

FCC Test Report

FCC ID: 2ADWUPSMMA10NA

Product: Polaroid Smart Alarm

Trade Mark: Polaroid

Model Number: PSMAA10NA

Serial Model: N/A

Report No.: NTEK-2017NT08316151F2

Prepared for

ONE DIAMOND ELECTRONICS INC.

1450 Frazee Road, Suite 303, San Diego, CA 92108

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name : ONE DIAMOND ELECTRONICS INC.

Address : 1450 Frazee Road, Suite 303, San Diego, CA 92108

Manufacturer's Name : Chuango Security Technology Corporation

Address : 6-17 OVERSEAS, STUDENTS PIONEER PARK, ECONOMIC & TECHNOLOGICAL DEVELOPMENT ZONE, FUZHOU, 350015, CHINA

Product description

Product name : Polaroid Smart Alarm

Model and/or type reference : PSMAA10NA

Standards : FCC part 15C:2017
ANSI C63.10:2013

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

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Date of Test :

Date (s) of performance of tests : 31 Aug. 2017 ~ 22 Sep. 2017

Date of Issue : 22 Sep. 2017

Test Result : **Pass**

Testing Engineer : Lake Xie
(Lake Xie)

Technical Manager : Jason Chen
(Jason Chen)

Authorized Signatory : Sam. Chen
(Sam Chen)

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1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission					
Standard	Test Item	FCC Rules	Limit	Judgment	Remark
FCC part 15C:2017 FCC part 2:2016 ANSI C63.10:2013	Conducted Emission	§15.207	Class B	PASS	
	Radiated Emission	§15.209	Class B	PASS	
	ANTENNA APPLICATION	§15.203	/	PASS	
	Occupied Bandwidth	§2.1049	/	PASS	

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.

1.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd

Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

FCC Registration Number:463705; IC Registration Number:9270A-1

CNAS Registration Number:L5516

1.2 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 %**.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKC01	ANSI	150 KHz ~ 30MHz	3.2	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKA01	ANSI	30MHz ~ 1000MHz	4.7	
		1GHz ~12.4GHz	5.0	

Revision History

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Feature and Specification	
Equipment	Polaroid Smart Alarm
Trade Mark	Polaroid
FCC ID	2ADWUPSMMA10NA
Model No.	PSMAA10NA
Serial Model	N/A
Model Difference	N/A
Operating Frequency	125KHz
Modulation Technique	GFSK
Antenna Type	coil antenna
Antenna Gain	1 dBi
Power supply	<input checked="" type="checkbox"/> DC supply: Battery DC 3.7V/800mAh or DC 12V from adapter
	<input type="checkbox"/> AC supply:
HW Version	V1.2
SW Version	V1.2

2.1.1 DESCRIPTION OF TEST MODES

EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

The following summary table is showing all test modes to demonstrate in compliance with the standard.

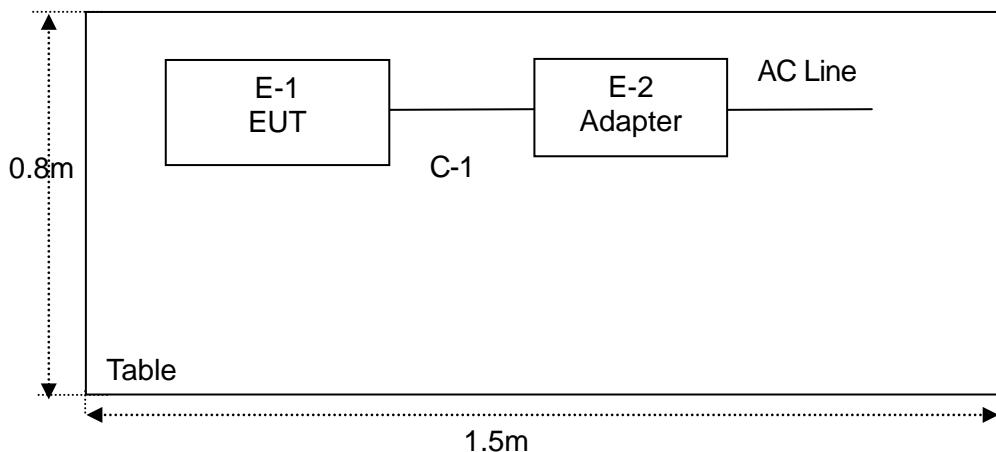
Test Cases	
Test Item	Data Rate/ Modulation
AC Conducted Emission	Mode 1: Charging+ Working
Radiated Test Cases	Mode 1: Charging+ Working

Carrier Frequency and Channel list:

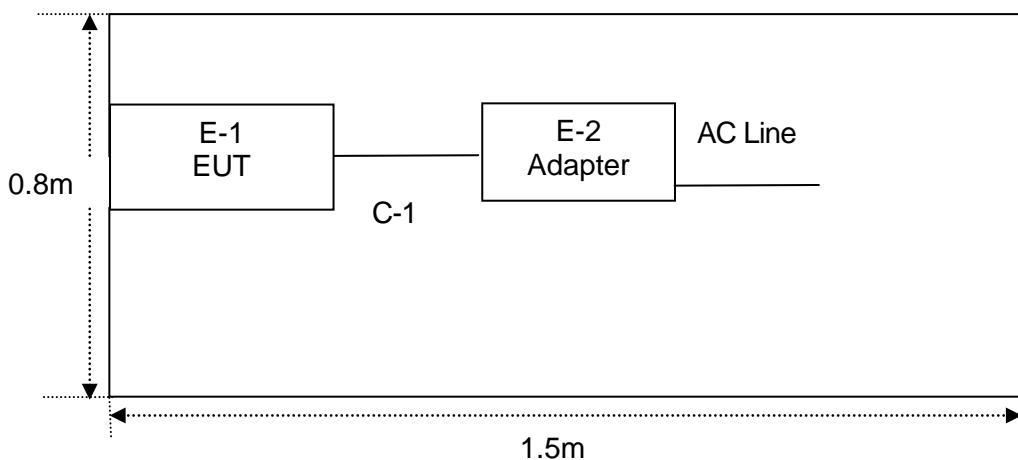
Channel	Frequency(MHz)
1	0.125

2.2 DESCRIPTION OF TEST SETUP

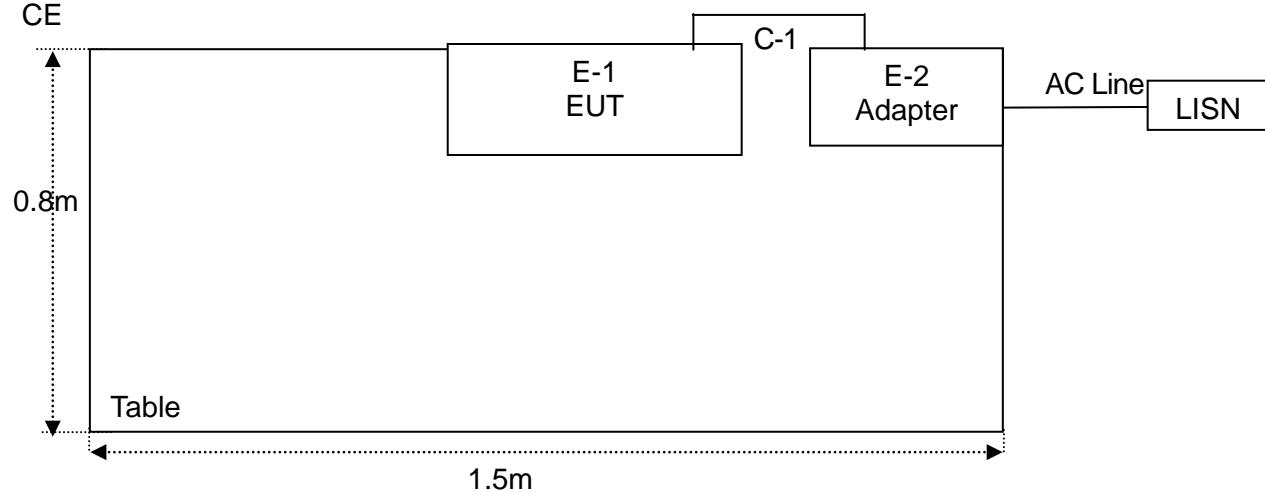
RE(9KHz-30MHz)



RE(30MHz-1GHz)



CE



2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

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.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Polaroid Smart Alarm	Polaroid	PSMAA10NA	N/A	EUT
E-2	Adapter	N/A	N/A	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length	Note
C-1	Power Cable	NO	NO	1.2m	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) "YES" means "shielded" "with core"; "NO" means "unshielded" "without core".
- (4) The mobile phone as the EUT's load is connected to the phone by charging the receiving end.

2.4 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2017.06.06	2018.06.05	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2016.11.10	2017.11.09	1 year
3	EMI Test Receiver	Agilent	N9038A	MY53227146	2017.06.06	2018.06.05	1 year
4	Test Receiver	R&S	ESPI	101318	2017.06.06	2018.06.05	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2017.04.09	2018.04.08	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2017.06.06	2018.06.05	1 year
7	Horn Antenna	EM	EM-AH-10180	2011071402	2017.04.09	2018.04.08	1 year
8	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2017.07.06	2018.07.05	1 year
9	Amplifier	EMC	EMC051835 SE	980246	2017.08.09	2018.08.08	1 year
10	Amplifier	MITEQ	TTA1840-35-HG	177156	2017.06.06	2018.06.05	1 year
11	Loop Antenna	ARA	PLA-1030/B	1029	2017.06.06	2018.06.05	1 year
12	Power Meter	DARE	RPR3006W	15I00041SN084	2017.08.09	2018.08.08	1 year
13	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2017.04.21	2020.04.20	3 year
14	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2017.04.21	2020.04.20	3 year
15	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2017.04.21	2020.04.20	3 year
16	High Test Cable(1G-40G Hz)	N/A	R-04	N/A	2017.04.21	2020.04.20	3 year
17	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2017.06.06	2018.06.05	1 year
2	LISN	R&S	ENV216	101313	2017.04.19	2018.04.18	1 year
3	LISN	SCHWARZBECK	NNLK 8129	8129245	2017.06.06	2018.06.05	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2017.06.06	2018.06.05	1 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2017.04.21	2020.04.20	3 year

6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2017.04.21	2020.04.20	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2017.04.21	2020.04.20	3 year

Note: Each piece of equipment is scheduled for calibration once a year.

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

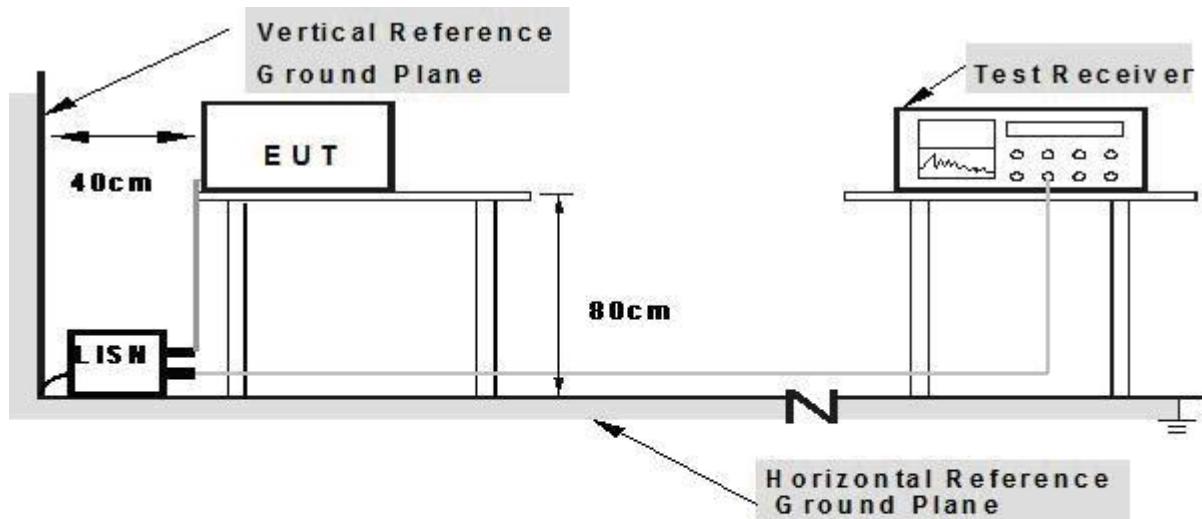
The following table is the setting of the receiver

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

3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMH) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

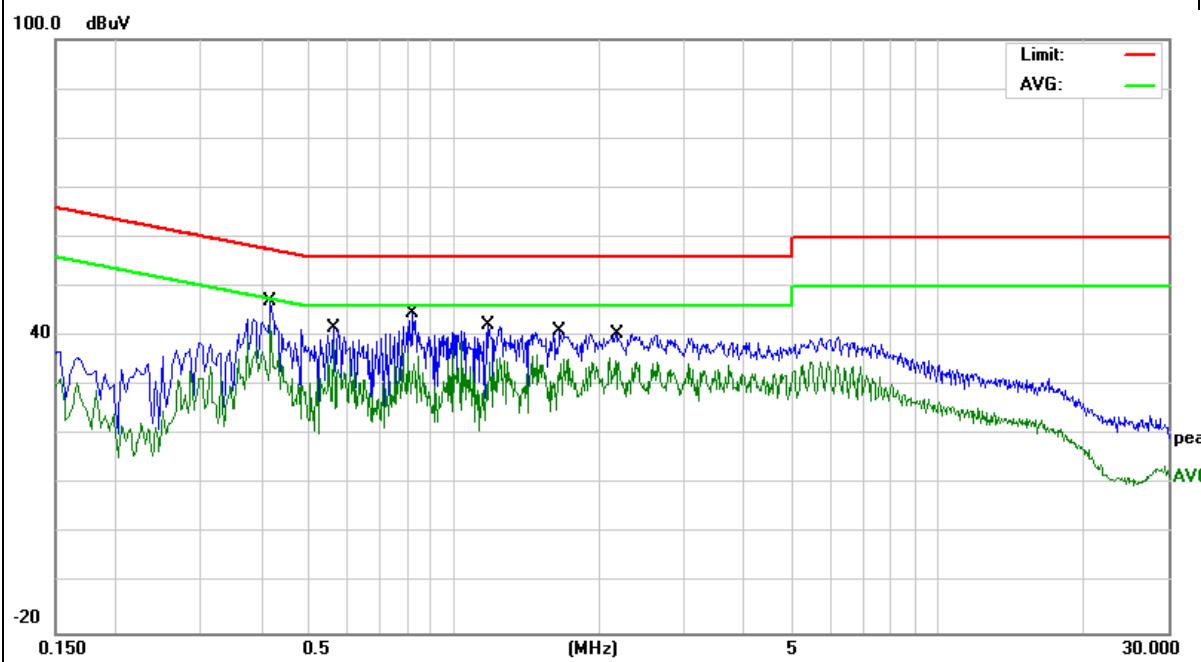
3.1.5 TEST RESULTS

EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2017-7-13
Test Mode:	Mode 1	Phase :	L
Test Voltage:	DC 5V from Adapter AC 120V/60Hz		

Frequency (MHz)	Reading Level (dB μ V)	Correct Factor (dB)	Measure-ment (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark
0.4192	37.12	9.83	46.95	57.46	-10.51	QP
0.4192	29.89	9.83	39.72	47.46	-7.74	AVG
0.5660	31.86	9.83	41.69	56.00	-14.31	QP
0.5660	18.05	9.83	27.88	46.00	-18.12	AVG
0.8260	34.67	9.87	44.54	56.00	-11.46	QP
0.8260	21.53	9.87	31.40	46.00	-14.60	AVG
1.1860	32.30	9.91	42.21	56.00	-13.79	QP
1.1860	24.72	9.91	34.63	46.00	-11.37	AVG
1.6620	31.32	9.87	41.19	56.00	-14.81	QP
1.6620	21.14	9.87	31.01	46.00	-14.99	AVG
2.1820	30.71	9.88	40.59	56.00	-15.41	QP
2.1820	24.37	9.88	34.25	46.00	-11.75	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

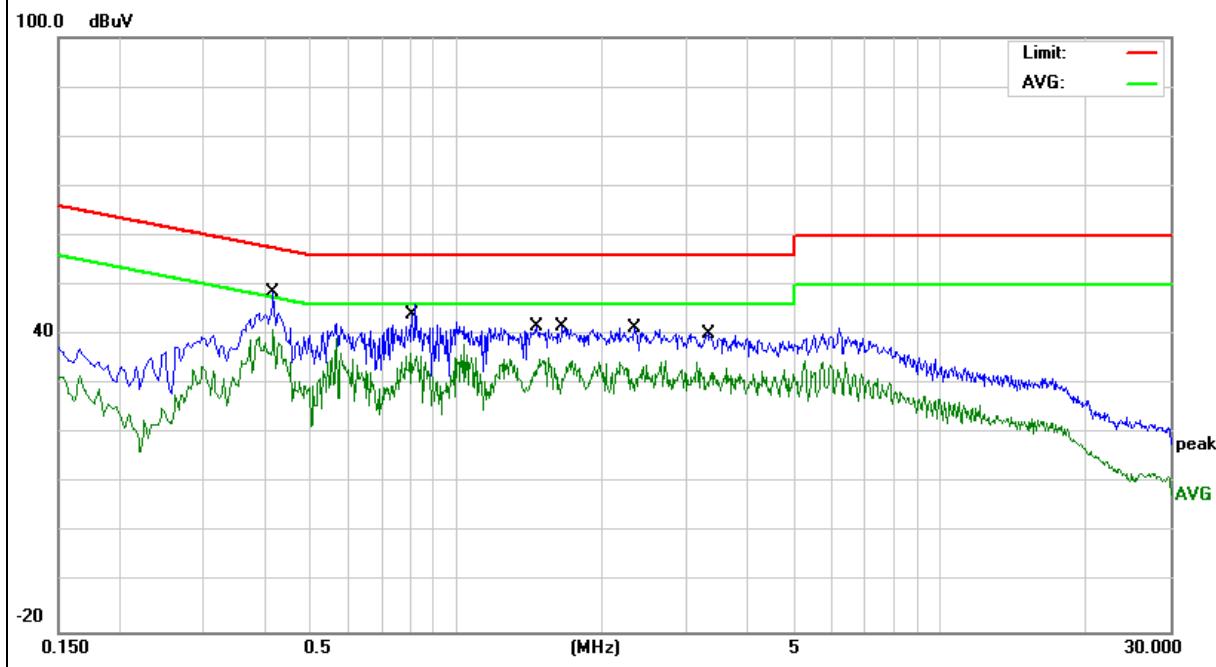


EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2017-7-13
Test Mode:	Mode 1	Phase :	N
Test Voltage:	DC 5V from Adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dB μ V)	(dB)	(dB μ V)	(dB μ V)	(dB)	
0.4180	38.56	9.93	48.49	57.49	-9.00	QP
0.4180	31.23	9.93	41.16	47.49	-6.33	AVG
0.8020	36.30	9.93	46.23	56.00	-9.77	QP
0.8020	26.33	9.93	36.26	46.00	-9.74	AVG
1.4700	31.73	9.93	41.66	56.00	-14.34	QP
1.4700	22.12	9.93	32.05	46.00	-13.95	AVG
1.6780	31.38	9.94	41.32	56.00	-14.68	QP
1.6780	21.22	9.94	31.16	46.00	-14.84	AVG
2.3340	31.34	9.94	41.28	56.00	-14.72	QP
2.3340	19.62	9.94	29.56	46.00	-16.44	AVG
3.3220	30.34	9.95	40.29	56.00	-15.71	QP
3.3220	20.27	9.95	30.22	46.00	-15.78	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

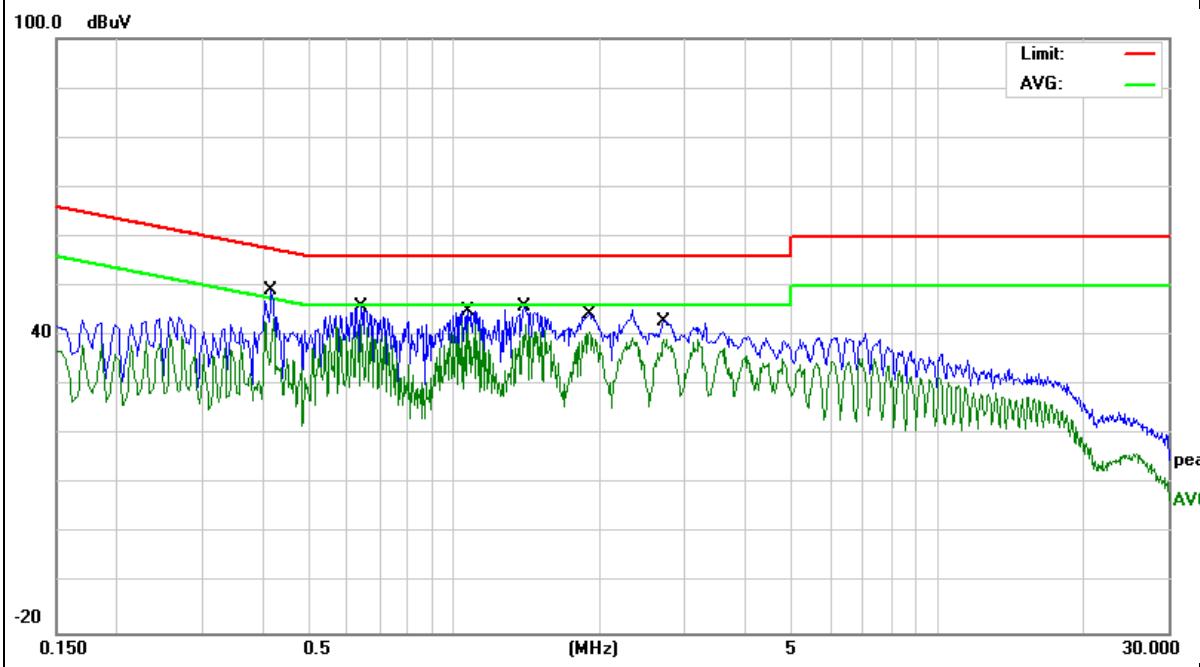


EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2017-7-13
Test Mode:	Mode 1	Phase :	L
Test Voltage:	DC 5V from Adapter AC 240V/60Hz		

Frequency (MHz)	Reading Level (dB μ V)	Correct Factor (dB)	Measure-ment (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark
0.4220	39.24	9.83	49.07	57.41	-8.34	QP
0.4220	33.72	9.83	43.55	47.41	-3.86	AVG
0.6419	35.98	9.83	45.81	56.00	-10.19	QP
0.6419	32.57	9.83	42.40	46.00	-3.60	AVG
1.0700	35.13	9.92	45.05	56.00	-10.95	QP
1.0700	32.61	9.92	42.53	46.00	-3.47	AVG
1.4060	35.95	9.89	45.84	56.00	-10.16	QP
1.4060	32.28	9.89	42.17	46.00	-3.83	AVG
1.9059	34.41	9.85	44.26	56.00	-11.74	QP
1.9059	30.81	9.85	40.66	46.00	-5.34	AVG
2.7259	32.86	9.99	42.85	56.00	-13.15	QP
2.7259	27.90	9.99	37.89	46.00	-8.11	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

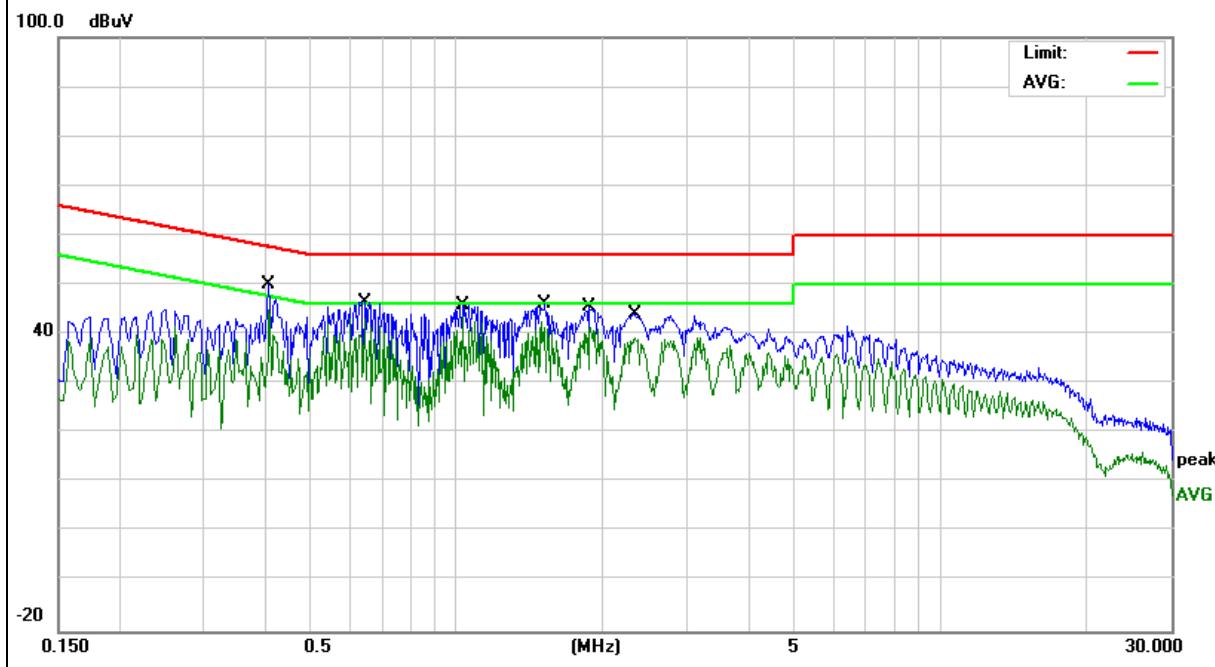


EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2017-7-13
Test Mode:	Mode 1	Phase :	N
Test Voltage:	DC 5V from Adapter AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dB μ V)	(dB)	(dB μ V)	(dB μ V)	(dB)	
0.4100	40.07	9.93	50.00	57.65	-7.65	QP
0.4100	33.33	9.93	43.26	47.65	-4.39	AVG
0.6460	36.66	9.93	46.59	56.00	-9.41	QP
0.6460	31.33	9.93	41.26	46.00	-4.74	AVG
1.0300	36.05	9.93	45.98	56.00	-10.02	QP
1.0300	31.33	9.93	41.26	46.00	-4.74	AVG
1.5260	36.35	9.94	46.29	56.00	-9.71	QP
1.5260	32.48	9.94	42.42	46.00	-3.58	AVG
1.8780	35.46	9.94	45.40	56.00	-10.60	QP
1.8780	29.04	9.94	38.98	46.00	-7.02	AVG
2.3540	34.26	9.94	44.20	56.00	-11.80	QP
2.3540	28.68	9.94	38.62	46.00	-7.38	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

FCC Part 15.209				
Frequency (MHz)	Field Strength Limitation		Field Strength Limitation Frequency at 3m Measurement Dist	
	(uV/m)	Dist	(uV/m)	(dBuV/m)
0.009 – 0.490	2400 / F(KHz)	300m	10000 * 2400/F(KHz)	20log 2400/F(KHz) + 80
0.490 – 1.705	24000 / F(KHz)	30m	100 * 24000/F(KHz)	20log 24000/F(KHz) + 40
1.705 – 30.00	30	30m	100* 30	20log 30 + 40
30.0 – 88.0	100	3m	100	20log 100
88.0 – 216.0	150	3m	150	20log 150
216.0 – 960.0	200	3m	200	20log 200
Above 960.0	500	3m	500	20log 500

15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Notes:

- (1) Measurement was performed at an antenna to the closed point of EUT distance of meters.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).
- (3) Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ¹ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

3.2.2 TEST PROCEDURE

Test Arrangement for Radiated Emissions up to 1 GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency below 1GHz.

Note: For the hand-held device, the EUT should be measured for all 3 axes and only the worst case is recorded in the report

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Use the following receiver/spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW=200Hz for 9KHz to 150KHz,

RBW=9kHz for 150KHz to 30MHz,

RBW=120KHz for 30MHz to 1GHz

VBW $\geq 3^*RBW$

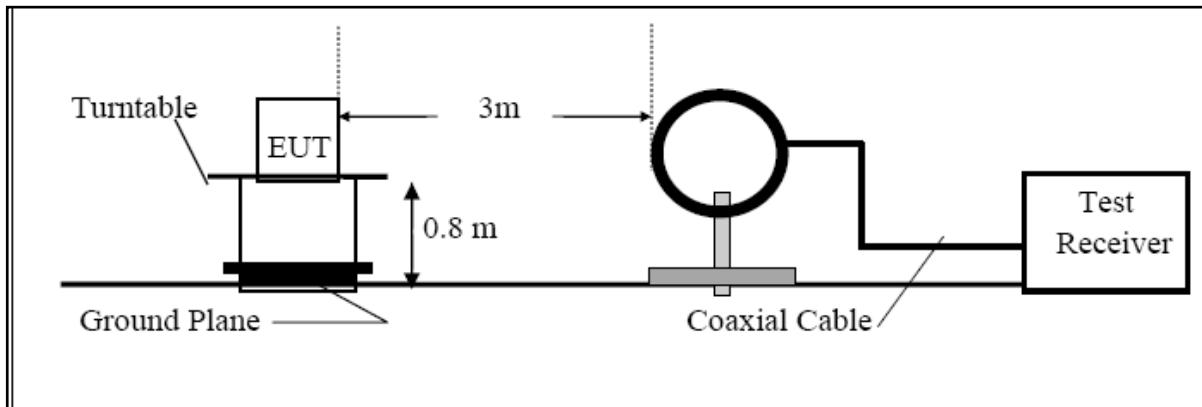
Sweep = auto

Detector function = QP

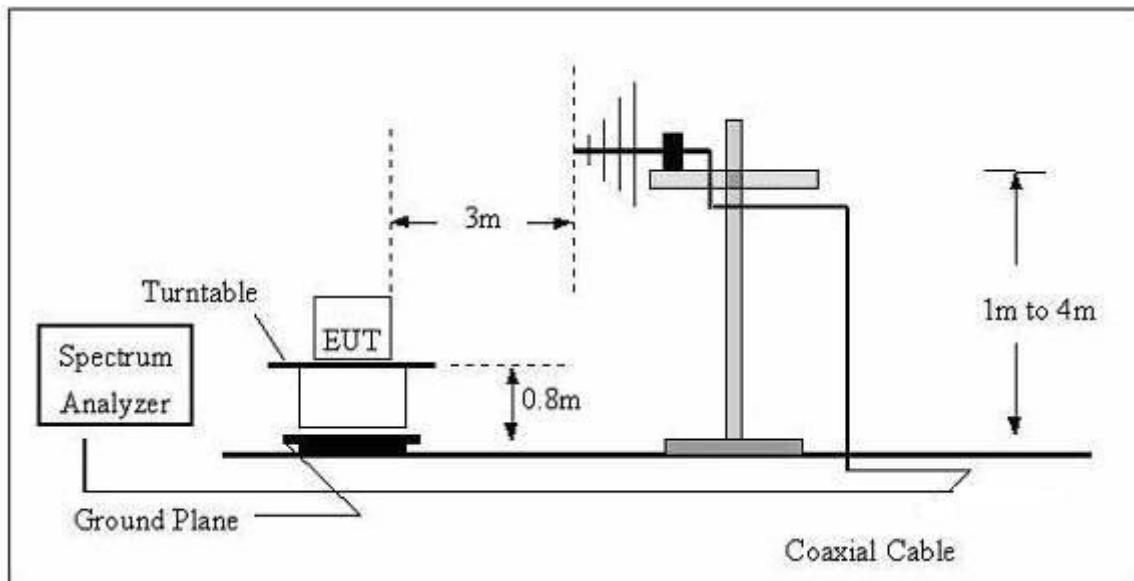
Trace = max hold

3.2.3 TEST SETUP

For Radiated Emission Test Set-Up, Frequency Below 30MHz



For Radiated Emission 30~1000MHz



3.2.4 TEST RESULTS

TEST RESULTS (9KHz~30MHz)

EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2017-7-13
Test Mode :	Mode 1	Polarization :	X
Test Power :	DC 5V from Adapter AC 120V/60Hz		

Frequency (MHz)	Ant.Pol.	Emissio n Level	Limits	Margin	Remark
		(dBuV/ m)	(dBuV/m)	(dB)	
0.038	X	40.245	116.009	-75.76	PK
0.125	X	79.268	105.666	-26.40	PK(fundamental frequency)
0.574	X	47.145	72.426	-25.28	QP
1.624	X	39.587	63.393	-23.81	QP
3.235	X	36.245	69.542	-33.30	QP
21.614	X	35.034	69.542	-34.51	QP

Note:

Below 30MHz, Pre-test the X, Y, Z axis.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2017-7-13
Test Mode :	Mode 1	Polarization :	Y
Test Power :	DC 5V from Adapter AC 120V/60Hz		

Frequency (MHz)	Ant.Pol.	Emission Level	Limits	Margin	Remark
		(dBuV/m)	(dBuV/m)	(dB)	
0.037	Y	39.254	116.1934	-76.94	PK
0.125	Y	81.025	105.6660	-24.64	PK(fundamental frequency)
0.652	Y	38.421	71.319	-32.90	QP
1.442	Y	37.256	64.425	-27.17	QP
3.345	Y	34.578	69.542	-34.96	QP
14.265	Y	33.657	69.542	-35.89	QP

Note:

Below 30MHz, Pre-test the X, Y, Z axis.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2017-7-13
Test Mode :	Mode 1	Polarization :	Z
Test Power :	DC 5V from Adapter AC 120V/60Hz		

Frequency (MHz)	Ant.Pol.	Emission Level	Limits	Margin	Remark
		(dBuV/m)	(dBuV/m)	(dB)	
0.038	Z	39.665	115.9176	-76.25	PK
0.125	Z	80.175	105.6660	-25.49	PK(fundamental frequency)
0.523	Z	39.274	73.234	-33.96	QP
1.339	Z	38.625	65.069	-26.44	QP
5.747	Z	35.124	69.542	-34.42	QP
17.225	Z	35.601	69.542	-33.94	QP

Note:

Below 30MHz, Pre-test the X, Y, Z axis.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

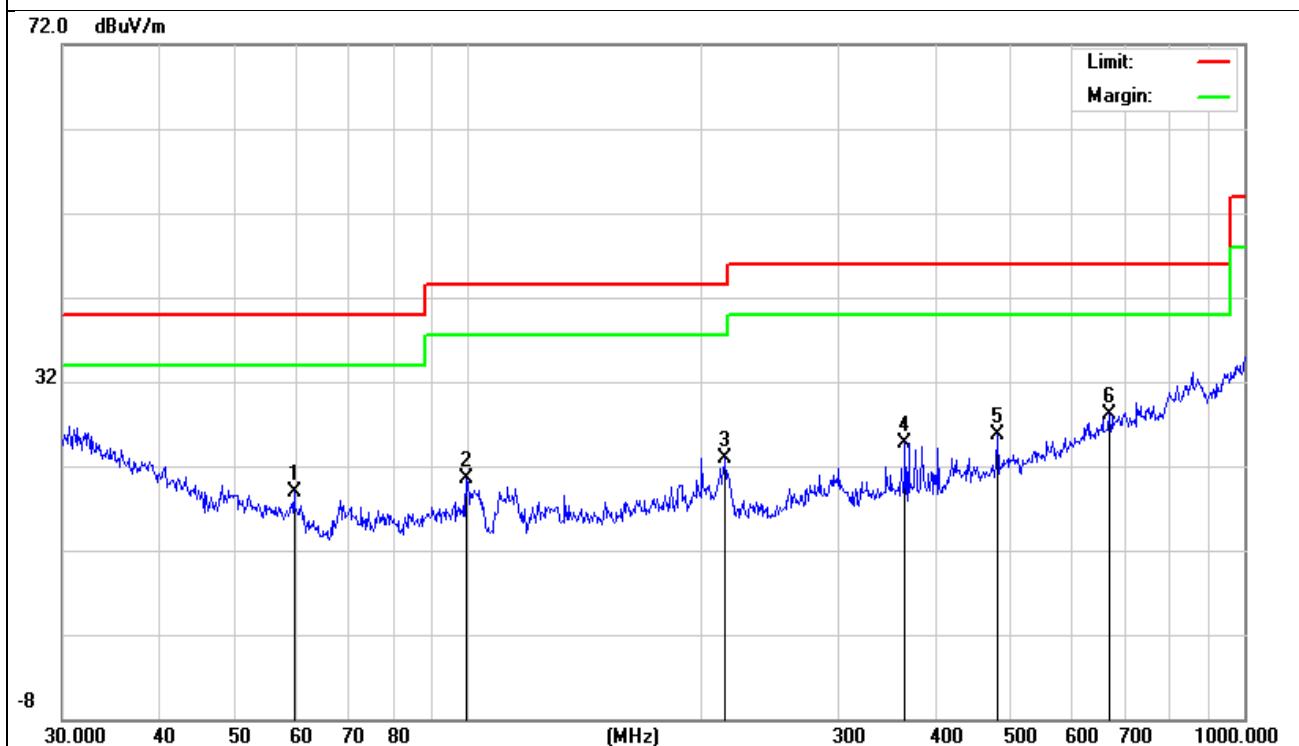
TEST RESULTS (30MHz ~1000MHz)

EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2017-7-13
Test Mode :	Mode 1	Polarization :	Horizontal
Test Power :	DC 5V from Adapter AC 120V/60Hz		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	59.6493	7.34	11.53	18.87	40.00	-21.13	QP
H	99.5281	10.25	10.26	20.51	43.50	-22.99	QP
H	214.5143	9.69	13.31	23.00	43.50	-20.50	QP
H	365.5391	10.14	14.55	24.69	46.00	-21.31	QP
H	480.5276	8.72	16.92	25.64	46.00	-20.36	QP
H	670.4892	7.09	21.00	28.09	46.00	-17.91	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.

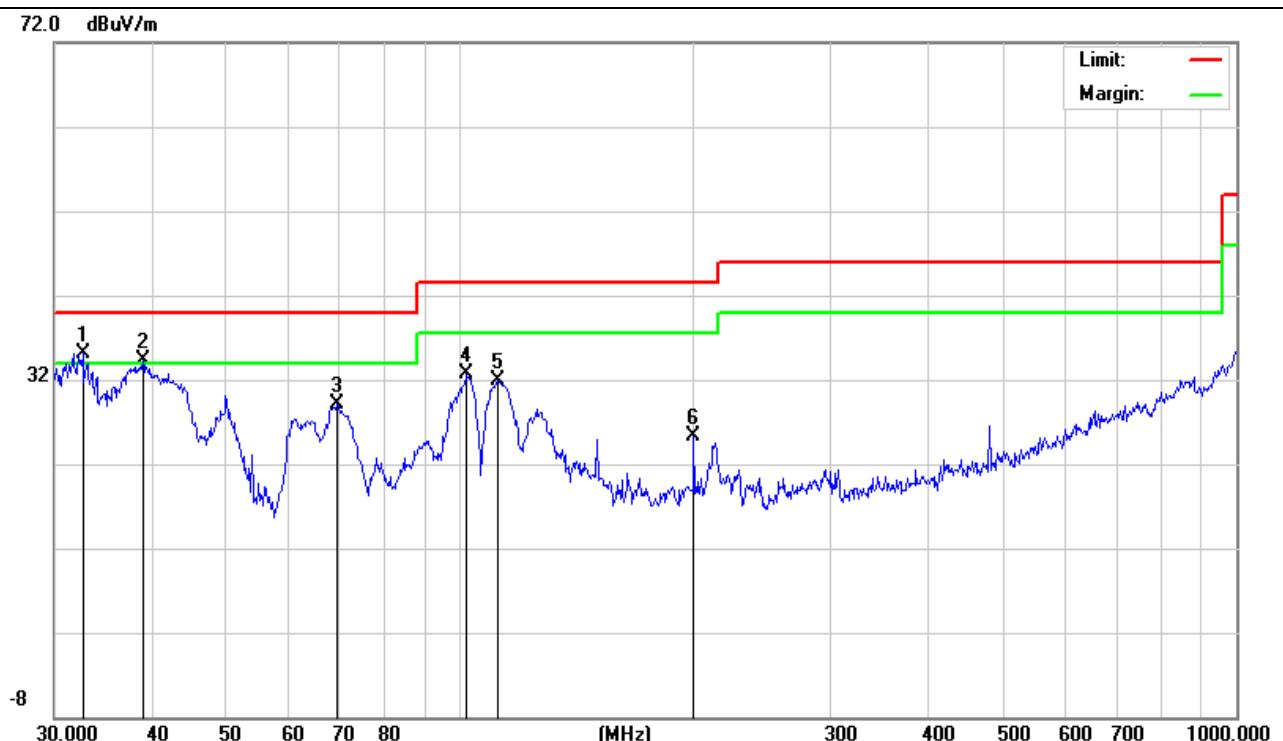


EUT:	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2017-7-13
Test Mode :	Mode 1	Polarization :	Vertical
Test Power :	DC 5V from Adapter AC 120V/60Hz		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	32.6340	15.15	20.04	35.19	40.00	-4.81	QP
V	39.0245	17.48	16.86	34.34	40.00	-5.66	QP
V	69.3568	18.79	10.32	29.11	40.00	-10.89	QP
V	102.0014	22.32	10.31	32.63	43.50	-10.87	QP
V	111.7380	21.70	10.16	31.86	43.50	-11.64	QP
V	199.9856	11.55	13.76	25.31	43.50	-18.19	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



4. BANDWIDTH TEST

4.1 TEST PROCEDURE

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable:

- (i) Transmitters designed for other types of modulation—when modulated by an appropriate signal of sufficient amplitude to be representative of the type of service in which used. A description of the input signal should be supplied.

4.2 DEVIATION FROM STANDARD

No deviation.

4.3 TEST SETUP

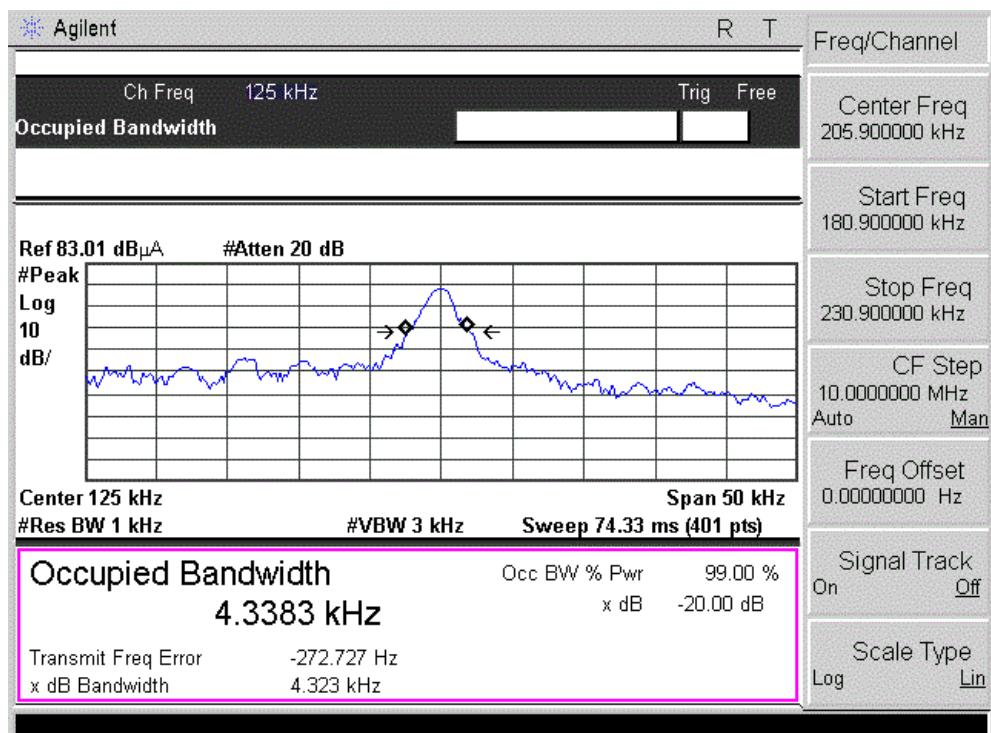


4.4 TEST RESULTS

EUT :	Polaroid Smart Alarm	Model Name. :	PSMAA10NA
Temperature :	26 °C	Relative Humidity :	53%
Pressure :	1020 hPa	Test Power :	DC 5V from Adapter AC 120V/60Hz
Test Mode :	TX		

Test Channel	Frequency (KHz)	99% Bandwidth (KHz)	Limit (kHz)
CH01	125	4.3383	/

CH 01



5. ANTENNA APPLICATION

5.1 ANTENNA REQUIREMENT

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

5.2 RESULT

The EUT antenna is permanent attached coil antenna(Gain:1dBi). It comply with the standard requirement.

END REPORT