

## **7.4. Output Power Measurement**

### **7.4.1. Test Limit**

#### **For FCC**

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250mW provided the maximum antenna gain does not exceed 6dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands operation shall not exceed the lesser of 250mW or  $11\text{dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### **Additional Requirement for IC**

For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200mW (23.01dBm) or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed 250mW (23.98dBm) or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W (30dBm) or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

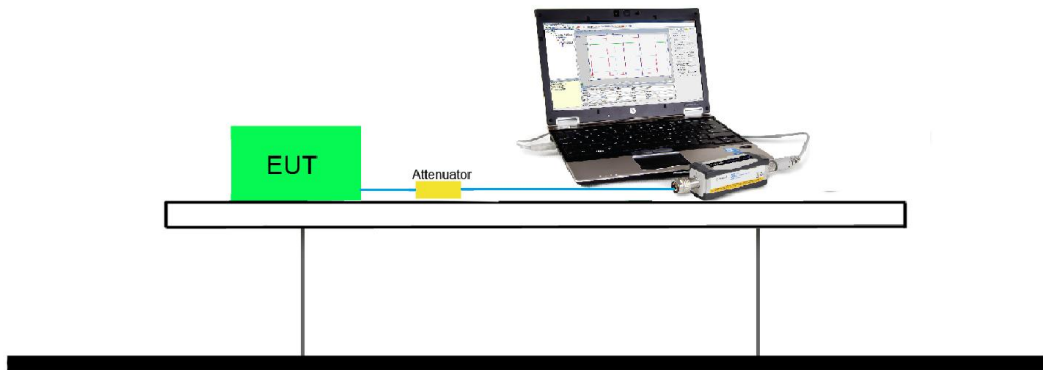
### **7.4.2. Test Procedure Used**

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

### **7.4.3. Test Setting**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### 7.4.4. Test Setup



**7.4.5. Test Result**

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (gray marker) for final test of each channel.

Output power at various data rates:

Test Mode	Bandwidth	Channel	Frequency (MHz)	Data Rate / MCS	Power Parameter Value	Average Power (dBm)
802.11a	20	48	5240	6Mbps	60	14.55
				24Mbps	60	14.34
				54Mbps	52	12.60
802.11n	20	48	5240	MCS0	60	14.13
				MCS3	60	14.12
				MCS7	52	12.42
802.11n	40	46	5230	MCS0	60	13.77
				MCS3	60	13.46
				MCS7	52	11.72
802.11ac	20	48	5240	MCS0	60	14.39
				MCS4	52	12.78
				MCS8	52	12.25
802.11ac	40	46	5230	MCS0	60	13.77
				MCS4	52	11.55
				MCS9	40	8.49
802.11ac	80	42	5210	MCS0	40	9.34
				MCS4	40	8.50
				MCS9	40	8.52

Product	Communication Module	Temperature	23°C
Test Engineer	Hunk Li	Relative Humidity	54%
Test Site	TR3	Test Date	2018/02/11
Test Item	Output Power		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Power Limit (dBm)	Max EIRP (dBm)	EIRP Limit (dBm)	Result
11a	6Mbps	36	5180	12.09	≤ 23.98	11.69	≤ 22.51	Pass
11a	6Mbps	44	5220	14.82	≤ 23.98	14.42	≤ 22.51	Pass
11a	6Mbps	48	5240	14.62	≤ 23.98	14.22	≤ 22.51	Pass
11a	6Mbps	52	5260	14.72	≤ 23.26	14.32	≤ 29.26	Pass
11a	6Mbps	60	5300	12.09	≤ 23.26	11.69	≤ 29.26	Pass
11a	6Mbps	64	5320	12.25	≤ 23.26	11.85	≤ 29.26	Pass
11a	6Mbps	100	5500	11.77	≤ 23.26	11.37	≤ 29.26	Pass
11a	6Mbps	116	5580	14.44	≤ 23.26	14.04	≤ 29.26	Pass
11a	6Mbps	120	5600	14.70	≤ 23.26	14.30	≤ 29.26	Pass
11a	6Mbps	140	5700	11.88	≤ 23.26	11.48	≤ 29.26	Pass
11a	6Mbps	144	5720	11.94	≤ 23.26	11.54	≤ 29.26	Pass
11a	6Mbps	149	5745	11.47	≤ 30.00	--	--	Pass
11a	6Mbps	157	5785	13.47	≤ 30.00	--	--	Pass
11a	6Mbps	165	5825	11.57	≤ 30.00	--	--	Pass
11n-HT20	MCS0	36	5180	11.68	≤ 23.98	11.28	≤ 22.56	Pass
11n-HT20	MCS0	44	5220	14.26	≤ 23.98	13.86	≤ 22.56	Pass
11n-HT20	MCS0	48	5240	14.18	≤ 23.98	13.78	≤ 22.56	Pass
11n-HT20	MCS0	52	5260	14.20	≤ 23.52	13.80	≤ 29.52	Pass
11n-HT20	MCS0	60	5300	11.65	≤ 23.52	11.25	≤ 29.52	Pass
11n-HT20	MCS0	64	5320	11.85	≤ 23.52	11.45	≤ 29.52	Pass
11n-HT20	MCS0	100	5500	11.34	≤ 23.52	10.94	≤ 29.52	Pass
11n-HT20	MCS0	116	5580	14.10	≤ 23.52	13.70	≤ 29.52	Pass
11n-HT20	MCS0	120	5600	14.21	≤ 23.52	13.81	≤ 29.52	Pass
11n-HT20	MCS0	140	5700	11.56	≤ 23.52	11.16	≤ 29.52	Pass
11n-HT20	MCS0	144	5720	11.54	≤ 23.52	11.14	≤ 29.52	Pass
11n-HT20	MCS0	149	5745	10.96	≤ 30.00	--	--	Pass
11n-HT20	MCS0	157	5785	13.55	≤ 30.00	--	--	Pass
11n-HT20	MCS0	165	5825	11.33	≤ 30.00	--	--	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Power Limit (dBm)	Max EIRP (dBm)	EIRP Limit (dBm)	Result
11n-HT40	MCS0	38	5190	9.34	≤ 23.98	8.94	≤ 23.01	Pass
11n-HT40	MCS0	46	5230	13.65	≤ 23.98	13.25	≤ 23.01	Pass
11n-HT40	MCS0	54	5270	13.62	≤ 23.98	13.22	≤ 30.00	Pass
11n-HT40	MCS0	62	5310	9.68	≤ 23.98	9.28	≤ 30.00	Pass
11n-HT40	MCS0	102	5510	9.36	≤ 23.98	8.96	≤ 30.00	Pass
11n-HT40	MCS0	110	5550	13.66	≤ 23.98	13.26	≤ 30.00	Pass
11n-HT40	MCS0	118	5590	13.78	≤ 23.98	13.38	≤ 30.00	Pass
11n-HT40	MCS0	134	5670	9.70	≤ 23.98	9.30	≤ 30.00	Pass
11n-HT40	MCS0	142	5710	9.79	≤ 23.98	9.39	≤ 30.00	Pass
11n-HT40	MCS0	151	5755	9.19	≤ 30.00	--	--	Pass
11n-HT40	MCS0	159	5795	9.23	≤ 30.00	--	--	Pass
11ac-VHT20	MCS0	36	5180	11.42	≤ 23.98	11.02	≤ 22.53	Pass
11ac-VHT20	MCS0	44	5220	14.30	≤ 23.98	13.90	≤ 22.53	Pass
11ac-VHT20	MCS0	48	5240	14.33	≤ 23.98	13.93	≤ 22.53	Pass
11ac-VHT20	MCS0	52	5260	14.30	≤ 23.53	13.90	≤ 29.53	Pass
11ac-VHT20	MCS0	60	5300	11.80	≤ 23.53	11.40	≤ 29.53	Pass
11ac-VHT20	MCS0	64	5320	11.85	≤ 23.53	11.45	≤ 29.53	Pass
11ac-VHT20	MCS0	100	5500	11.37	≤ 23.53	10.97	≤ 29.53	Pass
11ac-VHT20	MCS0	116	5580	14.24	≤ 23.53	13.84	≤ 29.53	Pass
11ac-VHT20	MCS0	120	5600	14.33	≤ 23.53	13.93	≤ 29.53	Pass
11ac-VHT20	MCS0	140	5700	11.58	≤ 23.53	11.18	≤ 29.53	Pass
11ac-VHT20	MCS0	144	5720	11.53	≤ 23.53	11.13	≤ 29.53	Pass
11ac-VHT20	MCS0	149	5745	11.02	≤ 30.00	--	--	Pass
11ac-VHT20	MCS0	157	5785	13.74	≤ 30.00	--	--	Pass
11ac-VHT20	MCS0	165	5825	11.04	≤ 30.00	--	--	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Power Limit (dBm)	Max EIRP (dBm)	EIRP Limit (dBm)	Result
11ac-VHT40	MCS0	38	5190	9.43	≤ 23.98	9.03	≤ 23.01	Pass
11ac-VHT40	MCS0	46	5230	13.64	≤ 23.98	13.24	≤ 23.01	Pass
11ac-VHT40	MCS0	54	5270	13.66	≤ 23.98	13.26	≤ 30.00	Pass
11ac-VHT40	MCS0	62	5310	9.65	≤ 23.98	9.25	≤ 30.00	Pass
11ac-VHT40	MCS0	102	5510	9.37	≤ 23.98	8.97	≤ 30.00	Pass
11ac-VHT40	MCS0	110	5550	13.65	≤ 23.98	13.25	≤ 30.00	Pass
11ac-VHT40	MCS0	118	5590	13.77	≤ 23.98	13.37	≤ 30.00	Pass
11ac-VHT40	MCS0	134	5670	9.56	≤ 23.98	9.16	≤ 30.00	Pass
11ac-VHT40	MCS0	142	5710	9.58	≤ 23.98	9.18	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	9.29	≤ 30.00	--	--	Pass
11ac-VHT40	MCS0	159	5795	9.26	≤ 30.00	--	--	Pass
11ac-VHT80	MCS0	42	5210	9.25	≤ 23.98	8.85	≤ 23.01	Pass
11ac-VHT80	MCS0	58	5290	9.42	≤ 23.98	9.02	≤ 30.00	Pass
11ac-VHT80	MCS0	106	5530	9.35	≤ 23.98	8.95	≤ 30.00	Pass
11ac-VHT80	MCS0	122	5610	9.52	≤ 23.98	9.12	≤ 30.00	Pass
11ac-VHT80	MCS0	138	5690	9.64	≤ 23.98	9.24	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	9.03	≤ 30.00	--	--	Pass

Note 1: Max EIRP (dBm) = Average Power (dBm) + Antenna Gain (dBi).

Note 2: EIRP Limit Calculation as below:

For 5150-5250MHz

802.11a:  $10 + 10 \cdot \log(17.82\text{MHz}) = 22.51\text{dBm} < 23.01\text{dBm}$ ;

802.11n-HT20:  $10 + 10 \cdot \log(18.02\text{MHz}) = 22.56\text{dBm} < 23.01\text{dBm}$ ;

802.11ac-VHT20:  $10 + 10 \cdot \log(17.91\text{MHz}) = 22.53\text{dBm} < 23.01\text{dBm}$ ;

802.11n-HT40/ac-VHT40/ac-VHT80:  $10 + 10 \cdot \log B > 23.01\text{dBm}$ ;

For 5250-5350MHz, 5470-5725MHz

802.11a:  $17 + 10 \cdot \log(16.84\text{MHz}) = 29.26\text{dBm} < 30\text{dBm}$ ;

802.11n-HT20:  $17 + 10 \cdot \log(17.88\text{MHz}) = 29.52\text{dBm} < 30\text{dBm}$ ;

802.11ac-VHT20:  $17 + 10 \cdot \log(17.90\text{MHz}) = 29.53\text{dBm} < 30\text{dBm}$ ;

802.11n-HT40/ac-VHT40/ac-VHT80:  $17 + 10 \cdot \log B > 30\text{dBm}$ .

Note 3: Max Conducted Output Power Limit Calculation as below:

For 5250-5350MHz, 5470-5725MHz

802.11a:  $11 + 10 \cdot \log(16.84\text{MHz}) = 23.26\text{dBm} < 30\text{dBm}$ ;

802.11n-HT20:  $11 + 10 \cdot \log(17.88\text{MHz}) = 23.52\text{dBm} < 30\text{dBm}$ ;

802.11ac-VHT20:  $11 + 10 \cdot \log(17.90\text{MHz}) = 23.53\text{dBm} < 30\text{dBm}$ ;

802.11n-HT40/ac-VHT40/ac-VHT80:  $11 + 10 \cdot \log B > 23.98\text{dBm}$ ;

For 5725-5850MHz: Limit (dBm) =  $30.00\text{dBm}$ .

## 7.5. Transmit Power Control

### 7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

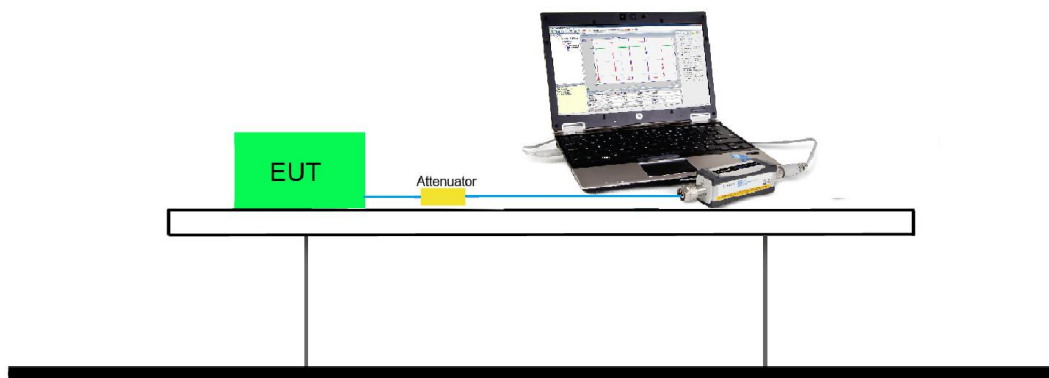
### 7.5.2. Test Procedure Used

KDB 789033 D02v01- Section E)3)b) Method PM-G

### 7.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### 7.5.4. Test Setup



### 7.5.5. Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500mW.

## **7.6. Power Spectral Density Measurement**

### **7.6.1. Test Limit**

#### **For FCC**

For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30dBm in any 500-kHz band.

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

#### **Additional Requirement for IC**

For the band 5.15-5.25 GHz, the e.i.r.p. spectral density shall not exceed 10dBm in any 1.0 MHz band.

### **7.6.2. Test Procedure Used**

KDB 789033 D02v02r01- Section F

### **7.6.3. Test Setting**

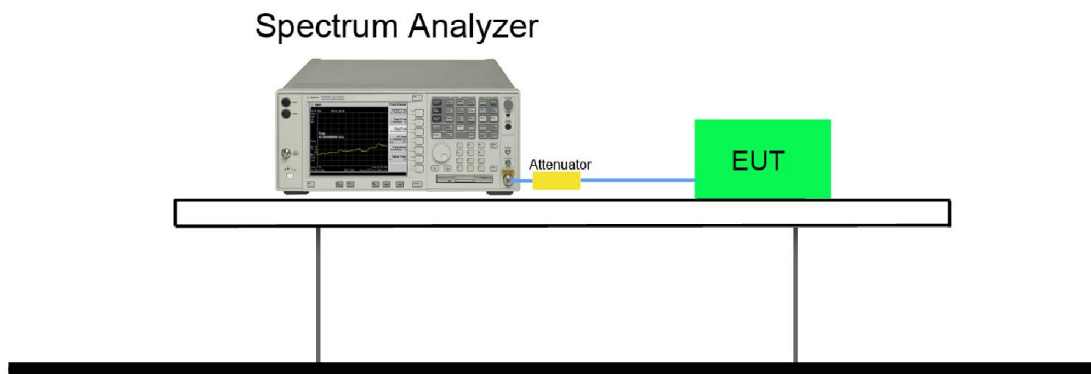
1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB OBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,
4. RBW = 100 kHz
5. VBW = 3MHz
6. Number of sweep points  $\geq 2 \times (\text{span} / \text{RBW})$
7. Detector = power averaging (RMS)
8. Sweep time = auto
9. Trigger = free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add  $10 \cdot \log(1/x)$ , where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an



average over both the on and off times of the transmission). For example, add  $10 \cdot \log(1/0.25) = 6$  dB if the duty cycle is 25 percent.

12. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor  $10 \cdot \log(500\text{kHz}/100\text{kHz}) = 6.99$  dB to the measured result

#### 7.6.4. Test Setup



**7.6.5.Test Result**

Product	Communication Module	Temperature	23°C
Test Engineer	Hunk Li	Relative Humidity	54%
Test Site	TR3	Test Date	2018/02/13
Test Item	Power Spectral Density (UNII-Band 1& UNII-2A& UNII-2C)		

Test Mode	Data Rate/MCS	Ch. No.	Freq. (MHz)	PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	E.I.R.P PSD (dBm/MHz)	E.I.R.P PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	1.16	98.34	1.16	≤ 11.00	0.76	≤ 10.00	Pass
11a	6Mbps	44	5220	4.33	98.34	4.33	≤ 11.00	3.93	≤ 10.00	Pass
11a	6Mbps	48	5240	4.02	98.34	4.02	≤ 11.00	3.62	≤ 10.00	Pass
11a	6Mbps	52	5260	3.85	98.34	3.85	≤ 11.00	--	--	Pass
11a	6Mbps	60	5300	0.76	98.34	0.76	≤ 11.00	--	--	Pass
11a	6Mbps	64	5320	0.48	98.34	0.48	≤ 11.00	--	--	Pass
11a	6Mbps	100	5500	1.62	98.34	1.62	≤ 11.00	--	--	Pass
11a	6Mbps	116	5580	4.61	98.34	4.61	≤ 11.00	--	--	Pass
11a	6Mbps	120	5600	4.76	98.34	4.76	≤ 11.00	--	--	Pass
11a	6Mbps	140	5700	1.20	98.34	1.20	≤ 11.00	--	--	Pass
11a	6Mbps	144	5720	1.44	98.34	1.44	≤ 11.00	--	--	Pass
11n-HT20	MCS0	36	5180	0.78	98.01	0.78	≤ 11.00	0.38	≤ 10.00	Pass
11n-HT20	MCS0	44	5220	3.60	98.01	3.60	≤ 11.00	3.20	≤ 10.00	Pass
11n-HT20	MCS0	48	5240	3.76	98.01	3.76	≤ 11.00	3.36	≤ 10.00	Pass
11n-HT20	MCS0	52	5260	3.75	98.01	3.75	≤ 11.00	--	--	Pass
11n-HT20	MCS0	60	5300	0.21	98.01	0.21	≤ 11.00	--	--	Pass
11n-HT20	MCS0	64	5320	0.18	98.01	0.18	≤ 11.00	--	--	Pass
11n-HT20	MCS0	100	5500	1.38	98.01	1.38	≤ 11.00	--	--	Pass
11n-HT20	MCS0	116	5580	4.52	98.01	4.52	≤ 11.00	--	--	Pass
11n-HT20	MCS0	120	5600	4.58	98.01	4.58	≤ 11.00	--	--	Pass
11n-HT20	MCS0	140	5700	1.22	98.01	1.22	≤ 11.00	--	--	Pass
11n-HT20	MCS0	144	5720	0.98	98.01	0.98	≤ 11.00	--	--	Pass



Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	E.I.R.P PSD (dBm/MHz)	E.I.R.P PSD Limit (dBm/MHz)	Result
11n-HT40	MCS0	38	5190	-4.02	96.86	-3.88	≤ 11.00	-4.28	≤ 10.00	Pass
11n-HT40	MCS0	46	5230	1.32	96.86	1.46	≤ 11.00	1.06	≤ 10.00	Pass
11n-HT40	MCS0	54	5270	1.09	96.86	1.23	≤ 11.00	--	--	Pass
11n-HT40	MCS0	62	5310	-4.60	96.86	-4.46	≤ 11.00	--	--	Pass
11n-HT40	MCS0	102	5510	-4.23	96.86	-4.09	≤ 11.00	--	--	Pass
11n-HT40	MCS0	110	5550	2.04	96.86	2.18	≤ 11.00	--	--	Pass
11n-HT40	MCS0	118	5590	1.84	96.86	1.98	≤ 11.00	--	--	Pass
11n-HT40	MCS0	134	5670	-3.49	96.86	-3.35	≤ 11.00	--	--	Pass
11n-HT40	MCS0	142	5710	-3.55	96.86	-3.41	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	36	5180	0.93	98.46	0.93	≤ 11.00	0.53	≤ 10.00	Pass
11ac-VHT20	MCS0	44	5220	4.22	98.46	4.22	≤ 11.00	3.82	≤ 10.00	Pass
11ac-VHT20	MCS0	48	5240	3.82	98.46	3.82	≤ 11.00	3.42	≤ 10.00	Pass
11ac-VHT20	MCS0	52	5260	3.64	98.46	3.64	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	60	5300	0.13	98.46	0.13	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	64	5320	0.22	98.46	0.22	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	100	5500	1.06	98.46	1.06	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	116	5580	4.58	98.46	4.58	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	120	5600	4.69	98.46	4.69	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	140	5700	1.64	98.46	1.64	≤ 11.00	--	--	Pass
11ac-VHT20	MCS0	144	5720	1.67	98.46	1.67	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	38	5190	-4.08	96.88	-3.94	≤ 11.00	-4.34	≤ 10.00	Pass
11ac-VHT40	MCS0	46	5230	1.53	96.88	1.67	≤ 11.00	1.27	≤ 10.00	Pass
11ac-VHT40	MCS0	54	5270	1.17	96.88	1.31	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	62	5310	-4.92	96.88	-4.78	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	102	5510	-4.08	96.88	-3.94	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	110	5550	1.82	96.88	1.96	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	118	5590	1.99	96.88	2.13	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	134	5670	-3.97	96.88	-3.83	≤ 11.00	--	--	Pass
11ac-VHT40	MCS0	142	5710	-4.13	96.88	-3.99	≤ 11.00	--	--	Pass

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	E.I.R.P PSD (dBm/MHz)	E.I.R.P PSD Limit (dBm/MHz)	Result
11ac-VHT80	MCS0	42	5210	-7.17	93.45	-6.88	≤ 11.00	-7.28	≤ 10.00	Pass
11ac-VHT80	MCS0	58	5290	-7.33	93.45	-7.04	≤ 11.00	--	--	Pass
11ac-VHT80	MCS0	106	5530	-6.83	93.45	-6.54	≤ 11.00	--	--	Pass
11ac-VHT80	MCS0	122	5610	-7.19	93.45	-6.90	≤ 11.00	--	--	Pass
11ac-VHT80	MCS0	138	5690	-6.98	93.45	-6.69	≤ 11.00	--	--	Pass

Note 1: When EUT duty cycle ≥ 98%, Total PSD (dBm/MHz) = PSD (dBm/MHz).

Note 2: When EUT duty cycle < 98%, Total PSD (dBm/MHz) = PSD (dBm/MHz) + 10\*log (1/Duty Cycle).

Note 3: EIRP PSD (dBm /MHz) = Total PSD (dBm/MHz) + Antenna Gain (dBi).

Product	Communication Module	Temperature	23°C
Test Engineer	Hunk Li	Relative Humidity	54%
Test Site	TR3	Test Date	2018/02/13
Test Item	Power Spectral Density (UNII-Band 3)		

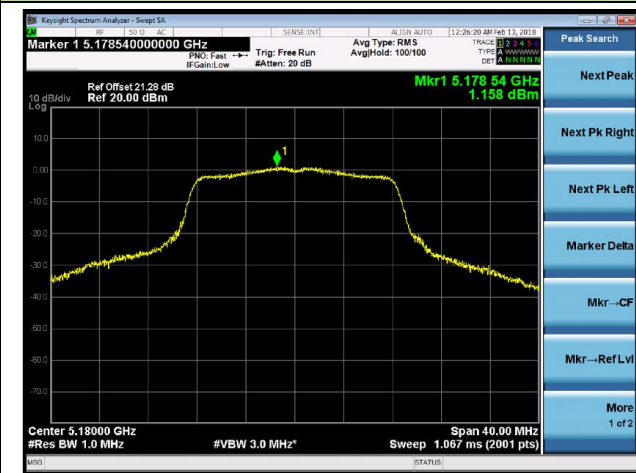
Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ 100kHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	-7.39	98.34	6.99	-0.40	≤ 30.00	Pass
11a	6Mbps	157	5785	-4.50	98.34	6.99	2.49	≤ 30.00	Pass
11a	6Mbps	165	5825	-7.73	98.34	6.99	-0.74	≤ 30.00	Pass
11n-HT20	MCS0	149	5745	-7.70	98.01	6.99	-0.71	≤ 30.00	Pass
11n-HT20	MCS0	157	5785	-4.62	98.01	6.99	2.37	≤ 30.00	Pass
11n-HT20	MCS0	165	5825	-7.83	98.01	6.99	-0.84	≤ 30.00	Pass
11n-HT40	MCS0	151	5755	-12.55	96.86	6.99	-5.42	≤ 30.00	Pass
11n-HT40	MCS0	159	5795	-13.21	96.86	6.99	-6.08	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	-7.54	98.46	6.99	-0.55	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	-4.64	98.46	6.99	2.35	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	-8.05	98.46	6.99	-1.06	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	-12.80	96.88	6.99	-5.67	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	-13.53	96.88	6.99	-6.40	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	-15.23	93.45	6.99	-7.95	≤ 30.00	Pass

Note 1: When EUT duty cycle ≥ 98%, Total PSD (dBm/500kHz) = PSD (dBm/100kHz) + Constant Factor.

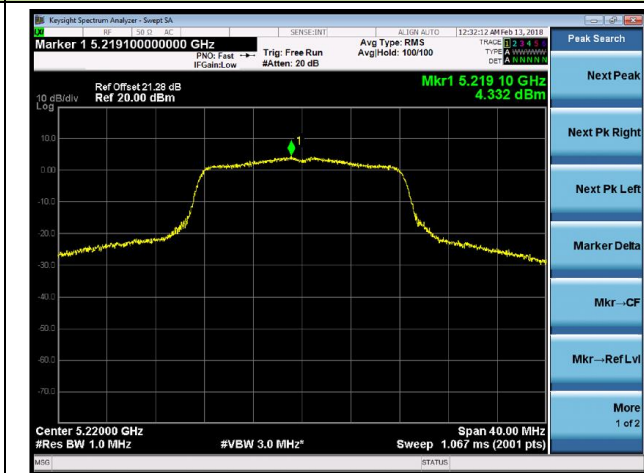
Note 2: When EUT duty cycle < 98%, Total PSD (dBm/500kHz) = PSD (dBm/100kHz) + 10\*log (1/Duty Cycle) + Constant Factor.

### 802.11a Power Spectral Density

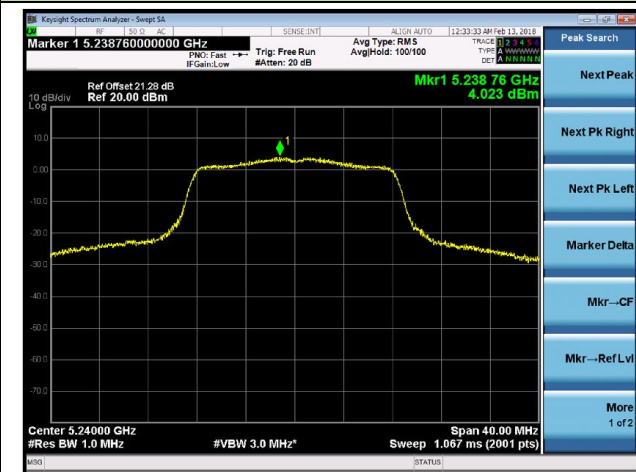
**Channel 36 (5180MHz)**



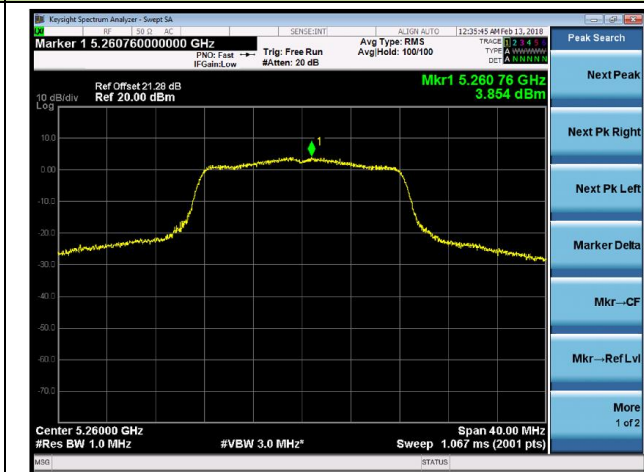
**Channel 44 (5220MHz)**



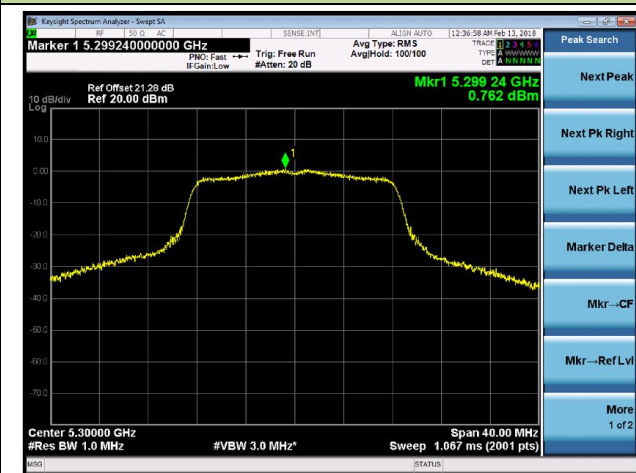
**Channel 48 (5240MHz)**



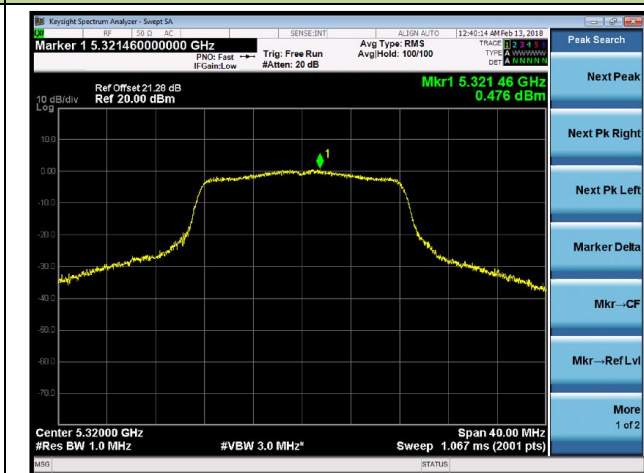
**Channel 52 (5260MHz)**



**Channel 60 (5300MHz)**

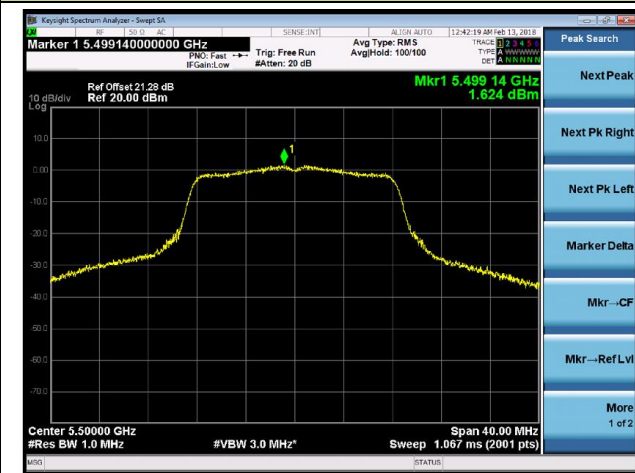


**Channel 64 (5320MHz)**

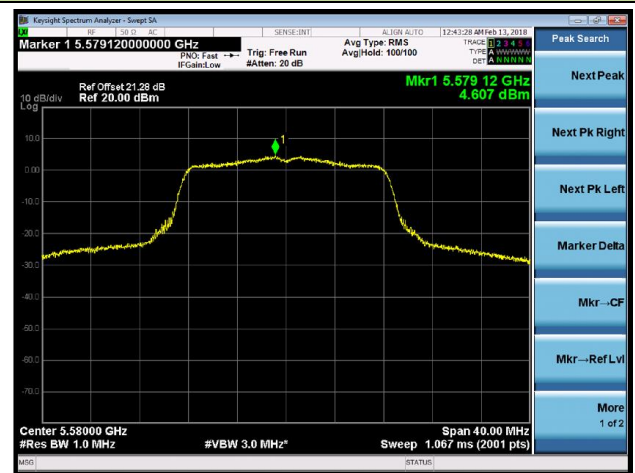


### 802.11a Power Spectral Density

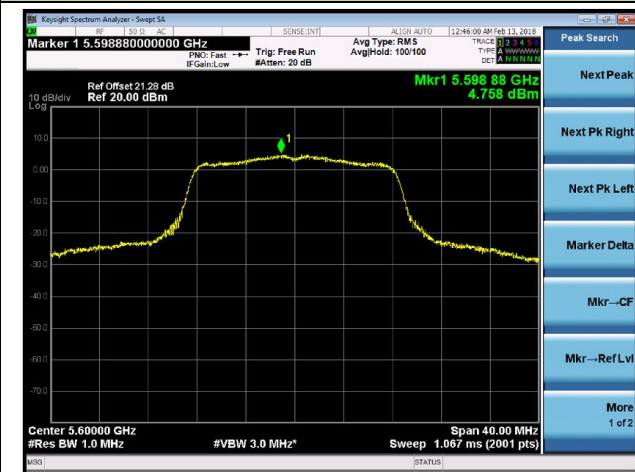
#### Channel 100 (5500MHz)



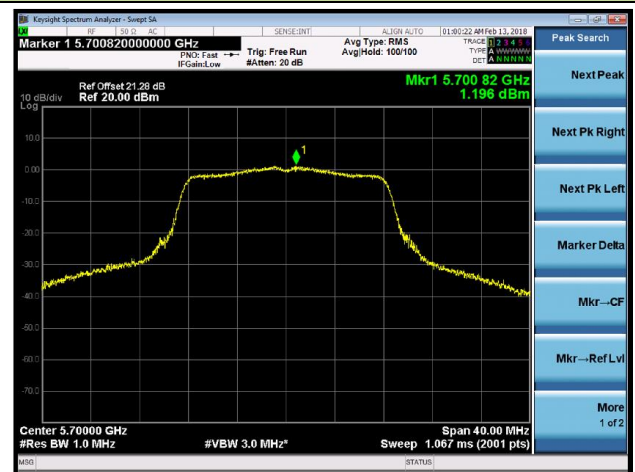
#### Channel 116 (5580MHz)



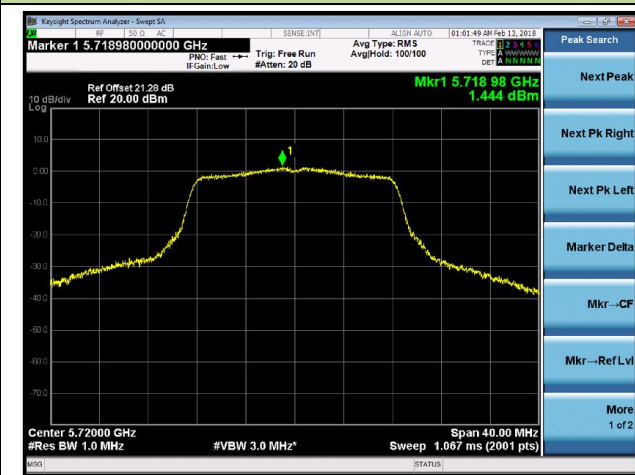
#### Channel 120 (5600MHz)



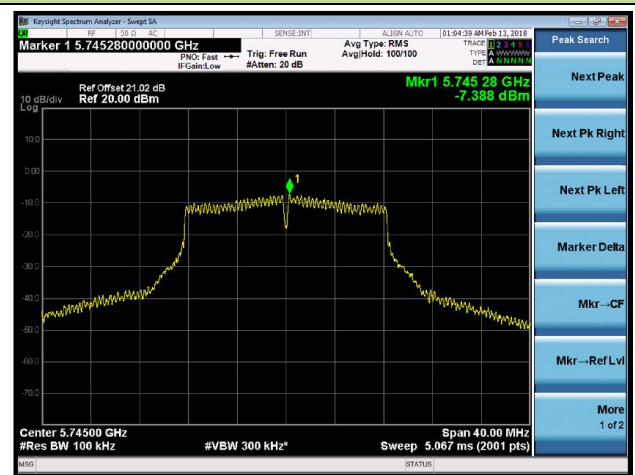
#### Channel 140 (5700MHz)



#### Channel 144 (5720MHz)



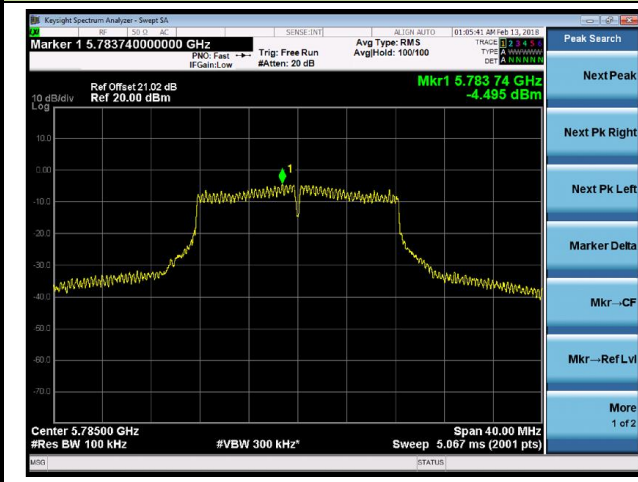
#### Channel 149 (5745MHz)



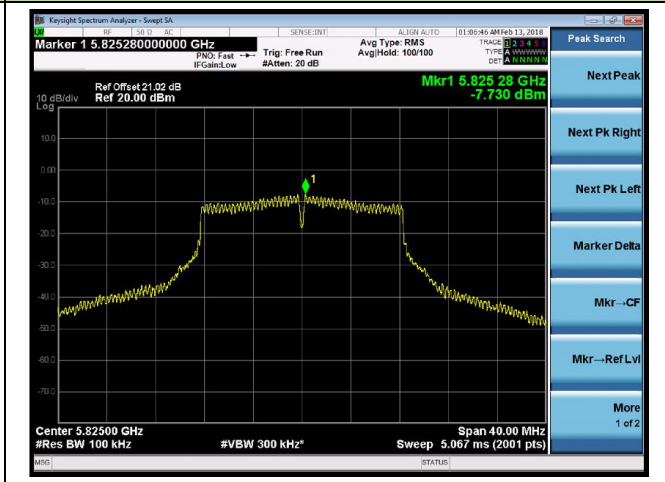


### 802.11a Power Spectral Density

#### Channel 157 (5785MHz)



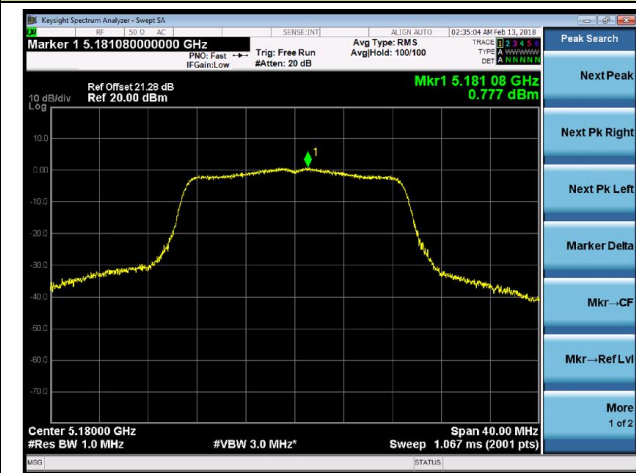
#### Channel 165 (5825MHz)



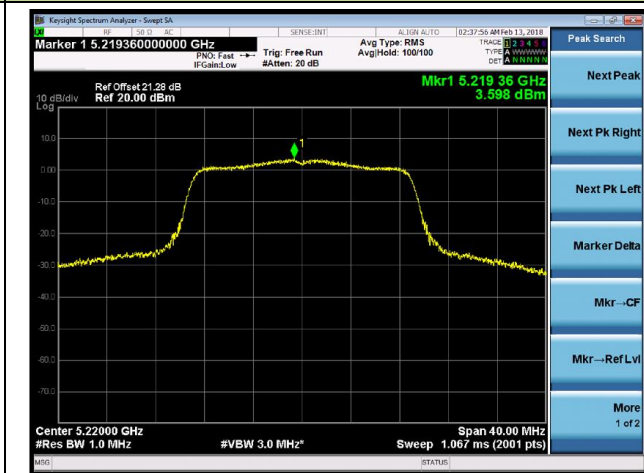


### 802.11n-HT20 Power Spectral Density

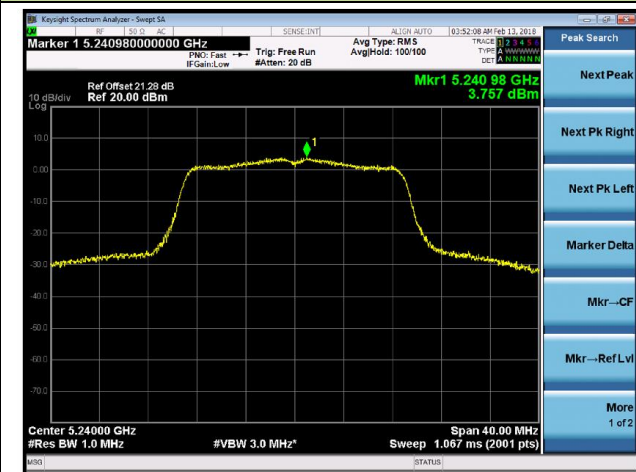
**Channel 36 (5180MHz)**



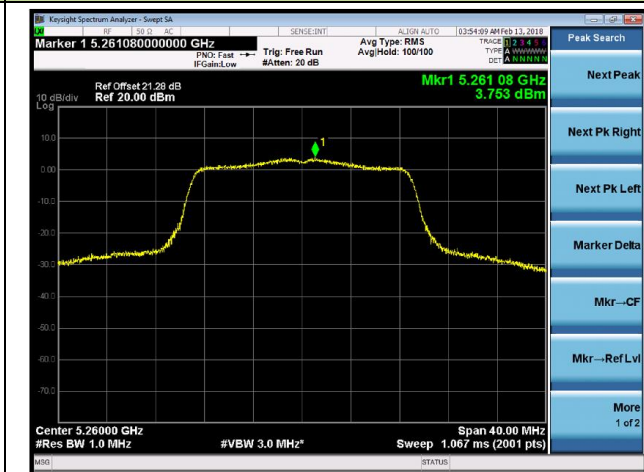
**Channel 44 (5220MHz)**



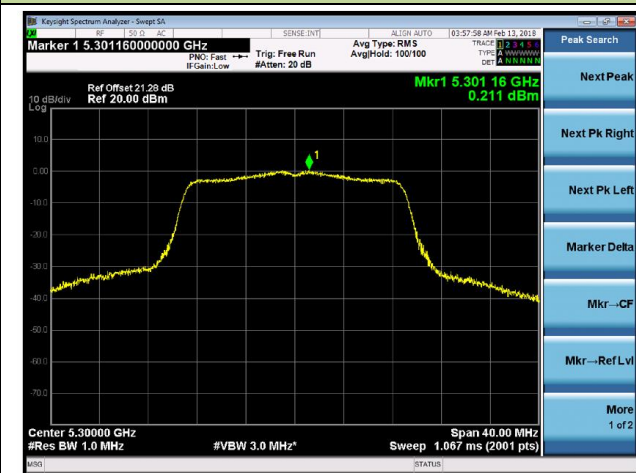
**Channel 48 (5240MHz)**



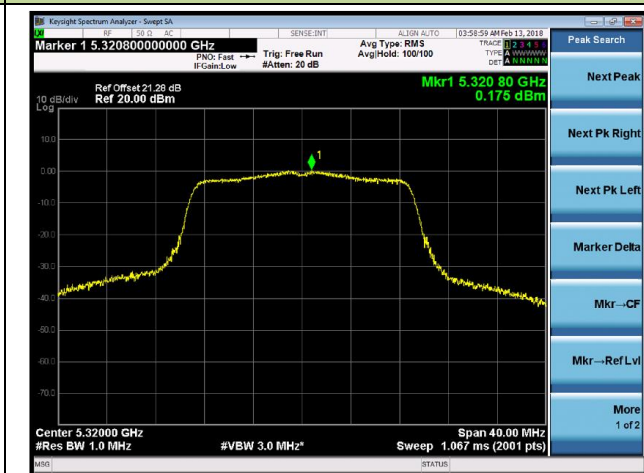
**Channel 52 (5260MHz)**



**Channel 60 (5300MHz)**

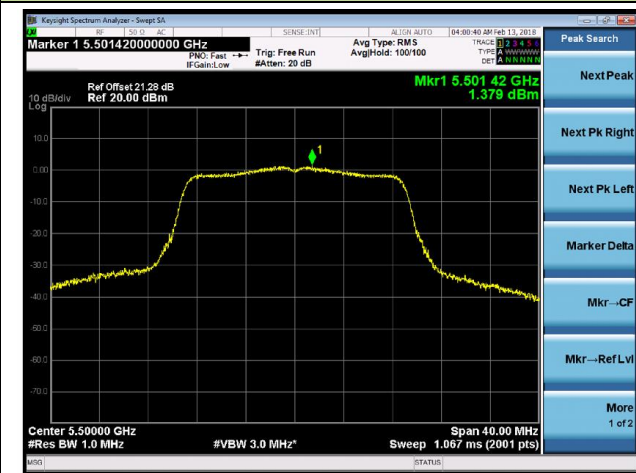


**Channel 64 (5320MHz)**

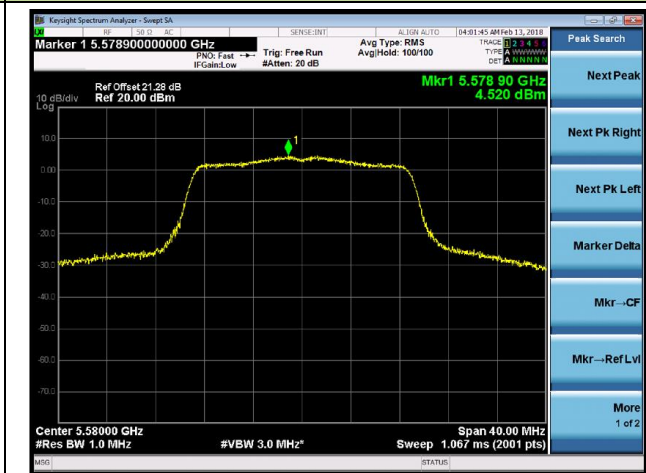


### 802.11n-HT20 Power Spectral Density

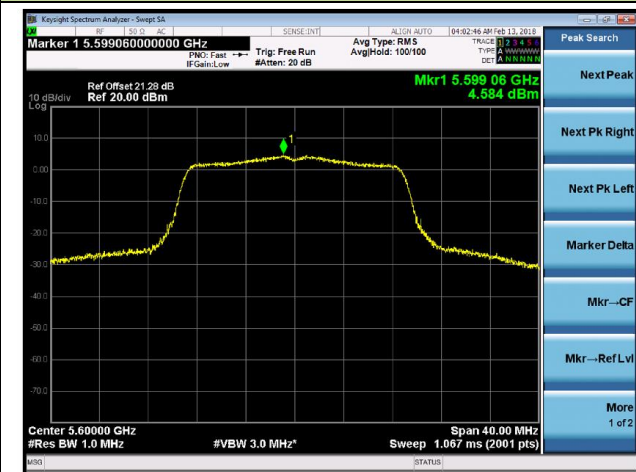
**Channel 100 (5500MHz)**



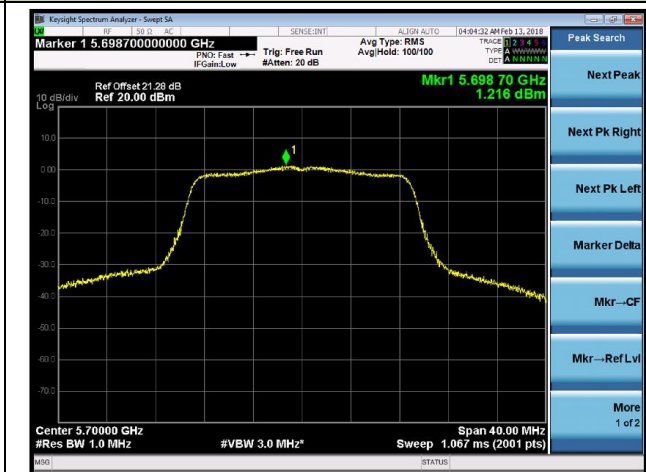
**Channel 116 (5580MHz)**



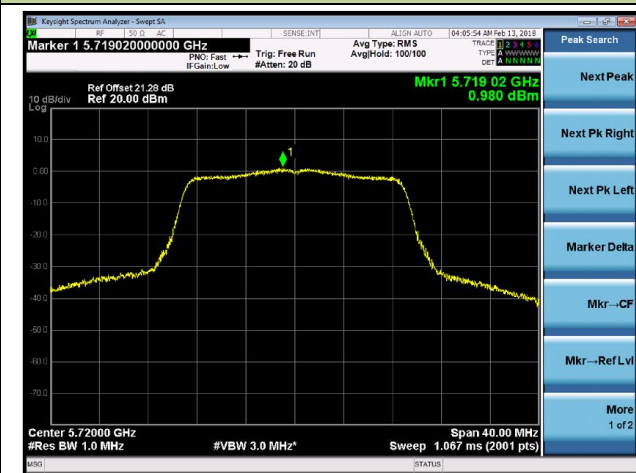
**Channel 120 (5600MHz)**



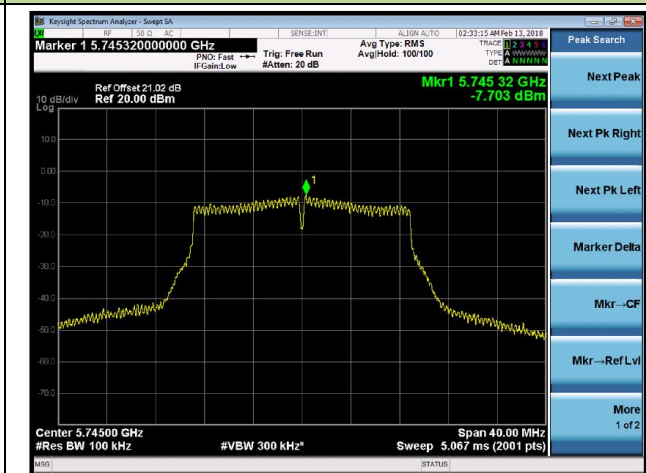
**Channel 140 (5700MHz)**



**Channel 144 (5720MHz)**



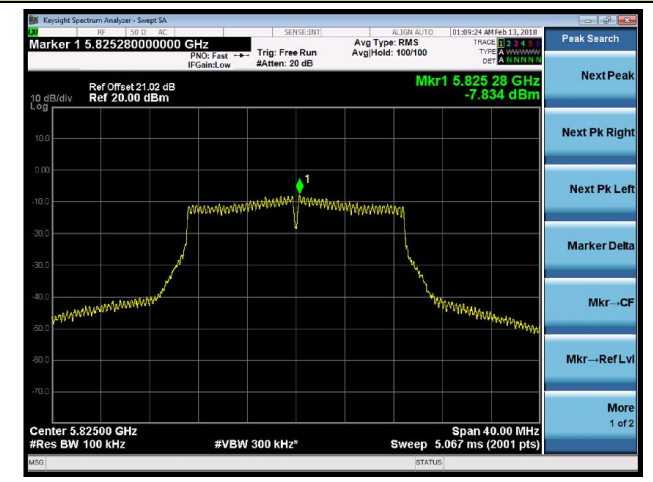
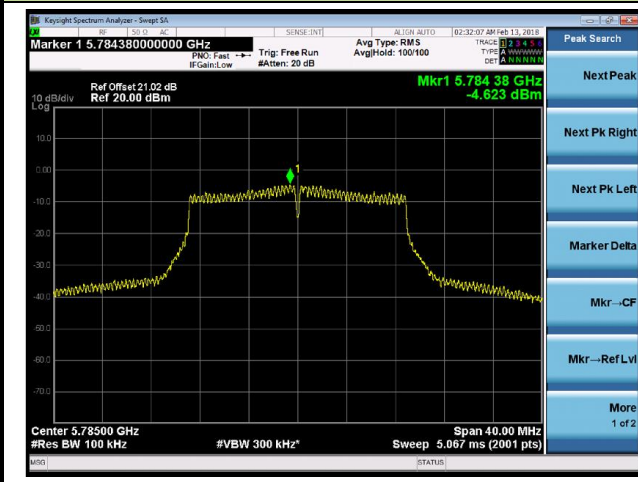
**Channel 149 (5745MHz)**



802.11n-HT20 Power Spectral Density

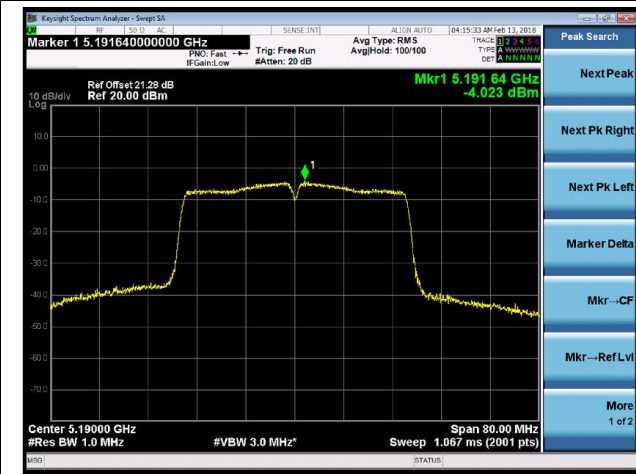
Channel 157 (5785MHz)

Channel 165 (5825MHz)

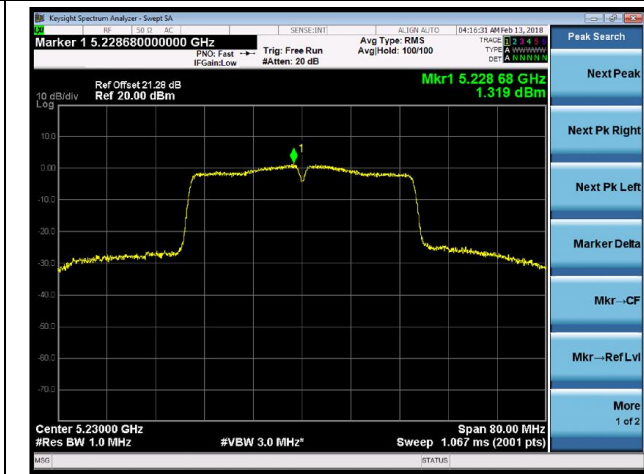


### 802.11n-HT40 Power Spectral Density

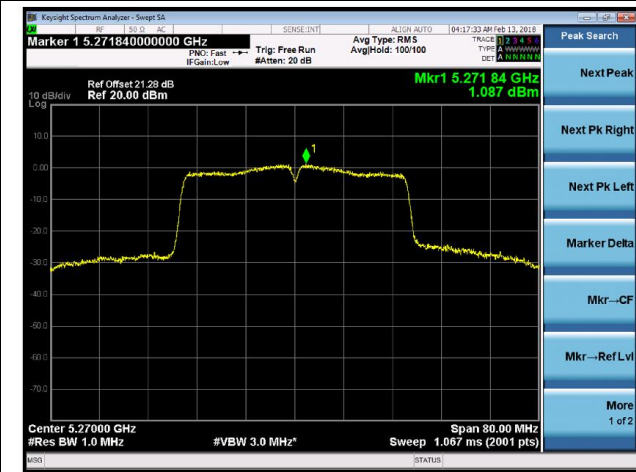
**Channel 38 (5190MHz)**



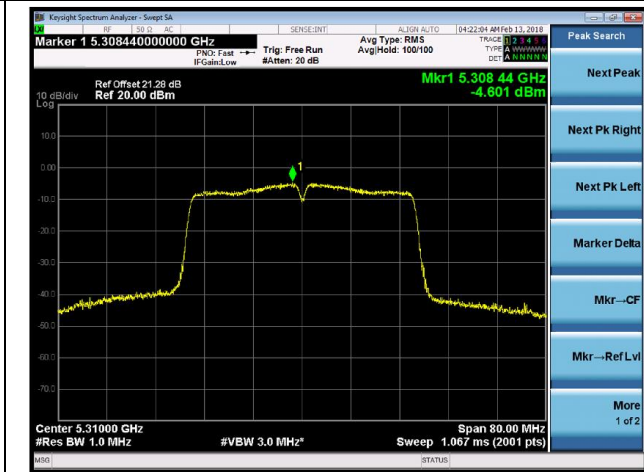
**Channel 46 (5230MHz)**



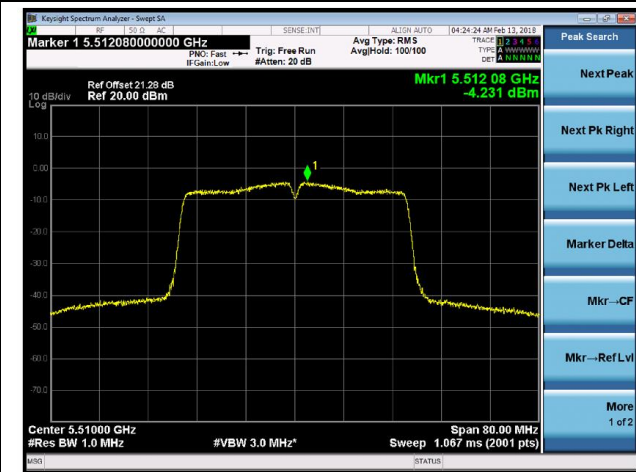
**Channel 54 (5270MHz)**



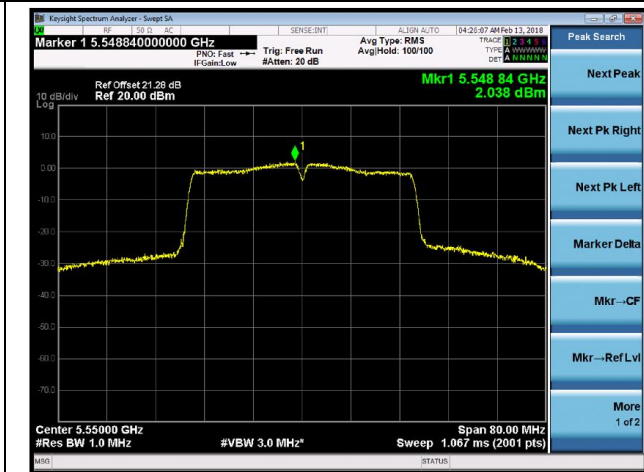
**Channel 62 (5310MHz)**



**Channel 102 (5510MHz)**



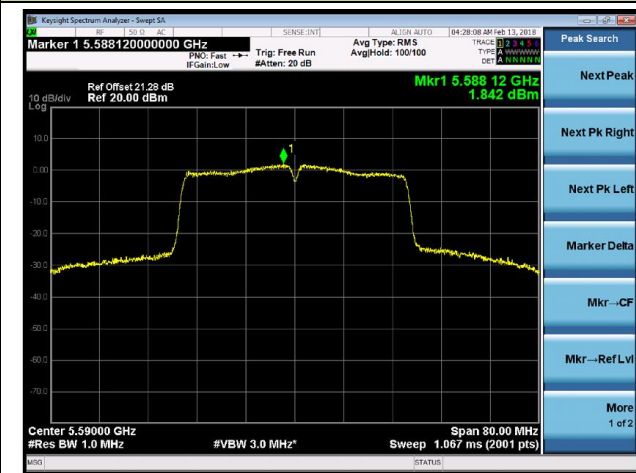
**Channel 110 (5550MHz)**



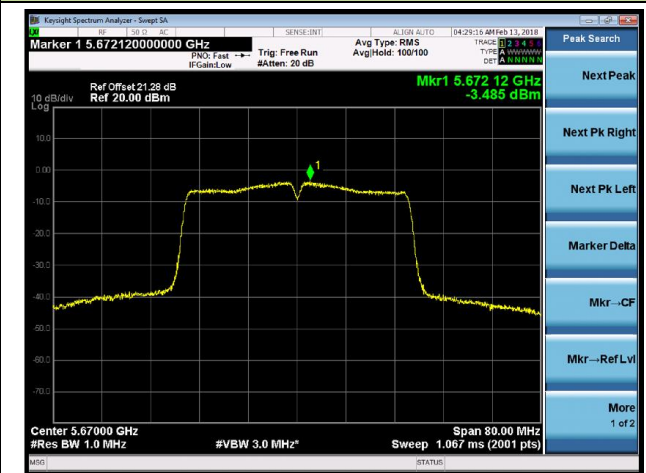


### 802.11n-HT40 Power Spectral Density

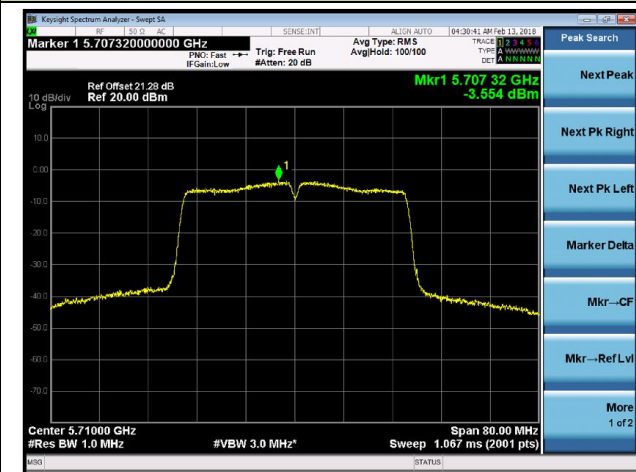
**Channel 118 (5590MHz)**



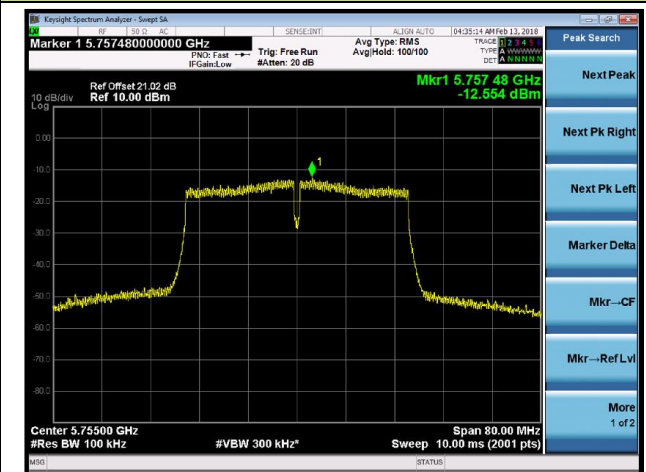
**Channel 134 (5670MHz)**



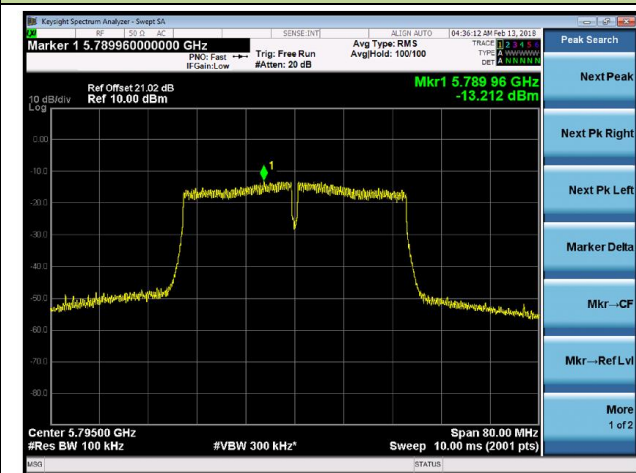
**Channel 142 (5710MHz)**



**Channel 151 (5755MHz)**

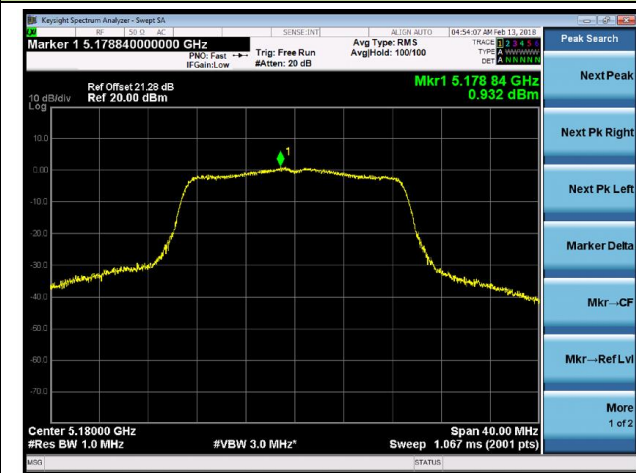


**Channel 159 (5795MHz)**

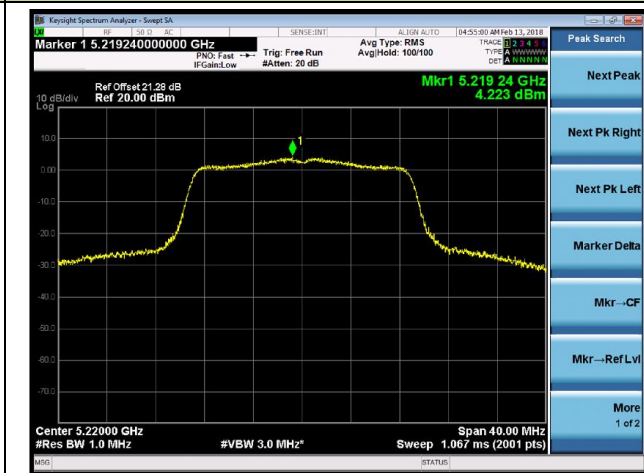


### 802.11ac-VHT20 Power Spectral Density

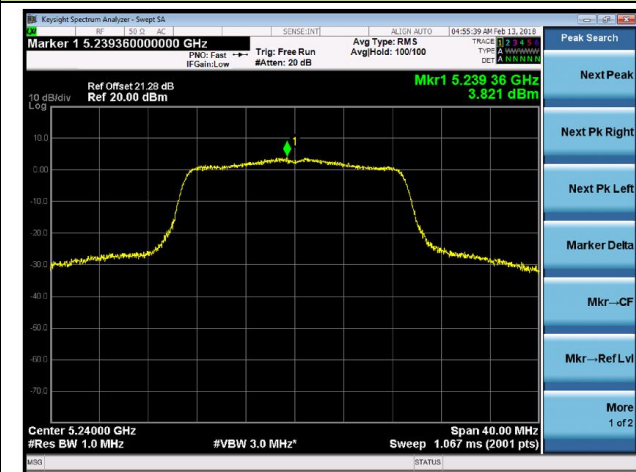
**Channel 36 (5180MHz)**



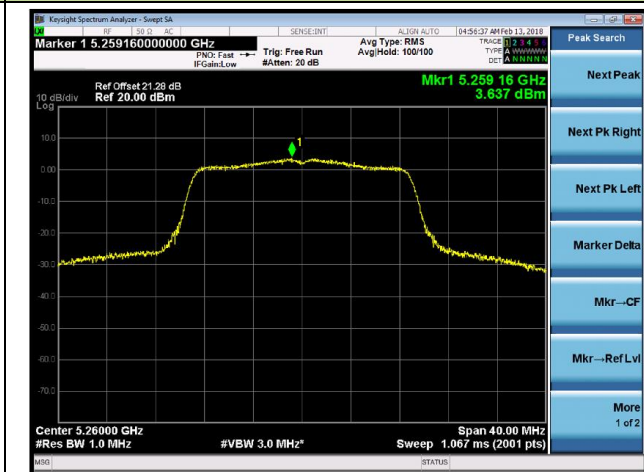
**Channel 44 (5220MHz)**



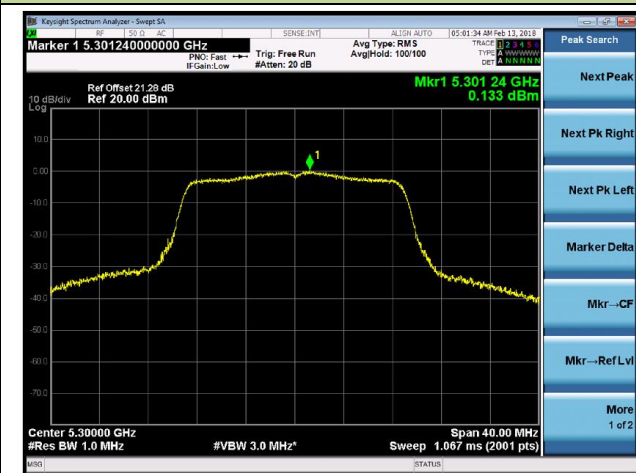
**Channel 48 (5240MHz)**



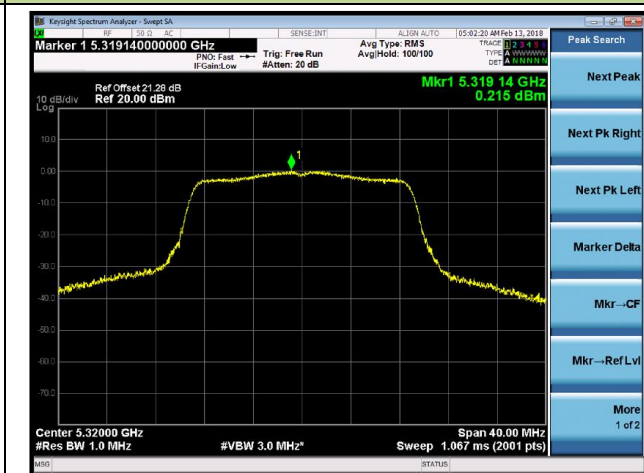
**Channel 52 (5260MHz)**



**Channel 60 (5300MHz)**

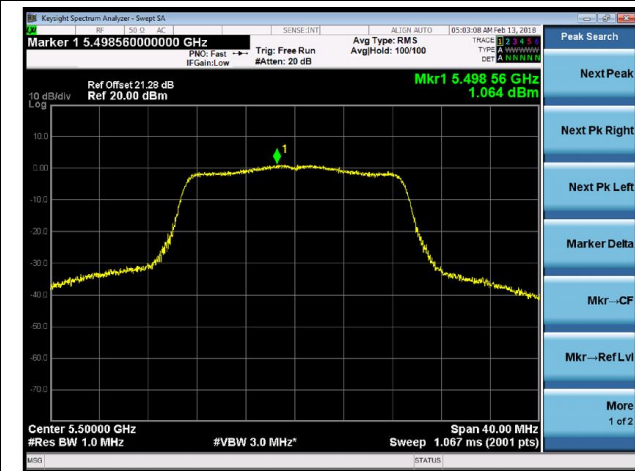


**Channel 64 (5320MHz)**

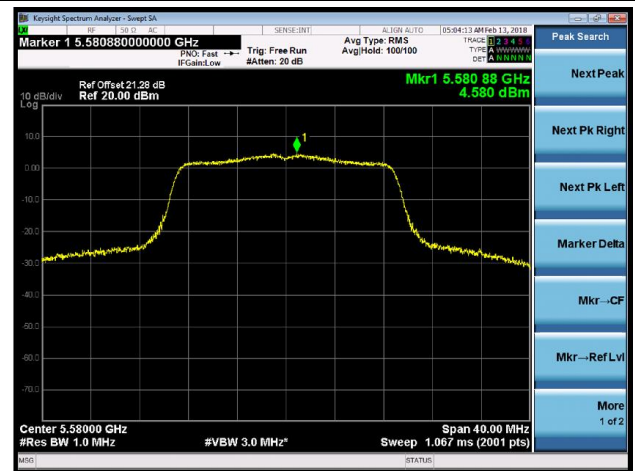


### 802.11ac-VHT20 Power Spectral Density

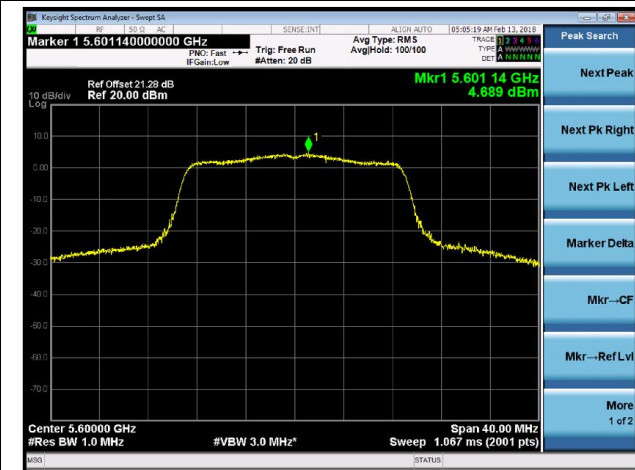
#### Channel 100 (5500MHz)



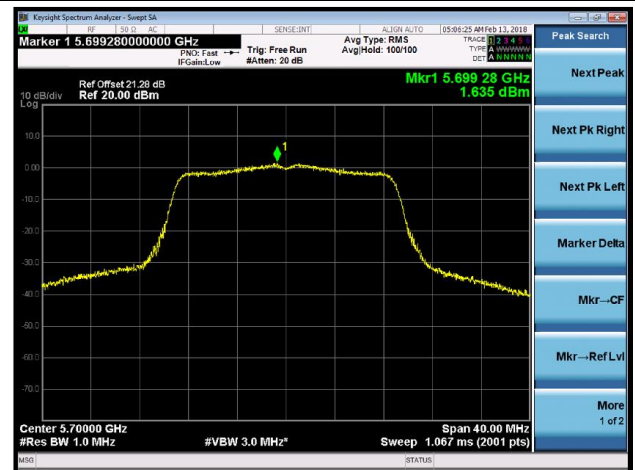
#### Channel 116 (5580MHz)



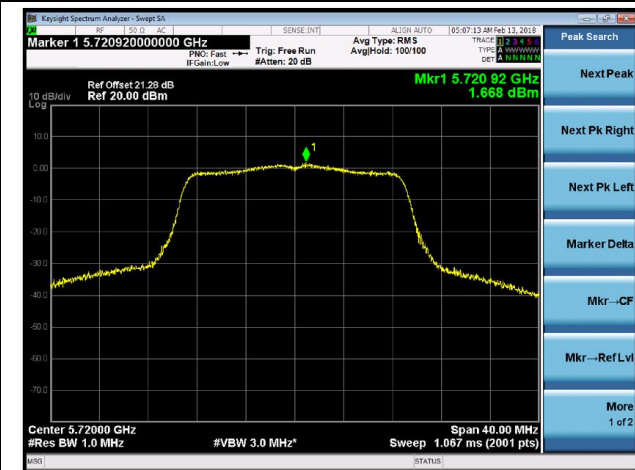
#### Channel 120 (5600MHz)



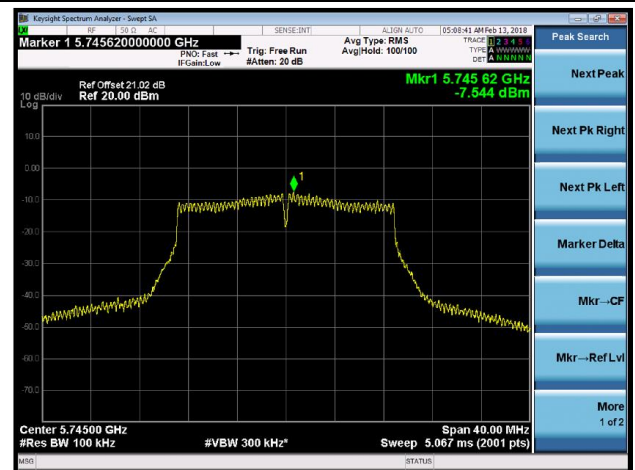
#### Channel 140 (5700MHz)



#### Channel 144 (5720MHz)



#### Channel 149 (5745MHz)

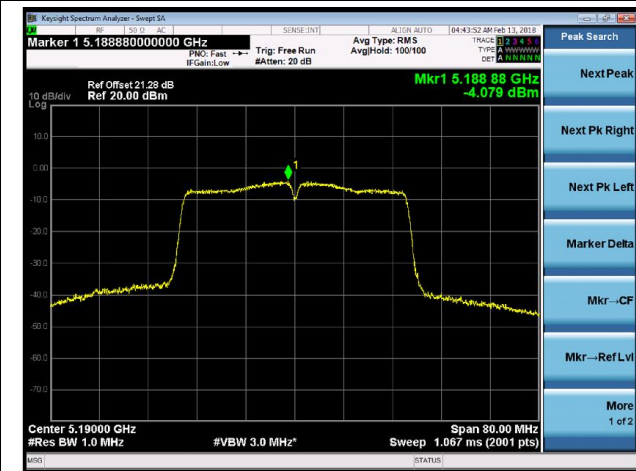




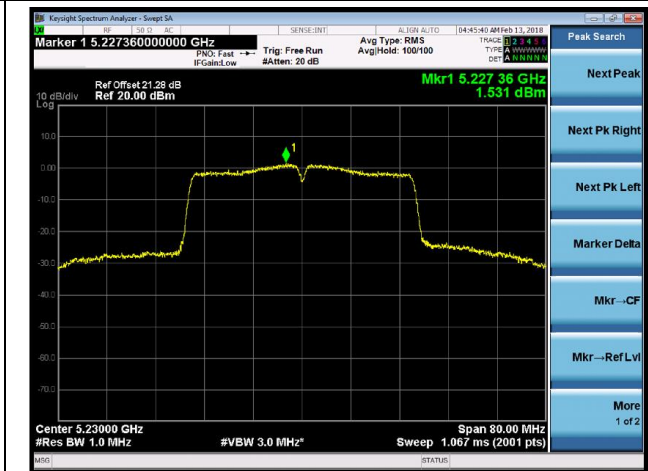


### 802.11ac-VHT40 Power Spectral Density

**Channel 38 (5190MHz)**



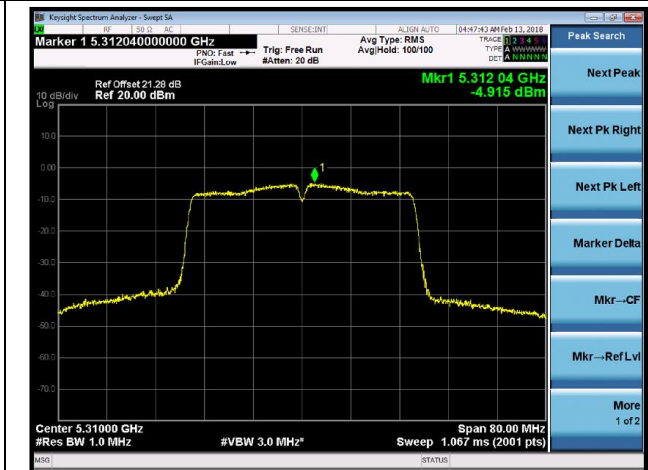
**Channel 46 (5230MHz)**



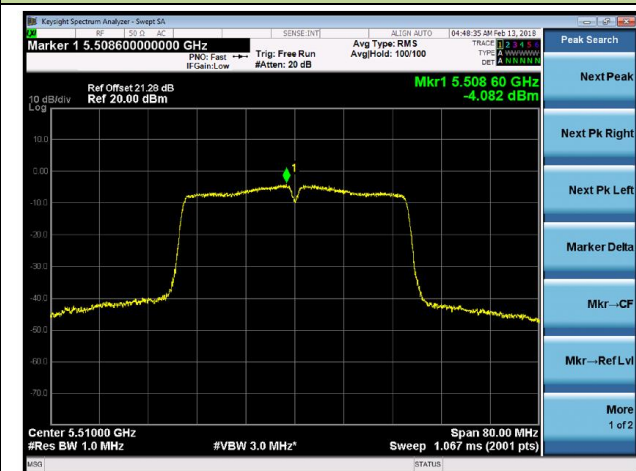
**Channel 54 (5270MHz)**



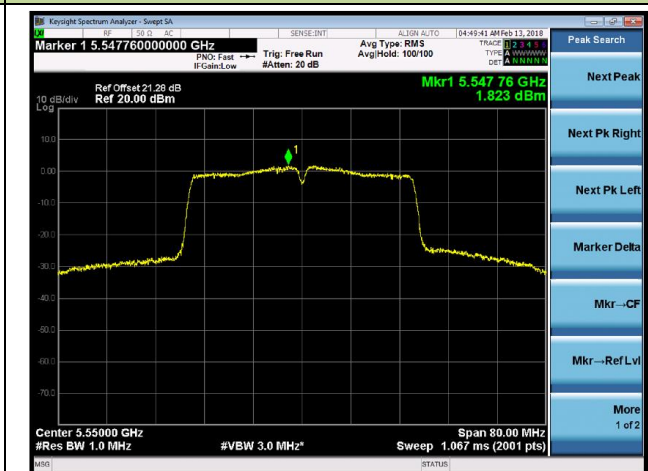
**Channel 62 (5310MHz)**



**Channel 102 (5510MHz)**

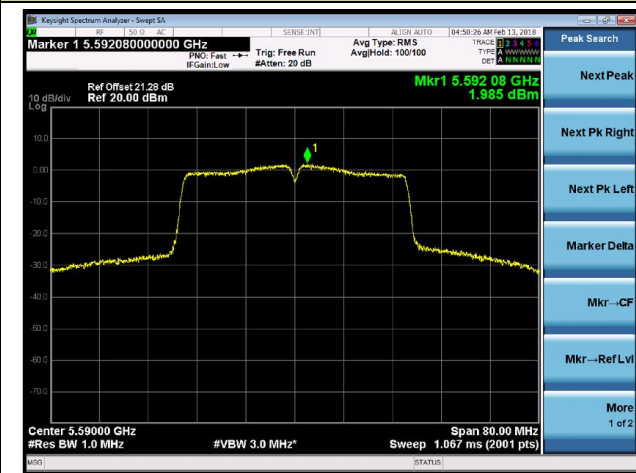


**Channel 110 (5550MHz)**

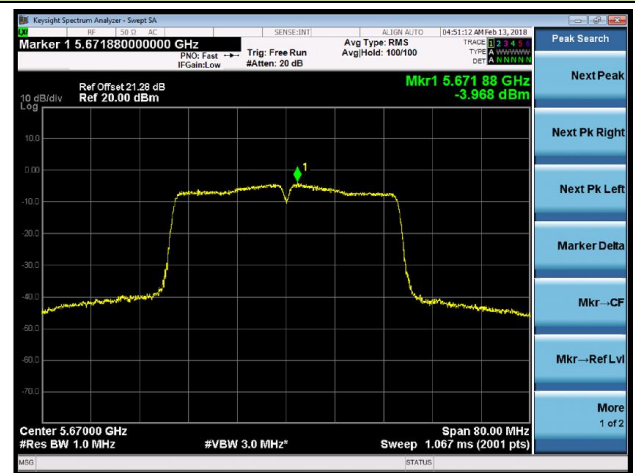


### 802.11ac-VHT40 Power Spectral Density

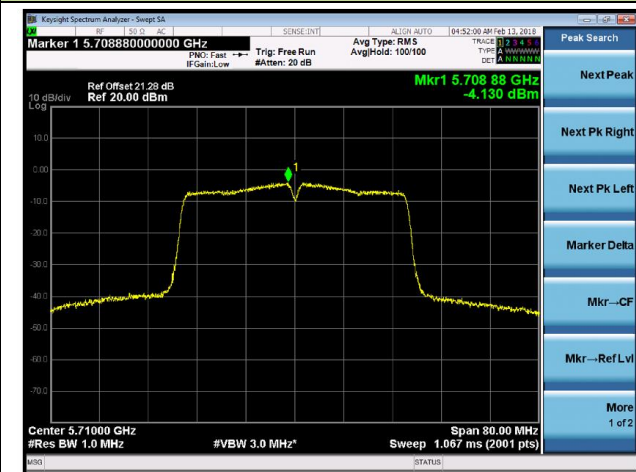
#### Channel 118 (5590MHz)



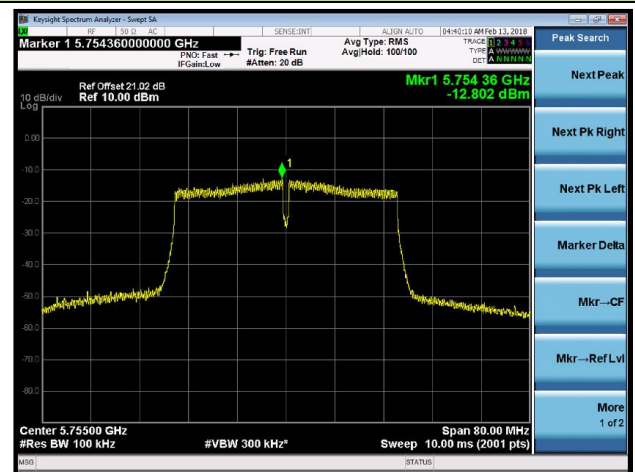
#### Channel 134 (5670MHz)



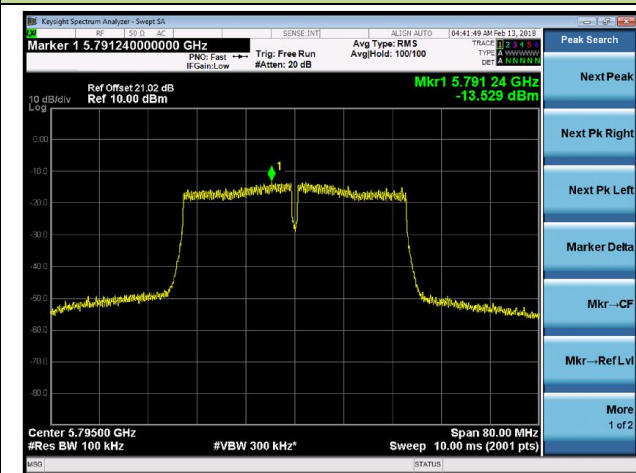
#### Channel 142 (5710MHz)



#### Channel 151 (5755MHz)

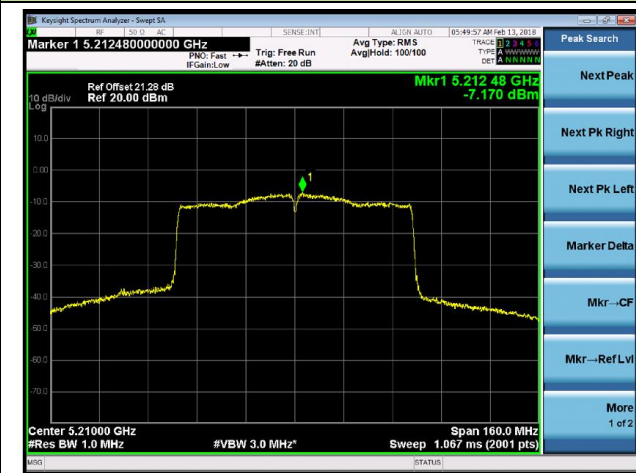


#### Channel 159 (5795MHz)

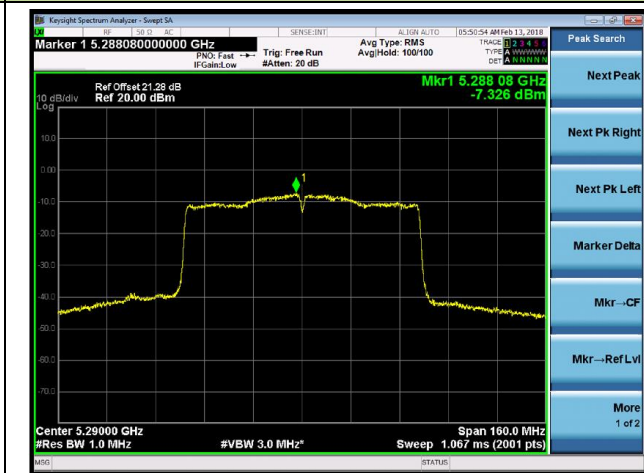


### 802.11ac-VHT80 Power Spectral Density

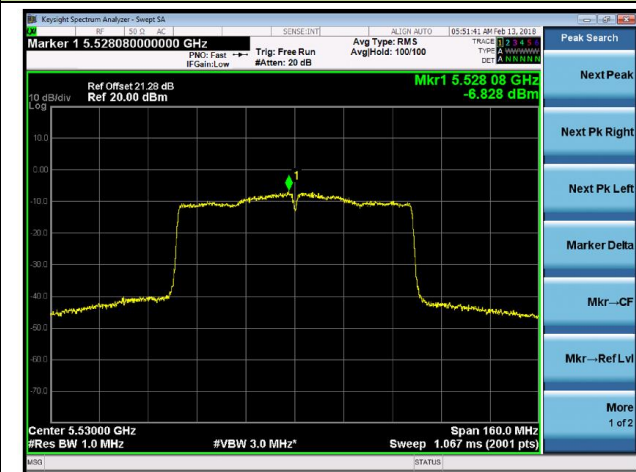
**Channel 42 (5210MHz)**



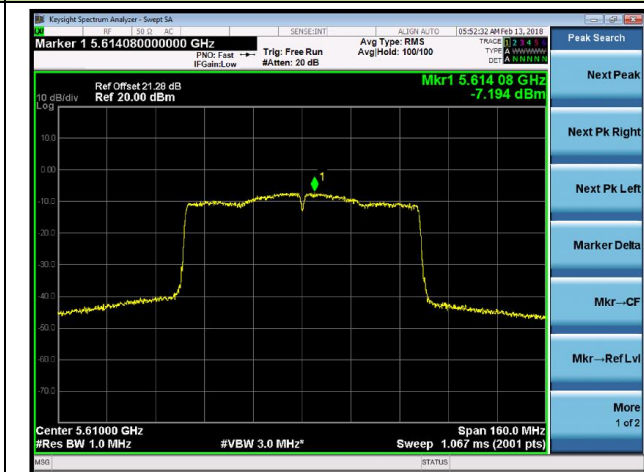
**Channel 58 (5290MHz)**



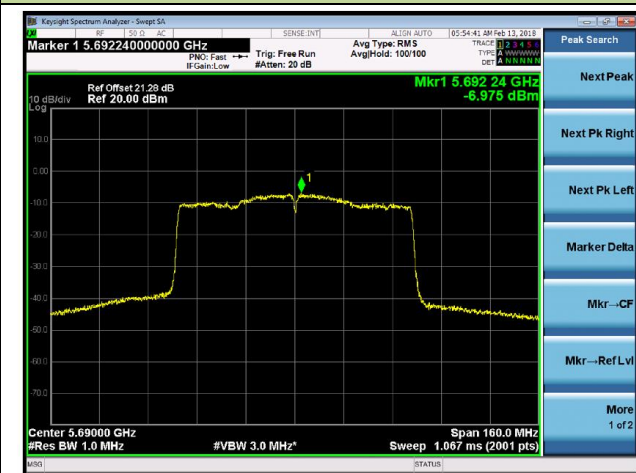
**Channel 106 (5530MHz)**



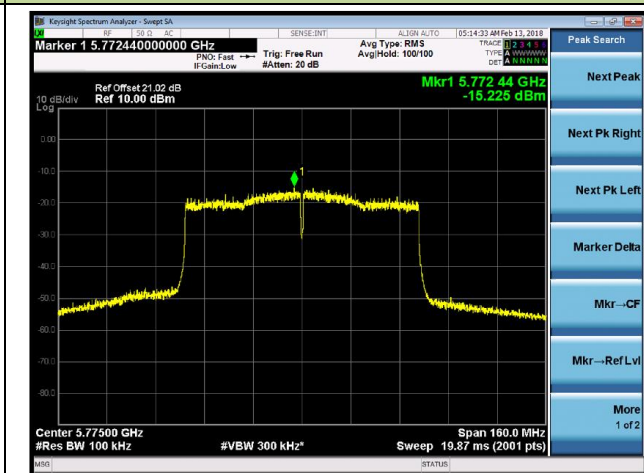
**Channel 122 (5610MHz)**



**Channel 138 (5690MHz)**



**Channel 155 (5775MHz)**



## 7.7. Frequency Stability Measurement

### 7.7.1. Test Limit

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 in the user's manual.

### 7.7.2. Test Procedure Used

#### **Frequency Stability Under Temperature Variations:**

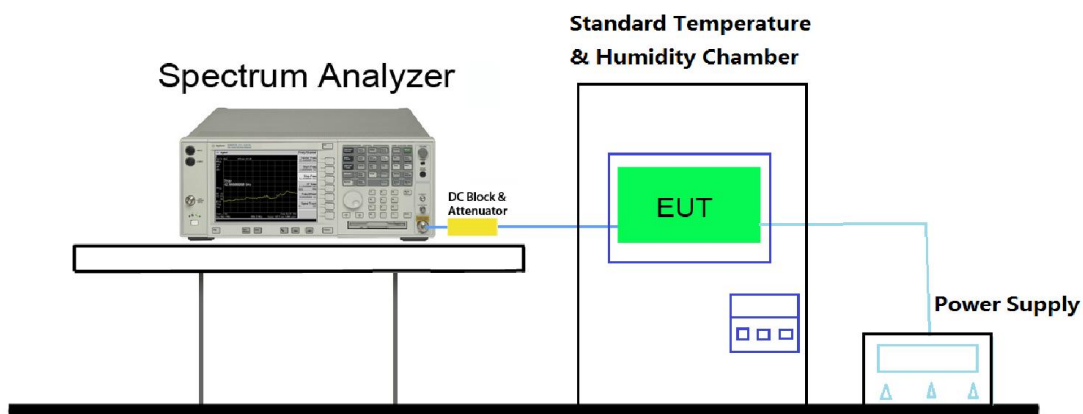
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

#### **Frequency Stability Under Voltage Variations:**

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ( $\pm 15\%$ ) and endpoint, record the maximum frequency change.

### 7.7.3. Test Setup



**7.7.4.Test Result**

Test Engineer	Hunk Li	Temperature	-30 ~ 50°C
Test Time	2018/02/23	Relative Humidity	48 ~ 55%RH
Test Mode	5825MHz (Carrier Mode)	Test Site	TR3

Voltage (%)	Power (V <sub>DC</sub> )	Temp (°C)	Frequency Tolerance (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100%	3.3	- 30	-3.01	-2.93	-3.06	-3.57
		- 20	-3.07	-3.00	-3.08	-3.60
		- 10	-3.14	-3.18	-3.12	-3.64
		0	-3.20	-3.35	-3.39	-3.77
		+ 10	-3.56	-3.62	-3.66	-3.95
		+ 20 (Ref)	-3.72	-3.93	-3.97	-4.06
		+ 30	-4.06	-4.89	-5.15	-5.54
		+ 40	-4.13	-5.03	-5.32	-6.12
		+ 50	-4.87	-6.01	-6.34	-6.74
115%	3.8	+ 20	-3.81	-4.03	-4.14	-4.20
85%	2.8	+ 20	-4.12	-5.31	-5.35	-5.44

Note: Frequency Tolerance (ppm) =  $\{[\text{Measured Frequency (Hz)} - \text{Declared Frequency (Hz)}] / \text{Declared Frequency (Hz)}\} * 10^6$ .

Test Engineer	Hunk Li	Temperature	-30 ~ 50°C
Test Time	2018/05/08	Relative Humidity	48 ~ 55%RH
Test Mode	5180MHz (Carrier Mode)	Test Site	TR3

Voltage (%)	Power (V <sub>DC</sub> )	Temp (°C)	Frequency Tolerance (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100%	3.3	- 30	-2.96	-2.85	-2.96	-3.49
		- 20	-3.03	-2.92	-3.04	-3.60
		- 10	-3.06	-3.11	-3.05	-3.63
		0	-3.19	-3.30	-3.35	-3.72
		+ 10	-3.48	-3.59	-3.60	-3.93
		+ 20 (Ref)	-3.72	-3.90	-3.96	-4.00
		+ 30	-4.05	-4.83	-5.11	-5.49
		+ 40	-4.03	-4.97	-5.32	-6.03
		+ 50	-4.79	-5.97	-6.28	-6.68
115%	3.8	+ 20	-3.72	-4.03	-4.09	-4.20
85%	2.8	+ 20	-4.11	-5.24	-5.33	-5.36

Note: Frequency Tolerance (ppm) =  $\{[\text{Measured Frequency (Hz)} - \text{Declared Frequency (Hz)}] / \text{Declared Frequency (Hz)}\} * 10^6$ .



## 7.8. Radiated Spurious Emission Measurement

### 7.8.1. Test Limit

Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of  $-27$  dBm/MHz.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
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

### 7.8.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

### 7.8.3. Test Setting

#### Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple

6. Trace was allowed to stabilize

**Table 1 - RBW as a function of frequency**

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz

**Peak Measurements above 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

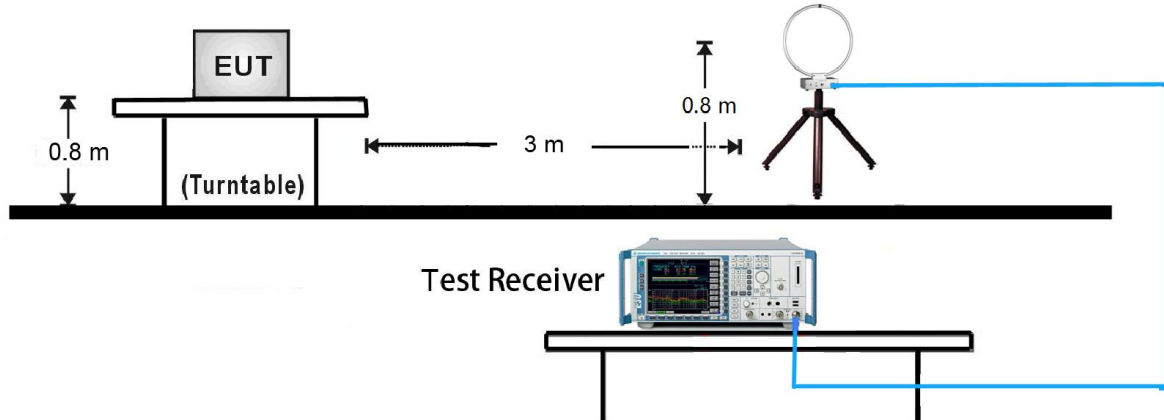
**Average Measurements above 1GHz (Method AD)**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10 Hz.  
If the EUT duty cycle is  $< 98\%$ , set  $VBW \geq 1/T$ . T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of  $1/x$ , where x is the duty cycle.

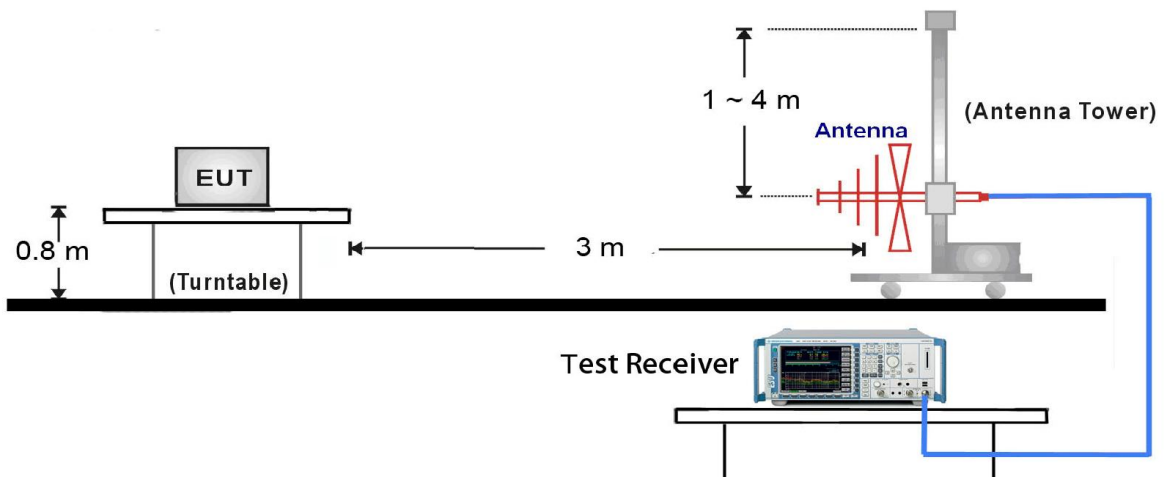


### 7.8.4. Test Setup

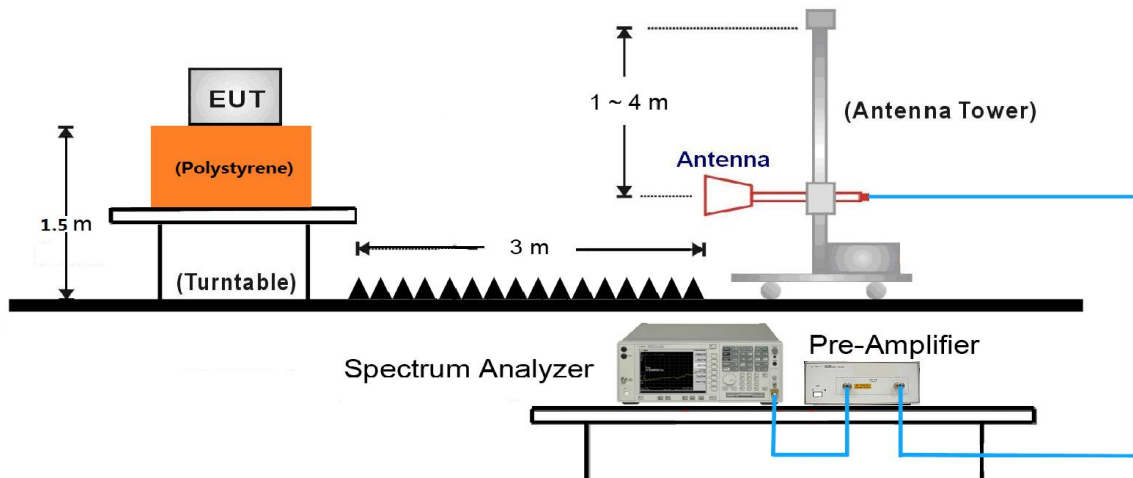
#### 9kHz ~30MHz Test Setup:



#### 30MHz ~ 1GHz Test Setup:



#### 1GHz ~ 40GHz Test Setup:



Note: This item was performed with the WIFI antenna connected.

**7.8.5.Test Result**

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7365.6	32.8	13.9	46.7	74.0	-27.3	Peak	Horizontal
	8407.3	31.3	13.9	45.2	74.0	-28.8	Peak	Horizontal
*	10000.4	30.5	17.5	48.0	68.2	-20.2	Peak	Horizontal
*	13186.6	28.8	21.4	50.2	68.2	-18.0	Peak	Horizontal
	7365.6	32.7	13.9	46.6	74.0	-27.4	Peak	Vertical
	8359.6	32.6	13.8	46.4	74.0	-27.6	Peak	Vertical
*	10327.2	31.9	18.4	50.3	68.2	-17.9	Peak	Vertical
*	13186.6	28.8	21.4	50.2	68.2	-18.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7365.6	32.7	13.9	46.6	74.0	-27.4	Peak	Horizontal
	8461.8	31.4	13.9	45.3	74.0	-28.7	Peak	Horizontal
*	10449.7	30.1	18.4	48.5	68.2	-19.7	Peak	Horizontal
*	12730.5	28.8	20.3	49.1	68.2	-19.1	Peak	Horizontal
	7467.8	31.7	14.1	45.8	74.0	-28.2	Peak	Vertical
	8400.5	32.8	13.8	46.6	74.0	-27.4	Peak	Vertical
*	10170.6	31.1	17.9	49.0	68.2	-19.2	Peak	Vertical
*	12730.5	28.8	20.3	49.1	68.2	-19.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	31.7	14.1	45.8	74.0	-28.2	Peak	Horizontal
	8312.0	31.6	13.8	45.4	74.0	-28.6	Peak	Horizontal
*	9925.5	30.6	17.5	48.1	68.2	-20.1	Peak	Horizontal
*	12880.3	28.6	21.0	49.6	68.2	-18.6	Peak	Horizontal
	7474.6	31.9	14.0	45.9	74.0	-28.1	Peak	Vertical
	8277.9	32.2	14.0	46.2	74.0	-27.8	Peak	Vertical
*	9898.3	31.1	17.3	48.4	68.2	-19.8	Peak	Vertical
*	12839.4	28.6	20.6	49.2	68.2	-19.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	52
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7501.8	32.3	14.1	46.4	74.0	-27.6	Peak	Horizontal
	8277.9	30.8	14.0	44.8	74.0	-29.2	Peak	Horizontal
*	9945.9	30.9	17.4	48.3	68.2	-19.9	Peak	Horizontal
*	12839.4	28.6	20.6	49.2	68.2	-19.0	Peak	Horizontal
	7501.8	32.3	14.1	46.4	74.0	-27.6	Peak	Vertical
	8386.9	32.0	13.8	45.8	74.0	-28.2	Peak	Vertical
*	10075.3	31.8	17.5	49.3	68.2	-18.9	Peak	Vertical
*	12893.9	28.7	21.1	49.8	68.2	-18.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	60
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7474.6	32.1	14.0	46.1	74.0	-27.9	Peak	Horizontal
	8461.8	32.6	13.9	46.5	74.0	-27.5	Peak	Horizontal
*	10034.4	31.7	17.7	49.4	68.2	-18.8	Peak	Horizontal
*	13125.4	29.6	21.6	51.2	68.2	-17.0	Peak	Horizontal
	7399.7	32.4	13.9	46.3	74.0	-27.7	Peak	Vertical
	8352.8	31.7	13.8	45.5	74.0	-28.5	Peak	Vertical
*	10170.6	30.8	17.9	48.7	68.2	-19.5	Peak	Vertical
*	13125.4	29.6	21.6	51.2	68.2	-17.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	64
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7399.7	32.4	13.9	46.3	74.0	-27.7	Peak	Horizontal
	8380.1	32.4	13.8	46.2	74.0	-27.8	Peak	Horizontal
*	9980.0	30.6	17.3	47.9	68.2	-20.3	Peak	Horizontal
*	13036.8	28.6	21.4	50.0	68.2	-18.2	Peak	Horizontal
	7467.8	33.1	14.1	47.2	74.0	-26.8	Peak	Vertical
	8434.5	32.6	13.9	46.5	74.0	-27.5	Peak	Vertical
*	10170.6	30.8	17.9	48.7	68.2	-19.5	Peak	Vertical
*	13036.8	28.6	21.4	50.0	68.2	-18.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	100
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	33.1	14.1	47.2	74.0	-26.8	Peak	Horizontal
	8305.2	31.2	13.8	45.0	74.0	-29.0	Peak	Horizontal
*	9816.6	30.8	17.0	47.8	68.2	-20.4	Peak	Horizontal
*	12778.1	29.4	20.5	49.9	68.2	-18.3	Peak	Horizontal
	7522.2	32.5	14.4	46.9	74.0	-27.1	Peak	Vertical
	8448.1	32.5	13.9	46.4	74.0	-27.6	Peak	Vertical
*	9809.8	31.1	17.0	48.1	68.2	-20.1	Peak	Vertical
*	12778.1	29.4	20.5	49.9	68.2	-18.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	116
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7522.2	32.5	14.4	46.9	74.0	-27.1	Peak	Horizontal
	8427.7	32.4	13.9	46.3	74.0	-27.7	Peak	Horizontal
*	9939.1	30.2	17.5	47.7	68.2	-20.5	Peak	Horizontal
*	12737.3	28.9	20.3	49.2	68.2	-19.0	Peak	Horizontal
	7563.1	33.1	14.1	47.2	74.0	-26.8	Peak	Vertical
	8495.8	33.3	14.2	47.5	74.0	-26.5	Peak	Vertical
*	9809.8	31.9	17.0	48.9	68.2	-19.3	Peak	Vertical
*	12737.3	28.9	20.3	49.2	68.2	-19.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	120
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7563.1	33.1	14.1	47.2	74.0	-26.8	Peak	Horizontal
	8312.0	32.1	13.8	45.9	74.0	-28.1	Peak	Horizontal
*	10436.1	30.3	18.4	48.7	68.2	-19.5	Peak	Horizontal
*	13193.4	28.4	21.5	49.9	68.2	-18.3	Peak	Horizontal
	7433.7	31.6	14.3	45.9	74.0	-28.1	Peak	Vertical
	8427.7	31.7	13.9	45.6	74.0	-28.4	Peak	Vertical
*	10306.8	32.3	18.4	50.7	68.2	-17.5	Peak	Vertical
*	13193.4	28.4	21.5	49.9	68.2	-18.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	140
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	31.6	14.3	45.9	74.0	-28.1	Peak	Horizontal
	8386.9	31.8	13.8	45.6	74.0	-28.4	Peak	Horizontal
*	9986.8	30.8	17.4	48.2	68.2	-20.0	Peak	Horizontal
*	12839.4	30.4	20.6	51.0	68.2	-17.2	Peak	Horizontal
	7467.8	32.4	14.1	46.5	74.0	-27.5	Peak	Vertical
	8352.8	32.3	13.8	46.1	74.0	-27.9	Peak	Vertical
*	10449.7	30.4	18.4	48.8	68.2	-19.4	Peak	Vertical
*	12839.4	30.4	20.6	51.0	68.2	-17.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	144
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.4	14.1	46.5	74.0	-27.5	Peak	Horizontal
	8386.9	31.3	13.8	45.1	74.0	-28.9	Peak	Horizontal
*	9945.9	30.5	17.4	47.9	68.2	-20.3	Peak	Horizontal
*	12784.9	28.6	20.5	49.1	68.2	-19.1	Peak	Horizontal
	7474.6	32.5	14.0	46.5	74.0	-27.5	Peak	Vertical
*	8312.0	31.6	13.8	45.4	74.0	-28.6	Peak	Vertical
*	9945.9	31.0	17.4	48.4	68.2	-19.8	Peak	Vertical
	12784.9	28.6	20.5	49.1	68.2	-19.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7474.6	32.5	14.0	46.5	74.0	-27.5	Peak	Horizontal
	8386.9	32.9	13.8	46.7	74.0	-27.3	Peak	Horizontal
*	9952.7	30.8	17.3	48.1	68.2	-20.1	Peak	Horizontal
*	12784.9	29.1	20.5	49.6	68.2	-18.6	Peak	Horizontal
	7433.7	31.7	14.3	46.0	74.0	-28.0	Peak	Vertical
	8386.9	32.5	13.8	46.3	74.0	-27.7	Peak	Vertical
*	10170.6	31.2	17.9	49.1	68.2	-19.1	Peak	Vertical
*	12784.9	29.1	20.5	49.6	68.2	-18.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	31.7	14.3	46.0	74.0	-28.0	Peak	Horizontal
	8250.7	31.2	14.1	45.3	74.0	-28.7	Peak	Horizontal
*	9973.2	30.8	17.3	48.1	68.2	-20.1	Peak	Horizontal
*	12839.4	29.7	20.6	50.3	68.2	-17.9	Peak	Horizontal
	7467.8	31.5	14.1	45.6	74.0	-28.4	Peak	Vertical
	8325.6	32.4	13.9	46.3	74.0	-27.7	Peak	Vertical
*	10306.8	31.5	18.4	49.9	68.2	-18.3	Peak	Vertical
*	12839.4	29.7	20.6	50.3	68.2	-17.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11a	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	31.5	14.1	45.6	74.0	-28.4	Peak	Horizontal
	8448.1	31.1	13.9	45.0	74.0	-29.0	Peak	Horizontal
*	9939.1	30.1	17.5	47.6	68.2	-20.6	Peak	Horizontal
*	12955.1	29.0	21.2	50.2	68.2	-18.0	Peak	Horizontal
	7474.6	31.7	14.0	45.7	74.0	-28.3	Peak	Vertical
	8461.8	32.0	13.9	45.9	74.0	-28.1	Peak	Vertical
*	10122.9	32.0	18.0	50.0	68.2	-18.2	Peak	Vertical
*	12955.1	29.0	21.2	50.2	68.2	-18.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7474.6	31.7	14.0	45.7	74.0	-28.3	Peak	Horizontal
	8427.7	32.7	13.9	46.6	74.0	-27.4	Peak	Horizontal
*	9857.4	30.9	17.3	48.2	68.2	-20.0	Peak	Horizontal
*	13070.9	30.4	21.4	51.8	68.2	-16.4	Peak	Horizontal
	7447.3	31.7	14.3	46.0	74.0	-28.0	Peak	Vertical
	8325.6	32.3	13.9	46.2	74.0	-27.8	Peak	Vertical
*	10075.3	31.4	17.5	48.9	68.2	-19.3	Peak	Vertical
*	13070.9	30.4	21.4	51.8	68.2	-16.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7447.3	31.7	14.3	46.0	74.0	-28.0	Peak	Horizontal
	8489.0	32.2	14.1	46.3	74.0	-27.7	Peak	Horizontal
*	10000.4	30.3	17.5	47.8	68.2	-20.4	Peak	Horizontal
*	12750.9	28.9	20.3	49.2	68.2	-19.0	Peak	Horizontal
	7481.4	31.9	14.0	45.9	74.0	-28.1	Peak	Vertical
	8352.8	31.5	13.8	45.3	74.0	-28.7	Peak	Vertical
*	10129.8	31.6	17.9	49.5	68.2	-18.7	Peak	Vertical
*	12750.9	28.9	20.3	49.2	68.2	-19.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7481.4	31.9	14.0	45.9	74.0	-28.1	Peak	Horizontal
	8312.0	32.5	13.8	46.3	74.0	-27.7	Peak	Horizontal
*	9952.7	30.2	17.3	47.5	68.2	-20.7	Peak	Horizontal
*	12744.1	28.8	20.2	49.0	68.2	-19.2	Peak	Horizontal
	7495.0	31.9	14.0	45.9	74.0	-28.1	Peak	Vertical
	8203.0	31.5	14.1	45.6	74.0	-28.4	Peak	Vertical
*	10075.3	31.8	17.5	49.3	68.2	-18.9	Peak	Vertical
*	12744.1	28.8	20.2	49.0	68.2	-19.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	52
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7495.0	31.9	14.0	45.9	74.0	-28.1	Peak	Horizontal
	8400.5	32.8	13.8	46.6	74.0	-27.4	Peak	Horizontal
*	9945.9	30.7	17.4	48.1	68.2	-20.1	Peak	Horizontal
*	13009.6	29.4	21.4	50.8	68.2	-17.4	Peak	Horizontal
	7481.4	32.0	14.0	46.0	74.0	-28.0	Peak	Vertical
	8352.8	32.0	13.8	45.8	74.0	-28.2	Peak	Vertical
*	10129.8	31.5	17.9	49.4	68.2	-18.8	Peak	Vertical
*	13009.6	29.4	21.4	50.8	68.2	-17.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	60
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7481.4	32.0	14.0	46.0	74.0	-28.0	Peak	Horizontal
	8386.9	31.7	13.8	45.5	74.0	-28.5	Peak	Horizontal
*	9945.9	30.8	17.4	48.2	68.2	-20.0	Peak	Horizontal
*	12710.1	28.4	20.4	48.8	68.2	-19.4	Peak	Horizontal
	7365.6	31.6	13.9	45.5	74.0	-28.5	Peak	Vertical
	8175.8	34.2	14.3	48.5	74.0	-25.5	Peak	Vertical
*	10143.4	31.6	17.8	49.4	68.2	-18.8	Peak	Vertical
*	12710.1	28.4	20.4	48.8	68.2	-19.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	64
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7365.6	31.6	13.9	45.5	74.0	-28.5	Peak	Horizontal
	8482.2	31.3	14.1	45.4	74.0	-28.6	Peak	Horizontal
*	10000.4	30.4	17.5	47.9	68.2	-20.3	Peak	Horizontal
*	12955.1	29.2	21.2	50.4	68.2	-17.8	Peak	Horizontal
	7495.0	32.8	14.0	46.8	74.0	-27.2	Peak	Vertical
	8380.1	32.4	13.8	46.2	74.0	-27.8	Peak	Vertical
*	10259.1	30.9	18.2	49.1	68.2	-19.1	Peak	Vertical
*	12955.1	29.2	21.2	50.4	68.2	-17.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	100
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7495.0	32.8	14.0	46.8	74.0	-27.2	Peak	Horizontal
	8318.8	31.0	13.9	44.9	74.0	-29.1	Peak	Horizontal
*	9959.6	30.0	17.3	47.3	68.2	-20.9	Peak	Horizontal
*	13186.6	28.6	21.4	50.0	68.2	-18.2	Peak	Horizontal
	7501.8	33.0	14.1	47.1	74.0	-26.9	Peak	Vertical
	8114.5	33.2	14.6	47.8	74.0	-26.2	Peak	Vertical
*	10286.3	31.3	18.3	49.6	68.2	-18.6	Peak	Vertical
*	13186.6	28.6	21.4	50.0	68.2	-18.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	116
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7501.8	33.0	14.1	47.1	74.0	-26.9	Peak	Horizontal
	8454.9	31.0	13.9	44.9	74.0	-29.1	Peak	Horizontal
*	9952.7	30.5	17.3	47.8	68.2	-20.4	Peak	Horizontal
*	12784.9	29.6	20.5	50.1	68.2	-18.1	Peak	Horizontal
	7495.0	31.9	14.0	45.9	74.0	-28.1	Peak	Vertical
	8427.7	31.5	13.9	45.4	74.0	-28.6	Peak	Vertical
*	10320.4	32.6	18.4	51.0	68.2	-17.2	Peak	Vertical
*	12784.9	29.6	20.5	50.1	68.2	-18.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	120
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7495.0	31.9	14.0	45.9	74.0	-28.1	Peak	Horizontal
	8468.6	31.5	14.0	45.5	74.0	-28.5	Peak	Horizontal
*	9898.3	31.0	17.3	48.3	68.2	-19.9	Peak	Horizontal
*	12866.6	28.5	20.9	49.4	68.2	-18.8	Peak	Horizontal
	7406.5	32.6	13.9	46.5	74.0	-27.5	Peak	Vertical
	8352.8	32.4	13.8	46.2	74.0	-27.8	Peak	Vertical
*	10211.5	31.8	18.2	50.0	68.2	-18.2	Peak	Vertical
*	12866.6	28.5	20.9	49.4	68.2	-18.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	140
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7406.5	32.6	13.9	46.5	74.0	-27.5	Peak	Horizontal
	8393.7	31.7	13.8	45.5	74.0	-28.5	Peak	Horizontal
*	9857.4	30.5	17.3	47.8	68.2	-20.4	Peak	Horizontal
*	13009.6	29.2	21.4	50.6	68.2	-17.6	Peak	Horizontal
	7406.5	31.8	13.9	45.7	74.0	-28.3	Peak	Vertical
	8373.2	31.6	13.8	45.4	74.0	-28.6	Peak	Vertical
*	10259.1	31.3	18.2	49.5	68.2	-18.7	Peak	Vertical
*	13009.6	29.2	21.4	50.6	68.2	-17.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	144
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.1	14.1	46.2	74.0	-27.8	Peak	Horizontal
	8407.3	31.8	13.9	45.7	74.0	-28.3	Peak	Horizontal
*	9918.7	30.4	17.5	47.9	68.2	-20.3	Peak	Horizontal
*	12934.7	28.4	21.1	49.5	68.2	-18.7	Peak	Horizontal
	7372.4	32.3	13.9	46.2	74.0	-27.8	Peak	Vertical
	8441.3	31.8	13.9	45.7	74.0	-28.3	Peak	Vertical
*	10211.5	32.0	18.2	50.2	68.2	-18.0	Peak	Vertical
*	12934.7	28.4	21.1	49.5	68.2	-18.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7372.4	32.3	13.9	46.2	74.0	-27.8	Peak	Horizontal
	8312.0	31.3	13.8	45.1	74.0	-28.9	Peak	Horizontal
*	10000.4	30.9	17.5	48.4	68.2	-19.8	Peak	Horizontal
*	12791.8	28.6	20.5	49.1	68.2	-19.1	Peak	Horizontal
	7597.1	32.2	14.1	46.3	74.0	-27.7	Peak	Vertical
	8332.4	32.4	13.9	46.3	74.0	-27.7	Peak	Vertical
*	10191.0	31.4	18.0	49.4	68.2	-18.8	Peak	Vertical
*	12791.8	28.6	20.5	49.1	68.2	-19.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.3	14.1	46.4	74.0	-27.6	Peak	Horizontal
	8298.4	31.6	13.8	45.4	74.0	-28.6	Peak	Horizontal
*	9884.7	30.9	17.3	48.2	68.2	-20.0	Peak	Horizontal
*	12723.7	28.9	20.3	49.2	68.2	-19.0	Peak	Horizontal
	7372.4	31.7	13.9	45.6	74.0	-28.4	Peak	Vertical
	8352.8	31.0	13.8	44.8	74.0	-29.2	Peak	Vertical
*	9980.0	30.3	17.3	47.6	68.2	-20.6	Peak	Vertical
*	12723.7	28.9	20.3	49.2	68.2	-19.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7372.4	31.7	13.9	45.6	74.0	-28.4	Peak	Horizontal
	8332.4	31.9	13.9	45.8	74.0	-28.2	Peak	Horizontal
*	9952.7	30.6	17.3	47.9	68.2	-20.3	Peak	Horizontal
*	12893.9	30.2	21.1	51.3	68.2	-16.9	Peak	Horizontal
	7563.1	31.9	14.1	46.0	74.0	-28.0	Peak	Vertical
	8461.8	31.6	13.9	45.5	74.0	-28.5	Peak	Vertical
*	10170.6	30.5	17.9	48.4	68.2	-19.8	Peak	Vertical
*	12893.9	30.2	21.1	51.3	68.2	-16.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	38
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7563.1	31.9	14.1	46.0	74.0	-28.0	Peak	Horizontal
	8305.2	30.9	13.8	44.7	74.0	-29.3	Peak	Horizontal
*	9809.8	32.0	17.0	49.0	68.2	-19.2	Peak	Horizontal
*	12778.1	29.0	20.5	49.5	68.2	-18.7	Peak	Horizontal
	7433.7	31.9	14.3	46.2	74.0	-27.8	Peak	Vertical
	8312.0	31.7	13.8	45.5	74.0	-28.5	Peak	Vertical
*	10306.8	31.9	18.4	50.3	68.2	-17.9	Peak	Vertical
*	12778.1	29.0	20.5	49.5	68.2	-18.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	46
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	31.9	14.3	46.2	74.0	-27.8	Peak	Horizontal
	8359.6	31.2	13.8	45.0	74.0	-29.0	Peak	Horizontal
*	9986.8	30.5	17.4	47.9	68.2	-20.3	Peak	Horizontal
*	12825.8	28.7	20.5	49.2	68.2	-19.0	Peak	Horizontal
	7535.8	31.7	14.5	46.2	74.0	-27.8	Peak	Vertical
	8427.7	32.4	13.9	46.3	74.0	-27.7	Peak	Vertical
*	9986.8	32.1	17.4	49.5	68.2	-18.7	Peak	Vertical
*	12825.8	28.7	20.5	49.2	68.2	-19.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	54
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7535.8	31.7	14.5	46.2	74.0	-27.8	Peak	Horizontal
	8339.2	31.0	13.9	44.9	74.0	-29.1	Peak	Horizontal
*	10000.4	30.2	17.5	47.7	68.2	-20.5	Peak	Horizontal
*	12927.9	28.6	21.1	49.7	68.2	-18.5	Peak	Horizontal
	7399.7	31.1	13.9	45.0	74.0	-29.0	Peak	Vertical
	8277.9	31.7	14.0	45.7	74.0	-28.3	Peak	Vertical
*	10259.1	31.4	18.2	49.6	68.2	-18.6	Peak	Vertical
*	12927.9	28.6	21.1	49.7	68.2	-18.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	62
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7399.7	31.1	13.9	45.0	74.0	-29.0	Peak	Horizontal
	8441.3	31.2	13.9	45.1	74.0	-28.9	Peak	Horizontal
*	9986.8	30.9	17.4	48.3	68.2	-19.9	Peak	Horizontal
*	12893.9	29.4	21.1	50.5	68.2	-17.7	Peak	Horizontal
	7433.7	32.6	14.3	46.9	74.0	-27.1	Peak	Vertical
	8427.7	31.2	13.9	45.1	74.0	-28.9	Peak	Vertical
*	10211.5	31.3	18.2	49.5	68.2	-18.7	Peak	Vertical
*	12893.9	29.4	21.1	50.5	68.2	-17.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	102
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	32.6	14.3	46.9	74.0	-27.1	Peak	Horizontal
	8461.8	31.9	13.9	45.8	74.0	-28.2	Peak	Horizontal
*	9959.6	30.6	17.3	47.9	68.2	-20.3	Peak	Horizontal
*	12723.7	29.5	20.3	49.8	68.2	-18.4	Peak	Horizontal
	7406.5	32.2	13.9	46.1	74.0	-27.9	Peak	Vertical
	8237.1	31.8	14.2	46.0	74.0	-28.0	Peak	Vertical
*	10231.9	32.3	18.1	50.4	68.2	-17.8	Peak	Vertical
*	12723.7	29.5	20.3	49.8	68.2	-18.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	110
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7406.5	32.2	13.9	46.1	74.0	-27.9	Peak	Horizontal
	8284.7	31.1	13.9	45.0	74.0	-29.0	Peak	Horizontal
*	10436.1	29.7	18.4	48.1	68.2	-20.1	Peak	Horizontal
*	12893.9	29.0	21.1	50.1	68.2	-18.1	Peak	Horizontal
	7529.0	32.7	14.5	47.2	74.0	-26.8	Peak	Vertical
	8468.6	33.2	14.0	47.2	74.0	-26.8	Peak	Vertical
*	10211.5	30.4	18.2	48.6	68.2	-19.6	Peak	Vertical
*	12893.9	29.0	21.1	50.1	68.2	-18.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	118
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7529.0	32.3	14.5	46.8	74.0	-27.2	Peak	Horizontal
	8461.8	30.9	13.9	44.8	74.0	-29.2	Peak	Horizontal
*	9905.1	30.3	17.4	47.7	68.2	-20.5	Peak	Horizontal
*	12839.4	28.9	20.6	49.5	68.2	-18.7	Peak	Horizontal
	7467.8	32.4	14.1	46.5	74.0	-27.5	Peak	Vertical
	8352.8	31.2	13.8	45.0	74.0	-29.0	Peak	Vertical
*	10116.1	32.2	18.0	50.2	68.2	-18.0	Peak	Vertical
*	12839.4	28.9	20.6	49.5	68.2	-18.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	134
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.4	14.1	46.5	74.0	-27.5	Peak	Horizontal
	8380.1	32.0	13.8	45.8	74.0	-28.2	Peak	Horizontal
*	9986.8	30.7	17.4	48.1	68.2	-20.1	Peak	Horizontal
*	12778.1	29.3	20.5	49.8	68.2	-18.4	Peak	Horizontal
	7331.6	32.4	13.8	46.2	74.0	-27.8	Peak	Vertical
	8461.8	32.1	13.9	46.0	74.0	-28.0	Peak	Vertical
*	10075.3	31.0	17.5	48.5	68.2	-19.7	Peak	Vertical
*	12778.1	29.3	20.5	49.8	68.2	-18.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	142
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7399.7	31.8	13.9	45.7	74.0	-28.3	Peak	Horizontal
	8366.4	31.0	13.8	44.8	74.0	-29.2	Peak	Horizontal
*	10000.4	30.2	17.5	47.7	68.2	-20.5	Peak	Horizontal
*	12893.9	29.3	21.1	50.4	68.2	-17.8	Peak	Horizontal
	7399.7	32.6	13.9	46.5	74.0	-27.5	Peak	Vertical
	8312.0	31.7	13.8	45.5	74.0	-28.5	Peak	Vertical
*	10252.3	30.3	18.1	48.4	68.2	-19.8	Peak	Vertical
*	12893.9	29.3	21.1	50.4	68.2	-17.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	151
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7426.9	31.9	14.2	46.1	74.0	-27.9	Peak	Horizontal
	8352.8	33.0	13.8	46.8	74.0	-27.2	Peak	Horizontal
*	9891.5	30.3	17.3	47.6	68.2	-20.6	Peak	Horizontal
*	12955.1	29.1	21.2	50.3	68.2	-17.9	Peak	Horizontal
	7522.2	32.3	14.4	46.7	74.0	-27.3	Peak	Vertical
	8427.7	31.2	13.9	45.1	74.0	-28.9	Peak	Vertical
*	10218.3	32.2	18.2	50.4	68.2	-17.8	Peak	Vertical
*	12955.1	29.1	21.2	50.3	68.2	-17.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT40	Test Channel:	159
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7522.2	32.3	14.4	46.7	74.0	-27.3	Peak	Horizontal
	8346.0	31.6	13.9	45.5	74.0	-28.5	Peak	Horizontal
*	9837.0	30.5	17.2	47.7	68.2	-20.5	Peak	Horizontal
*	12778.1	28.8	20.5	49.3	68.2	-18.9	Peak	Horizontal
	7508.6	32.0	14.2	46.2	74.0	-27.8	Peak	Vertical
	8414.1	33.6	13.9	47.5	74.0	-26.5	Peak	Vertical
*	10102.5	30.6	17.9	48.5	68.2	-19.7	Peak	Vertical
*	12778.1	28.8	20.5	49.3	68.2	-18.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7508.6	32.0	14.2	46.2	74.0	-27.8	Peak	Horizontal
	8427.7	31.7	13.9	45.6	74.0	-28.4	Peak	Horizontal
*	9905.1	30.3	17.4	47.7	68.2	-20.5	Peak	Horizontal
*	12839.4	29.6	20.6	50.2	68.2	-18.0	Peak	Horizontal
	7467.8	32.3	14.1	46.4	74.0	-27.6	Peak	Vertical
	8237.1	31.9	14.2	46.1	74.0	-27.9	Peak	Vertical
*	10000.4	31.1	17.5	48.6	68.2	-19.6	Peak	Vertical
*	12839.4	29.6	20.6	50.2	68.2	-18.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.3	14.1	46.4	74.0	-27.6	Peak	Horizontal
	8489.0	31.4	14.1	45.5	74.0	-28.5	Peak	Horizontal
*	10034.4	32.2	17.7	49.9	68.2	-18.3	Peak	Horizontal
*	13016.4	28.7	21.4	50.1	68.2	-18.1	Peak	Horizontal
	7501.8	32.0	14.1	46.1	74.0	-27.9	Peak	Vertical
	8380.1	33.4	13.8	47.2	74.0	-26.8	Peak	Vertical
*	10191.0	31.4	18.0	49.4	68.2	-18.8	Peak	Vertical
*	13016.4	28.7	21.4	50.1	68.2	-18.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11n-HT20	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7501.8	32.0	14.1	46.1	74.0	-27.9	Peak	Horizontal
	8312.0	31.2	13.8	45.0	74.0	-29.0	Peak	Horizontal
*	9959.6	30.3	17.3	47.6	68.2	-20.6	Peak	Horizontal
*	12805.4	28.1	20.5	48.6	68.2	-19.6	Peak	Horizontal
	7433.7	33.1	14.3	47.4	74.0	-26.6	Peak	Vertical
	8434.5	32.9	13.9	46.8	74.0	-27.2	Peak	Vertical
*	10157.0	30.9	17.8	48.7	68.2	-19.5	Peak	Vertical
*	12805.4	28.1	20.5	48.6	68.2	-19.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	52
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	33.1	14.3	47.4	74.0	-26.6	Peak	Horizontal
	8373.2	31.5	13.8	45.3	74.0	-28.7	Peak	Horizontal
*	9966.4	30.6	17.3	47.9	68.2	-20.3	Peak	Horizontal
*	12955.1	29.5	21.2	50.7	68.2	-17.5	Peak	Horizontal
	7440.5	32.1	14.3	46.4	74.0	-27.6	Peak	Vertical
	8380.1	32.2	13.8	46.0	74.0	-28.0	Peak	Vertical
*	10211.5	30.6	18.2	48.8	68.2	-19.4	Peak	Vertical
*	12955.1	29.5	21.2	50.7	68.2	-17.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	60
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7440.5	32.1	14.3	46.4	74.0	-27.6	Peak	Horizontal
	8386.9	31.6	13.8	45.4	74.0	-28.6	Peak	Horizontal
*	10000.4	30.5	17.5	48.0	68.2	-20.2	Peak	Horizontal
*	12778.1	29.2	20.5	49.7	68.2	-18.5	Peak	Horizontal
	7399.7	32.1	13.9	46.0	74.0	-28.0	Peak	Vertical
	8339.2	31.4	13.9	45.3	74.0	-28.7	Peak	Vertical
*	10170.6	31.5	17.9	49.4	68.2	-18.8	Peak	Vertical
*	12778.1	29.2	20.5	49.7	68.2	-18.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	64
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7399.7	32.1	13.9	46.0	74.0	-28.0	Peak	Horizontal
	8427.7	31.5	13.9	45.4	74.0	-28.6	Peak	Horizontal
*	10191.0	30.4	18.0	48.4	68.2	-19.8	Peak	Horizontal
*	12723.7	29.4	20.3	49.7	68.2	-18.5	Peak	Horizontal
	7569.9	32.5	14.0	46.5	74.0	-27.5	Peak	Vertical
	8386.9	32.8	13.8	46.6	74.0	-27.4	Peak	Vertical
*	9898.3	30.6	17.3	47.9	68.2	-20.3	Peak	Vertical
*	12723.7	29.4	20.3	49.7	68.2	-18.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	100
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7569.9	32.5	14.0	46.5	74.0	-27.5	Peak	Horizontal
	8427.7	31.4	13.9	45.3	74.0	-28.7	Peak	Horizontal
*	9857.4	30.1	17.3	47.4	68.2	-20.8	Peak	Horizontal
*	12723.7	29.2	20.3	49.5	68.2	-18.7	Peak	Horizontal
	7433.7	31.7	14.3	46.0	74.0	-28.0	Peak	Vertical
	8393.7	31.5	13.8	45.3	74.0	-28.7	Peak	Vertical
*	10211.5	31.3	18.2	49.5	68.2	-18.7	Peak	Vertical
*	12723.7	29.2	20.3	49.5	68.2	-18.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	116
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	32.1	14.3	46.4	74.0	-27.6	Peak	Horizontal
	8393.7	31.5	13.8	45.3	74.0	-28.7	Peak	Horizontal
*	10034.4	31.8	17.7	49.5	68.2	-18.7	Peak	Horizontal
*	12832.6	28.8	20.5	49.3	68.2	-18.9	Peak	Horizontal
	7372.4	31.3	13.9	45.2	74.0	-28.8	Peak	Vertical
	8427.7	31.2	13.9	45.1	74.0	-28.9	Peak	Vertical
*	10306.8	30.4	18.4	48.8	68.2	-19.4	Peak	Vertical
*	12832.6	28.8	20.5	49.3	68.2	-18.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	120
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7372.4	31.3	13.9	45.2	74.0	-28.8	Peak	Horizontal
	8400.5	31.6	13.8	45.4	74.0	-28.6	Peak	Horizontal
*	9959.6	30.5	17.3	47.8	68.2	-20.4	Peak	Horizontal
*	12778.1	29.6	20.5	50.1	68.2	-18.1	Peak	Horizontal
	7501.8	31.7	14.1	45.8	74.0	-28.2	Peak	Vertical
	8277.9	31.4	14.0	45.4	74.0	-28.6	Peak	Vertical
*	10150.2	31.2	17.8	49.0	68.2	-19.2	Peak	Vertical
*	12778.1	29.6	20.5	50.1	68.2	-18.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	140
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7501.8	31.7	14.1	45.8	74.0	-28.2	Peak	Horizontal
	8373.2	32.4	13.8	46.2	74.0	-27.8	Peak	Horizontal
*	9918.7	30.3	17.5	47.8	68.2	-20.4	Peak	Horizontal
*	12955.1	29.9	21.2	51.1	68.2	-17.1	Peak	Horizontal
	7433.7	31.9	14.3	46.2	74.0	-27.8	Peak	Vertical
	8352.8	31.4	13.8	45.2	74.0	-28.8	Peak	Vertical
*	10170.6	30.8	17.9	48.7	68.2	-19.5	Peak	Vertical
*	12955.1	29.9	21.2	51.1	68.2	-17.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	144
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	31.9	14.1	46.0	74.0	-28.0	Peak	Horizontal
	8277.9	31.4	14.0	45.4	74.0	-28.6	Peak	Horizontal
*	10122.9	32.1	18.0	50.1	68.2	-18.1	Peak	Horizontal
*	12778.1	29.3	20.5	49.8	68.2	-18.4	Peak	Horizontal
	7447.3	33.2	14.3	47.5	74.0	-26.5	Peak	Vertical
	8189.4	32.9	14.2	47.1	74.0	-26.9	Peak	Vertical
*	9837.0	30.3	17.2	47.5	68.2	-20.7	Peak	Vertical
*	12839.4	29.2	20.6	49.8	68.2	-18.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7420.1	32.0	14.1	46.1	74.0	-27.9	Peak	Horizontal
	8441.3	30.9	13.9	44.8	74.0	-29.2	Peak	Horizontal
*	10157.0	31.6	17.8	49.4	68.2	-18.8	Peak	Horizontal
*	12839.4	29.2	20.6	49.8	68.2	-18.4	Peak	Horizontal
	7420.1	32.0	14.1	46.1	74.0	-27.9	Peak	Vertical
	8359.6	31.5	13.8	45.3	74.0	-28.7	Peak	Vertical
*	9959.6	30.2	17.3	47.5	68.2	-20.7	Peak	Vertical
*	12723.7	29.4	20.3	49.7	68.2	-18.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.4	14.1	46.5	74.0	-27.5	Peak	Horizontal
	8386.9	32.9	13.8	46.7	74.0	-27.3	Peak	Horizontal
*	10211.5	30.7	18.2	48.9	68.2	-19.3	Peak	Horizontal
*	12723.7	29.4	20.3	49.7	68.2	-18.5	Peak	Horizontal
	7467.8	32.4	14.1	46.5	74.0	-27.5	Peak	Vertical
	8257.5	30.9	14.1	45.0	74.0	-29.0	Peak	Vertical
*	9857.4	30.7	17.3	48.0	68.2	-20.2	Peak	Vertical
*	12703.2	29.9	20.4	50.3	68.2	-17.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT20	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7481.4	32.6	14.0	46.6	74.0	-27.4	Peak	Horizontal
	8386.9	31.8	13.8	45.6	74.0	-28.4	Peak	Horizontal
*	10231.9	31.9	18.1	50.0	68.2	-18.2	Peak	Horizontal
*	12703.2	29.9	20.4	50.3	68.2	-17.9	Peak	Horizontal
	7481.4	32.6	14.0	46.6	74.0	-27.4	Peak	Vertical
	8427.7	33.5	13.9	47.4	74.0	-26.6	Peak	Vertical
*	9898.3	31.3	17.3	48.6	68.2	-19.6	Peak	Vertical
*	12723.7	29.3	20.3	49.6	68.2	-18.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	38
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7501.8	31.7	14.1	45.8	74.0	-28.2	Peak	Horizontal
	8461.8	31.6	13.9	45.5	74.0	-28.5	Peak	Horizontal
*	10170.6	30.6	17.9	48.5	68.2	-19.7	Peak	Horizontal
*	12723.7	29.3	20.3	49.6	68.2	-18.6	Peak	Horizontal
	7501.8	31.7	14.1	45.8	74.0	-28.2	Peak	Vertical
	8393.7	32.4	13.8	46.2	74.0	-27.8	Peak	Vertical
*	10170.6	30.9	17.9	48.8	68.2	-19.4	Peak	Vertical
*	12955.1	28.9	21.2	50.1	68.2	-18.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	46
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	31.6	14.3	45.9	74.0	-28.1	Peak	Horizontal
	8277.9	30.0	14.0	44.0	74.0	-30.0	Peak	Horizontal
*	10170.6	30.1	17.9	48.0	68.2	-20.2	Peak	Horizontal
*	12955.1	28.9	21.2	50.1	68.2	-18.1	Peak	Horizontal
	7433.7	31.6	14.3	45.9	74.0	-28.1	Peak	Vertical
	8366.4	31.7	13.8	45.5	74.0	-28.5	Peak	Vertical
*	9918.7	30.0	17.5	47.5	68.2	-20.7	Peak	Vertical
*	12723.7	29.9	20.3	50.2	68.2	-18.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	54
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.7	14.1	46.8	74.0	-27.2	Peak	Horizontal
	8312.0	32.4	13.8	46.2	74.0	-27.8	Peak	Horizontal
*	10306.8	31.6	18.4	50.0	68.2	-18.2	Peak	Horizontal
*	12723.7	29.9	20.3	50.2	68.2	-18.0	Peak	Horizontal
	7467.8	32.7	14.1	46.8	74.0	-27.2	Peak	Vertical
	8393.7	31.0	13.8	44.8	74.0	-29.2	Peak	Vertical
*	10163.8	30.4	17.8	48.2	68.2	-20.0	Peak	Vertical
*	12955.1	29.2	21.2	50.4	68.2	-17.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	62
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	31.9	14.1	46.0	74.0	-28.0	Peak	Horizontal
	8427.7	32.5	13.9	46.4	74.0	-27.6	Peak	Horizontal
*	10170.6	30.4	17.9	48.3	68.2	-19.9	Peak	Horizontal
*	12723.7	28.7	20.3	49.0	68.2	-19.2	Peak	Horizontal
	7467.8	32.0	14.1	46.1	74.0	-27.9	Peak	Vertical
	8352.8	31.7	13.8	45.5	74.0	-28.5	Peak	Vertical
*	9959.6	30.4	17.3	47.7	68.2	-20.5	Peak	Vertical
*	12723.7	28.7	20.3	49.0	68.2	-19.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	102
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7467.8	32.0	14.1	46.1	74.0	-27.9	Peak	Horizontal
	8386.9	31.4	13.8	45.2	74.0	-28.8	Peak	Horizontal
*	10265.9	31.1	18.2	49.3	68.2	-18.9	Peak	Horizontal
*	12839.4	30.2	20.6	50.8	68.2	-17.4	Peak	Horizontal
	7358.8	32.8	14.0	46.8	74.0	-27.2	Peak	Vertical
	8461.8	33.5	13.9	47.4	74.0	-26.6	Peak	Vertical
*	10122.9	31.1	18.0	49.1	68.2	-19.1	Peak	Vertical
*	12839.4	30.2	20.6	50.8	68.2	-17.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	110
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7535.8	32.3	14.5	46.8	74.0	-27.2	Peak	Horizontal
	8386.9	32.9	13.8	46.7	74.0	-27.3	Peak	Horizontal
*	10122.9	31.3	18.0	49.3	68.2	-18.9	Peak	Horizontal
*	12723.7	28.9	20.3	49.2	68.2	-19.0	Peak	Horizontal
	7447.3	32.5	14.3	46.8	74.0	-27.2	Peak	Vertical
	8230.3	32.7	14.2	46.9	74.0	-27.1	Peak	Vertical
*	9857.4	30.5	17.3	47.8	68.2	-20.4	Peak	Vertical
*	12723.7	28.9	20.3	49.2	68.2	-19.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	118
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7447.3	32.5	14.3	46.8	74.0	-27.2	Peak	Horizontal
	8318.8	32.4	13.9	46.3	74.0	-27.7	Peak	Horizontal
*	10218.3	30.6	18.2	48.8	68.2	-19.4	Peak	Horizontal
*	12839.4	28.9	20.6	49.5	68.2	-18.7	Peak	Horizontal
	7433.7	31.2	14.3	45.5	74.0	-28.5	Peak	Vertical
	8237.1	31.4	14.2	45.6	74.0	-28.4	Peak	Vertical
*	10122.9	32.4	18.0	50.4	68.2	-17.8	Peak	Vertical
*	12839.4	28.9	20.6	49.5	68.2	-18.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	134
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	31.2	14.3	45.5	74.0	-28.5	Peak	Horizontal
	8386.9	31.5	13.8	45.3	74.0	-28.7	Peak	Horizontal
*	10259.1	30.4	18.2	48.6	68.2	-19.6	Peak	Horizontal
*	12744.1	28.3	20.2	48.5	68.2	-19.7	Peak	Horizontal
	7563.1	31.7	14.1	45.8	74.0	-28.2	Peak	Vertical
	8393.7	31.5	13.8	45.3	74.0	-28.7	Peak	Vertical
*	9959.6	30.5	17.3	47.8	68.2	-20.4	Peak	Vertical
*	12744.1	28.3	20.2	48.5	68.2	-19.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	142
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7563.1	31.7	14.1	45.8	74.0	-28.2	Peak	Horizontal
	8277.9	31.5	14.0	45.5	74.0	-28.5	Peak	Horizontal
*	10211.5	30.9	18.2	49.1	68.2	-19.1	Peak	Horizontal
*	12723.7	29.1	20.3	49.4	68.2	-18.8	Peak	Horizontal
	7433.7	32.5	14.3	46.8	74.0	-27.2	Peak	Vertical
	8427.7	32.1	13.9	46.0	74.0	-28.0	Peak	Vertical
*	9830.2	30.4	17.2	47.6	68.2	-20.6	Peak	Vertical
*	12723.7	29.1	20.3	49.4	68.2	-18.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	151
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	32.5	14.3	46.8	74.0	-27.2	Peak	Horizontal
	8468.6	32.6	14.0	46.6	74.0	-27.4	Peak	Horizontal
*	10231.9	32.0	18.1	50.1	68.2	-18.1	Peak	Horizontal
*	12839.4	30.2	20.6	50.8	68.2	-17.4	Peak	Horizontal
	7474.6	31.5	14.0	45.5	74.0	-28.5	Peak	Vertical
	8312.0	30.8	13.8	44.6	74.0	-29.4	Peak	Vertical
*	10075.3	31.5	17.5	49.0	68.2	-19.2	Peak	Vertical
*	12839.4	30.2	20.6	50.8	68.2	-17.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT40	Test Channel:	159
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7563.1	31.9	14.1	46.0	74.0	-28.0	Peak	Horizontal
	8277.9	32.0	14.0	46.0	74.0	-28.0	Peak	Horizontal
*	9898.3	30.8	17.3	48.1	68.2	-20.1	Peak	Horizontal
*	13070.9	29.2	21.4	50.6	68.2	-17.6	Peak	Horizontal
	7433.7	32.4	14.3	46.7	74.0	-27.3	Peak	Vertical
	8352.8	31.4	13.8	45.2	74.0	-28.8	Peak	Vertical
*	9945.9	30.4	17.4	47.8	68.2	-20.4	Peak	Vertical
*	13070.9	29.2	21.4	50.6	68.2	-17.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT80	Test Channel:	42
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7433.7	32.4	14.3	46.7	74.0	-27.3	Peak	Horizontal
	8427.7	31.0	13.9	44.9	74.0	-29.1	Peak	Horizontal
*	9898.3	31.7	17.3	49.0	68.2	-19.2	Peak	Horizontal
*	13009.6	29.4	21.4	50.8	68.2	-17.4	Peak	Horizontal
	7358.8	31.0	14.0	45.0	74.0	-29.0	Peak	Vertical
	8237.1	32.6	14.2	46.8	74.0	-27.2	Peak	Vertical
*	9898.3	31.4	17.3	48.7	68.2	-19.5	Peak	Vertical
*	13009.6	29.4	21.4	50.8	68.2	-17.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT80	Test Channel:	58
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7358.8	31.0	14.0	45.0	74.0	-29.0	Peak	Horizontal
	8318.8	31.9	13.9	45.8	74.0	-28.2	Peak	Horizontal
*	10122.9	31.1	18.0	49.1	68.2	-19.1	Peak	Horizontal
*	12955.1	28.6	21.2	49.8	68.2	-18.4	Peak	Horizontal
	7331.6	31.4	13.8	45.2	74.0	-28.8	Peak	Vertical
	8393.7	31.3	13.8	45.1	74.0	-28.9	Peak	Vertical
*	9993.6	30.4	17.4	47.8	68.2	-20.4	Peak	Vertical
*	12955.1	28.6	21.2	49.8	68.2	-18.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT80	Test Channel:	106
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7331.6	31.4	13.8	45.2	74.0	-28.8	Peak	Horizontal
	8461.8	31.5	13.9	45.4	74.0	-28.6	Peak	Horizontal
*	9939.1	29.9	17.5	47.4	68.2	-20.8	Peak	Horizontal
*	12839.4	29.8	20.6	50.4	68.2	-17.8	Peak	Horizontal
	7467.8	31.3	14.1	45.4	74.0	-28.6	Peak	Vertical
	8461.8	31.5	13.9	45.4	74.0	-28.6	Peak	Vertical
*	10354.4	30.8	18.5	49.3	68.2	-18.9	Peak	Vertical
*	12962.0	28.5	21.3	49.8	68.2	-18.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT80	Test Channel:	122
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7535.8	31.9	14.5	46.4	74.0	-27.6	Peak	Horizontal
	8393.7	32.7	13.8	46.5	74.0	-27.5	Peak	Horizontal
*	9945.9	30.7	17.4	48.1	68.2	-20.1	Peak	Horizontal
*	12962.0	28.5	21.3	49.8	68.2	-18.4	Peak	Horizontal
	7535.8	31.9	14.5	46.4	74.0	-27.6	Peak	Vertical
	8352.8	31.6	13.8	45.4	74.0	-28.6	Peak	Vertical
*	10286.3	30.6	18.3	48.9	68.2	-19.3	Peak	Vertical
*	12839.4	29.1	20.6	49.7	68.2	-18.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT80	Test Channel:	138
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7474.6	32.0	14.0	46.0	74.0	-28.0	Peak	Horizontal
	8332.4	31.6	13.9	45.5	74.0	-28.5	Peak	Horizontal
*	9857.4	30.1	17.3	47.4	68.2	-20.8	Peak	Horizontal
*	12839.4	29.1	20.6	49.7	68.2	-18.5	Peak	Horizontal
	7474.6	32.0	14.0	46.0	74.0	-28.0	Peak	Vertical
	8277.9	30.9	14.0	44.9	74.0	-29.1	Peak	Vertical
*	10231.9	31.0	18.1	49.1	68.2	-19.1	Peak	Vertical
*	12723.7	29.0	20.3	49.3	68.2	-18.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Product	Communication Module	Temperature	26°C
Test Engineer	Will Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2018/03/09
Test Mode:	802.11ac-VHT80	Test Channel:	155
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7365.6	32.6	13.9	46.5	74.0	-27.5	Peak	Horizontal
	8461.8	31.4	13.9	45.3	74.0	-28.7	Peak	Horizontal
*	9973.2	30.5	17.3	47.8	68.2	-20.4	Peak	Horizontal
*	12723.7	29.0	20.3	49.3	68.2	-18.9	Peak	Horizontal
	7365.6	32.6	13.9	46.5	74.0	-27.5	Peak	Vertical
	8332.4	32.3	13.9	46.2	74.0	-27.8	Peak	Vertical
*	10211.5	32.3	18.2	50.5	68.2	-17.7	Peak	Vertical
*	12955.1	29.2	21.2	50.4	68.2	-17.8	Peak	Vertical

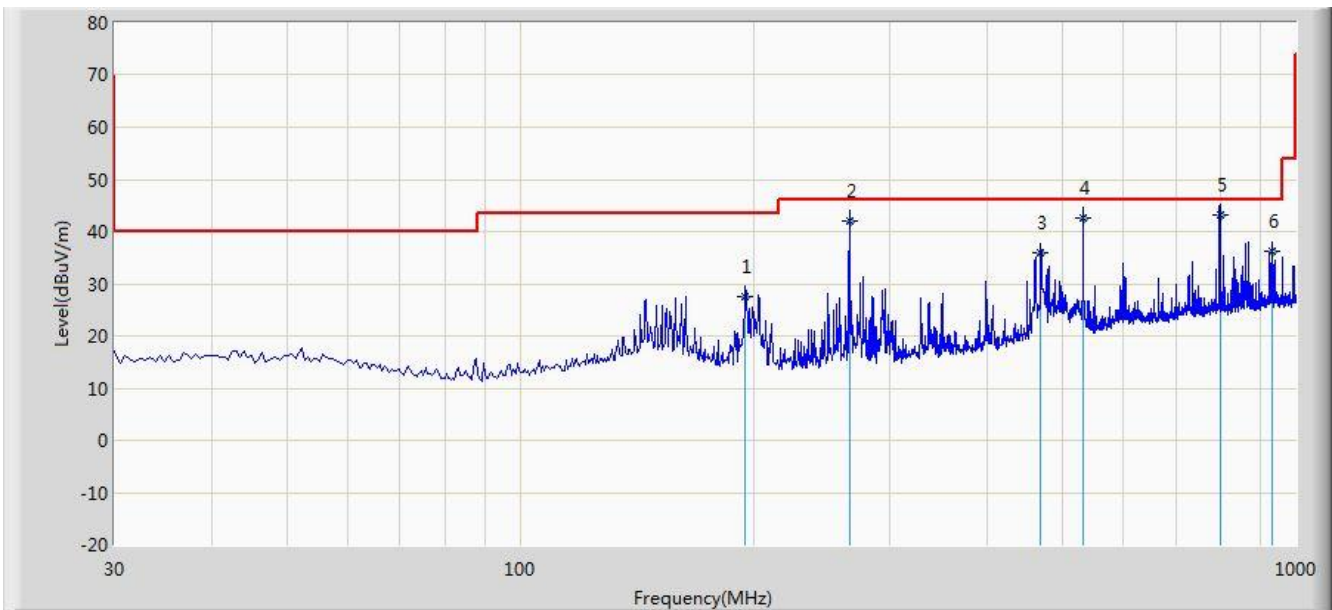
Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

**The worst case of Radiated Emission below 1GHz:**

Site: AC1	Time: 2018/03/15 - 17:00
Limit: FCC_Part15.209_RSE(3m)	Engineer: Alex Ma
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: Communication Module	Power: DC 3.3V
<b>Note: There is the worst case within frequency range 30MHz~1GHz.</b>	



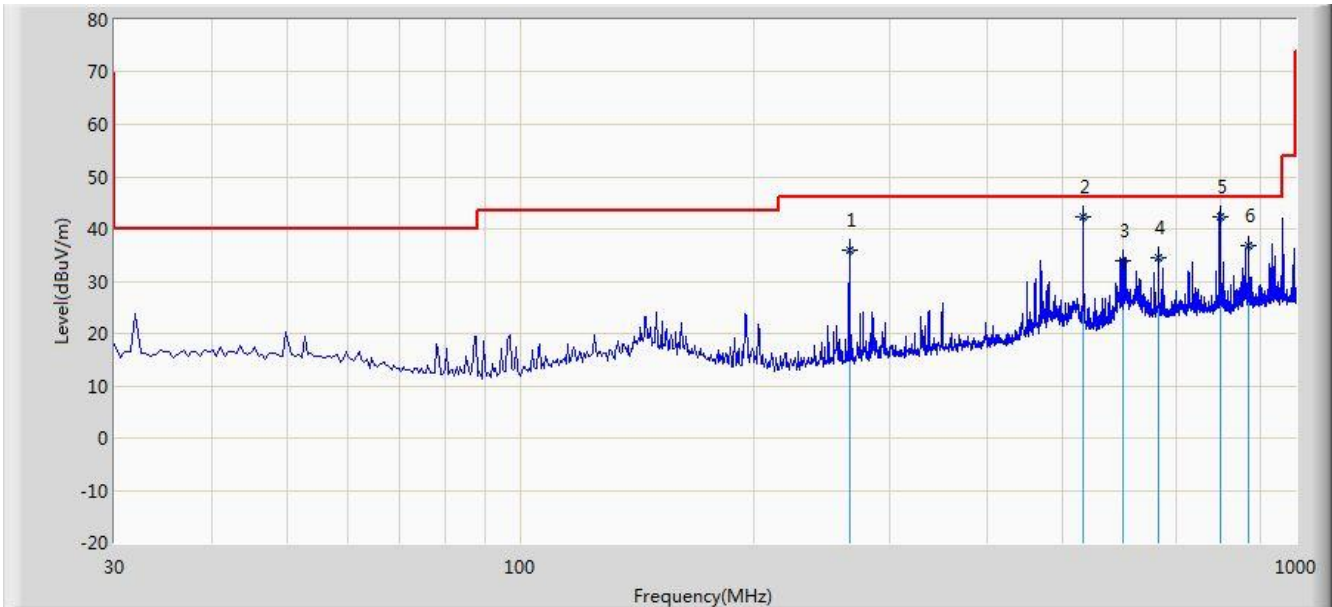
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			195.385	27.479	16.033	-16.021	43.500	11.447	QP
2			265.710	42.094	28.644	-3.906	46.000	13.450	QP
3			469.410	35.803	17.648	-10.197	46.000	18.156	QP
4			531.975	42.544	23.332	-3.456	46.000	19.212	QP
5		*	798.240	43.117	19.815	-2.883	46.000	23.302	QP
6			931.130	36.089	11.248	-9.911	46.000	24.840	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC1	Time: 2018/03/15 – 17:00
Limit: FCC_Part15.209_RSE(3m)	Engineer: Alex Ma
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: Communication Module	Power: DC 3.3V
<b>Note: There is the worst case within frequency range 30MHz~1GHz.</b>	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			265.710	35.897	22.447	-10.103	46.000	13.450	QP
2			531.975	42.256	23.044	-3.744	46.000	19.212	QP
3			599.875	33.829	13.250	-12.171	46.000	20.579	QP
4			664.865	34.389	12.723	-11.611	46.000	21.666	QP
5		*	798.250	42.360	19.058	-3.640	46.000	23.302	QP
6			868.565	36.674	12.695	-9.326	46.000	23.979	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

## 7.9. Radiated Restricted Band Edge Measurement

### 7.9.1. Test Limit

#### **For 15.205 requirement:**

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.25 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41	--	--	--

#### **For 15.407(b) requirement:**

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band:

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.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
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

**7.9.2.Test Procedure Used**

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

**7.9.3.Test Setting**

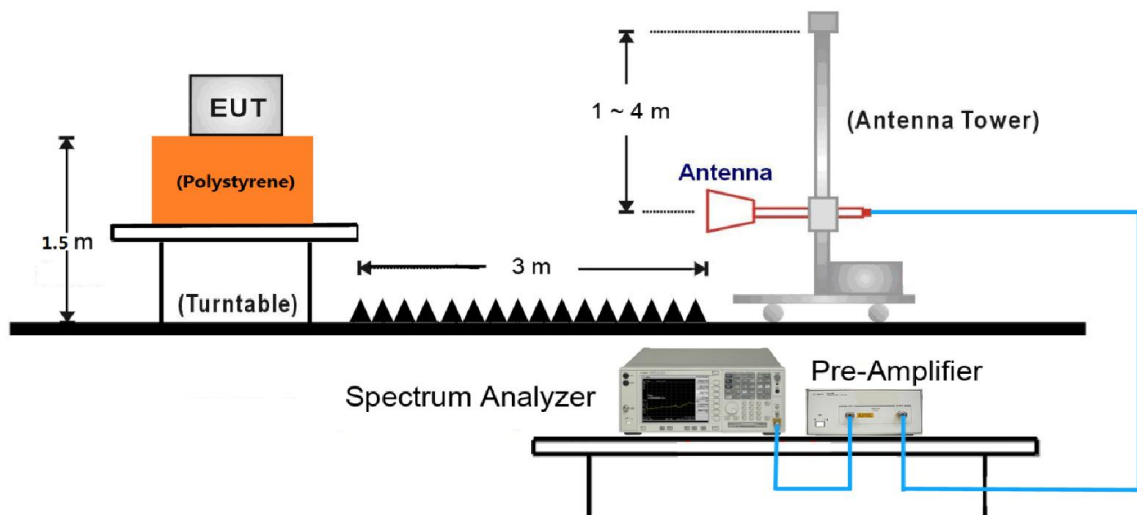
**Peak Measurements above 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

### Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set  $VBW \leq RBW/100$  (i.e., 10 kHz) but not less than 10 Hz. If the EUT duty cycle is  $< 98\%$ , set  $VBW \geq 1/T$ .
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of  $1/x$ , where  $x$  is the duty cycle.

#### **7.9.4. Test Setup**

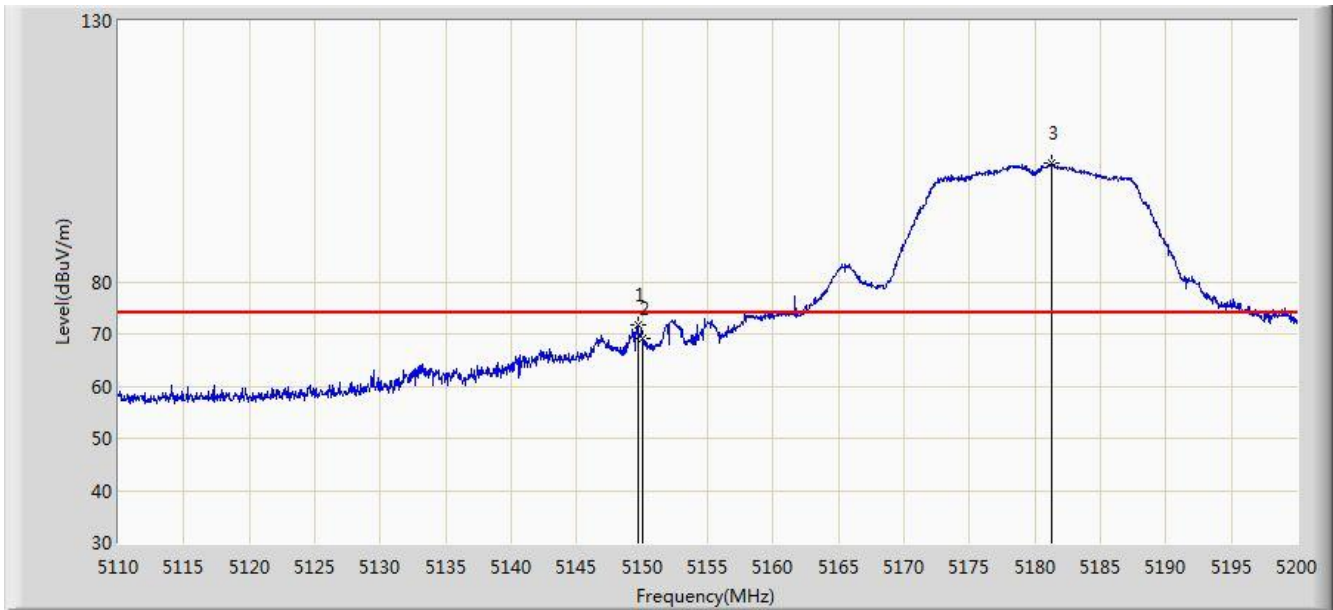


Note: This item was performed with the WIFI antenna connected.



### 7.9.5.Test Result

Site: AC1	Time: 2018/03/08 - 02:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5180MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.645	71.629	65.507	-2.371	74.000	6.122	PK
2			5150.000	69.197	63.074	-4.803	74.000	6.123	PK
3		*	5181.235	102.632	96.545	N/A	N/A	6.087	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2018/03/08 - 03:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5180MHz	

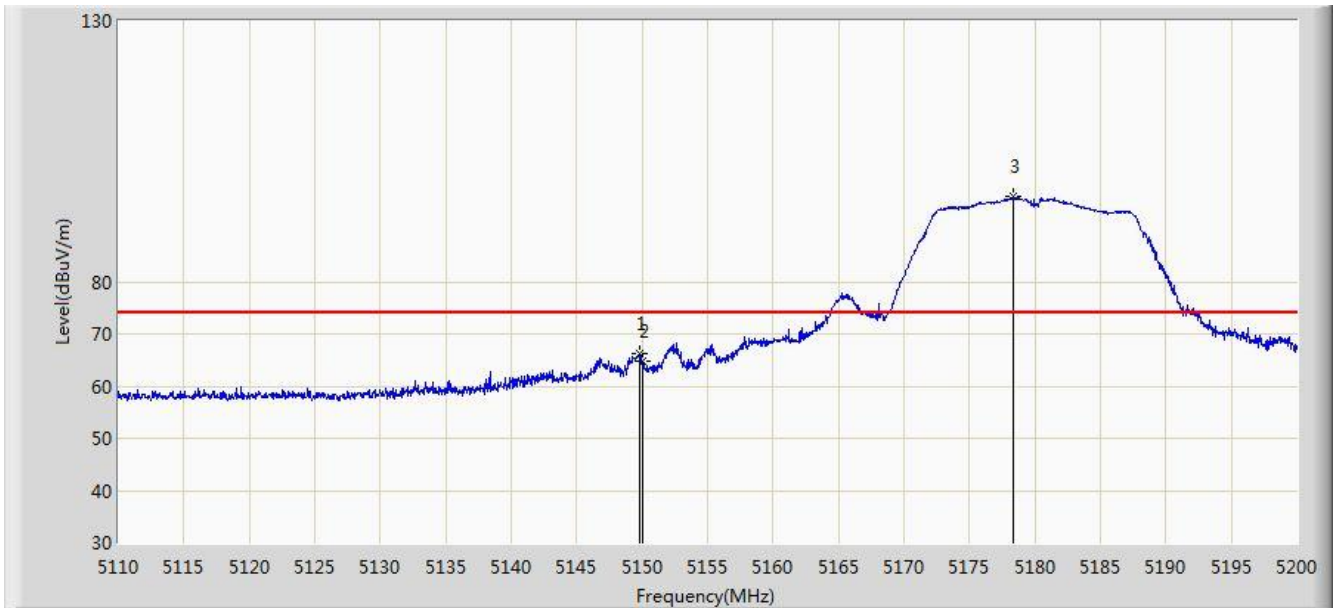


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	47.024	40.901	-6.976	54.000	6.123	AV
2		*	5179.030	91.025	84.932	N/A	N/A	6.093	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2018/03/08 - 03:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5180MHz	

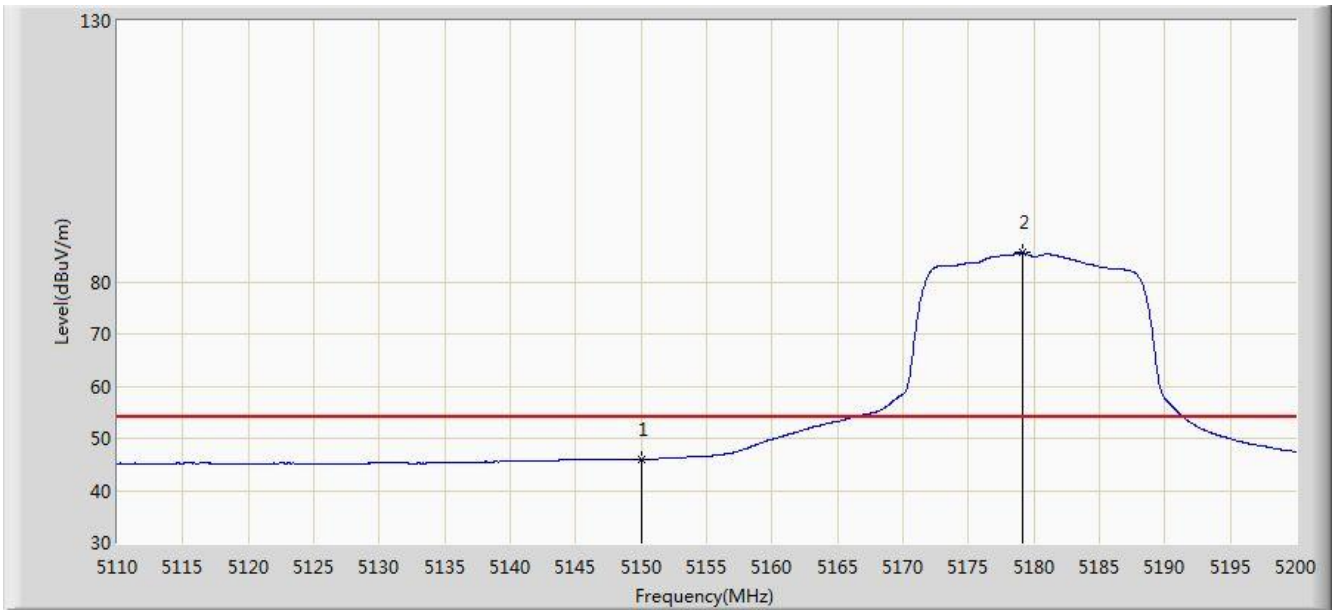


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.780	66.355	60.233	-7.645	74.000	6.122	PK
2			5150.000	64.680	58.557	-9.320	74.000	6.123	PK
3		*	5178.355	96.236	90.141	N/A	N/A	6.096	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2018/03/08 - 03:06
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5180MHz	

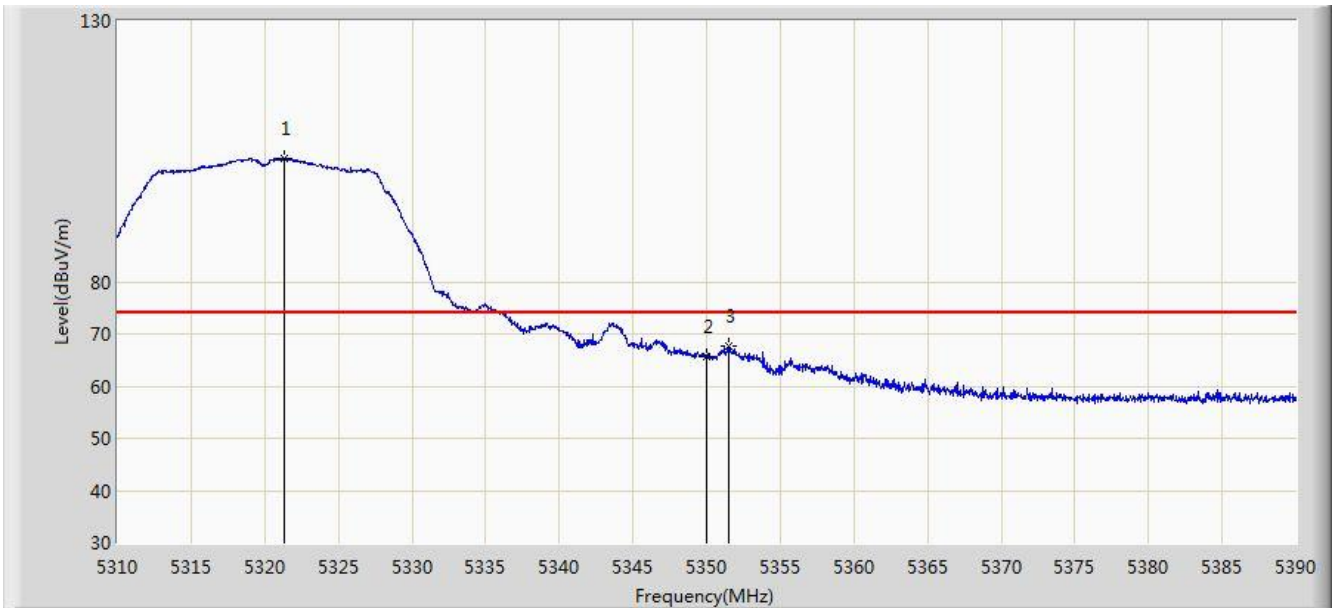


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	46.000	39.877	-8.000	54.000	6.123	AV
2		*	5179.165	85.536	79.443	N/A	N/A	6.093	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2018/03/08 - 03:08
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5320MHz	

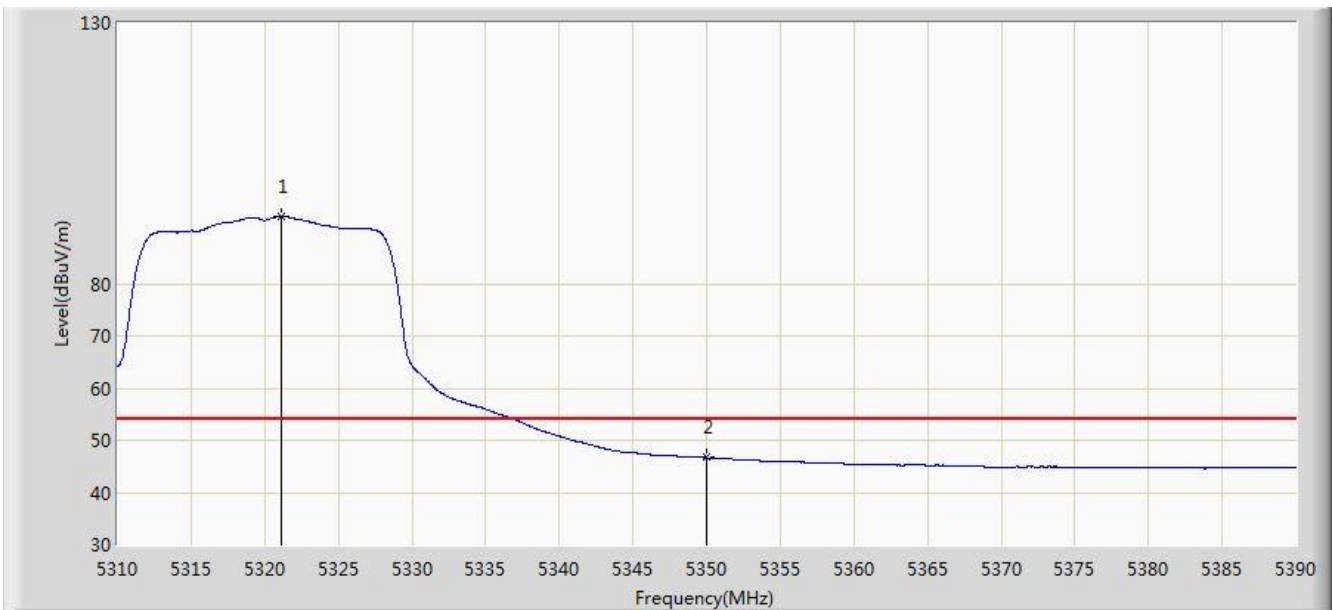


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5321.280	103.759	98.013	N/A	N/A	5.746	PK
2			5350.000	65.600	59.617	-8.400	74.000	5.983	PK
3			5351.520	67.661	61.663	-6.339	74.000	5.998	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2018/03/08 - 03:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5320MHz	

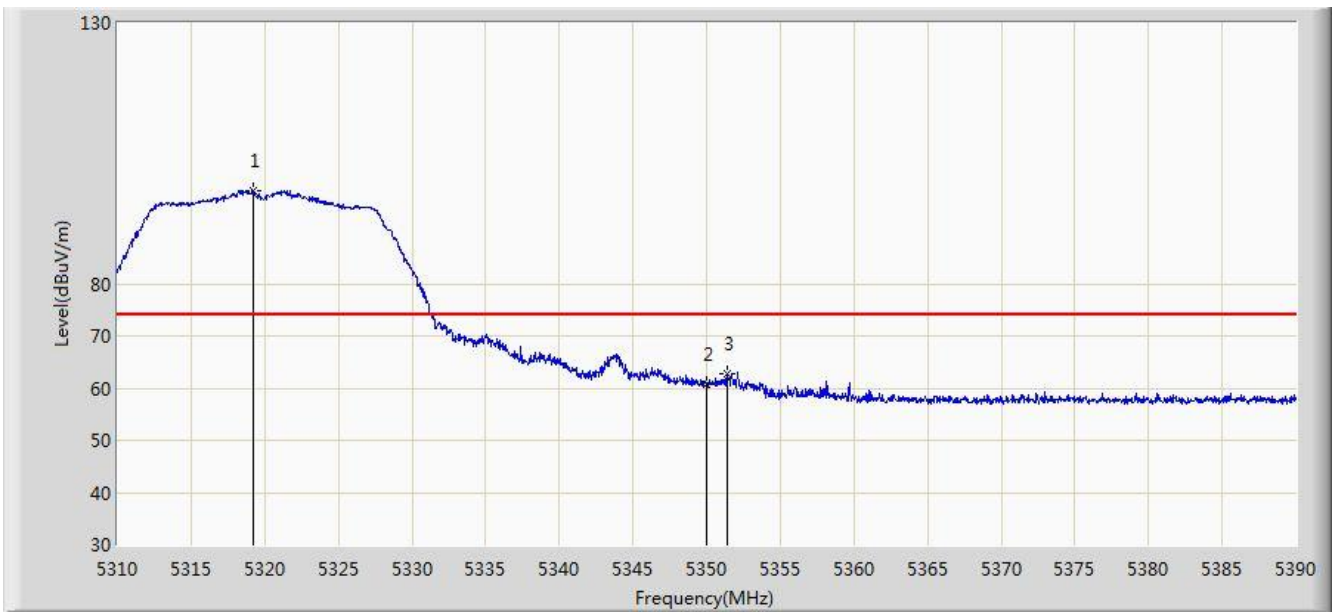


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5321.120	92.882	87.137	N/A	N/A	5.744	AV
2			5350.000	46.677	40.694	-7.323	54.000	5.983	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2018/03/08 - 03:12
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Communication Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5320MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5319.240	97.926	92.194	N/A	N/A	5.732	PK
2			5350.000	60.630	54.647	-13.370	74.000	5.983	PK
3			5351.360	62.841	56.845	-11.159	74.000	5.996	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)