TEST REPORT

Applicant Name:	Blackshark Technologies (Nanchang) Co., Ltd
Address:	Room 1001, Floor 10, Floor 3-23, Room 201, Building 8 and 9, No.528, Shuanggang West Street, Nanchang City, Jiangxi Province, China
Report Number:	2501U64129E-RF-00E
FCC ID:	2BCNP-BM-PAD

Test Standard (s)

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

Sample Description

Product Type:	Black Shark Tablet
Model No.:	BSM1
Multiple Model(s) No.:	BSM2, BSM3, BSM4
Trade Mark:	BLACK SHARK
Date Received:	2025/06/13
Issue Date:	2025/08/20

Test Result:	Pass▲

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

Prepared and Checked By:

Jim Cheng

RF Engineer

Approved By:

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.

This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "▼".

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY **3**

GENERAL INFORMATION **4**

PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) 4
OBJECTIVE 5
TEST METHODOLOGY 5
MEASUREMENT UNCERTAINTY 6
TEST FACILITY 6

SYSTEM TEST CONFIGURATION **7**

BLOCK DIAGRAM OF TEST SETUP 9

SUMMARY OF TEST RESULTS **10**

TEST EQUIPMENT LIST **11**

REQUIREMENTS AND TEST PROCEDURES **13**

APPLICABLE STANDARD FOR PART 22 SUBPART H 13
APPLICABLE STANDARD FOR PART 24 SUBPART E 15
APPLICABLE STANDARD FOR PART 27 16
APPLICABLE STANDARD FOR PART 90 17

TEST DATA AND RESULTS **25**

SPURIOUS RADIATED EMISSIONS 25
RF CONDUCTED DATA 34

RF EXPOSURE EVALUATION **35**

EUT PHOTOGRAPHS **36**

TEST SETUP PHOTOGRAPHS **37**

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2501U64129E-RF-00E	Original Report	2025/08/20

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Black Shark Tablet			
Tested Model	BSM1			
Multiple Model(s)	BSM2, BSM3, BSM4			
Frequency Range	GSM 850: 824-849MHz(TX); 869-894MHz(RX) PCS 1900: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) LTE Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 7: 2500-2570MHz(TX); 2620-2690MHz(TX) LTE Band 12: 699-716MHz(TX); 729-746MHz(RX) LTE Band 17: 704-716MHz(TX); 734-746MHz(RX) LTE Band 26: 814-849MHz(TX); 859-894MHz(RX) LTE Band 38: 2570-2620MHz(TX/RX) LTE Band 41: 2496-2690MHz(TX/RX)			
Modulation Technique	2G: GMSK, 8PSK 3G: BPSK, QPSK, 16QAM, 64QAM 4G: QPSK, 16QAM			
Antenna Specification#	Antenna	Operation Bands	Antenna Gain (G_T) (dBi)	L_C (dB)
	MAIN ANT	GSM 850/WCDMA/LTE B5	-9.67	0.5
		PCS1900/WCDMA/LTE B2	0.55	0.8
		WCDMA/LTE B4	1.09	0.8
		LTE B7	-6.11	0.8
		LTE B12	-10.86	0.5
		LTE B17	-10.86	0.5
		LTE B26	-9.67	0.5
		LTE B38	-6.11	0.8
		LTE B41	-6.11	0.8
	Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.			
Voltage Range	DC 3.85V from battery or DC 5V/9V from Adapter			
Sample serial number	34GQ-1 for Radiated Emissions Test 34GQ-2 for RF Conducted Test (Assigned by BACL, Shenzhen)			
Sample/EUT Status	Good condition			

Normal/Extreme Condition#	LV: Low Voltage $3.6V_{DC}$ NV: Normal Voltage $3.85V_{DC}$ HV: High Voltage $4.4V_{DC}$ (provided by the applicant)
Adapter Information	Model: ES166M-US-1200167 Input: AC 100-240V, 50/60Hz, 0.6A Output: DC 5.0V, 3.0A, 15.0W or 9.0V, 2.22A, 20.0W or 12.0V, 1.67A, 20.0W (PPS): DC 5.0-11.0V, 1.8A(20.0W MAX)
Note: The Multiple models are electrically identical with the test model except for model name, appearance color and sales channel. 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, Part 27 and Part 90 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
Part 90 – Private Land Mobile Radio 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		109.2kHz(k=2, 95% level of confidence)
RF output power, conducted		0.86dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.60dB(k=2, 95% level of confidence)
RF Frequency		56.6Hz(k=2, 95% level of confidence)
Radiated Emissions	30MHz~200MHz (Horizontal)	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.73dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.34dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.40dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.64dB(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 B4	4.2	1712.4	1732.4	1752.6
WCDMA B5	4.2	826.4	836.4	846.6
LTE B2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855	1880	1905
	15	1857.5	1880	1902.5
	20	1860	1880	1900
LTE B4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715	1732.5	1750
	15	1717.5	1732.5	1747.5
	20	1720	1732.5	1745
LTE B5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829	836.5	844
LTE B7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560
LTE B12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704	707.5	711
LTE B17	5	706.5	710	713.5
	10	709	710	711

LTE B26_1 (Part 90S)	1.4	814.7	/	823.3
	3	815.5	/	822.5
	5	816.5	/	821.5
	10	819	/	/
	15	821.5	/	/
LTE B26_3 (Cross 90S and 22H)	1.4	/	824	/
	3	/	824	/
	5	/	824	/
	10	/	824	/
	15	/	824	/
LTE B26_2 (Part 22H)	1.4	824.7	831.5	848.3
	3	825.5	831.5	847.5
	5	826.5	831.5	846.5
	10	829	831.5	844
	15	831.5	836.5	841.5
LTE B38	5	2572.5	2595	2617.5
	10	2575	2595	2615
	15	2577.5	2595	2612.5
	20	2580	2595	2610
LTE B41	5	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 tested.

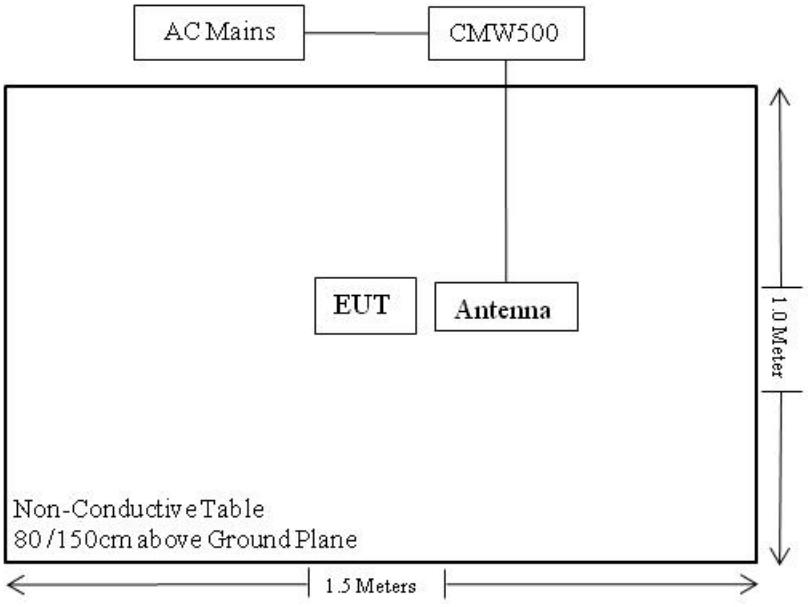
Support Equipment List and Details

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

External I/O Cable

Cable Description	Length (m)	From Port	To
Shielded Detachable AC Cable	1.2	CMW500	AC Mains

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307,§2.1093	RF EXPOSURE	Compliant
§2.1046; § 22.913 (a)(d); § 24.232 (c)(d) ; §27.50(c)(d)(h); §90.635	RF Output Power	Compliant
§2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.905; § 22.917; § 24.238; §27.53; §90.209	Occupied Bandwidth	Compliant
§ 2.1053; § 22.917(a); § 24.238 (a); §27.53; §90.691	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917(a); § 24.238 (a); §27.53; §90.691	Field Strength of Spurious Radiation	Compliant
§ 22.917 (a); § 24.238 (a); §27.5(g)(h)(m) §90.691	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54; §90.213	Frequency stability	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/12/04	2025/12/03
Sonoma instrument	Pre-amplifier	310N	186238	2025/04/29	2026/04/28
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
COM-POWER	Dipole Antenna	3121C	9209-860	NCR	NCR
Unknown	Cable	Chamber Cable 1	F-03-EM236	2025/04/29	2026/04/28
Unknown	Cable	XH500C	J-10M-A	2025/04/29	2026/04/28
Rohde&Schwarz	Spectrum Analyzer	FSV40	101605	2025/03/26	2026/03/25
A.H.System	Preamplifier	PAM-0118P	489	2024/11/15	2025/11/14
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
The Electro-Mechanics Co.	Horn Antenna	3115	9107-3694	2024/06/06	2027/06/05
Unknown	RF Cable	KMSE	0735	2024/12/06	2025/12/05
Unknown	RF Cable	UFA147	219661	2024/12/06	2025/12/05
Unknown	RF Cable	XH750A-N	J-10M	2024/12/06	2025/12/05
JD	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2024/09/09	2025/09/08
A.H.System	Pre-amplifier	PAM-1840VH	190	2025/04/29	2026/04/28
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	2024/12/18	2025/12/17
Agilent	Signal Generator	N5183A	MY50140588	2024/09/13	2025/09/12
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520	2025/04/29	2026/04/28

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
R&S	Spectrum Analyzer	FSV40	101942	2024/09/20	2025/09/19
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520	2025/04/29	2026/04/28
BACL	Temperature & Humidity Chamber	BTH-150-40	30145	2024/12/06	2025/12/05
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2025/04/29	2026/04/28
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2024/06/27	2025/06/26
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2025/06/26	2026/06/25
HP	Power Splitter	11667A	1610A	2024/06/27	2025/06/26
HP	Power Splitter	11667A	1610A	2025/06/26	2026/06/25
Unknown	RF Cable	65475	01670515	2024/06/27	2025/06/26
Unknown	RF Cable	65475	01670515	2025/06/26	2026/06/25

*** 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).

REQUIREMENTS AND TEST PROCEDURES

Applicable Standard for Part 22 Subpart H

RF Output Power

FCC §22.913
(a)(5) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7watts.

(d) *Power measurement.* Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-toaverage ratio (PAR) of the transmission must not exceed 13 dB. Power measurements for base transmitters and repeaters must be made in accordance with either of the following:
(1) A Commission-approved average power technique (*see* FCC Laboratory's Knowledge Database); or
(2) For purposes of this section, peak transmit power must be measured over an interval of continuous transmission using instrumentation calibrated in terms of an rmsequivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, *etc.,* so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

Spurious Emissions

FCC §22.917

(a) Out of band emissions. 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.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows:
(1) In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
(2) In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz

Frequency stability

FCC §22.355

Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C-1 of this section.

Table C-1 - 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	20	50
50 to 450	5	5	50
450 to 512	2.5	5	5
821 to 896	1.5	**2.5**	**2.5**
928 to 929	5	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10	n/a	n/a

Applicable Standard for Part 24 Subpart E

RF Output Power

FCC §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.

(d)Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Spurious Emissions

FCC §24.238

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(a) Out of band emissions. 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.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(c) Alternative out of band emission limit. Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) Interference caused by out of band emissions. If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

Frequency stability

FCC §24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Applicable Standard for Part 27

RF Output Power

FCC §27.50

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

(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.

(h) The following power limits shall apply in the BRS and EBS:
(2)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.

Spurious Emissions

FCC §27.53

(g) For operations in the 600 MHz band and the 698-746 MHz 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 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(h) AWS emission limits
(1) ***General protection levels.*** 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 $43 + 10 \log_{10}$ (P) dB.

(m)(4) 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 2490.5 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

FCC §27.54

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Applicable Standard for Part 90

RF Output Power

FCC §90.635

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Spurious Emissions

FCC §90.691

(a) 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:
(1) 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.
(2) 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.
(b) 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.

Frequency stability

FCC §90.213

809-824 MHz band, 2.5ppm for 2W or less output power.

Test Method

Transmitter output power, e.r.p. and e.i.r.p

According to CFR Part 2.1046, ANSI C63.26-2015 Section 5.2.5.5 and KDB 971168 D01 Power Meas License Digital Systems v03r01:

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

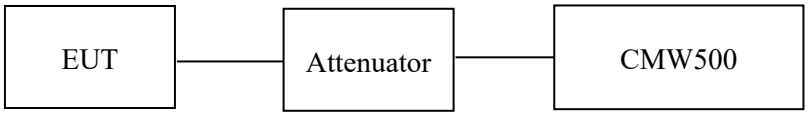
$$\text{ERP or EIRP} = P_{Meas} + G_T - L_C$$

where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, typically dBW or dBm);
P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;
G_T = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

Note: The ERP is for below 1GHz, EIRP is for above 1GHz.

Test Setup Block:



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

Occupied Bandwidth

According to ANSI C63.26-2015 Section 5.4.4

The OBW is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

The following procedure shall be used for measuring (99%) power bandwidth:

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of 1.5 × OBW is sufficient).

b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.

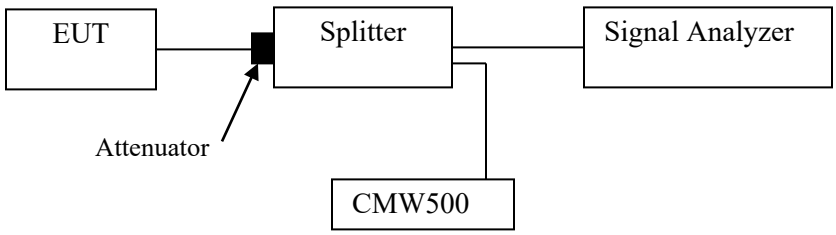
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3. NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.

d) Set the detection mode to peak, and the trace mode to max-hold.

e) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.

f) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

Test Setup Block:

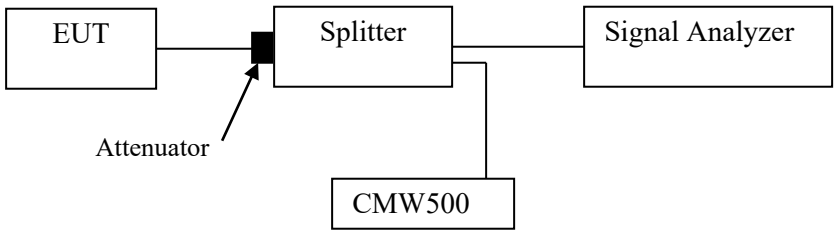


Transmitter unwanted emissions-at antenna terminals

According to ANSI C63.26-2015 Section 5.7.4, KDB 971168 D01 Power Meas License Digital Systems v03r01:

the applicable rule part specifies the reference bandwidth for measuring unwanted emission levels (typically, 100 kHz if the authorized frequency band/block is at or below 1 GHz and 1 MHz if the authorized frequency band/block is above 1 GHz),8 effectively depicting the unwanted emission limit in terms of a power spectral density. In those cases where no reference bandwidth is explicitly specified, the values in the preceding sentence should be used.

Test Setup Block:



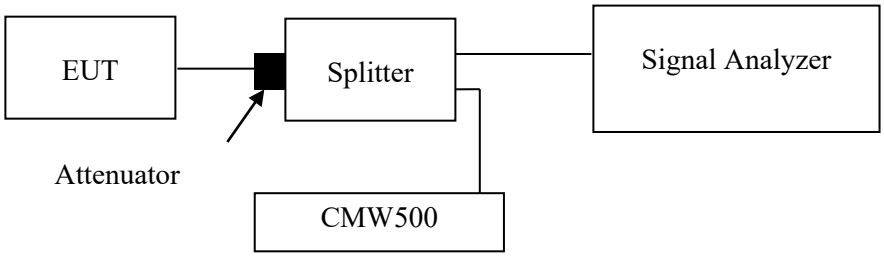
Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range was added into plots.

Transmitter unwanted emissions-Out of band emission

According to ANSI C63.26-2015 Section 5.7.3, KDB 971168 D01 Power Meas License Digital Systems v03r01:

Typically, a measurement (resolution) bandwidth smaller than the reference bandwidth is allowed for measurements within a specified frequency range at the edge of the authorized frequency block/band (e.g., within the first Y MHz outside of the authorized frequency band/block, where the value of Y is specified in the relevant rule part). Some FCC out-of-band emission rules permit the use of a narrower RBW (typically limited to a minimum RBW of 1 % of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth. Beyond the specified frequency range in which this relaxation of the uniform reference bandwidth is permitted, it typically is also acceptable to use a narrower RBW (again limited to a minimum of 1 % of OBW) to increase accuracy, but the measurement result must subsequently be integrated over the full reference bandwidth.

Test Setup Block:



Frequency stability

According to ANSI C63.26-2015 Section 5.6, KDB 971168 D01 Power Meas License Digital Systems v03r01:

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage.

The operating carrier frequency shall be set up in accordance with the manufacturer's published operation and instruction manual prior to the commencement of these tests. No adjustment of any frequency determining circuit element shall be made subsequent to this initial set-up. Frequency stability is tested:

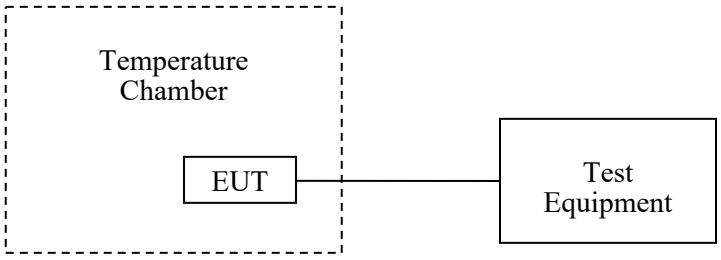
a) At 10 °C intervals of temperatures between −30 °C and +50 °C at the manufacturer's rated supply voltage, and

b) At +20 °C temperature and ±15% supply voltage variations. If a product is specified to operate over a range of input voltage then the −15% variation is applied to the lowermost voltage and the +15% is applied to the uppermost voltage.

During the test all necessary settings, adjustments and control of the EUT have to be performed without disturbing the test environment, i.e., without opening the environmental chamber. The frequency stabilities can be maintained to a lesser temperature range provided that the transmitter is automatically inhibited from operating outside the lesser temperature range. For handheld equipment that is only capable of operating from internal batteries and the supply voltage cannot be varied, the frequency stability tests shall be performed at the nominal battery voltage and the battery end point voltage specified by the manufacturer. An external supply voltage can be used and set at the internal battery nominal voltage, and again at the battery operating end point voltage which shall be specified by the equipment manufacturer.

If an unmodulated carrier is not available, the mean frequency of a modulated carrier can be obtained by using a frequency counter with gating time set to an appropriately large multiple of bit periods (gating time depending on the required accuracy). Full details on the choice of values shall be included in the test report.

Test Setup Block:



Transmitter unwanted emissions- Radiated Spurious emissions

According to ANSI C63.26-2015 Section 5.5.3:

Test setup:

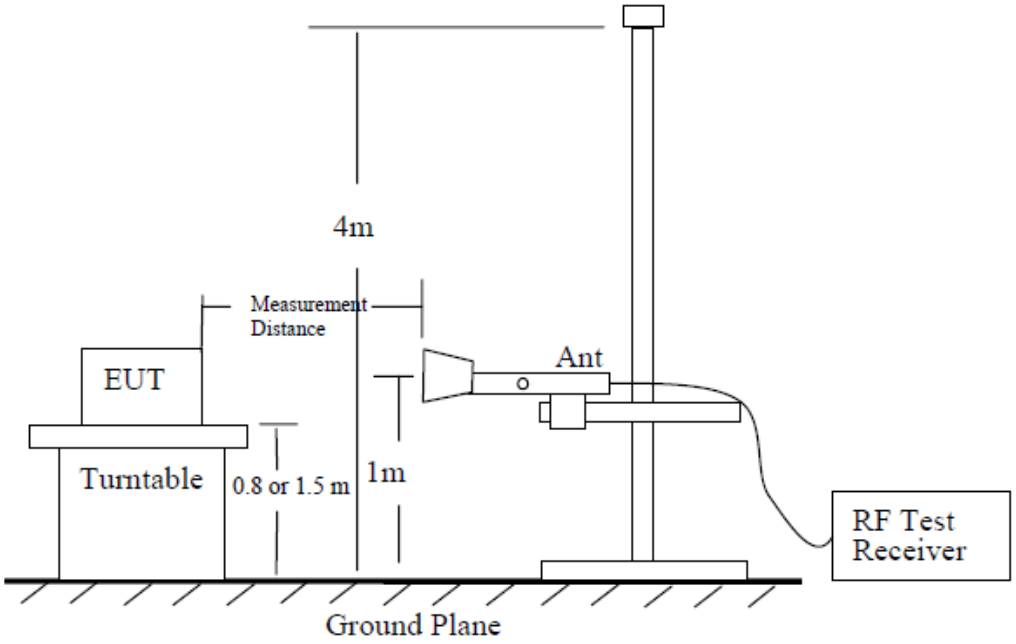


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

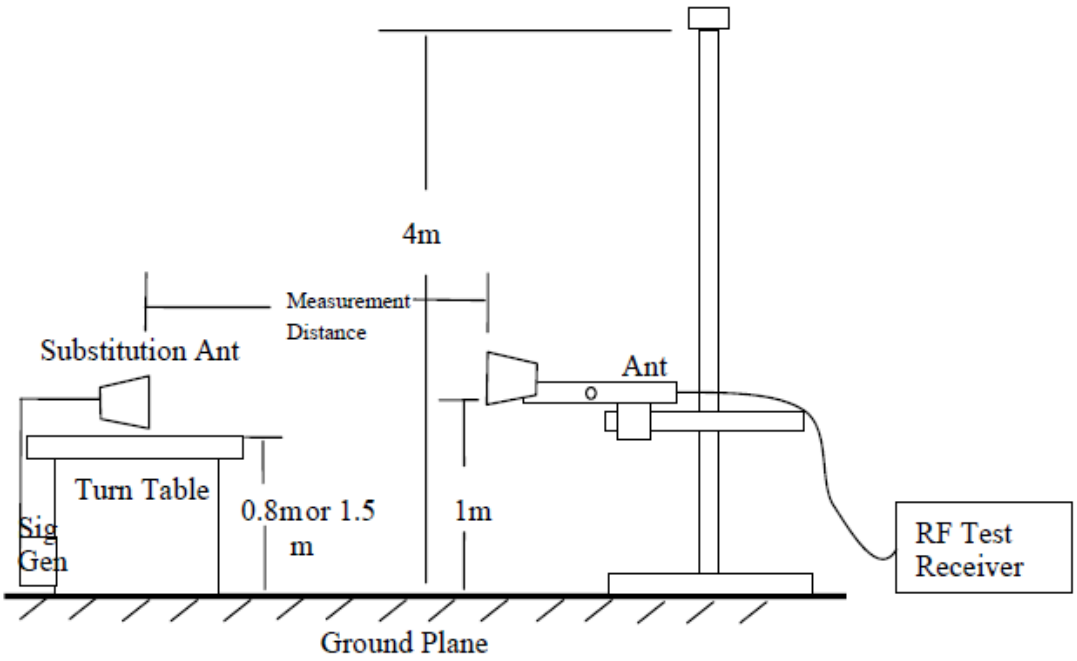


Figure 7—Substitution method set-up for radiated emission

Test Procedure:

a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.

b) Each emission under consideration shall be evaluated:

1) Raise and lower the measurement antenna in accordance 5.5.2, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.

2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.

3) Return the turntable to the azimuth where the highest emission amplitude level was observed.

4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.

5) Record the measured emission amplitude level and frequency using the appropriate RBW.

c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.

d) Set-up the substitution measurement with the reference point of the substitution antenna located as near as possible to where the center of the EUT radiating element was located during the initial EUT measurement.

e) Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.

f) Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.

g) For each emission that was detected and measured in the initial test [i.e., in step b) and step c)]:

1) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.

2) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step b) and step c).

3) Record the output power level of the signal generator when equivalence is achieved in step 2).

h) Repeat step e) through step g) with the measurement antenna oriented in the opposite polarization.

i) Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

$$Pe = Ps(dBm) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$

where

Pe = equivalent emission power in dBm
Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

j) Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from: gain (dBd) = gain (dBi) − 2.15 dB. If necessary, the antenna gain can be calculated from calibrated antenna factor information

k) Provide the complete measurement results as a part of the test report.

TEST DATA AND RESULTS

Spurious Radiated Emissions

Environmental Conditions

Temperature (℃)	24.4-25.4	**Relative Humidity (%)**	52-62
ATM Pressure (kPa):	99.6-100.2	**Test engineer:**	Alex Yan & Ive Wang
Test date:	2025.07.15-2025.07.16		
EUT operation mode:	Transmitting		
Note:	1. After pre-scan in the X, Y and Z axes of orientation, the worst case z-axis of orientation were recorded. 2. For LTE bands, only the worst case was recorded, please refer to the data tables.		

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 (30MHz-10GHz)								
Low Channel								
69.9	42.81	H	-71.6	0.75	0	-72.35	-13	59.35
69.9	50.32	V	-58.1	0.75	0	-58.85	-13	45.85
1648.4	64.62	H	-49.7	1.5	8.6	-42.6	-13	29.6
1648.4	67.55	V	-47.3	1.5	8.6	-40.2	-13	27.2
Middle Channel								
70.1	42.79	H	-71.6	0.75	0	-72.35	-13	59.35
70.1	50.38	V	-58.0	0.75	0	-58.75	-13	45.75
1673.2	64.13	H	-50.0	1.5	8.8	-42.7	-13	29.7
1673.2	65.92	V	-48.8	1.5	8.8	-41.5	-13	28.5
High Channel								
70.2	42.81	H	-71.6	0.75	0	-72.35	-13	59.35
70.2	50.12	V	-58.3	0.75	0	-59.05	-13	46.05
1697.6	63.28	H	-50.9	1.5	8.8	-43.6	-13	30.6
1697.6	62.01	V	-52.2	1.5	8.8	-44.9	-13	31.9
PCS 1900 (30MHz-20GHz)								
Low Channel								
69.9	42.15	H	-72.2	0.75	0	-72.95	-13	59.95
69.9	50.28	V	-58.1	0.75	0	-58.85	-13	45.85
3700.4	55.07	H	-57.7	2.1	9.7	-50.1	-13	37.1
3700.4	54.72	V	-57.9	2.1	9.7	-50.3	-13	37.3
Middle Channel								
70.1	42.29	H	-72.1	0.75	0	-72.85	-13	59.85
70.1	50.37	V	-58.0	0.75	0	-58.75	-13	45.75
3760.0	56.53	H	-56.9	2	9.6	-49.3	-13	36.3
3760.0	57.38	V	-55.9	2	9.6	-48.3	-13	35.3
High Channel								
69.9	42.11	H	-72.3	0.75	0	-73.05	-13	60.05
69.9	49.98	V	-58.4	0.75	0	-59.15	-13	46.15
3819.6	55.20	H	-58.2	2	9.6	-50.6	-13	37.6
3819.6	55.00	V	-58.3	2	9.6	-50.7	-13	37.7

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 (30MHz-20GHz)								
Low Channel								
69.9	41.96	H	-72.4	0.75	0	-73.15	-13	60.15
69.9	49.87	V	-58.5	0.75	0	-59.25	-13	46.25
3704.8	55.77	H	-57.0	2.1	9.7	-49.4	-13	36.4
3704.8	54.39	V	-58.2	2.1	9.7	-50.6	-13	37.6
Middle Channel								
70.1	42.18	H	-72.2	0.75	0	-72.95	-13	59.95
70.1	50.22	V	-58.2	0.75	0	-58.95	-13	45.95
3760.0	56.29	H	-57.1	2	9.6	-49.5	-13	36.5
3760.0	55.51	V	-57.8	2	9.6	-50.2	-13	37.2
High Channel								
70.0	42.21	H	-72.2	0.75	0	-72.95	-13	59.95
70.0	50.34	V	-58.1	0.75	0	-58.85	-13	45.85
3815.2	56.71	H	-56.7	2	9.6	-49.1	-13	36.1
3815.2	54.87	V	-58.5	2	9.6	-50.9	-13	37.9
WCDMA Band 4 (30MHz-18GHz)								
Low Channel								
70.2	42.35	H	-72.0	0.75	0	-72.75	-13	59.75
70.2	50.18	V	-58.2	0.75	0	-58.95	-13	45.95
3424.8	54.18	H	-59.6	1.7	9.6	-51.7	-13	38.7
3424.8	53.49	V	-60.0	1.7	9.6	-52.1	-13	39.1
Middle Channel								
69.8	42.16	H	-72.2	0.75	0	-72.95	-13	59.95
69.8	50.27	V	-58.1	0.75	0	-58.85	-13	45.85
3464.8	54.77	H	-58.8	1.8	9.7	-50.9	-13	37.9
3464.8	53.57	V	-59.6	1.8	9.7	-51.7	-13	38.7
High Channel								
70.1	42.22	H	-72.2	0.75	0	-72.95	-13	59.95
70.1	50.92	V	-57.5	0.75	0	-58.25	-13	45.25
3505.2	55.29	H	-58.2	1.8	9.7	-50.3	-13	37.3
3505.2	54.11	V	-59.1	1.8	9.7	-51.2	-13	38.2

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 (30MHz-10GHz)								
Low Channel								
69.9	42.13	H	-72.3	1.3	0	-73.6	-13	60.6
69.9	50.36	V	-58.0	1.3	0	-59.3	-13	46.3
1652.8	55.36	H	-58.8	1.5	8.8	-51.5	-13	38.5
1652.8	56.15	V	-58.6	1.5	8.8	-51.3	-13	38.3
Middle Channel								
70.1	41.05	H	-73.3	1.3	0	-74.6	-13	61.6
70.1	49.96	V	-58.4	1.3	0	-59.7	-13	46.7
1672.8	54.36	H	-59.8	1.5	8.8	-52.5	-13	39.5
1672.8	56.11	V	-58.6	1.5	8.8	-51.3	-13	38.3
High Channel								
70.1	41.13	H	-73.3	1.3	0	-74.6	-13	61.6
70.1	49.98	V	-58.4	1.3	0	-59.7	-13	46.7
1693.2	56.13	H	-58.0	1.5	8.8	-50.7	-13	37.7
1693.2	55.24	V	-59.5	1.5	8.8	-52.2	-13	39.2
LTE Band 2 (30MHz-20GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0, Low Channel								
70.1	41.89	H	-72.5	0.75	0	-73.25	-13	60.25
70.1	49.83	V	-58.6	0.75	0	-59.35	-13	46.35
3701.4	56.09	H	-56.7	2.1	9.7	-49.1	-13	36.1
3701.4	53.87	V	-58.7	2.1	9.7	-51.1	-13	38.1
QPSK 1.4MHz Bandwidth_ RB1#0, Middle Channel								
69.8	42.01	H	-72.4	0.75	0	-73.15	-13	60.15
69.8	50.13	V	-58.3	0.75	0	-59.05	-13	46.05
3760.0	56.34	H	-57.1	2	9.6	-49.5	-13	36.5
3760.0	56.37	V	-57.0	2	9.6	-49.4	-13	36.4
QPSK 1.4MHz Bandwidth_ RB1#0, High Channel								
69.9	42.35	H	-72.0	0.75	0	-72.75	-13	59.75
69.9	49.79	V	-58.6	0.75	0	-59.35	-13	46.35
3818.6	56.04	H	-57.4	2	9.6	-49.8	-13	36.8
3818.6	55.98	V	-57.3	2	9.6	-49.7	-13	36.7

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 (30MHz-20GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0, Low Channel								
69.8	42.51	H	-71.9	0.75	0	-72.65	-13	59.65
69.8	50.33	V	-58.1	0.75	0	-58.85	-13	45.85
3421.4	53.95	H	-59.8	1.7	9.6	-51.9	-13	38.9
3421.4	53.83	V	-59.6	1.7	9.6	-51.7	-13	38.7
QPSK 1.4MHz Bandwidth_ RB1#0, Middle Channel								
70.2	42.66	H	-71.7	0.75	0	-72.45	-13	59.45
70.2	49.97	V	-58.4	0.75	0	-59.15	-13	46.15
3465.0	54.81	H	-58.7	1.8	9.7	-50.8	-13	37.8
3465.0	55.69	V	-57.5	1.8	9.7	-49.6	-13	36.6
QPSK 1.4MHz Bandwidth_ RB1#0, High Channel								
70.1	42.25	H	-72.1	0.75	0	-72.85	-13	59.85
70.1	50.11	V	-58.3	0.75	0	-59.05	-13	46.05
3508.6	54.64	H	-58.9	1.8	9.7	-51	-13	38
3508.6	54.62	V	-58.6	1.8	9.7	-50.7	-13	37.7
LTE Band 5 (30MHz-10GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0, Low channel								
70.0	42.29	H	-72.1	0.75	0	-72.85	-13	59.85
70.0	50.08	V	-58.3	0.75	0	-59.05	-13	46.05
1649.4	67.91	H	-46.4	1.5	8.6	-39.3	-13	26.3
1649.4	67.00	V	-47.9	1.5	8.6	-40.8	-13	27.8
QPSK 1.4MHz Bandwidth_ RB1#0, Middle channel								
69.9	41.99	H	-72.4	0.75	0	-73.15	-13	60.15
69.9	50.24	V	-58.2	0.75	0	-58.95	-13	45.95
1673.0	64.61	H	-49.6	1.5	8.8	-42.3	-13	29.3
1673.0	63.58	V	-51.2	1.5	8.8	-43.9	-13	30.9
QPSK 1.4MHz Bandwidth_ RB1#0, High channel								
70.1	42.19	H	-72.2	0.75	0	-72.95	-13	59.95
70.1	49.82	V	-58.6	0.75	0	-59.35	-13	46.35
1696.6	71.89	H	-42.3	1.5	8.8	-35	-13	22
1696.6	76.17	V	-38.6	1.5	8.8	-31.3	-13	18.3

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 (30MHz-26GHz)								
QPSK 5MHz Bandwidth_ RB1#0, Low channel								
70.2	41.92	H	-72.5	0.75	0	-73.25	-25	48.25
70.2	50.27	V	-58.1	0.75	0	-58.85	-25	33.85
5005.0	56.48	H	-56.2	2	10.6	-47.6	-25	22.6
5005.0	55.13	V	-56.8	2	10.6	-48.2	-25	23.2
QPSK 5MHz Bandwidth_ RB1#0, Middle channel								
70.0	41.84	H	-72.6	0.75	0	-73.35	-25	48.35
70.0	50.17	V	-58.2	0.75	0	-58.95	-25	33.95
5070.0	56.92	H	-55.7	2.6	10.6	-47.7	-25	22.7
5070.0	55.49	V	-56.5	2.6	10.6	-48.5	-25	23.5
QPSK 5MHz Bandwidth_ RB1#0, High channel								
70.2	42.55	H	-71.8	0.75	0	-72.55	-25	47.55
70.2	48.99	V	-59.4	0.75	0	-60.15	-25	35.15
5135.0	56.63	H	-56.0	2.6	10.6	-48	-25	23
5135.0	54.96	V	-57.1	2.6	10.6	-49.1	-25	24.1
LTE Band 12 (30MHz-10GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0, Low channel								
69.8	42.38	H	-72.0	0.75	0	-72.75	-13	59.75
69.8	49.16	V	-59.2	0.75	0	-59.95	-13	46.95
1399.4	62.68	H	-51.6	0.9	7.8	-44.7	-13	31.7
1399.4	59.79	V	-55.2	0.9	7.8	-48.3	-13	35.3
QPSK 1.4MHz Bandwidth_ RB1#0, Middle channel								
69.8	41.88	H	-72.5	0.75	0	-73.25	-13	60.25
69.8	49.53	V	-58.9	0.75	0	-59.65	-13	46.65
1415.0	58.70	H	-55.6	0.9	7.8	-48.7	-13	35.7
1415.0	59.65	V	-55.4	0.9	7.8	-48.5	-13	35.5
QPSK 1.4MHz Bandwidth_ RB1#0, High channel								
69.9	42.11	H	-72.3	0.75	0	-73.05	-13	60.05
69.9	49.67	V	-58.7	0.75	0	-59.45	-13	46.45
1430.6	56.18	H	-58.1	0.9	7.8	-51.2	-13	38.2
1430.6	55.82	V	-59.2	0.9	7.8	-52.3	-13	39.3

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 17 (30MHz-10GHz)								
QPSK 5MHz Bandwidth_ RB1#0, Low channel								
69.8	42.29	H	-72.1	0.75	0	-72.85	-13	59.85
69.8	49.81	V	-58.6	0.75	0	-59.35	-13	46.35
1413.0	55.99	H	-58.3	0.9	7.8	-51.4	-13	38.4
1413.0	55.05	V	-60.0	0.9	7.8	-53.1	-13	40.1
QPSK 5MHz Bandwidth_ RB1#0, Middle channel								
70.1	42.18	H	-72.2	0.75	0	-72.95	-13	59.95
70.1	50.07	V	-58.3	0.75	0	-59.05	-13	46.05
1420.0	58.13	H	-56.2	0.9	7.8	-49.3	-13	36.3
1420.0	55.47	V	-59.5	0.9	7.8	-52.6	-13	39.6
QPSK 5MHz Bandwidth_ RB1#0, High channel								
69.8	42.61	H	-71.8	0.75	0	-72.55	-13	59.55
69.8	50.12	V	-58.3	0.75	0	-59.05	-13	46.05
1427.0	57.43	H	-56.9	0.9	7.8	-50	-13	37
1427.0	54.69	V	-60.3	0.9	7.8	-53.4	-13	40.4
LTE Band 26_1 (30MHz-10GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0, Low channel								
70.1	42.50	H	-71.9	1.30	0.00	-73.20	-13	60.20
70.1	50.11	V	-58.3	1.30	0.00	-59.60	-13	46.60
1629.4	66.58	H	-47.8	1.50	8.60	-40.70	-13	27.70
1629.4	64.81	V	-50.1	1.50	8.60	-43.00	-13	30.00
QPSK 1.4MHz Bandwidth_ RB1#0, High channel								
70.1	42.50	H	-71.9	1.30	0.00	-73.20	-13	60.20
70.1	50.11	V	-58.3	1.30	0.00	-59.60	-13	46.60
1646.6	66.47	H	-47.9	1.50	8.60	-40.80	-13	27.80
1646.6	65.03	V	-49.8	1.50	8.60	-42.70	-13	29.70

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 26_2 (30MHz-10GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0, Low channel								
70.2	42.59	H	-71.8	1.30	0.00	-73.10	-13	60.10
70.2	49.96	V	-58.4	1.30	0.00	-59.70	-13	46.70
1649.4	66.55	H	-47.8	1.50	8.60	-40.70	-13	27.70
1649.4	64.97	V	-49.9	1.50	8.60	-42.80	-13	29.80
QPSK 1.4MHz Bandwidth_ RB1#0, Middle channel								
69.9	42.13	H	-72.3	1.30	0.00	-73.60	-13	60.60
69.9	50.25	V	-58.2	1.30	0.00	-59.50	-13	46.50
1663.0	65.76	H	-48.4	1.50	8.80	-41.10	-13	28.10
1663.0	65.64	V	-49.1	1.50	8.80	-41.80	-13	28.80
QPSK 1.4MHz Bandwidth_ RB1#0, High channel								
70.0	42.86	H	-71.5	1.30	0.00	-72.80	-13	59.80
70.0	49.61	V	-58.8	1.30	0.00	-60.10	-13	47.10
1696.6	71.14	H	-43.0	1.50	8.80	-35.70	-13	22.70
1696.6	75.72	V	-39.0	1.50	8.80	-31.70	-13	18.70
LTE Band 26_3 Cross Channel (30MHz-10GHz)								
QPSK 1.4MHz Bandwidth_ RB1#0								
69.9	42.33	H	-72.1	1.30	0.00	-73.40	-13	60.40
69.9	49.98	V	-58.4	1.30	0.00	-59.70	-13	46.70
1648.0	65.95	H	-48.4	1.50	8.60	-41.30	-13	28.30
1648.0	65.77	V	-49.1	1.50	8.60	-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 38 (30MHz-27GHz)								
QPSK 5MHz Bandwidth_ RB1#0, Low channel								
70.0	42.19	H	-72.2	1.3	0	-73.5	-25	48.5
70.0	50.16	V	-58.2	1.3	0	-59.5	-25	34.5
5145.0	56.68	H	-55.9	2.6	10.6	-47.9	-25	22.9
5145.0	55.69	V	-56.3	2.6	10.6	-48.3	-25	23.3
QPSK 5MHz Bandwidth_ RB1#0, Middle channel								
70.0	42.37	H	-72.0	1.3	0	-73.3	-25	48.3
70.0	49.89	V	-58.5	1.3	0	-59.8	-25	34.8
5190.0	56.53	H	-55.9	2.4	10.6	-47.7	-25	22.7
5190.0	55.00	V	-57.1	2.4	10.6	-48.9	-25	23.9
QPSK 5MHz Bandwidth_ RB1#0, High channel								
69.9	42.23	H	-72.2	1.3	0	-73.5	-25	48.5
69.9	50.29	V	-58.1	1.3	0	-59.4	-25	34.4
5235.0	55.90	H	-56.6	2.4	10.6	-48.4	-25	23.4
5235.0	56.45	V	-55.6	2.4	10.6	-47.4	-25	22.4
LTE Band 41 (30MHz-27GHz)								
QPSK 5MHz Bandwidth_ RB1#0, Low channel								
69.9	42.61	H	-71.8	1.3	0	-73.1	-25	48.1
69.9	50.41	V	-58.0	1.3	0	-59.3	-25	34.3
4997.0	57.00	H	-55.7	2	10.6	-47.1	-25	22.1
4997.0	56.82	V	-55.1	2	10.6	-46.5	-25	21.5
QPSK 5MHz Bandwidth_ RB1#0, Middle channel								
69.8	42.16	H	-72.2	1.3	0	-73.5	-25	48.5
69.8	49.77	V	-58.6	1.3	0	-59.9	-25	34.9
5186.0	55.75	H	-56.7	2.4	10.6	-48.5	-25	23.5
5186.0	55.27	V	-56.8	2.4	10.6	-48.6	-25	23.6
QPSK 5MHz Bandwidth_ RB1#0, High channel								
69.9	42.73	H	-71.7	1.3	0	-73	-25	48
69.9	49.98	V	-58.4	1.3	0	-59.7	-25	34.7
5375.0	55.51	H	-56.5	2.3	10.6	-48.2	-25	23.2
5375.0	55.50	V	-56.4	2.3	10.6	-48.1	-25	23.1

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

RF Conducted data

Please refer to Annex "Appendix O~W" for detail test data.

RF EXPOSURE EVALUATION

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliant, please refer to the SAR report: 2501U64129E-SAA.

EUT PHOTOGRAPHS

Please refer to the attachment 2501U64129E-RF External photo and 2501U64129E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2501U64129E-RF-00C Test Setup photo.

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