



FCC PART 15C TEST REPORT FOR CERTIFICATION  
On Behalf of

Shenzhen Aodelan Technology Co., Ltd.

Wireless Flash Trigger Transmitter

TGT-A1(T)

FCC ID: 2AEJW-TGTA1T

Prepared for : Shenzhen Aodelan Technology Co., Ltd.  
Room 501, Block A, Guoren Building, Keji Central 3rd  
Road, Hi-Tech Park, Nanshan District, Shenzhen,  
Guangdong, China

Prepared By : Audix Technology (Shenzhen) Co., Ltd.  
No. 6, Ke Feng Rd., 52 Block,  
Shenzhen Science & Industrial Park,  
Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F15306  
Date of Test : Oct.12~Nov.15, 2015  
Date of Report : Nov.20, 2015

**TABLE OF CONTENTS**

<u>Description</u>	<u>Page</u>
<b>1. SUMMARY OF STANDARDS AND RESULTS.....</b>	<b>1-1</b>
1.1. Description of Standards and Results .....	1-1
<b>2. GENERAL INFORMATION .....</b>	<b>2-1</b>
2.1. Description of Device (EUT).....	2-1
2.1. Tested Supporting System Details .....	2-2
2.2. EUT Configuration and operation conditions for test.....	2-2
2.3. Test Facility .....	2-3
2.4. Measurement Uncertainty (95% confidence levels, k=2) .....	2-3
<b>3. POWER LINE CONDUCTED EMISSION TEST .....</b>	<b>3-1</b>
<b>4. RADIATED EMISSION TEST .....</b>	<b>4-1</b>
4.1. Test Equipment .....	4-1
4.2. Block Diagram of Test Setup.....	4-2
4.3. Radiated Emission Limit Standard: FCC 15.209 and 15.249 .....	4-3
4.4. EUT Configuration on Test.....	4-3
4.5. Operating Condition of EUT.....	4-3
4.6. Test Procedure.....	4-4
4.7. Radiated Emission Test Results .....	4-4
<b>5. 20 DB BANDWIDTH TEST .....</b>	<b>5-1</b>
5.1. Test Equipment .....	5-1
5.2. Limit.....	5-1
5.3. Test Results .....	5-1
<b>6. BAND EDGE COMPLIANCE TEST .....</b>	<b>6-1</b>
6.1. Test Equipment .....	6-1
6.2. Limit.....	6-1
6.3. Test Produce .....	6-1
6.4. Test Results .....	6-1
<b>7. ANTENNA REQUIREMENT .....</b>	<b>7-1</b>
<b>8. RADIO FREQUENCY EXPOSURE COMPLIANCE.....</b>	<b>8-1</b>
<b>9. DEVIATION TO TEST SPECIFICATIONS.....</b>	<b>9-1</b>
<b>10. PHOTOGRAPH OF TEST .....</b>	<b>10-1</b>
10.1. Photos of Radiated Emission Test.....	10-1
<b>11. PHOTOGRAPHS OF EUT.....</b>	<b>11-1</b>

FCC ID: 2AEJW-TGTA1T

## TEST REPORT CERTIFICATION

Applicant : Shenzhen Aodelan Technology Co., Ltd.  
Manufacturer : Shenzhen Fudasi Technology Co., Ltd.  
EUT Description : Wireless Flash Trigger Transmitter  
FCC ID : 2AEJW-TGTA1T  
(A) Model No. : TGT-A1(T)  
(B) Serial No. : N/A  
(C) Power Supply : DC 3V  
(D) Test Voltage : DC 3V

Tested for comply with:  
FCC Rules and Regulations Part 15 Subpart C: 2014

Test procedure used:  
ANSI C63.10:2013

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements.

The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Oct.12~Nov.15, 2015 Report of date: Nov.20, 2015

Prepared by : Cindy Zhu Reviewed by : Sunny Lu  
Cindy Zhu / Assistant Sunny Lu / Assistant Manager

 信華科技(深圳)有限公司  
Audix Technology (Shenzhen) Co., Ltd.  
EMC 部門報告專用章

Stamp only for EMC Dept. Report

Approved & Authorized Signer : Signature: David Jin  
David Jin / Manager

## 1. SUMMARY OF STANDARDS AND RESULTS

### 1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission Test	FCC Part 15C: 15.207 ANSI C63.10-2013	N/A
Radiated Emission Test	FCC Part 15C: 15.209 FCC Part 15C: 15.249 ANSI C63.10-2013	PASS
Band Edge Compliance Test	FCC Part 15: 15.249 ANSI C63.10-2013	PASS
20dB Bandwidth Test	FCC Part 15: 15.215 ANSI C63.10-2013	PASS

N/A is an abbreviation for Not Applicable.

## 2. GENERAL INFORMATION

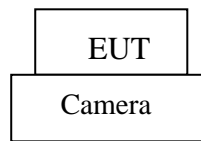
### 2.1. Description of Device (EUT)

Product Name	: Wireless Flash Trigger Transmitter
Model Number	: TGT-A1(T)
FCC ID	: 2AEJW-TGTA1T
Operation frequency	: 2409-2474MHz (Tx)
Antenna	: Internal PCB PIFA Antenna, 3.1dBi gain
Modulation	: GFSK
Applicant	: Shenzhen Aodelan Technology Co., Ltd. Room 501, Block A, Guoren Building, Keji Central 3rd Road, Hi-Tech Park, Nanshan District, Shenzhen, Guangdong, China
Manufacturer	: Shenzhen Fudasi Technology Co., Ltd. B Building, Shengde Industrial Park, Dalang Longhua Town, Baoan District Shenzhen City, 518109 China
Factory	: Shenzhen Fudasi Technology Co., Ltd. B Building, Shengde Industrial Park, Dalang Longhua Town, Baoan District Shenzhen City, 518109 China
Date of Test	: Oct.12~Nov.15, 2015
Date of Receipt	: Oct.10, 2015
Sample Type	: Prototype production

### 2.1. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1.	Camera	N/A	Nikon	D3000	N/A	N/A

### 2.2. EUT Configuration and operation conditions for test.



**( EUT: Wireless Flash Trigger Transmitter)**

### 2.3. Test Facility

Site Description

- Name of Firm : Audix Technology (Shenzhen) Co., Ltd.  
 No. 6, Ke Feng Rd., 52 Block, Shenzhen  
 Science & Industrial Park, Nantou, Shenzhen,  
 Guangdong, China
- 3m Anechoic Chamber : Certificated by FCC, USA  
 Registration Number: 90454  
 Valid Date: Dec.30, 2017
- 3m & 10m Anechoic Chamber : Certificated by FCC, USA  
 Registration Number: 794232  
 Valid Date: Jul.12, 2016
- EMC Lab. : Certificated by Industry Canada  
 Registration Number: IC 5183A-1  
 Valid Date: May.14, 2017
- : Certificated by DAkkS, Germany  
 Registration No: D-PL-12151-01-00  
 Valid Date: Dec.15, 2016
- : Accredited by NVLAP, USA  
 NVLAP Code: 200372-0  
 Valid Date: Mar.31, 2016

### 2.4. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Radiation Emission test in 3m chamber	2.6 dB(30~200MHz, Polarization: H)
	2.6 dB(30~200MHz, Polarization: V)
	3.0 dB(200M~1GHz, Polarization: H)
	2.8 dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	6.3 dB (1~6GHz, Distance: 3m)
	5.7 dB (6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.6 dB
Uncertainty for Conduction Spurious emission test	2.0 dB
Uncertainty for Output power test	0.8 dB
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.1 %
Uncertainty for test site temperature and humidity	0.6
	3%

### **3. POWER LINE CONDUCTED EMISSION TEST**

According to Paragraph (c) of FCC Part 15 section 15.207, Tests to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.



## 4. RADIATED EMISSION TEST

### 4.1. Test Equipment

Frequency range: 30~1000MHz

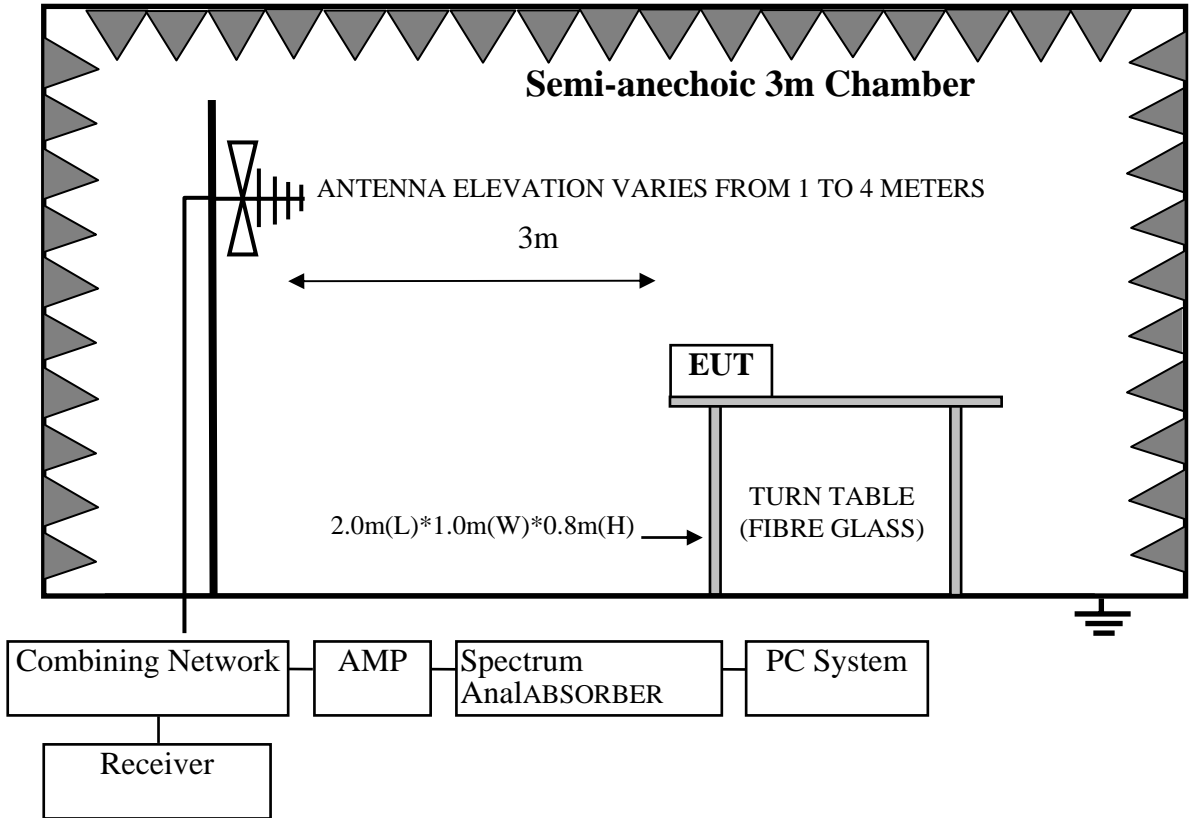
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Mar.28,15	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	Apr.28,15	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	Apr.28,15	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr.28,15	1 Year
5.	Bilog Antenna	TESEQ	CBL6112D	35375	Jun.30,15	1 Year
6.	RF Cable	MIYAZAKI	CFD400-N W(3.5M)	No.3	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	CFD400-L W(22M)	No.7	Apr.28,15	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397222	Apr.28,15	1 Year
9.	MPEG2 Measurement Generator	ROHDE & SCHWARZ	DVG	100319	Nov.02,15	1 Year
10.	Test Software	AUDIX	E3	6.2009-5-21a(n)	N/A	N/A

Frequency range: above 1000MHz

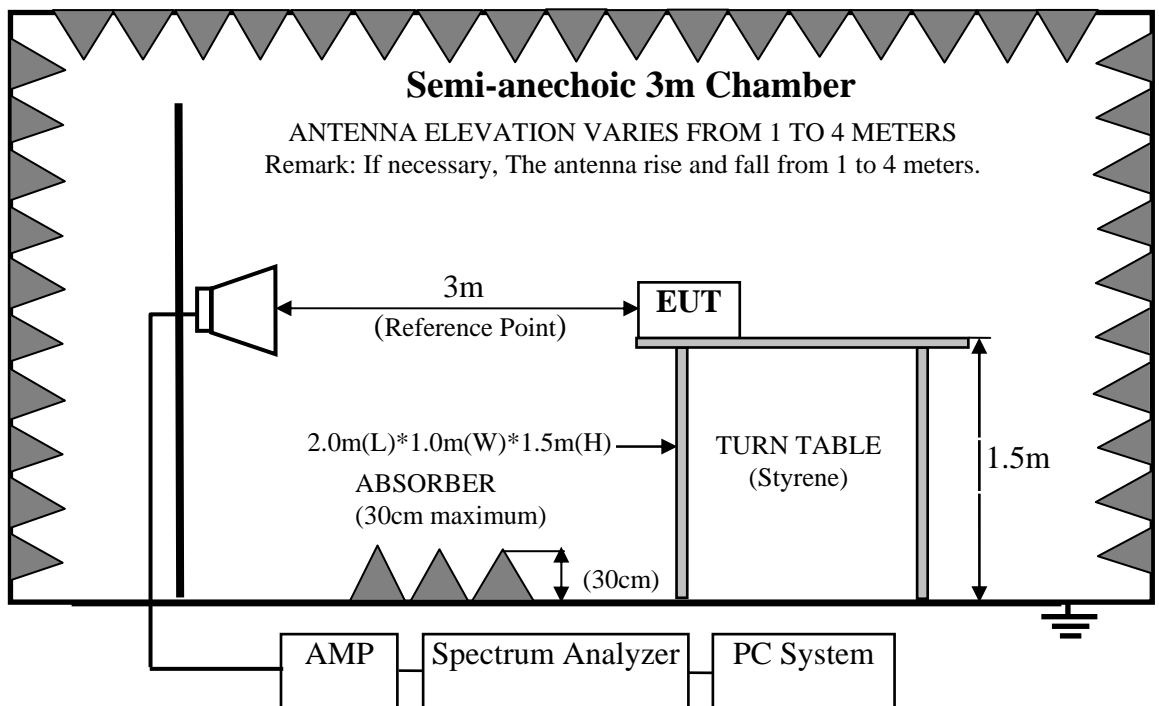
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Horn Antenna	ETC	MCTD 1209	DRH15F03007	Feb.03,15	1 Year
3.	Amplifier	Agilent	8449B	3008A02495	Apr.28,15	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr.28,15	1 Year
5.	Horn Antenna	ETS	3116	00060088	Nov.18.15	1 Year
6.	Test Software	AUDIX	E3	6.2009-5-21a(n)	N/A	N/A

### 4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range above 1GHz



4.3. Radiated Emission Limit Standard: FCC 15.209 and 15.249

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000MHz	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	
Field Strength of fundamental emissions for 2.4GHz-2.4835GHz	3	114.0 dB(μV)/m (Peak) 94.0 dB(μV)/m (Average)	

- Remark :
- (1) Emission level  $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$
  - (2) The smaller limit shall apply at the cross point between two frequency bands.
  - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.
  - (4) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

4.4.EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.5.Operating Condition of EUT

- 4.5.1.Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2.Turn on the power of all equipments.
- 4.5.3.Let EUT work in Tx mode.

#### 4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)\*2.4m(W)\*0.3m(H) on the ground . The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horn antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2013 on radiated emission Test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as the test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's RBW is set at 1MHz and VBW is set at 3MHz for peak emissions measurement above 1GHz

This device is pulse modulated, a duty cycle factor was used to calculate average level based measured peak level.

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

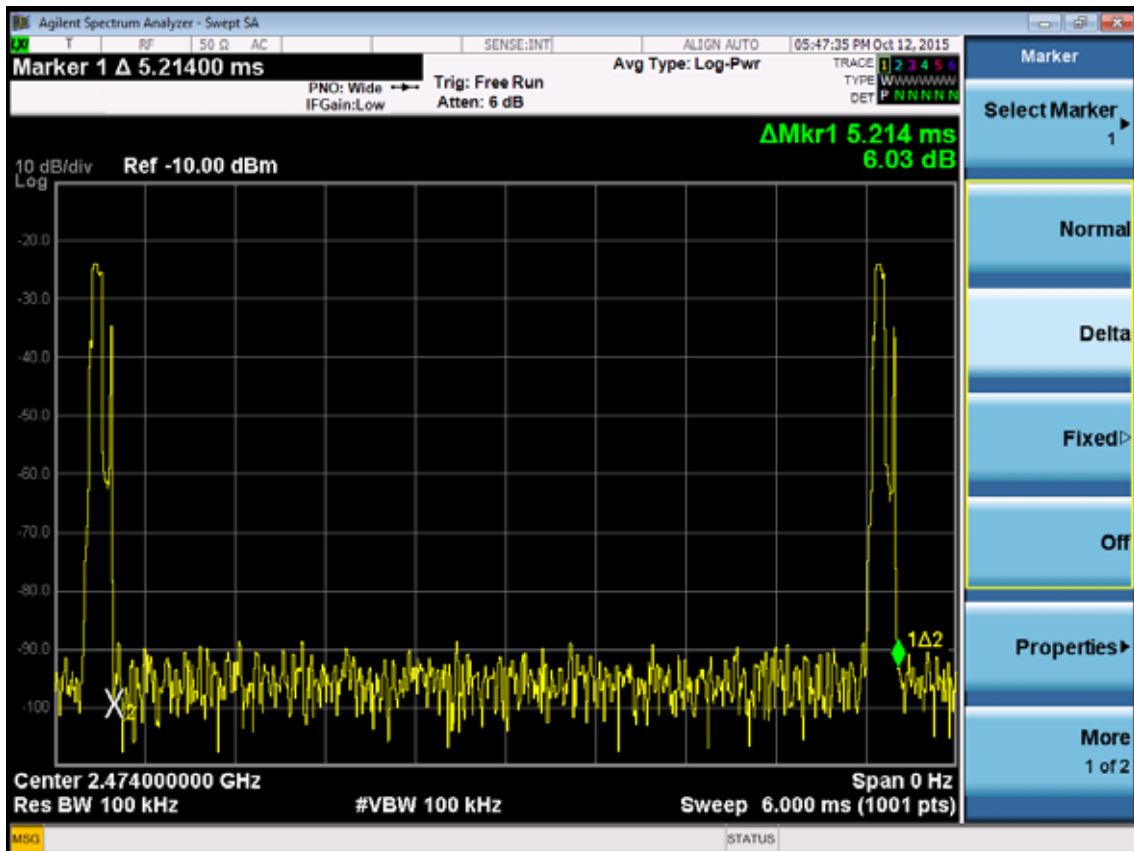
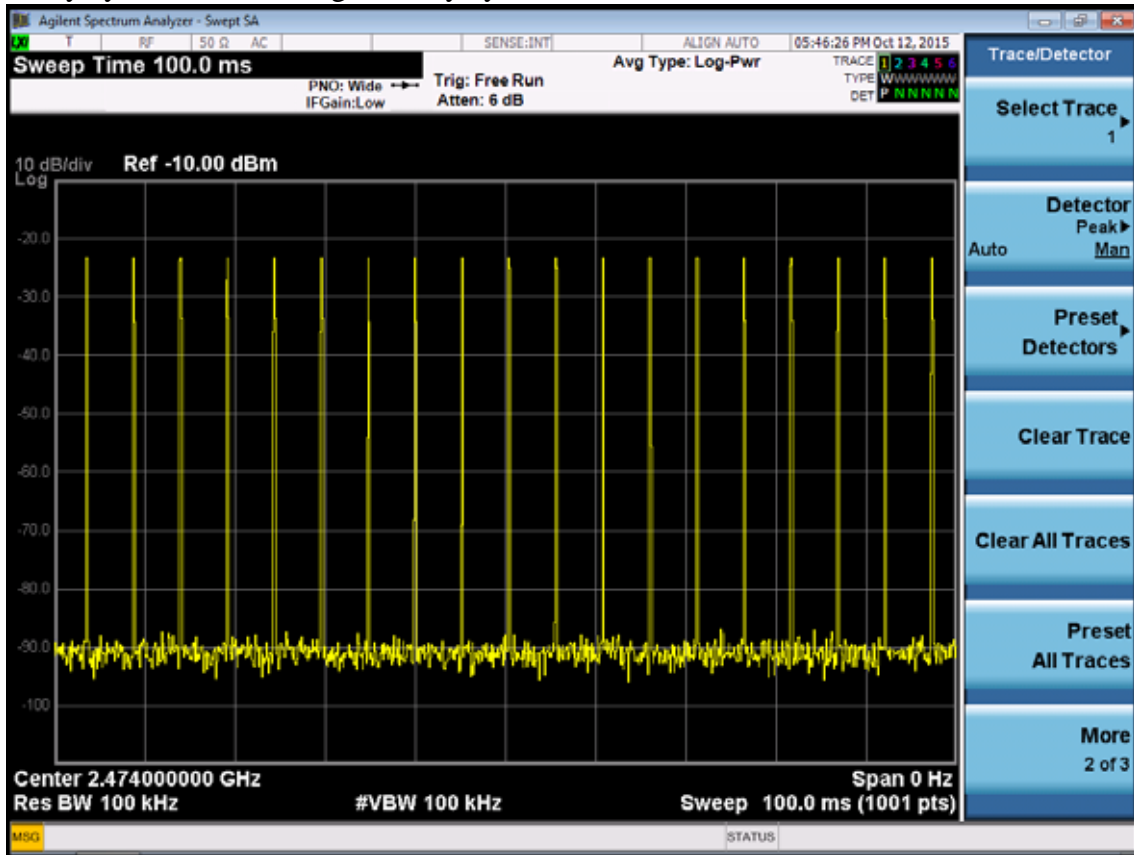
#### 4.7. Radiated Emission Test Results

**PASS.**

All the emissions from 30MHz to 25GHz were comply with the 15.209 Limit.

Note: The duty cycle factor for calculate average level is 28.366 dB, and average limit is 20dB below peak limit, so if peak measured level comply with average limit, the average level was deemed to comply with average limit.

$$\text{Duty cycle factor} = 20 \log ( 1/\text{duty cycle} ) = 28.366$$



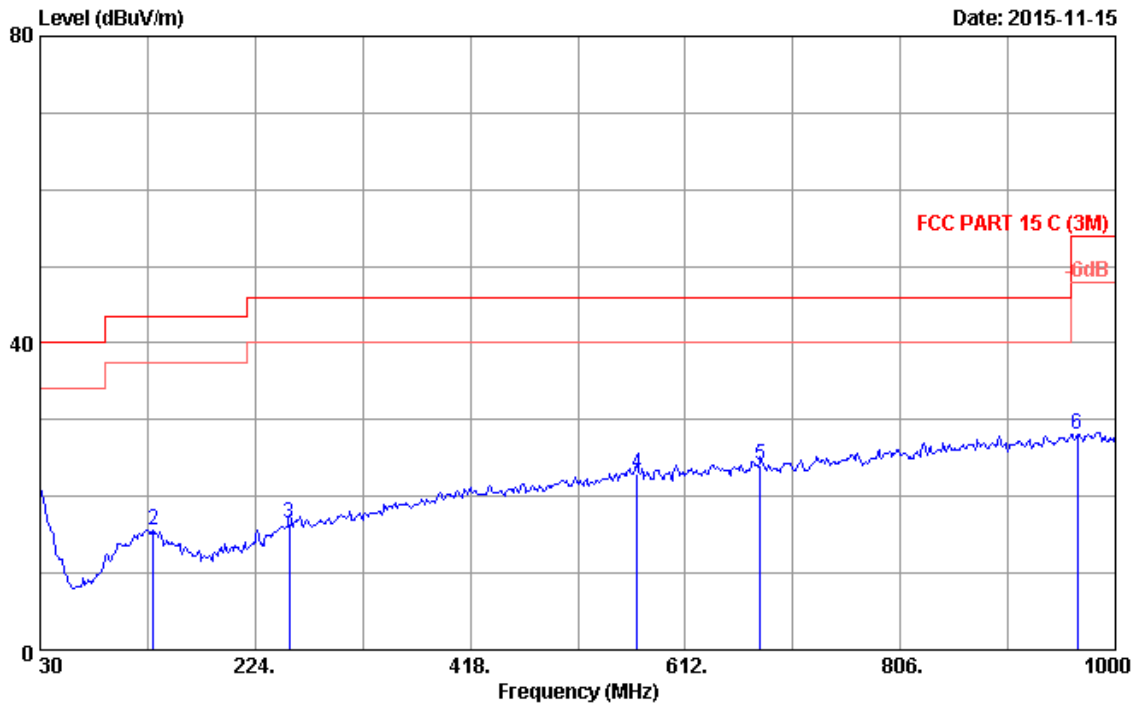


Frequency: 30MHz~1GHz

Data: 1

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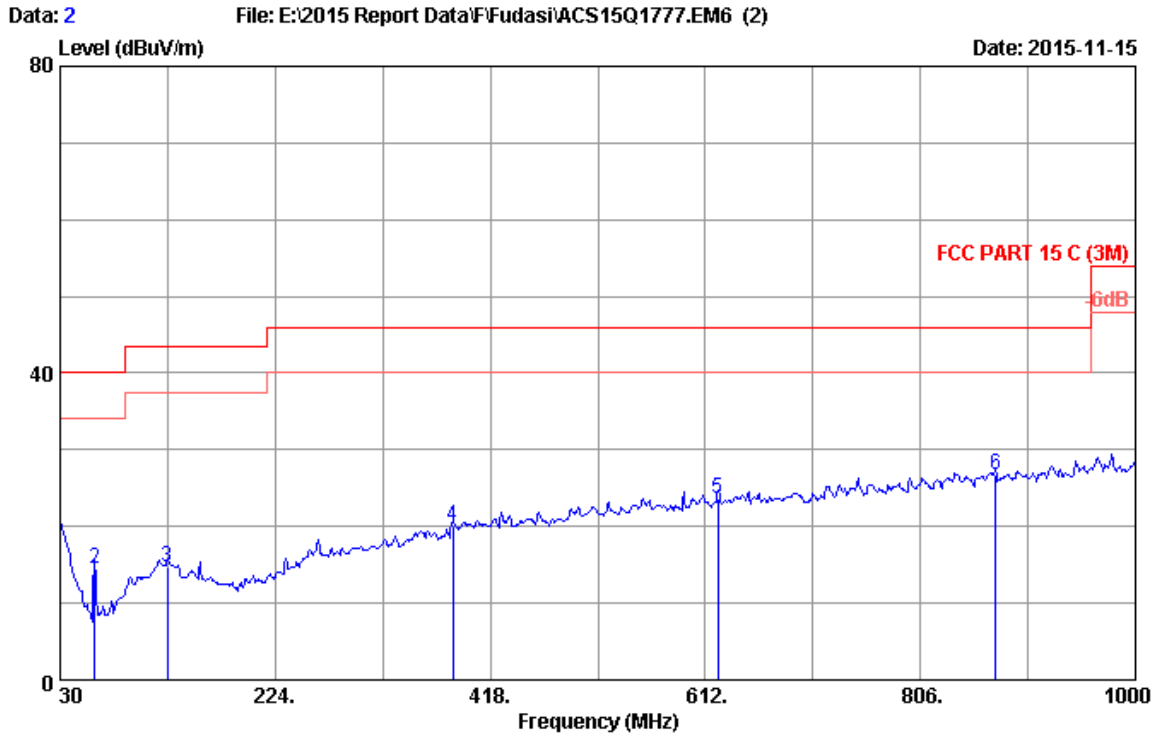
Date: 2015-11-15



Site no. : 3m Chamber Data no. : 1  
 Dis. / Ant. : 3m 2015 CBL6112D 35375 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C (3M)  
 Env. / Ins. : 24°C/56% Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : Tx Mode  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.30	0.51	0.09	20.90	40.00	19.10	QP
2	131.850	13.11	1.24	1.28	15.63	43.50	27.87	QP
3	255.040	13.70	1.71	1.09	16.50	46.00	29.50	QP
4	568.350	19.14	2.68	1.15	22.97	46.00	23.03	QP
5	679.900	20.10	2.96	1.01	24.07	46.00	21.93	QP
6	966.050	22.60	3.64	1.91	28.15	54.00	25.85	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 2  
 Dis. / Ant. : 3m 2015 CBL6112D 35375 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C (3M)  
 Env. / Ins. : 24°C/56% Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : Tx Mode  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	30.000	20.30	0.51	0.07	20.88	40.00	19.12	QP
2	61.040	6.80	0.89	6.81	14.50	40.00	25.50	QP
3	127.000	13.40	1.21	0.11	14.72	43.50	28.78	QP
4	384.050	16.32	2.16	1.57	20.05	46.00	25.95	QP
5	623.640	19.74	2.82	1.17	23.73	46.00	22.27	QP
6	873.900	21.73	3.43	1.52	26.68	46.00	19.32	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

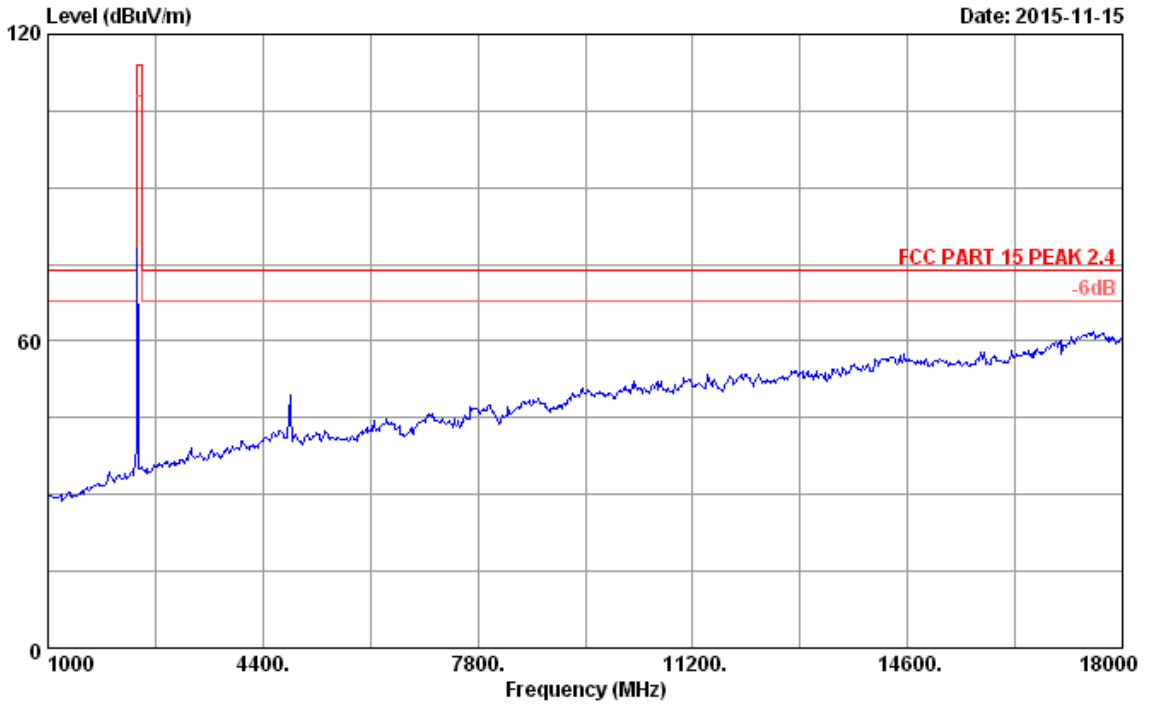


### Frequency: 1GHz~18GHz

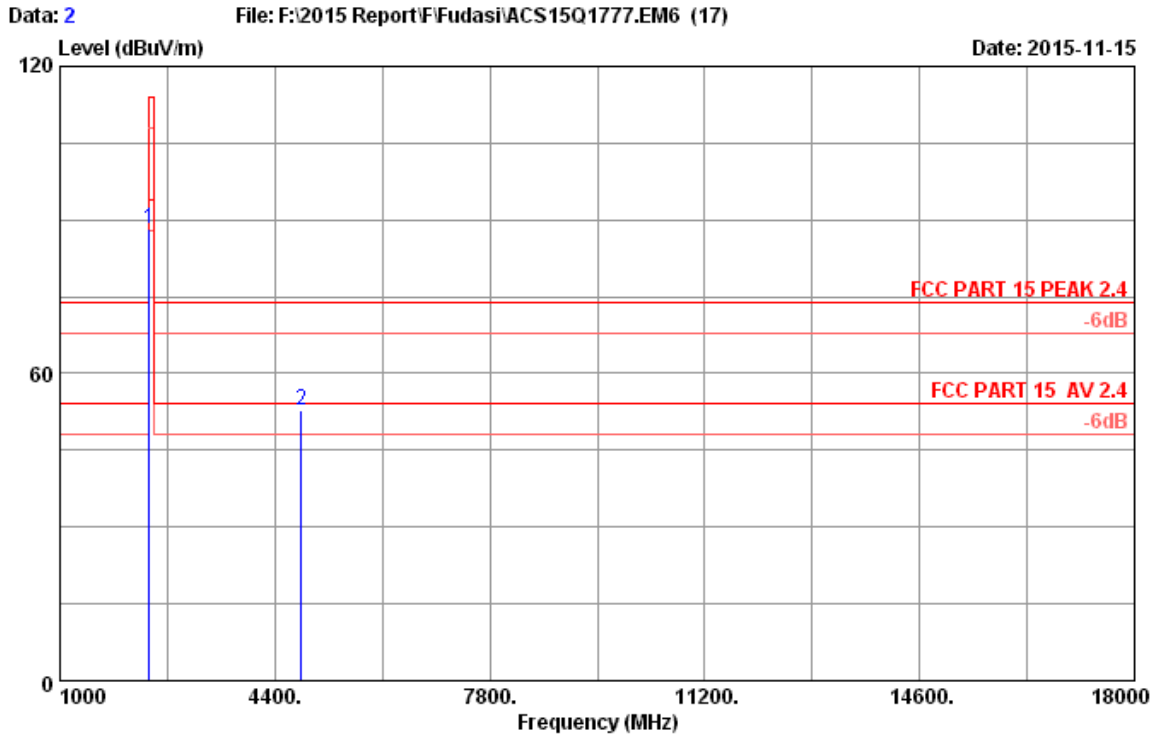
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Date: 2015-11-15



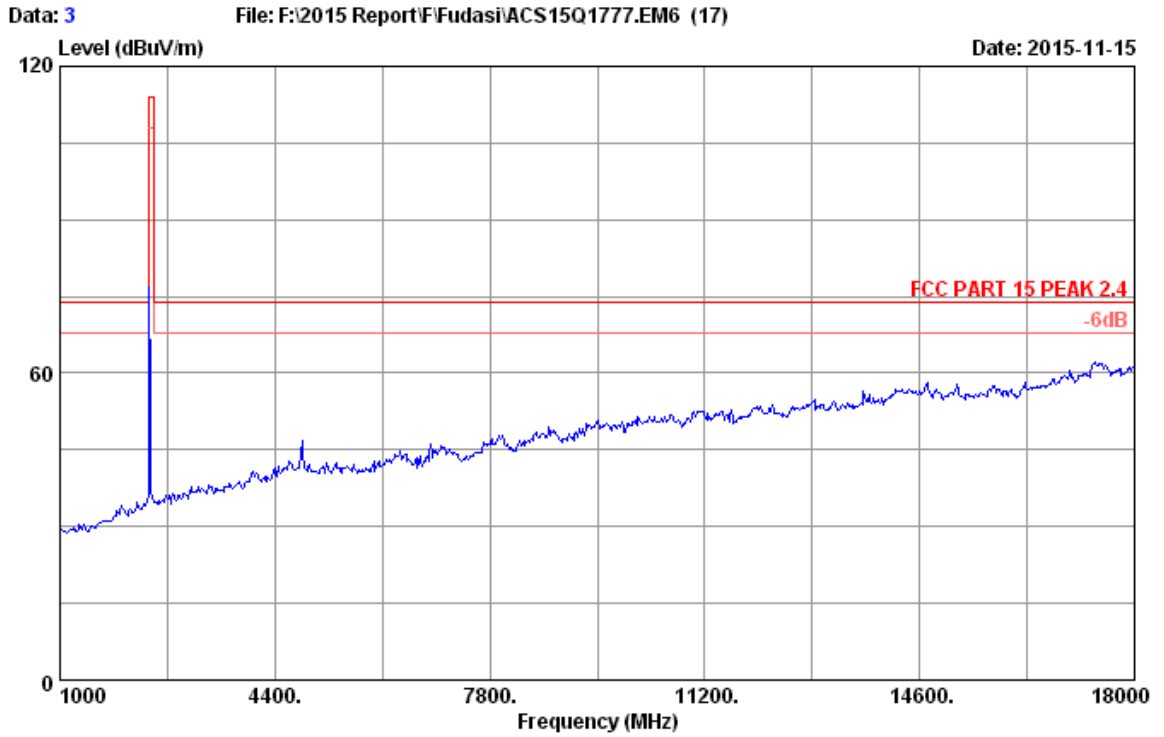
Site no. : 3m Chamber Data no. : 1  
Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
Limit : FCC PART 15 PEAK 2.4  
Env. / Ins. : 22.5°C/51.6%  
Engineer : Leo-Li  
EUT : Wireless Flash Trigger Transmitter  
Power rating : DC 3V  
Test Mode : GFSK 2409MHz Tx  
TGT-A1(T)



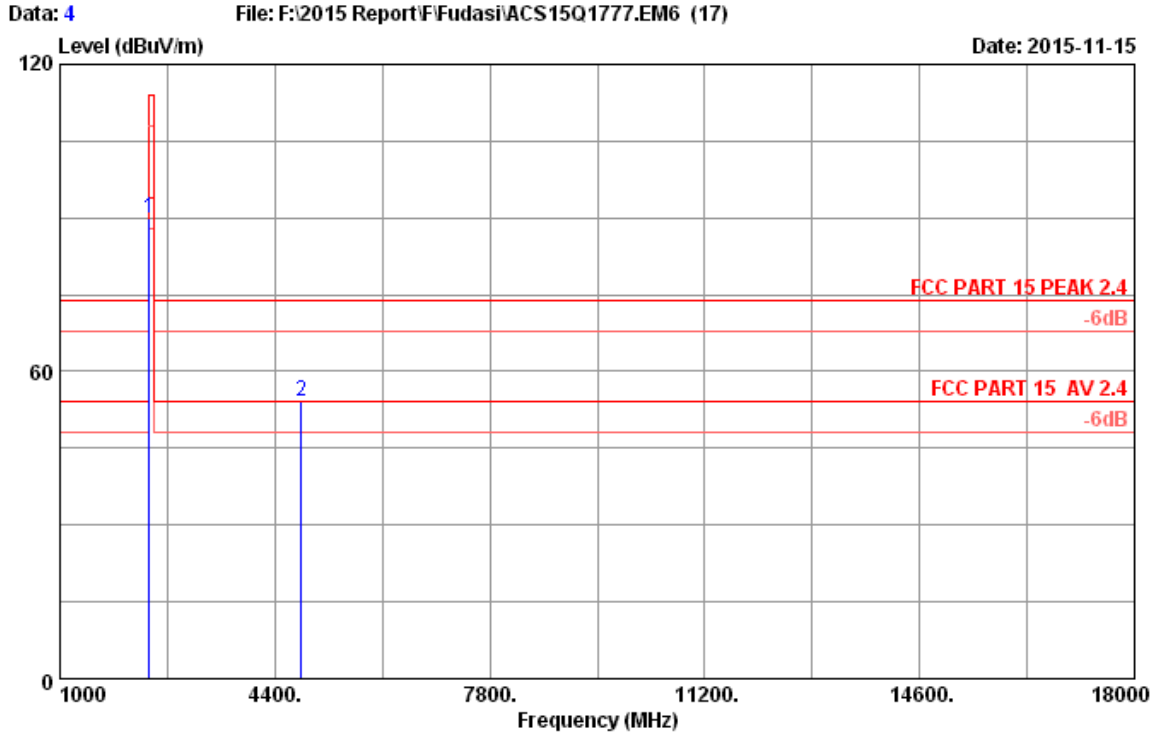
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 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2409MHz Tx  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2409.000	28.02	7.32	36.62	89.47	88.19	114.00	25.81	Peak
2	4818.000	33.71	9.46	35.53	45.27	52.91	74.00	21.09	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 3  
Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 PEAK 2.4  
Env. / Ins. : 22.5°C/51.6%  
Engineer : Leo-Li  
EUT : Wireless Flash Trigger Transmitter  
Power rating : DC 3V  
Test Mode : GFSK 2409MHz Tx  
TGT-A1 (T)

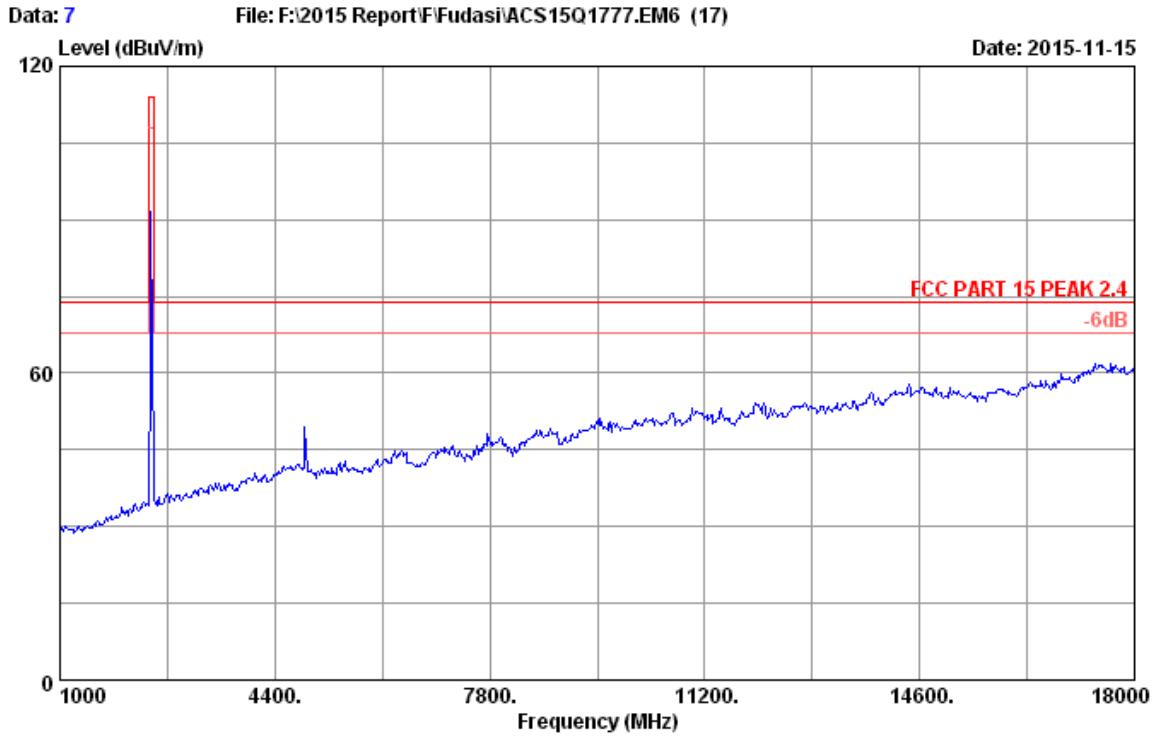


Site no. : 3m Chamber Data no. : 4  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2409MHz Tx  
 TGT-A1(T)

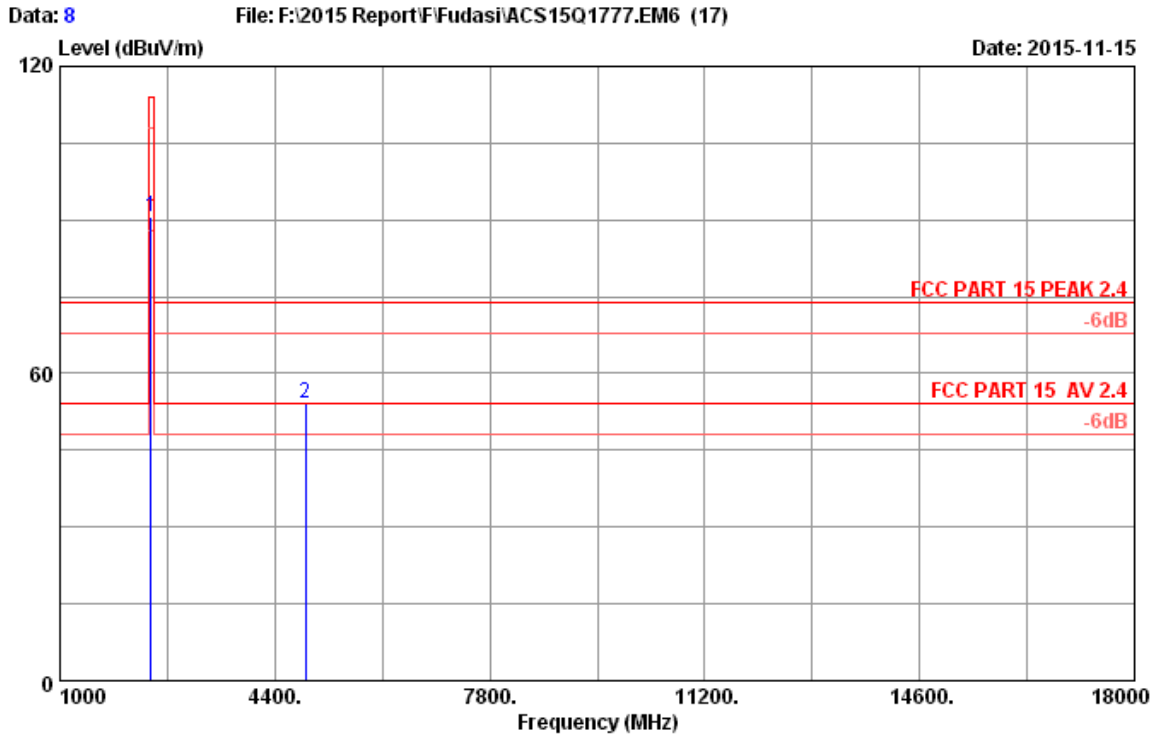
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2409.000	28.02	7.32	36.62	91.32	90.04	114.00	23.96	Peak
2	4818.000	33.71	9.46	35.53	46.58	54.22	74.00	19.78	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
4818	54.22	28.366	25.854	54	Pass



Site no. : 3m Chamber Data no. : 7  
Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
Limit : FCC PART 15 PEAK 2.4  
Env. / Ins. : 22.5°C/51.6%  
Engineer : Leo-Li  
EUT : Wireless Flash Trigger Transmitter  
Power rating : DC 3V  
Test Mode : GFSK 2441MHz Tx  
TGT-A1(T)

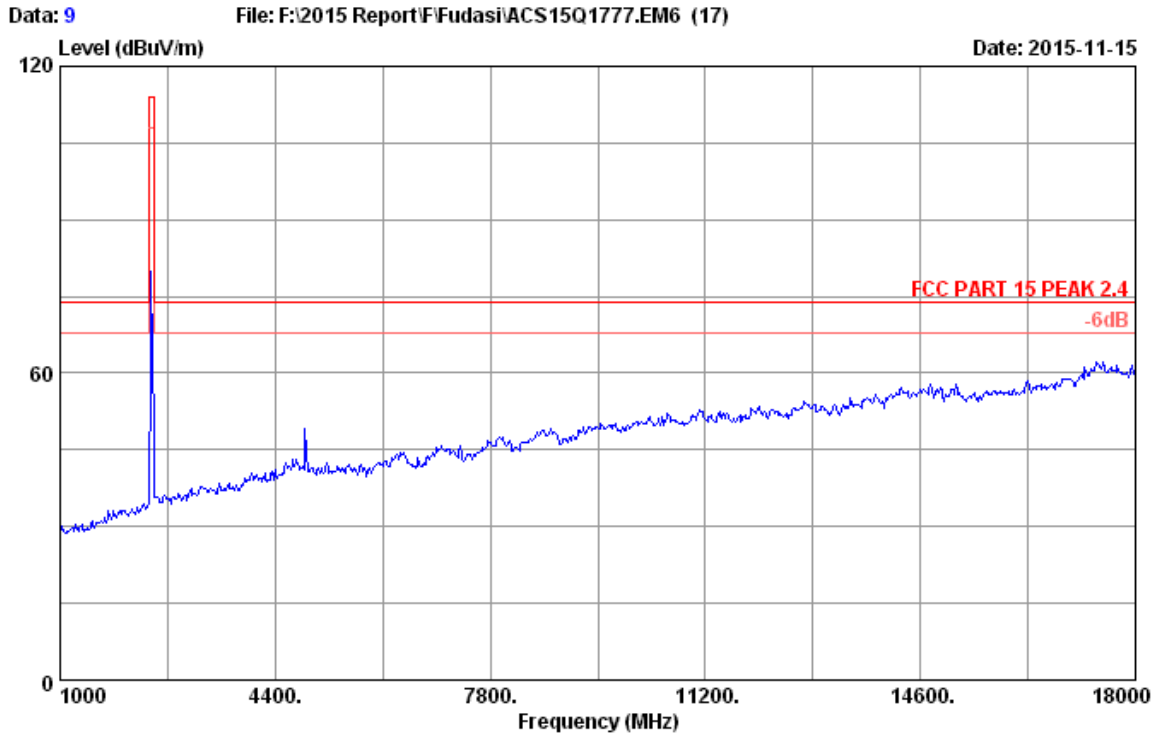


Site no. : 3m Chamber Data no. : 8  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2441MHz Tx  
 TGT-A1(T)

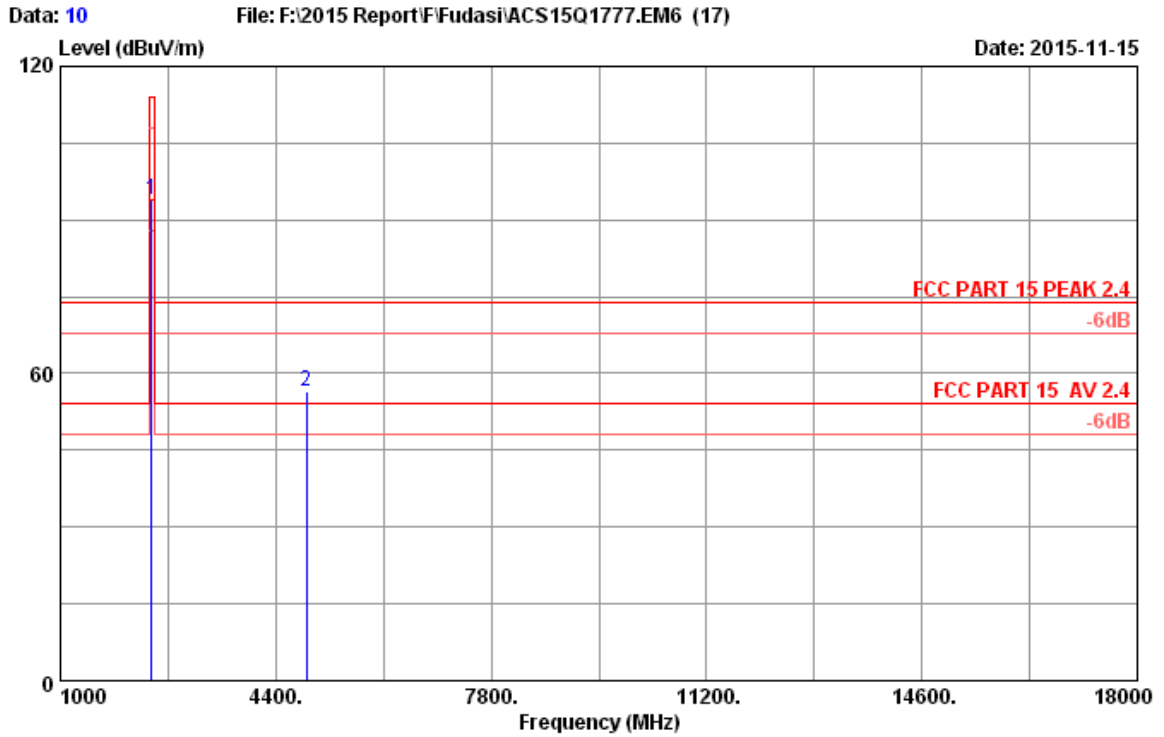
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.08	7.39	36.60	91.58	90.45	114.00	23.55	Peak
2	4882.000	33.81	9.49	35.51	46.36	54.15	74.00	19.85	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
4882	54.15	28.366	25.784	54	Pass



Site no. : 3m Chamber Data no. : 9  
Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 PEAK 2.4  
Env. / Ins. : 22.5°C/51.6%  
Engineer : Leo-Li  
EUT : Wireless Flash Trigger Transmitter  
Power rating : DC 3V  
Test Mode : GFSK 2441MHz Tx  
TGT-A1 (T)



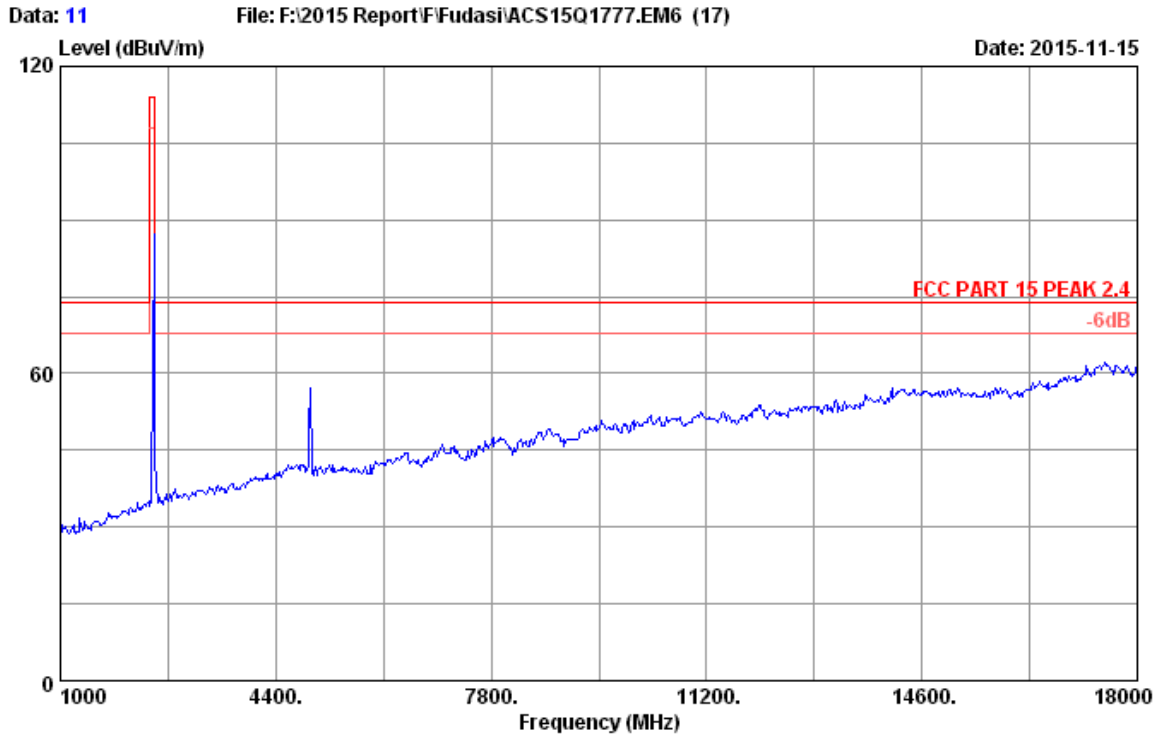
Site no. : 3m Chamber Data no. : 10  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2441MHz Tx  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.08	7.39	36.60	94.93	93.80	114.00	20.20	Peak
2	4882.000	33.81	9.49	35.51	48.73	56.52	74.00	17.48	Peak

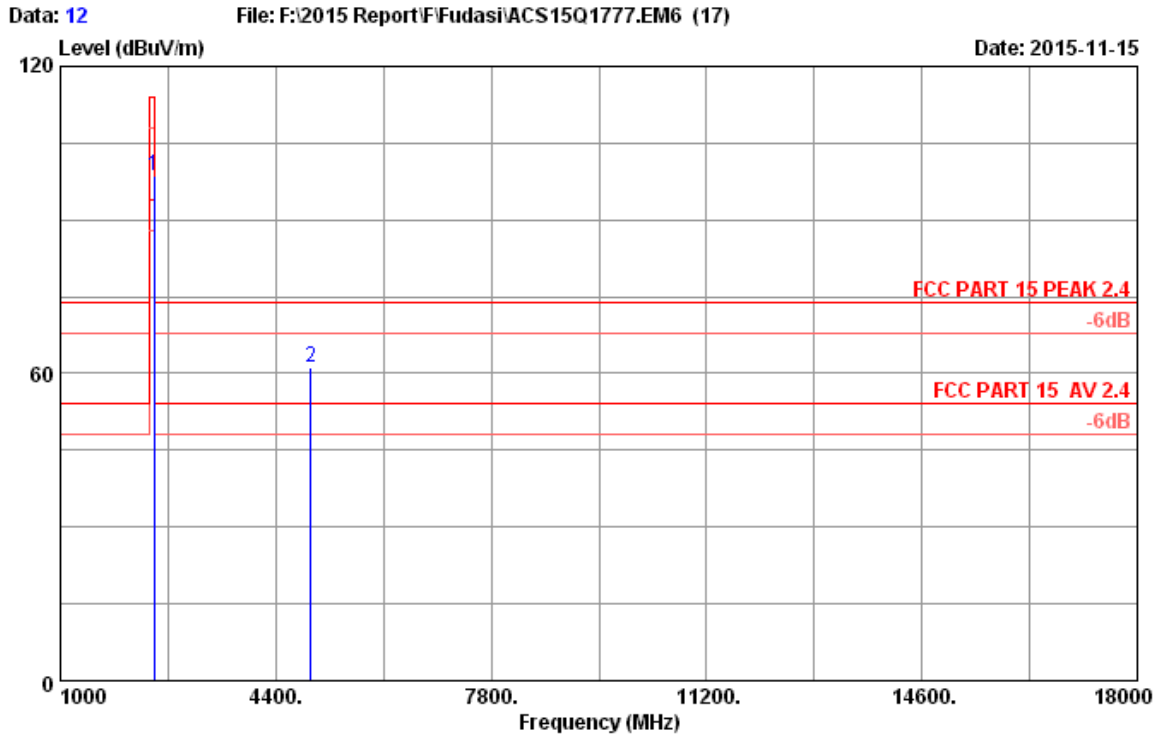
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
4882	56.52	28.366	28.154	54	Pass





Site no. : 3m Chamber Data no. : 11  
Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 PEAK 2.4  
Env. / Ins. : 22.5°C/51.6%  
Engineer : Leo-Li  
EUT : Wireless Flash Trigger Transmitter  
Power rating : DC 3V  
Test Mode : GFSK 2474MHz Tx  
TGT-A1(T)

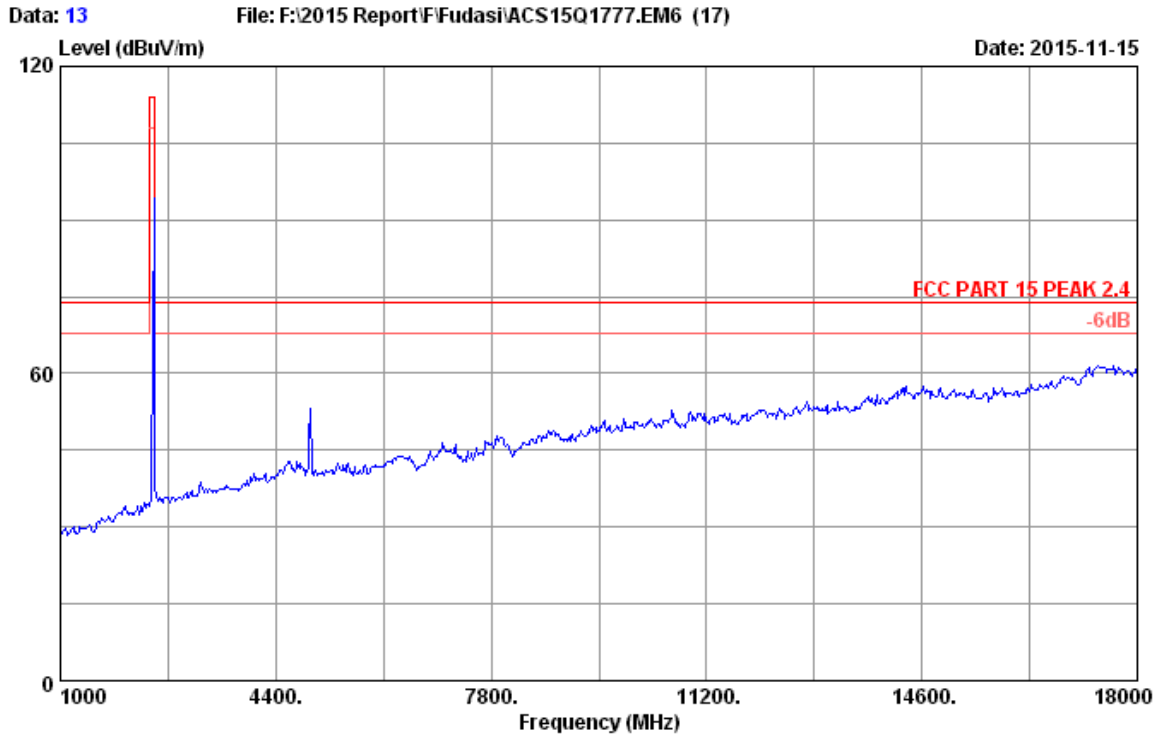


Site no. : 3m Chamber Data no. : 12  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2474MHz Tx  
 TGT-A1(T)

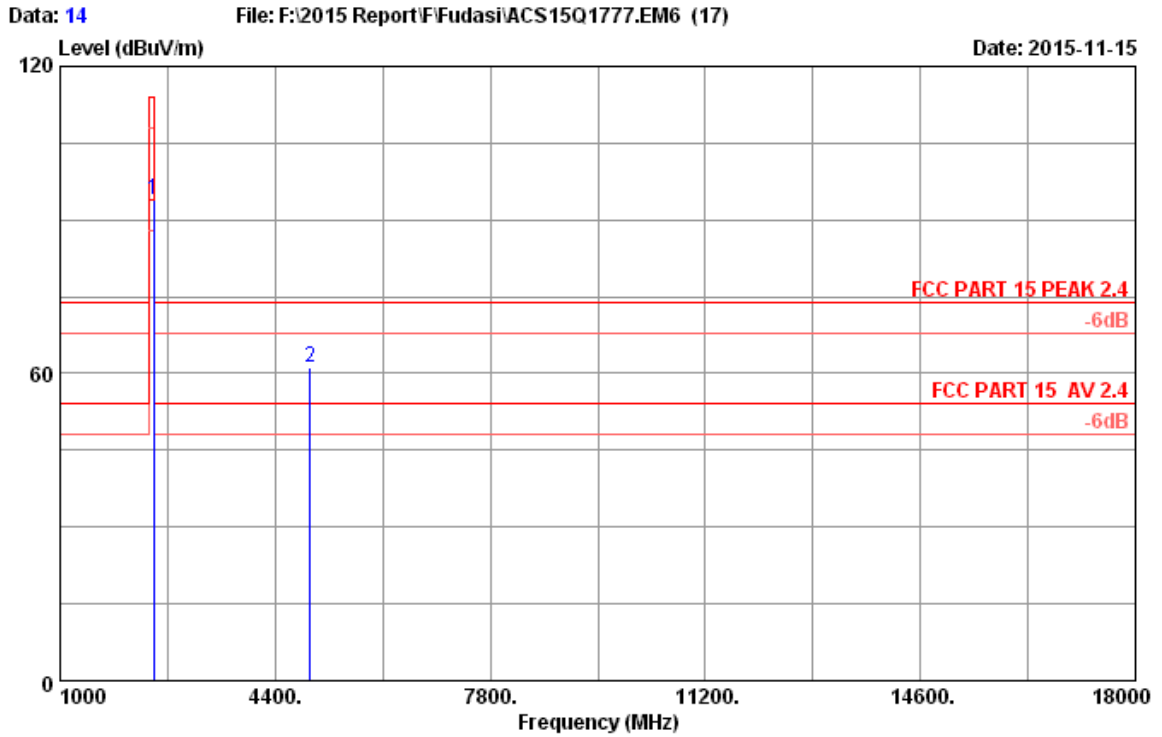
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2474.000	28.15	7.47	36.59	99.67	98.70	114.00	15.30	Peak
2	4948.000	33.92	9.52	35.47	53.32	61.29	74.00	12.71	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
4948	61.29	28.366	32.924	54	Pass



Site no. : 3m Chamber Data no. : 13  
Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
Limit : FCC PART 15 PEAK 2.4  
Env. / Ins. : 22.5°C/51.6%  
Engineer : Leo-Li  
EUT : Wireless Flash Trigger Transmitter  
Power rating : DC 3V  
Test Mode : GFSK 2474MHz Tx  
TGT-A1(T)



Site no. : 3m Chamber Data no. : 14  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2474MHz Tx  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2474.000	28.15	7.47	36.59	94.86	93.89	114.00	20.11	Peak
2	4948.000	33.92	9.52	35.47	53.05	61.02	74.00	12.98	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
4948	61.02	28.366	32.654	54	Pass

## 5. 20 DB BANDWIDTH TEST

### 5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28,15	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,15	1 Year

### 5.2. Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

### 5.3. Test Results

EUT: Wireless Flash Trigger Transmitter		
M/N:TGT-A1(T)		
Test date: 2015-11-13	Pressure: 101.1±1.0 kpa	Humidity: 53.7±3.0%
Tested by: Leo-Li	Test site: RF Site	Temperature : 23.2±0.6

Frequency (MHz)	20dB Bandwidth ( MHz )	Limit (MHz)
2409	1.639	N/A
2441	0.7570	N/A
2474	4.011	N/A
Conclusion : PASS		

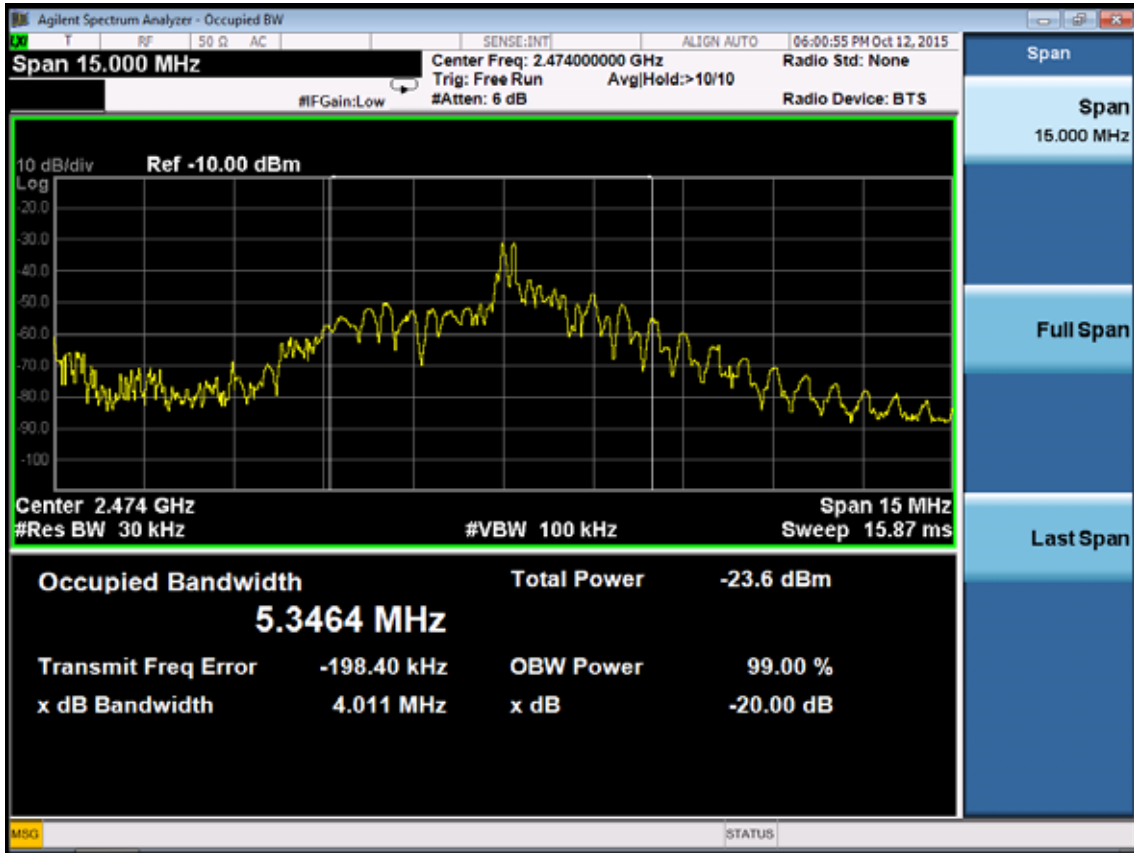
2409MHz



2441MHz



2474MHz



## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Amp	HP	8449B	3008A02495	Apr.28,15	1 Year
3.	Horn Antenna	ETC	MCTD 1209	DRH15F03007	Feb.03,15	1 Year
4.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr.28,15	1 Year

### 6.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

### 6.3. Test Produce

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
  - (a) PEAK: RBW=1MHz ;VBW=3MHz, PK detector, Sweep=AUTO
  - (b)This device is pulse modulated, a duty cycle factor was used to calculate average level based measured peak level

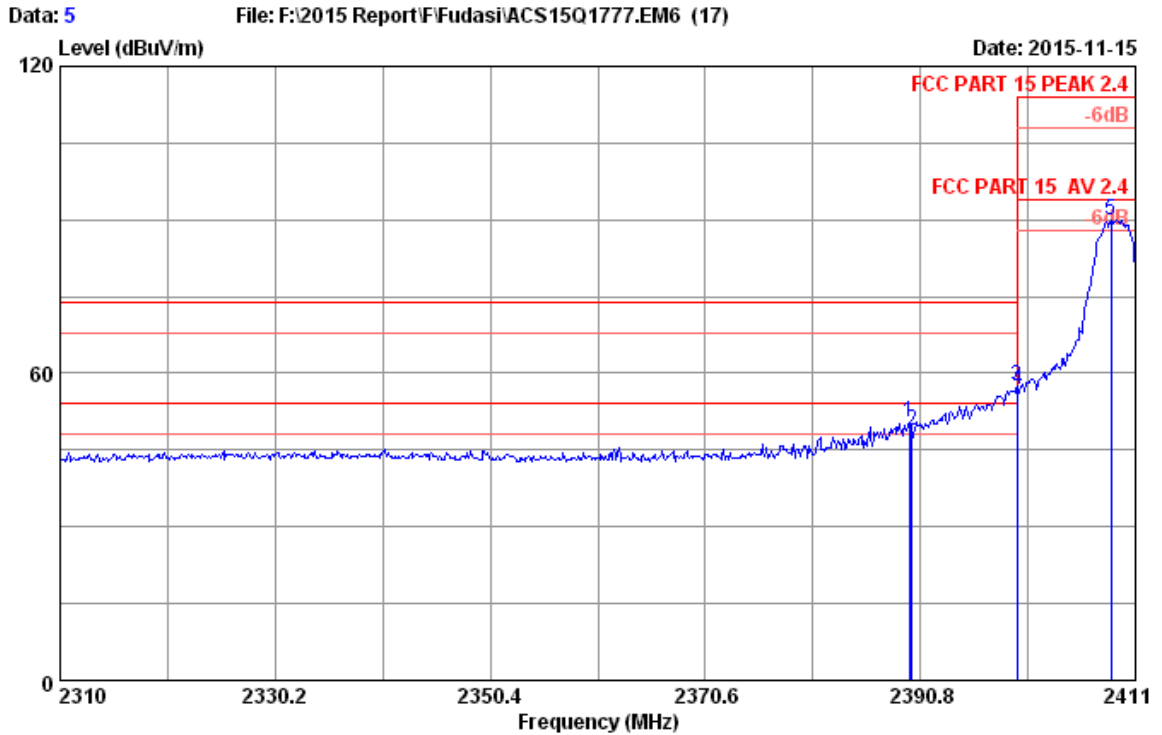
### 6.4. Test Results

Pass (The testing data was attached in the next pages.)

Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

Note: The duty cycle factor for calculate average level is 28.366 dB, and average limit is 20dB below peak limit, so if peak measured level comply with average limit, the average level was deemed to comply with average limit.



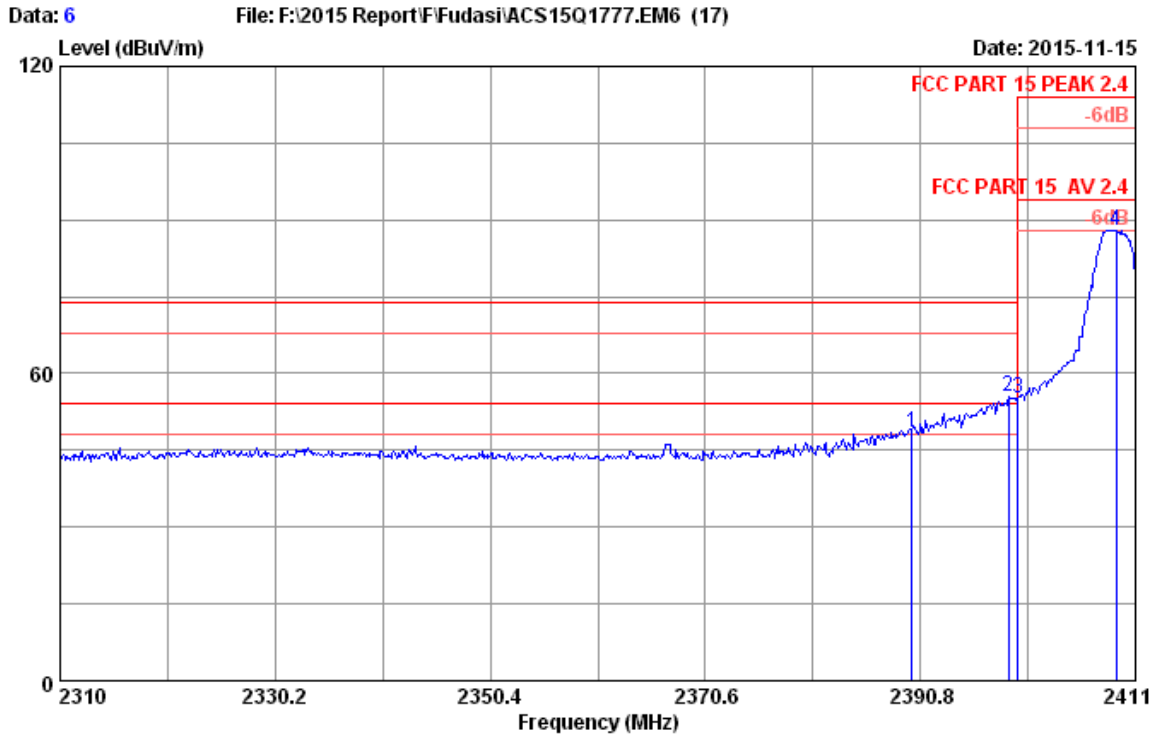


Site no. : 3m Chamber Data no. : 5  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2409MHz Tx  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.790	27.98	7.28	36.62	51.86	50.50	74.00	23.50	Peak
2	2390.000	27.98	7.28	36.62	50.10	48.74	74.00	25.26	Peak
3	2399.890	28.00	7.32	36.62	58.72	57.42	74.00	16.58	Peak
4	2400.000	28.00	7.32	36.62	58.04	56.74	74.00	17.26	Peak
5	2408.677	28.02	7.32	36.62	91.20	89.92	114.00	24.08	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
2399.890	57.42	28.366	29.054	54	Pass
2400.000	56.74	28.366	28.374	54	Pass

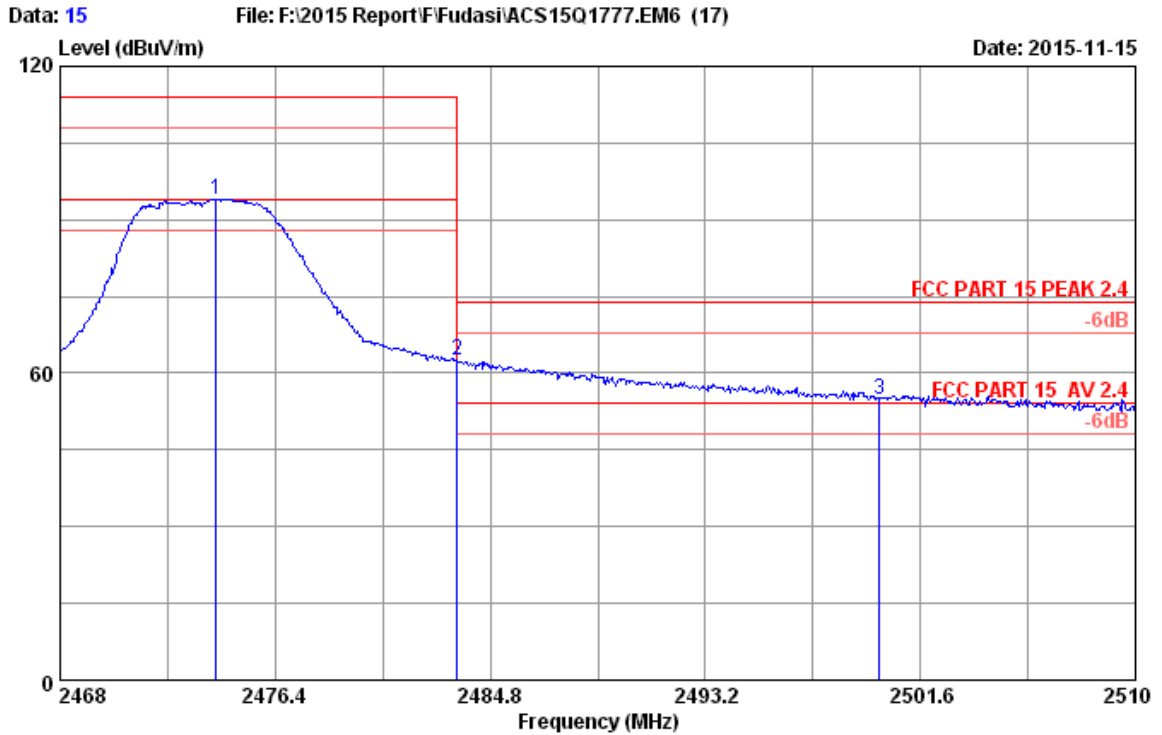


Site no. : 3m Chamber Data no. : 6  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2409MHz Tx  
 TGT-A1(T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.98	7.28	36.62	49.73	48.37	74.00	25.63	Peak
2	2399.082	28.00	7.32	36.62	56.62	55.32	74.00	18.68	Peak
3	2400.000	28.00	7.32	36.62	56.36	55.06	74.00	18.94	Peak
4	2409.182	28.02	7.32	36.62	89.31	88.03	114.00	25.97	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
2399.082	55.32	28.366	26.954	54	Pass
2400.000	55.06	28.366	26.694	54	Pass

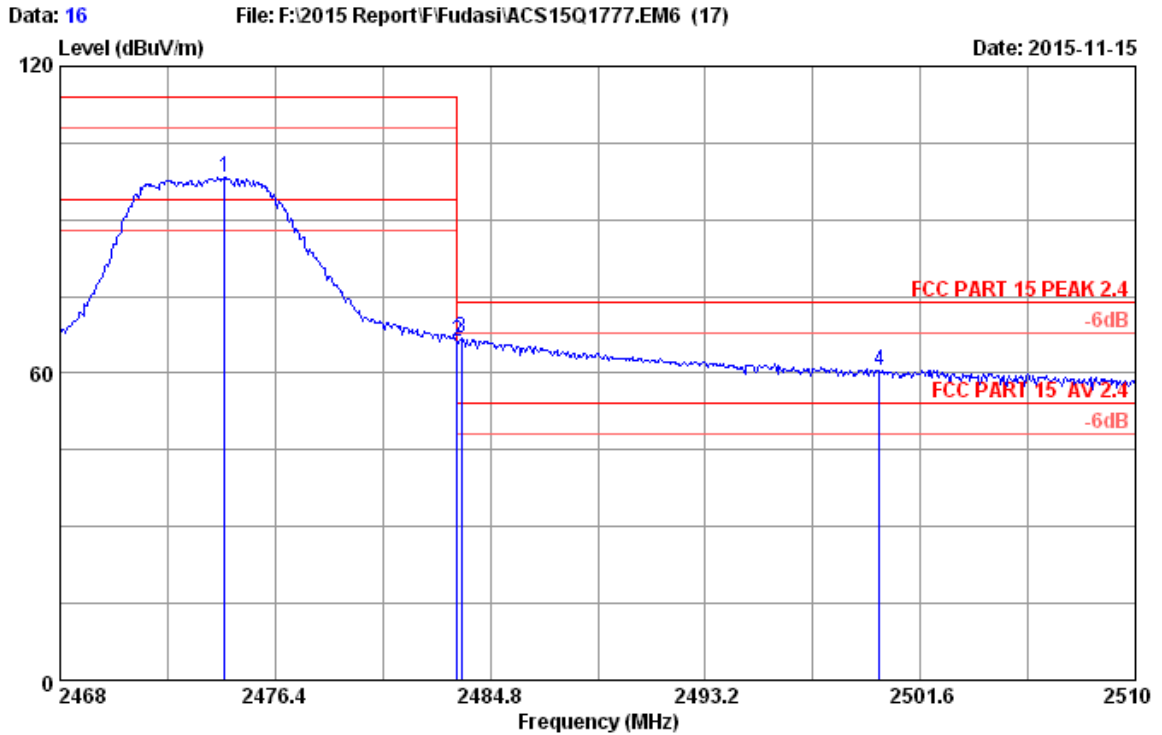


Site no. : 3m Chamber Data no. : 15  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2474MHz Tx  
 TGT-A1 (T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2474.090	28.15	7.47	36.59	94.91	93.94	114.00	20.06	Peak
2	2483.500	28.17	7.51	36.59	63.27	62.36	74.00	11.64	Peak
3	2500.000	28.20	7.51	36.58	55.72	54.85	74.00	19.15	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
2483.500	62.36	28.366	33.994	54	Pass
2500.000	54.85	28.366	26.484	54	Pass



Site no. : 3m Chamber Data no. : 16  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 PEAK 2.4  
 Env. / Ins. : 22.5°C/51.6%  
 Engineer : Leo-Li  
 EUT : Wireless Flash Trigger Transmitter  
 Power rating : DC 3V  
 Test Mode : GFSK 2474MHz Tx  
 TGT-A1 (T)

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2474.426	28.15	7.47	36.59	99.19	98.22	114.00	15.78	Peak
2	2483.500	28.17	7.51	36.59	67.19	66.28	74.00	7.72	Peak
3	2483.666	28.17	7.51	36.59	67.72	66.81	74.00	7.19	Peak
4	2500.000	28.20	7.51	36.58	61.41	60.54	74.00	13.46	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency (MHz)	Peak level (dBuV/m)	Duty cycle factor (dB)	AV level (dBuV/m)	Limit (dBuV/m)	Conclusion
2483.500	66.28	28.366	37.914	54	Pass
2483.666	66.81	28.366	38.444	54	Pass
2500.000	60.54	28.366	32.174	54	Pass

## 7. ANTENNA REQUIREMENT

**RESULT** : **PASS**

Test Date : Oct.12~Nov.15, 2015

Test standard : FCC Part 15.203

Limit : the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has an Internal PCB PIFA Antenna, the directional gain of antenna is 3.1dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply the provision.

## 8. RADIO FRREQUENCY EXPOSURE COMPLIANCE

**RESULT** : **PASS**

Test standard : FCC KDB Publication 447498 D01 v05r02

Since maximum peak output power of the transmitter is  $<10\text{mW}$ , i.e.  $0.009346\text{mW} < 10\text{mW}$ , hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01:General RF Exposure Guidance v05r02.

## 9. DEVIATION TO TEST SPECIFICATIONS

[NONE]