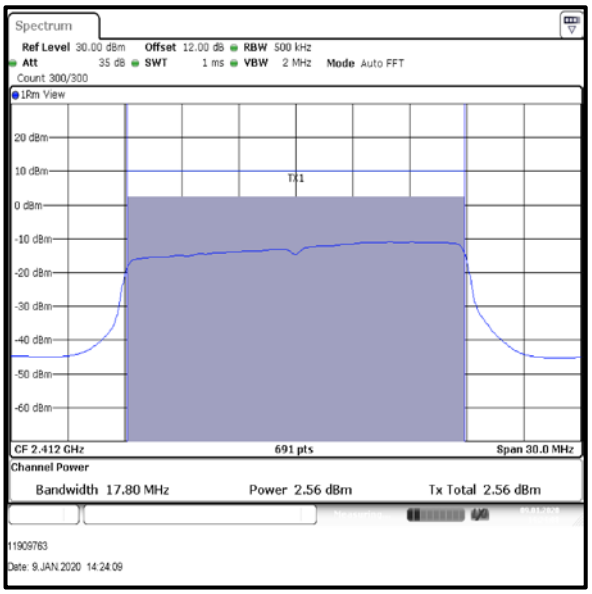
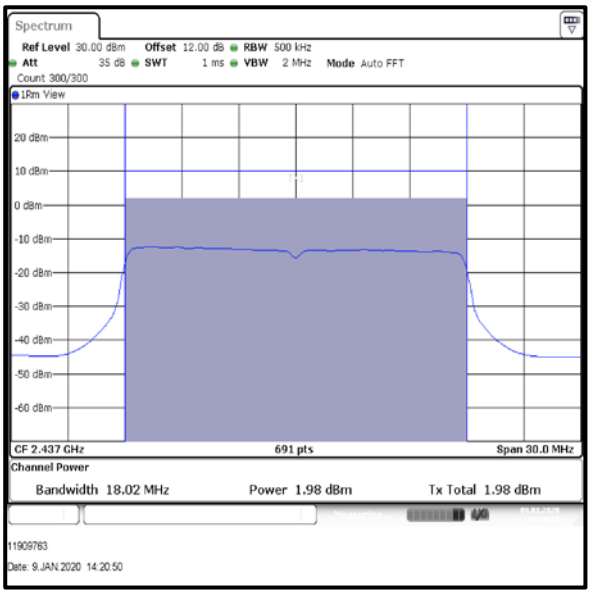
Transmitter Maximum (Average) Output Power (continued)

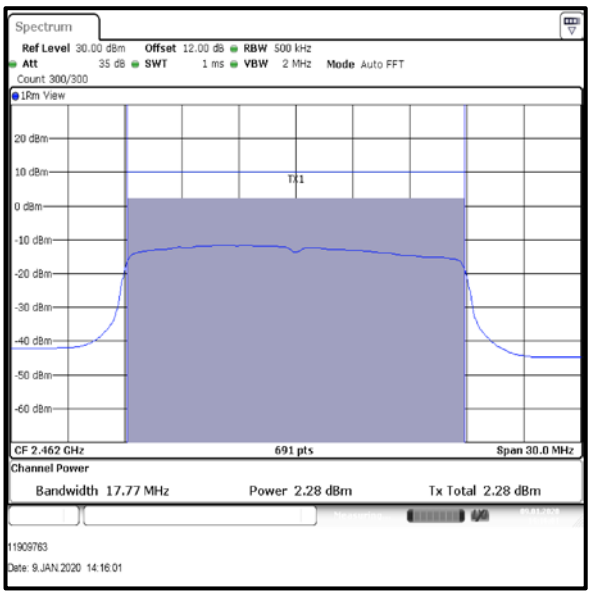
Results: 802.11n / HT20 / MCS0 / MIMO / Port 3 / PWL 8 / 14 dBi Antenna Group



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum (Average) Output Power (continued)

Results: 802.11n / HT40 / MCS0 / MIMO / Port 1+2+3 / PWL 8 / 14 dBi Antenna Group

Conducted Power Limit Comparison

Channel	Port 1			Port 2		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	3.6	0.6	4.2	3.5	0.6	4.1
Middle	3.1	0.6	3.7	3.0	0.6	3.6
Top	2.8	0.6	3.4	2.8	0.6	3.4

Channel	Port 3		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	3.3	0.6	3.9
Middle	2.6	0.6	3.2
Top	2.8	0.6	3.4

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)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	4.2	4.1	3.9	8.8	22.0	13.2	Complied
Middle	3.7	3.6	3.2	8.3	22.0	13.7	Complied
Top	3.4	3.4	3.4	8.1	22.0	13.9	Complied

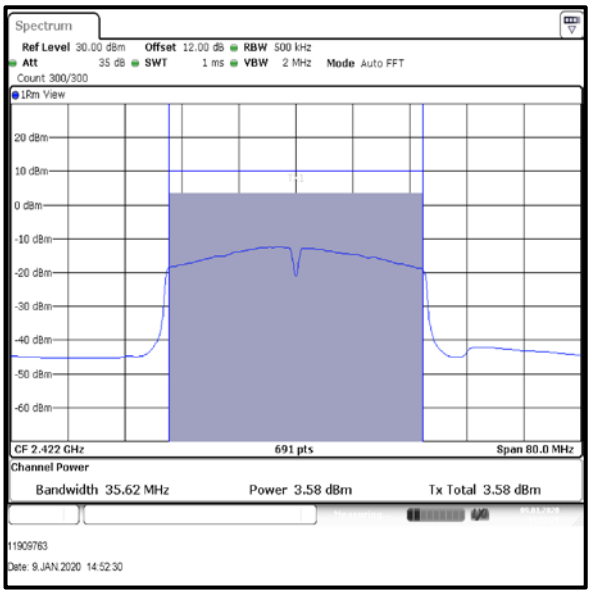
De Facto EIRP Limit Comparison

Channel	Port 1+2+3 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	8.8	14.0	22.8	36.0	13.2	Complied
Middle	8.3	14.0	22.3	36.0	13.7	Complied
Top	8.1	14.0	22.1	36.0	13.9	Complied

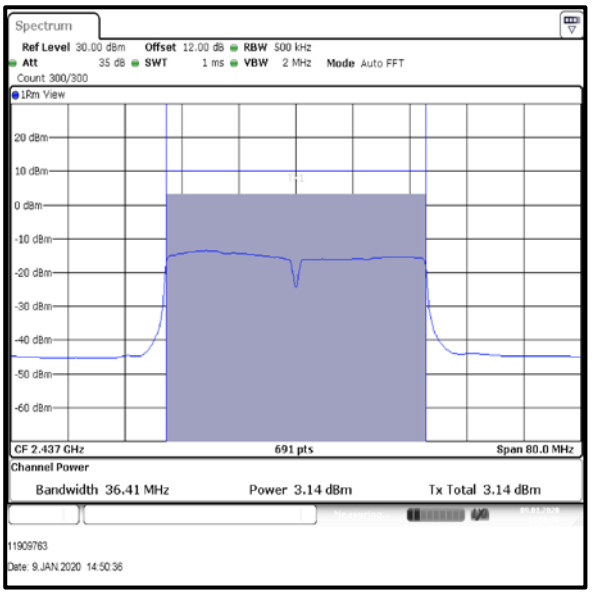
Result: Pass

Transmitter Maximum (Average) Output Power (continued)

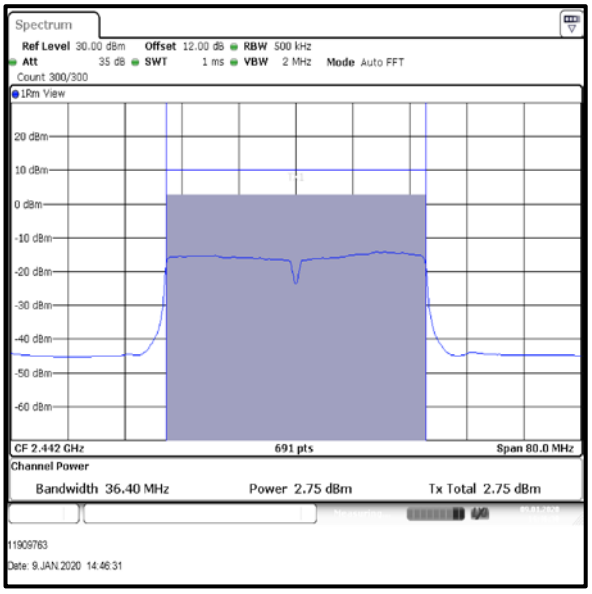
Results: 802.11n / HT40 / MCS0 / MIMO / Port 1 / PWL 8 / 14 dBi Antenna Group



Bottom Channel



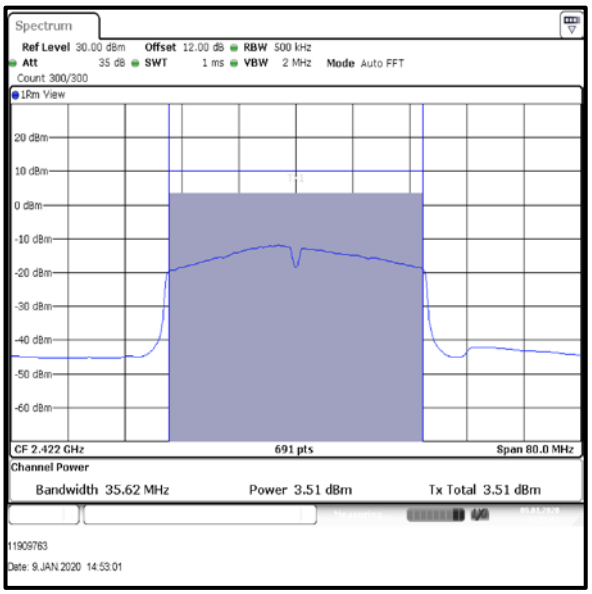
Middle Channel



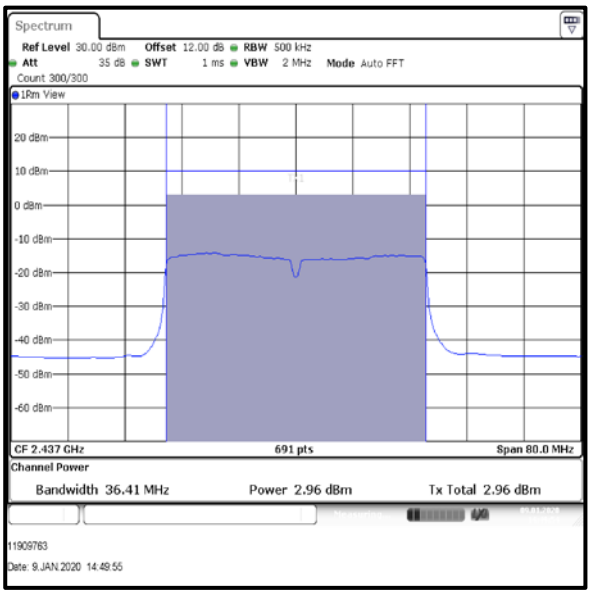
Top Channel

Transmitter Maximum (Average) Output Power (continued)

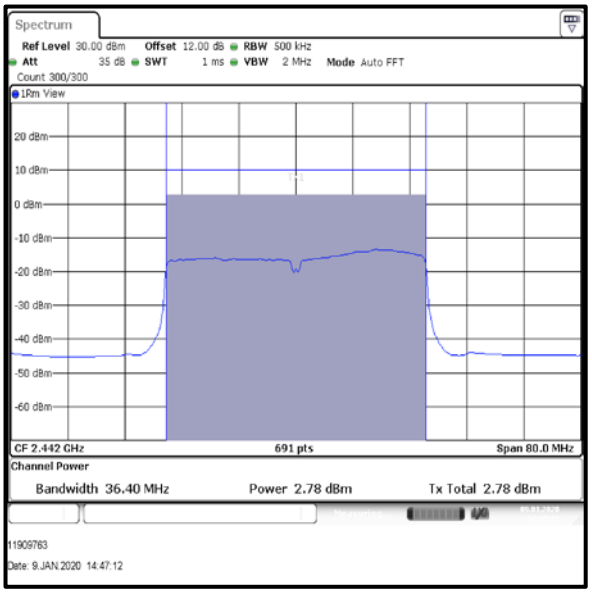
Results: 802.11n / HT40 / MCS0 / MIMO / Port 2 / PWL 8 / 14 dBi Antenna Group



Bottom Channel



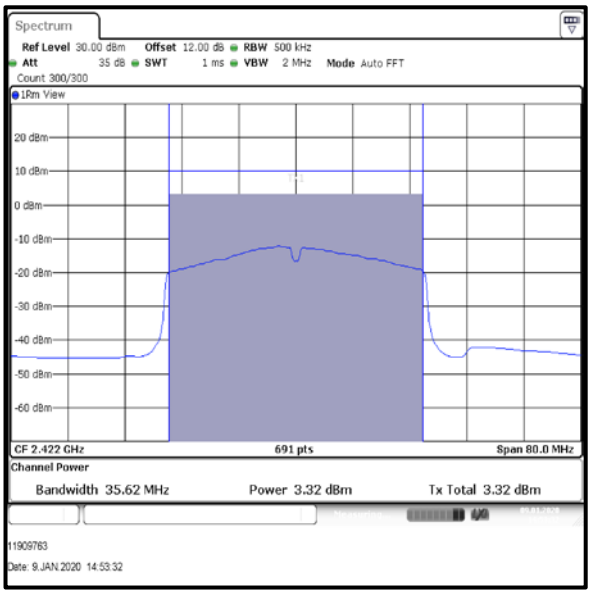
Middle Channel



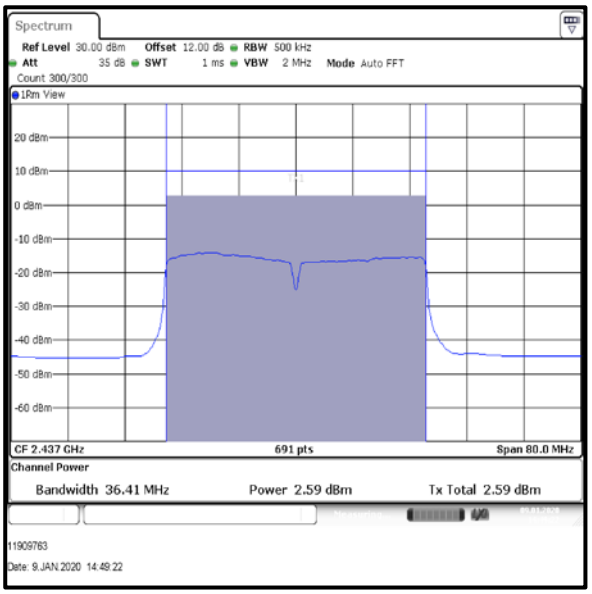
Top Channel

Transmitter Maximum (Average) Output Power (continued)

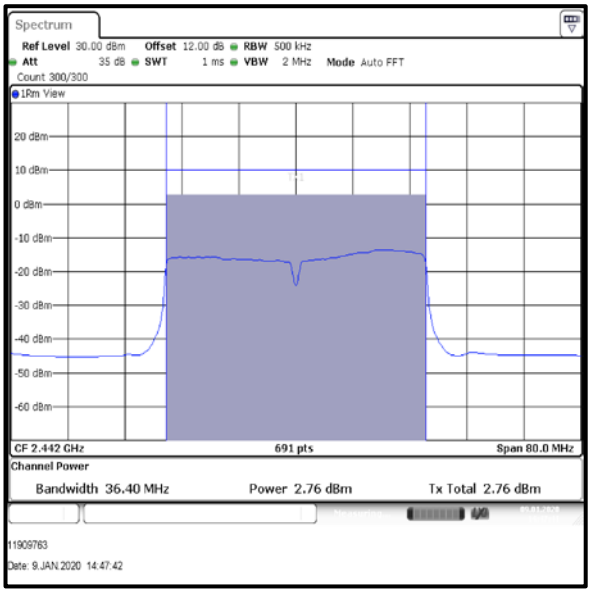
Results: 802.11n / HT40 / MCS0 / MIMO / Port 3 / PWL 8 / 14 dBi Antenna Group



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum (Average) Output Power (continued)

Results: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 1+2+3+4 / PWL 7 / 14 dBi Antenna Group

Conducted Power Limit Comparison

Channel	Conducted Power Port 1 (dBm)	Conducted Power Port 2 (dBm)	Conducted Power Port 3 (dBm)	Conducted Power Port 4 (dBm)	Port 1+2+3+4 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	-0.1	-0.4	0.0	-0.2	5.9	22.0	16.1	Complied
Middle	-0.7	-1.0	-0.9	-0.7	5.2	22.0	16.8	Complied
Top	0.1	-0.5	0.2	-0.6	5.8	22.0	16.2	Complied

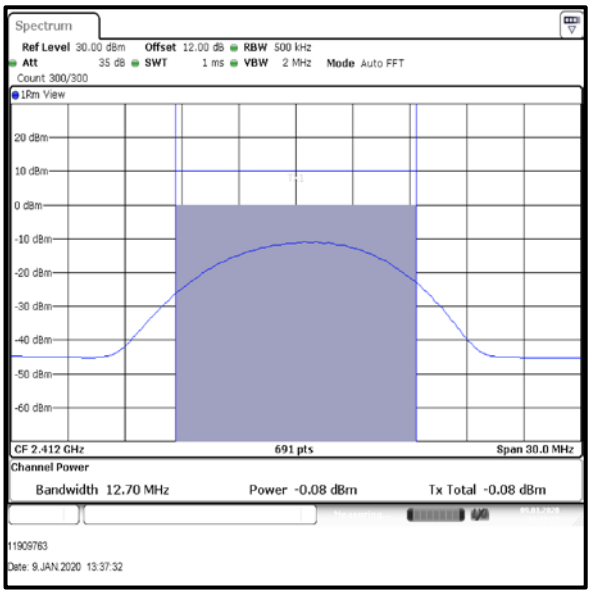
De Facto EIRP Limit Comparison

Channel	Port 1+2+3+4 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	5.9	14.0	19.9	36.0	16.1	Complied
Middle	5.2	14.0	19.2	36.0	16.8	Complied
Top	5.8	14.0	19.8	36.0	16.2	Complied

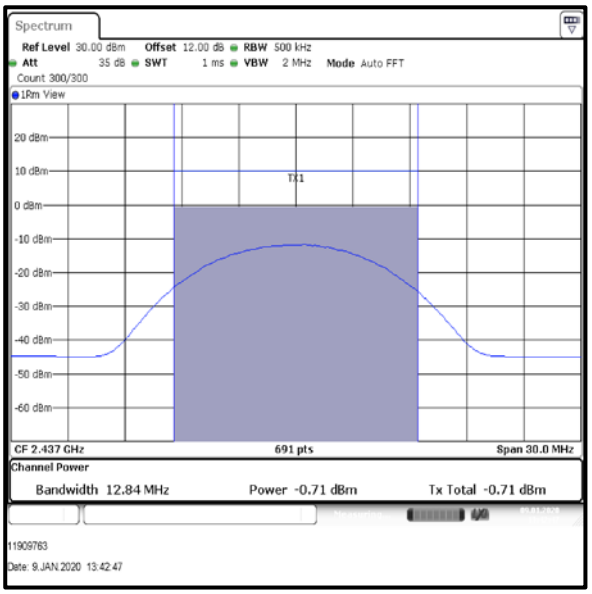
Result: Pass

Transmitter Maximum (Average) Output Power (continued)

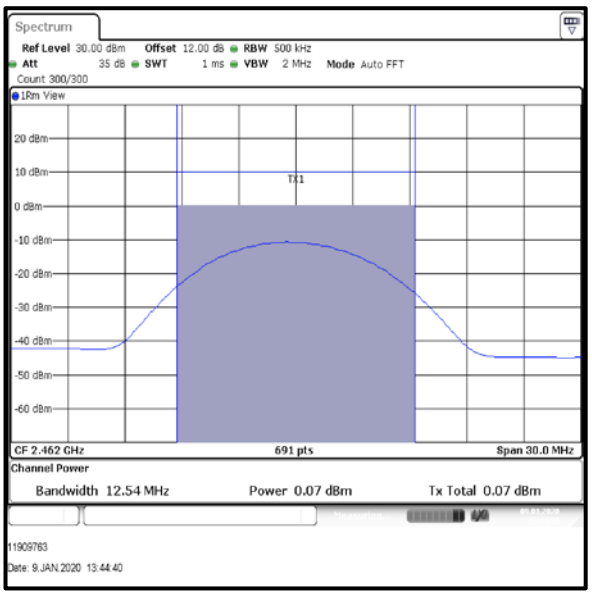
Results: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 1 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



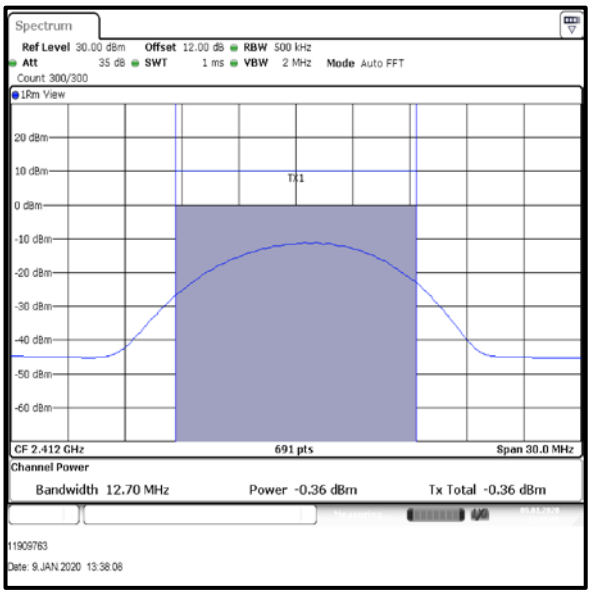
Middle Channel



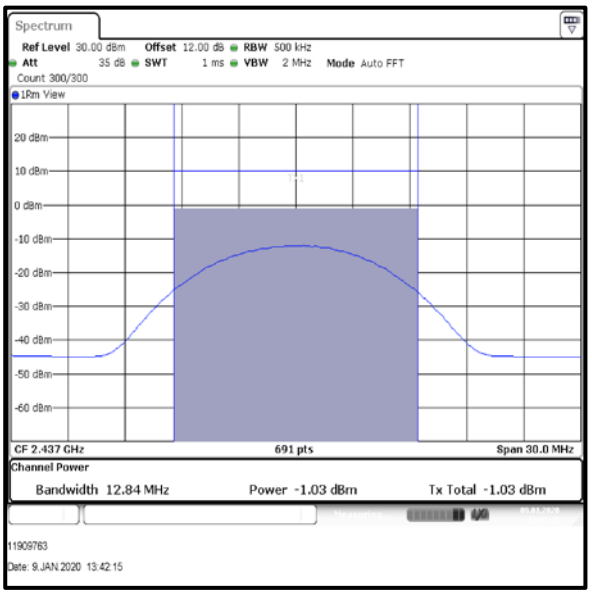
Top Channel

Transmitter Maximum (Average) Output Power (continued)

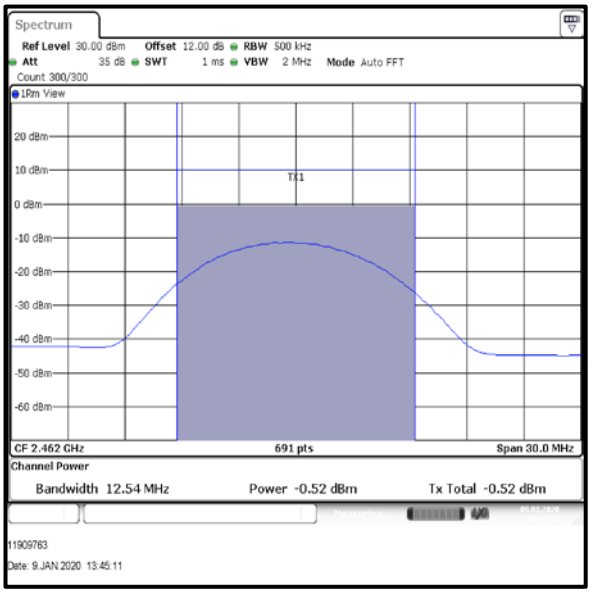
Results: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 2 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



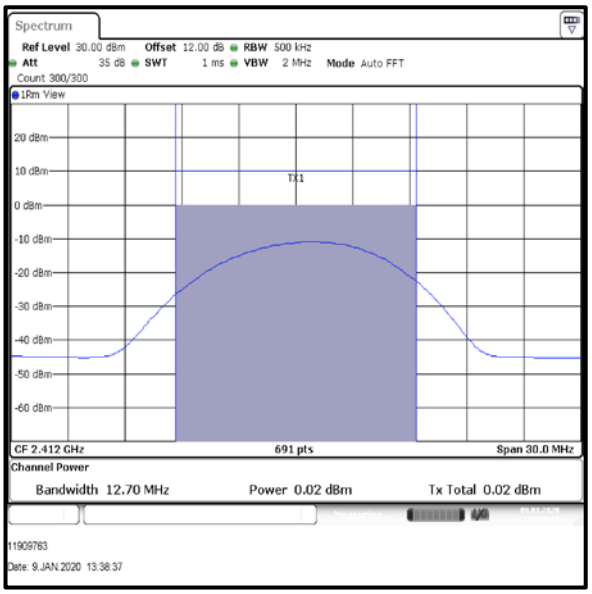
Middle Channel



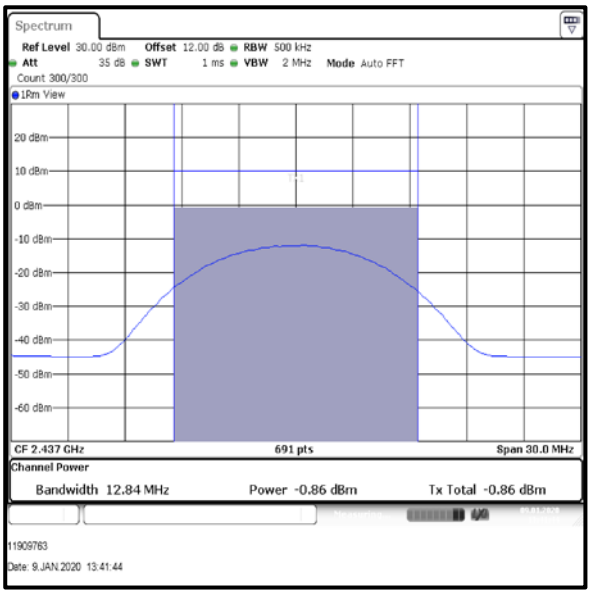
Top Channel

Transmitter Maximum (Average) Output Power (continued)

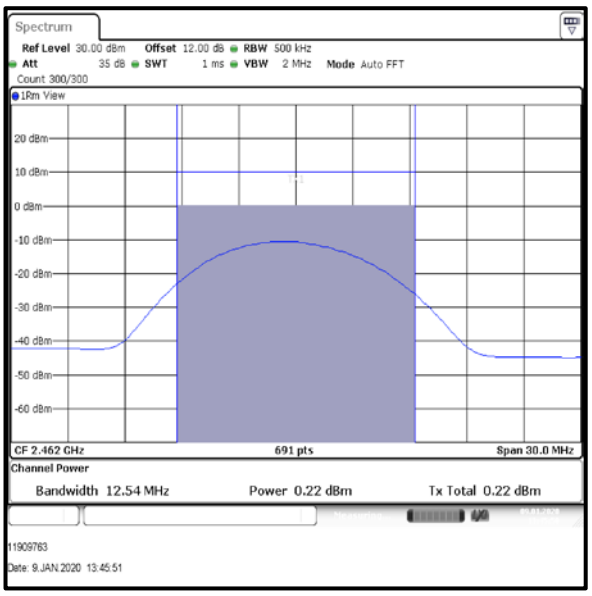
Results: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 3 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



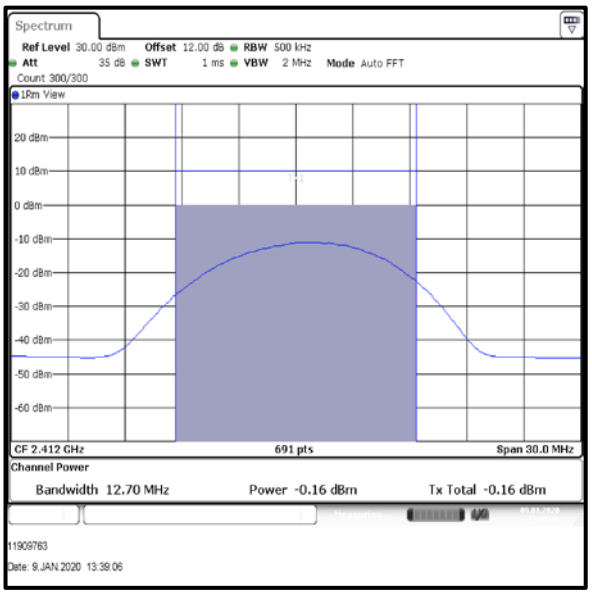
Middle Channel



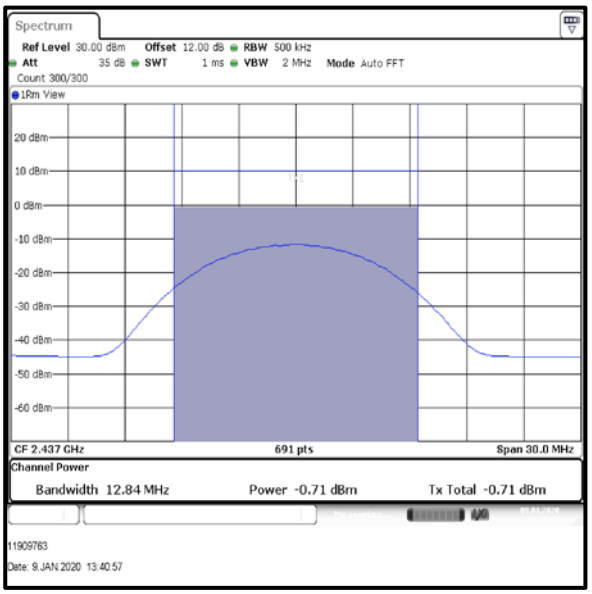
Top Channel

Transmitter Maximum (Average) Output Power (continued)

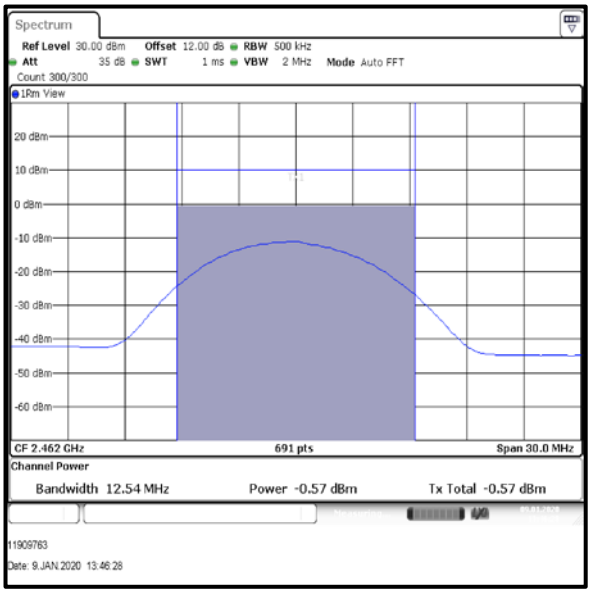
Results: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 4 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum (Average) Output Power (continued)

Results: 802.11g / 20 MHz / 6 Mbps / MIMO / Port 1+2+3+4 / PWL 7 / 14 dBi Antenna Group

Conducted Power Limit Comparison

Channel	Port 1			Port 2		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	1.3	0.2	1.5	1.0	0.2	1.2
Middle	0.8	0.2	1	0.6	0.2	0.8
Top	0.9	0.2	1.1	0.6	0.2	0.8

Channel	Port 3			Port 4		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	0.9	0.2	1.1	1.3	0.2	1.5
Middle	0.3	0.2	0.5	0.7	0.2	0.9
Top	1.0	0.2	1.2	0.7	0.2	0.9

Channel	Corrected Conducted Power Port 1 (dBm)	Corrected Conducted Power Port 2 (dBm)	Corrected Conducted Power Port 3 (dBm)	Corrected Conducted Power Port 4 (dBm)	Port 1+2+3+4 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	1.5	1.2	1.1	1.5	7.4	22.0	14.6	Complied
Middle	1.0	0.8	0.5	0.9	6.8	22.0	15.2	Complied
Top	1.1	0.8	1.2	0.9	7.0	22.0	15.0	Complied

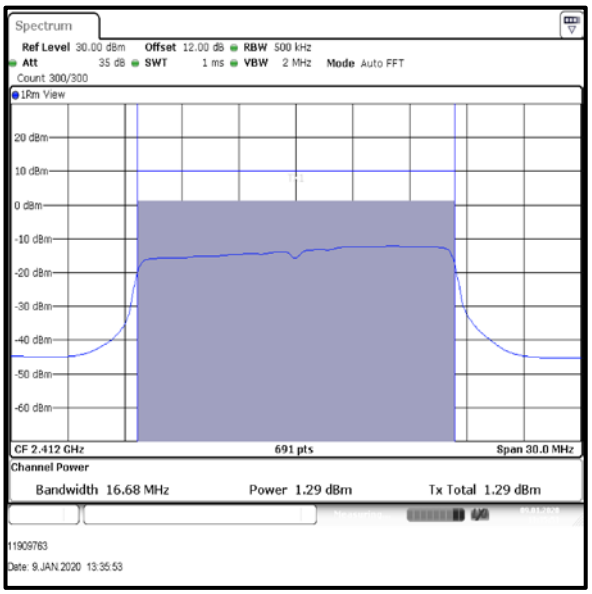
De Facto EIRP Limit Comparison

Channel	Port 1+2+3+4 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	7.4	14.0	21.4	36.0	14.6	Complied
Middle	6.8	14.0	20.8	36.0	15.2	Complied
Top	7.0	14.0	21	36.0	15	Complied

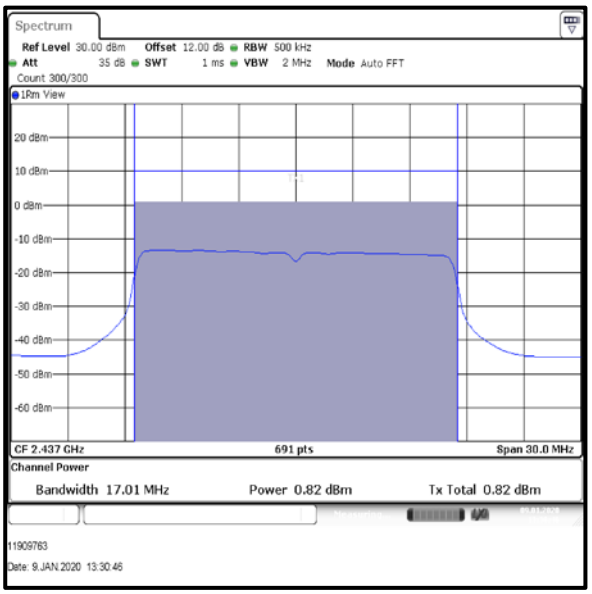
Result: Pass

Transmitter Maximum (Average) Output Power (continued)

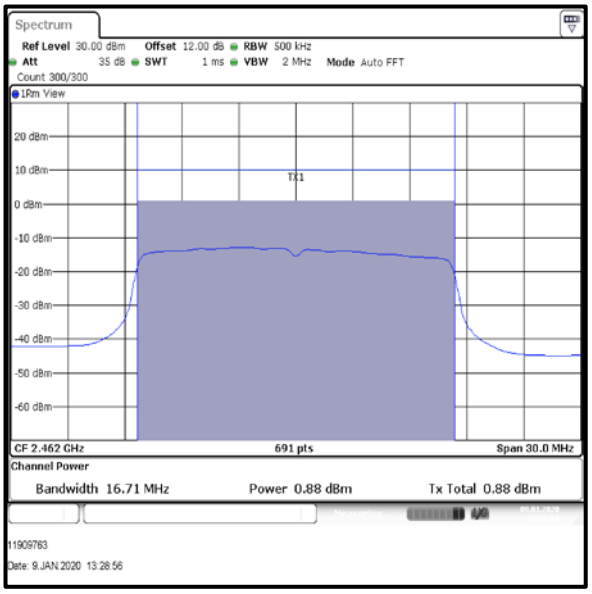
Results: 802.11g / 20 MHz / 6 Mbps / MIMO / Port 1 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



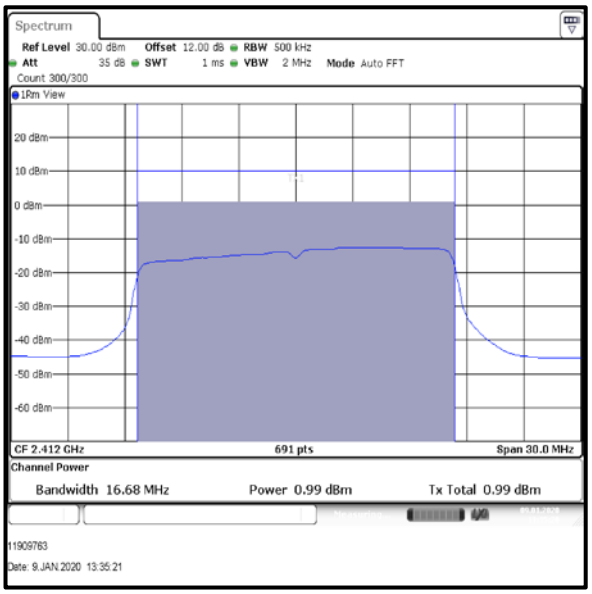
Middle Channel



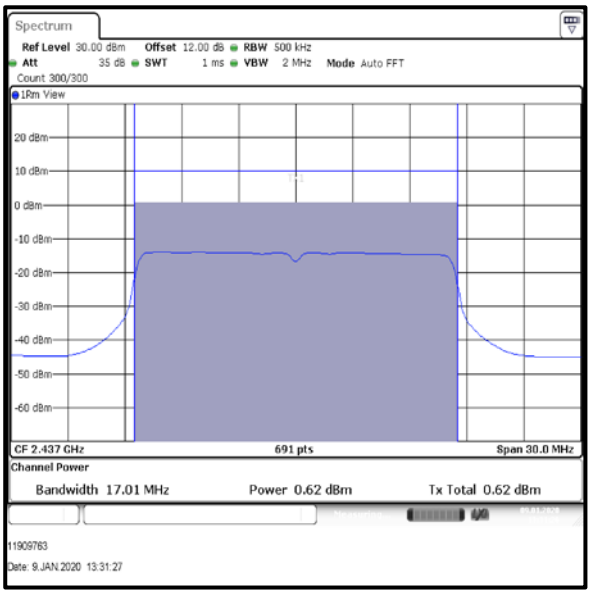
Top Channel

Transmitter Maximum (Average) Output Power (continued)

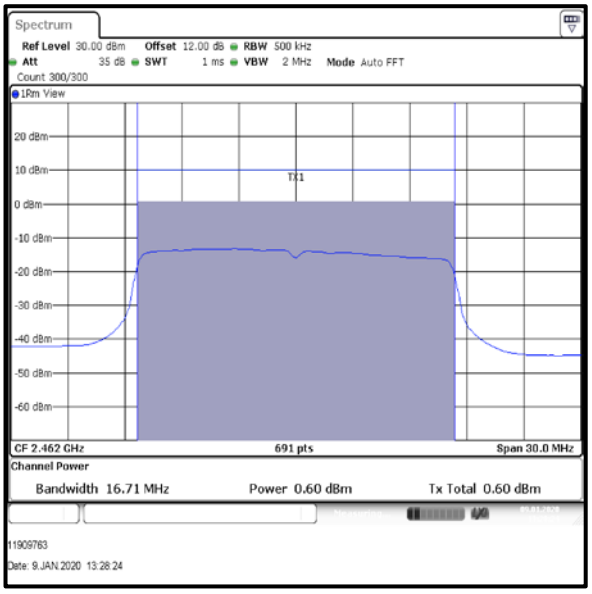
Results: 802.11g / 20 MHz / 6 Mbps / MIMO / Port 2 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



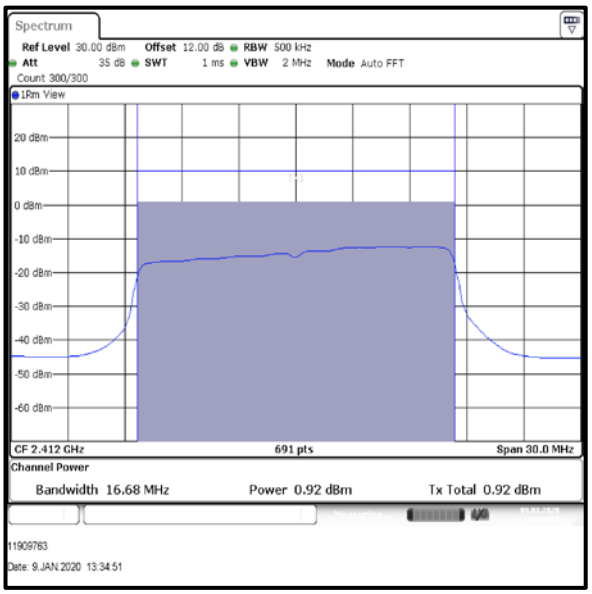
Middle Channel



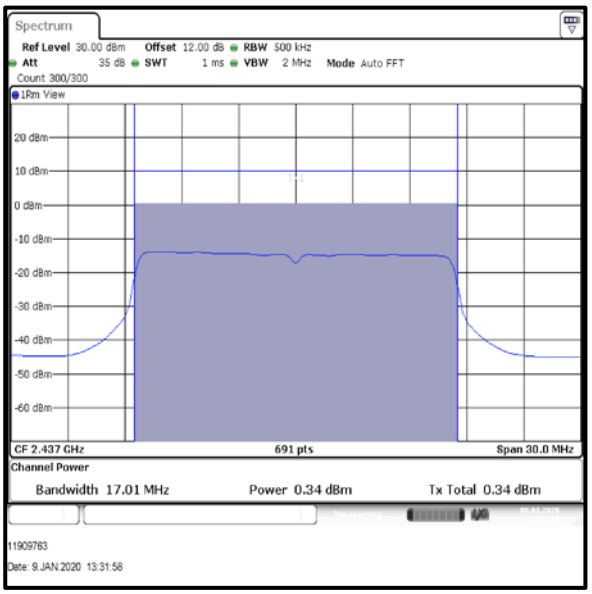
Top Channel

Transmitter Maximum (Average) Output Power (continued)

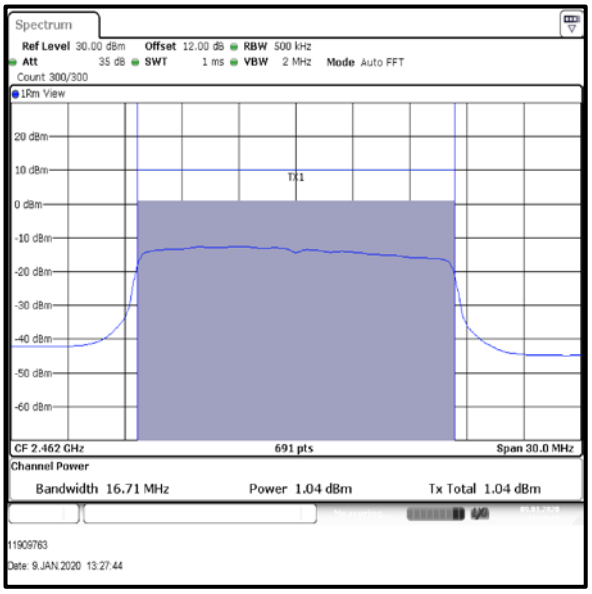
Results: 802.11g / 20 MHz / 6 Mbps / MIMO / Port 3 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



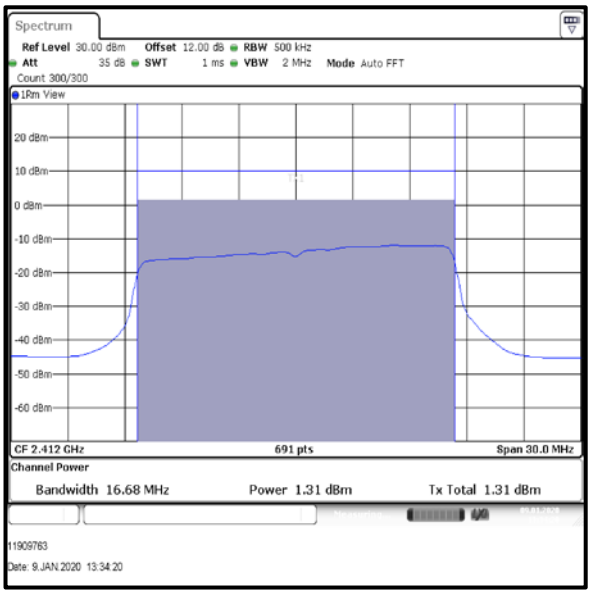
Middle Channel



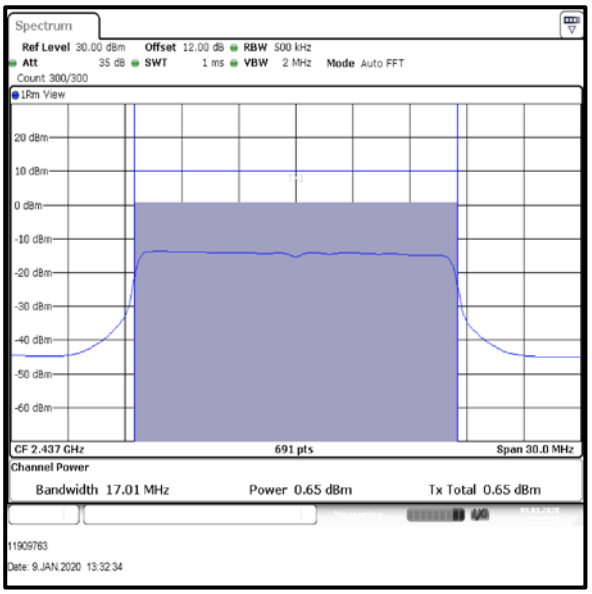
Top Channel

Transmitter Maximum (Average) Output Power (continued)

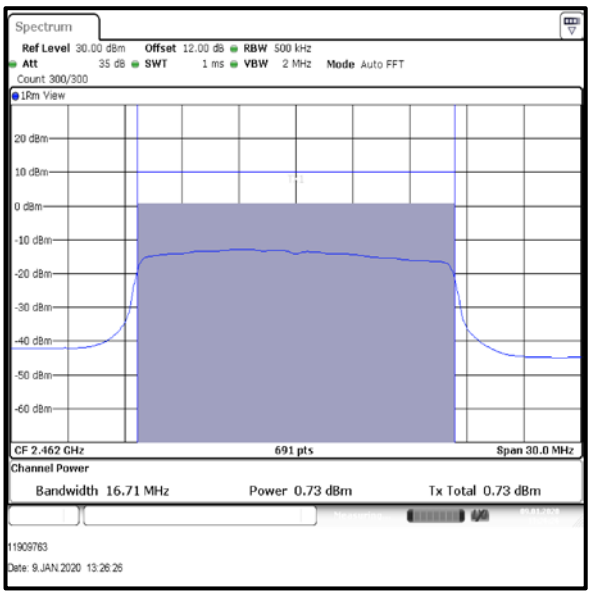
Results: 802.11g / 20 MHz / 6 Mbps / MIMO / Port 4 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



Middle Channel



Top Channel

Results: 802.11n / HT20 / MCS0 / MIMO / Port 1+2+3+4 / PWL 7 / 14 dBi Antenna Group
Conducted Power Limit Comparison

Channel	Port 1			Port 2		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	0.6	0.4	1	0.5	0.4	0.9
Middle	0.3	0.4	0.7	0.1	0.4	0.5
Top	0.6	0.4	1	0.1	0.4	0.5

Channel	Port 3			Port 4		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	1.0	0.4	1.4	1.0	0.4	1.4
Middle	0.2	0.4	0.6	0.8	0.4	1.2
Top	0.3	0.4	0.7	0.2	0.4	0.6

Channel	Corrected Conducted Power Port 1 (dBm)	Corrected Conducted Power Port 2 (dBm)	Corrected Conducted Power Port 3 (dBm)	Corrected Conducted Power Port 4 (dBm)	Port 1+2+3+4 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	1.0	0.9	1.4	1.4	7.2	22.0	14.8	Complied
Middle	0.7	0.5	0.4	1.2	6.7	22.0	15.3	Complied
Top	1.0	0.5	0.7	0.6	6.7	22.0	15.3	Complied

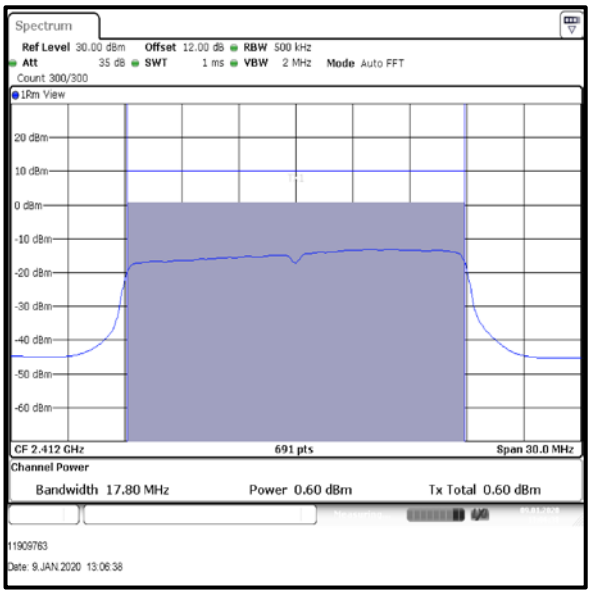
De Facto EIRP Limit Comparison

Channel	Port 1+2+3+4 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	7.2	14.0	21.2	36.0	14.8	Complied
Middle	6.7	14.0	20.7	36.0	15.3	Complied
Top	6.7	14.0	20.7	36.0	15.3	Complied

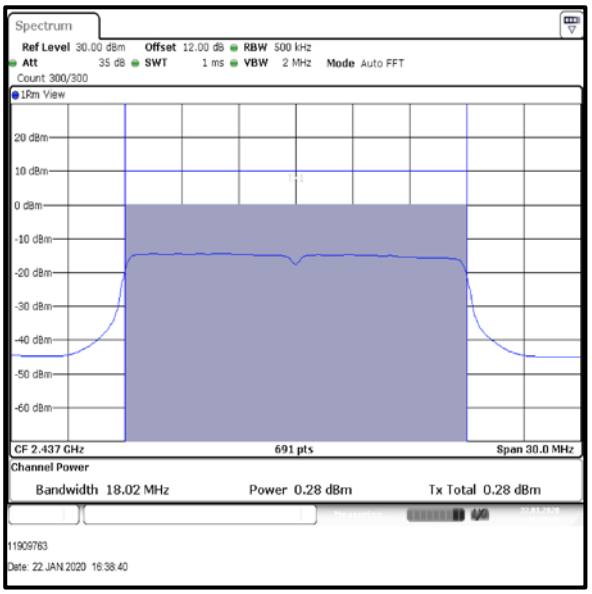
Result: Pass

Transmitter Maximum (Average) Output Power (continued)

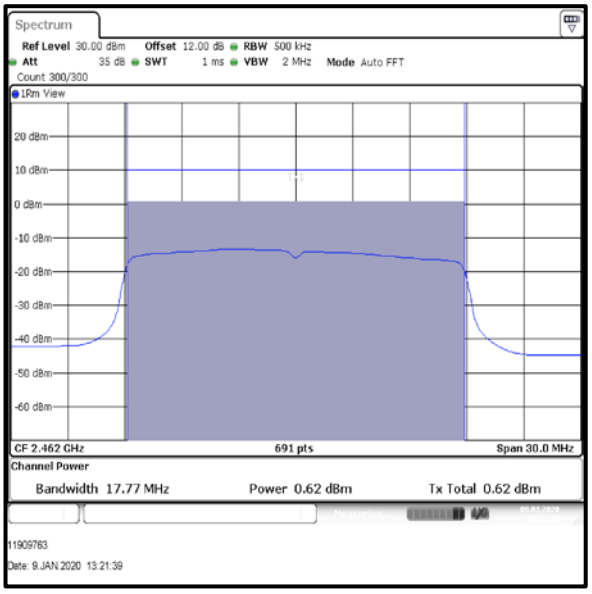
Results: 802.11n / HT20 / MCS0 / MIMO / Port 1 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



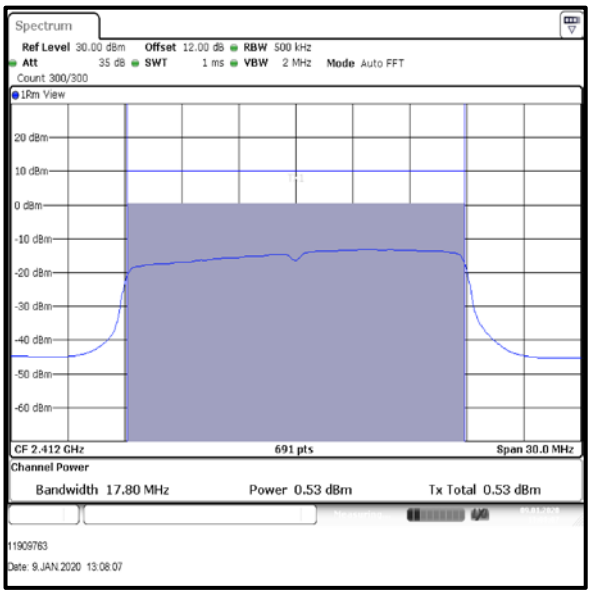
Middle Channel



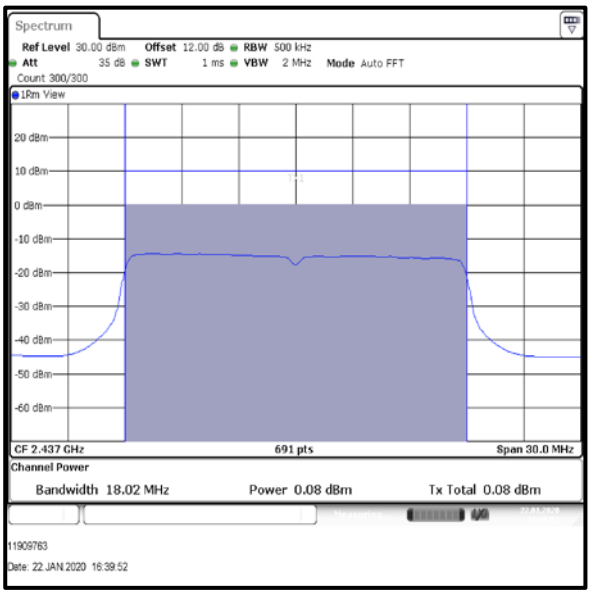
Top Channel

Transmitter Maximum (Average) Output Power (continued)

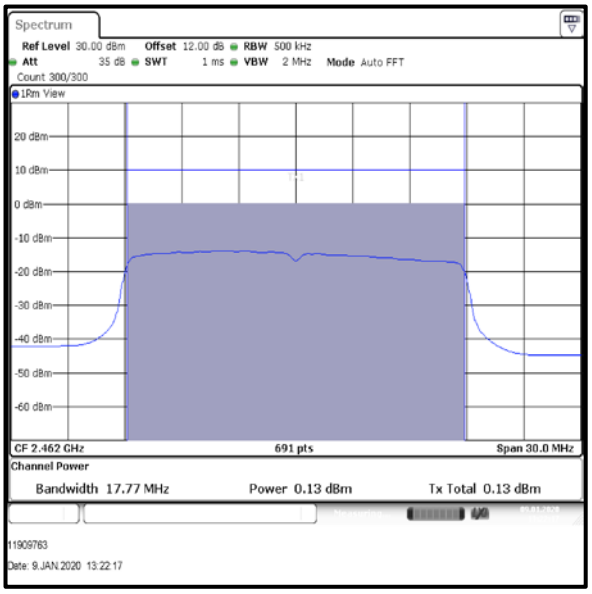
Results: 802.11n / HT20 / MCS0 / MIMO / Port 2 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



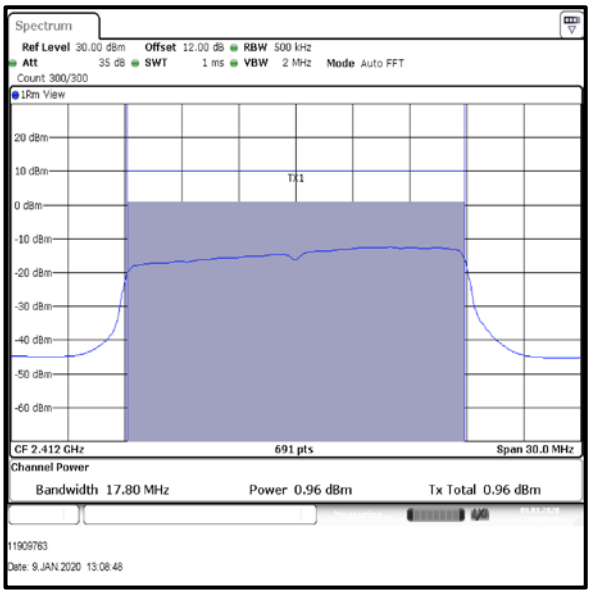
Middle Channel



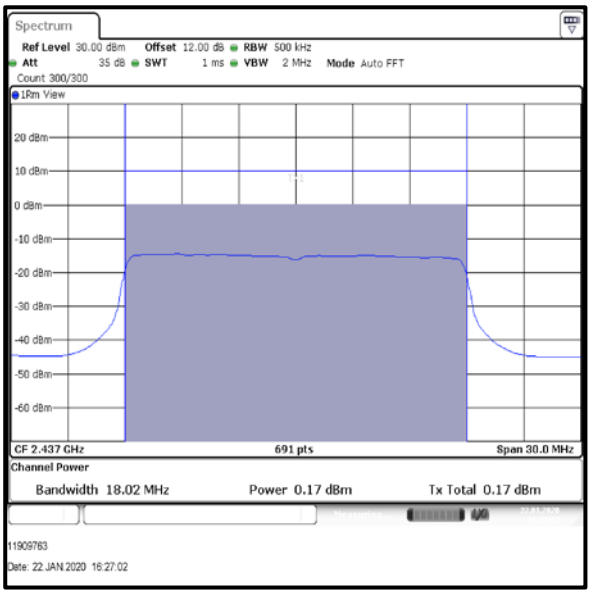
Top Channel

Transmitter Maximum (Average) Output Power (continued)

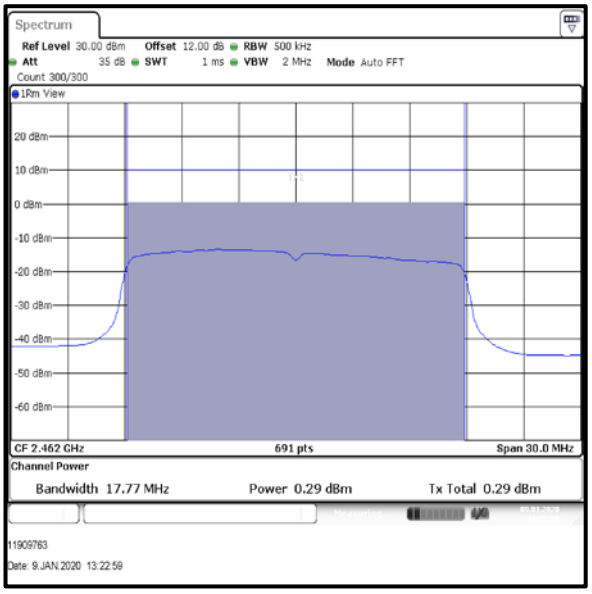
Results: 802.11n / HT20 / MCS0 / MIMO / Port 3 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



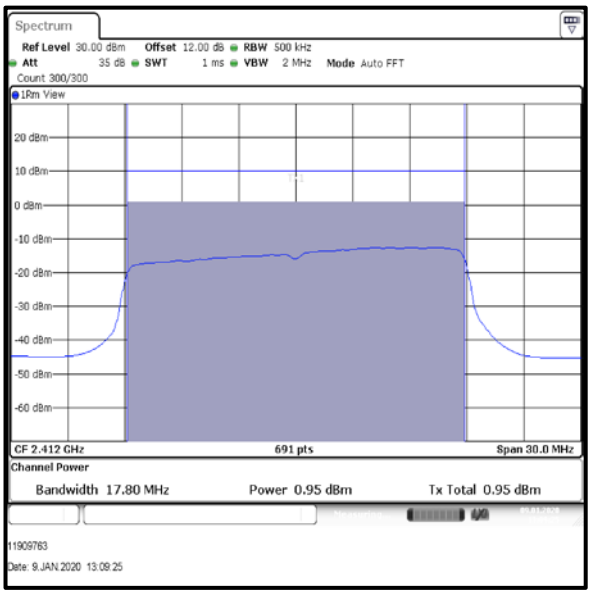
Middle Channel



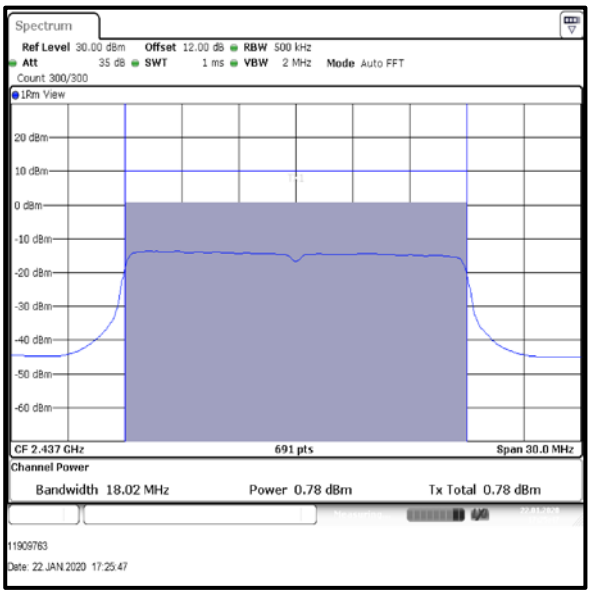
Top Channel

Transmitter Maximum (Average) Output Power (continued)

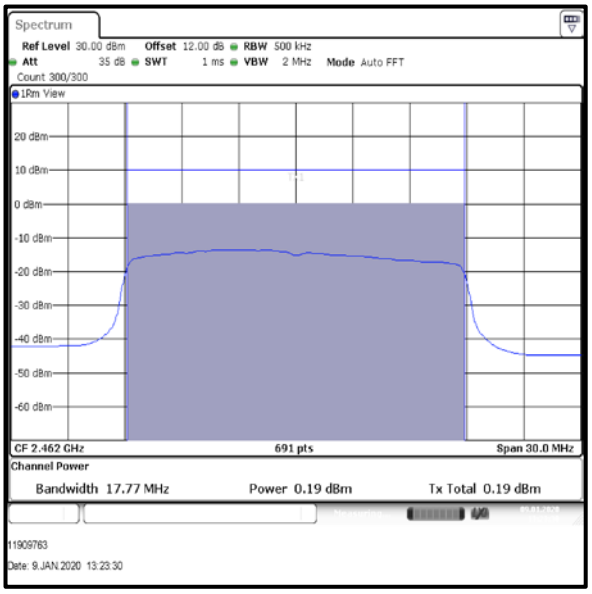
Results: 802.11n / HT20 / MCS0 / MIMO / Port 4 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum (Average) Output Power (continued)

Results: 802.11n / HT40 / MCS0 / MIMO / Port 1+2+3+4 / PWL 7 / 14 dBi Antenna Group

Conducted Power Limit Comparison

Channel	Port 1			Port 2		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	1.6	0.6	2.2	1.5	0.6	2.1
Middle	1.1	0.6	1.7	0.6	0.6	1.2
Top	0.9	0.6	1.5	0.4	0.6	1

Channel	Port 3			Port 4		
	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)
Bottom	3.0	0.6	3.6	1.5	0.6	2.1
Middle	1.6	0.6	2.2	1.1	0.6	1.7
Top	0.4	0.6	1	0.5	0.6	1.1

Channel	Corrected Conducted Power Port 1 (dBm)	Corrected Conducted Power Port 2 (dBm)	Corrected Conducted Power Port 3 (dBm)	Corrected Conducted Power Port 4 (dBm)	Port 1+2+3+4 Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	2.2	2.1	3.6	2.1	8.6	22.0	13.4	Complied
Middle	1.7	1.2	2.2	1.7	7.7	22.0	14.3	Complied
Top	1.5	1.0	1.0	1.1	7.2	22.0	14.8	Complied

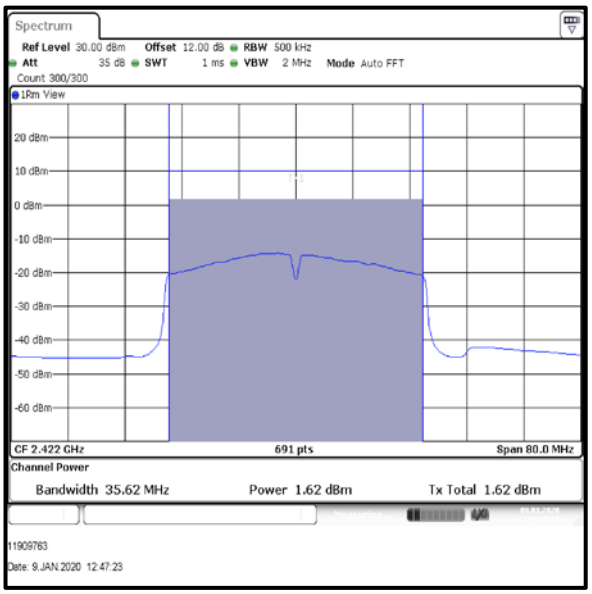
De Facto EIRP Limit Comparison

Channel	Port 1+2+3+4 Combined Conducted Power (dBm)	Directional Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	8.6	14.0	22.6	36.0	13.4	Complied
Middle	7.7	14.0	21.7	36.0	14.3	Complied
Top	7.2	14.0	21.2	36.0	14.8	Complied

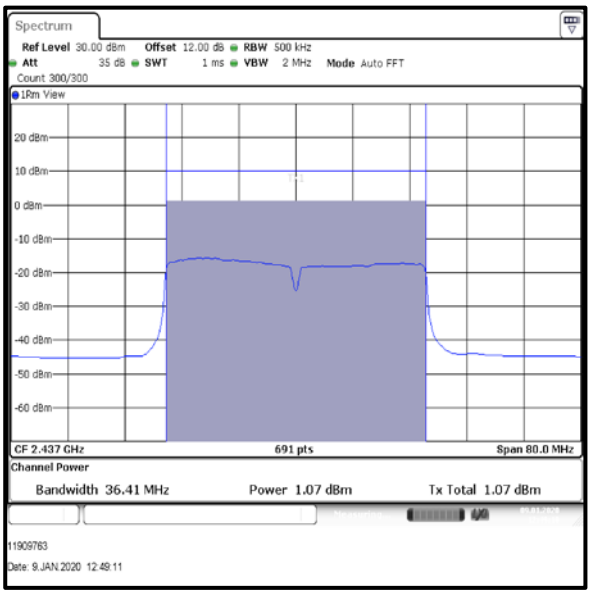
Result: Pass

Transmitter Maximum (Average) Output Power (continued)

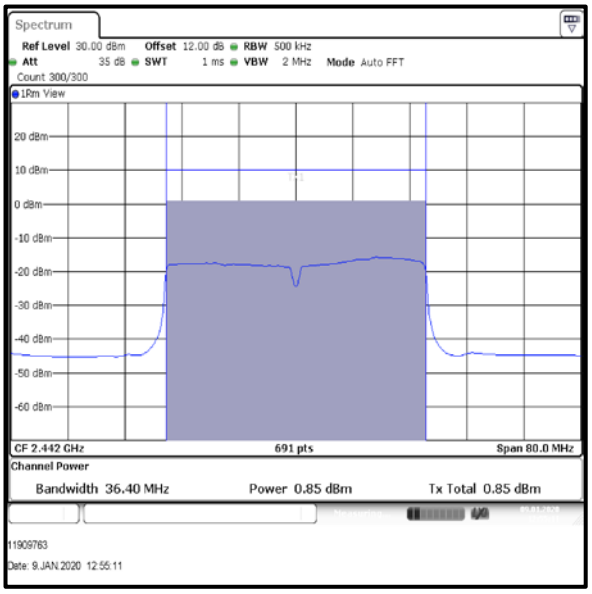
Results: 802.11n / HT40 / MCS0 / MIMO / Port 1 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



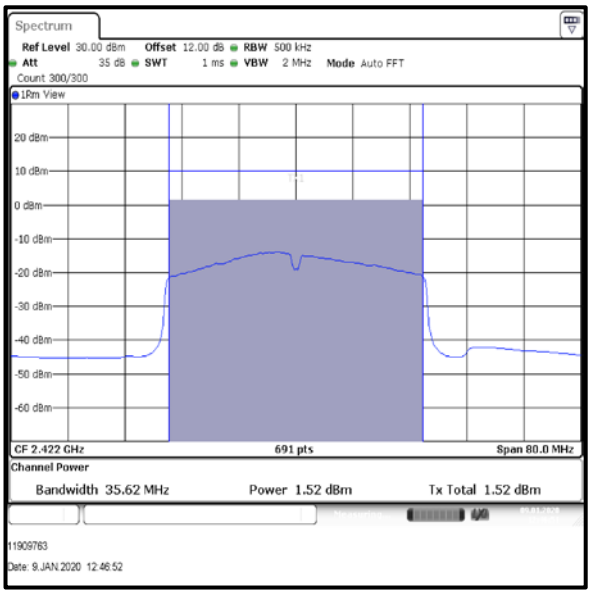
Middle Channel



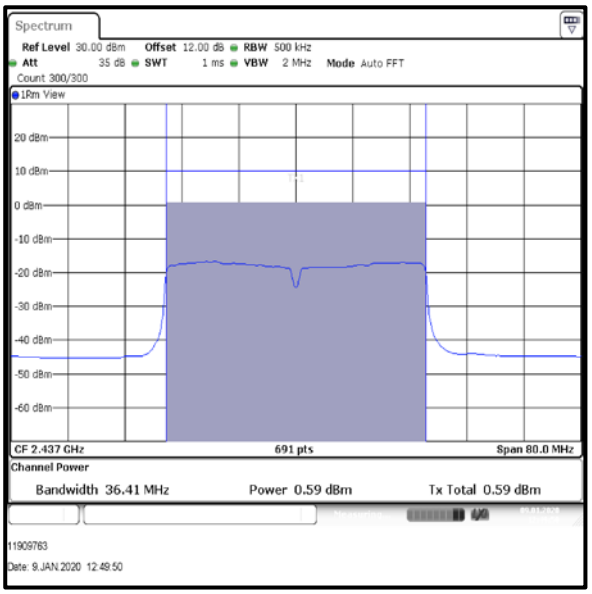
Top Channel

Transmitter Maximum (Average) Output Power (continued)

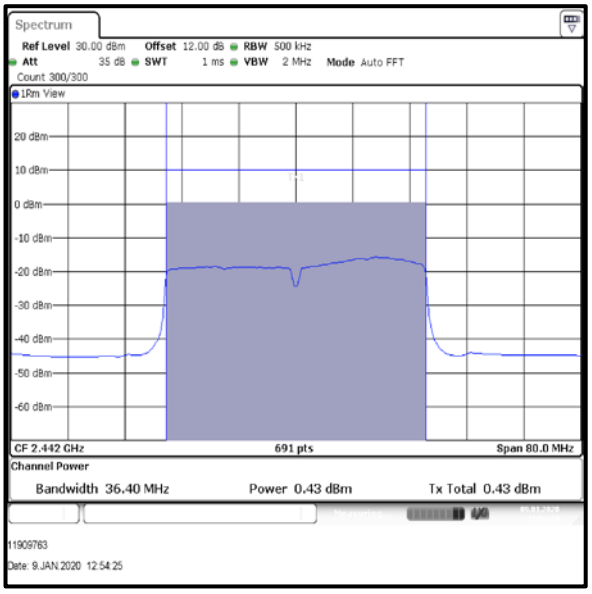
Results: 802.11n / HT40 / MCS0 / MIMO / Port 2 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



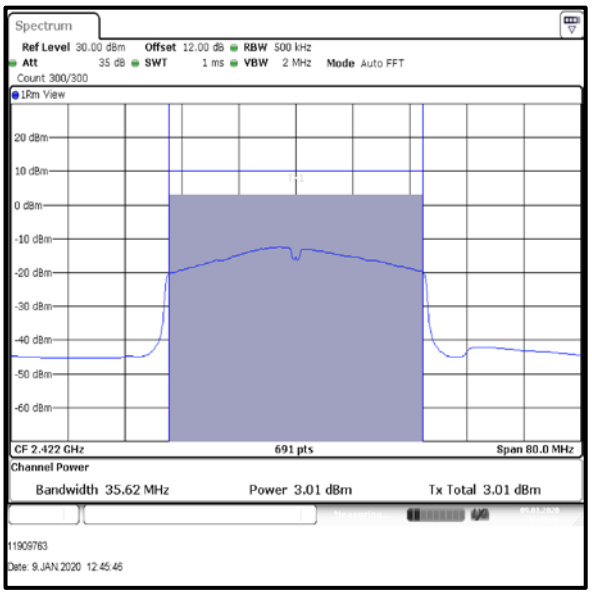
Middle Channel



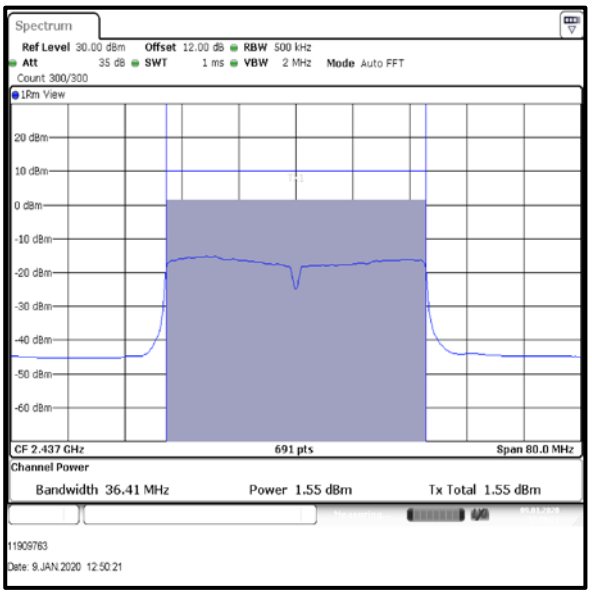
Top Channel

Transmitter Maximum (Average) Output Power (continued)

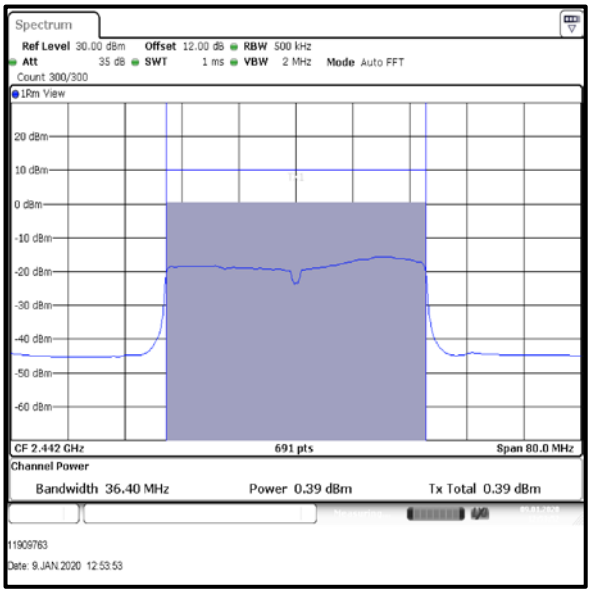
Results: 802.11n / HT40 / MCS0 / MIMO / Port 3 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



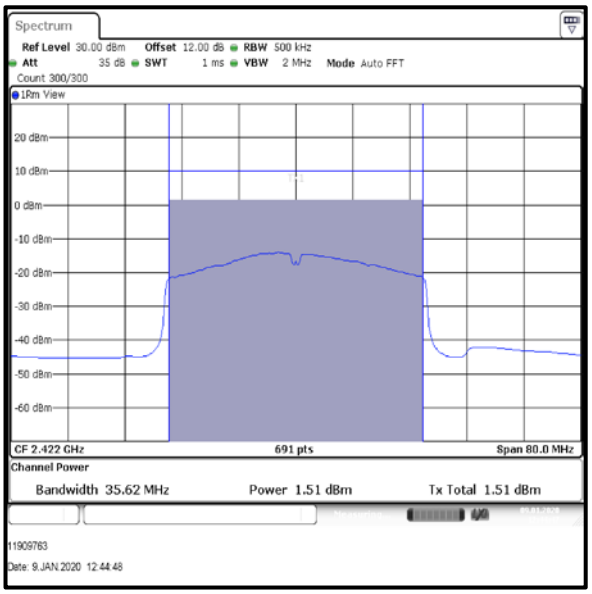
Middle Channel



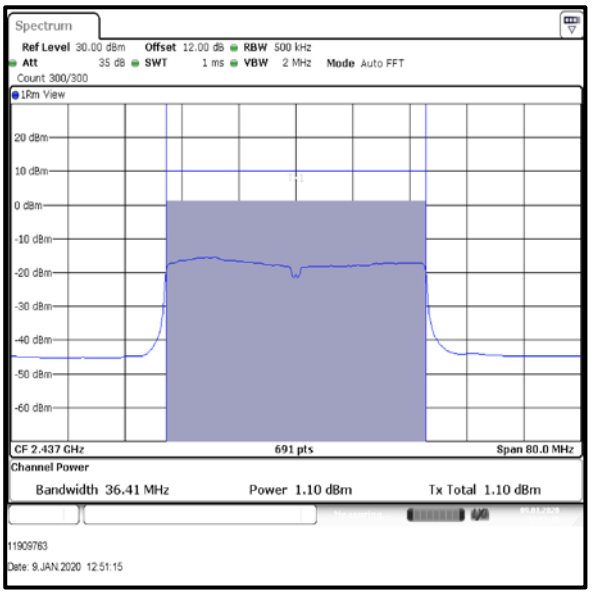
Top Channel

Transmitter Maximum (Average) Output Power (continued)

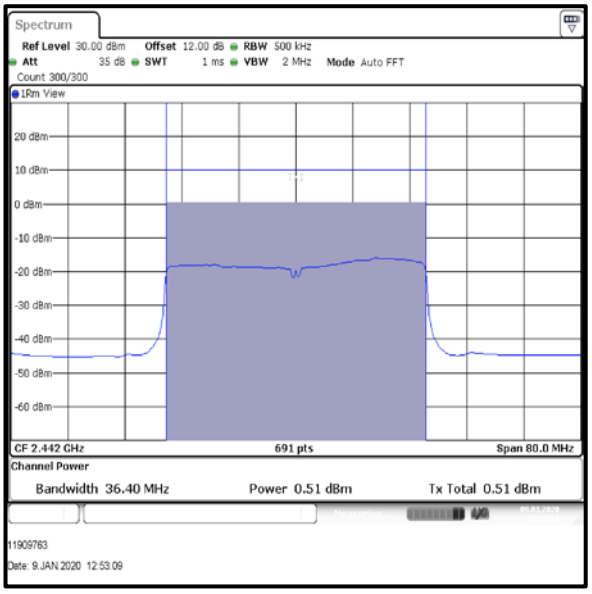
Results: 802.11n / HT40 / MCS0 / MIMO / Port 4 / PWL 7 / 14 dBi Antenna Group



Bottom Channel



Middle Channel



Top Channel

5.2.6. Transmitter Spurious Emissions (Conducted)

Test Summary:

Test Engineers:	Segun Adeniji & Abdoufataou Salifou	**Test Date:**	14 February 2019 & 02 August 2019
Test Sample Serial Number:	192.168.0.70		
Test Site Identification	SR 9		

FCC Reference:	Parts 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 refering ANSI C63.10 Sections 11.11 and 11.12.2.2 ANSI C63.10 Sections 6.7 FCC KDB 662911 D01 Section E)3)(iii) referring Section E)2)c)
Frequency Range	9 kHz to 1000 MHz

Environmental Conditions:

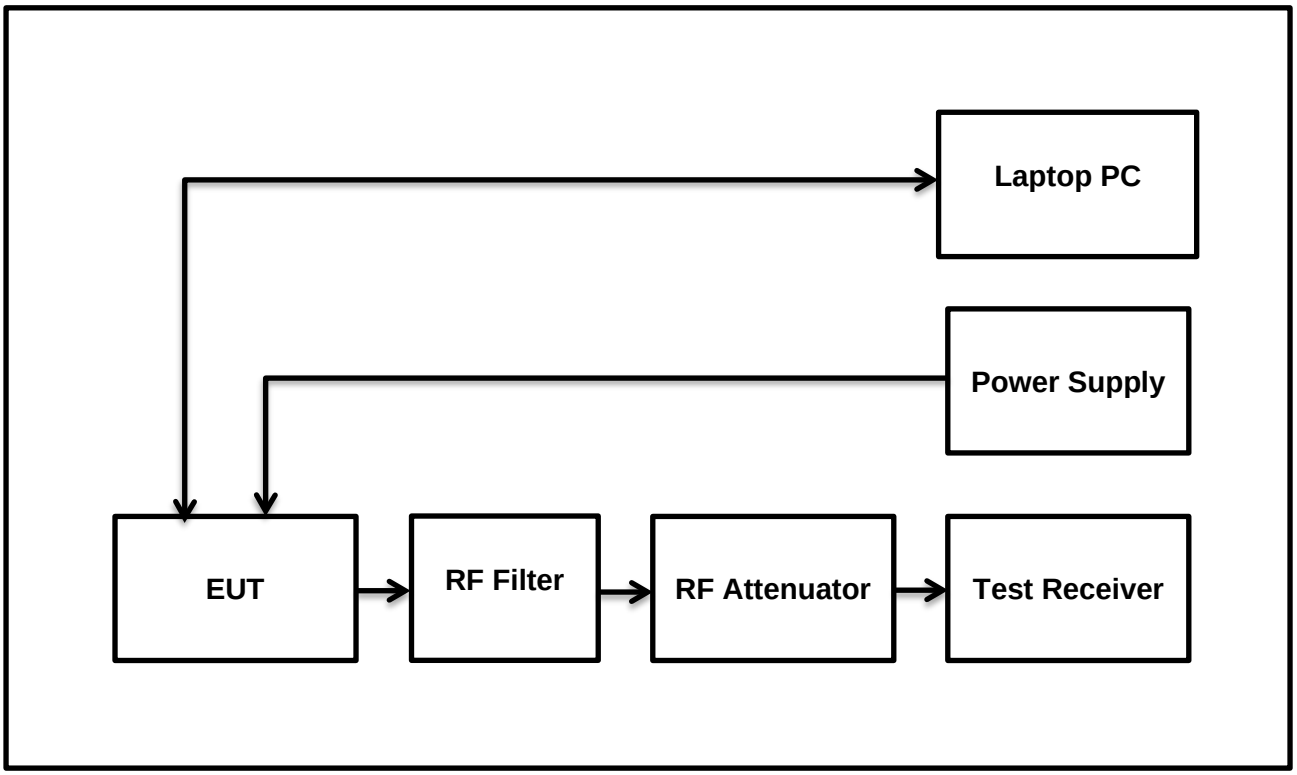
Temperature (°C):	24 & 22
Relative Humidity (%):	35 & 45

Notes:

1. Transmitter conducted spurious emissions tests were performed with the EUT transmitting in the worst case mode of the respective antenna port.
2. Maximum power setting (PWL) amongst all supported SISO & MIMO modes & listed antenna groups has been used.
3. Therefore, transmitter cabinet radiated emissions are valid for all supported Bandwidths, SISO- MIMO modes & listed antenna groups in this report.
4. The measurements were performed at the Port 1 of the EUT as this port was found to have the worst case in terms of power settings amongst all supported port combinations (SISO / MIMO) .
5. The worst case data rate was found to be MCS0 on the 40 MHz bandwidth amongst supported modes.
6. 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. The RF cable attenuation (maximum 2.0 dB@2.4GHz) from the EUT to Analyzer including the 10 dB attenuation at the Spectrum Analyzer input was added as a reference level offset (12.0 dB) to each of the conducted plots.
7. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final emissions measurements were performed with the EUT set to the middle channel only.
8. The test receiver resolution bandwidth was set to 100 kHz and video bandwidth 300 kHz. The sweep time was set to auto. A peak detector was used, sweep time was set to auto and trace mode was Max Hold.
9. The observed emissions levels (in dBm) are reported into the table.
10. According to ANSI C63.10 Section 11.12.2.2 c) a ground reflection factor was added.
11. Frequencies below 30 MHz: ground reflection factor of 4.7 dB
12. Frequencies between 30 MHz to 1000 MHz: ground reflection factor of 6.0 dB
13. Relevant directional Antenna Gain was added for each type of listed Antenna Groups.
14. According to FCC KDB 662911 D01 Section E)3)(iii) referring Section E)2)c); a factor 10 log(N_{ANT}) dB, (where N_{ANT} is the number of outputs) was added. Since the EUT has 4 MIMO ports a factor 6.02 dB was added .

15. The measurement which was performed conducted and measured in dBm was then converted to the field strength level so as to give a representation of what could have been measured in the shield room in a distance of 3 m if it were to be measured radiated. For this a correction factor has to be added to the EIRP (dBm) measured. This conversion factor of 95.2 (-20logd + 104.8) dB. Where d is 3 m. This is referred to as EIRP(dBm) to EIRP (dBμV) Factor in the result table below.
16. The result are then compared with the relevant restricted band limits over whole frequency range. Since the EUT complied to the spurious emission limit with peak detector, therefore no quasi-peak measurement was necessary according to ANSI C63.10.

Test Setup:



Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Peak Detector/ Middle Channel

9 kHz to 30 MHz

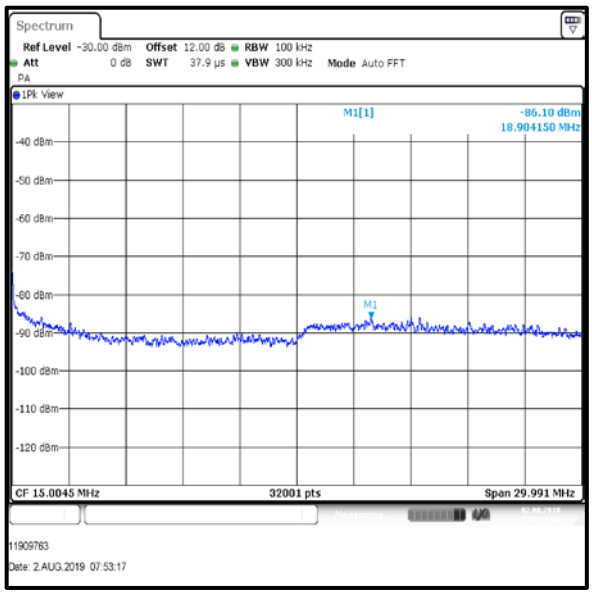
Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
No spurious emissions were detected					

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected						

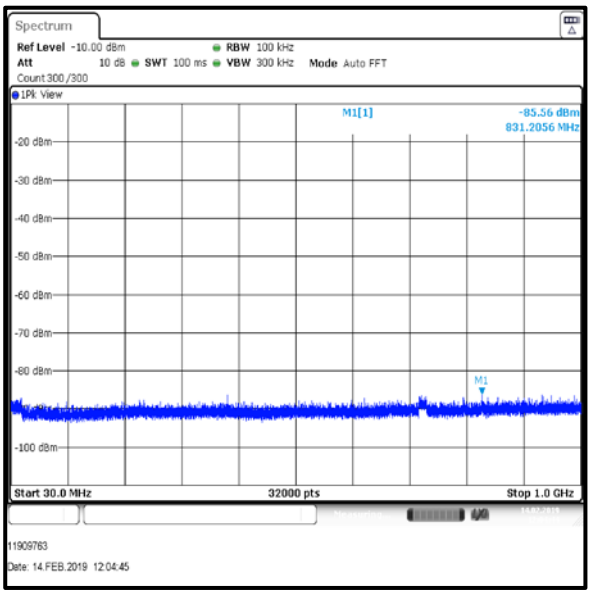
30 MHz to 1 GHz

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
No spurious emissions were detected					

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected						



Plot:9 kHz to 30 MHz



Plot:30 MHz to 1 GHz

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Result: Pass

Results: 802.11n / 40 MHz / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Peak Detector/ Middle Channel

9 kHz to 30 MHz

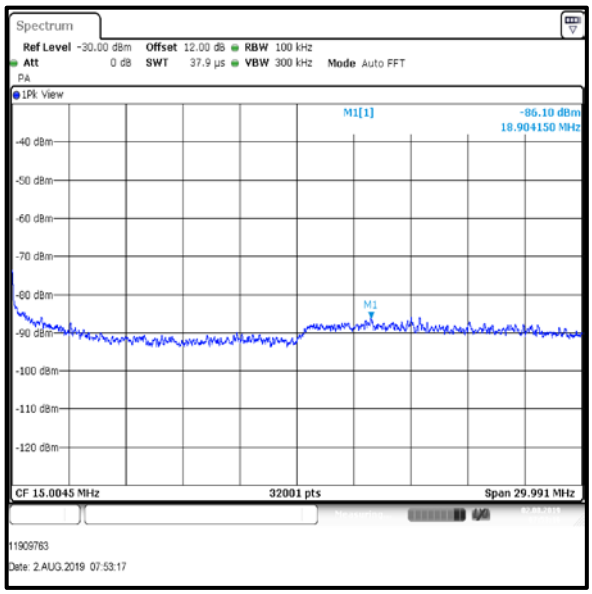
Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
No spurious missions were detected					

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected						

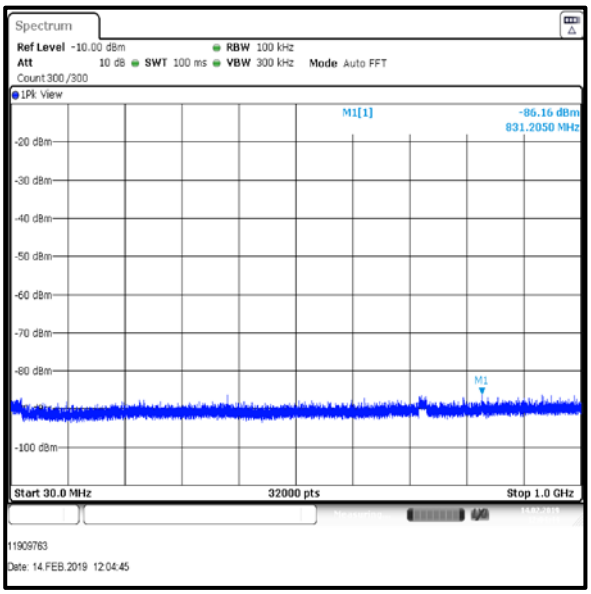
30 MHz to 1 GHz

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
No spurious emissions were detected					

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected						



Plot:9 kHz to 30 MHz



Plot:30 MHz to 1 GHz

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Result: Pass

Results: 802.11n / 40 MHz / MCS0 / Port 1 / PWL 15 / 14 dBi Antenna Group

Peak Detector/ Middle Channel

9 kHz to 30 MHz

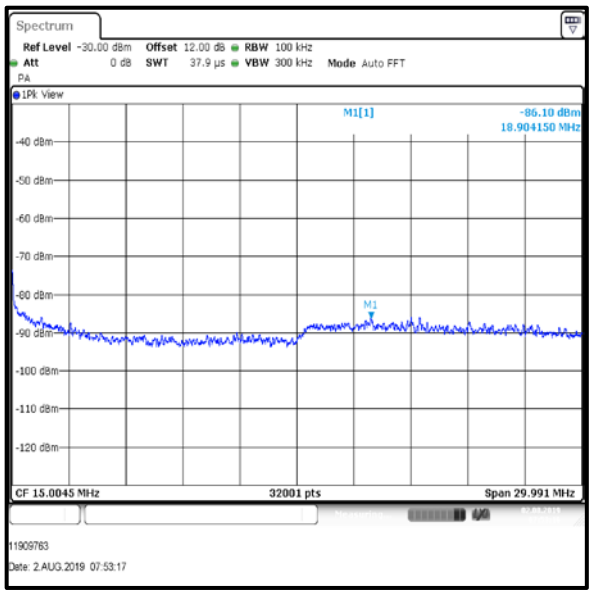
Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
No spurious emissions were detected					

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected						

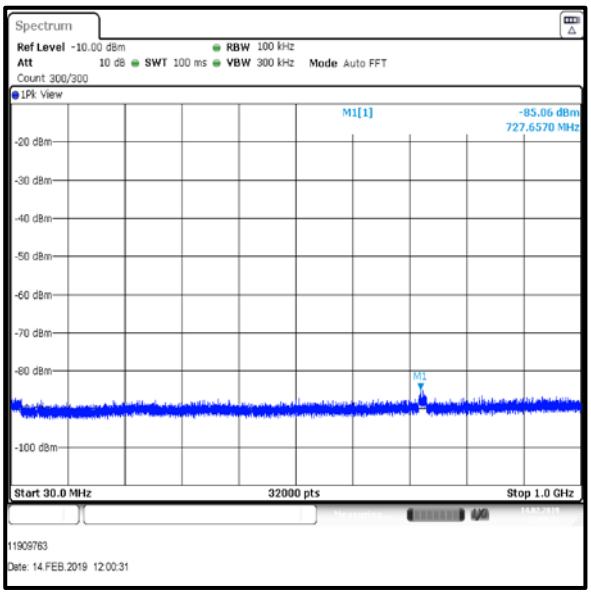
30 MHz to 1 GHz

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
No spurious emissions were detected					

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected						



Plot:9 kHz to 30 MHz



Plot:30 MHz to 1 GHz

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Result: Pass

Test Summary:

Test Engineer:	Segun Adeniji	**Test Date:**	09 January 2019
Test Sample Serial Number:	192.168.0.70		
Test Site Identification	SR 9		

FCC Reference:	Parts 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 refering ANSI C63.10 Sections 11.11 and 11.12.2.2 ANSI C63.10 Sections 6.7
Frequency Range	1 GHz to 25 GHz

Environmental Conditions:

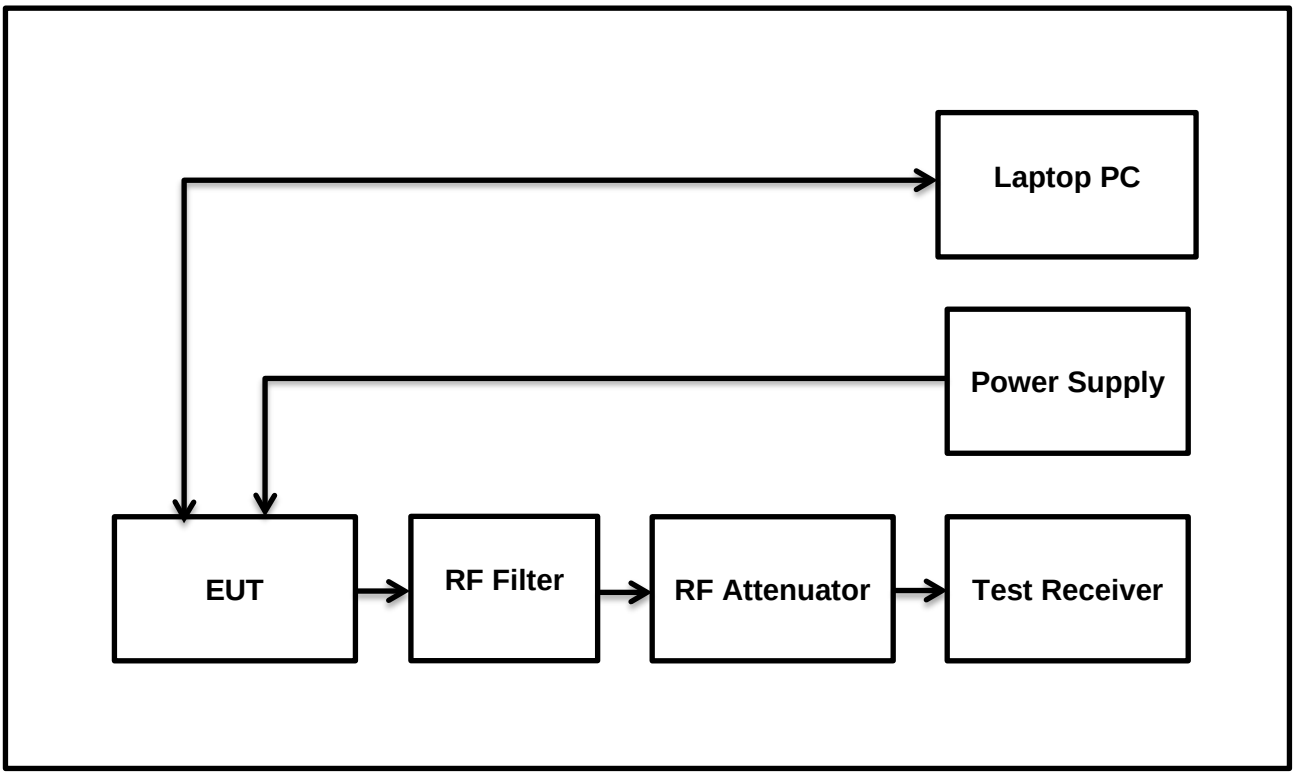
Temperature (°C):	24
Relative Humidity (%):	35

Notes:

1. Transmitter conducted spurious emissions tests were performed with the EUT transmitting in the worst case mode of the respective antenna port.
2. Maximum power setting (PWL) amongst all supported SISO & MIMO modes & listed antenna groups has been used.
3. Therefore, transmitter cabinet radiated emissions are valid for all supported Bandwidths, SISO- MIMO modes & listed antenna groups in this report.
4. The measurements were performed at the Port 1 of the EUT as this port was found to have the worst case in terms of power settings amongst all supported port combinations (SISO / MIMO) .
5. The worst case data rate was found to be MCS0 on the 40 MHz bandwidth amongst supported modes.
6. 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. The RF cable attenuation (maximum 2.0 dB@2.4GHz) from the EUT to Analyzer including the 10 dB attenuation at the Spectrum Analyzer input was added as a reference level offset (12.0 dB) to each of the conducted plots.
7. The test receiver resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. The sweep time was set to auto. For the peak measurement, A peak detector was used and trace mode was Max Hold while for the average measurement, an RMS detector with power averaging was used.
8. According to ANSI C63.10 Section 11.12.2.2 c) a ground reflection factor of 0 dB was added.
9. Relevant directional Antenna Gain was added for each type of listed Antenna Groups.
10. According to FCC KDB 662911 D01 Section E)3)(iii) referring Section E)2)c); a factor 10 log(N_{ANT}) dB, (where N_{ANT} is the number of outputs) was added. Since the EUT has 4 MIMO ports a factor 6.02 dB was added .
11. The measurement which was performed conducted and measured in dBm was then converted to the field strength level so as to give a representation of what could have been measured in the shield room in a distance of 3 m if it were to be measured radiated. For this a correction factor has to be added to the EIRP (dBm) measured. This conversion factor of 95.2 (-20logd + 104.8) dB. Where d is 3 m. This is referred to as EIRP(dBm) to EIRP (dBμV) Factor in the result table below.
12. All emissions shown on the pre-scan plot were investigated and found to be below the applicable limit.
13. The emissions shown at frequencies between approximately 2412 MHz to 2462 MHz on the 1 GHz to 4 GHz plots are the EUT fundamental for the given channel.

14. The result are then compared with the relevant restricted band limits (peak 74 dBμV/m and average method measurement of 54 dBμV/m) over whole frequency range.
15. In accordance with ANSI C63.10 Section 6.6.4.3 (Note 1), if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

Transmitter Spurious Emissions (Conducted)
Test Setup:



Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Peak Detector/ Bottom Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4832.6	-50.66	0.0	6.0	6.02	-38.64
7270.45	-53.96	0.0	6.0	6.02	-41.94

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4832.6	-38.64	95.2	56.56	74	17.44	Complied

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
7270.45	-41.94	95.2	53.26	54	0.74	Complied

802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

RMS Detector/ Bottom Channel

Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4836.3	-67.23	0.61	0.0	6.0	6.02	-54.6

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4836.3	-54.6	95.2	40.6	54	13.4	Complied

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Peak Detector/ Middle Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4846.95	-51.73	0.0	6.0	6.02	-39.71
7269.1	-53.56	0.0	6.0	6.02	-41.54

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4846.95	-39.71	95.2	55.49	74	18.51	Complied

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
7269.1	-41.54	95.2	53.66	54	0.34	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

RMS Detector/ Middle Channel

Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4862.17	-65.21	0.61	0.0	6.0	6.02	-52.58

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4862.17	-52.58	95.2	42.62	54	11.38	Complied

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Peak Detector/ Top Channel

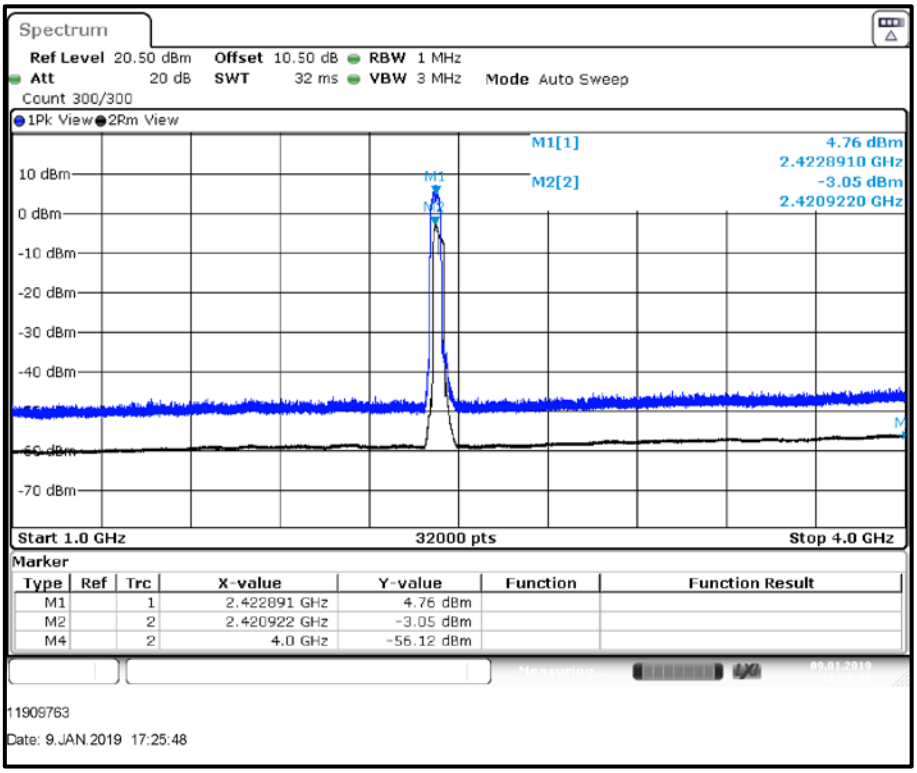
Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4886.7	-58.3	0.0	6.0	6.02	-46.28
7330.8	-56.58	0.0	6.0	6.02	-44.56

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBµV/m) Factor	Converted Field Strength Peak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
4886.7	-46.28	95.2	48.92	54	5.08	Complied
7330.8	-44.56	95.2	50.64	54	3.36	Complied

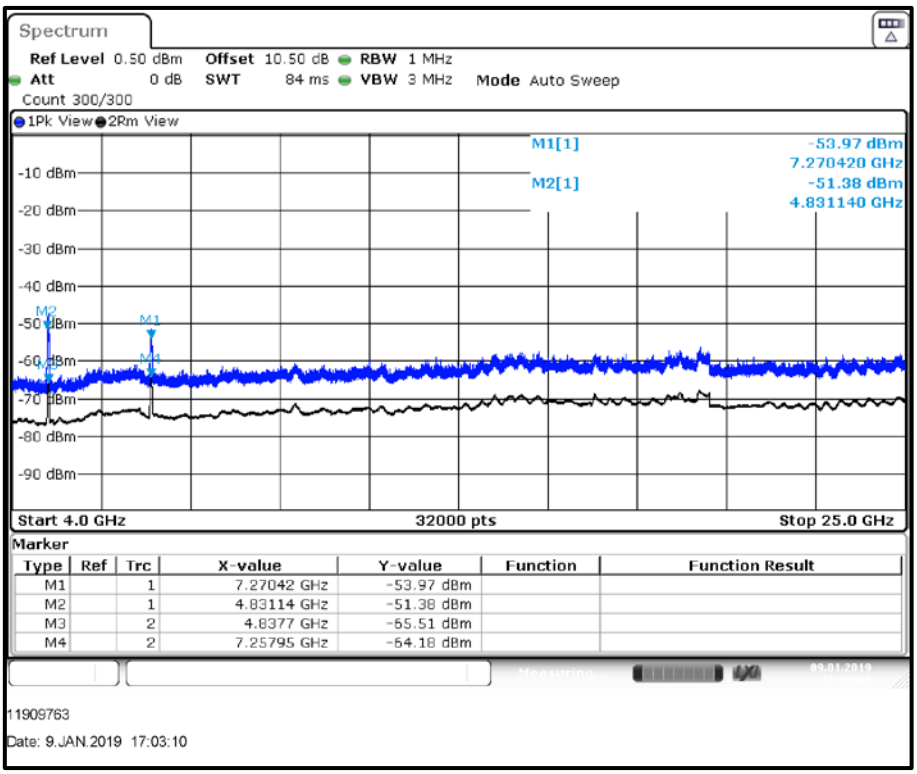
Result: Pass

Plots: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Bottom Channel



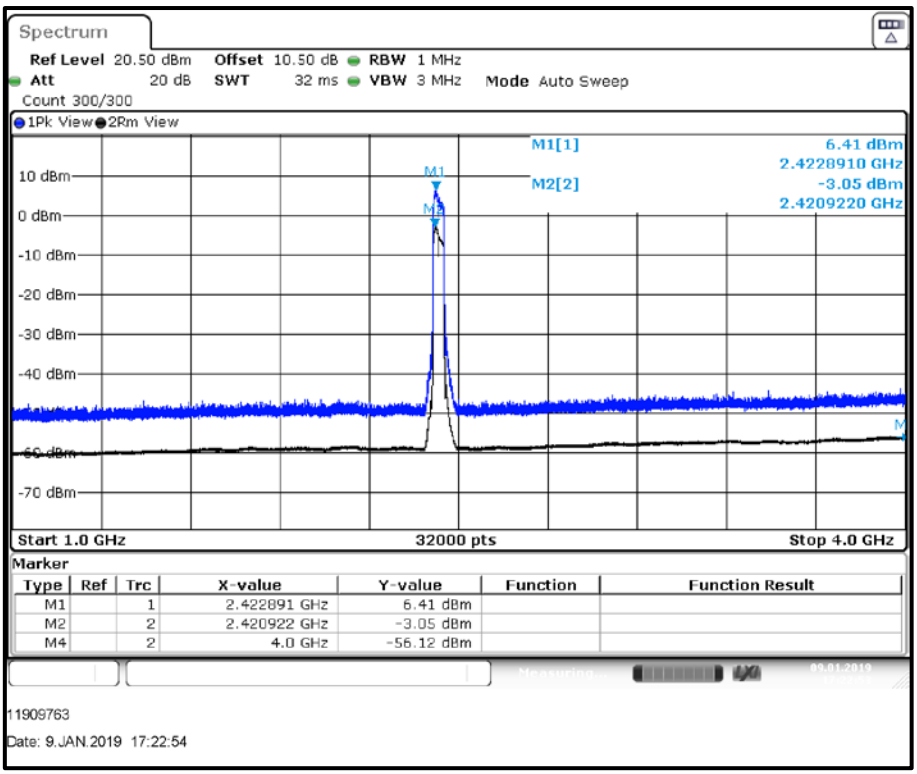
Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Bottom Channel



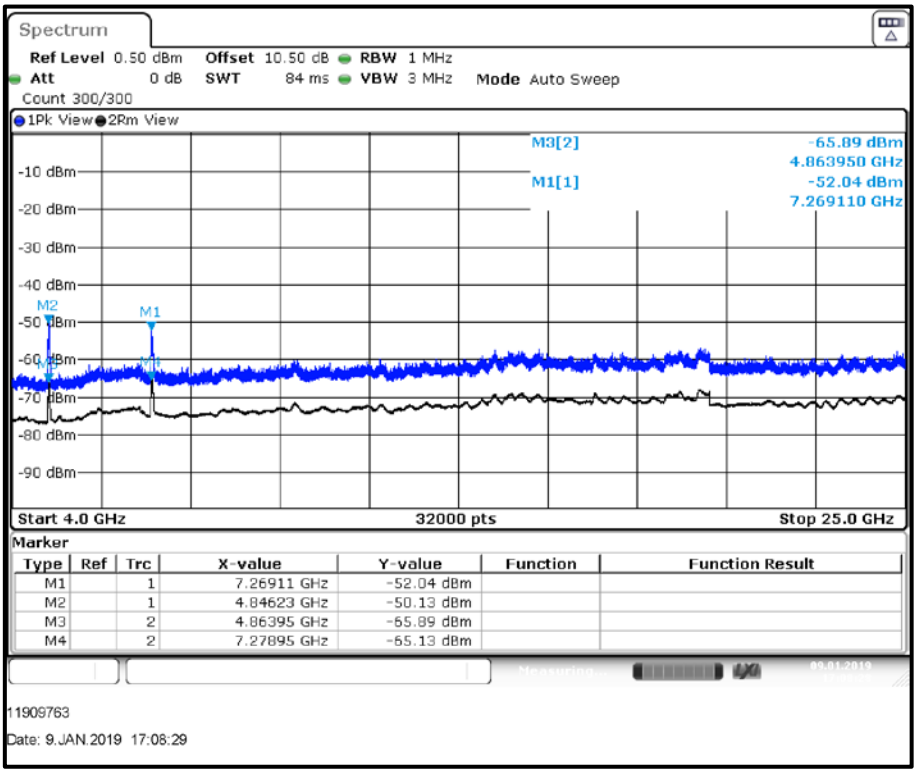
Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Plots: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Middle Channel



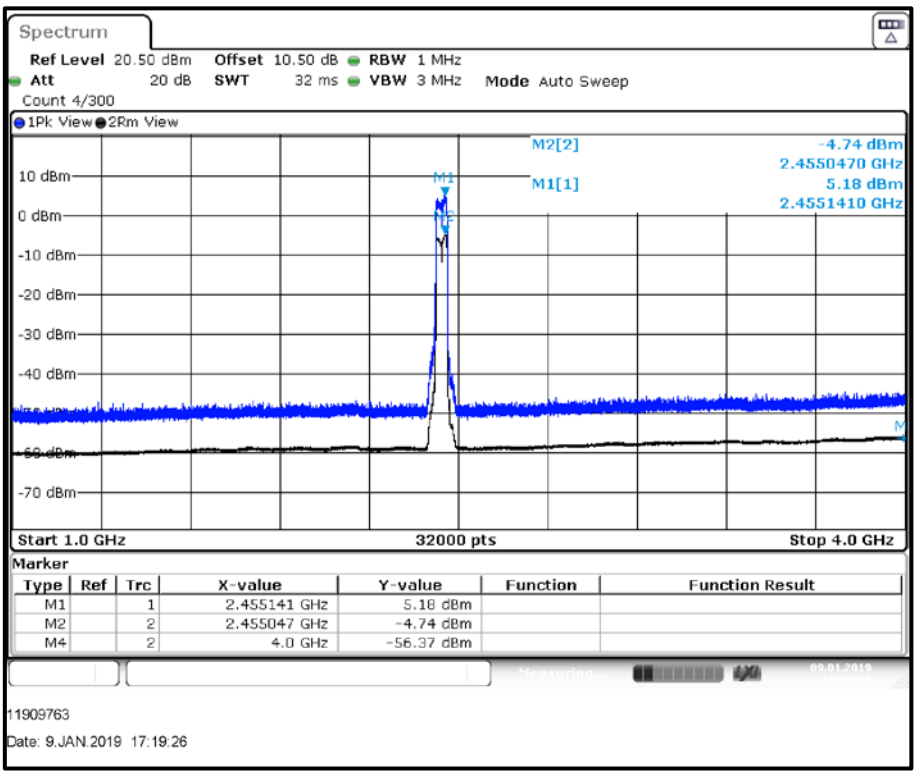
Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Middle Channel



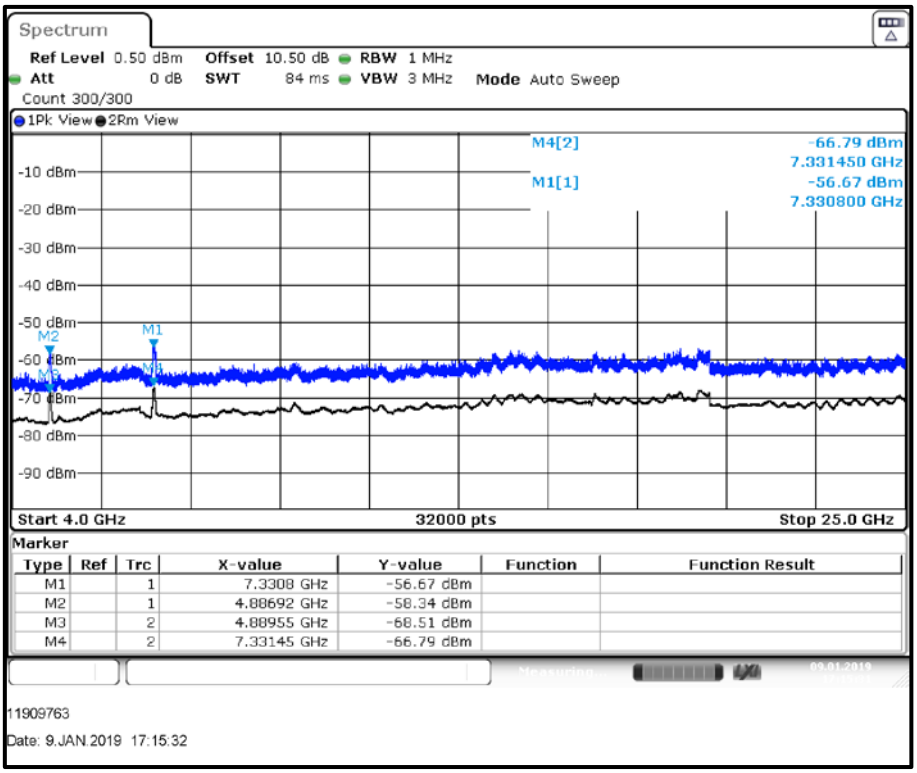
Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Plots: 802.11n / HT40 / MCS0 / Port 1 / PWL 12 / 6 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Top Channel



Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Top Channel



Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Peak Detector/ Bottom Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4844.3	-50.43	0.0	9.0	6.02	-35.41
7251.6	-48.32	0.0	9.0	6.02	-33.3

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4844.6	-35.41	95.2	59.79	74	14.21	Complied
7251.6	-33.3	95.2	61.9	74	12.1	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

RMS Detector/ Bottom Channel

Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4844.26	-64.73	0.61	0.0	9.0	6.02	-49.1
7268.39	-62.89	0.61	0.0	9.0	6.02	-47.26

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4844.26	-49.1	95.2	46.1	54	7.9	Complied
7268.39	-47.26	95.2	47.94	54	6.06	Complied

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Peak Detector/ Middle Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4842.39	-51.8	0.0	9.0	6.02	-36.78
7271.83	-48.15	0.0	9.0	6.02	-33.13

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4842.39	-36.78	95.2	58.42	74	15.58	Complied
7271.83	-33.13	95.2	62.07	74	11.93	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

RMS Detector/ Middle Channel

Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4851.50	-62.18	0.61	0.0	9.0	6.02	-46.55
7277.6	-61.43	0.61	0.0	9.0	6.02	-45.8

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4837.7	-46.55	95.2	48.65	54	5.35	Complied
7277.6	-45.8	95.2	49.4	54	4.6	Complied

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Peak Detector/ Top Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4905.17	-51.58	0.0	9.0	6.02	-36.56
7347.98	-50.42	0.0	9.0	6.02	-35.4

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4905.17	-36.56	95.2	58.64	74	15.36	Complied
7347.98	-35.4	95.2	59.80	74	14.20	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

RMS Detector/ Top Channel

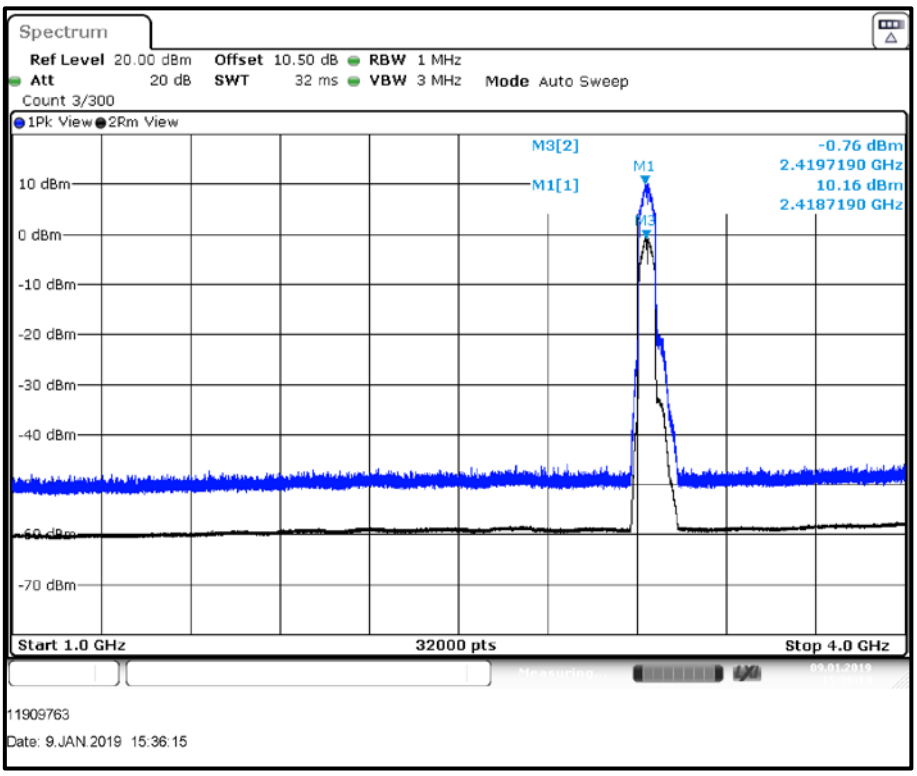
Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4881.0	-65.5	0.61	0.0	9.0	6.02	-49.87
7332.80	-66.17	0.61	0.0	9.0	6.02	-50.54

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4881.0	-49.87	95.2	45.33	54	8.67	Complied
7332.80	-50.54	95.2	44.66	54	9.34	Complied

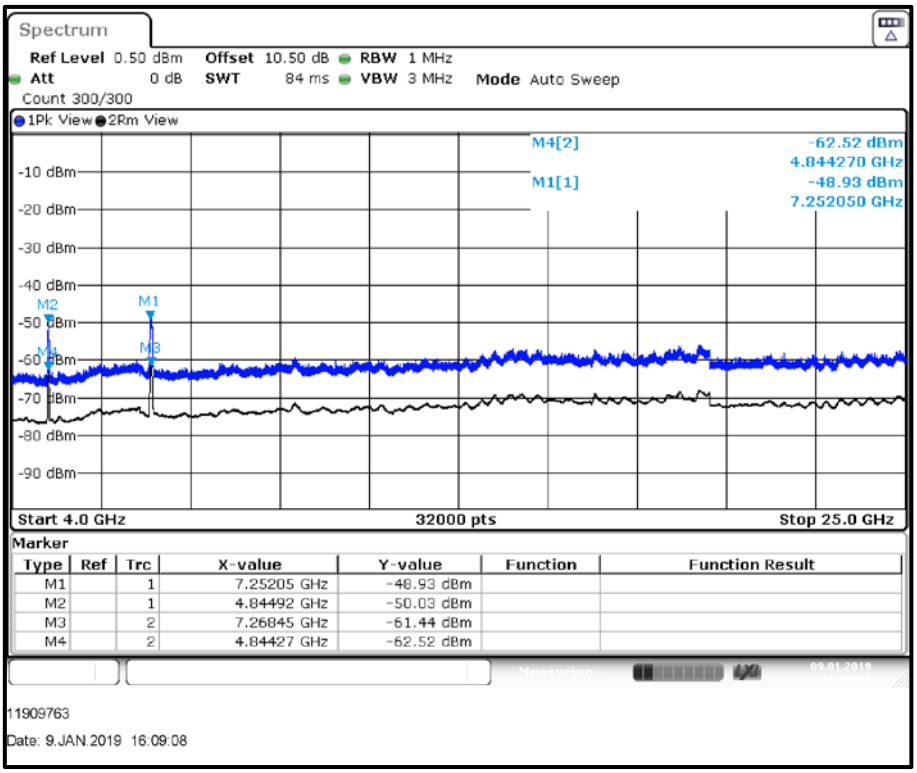
Result: Pass

Plots: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Bottom Channel



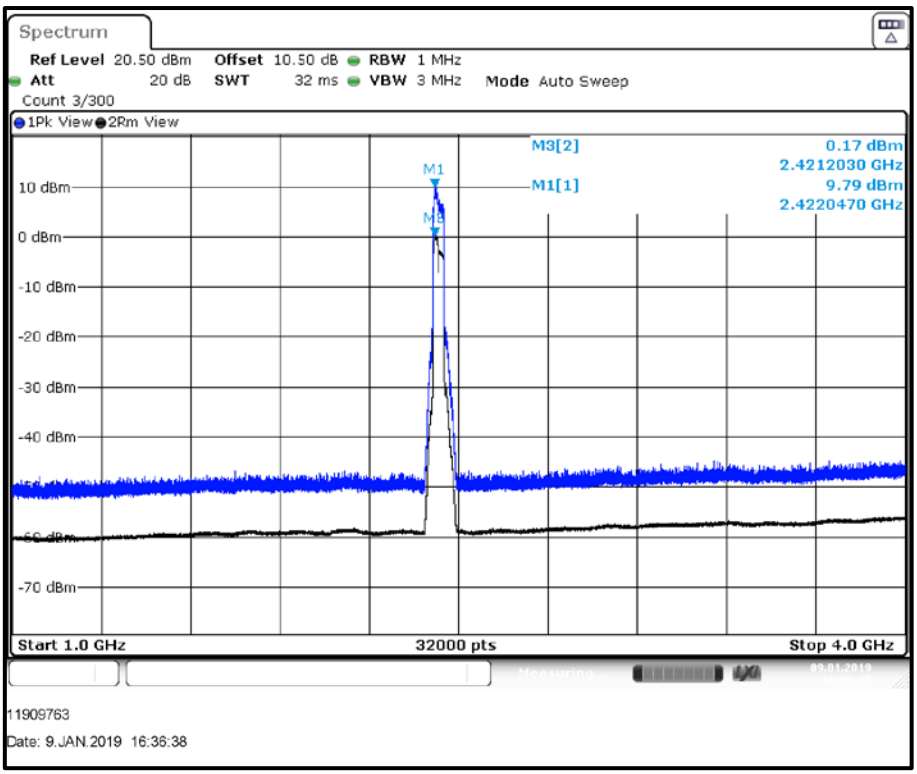
Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Bottom Channel



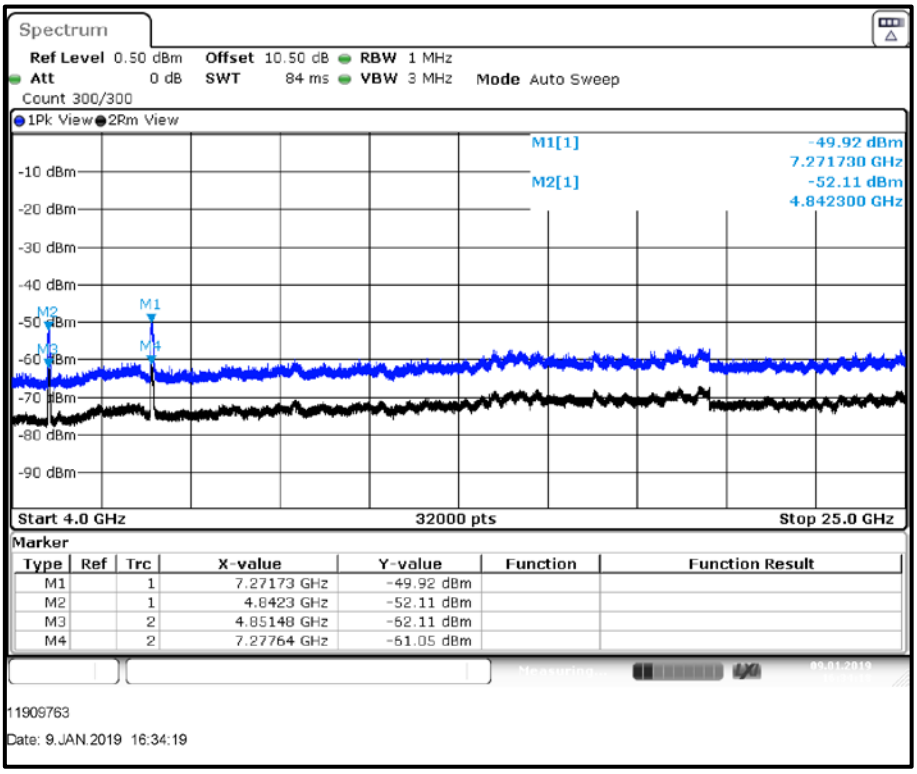
Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Plots: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Middle Channel



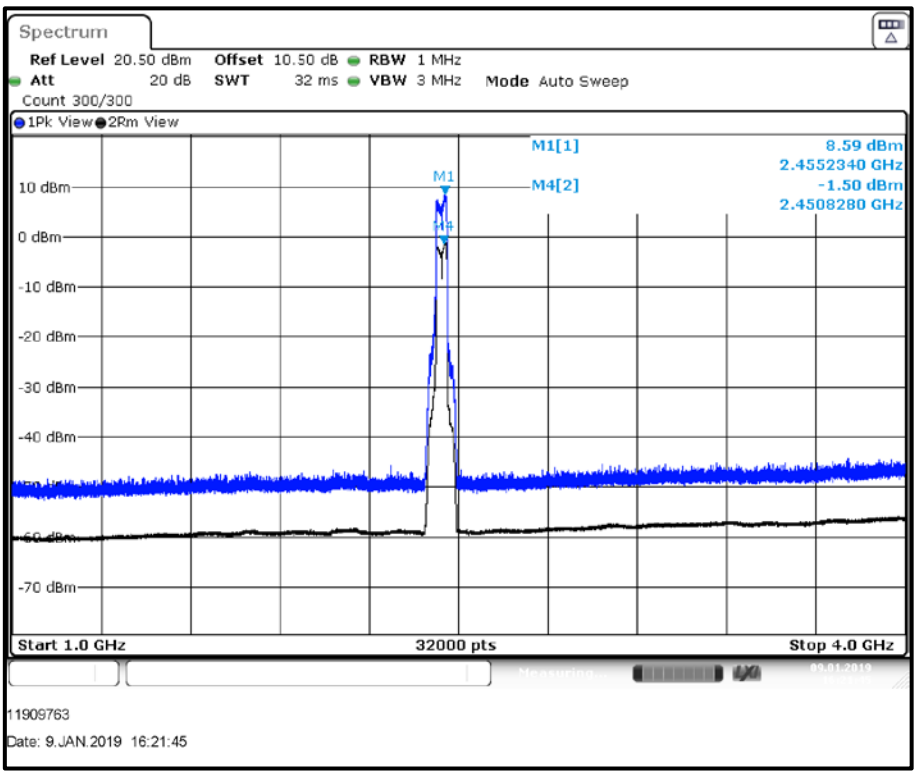
Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Middle Channel



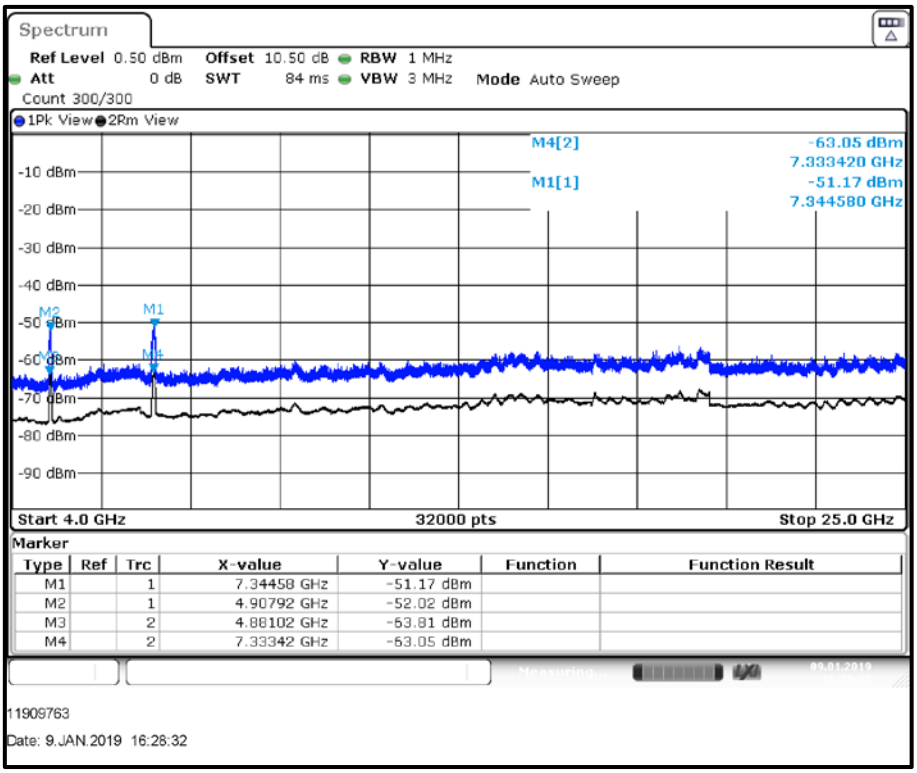
Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Plots: 802.11n / HT40 / MCS0 / Port 1 / PWL 15 / 9 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Top Channel



Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Top Channel



Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

Peak Detector/ Bottom Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4855.5	-53.36	0.0	14.0	6.02	-33.34
7265.0	-51.07	0.0	14.0	6.02	-31.05

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4855.5	-33.34	95.2	61.86	74	12.14	Complied
7265.0	-31.05	95.2	64.15	74	9.85	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

RMS Detector/ Bottom Channel

Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4842.8	-70.89	0.61	0.0	14.0	6.02	-50.26
7257.8	-68.44	0.61	0.0	14.0	6.02	-47.81

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4842.8	-50.26	95.2	44.94	54	9.06	Complied
7257.8	-47.81	95.2	47.39	54	6.61	Complied

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

Peak Detector/ Middle Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4859.7	-57.00	0.0	14.0	6.02	-36.98
7269.5	-55.18	0.0	14.0	6.02	-35.16

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4859.7	-36.98	95.2	58.22	74	15.78	Complied
7269.5	-35.16	95.2	60.04	74	13.96	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

RMS Detector/ Middle Channel

Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4868.0	-69.15	0.61	0.0	14.0	6.02	-48.52
7285.3	-68.1	0.61	0.0	14.0	6.02	-47.47

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4868.0	-48.52	95.2	46.68	54	7.32	Complied
7285.3	-47.47	95.2	47.73	54	6.27	Complied

Transmitter Spurious Emissions (Conducted)

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

Peak Detector/ Top Channel

Frequency (MHz)	Analyzer Peak Level (dBm)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected Peak Level (dBm)
4885.7	-49.82	0.0	14.0	6.02	-29.80
7336.9	-56.9	0.0	14.0	6.02	-36.88

Frequency (MHz)	Corrected Peak Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength Peak Level (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)	Result
4885.7	-29.80	95.2	65.4	74	8.6	Complied
7336.9	-36.88	95.2	58.32	74	15.68	Complied

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

RMS Detector/ Top Channel

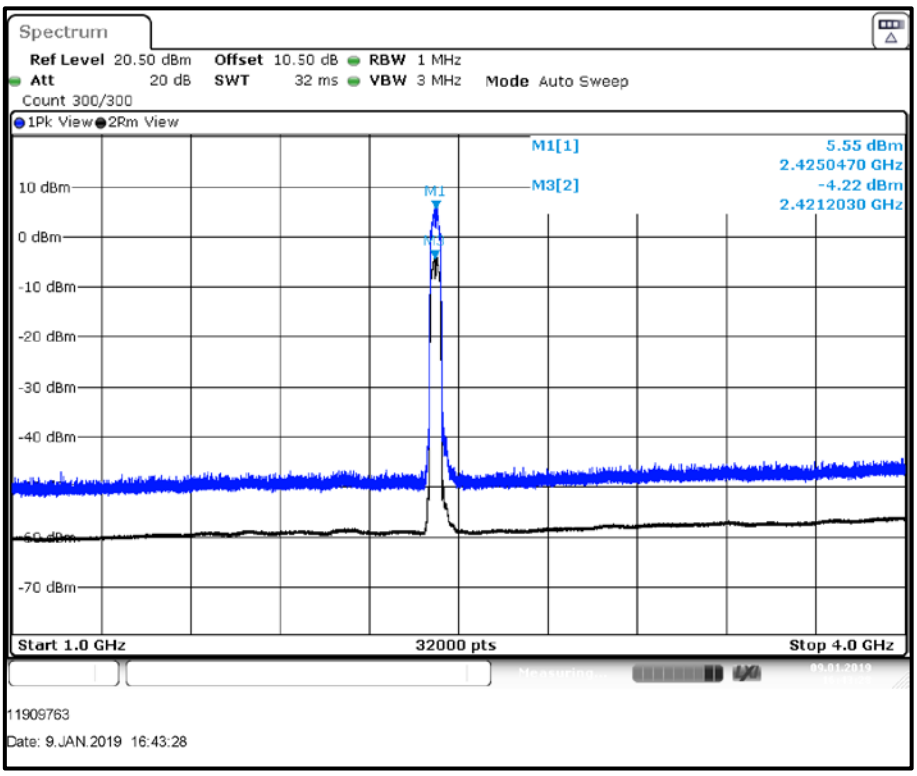
Frequency (MHz)	Analyzer RMS Level (dBm)	Duty Cycle Correction Factor(dB)	Ground Reflection Factor (dB)	Antenna Gain (dBi)	4-Port MIMO Antenna Factor (dB)	Corrected RMS Level (dBm)
4875.9	-68.41	0.61	0.0	14.0	6.02	-47.78
7332.5	-68.1	0.61	0.0	14.0	6.02	-47.47

Frequency (MHz)	Corrected RMS Level (dBm)	EIRP(dBm) to EIRP (dBμV/m) Factor	Converted Field Strength RMS Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
4875.9	-47.78	95.2	47.42	54	6.58	Complied
7332.5	-47.47	95.2	47.73	54	6.27	Complied

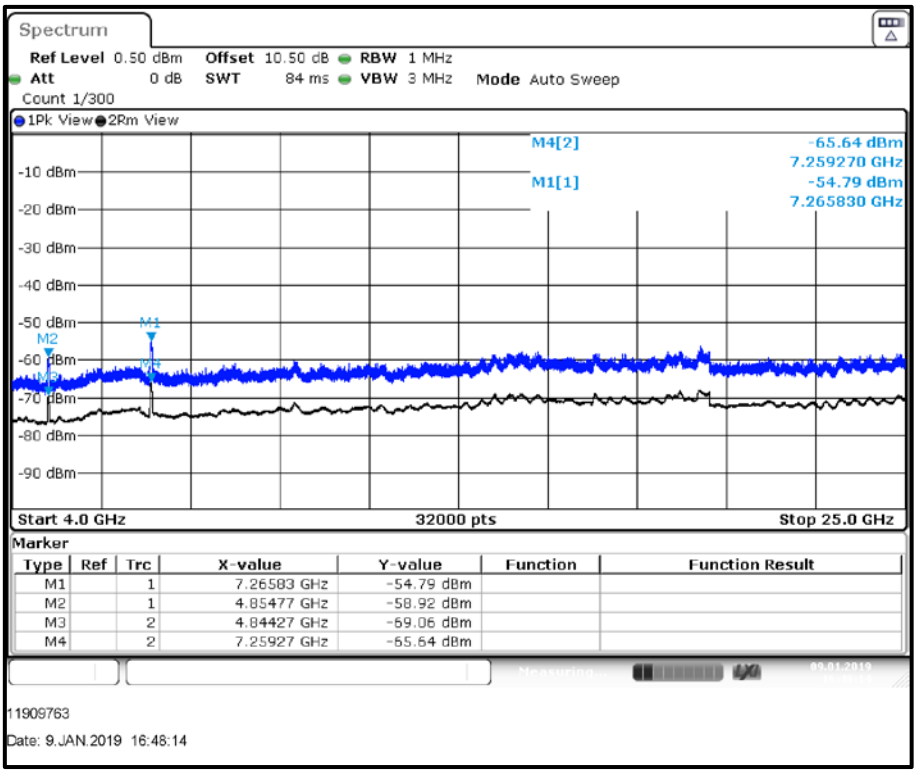
Result: Pass

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Bottom Channel



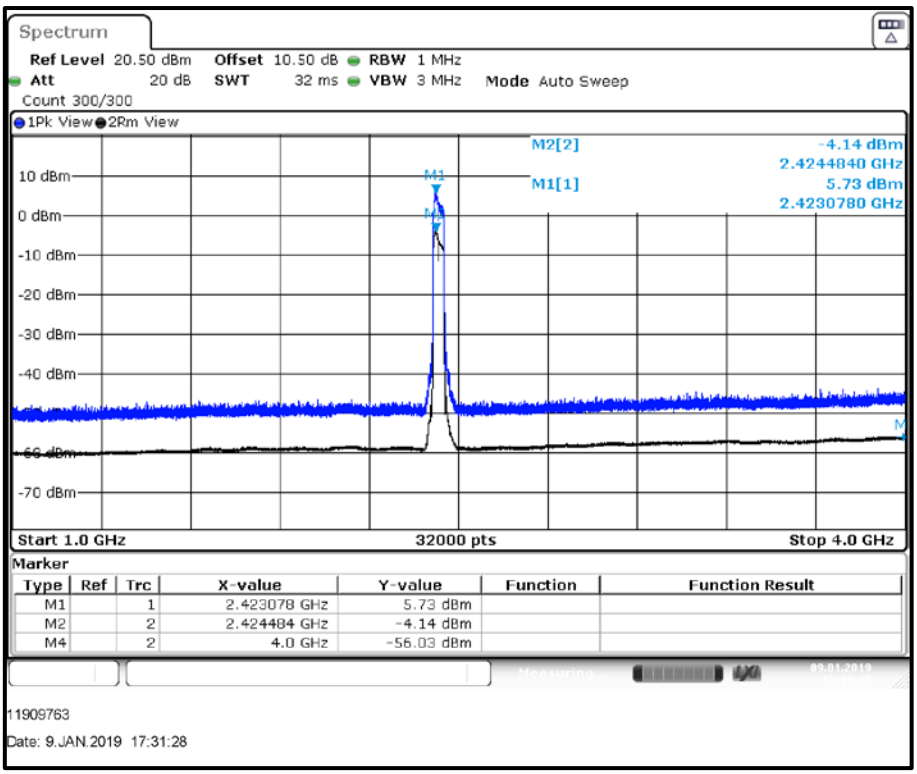
Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Bottom Channel



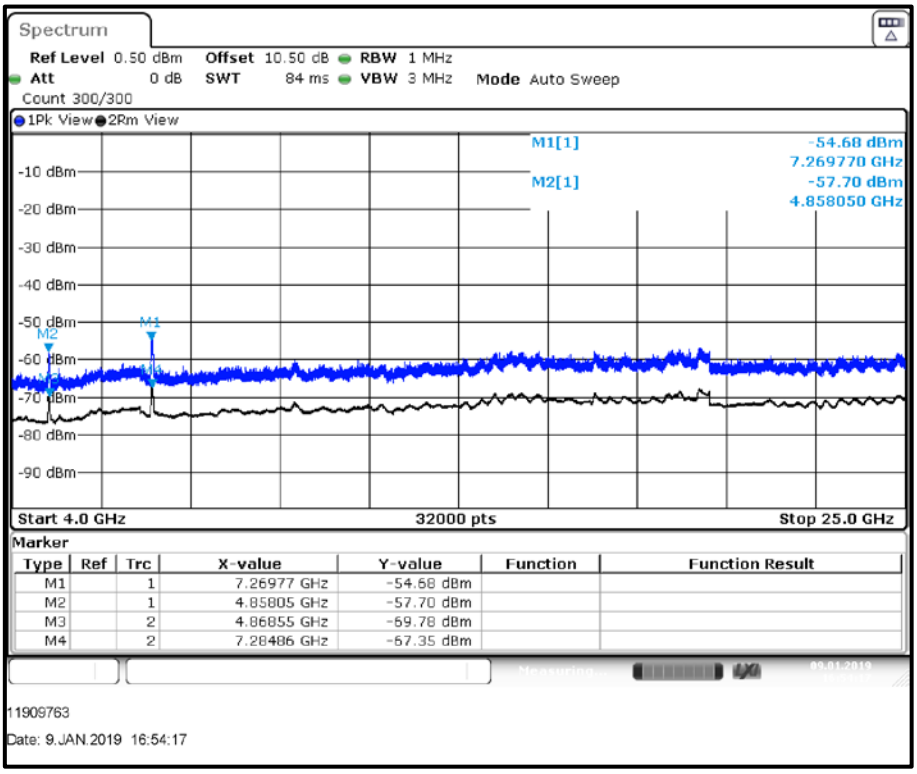
Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Middle Channel



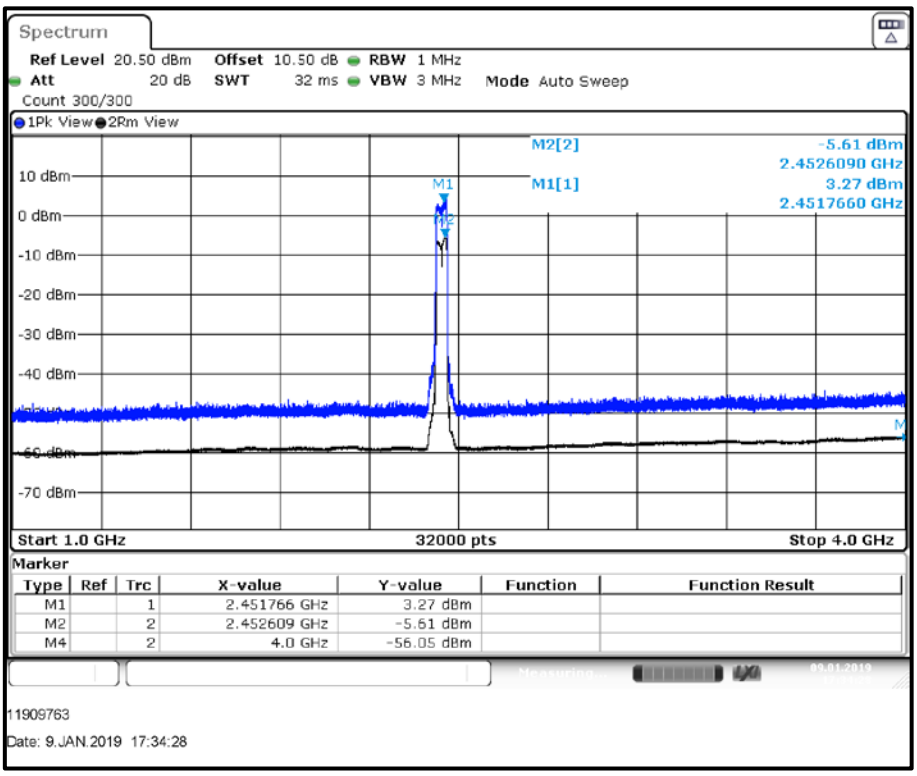
Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Middle Channel



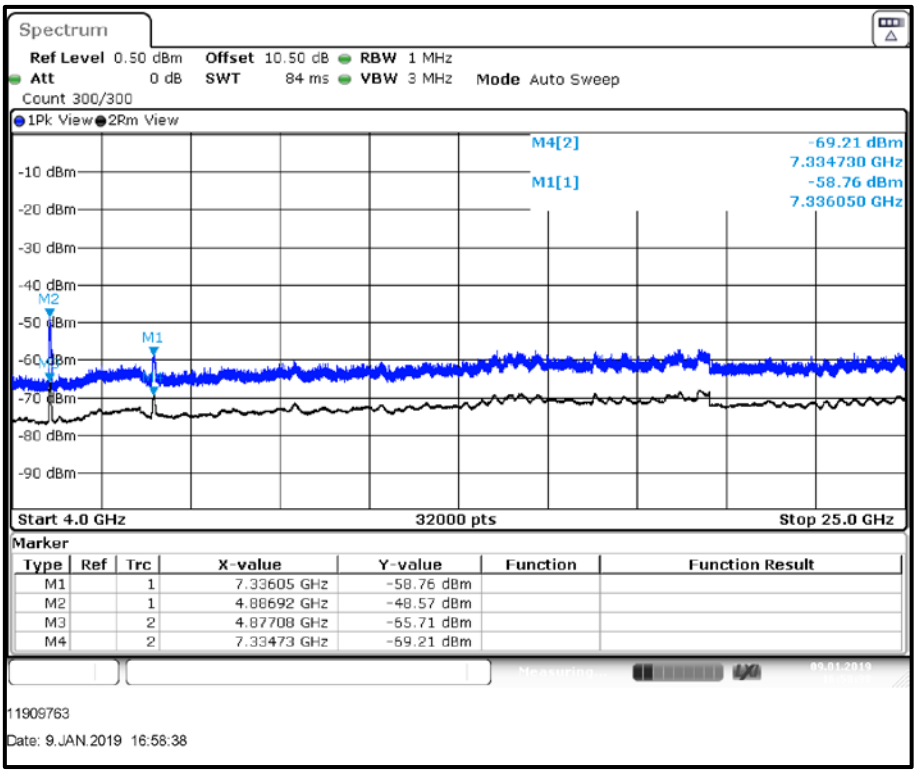
Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

Results: 802.11n / HT40 / MCS0 / Port 1 / PWL 11 / 14 dBi Antenna Group

Transmitter Spurious Emissions (Conducted) Plot from 1 GHz to 4 GHz / Top Channel



Transmitter Spurious Emissions (Conducted) Plot from 4 GHz to 25 GHz / Top Channel



Segmented scan plots with peak and average method. Note that they are for indication purposes only therefore for final measurements results, see accompanying tables.

5.2.7. Transmitter Cabinet Radiated Emissions

Test Summary:

Test Engineer:	Krume Ivanov	**Test Date:**	14 December 2018
Test Sample Serial Number:	192.168.0.176		
Test Site Identification	SR 1/2		

FCC Reference:	Parts 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 refering ANSI C63.10 Sections 11.11 and 11.12.2.1 ANSI C63.10 Sections 6.3, 6.4 and 12.7.4.2a)
Frequency Range	9 kHz to 30 MHz

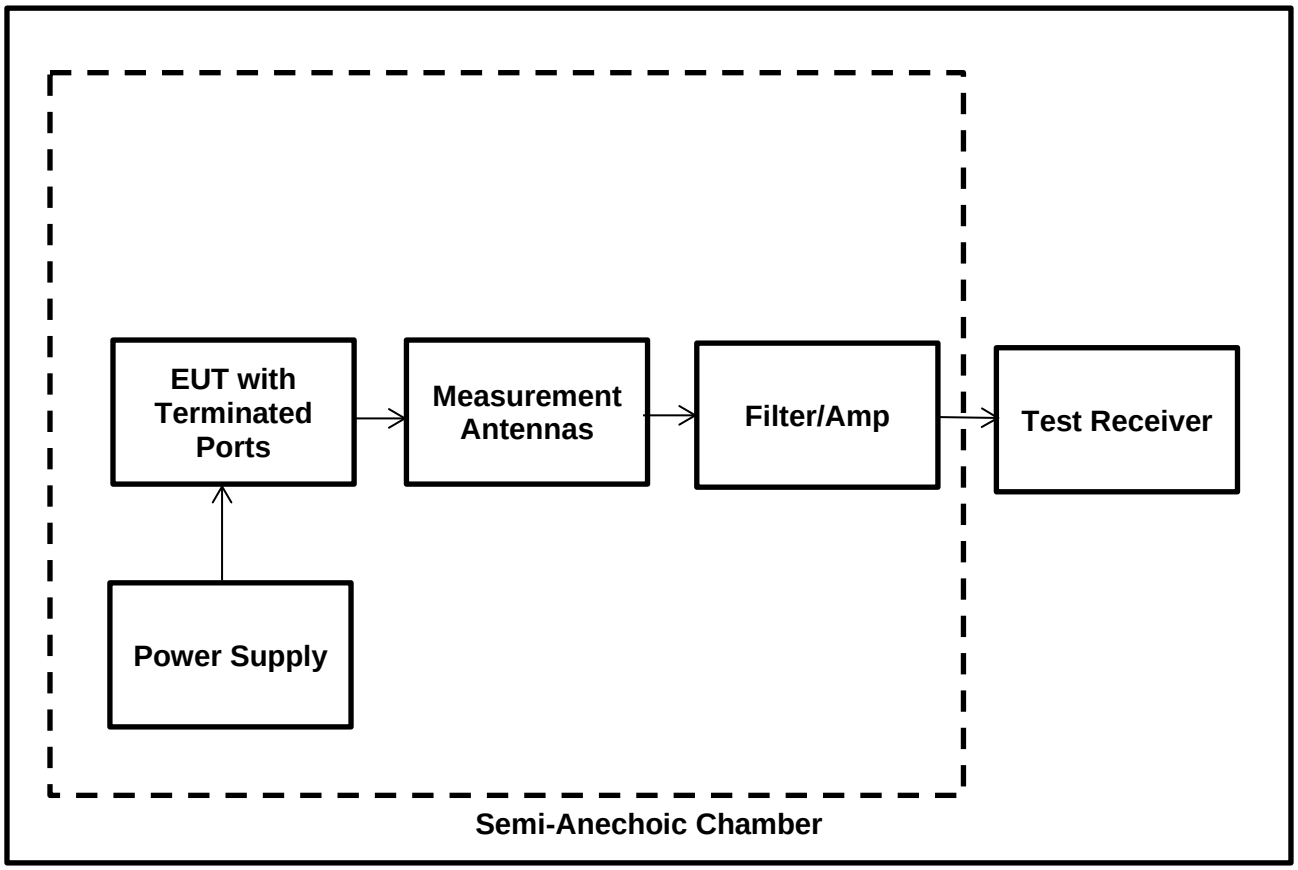
Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	26

Notes:

1. In accordance with FCC KDB 414788, an alternative test site may be used for the measurement below 30 MHz (The OATS / SAC comparison data is available upon request). Therefore the result from the semi-anechoic chamber tests is shown in this section of the test report.
2. According to ANSI C63.10 Sections 12.7.4.2 a) Transmitter Cabinet Radiated Emissions were performed by terminating EUT's all 4-MIMO Ports with 50 Ω (nominal impedance of antennas).
3. Maximum power setting (PWL) amongst all supported SISO & MIMO modes & listed antenna groups has been used.
4. Therefore, transmitter cabinet radiated emissions are valid for all supported Bandwidths, SISO- MIMO modes & listed antenna groups in this report.
5. The preliminary scans showed similar emission levels below 30 MHz, amongst all supported Bandwidths, SISO & MIMO modes and channel of operations. Therefore final Transmitter Cabinet Radiated Emissions measurements were performed with the EUT set to the worst case modes.
    - Terminated Ports 1+2+3+4 | g Mode | 6 Mbps | B.W. 20 MHz | PWL 16 | Top Channel
    - Terminated Ports 1+2+3+4 | n Mode | MCSO | B.W. 40 MHz | PWL 16 | Middle Channel
6. Measurements below 30 MHz were performed in a semi-anechoic chamber at a distance of 3 meters. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. The measurement loop antenna height was 1 meter.
7. Pre-scans were performed and markers placed on the highest measured levels. The test receiver was set to :
    - Frequency range: 9 kHz-150kHz : RBW: 300 Hz /VBW: 1 kHz
    - Frequency range: 150 kHz – 30 MHz: RBW: 10 kHz /VBW: 30 kHz
    - Detector : Max Peak detector
    - Trace Mode : Max Hold.
8. Final measurements were performed on the marker frequencies and the results entered into the table below. All other emissions were greater than 20 dB below the applicable limit, below the noise floor of the measurement system or ambient.
9. The final measured value, for the given emission, in the table below incorporates the measured cabinet radiated emission level, distance extrapolation factor, calibrated antenna factor and cable loss.
10. EMC32 V10.1.0 Software was used for these measurements.

Test Setup:

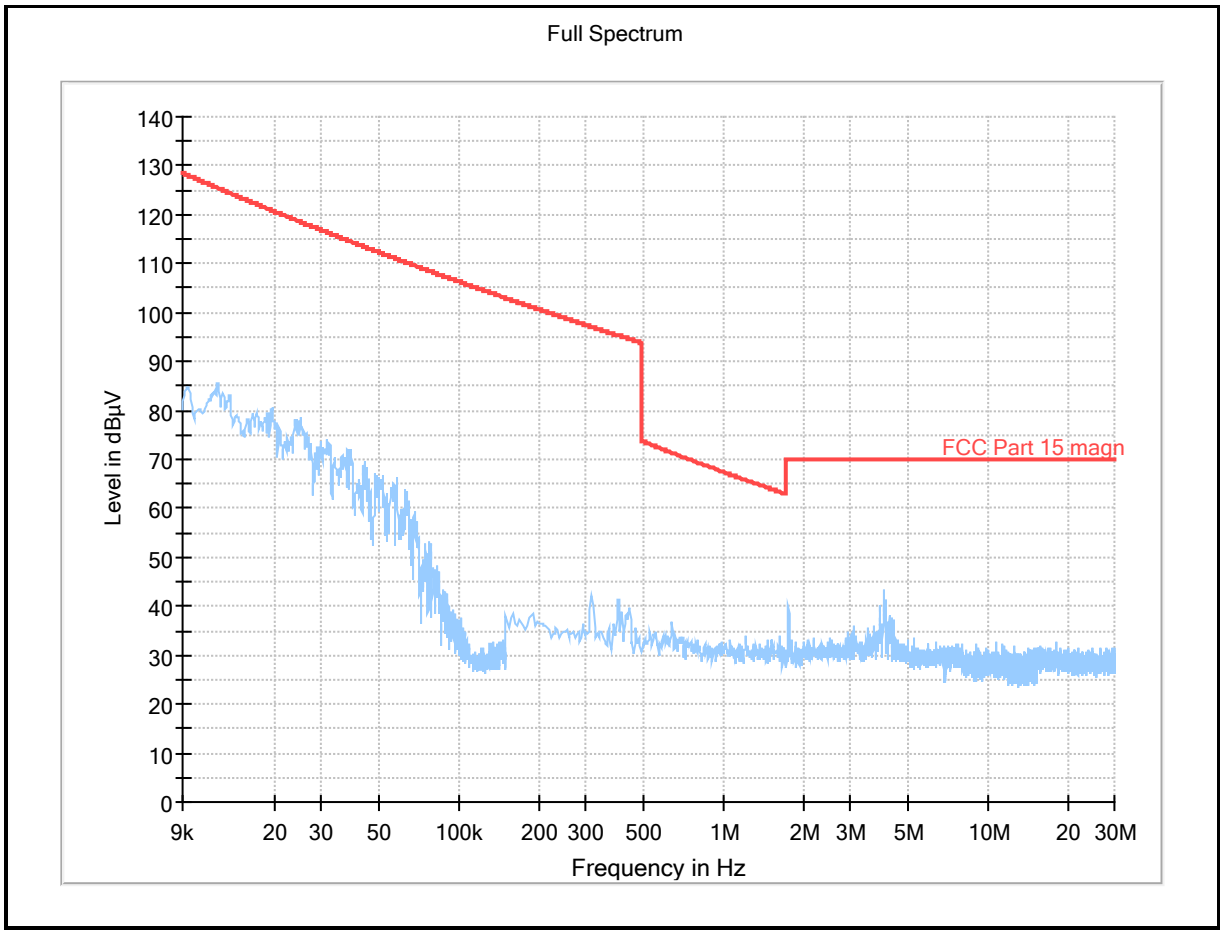

EUT with Terminated Ports
Measurement Antennas
Filter/Amp
Test Receiver
Power Supply
Semi-Anechoic Chamber

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / Terminated Ports 1+2+3+4 / PWL 16 / Top Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 9 kHz to 30 MHz



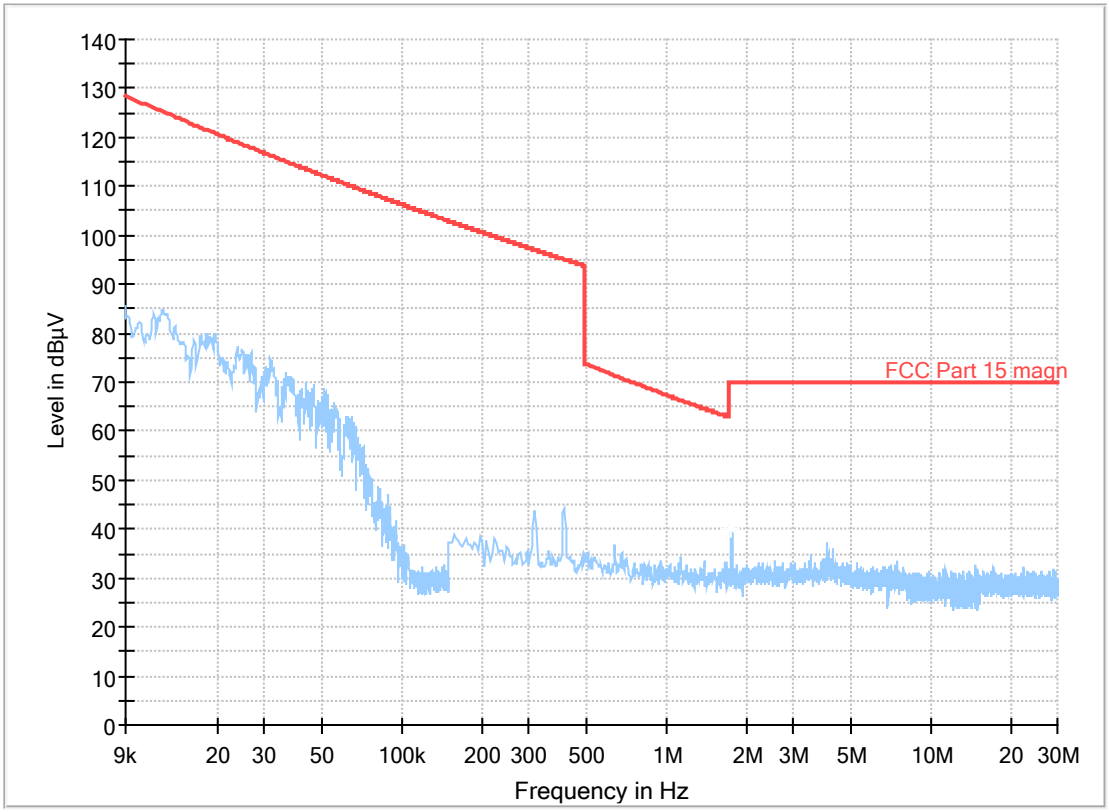
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11n / 40 MHz / MCS0 / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 9 kHz to 30 MHz



Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Test Summary:

Test Engineer:	Krume Ivanov	**Tes Dates:**	13 & 14 December 2018
Test Sample Serial Number:	192.168.0.176		
Test Site Identification	SR 1/2		

FCC Reference:	Parts 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 refering ANSI C63.10 Sections 11.11 and 11.12.2.1 ANSI C63.10 Sections 6.3 and 6.5
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	20 & 25
Relative Humidity (%):	22 & 26

Settings of the Instrument

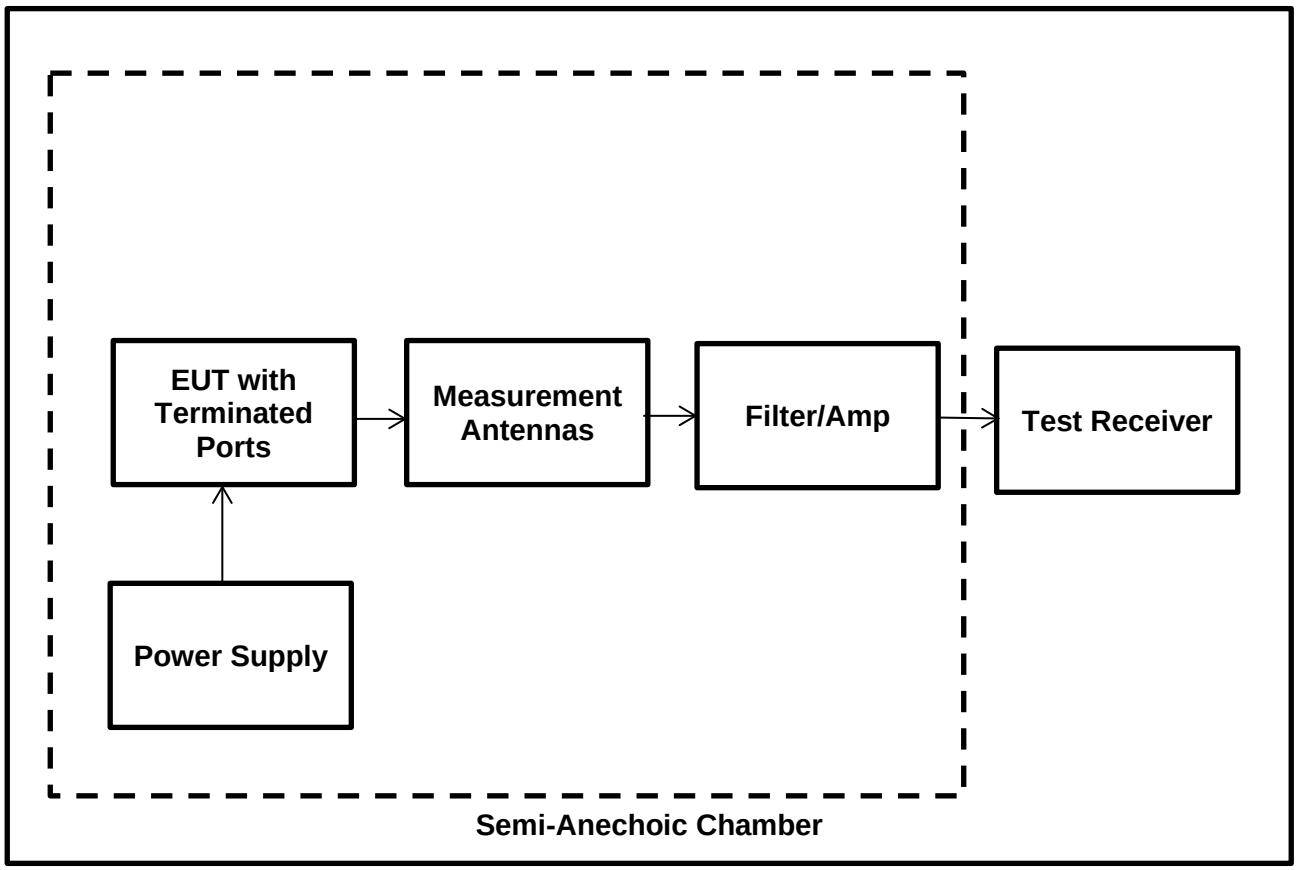
RBW/VBW	100 kHz / 300 kHz
Detector	Peak

Notes:

1. According to ANSI C63.10 Sections 12.7.4.2 a) Transmitter Cabinet Radiated Emissions were performed by terminating EUT's all 4-MIMO Ports with 50 Ω (nominal impedance of antennas).
2. Maximum power setting (PWL) amongst all supported SISO & MIMO modes & listed antenna groups has been used.
3. Therefore, transmitter cabinet radiated emissions are valid for all supported Bandwidths, SISO- MIMO modes & listed antenna groups in this report.
4. The preliminary scans showed similar emission levels below 1 GHz, for each HT20 & HT40 modes and channel of operations. Therefore final Transmitter Cabinet Radiated Emissions measurements were performed with the EUT set to the worst case modes.
    - Terminated Ports 1+2+3+4 | g Mode | 6 Mbps | B.W. 20 MHz | PWL 16 | Top Channel
    - Terminated Ports 1+2+3+4 | n Mode | MCSO | B.W. 40 MHz | PWL 16 | Middle Channel
5. Measurements below 1 GHz were performed in a semi-anechoic chamber at a distance of 3 m. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 m to 4 m.
6. Pre-scans were performed and markers placed on the highest measured levels. The test receiver resolution bandwidth was set to 100 kHz and video bandwidth 300 kHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold.
7. Final measurements were performed on the marker frequencies and the results entered into the table below. The test receiver resolution bandwidth was set to 120 kHz, using a CISPR quasi-peak detector and span big enough to see the whole emission.
8. All other emissions shown on the pre-scan plots were investigated and are recorded in result table.
9. The final measured value, for the given emission, in the table below incorporates the measured cabinet radiated emission level, distance extrapolation factor, calibrated antenna factor and cable loss.
10. EMC32 V10.1.0 Software was used for these measurements.

Transmitter Cabinet Radiated Emissions (continued)

Test Setup:

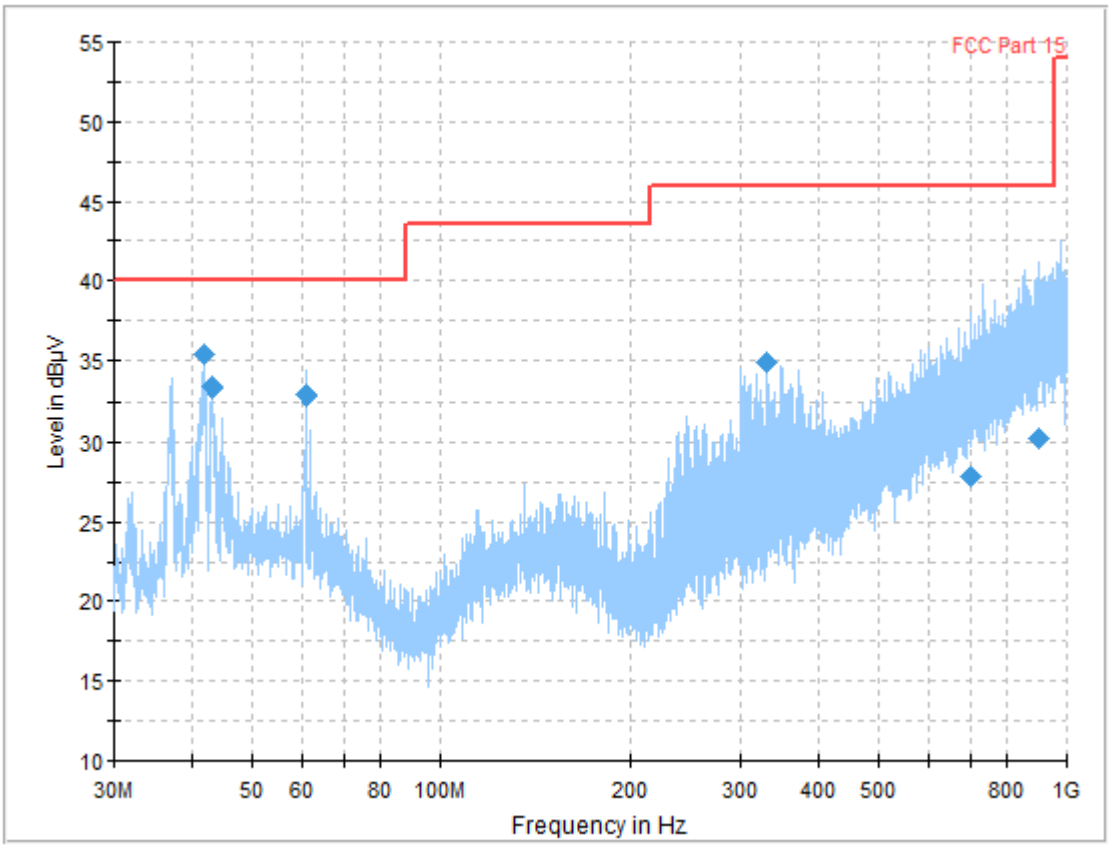


Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / Terminated Ports 1+2+3+4 / PWL 16 / Top Channel

Frequency (MHz)	Antenna Polarization	QuasiPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
41.880	Vertical	35.33	40.00	4.67	Complied
43.005	Vertical	33.34	40.00	6.66	Complied
61.005	Vertical	32.90	40.00	7.10	Complied
329.566	Horizontal	34.91	46.00	11.09	Complied
702.833	Vertical	27.80	46.00	18.20	Complied
900.333	Vertical	30.24	46.00	15.76	Complied

Plot: 30 MHz- 1 GHz



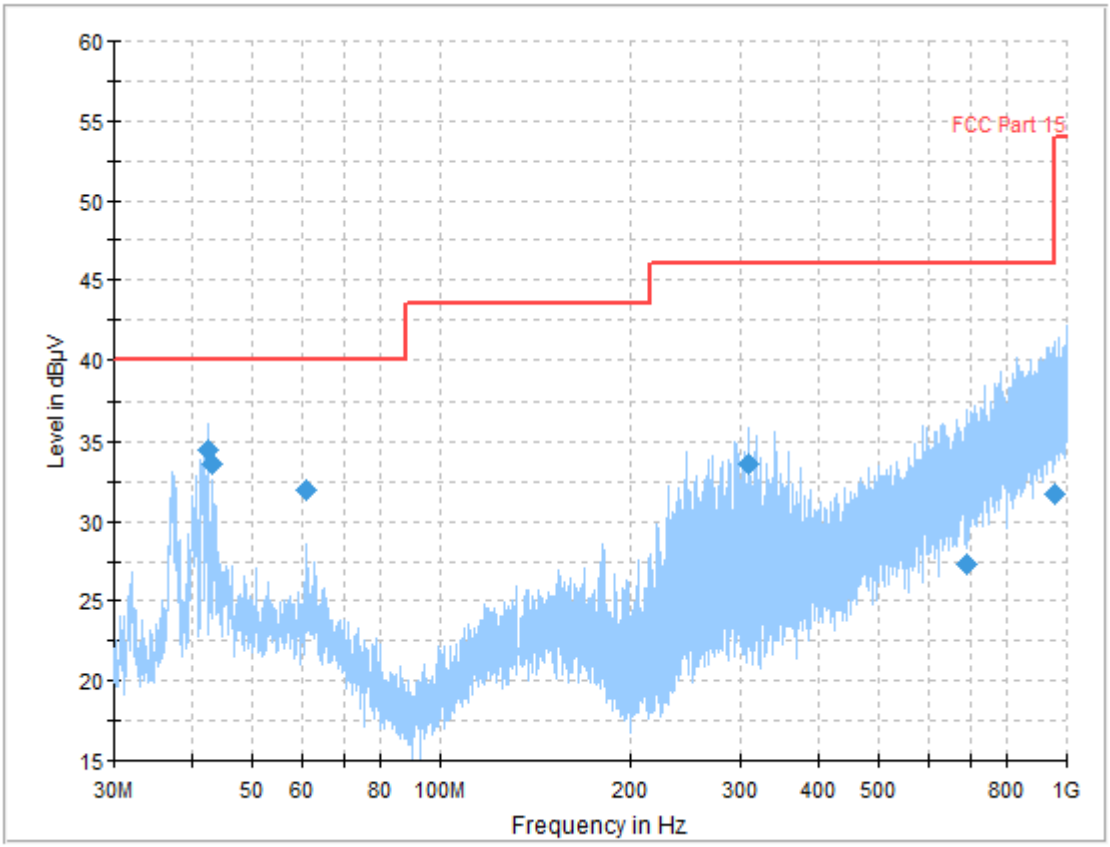
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11n / 40 MHz / MCS0 / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	QuasiPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
42.420000	Vertical	34.46	40.00	5.54	Complied
43.230000	Vertical	33.65	40.00	6.35	Complied
61.095000	Vertical	32.00	40.00	8.00	Complied
308.400000	Horizontal	33.56	46.00	12.44	Complied
689.791667	Vertical	27.26	46.00	18.74	Complied
959.625000	Horizontal	31.68	46.00	14.32	Complied

Plot: 30 MHz- 1 GHz



Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Test Summary:

Test Engineer:	Krume Ivanov	**Test Dates:**	13 & 14 December 2018
Test Sample Serial Number:	192.168.0.176		
Test Site Identification	SR 1/2		

FCC Reference:	Parts 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Sections 8.5 & 8.6 referring ANSI C63.10 Sections 11.11 and 11.12 ANSI C63.10 Sections 6.3 and 6.6
Frequency Range	1 GHz to 25 GHz

Environmental Conditions:

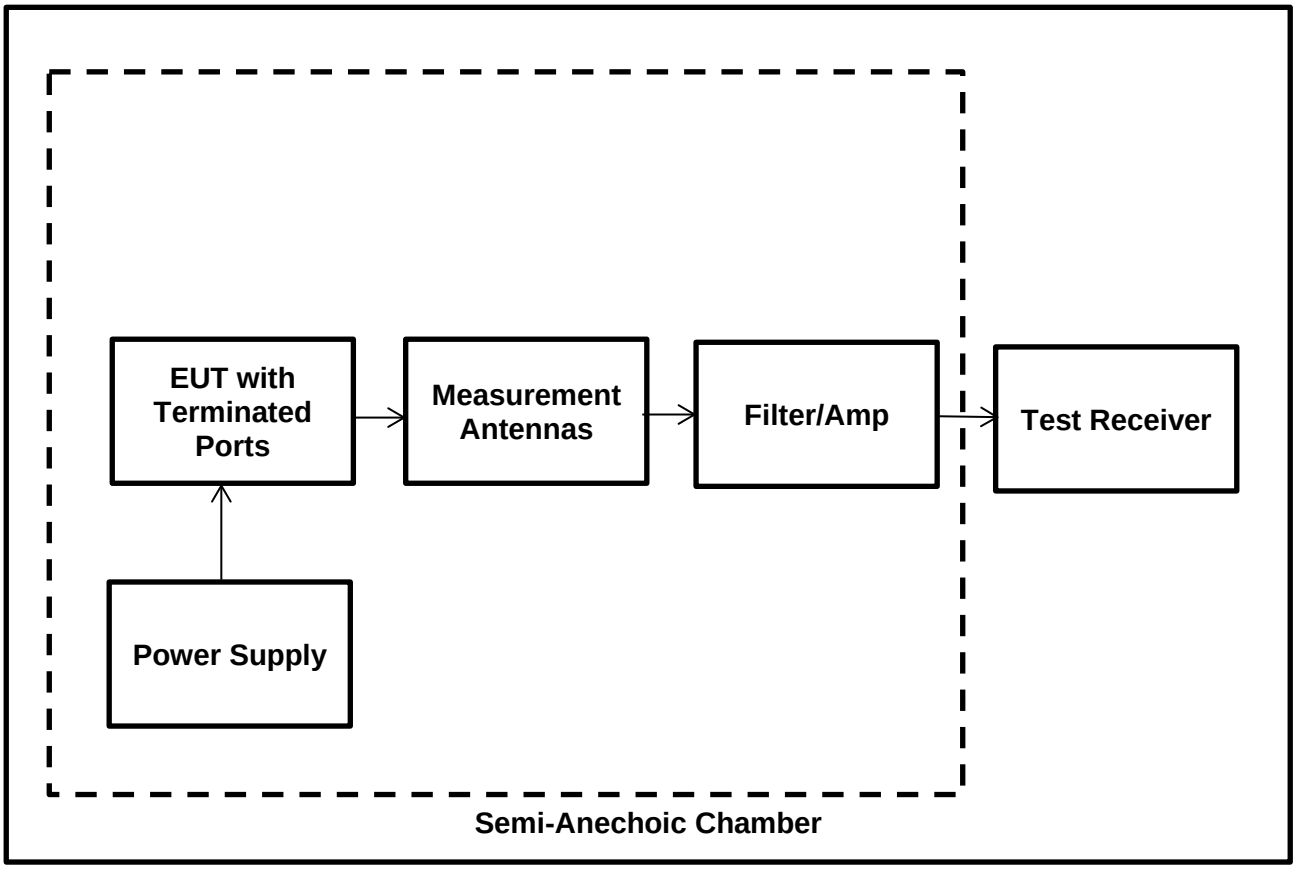
Temperature (°C):	20 & 25
Relative Humidity (%):	22 & 26

Notes:

1. According to ANSI C63.10 Sections 12.7.4.2 a) Transmitter Cabinet Radiated Emissions were performed by terminating EUT's all 4-MIMO Ports with 50 Ω (nominal impedance of antennas).
2. Maximum power setting (PWL) amongst all supported SISO & MIMO modes & listed antenna groups has been used.
3. Therefore, transmitter cabinet radiated emissions are valid for all supported Bandwidths, SISO- MIMO modes & listed antenna groups in this report.
4. The preliminary scans showed similar emission levels below 18 GHz, for each HT20 & HT40 modes and channel of operations. Therefore final Transmitter Cabinet Radiated Emissions measurements were performed with the EUT set to the worst case modes.
    - Terminated Ports 1+2+3+4 | g Mode | 6 Mbps | B.W. 20 MHz | PWL 16 | Top Channel
    - Terminated Ports 1+2+3+4 | n Mode | MCSO | B.W. 40 MHz | PWL 16 | Middle Channel
5. Pre-scans above 1 GHz were performed in a semi-anechoic chamber SR1/ 2 (Asset Number 1603665) with absorbers on the ground at a distance of 3 m. The EUT was placed at a height of 1.5 m above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 m above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a semi-anechoic chamber with absorbers on the ground at a distance of 3 m. The EUT was placed at a height of 1.5 m above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 m to 4m.
6. In accordance with ANSI C63.10 Section 6.6.4.3 (Note 1), if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
7. The final measured value, for the given emission, in the table below incorporates the measured cabinet radiated emission level, calibrated antenna factor and cable loss.
8. The emissions shown at frequencies between approximately 2412 MHz to 2462 MHz on the 1 GHz to 18 GHz plots are the EUT fundamental for the given channel.
9. EMC32 V10.1.0 Software was used for these measurements.
10. Pre-scans above 18 GHz were performed in a semi-anechoic chamber SR1/ 2 (Asset Number 1603665) with absorbers on the ground at a distance of 1 m. The EUT was placed at a height of 1.5 m above the test chamber floor in the centre of the chamber turntable. All measurement antenna was placed at a fixed height of 1.5 m above the test chamber floor, in line with the EUT.

11. Pre-scans were performed and a marker placed on the highest measured level of the appropriate plot. The test receiver resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. The sweep time was set to auto.
12. The final measured value, for the given emission, in the table below incorporates the measured cabinet radiated emission level, calibrated antenna factor and cable loss.
13. The final measured values at 1 m distance are then compared with extrapolated limits values (3 to 1 m) by adding relevant distance extrapolation factor of 9.54 dB to FCC 15.209 (3 m) limits.
14. Toyo EMI | RE measurement software EP5/RE Ver 4.0.1 Software was used for these measurements.

Test Setup:

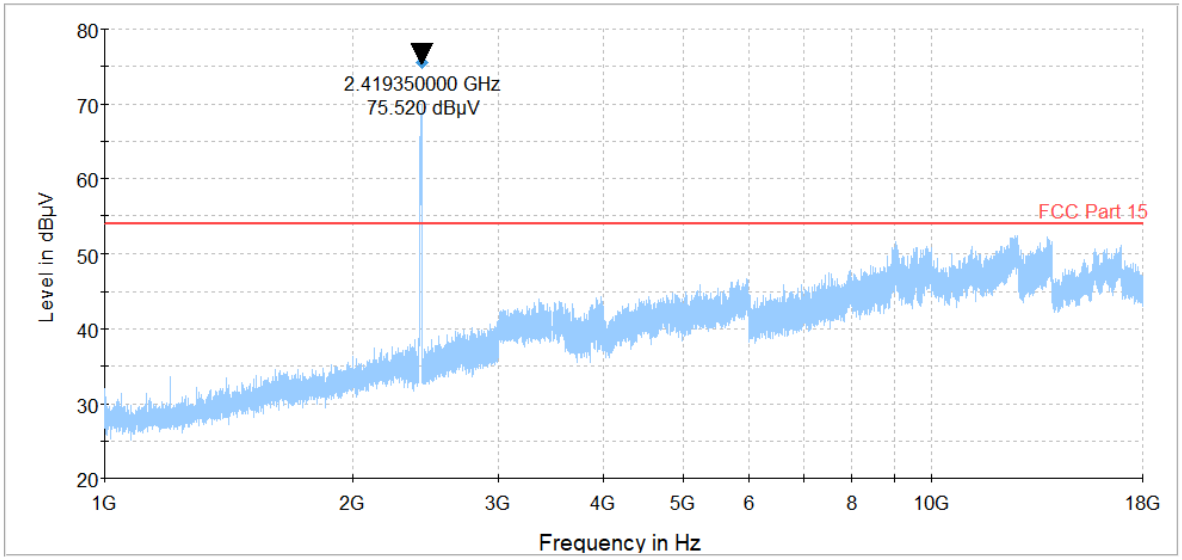


Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / Terminated Ports 1+2+3+4 / PWL 16 / Bottom Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 1 GHz to 18 GHz



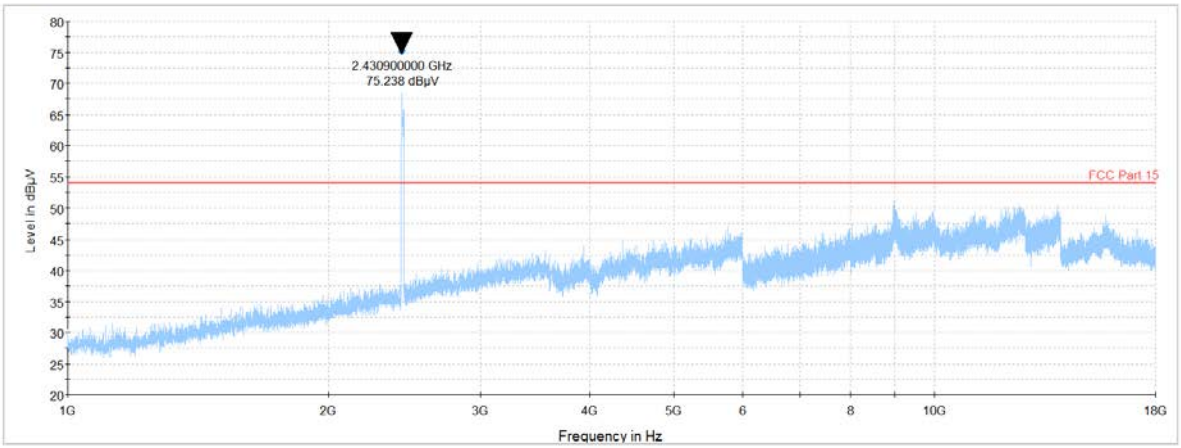
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 1 GHz to 18 GHz



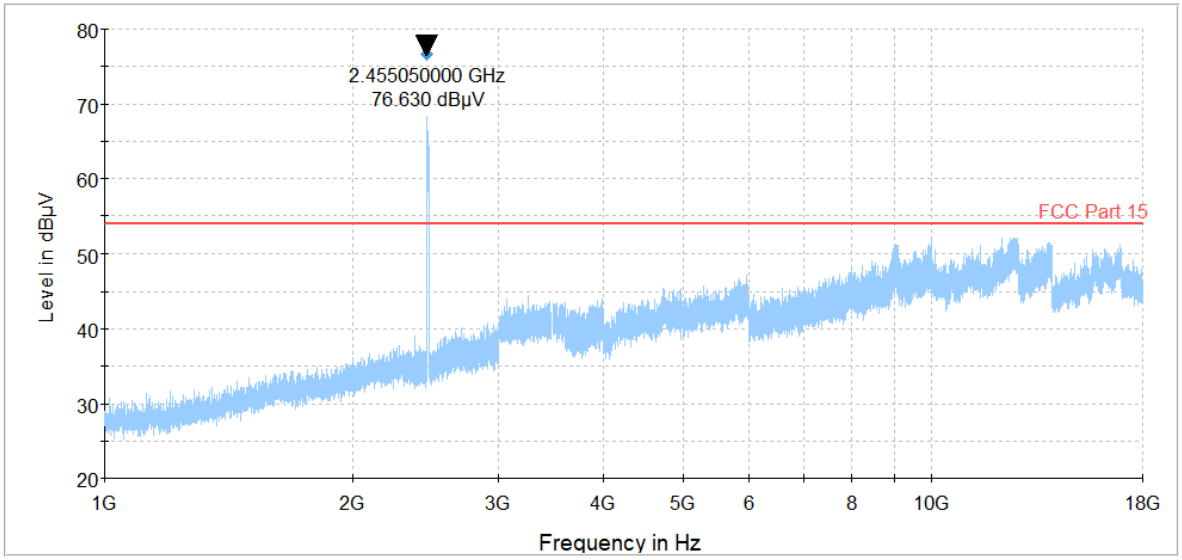
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / Terminated Ports 1+2+3+4 / PWL 16 / Top Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 1 GHz to 18 GHz



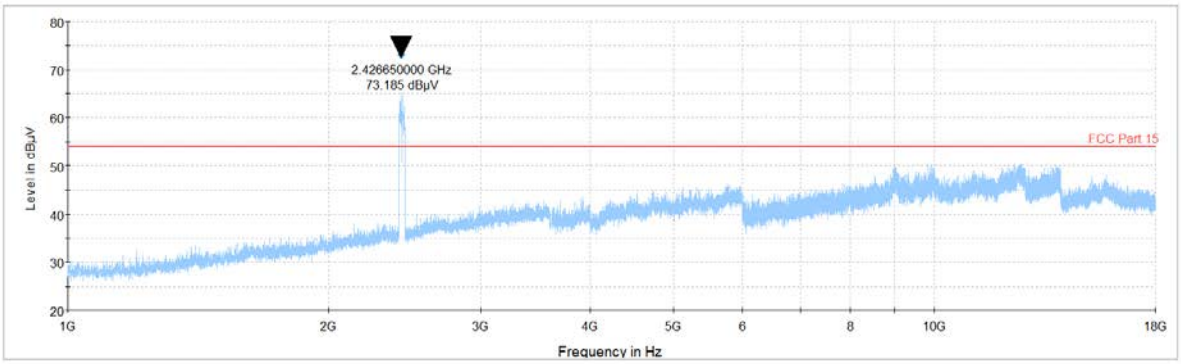
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11n / 40 MHz / MCS0 / Terminated Ports 1+2+3+4 / PWL 16 / Bottom Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 1 GHz to 18 GHz



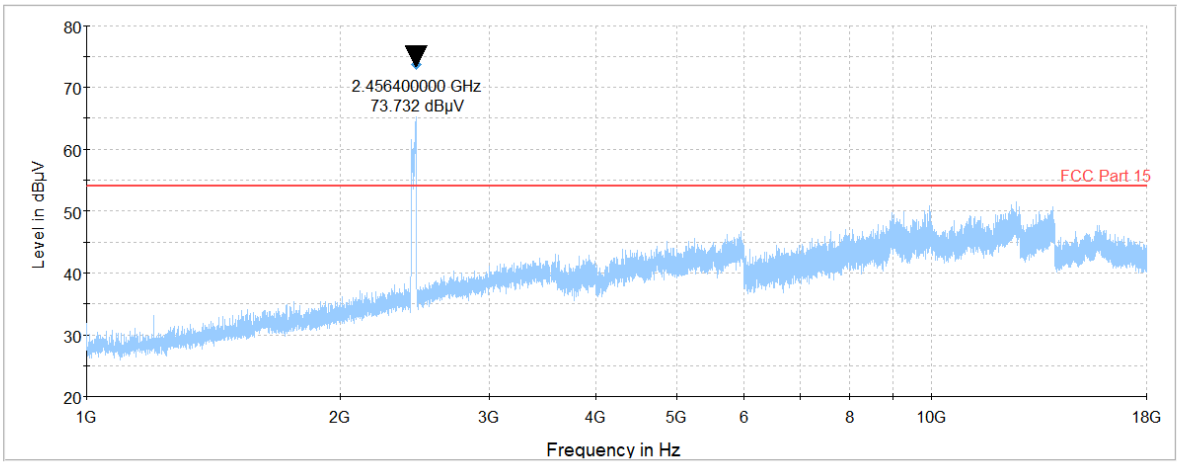
Result: **Pass**

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11n / 40 MHz / MCS0 / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 1 GHz to 18 GHz



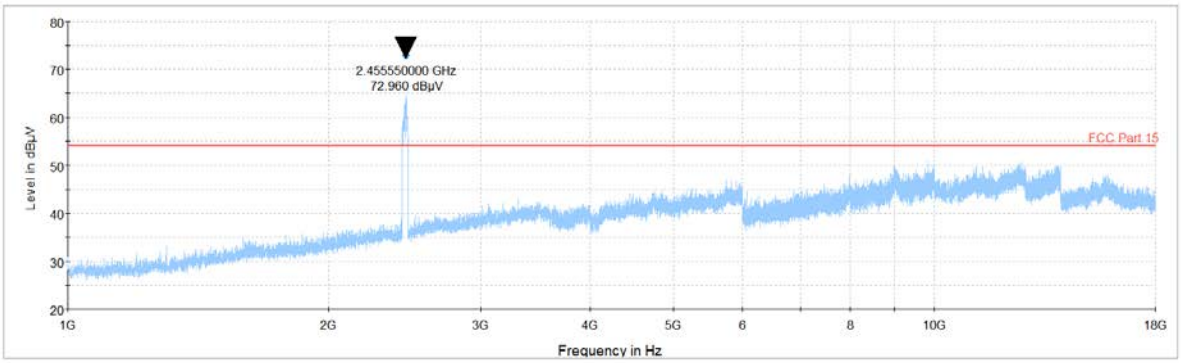
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11n / 40 MHz / MCS0 / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
No spurious emissions were detected					

Plot: 1 GHz to 18 GHz



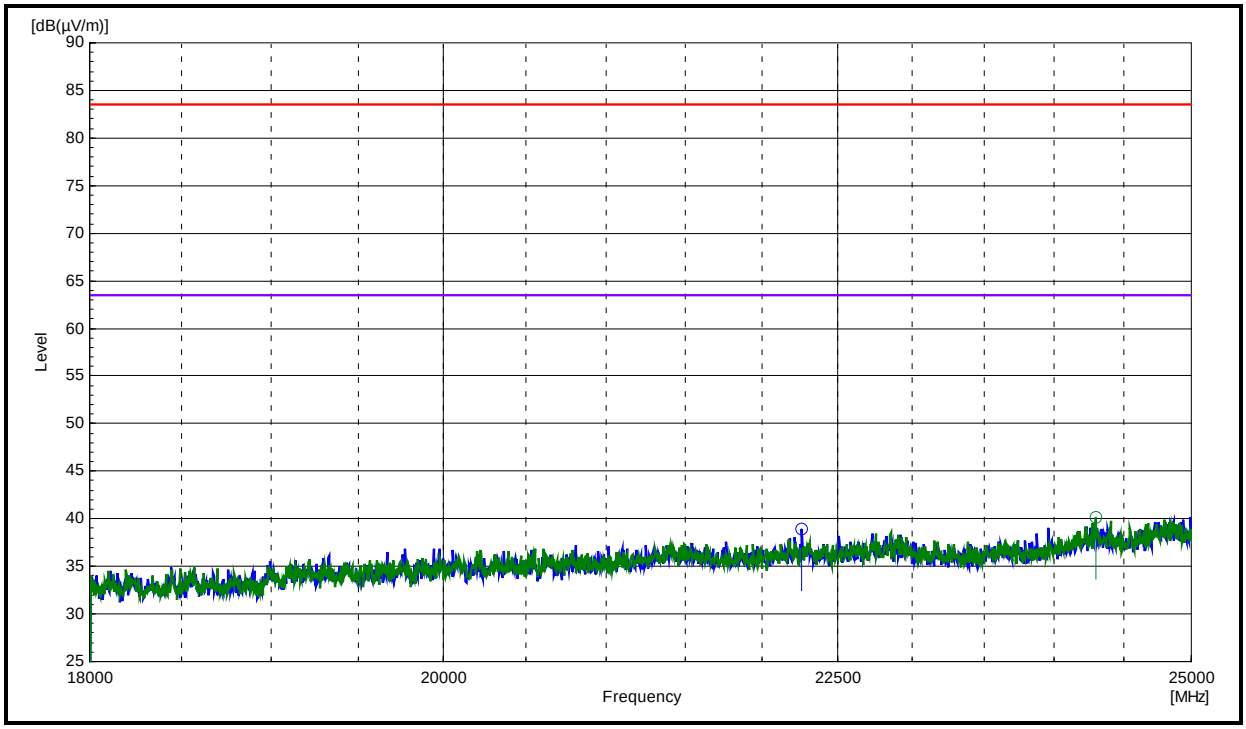
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
22259.616	Horizontal	38.9	83.5	44.6	Complied
24294.872	Vertical	40.1	83.5	43.4	Complied

Plot: 18 GHz to 25 GHz



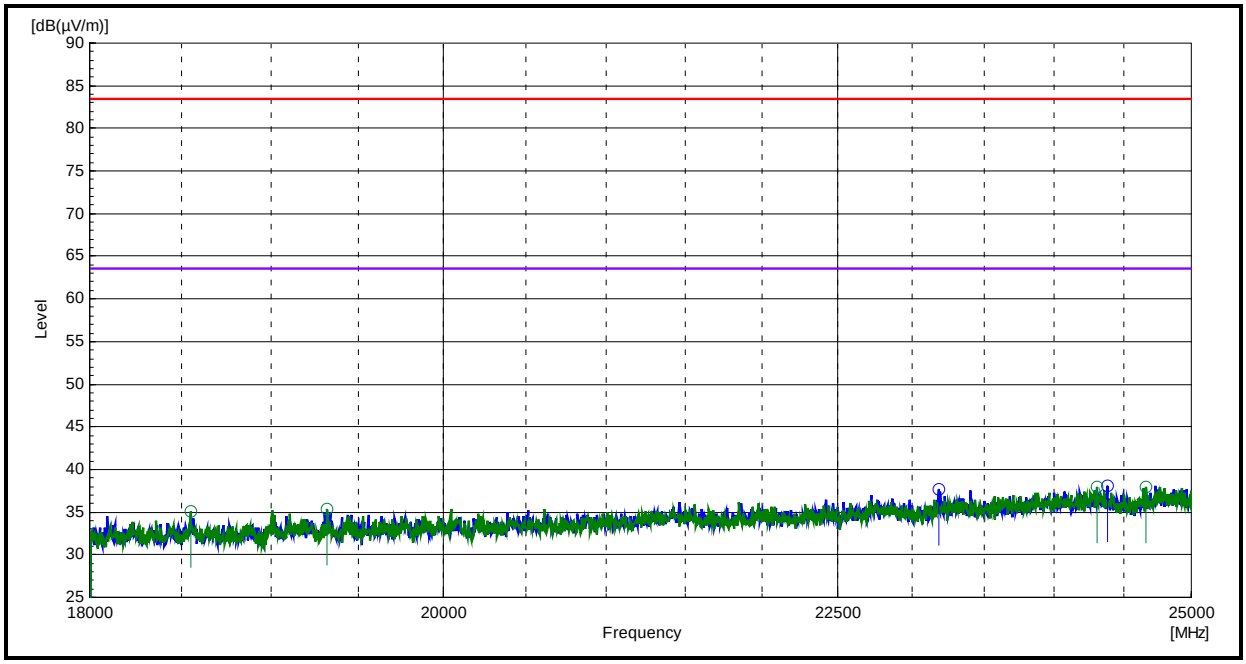
Result: Pass

Transmitter Cabinet Radiated Emissions (continued)

Results: 802.11n / 40 MHz / MCS0 / Terminated Ports 1+2+3+4 / PWL 16 / Middle Channel

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
18551.28	Vertical	35.1	83.5	48.4	Complied
19320.512	Vertical	35.3	83.5	48.2	Complied
23185.096	Horizontal	37.6	83.5	45.9	Complied
24306.892	Vertical	38.0	83.5	45.5	Complied
24383.012	Horizontal	38.1	83.5	45.4	Complied
24667.468	Vertical	38.0	83.5	45.5	Complied

Plot: 18 GHz to 25 GHz



Result: Pass

5.2.8. Transmitter Band Edge Radiated Emissions

Test Summary:

Test Engineer:	Krume Ivanov	**Test Date:**	26 & 27 October 2018 12 & 20 November 2018
Test Sample Serial Number:	192.168.0.176		
Test Site Identification	SR 1/2		

FCC Reference:	Parts 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Sections 8.7 referring ANSI C63.10:2013 Section 6.10.4, 6.10.5 & Section 11.11, 11.2 ,11.13

Environmental Conditions:

Temperature (°C):	20 to 26
Relative Humidity (%):	22 to 34

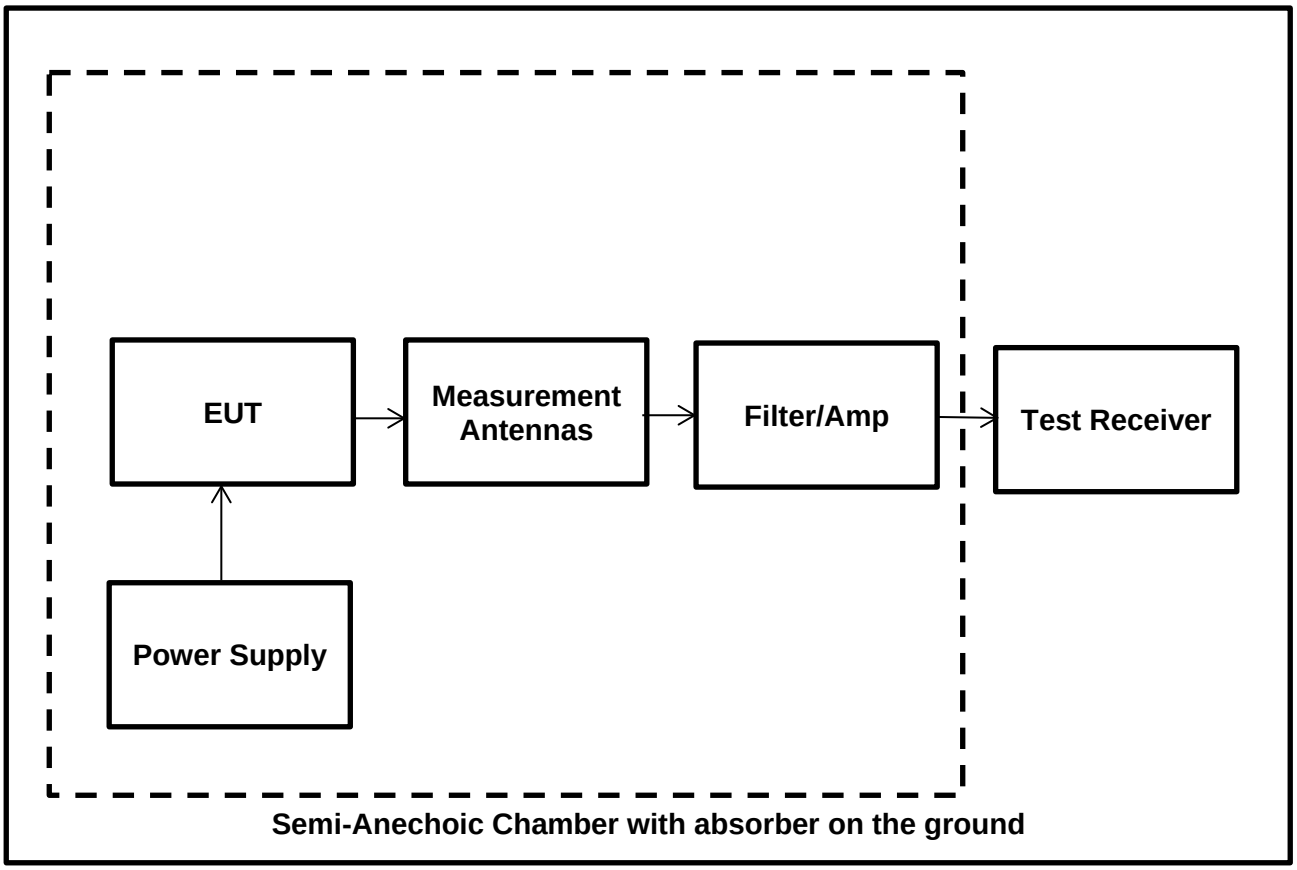
Notes:

1. Transmitter Band Edge Radiated Emissions were performed with :
   - each type of listed Antenna Groups.
   - each supported Bandwidth
   - maximum power setting (PWL) for each supported SISO & MIMO modes
2. The EUT was tested with following test channels:
   - 20 MHz Bandwidth:
   - o Lower band edge measured with EUT transmitting on the Bottom channel (CH 1).
   - o Upper band edge measured with EUT transmitting on the Top channel (CH 11)
   - 40 MHz Bandwidth:
   - o Lower band edge measured with EUT transmitting on the Bottom channel (CH 3).
   - o Upper band edge measured with EUT transmitting on the Top channel (CH 9)
3. For lower band edge measurement the test receiver was set to RBW: 100 kHZ | VBW : 300 kHz | Sweep time:Auto | Trace mode : max hold Span: large enough to capture unwanted band edge emissions with trace stabilizations. Setting the reference level was based on the different power levels that were measured, but care was taken here that the spectrum analyzer was not placed in the overdrive area or, due to an overload condition, not to desensitized it.
4. In accordance with KDB 789033 Section II.D.v), Method AD (vi), the average measurements were performed using an increased number of sweeps A value of 300 was used for all measurements as this number ensured that the requirement Sweep ≥ 2 × Span / RBW is met.
5. Transmitter Band Edge Radiated Emissions were performed in a semi-anechoic chamber SR1/ 2 (Asset Number 1603665) with absorbers on the ground at a distance of 3 meters. The EUT was placed at a height of 1.5 meters above the test chamber floor in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna with tilting function enabled over the range 1 meter to 4 meters above the test chamber floor, in line with the EUT.
6. The maximum emissions around band edges were searched & are indicated with a marker placed on them.

7. Since maximum conducted (average) output power was previously measured. In accordance with FCC KDB 558074 Section 11.1(b), the lower band edge measurement should be performed with a peak detector and the -30 dBc limit has been applied.
8. As the upper band edge falls within a restricted band both peak and average measurements were recorded by placing a marker at the edge of the band. For peak measurements the test receiver resolution bandwidth was set to 1 MHz and the video bandwidth 3 MHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold. For average measurements the test receiver resolution bandwidth was set to 1 MHz and the video bandwidth 3 MHz. An RMS detector was used, sweep time was set to auto and trace mode was set to average. The test receiver was left to sweep for a sufficient length of time in order to maximise the carrier level and out-of-band emissions. A marker was placed on the band edge spot frequencies. Marker frequencies and levels were recorded.
9. Some of the Lower Band Edge plots incorrectly show a limit line of -20 dBc. The correct limit of -30 dBc has been applied in the tables.

Transmitter Band Edge Radiated Emissions (continued)

Test Setup:



Transmitter Band Edge Radiated Emissions (continued)

6 dBi Antenna Group

Results: 802.11b / 20 MHz / 5.5 Mbps / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2399.31	52.65	67.91	15.26	Complied
2400.00	50.13	67.91	17.78	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2389.48	56.30	74.0	17.70	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.23	44.38	54.0	9.62	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	60.32	74.0	13.68	Complied
2484.39	60.74	74.0	13.26	Complied

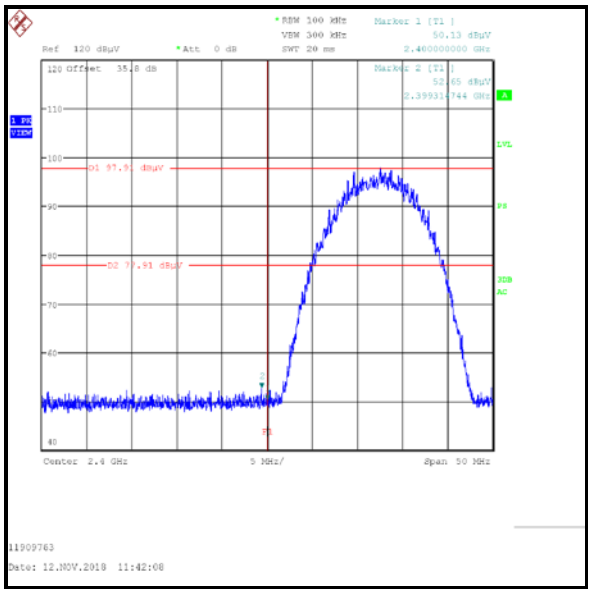
Results: Upper Band Edge / Average

Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	49.91	54.0	4.09	Complied

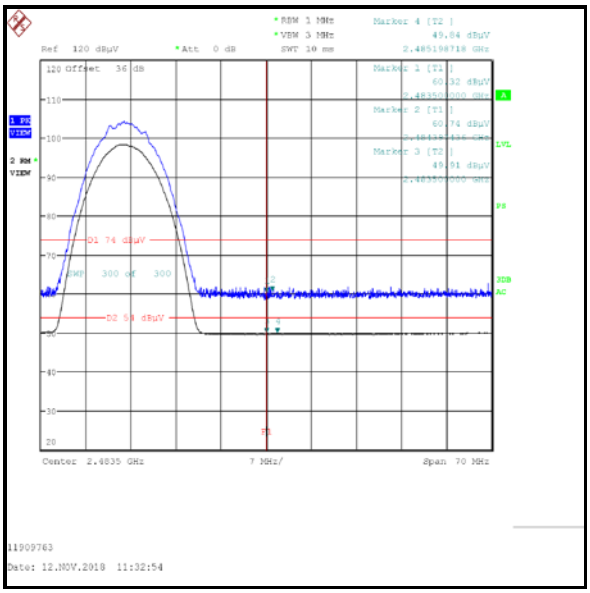
Result: Pass

Transmitter Band Edge Radiated Emissions (continued)

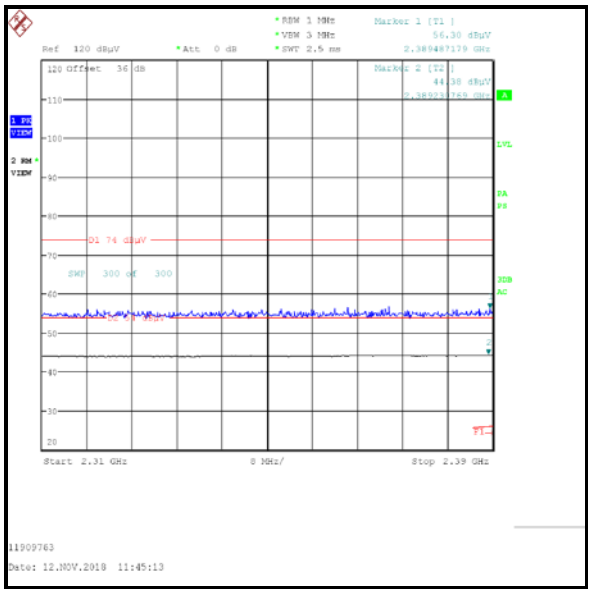
Plots: 802.11b / 20 MHz / 5.5 Mbps / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group



Lower Band Edge Peak Measurement



Upper Band Edge Peak/Average Measurement



2310 MHz to 2390 MHz Restricted Band

Transmitter Band Edge Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2399.79	54.71	68.29	13.58	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2389.61	55.82	74.0	18.18	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.87	44.47	0.20	44.67	54.0	9.33	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	59.66	74.0	14.34	Complied
2484.84	60.04	74.0	13.96	Complied

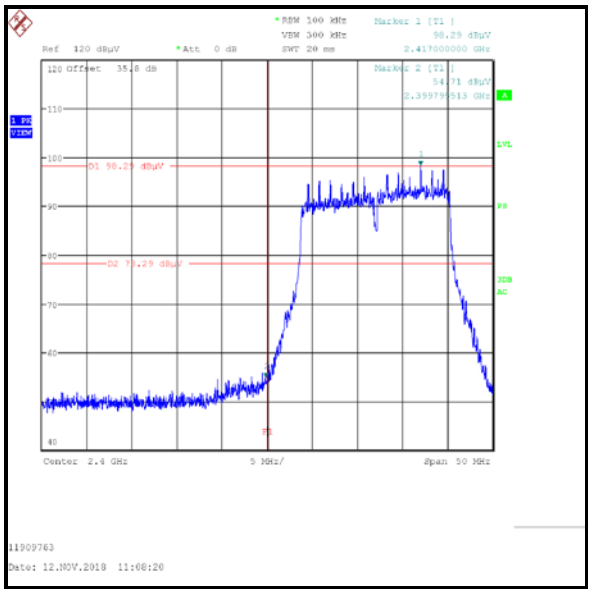
Results: Upper Band Edge / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	49.93	0.20	50.13	54.0	3.87	Complied

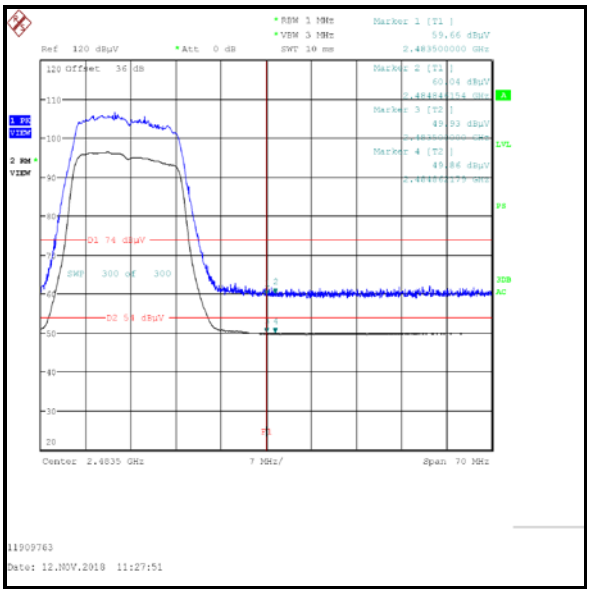
Result: Pass

Transmitter Band Edge Radiated Emissions (continued)

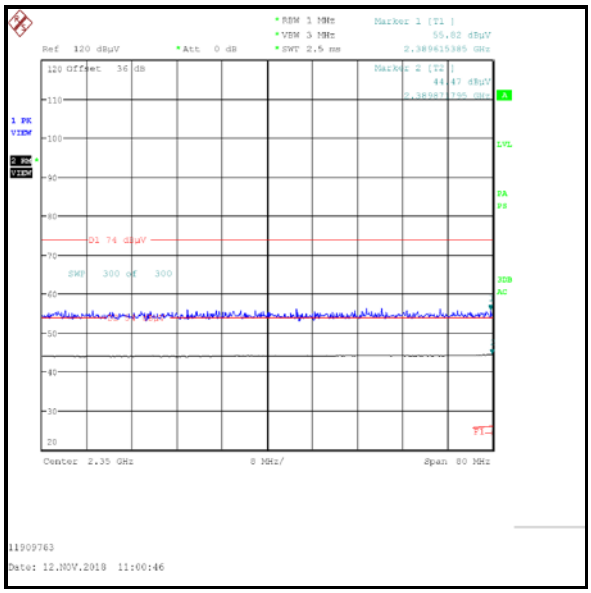
Plots: 802.11g / 20 MHz / 6 Mbps / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group



Lower Band Edge Peak Measurement



Upper Band Edge Peak/Average Measurement



2310 MHz to 2390 MHz Restricted Band

Transmitter Band Edge Radiated Emissions (continued)

Results: 802.11n / HT20 / MCS0 / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2399.86	54.56	67.55	12.99	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2388.07	56.60	74.0	17.40	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.74	44.84	0.40	45.24	54.0	8.76	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	60.24	74.0	13.76	Complied
2484.39	60.82	74.0	13.18	Complied

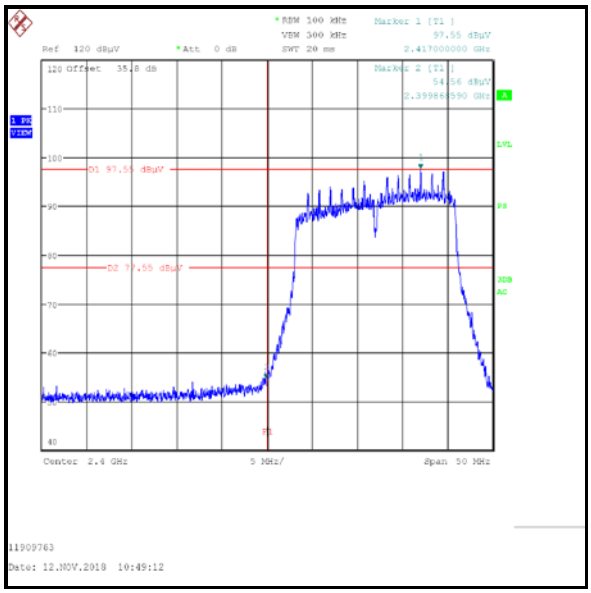
Results: Upper Band Edge / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	49.89	0.40	50.29	54.0	3.71	Complied
2484.30	50.05	0.40	50.45	54.0	3.65	Complied

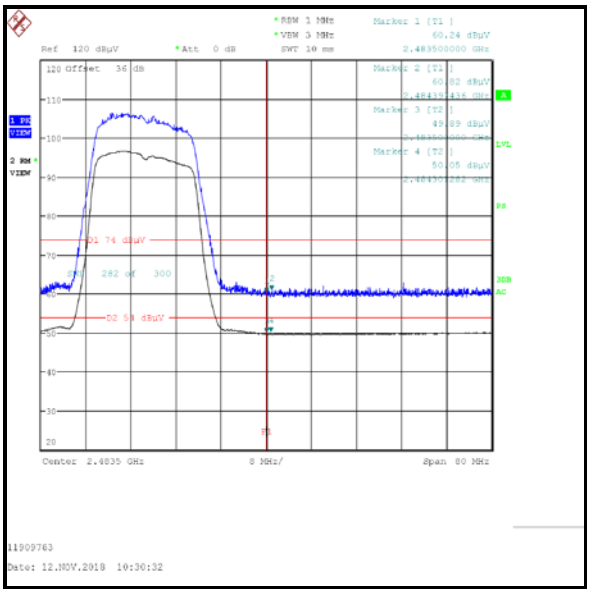
Result: Pass

Transmitter Band Edge Radiated Emissions (continued)

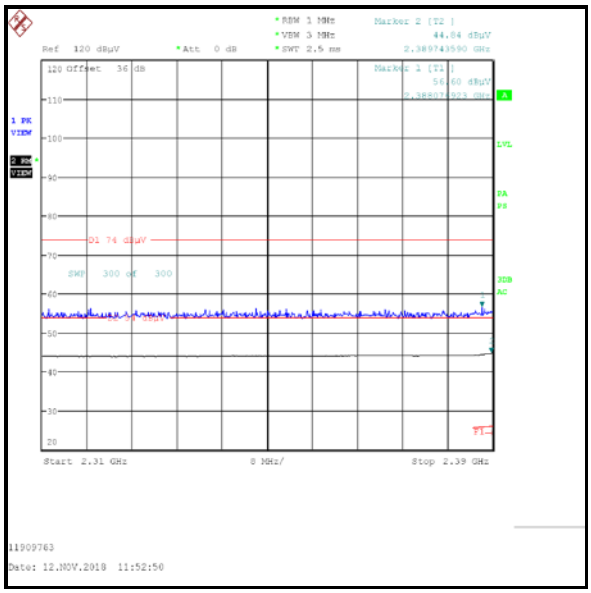
Plots: 802.11n / HT20 / MCS0 / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group



Lower Band Edge Peak Measurement



Upper Band Edge Peak/Average Measurement



2310 MHz to 2390 MHz Restricted Band

Transmitter Band Edge Radiated Emissions (continued)

Results: 802.11n / HT40 / MCS0 / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2397.25	53.68	64.44	10.76	Complied
2400.00	52.29	64.44	12.15	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2389.61	57.35	74.0	16.65	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.23	45.59	0.60	46.19	54.0	7.81	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	61.07	74.0	12.93	Complied
2485.58	61.10	74.0	12.90	Complied

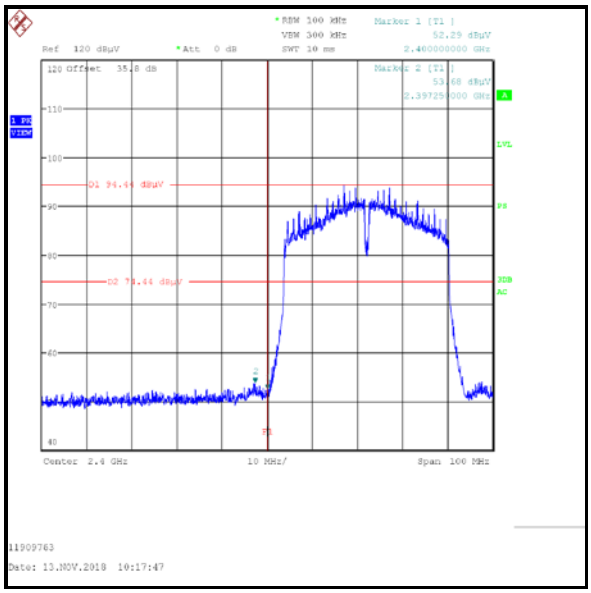
Results: Upper Band Edge /Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	50.11	0.60	50.71	54.0	3.29	Complied
2485.02	50.15	0.60	50.75	54.0	3.25	Complied

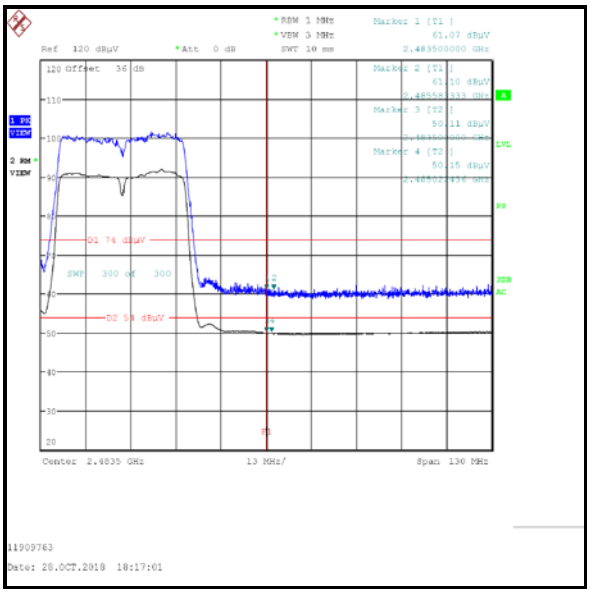
Result: Pass

Transmitter Band Edge Radiated Emissions (continued)

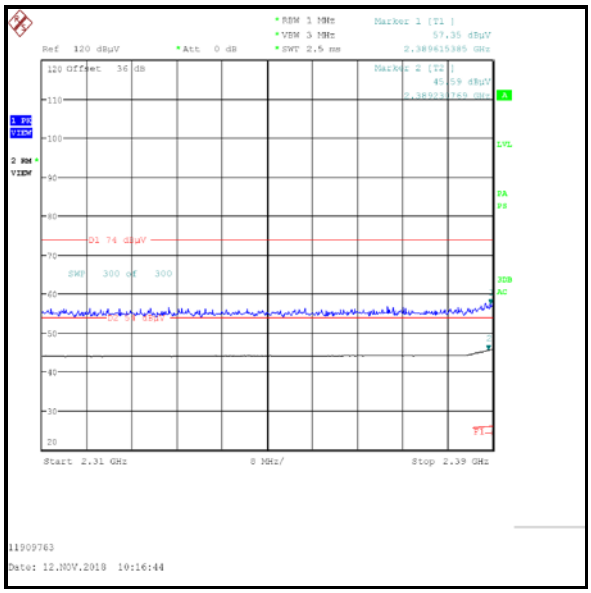
Plots: 802.11n / HT40 / MCS0 / SISO / Port 1 / PWL 12 / 6 dBi Antenna Group



Lower Band Edge Peak Measurement



Upper Band Edge Peak/Average Measurement



2310 MHz to 2390 MHz Restricted Band

Transmitter Band Edge Radiated Emissions (continued)

Results: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 1+2 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2389.10	53.58	62.09	8.51	Complied
2400.00	50.87	62.09	11.22	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2381.53	56.47	74.0	17.53	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.23	44.50	54.0	9.50	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	59.73	74.0	14.27	Complied
2485.07	60.79	74.0	13.21	Complied

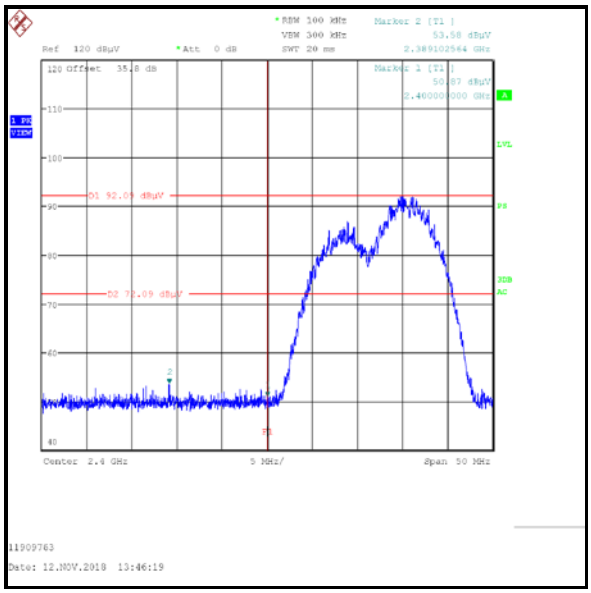
Results: Upper Band Edge / Average

Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	50.02	54.0	3.98	Complied
2484.97	50.07	54.0	3.93	Complied

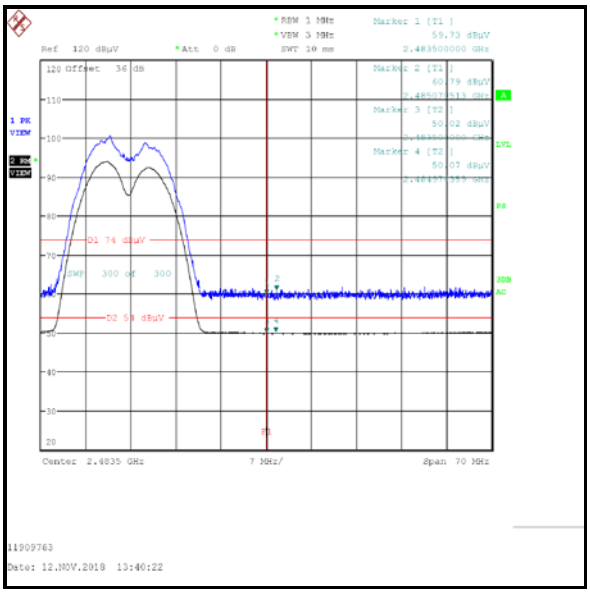
Result: Pass

Transmitter Band Edge Radiated Emissions (continued)

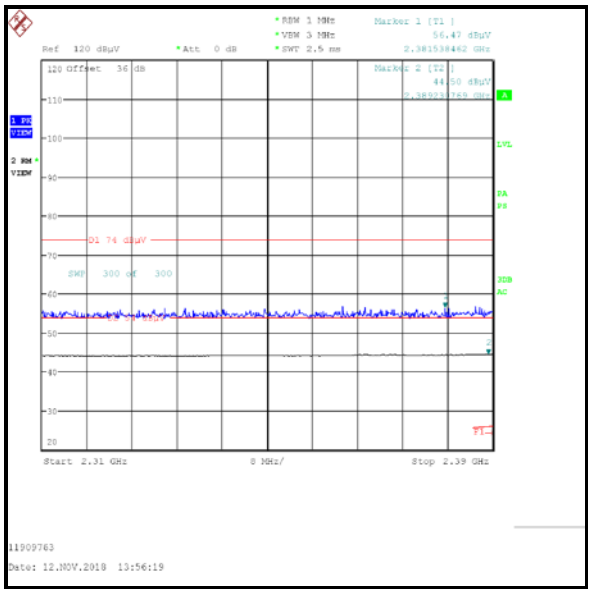
Plots: 802.11b / 20 MHz / 5.5 Mbps / MIMO / Port 1+2 / PWL 12 / 6 dBi Antenna Group



Lower Band Edge Peak Measurement



Upper Band Edge Peak/Average Measurement



2310 MHz to 2390 MHz Restricted Band

Transmitter Band Edge Radiated Emissions (continued)

Results: 802.11g / 20 MHz / 6 Mbps / MIMO Port 2 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2386.09	52.92	68.14	15.22	Complied
2400.00	52.14	68.14	16.00	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2389.23	56.44	74.0	17.56	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.23	44.57	0.20	44.77	54.0	9.23	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	60.53	74.0	11.08	Complied

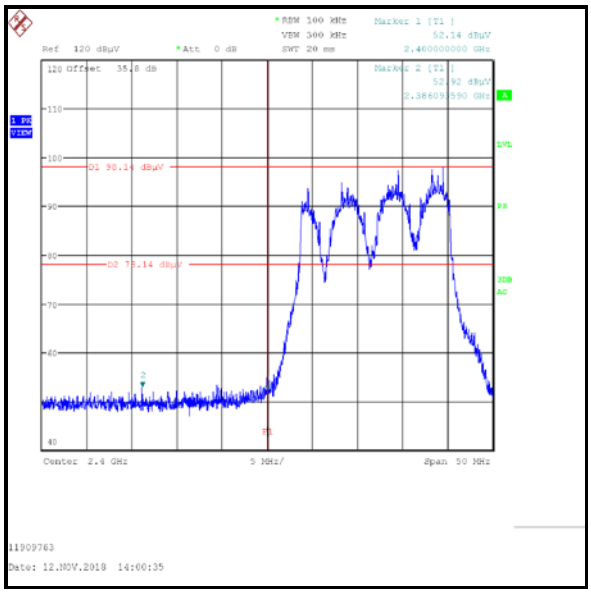
Results: Upper Band Edge / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	49.94	0.20	50.14	54.0	3.86	Complied
2486.32	50.05	0.20	50.25	54.0	3.75	Complied

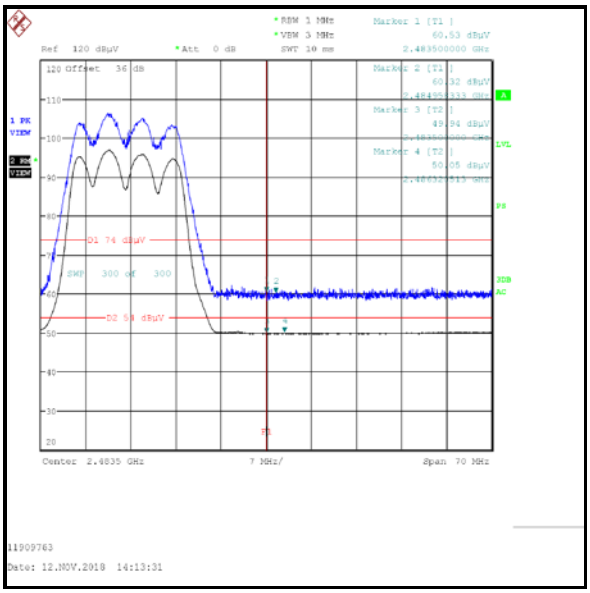
Result: Pass

Transmitter Band Edge Radiated Emissions (continued)

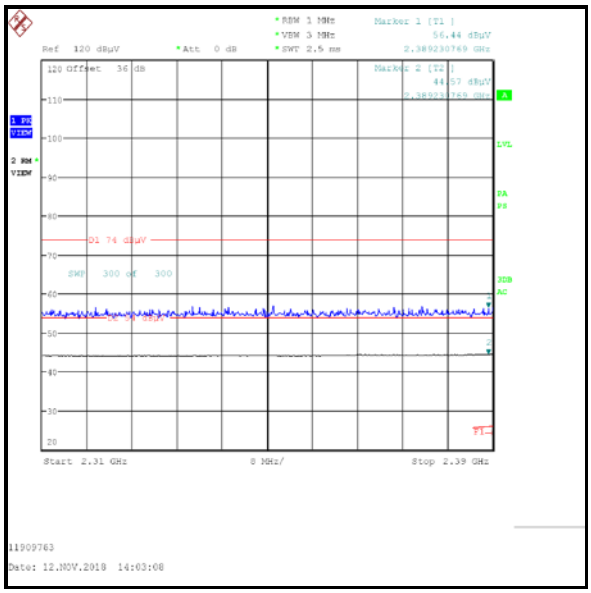
Plots: 802.11g / 20 MHz / 6 Mbps / MIMO Port 2 / PWL 12 / 6 dBi Antenna Group



Lower Band Edge Peak Measurement



Upper Band Edge Peak/Average Measurement



2310 MHz to 2390 MHz Restricted Band Plot

Transmitter Band Edge Radiated Emissions (continued)

Results: 802.11n / HT20 / MCS0 / MIMO / Port 1+2 / PWL 12 / 6 dBi Antenna Group

Results: Lower Band Edge / Peak

Frequency (MHz)	Peak Level (dBµV/m)	-30 dBc Limit (dBµV/m)	Margin (dB)	Result
2399.95	54.60	69.78	15.18	Complied
2400.00	53.87	69.78	15.91	Complied

Results: 2310-2390 MHz Restricted Band / Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2388.33	56.63	74.0	17.37	Complied

Results: 2310-2390 MHz Restricted Band / Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2389.48	44.71	0.40	45.11	54.0	8.89	Complied

Results: Upper Band Edge Peak

Frequency (MHz)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
2483.50	60.48	74.0	13.52	Complied
2484.95	60.76	74.0	13.24	Complied

Results: Upper Band Edge Average

Frequency (MHz)	Average Level (dBµV/m)	Duty cycle correction (dB)	Corrected Average Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
2483.50	49.96	0.40	50.36	54.0	3.64	Complied

Result: Pass