

APPLICATION CERTIFICATION
On Behalf of
Gateway Plastic Hardware & Lighting Co., Ltd.

RGB Rope Light

Model No.: RF-RC2

FCC ID: 2AP9S-AL-RF2

Prepared for : Gateway Plastic Hardware & Lighting Co., Ltd.
Address : Jingfu Road, Xincheng Industrial Area, Hengli Town,
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Report Number : RTZ200804003-00A
Date of Test : Aug. 07-19, 2020
Date of Report : Aug. 19, 2020

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Test Report Certification

Applicant : Gateway Plastic Hardware & Lighting Co., Ltd.
Manufacturer : Gateway Plastic Hardware & Lighting Co., Ltd.
Product : RGB Rope Light
Model No. : RF-RC2
Trade name : N/A

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.231a ANSI C63.10-2013

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 C Section 15.231a. 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 : Aug. 07-19, 2020
Date of Report : Aug. 19, 2020

Prepared by : 
(Black Ding, Engineer)

Approved & Authorized Signer : 
(Martin Lü, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	: RGB Rope Light
Model Number	: RF-RC2
Power Supply	: DC 3V(Powered by battery)
Modulation:	: OOK(amplitude modulation)
antenna gain	: 1dBi
TX Frequency	: 433.77MHz
Type of Antenna	: PCB antenna
Applicant	: Gateway Plastic Hardware & Lighting Co., Ltd.
Address	: Jingfu Road, Xincheng Industrial Area, Hengli Town, Dongguan, Guangdong, China
Manufacturer	: Gateway Plastic Hardware & Lighting Co., Ltd.
Address	: Jingfu Road, Xincheng Industrial Area, Hengli Town, Dongguan, Guangdong, China
Date of sample received	: Aug. 06, 2020
Date of Test	: Aug. 07-19, 2020
Sample No.	: RTZ200804003-00A-S1

1.2. 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

1.3. Measurement Uncertainty

Radiated emission expanded uncertainty (9kHz-30MHz)	: U=2.66dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	: U=4.28dB, k=2
Radiated emission expanded uncertainty (1G-18GHz)	: U=4.98dB, k=2
Radiated emission expanded uncertainty (18G-26.5GHz)	: U=5.06dB, k=2
Conduction Emission Expanded Uncertainty (Mains ports, 9kHz-30MHz)	: U=2.72dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

2.1.For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.04, 2020	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.04, 2020	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.04, 2020	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.04, 2020	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.04, 2020	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	101817	Jan.04, 2020	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.04, 2020	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.04, 2020	1 Year
9.	Log.-Per.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.04, 2020	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.04, 2020	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.04, 2020	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.04, 2020	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.04, 2020	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.04, 2020	1 Year
15.	Pre-Amplifier	Compliance Direction	RSU-M2	38322	Jan.04, 2020	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.04, 2020	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.04, 2020	1 Year
18.	Pre-Amplifier	A.H. System	PAM-0118	135	Jan.04, 2020	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.04, 2020	1 Year
20.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.04, 2020	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.04, 2020	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.04, 2020	1 Year
23.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.04, 2020	1 Year
24.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.04, 2020	1 Year
25.	RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	Jan.04, 2020	1 Year
26.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.04, 2020	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.04, 2020	1 Year
28.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.04, 2020	1 Year
29.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.04, 2020	1 Year
30.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.04, 2020	1 Year
31.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.04, 2020	1 Year
32.	Radiated Emission Test Software: EZ EMC V1.1.4.2					

3. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission	N/A
Section 15.231(b)	Radiated Emission	Compliant
Section 15.231(c)	20dB Bandwidth	Compliant
Section 15.231(a)(1)	Release Time Measurement	Compliant
Section 15.203	Antenna Requirement	Compliant

The product is a manually operated transmitter.

Section 15.231 (a) (2), (3), (4) and (5) are not applicable.

Note: The power supply mode of the EUT is DC 3V, According to the FCC standard requirements, conducted emission is not applicable

All normal using modes of the normal function were tested but only the worst test data of the worst mode is recorded by this report.

4. THE FIELD STRENGTH OF RADIATION EMISSION

4.1. Block Diagram of Test Setup

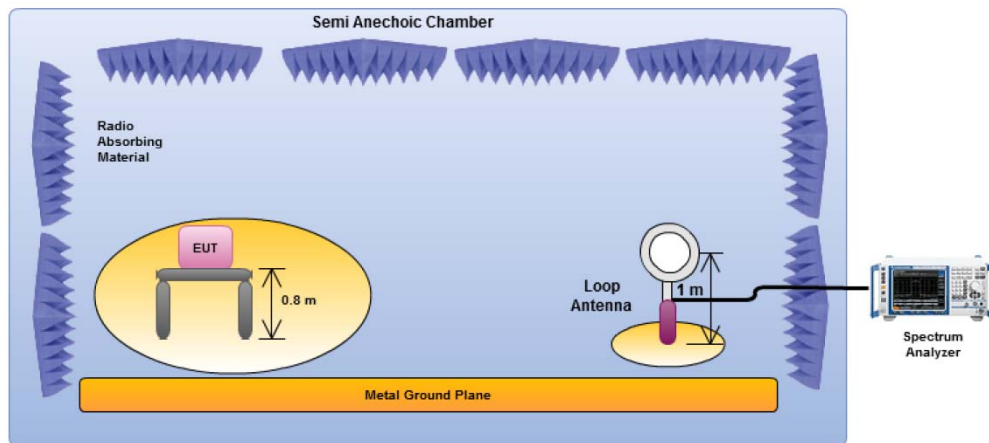
4.1.1. Block diagram of connection between the EUT and simulators



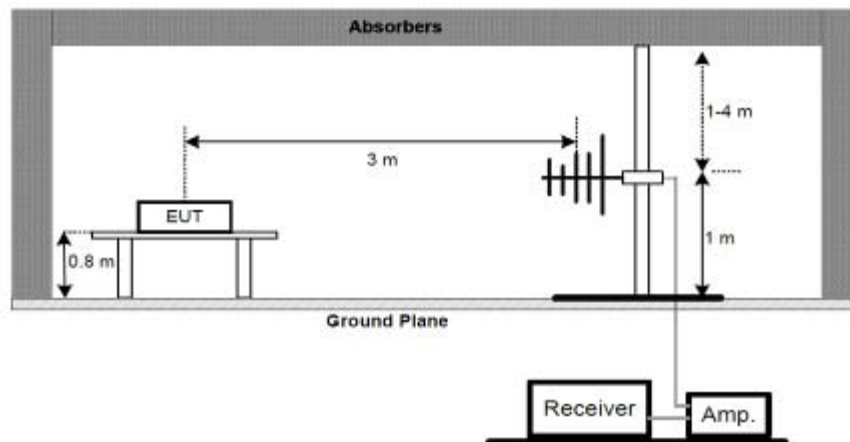
(EUT: RGB Rope Light)

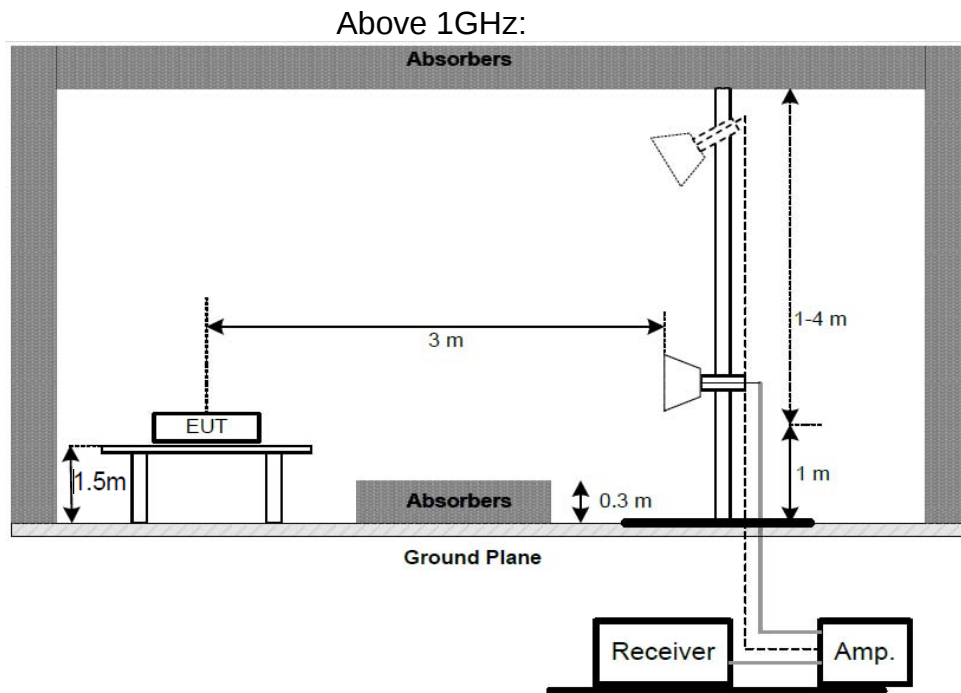
4.1.2. Semi-Anechoic Chamber Test Setup Diagram

Below 30MHz



Below 1GHz:





(EUT: RGB Rope Light)

4.2. The Field Strength of Radiation Emission Measurement Limits

4.2.1. Radiation Emission Measurement Limits According to FCC Part 15 Section 15.231(b)

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [Average] [$\mu\text{V/m}$]	Field Strength of Spurious Emission [Average] [$\mu\text{V/m}$]
40.66-40.70	2250	225
70-130	1250	125
130-174	1250-3750	125-375
174-260	3750	375
260-470	3750-12500	375-1250
Above 470	12500	1250

Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follows: for the band 130-174 MHz, $\mu\text{V/m}$ at 3 meters = $56.81818(F) - 6136.3636$; for the band 260-470 MHz, $\mu\text{V/m}$ at 3 meters = $41.6667(F) - 7083.3333$. The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.

4.2.2. Restricted Band Radiation Emission Measurement Limits According to FCC part 15 Section 15.205 and Section 15.209.

4.3. Configuration of EUT on Measurement

The following equipment is 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.

4.3.1. RGB Rope Light (EUT)

Model Number : RF-RC2
Serial Number : N/A
Manufacturer : Gateway Plastic Hardware & Lighting Co., Ltd.

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 TX mode measure it.

4.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground (Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground (Above 1GHz). 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 bi-log 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 EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 120 kHz in 30-1000 MHz, and 1 MHz in 1000-5000MHz.

The frequency range from 9kHz to 5000 MHz is checked.

4.6.The Field Strength of Radiation Emission Measurement Results

PASS.

The frequency range 30MHz to 5000MHz is investigated.

EUT:	RGB Rope Light			Power Supply:	DC 3V
Model No.:	RF-RC2			Test Engineer:	Black
Test Mode:	TX				

Frequency (MHz)	Reading (dBμV/m)	Factor Corr.	Average Factor	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	PEAK	(dB)	(dB)	AV	PEAK	AV	PEAK	AV	PEAK	
433.7700	84.30	-4.32	-6.2	73.78	79.98	80.82	100.82	7.04	-20.84	Vertical
867.5400	55.21	1.04	-6.2	50.05	56.25	60.82	80.82	10.77	-24.57	
1299.966	65.32	-6.16	-6.2	52.96	59.16	60.82	80.82	7.86	-21.66	
1733.995	57.42	-3.58	-6.2	47.64	53.84	60.82	80.82	13.18	-26.98	
2168.725	54.24	-0.25	-6.2	47.79	53.99	60.82	80.82	13.03	-26.83	
2601.287	58.16	1.44	-6.2	53.40	59.60	60.82	80.82	7.42	-21.22	
3035.913	57.94	1.98	-6.2	53.72	59.92	60.82	80.82	7.10	-20.90	
3469.795	54.59	2.86	-6.2	51.25	57.45	60.82	80.82	9.57	-23.37	
433.7700	88.24	-4.32	-6.2	77.72	83.92	80.82	100.82	3.10	-16.90	Horizontal
867.5400	54.76	1.04	-6.2	49.60	55.80	60.82	80.82	11.22	-25.02	
1299.9660	67.48	-6.16	-6.2	55.12	61.32	60.82	80.82	5.70	-19.50	
1733.9950	54.56	-3.58	-6.2	44.78	50.98	60.82	80.82	16.04	-29.84	
2168.7250	54.81	-0.25	-6.2	48.36	54.56	60.82	80.82	12.46	-26.26	
2601.2870	59.04	1.44	-6.2	54.28	60.48	60.82	80.82	6.54	-20.38	
3035.9130	56.12	1.98	-6.2	51.90	58.10	60.82	80.82	8.92	-22.72	
3469.7950	50.37	2.86	-6.2	47.03	53.23	60.82	80.82	13.79	-27.59	

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

3. FCC Limit for Average Measurement = $41.6667(433.77) - 7083.3333 = 10990.4312 \mu\text{V/m} = 80.82 \text{ dB}\mu\text{V/m}$
4. The spectral diagrams in appendix I display the measurement of peak values.
5. Average value = PK value + Average Factor (duty factor)
6. If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.
7. The EUT is tested radiation emission in three axes(X,Y,Z). The worst emissions are reported in three axes.

8. Pulse Desensitization Correction Factor

Pulse Width (PW) = 0.46ms

$2/PW = 2/0.46\text{ms} = 4.35\text{kHz}$

RBW (100 kHz) > 2/PW (4.35kHz)

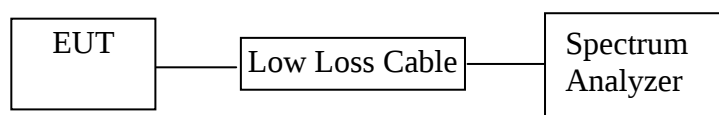
Therefore PDCF is not needed

9. 9 kHz~30 MHz Field Strength of Unwanted Emissions. Peak or Quasi-Peak measurement.

The measurements with active loop antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.

5. 20DB OCCUPIED BANDWIDTH

5.1. Block Diagram of Test Setup



(EUT: RGB Rope Light)

5.2. The Bandwidth of Emission Limit According To FCC Part 15 Section

15.231(c)

The bandwidth of emission shall be no wider than 0.25% of the center frequency. Therefore, the bandwidth of the emission limit is $433.77 \text{ MHz} \times 0.25\% = 1084.4 \text{ kHz}$. Bandwidth is determined at the two points 20 dB down from the top of modulated carrier.

5.3. EUT Configuration on Measurement

The following equipment are installed on the bandwidth of 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. RGB Rope Light (EUT)

Model Number	:	RF-RC2
Serial Number	:	N/A
Manufacturer	:	Gateway Plastic Hardware & Lighting Co., Ltd.

5.4. Operating Condition of EUT

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

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX mode measure it.

5.5. Test Procedure

5.5.1. Set SPA Center Frequency = Fundamental frequency, RBW = 10 kHz, VBW = 30 kHz, Span = 200kHz.

5.5.2. Set SPA Max hold, Mark peak, -20 dB.

5.6. Measurement Result

The EUT does meet the FCC requirement.

-20 dB bandwidth = 50 kHz < 1084.4 kHz.

The spectral diagrams in appendix I.

6. RELEASE TIME MEASUREMENT

6.1. Block Diagram of Test Setup



(EUT: RGB Rope Light)

6.2. Release Time Measurement According To FCC Part 15 Section 15.231(a)

Section 15.231(a) (1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

6.3. EUT Configuration on Measurement

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

6.3.1. RGB Rope Light (EUT)

Model Number : RF-RC2
Serial Number : N/A
Manufacturer : Gateway Plastic Hardware & Lighting Co., Ltd.

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown at Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX mode measure it.

6.5. Test Procedure

6.5.1. Set SPA Center Frequency = Fundamental frequency, RBW = 100 kHz, VBW = 300 kHz, Span = 0 Hz. Sweep time = 5s.

6.5.2. Set EUT as normal operation and press Transmitter button.

6.5.3. Set SPA View. Delta Mark time.

6.6. Measurement Result

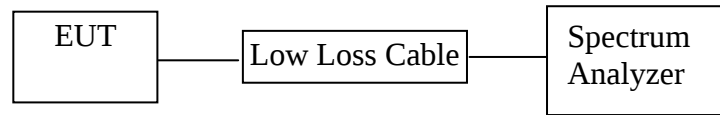
The release time less than 5 seconds.

Release Time = 2.15s

The spectral diagrams in appendix I.

7. AVERAGE FACTOR MEASUREMENT

7.1. Block Diagram of Test Setup



(EUT: RGB Rope Light)

7.2. Average factor Measurement according to ANSI C63.10-2013

ANSI C63.10-2013 Section 7.5 Unless otherwise specified, when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 s (100 ms). In cases where the pulse train exceeds 0.1 s, the measured field strength shall be determined during a 0.1 s interval.⁶⁴ The following procedure is an example of how the average value may be determined. The average field strength may be found by measuring the peak pulse amplitude (in log equivalent units) and determining the duty cycle correction factor (in dB) associated with the pulse modulation as shown in Equation (10):

Average factor in dB = 20 log (duty cycle)

7.3. EUT Configuration on Measurement

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

7.3.1. RGB Rope Light (EUT)

Model Number	: RF-RC2
Serial Number	: N/A
Manufacturer	: Gateway Plastic Hardware & Lighting Co., Ltd.

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX mode measure it.

7.5. Test Procedure

7.5.1. The time period over which the duty cycle is measured is 100 milliseconds, or the repetition cycle, whichever is a shorter time frame. The worst case (highest percentage on) duty cycle is used for the calculation.

7.5.2. Set SPA Center Frequency = Fundamental frequency, RBW = 100 kHz, VBW = 300 kHz, Span = 0 Hz.

7.5.3. Set EUT as normal operation.

7.5.4. Set SPA View. Delta Mark time.

7.6. Measurement Result

The duty cycle is simply the on time divided by the period:

Effective period of one cycle = $(17 \times 1.34) + (8 \times 0.46)$ ms = 26.46 ms

one cycle = 54ms

DC = $26.46 \text{ ms} / 54 \text{ ms} = 0.49$

Therefore, the average factor is found by $20 \log 0.49 = -6.2 \text{ dB}$

The spectral diagrams in appendix I.

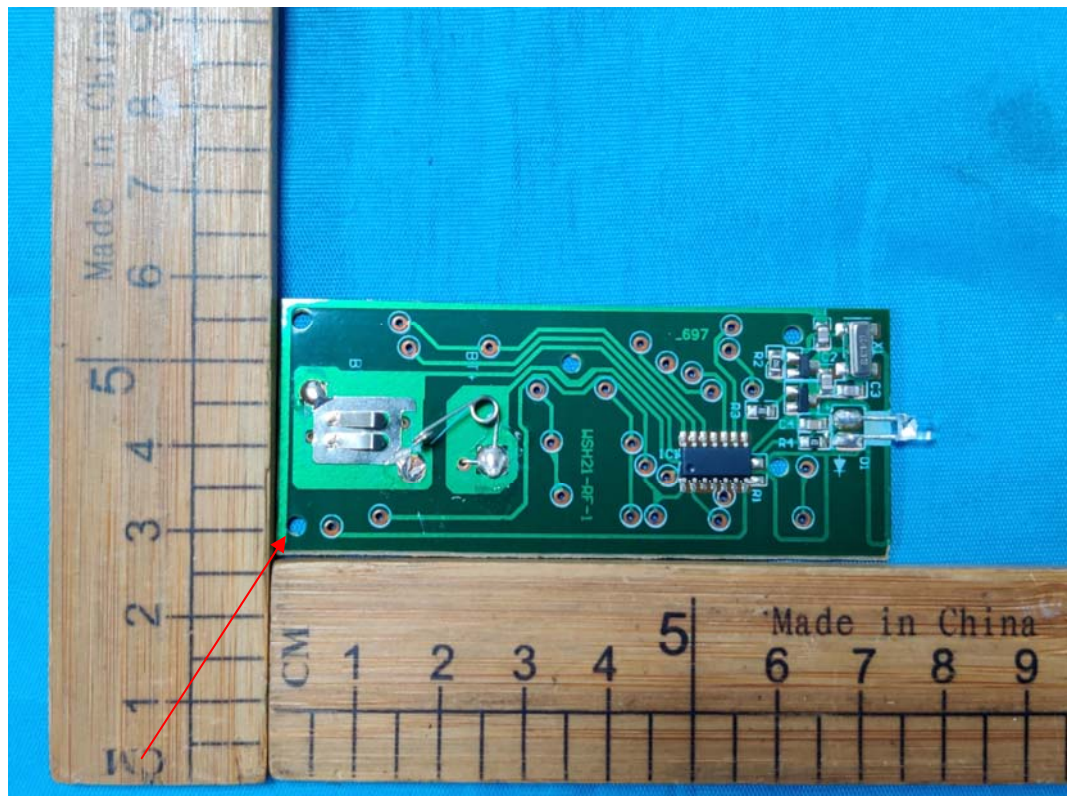
8. ANTENNA REQUIREMENT

8.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2.Antenna Construction

Device is equipped with PCB antenna, which isn't displaced by other antenna. The Antenna gain of EUT is 1dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

APPENDIX I (Test Curves)



ACCURATE TECHNOLOGY CO., LTD.

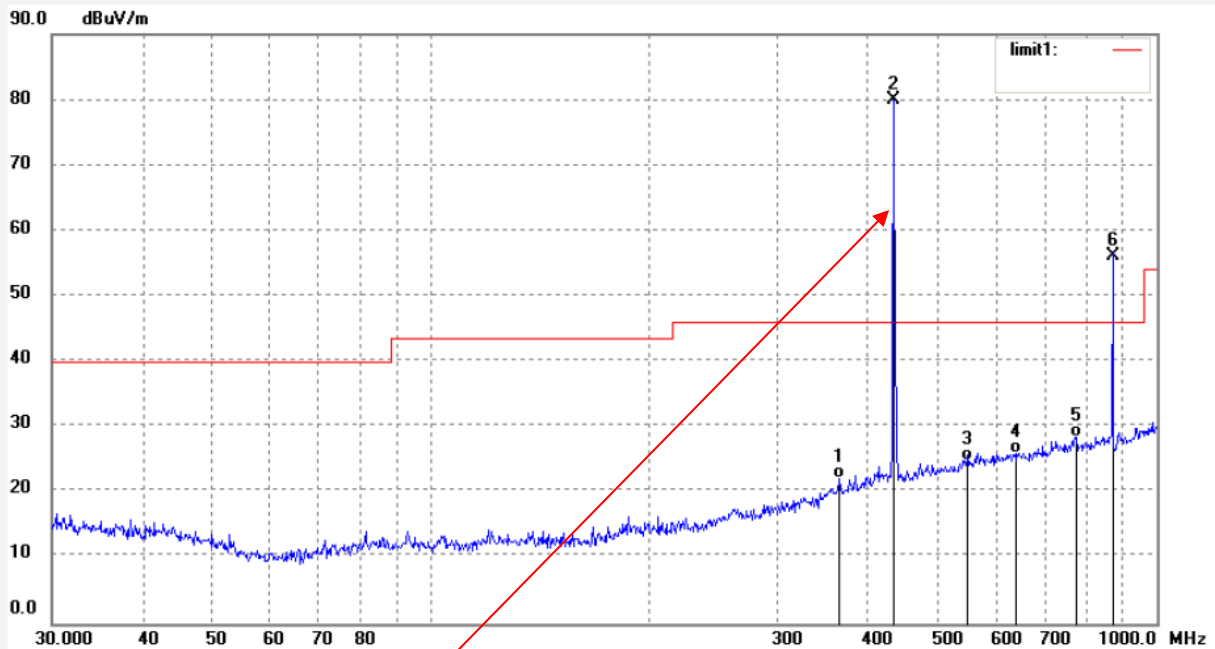
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ding #1418
Standard: FCC 15.231a 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: RGB Rope Light
Mode: TX
Model: RF-RC2
Manufacturer: Gateway Plastic Hard & Lighting Co., Ltd

Polarization: Vertical
Power Source: DC 3V
Date: 2020/08/07/
Time: 9/55/59
Engineer Signature: Black
Distance: 3m

Note: Report No.:RTZ200804003-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	365.5391	27.77	-5.68	22.09	46.00	-23.91	QP	100	246	
2	433.7700	84.30	-4.32	79.98	100.82	-20.84	peak	100	257	
3	543.2742	27.32	-2.37	24.95	46.00	-21.05	QP	100	122	
4	638.3686	27.50	-1.52	25.98	46.00	-20.02	QP	100	64	
5	774.1584	28.45	0.08	28.53	46.00	-17.47	QP	100	82	
6	867.5400	55.21	1.04	56.25	80.82	-24.57	peak	100	33	

Fundamental frequency



ACCURATE TECHNOLOGY CO., LTD.

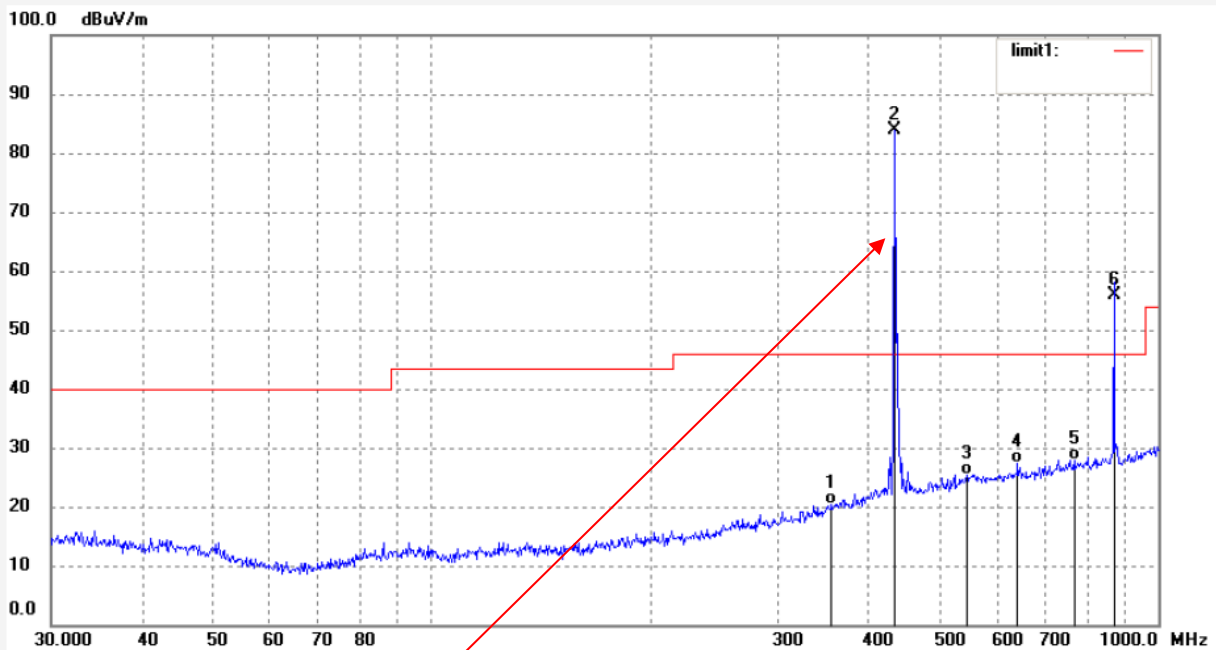
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ding #1419
Standard: FCC 15.231a 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: RGB Rope Light
Mode: TX
Model: RF-RC2
Manufacturer: Gateway Plastic Hard & Lighting Co., Ltd

Polarization: Horizontal
Power Source: DC 3V
Date: 2020/08/07/
Time: 10/02/48
Engineer Signature: Black
Distance: 3m

Note: Report No.:RTZ200804003-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	355.4273	26.28	-6.02	20.26	46.00	-25.74	QP	100	201	
2	433.7700	88.24	-4.32	83.92	100.82	-16.90	peak	100	357	
3	545.1826	27.78	-2.30	25.48	46.00	-20.52	QP	200	116	
4	640.6110	28.80	-1.51	27.29	46.00	-18.71	QP	100	28	
5	766.0571	27.92	0.06	27.98	46.00	-18.02	QP	200	169	
6	867.5400	54.76	1.04	55.80	80.82	-25.02	peak	100	134	

Fundamental frequency


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.: ding #1416

Standard: FCC PK

Test item: Radiation Test

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

EUT: RGB Rope Light

Mode: TX

Model: RF-RC2

Manufacturer: Gateway Plastic Hard & Lighting Co., Ltd

Polarization: Horizontal

Power Source: DC 3V

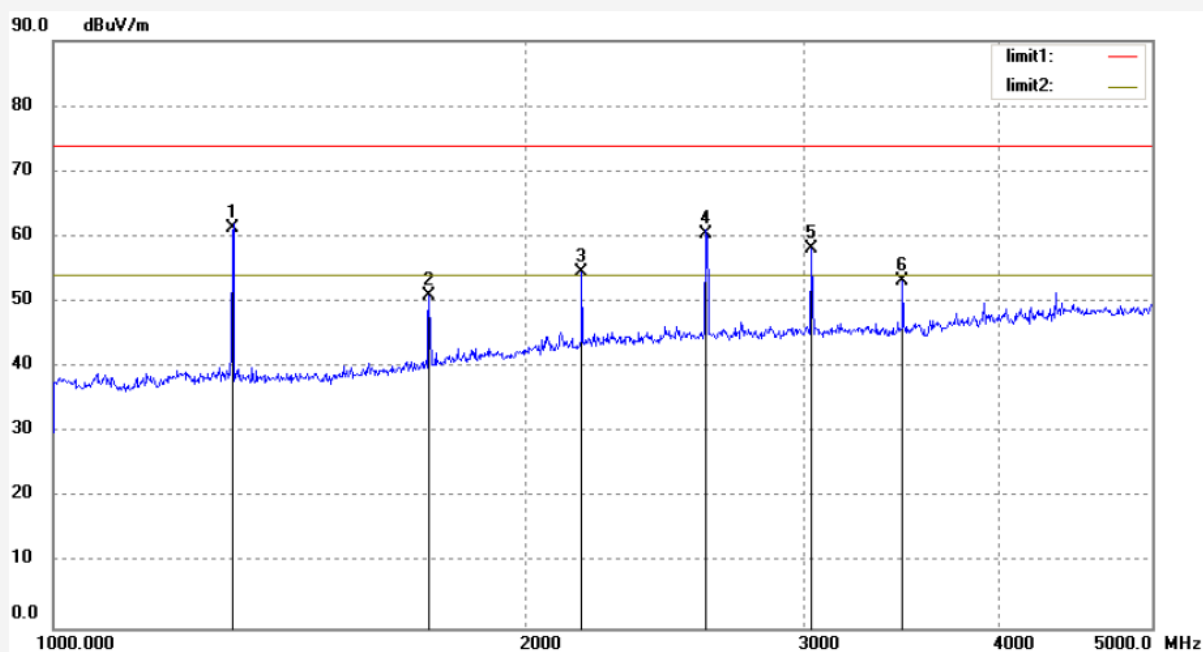
Date: 2020/08/07/

Time: 9/35/34

Engineer Signature: Black

Distance: 3m

Note: Report No.:RTZ200804003-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1299.966	67.48	-6.16	61.32	80.82	-19.50	peak	150	204	
2	1733.995	54.56	-3.58	50.98	80.82	-29.84	peak	150	351	
3	2168.725	54.81	-0.25	54.56	80.82	-26.26	peak	150	274	
4	2601.287	59.04	1.44	60.48	80.82	-20.38	peak	150	331	
5	3035.913	56.12	1.98	58.10	80.82	-22.72	peak	150	75	
6	3469.795	50.37	2.86	53.23	80.82	-27.59	peak	150	168	



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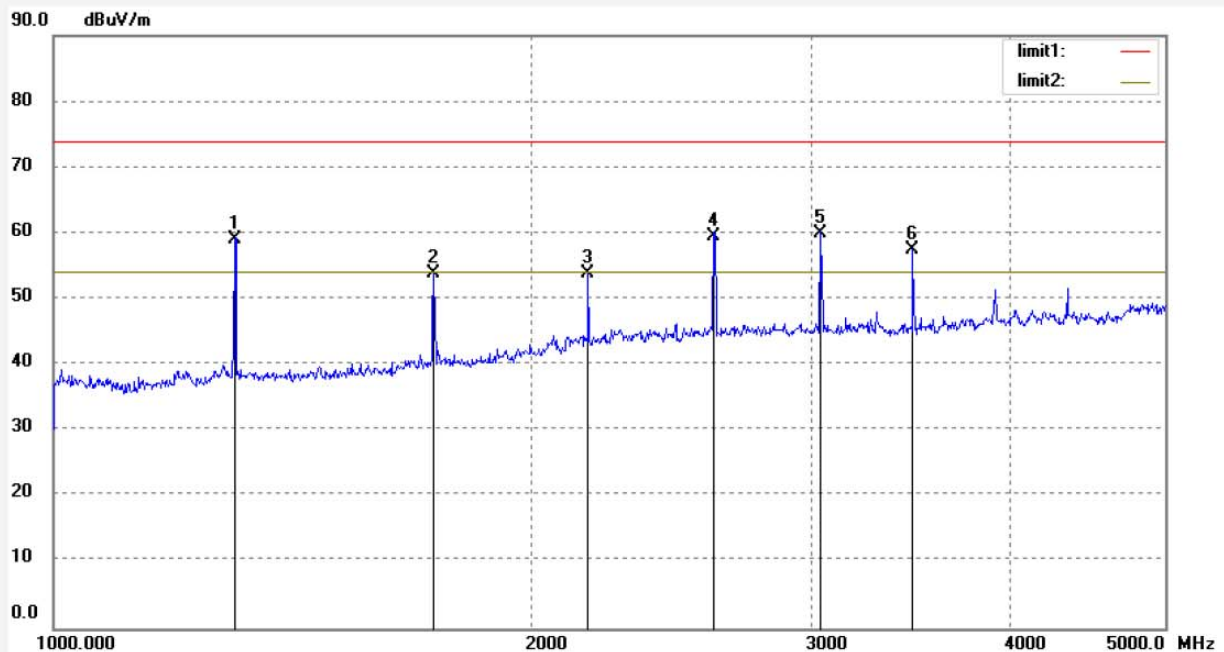
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

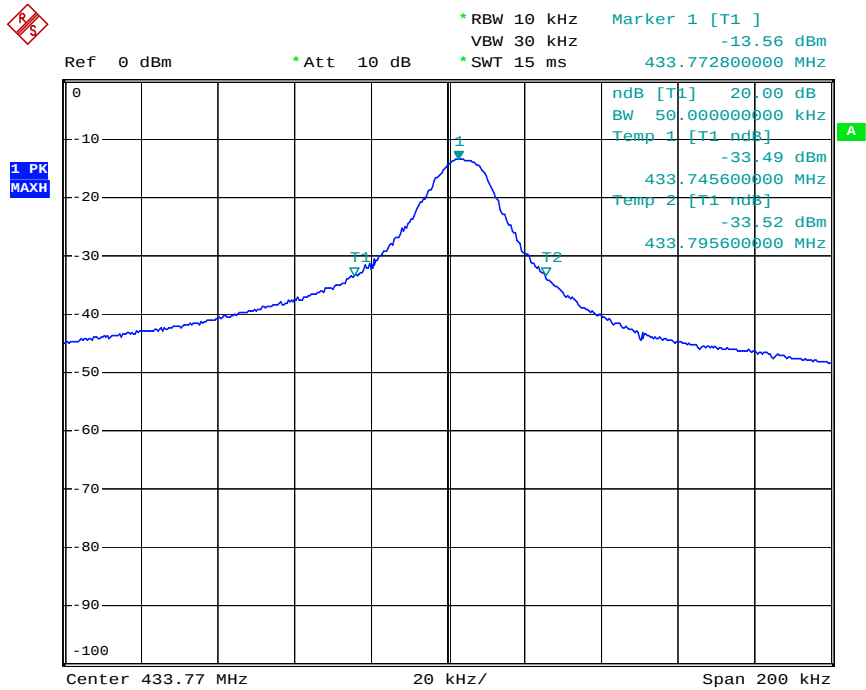
Job No.: ding #1417
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: RGB Rope Light
Mode: TX
Model: RF-RC2
Manufacturer: Gateway Plastic Hard & Lighting Co., Ltd

Polarization: Vertical
Power Source: DC 3V
Date: 2020/08/07/
Time: 9/37/55
Engineer Signature: Black
Distance: 3m

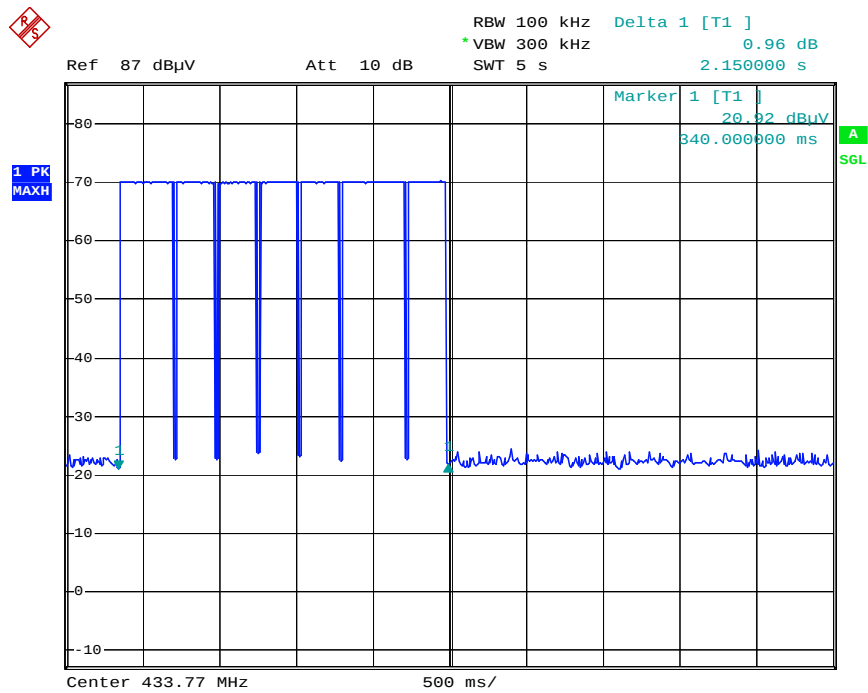
Note: Report No.:RTZ200804003-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1299.966	65.32	-6.16	59.16	80.82	-21.66	peak	150	25	
2	1733.995	57.42	-3.58	53.84	80.82	-26.98	peak	150	156	
3	2168.725	54.24	-0.25	53.99	80.82	-26.83	peak	150	217	
4	2601.287	58.16	1.44	59.60	80.82	-21.22	peak	150	94	
5	3035.913	57.94	1.98	59.92	80.82	-20.90	peak	150	164	
6	3469.795	54.59	2.86	57.45	80.82	-23.37	peak	150	229	

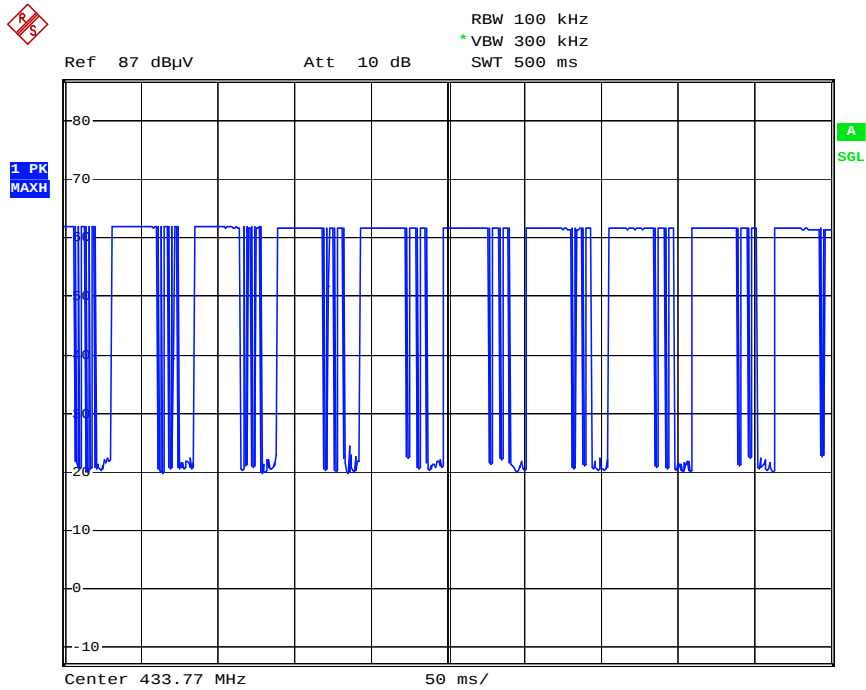


Date: 7.AUG.2020 10:52:15

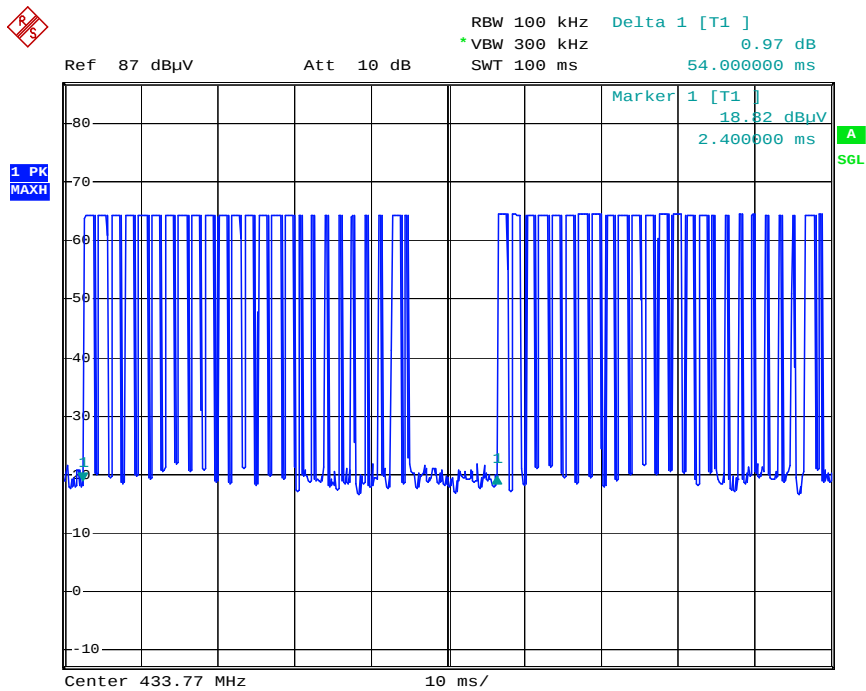


Date: 19.AUG.2020 17:10:33

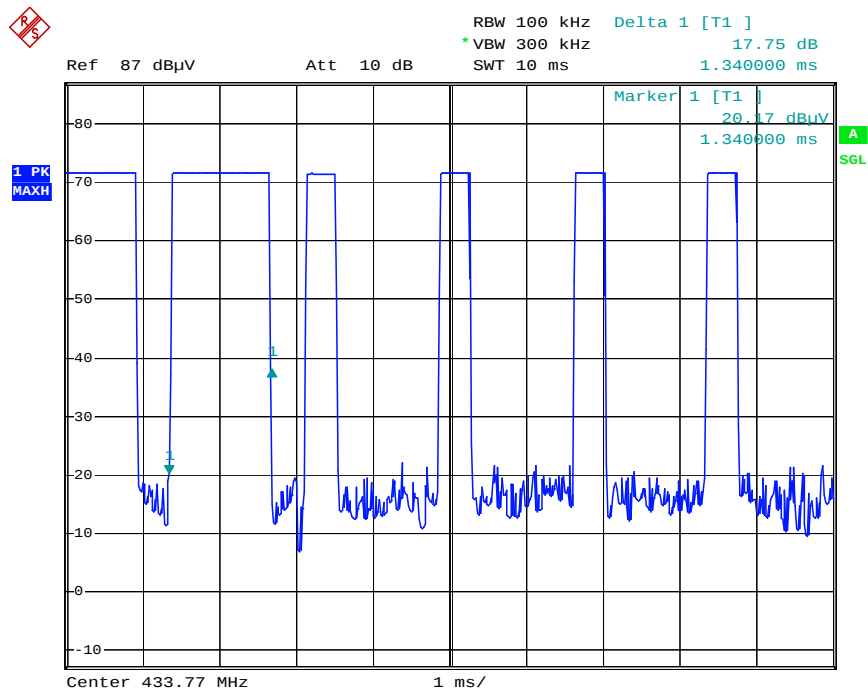
Release Time = 2.15s



Date: 19.AUG.2020 17:14:10

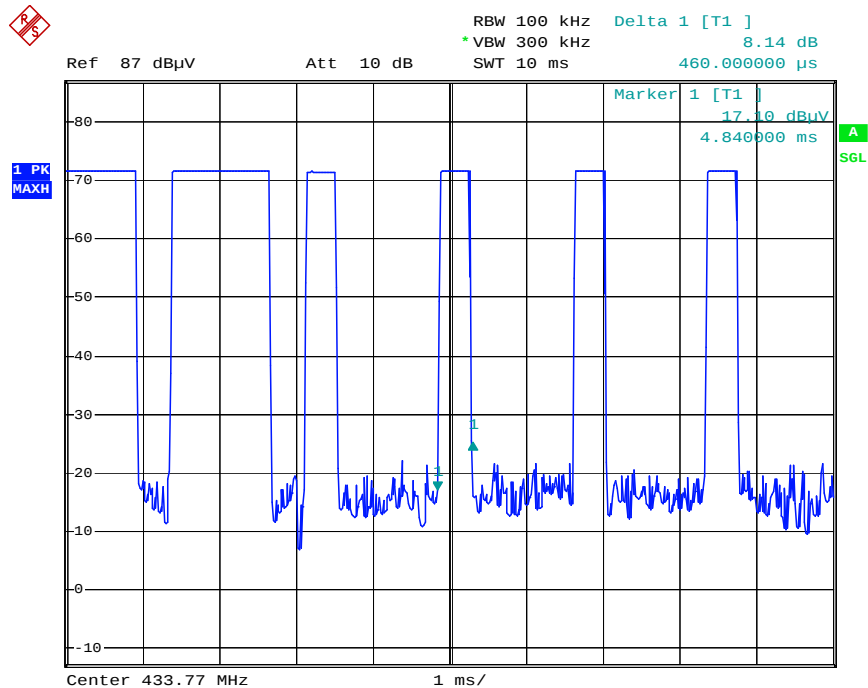


Date: 19.AUG.2020 17:16:37



Date: 19.AUG.2020 17:19:57

The graph shows the duration of 'on' signal. From Marker 1 to Delta 1, duration is 1.34ms.



Date: 19.AUG.2020 17:20:30

The graph shows the duration of 'on' signal. From Marker 1 to Delta 1, duration is 0.46ms.