

5. Radiated Emission

5.1. Test Equipment

The following test equipments are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X	Magnetic Loop Antenna	Teseq	HLA6121/ 37133	Sep, 2015
	X	Bilog Antenna	Schaffner Chase	CBL6112B/ 2707	Jun, 2015
	X	EMI Test Receiver	R&S	ESCS 30/838251/ 001	Jun, 2015
	X	Coaxial Cable	QTK(Arnist)	RG 214/ LC003-RG	Jun, 2015
	X	Coaxial signal switch	Arnist	MP59B/ 6200798682	Jun, 2015

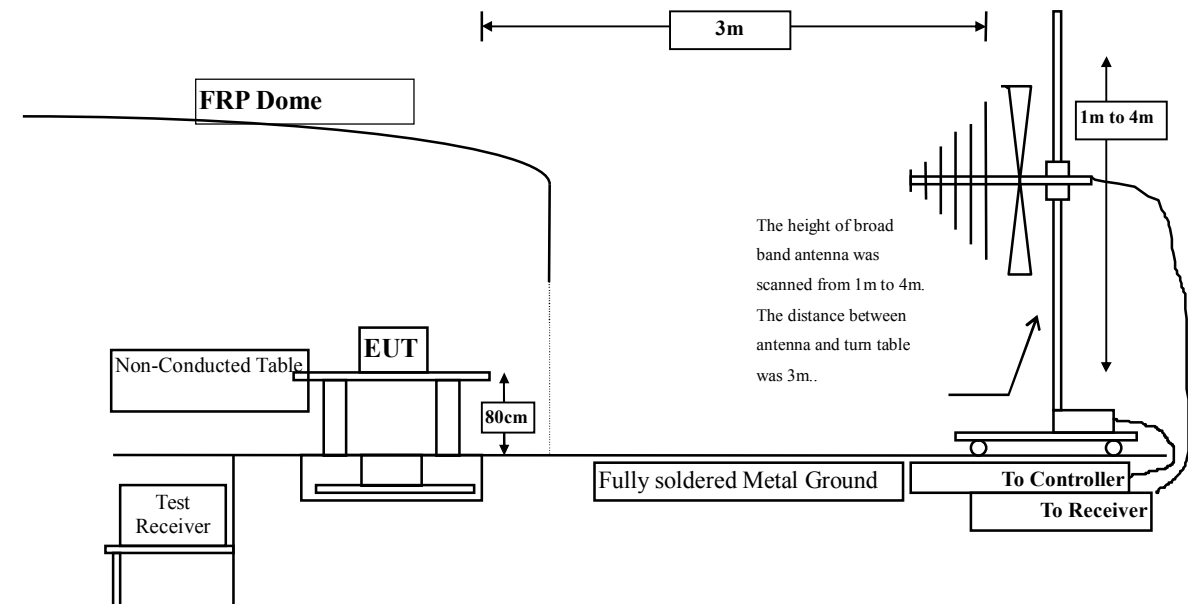
- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
 2. The test instruments marked with "X" are used to measure the final test results.

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct, 2015
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar, 2016
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan, 2016
	X	Horn Antenna	TRC	AH-0801/95051	Aug, 2015
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan, 2016
	X	Pre-Amplifier	MITEQ	JS41-00104000-58-5P/153945	Jul, 2015
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul, 2015

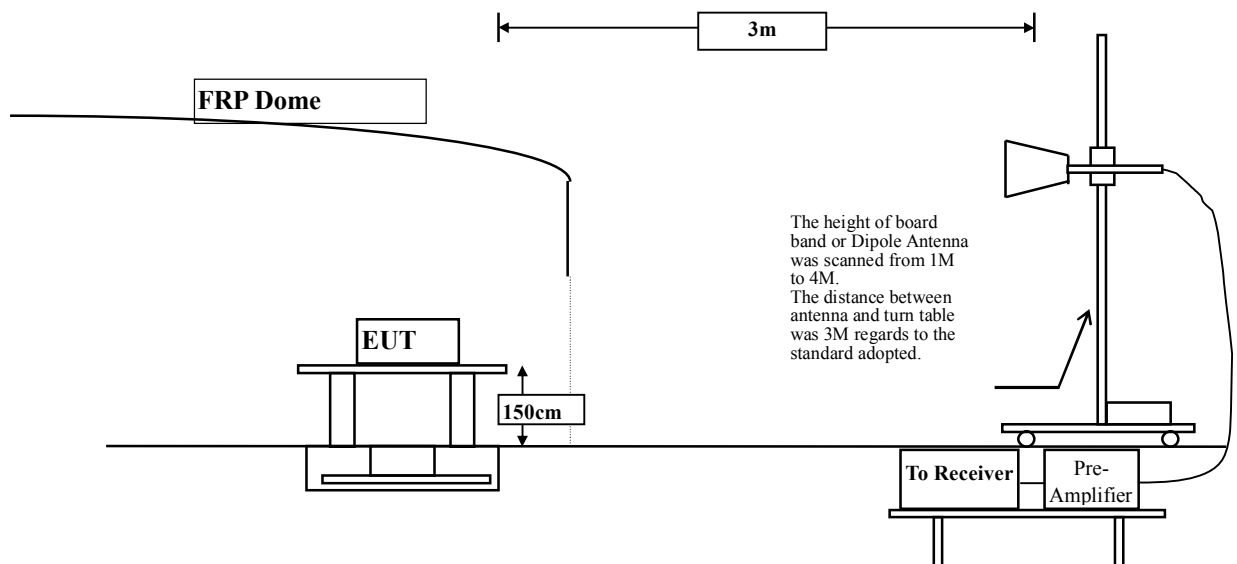
- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
 2. The test instruments marked with "X" are used to measure the final test results.

5.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



5.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

5.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

5.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

5.6. Test Result of Radiated Emission

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
10360.000	12.930	39.660	52.590	-21.410	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	13.986	39.420	53.406	-20.594	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10440.000	13.626	40.220	53.846	-20.154	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	14.549	39.230	53.779	-20.221	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5240MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10480.000	13.971	39.320	53.92	-20.708	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10480.000	14.898	38.320	53.218	-20.782	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5260MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10520.000	14.267	38.820	53.087	-20.913	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10520.000	15.070	38.210	53.280	-20.720	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10600.000	14.763	39.210	53.972	-20.028	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10600.000	15.094	38.570	53.664	-20.336	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10640.000	15.006	38.130	53.136	-20.864	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10640.000	15.399	38.320	53.719	-20.281	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11000.000	16.239	36.820	53.059	-20.941	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11000.000	16.972	36.160	53.132	-20.868	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11160.000	17.234	36.120	53.354	-20.646	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11160.000	18.213	35.152	53.365	-20.635	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5700MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11400.000	17.018	36.030	53.048	-20.952	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11400.000	17.626	35.552	53.178	-20.822	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	17.676	36.320	53.997	-20.003	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11490.000	18.604	35.320	53.925	-20.075	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
11570.000	17.459	35.620	53.079	-20.921	74.000
17355.000	*	*	*	*	74.000
20800.000	*	*	*	*	74.000
26000.000	*	*	*	*	74.000
31200.000	*	*	*	*	74.000
36400.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11570.000	18.348	37.320	53.668	-20.332	74.000
17355.000	*	*	*	*	74.000
20800.000	*	*	*	*	74.000
26000.000	*	*	*	*	74.000
31200.000	*	*	*	*	74.000
36400.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
11650.000	16.715	34.152	50.868	-23.132	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11650.000	17.831	34.430	52.262	-21.738	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
10360.000	13.192	38.250	51.442	-22.558	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	13.986	38.250	52.236	-21.764	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10440.000	13.626	40.360	53.986	-20.014	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	14.549	38.860	53.409	-20.591	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10480.000	13.971	39.820	53.792	-20.208	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10480.000	14.898	38.166	53.064	-20.936	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10520.000	14.267	39.285	53.552	-20.448	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10520.000	15.070	38.184	53.254	-20.746	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10600.000	14.763	39.120	53.882	-20.118	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10600.000	15.094	40.088	53.182	-20.818	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10640.000	15.006	42.720	53.726	-20.274	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10640.000	15.399	40.185	53.584	-20.416	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11000.000	16.239	37.120	53.359	-20.641	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11000.000	16.972	36.090	53.062	-20.938	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11160.000	17.234	36.130	53.364	-20.636	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11160.000	18.213	35.420	53.633	-20.367	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11400.000	17.018	36.088	53.106	-20.894	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11400.000	17.626	35.620	53.246	-20.754	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	17.676	36.290	53.967	-20.033	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11490.000	18.604	35.195	53.800	-20.200	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
11570.000	17.459	35.620	53.079	-20.921	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11570.000	18.348	35.210	53.558	-20.442	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	16.715	34.330	51.046	-22.954	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440.000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11650.000	17.831	35.180	53.012	-20.988	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440.000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10380.000	13.235	39.270	52.505	-21.495	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10380.000	14.092	38.260	52.352	-21.648	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10460.000	13.799	39.285	53.084	-20.916	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10460.000	14.724	39.108	53.832	-20.168	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
10540.000	14.390	35.760	50.149	-23.851	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10540.000	15.068	38.020	53.087	-20.913	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
10620.000	14.881	38.420	53.301	-20.699	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10620.000	15.228	38.120	53.348	-20.652	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11020.000	16.379	36.650	53.028	-20.972	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11020.000	17.129	36.124	53.253	-20.747	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11100.000	16.966	40.290	53.256	-20.744	74.000
16770.000	*	*	*	*	74.000
22360.000	*	*	*	*	74.000
27950.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11100.000	17.808	36.040	53.849	-20.151	74.000
16770.000	*	*	*	*	74.000
22360.000	*	*	*	*	74.000
27950.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
11340.000	16.972	36.630	53.601	-20.399	74.000
17010.000	*	*	*	*	74.000
22680.000	*	*	*	*	74.000
28350.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11340.000	17.731	36.080	53.811	-20.189	74.000
17010.000	*	*	*	*	74.000
22680.000	*	*	*	*	74.000
28350.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
11510.000	17.714	36.030	53.744	-20.256	74.000
17265.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
31140.000	*	*	*	*	74.000
36330.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11510.000	18.671	34.610	53.281	-20.719	74.000
17265.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
31140.000	*	*	*	*	74.000
36330.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
11590.000	17.371	35.200	52.570	-21.430	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11590.000	18.237	35.320	53.556	-20.444	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
30.970	-0.336	35.450	35.114	-4.886	40.000
110.510	-7.513	36.048	28.535	-14.965	43.500
345.250	-1.492	35.092	33.600	-12.400	46.000
576.110	3.127	34.812	37.939	-8.061	46.000
810.850	6.278	27.883	34.161	-11.839	46.000
956.350	6.605	29.577	36.182	-9.818	46.000
Vertical					
Peak Detector					
30.000	-3.019	38.467	35.448	-4.552	40.000
110.510	-3.383	35.690	32.307	-11.193	43.500
323.910	-3.340	32.916	29.575	-16.425	46.000
502.390	-0.096	34.819	34.723	-11.277	46.000
682.810	1.817	34.899	36.716	-9.284	46.000
943.740	3.385	30.387	33.772	-12.228	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector					
33.880	-0.846	36.478	35.631	-4.369	40.000
136.700	-7.493	35.350	27.857	-15.643	43.500
307.420	-4.121	35.163	31.043	-14.957	46.000
522.760	3.176	34.310	37.486	-8.514	46.000
806.000	6.209	28.276	34.485	-11.515	46.000
909.790	6.418	26.944	33.362	-12.638	46.000
Vertical					
Peak Detector					
30.970	-4.686	39.038	34.352	-5.648	40.000
117.300	-3.735	35.164	31.429	-12.071	43.500
309.360	-4.043	35.564	31.521	-14.479	46.000
503.360	-0.085	34.754	34.669	-11.331	46.000
630.430	-1.316	33.408	32.091	-13.909	46.000
938.890	3.260	32.680	35.940	-10.060	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
31.940	-0.513	35.734	35.221	-4.779	40.000
120.210	-7.269	37.636	30.367	-13.133	43.500
346.220	-1.347	35.088	33.741	-12.259	46.000
574.170	2.873	34.345	37.218	-8.782	46.000
813.760	6.296	28.786	35.082	-10.918	46.000
929.190	7.420	28.254	35.674	-10.326	46.000
Vertical					
Peak Detector					
30.970	-4.686	40.077	35.391	-4.609	40.000
87.230	-4.084	33.589	29.505	-10.495	40.000
341.370	-1.117	31.024	29.907	-16.093	46.000
537.310	1.803	33.536	35.339	-10.661	46.000
672.140	-0.560	35.474	34.914	-11.086	46.000
928.220	3.640	33.921	37.561	-8.439	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
32.910	-0.680	35.885	35.205	-4.795	40.000
133.790	-7.460	36.068	28.608	-14.892	43.500
352.040	-1.281	35.538	34.257	-11.743	46.000
575.140	3.025	34.372	37.397	-8.603	46.000
818.610	6.839	28.919	35.758	-10.242	46.000
909.790	6.418	28.376	34.794	-11.206	46.000
Vertical					
Peak Detector					
30.970	-4.686	39.803	35.117	-4.883	40.000
107.600	-4.032	35.885	31.853	-11.647	43.500
353.010	-1.206	33.846	32.640	-13.360	46.000
514.030	0.257	33.477	33.734	-12.266	46.000
687.660	2.291	32.947	35.238	-10.762	46.000
932.100	3.430	32.405	35.835	-10.165	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
31.940	-0.513	35.462	34.949	-5.051	40.000
117.300	-7.345	36.201	28.856	-14.644	43.500
381.140	1.385	36.292	37.678	-8.322	46.000
585.810	3.234	33.626	36.860	-9.140	46.000
802.120	6.361	28.940	35.301	-10.699	46.000
967.990	7.316	33.371	40.687	-13.313	54.000
Vertical					
Peak Detector					
30.970	-4.686	39.855	35.169	-4.831	40.000
107.600	-4.032	33.840	29.808	-13.692	43.500
307.420	-4.031	35.301	31.271	-14.729	46.000
527.610	1.153	31.444	32.597	-13.403	46.000
636.250	-1.401	33.899	32.498	-13.502	46.000
937.920	3.110	29.744	32.854	-13.146	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
30.970	-0.336	35.607	35.271	-4.729	40.000
106.630	-7.628	33.278	25.650	-17.850	43.500
333.610	-3.693	35.741	32.048	-13.952	46.000
567.380	1.961	31.689	33.650	-12.350	46.000
851.590	6.946	27.251	34.197	-11.803	46.000
969.930	7.386	32.214	39.600	-14.400	54.000
Vertical					
Peak Detector					
30.970	-4.686	39.887	35.201	-4.799	40.000
106.630	-4.308	36.148	31.840	-11.660	43.500
317.120	-4.119	38.369	34.250	-11.750	46.000
497.540	-0.712	33.436	32.724	-13.276	46.000
682.810	1.817	32.447	34.264	-11.736	46.000
941.800	3.461	33.821	37.282	-8.718	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector					
31.940	-0.513	35.040	34.527	-5.473	40.000
135.730	-7.479	34.881	27.402	-16.098	43.500
306.450	-3.946	33.584	29.638	-16.362	46.000
544.100	4.374	31.345	35.719	-10.281	46.000
812.790	6.283	30.946	37.229	-8.771	46.000
952.470	6.873	30.388	37.261	-8.739	46.000
Vertical					
Peak Detector					
30.970	-4.686	38.848	34.162	-5.838	40.000
114.390	-3.821	36.033	32.212	-11.288	43.500
373.380	0.042	34.017	34.059	-11.941	46.000
501.420	-0.100	33.165	33.065	-12.935	46.000
692.510	1.915	34.137	36.052	-9.948	46.000
945.680	3.302	32.669	35.971	-10.029	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector					
30.970	-0.336	35.154	34.818	-5.182	40.000
128.940	-7.390	35.536	28.146	-15.354	43.500
384.050	1.267	35.641	36.908	-9.092	46.000
599.390	3.489	34.682	38.171	-7.829	46.000
811.820	6.281	30.140	36.421	-9.579	46.000
947.620	6.972	27.767	34.739	-11.261	46.000
Vertical					
Peak Detector					
30.970	-4.686	40.377	35.691	-4.309	40.000
179.380	-0.822	34.703	33.881	-9.619	43.500
399.570	-2.580	34.145	31.565	-14.435	46.000
509.160	0.800	34.250	35.051	-10.949	46.000
688.630	2.297	33.456	35.752	-10.248	46.000
941.800	3.461	33.993	37.454	-8.546	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
34.850	-0.983	35.561	34.578	-5.422	40.000
114.390	-7.411	35.608	28.197	-15.303	43.500
304.510	-3.901	34.933	31.032	-14.968	46.000
515.000	3.191	34.118	37.309	-8.691	46.000
612.970	3.262	33.961	37.223	-8.777	46.000
942.770	6.818	27.020	33.838	-12.162	46.000
Vertical					
Peak Detector					
30.970	-4.686	39.944	35.258	-4.742	40.000
107.600	-4.032	34.284	30.252	-13.248	43.500
328.760	-2.407	34.141	31.734	-14.266	46.000
534.400	1.271	31.419	32.690	-13.310	46.000
641.100	-1.915	33.933	32.018	-13.982	46.000
938.890	3.260	30.689	33.949	-12.051	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector					
31.940	-0.513	35.634	35.121	-4.879	40.000
144.460	-7.702	34.761	27.059	-16.441	43.500
364.650	0.280	34.345	34.625	-11.375	46.000
575.140	3.025	29.368	32.393	-13.607	46.000
827.340	7.361	26.341	33.702	-12.298	46.000
950.530	7.044	28.337	35.381	-10.619	46.000
Vertical					
Peak Detector					
30.970	-4.686	40.032	35.346	-4.654	40.000
112.450	-3.571	33.102	29.530	-13.970	43.500
325.850	-2.939	34.314	31.375	-14.625	46.000
511.120	0.784	33.987	34.771	-11.229	46.000
662.440	-0.997	34.225	33.228	-12.772	46.000
962.170	3.450	32.839	36.289	-17.711	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector					
30.970	-0.336	35.062	34.726	-5.274	40.000
132.820	-7.443	35.327	27.884	-15.616	43.500
345.250	-1.492	33.545	32.053	-13.947	46.000
553.800	3.149	34.332	37.481	-8.519	46.000
869.050	5.921	31.700	37.621	-8.379	46.000
968.960	7.355	34.449	41.804	-12.196	54.000
Vertical					
Peak Detector					
30.970	-4.686	40.680	35.994	-4.006	40.000
111.480	-3.438	32.788	29.351	-14.149	43.500
311.300	-4.071	34.076	30.005	-15.995	46.000
539.250	2.157	32.626	34.783	-11.217	46.000
696.390	1.046	34.179	35.224	-10.776	46.000
966.050	3.871	33.248	37.119	-16.881	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
31.940	-0.513	36.240	35.727	-4.273	40.000
141.550	-7.590	33.711	26.121	-17.379	43.500
378.230	1.199	34.504	35.703	-10.297	46.000
577.080	3.220	33.313	36.533	-9.467	46.000
844.800	6.446	28.661	35.107	-10.893	46.000
954.410	6.624	26.190	32.814	-13.186	46.000
Vertical					
Peak Detector					
30.970	-4.686	40.251	35.565	-4.435	40.000
109.540	-3.508	34.042	30.534	-12.966	43.500
341.370	-1.117	34.105	32.988	-13.012	46.000
547.980	0.230	31.106	31.336	-14.664	46.000
630.430	-1.316	32.897	31.580	-14.420	46.000
940.830	3.481	30.477	33.958	-12.042	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2015
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2016

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

RF Radiated Measurement:

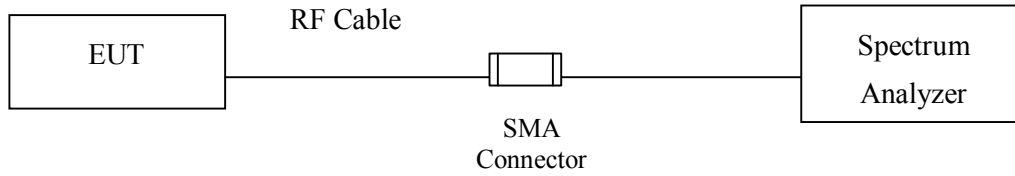
The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct, 2015
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar, 2016
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan, 2016
	X	Horn Antenna	TRC	AH-0801/95051	Aug, 2015
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan, 2016
	X	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul, 2015
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul, 2015

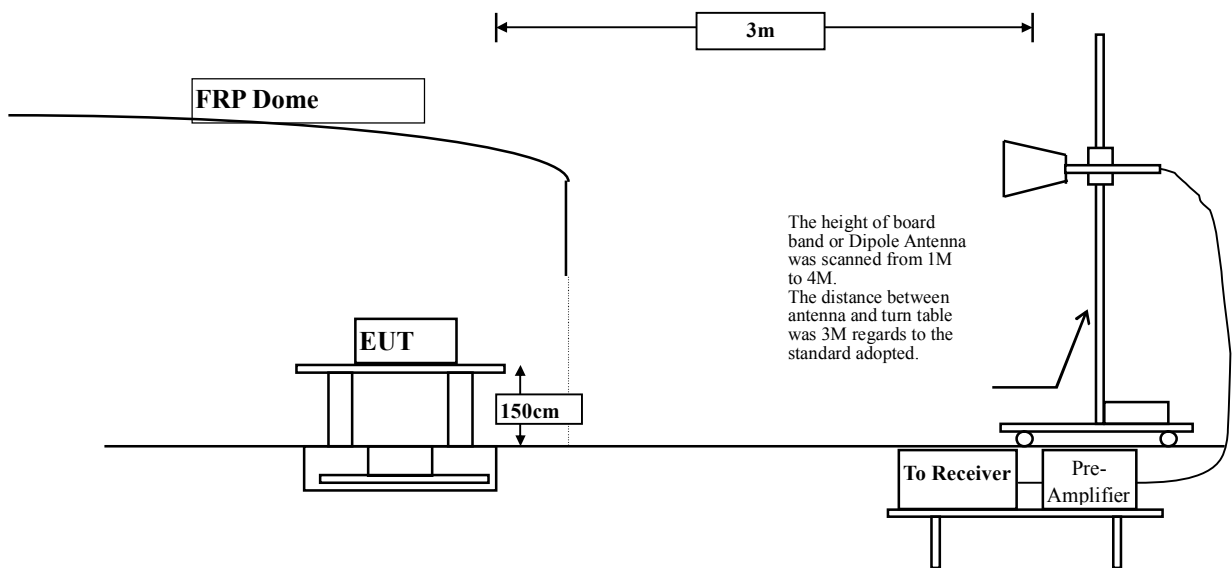
- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



6.3. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBµV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks :

1. RF Voltage (dBµV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

For transmitters operating in the 5.725-5.85GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

6.4. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

6.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

6.6. Test Result of Band Edge

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5147.600	2.804	67.469	70.273	74.00	54.00	Pass
36 (Peak)	5150.000	2.796	66.340	69.136	74.00	54.00	Pass
36 (Peak)	5177.400	2.704	105.450	108.154	--	--	--
36 (Average)	5150.000	2.796	48.337	51.133	74.00	54.00	Pass
36 (Average)	5183.200	2.685	90.760	93.445	--	--	--

Figure Channel 36: Horizontal (Peak)

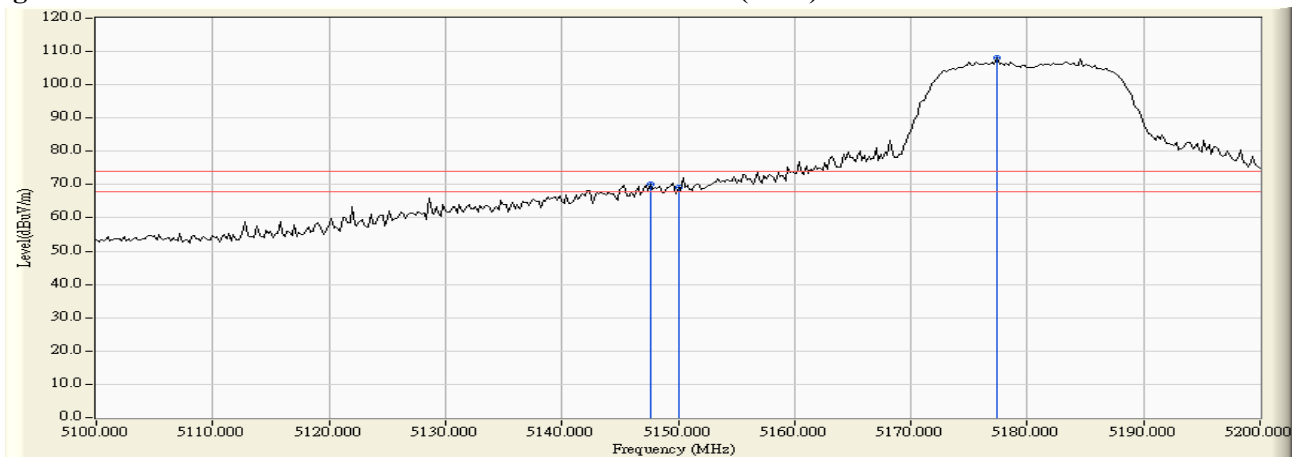
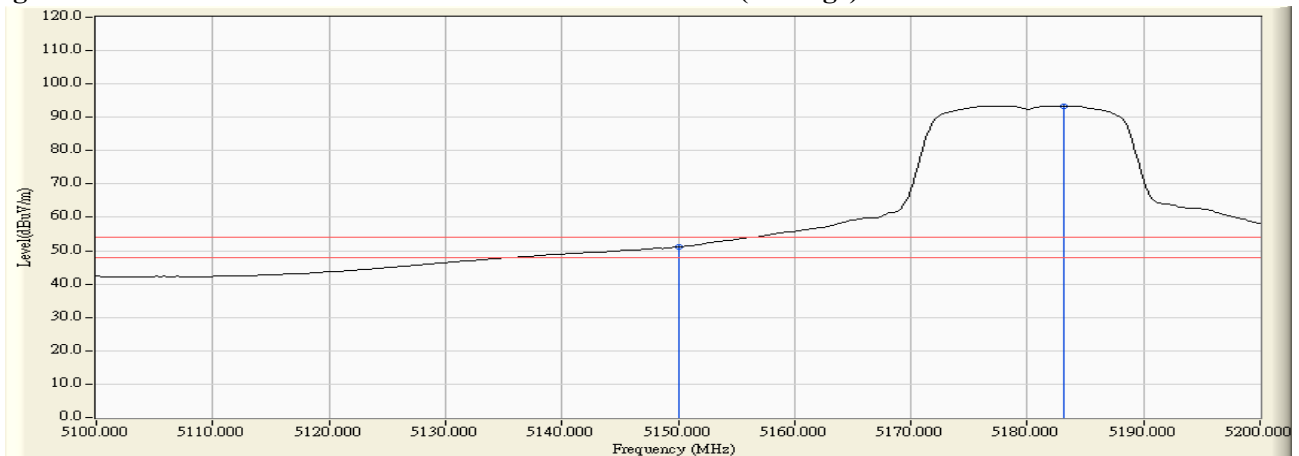


Figure Channel 36: Horizontal (Average)



- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5148.800	3.326	60.702	64.028	74.00	54.00	Pass
36 (Peak)	5150.000	3.331	58.846	62.178	74.00	54.00	Pass
36 (Peak)	5183.200	3.488	97.317	100.805	--	--	--
36 (Average)	5150.000	3.331	41.970	45.302	74.00	54.00	Pass
36 (Average)	5183.600	3.490	83.238	86.728	--	--	--

Figure Channel 36: Vertical (Peak)

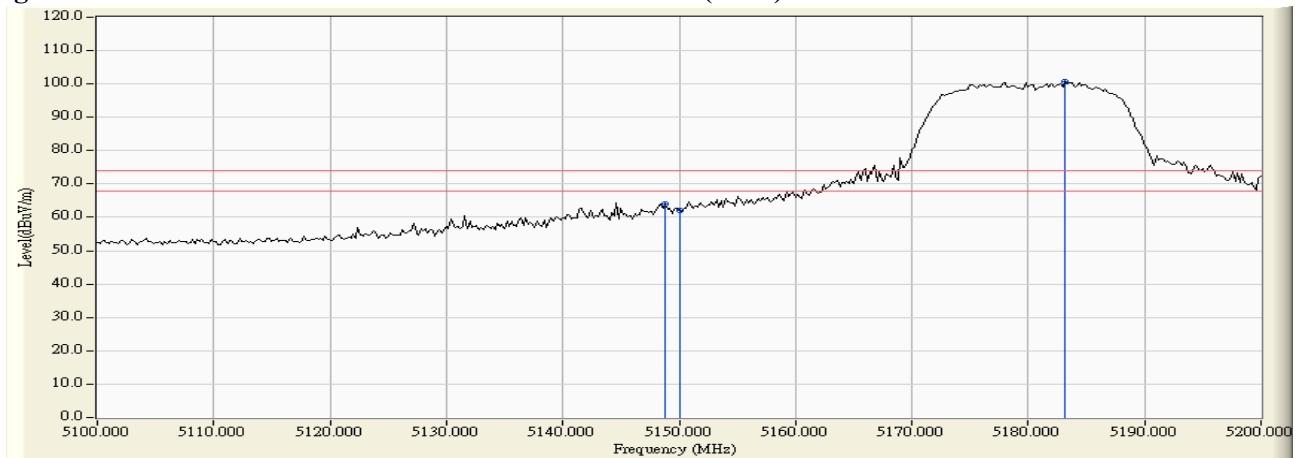
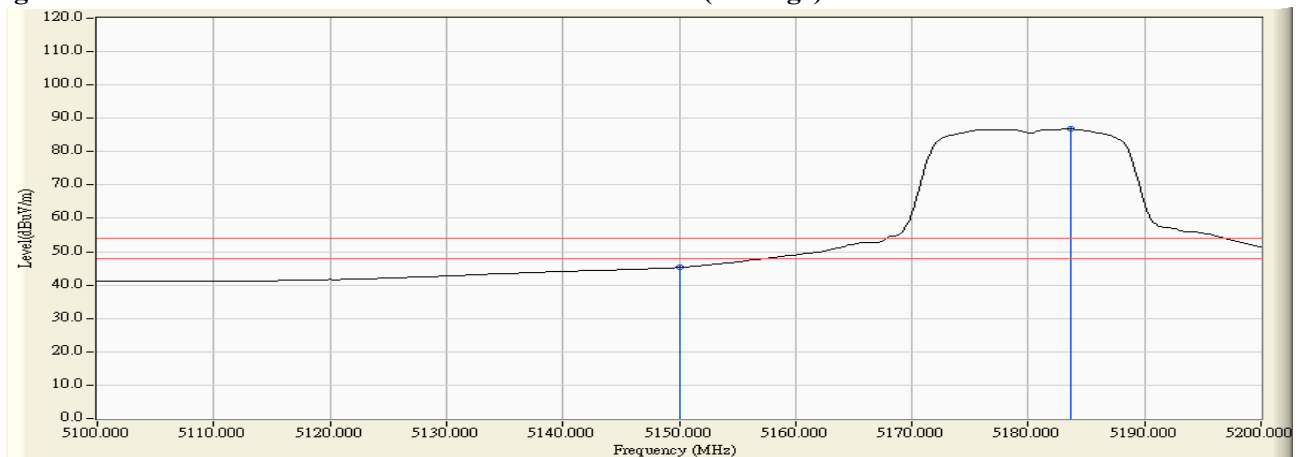


Figure Channel 36: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
64 (Peak)	5324.200	3.635	105.990	109.625	--	--	--
64 (Peak)	5350.000	3.575	64.289	67.864	74.00	54.00	Pass
64 (Peak)	5350.200	3.575	66.789	70.363	74.00	54.00	Pass
64 (Average)	5323.400	3.636	91.679	95.315	--	--	--
64 (Average)	5350.000	3.575	46.819	50.394	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

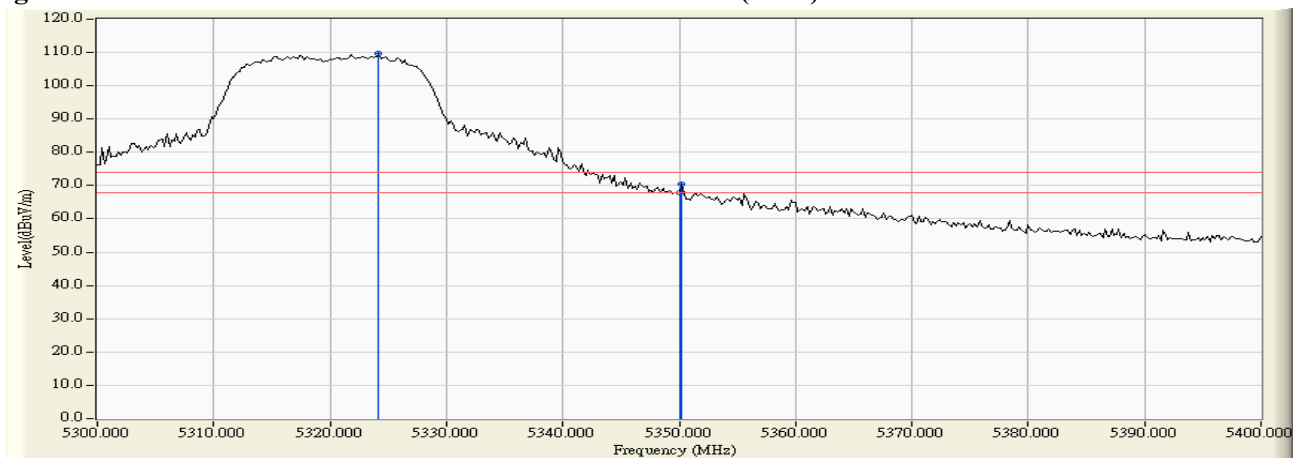
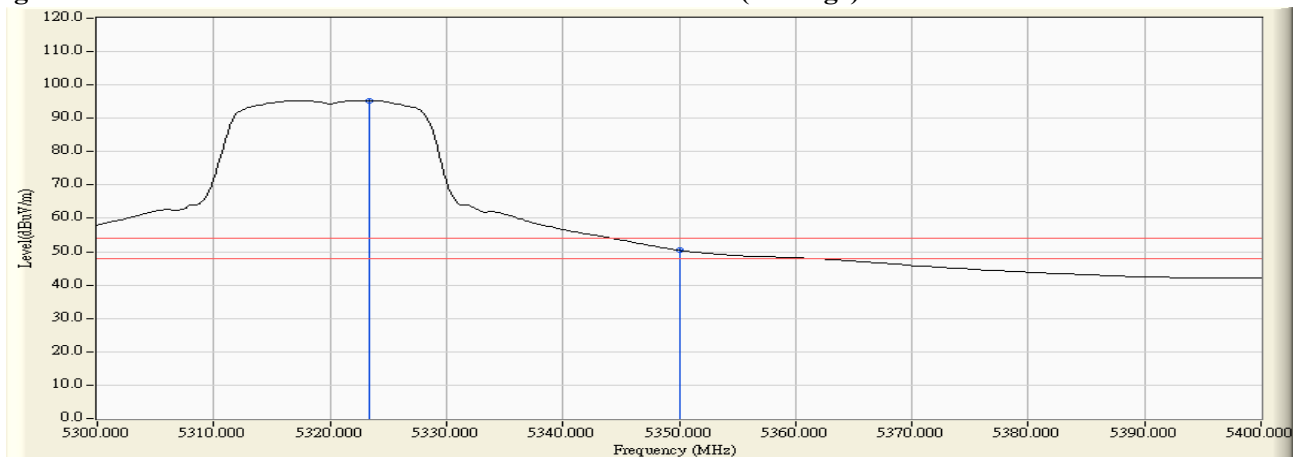


Figure Channel 64: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
64 (Peak)	5323.200	3.890	101.539	105.428	--	--	--
64 (Peak)	5350.000	3.900	59.799	63.699	74.00	54.00	Pass
64 (Average)	5323.200	3.890	87.326	91.215	--	--	--
64 (Average)	5350.000	3.900	42.686	46.586	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

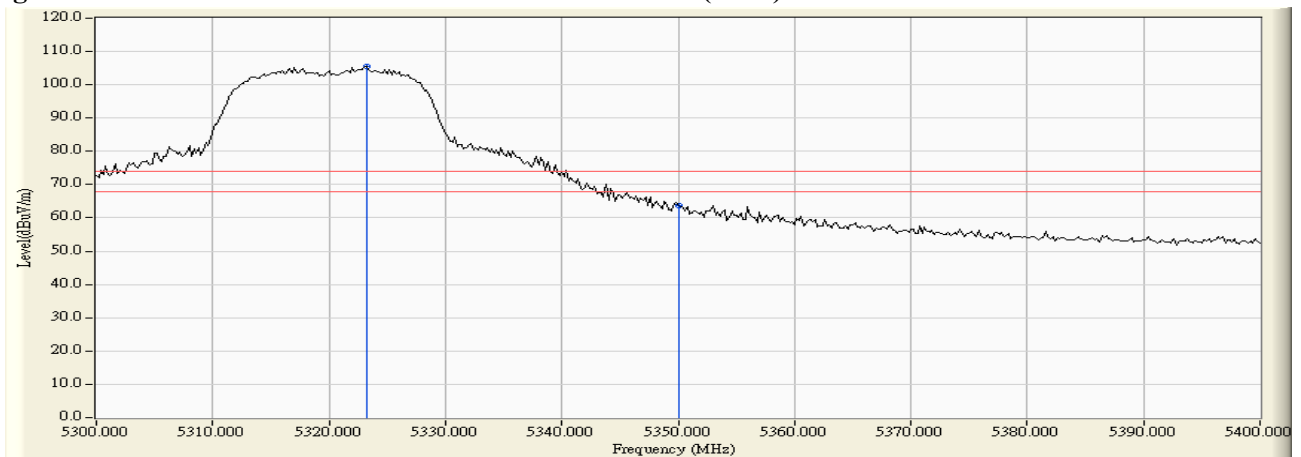
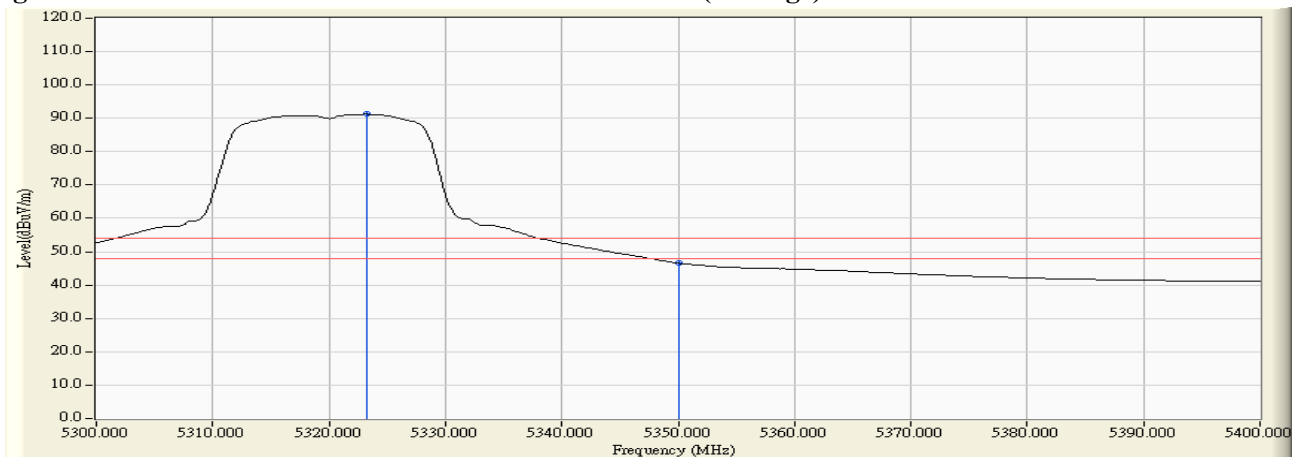


Figure Channel 64: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
100 (Peak)	5452.200	3.639	69.385	73.025	74.00	54.00	Pass
100 (Peak)	5460.000	3.775	68.751	72.526	74.00	54.00	Pass
100 (Peak)	5497.600	4.446	106.275	110.721	--	--	--
100 (Average)	5460.000	3.775	49.244	53.019	74.00	54.00	Pass
100 (Average)	5496.800	4.436	91.781	96.216	--	--	--

Figure Channel 100: Horizontal (Peak)

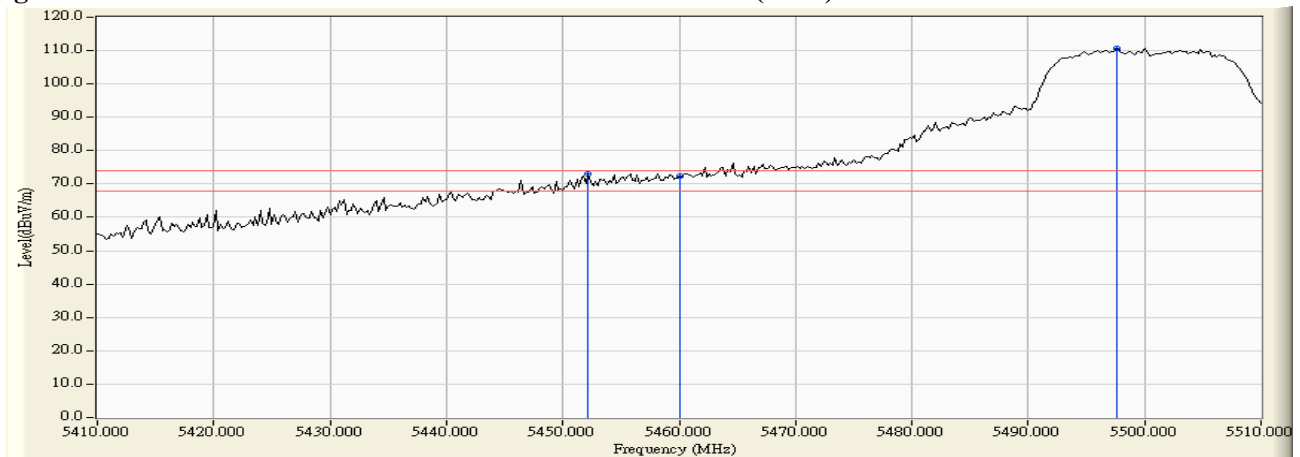
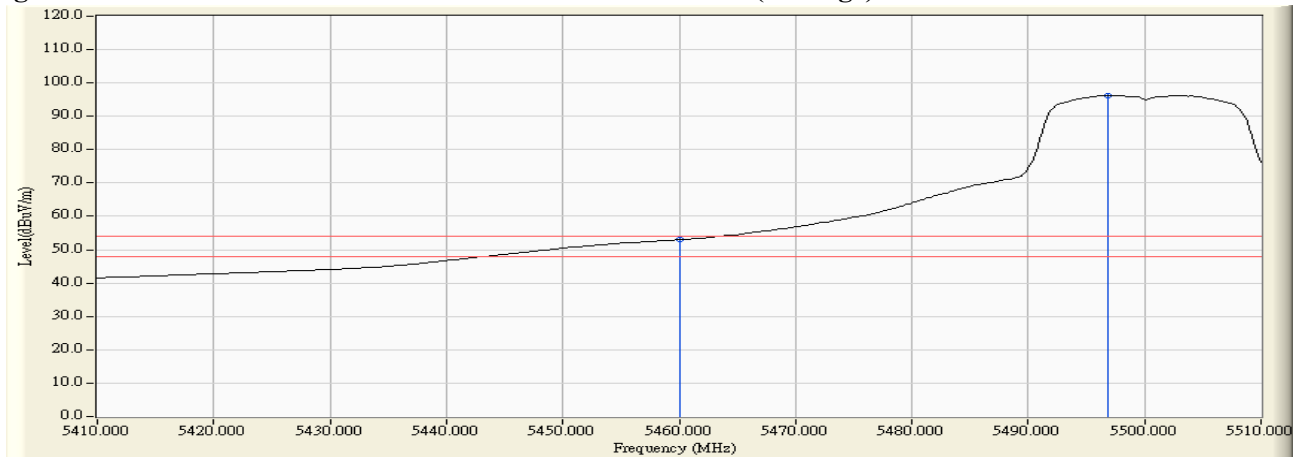


Figure Channel 100: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
100 (Peak)	5457.800	3.903	67.182	71.085	74.00	54.00	Pass
100 (Peak)	5460.000	3.934	65.361	69.296	74.00	54.00	Pass
100 (Peak)	5497.800	4.437	101.535	105.972	--	--	--
100 (Average)	5460.000	3.934	46.865	50.800	74.00	54.00	Pass
100 (Average)	5496.600	4.425	87.951	92.376	--	--	--

Figure Channel 100:

Vertical (Peak)

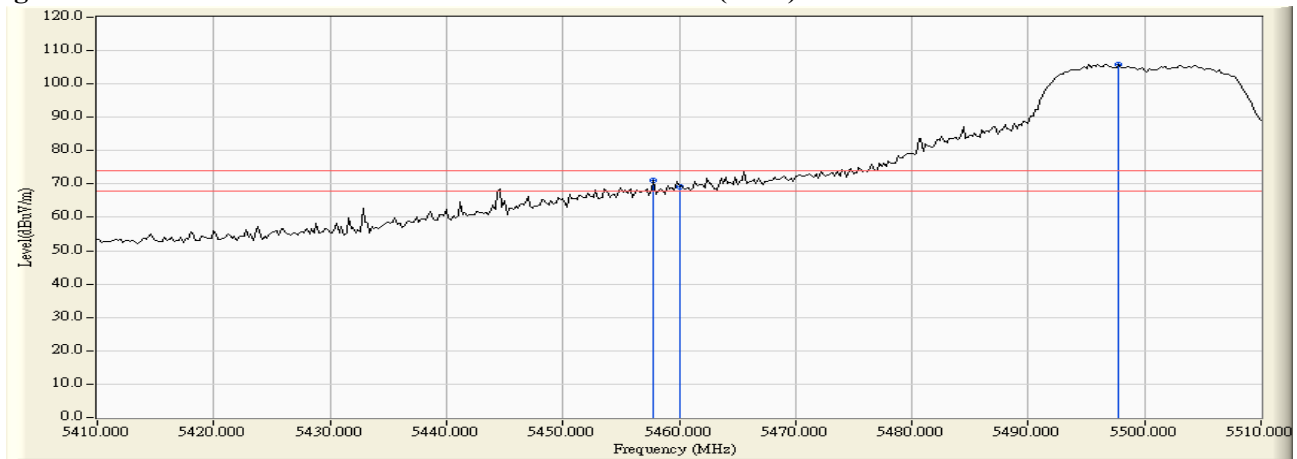
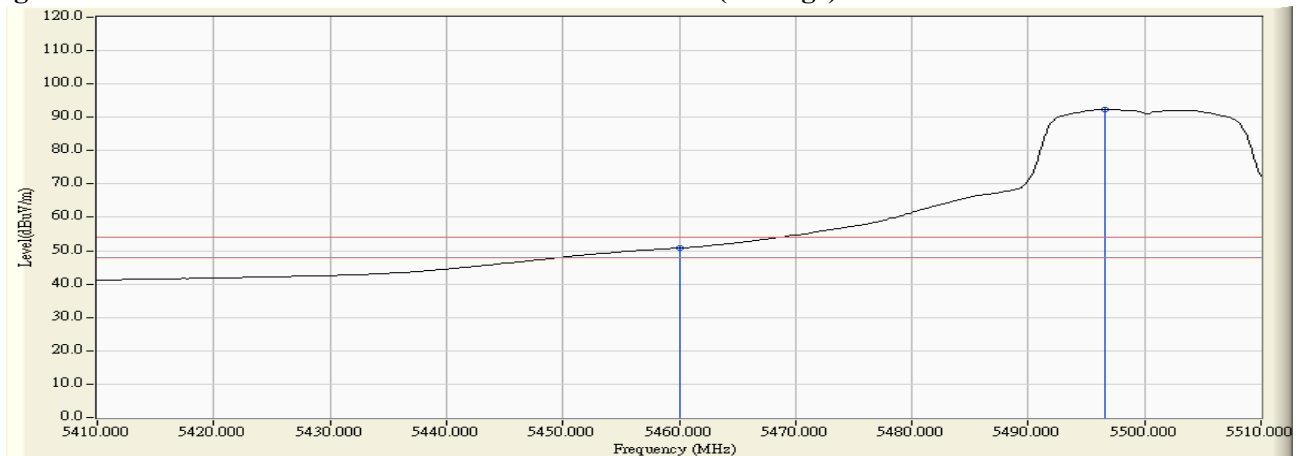


Figure Channel 100:

Vertical (Average)

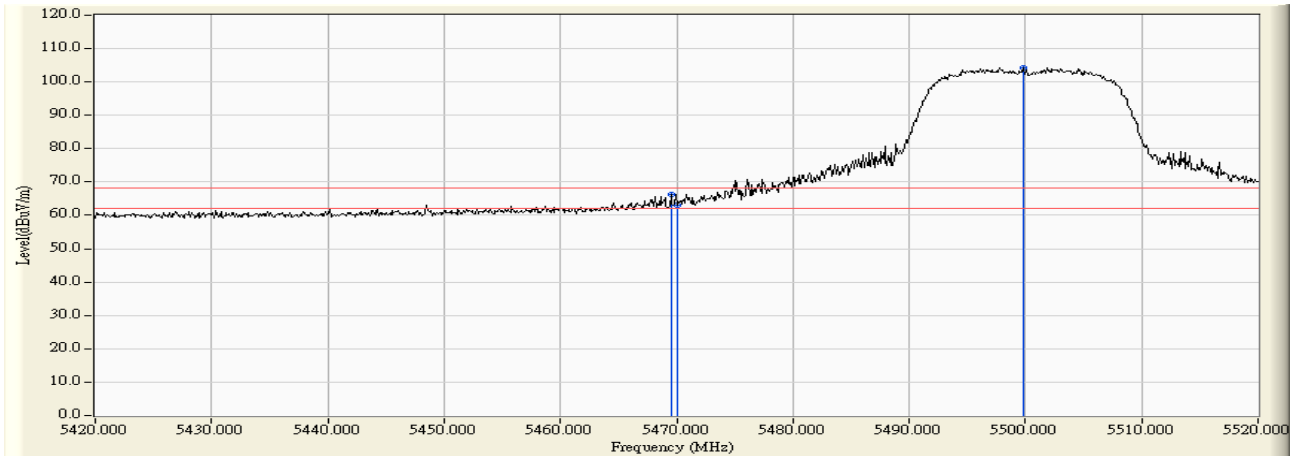


Note:

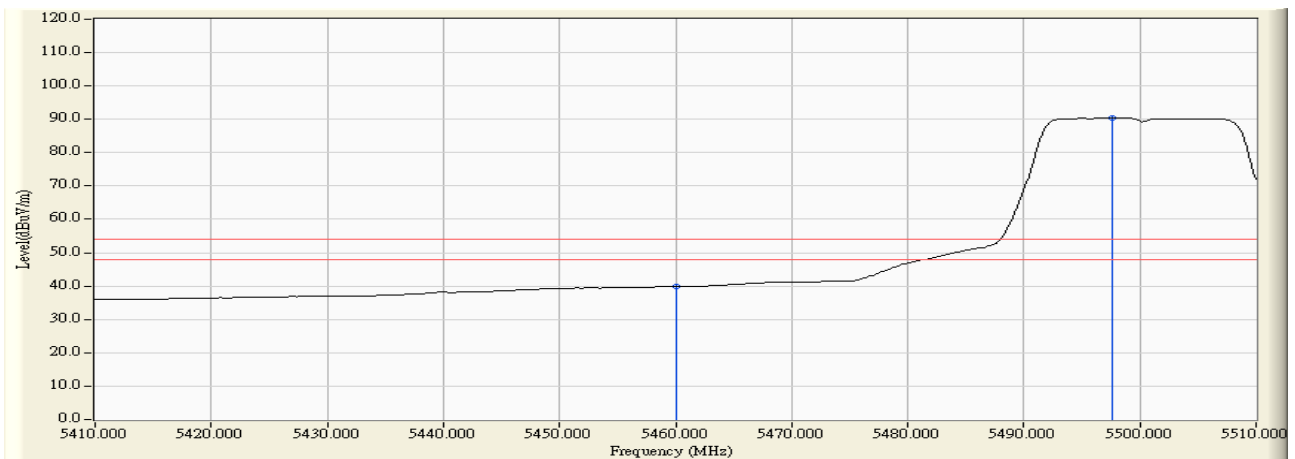
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 100

RF Radiated Measurement:



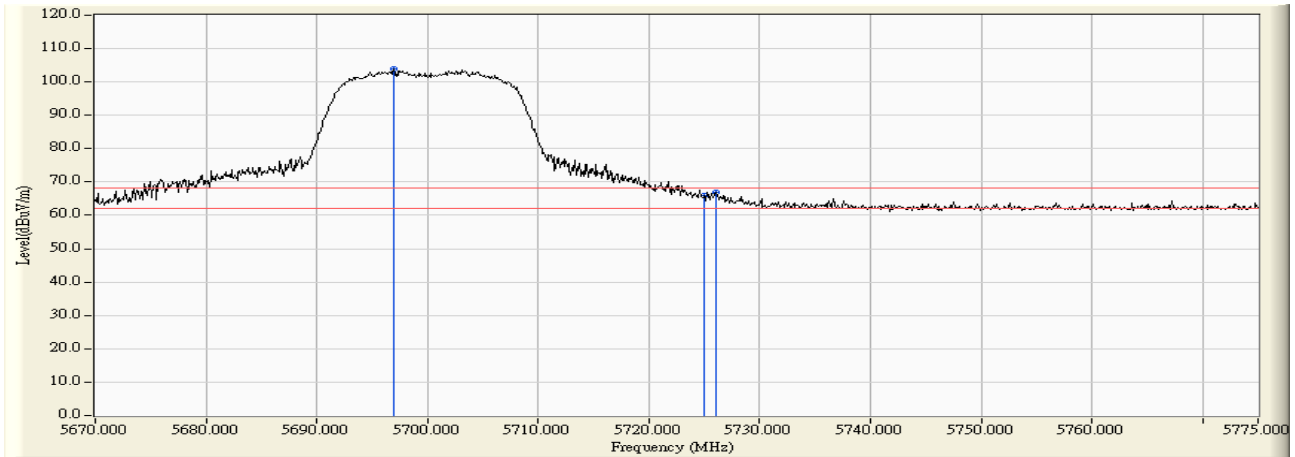
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5469.500	3.961	62.372	66.332	-1.888	68.220	Pass
Horizontal	5470.000	3.970	58.966	62.936	-5.284	68.220	Pass
Horizontal	5499.800	4.476	99.846	104.322	--	--	--



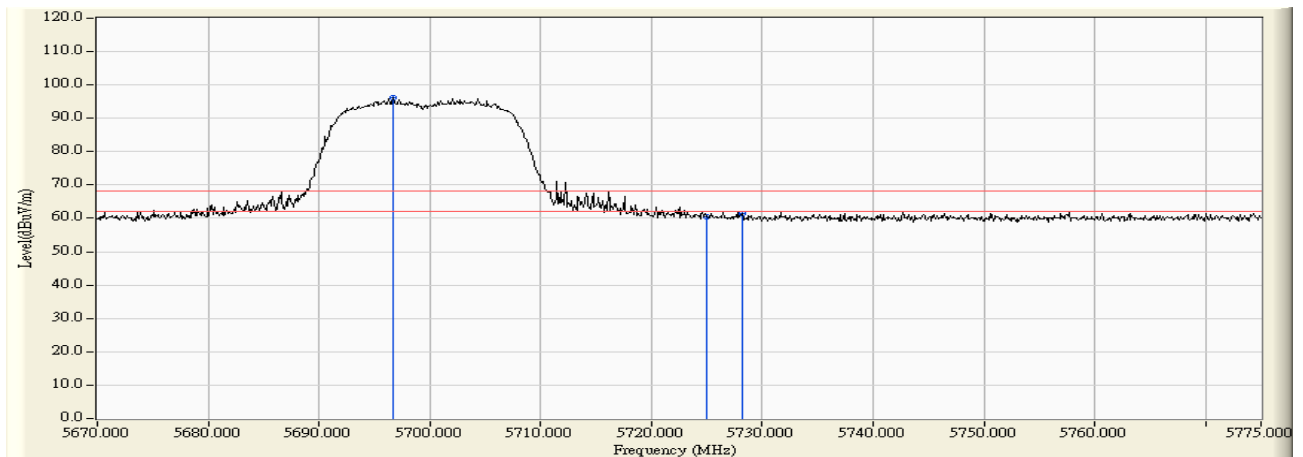
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5469.500	4.072	57.180	61.252	-6.968	68.220	Pass
Vertical	5470.000	4.079	55.617	59.696	-8.524	68.220	Pass
Vertical	5502.900	4.489	92.429	96.918	--	--	--

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 140

RF Radiated Measurement:



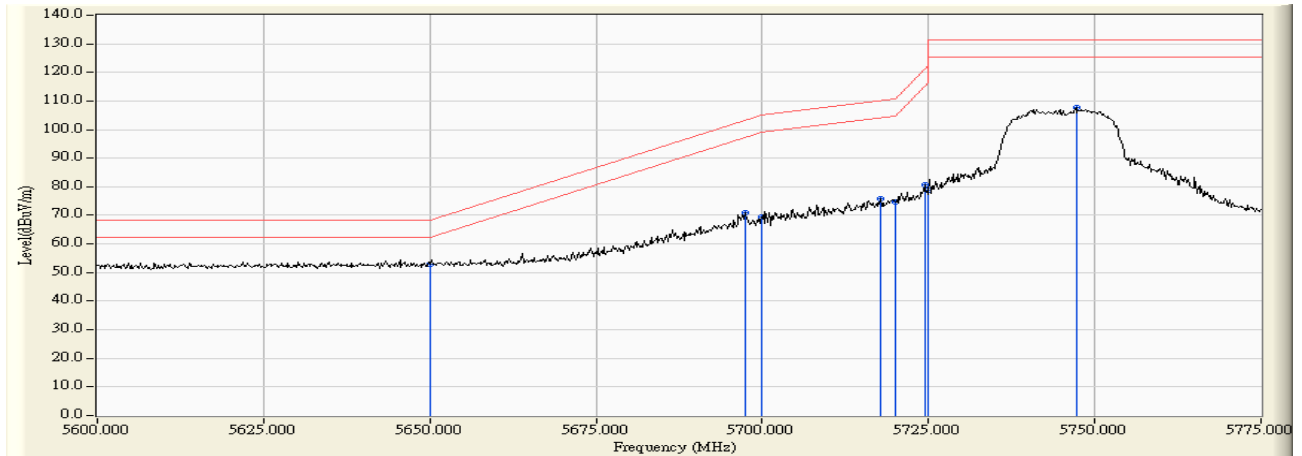
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5696.985	4.989	98.893	103.883	--	--	--
Horizontal	5725.000	5.104	60.784	65.888	-2.332	68.220	Pass
Horizontal	5726.070	5.108	61.779	66.888	-1.332	68.220	Pass



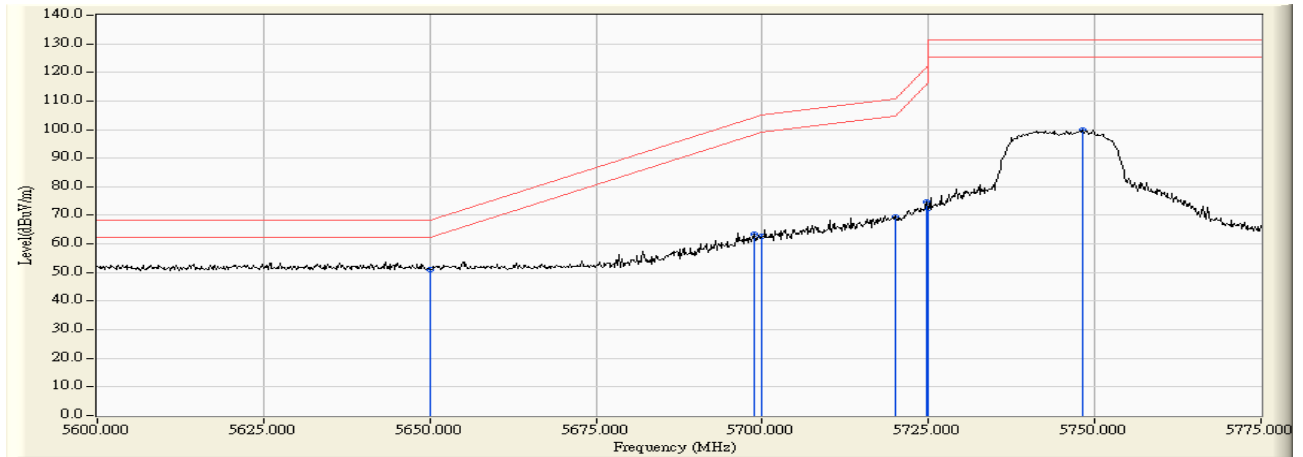
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5696.670	4.179	91.955	96.133	--	--	--
Vertical	5725.000	4.215	56.258	60.473	-7.747	68.220	Pass
Vertical	5728.170	4.225	57.071	61.296	-6.924	68.220	Pass

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 149

RF Radiated Measurement:



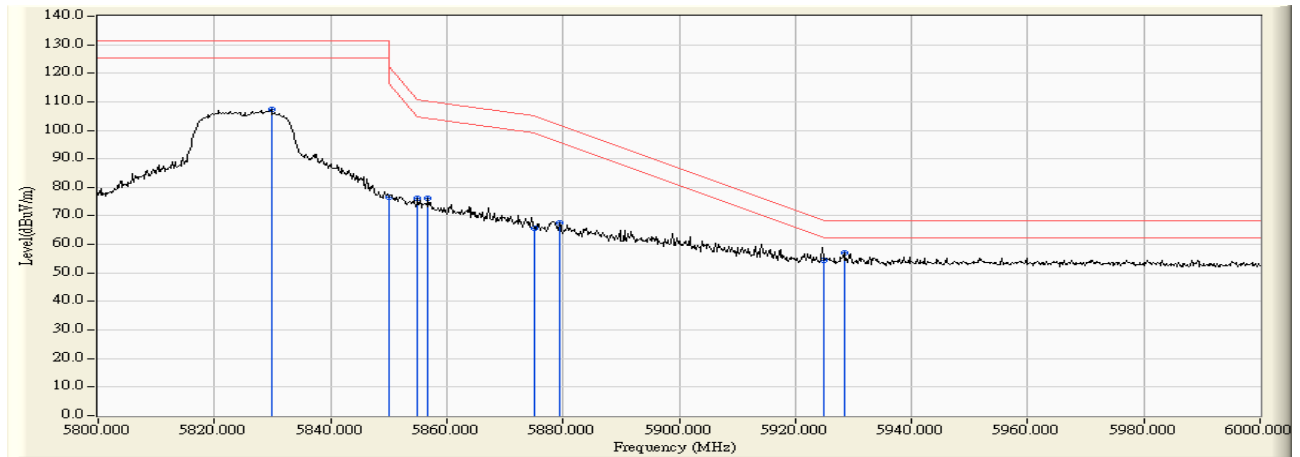
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5650.000	4.764	48.340	53.105	-15.115	68.220	Pass
Horizontal	5697.475	4.991	65.811	70.803	-32.530	103.333	Pass
Horizontal	5700.000	5.002	64.549	69.551	-35.649	105.200	Pass
Horizontal	5717.775	5.074	70.836	75.910	-34.267	110.177	Pass
Horizontal	5720.000	5.083	69.744	74.828	-35.972	110.800	Pass
Horizontal	5724.425	5.102	75.445	80.547	-40.342	120.889	Pass
Horizontal	5725.000	5.104	73.800	78.904	-43.296	122.200	Pass
Horizontal	5747.175	5.195	102.351	107.546	-23.654	131.200	Pass



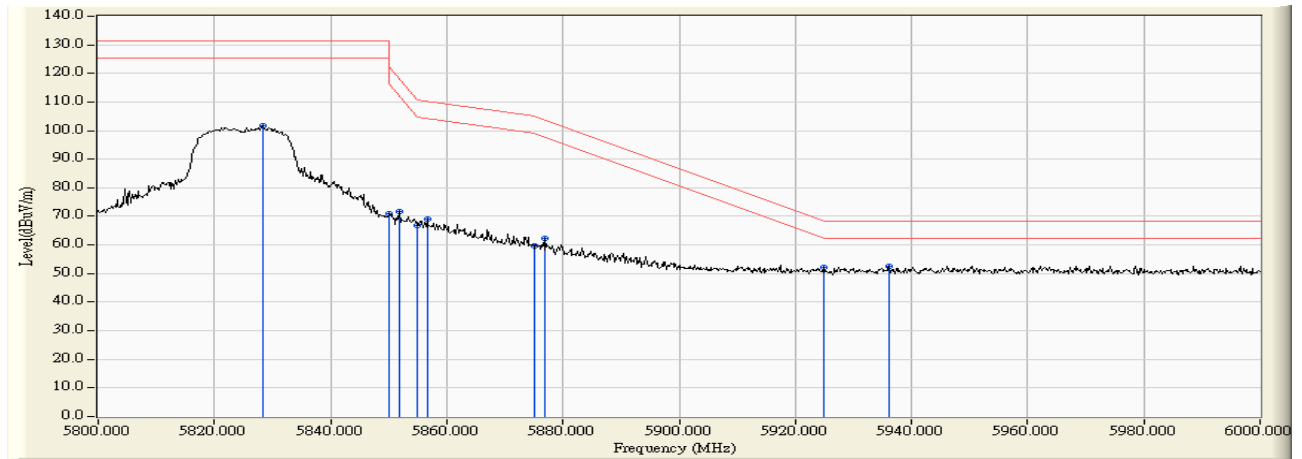
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Vertical	5650.000	4.361	46.736	51.098	-17.122	68.220	Pass
Vertical	5698.700	4.177	59.429	63.606	-40.633	104.239	Pass
Vertical	5700.000	4.176	58.354	62.530	-42.670	105.200	Pass
Vertical	5720.000	4.200	65.397	69.598	-41.202	110.800	Pass
Vertical	5724.775	4.214	70.478	74.693	-46.994	121.687	Pass
Vertical	5725.000	4.215	68.119	72.334	-49.866	122.200	Pass
Vertical	5748.225	4.283	95.730	100.013	-31.187	131.200	Pass

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 165

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5829.800	5.573	101.598	107.171	-24.029	131.200	Pass
Horizontal	5850.000	5.715	70.741	76.456	-45.744	122.200	Pass
Horizontal	5855.000	5.757	70.383	76.139	-34.661	110.800	Pass
Horizontal	5856.800	5.771	70.509	76.280	-34.016	110.296	Pass
Horizontal	5875.000	5.930	59.894	65.825	-39.375	105.200	Pass
Horizontal	5879.400	5.970	61.763	67.733	-34.211	101.944	Pass
Horizontal	5925.000	6.245	48.217	54.462	-13.738	68.200	Pass
Horizontal	5928.400	6.257	50.759	57.016	-11.184	68.200	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5828.400	4.278	97.259	101.537	-29.663	131.200	Pass
Vertical	5850.000	4.194	66.726	70.920	-51.280	122.200	Pass
Vertical	5851.800	4.190	67.430	71.620	-46.476	118.096	Pass
Vertical	5855.000	4.181	62.682	66.863	-43.937	110.800	Pass
Vertical	5856.600	4.177	64.851	69.028	-41.324	110.352	Pass
Vertical	5875.000	4.136	55.624	59.761	-45.439	105.200	Pass
Vertical	5877.000	4.133	58.034	62.167	-41.553	103.720	Pass
Vertical	5925.000	4.270	47.982	52.252	-15.948	68.200	Pass
Vertical	5936.200	4.349	48.313	52.662	-15.538	68.200	Pass

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5149.000	2.800	66.331	69.131	74.00	54.00	Pass
36 (Peak)	5150.000	2.796	64.395	67.191	74.00	54.00	Pass
36 (Peak)	5183.200	2.685	110.152	112.837	--	--	--
36 (Average)	5150.000	2.796	48.852	51.648	74.00	54.00	Pass
36 (Average)	5176.600	2.707	90.636	93.343	--	--	--

Figure Channel 36: Horizontal (Peak)

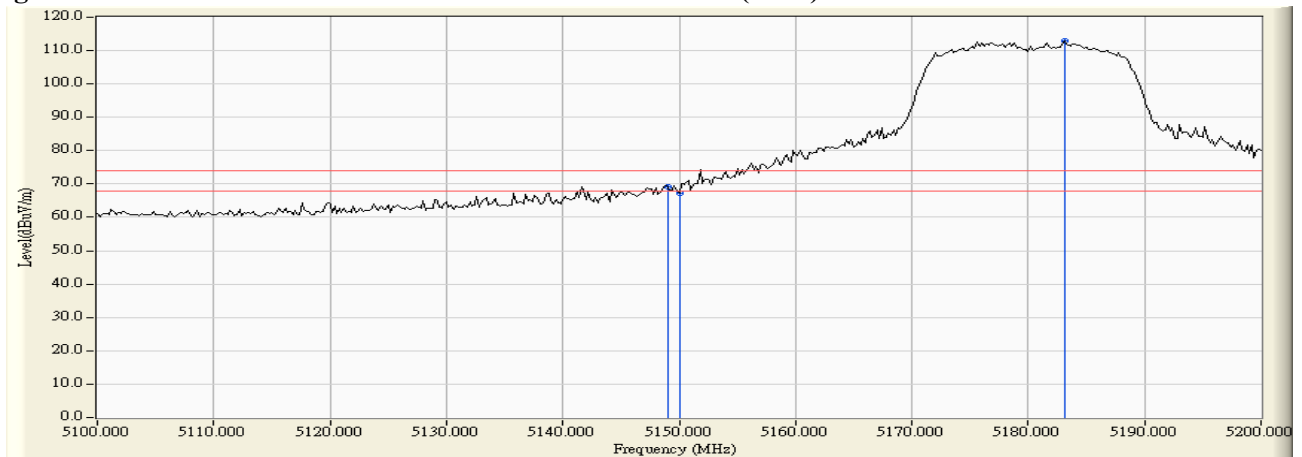
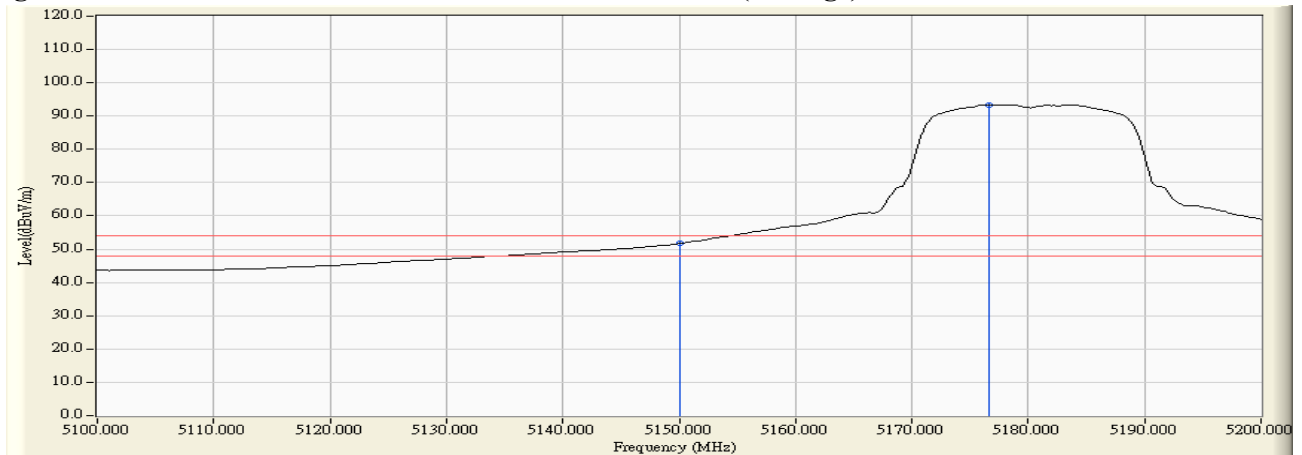


Figure Channel 36: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
36 (Peak)	5148.200	3.323	60.455	63.778	74.00	54.00	Pass
36 (Peak)	5150.000	3.331	58.731	62.063	74.00	54.00	Pass
36 (Peak)	5179.200	3.468	98.336	101.805	--	--	--
36 (Average)	5150.000	3.331	40.890	44.222	74.00	54.00	Pass
36 (Average)	5183.600	3.490	80.384	83.874	--	--	--

Figure Channel 36: Vertical (Peak)

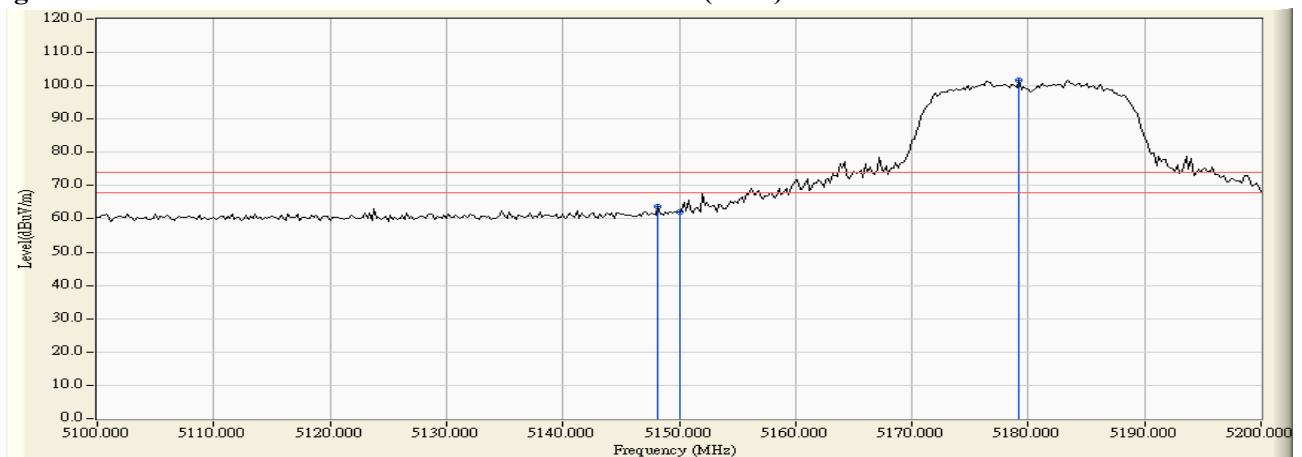
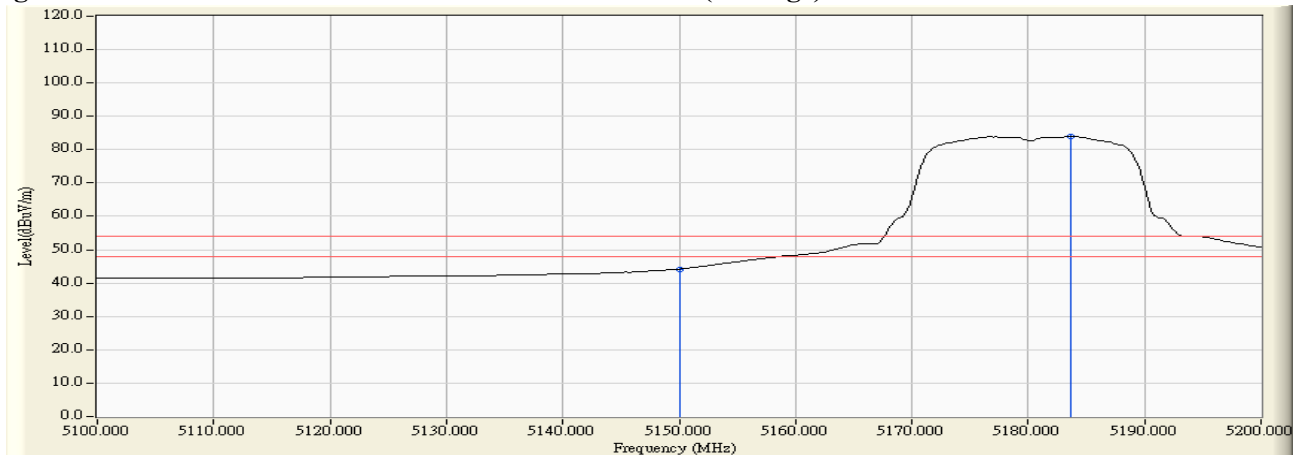


Figure Channel 36: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
64 (Peak)	5316.600	3.649	109.527	113.176	--	--	--
64 (Peak)	5350.000	3.575	68.026	71.601	74.00	54.00	Pass
64 (Peak)	5351.400	3.572	69.786	73.357	74.00	54.00	Pass
64 (Average)	5323.200	3.637	90.830	94.467	--	--	--
64 (Average)	5350.000	3.575	48.275	51.850	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

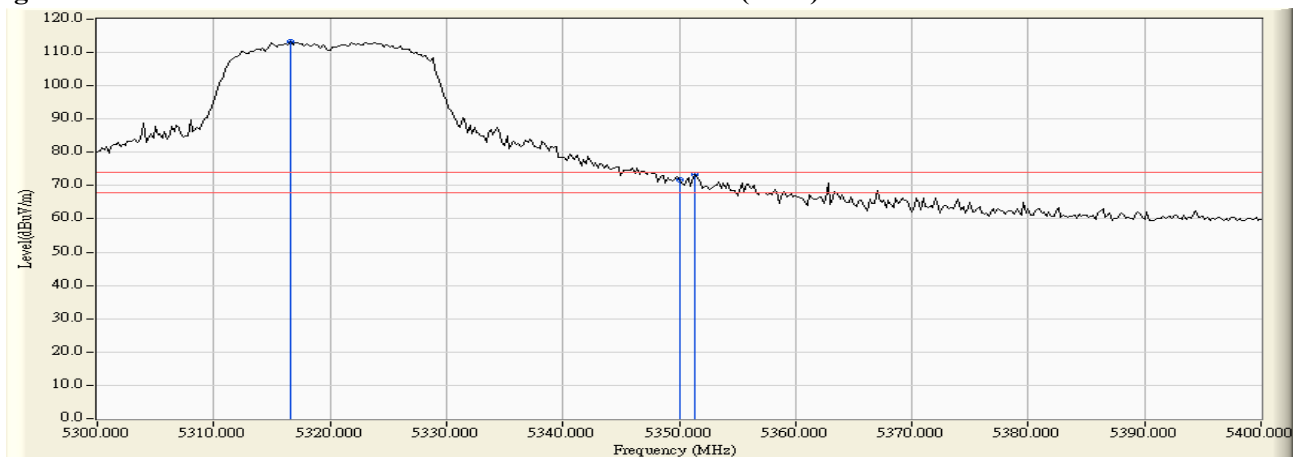
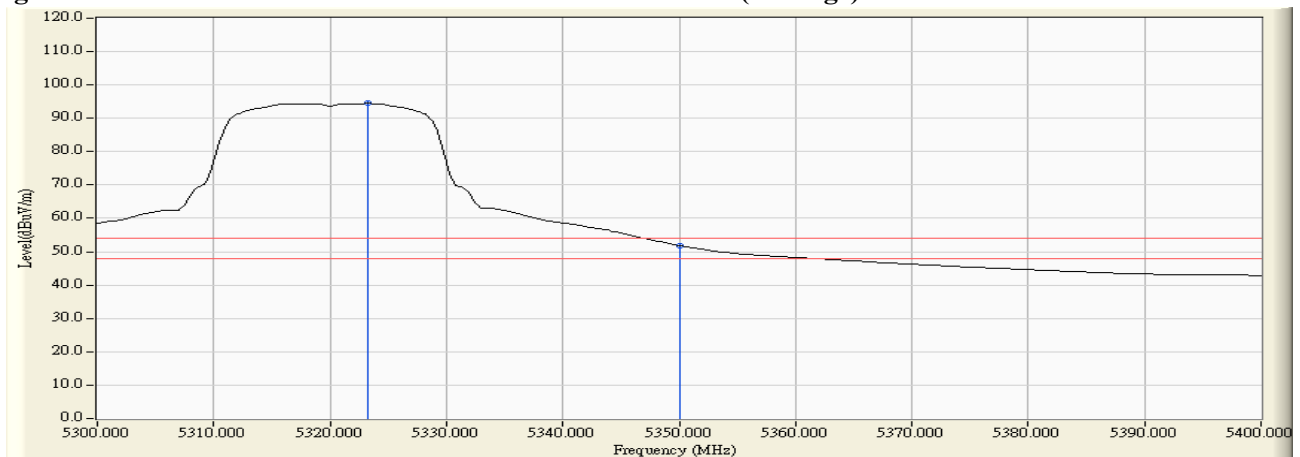


Figure Channel 64: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
64 (Peak)	5317.800	3.885	102.913	106.798	--	--	--
64 (Peak)	5350.000	3.900	61.229	65.129	74.00	54.00	Pass
64 (Peak)	5352.200	3.899	63.397	67.297	74.00	54.00	Pass
64 (Average)	5323.400	3.889	84.995	88.884	--	--	--
64 (Average)	5350.000	3.900	43.303	47.203	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

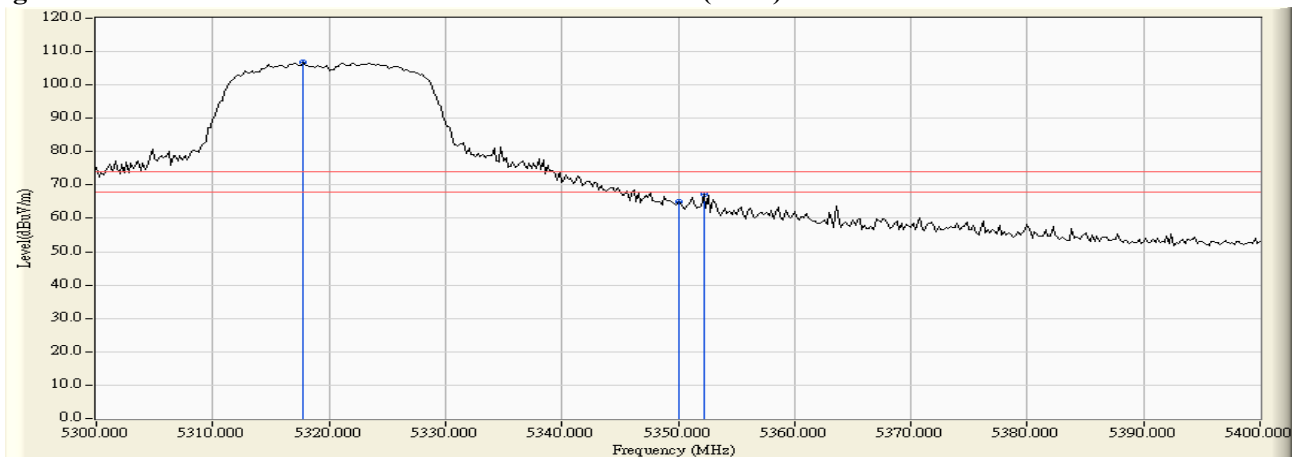
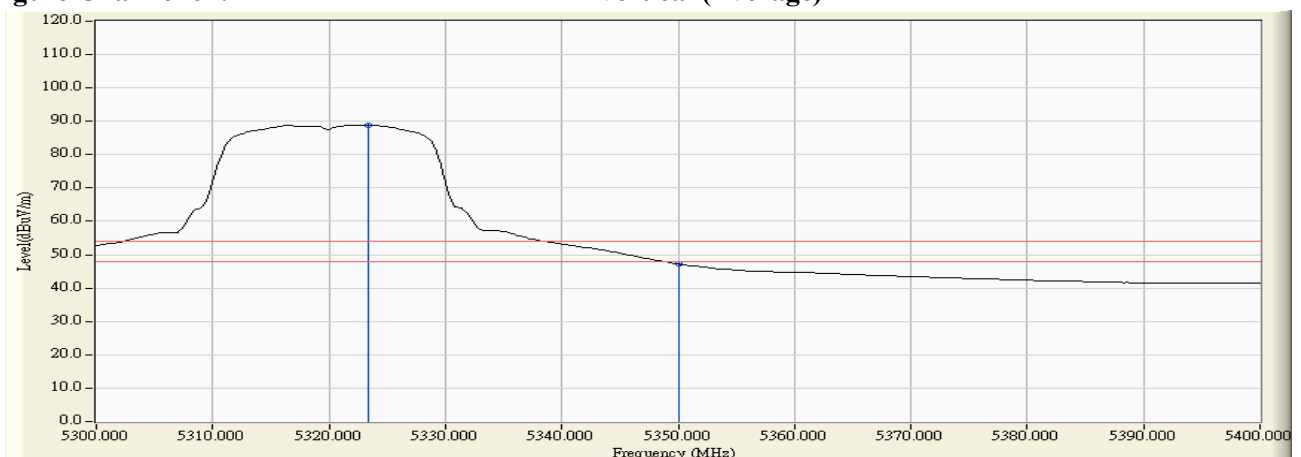


Figure Channel 64: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
100 (Peak)	5459.400	36.510	69.352	73.116	74.00	54.00	Pass
100 (Peak)	5460.000	36.521	66.972	70.747	74.00	54.00	Pass
100 (Peak)	5497.600	37.155	110.050	114.496	--	--	--
100 (Average)	5460.000	3.775	48.900	52.675	74.00	54.00	Pass
100 (Average)	5496.400	4.430	90.821	95.251	--	--	--

Figure Channel 100: Horizontal (Peak)

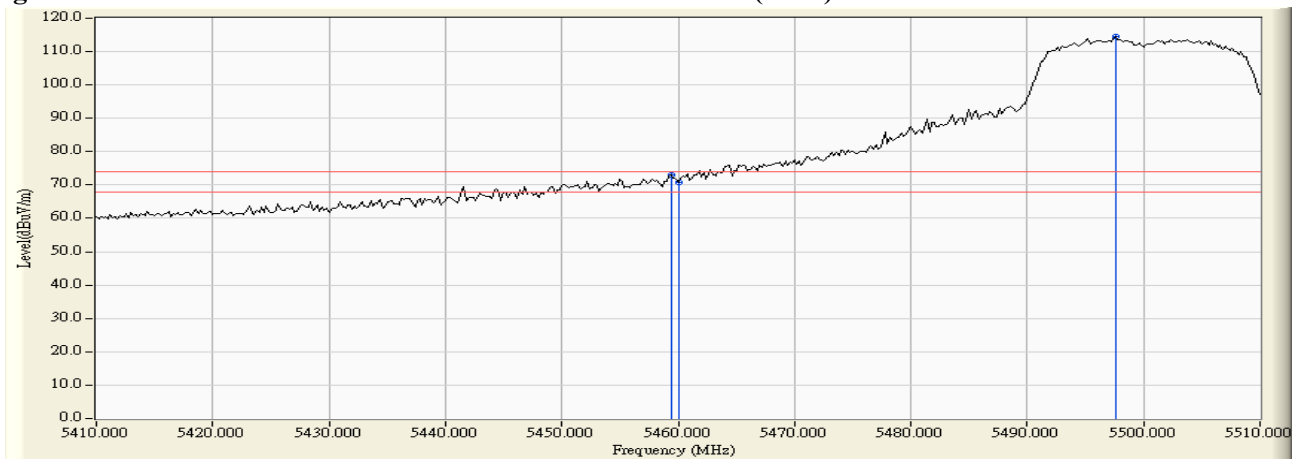
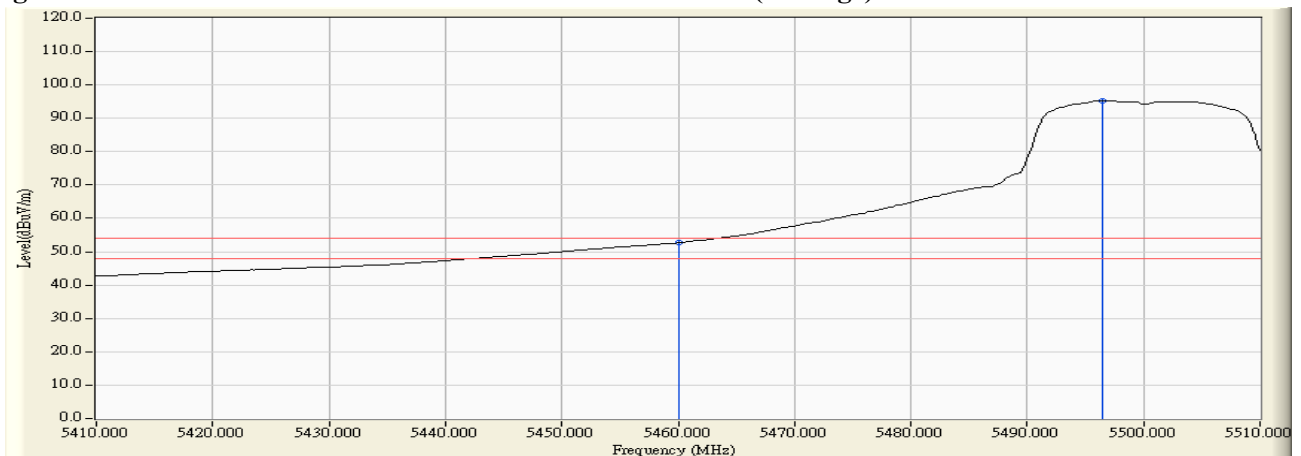


Figure Channel 100: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
100 (Peak)	5459.200	3.924	62.328	66.252	74.00	54.00	Pass
100 (Peak)	5460.000	3.934	60.315	64.250	74.00	54.00	Pass
100 (Peak)	5503.400	4.495	102.948	107.443	--	--	--
100 (Average)	5460.000	3.934	43.765	47.700	74.00	54.00	Pass
100 (Average)	5497.200	4.430	84.826	89.257	--	--	--

Figure Channel 100: Vertical (Peak)

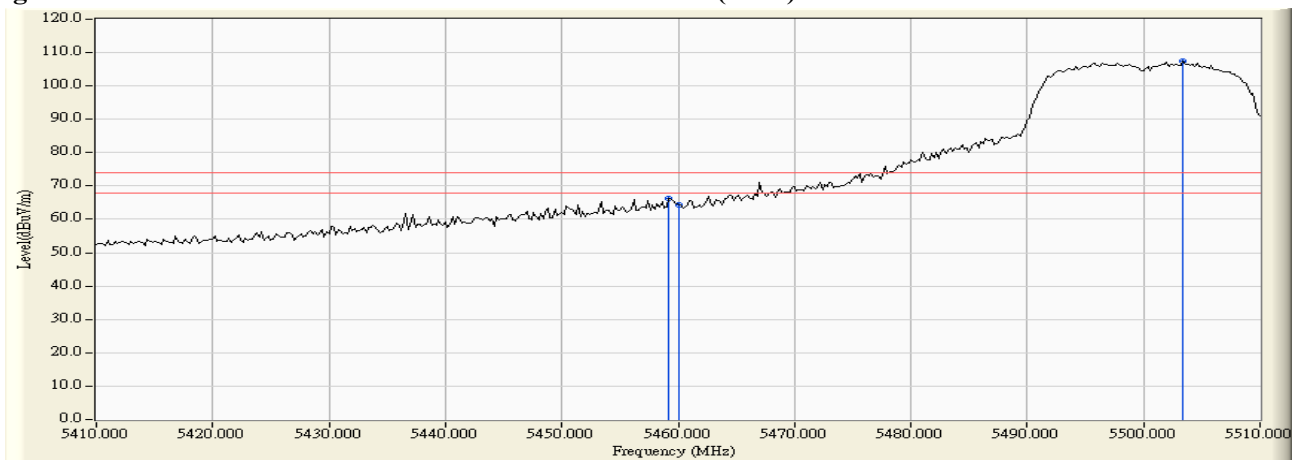
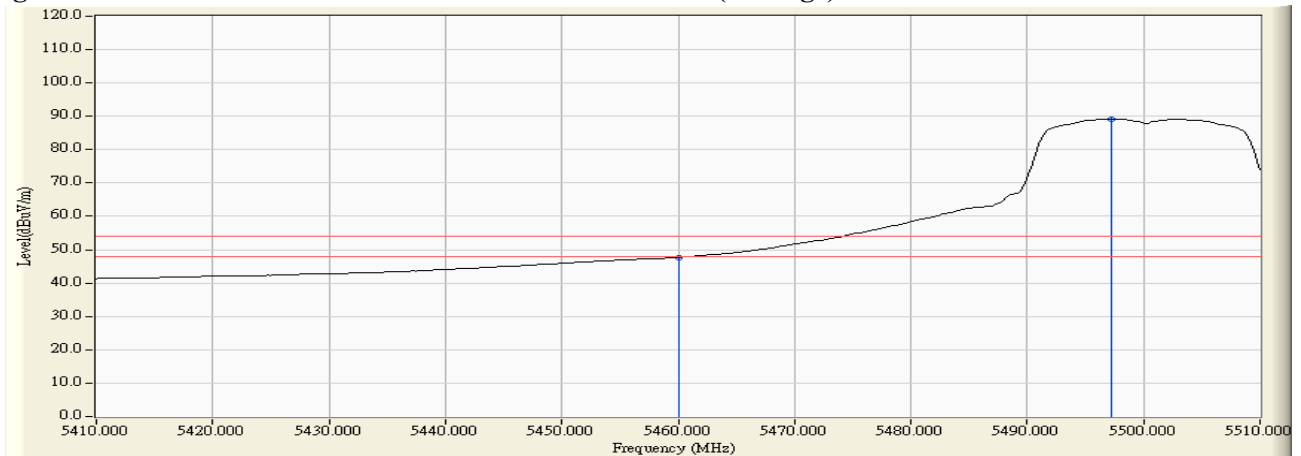


Figure Channel 100: Vertical (Average)

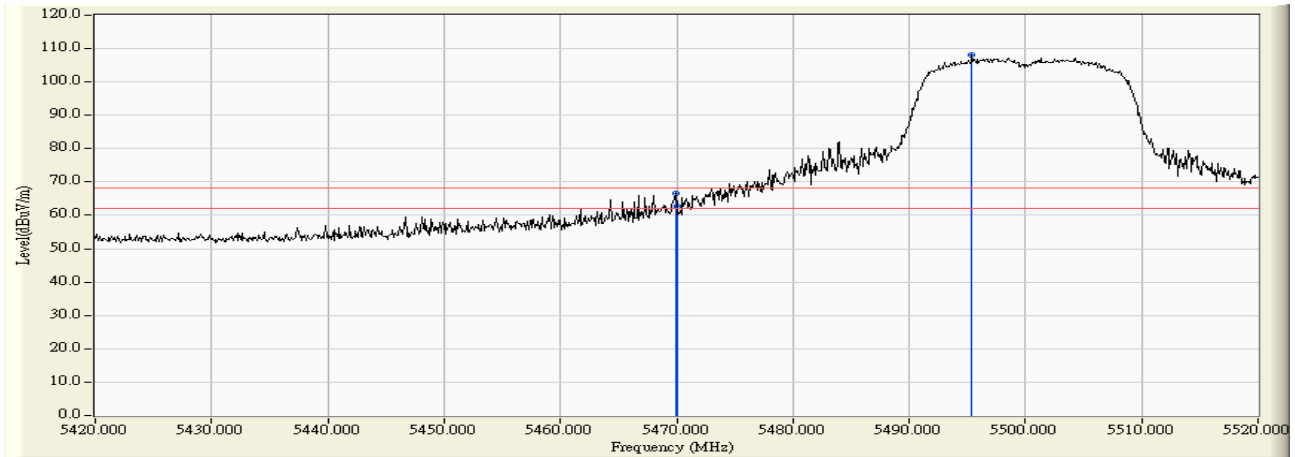


Note:

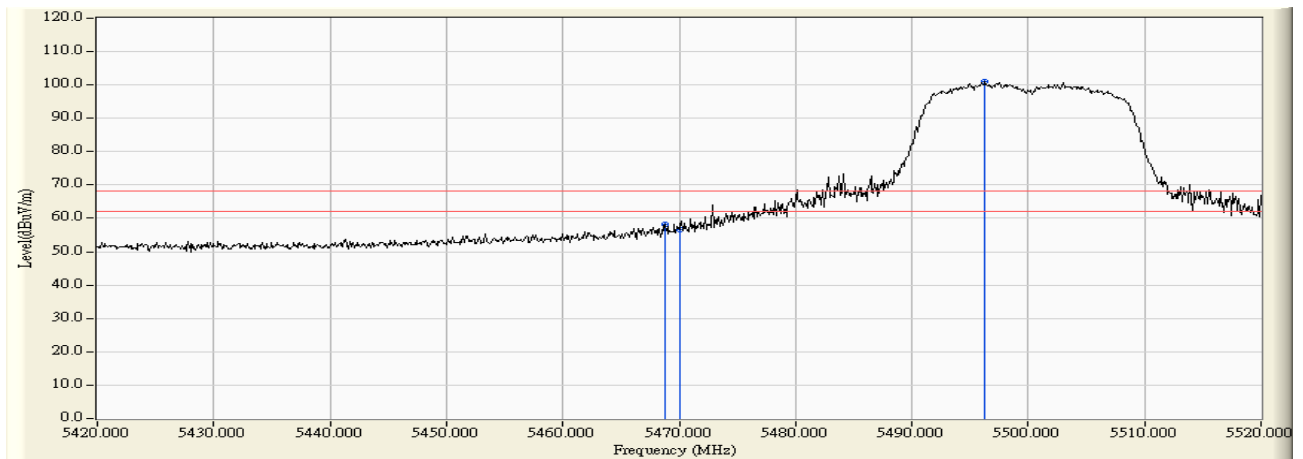
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 100

RF Radiated Measurement:



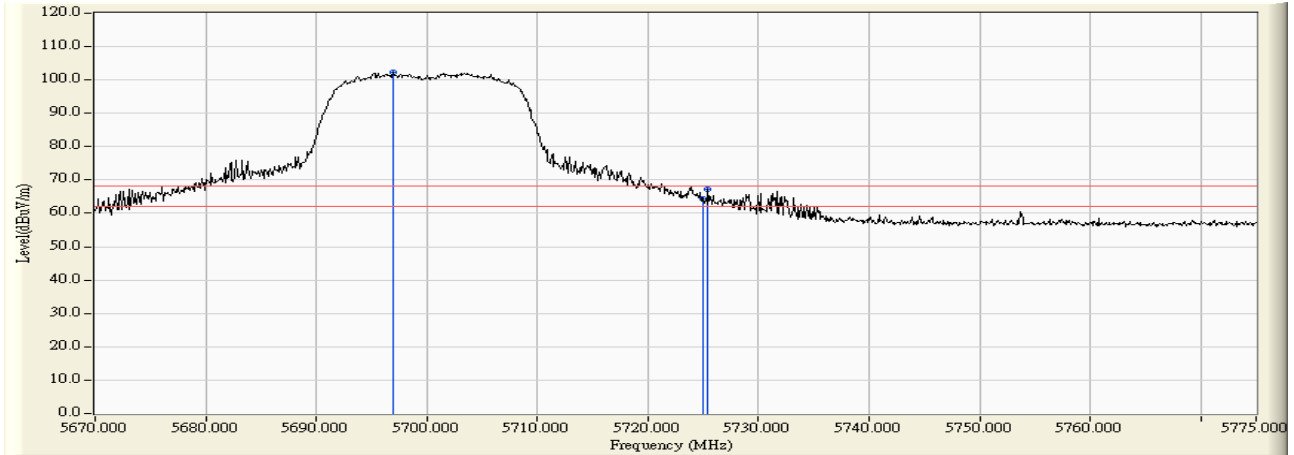
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5469.900	3.968	62.778	66.746	-1.474	68.220	Pass
Horizontal	5470.000	3.970	58.608	62.578	-5.642	68.220	Pass
Horizontal	5495.400	4.417	103.546	107.963	--	--	--



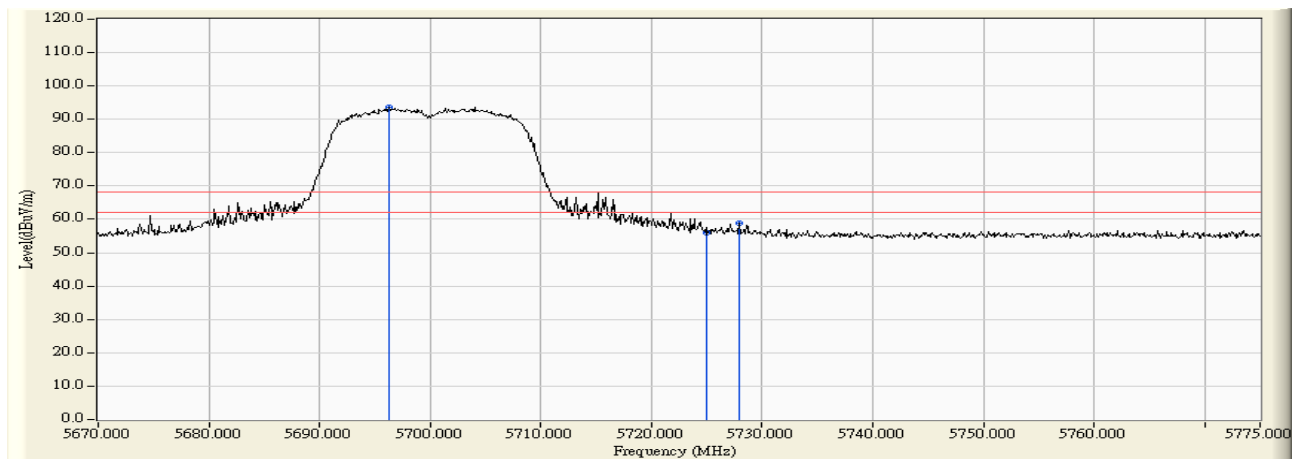
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5468.800	4.061	54.322	58.384	-9.836	68.220	Pass
Vertical	5470.000	4.079	52.579	56.658	-11.562	68.220	Pass
Vertical	5496.300	4.422	96.641	101.063	--	--	--

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 140

RF Radiated Measurement:



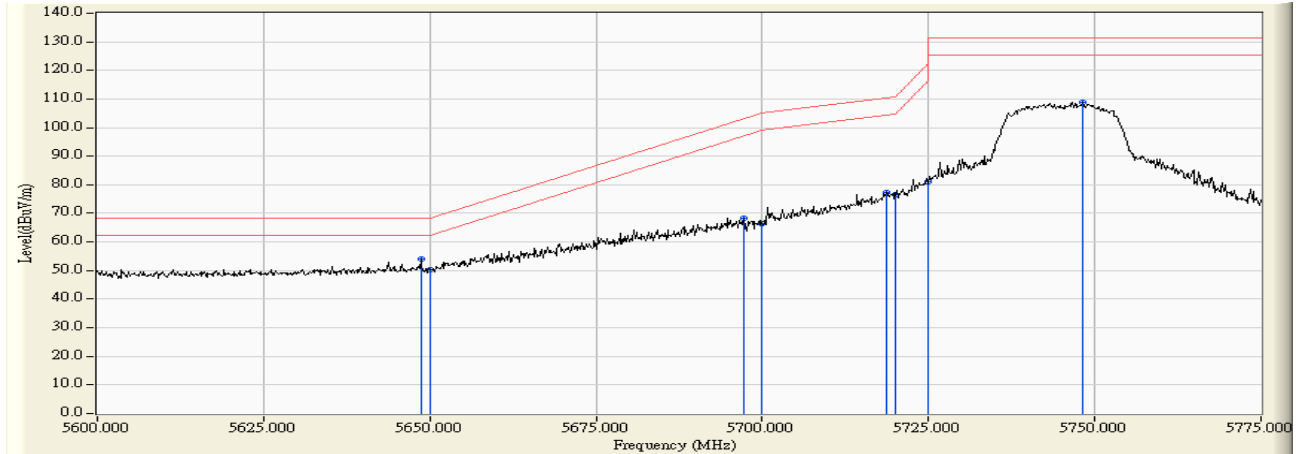
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Horizontal	5696.985	4.989	97.401	102.391	--	--	--
Horizontal	5725.000	5.104	59.160	64.264	-3.956	68.220	Pass
Horizontal	5725.440	5.107	62.250	67.356	-0.864	68.220	Pass



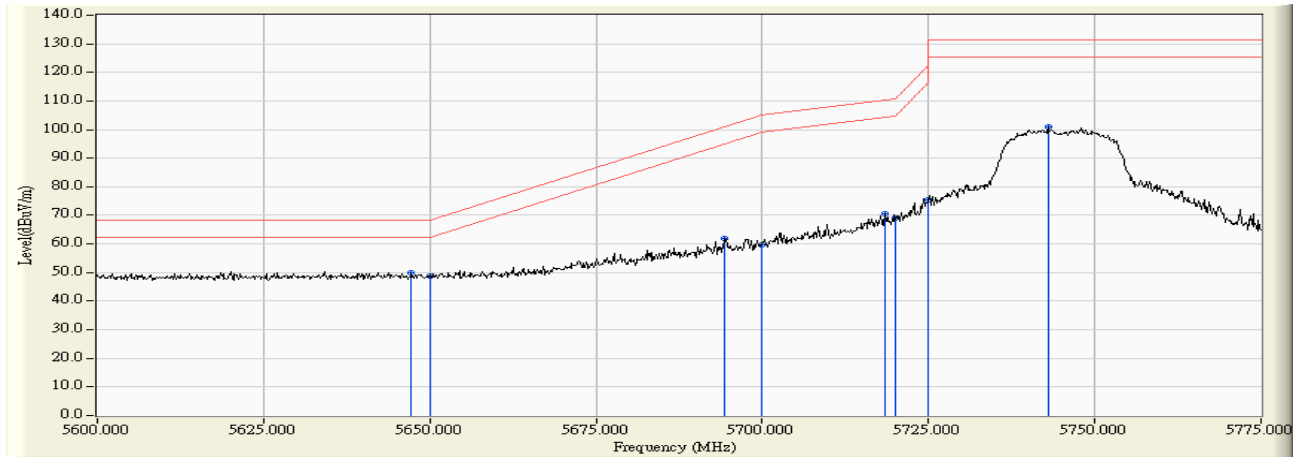
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Vertical	5696.250	4.179	89.465	93.644	--	--	--
Vertical	5725.000	4.215	51.629	55.844	-12.376	68.220	Pass
Vertical	5727.960	4.224	54.800	59.024	-9.196	68.220	Pass

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 149

RF Radiated Measurement:



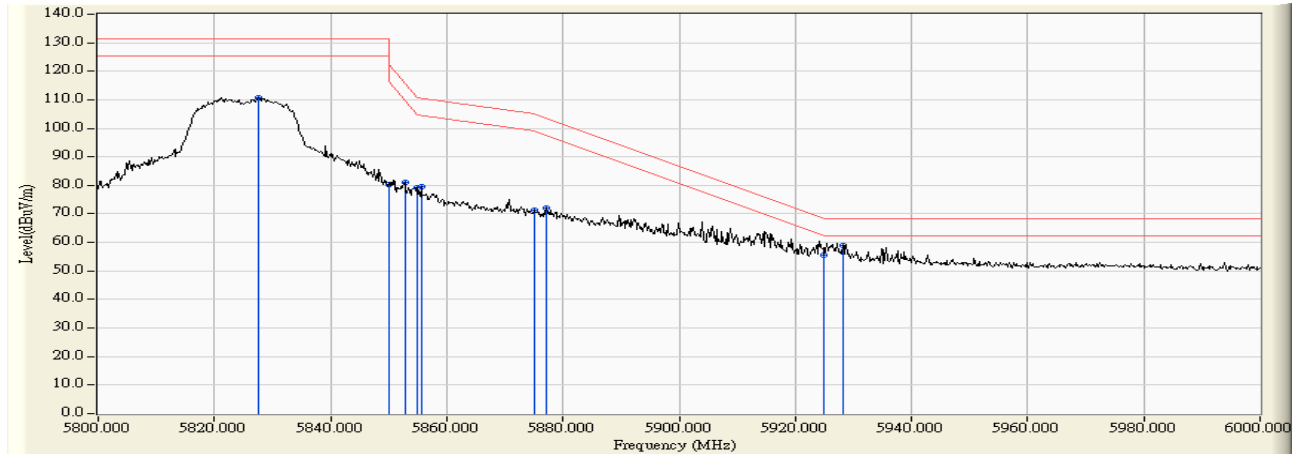
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5648.650	4.751	49.307	54.058	-14.162	68.220	Pass
Horizontal	5650.000	4.764	45.614	50.379	-17.841	68.220	Pass
Horizontal	5697.125	4.990	63.345	68.335	-34.739	103.074	Pass
Horizontal	5700.000	5.002	61.271	66.273	-38.927	105.200	Pass
Horizontal	5718.650	5.078	72.379	77.457	-32.965	110.422	Pass
Horizontal	5720.000	5.083	71.309	76.393	-34.407	110.800	Pass
Horizontal	5725.000	5.104	75.973	81.077	-41.123	122.200	Pass
Horizontal	5748.225	5.199	103.562	108.760	-22.440	131.200	Pass



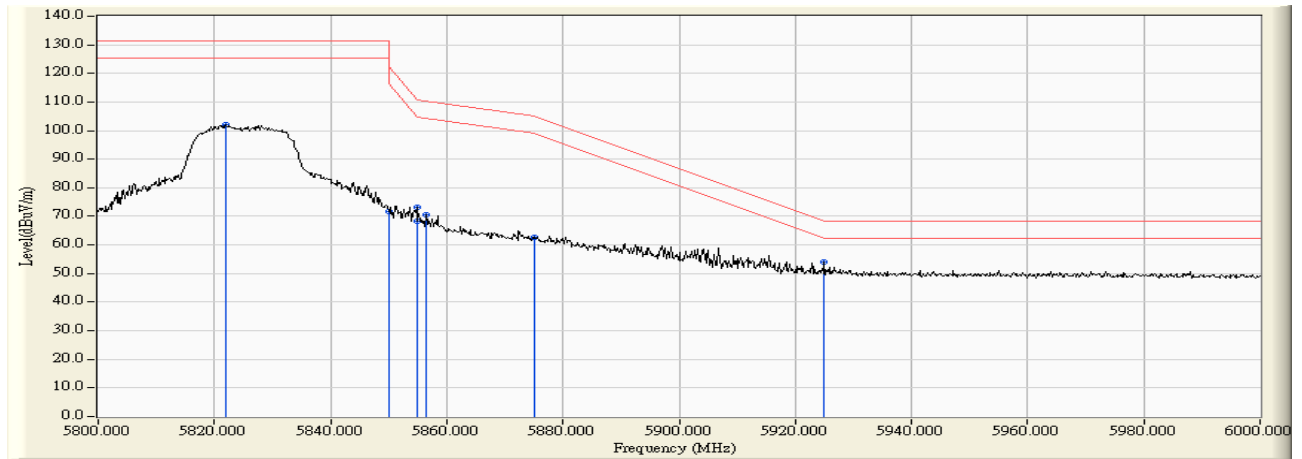
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5647.250	4.360	45.635	49.994	-18.226	68.220	Pass
Vertical	5650.000	4.361	44.460	48.822	-19.398	68.220	Pass
Vertical	5694.325	4.180	57.616	61.796	-39.207	101.003	Pass
Vertical	5700.000	4.176	55.674	59.850	-45.350	105.200	Pass
Vertical	5718.475	4.196	66.184	70.380	-39.993	110.373	Pass
Vertical	5720.000	4.200	64.924	69.125	-41.675	110.800	Pass
Vertical	5725.000	4.215	71.140	75.355	-46.845	122.200	Pass
Vertical	5742.975	4.269	96.524	100.793	-30.407	131.200	Pass

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 165

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5827.600	5.559	105.067	110.625	-20.575	131.200	Pass
Horizontal	5850.000	5.715	74.719	80.434	-41.766	122.200	Pass
Horizontal	5852.800	5.738	75.357	81.095	-34.721	115.816	Pass
Horizontal	5855.000	5.757	73.607	79.363	-31.437	110.800	Pass
Horizontal	5855.600	5.762	73.956	79.717	-30.915	110.632	Pass
Horizontal	5875.000	5.930	65.247	71.178	-34.022	105.200	Pass
Horizontal	5877.200	5.950	65.988	71.939	-31.633	103.572	Pass
Horizontal	5925.000	6.245	49.422	55.667	-12.533	68.200	Pass
Horizontal	5928.200	6.256	52.523	58.779	-9.421	68.200	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5822.000	4.305	97.679	101.984	-29.216	131.200	Pass
Vertical	5850.000	4.194	67.403	71.597	-50.603	122.200	Pass
Vertical	5854.800	4.182	69.076	73.257	-37.999	111.256	Pass
Vertical	5855.000	4.181	63.962	68.143	-42.657	110.800	Pass
Vertical	5856.400	4.176	66.297	70.474	-39.934	110.408	Pass
Vertical	5875.000	4.136	58.675	62.812	-42.388	105.200	Pass
Vertical	5925.000	4.270	49.615	53.885	-14.315	68.200	Pass

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
38 (Peak)	5147.200	1.915	69.906	71.821	74.00	54.00	Pass
38 (Peak)	5150.000	1.886	69.658	71.545	74.00	54.00	Pass
38 (Peak)	5196.300	2.970	102.143	105.113	--	--	--
38 (Average)	5150.000	1.886	47.589	49.476	74.00	54.00	Pass
38 (Average)	5194.800	2.020	79.160	81.180	--	--	--

Figure Channel 38: Horizontal (Peak)

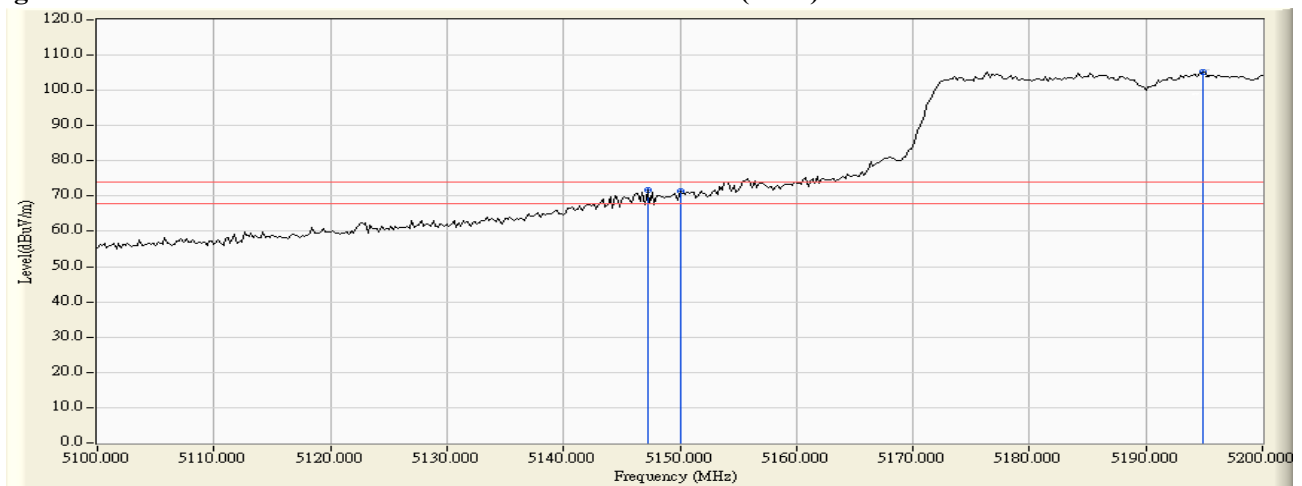
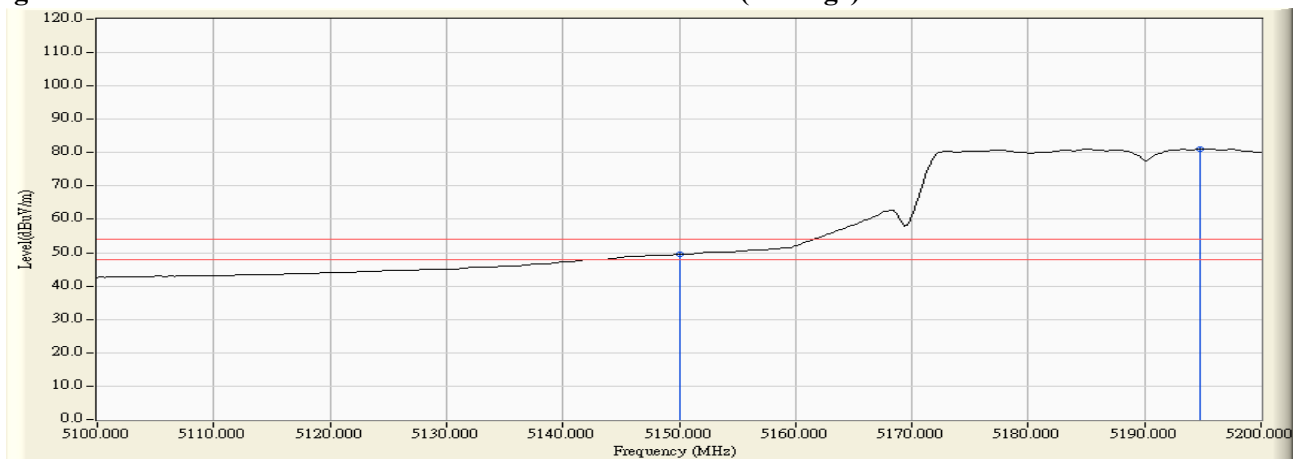


Figure Channel 38: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
38 (Peak)	5146.800	2.427	65.826	68.254	74.00	54.00	Pass
38 (Peak)	5150.000	2.421	62.545	64.967	74.00	54.00	Pass
38 (Peak)	5196.200	2.970	96.600	99.569	--	--	--
38 (Average)	5150.000	2.421	43.359	45.781	74.00	54.00	Pass
38 (Average)	5195.000	2.924	74.883	77.807	--	--	--

Figure Channel 38: Vertical (Peak)

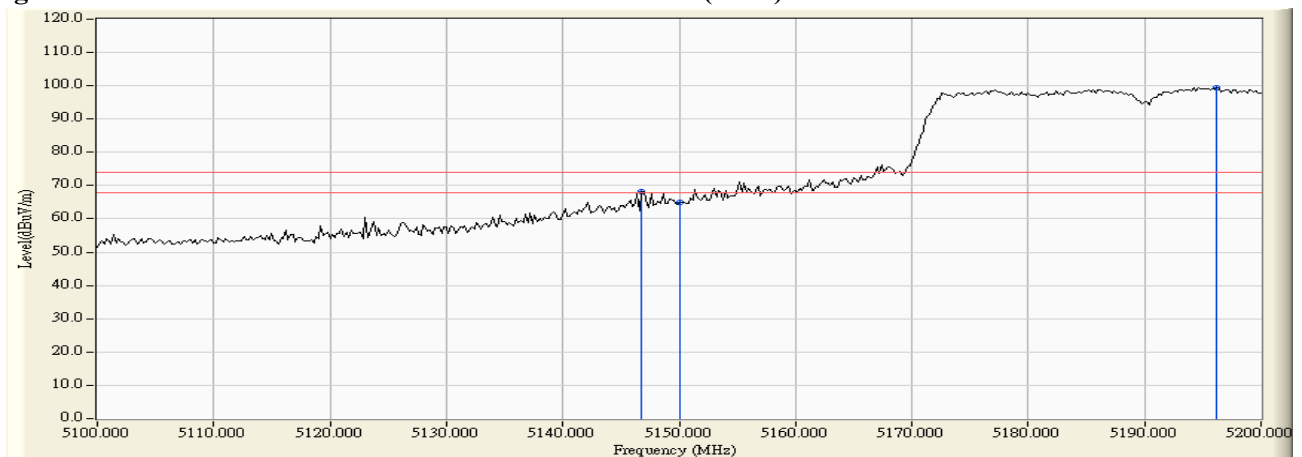
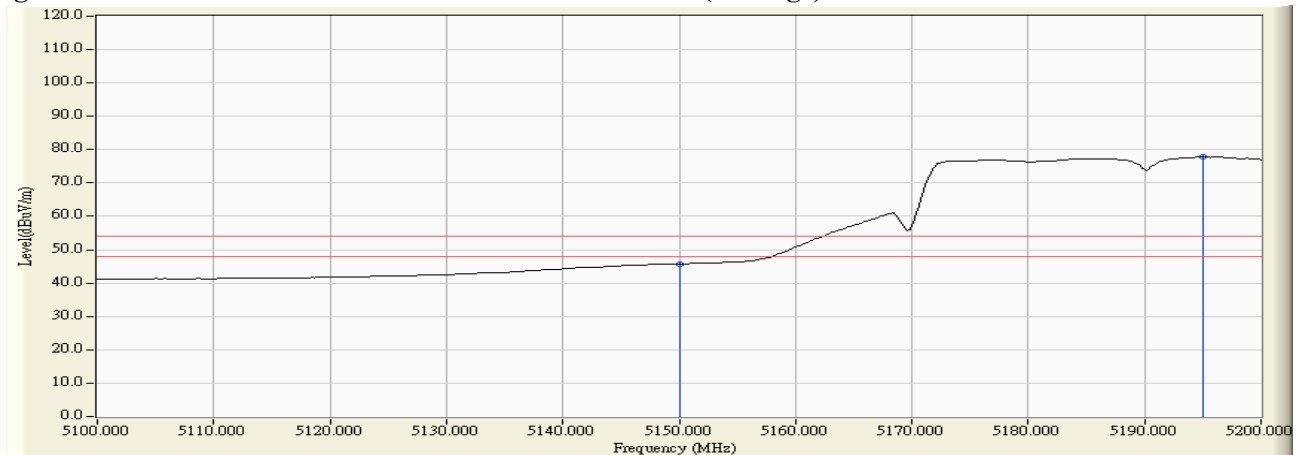


Figure Channel 38: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
62 (Peak)	5304.800	3.082	104.029	107.111	--	--	--
62 (Peak)	5350.000	1.662	69.443	71.105	74.00	54.00	Pass
62 (Peak)	5353.600	1.627	70.465	72.092	74.00	54.00	Pass
62 (Average)	5304.800	3.082	80.189	83.271	--	--	--
62 (Average)	5350.000	1.662	48.323	49.985	74.00	54.00	Pass

Figure Channel 62: Horizontal (Peak)

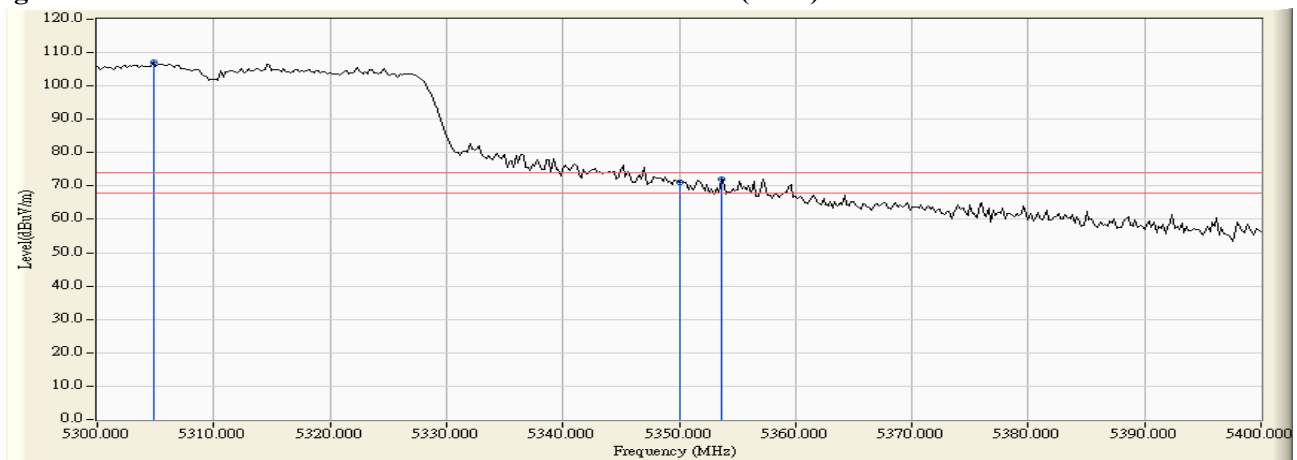
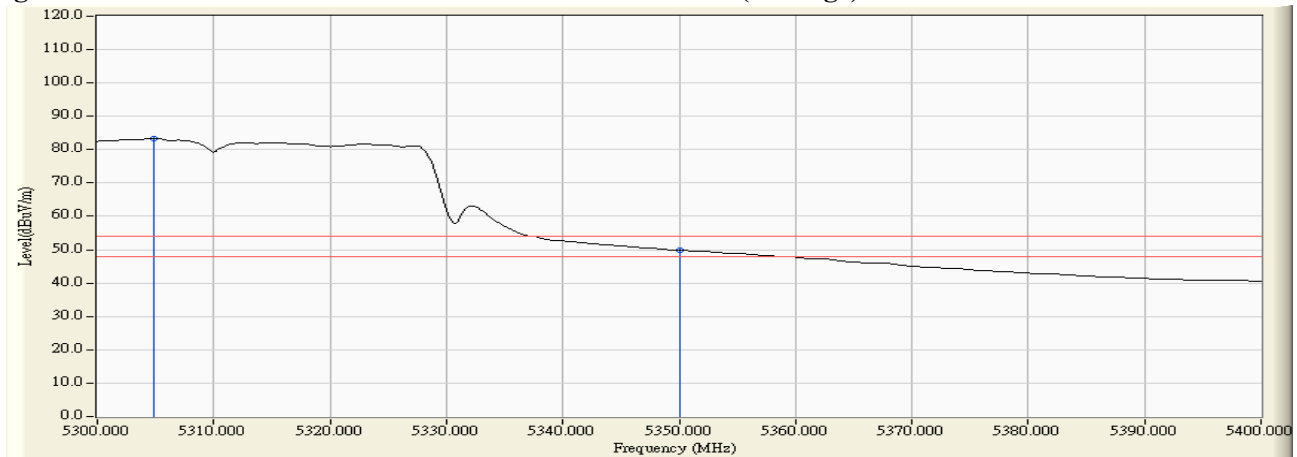


Figure Channel 62: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
62 (Peak)	5303.400	3.379	95.186	98.566	--	--	--
62 (Peak)	5350.000	1.987	59.994	61.982	74.00	54.00	Pass
62 (Peak)	5356.400	1.933	63.387	65.321	74.00	54.00	Pass
62 (Average)	5304.200	3.325	73.529	76.854	--	--	--
62 (Average)	5350.000	1.987	42.261	44.249	74.00	54.00	Pass

Figure Channel 62: Vertical (Peak)

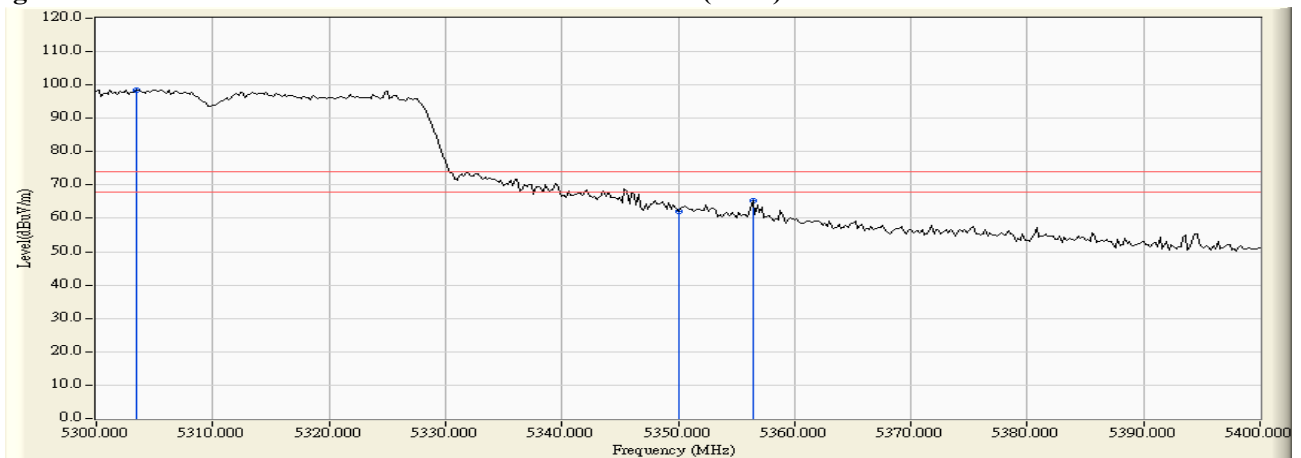


Figure Channel 62: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
102 (Peak)	5459.200	1.447	72.327	73.775	74.00	54.00	Pass
102 (Peak)	5460.000	1.459	68.897	70.357	74.00	54.00	Pass
102 (Peak)	5496.100	2.314	103.941	106.255	--	--	--
102 (Average)	5460.000	1.459	49.452	50.912	74.00	54.00	Pass
102 (Average)	5505.000	2.465	79.992	82.457	--	--	--

Figure Channel 102: Horizontal (Peak)

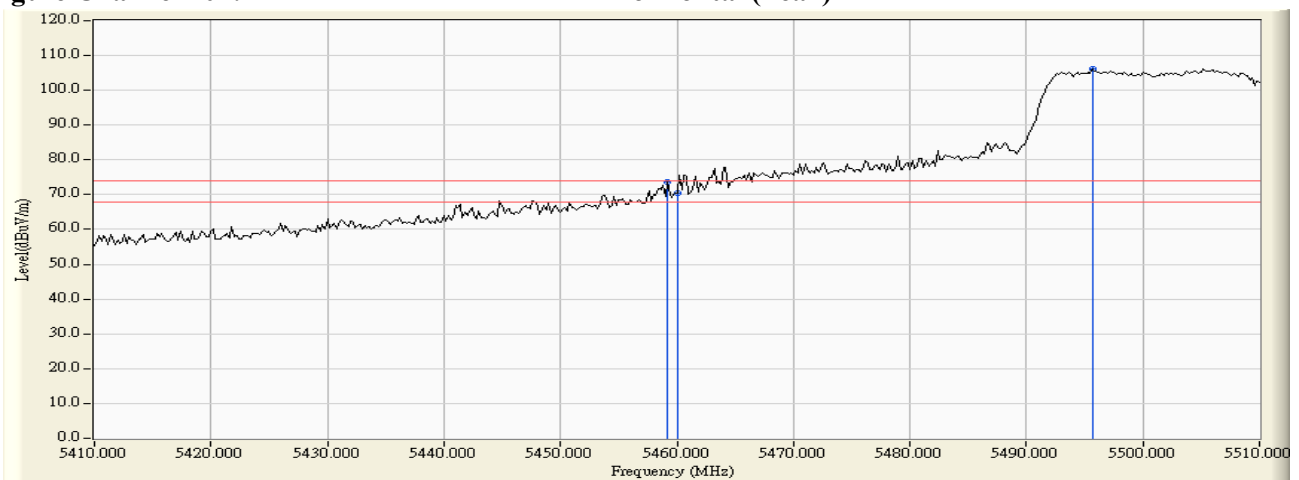
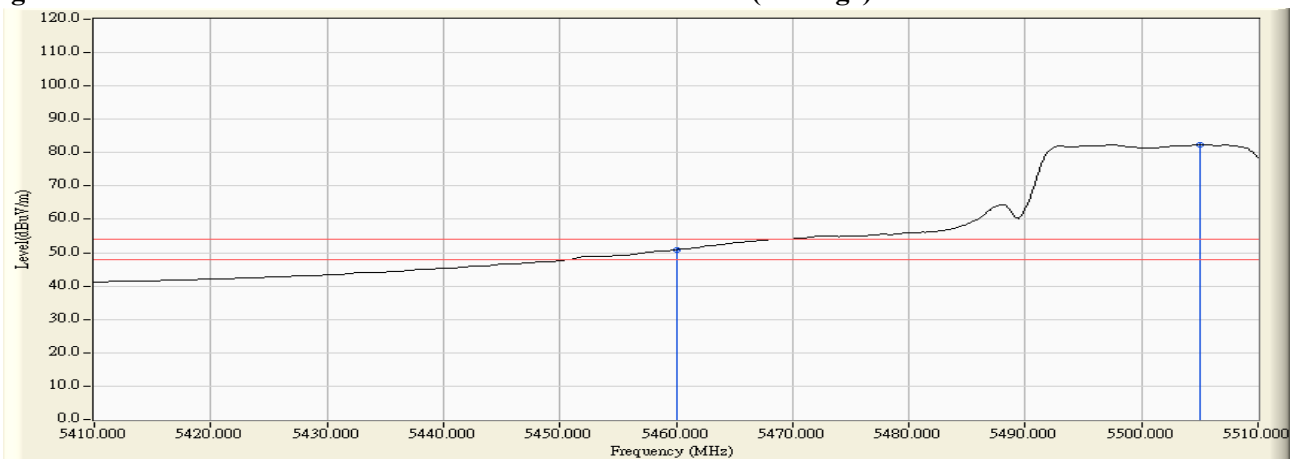


Figure Channel 102: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
102 (Peak)	5460.000	1.618	61.238	62.857	74.00	54.00	Pass
102 (Peak)	5497.200	2.314	95.298	97.613	--	--	--
102 (Average)	5460.000	1.618	43.049	44.668	74.00	54.00	Pass
102 (Average)	5505.600	2.429	72.765	75.194	--	--	--

Figure Channel 102: Vertical (Peak)

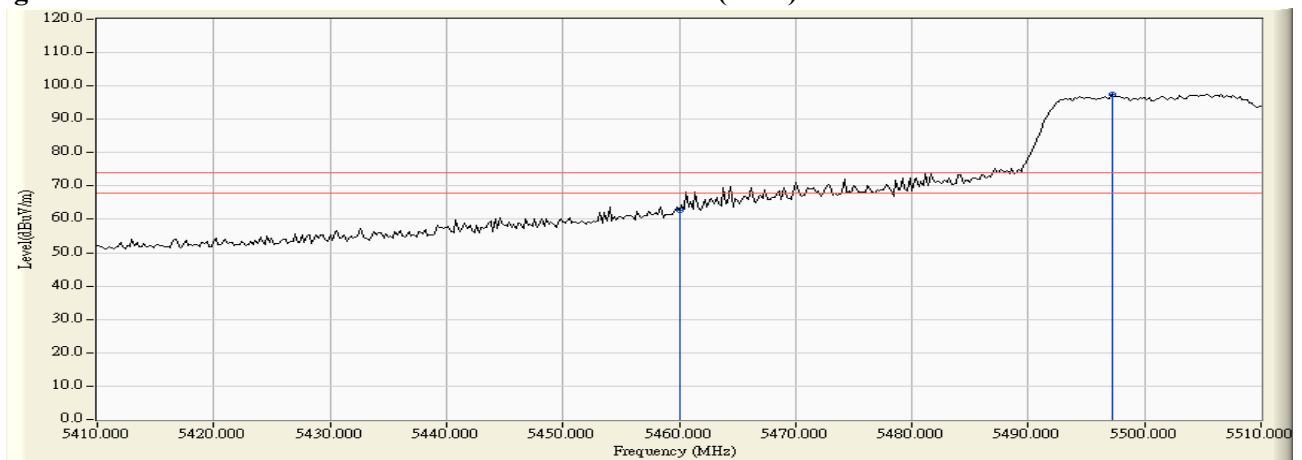
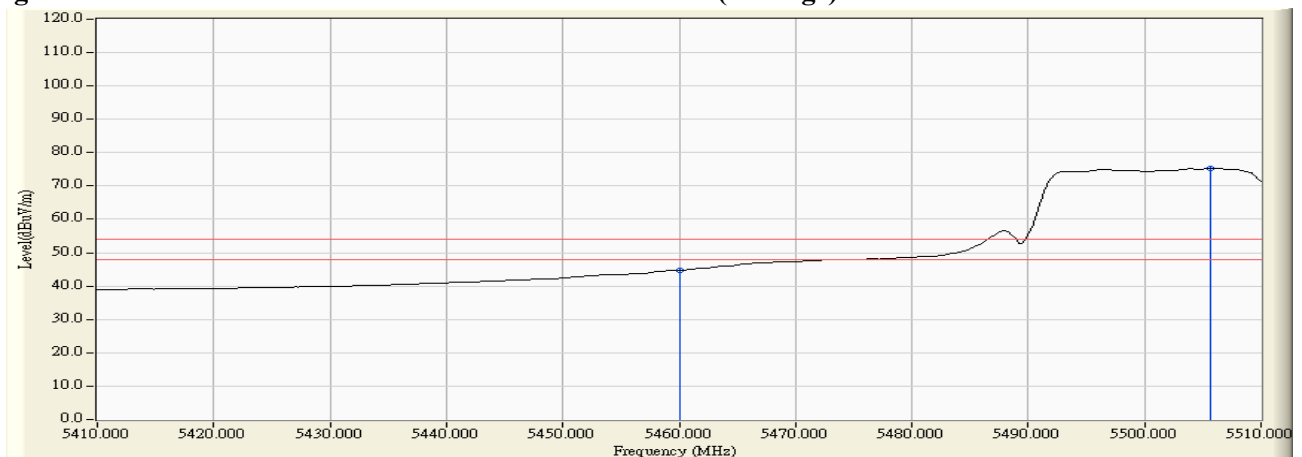


Figure Channel 102: Vertical (Average)

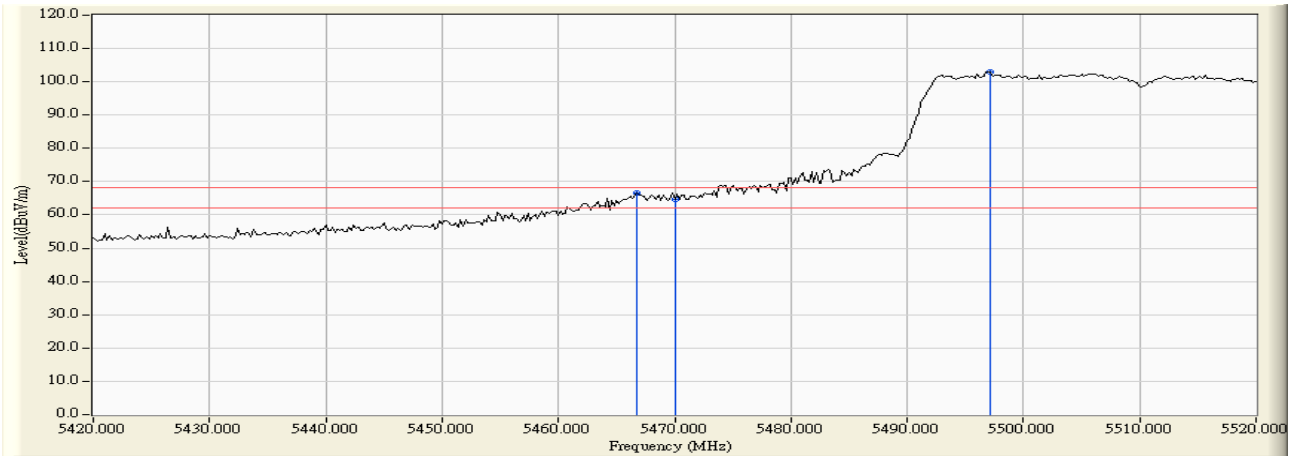


Note:

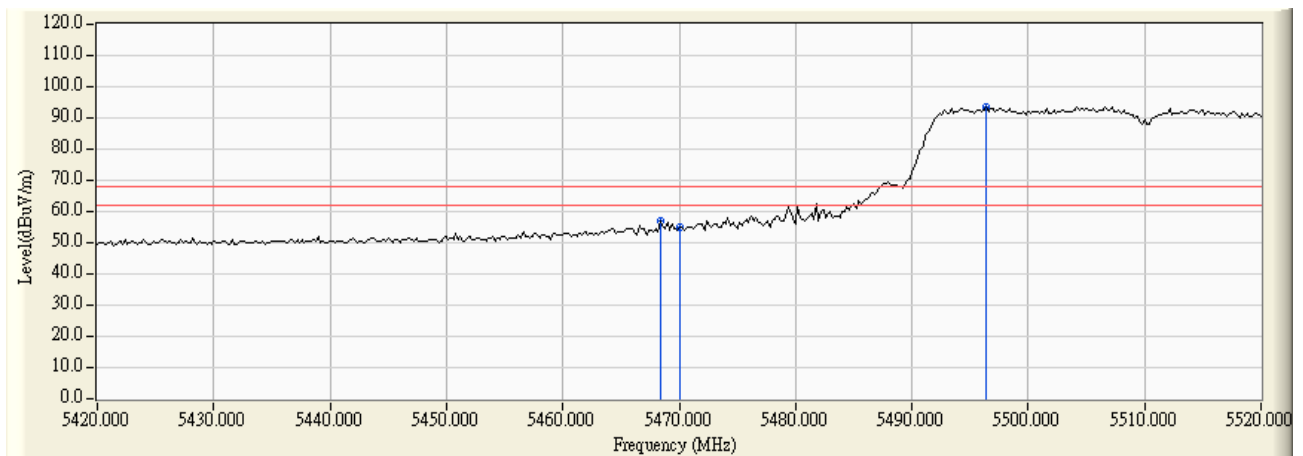
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 102

RF Radiated Measurement:



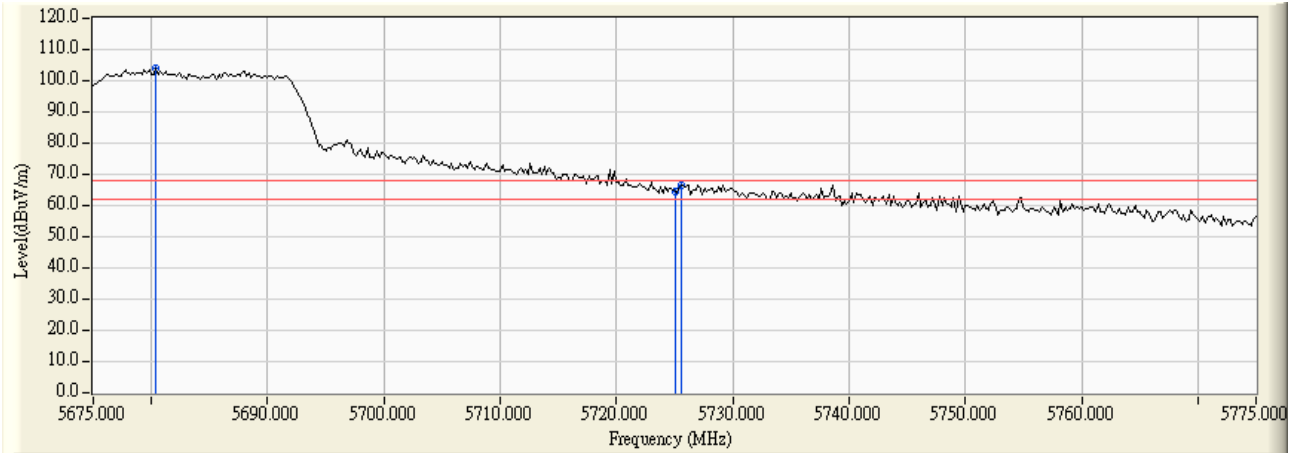
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5466.800	1.581	64.926	66.508	-1.712	68.220	Pass
Horizontal	5470.000	1.666	62.937	64.603	-3.617	68.220	Pass
Horizontal	5497.200	2.324	100.663	102.988	--	--	--



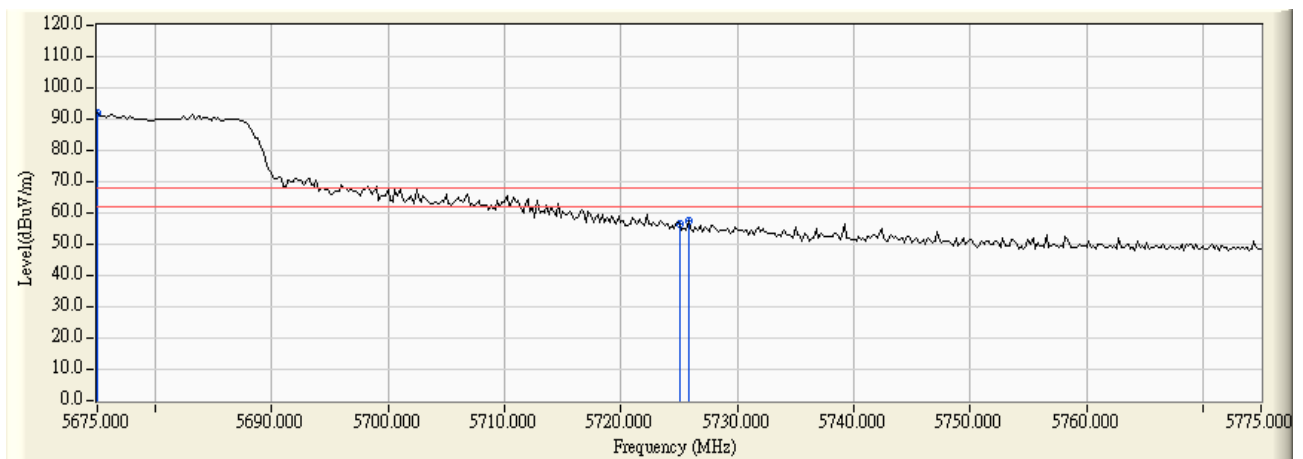
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5468.400	1.742	55.159	56.900	-11.320	68.220	Pass
Vertical	5470.000	1.775	53.199	54.974	-13.246	68.220	Pass
Vertical	5496.400	2.302	91.365	93.666	--	--	--

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 134

RF Radiated Measurement:



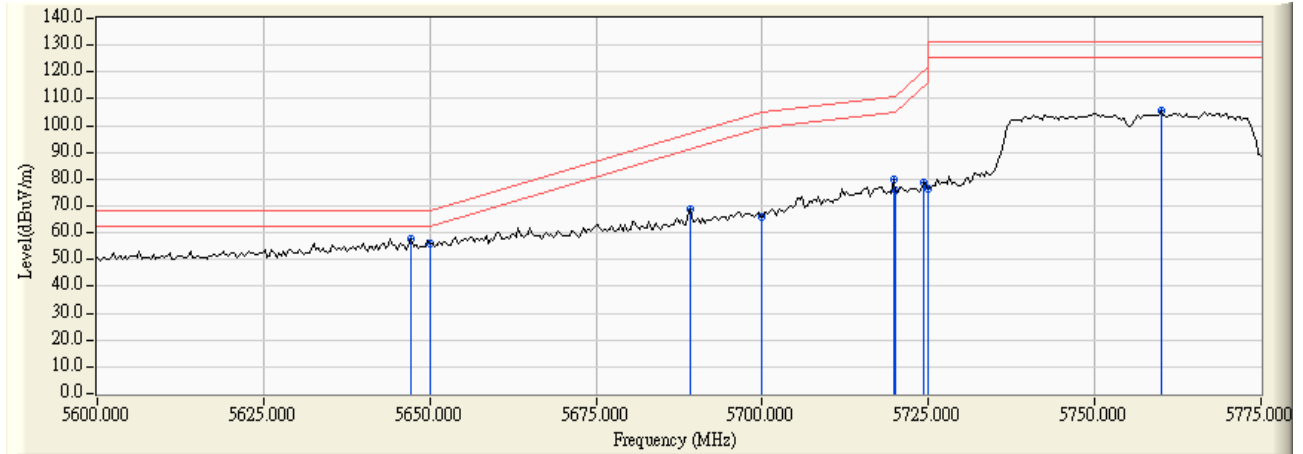
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5680.400	1.785	102.057	103.842	--	--	--
Horizontal	5725.000	1.999	62.514	64.513	-3.707	68.220	Pass
Horizontal	5725.600	2.007	64.370	66.376	-1.844	68.220	Pass



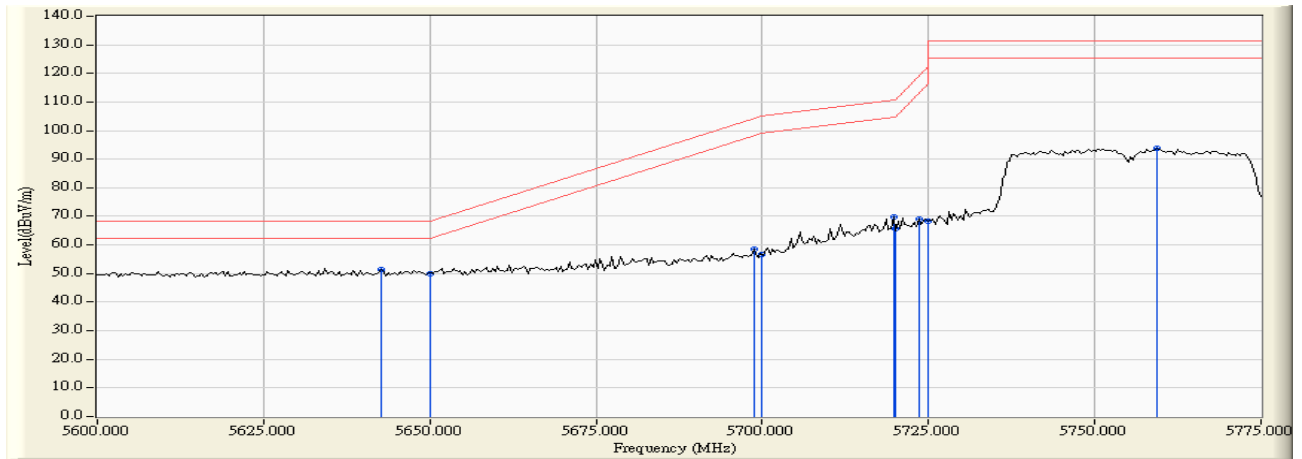
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5675.000	1.170	90.639	91.809	--	--	--
Vertical	5725.000	1.110	55.580	56.690	-11.530	68.220	Pass
Vertical	5725.800	1.119	56.208	57.327	-10.893	68.220	Pass

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 151

RF Radiated Measurement :



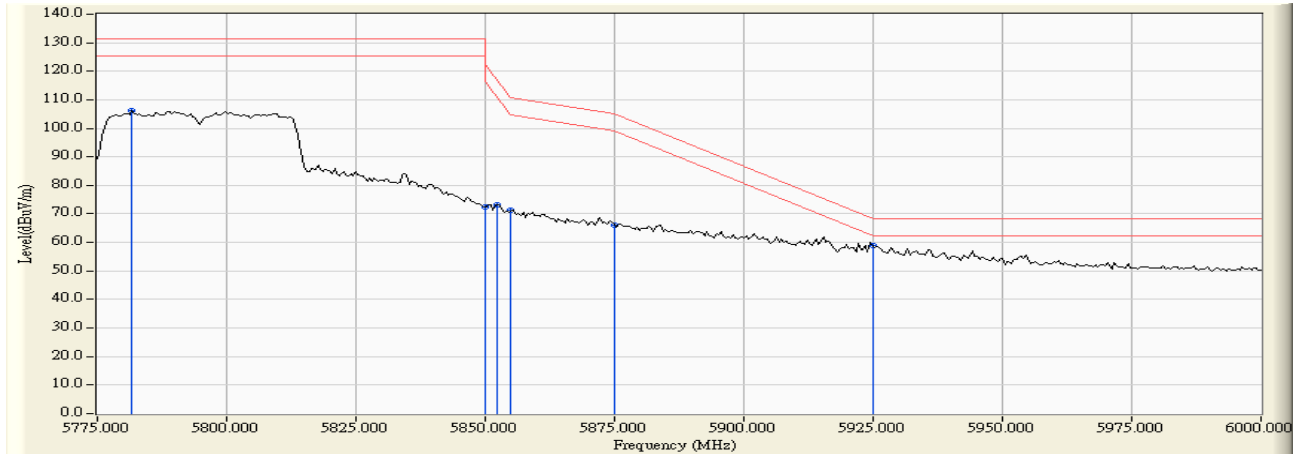
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5647.250	1.813	55.820	57.632	-10.588	68.220	Pass
Horizontal	5650.000	1.820	54.429	56.250	-11.970	68.220	Pass
Horizontal	5689.250	1.757	67.117	68.874	-28.375	97.249	Pass
Horizontal	5700.000	1.780	64.260	66.040	-39.160	105.200	Pass
Horizontal	5719.700	1.936	77.705	79.640	-31.076	110.716	Pass
Horizontal	5720.000	1.939	73.970	75.909	-34.891	110.800	Pass
Horizontal	5724.250	1.990	76.536	78.526	-41.964	120.490	Pass
Horizontal	5725.000	1.999	74.617	76.616	-45.584	122.200	Pass
Horizontal	5759.950	2.301	103.163	105.463	-25.737	131.200	Pass



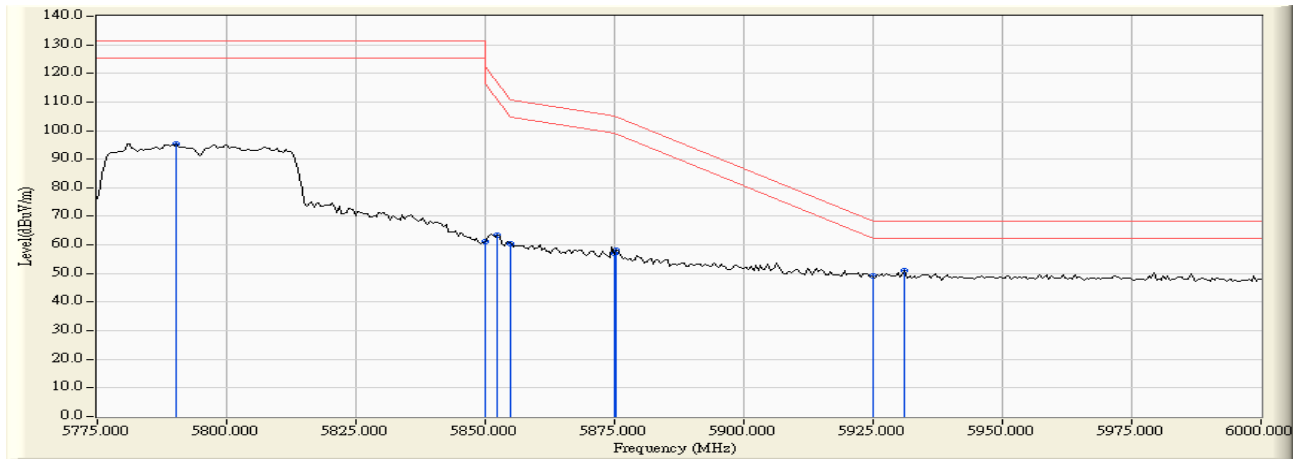
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5642.700	1.462	50.141	51.603	-16.617	68.220	Pass
Vertical	5650.000	1.417	48.663	50.081	-18.139	68.220	Pass
Vertical	5698.700	0.954	57.534	58.488	-45.751	104.239	Pass
Vertical	5700.000	0.954	55.718	56.672	-48.528	105.200	Pass
Vertical	5719.700	1.054	68.682	69.735	-40.981	110.716	Pass
Vertical	5720.000	1.056	64.714	65.770	-45.030	110.800	Pass
Vertical	5723.550	1.095	68.130	69.225	-49.669	118.894	Pass
Vertical	5725.000	1.110	67.273	68.383	-53.817	122.200	Pass
Vertical	5759.250	1.371	92.345	93.716	-37.484	131.200	Pass

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 159

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5781.750	2.310	104.026	106.337	-24.863	131.200	Pass
Horizontal	5850.000	2.743	69.683	72.426	-49.774	122.200	Pass
Horizontal	5852.400	2.757	70.514	73.272	-43.456	116.728	Pass
Horizontal	5855.000	2.774	68.410	71.183	-39.617	110.800	Pass
Horizontal	5875.000	2.907	63.227	66.135	-39.065	105.200	Pass
Horizontal	5925.000	2.920	55.927	58.847	-9.353	68.200	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Vertical	5790.300	1.364	94.115	95.479	-35.721	131.200	Pass
Vertical	5850.000	1.222	60.080	61.303	-60.897	122.200	Pass
Vertical	5852.400	1.210	62.311	63.522	-53.206	116.728	Pass
Vertical	5855.000	1.198	59.392	60.590	-50.210	110.800	Pass
Vertical	5875.000	1.113	56.014	57.127	-48.073	105.200	Pass
Vertical	5875.350	1.113	56.998	58.110	-46.831	104.941	Pass
Vertical	5925.000	0.945	48.055	48.999	-19.201	68.200	Pass
Vertical	5931.150	0.941	50.250	51.191	-17.009	68.200	Pass

7. Occupied Bandwidth

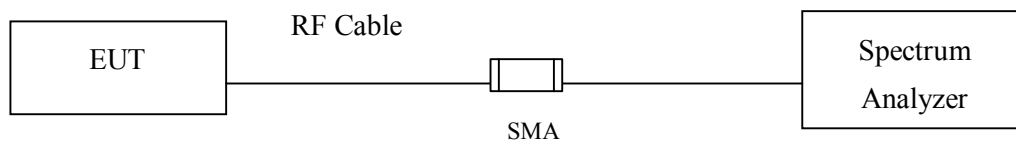
7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2015
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2016

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

7.2. Test Setup



7.3. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.4. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.5. Uncertainty

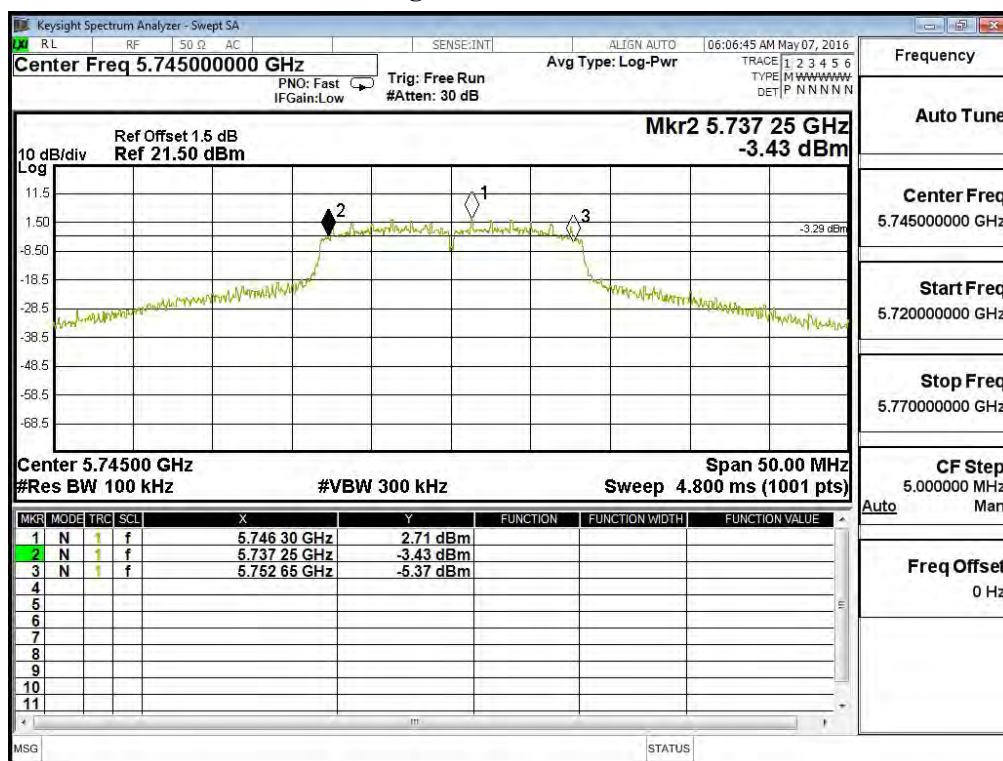
$\pm 150\text{Hz}$

7.6. Test Result of Occupied Bandwidth

Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	15400	>500	Pass

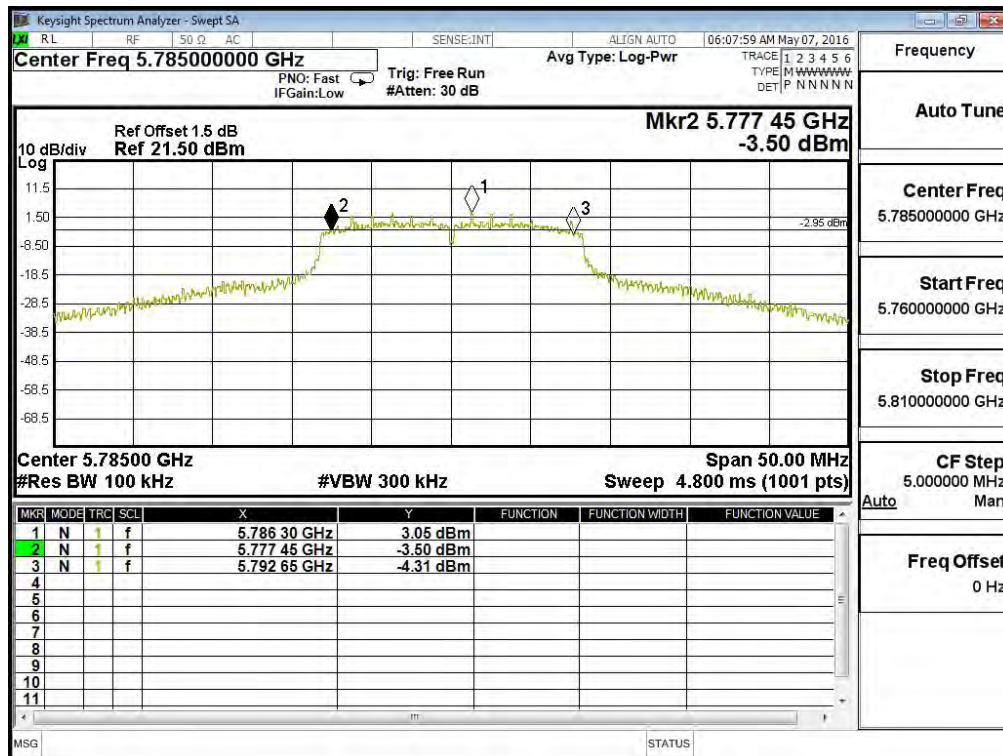
Figure Channel 149:



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	15200	>500	Pass

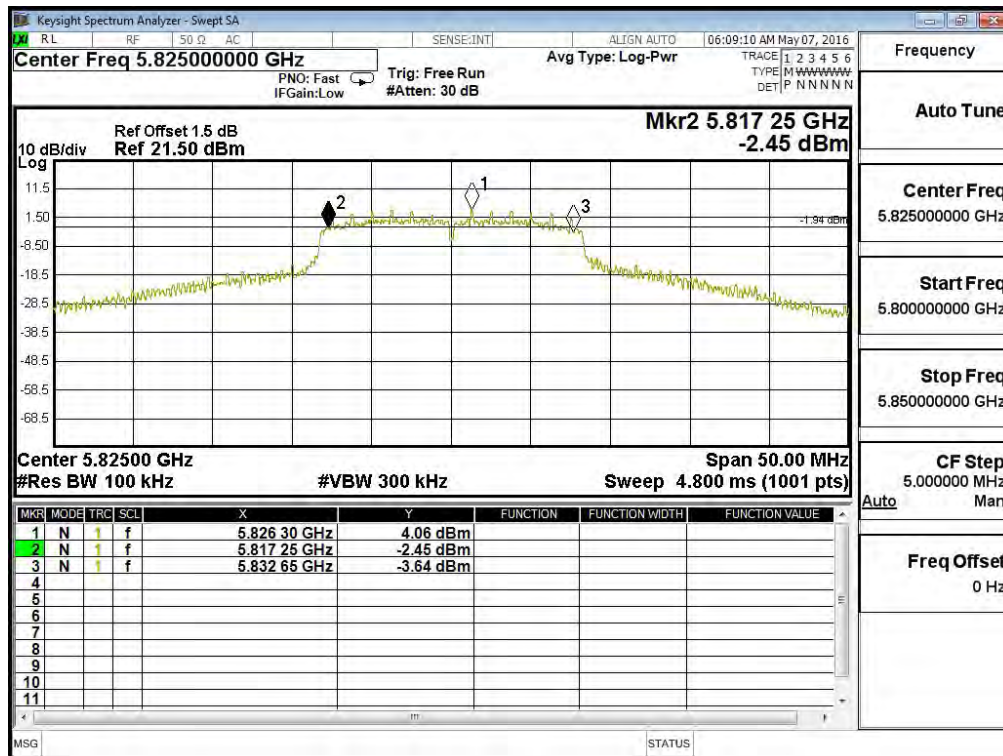
Figure Channel 157:



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	15400	>500	Pass

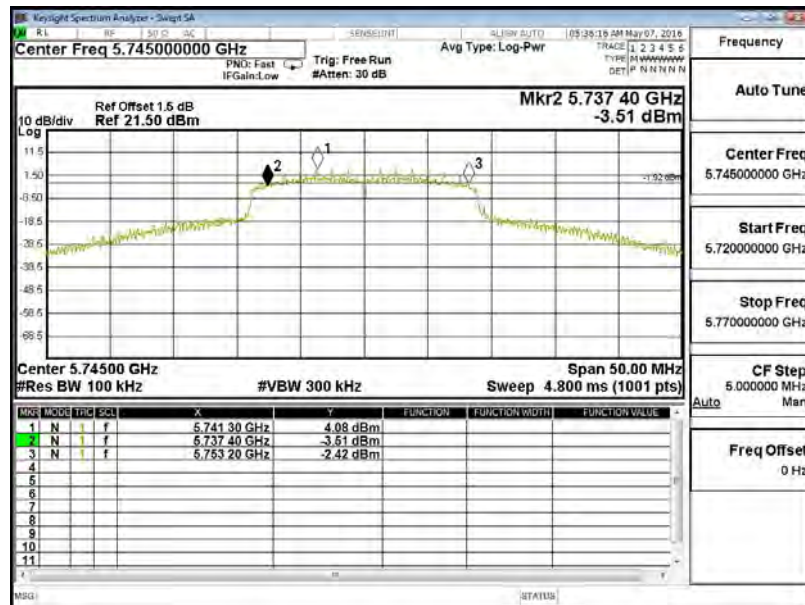
Figure Channel 165:



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)

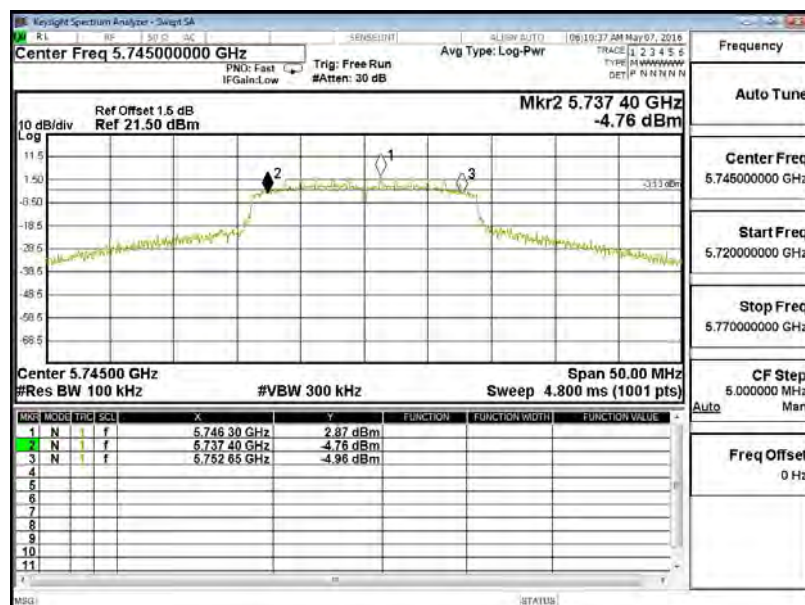
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	15800	>500	Pass

Figure Channel 149: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	15250	>500	Pass

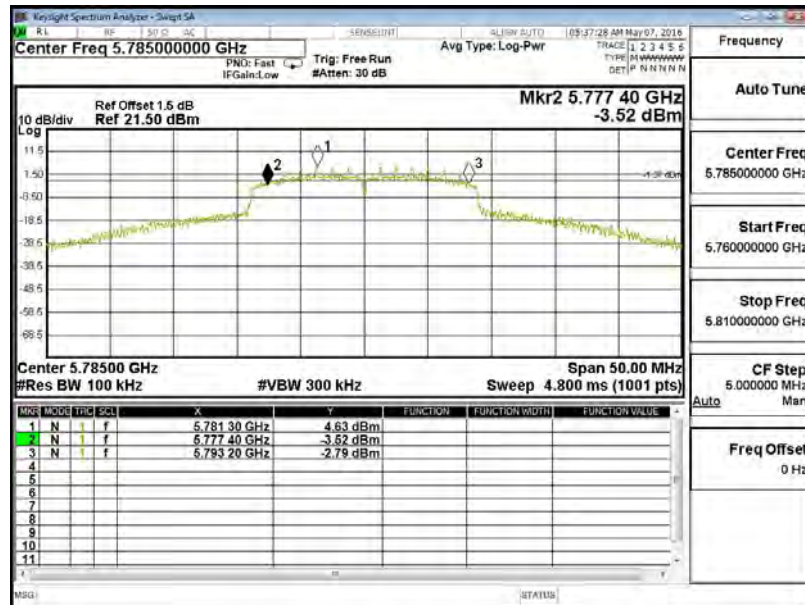
Figure Channel 149: (Chain B)



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

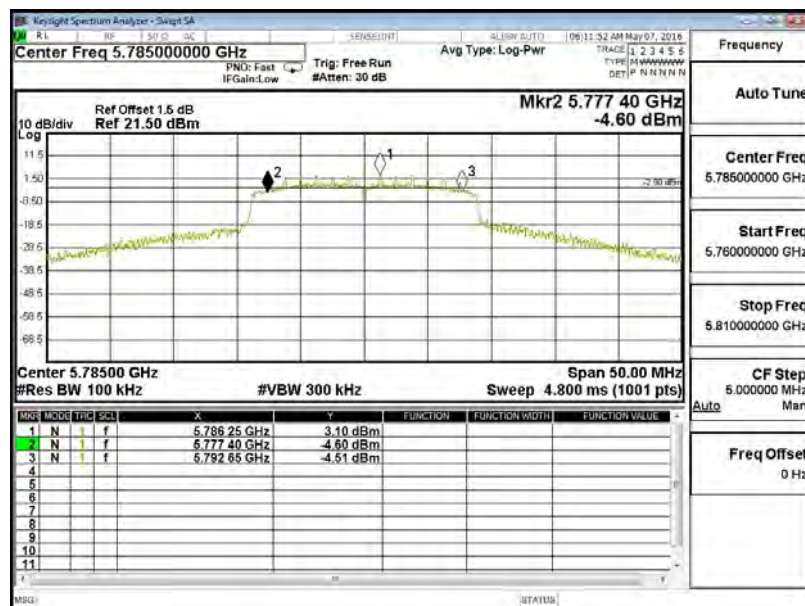
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	15800	>500	Pass

Figure Channel 157: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	15250	>500	Pass

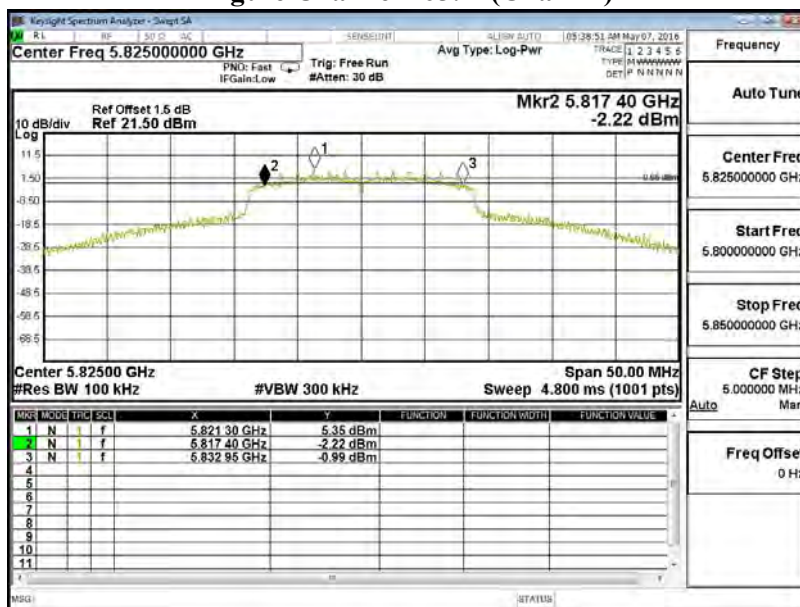
Figure Channel 157: (Chain B)



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)

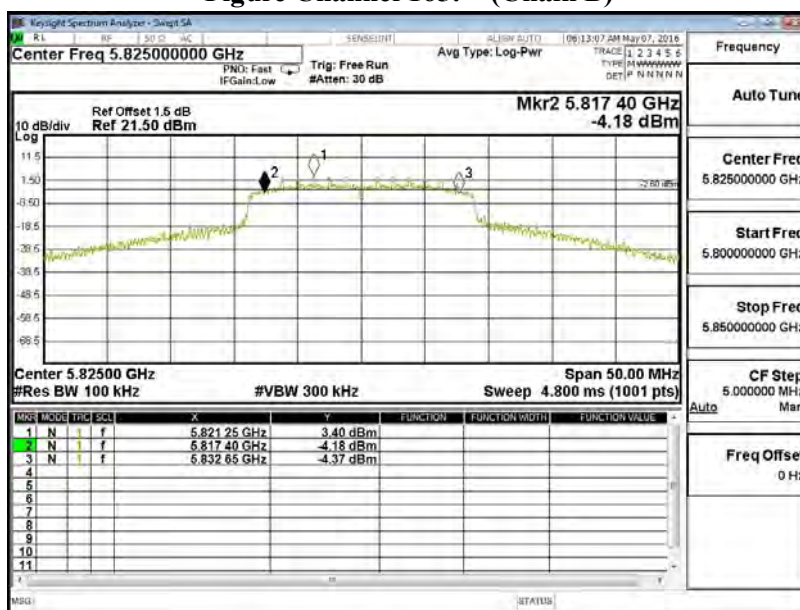
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	15550	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	15250	>500	Pass

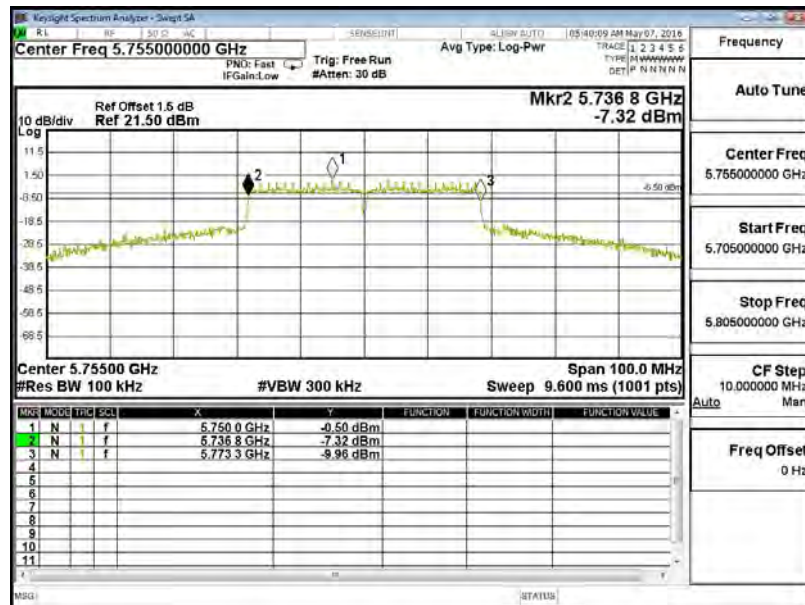
Figure Channel 165: (Chain B)



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

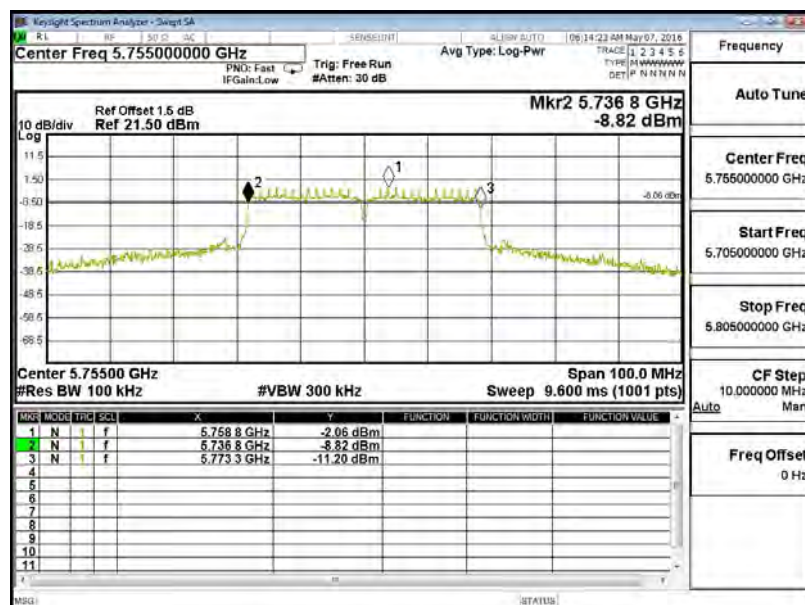
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

Figure Channel 151: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

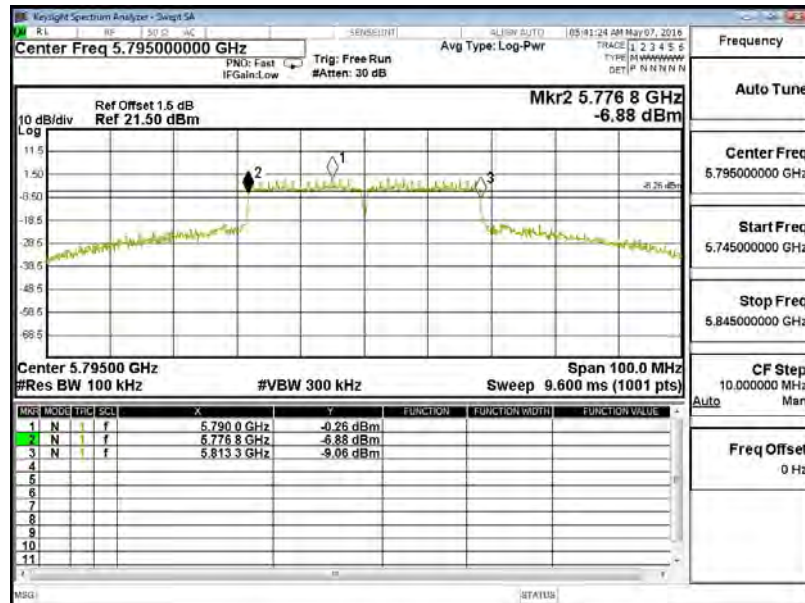
Figure Channel 151: (Chain B)



Product : Evoko Liso Room Manager /Evoko Liso
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

Figure Channel 159: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

Figure Channel 159: (Chain B)



8. Frequency Stability

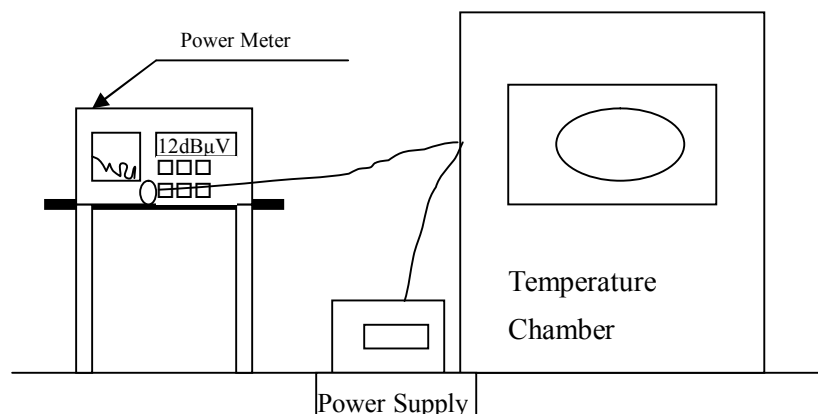
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2016

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

8.2. Test Setup



8.3. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

8.4. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

8.5. Uncertainty

± 150 Hz

8.6. Test Result of Frequency Stability

Product : Evoko Liso Room Manager /Evoko Liso
Test Item : Frequency Stability
Test Site : Temperature Chamber
Test Mode : Carrier Wave

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) oC	Vnom (120)V	36	5180.0000	5180.0013	-0.0013
		38	5190.0000	5190.0018	-0.0018
		44	5220.0000	5220.0107	-0.0107
		46	5230.0000	5230.0040	-0.0040
		48	5240.0000	5240.0108	-0.0108
		52	5260.0000	5260.0040	-0.0040
		54	5270.0000	5270.0032	-0.0032
		60	5300.0000	5300.0069	-0.0069
		62	5310.0000	5310.0094	-0.0094
		64	5320.0000	5320.0045	-0.0045
		100	5500.0000	5500.0040	-0.0040
		102	5510.0000	5510.0023	-0.0023
		110	5550.0000	5550.0108	-0.0108
		116	5580.0000	5580.0052	-0.0052
		134	5670.0000	5670.0042	-0.0042
		140	5700.0000	5700.0047	-0.0047
		149	5745.0000	5745.0091	-0.0091
		151	5755.0000	5755.0020	-0.0020
		157	5785.0000	5785.0029	-0.0029
		159	5795.0000	5795.0063	-0.0063
		165	5825.0000	5825.0100	-0.0100

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tmax (50) oC	Vmax (138)V	36	5180.0000	5180.0104	-0.0104
		38	5190.0000	5190.0041	-0.0041
		44	5220.0000	5220.0060	-0.0060
		46	5230.0000	5230.0109	-0.0109
		48	5240.0000	5240.0066	-0.0066
		52	5260.0000	5260.0104	-0.0104
		54	5270.0000	5270.0102	-0.0102
		60	5300.0000	5300.0051	-0.0051
		62	5310.0000	5310.0096	-0.0096
		64	5320.0000	5320.0107	-0.0107
		100	5500.0000	5500.0061	-0.0061
		102	5510.0000	5510.0064	-0.0064
		110	5550.0000	5550.0048	-0.0048
		116	5580.0000	5580.0035	-0.0035
		134	5670.0000	5670.0041	-0.0041
		140	5700.0000	5700.0033	-0.0033
		149	5745.0000	5745.0025	-0.0025
		151	5755.0000	5755.0056	-0.0056
		157	5785.0000	5785.0049	-0.0049
		159	5795.0000	5795.0064	-0.0064
		165	5825.0000	5825.0034	-0.0034

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tmax (50) °C	Vmin (102)V	36	5180.0000	5180.0050	-0.0050
		38	5190.0000	5190.0042	-0.0042
		44	5220.0000	5220.0092	-0.0092
		46	5230.0000	5230.0083	-0.0083
		48	5240.0000	5240.0048	-0.0048
		52	5260.0000	5260.0072	-0.0072
		54	5270.0000	5270.0074	-0.0074
		60	5300.0000	5300.0022	-0.0022
		62	5310.0000	5310.0065	-0.0065
		64	5320.0000	5320.0076	-0.0076
		100	5500.0000	5500.0033	-0.0033
		102	5510.0000	5510.0061	-0.0061
		110	5550.0000	5550.0101	-0.0101
		116	5580.0000	5580.0024	-0.0024
		134	5670.0000	5670.0059	-0.0059
		140	5700.0000	5700.0072	-0.0072
		149	5745.0000	5745.0032	-0.0032
		151	5755.0000	5755.0081	-0.0081
		157	5785.0000	5785.0049	-0.0049
		159	5795.0000	5795.0102	-0.0102
		165	5825.0000	5825.0047	-0.0047

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (-20) oC	Vnom (138)V	36	5180.0000	5180.0010	-0.0010
		38	5190.0000	5190.0044	-0.0044
		44	5220.0000	5220.0044	-0.0044
		46	5230.0000	5230.0044	-0.0044
		48	5240.0000	5240.0101	-0.0101
		52	5260.0000	5260.0028	-0.0028
		54	5270.0000	5270.0068	-0.0068
		60	5300.0000	5300.0040	-0.0040
		62	5310.0000	5310.0010	-0.0010
		64	5320.0000	5320.0105	-0.0105
		100	5500.0000	5500.0084	-0.0084
		102	5510.0000	5510.0062	-0.0062
		110	5550.0000	5550.0072	-0.0072
		116	5580.0000	5580.0021	-0.0021
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0076	-0.0076
		149	5745.0000	5745.0029	-0.0029
		151	5755.0000	5755.0061	-0.0061
		157	5785.0000	5785.0062	-0.0062
		159	5795.0000	5795.0020	-0.0020
		165	5825.0000	5825.0094	-0.0094

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tmax (-20) oC	Vmax (102)V	36	5180.0000	5180.0010	-0.0010
		38	5190.0000	5190.0044	-0.0044
		44	5220.0000	5220.0044	-0.0044
		46	5230.0000	5230.0044	-0.0044
		48	5240.0000	5240.0101	-0.0101
		52	5260.0000	5260.0028	-0.0028
		54	5270.0000	5270.0068	-0.0068
		60	5300.0000	5300.0040	-0.0040
		62	5310.0000	5310.0010	-0.0010
		64	5320.0000	5320.0105	-0.0105
		100	5500.0000	5500.0084	-0.0084
		102	5510.0000	5510.0062	-0.0062
		110	5550.0000	5550.0072	-0.0072
		116	5580.0000	5580.0021	-0.0021
		134	5670.0000	5670.0102	-0.0102
		140	5700.0000	5700.0076	-0.0076
		149	5745.0000	5745.0029	-0.0029
		151	5755.0000	5755.0061	-0.0061
		157	5785.0000	5785.0062	-0.0062
		159	5795.0000	5795.0020	-0.0020
		165	5825.0000	5825.0094	-0.0094

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) oC	Vnom (120)V	36	5180.0000	5180.0081	-0.0081
		38	5190.0000	5190.0057	-0.0057
		44	5220.0000	5220.0041	-0.0041
		46	5230.0000	5230.0051	-0.0051
		48	5240.0000	5240.0067	-0.0067
		52	5260.0000	5260.0033	-0.0033
		54	5270.0000	5270.0091	-0.0091
		60	5300.0000	5300.0014	-0.0014
		62	5310.0000	5310.0033	-0.0033
		64	5320.0000	5320.0089	-0.0089
		100	5500.0000	5500.0021	-0.0021
		102	5510.0000	5510.0087	-0.0087
		110	5550.0000	5550.0103	-0.0103
		116	5580.0000	5580.0074	-0.0074
		134	5670.0000	5670.0084	-0.0084
		140	5700.0000	5700.0020	-0.0020
		149	5745.0000	5745.0059	-0.0059
		151	5755.0000	5755.0103	-0.0103
		157	5785.0000	5785.0109	-0.0109
		159	5795.0000	5795.0046	-0.0046
		165	5825.0000	5825.0102	-0.0102

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tmax (50) oC	Vmax (138)V	36	5180.0000	5180.0083	-0.0083
		38	5190.0000	5190.0044	-0.0044
		44	5220.0000	5220.0101	-0.0101
		46	5230.0000	5230.0090	-0.0090
		48	5240.0000	5240.0025	-0.0025
		52	5260.0000	5260.0045	-0.0045
		54	5270.0000	5270.0029	-0.0029
		60	5300.0000	5300.0094	-0.0094
		62	5310.0000	5310.0014	-0.0014
		64	5320.0000	5320.0102	-0.0102
		100	5500.0000	5500.0034	-0.0034
		102	5510.0000	5510.0049	-0.0049
		110	5550.0000	5550.0045	-0.0045
		116	5580.0000	5580.0095	-0.0095
		134	5670.0000	5670.0103	-0.0103
		140	5700.0000	5700.0107	-0.0107
		149	5745.0000	5745.0034	-0.0034
		151	5755.0000	5755.0033	-0.0033
		157	5785.0000	5785.0040	-0.0040
		159	5795.0000	5795.0054	-0.0054
		165	5825.0000	5825.0079	-0.0079

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tmax (50) °C	Vmin (102)V	36	5180.0000	5180.0067	-0.0067
		38	5190.0000	5190.0012	-0.0012
		44	5220.0000	5220.0087	-0.0087
		46	5230.0000	5230.0034	-0.0034
		48	5240.0000	5240.0089	-0.0089
		52	5260.0000	5260.0065	-0.0065
		54	5270.0000	5270.0085	-0.0085
		60	5300.0000	5300.0043	-0.0043
		62	5310.0000	5310.0027	-0.0027
		64	5320.0000	5320.0044	-0.0044
		100	5500.0000	5500.0042	-0.0042
		102	5510.0000	5510.0015	-0.0015
		110	5550.0000	5550.0054	-0.0054
		116	5580.0000	5580.0011	-0.0011
		134	5670.0000	5670.0054	-0.0054
		140	5700.0000	5700.0102	-0.0102
		149	5745.0000	5745.0068	-0.0068
		151	5755.0000	5755.0037	-0.0037
		157	5785.0000	5785.0068	-0.0068
		159	5795.0000	5795.0072	-0.0072
		165	5825.0000	5825.0104	-0.0104

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (-20) oC	Vnom (138)V	36	5180.0000	5180.0107	-0.0107
		38	5190.0000	5190.0047	-0.0047
		44	5220.0000	5220.0103	-0.0103
		46	5230.0000	5230.0091	-0.0091
		48	5240.0000	5240.0010	-0.0010
		52	5260.0000	5260.0053	-0.0053
		54	5270.0000	5270.0075	-0.0075
		60	5300.0000	5300.0043	-0.0043
		62	5310.0000	5310.0037	-0.0037
		64	5320.0000	5320.0014	-0.0014
		100	5500.0000	5500.0085	-0.0085
		102	5510.0000	5510.0092	-0.0092
		110	5550.0000	5550.0043	-0.0043
		116	5580.0000	5580.0081	-0.0081
		134	5670.0000	5670.0020	-0.0020
		140	5700.0000	5700.0057	-0.0057
		149	5745.0000	5745.0069	-0.0069
		151	5755.0000	5755.0014	-0.0014
		157	5785.0000	5785.0080	-0.0080
		159	5795.0000	5795.0058	-0.0058
		165	5825.0000	5825.0021	-0.0021

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tmax (-20) oC	Vmax (102)V	36	5180.0000	5180.0033	-0.0033
		38	5190.0000	5190.0049	-0.0049
		44	5220.0000	5220.0067	-0.0067
		46	5230.0000	5230.0016	-0.0016
		48	5240.0000	5240.0029	-0.0029
		52	5260.0000	5260.0032	-0.0032
		54	5270.0000	5270.0104	-0.0104
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0064	-0.0064
		64	5320.0000	5320.0094	-0.0094
		100	5500.0000	5500.0062	-0.0062
		102	5510.0000	5510.0019	-0.0019
		110	5550.0000	5550.0059	-0.0059
		116	5580.0000	5580.0067	-0.0067
		134	5670.0000	5670.0048	-0.0048
		140	5700.0000	5700.0038	-0.0038
		149	5745.0000	5745.0061	-0.0061
		151	5755.0000	5755.0084	-0.0084
		157	5785.0000	5785.0037	-0.0037
		159	5795.0000	5795.0092	-0.0092
		165	5825.0000	5825.0093	-0.0093

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs