

4.5. Power Spectral Density Measurement

4.5.1. Limit

The following table is power spectral density limits and decrease power density limit rule refer to section 4.4.1.

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25 GHz	
	Operating Mode	
<input type="checkbox"/>	Outdoor access point	17 dBm/MHz
<input checked="" type="checkbox"/>	Indoor access point	17 dBm/MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm/MHz
<input type="checkbox"/>	Mobile and portable client devices	11 dBm/MHz
<input checked="" type="checkbox"/>	5.725~5.85 GHz	30 dBm/500kHz

4.5.2. Measuring Instruments and Setting

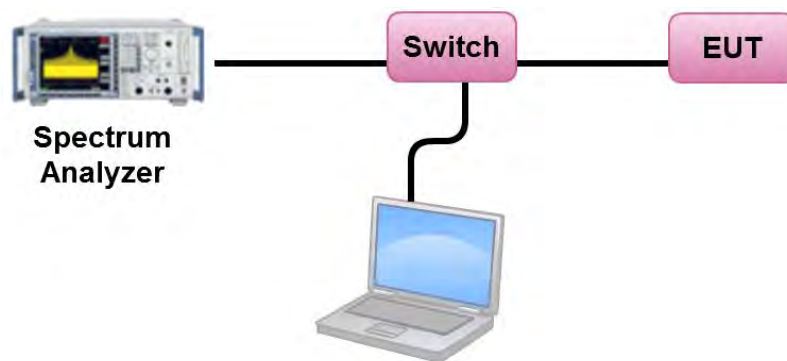
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1000 kHz
VBW	3000 kHz
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times
Note: If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.	

4.5.3. Test Procedures

1. The transmitter output (antenna port) was connected RF switch to the spectrum analyzer.
2. Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - section (F) Maximum Power Spectral Density (PSD).
3. Multiple antenna systems was performed in accordance KDB662911 D01 v02r01 in-Band Power Spectral Density (PSD) Measurements (a) Measure and sum the spectra across the outputs.
4. When measuring first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3 and so on up to the Nth output to obtain the value for the first frequency bin of the summed spectrum. The summed spectrum value for each of the other frequency bins is computed in the same way.
5. For 5.725~5.85 GHz, the measured result of PSD level must add $10\log(500\text{kHz}/\text{RBW})$ and the final result should ≤ 30 dBm.

4.5.4. Test Setup Layout



4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.5.7. Test Result of Power Spectral Density

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.73	12.99	Complies
40	5200 MHz	10.77	12.99	Complies
48	5240 MHz	10.95	12.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (10.01 - 6) = 12.99 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	5.95	-3.01	2.94	25.99	Complies
157	5785 MHz	10.14	-3.01	7.13	25.99	Complies
165	5825 MHz	8.69	-3.01	5.68	25.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (10.01 - 6) = 25.99 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	0.01	12.99	Complies
46	5230 MHz	8.67	12.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (10.01 - 6) = 12.99 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	0.06	-3.01	-2.95	25.99	Complies
159	5795 MHz	5.42	-3.01	2.41	25.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (10.01 - 6) = 25.99 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-6.20	12.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (10.01 - 6) = 12.99 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-4.03	-3.01	-7.04	25.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (10.01 - 6) = 25.99 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.73	13.49	Complies
40	5200 MHz	10.77	13.49	Complies
48	5240 MHz	10.95	13.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (9.51 - 6) = 13.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	7.21	-3.01	4.20	26.49	Complies
157	5785 MHz	10.14	-3.01	7.13	26.49	Complies
165	5825 MHz	9.43	-3.01	6.42	26.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (9.51 - 6) = 26.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	0.36	13.49	Complies
46	5230 MHz	8.67	13.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (9.51 - 6) = 13.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	1.17	-3.01	-1.84	26.49	Complies
159	5795 MHz	6.42	-3.01	3.41	26.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (9.51 - 6) = 26.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-6.20	13.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (9.51 - 6) = 13.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-3.67	-3.01	-6.68	26.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (9.51 - 6) = 26.49 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.31	14.49	Complies
40	5200 MHz	10.77	14.49	Complies
48	5240 MHz	10.95	14.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (8.51 - 6) = 14.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	7.92	-3.01	4.91	27.49	Complies
157	5785 MHz	10.14	-3.01	7.13	27.49	Complies
165	5825 MHz	9.43	-3.01	6.42	27.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (8.51 - 6) = 27.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	1.77	14.49	Complies
46	5230 MHz	8.67	14.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (8.51 - 6) = 14.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	1.17	-3.01	-1.84	27.49	Complies
159	5795 MHz	7.75	-3.01	4.74	27.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (8.51 - 6) = 27.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-5.00	14.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (8.51 - 6) = 14.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-2.46	-3.01	-5.47	27.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (8.51 - 6) = 27.49 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	8.54	12.49	Complies
40	5200 MHz	10.77	12.49	Complies
48	5240 MHz	10.95	12.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (10.51 - 6) = 12.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	5.80	-3.01	2.79	25.49	Complies
157	5785 MHz	10.14	-3.01	7.13	25.49	Complies
165	5825 MHz	9.43	-3.01	6.42	25.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (10.51 - 6) = 25.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	0.82	12.49	Complies
46	5230 MHz	8.66	12.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (10.51 - 6) = 12.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	0.89	-3.01	-2.12	25.49	Complies
159	5795 MHz	7.31	-3.01	4.30	25.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (10.51 - 6) = 25.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-2.58	12.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (10.51 - 6) = 12.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-4.62	-3.01	-7.63	25.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (10.51 - 6) = 25.49 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.31	15.49	Complies
40	5200 MHz	10.77	15.49	Complies
48	5240 MHz	10.95	15.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (7.51 - 6) = 15.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	7.38	-3.01	4.37	28.49	Complies
157	5785 MHz	10.14	-3.01	7.13	28.49	Complies
165	5825 MHz	9.43	-3.01	6.42	28.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (7.51 - 6) = 28.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	5.20	15.49	Complies
46	5230 MHz	8.67	15.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (7.51 - 6) = 15.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	2.52	-3.01	-0.49	28.49	Complies
159	5795 MHz	7.52	-3.01	4.51	28.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (7.51 - 6) = 28.49 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-2.43	15.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (7.51 - 6) = 15.49 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-0.95	-3.01	-3.96	28.49	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.51 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (7.51 - 6) = 28.49 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 6: EUT 1 + Set 6 Sector Antenna / 4 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.73	15.99	Complies
40	5200 MHz	10.77	15.99	Complies
48	5240 MHz	10.95	15.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (7.01 - 6) = 15.99 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	7.21	-3.01	4.20	28.99	Complies
157	5785 MHz	10.14	-3.01	7.13	28.99	Complies
165	5825 MHz	9.43	-3.01	6.42	28.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (7.01 - 6) = 28.99 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	1.77	15.99	Complies
46	5230 MHz	8.67	15.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (7.01 - 6) = 15.99 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	1.17	-3.01	-1.84	28.99	Complies
159	5795 MHz	7.52	-3.01	4.51	28.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (7.01 - 6) = 28.99 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-3.40	15.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 17 - (7.01 - 6) = 15.99 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-3.84	-3.01	-6.85	28.99	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.01 \text{ dBi} > 6 \text{ dBi}$, So Limit = 30 - (7.01 - 6) = 28.99 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 7: EUT 1 + Set 9 Dipole Antenna / 4.67 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.31	12.31	Complies
40	5200 MHz	10.77	12.31	Complies
48	5240 MHz	10.95	12.31	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.69 \text{dBi} > 6 \text{dBi}$, So Limit = $17 - (10.69 - 6) = 12.31 \text{dBm/MHz}$.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	7.92	-3.01	4.91	25.31	Complies
157	5785 MHz	10.14	-3.01	7.13	25.31	Complies
165	5825 MHz	11.11	-3.01	8.10	25.31	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.69 \text{dBi} > 6 \text{dBi}$, So Limit = $30 - (10.69 - 6) = 25.31 \text{dBm/500kHz}$.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	2.93	12.31	Complies
46	5230 MHz	8.67	12.31	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.69 \text{dBi} > 6 \text{dBi}$, So Limit = 17 - (10.69 - 6) = 12.31 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	2.10	-3.01	-0.91	25.31	Complies
159	5795 MHz	7.52	-3.01	4.51	25.31	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.69 \text{dBi} > 6 \text{dBi}$, So Limit = 30 - (10.69 - 6) = 25.31 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-4.37	12.31	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.69 \text{dBi} > 6 \text{dBi}$, So Limit = 17 - (10.69 - 6) = 12.31 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-1.58	-3.01	-4.59	25.31	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.69 \text{dBi} > 6 \text{dBi}$, So Limit = 30 - (10.69 - 6) = 25.31 dBm/500kHz.

Temperature	25°C	Humidity	50%
Test Engineer	Eddie Weng & Lucas Huang	Test Date	Nov. 28, 2015
Test Mode	Mode 8: EUT 2 + Set 10 PIFA Antenna / Chain1:5.84 dBi, Chain2:5.50 dBi, Chain3:5.84 dBi, Chain4:5.65 dBi		

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.90	11.27	Complies
40	5200 MHz	10.99	11.27	Complies
48	5240 MHz	10.99	11.27	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 11.73\text{dBi} > 6\text{dBi}$, So Limit = 17 - (11.73 - 6) = 11.27 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
149	5745 MHz	9.68	-3.01	6.67	24.27	Complies
157	5785 MHz	10.90	-3.01	7.89	24.27	Complies
165	5825 MHz	10.81	-3.01	7.80	24.27	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 11.73\text{dBi} > 6\text{dBi}$, So Limit = 30 - (11.73 - 6) = 24.27 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	5.64	11.27	Complies
46	5230 MHz	7.83	11.27	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 11.73\text{dBi} > 6\text{dBi}$, So Limit = 17-(11.73-6)=11.27dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
151	5755 MHz	1.82	-3.01	-1.19	24.27	Complies
159	5795 MHz	7.88	-3.01	4.87	24.27	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 11.73\text{dBi} > 6\text{dBi}$, So Limit = 30-(11.73-6)=24.27dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-3.32	11.27	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 11.73\text{dBi} > 6\text{dBi}$, So Limit = 17-(11.73-6)=11.27dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
155	5775 MHz	-4.18	-3.01	-7.19	24.27	Complies

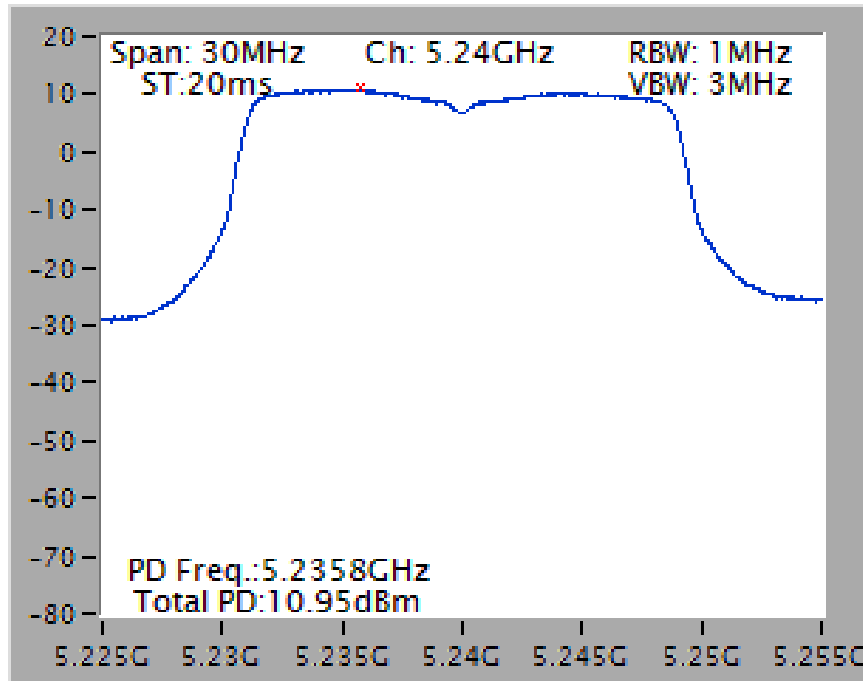
Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 11.73\text{dBi} > 6\text{dBi}$, So Limit = 30-(11.73-6)=24.27dBm/500kHz.

Note: All the test values were listed in the report.

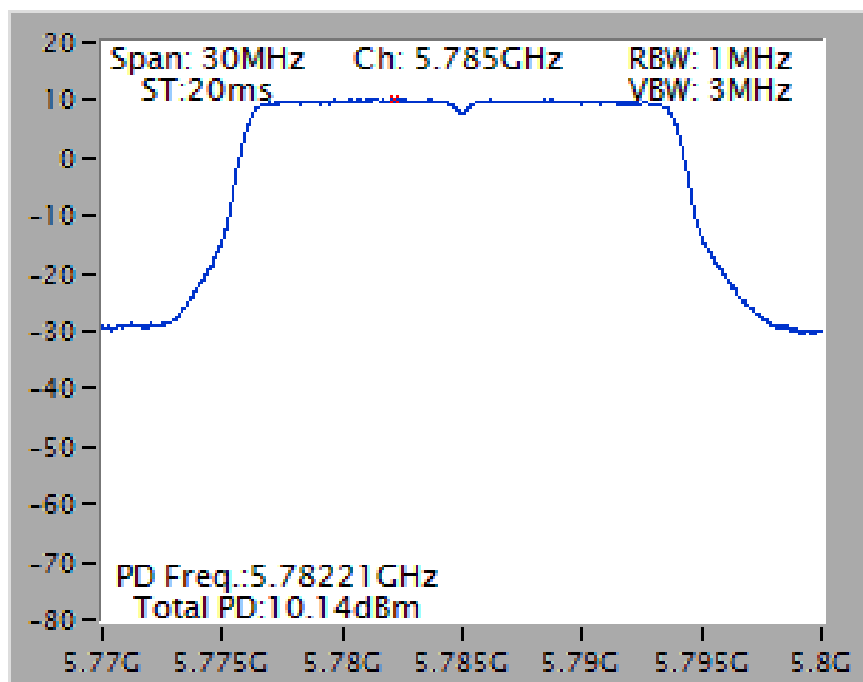
For plots, only the channel with worse result was shown.

Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi

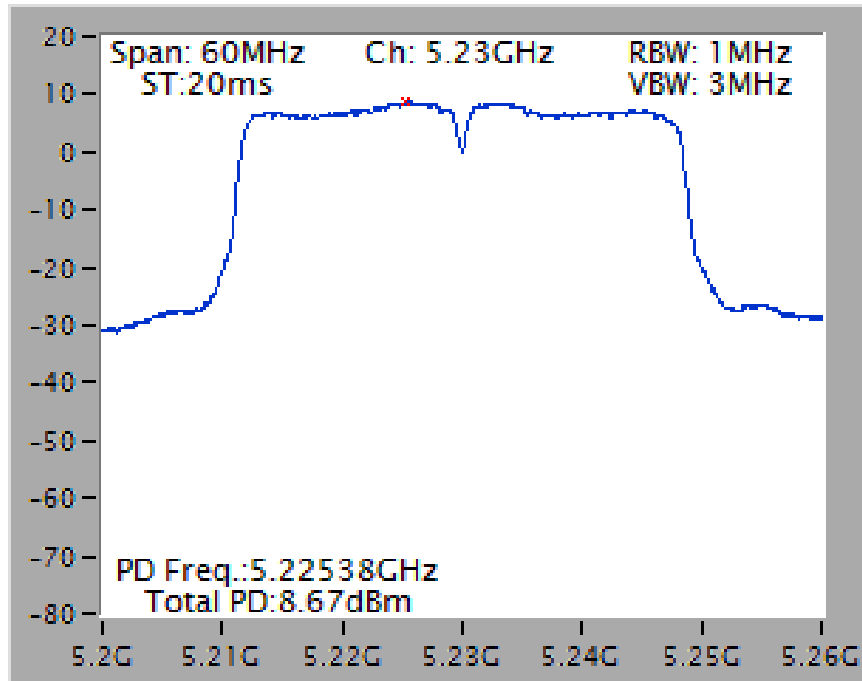
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



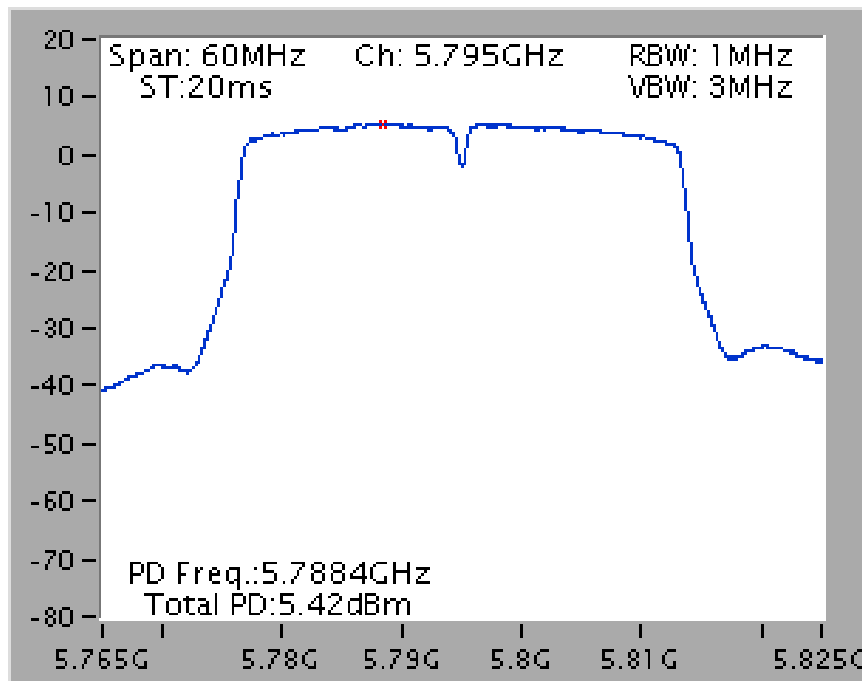
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



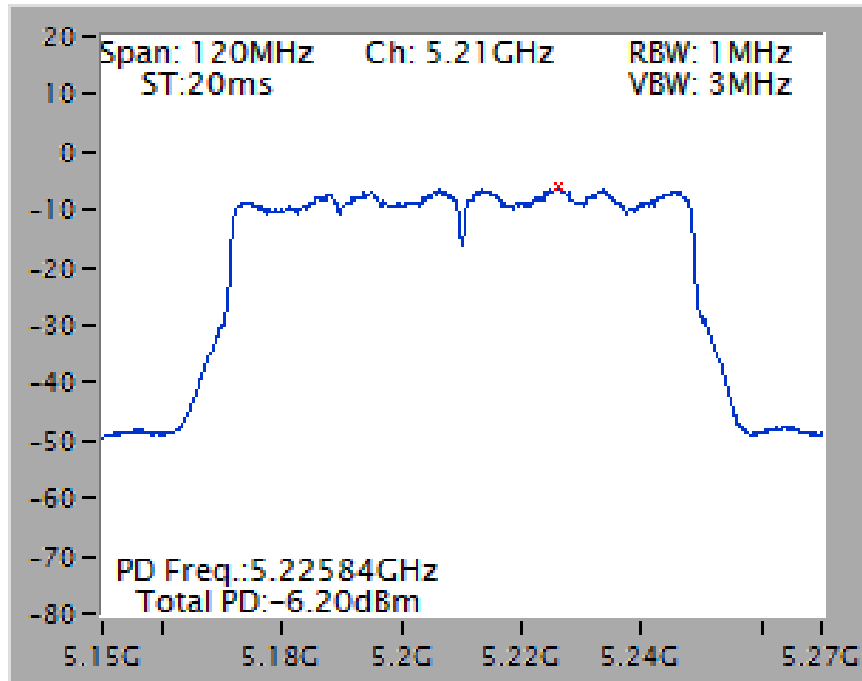
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



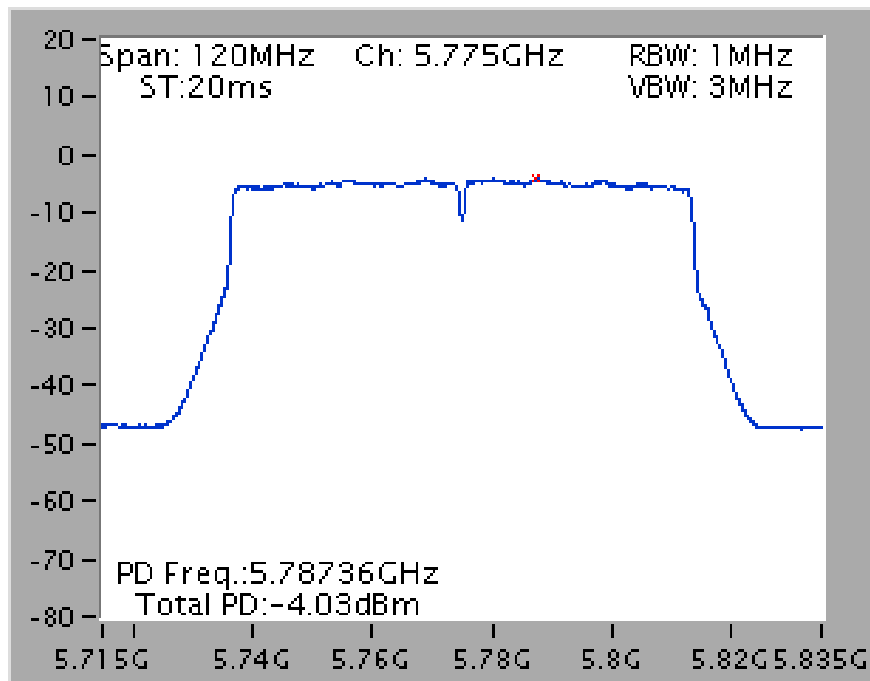
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

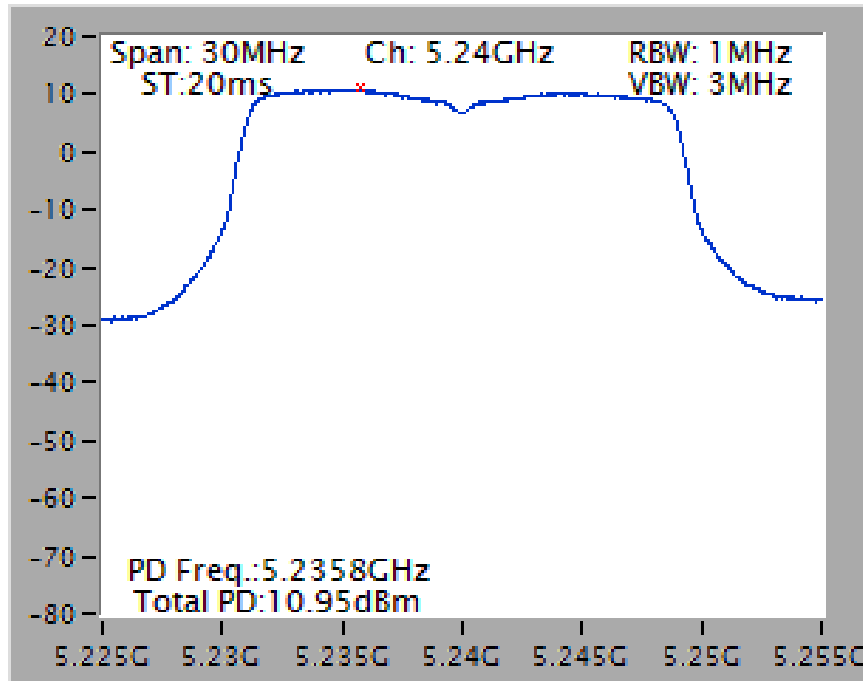


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

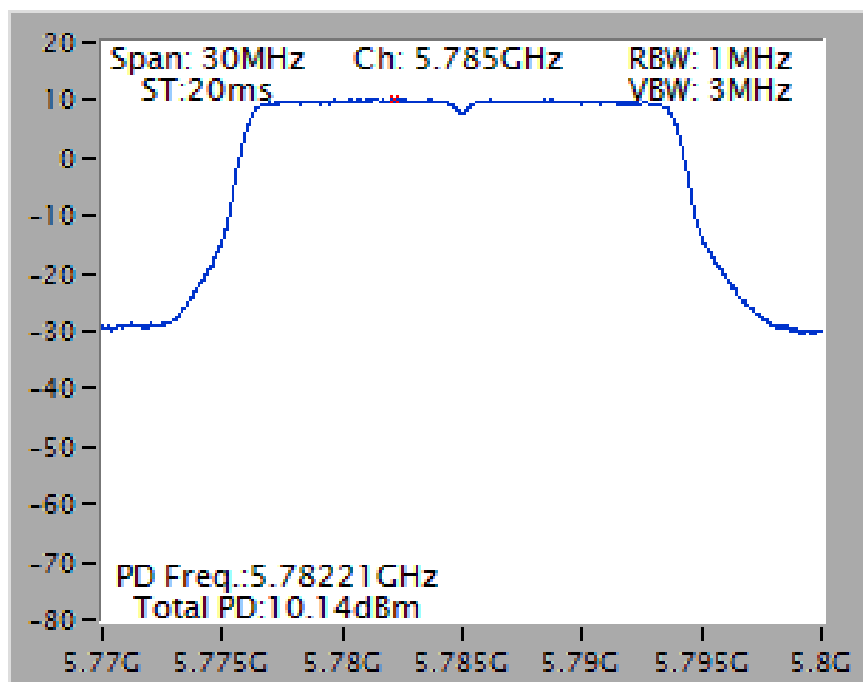


Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi

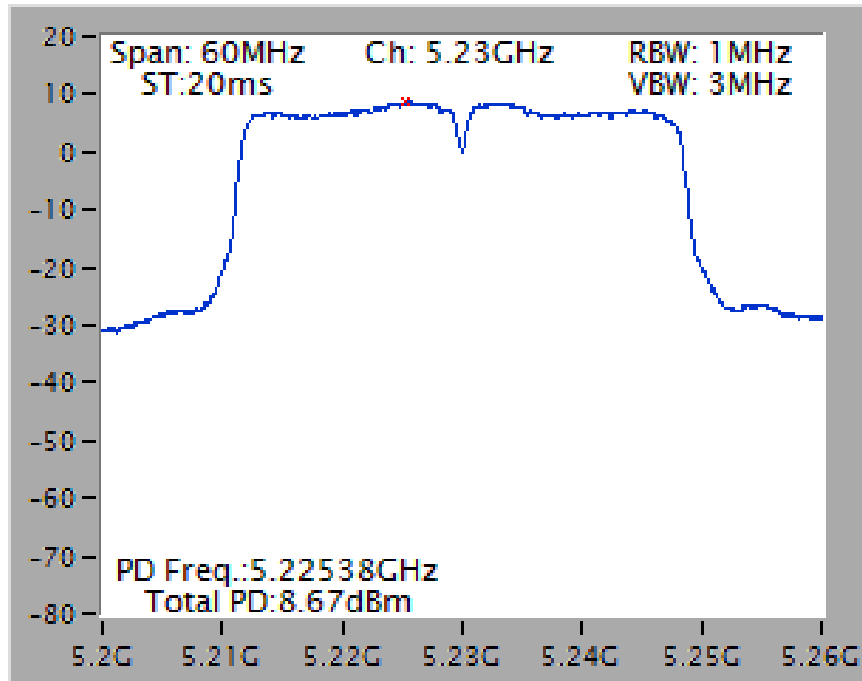
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



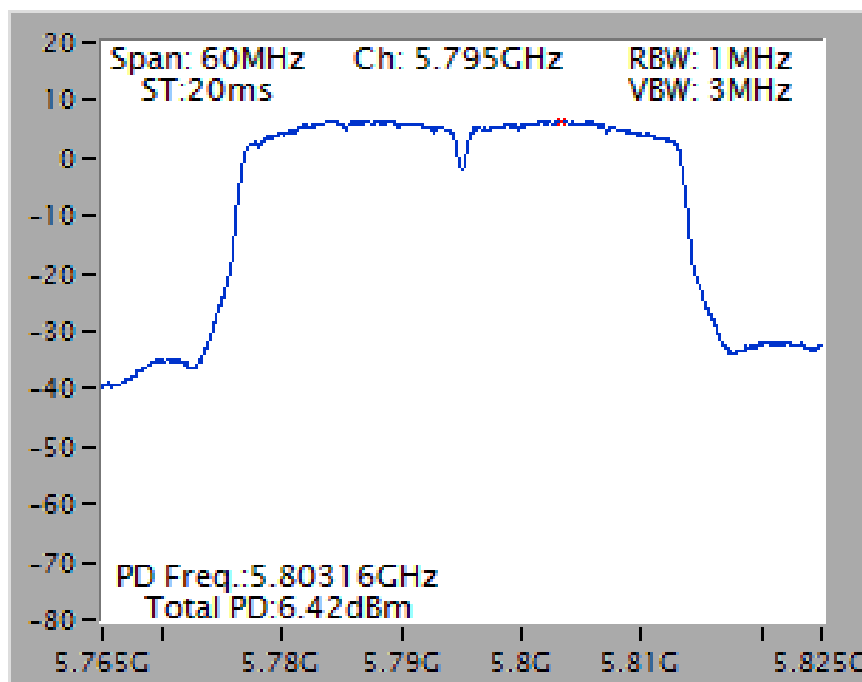
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



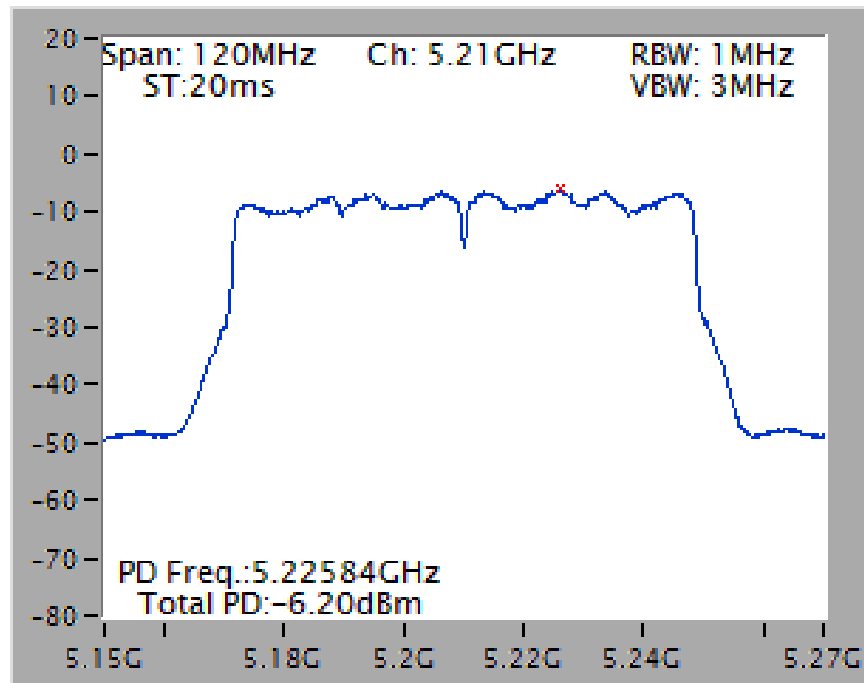
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



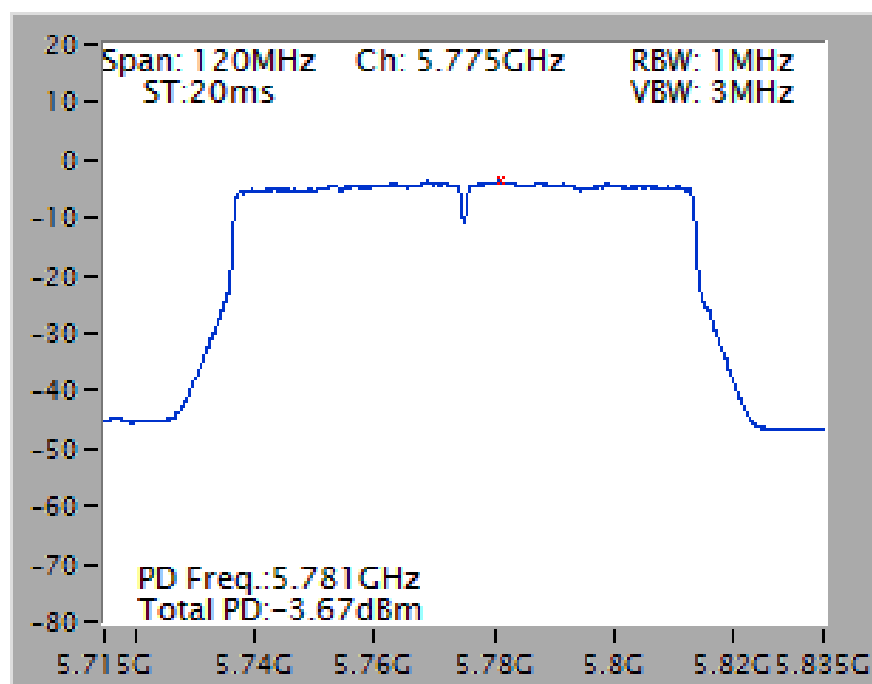
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

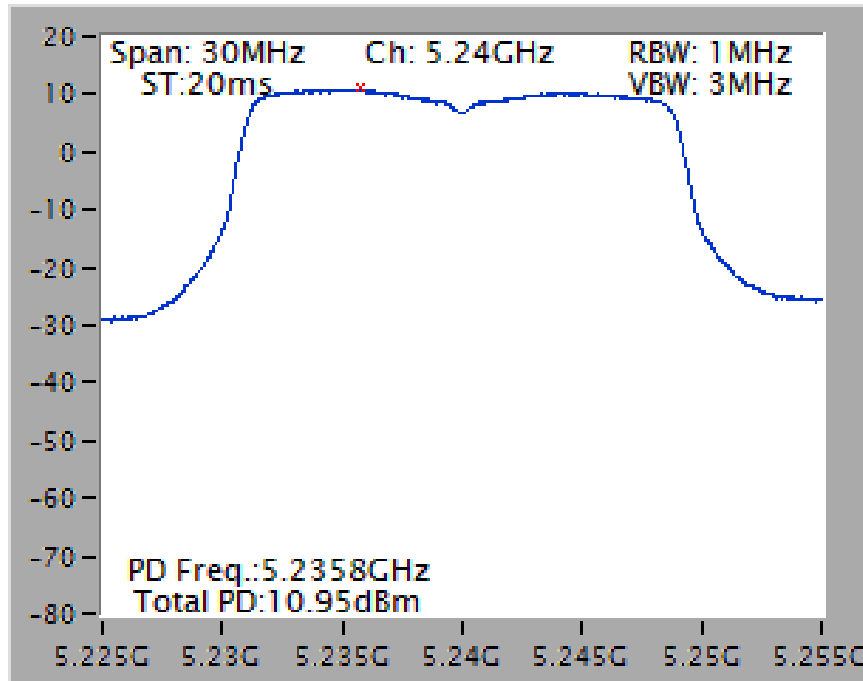


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

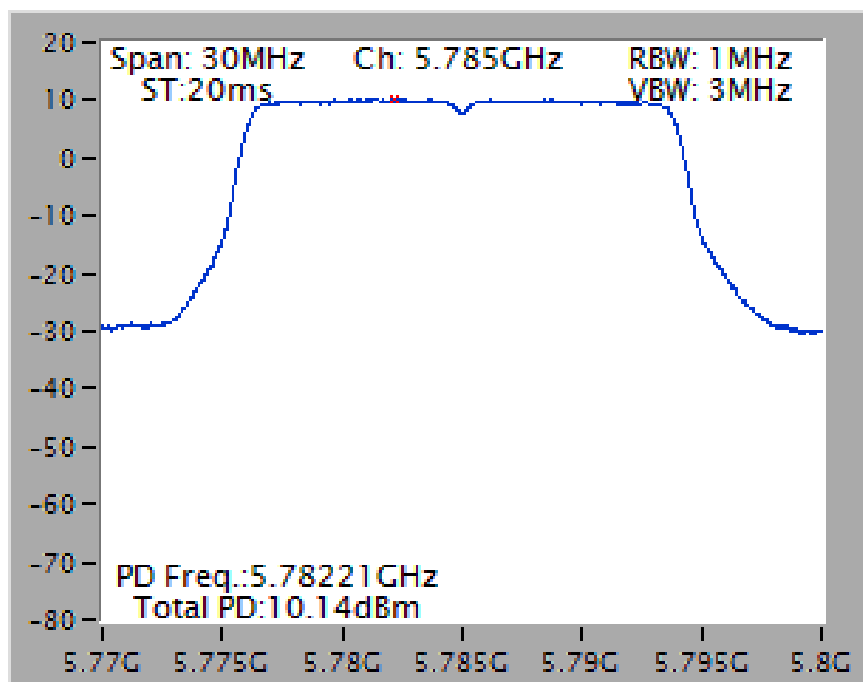


Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi

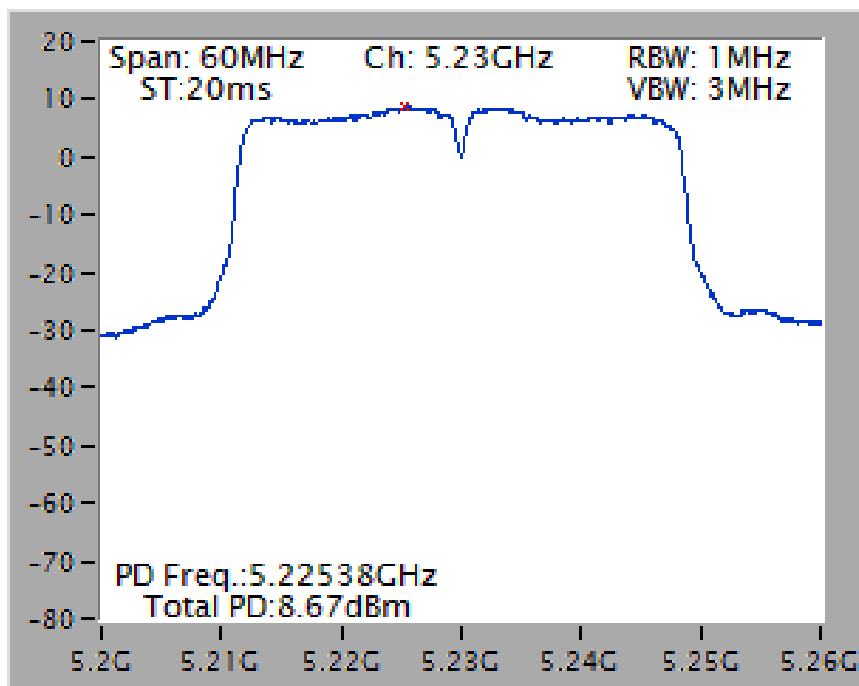
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



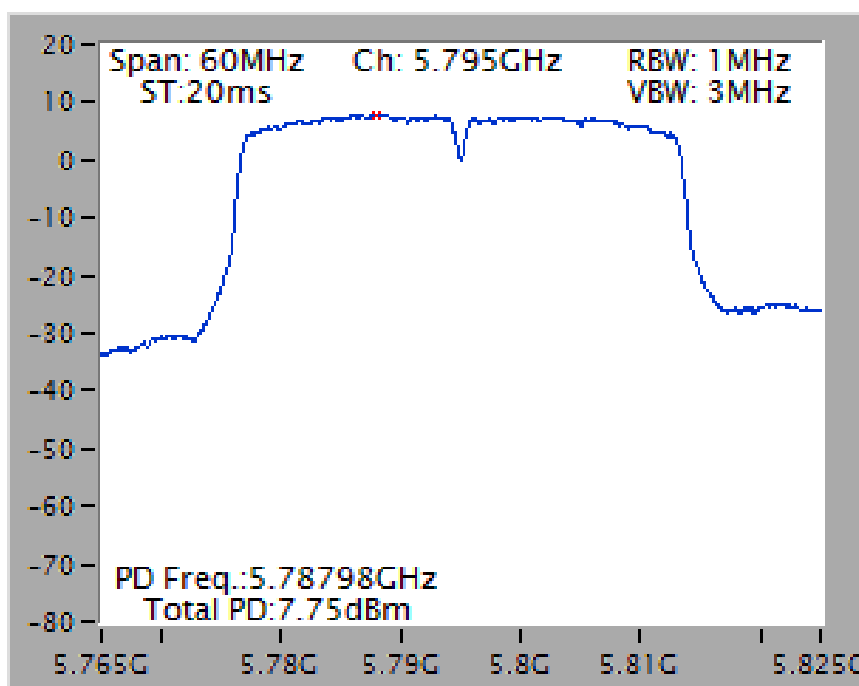
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



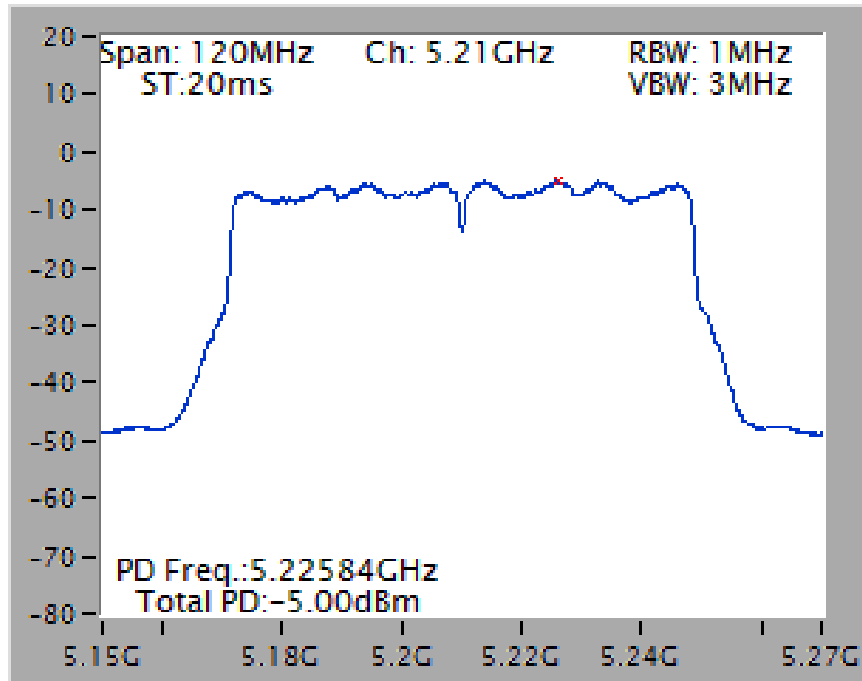
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



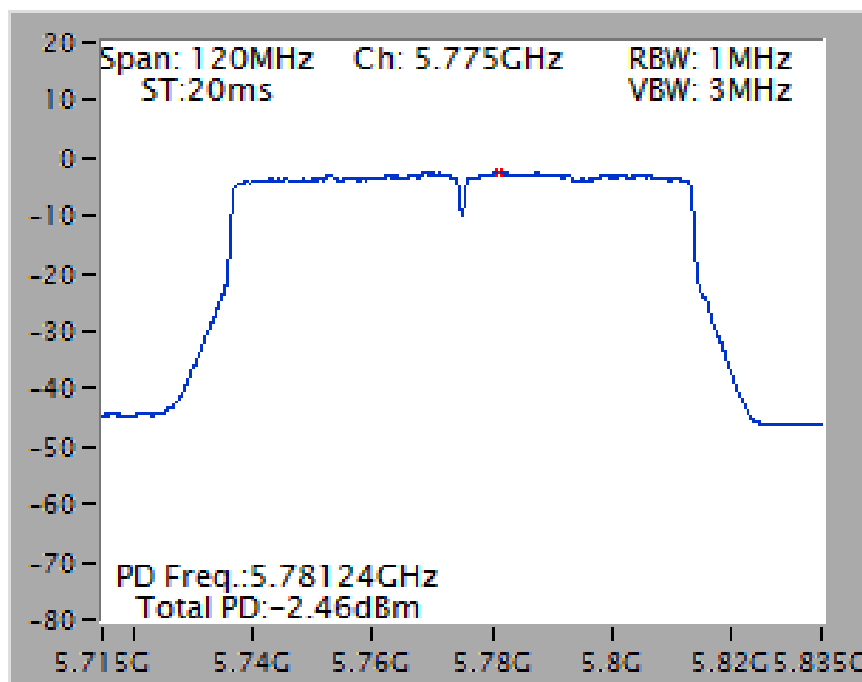
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

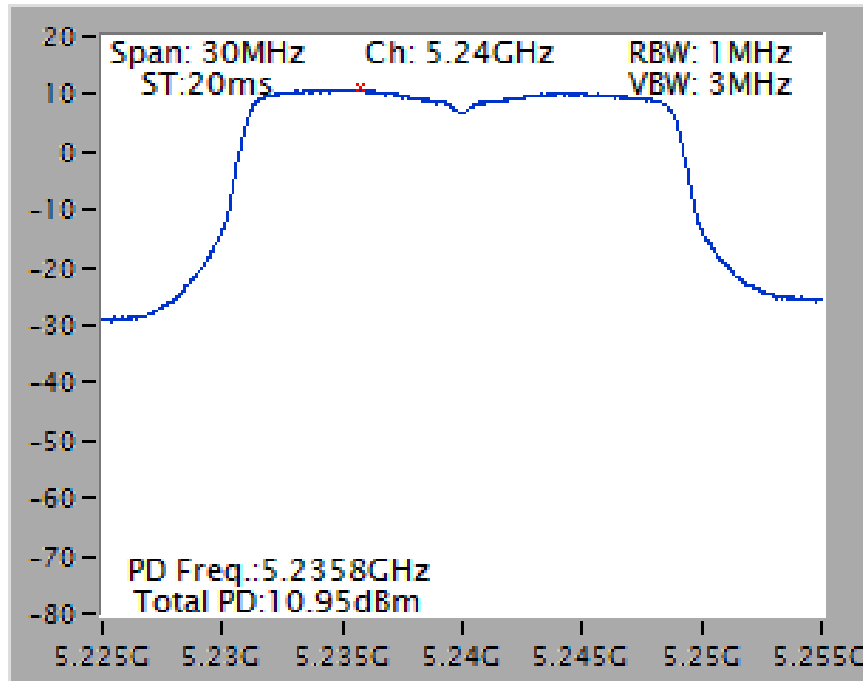


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

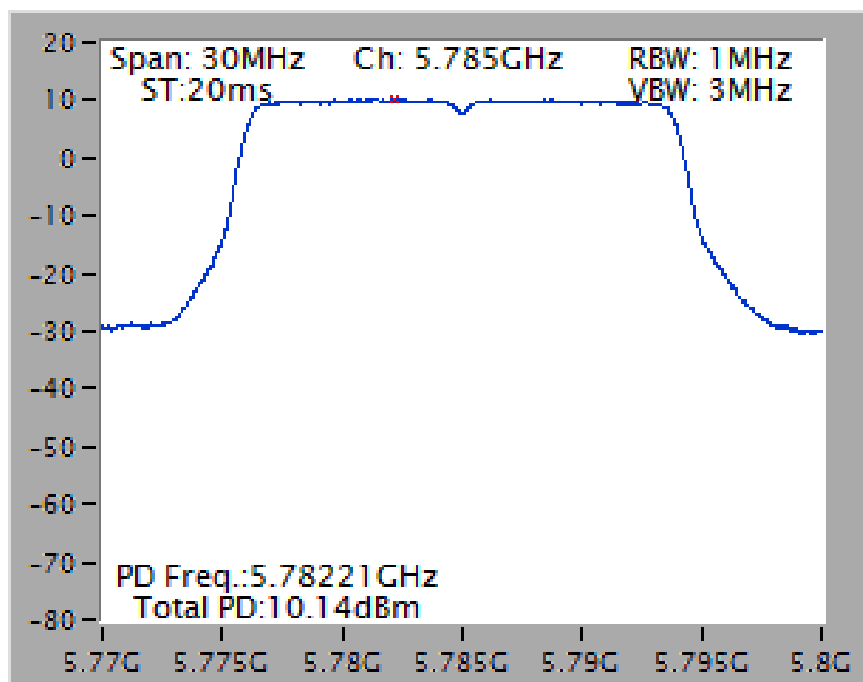


Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi

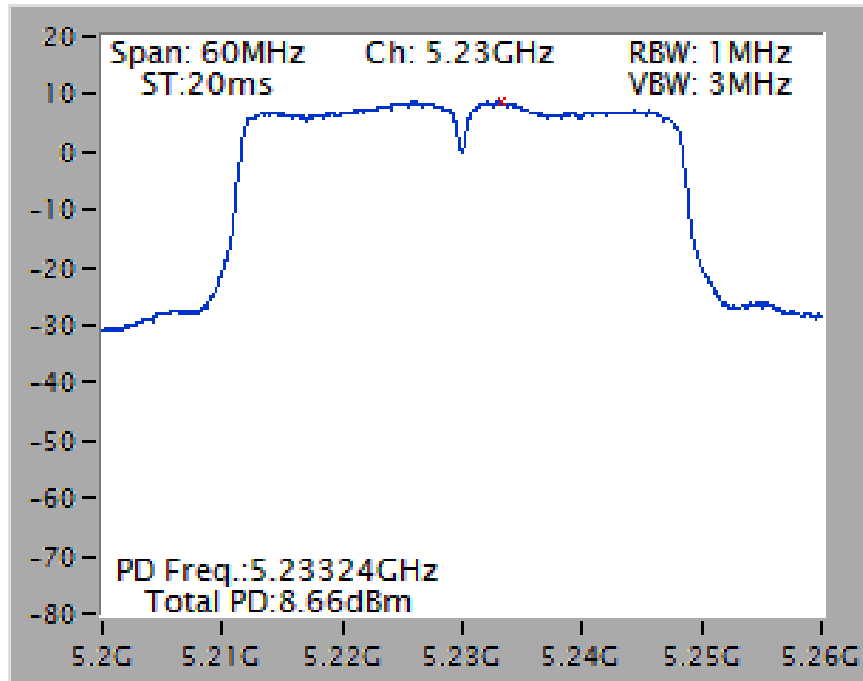
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



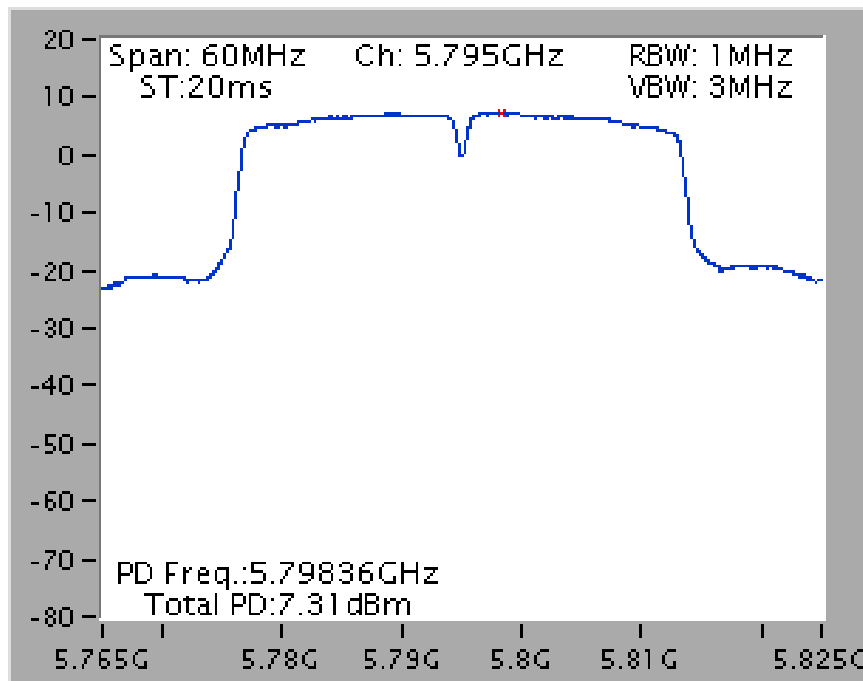
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



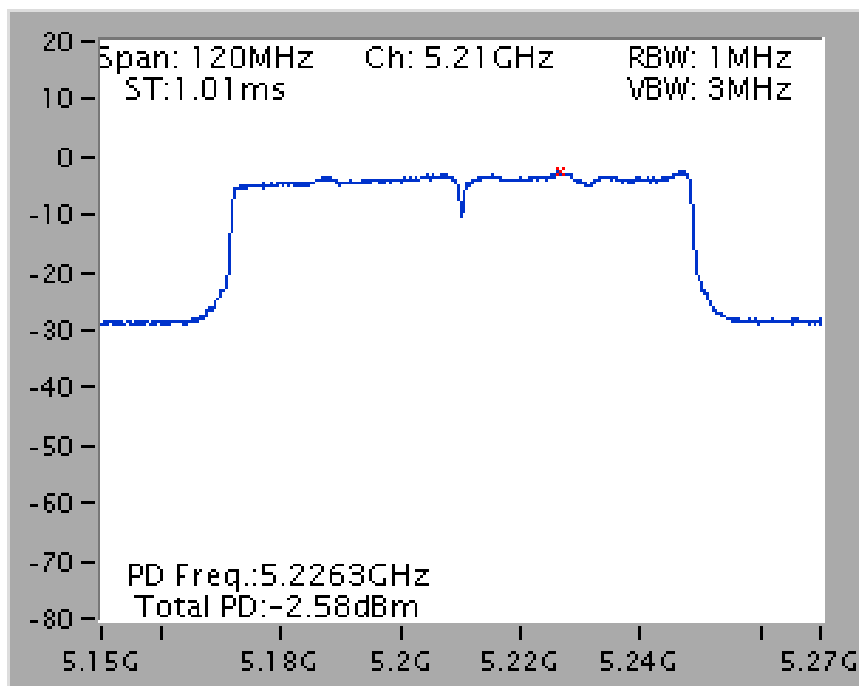
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



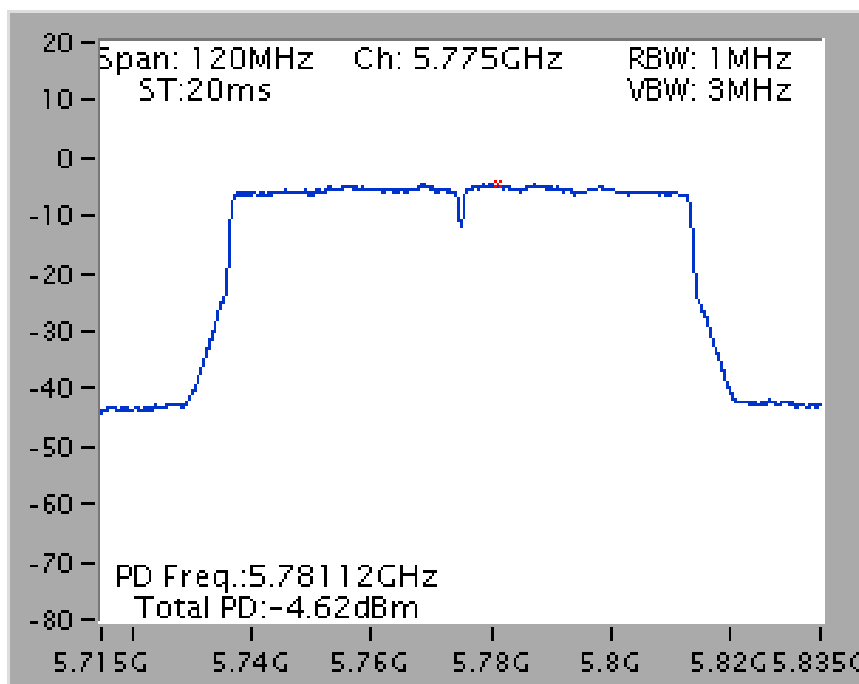
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz

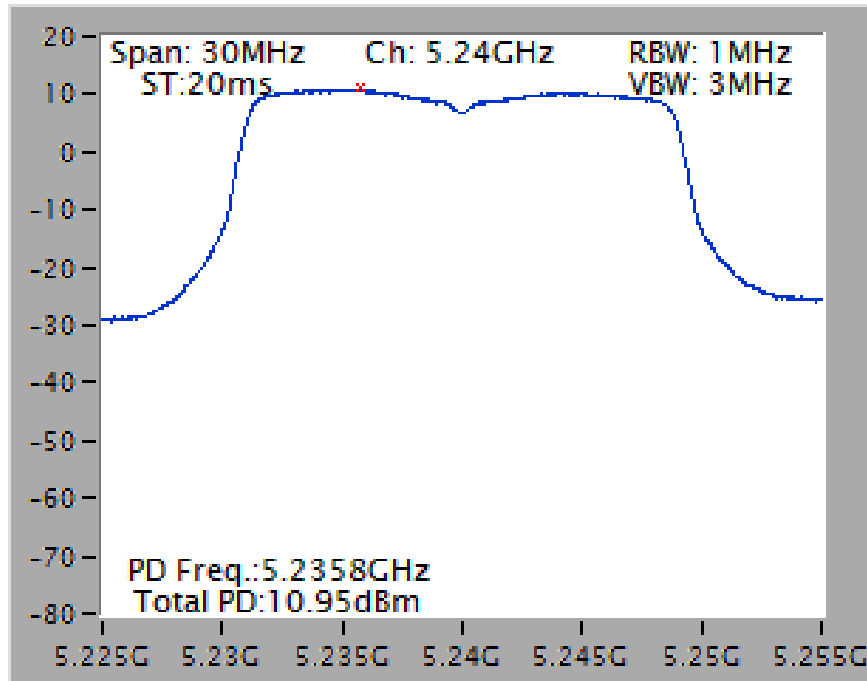
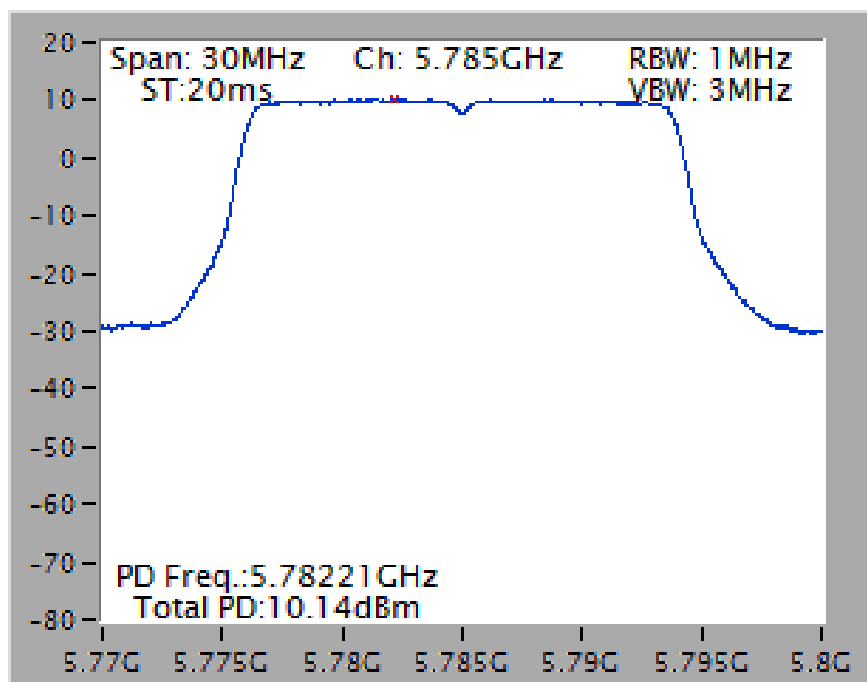


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

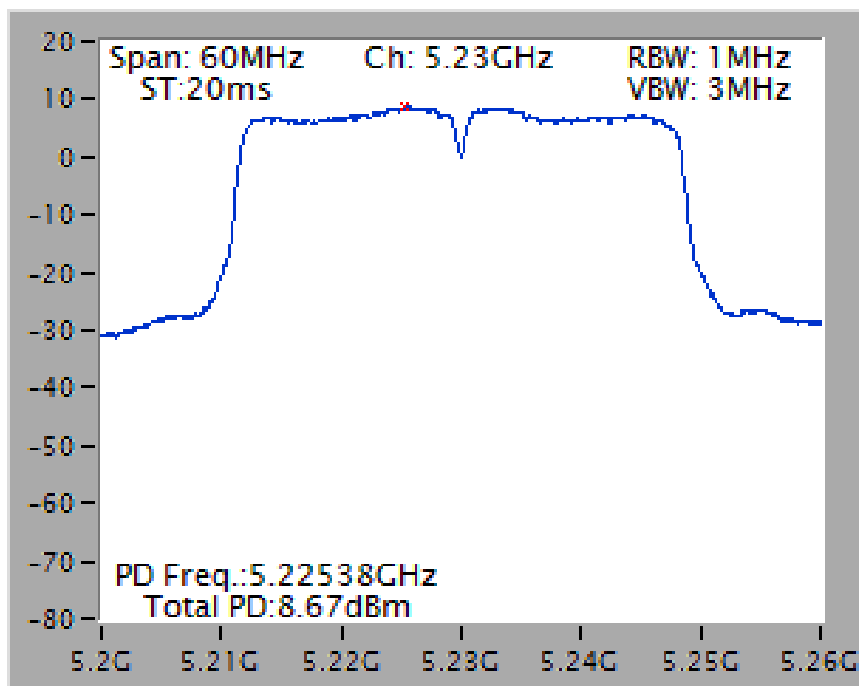


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

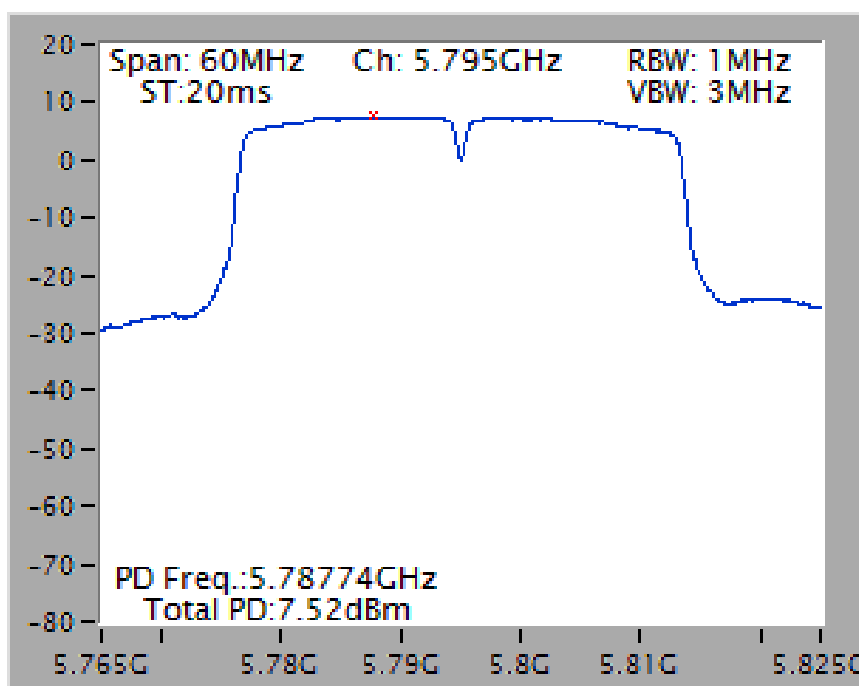


Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi**Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz****Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz**

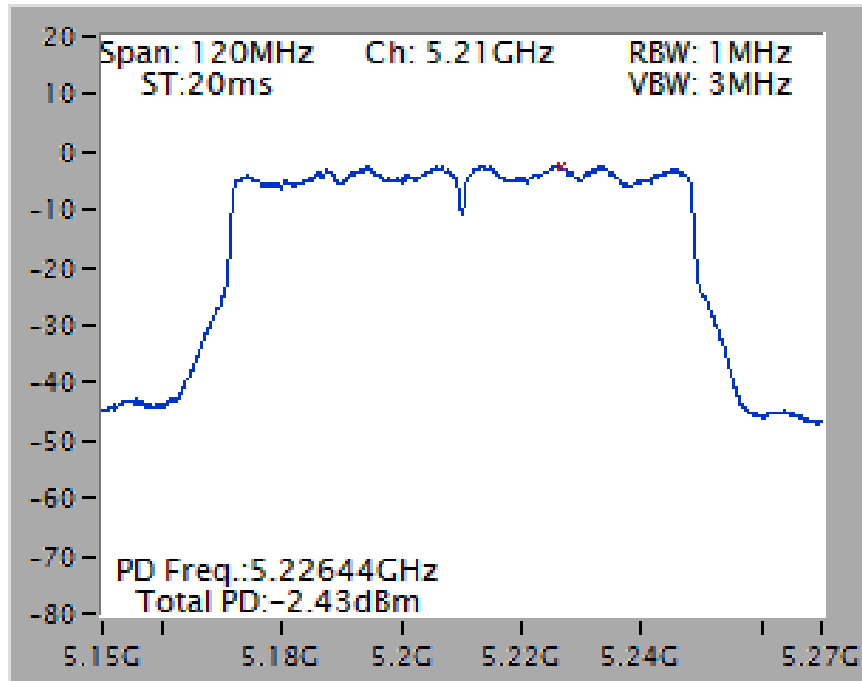
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



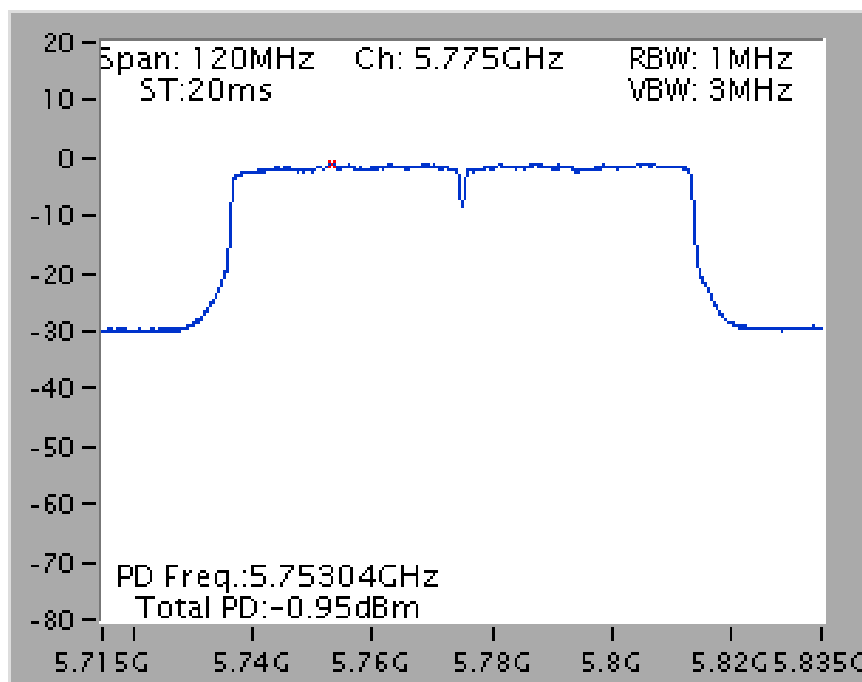
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz

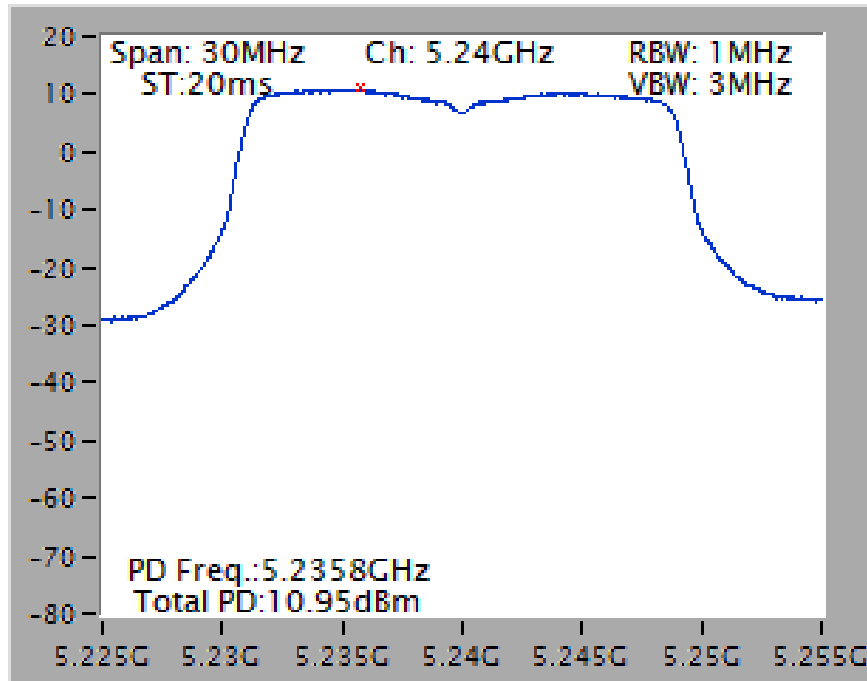
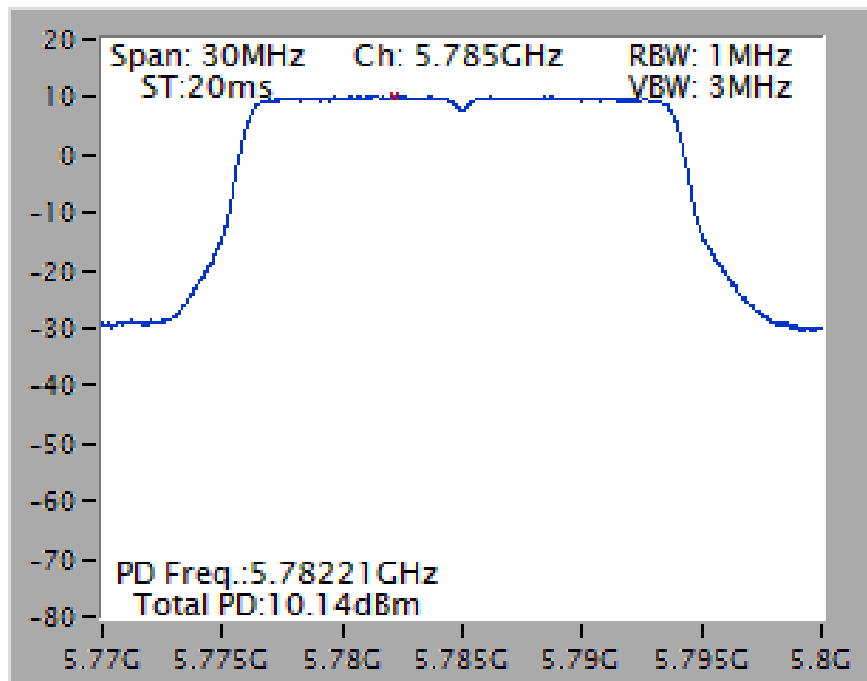


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

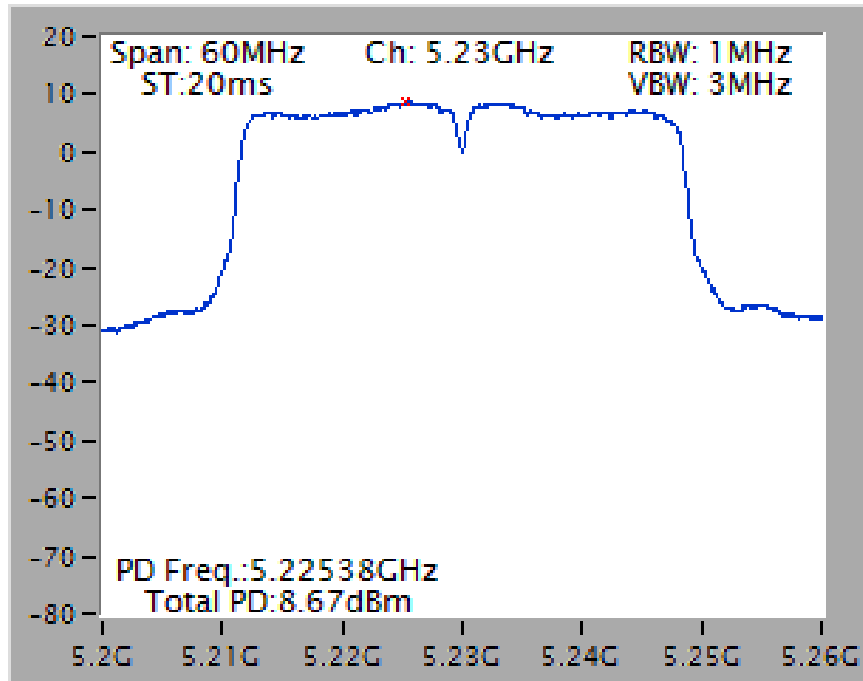


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

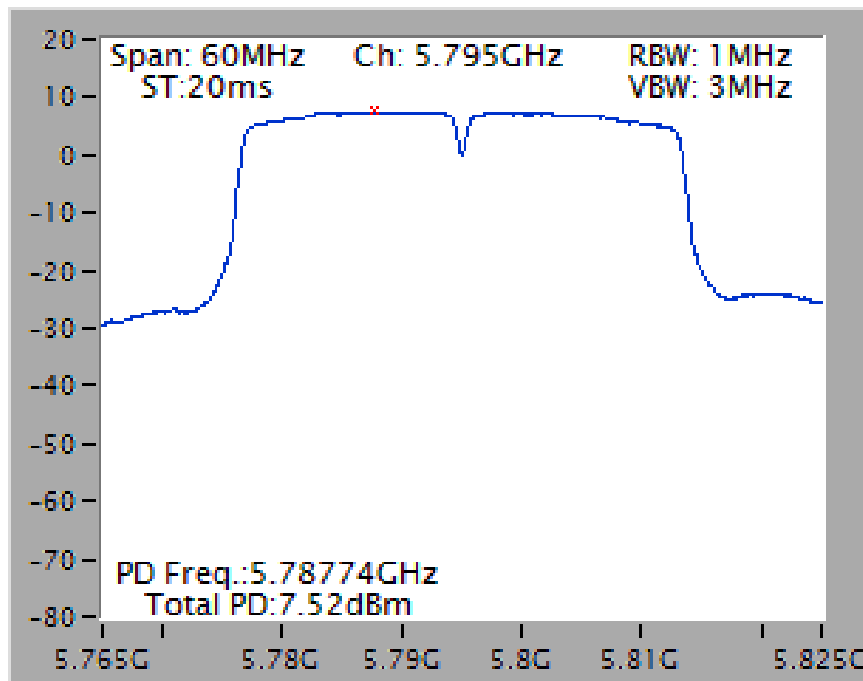


Mode 6: EUT 1 + Set 6 Sector Antenna / 4 dBi**Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz****Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz**

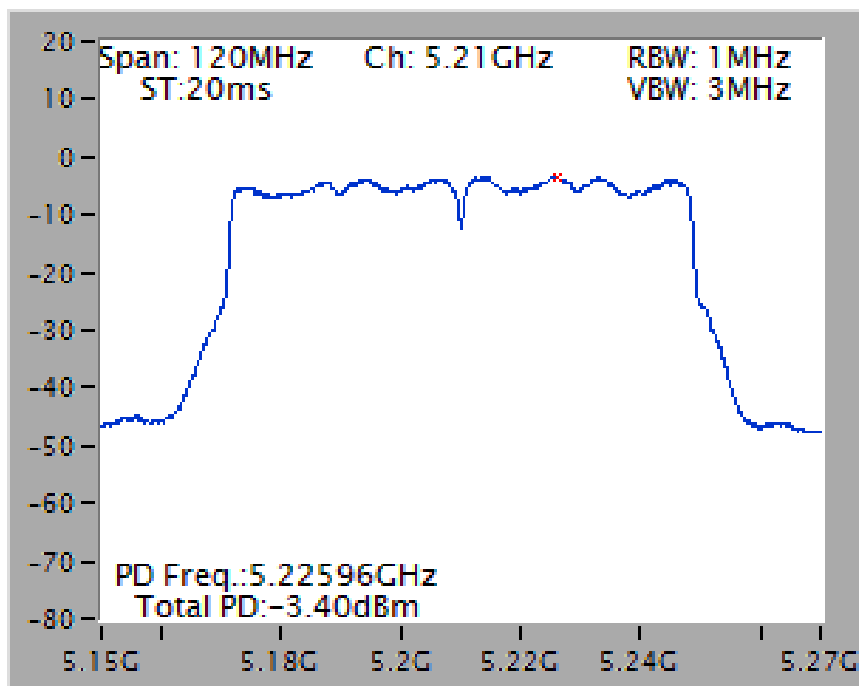
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



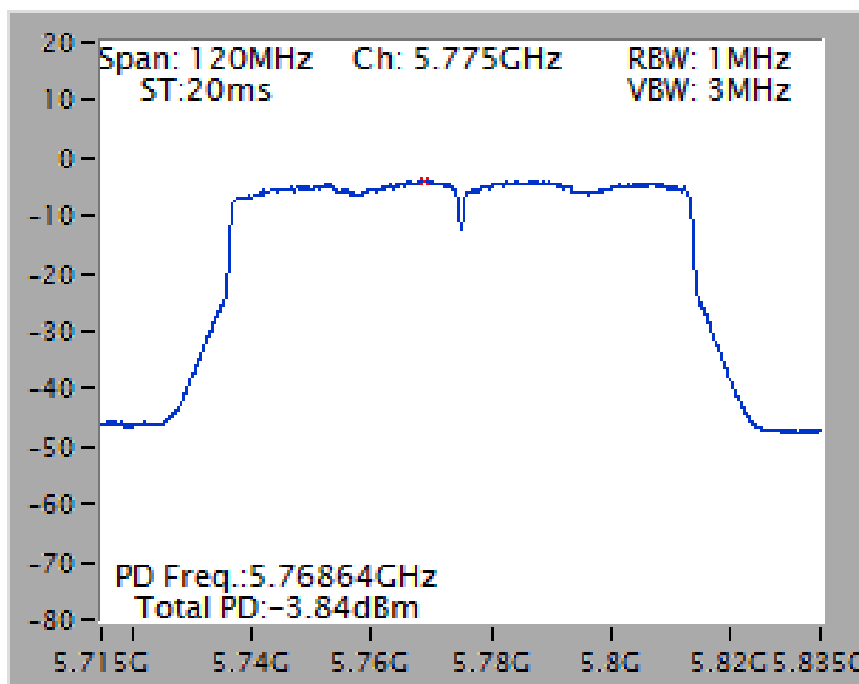
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

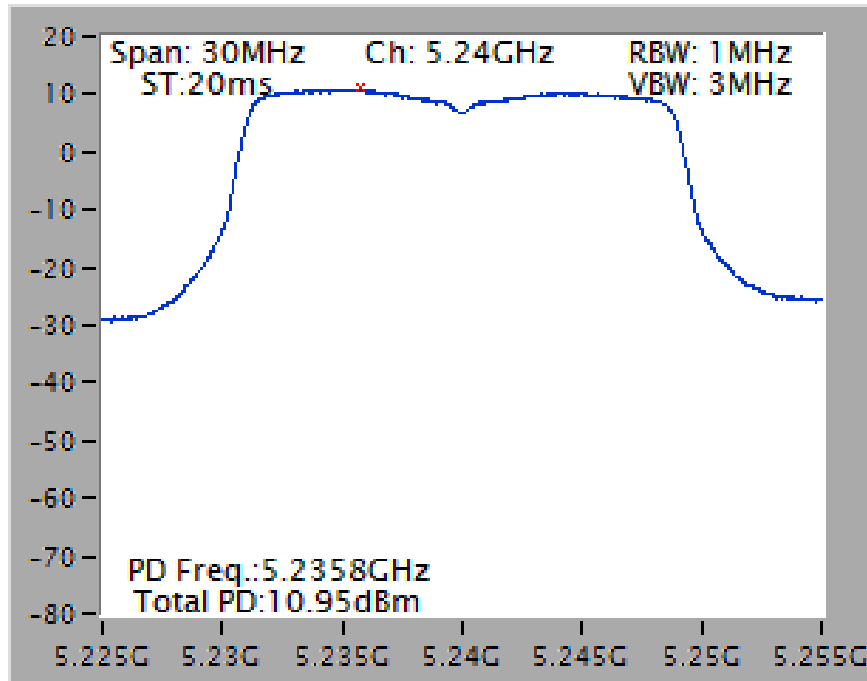


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

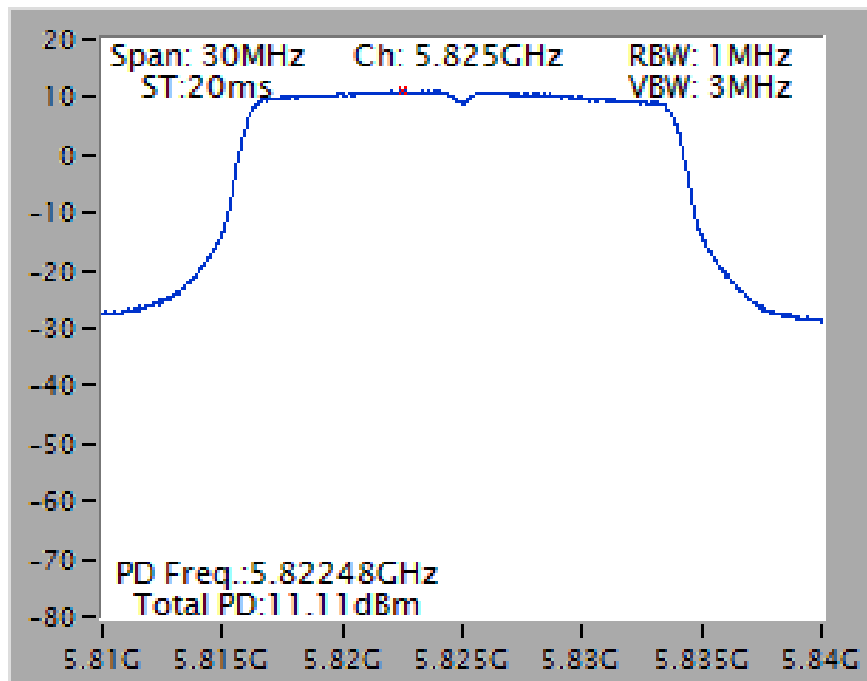


Mode 7: EUT 1 + Set 9 Dipole Antenna / 4.67 dBi

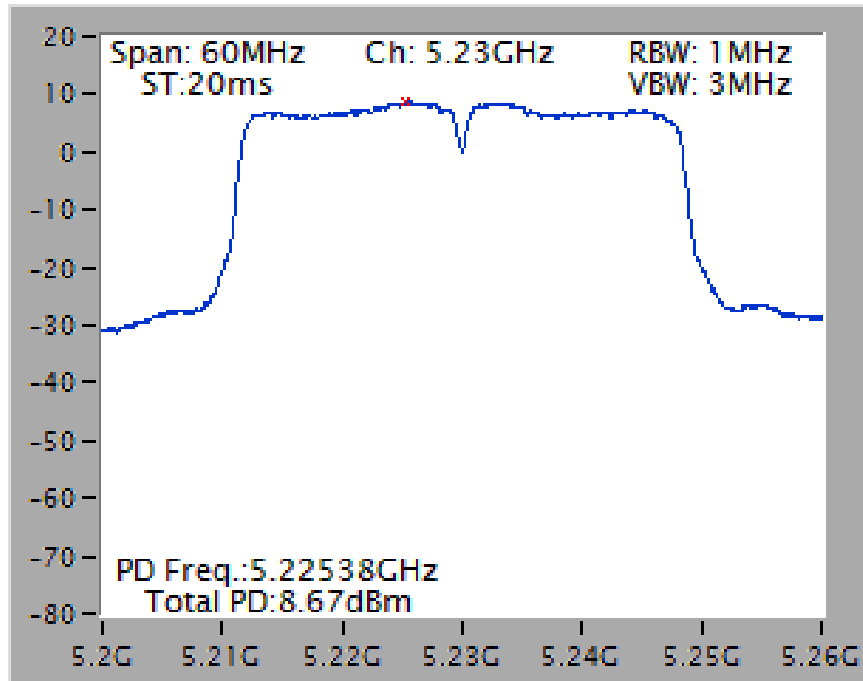
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



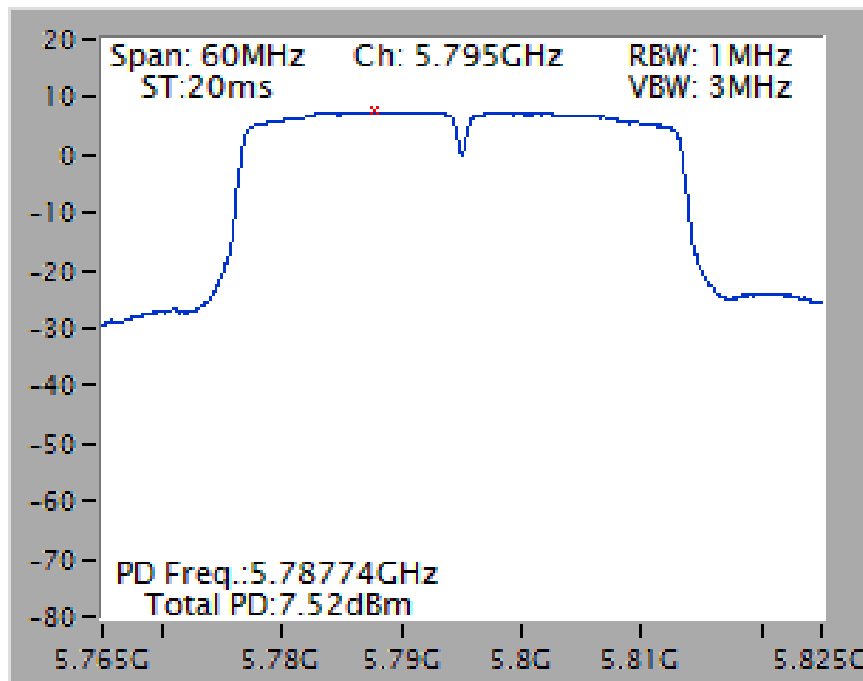
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5825 MHz



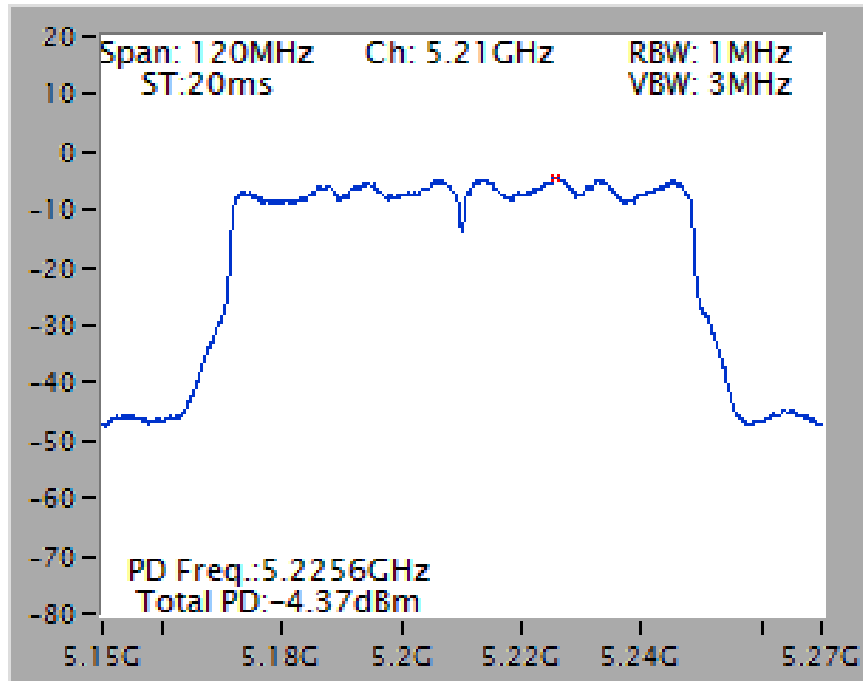
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



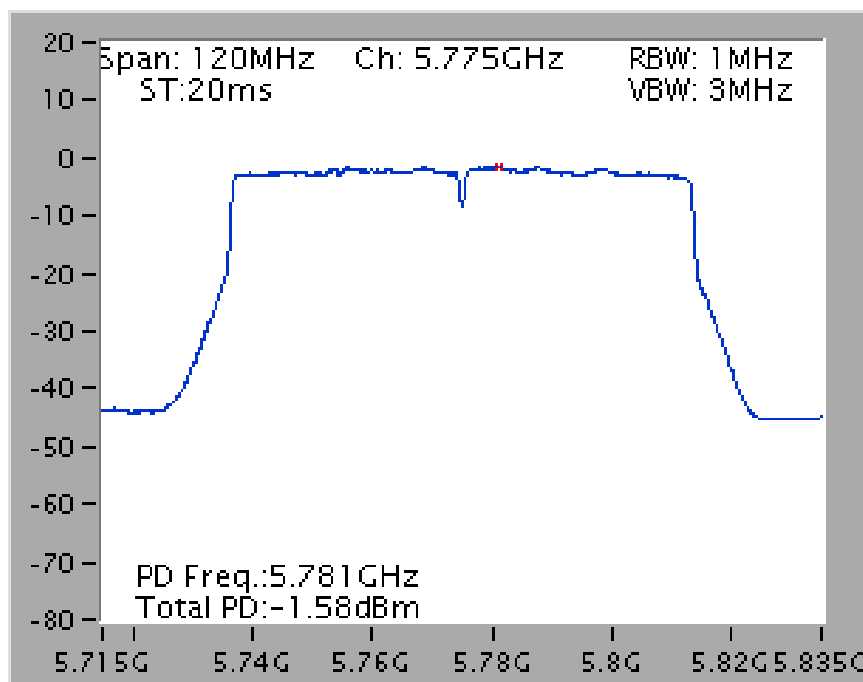
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz

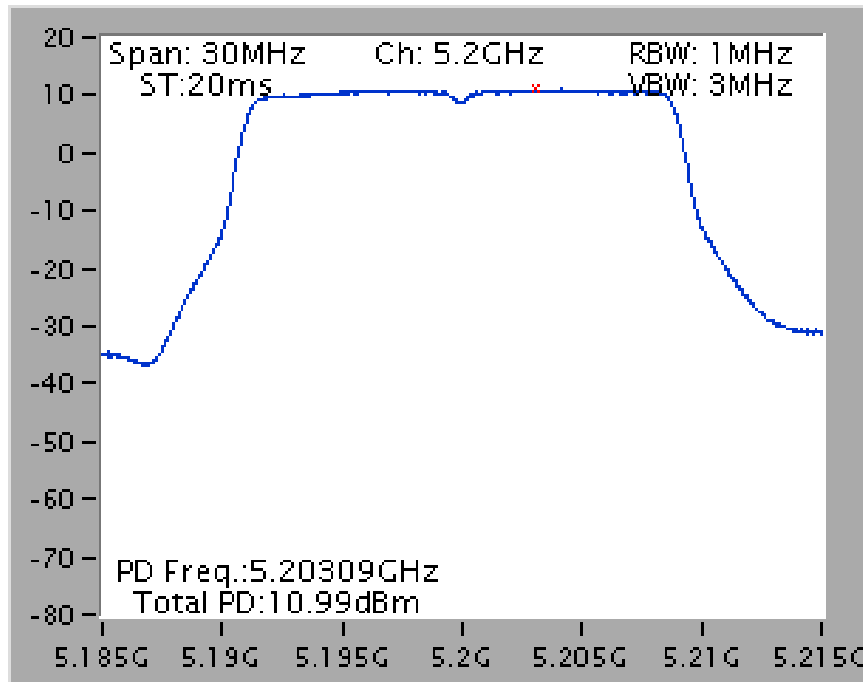


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz

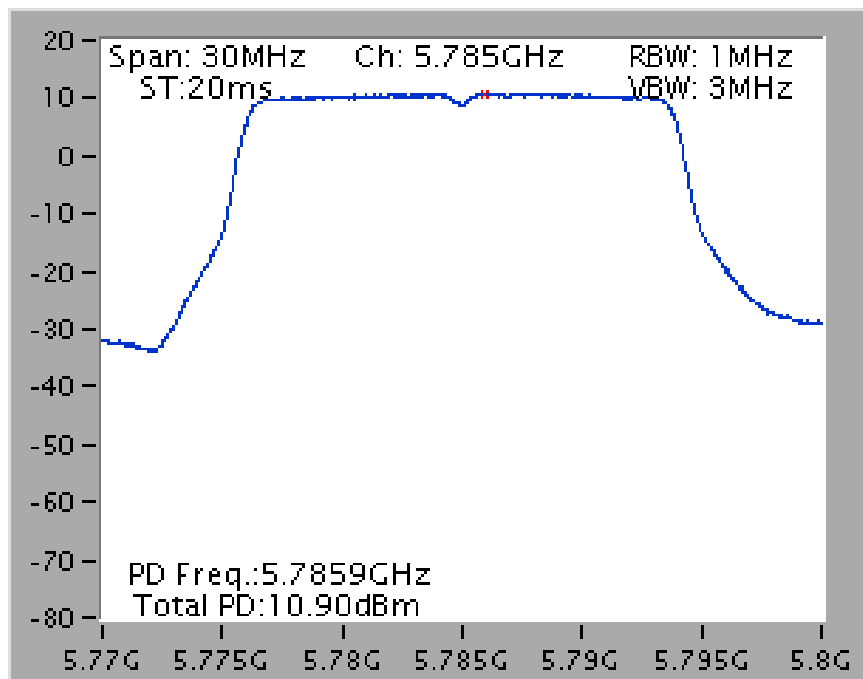


Mode 8: EUT 2 + Set 10 PIFA Antenna / Chain1:5.84 dBi, Chain2:5.50 dBi, Chain3:5.84 dBi, Chain4:5.65 dBi

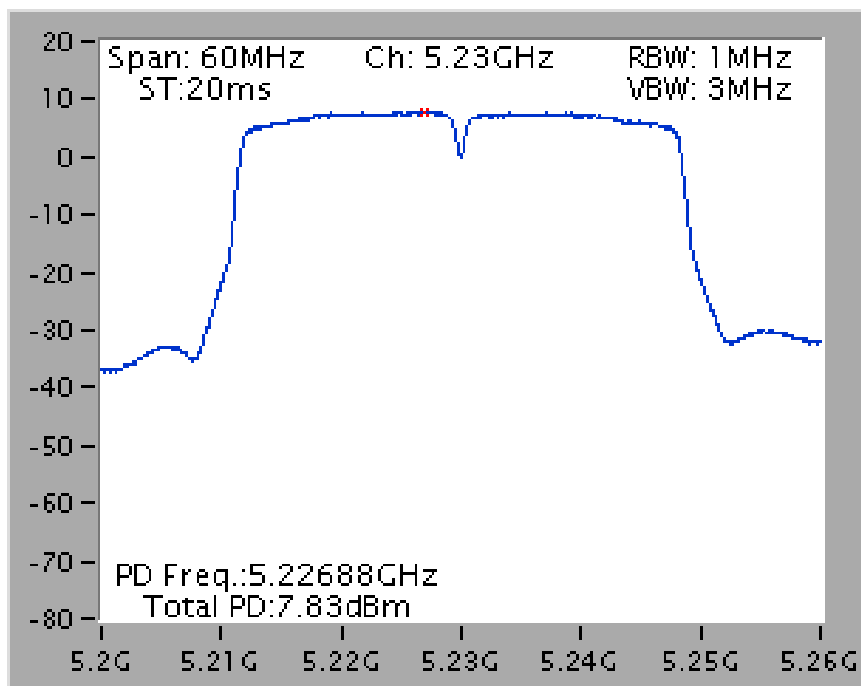
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5200 MHz



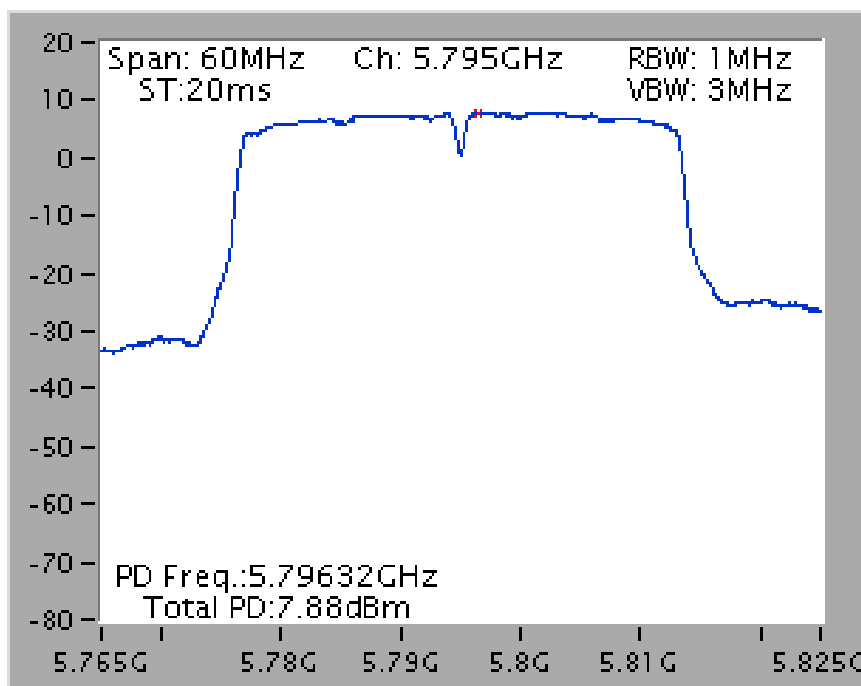
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



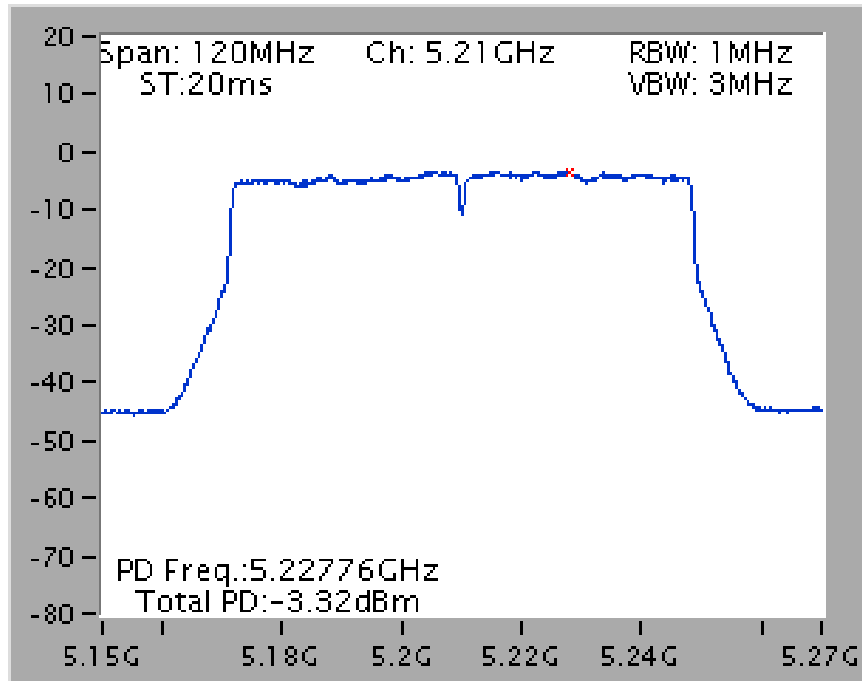
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



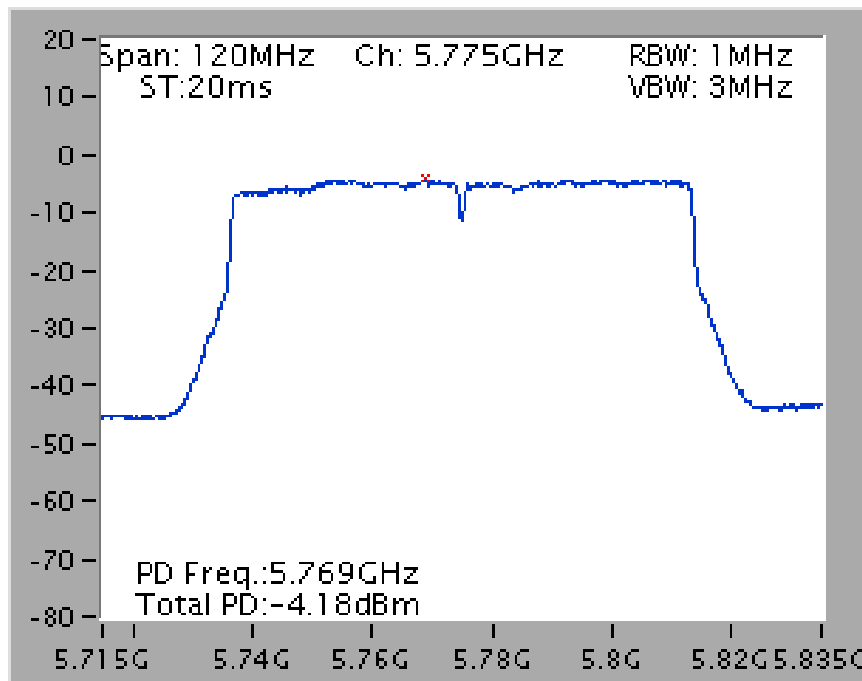
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5795 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5210 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5775 MHz



4.6. Radiated Emissions Measurement

4.6.1. Limit

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.

In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.6.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40 GHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	1MHz / 3MHz for peak

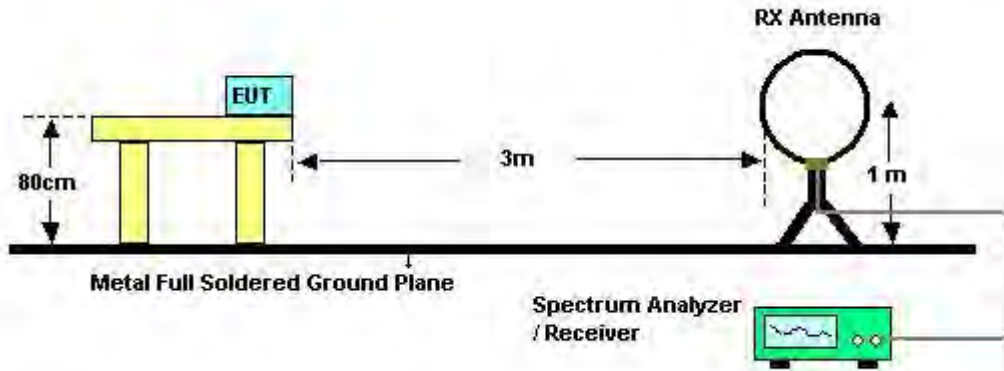
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

4.6.3. Test Procedures

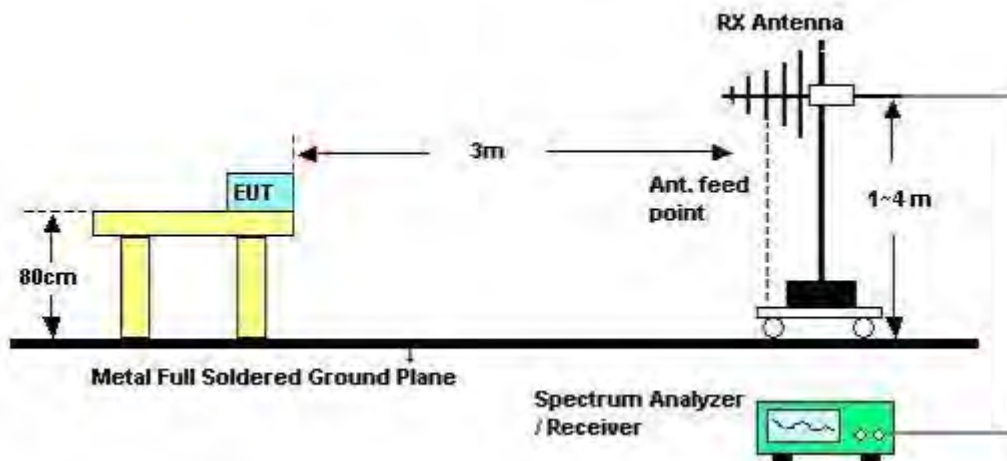
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1m & 3m far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 1/T VBW for average reading in spectrum analyzer.
7. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
8. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

4.6.4. Test Setup Layout

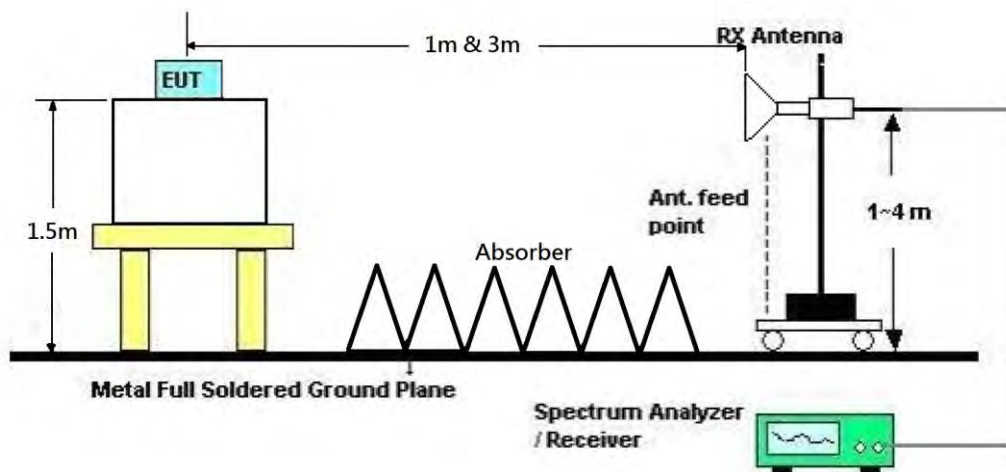
For Radiated Emissions: 9kHz ~30MHz



For Radiated Emissions: 30MHz~1GHz



For Radiated Emissions: Above 1GHz



4.6.5. Test Deviation

There is no deviation with the original standard.

4.6.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.6.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	23°C	Humidity	66%
Test Engineer	Thor Wei	Configurations	Normal Link
Test Date	Aug. 12, 2017	Test Mode	Mode 2

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

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

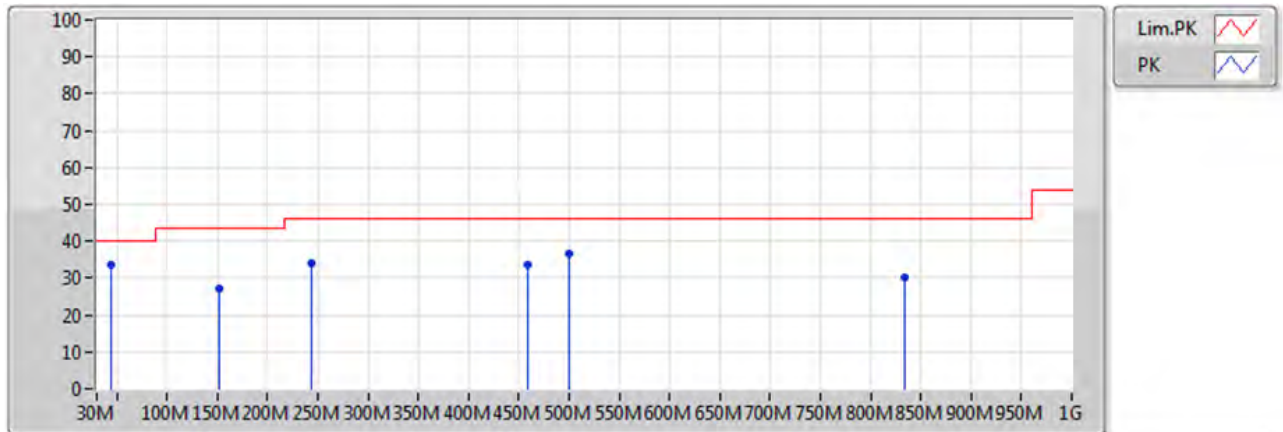
Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

4.6.8. Results of Radiated Emissions (30MHz~1GHz)

Temperature	23°C	Humidity	66%
Test Engineer	Thor Wei	Configurations	Normal Link
Test Mode	Mode 2		

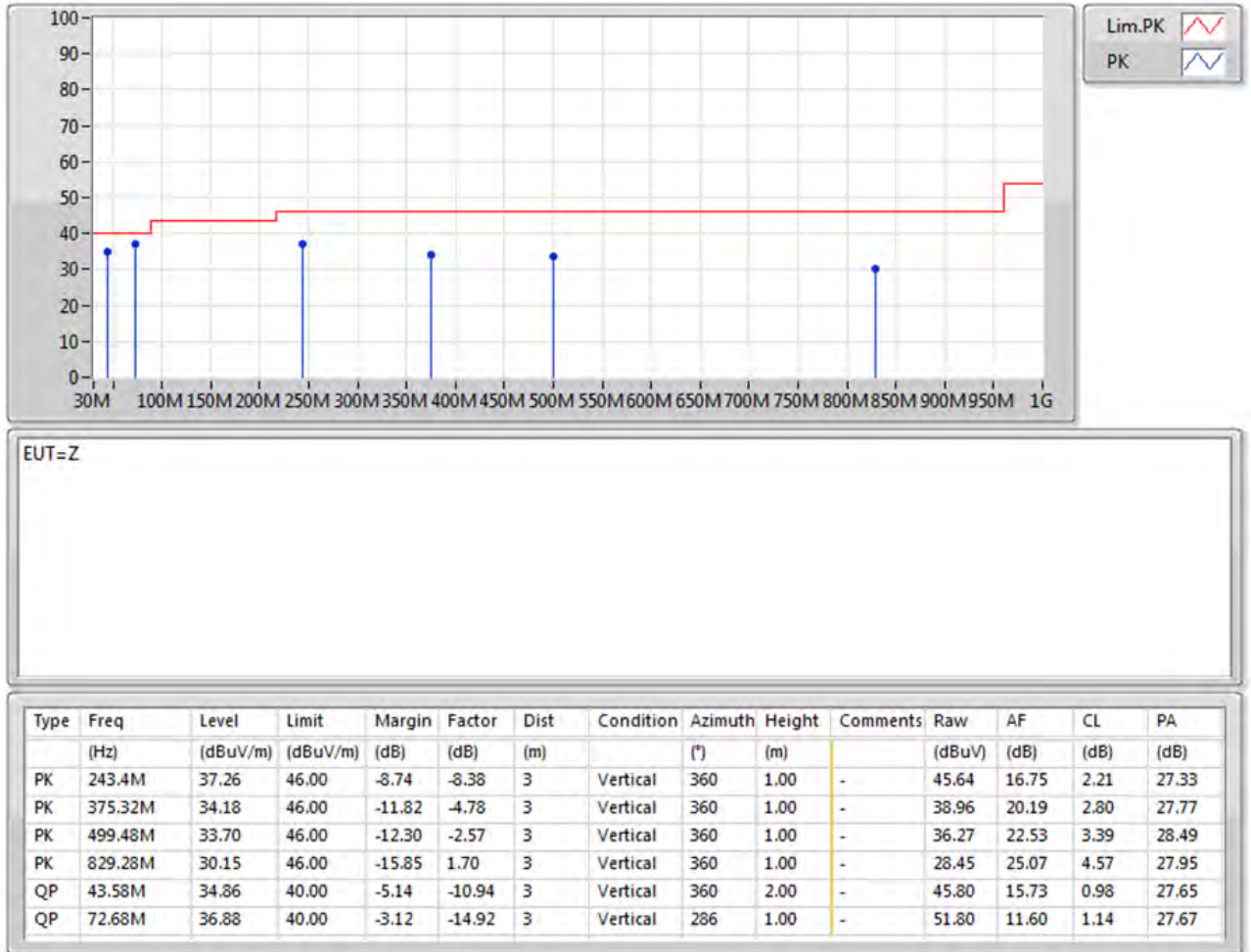
Horizontal



EUT=Z

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	43.58M	33.60	40.00	-6.40	-10.94	3	Horizontal	0	1.00	-	44.54	15.73	0.98	27.65
PK	152.22M	27.12	43.50	-16.38	-10.49	3	Horizontal	0	1.00	-	37.61	15.38	1.76	27.62
PK	243.4M	33.90	46.00	-12.10	-8.38	3	Horizontal	0	1.00	-	42.28	16.75	2.21	27.33
PK	458.74M	33.80	46.00	-12.20	-3.04	3	Horizontal	0	1.00	-	36.84	21.95	3.28	28.27
PK	499.48M	36.45	46.00	-9.55	-2.57	3	Horizontal	0	1.00	-	39.02	22.53	3.39	28.49
PK	833.16M	30.05	46.00	-15.95	1.77	3	Horizontal	0	1.00	-	28.28	25.11	4.60	27.94

Vertical



Note:

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

Emission level (dBUV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.6.9. Results for Radiated Emissions (1GHz~40GHz)

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15539.41	64.34	74.00	-9.66	43.57	16.37	38.13	33.73	150	252	Peak	HORIZONTAL
2	15539.59	51.20	54.00	-2.80	30.43	16.37	38.13	33.73	150	252	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15539.87	51.32	54.00	-2.68	30.55	16.37	38.13	33.73	150	233	Average	VERTICAL
2	15539.91	64.91	74.00	-9.09	44.14	16.37	38.13	33.73	150	233	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15600.26	50.95	54.00	-3.05	30.27	16.40	38.05	33.77	150	291	Average	HORIZONTAL
2	15600.28	63.99	74.00	-10.01	43.31	16.40	38.05	33.77	150	291	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15599.48	51.06	54.00	-2.94	30.38	16.40	38.05	33.77	150	274	Average	VERTICAL
2	15600.37	64.05	74.00	-9.95	43.37	16.40	38.05	33.77	150	274	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15719.16	50.66	54.00	-3.34	30.26	16.48	37.84	33.92	150	318	Average	HORIZONTAL
2	15719.28	65.98	74.00	-8.02	45.58	16.48	37.84	33.92	150	318	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15719.93	50.78	54.00	-3.22	30.38	16.48	37.84	33.92	150	303	Average	VERTICAL
2	15720.38	65.32	74.00	-8.68	44.92	16.48	37.84	33.92	150	303	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11489.75	46.13	54.00	-7.87	26.06	14.24	39.20	33.37	150	91	Average	HORIZONTAL
2	11490.80	59.40	74.00	-14.60	39.33	14.24	39.20	33.37	150	91	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11489.54	46.08	54.00	-7.92	26.01	14.24	39.20	33.37	150	113	Average	VERTICAL
2	11490.64	59.30	74.00	-14.70	39.23	14.24	39.20	33.37	150	113	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11569.90	46.25	54.00	-7.75	26.09	14.35	39.20	33.39	150	65	Average	HORIZONTAL
2	11570.33	59.99	74.00	-14.01	39.83	14.35	39.20	33.39	150	65	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11570.47	59.06	74.00	-14.94	38.90	14.35	39.20	33.39	150	80	Peak	VERTICAL
2	11571.00	46.33	54.00	-7.67	26.17	14.35	39.20	33.39	150	80	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11650.74	60.04	74.00	-13.96	39.80	14.45	39.20	33.41	150	12	Peak	HORIZONTAL
2	11650.94	46.57	54.00	-7.43	26.27	14.51	39.20	33.41	150	12	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11650.49	59.94	74.00	-14.06	39.70	14.45	39.20	33.41	150	45	Peak	VERTICAL
2	11650.65	46.66	54.00	-7.34	26.42	14.45	39.20	33.41	150	45	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	dB	cm	deg	
1	15569.22	63.87	74.00	-10.13	43.19	16.40	38.05	33.77	150	52 Peak	HORIZONTAL
2	15569.24	50.80	54.00	-3.20	30.12	16.40	38.05	33.77	150	52 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	dB	cm	deg	
1	15569.90	50.73	54.00	-3.27	30.05	16.40	38.05	33.77	150	42 Average	VERTICAL
2	15570.57	63.64	74.00	-10.36	42.96	16.40	38.05	33.77	150	42 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15690.49	64.74	74.00	-9.26	44.25	16.45	37.91	33.87	150	83 Peak	HORIZONTAL
2	15691.00	50.73	54.00	-3.27	30.28	16.48	37.84	33.87	150	83 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15690.82	50.64	54.00	-3.36	30.15	16.45	37.91	33.87	150	67 Average	VERTICAL
2	15690.98	63.94	74.00	-10.06	43.49	16.48	37.84	33.87	150	67 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11510.00	59.13	74.00	-14.87	39.07	14.24	39.20	33.38	150	357	Peak	HORIZONTAL
2	11510.00	45.97	54.00	-8.03	25.91	14.24	39.20	33.38	150	357	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11510.00	59.25	74.00	-14.75	39.19	14.24	39.20	33.38	150	342	Peak	VERTICAL
2	11510.00	45.95	54.00	-8.05	25.89	14.24	39.20	33.38	150	342	Average	VERTICAL



Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configuration	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11590.00	59.94	74.00	-14.06	39.74	14.40	39.20	33.40	150	307	Peak	HORIZONTAL
2	11590.00	46.60	54.00	-7.40	26.40	14.40	39.20	33.40	150	307	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11590.00	59.70	74.00	-14.30	39.50	14.40	39.20	33.40	150	330	Peak	VERTICAL
2	11590.00	46.50	54.00	-7.50	26.30	14.40	39.20	33.40	150	330	Average	VERTICAL



Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15630.00	63.89	74.00	-10.11	43.30	16.43	37.98	33.82	150	258	Peak	HORIZONTAL
2	15630.00	50.83	54.00	-3.17	30.24	16.43	37.98	33.82	150	258	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15630.00	63.70	74.00	-10.30	43.11	16.43	37.98	33.82	150	286	Peak	VERTICAL
2	15630.00	50.76	54.00	-3.24	30.17	16.43	37.98	33.82	150	286	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 1: EUT 1 + Set 1 Ceiling Mount Omni Antenna / 7 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11550.00	59.32	74.00	-14.68	39.22	14.29	39.20	33.39	150	51	Peak	HORIZONTAL
2	11550.00	46.04	54.00	-7.96	25.94	14.29	39.20	33.39	150	51	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11550.00	59.58	74.00	-14.42	39.48	14.29	39.20	33.39	150	71	Peak	VERTICAL
2	11550.00	46.32	54.00	-7.68	26.22	14.29	39.20	33.39	150	71	Average	VERTICAL

Note:

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15536.63	51.70	54.00	-2.30	30.93	16.37	38.13	33.73	279	153	Average	HORIZONTAL
2	15541.91	65.34	74.00	-8.66	44.57	16.37	38.13	33.73	279	153	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15536.63	51.70	54.00	-2.30	30.93	16.37	38.13	33.73	272	139	Average	VERTICAL
2	15539.00	64.48	74.00	-9.52	43.71	16.37	38.13	33.73	272	139	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15597.37	51.45	54.00	-2.55	30.77	16.40	38.05	33.77	256	129 Average	HORIZONTAL
2	15601.00	64.56	74.00	-9.44	43.92	16.43	37.98	33.77	256	129 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15594.89	51.40	54.00	-2.60	30.72	16.40	38.05	33.77	264	134 Average	VERTICAL
2	15603.26	63.99	74.00	-10.01	43.35	16.43	37.98	33.77	264	134 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	dB	cm	deg	
1	15718.33	64.08	74.00	-9.92	43.68	16.48	37.84	33.92	248	116 Peak	HORIZONTAL
2	15720.13	51.24	54.00	-2.76	30.84	16.48	37.84	33.92	248	116 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	dB	cm	deg	
1	15716.01	51.14	54.00	-2.86	30.74	16.48	37.84	33.92	237	140 Average	VERTICAL
2	15717.99	63.73	74.00	-10.27	43.33	16.48	37.84	33.92	237	140 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11489.15	46.44	54.00	-7.56	26.37	14.24	39.20	33.37	225	137	Average	HORIZONTAL
2	11492.61	59.27	74.00	-14.73	39.20	14.24	39.20	33.37	225	137	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11488.01	59.55	74.00	-14.45	39.48	14.24	39.20	33.37	211	129	Peak	VERTICAL
2	11493.90	46.32	54.00	-7.68	26.25	14.24	39.20	33.37	211	129	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11569.77	59.05	74.00	-14.95	38.89	14.35	39.20	33.39	207	128	Peak	HORIZONTAL
2	11574.90	46.57	54.00	-7.43	26.41	14.35	39.20	33.39	207	128	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11565.12	58.79	74.00	-15.21	38.63	14.35	39.20	33.39	199	126	Peak	VERTICAL
2	11571.12	46.66	54.00	-7.34	26.50	14.35	39.20	33.39	199	126	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11646.21	47.05	54.00	-6.95	26.81	14.45	39.20	33.41	212	122	Average	HORIZONTAL
2	11647.07	60.28	74.00	-13.72	40.04	14.45	39.20	33.41	212	122	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11644.91	47.24	54.00	-6.76	27.00	14.45	39.20	33.41	203	113	Average	VERTICAL
2	11646.16	59.96	74.00	-14.04	39.72	14.45	39.20	33.41	203	113	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15565.38	51.20	54.00	-2.80	30.52	16.40	38.05	33.77	198	105	Average	HORIZONTAL
2	15566.61	64.47	74.00	-9.53	43.79	16.40	38.05	33.77	198	105	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15564.83	51.22	54.00	-2.78	30.54	16.40	38.05	33.77	194	110	Average	VERTICAL
2	15568.96	64.50	74.00	-9.50	43.82	16.40	38.05	33.77	194	110	Peak	VERTICAL



Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15685.91	51.08	54.00	-2.92	30.59	16.45	37.91	33.87	204	110 Average	HORIZONTAL
2	15686.69	63.73	74.00	-10.27	43.24	16.45	37.91	33.87	204	110 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15693.75	51.06	54.00	-2.94	30.61	16.48	37.84	33.87	181	119 Average	VERTICAL
2	15694.43	64.03	74.00	-9.97	43.58	16.48	37.84	33.87	181	119 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11505.34	59.09	74.00	-14.91	39.02	14.24	39.20	33.37	208	142	Peak	HORIZONTAL
2	11509.62	46.25	54.00	-7.75	26.19	14.24	39.20	33.38	208	142	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11510.72	47.30	54.00	-6.70	27.24	14.24	39.20	33.38	225	151	Average	VERTICAL
2	11514.94	58.57	74.00	-15.43	38.51	14.24	39.20	33.38	225	151	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11546.23	46.42	54.00	-7.58	26.31	14.29	39.20	33.38	213	140	Average	HORIZONTAL
2	11550.11	58.91	74.00	-15.09	38.81	14.29	39.20	33.39	213	140	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11549.64	58.97	74.00	-15.03	38.87	14.29	39.20	33.39	222	149	Peak	VERTICAL
2	11553.24	46.56	54.00	-7.44	26.40	14.35	39.20	33.39	222	149	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15627.46	63.37	74.00	-10.63	42.78	16.43	37.98	33.82	202	135	Peak	HORIZONTAL
2	15631.59	51.03	54.00	-2.97	30.44	16.43	37.98	33.82	202	135	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15625.15	51.12	54.00	-2.88	30.53	16.43	37.98	33.82	209	139	Average	VERTICAL
2	15632.67	63.72	74.00	-10.28	43.13	16.43	37.98	33.82	209	139	Peak	VERTICAL



Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 2: EUT 1 + Set 2 Sector Antenna / 6.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11545.29	46.32	54.00	-7.68	26.21	14.29	39.20	33.38	191	148	Average	HORIZONTAL
2	11548.73	59.45	74.00	-14.55	39.35	14.29	39.20	33.39	191	148	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11549.17	59.82	74.00	-14.18	39.72	14.29	39.20	33.39	253	233	Peak	VERTICAL
2	11553.94	46.27	54.00	-7.73	26.11	14.35	39.20	33.39	253	233	Average	VERTICAL

Note:

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15539.12	51.89	54.00	-2.11	31.12	16.37	38.13	33.73	184	329	Average	HORIZONTAL
2	15542.40	64.15	74.00	-9.85	43.38	16.37	38.13	33.73	184	329	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15531.60	51.72	54.00	-2.28	30.95	16.37	38.13	33.73	160	352	Average	VERTICAL
2	15544.72	66.08	74.00	-7.92	45.31	16.37	38.13	33.73	160	352	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15600.64	64.19	74.00	-9.81	43.55	16.43	37.98	33.77	216	299	Peak	HORIZONTAL
2	15605.00	51.45	54.00	-2.55	30.81	16.43	37.98	33.77	216	299	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15596.36	51.68	54.00	-2.32	31.00	16.40	38.05	33.77	211	276	Average	VERTICAL
2	15597.60	64.86	74.00	-9.14	44.18	16.40	38.05	33.77	211	276	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15710.60	63.84	74.00	-10.16	43.39	16.48	37.84	33.87	211	260	Peak	HORIZONTAL
2	15725.96	51.59	54.00	-2.41	31.19	16.48	37.84	33.92	211	260	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15720.68	64.07	74.00	-9.93	43.67	16.48	37.84	33.92	218	268	Peak	VERTICAL
2	15727.76	51.56	54.00	-2.44	31.16	16.48	37.84	33.92	218	268	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11431.76	59.30	74.00	-14.70	39.45	14.13	39.09	33.37	221	181	Peak	HORIZONTAL
2	11442.48	46.93	54.00	-7.07	27.08	14.13	39.09	33.37	221	181	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11439.08	47.12	54.00	-6.88	27.27	14.13	39.09	33.37	244	168	Average	VERTICAL
2	11443.68	59.23	74.00	-14.77	39.38	14.13	39.09	33.37	244	168	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11562.16	59.66	74.00	-14.34	39.50	14.35	39.20	33.39	200	159	Peak	HORIZONTAL
2	11578.72	46.97	54.00	-7.03	26.81	14.35	39.20	33.39	200	159	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11562.88	59.54	74.00	-14.46	39.38	14.35	39.20	33.39	208	147	Peak	VERTICAL
2	11579.32	46.95	54.00	-7.05	26.79	14.35	39.20	33.39	208	147	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11657.76	48.01	54.00	-5.99	27.71	14.51	39.20	33.41	231	151	Average	HORIZONTAL
2	11659.44	59.98	74.00	-14.02	39.68	14.51	39.20	33.41	231	151	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11651.72	60.46	74.00	-13.54	40.16	14.51	39.20	33.41	224	158	Peak	VERTICAL
2	11659.72	47.93	54.00	-6.07	27.63	14.51	39.20	33.41	224	158	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15574.04	65.03	74.00	-8.97	44.35	16.40	38.05	33.77	230	146	Peak	HORIZONTAL
2	15575.96	51.59	54.00	-2.41	30.91	16.40	38.05	33.77	230	146	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15567.36	51.64	54.00	-2.36	30.96	16.40	38.05	33.77	228	127	Average	VERTICAL
2	15575.28	65.11	74.00	-8.89	44.43	16.40	38.05	33.77	228	127	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15697.04	63.73	74.00	-10.27	43.28	16.48	37.84	33.87	197	125	Peak	HORIZONTAL
2	15697.04	51.33	54.00	-2.67	30.88	16.48	37.84	33.87	197	125	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15682.84	64.07	74.00	-9.93	43.58	16.45	37.91	33.87	204	123	Peak	VERTICAL
2	15699.32	51.38	54.00	-2.62	30.93	16.48	37.84	33.87	204	123	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11510.84	46.72	54.00	-7.28	26.66	14.24	39.20	33.38	179	103	Average	HORIZONTAL
2	11513.20	59.36	74.00	-14.64	39.30	14.24	39.20	33.38	179	103	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	11506.88	46.87	54.00	-7.13	26.80	14.24	39.20	33.37	194	115	Average	VERTICAL
2	11508.12	59.27	74.00	-14.73	39.20	14.24	39.20	33.37	194	115	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configuration	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11594.96	59.88	74.00	-14.12	39.68	14.40	39.20	33.40	214	85	Peak	HORIZONTAL
2	11597.16	47.39	54.00	-6.61	27.19	14.40	39.20	33.40	214	85	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11585.24	59.76	74.00	-14.24	39.56	14.40	39.20	33.40	224	92	Peak	VERTICAL
2	11593.56	47.59	54.00	-6.41	27.39	14.40	39.20	33.40	224	92	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15635.12	64.37	74.00	-9.63	43.78	16.43	37.98	33.82	194	124	Peak	HORIZONTAL
2	15635.36	51.59	54.00	-2.41	31.00	16.43	37.98	33.82	194	124	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15626.60	64.21	74.00	-9.79	43.62	16.43	37.98	33.82	199	117	Peak	VERTICAL
2	15633.92	51.47	54.00	-2.53	30.88	16.43	37.98	33.82	199	117	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 3: EUT 1 + Set 3 Sector Antenna / 5.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11542.12	58.99	74.00	-15.01	38.88	14.29	39.20	33.38	150	157	Peak	HORIZONTAL
2	11556.68	46.92	54.00	-7.08	26.76	14.35	39.20	33.39	150	157	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11544.76	59.29	74.00	-14.71	39.18	14.29	39.20	33.38	157	166	Peak	VERTICAL
2	11559.64	46.94	54.00	-7.06	26.78	14.35	39.20	33.39	157	166	Average	VERTICAL

Note:

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg		
1	15538.60	63.75	74.00	-10.25	42.98	16.37	38.13	229	248	Peak	HORIZONTAL
2	15540.94	51.68	54.00	-2.32	30.91	16.37	38.13	229	248	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg		
1	15540.02	51.64	54.00	-2.36	30.87	16.37	38.13	224	254	Average	VERTICAL
2	15540.20	65.03	74.00	-8.97	44.26	16.37	38.13	224	254	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15596.00	51.24	54.00	-2.76	30.56	16.40	38.05	33.77	237	236 Average	HORIZONTAL
2	15603.48	63.69	74.00	-10.31	43.05	16.43	37.98	33.77	237	236 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15596.46	51.35	54.00	-2.65	30.67	16.40	38.05	33.77	246	246 Average	VERTICAL
2	15599.70	64.70	74.00	-9.30	44.02	16.40	38.05	33.77	246	246 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg			
1	15721.92	51.05	54.00	-2.95	30.65	16.48	37.84	33.92	228	265	Average	HORIZONTAL
2	15724.50	63.80	74.00	-10.20	43.40	16.48	37.84	33.92	228	265	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg			
1	15718.58	51.01	54.00	-2.99	30.61	16.48	37.84	33.92	222	264	Average	VERTICAL
2	15718.98	64.16	74.00	-9.84	43.76	16.48	37.84	33.92	222	264	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11485.62	46.63	54.00	-7.37	26.56	14.24	39.20	33.37	233	69 Average	HORIZONTAL
2	11486.78	59.52	74.00	-14.48	39.45	14.24	39.20	33.37	233	69 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11486.34	59.45	74.00	-14.55	39.38	14.24	39.20	33.37	226	83 Peak	VERTICAL
2	11490.00	46.65	54.00	-7.35	26.58	14.24	39.20	33.37	226	83 Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg		
1	11565.20	47.00	54.00	-7.00	26.84	14.35	39.20	228	52	Average	HORIZONTAL
2	11569.10	60.27	74.00	-13.73	40.11	14.35	39.20	228	52	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg		
1	11565.98	47.06	54.00	-6.94	26.90	14.35	39.20	221	33	Average	VERTICAL
2	11569.42	60.38	74.00	-13.62	40.22	14.35	39.20	221	33	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11647.44	47.81	54.00	-6.19	27.57	14.45	39.20	33.41	238	17 Average	HORIZONTAL
2	11654.98	61.04	74.00	-12.96	40.74	14.51	39.20	33.41	238	17 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11650.22	47.62	54.00	-6.38	27.38	14.45	39.20	33.41	227	30 Average	VERTICAL
2	11652.04	60.95	74.00	-13.05	40.65	14.51	39.20	33.41	227	30 Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15568.19	65.48	74.00	-8.52	44.80	16.40	38.05	33.77	118	318	Peak	HORIZONTAL
2	15571.42	51.18	54.00	-2.82	30.50	16.40	38.05	33.77	118	318	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15571.02	51.33	54.00	-2.67	30.65	16.40	38.05	33.77	121	342	Average	VERTICAL
2	15572.14	63.71	74.00	-10.29	43.03	16.40	38.05	33.77	121	342	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 46 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	dB	cm	deg		
1	15689.15	50.99	54.00	-3.01	30.50	16.45	37.91	33.87	115	334	Average	HORIZONTAL
2	15691.75	64.24	74.00	-9.76	43.79	16.48	37.84	33.87	115	334	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	dB	cm	deg		
1	15689.07	51.25	54.00	-2.75	30.76	16.45	37.91	33.87	117	323	Average	VERTICAL
2	15691.10	63.74	74.00	-10.26	43.29	16.48	37.84	33.87	117	323	Peak	VERTICAL



Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 151 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11509.15	46.30	54.00	-7.70	26.24	14.24	39.20	33.38	118	298	Average	HORIZONTAL
2	11511.19	59.54	74.00	-14.46	39.48	14.24	39.20	33.38	118	298	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11507.70	46.59	54.00	-7.41	26.52	14.24	39.20	33.37	121	301	Average	VERTICAL
2	11509.26	59.19	74.00	-14.81	39.13	14.24	39.20	33.38	121	301	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 159 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11588.14	46.86	54.00	-7.14	26.66	14.40	39.20	33.40	120	269	Average	HORIZONTAL
2	11589.35	60.38	74.00	-13.62	40.18	14.40	39.20	33.40	120	269	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11589.43	60.13	74.00	-13.87	39.93	14.40	39.20	33.40	123	278	Peak	VERTICAL
2	11592.08	47.14	54.00	-6.86	26.94	14.40	39.20	33.40	123	278	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 42 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15629.65	64.32	74.00	-9.68	43.73	16.43	37.98	33.82	113	347	Peak	HORIZONTAL
2	15631.70	50.80	54.00	-3.20	30.21	16.43	37.98	33.82	113	347	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15630.32	51.22	54.00	-2.78	30.63	16.43	37.98	33.82	116	354	Average	VERTICAL
2	15631.92	64.26	74.00	-9.74	43.67	16.43	37.98	33.82	116	354	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT80 CH 155 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 23, 2015		
Test Mode	Mode 4: EUT 1 + Set 4 Sector Antenna / 7.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11549.42	46.32	54.00	-7.68	26.22	14.29	39.20	33.39	137	317	Average	HORIZONTAL
2	11552.34	59.78	74.00	-14.22	39.62	14.35	39.20	33.39	137	317	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11549.93	59.40	74.00	-14.60	39.30	14.29	39.20	33.39	131	321	Peak	VERTICAL
2	11552.13	46.60	54.00	-7.40	26.44	14.35	39.20	33.39	131	321	Average	VERTICAL

Note:

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 36 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15539.17	50.92	54.00	-3.08	30.15	16.37	38.13	33.73	244	226	Average	HORIZONTAL
2	15542.48	63.39	74.00	-10.61	42.62	16.37	38.13	33.73	244	226	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15538.30	63.96	74.00	-10.04	43.19	16.37	38.13	33.73	257	230	Peak	VERTICAL
2	15539.51	50.98	54.00	-3.02	30.21	16.37	38.13	33.73	257	230	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 40 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg		
1	15596.80	51.36	54.00	-2.64	30.68	16.40	38.05	223	215	Average	HORIZONTAL
2	15597.07	63.69	74.00	-10.31	43.01	16.40	38.05	223	215	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	cm	deg		
1	15594.89	51.38	54.00	-2.62	30.70	16.40	38.05	206	205	Average	VERTICAL
2	15596.44	64.66	74.00	-9.34	43.98	16.40	38.05	206	205	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 48 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15718.20	64.08	74.00	-9.92	43.68	16.48	37.84	33.92	201	187	Peak	HORIZONTAL
2	15722.69	51.03	54.00	-2.97	30.63	16.48	37.84	33.92	202	187	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	15718.37	51.01	54.00	-2.99	30.61	16.48	37.84	33.92	220	196	Average	VERTICAL
2	15724.20	64.09	74.00	-9.91	43.69	16.48	37.84	33.92	220	196	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 149 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11487.22	59.61	74.00	-14.39	39.54	14.24	39.20	33.37	230	186	Peak	HORIZONTAL
2	11493.14	46.38	54.00	-7.62	26.31	14.24	39.20	33.37	230	186	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11486.33	46.28	54.00	-7.72	26.21	14.24	39.20	33.37	237	184	Average	VERTICAL
2	11486.74	59.35	74.00	-14.65	39.28	14.24	39.20	33.37	237	184	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 157 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11565.57	46.69	54.00	-7.31	26.53	14.35	39.20	33.39	225	185	Average	HORIZONTAL
2	11574.22	59.55	74.00	-14.45	39.39	14.35	39.20	33.39	225	185	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11565.84	59.51	74.00	-14.49	39.35	14.35	39.20	33.39	204	168	Peak	VERTICAL
2	11569.87	46.60	54.00	-7.40	26.44	14.35	39.20	33.39	204	168	Average	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT20 CH 165 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11646.08	47.17	54.00	-6.83	26.93	14.45	39.20	33.41	222	198	Average	HORIZONTAL
2	11647.14	60.03	74.00	-13.97	39.79	14.45	39.20	33.41	222	198	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11646.16	47.22	54.00	-6.78	26.98	14.45	39.20	33.41	200	164	Average	VERTICAL
2	11651.61	59.99	74.00	-14.01	39.69	14.51	39.20	33.41	200	164	Peak	VERTICAL

Temperature	25°C	Humidity	55%
Test Engineer	Stim Sung	Configurations	IEEE 802.11ac MCS0/Nss1 VHT40 CH 38 / Chain 1 + Chain 2 + Chain 3 + Chain 4
Test Date	Nov. 26, 2015		
Test Mode	Mode 5: EUT 1 + Set 5 Sector Antenna / 4.5 dBi		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15566.74	51.49	54.00	-2.51	30.81	16.40	38.05	33.77	213	186	Average	HORIZONTAL
2	15568.39	64.29	74.00	-9.71	43.61	16.40	38.05	33.77	213	186	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	15564.70	51.28	54.00	-2.72	30.60	16.40	38.05	33.77	233	171	Average	VERTICAL
2	15567.01	63.68	74.00	-10.32	43.00	16.40	38.05	33.77	233	171	Peak	VERTICAL