

# **FCC Test Report**

Product Name	Body Fever Scanner		
Model No	AD-FS048		
FCC ID.	2AQTD-FS048		

Applicant	ADE Technology Inc.
Address	15F., No.69, Sec.2, Guangfu Rd., Sanchong Dist., New Taipei
	City 24158, Taiwan

Date of Receipt	May. 11, 2020
Issue Date	Jul. 08, 2020
Report No.	2050187R-E3032110112
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Report No.: 2050187R-E3032110112



# Test Report

Issue Date: Jul. 08, 2020

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Product Name	Body Fever Scanner
Applicant	ADE Technology Inc.
Address	15F., No.69, Sec.2, Guangfu Rd., Sanchong Dist., New Taipei City 24158,
	Taiwan
Manufacturer	ADE Technology Inc.
Model No.	AD-FS048
FCC ID.	2AQTD-FS048
EUT Rated Voltage	AC 100-240V / 50-60Hz
EUT Test Voltage	DC 5V / 3A
Trade Name	ADE
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C
	ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By	:	Joanne Lin			
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		( Senior Engineer / Bill Lin )			
Approved By	:	Stant ?			
		( Director / Vincent Lin )			



# **Revision History**

Report No.	Version	Description	<b>Issued Date</b>	
2050187R-E3032110112	V1.0	Initial issue of report.	2020-07-08	



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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs



## 1. GENERAL INFORMATION

## 1.1. EUT Description

Product Name	Body Fever Scanner		
Trade Name	ADE		
Model No.	AD-FS048		
FCC ID.	2AQTD-FS048		
Frequency Range	802.11b/g: 2412-2462MHz		
Number of Channels	802.11b/g: 11		
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps		
Channel separation	802.11b/g: 5 MHz		
Type of Modulation	802.11b: DSSS (DBPSK, DQPSK, CCK)		
	802.11g:OFDM (BPSK, QPSK, 16QAM, 64QAM)		
Antenna Type	Chip Antenna		
Antenna Gain	Refer to the table "Antenna List"		
Channel Control	Auto		
Power Adapter	MFR: Sunny, M/N: SYS1531-1505-W2		
	Input: AC 100-240V~1.0A MAX, 50-60Hz		
	Output: DC 5V, 3.0A		
	Cable Out: Non-shielded 1.4m		

## **Antenna List**

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	AEL	A2450M000000S007	Chip Antenna	2.3496dBi for 2.4GHz

Note: The antenna of EUT is conforming to FCC 15.203.



## 802.11b/g Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

- 1. The EUT is an Body Fever Scanner with built-in WLAN transceiver.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps \cdot 802.11g is 6Mbps \cdot 802.11n(20M-BW) is 7.2Mbps)
- 4. These tests are conducted on a sample for the purpose of demonstrating compliance of transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)



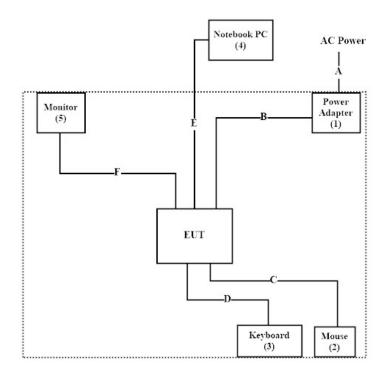
## 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Power Adapter	Sunny	SYS1531-1505-W2	N/A	N/A
2	Mouse	Logitech	U0026	N/A	N/A
3	Keyboard	Logitech	K120	N/A	N/A
4	Notebook PC	DELL	P62G	229FJC2	N/A
5	Monitor	DELL	U2415	CN-01RMGX-74261-6 3H-09UL-A02	N/A

Sig	nal Cable Type	Signal cable Description		
A	Power Cable	Non-shielded 1.8m		
В	Power Cable	Non-shielded 1.4m		
C	Mouse Cable	Non-shielded 1.8m		
D	Keyboard Cable	Non-shielded 1.8m		
E	LAN Cable	Non-shielded 3m		
F	HDMI Cable	Shielded 1.8m		

## 1.4. Configuration of Tested System



## 1.5. EUT Exercise Software

- 1. Setup the EUT as shown in Section 1.4.
- 2. Execute software "LXTerminal 0.3.0" on the EUT.
- 3. Configure the test mode, the test channel, and the data rate.
- 4. Press "OK" to start the continuous Transmit.
- 5. Verify that the EUT works properly.



## 1.6. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
C 1 (1F : :	Temperature (°C)	10~40 °C	25.3°C
Conducted Emission	Humidity (%RH)	10~90 %	70.5%
D 1: 4 1 E 1:	Temperature (°C)	10~40 °C	25.3°C
Radiated Emission	Humidity (%RH)	10~90 %	70.5%
C 1 i	Temperature (°C)	10~40 °C	22°C
Conductive	Humidity (%RH)	10~90 %	55%

USA : FCC Registration Number: TW0023 Canada : IC Registration Number: 25880

Site Description : Accredited by TAF

Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd Address : No.159, Sec. 2, Wenhua 1st Rd., Linkou Dist.,

New Taipei City 24457, Taiwan, R.O.C.

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Fax number : 866-2-2602-3286

Email address : info.tw@dekra.com

Website : http://www.dekra.com.tw



## 1.7. List of Test Item and Equipment

#### For Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	101601	2020.05.28	2021.05.27
X	Two-Line V-Network	R&S	ENV216	101306	2020.03.25	2021.03.24
X	Two-Line V-Network	R&S	ENV216	101307	2020.04.17	2021.04.16
X	Coaxial Cable	Quietek	RG400_BNC	RF001	2020.05.24	2021.05.23

#### Note:

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version: DEKRA Testing System V1.2

#### For Conducted measurements /ASR2

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
Σ	Spectrum Analyzer	Agilent	N9010A	MY53470892	2019/09/25	2020/09/24
Σ	Peak Power Analyzer	Keysight	8990B	MY51000410	2019/07/30	2020/07/29
Σ	Wideband Power Sensor	Keysight	N1923A	MY56080003	2019/07/30	2020/07/29
Σ	Wideband Power Sensor	Keysight	N1923A	MY56080004	2019/07/30	2020/07/29
	Bluetooth Tester	R&S	CBT	101238	2020.02.10	2021.02.11

#### Note:

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version : DEKRA Conduction Test System V9.0.5.

#### For Radiated measurements /ACB1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	AMETEK	HLA6121	49611	2020.03.16	2021.03.15
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-953	2020.01.03	2021.01.02
X	Horn Antenna	ETS-Lindgren	3117	00203761	2019.10.31	2020.10.30
X	Horn Antenna	Com-Power	AH-840	101088	2019.08.29	2020.08.28
X	Pre-Amplifier	EMCI	EMC001330	980301	2020.06.04	2021.06.03
X	Pre-Amplifier	EMCI	EMC051835SE	980312	2020.06.10	2021.06.09
X	Pre-Amplifier	EMCI	EMC05820SE	980308	2019.09.02	2020.09.01
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2020.06.10	2021.06.09
X	Filter	MICRO TRONICS	BRM50702	G251	2019.09.03	2020.09.02
	Filter	MICRO TRONICS	BRM50716	G188	2019.09.03	2020.09.02
X	EMI Test Receiver	R&S	ESR7	101602	2019.12.16	2020.12.15
X	Spectrum Analyzer	R&S	FSV40	101148	2020.03.16	2021.03.15
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2020.07.03	2021.07.02
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2020.06.10	2021.06.09

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version : DEKRA Testing System V1.2



## 1.8. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document, and is described in each test chapter of this report.

The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

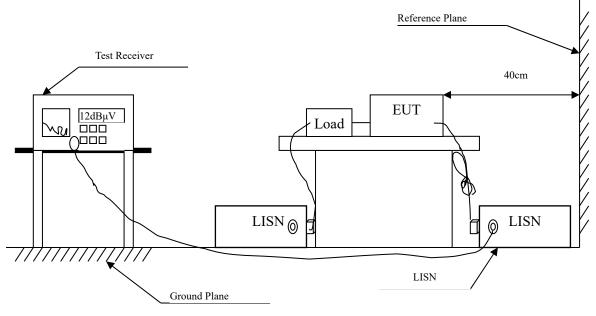
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	Uncertainty		
Conducted Emission	±3.42 dB		
Peak Power Output	±0.9	1 dB	
Radiated Emission	Under 1GHz ±4.06 dB	Above 1GHz ±3.73 dB	
RF antenna conducted test	±2.53 dB		
Band Edge	±3.73 dB		
6dB Bandwidth	±682.83 Hz		
Power Density	±2.53 dB		
Duty Cycle	±2.31 ms		



#### 2. Conducted Emission

## 2.1. Test Setup



#### 2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit							
Frequency	Limits						
MHz	QP	AVG					
0.15 - 0.50	66-56	56-46					
0.50-5.0	56	46					
5.0 - 30	60	50					

#### 2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.



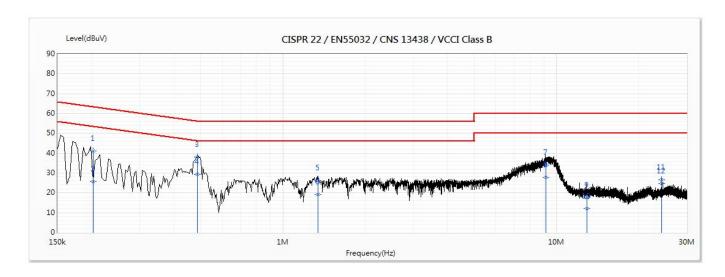
## 2.4. Test Result of Conducted Emission

Product : Body Fever Scanner
Test Item : Peak Power Output Data

Power Line : L 1

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Test Date : 2020/07/02



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV)	(dB)	(dBµV)	(dB)	Type
		(dBµV)					
1	0.202	41.20	63.52	-22.32	31.57	9.63	QP
2	0.202	25.57	53.52	-27.95	15.94	9.63	AV
3	0.487	38.00	56.22	-18.22	28.35	9.65	QP
*4	0.487	29.50	46.22	-16.72	19.85	9.65	AV
5	1.341	26.33	56.00	-29.67	16.65	9.68	QP
6	1.341	19.19	46.00	-26.81	9.51	9.68	AV
7	9.142	34.09	60.00	-25.91	24.23	9.86	QP
8	9.142	27.86	50.00	-22.14	18.00	9.86	AV
9	12.964	17.55	60.00	-42.45	7.63	9.92	QP
10	12.964	12.19	50.00	-37.81	2.28	9.92	AV
11	24.287	26.48	60.00	-33.52	16.52	9.97	QP
12	24.287	24.71	50.00	-25.29	14.75	9.97	AV

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. "\*" means the worst emission level.
- 3. Emission Level = Reading Level + Correct Factor

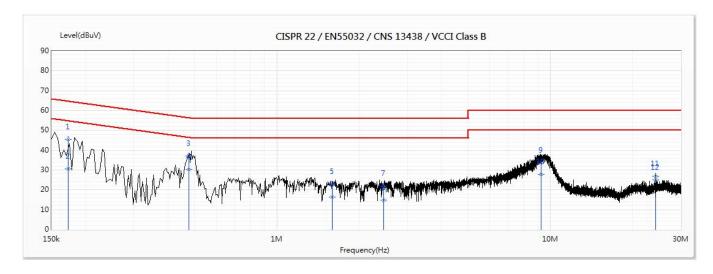


Product : Body Fever Scanner
Test Item : Peak Power Output Data

Power Line : N

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Test Date : 2020/07/02



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV)	(dB)	(dBµV)	(dB)	Type
		(dBµV)					
1	0.172	45.54	64.85	-19.31	35.88	9.65	QP
2	0.172	30.56	54.85	-24.29	20.90	9.65	AV
3	0.476	37.04	56.42	-19.38	27.38	9.66	QP
*4	0.476	30.16	46.42	-16.25	20.51	9.66	AV
5	1.594	22.95	56.00	-33.05	13.25	9.70	QP
6	1.594	16.43	46.00	-29.57	6.73	9.70	AV
7	2.455	21.83	56.00	-34.17	12.10	9.73	QP
8	2.455	14.71	46.00	-31.29	4.98	9.73	AV
9	9.266	33.62	60.00	-26.38	23.74	9.88	QP
10	9.266	27.82	50.00	-22.18	17.94	9.88	AV
11	24.287	26.85	60.00	-33.15	16.78	10.08	QP
12	24.287	24.96	50.00	-25.04	14.89	10.08	AV

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. "\*" means the worst emission level.
- 3. Emission Level = Reading Level + Correct Factor



## 3. Peak Power Output

## 3.1. Test Setup



## 3.2. Limits

The maximum peak power shall be less 1 Watt.

## 3.3. Test Procedure

The EUT was tested according to C63.10:2013 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using C63.10:2013 Section 11.9.1.3 PKPM1 Peak power meter method. The maximum average conducted output power using C63.10:2013 Section 11.9.2.3 Measurement using a power meter (PM). (Measurement using a gated RF average-reading power meter).



## 3.4. Test Result of Peak Power Output

Product : Body Fever Scanner
Test Item : Peak Power Output Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Test Date : 2020/06/09

Channal Na	Frequency	Average Power For different Data Rate (Mbps)				Peak Power	Required	D14
Channel No	(MHz)	1	2	5.5	11	1	Limit	Result
		Measurement Level (dBm)						
01	2412	9.53				12.13	<30dBm	Pass
06	2437	13.27	13.21	13.14	13.07	15.58	<30dBm	Pass
11	2462	12.89				15.21	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss



Product : Body Fever Scanner
Test Item : Peak Power Output Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Test Date : 2020/06/09

Channel No	Eraguanav		F		·	e Powe		s)		Peak Power	<30dBm	Result
	Frequency (MHz)	6	9	12	18	24	36	48	54	6		
				N	Measure	ement L	Level (d	lBm)				
01	2412	9.13	-	-			I	I	1	17	<30dBm	Pass
06	2437	12.71	12.65	12.59	12.51	12.47	12.42	12.35	12.27	20.64	<30dBm	Pass
11	2462	12.6							-	20.47	<30dBm	Pass

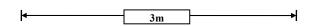
Note: Peak Power Output Value = Reading value on power meter + cable loss

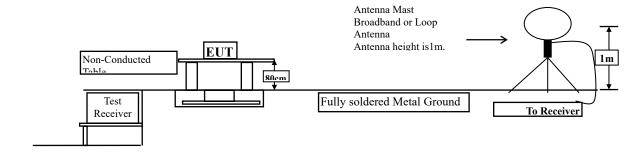


#### 4. Radiated Emission

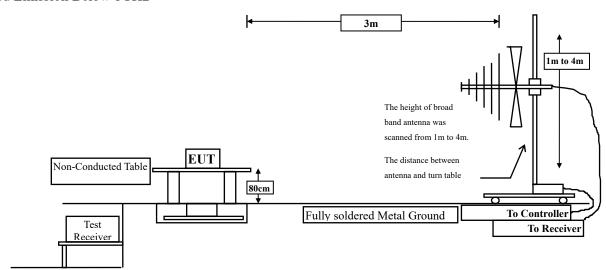
## 4.1. Test Setup

Radiated Emission Under 30MHz

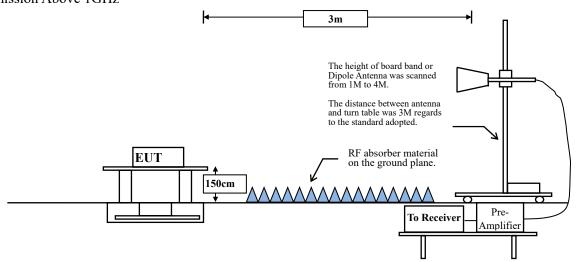




Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



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## 4.2. Limits

#### **➤** General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits								
Frequency MHz	Field strength	Measurement distance						
IVIII	(microvolts/meter)	(meter)						
0.009-0.490	2400/F(kHz)	300						
0.490-1.705	24000/F(kHz)	30						
1.705-30	30	30						
30-88	100	3						
88-216	150	3						
216-960	200	3						
Above 960	500	3						

Remarks:

- 1. RF Voltage  $(dB\mu V) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.



#### 4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to C63.10:2013 Section 11.12.1 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna. The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

#### **RBW** and **VBW** Parameter setting:

According to C63.10 Section 11.12.2.4 Peak measurement procedure.

RBW = as specified in Table 1.

 $VBW \ge 3 \times RBW$ .

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to C63.10 Section 11.12.2.5 Average measurement procedure.

RBW = 1MHz.

VBW = 10Hz, when duty cycle  $\geq$  98 %

VBW  $\geq 1/T$ , when duty cycle  $\leq 98 \%$ 

( T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

2.4GHz band	Duty Cycle	T	1/T	VBW
	(%)	(ms)	(Hz)	(Hz)
802.11b	100.00			10
802.11g	97.47	1.3986	715	1k

Note: Duty Cycle Refer to Section 9



#### 4.4. Test Result of Radiated Emission

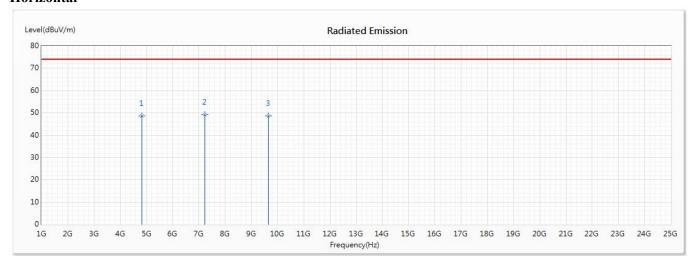
Product : Body Fever Scanner

Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4824	48.71	74.00	-25.29	50.31	-1.60	PK
* 2	7236	49.34	74.00	-24.66	47.48	1.86	PK
3	9648	48.58	74.00	-25.42	44.09	4.49	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

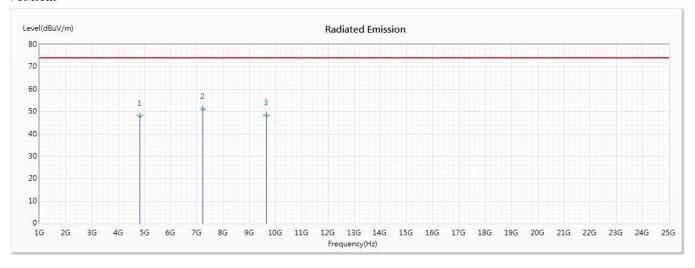


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		$(dB\mu V/m)$					
1	4824	48.16	74.00	-25.84	49.76	-1.60	PK
* 2	7236	51.09	74.00	-22.91	49.23	1.86	PK
3	9648	48.43	74.00	-25.57	43.94	4.49	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

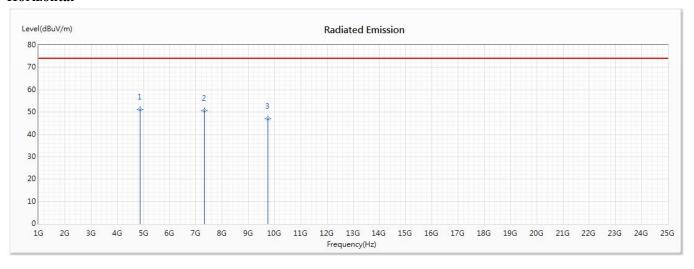


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
* 1	4874	51.15	74.00	-22.85	52.86	-1.71	PK
2	7311	50.68	74.00	-23.32	48.82	1.86	PK
3	9748	47.02	74.00	-26.98	42.27	4.75	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

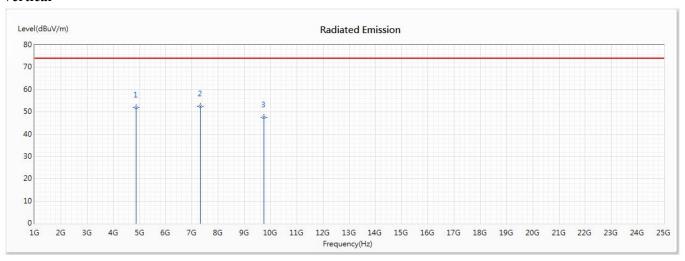


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4874	51.98	74.00	-22.02	53.69	-1.71	PK
* 2	7311	52.49	74.00	-21.51	50.63	1.86	PK
3	9748	47.54	74.00	-26.46	42.79	4.75	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

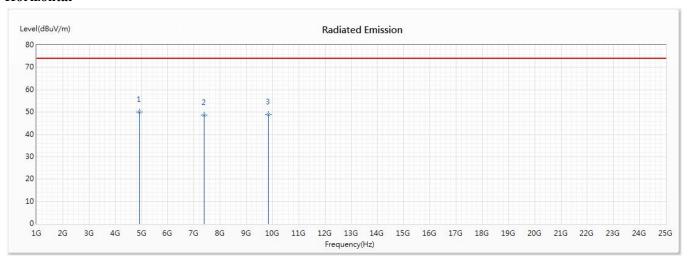


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency (MHz)	Emission Level	Limit (dBμV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)					
* 1	4924	50.08	74.00	-23.92	51.66	-1.58	PK
2	7386	48.63	74.00	-25.37	46.70	1.93	PK
3	9848	48.95	74.00	-25.05	43.89	5.06	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

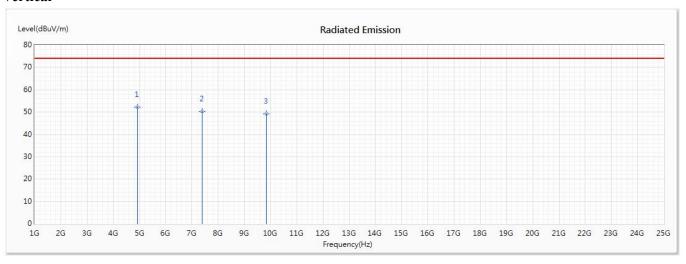


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency (MHz)	Emission Level	Limit (dBμV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)					
* 1	4924	52.31	74.00	-21.69	53.89	-1.58	PK
2	7386	50.41	74.00	-23.59	48.48	1.93	PK
3	9848	49.26	74.00	-24.74	44.20	5.06	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

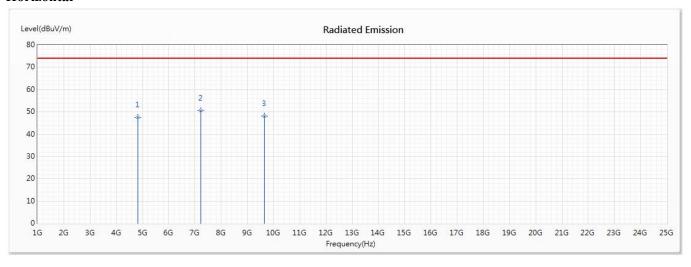


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4824	47.63	74.00	-26.37	49.23	-1.60	PK
* 2	7236	50.57	74.00	-23.43	48.71	1.86	PK
3	9648	48.14	74.00	-25.86	43.65	4.49	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

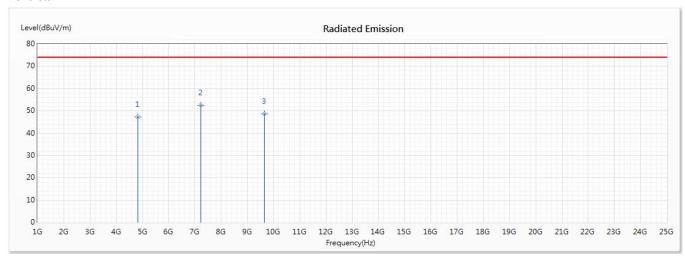


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4824	47.18	74.00	-26.82	48.78	-1.60	PK
* 2	7236	52.59	74.00	-21.41	50.73	1.86	PK
3	9648	48.79	74.00	-25.21	44.30	4.49	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

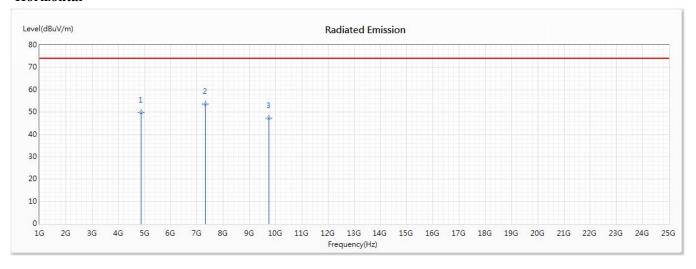


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4874	49.82	74.00	-24.18	51.53	-1.71	PK
* 2	7311	53.55	74.00	-20.45	51.69	1.86	PK
3	9748	47.19	74.00	-26.81	42.44	4.75	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

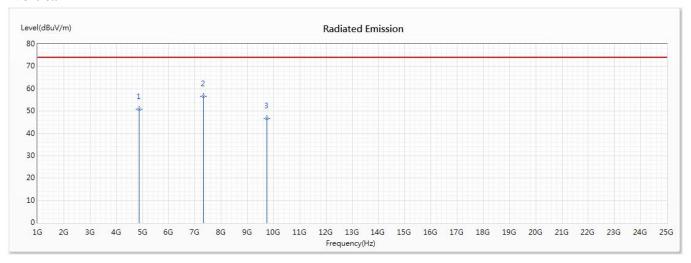


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4874	50.96	74.00	-23.04	52.67	-1.71	PK
* 2	7311	56.57	74.00	-17.43	54.71	1.86	PK
3	9748	46.76	74.00	-27.24	42.01	4.75	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

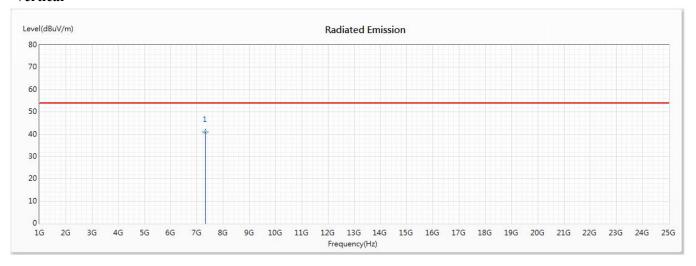


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Туре
		$(dB\mu V/m)$					
* 1	7311	40.98	54.00	-13.02	39.12	1.86	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

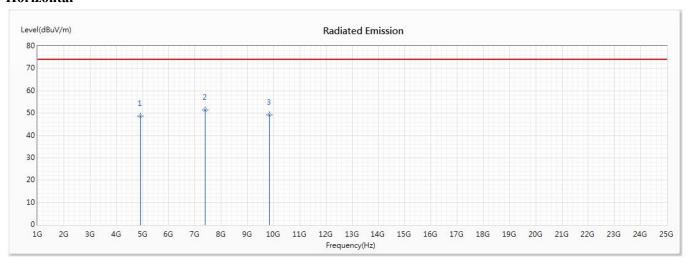


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	4924	48.55	74.00	-25.45	50.13	-1.58	PK
* 2	7386	51.41	74.00	-22.59	49.48	1.93	PK
3	9848	49.12	74.00	-24.88	44.06	5.06	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

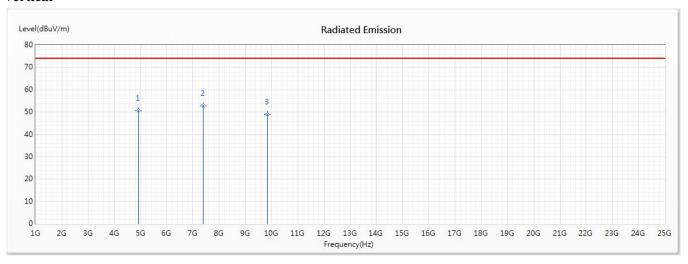


Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)					
1	4924	50.55	74.00	-23.45	52.13	-1.58	PK
* 2	7386	52.81	74.00	-21.19	50.88	1.93	PK
3	9848	48.89	74.00	-25.11	43.83	5.06	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

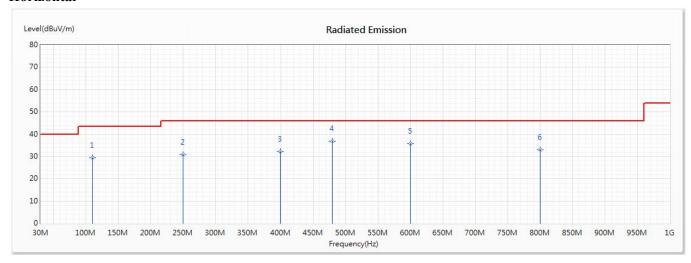


Test Item : General Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Test Date : 2020/07/01

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	110.13	29.43	43.50	-14.07	43.54	-14.11	QP
2	249.304	30.77	46.00	-15.23	42.38	-11.61	QP
3	399.725	32.19	46.00	-13.81	39.75	-7.56	QP
* 4	479.855	36.95	46.00	-9.05	42.70	-5.75	QP
5	600.754	35.75	46.00	-10.25	39.03	-3.28	QP
6	800.377	33.06	46.00	-12.94	33.61	-0.55	QP

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.

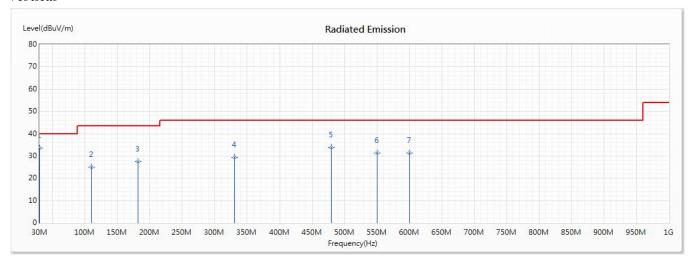


Test Item : General Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Test Date : 2020/07/01

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		$(dB\mu V/m)$					
* 1	30	33.66	40.00	-6.34	45.34	-11.68	QP
2	110.13	25.15	43.50	-18.35	39.26	-14.11	QP
3	181.826	27.49	43.50	-16.01	39.83	-12.34	QP
4	330.841	29.40	46.00	-16.60	38.55	-9.15	QP
5	479.855	33.88	46.00	-12.12	39.63	-5.75	QP
6	550.145	31.38	46.00	-14.62	35.71	-4.33	QP
7	600.754	31.21	46.00	-14.79	34.49	-3.28	QP

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.

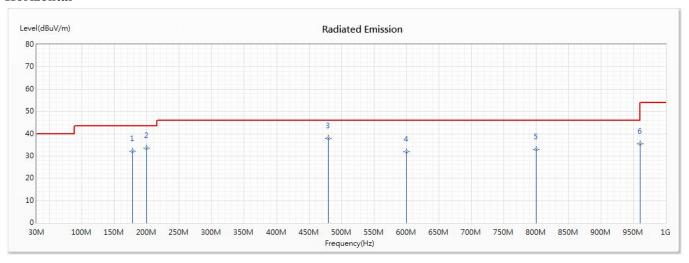


Test Item : General Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Test Date : 2020/07/01

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	177.609	32.26	43.50	-11.24	43.78	-11.52	QP
2	200.101	33.63	43.50	-9.87	47.20	-13.57	QP
* 3	479.855	37.82	46.00	-8.18	43.57	-5.75	QP
4	600.754	31.85	46.00	-14.15	35.13	-3.28	QP
5	800.377	33.03	46.00	-12.97	33.58	-0.55	QP
6	960.638	35.56	54.00	-18.44	34.12	1.44	QP

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



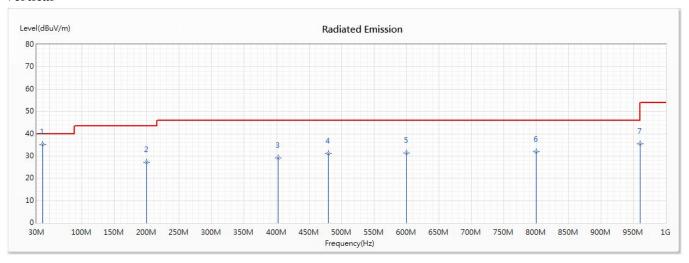
Product : Body Fever Scanner

Test Item : General Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Test Date : 2020/07/01

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
* 1	39.841	35.26	40.00	-4.74	46.23	-10.97	QP
2	200.101	27.31	43.50	-16.19	40.88	-13.57	QP
3	402.536	29.15	46.00	-16.85	36.59	-7.44	QP
4	479.855	31.11	46.00	-14.89	36.86	-5.75	QP
5	600.754	31.45	46.00	-14.55	34.73	-3.28	QP
6	800.377	31.88	46.00	-14.12	32.43	-0.55	QP
7	960.638	35.46	54.00	-18.54	34.02	1.44	QP

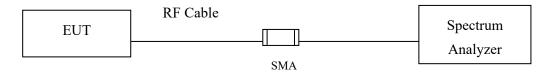
- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



#### 5. RF antenna conducted test

## 5.1. Test Setup

RF antenna Conducted Measurement:



#### 5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### **5.3.** Test Procedure

The EUT was tested according to C63.10:2013 Section 11.11 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.



#### 5.4. Test Result of RF antenna conducted test

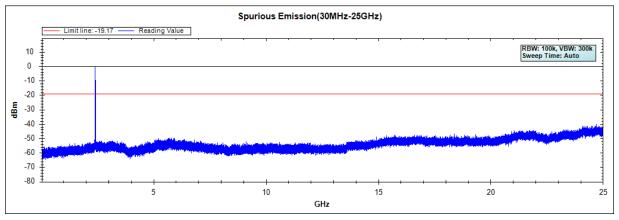
Product : Body Fever Scanner

Test Item : RF antenna conducted test

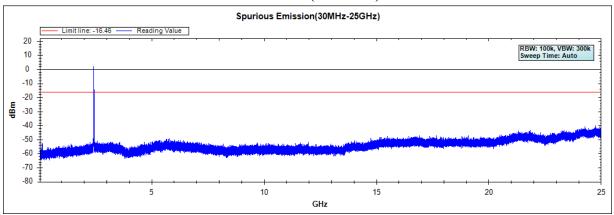
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Test Date : 2020/06/06

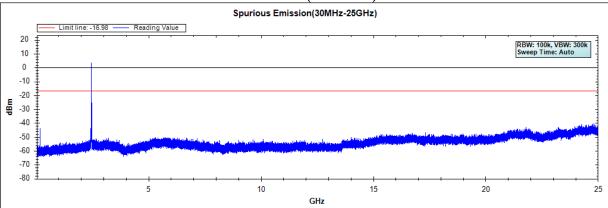
## **Channel 01 (2412MHz)**



#### **Channel 06 (2437MHz)**



#### **Channel 11 (2462MHz)**



Note: The above test pattern is synthesized by multiple of the frequency range.

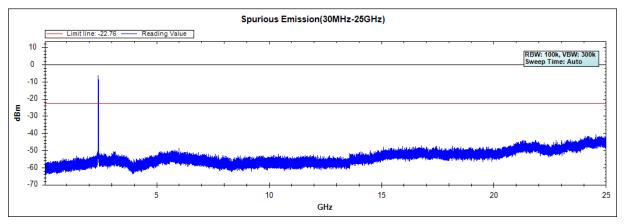


Product : Body Fever Scanner

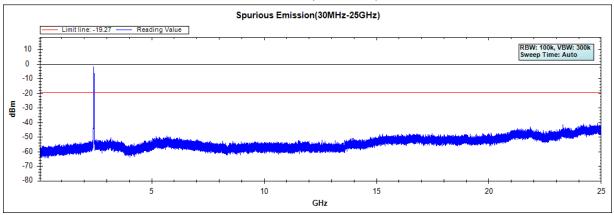
Test Item : RF Antenna Conducted Spurious
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Test Date : 2020/06/06

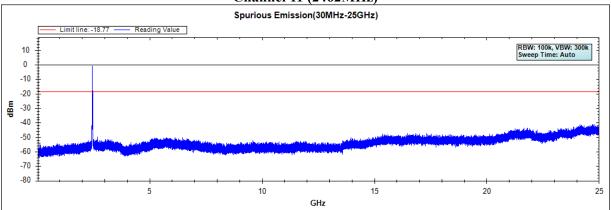
## **Channel 01 (2412MHz)**



#### **Channel 06 (2437MHz)**



## **Channel 11 (2462MHz)**



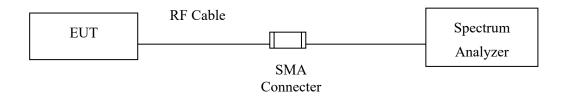
Note: The above test pattern is synthesized by multiple of the frequency range.



# 6. Band Edge

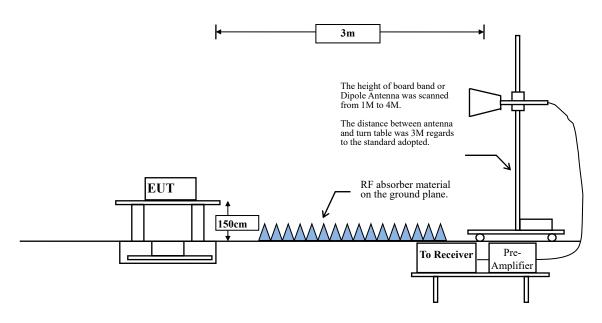
## 6.1. Test Setup

#### **RF Conducted Measurement**



#### **RF Radiated Measurement:**

## Above 1GHz





#### 6.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### **6.3.** Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to C63.10:2013 Section 11.12.1 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.

#### **RBW** and **VBW** Parameter setting:

According to C63.10 Section 11.12.2.4 Peak measurement procedure.

RBW = as specified in Table 1.

 $VBW \ge 3 \times RBW$ .

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to C63.10 Section 11.12.2.5 Average measurement procedure.

RBW = 1MHz.

VBW = 10Hz, when duty cycle  $\geq 98$  %

VBW  $\geq 1/T$ , when duty cycle  $\leq 98 \%$ 

( T refers to the minimum transmission duration over which the transmitter is on and is

transmitting at its maximum power control level for the tested mode of operation.)

2.4GHz band	Duty Cycle	T	1/T	VBW
	(%)	(ms)	(Hz)	(Hz)
802.11b	100.00			10
802.11g	97.47	1.3986	715	1k

Note: Duty Cycle Refer to Section 9



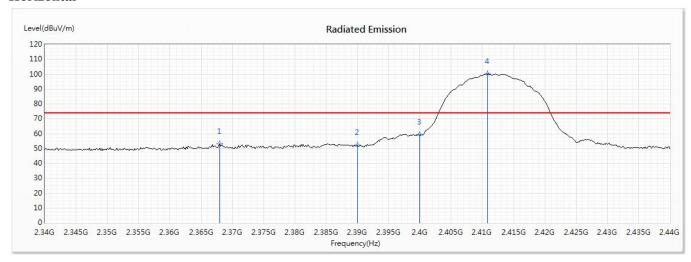
## 6.4. Test Result of Band Edge

Product : Body Fever Scanner Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	2367.971	53.06	74.00	-20.94	41.74	11.32	PK
2	2390	52.27	74.00	-21.73	40.81	11.46	PK
3	2400	59.24			47.73	11.51	PK
4	2410.87	100.12			88.51	11.61	PK

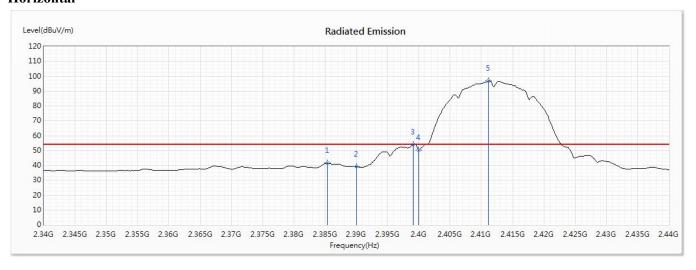
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	2385.362	41.48	54.00	-12.52	30.05	11.43	AV
2	2390	39.29	54.00	-14.71	27.83	11.46	AV
3	2399.13	54.19			42.68	11.51	AV
4	2400	50.48			38.97	11.51	AV
5	2411.159	96.83			85.22	11.61	AV

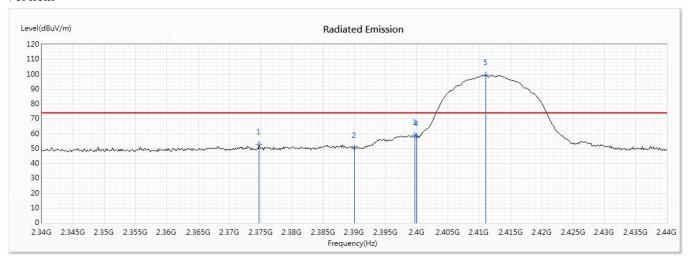
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		$(dB\mu V/m)$					
1	2374.783	52.58	74.00	-21.42	41.21	11.37	PK
2	2390	50.37	74.00	-23.63	38.91	11.46	PK
3	2399.71	58.96	-		47.45	11.51	PK
4	2400	57.96	1		46.45	11.51	PK
5	2411.014	99.20			87.59	11.61	PK

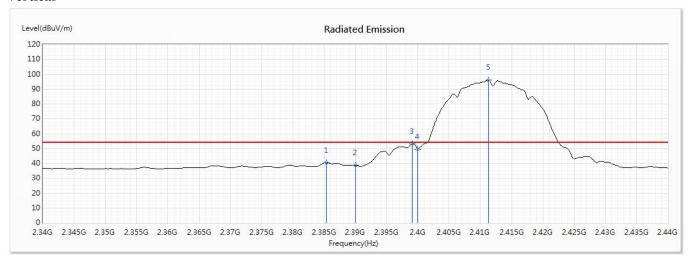
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	2385.362	40.44	54.00	-13.56	29.01	11.43	AV
2	2390	38.68	54.00	-15.32	27.22	11.46	AV
3	2399.13	53.16			41.65	11.51	AV
4	2400	49.62			38.11	11.51	AV
5	2411.304	95.90			84.29	11.61	AV

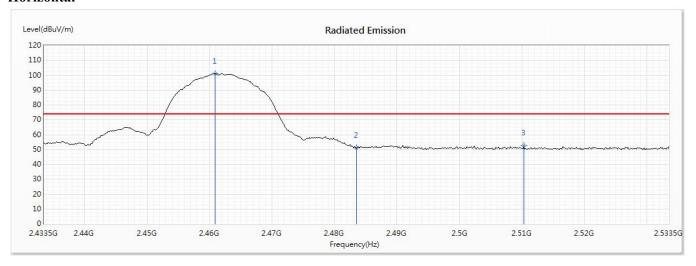
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	$(dB\mu V/m)$	(dB)	(dBµV)	(dB/m)	Type
		$(dB\mu V/m)$					
1	2460.891	100.93			88.88	12.05	PK
2	2483.5	51.09	74.00	-22.91	38.88	12.21	PK
3	2510.312	52.86	74.00	-21.14	40.51	12.35	PK

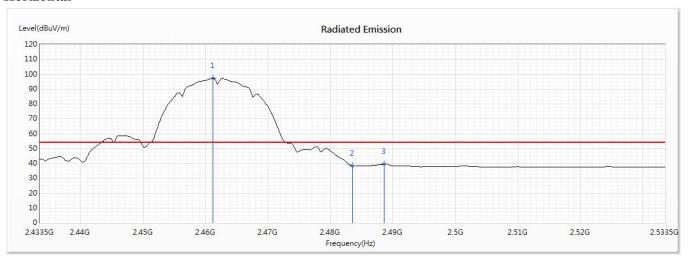
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
	, ,	(dBµV/m)	• /	, ,	/	` '	• •
1	2461.181	97.46			85.41	12.05	AV
2	2483.5	38.39	54.00	-15.61	26.18	12.21	AV
3	2488.572	39.46	54.00	-14.54	27.21	12.25	AV

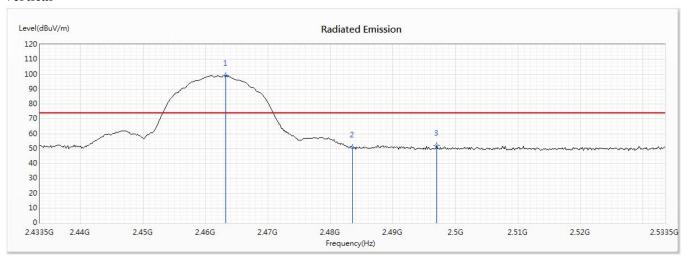
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency (MHz)	Emission Level	Limit (dBμV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)					
1	2463.21	98.88			86.81	12.07	PK
2	2483.5	50.52	74.00	-23.48	38.31	12.21	PK
3	2496.978	52.03	74.00	-21.97	39.73	12.30	PK

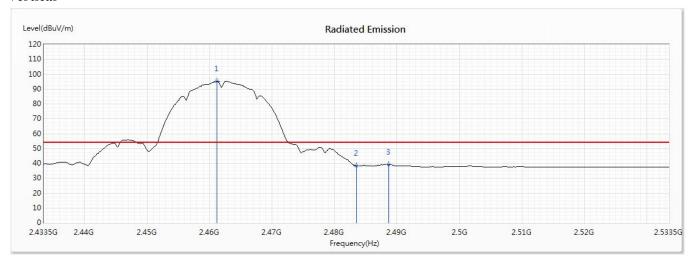
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
	,	(dBµV/m)	( , )			,	<b>J1</b>
1	2461.181	95.46			83.41	12.05	AV
2	2483.5	38.29	54.00	-15.71	26.08	12.21	AV
3	2488.717	39.33	54.00	-14.67	27.08	12.25	AV

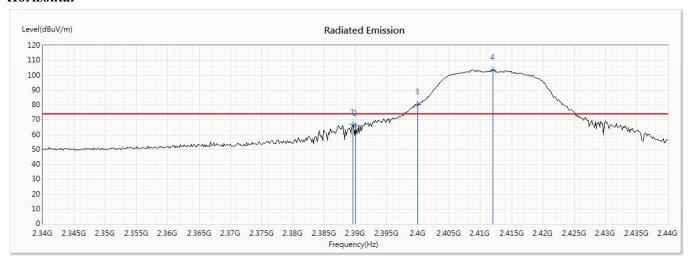
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		(dBµV/m)					
1	2389.565	66.76	74.00	-7.24	55.30	11.46	PK
2	2390	65.83	74.00	-8.17	54.37	11.46	PK
3	2400	80.40			68.89	11.51	PK
4	2412.029	103.63			92.01	11.62	PK

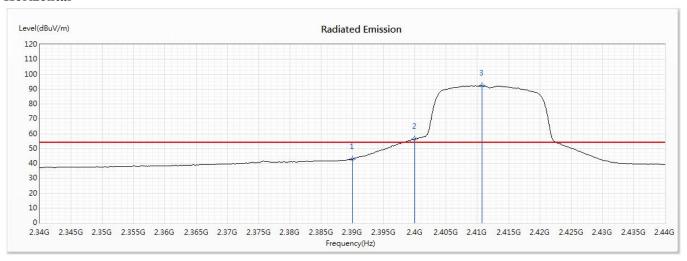
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)	` '	, ,		, ,	
1	2390	42.81	54.00	-11.19	31.35	11.46	AV
2	2400	56.38			44.87	11.51	AV
3	2410.725	92.34			80.73	11.61	AV

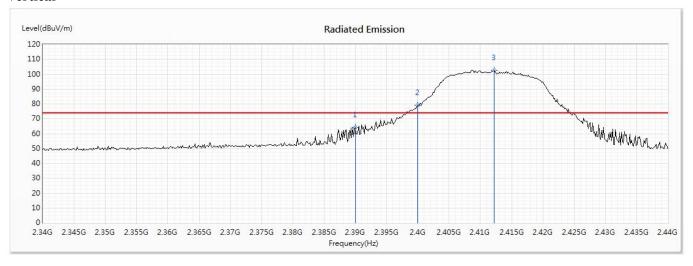
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency (MHz)	Emission Level	Limit (dBμV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)					
1	2390	64.29	74.00	-9.71	52.83	11.46	PK
2	2400	79.19			67.68	11.51	PK
3	2412.174	102.64			91.02	11.62	PK

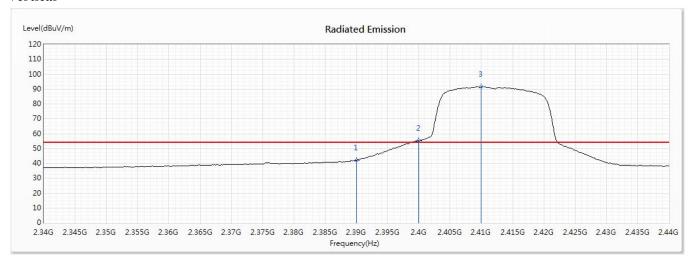
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)					
1	2390	42.23	54.00	-11.77	30.77	11.46	AV
2	2400	55.25	-		43.74	11.51	AV
3	2410	91.49			79.89	11.60	AV

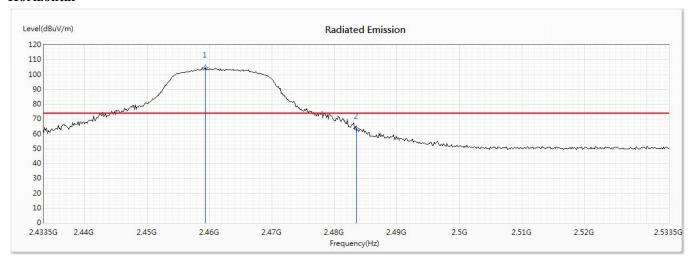
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		$(dB\mu V/m)$					
1	2459.297	104.55			92.51	12.04	PK
2	2483.5	63.61	74.00	-10.39	51.40	12.21	PK

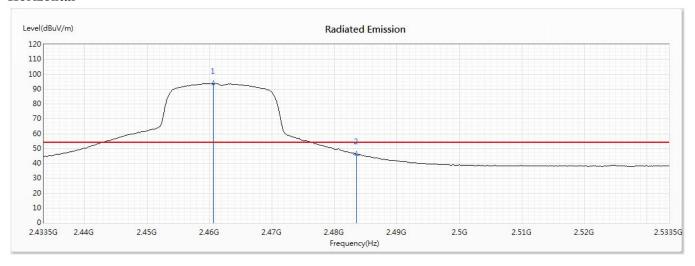
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Test Date : 2020/06/30

#### Horizontal



No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
	(IVITIZ)	(dBµV/m)	(αΔμν/ΙΙΙ)	(ub)	(αΔμν)	(dD/III)	Турс
1	2460.601	93.68			81.64	12.04	AV
2	2483.5	46.05	54.00	-7.95	33.84	12.21	AV

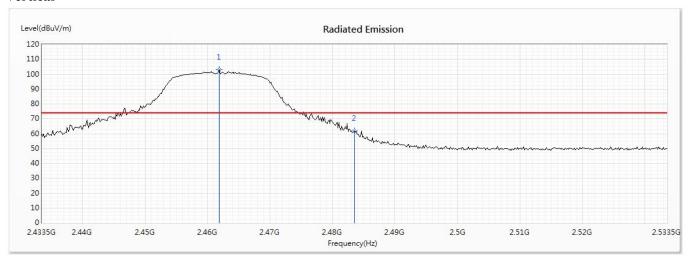
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Test Date : 2020/06/30

#### Vertical



No	Frequency	Emission	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	Level	(dBµV/m)	(dB)	(dBµV)	(dB/m)	Type
		$(dB\mu V/m)$					
1	2461.906	103.03			90.98	12.05	PK
2	2483.5	62.01	74.00	-11.99	49.80	12.21	PK

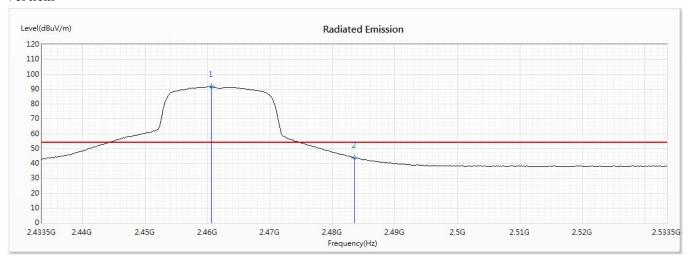
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Test Date : 2020/06/30

#### Vertical



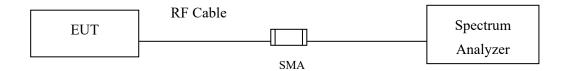
No	Frequency (MHz)	Emission Level	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
		(dBµV/m)		, ,			
1	2460.601	91.55			79.51	12.04	AV
2	2483.5	43.77	54.00	-10.23	31.56	12.21	AV

- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



## 7. 6dB Bandwidth

# 7.1. Test Setup



## 7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

## 7.3. Test Procedure

The EUT was setup according to ANSI C63.4, 2014; tested according to ANSI C63.10 Section 11.8 for compliance to FCC 47CFR 15.247 requirements.



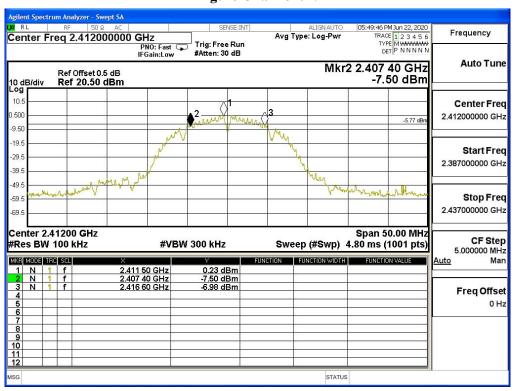
#### 7.4. Test Result of 6dB Bandwidth

Product : Body Fever Scanner
Test Item : 6dB Bandwidth Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps)

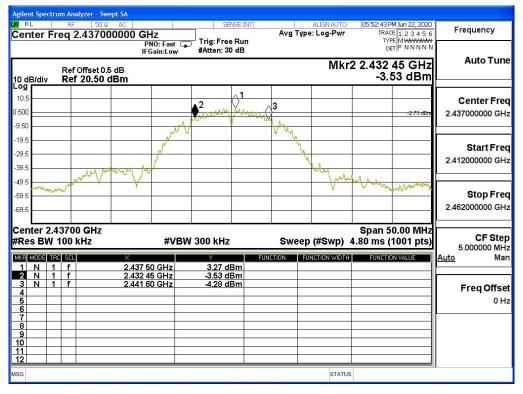
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	9200	>500	Pass
06	2437	9150	>500	Pass
11	2462	9150	>500	Pass

## **Figure Channel 01:**

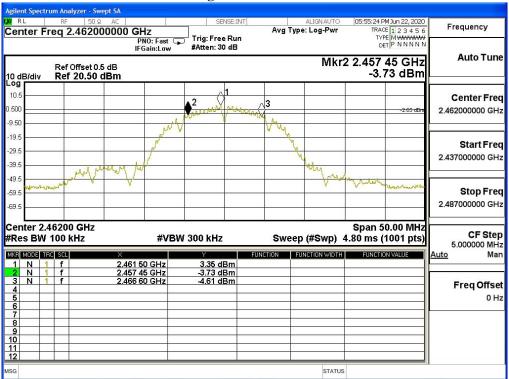




## Figure Channel 06:



## Figure Channel 11:



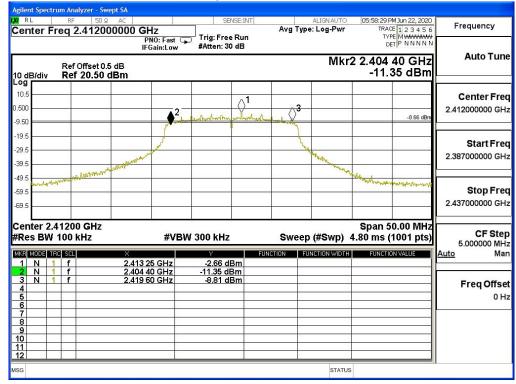


Product : Body Fever Scanner
Test Item : 6dB Bandwidth Data

Test Mode : Mode 2: Transmit (802.11g 6Mbps)

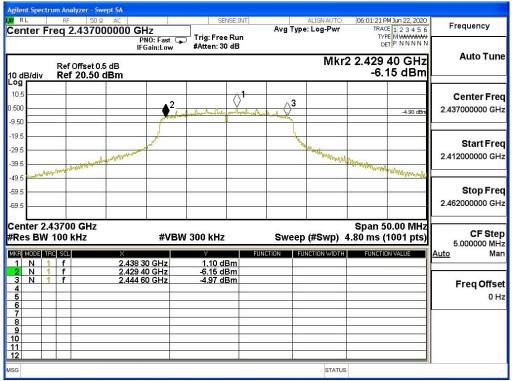
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15200	>500	Pass
06	2437	15200	>500	Pass
11	2462	15200	>500	Pass

## Figure Channel 01:

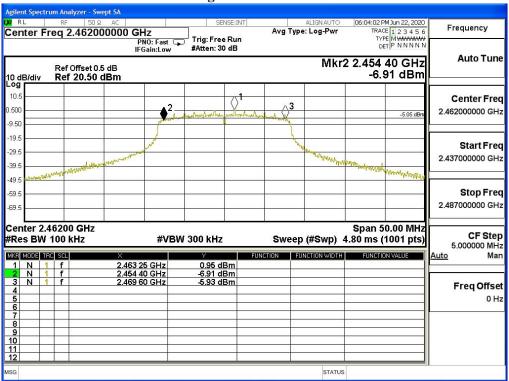




## Figure Channel 06:



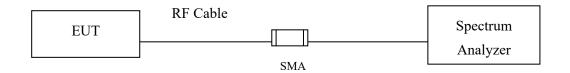
## **Figure Channel 11:**





## 8. Power Density

## 8.1. Test Setup



## 8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

## **8.3.** Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

The maximum power spectral density using C63.10 Section 11.10.2 Method PKPSD (peak PSD)



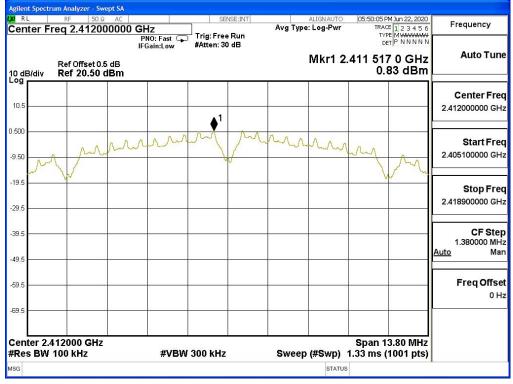
## 8.4. Test Result of Power Density

Product : Body Fever Scanner Test Item : Power Density Data

Test Mode : Mode 1: Transmit (802.11b 1Mbps)

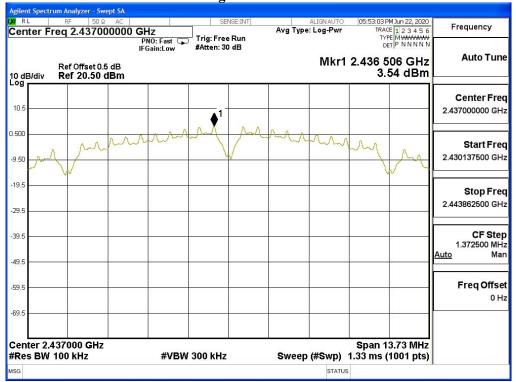
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	0.83	≦8dBm	Pass
06	2437	3.54	≦8dBm	Pass
11	2462	3.02	≦8dBm	Pass



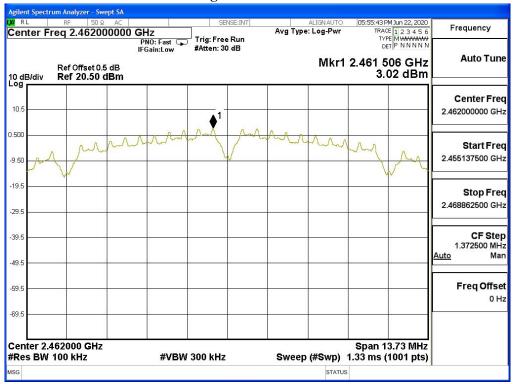








## **Figure Channel 11:**

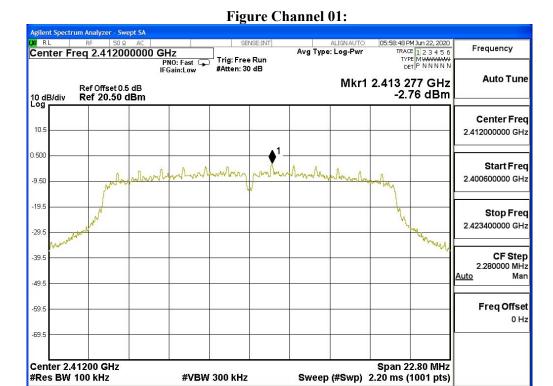




Product : Body Fever Scanner
Test Item : Power Density Data

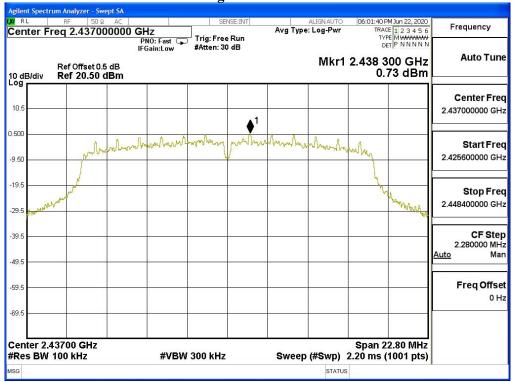
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	-2.76	≦8dBm	Pass
06	2437	0.73	≦8dBm	Pass
11	2462	1.23	≦8dBm	Pass

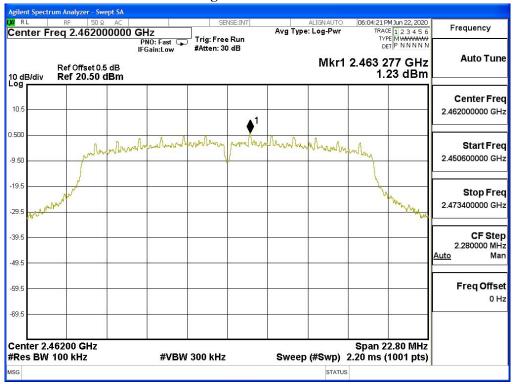








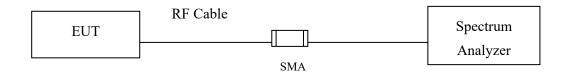
## **Figure Channel 11:**





# 9. Duty Cycle

# 9.1. Test Setup



## 9.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to ANSI C63.10 2013 for compliance to FCC 47CFR 15.247 requirements.



## 9.3. Test Result of Duty Cycle

Product : Body Fever Scanner

Test Item : Duty Cycle Test Mode : Transmit

Duty Cycle Formula:

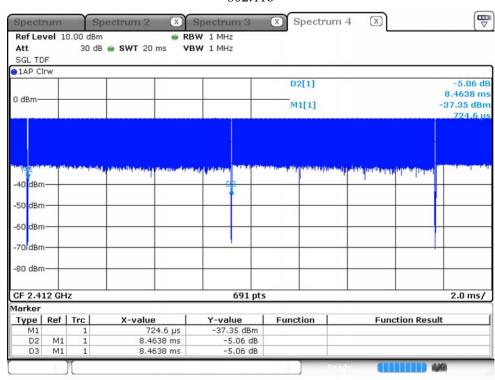
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

#### Results:

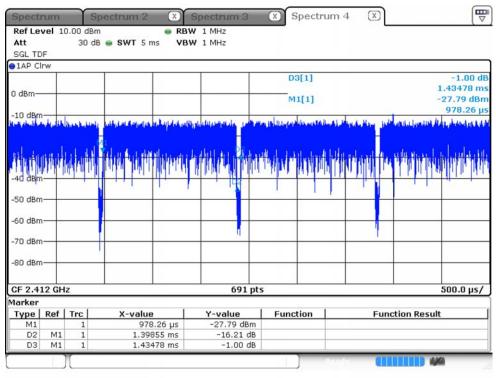
2.4GHz band	Ton	Ton + Toff	Duty Cycle	Duty Factor
	(ms)	(ms)	(%)	(dB)
802.11b	8.4638	8.4638	100.00	0.00
802.11g	1.3986	1.4348	97.47	0.11

#### 802.11b











# 10. EMI Reduction Method During Compliance Testing

No modification was made during testing.

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