

## TEST REPORT

**Applicant:** HONG KONG IPRO TECHNOLOGY CO.,LIMITED

**Address:** 12/F., San Toi Building 137-139 Connaught Road Central HK

**Product Name:** Mobile Phone

**FCC ID:** PQ4IPROA9MINI

**Standard(s):** 47 CFR Part 2, 47 CFR Part 22, Subpart H  
47 CFR Part 24, Subpart E  
ANSI C63.26-2015

**Report Number:** 2402W66736E-RF-00B

**Report Date:** 2024/9/21

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402W66736E-RF-00B	Original Report	2024/9/21

## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment under Test (EUT)

<b>EUT Name:</b>	Mobile Phone
<b>EUT Model:</b>	A9mini
<b>Multiple Model:</b>	A17,A10,A9,A7,A6,A3,A2,A1,Geniphone A9 mini
<b>Operation Bands and modes:</b>	GSM ,GPRS: 850/1900
<b>Modulation Type:</b>	GMSK
<b>Rated Input Voltage:</b>	DC 3.7V from battery or DC 5.0V from adapter
<b>Serial Number:</b>	For Radiated Spurious Emission test : 2QMM-2 For RF Conducted test: 2QMM-4
<b>EUT Received Date:</b>	2024/8/26
<b>EUT Received Status:</b>	Good
Note: The multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

### 1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Adapter	HONG KONG IPRO TECHNOLOGY CO.,LIMITED	NTR-05	Input: 100-240Vac 50/60Hz 150mA Output: 5.0Vdc 500mA

### 1.3 Operation Voltage( $V_{DC}$ ) ▲ :

Lowest:	3.3	Normal:	3.7	Highest:	4.2
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### 1.4 Transmission Antenna Information ▲

Manufacturer	Antenna Type	Operation Bands	Antenna Frequency Range (MHz)	Antenna Gain (G <sub>T</sub> ) (dBi)	L <sub>C</sub> (dB)
Heyuan Xunwei Communication Technology Co., Ltd.	PIFA	GSM850	824-849	-1.76	/
		PCS1900	1850-1910	-1.69	/
Note: 1. L <sub>C</sub> = Signal Attenuation in the connecting cable between the transmitter and antenna, in dB.					

### 1.5 Equipment Modifications

No modifications are made to the EUT during all test items.

## 2. SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC§2.1046; § 22.913;§ 24.232;	RF Output Power	Compliant
FCC§ 2.1047	Modulation Characteristics	Not Applicable
FCC§ 2.1049; § 22.905, §22.917; § 24.238;	Occupied Bandwidth	Compliant
FCC§ 2.1051;§ 22.917; § 24.238;	Spurious Emissions at Antenna Terminal	Compliant
FCC§ 22.917; § 24.238;	Out of band emission, Band Edge	Compliant
FCC§ 2.1055;§ 22.355; § 24.235;	Frequency stability vs. temperature Frequency stability vs. voltage	Compliant
FCC§ 2.1053§ 22.917; § 24.238;	Radiated Spurious Emission	Compliant

### 3. ESCRIPTION OF TEST CONFIGURATION

#### 3.1 EUT Operation Condition:

The EUT was configured for testing according to ANSI C63.26-2015.

The test items were performed with the EUT operating at testing mode. The device operates on GSM Band 850/1900MHz, test was performed with channels as below table:

Frequency Bands	Bandwidth (MHz)	Test Frequency(MHz)		
		Low	Middle	High
GSM/GPRS 850	0.25	824.2	836.6	848.8
GSM/GPRS 1900	0.25	1850.2	1880	1909.8

<b>EUT Operation Mode:</b>	The system was configured for testing in each operation mode.
<b>Equipment Modifications:</b>	No
<b>EUT Exercise Software:</b>	No
The maximum power was configured per 3GPP Standard for each operation modes as below setting:	
<b>GSM/GPRS</b> Function: Menu select > GSM Mobile Station > GSM 850/1900 Press Connection control to choose the different menus Press RESET > choose all the reset all settings Connection Press Signal Off to turn off the signal and change settings Network Support > GSM + GPRS or GSM + EGSM Main Service > Packet Data Service selection > Test Mode A – Auto Slot Config. off MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting > Slot configuration > Uplink/Gamma > 33 dBm for GPRS 850 > 30 dBm for GPRS 1900 BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel Frequency Offset > + 0 Hz Mode > BCCH and TCH BCCH Level > -85 dBm (May need to adjust if link is not stable) BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel] Channel Type > Off P0 > 4 dB Slot Config > Unchanged (if already set under MS signal) TCH > choose desired test channel Hopping > Off Main Timeslot > 3 Network Coding Scheme > CS4 (GPRS) Bit Stream > 2E9-1 PSR Bit Stream AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input Connection Press Signal on to turn on the signal and change settings	

### 3.2 Support Equipment List and Details

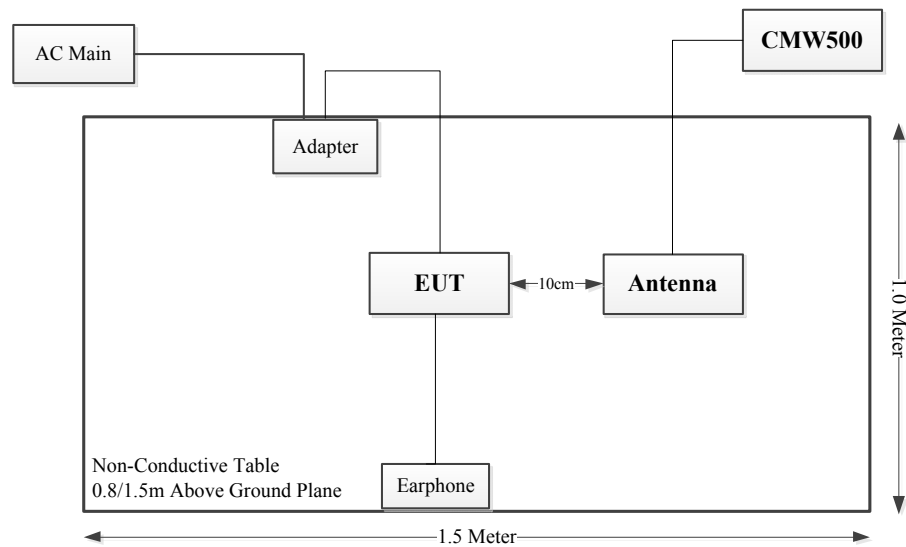
Manufacturer	Description	Model	Serial Number
Keenion	Earphone	KDM-911	EMZBEP21103003B
Bacl	Antenna	/	BL22
R&S	Wideband Radio Communication Tester	CMW500	144976

### 3.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Earphone Cable	no	no	1.2	Earphone	EUT
DC Cable	no	no	0.8	adapter	EUT
Antenna Cable	no	no	2	Antenna	CMW500

### 3.4 Block Diagram of Test Setup

Radiated Spurious Emission:



### 3.5 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, 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. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

### 3.6 Measurement Uncertainty

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

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
RF Frequency	±0.082×10 <sup>-6</sup>



## 4. REQUIREMENTS AND TEST PROCEDURES

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### 4.1 Applicable Standard For Part 22 Subpart H:

#### 4.1.1 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-to-average 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 rms equivalent 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.

#### 4.1.2 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

#### 4.1.3 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

<b>Frequency range (MHz)</b>	<b>Base, fixed (ppm)</b>	<b>Mobile &gt;3 watts (ppm)</b>	<b>Mobile ≤3 watts (ppm)</b>
25 to 50	20	20	50
50 to 450	5	5	50
450 to 512	2.5	5	5
821 to 896	1.5	<b>2.5</b>	<b>2.5</b>
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

## 4.2 Applicable Standard For Part 24 Subpart E:

### 4.2.1 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.

### 4.2.2 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.

### 4.2.3 Frequency stability

FCC §24.235

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

### 4.3 Test Method:

#### 4.3.1 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:

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

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

where:

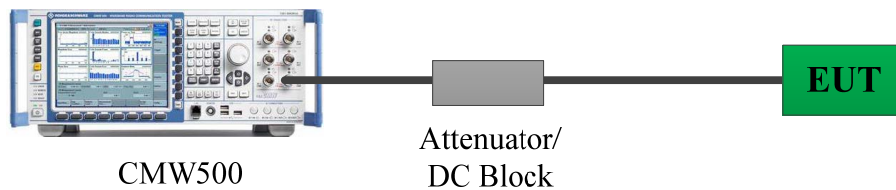
ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively  
(expressed in the same units as  $P_{\text{Meas}}$ , typically dBW or dBm);

$P_{\text{Meas}}$  = 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.

#### Test Setup Block:



Note: The Insertion loss of the RF cable and coaxial Attenuator was offset into the Reading of CMW500.

### 4.3.2 Occupied Bandwidth

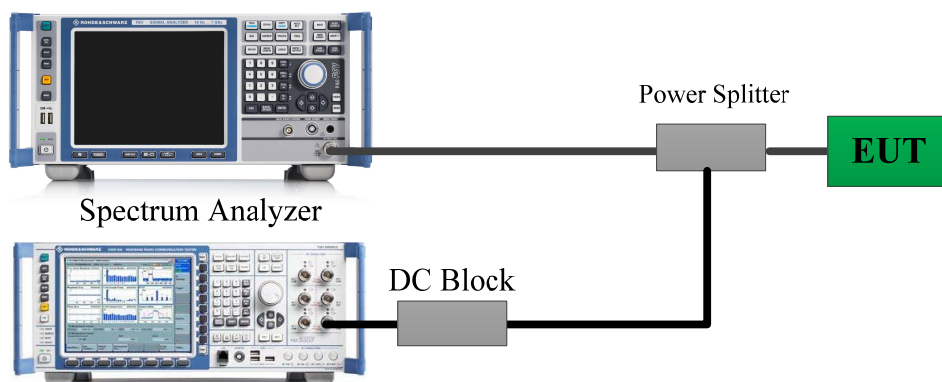
According to ANSI C63.26-2015 Section 5.4.4

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  $1.5 \times \text{OBW}$  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  $\geq 3 \times \text{RBW}$ .
- 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:



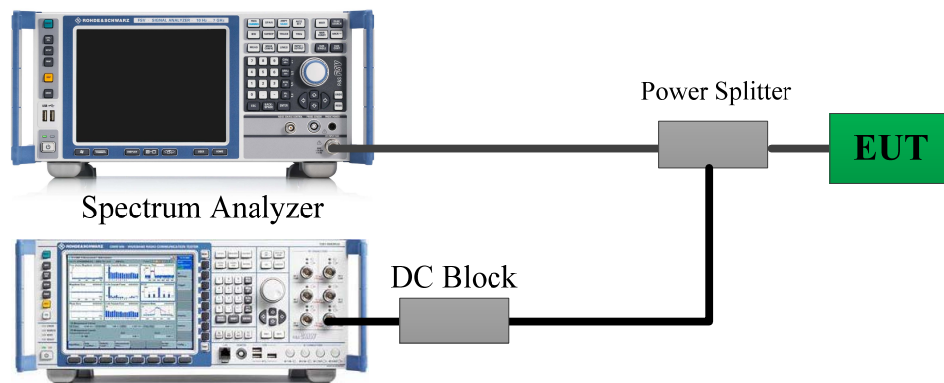
Note: The Insertion loss of the RF cable and Power Splitter was offset into the Reading of Spectrum Analyzer.

#### 4.3.3 Transmitter unwanted emissions-at antenna terminals

According to ANSI C63.26-2015 Section 5.7.4:

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:



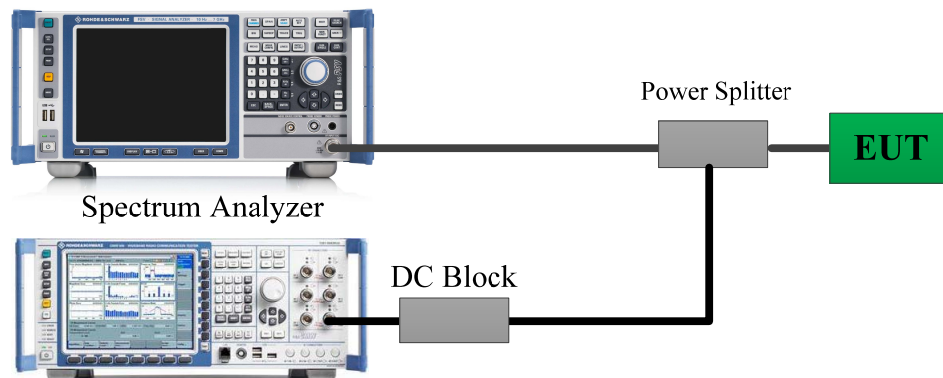
Note: The Insertion loss of the RF cable and Power Splitter was offset into the Reading of Spectrum Analyzer.

#### 4.3.4 Transmitter unwanted emissions-Out of band emission

According to ANSI C63.26-2015 Section 5.7.3:

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:



Note: The Insertion loss of the RF cable and Power Splitter was offset into the Reading of Spectrum Analyzer.

### 4.3.5 Frequency stability

According to ANSI C63.26-2015 Section 5.6:

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.

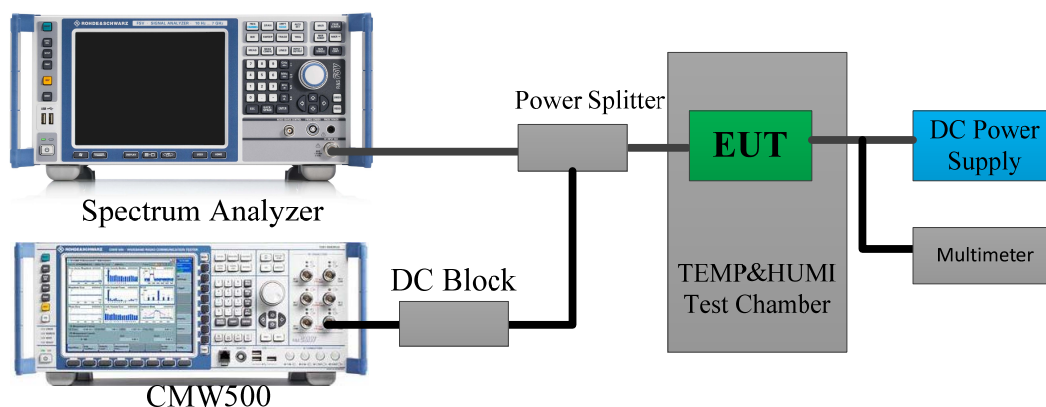
The operating carrier frequency shall be set up in accordance with the manufacturer's published operation and instruction manual prior to the commencement of these tests. No adjustment of any frequency determining circuit element shall be made subsequent to this initial set-up. Frequency stability is 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  $\pm 15\%$  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:

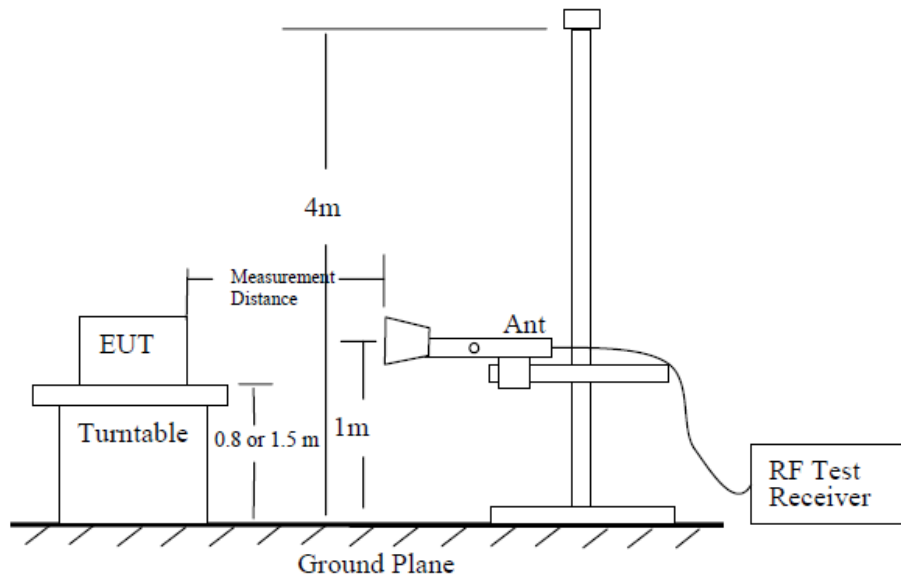




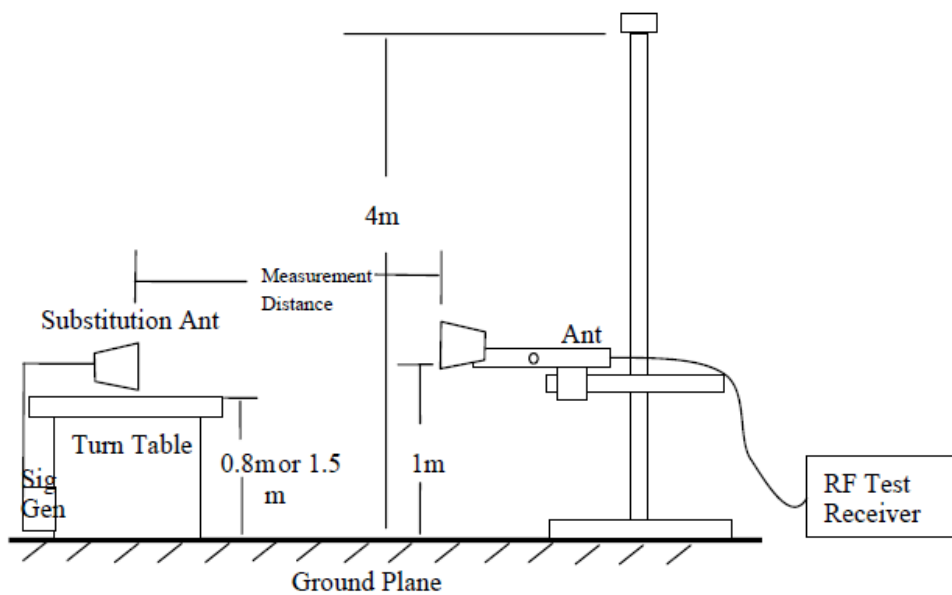
#### 4.3.6 Transmitter unwanted emissions- Radiated Spurious emissions

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:
$$P_e = P_s(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$
where
$$P_e = \text{equivalent emission power in dBm}$$
$$P_s = \text{source (signal generator) power in dBm}$$
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:  $\text{gain (dBd)} = \text{gain (dBi)} - 2.15 \text{ dB}$ . 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.

## **5. Test DATA AND RESULTS**

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### **5.1 Antenna Port Test Data and Results:**

Please refer to the attachment Appendix A

5.2 Radiated Spurious Emissions

Serial Number:	2QMM-2	Test Date:	Below 1GHz: 2024/8/30 Above 1GHz: 2024/9/19
Test Site:	Chamber A, Chamber B	Test Mode:	Transmitting
Tester:	Alan Xie, Leo Xiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	27.1~27.8	Relative Humidity: (%)	34~36	ATM Pressure: (kPa)	100.4~100.7
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
30MHz~1000MHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-3	2024/1/12	2027/1/11
Wilson	Coaxial Attenuator	859936	F-08-EM014	2024/1/12	2027/1/11
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	372193	2024/8/16	2025/8/15
R&S	EMI Test Receiver	ESR3	102453	2024/8/26	2025/8/25
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2023/9/9	2024/9/8
Agilent	Signal Generator	E8247C	MY43321350	2023/10/18	2024/10/17
Sinoscite	Band Rejection Filter	BSF824-862MS	1438001	2024/6/7	2025/6/6

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-03 1304	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2023/12/11	2024/12/10
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
Agilent	Signal Generator	E8247C	MY43321350	2023/10/18	2024/10/17
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/15
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17
Mini-Circuits	High Pass Filter	VHF-1200+	31102	2024/8/1	2025/7/31
Mini-Circuits	High Pass Filter	VHF-2700A+	31222	2024/6/4	2025/6/4
Sinoscite	Band Rejection Filter	BSF824-862MS	1438001	2024/6/7	2025/6/6
Sinoscite	Band Rejection Filter	BSF1850-1910MS	0935V2001	2024/6/11	2025/6/10

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

#### Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

**Cellular Band (30MHz-10GHz)**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 850 Frequency:824.2MHz								
92.50	H	43.94	-71.54	0.00	0.11	-71.65	-13.00	58.65
235.92	V	44.02	-74.64	0.00	0.19	-74.83	-13.00	61.83
1648.40	H	62.35	-62.78	10.44	0.71	-53.05	-13.00	40.05
1648.40	V	77.98	-47.75	10.44	0.71	-38.02	-13.00	25.02
2472.60	H	66.91	-55.87	12.88	1.25	-44.24	-13.00	31.24
2472.60	V	75.08	-47.75	12.88	1.25	-36.12	-13.00	23.12
3296.80	H	49.71	-69.68	13.60	1.59	-57.67	-13.00	44.67
3296.80	V	53.37	-66.02	13.60	1.59	-54.01	-13.00	41.01
GSM 850 Frequency:836.6MHz								
93.47	H	43.84	-71.23	0.00	0.11	-71.34	-13.00	58.34
235.26	V	43.85	-74.78	0.00	0.19	-74.97	-13.00	61.97
1673.20	H	62.60	-62.15	10.61	0.73	-52.27	-13.00	39.27
1673.20	V	77.24	-48.11	10.61	0.73	-38.23	-13.00	25.23
2509.80	H	65.33	-57.55	13.11	1.25	-45.69	-13.00	32.69
2509.80	V	72.65	-50.25	13.11	1.25	-38.39	-13.00	25.39
3346.40	H	49.35	-69.86	13.83	1.61	-57.64	-13.00	44.64
3346.40	V	52.49	-66.77	13.83	1.61	-54.55	-13.00	41.55
GSM 850 Frequency:848.8MHz								
91.53	H	43.43	-72.46	0.00	0.10	-72.56	-13.00	59.56
235.68	V	43.52	-75.13	0.00	0.19	-75.32	-13.00	62.32
1697.60	H	63.91	-60.46	10.78	0.75	-50.43	-13.00	37.43
1697.60	V	77.35	-47.62	10.78	0.75	-37.59	-13.00	24.59
2546.40	H	65.17	-57.70	13.15	1.27	-45.82	-13.00	32.82
2546.40	V	73.97	-49.04	13.15	1.27	-37.16	-13.00	24.16
3395.20	H	50.49	-68.50	14.08	1.64	-56.06	-13.00	43.06
3395.20	V	52.80	-66.29	14.08	1.64	-53.85	-13.00	40.85

**PCS Band (30MHz-20GHz)**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 1900 Frequency:1850.2MHz								
92.03	H	43.28	-72.40	0.00	0.11	-72.51	-13.00	59.51
234.95	V	43.25	-75.37	0.00	0.19	-75.56	-13.00	62.56
3700.40	H	67.09	-51.48	14.00	1.83	-39.31	-13.00	26.31
3700.40	V	65.65	-52.90	14.00	1.83	-40.73	-13.00	27.73
5550.60	H	66.37	-47.74	13.95	1.27	-35.06	-13.00	22.06
5550.60	V	64.68	-49.28	13.95	1.27	-36.60	-13.00	23.60
GSM 1900 Frequency:1880MHz								
91.82	H	43.45	-72.32	0.00	0.11	-72.43	-13.00	59.43
236.89	V	43.44	-75.27	0.00	0.19	-75.46	-13.00	62.46
3760.00	H	64.21	-53.63	13.76	1.63	-41.50	-13.00	28.50
3760.00	V	62.09	-55.62	13.76	1.63	-43.49	-13.00	30.49
5640.00	H	64.54	-49.18	14.02	1.31	-36.47	-13.00	23.47
5640.00	V	62.70	-50.91	14.02	1.31	-38.20	-13.00	25.20
GSM 1900 Frequency:1909.8MHz								
92.36	H	43.27	-72.27	0.00	0.11	-72.38	-13.00	59.38
235.96	V	43.88	-74.78	0.00	0.19	-74.97	-13.00	61.97
3819.60	H	63.92	-53.35	13.56	1.50	-41.29	-13.00	28.29
3819.60	V	60.89	-56.19	13.56	1.50	-44.13	-13.00	31.13
5640.00	H	63.65	-50.07	14.02	1.31	-37.36	-13.00	24.36
5640.00	V	62.05	-51.56	14.02	1.31	-38.85	-13.00	25.85

Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit-Absolute Level

## **EXHIBIT A - EUT PHOTOGRAPHS**

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Please refer to the attachment 2402W66736E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and  
2402W66736E-RF-INP EUT INTERNAL PHOTOGRAPHS



## **EXHIBIT B - TEST SETUP PHOTOGRAPHS**

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Please refer to the attachment 2402W66736E-RF-00B-TSP TEST SETUP PHOTOGRAPHS.

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