

TEST REPORT								
FCC ID:	2AFX2BM911-1							
Test Report No:	TCT220303E031							
Date of issue:	Mar. 21, 2022							
Testing laboratory:	SHENZHEN TONGCE TESTING LAB							
Testing location/ address:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China							
Applicant's name:	henzhen Feelstorm Technology Co., Ltd							
Address:	Floor 5, Building C, Huawan Industrial Park, No.119, Bao'an Blvd, Bao'an District, Shenzhen, China							
Manufacturer's name:	Shenzhen Feelstorm Technology Co., Ltd							
Address:	Floor 5, Building C, Huawan Industrial Park, No.119, Bao'an Blvd, Bao'an District, Shenzhen, China							
Standard(s):	FCC CFR Title 47 Part 15 Subpart C Section 15.247 FCC KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10:2013							
Product Name:	Video Baby Monitor							
Trade Mark:	N/A							
Model/Type reference:	BM911							
Rating(s):	Adapter Information: MODEL: ZD5C050100USW INPUT: AC 100-240V, 50/60Hz, 0.2A OUTPUT: DC 5.0V, 1000mA							
Date of receipt of test item	Mar. 03, 2022							
Date (s) of performance of test:	Mar. 03, 2022 ~ Mar. 21, 2022							
Tested by (+signature):	Rleo LIU Rouge							
Check by (+signature):	Beryl ZHAO Roy(TCT)							
Approved by (+signature):	Tomsin Tomsin 18							

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1. General Product Information

1.1. EUT description

Product Name:	Video Baby Monitor	(3)		(3)
Model/Type reference:	BM911			
Sample Number:	TCT220303E031-0101			
Operation Frequency:	2408MHz~2468MHz		(c)	
Transfer Rate:	1 Mbits/s			
Number of Channel:	16			
Modulation Type:	GFSK	(0)		(6)
Modulation Technology:	FHSS			
Antenna Type:	PCB Antenna			
Antenna Gain:	2dBi			
Rating(s)::	Adapter Information: MODEL: ZD5C050100USW INPUT: AC 100-240V, 50/60Hz, 0 OUTPUT: DC 5.0V, 1000mA	.2A		

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

1.3. Operation Frequency

	121		12				12.0		
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency		
0	2408MHz	4	2424MHz	8	2440MHz	12	2456MHz		
1	2412MHz	5	2428MHz	9	2444MHz	13	2460MHz		
2	2416MHz	6	2432MHz	10	2448MHz	14	2464MHz		
3	3 2420MHz 7 2436MHz 11 2452MHz 15 2468MHz								
Remark:	Remark: Channel 0, 7 & 15 have been tested for GFSK modulation mode.								



2. Test Result Summary

Requirement	CFR 47 Section		Result	
Antenna Requirement	§15.203/§15.247 (c)	8	PASS	100
AC Power Line Conducted Emission	§15.207		PASS	
Conducted Peak Output Power	§15.247 (b)(1)		PASS	
20dB Occupied Bandwidth	§15.247 (a)(1)	(0)	PASS	(C
Carrier Frequencies Separation	§15.247 (a)(1)		PASS	
Hopping Channel Number	§15.247 (a)(1)		PASS	
Dwell Time	§15.247 (a)(1)		PASS	
Radiated Emission	§15.205/§15.209		PASS	(C
Band Edge	§15.247(d)		PASS	

Note:

- 1. PASS: Test item meets the requirement.
- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.



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3. General Information

3.1. Test environment and mode

Operating Environment:							
Condition	Conducted Emission	Radiated Emission					
Temperature:	25.0 °C	25.3 °C					
Humidity:	55 % RH	54 % RH					
Atmospheric Pressure:	1010 mbar	1010 mbar					
Test Mode:							
Engineering mode:	Keep the EUT in continuous transmitting by select channel						

The sample was placed 0.8m & 1.5m for the measurement below & above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages.

3.2. Description of 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.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
1	1) /) 1	

Note:

- 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.
- 3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.



4. Facilities and Accreditations

4.1. Facilities

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

• FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an

District Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4.3. 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 %.

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB



5. Test Results and Measurement Data

5.1. Antenna requirement

Standard requirement: FCC Part15 C Section 15.203 /247(c)

15.203 requirement:

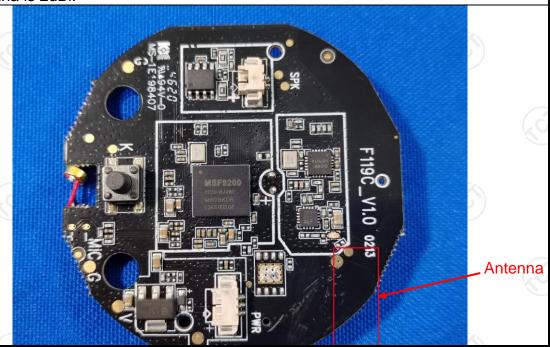
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The antenna is PCB antenna which permanently attached, and the best case gain of the antenna is 2dBi.



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5.2. Conducted Emission

5.2.1. Test Specification

Test Requirement:	FCC Part15 C Section	15.207	RC						
Test Method:	ANSI C63.10:2013								
Frequency Range:	150 kHz to 30 MHz	<u>(1)</u>	(C)						
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto								
	0.15-0.5 66 to 56* 56 to 4								
	(MHz)	Quasi-peak	Average						
Limits:	0.15-0.5	•	56 to 46*						
	0.5-5	56	46						
	5-30	60	50						
	Pataura	Reference Plane							
Test Setup:	E.U.T AC power Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m								
Test Mode:	Transmitting Mode								
Test Procedure:	 The E.U.T is connermal impedance stabilized provides a 50 ohm/5 measuring equipment. The peripheral devices power through a LI coupling impedance refer to the block photographs). Both sides of A.C. conducted interferent emission, the relative the interface cables. ANSI C63.10:2013 of 	ation network 50uH coupling iment. Ses are also connects With 50ohm term diagram of the line are checked the positions of equipment be changed	(L.I.S.N.). This pedance for the ected to the main a 50ohm/50uH nination. (Please test setup and ed for maximum and the maximum ipment and all of according to						
Test Result:	PASS								



5.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)										
Equipment	Serial Number	Calibration Due								
EMI Test Receiver	R&S	ESCI3	100898	Jul. 07, 2022						
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	Feb. 24, 2023						
Line-5	TCT	CE-05	N/A	Jul. 07, 2022						
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A						

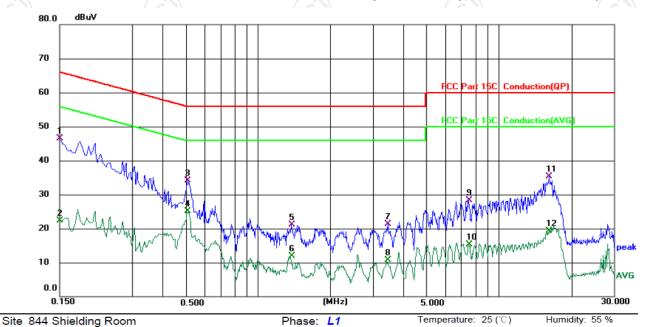




5.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Limit: FCC Part 15C Conduction(QP) Power: AC 120 V/60 Hz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	36.99	9.60	46.59	66.00	-19.41	QP	
2		0.1500	12.76	9.60	22.36	56.00	-33.64	AVG	
3		0.5100	24.82	9.20	34.02	56.00	-21.98	QP	
4		0.5100	15.90	9.20	25.10	46.00	-20.90	AVG	
5		1.3779	11.82	9.36	21.18	56.00	-34.82	QP	
6		1.3779	2.53	9.36	11.89	46.00	-34.11	AVG	
7		3.4580	11.87	9.53	21.40	56.00	-34.60	QP	
8		3.4580	1.08	9.53	10.61	46.00	-35.39	AVG	
9		7.5020	18.79	9.56	28.35	60.00	-31.65	QP	
10		7.5020	5.68	9.56	15.24	50.00	-34.76	AVG	
11		16.1900	25.57	9.68	35.25	60.00	-24.75	QP	
12		16.1900	9.70	9.68	19.38	50.00	-30.62	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level $(dB\mu V)$ = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement $(dB\mu V)$ = Reading level $(dB\mu V)$ + Corr. Factor (dB)

 $Limit (dB\mu V) = Limit stated in standard$

 $Margin (dB) = Measurement (dB\mu V) - Limits (dB\mu V)$

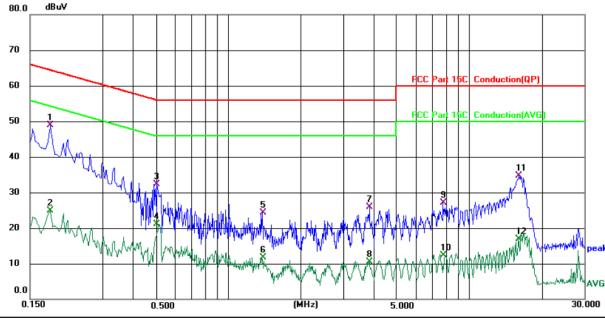
Q.P. =Quasi-Peak

AVG =average

^{*} is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz



Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room Phase: Temperature: 25 (°C) Humidity: 55 %

Limit:	FCC Part	15C	Conduction((QP))
--------	----------	-----	-------------	------	---

Lim	Limit: FCC Part 15C Conduction(QP)					Powe	er: AC 120) V/60 Hz		
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment	
1	*	0.1819	39.34	9.54	48.88	64.40	-15.52	QP		
2		0.1819	15.40	9.54	24.94	54.40	-29.46	AVG		
3		0.5060	23.12	9.22	32.34	56.00	-23.66	QP		
4		0.5060	11.83	9.22	21.05	46.00	-24.95	AVG		
5		1.3819	15.04	9.34	24.38	56.00	-31.62	QP		
6		1.3819	2.43	9.34	11.77	46.00	-34.23	AVG		
7		3.8460	16.47	9.45	25.92	56.00	-30.08	QP		
8		3.8460	1.01	9.45	10.46	46.00	-35.54	AVG		
9		7.8019	17.54	9.57	27.11	60.00	-32.89	QP		
10		7.8019	2.75	9.57	12.32	50.00	-37.68	AVG		
11		16.0700	25.01	9.68	34.69	60.00	-25.31	QP		
12		16.0700	7.14	9.68	16.82	50.00	-33.18	AVG		

Note1:

Freq. = Emission frequency in MHz

Reading level $(dB\mu V)$ = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement $(dB\mu V)$ = Reading level $(dB\mu V)$ + Corr. Factor (dB)

Limit (dBµV) = Limit stated in standard

 $Margin (dB) = Measurement (dB\mu V) - Limits (dB\mu V)$

Q.P. =Quasi-Peak AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

Note2:

Measurements were conducted in all three channels (high, middle, low), and the worst case Mode (Lowest channel) was submitted only.



5.3. Conducted Output Power

5.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (b)(1)				
Test Method:	KDB 558074 D01 v05r02				
Limit:	Section 15.247 (b) The maximum peak conducted output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.				
Test Setup:	Spectrum Analyzer EUT				
Test Mode:	Transmitting mode with modulation				
Test Procedure:	Use the following spectrum analyzer settings: Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel RBW > the 20 dB bandwidth of the emission being measured VBW ≥ RBW Sweep = auto Detector function = peak Trace = max hold Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission.				
Test Result:	PASS				

5.3.2. Test Instruments

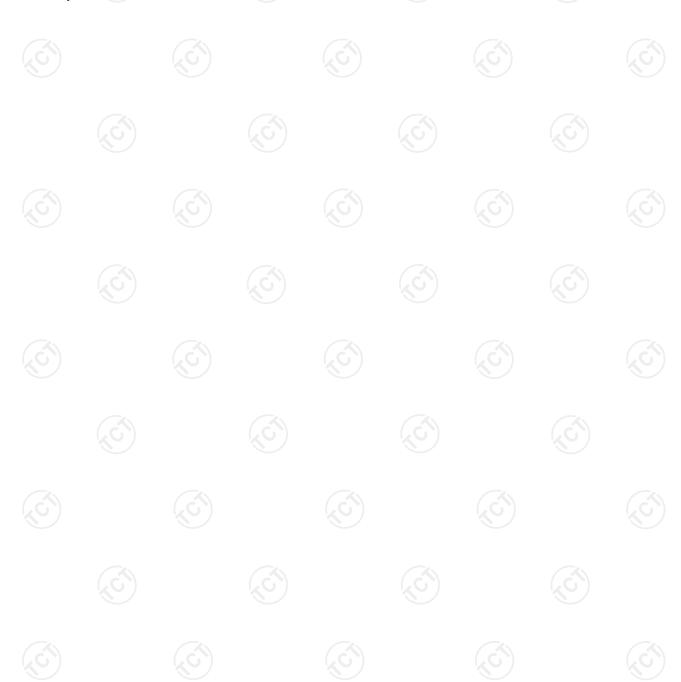
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Jul. 18, 2022
Antenna Connector	тст	RFC-01	N/A	Jul. 18, 2022



5.3.3. Test Data

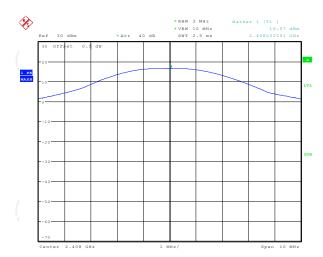
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
Lowest	16.57	21.00	PASS
Middle	16.40	21.00	PASS
Highest	15.68	21.00	PASS

Test plots as follows:

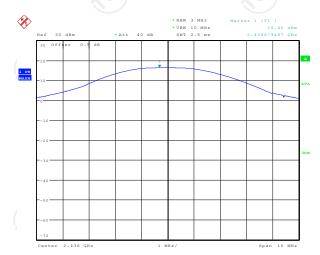




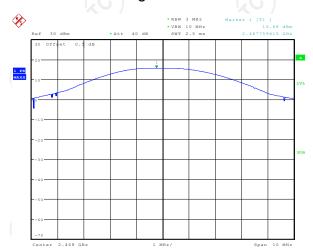
Lowest channel



Middle channel



Highest channel





5.4. 20dB Occupy Bandwidth

5.4.1. Test Specification

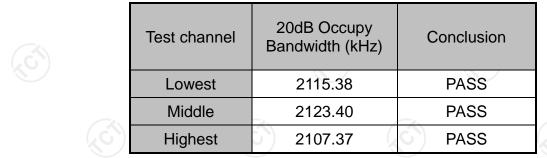
	/ / /			
FCC Part15 C Section 15.247 (a)(1)				
KDB 558074 D01 v05r	02			
N/A				
Spectrum Analyzer	EUT			
Transmitting mode with modulation				
analyzer by RF cab was compensated t measurement. 2. Set to the maximum EUT transmit contin 3. Use the following sp Bandwidth measure Span = approximate bandwidth, centered 1%≤RBW≤5% of th Sweep = auto; Deter hold.	ectrum analyzer settings for 20dB			
PASS				
	N/A Spectrum Analyzer Transmitting mode with 1. The RF output of EL analyzer by RF cab was compensated to measurement. 2. Set to the maximum EUT transmit continum as the following spure Bandwidth measurement. Span = approximate bandwidth, centered 1%≤RBW≤5% of the Sweep = auto; Determined. 4. Measure and record			

5.4.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Jul. 18, 2022
Antenna Connector	TCT	RFC-01	N/A	Jul. 18, 2022



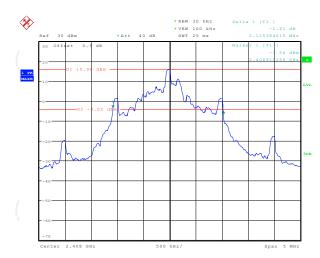
5.4.3. Test data



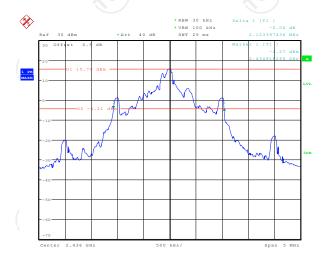




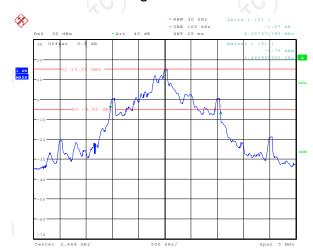
Lowest channel



Middle channel



Highest channel





5.5. Carrier Frequencies Separation

5.5.1. Test Specification

FCC Part15 C Section 15.247 (a)(1)			
KDB 558074 D01 v05r02			
Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.			
Spectrum Analyzer EUT			
Hopping mode			
 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = wide enough to capture the peaks of two adjacent channels; RBW is set to approximately 30% of the channel spacing, adjust as necessary to best identify the center of each individual channel; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Record the value in report. 			
PASS			

5.5.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
RF cable (9kHz-26.5GHz)	тст	RE-06	N/A	Jul. 18, 2022
Antenna Connector	TCT	RFC-01	N/A	Jul. 18, 2022



5.5.3. Test data

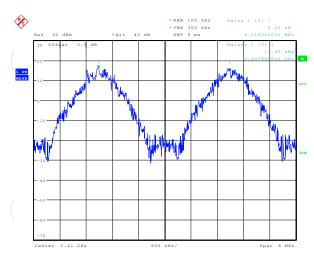
GFSK mode					
Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result		
Lowest	4016.00	1415.60	PASS		
Middle	4013.33	1415.60	PASS		
Highest	4048.00	1415.60	PASS		

Note: According to section 5.4	(₂ G ¹)	(20)
Mode	20dB bandwidth (kHz) (worse case)	Limit (kHz) (Carrier Frequencies Separation)
GFSK	2123.40	1415.60
est plots as follows:		

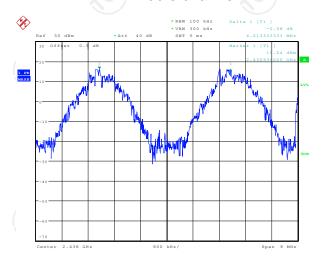




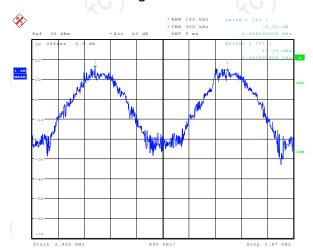
Lowest channel



Middle channel



Highest channel





5.6. Hopping Channel Number

5.6.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)			
Test Method:	KDB 558074 D01 v05r02			
Limit:	Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.			
Test Setup:	Special Property EUT			
Test Mode:	Spectrum Analyzer Hopping mode			
Test Procedure:	 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = the frequency band of operation; set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. The number of hopping frequency used is defined as the number of total channel. Record the measurement data in report. 			
Test Result:	PASS			
1 (*.*)				

5.6.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Jul. 18, 2022
Antenna Connector	TCT	RFC-01	N/A	Jul. 18, 2022

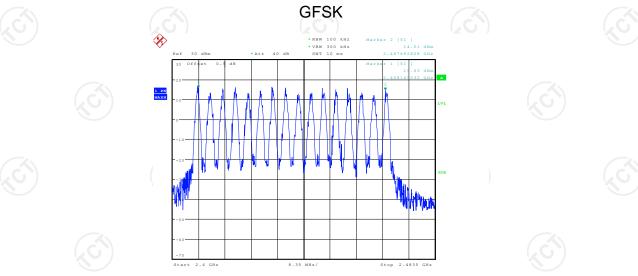


5.6.3. Test data

	Mode	Hopping channel numbers	Limit	Result
(C)	GFSK	16	15	PASS

Test plots as follows:

_	











5.7. Dwell Time

5.7.1. Test Specification

FCC Part15 C Section 15.247 (a)(1)				
KDB 558074 D01 v05r02				
The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.				
Spectrum Analyzer EUT				
Hopping mode				
 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel; VBW≥RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = clear write. Measure and record the results in the test report. 				
PASS				

5.7.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Jul. 18, 2022
Antenna Connector	TCT	RFC-01	N/A	Jul. 18, 2022

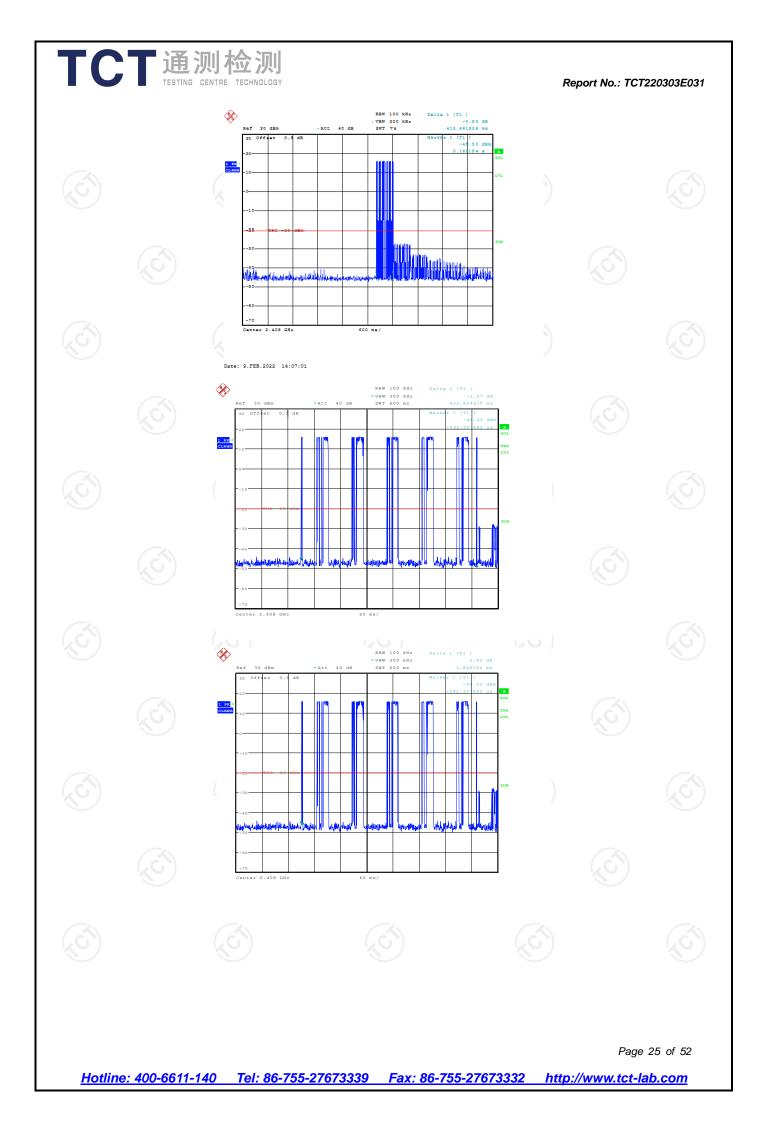


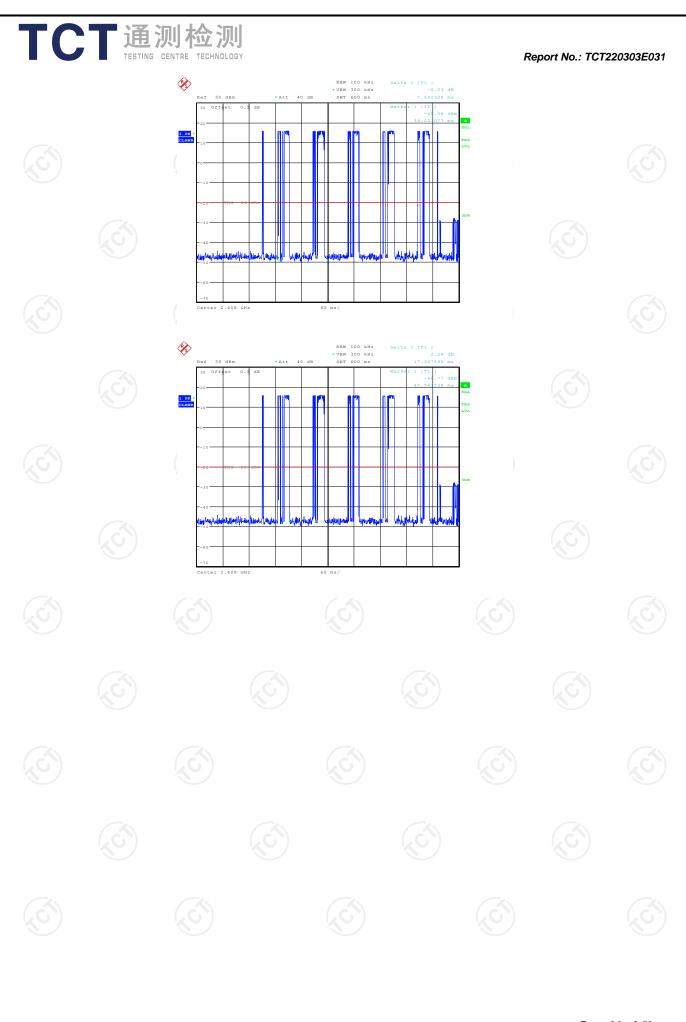
5.7.3. Test Data

Mode	Package Transfer Time long pulse(ms)	Package Transfer Time Middle pulse(ms)	Package Transfer Time short pulse (ms)	Dwell time (second)	Limit (second)	Result
GFSK	86.55	38.45	15.40	0.140	0.4	PASS

Note: Note: 1. the period specified=0.4s* number of hops=0.4s*16=6.4s









5.8. Pseudorandom Frequency Hopping Sequence

Test Requirement:

FCC Part15 C Section 15.247 (a)(1) requirement:

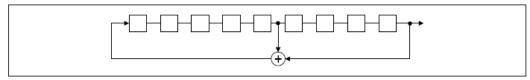
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively. Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

EUT Pseudorandom Frequency Hopping Sequence

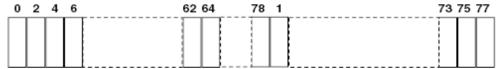
The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first one of 9 consecutive ones; i.e. the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence: 2⁹-1 = 511 bits
- Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:



Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

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5.9. Conducted Band Edge Measurement

5.9.1. Test Specification

/ ^ / ^ / ^ / ^ / ^ / ^ / / / / / / / /
FCC Part15 C Section 15.247 (d)
KDB 558074 D01 v05r02
In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.
Spectrum Analyzer EUT
Transmitting mode with modulation
 Set to the maximum power setting and enable the EUT transmit continuously. Set RBW = 100 kHz (≥1% span=10MHz), VBW = 300 kHz (≥RBW). Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used. Enable hopping function of the EUT and then repeat step 2 and 3. Measure and record the results in the test report.
PASS

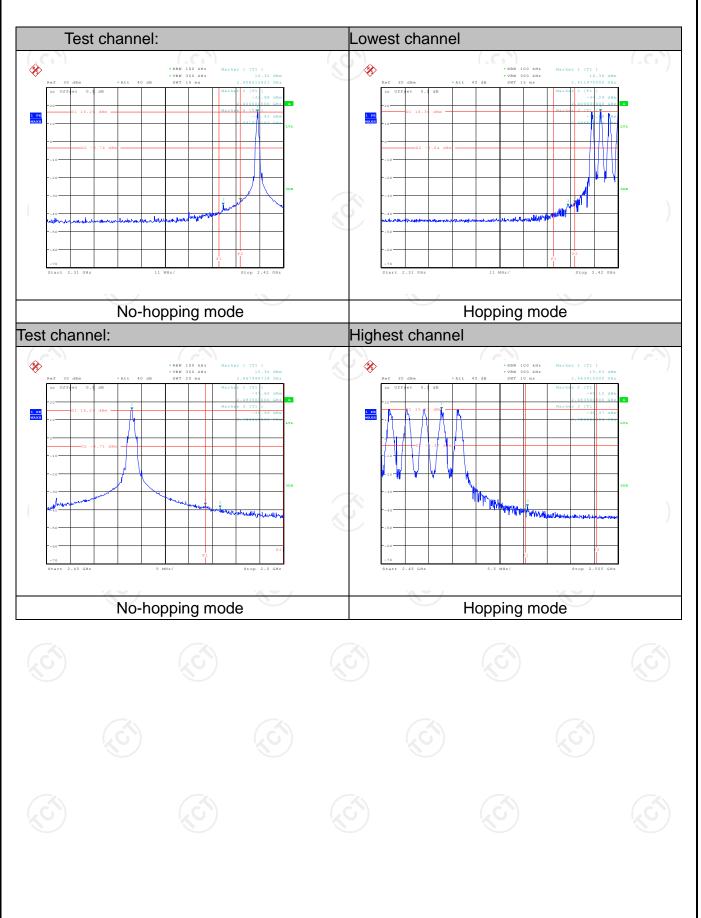
5.9.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
RF cable (9kHz-26.5GHz)	тст	RE-06	N/A	Jul. 18, 2022
Antenna Connector	TCT	RFC-01	N/A	Jul. 18, 2022





5.9.3. Test Data





5.10. Conducted Spurious Emission Measurement

5.10.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB 558074 D01 v05r02
Limit:	In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.
Test Setup:	Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Set RBW = 100 kHz, VBW = 300kHz, scan up through 10th harmonic. All harmonics / spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. Measure and record the results in the test report. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Test Result:	PASS

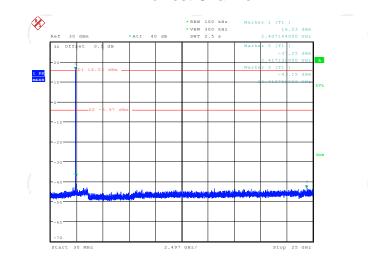
5.10.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
Spectrum Analyzer	ROHDE&SCH WARZ	FSQ40	200061	Jul. 07, 2022
RF Cable (9KHz-26.5GHz)	тст	RE-06	N/A	Jul. 18, 2022
Antenna Connector	TCT	RFC-01	N/A	Jul. 18, 2022

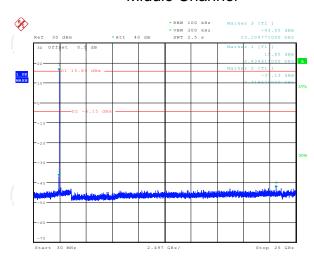


5.10.3. Test Data

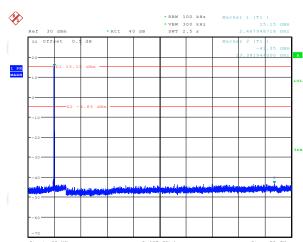
Lowest Channel



Middle Channel



Highest Channel



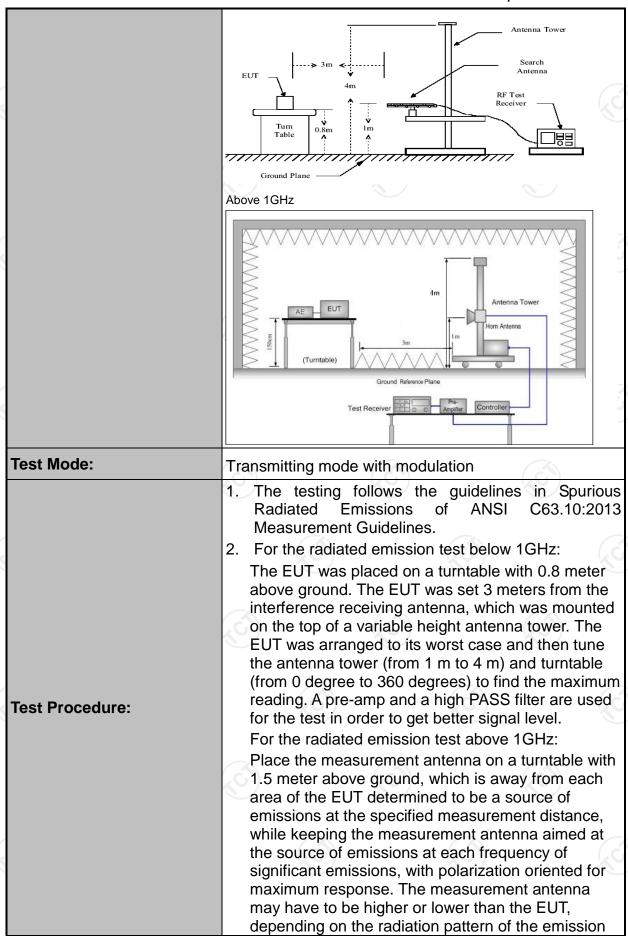


5.11. Radiated Spurious Emission Measurement

5.11.1. Test Specification

		<u> </u>					
Test Requirement:	FCC Part15	FCC Part15 C Section 15.209					
Test Method:	ANSI C63.10	ANSI C63.10:2013					
Frequency Range:	9 kHz to 25 (9 kHz to 25 GHz					
Measurement Distance:	3 m						
Antenna Polarization:	Horizontal & Vertical						
	Frequency	Detector		VBW	+	Remark	
Receiver Setup:	9kHz- 150kHz 150kHz- 30MHz	Quasi-pea Quasi-pea		1kHz 30kHz		i-peak Value i-peak Value	
	30MHz-1GHz	Quasi-pea	ak 120KHz	300KHz	Quas	i-peak Value	
	Above 1GHz	Peak Peak	1MHz 1MHz	3MHz 10Hz		eak Value rage Value	
	Frequen	псу	Field Stre	ld Strength		Measurement Distance (meters)	
	0.009-0.4	490		2400/F(KHz)		300	
	0.490-1.7		24000/F(KHz)		30		
	1.705-3		30		30		
	30-88		100 150		3		
Limit:	88-216 216-96		200		- 	3	
	Above 9		500			3	
	Frequency	Frequency Field Strength (microvolts/mete		Measurement Distance (meters)		Detector	
	Above 1GH	z -	500 5000			Average Peak	
Test setup:	For radiated emissions below 30MHz Distance = 3m Com Pre - Amplifit Ground Plane Receiver						
	30MHz to 1GHz						
(A)		A					







TESTING CENTRE TECHNOLOGY	Report No.: 1C1220303E0
	and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. 3. Set to the maximum power setting and enable the
	EUT transmit continuously. 4. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured;
	(2) Set RBW=120 kHz for f < 1 GHz, RBW=1MHz for f>1GHz; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
	(3) For average measurement: use duty cycle correction factor method per
	15.35(c). Duty cycle = On time/100 milliseconds On time =N1*L1+N2*L2++Nn-1*LNn-1+Nn*Ln Where N1 is number of type 1 pulses, L1 is length of type 1 pulses, etc. Average Emission Level = Peak Emission Level + 20*log(Duty cycle)
	Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
Test results:	PASS
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5.11.2. Test Instruments

Radiated Emission Test Site (966)						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due		
EMI Test Receiver	R&S	ESIB7	100197	Jul. 07, 2022		
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 07, 2022		
Pre-amplifier	SKET	LNPA_0118G- 45	SK2021012 102	Feb. 24, 2023		
Pre-amplifier	SKET	LNPA_1840G- 50	SK2021092 03500	Apr. 08, 2022		
Pre-amplifier	HP	8447D	2727A05017	Jul. 07, 2022		
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 05, 2022		
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 04, 2022		
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 04, 2022		
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Apr. 10, 2023		
Antenna Mast	Keleto	RE-AM	N/A	N/A		
Coaxial cable	SKET	RC_DC18G-N	N/A	Apr. 08, 2022		
Coaxial cable	SKET	RC-DC18G-N	N/A	Apr. 08, 2022		
Coaxial cable	SKET	RC-DC40G-N	N/A	Jul. 07, 2022		
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A		

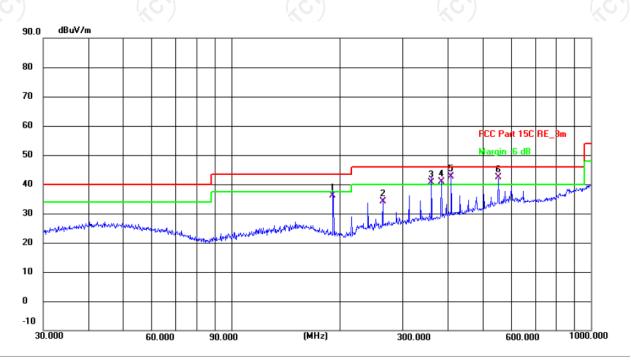


5.11.3. Test Data

Please refer to following diagram for individual

Below 1GHz

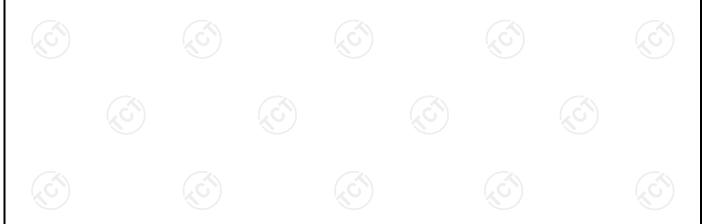
Horizontal:



Site #1 3m Anechoic Chamber Polarization: Horizontal Temperature: 25.3(C) Humidity: 54 %

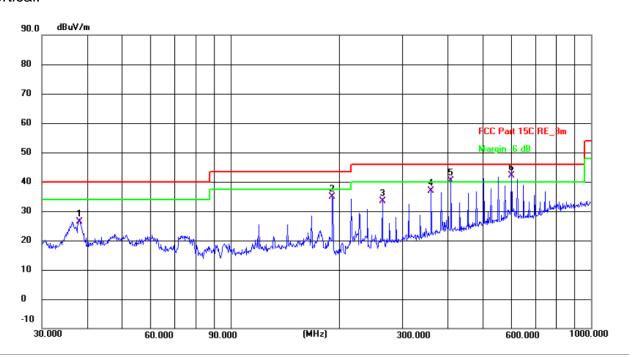
Limit: FCC Part 15C RE_3m Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	191.7450	25.02	11.18	36.20	43.50	-7.30	QP	Р	
2	263.8190	21.09	12.99	34.08	46.00	-11.92	QP	Р	
3 !	360.4476	25.06	15.56	40.62	46.00	-5.38	QP	Р	
4!	383.9318	24.74	16.16	40.90	46.00	-5.10	QP	Р	
5 *	408.9458	25.89	16.80	42.69	46.00	-3.31	QP	Р	
6 !	552.8831	22.08	20.28	42.36	46.00	-3.64	QP	Р	





Vertical:



Site #1 3m Anechoic Chamber Polarization: Vertical Temperature: 25.3(C) Humidity: 54 %

Limit: FCC Part 15C RE_3m Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	38.0782	12.49	13.79	26.28	40.00	-13.72	QP	Р	
2	191.7450	23.72	11.18	34.90	43.50	-8.60	QP	Р	
3	263.8190	20.29	12.99	33.28	46.00	-12.72	QP	Р	
4	360.4476	21.44	15.56	37.00	46.00	-9.00	QP	Р	
5 !	408.9458	23.56	16.80	40.36	46.00	-5.64	QP	Р	
6 *	601.4265	20.78	21.40	42.18	46.00	-3.82	QP	Р	

Note: 1.The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported

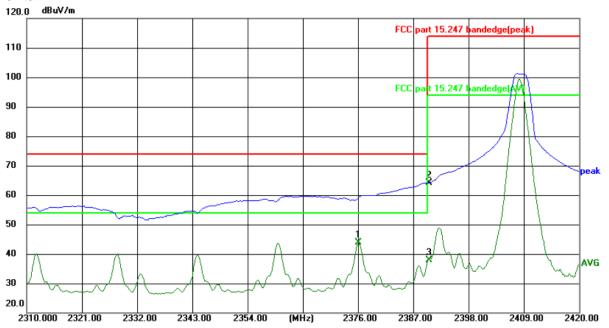
- 2. Measurements were conducted in all three channels (high, middle, low), and the worst case Mode (Lowest channel) was submitted only.
- Freq. = Emission frequency in MHz
 Measurement (dBμV/m) = Reading level (dBμV) + Corr. Factor (dB)
 Correction Factor= Antenna Factor + Cable loss Pre-amplifier
 Limit (dBμV/m) = Limit stated in standard
 Margin (dB) = Measurement (dBμV/m) Limits (dBμV/m)
- * is meaning the worst frequency has been tested in the test frequency range



Test Result of Radiated Spurious at Band edges

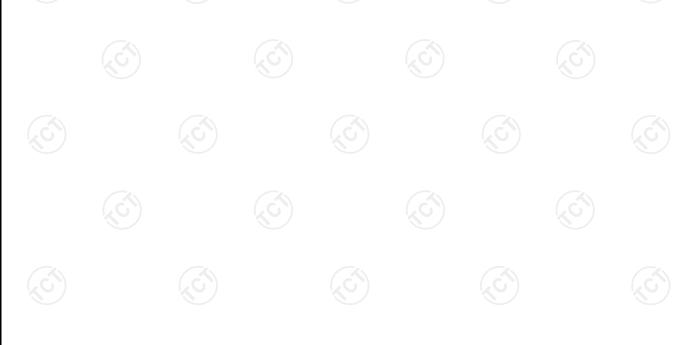
Lowest channel 2408:

Horizontal:



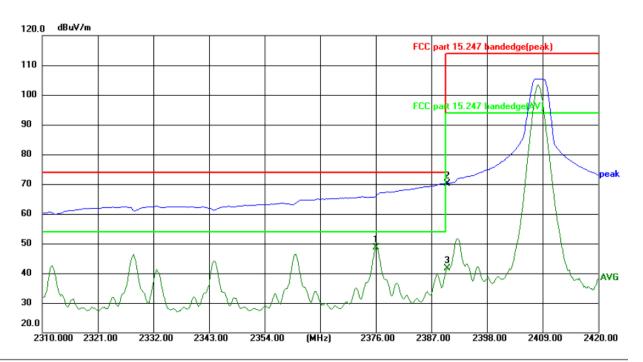
Site Polarization: Horizontal Temperature: 24($^{\circ}$ C) Limit: FCC part 15.247 bandedge(peak) Power: AC 120 V/60 Hz Humidity: 52 %

No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2376.000	59.59	-15.82	43.77	54.00	-10.23	AVG	Р	
2 *	2390.000	79.86	-15.76	64.10	74.00	-9.90	peak	Р	
3	2390.000	53.67	-15.76	37.91	54.00	-16.09	AVG	Р	



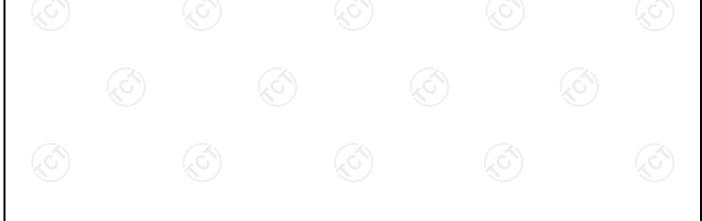


Vertical:



Site Polarization: Vertical Temperature: 24($^{\circ}$ C) Limit: FCC part 15.247 bandedge(peak) Power: AC 120 V/60 Hz Humidity: 52 %

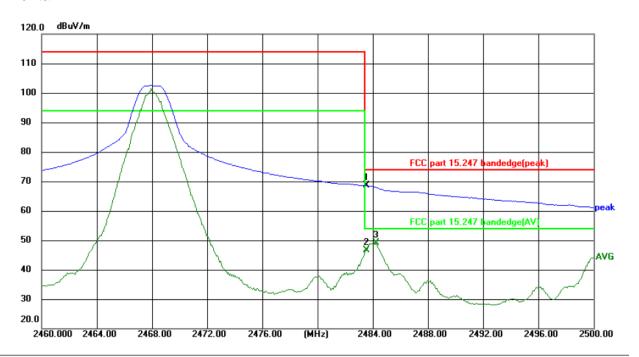
No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2376.000	64.45	-15.82	48.63	54.00	-5.37	AVG	Р	
2 *	2390.000	85.89	-15.76	70.13	74.00	-3.87	peak	Р	
3	2390.000	57.40	-15.76	41.64	54.00	-12.36	AVG	Р	





Highest channel 2468:

Horizontal:



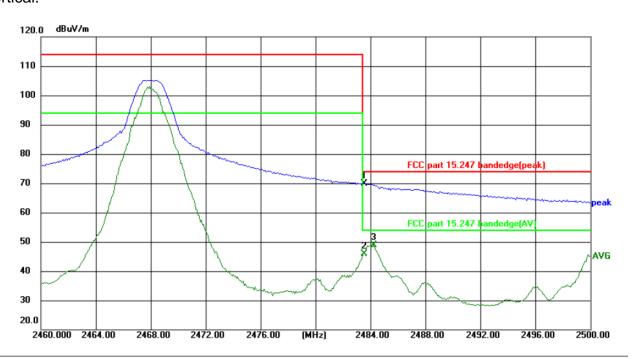
Site Polarization: Horizontal Temperature: 24($^{\circ}$ C) Limit: FCC part 15.247 bandedge(peak) Power: AC 120 V/60 Hz Humidity: 52 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F	Remark
1	2483.500	83.94	-15.41	68.53	74.00	-5.47	peak	Р	
2	2483.500	61.93	-15.41	46.52	54.00	-7.48	AVG	Р	
3 *	2484.240	64.55	-15.40	49.15	54.00	-4.85	AVG	Р	





Vertical:



Temperature: 24(℃) Site Polarization: Vertical AC 120 V/60 Hz Humidity: Power: 52 %

Limit: FCC part 15.247 bandedge(peak)

	No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark			
	1 *	2483.500	85.23	-15.41	69.82	74.00	-4.18	peak	Р				
Г	2	2483.500	61.34	-15.41	45.93	54.00	-8.07	AVG	Р				
Г	3	2484.240	64.16	-15.40	48.76	54.00	-5.24	AVG	Р				





Above 1GHz

					_							
Modulation	Modulation Type: GFSK											
Low chann	Low channel: 2408 MHz											
Frequency (MHz)	/ Ant. Pol. Peak H/V reading (dBµV)		AV reading (dBuV)	Correction Factor (dB/m)	Emission Peak (dBµV/m)	AV	Peak limit (dBµV/m)	t AV limit (dBμV/m)	Margin (dB)			
4816	Н	46.78		0.66	47.44		74	54	-6.56			
7224	Н	35.69		9.50	45.19		74	54	-8.81			
	H							7-7				
	(C)		(,C)		(.G`\		(.G)				
4816	V	45.05		0.66	45.71		74	54	-8.29			
7224	V	35.28		9.50	44.78		74	54	-9.22			
	V											

Middle cha	nnel: 2436	6 MHz		70	5)		(20)			
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Emission Peak (dBµV/m)	AV	Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)	
4872	H	44.93		0.99	45.92		74	54	-8.08	
7308	(OH)	35.77	-120	9.87	45.64		74	54	-8.36	
	H									
4872	V	44.54		0.99	45.53		74	54	-8.47	
7308	V	35.36		9.87	45.23		74	54	-8.77	
)	V)		2			

High chann	High channel: 2468 MHz											
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV Correction reading Factor (dBµV) (dB/m)		Daala AV		Peak limit (dBµV/m)	(dBµV/m)	Margin (dB)			
4936	Н	47.48)	1.33	48.81	1	74	54	-5.19			
7404	Н	36.76		10.22	46.98		74	54	-7.02			
	Н						-					
		(.G)		(,0			(.c)		(.G			
4936	V	45.18		1.33	46.51		74	54	-7.49			
7404	V	34.97		10.22	45.19		74	54	-8.81			
	V											

Note:

- 1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss Pre-amplifier
- 2. $Margin (dB) = Emission Level (Peak) (dB\mu V/m)-Average limit (dB\mu V/m)$
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 5. Data of measurement shown "---"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
- 6. All the restriction bands are compliance with the limit of 15.209.



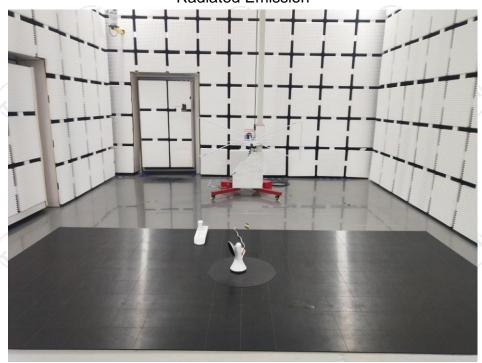
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Appendix A: Photographs of Test Setup Product: Video Baby Monitor

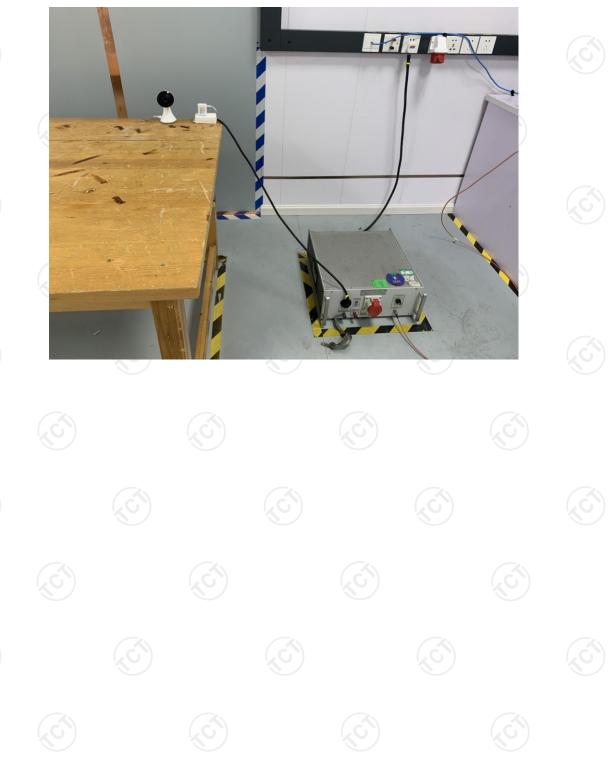
Product: Video Baby Monitor Model: BM911 Radiated Emission







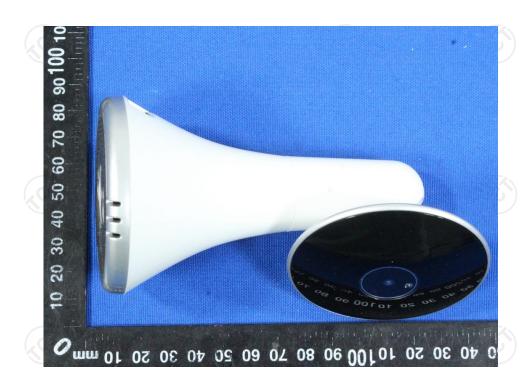
Conducted Emission

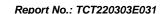




Appendix B: Photographs of EUT Product: Video Baby Monitor Model: BM911 External Photos



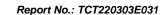




















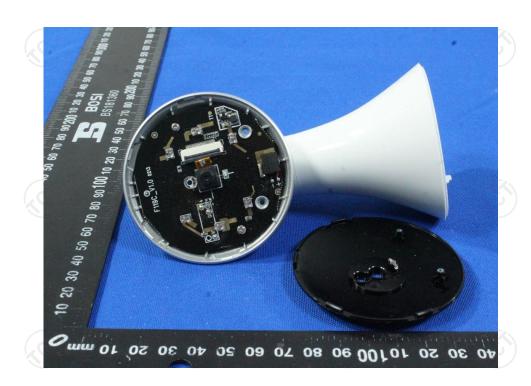


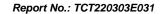




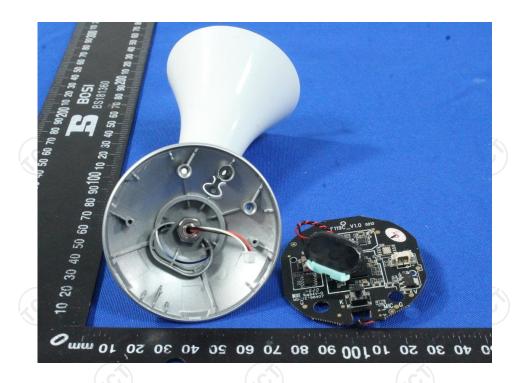
Product: Video Baby Monitor Model: BM911 Internal Photos

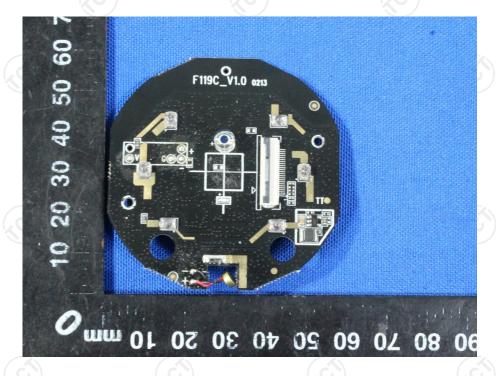


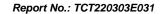




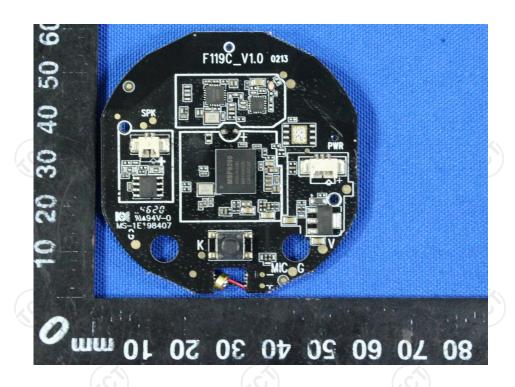


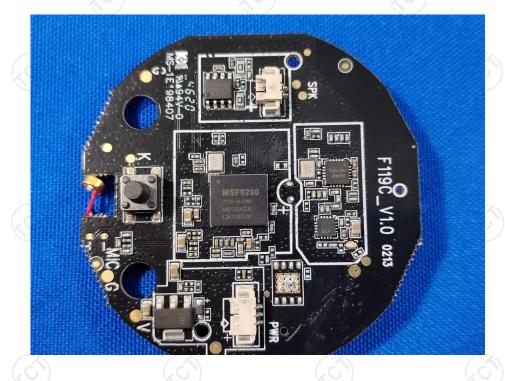


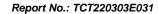




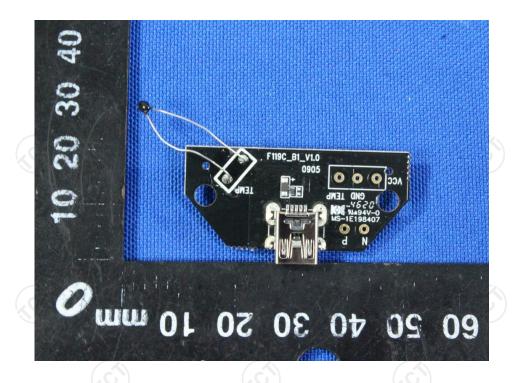


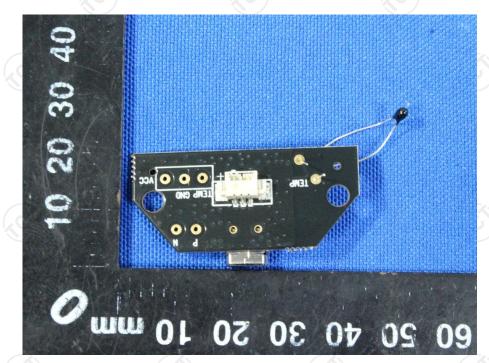












****END OF REPORT****