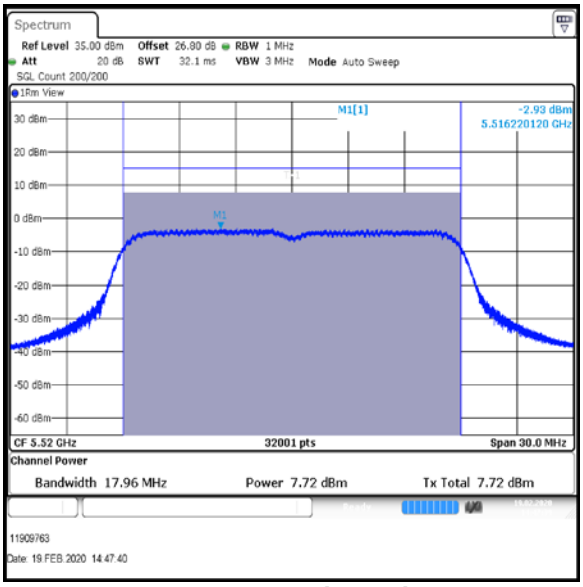
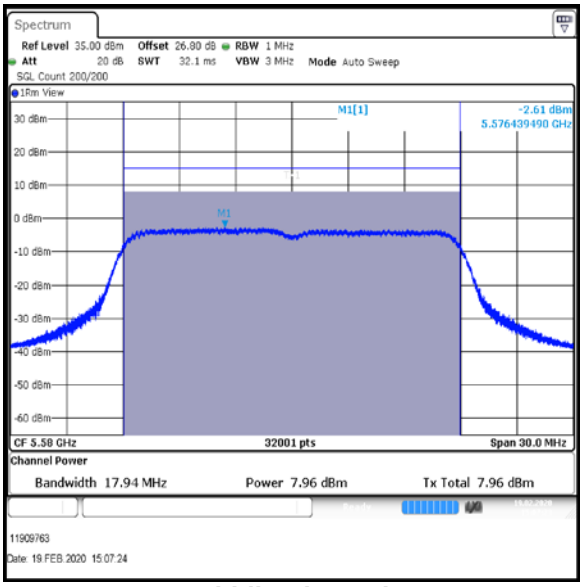
Transmitter Maximum Conducted Output Power (continued)

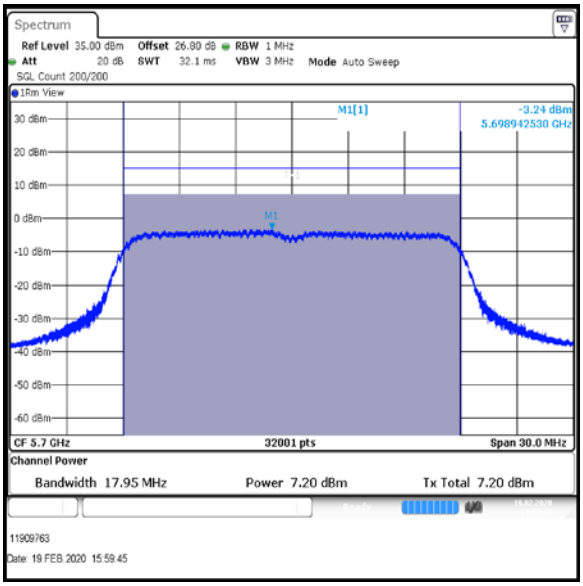
Results: 802.11n / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel

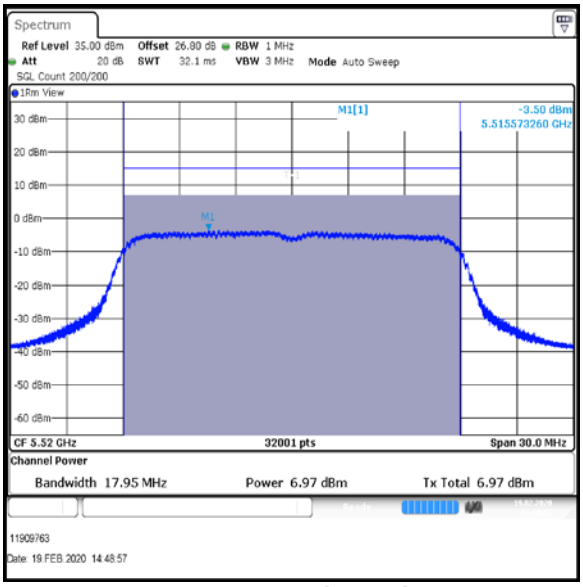


Top Channel

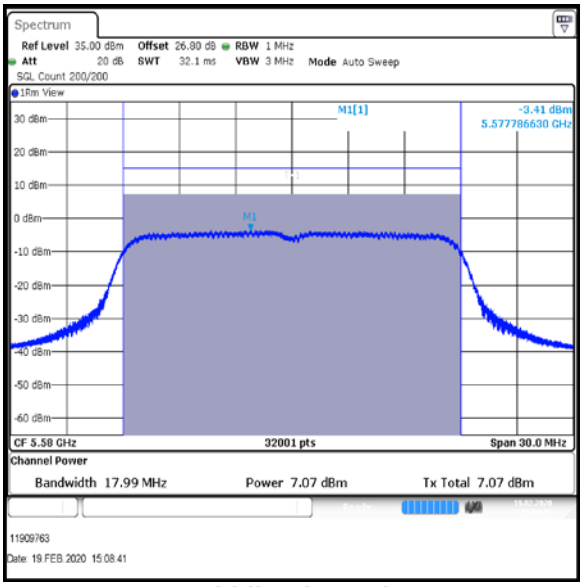
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

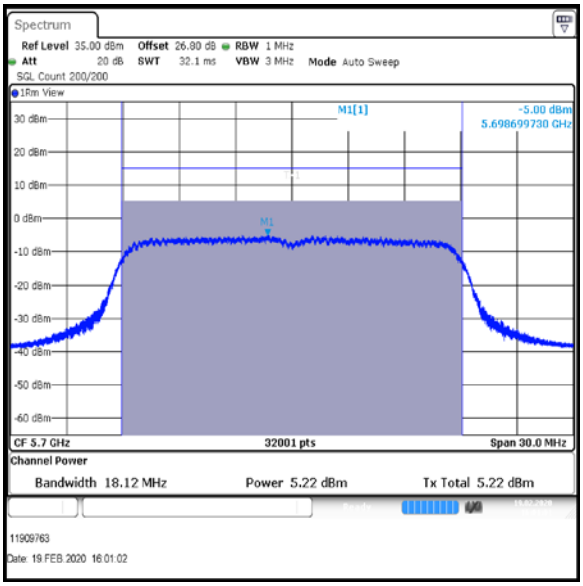
Results: 802.11n / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 2



Bottom+1 Channel



Middle Channel

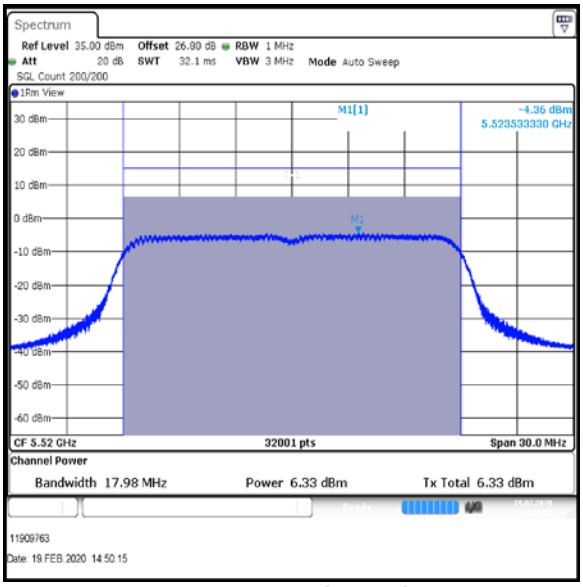


Top Channel

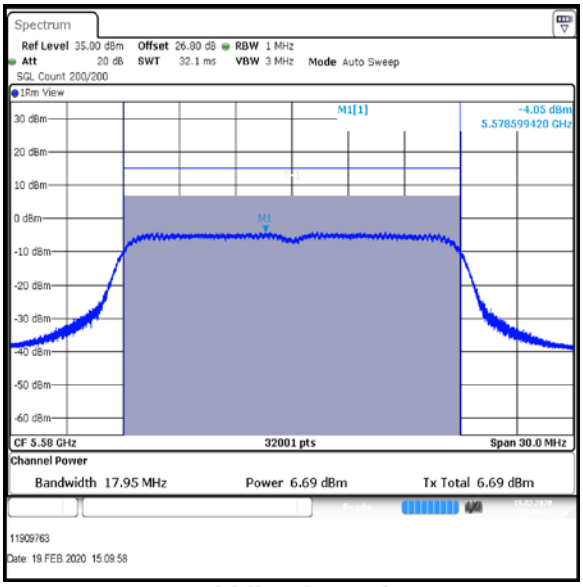
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

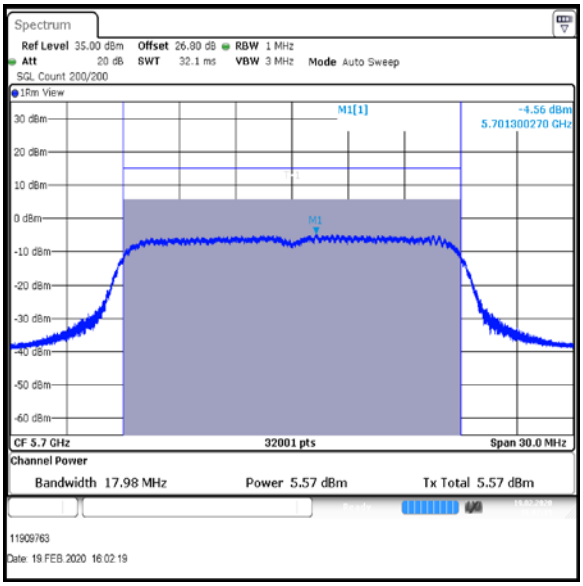
Results: 802.11n / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 3



Bottom+1 Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	3.9	1.2	5.1	5.4	1.2	6.6

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	3.4	1.2	4.6

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	5.1	6.6	4.6	10.3

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.3	21.0	10.7	Complied

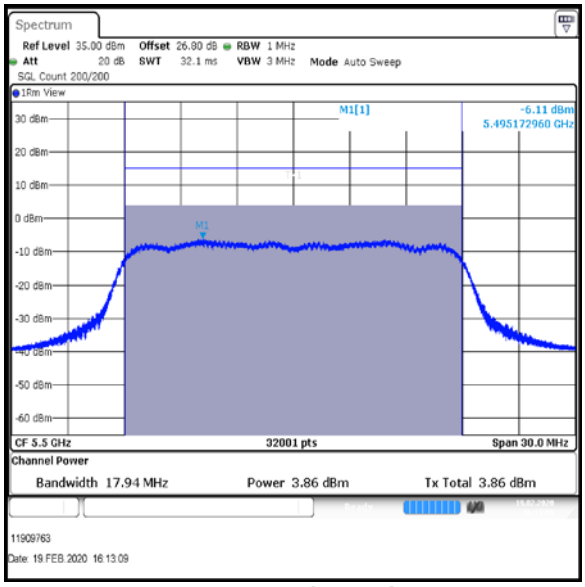
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	10.3	9	19.3	30.0	10.7	Complied

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1

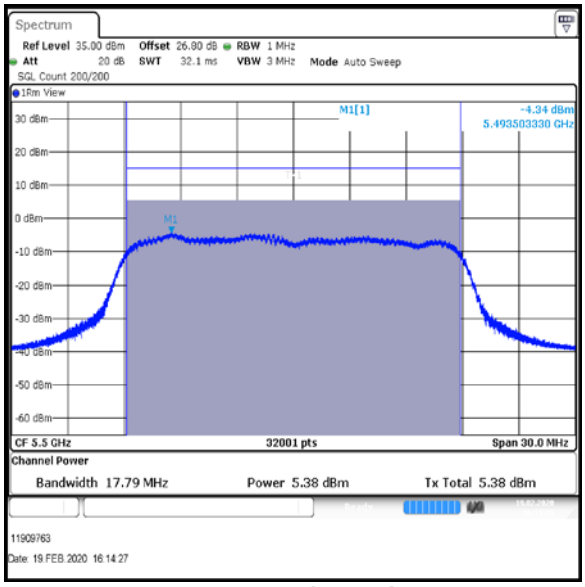


Bottom Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2

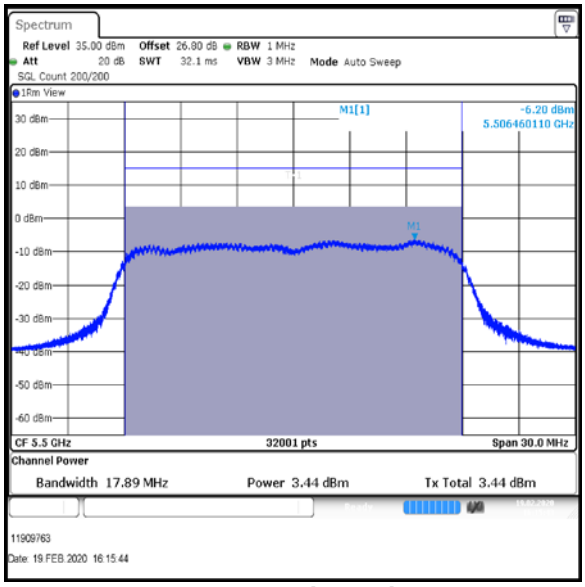


Bottom Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom+1	4.9	1.2	6.1	4.6	1.2	5.8
Middle	7.7	1.2	8.9	7.1	1.2	8.3
Top	7.8	1.2	9.0	6.2	1.2	7.4

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom+1	3.9	1.2	5.1
Middle	6.7	1.2	7.9
Top	6.6	1.2	7.8

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom+1	6.1	5.8	5.1	10.5
Middle	8.9	8.3	7.9	13.2
Top	9.0	7.4	7.8	12.9

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom+1	10.5	21.0	10.5	Complied
Middle	13.2	21.0	7.8	Complied
Top	12.9	21.0	8.1	Complied

Transmitter Maximum Conducted Output Power (continued)

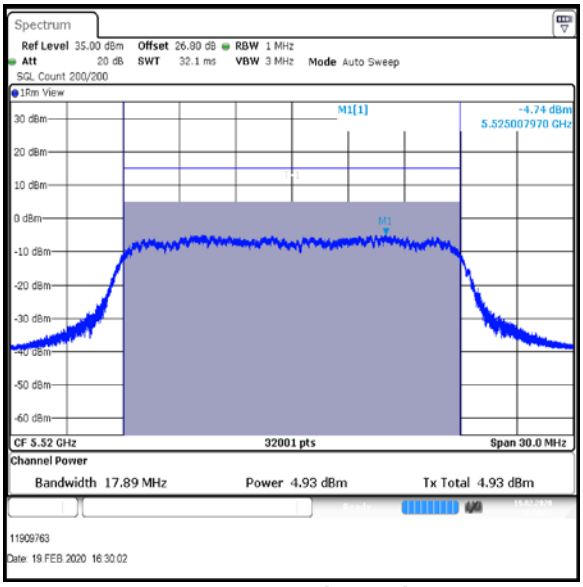
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom+1	10.5	9	19.5	30.0	10.5	Complied
Middle	13.2	9	22.2	30.0	7.8	Complied
Top	12.9	9	21.9	30.0	8.1	Complied

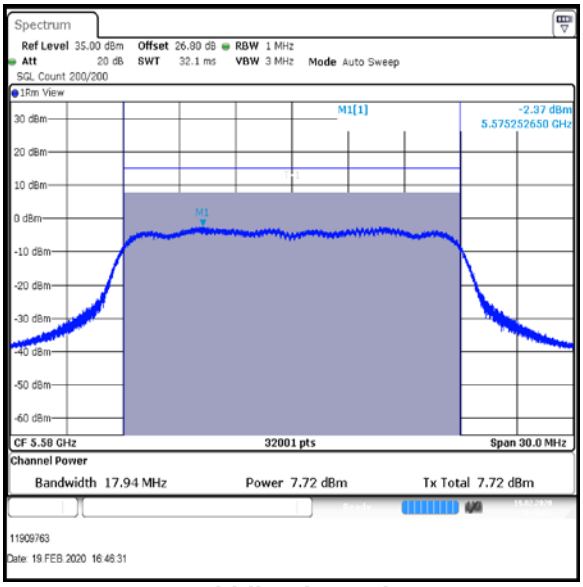
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

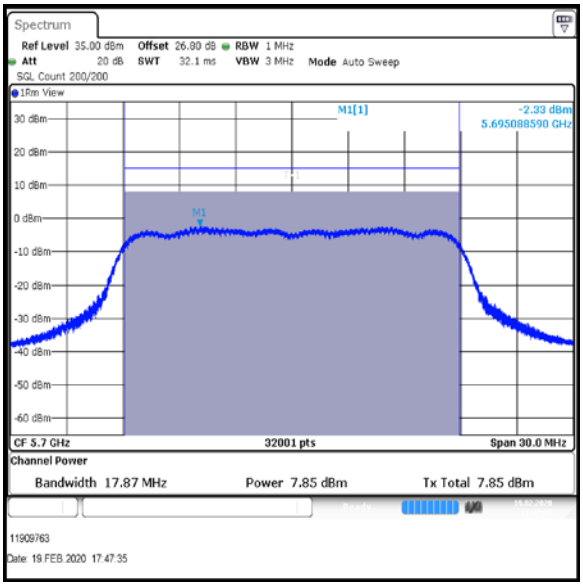
Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel

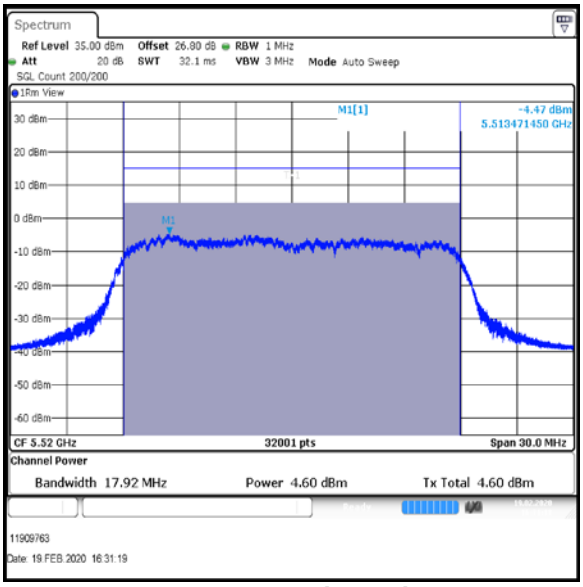


Top Channel

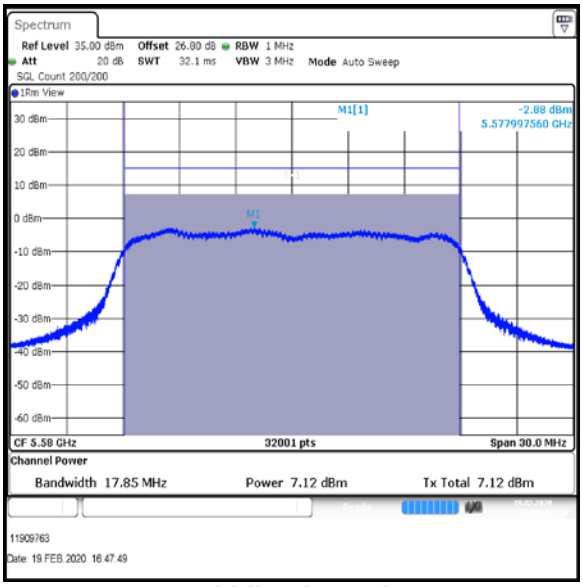
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

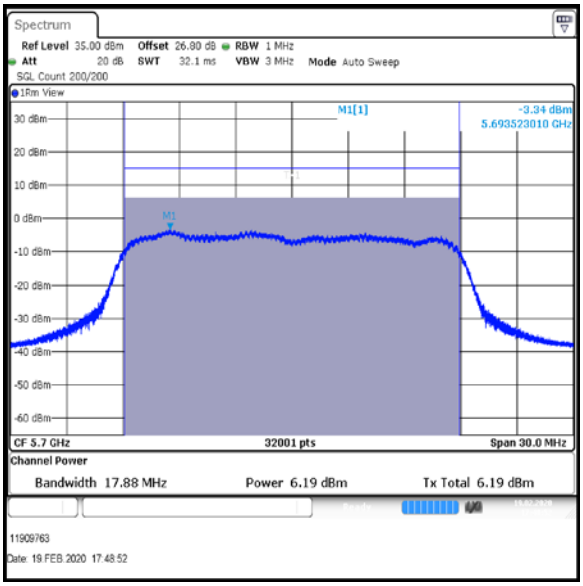
Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 2



Bottom+1 Channel



Middle Channel

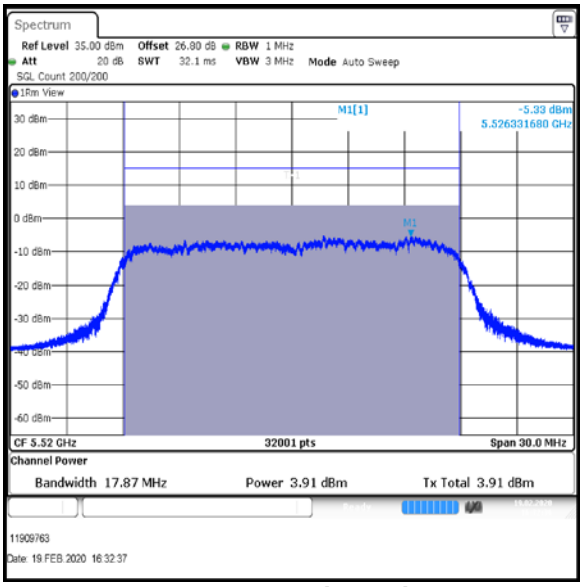


Top Channel

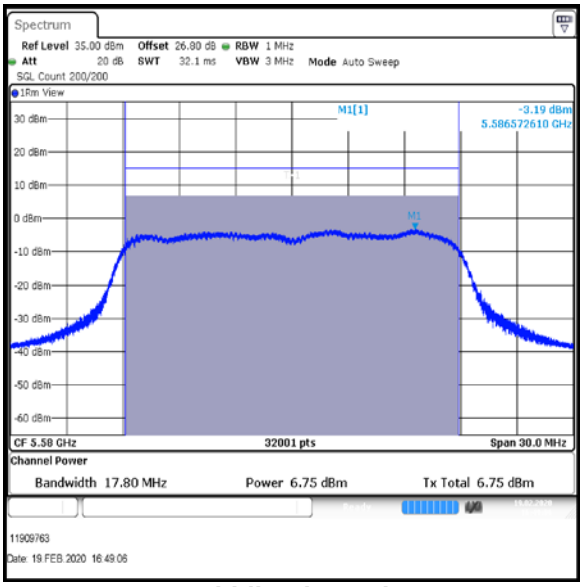
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

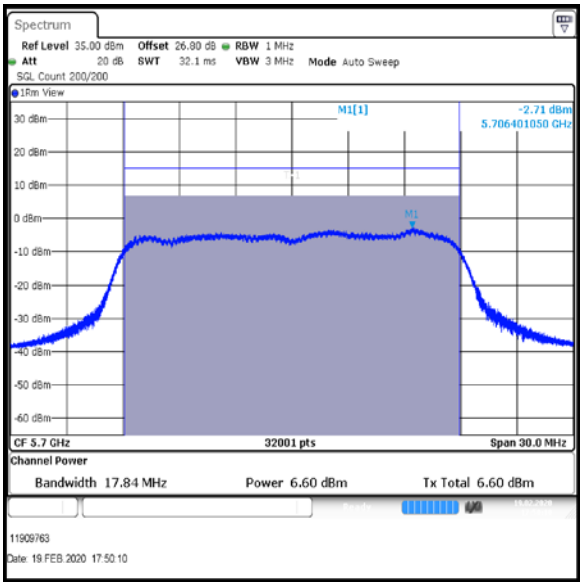
Results: 802.11ac / HT20 / MCS3 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 3



Bottom+1 Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	2.7	2.5	5.2	4.2	2.5	6.7

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	2.2	2.5	4.7

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	5.2	6.7	4.7	10.4

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.4	21.0	10.6	Complied

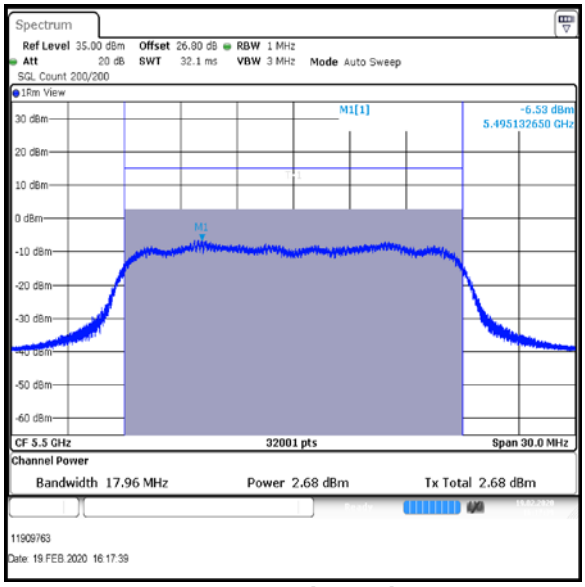
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	10.4	9	19.4	30.0	10.6	Complied

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1

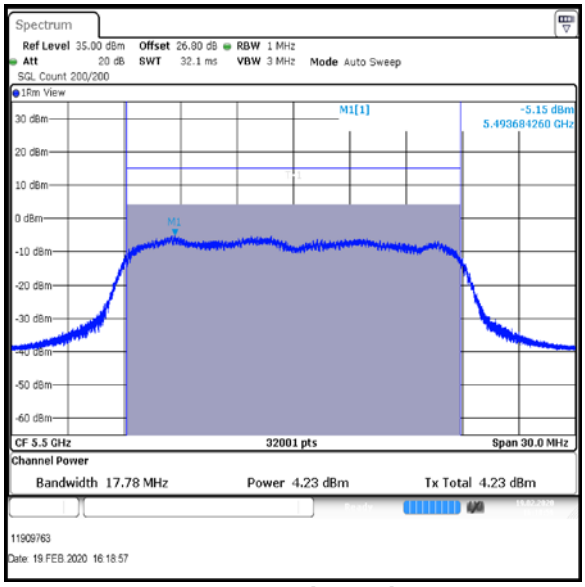


Bottom Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2

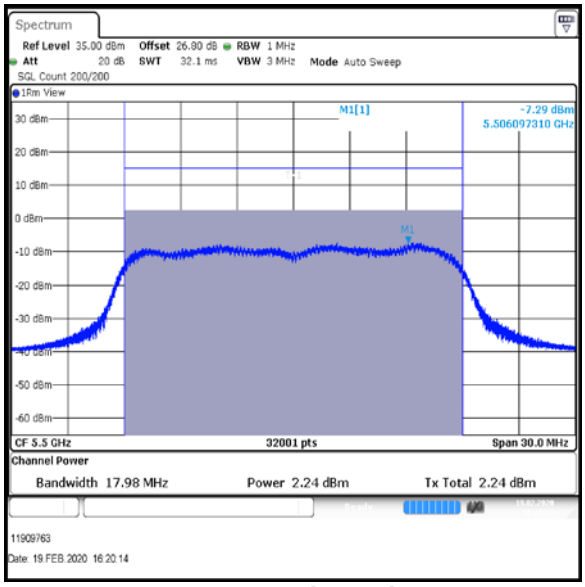


Bottom Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom+1	3.2	2.5	5.7	3.0	2.5	5.5
Middle	6.5	2.5	9.0	6.0	2.5	8.5
Top	6.7	2.5	9.2	5.1	2.5	7.6

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom+1	2.2	2.5	4.7
Middle	5.6	2.5	8.1
Top	5.4	2.5	7.9

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom+1	5.7	5.5	4.7	10.1
Middle	9.0	8.5	8.1	13.3
Top	9.2	7.6	7.9	13.1

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom+1	10.1	21.0	10.9	Complied
Middle	13.3	21.0	7.7	Complied
Top	13.1	21.0	7.9	Complied

Transmitter Maximum Conducted Output Power (continued)

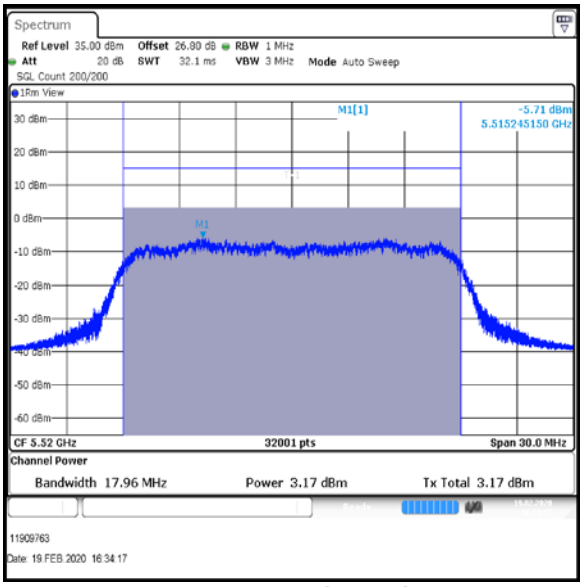
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom+1	10.1	9	19.1	30.0	10.9	Complied
Middle	13.3	9	22.3	30.0	7.7	Complied
Top	13.1	9	22.1	30.0	7.9	Complied

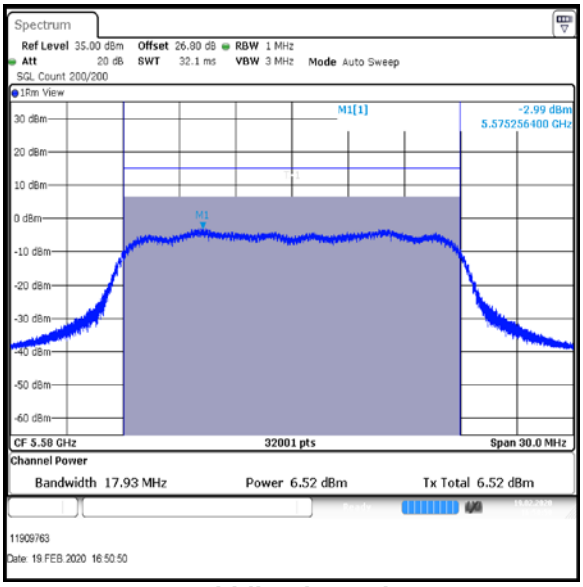
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

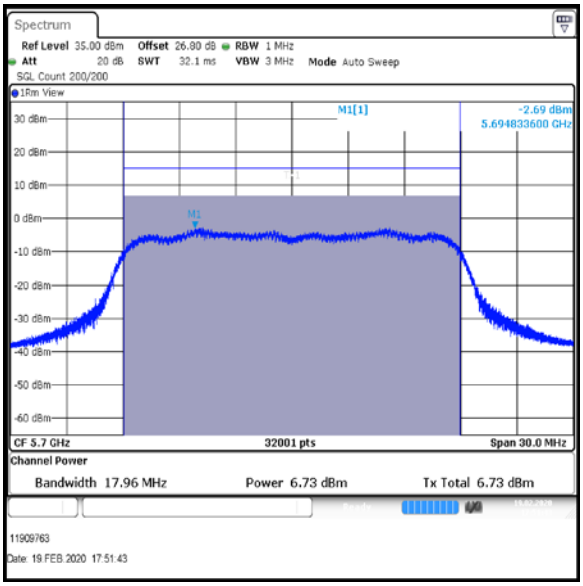
Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel

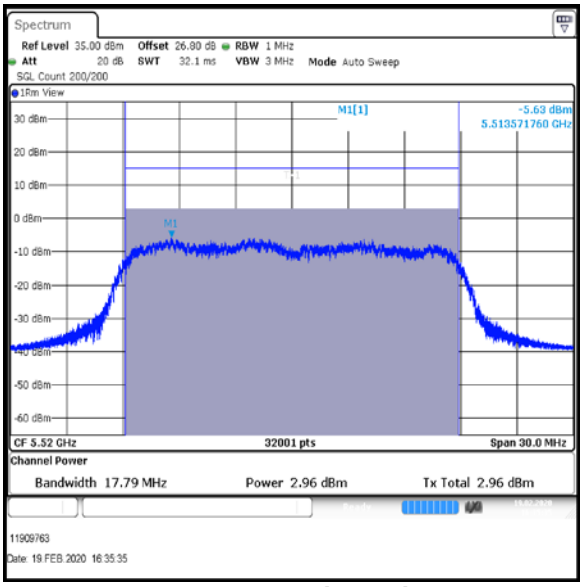


Top Channel

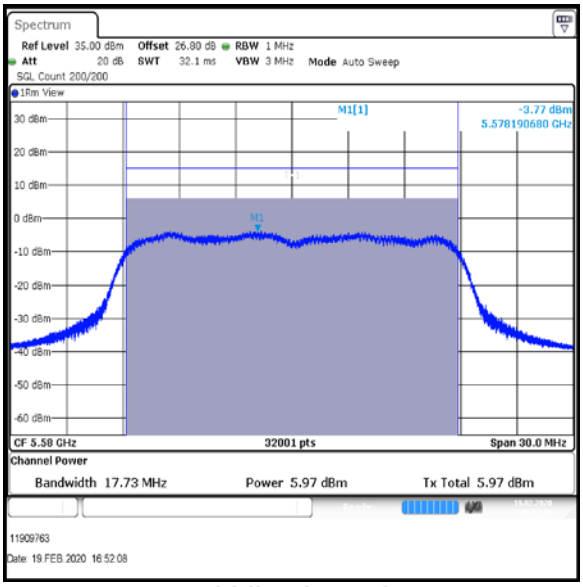
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

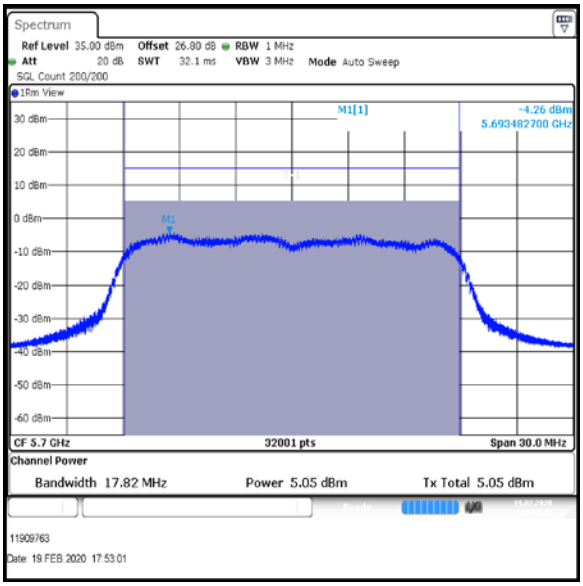
Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 2



Bottom+1 Channel



Middle Channel

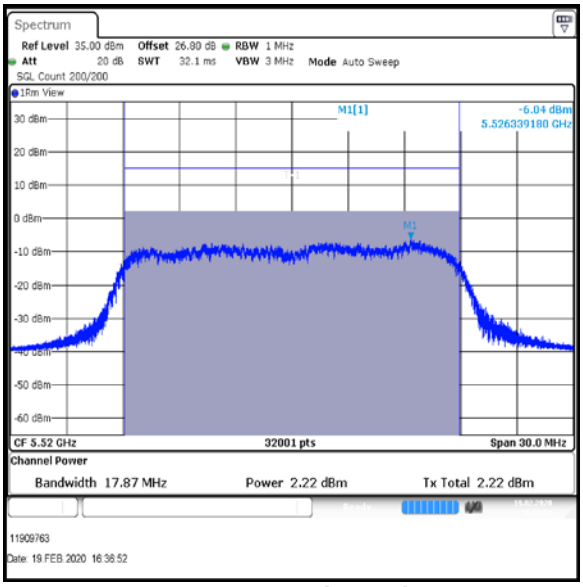


Top Channel

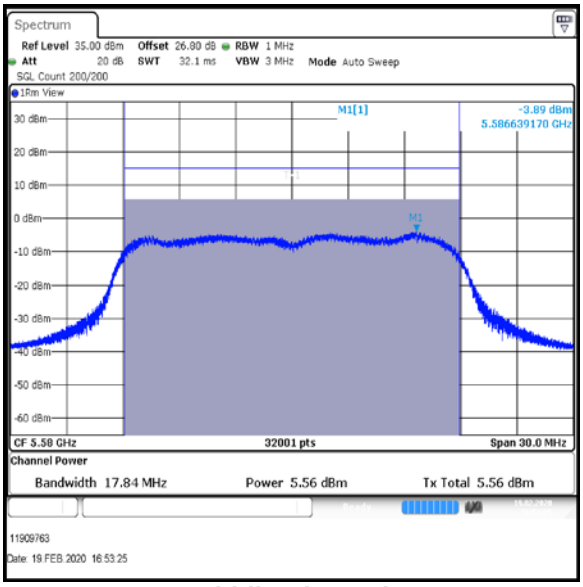
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

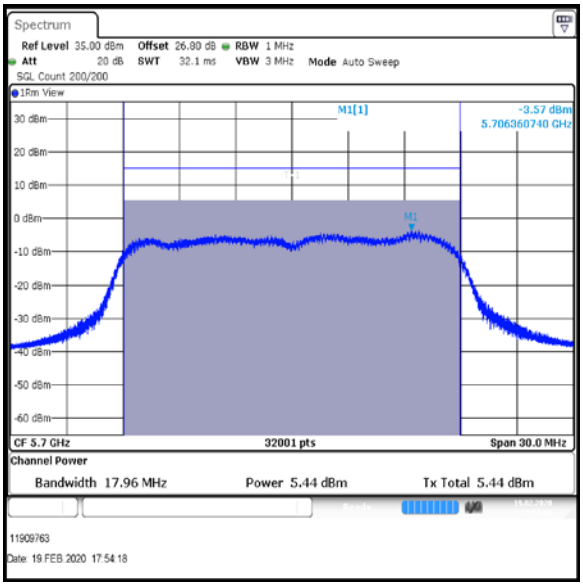
Results: 802.11ac / HT20 / MCS7 / MIMO / Port 1+2+3 / PWL 16 / 9 dBi Antenna / Port 3



Bottom+1 Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11n / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	4.7	1.4	6.1	5.7	1.4	7.1
Middle	5.4	1.4	6.8	3.7	1.4	5.1
Top	5.4	1.4	6.8	3.5	1.4	4.9

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	3.8	1.4	5.2
Middle	4.1	1.4	5.5
Top	3.8	1.4	5.2

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	6.1	7.1	5.2	11.0
Middle	6.8	5.1	5.5	10.6
Top	6.8	4.9	5.2	10.5

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	11.0	21.0	10.0	Complied
Middle	10.6	21.0	10.4	Complied
Top	10.5	21.0	10.5	Complied

Transmitter Maximum Conducted Output Power (continued)

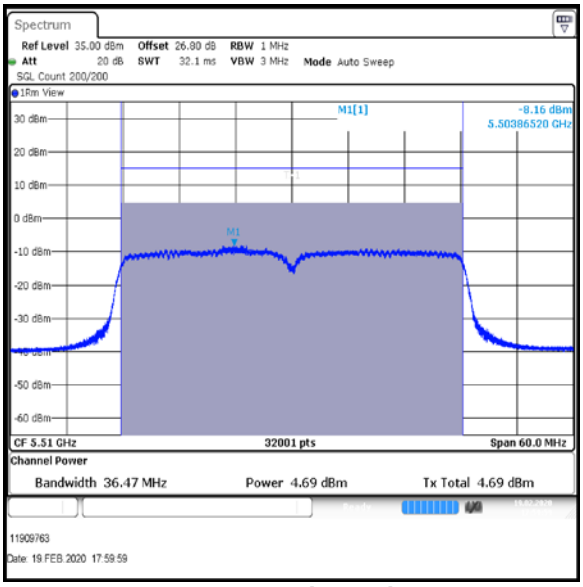
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	11.0	9	20.0	30.0	10.0	Complied
Middle	10.6	9	19.6	30.0	10.4	Complied
Top	10.5	9	19.5	30.0	10.5	Complied

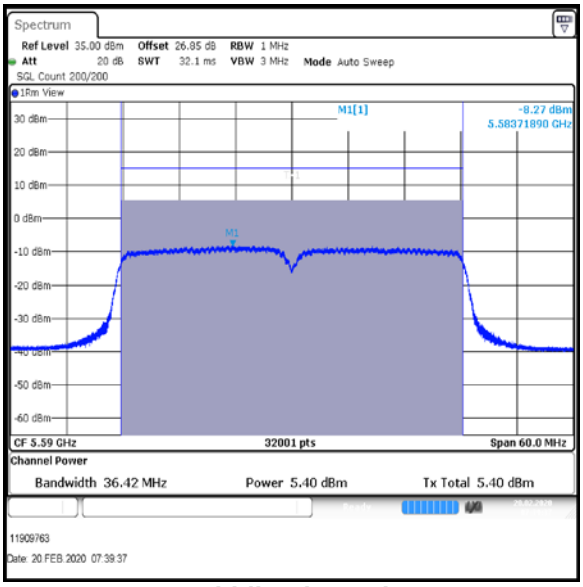
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

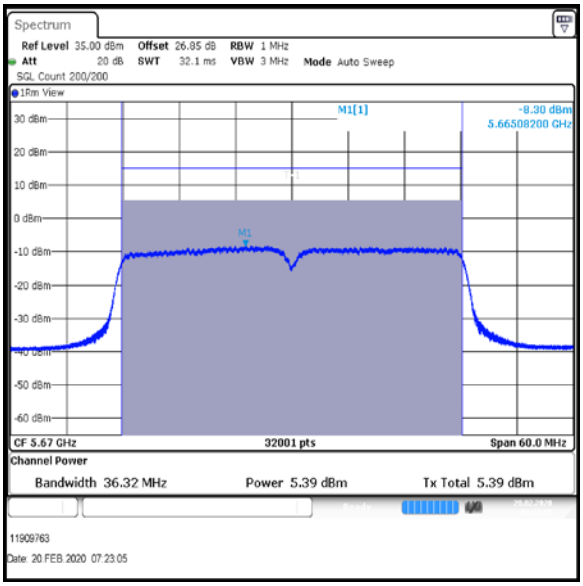
Results: 802.11n / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel

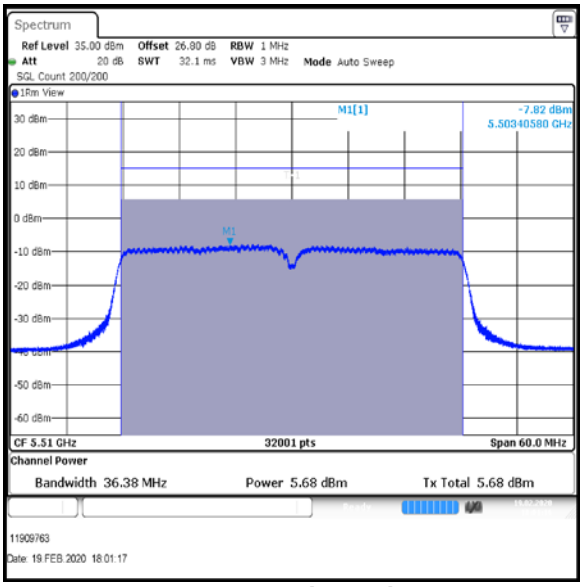


Top Channel

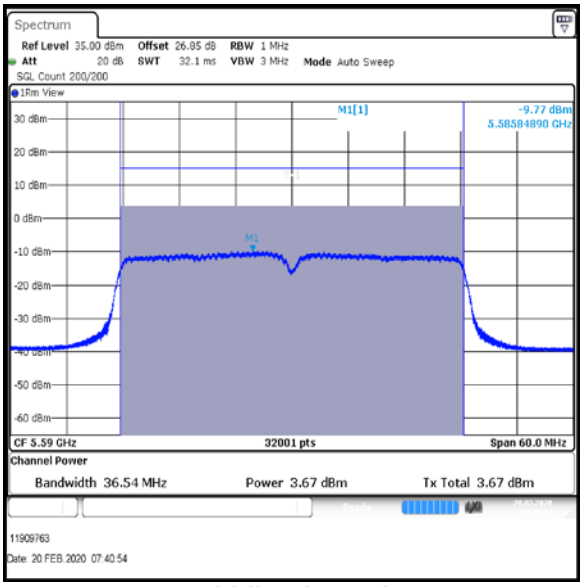
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

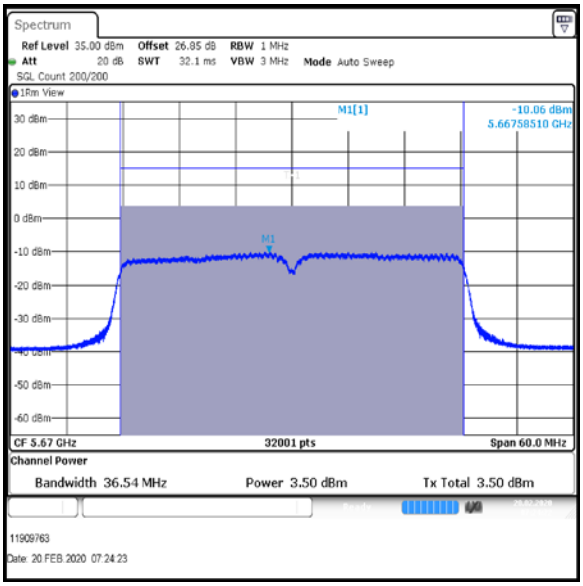
Results: 802.11n / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2



Bottom Channel



Middle Channel

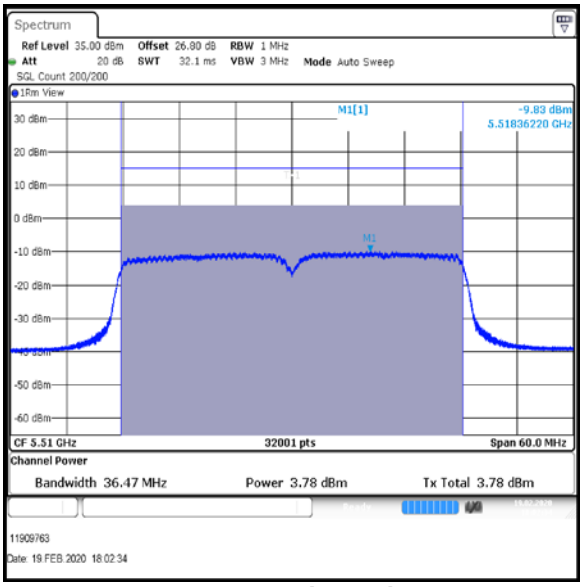


Top Channel

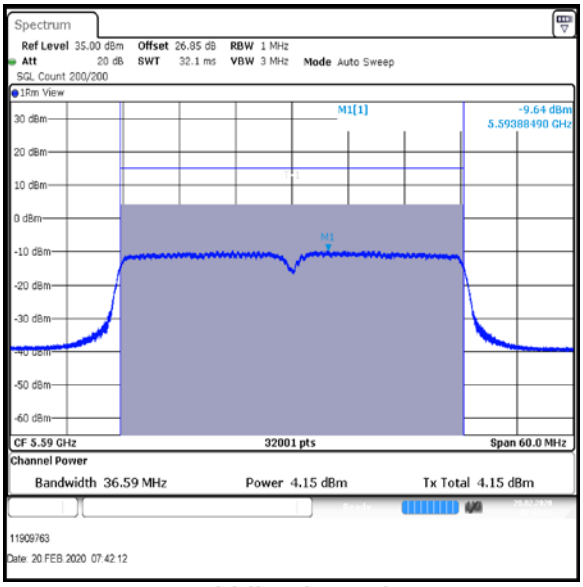
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

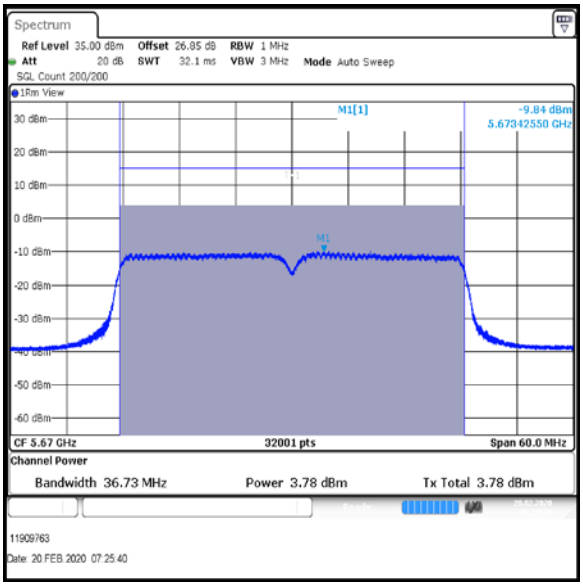
Results: 802.11n / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11n / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	3.7	2.1	5.8	4.6	2.1	6.7
Middle	4.3	2.1	6.4	2.7	2.1	4.8
Top	4.3	2.1	6.4	2.5	2.1	4.6

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	2.7	2.1	4.8
Middle	3.1	2.1	5.2
Top	2.8	2.1	4.9

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	5.8	6.7	4.8	10.6
Middle	6.4	4.8	5.2	10.3
Top	6.4	4.6	4.9	10.1

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.6	21.0	10.4	Complied
Middle	10.3	21.0	10.7	Complied
Top	10.1	21.0	10.9	Complied

Transmitter Maximum Conducted Output Power (continued)

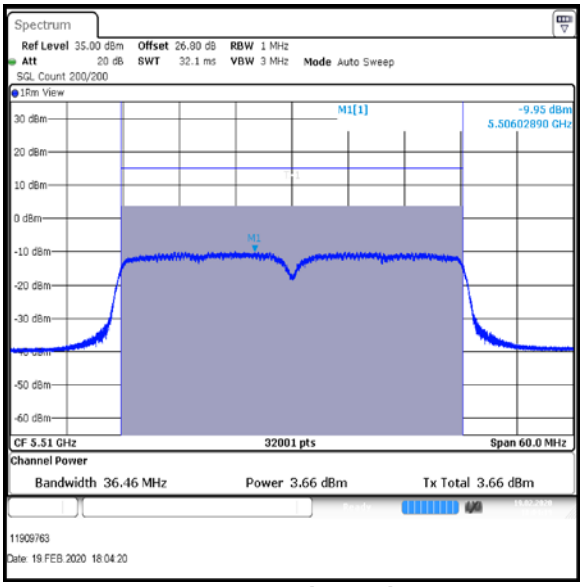
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	10.6	9	19.6	30.0	10.4	Complied
Middle	10.3	9	19.3	30.0	10.7	Complied
Top	10.1	9	19.1	30.0	10.9	Complied

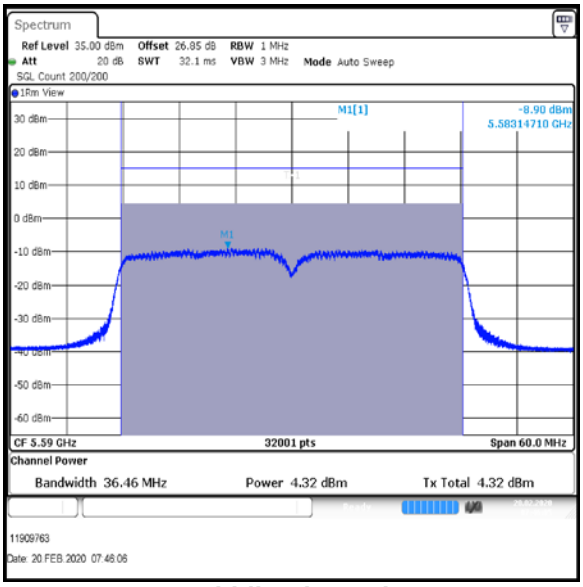
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

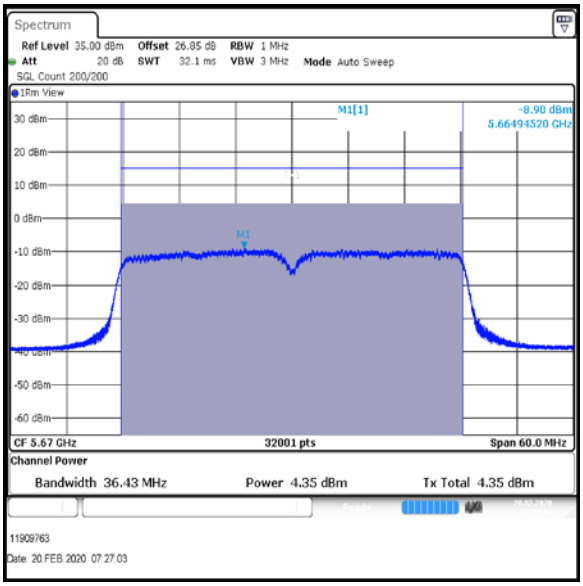
Results: 802.11n / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel

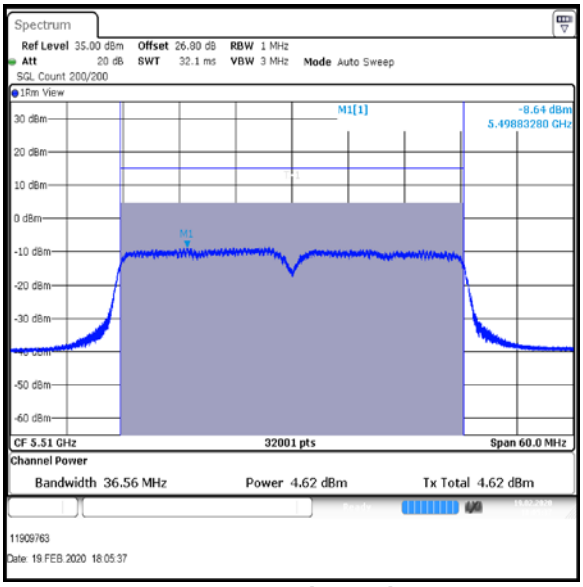


Top Channel

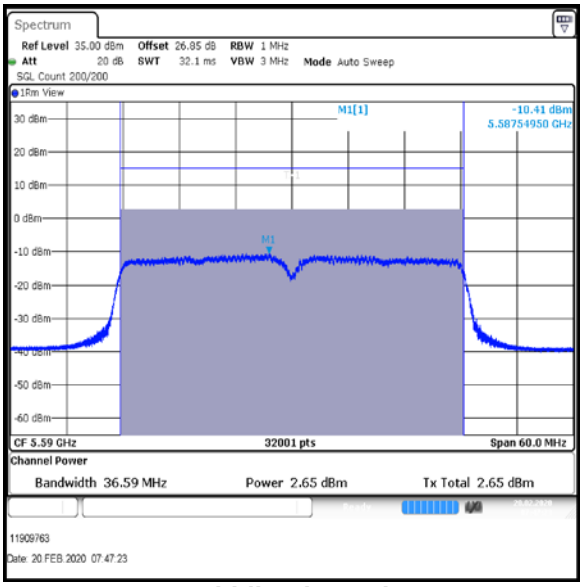
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

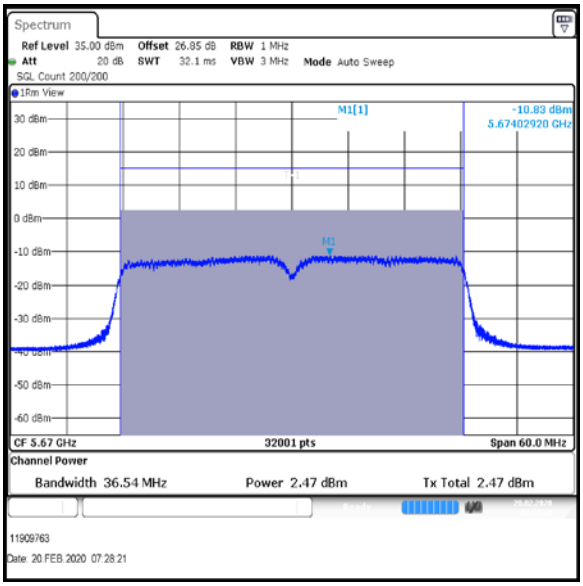
Results: 802.11n / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2



Bottom Channel



Middle Channel

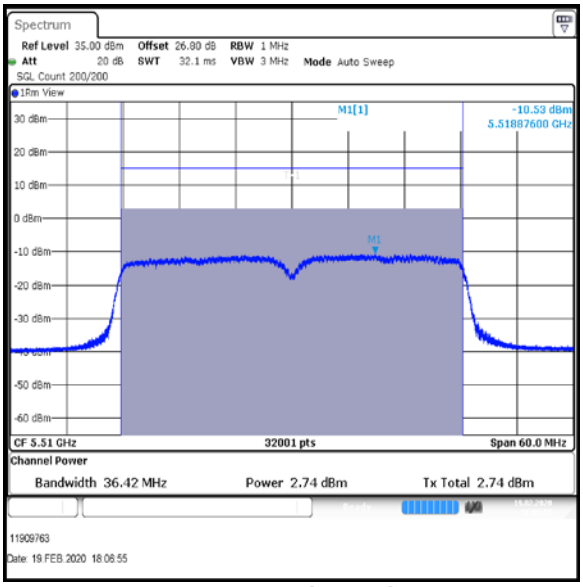


Top Channel

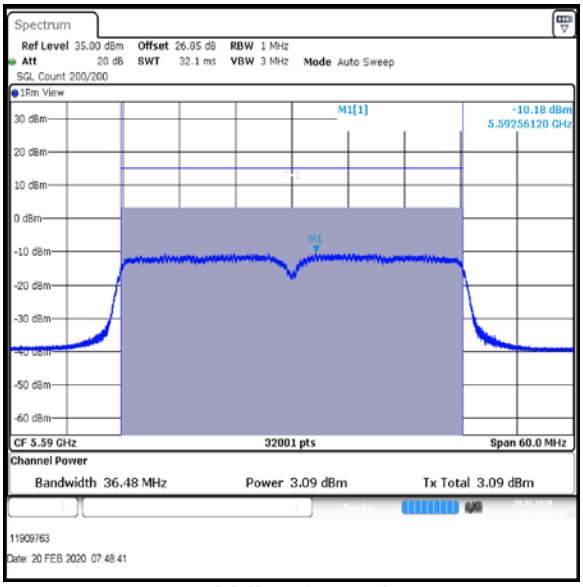
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

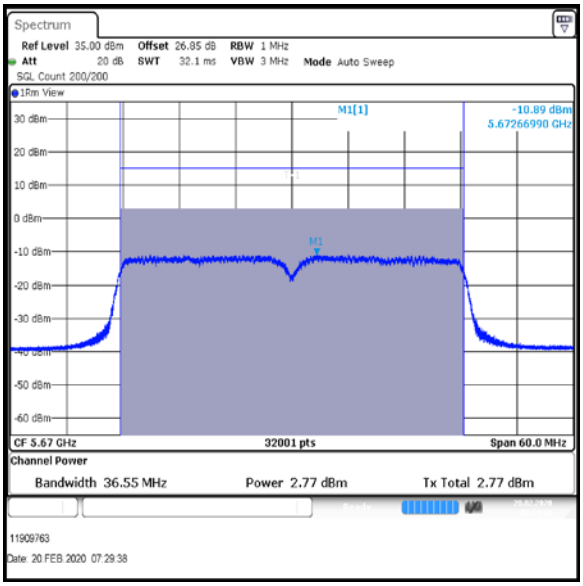
Results: 802.11n / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	3.3	2.3	5.6	4.5	2.3	6.8
Middle	3.9	2.3	6.2	2.7	2.3	5.0
Top	3.7	2.3	6.0	2.0	2.3	4.3

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	2.6	2.3	4.9
Middle	3.0	2.3	5.3
Top	2.5	2.3	4.8

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	5.6	6.8	4.9	10.6
Middle	6.2	5.0	5.3	10.3
Top	6.0	4.3	4.8	9.9

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.6	21.0	10.4	Complied
Middle	10.3	21.0	10.7	Complied
Top	9.9	21.0	11.1	Complied

Transmitter Maximum Conducted Output Power (continued)

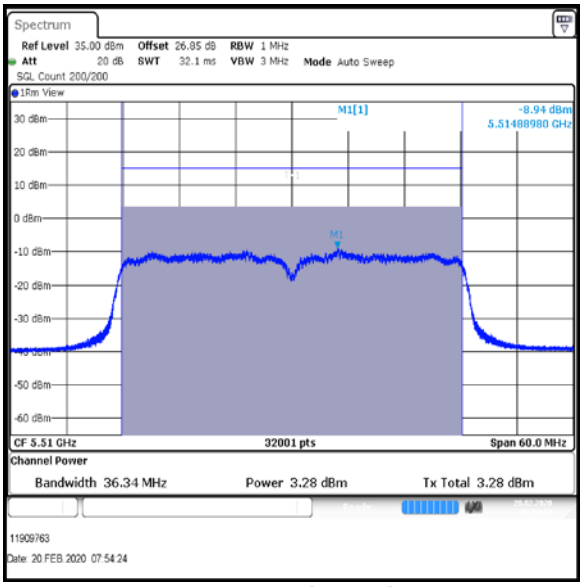
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	10.6	9	19.6	30.0	10.4	Complied
Middle	10.3	9	19.3	30.0	10.7	Complied
Top	9.9	9	18.9	30.0	11.1	Complied

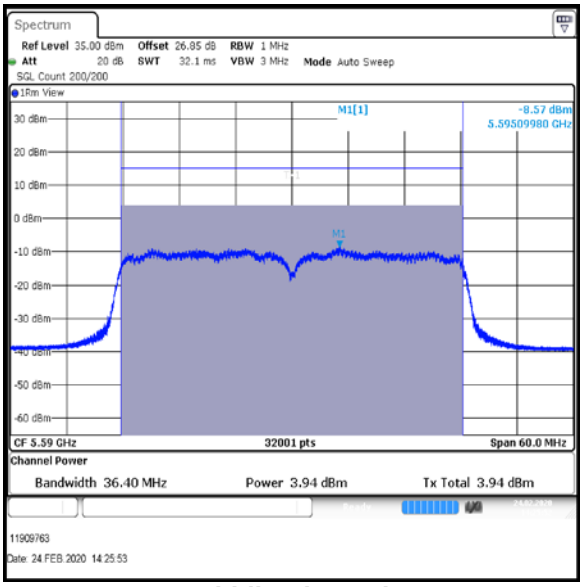
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

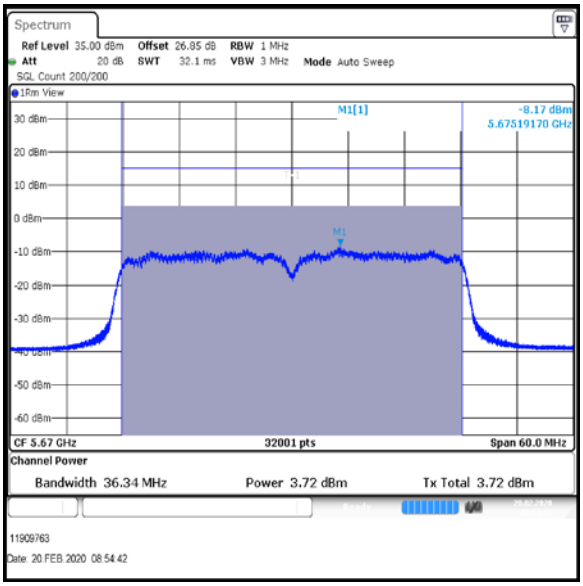
Results: 802.11ac / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel

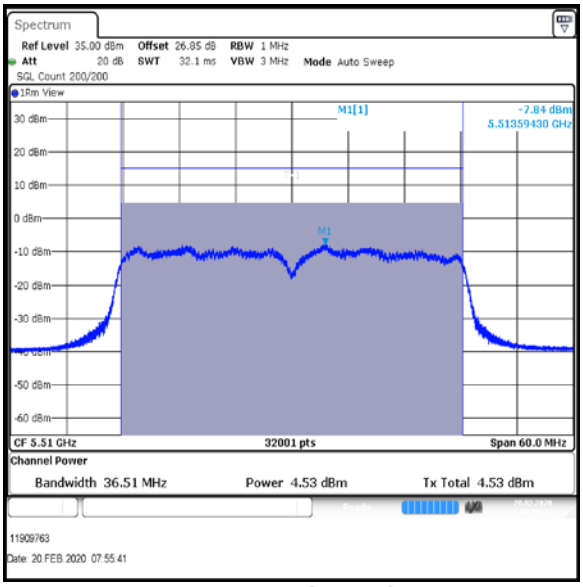


Top Channel

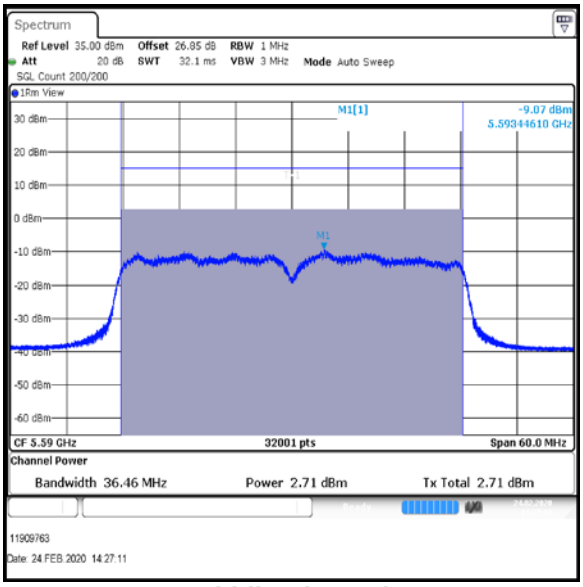
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

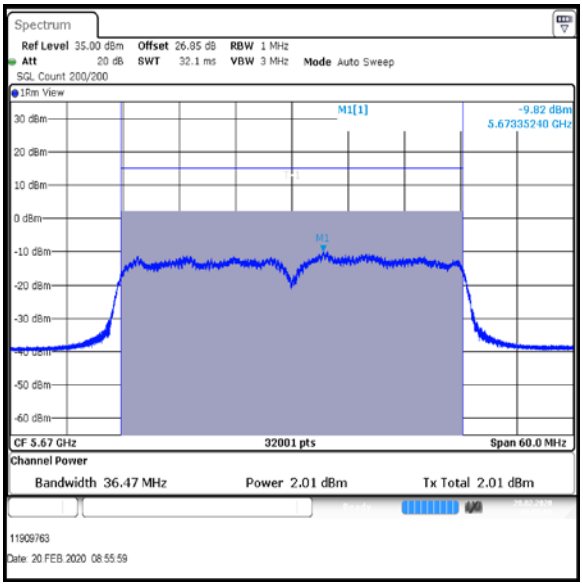
Results: 802.11ac / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2



Bottom Channel



Middle Channel

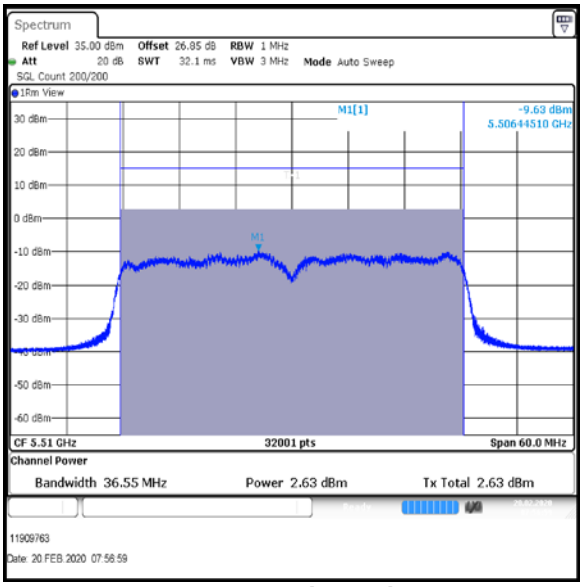


Top Channel

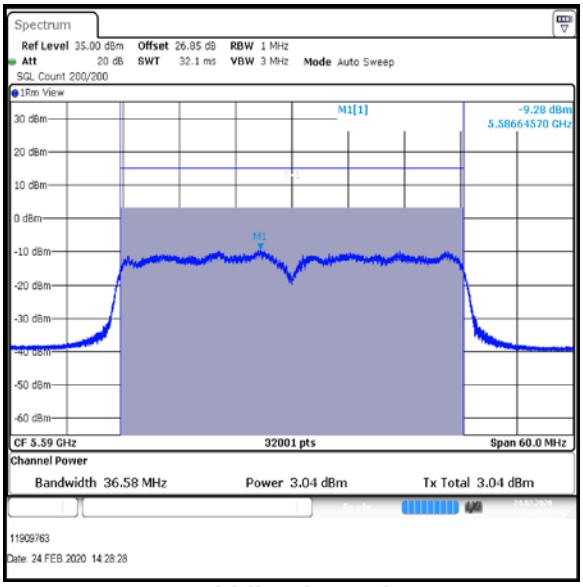
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

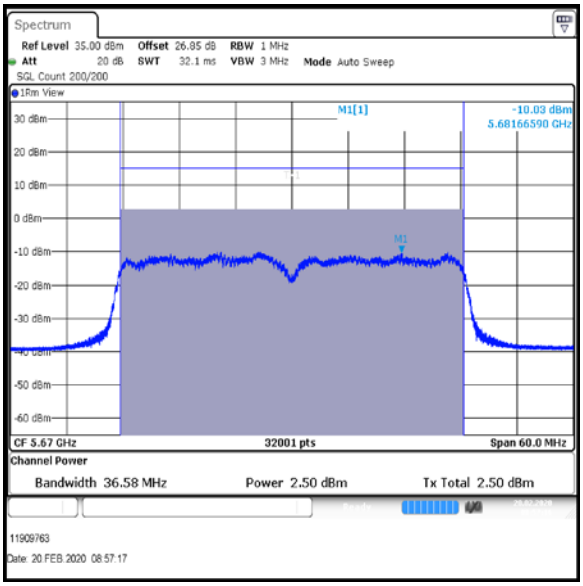
Results: 802.11ac / HT40 / MCS3 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	2.6	2.3	4.9	3.9	2.3	6.2
Middle	3.3	2.3	5.6	2.2	2.3	4.5
Top	3.0	2.3	5.3	1.4	2.3	3.7

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	1.9	2.3	4.2
Middle	2.4	2.3	4.7
Top	1.8	2.3	4.1

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	4.9	6.2	4.2	10.0
Middle	5.6	4.5	4.7	9.7
Top	5.3	3.7	4.1	9.2

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.0	21.0	11.0	Complied
Middle	9.7	21.0	11.3	Complied
Top	9.2	21.0	11.8	Complied

Transmitter Maximum Conducted Output Power (continued)

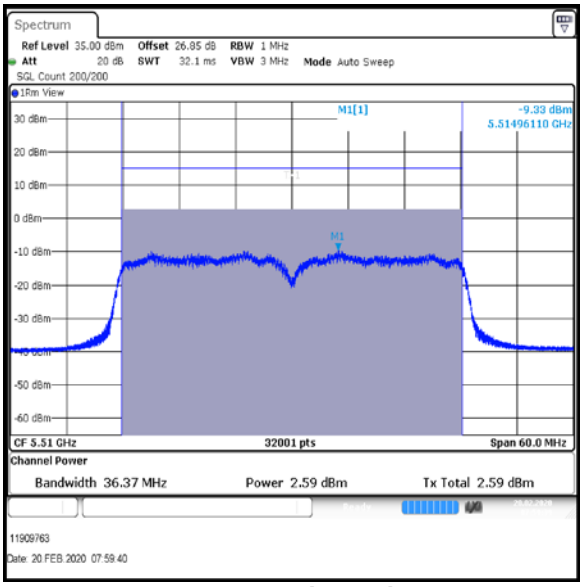
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	10.0	9	19.0	30.0	11.0	Complied
Middle	9.7	9	18.7	30.0	11.3	Complied
Top	9.2	9	18.2	30.0	11.8	Complied

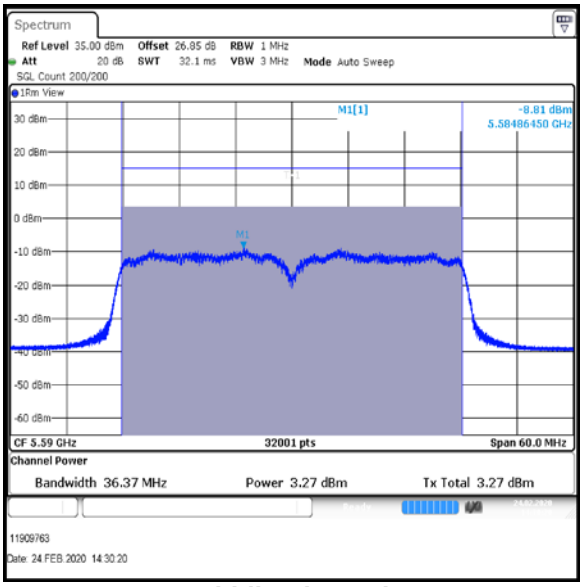
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

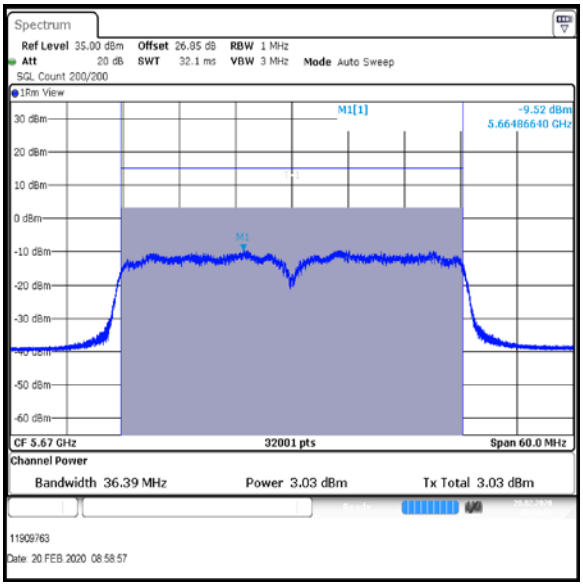
Results: 802.11ac / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel

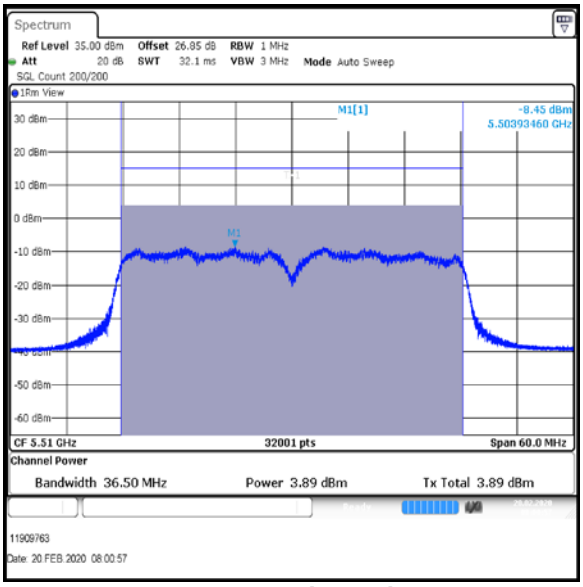


Top Channel

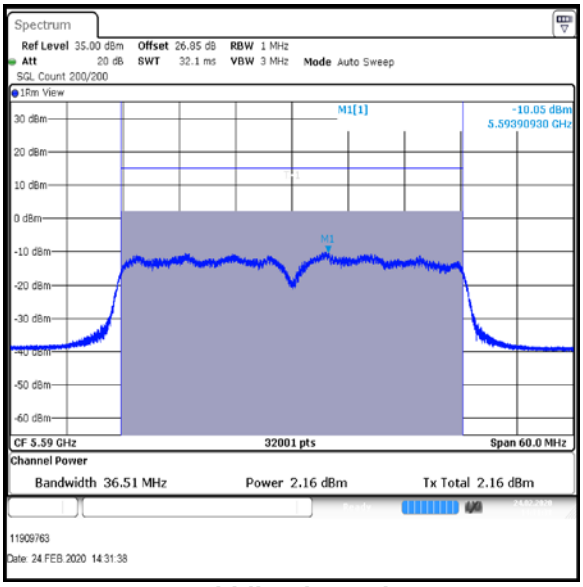
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

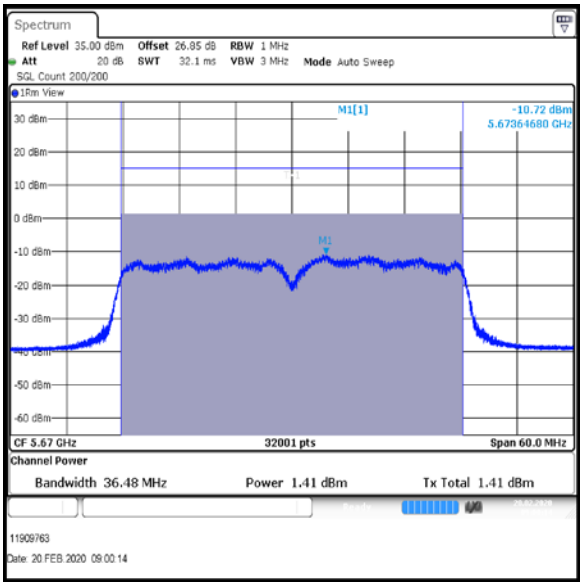
Results: 802.11ac / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2



Bottom Channel



Middle Channel

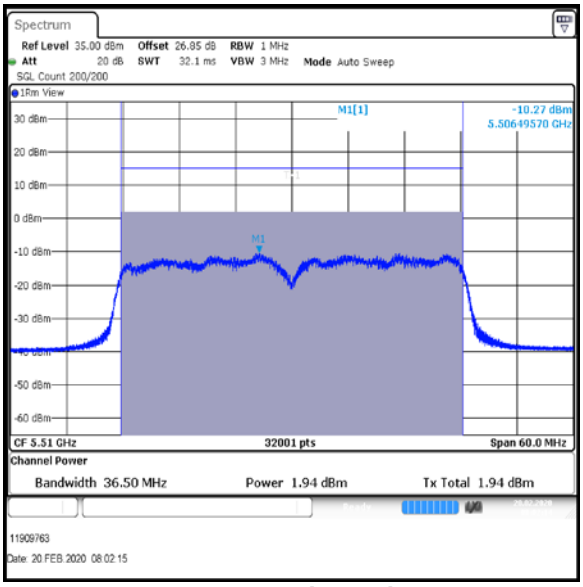


Top Channel

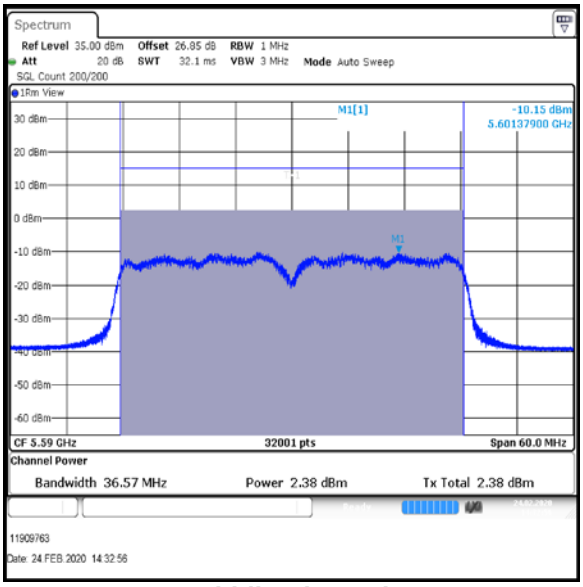
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

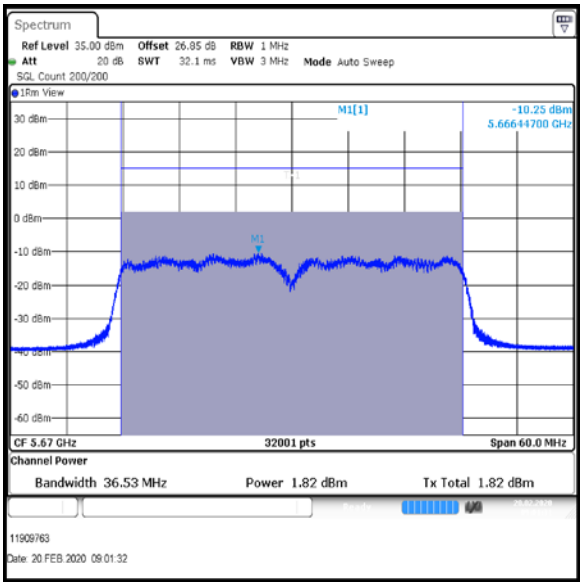
Results: 802.11ac / HT40 / MCS5 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel



Middle Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS1 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	3.9	2.8	6.7	4.8	2.8	7.6
Top	1.4	2.8	4.2	-0.1	2.8	2.7

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	3.1	2.8	5.9
Top	0.2	2.8	3.0

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	6.7	7.6	5.9	11.6
Top	4.2	2.7	3.0	8.1

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	11.6	21.0	9.4	Complied
Top	8.1	21.0	12.9	Complied

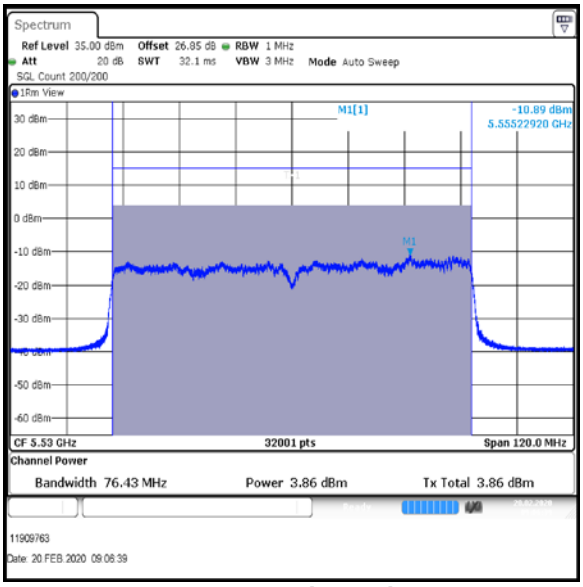
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	11.6	9	20.6	30.0	9.4	Complied
Top	8.1	9	17.1	30.0	12.9	Complied

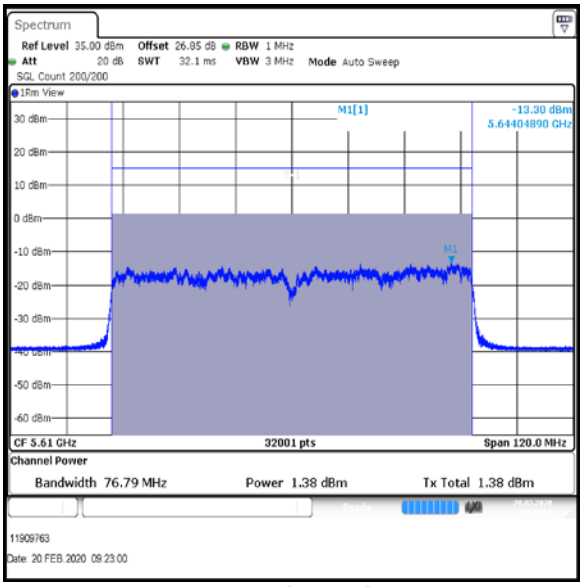
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS1 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1



Bottom Channel

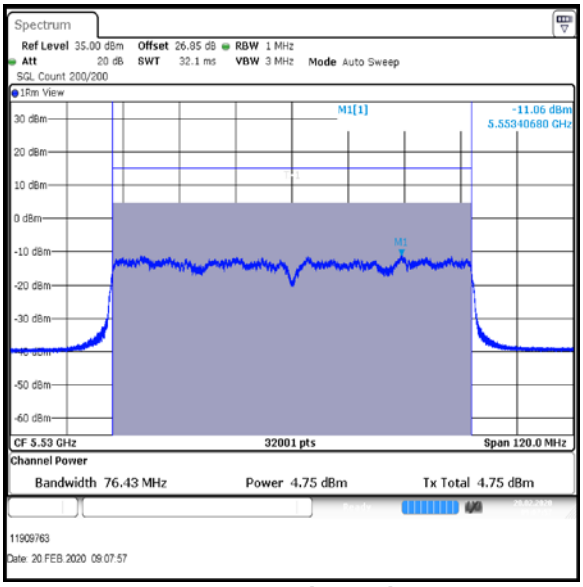


Top Channel

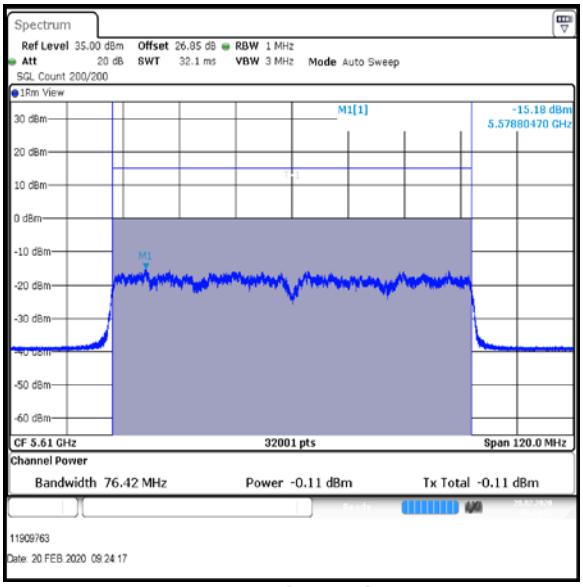
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS1 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2



Bottom Channel

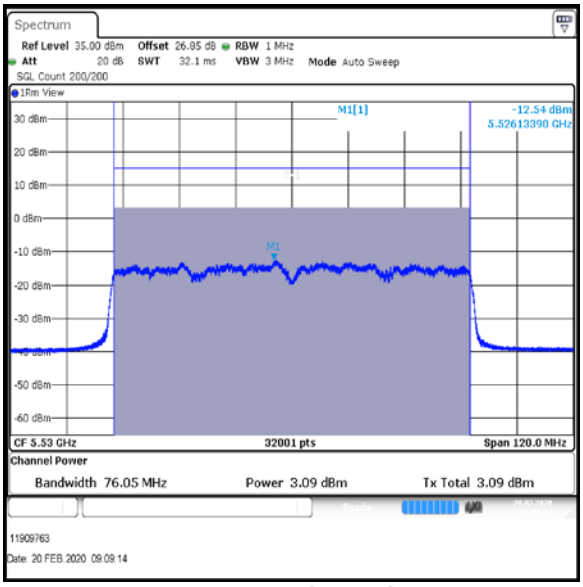


Top Channel

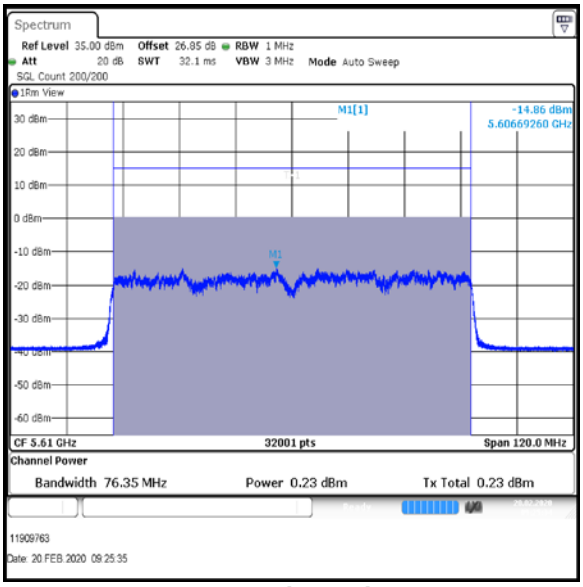
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS1 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel



Top Channel

Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS2 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna

Channel	Port 1 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 1 Corrected Conducted Power (dBm)	Port 2 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 2 Corrected Conducted Power (dBm)
Bottom	3.0	2.1	5.1	4.0	2.1	6.1
Top	0.4	2.1	2.5	-1.2	2.1	0.9

Channel	Port 3 Conducted Power (dBm)	Duty Cycle Correction (dB)	Port 3 Corrected Conducted Power (dBm)
Bottom	2.1	2.1	4.2
Top	-0.9	2.1	1.2

Channel	Corrected Conducted Power Port 1(dBm)	Corrected Conducted Power Port 2(dBm)	Corrected Conducted Power Port 3(dBm)	Port 1+2+3 Combined Conducted Power (dBm)
Bottom	5.1	6.1	4.2	10.0
Top	2.5	0.9	1.2	6.4

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.0	21.0	11.0	Complied
Top	6.4	21.0	14.6	Complied

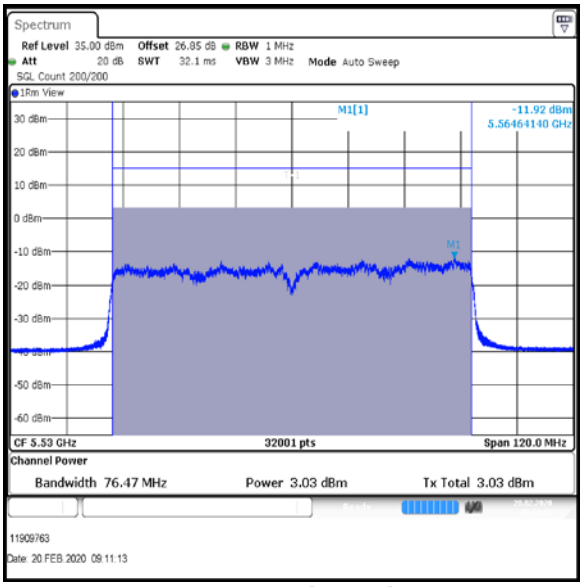
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	10.0	9	19.0	30.0	11.0	Complied
Top	6.4	9	15.4	30.0	14.6	Complied

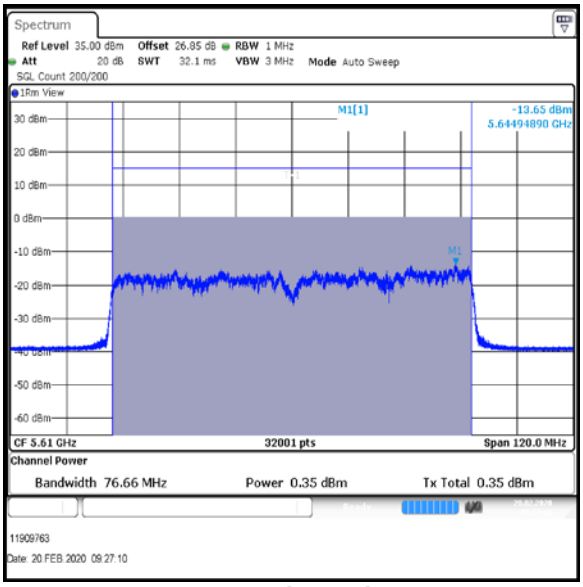
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS2 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 1



Bottom Channel

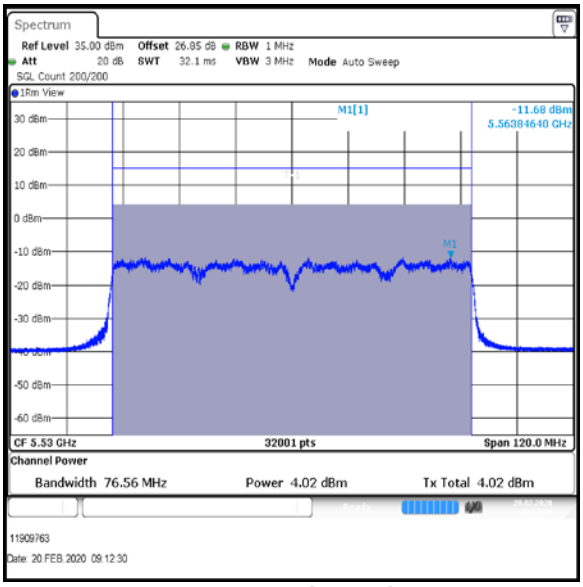


Top Channel

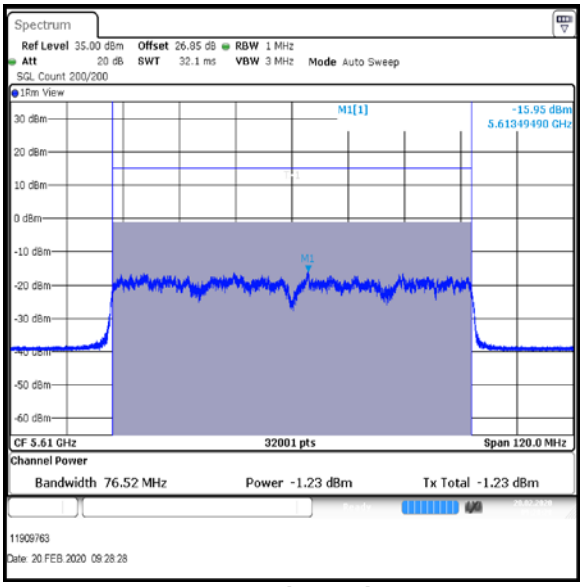
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS2 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 2



Bottom Channel

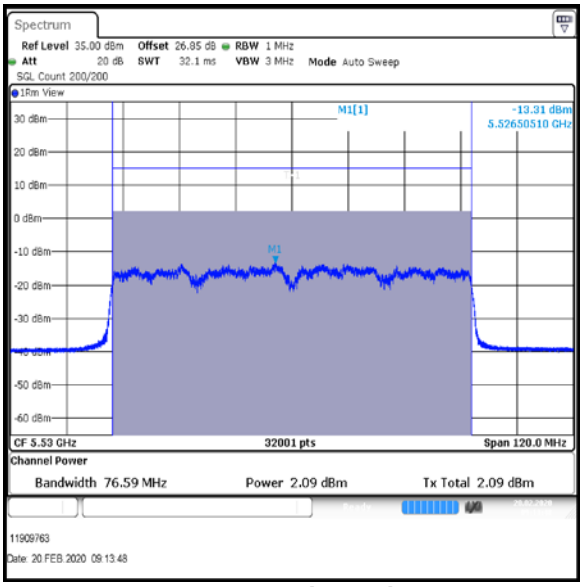


Top Channel

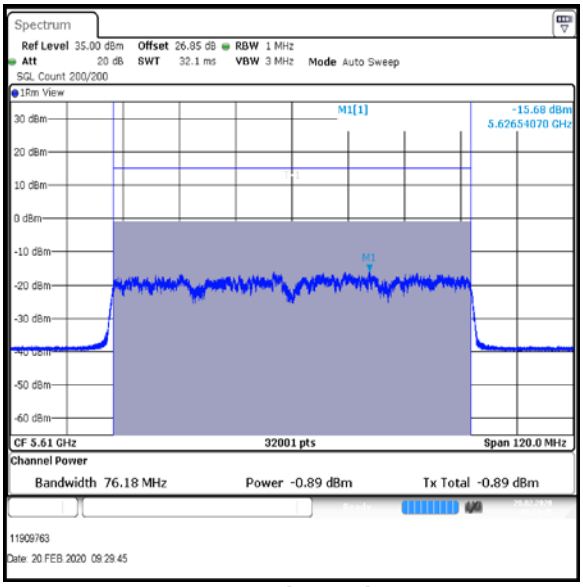
Result: Pass

Transmitter Maximum Conducted Output Power (continued)

Results: 802.11ac / HT80 / MCS2 / MIMO / Port 1+2+3 / PWL 13 / 9 dBi Antenna / Port 3



Bottom Channel



Top Channel

Result: Pass

5.2.5. Transmitter Maximum Power Spectral Density

Test Summary:

Test Engineer:	Krume Ivanov & Sercan Usta	**Test Dates:**	20 February 2020 to 12 March 2020
Test Sample Serial Number:	192.168.0.65		
Test Site Identification	SR 9		

FCC Reference:	Part 15.407(a)(2)
Test Method Used:	KDB 789033 D02 Section II.F. referencing II.E.2.d) KDB 662911 D01 Section E) 2) a)

Environmental Conditions:

Temperature (°C):	20 to 29
Relative Humidity (%):	23 to 40

Notes:

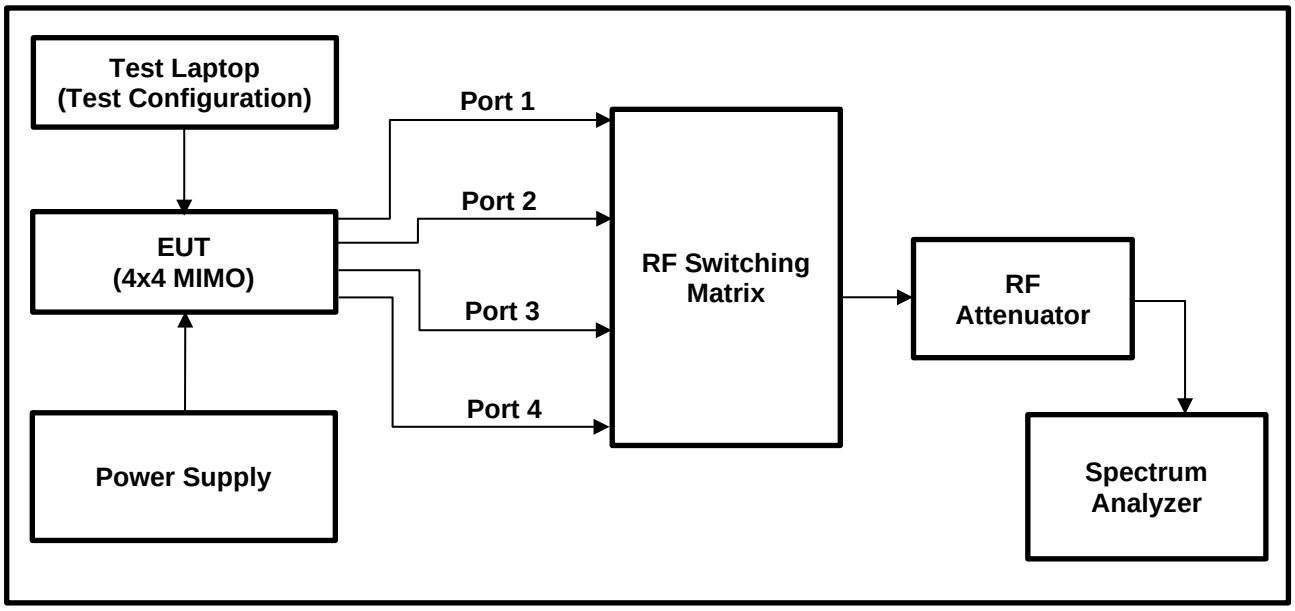
1. Transmitter Maximum Power Spectral Density tests in all bands were performed using a test receiver in accordance with KDB 789033 II. F referencing II.E.2.d)
2. Method SA-2 : The signal analyser's integration function was used to integrate across the 99% emission bandwidth. The resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. An RMS detector was used and sweep time was set to auto and 300 traces performed. The span was set to encompass the entire 99% occupied bandwidth. The Power Spectral Density was measured by placing a marker on the peak of the signal.
3. For all data rates where the EUT was transmitting at <98% duty cycle, the calculated duty cycle in section 5.2.3 was added to the measured maximum power spectral density in order to compute the average maximum power spectral density during the actual transmission time.
4. The RF port on the EUT was connected to the spectrum analyser using suitable attenuation and RF cable. The measured values takes into consideration the external attenuation correction factors which is compensated by adding reference level offset of 26.85 dB@ 5.47-5.725 GHz to each of the conducted plots.
5. For MIMO, PSD was measured across relevant ports and then combined using the measure-and-sum technique stated in FCC KDB 662911 D01 Section E)2)a).
6. In accordance with 15.407(a)(2) maximum power spectral density shall not exceed 11 dBm in any 1 MHz band.

13. The EUT antennas have a directional gain of > 6 dBi.
14. In accordance with 15.407(a)(2), transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
15. Therefore reduced PSD limits are as follows:

- 9 dBi Antenna :
  - SISO Port 1: limit of 11 dBm / 1 MHz has been reduced by 3 dB to 8 dBm / 1 MHz
  - MIMO Port1+2: limit of 11 dBm / 1 MHz reduced by 3 dB + 10 Log (2) to 4.9 dBm/ 1 MHz
  - MIMO Port1+2+3: limit of 11 dBm / 1 MHz reduced by 3 dB + 10 Log (3) to 3.2 dBm/1MHz
  - MIMO Port1+2+3+4 limit of 11 dBm / 1 MHz reduced by 3 dB + 10 Log (4) to 1.9 dBm/1MHz

Transmitter Maximum Power Spectral Density (continued)

Test setup:

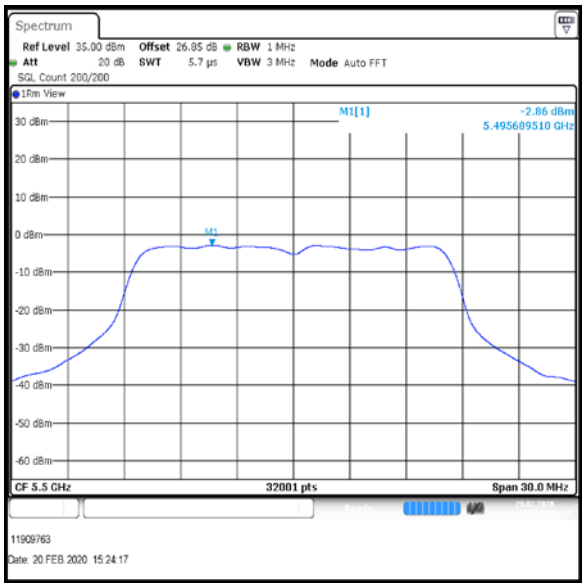


Transmitter Maximum Power Spectral Density (continued)

Results: 802.11a / 20 MHz / 48Mbit / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-2.9	1.5	-1.4	8	9.4	Complied

Results: 802.11a / 20 MHz / 48Mbit / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel

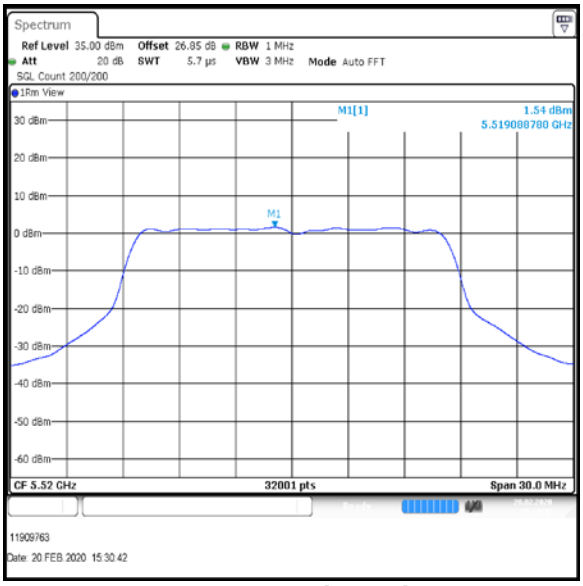
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

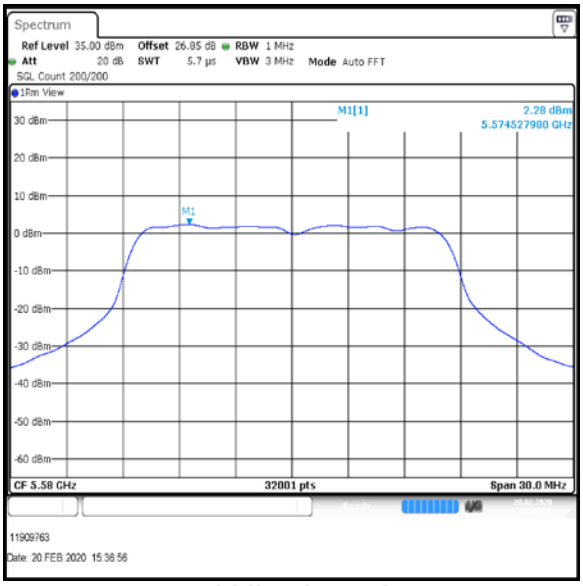
Results: 802.11a / 20 MHz / 48Mbit / SISO / Port 1 / PWL 17 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom+1	1.5	1.5	3.0	8	4.9	Complied
Middle	2.3	1.5	3.8	8	4.2	Complied
Top-1	2.1	1.5	3.6	8	4.4	Complied

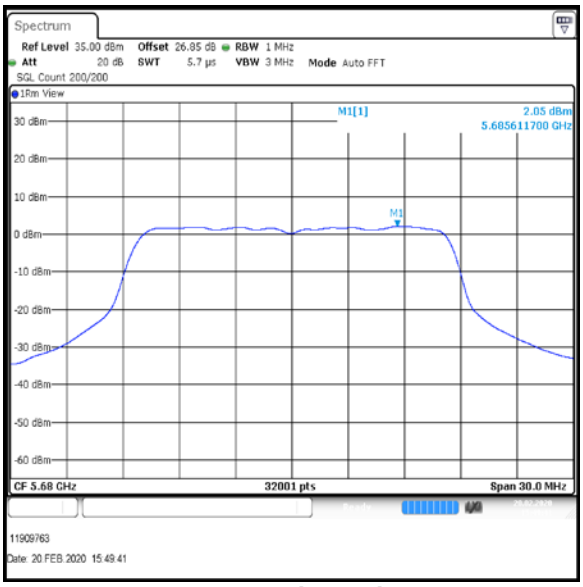
Results: 802.11a / 20 MHz / 48Mbit / SISO / Port 1 / PWL 17 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel



Top-1 Channel

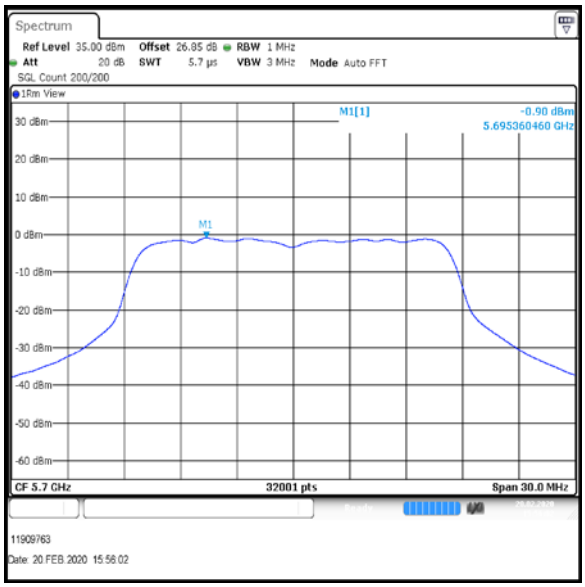
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11a / 20 MHz / 48Mbit / SISO / Port 1 / PWL 14 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Top	-0.9	1.5	0.6	8	7.4	Complied

Results: 802.11a / 20 MHz / 48Mbit / SISO / Port 1 / PWL 14 / 9 dBi Antenna / Port 1



Top Channel

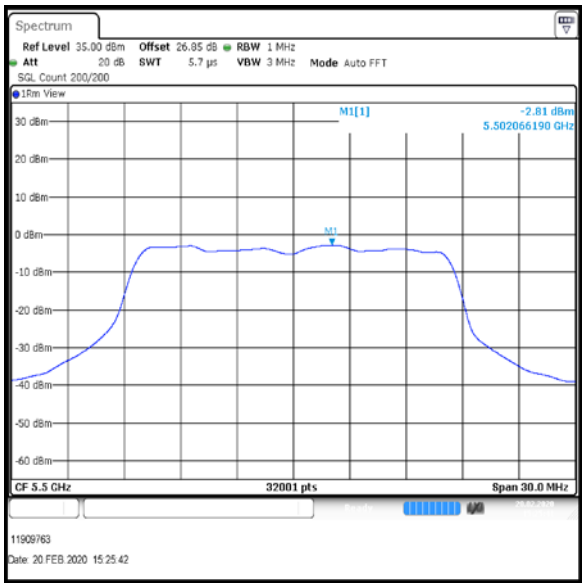
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11a / 20 MHz / 54Mbit / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-2.8	1.7	-1.1	8	9.1	Complied

Results: 802.11a / 20 MHz / 54Mbit / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel

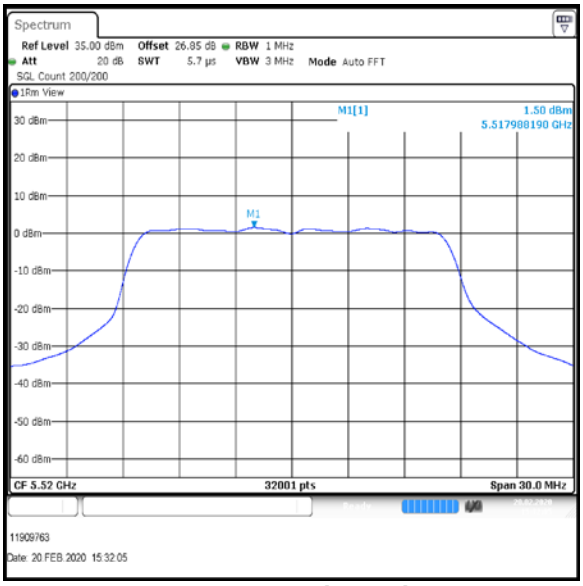
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

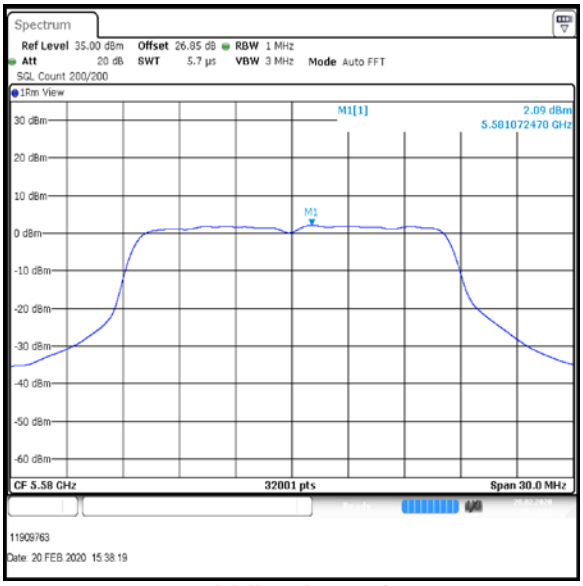
Results: 802.11a / 20 MHz / 54Mbit / SISO / Port 1 / PWL 17 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom+1	1.5	1.7	3.2	8	4.7	Complied
Middle	2.1	1.7	3.8	8	4.2	Complied
Top-1	2.1	1.7	3.8	8	4.2	Complied

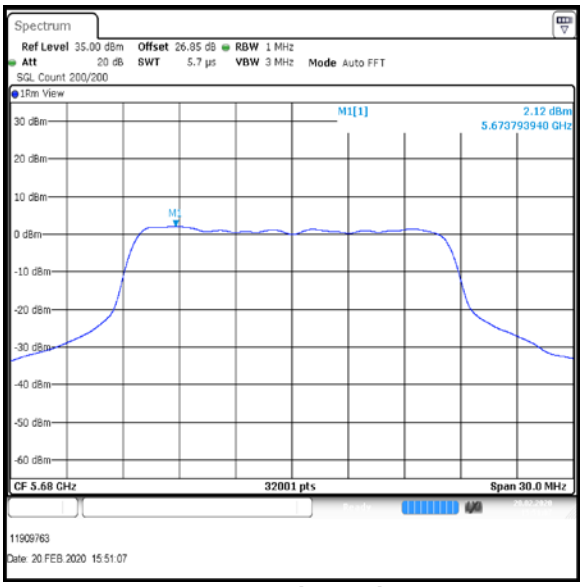
Results: 802.11a / 20 MHz / 54Mbit / SISO / Port 1 / PWL 17 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel



Top-1 Channel

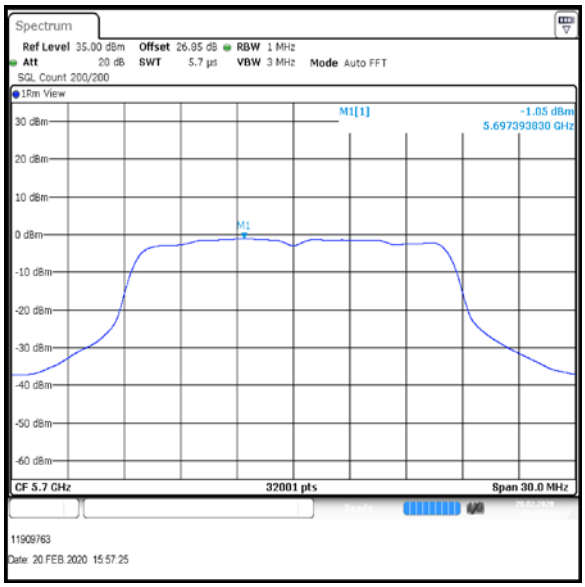
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11a / 20 MHz / 54Mbit / SISO / Port 1 / PWL 14 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Top	-1.1	1.7	0.6	8	7.4	Complied

Results: 802.11a / 20 MHz / 54Mbit / SISO / Port 1 / PWL 14 / 9 dBi Antenna / Port 1



Top Channel

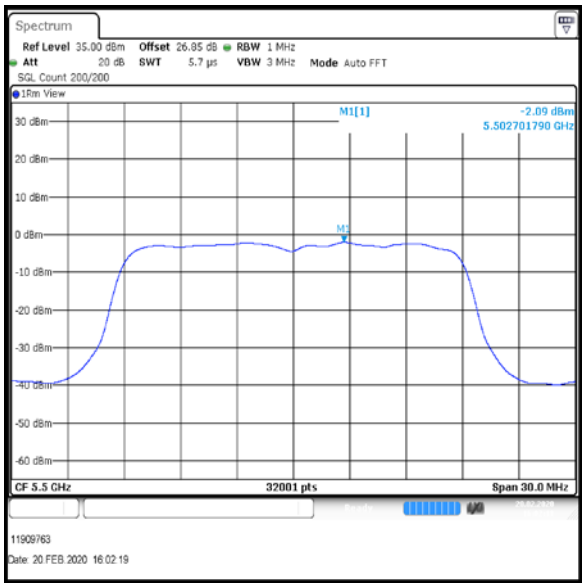
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11n / HT20 / MCS2 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-2.1	1.1	-1.0	8	9.0	Complied

Results: 802.11n / HT20 / MCS2 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel

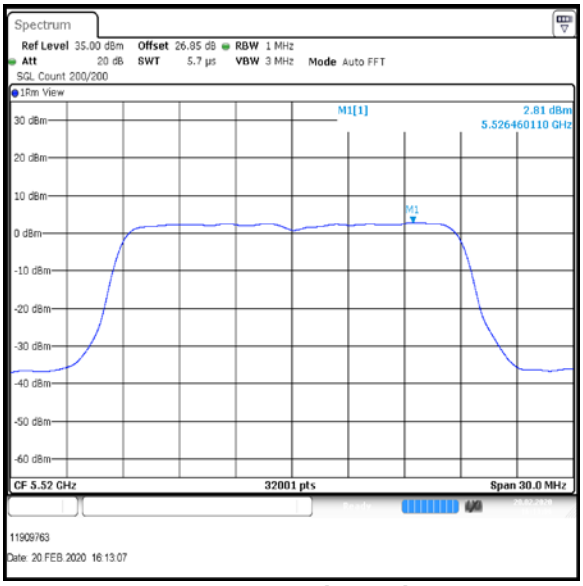
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

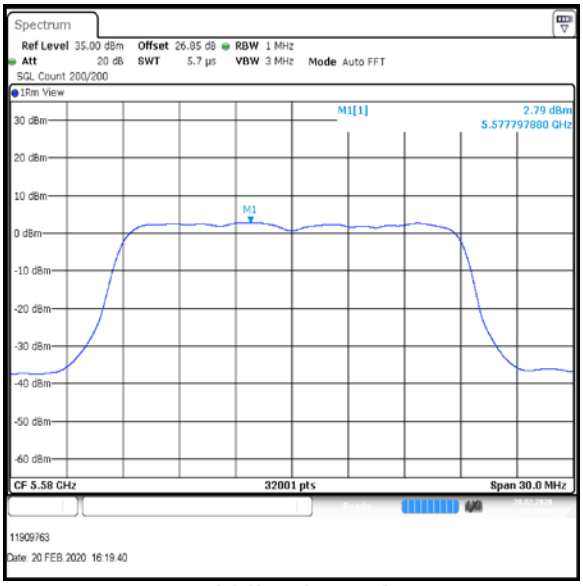
Results: 802.11n / HT20 / MCS2 / SISO / Port 1 / PWL 17 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom+1	2.9	1.1	4.0	8	4.0	Complied
Middle	2.8	1.1	3.9	8	4.1	Complied
Top-1	2.9	1.1	4.0	8	4.0	Complied

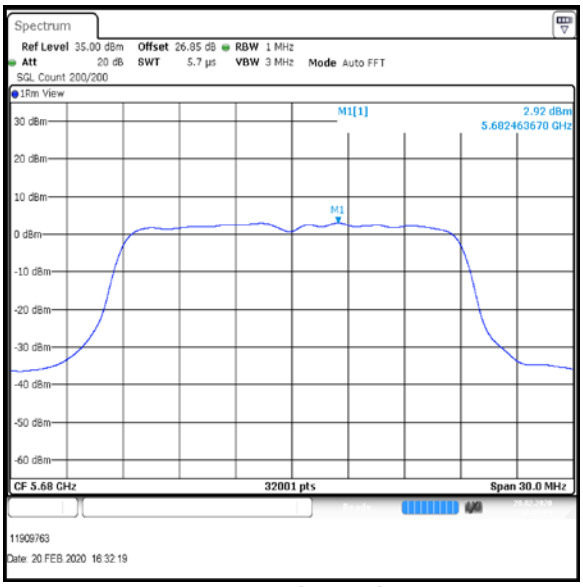
Results: 802.11n / HT20 / MCS2 / SISO / Port 1 / PWL 17 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel



Top-1 Channel

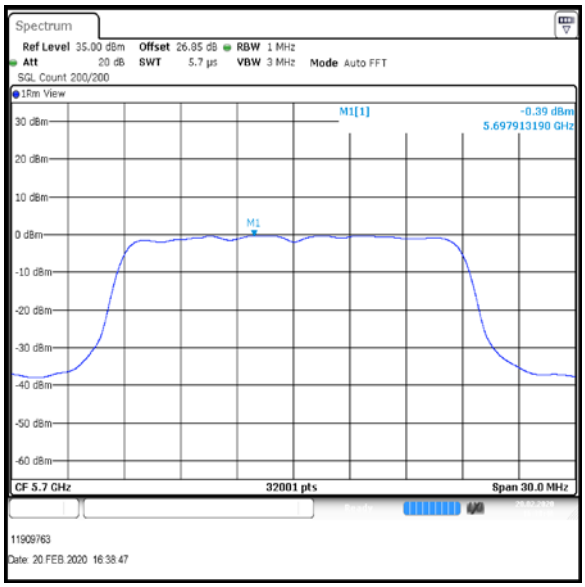
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11n / HT20 / MCS2 / SISO / Port 1 / PWL 14 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Top	-0.4	1.1	0.7	8	7.3	Complied

Results: 802.11n / HT20 / MCS2 / SISO / Port 1 / PWL 14 / 9 dBi Antenna / Port 1



Top Channel

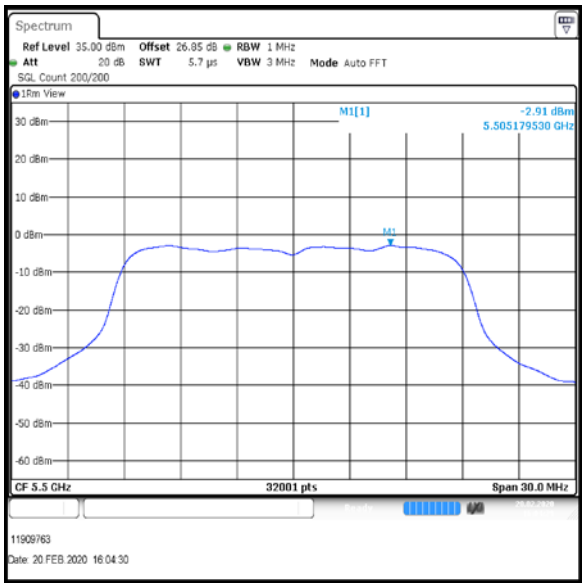
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11n / HT20 / MCS6 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-2.9	2.1	-0.8	8	8.8	Complied

Results: 802.11n / HT20 / MCS6 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel

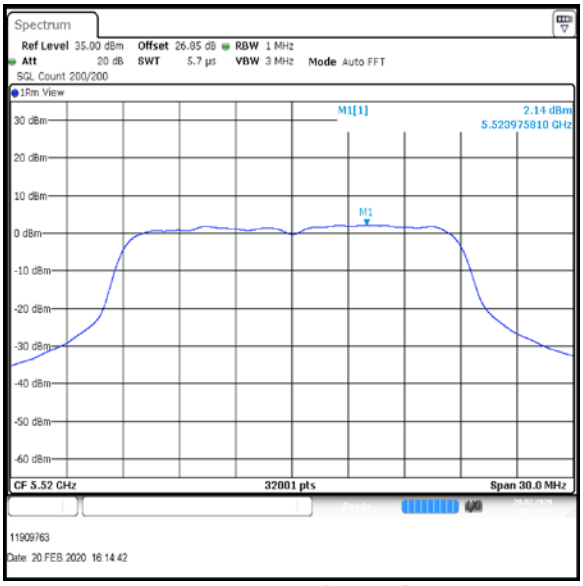
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

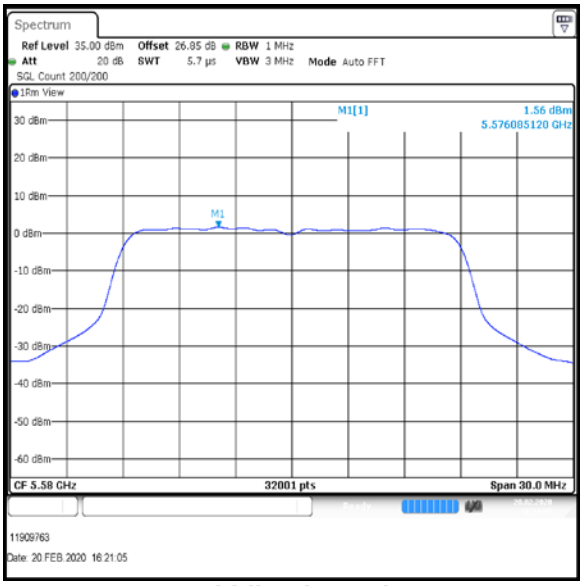
Results: 802.11n / HT20 / MCS6 / SISO / Port 1 / PWL 17 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom+1	2.1	2.1	4.2	8	3.8	Complied
Middle	1.6	2.1	3.7	8	4.3	Complied
Top-1	0.0	2.1	2.1	8	5.9	Complied

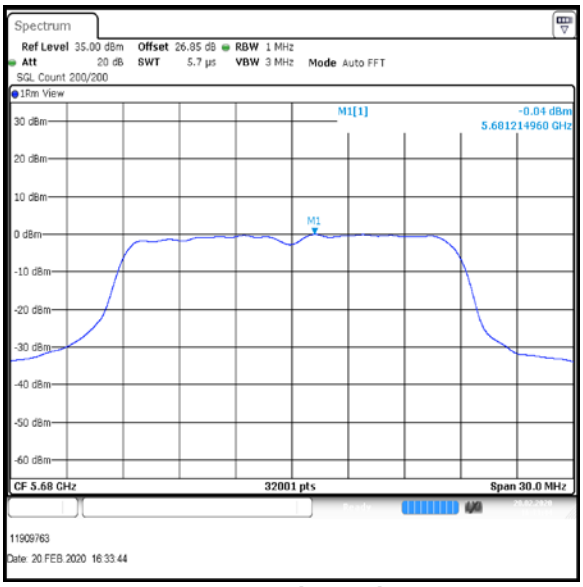
Results: 802.11n / HT20 / MCS6 / SISO / Port 1 / PWL 17 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel



Top-1 Channel

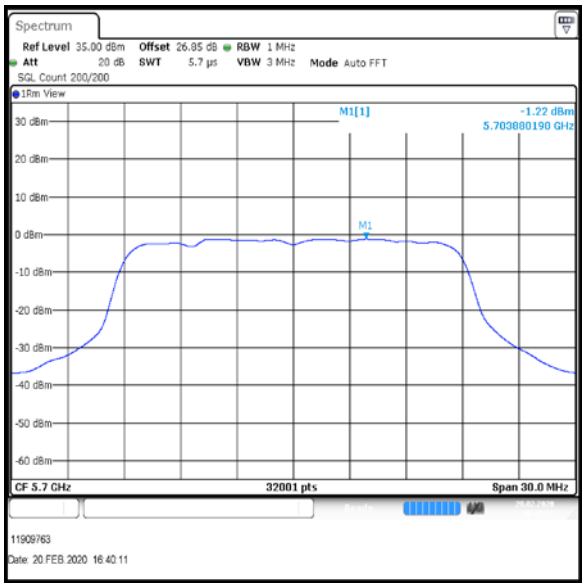
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11n / HT20 / MCS6 / SISO / Port 1 / PWL 14 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Top	-1.2	2.1	0.9	8	7.1	Complied

Results: 802.11n / HT20 / MCS6 / SISO / Port 1 / PWL 14 / 9 dBi Antenna / Port 1



Top Channel

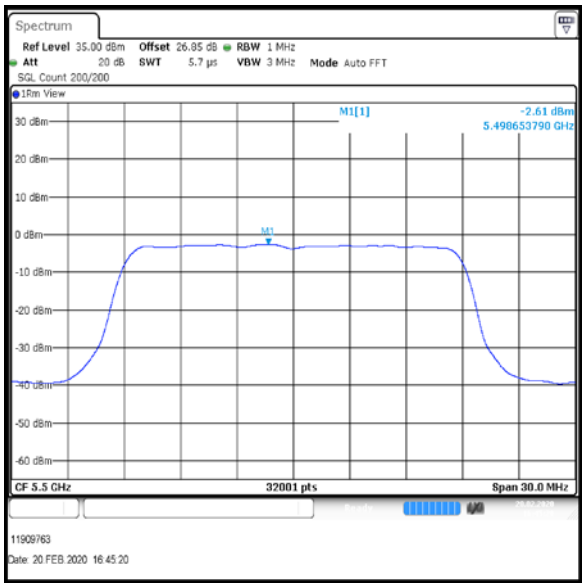
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11ac / HT20 / MCS2 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-2.6	0.7	-1.9	8	9.9	Complied

Results: 802.11ac / HT20 / MCS2 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel

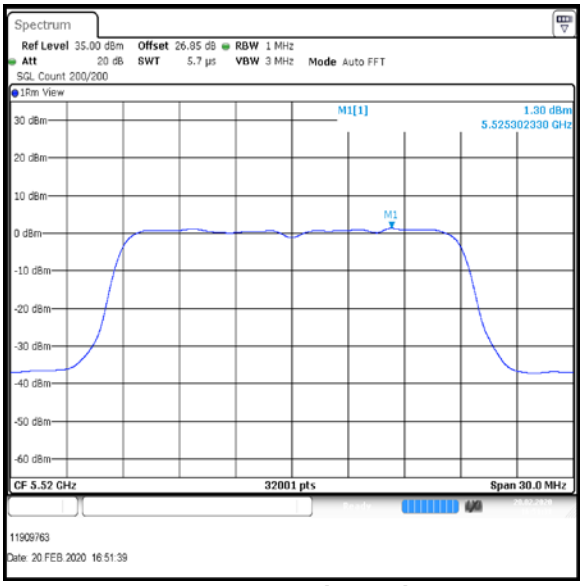
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

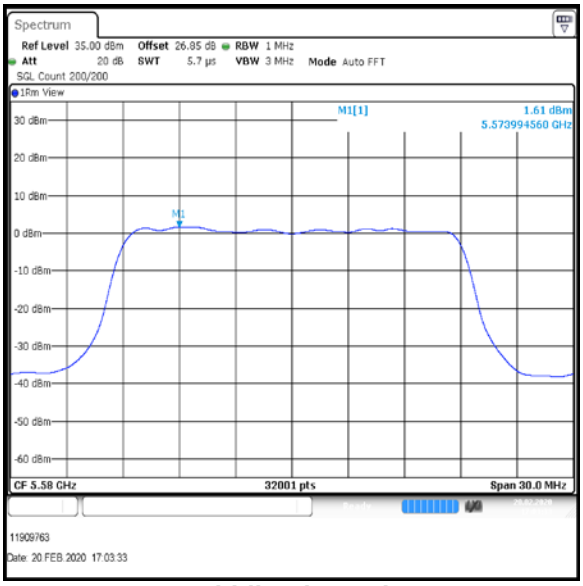
Results: 802.11ac / HT20 / MCS2 / SISO / Port 1 / PWL 17 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom+1	1.3	0.7	2.0	8	6.0	Complied
Middle	1.6	0.7	2.3	8	5.7	Complied
Top-1	2.9	0.7	3.6	8	4.4	Complied

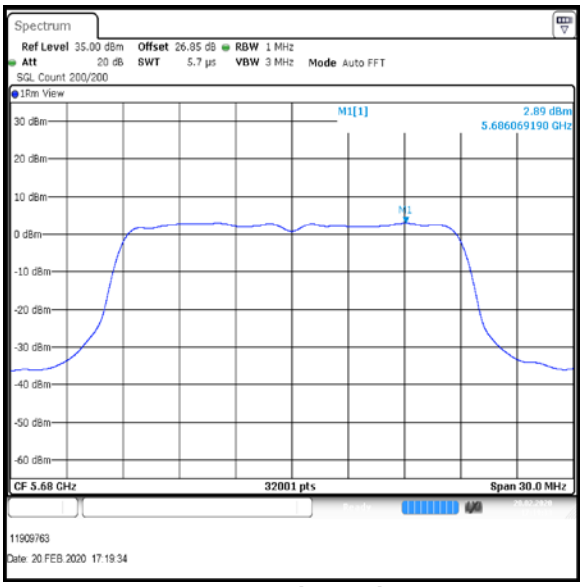
Results: 802.11ac / HT20 / MCS2 / SISO / Port 1 / PWL 17 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel



Top-1 Channel

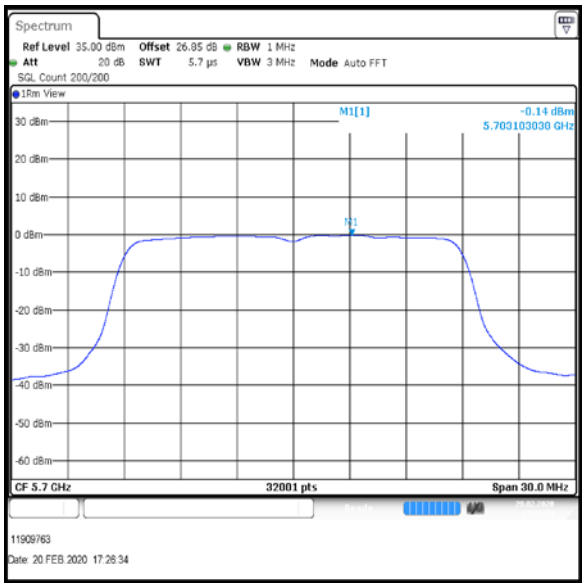
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11ac / HT20 / MCS2 / SISO / Port 1 / PWL 14 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Top	-0.1	0.7	0.6	8	7.4	Complied

Results: 802.11ac / HT20 / MCS2 / SISO / Port 1 / PWL 14 / 9 dBi Antenna / Port 1



Top Channel

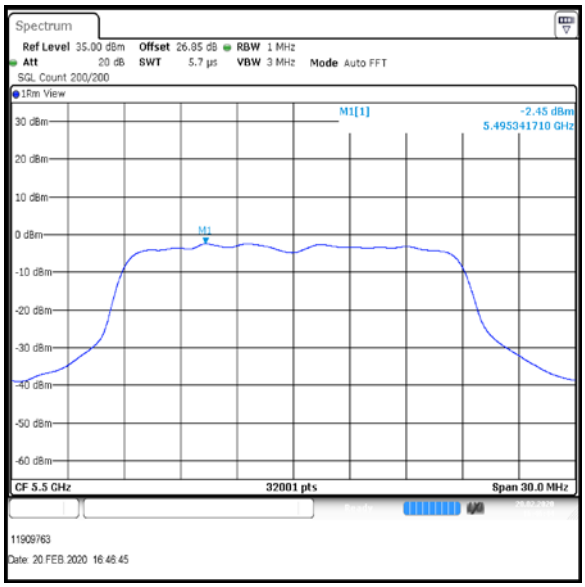
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11ac / HT20 / MCS6 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-2.5	2.0	-0.5	8	8.5	Complied

Results: 802.11ac / HT20 / MCS6 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel

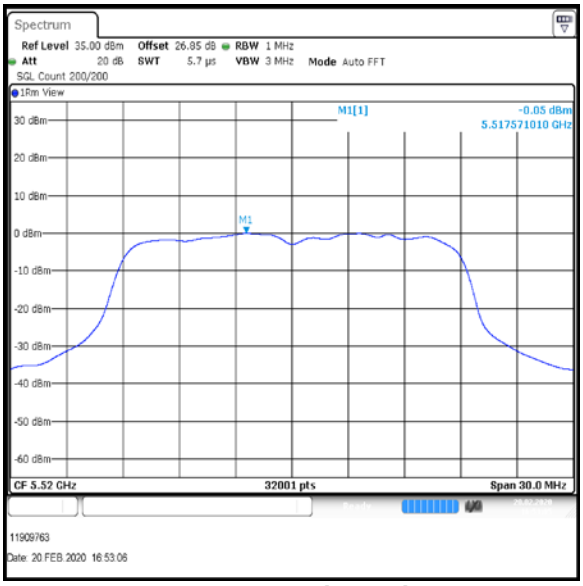
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

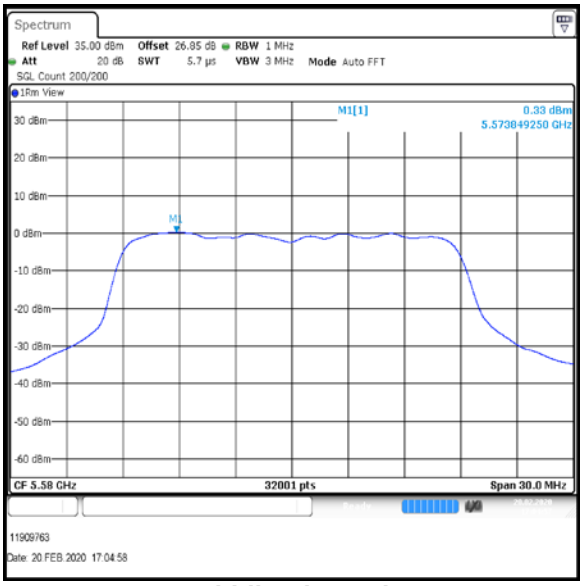
Results: 802.11ac / HT20 / MCS6 / SISO / Port 1 / PWL 17 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom+1	-0.1	2.0	1.9	8	6.1	Complied
Middle	0.3	2.0	2.3	8	5.7	Complied
Top-1	2.0	2.0	4.0	8	4.0	Complied

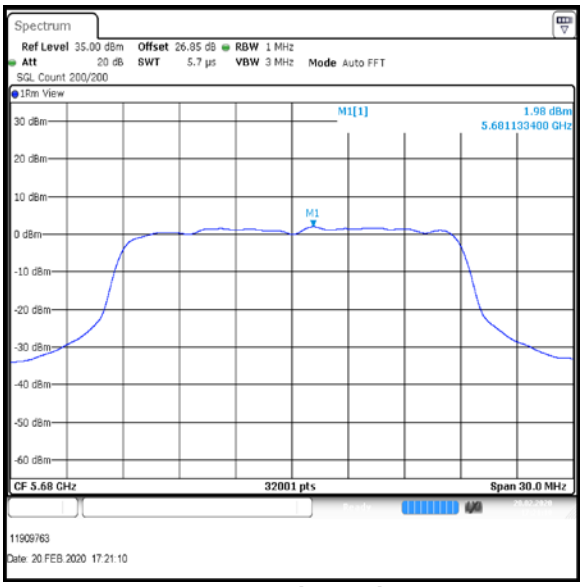
Results: 802.11ac / HT20 / MCS6 / SISO / Port 1 / PWL 17 / 9 dBi Antenna / Port 1



Bottom+1 Channel



Middle Channel



Top-1 Channel

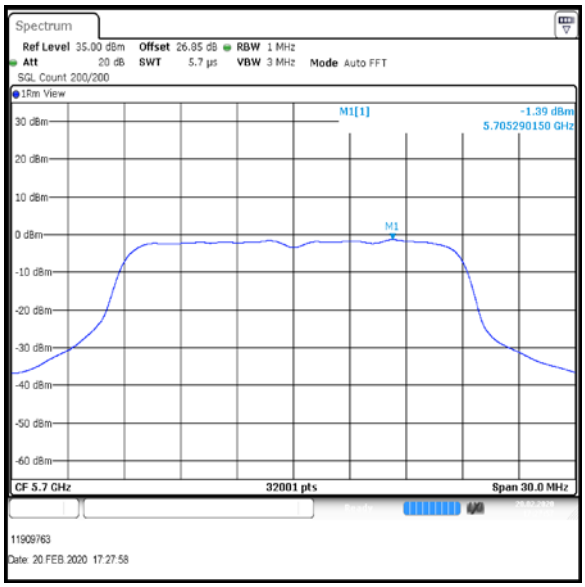
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

Results: 802.11ac / HT20 / MCS6 / SISO / Port 1 / PWL 14 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Top	-1.4	2.0	0.6	8	7.4	Complied

Results: 802.11ac / HT20 / MCS6 / SISO / Port 1 / PWL 14 / 9 dBi Antenna / Port 1



Top Channel

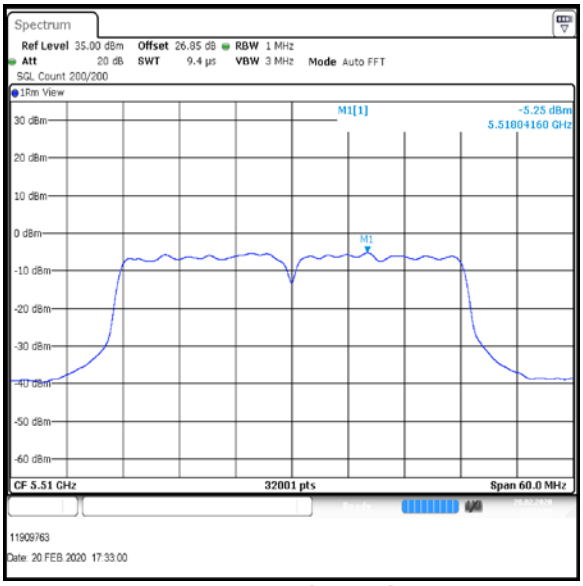
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

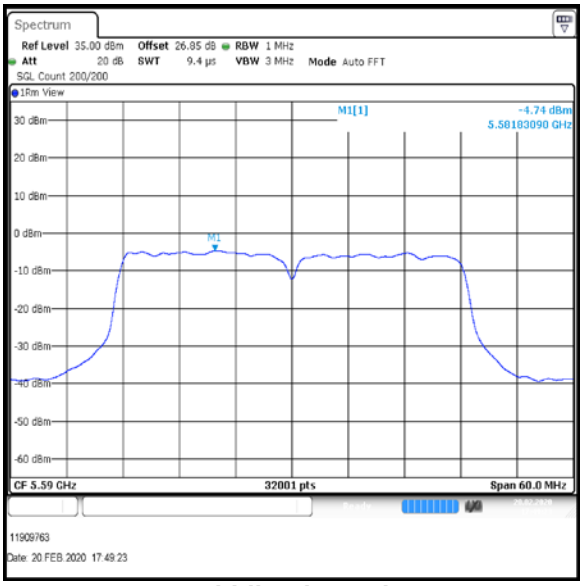
Results: 802.11n / HT40 / MCS3 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.3	1.4	-3.9	8	11.8	Complied
Middle	-4.7	1.4	-3.3	8	11.3	Complied
Top	-4.7	1.4	-3.3	8	11.3	Complied

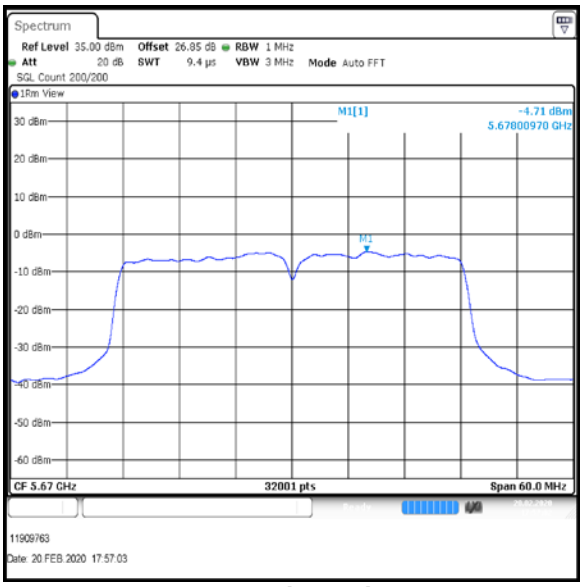
Results: 802.11n / HT40 / MCS3 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel



Top Channel

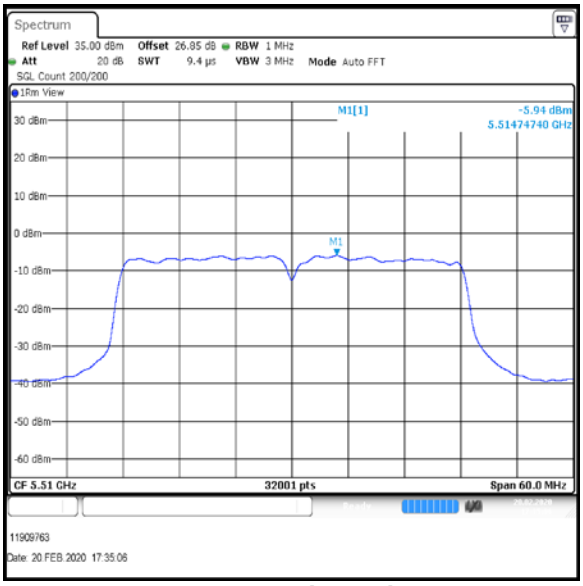
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

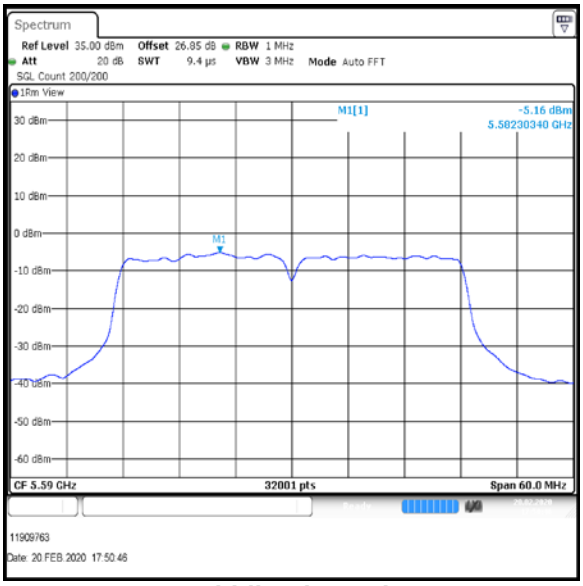
Results: 802.11n / HT40 / MCS4 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.9	1.8	-4.1	8	12.1	Complied
Middle	-5.2	1.8	-3.4	8	11.4	Complied
Top	-5.2	1.8	-3.4	8	11.4	Complied

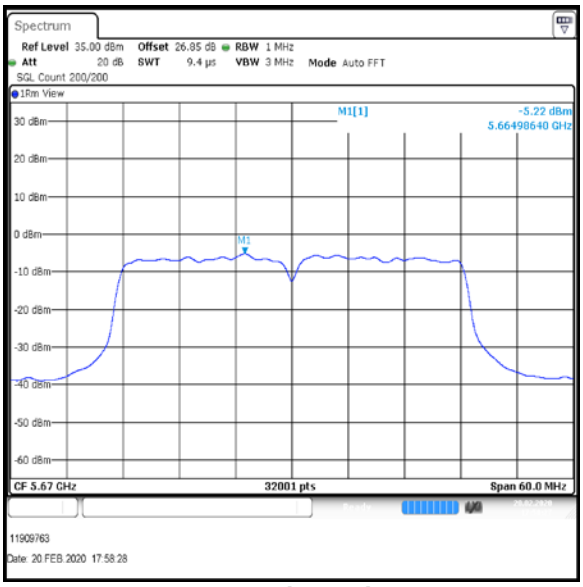
Results: 802.11n / HT40 / MCS4 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel



Top Channel

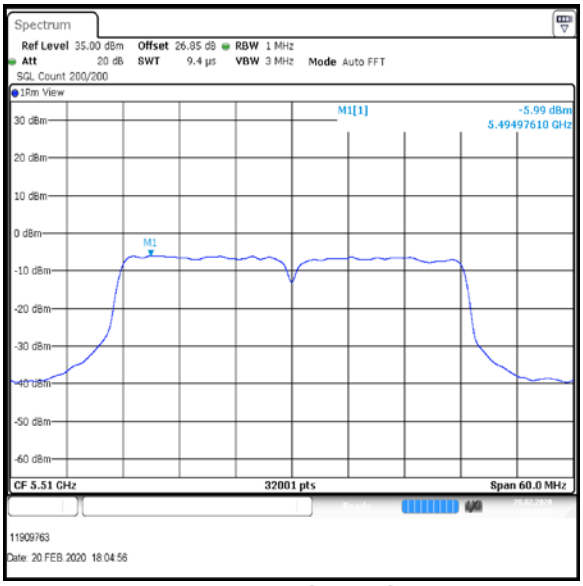
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

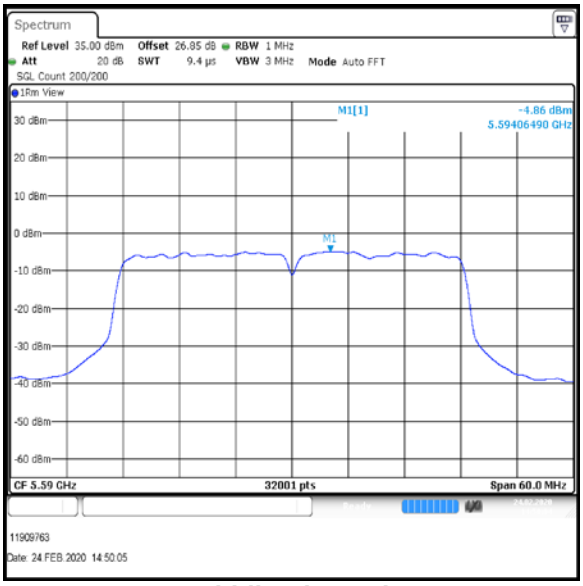
Results: 802.11ac / HT40 / MCS3 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-6.0	2.3	-3.7	8	11.7	Complied
Middle	-4.9	2.3	-2.6	8	10.5	Complied
Top	-4.8	2.3	-2.5	8	10.4	Complied

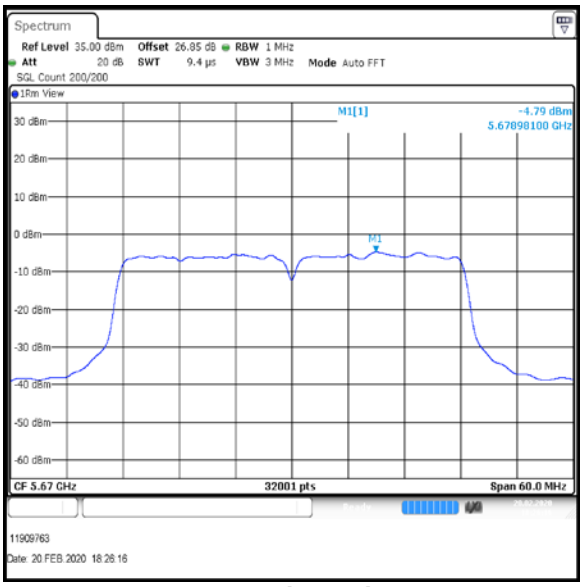
Results: 802.11ac / HT40 / MCS3 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel



Top Channel

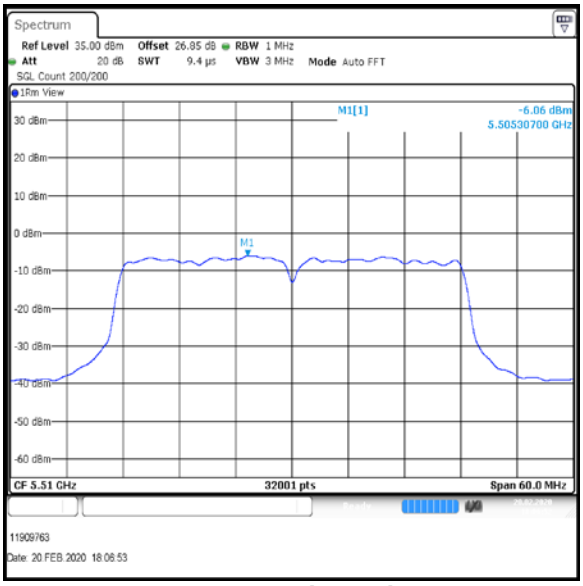
Result: Pass

Transmitter Maximum Power Spectral Density (continued)

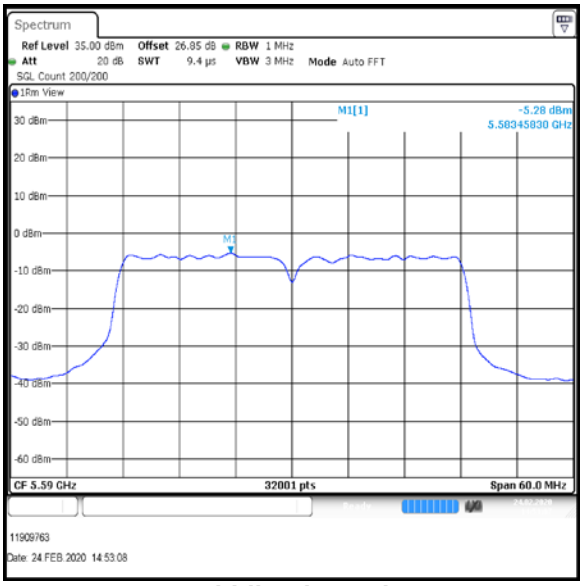
Results: 802.11ac / HT40 / MCS4 / SISO / Port 1 / PWL 12 / 9 dBi Antenna

Channel	Port 1 PSD (dBm/MHz)	Duty Cycle Correction (dB)	Port 1 Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-6.1	2.6	-3.5	8	11.5	Complied
Middle	-5.3	2.6	-2.7	8	10.7	Complied
Top	-5.4	2.6	-2.8	8	10.8	Complied

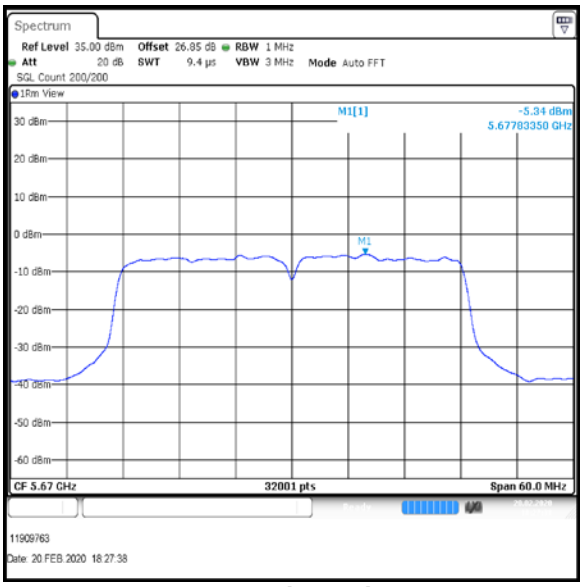
Results: 802.11ac / HT40 / MCS4 / SISO / Port 1 / PWL 12 / 9 dBi Antenna / Port 1



Bottom Channel



Middle Channel



Top Channel

Result: Pass