



FCC TEST REPORT

Report No: STS2005037W02

Issued for

Godox Photo Equipment Co.,Ltd.

1st to 4th Floor, Building 2/1st to 4th Floor, Building 4, Yaochuan Industrial Zone, Tangwei Community, Fuhai Street, Baoan District, Shenzhen 518103, China

Product Name:	Remote Control
Brand Name:	Godox
Model Name:	RC-R9
Series Model:	N/A
FCC ID:	2ABYN008
Test Standard:	FCC Part 15.249

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TEST RESULT CERTIFICATION

Applicant's Name Godox Photo Equipment Co.,Ltd.

1st to 4th Floor, Building 2/1st to 4th Floor, Building 4, Yaochuan

Address Industrial Zone, Tangwei Community, Fuhai Street, Baoan

District, Shenzhen 518103, China

Manufacture's Name Godox Photo Equipment Co.,Ltd.

1st to 4th Floor, Building 2/1st to 4th Floor, Building 4, Yaochuan

Address Industrial Zone, Tangwei Community, Fuhai Street, Baoan

District, Shenzhen 518103, China

Product Description

Product Name Remote Control

Brand Name Godox

Model Name RC-R9

Series Model: N/A

Test Standards..... FCC Part15.249

Test Procedure ANSI C63.10-2013

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test:

Date of receipt of test item: 19 May 2020

Date of performance of tests..: 19 May 2020 ~ 27 May 2020

Date of Issue 27 May 2020

Test Result..... Pass

Testing Engineer :

(Chris Chen)

Technical Manager

(Sunday Hu

Authorized Signatory:

Alman

(Vita Li)



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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	27 May 2020	STS2005037W02	ALL	Initial Issue





1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part 15.249 , Subpart C					
Standard Section	Test Item	Judgment	Remark		
15.207	Conducted Emission	N/A			
15.203	Antenna Requirement	Pass			
15.249	Radiated Spurious Emission	Pass			
15.205	Radiated Band Edge Emission	Pass			
15.249	20dB Bandwidth	Pass			

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2013.



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add.: A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ,

Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569 IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 30-1GHz	±6.7dB
4	All emissions, radiated 1G-6GHz	±5.5dB
5	All emissions, radiated>6G	±5.8dB
6	Conducted Emission (9KHz-150KHz)	±4.43dB
7	Conducted Emission (150KHz-30MHz)	±5dB



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Remote Control		
Trade Name	Godox		
Model Name	RC-R9		
Series Model	N/A		
Model Difference	N/A		
	The EUT is a Remote C	ontrol	
	Operation Frequency:	2412.999634 ~	
		2464.499756MHz	
	Modulation Type:	MSK	
	Antenna Designation:	PCB	
Product Description	Antenna Gain(Peak):	0dBi	
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.		
Channel List	Please refer to the Note	2.	
Battery	Rated Voltage: 3.0V		
Hardware version number	20200102C01		
Software version number	V1.0		

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2. Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	Godox	RC-R9	PCB	N/A	0dBi	Antenna



2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Pretest Mode	Description	Data/Modulation
Mode 1	TX Low channel	MSK
Mode 2	TX Mid channel	MSK
Mode 3	TX High channel	MSK

Note:

- (1) All above mode have been measurement, only worst data was reported.
- (2) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V,50/60Hz is shown in the report.

For AC Conducted Emission

	Test Case
AC Conducted Emission	Mode 4 : Keeping TX

RF Function	Туре	Mode Or Modulation type	Ant Gain(dBi)	Power Class	Software For Testing
Other SRD	2.4G	MSK	0	Default	Default



2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters.

Radiated Spurious Emission Test

E-1 EUT



2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
N/A	N/A	N/A	N/A	N/A	N/A
	4				

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in Length column.



2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

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Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2019.07.29	2020.07.28
Signal Analyzer	Agilent	N9020A	MY51110105	2019.03.02	2020.03.01
Active loop Antenna	ZHINAN	ZN30900C	16035	2018.03.11	2021.03.10
Bilog Antenna	TESEQ	CBL6111D	34678	2017.11.02	2020.11.01
Horn Antenna	SCHWARZBECK	BBHA 9120D(1201)	9120D-1343	2018.10.19	2021.10.18
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2018.03.11	2021.03.10
Pre-Amplifier(0.1M-3G Hz)	EM	EM330	060665	2019.10.09	2020.10.08
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK201808090 1	2019.10.09	2020.10.08
Temperature & Humidity	HH660	Mieo	N/A	2019.10.09	2020.10.08
turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	D EZ-EMC(Ver.STSLAB-03A1 RE)			

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2019.7.29	2020.7.28
LISN	R&S	ENV216	101242	2019.10.9	2020.10.8
LISN	EMCO	3810/2NM	23625	2019.10.9	2020.10.8
Temperature & Humidity	HH660	Mieo	N/A	2019.10.12	2020.10.11
Test SW	FARAD		ΓSLAB-03A1 CE)		

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until			
USB RF power sensor	DARE	RPR3006W	15I00041SNO03	2019.10.09	2020.10.08			
Signal Analyzer	Agilent	N9020A	MY49100060	2019.10.09	2020.10.08			
Temperature & Humidity	HH660	Mieo	N/A	2019.10.12	2020.10.11			
Test SW	FARAD	LZ-RF /LzRf-3A3						



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

Operating frequency band. In case the emission fall within the restricted band specified on Part 15.249 limit in the table below has to be followed.

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

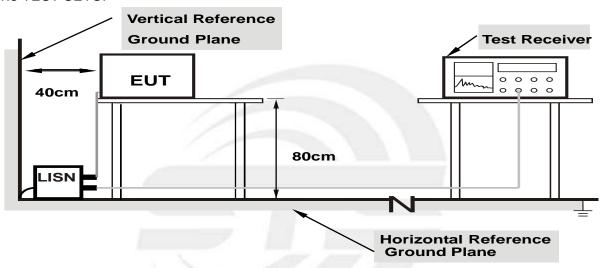
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



3.1.2 TEST PROCEDURE

- a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULT

Temperature:	22.8(C)	Relative Humidity:	66%RH
Test Voltage:	N/A	Phase:	L/N
Test Mode:	N/A		

Note: EUT is only power by battery, So it is not applicable for this test.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15.249 and the Part 15.209(a) limit in the table below has to be followed.

Standard FCC 15.209

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3
Above 1000	Other:74.0 dB(µV)/m (Peak)	3
	54.0 dB(µV)/m (Average)	

Standard FCC 15.249

Frequency of Emission (MHz)	Field Strength of fundamental (millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
900~928	50	500
2400~2483.5	50	500
5725~5875	50	500
24000~242500	250	2500

Notes:

(1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Detector	Peak/AV
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB (emission in restricted band)	>20BW
VB (emission in restricted band)	=3xRB



Receiver Parameter	Setting		
Attenuation	Auto		
	9kHz~90kHz / RB 200Hz for PK & AV		
	90kHz~110kHz / RB 200Hz for QP		
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV		
	490kHz~30MHz / RB 9kHz for QP		
	30MHz~1000MHz / RB 120kHz for QP		

3.2.2 TEST PROCEDURE

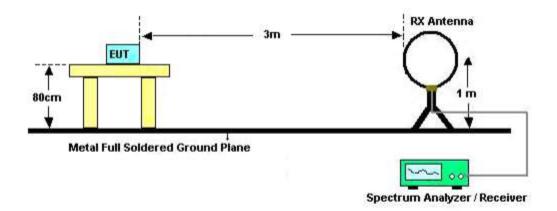
- a. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of arotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Below 1GHz)
- b. The measuring distance of 3m shall used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Above 1GHz)
- c. The height of the test antenna shall vary between 1m to 4m.Both horizontal and vertical polarization Of the antenna are set to make the measurement.
- d. The initial step in collecting radiated emission data is a receive peak detector mode.
 Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform (Below 1GHz)
- f. All readings are Peak mode value unless otherwise stated AVG in column of Note. If the Peak mode measured value compliance with the Peak limits and lower than AVG Limits, the EUT shall be deemed to meet Peak & AVG limits and then only Peak mode was measured, but AVG mode didn't perform.(Above 1GHz)
- 9. For the actual test configuration, please refer to the related Item –EUT Test Photos.
 Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 DEVIATION FROM TEST STANDARD No deviation

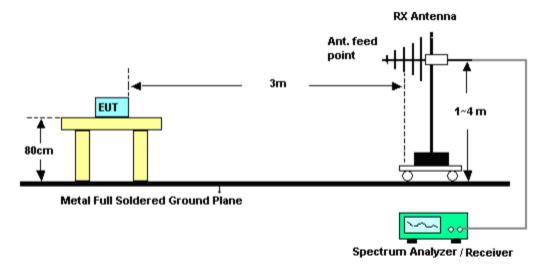


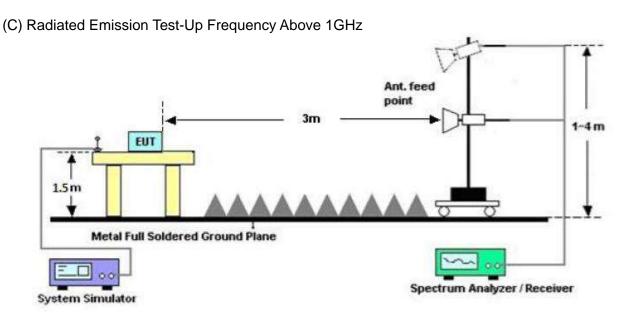
3.2.4 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz







3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

Margin=PL-PK L or AL- AV L; Margin only shown the worst case.

Where

PR = Peak Reading

AR = Average Reading

PL = Peak Level

AL = Average Level

AF = Antenna Factor

PK L = Peak Limit

AV L = AV Limit

For example

Frequency	PR	AR	AF	PL	AL	PK L	AV L	Margin
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dBµV/m)	(dBµV/m)	(dB)
2178	40.23	30.31	9.83	50.06	40.14	74.00	54.00	-13.86



3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

Below 30 MHz

Temperature:	22.7(C)	Relative Humidity:	52%RH
Test Voltage:	DC 3.0V	Polarization:	
Test Mode:	TX Mode		

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				PASS
				PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.



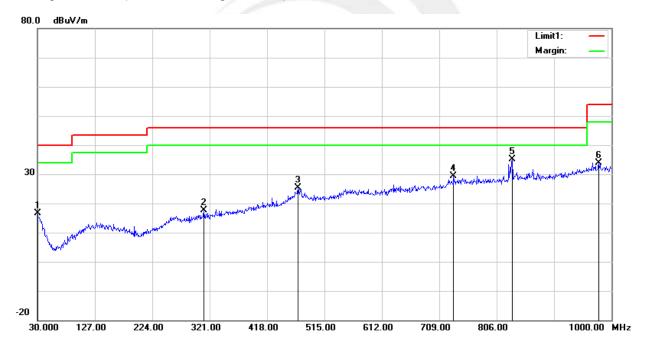
Between 30MHz - 1000 MHz Radiation Spurious

Temperature:	22.7(C)	Relative Humidity:	52%RH
Test Voltage:	DC 3.0V	Phase:	Horizontal
Test Mode:	Mode 32		

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.0000	29.55	-12.85	16.70	40.00	-23.30	QP
2	311.3000	31.97	-14.40	17.57	46.00	-28.43	QP
3	470.3800	34.29	-8.99	25.30	46.00	-20.70	QP
4	733.2500	31.79	-2.35	29.44	46.00	-16.56	QP
5	832.1900	35.82	-0.66	35.16	46.00	-10.84	QP
6	978.6600	31.42	2.58	34.00	54.00	-20.00	QP

Remark:

1. Margin = Result (Result = Reading + Factor)—Limit



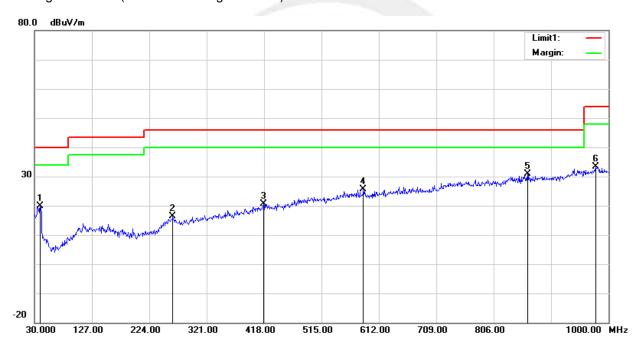


Temperature:	22.7(C)	Relative Humidity:	52%RH
Test Voltage:	DC 3.0V	Phase:	Vertical
Test Mode:	Mode 32		

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	39.7000	37.75	-17.88	19.87	40.00	-20.13	QP
2	263.7700	31.02	-14.75	16.27	46.00	-29.73	QP
3	417.0300	30.80	-10.24	20.56	46.00	-25.44	QP
4	585.8100	31.37	-5.80	25.57	46.00	-20.43	QP
5	863.2300	31.35	-0.46	30.89	46.00	-15.11	QP
6	978.6600	30.84	2.58	33.42	54.00	-20.58	QP

Remark:

1. Margin = Result (Result = Reading + Factor)—Limit





Above 1G Radiation Spurious

MSK--Low

PΚ

	Motor			Antenna Orre		Orrested	Corrected	FCC F	Part	RX
Frequency	Meter	Detector	Amplifier	Loss		Orrected	Corrected	15.249/15.	209/205	Antenna
	Reading				Factor	Factor	Amplitude	Limit	Margin	Polar
(MHz)	(dBµV/m)	(PK/QP/AV)	(dB)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(H/V)
4826.09	79.38	PK	50.33	8.84	31.22	-10.27	69.11	74	-4.89	Н
4826.09	78.99	PK	50.33	8.84	31.22	-10.27	68.72	74	-5.28	V
7239.08	74.31	PK	55.48	9.31	34.05	-12.12	62.19	74	-11.81	Н
7239.08	73.88	PK	55.48	9.31	34.05	-12.12	61.76	74	-12.24	V
9652.13	77.89	PK	59.13	9.89	36.99	-12.25	65.64	74	-8.36	Н
9652.13	77.15	PK	59.13	9.89	36.99	-12.25	64.90	74	-9.10	V

AV

Frequency	PK Reading	Duty cycle	AV Reading	Orrected Factor	Corrected Amplitude	FCC 15.249/15		RX Antenna
		factor	rteading	1 actor	Amplitude	Limit	Margin	Polar
(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(H/V)
4826.09	79.38	-23.31	56.07	-10.27	45.80	54.00	-8.20	Н
4826.09	78.99	-23.31	55.68	-10.27	45.41	54.00	-8.59	V
7239.08	74.31	-23.31	51.00	-12.12	38.88	54.00	-15.12	Н
7239.08	73.88	-23.31	50.57	-12.12	38.45	54.00	-15.55	V
9652.13	77.89	-23.31	54.58	-12.25	42.33	54.00	-11.67	Н
9652.13	77.15	-23.31	53.84	-12.25	41.59	54.00	-12.41	V

AV = Peak +20Log10(duty cycle factor) =PK+(-23.31)



MSK--Mid

PΚ

	Matar				Antonno	Orrested	Carrantad	FCC F	Part	RX
Frequency	Meter	Detector	Amplifier	Loss	Antenna	Orrected Factor	Corrected	15.249/15.	209/205	Antenna
	Reading				Factor	racioi	Amplitude	Limit	Margin	Polar
(MHz)	(dBµV/m)	(PK/QP/AV)	(dB)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(H/V)
4875.87	78.92	PK	50.33	8.84	31.22	-10.27	68.65	74	-5.35	I
4875.87	78.84	PK	50.33	8.84	31.22	-10.27	68.57	74	-5.43	V
7314.02	73.92	PK	55.48	9.31	34.05	-12.12	61.80	74	-12.20	Н
7314.02	72.99	PK	55.48	9.31	34.05	-12.12	60.87	74	-13.13	V
9752.08	77.56	PK	59.13	9.89	36.99	-12.25	65.31	74	-8.69	Н
9752.08	76.59	PK	59.13	9.89	36.99	-12.25	64.34	74	-9.66	V

ΑV

				/ \ V				
Frequency	PK Reading	Duty cycle	AV Reading	Orrected Factor	Corrected Amplitude		FCC Part 15.249/15.209/205	
		factor	rtcading	1 40101	Amplitude	Limit	Margin	Polar
(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(H/V)
4875.87	78.92	-23.31	55.61	-10.27	45.34	54.00	-8.66	Н
4875.87	78.84	-23.31	55.53	-10.27	45.26	54.00	-8.74	V
7314.02	73.92	-23.31	50.61	-12.12	38.49	54.00	-15.51	Н
7314.02	72.99	-23.31	49.68	-12.12	37.56	54.00	-16.44	V
9752.08	77.56	-23.31	54.25	-12.25	42.00	54.00	-12.00	Н
9752.08	76.59	-23.31	53.28	-12.25	41.03	54.00	-12.97	V

AV = Peak +20Log10(duty cycle factor) =PK+(-23.31)



MSK--High

PΚ

	Matar			Antonno Orrostod		Orrested	Carrantad	FCC F	Part	RX
Frequency	Meter	Detector	Amplifier	Loss	Antenna Factor	Orrected Factor	Corrected	15.249/15.	209/205	Antenna
	Reading				racioi	racioi	Amplitude	Limit	Margin	Polar
(MHz)	(dBµV/m)	(PK/QP/AV)	(dB)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(H/V)
4928.04	78.57	PK	50.33	8.84	31.22	-10.27	68.30	74	-5.70	I
4928.04	78.28	PK	50.33	8.84	31.22	-10.27	68.01	74	-5.99	V
7392.22	74.01	PK	55.48	9.31	34.05	-12.12	61.89	74	-12.11	I
7392.22	73.25	PK	55.48	9.31	34.05	-12.12	61.13	74	-12.87	V
9856.04	77.87	PK	59.13	9.89	36.99	-12.25	65.62	74	-8.38	Н
9856.04	76.80	PK	59.13	9.89	36.99	-12.25	64.55	74	-9.45	V

ΑV

				/\ V				
Frequency	PK Reading	Duty cycle	AV Reading	Orrected Factor			FCC Part 15.249/15.209/205	
		factor	rtodding	1 40101	Timplitude	Limit	Margin	Polar
(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(H/V)
4928.04	78.57	-23.31	55.26	-10.27	44.99	54.00	-9.01	Н
4928.04	78.28	-23.31	54.97	-10.27	44.70	54.00	-9.30	V
7392.22	74.01	-23.31	50.70	-12.12	38.58	54.00	-15.42	Н
7392.22	73.25	-23.31	49.94	-12.12	37.82	54.00	-16.18	V
9856.04	77.87	-23.31	54.56	-12.25	42.31	54.00	-11.69	Н
9856.04	76.80	-23.31	53.49	-12.25	41.24	54.00	-12.76	V

AV = Peak +20Log10(duty cycle factor) =PK+(-23.31)



Duty cycle



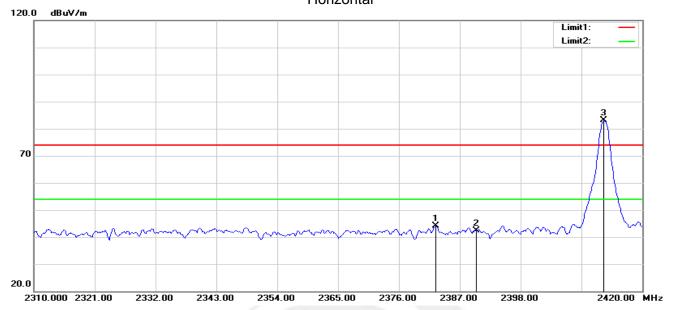
Ton	Тр	Duty cycle(%)	Duty factor(dB)		
0.403	5.905	6.83%	23.31		

Note: Duty Factor=20*LOG10(1/(Ton/Tp))



(Radiation Band edge)

Low channel Horizontal



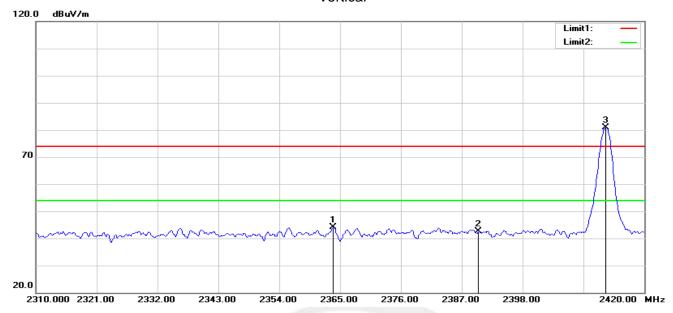
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2382.600	39.88	4.23	44.11	74.00	-29.89	peak
2	2390.000	37.94	4.34	42.28	74.00	-31.72	peak

Fundamental Frequency

No.	Frequency	Reading	Correct	Duty cycle	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
3	2413.000	78.57	4.49		83.06	114.00	-30.94	peak
4	2413.000	78.57	4.49	23.31	59.75	94.00	-34.25	AV



Vertical



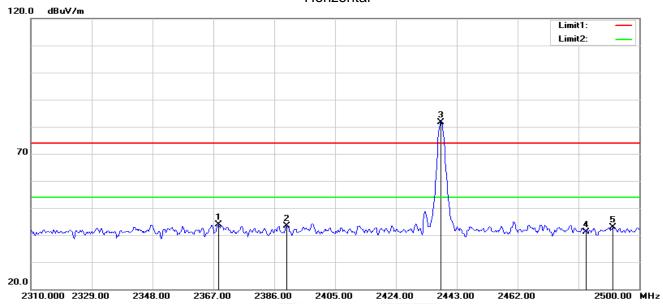
No.	Frequency	Reading	eading Correct		Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2363.790	40.17	3.95	44.12	74.00	-29.88	peak
2	2390.000	38.36	4.34	42.70	74.00	-31.30	peak

Fundamental Frequency

No.	Frequency	Reading	Correct	Duty cycle	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
3	2413.000	76.42	4.49		80.91	114.00	-33.09	peak
4	2413.000	76.42	4.49	23.31	57.6	94.00	-36.4	AV

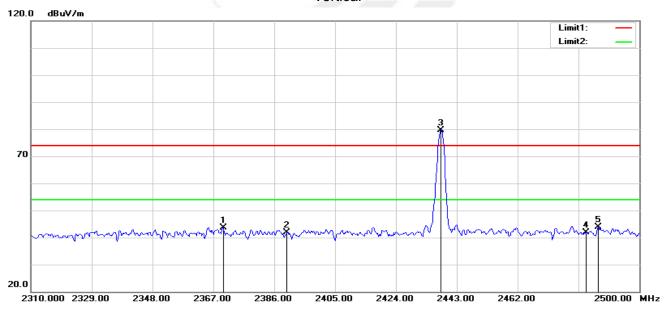


Mid channel Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		
1	2368.520	39.87	4.01	43.88	74.00	-30.12	peak	
2	2390.000	39.11	4.34	43.45	74.00	-30.55	peak	
4	2483.500	36.63	4.60	41.23	74.00	-32.77	peak	
5	2491.830	38.13	4.63	42.76	74.00	-31.24	peak	

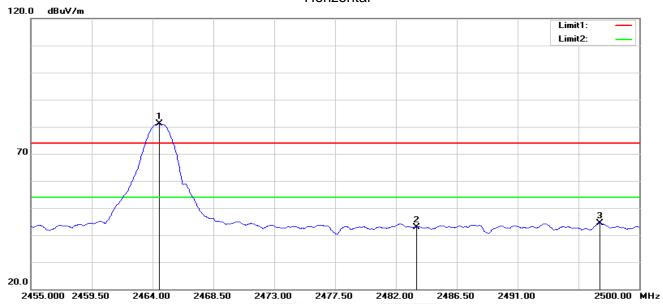
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2370.040	39.56	4.04	43.60	74.00	-30.40	peak
2	2390.000	37.47	4.34	41.81	74.00	-32.19	peak
4	2483.500	37.39	4.60	41.99	74.00	-32.01	peak
5	2487.270	39.22	4.62	43.84	74.00	-30.16	peak



High channel Horizontal



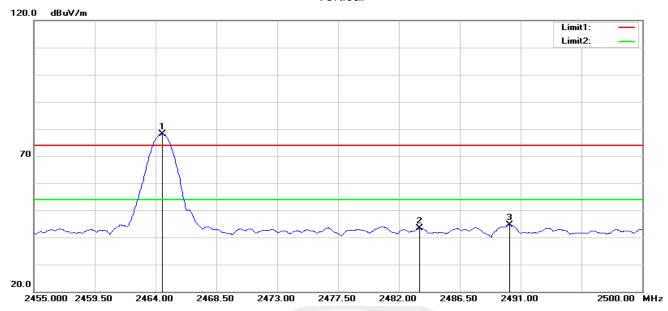
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
2	2483.500	38.36	4.60	42.96	74.00	-31.04	peak
3	2497.075	39.71	4.64	44.35	74.00	-29.65	peak

Fundamental Frequency

No.	Frequency	Reading	Correct	Duty cycle	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2464.500	76.46	4.56	-	81.02	114.00	-32.98	peak
4	2464.500	76.46	4.56	23.31	57.71	94.00	-36.29	AV



Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
2	2483.500	38.78	4.60	43.38	74.00	-30.62	peak
3	2490.208	40.00	4.63	44.63	74.00	-29.37	peak

Fundamental Frequency

No.	Frequency	Reading	Correct	Duty cycle	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2464.500	73.63	4.56	-	78.19	114.00	-35.81	peak
4	2464.500	73.63	4.56	23.31	54.88	94.00	-39.12	AV



4. BANDWIDTH TEST

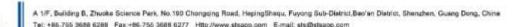
4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 30KHz, VBW≧RBW, Sweep time = Auto.

4.2 TEST SETUP

EUT	SPECTRUM
	ANALYZER

4.3 EUT OPERATION CONDITIONS TX mode.





4.4 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	50%
Test Voltage:	DC 3.0V		

Test Channel	Frequency(MHz)	20 dB Bandwidth(KHz)	99% Bandwidth(KHz)
CH01	2412.9996339999998	940.1	1405.5
CH16	2437.9998780000001	992.1	1467.7
CH32	2464.4997560000002	1050	1524.1

Low Channel





Mid Channel



High Channel





5. ANTENNA REQUIREMENT

5.1 STANDARD REQUIREMENT

According to the FCC Part 15 Paragraph 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.

5.2 EUT ANTENNA

The EUT antenna is PCB Antenna.It conforms to the standard requirements.





APPENDIX- PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

****END OF THE REPORT**

