

Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC152355

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FCC ID: 2ALXO-D8R

Report No. : TB-FCC152355

Applicant : Dong Yang Smart Technology Co.,Ltd

Equipment Under Test (EUT)

EUT Name: Wireless Remote Control

Model No. : D8R

Serial Model No. : N/A

Brand Name : DYS

Receipt Date : 2017-04-05

Test Date : 2017-04-06 to 2017-04-27

Issue Date : 2017-04-28

Standards : FCC Part 15, Subpart C (15.249: 2016)

Test Method : ANSI C63.10: 2013

Conclusions : PASS

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC requirements

Test/Witness Engineer : WAN SU

Approved& Authorized :

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This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0







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1. General Information about EUT

1.1 Client Information

Applicant	:(Dong Yang Smart Technology Co.,Ltd	
Address : No.45, FuDong Industrial Zone, HeChang Rd 2, ZhongKai High		No.45, FuDong Industrial Zone, HeChang Rd 2, ZhongKai High Tech	
Zone, Huizhou City, Guangdong Province, China		Zone, Huizhou City, Guangdong Province, China	
Manufacturer	:	Dong Yang Smart Technology Co.,Ltd	
Address : N		No.45, FuDong Industrial Zone, HeChang Rd 2, ZhongKai High Tech	
Zone, Huizhou City, Guangdong Province, China		Zone, Huizhou City, Guangdong Province, China	

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Wireless Remote Contro	Wireless Remote Control		
Models No.	:	D8R	D8R		
Model Difference		N/A			
		Operation Frequency: 2405~2479 MHz			
		Number of Channels:	9 Channels(See Note 2)		
Product Description		Out Power:	96.35 dBuV/m@3m Peak 91.89 dBuV/m@3m Avg		
		Antenna Gain:	0 dBi Integral Antenna		
		Modulation Type:	GFSK		
Power Supply : DC power by AA battery.					
Power Rating	1	DC 4*1.5V by AA Battery			
Connecting I/O Port(S)	•	Please refer to the User's Manual			

Note:

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

(2) Channel List:

	Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)			
01	2405	04	2432	07	2460			
02	2414	05	2442	08	2470			
03	2423	06	2450	09	2479			





TX Mode

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1.3 Block Diagram Showing the Configuration of System Tested

EUT

1.4 Description of Support Units

The EUT has been test as an independent unit.

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

	For Conducted Test
Final Test Mode	Description
Mode 1	N/A

For Radiated Test				
Final Test Mode Description				
Mode 2	TX Mode(CH01/CH05/CH09)			

Note:

For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

- (1)According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels.
- (2)During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.



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(3) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

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 of RF mode.

Product SW/HW Version :	N/A		
Radio SW/HW Version:	N/A		
Test Software Version	A VIII	N/A	
Frequency	2405 MHz	2442MHz	2479 MHz
GFSK	DEF	DEF	DEF

1.7 Measurement Uncertainty

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

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.40 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB



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1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

IC Registration No.: (11950A-1)

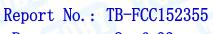
The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



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2. Test Summary

FCC Part 15 Subpart C(15.249)					
Standard Section	Test Item	Judgment	Remark		
15.203	Antenna Requirement	PASS	N/A		
15.205	Restricted Bands	PASS	N/A		
15.207	AC Power Conducted Emission	N/A	N/A		
15.249 &15.209	Radiated Spurious Emission	PASS	N/A		
15.215(C)	20dB Bandwidth	PASS	N/A		





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3. Test Equipment

Conducte	d Emission Te	st			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 22, 2016	Jul. 21, 2017
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 22, 2016	Jul. 21, 2017
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 22, 2016	Jul. 21, 2017
LISN	Rohde & Schwarz	ENV216	101131	Jul. 22, 2016	Jul. 21, 2017
Radiation	Emission Tes	t			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2016	Jul. 21, 2017
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 22, 2016	Jul. 21, 2017
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 25, 2017	Mar. 24, 201
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar. 25, 2017	Mar. 24, 2018
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 25, 2017	Mar. 24, 2018
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar. 25, 2017	Mar. 24, 2018
Loop Antenna	Laplace instrument	RF300	0701	Mar. 25, 2017	Mar. 24, 201
Pre-amplifier	Sonoma	310N	185903	Mar. 24, 2017	Mar. 23, 201
Pre-amplifier	HP	8449B	3008A00849	Mar. 29, 2017	Mar. 28, 201
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 29, 2017	Mar. 28, 201
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna C	Conducted Em	ission			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2016	Jul. 21, 2017
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 22, 2016	Jul. 21, 2017
Power Meter	Anritsu	ML2495A	25406005	Jul. 22, 2016	Jul. 21, 2017
Power Sensor	Anritsu	ML2411B	25406005	Jul. 22, 2016	Jul. 21, 2017



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4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

4.1.2 Test Limit

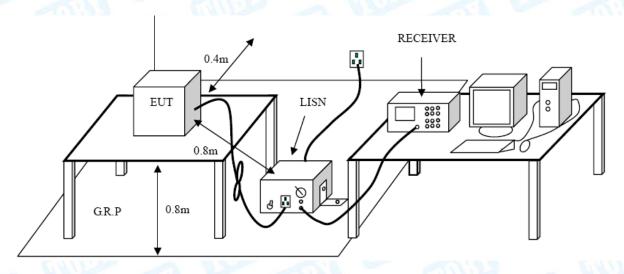
Conducted Emission Test Limit

THE PROPERTY OF THE PARTY OF TH	Maximum RF Line	e Voltage (dBμV)
Frequency	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal 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.

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.



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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.

LISN is at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Data

The EUT is powered by DC battery, no requirement for this test item.

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5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.209

5.1.2 Test Limit

Radiated Emission Limit (9kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (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	
Above 960	500	3	

Radiated Emission Limit (Above 1000MHz)

Frequency	Distance Meters (at 3m)						
(MHz)	Peak	Average					
Above 1000	74	54					

Note:

(1) The tighter limit applies at the band edges.

(2) Emission Level(dBuV/m)=20log Emission Level(Uv/m)

Limits of radiated emission measurement (15.249)

FCC Part 15 (15.24	19), Subpart C							
Limit Frequency Range (MHz)								
Field strength of fundamental 50000 μV/m (94 dBμV/m) @ 3 m	2400~2483.5							
Field strength of fundamental 500 μV/m (94 dBμV/m) @ 3 m	Above 2483.5							

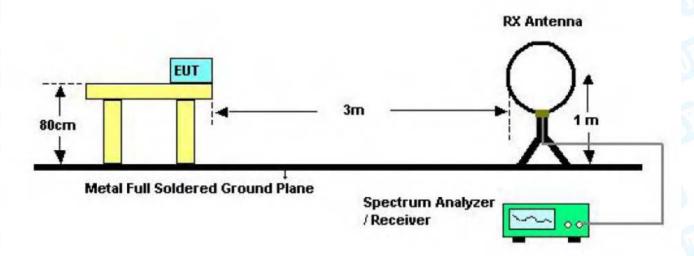
Restricted bands requirement for equipment operating in 2400MHz to 2483.5 MHz (15.249)



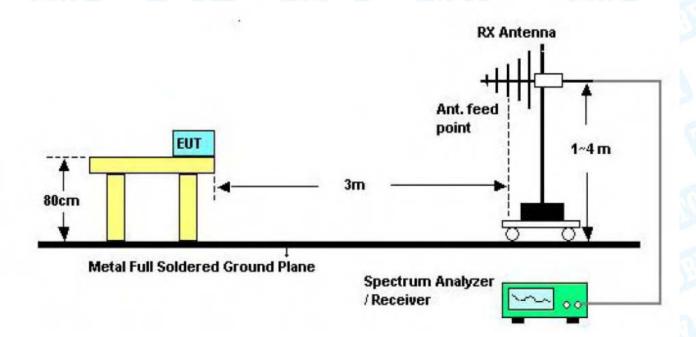
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Restricted Frequency Band (MHz)	(dBuV/m)(at 3 M)
2310~2390	Attenuated by at least 50 dB below the level of the fundamental or to the general radiated
2483.5~2500	emission limits in 15.209, whichever is the lesser attenuation

5.2 Test Setup



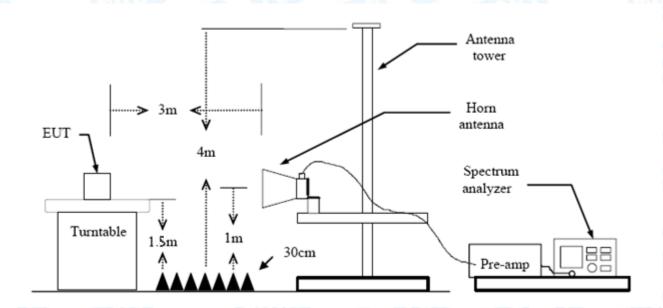
Bellow 30MHz Test Setup



Bellow 1000MHz Test Setup







Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.



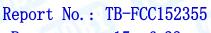
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5.4 EUT Operating Condition

The EUT was set to Continual Transmitting in maximum power, and new batteries are used during testing.

5.5 Test Data

Please see the next page.





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5.6.1 Field Strength of the Fundamental

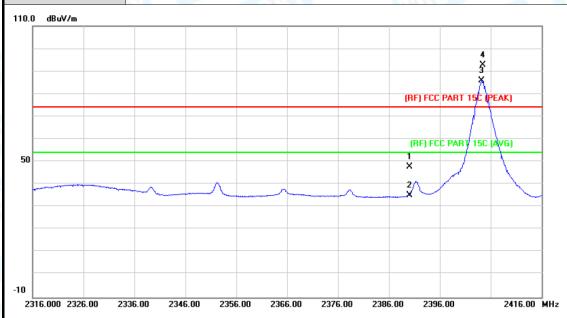
EUT:		Wire	less Ren	note Contr	ol	Мо	del Name	: [D8R
Temperat	ure:	25 °	C	_ [1]	1117	Rel	ative Hum	idity:	55%
Test Volta	ige:	DC 6	SV	8.8 6		A Marie		Z WY	11 che
Ant. Pol.		Horiz	zontal		10	6			
Test Mod	e:	TX 2	405MHz	C.111	1)		A A I A		100
Remark:				1	6	THE STATE OF THE S		CHI	
110.0 dBuV/	/m								
								3 X 4	
							(DE) FEC DA	ART 15C (PEAK	
							(HF) FCC PF	AHT TOU IFEAR	
							(RE) ECC E	PART 15C (AVG	
50							X		
		_		Λ			2/		
10									
-10 2314.000 2	2324.00	2334.00	2344.00	2354.00 23	864.00 23	374.00 238	B4.00 2394.0	0 2	414.00 MHz
No. M	k. Fr	eq.	Readir Leve			easure- ment	Limit	Over	
	M	Hz	dBu∀	dB/r	n (dBuV/m	dBuV/m	dB	Detecto
1	2390	.000	50.59	0.7	7	51.36	74.00	-22.64	peak
2	2390	.000	36.37	0.7	7	37.14	54.00	-16.86	AVG
	2404	.300	93.53	0.8	3	94.36	114.00	-19.64	peak
3 X	2707	.000							





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EUT:	Wireless Remote Control	Model Name :	D8R
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 6V	CITIES .	
Ant. Pol.	Vertical		
Test Mode:	TX 2405MHz	1000	The same
Remark:			T)



N	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	47.04	0.77	47.81	74.00	-26.19	peak
2		2390.000	34.52	0.77	35.29	54.00	-18.71	AVG
3	*	2404.200	84.93	0.83	85.76	94.00	-8.24	AVG
4	Χ	2404.400	91.84	0.83	92.67	114.00	-21.33	peak



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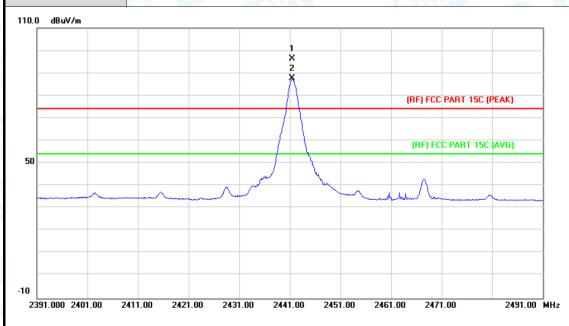
EUT:			Wire	less Rei	mote	Contro		Mod	del Name :		D8R
Temp	eratu	re:	25 °	C		10		Rela	ative Humic	dity:	55%
Test \	Voltaç	je:	DC 6	SV			THE P		(all	133	
Ant. F	Pol.		Horiz	zontal		M	1		0 V		
Test I	Mode	•	TX 2	442MHz	Z		_ (11/1/12		a 1	N. L.
Rema	ark:			ARA				Control		131	
110.0	dBuV/m										
							×				
							2 X		(DE) FOC D	IDT 150 (PC	
									(BF) FCC PA	ART 15C (PEA	#KJ
									(RE) ECC I	PART 15C (AV	/G)
50									(III) I CC I	AIII ISC (A	,,,,
-			+		_^_						
-10 2391	1.000 24	01.00 2	2411.00	2421.00	2431	.00 244	1.00 24	51.00 2	2461.00 2471.0	Ω	2491.00 MH:
255.				2121.00						-	
No	. Mk	. Fr	eq.	Readi Leve		Corre Fact		asure nent	- Limit	Over	
			- Hz	dBu\	/	dB/m	d	BuV/m	dBuV/m	dB	Detecto
1	Χ	2441	.400	92.2	6	0.99	ę	93.25	114.00	-20.75	peal
	*	2441	400	81.3	_	0.99		32.35		-11.65	AVG





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EUT:	Wireless Remote Control	Model Name :	D8R
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 6V		
Ant. Pol.	Vertical		
Test Mode:	TX 2442MHz		Thu a
Remark:			10



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2441.500	95.36	0.99	96.35	114.00	-17.65	peak
2	*	2441.500	86.69	0.99	87.68	94.00	-6.32	AVG





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EUT	•		Wire	eless R	emote	e Contro	ol		Mode	l Name	:	D8	8R	
Геm	peratu	re:	25	°C		10			Relat	ive Hur	nidity	' : 55	5%	No.
Test	t Voltag	je:	DC	6V	3		5			6	M			
۱nt.	Pol.		Hori	zontal		111	V			1 1		M		
Test	Mode:		TX 2	2479MF	Ηz) ~		m				H		
Ren	nark:			MR			51	1		-	ME			
110.0	dBuV/m													1
50	~	1 2 X	3 ×									5C (PEAK)		
-10											1.00	- 25	64.00	MHz
-10 24	64.000 247	74.00 2	484.00	2494.00	2504	.00 251	4.00	2524.00	2534	.00 254	4.00	25	04.00	
24	64.000 247 Io. Mk		484.00 eq.	Read Lev	ding	Corre	ect	Measi mer	ure-	Limit		Dver		
24		. Fr		Read	ding /el	Corre	ect	Meas	ure- nt		C		Dete	ecto
24		. Fr	eq. Hz	Read Lev	ding rel	Corre Fact	ect or	Meas mer	ure- nt	Limit	C m	Over	Dete	
24	lo. Mk	. Fr	eq. Hz	Read Lev	ding /el uV 21	Corre Fact	ect for	Measi mer	ure- nt //m	Limit dBuV/	m 00 -	Over dB	Dete	eak
N 1	lo. Mk	. Fr мі 2479	eq. Hz .000	Read Lev dBu	ding rel uV 21	Corre Fact dB/m	ect for	Measi mer dBu\	ure- nt //m 36	Limit dBuV//	m 00	Dver dB 18.64	Dete pe A	ecto eak VG



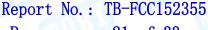


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EUT:	Wireless Remote Control	Model Name :	D8R
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 6V		
Ant. Pol.	Vertical		
Test Mode:	TX 2479MHz		III DE
Remark:			
120.0 dBuV/m			
1 2 3			
		(RF) FCC PART 15C (P	

			\downarrow											(RF)	FCC PAF	IT 15C (I	PEAK)
0			\int_{-}	3 X										(RF) FCC PA	RT 15C	(AVG)
2		/		*	Mar.	~/\	~	لمستسد	<u></u>	~~~	^		 Λ				
0	34.000				4.00	2494		2504		2514		2524	2534		2544.00		2564.00

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2479.000	94.47	1.15	95.62	114.00	-18.38	peak
2	*	2479.000	90.74	1.15	91.89	94.00	-2.11	AVG
3		2483.500	63.38	1.17	64.55	74.00	-9.45	peak
4		2483.500	48.44	1.17	49.61	54.00	-4.39	AVG





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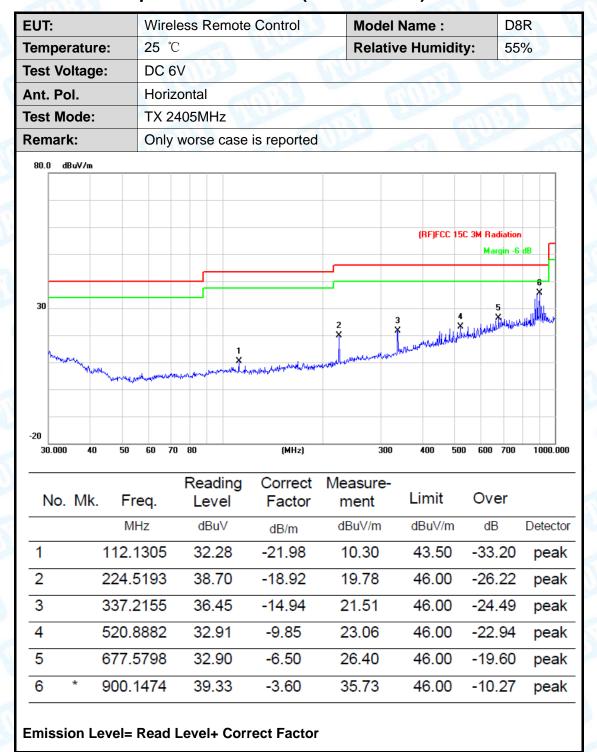
5.6.2 Radiated Spurious Emission (9 KHz~30 MHz)

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB

below the permissible value has no need to be reported.

5.6.3 Radiated Spurious Emission (Below 1 GHz)

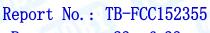






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	T:			Wir	eles	ss Re	emote	e Control		Mod	lel Na	me :		D	8R
Геп	nperat	ure:		25	$^{\circ}$ C	E	M	33	- (Rela	ative H	lumi	dity:	5	5%
Гes	t Volta	age:		DC	6V	Y			18		16				
٩nt	. Pol.			Ver	rtical	I		AHO							
Гes	t Mod	e:		TX	240	5MH	łz		111	MUS					1 les
Rer	nark:			Onl	ly w	orse	case	is reported	t		6.00	117	3		
80.	0 dBuV	m													
											(RF)	FCC 150	C 3M Ra	diation	
									+				Ma	rgin -6	dB
		-	-	+	+					_				+	
30						4								5	6 X
											2 may the thing	3	4 ***	5 ************************************	white
	MANAGE II								1 X Whatelland	and water and	periods Actualia	Mundow	141-		
	hall have madely be	Marson	الميعة	t-openiales	بدوبراب	Mathematical and	بغلميمه خبألب	بالمعربية ويعالم ووحد ألمربط والمعربة	Japa Haral Super						
				+											
-20 31	0.000	40	50	60	70 8	30		(MHz)		300	400	500	600	700	1000.
						2000	lina	Correct	Meas	uro-					
١	No. M	lk.	Fre	eq.	F		ding el	Correct Factor	Meas		Lim	it	Ove	er	
1	No. M	lk.	Fre		F	Read Lev	/el	Factor	Meas mer	nt	Lim dBu\		Ove		Detec
1	No. M		МН	lz		dBu	vel u∨	Factor dB/m	mer dBu\	nt //m	dBu\	//m	dE	3	
1	No. M	2	мн 24.5	ız 193	}	dBu	vel u∨ 64	dB/m -18.92	dBu\	nt //m 72	dBu\ 46.	//m 00	dE -33.	.28	pea
1 2	No. M	2	MH 24.5 86.6	193 338	}	31.0 30.	rel u∨ 64 15	dB/m -18.92 -13.22	12.7	nt //m 72 93	dBu\ 46.	//m 00 00	-33 -29	.28	pea
1 2 3	No. M	3 4	MH 24.5 86.6 82.2	193 338 156	1	31. 30.	rel uv 64 15 21	Factor dB/m -18.92 -13.22 -11.14	12.7 16.9	nt //m 72 93	46. 46.	//m 00 00 00	-33 -29 -26	.28	pea pea
1 2 3 4	No. M	2 3 4 6	MH 24.5 86.6 82.2 29.4	193 338 156 772	} }	31.0 30.3 30.3	rel 1/2 1/2 1/5 1/5 1/5 1/5 1/5 1/5 1/5 1/5 1/5 1/5	Factor dB/m -18.92 -13.22 -11.14 -7.75	mer dBu\ 12.7 16.9 19.0 22.6	nt //m /72 /93 /07 /60	46. 46. 46.	//m 00 00 00 00	-33 -29 -26 -23	.28 .07 .93	pea pea pea
1 2 3	No. M	2 3 4 6	MH 24.5 86.6 82.2	193 338 156 772	} }	31. 30.	rel 1/2 1/2 1/5 1/5 1/5 1/5 1/5 1/5 1/5 1/5 1/5 1/5	Factor dB/m -18.92 -13.22 -11.14	12.7 16.9	nt //m /72 /93 /07 /60	46. 46.	//m 00 00 00 00	-33 -29 -26	.28 .07 .93	pea pea





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5.6.4 Radiated Spurious Emission (Above 1 GHz)

UT	:		Wire	eless	Rem	ote C	ontro		Mo	del	Name:		D8R	
em	peratur	e:	25	25 °C Relative Humidity:							55%	þø		
est	Voltage	e :	DC	6V	M			1	678			A'S.	1	
۱nt.	Pol.		Hori	zont	al	6		33			1170			
est	Mode:		TX 2	2405	MHz	18							المال	
Rem	nark:				t for the		nissio	n whic	h moi	e tha	an 10 dE	3 below	the	
10.0	dBuV/m													
											(RF) FCC	PART 15C (PEAK)	
		2 X									(RF) FC	C PART 15C	(AVG)	
50		×												
10														
100	00.000 3550	.00 6	100.00	8650	0.00	1200.00	137	50.00 1	6300.00	1885	0.00 214	00.00	26500.00	MH:

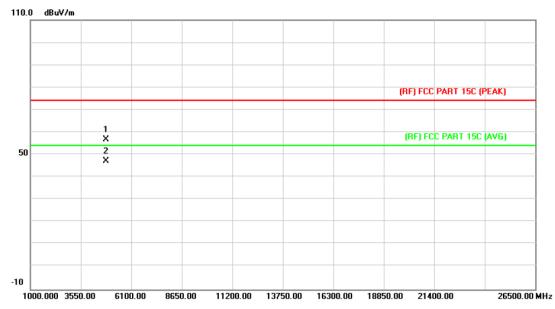
	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	1	*	4808.447	34.78	13.47	48.25	54.00	-5.75	AVG
2	2		4808.543	44.89	13.47	58.36	74.00	-15.64	peak





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EUT:	Wireless Remote Control	Model Name :	D8R						
Temperature:	25 ℃	25 ℃ Relative Humidity: 55%							
Test Voltage:	DC 6V	DC 6V							
Ant. Pol.	Vertical								
Test Mode:	TX 2405MHz		TRUE .						
Remark:	No report for the emission which prescribed limit.	No report for the emission which more than 10 dB below the prescribed limit.							



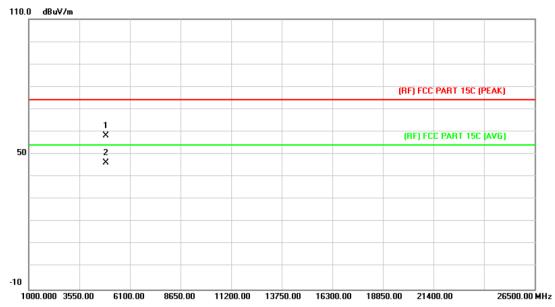
No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4808.471	43.26	13.47	56.73	74.00	-17.27	peak
2	*	4808.666	33.79	13.47	47.26	54.00	-6.74	AVG





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EUT:	Wireless Remote Control	Model Name :	D8R						
Temperature:	25 ℃	5 ℃ Relative Humidity: 55%							
Test Voltage:	DC 6V	DC 6V							
Ant. Pol.	Horizontal	Horizontal							
Test Mode:	TX 2442MHz		BULL						
Remark:	No report for the emission which	more than 10 dB below t	he						
	prescribed limit.								



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4882.904	44.32	13.90	58.22	74.00	-15.78	peak
2	*	4882.970	32.34	13.90	46.24	54.00	-7.76	AVG





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EUT:	Wireless Remote Control	Model Name :	D8R					
Temperature:	25 ℃	25 ℃ Relative Humidity: 55%						
Test Voltage:	DC 6V	DC 6V						
Ant. Pol.	Vertical							
Test Mode:	TX 2442MHz		HILL					
Remark:	No report for the emission wh	ch more than 10 dB belov	v the					
	prescribed limit.							



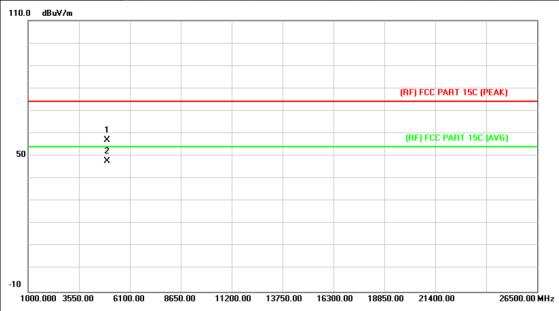
No	o. M	k. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4882.970	34.81	13.90	48.71	54.00	-5.29	AVG
2		4883.048	45.31	13.91	59.22	74.00	-14.78	peak





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EUT:	Wireless Remote Control	Model Name :	D8R					
Temperature:	25 ℃	5 °C Relative Humidity: 55%						
Test Voltage:	DC 6V	DC 6V						
Ant. Pol.	Horizontal	Horizontal						
Test Mode:	TX 2479MHz		ALL DE					
Remark:	No report for the emission whi	ch more than 10 dB below	the					
	prescribed limit.							



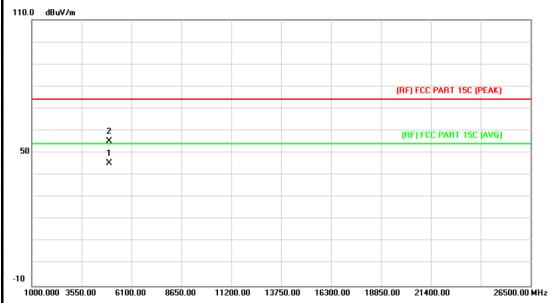
No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4957.850	42.59	14.35	56.94	74.00	-17.06	peak
2	*	4957.949	33.47	14.35	47.82	54.00	-6.18	AVG





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EUT:	Wireless Remote Control	Model Name :	D8R
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 6V		
Ant. Pol.	Vertical		
Test Mode:	TX 2479MHz		
Remark:	No report for the emission which more than 10 dB below the		
	prescribed limit.		



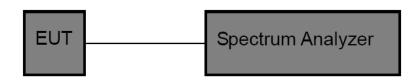
N	lo.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4957.931	30.94	14.35	45.29	54.00	-8.71	AVG
2			4957.937	40.88	14.35	55.23	74.00	-18.77	peak



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6. Bandwidth Test

6.1 Test Setup



6.2 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:

Bandwidth: RBW=100 kHz, VBW=300kHz.

(3) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.

6.3 EUT Operating Condition

The EUT was set to continuously transmitting for the Bandwidth Test.

6.4 Test Data

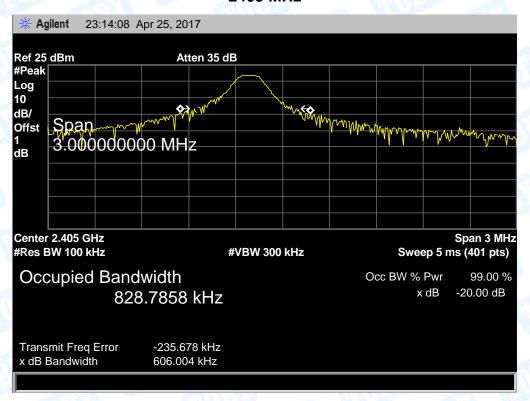




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Low Channel Frequency (MHz)	20dB Bandwidth (KHz)	
2405	606.004	

2405 MHz

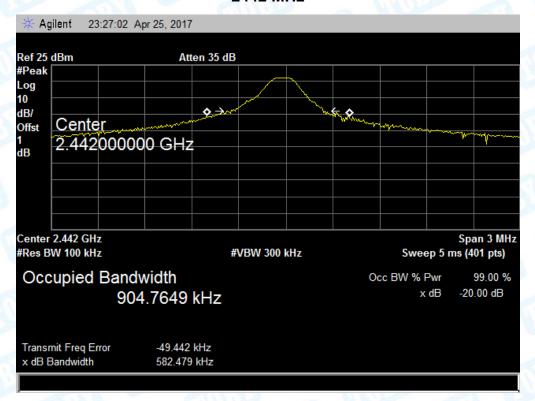




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MID Channel Frequency (MHz)	20dB Bandwidth (KHz)	
2442	582.479	

2442 MHz



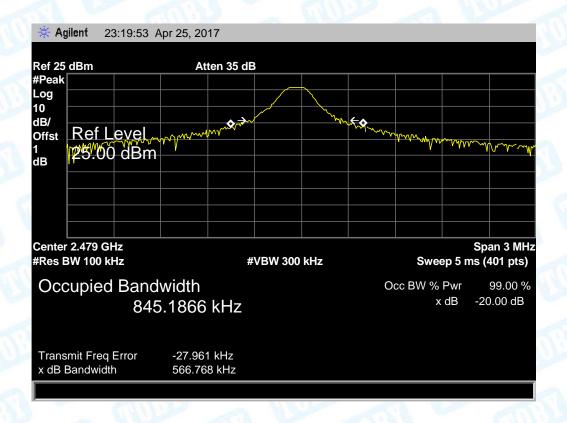




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HIGH Channel Frequency (MHz)	20dB Bandwidth (KHz)	
2479	566.768	

2479 MHz





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7. Antenna Requirement

7.1 Standard Requirement

7.1.1 Standard FCC Part 15.203

7.1.2 Requirement

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

7.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 0 dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

7.3 Result

The EUT antenna is a Integral Antenna. It complies with the standard requirement.

	Antenna Type
	▼ Permanent attached antenna
A VIII	□ Unique connector antenna
COD3	□ Professional installation antenna

----END OF REPORT----