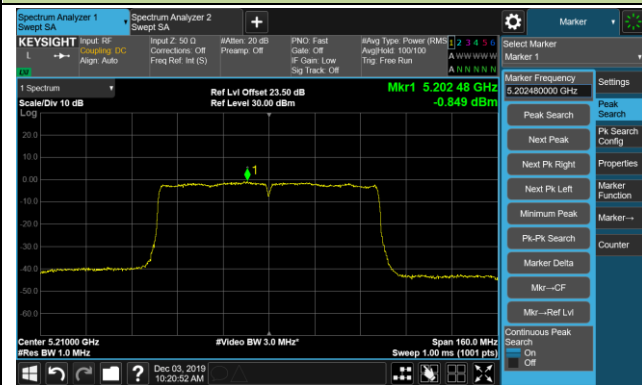
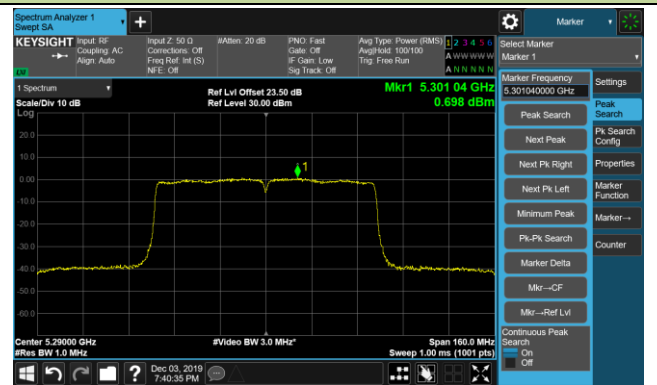


802.11ac-VHT80 Power Spectral Density - Ant 8 / Ant 8 + 9

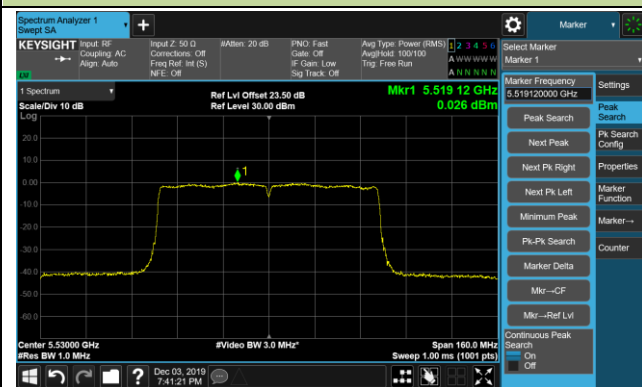
Channel 42 (5210MHz)



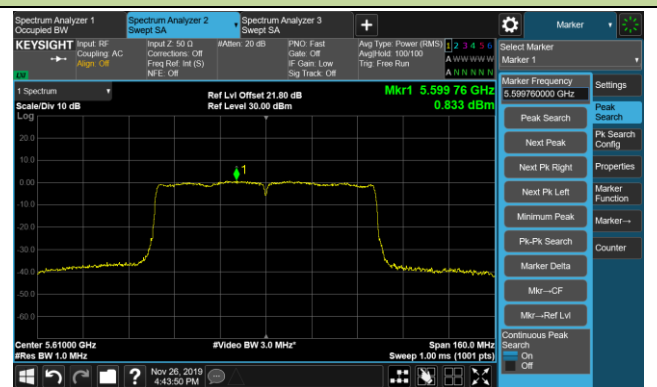
Channel 58 (5290MHz)



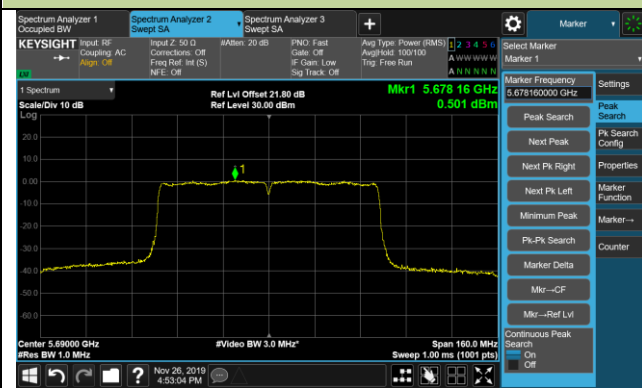
Channel 106 (5530MHz)



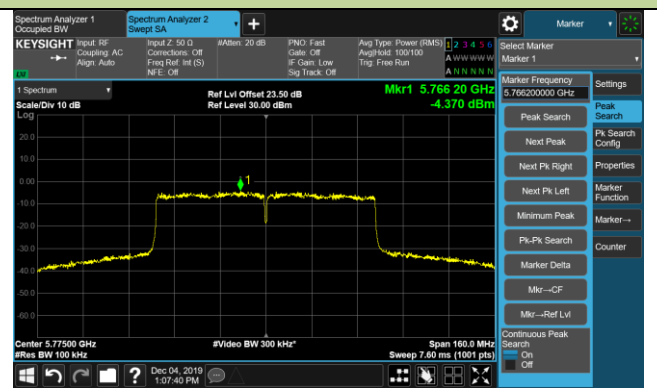
Channel 122 (5610MHz)



Channel 138 (5690MHz)

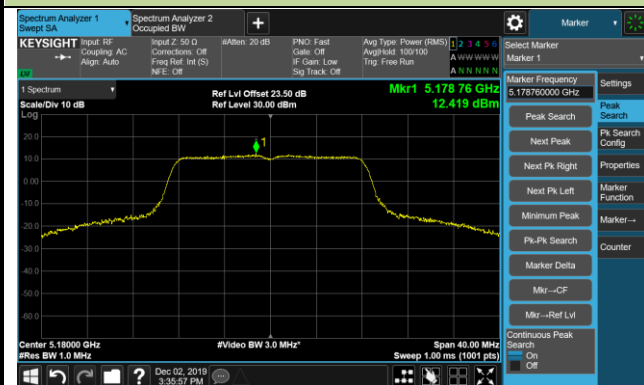


Channel 155 (5775MHz)

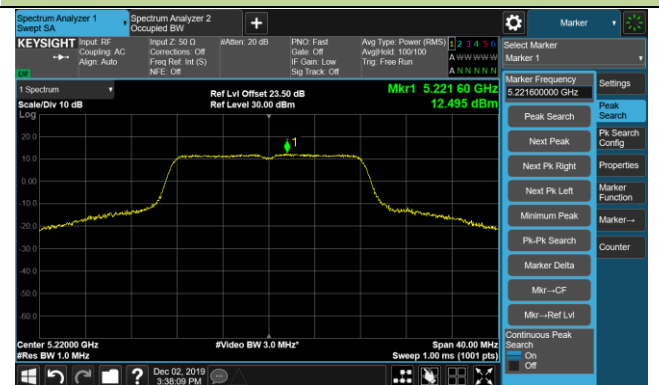


802.11a Power Spectral Density - Ant 9 / Ant 8 + 9

Channel 36 (5180MHz)



Channel 44 (5220MHz)



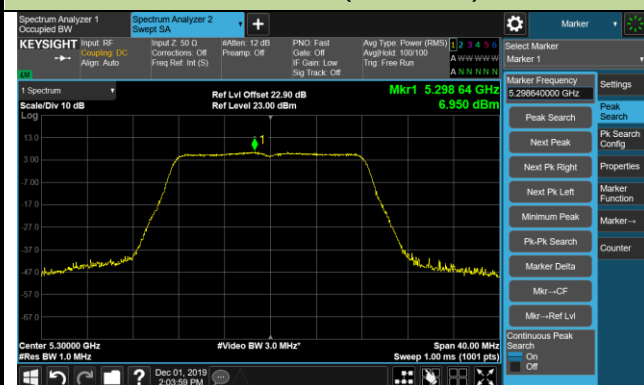
Channel 48 (5240MHz)



Channel 52 (5260MHz)



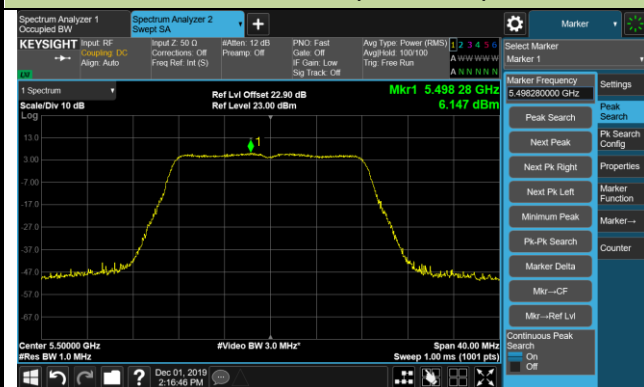
Channel 60 (5300MHz)



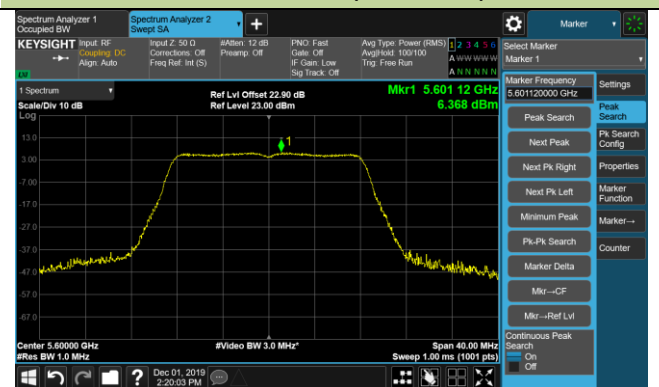
Channel 64 (5320MHz)



Channel 100 (5500MHz)

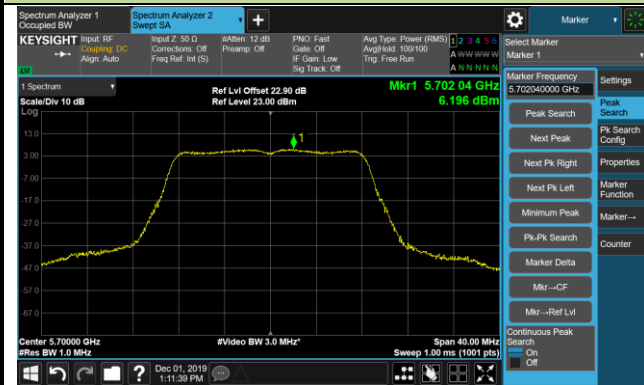


Channel 100 (5600MHz)

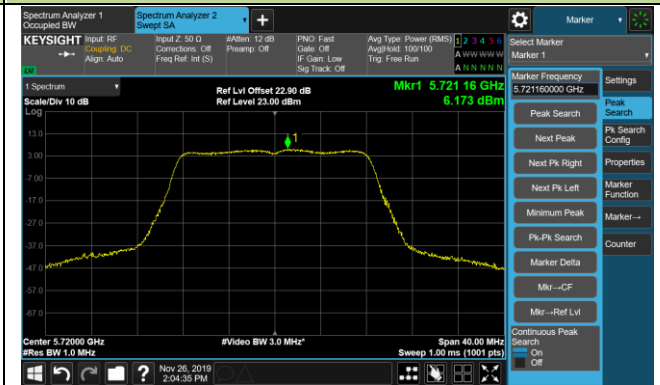


802.11a Power Spectral Density - Ant 9 / Ant 8 + 9

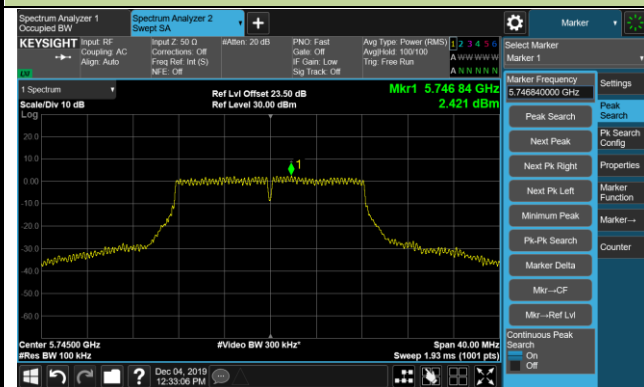
Channel 140 (5700MHz)



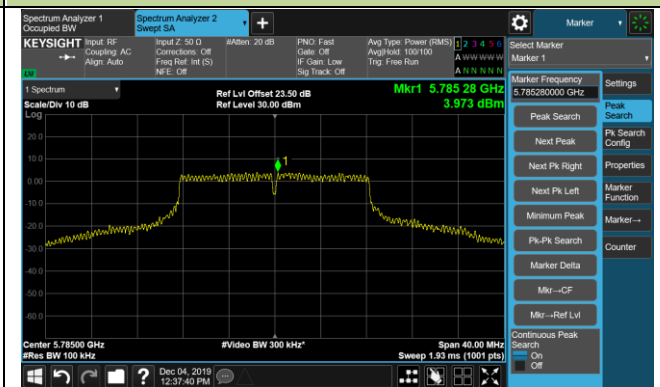
Channel 144 (5720MHz)



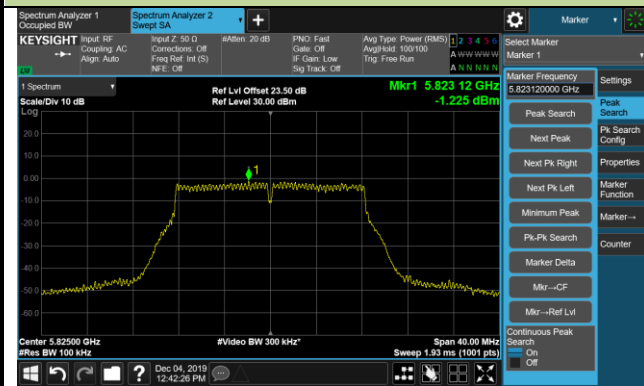
Channel 149 (5745MHz)



Channel 157 (5785MHz)

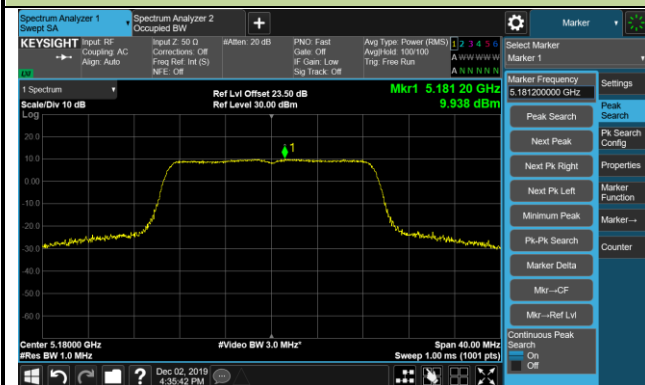


Channel 165 (5825MHz)

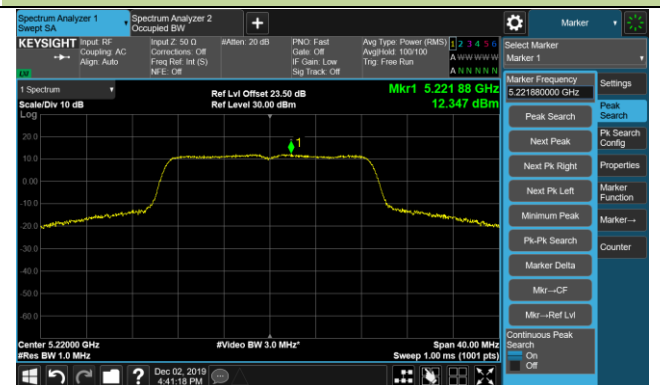


802.11n-HT20 Power Spectral Density - Ant 9 / Ant 8 + 9

Channel 36 (5180MHz)



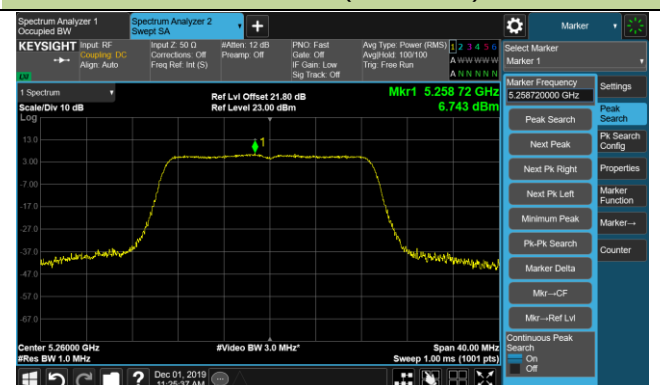
Channel 44 (5220MHz)



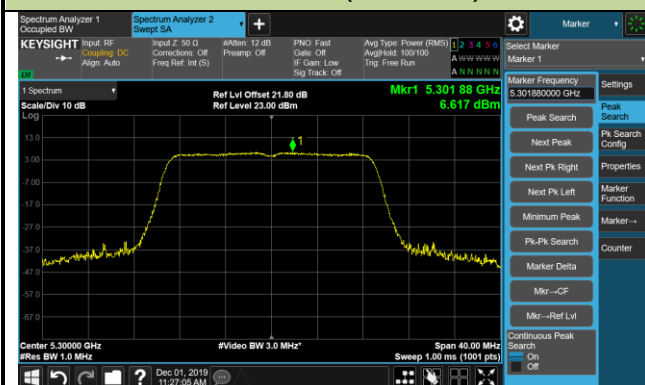
Channel 48 (5240MHz)



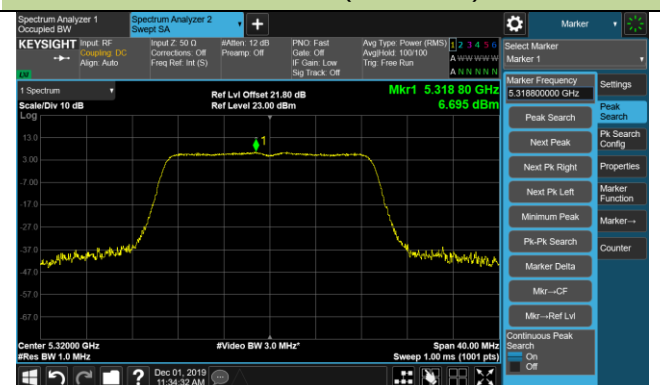
Channel 52 (5260MHz)



Channel 60 (5300MHz)



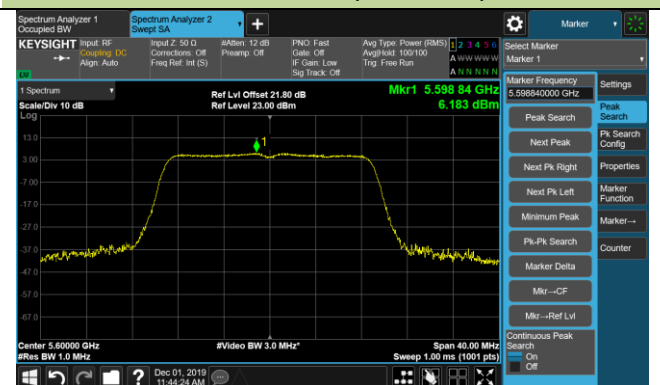
Channel 64 (5320MHz)



Channel 100 (5500MHz)

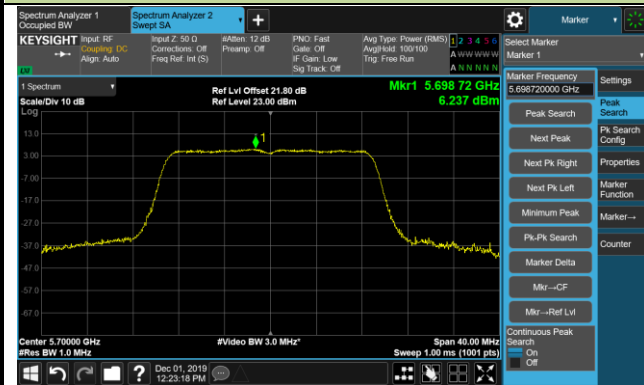


Channel 100 (5600MHz)

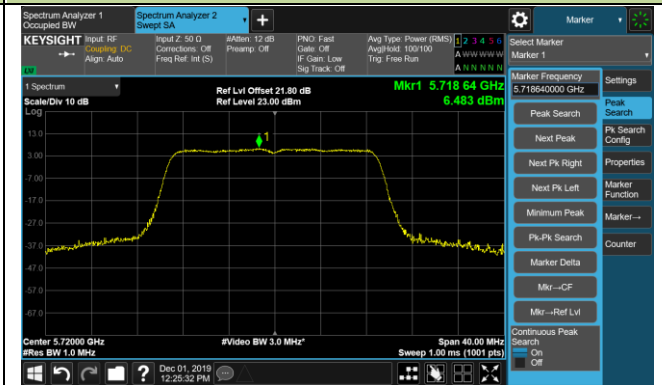


802.11n-HT20 Power Spectral Density - Ant 9 / Ant 8 + 9

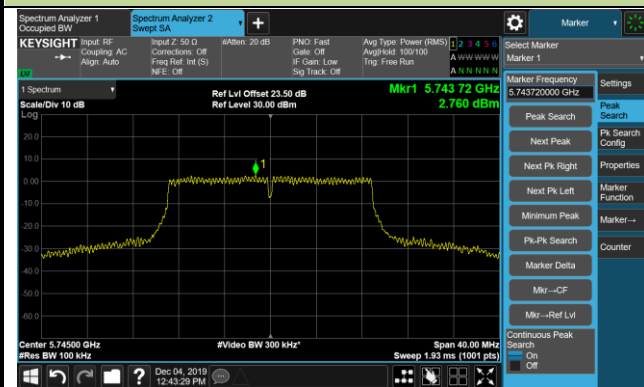
Channel 140 (5700MHz)



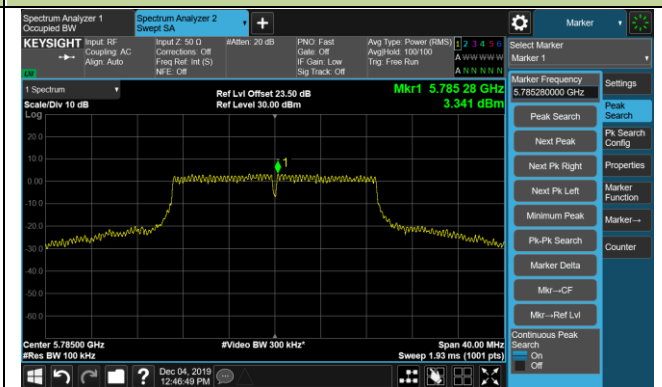
Channel 144 (5720MHz)



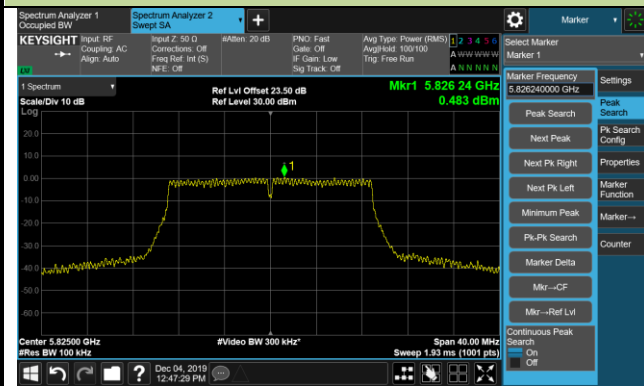
Channel 149 (5745MHz)



Channel 157 (5785MHz)

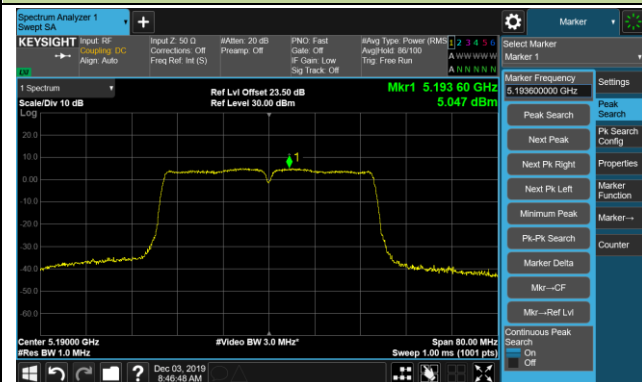


Channel 165 (5825MHz)



802.11n-HT40 Power Spectral Density - Ant 9 / Ant 8 + 9

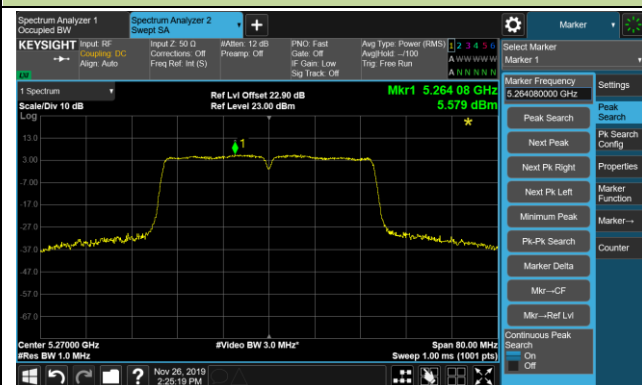
Channel 38 (5190MHz)



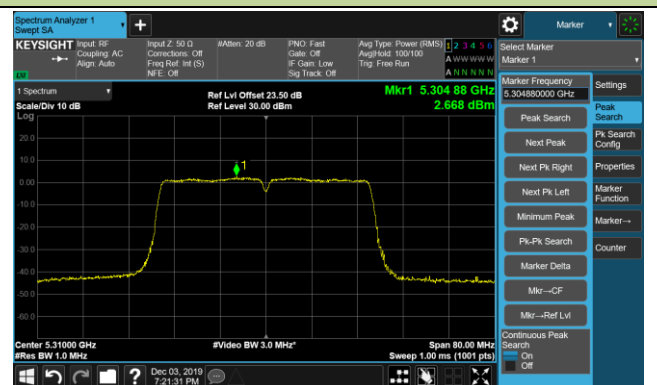
Channel 46 (5230MHz)



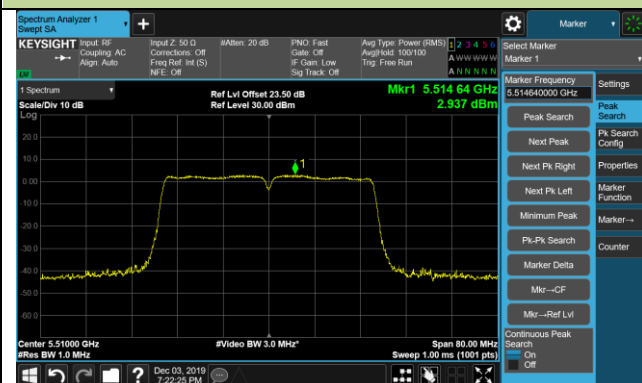
Channel 54 (5270MHz)



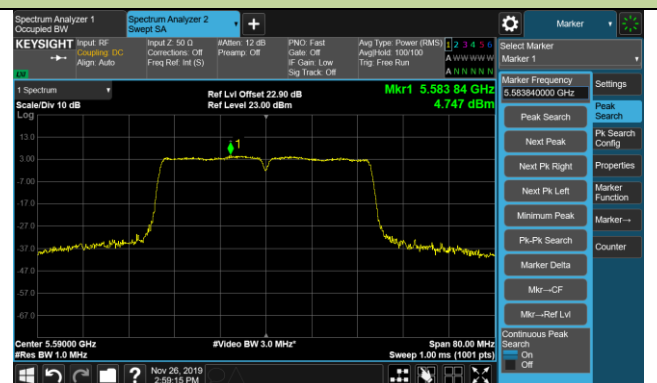
Channel 62 (5310MHz)



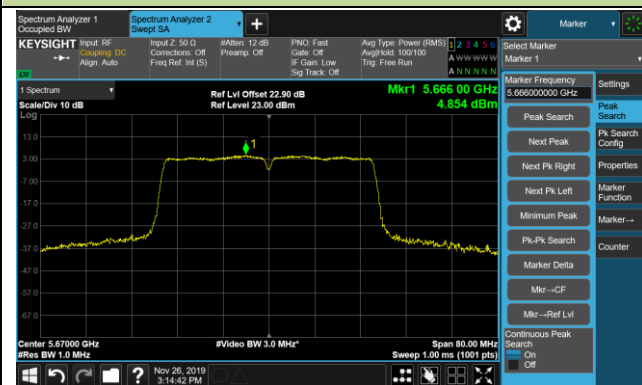
Channel 102 (5510MHz)



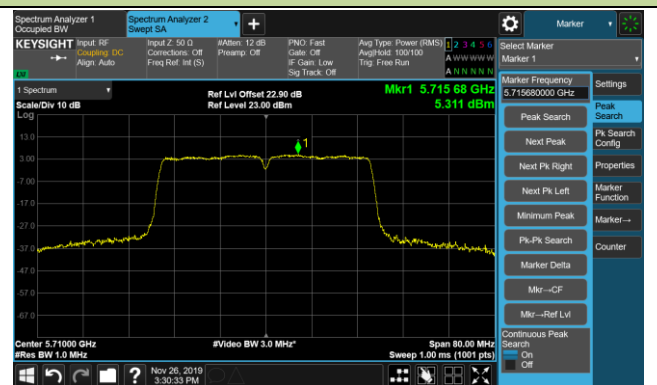
Channel 118 (5590MHz)



Channel 134 (5670MHz)

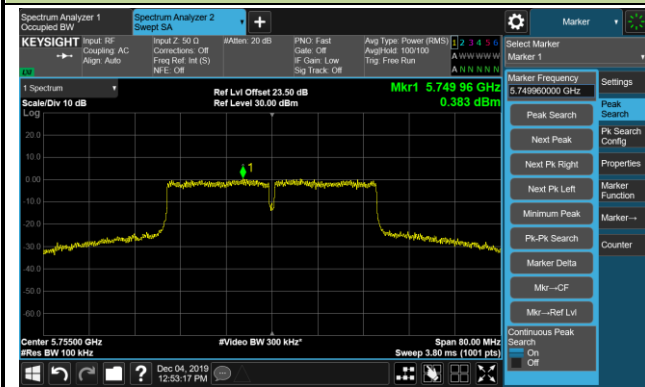


Channel 142 (5710MHz)

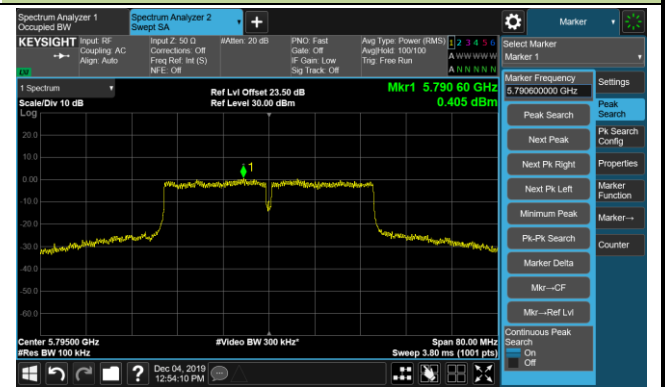


802.11n-HT40 Power Spectral Density - Ant 9 / Ant 8 + 9

Channel 151 (5755MHz)

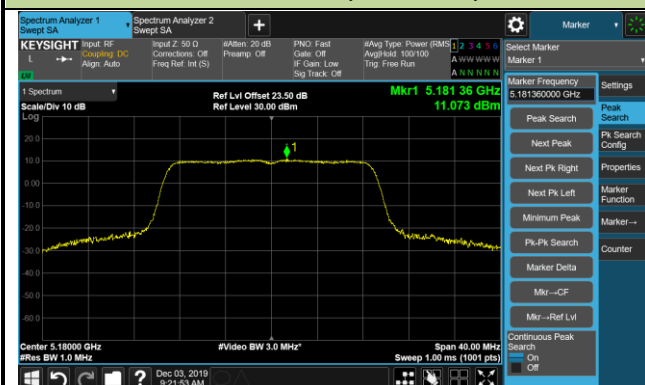


Channel 159 (5795MHz)

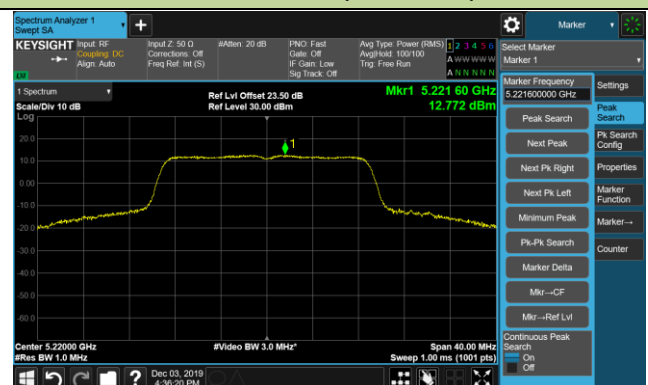


802.11ac-VHT20 Power Spectral Density - Ant 9 / Ant 8 + 9

Channel 36 (5180MHz)



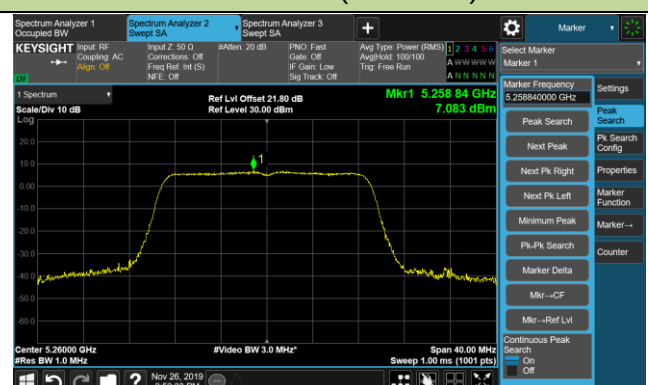
Channel 44 (5220MHz)



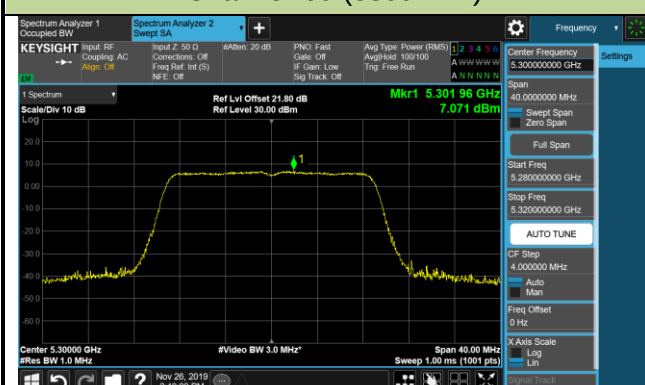
Channel 48 (5240MHz)



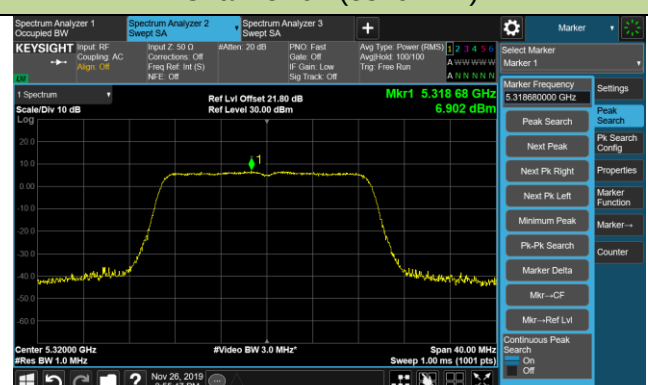
Channel 52 (5260MHz)



Channel 60 (5300MHz)



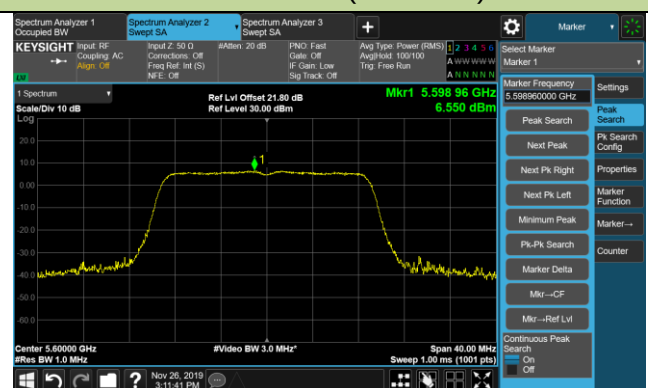
Channel 64 (5320MHz)



Channel 100 (5500MHz)

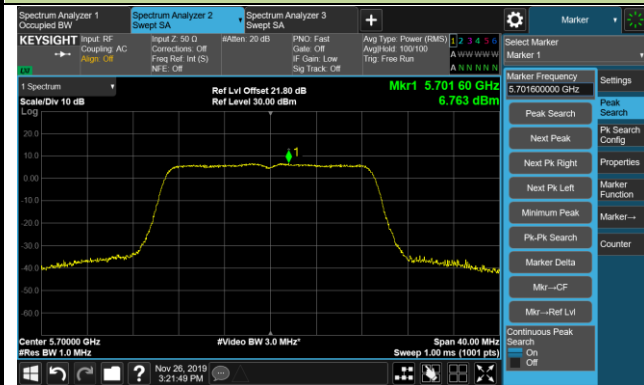


Channel 100 (5600MHz)

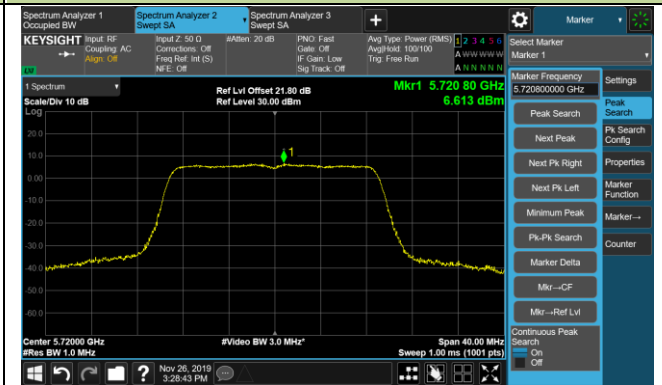


802.11ac-VHT20 Power Spectral Density - Ant 9 / Ant 8 + 9

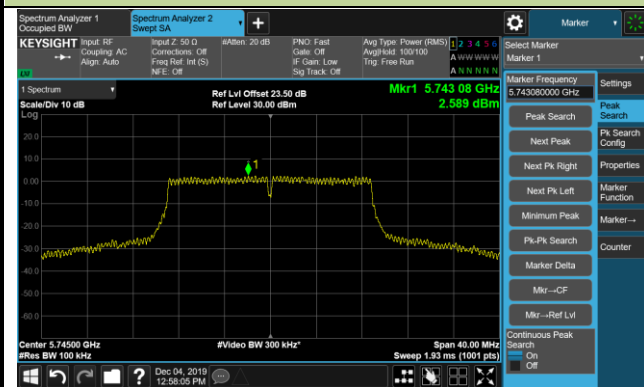
Channel 140 (5700MHz)



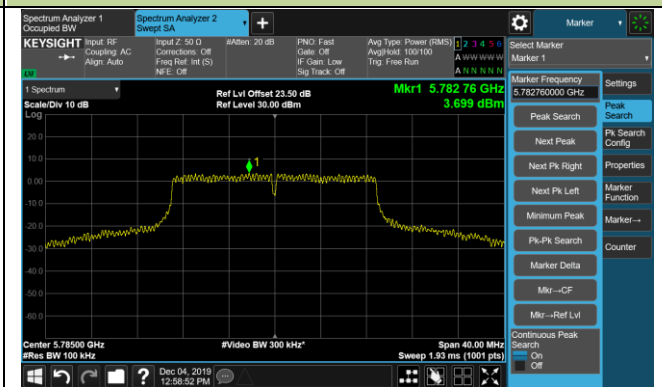
Channel 144 (5720MHz)



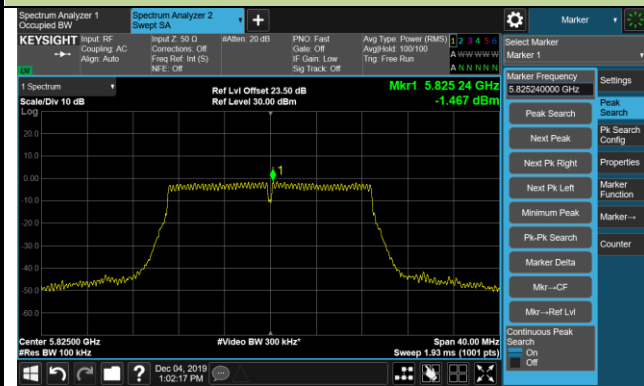
Channel 149 (5745MHz)



Channel 157 (5785MHz)

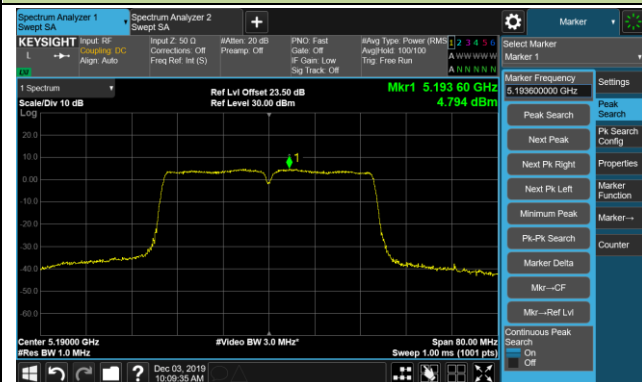


Channel 165 (5825MHz)



802.11ac-VHT40 Power Spectral Density - Ant 9 / Ant 8 + 9

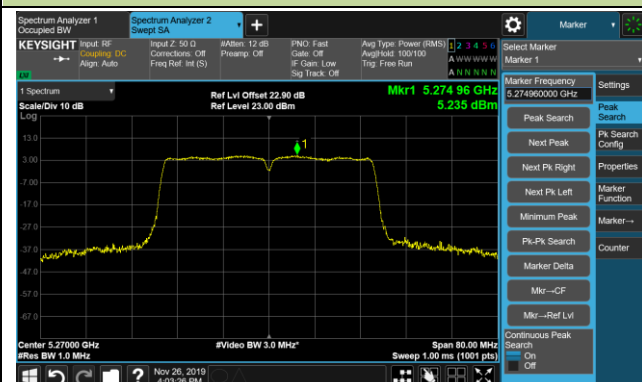
Channel 38 (5190MHz)



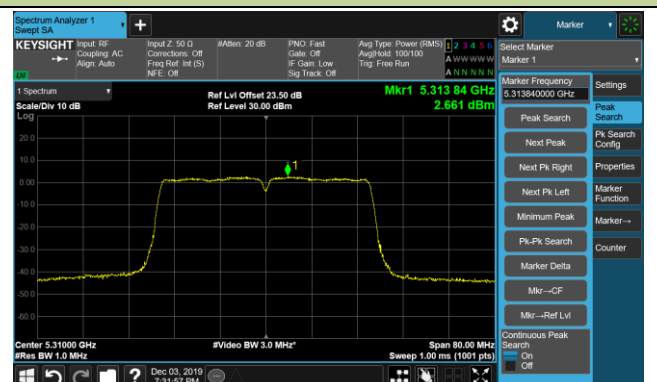
Channel 46 (5230MHz)



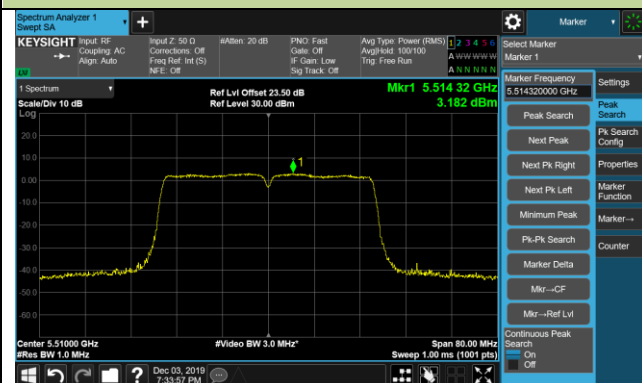
Channel 54 (5270MHz)



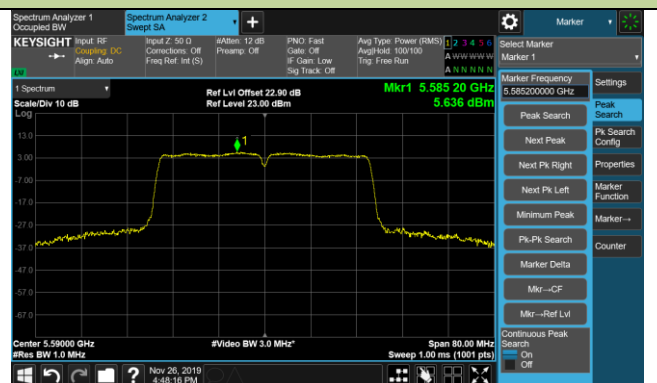
Channel 62 (5310MHz)



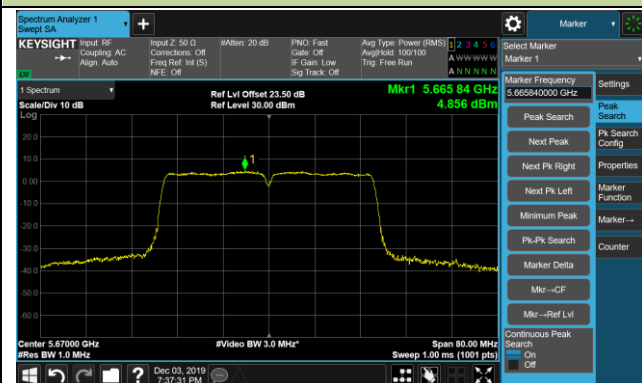
Channel 102 (5510MHz)



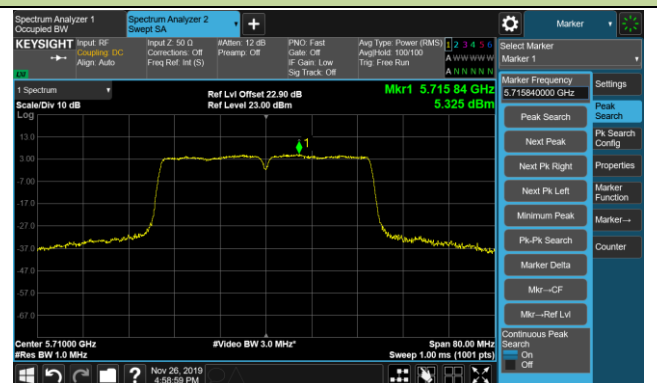
Channel 118 (5590MHz)



Channel 134 (5670MHz)

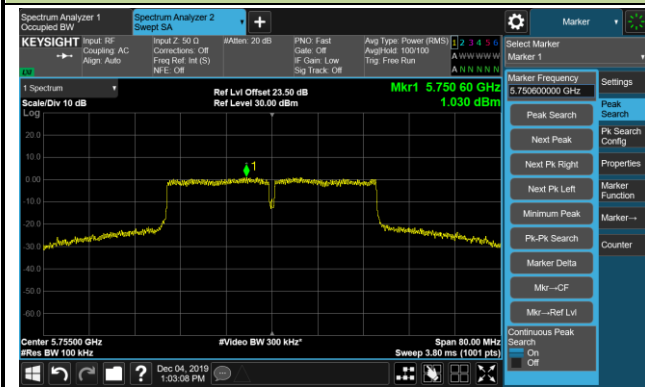


Channel 142 (5710MHz)

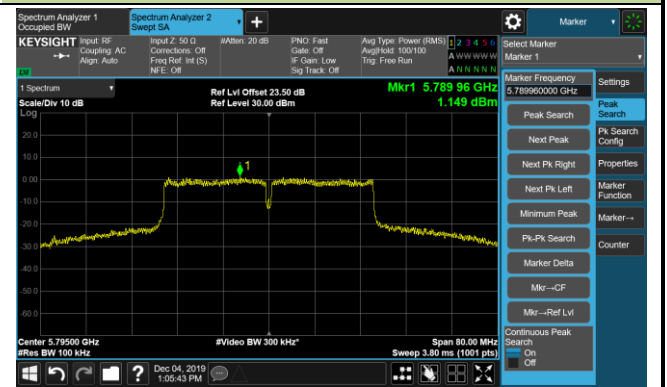


802.11ac-VHT40 Power Spectral Density - Ant 9 / Ant 8 + 9

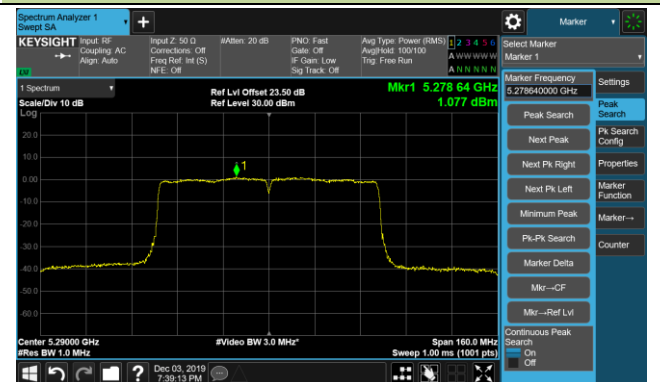
Channel 151 (5755MHz)



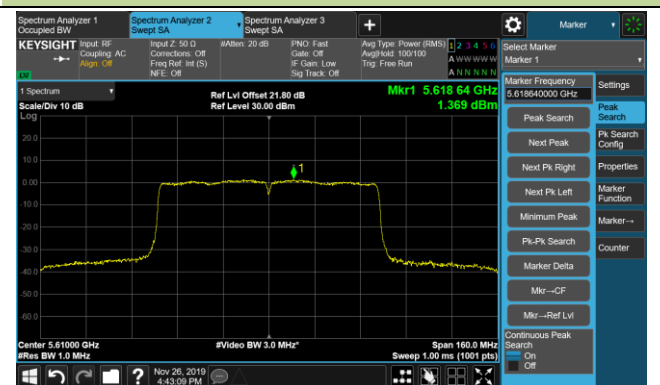
Channel 159 (5795MHz)



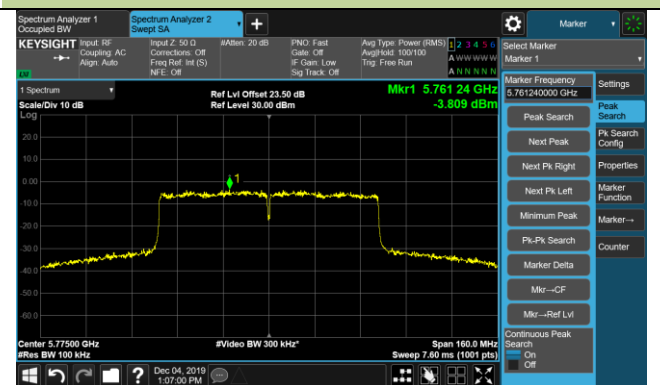
Channel 58 (5290MHz)



Channel 122 (5610MHz)



Channel 155 (5775MHz)



7.7. Frequency Stability Measurement

7.7.1. Test Limit

Manufactures of 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:

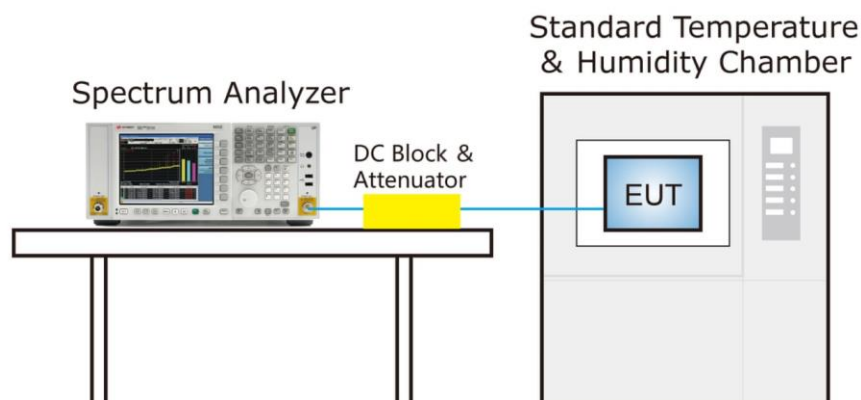
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain 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

Product	FastMile 4G Gateway	Temperature	0 ~ 45°C
Test Engineer	David Lv	Relative Humidity	48 ~ 55%RH
Test Site	TR3	Test Data	2019/12/15
Test Mode	5500MHz (Carrier Mode)		

Voltage (%)	Power (VAC)	Temp (°C)	Frequency Tolerance (ppm)
100%	120	0	4.44
		+ 10	-0.43
		+ 20 (Ref)	-4.88
		+ 30	-5.94
		+ 40	-6.10
		+ 45	-5.77
115%	138	+ 20	-4.44
85%	102	+ 20	-4.14

Note: Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)} *10⁶.

7.8. Radiated Spurious Emission Measurement

7.8.1. Test Limit

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

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
> 1000MHz	1MHz

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

Peak Measurements above 1GHz

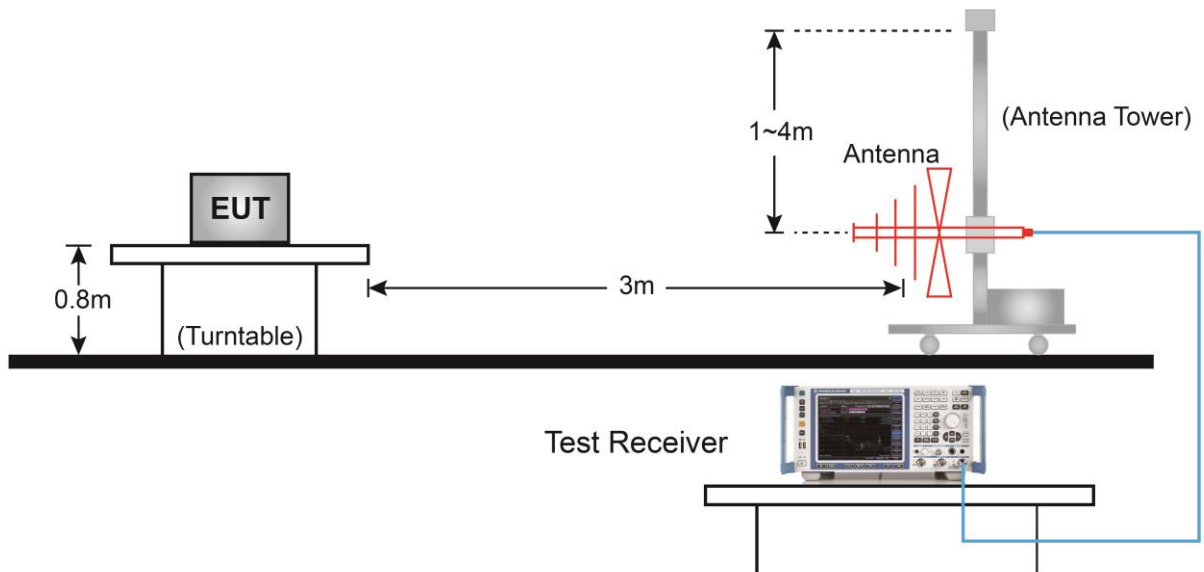
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

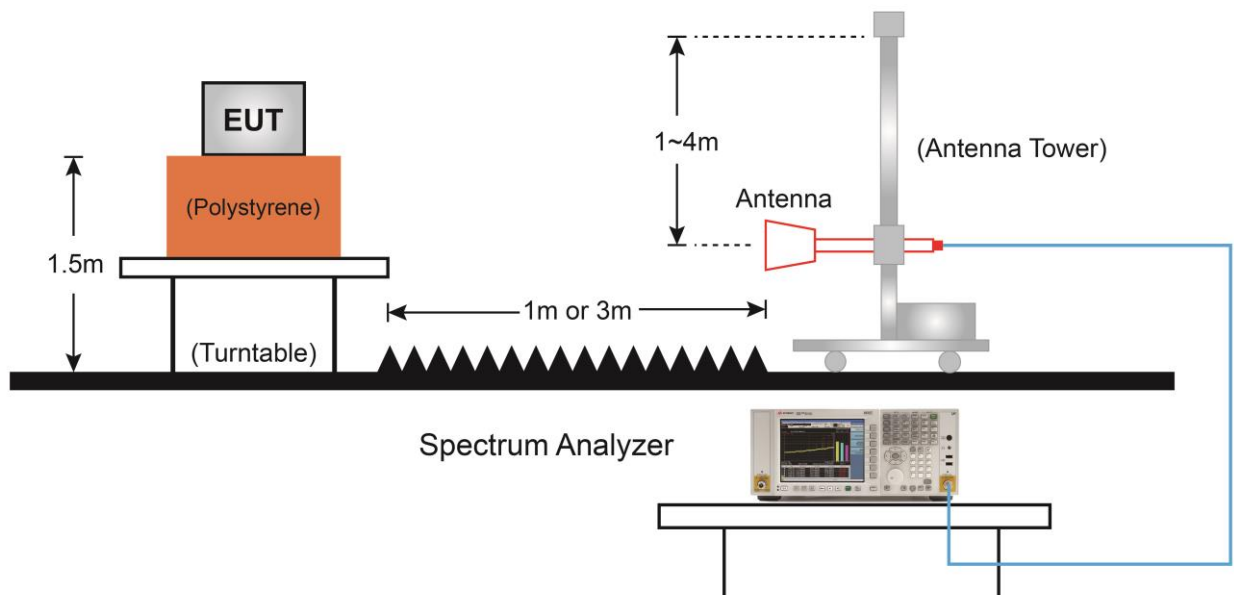
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

7.8.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.8.5. Test Result

Product	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7332.5	35.7	11.7	47.4	74.0	-26.6	Peak	Horizontal
	8199.5	35.4	12.4	47.8	74.0	-26.2	Peak	Horizontal
*	8786.0	34.9	14.1	49.0	68.2	-19.2	Peak	Horizontal
*	9602.0	35.7	16.2	51.9	68.2	-16.3	Peak	Horizontal
	7536.5	36.2	11.8	48.0	74.0	-26.0	Peak	Vertical
	8242.0	37.5	12.2	49.7	74.0	-24.3	Peak	Vertical
*	8692.5	35.6	14.0	49.6	68.2	-18.6	Peak	Vertical
*	9993.0	36.6	16.7	53.3	68.2	-14.9	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7604.5	35.3	11.8	47.1	74.0	-26.9	Peak	Horizontal
	8191.0	36.0	12.4	48.4	74.0	-25.6	Peak	Horizontal
*	8769.0	35.2	14.2	49.4	68.2	-18.8	Peak	Horizontal
*	10214.0	35.8	17.0	52.8	68.2	-15.4	Peak	Horizontal
	7443.0	37.8	12.1	49.9	74.0	-24.1	Peak	Vertical
	8157.0	36.7	12.5	49.2	74.0	-24.8	Peak	Vertical
*	8692.5	36.2	14.0	50.2	68.2	-18.0	Peak	Vertical
*	10001.5	35.9	16.8	52.7	68.2	-15.5	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7434.5	35.6	11.9	47.5	74.0	-26.5	Peak	Horizontal
	8361.0	36.4	12.4	48.8	74.0	-25.2	Peak	Horizontal
*	8658.5	35.1	13.7	48.8	68.2	-19.4	Peak	Horizontal
*	9857.0	34.8	16.8	51.6	68.2	-16.6	Peak	Horizontal
	7553.5	35.3	11.7	47.0	74.0	-27.0	Peak	Vertical
	8165.5	35.7	12.4	48.1	74.0	-25.9	Peak	Vertical
*	8811.5	34.9	14.3	49.2	68.2	-19.0	Peak	Vertical
*	9967.5	36.5	16.7	53.2	68.2	-15.0	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7451.5	37.5	12.0	49.5	74.0	-24.5	Peak	Horizontal
	8199.5	37.1	12.4	49.5	74.0	-24.5	Peak	Horizontal
*	8692.5	36.3	14.0	50.3	68.2	-17.9	Peak	Horizontal
*	10197.0	36.2	17.1	53.3	68.2	-14.9	Peak	Horizontal
	7570.5	35.5	11.7	47.2	74.0	-26.8	Peak	Vertical
	8429.0	35.3	12.7	48.0	74.0	-26.0	Peak	Vertical
*	8769.0	34.9	14.2	49.1	68.2	-19.1	Peak	Vertical
*	10086.5	34.3	16.8	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7604.5	35.5	11.8	47.3	74.0	-26.7	Peak	Horizontal
	8250.5	36.6	12.2	48.8	74.0	-25.2	Peak	Horizontal
*	8837.0	34.5	14.3	48.8	68.2	-19.4	Peak	Horizontal
*	9831.5	34.6	16.9	51.5	68.2	-16.7	Peak	Horizontal
	7621.5	36.4	11.6	48.0	74.0	-26.0	Peak	Vertical
	8199.5	35.6	12.4	48.0	74.0	-26.0	Peak	Vertical
*	8701.0	35.0	14.0	49.0	68.2	-19.2	Peak	Vertical
*	9670.0	36.5	16.6	53.1	68.2	-15.1	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7502.5	36.1	11.9	48.0	74.0	-26.0	Peak	Horizontal
	8369.5	37.1	12.3	49.4	74.0	-24.6	Peak	Horizontal
*	8854.0	36.5	14.4	50.9	68.2	-17.3	Peak	Horizontal
*	9823.0	37.1	16.9	54.0	68.2	-14.2	Peak	Horizontal
	7460.0	36.5	11.9	48.4	74.0	-25.6	Peak	Vertical
	8310.0	36.0	12.2	48.2	74.0	-25.8	Peak	Vertical
*	8675.5	35.4	13.8	49.2	68.2	-19.0	Peak	Vertical
*	9933.5	34.9	16.9	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7621.5	36.4	11.6	48.0	74.0	-26.0	Peak	Horizontal
	8233.5	36.3	12.3	48.6	74.0	-25.4	Peak	Horizontal
*	8888.0	35.7	14.2	49.9	68.2	-18.3	Peak	Horizontal
*	9993.0	34.5	16.7	51.2	68.2	-17.0	Peak	Horizontal
	7502.5	35.5	11.9	47.4	74.0	-26.6	Peak	Vertical
	8386.5	35.0	12.4	47.4	74.0	-26.6	Peak	Vertical
*	8735.0	34.7	14.0	48.7	68.2	-19.5	Peak	Vertical
*	10010.0	35.2	16.8	52.0	68.2	-16.2	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7468.5	37.2	11.8	49.0	74.0	-25.0	Peak	Horizontal
	8327.0	36.3	12.2	48.5	74.0	-25.5	Peak	Horizontal
*	8854.0	35.1	14.4	49.5	68.2	-18.7	Peak	Horizontal
*	9636.0	36.4	16.2	52.6	68.2	-15.6	Peak	Horizontal
	7366.5	36.0	11.9	47.9	74.0	-26.1	Peak	Vertical
	8208.0	35.9	12.3	48.2	74.0	-25.8	Peak	Vertical
*	8692.5	34.7	14.0	48.7	68.2	-19.5	Peak	Vertical
*	9976.0	35.4	16.6	52.0	68.2	-16.2	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7502.5	36.9	11.9	48.8	74.0	-25.2	Peak	Horizontal
	8250.5	36.7	12.2	48.9	74.0	-25.1	Peak	Horizontal
*	8692.5	36.8	14.0	50.8	68.2	-17.4	Peak	Horizontal
*	9993.0	36.3	16.7	53.0	68.2	-15.2	Peak	Horizontal
	7468.5	37.1	11.8	48.9	74.0	-25.1	Peak	Vertical
	8199.5	37.2	12.4	49.6	74.0	-24.4	Peak	Vertical
*	8828.5	35.6	14.3	49.9	68.2	-18.3	Peak	Vertical
*	10010.0	34.7	16.8	51.5	68.2	-16.7	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7502.5	35.6	11.9	47.5	74.0	-26.5	Peak	Horizontal
	8327.0	35.1	12.2	47.3	74.0	-26.7	Peak	Horizontal
*	8811.5	34.5	14.3	48.8	68.2	-19.4	Peak	Horizontal
*	9976.0	36.4	16.6	53.0	68.2	-15.2	Peak	Horizontal
	7689.5	37.9	11.6	49.5	74.0	-24.5	Peak	Vertical
	8310.0	35.3	12.2	47.5	74.0	-26.5	Peak	Vertical
*	8743.5	34.7	14.1	48.8	68.2	-19.4	Peak	Vertical
*	9950.5	35.0	16.9	51.9	68.2	-16.3	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	11489.5	41.3	17.7	59.0	74.0	-15.0	Peak	Horizontal
	11489.5	30.5	17.7	48.2	54.0	-5.8	Average	Horizontal
	12220.0	37.2	17.1	54.3	74.0	-19.7	Peak	Horizontal
	12220.0	31.1	17.1	48.2	54.0	-5.8	Average	Horizontal
*	12959.5	35.7	17.9	53.6	68.2	-14.6	Peak	Horizontal
*	14039.0	35.5	19.7	55.2	68.2	-13.0	Peak	Horizontal
	7536.5	37.0	11.8	48.8	74.0	-25.2	Peak	Vertical
	8225.0	38.0	12.4	50.4	74.0	-23.6	Peak	Vertical
*	13138.0	34.9	18.0	52.9	68.2	-15.3	Peak	Vertical
*	13894.5	37.8	19.4	57.2	68.2	-11.0	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	11569.2	44.7	17.4	62.1	74.0	-11.9	Peak	Horizontal
	11569.2	36.0	17.4	53.4	54.0	-0.6	Average	Horizontal
	12509.0	37.4	17.0	54.4	74.0	-19.6	Peak	Horizontal
	12509.0	30.8	17.0	47.8	54.0	-6.2	Average	Horizontal
*	15220.5	35.1	19.1	54.2	68.2	-14.0	Peak	Horizontal
*	17362.5	40.5	21.2	61.7	68.2	-6.5	Peak	Horizontal
	11569.4	42.3	17.4	59.7	74.0	-14.3	Peak	Vertical
	11569.4	32.0	17.4	49.4	54.0	-4.6	Average	Vertical
	12347.5	35.9	16.9	52.8	74.0	-21.2	Peak	Vertical
*	14056.0	36.4	19.6	56.0	68.2	-12.2	Peak	Vertical
*	17354.0	41.5	20.9	62.4	68.2	-5.8	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)

Product	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11a - Ant 8	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
	7434.5	37.4	11.9	49.3	74.0	-24.7	Peak	Horizontal
	8352.5	36.1	12.3	48.4	74.0	-25.6	Peak	Horizontal
*	8828.5	35.8	14.3	50.1	68.2	-18.1	Peak	Horizontal
*	9942.0	35.4	16.9	52.3	68.2	-15.9	Peak	Horizontal
	7443.0	36.6	12.1	48.7	74.0	-25.3	Peak	Vertical
	8310.0	36.1	12.2	48.3	74.0	-25.7	Peak	Vertical
*	8769.0	35.6	14.2	49.8	68.2	-18.4	Peak	Vertical
*	9984.5	35.9	16.7	52.6	68.2	-15.6	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7596.0	36.8	11.8	48.6	74.0	-25.4	Peak	Horizontal
	8420.5	36.0	12.5	48.5	74.0	-25.5	Peak	Horizontal
*	8701.0	35.2	14.0	49.2	68.2	-19.0	Peak	Horizontal
*	10103.5	35.7	17.0	52.7	68.2	-15.5	Peak	Horizontal
	7689.5	37.1	11.6	48.7	74.0	-25.3	Peak	Vertical
	8310.0	36.1	12.2	48.3	74.0	-25.7	Peak	Vertical
*	8811.5	35.2	14.3	49.5	68.2	-18.7	Peak	Vertical
*	9763.5	35.3	16.7	52.0	68.2	-16.2	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7545.0	36.5	11.7	48.2	74.0	-25.8	Peak	Horizontal
	8335.5	36.5	12.2	48.7	74.0	-25.3	Peak	Horizontal
*	8862.5	35.5	14.4	49.9	68.2	-18.3	Peak	Horizontal
*	9721.0	35.5	16.7	52.2	68.2	-16.0	Peak	Horizontal
	7545.0	35.9	11.7	47.6	74.0	-26.4	Peak	Vertical
	8412.0	36.6	12.3	48.9	74.0	-25.1	Peak	Vertical
*	8692.5	35.6	14.0	49.6	68.2	-18.6	Peak	Vertical
*	9891.0	35.4	16.9	52.3	68.2	-15.9	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7485.5	36.4	11.8	48.2	74.0	-25.8	Peak	Horizontal
	8429.0	36.6	12.7	49.3	74.0	-24.7	Peak	Horizontal
*	8684.0	35.5	13.9	49.4	68.2	-18.8	Peak	Horizontal
*	9950.5	35.4	16.9	52.3	68.2	-15.9	Peak	Horizontal
	7477.0	35.8	11.7	47.5	74.0	-26.5	Peak	Vertical
	8165.5	35.5	12.4	47.9	74.0	-26.1	Peak	Vertical
*	8769.0	35.0	14.2	49.2	68.2	-19.0	Peak	Vertical
*	9831.5	33.9	16.9	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7570.5	35.5	11.7	47.2	74.0	-26.8	Peak	Horizontal
	8437.5	36.4	12.7	49.1	74.0	-24.9	Peak	Horizontal
*	8871.0	36.3	14.3	50.6	68.2	-17.6	Peak	Horizontal
*	10163.0	35.1	16.9	52.0	68.2	-16.2	Peak	Horizontal
	7570.5	35.7	11.7	47.4	74.0	-26.6	Peak	Vertical
	8395.0	36.0	12.4	48.4	74.0	-25.6	Peak	Vertical
*	8735.0	34.7	14.0	48.7	68.2	-19.5	Peak	Vertical
*	9593.5	34.2	16.3	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7536.5	35.6	11.8	47.4	74.0	-26.6	Peak	Horizontal
	8276.0	35.9	12.3	48.2	74.0	-25.8	Peak	Horizontal
*	8786.0	34.9	14.1	49.0	68.2	-19.2	Peak	Horizontal
*	9857.0	35.1	16.8	51.9	68.2	-16.3	Peak	Horizontal
	7587.5	35.3	11.7	47.0	74.0	-27.0	Peak	Vertical
	8165.5	35.2	12.4	47.6	74.0	-26.4	Peak	Vertical
*	8735.0	35.2	14.0	49.2	68.2	-19.0	Peak	Vertical
*	9789.0	34.7	16.8	51.5	68.2	-16.7	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7579.0	37.2	11.6	48.8	74.0	-25.2	Peak	Horizontal
	8225.0	36.2	12.4	48.6	74.0	-25.4	Peak	Horizontal
*	8735.0	35.0	14.0	49.0	68.2	-19.2	Peak	Horizontal
*	9857.0	33.7	16.8	50.5	68.2	-17.7	Peak	Horizontal
	7400.5	36.9	11.8	48.7	74.0	-25.3	Peak	Vertical
	8310.0	35.7	12.2	47.9	74.0	-26.1	Peak	Vertical
*	8794.5	34.5	14.2	48.7	68.2	-19.5	Peak	Vertical
*	9670.0	35.6	16.6	52.2	68.2	-16.0	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7536.5	34.9	11.8	46.7	74.0	-27.3	Peak	Horizontal
	8242.0	35.8	12.2	48.0	74.0	-26.0	Peak	Horizontal
*	8803.0	36.0	14.2	50.2	68.2	-18.0	Peak	Horizontal
*	10010.0	34.3	16.8	51.1	68.2	-17.1	Peak	Horizontal
	7596.0	35.2	11.8	47.0	74.0	-27.0	Peak	Vertical
	8454.5	34.9	12.6	47.5	74.0	-26.5	Peak	Vertical
*	8743.5	34.7	14.1	48.8	68.2	-19.4	Peak	Vertical
*	9899.5	34.8	16.9	51.7	68.2	-16.5	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7536.5	35.8	11.8	47.6	74.0	-26.4	Peak	Horizontal
	8276.0	35.4	12.3	47.7	74.0	-26.3	Peak	Horizontal
*	8794.5	34.7	14.2	48.9	68.2	-19.3	Peak	Horizontal
*	10163.0	34.8	16.9	51.7	68.2	-16.5	Peak	Horizontal
	7647.0	37.1	11.4	48.5	74.0	-25.5	Peak	Vertical
	8216.5	35.5	12.3	47.8	74.0	-26.2	Peak	Vertical
*	8769.0	34.8	14.2	49.0	68.2	-19.2	Peak	Vertical
*	9942.0	34.4	16.9	51.3	68.2	-16.9	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7434.5	35.4	11.9	47.3	74.0	-26.7	Peak	Horizontal
	8250.5	36.5	12.2	48.7	74.0	-25.3	Peak	Horizontal
*	8769.0	34.3	14.2	48.5	68.2	-19.7	Peak	Horizontal
*	9814.5	33.7	16.8	50.5	68.2	-17.7	Peak	Horizontal
	7536.5	35.0	11.8	46.8	74.0	-27.2	Peak	Vertical
	8242.0	35.0	12.2	47.2	74.0	-26.8	Peak	Vertical
*	8667.0	34.1	13.8	47.9	68.2	-20.3	Peak	Vertical
*	9942.0	34.8	16.9	51.7	68.2	-16.5	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	FastMile 4G Gateway	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	52%
Test Site	AC2	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	7604.5	34.8	11.8	46.6	74.0	-27.4	Peak	Horizontal
	8276.0	35.7	12.3	48.0	74.0	-26.0	Peak	Horizontal
*	8769.0	34.9	14.2	49.1	68.2	-19.1	Peak	Horizontal
*	10027.0	35.5	16.8	52.3	68.2	-15.9	Peak	Horizontal
	7655.5	35.4	11.4	46.8	74.0	-27.2	Peak	Vertical
	8318.5	35.2	12.2	47.4	74.0	-26.6	Peak	Vertical
*	8811.5	34.7	14.3	49.0	68.2	-19.2	Peak	Vertical
*	9976.0	34.8	16.6	51.4	68.2	-16.8	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	10877.0	34.5	18.1	52.6	74.0	-21.4	Peak	Horizontal
	11488.7	40.9	17.7	58.6	74.0	-15.4	Peak	Horizontal
	11488.7	30.1	17.7	47.8	54.0	-6.2	Average	Horizontal
*	13078.5	33.7	17.9	51.6	68.2	-16.6	Peak	Horizontal
*	14209.0	35.0	20.3	55.3	68.2	-12.9	Peak	Horizontal
	8276.0	36.2	12.3	48.5	74.0	-25.5	Peak	Vertical
	11489.0	36.9	17.7	54.6	74.0	-19.4	Peak	Vertical
	11489.0	31.7	17.7	49.4	54.0	-4.6	Average	Vertical
*	13138.0	33.2	18.0	51.2	68.2	-17.0	Peak	Vertical
*	13869.0	34.2	19.2	53.4	68.2	-14.8	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)

Product	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	10877.0	36.4	18.1	54.5	74.0	-19.5	Peak	Horizontal
	10877.0	30.9	18.1	49.0	54.0	-5.0	Average	Horizontal
	11568.5	38.9	17.3	56.2	74.0	-17.8	Peak	Horizontal
	11568.5	30.0	17.3	47.3	54.0	-6.7	Average	Horizontal
*	12849.0	35.0	17.7	52.7	68.2	-15.5	Peak	Horizontal
*	13852.0	33.8	19.2	53.0	68.2	-15.2	Peak	Horizontal
	7519.5	36.3	11.8	48.1	74.0	-25.9	Peak	Vertical
	8199.5	35.7	12.4	48.1	74.0	-25.9	Peak	Vertical
*	10188.5	36.6	17.2	53.8	68.2	-14.4	Peak	Vertical
*	13631.0	36.1	19.2	55.3	68.2	-12.9	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT20 - Ant 8 + 9	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
	10868.5	36.2	18.1	54.3	74.0	-19.7	Peak	Horizontal
	10868.5	30.2	18.1	48.3	54.0	-5.7	Average	Horizontal
	11650.0	38.3	16.9	55.2	74.0	-18.8	Average	Horizontal
	11650.0	30.9	16.9	47.8	54.0	-6.2	Peak	Horizontal
*	12798.0	35.6	17.6	53.2	68.2	-15.0	Peak	Horizontal
*	14192.0	35.6	20.2	55.8	68.2	-12.4	Peak	Horizontal
	8199.5	36.1	12.4	48.5	74.0	-25.5	Peak	Vertical
	11633.5	37.3	17.0	54.3	74.0	-19.7	Peak	Vertical
	11633.5	32.3	17.0	49.3	54.0	-4.7	Average	Vertical
*	13078.5	35.8	17.9	53.7	68.2	-14.5	Peak	Vertical
*	14107.0	35.2	19.9	55.1	68.2	-13.1	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT40 - Ant 8 + 9	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
	7434.5	35.4	11.9	47.3	74.0	-26.7	Peak	Horizontal
	8352.5	34.6	12.3	46.9	74.0	-27.1	Peak	Horizontal
*	8956.0	34.1	14.2	48.3	68.2	-19.9	Peak	Horizontal
*	10426.5	36.1	17.6	53.7	68.2	-14.5	Peak	Horizontal
	7409.0	35.2	11.8	47.0	74.0	-27.0	Peak	Vertical
	8165.5	35.9	12.4	48.3	74.0	-25.7	Peak	Vertical
*	10044.0	36.2	16.9	53.1	68.2	-15.1	Peak	Vertical
*	10350.0	34.9	17.4	52.3	68.2	-15.9	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	GigaSpire	Temperature	25°C
Test Engineer	Dillon Diao	Relative Humidity	52%
Test Site	AC1	Test Date	2019/12/03
Test Mode:	802.11n-HT40 - Ant 8 + 9	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
	7375.0	37.0	11.9	48.9	74.0	-25.1	Peak	Horizontal
	8267.5	35.8	12.3	48.1	74.0	-25.9	Peak	Horizontal
*	8854.0	36.0	14.4	50.4	68.2	-17.8	Peak	Horizontal
*	9695.5	35.9	16.4	52.3	68.2	-15.9	Peak	Horizontal
	7604.5	35.4	11.8	47.2	74.0	-26.8	Peak	Vertical
	8361.0	35.6	12.4	48.0	74.0	-26.0	Peak	Vertical
*	8752.0	34.3	14.2	48.5	68.2	-19.7	Peak	Vertical
*	9780.5	34.7	16.7	51.4	68.2	-16.8	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)