ACCURATE TECHNOLOGY CO., LTD.
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Site: 1# Chamber
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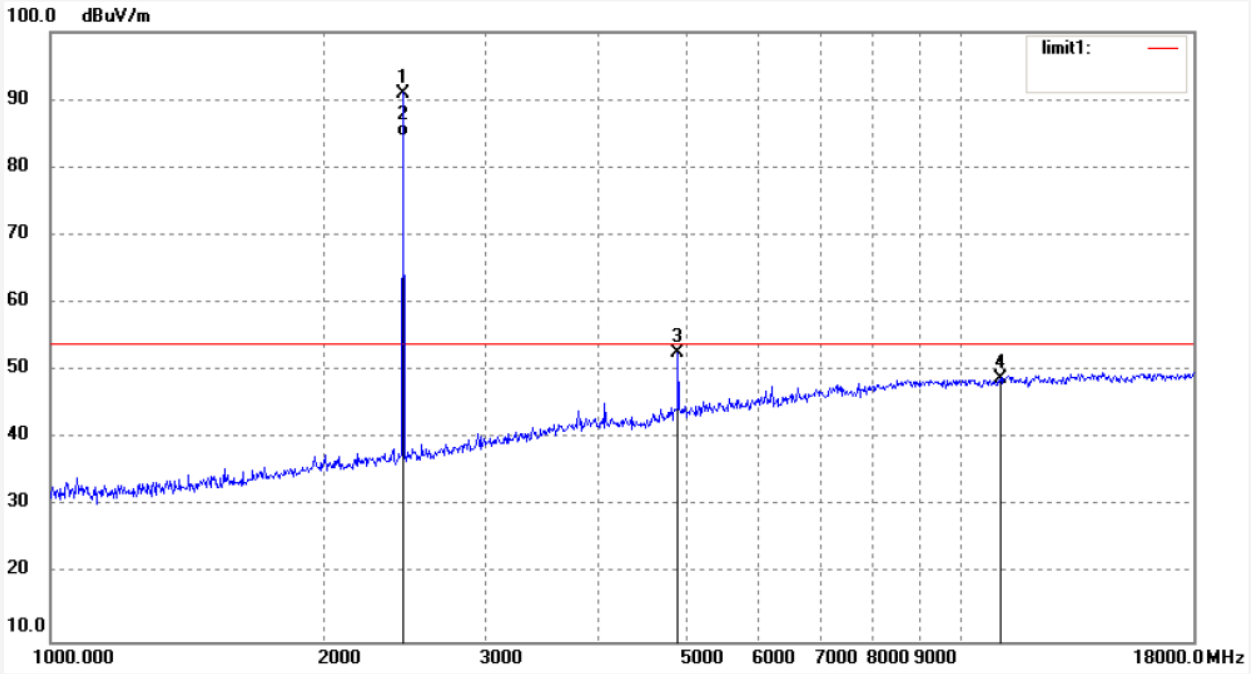
Job No.: alen #3599
Standard: FCC 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2441MHz
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/43/39
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.751	97.64	-6.64	91.00	114.00	37.00	peak			
2	2440.751	91.32	-6.64	84.68	94.00	30.68	peak			
3	4888.151	53.93	-1.33	52.60	54.00	-1.40	peak			
4	11044.129	43.35	5.55	48.90	54.00	-5.10	peak			

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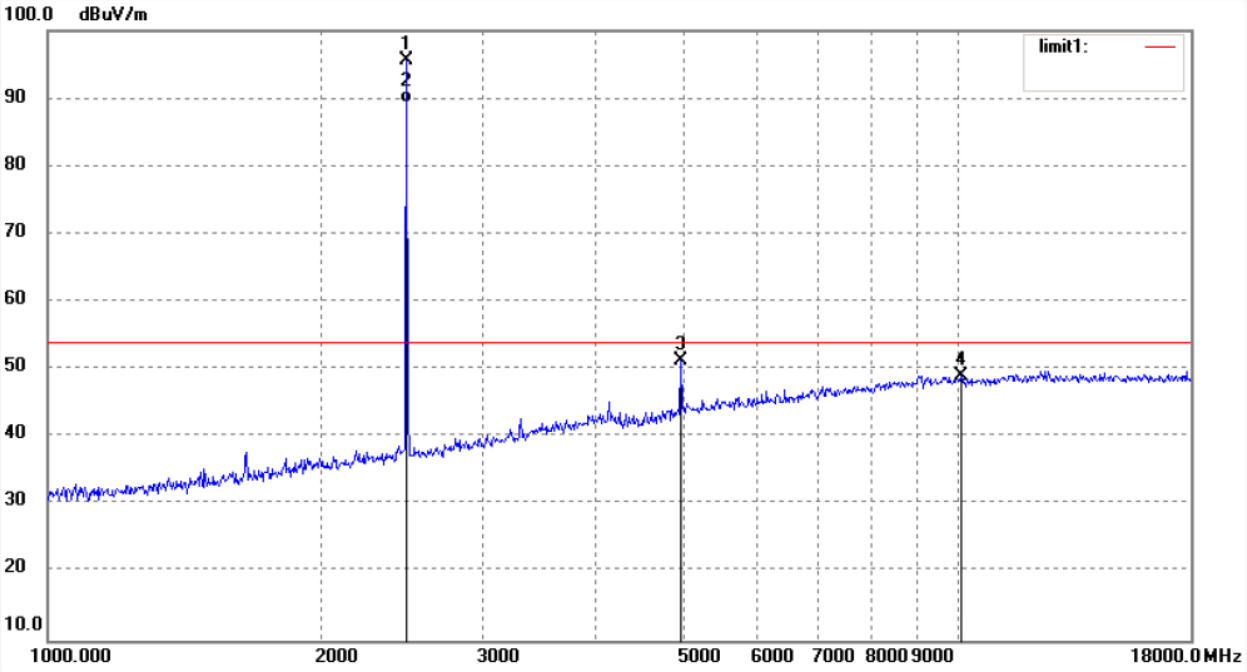
Job No.: alen #3601
Standard: FCC 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 9/47/56
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.310	102.10	-6.56	95.54	114.00	41.54	peak			
2	2480.310	95.87	-6.56	89.31	94.00	35.31	peak			
3	4959.307	52.37	-1.12	51.25	54.00	-2.75	peak			
4	10068.453	43.74	5.36	49.10	54.00	-4.90	peak			

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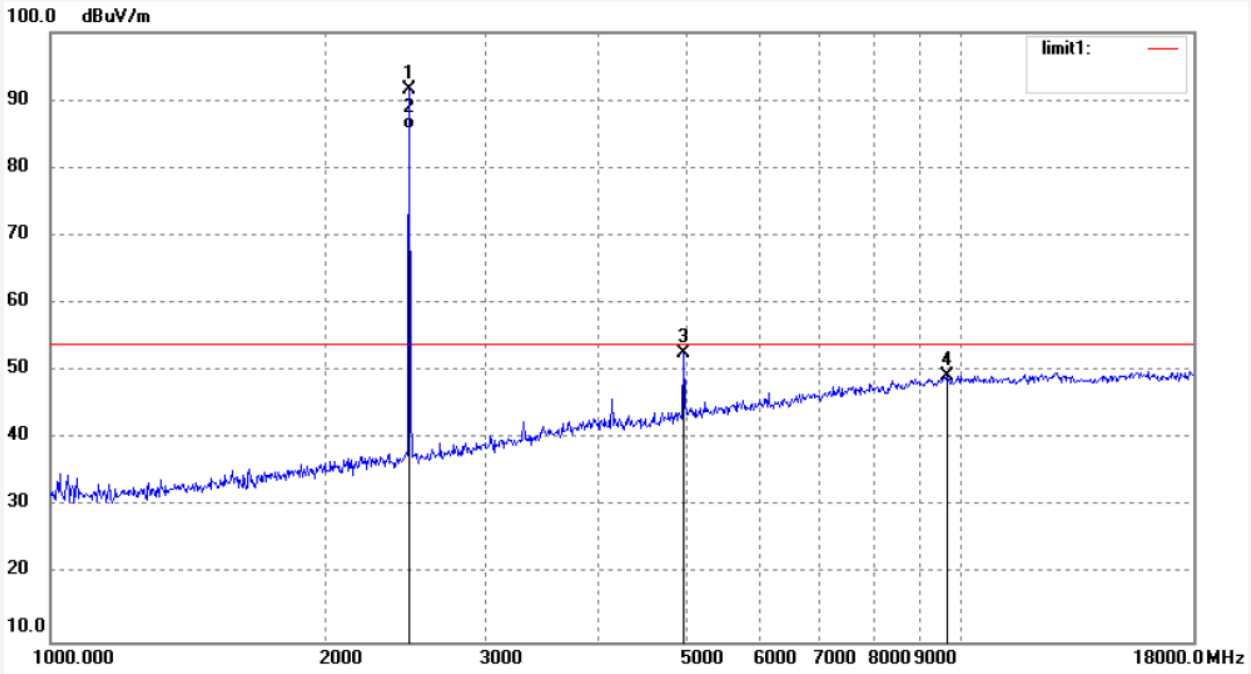
Job No.: alen #3600
Standard: FCC 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/46/14
Engineer Signature:
Distance: 3m

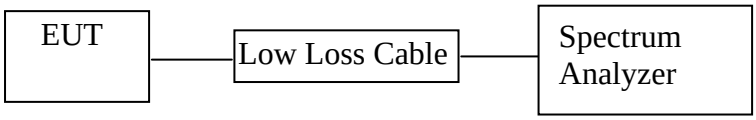
Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.310	98.23	-6.56	91.67	114.00	37.67	peak			
2	2480.310	92.24	-6.56	85.68	94.00	31.68	peak			
3	4959.307	53.87	-1.12	52.75	54.00	-1.25	peak			
4	9669.164	44.24	4.97	49.21	54.00	-4.79	peak			

11.BAND EDGE COMPLIANCE TEST

11.1.Block Diagram of Test Setup



(EUT: Bluetooth Speaker)

11.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

11.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

11.5.Test Procedure

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

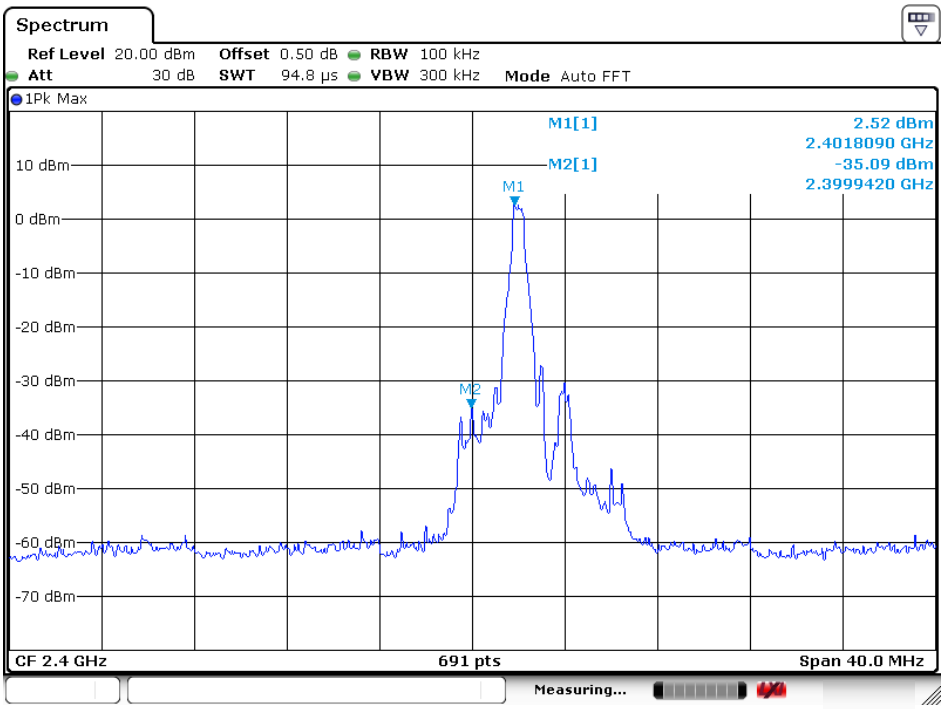
11.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz with convenient frequency span including 100 kHz bandwidth from band edge.

11.5.3.The band edges was measured and recorded.

11.6.Test Result

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
GFSK		
2399.942	37.61	> 20dBc
2484.600	55.76	> 20dBc
Π/4-DQPSK Mode		
2399.520	39.75	> 20dBc
2490.400	55.79	> 20dBc
8DPSK		
2398.920	39.62	> 20dBc
2485.300	55.29	> 20dBc

GFSK



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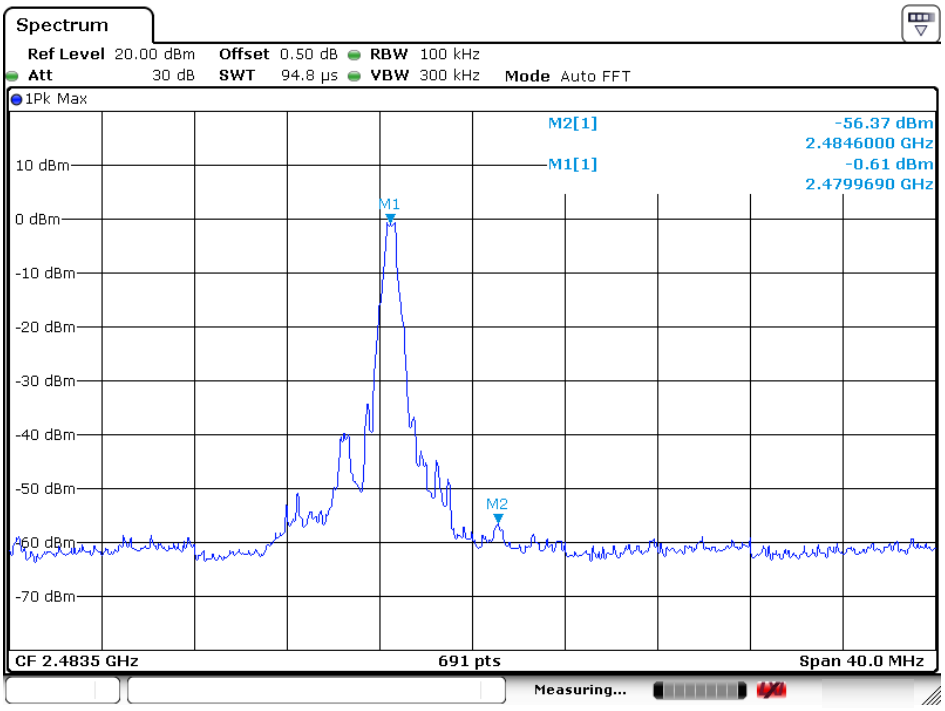

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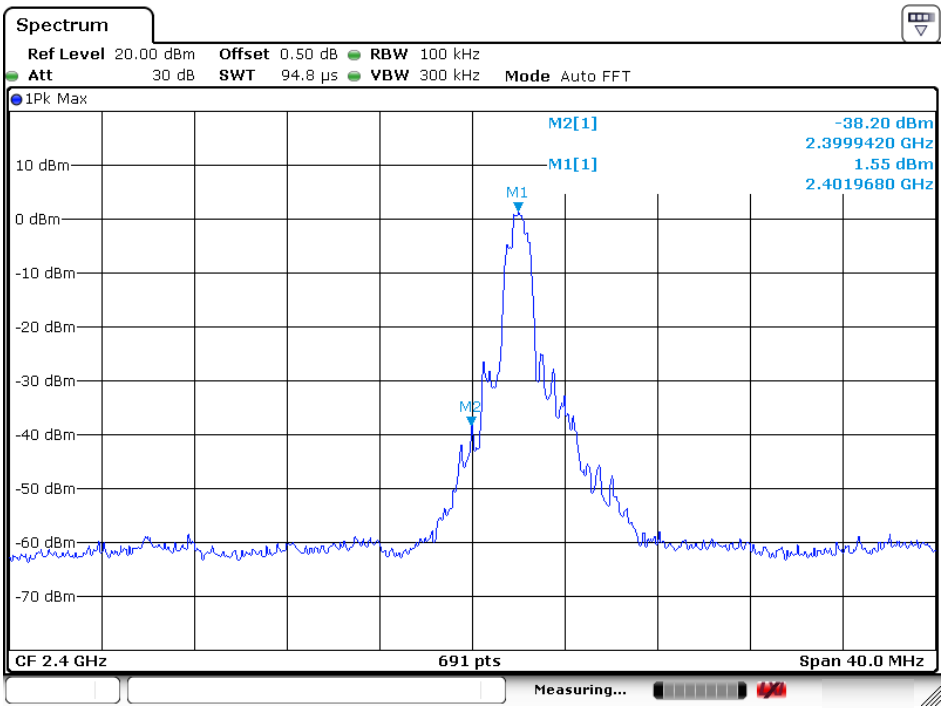
Π/4-DQPSK Mode



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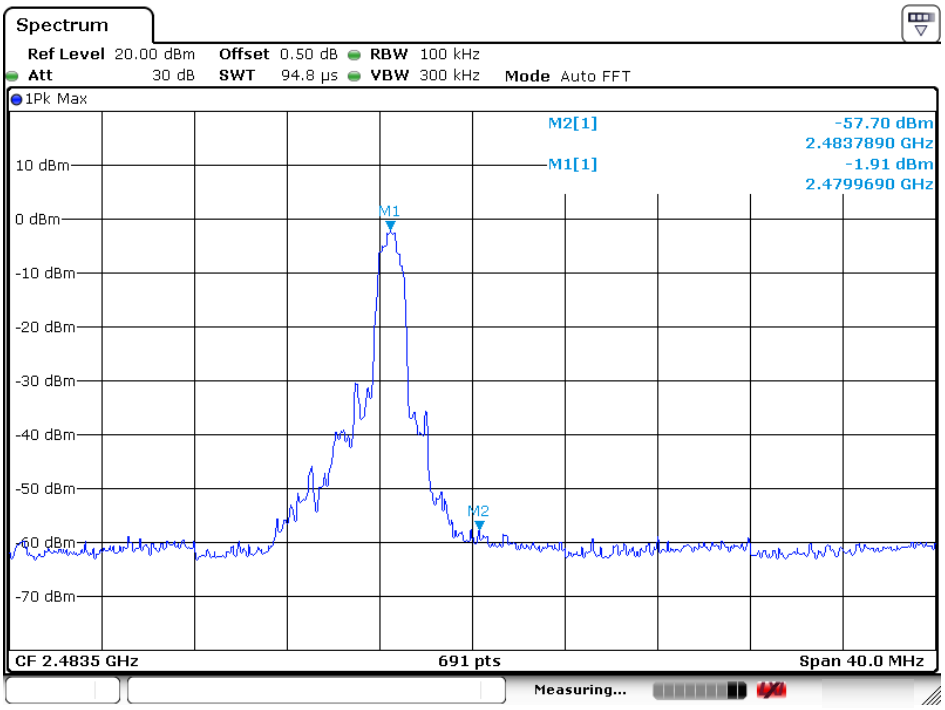

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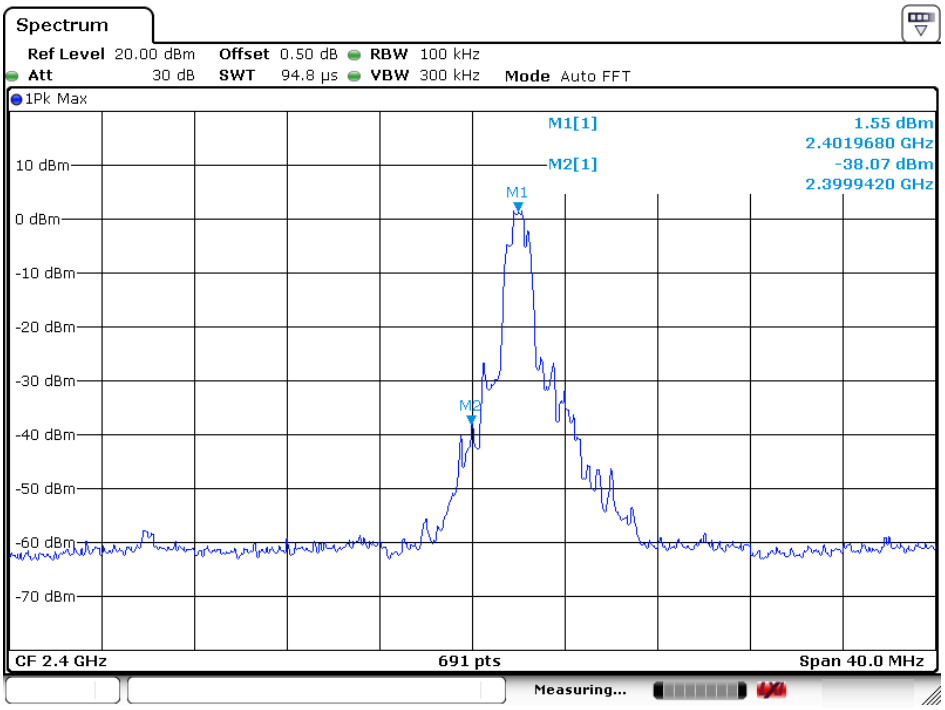
8DPSK



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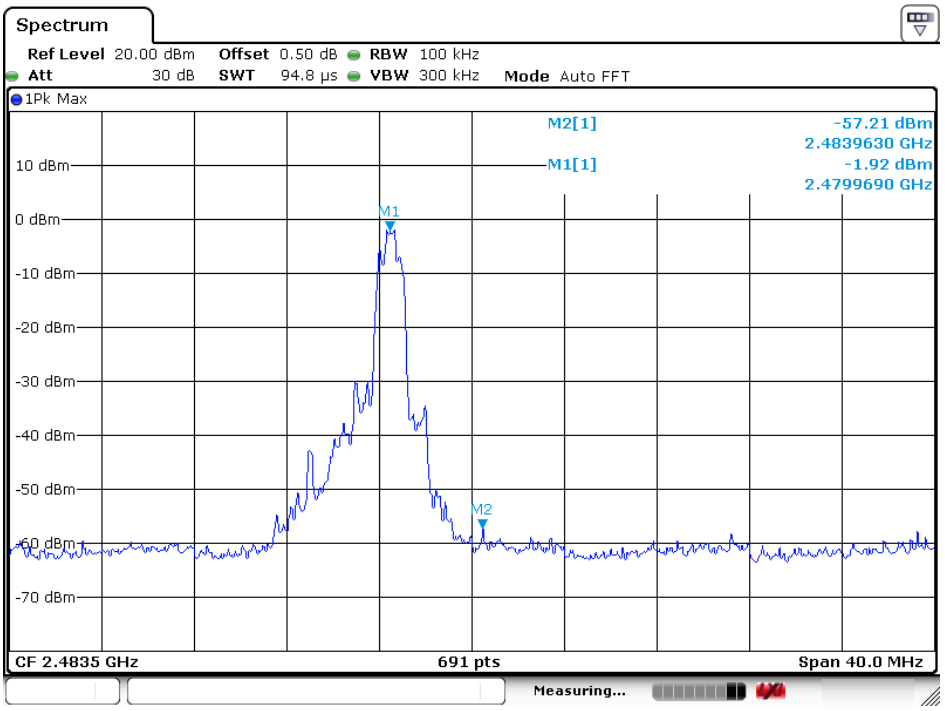

Date: 6.Feb.2015 17:02:50

Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

   Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Test Procedure:

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

Let the EUT work in hopping mode and non-hopping mode then measure it.
We select 2402MHz, 2480MHz TX frequency to transmit(non-hopping mode).

During the radiated emission test, the spectrum analyzer was set with the following configurations:
1.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
2.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
3.All modes of operation were investigated and the worst-case emissions are reported.

Non-hopping mode

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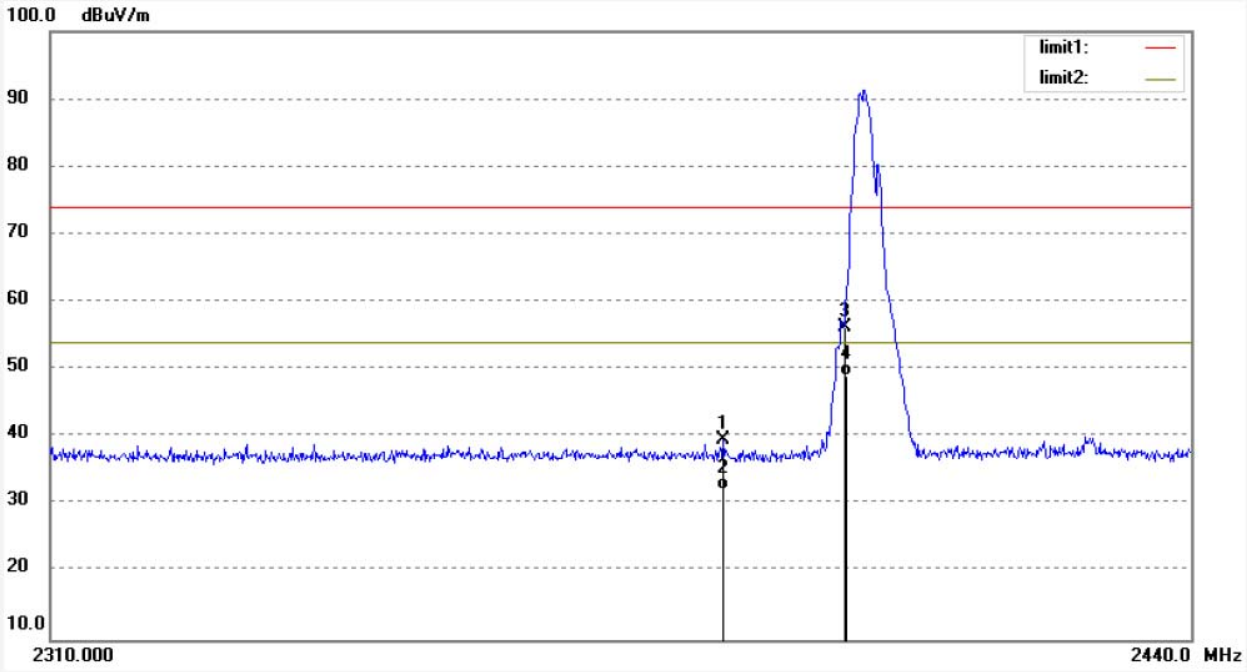
Job No.: alen #3604
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2402MHz(GFSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 9/53/59
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2385.920	46.35	-6.80	39.55	74.00	-34.45	peak			
2	2385.920	38.87	-6.80	32.07	54.00	-21.93	peak			
3	2400.000	63.08	-6.76	56.32	74.00	-17.68	peak			
4	2400.000	55.78	-6.76	49.02	54.00	-4.98	peak			

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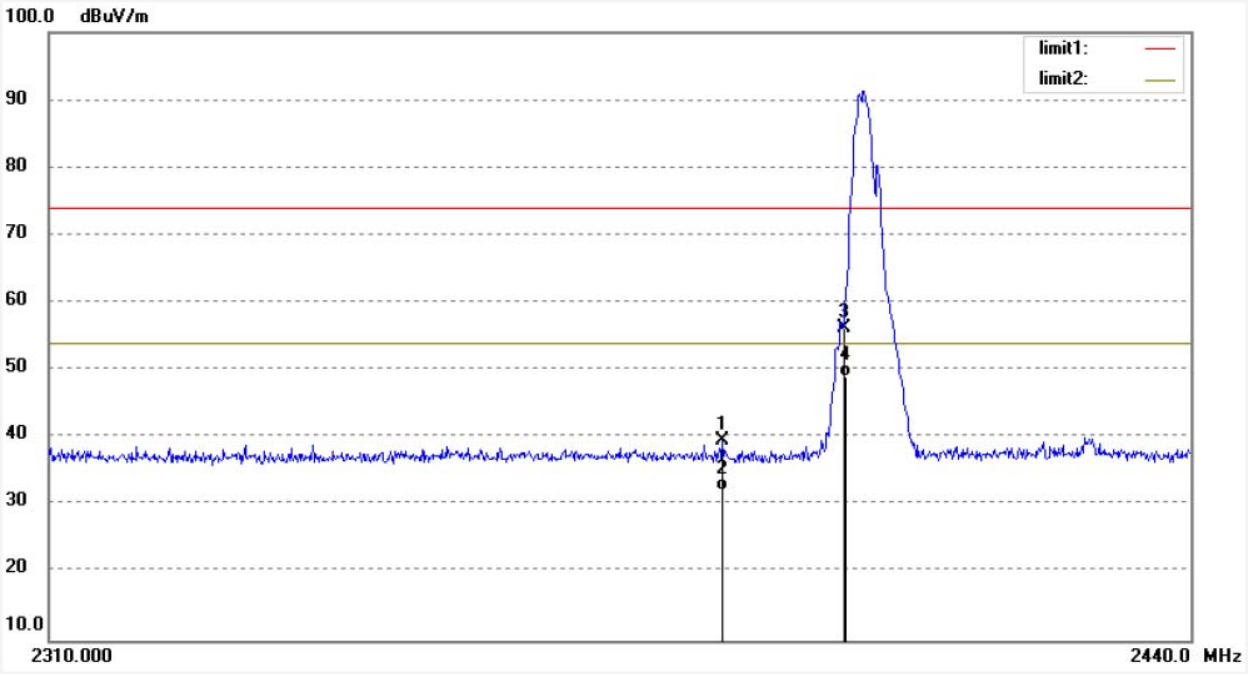
Fax:+86-0755-26503396

Job No.: alen #3604
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2402MHz(GFSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/53/59
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2385.920	46.35	-6.80	39.55	74.00	-34.45	peak			
2	2385.920	38.87	-6.80	32.07	54.00	-21.93	peak			
3	2400.000	63.08	-6.76	56.32	74.00	-17.68	peak			
4	2400.000	55.78	-6.76	49.02	54.00	-4.98	peak			

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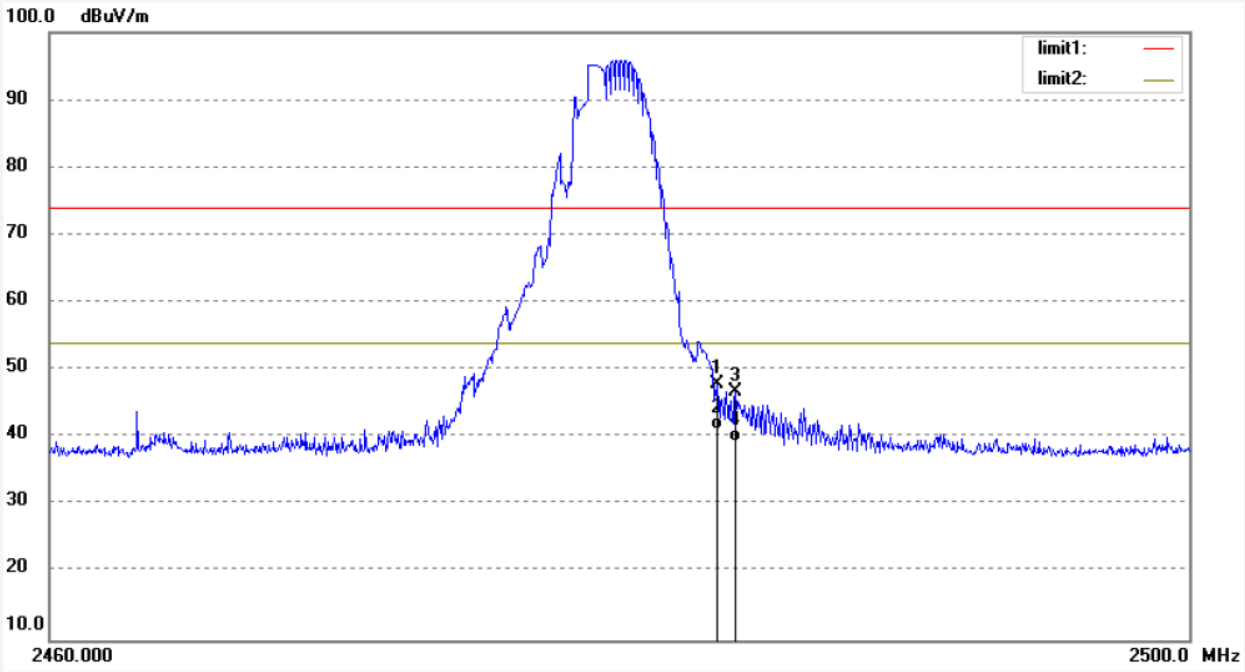
Job No.: alen #3602
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz(GFSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 9/50/41
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	54.49	-6.54	47.95	74.00	-26.05	peak			
2	2483.500	47.68	-6.54	41.14	54.00	-12.86	peak			
3	2484.040	53.28	-6.54	46.74	74.00	-27.26	peak			
4	2484.040	46.01	-6.54	39.47	54.00	-14.53	peak			

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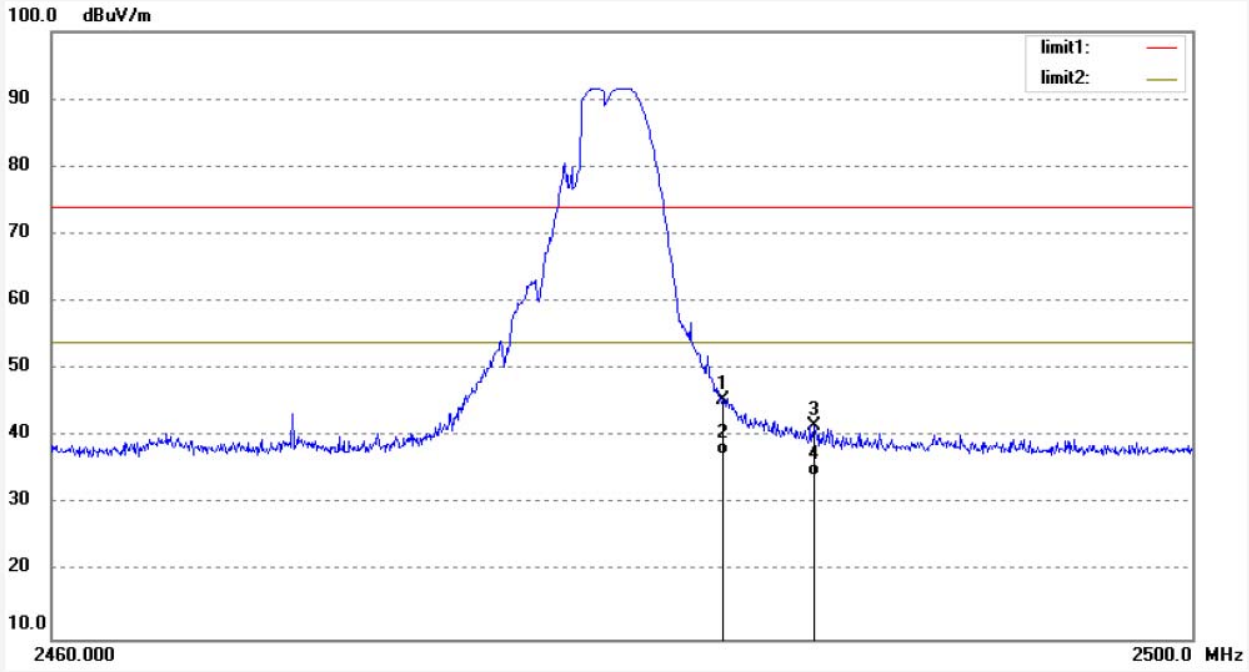
Fax:+86-0755-26503396

Job No.: alen #3603
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz(GFSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/52/11
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	51.98	-6.54	45.44	74.00	-28.56	peak			
2	2483.500	43.89	-6.54	37.35	54.00	-16.65	peak			
3	2486.720	48.23	-6.53	41.70	74.00	-32.30	peak			
4	2486.720	40.68	-6.53	34.15	54.00	-19.85	peak			

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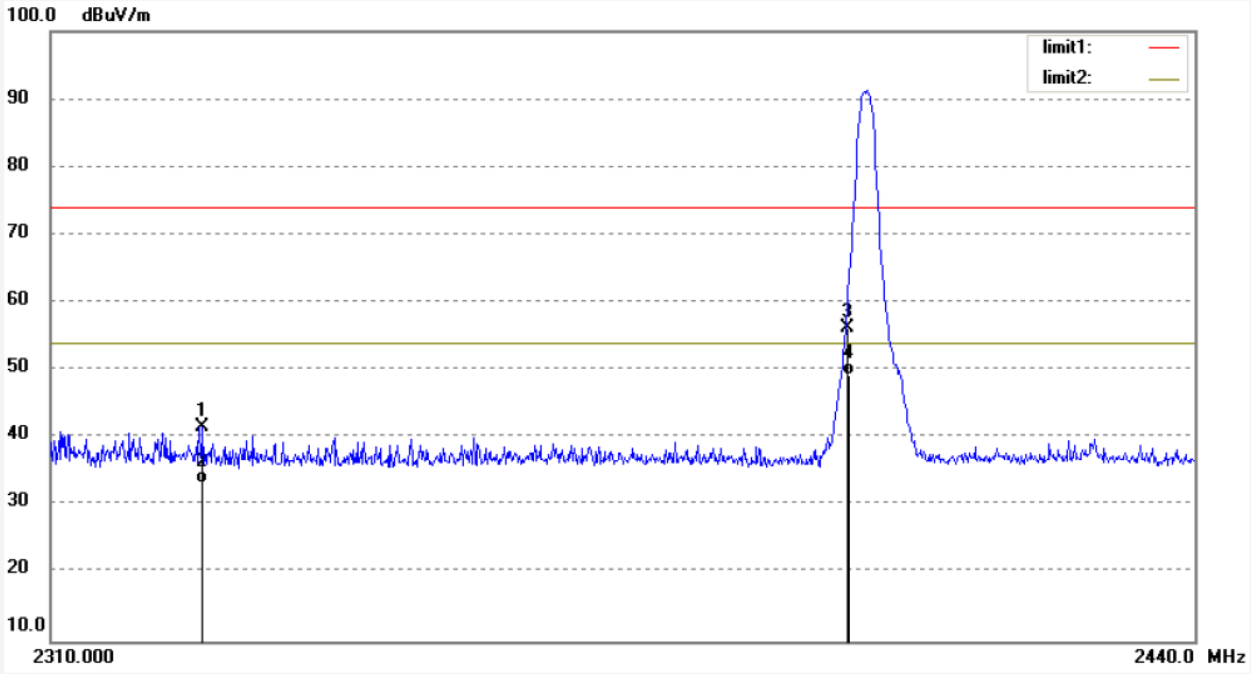
Job No.: alen #3626	Polarization: Horizontal
Standard: FCC PK	Power Source: DC 5V
Test item: Radiation Test	Date: 2015/02/08
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/05/12
EUT: Bluetooth Speaker	Engineer Signature:
Mode: TX 2402MHz(pi/4DQPSK)	Distance: 3m
Model: MK-SPB11-BC8	
Manufacturer: FORTAT SKYMARK	

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2326.900	48.65	-6.95	41.70	74.00	-32.30	peak			
2	2326.900	40.35	-6.95	33.40	54.00	-20.60	peak			
3	2400.000	63.01	-6.76	56.25	74.00	-17.75	peak			
4	2400.000	56.10	-6.76	49.34	54.00	-4.66	peak			

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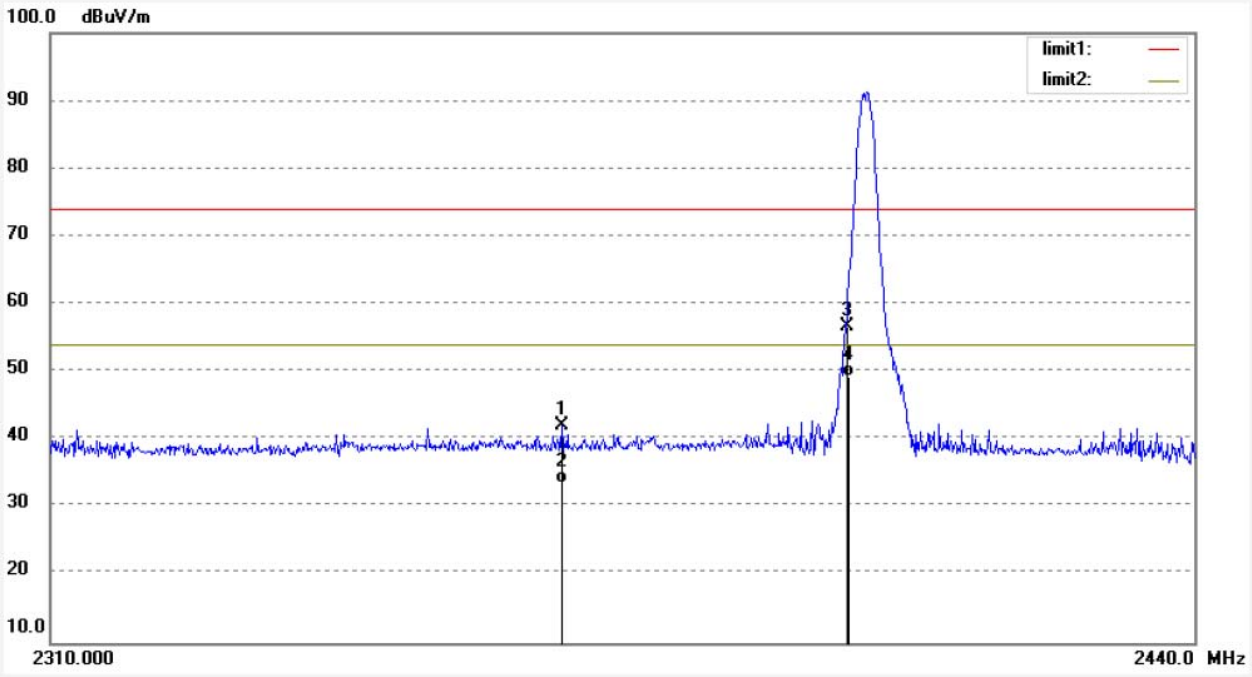
Job No.: alen #3625
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2402MHz(pi/4DQPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/04/05
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2367.330	48.78	-6.83	41.95	74.00	-32.05	peak			
2	2367.330	40.35	-6.83	33.52	54.00	-20.48	peak			
3	2400.000	63.47	-6.76	56.71	74.00	-17.29	peak			
4	2400.000	56.10	-6.76	49.34	54.00	-4.66	peak			

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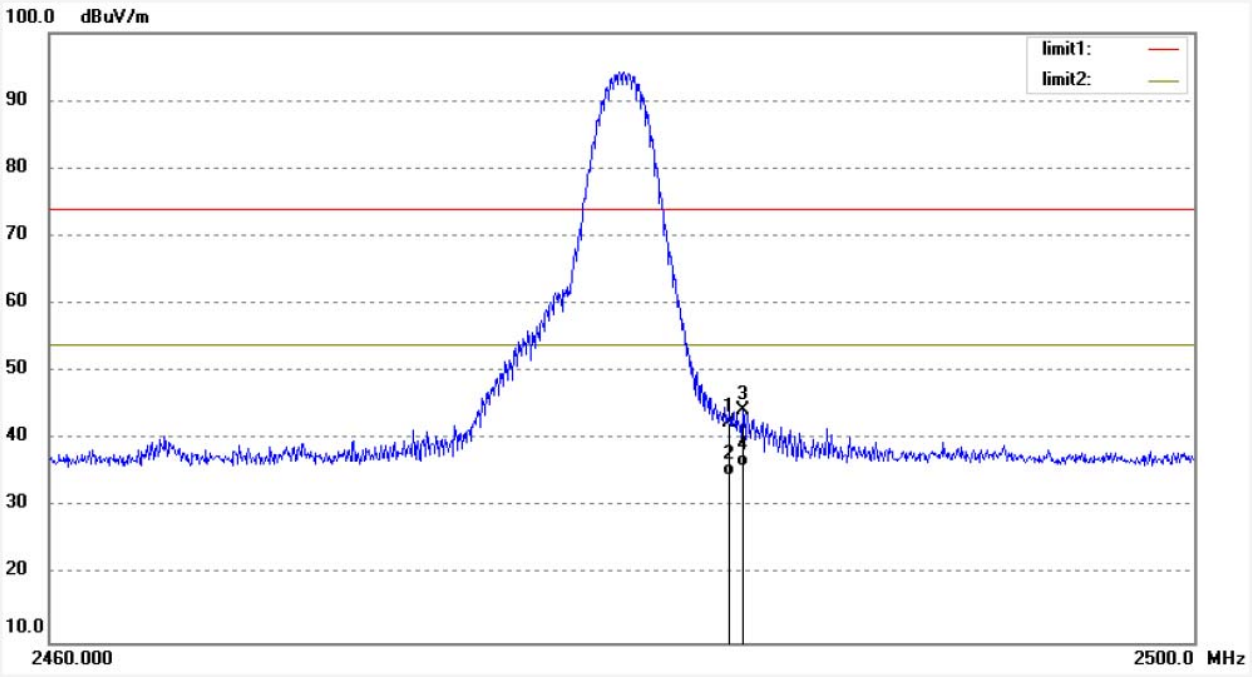
Fax:+86-0755-26503396

Job No.: alen #3627
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz(pi/4DQPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 9/06/39
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	49.08	-6.54	42.54	74.00	-31.46	peak			
2	2483.500	41.24	-6.54	34.70	54.00	-19.30	peak			
3	2484.200	50.89	-6.54	44.35	74.00	-29.65	peak			
4	2484.200	42.56	-6.54	36.02	54.00	-17.98	peak			

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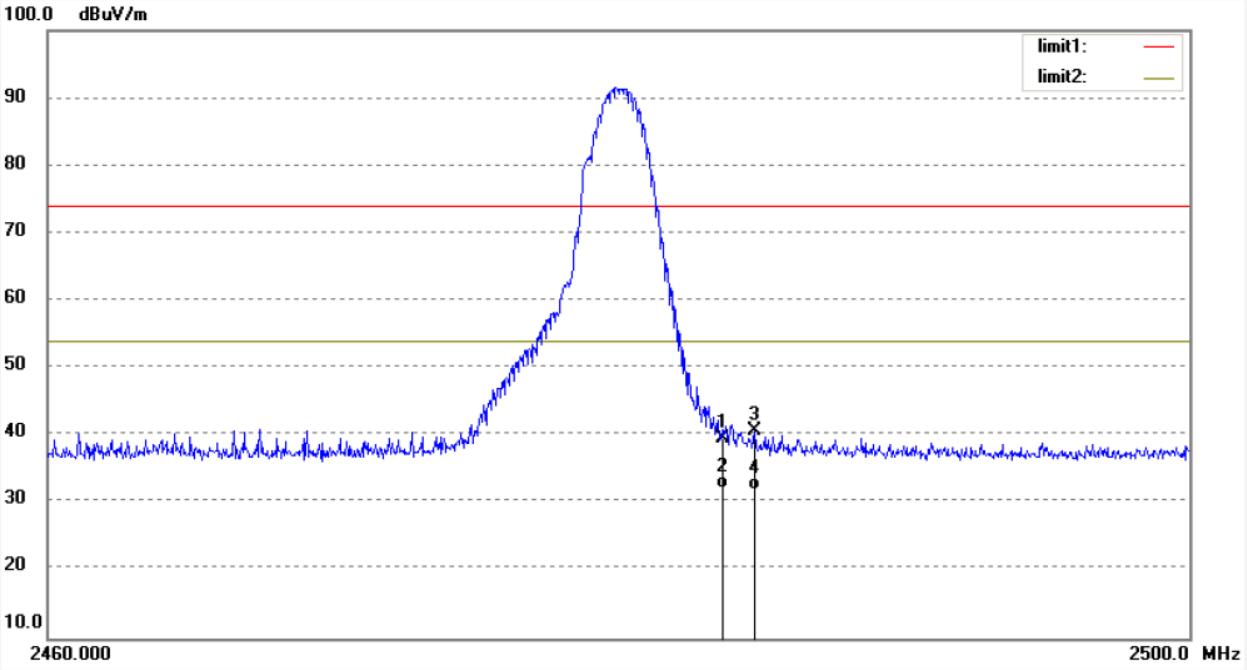
Job No.: alen #3628
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz(pi/4DQPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/08/06
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.15	-6.54	39.61	74.00	-34.39	peak			
2	2483.500	38.78	-6.54	32.24	54.00	-21.76	peak			
3	2484.720	47.16	-6.54	40.62	74.00	-33.38	peak			
4	2484.720	38.54	-6.54	32.00	54.00	-22.00	peak			

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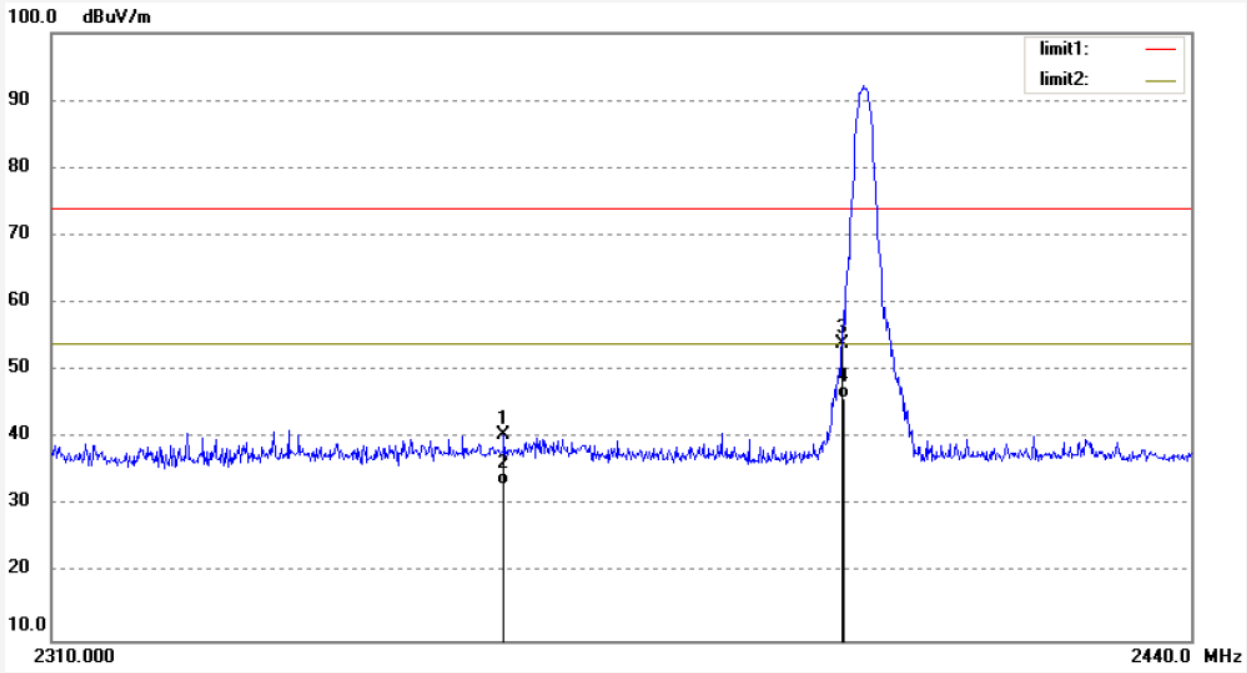
Job No.: alen #3618
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2402MHz(8DPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 8/43/01
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2360.830	47.36	-6.86	40.50	74.00	-33.50	peak			
2	2360.830	40.01	-6.86	33.15	54.00	-20.85	peak			
3	2400.000	60.73	-6.76	53.97	74.00	-20.03	peak			
4	2400.000	52.54	-6.76	45.78	54.00	-8.22	peak			

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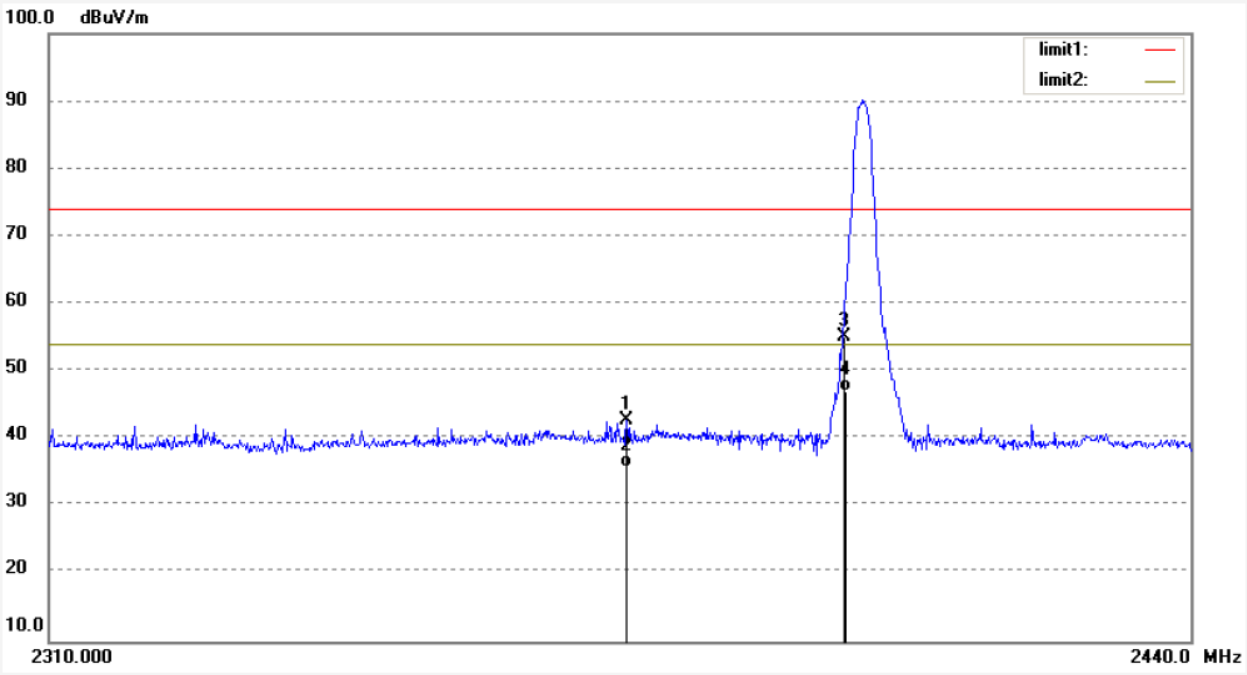
Job No.: alen #3617
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2402MHz(8DPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 8/41/27
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2375.000	49.62	-6.83	42.79	74.00	-31.21	peak			
2	2375.000	42.51	-6.83	35.68	54.00	-18.32	peak			
3	2400.000	61.78	-6.76	55.02	74.00	-18.98	peak			
4	2400.000	53.87	-6.76	47.11	54.00	-6.89	peak			

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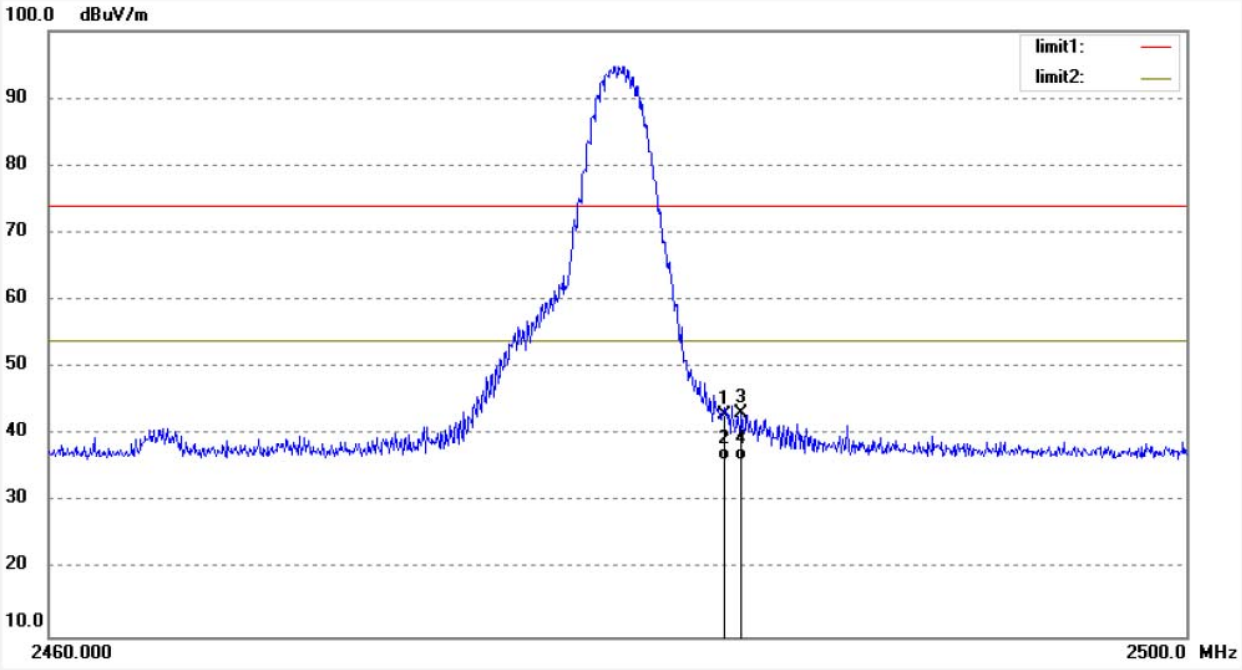
Job No.: alen #3619
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: TX 2480MHz(8DPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 8/44/57
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	49.59	-6.54	43.05	74.00	-30.95	peak			
2	2483.500	42.65	-6.54	36.11	54.00	-17.89	peak			
3	2484.320	49.68	-6.54	43.14	74.00	-30.86	peak			
4	2484.320	42.74	-6.54	36.20	54.00	-17.80	peak			

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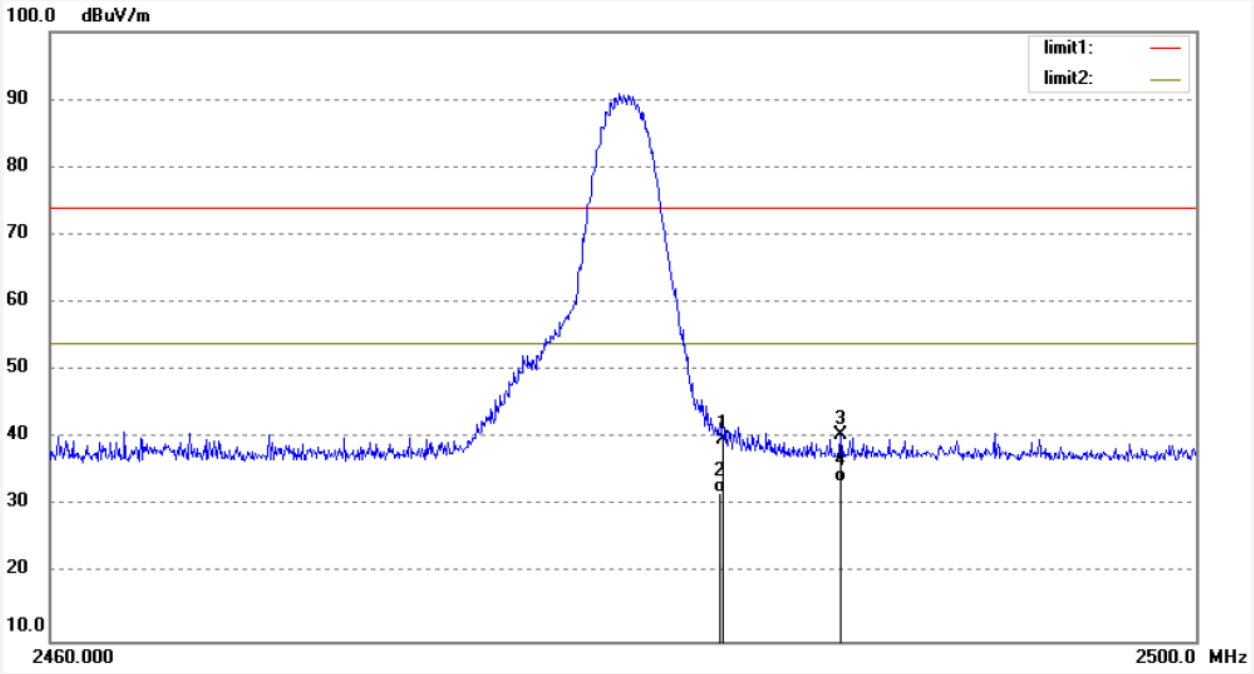
Job No.: alen #3620	Polarization: Vertical
Standard: FCC PK	Power Source: DC 5V
Test item: Radiation Test	Date: 2015/02/08
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 8/46/20
EUT: Bluetooth Speaker	Engineer Signature:
Mode: TX 2480MHz(8DPSK)	Distance: 3m
Model: MK-SPB11-BC8	
Manufacturer: FORTAT SKYMARK	

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.27	-6.54	39.73	74.00	-34.27	peak			
2	2483.500	38.54	-6.54	32.00	54.00	-22.00	peak			
3	2487.560	47.11	-6.52	40.59	74.00	-33.41	peak			
4	2487.560	39.98	-6.52	33.46	54.00	-20.54	peak			

Hopping mode

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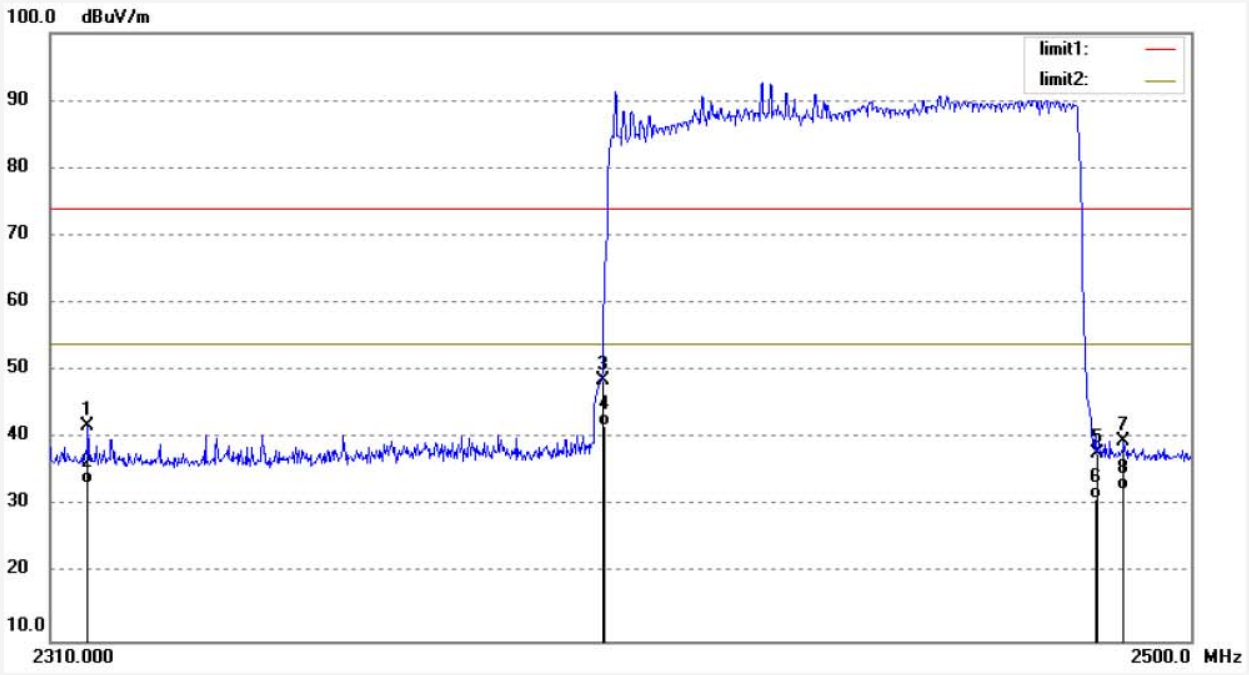
Job No.: alen #3608
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: Hopping TX(GFSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 15/38/05
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2316.080	48.79	-6.97	41.82	74.00	-32.18	peak			
2	2316.080	40.35	-6.97	33.38	54.00	-20.62	peak			
3	2400.000	55.37	-6.76	48.61	74.00	-25.39	peak			
4	2400.000	48.65	-6.76	41.89	54.00	-12.11	peak			
5	2483.660	44.29	-6.54	37.75	74.00	-36.25	peak			
6	2483.660	37.65	-6.54	31.11	54.00	-22.89	peak			
7	2488.500	46.03	-6.52	39.51	74.00	-34.49	peak			
8	2488.500	38.87	-6.52	32.35	54.00	-21.65	peak			

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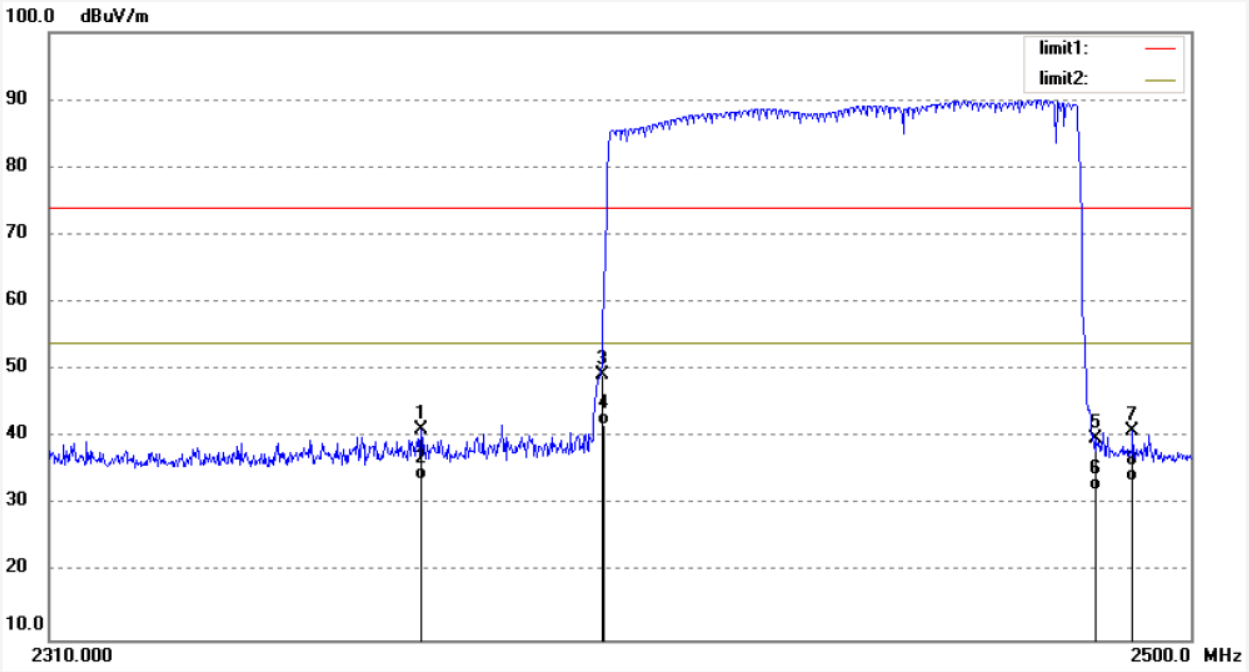
Job No.: alen #3607
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: Hopping TX(GFSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 15/33/06
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2370.420	47.96	-6.83	41.13	74.00	-32.87	peak			
2	2370.420	40.57	-6.83	33.74	54.00	-20.26	peak			
3	2400.000	56.11	-6.76	49.35	74.00	-24.65	peak			
4	2400.000	48.68	-6.76	41.92	54.00	-12.08	peak			
5	2483.500	46.40	-6.54	39.86	74.00	-34.14	peak			
6	2483.500	38.78	-6.54	32.24	54.00	-21.76	peak			
7	2490.120	47.55	-6.52	41.03	74.00	-32.97	peak			
8	2490.120	40.12	-6.52	33.60	54.00	-20.40	peak			

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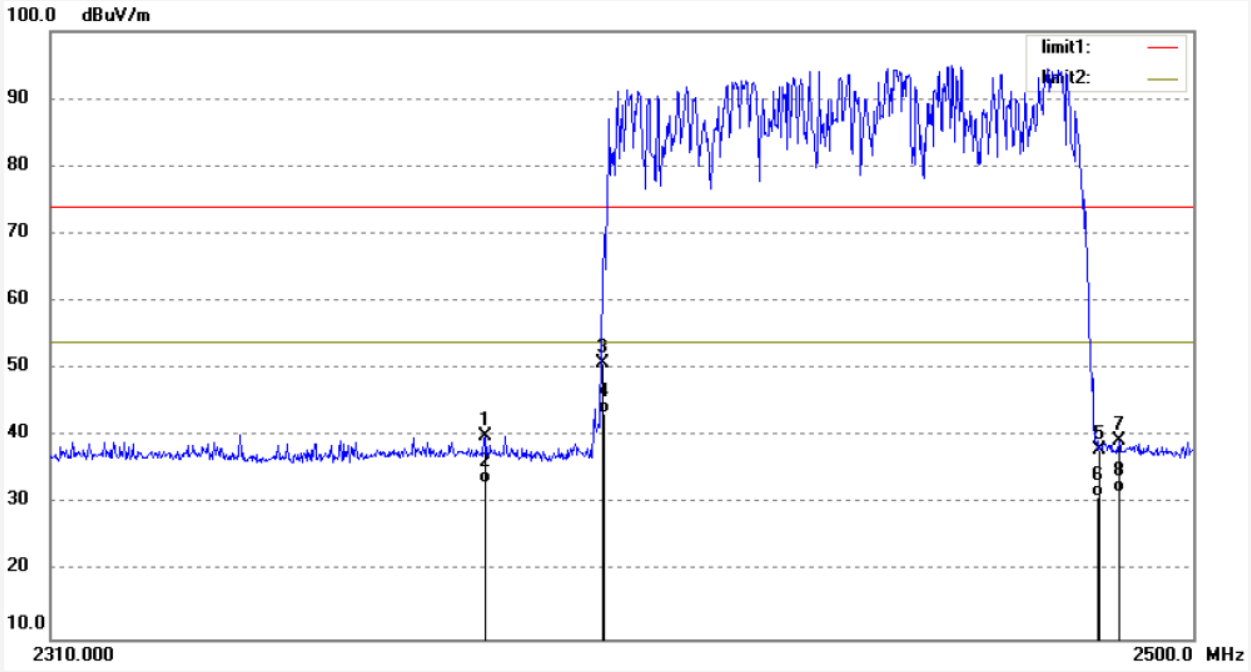
Job No.: alen #3623
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: Hopping TX(pi/4DQPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 8/59/45
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2380.680	46.89	-6.81	40.08	74.00	-33.92	peak			
2	2380.680	39.87	-6.81	33.06	54.00	-20.94	peak			
3	2400.000	57.64	-6.76	50.88	74.00	-23.12	peak			
4	2400.000	50.24	-6.76	43.48	54.00	-10.52	peak			
5	2483.500	44.55	-6.54	38.01	74.00	-35.99	peak			
6	2483.500	37.65	-6.54	31.11	54.00	-22.89	peak			
7	2487.270	45.86	-6.53	39.33	74.00	-34.67	peak			
8	2487.270	38.28	-6.53	31.75	54.00	-22.25	peak			

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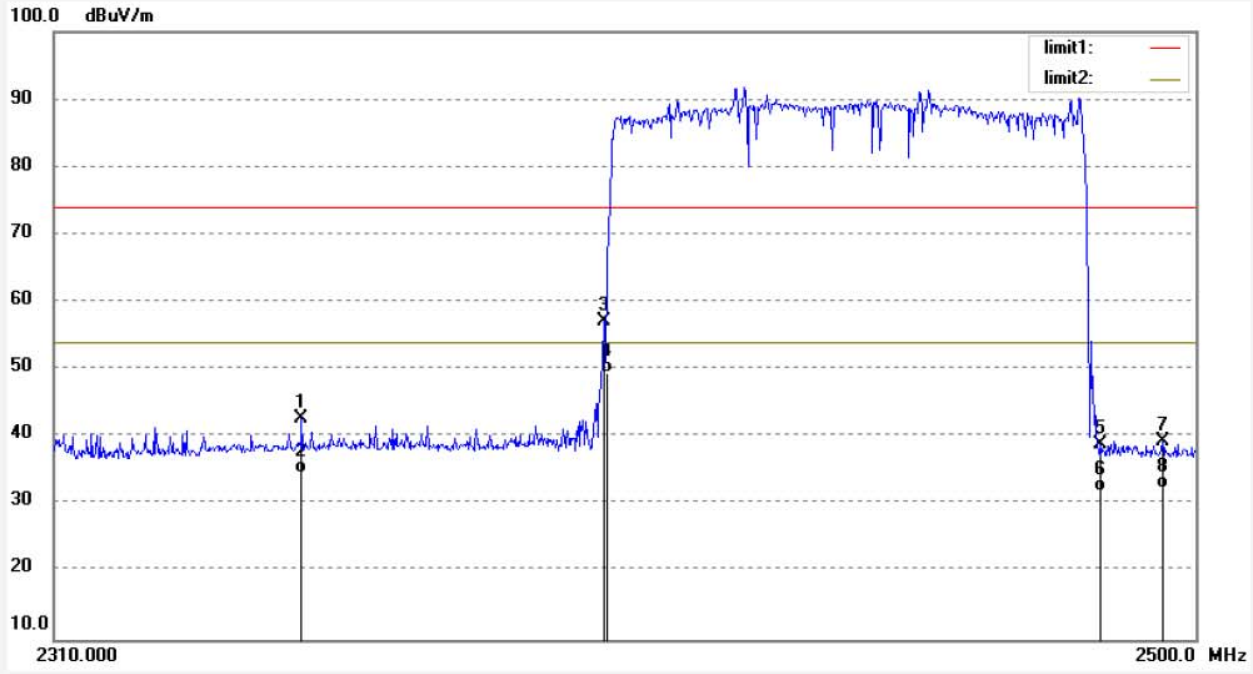
Job No.: alen #3624
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: Hopping TX(pi/4DQPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 9/02/36
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2350.090	49.72	-6.89	42.83	74.00	-31.17	peak			
2	2350.090	41.58	-6.89	34.69	54.00	-19.31	peak			
3	2400.000	63.97	-6.76	57.21	74.00	-16.79	peak			
4	2400.000	56.21	-6.76	49.45	54.00	-4.55	peak			
5	2483.500	45.38	-6.54	38.84	74.00	-35.16	peak			
6	2483.500	38.54	-6.54	32.00	54.00	-22.00	peak			
7	2494.300	45.90	-6.50	39.40	74.00	-34.60	peak			
8	2494.300	38.87	-6.50	32.37	54.00	-21.63	peak			

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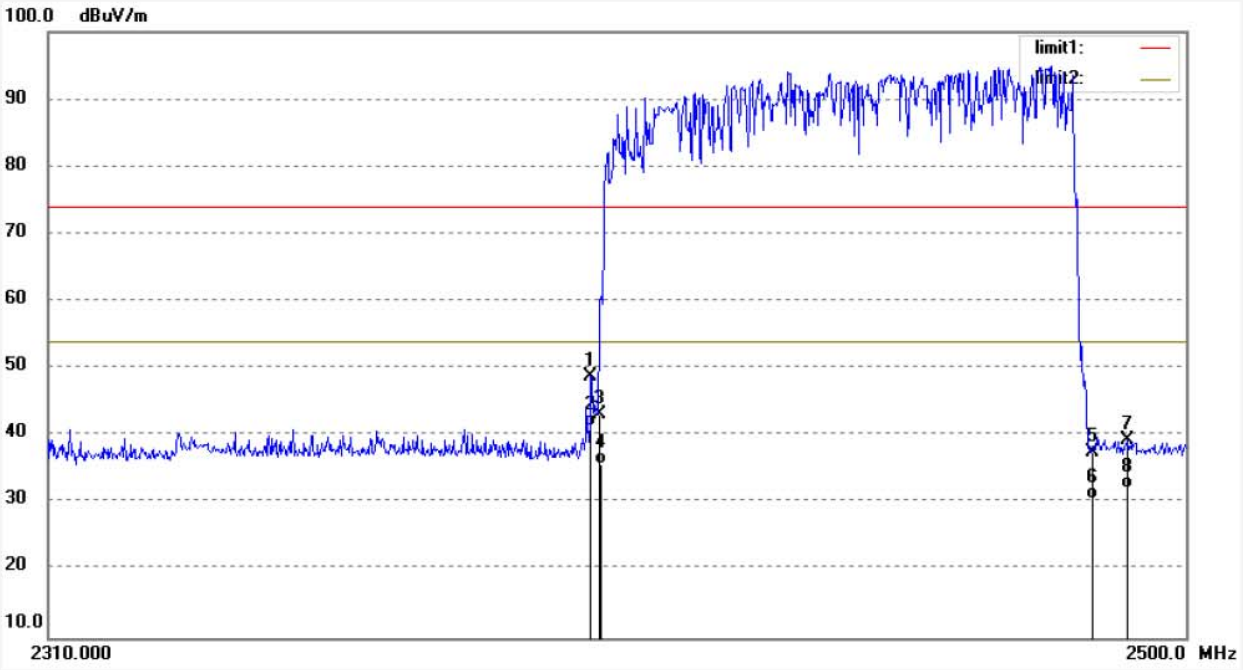
Job No.: alen #3622
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: Hopping TX(8DPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Horizontal
Power Source: DC 5V
Date: 2015/02/08
Time: 8/55/36
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.920	55.67	-6.76	48.91	74.00	-25.09	peak			
2	2398.920	48.21	-6.76	41.45	54.00	-12.55	peak			
3	2400.000	49.91	-6.76	43.15	74.00	-30.85	peak			
4	2400.000	42.57	-6.76	35.81	54.00	-18.19	peak			
5	2483.500	44.18	-6.54	37.64	74.00	-36.36	peak			
6	2483.500	37.17	-6.54	30.63	54.00	-23.37	peak			
7	2490.120	45.90	-6.52	39.38	74.00	-34.62	peak			
8	2490.120	38.78	-6.52	32.26	54.00	-21.74	peak			

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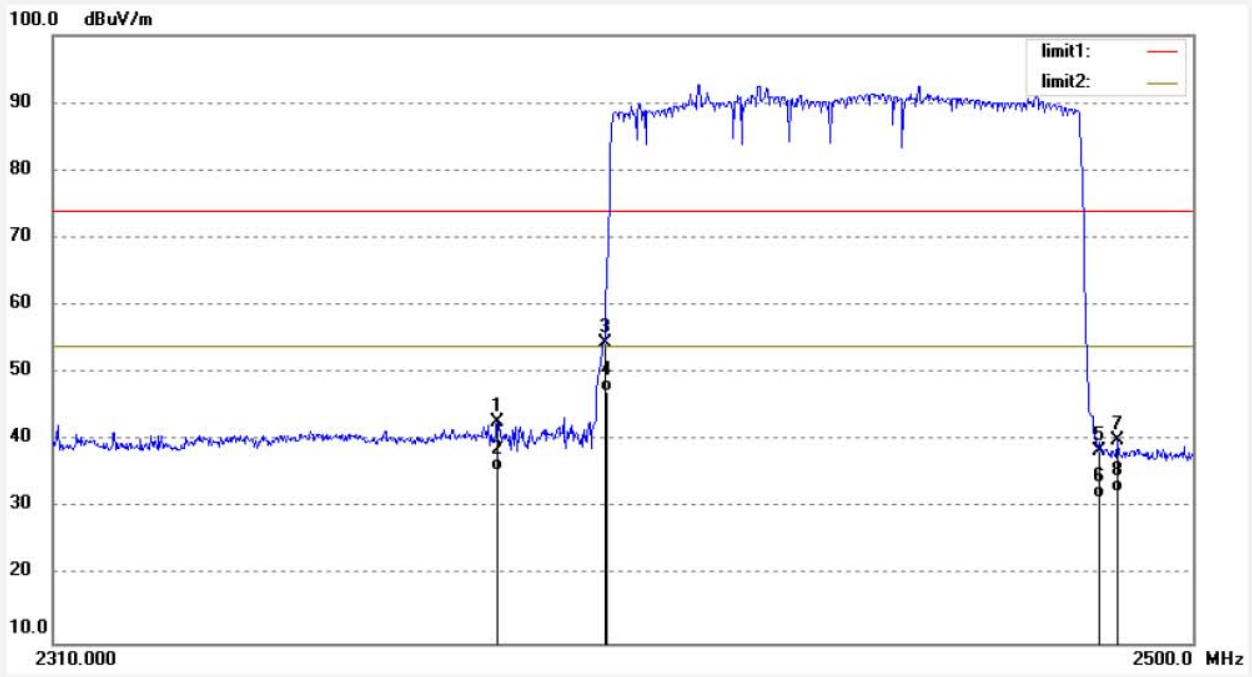
Job No.: alen #3621
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Speaker
Mode: Hopping TX(8DPSK)
Model: MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK

Polarization: Vertical
Power Source: DC 5V
Date: 2015/02/08
Time: 8/50/53
Engineer Signature:
Distance: 3m

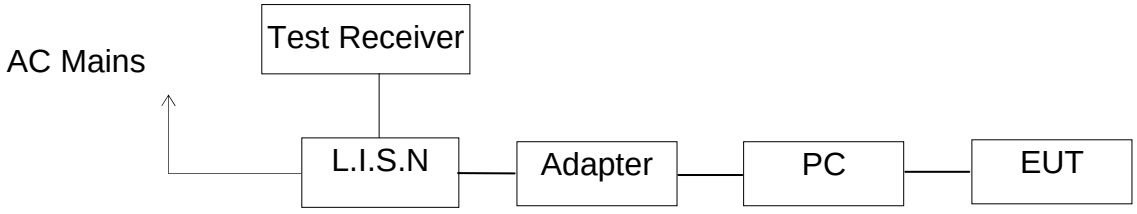
Note: Report No.:ATE20150279



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2382.390	49.51	-6.81	42.70	74.00	-31.30	peak			
2	2382.390	42.45	-6.81	35.64	54.00	-18.36	peak			
3	2400.000	61.24	-6.76	54.48	74.00	-19.52	peak			
4	2400.000	54.01	-6.76	47.25	54.00	-6.75	peak			
5	2483.500	45.07	-6.54	38.53	74.00	-35.47	peak			
6	2483.500	38.01	-6.54	31.47	54.00	-22.53	peak			
7	2487.080	46.52	-6.53	39.99	74.00	-34.01	peak			
8	2487.080	38.89	-6.53	32.36	54.00	-21.64	peak			

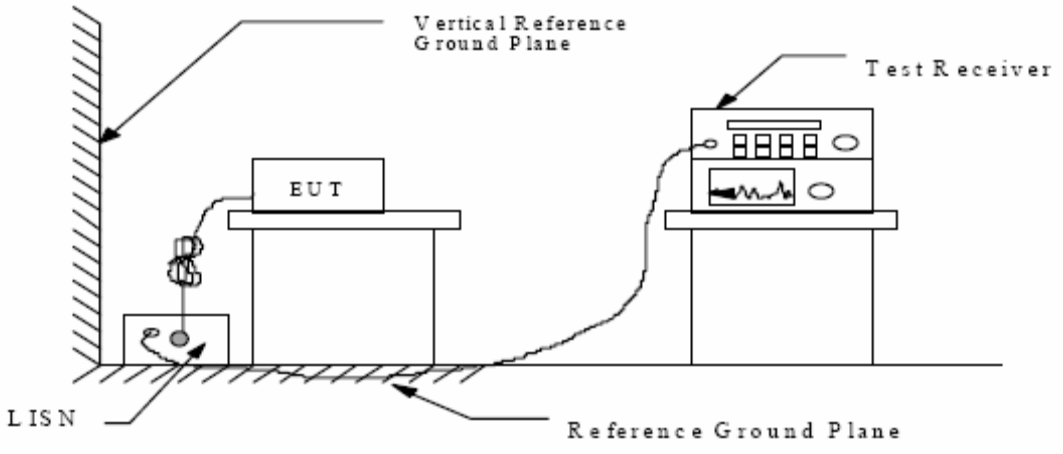
12. AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

12.1. Block Diagram of Test Setup



(EUT: Bluetooth Speaker)

12.2. Shielding Room Test Setup Diagram



12.3. The Emission Limit

12.3.1. Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

* Decreases with the logarithm of the frequency.

12.4.Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

12.5.Operating Condition of EUT

12.5.1.Setup the EUT and simulator as shown as Section 12.1.

12.5.2.Turn on the power of all equipment.

12.5.3.Let the EUT work in test mode and measure it.

12.6.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Measurement.
The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

12.7.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Test mode : Charging&BT Communicating

MEASUREMENT RESULT: "RY0209-2_fin"

2/9/2015 10:05AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	55.20	10.5	66	10.8	QP	N	GND
0.170000	50.50	10.5	65	14.5	QP	N	GND
0.230000	39.60	10.6	62	22.8	QP	N	GND

MEASUREMENT RESULT: "RY0209-2_fin2"

2/9/2015 10:05AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	44.00	10.5	56	12.0	AV	N	GND
1.110000	23.60	10.9	46	22.4	AV	N	GND
2.900000	31.90	11.0	46	14.1	AV	N	GND

MEASUREMENT RESULT: "RY0209-1_fin"

2/9/2015 10:01AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	56.10	10.5	66	9.9	QP	L1	GND
0.180000	43.40	10.5	65	21.1	QP	L1	GND
0.200000	50.70	10.5	64	12.9	QP	L1	GND

MEASUREMENT RESULT: "RY0209-1_fin2"

2/9/2015 10:01AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	45.30	10.5	56	10.7	AV	L1	GND
1.545000	28.80	10.9	46	17.2	AV	L1	GND
2.980000	31.60	11.1	46	14.4	AV	L1	GND

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

ACCURATE TECHNOLOGY CO.,LTD

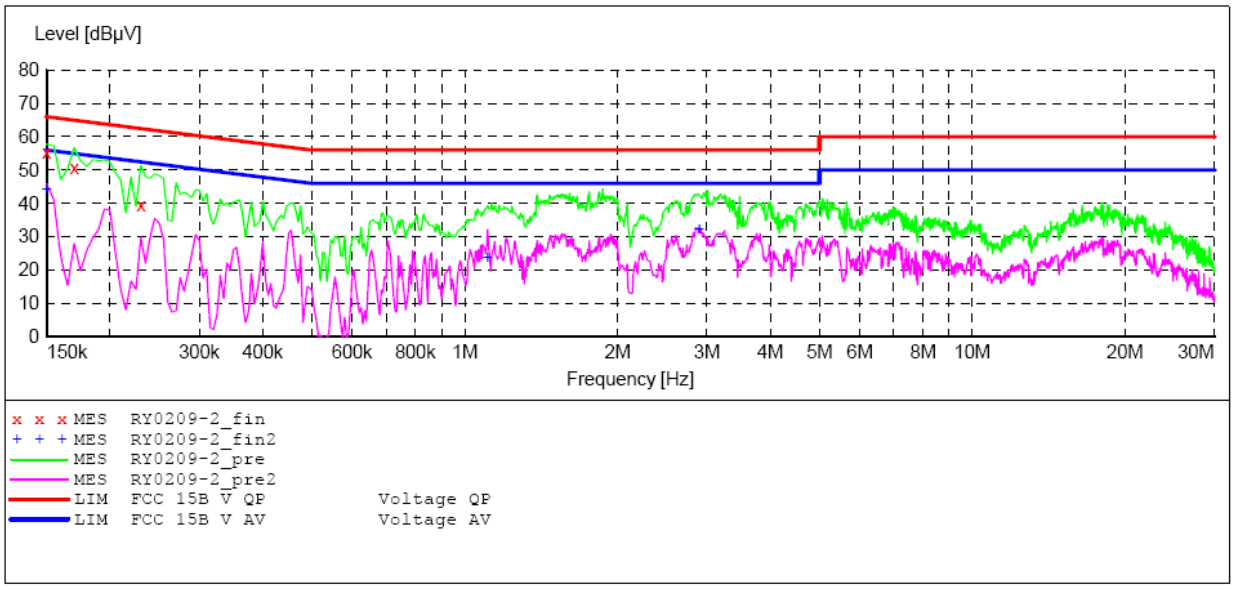
CONDUCTED EMISSION STANDARD FCC PART15 B

EUT: Bluetooth Speaker M/N:MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK
Operating Condition: Charging&BT Operation
Test Site: 1#Shielding Room
Operator: Ricky
Test Specification: N 120V/60Hz
Comment: Report No.:ATE20150279
Start of Test: 2/9/2015 / 10:02:47AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "RY0209-2_fin"

2/9/2015 10:05AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	55.20	10.5	66	10.8	QP	N	GND
0.170000	50.50	10.5	65	14.5	QP	N	GND
0.230000	39.60	10.6	62	22.8	QP	N	GND

MEASUREMENT RESULT: "RY0209-2_fin2"

2/9/2015 10:05AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	44.00	10.5	56	12.0	AV	N	GND
1.110000	23.60	10.9	46	22.4	AV	N	GND
2.900000	31.90	11.0	46	14.1	AV	N	GND

ACCURATE TECHNOLOGY CO.,LTD

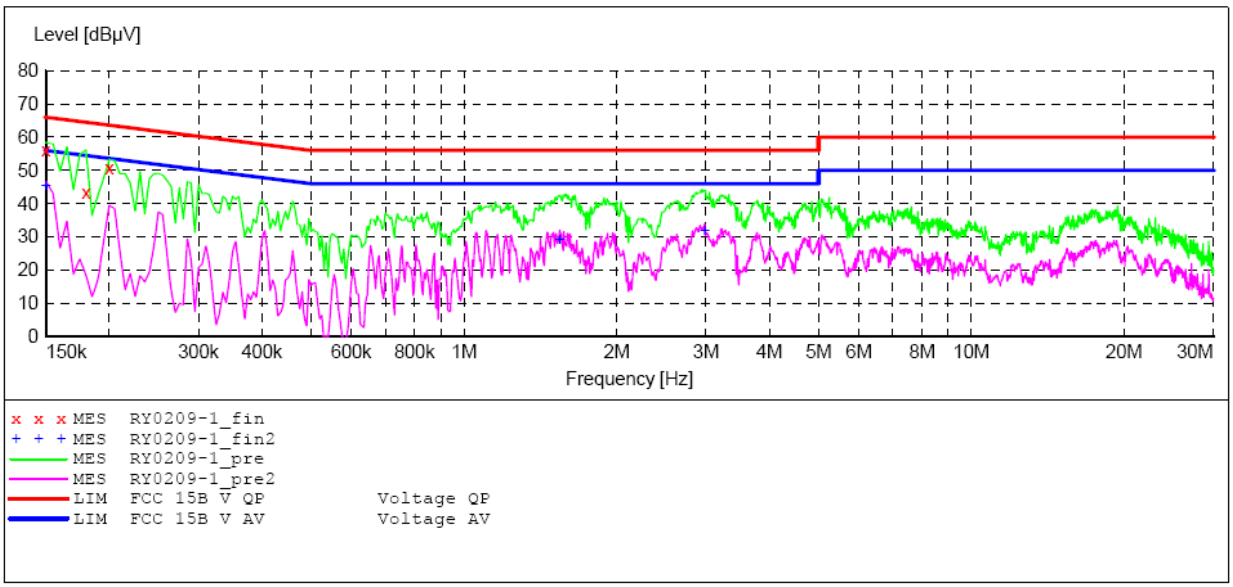
CONDUCTED EMISSION STANDARD FCC PART15 B

EUT: Bluetooth Speaker M/N:MK-SPB11-BC8
Manufacturer: FORTAT SKYMARK
Operating Condition: Charging&BT Operation
Test Site: 1#Shielding Room
Operator: Ricky
Test Specification: L 120V/60Hz
Comment: Report No.:ATE20150279
Start of Test: 2/9/2015 / 9:58:53AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "RY0209-1_fin"

2/9/2015 10:01AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	56.10	10.5	66	9.9	QP	L1	GND
0.180000	43.40	10.5	65	21.1	QP	L1	GND
0.200000	50.70	10.5	64	12.9	QP	L1	GND

MEASUREMENT RESULT: "RY0209-1_fin2"

2/9/2015 10:01AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	45.30	10.5	56	10.7	AV	L1	GND
1.545000	28.80	10.9	46	17.2	AV	L1	GND
2.980000	31.60	11.1	46	14.4	AV	L1	GND

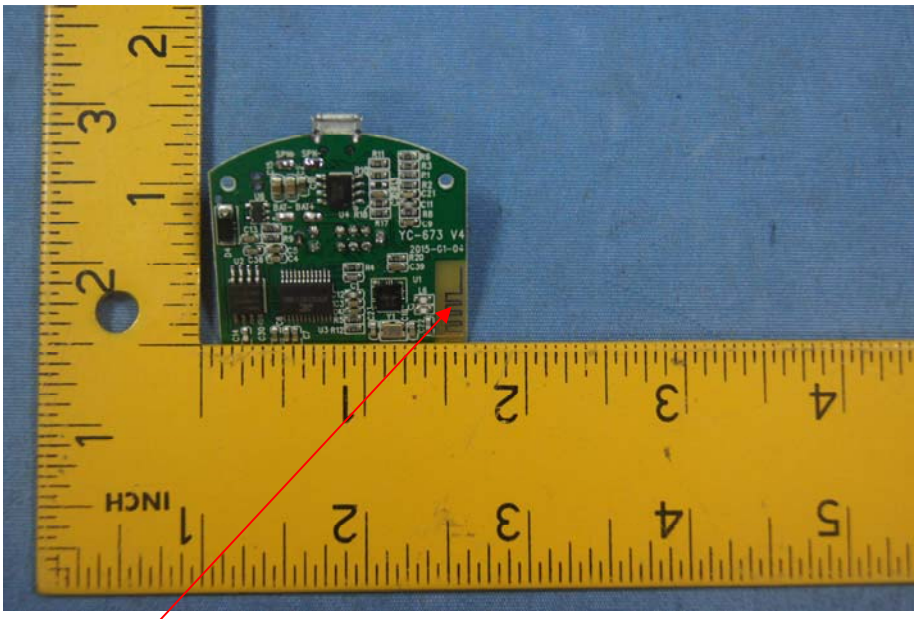
13. ANTENNA REQUIREMENT

13.1. The Requirement

According to 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.

13.2. Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna