

# 1 CO-LOCATION

## 1.1 Transmitter Radiated Unwanted Emissions

### 1.1.1 Transmitter Radiated Unwanted Emissions Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

### 1.1.2 Measuring Instruments

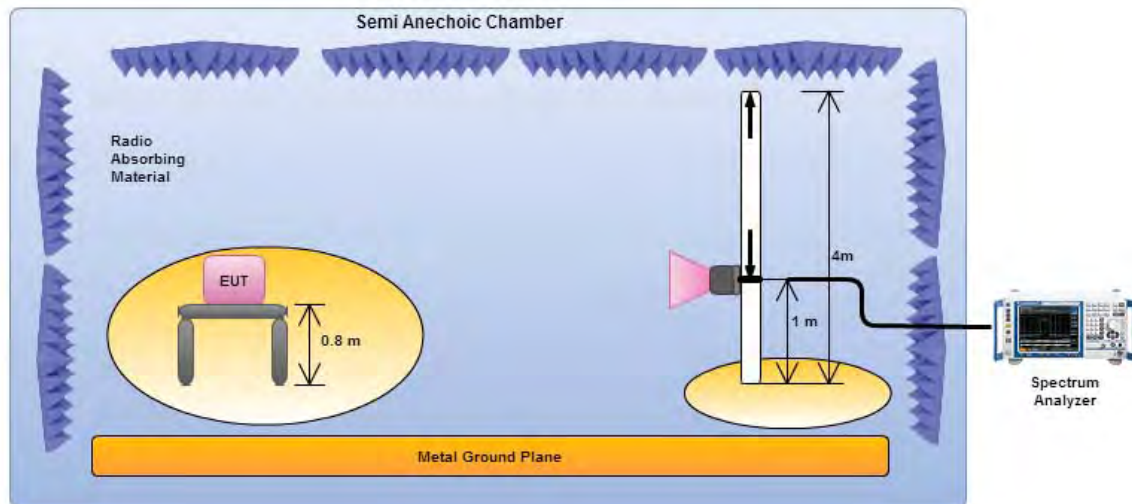
Refer a test equipment and calibration data table in this test report.

### 1.1.3 Test Procedures

Test Method	
<input checked="" type="checkbox"/>	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
<input checked="" type="checkbox"/>	Measurements in the frequency range 10 GHz - 18GHz are typically made at a closer distance 1m, because the instrumentation noise floor is typically close to the radiated emission limit.
<input checked="" type="checkbox"/>	Measurements in the frequency range above 18 GHz - 25GHz are typically made at a closer distance 0.5m, because the instrumentation noise floor is typically close to the radiated emission limit.
<input checked="" type="checkbox"/>	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
<input checked="" type="checkbox"/>	For the transmitter unwanted emissions shall be measured using following options below:
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 10.1 for unwanted emissions into non-restricted bands.
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 10.2 for unwanted emissions into restricted bands.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 10.2.3.3 and 8.2.1 Option 1 (spectral trace averaging)
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 10.2.3.3 and 8.2.1 Option 2 (slow sweep speed).
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 10.2.3.2 and 8.1.1 measurement procedure peak limit.
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 10.2.3.1 measurement procedure Quasi-Peak limit.
<input checked="" type="checkbox"/>	For radiated measurement, refer as FCC KDB 558074, clause 10.2.1.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz. Test distance is 3m.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz. Test distance is 3m.
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz. Test distance is 3m.
<input type="checkbox"/>	For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 10.2.2.
<input type="checkbox"/>	For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs.
<input type="checkbox"/>	For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB

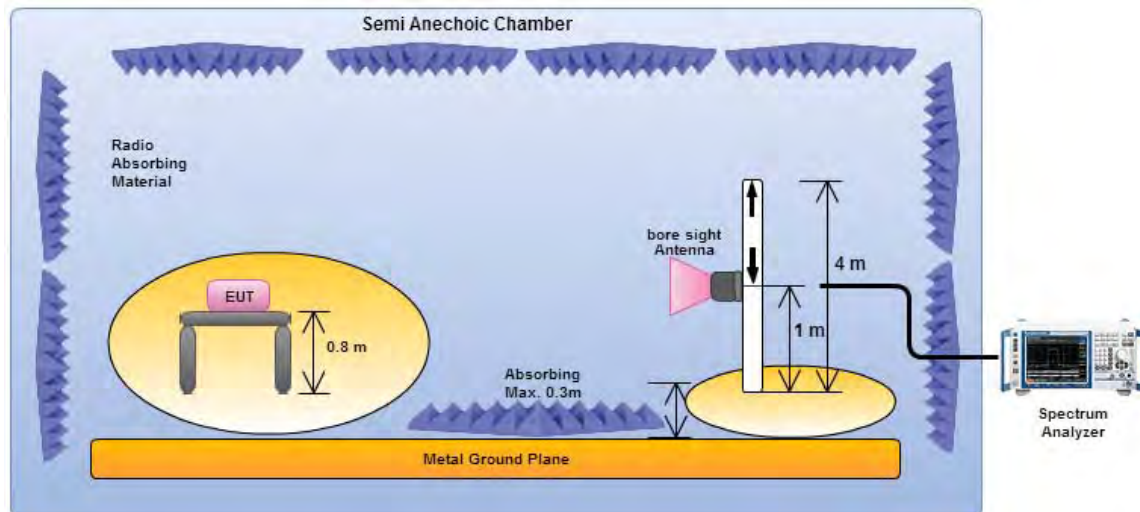
### 1.1.4 Test Setup

#### Transmitter Radiated Unwanted Emissions (below 1GHz)



Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

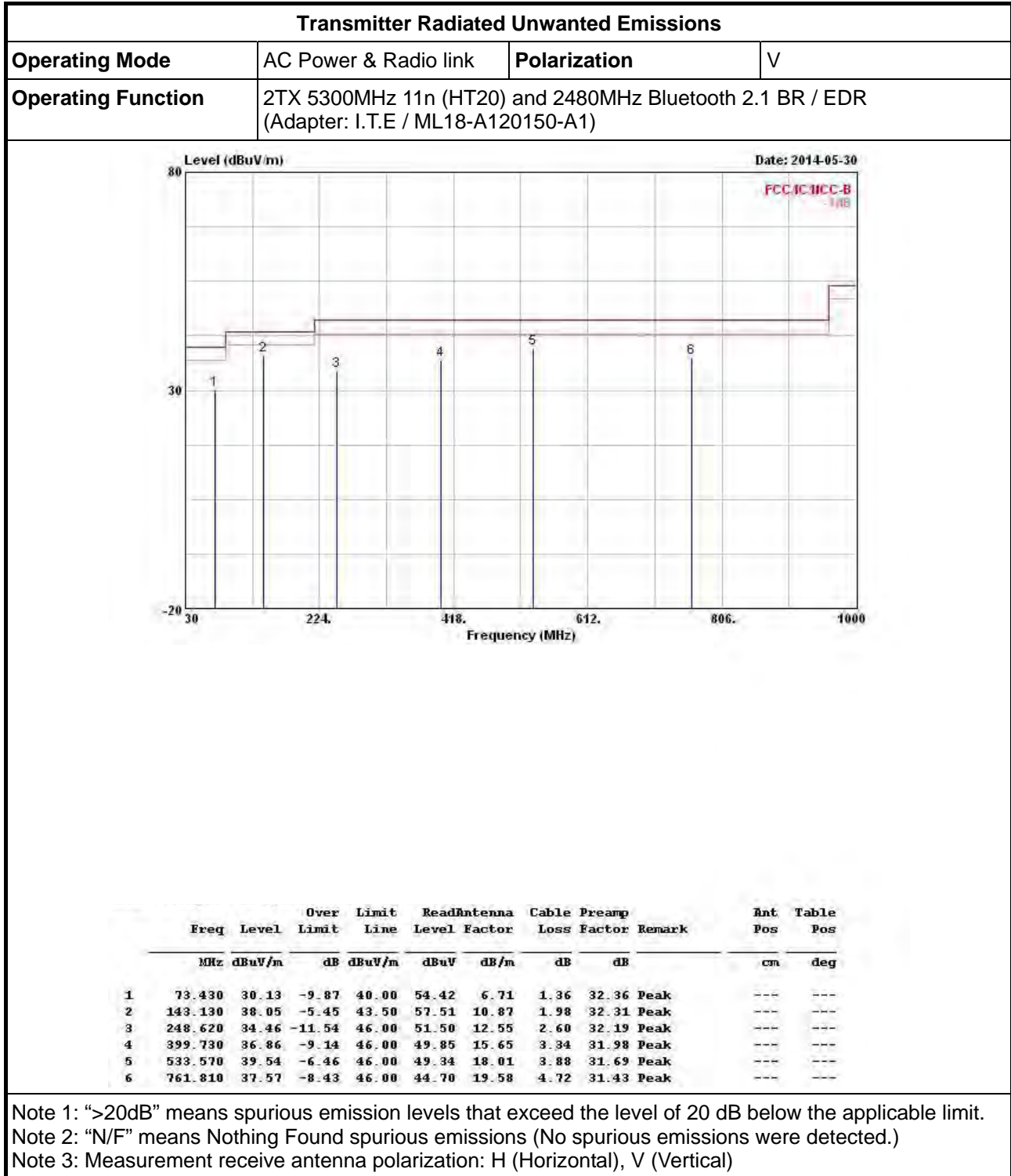
#### Transmitter Radiated Unwanted Emissions (Above 1GHz)



Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

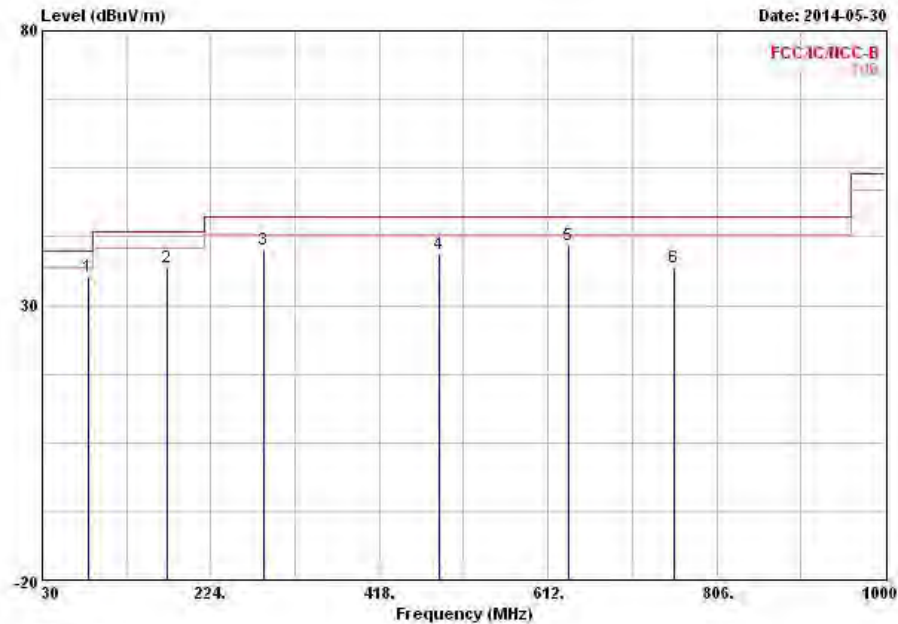
### 1.1.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

**1.1.6 Results of Radiated Emissions (30MHz~1GHz)**


**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	H
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2480MHz Bluetooth 2.1 BR / EDR (Adapter: I.T.E / ML18-A120150-A1)		



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	83.740	35.41	-4.59	40.00	58.56	7.70	1.50	32.35	Peak	---	---
2	173.550	36.92	-6.58	43.50	57.42	9.63	2.17	32.30	Peak	---	---
3	284.610	40.16	-5.84	46.00	56.57	12.90	2.81	32.12	Peak	---	---
4	487.280	39.30	-6.70	46.00	50.27	17.12	3.71	31.80	Peak	---	---
5	634.820	40.89	-5.11	46.00	49.46	18.68	4.29	31.54	Peak	---	---
6	756.640	36.84	-9.16	46.00	44.03	19.55	4.70	31.44	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

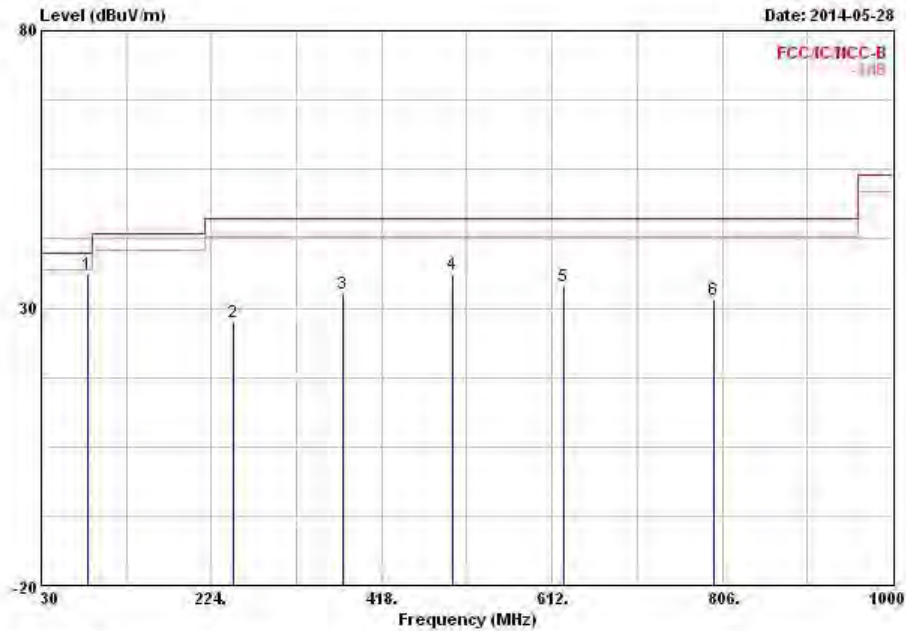
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)



**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	V
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2440MHz Bluetooth 4.0 LE (Adapter: I.T.E / ML18-A120150-A1)		



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	83.350	36.00	-4.00	40.00	54.17	7.70	1.48	27.35	Peak	---	---
2	249.220	27.51	-18.49	46.00	39.18	12.64	2.60	26.91	Peak	---	---
3	374.350	32.64	-13.36	46.00	41.76	14.80	3.23	27.15	Peak	---	---
4	498.510	36.15	-9.85	46.00	43.19	17.14	3.77	27.95	Peak	---	---
5	625.580	34.04	-11.96	46.00	38.89	18.67	4.25	27.77	Peak	---	---
6	797.270	31.39	-14.61	46.00	34.47	19.65	4.90	27.63	Peak	---	---

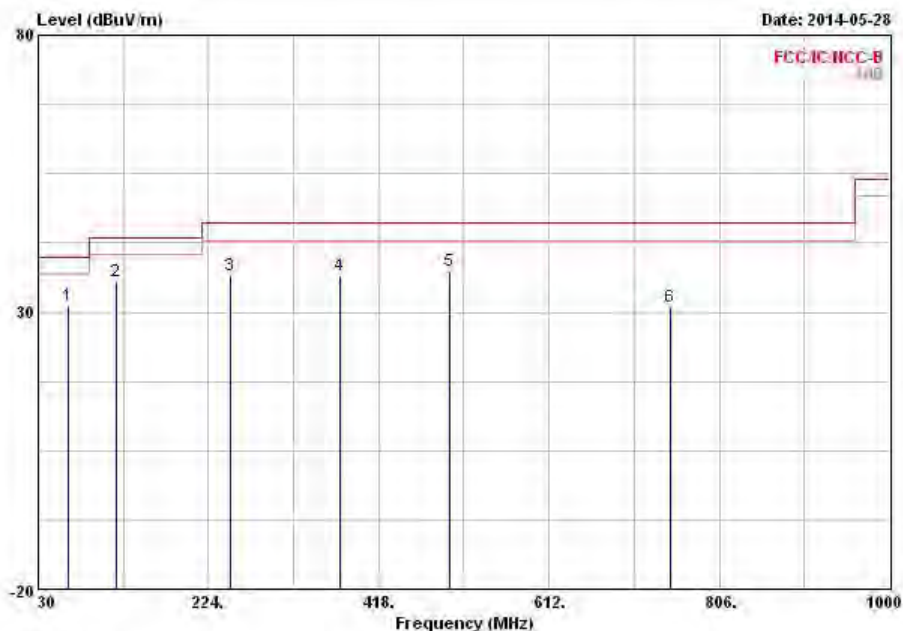
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	H
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2440MHz Bluetooth 4.0 LE (Adapter: I.T.E / ML18-A120150-A1)		



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	63.950	31.15	-8.85	40.00	50.67	6.62	1.29	27.43	Peak	---	---
2	118.270	35.57	-7.93	43.50	48.62	12.36	1.77	27.18	Peak	---	---
3	249.220	36.62	-9.38	46.00	48.29	12.64	2.60	26.91	Peak	---	---
4	374.350	36.64	-9.36	46.00	45.76	14.80	3.23	27.15	Peak	---	---
5	498.510	37.56	-8.44	46.00	44.60	17.14	3.77	27.95	Peak	---	---
6	749.740	30.85	-15.15	46.00	34.36	19.54	4.66	27.71	Peak	---	---

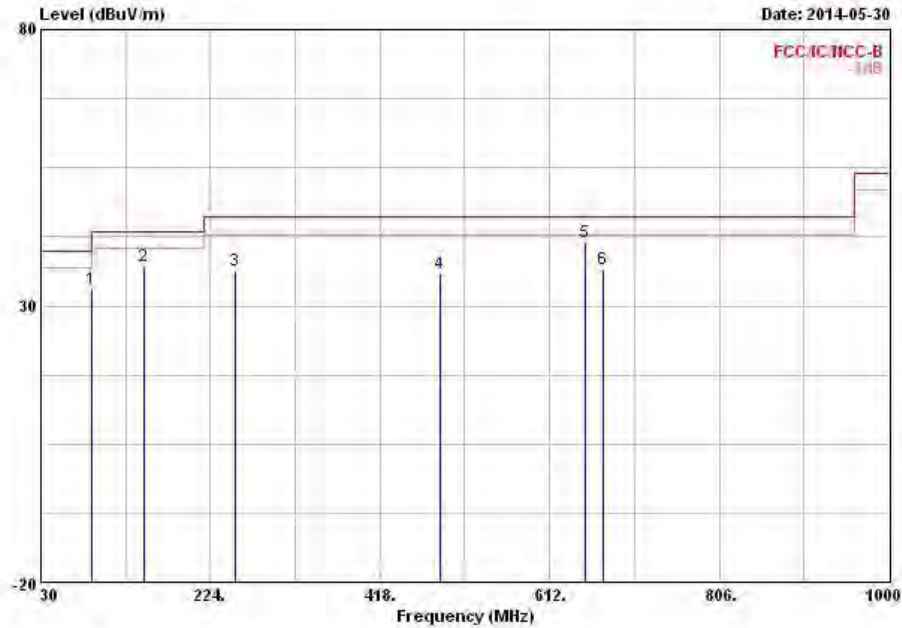
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	V
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2480MHz Bluetooth 2.1 BR / EDR (Adapter: Chicony / W13-018N1A)		



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	87.550	33.13	-6.87	40.00	55.57	8.38	1.53	32.35	Peak	---	---
2	148.380	37.05	-6.45	43.50	56.67	10.68	2.01	32.31	Peak	---	---
3	251.740	36.46	-9.54	46.00	53.07	12.95	2.62	32.18	Peak	---	---
4	487.370	35.86	-10.14	46.00	46.82	17.13	3.71	31.80	Peak	---	---
5	653.460	41.54	-4.46	46.00	49.91	18.81	4.36	31.54	Peak	---	---
6	672.870	36.57	-9.43	46.00	44.96	18.70	4.45	31.54	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

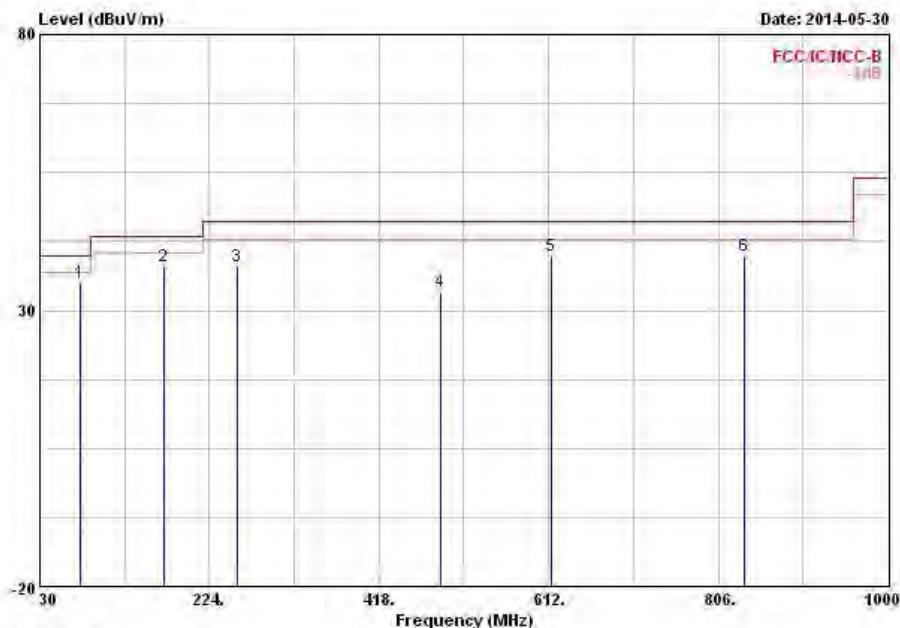
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)



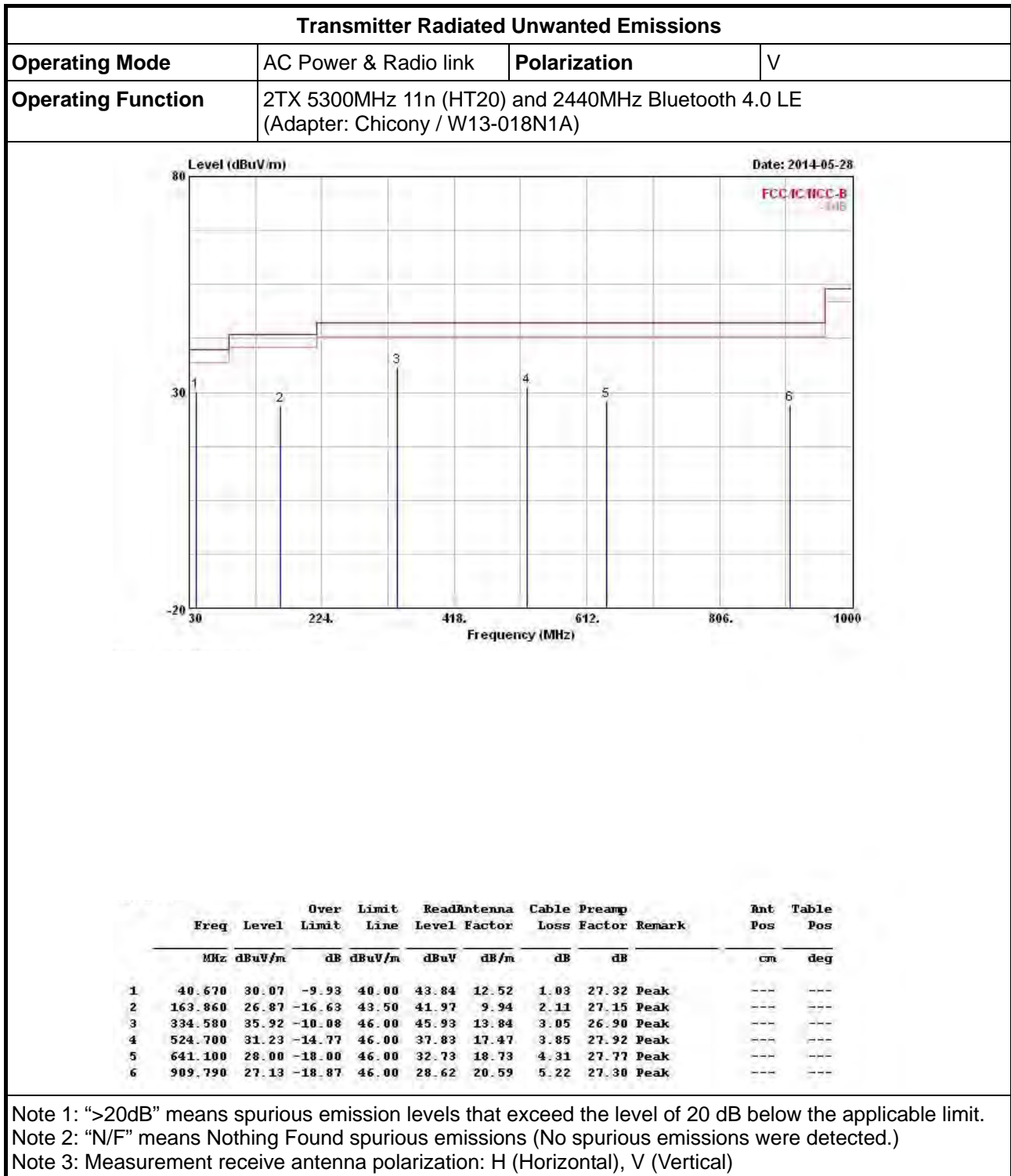
**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	H
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2480MHz Bluetooth 2.1 BR / EDR (Adapter: Chicony / W13-018N1A)		



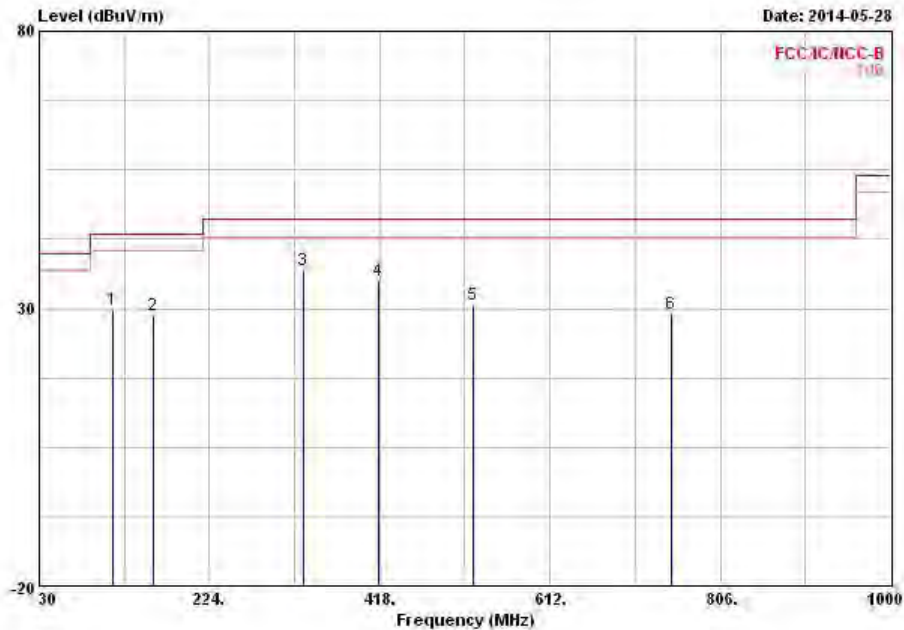
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	75.640	34.94	-5.06	40.00	59.11	6.80	1.39	32.36	Peak	---
2	171.590	38.01	-5.49	43.50	58.49	9.66	2.16	32.30	Peak	---
3	255.490	38.07	-7.93	46.00	54.32	13.28	2.64	32.17	Peak	---
4	489.150	33.35	-12.65	46.00	44.29	17.13	3.72	31.79	Peak	---
5	614.520	39.89	-6.11	46.00	48.56	18.66	4.21	31.54	Peak	---
6	835.440	39.84	-6.16	46.00	46.05	20.17	4.93	31.31	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)  
 Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)



**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	H
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2440MHz Bluetooth 4.0 LE (Adapter: Chicony / W13-018N1A)		



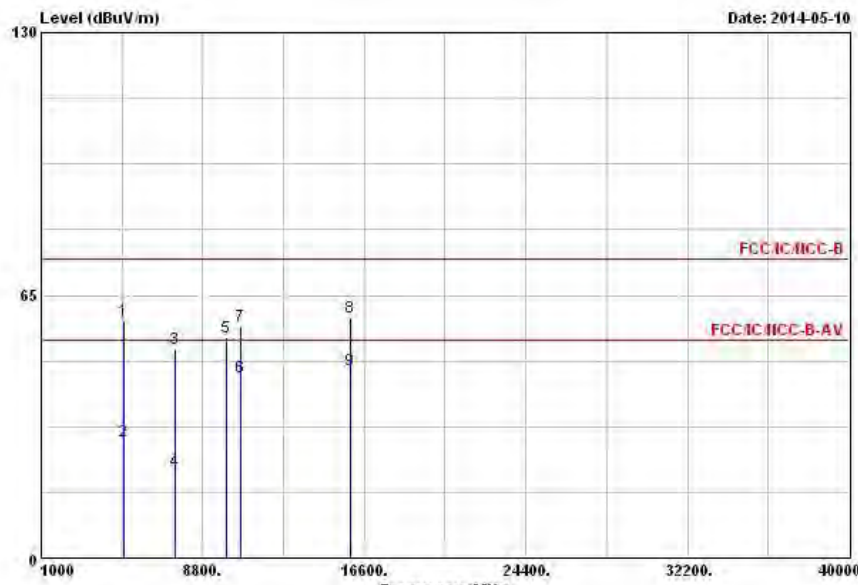
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	114.390	29.96	-13.54	43.50	43.33	12.08	1.73	27.18	Peak	---	---
2	159.980	28.66	-14.84	43.50	43.70	10.02	2.09	27.15	Peak	---	---
3	331.670	36.93	-9.07	46.00	46.99	13.78	3.04	26.88	Peak	---	---
4	417.030	35.09	-10.91	46.00	42.72	16.41	3.39	27.43	Peak	---	---
5	524.700	30.71	-15.29	46.00	37.31	17.47	3.85	27.92	Peak	---	---
6	749.740	29.00	-17.00	46.00	32.51	19.54	4.66	27.71	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

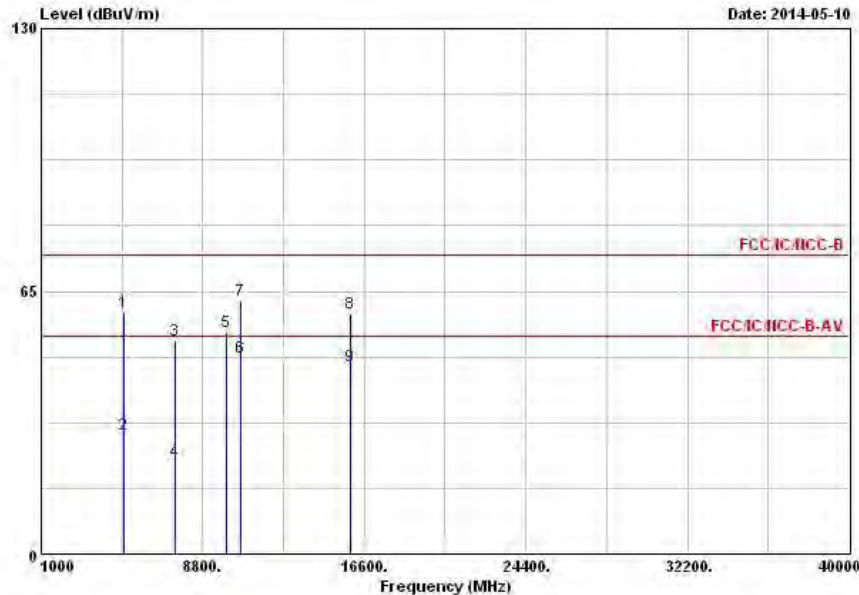
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

**1.1.7 Results for Radiated Emissions (1GHz~10<sup>th</sup> Harmonic)**

Transmitter Radiated Unwanted Emissions																																																																																																																																													
Operating Mode	AC Power & Radio link				Polarization			V																																																																																																																																					
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<div><div><div>Level (dBuV/m)</div><div>Date: 2014-05-10</div><div>Frequency (MHz)</div></div><table><tr><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>Read</th><th>Antenna</th><th>Cable</th><th>Preamp</th><th rowspan="2">Remark</th><th>Ant</th><th>Table</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>Limit</th><th>Line</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Pos</th><th>Pos</th></tr><tr><th></th><th></th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>4960.000</td><td>58.93</td><td>-15.07</td><td>74.00</td><td>52.25</td><td>33.34</td><td>5.75</td><td>32.41 Peak</td><td>---</td><td>---</td></tr><tr><td>2</td><td>4960.000</td><td>28.83</td><td>-25.17</td><td>54.00</td><td>22.15</td><td>33.34</td><td>5.75</td><td>32.41 Average</td><td>---</td><td>---</td></tr><tr><td>3</td><td>7440.000</td><td>51.73</td><td>-22.27</td><td>74.00</td><td>40.69</td><td>36.38</td><td>7.37</td><td>32.71 Peak</td><td>---</td><td>---</td></tr><tr><td>4</td><td>7440.000</td><td>21.63</td><td>-32.37</td><td>54.00</td><td>10.59</td><td>36.38</td><td>7.37</td><td>32.71 Average</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9920.000</td><td>54.60</td><td>-19.40</td><td>74.00</td><td>40.01</td><td>38.95</td><td>8.71</td><td>33.07 Peak</td><td>---</td><td>---</td></tr><tr><td>6</td><td>10600.000</td><td>44.69</td><td>-9.31</td><td>54.00</td><td>29.40</td><td>38.84</td><td>9.06</td><td>32.61 Average</td><td>---</td><td>---</td></tr><tr><td>7</td><td>10600.000</td><td>57.32</td><td>-16.68</td><td>74.00</td><td>42.03</td><td>38.84</td><td>9.06</td><td>32.61 Peak</td><td>---</td><td>---</td></tr><tr><td>8</td><td>15900.000</td><td>59.49</td><td>-14.51</td><td>74.00</td><td>43.19</td><td>37.01</td><td>11.59</td><td>32.30 Peak</td><td>---</td><td>---</td></tr><tr><td>9</td><td>15900.000</td><td>46.51</td><td>-7.49</td><td>54.00</td><td>30.21</td><td>37.01</td><td>11.59</td><td>32.30 Average</td><td>---</td><td>---</td></tr></table></div>											Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark	Ant	Table	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	1	4960.000	58.93	-15.07	74.00	52.25	33.34	5.75	32.41 Peak	---	---	2	4960.000	28.83	-25.17	54.00	22.15	33.34	5.75	32.41 Average	---	---	3	7440.000	51.73	-22.27	74.00	40.69	36.38	7.37	32.71 Peak	---	---	4	7440.000	21.63	-32.37	54.00	10.59	36.38	7.37	32.71 Average	---	---	5	9920.000	54.60	-19.40	74.00	40.01	38.95	8.71	33.07 Peak	---	---	6	10600.000	44.69	-9.31	54.00	29.40	38.84	9.06	32.61 Average	---	---	7	10600.000	57.32	-16.68	74.00	42.03	38.84	9.06	32.61 Peak	---	---	8	15900.000	59.49	-14.51	74.00	43.19	37.01	11.59	32.30 Peak	---	---	9	15900.000	46.51	-7.49	54.00	30.21	37.01	11.59	32.30 Average	---	---
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark	Ant	Table																																																																																																																																			
MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor		Pos	Pos																																																																																																																																			
		dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg																																																																																																																																			
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3	7440.000	51.73	-22.27	74.00	40.69	36.38	7.37	32.71 Peak	---	---																																																																																																																																			
4	7440.000	21.63	-32.37	54.00	10.59	36.38	7.37	32.71 Average	---	---																																																																																																																																			
5	9920.000	54.60	-19.40	74.00	40.01	38.95	8.71	33.07 Peak	---	---																																																																																																																																			
6	10600.000	44.69	-9.31	54.00	29.40	38.84	9.06	32.61 Average	---	---																																																																																																																																			
7	10600.000	57.32	-16.68	74.00	42.03	38.84	9.06	32.61 Peak	---	---																																																																																																																																			
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9	15900.000	46.51	-7.49	54.00	30.21	37.01	11.59	32.30 Average	---	---																																																																																																																																			
<div>Note 1: "&gt;20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.</div> <div>Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)</div> <div>Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)</div> <div>Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.</div> <div>Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.</div>																																																																																																																																													

**Transmitter Radiated Unwanted Emissions**

<b>Operating Mode</b>	AC Power & Radio link	<b>Polarization</b>	H
<b>Operating Function</b>	2TX 5300MHz 11n (HT20) and 2480MHz Bluetooth 2.1 BR / EDR		



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Remark	Pos	Pos
					Factor				cm	deg
1	4960.000	59.80	-14.20	74.00	53.12	33.34	5.75	32.41 Peak	---	---
2	4960.000	29.70	-24.30	54.00	23.02	33.34	5.75	32.41 Average	---	---
3	7440.000	52.96	-21.04	74.00	41.92	36.38	7.37	32.71 Peak	---	---
4	7440.000	22.86	-31.14	54.00	11.82	36.38	7.37	32.71 Average	---	---
5	9916.000	55.03	-18.97	74.00	40.48	38.91	8.71	33.07 Peak	---	---
6	10600.000	48.66	-5.34	54.00	33.37	38.84	9.06	32.61 Average	---	---
7	10600.000	62.86	-11.14	74.00	47.57	38.84	9.06	32.61 Peak	---	---
8	15900.000	59.59	-14.41	74.00	43.29	37.01	11.59	32.30 Peak	---	---
9	15900.000	46.63	-7.37	54.00	30.33	37.01	11.59	32.30 Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

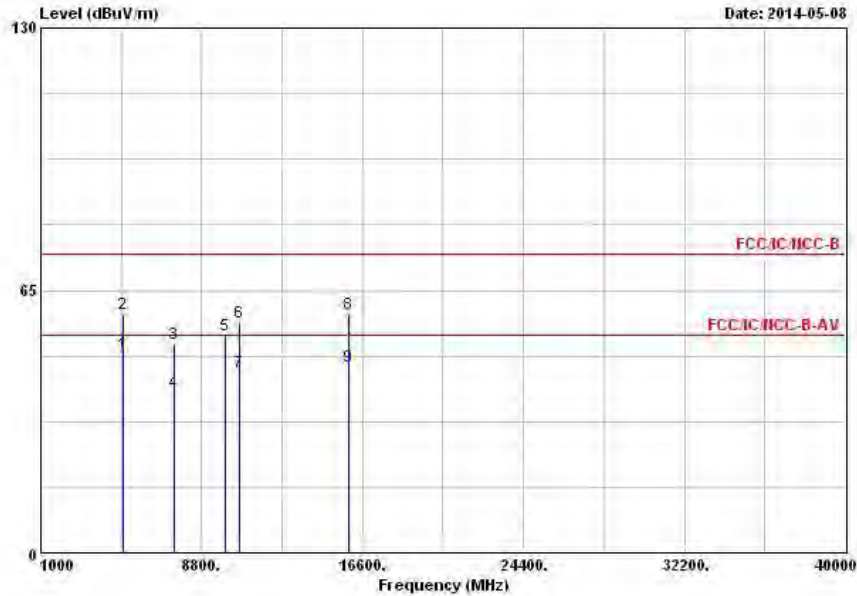
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



## Transmitter Radiated Unwanted Emissions

Operating Mode	AC Power & Radio link	Polarization	V
Operating Function	2TX 5300MHz 11n (HT20) and 2440MHz Bluetooth 4.0 LE		



Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @ 4960.000	49.24	-4.76	54.00	42.56	33.34	5.75	32.41	Average	---	---
2 4960.000	59.24	-14.76	74.00	52.56	33.34	5.75	32.41	Peak	---	---
3 7440.000	51.67	-22.33	74.00	40.63	36.38	7.37	32.71	Peak	---	---
4 7440.000	39.70	-14.30	54.00	28.66	36.38	7.37	32.71	Average	---	---
5 9920.000	54.05	-19.95	74.00	39.46	38.95	8.71	33.07	Peak	---	---
6 10600.000	57.04	-16.96	74.00	41.75	38.84	9.06	32.61	Peak	---	---
7 10600.000	44.75	-9.25	54.00	29.46	38.84	9.06	32.61	Average	---	---
8 15900.000	59.03	-14.97	74.00	42.73	37.01	11.59	32.30	Peak	---	---
9 15900.000	46.28	-7.72	54.00	29.98	37.01	11.59	32.30	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

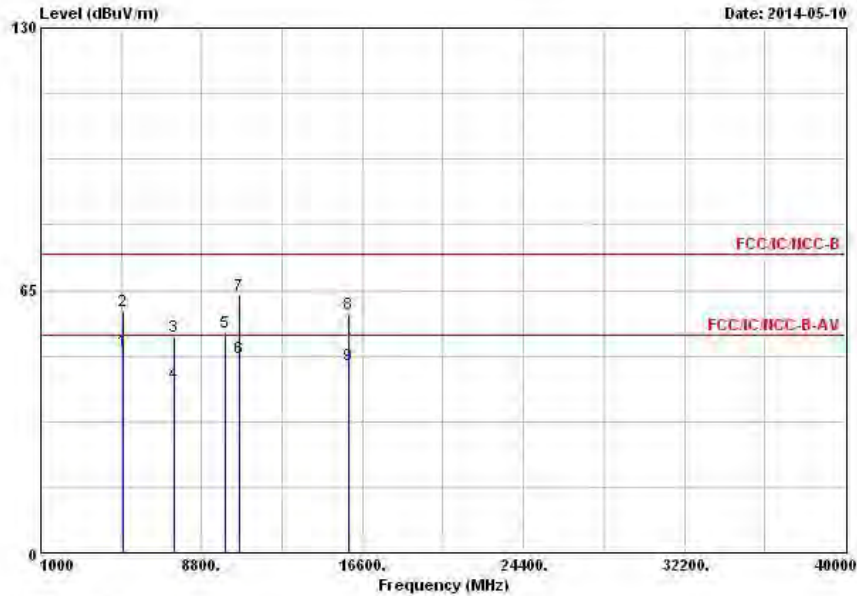
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





Transmitter Radiated Unwanted Emissions

Operating Mode	AC Power & Radio link	Polarization	H
Operating Function	2TX 5300MHz 11n (HT20) and 2440MHz Bluetooth 4.0 LE		



Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Remark	Ant Pos	Table Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 4960.000	49.94	-4.06	54.00	43.26	33.34	5.75	32.41 Average	---	---
2 4960.000	60.06	-13.94	74.00	53.38	33.34	5.75	32.41 Peak	---	---
3 7440.000	53.55	-20.45	74.00	42.51	36.38	7.37	32.71 Peak	---	---
4 7440.000	41.88	-12.12	54.00	30.84	36.38	7.37	32.71 Average	---	---
5 9920.000	54.62	-19.38	74.00	40.03	38.95	8.71	33.07 Peak	---	---
6 10600.000	48.34	-5.66	54.00	33.05	38.84	9.06	32.61 Average	---	---
7 10600.000	63.89	-10.11	74.00	48.60	38.84	9.06	32.61 Peak	---	---
8 15900.000	59.18	-14.82	74.00	42.88	37.01	11.59	32.30 Peak	---	---
9 15900.000	46.64	-7.36	54.00	30.34	37.01	11.59	32.30 Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)  
 Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)  
 Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



## 2 TEST EQUIPMENT AND CALIBRATION DATA

### Radiated Emission

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	Nov. 30, 2013	Radiation
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	May 05, 2014	Radiation
Amplifier	Agilent	8449B	3008A02120	1GHz ~ 26.5GHz	Aug. 20, 2013	Radiation
Spectrum	R&S	FSP40	100004	9kHz ~ 40GHz	Mar. 27, 2014	Radiation
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30MHz ~ 1GHz	Sep. 21, 2013	Radiation
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	May 31, 2013	Radiation
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15GHz ~ 40GHz	Jan. 10, 2014	Radiation
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	Nov. 16, 2013	Radiation
RF Cable-high	SUHNER	SUCOFLEX 106	03CH03-HY	1GHz ~ 40GHz	Dec. 11, 2013	Radiation
Turn Table	EM Electronics	EM Electronics	060615	0 ~ 360 degree	N/A	Radiation
Antenna Mast	MF	MF-7802	MF780208179	1 ~ 4 m	N/A	Radiation

Note: Calibration Interval of instruments listed above is one year. NCR: No calibration request.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Amplifier	EM	EM18G40G	060604	18GHz ~ 40GHz	Oct. 17.2013	Radiation
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	Dec. 02, 2012	Radiation

Note: Calibration Interval of instruments listed above is two year.