



Report No.: FCC 1902009-03 File reference No.: 2019-03-01

Applicant: Shenzhen Jingwah Information Technology Co., Ltd.

Product: Digital Photo Frame

Model No.: Familink AWS 3G+WiFi Photo Diary, M7045FLK

Trademark: FAMILINK

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for the

evaluation of electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: March 01, 2019

Results appearing herein relate only to the sample tested The technical r eports is issued err ors and o missions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meets with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

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

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The 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 No.: 744189.

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Test Report Conclusion

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1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

1.2 Applicant Details

Applicant: Shenzhen Jingwah Information Technology Co., Ltd.

Address: 4F, Bldg 4, Jinghua Square, No.1 Huafa North Road, Futian District, Shenzhen, China

Telephone: -Fax: --

1.3 Description of EUT

Product: Digital Photo Frame

Manufacturer: Shenzhen Jingwah Information Technology Co., Ltd.

Address: 4F, Bldg 4, Jinghua Square, No.1 Huafa North Road, Futian District,

Shenzhen, China

Brand Name: FAMILINK

Model Number: Familink AWS 3G+WiFi Photo Diary

Additional Model Number: M7045FLK

Type of Modulation GFSK, 月/4DQPSK, 8DPSK for Bluetooth

Frequency range 2402-2480MHz for Bluetooth

Channel Spacing 1MHz for Bluetooth

Frequency Selection By software

Channel Number 79 channel for Bluetooth

Antenna: Integral antenna. The gain of the antennas is 1.5dBi.

Power Supply: Model: MKS-0501500; Rating: Input: 100-240V~ 50/60Hz, 0.3A;

Output: DC5V, 1500mA

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2019-02-13 to 2019-02-28

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Test Uncertainty

Conducted Emissions Uncertainty =3.6dB Radiated Emissions below 1GHz Uncertainty =4.7dB Radiated Emissions above 1GHz Uncertainty =6.0dB Conducted Power Uncertainty = 6.0dB Occupied Channel Bandwidth Uncertainty =5%

Test Engineer 1.7

Terry Tang

The sample tested by

Print Name: Terry Tang

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2018-06-22	2019-06-21
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2018-06-22	2019-06-21
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2018-06-22	2019-06-21
Ultra Broadband ANT	R&S	HL562	100157	2018-06-18	2019-06-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2018-06-22	2019-06-21
Loop Antenna	EMCO	6507	00078608	2018-06-25	2019-06-24
Spectrum	R&S	FSIQ26	100292	2018-06-22	2019-06-21
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2018-06-25	2019-06-24
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-08-24	2019-08-23
Power meter	Anritsu	ML2487A	6K00003613	2018-08-22	2019-08-21
Power sensor	Anritsu	MA2491A	32263	2018-08-22	2019-08-21
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2019-07-03
9*6*6 Anechoic			N/A	2018-02-07	2021-02-06
EMI Test Receiver	RS	ESVB	826156/011	2018-06-22	2019-06-21
EMI Test Receiver	RS	ESH3	860904/006	2018-06-22	2019-06-21
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2018-06-22	2019-06-21
Spectrum	HP/Agilent	E4407B	MY50441392	2018-03-27	2019-03-26
Spectrum	RS	FSP	1164.4391.38	2019-01-20	2020-01-19
RF Cable	Zhengdi	ZT26-NJ-NJ-8 M/FA		2018-05-24	2019-05-23
RF Cable	Zhengdi	7m		2018-03-17	2019-03-16
RF Switch	EM	EMSW18	060391	2018-06-22	2019-06-21
Pre-Amplifier	Schwarebeck	BBV9743	#218	2018-06-22	2019-06-21
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2018-08-05	2019-08-04
LISN	SCHAFFNER	NNB42	00012	2019-01-08	2020-01-07

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3.0 T echnical Details

3.1 **Summary of test results**

The EUT has been tested according to the following specifications:

Requirement	CFR 47 Section	Result	Notes
Antenna Requirement	15.203, 15.247(b)(4)	PASS	Complies
Maximum Peak Out Power	15.247 (b)(1), (4)	PASS	Complies
Carrier Frequency Separation	15.247(a)(1)	PASS	Complies
20dB Channel Bandwidth	15.247 (a)(1)	PASS	Complies
Number of Hopping Channels	15.247(a)(iii), 15.247(b)(1)	PASS	Complies
Time of Occupancy (Dwell Time)	15.247(a)(iii)	PASS	Complies
Spurious Emission, Band Edge, and Restricted bands	15.247(d),15.205(a), 15.209 (a),15.109	PASS C	omplies
Conducted Emissions	15.207(a), 15.107	PASS C	omplies
RF Exposure	15.247(i), 1.1307(b)(1)	PASS	Complies

3.2 T est Standards

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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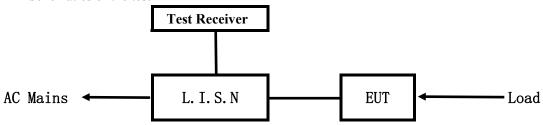
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5. Power Line Conducted Emission Test

5.1 Schematics of the test

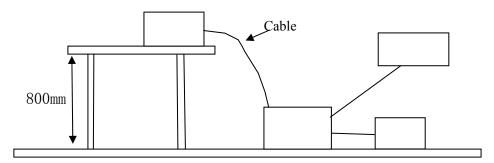


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V~60Hz Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

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A. EUT

Device	Manufacturer	Model	FCC ID
Digital Photo Frame	Shenzhen Jingwah Information	Familink AWS	RBD-FAMILINK
Digital Filoto Frame	Technology Co., Ltd.	3G+WiFi Photo Diary	KDD-FAMILINK

B. Internal Device

Device	Manufacturer	Model	Rating

C. Peripherals

Device	Manufacturer	Model	Rating		

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.107, 15.207

Frequency	Class A Lim	its (dB µ V)	Class B Limits (dB µ V)		
(MHz)	Quasi-peak Level Average Level		Quasi-peak Level	Average Level	
$0.15 \sim 0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*	
$0.50 \sim 5.00$	73.0	60.0	56.0	46.0	
5.00 ~ 30.00	73.0	60.0	60.0	50.0	

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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Conducted Emission on Live Terminal (150kHz to 30MHz) A:

EUT Operating Environment

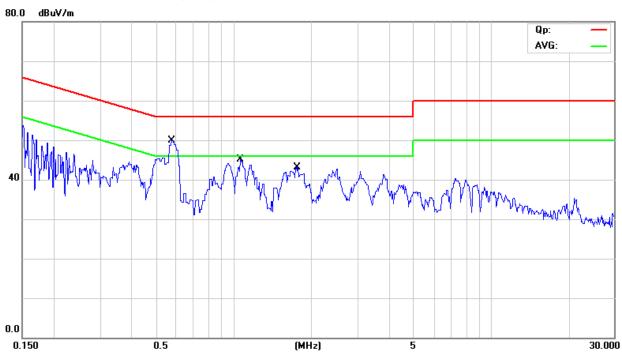
Humidity: 65%RH Atmospheric Pressure: 101 KPa Temperature: 26°C

EUT set Condition: Keep Bluetooth Transmitting

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.5757	36.90	9.77	46.67	56.00	-9.33	QP	
2	0.5757	8.30	9.77	18.07	46.00	-27.93	AVG	
3	1.0600	31.60	9.79	41.39	56.00	-14.61	QP	
4	1.0600	2.80	9.79	12.59	46.00	-33.41	AVG	
5	1.7686	27.50	9.80	37.30	56.00	-18.70	QP	
6	1.7686	0.20	9.80	10.00	46.00	-36.00	AVG	

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B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

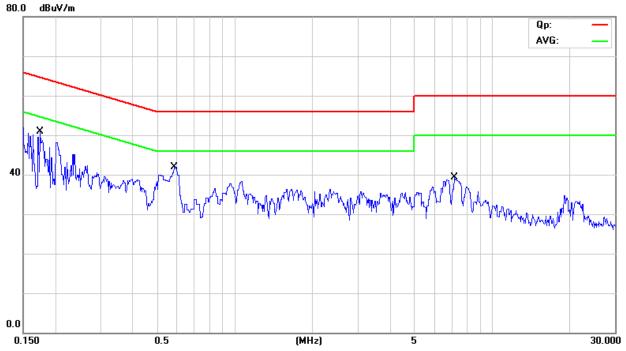
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Bluetooth Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No. N	Лk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV.	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1736	24.80	9.77	34.57	64.79	-30.22	QP	
2		0.1736	-11.40	9.77	-1.63	54.79	-56.42	AVG	
3 *	k	0.5882	28.20	9.77	37.97	56.00	-18.03	QP	
4		0.5882	1.20	9.77	10.97	46.00	-35.03	AVG	
5		7.0958	20.90	10.01	30.91	60.00	-29.09	QP	
6		7.0958	-8.50	10.01	1.51	50.00	-48.49	AVG	

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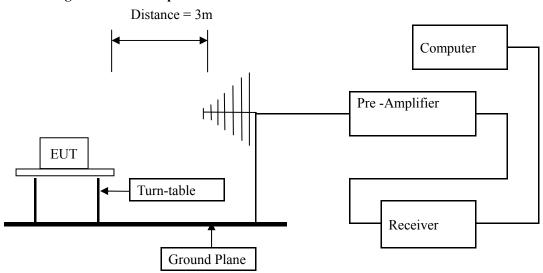
Date: 2019-03-01



6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup



- 6.2 Configuration of The EUT
 Same as section 5.3 of this report
- 6.3 EUT Operating Condition
 Same as section 5.4 of this report.

The report refers only to the sample tested and does not apply to the bulk.

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6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109 and RSS-210

	_	
Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. GFSK was the worse case because it has highest output power

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Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

EUT set Condition: Keep Bluetooth Transmitting

Results: Pass

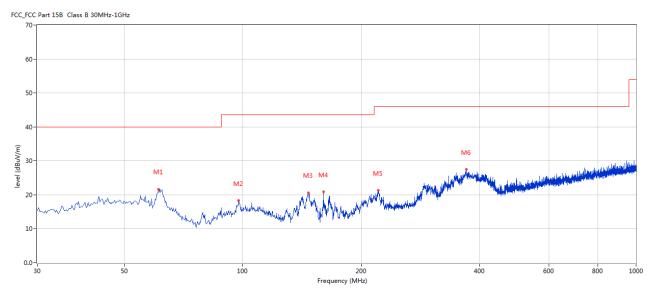
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Test Figure:

H



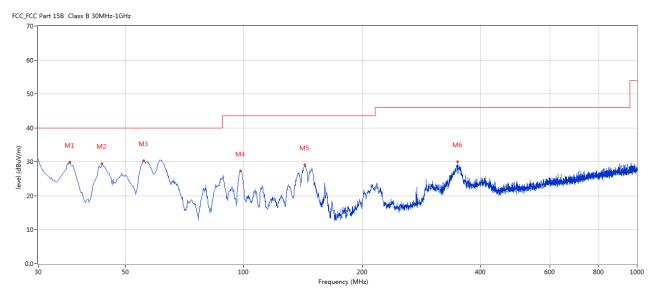
No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	61.032	21.70	-13.10	40.0	-18.30	Peak	360.00	200	Н	Pass
2	97.641	18.30	-13.79	43.5	-25.20	Peak	120.00	200	Н	Pass
3	146.613	20.63	-17.26	43.5	-22.87	Peak	104.00	200	Н	Pass
4	160.432	20.81	-16.32	43.5	-22.69	Peak	93.00	200	Н	Pass
5	220.800	21.34	-13.29	46.0	-24.66	Peak	16.00	200	Н	Pass
6	369.658	27.48	-9.56	46.0	-18.52	Peak	126.00	100	Н	Pass

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Test Figure:



No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	36.061	29.90	-13.68	40.0	-10.10	Peak	165.00	100	V	Pass
2	43.577	29.49	-11.49	40.0	-10.51	Peak	58.00	100	V	Pass
3	55.699	30.32	-11.94	40.0	-9.68	Peak	82.00	100	V	Pass
4	98.125	27.29	-13.73	43.5	-16.21	Peak	268.00	100	V	Pass
5	142.977	29.09	-17.26	43.5	-14.41	Peak	127.00	100	V	Pass
6	350.262	30.06	-9.30	46.0	-15.94	Peak	360.00	200	V	Pass

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Operation Mode: Transmitting under Low Channel (2402MHz)

	0	,	
Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dB \(\mu \)V/m)
4804		Н	74(Peak)/ 54(AV)
4804		V	74(Peak)/ 54(AV)
7206		H/V	74(Peak)/ 54(AV)
9608		H/V	74(Peak)/ 54(AV)
12010		H/V	74(Peak)/ 54(AV)
14412		H/V	74(Peak)/ 54(AV)
16814		H/V	74(Peak)/ 54(AV)
19 16		H/V	74(Peak)/ 54(AV)
21618		H/V	74(Peak)/ 54(AV)
24020		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

Operation Mode: Transmitting g under Middle Channel (2441MHz)

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \(\mu \)V/m)
4882		Н	74(Peak)/ 54(AV)
4882		V	74(Peak)/ 54(AV)
7323		H/V	74(Peak)/ 54(AV)
9764		H/V	74(Peak)/ 54(AV)
12205		H/V	74(Peak)/ 54(AV)
14646		H/V	74(Peak)/ 54(AV)
17087		H/V	74(Peak)/ 54(AV)
1952		H/V	74(Peak)/ 54(AV)
21969		H/V	74(Peak)/ 54(AV)
24410		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

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Operation Mode: Transmitting under High Channel (2480MHz)

	8 8	,	
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4960		Н	74(Peak)/ 54(AV)
4960		V	74(Peak)/ 54(AV)
7440		H/V	74(Peak)/ 54(AV)
9920		H/V	74(Peak)/ 54(AV)
12400		H/V	74(Peak)/ 54(AV)
14880		H/V	74(Peak)/ 54(AV)
17360		H/V	74(Peak)/ 54(AV)
19840		H/V	74(Peak)/ 54(AV)
22320		H/V	74(Peak)/ 54(AV)
24800		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

^{2.} Remark "---" means that the emissions level is too low to be measured

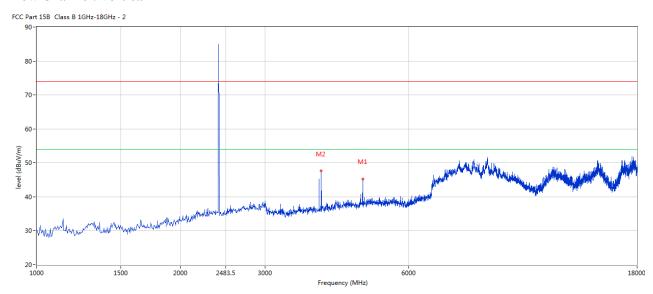
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Please refer to the following test plots for details:

Low Channel: Vertical



No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	4802.799	45.28	3.12	74.0	-28.72	Peak	284.00	100	V	Pass
2	3936.016	47.58	0.95	74.0	-26.42	Peak	149.00	100	V	Pass

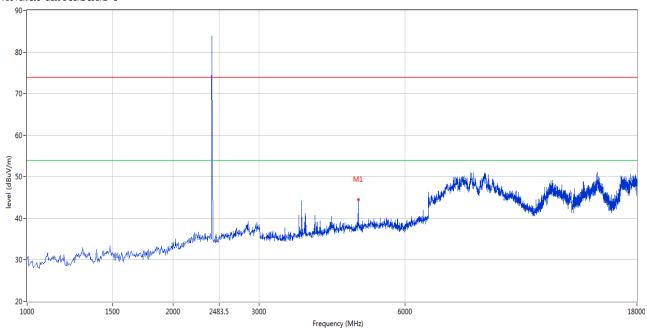
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Low Channel: Horizontal





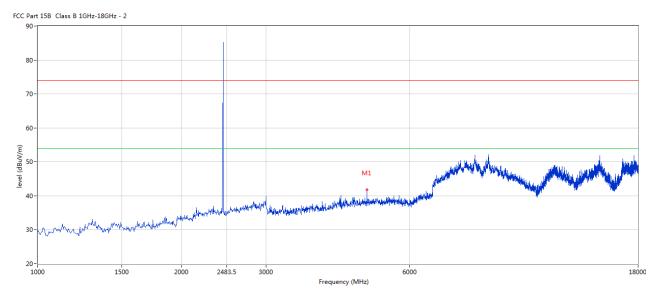
No.	Frequency	Results	Factor (dB)	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(o)	(cm)		
1	4802.799	44.51	3.12	74.0	-29.49	Peak	135.00	100	Н	Pass

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Middle Channel: Horizontal



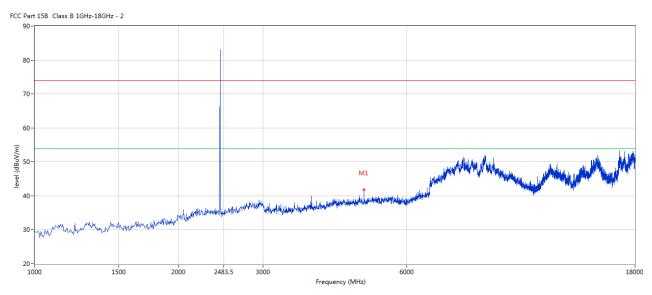
No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	4879.28	41.73	3.20	74.0	-32.27	Peak	144.00	100	Н	Pass
	0									

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Middle Channel: Vertical



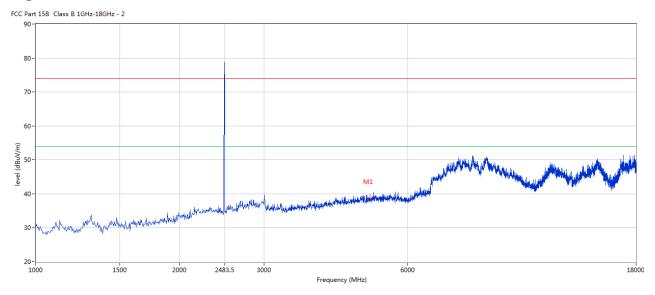
No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	4879.28	41.74	3.20	74.0	-32.26	Peak	35.00	100	V	Pass
	0									

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High Channel: Horizontal



No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	4960.01	38.47	3.36	74.0	-35.53	Peak	305.00	100	Н	Pass
	0									

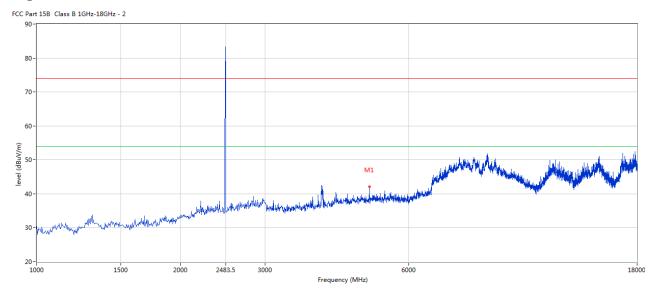
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High Channel: Vertical



	No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
		cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
Ī	1	4960.01	42.07	3.36	74.0	-31.93	Peak	178.00	100	V	Pass
Ĺ		0									

Note: for the radiated emissions above 18G, it is the floor noise.

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7.0 20dB Bandwidth Measurement

7.1 Regulation

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

7.2 Limits of 20dB Bandwidth Measurement

N/A

7.3 Test Procedure.

- 1. Check the calibration of the measuring instrument (spectrum analyzer) using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span =3MHz, RBW =30 kHz, VBW=100 kHz, Sweep = auto Detector function = peak, Trace = max hold
- 3. Measure the highest amplitude appearing on spectral display and record the level to calculate results. 6. Repeat above procedures until all frequencies measured were complete.

7.4 Test Result

Type of Modulation: GFSK

EUT	Digita	l Photo Frame	Model	Familink AWS 3G+WiFi
				Photo Diary
Mode	Mode Keep Transmitting		Input Voltage	120V~
Temperat	ure 2	24 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	1 ,		Pass/ Fail
Low	2402	901		Pass
Middle	2441	901		Pass
High	2480	901		Pass

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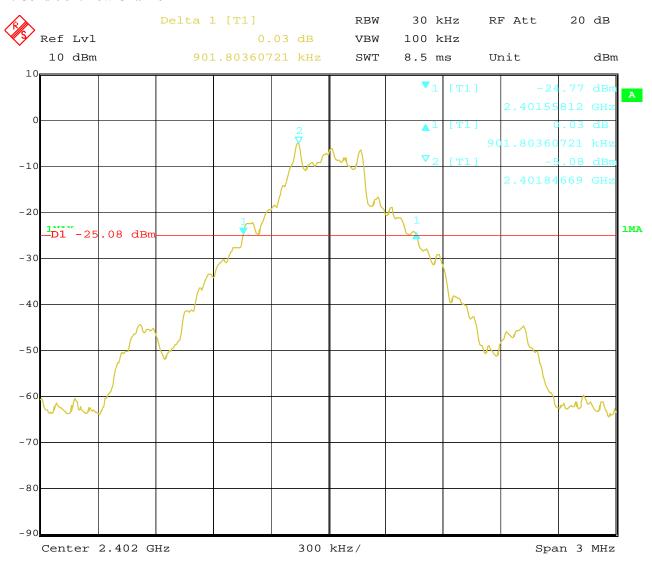
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Test Figure:

1. Condition: Low Channel



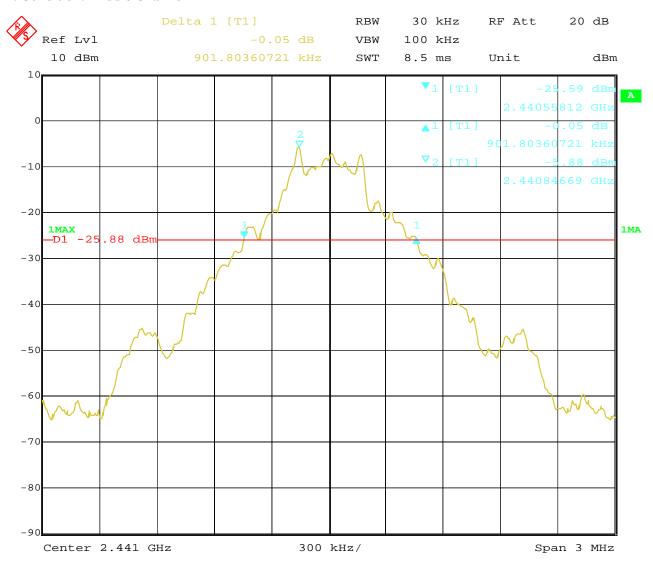
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2. Condition: Middle Channel

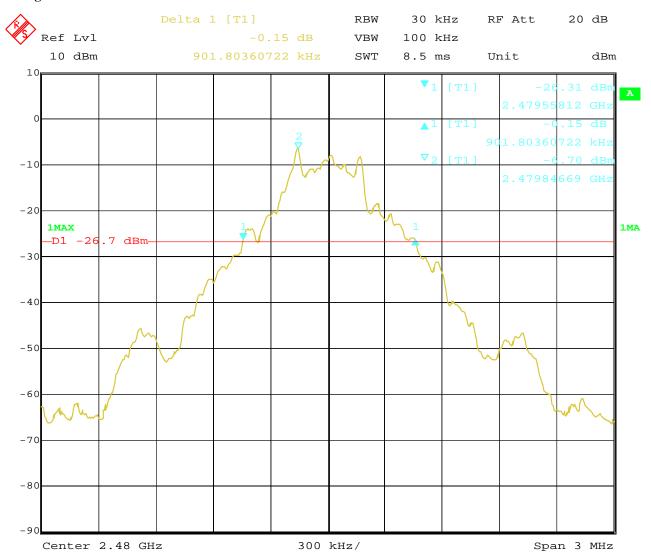


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3. High Channel



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Test Result

Type of Modulation: $\sqrt{1/4}$ DQPSK

EUT	Digita	al Photo Frame	Model	Familink AWS 3G+WiFi
				Photo Diary
Mode	Keep	Transmitting	Input Voltage	120V~
Temperature	2	24 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass/ Fail
Low	2402	1136		Pass
Middle	2441	1136		Pass
High	2480	1136		Pass

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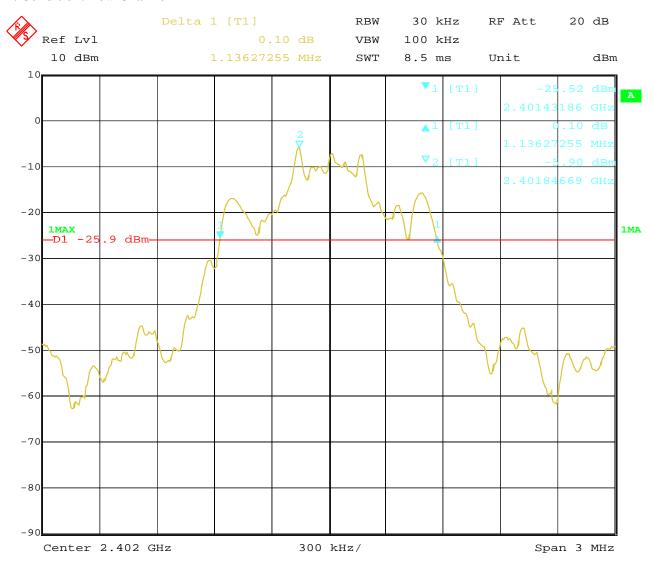
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Test Figure:

1. Condition: Low Channel

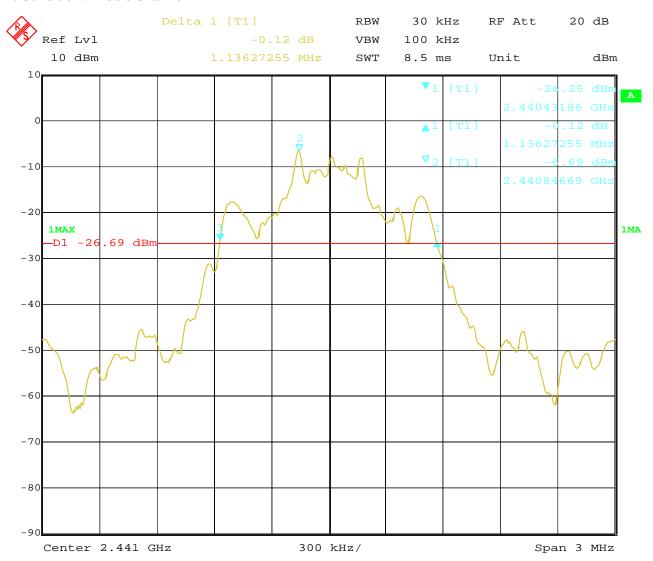


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2. Condition: Middle Channel

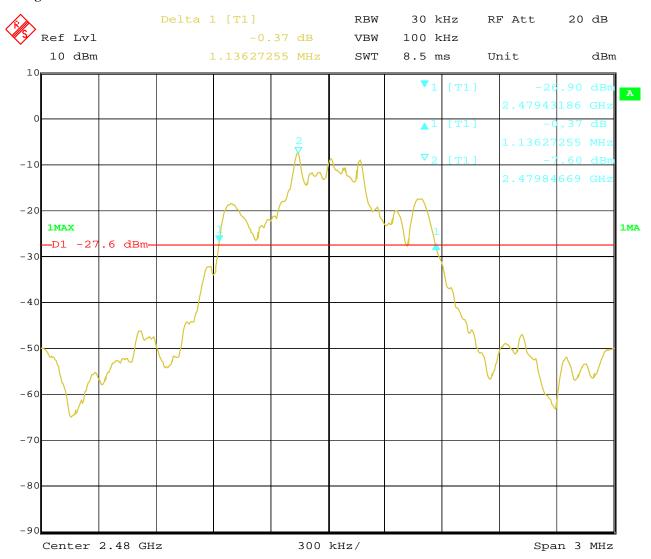


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3. High Channel



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Test Result

Type of Modulation: 8DPSK

EUT	Digital	Photo Frame	Model	Familink AWS 3G+WiFi Photo Diary
Mode	Keep	Transmitting	Input Voltage	120V~
Temperature	24	4 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass/ Fail
Low	2402	1166		Pass
Middle	2441	1166		Pass
High	2480	1166		Pass

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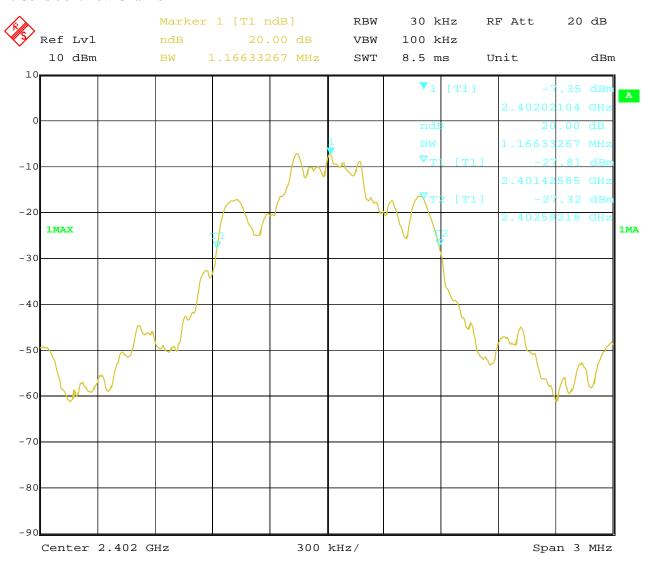
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Test Figure:

1. Condition: Low Channel

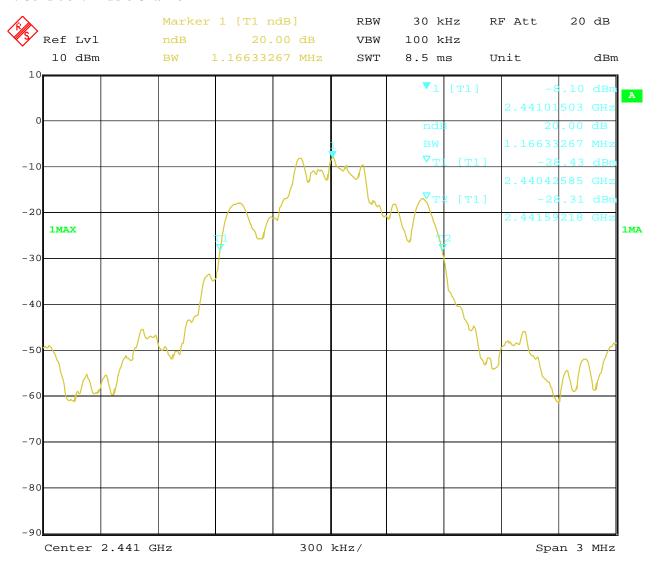


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2. Condition: Middle Channel

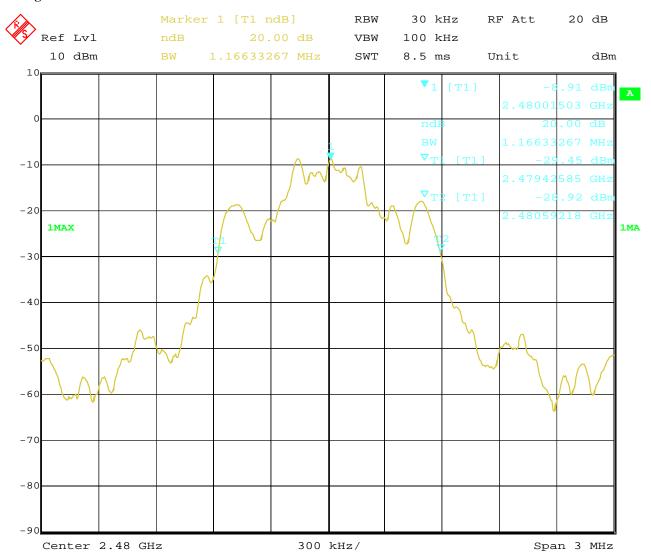


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3. High Channel



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8. Maximum Output Power

8.1 Regulation

According to §15.247(b)(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 2400-2483.5MHz band:0.125 watts. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

8.3 Test Procedure

- 1. Check the calibration of the measuring instrument (spectrum analyzer) using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: 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=3MHz; Sweep = 60s; Detector function = RMS; Trace = max hold
- 3. Measure the highest amplitude appearing on spectral display and record the level to calculate results.
- 4. Repeat above procedures until all frequencies measured were complete.

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8.4Test Results

Type of Modulation: GFSK

EUT	Digital Photo Frame		Model	Familink AWS 3G+WiFi Photo Diary
Mode	Keep Transmitting		Input Voltage	120V~
Temperature		24 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	Max. Power Output (dBm) Average	Peak Power Limit (dBm)	Pass/ Fail
Low	2402	-2.77	30	Pass
Middle	2441	-3.28	30	Pass
High	2480	-4.43	30	Pass

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The **Average** power was measured

Type of Modulation: Л/4DQPSK

EUT		Digital Photo Frame	Model	Familink AWS 3G+WiFi Photo Diary
Mode		Keep Transmitting	Input Voltage	120V~
Temperature		24 deg. C,	Humidity	56% RH
Channel	Channel Frequency	Max. Power Output (dBm)	Peak Power Limit	Pass/ Fail
	(MHz)	Average	(dBm)	
Low	2402	-3.65	30	Pass
Middle	2441	-4.35	30	Pass
High	2480	-5.30	30	Pass

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The **Average** power was measured

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Type of Modulation: 8DPSK

EUT	Dig	Digital Photo Frame		Familink AWS 3G+WiFi Photo
				Diary
Mode	Ke	ep Transmitting	Input Voltage	120V~
Temperature	e	24 deg. C,	Humidity	56% RH
Channel	Channel Frequency	Max. Power Output (dBm)	Peak Power Limit	Pass/ Fail
Chamier	(MHz)	Average	(dBm)	
-0.80	2402	-3.50	30	Pass
-0.03	2441	-4.35	30	Pass
High	2480	-5.18	30	Pass

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The **Average** power was measured

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9. Carrier Frequency Separation

9.1 Regulation

According to §15.247(a)(1), 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.

9.2 Limits of Carrier Frequency Separation

The Maximum Power Spectral Density Measurement is 25kHz or two-thirds of the 20dB bandwidth of the hopping Channel which is great.

9.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = wide enough to capture the peaks of two adjacent channels: Resolution (or IF) Bandwidth (RBW) \geq 1% of the span; Video (or Average) Bandwidth (VBW) \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold
- 3. Measure the separation between the peaks of the adjacent channels using the marker-delta function.
- 4. Repeat above procedures until all frequencies measured were complete.

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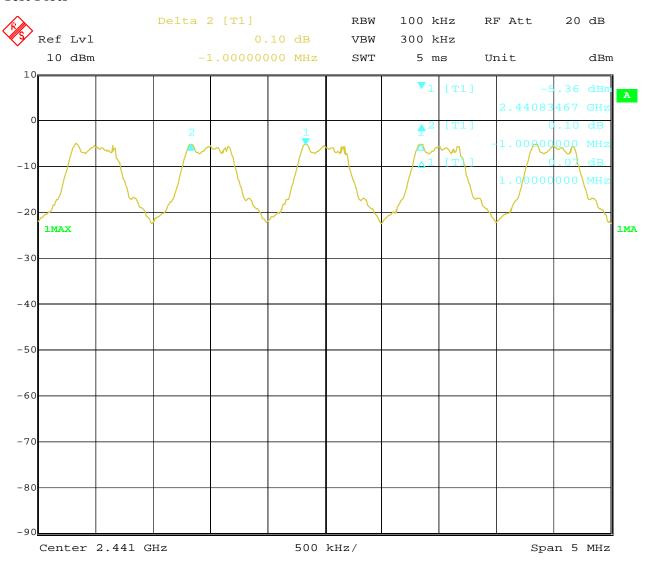


9.4Test Result

Type of Modulation: GFSK

EUT	Digital Photo Frame N		Model	Fai	milink AWS
				3G+W	iFi Photo Diary
Mode	Hopping On I		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Carrier I	Frequency Separation		Limit		Pass/ Fail
	1.000MHz	≥ 25 kHz or 2/3	of the 20 dB band	dwidth	Pass

Test Plots



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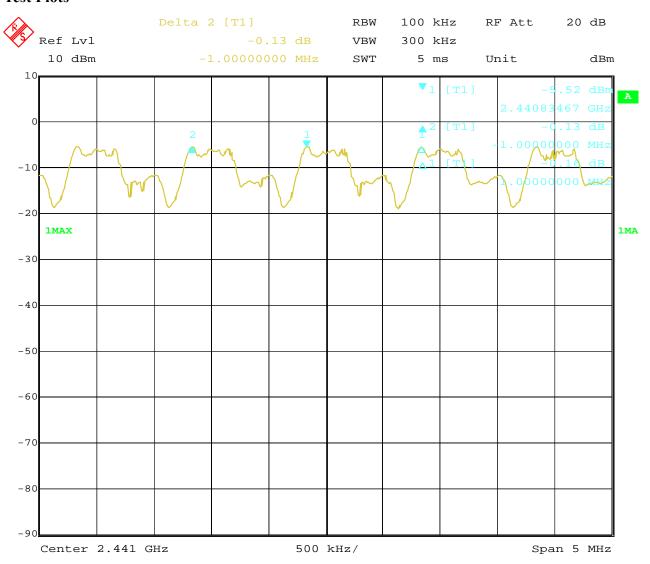
Date: 2019-03-01



Type of Modulation: Л/4DQPSK

EUT	Digital Photo F	rame	Model	Fa	milink AWS
				3G+W	iFi Photo Diary
Mode	Hopping On I		Input Voltage		120V~
Temperature	24 deg. C,		Humidity	56% RH	
Carrier I	Frequency Separation		Limit		Pass/ Fail
	1.000MHz	≥ 25 kHz or 2	2/3 of 20 dB bands	width	Pass

Test Plots



Date: 21.FEB.2019 11:03:11

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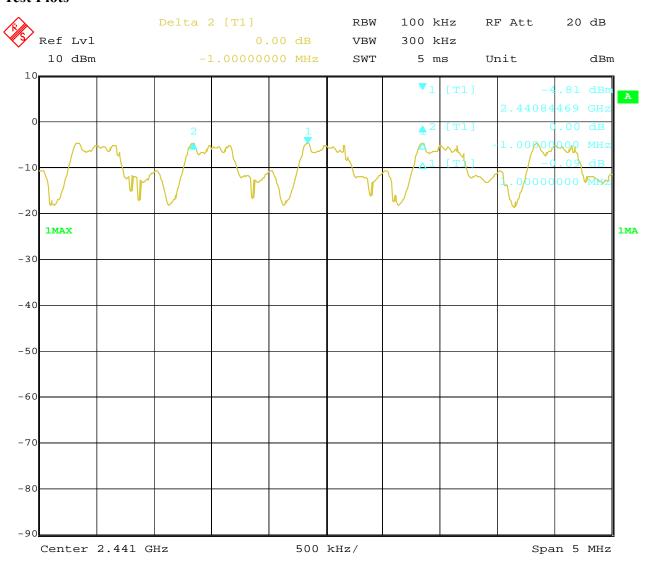
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Type of Modulation: 8DPSK

EUT	Digital Photo F	rame	Model	Fa	milink AWS
				3G+W	iFi Photo Diary
Mode	Hopping On I		Input Voltage		120V~
Temperature	24 deg. C,		Humidity	56% RH	
Carrier I	Frequency Separation		Limit		Pass/ Fail
	1.000MHz	≥ 25 kHz or 2	2/3 of 20 dB bands	width	Pass

Test Plots



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10. Number of Hopping Channels

10.1 Regulation

According to §15.247(a)(1)(iii), frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used. According to §15.247(b)(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.

10.2 Limits of Number of Hopping Channels

The frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

10.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = the frequency band of operation; RBW=100 kHz, VBW=300 kHz; Sweep = auto; Detector function = peak; Trace = max hold
- 3. Record the number of hopping channels.

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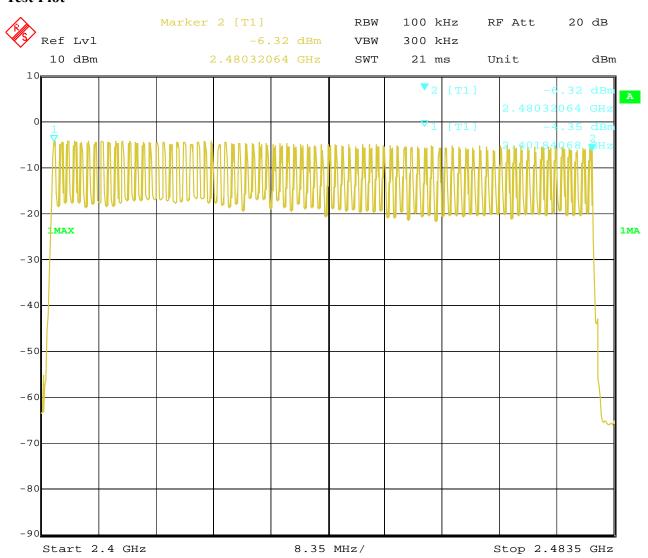


10.4Test Result

Type of Modulation: GFSK

EUT	Digital Photo Frame		Model	Familink AWS 3G+WiF	
				Photo Diary	
Mode	Н	opping On	Input Voltage		120V~
Temperature	2	24 deg. C,	Humidity	56% RH	
Operating Frequency		Number of hopping channels		Limit	Pass/ Fail
2402-2480MHz		79		≥ 15	Pass

Test Plot



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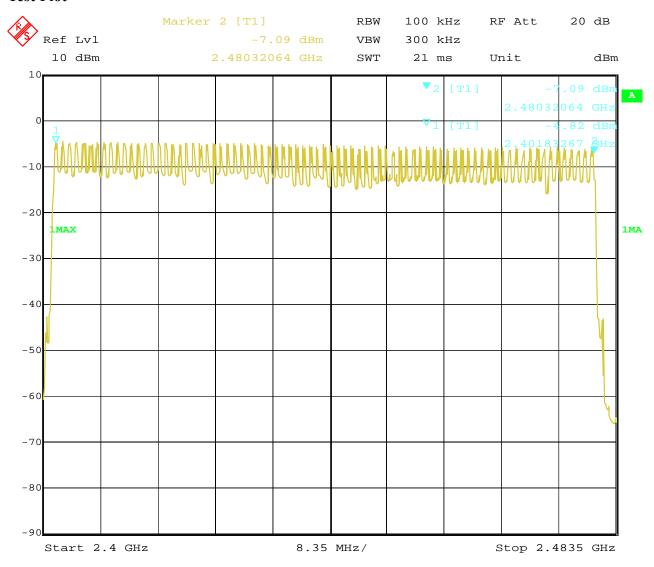
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Type of Modulation: $\sqrt{J/4DQPSK}$

EUT	Digital Photo Frame		Mode	el	Familii	nk AWS 3G+WiFi
					1	Photo Diary
Mode	Hopping On		Input Voltage		120V~	
Temperature		24 deg. C,	Humidity			56% RH
Operating Frequency		Number of hopping channels		Lin	nit	Pass/ Fail
2402-2480MHz		79		<u>></u>	15	Pass

Test Plot



21.FEB.2019 13:13:18

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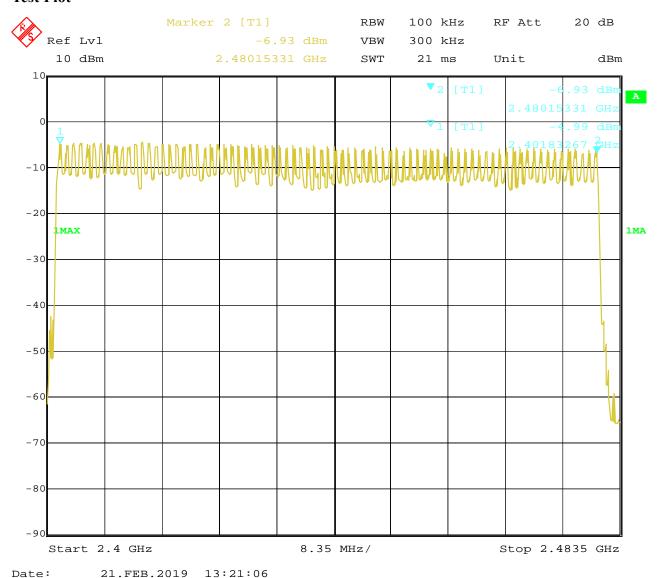
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Type of Modulation: 8DPSK

EUT	Digita	Digital Photo Frame		Famil		ink AWS 3G+WiFi
						Photo Diary
Mode	Н	opping On	Input V	oltage		120V~
Temperature	2	24 deg. C,	Humidi	ty		56% RH
Operating Frequency		Number of hopp channels	oing	Lit	nit	Pass/ Fail
2402-2480MHz		79		>	15	Pass

Test Plot



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11. Time of Occupancy (Dwell Time)

11.1 Regulation

According to §15.247(a)(1)(iii), frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

11.2 Limits of Carrier Frequency Separation

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

11.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = zero span, centered on a hopping channel; RBW = 1 MHz; VBW \geqslant RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold
- 3. Measure the dwell time using the marker-delta function.
- 4. Repeat above procedures until all frequencies measured were complete.
- 5. Repeat this test for different modes of operation (e.g., data rate, modulation format, etc.), if applicable.

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11.4 Test Result

Type of Modulation: GFSK

EUT	Digital P	hoto Frame	Model		'S 3G+WiFi Photo Diary
Mada	V T.	:	I 17-14		3
Mode	Keep 11	ansmitting	Input Voltage	1	20V~
Temperature	e 24 d	leg. C, Humidity		56	6% RH
Channel	Reading	Hoping	g Rate	Actual	Limit
			DH5		
Middle	0.22ms	266.66	7 hop/s	0.023s	0.4s
			DH3		
Middle	0.20ms	400 hop/s		0.032s	0.4s
DH1					
Middle	0.20ms	800 l	nop/s	0.064s	0.4s

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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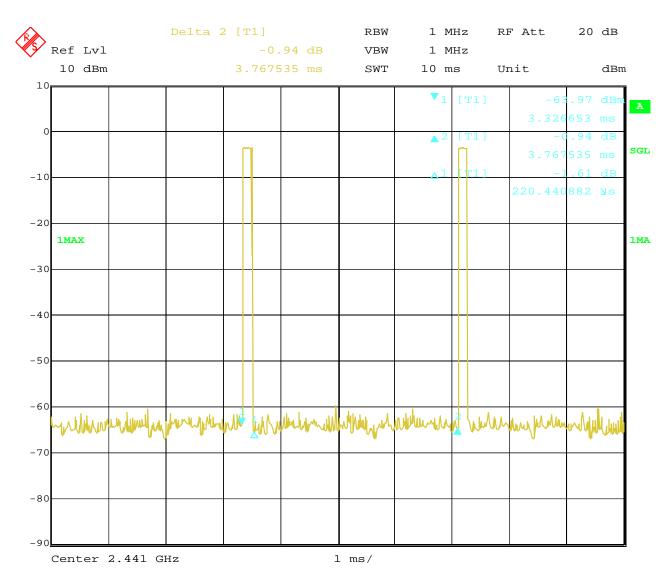
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Test Plots:

DH5



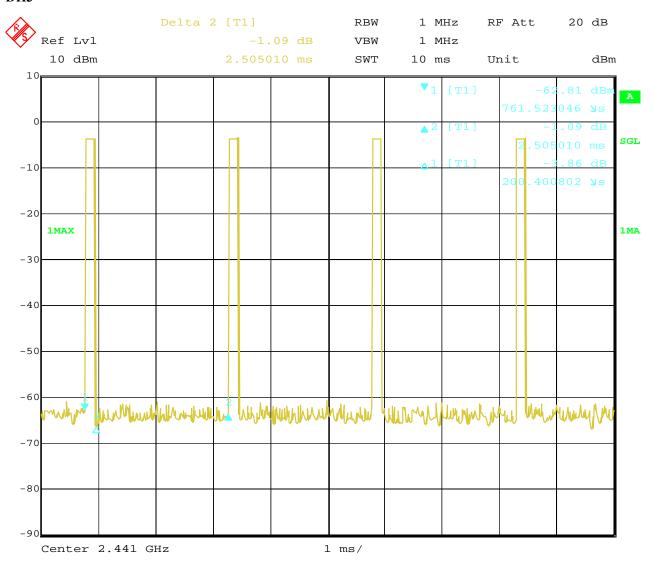
21.FEB.2019 16:08:19 Date:

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DH3

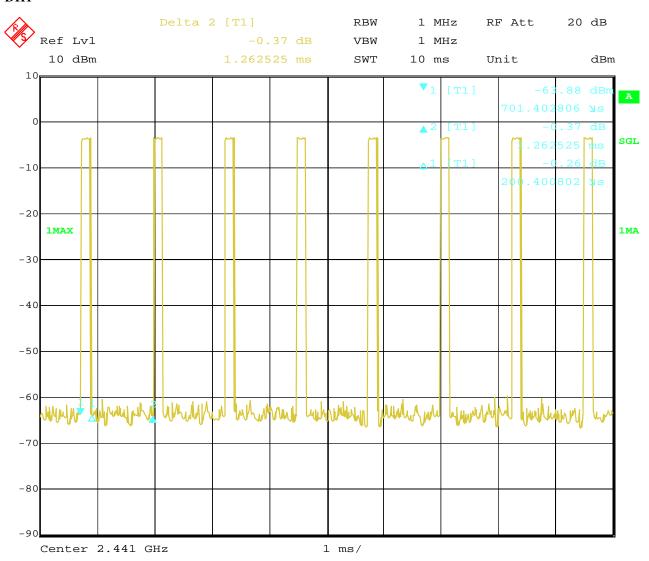


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DH1



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Test Result

Type of Modulation: $\sqrt{1/4}$ DQPSK

EUT	Digital P	Digital Photo Frame		Familink AW	/S 3G+WiFi Photo	
					Diary	
Mode	Keep Tra	ansmitting	Input Voltage		120V~	
Temperatur	e 24 d	leg. C, Humidity		5	6% RH	
Channel	Reading	Hoping	g Rate	Actual	Limit	
			2DH5			
Middle	0.20ms	266.66	7 hop/s	0.021s	0.4s	
			2DH3			
Middle	0.22ms	400 h	nop/s	0.035s	0.4s	
	2DH1					
Middle	0.20ms	800 h	nop/s	0.064s	0.4s	

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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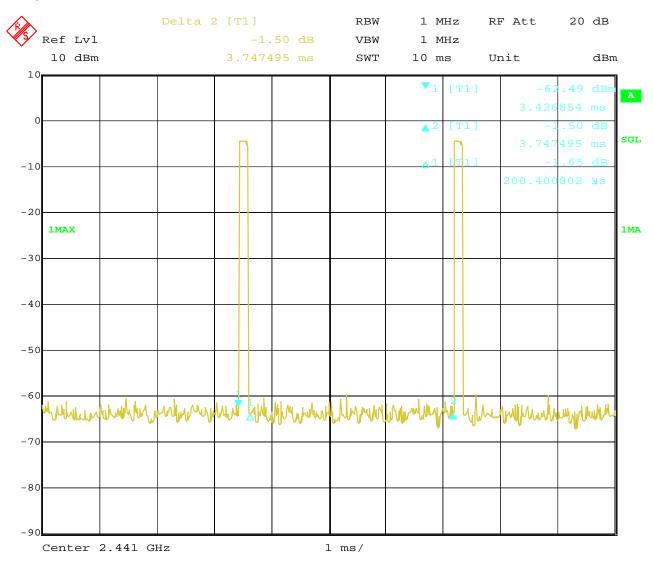
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Test Plots:

2DH5

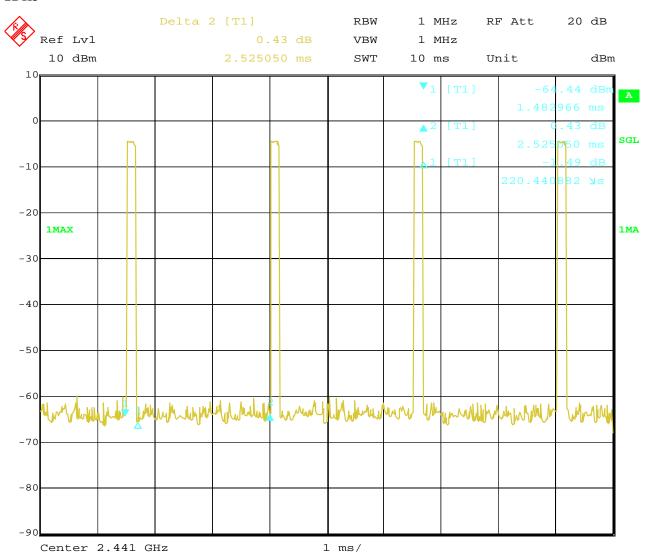


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2DH3

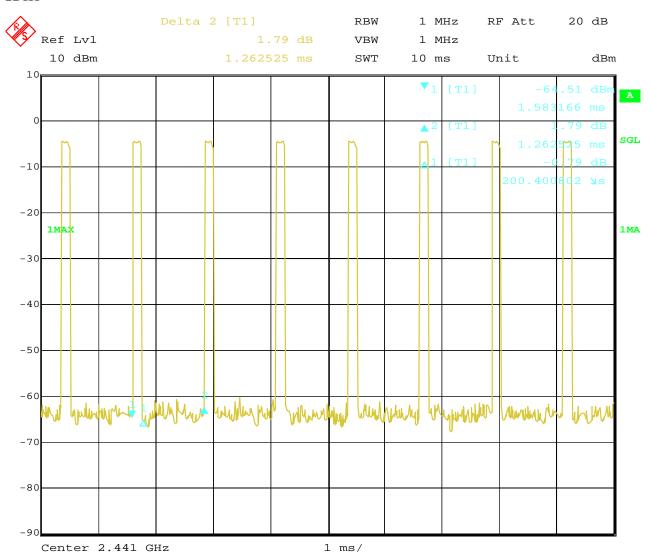


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2DH1



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Type of Modulation: 8DPSK

EUT	Digital P	Digital Photo Frame		Familink AV	WS 3G+WiFi Photo		
					Diary		
Mode	Keep Tra	ansmitting	Input Voltage		120V~		
Temperature	e 24 d	deg. C, Humidity		24 deg. C,		4	56% RH
Channel	Reading	Hoping	g Rate	Actual	Limit		
			3DH5				
Middle	0.22ms	266.66	7 hop/s	0.023s	0.4s		
			3DH3				
Middle	0.20ms	400 h	nop/s	0.032s	0.4s		
3DH1							
Middle	0.20ms	800 h	nop/s	0.064s	0.4s		

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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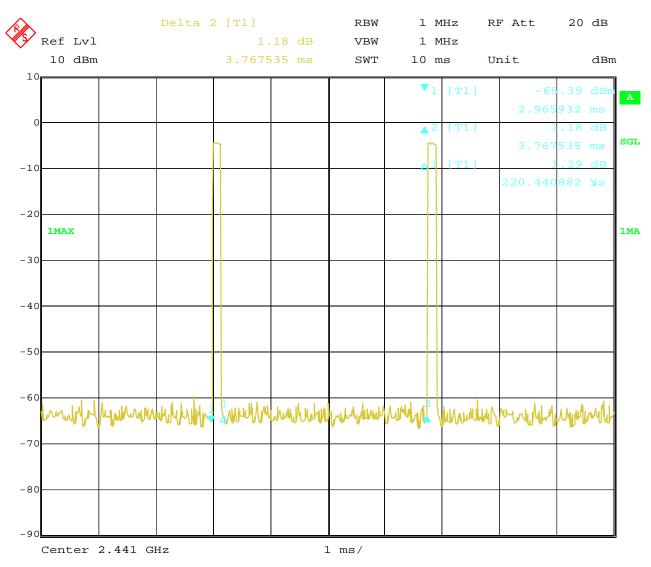
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Test Plots:

3DH5



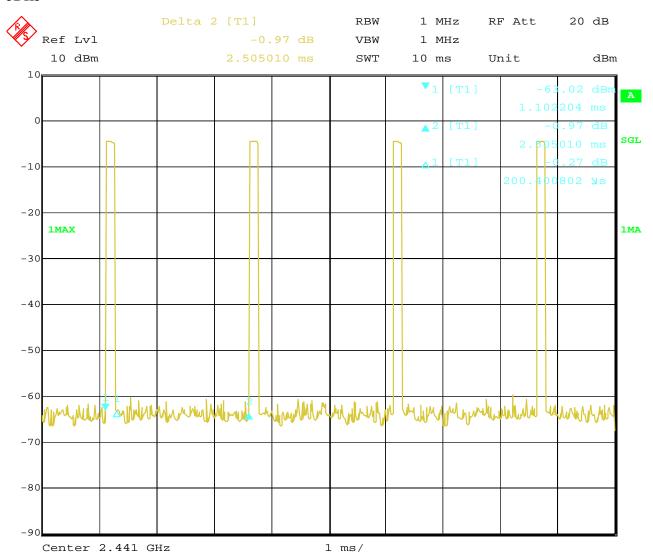
21.FEB.2019 15:57:18 Date:

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3DH3

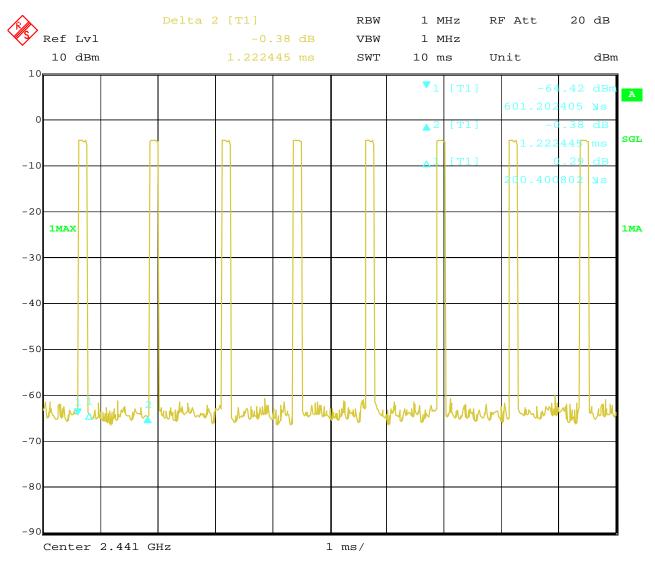


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3DH1



21.FEB.2019 Date: 15:53:46

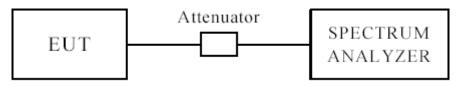
Date: 2019-03-01



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12 Out of Band Measurement

12.1 Test Setup



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

12.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

12.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test. Peak values with RBW=VBW=1MHz and PK detector.

For bandage test, the spectrum set as follows: RBW=100kHz, VBW=300 kHz. A conducted measurement used

Note: For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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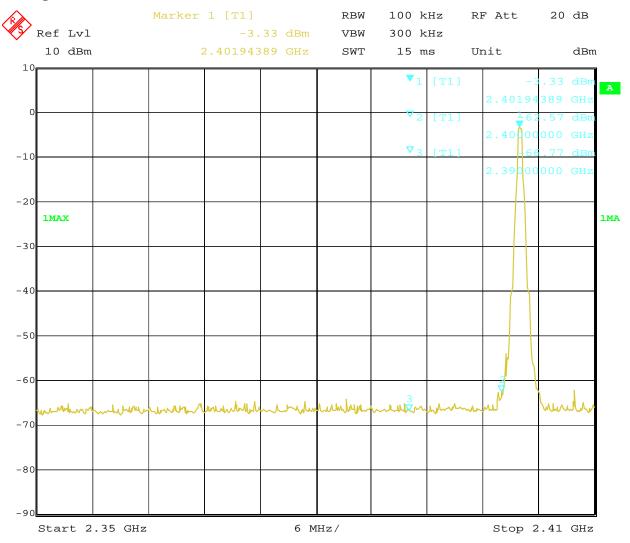


Type of Modulation: GFSK

Band Edge Test Result 12.4

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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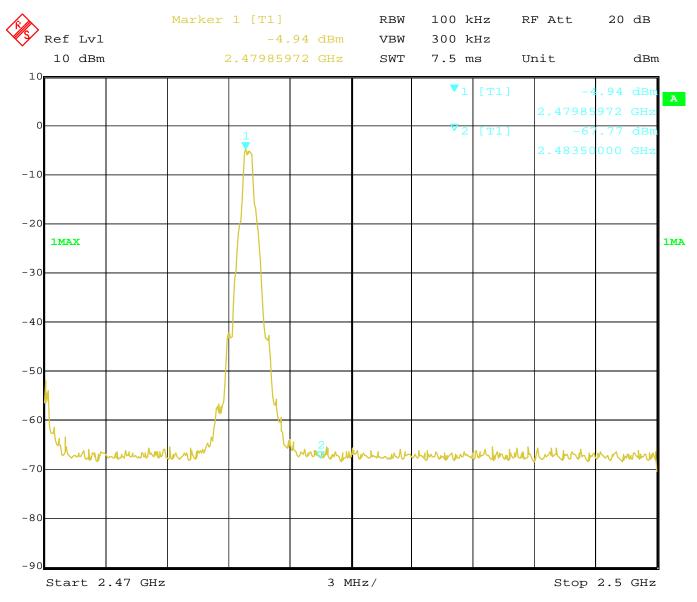


Type of Modulation: GFSK

12.4 Band Edge Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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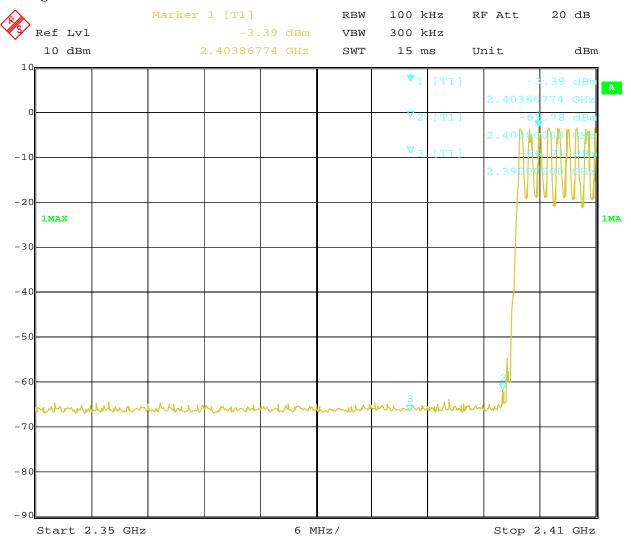


Type of Modulation: GFSK

Band Edge Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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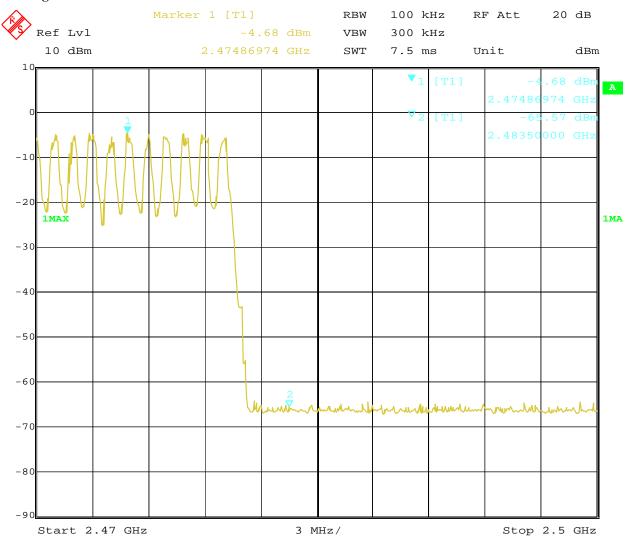


Type of Modulation: GFSK

Band Edge Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



Date: 21.FEB.2019 14:49:40

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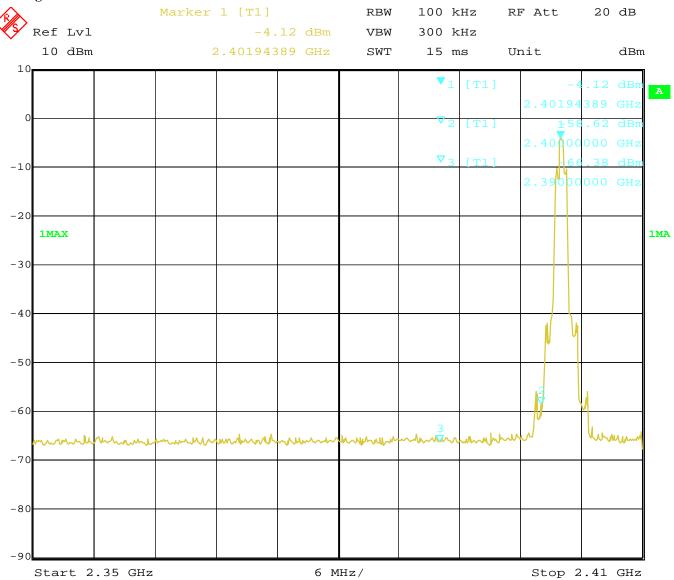


Type of Modulation: Л/4DQPSK

12.4 Out of Band Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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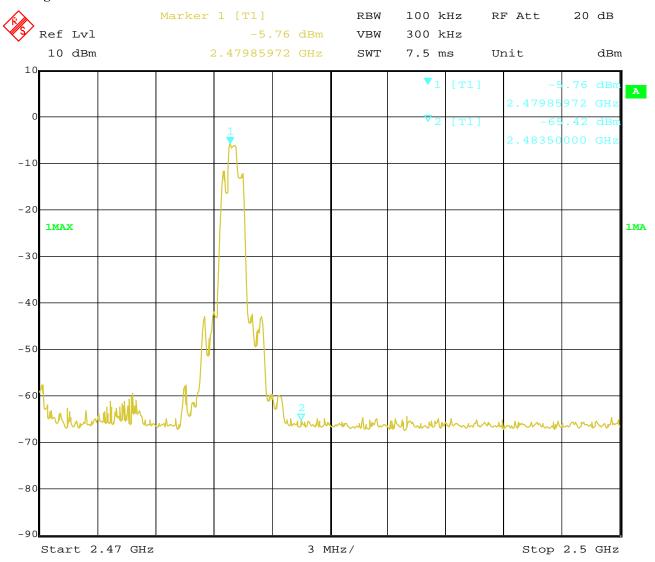


Type of Modulation: Л/4DQPSK

Band Edge Test Result 12.4

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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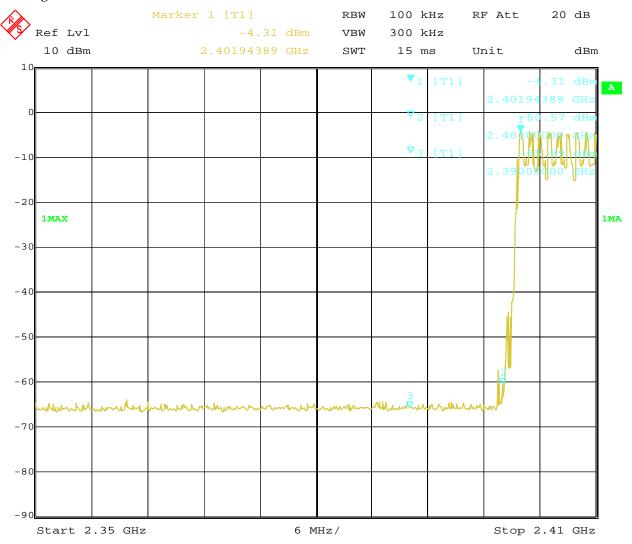


Type of Modulation: Л/4DQPSK

Out of Band Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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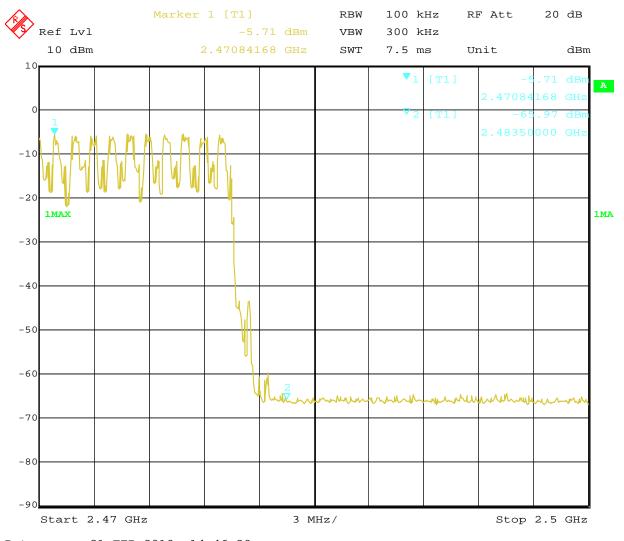


Type of Modulation: $\pi/4DQPSK$

Out of Band Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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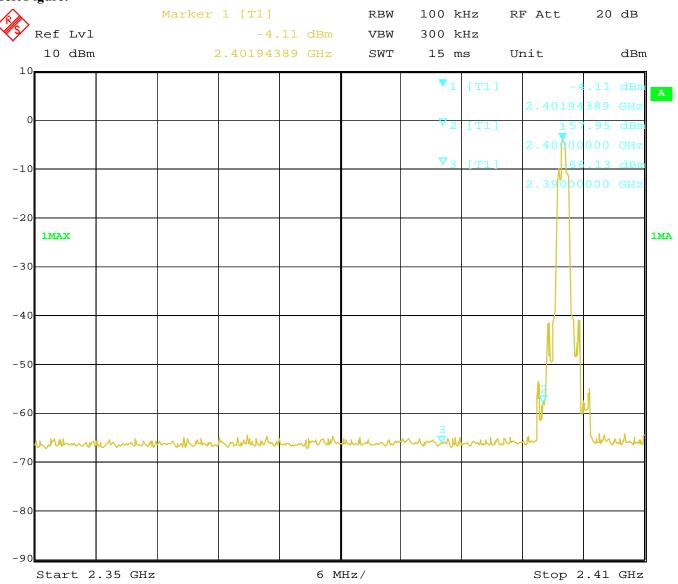


Type of Modulation: 8DPSK

12.4 Band Edge Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Keeping Transmitting	Input Voltage	120V~
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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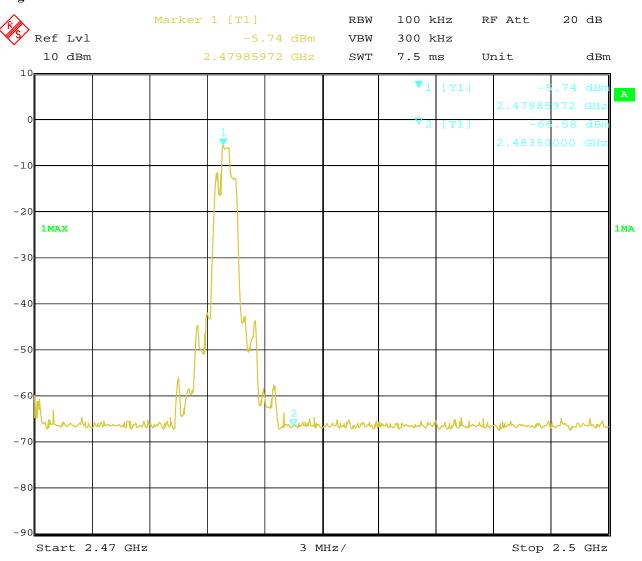


Type of Modulation: 8DPSK

12.4 Band Edge Test Result

Product:	Digital Photo	Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Keeping Trans	smitting	Input Voltage	120V~
Temperature	24 deg.	C,	Humidity	56% RH
Test Result:	Pass		Detector	PK
The Max. FS in	PK (dBμV/m)	44.8		74(dBμV/m)
Restrict Band	AV(dBμV/m)		Limit	54(dBµV/m)
2483.5MHz				

Test Figure:



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The report refers only to the sample tested and does not apply to the bulk.

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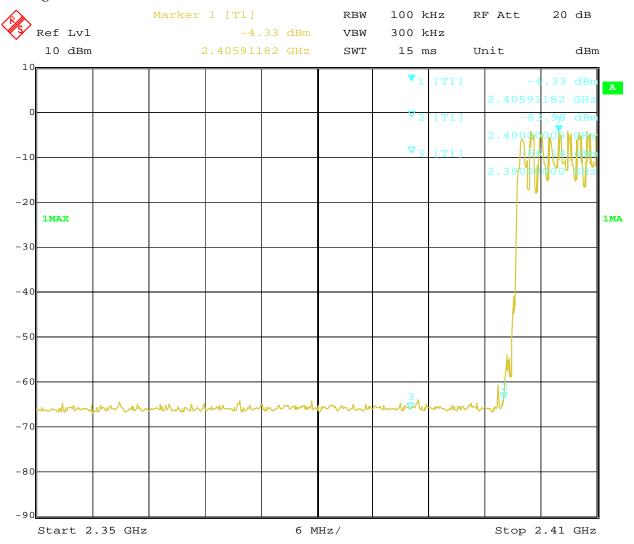


Type of Modulation: 8DPSK

Band Edge Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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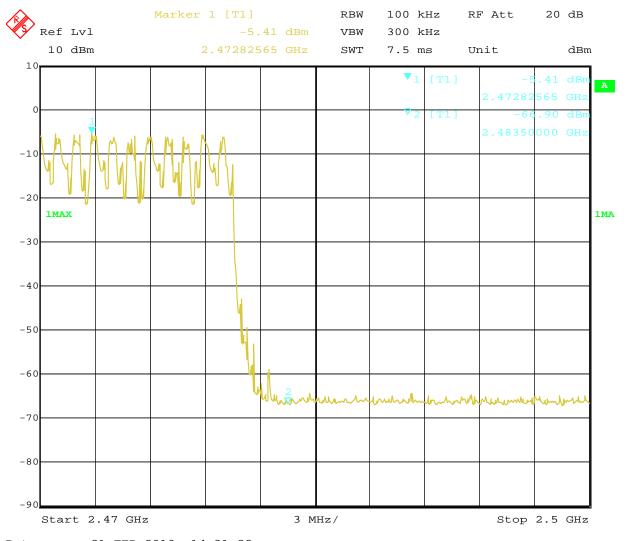


Type of Modulation: 8DPSK

Band Edge Test Result

Product:	Digital Photo Frame	Test Mode:	Familink AWS 3G+WiFi Photo Diary
Mode	Hopping On	Input Voltage	120V~
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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12.4 Restrict Band Measurement

	EUT	Digital	Photo Fra	ame	Mo	odel	Famil	ink AWS	3G+WiFi	Photo Dia	
]	Mode Keep Transmitting		ng	Input	Voltage		120V~				
Ten	nperature	24	deg. C,	C, Humidity				56% RH			
Tes	t Result:		Pass		Modula	tion Type			GFSK		
	B Class B 1GHz-18GHz - 2	!									
80-											
70-											
60- 60- 50-											
	enzidaturakte itangled dupat katanas tendid.			ternet had the state of the sta	appin light of the state of the		in think with his during be	Halianistal		hemosylabelyt	
30- 2350					Frequency (M	Hz)				2410	
No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict	
	(MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)			
))	(dB)						
	2390.000	35.67	-3.53	74.0	-38.33	Peak	54.00	100	Н	Pass	

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12.4 Restrict Band Measurement

	EUT	Dig	ital Photo	Frame		Model	Fam	ilink AWS	S 3G+WiF	i Photo Dia
	Mode	Ke	ep Transn	nitting	In	put Voltage	;		120V~	
Ten	nperature		24 deg. (C,		Humidity			56% RH	
Tes	st Result:		Pass		Mo	dulation Ty	pe		GFSK	
C Part 15	iB Class B 1GHz-18GHz -	2								
80-										
70-										
50-										
50-										
30-	ang cantaph all philipha da Rayan, an alla is hadi an	l Man March of the Annual March	Harthille and any other plans of	ng kang application and many or programming to grave the			halpharech plantale	A SHANNER MENTERS OF THE PARTY		quille book
2350					Frequency (M	Hz)				2410
No.	Frequency (MHz)	Results (dBuV/m	Factor (dB)	Limit (dBuV/m	Over Limit	Detector	Table (o)	Height (cm)	ANT	Verdict
	(1411 12))	(GD))	(dB)			(GIII)		
	2390.000	35.36	-3.53	74.0	-38.64	Peak	179.00	100	V	Pass

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12.4 Restrict Band Measurement

EU	T	Digita	l Photo F	rame	N	/lodel	Fam	ilink AWS	3G+WiF	i Photo Dia	
Mo	de	Keep Transmitting			Inpu	t Voltage		120V~			
Temper	rature	2-	4 deg. C,		Нι	ımidity			56% RH		
Test R	esult:		Pass		Modul	ation Type			GFSK		
CC Part 15B Clas	s B 1GHz-18GHz - 2										
90-											
80-											
70-			/_								
€ ⁶⁰ -			-/	$\overline{}$							
level (dBuV/m) -05			/	$\overline{}$							
<u>\$</u> 50-			/								
40-	فلتر الربارات أرقال فلاستخياض المحطين				William	dika dan silikirikadan partu kadir siab		ana na an an Irana. Il	. 11tm - 11m	nta mt da	
30-		And the state of t				AND THE PERSON NAMED IN THE OWNERS OF	the timeter training by the present				
30- 2470				2	483.5 Frequency (M	Hz)				2500	
No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict	
	(MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)			
))	(dB)						
	2483.500	43.62	-3.57	74.0	-30.38	Peak	62.00	100	Н	Pass	

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12.4 Restrict Band Measurement

EC	JT	Digital	l Photo Fr	ame	M	lodel	Famil	ink AWS	3G+WiFi	Photo Diar		
Mo	ode	Keep	Transmitt	ing	Input	Voltage		120V~ 56% RH				
Tempe	erature	2	4 deg. C,		Hui	midity						
Test Result: Pass					Modula	ation Type		GFSK				
	ass B 1GHz-18GHz - 2			•			•					
90-												
80-												
80			_	N								
70-												
			/									
60-				\longrightarrow								
50-												
50-												
				7								
				`	V.							
40-												
40-	ما وراب بريالة وميكانان ونصرا أورموا للديوا	apridical distribution			Management	adolf i Jarkida mani enggin fe tain d	handa kiralla airibba, aka		ktorfolkælekoponhelopil-opik	ling all the disposation and design		
40-	ad o he we will a middle coincide he was bloomed	Approach to the best of the second		24	183.5		Marine A Visually a tables solve	to a state of the state of the state of	Kitalah kalan gendulungi. Lebih	2500		
30-	de função mission piendo fun de librica	Arrish while his based		24			igalus di kisalika turken oku	in a fish in the later in the second	ktologist servenski servetik			
30- 2470	. Nel I to be a rate and search of search	The state of the s			183.5 Frequency (M	Hz)				2500		
30- 2470	Frequen	Results	Factor	Limit	Frequency (M		Table (o)	Height	ANT			
30- 2470	. Nel I to be a rate and search of search	The state of the s	Factor (dB)		Frequency (M Over Limit	Hz)				2500		
40- 10-	Frequen	Results		Limit	Frequency (M	Hz)		Height		2500		

Note: For Restricted band test, only the worst case was reported.

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13.0 Antenna Requirement

13.1 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

13.2 Antenna Connected constructions

Integral antenna used. The gain of the antennas is 1.5dBi.

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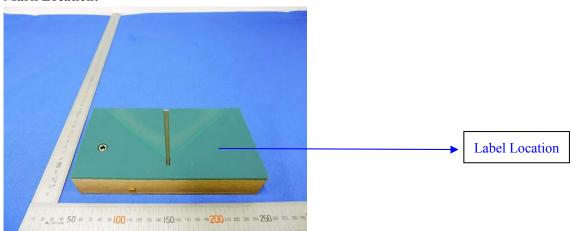
14.0 FCC ID Label

FCC ID: RBD-FAMILINK

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



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15.0 **Photo of testing**

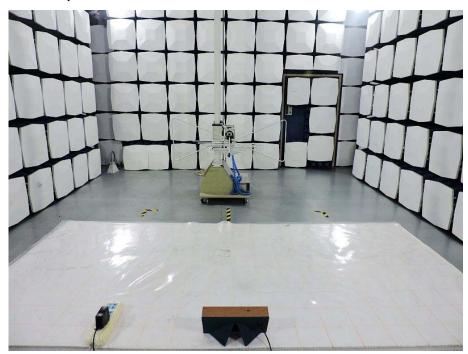
Conducted Emission Test Setup:

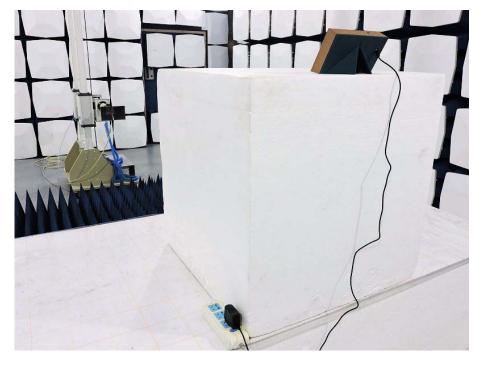


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Radiated Emission Test Setup:





Photographs – EUT

Please see test report EMC1902009-01

End of Report

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