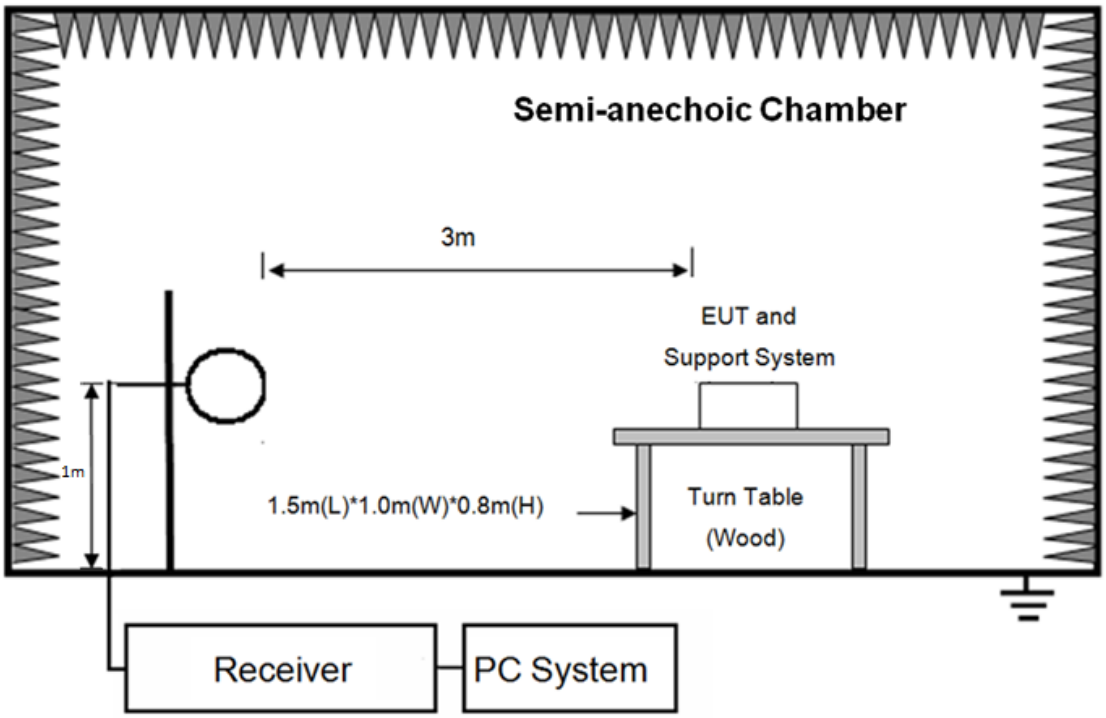
11AC80	ANT2	5530	NV	50	4800	0.917782	20	PASS
11AC80	ANT1	5775	NV	-30	-400	-0.076336	20	PASS
11AC80	ANT1	5775	NV	-20	600	0.114504	20	PASS
11AC80	ANT1	5775	NV	-10	1400	0.267176	20	PASS
11AC80	ANT1	5775	NV	0	1800	0.343511	20	PASS
11AC80	ANT1	5775	NV	10	2200	0.419847	20	PASS
11AC80	ANT1	5775	NV	20	2600	0.496183	20	PASS
11AC80	ANT1	5775	NV	30	2800	0.534351	20	PASS
11AC80	ANT1	5775	NV	40	3000	0.572519	20	PASS
11AC80	ANT1	5775	NV	50	3200	0.610687	20	PASS
11AC80	ANT2	5775	NV	-30	800	0.152672	20	PASS
11AC80	ANT2	5775	NV	-20	2000	0.381679	20	PASS
11AC80	ANT2	5775	NV	-10	2400	0.458015	20	PASS
11AC80	ANT2	5775	NV	0	2600	0.496183	20	PASS
11AC80	ANT2	5775	NV	10	2800	0.534351	20	PASS
11AC80	ANT2	5775	NV	20	3200	0.610687	20	PASS
11AC80	ANT2	5775	NV	30	3400	0.648855	20	PASS
11AC80	ANT2	5775	NV	40	3600	0.687023	20	PASS
11AC80	ANT2	5775	NV	50	3800	0.725191	20	PASS

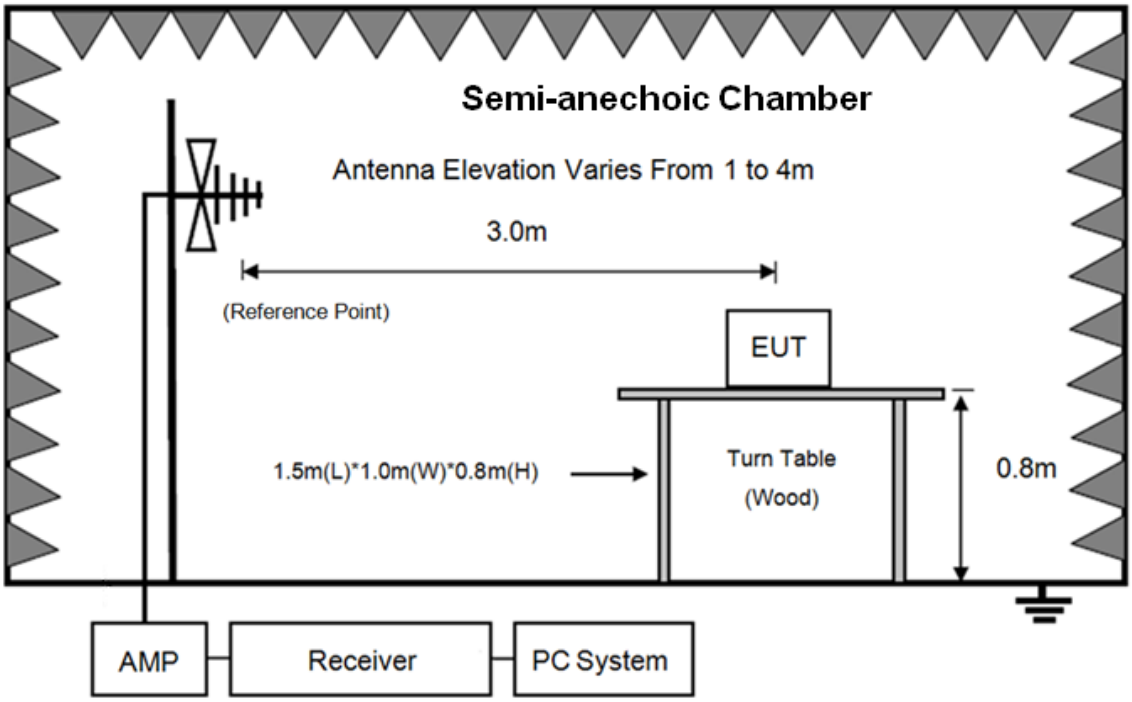
8. Emissions in restricted frequency bands

8.1. Block diagram of test setup

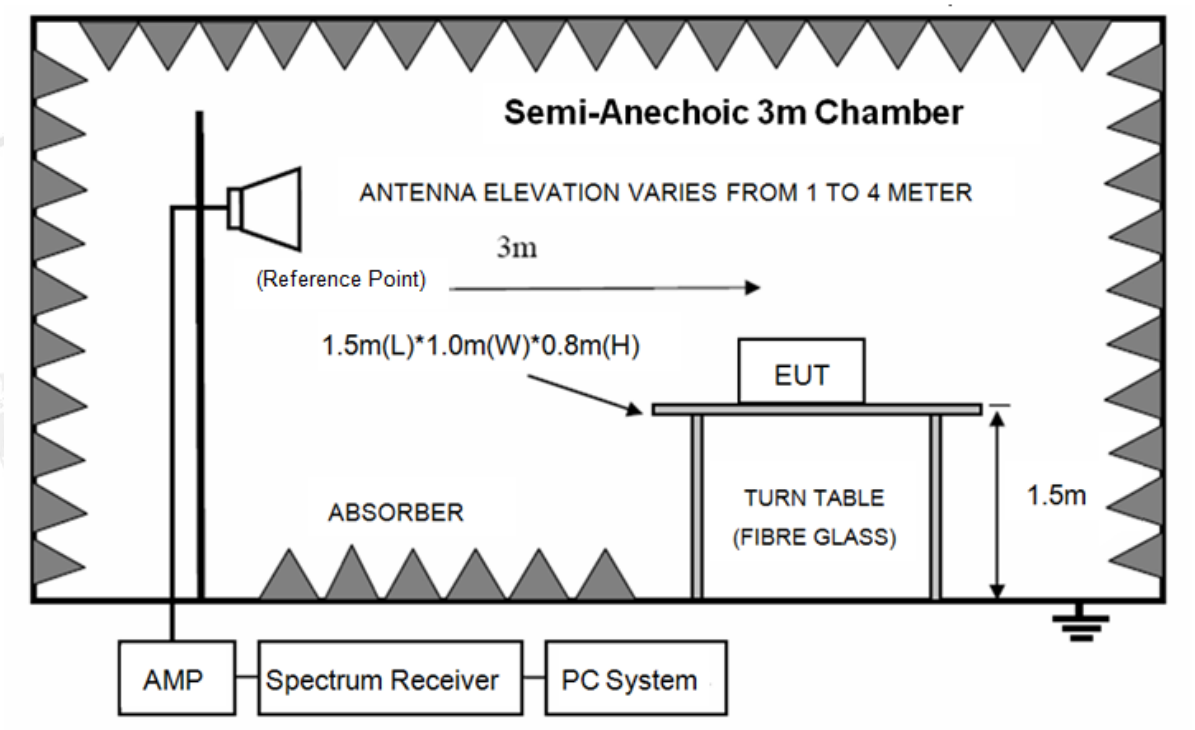
In 3m Anechoic Chamber Test Setup Diagram for 9kHz-30MHz



In 3m Anechoic Chamber Test Setup Diagram for 30MHz-1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.

8.2. Limit

8.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	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
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&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			

8.3.2 FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000MHz.Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$Limit_{3m}(dBuV/m) = Limit_{30m}(dBuV/m) + 40Log(30m/3m)$$

8.3.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions or comply with 15.209 limits.

8.3. Test Procedure

(1) EUT height should be 0.8 m for below 1 GHz at a semi - anechoic chamber while EUT height should be 1.5 m for above 1GHz at full chamber or semi - anechoic chamber ground with absorbers

(2) Setup EUT and assistant system according clause 2.3 and 8.2

(3) Test antenna was located 3m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used	Test distance
9 kHz-30 MHz	Active Loop antenna	3 m
30 MHz-1 GHz	Trilog Broadband Antenna	3 m
1 GHz-18 GHz	Double Ridged Horn Antenna(1GHz-18GHz)	3 m
18 GHz-40 GHz	Horn Antenna(18GHz-40GHz)	1 m

According ANSI C63.10:2013 clause 6.4.4.2 and 6,5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical

axis for maximum response at each azimuth position around the EUT. And the loop antenna also be positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. for measurement above 30 MHz, the Trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9 kHz to 40 GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1 m to 4 m (Except loop antenna, it's fixed 1m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9 kHz to 40 GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so below final test was performed with frequency range from 30 MHz to 18 GHz.

(5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10:2013 on Radiated Emission test.

(6) The emissions from 9 kHz to 1 GHz were measured based on CISPR QP detector except for the frequency bands 9-90 kHz, 110-490 kHz, for emissions from 9 kHz-90kHz,110kHz-490kHz and above 1GHz were measured based on average detector, for emissions above 1 GHz, peak emissions also be measured and need comply with Peak limit.

(7) The emissions from 9 kHz to 1 GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9 kHz-150 kHz	200 Hz
150 kHz-30 MHz	9 kHz
30 MHz-1 GHz	120 kHz

(8) For emissions above 1 GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1 MHz, VBW is set at 3MHz for Peak measure, the RBW is set at 1 MHz, VBW is set at 10 Hz for AV value.

8.4. Test result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9 Hz to 40GHz were comply with 15.209 limit.

Note1: According exploratory test no any obvious emission was detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11a mode.

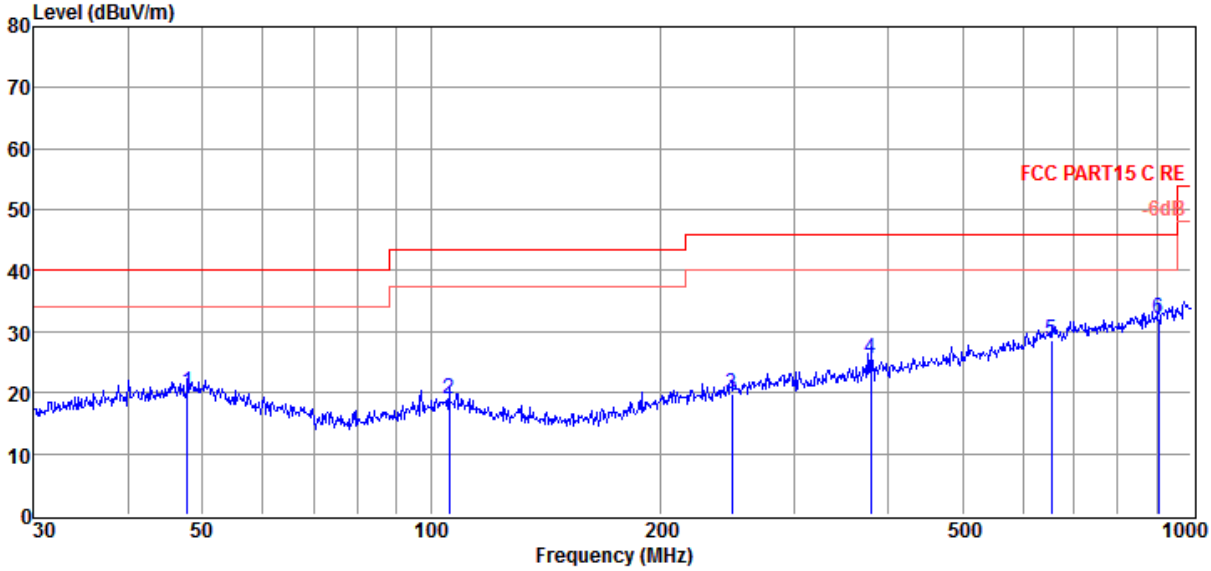
Note3: For below test data, when the limit tabular marked "/" means this frequency point is the fundamental emission and no need comply with this limit.

Radiated Emission test (below 1GHz)

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\FCC BELOW1G.EM6	
Test Date	: 2019-06-17	**Tested By**	: Talent
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 VULB 9163 1#/3m/HORIZONTAL
Memo	: 5G		

Data: 7



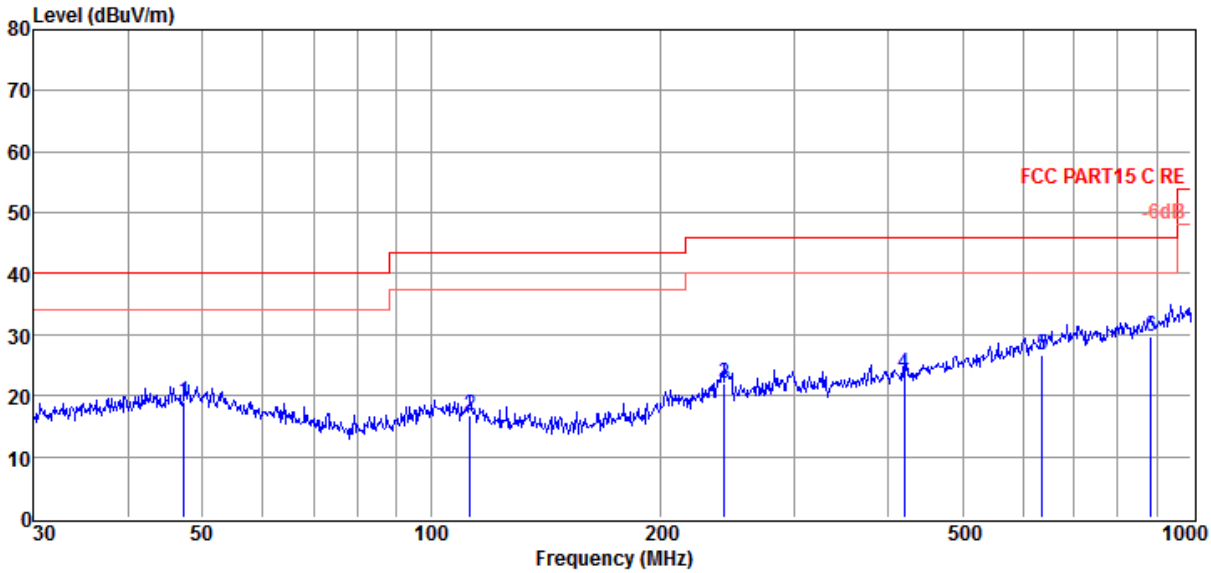
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	47.83	1.99	14.36	3.85	20.20	40.00	-19.80	QP	HORIZONTAL
2	105.64	2.95	11.76	4.23	18.94	43.50	-24.56	QP	HORIZONTAL
3	248.55	2.06	12.79	4.99	19.84	46.00	-26.16	QP	HORIZONTAL
4	378.58	4.75	15.29	5.44	25.48	46.00	-20.52	QP	HORIZONTAL
5	654.23	3.03	19.40	6.25	28.68	46.00	-17.32	QP	HORIZONTAL
6	906.48	3.56	21.77	6.95	32.28	46.00	-13.72	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\FCC BELOW1G.EM6	
Test Date	: 2019-06-17	**Tested By**	: Talent
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 VULB 9163 1#/3m/VERTICAL
Memo	: 5G		

Data: 8



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	47.33	0.92	14.30	3.84	19.06	40.00	-20.94	QP	VERTICAL
2	112.52	1.28	11.25	4.27	16.80	43.50	-26.70	QP	VERTICAL
3	243.38	4.37	12.66	4.97	22.00	46.00	-24.00	QP	VERTICAL
4	419.11	2.08	15.91	5.57	23.56	46.00	-22.44	QP	VERTICAL
5	636.13	1.49	19.11	6.20	26.80	46.00	-19.20	QP	VERTICAL
6	884.50	1.25	21.55	6.84	29.64	46.00	-16.36	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Radiated Emission test (above 1GHz)

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector type	Polarization
11a CH36									
4791.00	45.17	33.78	44.24	11.23	45.94	74.00	-28.06	Peak	HORIZONTAL
6423.00	45.53	35.21	43.79	12.03	48.98	74.00	-25.02	Peak	HORIZONTAL
7902.00	41.68	36.22	43.14	13.80	48.56	74.00	-25.44	Peak	HORIZONTAL
9364.00	43.87	37.03	43.81	14.80	51.89	74.00	-22.11	Peak	HORIZONTAL
10741.00	43.59	37.60	43.89	15.91	53.21	74.00	-20.79	Peak	HORIZONTAL
11676.00	41.34	38.39	43.64	17.31	53.40	74.00	-20.60	Peak	HORIZONTAL
5641.00	46.92	34.42	44.07	11.19	48.46	74.00	-25.54	Peak	VERTICAL
7392.00	43.34	35.84	43.35	13.05	48.88	74.00	-25.12	Peak	VERTICAL
8412.00	44.69	36.71	43.33	13.62	51.69	74.00	-22.31	Peak	VERTICAL
9415.00	43.36	37.06	43.83	14.85	51.44	74.00	-22.56	Peak	VERTICAL
10673.00	42.96	37.63	43.91	15.83	52.51	74.00	-21.49	Peak	VERTICAL
13274.00	38.59	38.69	43.26	19.23	53.25	74.00	-20.75	Peak	VERTICAL
11a CH40									
6355.00	45.03	35.13	43.82	11.95	48.29	74.00	-25.71	Peak	HORIZONTAL
7460.00	44.10	35.88	43.32	13.13	49.79	74.00	-24.21	Peak	HORIZONTAL
9432.00	43.70	37.07	43.84	14.80	51.73	74.00	-22.27	Peak	HORIZONTAL
10843.00	42.66	37.56	43.86	16.04	52.40	74.00	-21.60	Peak	HORIZONTAL
12713.00	39.90	38.19	43.39	18.56	53.26	74.00	-20.74	Peak	HORIZONTAL
13359.00	38.95	38.81	43.24	19.35	53.87	74.00	-20.13	Peak	HORIZONTAL
5624.00	46.56	34.40	44.07	11.18	48.07	74.00	-25.93	Peak	VERTICAL
7409.00	42.79	35.85	43.34	13.09	48.39	74.00	-25.61	Peak	VERTICAL
8429.00	44.48	36.73	43.33	13.71	51.59	74.00	-22.41	Peak	VERTICAL
10231.00	43.30	37.54	44.03	15.27	52.08	74.00	-21.92	Peak	VERTICAL
11200.00	42.26	37.95	43.76	16.56	53.01	74.00	-20.99	Peak	VERTICAL
12747.00	40.31	38.20	43.38	18.60	53.73	74.00	-20.27	Peak	VERTICAL
11a CH48									
6236.00	45.49	34.99	43.88	12.12	48.72	74.00	-25.28	Peak	HORIZONTAL
7477.00	44.04	35.89	43.31	13.14	49.76	74.00	-24.24	Peak	HORIZONTAL
8956.00	45.24	36.80	43.61	14.19	52.62	74.00	-21.38	Peak	HORIZONTAL
10265.00	44.32	37.56	44.02	15.31	53.17	74.00	-20.83	Peak	HORIZONTAL
11234.00	41.63	38.02	43.76	16.61	52.50	74.00	-21.50	Peak	HORIZONTAL
13631.00	37.32	39.32	43.18	19.72	53.18	74.00	-20.82	Peak	HORIZONTAL
5556.00	48.61	34.35	44.08	11.06	49.94	74.00	-24.06	Peak	VERTICAL
7460.00	44.26	35.88	43.32	13.13	49.95	74.00	-24.05	Peak	VERTICAL
9262.00	43.48	36.96	43.76	14.70	51.38	74.00	-22.62	Peak	VERTICAL
10741.00	43.37	37.60	43.89	15.91	52.99	74.00	-21.01	Peak	VERTICAL
12237.00	40.52	38.05	43.50	18.07	53.14	74.00	-20.86	Peak	VERTICAL
13835.00	36.39	39.81	43.14	20.00	53.06	74.00	-20.94	Peak	VERTICAL
11a CH52									
5624.00	46.79	34.40	44.07	11.18	48.30	74.00	-25.70	Peak	HORIZONTAL
7409.00	42.32	35.85	43.34	13.09	47.92	74.00	-26.08	Peak	HORIZONTAL

8990.00	42.40	36.80	43.62	14.33	49.91	74.00	-24.09	Peak	HORIZONTAL
10673.00	41.91	37.63	43.91	15.83	51.46	74.00	-22.54	Peak	HORIZONTAL
12730.00	39.89	38.19	43.39	18.58	53.27	74.00	-20.73	Peak	HORIZONTAL
13631.00	37.61	39.32	43.18	19.72	53.47	74.00	-20.53	Peak	HORIZONTAL
5641.00	47.03	34.42	44.07	11.19	48.57	74.00	-25.43	Peak	VERTICAL
7409.00	44.35	35.85	43.34	13.09	49.95	74.00	-24.05	Peak	VERTICAL
9415.00	44.82	37.06	43.83	14.85	52.90	74.00	-21.10	Peak	VERTICAL
11217.00	42.61	37.98	43.76	16.59	53.42	74.00	-20.58	Peak	VERTICAL
12203.00	40.98	38.04	43.51	18.04	53.55	74.00	-20.45	Peak	VERTICAL
13971.00	36.15	40.13	43.11	20.18	53.35	74.00	-20.65	Peak	VERTICAL
11a CH56									
8191.00	42.75	36.49	43.21	13.40	49.43	74.00	-24.57	Peak	HORIZONTAL
9976.00	43.08	37.39	44.09	15.51	51.89	74.00	-22.11	Peak	HORIZONTAL
10758.00	42.96	37.60	43.88	15.93	52.61	74.00	-21.39	Peak	HORIZONTAL
11251.00	41.53	38.06	43.75	16.64	52.48	74.00	-21.52	Peak	HORIZONTAL
12594.00	39.77	38.14	43.42	18.44	52.93	74.00	-21.07	Peak	HORIZONTAL
13291.00	38.27	38.71	43.26	19.26	52.98	74.00	-21.02	Peak	HORIZONTAL
7902.00	42.60	36.22	43.14	13.80	49.48	74.00	-24.52	Peak	VERTICAL
9942.00	41.86	37.37	44.07	15.38	50.54	74.00	-23.46	Peak	VERTICAL
10673.00	42.78	37.63	43.91	15.83	52.33	74.00	-21.67	Peak	VERTICAL
11217.00	42.68	37.98	43.76	16.59	53.49	74.00	-20.51	Peak	VERTICAL
12288.00	40.03	38.06	43.49	18.13	52.73	74.00	-21.27	Peak	VERTICAL
12730.00	39.86	38.19	43.39	18.58	53.24	74.00	-20.76	Peak	VERTICAL
11a CH64									
5794.00	48.20	34.54	44.04	11.42	50.12	74.00	-23.88	Peak	HORIZONTAL
7392.00	44.09	35.84	43.35	13.05	49.63	74.00	-24.37	Peak	HORIZONTAL
8837.00	43.43	36.80	43.55	14.04	50.72	74.00	-23.28	Peak	HORIZONTAL
10265.00	43.86	37.56	44.02	15.31	52.71	74.00	-21.29	Peak	HORIZONTAL
11744.00	40.46	38.30	43.62	17.42	52.56	74.00	-21.44	Peak	HORIZONTAL
13597.00	37.27	39.24	43.19	19.67	52.99	74.00	-21.01	Peak	HORIZONTAL
5777.00	46.48	34.53	44.04	11.38	48.35	74.00	-25.65	Peak	VERTICAL
7392.00	43.98	35.84	43.35	13.05	49.52	74.00	-24.48	Peak	VERTICAL
9432.00	43.34	37.07	43.84	14.80	51.37	74.00	-22.63	Peak	VERTICAL
10860.00	42.51	37.56	43.86	16.06	52.27	74.00	-21.73	Peak	VERTICAL
12271.00	40.93	38.05	43.49	18.11	53.60	74.00	-20.40	Peak	VERTICAL
13818.00	36.71	39.77	43.14	19.97	53.31	74.00	-20.69	Peak	VERTICAL
11a CH110									
5556.00	44.77	34.35	44.08	11.06	46.10	74.00	-27.90	Peak	HORIZONTAL
7409.00	41.68	35.85	43.34	13.09	47.28	74.00	-26.72	Peak	HORIZONTAL
9891.00	40.71	37.34	44.05	15.17	49.17	74.00	-24.83	Peak	HORIZONTAL
11217.00	42.10	37.98	43.76	16.59	52.91	74.00	-21.09	Peak	HORIZONTAL
13852.00	36.91	39.85	43.14	20.02	53.64	74.00	-20.36	Peak	HORIZONTAL
13937.00	35.58	40.05	43.12	20.13	52.64	74.00	-21.36	Peak	HORIZONTAL
6253.00	43.17	35.01	43.87	12.03	46.34	74.00	-27.66	Peak	VERTICAL
8497.00	41.22	36.80	43.37	14.05	48.70	74.00	-25.30	Peak	VERTICAL
9857.00	41.58	37.32	44.04	15.02	49.88	74.00	-24.12	Peak	VERTICAL
11166.00	41.05	37.87	43.77	16.50	51.65	74.00	-22.35	Peak	VERTICAL

12271.00	41.43	38.05	43.49	18.11	54.10	74.00	-19.90	Peak	VERTICAL
13818.00	37.05	39.77	43.14	19.97	53.65	74.00	-20.35	Peak	VERTICAL
11a CH116									
5641.00	44.42	34.42	44.07	11.19	45.96	74.00	-28.04	Peak	HORIZONTAL
7477.00	42.13	35.89	43.31	13.14	47.85	74.00	-26.15	Peak	HORIZONTAL
8939.00	40.64	36.80	43.60	14.12	47.96	74.00	-26.04	Peak	HORIZONTAL
10282.00	41.33	37.57	44.02	15.33	50.21	74.00	-23.79	Peak	HORIZONTAL
12220.00	40.14	38.04	43.51	18.06	52.73	74.00	-21.27	Peak	HORIZONTAL
13750.00	37.41	39.61	43.16	19.88	53.74	74.00	-20.26	Peak	HORIZONTAL
5641.00	46.01	34.42	44.07	11.19	47.55	74.00	-26.45	Peak	VERTICAL
8038.00	39.48	36.34	43.12	13.85	46.55	74.00	-27.45	Peak	VERTICAL
10282.00	41.05	37.57	44.02	15.33	49.93	74.00	-24.07	Peak	VERTICAL
11200.00	42.26	37.95	43.76	16.56	53.01	74.00	-20.99	Peak	VERTICAL
12271.00	41.47	38.05	43.49	18.11	54.14	74.00	-19.86	Peak	VERTICAL
12271.00	41.47	38.05	43.49	18.11	54.14	74.00	-19.86	Peak	VERTICAL
11a CH140									
5573.00	45.02	34.36	44.08	11.11	46.41	74.00	-27.59	Peak	HORIZONTAL
7460.00	41.16	35.88	43.32	13.13	46.85	74.00	-27.15	Peak	HORIZONTAL
8973.00	41.86	36.80	43.61	14.26	49.31	74.00	-24.69	Peak	HORIZONTAL
10826.00	41.73	37.57	43.87	16.02	51.45	74.00	-22.55	Peak	HORIZONTAL
12288.00	39.04	38.06	43.49	18.13	51.74	74.00	-22.26	Peak	HORIZONTAL
13784.00	37.16	39.69	43.15	19.93	53.63	74.00	-20.37	Peak	HORIZONTAL
5556.00	44.24	34.35	44.08	11.06	45.57	74.00	-28.43	Peak	VERTICAL
6865.00	43.11	35.52	43.58	12.33	47.38	74.00	-26.62	Peak	VERTICAL
8429.00	42.81	36.73	43.33	13.71	49.92	74.00	-24.08	Peak	VERTICAL
10724.00	40.92	37.61	43.89	15.89	50.53	74.00	-23.47	Peak	VERTICAL
11761.00	40.62	38.28	43.62	17.45	52.73	74.00	-21.27	Peak	VERTICAL
13665.00	37.10	39.40	43.18	19.76	53.08	74.00	-20.92	Peak	VERTICAL
11a CH149									
5624.00	44.61	34.40	44.07	11.18	46.12	74.00	-27.88	Peak	HORIZONTAL
7392.00	41.25	35.84	43.35	13.05	46.79	74.00	-27.21	Peak	HORIZONTAL
9857.00	41.80	37.32	44.04	15.02	50.10	74.00	-23.90	Peak	HORIZONTAL
11217.00	41.91	37.98	43.76	16.59	52.72	74.00	-21.28	Peak	HORIZONTAL
12254.00	40.34	38.05	43.50	18.09	52.98	74.00	-21.02	Peak	HORIZONTAL
13699.00	37.20	39.48	43.17	19.81	53.32	74.00	-20.68	Peak	HORIZONTAL
5658.00	44.55	34.43	44.06	11.19	46.11	74.00	-27.89	Peak	VERTICAL
7001.00	42.72	35.60	43.52	12.64	47.44	74.00	-26.56	Peak	VERTICAL
8395.00	42.92	36.70	43.32	13.55	49.85	74.00	-24.15	Peak	VERTICAL
10673.00	42.71	37.63	43.91	15.83	52.26	74.00	-21.74	Peak	VERTICAL
12271.00	40.13	38.05	43.49	18.11	52.80	74.00	-21.20	Peak	VERTICAL
13597.00	38.08	39.24	43.19	19.67	53.80	74.00	-20.20	Peak	VERTICAL
11a CH157									
5709.00	44.06	34.47	44.05	11.22	45.70	74.00	-28.30	Peak	HORIZONTAL
7392.00	41.60	35.84	43.35	13.05	47.14	74.00	-26.86	Peak	HORIZONTAL
8956.00	43.16	36.80	43.61	14.19	50.54	74.00	-23.46	Peak	HORIZONTAL
10282.00	43.07	37.57	44.02	15.33	51.95	74.00	-22.05	Peak	HORIZONTAL
11863.00	40.77	38.16	43.59	17.61	52.95	74.00	-21.05	Peak	HORIZONTAL

13682.00	37.67	39.44	43.17	19.79	53.73	74.00	-20.27	Peak	HORIZONTAL
5641.00	44.80	34.42	44.07	11.19	46.34	74.00	-27.66	Peak	VERTICAL
7409.00	41.67	35.85	43.34	13.09	47.27	74.00	-26.73	Peak	VERTICAL
9432.00	44.06	37.07	43.84	14.80	52.09	74.00	-21.91	Peak	VERTICAL
11234.00	42.18	38.02	43.76	16.61	53.05	74.00	-20.95	Peak	VERTICAL
12237.00	41.09	38.05	43.50	18.07	53.71	74.00	-20.29	Peak	VERTICAL
13954.00	35.85	40.09	43.11	20.16	52.99	74.00	-21.01	Peak	VERTICAL
11a CH165									
5641.00	44.58	34.42	44.07	11.19	46.12	74.00	-27.88	Peak	HORIZONTAL
7392.00	42.79	35.84	43.35	13.05	48.33	74.00	-25.67	Peak	HORIZONTAL
8395.00	41.81	36.70	43.32	13.55	48.74	74.00	-25.26	Peak	HORIZONTAL
10282.00	43.09	37.57	44.02	15.33	51.97	74.00	-22.03	Peak	HORIZONTAL
11778.00	41.66	38.26	43.62	17.48	53.78	74.00	-20.22	Peak	HORIZONTAL
13886.00	35.91	39.93	43.13	20.06	52.77	74.00	-21.23	Peak	HORIZONTAL
5624.00	45.30	34.40	44.07	11.18	46.81	74.00	-27.19	Peak	VERTICAL
7409.00	43.25	35.85	43.34	13.09	48.85	74.00	-25.15	Peak	VERTICAL
9874.00	40.68	37.33	44.04	15.09	49.06	74.00	-24.94	Peak	VERTICAL
11778.00	39.27	38.26	43.62	17.48	51.39	74.00	-22.61	Peak	VERTICAL
13308.00	38.31	38.73	43.25	19.28	53.07	74.00	-20.93	Peak	VERTICAL
14549.00	35.34	40.34	42.99	20.13	52.82	74.00	-21.18	Peak	VERTICAL
Conclusion: Pass									
Note: -27 dBm/MHz Limit=95.2+EIRP[dBm]=95.2-27=68.2 dBμV/m For transmitters operating in the 5150MHz-5250MHz, 5250MHz-5350MHz, 5470MHz-5725MHz, 5725MHz-5850MHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.									

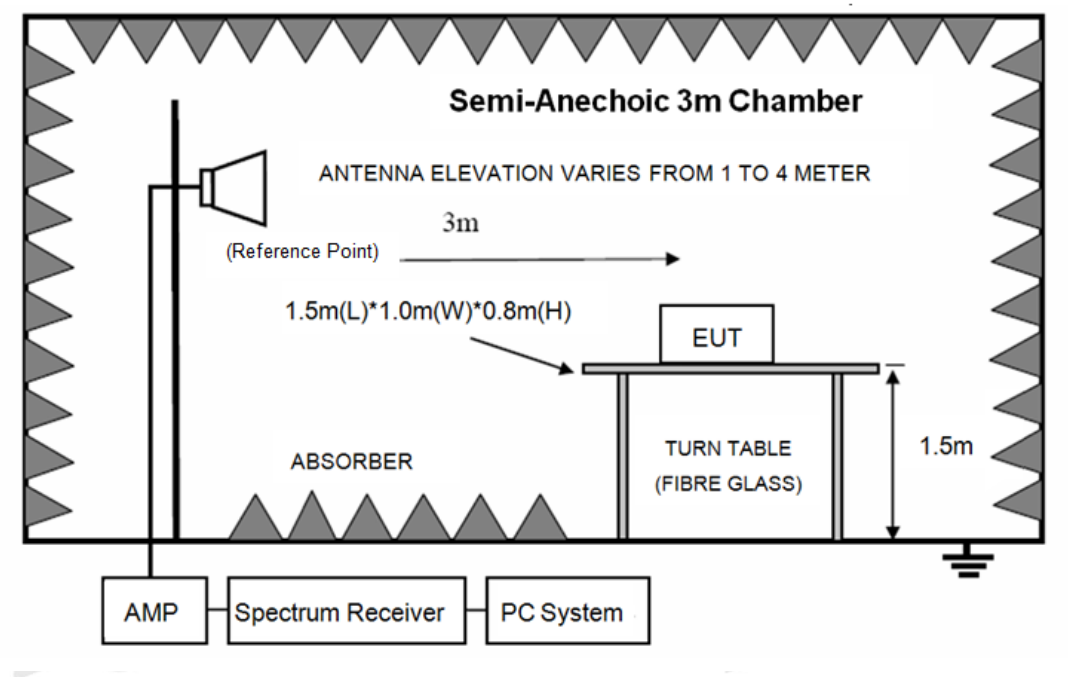
Note: 1. 30MHz~40GHz: (11a, 11n20, n40, 11ac20, 11ac40, 11ac80 mode all have been tested, only 11a mode is the worst case and reported.)

2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

9. Band Edge Compliance

9.1. Block diagram of test setup



9.2. Limit

For transmitters operating in the 5.15-5.25 GHz and 5.725-5.85 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

-27 dBm/MHz Limit=95.2+EIRP[dBm]=95.2-27=68.2 dBμV/m

9.3. Test Procedure

Same with clause 8.3 except change investigated frequency range.

Remark: All restriction band have been tested, and only the worst case is shown in report.

9.4. Test result

PASS. (See below detailed test result)

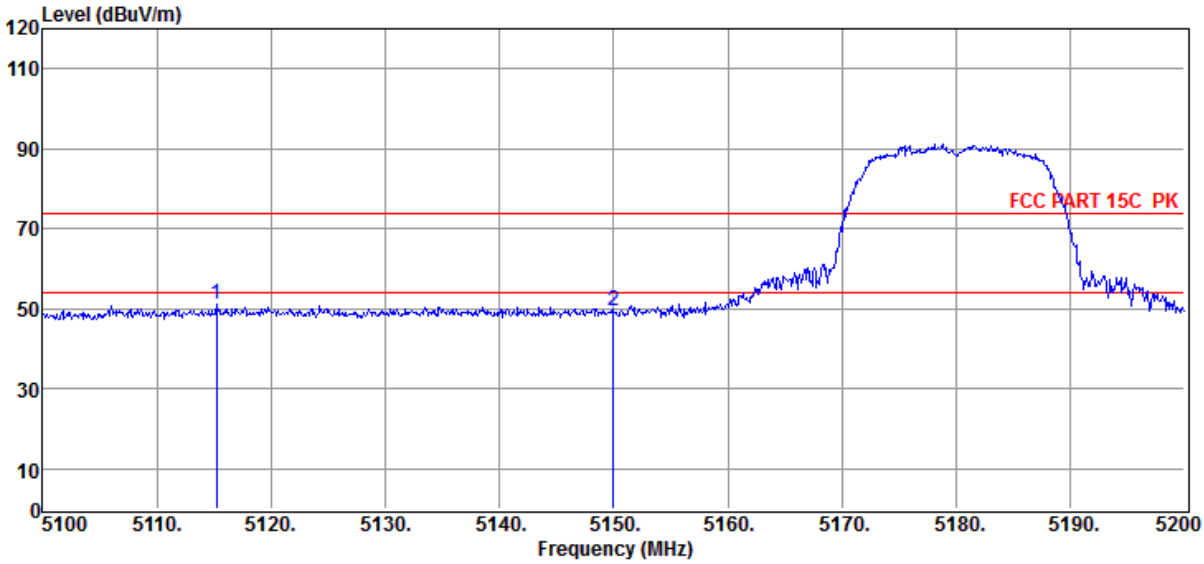
Note1: As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit

Note2: 11a, 11n20, n40, 11ac20, 11ac40, 11ac80 mode all have been tested, only 11a mode is the worst case and reported.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11a 5180MHz		

Data: 101



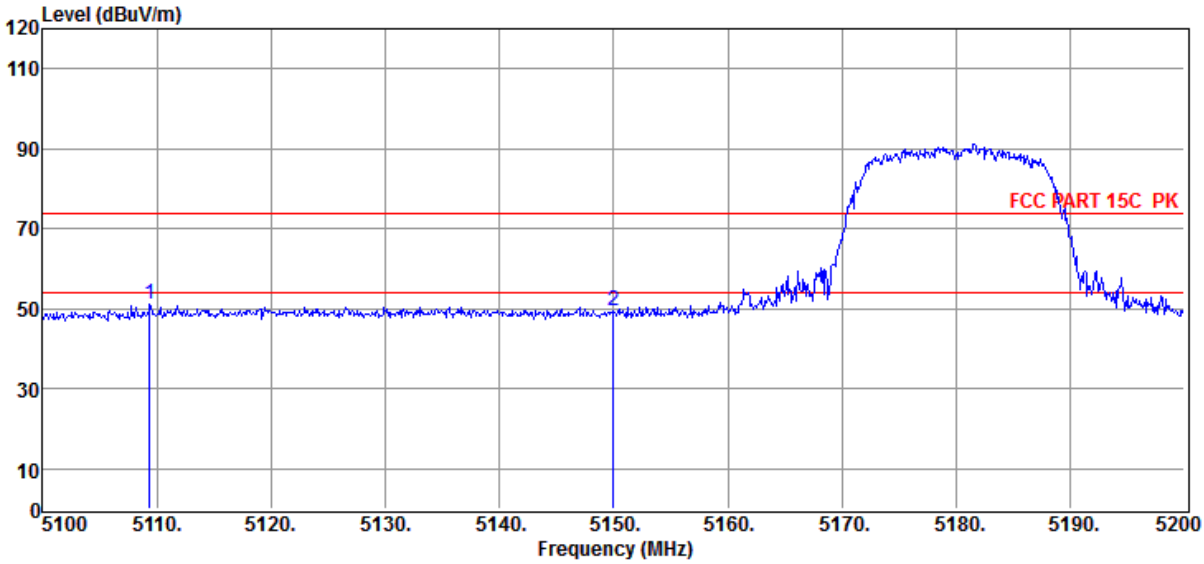
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5115.20	50.87	34.00	44.18	10.31	51.00	74.00	-23.00	Peak	VERTICAL
2	5150.00	49.39	34.02	44.17	10.36	49.60	74.00	-24.40	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11a 5180MHz		

Data: 102



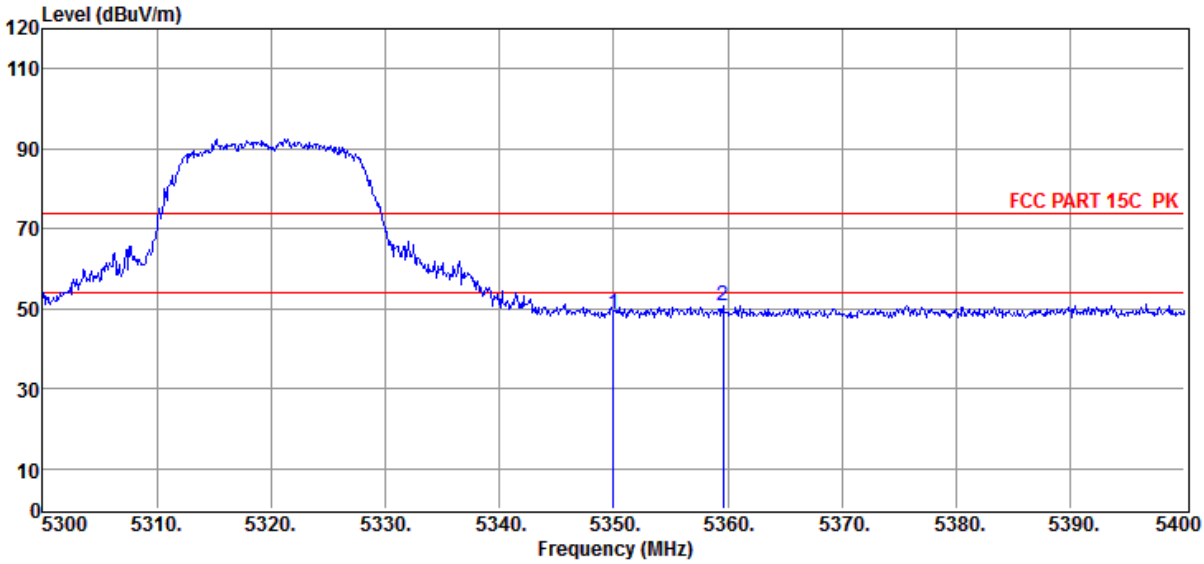
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5109.40	51.00	33.99	44.18	10.30	51.11	74.00	-22.89	Peak	HORIZONTAL
2	5150.00	49.42	34.02	44.17	10.36	49.63	74.00	-24.37	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11a 5320MHz		

Data: 103



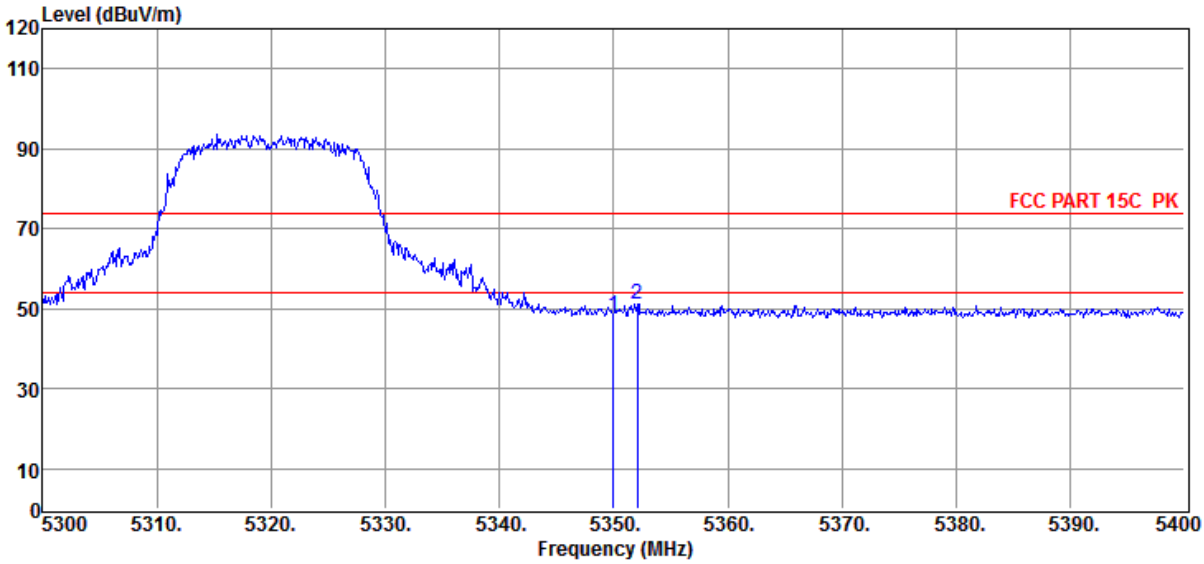
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	47.97	34.18	44.13	10.48	48.50	74.00	-25.50	Peak	HORIZONTAL
2	5359.60	50.10	34.19	44.12	10.48	50.65	74.00	-23.35	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11a 5320MHz		

Data: 104



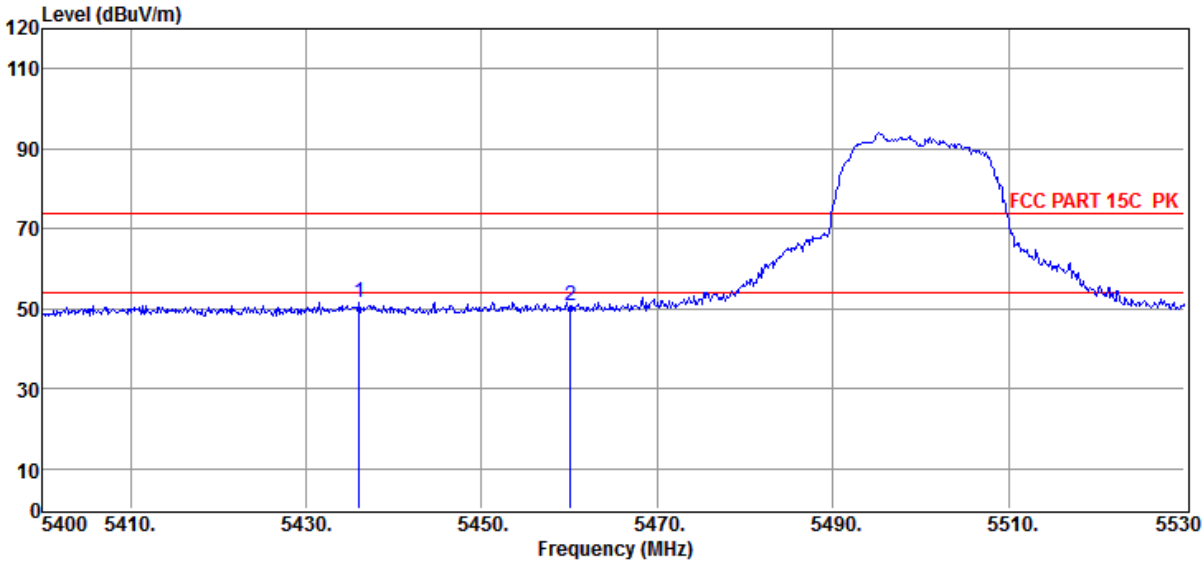
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	47.56	34.18	44.13	10.48	48.09	74.00	-25.91	Peak	VERTICAL
2	5352.10	50.50	34.19	44.13	10.48	51.04	74.00	-22.96	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11a 5500MHz		

Data: 105



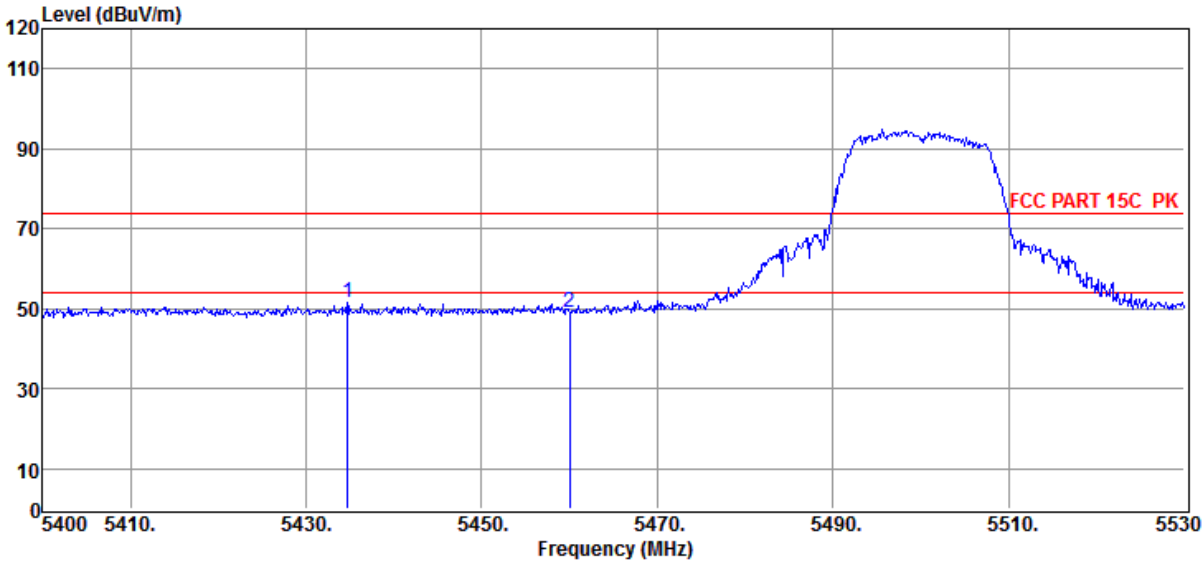
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5436.01	50.67	34.25	44.11	10.63	51.44	74.00	-22.56	Peak	VERTICAL
2	5460.06	49.61	34.27	44.10	10.74	50.52	74.00	-23.48	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11a 5500MHz		

Data: 106



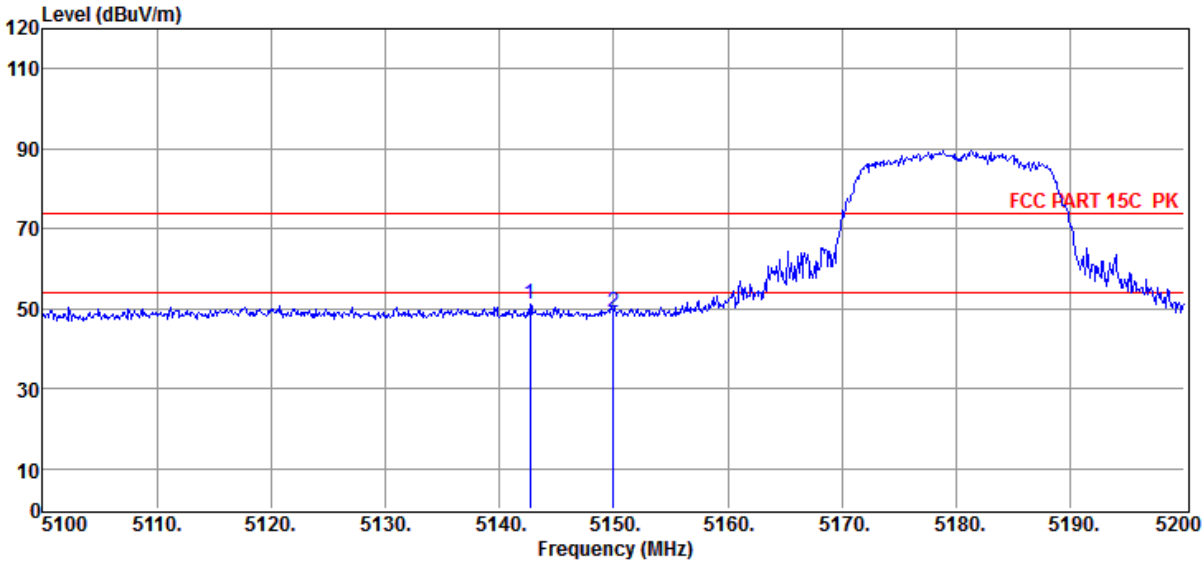
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5434.71	50.72	34.25	44.11	10.63	51.49	74.00	-22.51	Peak	HORIZONTAL
2	5460.00	48.19	34.27	44.10	10.74	49.10	74.00	-24.90	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11N20 5180MHz		

Data: 107



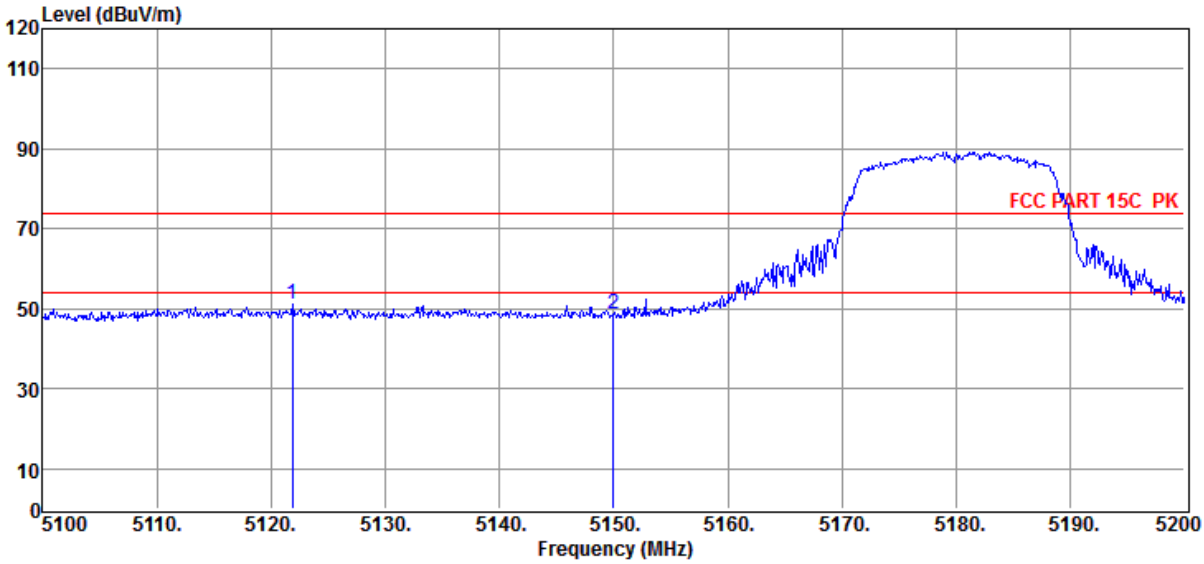
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5142.70	51.08	34.02	44.17	10.35	51.28	74.00	-22.72	Peak	HORIZONTAL
2	5150.00	49.02	34.02	44.17	10.36	49.23	74.00	-24.77	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11N20 5180MHz		

Data: 108



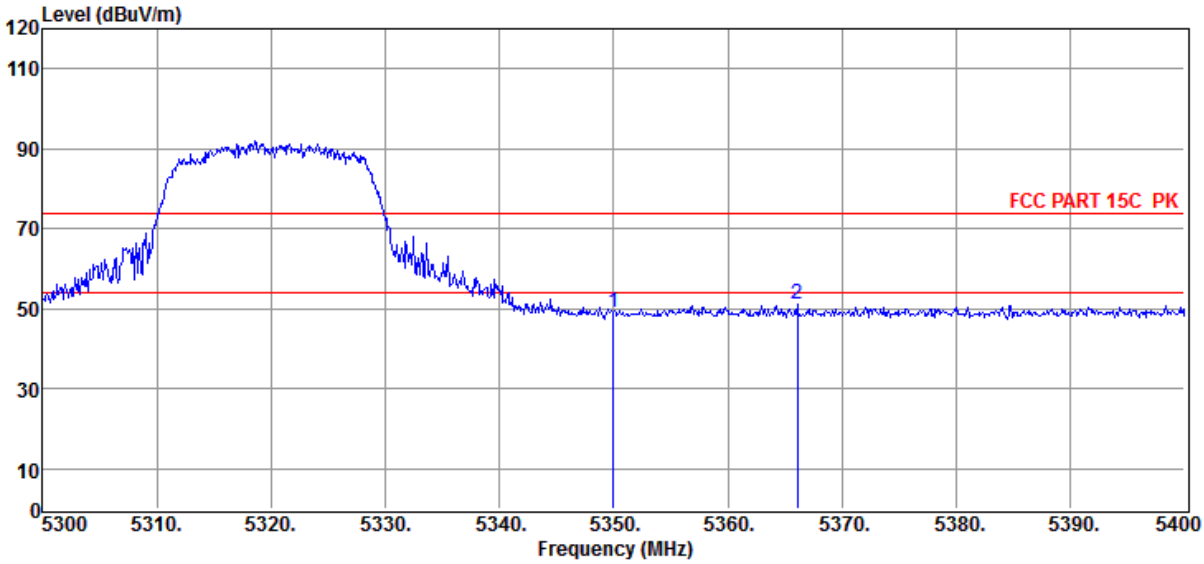
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5121.90	50.91	34.00	44.17	10.32	51.06	74.00	-22.94	Peak	VERTICAL
2	5150.00	48.36	34.02	44.17	10.36	48.57	74.00	-25.43	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11N20 5320MHz		

Data: 109



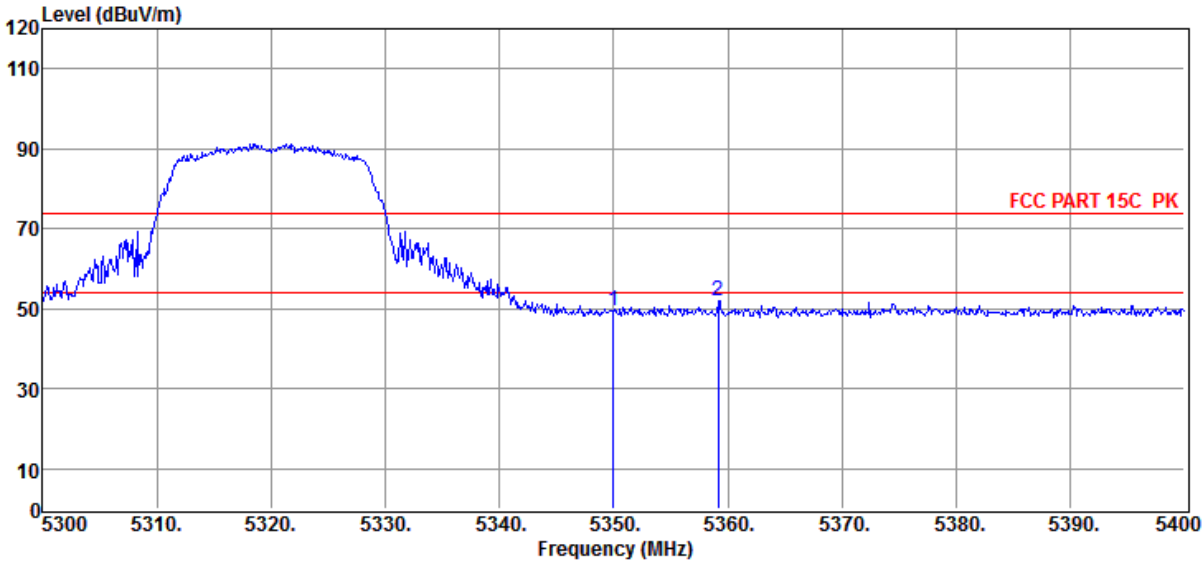
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	48.49	34.18	44.13	10.48	49.02	74.00	-24.98	Peak	VERTICAL
2	5366.10	50.73	34.20	44.12	10.48	51.29	74.00	-22.71	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11N20 5320MHz		

Data: 110



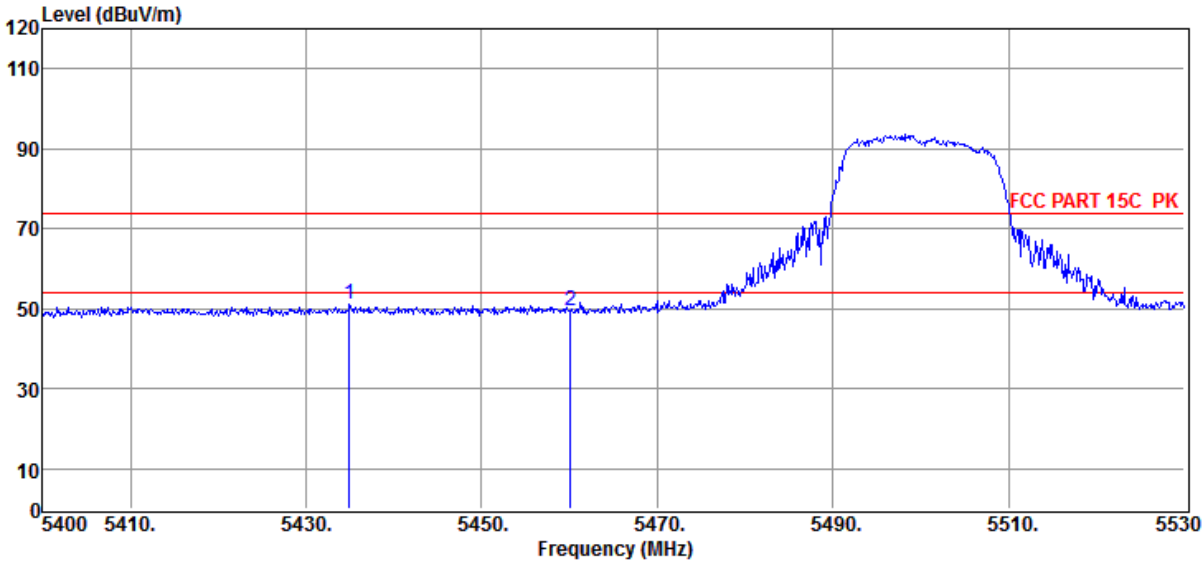
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	48.92	34.18	44.13	10.48	49.45	74.00	-24.55	Peak	HORIZONTAL
2	5359.20	51.57	34.19	44.12	10.48	52.12	74.00	-21.88	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11N20 5500MHz		

Data: 111



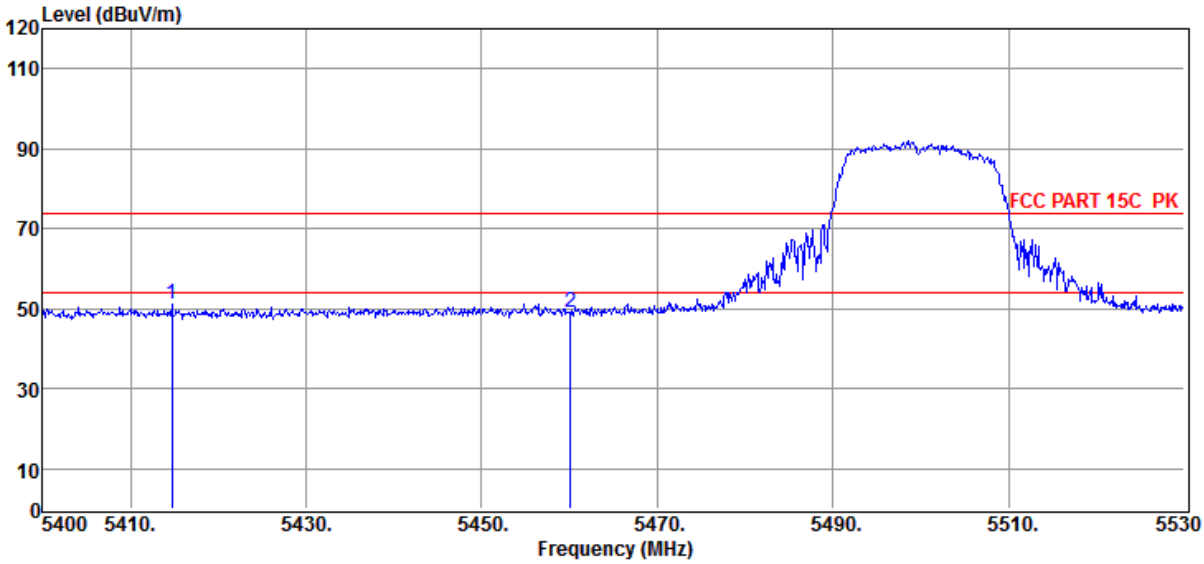
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5434.97	50.17	34.25	44.11	10.63	50.94	74.00	-23.06	Peak	HORIZONTAL
2	5460.06	48.62	34.27	44.10	10.74	49.53	74.00	-24.47	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11N20 5500MHz		

Data: 112



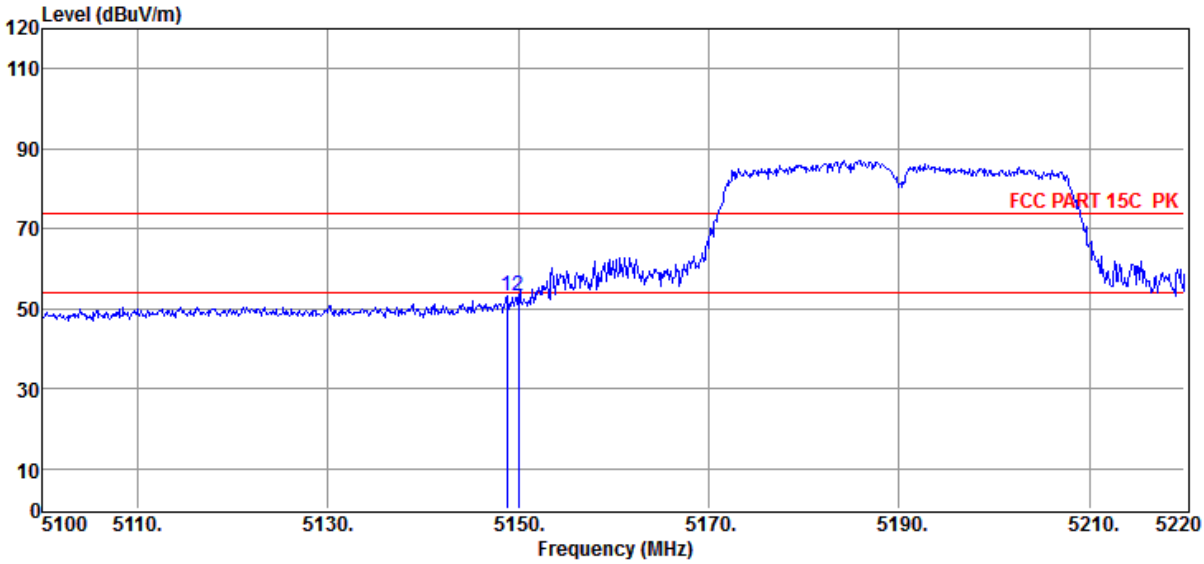
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5414.69	50.47	34.23	44.11	10.54	51.13	74.00	-22.87	Peak	VERTICAL
2	5460.06	48.08	34.27	44.10	10.74	48.99	74.00	-25.01	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11N40 5190MHz		

Data: 113



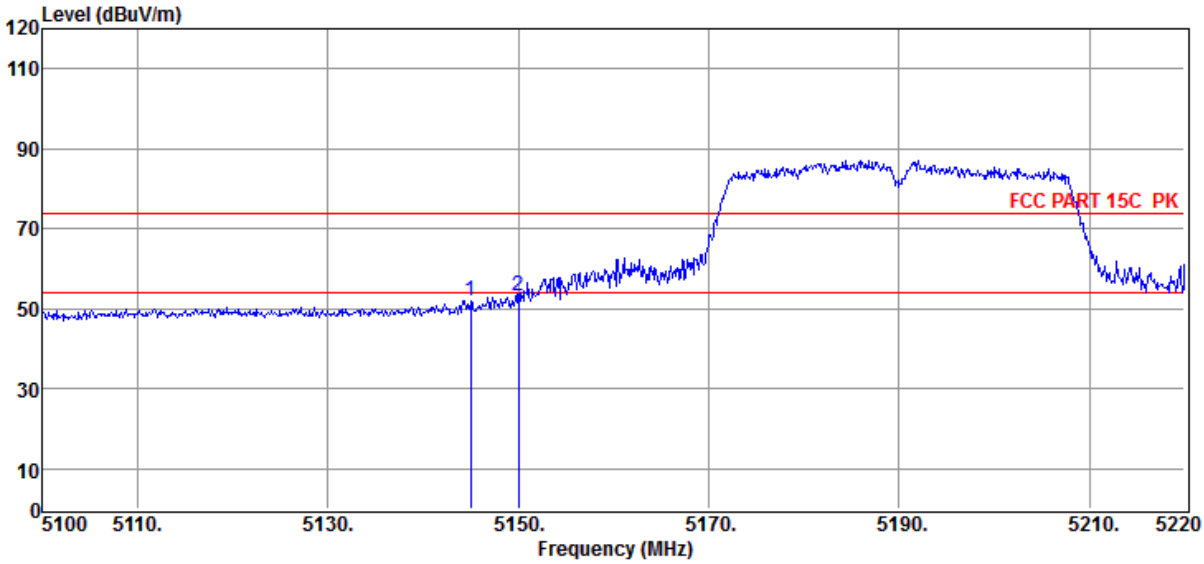
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5148.84	52.88	34.02	44.17	10.36	53.09	74.00	-20.91	Peak	VERTICAL
2	5150.00	52.95	34.02	44.17	10.36	53.16	74.00	-20.84	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11N40 5190MHz		

Data: 114



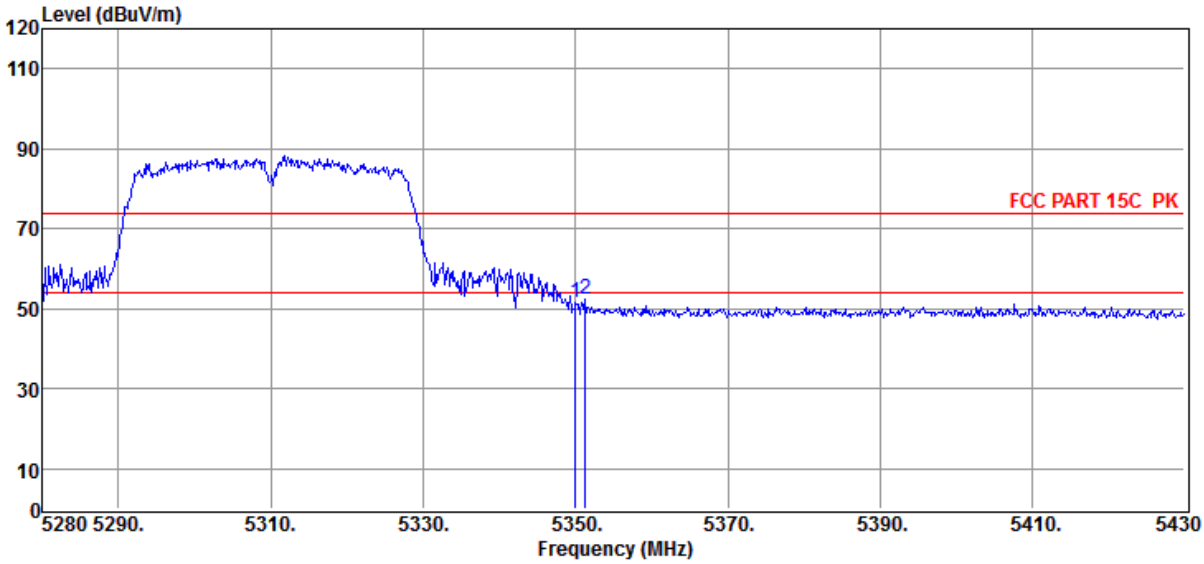
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5145.00	51.79	34.02	44.17	10.35	51.99	74.00	-22.01	Peak	HORIZONTAL
2	5150.00	52.88	34.02	44.17	10.36	53.09	74.00	-20.91	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11N40 5310MHz		

Data: 115



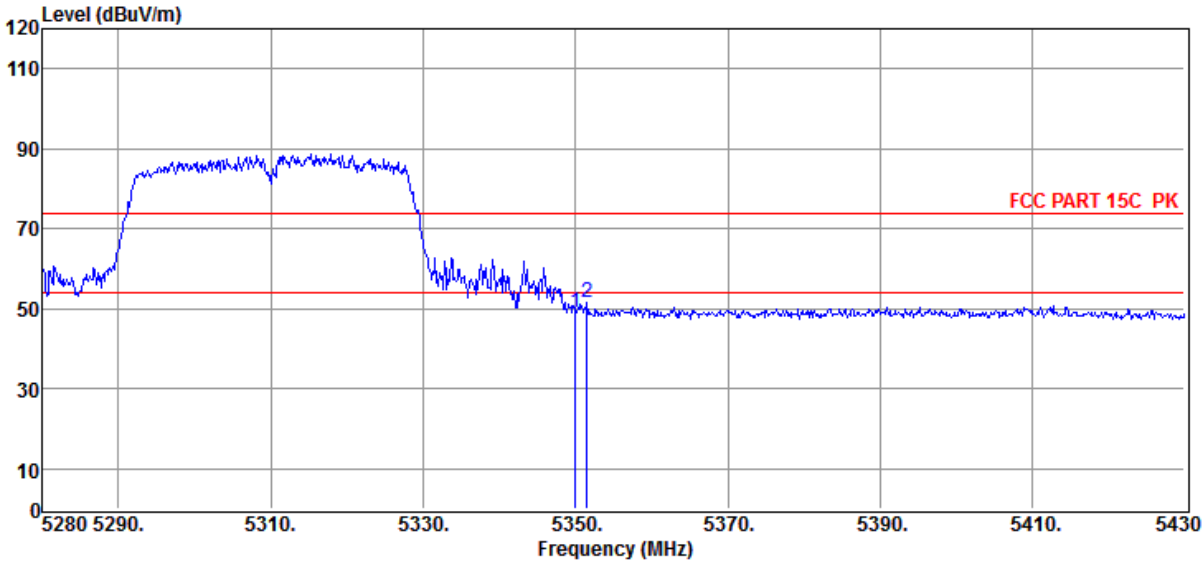
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.05	51.01	34.18	44.13	10.48	51.54	74.00	-22.46	Peak	HORIZONTAL
2	5351.25	52.00	34.18	44.13	10.48	52.53	74.00	-21.47	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11N40 5310MHz		

Data: 116



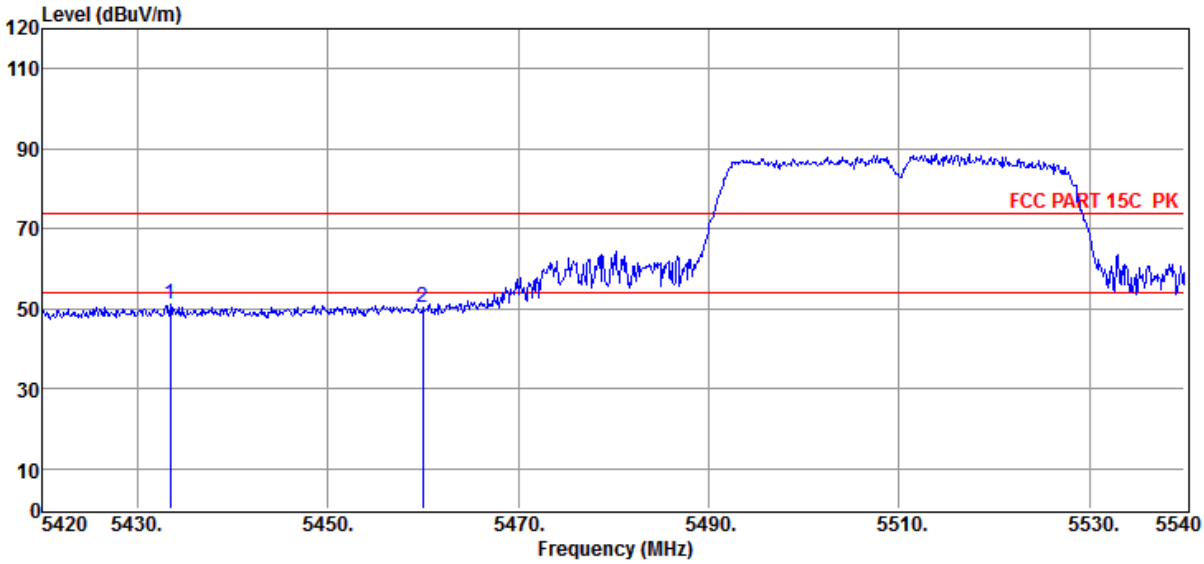
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.05	48.60	34.18	44.13	10.48	49.13	74.00	-24.87	Peak	VERTICAL
2	5351.55	51.08	34.19	44.13	10.48	51.62	74.00	-22.38	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11N40 5510MHz		

Data: 117



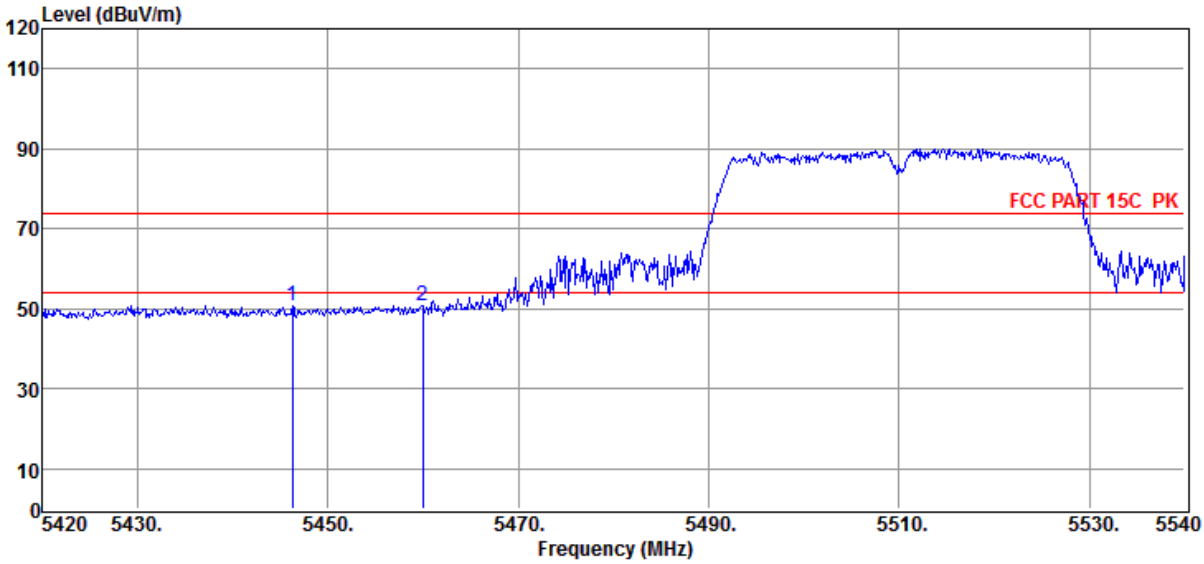
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5433.44	50.35	34.25	44.11	10.62	51.11	74.00	-22.89	Peak	VERTICAL
2	5460.00	49.42	34.27	44.10	10.74	50.33	74.00	-23.67	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11N40 5510MHz		

Data: 118



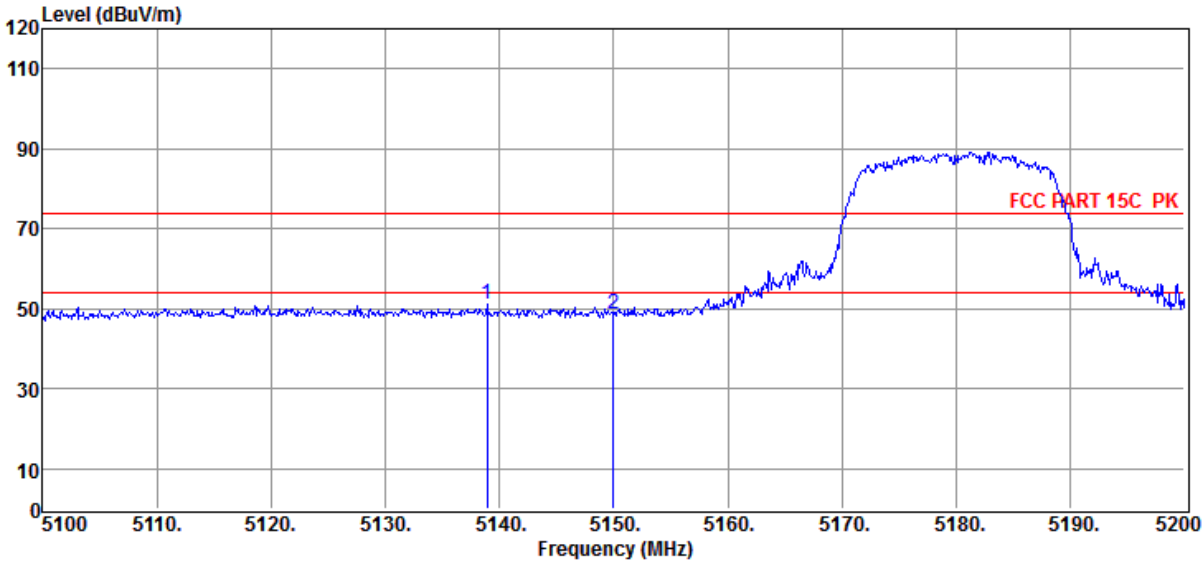
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5446.28	49.98	34.26	44.11	10.68	50.81	74.00	-23.19	Peak	HORIZONTAL
2	5459.96	49.90	34.27	44.10	10.74	50.81	74.00	-23.19	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC20 5180MHz		

Data: 119



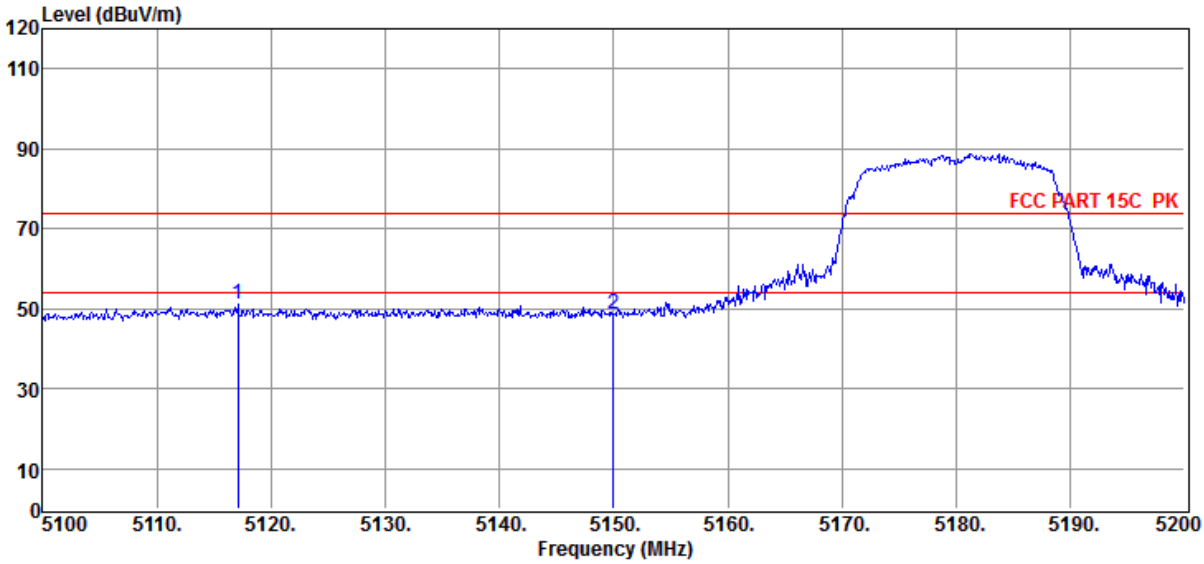
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5138.90	50.99	34.01	44.17	10.34	51.17	74.00	-22.83	Peak	HORIZONTAL
2	5150.00	48.25	34.02	44.17	10.36	48.46	74.00	-25.54	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC20 5180MHz		

Data: 120



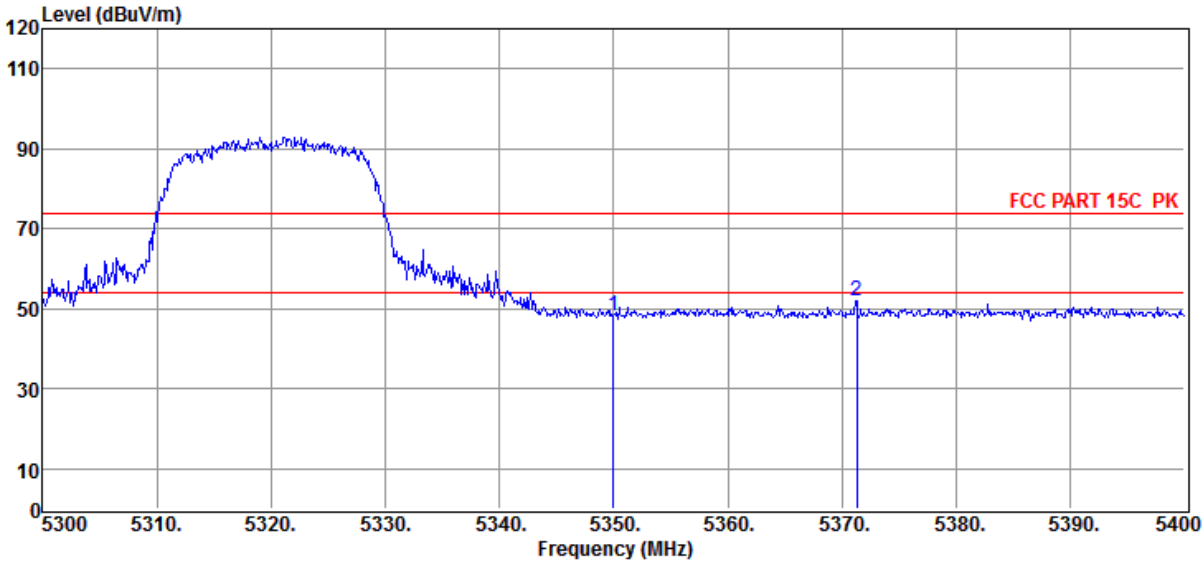
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5117.10	50.84	34.00	44.17	10.31	50.98	74.00	-23.02	Peak	VERTICAL
2	5150.00	48.36	34.02	44.17	10.36	48.57	74.00	-25.43	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC20 5320MHz		

Data: 121



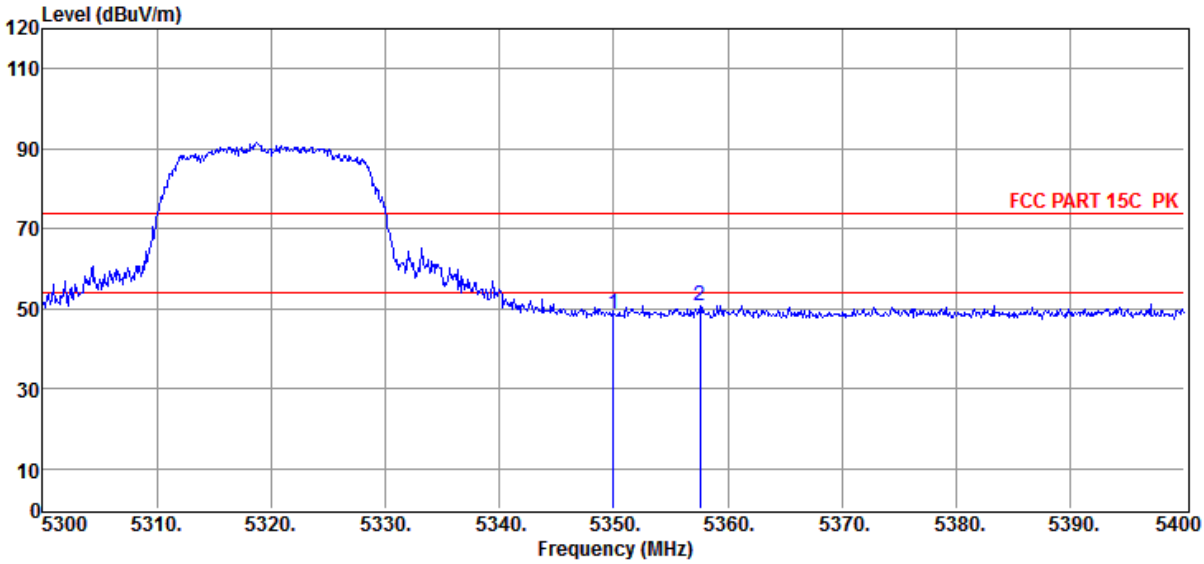
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	47.63	34.18	44.13	10.48	48.16	74.00	-25.84	Peak	VERTICAL
2	5371.30	51.53	34.20	44.12	10.48	52.09	74.00	-21.91	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC20 5320MHz		

Data: 122



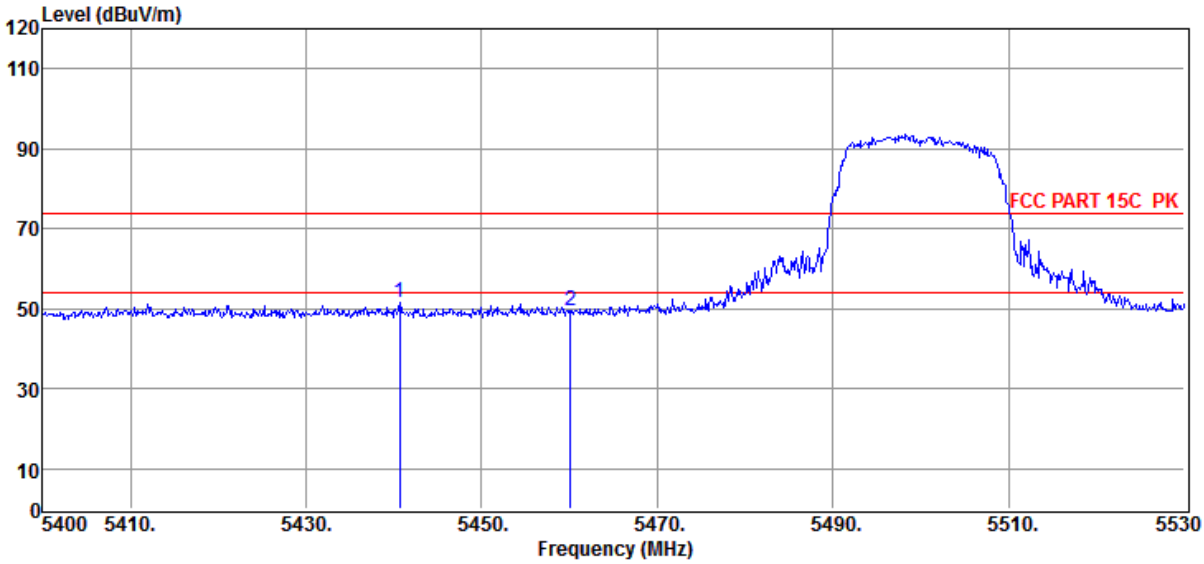
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	48.29	34.18	44.13	10.48	48.82	74.00	-25.18	Peak	HORIZONTAL
2	5357.60	50.24	34.19	44.12	10.48	50.79	74.00	-23.21	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC20 5500MHz		

Data: 123



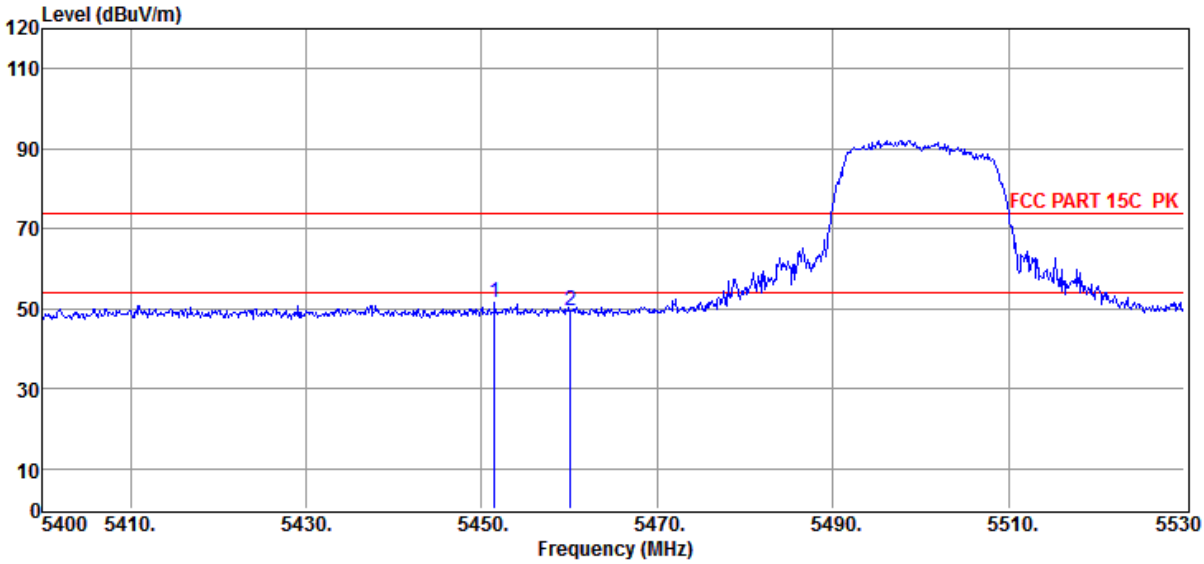
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5440.69	50.56	34.25	44.11	10.65	51.35	74.00	-22.65	Peak	HORIZONTAL
2	5460.06	48.54	34.27	44.10	10.74	49.45	74.00	-24.55	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC20 5500MHz		

Data: 124



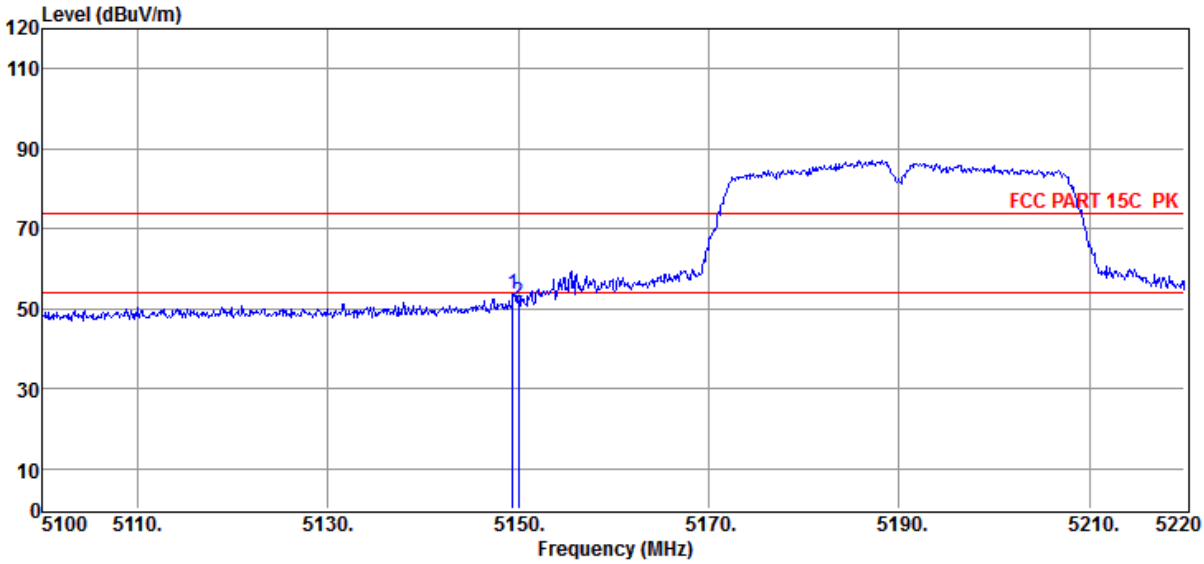
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5451.48	50.72	34.26	44.11	10.70	51.57	74.00	-22.43	Peak	VERTICAL
2	5460.06	48.50	34.27	44.10	10.74	49.41	74.00	-24.59	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC40 5190MHz		

Data: 125



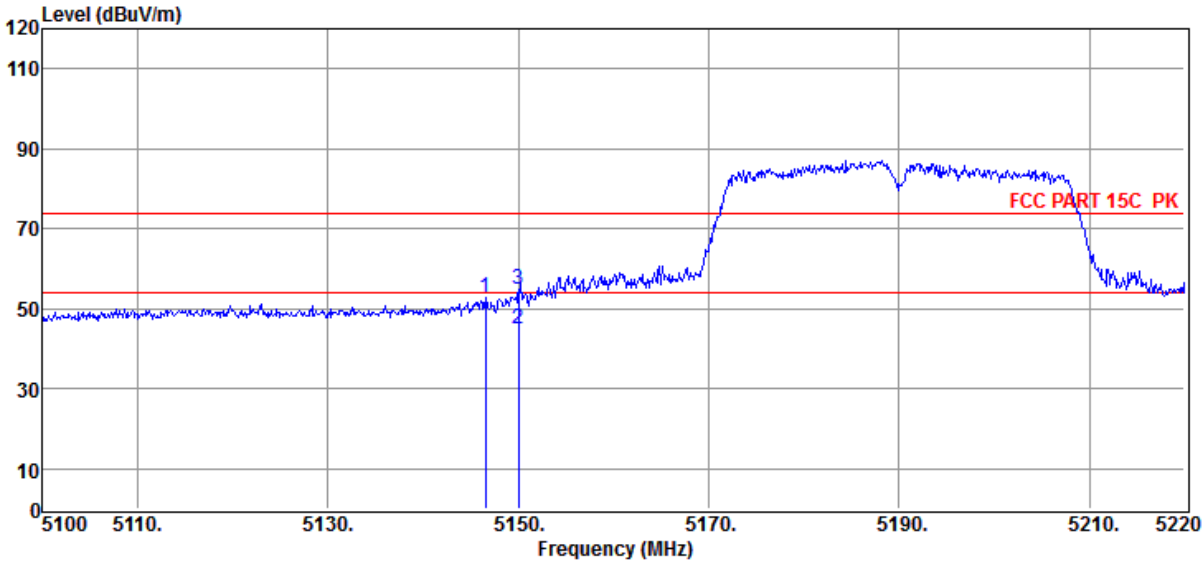
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5149.44	53.46	34.02	44.17	10.36	53.67	74.00	-20.33	Peak	VERTICAL
2	5150.00	51.26	34.02	44.17	10.36	51.47	74.00	-22.53	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC40 5190MHz		

Data: 126



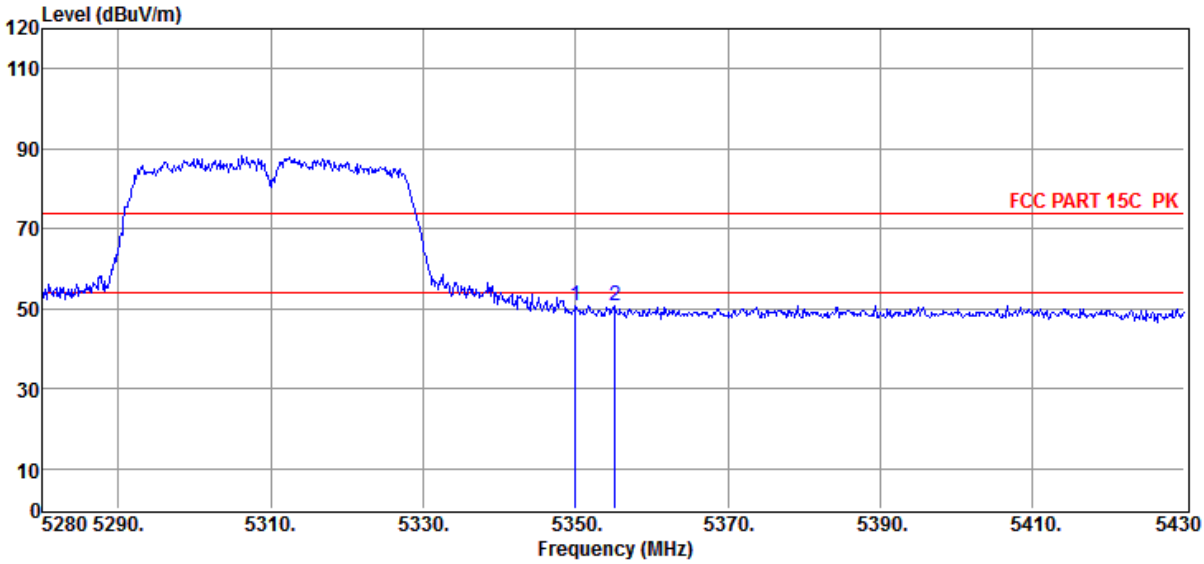
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5146.56	52.52	34.02	44.17	10.36	52.73	74.00	-21.27	Peak	HORIZONTAL
2	5150.00	44.72	34.02	44.17	10.36	44.93	54.00	-9.07	Average	HORIZONTAL
3	5150.00	54.81	34.02	44.17	10.36	55.02	74.00	-18.98	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC40 5310MHz		

Data: 127



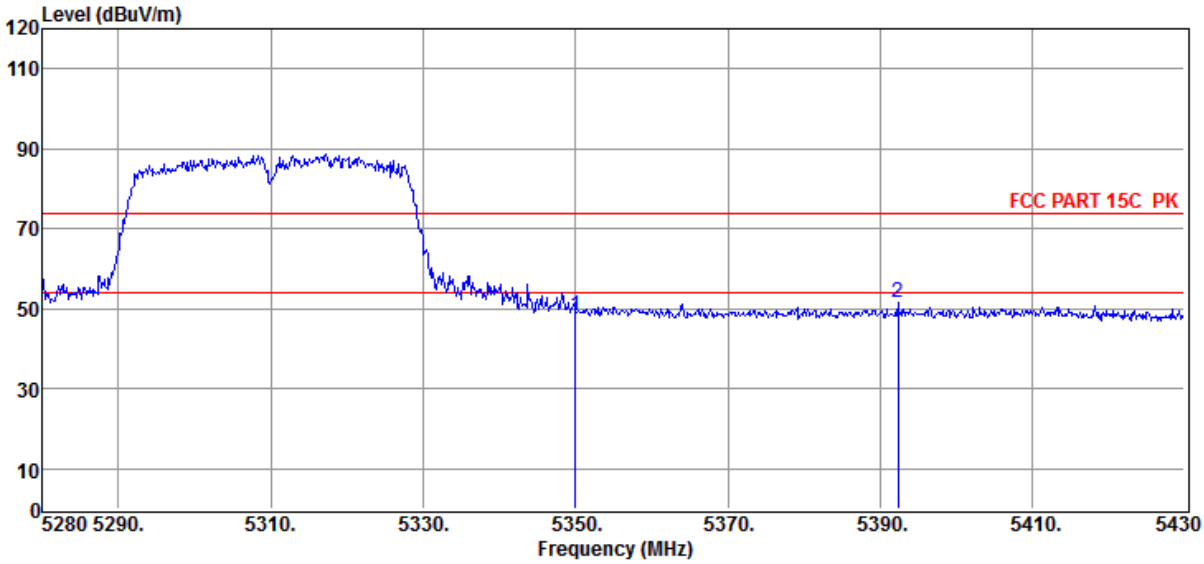
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.05	50.08	34.18	44.13	10.48	50.61	74.00	-23.39	Peak	HORIZONTAL
2	5355.15	50.28	34.19	44.12	10.48	50.83	74.00	-23.17	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC40 5310MHz		

Data: 128



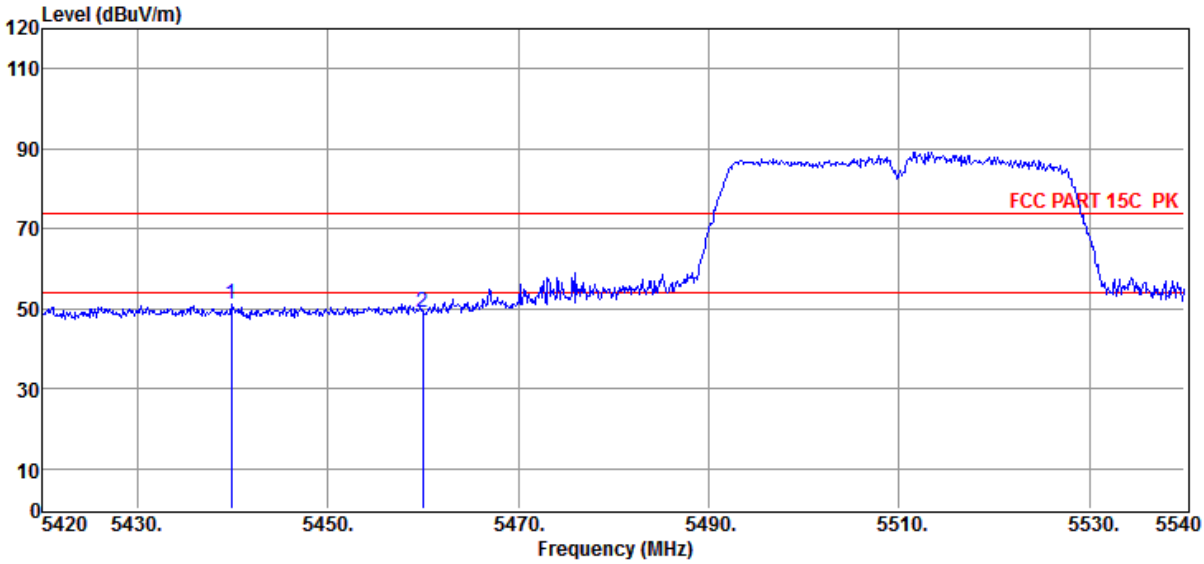
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	47.80	34.18	44.13	10.48	48.33	74.00	-25.67	Peak	VERTICAL
2	5392.35	51.02	34.22	44.12	10.48	51.60	74.00	-22.40	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC40 5510MHz		

Data: 129



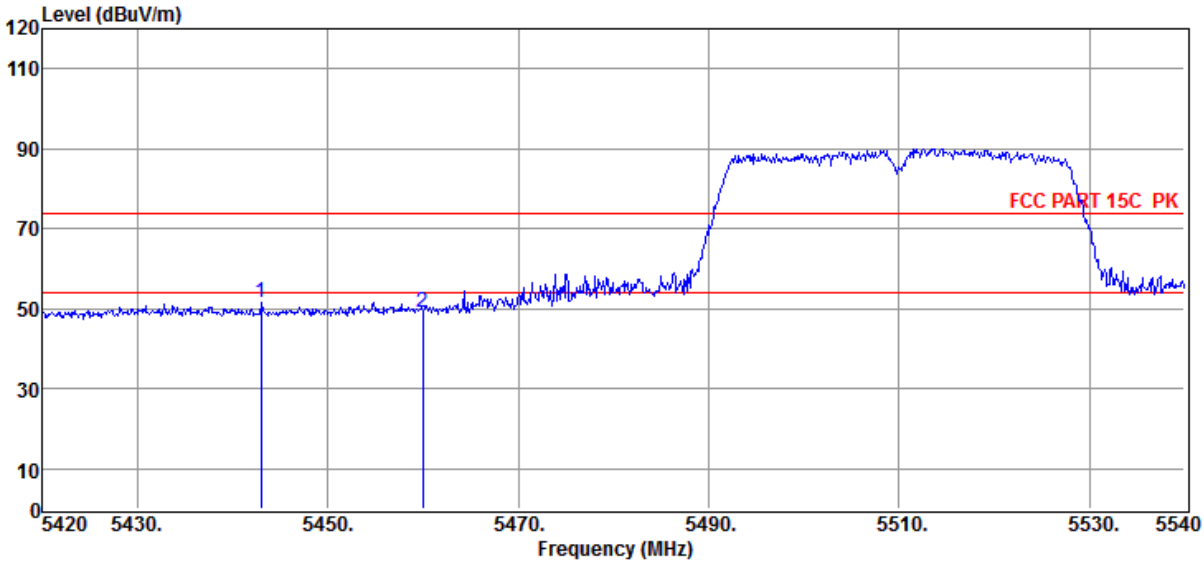
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5439.80	50.20	34.25	44.11	10.65	50.99	74.00	-23.01	Peak	VERTICAL
2	5460.00	47.98	34.27	44.10	10.74	48.89	74.00	-25.11	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC40 5510MHz		

Data: 130



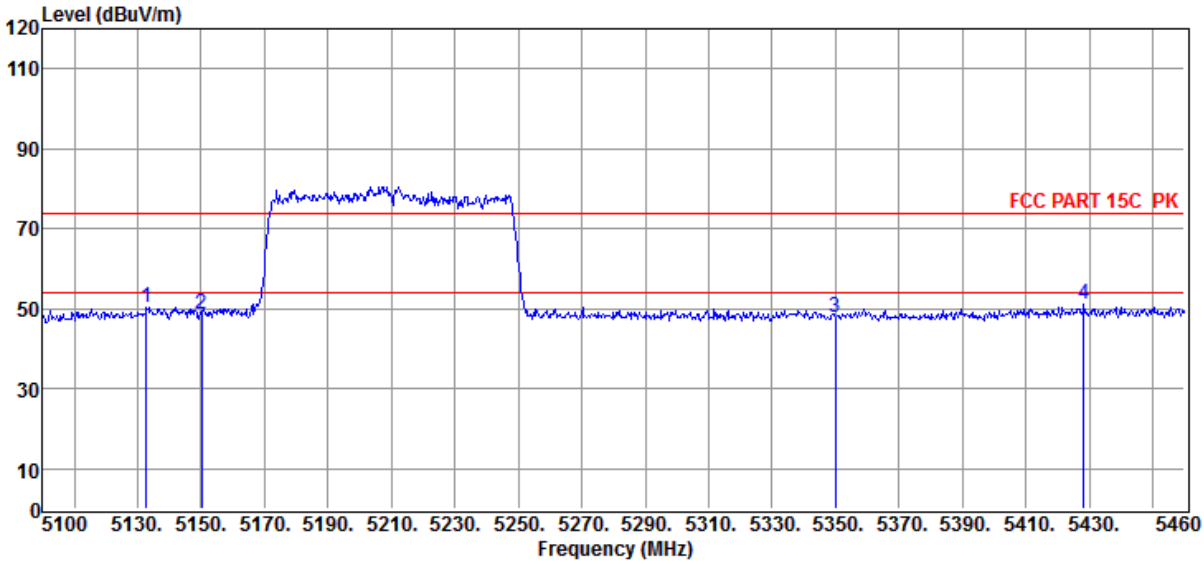
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5442.92	50.78	34.26	44.11	10.66	51.59	74.00	-22.41	Peak	HORIZONTAL
2	5460.00	48.32	34.27	44.10	10.74	49.23	74.00	-24.77	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC80 5210MHz		

Data: 131



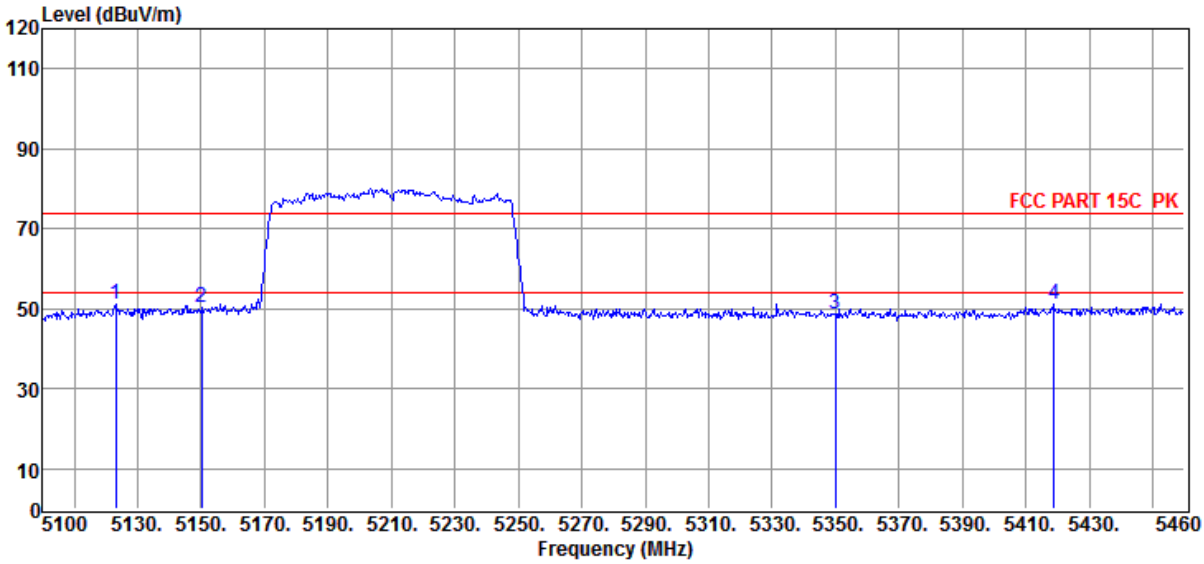
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5132.76	50.10	34.01	44.17	10.34	50.28	74.00	-23.72	Peak	HORIZONTAL
2	5150.04	48.66	34.02	44.17	10.36	48.87	74.00	-25.13	Peak	HORIZONTAL
3	5349.84	47.42	34.18	44.13	10.47	47.94	74.00	-26.06	Peak	HORIZONTAL
4	5428.32	50.20	34.24	44.11	10.60	50.93	74.00	-23.07	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC80 5210MHz		

Data: 132



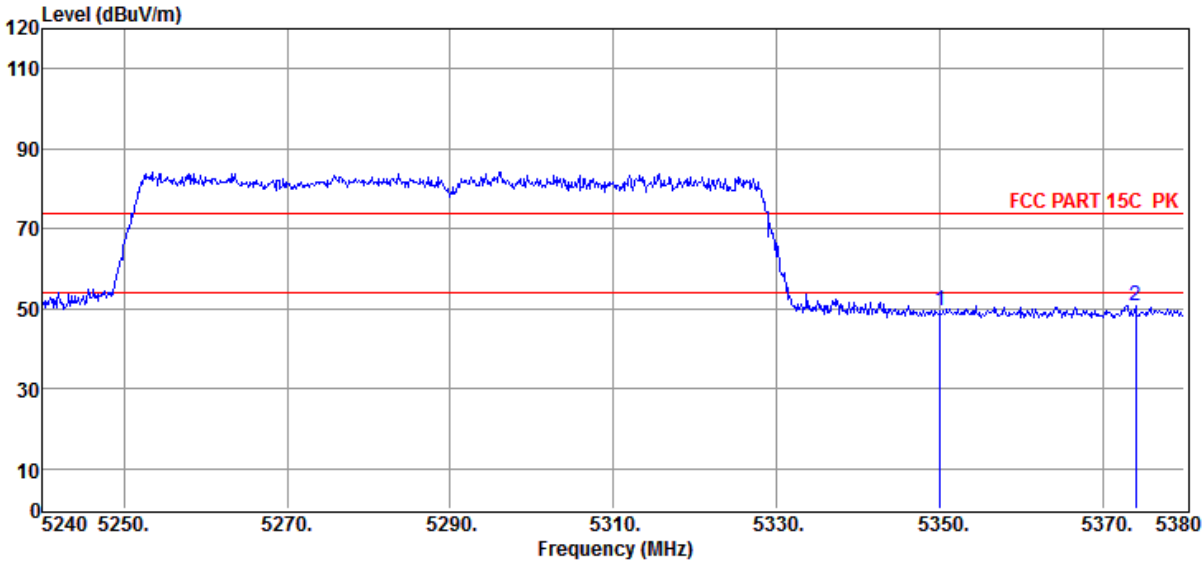
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5123.04	51.18	34.00	44.17	10.32	51.33	74.00	-22.67	Peak	VERTICAL
2	5150.04	50.17	34.02	44.17	10.36	50.38	74.00	-23.62	Peak	VERTICAL
3	5349.84	48.26	34.18	44.13	10.47	48.78	74.00	-25.22	Peak	VERTICAL
4	5418.96	50.62	34.24	44.11	10.56	51.31	74.00	-22.69	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC80 5290MHz		

Data: 133



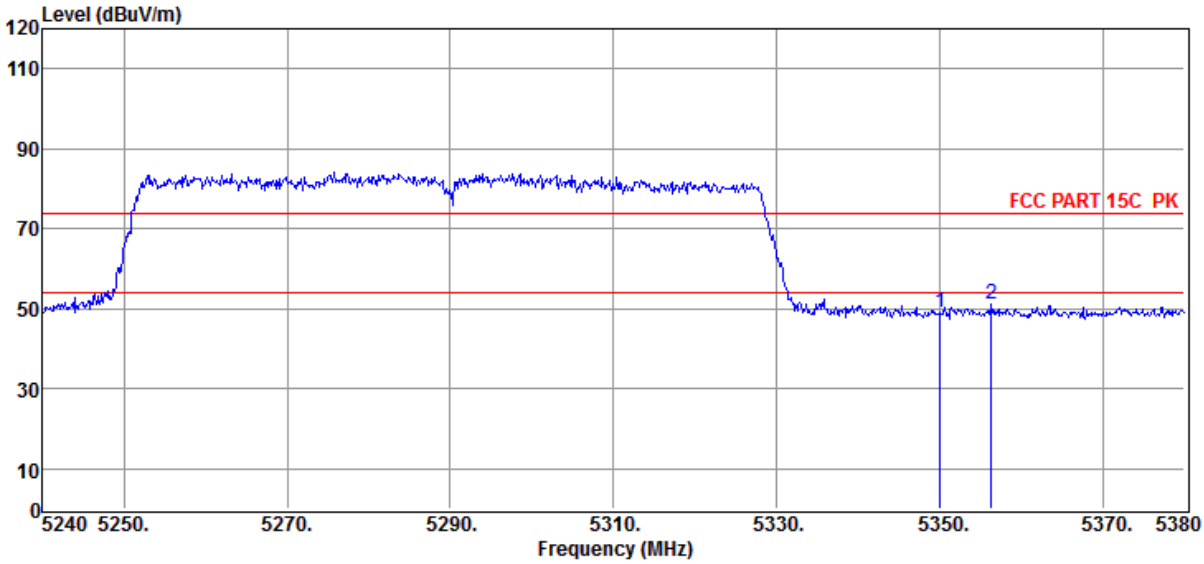
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	48.93	34.18	44.13	10.48	49.46	74.00	-24.54	Peak	VERTICAL
2	5373.98	50.18	34.20	44.12	10.48	50.74	74.00	-23.26	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC80 5290MHz		

Data: 134



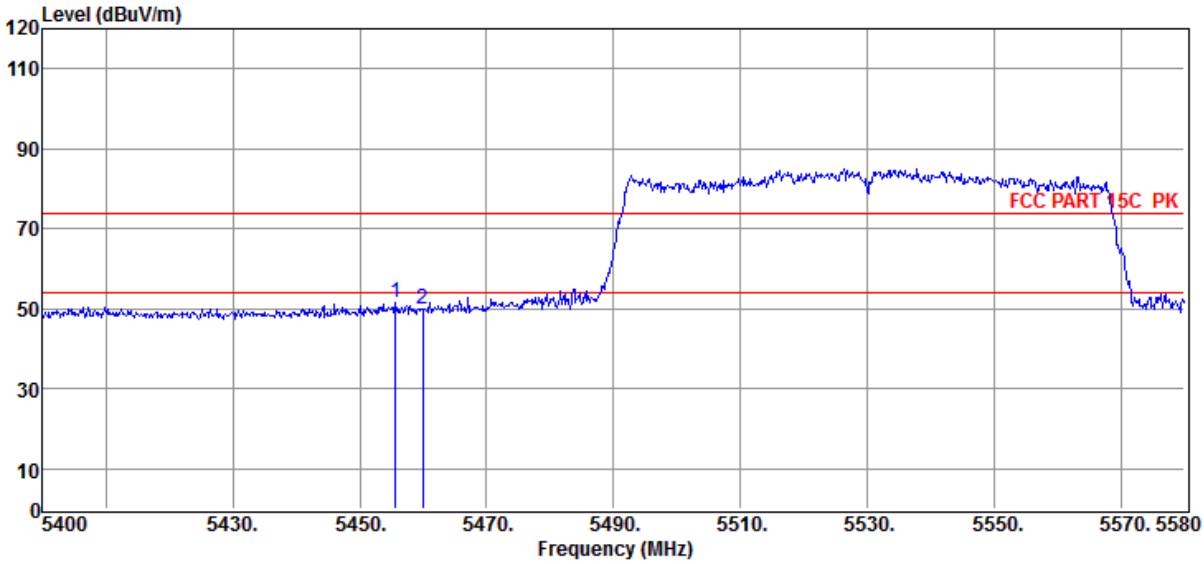
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	48.48	34.18	44.13	10.48	49.01	74.00	-24.99	Peak	HORIZONTAL
2	5356.34	50.41	34.19	44.12	10.48	50.96	74.00	-23.04	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/HORIZONTAL
Memo	: 11AC80 5530MHz		

Data: 135



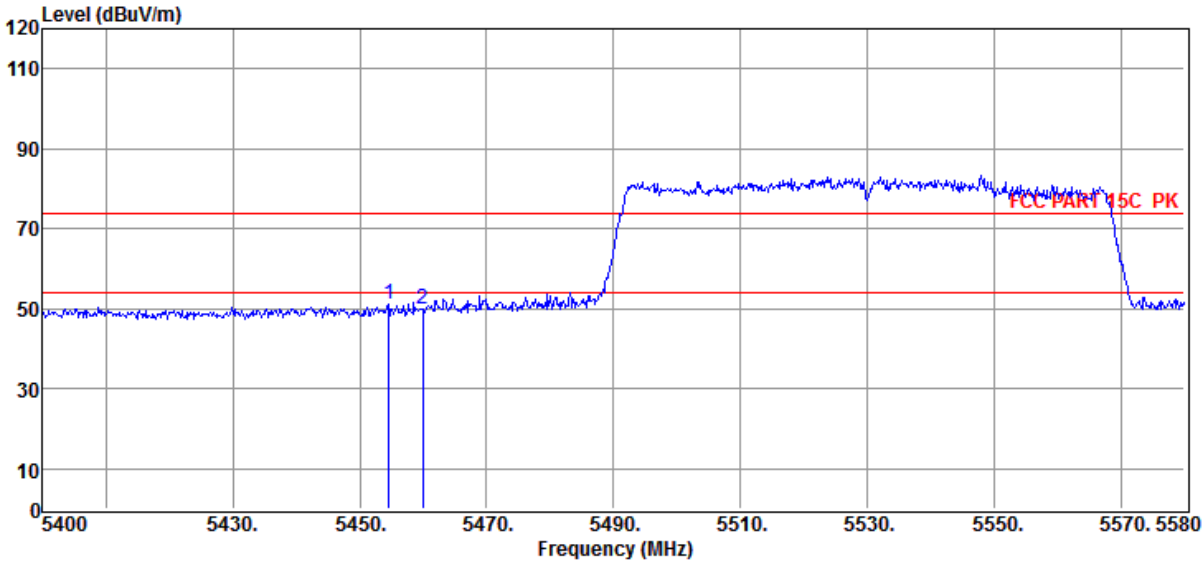
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5455.62	50.72	34.27	44.10	10.72	51.61	74.00	-22.39	Peak	HORIZONTAL
2	5460.00	49.04	34.27	44.10	10.74	49.95	74.00	-24.05	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2019 RE1# Report Data\Q19031903-1E LINK PORTABLE AGAIN\LINK PORTABLE AGAIN\RF.EM6	
Test Date	: 2019-06-17	**Tested By**	: Sunny
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: Battery	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2018 HF 907/3m/VERTICAL
Memo	: 11AC80 5530MHz		

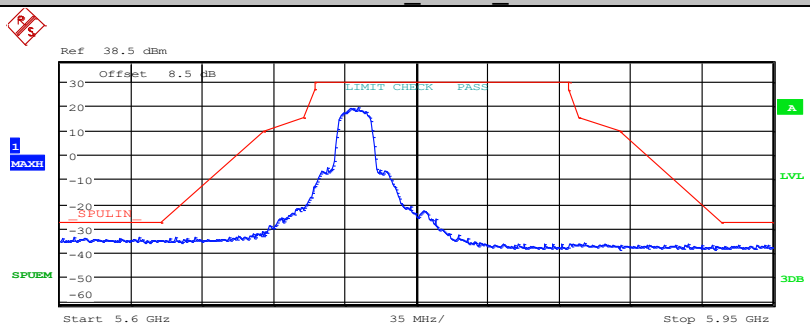
Data: 136



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5454.54	50.44	34.27	44.10	10.71	51.32	74.00	-22.68	Peak	VERTICAL
2	5460.00	49.04	34.27	44.10	10.74	49.95	74.00	-24.05	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

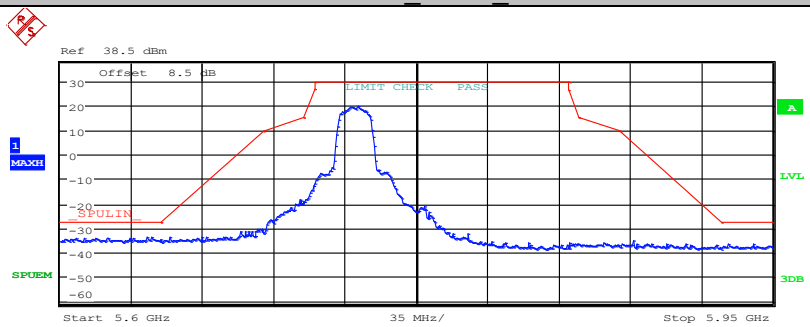
11A_ANT1_5745



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.606781 G	-33.92	-6.92
5.650 G	5.700 G	1.00 M	5.650156 G	-35.45	-8.57
5.700 G	5.720 G	1.00 M	5.716588 G	-22.11	-36.75
5.720 G	5.725 G	1.00 M	5.720391 G	-21.06	-37.55
5.725 G	5.850 G	1.00 M	5.746406 G	19.27	-10.73
5.850 G	5.855 G	1.00 M	5.854859 G	-37.92	-53.84
5.855 G	5.875 G	1.00 M	5.874525 G	-37.62	-47.75
5.875 G	5.925 G	1.00 M	5.924000 G	-38.38	-12.12
5.925 G	5.950 G	1.00 M	5.933172 G	-37.28	-10.28

Date: 10.MAY.2019 18:11:13

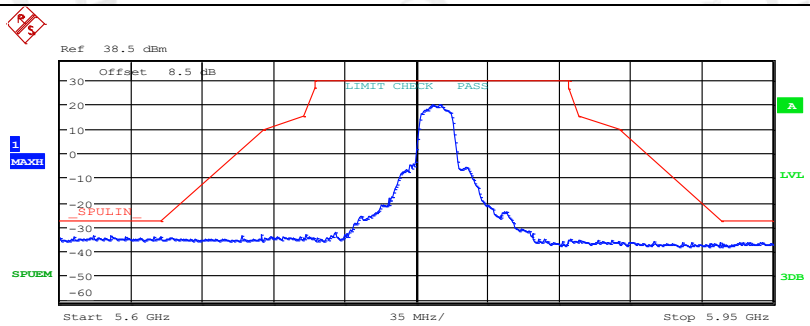
11A_ANT2_5745



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.644906 G	-34.03	-7.03
5.650 G	5.700 G	1.00 M	5.650437 G	-35.34	-8.67
5.700 G	5.720 G	1.00 M	5.717862 G	-18.77	-33.78
5.720 G	5.725 G	1.00 M	5.720022 G	-19.39	-35.04
5.725 G	5.850 G	1.00 M	5.746328 G	19.78	-10.22
5.850 G	5.855 G	1.00 M	5.854728 G	-37.08	-53.30
5.855 G	5.875 G	1.00 M	5.874500 G	-37.52	-47.66
5.875 G	5.925 G	1.00 M	5.924688 G	-38.09	-11.32
5.925 G	5.950 G	1.00 M	5.940609 G	-36.87	-9.87

Date: 10.MAY.2019 18:13:58

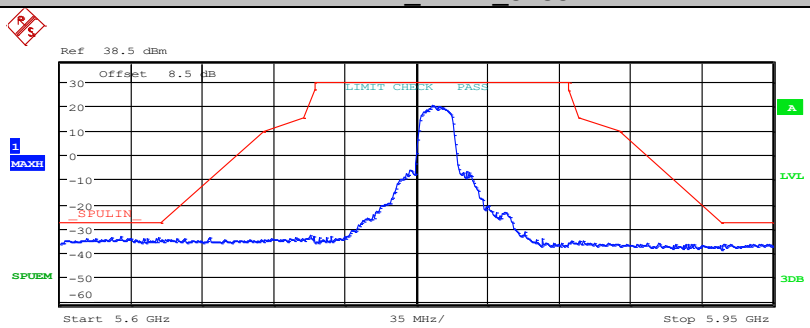
11A_ANT1_5785



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.624719 G	-34.21	-7.21
5.650 G	5.700 G	1.00 M	5.650125 G	-35.82	-8.91
5.700 G	5.720 G	1.00 M	5.700288 G	-35.13	-45.21
5.720 G	5.725 G	1.00 M	5.720691 G	-33.51	-50.69
5.725 G	5.850 G	1.00 M	5.786484 G	19.91	-10.09
5.850 G	5.855 G	1.00 M	5.854772 G	-35.93	-52.05
5.855 G	5.875 G	1.00 M	5.874250 G	-36.42	-46.63
5.875 G	5.925 G	1.00 M	5.924531 G	-36.75	-10.10
5.925 G	5.950 G	1.00 M	5.943859 G	-36.69	-9.69

Date: 10.MAY.2019 18:17:23

11A_ANT2_5785



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.629656 G	-33.74	-6.74
5.650 G	5.700 G	1.00 M	5.650062 G	-34.97	-8.02
5.700 G	5.720 G	1.00 M	5.700437 G	-35.07	-45.20
5.720 G	5.725 G	1.00 M	5.720053 G	-35.22	-50.94
5.725 G	5.850 G	1.00 M	5.782578 G	20.20	-9.80
5.850 G	5.855 G	1.00 M	5.854853 G	-36.41	-52.34
5.855 G	5.875 G	1.00 M	5.874187 G	-36.69	-46.92
5.875 G	5.925 G	1.00 M	5.924594 G	-37.30	-10.60
5.925 G	5.950 G	1.00 M	5.940234 G	-36.69	-9.69

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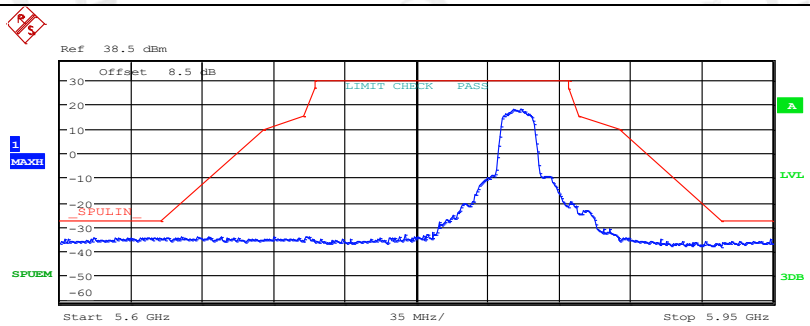
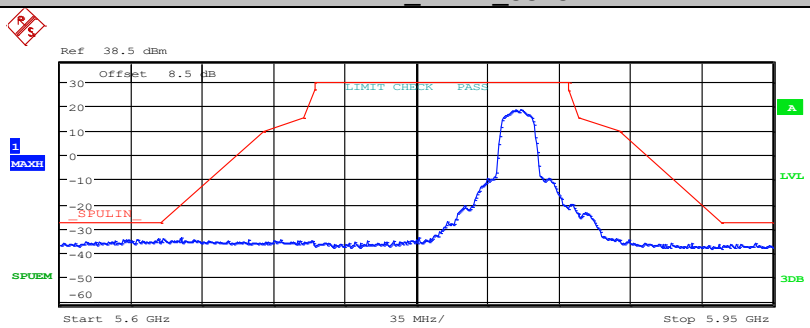
11A_ANT1_5825



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.640562 G	-34.78	-7.78
5.650 G	5.700 G	1.00 M	5.650125 G	-35.25	-8.34
5.700 G	5.720 G	1.00 M	5.700300 G	-35.60	-45.68
5.720 G	5.725 G	1.00 M	5.720025 G	-35.37	-51.03
5.725 G	5.850 G	1.00 M	5.826484 G	18.19	-11.81
5.850 G	5.855 G	1.00 M	5.853744 G	-21.54	-40.00
5.855 G	5.875 G	1.00 M	5.858900 G	-23.48	-37.99
5.875 G	5.925 G	1.00 M	5.924875 G	-37.78	-10.87
5.925 G	5.950 G	1.00 M	5.948797 G	-35.48	-8.48

Date: 10.MAY.2019 18:19:30

11A_ANT2_5825



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.648375 G	-34.56	-7.56
5.650 G	5.700 G	1.00 M	5.650656 G	-34.53	-8.01
5.700 G	5.720 G	1.00 M	5.700800 G	-35.77	-45.99
5.720 G	5.725 G	1.00 M	5.720122 G	-35.85	-51.73
5.725 G	5.850 G	1.00 M	5.826328 G	18.67	-11.33
5.850 G	5.855 G	1.00 M	5.854784 G	-24.35	-40.44
5.855 G	5.875 G	1.00 M	5.858075 G	-23.81	-38.55
5.875 G	5.925 G	1.00 M	5.923875 G	-37.00	-10.83
5.925 G	5.950 G	1.00 M	5.941547 G	-36.62	-9.62

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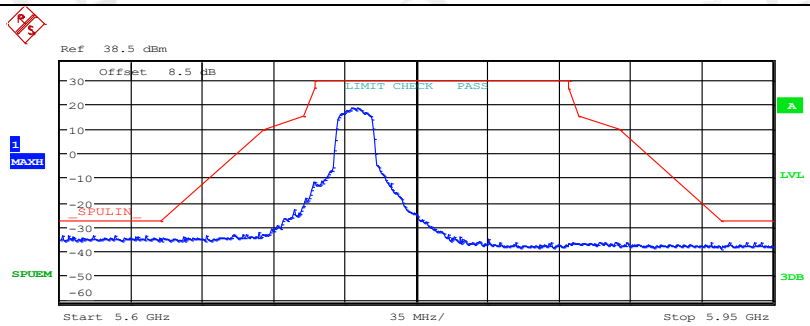
11N20_ANT1_5745



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.616313 G	-33.97	-6.97
5.650 G	5.700 G	1.00 M	5.650469 G	-35.21	-8.55
5.700 G	5.720 G	1.00 M	5.715162 G	-23.14	-37.38
5.720 G	5.725 G	1.00 M	5.720591 G	-18.72	-35.67
5.725 G	5.850 G	1.00 M	5.746016 G	18.75	-11.25
5.850 G	5.855 G	1.00 M	5.854762 G	-37.21	-53.35
5.855 G	5.875 G	1.00 M	5.873350 G	-36.82	-47.28
5.875 G	5.925 G	1.00 M	5.924688 G	-38.57	-11.80
5.925 G	5.950 G	1.00 M	5.944578 G	-36.68	-9.68

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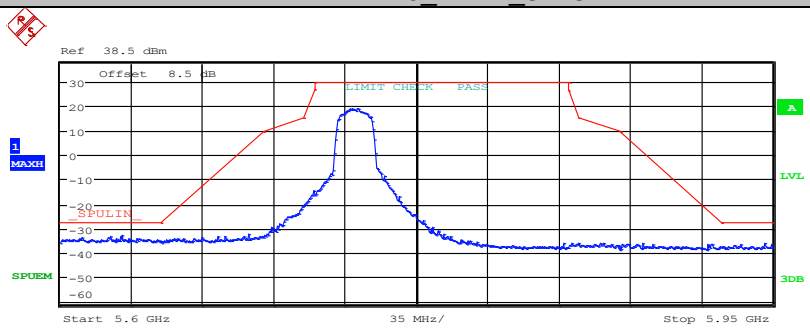
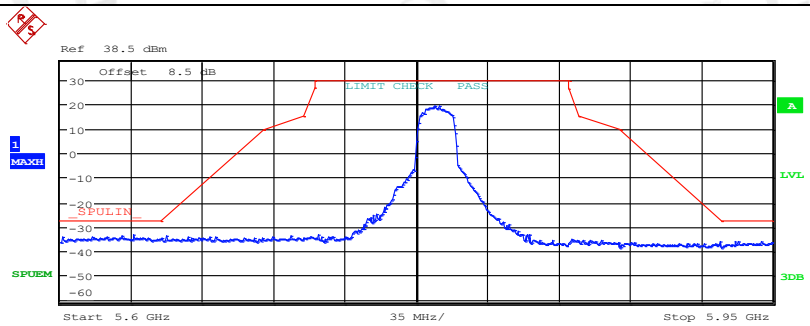
11N20_ANT2_5745



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.630031 G	-33.05	-6.05
5.650 G	5.700 G	1.00 M	5.650406 G	-35.76	-9.06
5.700 G	5.720 G	1.00 M	5.719638 G	-20.89	-36.38
5.720 G	5.725 G	1.00 M	5.720003 G	-20.56	-36.17
5.725 G	5.850 G	1.00 M	5.745859 G	19.19	-10.81
5.850 G	5.855 G	1.00 M	5.854925 G	-36.20	-51.97
5.855 G	5.875 G	1.00 M	5.874700 G	-37.23	-47.31
5.875 G	5.925 G	1.00 M	5.924656 G	-38.18	-11.43
5.925 G	5.950 G	1.00 M	5.946250 G	-36.57	-9.57

Date: 10.MAY.2019 18:23:49

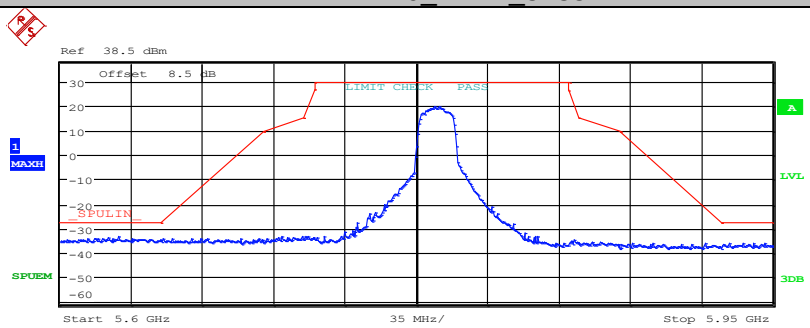
11N20_ANT1_5785



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.636125 G	-33.66	-6.66
5.650 G	5.700 G	1.00 M	5.650156 G	-35.18	-8.29
5.700 G	5.720 G	1.00 M	5.704300 G	-34.50	-45.70
5.720 G	5.725 G	1.00 M	5.720009 G	-35.10	-50.72
5.725 G	5.850 G	1.00 M	5.783906 G	19.33	-10.67
5.850 G	5.855 G	1.00 M	5.854903 G	-36.82	-52.64
5.855 G	5.875 G	1.00 M	5.874850 G	-36.92	-46.96
5.875 G	5.925 G	1.00 M	5.924719 G	-36.50	-9.71
5.925 G	5.950 G	1.00 M	5.931312 G	-36.45	-9.45

Date: 10.MAY.2019 18:27:27

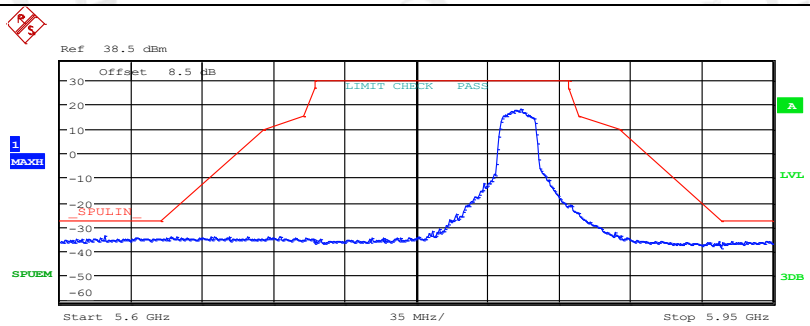
11N20_ANT2_5785



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.628719 G	-33.67	-6.67
5.650 G	5.700 G	1.00 M	5.650594 G	-34.70	-8.14
5.700 G	5.720 G	1.00 M	5.701700 G	-34.66	-45.14
5.720 G	5.725 G	1.00 M	5.720453 G	-33.67	-50.31
5.725 G	5.850 G	1.00 M	5.785938 G	19.92	-10.08
5.850 G	5.855 G	1.00 M	5.854994 G	-36.59	-52.20
5.855 G	5.875 G	1.00 M	5.874537 G	-36.95	-47.08
5.875 G	5.925 G	1.00 M	5.924844 G	-37.98	-11.10
5.925 G	5.950 G	1.00 M	5.935250 G	-36.27	-9.27

Date: 10.MAY.2019 18:32:02

11N20_ANT1_5825



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.621969 G	-33.94	-6.94
5.650 G	5.700 G	1.00 M	5.650531 G	-35.45	-8.85
5.700 G	5.720 G	1.00 M	5.702038 G	-34.46	-45.03
5.720 G	5.725 G	1.00 M	5.720544 G	-34.77	-51.61
5.725 G	5.850 G	1.00 M	5.826250 G	18.02	-11.98
5.850 G	5.855 G	1.00 M	5.854934 G	-24.87	-40.62
5.855 G	5.875 G	1.00 M	5.855037 G	-25.67	-41.26
5.875 G	5.925 G	1.00 M	5.923375 G	-36.26	-10.46
5.925 G	5.950 G	1.00 M	5.947422 G	-36.40	-9.40

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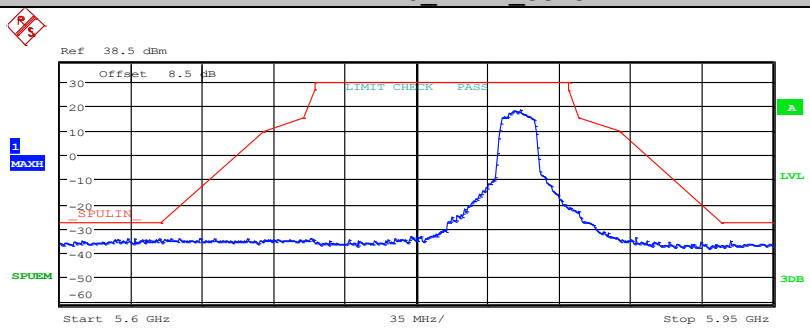
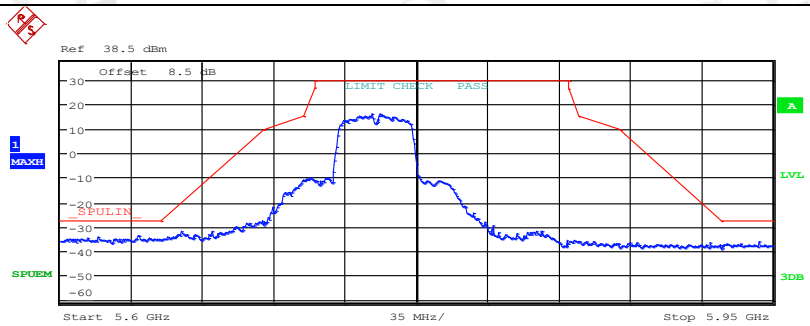
11N20_ANT1_5825



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.636156 G	-34.49	-7.49
5.650 G	5.700 G	1.00 M	5.650812 G	-34.85	-8.45
5.700 G	5.720 G	1.00 M	5.700175 G	-34.83	-44.88
5.720 G	5.725 G	1.00 M	5.720081 G	-35.69	-51.48
5.725 G	5.850 G	1.00 M	5.826172 G	18.47	-11.53
5.850 G	5.855 G	1.00 M	5.854828 G	-24.20	-40.19
5.855 G	5.875 G	1.00 M	5.855050 G	-24.55	-40.13
5.875 G	5.925 G	1.00 M	5.924313 G	-37.68	-11.19
5.925 G	5.950 G	1.00 M	5.929344 G	-35.55	-8.55

Date: 10.MAY.2019 18:33:28

11N40_ANT1_5755



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.638531 G	-33.86	-6.86
5.650 G	5.700 G	1.00 M	5.650594 G	-35.31	-8.75
5.700 G	5.720 G	1.00 M	5.719263 G	-11.28	-26.67
5.720 G	5.725 G	1.00 M	5.720003 G	-11.62	-27.23
5.725 G	5.850 G	1.00 M	5.752969 G	16.07	-13.93
5.850 G	5.855 G	1.00 M	5.854806 G	-36.55	-52.59
5.855 G	5.875 G	1.00 M	5.874000 G	-37.17	-47.45
5.875 G	5.925 G	1.00 M	5.924000 G	-37.91	-11.65
5.925 G	5.950 G	1.00 M	5.943359 G	-36.24	-9.24

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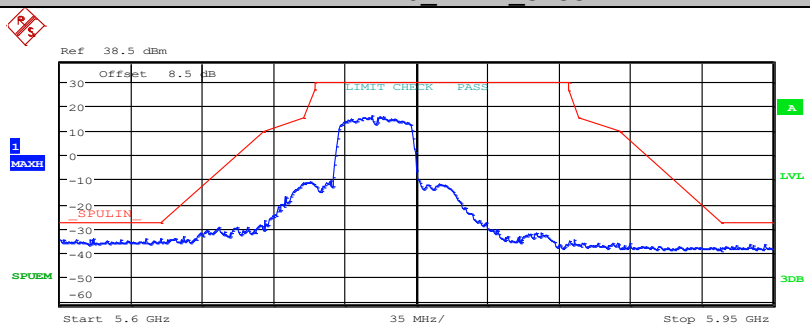
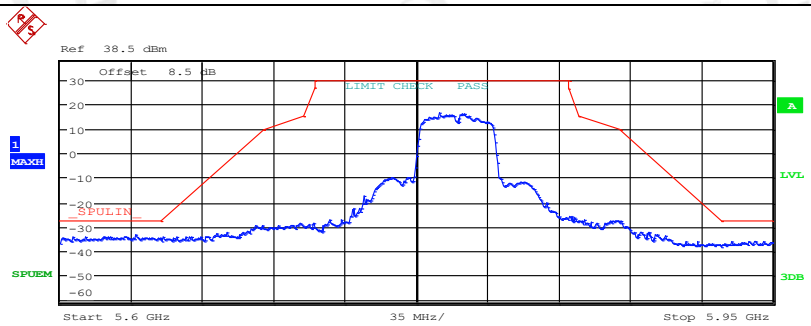
11N40_ANT2_5755



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.642250 G	-34.29	-7.29
5.650 G	5.700 G	1.00 M	5.650219 G	-35.60	-8.76
5.700 G	5.720 G	1.00 M	5.719362 G	-11.63	-27.05
5.720 G	5.725 G	1.00 M	5.720031 G	-11.92	-27.59
5.725 G	5.850 G	1.00 M	5.752969 G	16.18	-13.82
5.850 G	5.855 G	1.00 M	5.854888 G	-37.29	-53.15
5.855 G	5.875 G	1.00 M	5.874313 G	-36.76	-46.95
5.875 G	5.925 G	1.00 M	5.924875 G	-38.30	-11.40
5.925 G	5.950 G	1.00 M	5.946016 G	-36.95	-9.95

Date: 10.MAY.2019 19:06:59

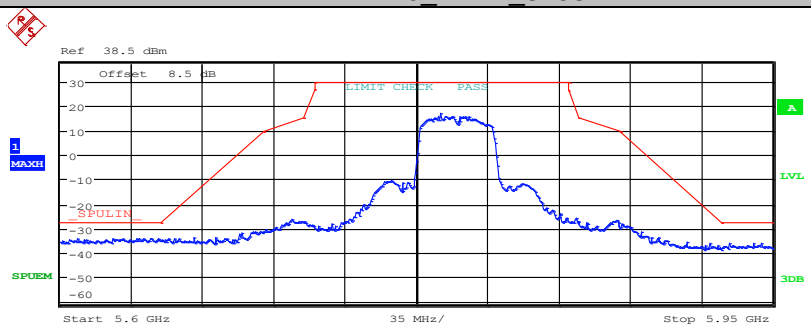
11N40_ANT1_5795



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.637062 G	-33.59	-6.59
5.650 G	5.700 G	1.00 M	5.650719 G	-34.27	-7.80
5.700 G	5.720 G	1.00 M	5.702138 G	-30.59	-41.19
5.720 G	5.725 G	1.00 M	5.720066 G	-31.12	-46.87
5.725 G	5.850 G	1.00 M	5.786016 G	16.45	-13.55
5.850 G	5.855 G	1.00 M	5.854984 G	-28.28	-43.91
5.855 G	5.875 G	1.00 M	5.874887 G	-27.82	-37.85
5.875 G	5.925 G	1.00 M	5.924812 G	-37.96	-11.10
5.925 G	5.950 G	1.00 M	5.945688 G	-36.32	-9.32

Date: 10.MAY.2019 18:50:51

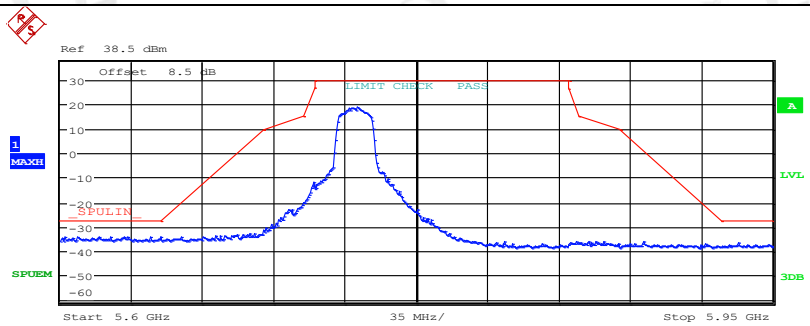
11N40_ANT2_5795



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.648406 G	-34.40	-7.40
5.650 G	5.700 G	1.00 M	5.650062 G	-34.95	-7.99
5.700 G	5.720 G	1.00 M	5.713800 G	-26.55	-40.41
5.720 G	5.725 G	1.00 M	5.720122 G	-27.55	-43.43
5.725 G	5.850 G	1.00 M	5.786875 G	17.19	-12.81
5.850 G	5.855 G	1.00 M	5.854756 G	-27.77	-43.92
5.855 G	5.875 G	1.00 M	5.873625 G	-26.89	-37.27
5.875 G	5.925 G	1.00 M	5.924906 G	-38.38	-11.45
5.925 G	5.950 G	1.00 M	5.940234 G	-36.32	-9.32

Date: 10.MAY.2019 19:07:55

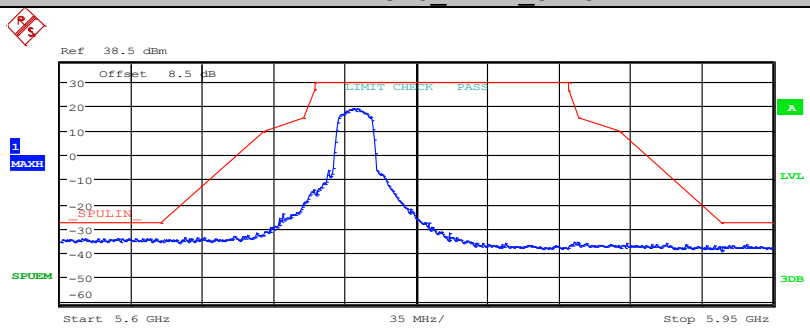
11AC20_ANT1_5745



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.602000 G	-34.30	-7.30
5.650 G	5.700 G	1.00 M	5.650500 G	-35.45	-8.82
5.700 G	5.720 G	1.00 M	5.719963 G	-20.46	-36.05
5.720 G	5.725 G	1.00 M	5.720119 G	-20.40	-36.27
5.725 G	5.850 G	1.00 M	5.745781 G	18.89	-11.11
5.850 G	5.855 G	1.00 M	5.854947 G	-36.81	-52.53
5.855 G	5.875 G	1.00 M	5.874612 G	-37.44	-47.55
5.875 G	5.925 G	1.00 M	5.924688 G	-38.91	-12.15
5.925 G	5.950 G	1.00 M	5.933391 G	-36.82	-9.82

Date: 10.MAY.2019 18:43:33

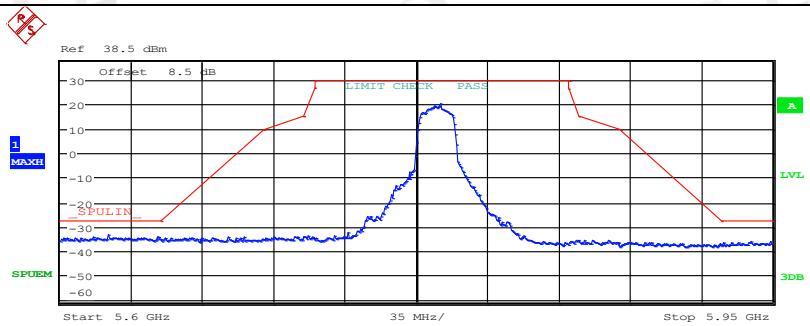
11AC20_ANT2_5745



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.610406 G	-34.39	-7.39
5.650 G	5.700 G	1.00 M	5.650156 G	-35.54	-8.65
5.700 G	5.720 G	1.00 M	5.719500 G	-19.88	-35.34
5.720 G	5.725 G	1.00 M	5.720091 G	-19.61	-35.41
5.725 G	5.850 G	1.00 M	5.745938 G	19.22	-10.78
5.850 G	5.855 G	1.00 M	5.854619 G	-36.25	-52.72
5.855 G	5.875 G	1.00 M	5.874050 G	-37.29	-47.55
5.875 G	5.925 G	1.00 M	5.924969 G	-37.81	-10.83
5.925 G	5.950 G	1.00 M	5.936938 G	-37.01	-10.01

Date: 10.MAY.2019 18:35:49

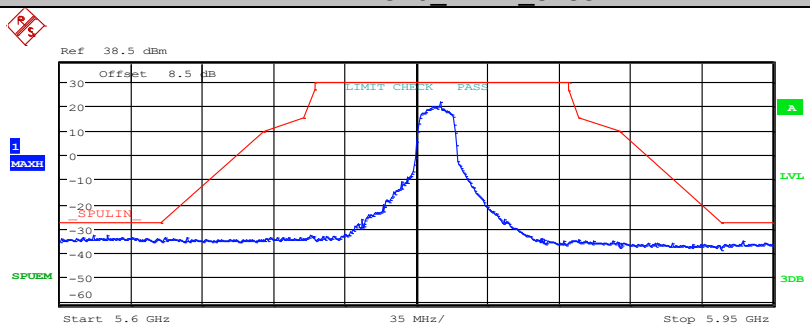
11AC20_ANT1_5785



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.623719 G	-33.41	-6.41
5.650 G	5.700 G	1.00 M	5.651438 G	-34.86	-8.93
5.700 G	5.720 G	1.00 M	5.700025 G	-35.35	-45.36
5.720 G	5.725 G	1.00 M	5.720209 G	-34.62	-50.69
5.725 G	5.850 G	1.00 M	5.786562 G	20.57	-9.43
5.850 G	5.855 G	1.00 M	5.854791 G	-36.54	-52.61
5.855 G	5.875 G	1.00 M	5.874400 G	-36.72	-46.89
5.875 G	5.925 G	1.00 M	5.924344 G	-37.10	-10.59
5.925 G	5.950 G	1.00 M	5.939422 G	-36.41	-9.41

Date: 10.MAY.2019 18:45:16

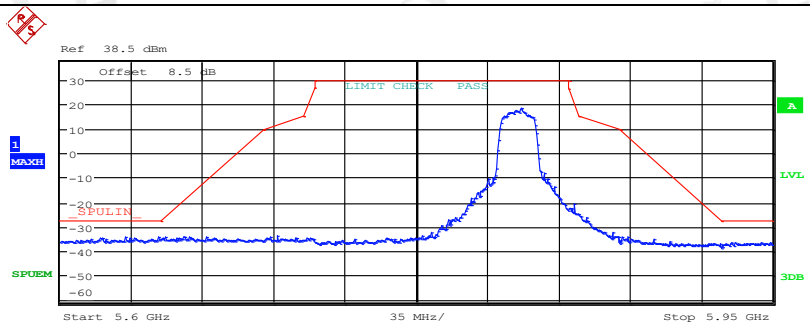
11AC20_ANT2_5785



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.623188 G	-33.32	-6.32
5.650 G	5.700 G	1.00 M	5.650844 G	-34.57	-8.19
5.700 G	5.720 G	1.00 M	5.701125 G	-34.67	-44.98
5.720 G	5.725 G	1.00 M	5.720016 G	-34.95	-50.59
5.725 G	5.850 G	1.00 M	5.786641 G	21.68	-8.32
5.850 G	5.855 G	1.00 M	5.854719 G	-34.96	-51.20
5.855 G	5.875 G	1.00 M	5.874750 G	-36.32	-46.39
5.875 G	5.925 G	1.00 M	5.923813 G	-37.21	-11.09
5.925 G	5.950 G	1.00 M	5.935625 G	-35.64	-8.64

Date: 10.MAY.2019 18:38:53

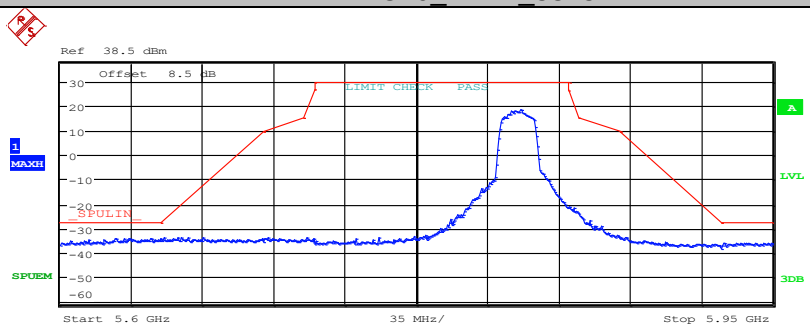
11AC20_ANT1_5825



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.631875 G	-34.46	-7.46
5.650 G	5.700 G	1.00 M	5.650531 G	-35.03	-8.43
5.700 G	5.720 G	1.00 M	5.703288 G	-34.49	-45.41
5.720 G	5.725 G	1.00 M	5.720000 G	-36.05	-51.65
5.725 G	5.850 G	1.00 M	5.826797 G	18.49	-11.51
5.850 G	5.855 G	1.00 M	5.854691 G	-25.21	-41.51
5.855 G	5.875 G	1.00 M	5.858650 G	-26.49	-41.07
5.875 G	5.925 G	1.00 M	5.924719 G	-37.69	-10.90
5.925 G	5.950 G	1.00 M	5.948844 G	-36.75	-9.75

Date: 10.MAY.2019 18:46:42

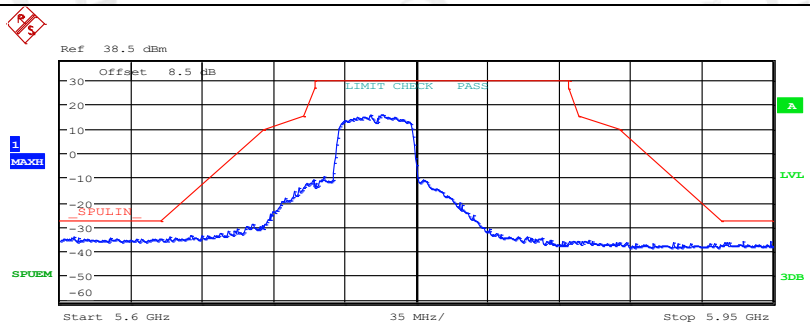
11AC20_ANT2_5825



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.627281 G	-34.38	-7.38
5.650 G	5.700 G	1.00 M	5.651156 G	-34.16	-8.02
5.700 G	5.720 G	1.00 M	5.701162 G	-34.31	-44.63
5.720 G	5.725 G	1.00 M	5.720034 G	-35.27	-50.94
5.725 G	5.850 G	1.00 M	5.826328 G	18.55	-11.45
5.850 G	5.855 G	1.00 M	5.854863 G	-24.25	-40.16
5.855 G	5.875 G	1.00 M	5.855162 G	-24.74	-40.29
5.875 G	5.925 G	1.00 M	5.924875 G	-37.27	-10.36
5.925 G	5.950 G	1.00 M	5.935875 G	-36.39	-9.39

Date: 10.MAY.2019 18:41:47

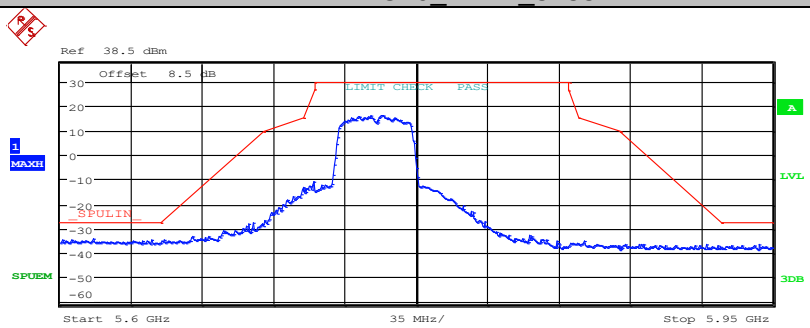
11AC40_ANT1_5755



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.606594 G	-34.67	-7.67
5.650 G	5.700 G	1.00 M	5.650156 G	-35.50	-8.62
5.700 G	5.720 G	1.00 M	5.717475 G	-14.27	-29.16
5.720 G	5.725 G	1.00 M	5.720344 G	-12.76	-29.15
5.725 G	5.850 G	1.00 M	5.758438 G	15.88	-14.12
5.850 G	5.855 G	1.00 M	5.854947 G	-36.27	-51.99
5.855 G	5.875 G	1.00 M	5.873325 G	-36.66	-47.13
5.875 G	5.925 G	1.00 M	5.925000 G	-37.87	-10.87
5.925 G	5.950 G	1.00 M	5.948891 G	-36.43	-9.43

Date: 10.MAY.2019 18:52:11

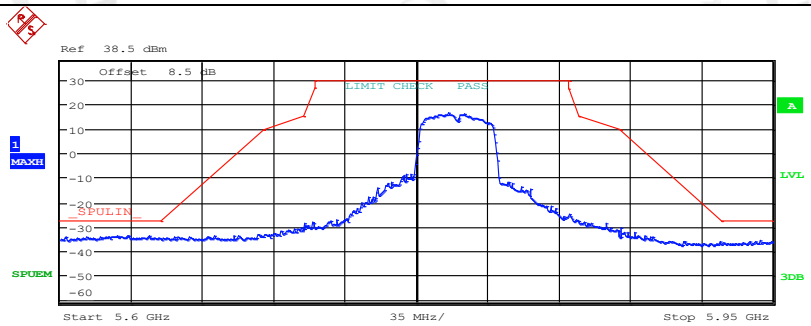
11AC40_ANT2_5755



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.616469 G	-34.56	-7.56
5.650 G	5.700 G	1.00 M	5.650094 G	-35.49	-8.56
5.700 G	5.720 G	1.00 M	5.719675 G	-13.37	-28.88
5.720 G	5.725 G	1.00 M	5.720600 G	-13.87	-30.84
5.725 G	5.850 G	1.00 M	5.758594 G	16.21	-13.79
5.850 G	5.855 G	1.00 M	5.854875 G	-36.76	-52.64
5.855 G	5.875 G	1.00 M	5.873288 G	-36.29	-46.77
5.875 G	5.925 G	1.00 M	5.924875 G	-37.94	-11.03
5.925 G	5.950 G	1.00 M	5.943250 G	-36.97	-9.97

Date: 10.MAY.2019 19:04:05

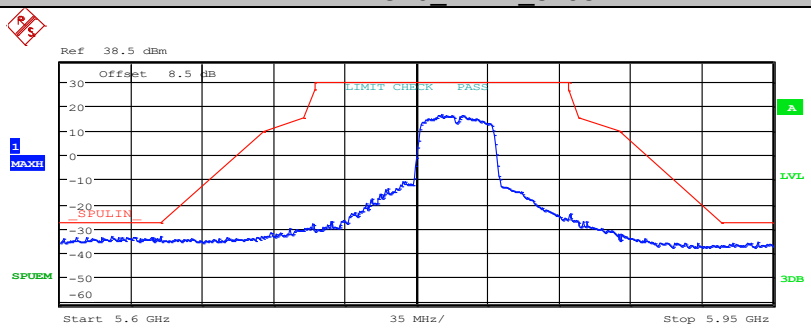
11AC40_ANT1_5795



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.627813 G	-33.86	-6.86
5.650 G	5.700 G	1.00 M	5.650313 G	-34.97	-8.20
5.700 G	5.720 G	1.00 M	5.700437 G	-33.59	-43.72
5.720 G	5.725 G	1.00 M	5.720219 G	-28.88	-44.98
5.725 G	5.850 G	1.00 M	5.790781 G	16.64	-13.36
5.850 G	5.855 G	1.00 M	5.854825 G	-27.89	-43.89
5.855 G	5.875 G	1.00 M	5.868100 G	-28.88	-40.81
5.875 G	5.925 G	1.00 M	5.924250 G	-36.34	-9.90
5.925 G	5.950 G	1.00 M	5.943969 G	-35.86	-8.86

Date: 10.MAY.2019 18:54:56

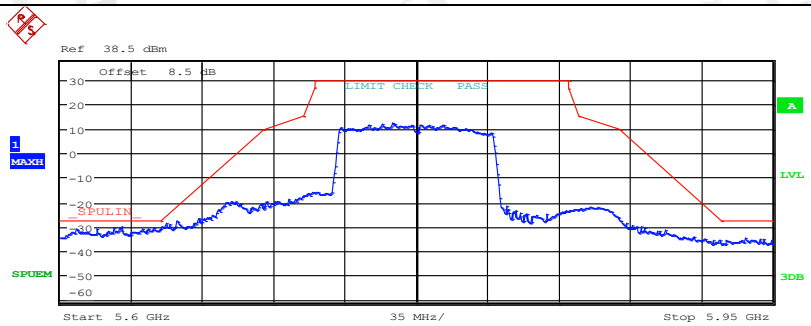
11AC40_ANT2_5795



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.649594 G	-33.40	-6.40
5.650 G	5.700 G	1.00 M	5.650375 G	-34.91	-8.19
5.700 G	5.720 G	1.00 M	5.703688 G	-31.93	-42.96
5.720 G	5.725 G	1.00 M	5.720244 G	-30.09	-46.25
5.725 G	5.850 G	1.00 M	5.787187 G	16.44	-13.56
5.850 G	5.855 G	1.00 M	5.854944 G	-27.99	-43.72
5.855 G	5.875 G	1.00 M	5.870725 G	-30.82	-42.01
5.875 G	5.925 G	1.00 M	5.924062 G	-37.86	-11.55
5.925 G	5.950 G	1.00 M	5.942578 G	-36.02	-9.02

Date: 10.MAY.2019 19:05:43

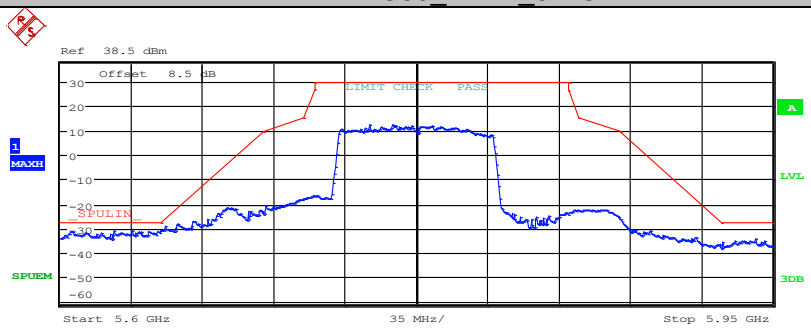
11AC80_ANT1_5775



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.630438 G	-30.29	-3.29
5.650 G	5.700 G	1.00 M	5.650062 G	-30.32	-3.37
5.700 G	5.720 G	1.00 M	5.701350 G	-20.00	-30.38
5.720 G	5.725 G	1.00 M	5.720009 G	-17.83	-33.45
5.725 G	5.850 G	1.00 M	5.763359 G	12.29	-17.71
5.850 G	5.855 G	1.00 M	5.854981 G	-23.30	-38.94
5.855 G	5.875 G	1.00 M	5.868575 G	-23.28	-35.08
5.875 G	5.925 G	1.00 M	5.924563 G	-36.10	-9.42
5.925 G	5.950 G	1.00 M	5.936578 G	-35.00	-8.00

Date: 10.MAY.2019 19:11:12

11AC80_ANT2_5775

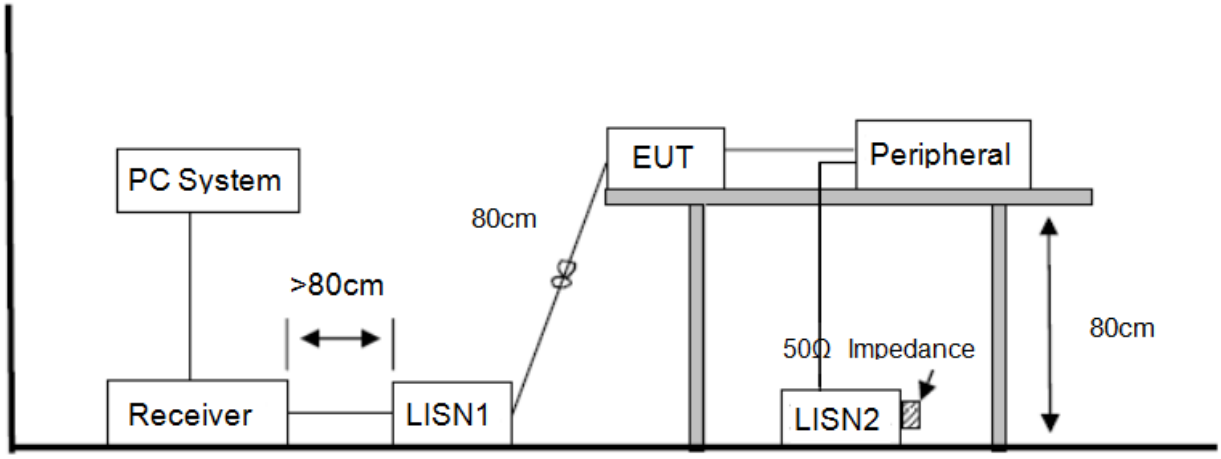


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
5.600 G	5.650 G	1.00 M	5.649938 G	-31.04	-4.04
5.650 G	5.700 G	1.00 M	5.651469 G	-29.55	-3.64
5.700 G	5.720 G	1.00 M	5.701038 G	-21.05	-31.34
5.720 G	5.725 G	1.00 M	5.720013 G	-18.24	-33.87
5.725 G	5.850 G	1.00 M	5.751875 G	12.34	-17.66
5.850 G	5.855 G	1.00 M	5.854984 G	-22.92	-38.56
5.855 G	5.875 G	1.00 M	5.868638 G	-22.91	-34.70
5.875 G	5.925 G	1.00 M	5.924563 G	-37.03	-10.35
5.925 G	5.950 G	1.00 M	5.941531 G	-34.48	-7.48

Date: 10.MAY.2019 19:02:26

10. Power Line Conducted Emission

10.1. Block diagram of test setup



10.2. Power Line Conducted Emission Limits (Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150 kHz ~ 500 kHz	66 ~ 56*	56 ~ 46*
500 kHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

10.3. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.3 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.3 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.
EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

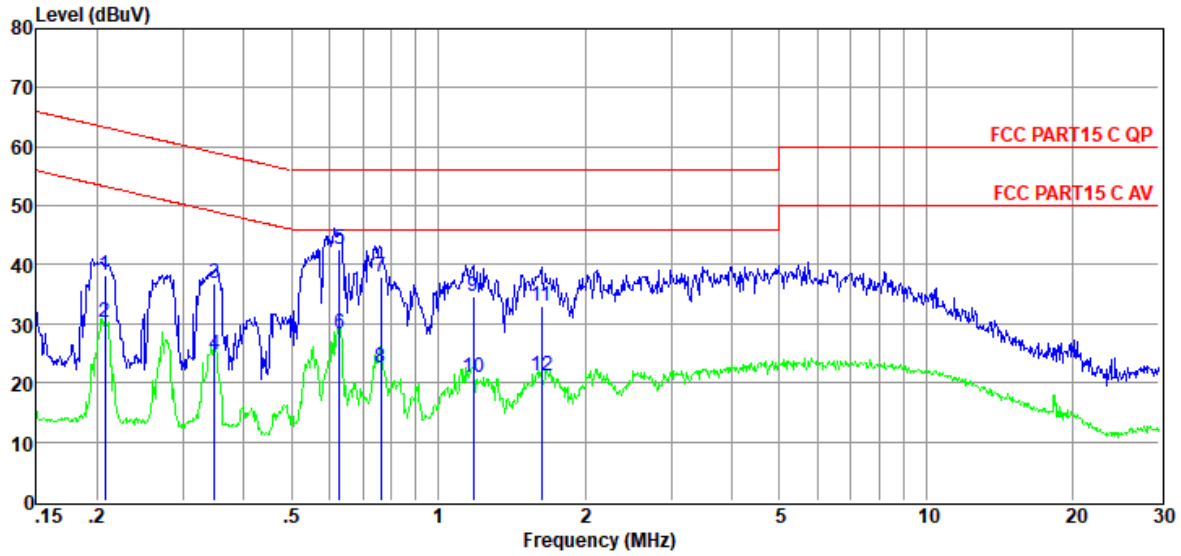
10.4. Test Result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.
Note2: "-----" means peak detection; "-----" means average detection
Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/60Hz, recorded worse case.

TR-4-E-010 Conducted Emission Test Result

	: DDT 1# Shield Room	D:\2019 CE report data\Q19031903-1E\CE-1.EM6	
Test Date	: 2019-06-19	**Tested By**	: Elosky
EUT	: WIRELESS SPEAKER	**Model Number**	: LINK PORTABLE
Power Supply	: AC 120V/60Hz	**Test Mode**	: TX mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**LISN**	: 2018 ENV216/LINE
Memo	:		

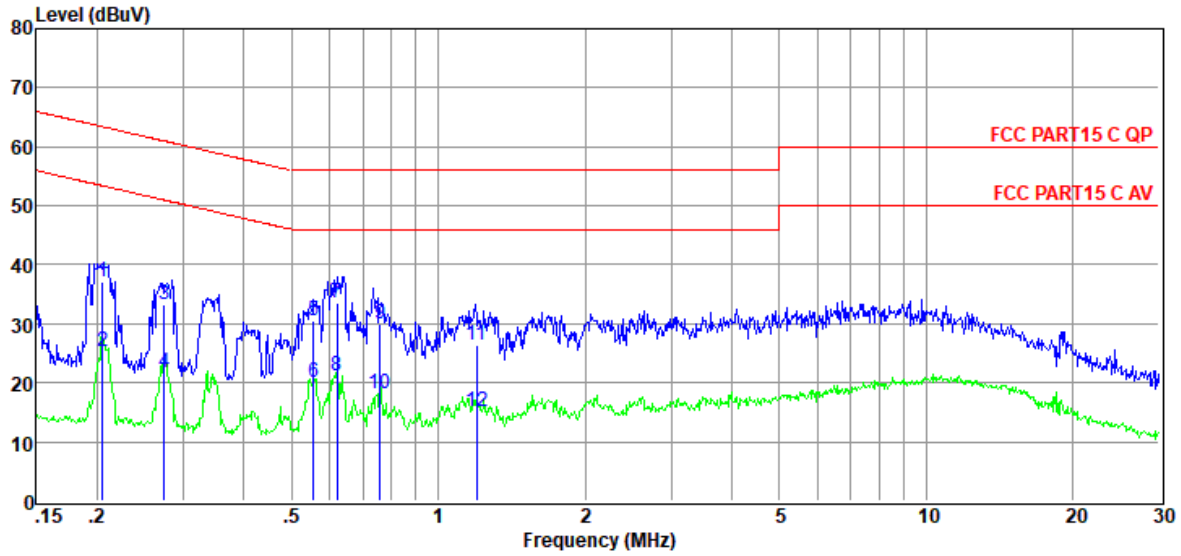


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.21	18.81	9.63	0.02	9.86	38.32	63.32	-25.00	QP	LINE
2	0.21	10.63	9.63	0.02	9.86	30.14	53.32	-23.18	Average	LINE
3	0.35	17.20	9.63	0.02	9.86	36.71	59.00	-22.29	QP	LINE
4	0.35	5.13	9.63	0.02	9.86	24.64	49.00	-24.36	Average	LINE
5	0.63	23.05	9.64	0.03	9.86	42.58	56.00	-13.42	QP	LINE
6	0.63	8.89	9.64	0.03	9.86	28.42	46.00	-17.58	Average	LINE
7	0.76	18.37	9.64	0.04	9.86	37.91	56.00	-18.09	QP	LINE
8	0.76	3.01	9.64	0.04	9.86	22.55	46.00	-23.45	Average	LINE
9	1.18	14.91	9.64	0.09	9.87	34.51	56.00	-21.49	QP	LINE
10	1.18	1.27	9.64	0.09	9.87	20.87	46.00	-25.13	Average	LINE
11	1.63	13.41	9.65	0.07	9.87	33.00	56.00	-23.00	QP	LINE
12	1.63	1.69	9.65	0.07	9.87	21.28	46.00	-24.72	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

	: DDT 1# Shield Room	D:\2019 CE report data\Q19031903-1E\CE-1.EM6	
Test Date	: 2019-06-19	**Tested By**	: Elosky
EUT	: Wireless Speaker	**Model Number**	: Link portable
Power Supply	: AC 120V/60Hz	**Test Mode**	: 5G WIFI mode
Condition	: Temp:24.5'C,Humi:55%,Press:100.1kPa	**LISN**	: 2018 ENV216/NEUTRAL
Memo	:		



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.21	17.53	9.64	0.02	9.86	37.05	63.40	-26.35	QP	NEUTRAL
2	0.21	5.73	9.64	0.02	9.86	25.25	53.40	-28.15	Average	NEUTRAL
3	0.27	13.67	9.64	0.02	9.86	33.19	60.98	-27.79	QP	NEUTRAL
4	0.27	2.17	9.64	0.02	9.86	21.69	50.98	-29.29	Average	NEUTRAL
5	0.56	11.04	9.64	0.03	9.86	30.57	56.00	-25.43	QP	NEUTRAL
6	0.56	0.55	9.64	0.03	9.86	20.08	46.00	-25.92	Average	NEUTRAL
7	0.62	13.88	9.64	0.03	9.86	33.41	56.00	-22.59	QP	NEUTRAL
8	0.62	1.71	9.64	0.03	9.86	21.24	46.00	-24.76	Average	NEUTRAL
9	0.76	10.51	9.64	0.04	9.86	30.05	56.00	-25.95	QP	NEUTRAL
10	0.76	-1.39	9.64	0.04	9.86	18.15	46.00	-27.85	Average	NEUTRAL
11	1.20	6.82	9.65	0.09	9.87	26.43	56.00	-29.57	QP	NEUTRAL
12	1.20	-4.37	9.65	0.09	9.87	15.24	46.00	-30.76	Average	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

11. Antenna Requirements

11.1. Limit

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 transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Result

The antennas used for this product are dedicated antennas and other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 4.57 dBi.

12. Dynamic Frequency Selection

12.1. Applicability of DFS requirements

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	☐Master	☒Client Without Radar Detection	☐Client with Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

12.2. Limit

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

12.3. Parameters of radar test waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test
waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\mu sec}}\right)\right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.
Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a
Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

12.4. Calibration of radar waveform

Radar Waveform Calibration Procedure:

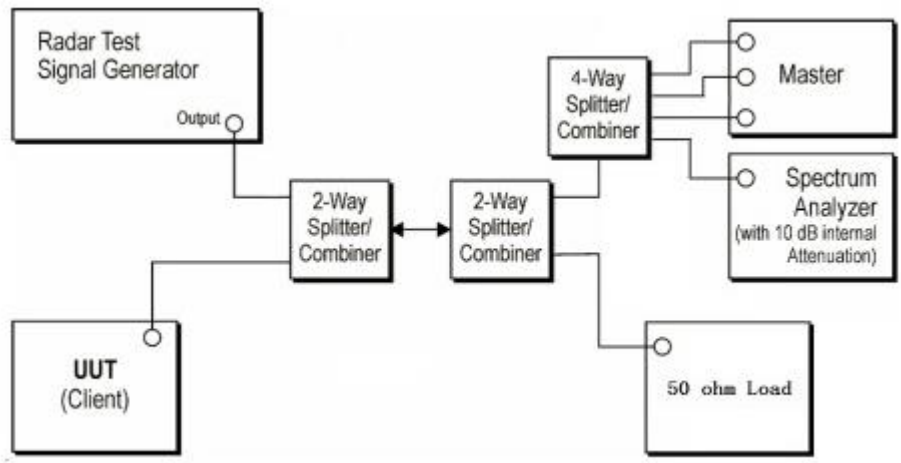
(1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

(2) The interference Radar Detection Threshold Level is -62dBm + 0dBi +1dB = -61dBm that had been taken into account the output power range and antenna gain.

(3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB.

(4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was - -62dBm + 0dBi +1dB = -61dBm. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup:

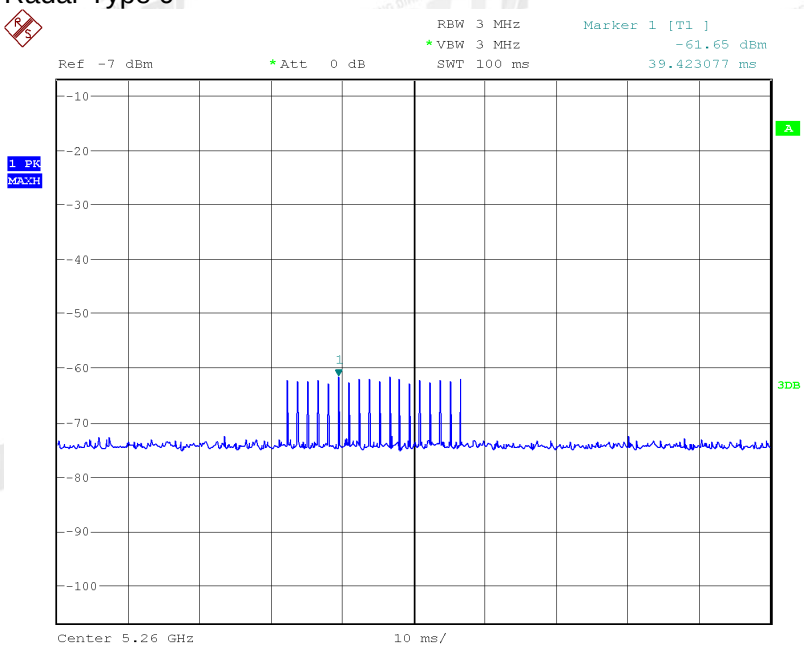


Note: 1. Use the software "Web" to set the frequency channel.

2. EUT is not support TPC and not with Radar detection.

Radar Waveform Calibration Result:

Radar Type 0



Trial List Table - FCC-13-22

Save | Load | Trigger | Download All

Sample Rate 10 MHz

Trial List

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 0	1.0	1428.0	18	25704.0
Download	1	Type 0	1.0	1428.0	18	25704.0
Download	2	Type 0	1.0	1428.0	18	25704.0
Download	3	Type 0	1.0	1428.0	18	25704.0
Download	4	Type 0	1.0	1428.0	18	25704.0
Download	5	Type 0	1.0	1428.0	18	25704.0
Download	6	Type 0	1.0	1428.0	18	25704.0
Download	7	Type 0	1.0	1428.0	18	25704.0
Download	8	Type 0	1.0	1428.0	18	25704.0
Download	9	Type 0	1.0	1428.0	18	25704.0
Download	10	Type 0	1.0	1428.0	18	25704.0
Download	11	Type 0	1.0	1428.0	18	25704.0
Download	12	Type 0	1.0	1428.0	18	25704.0
Download	13	Type 0	1.0	1428.0	18	25704.0
Download	14	Type 0	1.0	1428.0	18	25704.0
Download	15	Type 0	1.0	1428.0	18	25704.0
Download	16	Type 0	1.0	1428.0	18	25704.0
Download	17	Type 0	1.0	1428.0	18	25704.0
Download	18	Type 0	1.0	1428.0	18	25704.0
Download	19	Type 0	1.0	1428.0	18	25704.0
Download	20	Type 0	1.0	1428.0	18	25704.0
Download	21	Type 0	1.0	1428.0	18	25704.0
Download	22	Type 0	1.0	1428.0	18	25704.0
Download	23	Type 0	1.0	1428.0	18	25704.0
Download	24	Type 0	1.0	1428.0	18	25704.0
Download	25	Type 0	1.0	1428.0	18	25704.0
Download	26	Type 0	1.0	1428.0	18	25704.0
Download	27	Type 0	1.0	1428.0	18	25704.0

12.5. Channel closing transmission time, channel move time and non-occupancy period

Block diagram of test setup Test Procedure:

(1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.

(2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

(3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

(4) EUT will associate with the master at channel. The file “iperf.exe” specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Test Software in order to properly load the network for the entire period of the test.

(5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

(6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

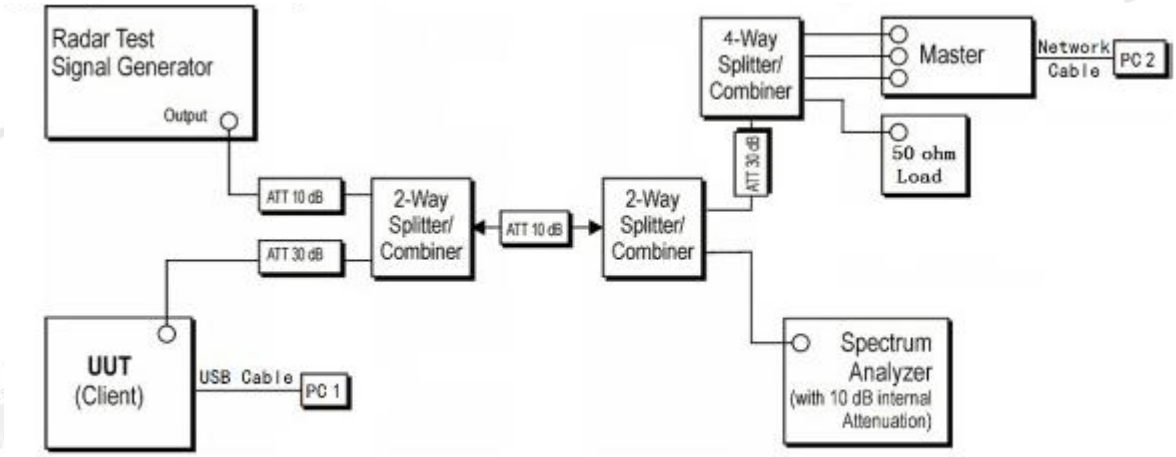
(7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the

(8) spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

12.6. Test setup

Setup for Client with injection at the Master

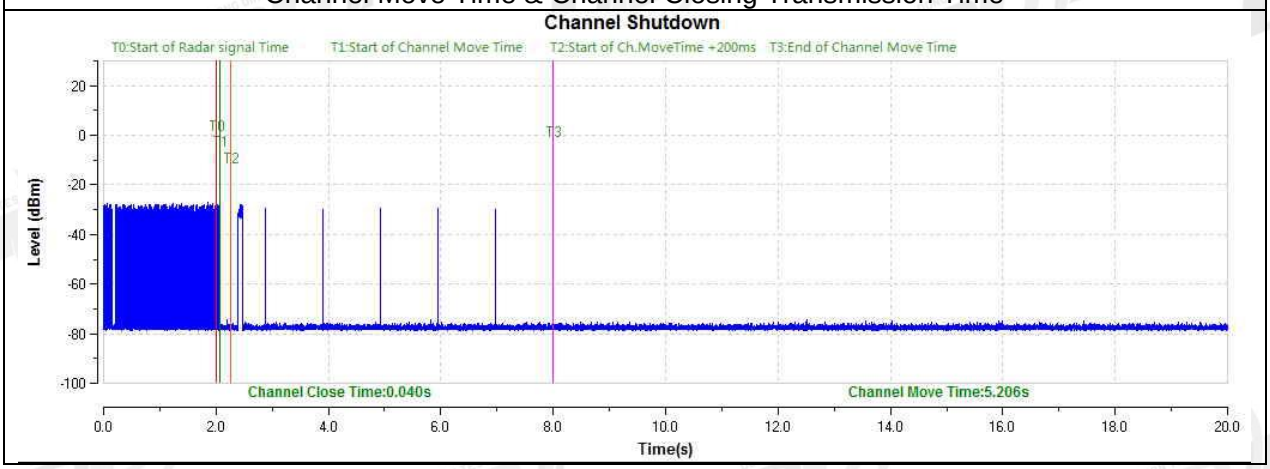


12.7. Test result

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Channel Move Time	5.206s	＜10s	pass
	Channel Closing Transmission Time	0.040s	＜0.26s	pass
80M/5530MHz	Channel Move Time	5.970s	＜10s	pass
	Channel Closing Transmission Time	0.031s	＜0.26s	pass

Test plots as follows:

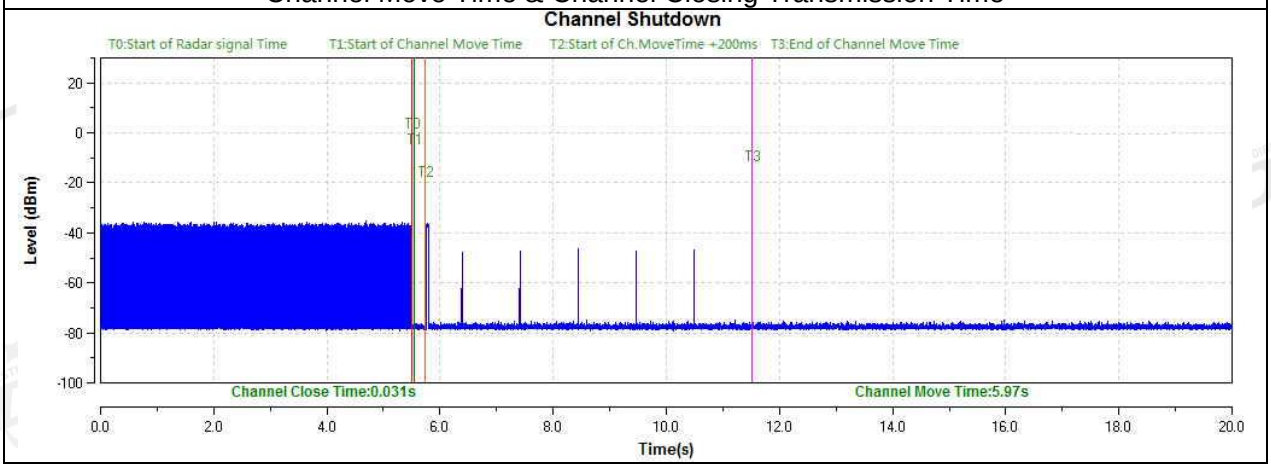
Channel Move Time & Channel Closing Transmission Time



BW/Channel	Test Item	Test Result	Limit	Results

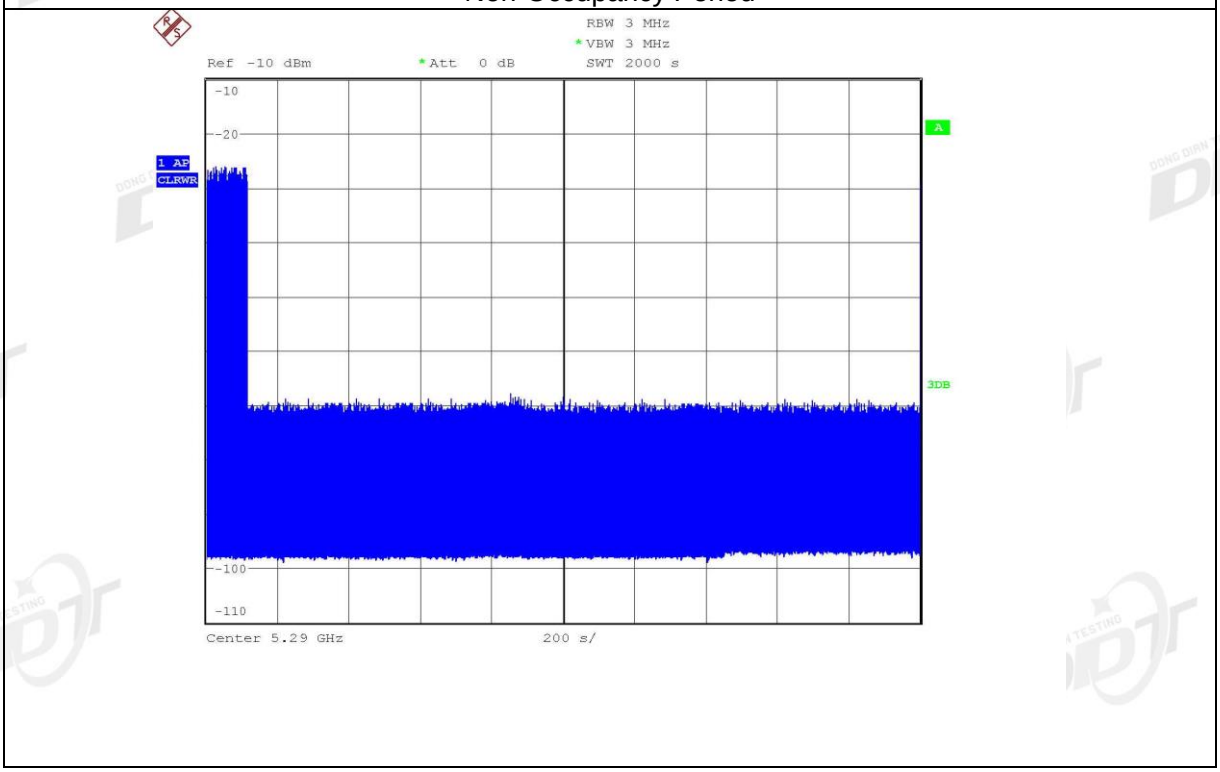
80M/5290MHz	Non-Occupancy Period	>30min	30min	pass

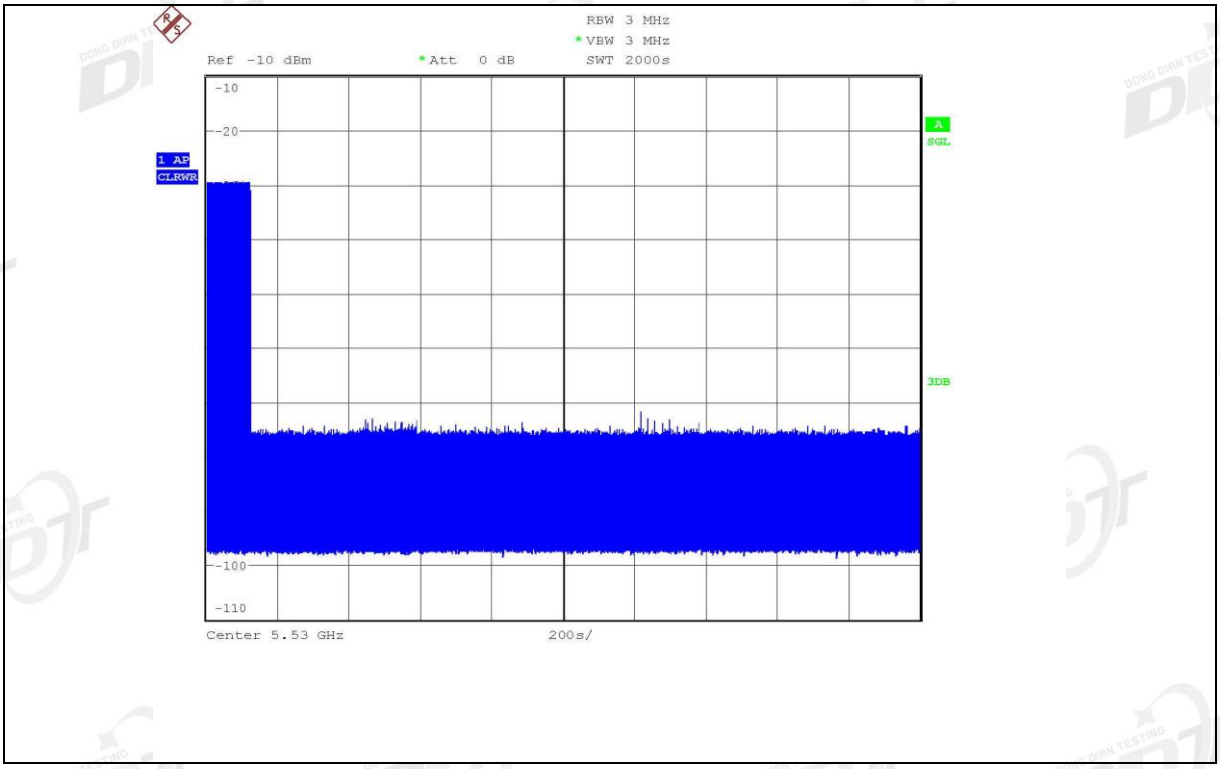
Channel Move Time & Channel Closing Transmission Time



BW/Channel	Test Item	Test Result	Limit	Results
80M/5530MHz	Non-Occupancy Period	>30min	30min	pass

Non-Occupancy Period





END OF REPORT