

TEST REPORT

FOR FCC PART 15 SUBPART C 15.249

Report Reference No	CTL1806283021-WF
---------------------	------------------

Compiled by:

(position+printed name+signature)

Tested by:

(position+printed name+signature)

Approved by: (position+printed name+signature) Allen Wang

(File administrators)

Nice Nong (Test Engineer)

> Ivan Xie (Manager)

Allen Wang
Nice Nong
Luran Nie

Product Name...... Video Baby monitor

DC-506, DC-508, G1, G2, G3, G4, G5, G6, SC895, CU895, 3052, Model/Type reference:

DVM-500

Trade Mark N/A

FCC ID 2AEMVDC-5068

Applicant's name Huafun International (China) Development Co., Ltd.

12A01/12A12 information building Baoyunda logistic park, Qianjin Address of applicant

Road#2, Bao'an, Shenzhen, China

Test Firm Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Address of Test Firm

Nanshan District, Shenzhen, China 518055

Test specification

Standard...... FCC Part 15.249:Operation within the bands 920-928 MHz,

2400-2483.5 MHz, 5725-5850 MHz and 24.0 - 24.25 GHz.

TRF Originator Shenzhen CTL Testing Technology Co., Ltd.

Master TRF Dated 2011-01

Date of Receipt...... July 10, 2018

Date of Test Date July 10, 2018–July 20, 2018

Data of Issue...... July 20, 2018

Result Pass

Shenzhen CTL Testing Technology Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen CTL Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen CTL Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

TEST REPORT

Tost Poport No. :	CTL1806283021-WF	July 23, 2018
Test Report No. :	C1L1000203021-WF	Date of issue

Equipment under Test : Video Baby monitor

Model /Type : DC-506, DC-508, G1, G2, G3, G4, G5, G6, SC895,

CU895, 3052, DVM-500

Applicant : Huafun International (China) Development Co.,

Ltd.

Address : 12A01/12A12 information building Baoyunda logistic

park, Qianjin Road#2, Bao'an, Shenzhen, China

Manufacturer : Huafun International (China) Development Co.,

Ltd.

Address : 12A01/12A12 information building Baoyunda logistic

park, Qianjin Road#2, Bao'an, Shenzhen, China

Test res	ult	DE LA LES	Pass *
1631163	an Cillian Martin		rass

^{*} In the configuration tested, the EUT complied with the standards specified page 5.

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Testing Techn

** Modified History **

Revision	Description	Issued Data	Report No.	Remark
Version 1.0	Initial Test Report Release	July 20, 2018	CTL1806283021-WF	Tracy Qi



	Table of Contents	Page
1. SU	MMARY	5
1.1.	TEST STANDARDS	5
1.2.	Test Description	
1.3.	Test Facility	
1.4.	STATEMENT OF THE MEASUREMENT UNCERTAINTY	6
2. GE	NERAL INFORMATION	7
2.1.	Environmental conditions	
2.2.	GENERAL DESCRIPTION OF EUT	7
2.3.	DESCRIPTION OF TEST MODES AND TEST FREQUENCY	
2.4.	EQUIPMENTS USED DURING THE TEST	8
2.5.	RELATED SUBMITTAL(S) / GRANT(S)	
2.6.	MODIFICATIONS	8
3. TE	ST CONDITIONS AND RESULTS	9
3.1.	CONDUCTED EMISSIONS TEST	
3.2.	Radiated Emissions and Band Edge	
3.3.	Occupied Bandwidth Measurement	19
3.4.	Antenna Requirement	21
	ST SETUP PHOTOS OF THE EUT	
5. EX	TERNAL AND INTERNAL PHOTOS OF THE EUT	23



V1.0 Page 5 of 28 Report No.: CTL1806283021-WF

1. SUMMARY

1.1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.249: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz.

ANSI C63.10:2013: American National Standard for Testing Unlicensed Wireless Devices

1.2. Test Description

FCC PART 15.249		
FCC Part 15.249(a)	Field Strength of Fundamental	PASS
FCC Part 15.209	Spurious Emission	PASS
FCC Part 15.209	Band edge	PASS
FCC Part 15.215(c)	20dB bandwidth	PASS
FCC Part 15.207	Conducted Emission	PASS
FCC Part 15.203	Antenna Requirement	PASS



V1.0 Page 6 of 28 Report No.: CTL1806283021-WF

1.3. Test Facility

1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 22/EN 55022 requirements.

1.3.2 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

IC Registration No.: 9618B

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration No.: 9618B on November 13, 2013.

FCC-Registration No.: 399832

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 399832, December 08, 2017.

1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods — Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10dB	(1)
Radiated Emission	Above 1GHz	4.32dB	(1)
Conducted Disturbance	0.15~30MHz	3.20dB	(1)

⁽¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

V1.0 Page 7 of 28 Report No.: CTL1806283021-WF

2. GENERAL INFORMATION

2.1. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

	<u> </u>
Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2. General Description of EUT

Product Name:	Video Baby monitor
	·
Model/Type reference:	DC-506
Power supply:	AC 120V/60Hz from AC adapter
Adapter information:	Model:DYED05015W1EU
	Input:100-240~50/60Hz 0.5A
	Output: DC 5.0V 1.5A
2.4GHz Wireless	
Modulation:	GFSK
Operation frequency:	2409.5MHz~2476MHz
Channel number:	20
Channel separation:	3.5MHz
Antenna type:	Integral Antenna
Antenna gain:	2dBi

Note: For more details, please refer to the user's manual of the EUT.

2.3. Description of Test Modes and Test Frequency

The Applicant provides communication tools software to control the EUT for staying in continuous transmitting (Duty Cycle more than 98%) mode for testing .There are 20 channels provided to the EUT and Channel 01/10/20were selected for testing. Test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and report the worst condition's result.

Operation Frequency List:

Channel	Frequency (MHz)
01	2409.5
02	2413.0
03	2416.5
i i	:
10	2441.0
i:	i :
18	2469.0
19	2472.5
20	2476.0

Note:1. The line display in grey is the channel selected to perform test.

2.4. Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	3560.6550.1 2	2018/05/20	2019/05/19
LISN	R&S	ESH2-Z5	860014/010	2018/05/20	2019/05/19
Bilog Antenna	Sunol Sciences Corp.	JB1	A061713	2018/05/20	2019/05/19
EMI Test Receiver	R&S	ESCI	103710	2018/05/20	2019/05/19
Spectrum Analyzer	Agilent	E4407B	MY41440676	2018/05/20	2019/05/19
Spectrum Analyzer	Agilent	N9020	US46220290	2018/05/20	2019/05/19
Controller	EM Electronics	Controller EM 1000	N/A	2018/05/20	2019/05/19
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	2018/05/20	2019/05/19
Active Loop Antenna	SCHWARZBE CK	FMZB1519	1519-037	2018/05/20	2019/05/19
Amplifier	Agilent	8349B	3008A02306	2018/05/20	2019/05/19
Amplifier	Agilent	8447D	2944A10176	2018/05/20	2019/05/19
Temperature/Humi dity Meter	Gangxing	CTH-608	02	2018/05/20	2019/05/19
High-Pass Filter	K&L	9SH10-2700/X1 2750-O/O	N/A	2018/05/20	2019/05/19
High-Pass Filter	K&L	41H10-1375/U1 2750-O/O	N/A	2018/05/20	2019/05/19
Coaxial Cables	HUBER+SUHN ER	SUCOFLEX 104PEA-10M	10m	2018/05/20	2019/05/19
Coaxial Cables	HUBER+SUHN ER	SUCOFLEX 104PEA-3M	3m	2018/05/20	2019/05/19
Coaxial Cables	HUBER+SUHN ER	SUCOFLEX 104PEA-3M	3m	2018/05/20	2019/05/19
RF Cable The calibration inten	Megalon	RF-A303	N/A	2018/05/20	2019/05/19

The calibration interval was one year

2.5. Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended to comply with Section 15.249 of the FCC Part 15, Subpart C Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.

V1.0 Page 9 of 28 Report No.: CTL1806283021-WF

3. TEST CONDITIONS AND RESULTS

3.1. Conducted Emissions Test

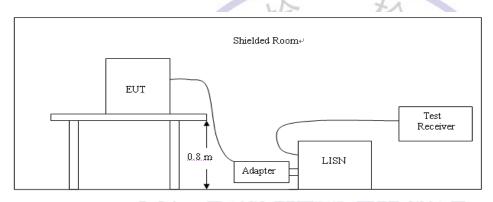
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

[Limit (d	lBuV)
Frequency range (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

^{*} Decreases with the logarithm of the frequency.

TEST CONFIGURATION



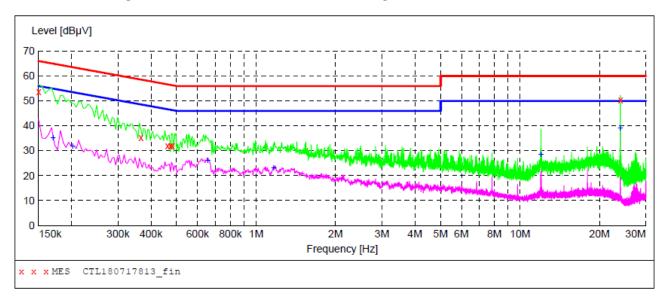
TEST PROCEDURE

- 1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
- 2. Support equipment, if needed, was placed as per ANSI C63.10:2013.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
- 4. If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5. All support equipments received AC power from a second LISN, if any.
- 6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "CTL180717813 fin"

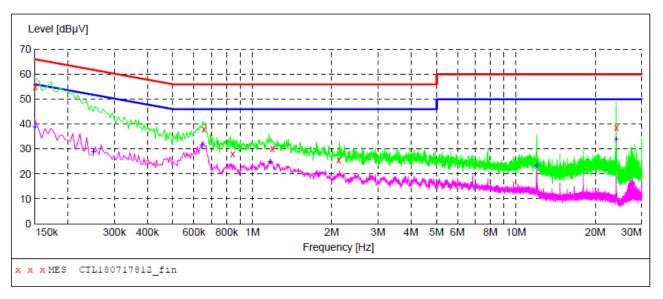
2018-7-17 07 Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	53.60	10.2	66	12.4	QP	L1	GND
0.366000	35.30	10.2	59	23.3	QP	L1	GND
0.462000	31.90	10.2	57	24.8	QP	L1	GND
0.474000	32.00	10.2	56	24.4	QP	L1	GND
0.482000	32.00	10.2	56	24.3	QP	L1	GND
24.002000	50.30	11.1	60	9.7	QP	L1	GND

MEASUREMENT RESULT: "CTL180717813_fin2"

	-7-17 07:4 requency MHz	l4?? Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0.170000	35.20	10.2	55	19.8	AV	L1	GND
	0.202000	31.90	10.2	54	21.6 19.9	AV	L1	GND
	0.656000	26.10	10.2	46		AV	L1	GND
	1.166000	23.20	10.3	46	22.8	AV	L1	GND
1:	2.002000	28.50	10.6	50	21.5	AV	L1	GND
2	4.002000	39.10	11.1	50	10.9	AV	L1	GND

SCAN TABLE: "Voltage (9K-30M) FIN" Short Description: 150K-30M

150K-30M Voltage



MEASUREMENT RESULT: "CTL180717812 fin"

201	8-7-17 07:4 Frequency MHz	41?? Level dBμV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0.150000	55.00	10.2	66	11.0	QP	N	GND
	0.656000	38.00	10.2	56	18.0	QP	N	GND
	0.842000	27.90	10.2	56	28.1	QP	N	GND
	1.190000	30.10	10.3	56	25.9	QP	N	GND
	2.126000	25.70	10.4	56	30.3	QP	N	GND
	24.008000	38.60	11.1	60	21.4	QP	N	GND

MEASUREMENT RESULT: "CTL180717812 fin2"

2018-7-17 07: Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.250000 0.644000 1.172000 11.996000 24.002000	38.80 29.00 31.70 25.00 23.50 34.10	10.2 10.2 10.2 10.3 10.6	56 52 46 46 50	17.2 22.8 14.3 21.0 26.5 15.9	AV AV AV AV AV	N N N N N	GND GND GND GND GND GND

3.2. Radiated Emissions and Band Edge

Limit

According 15.249, the field strength of emissions from intentional radiators operated within 2400MHz-2483.5 MHz shall not exceed 94dBµV/m (50mV/m):

FCC PART 15.249(d) 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 §15.209, whichever is the lesser attenuation.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

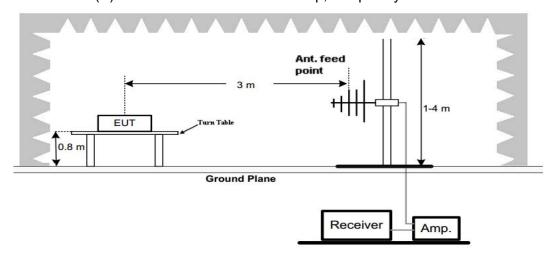
Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

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



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



Ant. feed point

Turn Table

Ground Plane

Receiver

Amp.

(C) Radiated Emission Test Set-Up, Frequency above 1000MHz

Test Procedure

- 1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
- Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT
- 3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 4. Repeat above procedures until all frequency measurements have been completed.

TEST RESULTS

Remark:

- 1. We measured Radiated Emission at GFSK mode from 9 KHz to 25GHz and recorded worst case.
- 2. For below 1GHz testing recorded worst at GFSK low channel.
- Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz

Horizontal SWEEP TABLE: "test (30M-1G)" Short Description: Field Strength Start Stop Detector Meas. ΙF Transducer Frequency Frequency Time Bandw. 30.0 MHz 1.0 GHz MaxPeak 200.0 ms 120 kHz VULB 9168 Level [dB礦/m] 80 70 60 50 40 30 20 10 0 30M 40M 50M 60M 70M 100M 200M 300M 400M 500M 600M 800M Frequency [Hz] MEASUREMENT RESULT: "CTL180717138 red" 2018-7-18 9:13 Frequency Level Transd Limit Margin Det. Height Azimuth Polarization MHz dB礦/m dB dB礦/m dΒ cm dea 167.740000 36.90 14.5 43.5 0.0 0.00 HORIZONTAL HORIZONTAL 288.020000 35.10 13.8 46.0 10.9 0.0 0.00 ___ 577.080000 32.70 19.6 46.0 13.3 HORIZONTAL 623.640000 36.20 20.6 46.0 9.8 ---0.0 0.00 HORIZONTAL ___ 648.860000 31.20 20.9 46.0 14.8 0.0 0.00 HORIZONTAL 672.140000 37.10 21.2 46.0 8.9 0.00 HORIZONTAL Vertical SWEEP TABLE: "test (30M-1G)" Short Description: Fi Field Strength Stop Detector Meas. IF Transducer Frequency Frequency Time Bandw. 30.0 MHz 1.0 GHz MaxPeak 200.0 ms 120 kHz VULB 9168 Level [dB礦/m] 80 60 40 20 10 0 30M 400M 500M 600M 40M 50M 60M 70M 100M 200M 300M 800M 1G Frequency [Hz] x x x MES CTL180717137_red MEASUREMENT RESULT: "CTL180717137_red" 2018-7-18 9:11 Frequency Level Transd Limit Margin Det. Height Azimuth Polarization MHz dB礦/m dB dB礦/m dB cm deg 12.8 70.740000 27.20 40.0 0.0 0.00 VERTICAL 11.4 40.00 43.5 ___ 167.740000 VERTICAL. 14.5 3.5 0.0 0.00 13.1 ---32.90 0.0 239.520000 12.7 46.0 0.00 VERTICAL 11.7 ---288.020000 13.8 VERTICAL 34.30 46.0 0.0 0.00

10.8 ---

9.0 ---

0.00

0.00

VERTICAL

VERTICAL

0.0

0.0

Note:

1. Margin = Limit - level

311.300000

672.140000

35.20

37.00

14.4

21.2

46.0

46.0

For 1GHz to 25GHz

GFSK Mode (above 1GHz)

Fred	quency(MF	lz):	240	9.5		Polarity:			HORIZONTAL		
Frequency	Emission		Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction		
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor		
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)		
4819.00	52.04	PK	74.00	21.96	47.53	33.49	6.91	35.89	4.51		
4819.00		AV	54.00	-							
5149.15	43.71	PK	74.00	30.29	36.50	34.38	7.10	34.27	7.21		
5149.15		AV	54.00	-							
7228.50	48.95	PK	74.00	25.05	37.85	36.95	9.18	35.03	11.10		
7228.50		AV	54.00								

Fred	quency(MH	lz):	240	9.5		Polarity:		VERTICAL		
Frequency	Emission		Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction	
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor	
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)	
4819.00	51.96	PK	74.00	22.04	47.45	33.49	6.91	35.89	4.51	
4819.00		AV	54.00	-119	-7:11					
5149.15	42.89	PK	74.00	31.11	35.33	34.69	7.23	34.36	7.56	
5149.15		AV	54.00	14			-			
7228.50	47.94	PK	74.00	26.06	36.84	36.95	9.18	35.03	11.10	
7228.50		AV	54.00	-		7/1-1	1//-			

Fred	quency(MF	lz):	24	41	Polarity:			HORIZONTAL	
Frequency			Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
4882.00	50.92	PK	74.00	23.08	44.67	33.60	6.95	34.30	6.25
4882.00		AV	54.00	8/1-	- 18			/	
5160.75	43.84	PK	74.00	30.16	36.21	34.57	7.16	34.10	7.63
5160.75		AV	54.00	242	200	<u> </u>	S2/		
7323.00	48.37	PK	74.00	25.63	36.68	37.46	9.23	35.00	11.69
7323.00		AV	54.00			100			

				0 - 11		7/1,			
Fred	quency(MF	łz):	24	41		Polarity:	VER	VERTICAL	
Frequency	Emis	ssion	Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
4880.00	51.86	PK	74.00	22.14	45.61	33.60	6.95	34.30	6.25
4880.00		AV	54.00	-					
5160.75	43.07	PK	74.00	30.93	35.43	34.58	7.16	34.10	7.64
5160.75		AV	54.00	-					
7323.00	47.91	PK	74.00	26.09	36.22	37.46	9.23	35.00	11.69
7323.00		AV	54.00						

Fred	quency(MF	lz):	24	76		Polarity:	HORIZONTAL		
Frequency	Emission		Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Level		(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
4952.00	51.74	PK	74.00	22.26	46.82	33.84	7.00	35.92	4.92
4952.00		AV	54.00						
5275.50	43.62	PK	74.00	30.38	36.08	34.67	7.22	34.35	7.54
5275.50		AV	54.00						
7428.00	48.21	PK	74.00	25.79	36.26	37.64	9.28	34.97	11.95
7428.00		AV	54.00						

Fred	quency(MH	lz):	24	76		Polarity:	VERTICAL		
Frequency	Emission		Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Level		(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
4952.00	52.63	PK	74.00	21.37	47.71	33.84	7.00	35.92	4.92
4952.00		AV	54.00		1	-			
5275.50	44.16	PK	74.00	29.84	36.97	34.36	7.10	34.27	7.19
5275.50		AV	54.00	611	-/[1]	/ ·			
7428.00	47.71	PK	74.00	26.29	35.76	37.64	9.28	34.97	11.95
7428.00		AV	54.00	Add	100		. 1 -		

REMARKS:

- 1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 3. Margin value = Limit value- Emission level.
- 4. -- Mean the PK detector measured value is below average limit.
- 5. The other emission levels were very low against the limit.
- 6. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.

Results of Band Edges Test (Radiated)

Fred	quency(MF	lz):	240	9.5		Polarity:		HORIZ	ONTAL
Frequency	Emission		Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
2409.50	108.33	PK	114.00	5.67	74.94	28.78	4.61	0.00	33.39
2409.50	92.75	AV	94.00	1.25	59.36	28.78	4.61	0.00	33.39
2349.75	44.53	PK	74.00	29.47	11.45	28.52	4.56	0.00	33.08
2349.75		AV	54.00						
2390.00	48.98	PK	74.00	25.02	15.66	28.72	4.60	0.00	33.32
2390.00		AV	54.00						
2400.00	47.31	PK	74.00	26.69	13.92	28.78	4.61	0.00	33.39
2400.00		AV	54.00	-					

Free	Frequency(MHz):		240	9.5		Polarity:		VERTICAL	
Frequency	Emission		Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	ıV/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
2409.50	107.92	PK	114.00	6.08	74.53	28.78	4.61	0	33.39
2409.50	91.47	AV	94.00	2.53	58.08	28.78	4.61	0	33.39
2349.75	43.51	PK	74.00	30.49	10.43	28.52	4.56	0	33.08
2349.75		AV	54.00		-6-				
2390.00	48.94	PK	74.00	25.06	15.62	28.72	4.60	0	33.32
2390.00	9/	AV	54.00				7/2		
2400.00	47.52	PK	74.00	26.48	14.13	28.78	4.61	0	33.39
2400.00		AV	54.00	14-41	The IT	7			
		9	NA	N. del		E.A	1		

Fred	Frequency(MHz):		2441		Polarity:			HORIZONTAL	
Frequency	Emis	ssion	Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
2400.00	43.78	PK	74.00	30.22	10.39	28.78	4.61	0.00	33.39
2400.00		AV	54.00		1		⊕,		
2483.50	43.60	PK	74.00	30.40	9.97	28.93	4.70	0.00	33.63
2483.50		AV	54.00	1		(
2441.00	106.78	PK	114.00	7.22	73.51	28.69	4.58	0.00	33.27
2441.00	91.53	AV	94.00	2.47	58.26	28.69	4.58	0.00	33.27

Free	Frequency(MHz):		2441		Polarity:			VERTICAL	
Frequency	Emis	ssion	Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
2400.00	43.92	PK	74.00	30.08	10.53	28.78	4.61	0.00	33.39
2400.00		AV	54.00						
2483.50	43.04	PK	74.00	30.96	9.41	28.93	4.70	0.00	33.63
2483.50		AV	54.00						
2441.00	106.24	PK	114.00	7.76	72.97	28.69	4.58	0.00	33.27
2441.00	93.03	AV	94.00	0.97	59.76	28.69	4.58	0.00	33.27

Free	Frequency(MHz):		2476			Polarity:		HORIZONTAL	
Frequency	Emis	ssion	Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
2476.00	107.38	PK	114.00	6.62	73.76	28.92	4.70	0.00	33.62
2476.00	93.01	AV	94.00	0.99	59.39	28.92	4.70	0.00	33.62
2483.50	43.92	PK	74.00	30.08	10.29	28.93	4.70	0.00	33.63
2483.50		AV	54.00					-	
2491.95	44.05	PK	74.00	29.95	10.39	28.95	4.71	0.00	33.66
2491.95		AV	54.00	-			-		
2500.00	43.16	PK	74.00	30.84	9.48	28.96	4.72	0.00	33.68
2500.00		AV	54.00						

Free	Frequency(MHz):		24	76	Polarity:			VERTICAL	
Frequency	Emis	ssion	Limit	Margin	Raw	Antenna	Cable	Pre- amplifier	Correction
(MHz)	Le	vel	(dBuV/m)	(dB)	Value	Factor	Factor	(dB)	Factor
	(dBu	V/m)			(dBuV)	(dB/m)	(dB)		(dB/m)
2476.00	106.79	PK	114.00	7.21	73.17	28.92	4.70	0.00	33.62
2476.00	92.74	AV	94.00	1.26	59.12	28.92	4.70	0.00	33.62
2483.50	44.31	PK	74.00	29.69	10.68	28.93	4.70	0.00	33.63
2483.50		AV	54.00		-	-			
2489.05	43.72	PK	74.00	30.28	10.06	28.95	4.71	0.00	33.66
2489.05		AV	54.00	MATE OF	17.5		-23		
2500.00	42.95	PK	74.00	31.05	9.27	28.96	4.72	0.00	33.68
2500.00		AV	54.00	100	700				

REMARKS:

- 1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 3. Margin value = Limit value- Emission level.
- 4. -- Mean the PK detector measured value is below average limit.
- 5. The other emission levels were very low against the limit.
- 6. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
- For fundamental frequency, RBW 3MHz VBW 3MHz Peak detector is for PK Value; RMS detector is for AV value.

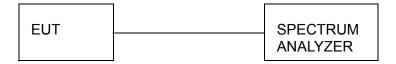
V1.0 Page 19 of 28 Report No.: CTL1806283021-WF

3.3. Occupied Bandwidth Measurement

Limit

N/A

Test Configuration



Test Procedure

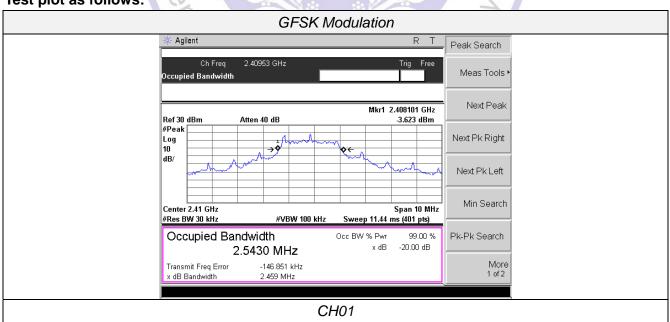
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30 KHz RBW and 100 KHz VBW.

The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Test Results

Modulation	Channel	99% OBW (MHz)	20dB bandwidth (MHz)	Result
	CH01	2.5430	2.459	
GFSK	CH10	2.5584	2.446	Pass
	CH20	2.5909	2.456	

Test plot as follows:





3.4. Antenna Requirement

Standard Applicable

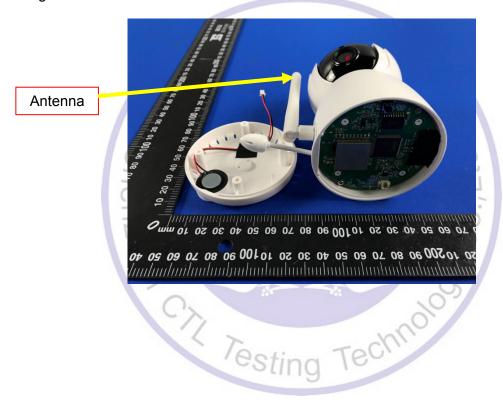
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

The antenna used in this product is Integral Antenna, The directional gains of antenna used for transmitting is 2dBi.



4. Test Setup Photos of the EUT





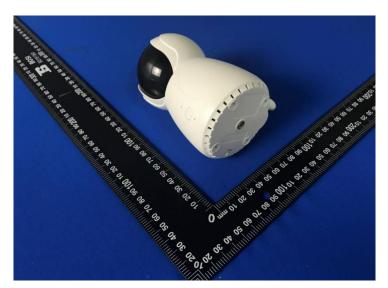
5. External and Internal Photos of the EUT

External Photos of EUT



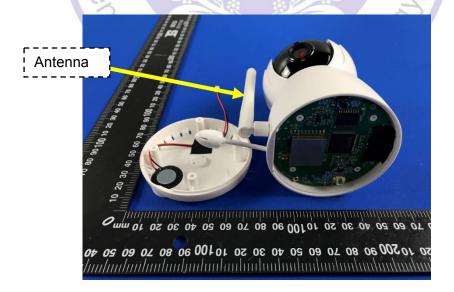




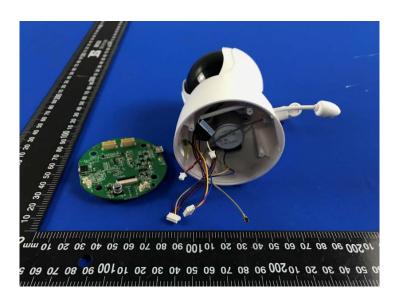


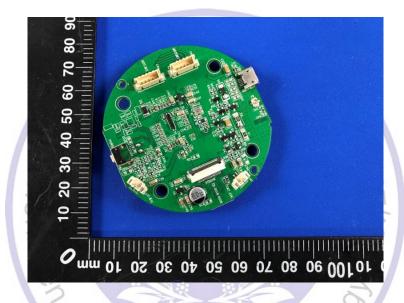


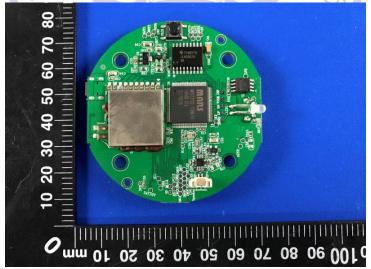
Internal Photos of EUT



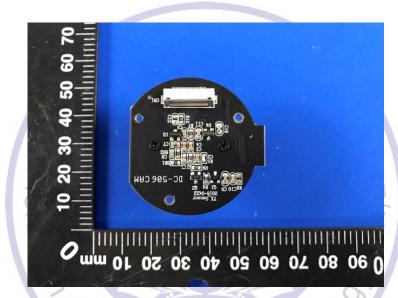
Report No.: CTL1806283021-WF

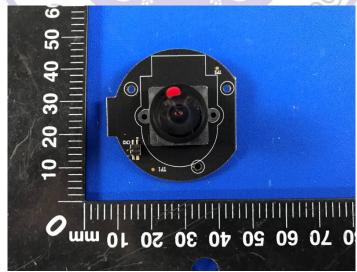


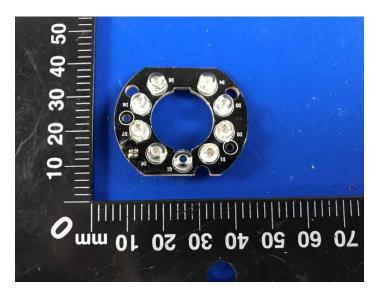
















Listed modes



***************** End of Report **************