

FCC TEST REPORT
for
Adorama Camera, Inc

TTL Wireless Flash Trigger

Model No.: R2PROIIC, R2PROIIN, R2PROIIS, R2PROIIF, R2PROIIO, R2PROIIP

Prepared for : Adorama Camera, Inc
Address : 42 West 18th Street New York, NY10011, United States

Prepared by : Shenzhen Accurate Technology Co., Ltd.
Address : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

Tel: +86-755-26503290
Fax: +86-755-26503396

Report No. : ATE20181995
Date of Test : Oct. 17, 2018-Oct. 30, 2018
Date of Report : Nov. 08, 2018

TABLE OF CONTENTS

Description	Page
Test Report	
1. TEST RESULTS SUMMARY	4
2. GENERAL INFORMATION.....	5
2.1. Description of Device (EUT)	5
2.2. Test mode description.....	5
2.3. Model difference declaration.....	5
2.4. Special Accessory and Auxiliary Equipment	6
2.5. Description of Test Facility	7
2.6. Measurement Uncertainty	7
3. MEASURING DEVICE AND TEST EQUIPMENT	8
3.1. For Radiated Emission Measurement	8
3.2. The Equipment Used to Measure Conducted Disturbance (L.I.S.N).....	9
4. POWER LINE CONDUCTED MEASUREMENT	10
4.1. Block Diagram of Test Setup	10
4.2. Power Line Conducted Emission Measurement Limits	10
4.3. Configuration of EUT on Measurement.....	10
4.4. Operating Condition of EUT	10
4.5. Test mode description.....	11
4.6. DATA SAMPLE	11
4.7. Measurement Uncertainty	11
4.8. Test Procedure.....	11
4.9. Power Line Conducted Emission Measurement Results	12
5. RADIATED EMISSION MEASUREMENT	15
5.1. Block Diagram of Test Setup	15
5.2. Radiated Emission Limit (Class B).....	17
5.3. Manufacturer	17
5.4. Operating Condition of EUT	17
5.5. DATA SAMPLE	18
5.6. Test Procedure.....	19
5.7. Radiated Emission Noise Measurement Result	19

Test Report

Applicant : Adorama Camera, Inc
Address : 42 West 18th Street New York, NY10011, United States
Manufacturer : Adorama Camera, Inc.
Address : 42 West 18th Street New York, NY10011, United States
Product : TTL Wireless Flash Trigger
Model No. : R2PROIIC, R2PROIIN, R2PROIIS, R2PROIIF, R2PROIIO, R2PROIIP
Trade name : FLASHPOINT

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2014

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : Oct. 17, 2018-Oct. 30, 2018
Date of Report : Nov. 08, 2018

Prepared by : 
(Tim Chen, Engineer)

Approved & Authorized Signer : 
(Sean Liu, Manager)

1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15 Subpart B	Pass
Radiated Emission	FCC Part 15 Subpart B	Pass

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product : TTL Wireless Flash Trigger

FCC ID : 2AOLKR2PROII

Model No. : R2PROIIC, R2PROIIN, R2PROIIS,
R2PROIIF, R2PROIIO, R2PROIIP

Rating : DC 3V via Battery

Trade Name : FLASHPOINT

Remark(s) : The EUT highest operating frequency provided by
Manufacturer is 2.48GHz, the radiated emission
measurement shall be made up to 12.75 GHz.

Applicant : Adorama Camera, Inc
Address : 42 West 18th Street New York, NY10011,
United States

Manufacturer : Adorama Camera, Inc
Address : 42 West 18th Street New York, NY10011,
United States

Date of sample receiver : Oct. 16, 2018

Date of Test : Oct. 17, 2018-Oct. 30, 2018

2.2. Test mode description

Test mode:

1. Transfer data
2. ON(Controlling Camera through EUT)
3. ON(Mobile phone controls EUT through APP, EUT controls flash through
2.4G module.)

2.3. Model difference declaration

R2PROIIC, R2PROIIN, R2PROIIS, R2PROIIF, R2PROIIO, R2PROIIP were identical inside, the electrical circuit design, layout, components used and internal wiring, The only difference is the bottom of the shoe.

2.4.Special Accessory and Auxiliary Equipment

Iphone6S PLUS

Manufacturer: Apple
M/N: ML6D2 CH/A
S/N: C35QJ76JGRWM

PC

Manufacturer: LENOVO
M/N: ThinkPad X240
S/N: N/A

Printer

Manufacturer: HP
M/N: HP laserjet 1015
S/N: CNFG030424

Camera

Manufacturer: Canon
M/N: 30D
S/N: N/A

WITSTRO All-in-One Outdoor Flash

Manufacturer: Godox
M/N: AD400Pro
S/N: N/A

2.5. Description of Test Facility

EMC Lab : Recognition of accreditation by Federal Communications Commission (FCC)
The Designation Number is CN1189
The Registration Number is 708358

Listed by Innovation, Science and Economic Development Canada (ISED)
The Registration Number is 5077A-2

Accredited by China National Accreditation Service for Conformity Assessment (CNAS)
The Registration Number is CNAS L3193

Accredited by American Association for Laboratory Accreditation (A2LA)
The Certificate Number is 4297.01

Name of Firm : Shenzhen Accurate Technology Co., Ltd.
Site Location : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

2.6. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Power Disturbance Expanded Uncertainty = 2.92 dB, k=2

Radiated emission expanded uncertainty (9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty (30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty (Above 1GHz) = 4.06dB, k=2

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Radiated Emission Measurement

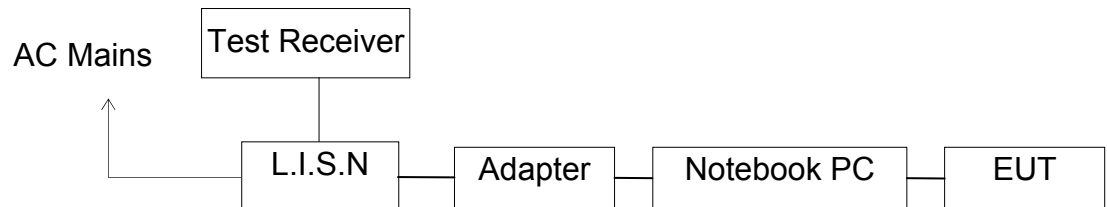
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.06, 2018	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.06, 2018	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.06, 2018	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.06, 2018	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.06, 2018	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	101817	Jan.06, 2018	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.06, 2018	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.06, 2018	1 Year
9.	Log.-Per.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.06, 2018	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.06, 2018	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.06, 2018	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.06, 2018	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.06, 2018	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.06, 2018	1 Year
15.	RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	Jan.06, 2018	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.06, 2018	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.06, 2018	1 Year
18.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.06, 2018	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.06, 2018	1 Year
20.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.06, 2018	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.06, 2018	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.06, 2018	1 Year
23.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.06, 2018	1 Year
24.	RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	Jan.06, 2018	1 Year
25.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.06, 2018	1 Year
26.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.06, 2018	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.06, 2018	1 Year
28.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.06, 2018	1 Year
29.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.06, 2018	1 Year
30.	RF Coaxial Cable	SUHNER	N-2m	No.16	Jan.06, 2018	1 Year
31.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.06, 2018	1 Year

3.2.The Equipment Used to Measure Conducted Disturbance (L.I.S.N)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan.06, 2018	1 Year
2.	Test Receiver	Rohde & Schwarz	ESPI3	100396/003	Jan.06, 2018	1 Year
3.	Test Receiver	Rohde & Schwarz	ESPI3	101526/003	Jan.06, 2018	1 Year
4.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan.06, 2018	1 Year
5.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100305	Jan.06, 2018	1 Year
6.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100310	Jan.06, 2018	1 Year
7.	L.I.S.N.	Rohde & Schwarz	ESH3-Z6	100132	Jan.06, 2018	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100305	Jan.06, 2018	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100312	Jan.06, 2018	1 Year
10.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Jan.06, 2018	1 Year
11.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283936	Jan.06, 2018	1 Year
12.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	Jan.06, 2018	1 Year
13.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.06, 2018	1 Year
14.	VOLTAGE PROBE	Schwarzbeck	TK9416	N/A	Jan.06, 2018	1 Year
15.	RF CURRENT PROBE	Rohde & Schwarz	EZ-17	100048	Jan.06, 2018	1 Year
16.	8-Wire Impedance Stabilisation Network	Schwarzbeck	CAT5 8158	8158-0035	Jan.06, 2018	1 Year
17.	RF Coaxial Cable	SUHNER	N-2m	No.2	Jan.06, 2018	1 Year
18.	RF Coaxial Cable	SUHNER	N-2m	No.3	Jan.06, 2018	1 Year
19.	RF Coaxial Cable	SUHNER	N-2m	No.14	Jan.06, 2018	1 Year

4. POWER LINE CONDUCTED MEASUREMENT

4.1. Block Diagram of Test Setup



(EUT: TTL Wireless Flash Trigger)

4.2. Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

NOTE1: The lower limit shall apply at the transition frequencies.
 NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

4.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 4.1.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in test mode and measure it.

4.5. Test mode description

Test mode: 1. Transfer data

4.6. DATA SAMPLE

Frequency (MHz)	Quasi Peak Level (dB μ V)	Average Level (dB μ V)	Transducer value (dB)	Quasi Peak Result (dB μ V)	Average Result (dB μ V)	Quasi Peak Limit (dB μ V)	Average Limit (dB μ V)	Quasi Peak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XX	29.4	18.3	11.1	40.5	29.4	56.0	56.0	15.5	16.6	Pass

Transducer value = Insertion loss of LISN + Cable Loss

Result = Quasi-peak Level/Average Level + Transducer value

Limit = Limit stated in standard

Calculation Formula:

Margin = Limit – Reading level value – Transducer value

4.7. Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at ATC is +2.23dB.

4.8. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2014 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

4.9.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Maximizing procedure was performed on the six (6) highest emissions of the EUT. Emissions attenuated more than 20 dB below the permissible value are not reported.

Test mode : Transfer data								
Test Voltage: 120V/60Hz								
MEASUREMENT RESULT: "TUV-1021-2_fin"								
10/21/2018	Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
	0.160000	58.10	10.5	66	7.4	QP	L1	GND
	0.215000	52.00	10.5	63	11.0	QP	L1	GND
	4.630000	40.70	11.1	56	15.3	QP	L1	GND
	5.480000	35.00	11.2	60	25.0	QP	L1	GND
MEASUREMENT RESULT: "TUV-1021-2_fin2"								
10/21/2018	Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
	0.165000	42.90	10.5	55	12.3	AV	L1	GND
	0.540000	35.40	10.7	46	10.6	AV	L1	GND
	4.650000	34.20	11.1	46	11.8	AV	L1	GND
	5.370000	29.80	11.2	50	20.2	AV	L1	GND
MEASUREMENT RESULT: "TUV-1021-1_fin"								
10/21/2018	Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
	0.165000	58.10	10.5	65	7.1	QP	N	GND
	0.220000	50.90	10.6	63	11.9	QP	N	GND
	4.640000	41.90	11.1	56	14.1	QP	N	GND
	5.440000	36.00	11.2	60	24.0	QP	N	GND
MEASUREMENT RESULT: "TUV-1021-1_fin2"								
10/21/2018	Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
	0.175000	43.10	10.5	55	11.6	AV	N	GND
	0.235000	33.70	10.6	52	18.6	AV	N	GND
	4.760000	35.40	11.1	46	10.6	AV	N	GND
	5.390000	30.20	11.2	50	19.8	AV	N	GND

The spectral diagrams are attached as below.

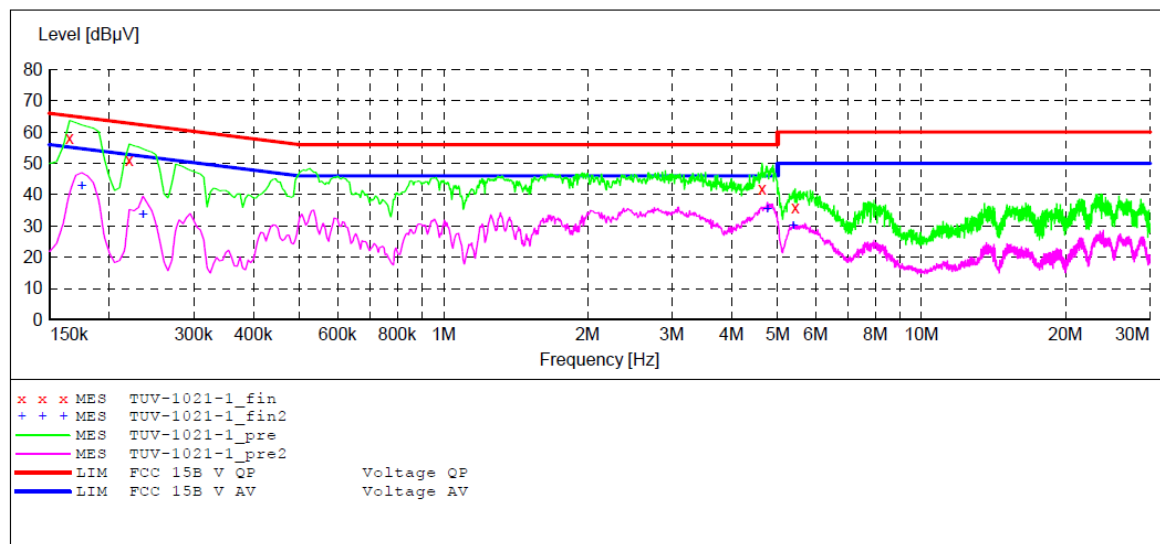
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: TTL Wireless Flash Trigger M/N:R2PROIIC
 Manufacturer: Adorama Camera, Inc
 Operating Condition: Transfer data
 Test Site: 1#Shielding Room
 Operator: WADE
 Test Specification: N 120V/60Hz
 Comment: Mains port
 Start of Test: 10/21/2018 /

SCAN TABLE: "V 9K-30MHz fin"

Short Description: SUB STD VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TUV-1021-1_fin"

10/21/2018

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.165000	58.10	10.5	65	7.1	QP	N	GND
0.220000	50.90	10.6	63	11.9	QP	N	GND
4.640000	41.90	11.1	56	14.1	QP	N	GND
5.440000	36.00	11.2	60	24.0	QP	N	GND

MEASUREMENT RESULT: "TUV-1021-1_fin2"

10/21/2018

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.175000	43.10	10.5	55	11.6	AV	N	GND
0.235000	33.70	10.6	52	18.6	AV	N	GND
4.760000	35.40	11.1	46	10.6	AV	N	GND
5.390000	30.20	11.2	50	19.8	AV	N	GND

ACCURATE TECHNOLOGY CO., LTD

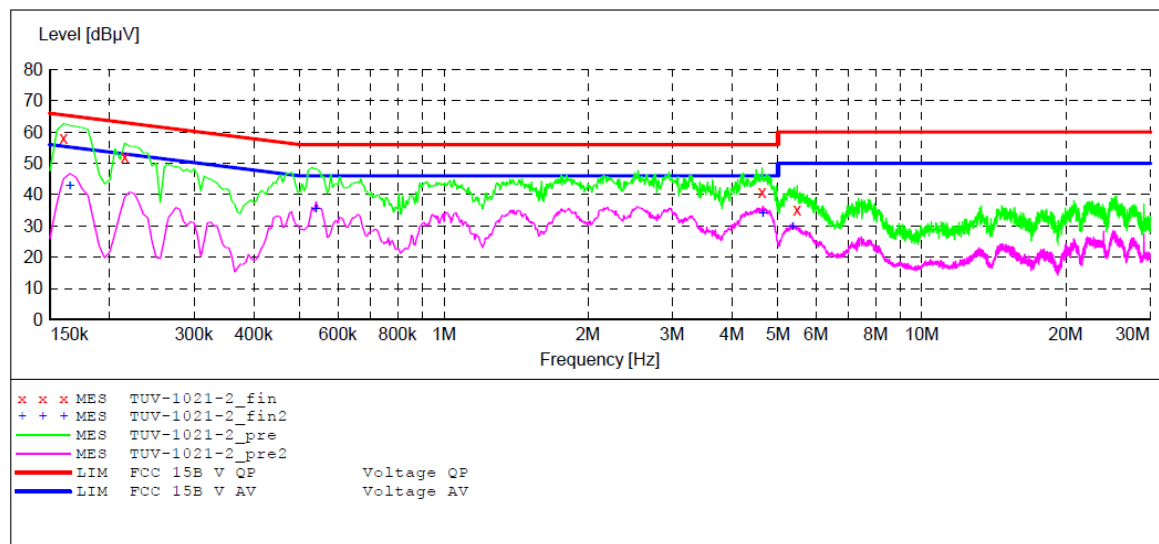
CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: TTL Wireless Flash Trigger M/N:R2PROIIC
 Manufacturer: Adorama Camera, Inc
 Operating Condition: Transfer data
 Test Site: 1#Shielding Room
 Operator: WADE
 Test Specification: L 120V/60Hz
 Comment: Mains port
 Start of Test: 10/21/2018 /

SCAN TABLE: "V 9K-30MHz fin"

Short Description: SUB STD VTERM2 1.70

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency 9.0 kHz	Frequency 150.0 kHz	Width 100.0 Hz	QuasiPeak	1.0 s	200 Hz	NSLK8126 2008
Average						
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	NSLK8126 2008
Average						



MEASUREMENT RESULT: "TUV-1021-2_fin"

10/21/2018

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.160000	58.10	10.5	66	7.4	QP	L1	GND
0.215000	52.00	10.5	63	11.0	QP	L1	GND
4.630000	40.70	11.1	56	15.3	QP	L1	GND
5.480000	35.00	11.2	60	25.0	QP	L1	GND

MEASUREMENT RESULT: "TUV-1021-2_fin2"

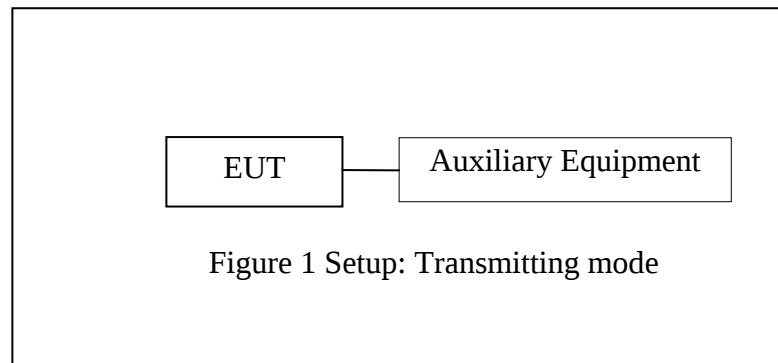
10/21/2018

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.165000	42.90	10.5	55	12.3	AV	L1	GND
0.540000	35.40	10.7	46	10.6	AV	L1	GND
4.650000	34.20	11.1	46	11.8	AV	L1	GND
5.370000	29.80	11.2	50	20.2	AV	L1	GND

5. RADIATED EMISSION MEASUREMENT

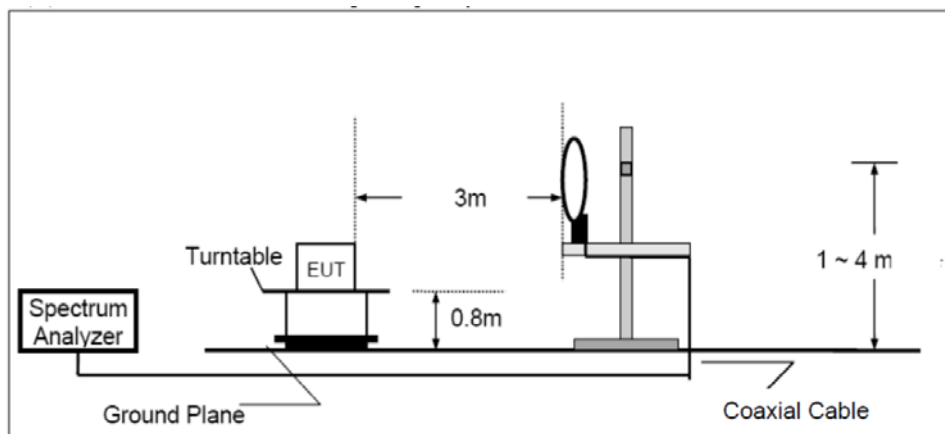
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and peripherals

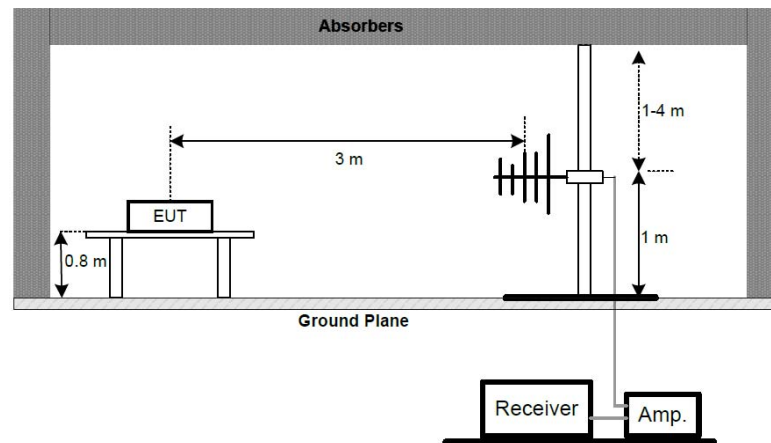


5.1.2. Semi-Anechoic Chamber Test Setup Diagram

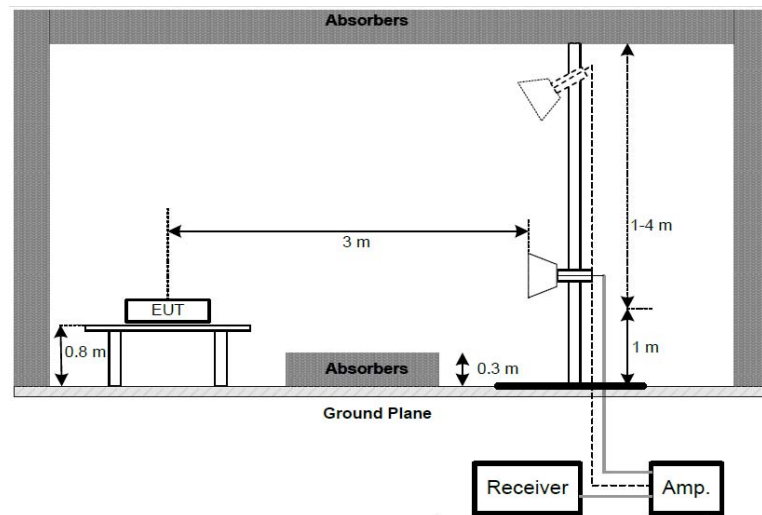
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1GHz



Above 1GHz:



5.2.Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0
Remark: (1) Emission level $\text{dB}(\mu\text{V}) = 20 \log \text{Emission level } \mu\text{V/m}$. (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.			

5.3.Manufacturer

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

5.3.1.TTL Wireless Flash Trigger (EUT)

Model Number: R2PROIIC

Manufacturer: Adorama Camera, Inc.

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3.Let the EUT work in test mode and measure it.

5.5.DATA SAMPLE

Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Remark
X.XX	49.83	-22.03	27.80	43.50	-15.70	QP

Frequency(MHz) = Emission frequency in MHz

Reading(dB μ V) = Uncorrected Analyzer/Receiver reading

Factor (dB/m)= Antenna factor + Cable Loss – Amplifier gain

Result(dB μ V/m) = Reading + Factor

Limit (dB μ V/m)= Limit stated in standard

Margin (dB) = Result(dB μ V/m) - Limit (dB μ V/m)

Calculation Formula:

Margin(dB) = Result (dB μ V/m)–Limit(dB μ V/m)

Result(dB μ V/m)= Reading(dB μ V)+ Factor(dB/m)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

5.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESCS30) is set at 120kHz.

The frequency range from 9kHz to 12750MHz is checked.

Note: The EUT highest operating frequency provided by Manufacturer is 2480MHz, the radiated emission measurement shall be made up to 12.75GHz.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30.
1.705–108	1000.
108–500	2000.
500–1000	5000.
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

5.7. Radiated Emission Noise Measurement Result

PASS.

The frequency range from 9kHz to 12750MHz is investigated.

The radiation emissions from 9kHz-30MHz is not reported, because the test values lower than the limits of 20dB.

The spectral diagrams are attached as below.

30MHz-1GHz



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2018 #2862

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: Transfer data

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Horizontal

Power Source: DC 5V

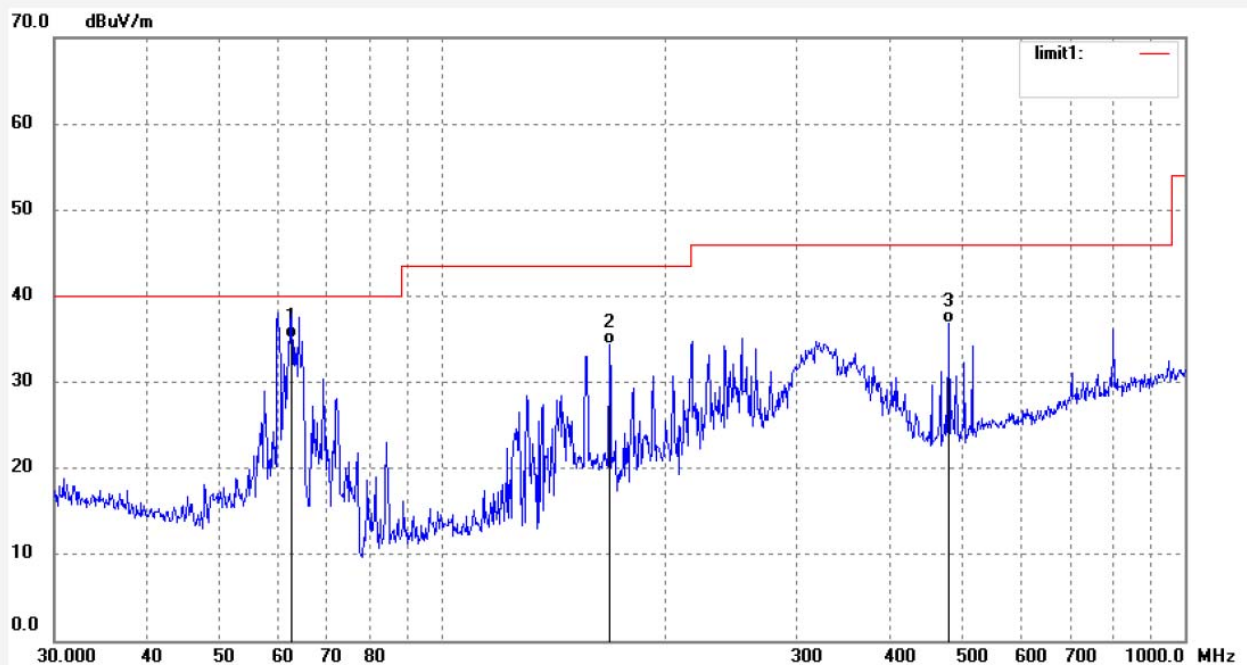
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance: 3m

Note:

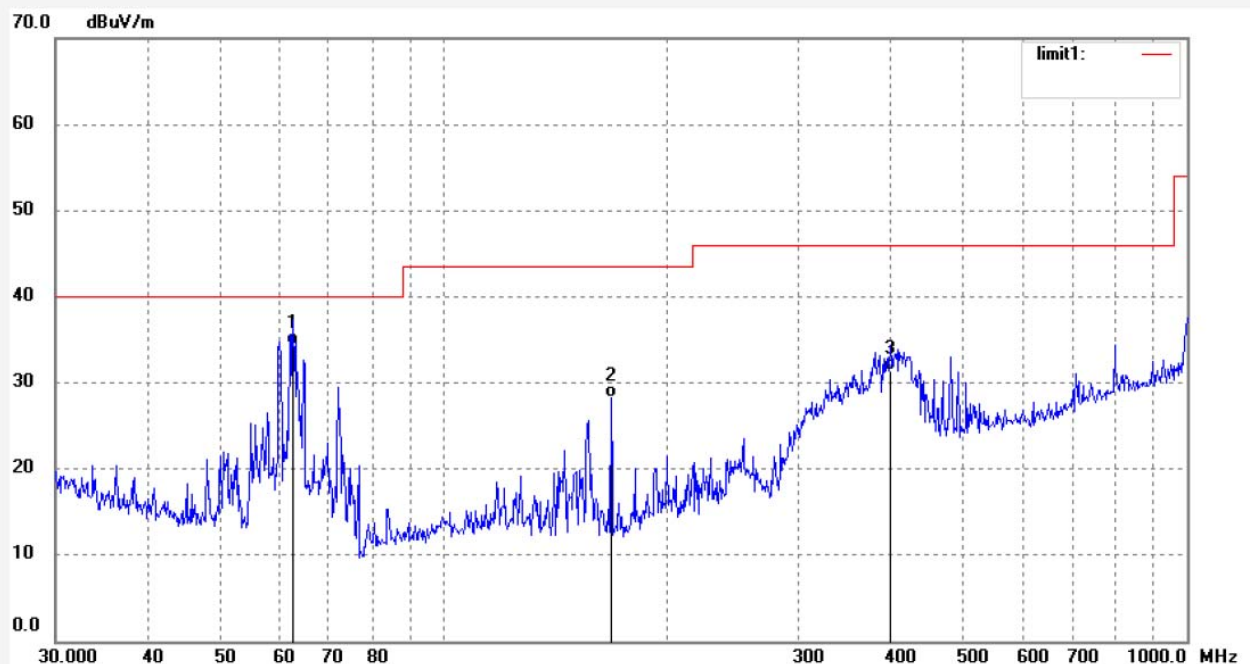


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	62.6507	49.87	-14.86	35.01	40.00	-4.99	QP			
2	167.8241	48.22	-13.88	34.34	43.50	-9.16	QP			
3	480.5276	41.79	-4.88	36.91	46.00	-9.09	QP			

Job No.: LGW2018 #2863
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: TTL Wireless Flash Trigger
Mode: Transfer data
Model: R2PROIIC
Manufacturer: Adorama Camera, Inc

Polarization: Vertical
Power Source: DC 5V
Date: 18/10/21/
Time:
Engineer Signature: WADE
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	62.6507	49.23	-14.86	34.37	40.00	-5.63	QP			
2	167.8242	42.19	-13.88	28.31	43.50	-15.19	QP			
3	399.0300	37.87	-6.48	31.39	46.00	-14.61	QP			

Job No.: LGW2018 #2865

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Controlling Camera through EUT)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Horizontal

Power Source: DC 3V

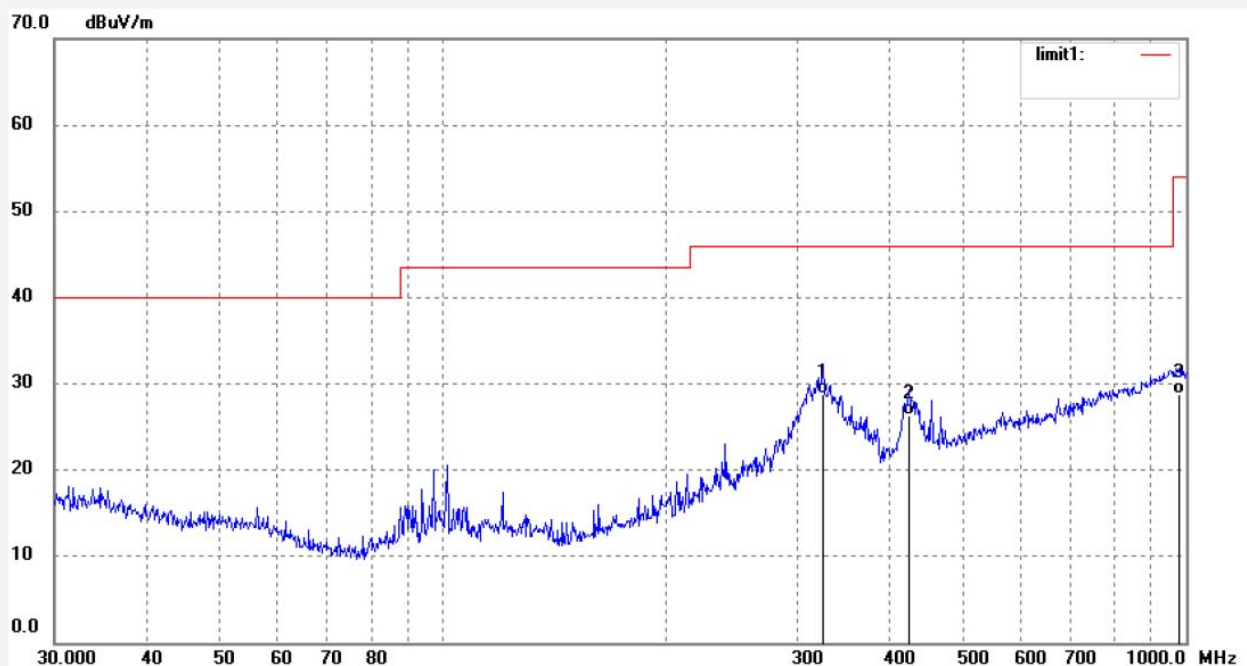
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	324.4560	37.00	-8.26	28.74	46.00	-17.26	QP			
2	423.5403	32.06	-5.75	26.31	46.00	-19.69	QP			
3	979.1803	25.19	3.57	28.76	54.00	-25.24	QP			

Job No.: LGW2018 #2864

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Controlling Camera through EUT)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Vertical

Power Source: DC 3V

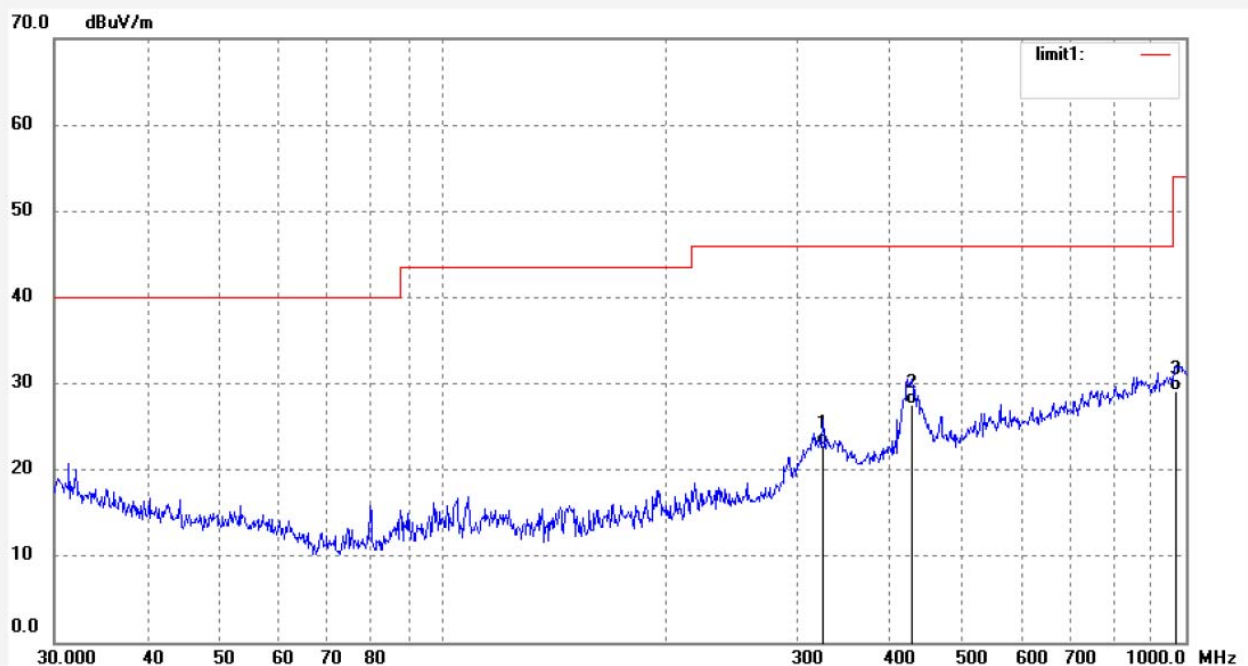
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	324.4560	31.11	-8.26	22.85	46.00	-23.15	QP			
2	428.0192	33.29	-5.68	27.61	46.00	-18.39	QP			
3	968.9338	25.74	3.40	29.14	54.00	-24.86	QP			

Job No.: LGW2018 #2866

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Mobile phone controls EUT through APP, EUT controls flash through 2.4G module)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Horizontal

Power Source: DC 3V

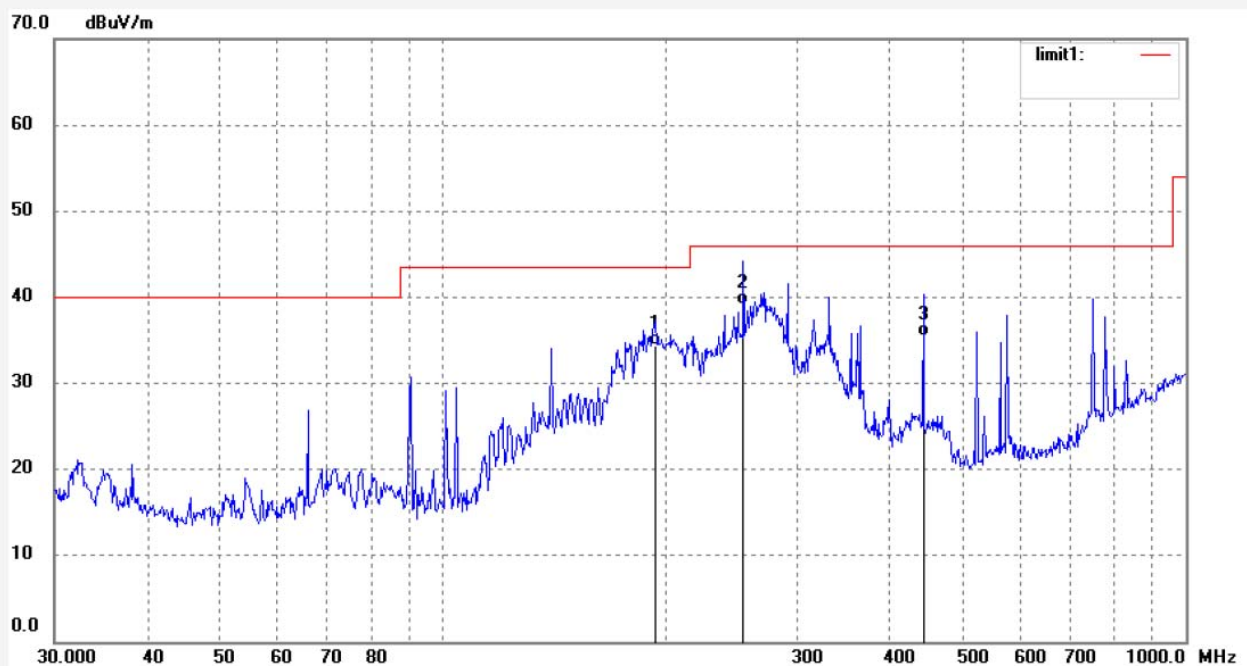
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance:3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	193.0945	46.69	-12.37	34.32	43.50	-9.18	QP			
2	253.8367	49.72	-10.53	39.19	46.00	-6.81	QP			
3	443.2943	40.84	-5.44	35.40	46.00	-10.60	QP			

Job No.: LGW2018 #2867

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Mobile phone controls EUT through APP, EUT controls flash through 2.4G module)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Vertical

Power Source: DC 3V

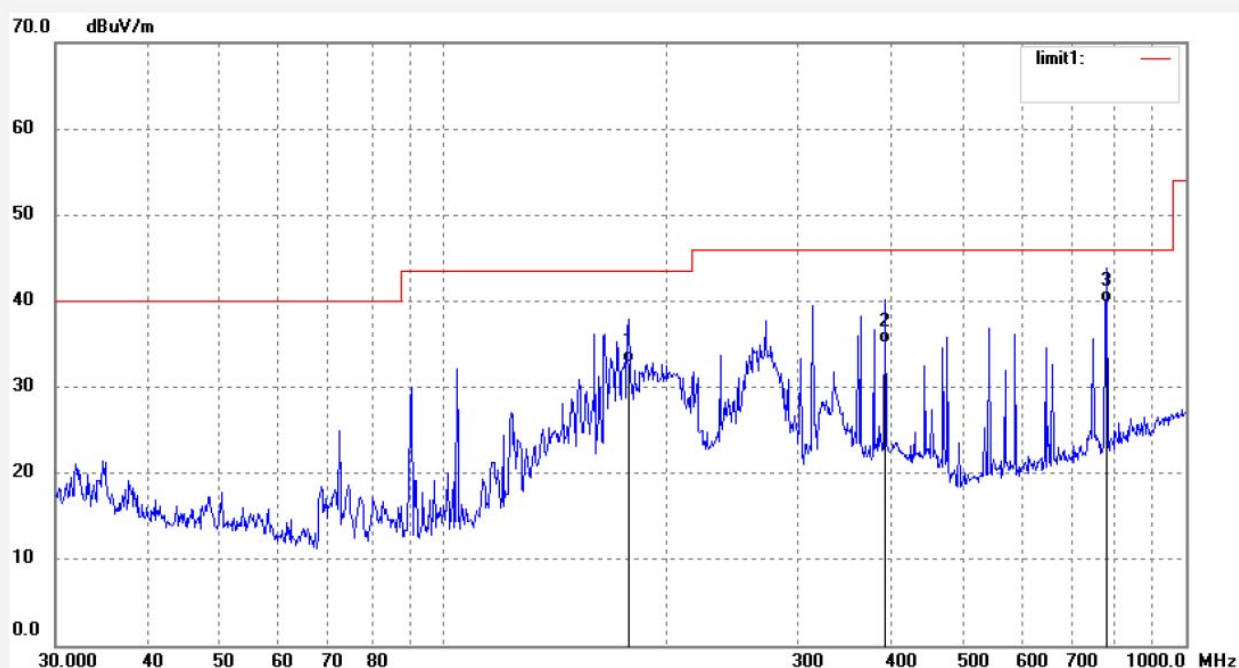
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance:3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	177.5091	46.25	-13.41	32.84	43.50	-10.66	QP			
2	393.4723	41.87	-6.71	35.16	46.00	-10.84	QP			
3	782.3452	39.44	0.41	39.85	46.00	-6.15	QP			

Above 1GHz



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

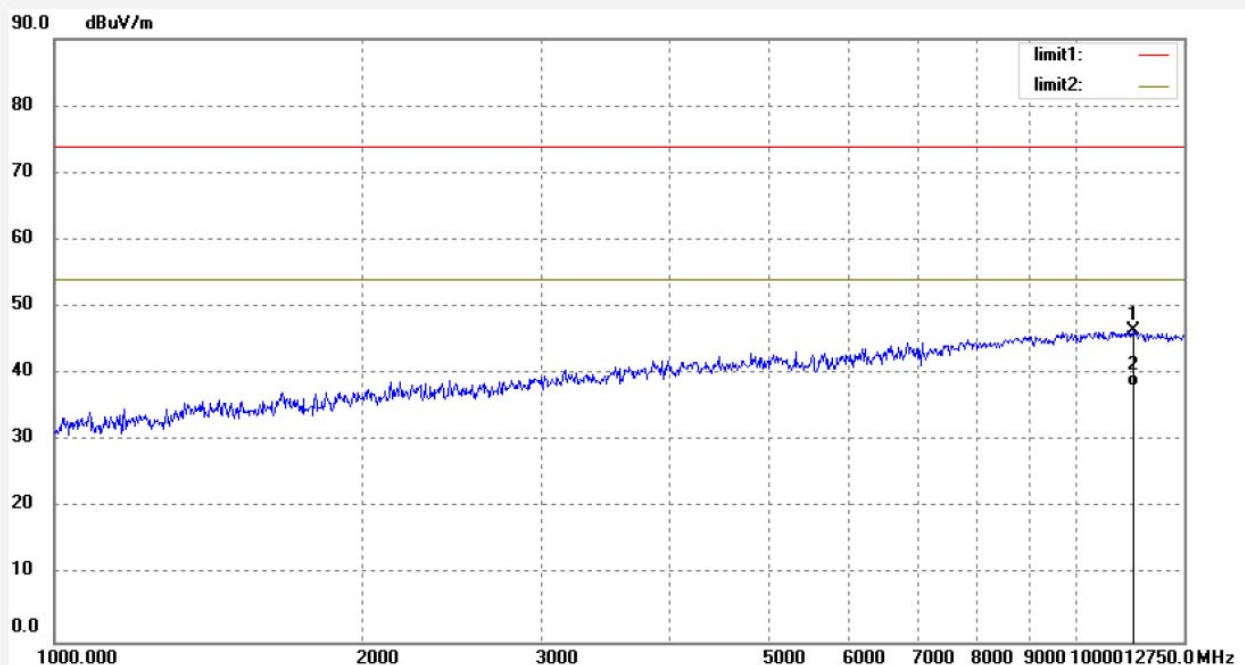
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2018 #2874
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: TTL Wireless Flash Trigger
Mode: Transfer data
Model: R2PROIIC
Manufacturer: Adorama Camera, Inc

Polarization: Horizontal
Power Source: DC 5V
Date: 18/10/21/
Time:
Engineer Signature: WADE
Distance: 3m

Note:

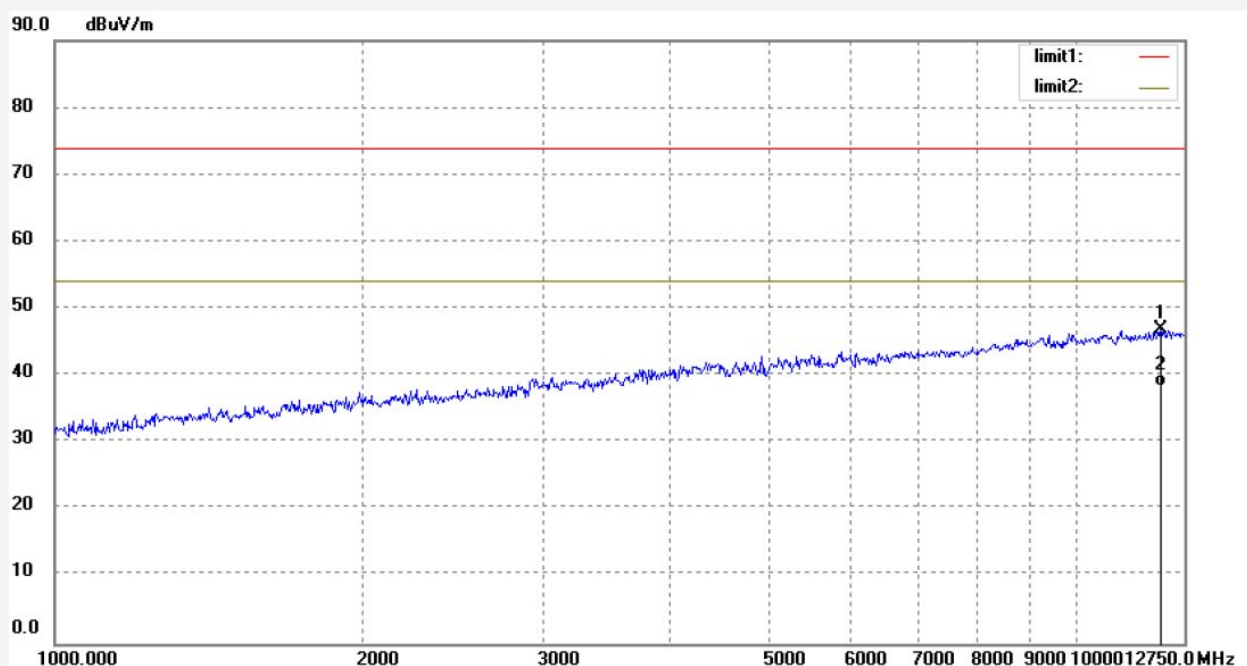


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11370.046	27.01	19.38	46.39	74.00	-27.61	peak			
2	11370.046	18.86	19.38	38.24	54.00	-15.76	AVG			

Job No.: LGW2018 #2875
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: TTL Wireless Flash Trigger
Mode: Transfer data
Model: R2PROIIC
Manufacturer: Adorama Camera, Inc

Polarization: Vertical
Power Source: DC 5V
Date: 18/10/21/
Time:
Engineer Signature: WADE
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12086.331	25.71	21.13	46.84	74.00	-27.16	peak			
2	12086.331	17.21	21.13	38.34	54.00	-15.66	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2018 #2878

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Controlling Camera through EUT)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Horizontal

Power Source: DC 3V

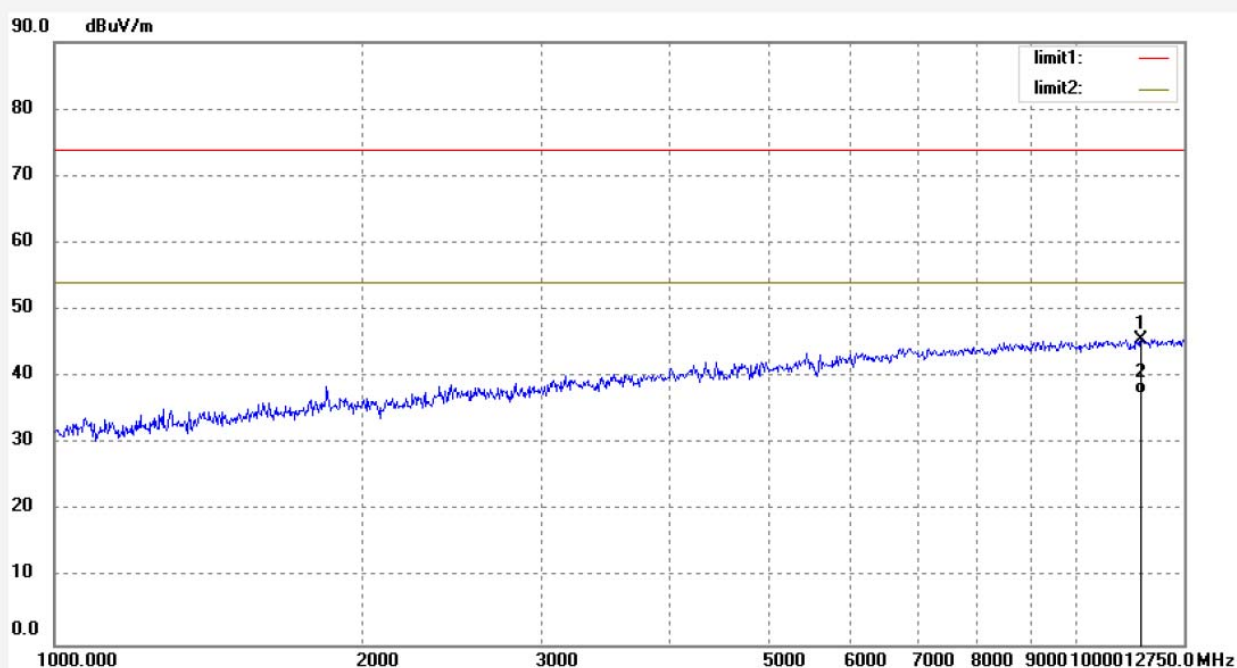
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11574.462	25.28	20.25	45.53	74.00	-28.47	peak			
2	11574.462	17.12	20.25	37.37	54.00	-16.63	AVG			

Job No.: LGW2018 #2879

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Controlling Camera through EUT)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Vertical

Power Source: DC 3V

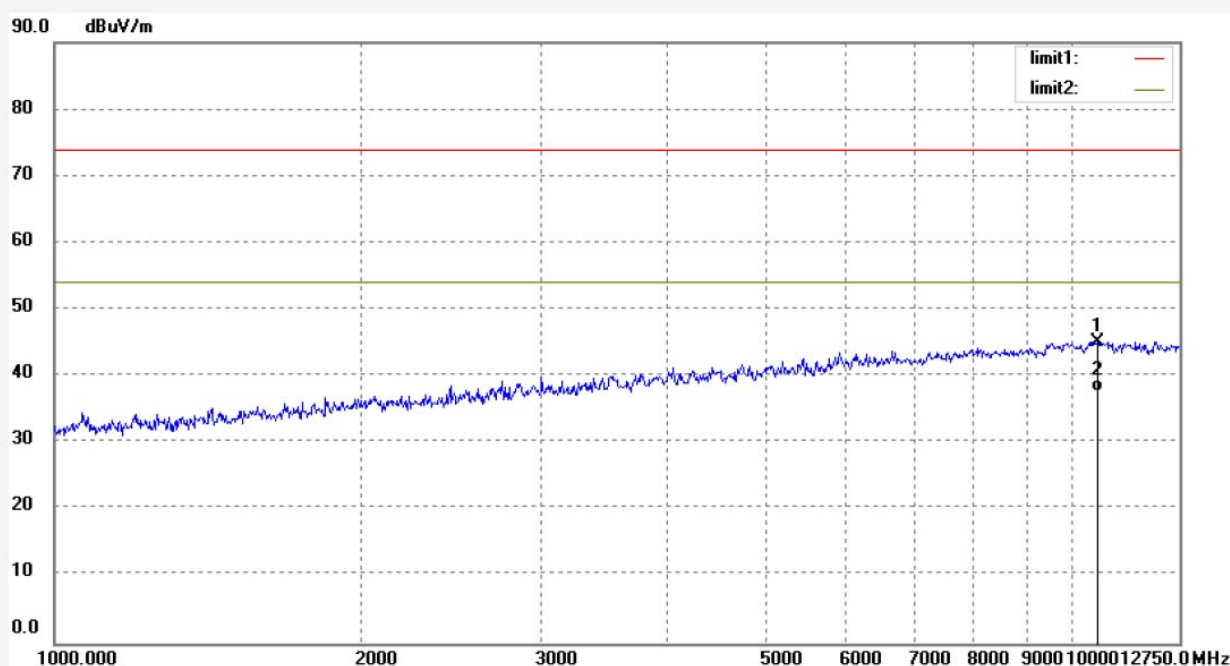
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10587.854	28.89	16.25	45.14	74.00	-28.86	peak			
2	10587.854	21.40	16.25	37.65	54.00	-16.35	AVG			

Job No.: LGW2018 #2877

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Mobile phone controls EUT through APP, EUT controls flash through 2.4G module)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Horizontal

Power Source: DC 3V

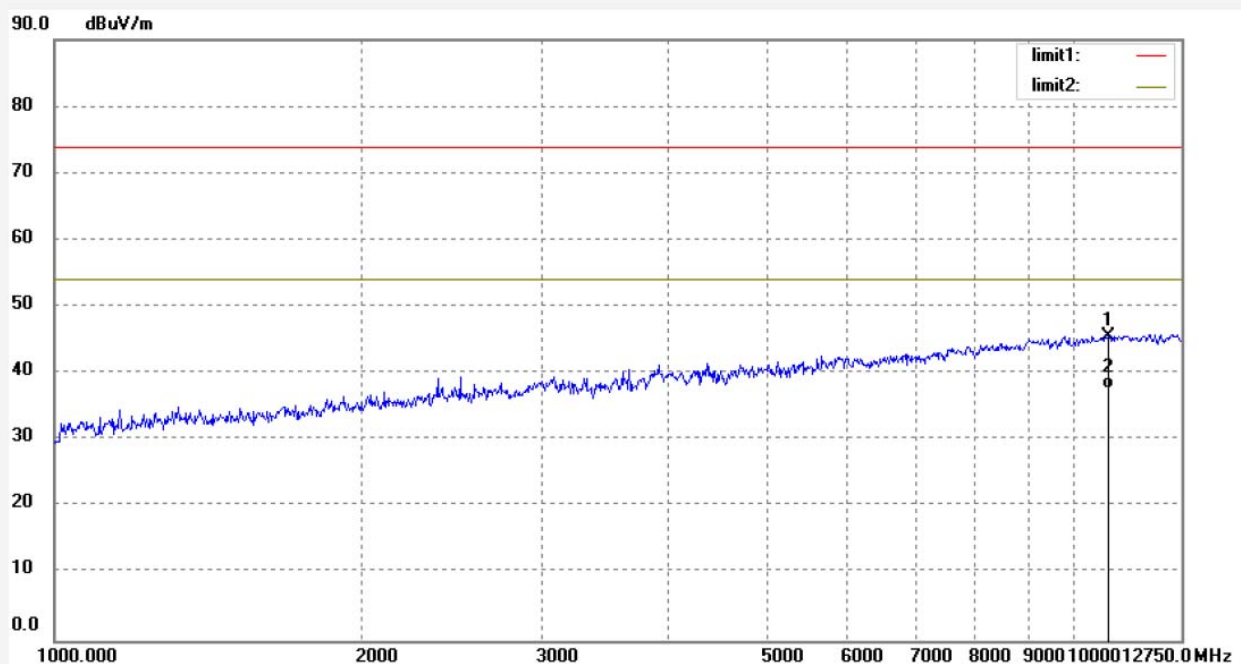
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance:3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10805.678	28.87	16.80	45.67	74.00	-28.33	peak			
2	10805.678	20.85	16.80	37.65	54.00	-16.35	AVG			

Job No.: LGW2018 #2876

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: TTL Wireless Flash Trigger

Mode: ON(Mobile phone controls EUT through APP, EUT controls flash through 2.4G module)

Model: R2PROIIC

Manufacturer: Adorama Camera, Inc

Polarization: Vertical

Power Source: DC 3V

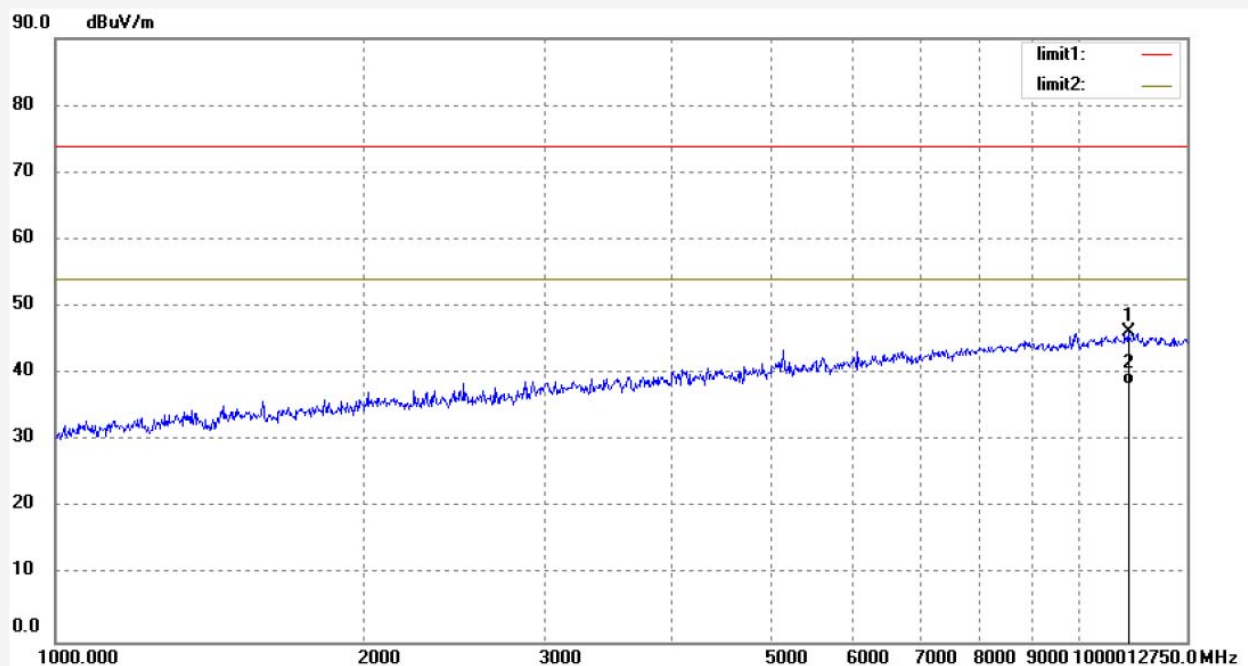
Date: 18/10/21/

Time:

Engineer Signature: WADE

Distance:3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11169.241	28.22	17.96	46.18	74.00	-27.82	peak			
2	11169.241	20.39	17.96	38.35	54.00	-15.65	AVG			