

FCC - TEST REPORTReport Number : **709502301742-00A** Date of Issue: July 26, 2023

Model : Fotric P9, Fotric P8, Fotric P7, Fotric P6, Fotric P5, Fotric P4

Product Type : Infrared Thermal Camera

Applicant : FOTRIC INC.

Address : No. 14, Lane 2500, Xiupu Road, Pudong, 201201 Shanghai,
PEOPLE'S REPUBLIC OF CHINA

Manufacturer : FOTRIC INC.

Address : No. 14, Lane 2500, Xiupu Road, Pudong, 201201 Shanghai,
PEOPLE'S REPUBLIC OF CHINATest Result : ☒ Positive ☐ NegativeTotal pages including
Appendices : 50

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch
No.16 Lane, 1951 Du Hui Road,
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Test Firm FCC
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Number: 820234

Designation
number: CN1183

IC Company
Number: 25988

CAB identifier: CN0101

Telephone: +86 21 6141 0123
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3 Description of the Equipment under Test

Product:	Infrared Thermal Camera
Model no.:	Fotric P9, Fotric P8, Fotric P7, Fotric P6, Fotric P5, Fotric P4
FCC ID:	2AZTCJAGUAR
Options and accessories:	Test harness
Rating:	DC 3.6V Li-ion Battery
RF Transmission Frequency:	2402~2480MHz for Bluetooth For 2.4G & 5G Wi-Fi For 802.11b/g/n-HT20: 2412~2462 MHz For 802.11n-HT40: 2422~2452 MHz 5180~5240 MHz (U-NII-1) 5260~5320 MHz (U-NII-2A) 5500~5720 MHz (U-NII-2C) 5745~5825 MHz (U-NII-3)
No. of Operated Channel:	79 channels for Bluetooth 4.2+EDR 40 channels for Bluetooth 4.2 BLE 2.4GHz WIFI: 11 for 802.11b/802.11g/802.11(H20); 7 for 802.11n(HT40) 5180~5240 MHz (U-NII-1): Channel 36 - 48 5260~5320 MHz (U-NII-2A): Channel 52 - 64 5500~5720 MHz (U-NII-2C): Channel 100 -144 5745~5825 MHz (U-NII-3): Channel 149 - 165
Modulation:	Bluetooth 4.2+EDR FHSS: GFSK, $\pi/4$ DQPSK, 8DPSK Bluetooth 4.2+BLE DHSS: GFSK For Wi-Fi: Direct Sequence Spread Spectrum (DSSS) for 802.11b Orthogonal Frequency Division Multiplexing (OFDM) for 802.11a/b/g/n/ac
Hardware Version:	0.6.2.4
Software Version:	V3.0.0
Data speed:	1. Bluetooth 4.2+EDR FHSS: 1Mbps, 2Mbps, 3Mbps 2. Bluetooth 4.2+BLE DHSS: 1Mbps 3. Wi-Fi: 11b 1 ~ 11Mbps, 11g/a 6 ~ 54Mbps, 11n HT20 6.5 ~ 72.2Mbps, 11n HT 40 13.5 ~ 150Mbps, 11ac VHT40 13.5 ~ 200Mbps, 11ac VHT80 29.3 ~ 433.3Mbps



China

Antenna Type: PIFA Antenna

Antenna Gain: 1.79dBi for 2.4GHz; 7.19dBi for 5GHz

Description of the EUT: The Equipment Under Test (EUT) is an Infrared Thermal Camera with Bluetooth and Wi-Fi Module. The EUT support Bluetooth 4.2+EDR and support BLE function and Wi-Fi operated at 5GHz and 2.4GHz. Only 5G Wi-Fi included in this report.

Test sample no.: SHA-716542-2

The sample's mentioned in this report is/are submitted/ supplied/ manufactured by client. The laboratory therefore assumes no responsibility for accuracy of information on the brand name, model number, origin of manufacture, consignment, antenna gain or any information supplied.



China

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart E, 2021 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart E - Unlicensed National Information Infrastructure Devices

Test Method:
FCC KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices

5 Summary of Test Results

Technical Requirements						
FCC Part 15 Subpart C						
Test Condition		Pages	Test Site	Test Result		
				Pass	Fail	N/A
§15.207	Conducted emission AC power port	14-18	Site 1	☒	☐	☐
§15.407(e)	Emission bandwidth	19-20	Site 1	☒	☐	☐
15.407(a)(i)	Maximum Conducted Output Power	21-22	Site 1	☒	☐	☐
15.407(a)(i)	Maximum Power Spectral Density	23-24	Site 1	☒	☐	☐
§15.407(g)	Frequencies Stability	25-34	Site 1	☒	☐	☐
§15.407(b)(1), 15.407(b)(2), 15.407(b)(3), 15.407(b)(4), 15.407(b)(5), 15.407(b)(6), 15.407(b)(7), 15.209	Unwanted Emissions	35-43	Site 1	☒	☐	☐
§15.203	Antenna requirement	See note 1		☒	☐	☐

Remark 1: The EUT only operation at 5G Wi-Fi UNII Band (5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5720MHz, 5745MHz-5825MHz). The EUT operate as Clients Device without Radar Detection.

Note 1: The EUT uses a PIFA antenna, which gain is 7.19dBi for 5GHz. In accordance to §15.203, It is considered sufficiently to comply with the provisions of this section.

15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: 2AZTCJAGUAR complies with Section 15.207, 15.209, 15.407 of the FCC Part 15, Subpart E Rules.

This report is only for 5GHz Wi-Fi. The TX and RX range is 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5720MHz, 5745MHz-5825MHz.

According to the client's declaration, all the models have the same electrical circuit board and mechanical structure, except schematic and hardware circuit, except pixel, lens or physical size differences., so we chose the Fotric P7 to perform all the tests.

SUMMARY:

All tests according to the regulations cited on page 6 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: March 24, 2023

Testing Start Date: March 27, 2023

Testing End Date: July 25, 2023

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Reviewed by:

Prepared by:

Tested by:




Hui TONG
Review Engineer



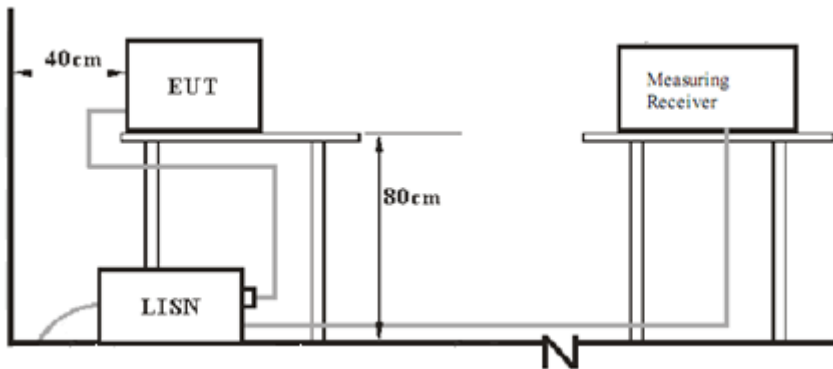
Jiaxi XU
Project Engineer



Wang Yiquan
Test Engineer

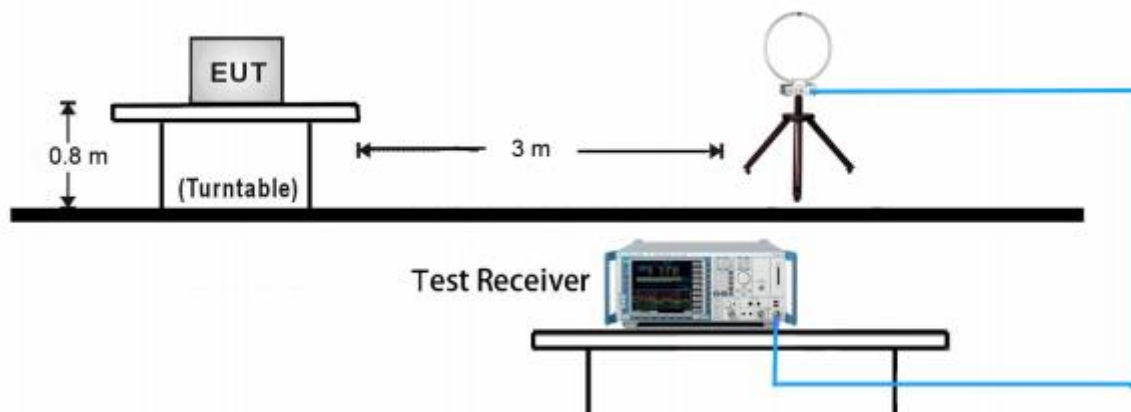
7 Test Setups

7.1 AC Power Line Conducted Emission test setups

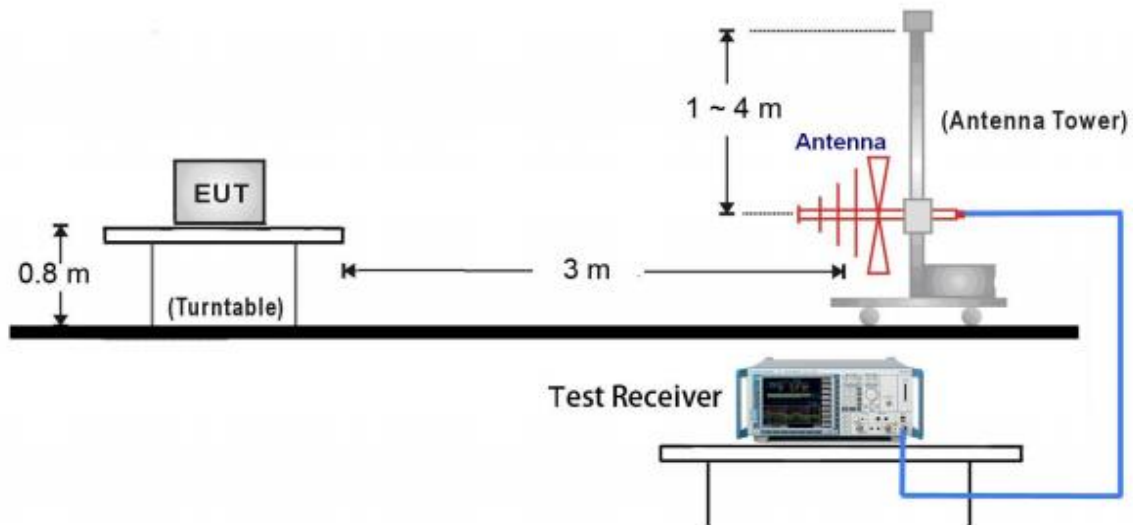


7.2 Radiated test setups

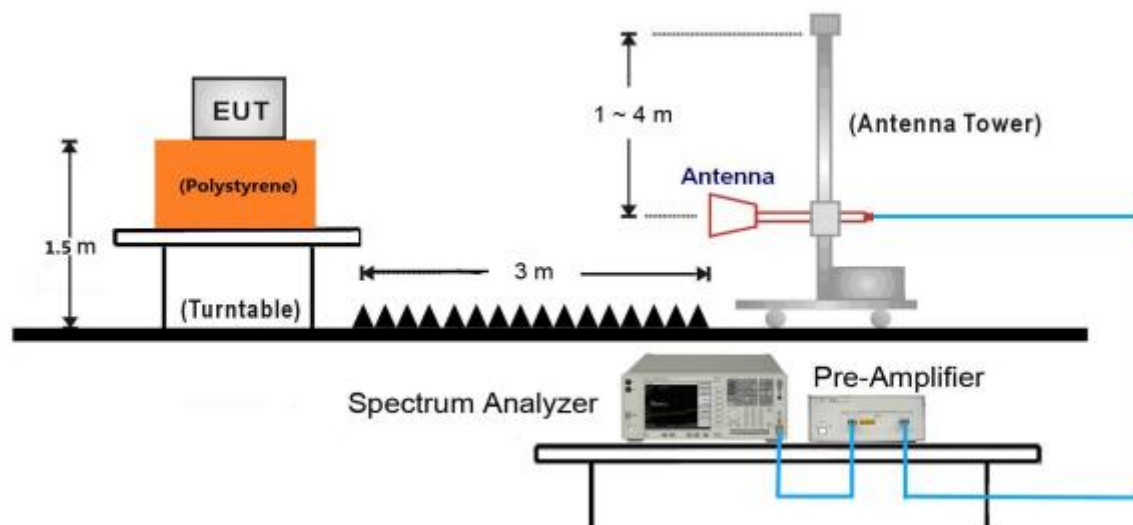
9kHz ~ 30MHz Test Setup:

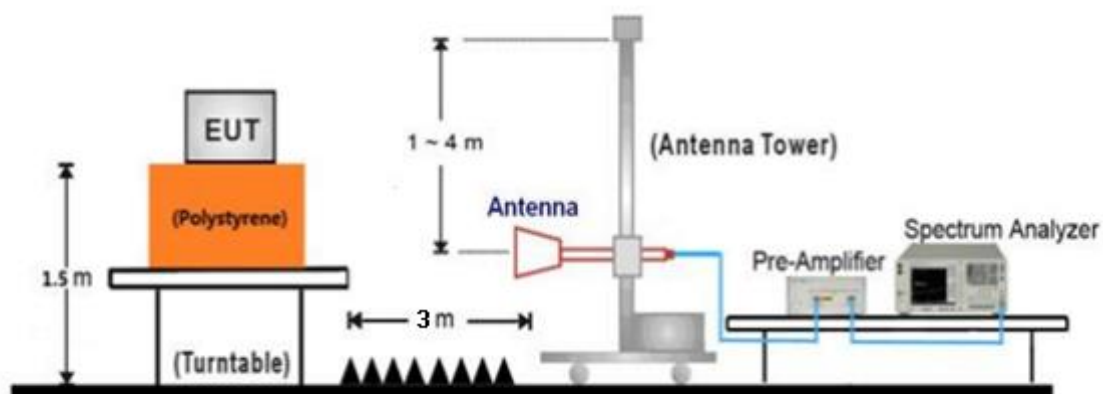


30MHz ~ 1GHz Test Setup:

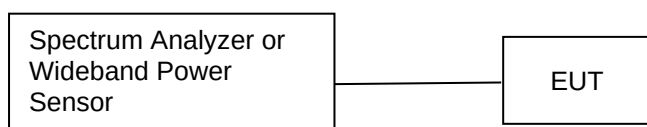


1GHz ~ 18GHz Test Setup:





7.3 Conducted RF test setups



8 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Notebook	Lenovo	X240	--

Test software: QRCT.exe, which used to control the EUT in continues transmitting mode.

The system was configured to channel:

Test Mode	Channel (MHz)		
802.11a, 802.11n HT20 802.11ac VHT20	5G WIFI-Band 1		
	CH36 (5180MHz)	CH40 (5200MHz)	CH48 (5240MHz)
	5G WIFI-Band 2		
	CH52 (5260MHz)	CH56 (5280MHz)	CH64 (5320MHz)
	5G WIFI-Band 3		
	CH100 (5500MHz)	CH116 (5600MHz)	CH140 (5700MHz)
	CH144 (5720MHz)		
	5G WIFI-Band 4		
	CH149 (5745MHz),	CH157 (5785MHz)	CH165 (5825MHz)

Test Mode	Channel (MHz)		
802.11n HT40 802.11ac VHT40	5G WIFI-Band 1		
	CH38 (5190MHz)	CH46 (5230MHz)	
	5G WIFI-Band 2		
	CH54 (5270MHz)	CH62 (5310MHz)	
	5G WIFI-Band 3		
	CH102 (5510MHz)	CH118 (5590MHz)	CH134 (5670MHz)
	CH142 (5710MHz)		
	5G WIFI-Band 4		
	CH151 (5755MHz)	CH159 (5795MHz)	

Test Mode	Channel (MHz)		
802.11ac VHT80	5G WIFI-Band 1		
	CH42 (5210MHz)		
	5G WIFI-Band 2		
	CH58 (5290MHz)		
	5G WIFI-Band 3		
	CH106 (5530MHz)	CH123 (5610MHz)	CH138 (5690MHz)
	5G WIFI-Band 4		
	CH155 (5775MHz)		

Note: According to FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Channels: CH 142 (5710MHz) and CH 144 (5720MHz) were chose to perform Conducted output power and emission bandwidth testing.

The pre-test has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

Modulation Type	Data Rate
802.11a OFDM	6Mbps
802.11n (HT20): OFDM	MCS0 (6.5Mbps)
802.11n (HT40): OFDM	MCS0 (13.5Mbps)
802.11ac (VHT20): OFDM	11ac 6.5Mbps (20MHz)
802.11ac (VHT40): OFDM	11ac 13.5Mbps (40MHz)
802.11ac (VHT80): OFDM	11ac 29.3Mbps (80MHz)

Device Capabilities

Duty Cycle: 100%

Note: 2.4GHz WLAN (DTS) operation is possible in 20MHz, and 40MHz channel bandwidths.

5GHz WLAN (DTS) operation is possible in 20MHz, 40MHz and 80MHz channel bandwidths.

9 Technical Requirement

9.1 Conducted Emission

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

Conducted Emission

150k-30MHz Conducted Emission Test

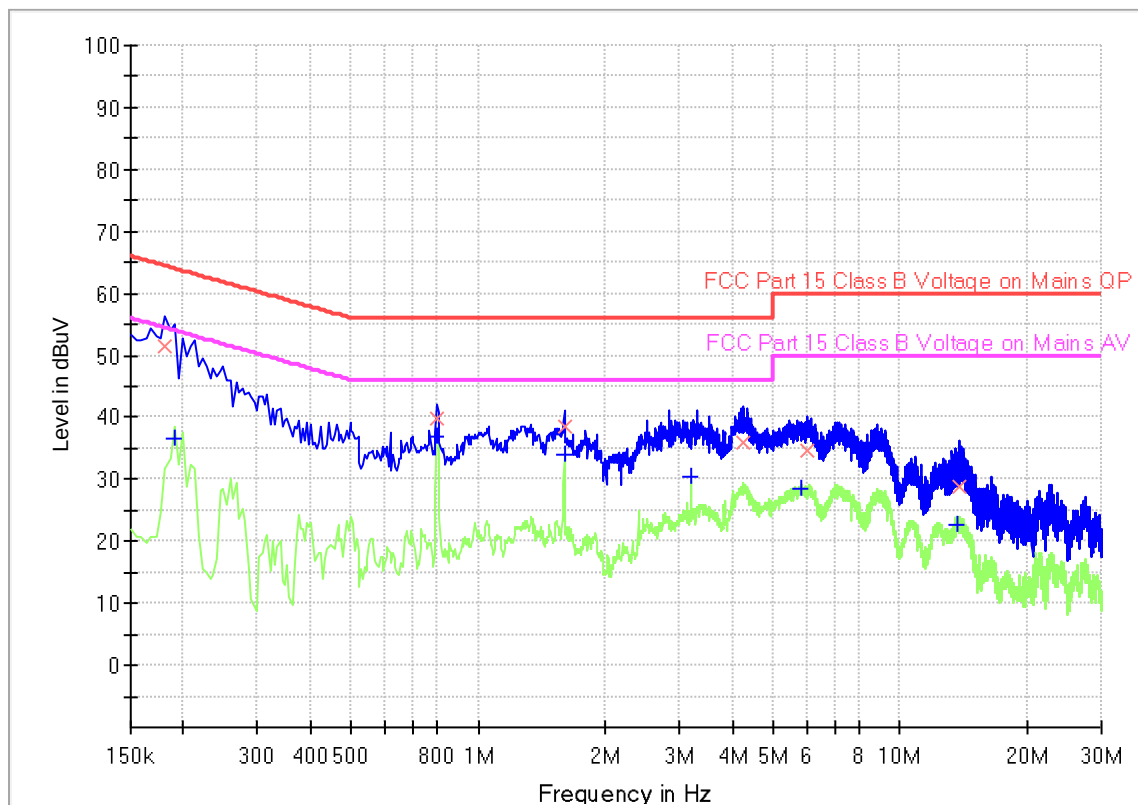
EUT Information

EUT Name: Infrared Thermal Camera
 Model: Fotric P7
 Client: FOTRIC INC.
 Op Cond: Power on, TX_5190MHz AC 230V, 50Hz, T21.3, H56.3%, P100.6kPa
 Operator: Wang Yiquan
 Standard: FCC part 15.209(a)
 Comment: Phase L
 Sample No.: SHA-716542-2

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN
 Receiver: [ESR 3]
 Level Unit: dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamplifier
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB





Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.181500	51.43	---	64.42	12.99	1000.0	9.000	L1	19.6
0.190500	---	36.47	54.01	17.54	1000.0	9.000	L1	19.6
0.798000	---	36.88	46.00	9.12	1000.0	9.000	L1	19.6
0.798000	39.77	---	56.00	16.23	1000.0	9.000	L1	19.6
1.599000	38.58	---	56.00	17.42	1000.0	9.000	L1	19.6
1.599000	---	34.01	46.00	11.99	1000.0	9.000	L1	19.6
3.201000	---	30.33	46.00	15.67	1000.0	9.000	L1	19.6
4.240500	35.91	---	56.00	20.09	1000.0	9.000	L1	19.6
5.851500	---	28.34	50.00	21.66	1000.0	9.000	L1	19.6
6.009000	34.52	---	60.00	25.48	1000.0	9.000	L1	19.6
13.690500	---	22.60	50.00	27.40	1000.0	9.000	L1	19.8
13.771500	28.86	---	60.00	31.14	1000.0	9.000	L1	19.8

150k-30MHz Conducted Emission Test

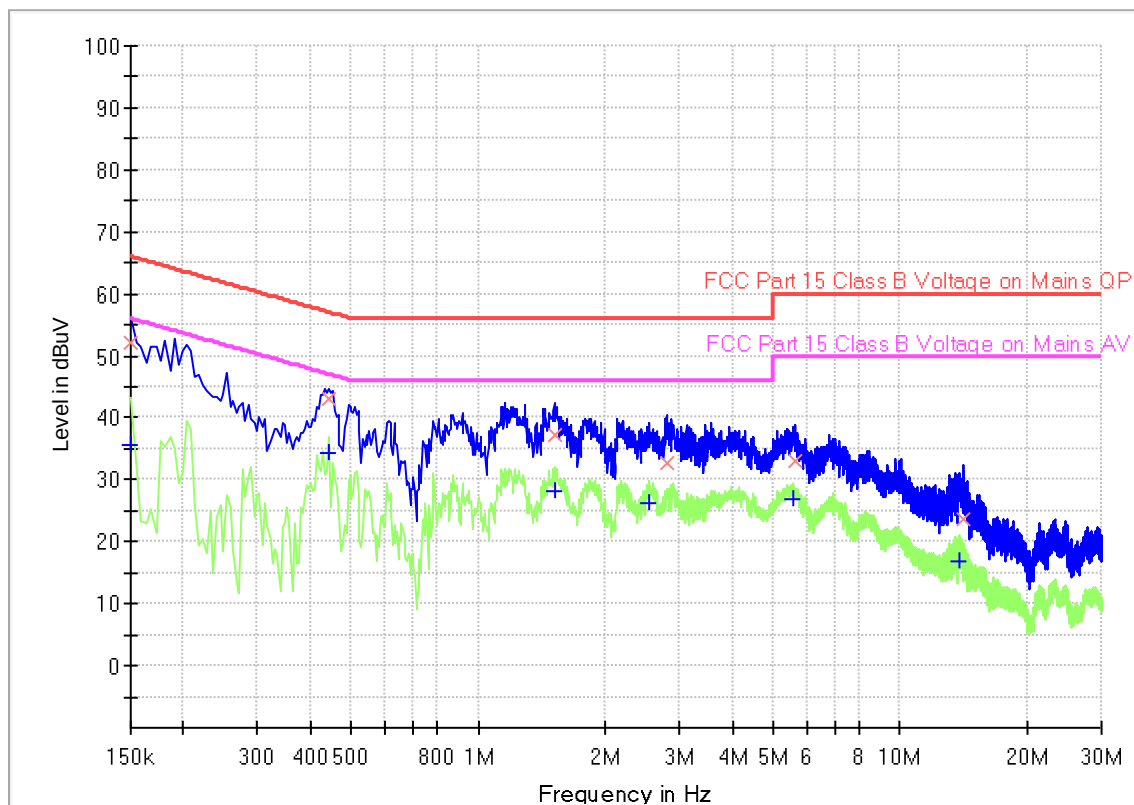
EUT Information

EUT Name: Infrared Thermal Camera
 Model: Fotric P7
 Client: FOTRIC INC.
 Op Cond: Power on, TX_5190MHz AC 230V, 50Hz, T21.3, H56.3%, P100.6kPa
 Operator: Wang Yiquan
 Standard: FCC part 15.209(a)
 Comment: Phase N
 Sample No.: SHA-716542-2

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN
 Receiver: [ESR 3]
 Level Unit: dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamplifier
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB





Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	---	35.46	56.00	20.54	1000.0	9.000	N	19.6
0.150000	52.18	---	66.00	13.82	1000.0	9.000	N	19.6
0.442500	---	34.25	47.01	12.76	1000.0	9.000	N	19.6
0.442500	42.97	---	57.01	14.04	1000.0	9.000	N	19.6
1.513500	37.21	---	56.00	18.79	1000.0	9.000	N	19.6
1.513500	---	28.17	46.00	17.83	1000.0	9.000	N	19.6
2.535000	---	26.24	46.00	19.76	1000.0	9.000	N	19.6
2.791500	32.82	---	56.00	23.18	1000.0	9.000	N	19.6
5.550000	---	26.80	50.00	23.20	1000.0	9.000	N	19.7
5.644500	32.90	---	60.00	27.10	1000.0	9.000	N	19.7
13.762500	---	16.78	50.00	33.22	1000.0	9.000	N	19.9
14.131500	23.50	---	60.00	36.50	1000.0	9.000	N	19.9

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)
 Factor (dB) = Cable Loss (dB) + LISN Factor (dB) + 10dB Attenuator

9.2 Emission bandwidth

1、 Test Method of 26dB Bandwidth

According to KDB789033 D02

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Limit: No limit

2、 Test Method of 6dB Bandwidth

According to KDB789033 D02

- a) Set RBW = 100KHz
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Limit: $\geq 500\text{KHz}$

3、 Test Method of 99% Bandwidth

According to KDB789033 D02

- a) Set center frequency to the nominal EUT channel center frequency
- b) Set span = 1.5 times to 5.0 times the OBW.
- c) Set RBW = 1 % to 5 % of the OBW
- d) Set VBW $\geq 3 \cdot$ RBW
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99 % power bandwidth function of the instrument (if available).
- g) If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

Limit: No limit

Test result as below table:

26dB Bandwidth Test Result:

Test data should be referred to Appendix A for 709502301742-00A.

99% Bandwidth Test Result

Test data should be referred to Appendix A for 709502301742-00A.

6dB Bandwidth Test Result

Test data should be referred to Appendix A for 709502301742-00A.

9.3 Maximum conducted output power

Test Method

According to C63.10, the EUT was placed on 0.8m height table, the RF output of EUT was connected to the test power meter by RF cable. The path loss was compensated to the results for each measurement.

(1) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:

The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(2) If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in II.B.

(3) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(4) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%).

Limits:

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26dB emission bandwidth in megahertz.

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test result as below table

Test Mode	Channel	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit[dBm]	Verdict
11A	5180	3.34	0.58	3.92	$\leq 23.98-1.19=22.79$	PASS
	5200	2.73	0.59	3.32	$\leq 23.98-1.19=22.79$	PASS
	5240	2.4	0.59	2.99	$\leq 23.98-1.19=22.79$	PASS
	5260	3.13	0.59	3.72	$\leq 23.98-1.19=22.79$	PASS
	5280	3.6	0.59	4.19	$\leq 23.98-1.19=22.79$	PASS
	5320	3.93	0.59	4.52	$\leq 23.98-1.19=22.79$	PASS
	5500	2.58	0.59	3.17	$\leq 23.98-1.19=22.79$	PASS
	5600	2.22	0.59	2.81	$\leq 23.98-1.19=22.79$	PASS
	5700	0.47	0.59	1.06	$\leq 23.98-1.19=22.79$	PASS
	5720	0.01	0.59	0.6	$\leq 23.98-1.19=22.79$	PASS
	5745	-1.08	0.58	-0.5	≤ 30	PASS
	5785	-1.85	0.58	-1.27	≤ 30	PASS
	5825	-1.82	0.58	-1.24	≤ 30	PASS
11N20SISO	5180	3.24	0.62	3.86	$\leq 23.98-1.19=22.79$	PASS
	5200	2.32	0.63	2.95	$\leq 23.98-1.19=22.79$	PASS
	5240	1.89	0.63	2.52	$\leq 23.98-1.19=22.79$	PASS
	5260	3.06	0.62	3.68	$\leq 23.98-1.19=22.79$	PASS
	5280	3.44	0.62	4.06	$\leq 23.98-1.19=22.79$	PASS
	5320	3.87	0.62	4.49	$\leq 23.98-1.19=22.79$	PASS
	5500	2.38	0.62	3.00	$\leq 23.98-1.19=22.79$	PASS
	5600	2.03	0.63	2.66	$\leq 23.98-1.19=22.79$	PASS
	5700	0.56	0.62	1.18	$\leq 23.98-1.19=22.79$	PASS
	5720	-0.42	0.63	0.21	$\leq 23.98-1.19=22.79$	PASS
	5745	-0.97	0.63	-0.34	≤ 30	PASS
	5785	-2.36	0.62	-1.74	≤ 30	PASS
	5825	-2.33	0.62	-1.71	≤ 30	PASS
11N40SISO	5190	3.53	1.17	4.70	$\leq 23.98-1.19=22.79$	PASS
	5230	3.34	1.16	4.50	$\leq 23.98-1.19=22.79$	PASS
	5270	3.6	1.17	4.77	$\leq 23.98-1.19=22.79$	PASS
	5310	4.29	1.17	5.46	$\leq 23.98-1.19=22.79$	PASS
	5510	2.92	1.17	4.09	$\leq 23.98-1.19=22.79$	PASS
	5590	2.6	1.17	3.77	$\leq 23.98-1.19=22.79$	PASS
	5670	0.92	1.16	2.08	$\leq 23.98-1.19=22.79$	PASS
	5710	0.28	1.46	1.74	$\leq 23.98-1.19=22.79$	PASS
	5755	-0.62	1.17	0.55	≤ 30	PASS
	5795	-0.8	1.17	0.37	≤ 30	PASS
11AC20SISO	5180	3.18	0.62	3.80	$\leq 23.98-1.19=22.79$	PASS
	5200	2.6	0.62	3.22	$\leq 23.98-1.19=22.79$	PASS
	5240	2.58	0.62	3.20	$\leq 23.98-1.19=22.79$	PASS
	5260	3.24	0.62	3.86	$\leq 23.98-1.19=22.79$	PASS
	5280	3.67	0.62	4.29	$\leq 23.98-1.19=22.79$	PASS
	5320	3.8	0.62	4.42	$\leq 23.98-1.19=22.79$	PASS
	5500	2.13	0.63	2.76	$\leq 23.98-1.19=22.79$	PASS
	5600	1.83	0.63	2.46	$\leq 23.98-1.19=22.79$	PASS
	5700	0.07	0.63	0.70	$\leq 23.98-1.19=22.79$	PASS
	5720	-0.49	0.62	0.13	$\leq 23.98-1.19=22.79$	PASS
	5745	-1.01	0.63	-0.38	≤ 30	PASS
	5785	-2.08	0.62	-1.46	≤ 30	PASS
	5825	-1.77	0.62	-1.15	≤ 30	PASS
11AC40SISO	5190	3.46	1.46	4.92	$\leq 23.98-1.19=22.79$	PASS
	5230	2.48	1.45	3.93	$\leq 23.98-1.19=22.79$	PASS
	5270	3.61	1.46	5.07	$\leq 23.98-1.19=22.79$	PASS
	5310	4.03	1.46	5.49	$\leq 23.98-1.19=22.79$	PASS
	5510	2.77	1.46	4.23	$\leq 23.98-1.19=22.79$	PASS
	5590	2.79	1.46	4.25	$\leq 23.98-1.19=22.79$	PASS
	5670	0.69	1.46	2.15	$\leq 23.98-1.19=22.79$	PASS
	5710	0.44	1.46	1.90	$\leq 23.98-1.19=22.79$	PASS



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	5755	-0.86	1.45	0.59	<=30	PASS
	5795	-1.24	1.46	0.22	<=30	PASS
11AC80SISO	5210	1.97	2.52	4.49	<=23.98-1.19=22.79	PASS
	5290	3.00	2.52	5.52	<=23.98-1.19=22.79	PASS
	5530	1.84	2.53	4.37	<=23.98-1.19=22.79	PASS
	5610	0.67	2.52	3.19	<=23.98-1.19=22.79	PASS
	5690	-0.57	2.53	1.96	<=23.98-1.19=22.79	PASS
	5775	-1.88	2.52	0.64	<=30	PASS

9.4 Maximum power spectral density

Test Method

According to C63.10, the EUT was placed on 0.8m height table, the RF output of EUT was connected to the test power meter by RF cable. The path loss was compensated to the results for each measurement.

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power...." (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
 2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
 3. Make the following adjustments to the peak value of the spectrum, if applicable:
 - a) If Method SA-2 or SA-2 Alternative was used, add $10 \log (1/x)$, where x is the duty cycle, to the peak of the spectrum.
 - b) If Method SA-3 Alternative was used and the linear mode was used in II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
 4. The result is the Maximum PSD over 1 MHz reference bandwidth.
 5. For devices operating in the bands 5.15–5.25 GHz, 5.25–5.35 GHz, and 5.47–5.725 GHz, the preceding procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725–5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
 - a) Set $RBW \geq 1/T$, where T is defined in II.B.I.a).
 - b) Set $VBW \geq 3$ RBW.
 - c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/RBW)$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
 - d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1\text{MHz}/RBW)$ to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
 - e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.
- Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the II.F.5.c) and II.F.5.d), since RBW=100 kHz is available on nearly all spectrum analyzers.



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Limit: The maximum power spectral density shall not exceed 11dBm for the 5.15-5.25GHz, 5.25-5.35GHz, 5.47-5.725 GHz Band in any 1 megahertz band.
For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30dBm in any 1 500kHz band.

For client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Result:

Test data should be referred to Appendix A for 709502301742-00A.

9.5 Frequencies Stability

Test Method

1. Connect the UUT to the spectrum analyzer
2. Set Centre Frequency of the channel under test.
3. Set Detector PEAK
4. Set RBW: 10KHz, VBW: 3RBW
5. Set Span: Encompass the entire emissions bandwidth (EBW) of the signal.
6. Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

User manual temperature is -20 to 50 °C.

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

Limit: 20ppm

Test Results (All conditions and all modes were performed, only list Worst-Case in the report)

Remark: NV is normal Voltage: 3.6Vdc, HV is High Voltage: 4.2Vdc, LV is Low Voltage: 3.0Vdc, NT is normal Temperature: +20 °C.

TestMode	Antenna	Channel	Voltage					Verdict
			Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	
11A	Ant1	5180	NV	NT	-35431	-6.83996139	20	PASS
			NV	LT	-20577	-3.97239382	20	PASS
			NV	HT	-25939	-5.00752896	20	PASS
		5200	NV	NT	-32269	-6.20557692	20	PASS
			NV	LT	-25874	-4.97576923	20	PASS
			NV	HT	-26639	-5.12288462	20	PASS
		5240	NV	NT	-27639	-5.27461832	20	PASS
			NV	LT	-24478	-4.67137405	20	PASS
			NV	HT	-31359	-5.98454198	20	PASS
		5260	NV	NT	-28113	-5.34467681	20	PASS
			NV	LT	-30200	-5.74144487	20	PASS
			NV	HT	-27522	-5.23231939	20	PASS
		5280	NV	NT	-23154	-4.38522727	20	PASS
			NV	LT	-27270	-5.16477273	20	PASS
			NV	HT	-30364	-5.75075758	20	PASS
		5320	NV	NT	-21009	-3.94906015	20	PASS
			NV	LT	-37455	-7.04041353	20	PASS
			NV	HT	-23515	-4.42011278	20	PASS
		5500	NV	NT	-26478	-4.81418182	20	PASS
			NV	LT	-21267	-3.86672727	20	PASS
			NV	HT	-39165	-7.12090909	20	PASS
		5600	NV	NT	-20878	-3.72821429	20	PASS
			NV	LT	-28892	-5.15928571	20	PASS
			NV	HT	-28576	-5.10285714	20	PASS
		5700	NV	NT	-25354	-4.44807018	20	PASS
			NV	LT	-26278	-4.61017544	20	PASS
			NV	HT	-35703	-6.26368421	20	PASS
		5720	NV	NT	-35741	-6.24842657	20	PASS
			NV	LT	-27108	-4.73916084	20	PASS
			NV	HT	-27330	-4.77797203	20	PASS
		5745	NV	NT	-31283	-5.44525674	20	PASS
			NV	LT	-26214	-4.56292428	20	PASS
			NV	HT	-38626	-6.72341166	20	PASS
		5785	NV	NT	-34819	-6.01884183	20	PASS
			NV	LT	-39854	-6.8891962	20	PASS
			NV	HT	-31834	-5.5028522	20	PASS
		5825	NV	NT	-22900	-3.92459297	20	PASS
			NV	LT	-38928	-6.6714653	20	PASS
			NV	HT	-21238	-3.63976007	20	PASS

11N20SISO	Ant1	5180	NV	NT	-21319	-4.11563707	20	PASS
			NV	LT	-29019	-5.60212355	20	PASS
			NV	HT	-21095	-4.07239382	20	PASS
		5200	NV	NT	-26734	-5.14115385	20	PASS
			NV	LT	-24952	-4.79846154	20	PASS
			NV	HT	-32719	-6.29211538	20	PASS
		5240	NV	NT	-32917	-6.28187023	20	PASS
			NV	LT	-24731	-4.71965649	20	PASS
			NV	HT	-38427	-7.33339695	20	PASS
		5260	NV	NT	-21606	-4.10760456	20	PASS
			NV	LT	-38285	-7.27851711	20	PASS
			NV	HT	-29182	-5.54790875	20	PASS
		5280	NV	NT	-33730	-6.38825758	20	PASS
			NV	LT	-23245	-4.40246212	20	PASS
			NV	HT	-26565	-5.03125	20	PASS
		5320	NV	NT	-37256	-7.00300752	20	PASS
			NV	LT	-33254	-6.25075188	20	PASS
			NV	HT	-39031	-7.33665414	20	PASS
		5500	NV	NT	-25070	-4.55818182	20	PASS
			NV	LT	-33393	-6.07145455	20	PASS
			NV	HT	-25318	-4.60327273	20	PASS
		5600	NV	NT	-26535	-4.73839286	20	PASS
			NV	LT	-24475	-4.37053571	20	PASS
			NV	HT	-34477	-6.15660714	20	PASS
		5700	NV	NT	-24088	-4.22596491	20	PASS
			NV	LT	-33071	-5.80192982	20	PASS
			NV	HT	-24202	-4.24596491	20	PASS
		5720	NV	NT	-24684	-4.31538462	20	PASS
			NV	LT	-30575	-5.34527972	20	PASS
			NV	HT	-38061	-6.65402098	20	PASS
		5745	NV	NT	-22361	-3.89225413	20	PASS
			NV	LT	-34236	-5.95926893	20	PASS
			NV	HT	-31714	-5.5202785	20	PASS
		5785	NV	NT	-20777	-3.59152982	20	PASS
			NV	LT	-27703	-4.78876404	20	PASS
			NV	HT	-38082	-6.58288678	20	PASS
		5825	NV	NT	-30779	-5.27489289	20	PASS
			NV	LT	-32822	-5.62502142	20	PASS
			NV	HT	-29217	-5.00719794	20	PASS

11AC20SISO	Ant1	5180	NV	NT	-30475	-5.88320463	20	PASS
			NV	LT	-25608	-4.94362934	20	PASS
			NV	HT	-34004	-6.56447876	20	PASS
		5200	NV	NT	-23338	-4.48807692	20	PASS
			NV	LT	-31221	-6.00403846	20	PASS
			NV	HT	-30110	-5.79038462	20	PASS
		5240	NV	NT	-23102	-4.40877863	20	PASS
			NV	LT	-22734	-4.33854962	20	PASS
			NV	HT	-39953	-7.62461832	20	PASS
		5260	NV	NT	-33932	-6.45095057	20	PASS
			NV	LT	-39277	-7.46711027	20	PASS
			NV	HT	-34172	-6.49657795	20	PASS
		5280	NV	NT	-24791	-4.69526515	20	PASS
			NV	LT	-39681	-7.51534091	20	PASS
			NV	HT	-26506	-5.02007576	20	PASS
		5320	NV	NT	-28947	-5.44116541	20	PASS
			NV	LT	-33736	-6.34135338	20	PASS
			NV	HT	-27123	-5.09830827	20	PASS
		5500	NV	NT	-32392	-5.88945455	20	PASS
			NV	LT	-33147	-6.02672727	20	PASS
			NV	HT	-26336	-4.78836364	20	PASS
		5600	NV	NT	-24048	-4.29428571	20	PASS
			NV	LT	-24321	-4.34303571	20	PASS
			NV	HT	-34241	-6.11446429	20	PASS
		5700	NV	NT	-37172	-6.52140351	20	PASS
			NV	LT	-32110	-5.63333333	20	PASS
			NV	HT	-31665	-5.55526316	20	PASS
		5720	NV	NT	-30453	-5.32395105	20	PASS
			NV	LT	-23120	-4.04195804	20	PASS
			NV	HT	-26181	-4.5770979	20	PASS
		5745	NV	NT	-36167	-6.29538729	20	PASS
			NV	LT	-21578	-3.75596171	20	PASS
			NV	HT	-27999	-4.87362924	20	PASS
		5785	NV	NT	-28290	-4.89023336	20	PASS
			NV	LT	-21424	-3.70337079	20	PASS
			NV	HT	-22708	-3.92532411	20	PASS
		5825	NV	NT	-27833	-4.77000857	20	PASS
			NV	LT	-24165	-4.14138817	20	PASS
			NV	HT	-32010	-5.48586118	20	PASS

11AC40SISO	Ant1	5190	NV	NT	-31405	-6.05105973	20	PASS
			NV	LT	-34346	-6.6177264	20	PASS
			NV	HT	-21365	-4.11657033	20	PASS
		5230	NV	NT	-36174	-6.9166348	20	PASS
			NV	LT	-38392	-7.34072658	20	PASS
			NV	HT	-22416	-4.28604207	20	PASS
		5270	NV	NT	-20912	-3.96812144	20	PASS
			NV	LT	-31607	-5.99753321	20	PASS
			NV	HT	-30224	-5.73510436	20	PASS
		5310	NV	NT	-22101	-4.16214689	20	PASS
			NV	LT	-39978	-7.52881356	20	PASS
			NV	HT	-23982	-4.51638418	20	PASS
		5510	NV	NT	-22298	-4.04682396	20	PASS
			NV	LT	-21921	-3.9784029	20	PASS
			NV	HT	-28147	-5.10834846	20	PASS
		5590	NV	NT	-26390	-4.72093023	20	PASS
			NV	LT	-27529	-4.92468694	20	PASS
			NV	HT	-31225	-5.58586762	20	PASS
		5670	NV	NT	-36324	-6.40634921	20	PASS
			NV	LT	-27671	-4.88024691	20	PASS
			NV	HT	-38093	-6.71834215	20	PASS
		5710	NV	NT	-26344	-4.61366025	20	PASS
			NV	LT	-27880	-4.882662	20	PASS
			NV	HT	-31775	-5.5647986	20	PASS
		5755	NV	NT	-21723	-3.77463076	20	PASS
			NV	LT	-21121	-3.67002606	20	PASS
			NV	HT	-22835	-3.96785404	20	PASS
		5795	NV	NT	-23933	-4.1299396	20	PASS
			NV	LT	-34154	-5.89370147	20	PASS
			NV	HT	-36192	-6.24538395	20	PASS
11N40SISO	Ant1	5190	NV	NT	-32059	-6.17707129	20	PASS
			NV	LT	-37097	-7.1477842	20	PASS
			NV	HT	-28785	-5.54624277	20	PASS
		5230	NV	NT	-31969	-6.1126195	20	PASS
			NV	LT	-28269	-5.40516252	20	PASS
			NV	HT	-25552	-4.88565966	20	PASS
		5270	NV	NT	-20926	-3.97077799	20	PASS
			NV	LT	-34560	-6.55787476	20	PASS
			NV	HT	-36154	-6.86034156	20	PASS
		5310	NV	NT	-31570	-5.94538606	20	PASS
			NV	LT	-31814	-5.9913371	20	PASS
			NV	HT	-22841	-4.30150659	20	PASS

11AC80SISO	Ant1	5510	NV	NT	-37139	-6.74029038	20	PASS
			NV	LT	-28351	-5.14537205	20	PASS
			NV	HT	-39545	-7.176951	20	PASS
		5590	NV	NT	-36589	-6.54543828	20	PASS
			NV	LT	-22114	-3.95599284	20	PASS
			NV	HT	-29820	-5.33452594	20	PASS
		5670	NV	NT	-32683	-5.76419753	20	PASS
			NV	LT	-35469	-6.25555556	20	PASS
			NV	HT	-38737	-6.8319224	20	PASS
		5710	NV	NT	-33058	-5.78949212	20	PASS
			NV	LT	-23564	-4.1267951	20	PASS
			NV	HT	-20550	-3.59894921	20	PASS
		5755	NV	NT	-33506	-5.82206777	20	PASS
			NV	LT	-24418	-4.2429192	20	PASS
			NV	HT	-31605	-5.49174631	20	PASS
		5795	NV	NT	-32264	-5.56755824	20	PASS
			NV	LT	-39869	-6.87989646	20	PASS
			NV	HT	-33598	-5.79775669	20	PASS
	Ant1	5210	NV	NT	-23530	-4.51631478	20	PASS
			NV	LT	-37146	-7.12975048	20	PASS
			NV	HT	-25179	-4.8328215	20	PASS
		5290	NV	NT	-27084	-5.11984877	20	PASS
			NV	LT	-22381	-4.23081285	20	PASS
			NV	HT	-21892	-4.13837429	20	PASS
		5530	NV	NT	-31534	-5.70235081	20	PASS
			NV	LT	-38183	-6.90470163	20	PASS
			NV	HT	-31355	-5.66998192	20	PASS
		5610	NV	HT	-38192	-6.80784314	20	PASS
			NV	HT	-26998	-4.81247772	20	PASS
			NV	HT	-30228	-5.38823529	20	PASS
		5690	NV	HT	-26952	-4.73673111	20	PASS
			NV	HT	-26016	-4.57223199	20	PASS
			NV	HT	-25142	-4.41862917	20	PASS
		5775	NV	NT	-27498	-4.76155844	20	PASS
			NV	LT	-27767	-4.80813853	20	PASS
			NV	HT	-23068	-3.99445887	20	PASS

Voltage								
TestMode	Antenna	Channel	Voltage	Temperature	Deviation	Deviation	Limit	Verdict
			[Vdc]	(°C)	(Hz)	(ppm)	(ppm)	
11A	Ant1	5180	NV	NT	-22166	-4.27915058	20	PASS
			LV	NT	-22634	-4.36949807	20	PASS
			HV	NT	-22664	-4.37528958	20	PASS
		5200	NV	NT	-24609	-4.7325	20	PASS
			LV	NT	-33938	-6.52653846	20	PASS
			HV	NT	-26389	-5.07480769	20	PASS
		5240	NV	NT	-25563	-4.87843511	20	PASS
			LV	NT	-23566	-4.49732824	20	PASS
			HV	NT	-33908	-6.47099237	20	PASS
		5260	NV	NT	-23945	-4.55228137	20	PASS
			LV	NT	-30172	-5.73612167	20	PASS
			HV	NT	-33860	-6.43726236	20	PASS
		5280	NV	NT	-37096	-7.02575758	20	PASS
			LV	NT	-20235	-3.83238636	20	PASS
			HV	NT	-35967	-6.81193182	20	PASS
		5320	NV	NT	-26642	-5.00789474	20	PASS
			LV	NT	-36426	-6.84699248	20	PASS
			HV	NT	-34799	-6.54116541	20	PASS
		5500	NV	NT	-37790	-6.87090909	20	PASS
			LV	NT	-20043	-3.64418182	20	PASS
			HV	NT	-27927	-5.07763636	20	PASS
		5600	NV	NT	-34261	-6.11803571	20	PASS
			LV	NT	-32485	-5.80089286	20	PASS
			HV	NT	-25495	-4.55267857	20	PASS
		5700	NV	NT	-33088	-5.80491228	20	PASS
			LV	NT	-26519	-4.65245614	20	PASS
			HV	NT	-28416	-4.98526316	20	PASS
		5720	NV	NT	-39023	-6.8222028	20	PASS
			LV	NT	-37120	-6.48951049	20	PASS
			HV	NT	-23980	-4.19230769	20	PASS
		5745	NV	NT	-31192	-5.42941688	20	PASS
			LV	NT	-26704	-4.64821584	20	PASS
			HV	NT	-37993	-6.61322889	20	PASS
		5785	NV	NT	-34892	-6.03146067	20	PASS
			LV	NT	-38687	-6.68746759	20	PASS
			HV	NT	-31690	-5.47796024	20	PASS
		5825	NV	NT	-36518	-6.25844045	20	PASS
			LV	NT	-20666	-3.54173093	20	PASS
			HV	NT	-27405	-4.6966581	20	PASS

11N20SISO	Ant1	5180	NV	NT	-27536	-5.31583012	20	PASS
			LV	NT	-36530	-7.05212355	20	PASS
			HV	NT	-33923	-6.5488417	20	PASS
		5200	NV	NT	-27733	-5.33326923	20	PASS
			LV	NT	-37789	-7.26711538	20	PASS
			HV	NT	-26210	-5.04038462	20	PASS
		5240	NV	NT	-28118	-5.36603053	20	PASS
			LV	NT	-32146	-6.13473282	20	PASS
			HV	NT	-26051	-4.97156489	20	PASS
		5260	NV	NT	-32438	-6.16692015	20	PASS
			LV	NT	-21059	-4.00361217	20	PASS
			HV	NT	-31187	-5.92908745	20	PASS
		5280	NV	NT	-31429	-5.95246212	20	PASS
			LV	NT	-28308	-5.36136364	20	PASS
			HV	NT	-33172	-6.28257576	20	PASS
		5320	NV	NT	-31707	-5.95996241	20	PASS
			LV	NT	-25392	-4.77293233	20	PASS
			HV	NT	-32270	-6.06578947	20	PASS
		5500	NV	NT	-22416	-4.07563636	20	PASS
			LV	NT	-29442	-5.35309091	20	PASS
			HV	NT	-30823	-5.60418182	20	PASS
		5600	NV	NT	-25639	-4.57839286	20	PASS
			LV	NT	-21653	-3.86660714	20	PASS
			HV	NT	-36816	-6.57428571	20	PASS
		5700	NV	NT	-24481	-4.29491228	20	PASS
			LV	NT	-36880	-6.47017544	20	PASS
			HV	NT	-24730	-4.33859649	20	PASS
		5720	NV	NT	-21616	-3.77902098	20	PASS
			LV	NT	-32187	-5.6270979	20	PASS
			HV	NT	-39743	-6.94807692	20	PASS
		5745	NV	NT	-22105	-3.84769365	20	PASS
			LV	NT	-21913	-3.81427328	20	PASS
			HV	NT	-31109	-5.41496954	20	PASS
		5785	NV	NT	-28624	-4.94796889	20	PASS
			LV	NT	-30271	-5.2326707	20	PASS
			HV	NT	-24595	-4.25151253	20	PASS
		5825	NV	NT	-29445	-5.04627249	20	PASS
			LV	NT	-24184	-4.14464439	20	PASS
			HV	NT	-23908	-4.09734362	20	PASS
11AC20SISO	Ant1	5180	NV	NT	-30444	-5.87722008	20	PASS
			LV	NT	-30034	-5.7980695	20	PASS
			HV	NT	-36907	-7.12490347	20	PASS
		5200	NV	NT	-29420	-5.65769231	20	PASS
			LV	NT	-26288	-5.05538462	20	PASS

			HV	NT	-29563	-5.68519231	20	PASS
		5240	NV	NT	-37632	-7.18167939	20	PASS
			LV	NT	-24842	-4.74083969	20	PASS
			HV	NT	-28433	-5.42614504	20	PASS
		5260	NV	NT	-21526	-4.09239544	20	PASS
			LV	NT	-23282	-4.42623574	20	PASS
			HV	NT	-38715	-7.36026616	20	PASS
		5280	NV	NT	-33865	-6.41382576	20	PASS
			LV	NT	-30867	-5.84602273	20	PASS
			HV	NT	-23703	-4.48920455	20	PASS
		5320	NV	NT	-23175	-4.35620301	20	PASS
			LV	NT	-20756	-3.90150376	20	PASS
			HV	NT	-37252	-7.00225564	20	PASS
		5500	NV	NT	-26081	-4.7427854	20	PASS
			LV	NT	-23558	-4.28327273	20	PASS
			HV	NT	-25822	-4.69490909	20	PASS
		5600	NV	NT	-38810	-6.93035714	20	PASS
			LV	NT	-31080	-5.5598547	20	PASS
			HV	NT	-21997	-3.92803571	20	PASS
		5700	NV	NT	-31062	-5.44947368	20	PASS
			LV	NT	-25595	-4.49035088	20	PASS
			HV	NT	-32930	-5.77719298	20	PASS
		5720	NV	NT	-26091	-4.56136364	20	PASS
			LV	NT	-23028	-4.02587413	20	PASS
			HV	NT	-22777	-3.98199301	20	PASS
		5745	NV	NT	-38566	-6.7129678	20	PASS
			LV	NT	-27930	-4.8616188	20	PASS
			HV	NT	-37334	-6.49852045	20	PASS
		5785	NV	NT	-36882	-6.37545376	20	PASS
			LV	NT	-22739	-3.9306828	20	PASS
			HV	NT	-22366	-3.8662057	20	PASS
		5825	NV	NT	-36329	-6.2260497	20	PASS
			LV	NT	-39149	-6.70934019	20	PASS
			HV	NT	-35434	-6.07266495	20	PASS
11AC40SISO	Ant1	5190	NV	NT	-34097	-6.56974952	20	PASS
			LV	NT	-29920	-5.76493256	20	PASS
			HV	NT	-30697	-5.91464355	20	PASS
		5230	NV	NT	-35121	-6.71529637	20	PASS
			LV	NT	-32891	-6.28891013	20	PASS
			HV	NT	-34009	-6.50267686	20	PASS
		5270	NV	NT	-25312	-4.80303605	20	PASS
			LV	NT	-26436	-5.01631879	20	PASS
			HV	NT	-31567	-5.98994307	20	PASS
		5310	NV	NT	-28676	-5.40037665	20	PASS

			LV	NT	-26150	-4.92467043	20	PASS
			HV	NT	-20218	-3.80753296	20	PASS
		5510	NV	NT	-27468	-4.98511797	20	PASS
			LV	NT	-25801	-4.68257713	20	PASS
			HV	NT	-20850	-3.78402904	20	PASS
		5590	NV	NT	-35798	-6.4039356	20	PASS
			LV	NT	-24536	-4.38926655	20	PASS
			HV	NT	-25416	-4.54669052	20	PASS
		5670	NV	NT	-37868	-6.67865961	20	PASS
			LV	NT	-28057	-4.94832451	20	PASS
			HV	NT	-36281	-6.39876543	20	PASS
		5710	NV	NT	-28002	-4.90402802	20	PASS
			LV	NT	-29654	-5.19334501	20	PASS
			HV	NT	-27143	-4.75359019	20	PASS
		5755	NV	NT	-30195	-5.24674196	20	PASS
			LV	NT	-30130	-5.23544744	20	PASS
			HV	NT	-24857	-4.3192007	20	PASS
		5795	NV	NT	-21094	-3.64003451	20	PASS
			LV	NT	-33056	-5.70422778	20	PASS
			HV	NT	-37676	-6.50146678	20	PASS
11N40SISO	Ant1	5190	NV	NT	-33172	-6.39152216	20	PASS
			LV	NT	-27678	-5.33294798	20	PASS
			HV	NT	-27942	-5.38381503	20	PASS
		5230	NV	NT	-38597	-7.37992352	20	PASS
			LV	NT	-24789	-4.73977055	20	PASS
			HV	NT	-36282	-6.93728489	20	PASS
		5270	NV	NT	-36137	-6.85711575	20	PASS
			LV	NT	-30418	-5.77191651	20	PASS
			HV	NT	-34227	-6.49468691	20	PASS
		5310	NV	NT	-24313	-4.5787194	20	PASS
			LV	NT	-35601	-6.70451977	20	PASS
			HV	NT	-23965	-4.51318267	20	PASS
		5510	NV	NT	-35040	-6.35934664	20	PASS
			LV	NT	-22823	-4.14210526	20	PASS
			HV	NT	-23471	-4.25970962	20	PASS
		5590	NV	NT	-30020	-5.37030411	20	PASS
			LV	NT	-25617	-4.58264758	20	PASS
			HV	NT	-38083	-6.81270125	20	PASS
		5670	NV	NT	-25335	-4.46825397	20	PASS
			LV	NT	-34762	-6.1308642	20	PASS
			HV	NT	-38561	-6.80088183	20	PASS
		5710	NV	NT	-20368	-3.56707531	20	PASS
			LV	NT	-38960	-6.82311734	20	PASS
			HV	NT	-24730	-4.33099825	20	PASS

		5755	NV	NT	-33516	-5.82380539	20	PASS
			LV	NT	-38830	-6.74717637	20	PASS
			HV	NT	-20171	-3.50495222	20	PASS
		5795	NV	NT	-25815	-4.45470233	20	PASS
			LV	NT	-23095	-3.98533218	20	PASS
			HV	NT	-33003	-5.69508197	20	PASS
11AC80SISO	Ant1	5210	NV	NT	-36508	-7.00729367	20	PASS
			LV	NT	-35764	-6.86449136	20	PASS
			HV	NT	-39171	-7.5184261	20	PASS
		5290	NV	NT	-36062	-6.81701323	20	PASS
			LV	NT	-27301	-5.16086957	20	PASS
			HV	NT	-21076	-3.98412098	20	PASS
		5530	NV	NT	-23918	-4.32513562	20	PASS
			LV	NT	-32557	-5.88734177	20	PASS
			HV	NT	-39151	-7.07974684	20	PASS
		5610	NV	NT	-21235	-3.78520499	20	PASS
			LV	NT	-21719	-3.8714795	20	PASS
			HV	NT	-32739	-5.83582888	20	PASS
		5690	NV	NT	-24159	-4.24586995	20	PASS
			LV	NT	-32697	-5.74639719	20	PASS
			HV	NT	-30967	-5.44235501	20	PASS
		5775	NV	NT	-21537	-3.72935065	20	PASS
			LV	NT	-31861	-5.51705628	20	PASS
			HV	NT	-23519	-4.07255411	20	PASS

9.6 Unwanted emissions

Transmitting spurious emission test result as below:

Test Method

Radiated Mode:

1. The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned
5. Use the following spectrum analyzer settings According to C63.10:

For Above 1GHz

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 1MHz, VBW $\geq$ RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Below 1GHz

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 KHz, VBW $\geq$ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (20log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

Limit

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

According to part 15.407(b), the radio emission outside the operating frequency band shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Radiated emissions which fall in the restricted bands, as defined in section 15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dBμV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

The only worse case (which is subject to the maximum EIRP, (11ac VHT40 and 11ac VHT80 mode) listed in the report.

Transmitting spurious emission worse case test result as below:

Transmitting spurious emission test result as below:

11ac VHT40 Modulation 5190MHz Test Result

Frequency Range MHz	Frequency MHz	Emission Level dBμV/m	Polarization	Limit dBμV/m	Margin dB	Detector	Result
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	10380*	49.65	Horizontal	68.20	18.55	PK	Pass
7000-40000	10380*	49.53	Vertical	68.20	18.67	PK	Pass

11ac VHT40 Modulation 5230MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	10460*	49.90	Horizontal	68.20	18.30	PK	Pass
7000-40000	10460*	50.18	Vertical	68.20	18.02	PK	Pass

11ac VHT40 Modulation 5270MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	10540*	50.06	Horizontal	68.20	18.14	PK	Pass
7000-40000	10540*	49.58	Vertical	68.20	18.62	PK	Pass

11ac VHT40 Modulation 5310MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	10620	50.06	Horizontal	74.00	23.94	PK	Pass
7000-40000	10620	49.58	Vertical	74.00	24.42	PK	Pass

11ac VHT40 Modulation 5510MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11020	50.48	Horizontal	74.00	23.52	PK	Pass
7000-40000	11020	50.67	Vertical	74.00	23.33	PK	Pass

11ac VHT40 Modulation 5590MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11180	50.41	Horizontal	74.00	23.59	PK	Pass
7000-40000	11180	51.13	Vertical	74.00	22.87	PK	Pass

11ac VHT40 Modulation 5670MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11340	50.48	Horizontal	74.00	23.52	PK	Pass
7000-40000	11340	50.79	Vertical	74.00	23.21	PK	Pass

11ac VHT40 Modulation 5710MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11420	50.67	Horizontal	74.00	23.33	PK	Pass
7000-40000	11420	50.89	Vertical	74.00	23.11	PK	Pass

11ac VHT40 Modulation 5755MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11510	51.94	Horizontal	74.00	22.06	PK	Pass
7000-40000	11510	51.90	Vertical	74.00	22.10	PK	Pass

11ac VHT40 Modulation 5795MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11590	50.77	Horizontal	74.00	23.23	PK	Pass
7000-40000	11590	50.69	Vertical	74.00	23.31	PK	Pass

11ac VHT80 Modulation 5210MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	10420*	49.56	Horizontal	68.20	18.64	PK	Pass
7000-40000	10420*	50.17	Vertical	68.20	18.03	PK	Pass

11ac VHT80 Modulation 5290MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	10580*	50.21	Horizontal	68.20	17.99	PK	Pass
7000-40000	10580*	50.38	Vertical	68.20	17.82	PK	Pass

11ac VHT80 Modulation 5530MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11060	50.01	Horizontal	74.00	23.99	PK	Pass
7000-40000	11060	50.78	Vertical	74.00	23.22	PK	Pass

11ac VHT80 Modulation 5610MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11220	49.84	Horizontal	74.00	24.16	PK	Pass
7000-40000	11220	50.23	Vertical	74.00	23.77	PK	Pass

11ac VHT80 Modulation 5690MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11380	50.11	Horizontal	74.00	23.89	PK	Pass
7000-40000	11380	49.69	Vertical	74.00	24.31	PK	Pass

11ac VHT80 Modulation 5775MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
1000-7000	--	--	Horizontal	74.00	--	PK	Pass
1000-7000	--	--	Vertical	74.00	--	PK	Pass
7000-40000	11550	50.01	Horizontal	74.00	23.99	PK	Pass
7000-40000	11550	50.23	Vertical	74.00	23.77	PK	Pass

- (1) Above 1GHz Corrector factor= Antenna Factor +Cable Loss - Amp. Factor.
- (2) Below 1GHz Corrector factor= Antenna Factor +Cable Loss.
- (3) “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBuV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.
- (4) We test all modes and only the worst case for each bandwidth recorded in the report.
- (5) Testing is carried out with frequency rang 30MHz to 40GHz, which data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) The Low frequency, which start from 9KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

The worst case of Radiated Emission below 1GHz:

30-1000MHz Radiated Emission

EUT Information

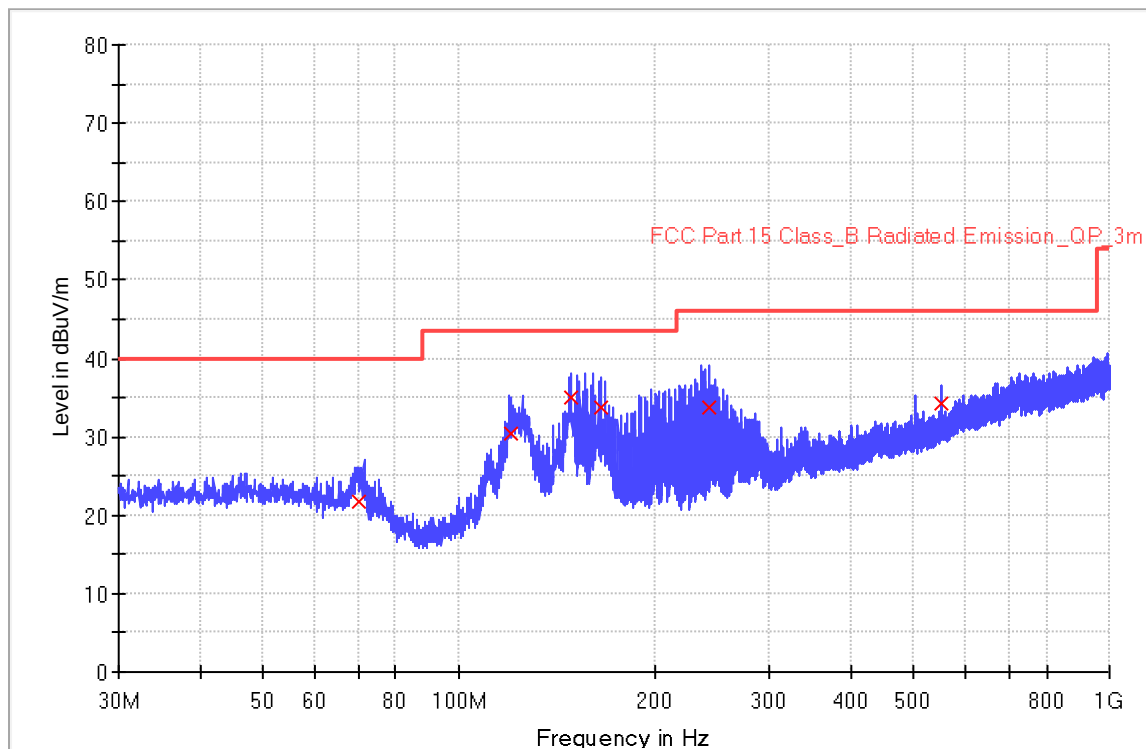
EUT Name:	Infrared Thermal Camera
Model	Fotric P7
Client:	FOTRIC INC.
Op Cond	Power on, TX_5190MHz AC 40, DC 3.6V, T21.3, H56.3%, P100.6kPa
Operator:	Wang Yiquan
Standard	FCC part 15.209(a)
Comment:	Horizontal
Sample No.:	SHA-716542-2

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

RE_VULB9168_pre_Cont_30-1000





Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
69.960000	21.8	1000.0	120.000	167.9	H	79.0	18.6	18.2	40.0
120.560000	30.3	1000.0	120.000	245.3	H	339.0	18.1	13.2	43.5
148.880000	35.0	1000.0	120.000	230.6	H	284.0	21.0	8.5	43.5
165.200000	33.7	1000.0	120.000	265.0	H	133.0	20.6	9.8	43.5
242.680000	33.7	1000.0	120.000	133.3	H	230.0	19.7	12.3	46.0
551.960000	34.2	1000.0	120.000	323.4	H	185.0	27.5	11.8	46.0

30-1000MHz Radiated Emission

EUT Information

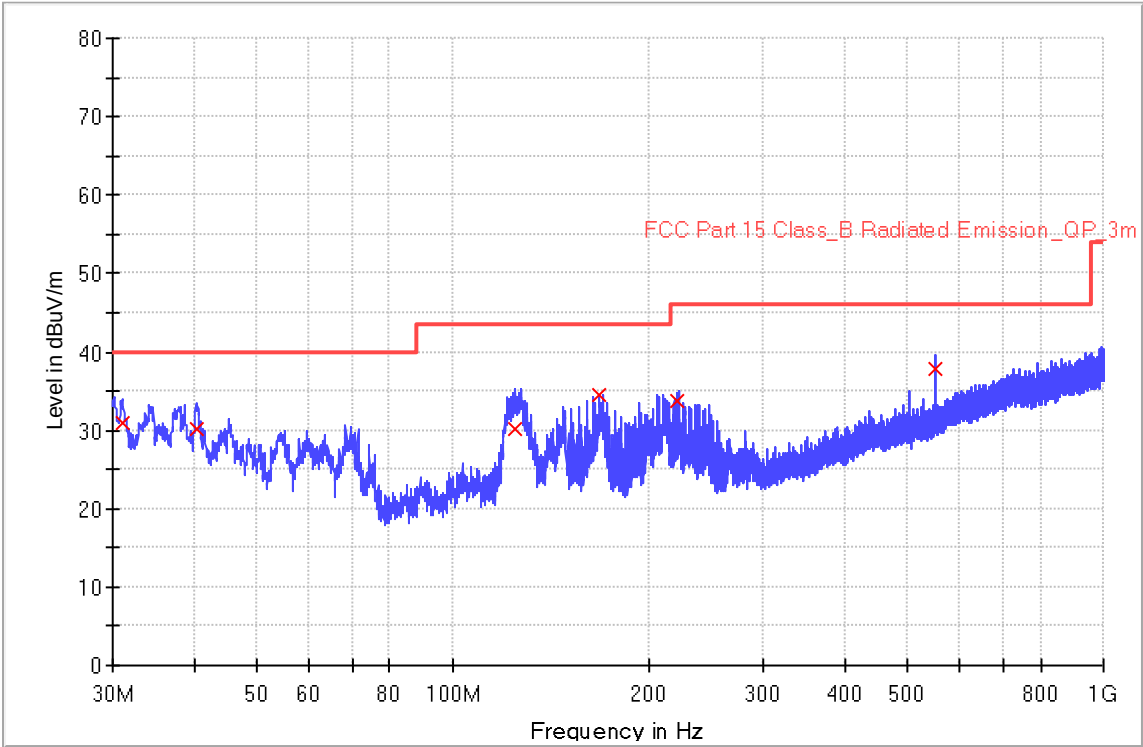
EUT Name: Infrared Thermal Camera
Model: Fotric P7
Client: FOTRIC INC.
Op Cond: Power on, TX_5190MHz AC 40, DC 3.6V, T21.3, H56.3%, P100.6kPa
Operator: Wang Yiquan
Standard: FCC part 15.209(a)
Comment: Vertical
Sample No.: SHA-716542-2

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup: RE_VULB9168
Receiver: [ESR 3]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

RE_VULB9168_pre_Cont_30-1000



Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
31.000000	30.9	1000.0	120.000	178.5	V	348.0	19.3	9.1	40.0
40.280000	30.1	1000.0	120.000	121.7	V	273.0	20.0	9.9	40.0
124.680000	30.2	1000.0	120.000	289.0	V	249.0	18.5	13.3	43.5
168.240000	34.5	1000.0	120.000	126.4	V	136.0	20.4	9.0	43.5
221.880000	33.7	1000.0	120.000	184.9	V	43.0	17.5	12.3	46.0
552.000000	37.9	1000.0	120.000	367.1	V	195.0	27.5	8.1	46.0

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Conducted Spurious Emission Test Method:

According to KDB789033 D02

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. For transmitters with operation frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5359 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

- a) Set RBW $\geq$ between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth)
- b) Set VBW $\geq$ 3 RBW.

Limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Conducted Spurious Emission

Test data should be referred to Appendix A for 709502301742-00A.

Band edge measurements

Test data should be referred to Appendix A for 709502301742-00A.

10 Test Equipment List

List of Test Instruments
Test Site1

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE DATE
C	Signal Analyzer	Rohde & Schwarz	FSV40	101091	2022-8-1	2023-7-31
	Signal spectrum analyzer	Agilent	N9020B	MY59050168	2023-2-10	2024-2-9
RE	EMI Test Receiver	Rohde & Schwarz	ESR3	101906	2022-8-1	2023-7-31
	Signal Analyzer	Rohde & Schwarz	FSV40	101091	2022-8-1	2023-7-31
	Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9168	961	2019-9-23	2024-9-22
	Horn Antenna	Rohde & Schwarz	HF907	102393	2021-3-15	2024-3-14
	Pre-amplifier	Rohde & Schwarz	SCU-18D	19006451	2022-8-1	2023-7-31
	Loop antenna	Rohde & Schwarz	HFH2-Z2	100443	2022-6-13	2023-6-12
	Loop antenna	Rohde & Schwarz	HFH2-Z2	100443	2023-6-12	2024-6-11
	DOUBLE-RIDGED WAVEGUIDE HORN WITH PRE-AMPLIFIER (18 GHZ - 40 GHZ)	ETS-Lindgren	3116C-PA	002222727	2020-9-23	2023-9-22
	3m Semi-anechoic chamber	TDK	9X6X6	----	2021-5-8	2024-5-7
CE	EMI Test Receiver	Rohde & Schwarz	ESR3	101907	2022-8-1	2023-7-31
	LISN	Rohde & Schwarz	ENV216	101924	2022-8-1	2023-7-31

Measurement Software Information			
Test Item	Software	Manufacturer	Version
C	MTS 8310	MWRFtest	2.0.0.0
RE	EMC 32	Rohde & Schwarz	V10.50.40
CE	EMC 32	Rohde & Schwarz	V9.15.03

C - Conducted RF tests

- Conducted peak output power
- 6dB Occupied Bandwidth
- Power spectral density*
- Conducted Band Edge and Out-of-Band Emissions

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

Items	Extended Uncertainty
Conducted Disturbance at Mains Terminals	150kHz to 30MHz, LISN, 3.16dB
Radiated Disturbance	9kHz to 30MHz, 3.52dB 30MHz to 1GHz, 5.03dB (Horizontal) 5.12dB (Vertical) 1GHz to 18GHz, 5.49dB 18GHz to 40GHz, 5.63dB
RF Conducted Measurement	Power related: 1.16dB Frequency related: 6.00×10^{-8}

Measurement Uncertainty Decision Rule:

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2021, clause 4.4.3 and 4.5.1.



12 Photographs of Test Set-ups

Refer to the < Test Setup photos >.



13 Photographs of EUT

Refer to the < External Photos > & < Internal Photos >.

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