

TEST REPORT

Report No.:	BCTC2305755602E
Applicant:	S.Q.M CO., LTD.
Product Name:	Remote Control
Model/Type reference:	DL-2101T
Tested Date:	2023-05-12 to 2023-05-23
Issued Date:	2023-05-23
She	Page: 1 of 29 Edition: B.0



FCC ID: Y7ZDL2101T

Product Name:	Remote Control		
Trademark:	N/A		
Model/Type Reference:	DL-2101T		
Prepared For:	S.Q.M CO., LTD.		
Address:	NO. 1599 GUANGXING RD. TAIPING CITY TAICHUNG COUNTY 41149. TAIWAN		
Manufacturer:	S.Q.M CO., LTD.		
Address:	NO. 1599 GUANGXING RD. TAIPING CITY TAICHUNG COUNTY 41149. TAIWAN		
Prepared By:	Shenzhen BCTC Testing Co., Ltd.		
Address:	1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Sample Received Date:	2023-05-12		
Sample tested Date:	2023-05-12 to 2023-05-23		
Issue Date:	2023-05-23		
Report No.:	BCTC2305755602E		
Test Standards:	FCC Part15.231 ANSI C63.10-2013		
Test Results:	PASS		

Tested by:

Brave *Le*

Brave Zeng/ Project Handler

Approved by:

Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

Page: 2 of 29



Table Of Content

Tes	t Report Declaration	Page
1.	Version	4
2.	Test Summary	5
3.	Measurement Uncertainty	6
4.	Product Information And Test Setup	7
4.1	Product Information	
4.2	Test Setup Configuration	7
4.3	Support Equipment	7
4.4	Channel List	8
4.5	Test Mode	
5.	Test Facility and test Instrument Used	
5.1	Test Facility	9
5.2	Test Instrument Used	
6.	Conducted Emissions	
6.1	Block Diagram Of Test Setup	
6.2	Limit	11
6.3	Test procedure	
6.4	EUT operating Conditions	
6.5	Test Result	
7.	Radiated Emissions	
7.1	Block Diagram Of Test Setup	
7.2	Limit	
7.3	Test procedure	
7.4	EUT operating Conditions	
7.5	Test Result	
8.	Bandwidth Test	
8.1	Block Diagram Of Test Setup	
8.2	Limit	
8.3	Test procedure	
8.4	EUT operating Conditions	20
8.5	Test Result	
9.	Calculation of Average Factor	
10.	Transmission Deactivate Time	
10.1	Block Diagram Of Test Setup	24
10.2	Limit	24
10.3	Test procedure	24
10.4	Limit Test procedure Test Result Antenna Requirement Standard Requirement EUT Antenna	25
11.	Antenna Requirement	
11.1	Standard Requirement	
11.2	EUI Antenna	26
12.	EUT Photographs	27
13.	EUT Test Setup Photographs	28

(Note: N/A Means Not Applicable)

,TC 3C

PR

测



1. Version

Report No.	Issue Date	Description	Approved
BCTC2305755602E	2023-05-23	Original	Valid





Page: 4 of 29



2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No.	Results
1	Conducted Emission	§15.207	N/A
2	Fundamental &Radiated Spurious Emission Measurement	15.209,15.231b	PASS
3	Occupy Bandwidth	15.231c	PASS
4	Transmission Deactivate Time	15.231a	PASS
5	Antenna Requirement	15.203	PASS

ΞD

No.: BCTC/RF-EMC-005

Page: 5 of 29



3. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(9KHz-30MHz)	U=3.7dB
2	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.3dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=3.34dB
5	Conducted Emission(150kHz-30MHz)	U=3.2dB
6	Conducted Adjacent channel power	U=1.38dB
7	Conducted output power uncertainty Above 1G	U=1.576dB
8	Conducted output power uncertainty below 1G	U=1.28dB
9	humidity uncertainty	U=5.3%
10	Temperature uncertainty	U=0.59°C



4. Product Information And Test Setup

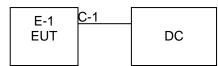
4.1 Product Information

Model/Type Reference:	DL-2101T
Model differences:	N/A
Hardware Version:	N/A
Software Version:	N/A
Operation Frequency:	304 MHz
Type of Modulation:	ASK
Number Of Channel	1CH
Antenna installation:	Internal antenna
Antenna Gain:	0dBi
Ratings:	DC 12V

4.2 Test Setup Configuration

See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Radiated Spurious Emission:



4.3 Support Equipment

No.	Device Type	Brand	Model Series No.	Note
E-1	Remote Control	N/A	DL-2101T N/A	EUT
E-2	N/A	N/A	N/A N/A	N/A

ltem	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	0.5M	USB cable unshielded

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



4.4 Channel List

СН	Frequency (MHz)
1	304

4.5 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 above was evaluated respectively.

Final Test Mode	Description
Mode 1	ТХ

Note:

(1) The measurements are performed at the 1 channel.

(2) Fully-charged battery is used during the test

Page: 8 of 29



5. Test Facility and test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards. FCC Test Firm Registration Number: 712850

A2LA certificate registration number is: CN1212

ISED Registered No.: 23583

ISED CAB identifier: CN0017

RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Power Metter	Keysight	E4419	١	May 15, 2023	May 14, 2024
Power Sensor (AV)	Keysight	E9300A	١	May 15, 2023	May 14, 2024
Signal Analyzer20kH z-26.5GHz	Keysight	N9020A	MY49100060	May 15, 2023	May 14, 2024
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024

5.2 Test Instrument Used







	Radiated Emissions Test (966 Chamber01)							
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.			
966 chamber	ChengYu	966 Room	966	Jun. 06. 2020	Jun. 05, 2023			
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024			
Receiver	R&S	ESRP	101154	May 15, 2023	May 14, 2024			
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 15, 2023	May 14, 2024			
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 15, 2023	May 14, 2024			
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 15, 2023	May 14, 2024			
Amplifier	SKET	LAPA_01G18 G-45dB	١	May 15, 2023	May 14, 2024			
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 15, 2023	May 14, 2024			
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35- HG	2034381	May 15, 2023	May 14, 2024			
Horn Antenna(18G Hz-40GHz)	Schwarzbeck	BBHA9170	00822	May 15, 2023	May 14, 2024			
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024			
Software	Frad	EZ-EMC	FA-03A2 RE	\	Λ_{ij}			

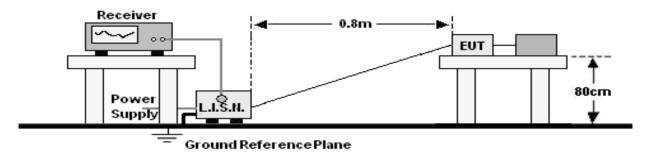
No.: BCTC/RF-EMC-005

Page: 10 of 29



6. Conducted Emissions

6.1 Block Diagram Of Test Setup



6.2 Limit

	Limit (dBuV)		
Frequency (MHz)	Quas-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	

Notes:

1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

6.3 Test procedure

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

a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).

b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from Product in all power lines in the full band.

c. For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

6.4 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.

6.5 Test Result

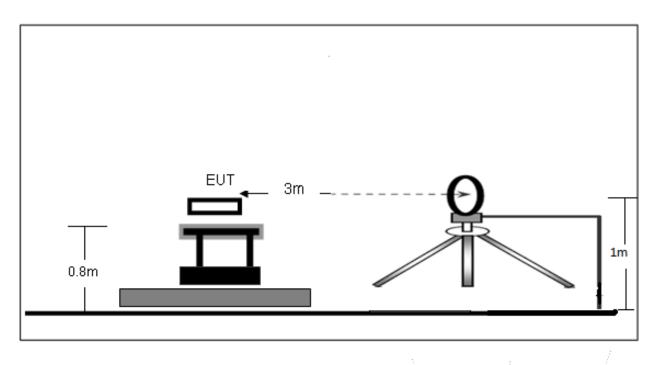
The EUT is powered by the DC only, the test item is not applicable.

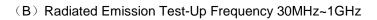


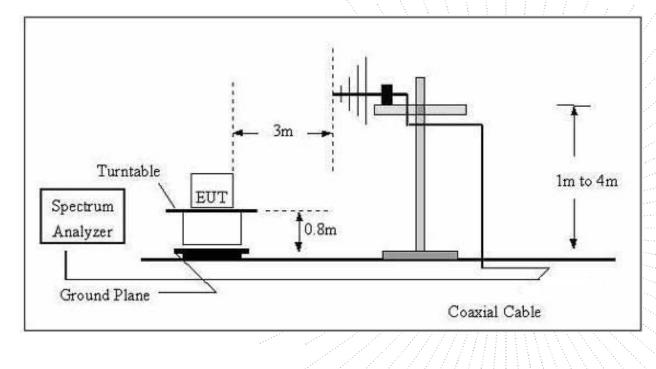
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

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

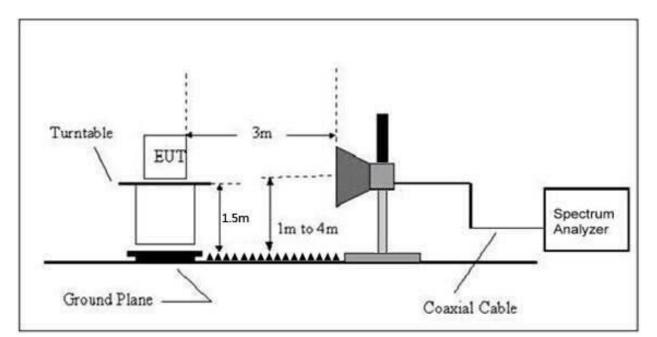








(C) Radiated Emission Test-Up Frequency Above 1GHz



7.2 Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency	Field Strength	Distance	Field Strength Limit at 3m Distance		
(MHz)	uV/m	(m)	uV/m	dBuV/m	
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	20log ^{(2400/F(kHz))} + 80	
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	20log ^{(24000/F(kHz))} + 40	
1.705 ~ 30	30	30	100 * 30	20log ⁽³⁰⁾ + 40	
30 ~ 88	100	3	100	20log ⁽¹⁰⁰⁾	
88 ~ 216	150	3	150	20log ⁽¹⁵⁰⁾	
216 ~ 960	200	3	200	20log ⁽²⁰⁰⁾	
Above 960	500	3	500	20log ⁽⁵⁰⁰⁾	

Limits Of Radiated Emission Measurement (Above 1000MHz)

	Limit (dE	3uV/m) (at 3M)	
Frequency (MHz)	Peak	Average	
Above 1000	7:4	54	

Notes:

- (1)The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).



Frequency Range Of Radiated Measurement

(a) For an intentional radiator the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:
(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(4) If the intentional radiator operates at or above 95 GHz: To the third harmonic of the highest fundamental frequency or to 750 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(5) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a) (1)through (4) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

7.3 Test procedure

Setting	
Auto	
RBW 200Hz for QP	
RBW 9kHz for QP	
RBW 120kHz for QP	1
	Auto RBW 200Hz for QP RBW 9kHz for QP

Spectrum Parameter	Setting
1-6GHz	RBW 1 MHz /VBW 1 MHz for Peak, RBW 1 MHz / VBW 10Hz for Average

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.



Above 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

g. Test the EUT has only one channel.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

7.4 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.

7.5 Test Result

Temperature:26°CRelative Humidity:24%Pressure:101 kPaTest Voltage:DC 12VTest Mode:Mode 1Polarization:--

Below 30MHz

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

Note:

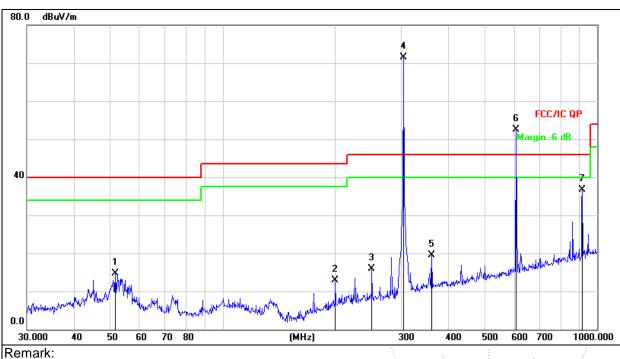
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB); Limit line = specific limits(dBuv) + distance extrapolation factor.



Between 30MHz - 1GHz

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 1	Test Voltage :	DC 12V



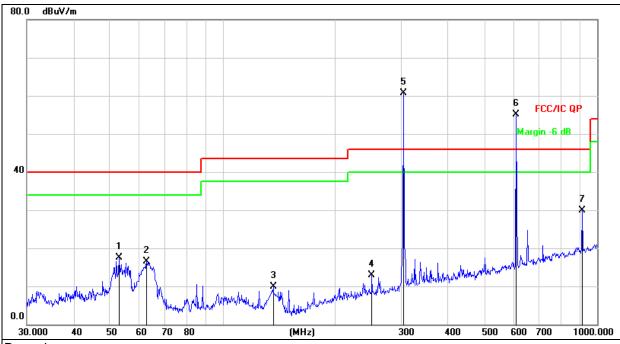
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 Measurement = Reading Level + Correct Factor
 Over = Measurement - Limit

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		51.6615	30.46	-15.84	14.62	40.00	-25.38	QP
2		199.9856	30.22	-17.37	12.85	43.50	-30.65	QP
3		250.3011	31.65	-15.82	15.83	46.00	-30.17	QP
4	*	304.6099	85.90	-14.41	71.49	94.93	-23.44	peak
5		361.7139	32.19	-12.65	19.54	46.00	-26.46	QP
6	Х	607.7866	60.76	-8.29	52.47	74.93	-22.46	peak
7		912.8619	41.24	-4.45	36.79	74.93	-38.14	peak

检



Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 1	Test Voltage :	DC 12V



Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

2. Measurement = Reading Level + Correct Factor

3. (Over =	- Measurement -	Limit
------	--------	-----------------	-------

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		52.9453	33.50	-16.03	17.47	40.00	-22.53	QP
2		62.6507	34.42	-17.85	16.57	40.00	-23.43	QP
3		136.4598	30.06	-20.16	9.90	43.50	-33.60	QP
4		250.3010	28.73	-15.82	12.91	46.00	-33.09	QP
5	*	304.6099	75.21	-14.41	60.80	94.93	-34.13	peak
6	Х	607.7866	63.45	-8.29	55.16	74.93	-19.77	peak
7		912.8618	34.40	-4.45	29.95	74.93	-44.98	peak

) ED



For average Emission

Frequency MHz	Peak Level dBuV/m	Duty cycle factor	Average Level dBuV/m	Limit AV	Margin	Polarization
304	71.49	-16.54	54.95	74.93	-19.98	Horizontal
608	52.47	-16.54	35.93	54.93	-19.00	Horizontal

Notes:

1. Average emission Level = Peak Level + Duty cycle factor

2.Duty cycle level please see clause 9.

Frequency MHz	Peak Level dBuV/m	Duty cycle factor	Average Level dBuV/m	Limit AV	Margin	Polarization
304	60.80	-16.54	44.26	74.93	-30.67	Vertical
608	55.16	-16.54	38.62	54.93	-16.31	Vertical

Notes:

1. Average emission Level = Peak Level + Duty cycle factor 2. Duty cycle level please see clause 9.

No.: BCTC/RF-EMC-005

Page: 18 of 29



radiated opaniede Enneelen		(,				
Frequency	Peak	Duty	Average	Liı	nit	Marg	in dB	
MHz	Level dBuV/m	cycle factor	Level dBuV/m	РК	AV	PK	AV	Polarization
912.04	51.20	-16.54	34.66	74.00	54.00	-22.80	-19.34	Vertical
1216.05	52.53	-16.54	35.99	74.93	54.93	-22.40	-18.94	Vertical
1824.07	51.07	-16.54	34.53	74.93	54.93	-23.86	-20.40	Vertical
2128.08	52.80	-16.54	36.26	74.93	54.93	-22.13	-18.67	Vertical
2432.10	50.60	-16.54	34.06	74.00	54.00	-23.40	-19.94	Vertical
2736.11	47.45	-16.54	30.91	74.93	54.93	-27.48	-24.02	Vertical
912.04	47.13	-16.54	30.59	74.00	54.00	-26.87	-23.41	Horizontal
1216.05	47.03	-16.54	30.49	74.93	54.93	-27.90	-24.44	Horizontal
1824.07	49.41	-16.54	32.87	74.93	54.93	-25.52	-22.06	Horizontal
2128.08	49.63	-16.54	33.09	74.93	54.93	-25.30	-21.84	Horizontal
2432.10	46.94	-16.54	30.40	74.00	54.00	-27.06	-23.60	Horizontal
2736.11	48.23	-16.54	31.70	74.93	54.93	-26.70	-23.23	Horizontal

Radiated Spurious Emission (1GHz to 10th harmonics)

Notes: 1.Average emission Level = Peak Level + Duty cycle factor

2.Duty cycle level please see clause 9.

3. Pulse Desensitization Correction Factor

Pulse Width (PW) = 24.14 ms

RBW =1 MHz

PW (24.14 ms)> 1/RBW (1us) Therefore PDCF is not needed

4.Other harmonics emissions are lower than 20dB below the allowable limit.

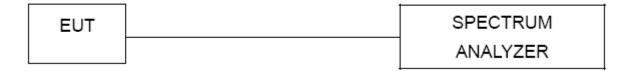


29 Page: 19 of



8. Bandwidth Test

8.1 Block Diagram Of Test Setup



8.2 Limit

According to FCC 15.231(c) requirement:

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating between 70 MHz to 900 MHz. Those devices operating above 900 MHz, the emission spurious shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

B.W (20dBc) Limit = 0.25% * f(MHz) = 0.25% * 433.92MHz = 1.0848MHz

Spectrum Parameter	Setting					
Attenuation	Auto					
Span Frequency	> Measurement Bandwidth or Channel Separation					
RB	1 % to 5 % of the OBW					
VB	≥RBW					
Detector	Peak					
Trace	Max Hold					
Sweep Time	Auto					

8.3 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= 1 % to 5 % of the OBW, VBW≥ RBW, Sweep time = Auto.

8.4 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.

E



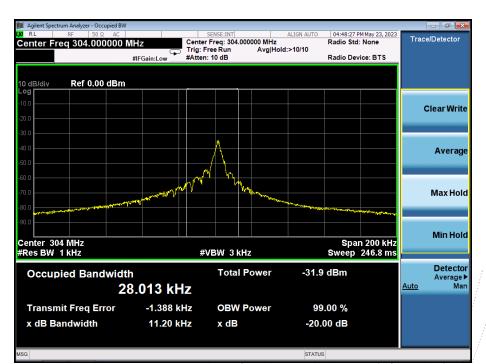
8.5 Test Result

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 3V
Test Mode:	Mode 1		

Frequency	20dB Bandwidth(kHz)	Limit(MHz)	Result
304 MHz	11.20	0.76	PASS

Remark:

Limit=0.25%*304MHz=0.76MHz









9. Calculation of Average Factor

The output field strOengths of specification in accordance with the FCC rules specify measurements with an average detector. During the test, a spectrum analyzer incorporating a peak detector was used. Therefore, a reduction factor can be applied to the resultant peak signal level and compared to the limit for measurement instrumentation incorporating an average detector.

The duty cycle is measured in 100 ms or the repetition cycle period, whichever is a shorter time frame. The duty cycle is measured by placing the spectrum analyzer to set zero span at 100kHz resolution bandwidth. Averaging factor in dB =20log (duty cycle)

The duration of one cycle =24.14 ms

The duty cycle is simply the on-time divided the duration of one cycle

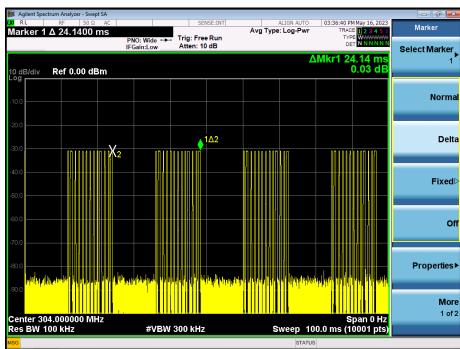
Duty Cycle = (0.201ms*10+0.529ms*3)/24.14 ms

=3.597 ms / 24.14 ms

=0.149

Therefore, the averaging factor is found by 20log0.149=-16.54 dB Test plot as follows:

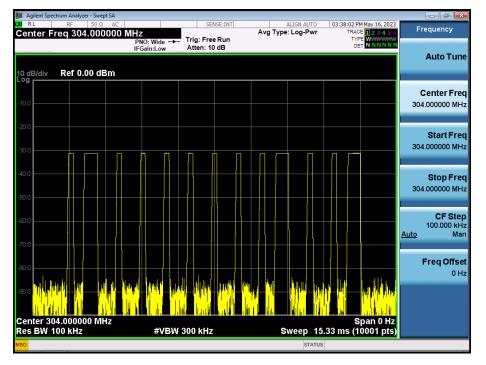
Note: During the 53.4ms, the amount of pulse and on-time of pulse are the same for every pulse train.



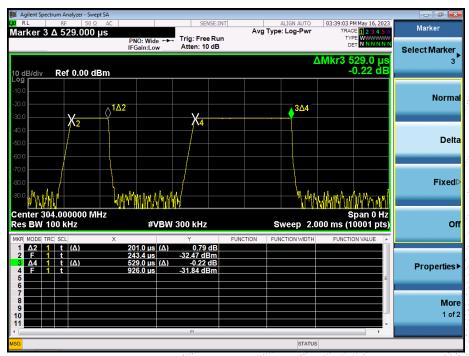




Pulse



On-time







10. Transmission Deactivate Time

10.1 Block Diagram Of Test Setup



10.2 Limit

According to FCC 15.231(a) requirement: A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

10.3 Test procedure

- a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b) Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- c) Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
- d) Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
- e) Repeat above procedures until all measured frequencies were complete.

No.: BCTC/RF-EMC-005

Page: 24 of 29



10.4 Test Result

Transmission Deactivate Time	Limit (second)	Result
268ms	<5s	Pass

03:40:34 PM May 16, 2023 ALIGN AUTO Avg Type: Log-Pwr Marke 268.000 ms Trig: Free Run Atten: 10 dB PNO: Wide IFGain:Low Select Marker ΔMkr1 268.0 ms -0.19 dB Ref 0.00 dBm 0 dB/div Normal 1<u></u>2 Delta **Fixed**▷ Off Properties ► More 1 of 2 Center 304.000000 MHz Res BW 100 kHz Span 0 Hz Sweep 10.00 s (10001 pts) #VBW 300 kHz

Test plot as follows:



No.: BCTC/RF-EMC-005

Page: 25 of 29



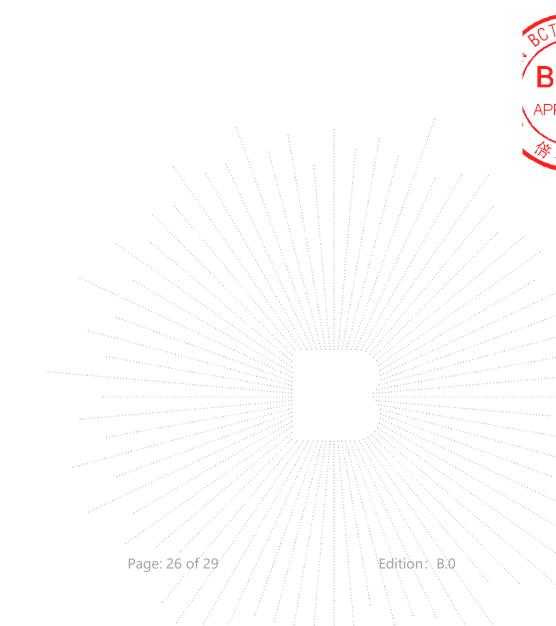
11. Antenna Requirement

11.1 Standard Requirement

15.203 requirement: For intentional device, according to 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.

11.2 EUT Antenna

The EUT antenna is the Internal antenna. It comply with the standard requirement.





12. EUT Photographs

EUT Photo 1



EUT Photo 2



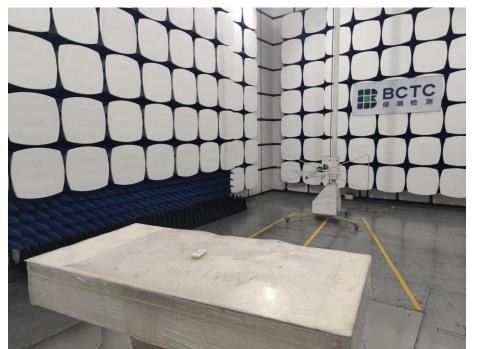


Page: 27 of 29



13. EUT Test Setup Photographs

Radiated Measurement Photos







STATEMENT

1. The equipment lists are traceable to the national reference standards.

2. The test report can not be partially copied unless prior written approval is issued from our lab.

3. The test report is invalid without the "special seal for inspection and testing".

4. The test report is invalid without the signature of the approver.

5. The test process and test result is only related to the Unit Under Test.

6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.

7. The quality system of our laboratory is in accordance with ISO/IEC17025.

8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

Address:

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: 400-788-9558

P.C.: 518103

FAX: 0755-33229357

Website: http://www.chnbctc.com

E-Mail: bctc@bctc-lab.com.cn

******** END *******

No.: BCTC/RF-EMC-005

Page: 29 of 29