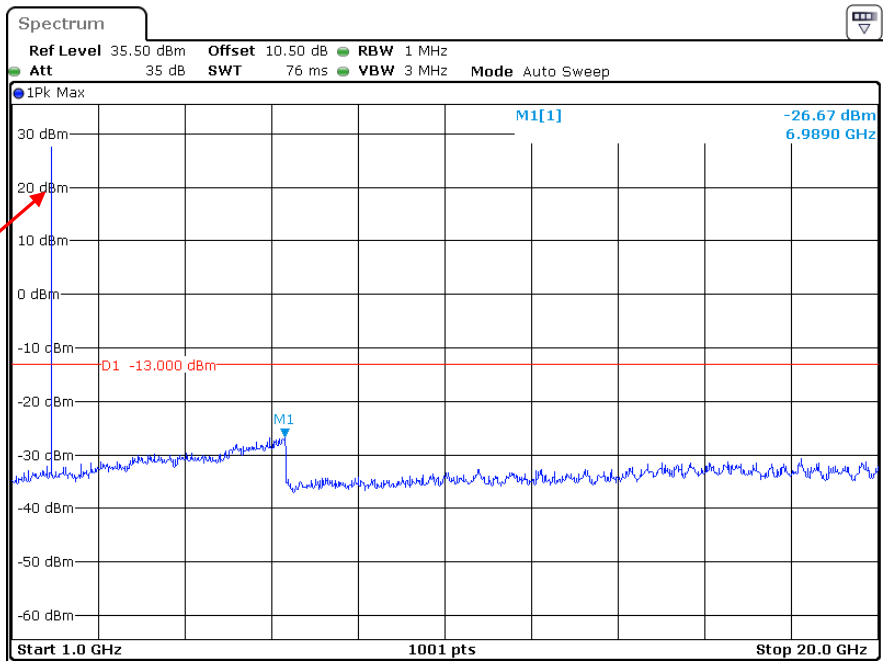


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:40:59

1GHz – 20GHz (GSM Mode)

Fundamental test

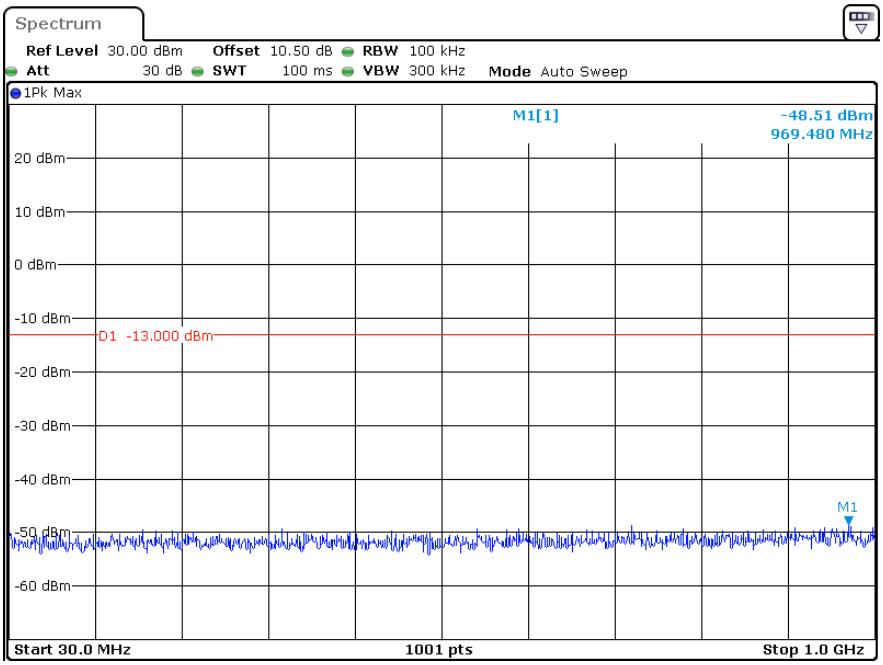


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:41:48

High Channel:

30 MHz – 1GHz (GSM Mode)

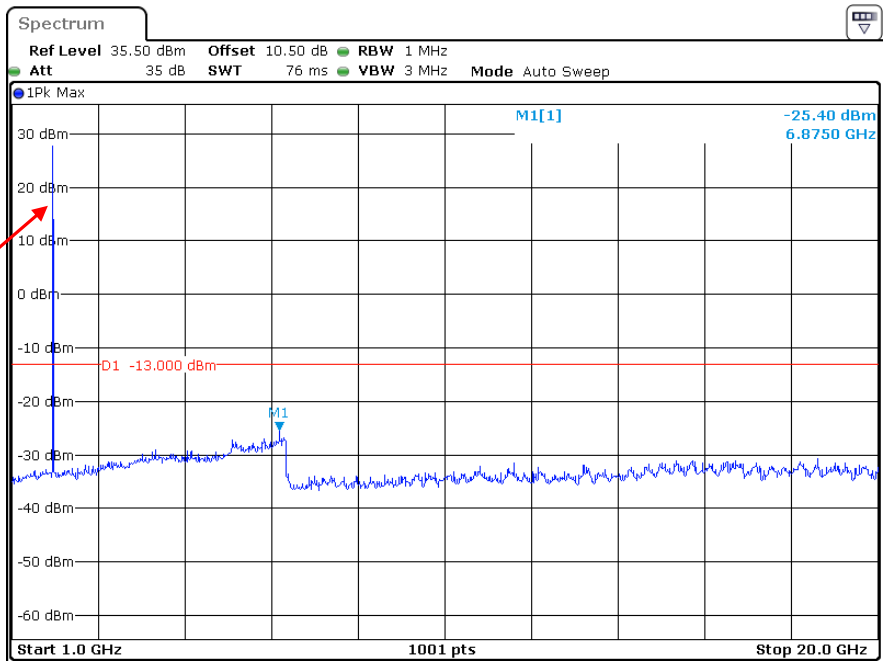


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:43:26

1GHz – 20GHz (GSM Mode)

Fundamental test

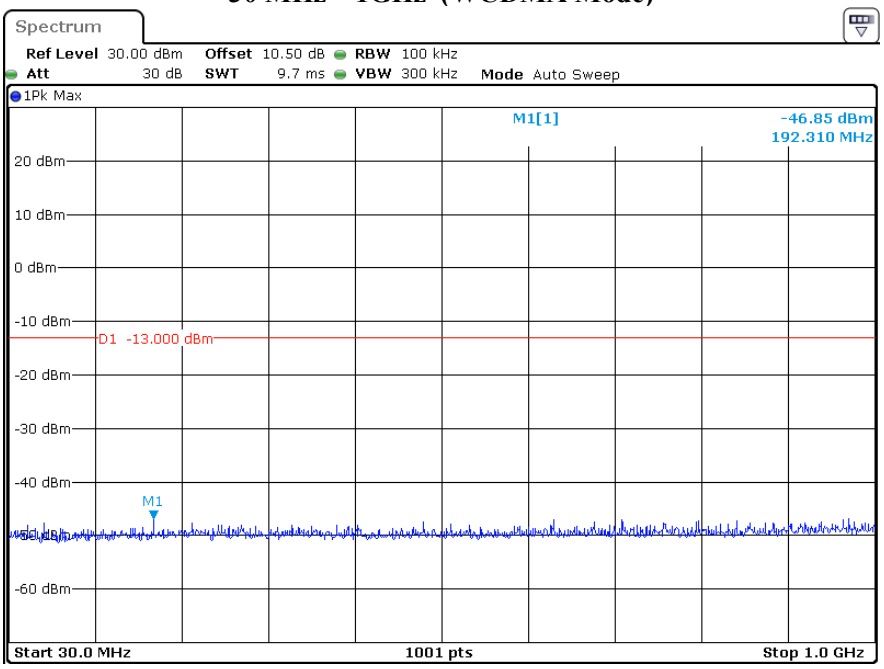


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:44:03

Low Channel:

30 MHz – 1GHz (WCDMA Mode)

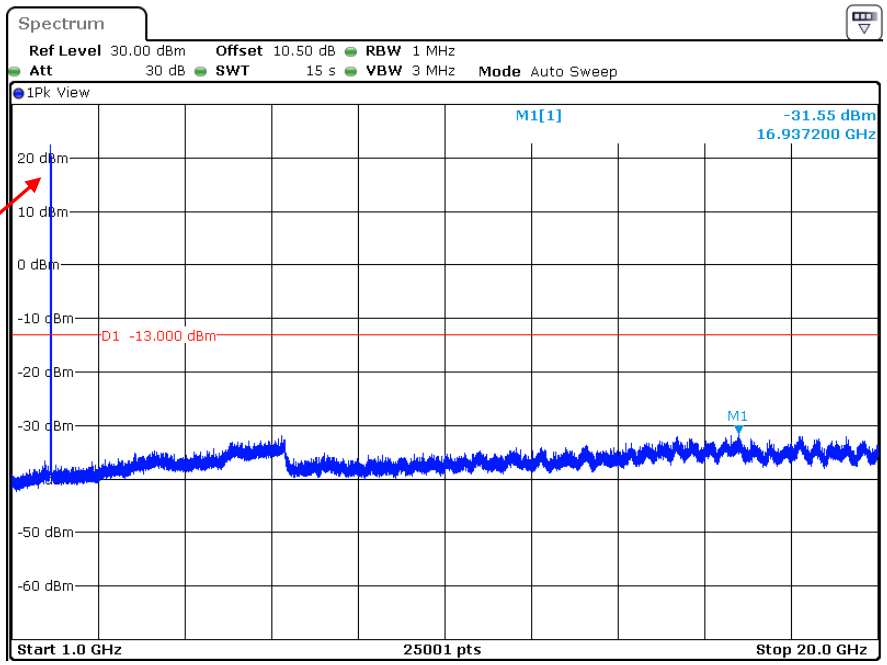


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:04:41

1GHz – 20GHz (WCDMA Mode)

Fundamental test

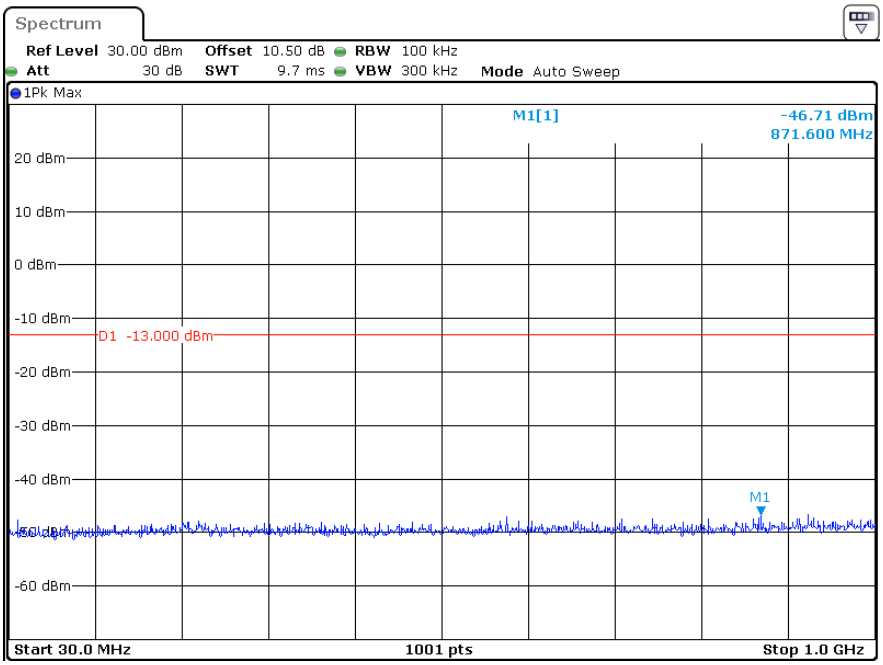


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:05:28

Middle Channel:

30 MHz – 1GHz (WCDMA Mode)

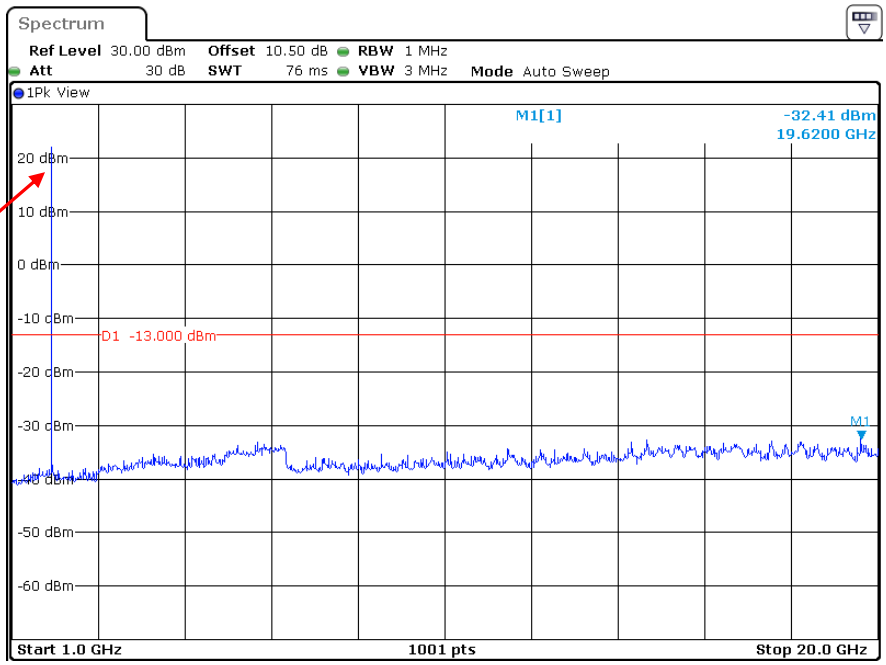


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:08:09

1GHz – 20GHz (WCDMA Mode)

Fundamental test

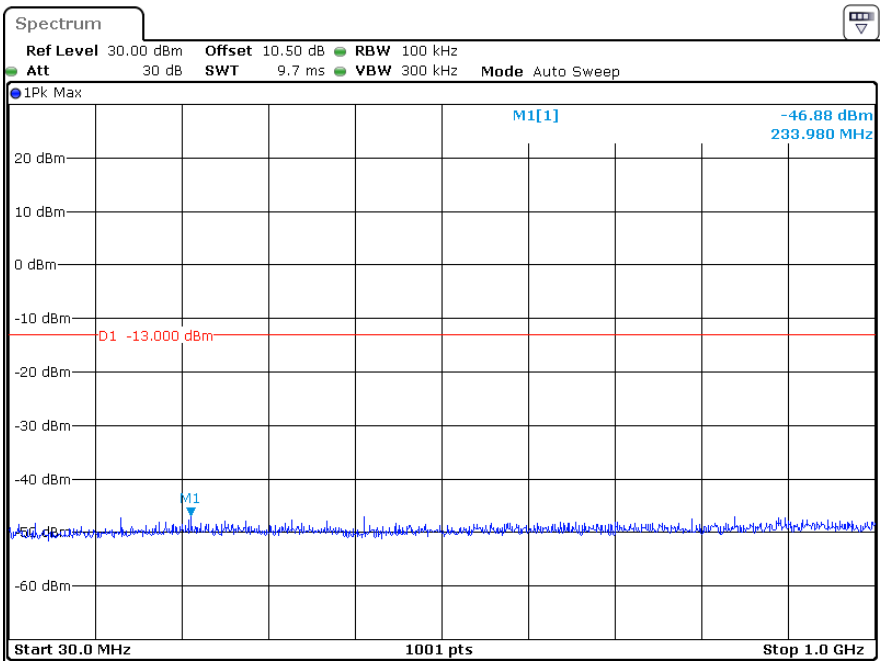


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:08:31

High Channel:

30 MHz – 1GHz (WCDMA Mode)

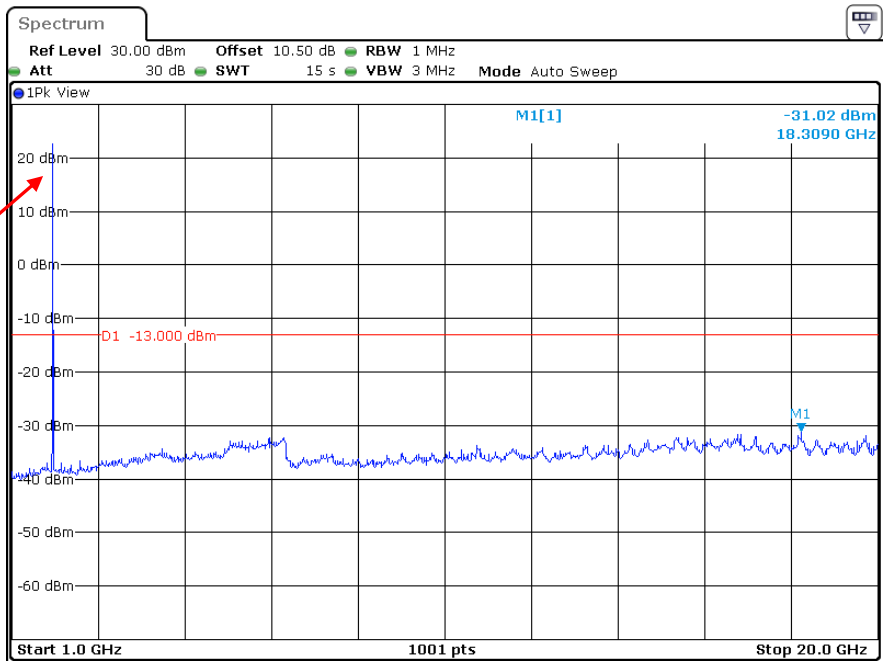


ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:11:32

1GHz – 20GHz (WCDMA Mode)

Fundamental test



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:12:19

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

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

Applicable Standard

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

Test Procedure

ANSI/TIA-603-E-2016 Section 2.2.12
KDB 671168 D01 v03r01 Section 6.2

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

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

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

Test Data

Environmental Conditions

Temperature:	25~25.3 °C
Relative Humidity:	50 %
ATM Pressure:	101 kPa

The testing was performed by Anson Su on 2024-04-28 for below 1GHz and Zenos Qiao on 2024-04-11 for above 1GHz.

EUT operation mode: Transmitting

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
GSM 850								
Test frequency range: 30MHz-10GHz								
Low Channel								
957.9	33.59	H	-62.9	1.36	0.0	-64.26	-13	51.26
957.9	33.48	V	-60.6	1.36	0.0	-61.96	-13	48.96
1648.40	60.07	H	-47.6	0.90	8.60	-39.90	-13	26.90
1648.40	59.21	V	-49.0	0.90	8.60	-41.30	-13	28.30
2472.60	58.78	H	-48.6	1.10	8.80	-40.90	-13	27.90
2472.60	58.14	V	-49.0	1.10	8.80	-41.30	-13	28.30
3296.80	46.86	H	-59.1	1.30	8.80	-51.60	-13	38.60
3296.80	47.25	V	-58.4	1.30	8.80	-50.90	-13	37.90
Middle Channel								
165.4	42.07	H	-67.1	0.84	0.0	-67.94	-13	54.94
100.6	44.35	V	-64.1	1.36	0.0	-65.46	-13	52.46
1673.20	60.56	H	-47.0	0.90	8.60	-39.30	-13	26.30
1673.20	59.49	V	-48.7	0.90	8.60	-41.00	-13	28.00
2509.80	58.07	H	-49.3	1.10	8.80	-41.60	-13	28.60
2509.80	57.64	V	-49.5	1.10	8.80	-41.80	-13	28.80
3346.40	46.45	H	-59.5	1.30	8.80	-52.00	-13	39.00
3346.40	46.93	V	-58.8	1.30	8.80	-51.30	-13	38.30
High Channel								
165.4	42.48	H	-66.7	0.84	0.0	-67.54	-13	54.54
100.6	44.71	V	-63.7	1.36	0.0	-65.06	-13	52.06
1697.60	61.38	H	-46.2	0.90	8.60	-38.50	-13	25.50
1697.60	60.57	V	-47.6	0.90	8.60	-39.90	-13	26.90
2546.40	59.69	H	-47.7	1.10	8.80	-40.00	-13	27.00
2546.40	58.73	V	-48.4	1.10	8.80	-40.70	-13	27.70
3395.20	47.42	H	-58.5	1.30	9.90	-49.90	-13	36.90
3395.20	47.96	V	-57.7	1.30	9.90	-49.10	-13	36.10

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
GSM1900								
Test frequency range: 30MHz-20GHz								
Low Channel								
165.4	41.87	H	-67.3	0.84	0.0	-68.14	-13	55.14
100.6	44.19	V	-64.2	1.36	0.0	-65.56	-13	52.56
3700.40	49.89	H	-55.5	1.30	11.00	-45.80	-13	32.80
3700.40	50.72	V	-54.5	1.30	11.00	-44.80	-13	31.80
Middle Channel								
165.4	42.27	H	-66.9	0.84	0.0	-67.74	-13	54.74
100.6	44.53	V	-63.9	1.36	0.0	-65.26	-13	52.26
3760.00	50.45	H	-54.7	1.30	10.70	-45.30	-13	32.30
3760.00	51.26	V	-53.8	1.30	10.70	-44.40	-13	31.40
High Channel								
165.4	42.65	H	-66.5	0.84	0.0	-67.34	-13	54.34
100.6	44.96	V	-63.4	1.36	0.0	-64.76	-13	51.76
3819.60	51.38	H	-53.8	1.30	10.70	-44.40	-13	31.40
3819.60	52.17	V	-52.9	1.30	10.70	-43.50	-13	30.50

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
WCDMA Band 2								
Test frequency range: 30MHz-20GHz								
Low Channel								
165.4	41.87	H	-67.3	0.84	0.0	-68.14	-13	55.14
100.6	43.83	V	-64.6	1.36	0.0	-65.96	-13	52.96
3704.80	55.57	H	-49.8	1.30	11.00	-40.10	-13	27.10
3704.80	56.49	V	-48.8	1.30	11.00	-39.10	-13	26.10
5557.20	48.64	H	-53.8	1.70	10.90	-44.60	-13	31.60
5557.20	49.15	V	-53.4	1.70	10.90	-44.20	-13	31.20
Middle Channel								
165.4	42.02	H	-67.1	0.84	0.0	-67.94	-13	54.94
100.6	44.16	V	-64.2	1.36	0.0	-65.56	-13	52.56
3760.00	56.13	H	-49.0	1.30	10.70	-39.60	-13	26.60
3760.00	57.34	V	-47.7	1.30	10.70	-38.30	-13	25.30
5640.00	49.25	H	-53.2	1.70	10.90	-44.00	-13	31.00
5640.00	49.87	V	-52.7	1.70	10.90	-43.50	-13	30.50
High Channel								
165.4	42.29	H	-66.9	0.84	0.0	-67.74	-13	54.74
100.6	44.42	V	-64.0	1.36	0.0	-65.36	-13	52.36
3815.20	57.45	H	-47.7	1.30	10.70	-38.30	-13	25.30
3815.20	58.26	V	-46.8	1.30	10.70	-37.40	-13	24.40
5722.80	49.89	H	-52.3	1.70	11.10	-42.90	-13	29.90
5722.80	50.37	V	-52.0	1.70	11.10	-42.60	-13	29.60

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
WCDMA Band 5								
Test frequency range: 30MHz-10GHz								
Low Channel								
165.4	41.94	H	-67.2	0.84	0.0	-68.04	-13	55.04
100.6	44.03	V	-64.4	1.36	0.0	-65.76	-13	52.76
1652.80	53.68	H	-53.9	0.90	8.60	-46.20	-13	33.20
1652.80	52.73	V	-55.4	0.90	8.60	-47.70	-13	34.70
2479.20	48.59	H	-58.8	1.10	8.80	-51.10	-13	38.10
2479.20	49.36	V	-57.8	1.10	8.80	-50.10	-13	37.10
3305.60	50.94	H	-55.0	1.30	8.80	-47.50	-13	34.50
3305.60	50.05	V	-55.6	1.30	8.80	-48.10	-13	35.10
Middle Channel								
165.4	42.13	H	-67.0	0.84	0.0	-67.84	-13	54.84
100.6	44.21	V	-64.2	1.36	0.0	-65.56	-13	52.56
1673.20	54.27	H	-53.3	0.90	8.60	-45.60	-13	32.60
1673.20	53.32	V	-54.8	0.90	8.60	-47.10	-13	34.10
2509.80	47.69	H	-59.7	1.10	8.80	-52.00	-13	39.00
2509.80	48.54	V	-58.6	1.10	8.80	-50.90	-13	37.90
3346.40	51.78	H	-54.2	1.30	8.80	-46.70	-13	33.70
3346.40	50.45	V	-55.2	1.30	8.80	-47.70	-13	34.70
High Channel								
165.4	42.44	H	-66.7	0.84	0.0	-67.54	-13	54.54
100.6	44.63	V	-63.8	1.36	0.0	-65.16	-13	52.16
1693.20	55.39	H	-52.2	0.90	8.60	-44.50	-13	31.50
1693.20	54.44	V	-53.7	0.90	8.60	-46.00	-13	33.00
2539.80	48.21	H	-59.2	1.10	8.80	-51.50	-13	38.50
2539.80	48.75	V	-58.4	1.10	8.80	-50.70	-13	37.70
3386.40	52.52	H	-53.4	1.30	9.90	-44.80	-13	31.80
3386.40	51.67	V	-54.0	1.30	9.90	-45.40	-13	32.40

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

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 2								
Test frequency range: 30MHz-20GHz								
QPSK 1.4MHz Bandwidth, Low channel								
165.4	43.31	H	-65.8	0.84	0.0	-66.64	-13	53.64
100.6	43.47	V	-64.9	1.36	0.0	-66.26	-13	53.26
3701.40	59.75	H	-45.7	1.30	11.00	-36.00	-13	23.00
3701.40	58.54	V	-46.7	1.30	11.00	-37.00	-13	24.00
5552.10	51.48	H	-50.9	1.70	10.90	-41.70	-13	28.70
5552.10	51.97	V	-50.6	1.70	10.90	-41.40	-13	28.40
QPSK 1.4MHz Bandwidth, Middle channel								
165.4	43.59	H	-65.6	0.84	0.0	-66.44	-13	53.44
100.6	43.66	V	-64.7	1.36	0.0	-66.06	-13	53.06
3760.00	60.87	H	-44.3	1.30	10.70	-34.90	-13	21.90
3760.00	59.69	V	-45.4	1.30	10.70	-36.00	-13	23.00
5640.00	52.16	H	-50.3	1.70	10.90	-41.10	-13	28.10
5640.00	53.08	V	-49.5	1.70	10.90	-40.30	-13	27.30
QPSK 1.4MHz Bandwidth, High channel								
165.4	43.75	H	-65.4	0.84	0.0	-66.24	-13	53.24
100.6	43.84	V	-64.6	1.36	0.0	-65.96	-13	52.96
3818.60	61.64	H	-43.5	1.30	10.70	-34.10	-13	21.10
3818.60	59.78	V	-45.3	1.30	10.70	-35.90	-13	22.90
5727.90	53.05	H	-49.1	1.70	11.10	-39.70	-13	26.70
5727.90	53.86	V	-48.5	1.70	11.10	-39.10	-13	26.10

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 4								
Test frequency range: 30MHz-20GHz								
QPSK 1.4MHz Bandwidth, Low channel								
165.4	43.98	H	-65.2	0.84	0.0	-66.04	-13	53.04
100.6	44.08	V	-64.3	1.36	0.0	-65.66	-13	52.66
3421.40	56.37	H	-49.6	1.30	9.90	-41.00	-13	28.00
3421.40	55.25	V	-50.4	1.30	9.90	-41.80	-13	28.80
5132.10	51.88	H	-51.3	1.50	9.60	-43.20	-13	30.20
5132.10	52.41	V	-50.2	1.50	9.60	-42.10	-13	29.10
QPSK 1.4MHz Bandwidth, Middle channel								
165.4	44.13	H	-65.0	0.84	0.0	-65.84	-13	52.84
100.6	44.24	V	-64.2	1.36	0.0	-65.56	-13	52.56
3465.00	57.23	H	-48.7	1.30	10.50	-39.50	-13	26.50
3465.00	56.48	V	-49.1	1.30	10.50	-39.90	-13	26.90
5197.50	52.64	H	-50.4	1.60	9.70	-42.30	-13	29.30
5197.50	53.59	V	-49.1	1.60	9.70	-41.00	-13	28.00
QPSK 1.4MHz Bandwidth, High channel								
165.4	44.25	H	-64.9	0.84	0.0	-65.74	-13	52.74
100.6	44.39	V	-64.0	1.36	0.0	-65.36	-13	52.36
3508.60	58.45	H	-47.5	1.30	10.50	-38.30	-13	25.30
3508.60	57.68	V	-47.9	1.30	10.50	-38.70	-13	25.70
5262.90	53.32	H	-49.6	1.60	10.00	-41.20	-13	28.20
5262.90	54.07	V	-48.6	1.60	10.00	-40.20	-13	27.20

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 5								
Test frequency range: 30MHz-10GHz								
QPSK 1.4MHz Bandwidth, Low channel								
165.4	44.49	H	-64.7	0.84	0.0	-65.54	-13	52.54
100.6	44.51	V	-63.9	1.36	0.0	-65.26	-13	52.26
1649.40	56.38	H	-51.3	0.90	8.60	-43.60	-13	30.60
1649.40	55.54	V	-52.7	0.90	8.60	-45.00	-13	32.00
2474.10	50.27	H	-57.1	1.10	8.80	-49.40	-13	36.40
2474.10	49.41	V	-57.7	1.10	8.80	-50.00	-13	37.00
3298.80	54.19	H	-51.8	1.30	8.80	-44.30	-13	31.30
3298.80	53.25	V	-52.4	1.30	8.80	-44.90	-13	31.90
QPSK 1.4MHz Bandwidth, Middle channel								
165.4	44.63	H	-64.5	0.84	0.0	-65.34	-13	52.34
100.6	44.78	V	-63.6	1.36	0.0	-64.96	-13	51.96
1673.00	57.15	H	-50.4	0.90	8.60	-42.70	-13	29.70
1673.00	56.24	V	-51.9	0.90	8.60	-44.20	-13	31.20
2509.50	49.92	H	-57.4	1.10	8.80	-49.70	-13	36.70
2509.50	48.78	V	-58.3	1.10	8.80	-50.60	-13	37.60
3346.00	55.06	H	-50.9	1.30	8.80	-43.40	-13	30.40
3346.00	54.39	V	-51.3	1.30	8.80	-43.80	-13	30.80
QPSK 1.4MHz Bandwidth, High channel								
165.4	44.87	H	-64.3	0.84	0.0	-65.14	-13	52.14
100.6	44.96	V	-63.4	1.36	0.0	-64.76	-13	51.76
1696.60	58.36	H	-49.2	0.90	8.60	-41.50	-13	28.50
1696.60	57.45	V	-50.7	0.90	8.60	-43.00	-13	30.00
2544.90	50.68	H	-56.7	1.10	8.80	-49.00	-13	36.00
2544.90	49.93	V	-57.2	1.10	8.80	-49.50	-13	36.50
3393.20	55.87	H	-50.1	1.30	9.90	-41.50	-13	28.50
3393.20	55.04	V	-50.6	1.30	9.90	-42.00	-13	29.00

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 7								
Test frequency range: 30MHz-26.5GHz								
QPSK 5MHz Bandwidth, Low channel								
165.4	45.27	H	-63.9	0.84	0.0	-64.74	-25	39.74
100.6	46.09	V	-62.3	1.36	0.0	-63.66	-25	38.66
5005.00	49.87	H	-53.4	1.50	9.80	-45.10	-25	20.10
5005.00	50.75	V	-51.8	1.50	9.80	-43.50	-25	18.50
7507.50	46.18	H	-49.8	1.90	10.80	-40.90	-25	15.90
7507.50	46.63	V	-49.7	1.90	10.80	-40.80	-25	15.80
QPSK 5MHz Bandwidth, Middle channel								
165.4	45.41	H	-63.7	0.84	0.0	-64.54	-25	39.54
100.6	46.33	V	-62.1	1.36	0.0	-63.46	-25	38.46
5070.00	50.42	H	-52.8	1.50	9.60	-44.70	-25	19.70
5070.00	51.27	V	-51.3	1.50	9.60	-43.20	-25	18.20
7605.00	46.68	H	-49.2	1.90	11.00	-40.10	-25	15.10
7605.00	47.19	V	-49.0	1.90	11.00	-39.90	-25	14.90
QPSK 5MHz Bandwidth, High channel								
165.4	45.87	H	-63.3	0.84	0.0	-64.14	-25	39.14
100.6	46.65	V	-61.8	1.36	0.0	-63.16	-25	38.16
5135.00	51.25	H	-51.9	1.50	9.60	-43.80	-25	18.80
5135.00	52.32	V	-50.3	1.50	9.60	-42.20	-25	17.20
7702.50	47.54	H	-48.3	1.90	10.90	-39.30	-25	14.30
7702.50	48.16	V	-48.0	1.90	10.90	-39.00	-25	14.00

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 38								
Test frequency range: 30MHz-26.5GHz								
QPSK 5MHz Bandwidth, Low channel								
165.4	45.21	H	-63.9	0.84	0.0	-64.74	-25	39.74
100.6	46.33	V	-62.1	1.36	0.0	-63.46	-25	38.46
5145.00	49.12	H	-54.1	1.50	9.60	-46.00	-25	21.00
5145.00	50.25	V	-52.4	1.50	9.60	-44.30	-25	19.30
7717.50	47.08	H	-48.7	1.90	10.90	-39.70	-25	14.70
7717.50	46.43	V	-49.7	1.90	10.90	-40.70	-25	15.70
QPSK 5MHz Bandwidth, Middle channel								
165.4	45.46	H	-63.7	0.84	0.0	-64.54	-25	39.54
100.6	46.59	V	-61.8	1.36	0.0	-63.16	-25	38.16
5190.00	49.96	H	-53.1	1.60	9.70	-45.00	-25	20.00
5190.00	50.89	V	-51.8	1.60	9.70	-43.70	-25	18.70
7785.00	47.41	H	-48.3	1.90	11.10	-39.10	-25	14.10
7785.00	46.72	V	-49.4	1.90	11.10	-40.20	-25	15.20
QPSK 5MHz Bandwidth, High channel								
165.4	45.66	H	-63.5	0.84	0.0	-64.34	-25	39.34
100.6	46.72	V	-61.7	1.36	0.0	-63.06	-25	38.06
5235.00	50.89	H	-52.2	1.60	9.70	-44.10	-25	19.10
5235.00	51.78	V	-50.9	1.60	9.70	-42.80	-25	17.80
7852.50	48.36	H	-47.3	1.90	11.10	-38.10	-25	13.10
7852.50	47.57	V	-48.4	1.90	11.10	-39.20	-25	14.20

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 40 Lower(2305-2315MHz)								
Test frequency range: 30MHz-25GHz								
QPSK 5MHz Bandwidth, Low channel								
165.4	45.16	H	-64.0	0.84	0.0	-64.84	-40	24.84
100.6	46.21	V	-62.2	1.36	0.0	-63.56	-40	23.56
4615.00	46.69	H	-57.3	1.50	10.50	-48.30	-40	8.30
4615.00	47.02	V	-56.6	1.50	10.50	-47.60	-40	7.60
6922.50	44.54	H	-53.7	1.90	10.30	-45.30	-40	5.30
6922.50	44.87	V	-53.5	1.90	10.30	-45.10	-40	5.10
QPSK 5MHz Bandwidth, Middle channel								
165.4	45.43	H	-63.7	0.84	0.0	-64.54	-40	24.54
100.6	46.58	V	-61.8	1.36	0.0	-63.16	-40	23.16
4620.00	47.14	H	-56.9	1.50	10.50	-47.90	-40	7.90
4620.00	47.45	V	-56.1	1.50	10.50	-47.10	-40	7.10
6930.00	44.93	H	-53.3	1.90	10.30	-44.90	-40	4.90
6930.00	45.28	V	-53.1	1.90	10.30	-44.70	-40	4.70
QPSK 5MHz Bandwidth, High channel								
165.4	45.71	H	-63.4	0.84	0.0	-64.24	-40	24.24
100.6	46.85	V	-61.6	1.36	0.0	-62.96	-40	22.96
4625.00	47.65	H	-56.3	1.50	10.50	-47.30	-40	7.30
4625.00	48.08	V	-55.5	1.50	10.50	-46.50	-40	6.50
6937.50	45.37	H	-52.9	1.90	10.30	-44.50	-40	4.50
6937.50	45.72	V	-52.6	1.90	10.30	-44.20	-40	4.20

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 40 Upper(2350-2360 MHz)								
Test frequency range: 30MHz-25GHz								
QPSK 5MHz Bandwidth, Low channel								
165.4	45.25	H	-64.11	0.84	0	-64.95	-40	24.95
100.6	45.87	V	-62.31	1.36	0	-63.67	-40	23.67
4705.00	47.06	H	-56.8	1.50	10.30	-48.00	-40	8.00
4705.00	47.43	V	-55.9	1.50	10.30	-47.10	-40	7.10
7057.50	44.87	H	-52.5	1.90	10.20	-44.20	-40	4.20
7057.50	45.21	V	-52.3	1.90	10.20	-44.00	-40	4.00
QPSK 5MHz Bandwidth, Middle channel								
165.4	45.32	H	-63.24	0.84	0	-64.08	-40	24.08
100.6	46.15	V	-62.22	1.36	0	-63.58	-40	23.58
4710.00	47.57	H	-56.3	1.50	10.30	-47.50	-40	7.50
4710.00	47.89	V	-55.4	1.50	10.30	-46.60	-40	6.60
7065.00	45.18	H	-52.2	1.90	10.20	-43.90	-40	3.90
7065.00	45.42	V	-52.1	1.90	10.20	-43.80	-40	3.80
QPSK 5MHz Bandwidth, High channel								
165.4	45.41	H	-63.45	0.84	0	-64.29	-40	24.29
100.6	46.75	V	-62.09	1.36	0	-63.45	-40	23.45
4715.00	47.96	H	-55.9	1.50	10.30	-47.10	-40	7.10
4715.00	48.45	V	-54.9	1.50	10.30	-46.10	-40	6.10
7072.50	45.64	H	-51.7	1.90	10.20	-43.40	-40	3.40
7072.50	45.93	V	-51.6	1.90	10.20	-43.30	-40	3.30

Frequency (MHz)	Receiver Reading (dBµV)	Polar (H / V)	Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)			
LTE Band 41								
Test frequency range: 30MHz-27GHz								
QPSK 5MHz Bandwidth, Low channel								
165.4	44.65	H	-64.5	0.84	0.0	-65.34	-25	40.34
100.6	45.61	V	-62.8	1.36	0.0	-64.16	-25	39.16
4997.00	48.54	H	-54.8	1.50	9.80	-46.50	-25	21.50
4997.00	49.49	V	-53.1	1.50	9.80	-44.80	-25	19.80
7495.50	46.37	H	-49.6	1.90	10.80	-40.70	-25	15.70
7495.50	47.16	V	-49.2	1.90	10.80	-40.30	-25	15.30
QPSK 5MHz Bandwidth, Middle channel								
165.4	44.84	H	-64.3	0.84	0.0	-65.14	-25	40.14
100.6	45.87	V	-62.5	1.36	0.0	-63.86	-25	38.86
5186.00	49.23	H	-53.8	1.60	9.70	-45.70	-25	20.70
5186.00	50.18	V	-52.5	1.60	9.70	-44.40	-25	19.40
7779.00	46.96	H	-48.8	1.90	11.10	-39.60	-25	14.60
7779.00	47.79	V	-48.3	1.90	11.10	-39.10	-25	14.10
QPSK 5MHz Bandwidth, High channel								
165.4	45.05	H	-64.1	0.84	0.0	-64.94	-25	39.94
100.6	46.17	V	-62.2	1.36	0.0	-63.56	-25	38.56
5375.00	50.39	H	-52.4	1.70	10.50	-43.60	-25	18.60
5375.00	51.24	V	-51.5	1.70	10.50	-42.70	-25	17.70
8062.50	47.81	H	-47.9	2.00	11.40	-38.50	-25	13.50
8062.50	48.57	V	-47.4	2.00	11.40	-38.00	-25	13.00

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

FCC§ 22.917 (a); § 24.238 (a); §27.53 (a)(h)(m) - BAND EDGES

Applicable Standard

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

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

According to FCC §27.53 (a), For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:
(4)For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:
(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;
(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

According to FCC §27.53 (h), 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.

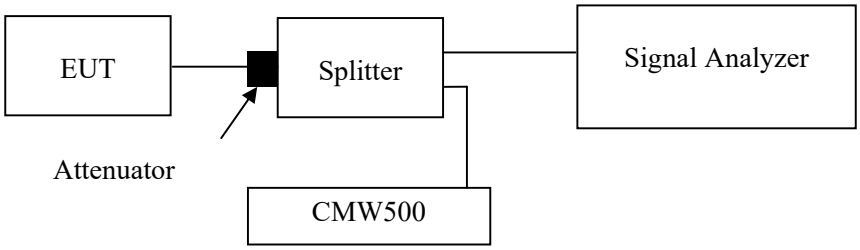
According to FCC §27.53 (m), For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5MHz.

Test Procedure

ANSI C63.26-2015 Section 5.7

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:	22~24.8 ℃
Relative Humidity:	25~61 %
ATM Pressure:	101 kPa

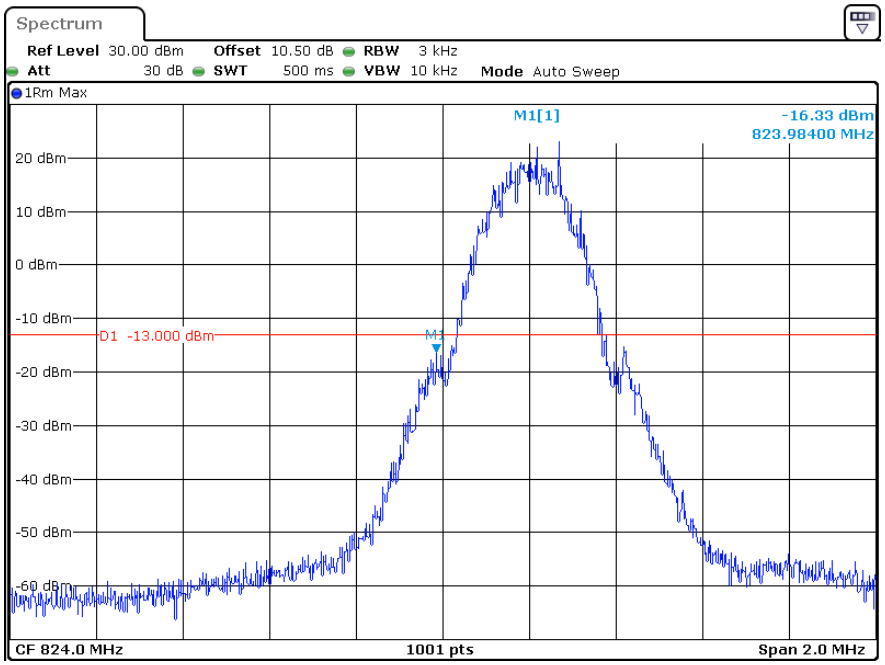
The testing was performed by Bamboo Zhan from 2024-03-29 to 2024-04-04.

EUT operation mode: Transmitting (Worst case)

Test Result: Compliant

Please refer to the following plots.

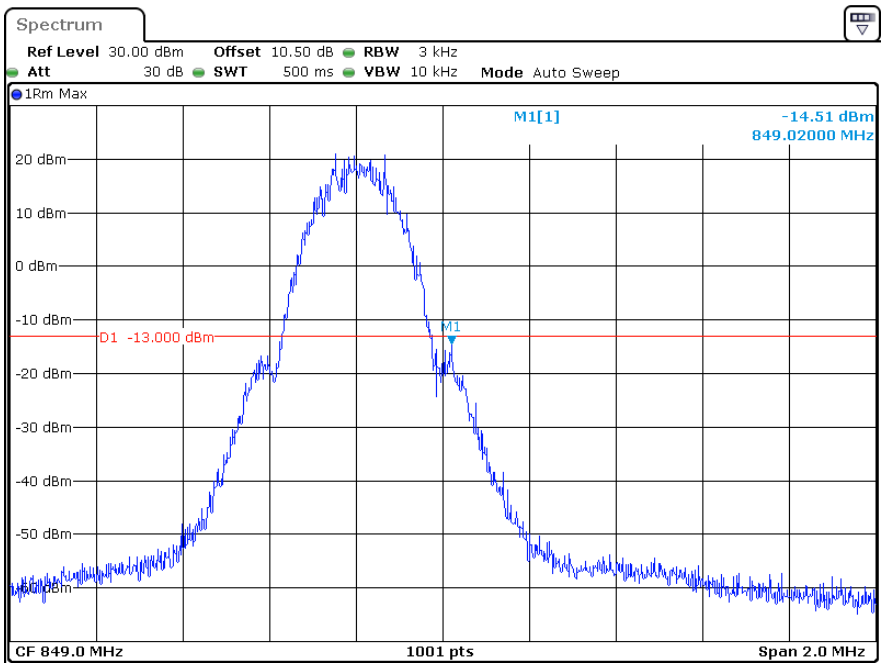
Cellular Band, Left Band Edge for GSM (GMSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:03:05

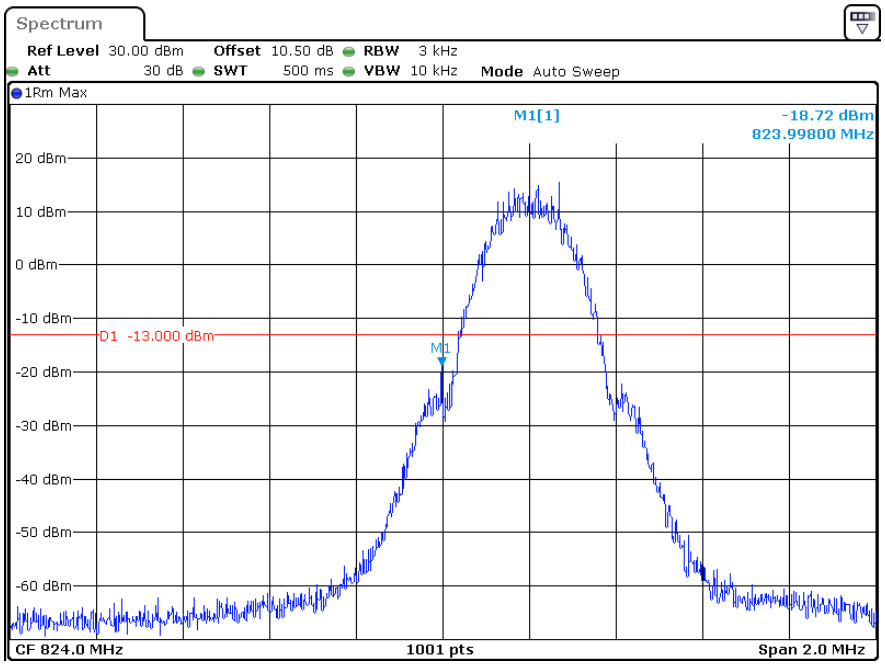
Cellular Band, Right Band Edge for GSM (GMSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:09:47

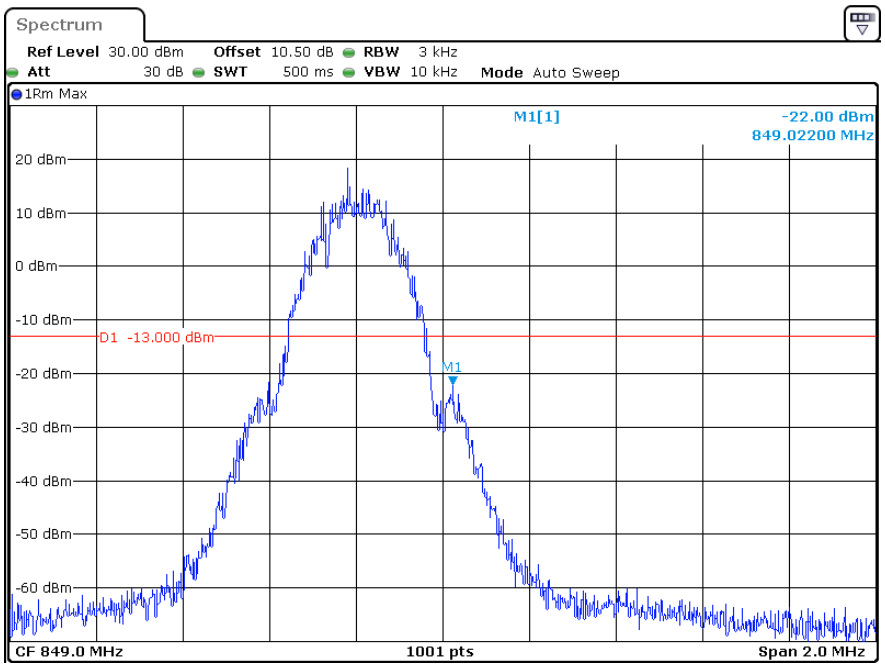
Cellular Band, Left Band Edge for EDGE Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:25:48

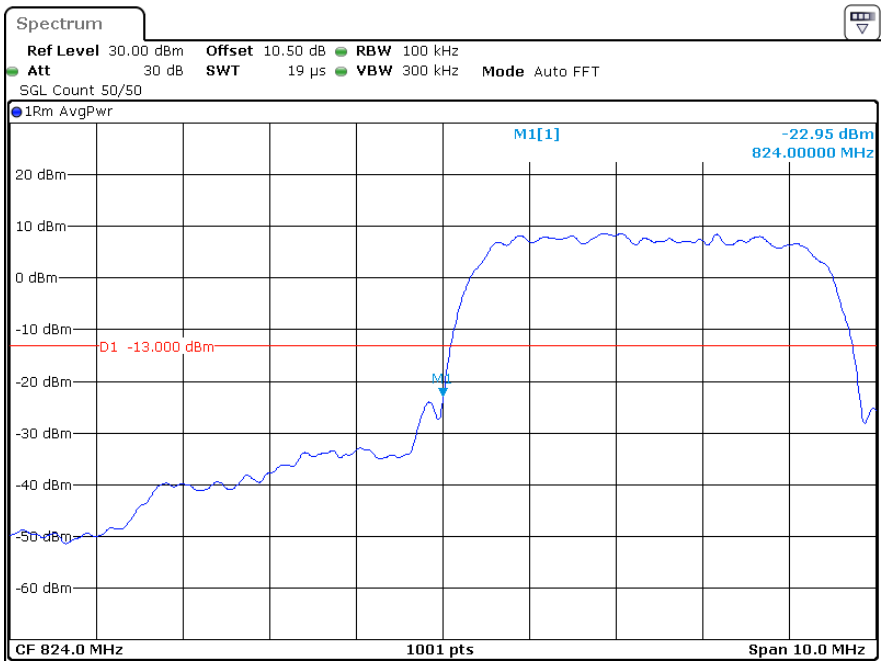
Cellular Band, Right Band Edge for EDGE Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:31:45

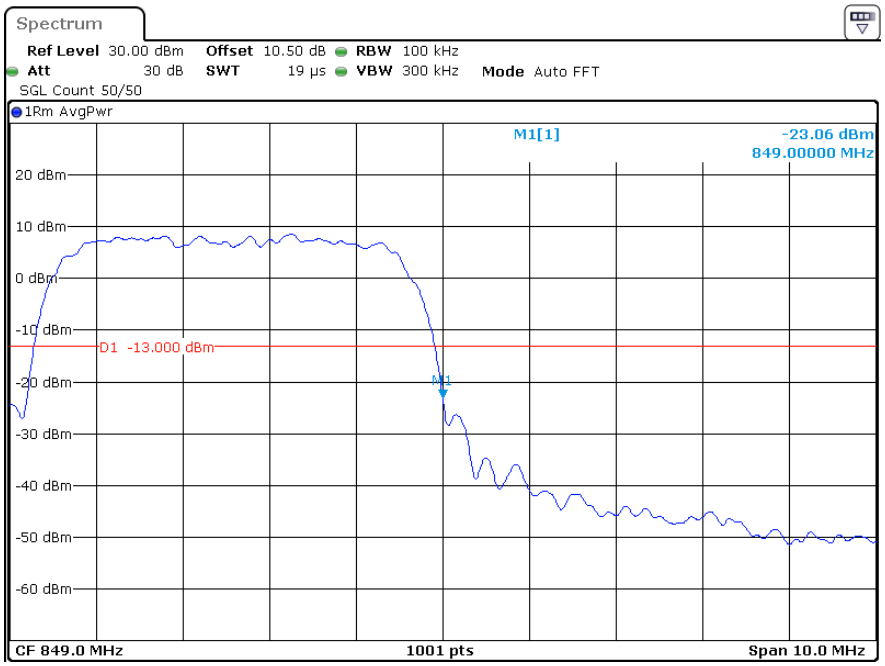
Cellular Band, Left Band Edge for RMC (BPSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:47:40

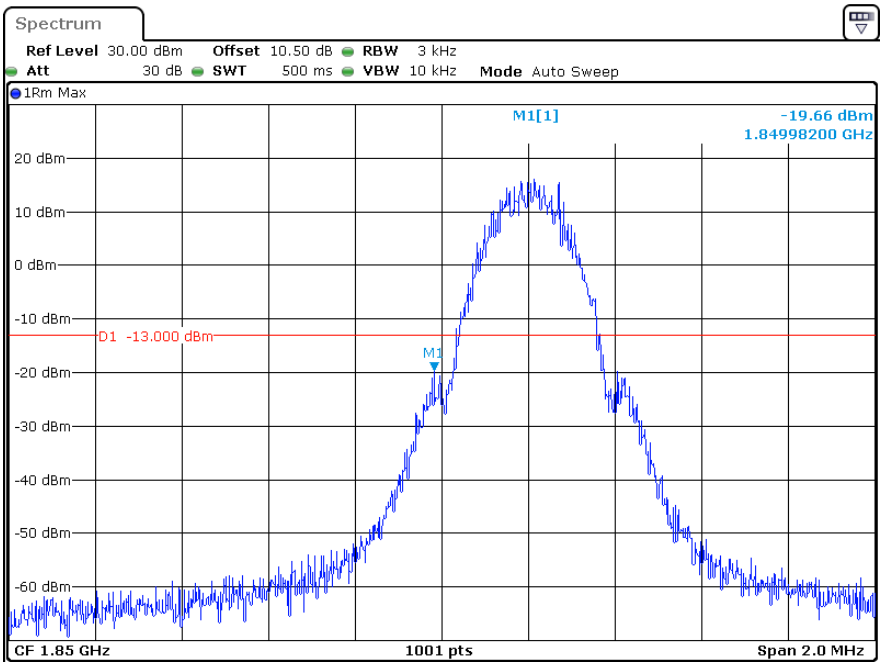
Cellular Band, Right Band Edge for RMC (BPSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:42:47

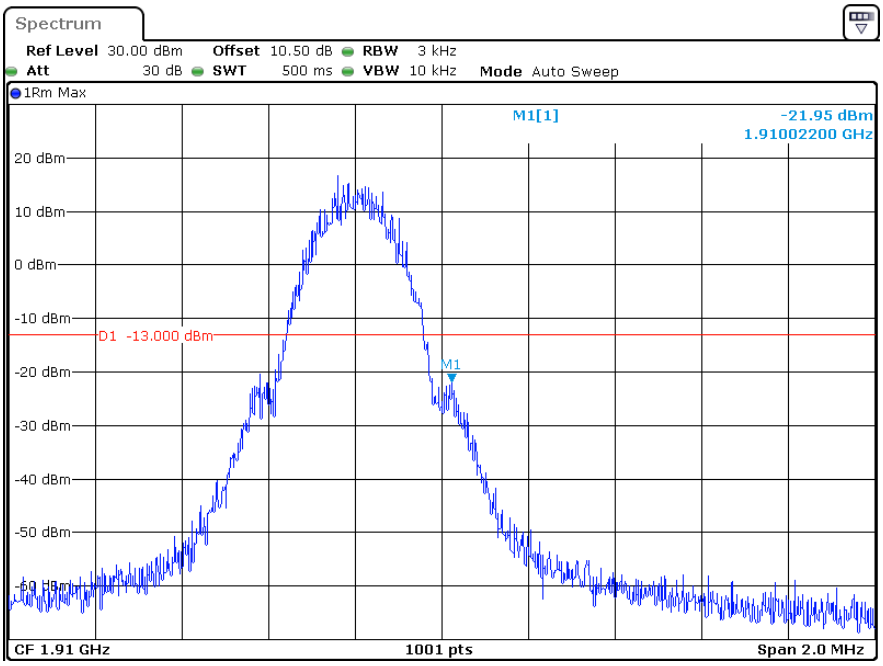
PCS Band, Left Band Edge for GSM (GMSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:36:56

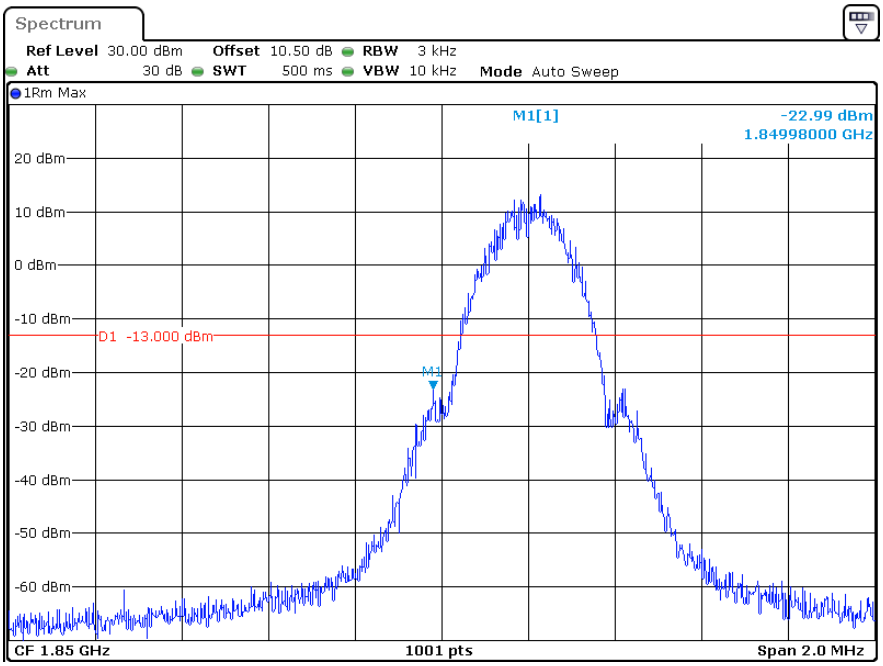
PCS Band, Right Band Edge for GSM (GMSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:43:16

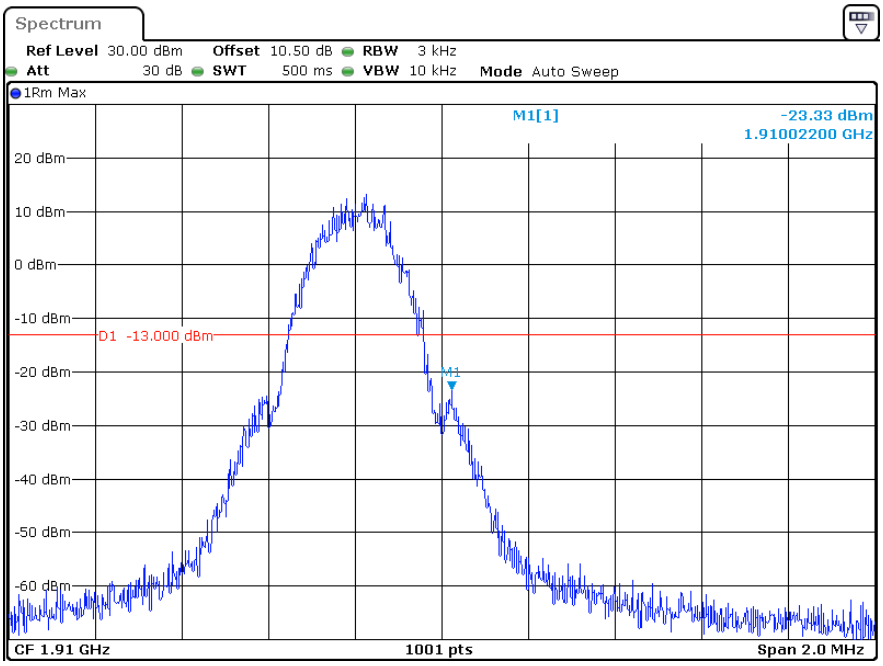
PCS Band, Left Band Edge for EDGE Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 16:56:10

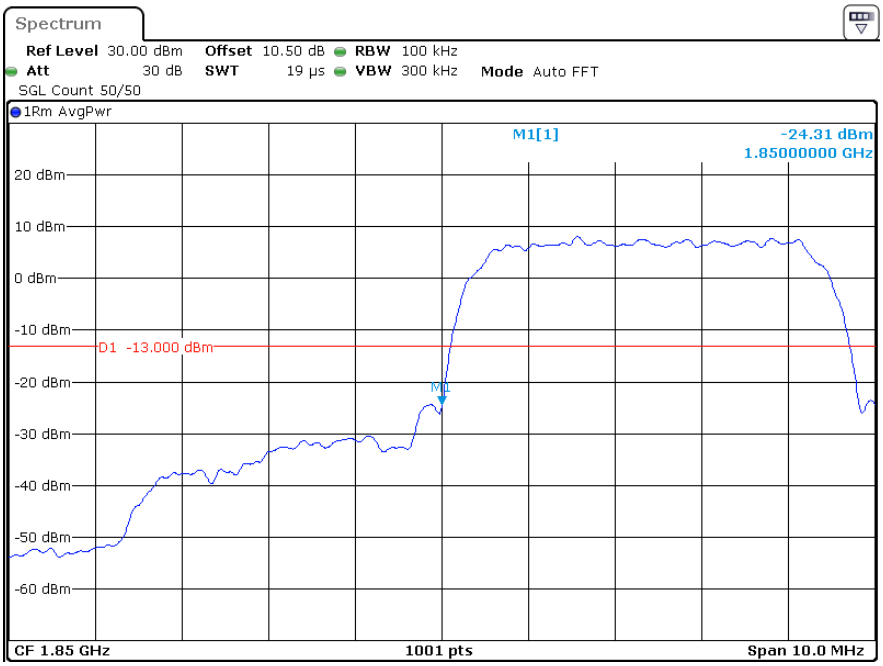
PCS Band, Right Band Edge for EDGE Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 17:02:10

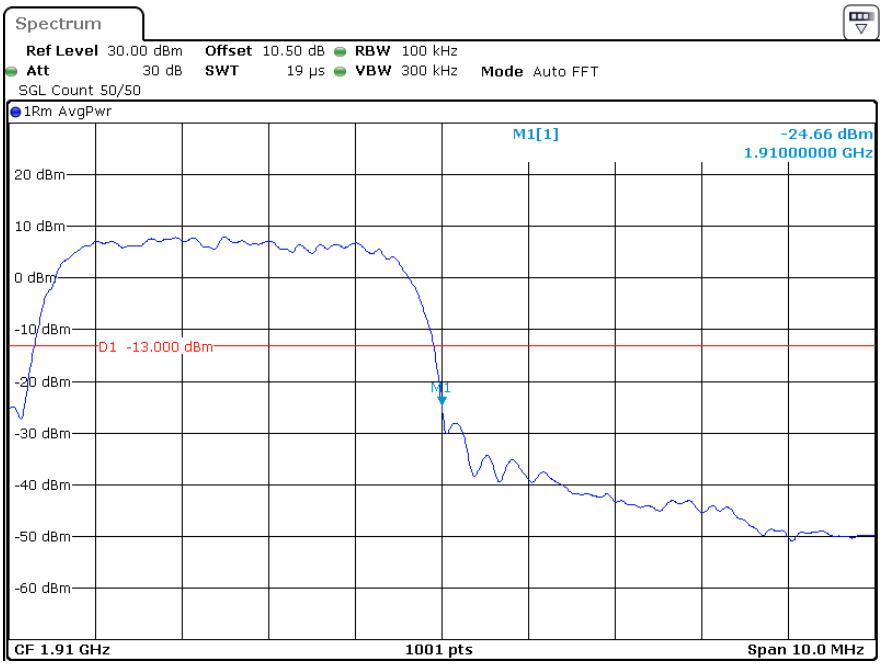
PCS Band, Left Band Edge for RMC (BPSK) Mode



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:04:20

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



ProjectNo.:SZ1240308-11533E Tester:Bamboo Zhan

Date: 4.APR.2024 15:11:11

The test plots of LTE bands please refer to the Appendix C1& Appendix C2.

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

Applicable Standard

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

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

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

Frequency Tolerance for Transmitters in the Public Mobile Services

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

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

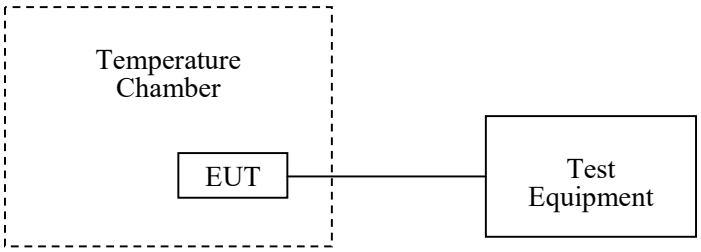
Test Procedure

ANSI C63.26-2015 Section 5.6

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

Environmental Conditions

Temperature:	22~24.8 °C
Relative Humidity:	25~61 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan from 2024-03-26 to 2024-04-07.

EUT operation mode: Transmitting

Test Result: Compliant

Please refer to the following tables.

Cellular Band (Part 22H)

GSM Mode

Test Modulation:	**GMSK**		**Test Channel:**	**836.6**	**MHz**
Test Item	**Temperature (°C)**	**Voltage (V_{AC})**	**Frequency Error**		**Limit**
			(Hz)	**(ppm)**	**(ppm)**
Frequency Stability vs. Temperature	-30	120	8	0.010	2.5
	-20	120	11	0.013	2.5
	-10	120	-6	-0.007	2.5
	0	120	8	0.010	2.5
	10	120	11	0.013	2.5
	20	120	-8	-0.010	2.5
	30	120	-1	-0.001	2.5
	40	120	9	0.011	2.5
	50	120	11	0.013	2.5
Frequency Stability vs. Voltage	20	102	-6	-0.007	2.5
	20	138	6	0.007	2.5

Test Modulation:	8PSK		Test Channel:	836.6	MHz
Test Item	Temperature (°C)	Voltage (V_{AC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	120	8	0.010	2.5
	-20	120	20	0.024	2.5
	-10	120	17	0.020	2.5
	0	120	8	0.010	2.5
	10	120	9	0.011	2.5
	20	120	4	0.005	2.5
	30	120	16	0.019	2.5
	40	120	10	0.012	2.5
	50	120	22	0.026	2.5
Frequency Stability vs. Voltage	20	102	4	0.005	2.5
	20	138	2	0.002	2.5

WCDMA Mode

Test Modulation:	WCDMA R99		Test Channel:	836.6	MHz
Test Item	Temperature (°C)	Voltage (V_{AC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	120	-16	-0.019	2.5
	-20	120	-15	-0.018	2.5
	-10	120	-15	-0.018	2.5
	0	120	-6	-0.007	2.5
	10	120	-9	-0.011	2.5
	20	120	-3	-0.004	2.5
	30	120	-9	-0.011	2.5
	40	120	-4	-0.005	2.5
	50	120	-4	-0.005	2.5
Frequency Stability vs. Voltage	20	102	-11	-0.013	2.5
	20	138	-12	-0.014	2.5

PCS Band (Part 24E)

GSM Mode

Test Mode:	GMSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1850.03571	1850.00000	1909.99118	1910.00000
	-20	120	1850.03885	1850.00000	1909.98122	1910.00000
	-10	120	1850.02445	1850.00000	1909.96705	1910.00000
	0	120	1850.02200	1850.00000	1908.99964	1910.00000
	10	120	1850.03439	1850.00000	1909.92827	1910.00000
	20	120	1850.04932	1850.00000	1909.98738	1910.00000
	30	120	1850.00888	1850.00000	1909.99376	1910.00000
	40	120	1850.02224	1850.00000	1909.94472	1910.00000
	50	120	1850.04928	1850.00000	1909.97941	1910.00000
Frequency Stability vs. Voltage	20	102	1850.06893	1850.00000	1909.96566	1910.00000
	20	138	1850.02532	1850.00000	1909.91784	1910.00000

Test Mode:	8PSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1850.01600	1850.00000	1909.97741	1910.00000
	-20	120	1850.02686	1850.00000	1909.99598	1910.00000
	-10	120	1850.01098	1850.00000	1909.97742	1910.00000
	0	120	1850.02006	1850.00000	1909.99625	1910.00000
	10	120	1850.03925	1850.00000	1909.96849	1910.00000
	20	120	1850.02439	1850.00000	1909.99153	1910.00000
	30	120	1850.01988	1850.00000	1909.99345	1910.00000
	40	120	1850.99456	1850.00000	1909.96141	1910.00000
	50	120	1850.02539	1850.00000	1909.97863	1910.00000
Frequency Stability vs. Voltage	20	102	1850.01154	1850.00000	1909.97643	1910.00000
	20	138	1850.01877	1850.00000	1909.97369	1910.00000

WCDMA Mode

Test Mode:	WCDMA R99	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1850.03865	1850.00000	1909.98065	1910.00000
	-20	120	1850.02202	1850.00000	1909.98936	1910.00000
	-10	120	1850.01134	1850.00000	1909.98563	1910.00000
	0	120	1850.01930	1850.00000	1909.97937	1910.00000
	10	120	1850.03531	1850.00000	1909.94852	1910.00000
	20	120	1850.05797	1850.00000	1909.97727	1910.00000
	30	120	1850.01924	1850.00000	1909.97641	1910.00000
	40	120	1850.03102	1850.00000	1909.92938	1910.00000
	50	120	1850.05231	1850.00000	1909.97281	1910.00000
Frequency Stability vs. Voltage	20	102	1850.08501	1850.00000	1909.97939	1910.00000
	20	138	1850.00732	1850.00000	1909.93676	1910.00000

LTE Band 2

QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1850.12636	1850.00000	1909.88073	1910.00000
	-20	120	1850.11176	1850.00000	1909.86111	1910.00000
	-10	120	1850.10458	1850.00000	1909.89028	1910.00000
	0	120	1850.10489	1850.00000	1909.85106	1910.00000
	10	120	1850.13241	1850.00000	1909.86288	1910.00000
	20	120	1850.13109	1850.00000	1909.86164	1910.00000
	30	120	1850.10482	1850.00000	1909.87950	1910.00000
	40	120	1850.09725	1850.00000	1909.86723	1910.00000
	50	120	1850.13315	1850.00000	1909.87142	1910.00000
Frequency Stability vs. Voltage	20	102	1850.13009	1850.00000	1909.84767	1910.00000
	20	138	1850.08869	1850.00000	1909.85645	1910.00000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1850.10249	1850.00000	1909.86642	1910.00000
	-20	120	1850.12229	1850.00000	1909.88427	1910.00000
	-10	120	1850.09481	1850.00000	1909.85556	1910.00000
	0	120	1850.13239	1850.00000	1909.88452	1910.00000
	10	120	1850.10281	1850.00000	1909.87218	1910.00000
	20	120	1850.11156	1850.00000	1909.88048	1910.00000
	30	120	1850.10224	1850.00000	1909.87541	1910.00000
	40	120	1850.09429	1850.00000	1909.88605	1910.00000
	50	120	1850.10657	1850.00000	1909.88841	1910.00000
Frequency Stability vs. Voltage	20	102	1850.12066	1850.00000	1909.88750	1910.00000
	20	138	1850.08461	1850.00000	1909.85742	1910.00000

LTE Band 4

QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1710.30225	1710.00000	1754.76354	1755.00000
	-20	120	1710.28907	1710.00000	1754.74985	1755.00000
	-10	120	1710.28163	1710.00000	1754.77831	1755.00000
	0	120	1710.23721	1710.00000	1754.76007	1755.00000
	10	120	1710.28145	1710.00000	1754.74308	1755.00000
	20	120	1710.25758	1710.00000	1754.76252	1755.00000
	30	120	1710.26655	1710.00000	1754.78456	1755.00000
	40	120	1710.26159	1710.00000	1754.76487	1755.00000
	50	120	1710.24510	1710.00000	1754.76635	1755.00000
Frequency Stability vs. Voltage	20	102	1710.24434	1710.00000	1754.74278	1755.00000
	20	138	1710.26059	1710.00000	1754.75432	1755.00000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	1710.11328	1710.00000	1754.85167	1755.00000
	-20	120	1710.13789	1710.00000	1754.84475	1755.00000
	-10	120	1710.12182	1710.00000	1754.89535	1755.00000
	0	120	1710.12622	1710.00000	1754.88202	1755.00000
	10	120	1710.12009	1710.00000	1754.88167	1755.00000
	20	120	1710.12459	1710.00000	1754.88495	1755.00000
	30	120	1710.12000	1710.00000	1754.86797	1755.00000
	40	120	1710.11555	1710.00000	1754.88637	1755.00000
	50	120	1710.13742	1710.00000	1754.85841	1755.00000
Frequency Stability vs. Voltage	20	102	1710.10709	1710.00000	1754.87320	1755.00000
	20	138	1710.09288	1710.00000	1754.86895	1755.00000

LTE Band 5

QPSK:

Test Modulation:	10 MHz QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (℃)	Voltage (V_{AC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	120	6.15	0.007	2.5
	-20	120	-13.76	-0.016	2.5
	-10	120	7.12	0.009	2.5
	0	120	-9.07	-0.011	2.5
	10	120	-10.43	-0.012	2.5
	20	120	7.27	0.009	2.5
	30	120	12.65	0.015	2.5
	40	120	-9.83	-0.012	2.5
	50	120	8.34	0.010	2.5
Frequency Stability vs. Voltage	20	102	3.01	0.004	2.5
	20	138	6.61	0.008	2.5

16QAM:

Test Modulation:	10 MHz 16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (℃)	Voltage (V_{AC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	120	-17.7	-0.021	2.5
	-20	120	4.12	0.005	2.5
	-10	120	8.32	0.010	2.5
	0	120	11.99	0.014	2.5
	10	120	-6.29	-0.008	2.5
	20	120	4.41	0.005	2.5
	30	120	-5.45	-0.007	2.5
	40	120	7.6	0.009	2.5
	50	120	8.14	0.010	2.5
Frequency Stability vs. Voltage	20	102	6.92	0.008	2.5
	20	138	5.7	0.007	2.5

LTE Band 7

QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2500.79662	2500.00000	2569.92633	2570.00000
	-20	120	2500.83031	2500.00000	2569.93406	2570.00000
	-10	120	2500.89715	2500.00000	2569.91192	2570.00000
	0	120	2500.41595	2500.00000	2569.90660	2570.00000
	10	120	2500.71215	2500.00000	2569.94574	2570.00000
	20	120	2500.35243	2500.00000	2569.97569	2570.00000
	30	120	2500.25016	2500.00000	2569.94509	2570.00000
	40	120	2500.49071	2500.00000	2569.97051	2570.00000
	50	120	2500.70296	2500.00000	2569.95944	2570.00000
Frequency Stability vs. Voltage	20	102	2500.28215	2500.00000	2569.92893	2570.00000
	20	138	2500.69678	2500.00000	2569.97145	2570.00000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2500.19592	2500.00000	2569.91234	2570.00000
	-20	120	2500.23291	2500.00000	2569.96993	2570.00000
	-10	120	2500.31187	2500.00000	2569.92844	2570.00000
	0	120	2500.21546	2500.00000	2569.89834	2570.00000
	10	120	2500.20039	2500.00000	2569.96115	2570.00000
	20	120	2500.30973	2500.00000	2569.97719	2570.00000
	30	120	2500.18474	2500.00000	2569.95422	2570.00000
	40	120	2500.31322	2500.00000	2569.93924	2570.00000
	50	120	2500.39212	2500.00000	2569.90327	2570.00000
Frequency Stability vs. Voltage	20	102	2500.16606	2500.00000	2569.94072	2570.00000
	20	138	2500.28367	2500.00000	2569.90194	2570.00000

LTE Band 38

QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2570.22458	2570.00000	2619.92330	2620.00000
	-20	120	2570.48696	2570.00000	2619.95500	2620.00000
	-10	120	2570.56333	2570.00000	2619.95582	2620.00000
	0	120	2570.59308	2570.00000	2619.94242	2620.00000
	10	120	2570.18457	2570.00000	2619.92705	2620.00000
	20	120	2570.43703	2570.00000	2619.96351	2620.00000
	30	120	2570.30400	2570.00000	2619.97475	2620.00000
	40	120	2570.13051	2570.00000	2619.92238	2620.00000
	50	120	2570.27130	2570.00000	2619.96462	2620.00000
Frequency Stability vs. Voltage	20	102	2570.38422	2570.00000	2619.95771	2620.00000
	20	138	2570.17793	2570.00000	2619.95911	2620.00000

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2570.10099	2570.00000	2619.97972	2620.00000
	-20	120	2570.12287	2570.00000	2619.94845	2620.00000
	-10	120	2570.15271	2570.00000	2619.95260	2620.00000
	0	120	2570.40504	2570.00000	2619.89468	2620.00000
	10	120	2570.31354	2570.00000	2619.94540	2620.00000
	20	120	2570.23232	2570.00000	2619.92524	2620.00000
	30	120	2570.11578	2570.00000	2619.95882	2620.00000
	40	120	2570.12659	2570.00000	2619.93902	2620.00000
	50	120	2570.17315	2570.00000	2619.99073	2620.00000
Frequency Stability vs. Voltage	20	102	2570.16941	2570.00000	2619.93942	2620.00000
	20	138	2570.18411	2570.00000	2619.90674	2620.00000

LTE Band 40 Lower:

QPSK:

Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2305.12496	2305.00000	2314.82103	2315.00000
	-20	120	2305.62559	2305.00000	2314.46997	2315.00000
	-10	120	2305.46089	2305.00000	2314.54300	2315.00000
	0	120	2305.25104	2305.00000	2314.09880	2315.00000
	10	120	2305.48437	2305.00000	2314.18406	2315.00000
	20	120	2305.39859	2305.00000	2314.31794	2315.00000
	30	120	2305.15559	2305.00000	2314.16012	2315.00000
	40	120	2305.48314	2305.00000	2314.42405	2315.00000
	50	120	2305.71416	2305.00000	2314.02147	2315.00000
Frequency Stability vs. Voltage	20	102	2305.66032	2305.00000	2314.09601	2315.00000
	20	138	2305.19868	2305.00000	2314.29335	2315.00000

16QAM:

Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2305.94832	2305.00000	2314.23595	2315.00000
	-20	120	2305.95857	2305.00000	2314.60794	2315.00000
	-10	120	2305.88402	2305.00000	2314.78113	2315.00000
	0	120	2305.04542	2305.00000	2314.89252	2315.00000
	10	120	2305.76110	2305.00000	2314.67344	2315.00000
	20	120	2305.67207	2305.00000	2314.21045	2315.00000
	30	120	2305.35963	2305.00000	2314.37323	2315.00000
	40	120	2305.79381	2305.00000	2314.03124	2315.00000
	50	120	2305.12504	2305.00000	2314.93462	2315.00000
Frequency Stability vs. Voltage	20	102	2305.97312	2305.00000	2314.06426	2315.00000
	20	138	2305.86633	2305.00000	2314.83387	2315.00000

LTE Band 40 Upper:

QPSK:

Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2350.22577	2350.00000	2359.13451	2360.00000
	-20	120	2350.97452	2350.00000	2359.07297	2360.00000
	-10	120	2350.73972	2350.00000	2359.48624	2360.00000
	0	120	2350.81630	2350.00000	2359.43343	2360.00000
	10	120	2350.91098	2350.00000	2359.62563	2360.00000
	20	120	2350.98295	2350.00000	2359.68146	2360.00000
	30	120	2350.91875	2350.00000	2359.90103	2360.00000
	40	120	2350.91901	2350.00000	2359.46167	2360.00000
	50	120	2350.11134	2350.00000	2359.91530	2360.00000
Frequency Stability vs. Voltage	20	102	2350.94725	2350.00000	2359.72943	2360.00000
	20	138	2350.44745	2350.00000	2359.15465	2360.00000

16QAM:

Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2350.47011	2350.00000	2359.85094	2360.00000
	-20	120	2350.10075	2350.00000	2359.89602	2360.00000
	-10	120	2350.97256	2350.00000	2359.74722	2360.00000
	0	120	2350.70716	2350.00000	2359.82887	2360.00000
	10	120	2350.40150	2350.00000	2359.76924	2360.00000
	20	120	2350.91988	2350.00000	2359.87819	2360.00000
	30	120	2350.55914	2350.00000	2359.44161	2360.00000
	40	120	2350.91651	2350.00000	2359.81794	2360.00000
	50	120	2350.66823	2350.00000	2359.32346	2360.00000
Frequency Stability vs. Voltage	20	102	2350.91144	2350.00000	2359.73060	2360.00000
	20	138	2350.77963	2350.00000	2359.83380	2360.00000

LTE Band 41

QPSK:

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2496.09565	2496.00	2689.83115	2690
	-20	120	2496.99838	2496.00	2689.86233	2690
	-10	120	2496.05218	2496.00	2689.93728	2690
	0	120	2496.08282	2496.00	2689.83556	2690
	10	120	2496.35050	2496.00	2689.99251	2690
	20	120	2496.18826	2496.00	2689.96425	2690
	30	120	2496.21696	2496.00	2689.71719	2690
	40	120	2496.09915	2496.00	2689.76374	2690
	50	120	2496.06411	2496.00	2689.81334	2690
Frequency Stability vs. Voltage	20	102	2496.16649	2496.00	2689.83290	2690
	20	138	2496.29124	2496.00	2689.65431	2690

16QAM:

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{AC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	120	2496.22834	2496.00	2689.81945	2690
	-20	120	2496.34564	2496.00	2689.77325	2690
	-10	120	2496.32276	2496.00	2689.60030	2690
	0	120	2496.31637	2496.00	2689.79849	2690
	10	120	2496.34078	2496.00	2689.99284	2690
	20	120	2496.13635	2496.00	2689.64071	2690
	30	120	2496.17714	2496.00	2689.73539	2690
	40	120	2496.18637	2496.00	2689.89752	2690
	50	120	2496.40095	2496.00	2689.81658	2690
Frequency Stability vs. Voltage	20	102	2496.09672	2496.00	2689.64408	2690
	20	138	2496.15812	2496.00	2689.71739	2690

EUT PHOTOGRAPHS

Please refer to the attachment SZ1240308-11533E-RF External photo and SZ1240308-11533E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment SZ1240308-11533E-RFC Test Setup photo.

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