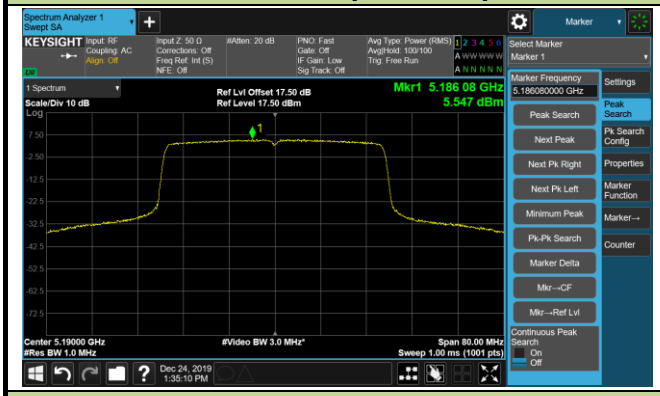
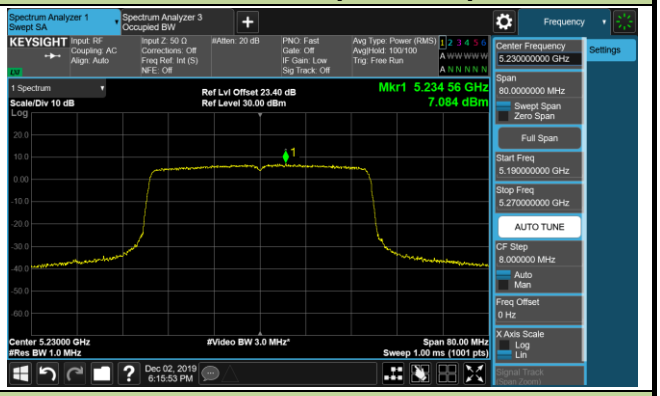
802.11ax-HE40 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

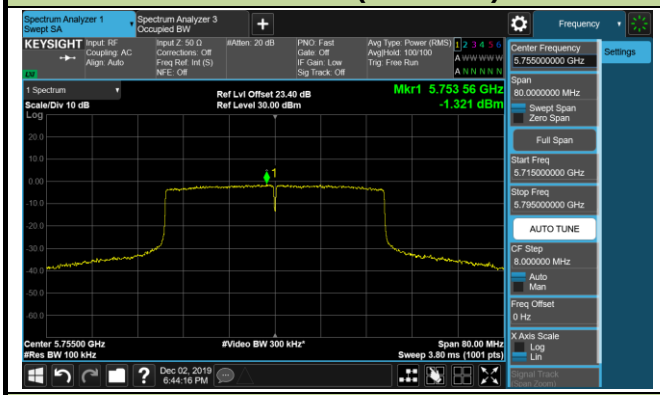
Channel 38 (5190MHz)



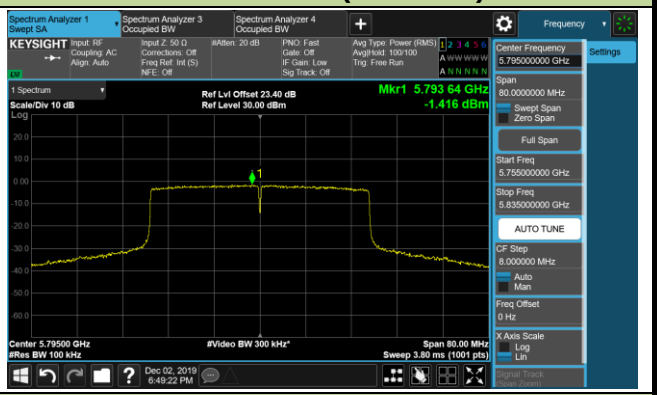
Channel 46 (5230MHz)



Channel 151 (5755MHz)

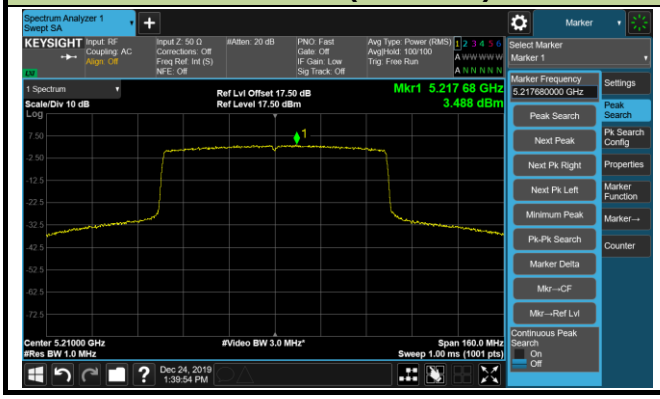


Channel 159 (5795MHz)

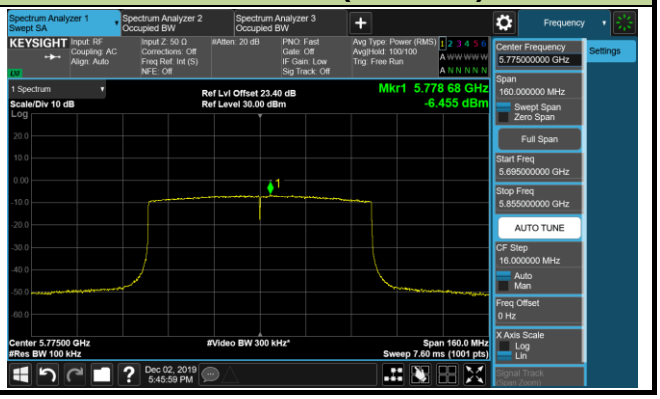


802.11ax-HE80 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

Channel 42 (5210MHz)

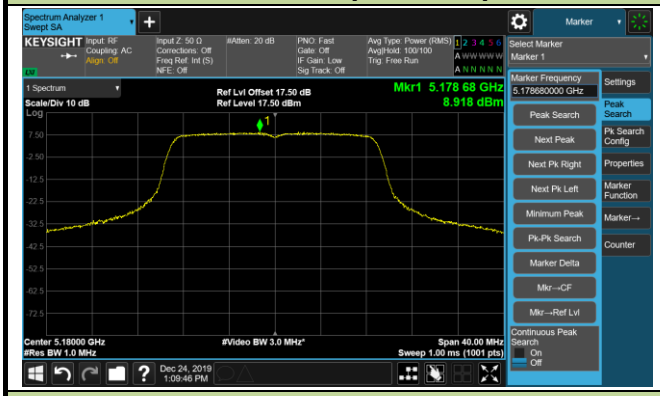


Channel 155 (5775MHz)

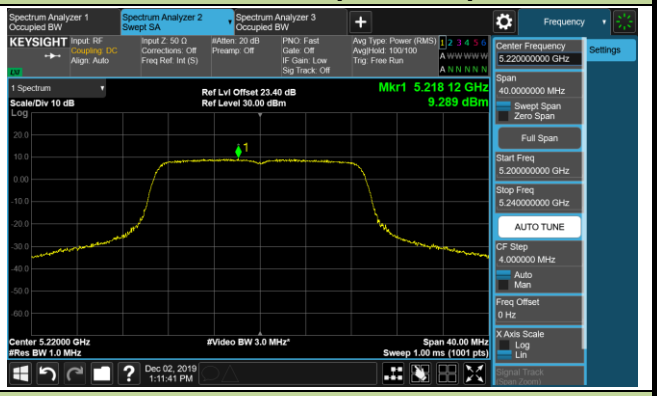


802.11ac-VHT20 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

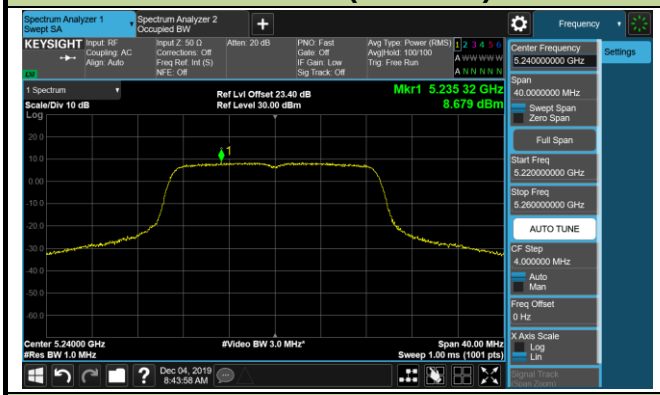
Channel 36 (5180MHz)



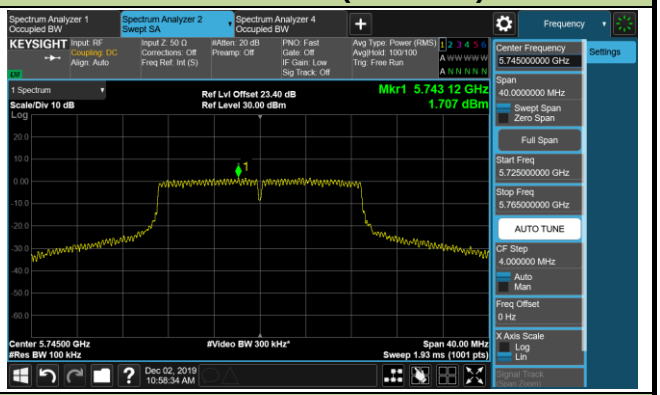
Channel 44 (5220MHz)



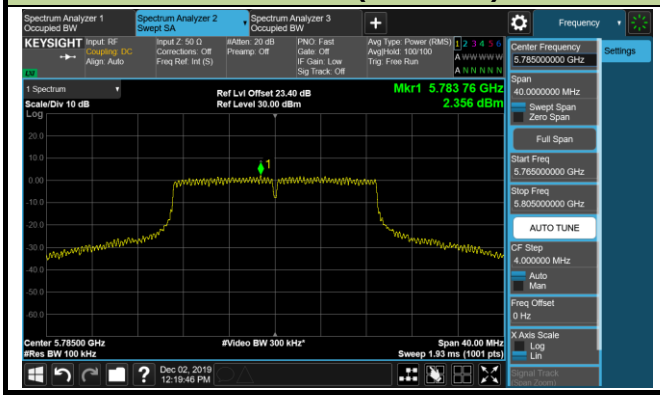
Channel 48 (5240MHz)



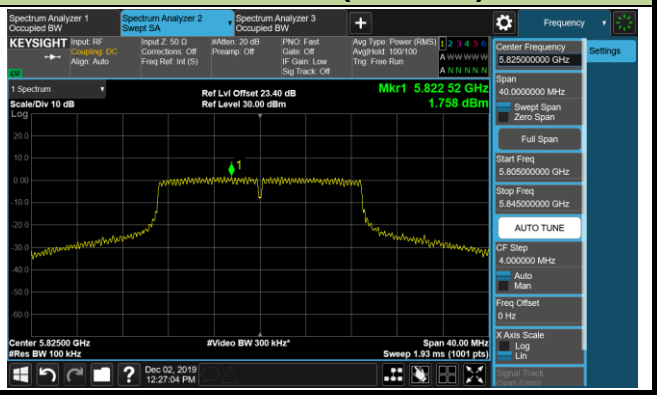
Channel 149 (5745MHz)



Channel 157 (5785MHz)

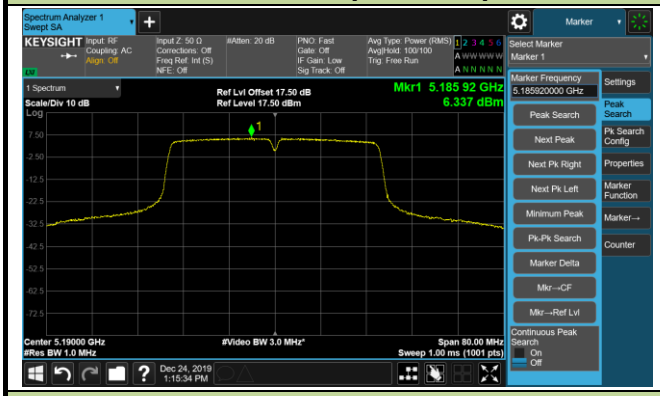


Channel 165 (5825MHz)

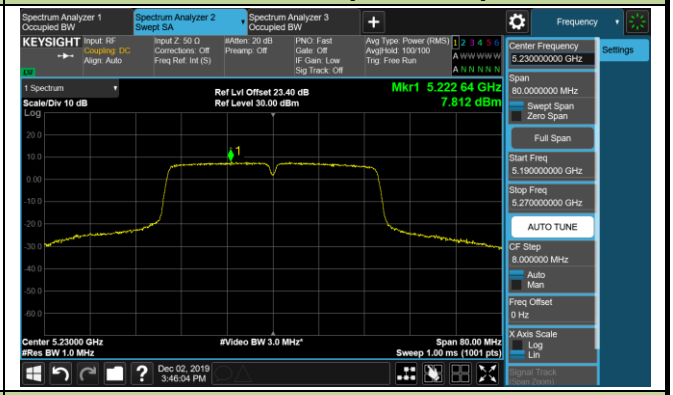


802.11ac-VHT40 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

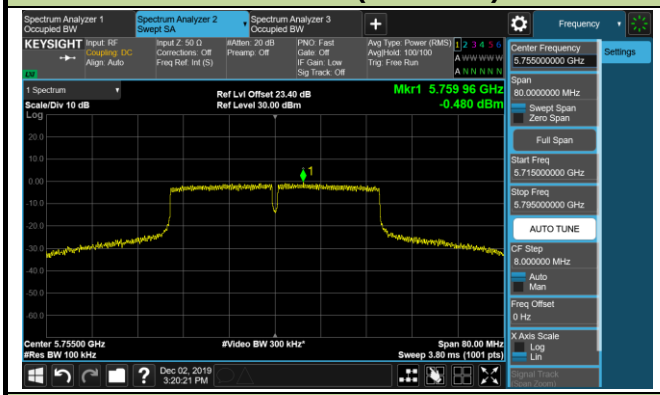
Channel 38 (5190MHz)



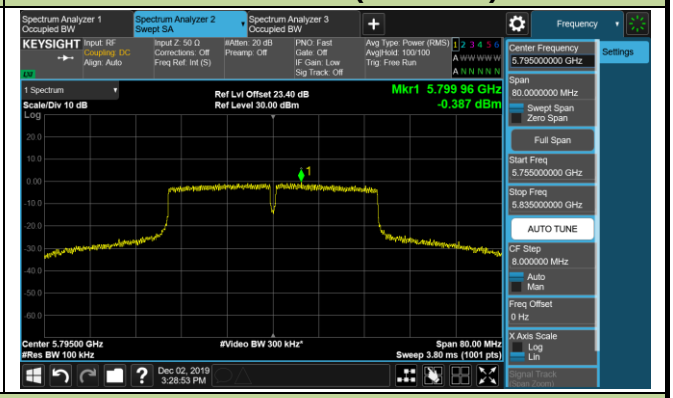
Channel 46 (5230MHz)



Channel 151 (5755MHz)

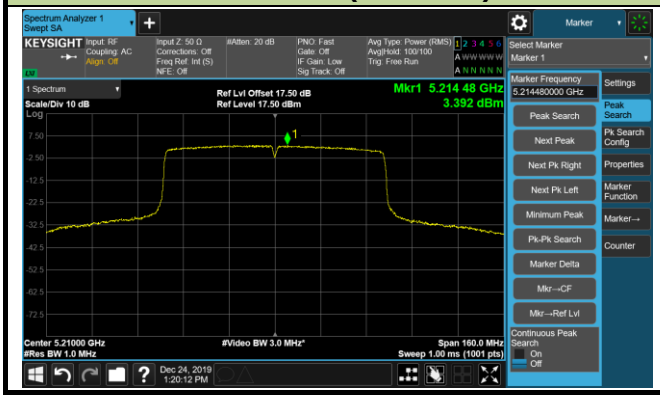


Channel 159 (5795MHz)

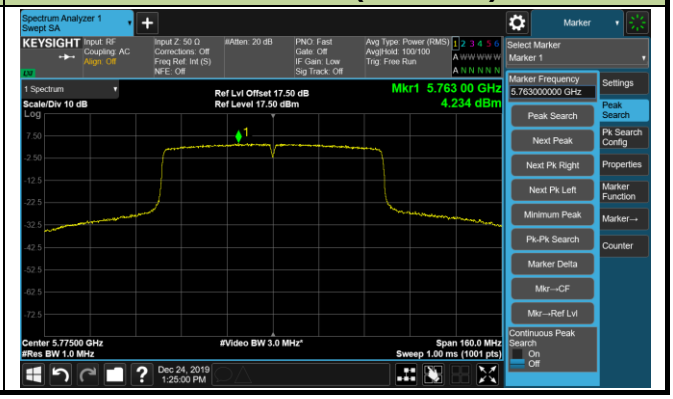


802.11ac-VHT80 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

Channel 42 (5210MHz)

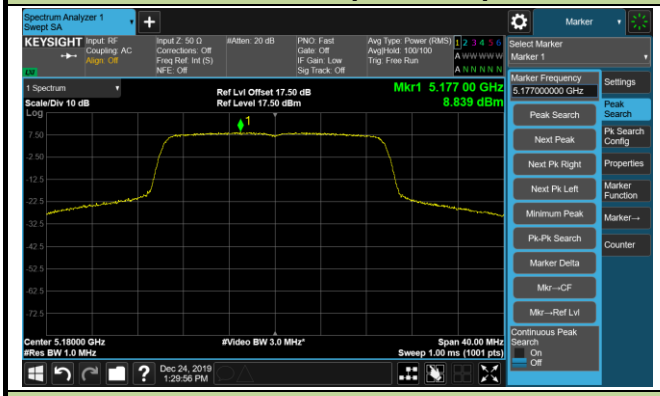


Channel 155 (5775MHz)

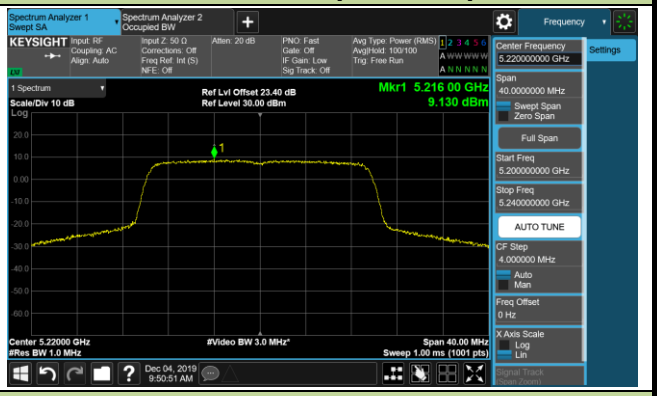


802.11ax-HE20 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

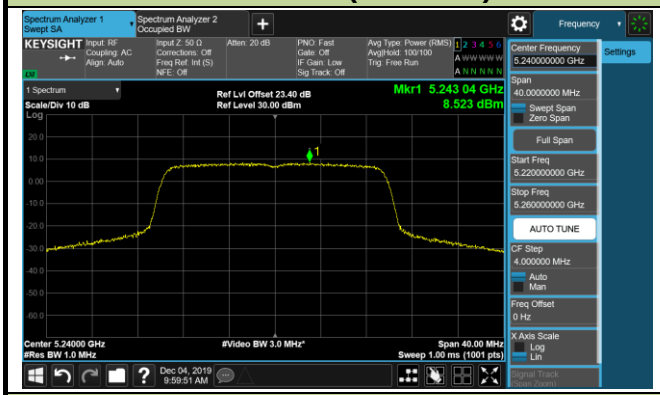
Channel 36 (5180MHz)



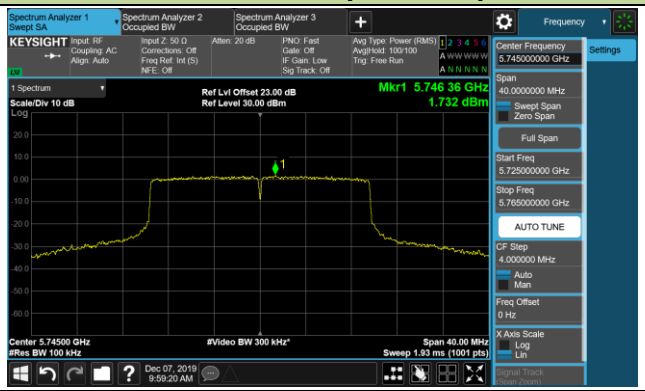
Channel 44 (5220MHz)



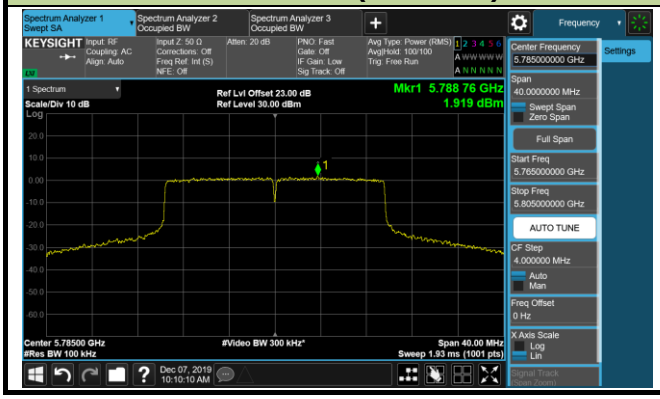
Channel 48 (5240MHz)



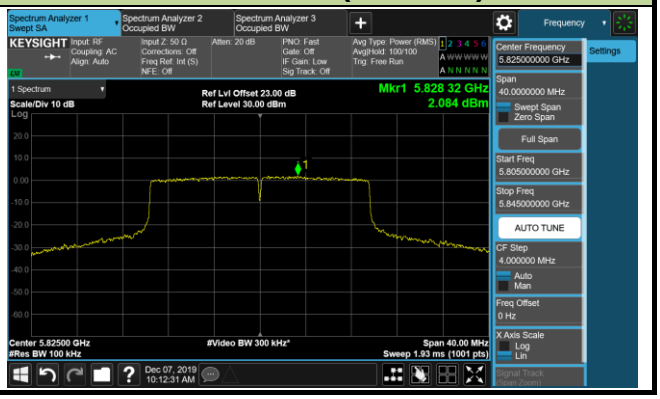
Channel 149 (5745MHz)



Channel 157 (5785MHz)

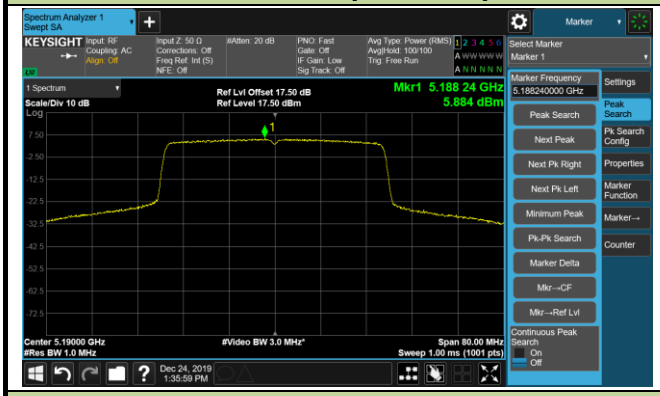


Channel 165 (5825MHz)

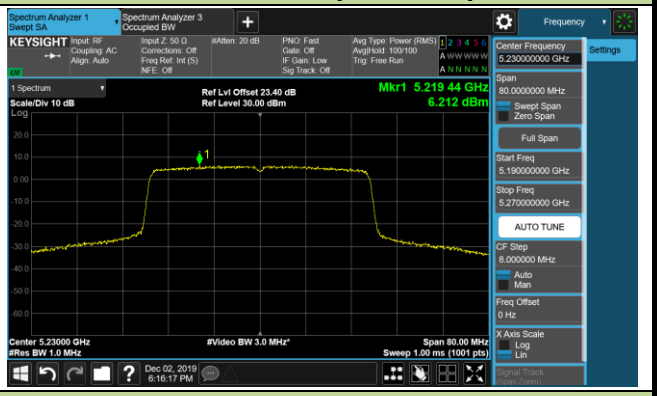


802.11ax-HE40 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

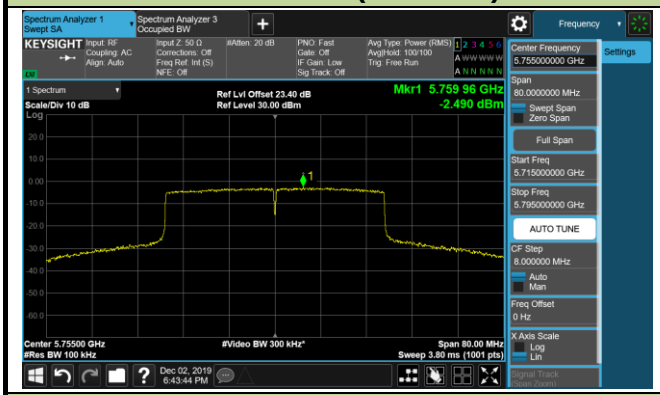
Channel 38 (5190MHz)



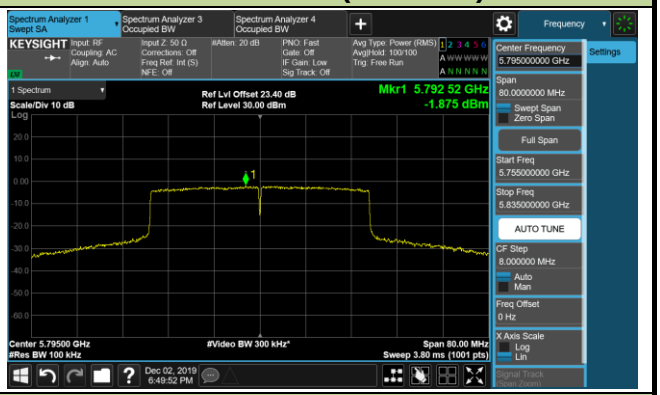
Channel 46 (5230MHz)



Channel 151 (5755MHz)

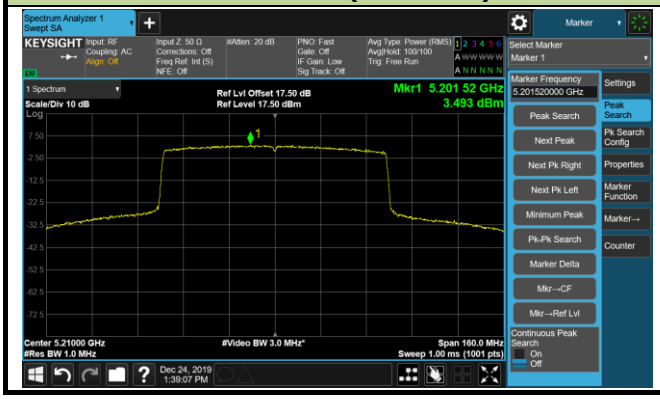


Channel 159 (5795MHz)

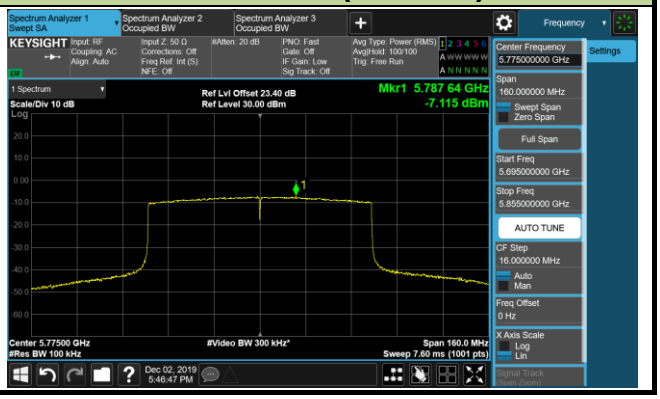


802.11ax-HE80 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

Channel 42 (5210MHz)

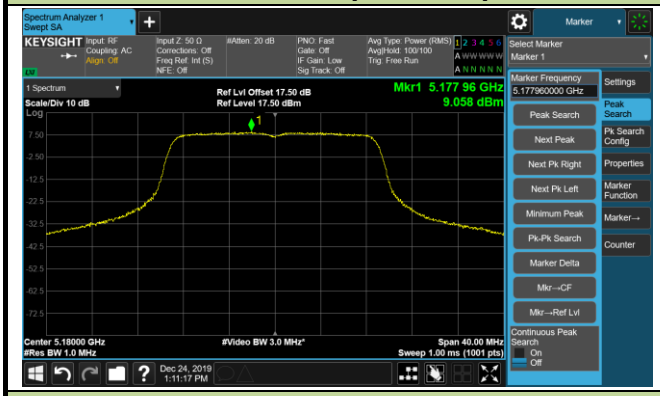


Channel 155 (5775MHz)

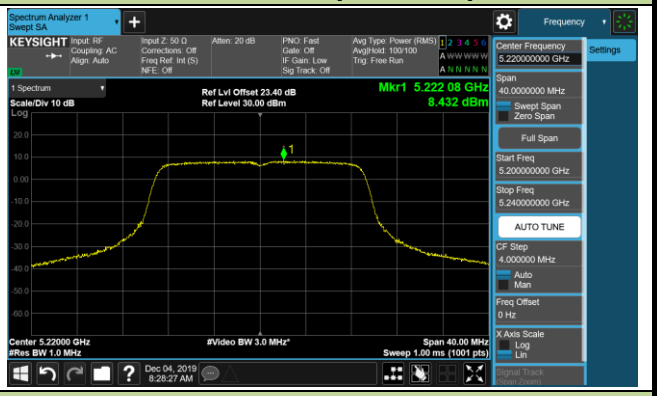


802.11ac-VHT20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

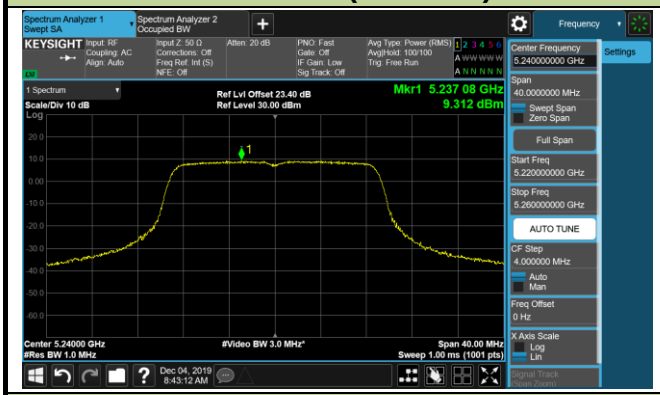
Channel 36 (5180MHz)



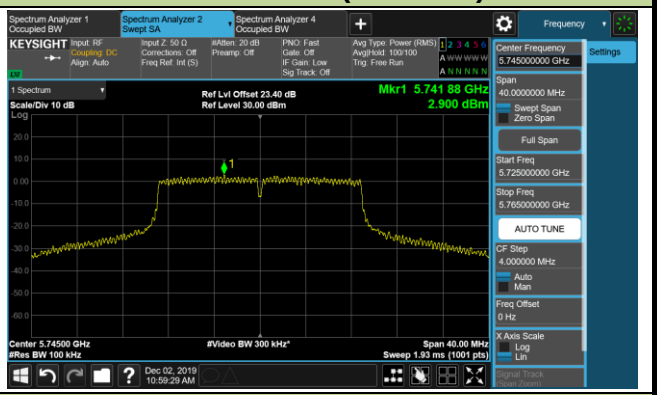
Channel 44 (5220MHz)



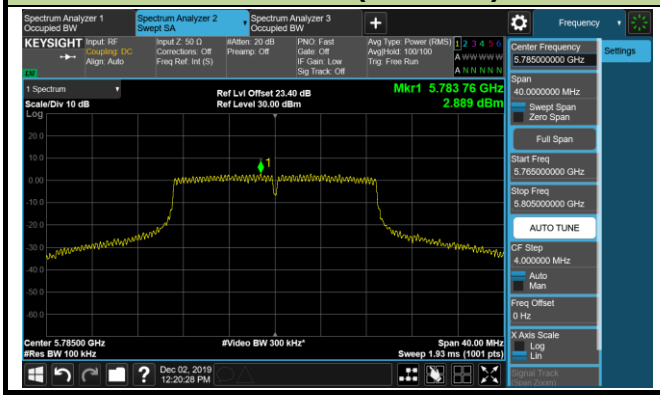
Channel 48 (5240MHz)



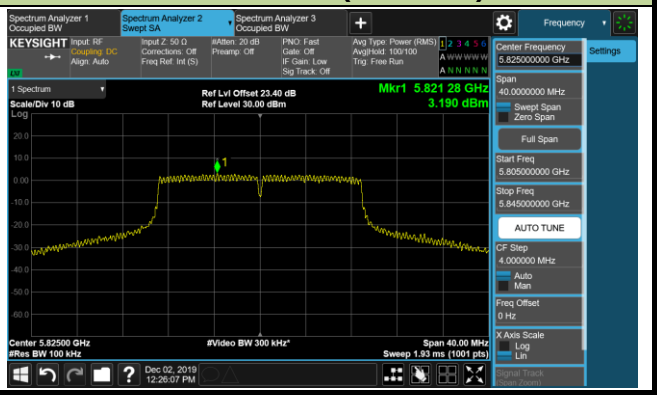
Channel 149 (5745MHz)



Channel 157 (5785MHz)

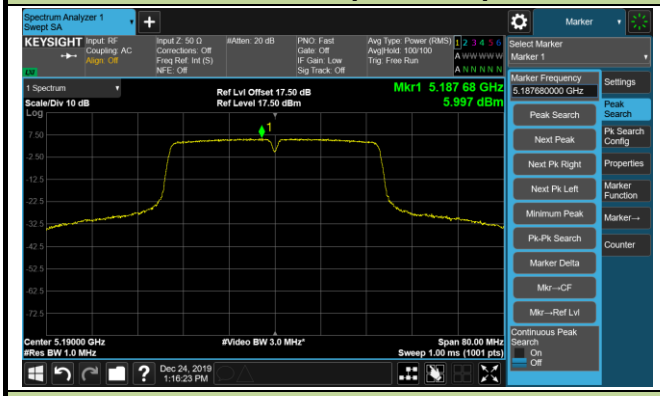


Channel 165 (5825MHz)

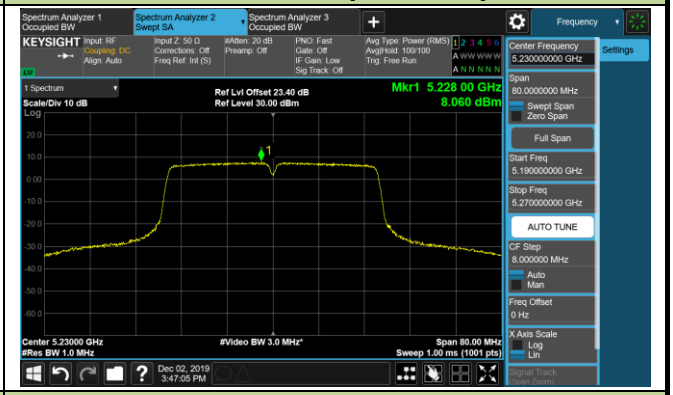


802.11ac-VHT40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

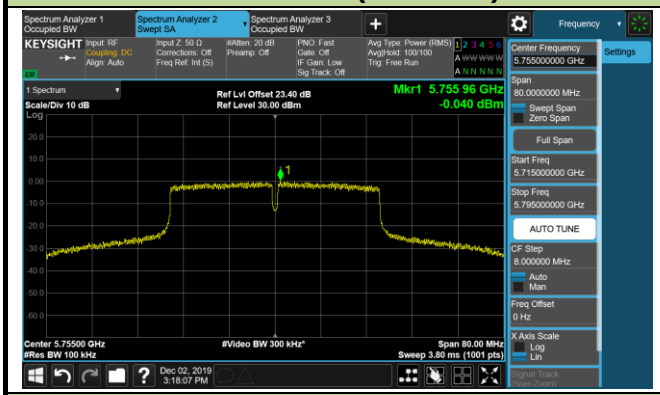
Channel 38 (5190MHz)



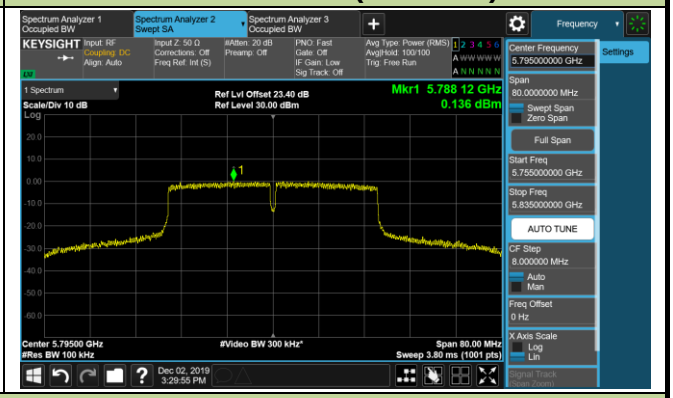
Channel 46 (5230MHz)



Channel 151 (5755MHz)

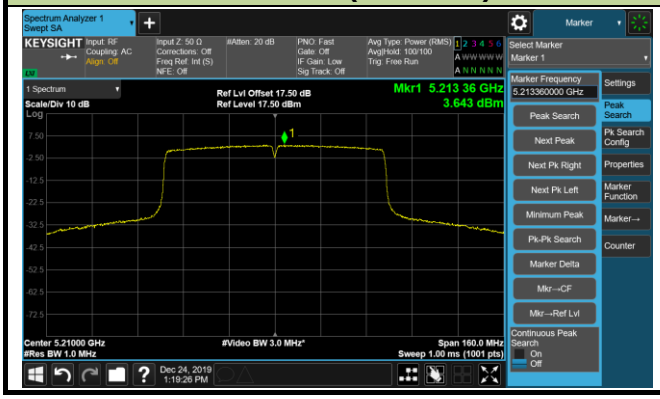


Channel 159 (5795MHz)

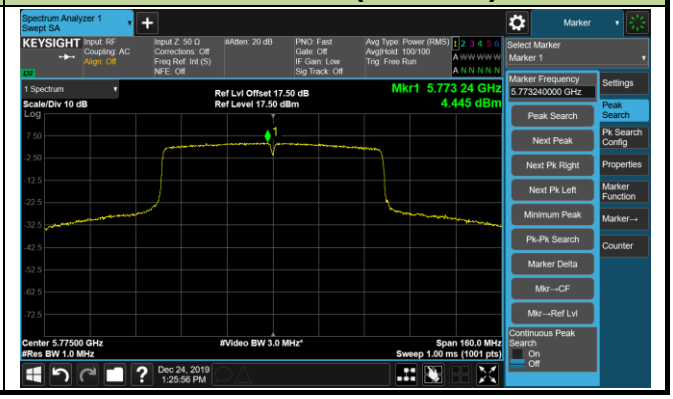


802.11ac-VHT80 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

Channel 42 (5210MHz)

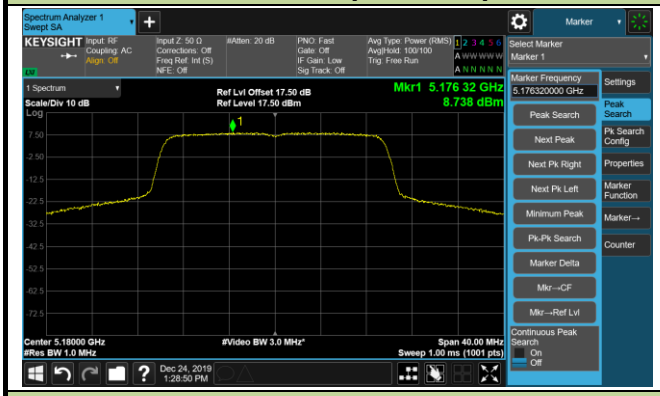


Channel 155 (5775MHz)

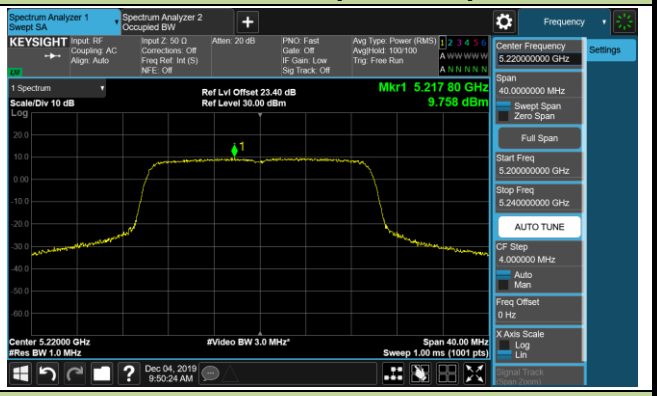


802.11ax-HE20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

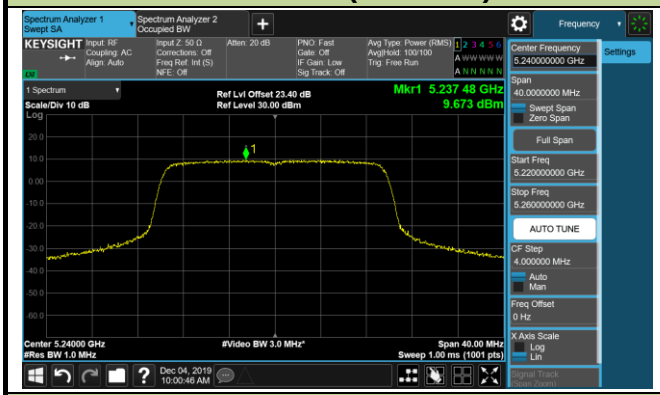
Channel 36 (5180MHz)



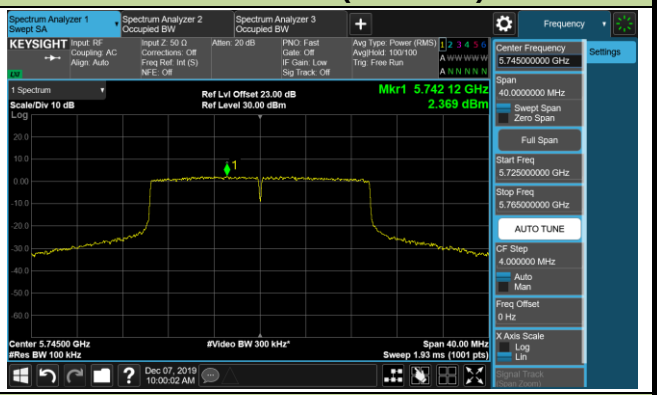
Channel 44 (5220MHz)



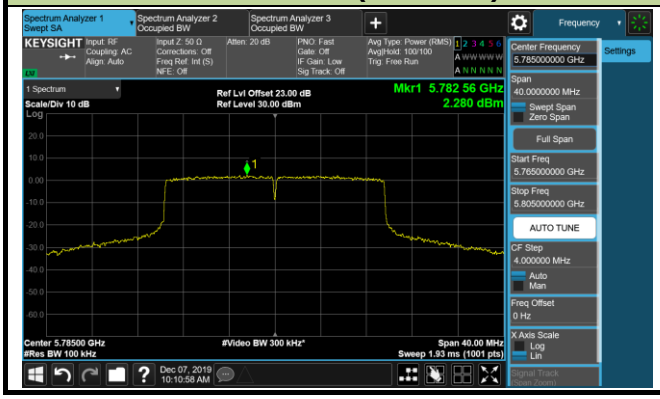
Channel 48 (5240MHz)



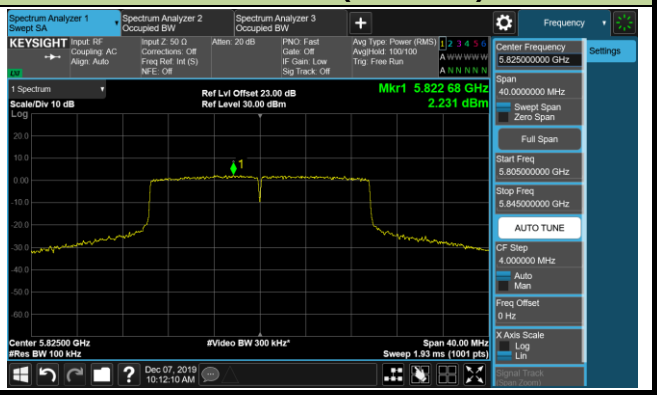
Channel 149 (5745MHz)

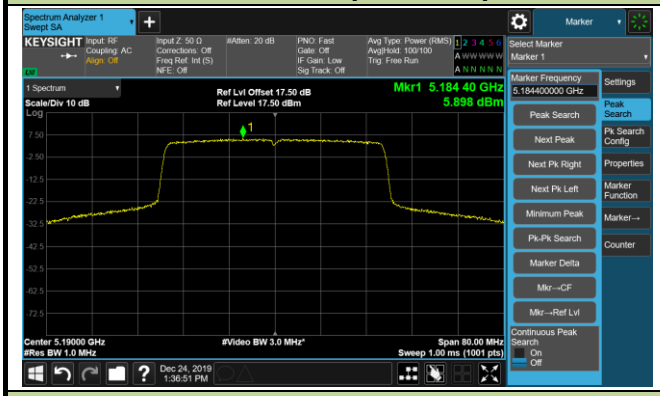
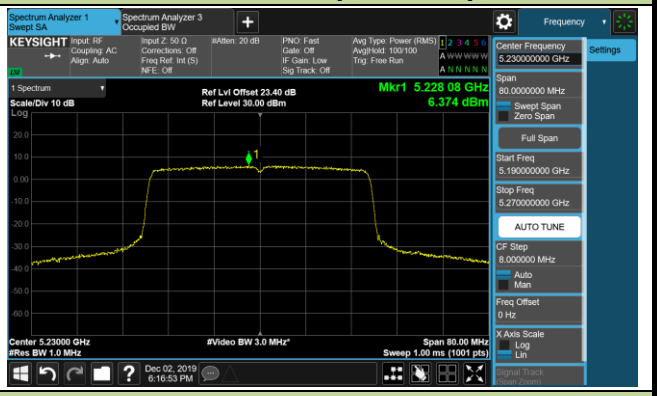
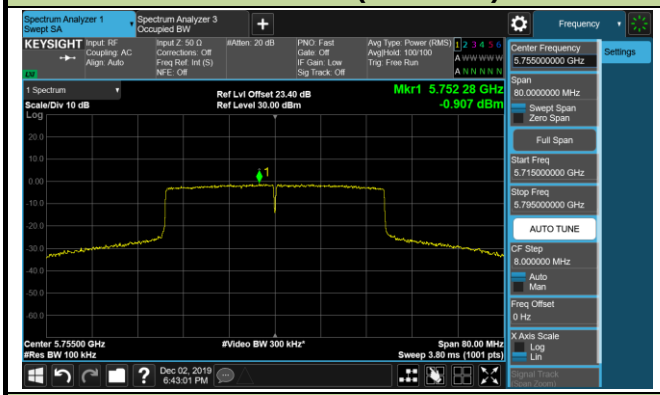
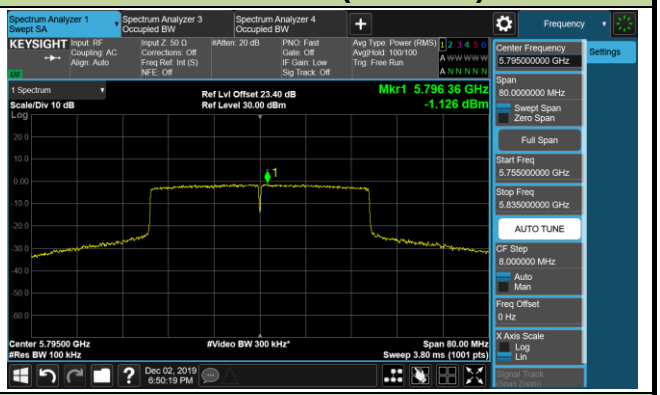
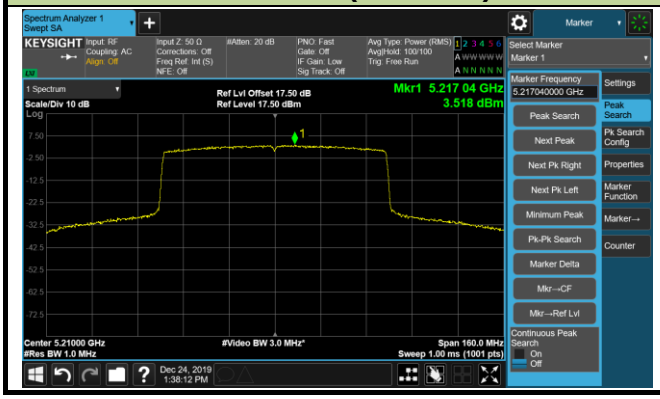
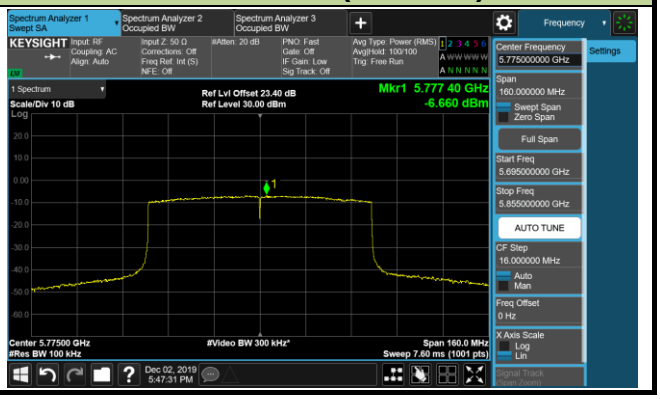


Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ax-HE40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	
802.11ax-HE80 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	
Channel 42 (5210MHz)	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.

The transmitter center frequency tolerance shall be ±20 ppm maximum for the 5GHz band (IEEE 802.11 specification).

7.7.2.Test Procedure Used

Frequency Stability Under Temperature Variations:

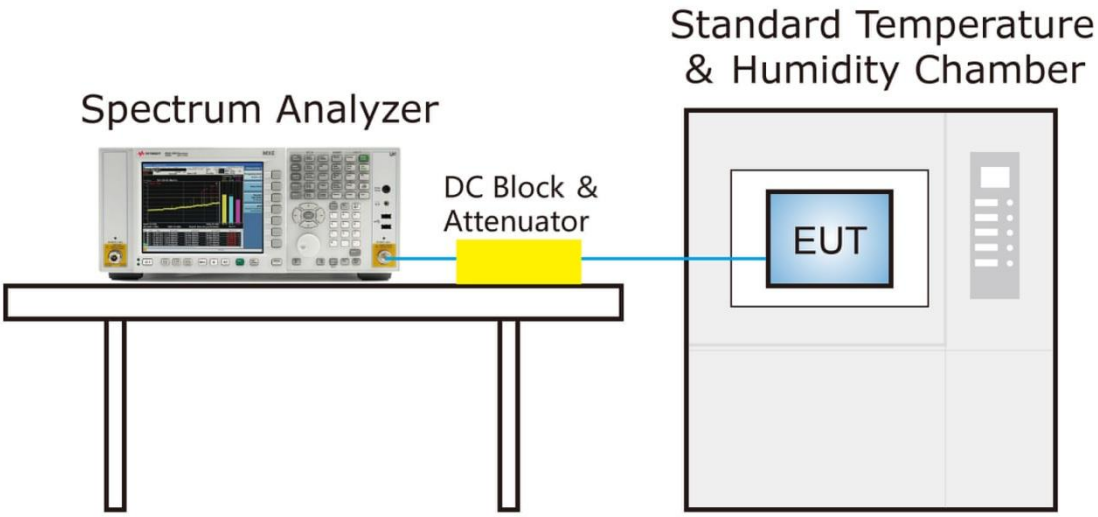
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain 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 (±15%) and endpoint, recordthe maximum frequency change.

7.7.3.Test Setup



7.7.4.Test Result

Test Engineer	David Lv	Temperature	0 ~ 40°C
Test Time	2019/12/15	Relative Humidity	48 ~ 55%RH
Test Mode	5180MHz (Carrier Mode)	Test Site	TR3

Voltage (%)	Power (VAC)	Temp (°C)	Frequency Tolerance (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100%	120	0	7.41	6.47	7.75	8.56
		+ 10	7.43	7.95	6.70	6.23
		+ 20 (Ref)	9.59	8.89	8.31	8.57
		+ 30	9.74	8.81	7.86	6.63
		+ 40	12.25	12.27	11.65	11.40
115%	138	+ 20	9.74	8.89	9.30	9.78
85%	102	+ 20	7.20	8.20	7.79	7.64

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

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 47CFR 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 ≥ 98%, set VBW = 10 Hz.

If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.

4. Detector = Peak

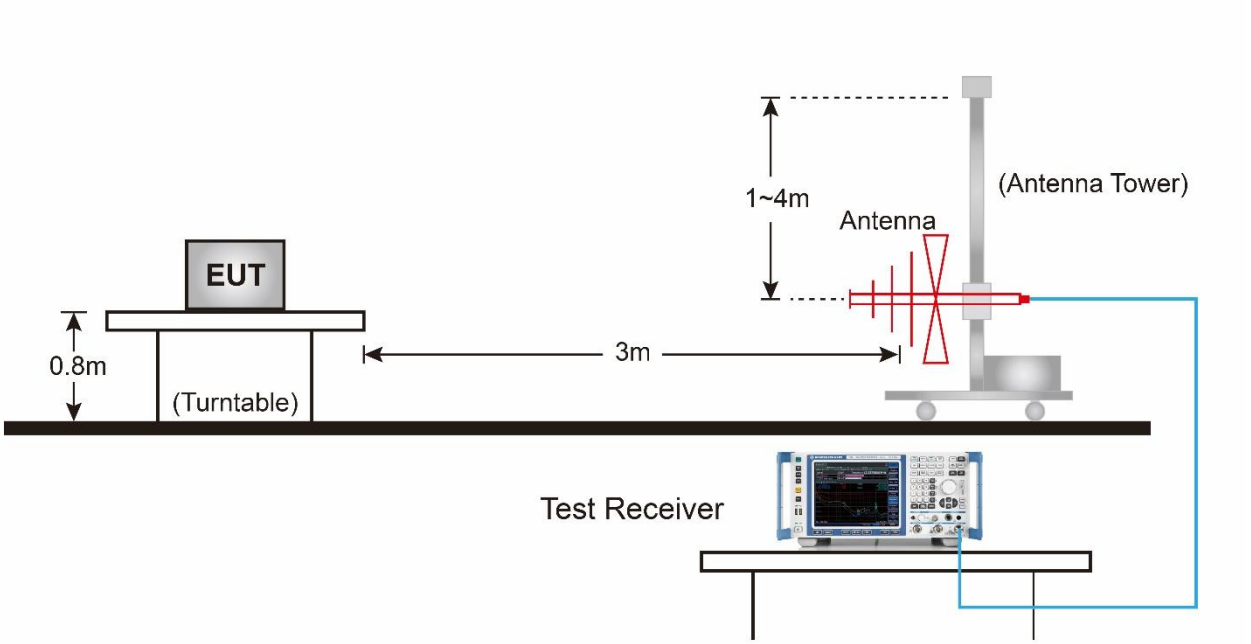
5. Sweep time = auto

6. Trace mode = max hold

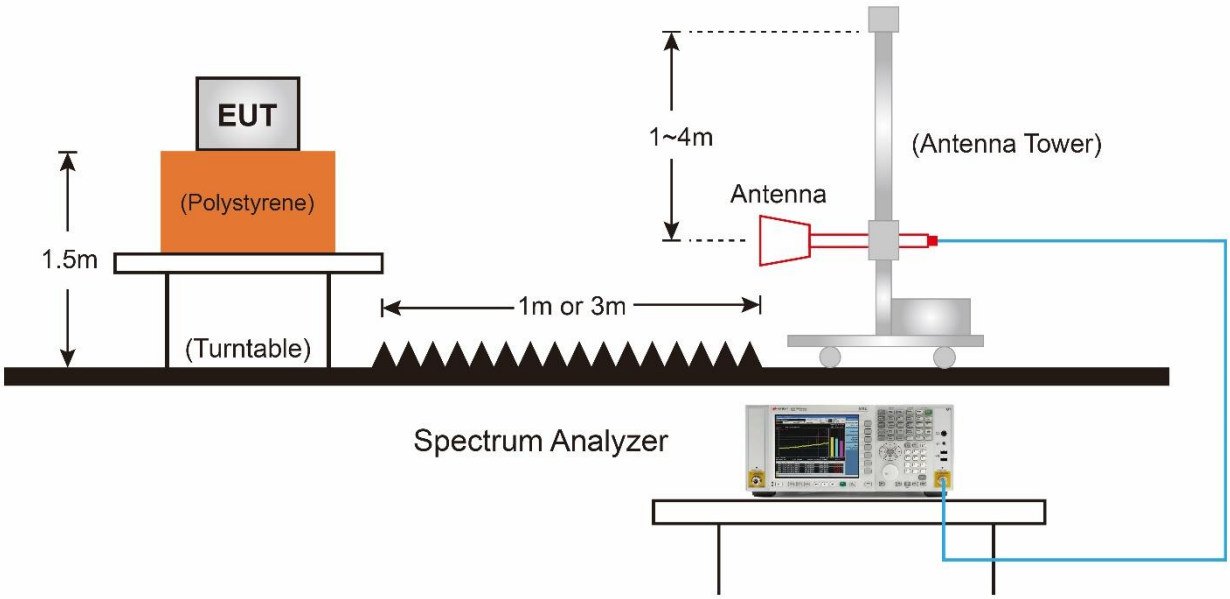
7. Trace was allowed to stabilize

7.8.4.Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.8.5.Test Result

Product	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7698.0	39.1	11.7	50.8	74.0	-23.2	Peak	Horizontal
	8250.5	37.6	12.2	49.8	74.0	-24.2	Peak	Horizontal
*	8947.5	37.7	14.3	52.0	68.2	-16.2	Peak	Horizontal
*	10095.0	37.2	16.8	54.0	68.2	-14.2	Peak	Horizontal
	7298.5	37.8	11.7	49.5	74.0	-24.5	Peak	Vertical
	8174.0	38.1	12.4	50.5	74.0	-23.5	Peak	Vertical
*	8862.5	36.9	14.4	51.3	68.2	-16.9	Peak	Vertical
*	9857.0	37.1	16.8	53.9	68.2	-14.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7468.5	38.6	11.8	50.4	74.0	-23.6	Peak	Horizontal
*	7995.5	37.4	12.5	49.9	68.2	-18.3	Peak	Horizontal
*	8769.0	36.9	14.2	51.1	68.2	-17.1	Peak	Horizontal
	15654.0	41.8	17.5	59.3	74.0	-14.7	Peak	Horizontal
	15655.0	32.4	17.5	49.9	54.0	-4.1	Average	Horizontal
*	8012.5	37.5	12.6	50.1	68.2	-18.1	Peak	Vertical
*	8701.0	37.3	14.0	51.3	68.2	-16.9	Peak	Vertical
	10906.4	37.4	18.1	55.5	74.0	-18.5	Peak	Vertical
	10906.4	23.7	18.1	41.8	54.0	-12.2	Average	Vertical
	15663.3	42.4	17.5	59.9	74.0	-14.1	Peak	Vertical
	15663.3	32.4	17.5	49.9	54.0	-4.1	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7171.0	35.8	11.6	47.4	68.2	-20.8	Peak	Horizontal
*	8590.5	36.9	13.3	50.2	68.2	-18.0	Peak	Horizontal
	9185.5	37.0	15.5	52.5	74.0	-21.5	Peak	Horizontal
	15698.5	43.3	17.2	60.5	74.0	-13.5	Peak	Horizontal
	15698.5	32.1	17.2	49.3	54.0	-4.7	Average	Horizontal
*	8701.0	37.8	14.0	51.8	68.2	-16.4	Peak	Vertical
*	9296.0	37.3	15.9	53.2	68.2	-15.0	Peak	Vertical
	10889.5	37.3	18.0	55.3	74.0	-18.7	Peak	Vertical
	10889.5	24.4	18.0	42.4	54.0	-11.6	Average	Vertical
	15716.3	43.7	17.2	60.9	74.0	-13.1	Peak	Vertical
	15716.3	32.2	17.2	49.4	54.0	-4.6	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7953.0	37.0	12.5	49.5	68.2	-18.7	Peak	Horizontal
	9007.0	37.6	14.6	52.2	74.0	-21.8	Peak	Horizontal
	11496.1	38.2	17.7	55.9	74.0	-18.1	Peak	Horizontal
	11496.1	26.1	17.7	43.8	54.0	-10.2	Average	Horizontal
*	17243.5	41.4	20.5	61.9	68.2	-6.3	Peak	Horizontal
*	7859.5	37.1	12.0	49.1	68.2	-19.1	Peak	Vertical
	8361.0	36.8	12.4	49.2	74.0	-24.8	Peak	Vertical
	9177.0	35.4	15.4	50.8	74.0	-23.2	Peak	Vertical
*	17235.0	41.4	20.5	61.9	68.2	-6.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7834.0	38.2	11.9	50.1	68.2	-18.1	Peak	Horizontal
	8352.5	37.2	12.3	49.5	74.0	-24.5	Peak	Horizontal
	9355.5	36.1	15.9	52.0	74.0	-22.0	Peak	Horizontal
*	17354.0	43.2	20.9	64.1	68.2	-4.1	Peak	Horizontal
*	7103.0	36.6	11.3	47.9	68.2	-20.3	Peak	Vertical
	8208.0	36.9	12.3	49.2	74.0	-24.8	Peak	Vertical
	9160.0	36.5	15.3	51.8	74.0	-22.2	Peak	Vertical
*	17354.0	45.9	20.9	66.8	68.2	-1.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7094.5	36.6	11.3	47.9	68.2	-20.3	Peak	Horizontal
	8046.5	36.8	12.6	49.4	74.0	-24.6	Peak	Horizontal
	9355.5	36.0	15.9	51.9	74.0	-22.1	Peak	Horizontal
*	17481.5	45.9	21.9	67.8	68.2	-0.4	Peak	Horizontal
*	7162.5	36.3	11.5	47.8	68.2	-20.4	Peak	Vertical
	8148.5	37.4	12.5	49.9	74.0	-24.1	Peak	Vertical
	9466.0	36.0	16.0	52.0	74.0	-22.0	Peak	Vertical
*	17473.0	45.4	22.1	67.5	68.2	-0.7	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7995.5	37.4	12.5	49.9	68.2	-18.3	Peak	Horizontal
	8429.0	36.9	12.7	49.6	74.0	-24.4	Peak	Horizontal
	9389.5	35.9	15.9	51.8	74.0	-22.2	Peak	Horizontal
*	10358.5	36.1	17.5	53.6	68.2	-14.6	Peak	Horizontal
*	7103.0	36.9	11.3	48.2	68.2	-20.0	Peak	Vertical
	7460.0	37.2	11.9	49.1	74.0	-24.9	Peak	Vertical
	8165.5	37.5	12.4	49.9	74.0	-24.1	Peak	Vertical
*	8726.5	36.8	13.9	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7239.0	38.6	11.5	50.1	68.2	-18.1	Peak	Horizontal
*	7919.0	37.4	12.3	49.7	68.2	-18.5	Peak	Horizontal
	9321.5	36.1	15.8	51.9	74.0	-22.1	Peak	Horizontal
	15657.9	40.9	17.5	58.4	74.0	-15.6	Peak	Horizontal
	15657.9	29.3	17.5	46.8	54.0	-7.2	Average	Horizontal
*	7094.5	36.3	11.3	47.6	68.2	-20.6	Peak	Vertical
*	7910.5	35.2	12.2	47.4	68.2	-20.8	Peak	Vertical
	9389.5	34.2	15.9	50.1	74.0	-23.9	Peak	Vertical
	15651.3	39.4	17.4	56.8	74.0	-17.2	Peak	Vertical
	15651.3	29.2	17.4	46.6	54.0	-7.4	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7128.5	36.7	11.3	48.0	68.2	-20.2	Peak	Horizontal
*	8590.5	36.7	13.3	50.0	68.2	-18.2	Peak	Horizontal
	9177.0	36.5	15.4	51.9	74.0	-22.1	Peak	Horizontal
	15724.5	39.6	17.1	56.7	74.0	-17.3	Peak	Horizontal
	15724.5	29.0	17.1	46.1	54.0	-7.9	Average	Horizontal
*	7077.5	35.8	11.2	47.0	68.2	-21.2	Peak	Vertical
*	8718.0	36.7	13.9	50.6	68.2	-17.6	Peak	Vertical
	9151.5	35.6	15.2	50.8	74.0	-23.2	Peak	Vertical
	15712.5	39.2	17.2	56.4	74.0	-17.6	Peak	Vertical
	15712.5	29.9	17.2	47.1	54.0	-6.9	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7018.0	36.0	11.0	47.0	68.2	-21.2	Peak	Horizontal
	7494.0	36.9	11.8	48.7	74.0	-25.3	Peak	Horizontal
	9075.0	36.9	14.8	51.7	74.0	-22.3	Peak	Horizontal
*	17243.5	39.3	20.5	59.8	68.2	-8.4	Peak	Horizontal
*	7936.0	35.6	12.5	48.1	68.2	-20.1	Peak	Vertical
	8225.0	36.7	12.4	49.1	74.0	-24.9	Peak	Vertical
	9075.0	36.0	14.8	50.8	74.0	-23.2	Peak	Vertical
*	17235.0	39.6	20.5	60.1	68.2	-8.1	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
*	7128.5	36.5	11.3	47.8	68.2	-20.4	Peak	Horizontal
	7613.0	37.8	11.8	49.6	74.0	-24.4	Peak	Horizontal
	9134.5	36.0	15.2	51.2	74.0	-22.8	Peak	Horizontal
*	17362.5	42.0	21.2	63.2	68.2	-5.0	Peak	Horizontal
*	7077.5	36.4	11.2	47.6	68.2	-20.6	Peak	Vertical
	7451.5	36.5	12.0	48.5	74.0	-25.5	Peak	Vertical
	9058.0	36.8	14.5	51.3	74.0	-22.7	Peak	Vertical
*	17354.0	42.9	20.9	63.8	68.2	-4.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7502.5	36.5	11.9	48.4	74.0	-25.6	Peak	Horizontal
	8335.5	36.7	12.2	48.9	74.0	-25.1	Peak	Horizontal
*	9627.5	37.0	16.3	53.3	68.2	-14.9	Peak	Horizontal
*	17473.0	43.8	22.1	65.9	68.2	-2.3	Peak	Horizontal
*	7103.0	36.2	11.3	47.5	68.2	-20.7	Peak	Vertical
	7409.0	37.3	11.8	49.1	74.0	-24.9	Peak	Vertical
	9168.5	36.7	15.3	52.0	74.0	-22.0	Peak	Vertical
*	17481.5	44.3	21.9	66.2	68.2	-2.0	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7698.0	37.2	11.7	48.9	74.0	-25.1	Peak	Horizontal
	8327.0	37.1	12.2	49.3	74.0	-24.7	Peak	Horizontal
*	8658.5	36.0	13.7	49.7	68.2	-18.5	Peak	Horizontal
*	9925.0	34.6	16.8	51.4	68.2	-16.8	Peak	Horizontal
	7443.0	36.3	12.1	48.4	74.0	-25.6	Peak	Vertical
	8429.0	36.0	12.7	48.7	74.0	-25.3	Peak	Vertical
*	8803.0	35.3	14.2	49.5	68.2	-18.7	Peak	Vertical
*	9942.0	36.0	16.9	52.9	68.2	-15.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7672.5	36.9	11.5	48.4	74.0	-25.6	Peak	Horizontal
	8165.5	36.0	12.4	48.4	74.0	-25.6	Peak	Horizontal
*	9729.5	36.7	16.7	53.4	68.2	-14.8	Peak	Horizontal
*	10120.5	33.9	17.0	50.9	68.2	-17.3	Peak	Horizontal
	7366.5	36.4	11.9	48.3	74.0	-25.7	Peak	Vertical
	8284.5	35.3	12.2	47.5	74.0	-26.5	Peak	Vertical
*	9678.5	34.7	16.5	51.2	68.2	-17.0	Peak	Vertical
*	10205.5	34.7	17.1	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7409.0	35.4	11.8	47.2	74.0	-26.8	Peak	Horizontal
	8327.0	36.1	12.2	48.3	74.0	-25.7	Peak	Horizontal
*	8658.5	36.1	13.7	49.8	68.2	-18.4	Peak	Horizontal
*	9916.5	35.8	16.9	52.7	68.2	-15.5	Peak	Horizontal
	7400.5	35.8	11.8	47.6	74.0	-26.4	Peak	Vertical
	8497.0	36.7	12.8	49.5	74.0	-24.5	Peak	Vertical
*	9678.5	34.3	16.5	50.8	68.2	-17.4	Peak	Vertical
*	9865.5	35.3	16.8	52.1	68.2	-16.1	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7570.5	35.7	11.7	47.4	74.0	-26.6	Peak	Horizontal
	8437.5	36.0	12.7	48.7	74.0	-25.3	Peak	Horizontal
*	9721.0	35.7	16.7	52.4	68.2	-15.8	Peak	Horizontal
*	17379.5	38.2	21.4	59.6	68.2	-8.6	Peak	Horizontal
	7502.5	35.2	11.9	47.1	74.0	-26.9	Peak	Vertical
	8233.5	37.0	12.3	49.3	74.0	-24.7	Peak	Vertical
*	9857.0	35.6	16.8	52.4	68.2	-15.8	Peak	Vertical
*	17388.0	39.1	21.4	60.5	68.2	-7.7	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7604.5	35.1	11.8	46.9	74.0	-27.1	Peak	Horizontal
	8310.0	35.3	12.2	47.5	74.0	-26.5	Peak	Horizontal
*	8743.5	34.3	14.1	48.4	68.2	-19.8	Peak	Horizontal
*	9678.5	35.8	16.5	52.3	68.2	-15.9	Peak	Horizontal
	7400.5	35.2	11.8	47.0	74.0	-27.0	Peak	Vertical
	8216.5	36.2	12.3	48.5	74.0	-25.5	Peak	Vertical
*	8794.5	34.9	14.2	49.1	68.2	-19.1	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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	36.0	11.8	47.8	74.0	-26.2	Peak	Horizontal
*	8794.5	36.6	14.2	50.8	68.2	-17.4	Peak	Horizontal
*	10120.5	35.6	17.0	52.6	68.2	-15.6	Peak	Horizontal
	15662.9	40.9	17.5	58.4	74.0	-15.6	Peak	Horizontal
	15662.9	30.1	17.5	47.6	54.0	-6.4	Average	Horizontal
*	7528.0	35.1	11.8	46.9	74.0	-27.1	Peak	Vertical
*	8820.0	35.9	14.3	50.2	68.2	-18.0	Peak	Vertical
	9814.5	35.8	16.8	52.6	68.2	-15.6	Peak	Vertical
	15655.0	40.3	17.5	57.8	74.0	-16.2	Peak	Vertical
	15655.0	30.9	17.5	48.4	54.0	-5.6	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7604.5	35.7	11.8	47.5	74.0	-26.5	Peak	Horizontal
*	8675.5	37.0	13.8	50.8	68.2	-17.4	Peak	Horizontal
*	9678.5	35.8	16.5	52.3	68.2	-15.9	Peak	Horizontal
	15720.5	42.3	17.1	59.4	74.0	-14.6	Peak	Horizontal
	15720.5	31.7	17.1	48.8	54.0	-5.2	Average	Horizontal
	7434.5	36.6	11.9	48.5	74.0	-25.5	Peak	Vertical
*	8871.0	37.1	14.3	51.4	68.2	-16.8	Peak	Vertical
*	9814.5	36.3	16.8	53.1	68.2	-15.1	Peak	Vertical
	15721.2	40.8	17.1	57.9	74.0	-16.1	Peak	Vertical
	15721.2	32.1	17.1	49.2	54.0	-4.8	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7621.5	35.1	11.6	46.7	74.0	-27.3	Peak	Horizontal
	8267.5	37.1	12.3	49.4	74.0	-24.6	Peak	Horizontal
*	9763.5	36.2	16.7	52.9	68.2	-15.3	Peak	Horizontal
*	17243.5	39.3	20.5	59.8	68.2	-8.4	Peak	Horizontal
	7502.5	36.2	11.9	48.1	74.0	-25.9	Peak	Vertical
	8437.5	36.8	12.7	49.5	74.0	-24.5	Peak	Vertical
*	10282.0	36.0	17.4	53.4	68.2	-14.8	Peak	Vertical
*	17235.0	40.4	20.5	60.9	68.2	-7.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7536.5	36.6	11.8	48.4	74.0	-25.6	Peak	Horizontal
	8174.0	36.5	12.4	48.9	74.0	-25.1	Peak	Horizontal
*	10426.5	35.3	17.6	52.9	68.2	-15.3	Peak	Horizontal
*	17354.0	41.9	20.9	62.8	68.2	-5.4	Peak	Horizontal
	7494.0	37.1	11.8	48.9	74.0	-25.1	Peak	Vertical
	8352.5	37.7	12.3	50.0	74.0	-24.0	Peak	Vertical
*	10265.0	36.1	17.2	53.3	68.2	-14.9	Peak	Vertical
*	17354.0	43.7	20.9	64.6	68.2	-3.6	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7400.5	37.3	11.8	49.1	74.0	-24.9	Peak	Horizontal
	8225.0	37.5	12.4	49.9	74.0	-24.1	Peak	Horizontal
*	9908.0	36.1	16.9	53.0	68.2	-15.2	Peak	Horizontal
*	17473.0	43.3	22.1	65.4	68.2	-2.8	Peak	Horizontal
	7545.0	35.6	11.7	47.3	74.0	-26.7	Peak	Vertical
	8429.0	35.7	12.7	48.4	74.0	-25.6	Peak	Vertical
*	9831.5	35.6	16.9	52.5	68.2	-15.7	Peak	Vertical
*	17464.5	43.5	22.1	65.6	68.2	-2.6	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7630.0	35.1	11.5	46.6	74.0	-27.4	Peak	Horizontal
	8165.5	36.2	12.4	48.6	74.0	-25.4	Peak	Horizontal
*	8786.0	34.8	14.1	48.9	68.2	-19.3	Peak	Horizontal
*	9857.0	35.8	16.8	52.6	68.2	-15.6	Peak	Horizontal
	7502.5	35.2	11.9	47.1	74.0	-26.9	Peak	Vertical
	8276.0	36.1	12.3	48.4	74.0	-25.6	Peak	Vertical
*	8658.5	35.6	13.7	49.3	68.2	-18.9	Peak	Vertical
*	9840.0	35.9	16.9	52.8	68.2	-15.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7417.5	35.1	11.8	46.9	74.0	-27.1	Peak	Horizontal
	8131.5	36.7	12.5	49.2	74.0	-24.8	Peak	Horizontal
*	8692.5	35.8	14.0	49.8	68.2	-18.4	Peak	Horizontal
*	9908.0	35.9	16.9	52.8	68.2	-15.4	Peak	Horizontal
	7638.5	37.5	11.4	48.9	74.0	-25.1	Peak	Vertical
	8369.5	36.7	12.3	49.0	74.0	-25.0	Peak	Vertical
*	8743.5	35.7	14.1	49.8	68.2	-18.4	Peak	Vertical
*	10112.0	35.3	17.1	52.4	68.2	-15.8	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7460.0	35.3	11.9	47.2	74.0	-26.8	Peak	Horizontal
	8327.0	35.9	12.2	48.1	74.0	-25.9	Peak	Horizontal
*	10384.0	36.7	17.6	54.3	68.2	-13.9	Peak	Horizontal
*	17235.0	37.2	20.5	57.7	68.2	-10.5	Peak	Horizontal
	7502.5	35.7	11.9	47.6	74.0	-26.4	Peak	Vertical
	8352.5	35.3	12.3	47.6	74.0	-26.4	Peak	Vertical
*	9857.0	35.4	16.8	52.2	68.2	-16.0	Peak	Vertical
*	17260.5	36.7	20.5	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7468.5	35.5	11.8	47.3	74.0	-26.7	Peak	Horizontal
	8327.0	37.1	12.2	49.3	74.0	-24.7	Peak	Horizontal
*	9865.5	36.0	16.8	52.8	68.2	-15.4	Peak	Horizontal
*	17379.5	41.1	21.4	62.5	68.2	-5.7	Peak	Horizontal
	7536.5	35.5	11.8	47.3	74.0	-26.7	Peak	Vertical
	8327.0	36.4	12.2	48.6	74.0	-25.4	Peak	Vertical
*	9712.5	36.4	16.5	52.9	68.2	-15.3	Peak	Vertical
*	17371.0	42.4	21.5	63.9	68.2	-4.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7587.5	35.1	11.7	46.8	74.0	-27.2	Peak	Horizontal
	8386.5	35.3	12.4	47.7	74.0	-26.3	Peak	Horizontal
*	8658.5	35.6	13.7	49.3	68.2	-18.9	Peak	Horizontal
*	9746.5	36.1	16.7	52.8	68.2	-15.4	Peak	Horizontal
	7494.0	37.0	11.8	48.8	74.0	-25.2	Peak	Vertical
	8242.0	36.5	12.2	48.7	74.0	-25.3	Peak	Vertical
*	8854.0	36.2	14.4	50.6	68.2	-17.6	Peak	Vertical
*	9814.5	36.1	16.8	52.9	68.2	-15.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7383.5	35.6	11.8	47.4	74.0	-26.6	Peak	Horizontal
	8233.5	37.4	12.3	49.7	74.0	-24.3	Peak	Horizontal
*	8692.5	35.9	14.0	49.9	68.2	-18.3	Peak	Horizontal
*	9840.0	36.5	16.9	53.4	68.2	-14.8	Peak	Horizontal
	7468.5	36.1	11.8	47.9	74.0	-26.1	Peak	Vertical
	8352.5	36.1	12.3	48.4	74.0	-25.6	Peak	Vertical
*	8862.5	35.8	14.4	50.2	68.2	-18.0	Peak	Vertical
*	9967.5	36.6	16.7	53.3	68.2	-14.9	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7604.5	36.3	11.8	48.1	74.0	-25.9	Peak	Horizontal
	8157.0	36.6	12.5	49.1	74.0	-24.9	Peak	Horizontal
*	8845.5	36.4	14.3	50.7	68.2	-17.5	Peak	Horizontal
*	9746.5	37.3	16.7	54.0	68.2	-14.2	Peak	Horizontal
	7630.0	35.3	11.5	46.8	74.0	-27.2	Peak	Vertical
	8242.0	36.2	12.2	48.4	74.0	-25.6	Peak	Vertical
*	8701.0	35.9	14.0	49.9	68.2	-18.3	Peak	Vertical
*	9848.5	35.7	16.9	52.6	68.2	-15.6	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7536.5	36.0	11.8	47.8	74.0	-26.2	Peak	Horizontal
*	8837.0	36.5	14.3	50.8	68.2	-17.4	Peak	Horizontal
*	9746.5	35.8	16.7	52.5	68.2	-15.7	Peak	Horizontal
	15659.0	39.5	17.5	57.0	74.0	-17.0	Peak	Horizontal
	15659.0	29.8	17.5	47.3	54.0	-6.7	Average	Horizontal
	7485.5	36.8	11.8	48.6	74.0	-25.4	Peak	Vertical
*	8786.0	36.0	14.1	50.1	68.2	-18.1	Peak	Vertical
*	10392.5	36.0	17.6	53.6	68.2	-14.6	Peak	Vertical
	15600.0	40.8	17.5	58.3	74.0	-15.7	Peak	Vertical
	15600.0	30.1	17.5	47.6	54.0	-6.4	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7511.0	36.6	11.9	48.5	74.0	-25.5	Peak	Horizontal
*	8743.5	36.7	14.1	50.8	68.2	-17.4	Peak	Horizontal
*	9772.0	34.0	16.7	50.7	68.2	-17.5	Peak	Horizontal
	15715.9	42.0	17.2	59.2	74.0	-14.8	Peak	Horizontal
	15715.9	29.4	17.2	46.6	54.0	-7.4	Average	Horizontal
	7409.0	36.9	11.8	48.7	74.0	-25.3	Peak	Vertical
*	8879.5	36.8	14.2	51.0	68.2	-17.2	Peak	Vertical
*	9712.5	36.1	16.5	52.6	68.2	-15.6	Peak	Vertical
	15716.5	40.7	17.2	57.9	74.0	-16.1	Peak	Vertical
	15716.5	29.5	17.2	46.7	54.0	-7.3	Average	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	8310.0	35.4	12.2	47.6	74.0	-26.4	Peak	Horizontal
*	8701.0	35.2	14.0	49.2	68.2	-19.0	Peak	Horizontal
*	10188.5	35.8	17.2	53.0	68.2	-15.2	Peak	Horizontal
*	17226.5	39.0	20.6	59.6	68.2	-8.6	Peak	Horizontal
	7426.0	37.0	11.8	48.8	74.0	-25.2	Peak	Vertical
	8386.5	34.8	12.4	47.2	74.0	-26.8	Peak	Vertical
*	8718.0	34.7	13.9	48.6	68.2	-19.6	Peak	Vertical
*	17226.5	41.2	20.6	61.8	68.2	-6.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7426.0	37.0	11.8	48.8	74.0	-25.2	Peak	Horizontal
	8174.0	36.9	12.4	49.3	74.0	-24.7	Peak	Horizontal
*	10146.0	34.4	16.7	51.1	68.2	-17.1	Peak	Horizontal
*	17362.5	42.0	21.2	63.2	68.2	-5.0	Peak	Horizontal
	7664.0	35.8	11.4	47.2	74.0	-26.8	Peak	Vertical
	8352.5	36.9	12.3	49.2	74.0	-24.8	Peak	Vertical
*	9984.5	36.5	16.7	53.2	68.2	-15.0	Peak	Vertical
*	17345.5	43.3	20.9	64.2	68.2	-4.0	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7468.5	35.4	11.8	47.2	74.0	-26.8	Peak	Horizontal
	8310.0	35.8	12.2	48.0	74.0	-26.0	Peak	Horizontal
*	9721.0	35.9	16.7	52.6	68.2	-15.6	Peak	Horizontal
*	17473.0	42.8	22.1	64.9	68.2	-3.3	Peak	Horizontal
	7638.5	35.8	11.4	47.2	74.0	-26.8	Peak	Vertical
	8182.5	36.8	12.4	49.2	74.0	-24.8	Peak	Vertical
*	8650.0	37.1	13.7	50.8	68.2	-17.4	Peak	Vertical
*	17473.0	45.1	22.1	67.2	68.2	-1.0	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7570.5	35.5	11.7	47.2	74.0	-26.8	Peak	Horizontal
	8199.5	36.5	12.4	48.9	74.0	-25.1	Peak	Horizontal
*	8854.0	35.7	14.4	50.1	68.2	-18.1	Peak	Horizontal
*	9882.5	36.1	16.8	52.9	68.2	-15.3	Peak	Horizontal
	7451.5	36.3	12.0	48.3	74.0	-25.7	Peak	Vertical
	8242.0	35.9	12.2	48.1	74.0	-25.9	Peak	Vertical
*	8811.5	36.5	14.3	50.8	68.2	-17.4	Peak	Vertical
*	10418.0	36.2	17.6	53.8	68.2	-14.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7732.0	35.5	11.4	46.9	74.0	-27.1	Peak	Horizontal
	8318.5	36.0	12.2	48.2	74.0	-25.8	Peak	Horizontal
*	8675.5	36.7	13.8	50.5	68.2	-17.7	Peak	Horizontal
*	9942.0	35.6	16.9	52.5	68.2	-15.7	Peak	Horizontal
	7587.5	35.4	11.7	47.1	74.0	-26.9	Peak	Vertical
	8276.0	36.2	12.3	48.5	74.0	-25.5	Peak	Vertical
*	9755.0	35.7	16.7	52.4	68.2	-15.8	Peak	Vertical
*	10358.5	35.7	17.5	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7468.5	36.1	11.8	47.9	74.0	-26.1	Peak	Horizontal
	8199.5	37.3	12.4	49.7	74.0	-24.3	Peak	Horizontal
*	8675.5	36.3	13.8	50.1	68.2	-18.1	Peak	Horizontal
*	10103.5	36.8	17.0	53.8	68.2	-14.4	Peak	Horizontal
	7519.5	34.8	11.8	46.6	74.0	-27.4	Peak	Vertical
	8310.0	35.9	12.2	48.1	74.0	-25.9	Peak	Vertical
*	10222.5	36.1	17.1	53.2	68.2	-15.0	Peak	Vertical
*	17269.0	39.9	20.5	60.4	68.2	-7.8	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7536.5	35.6	11.8	47.4	74.0	-26.6	Peak	Horizontal
	8233.5	36.6	12.3	48.9	74.0	-25.1	Peak	Horizontal
*	9789.0	35.6	16.8	52.4	68.2	-15.8	Peak	Horizontal
*	17371.0	41.4	21.5	62.9	68.2	-5.3	Peak	Horizontal
	7562.0	35.2	11.7	46.9	74.0	-27.1	Peak	Vertical
	8386.5	35.9	12.4	48.3	74.0	-25.7	Peak	Vertical
*	9814.5	34.8	16.8	51.6	68.2	-16.6	Peak	Vertical
*	17379.5	41.9	21.4	63.3	68.2	-4.9	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE80 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7655.5	35.8	11.4	47.2	74.0	-26.8	Peak	Horizontal
	8310.0	35.9	12.2	48.1	74.0	-25.9	Peak	Horizontal
*	9772.0	35.7	16.7	52.4	68.2	-15.8	Peak	Horizontal
*	17473.0	37.4	22.1	59.5	68.2	-8.7	Peak	Horizontal
	7468.5	36.7	11.8	48.5	74.0	-25.5	Peak	Vertical
	8165.5	36.0	12.4	48.4	74.0	-25.6	Peak	Vertical
*	9916.5	36.2	16.9	53.1	68.2	-15.1	Peak	Vertical
*	17269.0	37.3	20.5	57.8	68.2	-10.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE80 - Ant 0 + 1 + 2 + 3 (Non Beam-Forming Mode)	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
	7664.0	35.8	11.4	47.2	74.0	-26.8	Peak	Horizontal
	8403.5	36.9	12.4	49.3	74.0	-24.7	Peak	Horizontal
*	8650.0	36.7	13.7	50.4	68.2	-17.8	Peak	Horizontal
*	9831.5	35.7	16.9	52.6	68.2	-15.6	Peak	Horizontal
	7638.5	35.5	11.4	46.9	74.0	-27.1	Peak	Vertical
	8327.0	37.4	12.2	49.6	74.0	-24.4	Peak	Vertical
*	8820.0	36.2	14.3	50.5	68.2	-17.7	Peak	Vertical
*	9797.5	36.9	16.8	53.7	68.2	-14.5	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
	8123.0	38.6	12.6	51.2	74.0	-22.8	Peak	Horizontal
	8463.0	37.1	12.5	49.6	74.0	-24.4	Peak	Horizontal
*	9211.0	37.1	15.6	52.7	68.2	-15.5	Peak	Horizontal
*	9916.5	34.9	16.9	51.8	68.2	-16.4	Peak	Horizontal
	7477.0	37.5	11.7	49.2	74.0	-24.8	Peak	Vertical
	8199.5	38.3	12.4	50.7	74.0	-23.3	Peak	Vertical
*	8862.5	37.3	14.4	51.7	68.2	-16.5	Peak	Vertical
*	10443.5	37.2	17.7	54.9	68.2	-13.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
	7366.5	38.3	11.9	50.2	74.0	-23.8	Peak	Horizontal
	8233.5	38.9	12.3	51.2	74.0	-22.8	Peak	Horizontal
*	8735.0	37.1	14.0	51.1	68.2	-17.1	Peak	Horizontal
*	9806.0	35.7	16.8	52.5	68.2	-15.7	Peak	Horizontal
	7579.0	38.0	11.6	49.6	74.0	-24.4	Peak	Vertical
	8140.0	38.0	12.4	50.4	74.0	-23.6	Peak	Vertical
*	8624.5	37.2	13.5	50.7	68.2	-17.5	Peak	Vertical
*	8811.5	38.5	14.3	52.8	68.2	-15.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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	38.2	11.8	50.0	74.0	-24.0	Peak	Horizontal
	8165.5	38.1	12.4	50.5	74.0	-23.5	Peak	Horizontal
*	8701.0	37.1	14.0	51.1	68.2	-17.1	Peak	Horizontal
*	9780.5	37.2	16.7	53.9	68.2	-14.3	Peak	Horizontal
	7307.0	37.8	11.7	49.5	74.0	-24.5	Peak	Vertical
	8480.0	37.7	12.8	50.5	74.0	-23.5	Peak	Vertical
*	8658.5	36.9	13.7	50.6	68.2	-17.6	Peak	Vertical
*	10171.5	35.4	17.1	52.5	68.2	-15.7	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7043.5	37.5	10.9	48.4	68.2	-19.8	Peak	Horizontal
	7664.0	39.0	11.4	50.4	74.0	-23.6	Peak	Horizontal
*	7953.0	37.1	12.5	49.6	68.2	-18.6	Peak	Horizontal
	8191.0	39.1	12.4	51.5	74.0	-22.5	Peak	Horizontal
*	7137.0	38.7	11.3	50.0	68.2	-18.2	Peak	Vertical
	7519.5	37.4	11.8	49.2	74.0	-24.8	Peak	Vertical
*	7936.0	38.0	12.5	50.5	68.2	-17.7	Peak	Vertical
	8131.5	37.9	12.5	50.4	74.0	-23.6	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7145.5	38.8	11.3	50.1	68.2	-18.1	Peak	Horizontal
	7451.5	37.8	12.0	49.8	74.0	-24.2	Peak	Horizontal
*	7902.0	37.9	12.1	50.0	68.2	-18.2	Peak	Horizontal
	8131.5	37.5	12.5	50.0	74.0	-24.0	Peak	Horizontal
*	6967.0	37.8	10.5	48.3	68.2	-19.9	Peak	Vertical
	7298.5	38.4	11.7	50.1	74.0	-23.9	Peak	Vertical
*	7842.5	35.9	11.9	47.8	68.2	-20.4	Peak	Vertical
	8089.0	37.1	12.7	49.8	74.0	-24.2	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7239.0	37.4	11.5	48.9	68.2	-19.3	Peak	Horizontal
	7451.5	38.5	12.0	50.5	74.0	-23.5	Peak	Horizontal
*	7995.5	37.0	12.5	49.5	68.2	-18.7	Peak	Horizontal
	8386.5	38.2	12.4	50.6	74.0	-23.4	Peak	Horizontal
*	7069.0	37.7	11.0	48.7	68.2	-19.5	Peak	Vertical
	7434.5	37.3	11.9	49.2	74.0	-24.8	Peak	Vertical
*	7961.5	38.3	12.4	50.7	68.2	-17.5	Peak	Vertical
	8276.0	37.1	12.3	49.4	74.0	-24.6	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7171.0	37.9	11.6	49.5	68.2	-18.7	Peak	Horizontal
	7392.0	38.4	11.8	50.2	74.0	-23.8	Peak	Horizontal
*	7936.0	39.6	12.5	52.1	68.2	-16.1	Peak	Horizontal
	8097.5	38.7	12.7	51.4	74.0	-22.6	Peak	Horizontal
*	7035.0	39.4	10.9	50.3	68.2	-17.9	Peak	Vertical
	7443.0	37.7	12.1	49.8	74.0	-24.2	Peak	Vertical
*	7825.5	37.5	11.9	49.4	68.2	-18.8	Peak	Vertical
	8259.0	37.9	12.3	50.2	74.0	-23.8	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7128.5	37.7	11.3	49.0	68.2	-19.2	Peak	Horizontal
	7366.5	39.0	11.9	50.9	74.0	-23.1	Peak	Horizontal
*	7910.5	37.0	12.2	49.2	68.2	-19.0	Peak	Horizontal
	8063.5	38.5	12.6	51.1	74.0	-22.9	Peak	Horizontal
*	7060.5	39.1	11.0	50.1	68.2	-18.1	Peak	Vertical
	7460.0	38.1	11.9	50.0	74.0	-24.0	Peak	Vertical
*	7876.5	36.4	12.1	48.5	68.2	-19.7	Peak	Vertical
	8131.5	38.4	12.5	50.9	74.0	-23.1	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7120.0	37.1	11.3	48.4	68.2	-19.8	Peak	Horizontal
	7604.5	37.6	11.8	49.4	74.0	-24.6	Peak	Horizontal
*	7876.5	36.4	12.1	48.5	68.2	-19.7	Peak	Horizontal
	8165.5	36.7	12.4	49.1	74.0	-24.9	Peak	Horizontal
*	7154.0	37.6	11.3	48.9	68.2	-19.3	Peak	Vertical
	7451.5	37.7	12.0	49.7	74.0	-24.3	Peak	Vertical
*	7978.5	38.3	12.4	50.7	68.2	-17.5	Peak	Vertical
	8114.5	37.4	12.6	50.0	74.0	-24.0	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7120.0	37.6	11.3	48.9	68.2	-19.3	Peak	Horizontal
	7417.5	38.2	11.8	50.0	74.0	-24.0	Peak	Horizontal
*	7944.5	37.7	12.5	50.2	68.2	-18.0	Peak	Horizontal
	8174.0	37.5	12.4	49.9	74.0	-24.1	Peak	Horizontal
*	7188.0	37.7	11.6	49.3	68.2	-18.9	Peak	Vertical
	7511.0	36.4	11.9	48.3	74.0	-25.7	Peak	Vertical
*	7868.0	37.1	12.1	49.2	68.2	-19.0	Peak	Vertical
	8378.0	37.8	12.3	50.1	74.0	-23.9	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7188.0	36.8	11.6	48.4	68.2	-19.8	Peak	Horizontal
	7468.5	37.9	11.8	49.7	74.0	-24.3	Peak	Horizontal
*	7953.0	37.9	12.5	50.4	68.2	-17.8	Peak	Horizontal
	8301.5	38.5	12.2	50.7	74.0	-23.3	Peak	Horizontal
*	6958.5	38.3	10.5	48.8	68.2	-19.4	Peak	Vertical
	7451.5	38.1	12.0	50.1	74.0	-23.9	Peak	Vertical
*	8012.5	38.0	12.6	50.6	68.2	-17.6	Peak	Vertical
	8165.5	37.2	12.4	49.6	74.0	-24.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7145.5	37.6	11.3	48.9	68.2	-19.3	Peak	Horizontal
	7494.0	38.1	11.8	49.9	74.0	-24.1	Peak	Horizontal
*	7876.5	36.8	12.1	48.9	68.2	-19.3	Peak	Horizontal
	8165.5	37.2	12.4	49.6	74.0	-24.4	Peak	Horizontal
*	7154.0	38.4	11.3	49.7	68.2	-18.5	Peak	Vertical
	7434.5	37.6	11.9	49.5	74.0	-24.5	Peak	Vertical
*	7936.0	37.4	12.5	49.9	68.2	-18.3	Peak	Vertical
	8199.5	38.2	12.4	50.6	74.0	-23.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7001.0	37.4	10.8	48.2	68.2	-20.0	Peak	Horizontal
	7392.0	37.7	11.8	49.5	74.0	-24.5	Peak	Horizontal
*	7910.5	38.4	12.2	50.6	68.2	-17.6	Peak	Horizontal
	8140.0	38.5	12.4	50.9	74.0	-23.1	Peak	Horizontal
*	7111.5	37.2	11.3	48.5	68.2	-19.7	Peak	Vertical
	7545.0	37.4	11.7	49.1	74.0	-24.9	Peak	Vertical
*	7817.0	37.8	11.8	49.6	68.2	-18.6	Peak	Vertical
	8301.5	38.3	12.2	50.5	74.0	-23.5	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7154.0	37.8	11.3	49.1	68.2	-19.1	Peak	Horizontal
	7545.0	37.4	11.7	49.1	74.0	-24.9	Peak	Horizontal
*	7774.5	37.5	11.8	49.3	68.2	-18.9	Peak	Horizontal
	8089.0	37.1	12.7	49.8	74.0	-24.2	Peak	Horizontal
*	7179.5	37.9	11.6	49.5	68.2	-18.7	Peak	Vertical
	7383.5	37.7	11.8	49.5	74.0	-24.5	Peak	Vertical
*	7851.0	37.5	11.9	49.4	68.2	-18.8	Peak	Vertical
	8344.0	37.9	12.2	50.1	74.0	-23.9	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7213.5	38.4	11.5	49.9	68.2	-18.3	Peak	Horizontal
	7468.5	36.5	11.8	48.3	74.0	-25.7	Peak	Horizontal
*	7851.0	37.7	11.9	49.6	68.2	-18.6	Peak	Horizontal
	8165.5	38.1	12.4	50.5	74.0	-23.5	Peak	Horizontal
*	6771.5	37.8	9.9	47.7	68.2	-20.5	Peak	Vertical
	7256.0	38.2	11.7	49.9	74.0	-24.1	Peak	Vertical
*	7961.5	38.2	12.4	50.6	68.2	-17.6	Peak	Vertical
	8250.5	38.1	12.2	50.3	74.0	-23.7	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7222.0	37.8	11.5	49.3	68.2	-18.9	Peak	Horizontal
	7434.5	36.6	11.9	48.5	74.0	-25.5	Peak	Horizontal
*	7842.5	36.5	11.9	48.4	68.2	-19.8	Peak	Horizontal
	8038.0	38.7	12.6	51.3	74.0	-22.7	Peak	Horizontal
*	7111.5	38.0	11.3	49.3	68.2	-18.9	Peak	Vertical
	7519.5	37.8	11.8	49.6	74.0	-24.4	Peak	Vertical
*	7927.5	37.1	12.4	49.5	68.2	-18.7	Peak	Vertical
	8386.5	36.1	12.4	48.5	74.0	-25.5	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7094.5	37.8	11.3	49.1	68.2	-19.1	Peak	Horizontal
	7451.5	37.6	12.0	49.6	74.0	-24.4	Peak	Horizontal
*	8565.0	37.6	13.1	50.7	68.2	-17.5	Peak	Horizontal
	9109.0	38.3	15.0	53.3	74.0	-20.7	Peak	Horizontal
*	6890.5	38.8	10.0	48.8	68.2	-19.4	Peak	Vertical
	7451.5	37.6	12.0	49.6	74.0	-24.4	Peak	Vertical
*	7842.5	37.0	11.9	48.9	68.2	-19.3	Peak	Vertical
	8386.5	36.9	12.4	49.3	74.0	-24.7	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	6440.0	38.9	9.2	48.1	68.2	-20.1	Peak	Horizontal
	7485.5	37.7	11.8	49.5	74.0	-24.5	Peak	Horizontal
*	7953.0	37.4	12.5	49.9	68.2	-18.3	Peak	Horizontal
	8284.5	36.8	12.2	49.0	74.0	-25.0	Peak	Horizontal
*	6669.5	39.1	9.7	48.8	68.2	-19.4	Peak	Vertical
	7358.0	37.7	11.9	49.6	74.0	-24.4	Peak	Vertical
*	7868.0	38.3	12.1	50.4	68.2	-17.8	Peak	Vertical
	8395.0	37.7	12.4	50.1	74.0	-23.9	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	6856.5	36.0	10.1	46.1	68.2	-22.1	Peak	Horizontal
	7332.5	38.5	11.7	50.2	74.0	-23.8	Peak	Horizontal
*	7987.0	36.2	12.4	48.6	68.2	-19.6	Peak	Horizontal
	8293.0	36.8	12.1	48.9	74.0	-25.1	Peak	Horizontal
*	6644.0	38.9	9.6	48.5	68.2	-19.7	Peak	Vertical
	7281.5	38.0	11.7	49.7	74.0	-24.3	Peak	Vertical
*	7893.5	37.0	12.1	49.1	68.2	-19.1	Peak	Vertical
	8165.5	38.0	12.4	50.4	74.0	-23.6	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	6958.5	38.1	10.5	48.6	68.2	-19.6	Peak	Horizontal
	7332.5	37.6	11.7	49.3	74.0	-24.7	Peak	Horizontal
*	7919.0	37.5	12.3	49.8	68.2	-18.4	Peak	Horizontal
	8242.0	37.2	12.2	49.4	74.0	-24.6	Peak	Horizontal
*	7239.0	38.1	11.5	49.6	68.2	-18.6	Peak	Vertical
	7604.5	36.8	11.8	48.6	74.0	-25.4	Peak	Vertical
*	7842.5	36.5	11.9	48.4	68.2	-19.8	Peak	Vertical
	8038.0	37.1	12.6	49.7	74.0	-24.3	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7069.0	37.6	11.0	48.6	68.2	-19.6	Peak	Horizontal
	7485.5	37.6	11.8	49.4	74.0	-24.6	Peak	Horizontal
*	7876.5	35.9	12.1	48.0	68.2	-20.2	Peak	Horizontal
	8199.5	36.8	12.4	49.2	74.0	-24.8	Peak	Horizontal
*	7094.5	37.7	11.3	49.0	68.2	-19.2	Peak	Vertical
	7434.5	36.1	11.9	48.0	74.0	-26.0	Peak	Vertical
*	7876.5	38.7	12.1	50.8	68.2	-17.4	Peak	Vertical
	8165.5	36.7	12.4	49.1	74.0	-24.9	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7205.0	39.1	11.5	50.6	68.2	-17.6	Peak	Horizontal
	7562.0	37.3	11.7	49.0	74.0	-25.0	Peak	Horizontal
*	7808.5	37.9	11.7	49.6	68.2	-18.6	Peak	Horizontal
	8327.0	37.9	12.2	50.1	74.0	-23.9	Peak	Horizontal
*	7179.5	37.4	11.6	49.0	68.2	-19.2	Peak	Vertical
	7689.5	37.6	11.6	49.2	74.0	-24.8	Peak	Vertical
*	7987.0	36.4	12.4	48.8	68.2	-19.4	Peak	Vertical
	8199.5	36.9	12.4	49.3	74.0	-24.7	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	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7222.0	38.6	11.5	50.1	68.2	-18.1	Peak	Horizontal
	7519.5	37.2	11.8	49.0	74.0	-25.0	Peak	Horizontal
*	7825.5	37.0	11.9	48.9	68.2	-19.3	Peak	Horizontal
	8089.0	37.5	12.7	50.2	74.0	-23.8	Peak	Horizontal
*	6712.0	37.8	9.6	47.4	68.2	-20.8	Peak	Vertical
	7290.0	38.3	11.7	50.0	74.0	-24.0	Peak	Vertical
*	7851.0	37.7	11.9	49.6	68.2	-18.6	Peak	Vertical
	8165.5	37.2	12.4	49.6	74.0	-24.4	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	GigaSpire	Temperature	26°C
Test Engineer	Dillon Diao	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/12/18
Test Mode:	802.11ax-HE80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	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
*	7103.0	36.7	11.3	48.0	68.2	-20.2	Peak	Horizontal
	7494.0	37.7	11.8	49.5	74.0	-24.5	Peak	Horizontal
*	7893.5	37.9	12.1	50.0	68.2	-18.2	Peak	Horizontal
	8191.0	37.8	12.4	50.2	74.0	-23.8	Peak	Horizontal
*	7137.0	37.7	11.3	49.0	68.2	-19.2	Peak	Vertical
	7358.0	37.4	11.9	49.3	74.0	-24.7	Peak	Vertical
*	7808.5	37.8	11.7	49.5	68.2	-18.7	Peak	Vertical
	8497.0	37.3	12.8	50.1	74.0	-23.9	Peak	Vertical

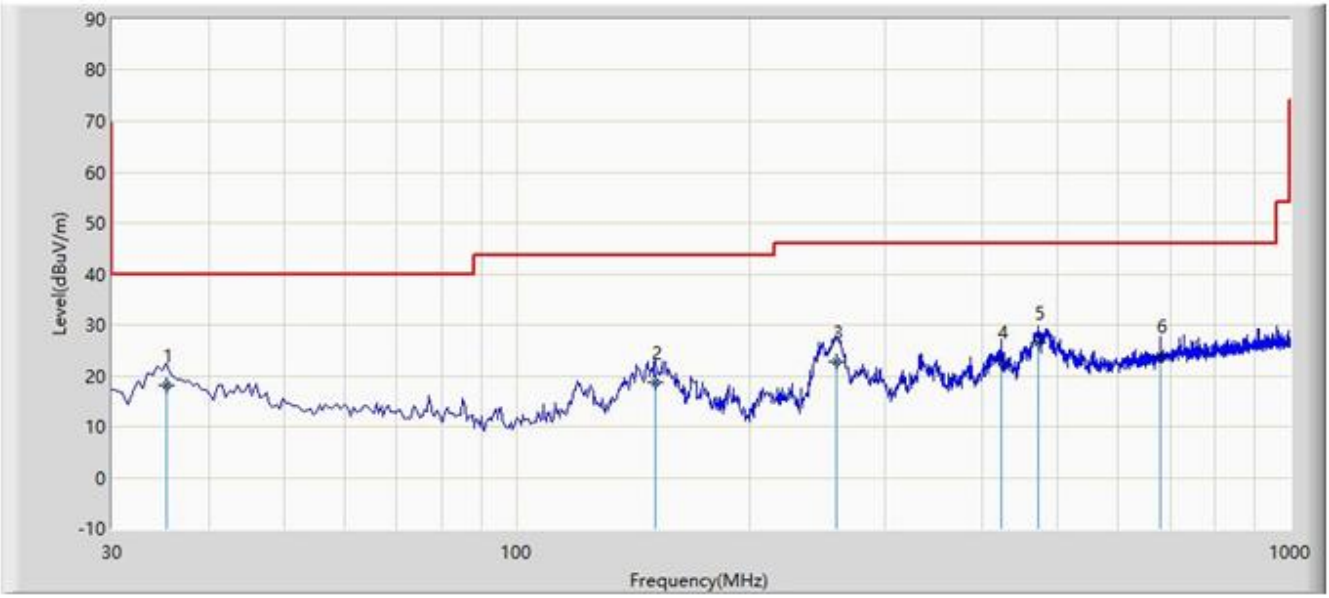
Note 1: “*” is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The worst case of Radiated Emission below 1GHz:

Site: AC1	Time: 2019/11/29 - 15:07
Limit: FCC_Part15.209_RSE(3m)	Engineer: Dillon Diao
Probe: AC1_VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: GigaSpire	Power: AC 120V/60Hz
Note: There is the worst case within frequency range 30MHz~1GHz.	



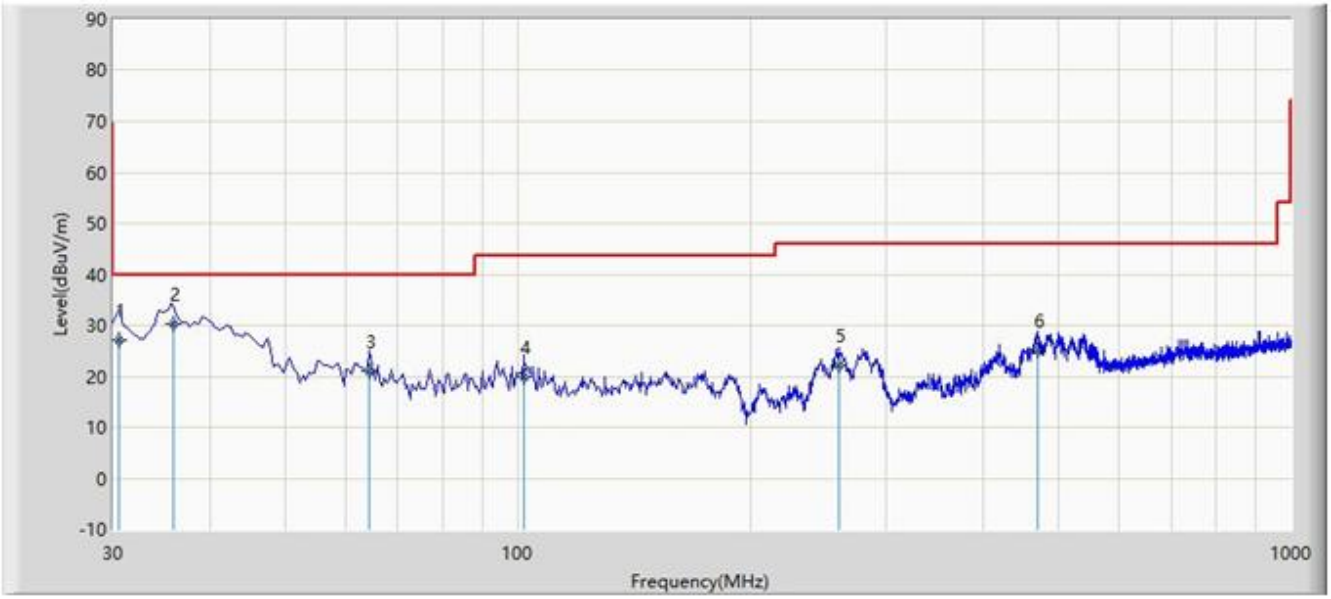
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			35.350	18.223	4.250	-21.777	40.000	13.973	QP
2			151.250	18.745	3.500	-24.755	43.500	15.245	QP
3			258.900	22.648	9.480	-23.352	46.000	13.167	QP
4			422.850	22.844	5.680	-23.156	46.000	17.164	QP
5		*	472.350	26.522	8.400	-19.478	46.000	18.121	QP
6			680.380	23.888	2.040	-22.112	46.000	21.848	QP

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + 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 ~ 40GHz), therefore no data appear in the report.

Site: AC1	Time: 2019/11/29 - 15:09
Limit: FCC_Part15.209_RSE(3m)	Engineer: Dillon Diao
Probe: AC1_VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: GigaSpire	Power: AC 120V/60Hz
Note: There is the worst case within frequency range 30MHz~1GHz.	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			30.520	26.967	13.280	-13.033	40.000	13.687	QP
2		*	35.850	30.402	16.390	-9.598	40.000	14.012	QP
3			64.450	21.098	8.520	-18.902	40.000	12.578	QP
4			101.780	19.774	8.570	-23.726	43.500	11.204	QP
5			259.860	22.239	9.060	-23.761	46.000	13.178	QP
6			469.860	25.068	6.980	-20.932	46.000	18.088	QP

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + 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 ~ 40GHz), therefore no data appear in the report.

7.9. Radiated RestrictedBand 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
[1] 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	([2])
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 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with

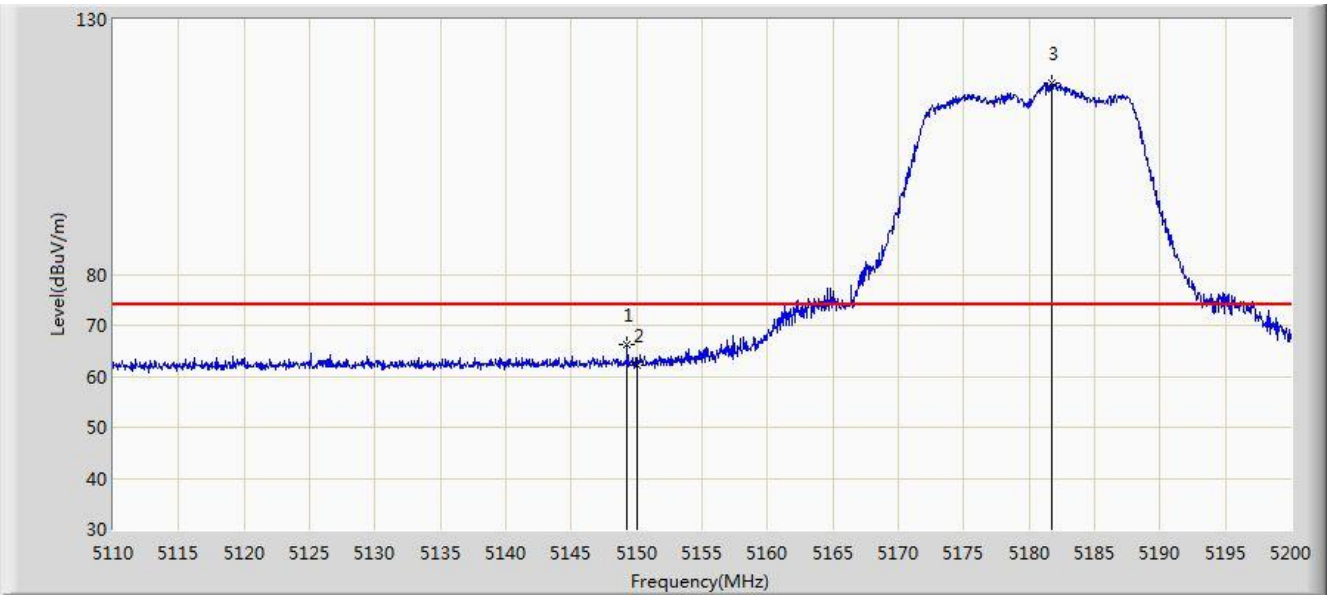
both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR 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 Result

Site: AC1	Time: 2019/11/28 - 03:08
Limit: FCC_Part15.209_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5180MHz (Non Beam-Forming Mode)	

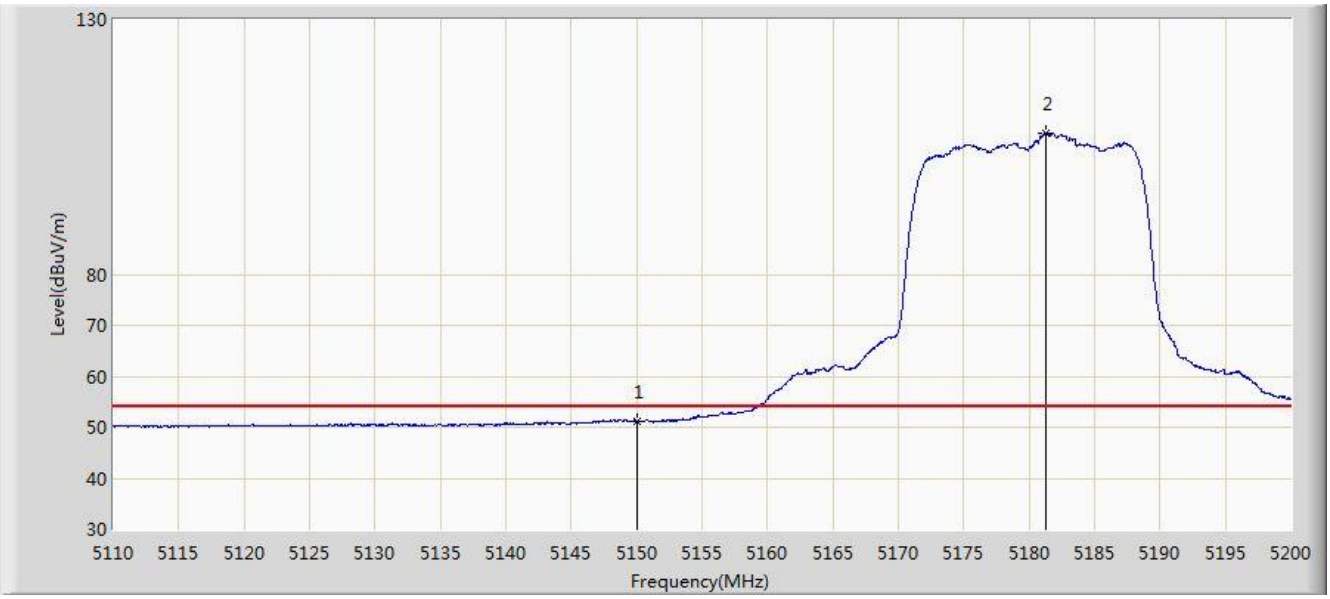


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.285	66.243	59.463	-7.757	74.000	6.797	PK
2			5150.000	62.230	55.431	-11.770	74.000	6.799	PK
3		*	5181.685	117.626	110.837	N/A	N/A	6.791	PK

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: 2019/11/28 - 03:08
Limit: FCC_Part15.209_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5180MHz (Non Beam-Forming Mode)	

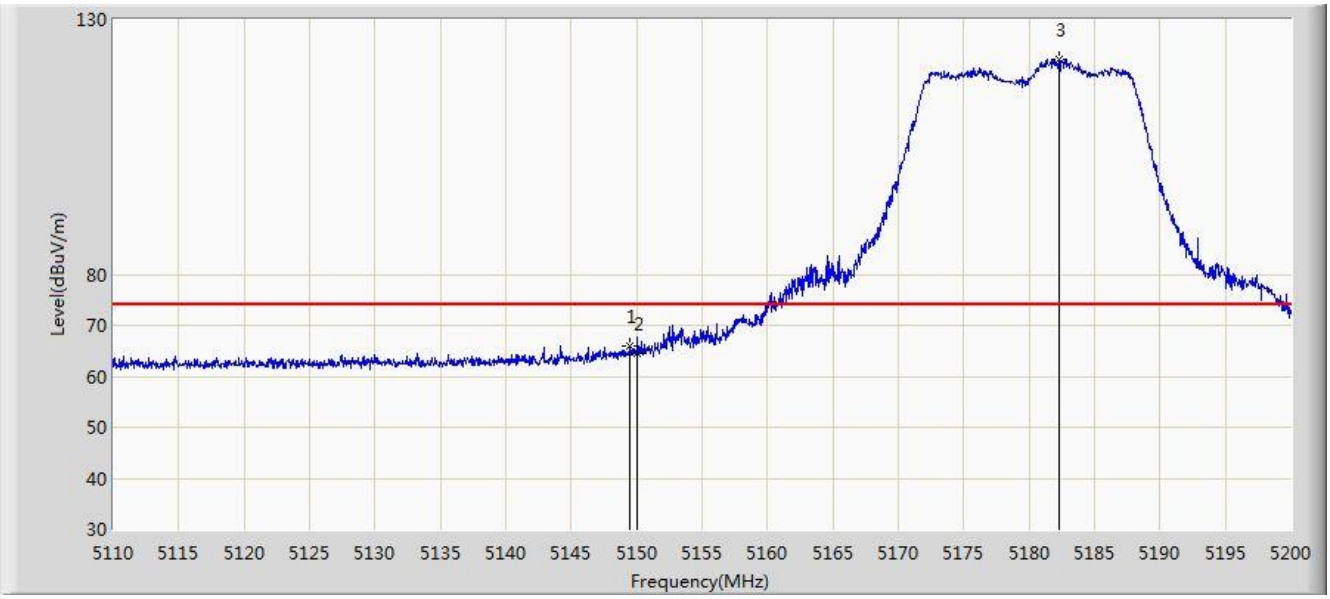


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	51.214	44.415	-2.786	54.000	6.799	AV
2		*	5181.235	107.666	100.874	N/A	N/A	6.793	AV

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: 2019/11/28 - 03:08
Limit: FCC_Part15.209_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5180MHz (Non Beam-Forming Mode)	

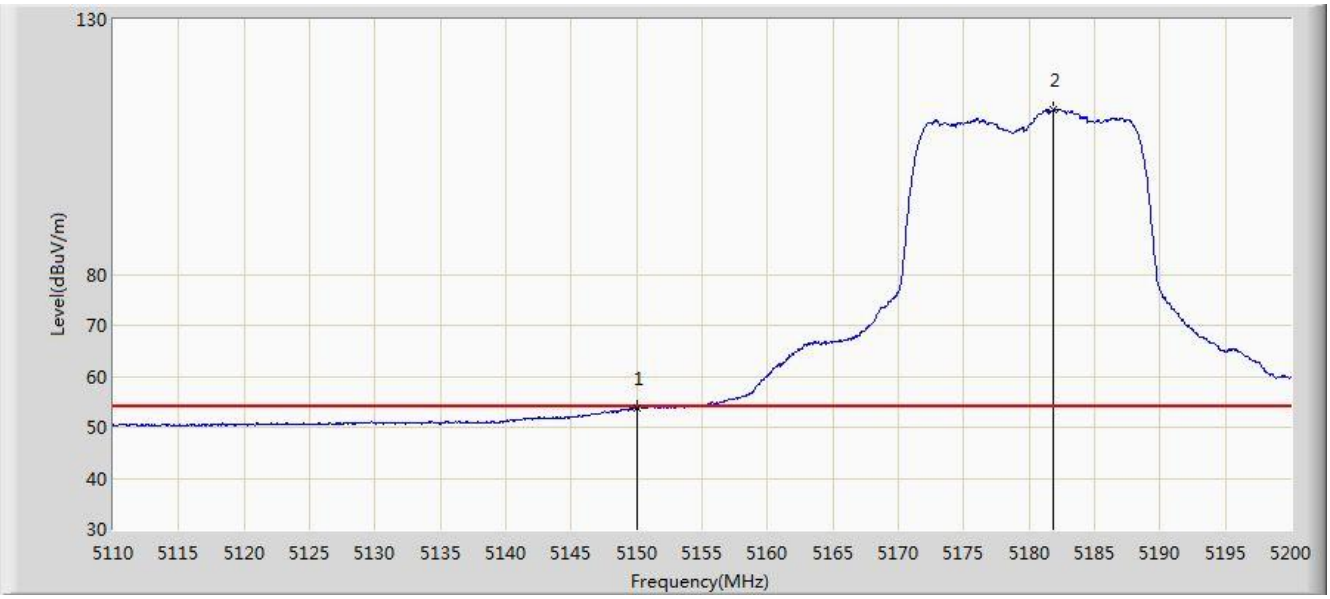


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.510	66.078	59.289	-7.922	74.000	6.797	PK
2			5150.000	64.497	57.698	-9.503	74.000	6.799	PK
3		*	5182.315	122.129	115.348	N/A	N/A	6.785	PK

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: 2019/11/28 - 03:09
Limit: FCC_Part15.209_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5180MHz (Non Beam-Forming Mode)	

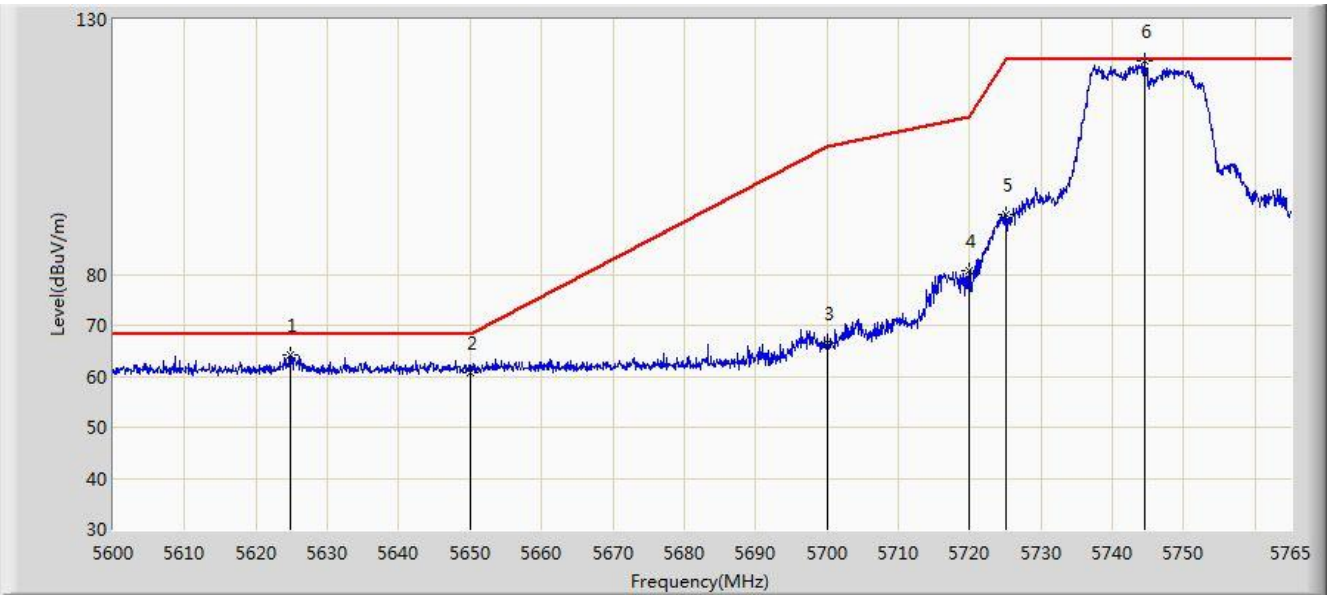


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	53.785	46.986	-0.215	54.000	6.799	AV
2	X	*	5181.865	112.444	105.655	N/A	N/A	6.789	AV

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: 2019/11/28 - 03:12
Limit: FCC_Part15.407_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5745MHz (Non Beam-Forming Mode)	

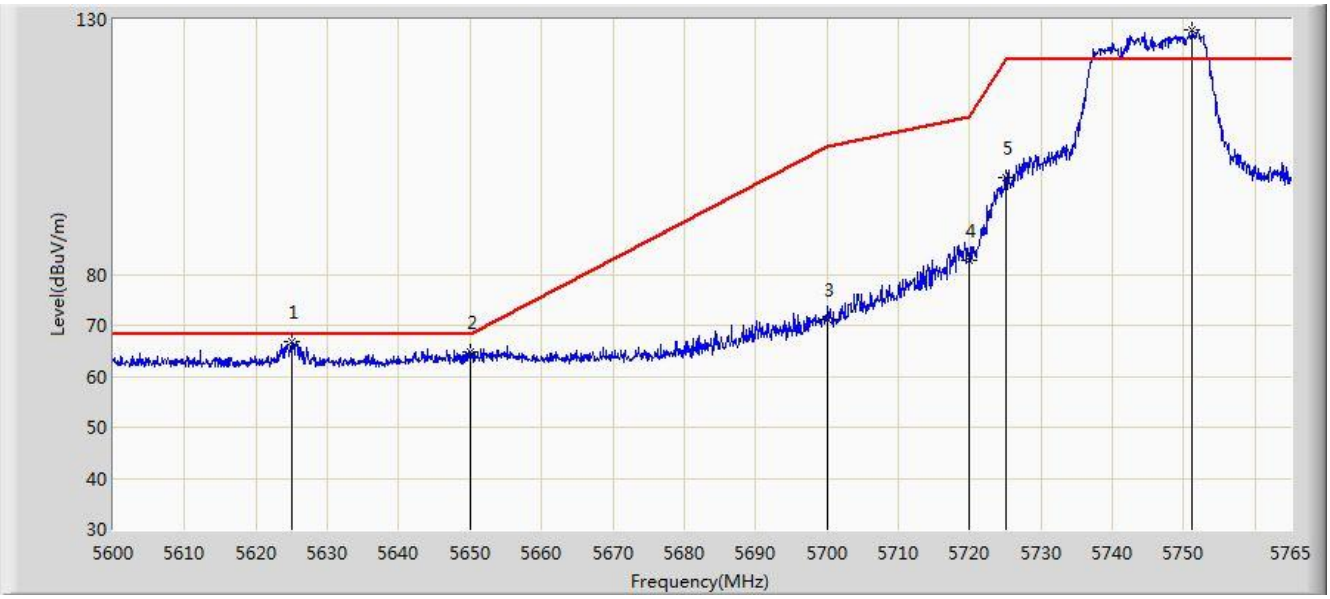


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5624.750	64.345	57.317	-3.855	68.200	7.027	PK
2			5650.000	60.760	53.620	-7.440	68.200	7.140	PK
3			5700.000	66.606	59.391	-38.594	105.200	7.215	PK
4			5720.000	80.794	73.521	-30.006	110.800	7.273	PK
5			5725.000	91.775	84.443	-30.425	122.200	7.332	PK
6		*	5744.623	121.872	114.440	N/A	N/A	7.444	PK

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: 2019/11/28 - 03:12
Limit: FCC_Part15.407_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5745MHz (Non Beam-Forming Mode)	

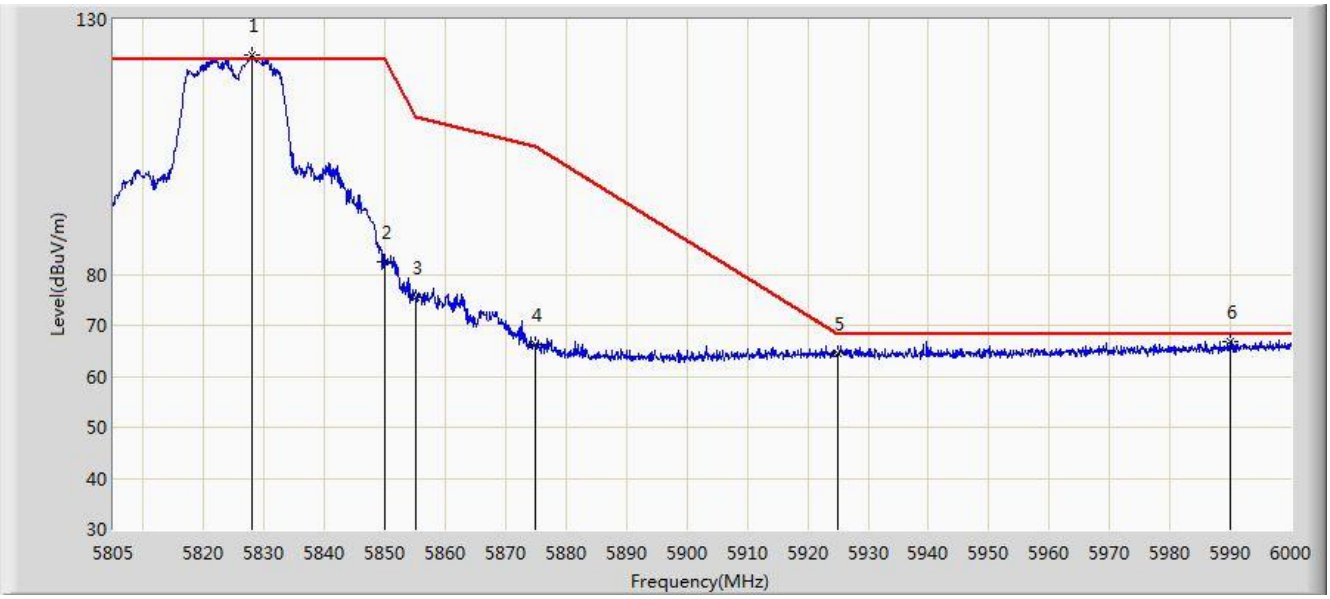


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5625.080	66.696	59.672	-1.504	68.200	7.026	PK
2			5650.000	64.813	57.673	-3.387	68.200	7.140	PK
3			5700.000	71.249	64.034	-33.951	105.200	7.215	PK
4			5720.000	82.686	75.413	-28.114	110.800	7.273	PK
5			5725.000	98.941	91.609	-23.259	122.200	7.332	PK
6		*	5751.140	127.884	120.450	N/A	N/A	7.438	PK

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: 2019/11/28 - 05:05
Limit: FCC_Part15.407_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5825MHz (Non Beam-Forming Mode)	

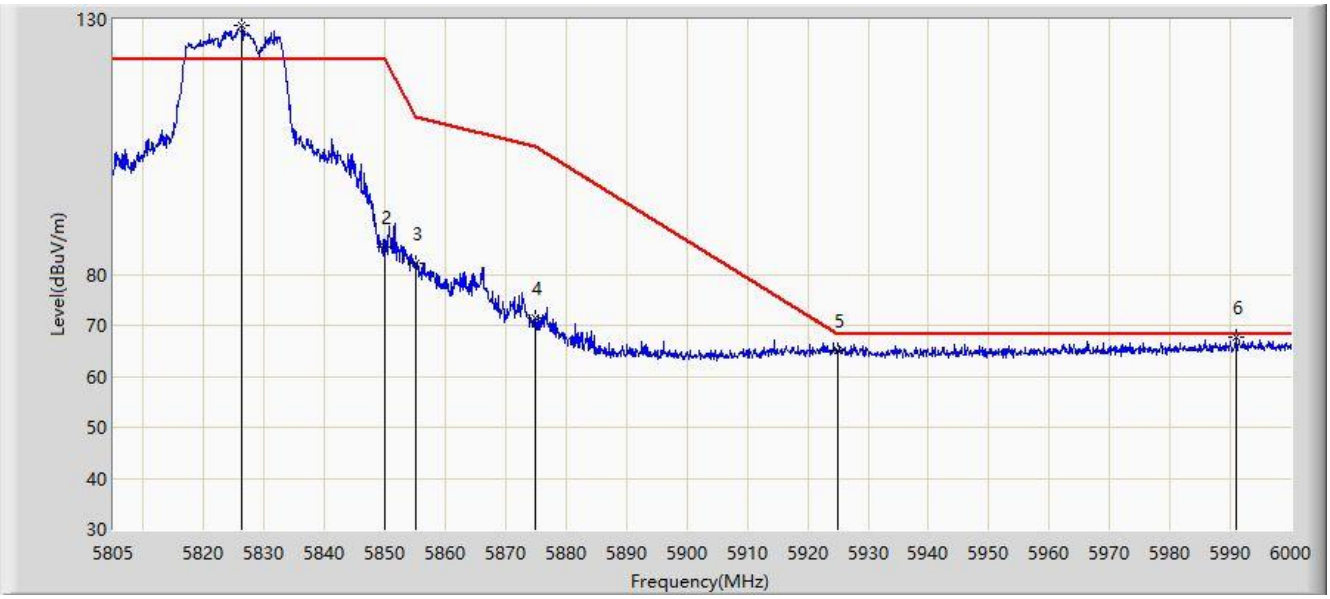


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5827.913	123.093	115.328	N/A	N/A	7.765	PK
2			5850.000	82.328	74.637	-39.872	122.200	7.692	PK
3			5855.000	75.539	67.895	-35.261	110.800	7.644	PK
4			5875.000	66.129	58.527	-39.071	105.200	7.602	PK
5			5925.000	64.398	56.572	-3.802	68.200	7.826	PK
6			5989.860	66.838	59.014	-1.362	68.200	7.823	PK

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: 2019/11/28 - 05:05
Limit: FCC_Part15.407_RSE(3m)	Engineer: David Lv
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: GigaSpire	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11a at Channel 5825MHz (Non Beam-Forming Mode)	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5826.353	128.765	121.035	N/A	N/A	7.737	PK
2			5850.000	85.232	77.541	-36.968	122.200	7.692	PK
3			5855.000	82.140	74.497	-28.660	110.800	7.644	PK
4			5875.000	71.308	63.707	-33.892	105.200	7.602	PK
5			5925.000	65.131	57.305	-3.069	68.200	7.826	PK
6			5990.933	67.639	59.811	-0.561	68.200	7.836	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).