

# TEST REPORT

Applicant/Manufacturer: Shenzhen Huafurui Technology Co., Ltd.  
Address: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China  
Report Number: 2601R49433E-RF-22E

## Test Standard (s)

ETSI EN 300 440 V2.2.1 (2018-07)

## Sample Description

Product Type: Smartphone  
Model No.: KINGKONG ES 5  
Multiple Model(s) No.: N/A  
Trade Mark: CUBOT  
Date Received: 2026-03-08  
Issue Date: 2026-05-29

Test Result:

Pass▲

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

Prepared and Checked By:

GaLa Liu

GaLa Liu  
RF Engineer

Approved By:

Jim Cheng  
RF Supervisor

Note: The information marked\* is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.  
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**Bay Area Compliance Laboratories Corp. (Shenzhen)**

5F(B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China  
Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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**DOCUMENT REVISION HISTORY**

Revision Number	Report Number	Description of Revision	Date of Revision
0	2601R49433E-RF-22E	Original Report	2026-05-29

## GENERAL INFORMATION

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

<b>Frequency Range</b>	5745-5825MHz
<b>Mode</b>	802.11a/n20/n40/ac20/ac40
<b>Maximum EIRP</b>	12.25dBm
<b>Modulation Technique</b>	OFDM
<b>Antenna Specification<sup>#</sup></b>	0.6dBi (It is provided by the manufacturer)
<b>Voltage Range</b>	DC 5/9V from adapter or DC 3.91V from Battery
<b>Sample serial number</b>	3IUC-9 for Radiated Emissions Test 3IUC-1 for RF Conducted Test (Assigned by BACL, Shenzhen)
<b>Sample/EUT Status</b>	Good condition
<b>Normal/Extreme Condition<sup>#</sup></b>	N.V.: Nominal Voltage: 3.91V <sub>DC</sub> L.V.: Low Voltage: 3.32V <sub>DC</sub> ; L.T.: Low Temperature -10°C N.V.: Normal Voltage: 3.91V <sub>DC</sub> ; N.T.: Normal Temperature +25°C H.V.: High Voltage: 4.5V <sub>DC</sub> ; H.T.: High Temperature +40°C Note: the extreme test condition was declared by manufacturer.
<b>Adapter Information</b>	Model: TD-203G200170VF01 Input: AC 100-240V, 50/60Hz, 0.6A Output: DC 5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A PPS: 3.3V-16V/2A, 3.3V-11V/3A

### Objective

This report is in accordance with ETSI EN 300 440 V2.2.1 (2018-07), Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard for access to radio spectrum

The object is to determine compliance with ETSI EN 300 440 V2.2.1 (2018-07).

## Measurement Uncertainty

Item	Frequency Range		Expanded Measurement uncertainty
Emissions, Radiated	30MHz~1000MHz	Horizontal	5.10dB(k=2, 95% level of confidence)
	30MHz~1000MHz	Vertical	6.28dB(k=2, 95% level of confidence)
	1GHz~6GHz	/	6.18dB(k=2, 95% level of confidence)
	6GHz~18GHz	/	6.62dB(k=2, 95% level of confidence)
	18GHz~40GHz	/	6.66dB(k=2, 95% level of confidence)
Occupied Channel Bandwidth	/		52.29kHz(k=1.96, 95% level of confidence)
Radio frequency	/		81.235Hz(k=1.96, 95% level of confidence)
RF output power, Conducted	/		1.57dB(k=1.96, 95% level of confidence)
Temperature	/		±0.4°C
Time	/		±10%

*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.

Each test item follows test standards and with no deviation.

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user). The system support 802.11a/n-ht20/n-ht40/ac-vht20/ac-vht40, the n-ht20/n-ht40 were reduced since the identical parameters with ac-vht20/ac-vht40.

For 5745-5825MHz Band, 7 channels are provided to test:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	159	5795
151	5755	161	5805
153	5765	165	5825
157	5785	/	/

For 802.11a/ac20 mode: channel 149, 157, 165 were tested

For 802.11ac40 mode: channel 151, 159 were tested

### EUT Exercise Software

Exercise Software <sup>#</sup>		Engineering mode		
Mode	Data rate	Power Level <sup>#</sup>		
		Low Channel	Middle Channel	High Channel
802.11a	6Mbps	21	21	21
802.11ac20	MCS0	21	21	21
802.11ac40	MCS0	21	/	21

Note: The worst-case data rates are determined to be as above for each mode based upon investigation by measuring the power across all data rates bandwidths, and modulations.

### Special Accessories

No special accessory.

### Equipment Modifications

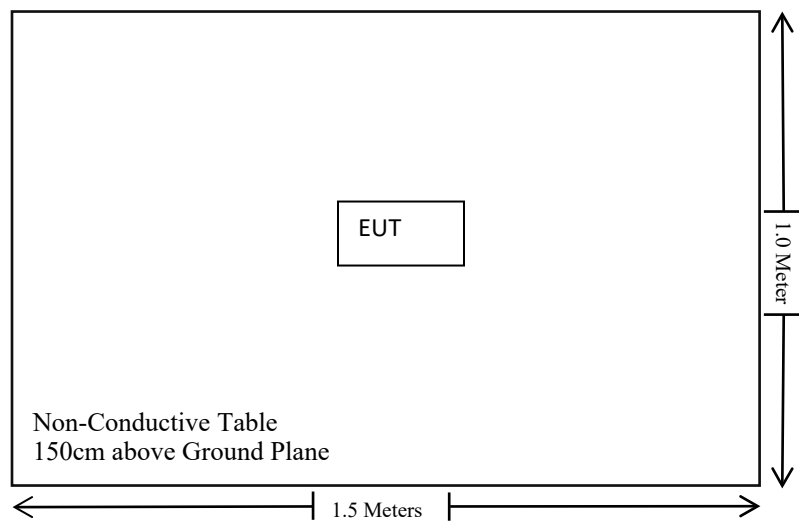
No modification was made to the EUT.

### Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

**External I/O Cable**

Cable Description	Length (m)	From Port	To
/	/	/	/

**Block Diagram of Test Setup**

## SUMMARY OF TEST RESULTS

ETSI EN 300 440 V2.2.1 (2018-07)	Description of test	Result
§ 4.2.2	Equivalent isotropically radiated power	Compliant
§ 4.2.3	Permitted range of operating frequencies	Compliant
§ 4.2.4	Unwanted emissions in the spurious domain	Compliant
§ 4.2.5.4	Duty Cycle	Compliant*
§ 4.2.6	Additional requirements for FHSS equipment	Not Applicable
§ 4.3.3	Adjacent channel selectivity	Not Applicable*
§ 4.3.4	Blocking or desensitization	Compliant
§ 4.3.5	Spurious radiation	Compliant
§ 4.4	Spectrum access techniques	Not Applicable**
§ 4.6.4	GBSAR antenna pattern	Not Applicable***
Annex F	Limits for GBSAR	Not Applicable***

Not Applicable: The EUT is not a FHSS equipment.

Not Applicable\*: The receiver category is 3.

Compliant \*: There is no restriction.

Not Applicable\*\*: The EUT is not used for media access.

Not Applicable\*\*\*: The EUT is not used in the GBSAR system.



## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Radiated Emissions Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2025/09/01	2026/08/31
Sonoma instrument	Pre-amplifier	310 N	186238	2025/09/08	2026/09/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Chamber A Cable	Cable A1	Cable A1	2025/09/08	2026/09/07
Unknown	Chamber A Cable	Cable A2	Cable A2	2025/09/08	2026/09/07
TDK	Chamber	Chamber A	2#	2023/07/12	2026/07/11
COM-POWER	Dipole Antenna	3121C	9209-860	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2025/09/01	2026/08/31
A.H.System	Preamplifier	PAM-0118P	489	2025/09/08	2026/09/07
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	Chamber B Cable	Cable B1	Cable B1	2025/09/08	2026/09/07
Unknown	Chamber B Cable	Cable B2	Cable B2	2025/09/08	2026/09/07
Unknown	Chamber B Cable	Cable B3	Cable B3	2025/09/08	2026/09/07
Keysight	MXG Vector Signal Generator	N5182B	MY53051503	2025/09/18	2026/09/17
JD	Filter Switch Unit	DT7220FSU	DS79906	2025/08/12	2026/08/11
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2025/08/12	2026/08/11
A.H.System	Pre-amplifier	PAM-1840VH	190	2025/09/08	2026/09/07
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
Electro-Mechanics Co	Horn Antenna	3116	2026	2025/09/18	2028/09/17
Unknown	Chamber B Cable	Cable B4	Cable B4	2025/09/17	2026/09/16
Unknown	Chamber B Cable	Cable B5	Cable B5	2025/09/17	2026/09/16
TDK	Chamber	Chamber B	1#	2023/07/14	2026/07/13

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
BACL	Temp&Humi Test Chamber	BTH-150-40	30145	2025/09/11	2026/09/10
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520	2025/09/18	2026/09/17
Tonscend	RF control Unit	JS0806-2	19D8060154	2025/07/18	2026/07/17
Tonscend	Test software	JS1120-3	V3.3.38	NCR	NCR
Keysight	MXA Signal Analyzer	N9020A	MY48490106	2025/7/29	2026/07/29
Keysight	MXG Vector Signal Generator	N5182B	MY53051503	2025/09/18	2026/09/17
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2025/04/29	2026/04/28
Unknown	10dB Attenuator	Unknown	F-03-EM224	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

### Equivalent Isotropically Radiated Power (E.I.R.P.)

#### Standard Applicable

According to ETSI EN 300 440 section 5, the effective radiated power applies to equipment with an integral antenna and to equipment supplied with a dedicated antenna.

If the equipment is designed to operate with different carrier powers, the rated power for each level of range of levels shall be declared by the manufacturer.

The transmitter maximum e.i.r.p. under normal and extreme test conditions shall not exceed the values given in table 2.

**Table 2: Maximum radiated peak power (e.i.r.p.)**

Frequency Bands	Power	Application	Notes
2 400 MHz to 2 483,5 MHz	10 mW e.i.r.p.	Non-specific short range devices	
2 400 MHz to 2 483,5 MHz	25 mW e.i.r.p.	Radio determination devices	
(a) 2 446 MHz to 2 454 MHz	500 mW e.i.r.p.	Radio Frequency Identification (RFID) devices	See also table 4 and annex D
(b) 2 446 MHz to 2 454 MHz	4 W e.i.r.p.	Radio Frequency Identification (RFID) devices	See also table 4 and annex D
5 725 MHz to 5 875 MHz	25 mW e.i.r.p.	Non-specific short range devices	
9 200 MHz to 9 500 MHz	25 mW e.i.r.p.	Radio determination devices	
9 500 MHz to 9 975 MHz	25 mW e.i.r.p.	Radio determination devices	
10,5 GHz to 10,6 GHz	500 mW e.i.r.p.	Radio determination devices	
13,4 GHz to 14,0 GHz	25 mW e.i.r.p.	Radio determination devices	
17,1 GHz to 17,3 GHz	400 mW e.i.r.p.	Radio determination devices	See annex F
24,00 GHz to 24,25 GHz	100 mW e.i.r.p.	Non-specific short range devices and Radio determination devices	

## Permitted range of operating frequencies

### Applicable Standard

The width of the power spectrum envelope is  $f_H - f_L$  for a given operating frequency. In equipment that allows adjustment or selection of different operating frequencies, the power envelope takes up different positions in the allowed band. The frequency range is determined by the lowest value of  $f_L$  and the highest value of  $f_H$  resulting from the adjustment of the equipment to the lowest and highest operating frequencies.

The occupied bandwidth (i.e. the bandwidth in which 99 % of the wanted emission is contained) and the necessary bandwidth of the transmitter shall fall within the assigned frequency band.

For all equipment the frequency range shall lie within the frequency band given by clause 4.2.2.4, table 2. For non-harmonized frequency bands the available frequency range may differ between national administrations.

$f_H$  is the highest frequency of the power envelope, it is the frequency furthest above the frequency of maximum power where the output power envelope drops below the level of -75 dBm/Hz spectral power density (e.g. -30 dBm if measured in a 30 kHz reference bandwidth) e.i.r.p.

$f_L$  is the lowest frequency of the power envelope; it is the frequency furthest below the frequency of maximum power where the output power drops below the level of -75 dBm/Hz spectral power density (e.g. -30 dBm if measured in a 30 kHz reference bandwidth) e.i.r.p.

The power envelope shall contain the occupied bandwidth representing 99 % of the emissions.

The occupied and necessary bandwidths of the transmitter shall be declared. Where differing modes of emission are available, all modes and their associated bandwidths shall be stated.

### Test Procedure

- a) put the spectrum analyser in video averaging mode with a minimum of H.T. sweeps selected;
- b) select the lowest operating frequency of the equipment under test and activate the transmitter with modulation applied. The RF emission of the equipment shall be displayed on the spectrum analyser;
- c) using the marker of the spectrum analyser, find the lowest frequency below the operating frequency at which the spectral power density drops below the level given in clause 7.2. This frequency shall be recorded in the test report;
- d) select the highest operating frequency of the equipment under test and find the highest frequency at which the spectral power density drops below the value given in clause 7.2. This frequency shall be recorded in the test report;
- e) the difference between the frequencies measured in steps c) and d) is the operating frequency range. It shall be recorded in the test report.

This measurement shall be repeated for each frequency range declared by the manufacturer.

## Unwanted emission in the Spurious Emissions domain

### Applicable Standard

The level of spurious emissions shall be measured as either:

- a)
  - i) their power level in a specified load (conducted emission); and
  - ii) their effective radiated power when radiated by the cabinet and structure of the equipment (cabinet radiation); or
- b) their effective radiated power when radiated by the cabinet and the integral or dedicated antenna, in the case of equipment fitted with such an antenna and no permanent RF connector.

For measurements above 1 000 MHz the peak value shall be measured using a spectrum analyser. The "max hold" function of a spectrum analyser shall be used. For measurements up to 1 000 MHz the quasi-peak detector set in accordance with the specification of CISPR 16 [1], [2] and [3] shall be used.

The correction for RBW described in clause 5.8.5 is to be applied to the measured results as applicable.

### Limits

The maximum power limits of any unwanted emissions in the spurious domain are given in table 3.

**Table 3: Spurious emissions**

Frequency ranges	47 MHz to 74 MHz 87,5 MHz to 108 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies ≤ 1 000 MHz	Frequencies > 1 000 MHz
State			
Operating	4 nW	250 nW	1 µW
Standby	2 nW	2 nW	20 nW

### Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

## EUT Setup

The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with ETSI EN 300 440. The specifications used were the ETSI EN 300 440 limits.

## Spectrum Analyzer Setup

According to ETSI EN 300 440, the EUT was tested from 25 MHz to 40 GHz.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

Frequency Range	RBW	Video B/W	Detector
Below 30 MHz	10 kHz	30 kHz	Peak
30 MHz – 1000 MHz	100 kHz	300 kHz	Peak
Above 1 GHz	1 MHz	3 MHz	Peak

## Test Procedure

### 1) Method of measurement cabinet spurious radiation

This method of measurement applies to transmitters having a permanent antenna connector. For equipment without a permanent antenna connector see clause 4.2.4.3.3.

Additional requirements for equipment employing FHSS modulation are given in clause 4.2.4.3.4.

a) A test site selected from annex B which fulfils the requirements of the specified frequency range of this measurement shall be used. The test antenna shall be oriented initially for vertical polarization and connected to a measuring receiver. The bandwidth of the measuring receiver shall be adjusted until the sensitivity of the measuring receiver, after allowing for the coupling loss, is at least 6 dB below the spurious emission limit given in table 3, see clause 4.2.4.4. This bandwidth shall be recorded in the test report.

The transmitter under test shall be placed on the support in its standard position, connected to an artificial antenna (see clause 5.8.2) and switched on without modulation. If modulation cannot be inhibited then the test shall be carried out with modulation, (see clause 5.8.1), and this fact shall be recorded in the test report.

b) For carrier frequencies in the range 1 GHz to 20 GHz the frequency of the measuring receiver shall be adjusted over the frequency range 25MHz to 10 times the carrier frequency, not exceeding 40 GHz. For carrier frequencies above 20 GHz the measuring receiver shall be tuned over the range 25MHz up to twice the carrier frequency, not exceeding 66 GHz, except for the channel on which the transmitter is intended to operate and for channelized systems, its adjacent channels. The frequency of each spurious emission detected shall be noted. If the test site is disturbed by interference coming from outside the site, this qualitative search may be performed in a screened room, with a reduced distance between the transmitter and the test antenna.

c) At each frequency at which an emission has been detected, the measuring receiver shall be tuned and the test antenna shall be raised or lowered through the specified height range until the maximum signal level is detected on the measuring receiver.

- d) The transmitter shall be rotated through  $360^{\circ}$  about a vertical axis, to maximize the received signal.
- e) The test antenna shall be raised or lowered again through the specified height range until a maximum is obtained. This level shall be noted.
- f) The substitution antenna (see clause B.2.3) shall replace the transmitter antenna in the same position and in vertical polarization. It shall be connected to the signal generator.
- g) At each frequency at which an emission has been detected, the signal generator, substitution antenna, and measuring receiver shall be tuned. The test antenna shall be raised or lowered through the specified height range until the maximum signal level is detected on the measuring receiver. The level of the signal generator giving the same signal level on the measuring receiver as in item e) shall be noted. After corrections due to the gain of the substitution antenna and the cable loss between the signal generator and the substitution antenna, is the radiated spurious emission at this frequency.
- h) The frequency and level of each spurious emission measured and the bandwidth of the measuring receiver shall be recorded in the test report.
- i) Steps c) to h) shall be repeated with the test antenna oriented in horizontal polarization.
- j) If a user accessible power adjustment is provided then the tests in steps c) to h) shall be repeated at the lowest power setting available.
- k) Steps c) to i) shall be repeated with the transmitter in the standby condition if this option is available.

## 2) Method of measurement radiated spurious emission

This method of measurement applies to transmitters having an integral antenna.

Additional requirements for equipment employing FHSS modulation are given in clause 4.2.4.3.4.

- a) A test site selected from annex B which fulfils the requirements of the specified frequency range of this measurement shall be used. The test antenna shall be oriented initially for vertical polarization and connected to a measuring receiver, through a suitable filter to avoid overloading of the measuring receiver if required.

The bandwidth of the measuring receiver shall be adjusted until the sensitivity of the measuring receiver, after allowing for the coupling loss, is at least 6 dB below the spurious emission limit given in table 3, see clause 4.2.4.4. This bandwidth shall be recorded in the test report.

For the measurement of spurious emissions below the second harmonic of the carrier frequency the optional filter used shall be a high "Q" (notch) filter centred on the transmitter carrier frequency and attenuating this signal by at least 30 dB.

For the measurement of spurious emissions at and above the second harmonic of the carrier frequency the optional filter used shall be a high pass filter with a stop band rejection exceeding 40 dB. The cut-off frequency of the high pass filter shall be approximately 1,5 times the transmitter carrier frequency. The transmitter under test shall be placed on the support in its standard position and shall be switched on without modulation. If modulation cannot be inhibited then the test shall be carried out with modulation (see clause 6.1) and this fact shall be recorded in the test report.

- b) The same method of measurement as steps b) and k) of clause 4.2.4.3.2 shall be used.

## Blocking or desensitization

### Applicable Standard

Blocking is a measure of the capability of the receiver to receive a wanted modulated signal without exceeding a given degradation due to the presence of an unwanted input signal at any frequencies other than those of the spurious responses or the occupied bandwidth.

### Limits

The blocking level, for any frequency within the specified ranges, shall not be less than the values given in table 6, except at frequencies on which spurious responses are found.

**Table 6: Limits for blocking or desensitization**

Receiver category	Limit
1	-30 dBm + k
2	-45 dBm + k
3	-60 dBm + k

The correction factor,  $k$ , is as follows:

$$k = -20\log f - 10\log BW$$

Where:

- $f$  is the frequency in GHz;
- $BW$  is the occupied bandwidth in MHz.

The factor  $k$  is limited within the following:

- $-40 \text{ dB} < k < 0 \text{ dB}$ .

The measured blocking level shall be stated in the test report.

### Test Procedure

This measurement shall be conducted under normal conditions.

Two signal generators A and B shall be connected to the receiver via a combining network to the receiver, either:

- a) via a test fixture or a test antenna to the receiver integrated, dedicated or test antenna; or
- b) directly to the receiver permanent or temporary antenna connector.

The method of coupling to the receiver shall be stated in the test report.



Signal generator A shall be at the nominal frequency of the receiver, with normal modulation of the wanted signal. Signal generator B shall be unmodulated and shall be adjusted to a test frequency at approximately 10 times, 20 times and 50 times of the occupied bandwidth above upper band edge of

occupied bandwidth. Initially signal generator B shall be switched off and using signal generator A the level which still gives sufficient response shall be established. The output level of generator A shall then be increased by 3 dB. Signal generator B is then switched on and adjusted until the wanted criteria are met. This level shall be recorded. The measurement shall be repeated with the test frequency for signal generator B at 10 times, 20 times and 50 times of the occupied bandwidth below the lower band edge of the occupied bandwidth. The blocking or desensitization shall be recorded as the level in dBm of lowest level of the unwanted signal (generator B). For tagging systems (e.g. RF identification, anti-theft, access control, location and similar systems) signal generator A may be replaced by a physical tag positioned at 70 % of the measured system range in metres. In this case, the blocking or desensitization shall be recorded as the ratio in dB of lowest level of the unwanted signal (generator B) resulting in a non-read of the tag. to the declared sensitivity of the receiver +3 dB.

## Receiver Spurious radiations

### Applicable Standard

For measurements above 1 000 MHz the peak value shall be measured using a spectrum analyser. The "max hold" function of a spectrum analyser shall be used. For measurements up to 1 000 MHz the quasi-peak detector set in accordance with the specification of CISPR 16 [1], [2] and [3] shall be used.

### EUT Setup

The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with ETSI EN 300 440. The specifications used were the ETSI EN 300 440 limits.

### Spectrum Analyzer Setup

According to ETSI EN 300 440, the EUT was tested from 25MHz to 40 GHz.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

Frequency Range	RBW	Video B/W	Detector
Below 30 MHz	10 kHz	30 kHz	Peak
30 MHz – 1000 MHz	100 kHz	300 kHz	Peak
Above 1 GHz	1 MHz	3 MHz	Peak

### Test Procedure

#### 1) Method of measurement conducted spurious components

This method of measurement applies to receivers having a permanent antenna connector.

A test load, H.T.Ω power attenuator, may be used to protect the measuring receiver (see clause 6.5) against damage when testing a receiver combined in one unit with a transmitter.

The measuring receiver used shall have sufficient dynamic range and sensitivity to achieve the required measurement accuracy at the specified limit. The bandwidth of the measuring receiver shall be adjusted until the sensitivity of the measuring receiver is at least 6 dB below the spurious emission limit given in clause 4.3.5.4. This bandwidth shall be recorded in the test report:

a) The receiver input terminals shall be connected to a measuring receiver having an input impedance of H.T. Ω and the receiver is switched on.

b) For carrier frequencies in the range 1 GHz to 20 GHz the frequency of the measuring receiver shall be adjusted over the frequency range 25MHz to 10 times the carrier frequency, not exceeding 40 GHz. For carrier frequencies above 20 GHz the measuring receiver shall be tuned over the range 25MHz up to twice the carrier frequency not exceeding 66 GHz. The frequency and the absolute power level of each of the spurious components found shall be noted.

c) If the detecting device is not calibrated in terms of power input, the level of any detected components shall be determined by replacing the receiver by the signal generator and adjusting it to reproduce the frequency and level of every spurious component noted in step b). The absolute power level of each spurious component shall be noted.

d) The frequency and level of each spurious emission measured and the bandwidth of the measuring receiver shall be recorded in the test report.

## 2) Method of measurement cabinet radiation

This method of measurement applies to receivers having a permanent antenna connector.

a) A test site selected from annex B which fulfils the requirements of the specified frequency range of this measurement shall be used. The test antenna shall be oriented initially for vertical polarization and connected to a measuring receiver. The bandwidth of the measuring receiver shall be adjusted until the sensitivity of the measuring receiver is at least 6 dB below the spurious emission limit given in clause 4.3.5.4. This bandwidth shall be recorded in the test report.

The receiver under test shall be placed on the support in its standard position and connected to an artificial antenna, see clause 5.8.2.

b) For carrier frequencies in the range 1 GHz to 20 GHz the frequency of the measuring receiver shall be adjusted over the frequency range 25 MHz to 10 times the carrier frequency, not exceeding 40 GHz. For carrier frequencies above 20 GHz the measuring receiver shall be tuned over the range 25 MHz up to twice the carrier frequency not exceeding 66 GHz. The frequency of each spurious component shall be noted. If the test site is disturbed by radiation coming from outside the site, this qualitative search may be performed in a screened room with reduced distance between the transmitter and the test antenna.

c) At each frequency at which a component has been detected, the measuring receiver shall be tuned and the test antenna shall be raised or lowered through the specified height range until the maximum signal level is detected on the measuring receiver.

d) The receiver shall be rotated up to 360° about a vertical axis, to maximize the received signal.

e) The test antenna shall be raised or lowered again through the specified height range until a maximum is obtained. This level shall be noted.

f) The substitution antenna (see clause B.3.2) shall replace the receiver antenna in the same position and in vertical polarization. It shall be connected to the signal generator.

g) At each frequency at which a component has been detected, the signal generator, substitution antenna and measuring receiver shall be tuned. The test antenna shall be raised or lowered through the specified height range until the maximum signal level is detected on the measuring receiver. The level of the signal generator giving the same signal level on the measuring receiver as in step e) shall be noted. This level, after correction due to the gain of the substitution antenna and the cable loss, is the radiated spurious component at this frequency.

h) The frequency and level of each spurious emission measured and the bandwidth of the measuring receiver shall be recorded in the test report.

i) Measurements b) to h) shall be repeated with the test antenna oriented in horizontal polarization.

3) Method of measurement radiated spurious components

This method of measurement applies to receivers having an integral antenna.

a) A test site selected from annex B which fulfils the requirements of the specified frequency range of this measurement shall be used. The test antenna shall be oriented initially for vertical polarization and connected to a measuring receiver. The bandwidth of the measuring receiver shall be adjusted until the sensitivity of the measuring receiver is at least 6 dB below the spurious emission limit given in clause 4.3.5.4. This bandwidth shall be recorded in the test report.

The receiver under test shall be placed on the support in its standard position.

b) The same method of measurement as items b) to i) of clause 4.3.5.3.2 shall apply.

## TEST DATA AND RESULTS

### Unwanted Emissions In The Spurious Domain

#### Environmental Conditions

<b>Temperature (°C)</b>	24.9-25.8	<b>Relative Humidity (%)</b>	48-51
<b>ATM Pressure (kPa):</b>	100.3-100.6	<b>Test engineer:</b>	Anson Su&Wing K Ji
<b>Test date:</b>	2026.03.27-2026.03.30		
<b>EUT operation mode:</b>	Transmitting/Standby		
<b>Note:</b>	Test Result: Compliant, please refer to the below table for the worst case.		

#### 25 MHz - 40 GHz

Frequency (MHz)	Receiver Reading (dBμV)	Polar (H / V)	Substituted			Absolute Level (dBm)	EN 300 440	
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)		Limit (dBm)	Margin (dB)
802.11 a mode - Low channel								
80.54	42.34	H	-72.05	0.75	0.00	-71.30	-36	35.30
178.43	29.45	V	-74.61	0.84	0.00	-73.77	-54	19.77
11490.00	47.79	H	-51.21	3.3	12.6	-41.91	-30	11.91
11490.00	45.26	V	-53.14	3.3	12.6	-43.84	-30	13.84
802.11 a mode - High channel								
80.68	42.97	H	-71.42	0.75	0.00	-70.67	-36	34.67
176.85	29.83	V	-74.23	0.84	0.00	-73.39	-54	19.39
11650.00	51.00	H	-48.70	3.1	12.9	-38.90	-30	8.90
11650.00	46.36	V	-53.04	3.1	12.9	-43.24	-30	13.24
Standby								
80.52	48.38	H	-66.01	0.75	0.00	-65.26	-57	8.26
174.36	39.76	V	-64.30	0.84	0.00	-63.46	-57	6.46
1342.59	61.90	H	-52.50	1.00	7.30	-58.8	-47	11.8
1483.27	61.10	V	-54.00	1.20	8.20	-60.8	-47	13.8

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

## Receiver Spurious Radiations

### Environmental Conditions

<b>Temperature (°C)</b>	24.9-25.8	<b>Relative Humidity (%)</b>	48-51
<b>ATM Pressure (kPa):</b>	100.3-100.6	<b>Test engineer:</b>	Anson Su&Wing K Ji
<b>Test date:</b>	2026.03.27-2026.03.30		
<b>EUT operation mode:</b>	Receiving		
<b>Note:</b>	Test Result: Compliant, please refer to the below table for the worst case.		

### 25 MHz - 40 GHz

Frequency (MHz)	Receiver Reading (dBμV)	Polar (H / V)	Substituted			Absolute Level (dBm)	EN 300 440	
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)		Limit (dBm)	Margin (dB)
802.11 a mode - Low channel								
80.65	41.00	H	-73.39	0.75	0.00	-72.64	-57	15.64
176.52	28.76	V	-75.30	0.84	0.00	-74.46	-57	17.46
1649.65	48.56	H	-65.74	1.50	8.60	-58.64	-47	11.64
1318.95	51.01	V	-64.29	1.00	7.30	-57.99	-47	10.99
802.11 a mode - High channel								
80.62	41.30	H	-73.09	0.75	0.00	-72.34	-57	15.34
179.05	28.39	V	-75.67	0.84	0.00	-74.83	-57	17.83
1346.52	49.95	H	-64.45	1.00	7.30	-58.15	-47	11.15
1484.62	48.99	V	-66.11	1.20	8.20	-59.11	-47	12.11

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

**RF Conducted data**

Project No.:	2601R49433E-RF
EUT Number:	3IUC-1
Operating Mode:	Transmitting
Test Conditions:	Normal Temperature: <u>25</u> °C Low Temperature: <u>0</u> °C High Temperature: <u>55</u> °C Relative Humidity: <u>55</u> % ATM Pressure: <u>100.7</u> kPa
Test Engineer:	<i>Ciel .Jiang</i>
Test Date:	2026.04.02

**RF Output Power****Test Result**

Test Condition	Test Mode	Antenna	Freq(MHz)	EIRP [dBm]	EIRP Limit [dBm]	Verdict
NTNV	11A	Ant1	5745	11.84	13.98	PASS
			5785	10.57	13.98	PASS
			5825	9.45	13.98	PASS
	11AC20SISO	Ant1	5745	11.88	13.98	PASS
			5785	10.65	13.98	PASS
			5825	9.51	13.98	PASS
	11AC40SISO	Ant1	5755	11.57	13.98	PASS
			5795	10.31	13.98	PASS
			5745	12.02	13.98	PASS
LTLV	11A	Ant1	5785	10.73	13.98	PASS
			5825	9.60	13.98	PASS
			5745	12.07	13.98	PASS
	11AC20SISO	Ant1	5785	10.81	13.98	PASS
			5825	9.70	13.98	PASS
			5755	11.73	13.98	PASS
	11AC40SISO	Ant1	5795	10.47	13.98	PASS
			5745	12.17	13.98	PASS
			5785	10.91	13.98	PASS
LTHV	11A	Ant1	5825	9.76	13.98	PASS
			5745	12.25	13.98	PASS
			5785	10.96	13.98	PASS
	11AC20SISO	Ant1	5825	9.89	13.98	PASS
			5755	11.88	13.98	PASS
			5795	10.63	13.98	PASS
	11AC40SISO	Ant1	5745	11.47	13.98	PASS
			5785	10.26	13.98	PASS
			5825	9.12	13.98	PASS
HTLV	11A	Ant1	5745	11.54	13.98	PASS
			5785	10.31	13.98	PASS
			5825	9.15	13.98	PASS
	11AC20SISO	Ant1	5755	11.24	13.98	PASS
			5795	9.97	13.98	PASS
			5745	11.66	13.98	PASS
	11AC40SISO	Ant1	5785	10.42	13.98	PASS
			5825	9.30	13.98	PASS
			5745	11.73	13.98	PASS
HTHV	11A	Ant1	5785	10.50	13.98	PASS
			5825	9.33	13.98	PASS
			5755	11.39	13.98	PASS
	11AC20SISO	Ant1	5795	10.12	13.98	PASS
			5745	11.66	13.98	PASS
			5785	10.42	13.98	PASS
	11AC40SISO	Ant1	5825	9.30	13.98	PASS
			5745	11.73	13.98	PASS
			5785	10.50	13.98	PASS

Note: The antenna gain is 0.60 dBi which was added into the final test.



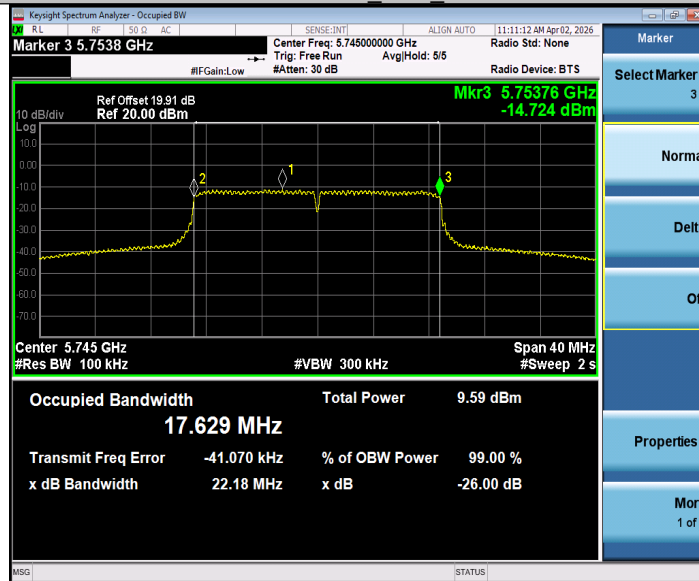
**Occupied Channel Bandwidth****Test Result**

Test Mode	Antenna	Freq. [MHz]	OCB[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.465	The 99% OBW within the assigned freque	PASS
		5825	16.437		PASS
11AC20SISO	Ant1	5745	17.629		PASS
		5825	17.604		PASS
11AC40SISO	Ant1	5755	36.204		PASS
		5795	36.199		PASS

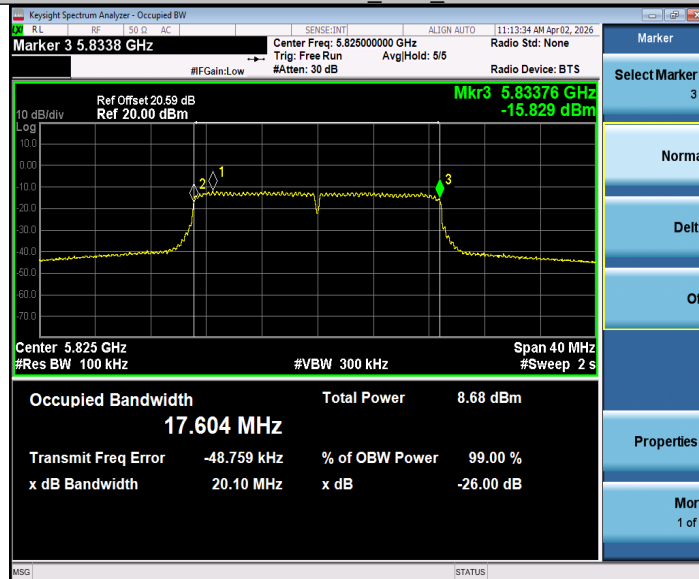
## Test Graphs



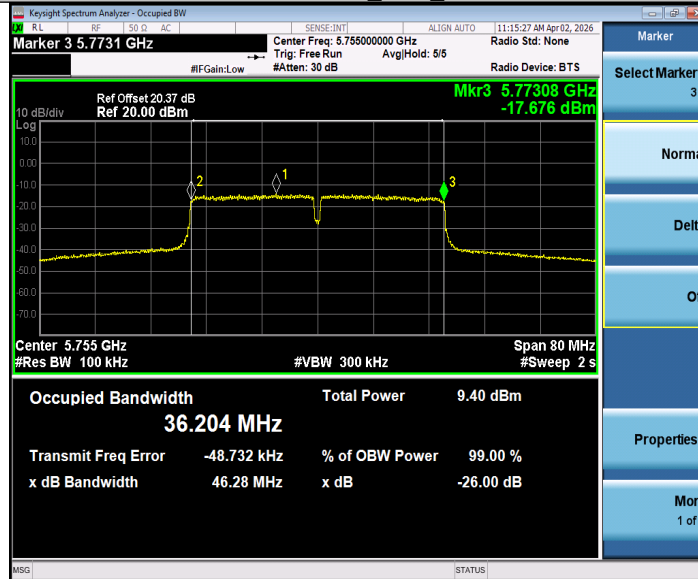
## 11AC20SISO\_Ant1\_5745



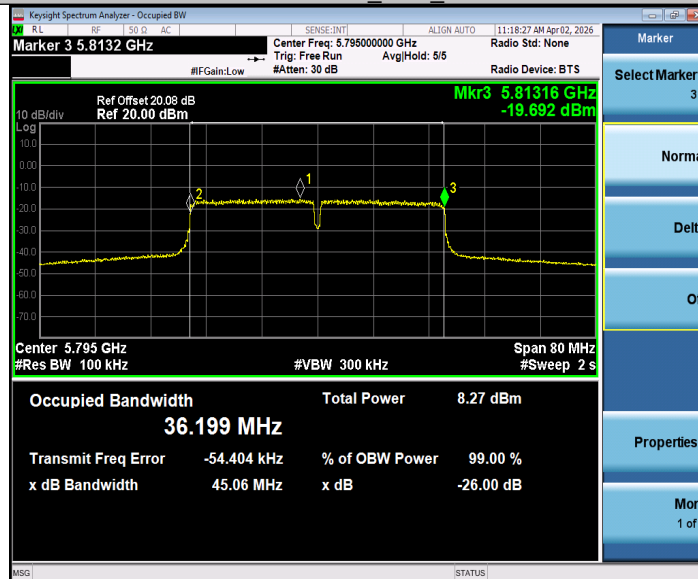
## 11AC20SISO\_Ant1\_5825



11AC40SISO\_Ant1\_5755



11AC40SISO\_Ant1\_5795



**Operating frequency range****802.11 a mode:**

Test Condition		Frequency (MHz)			
Temperature (°C)	Voltage (V <sub>DC</sub> )	f <sub>L</sub> at Low Channel	f <sub>H</sub> at High Channel	f <sub>L</sub> Limit	f <sub>H</sub> Limit
L.T.	L.V.	5735.98	5834.34	5725	5875
	H.V.	5736.05	5834.42	5725	5875
N.T.	N.V.	5735.92	5834.28	5725	5875
H.T.	L.V.	5735.78	5834.14	5725	5875
	H.V.	5735.86	5834.19	5725	5875

**802.11 ac-VHT 20 mode:**

Test Condition		Frequency (MHz)			
Temperature (°C)	Voltage (V <sub>DC</sub> )	f <sub>L</sub> at Low Channel	f <sub>H</sub> at High Channel	f <sub>L</sub> Limit	f <sub>H</sub> Limit
L.T.	L.V.	5735.67	5834.29	5725	5875
	H.V.	5735.76	5834.31	5725	5875
N.T.	N.V.	5735.60	5834.20	5725	5875
H.T.	L.V.	5735.47	5834.03	5725	5875
	H.V.	5735.54	5834.11	5725	5875

**802.11 ac-VHT 40 mode:**

Test Condition		Frequency (MHz)			
Temperature (°C)	Voltage (V <sub>DC</sub> )	f <sub>L</sub> at Low Channel	f <sub>H</sub> at High Channel	f <sub>L</sub> Limit	f <sub>H</sub> Limit
L.T.	L.V.	5736.58	5813.46	5725	5875
	H.V.	5736.64	5813.54	5725	5875
N.T.	N.V.	5736.52	5813.40	5725	5875
H.T.	L.V.	5736.36	5813.24	5725	5875
	H.V.	5736.43	5813.32	5725	5875

**Blocking or desensitization**

Receiver category 3

Only the worst case 802.11a 20M bandwidth were recorded in the report.

Frequency (MHz)	Frequency offset (MHz)	Test result (dBm)	Limit (dBm)	Result
5745	10*OBW below OBW low edge	-54	-82.35	PASS
	10*OBW above OBW high edge	-48	-82.35	PASS
	20*OBW below OBW low edge	-50	-82.35	PASS
	20*OBW above OBW high edge	-59	-82.35	PASS
	50*OBW below OBW low edge	-53	-82.35	PASS
	50*OBW above OBW high edge	-55	-82.35	PASS

Frequency (MHz)	Frequency offset (MHz)	Test result (dBm)	Limit (dBm)	Result
5825	10*OBW below OBW low edge	-52	-82.46	PASS
	10*OBW above OBW high edge	-49	-82.46	PASS
	20*OBW below OBW low edge	-51	-82.46	PASS
	20*OBW above OBW high edge	-57	-82.46	PASS
	50*OBW below OBW low edge	-54	-82.46	PASS
	50*OBW above OBW high edge	-56	-82.46	PASS

Low channel: 5745MHz, BW= 16.465MHz; High channel: 5825MHz, BW=16.437MHz;

Low channel limit=-60+k dBm=-60+(-20\*log(5.745)-10\*log(16.465))=-60+(-15.19-12.17)=-82.35

High channel limit=-60+k dBm=-60+(-20\*log(5.825)-10\*log(16.437))=-60+(-15.31-12.15)=-82.46

K=-20\*logf-10\*logBW

## **EXHIBIT A - EUT PHOTOGRAPHS**

Please refer to the report number is 2601R49433E-EUT.

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

**Radiated Spurious Emissions Test View (Below 1GHz)**



**Radiated Spurious Emissions Test View (Above 1GHz)**



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