TEST REPORT

For

Mobile Phone

Model Number: CPH2711

Test Laboratory	:	Shenzhen Academy of Metrology and Quality Inspection
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重 要 声 明

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Revision History

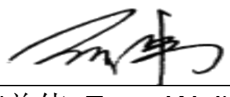
No	Date	Remark
V1.0	2024-12-9	Initial issue

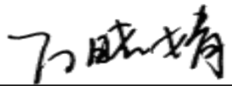
TEST REPORT DECLARATION

Applicant	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China
Manufacturer	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China
EUT Description	:	Mobile Phone
Model No.	:	CPH2711
Trade mark	:	OPPO
FCC ID	:	R9C-OP24283
Date of EUT Receive	:	2024-11-4
Test Standards:	:	FCC 47 CFR PART 22 FCC 47 CFR PART 24 FCC 47 CFR PART 27 FCC 47 CFR PART 90

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT and ensure the EUT to be compliance with the immunity requirements of the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results, unless they depend on the manufacturer information.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer:  Date: 2024-12-9
(曾伟 Zeng Wei)

Checked by:  Date: 2024-12-9
(万晓婧 Wan XiaoJing)

Approved by:  Date: 2024-12-9
(林斌 Lin Bin)

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1. TEST RESULTS SUMMARY

No.	Test Description	Test Verdict
1	Conducted Power & Effective Radiated Power	Pass
2	Peak to Average Radio	Pass
3	Occupied Bandwidth & Emission Bandwidth	Pass
4	Conducted Band Edge	Pass
5	Conducted Spurious Emissions	Pass
6	Frequency Stability	Pass
7	Radiated Spurious Emissions	Pass

2. GENERAL INFORMATION

2.1. Report information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

The lab will not be liable for any loss or damage resulting for false, inaccurate, inappropriate or incomplete product information provided by the applicant/manufacturer.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China.

At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is Accredited Testing Laboratory of FCC with Designation number CN1165 and Site registration number 582918.

The Laboratory is registered to perform emission tests with Innovation, Science and Economic Development (ISED), and the registration number is 11177A.

The Laboratory is registered to perform emission tests with VCCI, and the registration number are C-20048, G20076, R-20077, R-20078 and T-20047.

The Laboratory is Accredited Testing Laboratory of American Association for Laboratory Accreditation (A2LA) and certificate number is 3292.01.

2.3. Measurement Uncertainty

For a 95% confidence level (k = 2), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

26dB & Occupied Bandwidth: ±0.39%

Frequency Stability: ±0.42%

Peak to Average Ratio: ±0.45 dB

Conducted power: ±0.3 dB

Conducted Spurious Emissions: ±2.0 dB

Conducted Band Edge: ±2.0 dB

Temperature: ±0.698 °C

Supply voltages:±0.15%

Radiated Emission:
30MHz~1000MHz 4.5dB
1GHz~6GHz 4.6dB
6GHz~18GHz 5.1dB
18GHz~26.5GHz 5.1dB

3. TECHNICAL INFORMATION

3.1. EUT Description

Hardware Revision:	11	
Software Revision:	ColorOS 15.0.0	
Tx Frequency:	GSM850:	824 ~ 849 MHz
	PCS1900:	1850 ~ 1910 MHz
	WCDMA Band V:	824 ~ 849 MHz
	WCDMA Band IV:	1710 ~ 1755 MHz
	WCDMA Band II:	1850 ~ 1910 MHz
	LTE Band 2:	1850 ~ 1910 MHz
	LTE Band 4:	1710 ~ 1755 MHz
	LTE Band 5:	824 ~ 849 MHz
	LTE Band 7:	2500 ~ 2570 MHz
	LTE Band 12:	699 ~ 716 MHz
	LTE Band 13:	777 ~ 787 MHz
	LTE Band 17:	704 ~ 716 MHz
	LTE Band 26:	814 ~ 849 MHz
	LTE Band 38:	2570 ~ 2620 MHz
	LTE Band 41:	2535 ~ 2655 MHz
	LTE Band 66:	1710 ~ 1780 MHz
Rx Frequency:	GSM850:	869 ~ 894 MHz
	PCS1900:	1930 ~ 1990 MHz
	WCDMA Band V:	869 ~ 894 MHz
	WCDMA Band IV:	2110 ~ 2155 MHz
	WCDMA Band II:	1930 ~ 1990 MHz
	LTE Band 2:	1930 ~ 1990 MHz
	LTE Band 4:	2110 ~ 2155 MHz
	LTE Band 5:	869 ~ 894 MHz
	LTE Band 7:	2620 ~ 2690 MHz
	LTE Band 12:	729 ~ 746 MHz
	LTE Band 13:	746 ~ 756 MHz
	LTE Band 17:	734 ~ 746 MHz
	LTE Band 26:	859 ~ 894 MHz
	LTE Band 38:	2570 ~ 2620 MHz
	LTE Band 41:	2535 ~ 2655 MHz
	LTE Band 66:	2110 ~ 2180 MHz
Type(s) of Modulation:	GSM: GMSK, 8PSK WCDMA: QPSK, 16QAM LTE: QPSK, 16QAM, 64QAM	
Power Supply Voltage:	DC: 3.4 V (Low) / 3.92 V (Nominal) / 4.53 V (Max)	

		Antenna Gain (dBi)			
		Ant 0	**Ant 1**	**Ant 3**	**Ant 4**
GSM 850	824 - 849 MHz	-7.5	**-5**		
PCS 1900	1850 - 1910 MHz			**-3**	-4.5
WCDMA band 2	1850 -1910 MHz			**-3**	-4.5
WCDMA band 4	1710 -1755 MHz			**-3**	-3.5
WCDMA band 5	824 - 849MHz	-7.5	**-5**		
LTE band 2	1850 - 1910 MHz			**-3**	-4.5
LTE band 4	1710 - 1755 MHz			**-3**	-4.5
LTE band 5	824 - 849 MHz	-7.5	**-5**		
LTE band 7	2500 - 2570 MHz			**-1.5**	-1.5
LTE band 12	699 - 716 MHz	-9	**-6**		
LTE band 13	777 - 787 MHz	-9	**-6**		
LTE band 17	704 - 716 MHz	-9	**-6**		
LTE band 26	814 - 849 MHz	-7.5	**-5**		
LTE band 38	2570 - 2620 MHz			**-1.5**	-1.5
LTE band 41	2535 - 2655 MHz			**-1.5**	-1.5
LTE band 66	1710 - 1780 MHz			**-3**	-3.5

NOTE:

1. The extreme test conditions for temperature and antenna gain were declared by the manufacturer.
2. The port of bottom antenna was chosen as representative port to perform the worst case of conducted test.
3. Both bottom and top antennas support transmission (1TX2RX). The EUT doesn't support UL-MIMO mode of GSM, WCDMA and LTE.

3.2. Identification of Accessory equipment

AE #	Type	Manufacturer	Model	Serial Number
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3.3. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: R9C-OP24283 filing to comply with FCC PART 2, 22H, 24E, 27 and 90S.

3.4. Operating Condition of EUT

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (Y plane).
Radiated spurious emissions were investigated below 30MHz, 30MHz-1GHz and above 1GHz.There were no emissions found on below 30MHz and 30MHz-1GHz.

TM1: GSM Mode with GMSK Modulation
TM2: EDGE Mode with 8PSK Modulation
TM3: WCDMA Mode with QPSK Modulation
TM4: LTE Mode with QPSK Modulation
TM5: LTE Mode with 16QAM Modulation
TM6: LTE Mode with 64QAM Modulation

3.5. Frequency List

Test Mode	UL Channel	UL Channel No.	UL Frequency (MHz)
GSM/GPRS/EGPRS 850	Low Channel	128	824.2
	Middle Channel	190	836.6
	High Channel	251	848.8
GSM/GPRS/EGPRS 1900	Low Channel	512	1850.2
	Middle Channel	661	1880.0
	High Channel	810	1909.8
WCDMA Band II	Low Channel	9262	1852.4
	Middle Channel	9400	1880.0
	High Channel	9538	1907.6
WCDMA Band Ⅳ	Low Channel	1312	1712.4
	Middle Channel	1412	1732.4
	High Channel	1513	1752.6
WCDMA Band Ⅴ	Low Channel	4132	826.4
	Middle Channel	4182	836.4
	High Channel	4233	846.6

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 2	Low Range	1.4	18607	1850.7
		3	18615	1851.5
		5	18625	1852.5
		10	18650	1855
		15	18675	1857.5
		20	18700	1860
	Middle Range	1.4/3/5/10/15/20	18900	1880
	High Range	1.4	19193	1909.3
		3	19185	1908.5
		5	19175	1907.5
		10	19150	1905
		15	19125	1902.5
		20	19100	1900
LTE Band 4	Low Range	1.4	19957	1710.7
		3	19965	1711.5
		5	19975	1712.5
		10	20000	1715
		15	20025	1717.5
		20	20050	1720
	Middle Range	1.4/3/5/10/15/20	20175	1732.5
	High Range	1.4	20393	1754.3
		3	20385	1753.5
		5	20375	1752.5
		10	20350	1750
		15	20325	1747.5
		20	20300	1745

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 7	Low Range	5	20775	2502.5
		10	20800	2505
		15	20825	2507.5
		20	20850	2510
	Middle Range	5/10/15/20	21100	2535
	High Range	5	21425	2567.5
		10	21400	2565
		15	21375	2562.5
		20	21350	2560
LTE Band 38	Low Range	5	37775	2572.5
		10	37800	2575
		15	37825	2577.5
		20	37850	2580
	Middle Range	5/10/15/20	38000	2595
	High Range	5	38225	2617.5
		10	38200	2615
		15	38175	2612.5
		20	38150	2610
LTE Band 41 (2535 - 2655 MHz)	Low Range	5	40065	2537.5
		10	40090	2540
		15	40115	2542.5
		20	40140	2545
	Middle Range	5/10/15/20	40640	2595
	High Range	5	41215	2652.5
		10	41190	2650
		15	41165	2647.5
		20	41140	2645

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 5	Low Range	1.4	20407	824.7
		3	20415	825.5
		5	20425	826.5
		10	20450	829
	Middle Range	1.4/3/5/10	20525	836.5
	High Range	1.4	20643	848.3
		3	20635	847.5
		5	20625	846.5
		10	20600	844

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 26 (824 - 849 MHz)	Low Range	1.4	26797	824.7
		3	26805	825.5
		5	26815	826.5
		10	26840	829
		15	26865	831.5
	Middle Range	1.4/3/5/10/15	26915	836.5
	High Range	1.4	27033	848.3
		3	27025	847.5
		5	27015	846.5
		10	26990	844
		15	26965	841.5
LTE Band 26 (814 - 824 MHz)	Low Range	1.4	26697	814.7
		3	26705	815.5
		5	26715	816.5
	Middle Range	1.4/3/5/10	26740	819
	High Range	1.4	26783	823.3
		3	26775	822.5
		5	26765	821.5

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 12	Low Range	1.4	23017	699.7
		3	23025	700.5
		5	23035	701.5
		10	23060	704
	Middle Range	1.4/3/5/10	23095	707.5
	High Range	1.4	23173	715.3
		3	23165	714.5
		5	23155	713.5
		10	23130	711
LTE Band 13	Low Range	5	23205	779.5
	Middle Range	5/10	23230	782
	High Range	5	23255	784.5
LTE Band 17	Low Range	5	23755	706.5
		10	23780	709
	Middle Range	5/10	23790	710
	High Range	5	23825	713.5
		10	23800	711

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 66	Low Range	1.4	131979	1710.7
		3	131987	1711.5
		5	131997	1712.5
		10	132022	1715
		15	132047	1717.5
		20	132072	1720
	Middle Range	1.4/3/5/10/15/20	132322	1745
	High Range	1.4	132665	1779.3
		3	132657	1778.5
		5	132647	1777.5
		10	132622	1775
		15	132597	1772.5
		20	132572	1770

3.6. Max EIRP / ERP

Mode	Maximum EIRP/ERP (dBm)
GSM850	25.67
PCS1900	26.74
WCDMA Band V	17.21
WCDMA Band IV	20.91
WCDMA Band II	21.09
LTE Band 2	21.24
LTE Band 4	21.22
LTE Band 5	17.04
LTE Band 7	22.97
LTE Band 12	16.41
LTE Band 13	16.13
LTE Band 17	15.65
LTE Band 26 (814 - 824 MHz)	17.41
LTE Band 26 (824 - 849 MHz)	17.43
LTE band 38	22.85
LTE band 41	22.62
LTE band 66	21.41

Note: FCC rule Part 22.905 of LTE Band 26 (824-849MHz) is covered by LTE band 5 of same rule, since they have the same output power and supported bandwidths. In this report, only test FCC rule Part 90S of LTE Band 26 (814-824MHz) and Part 22.905 of LTE Band 26 (824-849MHz) bandwidth 15MHz.

4. TEST RESULTS OF PART 27

4.1. Test Standard and Limit

4.1.1. Test Standard

FCC 47 CFR PART 27

4.1.2. Test Limit

Conducted Power & Effective Radiated Power

27.50(a) (3), for mobile and portable stations transmitting in the 2305-2315MHz band or the 2350-2360MHz 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.

27.50(b) (10), portable stations (hand-held devices) transmitting in the 746-757MHz, 776-788MHz, and 805-806MHz bands are limited to 3 watts ERP.

27.50(c) (10), portable stations (hand-held devices) in the 600MHz uplink band and the 698-746MHz band, and fixed and mobile stations in the 600MHz uplink band are limited to 3 watts ERP.

27.50(d) (4), 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. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications. (7) Fixed, mobile, and portable (hand-held) stations operating in the 2000-2020 MHz band are limited to 2 watts EIRP.

27.50(h) (2), for mobile and other user stations, mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

Peak to Average Radio
The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Occupied Bandwidth & Emission Bandwidth
The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable.
Transmitters employing digital modulation techniques-when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated.

Conducted Spurious Emissions & Band Edge
FCC § 27.53(a) (4) For mobile and portable stations operating in the 2305-2315MHz and 2350-2360MHz bands:
By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320MHz and on all frequencies between 2345 and 2360MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324MHz and on all frequencies between 2341 and 2345MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328MHz and on all frequencies between 2337 and 2341MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337MHz.
By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292MHz, and 70 + 10 log (P) dB below 2288MHz.
By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365MHz, and not less than 70 + 10 log (P) dB above 2365MHz.

FCC § 27.53(c)
For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;
On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;
Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.
However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)
For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43+10*log(P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

FCC § 27.53(h) (1)
Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

FCC § 27.53(m) (4)
For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:
40+10logP dB (−10 dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.
43+10logP dB (−13 dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,
55+10logP dB (−25 dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).
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 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Frequency Stability
The carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances 2.5ppm.

4.2. Test Procedure

Conducted Power & Effective Radiated Power

KDB 971168 Section 5.6
EIRP (dBm) = ERP (dBm) + 2.15 (dB)
ERP/EIRP = PMeas + GT − LC
where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.
For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.
EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and ERP/EIRP output powers.

Peak to Average Radio

According to KDB 971168 D01, there is CCDF procedure for PAPR:
Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
Set resolution/measurement bandwidth ≥ signal `s occupied bandwidth;
Set the number of counts to a value that stabilizes the measured CCDF curve;
Set the measurement interval as follows:
for continuous transmissions, set to 1 ms,
for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
Record the maximum PAPR level associated with a probability of 0.1%.

Alternate procedure for PAPR:
Use one of the procedures presented in 4.1 to measure the total peak power and record as PPk. Use one of the applicable procedures presented 4.2 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from: PAPR (dB) = PPk (dBm) - PAvg (dBm).

Occupied Bandwidth & Emission Bandwidth

1 Adjust the settings of the Universal Radio Communication Tester to set the EUT to its maximum power at the required channel.Spectrum analyzer settings.

2 Set the spectrum analyzer to measure the 99% occupied bandwidth. Record the value.

3 Set the spectrum analyzer to measure the -26 dB emission bandwidth. Record the value.

4 Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

Measurement bandwidth of at least 1% of the occupied bandwidth.

Conducted Band Edge

1 The testing follows ANSI C63.26 section 5.7

2 The EUT was connected to spectrum analyzer and system simulator via a power divider.

3 The band edges of low and high channels for the highest RF powers were measured.

4 Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

5 Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.

6 Set spectrum analyzer with RMS detector.

7 The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

8 Checked that all the results comply with the emission limit line.

Example:
The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

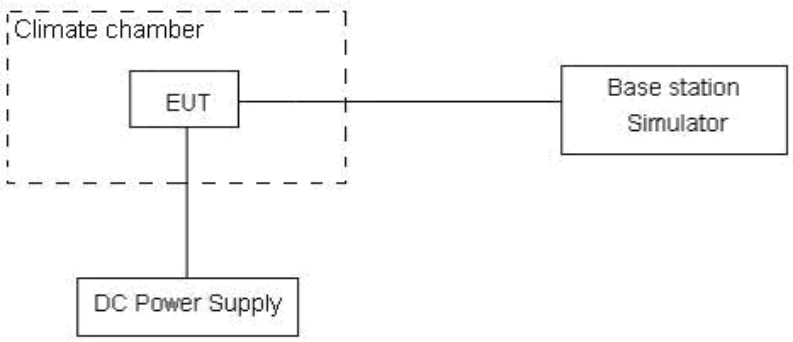
Conducted Spurious Emissions
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

Frequency Stability
Frequency Stability (Temperature Variation):
The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

1 With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.
2 Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.
3 Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

Frequency Stability (Voltage Variation):
The frequency stability shall be measured with variation of primary supply voltage as follows:

1 Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.
2 For hand carried, battery powered equipment, reduce primary supply voltage to the battery-operating end point which shall be specified by the manufacturer.



4.3. Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB11818	Temperature & Humidity Chamber	ESPEC	EH-010U	2023-11-28	12Months
SB13118	Wideband Radio communication Tester	Rohde & Schwarz	CMW500	2024-04-22	12Months
SB18164	Filters	Tonscend	JS0806-F	/	/
SB20321/01	Spectrum Analyzer	Rohde & Schwarz	FSV3044	2024-04-22	12Months
SB7941/08	DC Source	Rohde & Schwarz	NGM01	/	/
SB8501/02	Wireless Connectivity Tester	Rohde & Schwarz	CMU200	2024-04-22	12Months
SB9721/02	Spectrum Analyzer	Agilent	N9020A	2024-04-22	12Months

Test software		
Software Name	Developers	Version
JS1120	Tonscend	3.1.46

4.4. Test Condition

Date of test: Nov.4,2024-Nov.19,2024
Temperature: (22 ~ 26)℃
Relative Humidity: (44 ~ 51)%RH
Atmospheric Pressure: (100.7 ~ 101.9)kPa

4.5. Test Data

Please refer to Appendix.

5. TEST RESULTS OF PART 90

5.1. Test Standard and Limit

5.1.1. Test Standard

FCC 47 CFR PART 90

5.1.2. Test Limit

Conducted Power & Effective Radiated Power
90.635(b), the maximum output power of the transmitter for mobile stations is 100 watts (20dBw).

Peak to Average Radio
The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Occupied Bandwidth & Emission Bandwidth
The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable.
Transmitters employing digital modulation techniques-when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated.

Conducted Spurious Emissions & Band Edge
90.691
Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.
When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

90.543
(e) For operations in the 758–768 MHz and the 788–798 MHz bands, the power of any emission outside the licensee’s frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations.
On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.
On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB.
Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

Frequency Stability
The carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances 2.5ppm.

5.2. Test Procedure

Conducted Power & Effective Radiated Power
KDB 971168 Section 5.6
EIRP (dBm) = ERP (dBm) + 2.15 (dB)
ERP/EIRP = PMeas + GT − LC
where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.
EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and ERP/EIRP output powers.

Peak to Average Radio
According to KDB 971168 D01, there is CCDF procedure for PAPR:
Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

Set resolution/measurement bandwidth ≥ signal `s occupied bandwidth;
Set the number of counts to a value that stabilizes the measured CCDF curve;
Set the measurement interval as follows:
for continuous transmissions, set to 1 ms,
for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
Record the maximum PAPR level associated with a probability of 0.1%.

Alternate procedure for PAPR:
Use one of the procedures presented in 4.1 to measure the total peak power and record as P_{Pk}. Use one of the applicable procedures presented 4.2 to measure the total average power and record as P_{Avg}. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:
PAPR (dB) = P_{Pk} (dBm) - P_{Avg} (dBm).

Occupied Bandwidth & Emission Bandwidth

1 Adjust the settings of the Universal Radio Communication Tester to set the EUT to its maximum power at the required channel.Spectrum analyzer settings.

2 Set the spectrum analyzer to measure the 99% occupied bandwidth. Record the value.

3 Set the spectrum analyzer to measure the -26 dB emission bandwidth. Record the value.

4 Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

Measurement bandwidth of at least 1% of the occupied bandwidth.

Conducted Band Edge

1 The testing follows ANSI C63.26 section 5.7

2 The EUT was connected to spectrum analyzer and system simulator via a power divider.

3 The band edges of low and high channels for the highest RF powers were measured.

4 Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

5 Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.

6 Set spectrum analyzer with RMS detector.

7 The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

8 Checked that all the results comply with the emission limit line.

Example:
The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

Conducted Spurious Emissions

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

Frequency Stability

Frequency Stability (Temperature Variation):

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

1 With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.

2 Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

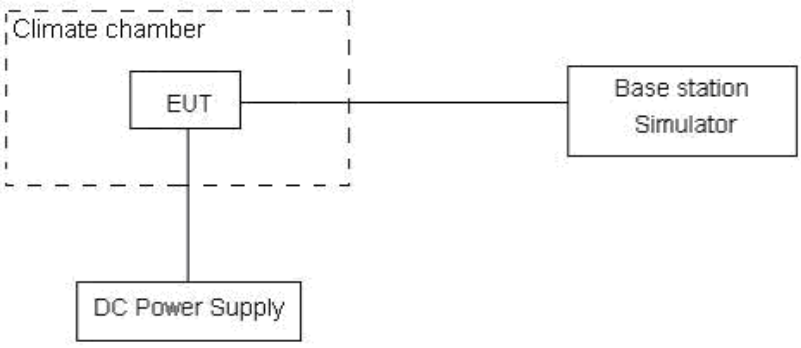
3 Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

Frequency Stability (Voltage Variation):

The frequency stability shall be measured with variation of primary supply voltage as follows:

1 Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

2 For hand carried, battery powered equipment, reduce primary supply voltage to the battery-operating end point which shall be specified by the manufacturer.



5.3. Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB11818	Temperature & Humidity Chamber	ESPEC	EH-010U	2023-11-28	12Months
SB13118	Wideband Radio communication Tester	Rohde & Schwarz	CMW500	2024-04-22	12Months
SB18164	Filters	Tonscend	JS0806-F	/	/
SB20321/01	Spectrum Analyzer	Rohde & Schwarz	FSV3044	2024-04-22	12Months
SB7941/08	DC Source	Rohde & Schwarz	NGM01	/	/
SB8501/02	Wireless Connectivity Tester	Rohde & Schwarz	CMU200	2024-04-22	12Months
SB9721/02	Spectrum Analyzer	Agilent	N9020A	2024-04-22	12Months

Test software		
Software Name	Developers	Version
JS1120	Tonscend	3.1.46

5.4. Test Condition

Date of test: Nov.4,2024-Nov.19,2024
Temperature: (22 ~ 26)℃
Relative Humidity: (44 ~ 51)%RH
Atmospheric Pressure: (100.7 ~ 101)kPa

5.5. Test Data

Please refer to Appendix.

6. TEST RESULTS OF PART 22

6.1. Test Standard and Limit

6.1.1. Test Standard

FCC 47 CFR PART 22

6.1.2. Test Limit

Conducted Power & Effective Radiated Power
The effective radiated power (ERP) of mobile transmitters must not exceed 7 Watts.

Peak to Average Radio
The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Occupied Bandwidth & Emission Bandwidth
The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable.
Transmitters employing digital modulation techniques-when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated.

Conducted Spurious Emissions & Band Edge
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. This is calculated to be -13 dBm.

Frequency Stability
The carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances 2.5ppm.

6.2. Test Procedure

Conducted Power & Effective Radiated Power
KDB 971168 Section 5.6
EIRP (dBm) = ERP (dBm) + 2.15 (dB)
ERP/EIRP = PMeas + GT − LC
where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.
EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and ERP/EIRP output powers.

Peak to Average Radio
According to KDB 971168 D01, there is CCDF procedure for PAPR:
Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

Set resolution/measurement bandwidth ≥ signal `s occupied bandwidth;
Set the number of counts to a value that stabilizes the measured CCDF curve;
Set the measurement interval as follows:
for continuous transmissions, set to 1 ms,
for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
Record the maximum PAPR level associated with a probability of 0.1%.

Alternate procedure for PAPR:
Use one of the procedures presented in 4.1 to measure the total peak power and record as P_{Pk}. Use one of the applicable procedures presented 4.2 to measure the total average power and record as P_{Avg}. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:
PAPR (dB) = P_{Pk} (dBm) - P_{Avg} (dBm).

Occupied Bandwidth & Emission Bandwidth

1 Adjust the settings of the Universal Radio Communication Tester to set the EUT to its maximum power at the required channel.Spectrum analyzer settings.
2 Set the spectrum analyzer to measure the 99% occupied bandwidth. Record the value.
3 Set the spectrum analyzer to measure the -26 dB emission bandwidth. Record the value.
4 Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

Measurement bandwidth of at least 1% of the occupied bandwidth.

Conducted Band Edge

1 The testing follows ANSI C63.26 section 5.7

2 The EUT was connected to spectrum analyzer and system simulator via a power divider.

3 The band edges of low and high channels for the highest RF powers were measured.

4 Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

5 Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.

6 Set spectrum analyzer with RMS detector.

7 The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

8 Checked that all the results comply with the emission limit line.

Example:
The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

Conducted Spurious Emissions

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

Frequency Stability

Frequency Stability (Temperature Variation):

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

1 With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.

2 Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

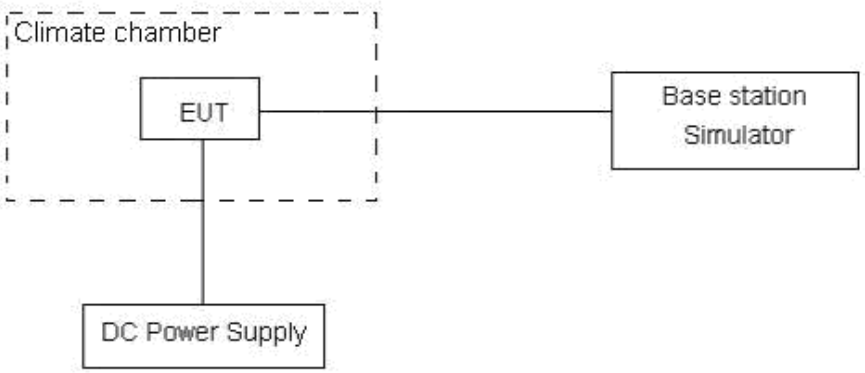
3 Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

Frequency Stability (Voltage Variation):

The frequency stability shall be measured with variation of primary supply voltage as follows:

1 Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

2 For hand carried, battery powered equipment, reduce primary supply voltage to the battery-operating end point which shall be specified by the manufacturer.



6.3. Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB11818	Temperature & Humidity Chamber	ESPEC	EH-010U	2023-11-28	12Months
SB13118	Wideband Radio communication Tester	Rohde & Schwarz	CMW500	2024-04-22	12Months
SB18164	Filters	Tonscend	JS0806-F	/	/
SB20321/01	Spectrum Analyzer	Rohde & Schwarz	FSV3044	2024-04-22	12Months
SB7941/08	DC Source	Rohde & Schwarz	NGM01	/	/
SB8501/02	Wireless Connectivity Tester	Rohde & Schwarz	CMU200	2024-04-22	12Months
SB9721/02	Spectrum Analyzer	Agilent	N9020A	2024-04-22	12Months

Test software		
Software Name	Developers	Version
JS1120	Tonscend	3.1.46

6.4. Test Condition

Date of test: Nov.4,2024-Nov.19,2024
Temperature: (22 ~ 26)℃
Relative Humidity: (44 ~ 51)%RH
Atmospheric Pressure: (100.7 ~ 101)kPa

6.5. Test Data

Please refer to Appendix.

7. TEST RESULTS OF PART 24

7.1. Test Standard and Limit

7.1.1. Test Standard

FCC 47 CFR PART 24

7.1.2. Test Limit

Conducted Power & Effective Radiated Power
limited to 2 watts EIRP.

Peak to Average Radio
The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Occupied Bandwidth & Emission Bandwidth
The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable.
Transmitters employing digital modulation techniques-when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated.

Conducted Spurious Emissions & Band Edge
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. This is calculated to be -13 dBm.

Frequency Stability
The carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances 2.5ppm.

7.2. Test Procedure

Conducted Power & Effective Radiated Power
KDB 971168 Section 5.6
EIRP (dBm) = ERP (dBm) + 2.15 (dB)
ERP/EIRP = PMeas + GT − LC
where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.
EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and ERP/EIRP output powers.

Peak to Average Radio
According to KDB 971168 D01, there is CCDF procedure for PAPR:
Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

Set resolution/measurement bandwidth ≥ signal `s occupied bandwidth;
Set the number of counts to a value that stabilizes the measured CCDF curve;
Set the measurement interval as follows:
for continuous transmissions, set to 1 ms,
for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
Record the maximum PAPR level associated with a probability of 0.1%.

Alternate procedure for PAPR:
Use one of the procedures presented in 4.1 to measure the total peak power and record as PPk. Use one of the applicable procedures presented 4.2 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:
PAPR (dB) = PPk (dBm) - PAvg (dBm).

Occupied Bandwidth & Emission Bandwidth

1 Adjust the settings of the Universal Radio Communication Tester to set the EUT to its maximum power at the required channel.Spectrum analyzer settings.

2 Set the spectrum analyzer to measure the 99% occupied bandwidth. Record the value.

3 Set the spectrum analyzer to measure the -26 dB emission bandwidth. Record the value.

4 Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

Measurement bandwidth of at least 1% of the occupied bandwidth.

Conducted Band Edge

1 The testing follows ANSI C63.26 section 5.7

2 The EUT was connected to spectrum analyzer and system simulator via a power divider.

3 The band edges of low and high channels for the highest RF powers were measured.

4 Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

5 Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.

6 Set spectrum analyzer with RMS detector.

7 The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

8 Checked that all the results comply with the emission limit line.

Example:
The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

Conducted Spurious Emissions

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

Frequency Stability

Frequency Stability (Temperature Variation):

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

1 With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.

2 Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

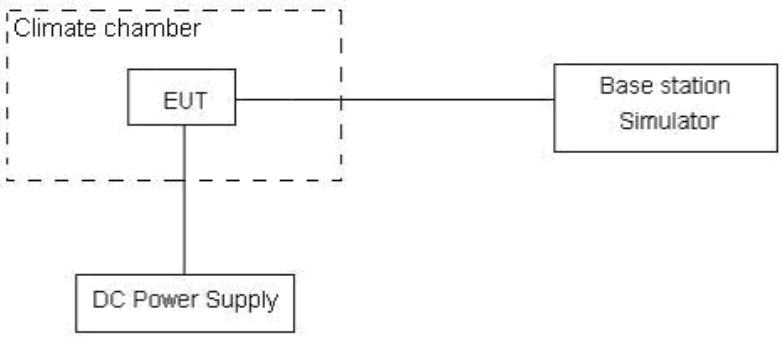
3 Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

Frequency Stability (Voltage Variation):

The frequency stability shall be measured with variation of primary supply voltage as follows:

1 Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

2 For hand carried, battery powered equipment, reduce primary supply voltage to the battery-operating end point which shall be specified by the manufacturer.



7.3. Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB11818	Temperature & Humidity Chamber	ESPEC	EH-010U	2023-11-28	12Months
SB13118	Wideband Radio communication Tester	Rohde & Schwarz	CMW500	2024-04-22	12Months
SB18164	Filters	Tonscend	JS0806-F	/	/
SB20321/01	Spectrum Analyzer	Rohde & Schwarz	FSV3044	2024-04-22	12Months
SB7941/08	DC Source	Rohde & Schwarz	NGM01	/	/
SB8501/02	Wireless Connectivity Tester	Rohde & Schwarz	CMU200	2024-04-22	12Months
SB9721/02	Spectrum Analyzer	Agilent	N9020A	2024-04-22	12Months

Test software		
Software Name	Developers	Version
JS1120	Tonscend	3.1.46

7.4. Test Condition

Date of test: Nov.4,2024-Nov.19,2024
Temperature: (22 ~ 26)℃
Relative Humidity: (44 ~ 51)%RH
Atmospheric Pressure: (100.7 ~ 101)kPa

7.5. Test Data

Please refer to Appendix.

8. RADIATED SPURIOUS EMISSIONS

8.1. Limit

Band	Ch.	Mode	Limit (dBm)
GSM 850	MCH	GPRS	-13
PCS 1900	MCH	GPRS	-13
WCDMA band 2	MCH	QPSK	-13
WCDMA band 4	MCH	QPSK	-13
WCDMA band 5	MCH	QPSK	-13
LTE band 2	MCH	QPSK	-13
LTE band 4	MCH	QPSK	-13
LTE band 5	MCH	QPSK	-13
LTE band 7	MCH	QPSK	-25
LTE band 12	MCH	QPSK	-13
LTE band 13	MCH	QPSK	-13
LTE band 17	MCH	QPSK	-13
LTE band 26	MCH	QPSK	-13
LTE band 38	MCH	QPSK	-25
LTE band 41	MCH	QPSK	-25
LTE band 66	MCH	QPSK	-13

8.2. Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB8501/09	EMI Test Receiver	Rohde & Schwarz	ESU40	2024-01-17	12Months
SB12724/06	Universal Communication Tester	Rohde & Schwarz	CMW500	2024-04-22	12Months
SB3435	Double-Ridged Waveguide Horn Antenna(1G~18GHz)	Rohde & Schwarz	HF906	2023-11-21	12Months
SB8501/04	Trilog Broadband Antenna(30M-3GHz)	SCHWARZBECK	VULB 9163	2024-04-30	12Months
SB8501/11	Horn Antenna	ETS-Lindgren	3160-09	2023-02-22	36Months
SB8501/12	Horn Antenna	ETS-Lindgren	3160-10	2023-02-22	36Months
SB8501/14	Preamplifier	Rohde & Schwarz	SCU-03	2024-01-29	12Months
SB8501/17	Preamplifier	Rohde & Schwarz	SCU-18	2024-01-09	12Months
SB8501/16	Preamplifier	Rohde & Schwarz	SCU-26	2024-01-16	12Months
SB9059	Preamplifier	Rohde & Schwarz	SCU-40	2023-08-21	12Months
SB9555/02	Fully Anechoic Chamber	Albatross	10.0*5.2*5.4(m)	2024-08-08	12Months

Test software		
Software Name	Developers	Version
EMC32	Rohde & Schwarz	9.26.01

8.3. Test Data

Please refer to Appendix M.

9. APPENDIX LIST

Appendix	Title
A	Test Results of Conducted Test - GSM / WCDMA
B	Test Results of Conducted Test – LTE Band 2
C	Test Results of Conducted Test – LTE Band 4
D	Test Results of Conducted Test – LTE Band 5
E	Test Results of Conducted Test – LTE Band 7
F	Test Results of Conducted Test – LTE Band 12
G	Test Results of Conducted Test – LTE Band 13
H	Test Results of Conducted Test – LTE Band 17
I	Test Results of Conducted Test – LTE Band 26
J	Test Results of Conducted Test – LTE Band 38
K	Test Results of Conducted Test – LTE Band 41
L	Test Results of Conducted Test – LTE Band 66
M	Test Results of Radiated Test

----------End of Report----------