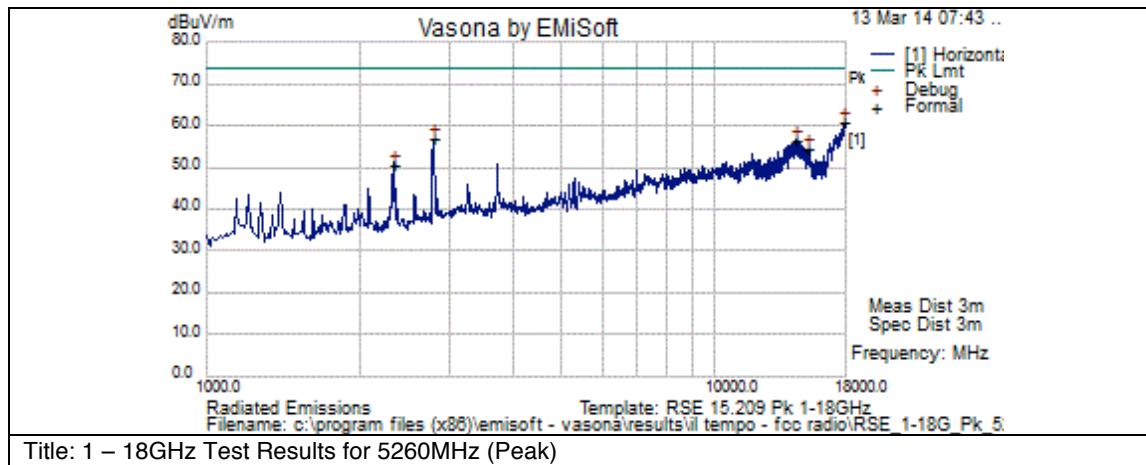


**Graphical Test Results 802.11a: 1 - 18GHz (5260MHz – Peak)**

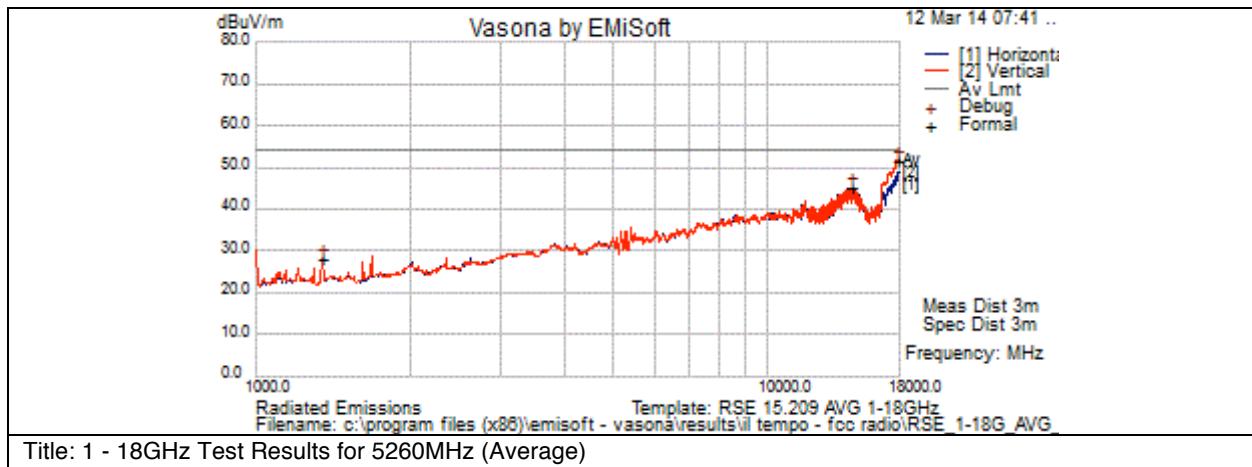
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	2336.095	51.2	5	-5.8	50.4	Peak [Scan]	H	100	205	74	-23.6	Pass		
2	2793.5	57.2	5.5	-5.8	56.8	Peak [Scan]	V	100	207	74	-17.2	Pass		
3	14387.5	35.4	14.1	7	56.5	Peak [Scan]	V	100	207	74	-17.5	Pass		
4	15161	35.6	14.5	4.3	54.3	Peak [Scan]	H	100	207	74	-19.7	Pass		
5	17864	34.9	16.2	9.7	60.8	Peak [Scan]	V	100	207	74	-13.2	Pass		

## Graphical Test Results 802.11a: 1 - 18GHz (5260MHz – Average)

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



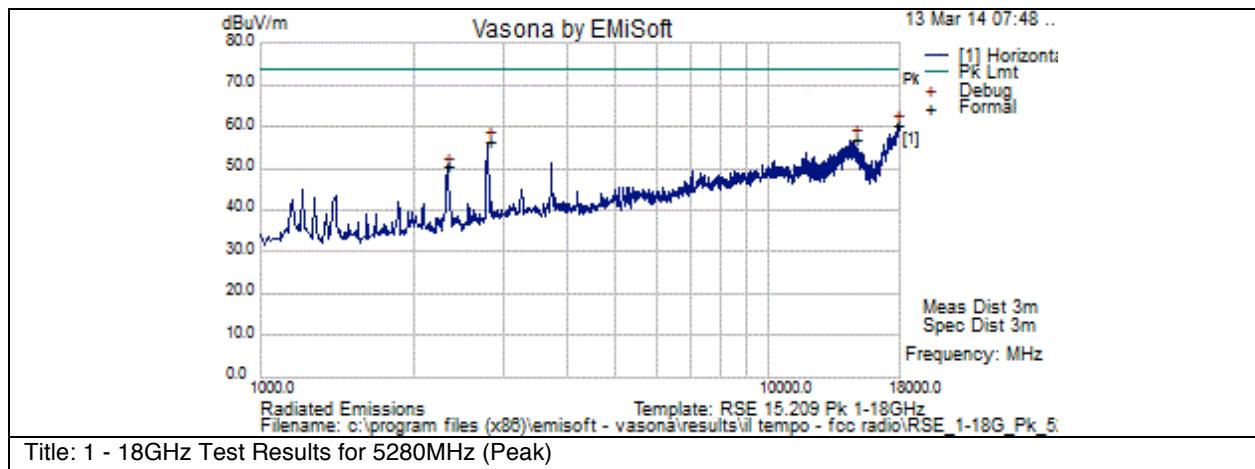
## Test Results Table

## Formal Data

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	1348.331	32.1	3.7	-7.9	27.9	Peak [Scan]	H	100	2	54	-26.1	Pass	
2	14549	23.3	14.2	7.6	45.1	Peak [Scan]	H	100	0	54	-8.9	Pass	
3	17855.5	25.8	16.2	9.7	51.7	Peak [Scan]	V	100	0	54	-2.3	Pass	

### Graphical Test Results 802.11a: 1 - 18GHz (5280MHz – Peak)

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

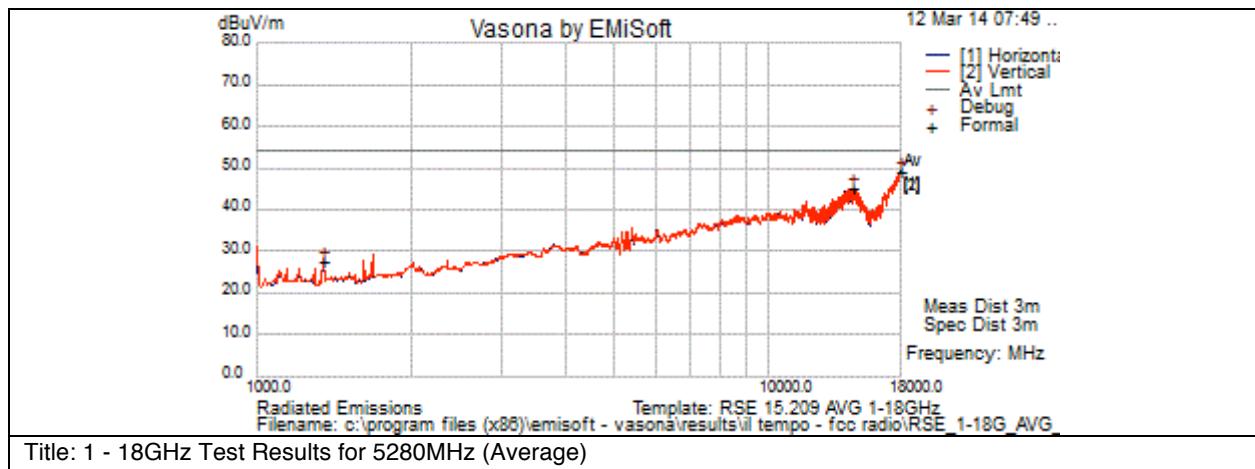


### Test Results Table

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	2333.352	51.1	5	-5.8	50.3	Peak [Scan]	H	100	205	74	-23.7	Pass		
2	2802	56.5	5.5	-5.9	56.2	Peak [Scan]	V	100	207	74	-17.8	Pass		
3	14710.5	35.8	14.3	6.7	56.8	Peak [Scan]	V	100	207	74	-17.2	Pass		
4	17813	34.4	16.2	9.8	60.4	Peak [Scan]	H	100	207	74	-13.7	Pass		

**Graphical Test Results 802.11a: 1 - 18GHz (5280MHz – Average)**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

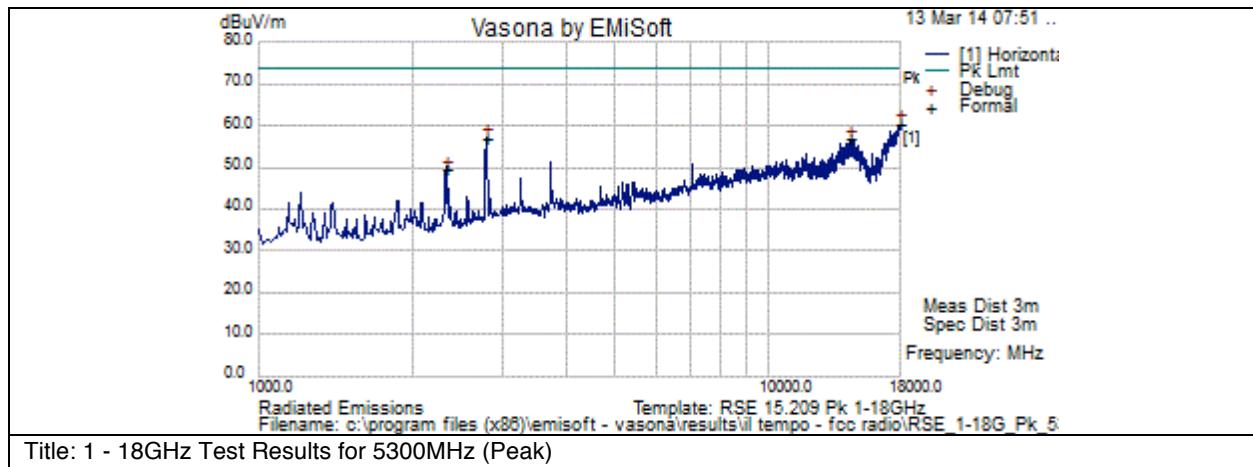

**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	1348.631	31.7	3.7	-7.9	27.4	Peak [Scan]	H	100	2	54	-26.6	Pass		
2	14540.5	23	14.2	7.7	45	Peak [Scan]	H	100	0	54	-9	Pass		
3	17974.5	23.2	16.3	9.6	49.2	Peak [Scan]	H	100	0	54	-4.9	Pass		



**Graphical Test Results 802.11a: 1 - 18GHz (5300Mhz – Peak)**

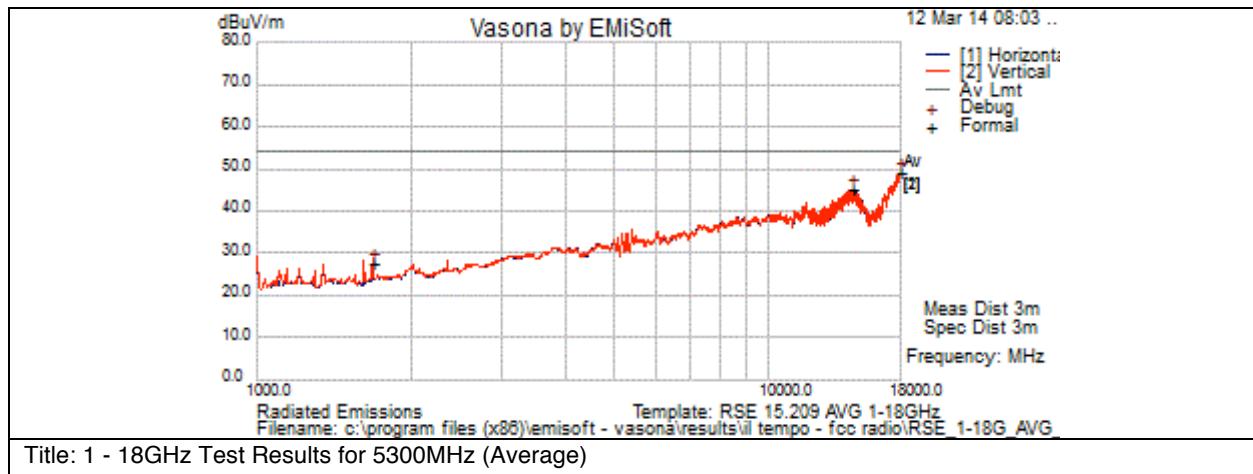
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data															
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments		
1	2330.718	50.1	5	-5.8	49.3	Peak [Scan]	H	100	205	74	-24.7	Pass			
2	2793.5	57.3	5.5	-5.8	56.9	Peak [Scan]	V	100	207	74	-17.1	Pass			
3	14396	35.5	14.2	7	56.7	Peak [Scan]	H	100	207	74	-17.3	Pass			
4	17991.5	34.3	16.3	9.7	60.3	Peak [Scan]	V	100	207	74	-13.7	Pass			

**Graphical Test Results 802.11a: 1 - 18GHz (5300MHz – Average)**

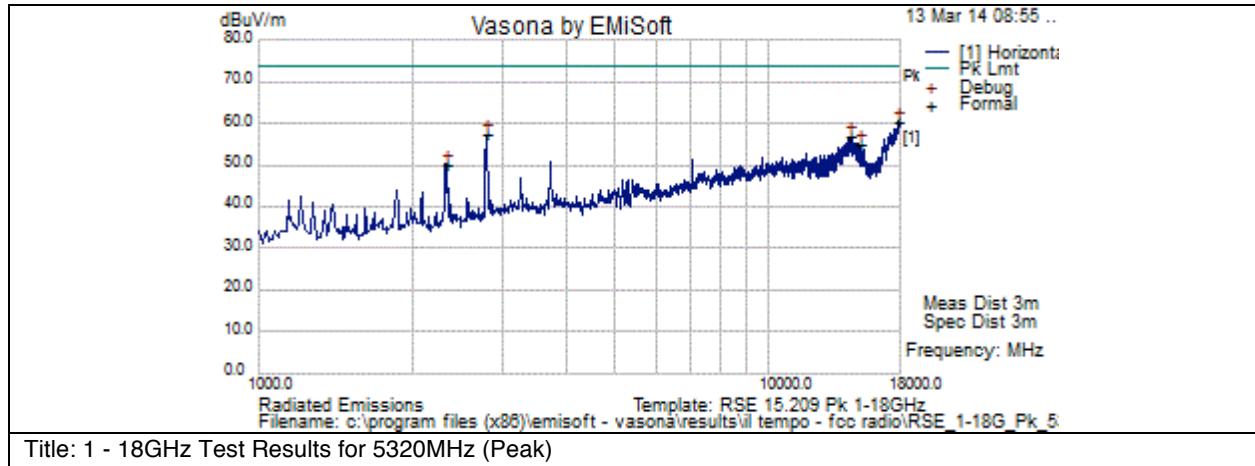
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	1688.789	30.3	4.2	-6.8	27.7	Peak [Scan]	H	100	2	54	-26.3	Pass		
2	14540.5	23.1	14.2	7.7	45	Peak [Scan]	H	100	0	54	-9	Pass		
3	17974.5	23.1	16.3	9.6	49	Peak [Scan]	H	100	0	54	-5	Pass		

**Graphical Test Results 802.11a: 1 - 18GHz (5320MHz – Peak)**

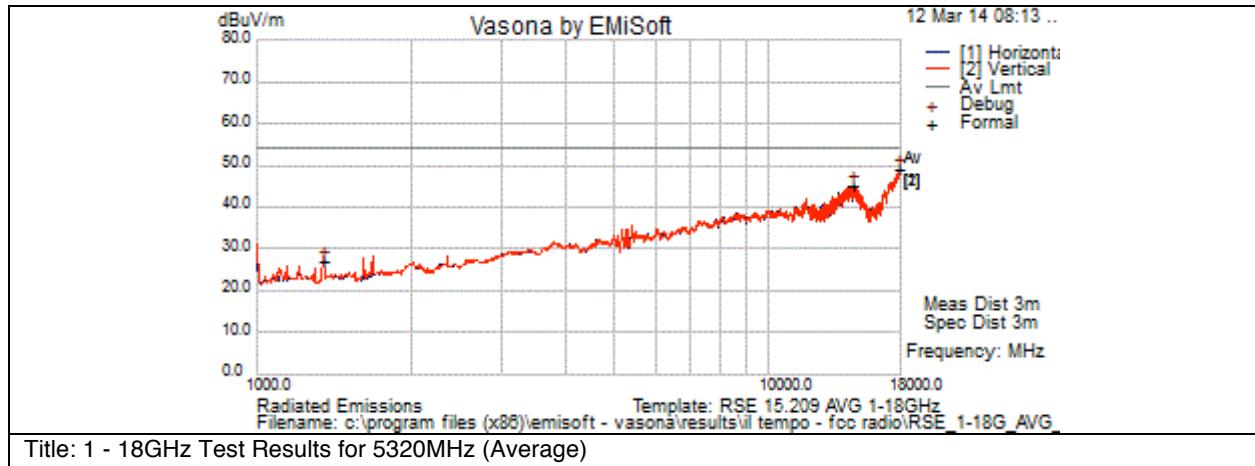
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	2333.856	51	5	-5.8	50.2	Peak [Scan]	H	100	205	74	-23.8	Pass		
2	2793.5	57.7	5.5	-5.8	57.4	Peak [Scan]	V	100	207	74	-16.7	Pass		
3	14387.5	35.8	14.1	7	56.9	Peak [Scan]	H	100	207	74	-17.1	Pass		
4	14999.5	35.3	14.4	5.3	55	Peak [Scan]	H	100	207	74	-19	Pass		
5	17838.5	34.5	16.2	9.7	60.5	Peak [Scan]	V	100	207	74	-13.5	Pass		

**Graphical Test Results 802.11a: 1 - 18GHz (5320MHz – Average)**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

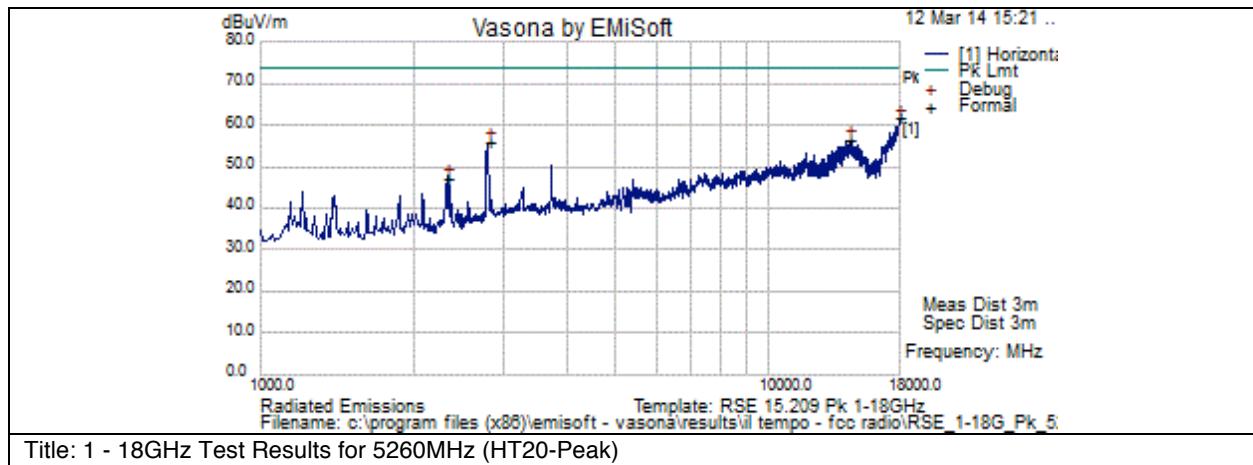

**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	1350.05	31.3	3.7	-7.9	27.1	Peak [Scan]	H	100	2	54	-26.9	Pass		
2	14540.5	23.1	14.2	7.7	45	Peak [Scan]	V	100	0	54	-9	Pass		
3	17821.5	23	16.2	9.8	49	Peak [Scan]	V	100	0	54	-5.1	Pass		



**Graphical Test Results HT20: 1 - 18GHz (5260MHz – Peak)**

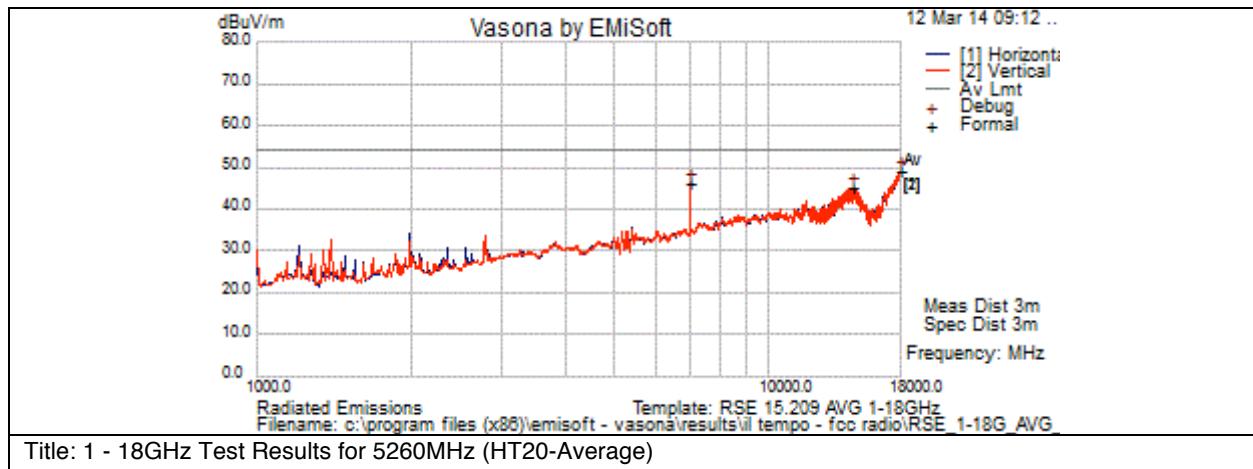
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	2335.127	48.1	5	-5.8	47.2	Peak [Scan]	H	100	209	74	-26.8	Pass	
2	2802	56.1	5.5	-5.9	55.8	Peak [Scan]	V	100	207	74	-18.2	Pass	
3	14396	35.1	14.2	7	56.2	Peak [Scan]	H	100	207	74	-17.8	Pass	
4	18000	35.5	16.3	9.7	61.6	Peak [Scan]	H	100	207	74	-12.4	Pass	

**Graphical Test Results HT20: 1 - 18GHz (5260MHz – Average)**

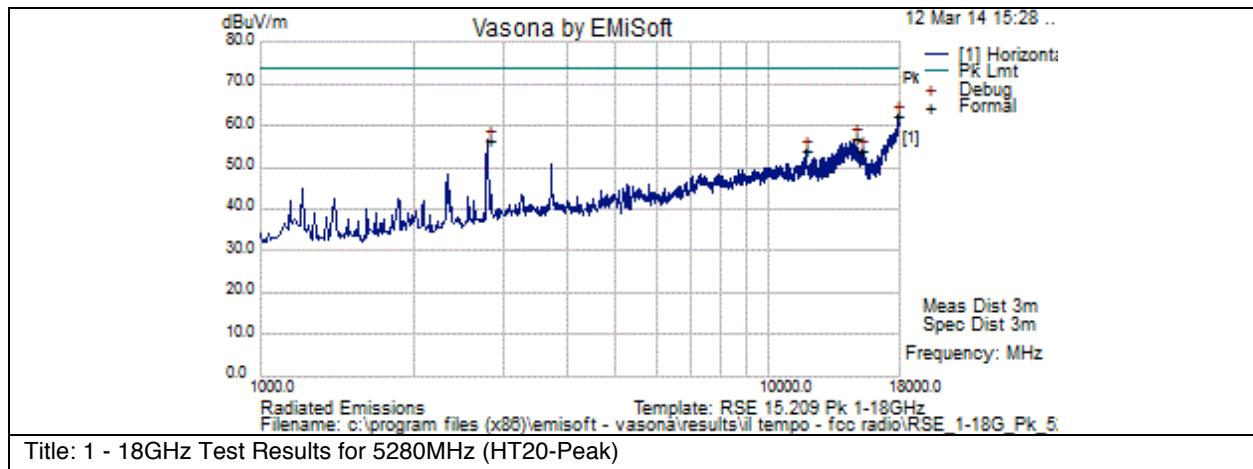
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	7009.5	38	9.2	-0.9	46.3	Peak [Scan]	V	100	204	54	-7.7	Pass	
2	14540.5	23	14.2	7.7	45	Peak [Scan]	V	100	256	54	-9	Pass	
3	17974.5	23	16.3	9.6	48.9	Peak [Scan]	H	100	154	54	-5.1	Pass	

**Graphical Test Results HT20: 1 - 18GHz (5280MHz – Peak)**

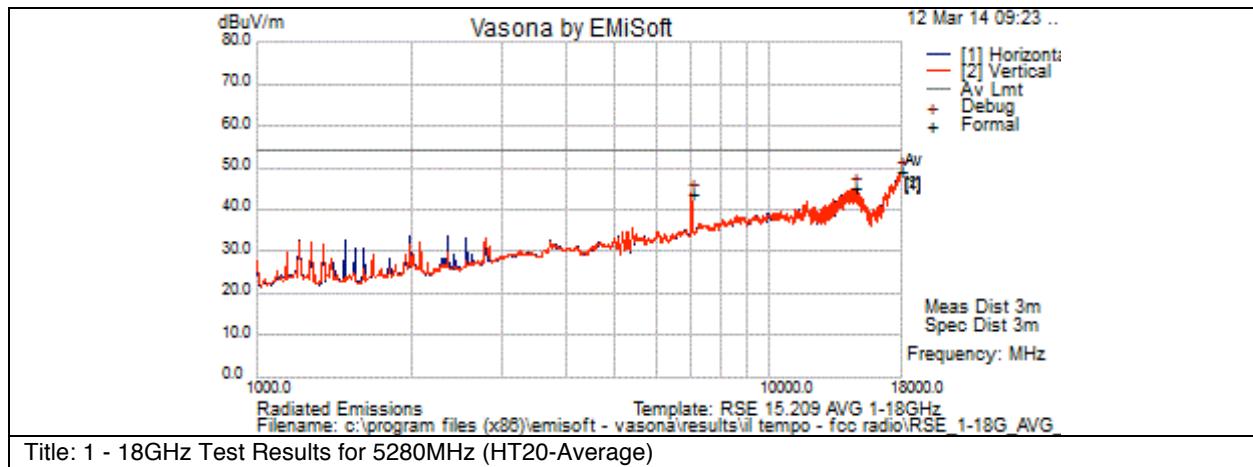
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	2802	56.9	5.5	-5.9	56.6	Peak [Scan]	V	100	207	74	-17.4	Pass	
2	11812	36.2	12.5	5.4	54.1	Peak [Scan]	V	100	207	74	-20	Pass	
3	14702	35.7	14.2	6.8	56.7	Peak [Scan]	V	100	207	74	-17.3	Pass	
4	15186.5	35.5	14.5	4.1	54.1	Peak [Scan]	H	100	207	74	-19.9	Pass	
5	17821.5	36.4	16.2	9.8	62.4	Peak [Scan]	V	100	207	74	-11.6	Pass	

**Graphical Test Results HT20: 1 - 18GHz (5280MHz – Average)**

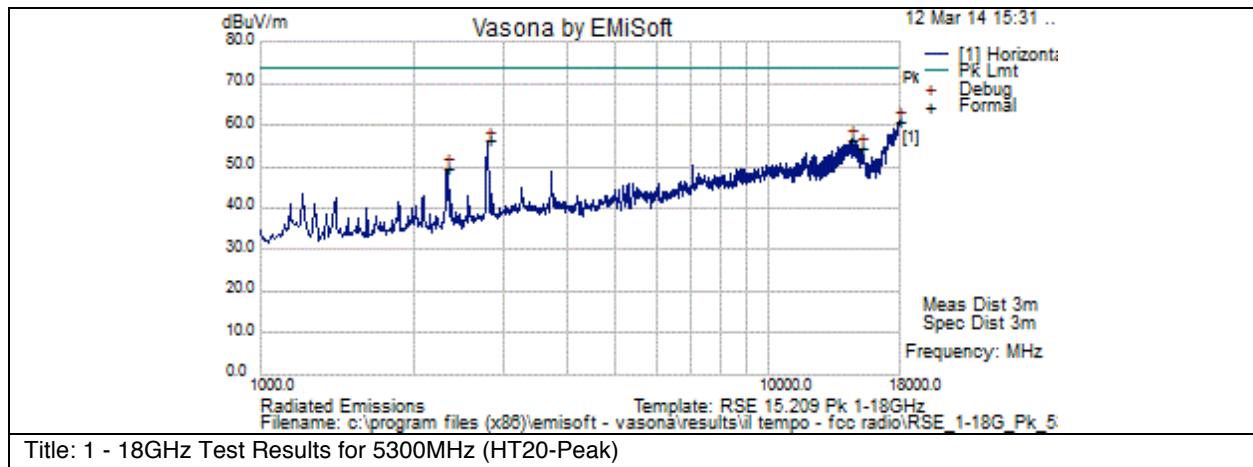
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	7035	35.2	9.2	-0.8	43.7	Peak [Scan]	H	100	207	54	-10.3	Pass	
2	14557.5	23.3	14.2	7.4	45	Peak [Scan]	H	100	207	54	-9	Pass	
3	17966	23.1	16.3	9.6	49	Peak [Scan]	H	100	207	54	-5	Pass	

**Graphical Test Results HT20: 1 - 18GHz (5300MHz – Peak)**

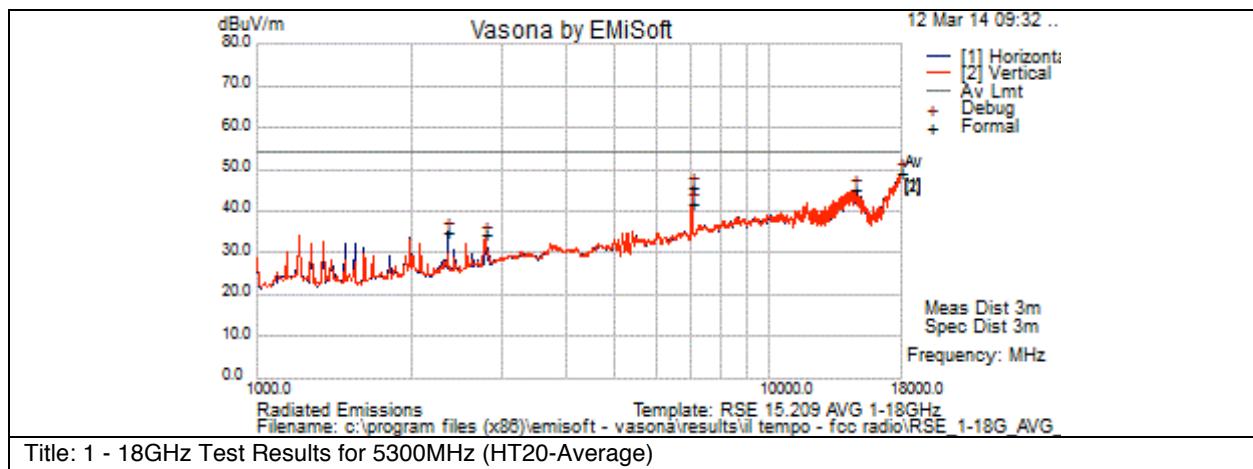
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

**Test Results Table****Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	2332.712	50.2	5	-5.8	49.4	Peak [Scan]	H	100	209	74	-24.6	Pass	
2	2802	56.5	5.5	-5.9	56.1	Peak [Scan]	V	100	207	74	-17.9	Pass	
3	14540.5	34.7	14.2	7.7	56.6	Peak [Scan]	H	100	207	74	-17.4	Pass	
4	15169.5	35.6	14.5	4.2	54.3	Peak [Scan]	H	100	207	74	-19.8	Pass	
5	17983	35	16.3	9.7	60.9	Peak [Scan]	V	100	207	74	-13.1	Pass	

**Graphical Test Results HT20: 1 - 18GHz (5300MHz – Average)**

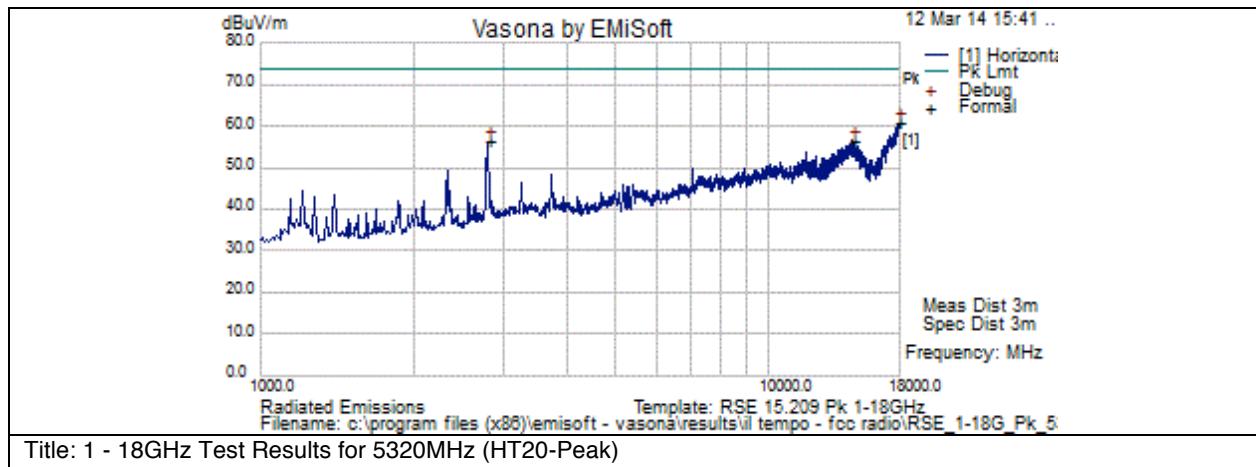
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	2360	35.8	5	-6	34.9	Peak [Scan]	H	100	207	54	-19.1	Pass	
2	2793.5	34.5	5.5	-5.8	34.1	Peak [Scan]	V	100	207	54	-19.9	Pass	
3	7035	33.1	9.2	-0.8	41.5	Peak [Scan]	V	100	207	54	-12.5	Pass	
4	7069	37.2	9.3	-0.6	45.8	Peak [Scan]	V	100	207	54	-8.2	Pass	
5	14557.5	23.4	14.2	7.4	45.1	Peak [Scan]	V	100	207	54	-8.9	Pass	
6	17974.5	23.1	16.3	9.6	49	Peak [Scan]	H	100	207	54	-5	Pass	

**Graphical Test Results HT20: 1 - 18GHz (5320MHz – Peak)**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

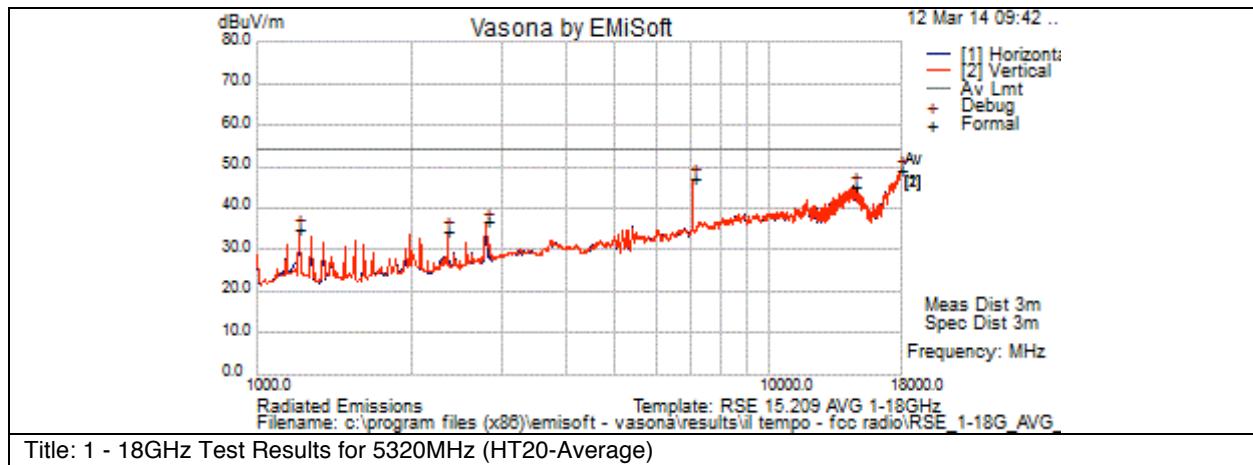

**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	2802	56.6	5.5	-5.9	56.2	Peak [Scan]	V	100	207	74	-17.8	Pass	
2	14566	35.1	14.2	7.3	56.6	Peak [Scan]	H	100	207	74	-17.5	Pass	
3	17974.5	34.8	16.3	9.6	60.7	Peak [Scan]	V	100	207	74	-13.3	Pass	



**Graphical Test Results HT20: 1 - 18GHz (5320MHz – Average)**

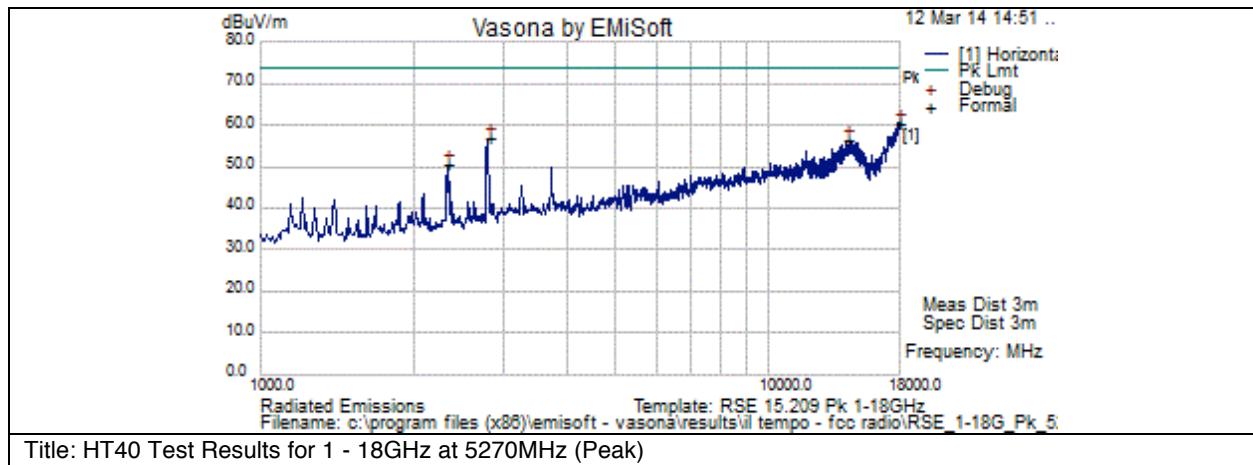
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	1212.5	39.5	3.5	-8.3	34.7	Peak [Scan]	V	100	207	54	-19.3	Pass	
2	2360	35.3	5	-6	34.3	Peak [Scan]	V	100	207	54	-19.7	Pass	
3	2802	36.9	5.5	-5.9	36.6	Peak [Scan]	V	100	207	54	-17.5	Pass	
4	7094.5	38.2	9.3	-0.5	46.9	Peak [Scan]	V	100	207	54	-7.1	Pass	
5	14557.5	23.5	14.2	7.4	45.2	Peak [Scan]	H	100	207	54	-8.9	Pass	
6	17966	23.2	16.3	9.6	49.1	Peak [Scan]	H	100	207	54	-4.9	Pass	

**Graphical Test Results HT40: 1 - 18GHz (5270MHz – Peak)**

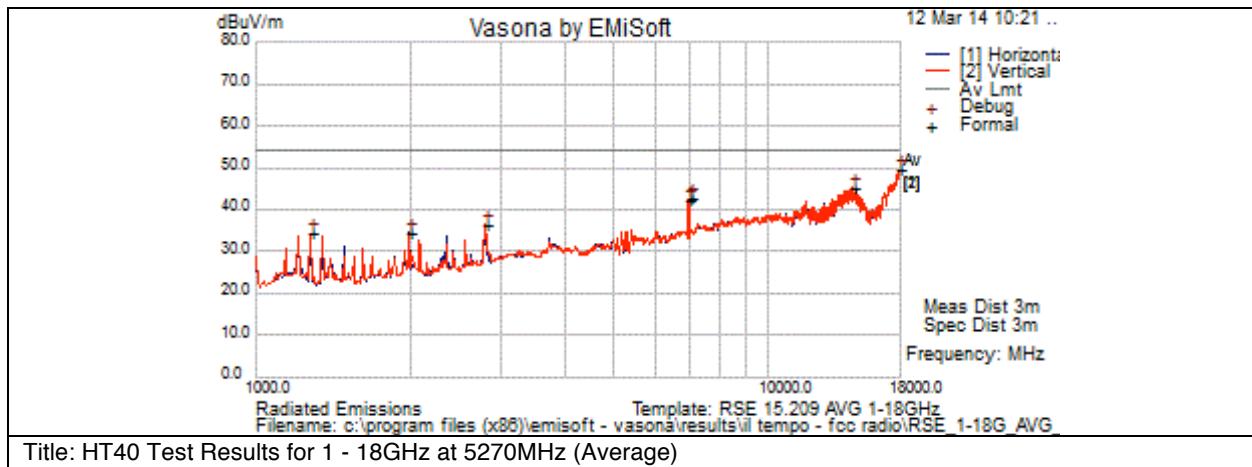
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data															
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments		
1	2334.726	51.2	5	-5.8	50.3	Peak [Scan]	H	100	209	74	-23.7	Pass			
2	2802	57	5.5	-5.9	56.7	Peak [Scan]	V	100	207	74	-17.3	Pass			
3	14192	35.3	14.1	7	56.4	Peak [Scan]	V	100	207	74	-17.7	Pass			
4	17974.5	34.6	16.3	9.6	60.5	Peak [Scan]	V	100	207	74	-13.5	Pass			

**Graphical Test Results HT40: 1 - 18GHz (5270MHz – Average)**

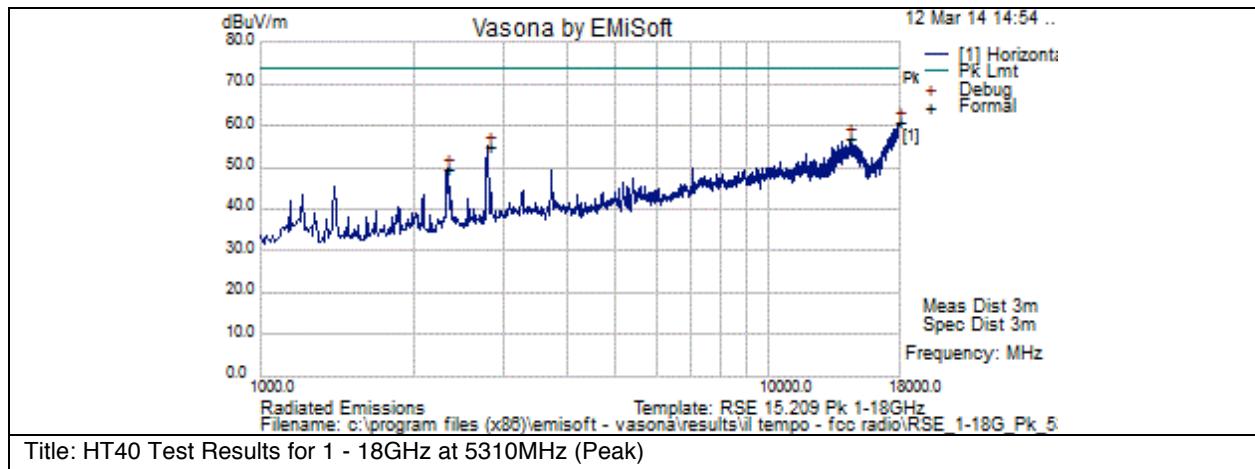
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**
**Formal Data**

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	1280.5	39.1	3.6	-8.5	34.2	Peak [Scan]	V	100	207	54	-19.8	Pass	
2	1994.5	35.2	4.6	-5.3	34.5	Peak [Scan]	H	100	207	54	-19.5	Pass	
3	2810.5	36.6	5.5	-5.8	36.3	Peak [Scan]	H	100	207	54	-17.7	Pass	
4	6975.5	34.1	9.2	-0.9	42.4	Peak [Scan]	V	100	207	54	-11.7	Pass	
5	7026.5	34.1	9.2	-0.8	42.5	Peak [Scan]	V	100	207	54	-11.5	Pass	
6	14557.5	23.6	14.2	7.4	45.3	Peak [Scan]	V	100	207	54	-8.7	Pass	
7	17966	23.4	16.3	9.6	49.3	Peak [Scan]	H	100	207	54	-4.7	Pass	

### Graphical Test Results HT40: 1 - 18GHz (5310MHz – Peak)

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

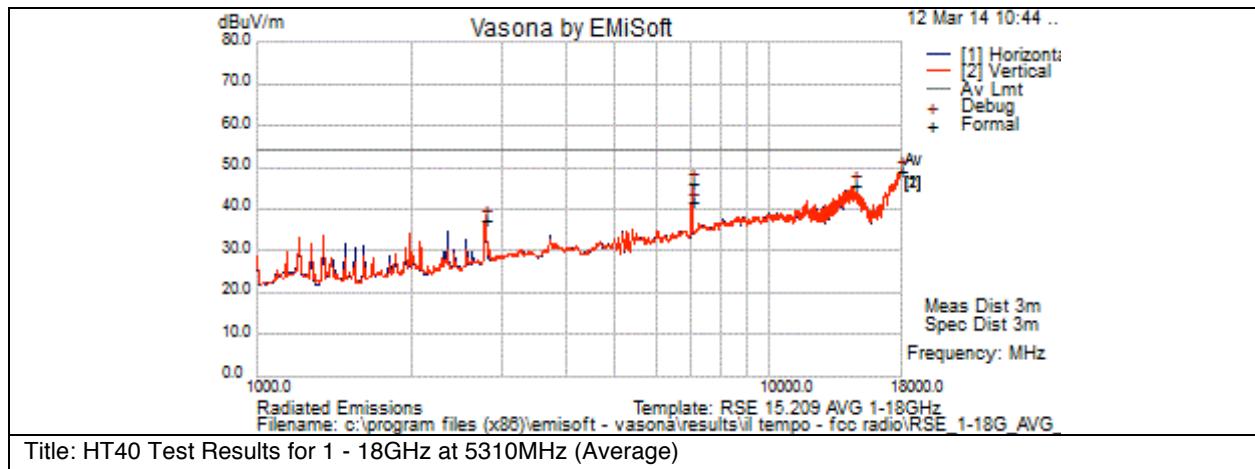


### Test Results Table

Formal Data															
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments		
1	2333.741	50.3	5	-5.8	49.5	Peak [Scan]	H	100	209	74	-24.5	Pass			
2	2802	55.4	5.5	-5.9	55	Peak [Scan]	V	100	207	74	-19	Pass			
3	14396	35.7	14.2	7	56.8	Peak [Scan]	V	100	207	74	-17.2	Pass			
4	17974.5	34.7	16.3	9.6	60.6	Peak [Scan]	V	100	207	74	-13.4	Pass			

### Graphical Test Results HT40: 1 - 18GHz (5310MHz – Average)

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

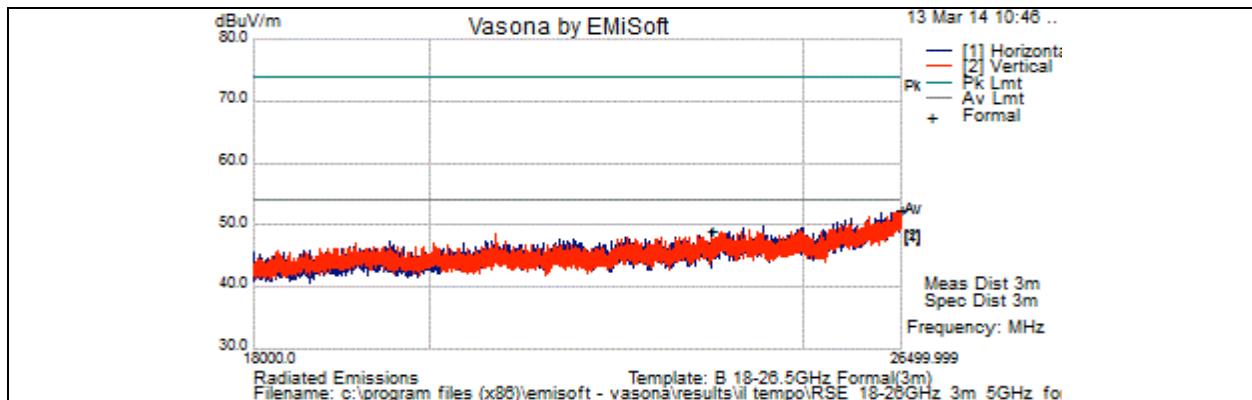


### Test Results Table

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	2796.854	37.5	5.5	-5.9	37.2	Peak [Scan]	H	100	209	54	-16.9	Pass		
2	7026.5	33.1	9.2	-0.8	41.5	Peak [Scan]	V	100	207	54	-12.5	Pass		
3	7077.5	37.2	9.3	-0.6	45.9	Peak [Scan]	H	100	207	54	-8.1	Pass		
4	14557.5	23.8	14.2	7.4	45.5	Peak [Scan]	V	100	207	54	-8.6	Pass		
5	17974.5	23.2	16.3	9.6	49.2	Peak [Scan]	H	100	207	54	-4.9	Pass		

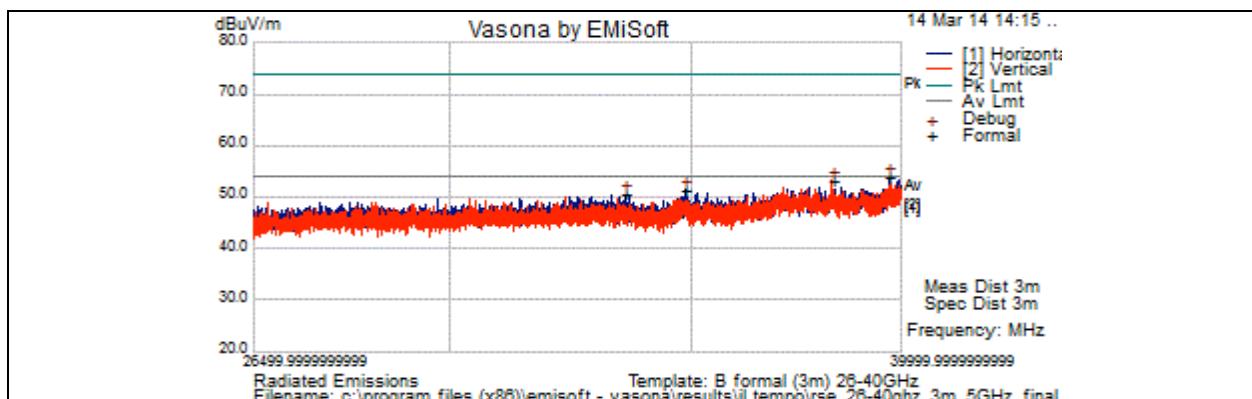
### Graphical Test Results: 18 – 26GHz

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



### Graphical Test Results: 26 – 40GHz

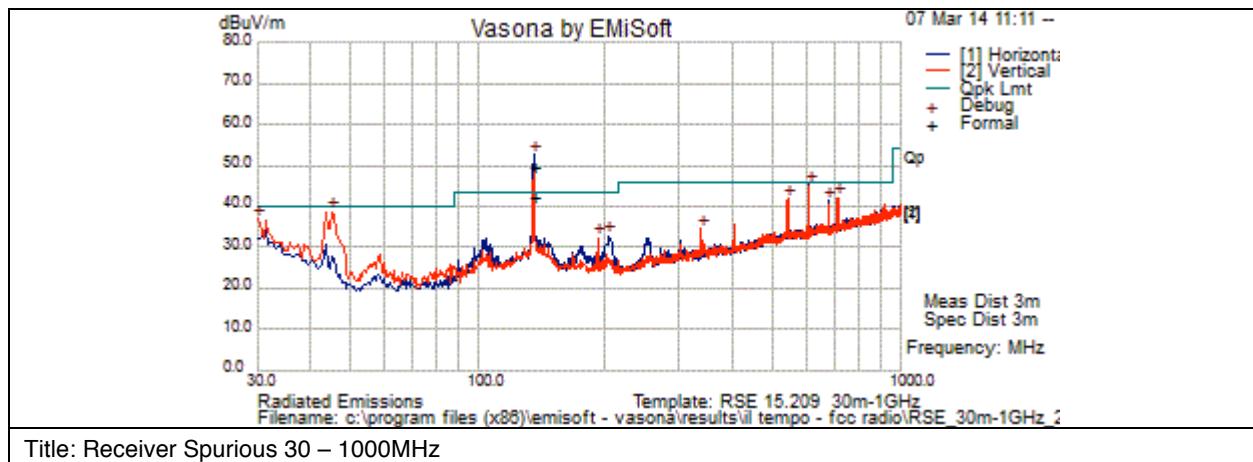
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



### Radiated Receiver Spurious Measurements

#### Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

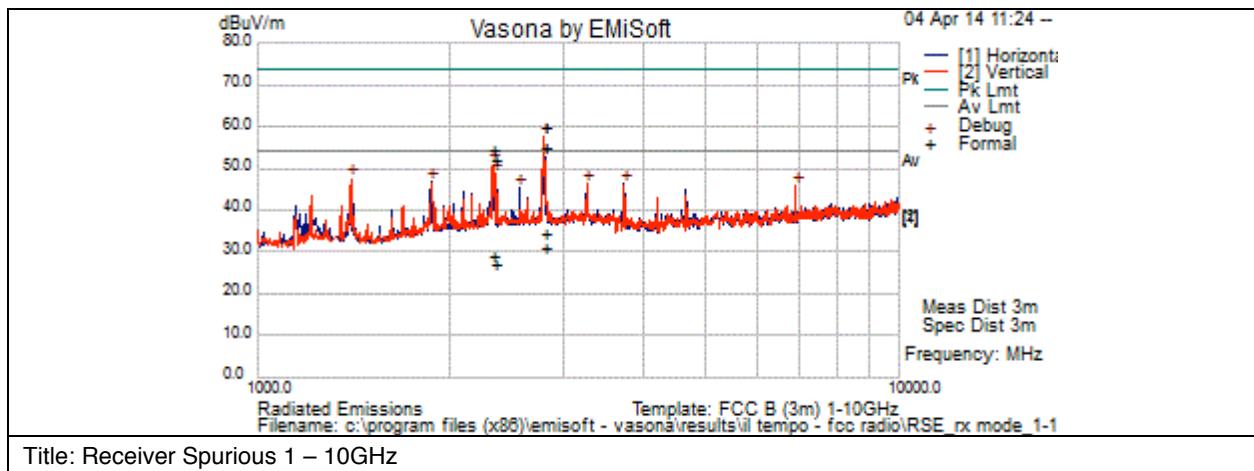


#### Test Results Table

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	135.168	27.3	1.1	13.6	41.9	Quasi Peak	H	200	0	43.5	-1.6	Pass	Digital Signal	

#### Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



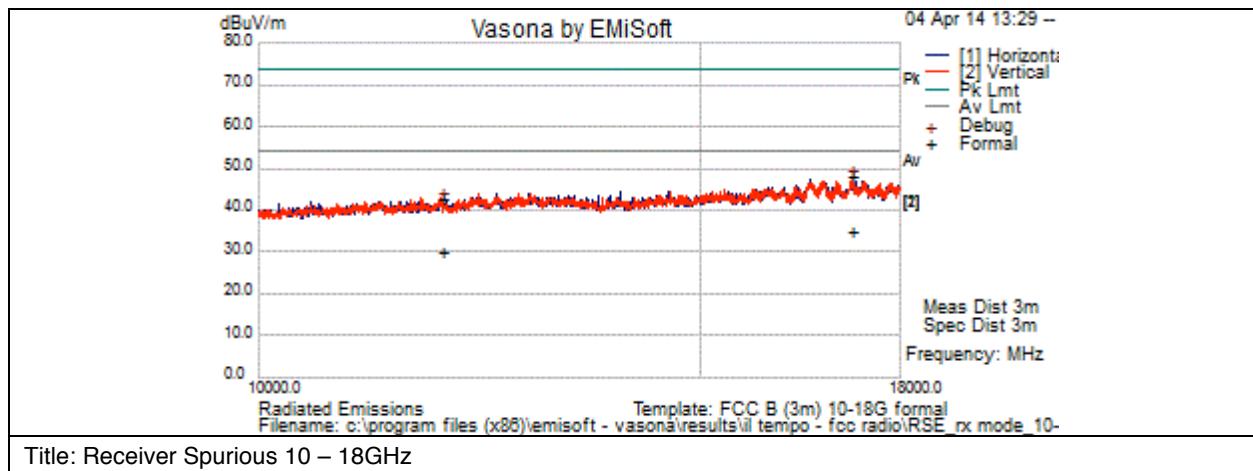
### Test Results Table

#### Formal Data

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	2332.002	58.9	4.6	-9.3	54.2	Peak	V	102	2	74	-19.8	Pass	
2	2345.5	56.6	4.6	-9.3	52	Peak	V	102	14	74	-22	Pass	
3	2809	58.1	5.1	-8.4	54.8	Peak	H	102	327	74	-19.2	Pass	
4	2800.002	63	5.1	-8.4	59.7	Peak	V	102	11	74	-14.3	Pass	
5	2332.001	33.7	4.6	-9.3	29	Average	V	102	2	54	-25	Pass	
6	2345.5	31.8	4.6	-9.3	27.2	Average	V	102	14	54	-26.8	Pass	
7	2809	34.2	5.1	-8.4	30.9	Average	H	102	327	54	-23.1	Pass	
8	2800.001	37.8	5.1	-8.4	34.4	Average	V	102	11	54	-19.6	Pass	

### Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



### Test Results Table

#### Formal Data

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	17224	44.3	14.6	-10.7	48.2	Peak	V	102	0	74	-25.8	Pass	
2	11830.911	45.8	11.6	-14.6	42.7	Peak	H	102	0	74	-31.3	Pass	
3	17224	31	14.6	-10.7	34.9	Average	V	102	0	54	-19.1	Pass	
4	11830.911	32.8	11.6	-14.6	29.7	Average	H	102	0	54	-24.3	Pass	

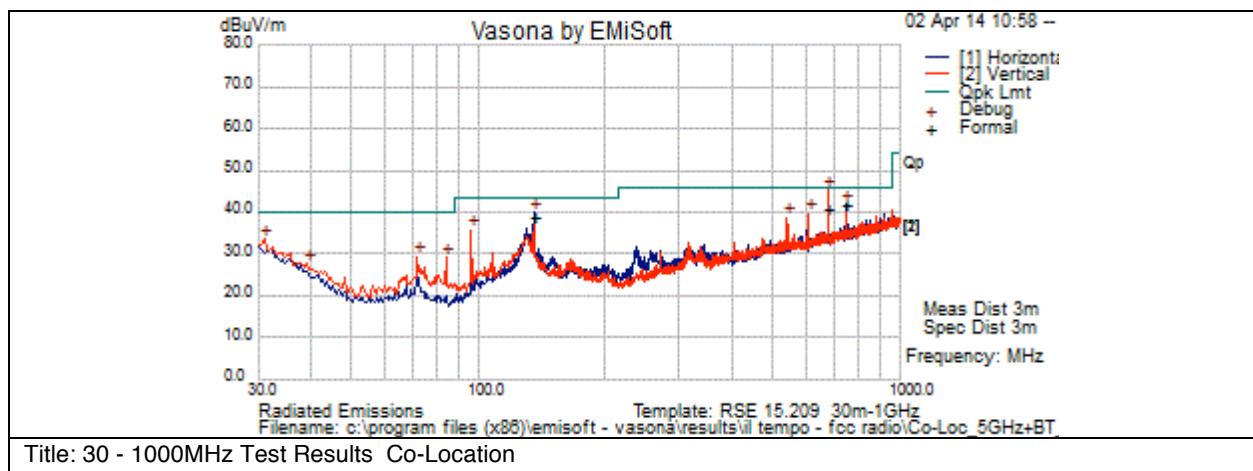
### Co-Location Radiated Spurious Emissions

#### 15.205 & RSS-210 sec2.7:

Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a).

#### Graphical Test Results: 30 – 1000MHz

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

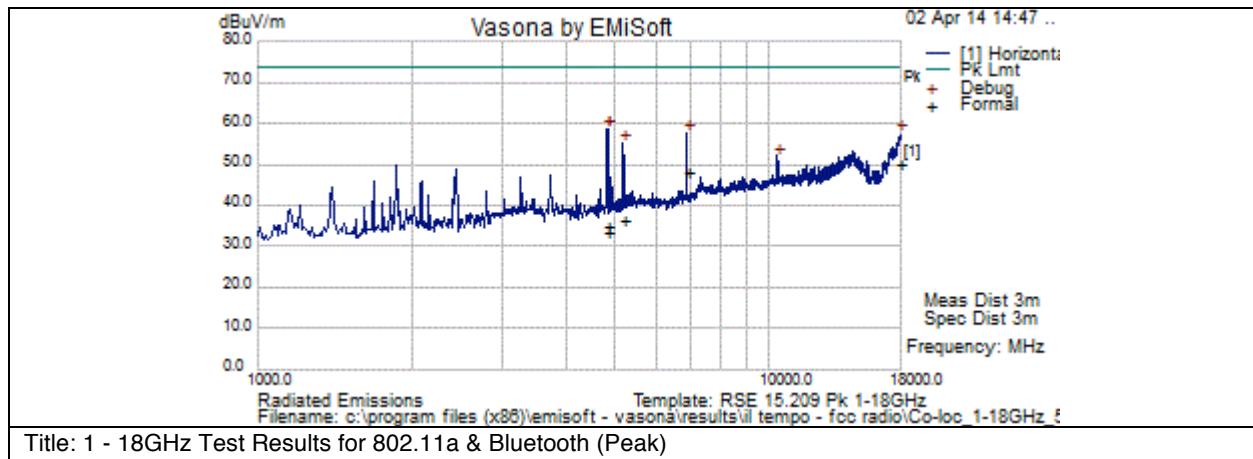


#### Formal Data

No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	135.17	23.9	1.1	13.6	38.5	Quasi Peak	H	102	152	43.5	-5	Pass	Digital signal
2	675.971	18.5	2.4	19.9	40.8	Quasi Peak	V	102	18	46	-5.2	Pass	
3	743.599	18.7	2.5	20.6	41.8	Peak [Scan]	H	100	321	46	-4.2	Pass	

**Graphical Test Results for 802.11a & Bluetooth: 1 – 18GHz (Peak)**

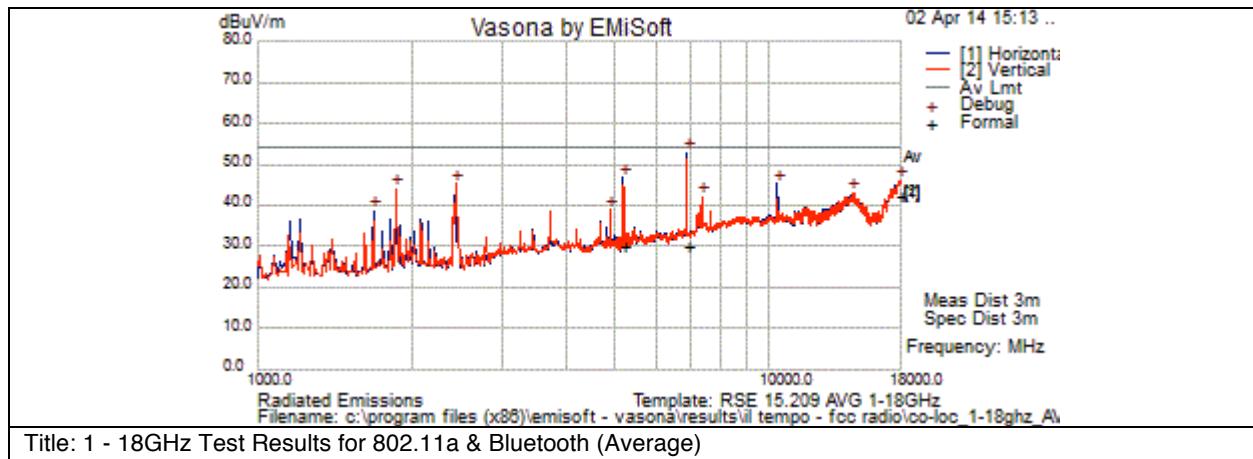
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	4816.501	30.3	8.6	-4.2	34.7	Peak [Scan]	V	102	338	74	-39.3	Pass		
2	4833.5	28.8	8.6	-4.2	33.2	Peak [Scan]	V	102	338	74	-40.8	Pass		
3	5173.5	31	8.9	-3.6	36.3	Peak [Scan]	V	102	338	74	-37.7	Pass		
4	6907.501	38.3	10.5	-0.9	47.9	Peak [Scan]	V	102	91	74	-26.1	Pass		
5	17966	21.4	18.9	9.6	49.9	Peak [Scan]	V	102	338	74	-24.1	Pass		

**Graphical Test Results for 802.11a & Bluetooth: 1 – 18GHz (Average)**

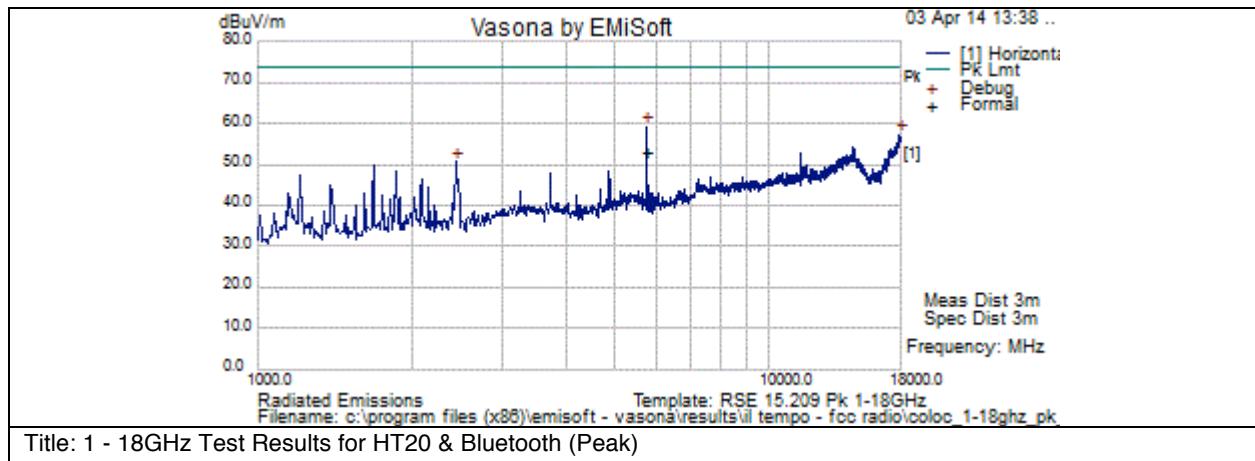
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data															
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments		
1	5182.002	24.7	8.9	-3.6	30	Average	H	102	202	54	-24	Pass			
2	6907.502	20.4	10.5	-0.9	29.9	Average	H	102	202	54	-24.1	Pass			
3	17966	13.7	18.9	9.6	42.3	Average	V	102	202	54	-11.7	Pass			

**Graphical Test Results for HT20 & Bluetooth: 1 – 18GHz (Peak)**

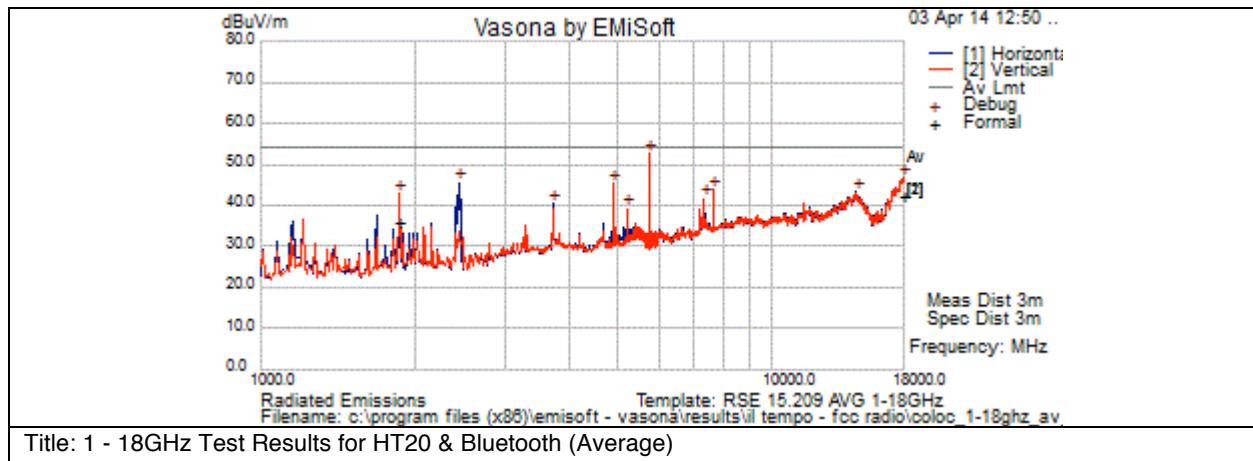
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data															
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments		
1	5743.001	47.5	9.4	-4. 1	52.9	Peak	V	100	295	74	-21.1	Pass			

### Graphical Test Results for HT20 & Bluetooth: 1 – 18GHz (Average)

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

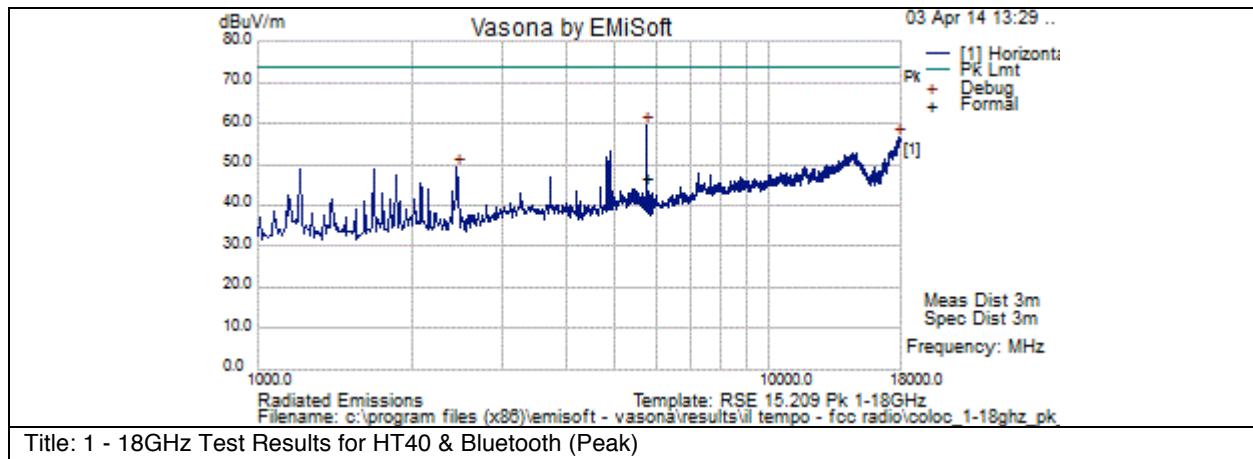


### Test Results Table

Formal Data															
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments		
1	1867.001	37.7	5.1	-7	35.8	Average	V	102	358	54	-18.2	Pass			
2	18000	13.6	18.9	9.7	42.3	Average	V	102	358	54	-11.7	Pass			

**Graphical Test Results for HT40 & Bluetooth: 1 – 18GHz (Peak)**

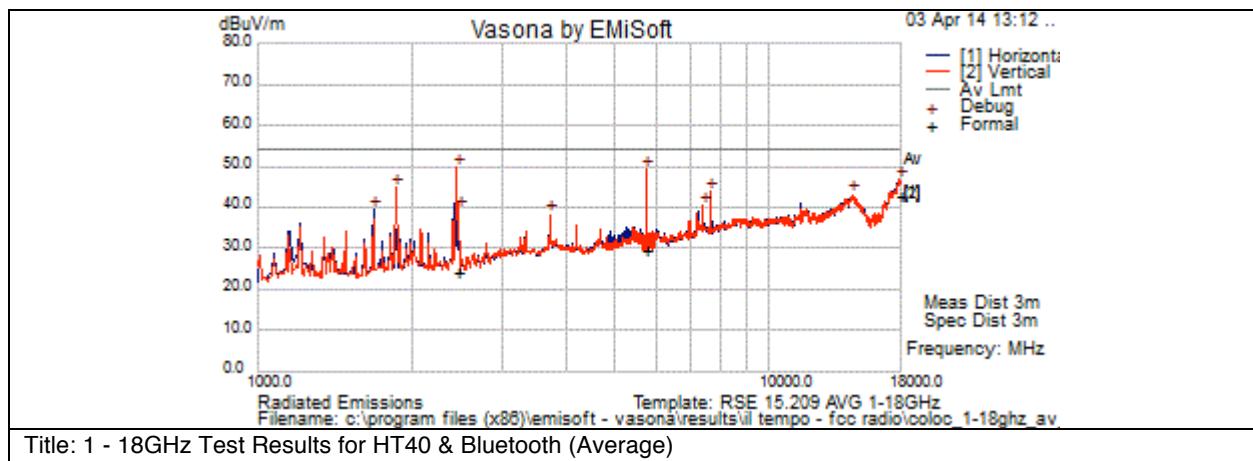
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements


**Test Results Table**

Formal Data														
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments	
1	5743.001	41.2	9.4	-4.1	46.6	Peak	H	100	361	74	-27.4	Pass		

### Graphical Test Results for HT40 & Bluetooth: 1 – 18GHz (Average)

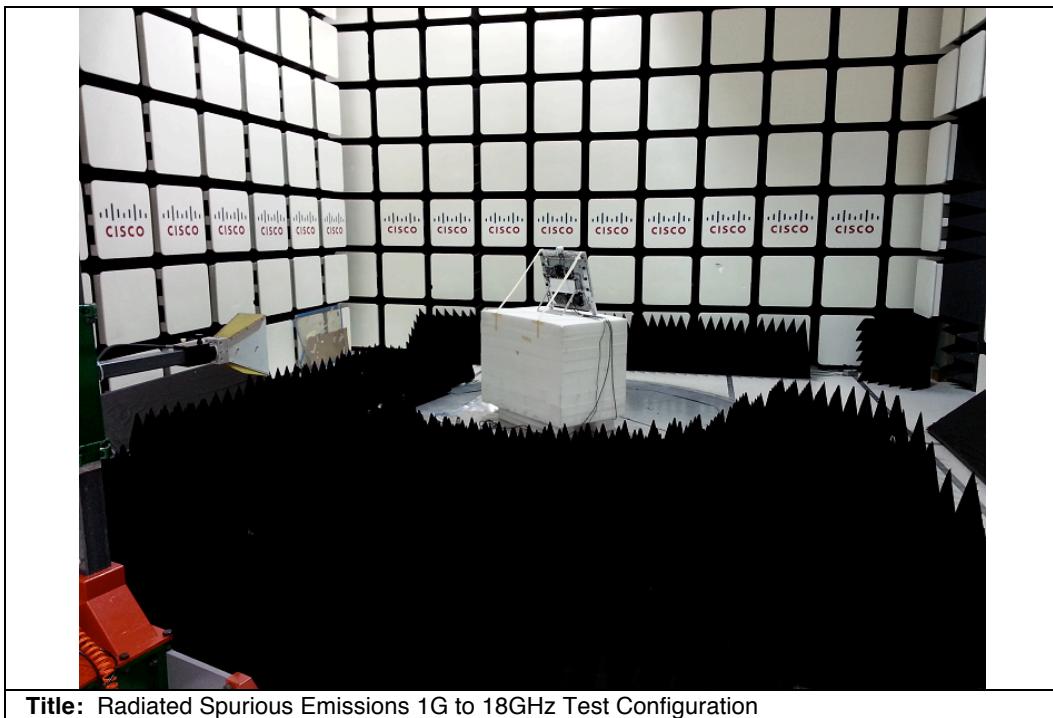
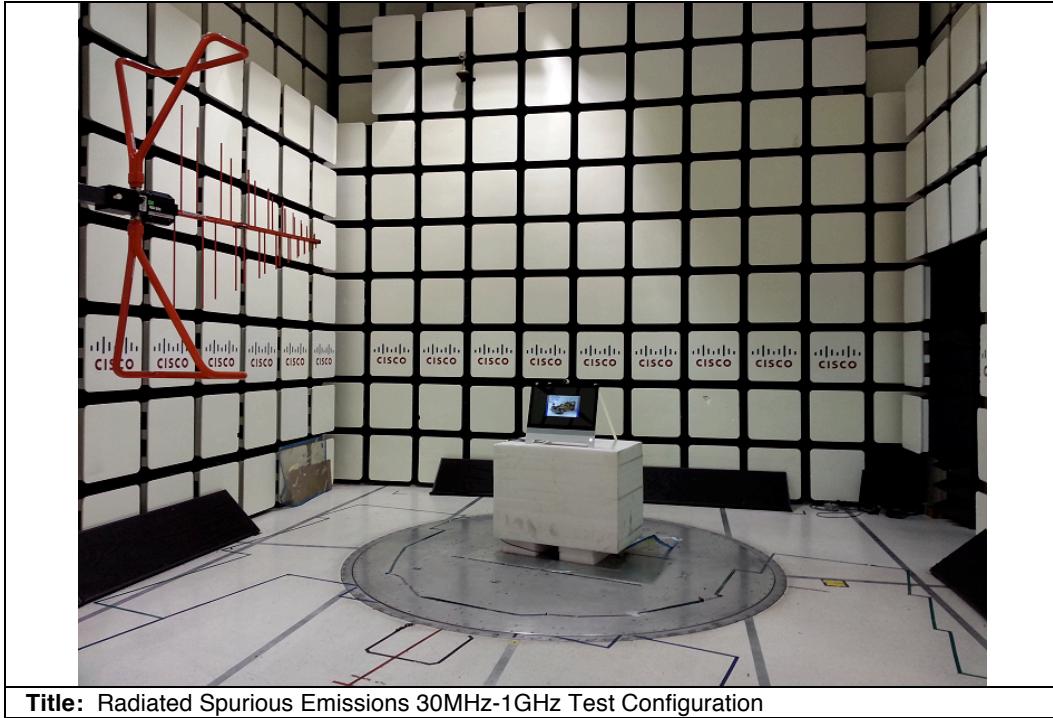
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

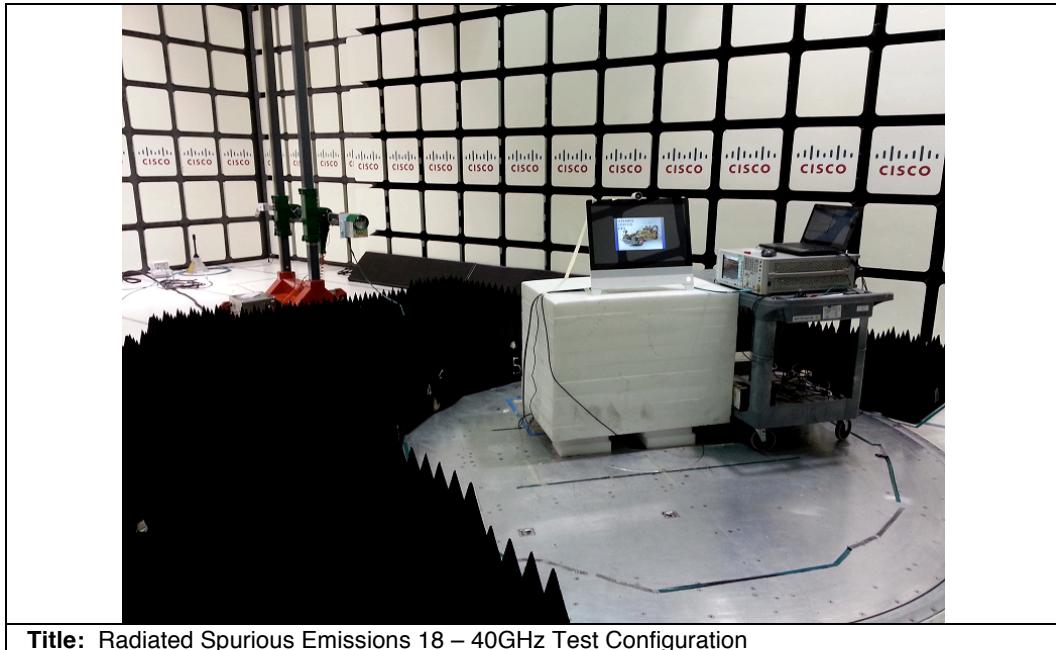


### Test Results Table

Formal Data																
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments			
1	2453.501	24.2	5.9	-6.2	23.9	Average	V	100	364	54	-30.1	Pass				
2	5743	24	9.4	-4.1	29.4	Average	V	100	364	54	-24.6	Pass				
3	17923.5	14.1	18.9	9.7	42.6	Average	V	100	364	54	-11.4	Pass				

**Physical Test arrangement Photograph:**

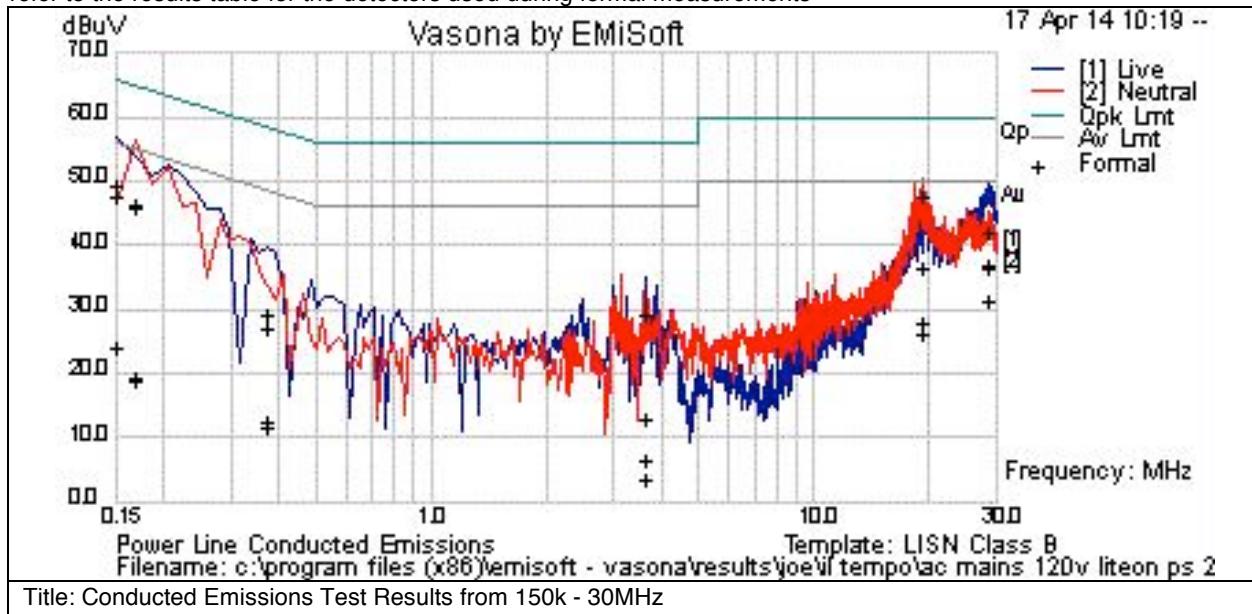




## Conducted emissions

### Graphical Test Results

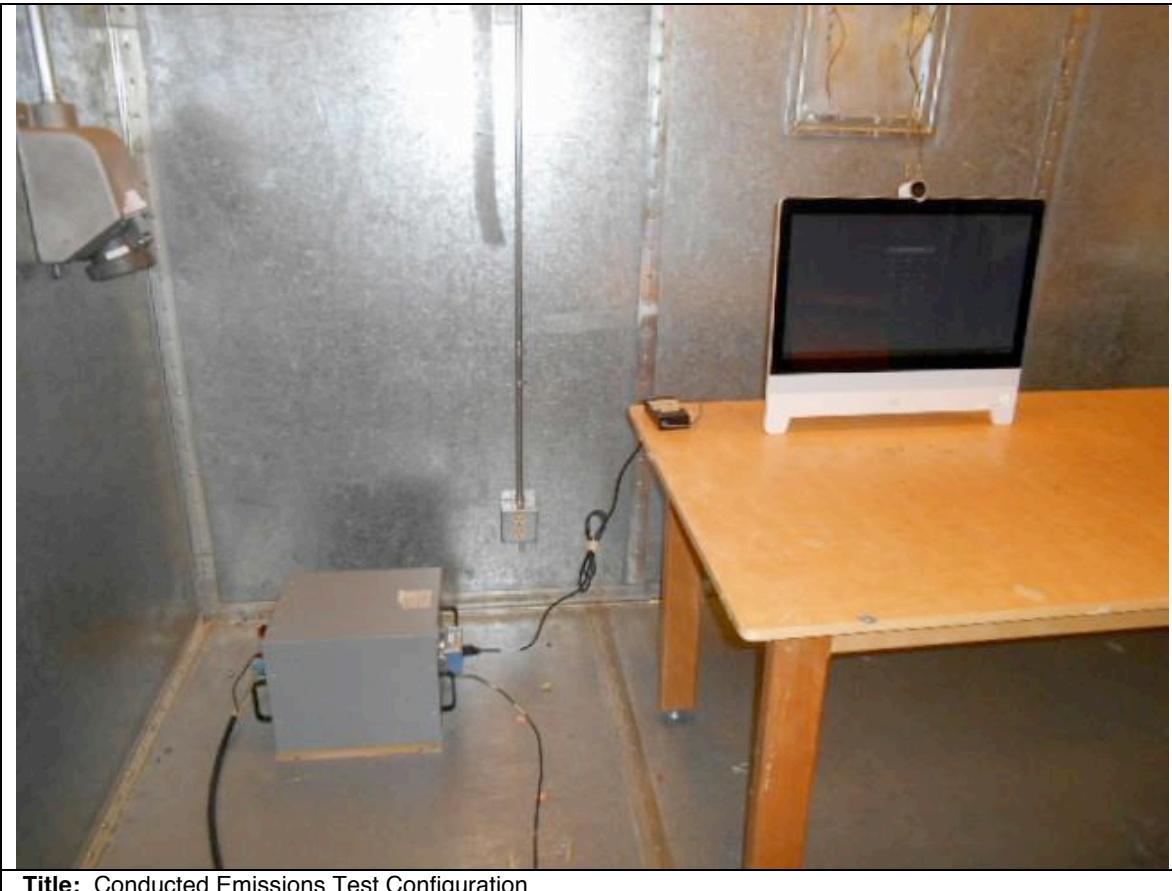
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



### Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	Factors	Level dBuV	Measurem ent Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
0.15	3	21.1	0.1	24.2	Av	N	56	-31.8	Pass	
0.15	28	21.1	0.1	49.2	Qp	L	66	-16.8	Pass	
0.15	26.6	21.1	0.1	47.7	Qp	N	66	-18.3	Pass	
0.15	2.9	21.1	0.1	24	Av	L	56	-32	Pass	
0.169	-2.2	21	0	18.9	Av	N	55	-36.1	Pass	
0.169	25.2	21	0	46.2	Qp	N	65	-18.8	Pass	
0.169	-1.8	21	0	19.3	Av	L	55	-35.8	Pass	
0.169	24.9	21	0	46	Qp	L	65	-19	Pass	
0.3735	-7.8	20.2	0	12.5	Av	N	48.4	-35.9	Pass	
0.3735	-8.9	20.2	0	11.4	Av	L	48.4	-37	Pass	
0.3735	9	20.2	0	29.3	Qp	N	58.4	-29.2	Pass	
0.3735	6.9	20.2	0	27.1	Qp	L	58.4	-31.3	Pass	
3.633	9.2	20	0	29.3	Qp	N	56	-26.7	Pass	
3.633	-13.7	20	0	6.4	Av	L	46	-39.6	Pass	
3.633	-16.7	20	0	3.4	Av	N	46	-42.6	Pass	
3.633	-7.3	20	0	12.8	Qp	L	56	-43.2	Pass	

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measurem ent Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
19.274	7.2	20.4	0.1	27.8	Av	L	50	-22.2	Pass	
19.274	15.9	20.4	0.1	36.5	Qp	L	60	-23.5	Pass	
19.274	27.2	20.4	0.1	47.7	Qp	N	60	-12.3	Pass	
19.274	5.5	20.4	0.1	26	Av	N	50	-24	Pass	
28.473	15.9	20.7	0.2	36.9	Qp	L	60	-23.1	Pass	
28.473	15.7	20.7	0.2	36.6	Av	N	50	-13.4	Pass	
28.473	21.2	20.7	0.2	42.1	Qp	N	60	-17.9	Pass	
28.473	10.5	20.7	0.2	31.4	Av	L	50	-18.6	Pass	

**Physical Test arrangement Photograph:**

## Maximum Permissible Exposure (MPE) Calculations

15.407: U-NII devices are subject to the radio frequency radiation exposure requirements specified in Sec. 1.1307(b), Sec. 2.1091 and Sec. 2.1093 of this chapter, as appropriate. All equipment shall be considered to operate in a ``general population/uncontrolled" environment. Applications for equipment authorization of devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

Given

$$E = \sqrt{(30 \cdot P \cdot G) / d} \quad \text{and} \quad S = E^2 / 3770$$

where

E=Field Strength in Volts/meter

P=Power in Watts

G=Numeric Antenna Gain

d=Distance in meters

S=Power Density in mW/cm<sup>2</sup>

Combine equations and rearrange the terms to express the distance as a function of the remaining variables:

$$d = \sqrt{((30 \cdot P \cdot G) / (3770 \cdot S))}$$

Changing to units of power in mW and distance in cm, using:

$$P(\text{mW}) = P(\text{W}) / 1000 \quad d(\text{cm}) = 100 \cdot d(\text{m})$$

yields

$$d = 100 \cdot \sqrt{((30 \cdot (P / 1000) \cdot G) / (3770 \cdot S))}$$

$$d = 0.282 \cdot \sqrt{(P \cdot G / S)}$$

where

d=Distance in cm

P=Power in mW

G=Numerica Antenna Gain

S=Power Density in mW/cm<sup>2</sup>

Substituting the logarithmic form of power and gain using:

$$P(\text{mW}) = 10^{(P(\text{dBm}) / 10)} \quad G(\text{numeric}) = 10^{(G(\text{dBi}) / 10)}$$

yields

$$d = 0.282 \cdot 10^{((P+G)/20)} / \sqrt{S} \quad \text{Equation (1)}$$

and

$$S = ((0.282 \cdot 10^{((P+G)/20)}) / d)^2 \quad \text{Equation (2)}$$

where

d=MPE distance in cm

P=Power in dBm

G=Antenna Gain in dBi

S=Power Density in mW/cm<sup>2</sup>

Equation (1) and the measured peak power are used to calculate the MPE distance. Note that for mobile or fixed location transmitters such as an access point, the minimum separation distance is 20 cm even if the calculations indicate that the MPE distance may be less.

$S=1\text{mW/cm}^2$  maximum. The highest supported antenna gain is 4 dBi. Using the peak power levels recorded in the test report along with Equation 1 above, the MPE distances are calculated as follows.

### MPE Calculations

Frequency (MHz)	Data Rate (Mbps)	Power Density (mW/cm <sup>2</sup> )	Peak Transmit Power (dBm)	Antenna Gain (dBi)	MPE Distance (cm)	Limit (cm)	Margin (cm)
5260	6	1	13.53	4	2.12	20	17.88
5270	M0	1	12.26	4	1.83	20	18.17
5280	6	1	13.09	4	2.02	20	17.98
5300	6	1	13.57	4	2.13	20	17.87
5310	M0	1	12.48	4	12.48	20	7.52
5320	6	1	13.45	4	2.10	20	17.9

To maintain compliance, installations will assure a separation distance of at least 20cm.

Using Equation 2, the MPE levels (s) at 20 cm are calculated as follows:

Frequency (MHz)	Data Rate (Mbps)	MPE Distance (cm)	Peak Transmit Power (dBm)	Antenna Gain (dBi)	Power Density (mW/cm <sup>2</sup> )	Limit (cm)	Margin (cm)
5260	6	20	13.53	4	0.01	1	0.99
5270	M0	20	12.26	4	0.01	1	0.99
5280	6	20	13.09	4	0.01	1	0.99
5300	6	20	13.57	4	0.01	1	0.99
5310	M0	20	12.48	4	0.01	1	0.99
5320	6	20	13.45	4	0.01	1	0.99

**Appendix C: Test Equipment Used to perform the test**

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due
40603	Agilent/HP / E4440A	Spectrum Analyzer	1-Nov-13	1-Nov-14
49517	CRISTEK/ MK-AMS-L16-AMS-A060	SMA 5ft cable	04/08/2013	8-Apr-14
41987	MURATA ELECTRONICS/ MXGS83RK3000	Special Radio Test Adaptor Cable	7/3/2013	3-Jul-14
40641	ROHDE & SCHWARZ / ESU26	EMI Test Receiver, 26GHZ	24-Jun-13	24 Jun 2014
25658	MICRO-COAX/ UFB311A-1-0840-504504	Coaxial Cable, 84.0 in. to 18GHz	2/14/2014	14-Feb-15
21117	MICRO-COAX/ UFB311A-0-2484-520520	Coaxial Cable-18Ghz	8/23/2013	23-Aug-14
49563	HUBER + SUHNER/ Sucoflex 106A	Coaxial Cable, 8m	8/23/2013	23-Aug-14
30654	SUNOL SCIENCES/ JB1	Combination Antenna, 30MHz-2GHz	7-Nov-13	31-Oct-14
27236	YORK/ CNE V	COMPARISON NOISE EMITTER	N/A	N/A
41935	NEWPORT/ iBTHP-5-DB9	5 inch Temp/RH/Press Sensor w/20ft cable	25-Mar-13	25-Mar-14
35237	STANLEY/ 33-696	TAPE RULE 5M	5/14/2013	14-May-14
21638	Rosenberger/ 32S15R-0.5E3	SMA Termination (m), 50 Ohm	10/22/2013	22-Oct-14
5971	Agilent/HP / 83712B	SYNTHESIZED CW GENERATOR	5-Jul-13	3-Jul-14
47299	Agilent/HP / N9030A	PXA Signal Analyzer	17-Sep-13	16-Sep-14
41979	Cisco / 1840	18-40GHz EMI Test Head/Verification Fixture	7/9/2013	9-Jul-14
25662	MICRO-COAX/ UFB311A-1-0840-504504	Coaxial Cable, 84.0 in. to 18GHz	2/27/2014	27-Feb-15
5691	MITEQ/ NSP1800-25-S1	PREAMPLIFIER	1/27/2014	27-Jan-15
47286	HUBER + SUHNER/ Sucoflex 102E	40GHz Cable K Connector	5/30/2013	30-May-14
49446	Micro-Tronics/ BRC50705-02	Notch Filter	3/19/2013	19-Mar-14
4882	EMCO/ 3115	HORN ANTENNA	8-Jul-13	28-Jun-14
40597	CISCO/ Above 1GHz Site Cal	1GHz Cispr Site Verification	5/30/2013	30-May-14
49443	Micro-Tronics/ BRM50702-02	Band Reject Filter	3/19/2013	19-Mar-14
49445	Micro-Tronics/ BRC50704-02	Notch Filter	3/19/2013	19-Mar-14

49444	Micro-Tronics/ BRC50703-02	Notch Filter	03/19/2013	19-Mar-14
49447	Micro-Tronics/ BRC50705-02	Notch Filter	3/20/2014	20-Mar-15
35605	Micro-Tronics/ BRC50704-02	Notch Filter	3/20/2014	20-Mar-15
49521	CRISTEK/ MK-AMS-L16-AMS-A060	SMA 5ft cable	4/8/2013	8-Apr-14
47304	FAIRVIEW MICROWAVE/ ST6S-10	SMA Termination 6GHz	10/22/2013	22-Oct-14
4924	Rohde & Schwarz/ ESHS30	EMI Receiver (9KHz-30MHz)	28-JAN-14	28-JAN-15
8195	TTE/ H613-150K-50-21378	Hi Pass Filter - 150KHz cutoff	08-JAN-14	08-JAN-15
8471	Bird/ 5-T-MB	50 Ohm, 5W Terminator, Type BNC	12-SEP-13	12-SEP-14
7036	HP/ E7401A	Spectrum Analyzer	11-SEP-13	11-SEP-14
18981	Fischer Custom Communications/ FCC-801-M2-32A	Power Line Coupling/Decoupling Network	02-MAY-13	02-MAY-14
19337	Fischer Custom Communications/ FCC-LISN-50/250-50-2-01	LISN	06-SEP-13	06-SEP-14
23874	Fischer Custom Communications/ FCC-LISN-PA-NEMA-5-15	Power Adaptor, Polarized 120VAC	06-SEP-13	06-SEP-14
36033	York/ CNE V	Comparison Noise Emitter	Cal Not Required	N/A
37006	Extech/ 380282	Digital Multimeter	09-DEC-13	09-DEC-14
39110	Coleman/ RG-223	25 ft BNC cable	25-NOV-13	25-NOV-14
46075	Newport / iBTHP-5-DB9	5 inch Temp/RH/Press Sensor w/20ft cable	21-OCT-13	21-OCT-14

**Appendix D: Test Procedures**

Measurements were made in accordance with

- KDB Publication No. 789033
- Measurement method of spurious emission tolerance to the International Telecommunication Union (ITU) Recommendation SM329.
- ANSI C63.4
- ANSI C63.10/D8

Test procedures are summarized below

6dB Bandwidth	EDCS # - 422115
26dB Bandwidth	EDCS # - 422115
Average Output Power	EDCS # - 422117
Co-Located Transmitter	EDCS # - 422118
Conducted Spurious Test	EDCS # - 422119
Peak Transmit Power Measurement	EDCS # - 422123
Power Spectral Density	EDCS # - 422113
Peak Excursion Test	EDCS # - 422121
Radiated Band Edge	EDCS # - 422124
Radiated Spurious Test	EDCS # - 422125