

Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0**

Channel	Frequency (MHz)	Port WF1			Port WF2		
		PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)
Single	5775	-2.8	0.2	-2.6	-1.7	0.2	-1.5

Channel	Frequency (MHz)	Port WF3			Ports WF1, WF2 & WF3		
		PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	Corrected PSD Port WF1 (dBm / 1 MHz)	Corrected PSD Port WF2 (dBm / 1 MHz)	Corrected PSD Port WF3 (dBm / 1 MHz)
Single	5775	-2.2	0.2	-2.0	-2.6	-1.5	-2.0

Channel	Frequency (MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Single	5775	2.4	30.0	27.6	Complied

Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0

Channel	Frequency (MHz)	PSD Port WF1 (dBm / 1 MHz)	PSD Port WF2 (dBm / 1 MHz)	PSD Port WF3 (dBm / 1 MHz)	Combined PSD (dBm / 1 MHz)
Bottom	5745	2.2	2.7	3.1	7.5
Middle	5785	8.3	8.4	9.0	13.3
Top	5825	4.4	4.8	5.2	9.6

Channel	Frequency (MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5745	7.5	26.5	19.0	Complied
Middle	5785	13.3	26.5	13.2	Complied
Top	5825	9.6	26.5	16.9	Complied

Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Port WF1			Port WF2		
		PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)
Bottom	5755	2.4	0.2	2.6	2.0	0.2	2.2
Top	5795	1.9	0.2	2.1	2.6	0.2	2.8

Channel	Frequency (MHz)	Port WF3			Ports WF1, WF2 & WF3		
		PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	Corrected PSD Port WF1 (dBm / 1 MHz)	Corrected PSD Port WF2 (dBm / 1 MHz)	Corrected PSD Port WF3 (dBm / 1 MHz)
Bottom	5755	3.2	0.2	3.4	2.6	2.2	3.4
Top	5795	3.0	0.2	3.2	2.1	2.8	3.2

Channel	Frequency (MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5755	7.5	26.5	19.0	Complied
Top	5795	7.5	26.5	19.0	Complied

Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0

Channel	Frequency (MHz)	Port WF1			Port WF2		
		PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)
Single	5775	-3.1	0.1	-3.0	-3.3	0.1	-3.2

Channel	Frequency (MHz)	Port WF3			Ports WF1, WF2 & WF3		
		PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	Corrected PSD Port WF1 (dBm / 1 MHz)	Corrected PSD Port WF2 (dBm / 1 MHz)	Corrected PSD Port WF3 (dBm / 1 MHz)
Single	5775	-2.9	0.1	-2.8	-3.0	-3.2	-2.8

Channel	Frequency (MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Single	5775	1.8	26.5	24.7	Complied

5. Radiated Test Results

5.1. Transmitter Out of Band Radiated Emissions <1 GHz

Test Summary:

Test Engineer:	Alan Withers	Test Date:	02 May 2018
Test Sample Serial Number:	C02VR00RJH93		

FCC Reference:	Parts 15.407(b)(4),(6),(7) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.5
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

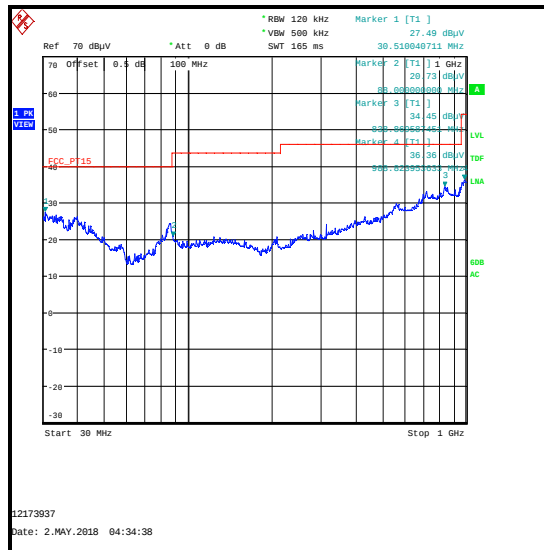
Temperature (°C):	23
Relative Humidity (%):	42

Note(s):

1. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
2. Pre-scans were performed with the EUT transmitting in the band 5.725 to 5.85 GHz band with a configuration of 802.11n / HT20 / MCS0 / MIMO on middle channel in this band as it produced the highest power spectral density and was therefore deemed worst case. An inquiry was made to the FCC and the response was pre-scans could be performed in the band with the highest power spectral density and all final measurements should be performed on any emissions seen in each band.
3. All emissions shown on the pre-scan plot were investigated and found to be ambient, or >20 dB below the applicable limit or below the measurement system noise floor. Therefore the highest peak noise floor reading of the measuring receiver was recorded in the table below.
4. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0017) at a distance of 3 metres. 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 metre to 4 metres.
5. Pre-scans were performed and markers placed on the highest measured levels. The test receiver resolution bandwidth was set to 120 kHz and video bandwidth 500 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.

Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: Middle Channel / Field Strength**

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
988.824	Vertical	36.4	54.0	17.6	Complied



5.2. Transmitter Out of Band Radiated Emissions >1 GHz**5.2.1. 5.15-5.25 GHz band****Transmitter Out of Band Radiated Emissions (5.15-5.25 GHz band operation)****Test Summary:**

Test Engineers:	Alan Withers, James O'Reilly & John Ferdinand	Test Dates:	24 February 2018 to 09 May 2018
Test Sample Serial Numbers:	C02VQ00GJKHY & C02W6002JTDV		

FCC Reference:	Part 15.407(b)(1),(7) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6
Frequency Range:	1 GHz to 40 GHz

Environmental Conditions:

Temperature (°C):	20 to 22
Relative Humidity (%):	42 to 46

Note(s):

1. FCC Part 15.407(b)(1) states for transmitters operating in the band 5.15 to 5.25 GHz: all emissions outside of the 5.15 to 5.35 GHz band will not exceed -27 dBm/MHz. Part(b)(7) states the provisions of 15.205 apply e.g. restricted bands of operation.
2. In accordance with ANSI C63.10-2013 Section 6.5.4, emissions more than 20 dB below the limit do not need to be reported.
3. Pre-scans were performed with the EUT transmitting in the band 5.725 to 5.85 GHz band with a data rate of 802.11n / HT20 / MCS0 / MIMO on middle channel in this band as it produced the highest power spectral density and was therefore deemed worst case. An inquiry was made to the FCC and the response was pre-scans could be performed in the band with the highest power spectral density and all final measurements should be performed on any emissions seen in each band.
4. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
5. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
6. Measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres 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 metre to 4 metres.
7. All other emissions shown on the pre-scan plots were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Transmitter Out of Band Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: Bottom Channel / EIRP**

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5611.842	Vertical	-37.0	-27.0	10.0	Complied

Results: Bottom Channel / Field Strength / Peak

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
5148.700	Vertical	66.5	74.0	7.5	Complied

Results: Bottom Channel / Field Strength / Average

Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
5148.700	Vertical	45.5	54.0	8.5	Complied

Results: Middle Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5633.109	Vertical	-33.9	-27.0	6.9	Complied

Results: Middle Channel / Field Strength / Peak

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
5136.375	Vertical	57.6	74.0	16.4	Complied

Results: Middle Channel / Field Strength / Average

Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
5136.837	Vertical	45.0	54.0	9.0	Complied

Results: Top Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5676.627	Vertical	-33.9	-27.0	6.9	Complied

Results: Top Channel / Field Strength / Peak

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
5137.500	Vertical	56.5	74.0	17.5	Complied

Results: Top Channel / Field Strength / Average

Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
5143.750	Vertical	44.4	54.0	9.6	Complied

5.2.2. 5.25-5.35 GHz band**Transmitter Out of Band Radiated Emissions (5.25-5.35 GHz band operation)****Test Summary:**

Test Engineers:	Alan Withers, James O'Reily & John Ferdinand	Test Dates:	24 February 2018 to 09 May 2018
Test Sample Serial Numbers:	C02VQ00GJKHY & C02W6002JTDV		

FCC Reference:	Part 15.407(b)(2),(7) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6
Frequency Range:	1 GHz to 40 GHz

Environmental Conditions:

Temperature (°C):	20 to 22
Relative Humidity (%):	42 to 46

Note(s):

1. FCC Part 15.407(b)(2) states for transmitters operating in the band 5.25 to 5.35 GHz: all emissions outside of the 5.15-5.35 GHz band will not exceed -27 dBm/MHz. Part(b)(7) states the provisions of 15.205 apply e.g. restricted bands of operation.
2. In accordance with ANSI C63.10-2013 Section 6.5.4, emissions more than 20 dB below the limit do not need to be reported.
3. Pre-scans were performed with the EUT transmitting in the band 5.725 to 5.85 GHz band with a data rate of 802.11n / HT20 / MCS0 / MIMO on middle channel in this band as it produced the highest power spectral density and was therefore deemed worst case. An inquiry was made to the FCC and the response was pre-scans could be performed in the band with the highest power spectral density and all final measurements should be performed on any emissions seen in each band.
4. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
5. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
6. Measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres 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 metre to 4 metres.
7. All other emissions shown on the pre-scan plots were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Transmitter Out of Band Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: Bottom Channel / EIRP**

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5698.076	Vertical	-37.0	-27.0	10.0	Complied

Results: Middle Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5719.984	Vertical	-35.7	-27.0	8.7	Complied

Results: Middle Channel / Field Strength / Peak

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
4911.450	Vertical	56.4	74.0	17.6	Complied

Results: Middle Channel / Field Strength / Average

Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
4839.950	Vertical	52.1	54.0	1.9	Complied

Results: Top Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5187.017	Vertical	-36.2	-27.0	9.2	Complied
5585.872	Vertical	-36.1	-27.0	9.1	Complied

5.2.3. 5.47-5.725 GHz band**Transmitter Out of Band Radiated Emissions (5.47-5.725 GHz band operation)****Test Summary:**

Test Engineers:	Alan Withers, James O'Reilly & John Ferdinand	Test Dates:	24 February 2018 to 09 May 2018
Test Sample Serial Numbers:	C02VR00RJH93, C02VQ00GJKHY & C02W6002JTDV		

FCC Reference:	Part 15.407(b)(3),(7) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6
Frequency Range:	1 GHz to 40 GHz

Environmental Conditions:

Temperature (°C):	20 to 22
Relative Humidity (%):	42 to 46

Note(s):

1. FCC Part 15.407(b)(3) states for transmitters operating in the band 5.47 to 5.725 GHz: all emissions outside of the band will not exceed -27 dBm/MHz. Part(b)(7) states the provisions of 15.205 apply e.g. restricted bands of operation.
2. In accordance with ANSI C63.10-2013 Section 6.5.4, emissions more than 20 dB below the limit do not need to be reported.
3. Pre-scans were performed with the EUT transmitting in the band 5.725 to 5.85 GHz band with a data rate of 802.11n / HT20 / MCS0 / MIMO on middle channel in this band as it produced the highest power spectral density and was therefore deemed worst case. An inquiry was made to the FCC and the response was pre-scans could be performed in the band with the highest power spectral density and all final measurements should be performed on any emissions seen in each band.
4. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
5. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
6. Measurements above 1 GHz were performed in a semi-anechoic chamber (Asset Number K0017) at a distance of 3 metres. 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 metre to 4 metres.
7. All other emissions shown on the pre-scan plots were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Transmitter Out of Band Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: Bottom Channel / EIRP**

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5270.833	Vertical	-38.9	-27.0	11.9	Complied
5729.038	Vertical	-37.9	-27.0	10.9	Complied

Results: Middle Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5208.096	Vertical	-36.3	-27.0	9.3	Complied
5951.858	Vertical	-37.9	-27.0	10.9	Complied

Results: Top Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5277.855	Vertical	-38.5	-27.0	11.5	Complied

5.2.4. Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz**Transmitter Out of Band Radiated Emissions (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz)****Test Summary:**

Test Engineer:	James O'Reilly	Test Date:	06 May 2018
Test Sample Serial Number:	C02VQ00GJKHY		

FCC Reference:	Part 15.407(b)(3),(4)(i),(7) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6
Frequency Range:	1 GHz to 40 GHz

Environmental Conditions:

Temperature (°C):	21
Relative Humidity (%):	43

Note(s):

1. FCC Part 15.407(b)(3) states for transmitters operating in the band 5.47 to 5.725 GHz: all emissions outside of the band will not exceed -27 dBm/MHz. Part(b)(7) states the provisions of 15.205 apply e.g. restricted bands of operation.
2. FCC Part 15.407(b)(4)(i) states for transmitters operating in the band 5.725 to 5.85 GHz: all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
3. Pre-scans were performed with the EUT transmitting in the band 5.725 to 5.85 GHz band with a data rate of 802.11n / HT20 / MCS0 / MIMO on middle channel in this band as it produced the highest power spectral density and was therefore deemed worst case. An inquiry was made to the FCC and the response was pre-scans could be performed in the band with the highest power spectral density and all final measurements should be performed on any emissions seen in each band.
4. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
5. Measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres 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 metre to 4 metres.

Results: Straddle Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5508.375	Vertical	-38.5	-27.0	11.5	Complied

5.2.5. 5.725-5.85 GHz band**Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation)****Test Summary:**

Test Engineers:	Alan Withers, James O'Reilly & John Ferdinand	Test Dates:	24 February 2018 to 09 May 2018
Test Sample Serial Numbers:	C02VR00RJH93, C02VQ00GJKHY & C02W6002JTDV		

FCC Reference:	Part 15.407(b)(4)(i),(7) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6
Frequency Range:	1 GHz to 40 GHz

Environmental Conditions:

Temperature (°C):	20 to 22
Relative Humidity (%):	42 to 46

Note(s):

1. FCC Part 15.407(b)(4)(i) states for transmitters operating in the band 5.725 to 5.85 GHz: all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. Part(b)(7) states the provisions of 15.205 apply e.g. restricted bands of operation.
2. In accordance with ANSI C63.10-2013 Section 6.5.4, emissions more than 20 dB below the limit do not need to be reported.
3. Pre-scans were performed with the EUT transmitting in the band 5.725 to 5.85 GHz band with a data rate of 802.11n / HT20 / MCS0 / MIMO on middle channel in this band as it produced the highest power spectral density and was therefore deemed worst case. An inquiry was made to the FCC and the response was pre-scans could be performed in the band with the highest spectral power density and all final measurements should be performed on any emissions seen in each band.
4. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
5. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
6. The emission shown on the 4 GHz to 6 GHz plot is the EUT fundamental.
7. Measurements were performed across the two restricted bands closest to the bands of operation with the EUT transmitting on the bottom channel in the 5.15 to 5.25 GHz band and top channel in the 5.25 to 5.35 GHz range. Plots are included in this section of the test report. Peak and average measurements were made.
8. Pre-scans above 1 GHz were performed in a fully anechoic chamber (Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT.
9. Final measurements above 1 GHz were performed in a semi-anechoic chamber (Asset Number K0017) at a distance of 3 metres. 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 metre to 4 metres

Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: Bottom Channel / EIRP**

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5319.526	Vertical	-37.2	-27.0	10.2	Complied
5950.359	Vertical	-36.5	-27.0	9.5	Complied

Results: Middle Channel / EIRP

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5578.965	Vertical	-32.4	-27.0	5.4	Complied
5991.718	Vertical	-33.2	-27.0	6.2	Complied

Results: Middle Channel / Field Strength / Peak

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
5356.522	Vertical	60.9	74.0	13.1	Complied

Results: Middle Channel / Field Strength / Average

Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
5356.346	Vertical	53.4	54.0	0.6	Complied

Results: Top Channel / EIRP

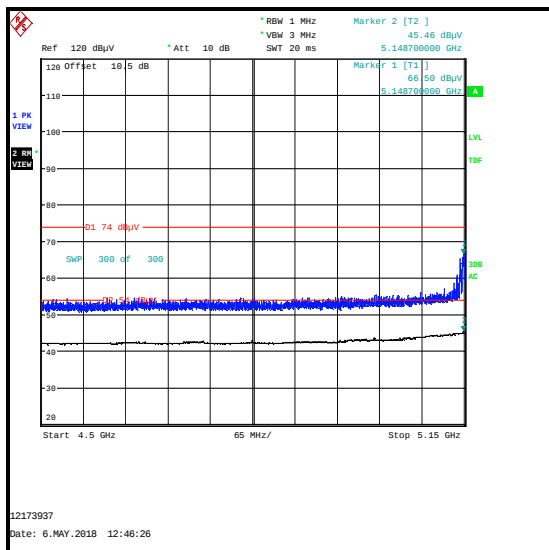
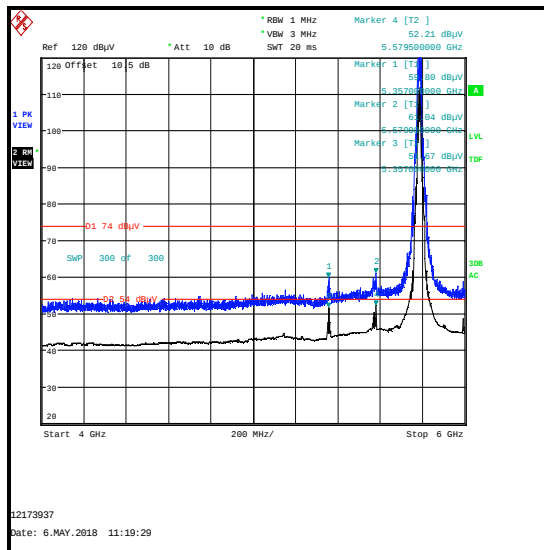
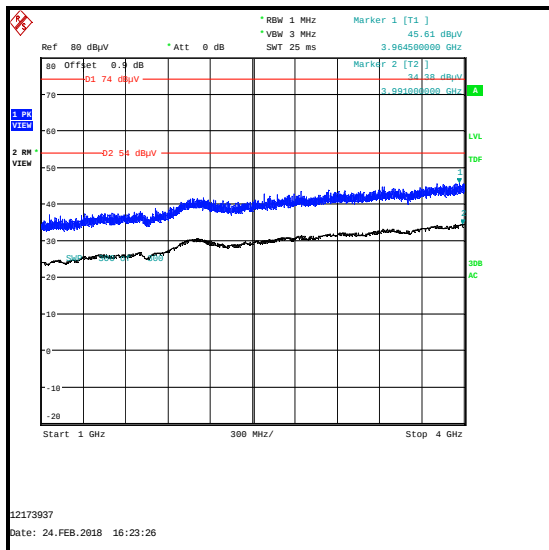
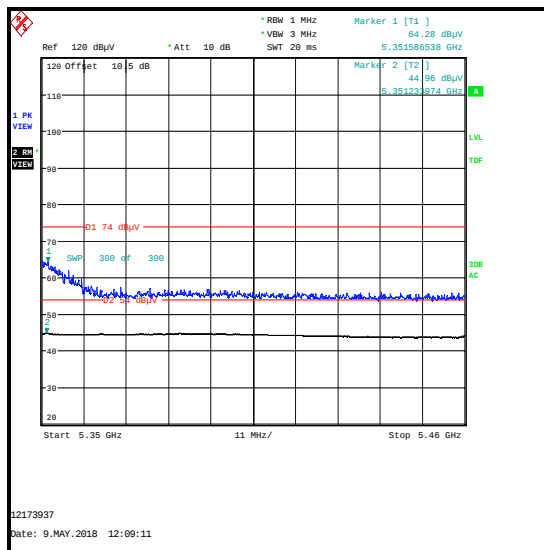
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5609.721	Vertical	-36.3	-27.0	9.3	Complied

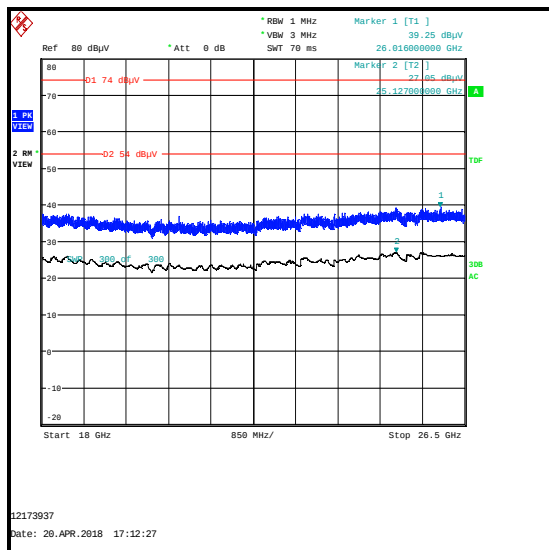
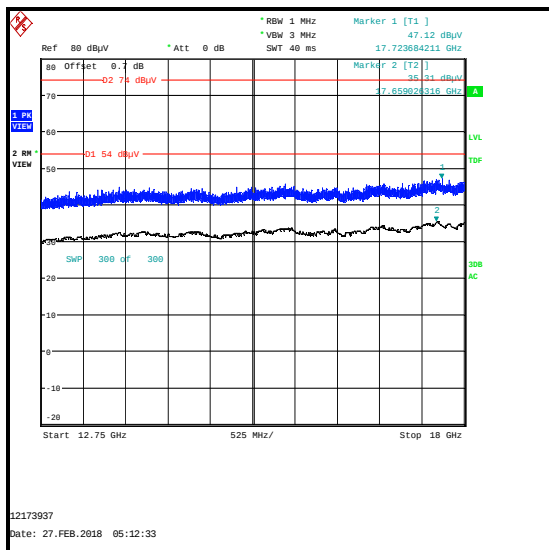
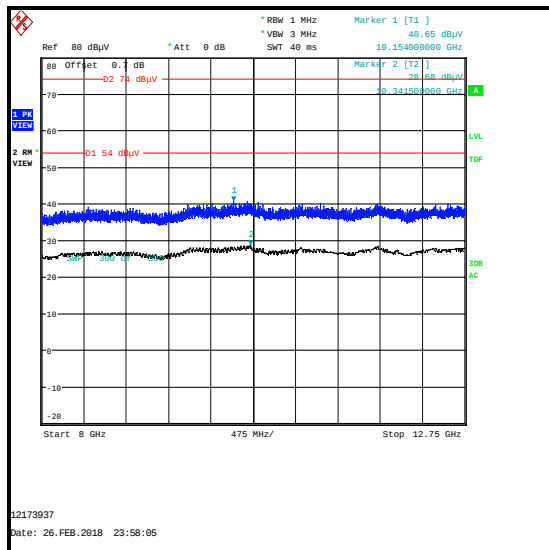
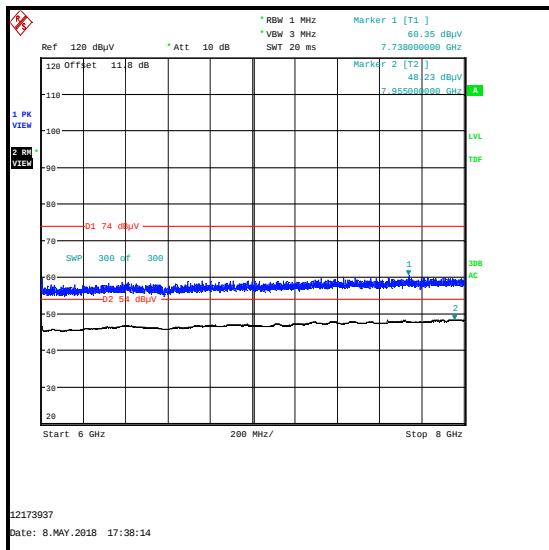
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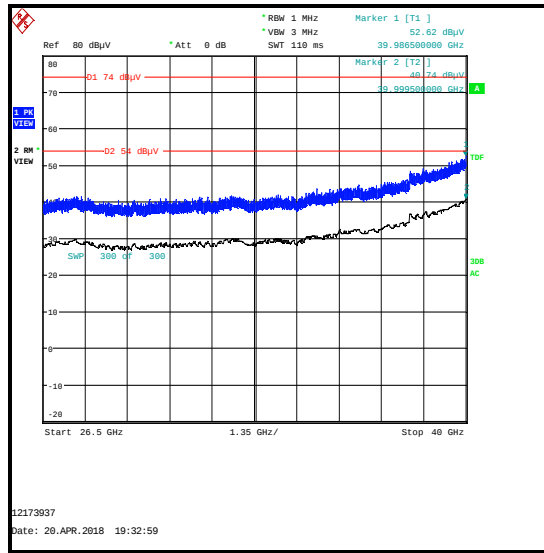
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5393.490	Vertical	60.3	74.0	13.7	Complied

Results: Top Channel / Field Strength

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
5393.490	Vertical	52.8	54.0	1.2	Complied

Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Restricted Band 4.5 GHz to 5.15 GHz****Restricted Band 5.35 GHz to 5.46 GHz**

Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)

Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)

5.3. Transmitter Band Edge Radiated Emissions**5.3.1. 5.15-5.25 GHz band****Test Summary:**

Test Engineers:	John Ferdinand, Alan Withers & Stuart Martin	Test Dates:	01 February 2018 to 09 May 2018
Test Sample Serial Numbers:	C02VR00RJH93 & C02W601JTF2		

FCC Reference:	Parts 15.407(b)(1),(7), 15.205 & 15.209(a)
Test Method Used:	ANSI C63.10 Section 6.10 & KDB 789033 II.G.

Environmental Conditions:

Temperature (°C):	22 to 26
Relative Humidity (%):	38 to 48

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Note(s):**

1. The following modes were tested:
 - o 802.11a - BPSK / 6 Mbps / Port WF1
 - o 802.11n HT20 / SISO - BPSK / MCS0 / Port WF1
 - o 802.11n HT40 / SISO - BPSK / MCS0 / Port WF1
 - o 802.11ac VHT80 / SISO – BPSK / MCS0x1 / Port WF1
 - o 802.11n HT20 / MIMO / 2Tx CDD - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 2Tx CDD - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 2Tx CDD - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 2Tx STBC - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 2Tx STBC - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 2Tx STBC - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 2Tx TxBF - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 2Tx TxBF - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 2Tx TxBF - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 3Tx CDD - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 3Tx CDD - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 3Tx CDD - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 3Tx STBC - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 3Tx STBC - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 3Tx STBC - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 3Tx TxBF - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 3Tx TxBF - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 3Tx TxBF - BPSK / MCS0x1
2. Lower band edge measurements were performed with the EUT transmitting on the bottom channel. Upper band edge measurements were performed with the EUT transmitting on the top channel.
3. For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. However, there are restricted bands of operation below the lower band edge at 4.5-5.15 GHz and also above the upper band edge at 5.35-5.46 GHz therefore the provisions of FCC Part 15.205 apply. Tests were performed in these restricted bands of operation, the results are included in the transmitter 5.725-5.85 GHz band radiated spurious emission section of this test report.
4. Field strength measurements using peak and average detectors were performed in the restricted bands below 5.15 GHz and above 5.35 GHz. Field strength and EIRP results were found to be compliant with the restricted band limits and Part 15.407 out-of-band limits.
5. In accordance with KDB 789033 Section II.G.1.c) if the peak measurement is below the average limit, it is not necessary to perform a separate average measurement.
6. For all average measurements if this section, 300 sweeps were used. This satisfies the requirement for the minimum number of sweep points, as stated in KDB 789033 Section II.G.6.c) Method AD (vi).
7. In accordance with KDB 789033 Section II.G.6.c) Method AD (vii), for average measurements, data rates where the EUT was transmitting <98% duty cycle, the duty cycle correction factor calculated in section 4.1 was added to the measured result.

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11a / 20 MHz / SISO / BPSK / 6 Mbps / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5149.872	69.9	74.0	4.1	Complied
5150	69.6	74.0	4.4	Complied

Results: Upper Band Edge / Peak

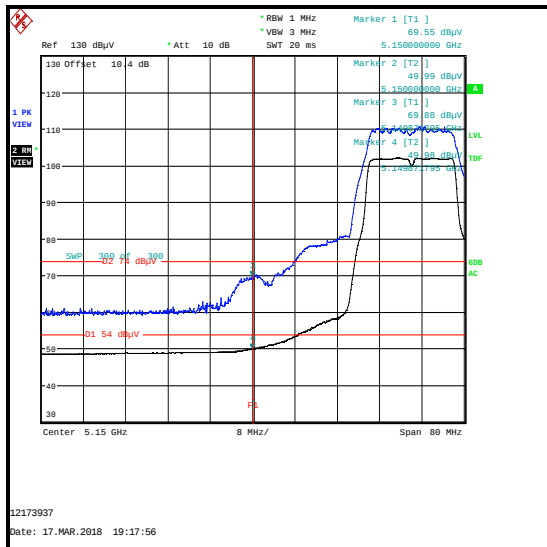
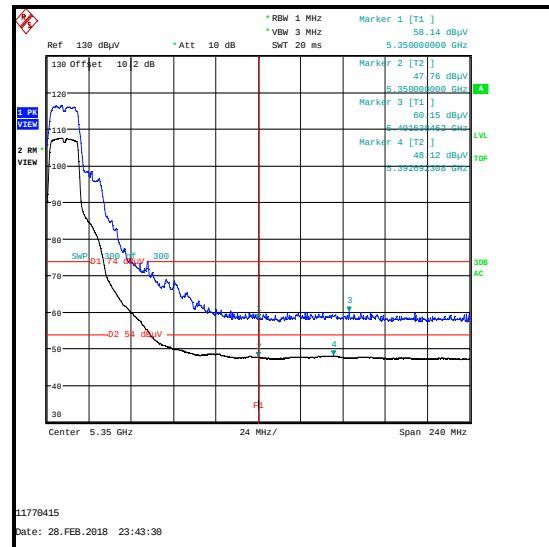
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.1	74.0	15.9	Complied
5401.538	60.2	74.0	13.8	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	50.0	54.0	4.0	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.8	54.0	6.2	Complied
5392.692	48.1	54.0	5.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 20 MHz / SISO / BPSK / MCS0 / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.718	69.9	74.0	4.1	Complied
5150	67.7	74.0	6.3	Complied

Results: Upper Band Edge / Peak

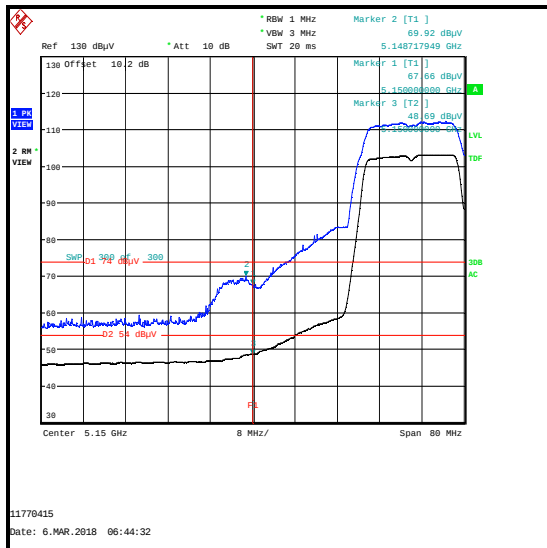
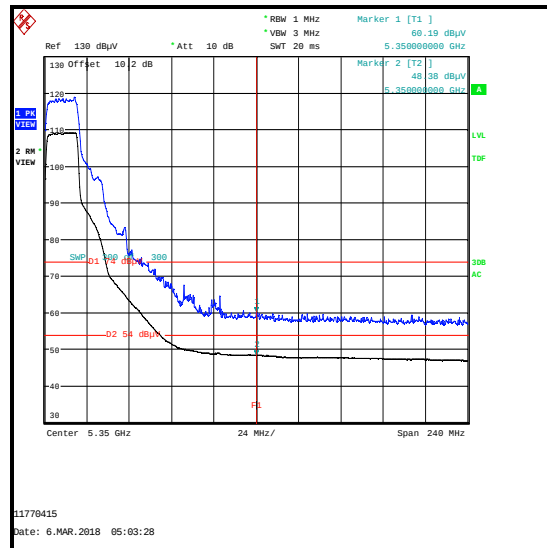
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	60.2	74.0	13.8	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	48.7	54.0	5.3	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.4	54.0	5.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 40 MHz / SISO / BPSK / MCS0 / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5148.269	66.9	74.0	7.1	Complied
5150	65.6	74.0	8.4	Complied

Results: Upper Band Edge / Peak

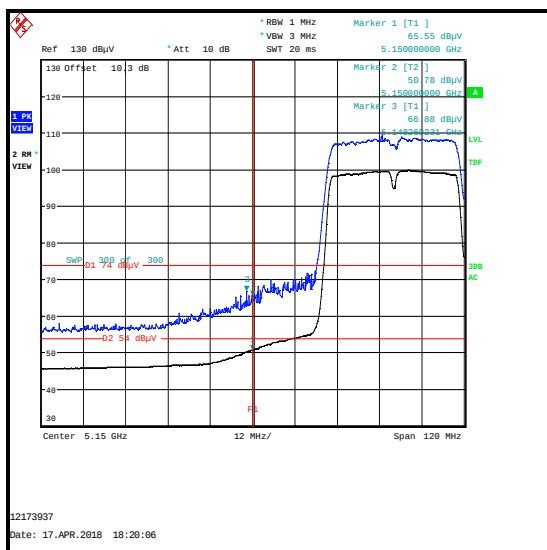
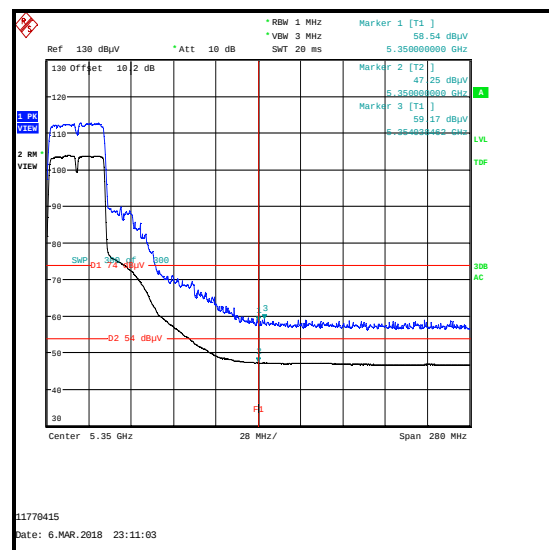
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.5	74.0	15.5	Complied
5354.038	59.2	74.0	14.8	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	50.8	0.1	50.9	54.0	3.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.3	0.1	47.4	54.0	6.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / SISO / BPSK / MCS0 / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5148.718	66.3	74.0	7.7	Complied
5150	63.9	74.0	10.1	Complied

Results: Upper Band Edge / Peak

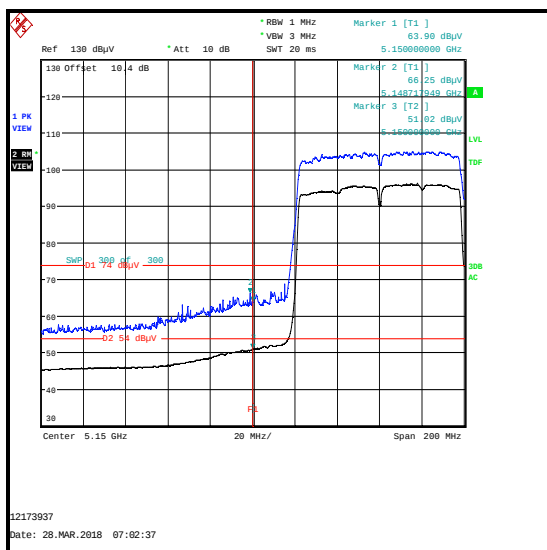
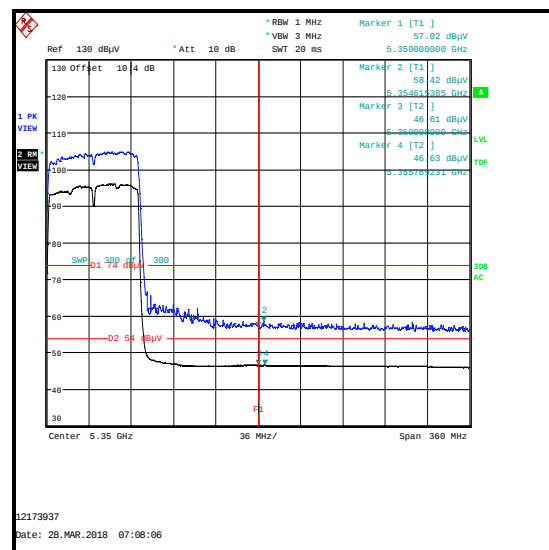
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	57.0	74.0	17.0	Complied
5354.615	58.4	74.0	15.6	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	51.0	0.2	51.2	54.0	2.8	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	46.6	0.2	46.8	54.0	7.2	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.590	68.4	74.0	5.6	Complied
5150	64.6	74.0	9.4	Complied

Results: Upper Band Edge / Peak

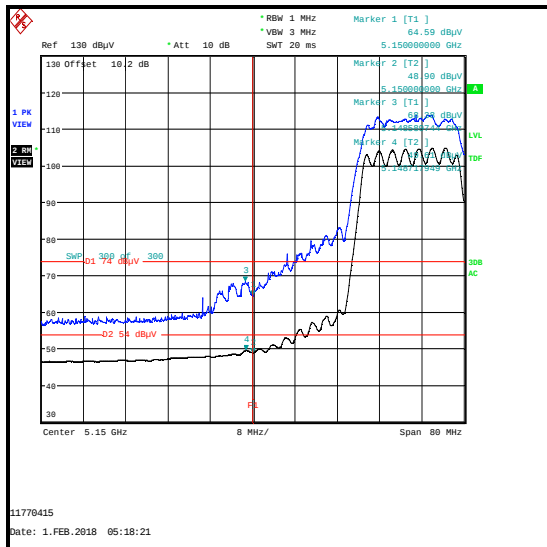
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	61.1	74.0	12.9	Complied
5387.308	62.5	74.0	11.5	Complied

Results: Lower Band Edge / Average

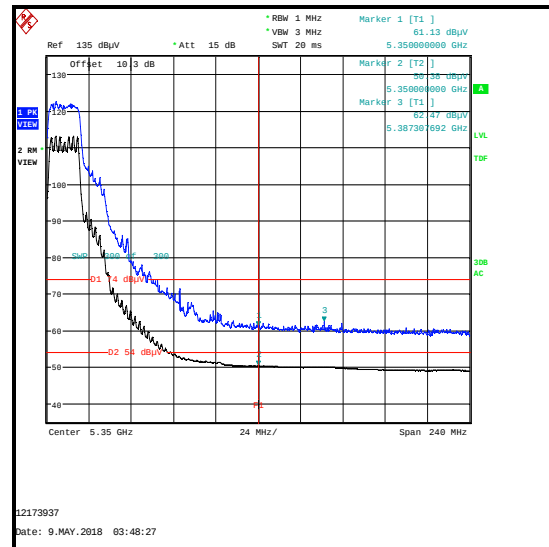
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.9	54.0	5.1	Complied
5148.718	49.6	54.0	4.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	50.4	54.0	3.6	Complied



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5147.885	68.0	74.0	6.0	Complied
5150	64.6	74.0	9.4	Complied

Results: Upper Band Edge / Peak

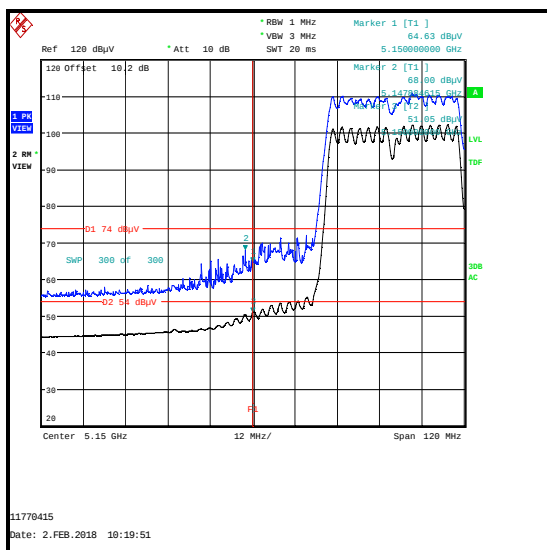
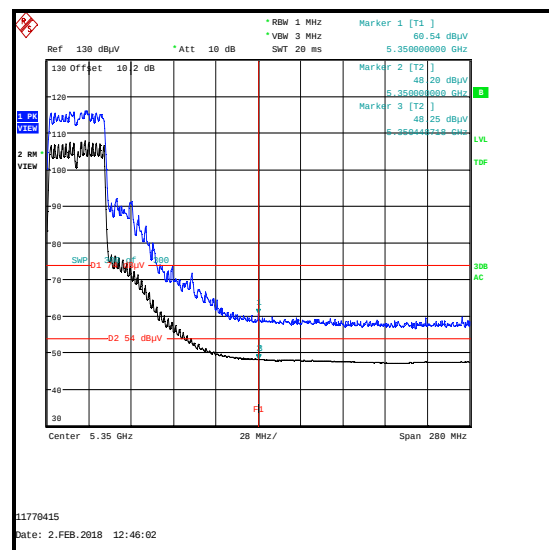
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	60.5	74.0	13.5	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	51.1	0.1	51.2	54.0	2.8	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.2	0.1	48.3	54.0	5.7	Complied
5350.449	48.3	0.1	48.4	54.0	5.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5147.756	63.9	74.0	10.1	Complied
5150	63.4	74.0	10.6	Complied

Results: Upper Band Edge / Peak

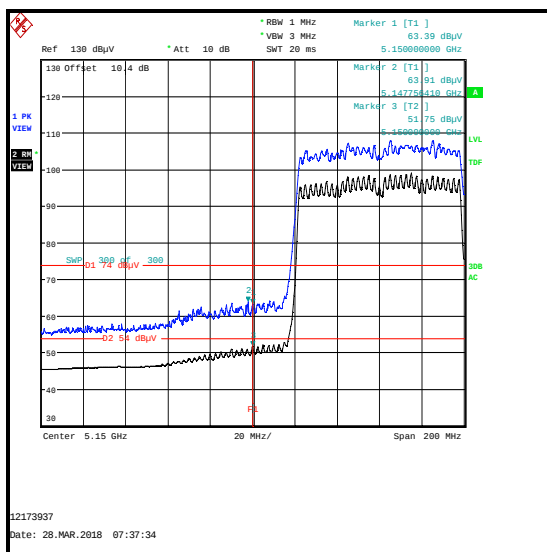
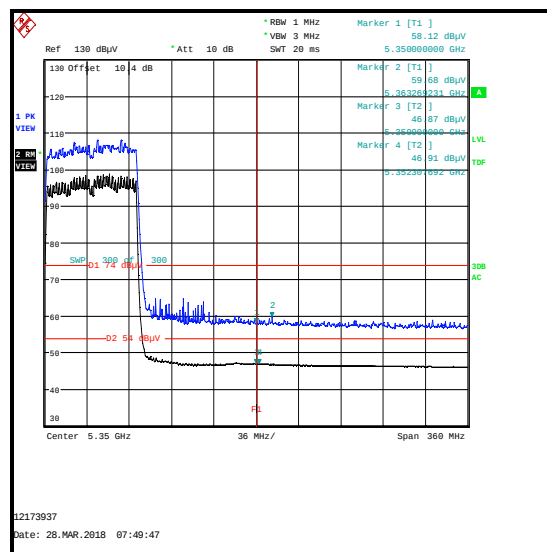
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	58.1	74.0	15.9	Complied
5363.269	59.7	74.0	14.3	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	51.8	0.2	52.0	54.0	2.0	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.9	0.2	47.1	54.0	6.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5145.000	68.1	74.0	15.9	Complied
5150	66.2	74.0	7.8	Complied

Results: Upper Band Edge / Peak

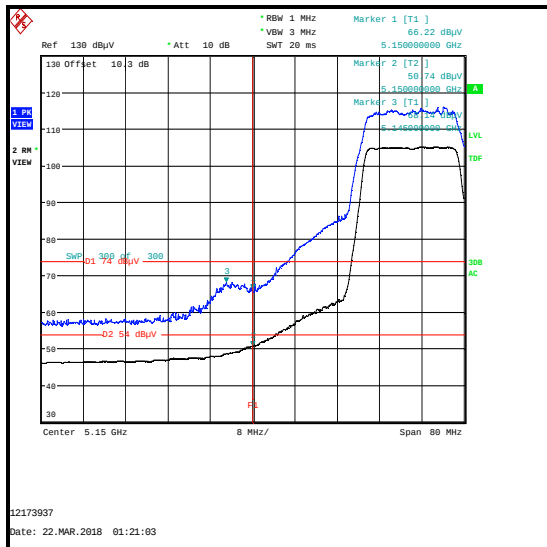
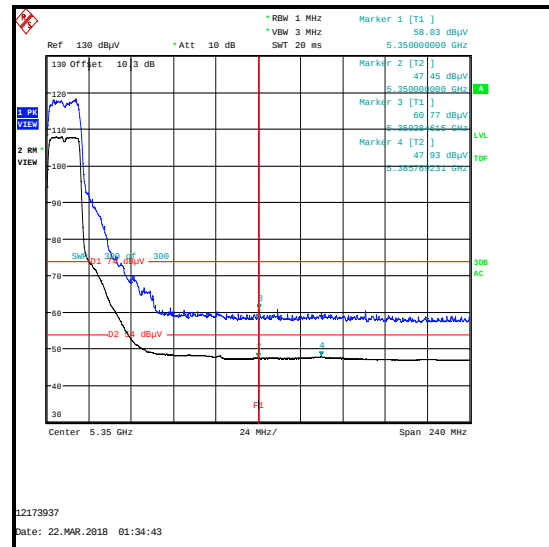
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.0	74.0	16.0	Complied
5350.385	60.8	74.0	13.2	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	50.7	54.0	3.3	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.5	54.0	6.5	Complied
5385.769	47.9	54.0	6.1	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.846	66.4	74.0	7.6	Complied
5150	61.9	74.0	12.1	Complied

Results: Upper Band Edge / Peak

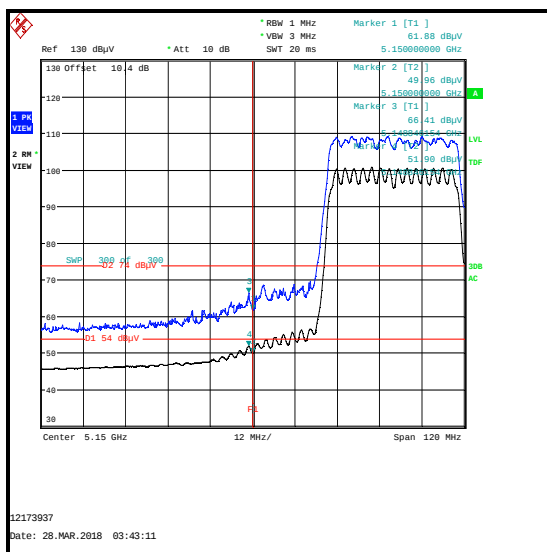
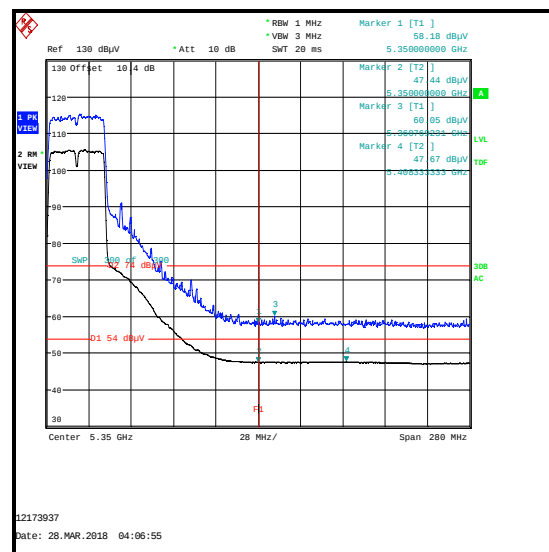
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	58.2	74.0	15.8	Complied
5360.769	60.1	74.0	13.9	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.846	51.9	0.1	52.0	54.0	2.0	Complied
5150	50.0	0.1	50.1	54.0	3.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.4	0.1	47.5	54.0	6.5	Complied
5408.333	47.7	0.1	47.8	54.0	6.2	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5149.038	65.1	74.0	8.9	Complied
5150	64.2	74.0	9.8	Complied

Results: Upper Band Edge / Peak

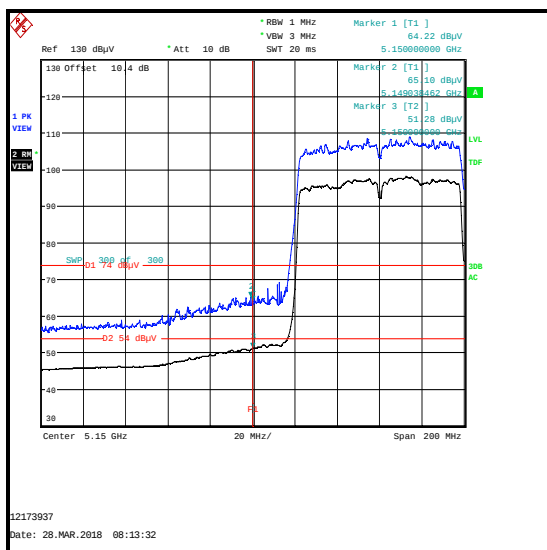
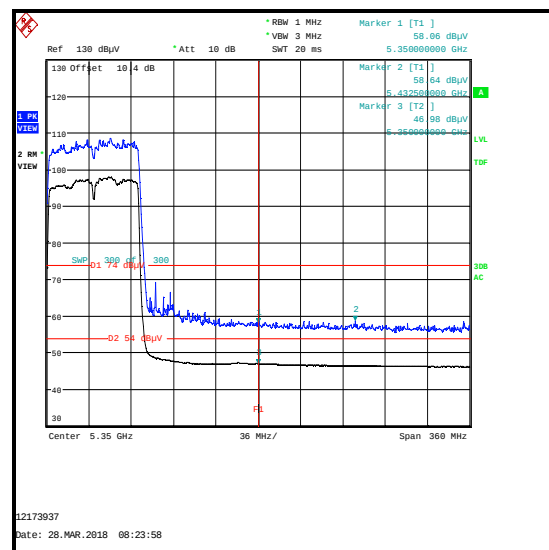
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.1	74.0	15.9	Complied
5432.500	58.6	74.0	15.4	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	51.3	0.2	51.5	54.0	2.5	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.0	0.2	47.2	54.0	6.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5147.051	68.8	74.0	5.2	Complied
5150	67.0	74.0	7.0	Complied

Results: Upper Band Edge / Peak

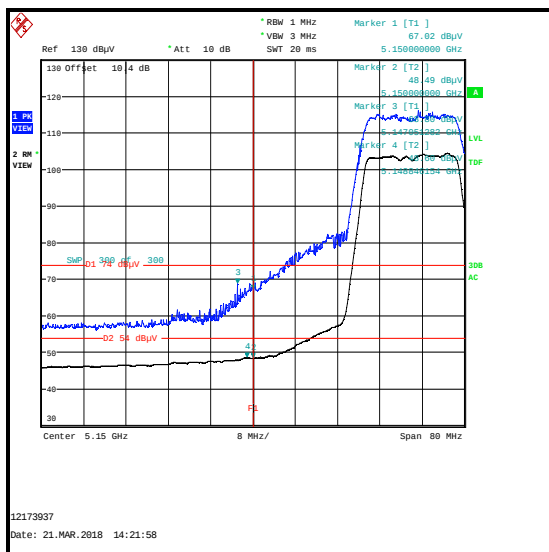
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	57.3	74.0	16.7	Complied
5354.231	59.5	74.0	14.5	Complied

Results: Lower Band Edge / Average

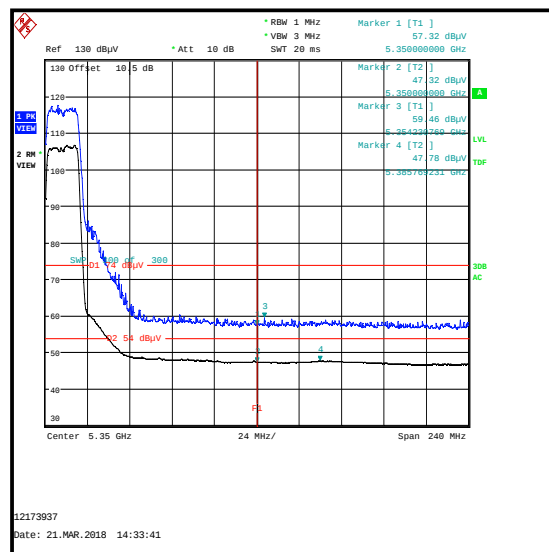
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	48.5	54.0	5.5	Complied
5148.846	48.6	54.0	5.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.3	54.0	6.7	Complied
5385.769	47.8	54.0	6.2	Complied



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5149.615	68.3	74.0	5.7	Complied
5150	68.2	74.0	5.8	Complied

Results: Upper Band Edge / Peak

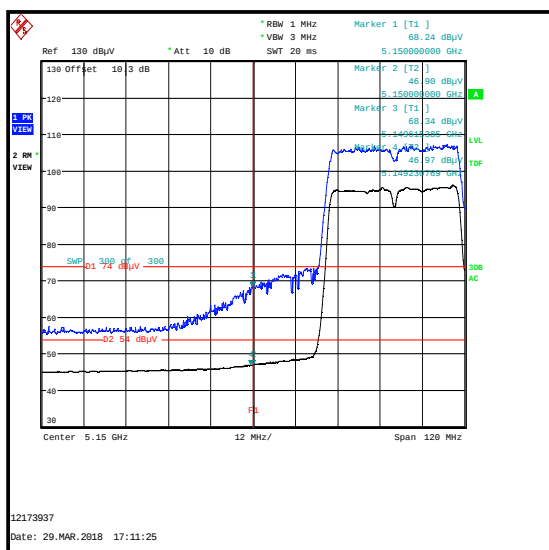
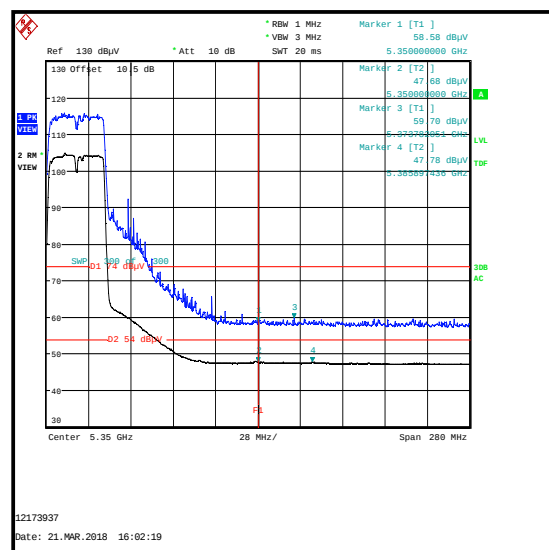
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	58.6	74.0	15.4	Complied
5373.782	59.7	74.0	14.3	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5149.231	47.0	0.2	47.2	54.0	6.8	Complied
5150	46.9	0.2	47.1	54.0	6.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.7	0.2	47.9	54.0	6.1	Complied
5385.897	47.8	0.2	48.0	54.0	6.0	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5146.795	64.3	74.0	9.7	Complied
5150	62.2	74.0	11.8	Complied

Results: Upper Band Edge / Peak

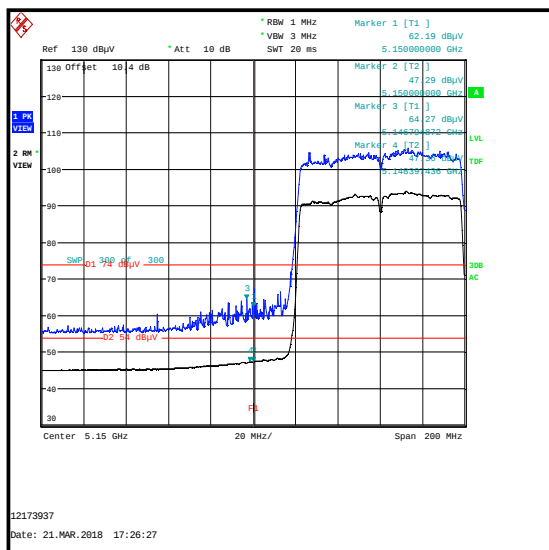
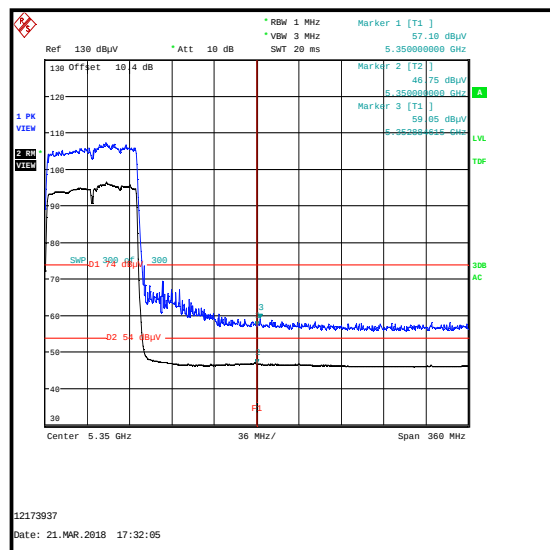
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	57.1	74.0	16.9	Complied
5352.885	59.1	74.0	14.9	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.397	47.4	0.1	47.5	54.0	6.5	Complied
5150	47.3	0.1	47.4	54.0	6.6	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.8	0.1	46.9	54.0	7.1	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	64.3	74.0	9.7	Complied

Results: Upper Band Edge / Peak

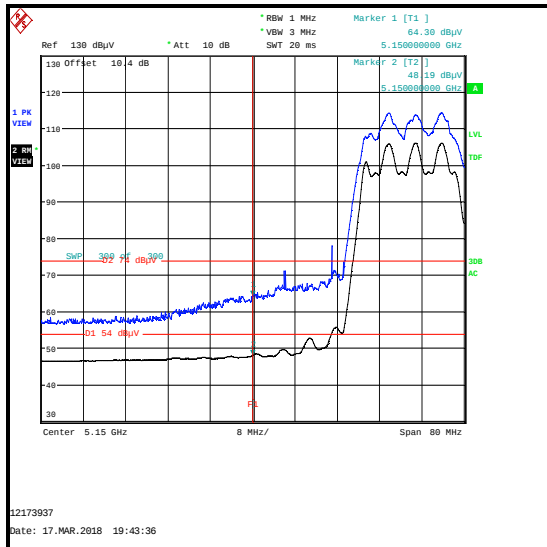
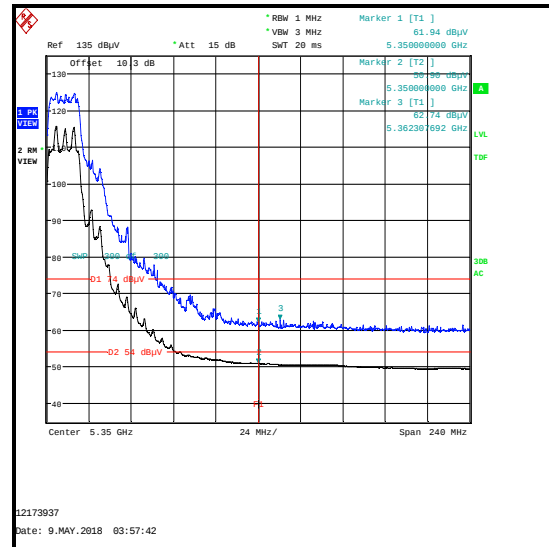
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	61.9	74.0	12.1	Complied
5362.308	62.7	74.0	11.3	Compleid

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	48.2	54.0	5.8	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	50.9	54.0	3.1	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5145.385	63.8	74.0	10.2	Complied
5150	63.4	74.0	10.6	Complied

Results: Upper Band Edge / Peak

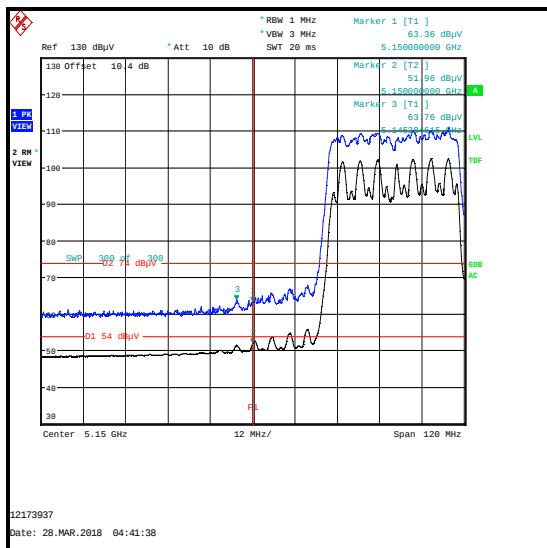
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	60.2	74.0	13.8	Complied
5367.949	60.7	74.0	13.3	Complied

Results: Lower Band Edge / Average

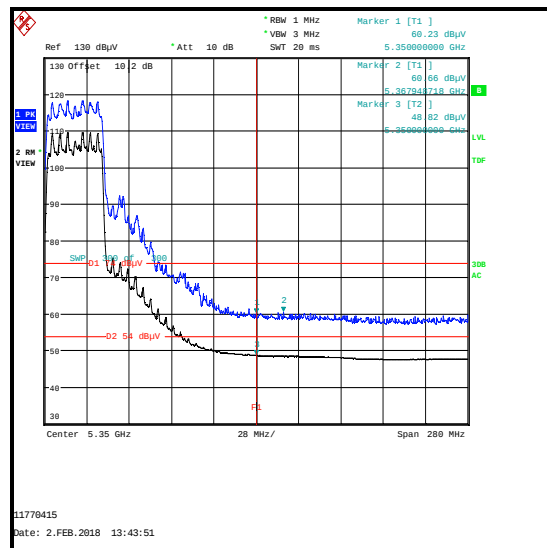
Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	52.0	0.1	52.1	54.0	1.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.8	0.1	48.9	54.0	5.1	Complied



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5140.385	65.3	74.0	8.7	Complied
5150	63.7	74.0	10.3	Complied

Results: Upper Band Edge / Peak

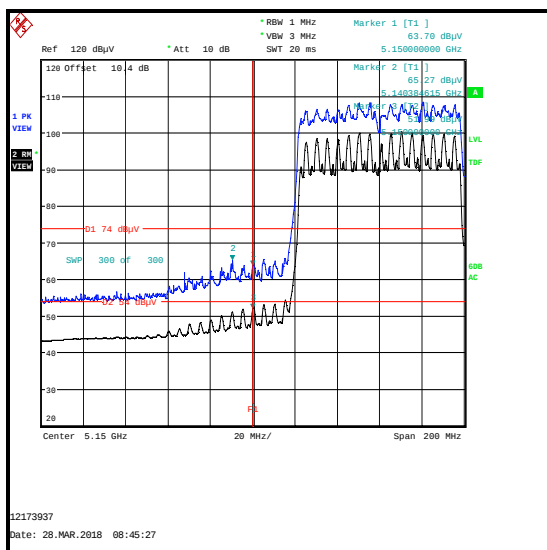
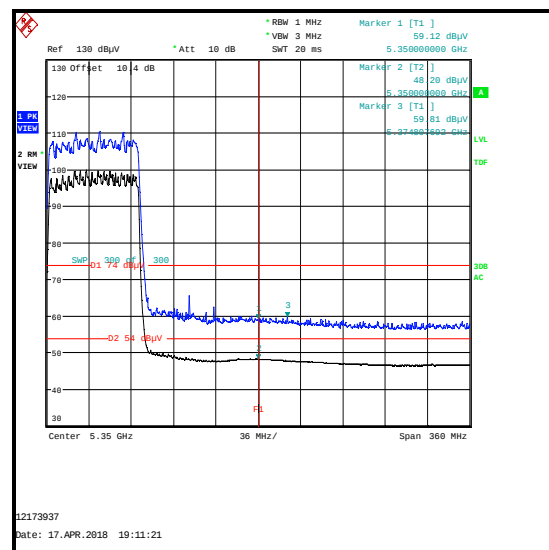
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	59.1	74.0	14.9	Complied
5374.808	59.8	74.0	14.2	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	52.0	0.2	52.2	54.0	1.8	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.2	0.2	48.4	54.0	5.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5147.436	70.1	74.0	3.9	Complied
5150	69.8	74.0	4.2	Complied

Results: Upper Band Edge / Peak

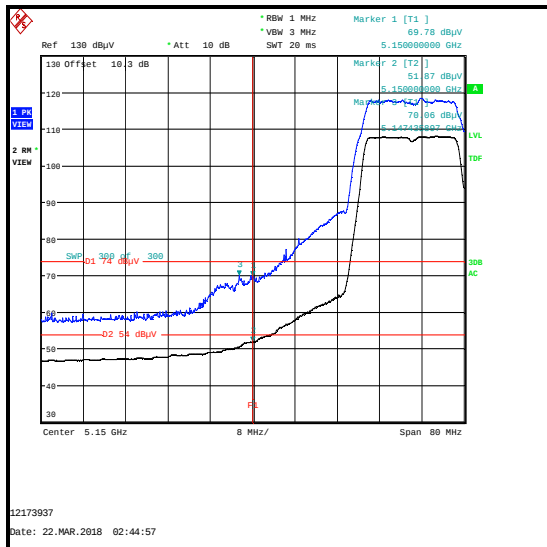
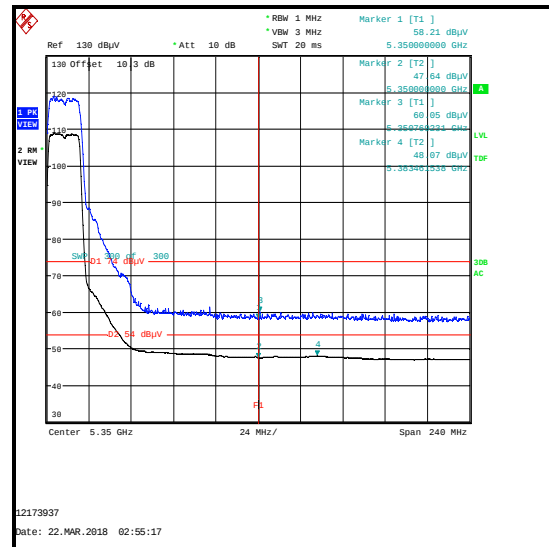
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.2	74.0	15.8	Complied
5350.769	60.1	74.0	13.9	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	51.9	54.0	2.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.6	54.0	6.4	Complied
5383.462	48.1	54.0	5.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	65.1	74.0	8.9	Complied

Results: Upper Band Edge / Peak

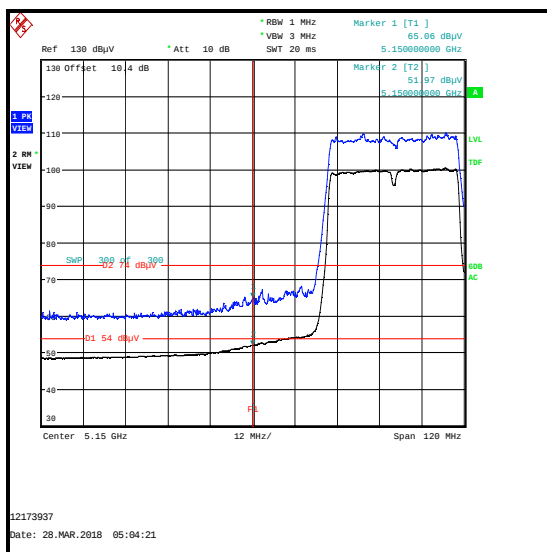
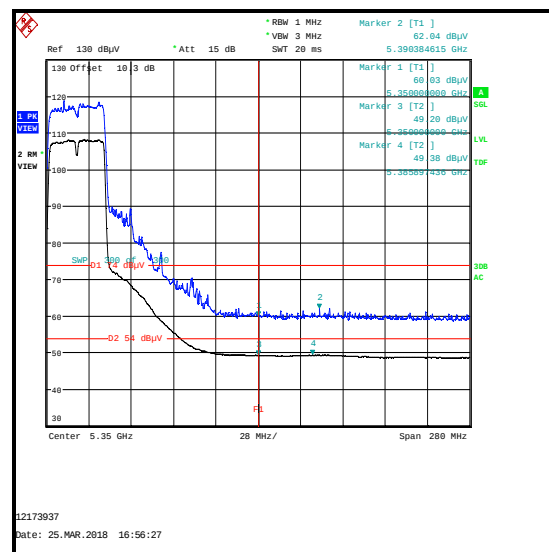
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	60.0	74.0	14.0	Complied
5390.385	62.0	74.0	12.0	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	52.0	0.1	52.1	54.0	1.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	49.2	0.1	49.3	54.0	4.7	Complied
5385.897	49.4	0.1	49.5	54.0	4.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5140.385	63.8	74.0	10.2	Complied
5150	62.4	74.0	11.6	Complied

Results: Upper Band Edge / Peak

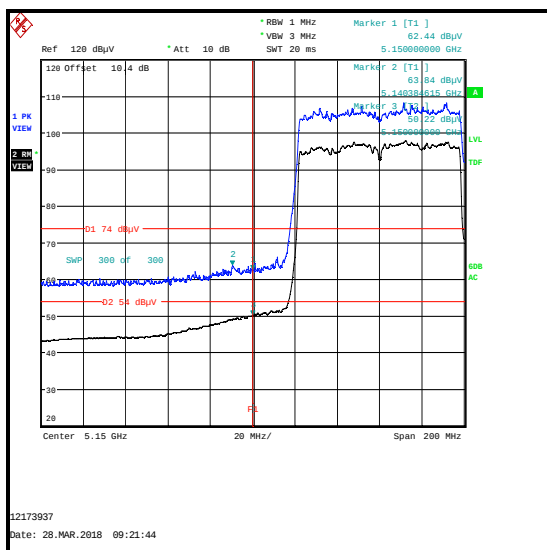
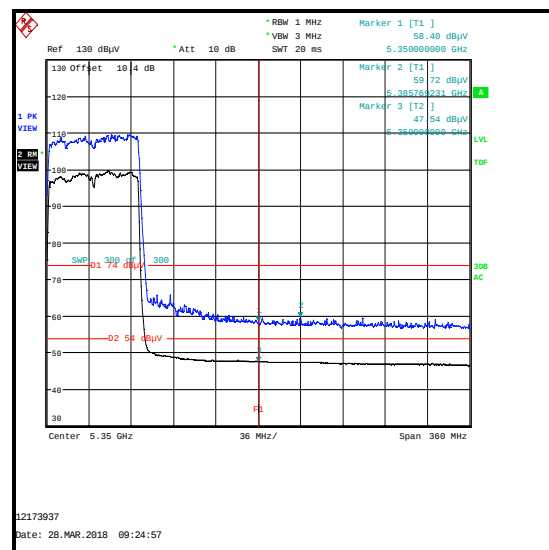
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	58.4	74.0	15.6	Complied
5385.769	59.7	74.0	14.3	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	50.2	0.2	50.4	54.0	3.6	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.5	0.2	47.7	54.0	6.3	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5149.487	64.8	74.0	9.2	Complied
5150	59.8	74.0	14.2	Complied

Results: Upper Band Edge / Peak

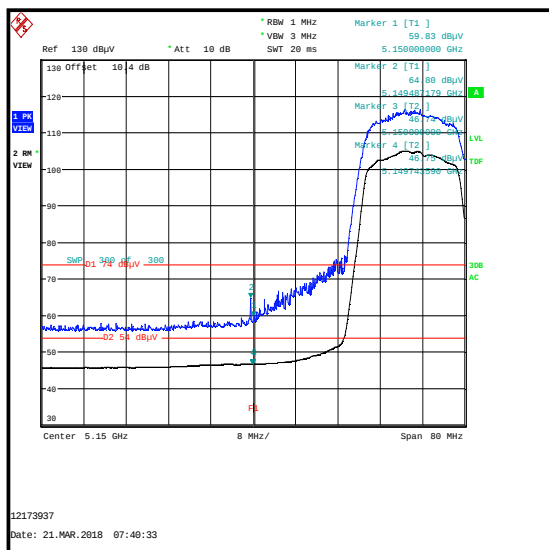
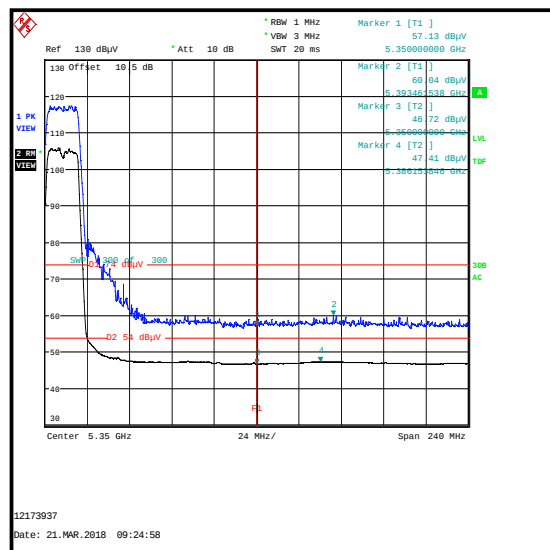
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	57.1	74.0	16.9	Complied
5393.462	60.0	74.0	14.0	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5149.744	46.8	54.0	7.2	Complied
5150	46.7	54.0	7.3	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.7	54.0	7.3	Complied
5386.154	47.4	54.0	6.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5145.577	70.5	74.0	3.5	Complied
5150	68.6	74.0	5.4	Complied

Results: Upper Band Edge / Peak

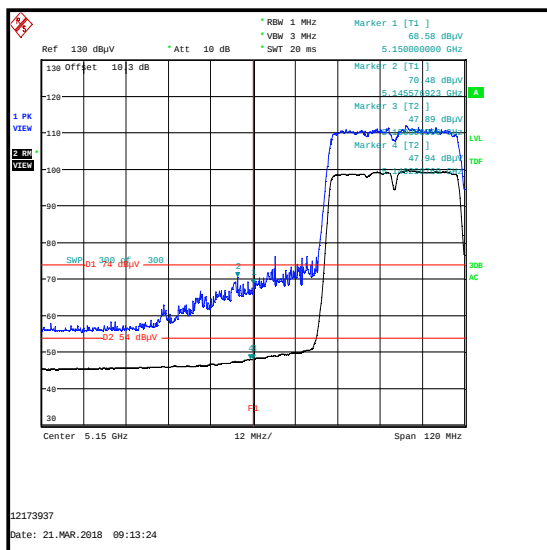
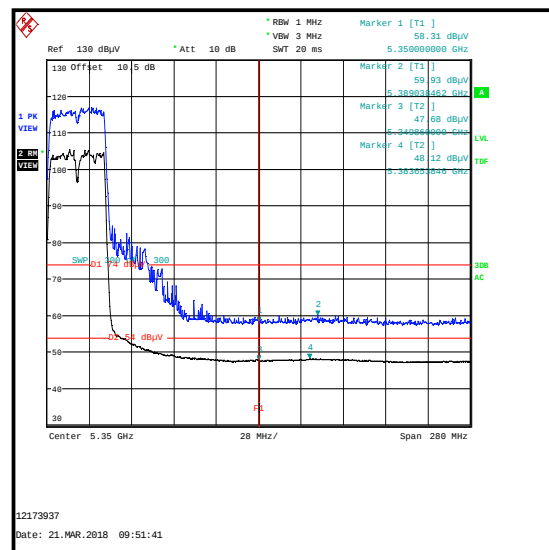
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.3	74.0	15.7	Complied
5389.038	59.9	74.0	14.1	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	47.9	0.2	48.1	54.0	5.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.7	0.2	47.9	54.0	6.1	Complied
5383.654	48.1	0.2	48.3	54.0	5.7	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5143.590	69.0	74.0	5.0	Complied
5150	65.4	74.0	8.6	Complied

Results: Upper Band Edge / Peak

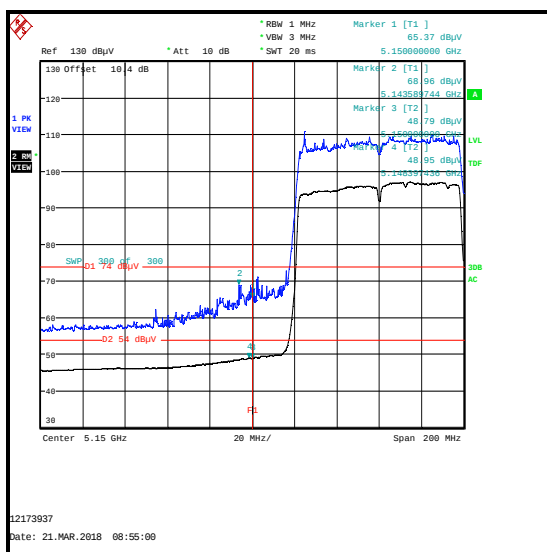
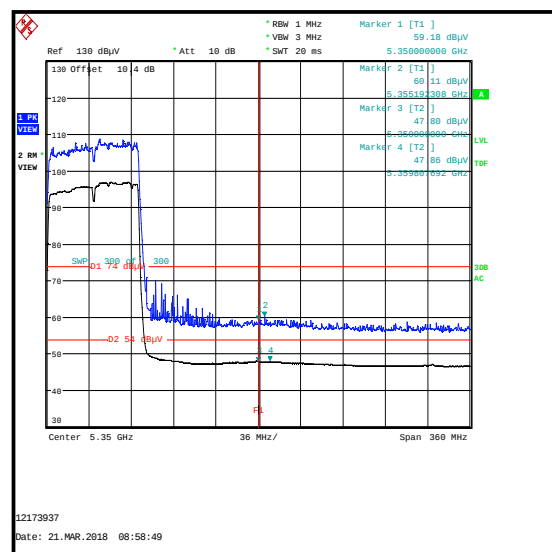
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	59.2	74.0	14.8	Complied
5355.192	60.1	74.0	13.9	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.397	49.0	0.1	49.1	54.0	4.9	Complied
5150	48.8	0.1	48.9	54.0	5.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.8	0.1	47.9	54.0	6.1	Complied
5359.808	47.9	0.1	48.0	54.0	6.0	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band)**5.3.2. 5.25-5.35 GHz band****Test Summary:**

Test Engineers:	Alan Withers, John Ferdinand, Andrew Edwards & James O'Reilly	Test Dates:	01 February 2018 to 09 May 2018
Test Sample Serial Number:	C02W6002JTDV, C02VR00RJH93 & C02W601JTF2		

FCC Reference:	Parts 15.407(b)(2),(7), 15.205 & 15.209(a)
Test Method Used:	ANSI C63.10 Section 6.10 & KDB 789033 II.G.

Environmental Conditions:

Temperature (°C):	22 to 26
Relative Humidity (%):	38 to 48

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Note(s):**

1. The following modes were tested:

- o 802.11a - BPSK / 6 Mbps / Port WF1
- o 802.11n HT20 / SISO - BPSK / MCS0 / Port WF1
- o 802.11n HT40 / SISO - BPSK / MCS0 / Port WF1
- o 802.11ac VHT80 / SISO – BPSK / MCS0x1 / Port WF1
- o 802.11n HT20 / MIMO / 2Tx CDD - BPSK / MCS0
- o 802.11n HT40 / MIMO / 2Tx CDD - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 2Tx CDD - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 2Tx STBC - BPSK / MCS0
- o 802.11n HT40 / MIMO / 2Tx STBC - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 2Tx STBC - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 2Tx TxBF - BPSK / MCS0
- o 802.11n HT40 / MIMO / 2Tx TxBF - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 2Tx TxBF - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 3Tx CDD - BPSK / MCS0
- o 802.11n HT40 / MIMO / 3Tx CDD - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 3Tx CDD - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 3Tx STBC - BPSK / MCS0
- o 802.11n HT40 / MIMO / 3Tx STBC - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 3Tx STBC - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 3Tx TxBF - BPSK / MCS0
- o 802.11n HT40 / MIMO / 3Tx TxBF - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 3Tx TxBF - BPSK / MCS0x1

2. Lower band edge measurements were performed with the EUT transmitting on the bottom channel. Upper band edge measurements were performed with the EUT transmitting on the top channel.
3. For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. However, there are restricted bands of operation below the lower band edge at 4.5-5.15 GHz and also above the upper band edge at 5.35-5.46 GHz therefore the provisions of FCC Part 15.205 apply. Tests were performed in these restricted bands of operation with the EUT transmitting on the bottom and top channels within 5.25-5.35 GHz band, the results are included in the transmitter 5.725-5.85 GHz band radiated spurious emissions section of this test report.
4. Field strength measurements using peak and average detectors were performed in the restricted bands below 5.15 GHz and above 5.35 GHz. Field strength and EIRP results were found to be compliant with the restricted band limits and Part 15.407 out-of-band limits.
5. In accordance with KDB 789033 Section II.G.1.c) if the peak measurement is below the average limit, it is not necessary to perform a separate average measurement.
6. For all average measurements if this section, 300 sweeps were used. This satisfies the requirement for the minimum number of sweep points, as stated in KDB 789033 Section II.G.6.c) Method AD (vi).
7. In accordance with KDB 789033 Section II.G.6.c) Method AD (vii), for average measurements, data rates where the EUT was transmitting <98% duty cycle, the duty cycle correction factor calculated in section 4.1 was added to the measured result.

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11a / 20 MHz / SISO / BPSK / 6 Mbps / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5102.308	57.7	74.0	16.3	Complied
5150	56.4	74.0	17.6	Complied

Results: Upper Band Edge / Peak

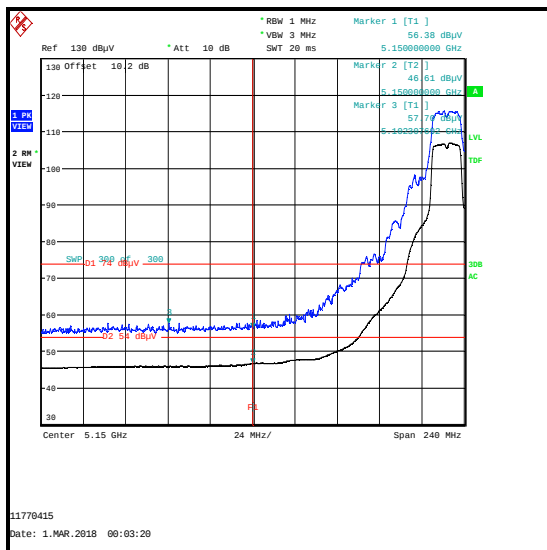
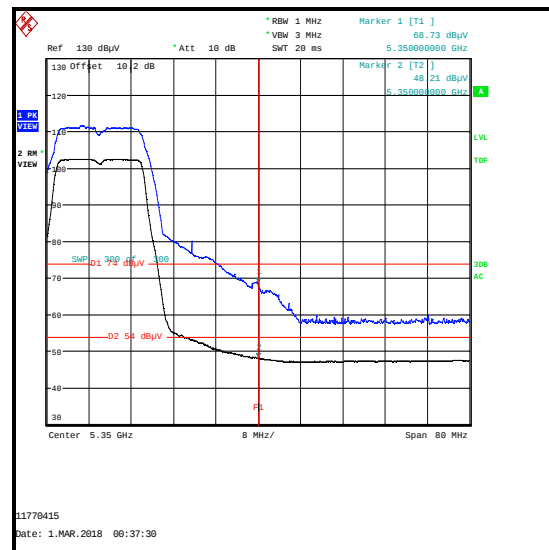
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	68.7	74.0	5.3	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	46.6	54.0	7.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	48.2	54.0	5.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 20 MHz / SISO / BPSK / MCS0 / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5142.692	58.2	74.0	15.8	Complied
5150	57.0	74.0	17.0	Complied

Results: Upper Band Edge / Peak

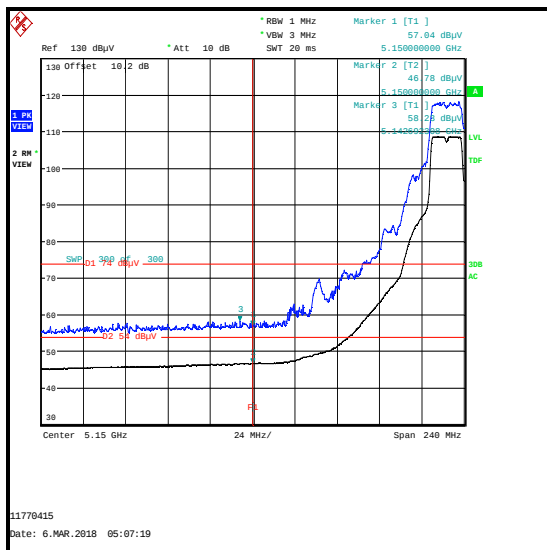
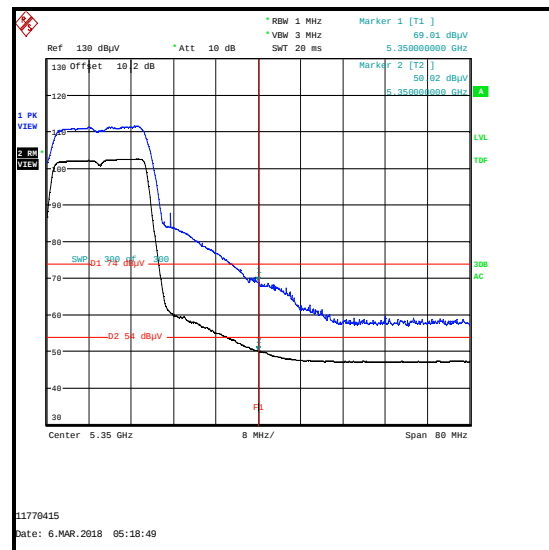
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	69.0	74.0	5.0	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	46.8	54.0	7.2	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	50.0	54.0	4.0	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / SISO / BPSK / MCS0 / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5147.308	58.3	74.0	15.7	Complied
5150	58.0	74.0	16.0	Complied

Results: Upper Band Edge / Peak

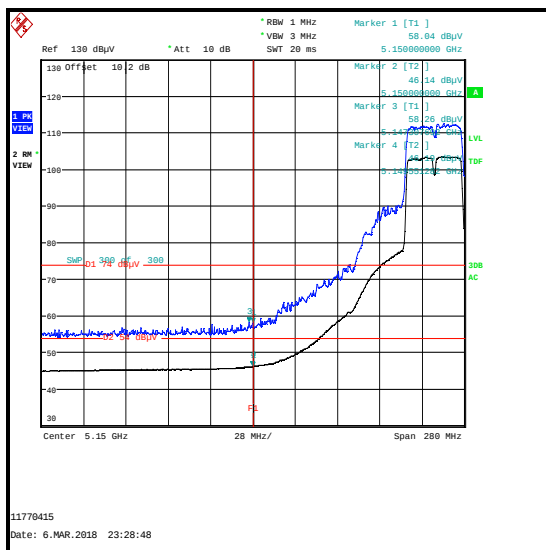
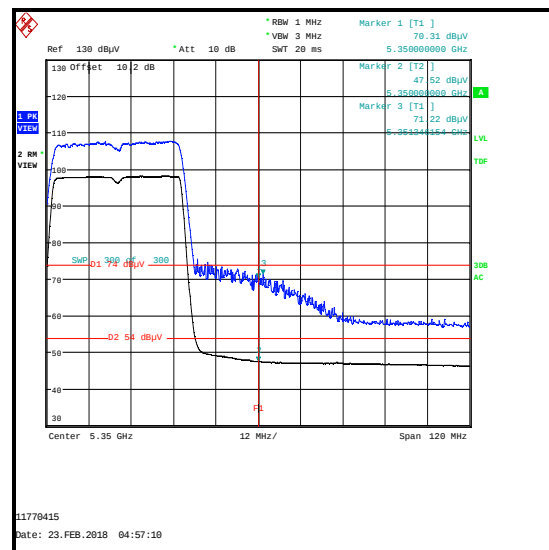
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	70.3	74.0	3.7	Complied
5351.346	71.2	74.0	2.8	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5149.551	46.2	0.1	46.3	54.0	7.7	Complied
5150	46.1	0.1	46.2	54.0	7.8	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	47.5	0.1	47.6	54.0	6.4	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / SISO / BPSK / MCS0 / Port WF1****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5148.846	57.8	74.0	16.2	Complied
5150	56.8	74.0	17.2	Complied

Results: Upper Band Edge / Peak

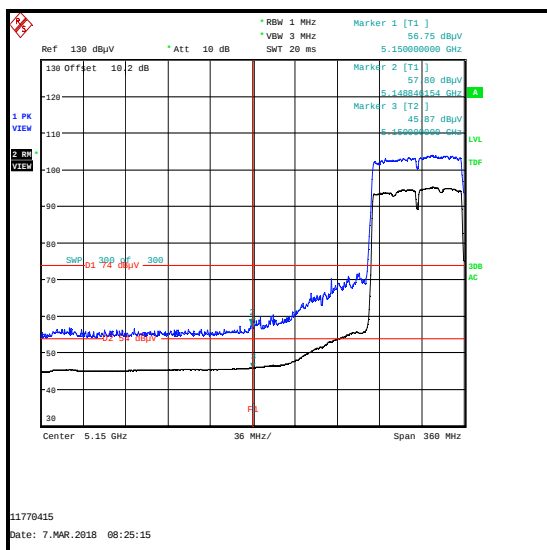
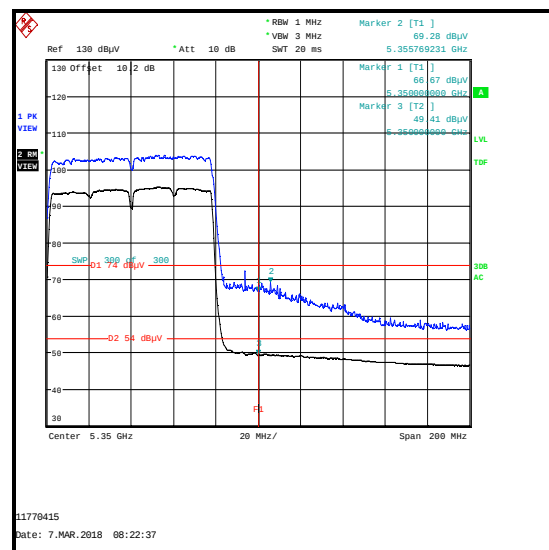
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	66.7	74.0	7.3	Complied
5355.769	69.3	74.0	4.7	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	45.9	0.2	46.1	54.0	7.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	49.4	0.2	49.6	54.0	4.4	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)

Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5145.769	59.6	74.0	14.4	Complied
5150	58.3	74.0	15.7	Complied

Results: Upper Band Edge / Peak

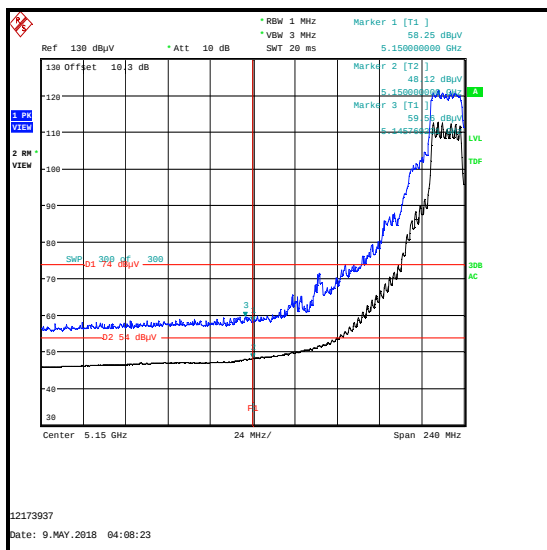
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	67.3	74.0	6.7	Complied
5350.128	67.7	74.0	6.3	Complied

Results: Lower Band Edge / Average

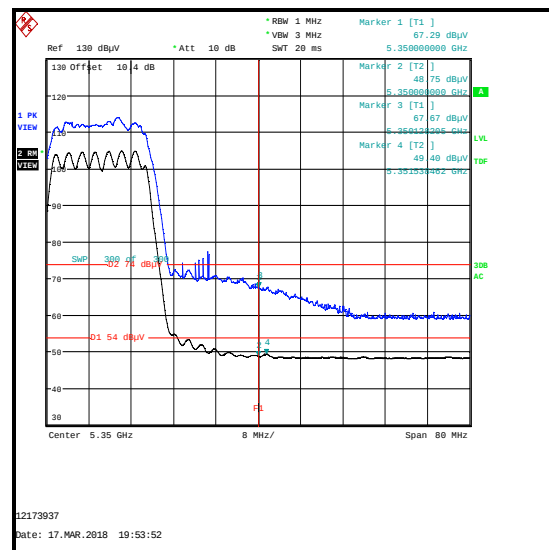
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	48.1	54.0	5.9	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.8	54.0	5.2	Complied
5351.536	49.4	54.0	4.6	Complied



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5138.333	57.8	74.0	16.2	Complied
5150	56.5	74.0	17.5	Complied

Results: Upper Band Edge / Peak

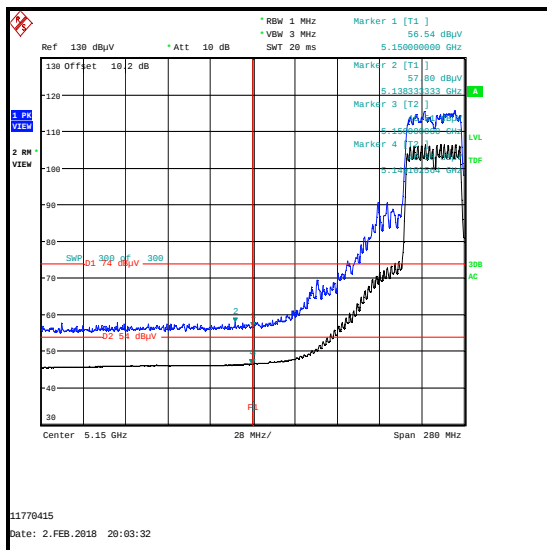
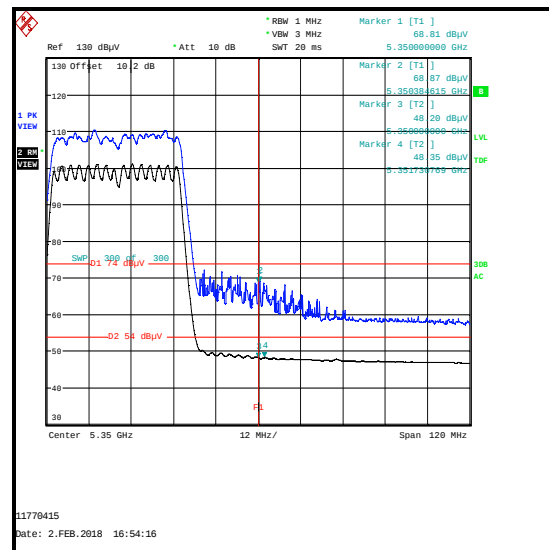
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	68.8	74.0	5.2	Complied
5350.385	68.9	74.0	5.1	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5149.103	46.6	0.1	46.7	54.0	7.3	Complied
5150	46.5	0.1	46.6	54.0	7.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	48.2	0.1	48.3	54.0	5.7	Complied
5351.731	48.4	0.1	48.5	54.0	5.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5139.740	56.9	74.0	17.1	Complied
5150	55.1	74.0	18.9	Complied

Results: Upper Band Edge / Peak

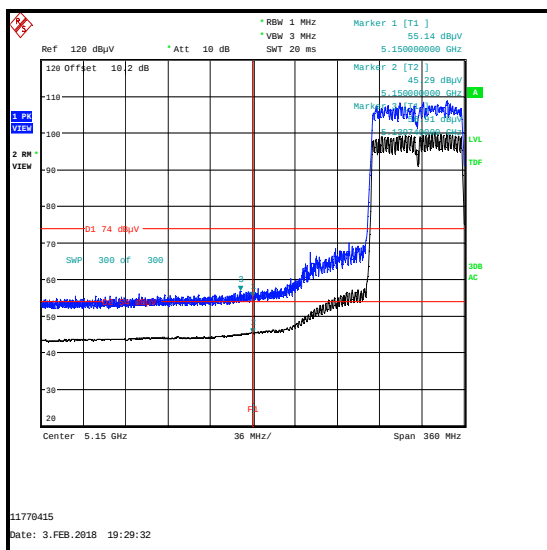
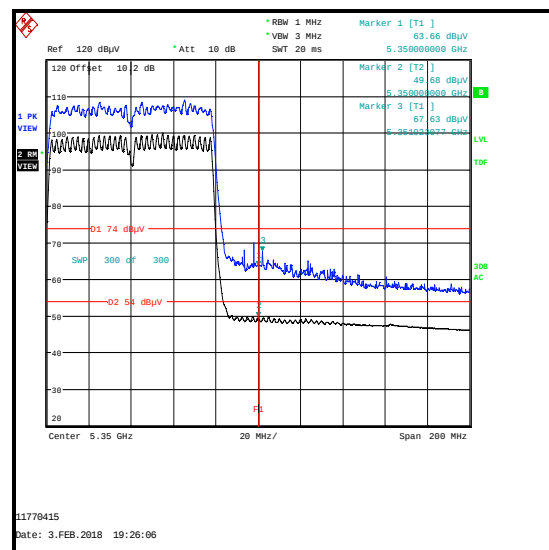
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	63.7	74.0	10.3	Complied
5351.923	67.6	74.0	6.4	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	45.3	0.2	45.5	54.0	8.5	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	49.7	0.2	49.9	54.0	4.1	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5123.077	57.3	74.0	16.7	Complied
5150	56.1	74.0	17.9	Complied

Results: Upper Band Edge / Peak

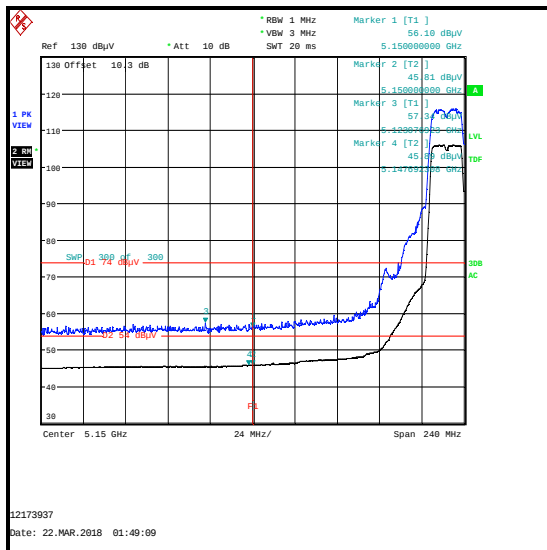
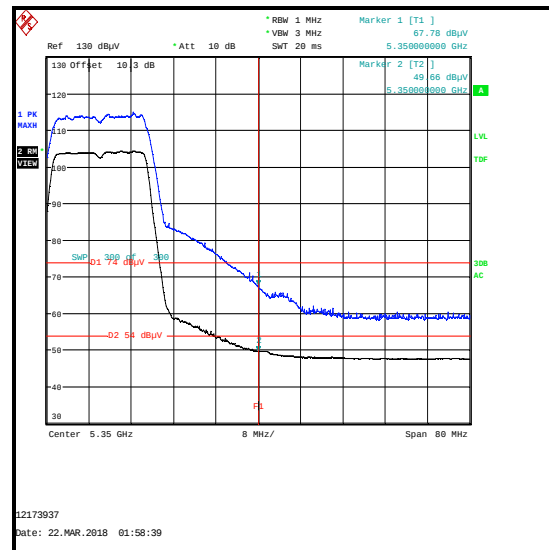
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	67.8	74.0	6.2	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5147.692	45.9	54.0	8.1	Complied
5150	45.8	54.0	8.2	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	49.7	54.0	4.3	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5137.436	59.1	74.0	14.9	Complied
5150	59.0	74.0	15.0	Complied

Results: Upper Band Edge / Peak

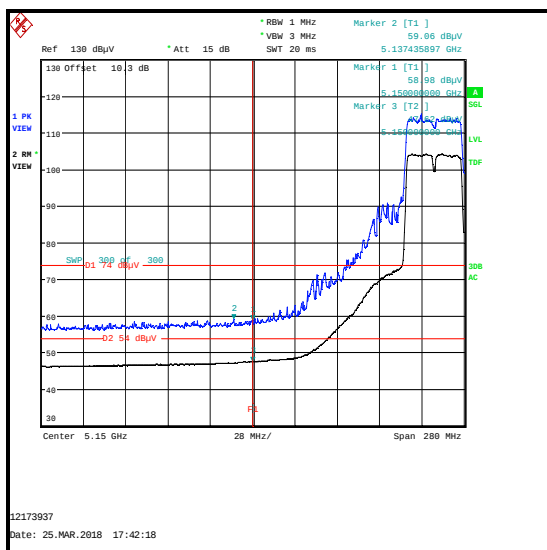
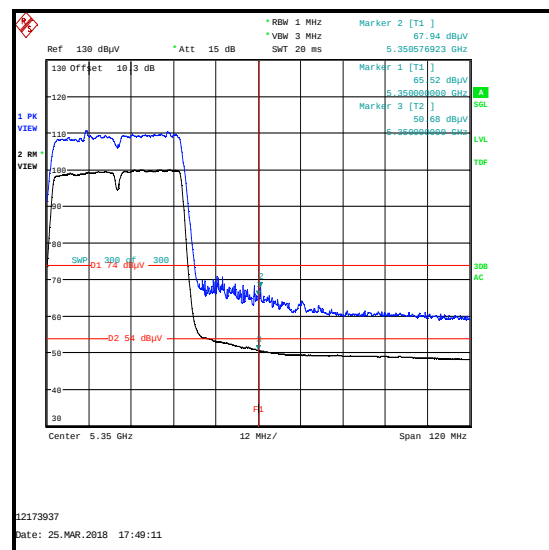
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	65.5	74.0	8.5	Complied
5350.577	67.9	74.0	6.1	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	47.6	0.1	47.7	54.0	6.3	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	50.7	0.1	50.8	54.0	3.2	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5101.143	58.7	74.0	15.3	Complied
5150	57.2	74.0	16.8	Complied

Results: Upper Band Edge / Peak

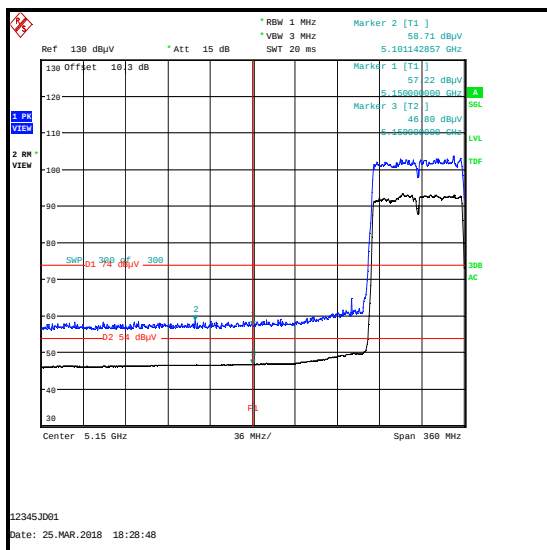
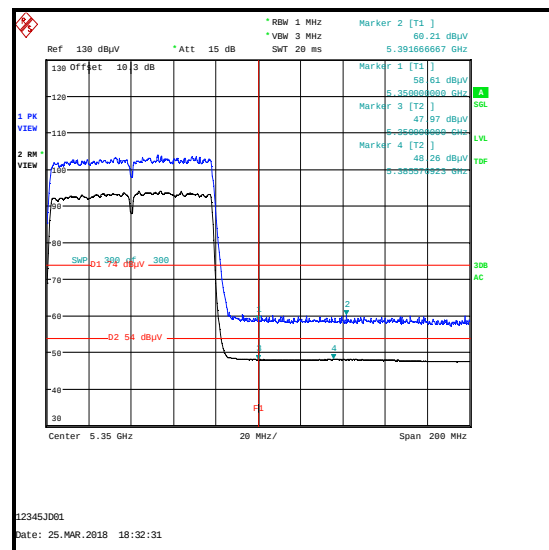
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	58.6	74.0	15.4	Complied
5391.667	60.2	74.0	13.8	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	46.8	0.2	47.0	54.0	7.0	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	48.0	0.2	48.2	54.0	5.8	Complied
5385.577	48.3	0.2	48.5	54.0	5.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5085.385	57.6	74.0	16.4	Complied
5150	55.9	74.0	18.1	Complied

Results: Upper Band Edge / Peak

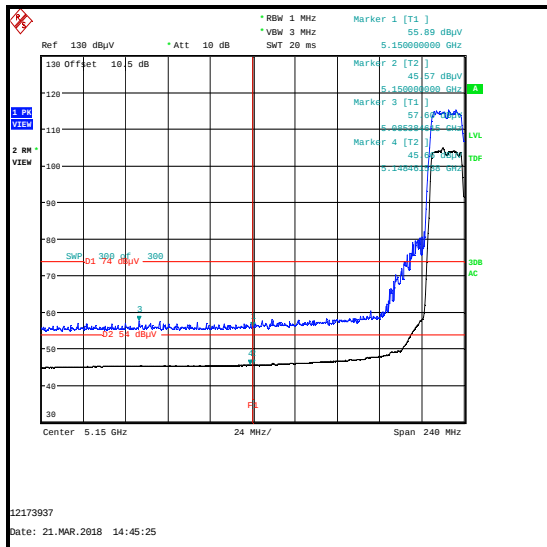
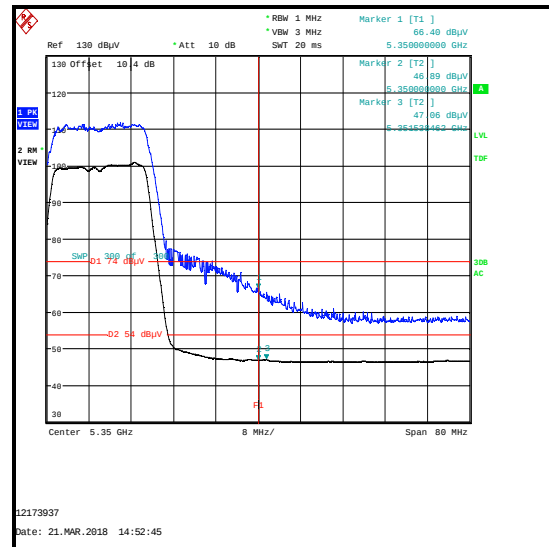
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	66.4	74.0	7.6	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.462	45.7	54.0	8.3	Complied
5150	45.6	54.0	8.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.9	54.0	7.1	Complied
5351.538	47.1	54.0	6.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5075.064	57.4	74.0	16.6	Complied
5150	56.2	74.0	17.8	Complied

Results: Upper Band Edge / Peak

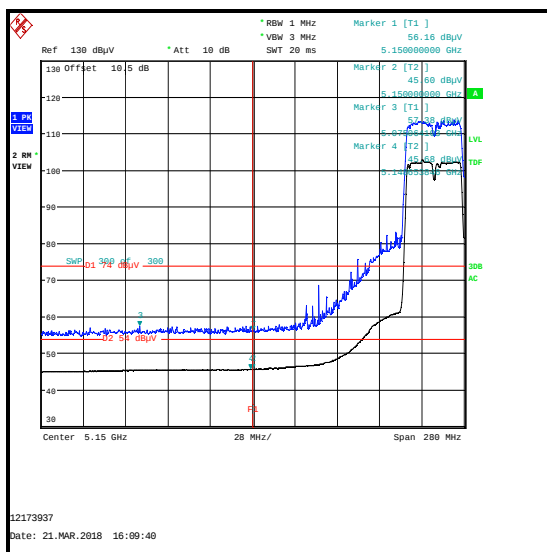
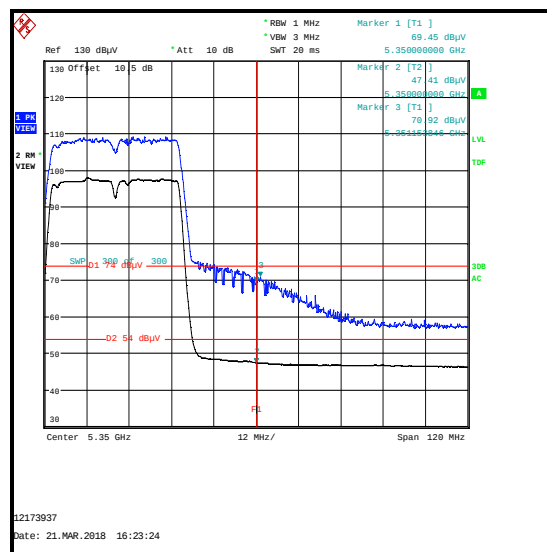
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	69.5	74.0	4.5	Complied
5351.154	70.9	74.0	3.1	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.654	45.7	0.2	45.9	54.0	8.1	Complied
5150	45.6	0.2	45.8	54.0	8.2	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.4	0.2	47.6	54.0	6.4	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
4997.692	57.7	74.0	16.3	Complied
5150	55.9	74.0	18.1	Complied

Results: Upper Band Edge / Peak

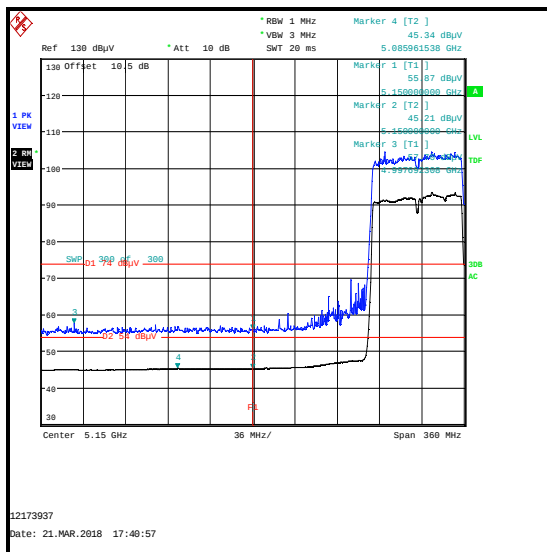
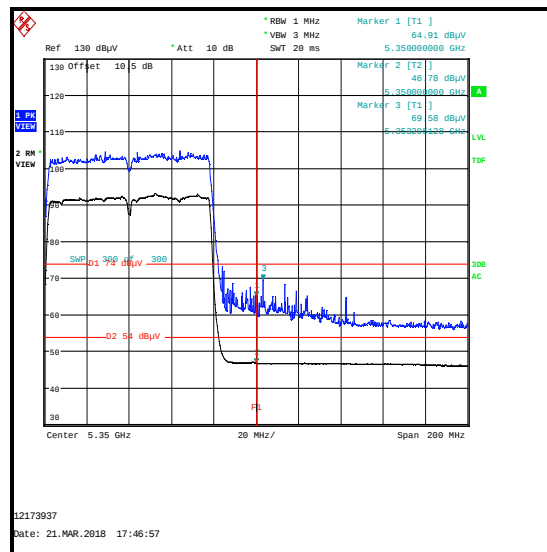
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	64.9	74.0	9.1	Complied
5353.205	69.6	74.0	4.4	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5085.962	45.3	0.1	45.4	54.0	8.6	Complied
5150	45.2	0.1	45.3	54.0	8.7	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.8	0.1	46.9	54.0	7.1	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5149.231	61.3	74.0	12.7	Complied
5150	59.8	74.0	14.2	Complied

Results: Upper Band Edge / Peak

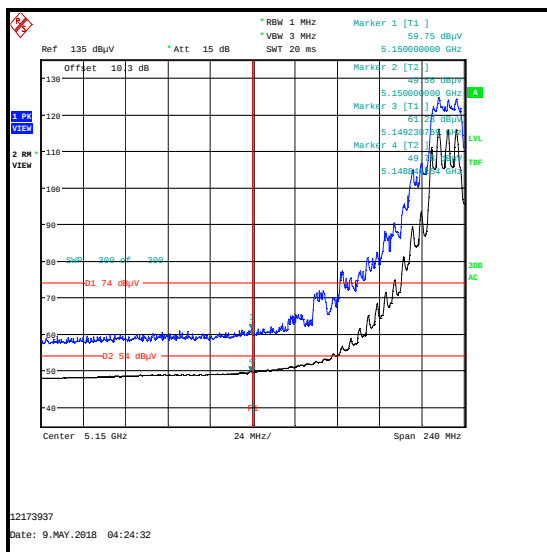
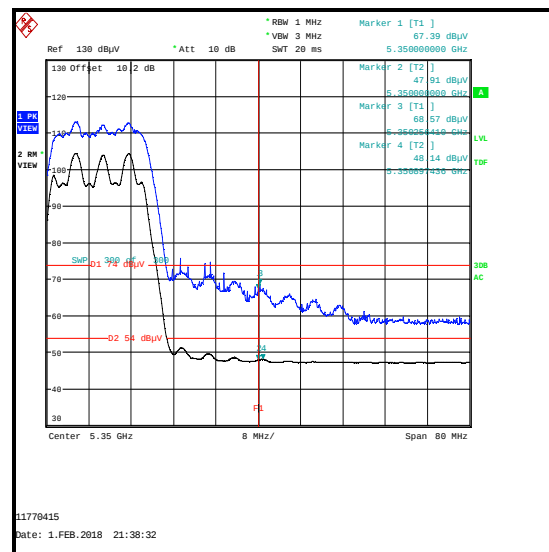
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	67.4	74.0	6.6	Complied
5350.256	68.6	74.0	5.4	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.846	49.8	54.0	4.2	Complied
5150	49.6	54.0	4.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.9	54.0	6.1	Complied
5350.897	48.1	54.0	5.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5149.551	58.5	74.0	15.5	Complied
5150	58.1	74.0	15.9	Complied

Results: Upper Band Edge / Peak

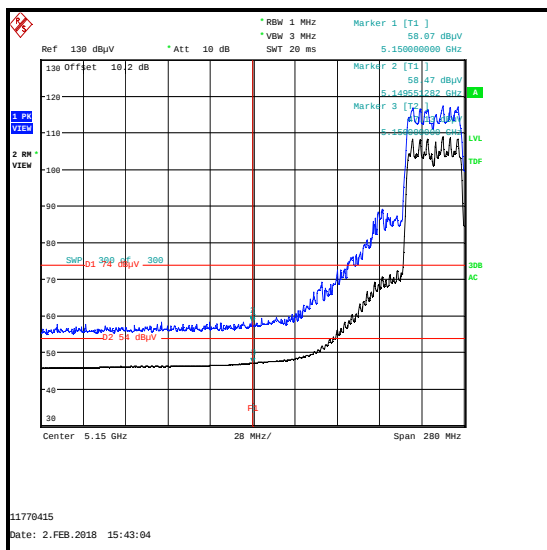
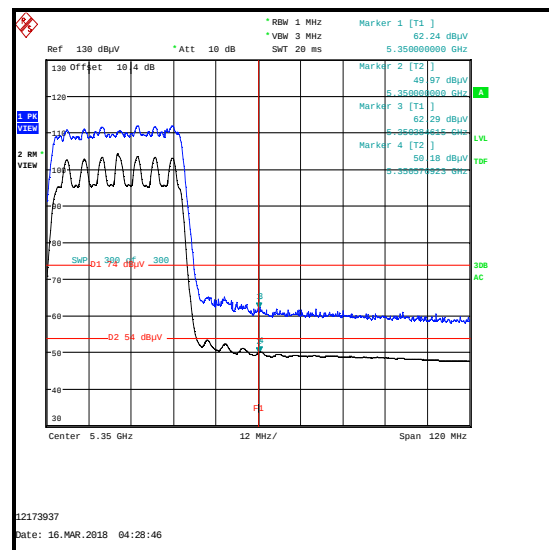
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	62.2	74.0	11.8	Complied
5350.385	62.3	74.0	11.7	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5150	47.1	0.1	47.2	54.0	6.8	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dB μ V/m)	Duty Cycle correction (dB)	Corrected Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5350	50.0	0.1	50.1	54.0	3.9	Complied
5350.577	50.2	0.1	50.3	54.0	3.7	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5129.840	57.5	74.0	18.5	Complied
5150	56.1	74.0	17.9	Complied

Results: Upper Band Edge / Peak

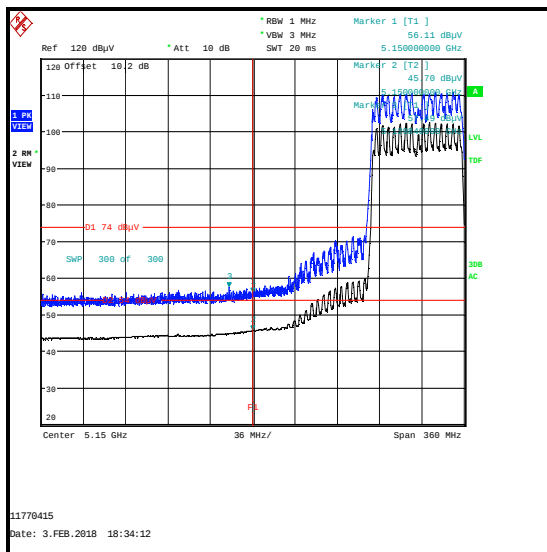
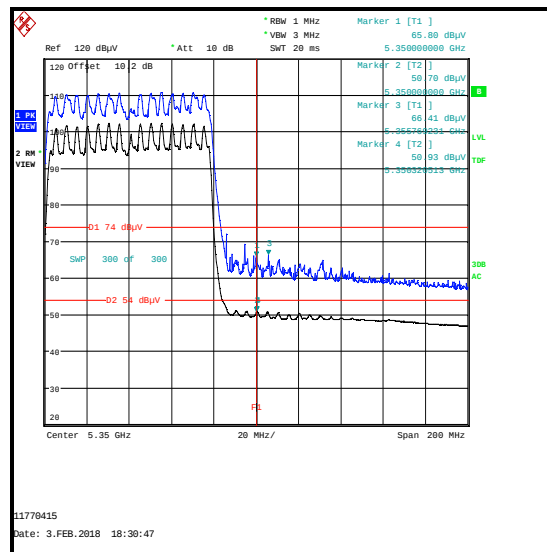
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	65.8	74.0	8.2	Complied
5355.769	66.4	74.0	7.6	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	45.7	0.2	45.9	54.0	8.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	50.7	0.2	50.9	54.0	3.1	Complied
5350.321	50.9	0.2	51.1	54.0	2.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5134.231	57.8	74.0	16.2	Complied
5150	56.3	74.0	17.7	Complied

Results: Upper Band Edge / Peak

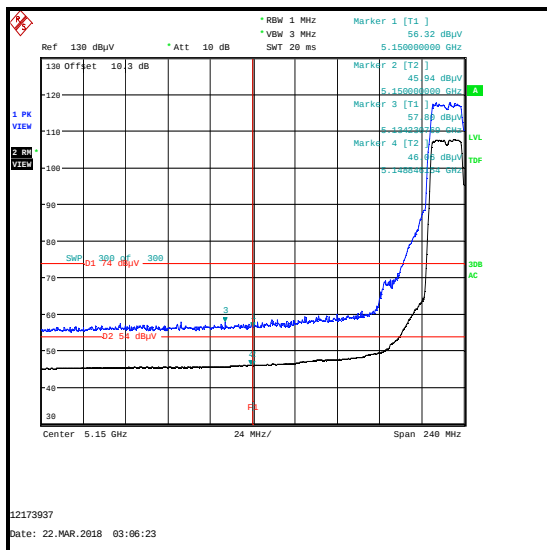
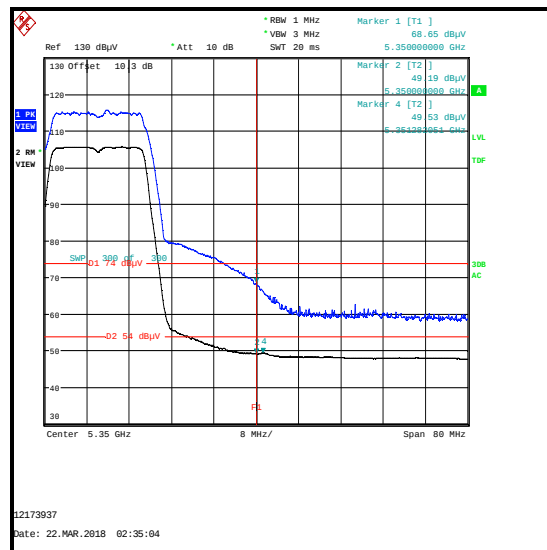
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
53.5	68.7	74.0	5.3	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.846	46.1	54.0	7.9	Complied
5150	45.9	54.0	8.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	49.2	54.0	4.8	Complied
5351.282	49.5	54.0	4.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5143.269	59.3	74.0	14.7	Complied
5150	58.8	74.0	15.2	Complied

Results: Upper Band Edge / Peak

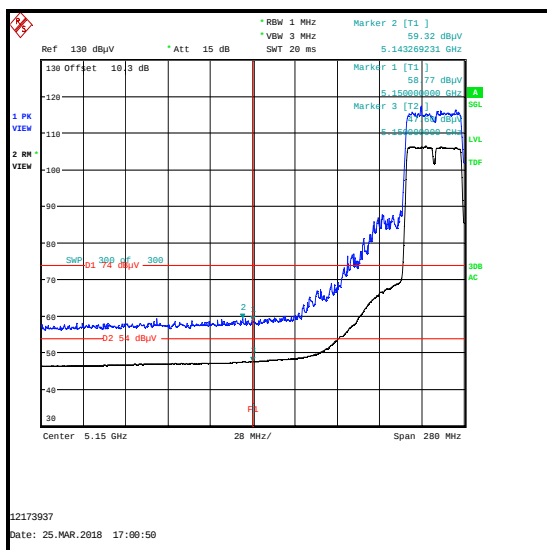
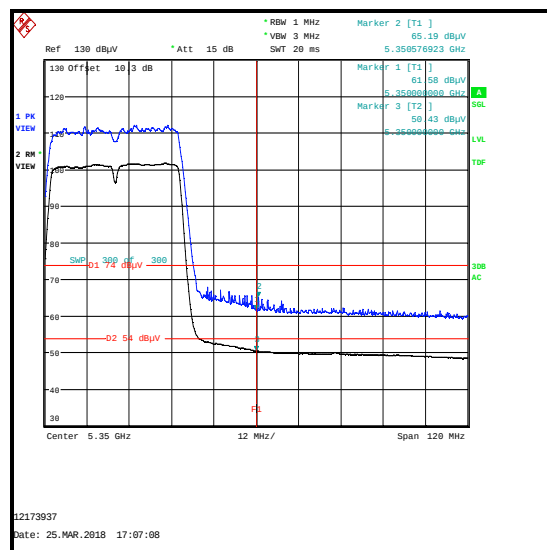
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	61.6	74.0	12.4	Complied
5350.577	65.2	74.0	8.8	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5150	47.6	0.1	47.7	54.0	6.3	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	50.4	0.1	50.5	54.0	3.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
4992.629	58.8	74.0	15.2	Complied
5150	57.8	74.0	16.2	Complied

Results: Upper Band Edge / Peak

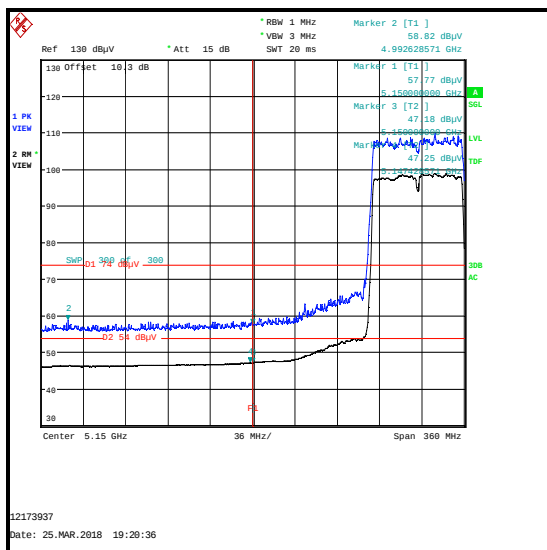
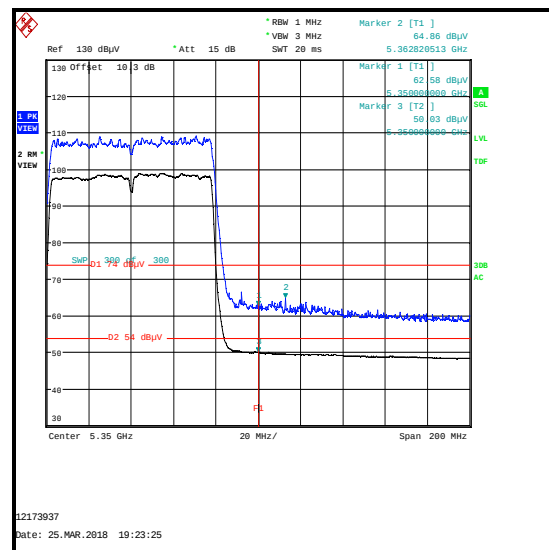
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	62.6	74.0	11.4	Complied
5362.821	64.9	74.0	9.1	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5147.429	47.3	0.2	47.5	54.0	6.5	Complied
5150	47.2	0.2	47.4	54.0	6.6	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	50.0	0.2	50.2	54.0	3.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5113.846	57.2	74.0	16.8	Complied
5150	55.4	74.0	18.6	Complied

Results: Upper Band Edge / Peak

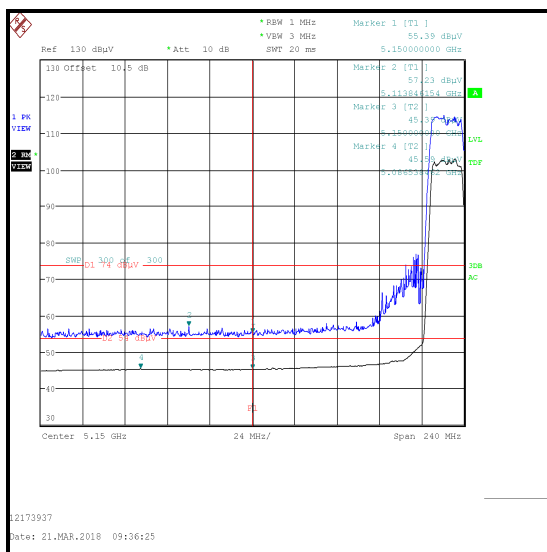
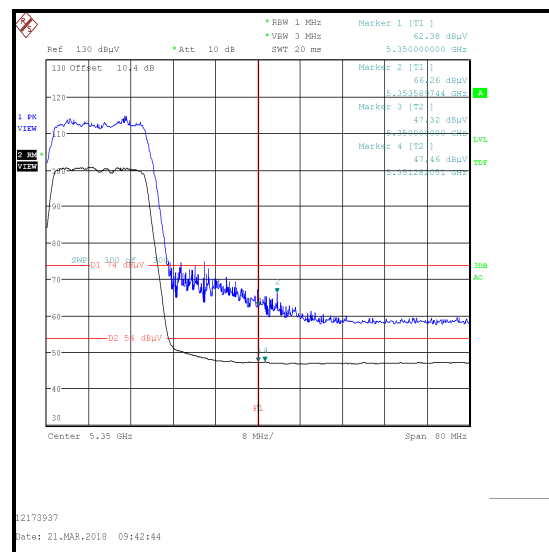
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	62.4	74.0	11.6	Complied
5353.590	66.3	74.0	7.7	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5086.538	45.6	54.0	8.4	Complied
5150	45.4	54.0	8.6	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.3	54.0	6.7	Complied
5351.282	47.5	54.0	6.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5074.615	57.4	74.0	16.6	Complied
5150	55.7	74.0	18.3	Complied

Results: Upper Band Edge / Peak

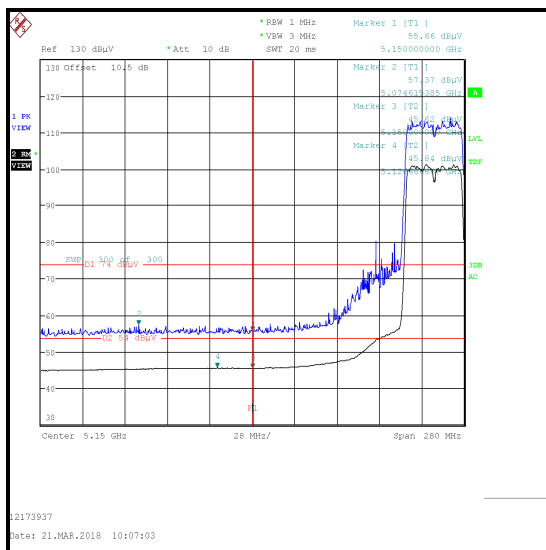
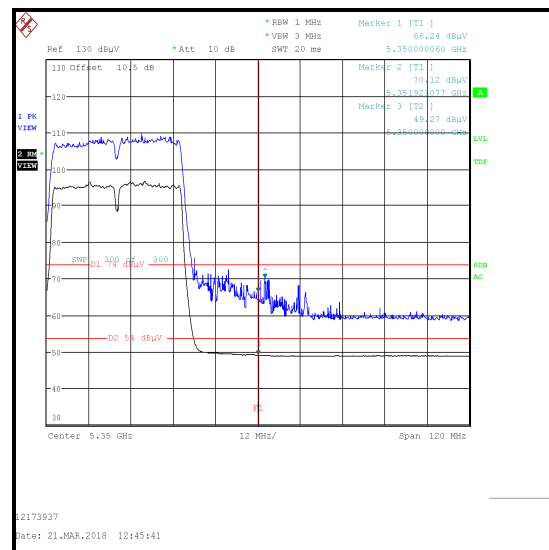
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	66.2	74.0	7.8	Complied
5351.923	70.1	74.0	3.9	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5126.667	45.8	0.2	46.0	54.0	8.0	Complied
5150	45.6	0.2	45.8	54.0	8.2	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	49.3	0.2	49.5	54.0	4.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.25-5.35 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0****Results: Lower Band Edge / Peak**

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5136.731	57.1	74.0	16.9	Complied
5150	56.6	74.0	17.4	Complied

Results: Upper Band Edge / Peak

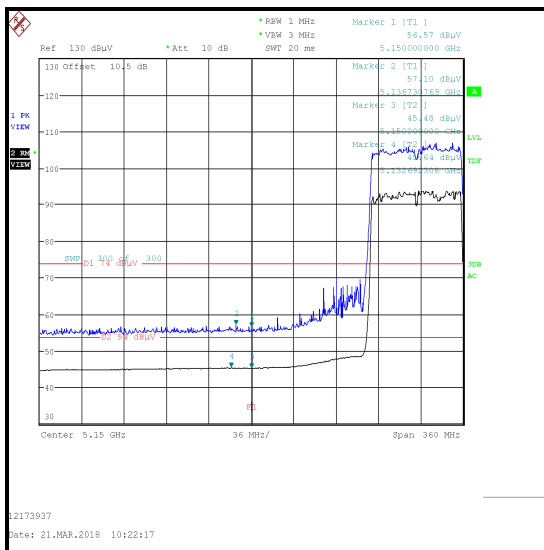
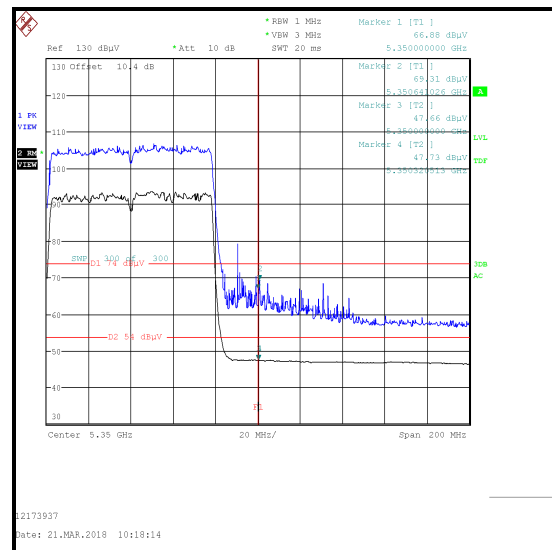
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	66.9	74.0	7.1	Complied
5350.641	69.3	74.0	4.7	Complied

Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5132.692	45.6	0.1	45.7	54.0	8.3	Complied
5150	45.5	0.1	45.6	54.0	8.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Duty Cycle correction (dB)	Corrected Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	47.7	0.1	47.8	54.0	6.2	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band)**5.3.3. 5.47-5.725 GHz band****Test Summary:**

Test Engineers:	Alan Withers, John Ferdinand & Andrew Edwards	Test Dates:	31 January 2018 to 29 May 2018
Test Sample Serial Numbers:	C02VR00RJH93 & C02W601JTF2		

FCC Reference:	Parts 15.407(b)(3),(7), 15.205 & 15.209(a)
Test Method Used:	ANSI C63.10 Section 6.10 & KDB 789033 II.G.

Environmental Conditions:

Temperature (°C):	22 to 24
Relative Humidity (%):	45 to 46

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Note(s):**

1. The following modes were tested:

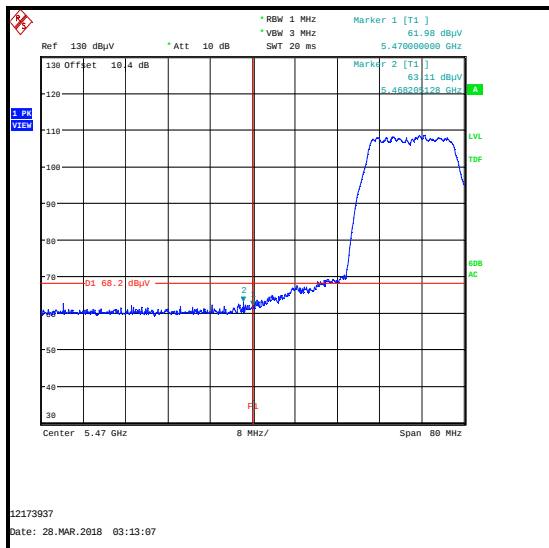
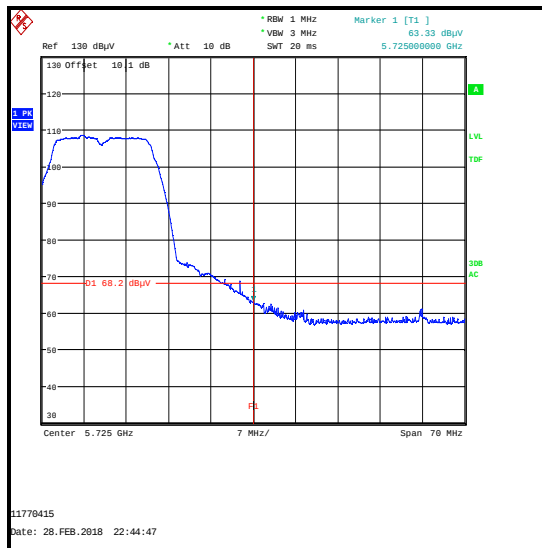
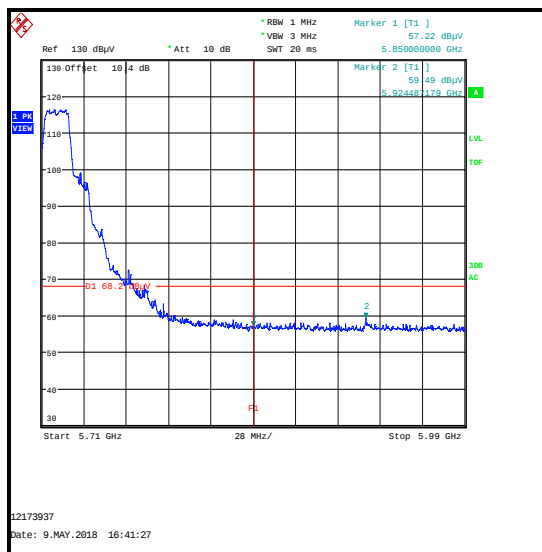
- o 802.11a - BPSK / 6 Mbps / Port WF2
- o 802.11n HT20 / SISO - BPSK / MCS0 / Port WF2
- o 802.11n HT40 / SISO - BPSK / MCS0 / Port WF2
- o 802.11ac VHT80 / SISO – BPSK / MCS0x1 / Port WF2
- o 802.11n HT20 / MIMO / 2Tx CDD - BPSK / MCS0
- o 802.11n HT40 / MIMO / 2Tx CDD - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 2Tx CDD - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 2Tx STBC - BPSK / MCS0
- o 802.11n HT40 / MIMO / 2Tx STBC - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 2Tx STBC - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 2Tx TxBF - BPSK / MCS0
- o 802.11n HT40 / MIMO / 2Tx TxBF - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 2Tx TxBF - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 3Tx CDD - BPSK / MCS0
- o 802.11n HT40 / MIMO / 3Tx CDD - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 3Tx CDD - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 3Tx STBC - BPSK / MCS0
- o 802.11n HT40 / MIMO / 3Tx STBC - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 3Tx STBC - BPSK / MCS0x1
- o 802.11n HT20 / MIMO / 3Tx TxBF - BPSK / MCS0
- o 802.11n HT40 / MIMO / 3Tx TxBF - BPSK / MCS0
- o 802.11ac VHT80 / MIMO / 3Tx TxBF - BPSK / MCS0x1

2. Lower band edge measurements were performed with the EUT transmitting on the bottom channel. Upper band edge measurements were performed with the EUT transmitting on the top channel.
3. For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz. However, there are restricted bands of operation below the lower band edge at 4.5-5.15 GHz and also at 5.35-5.46 GHz therefore the provisions of RSS-Gen 8.9 & 8.10 apply. Tests were performed in these restricted bands of operation with the EUT transmitting on the bottom and top channels within 5.47-5.725 GHz band, the results are included in the transmitter 5.725-5.85 GHz band radiated spurious emissions section of this test report.
4. For completeness, results are also shown as EIRP in dBm and also as field strength in dB μ V/m. Measured field strength was converted to EIRP in accordance with KDB 789033 II.G.2.c)(iii) using a conversion factor of 95.2.
5. As straddle channels overlap the upper band edge at 5725 MHz, additional testing was performed in accordance with KDB 778093 III.B.2.b)(iii) which requires compliance of overlapping channels to an unwanted emission level of -27 dBm/MHz at 5850 MHz instead of 5725 MHz. The EUT was configured to transmit on the straddle channels and the emission levels at 5850 MHz were recorded. A marker was placed on the band edge spot frequency and a second marker placed on the highest emission level in the adjacent non-restricted band of operation (where a higher level emission was present). Marker frequencies and levels were recorded.

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11a / 20 MHz / SISO / BPSK / 6 Mbps / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5468.205	-32.1	-27.0	5.1	Complied
5470	-33.2	-27.0	6.2	Complied
5725	-31.9	-27.0	4.9	Complied
5850	-38.0	-27.0	11.0	Complied
5924.487	-35.7	-27.0	8.7	Complied

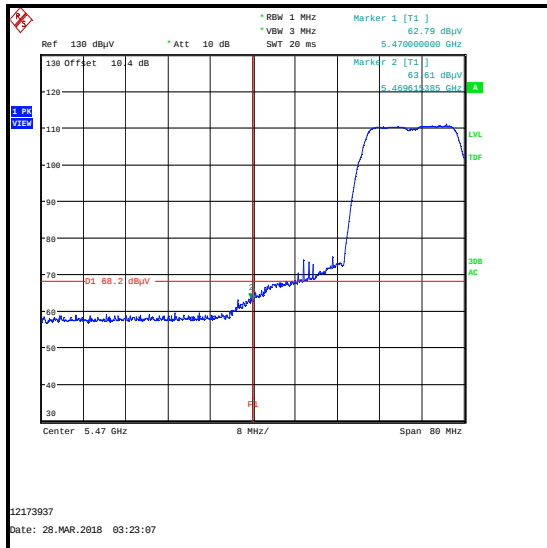
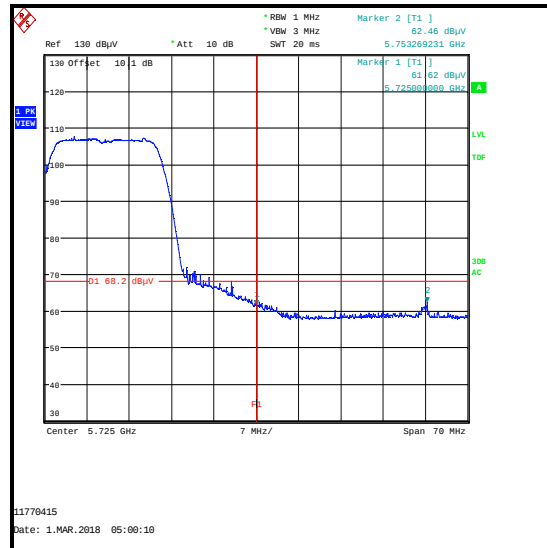
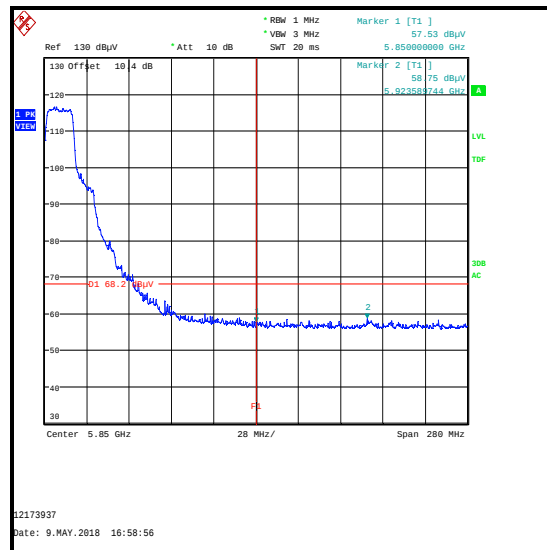
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5468.205	63.1	68.2	5.1	Complied
5470	62.0	68.2	6.2	Complied
5725	63.3	68.2	4.9	Complied
5850	57.2	68.2	11.0	Complied
5924.487	59.5	68.2	8.7	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11a / 20 MHz / SISO / BPSK / 6 Mbps / Port WF2 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5469.615	-31.6	-27.0	4.6	Complied
5470	-32.4	-27.0	5.4	Complied
5725	-33.6	-27.0	6.6	Complied
5753.269	-32.7	-27.0	5.7	Complied
5850	-37.7	-27.0	10.7	Complied
5923.590	-36.4	-27.0	9.4	Complied

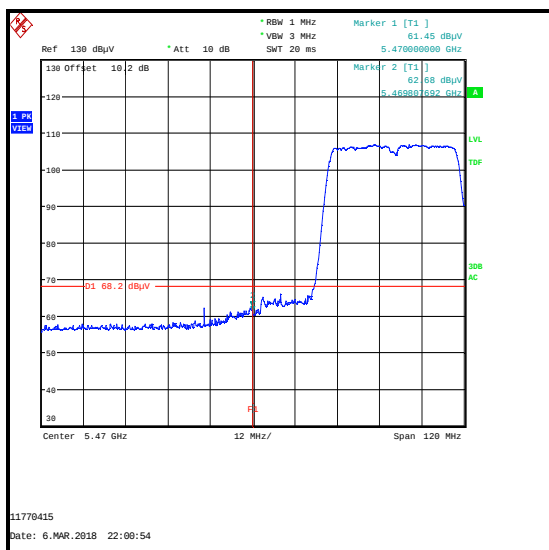
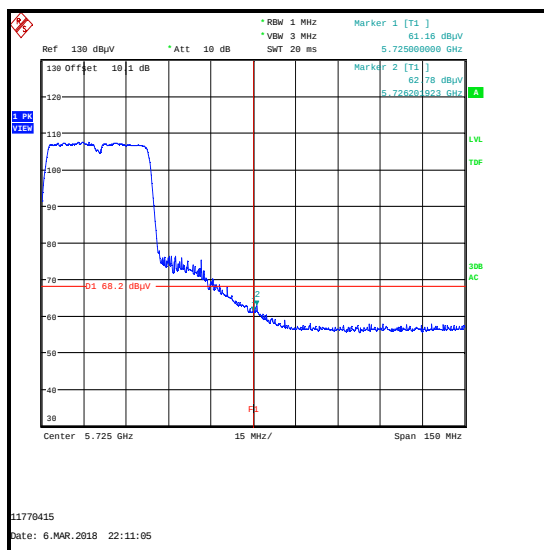
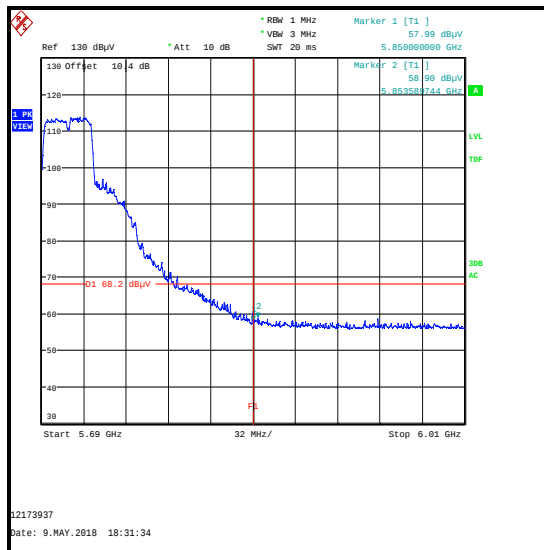
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.615	63.6	68.2	4.6	Complied
5470	62.8	68.2	5.4	Complied
5725	61.6	68.2	6.6	Complied
5753.269	62.5	68.2	5.7	Complied
5850	57.5	68.2	10.7	Complied
5923.590	58.8	68.2	9.4	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5469.808	-32.5	-27.0	5.5	Complied
5470	-33.7	-27.0	6.7	Complied
5725	-34.0	-27.0	7.0	Complied
5726.202	-32.4	-27.0	5.4	Complied
5850	-37.2	-27.0	10.2	Complied
5853.590	-36.3	-27.0	9.3	Complied

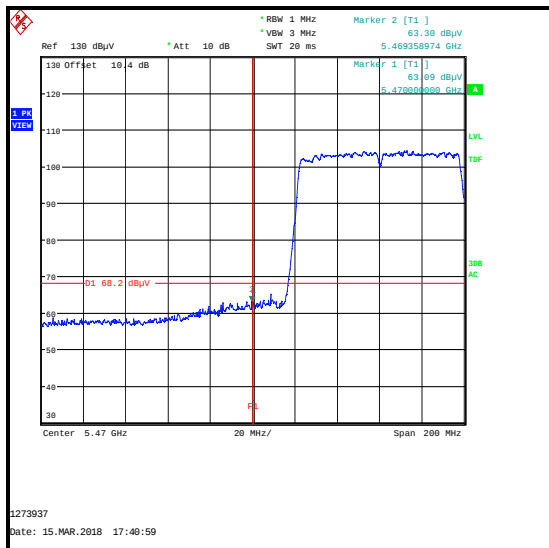
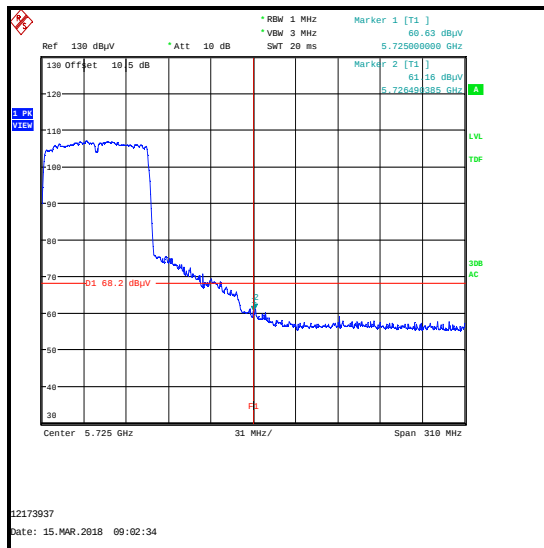
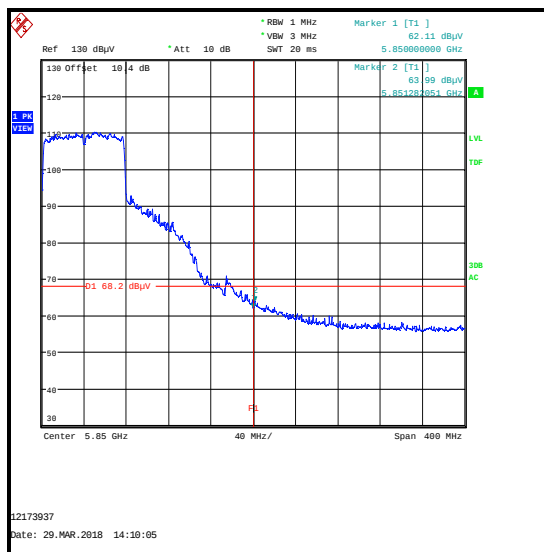
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.808	62.7	68.2	5.5	Complied
5470	61.5	68.2	6.7	Complied
5725	61.2	68.2	7.0	Complied
5726.202	62.8	68.2	5.4	Complied
5850	58.0	68.2	10.2	Complied
5853.590	58.9	68.2	9.3	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5469.359	-31.9	-27.0	4.9	Complied
5470	-32.1	-27.0	5.1	Complied
5725	-34.6	-27.0	7.6	Complied
5726.490	-34.0	-27.0	7.0	Complied
5850	-33.1	-27.0	6.1	Complied
5851.282	-31.2	-27.0	4.2	Complied

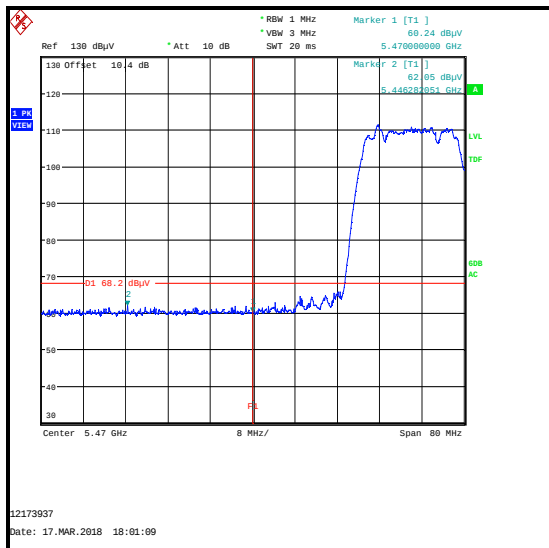
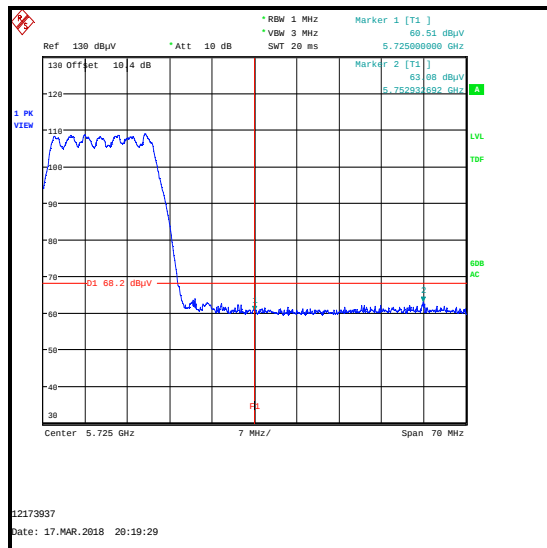
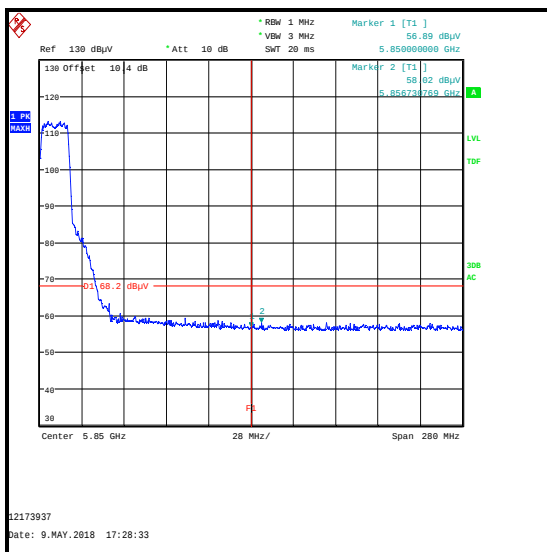
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.359	63.3	68.2	4.9	Complied
5470	63.1	68.2	5.1	Complied
5725	60.6	68.2	7.6	Complied
5726.490	61.2	68.2	7.0	Complied
5850	62.1	68.2	6.1	Complied
5851.282	64.0	68.2	4.2	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5446.282	-33.1	-27.0	6.1	Complied
5470	-35.0	-27.0	8.0	Complied
5725	-34.7	-27.0	7.7	Complied
5725.293	-32.1	-27.0	5.1	Complied
5850	-38.3	-27.0	11.3	Complied
5856.731	-37.2	-27.0	10.2	Complied

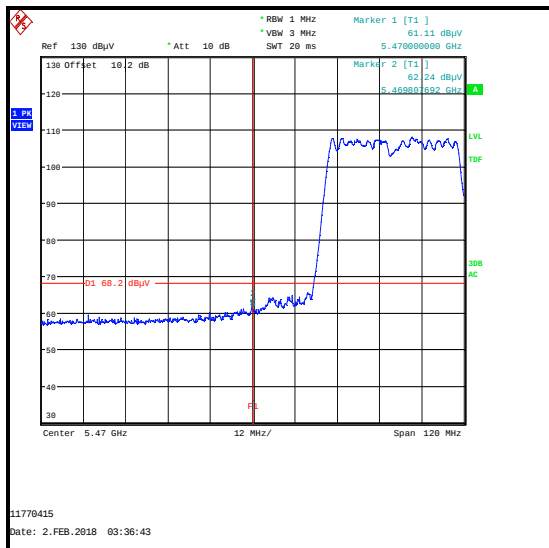
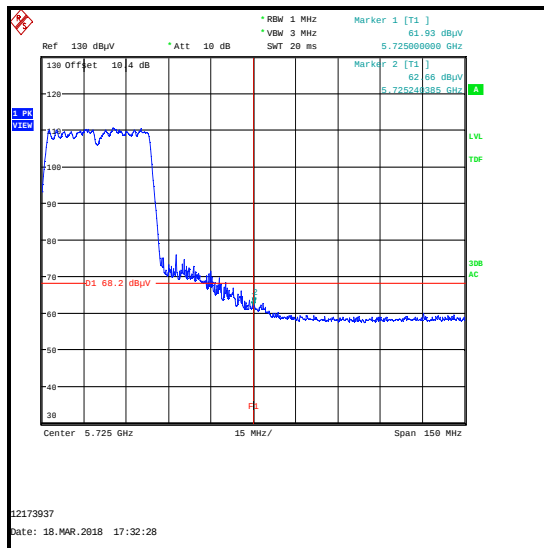
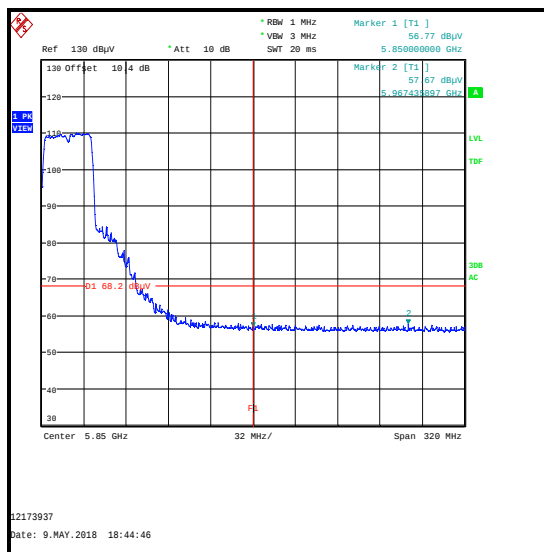
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5446.282	62.1	68.2	6.1	Complied
5470	60.2	68.2	8.0	Complied
5725	60.5	68.2	7.7	Complied
5725.293	63.1	68.2	5.1	Complied
5850	56.9	68.2	11.3	Complied
5856.731	58.0	68.2	10.2	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5467.308	-33.0	-27.0	6.0	Complied
5470	-34.1	-27.0	7.1	Complied
5725	-33.3	-27.0	6.3	Complied
5725.240	-32.5	-27.0	5.5	Complied
5850	-38.4	-27.0	11.4	Complied
5967.436	-37.5	-27.0	10.5	Complied

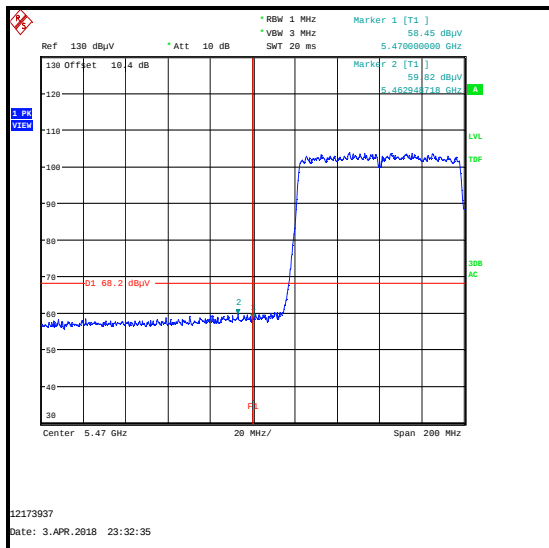
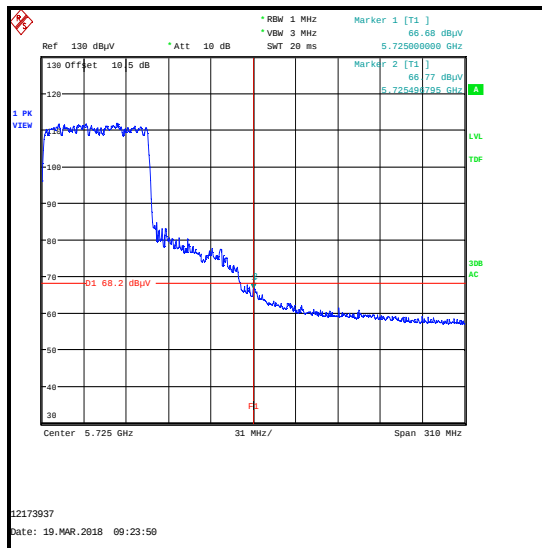
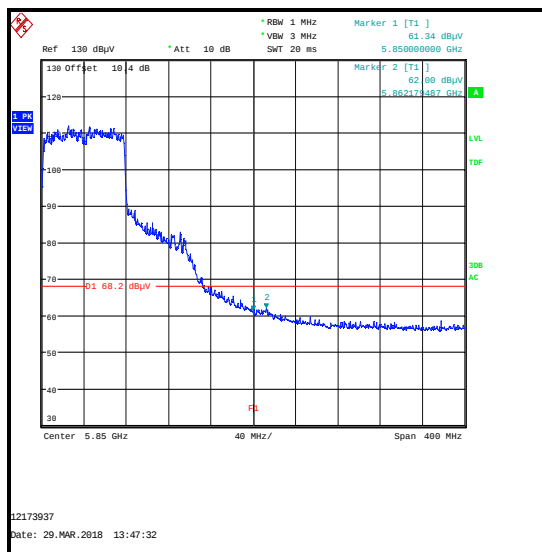
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.808	62.2	68.2	6.0	Complied
5470	61.1	68.2	7.1	Complied
5725	61.9	68.2	6.3	Complied
5725.240	62.7	68.2	5.5	Complied
5850	56.8	68.2	11.4	Complied
5967.436	57.7	68.2	10.5	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5462.949	-35.4	-27.0	8.4	Complied
5470	-36.7	27.0	9.7	Complied
5725	-28.5	27.0	1.5	Complied
5725.497	-28.4	-27.0	1.4	Complied
5850	-33.9	-27.0	6.9	Complied
5862.179	-33.2	-27.0	6.2	Complied

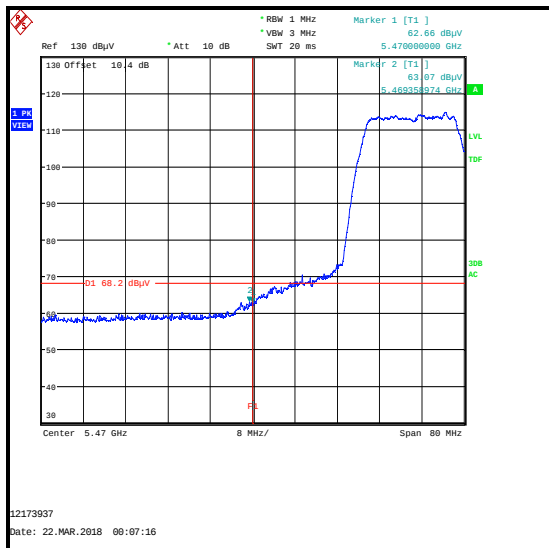
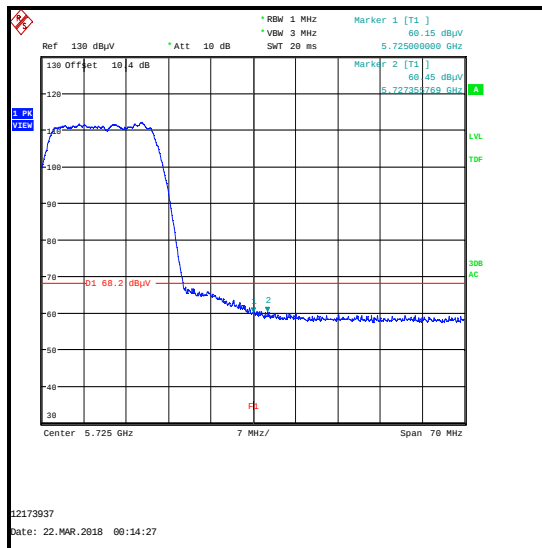
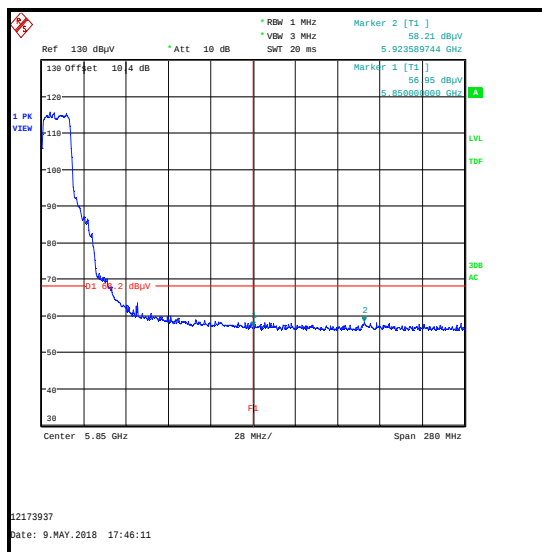
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5462.949	59.8	68.2	8.4	Complied
5470	58.5	68.2	9.7	Complied
5725	66.7	68.2	1.5	Complied
5725.497	66.8	68.2	1.4	Complied
5850	61.3	68.2	6.9	Complied
5862.179	62.0	68.2	6.2	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5469.359	-32.1	-27.0	5.1	Complied
5470	-32.5	-27.0	5.5	Complied
5725	-35.0	-27.0	8.0	Complied
5727.356	-34.7	-27.0	7.7	Complied
5850	-38.2	-27.0	11.2	Complied
5923.590	-37.0	-27.0	10.0	Complied

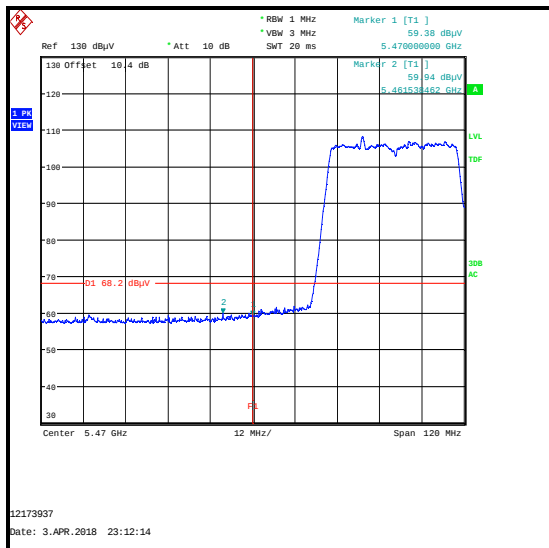
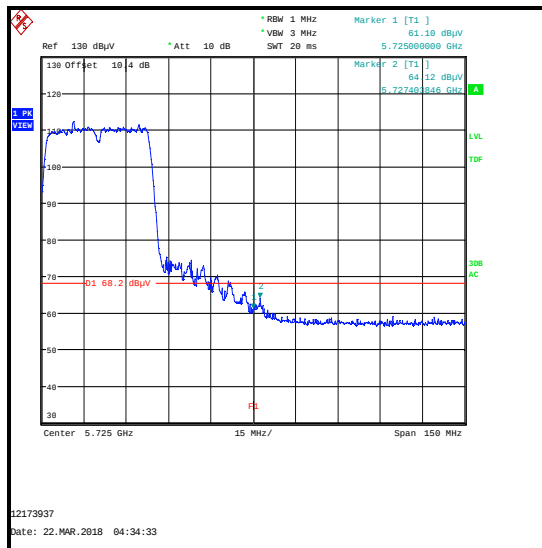
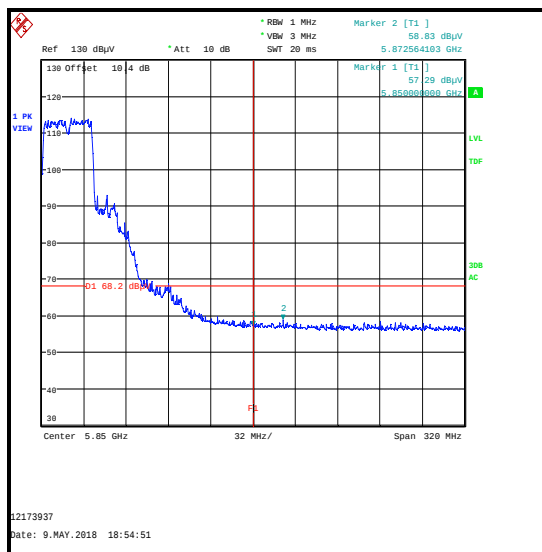
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.359	63.1	68.2	5.1	Complied
5470	62.7	68.2	5.5	Complied
5725	60.2	68.2	8.0	Complied
5727.356	60.5	68.2	7.7	Complied
5850	57.0	68.2	11.2	Complied
5923.590	58.2	68.2	10.0	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5461.538	-35.3	-27.0	8.3	Complied
5470	-35.8	-27.0	8.8	Complied
5725	-34.1	-27.0	7.1	Complied
5727.404	-31.1	-27.0	4.1	Complied
5850	-37.9	-27.0	10.9	Complied
5872.564	-36.4	-27.0	9.4	Complied

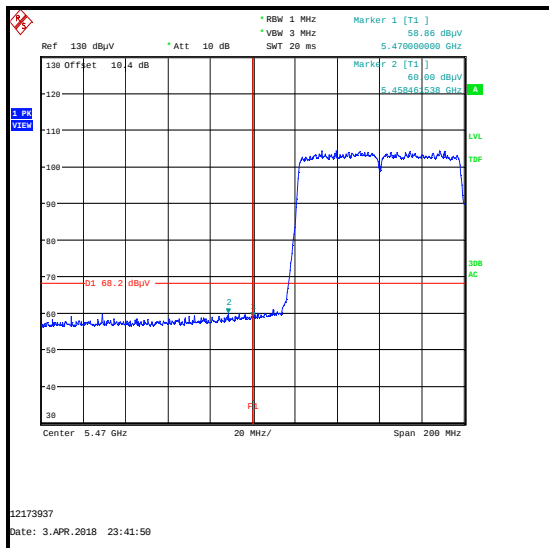
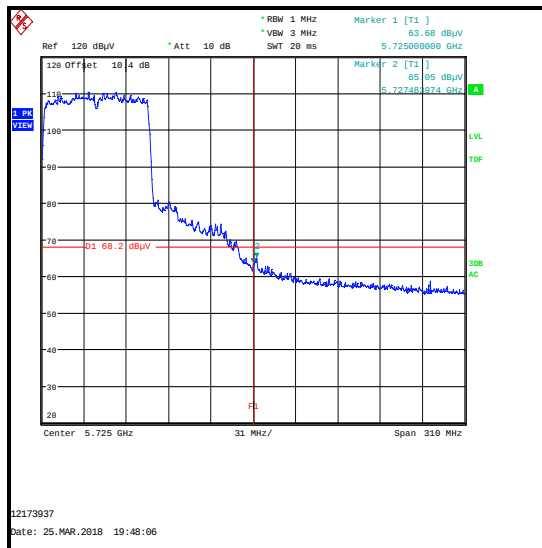
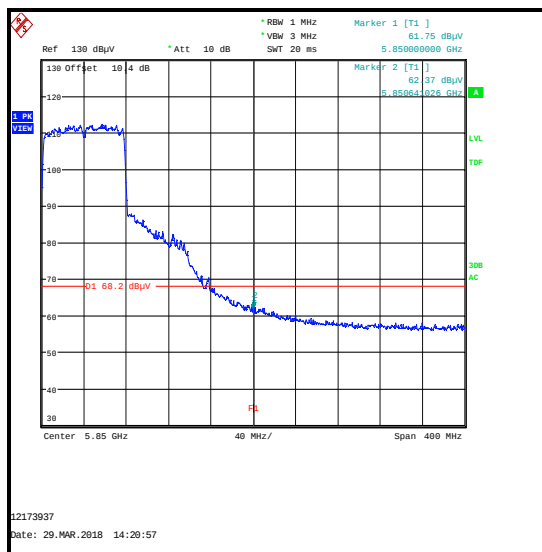
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5461.538	59.9	68.2	8.3	Complied
5470	59.4	68.2	8.8	Complied
5725	61.1	68.2	7.1	Complied
5727.404	64.1	68.2	4.1	Complied
5850	57.3	68.2	10.9	Complied
5872.564	58.8	68.2	9.4	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5458.462	-35.2	-27.0	8.2	Complied
5470	-36.3	-27.0	9.3	Complied
5725	-31.5	-27.0	4.5	Complied
5727.484	-30.1	-27.0	3.1	Complied
5850	-33.4	-27.0	6.4	Complied
5850.641	-32.8	-27.0	5.8	Complied

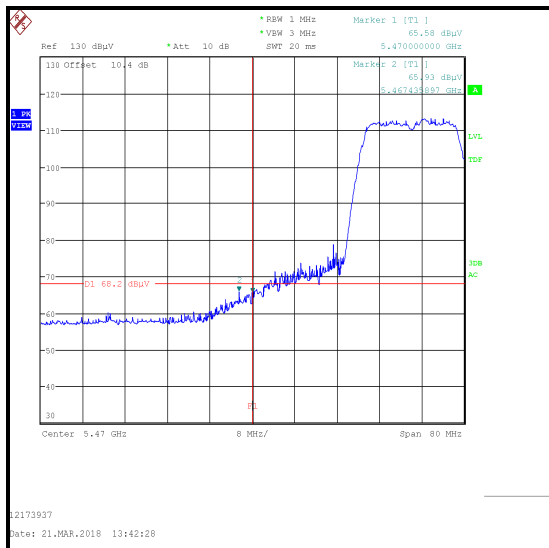
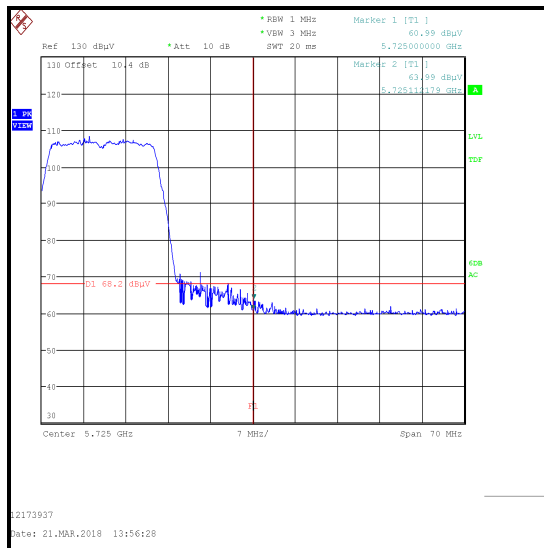
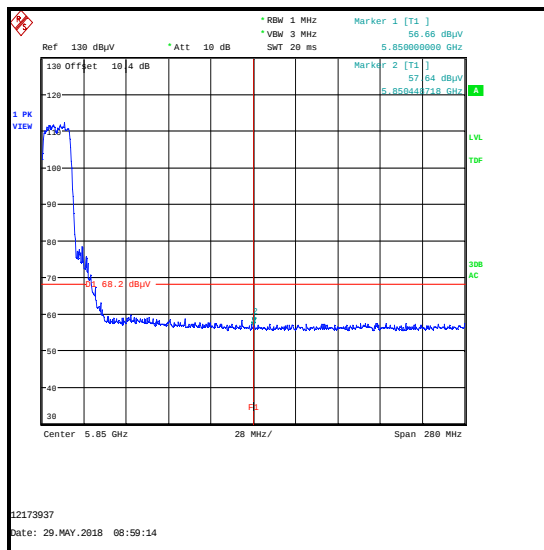
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5458.462	60.0	68.2	8.2	Complied
5470	58.9	68.2	9.3	Complied
5725	63.7	68.2	4.5	Complied
5727.484	65.1	68.2	3.1	Complied
5850	61.8	68.2	6.4	Complied
5850.641	62.4	68.2	5.8	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5467.436	-29.3	-27.0	2.3	Complied
5470	-29.6	-27.0	2.6	Complied
5725	-34.2	-27.0	7.2	Complied
5725.112	-31.2	-27.0	4.2	Complied
5850	-38.5	-27.0	11.5	Complied
5850.449	-37.6	-27.0	10.6	Complied

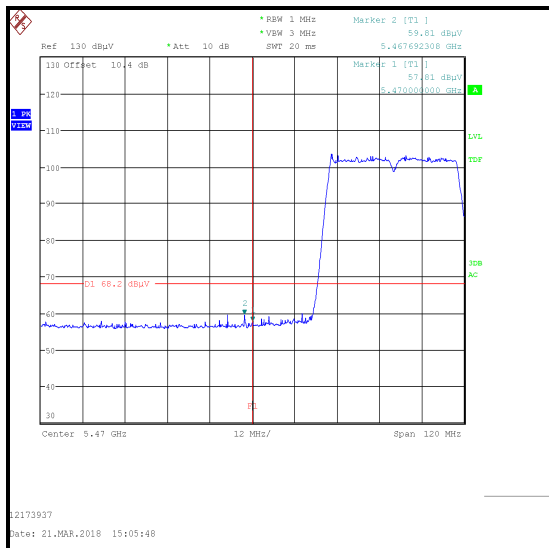
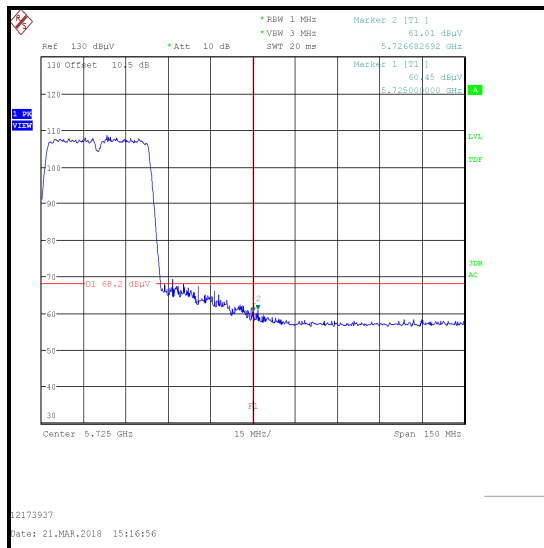
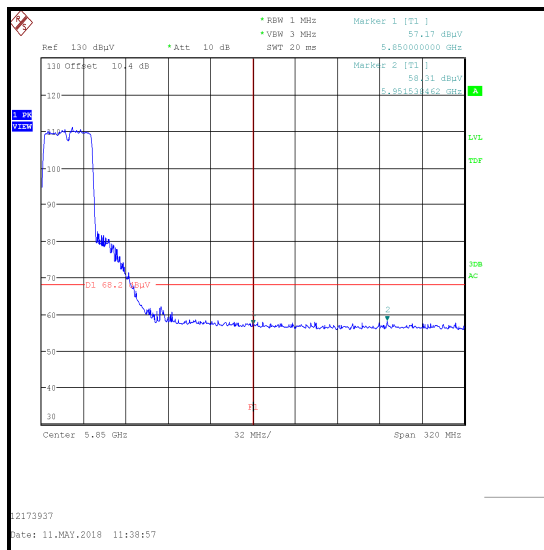
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5467.436	65.9	68.2	2.3	Complied
5470	65.6	68.2	2.6	Complied
5725	61.0	68.2	7.2	Complied
5725.112	64.0	68.2	4.2	Complied
5850	56.7	68.2	11.5	Complied
5850.449	57.6	68.2	10.6	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5467.692	-35.4	-27.0	8.4	Complied
5470	-37.4	-27.0	10.4	Complied
5725	-34.7	-27.0	7.7	Complied
5726.683	-34.2	-27.0	7.2	Complied
5850	-38.0	-27.0	11.0	Complied
5951.538	-36.9	-27.0	9.9	Complied

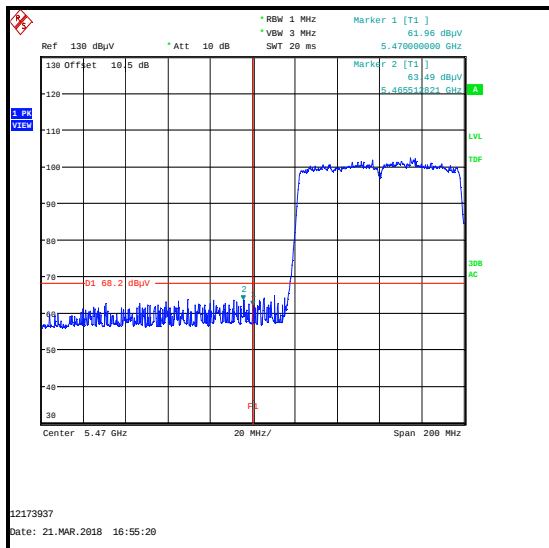
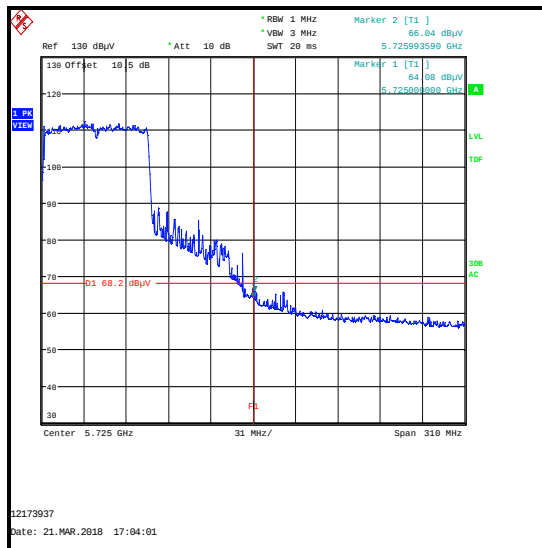
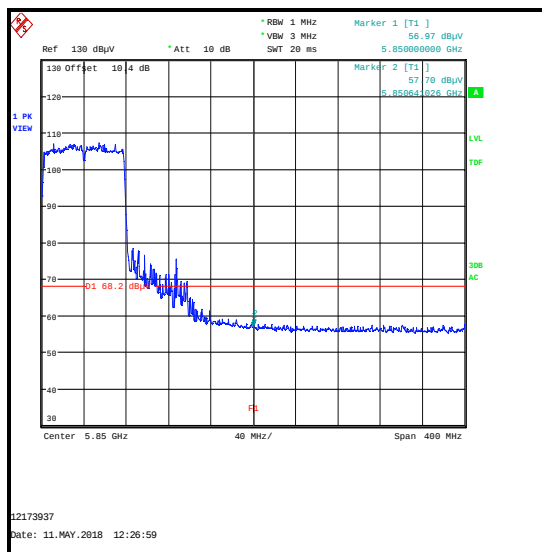
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5467.692	59.8	68.2	8.4	Complied
5470	57.8	68.2	10.4	Complied
5725	60.5	68.2	7.7	Complied
5726.683	61.0	68.2	7.2	Complied
5850	57.2	68.2	11.0	Complied
5951.538	58.3	68.2	9.9	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5465.513	-31.7	-27.0	4.7	Complied
5470	-33.2	-27.0	6.2	Complied
5725	-31.1	-27.0	4.1	Complied
5725.994	-29.2	-27.0	2.2	Complied
5850	-38.2	-27.0	11.2	Complied
5850.641	-37.5	-27.0	10.5	Complied

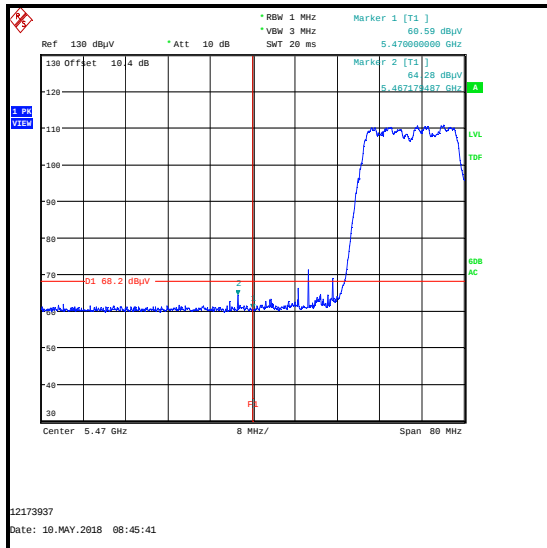
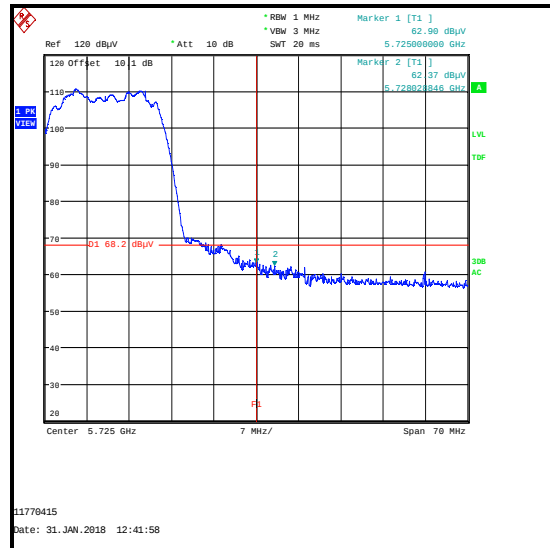
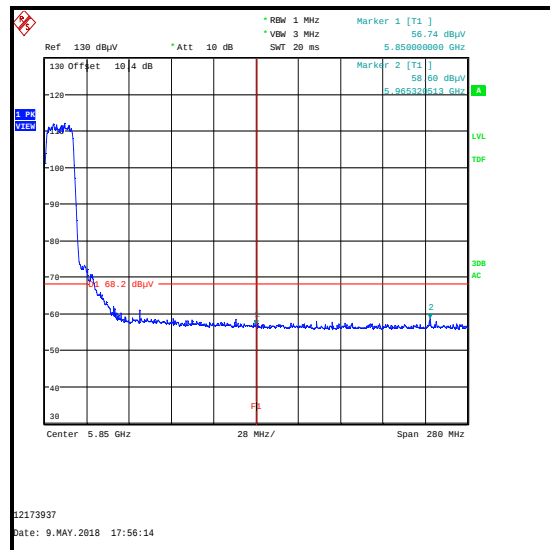
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5465.513	63.5	68.2	4.7	Complied
5470	62.0	68.2	6.2	Complied
5725	64.1	68.2	4.1	Complied
5725.994	66.0	68.2	2.2	Complied
5850	57.0	68.2	11.2	Complied
5850.641	57.7	68.2	10.5	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5463.718	-30.9	-27.0	3.9	Complied
5470	-34.6	-27.0	7.6	Complied
5725	-32.3	-27.0	5.3	Complied
5850	-38.5	-27.0	11.5	Complied
5965.321	-36.6	-27.0	9.6	Complied

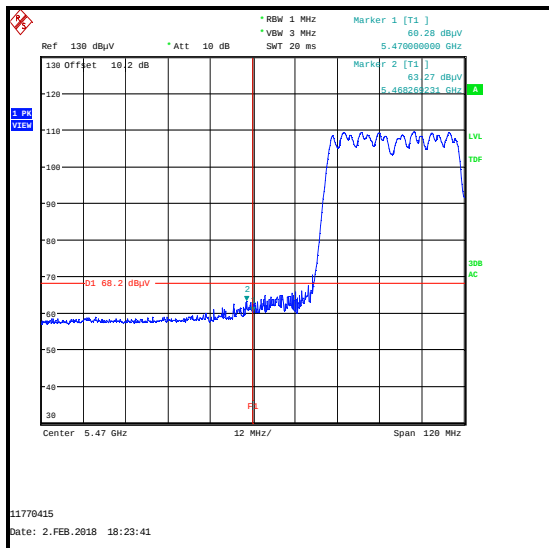
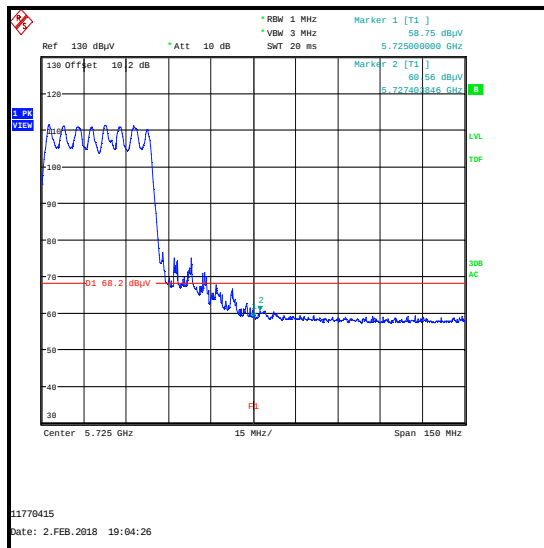
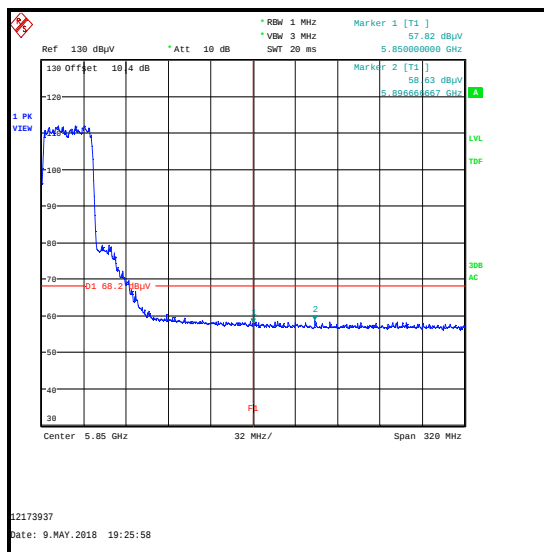
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5467.179	64.3	68.2	3.9	Complied
5470	60.6	68.2	7.6	Complied
5725	62.9	68.2	5.3	Complied
5850	56.7	68.2	11.5	Complied
5965.321	58.6	68.2	9.6	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5468.269	-31.9	-27.0	4.9	Complied
5470	-34.9	-27.0	7.9	Complied
5725	-36.4	-27.0	9.4	Complied
5727.404	-34.6	-27.0	7.6	Complied
5850	-37.4	-27.0	10.4	Complied
5896.667	-36.6	-27.0	9.6	Complied

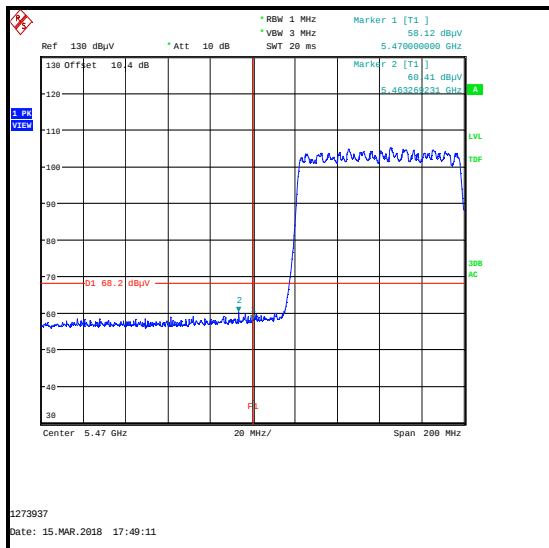
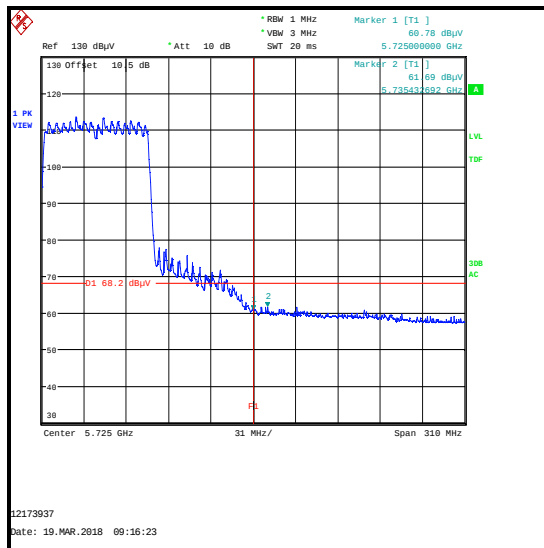
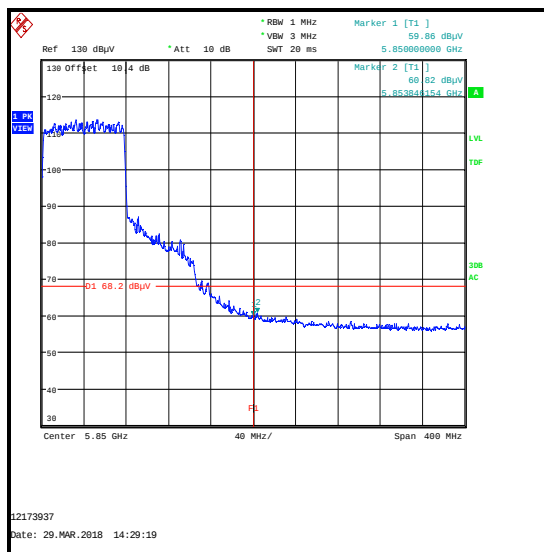
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5468.269	63.3	68.2	4.9	Complied
5470	60.3	68.2	7.9	Complied
5725	58.8	68.2	9.4	Complied
5727.404	60.6	68.2	7.6	Complied
5850	57.8	68.2	10.4	Complied
5896.667	58.6	68.2	9.6	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5463.269	-34.8	-27.0	7.8	Complied
5470	-37.1	-27.0	10.1	Complied
5725	-34.4	-27.0	7.4	Complied
5735.433	-33.5	-27.0	6.5	Complied
5850	-35.3	-27.0	8.3	Complied
5853.846	-34.4	-27.0	7.4	Complied

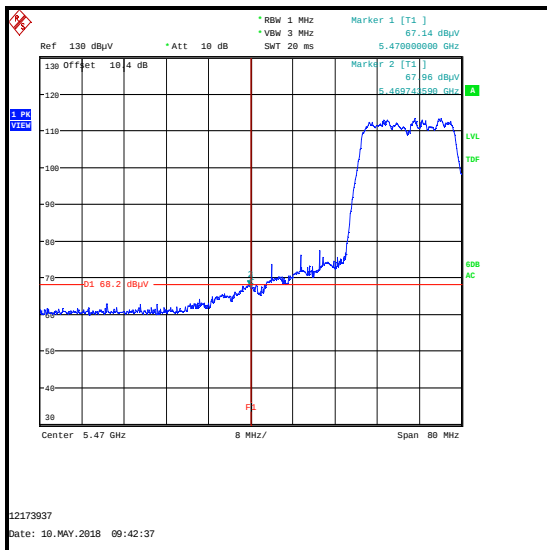
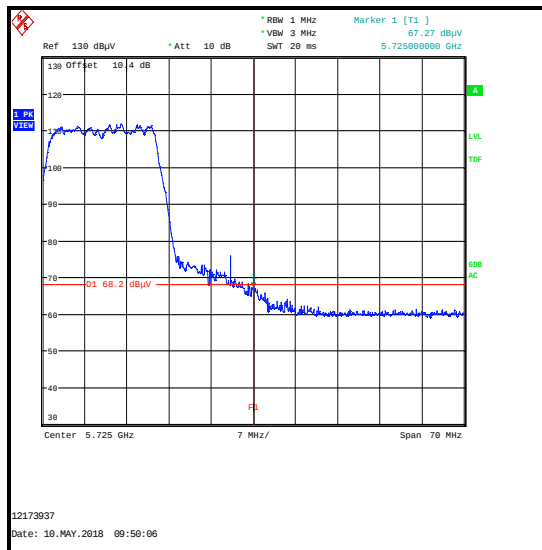
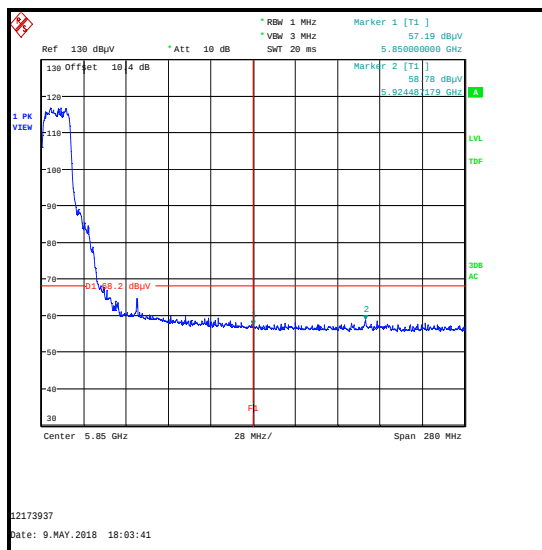
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5463.269	60.4	68.2	7.8	Complied
5470	58.1	68.2	10.1	Complied
5725	60.8	68.2	7.4	Complied
5735.433	61.7	68.2	6.5	Complied
5850	59.9	68.2	8.3	Complied
5853.846	60.8	68.2	7.4	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5469.744	-27.2	-27.0	0.2	Complied
5470	-28.1	-27.0	1.1	Complied
5725	-27.9	-27.0	0.9	Complied
5850	-38.0	-27.0	11.0	Complied
5924.487	-36.4	-27.0	9.4	Complied

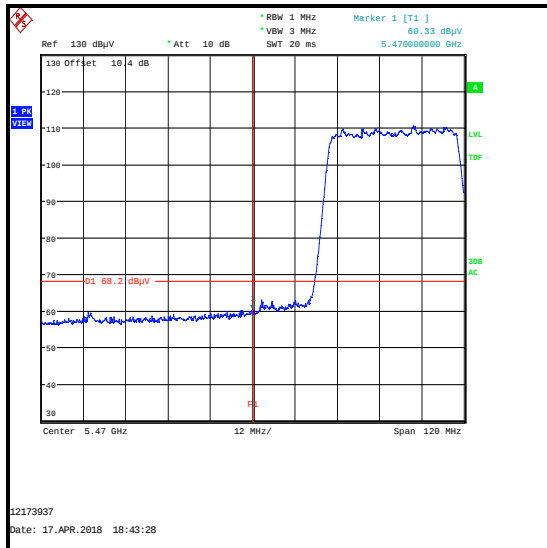
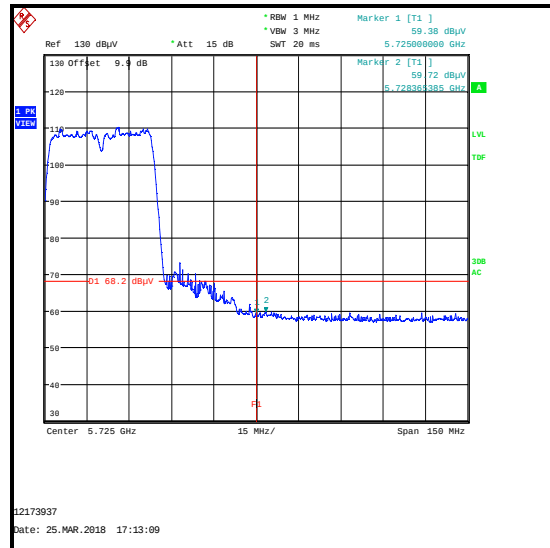
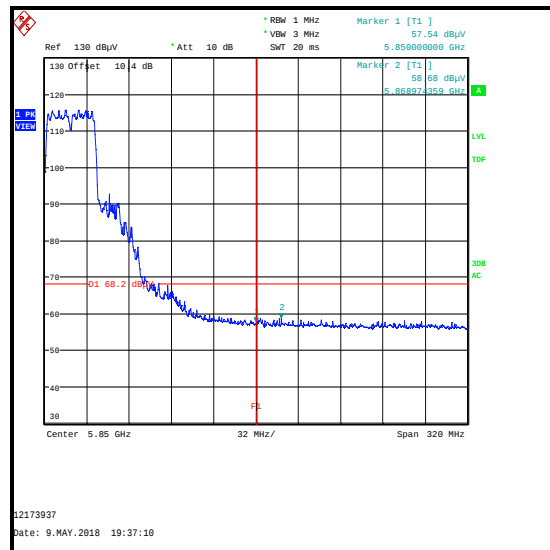
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.744	68.0	68.2	0.2	Complied
5470	67.1	68.2	1.1	Complied
5725	67.3	68.2	0.9	Complied
5850	57.2	68.2	11.0	Complied
5924.487	58.8	68.2	9.4	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5470	-34.9	-27.0	7.9	Complied
5725	-35.8	-27.0	8.8	Complied
5728.365	-35.5	-27.0	8.5	Complied
5850	-37.7	-27.0	10.7	Complied
5868.974	-36.5	-27.0	9.5	Complied

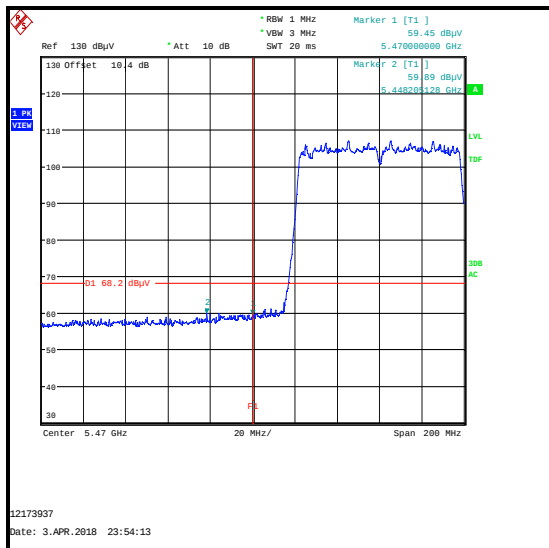
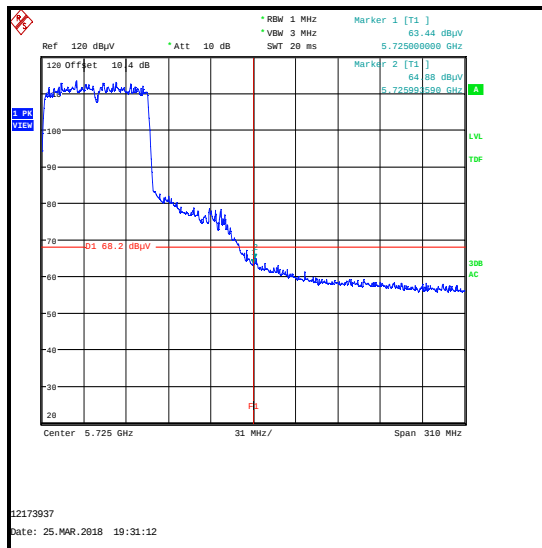
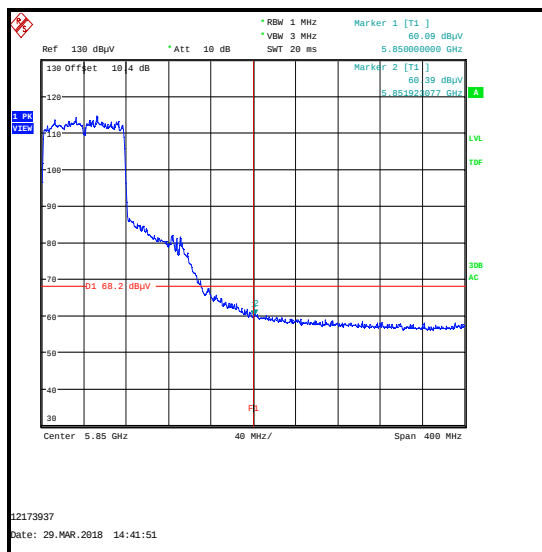
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5470	60.3	68.2	7.9	Complied
5725	59.4	68.2	8.8	Complied
5728.365	59.7	68.2	8.5	Complied
5850	57.5	68.2	10.7	Complied
5868.974	58.7	68.2	9.5	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5448.205	-35.3	-27.0	8.3	Complied
5470	-35.7	-27.0	8.7	Complied
5725	-31.8	-27.0	4.8	Complied
5725.994	-30.3	-27.0	3.3	Complied
5850	-35.1	-27.0	8.1	Complied
5851.923	-34.8	-27.0	7.8	Complied

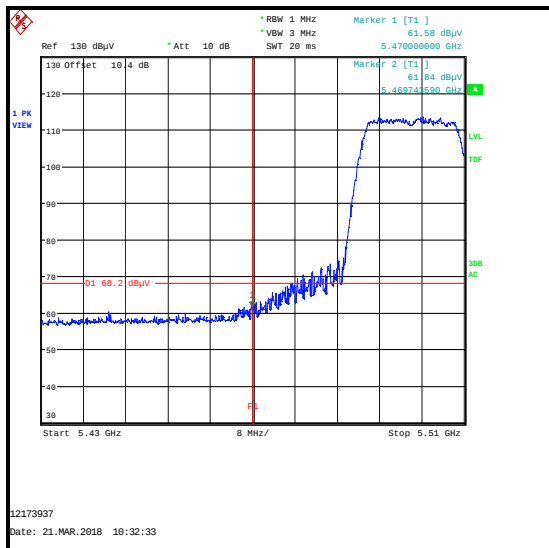
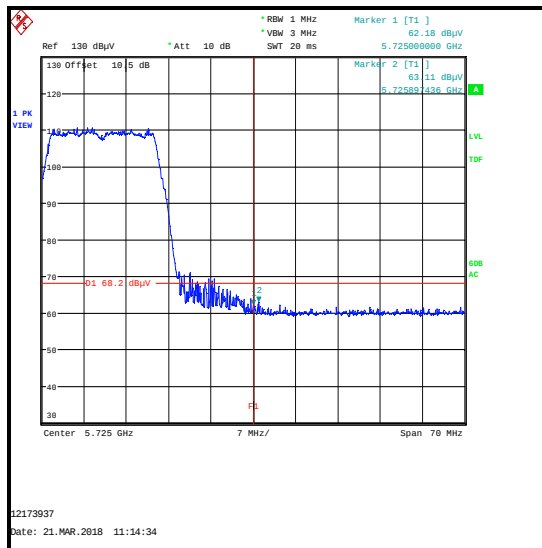
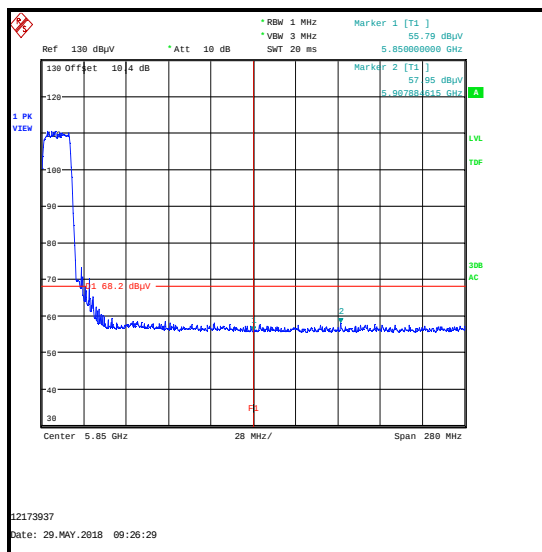
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5448.205	59.9	68.2	8.3	Complied
5470	59.5	68.2	8.7	Complied
5725	63.4	68.2	4.8	Complied
5725.994	64.9	68.2	3.3	Complied
5850	60.1	68.2	8.1	Complied
5851.923	60.4	68.2	7.8	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5469.744	-33.4	-27.0	6.4	Complied
5470	-33.6	-27.0	6.6	Complied
5725	-33.0	-27.0	6.0	Complied
5725.897	-32.1	-27.0	5.1	Complied
5850	-39.4	-27.0	12.4	Complied
5907.885	-37.2	-27.0	10.2	Complied

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5469.744	61.8	68.2	6.4	Complied
5470	61.6	68.2	6.6	Complied
5725	62.2	68.2	6.0	Complied
5725.897	63.1	68.2	5.1	Complied
5850	55.8	68.2	12.4	Complied
5907.885	58.0	68.2	10.2	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

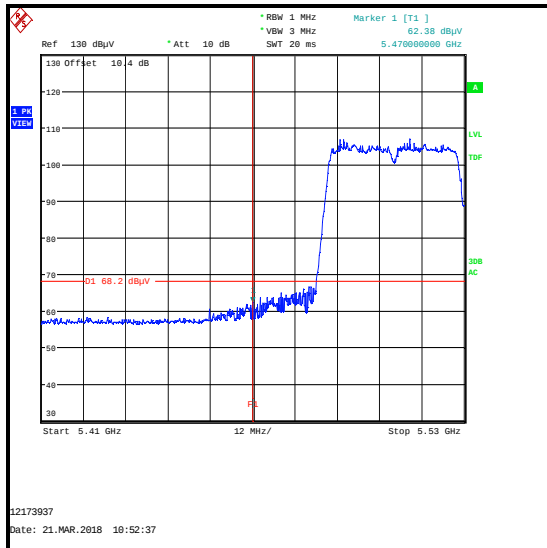
Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5470	-32.8	-27.0	5.8	Complied
5725	-33.3	-27.0	6.3	Complied
5727.404	-33.1	-27.0	6.1	Complied
5850	-38.3	-27.0	11.3	Complied
5862.821	-36.9	-27.0	9.9	Complied

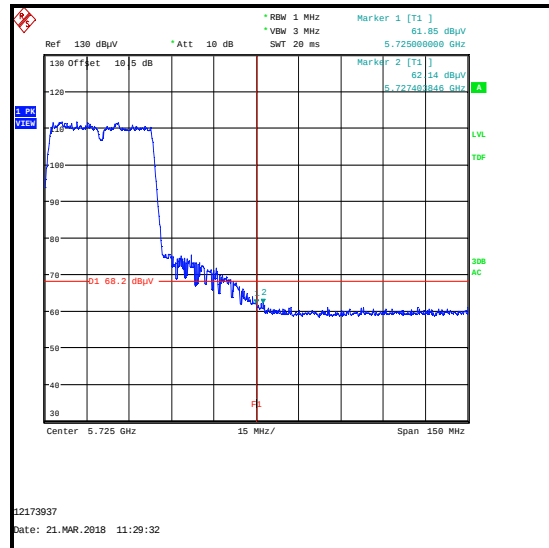
Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5470	62.4	68.2	5.8	Complied
5725	61.9	68.2	6.3	Complied
5727.404	62.1	68.2	6.1	Complied
5850	56.9	68.2	11.3	Complied
5862.821	58.3	68.2	9.9	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)

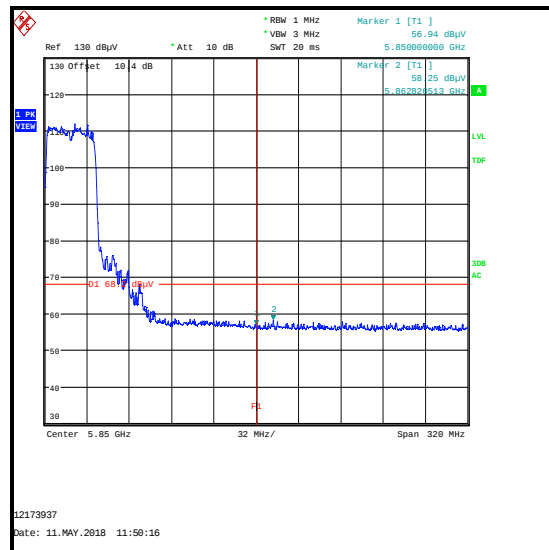
Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak



Lower Band Edge



Upper Band Edge

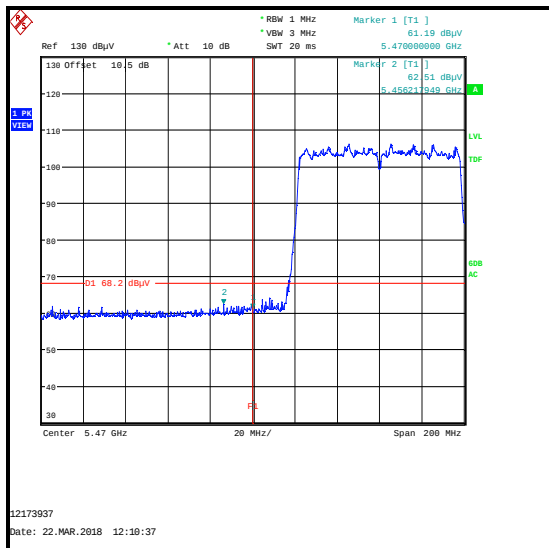
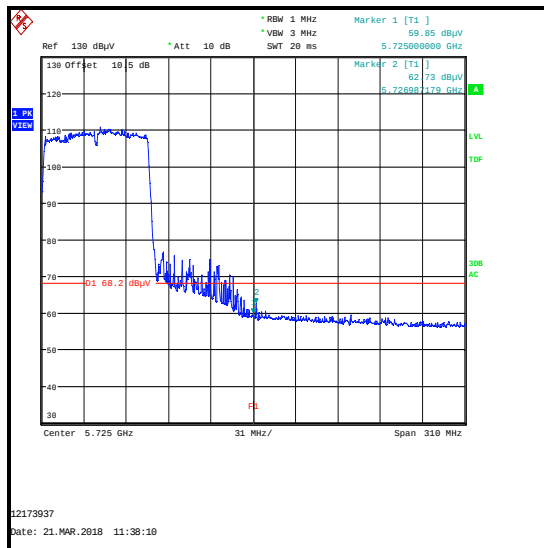
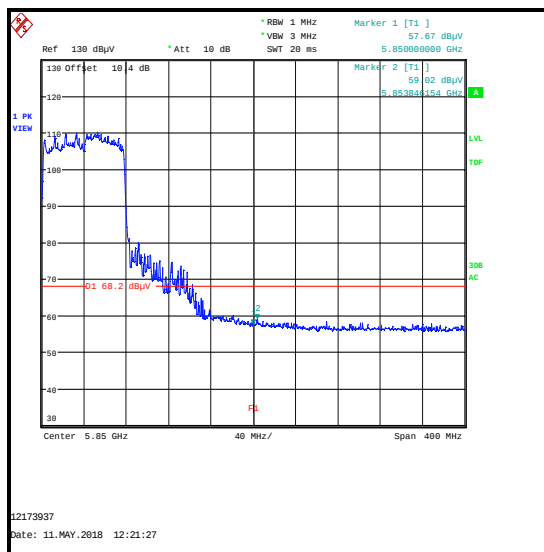


Straddle Channel emission level at 5850 MHz

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5456.218	-32.7	-27.0	5.7	Complied
5470	-34.0	-27.0	7.0	Complied
5725	-35.3	-27.0	8.3	Complied
5726.987	-32.5	-27.0	5.5	Complied
5850	-37.5	-27.0	10.5	Complied
5853.846	-36.2	-27.0	9.2	Complied

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
5456.218	62.5	68.2	5.7	Complied
5470	61.2	68.2	7.0	Complied
5725	59.9	68.2	8.3	Complied
5726.987	62.7	68.2	5.5	Complied
5850	57.7	68.2	10.5	Complied
5853.846	59.0	68.2	9.2	Complied

Transmitter Band Edge Radiated Emissions (5.47-5.725 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak****Lower Band Edge****Upper Band Edge****Straddle Channel emission level at 5850 MHz**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band)**5.3.4. 5.725-5.85 GHz band****Test Summary:**

Test Engineers:	Alan Withers, John Ferdinand, Andrew Edwards & James O'Reilly	Test Dates:	31 January 2018 to 29 May 2018
Test Sample Serial Numbers:	C02VR00RJH93 & C02W6011JTF2		

FCC Reference:	Parts 15.407(b)(4)(i),(7), 15.205 & 15.209(a)
Test Method Used:	ANSI C63.10 Section 6.10 & KDB 789033 II.G.

Environmental Conditions:

Temperature (°C):	20 to 24
Relative Humidity (%):	38 to 45

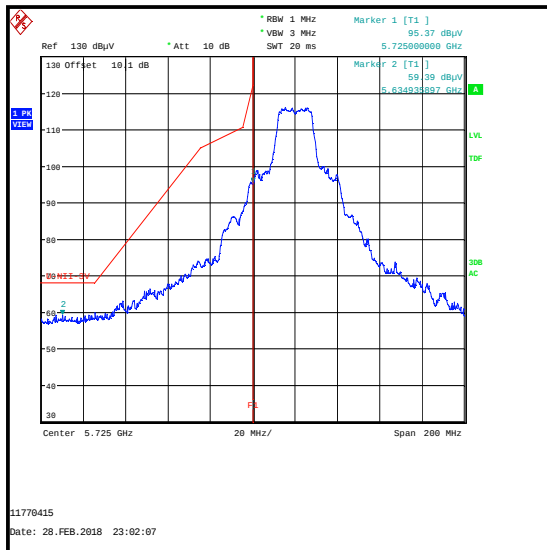
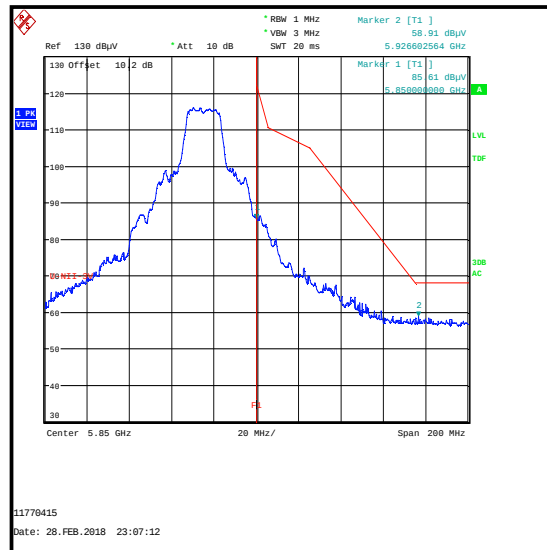
Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Note(s):**

1. The following modes were tested:
 - o 802.11a - BPSK / 6 Mbps / Port WF2
 - o 802.11n HT20 / SISO - BPSK / MCS0 / Port WF2
 - o 802.11n HT40 / SISO - BPSK / MCS0 / Port WF2
 - o 802.11ac VHT80 / SISO – BPSK / MCS0x1 / Port WF2
 - o 802.11n HT20 / MIMO / 2Tx CDD - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 2Tx CDD - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 2Tx CDD - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 2Tx STBC - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 2Tx STBC - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 2Tx STBC - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 2Tx TxBF - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 2Tx TxBF - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 2Tx TxBF - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 3Tx CDD - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 3Tx CDD - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 3Tx CDD - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 3Tx STBC - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 3Tx STBC - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 3Tx STBC - BPSK / MCS0x1
 - o 802.11n HT20 / MIMO / 3Tx TxBF - BPSK / MCS0
 - o 802.11n HT40 / MIMO / 3Tx TxBF - BPSK / MCS0
 - o 802.11ac VHT80 / MIMO / 3Tx TxBF - BPSK / MCS0x1
2. Lower band edge measurements were performed with the EUT transmitting on the bottom channel. Upper band edge measurements were performed with the EUT transmitting on the top channel.
3. For completeness, results are also shown as EIRP in dBm and also as field strength in dB μ V/m. Measured field strength was converted to EIRP in accordance with KDB 789033 G.2.c)(iii) using a conversion factor of 95.2.

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11a / 20 MHz / BPSK / 6 Mbps / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5634.936	-35.8	-27.0	8.8	Complied
5725	0.2	27.0	26.8	Complied
5850	-9.6	27.0	36.6	Complied
5926.603	-36.3	-27.0	9.3	Complied

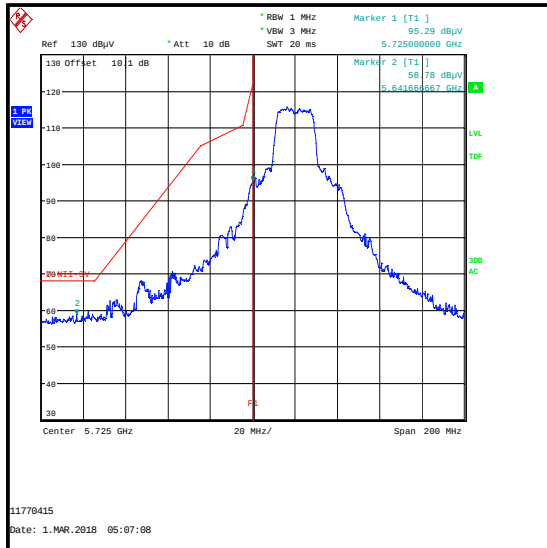
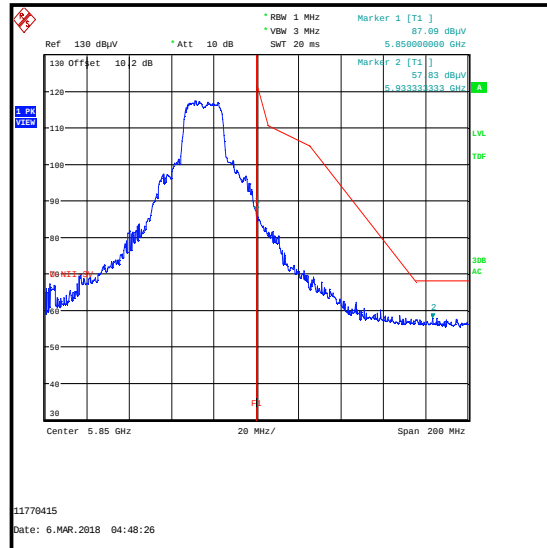
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5634.936	59.4	68.2	8.8	Complied
5725	95.4	122.2	26.8	Complied
5850	85.6	122.2	36.6	Complied
5926.603	58.9	68.2	9.3	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5641.667	-36.4	-27.0	9.4	Complied
5725	0.1	27.0	26.9	Complied
5850	-8.1	27.0	35.1	Complied
5933.333	-37.4	-27.0	10.4	Complied

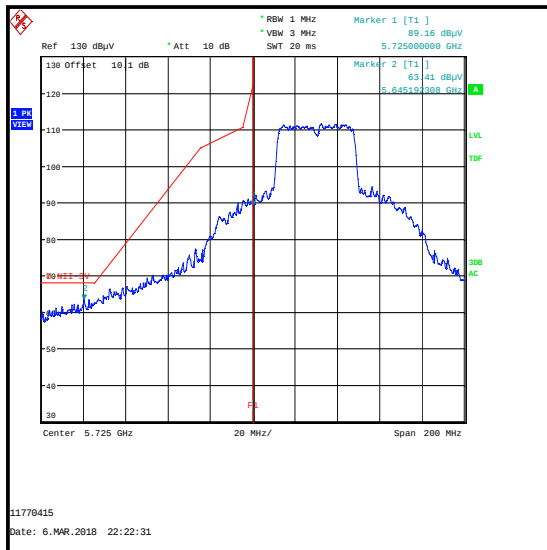
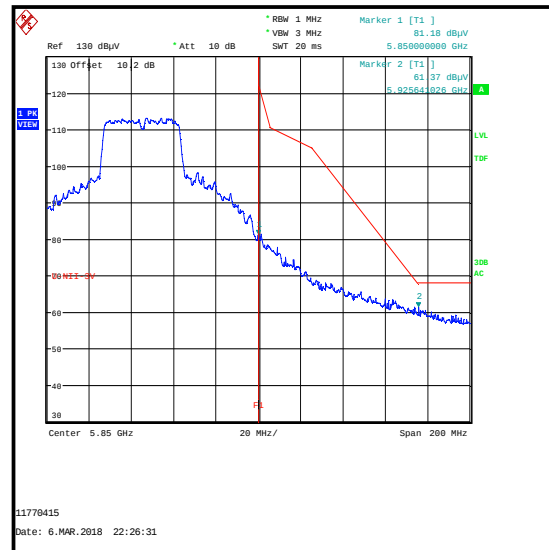
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5641.667	58.8	68.2	9.4	Complied
5725	95.3	122.2	26.9	Complied
5850	87.1	122.2	35.1	Complied
5933.333	57.8	68.2	10.4	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5645.192	-31.8	-27.0	4.8	Complied
5725	-6.0	27.0	33.0	Complied
5850	-14.0	27.0	41.0	Complied
5925.641	-33.8	-27.0	6.8	Complied

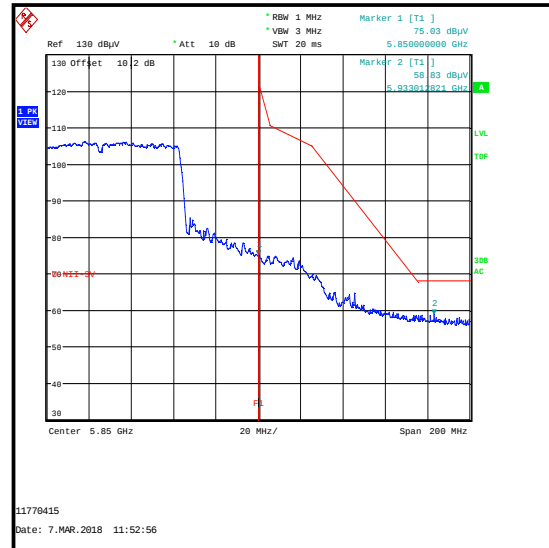
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5645.192	63.4	68.2	4.8	Complied
5725	89.2	122.2	33.0	Complied
5850	81.2	122.2	41.0	Complied
5925.641	61.4	68.2	6.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / SISO / BPSK / MCS0 / Port WF2 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5645.192	-32.2	-27.0	5.2	Complied
5725	-17.3	27.0	44.3	Complied
5850	-20.2	27.0	47.2	Complied
5933.013	-36.4	-27.0	9.4	Complied

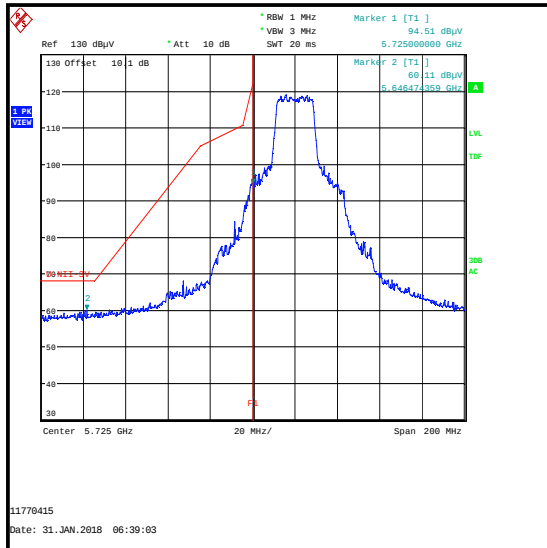
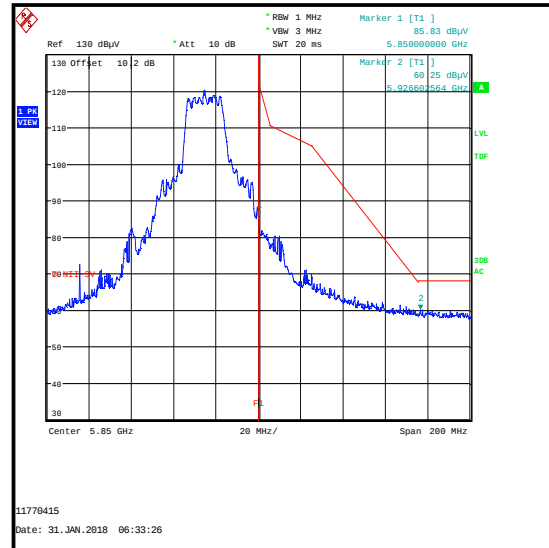
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5645.192	63.0	68.2	5.2	Complied
5725	77.9	122.2	44.3	Complied
5850	75.0	122.2	47.2	Complied
5933.013	58.8	68.2	9.4	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5646.474	-35.1	-27.0	8.1	Complied
5725	-0.7	27.0	27.7	Complied
5850	-9.4	27.0	36.4	Complied
5926.603	-34.9	-27.0	7.9	Complied

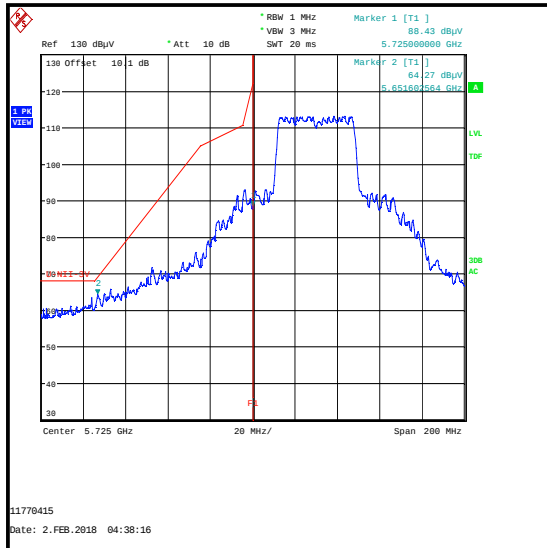
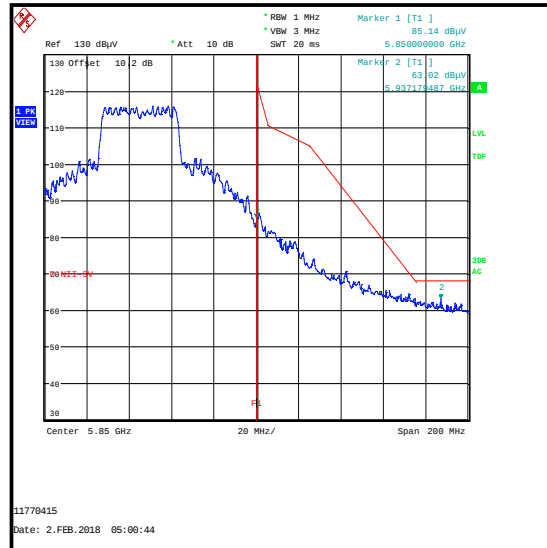
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5646.474	60.1	68.2	8.1	Complied
5725	94.5	122.2	27.7	Complied
5850	85.8	122.2	36.4	Complied
5926.603	60.3	68.2	7.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5651.603	-30.9	-25.8	5.1	Complied
5725	-6.8	27.0	33.8	Complied
5850	-10.1	27.0	37.1	Complied
5937.179	-32.2	-27.0	5.2	Complied

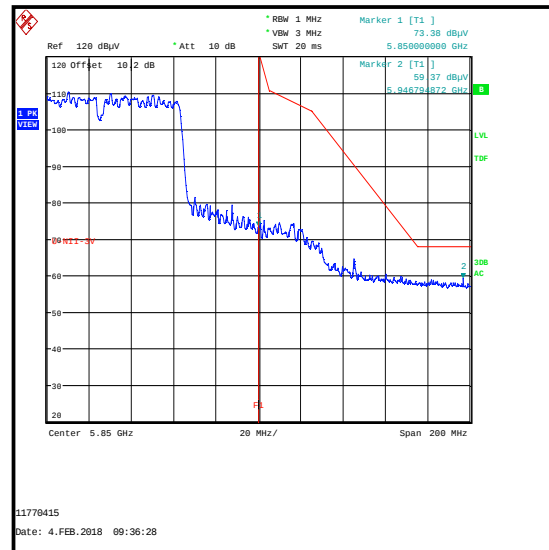
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5651.603	64.3	69.4	5.1	Complied
5725	88.4	122.2	33.8	Complied
5850	85.1	122.2	37.1	Complied
5937.179	63.0	68.2	5.2	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5650.000	-33.1	-27.0	6.1	Complied
5725	-18.1	27.0	45.1	Complied
5850	-21.8	27.0	48.8	Complied
5946.795	-35.8	-27.0	8.8	Complied

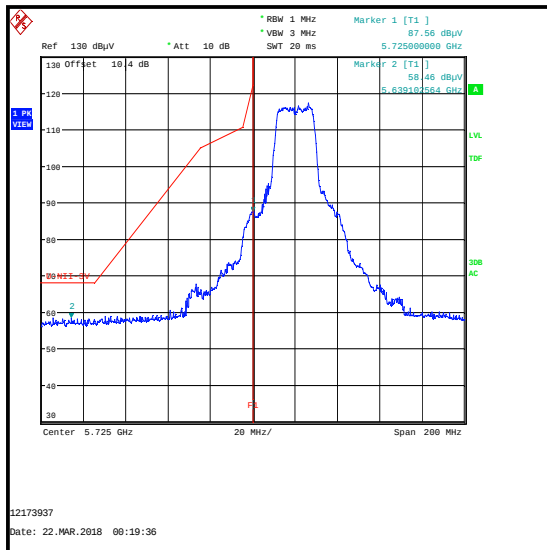
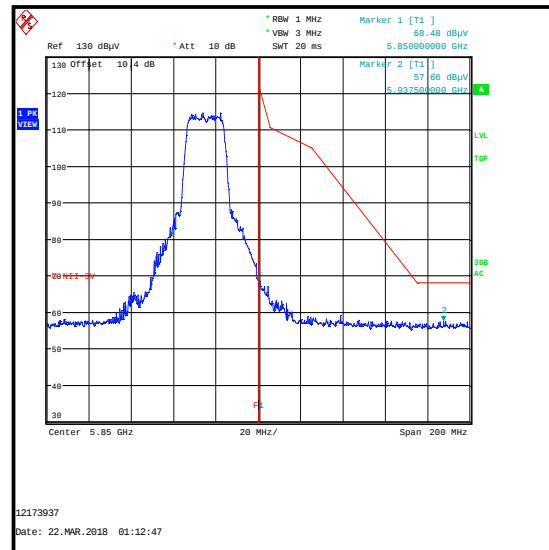
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5650.000	62.1	68.2	6.1	Complied
5725	77.1	122.2	45.1	Complied
5850	73.4	122.2	48.8	Complied
5946.795	59.4	68.2	8.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5639.103	-36.7	-27.0	9.7	Complied
5725	-7.6	27.0	34.6	Complied
5850	-26.7	27.0	53.7	Complied
5937.500	-37.5	-27.0	10.5	Complied

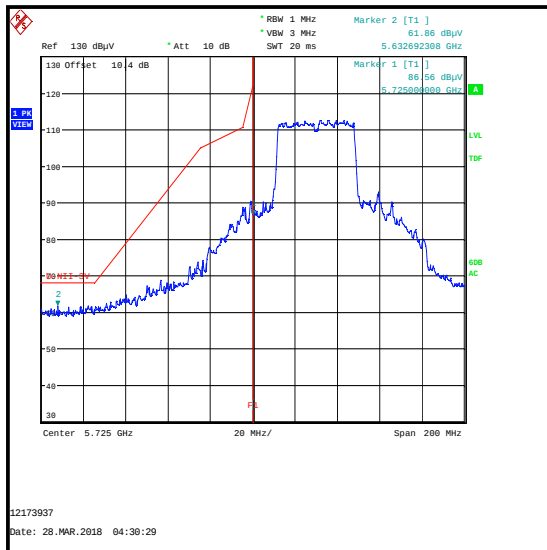
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5639.103	58.5	68.2	9.7	Complied
5725	87.6	122.2	34.6	Complied
5850	68.5	122.2	53.7	Complied
5937.500	57.7	68.2	10.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5632.692	-33.3	-27.0	6.3	Complied
5725	-8.6	27.0	35.6	Complied
5850	-13.4	27.0	40.4	Complied
5929.808	-34.6	-27.0	7.6	Complied

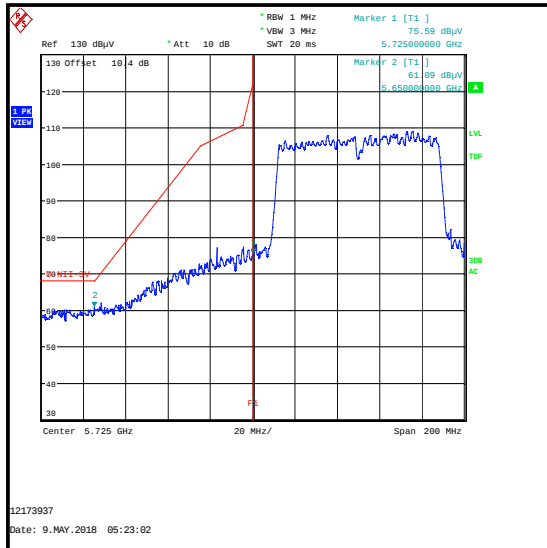
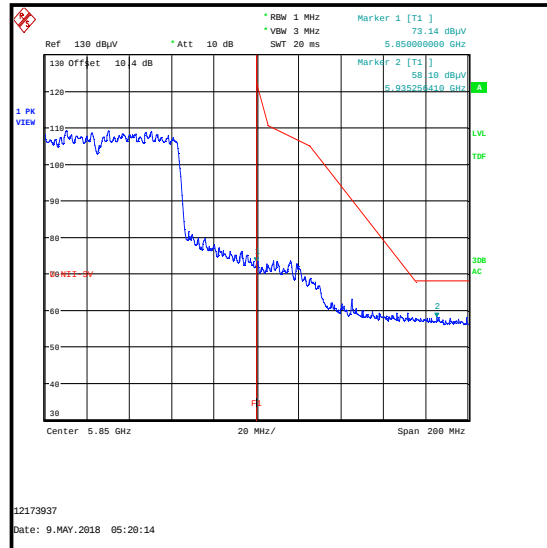
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5632.692	61.9	68.2	6.3	Complied
5725	86.6	122.2	35.6	Complied
5850	81.8	122.2	40.4	Complied
5929.808	60.6	68.2	7.6	Complied



Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5650.000	-34.1	-27.0	7.1	Complied
5725	-19.6	27.0	46.6	Complied
5850	-22.1	27.0	49.1	Complied
5935.256	-37.1	-27.0	10.1	Complied

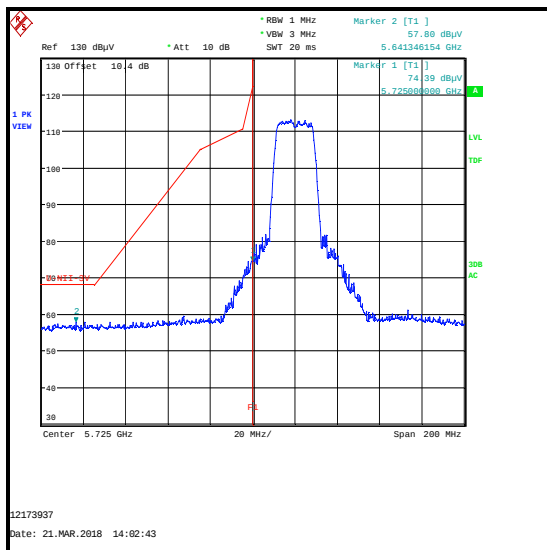
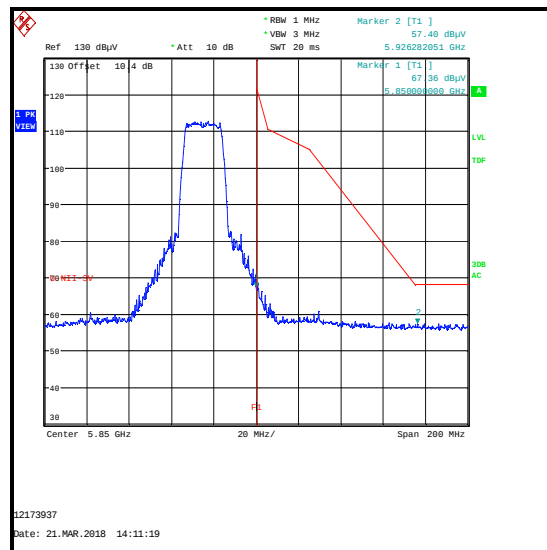
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5650.000	61.1	68.2	7.1	Complied
5725	75.6	122.2	46.6	Complied
5850	73.1	122.2	49.1	Complied
5935.256	58.1	68.2	10.1	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5641.345	-37.4	-27.0	10.4	Complied
5725	-20.8	27.0	47.8	Complied
5850	-27.8	27.0	54.8	Complied
5926.282	-37.8	-27.0	10.8	Complied

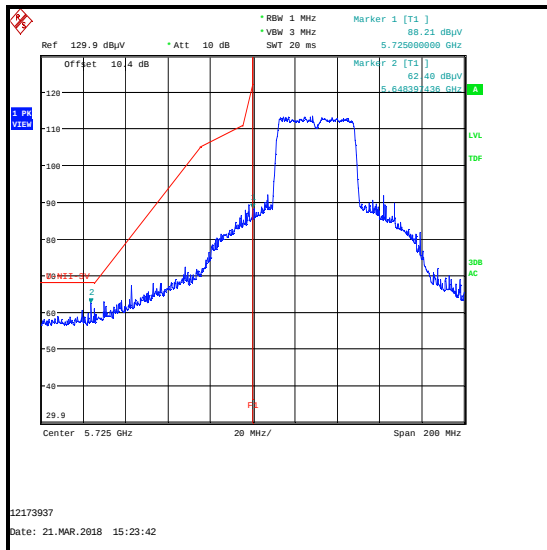
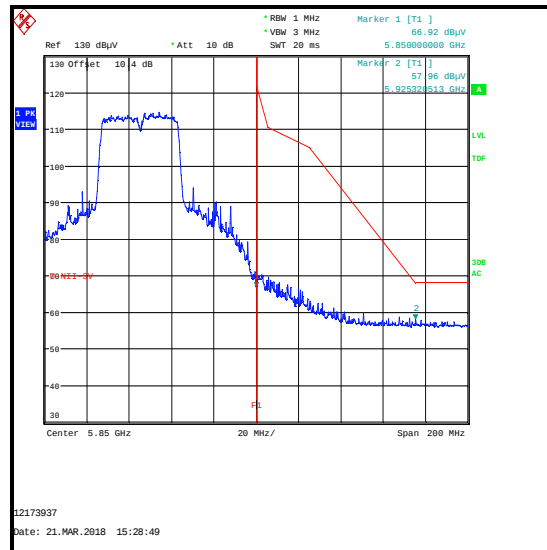
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5641.345	57.8	68.2	10.4	Complied
5725	74.4	122.2	47.8	Complied
5850	67.4	122.2	54.8	Complied
5926.282	57.4	68.2	10.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5648.340	-32.8	-27.0	5.8	Complied
5725	-7.0	27.0	34.0	Complied
5850	-28.3	27.0	55.3	Complied
5925.321	-37.2	-27.0	10.2	Complied

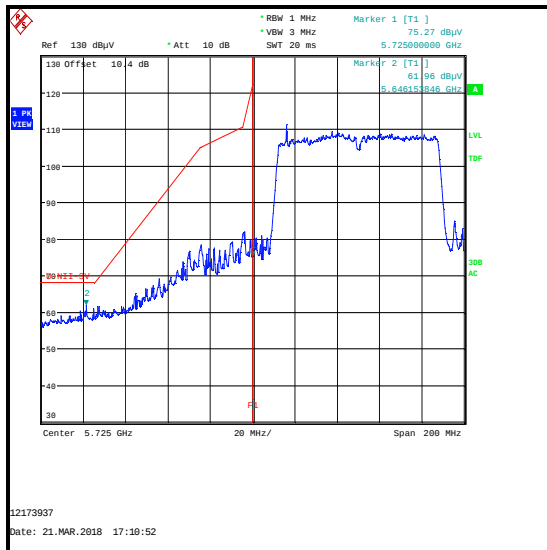
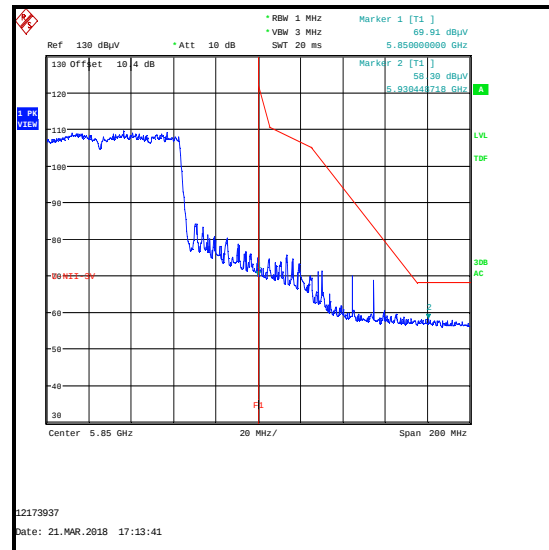
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5648.340	62.4	68.2	5.8	Complied
5725	88.2	122.2	34.0	Complied
5850	66.9	122.2	55.3	Complied
5925.321	58.0	68.2	10.2	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5646.154	-33.2	-27.0	6.2	Complied
5725	-19.9	27.0	46.9	Complied
5850	-25.3	27.0	52.3	Complied
5930.449	-36.9	-27.0	9.9	Complied

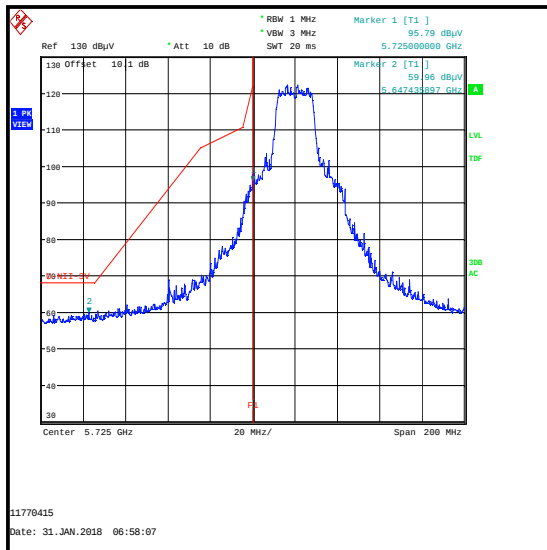
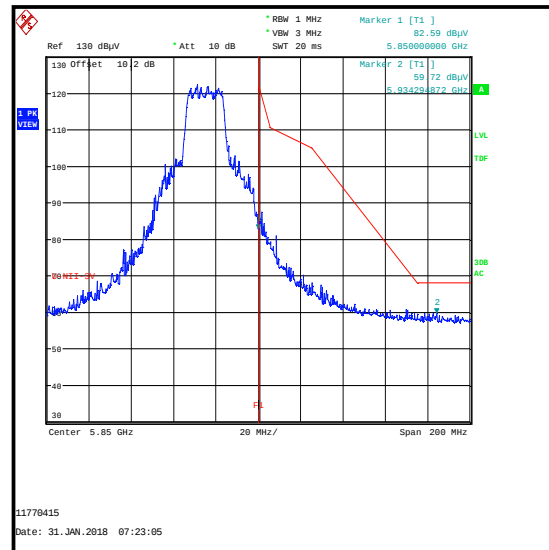
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5646.154	62.0	68.2	6.2	Complied
5725	75.3	122.2	46.9	Complied
5850	69.9	122.2	52.3	Complied
5930.449	58.3	68.2	9.9	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5647.436	-35.2	-27.0	8.2	Complied
5725	0.6	27.0	26.4	Complied
5850	-12.6	27.0	39.6	Complied
5934.295	-35.5	-27.0	8.5	Complied

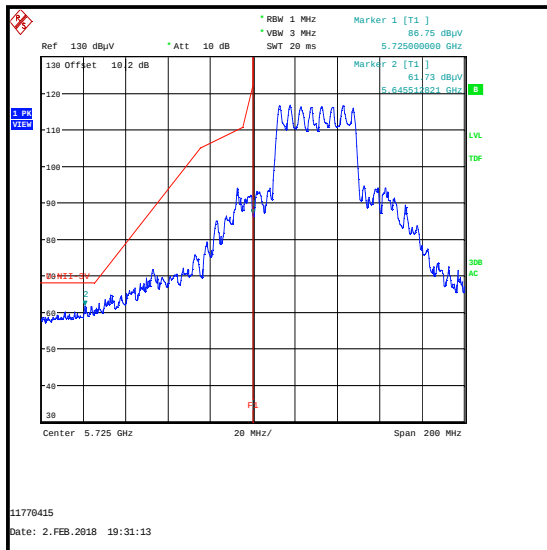
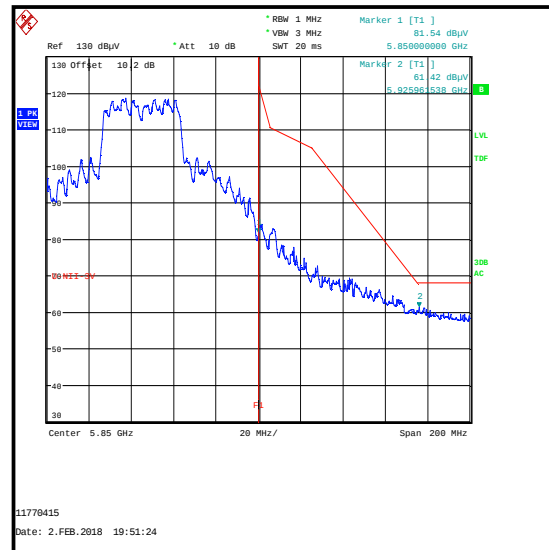
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5647.436	60.0	68.2	8.2	Complied
5725	95.8	122.2	26.4	Complied
5850	82.6	122.2	39.6	Complied
5934.295	59.7	68.2	8.5	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5645.513	-33.5	-27.0	6.5	Complied
5725	-8.4	27.0	35.4	Complied
5850	-13.7	27.0	40.7	Complied
5925.962	-33.8	-27.0	6.8	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5645.513	61.7	68.2	6.5	Complied
5725	86.8	122.2	35.4	Complied
5850	81.5	122.2	40.7	Complied
5925.962	61.4	68.2	6.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)

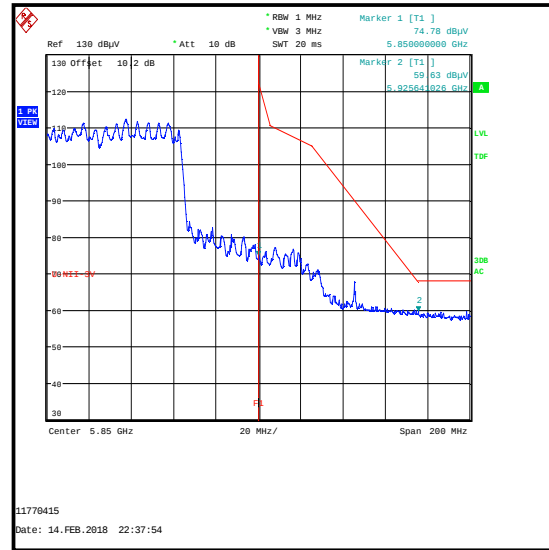
Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Peak

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5638.462	-33.2	-27.0	6.2	Complied
5725	-16.9	27.0	43.9	Complied
5850	-20.4	27.0	47.4	Complied
5925.641	-35.6	-27.0	8.6	Complied

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
5638.462	62.0	68.2	6.2	Complied
5725	78.3	122.2	43.9	Complied
5850	74.8	122.2	47.4	Complied
5925.641	59.6	68.2	8.6	Complied



Lower Band Edge

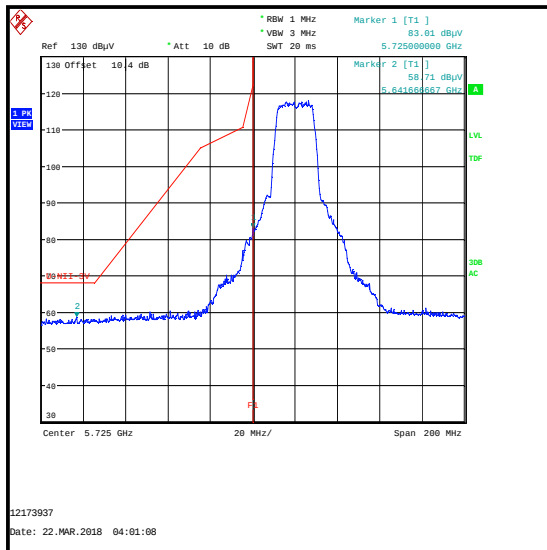
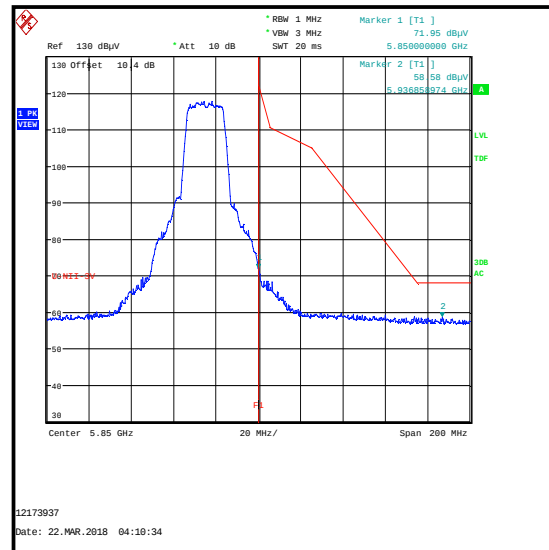


Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5641.667	-36.5	-27.0	9.5	Complied
5725	-12.2	27.0	39.2	Complied
5850	-23.2	27.0	50.2	Complied
5936.859	-36.6	-27.0	9.6	Complied

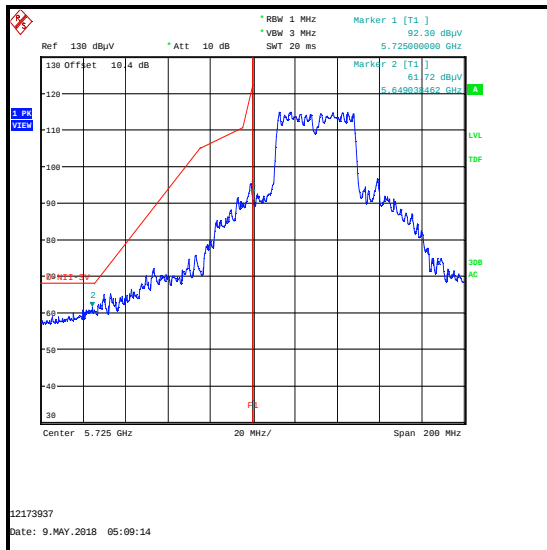
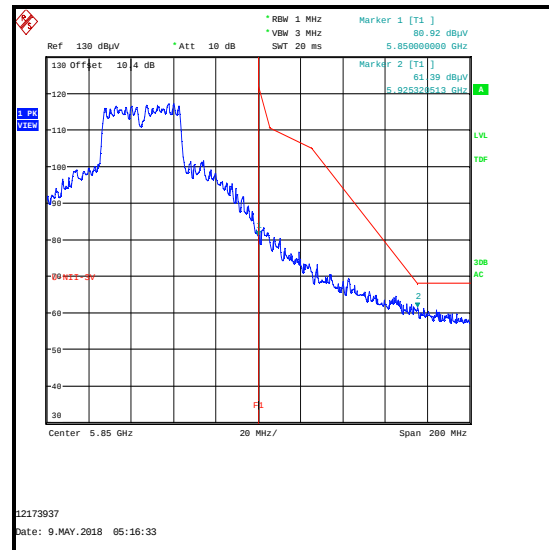
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5641.667	58.7	68.2	9.5	Complied
5725	83.0	122.2	39.2	Complied
5850	72.0	122.2	50.2	Complied
5936.859	58.6	68.2	9.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5649.038	-33.5	-27.0	6.5	Complied
5725	-2.9	27.0	29.9	Complied
5850	-14.3	27.0	41.3	Complied
5925.321	-33.8	-27.0	6.8	Complied

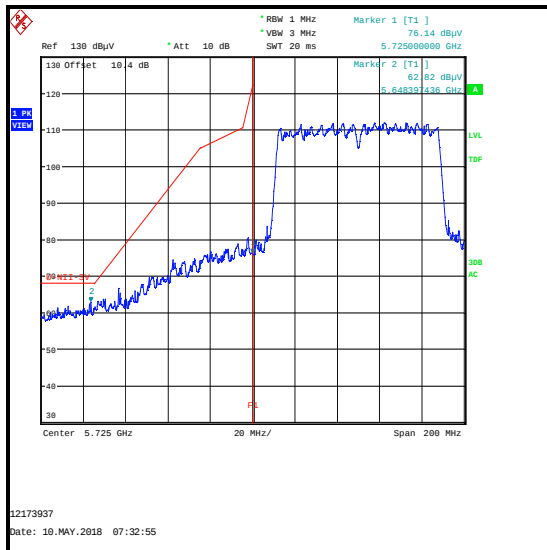
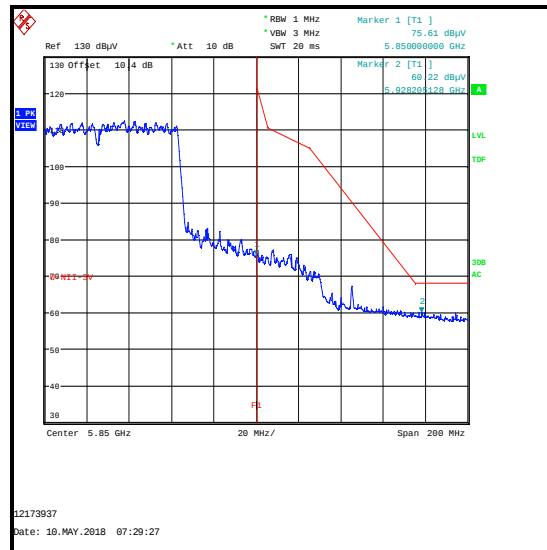
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5649.038	61.7	68.2	6.5	Complied
5725	92.3	122.2	29.9	Complied
5850	80.9	122.2	41.3	Complied
5925.321	61.4	68.2	6.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5648.397	-32.4	-27.0	5.4	Complied
5725	-19.1	27.0	46.1	Complied
5850	-19.6	27.0	46.6	Complied
5928.205	-35.0	-27.0	8.0	Complied

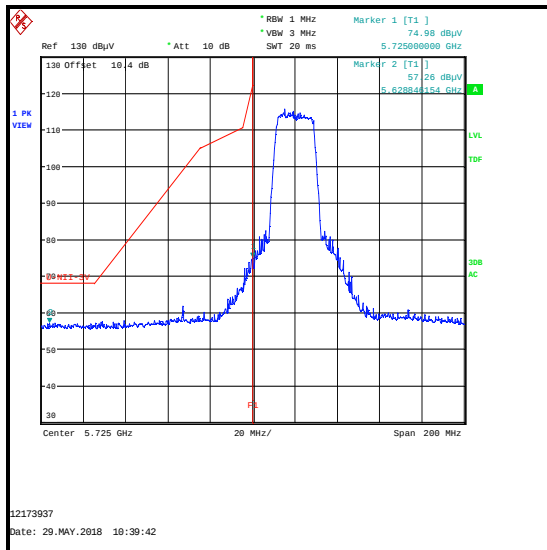
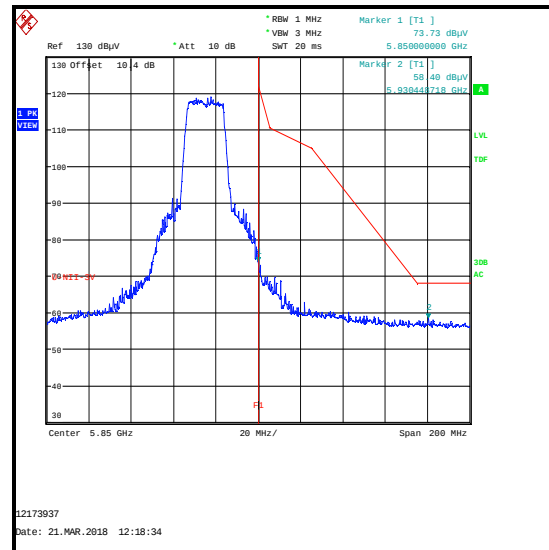
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5648.397	62.8	68.2	5.4	Complied
5725	76.1	122.2	46.1	Complied
5850	75.6	122.2	46.6	Complied
5928.205	60.2	68.2	8.0	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5628.846	-37.9	-27.0	10.9	Complied
5725	-20.2	27.0	47.2	Complied
5850	-21.5	27.0	48.5	Complied
5930.449	-36.8	-27.0	9.8	Complied

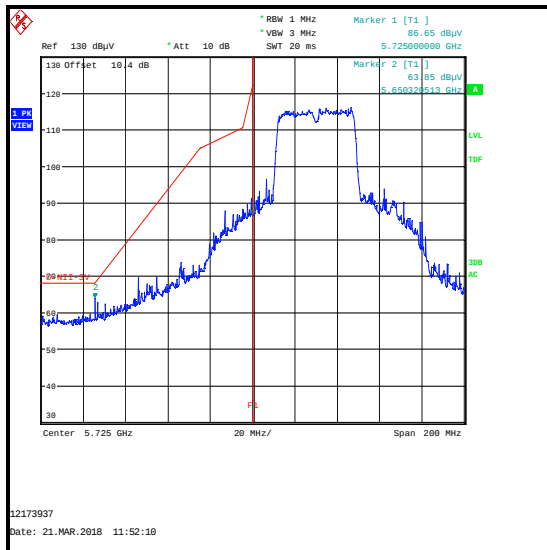
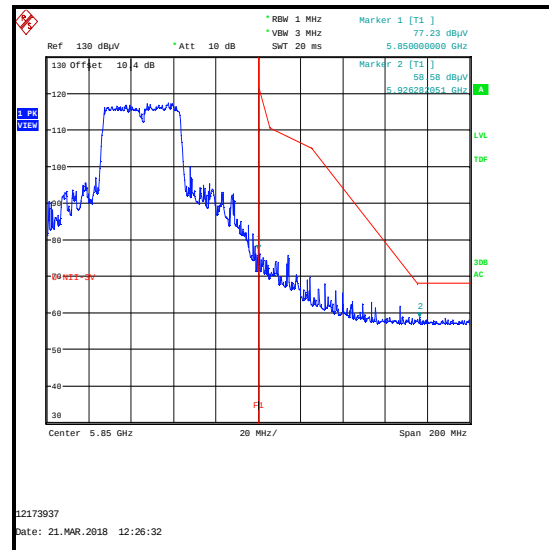
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5628.846	57.3	68.2	10.9	Complied
5725	75.0	122.2	47.2	Complied
5850	73.7	122.2	48.5	Complied
5930.449	58.4	68.2	9.8	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5650.321	-31.3	-27.0	4.3	Complied
5725	-8.5	27.0	35.5	Complied
5850	-18.0	27.0	45.0	Complied
5926.282	-36.6	-27.0	9.6	Complied

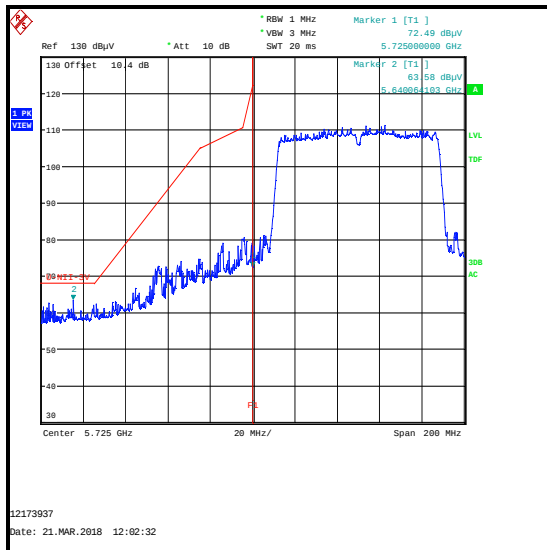
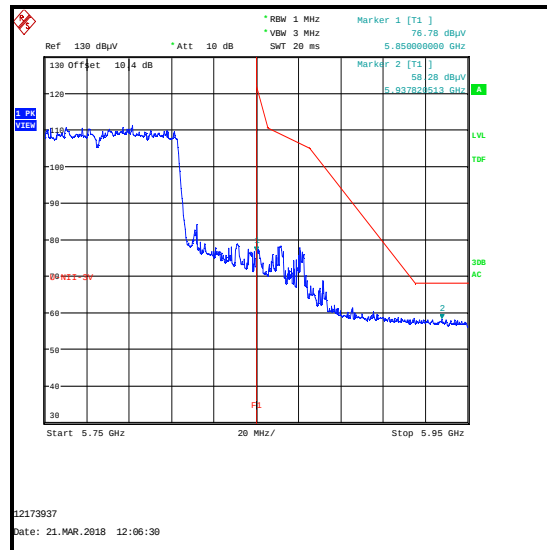
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5650.321	63.9	68.2	4.3	Complied
5725	86.7	122.2	35.5	Complied
5850	77.2	122.2	45.0	Complied
5926.282	58.6	68.2	9.6	Complied

**Lower Band Edge****Upper Band Edge**

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Peak**

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5640.064	-31.6	-27.0	4.6	Complied
5725	-22.7	27.0	49.7	Complied
5850	-18.4	27.0	45.4	Complied
5937.821	-36.9	-27.0	9.9	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5640.064	63.6	68.2	4.6	Complied
5725	72.5	122.2	49.7	Complied
5850	76.8	122.2	45.4	Complied
5937.821	58.3	68.2	9.9	Complied

**Lower Band Edge****Upper Band Edge**

Appendix 1

Directional Antenna Gain Calculations – 2Tx CDD / Output Power Measurements

Frequency Band 5150-5250 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=2$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 5.7\ dBi + 0\ dB = 5.7\ dBi$$

Frequency Band 5250-5350 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=2$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 6.5\ dBi + 0\ dB = 6.5\ dBi$$

Frequency Band 5470-5725 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=2$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 5.2\ dBi + 0\ dB = 5.2\ dBi$$

Frequency Band 5725-5850 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=2$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 5.2\ dBi + 0\ dB = 5.2\ dBi$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 3Tx CDD / Output Power Measurements****Frequency Band 5150-5250 MHz**

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=3$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 5.7\ dBi + 0\ dB = 5.7\ dBi$$

Frequency Band 5250-5350 MHz

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=3$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 6.5\ dBi + 0\ dB = 6.5\ dBi$$

Frequency Band 5470-5725 MHz

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=3$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 5.2\ dBi + 0\ dB = 5.2\ dBi$$

Frequency Band 5725-5850 MHz

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) directional antenna gain was calculated using the formula applicable to equal antenna gains. G_{ANT} was set equal to the gain of the antenna having the highest gain. In accordance with KDB 662911 D01 v02r01 Section F)2)f)(i) and for $N_{ANT}=3$:

$$Directional\ gain = G_{ANT} + Array\ Gain = 5.2\ dBi + 0\ dB = 5.2\ dBi$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 2Tx CDD / PSD Measurements****Frequency Band 5150-5250 MHz**

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 5.7$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^2 g_{j,k} \right)^2}{2} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2})^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.7}{10}} + 10^{\frac{5.5}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.7}{10}} + 10^{\frac{5.5}{10}} \right)^2}{2} \right] = 8.6 \text{ dBi} \end{aligned}$$

Frequency Band 5250-5350 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 6.5$ dBi, $G_2 = G_{ANTENNA\ 2} = 6.3$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^2 g_{j,k} \right)^2}{2} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2})^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{6.5}{10}} + 10^{\frac{6.3}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{6.5}{10}} + 10^{\frac{6.3}{10}} \right)^2}{2} \right] = 9.4 \text{ dBi} \end{aligned}$$

Frequency Band 5470-5725 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 5.1$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^2 g_{j,k} \right)^2}{2} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2})^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.1}{10}} + 10^{\frac{5.2}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.1}{10}} + 10^{\frac{5.2}{10}} \right)^2}{2} \right] = 8.2 \text{ dBi} \end{aligned}$$

Frequency Band 5725-5850 MHz

For 2Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 4.6$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^2 g_{j,k} \right)^2}{2} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2})^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{4.6}{10}} + 10^{\frac{5.2}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{4.6}{10}} + 10^{\frac{5.2}{10}} \right)^2}{2} \right] = 7.9 \text{ dBi} \end{aligned}$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 3Tx CDD / PSD Measurements****Frequency Band 5150-5250 MHz**

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 5.7$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.3$ dBi, $G_{ANTENNA\ 3} = 5.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^3 g_{j,k} \right)^2}{3} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2} + g_{1,3})^2}{3} \right] = 10 \log \left[\frac{\left(10^{\frac{5.7}{10}} + 10^{\frac{5.3}{10}} + 10^{\frac{5.5}{10}} \right)^2}{3} \right] = 10.3 \text{ dBi} \end{aligned}$$

Frequency Band 5250-5350 MHz

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 6.5$ dBi, $G_2 = G_{ANTENNA\ 2} = 6.0$ dBi, $G_{ANTENNA\ 3} = 6.3$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^3 g_{j,k} \right)^2}{3} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2} + g_{1,3})^2}{3} \right] = 10 \log \left[\frac{\left(10^{\frac{6.5}{10}} + 10^{\frac{6.0}{10}} + 10^{\frac{6.3}{10}} \right)^2}{3} \right] = 11.0 \text{ dBi} \end{aligned}$$

Frequency Band 5470-5725 MHz

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 5.1$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi, $G_{ANTENNA\ 3} = 5.0$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^3 g_{j,k} \right)^2}{3} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2} + g_{1,3})^2}{3} \right] = 10 \log \left[\frac{\left(10^{\frac{5.1}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{5.0}{10}} \right)^2}{3} \right] = 9.9 \text{ dBi} \end{aligned}$$

Frequency Band 5725-5850 MHz

For 3Tx CDD modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 4.6$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi, $G_{ANTENNA\ 3} = 4.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^3 g_{j,k} \right)^2}{3} \right] \\ &= 10 \log \left[\frac{(g_{1,1} + g_{1,2} + g_{1,3})^2}{3} \right] = 10 \log \left[\frac{\left(10^{\frac{4.6}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{4.5}{10}} \right)^2}{3} \right] = 9.5 \text{ dBi} \end{aligned}$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 2Tx STBC****Frequency Band 5150-5250 MHz**

For 2Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 5.7$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.5$ dBi:

$$\text{Directional Gain} = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{5.7}{10}} + 10^{\frac{5.5}{10}}}{2} \right] = 5.6 \text{ dBi}$$

Frequency Band 5250-5350 MHz

For 2Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 6.5$ dBi, $G_2 = G_{ANTENNA\ 2} = 6.3$ dBi:

$$\text{Directional Gain} = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{6.5}{10}} + 10^{\frac{6.3}{10}}}{2} \right] = 6.4 \text{ dBi}$$

Frequency Band 5470-5725 MHz

For 2Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 5.1$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi:

$$\text{Directional Gain} = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{5.1}{10}} + 10^{\frac{5.2}{10}}}{2} \right] = 5.2 \text{ dBi}$$

Frequency Band 5725-5850 MHz

For 2Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 4.6$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi:

$$\text{Directional Gain} = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{4.6}{10}} + 10^{\frac{5.2}{10}}}{2} \right] = 4.9 \text{ dBi}$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 3Tx STBC****Frequency Band 5150-5250 MHz**

For 3Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 5.7$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.3$ dBi, $G_{ANTENNA\ 3} = 5.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{5.7}{10}} + 10^{\frac{5.3}{10}} + 10^{\frac{5.5}{10}}}{3} \right] \\ &= 10 \log \left[\frac{10^{\frac{5.7}{10}} + 10^{\frac{5.3}{10}} + 10^{\frac{5.5}{10}}}{3} \right] = 5.5 \text{ dBi} \end{aligned}$$

Frequency Band 5250-5350 MHz

For 3Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 6.5$ dBi, $G_2 = G_{ANTENNA\ 2} = 6.0$ dBi, $G_{ANTENNA\ 3} = 6.3$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{6.5}{10}} + 10^{\frac{6.0}{10}} + 10^{\frac{6.3}{10}}}{3} \right] \\ &= 10 \log \left[\frac{10^{\frac{6.5}{10}} + 10^{\frac{6.0}{10}} + 10^{\frac{6.3}{10}}}{3} \right] = 6.3 \text{ dBi} \end{aligned}$$

Frequency Band 5470-5725 MHz

For 3Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 5.1$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi, $G_{ANTENNA\ 3} = 5.0$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{5.1}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{5.0}{10}}}{3} \right] \\ &= 10 \log \left[\frac{10^{\frac{5.1}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{5.0}{10}}}{3} \right] = 5.1 \text{ dBi} \end{aligned}$$

Frequency Band 5725-5850 MHz

For 3Tx STBC modes, in accordance with KDB 662911 D01 v02r01 Section F)2)d)(ii) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 4.6$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi, $G_{ANTENNA\ 3} = 4.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}}}{N_{ANT}} \right] = 10 \log \left[\frac{10^{\frac{4.6}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{4.5}{10}}}{3} \right] \\ &= 10 \log \left[\frac{10^{\frac{4.6}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{4.5}{10}}}{3} \right] = 4.8 \text{ dBi} \end{aligned}$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 2Tx TxBF****Frequency Band 5150-5250 MHz**

For 2Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 5.7$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.7}{10}} + 10^{\frac{5.5}{10}} \right)^2}{2} \right] \\ &= 8.6 \text{ dBi} \end{aligned}$$

Frequency Band 5250-5350 MHz

For 2Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 6.5$ dBi, $G_2 = G_{ANTENNA\ 2} = 6.3$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{6.5}{10}} + 10^{\frac{6.3}{10}} \right)^2}{2} \right] \\ &= 9.4 \text{ dBi} \end{aligned}$$

Frequency Band 5470-5725 MHz

For 2Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 5.1$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.2}{10}} + 10^{\frac{5.1}{10}} \right)^2}{2} \right] \\ &= 8.2 \text{ dBi} \end{aligned}$$

Frequency Band 5725-5850 MHz

For 2Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=2$, $G_1 = G_{ANTENNA\ 1} = 4.6$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{5.2}{10}} + 10^{\frac{4.6}{10}} \right)^2}{2} \right] \\ &= 7.9 \text{ dBi} \end{aligned}$$

Appendix 1 (continued)**Directional Antenna Gain Calculations – 3Tx TxBF****Frequency Band 5150-5250 MHz**

For 3Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 5.7$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.3$ dBi, $G_{ANTENNA\ 3} = 5.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + 10^{\frac{G_3}{10}} \right)^2}{3} \right] = \\ &= 10 \log \left[\frac{\left(10^{\frac{5.5}{10}} + 10^{\frac{5.3}{10}} + 10^{\frac{5.7}{10}} \right)^2}{3} \right] = 10.3 \text{ dBi} \end{aligned}$$

Frequency Band 5250-5350 MHz

For 3Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 6.5$ dBi, $G_2 = G_{ANTENNA\ 2} = 6.0$ dBi, $G_{ANTENNA\ 3} = 6.3$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + 10^{\frac{G_3}{10}} \right)^2}{3} \right] = \\ &= 10 \log \left[\frac{\left(10^{\frac{6.3}{10}} + 10^{\frac{6.0}{10}} + 10^{\frac{6.5}{10}} \right)^2}{3} \right] = 11.0 \text{ dBi} \end{aligned}$$

Frequency Band 5470-5725 MHz

For 3Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 5.1$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi, $G_{ANTENNA\ 3} = 5.0$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + 10^{\frac{G_3}{10}} \right)^2}{3} \right] = \\ &= 10 \log \left[\frac{\left(10^{\frac{5.0}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{5.1}{10}} \right)^2}{3} \right] = 9.9 \text{ dBi} \end{aligned}$$

Frequency Band 5725-5850 MHz

For 3Tx TxBF modes, in accordance with KDB 662911 D01 v02r01 Section F2)d)(i) and for $N_{SS}=1$, $N_{ANT}=3$, $G_1 = G_{ANTENNA\ 1} = 4.6$ dBi, $G_2 = G_{ANTENNA\ 2} = 5.2$ dBi, $G_{ANTENNA\ 3} = 4.5$ dBi:

$$\begin{aligned} \text{Directional Gain} &= 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + \dots + 10^{\frac{G_N}{10}} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{10}} + 10^{\frac{G_2}{10}} + 10^{\frac{G_3}{10}} \right)^2}{3} \right] = \\ &= 10 \log \left[\frac{\left(10^{\frac{4.5}{10}} + 10^{\frac{5.2}{10}} + 10^{\frac{4.6}{10}} \right)^2}{3} \right] = 9.5 \text{ dBi} \end{aligned}$$

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