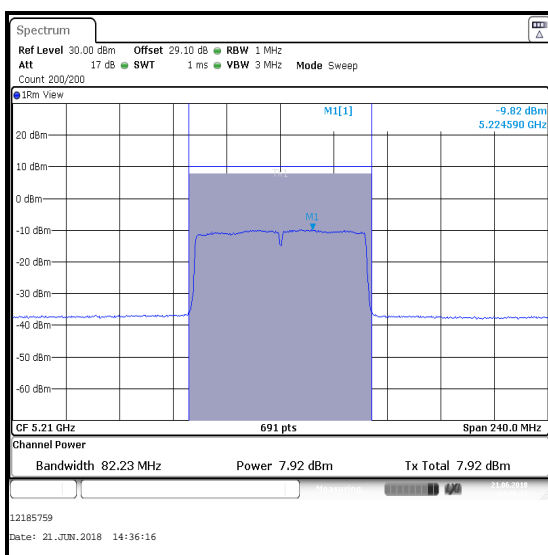
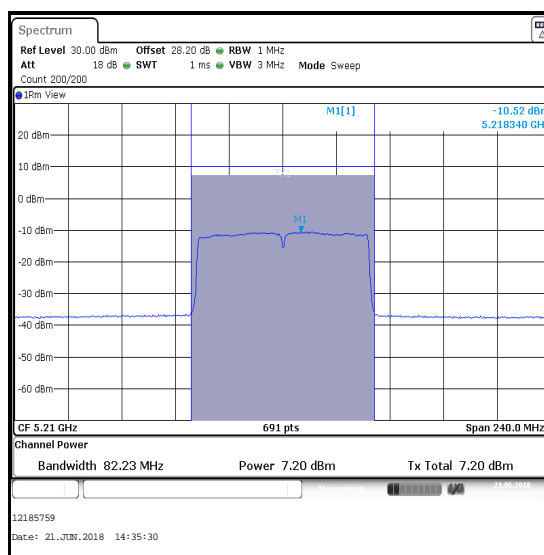
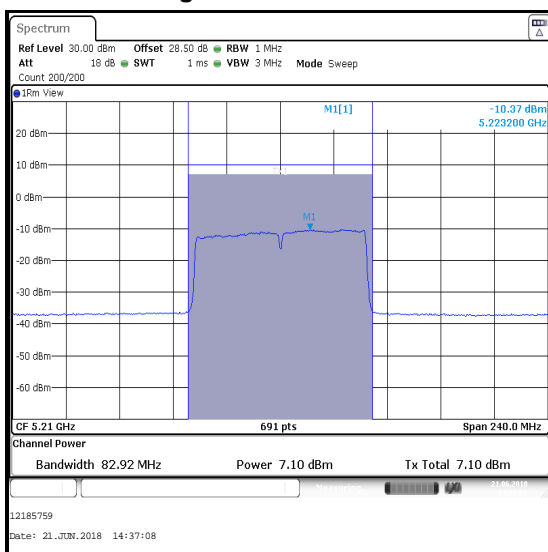


Transmitter Maximum Conducted Output Power (5.15-5.25 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Conducted Power Core 2 (dBm)	Combined Conducted Power (dBm)
Single	5210	7.9	7.2	7.1	12.2

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5210	12.2	20.0	7.8	Complied

**Single Channel / Core 1****Single Channel / Core 0****Single Channel / Core 2**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band)**4.4.2. 5.25-5.35 GHz band****Test Summary:**

Test Engineers:	Max Passell & Matthew Botfield	Test Dates:	11 May 2018 & 25 June 2018
Test Sample Serial Numbers:	C02WC003JMFN & C02WC001JTGW		

FCC Reference:	Part 15.407(a)(2)
Test Method Used:	KDB 789033 D02 Section II.E.2.b) and II.E.2.d)

Environmental Conditions:

Temperature (°C):	22 to 24
Relative Humidity (%):	42 to 55

Note(s):

- For conducted power tests where the duty cycle is >98%, the measurements were performed using a signal analyser in accordance with FCC KDB 789033 II.E.2.b) Method SA-1. Where the duty cycle is <98%, the measurements were performed in accordance with FCC KDB 789033 II.E.2.d) Method SA-2. The signal analyser's integration function was used to integrate across the 26 dB emission bandwidth. The resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. An RMS detector was used and sweep time was set to auto and 200 traces performed. The span was set to encompass the entire 26 dB emission bandwidth. The channel power results are recorded in the tables below.
- Measurements were performed using configurations detailed in Section 3.5 of this test report on the relevant channels.
- For data rates where the EUT was transmitting at <98% duty cycle, the calculated duty cycle in Section 4.1 was added to the measured power in order to compute the average power during the actual transmission time.
- The FCC Part 15.407(a)(2) limit is the lesser of 250 mW (24.0 dBm) or $11 \text{ dBm} + 10 \log_{10} B$, where B is the previously measured 26 dB emission bandwidth in MHz. For U-NII-2A band, the 26 dB EBW is greater than 20 MHz.

$$\begin{aligned}
 &\text{For } B > 20 \text{ MHz} \rightarrow \\
 &\rightarrow \log_{10} B > \log_{10} 20 \rightarrow \\
 &\rightarrow 10 \log_{10} B > 10 \log_{10} 20 \rightarrow \\
 &\rightarrow 11 + 10 \log_{10} B > 11 + 10 \log_{10} 20 \rightarrow \\
 &\rightarrow 11 + 10 \log_{10} B > 24.0 \text{ dBm}
 \end{aligned}$$

Therefore for measured emission bandwidths greater than 20 MHz, the lesser of the two limits is the fixed limit of 250 mW (24.0 dBm). This was applied to the results.

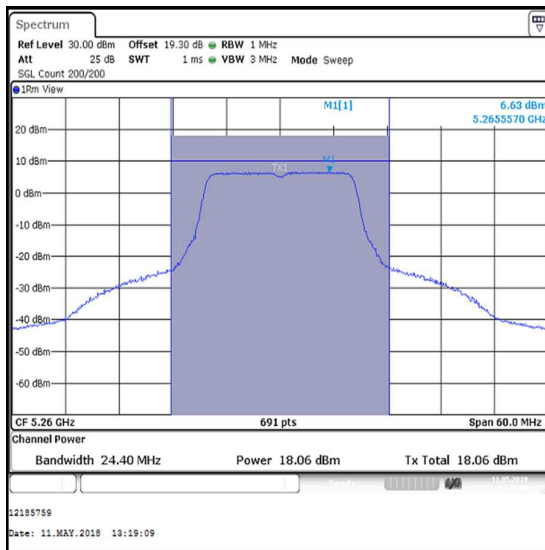
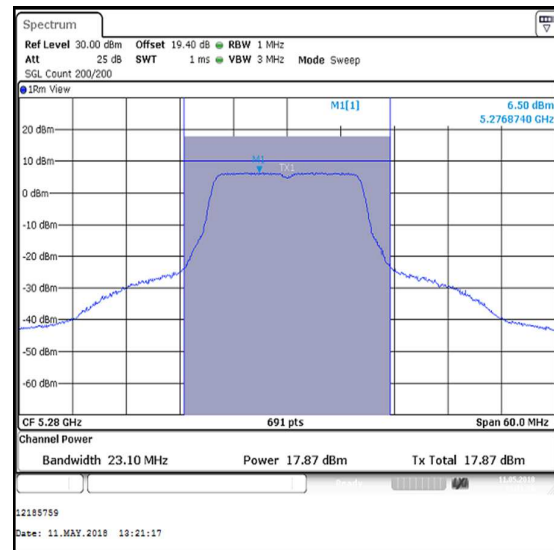
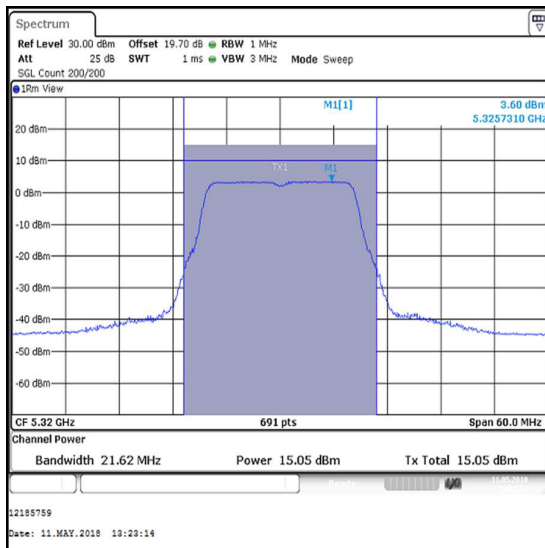
- For MIMO modes, conducted power was measured on all ports and then combined using the measure-and-sum method stated in FCC KDB 662911 D01 Section E)1).
- For SISO and MIMO CDD modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 7.6 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 1.6 dB to 22.4 dBm.

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Note(s) (continued):**

7. For 2Tx STBC modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 6.9 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 0.9 dB to 23.1 dBm.
8. For 3Tx STBC modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 6.3 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 0.3 dB to 23.7 dBm.
9. For 2Tx TxBF modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 9.8 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 3.8 dB to 20.2 dBm.
10. For 3Tx TxBF modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 11.0 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 5.0 dB to 19.0 dBm.
11. For details on antenna gains refer to Section 3.4 of this test report.
12. The signal analyser was connected to the RF port on the EUT using an RF switch, suitable attenuation and RF cable. An RF level offset was entered on the signal analyser to compensate for the loss of the attenuator and RF cable.
13. The EUT with serial number C02WC003JMFN was used for non-TxBF tests, the EUT with serial C02WC001JTGW number was used for TxBF tests.

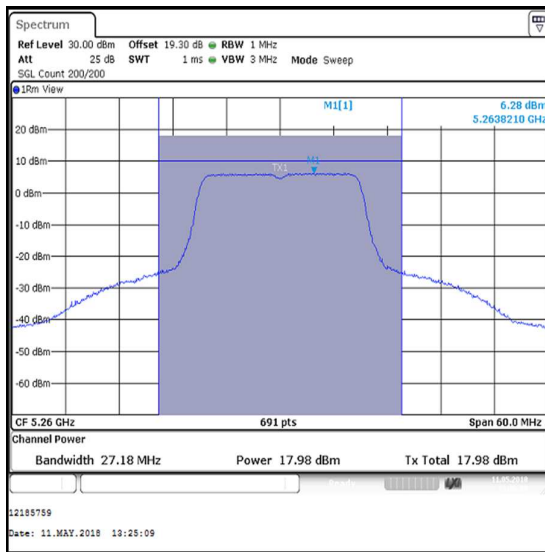
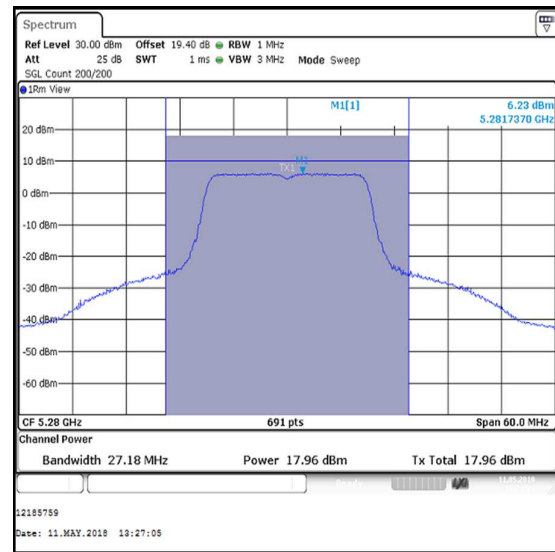
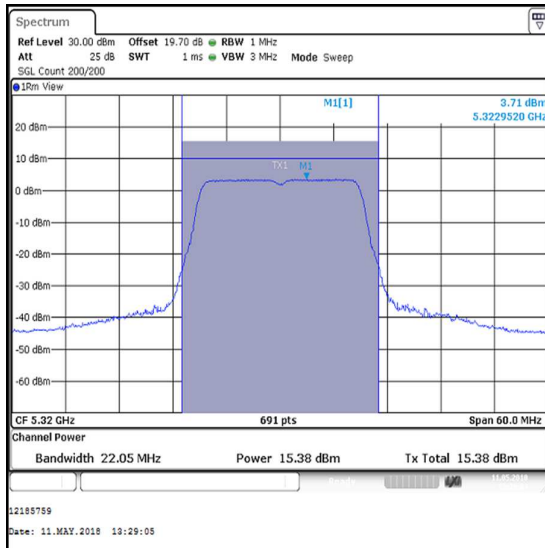
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11a / 20 MHz / SISO / BPSK / 6 Mbps / Core 0**

Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	18.1	22.4	4.3	Complied
Middle	5280	17.9	22.4	4.5	Complied
Top	5320	15.1	22.4	7.3	Complied

**Bottom Channel****Middle Channel****Top Channel**

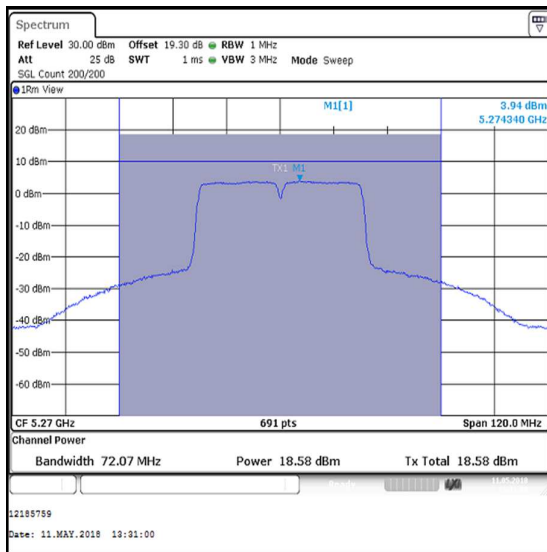
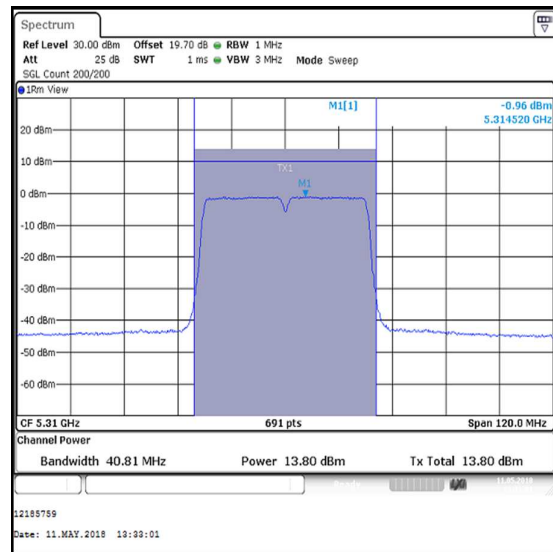
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / SISO / BPSK / MCS0 / Core 0**

Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	18.0	22.4	4.4	Complied
Middle	5280	18.0	22.4	4.4	Complied
Top	5320	15.4	22.4	7.0	Complied

**Bottom Channel****Middle Channel****Top Channel**

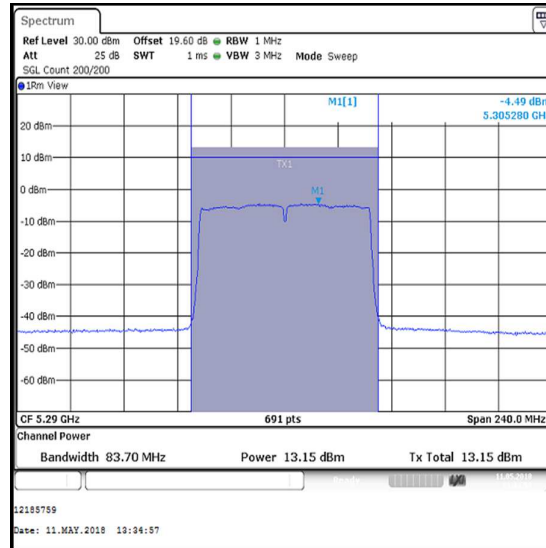
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / SISO / BPSK / MCS0 / Core 0**

Channel	Frequency (MHz)	Conducted Power (dBm)	Duty cycle correction factor (dB)	Corrected Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	18.6	0.1	18.7	22.4	3.7	Complied
Top	5310	13.8	0.1	13.9	22.4	8.5	Complied

**Bottom Channel****Top Channel**

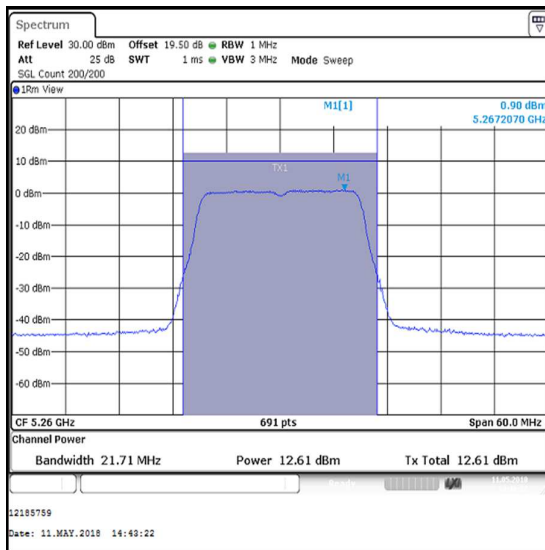
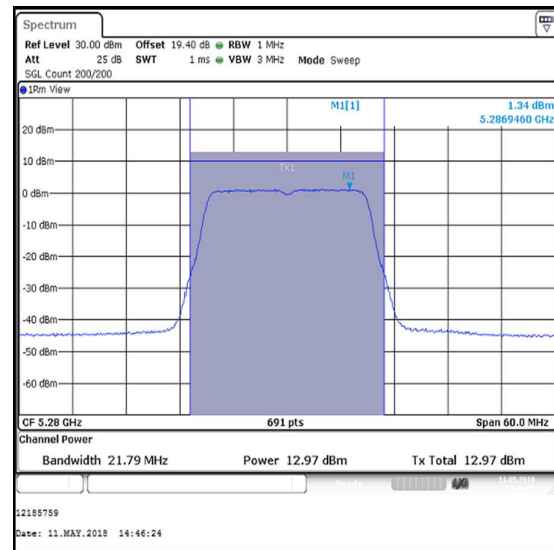
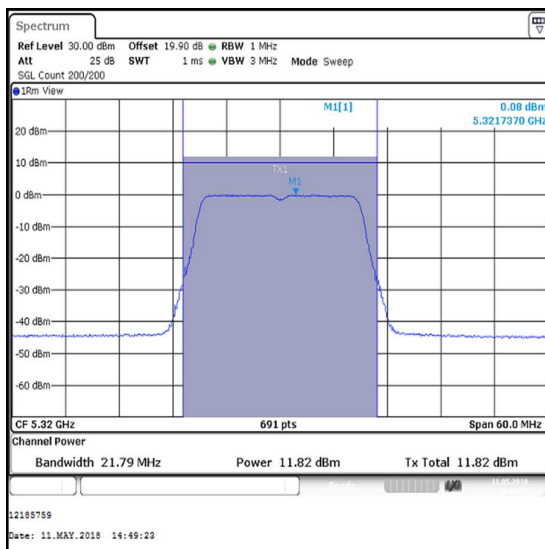
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / SISO / BPSK / MCS0 / Core 0**

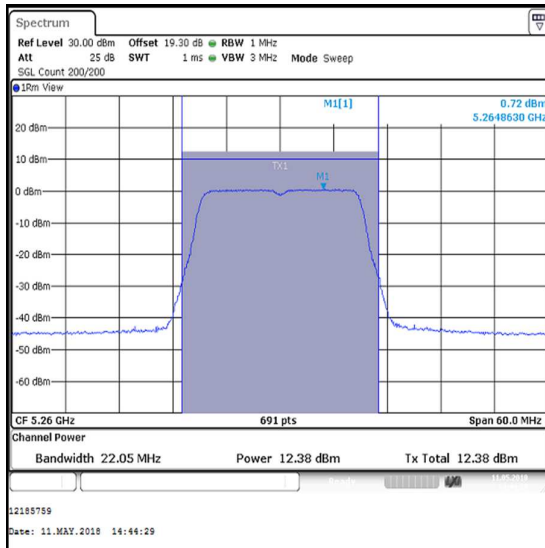
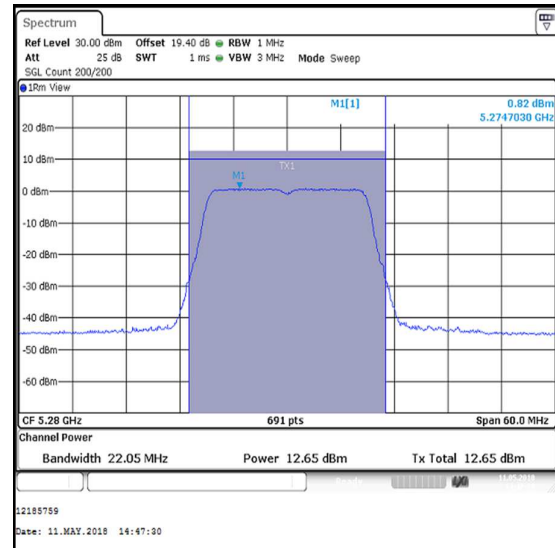
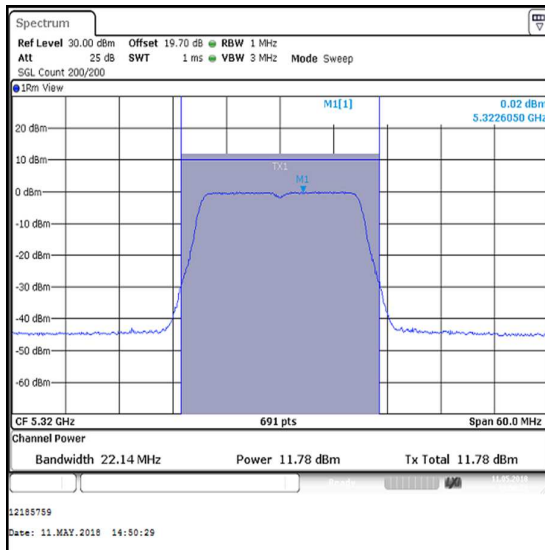
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty cycle correction factor (dB)	Corrected Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5290	13.2	0.2	13.4	22.4	9.0	Complied

**Single Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Port Core 1 (dBm)	Conducted Power Port Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	12.6	12.4	15.5	22.4	6.9	Complied
Middle	5280	13.0	12.7	15.9	22.4	6.5	Complied
Top	5320	11.8	11.8	14.8	22.4	7.6	Complied

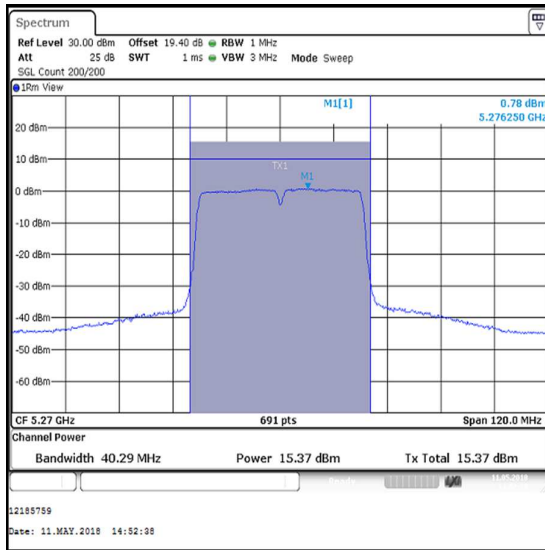
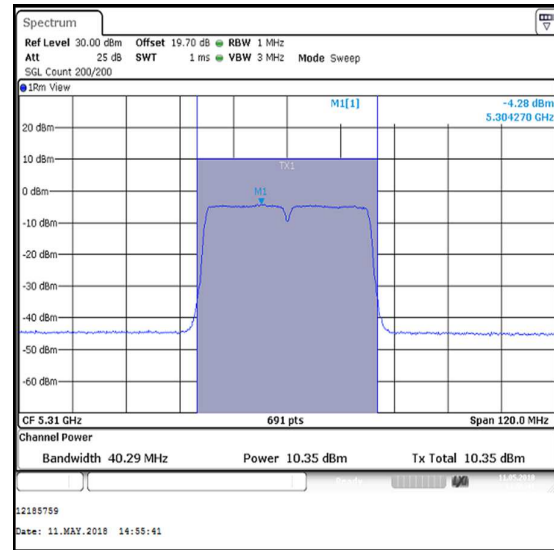
Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Core 1**Bottom Channel****Middle Channel****Top Channel**

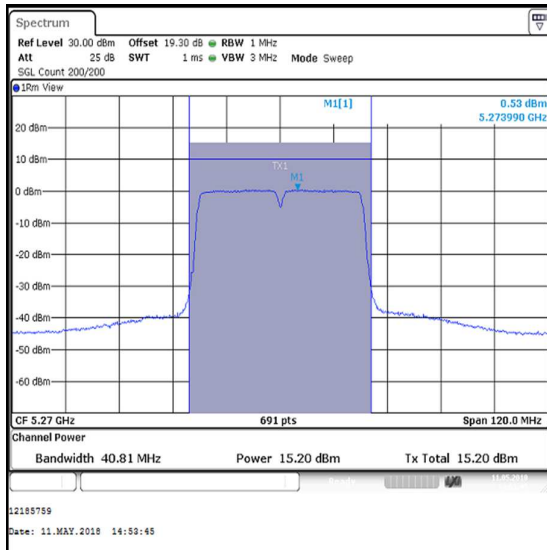
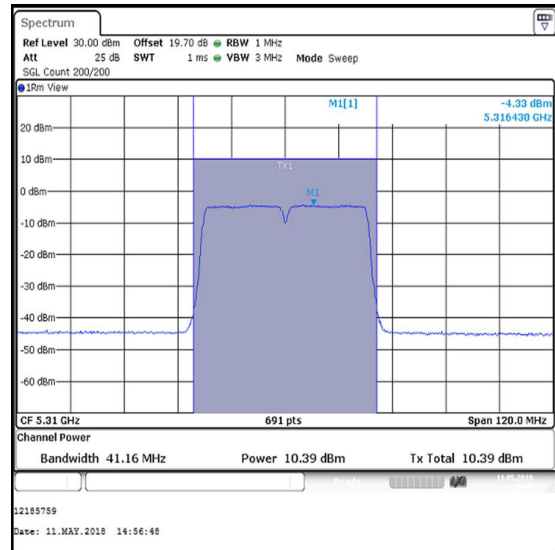
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Core 0****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Bottom	5270	15.4	0.1	15.5	15.2	0.1	15.3
Top	5310	10.4	0.1	10.5	10.4	0.1	10.5

Channel	Frequency (MHz)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	15.5	15.3	18.4	22.4	4.0	Complied
Top	5310	10.5	10.5	13.5	22.4	8.9	Complied

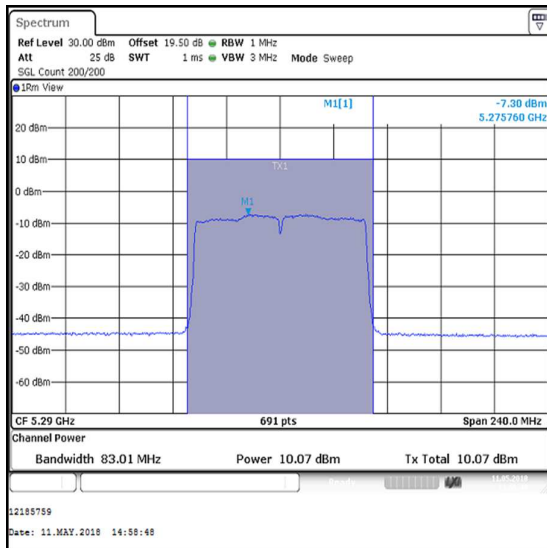
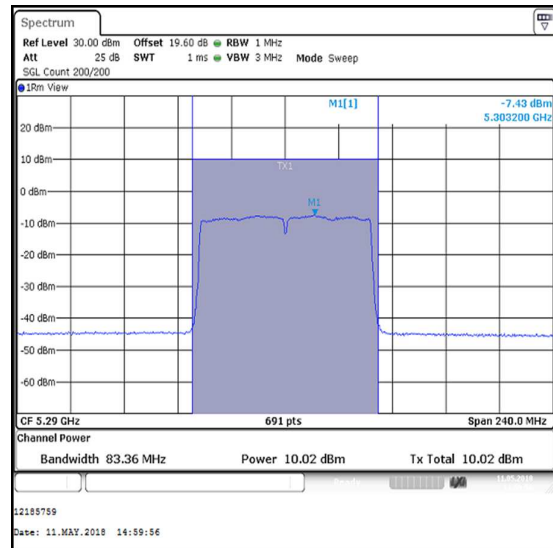
Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Core 1**Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx CDD / BPSK / MCS0 / Core 0****Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx CDD / BPSK / MCS0x1**

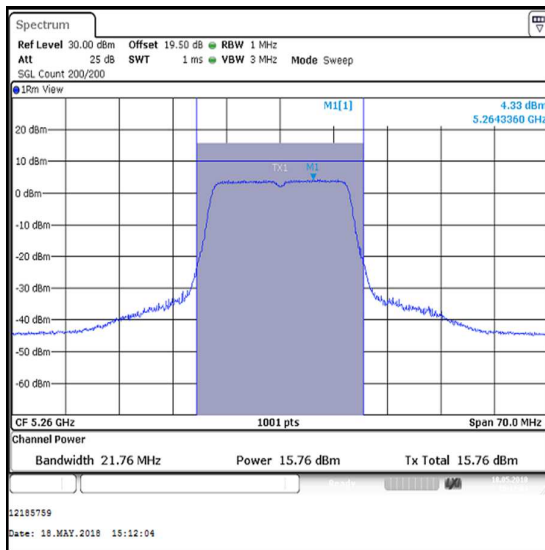
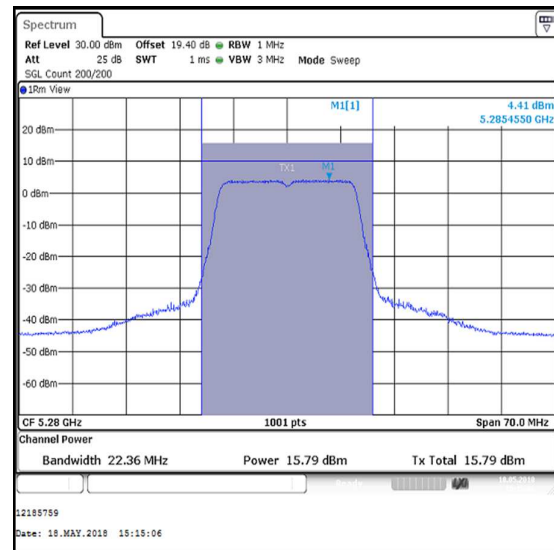
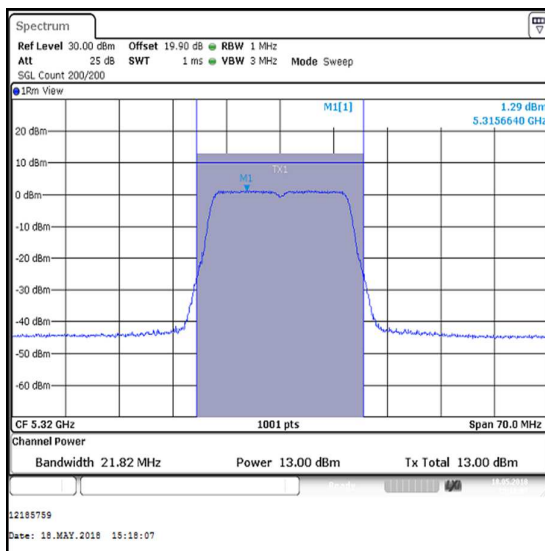
Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Single	5290	10.1	0.2	10.3	10.0	0.2	10.2

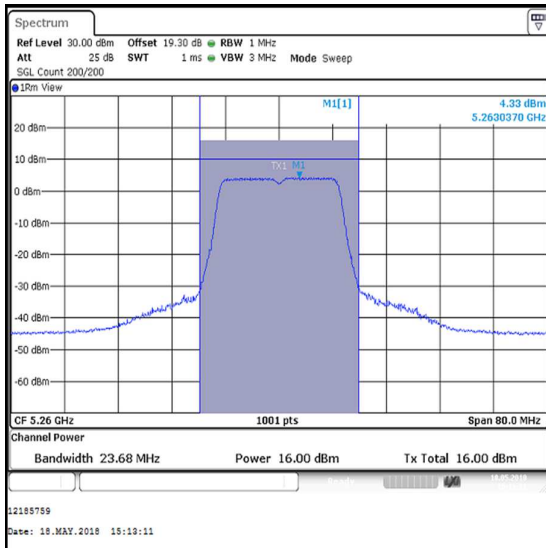
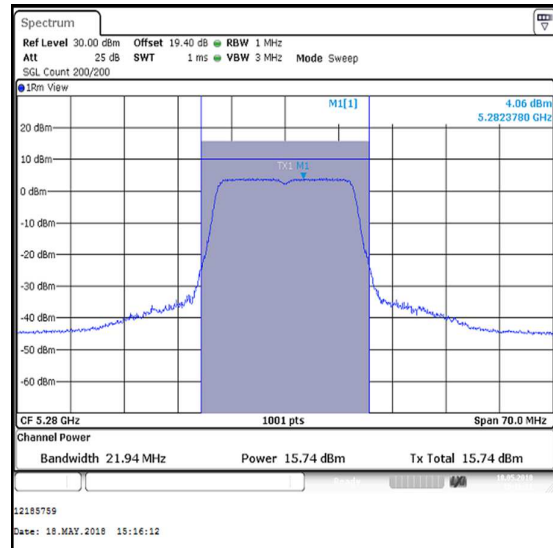
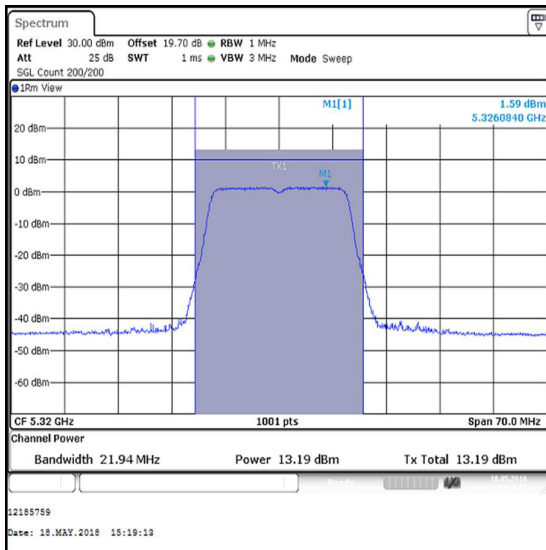
Channel	Frequency (MHz)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5290	10.3	10.2	13.3	22.4	9.1	Complied

**Single Channel / Core 1****Single Channel / Core 0**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	15.8	16.0	18.9	23.1	4.2	Complied
Middle	5280	15.8	15.7	18.8	23.1	4.3	Complied
Top	5320	13.0	13.2	16.1	23.1	7.0	Complied

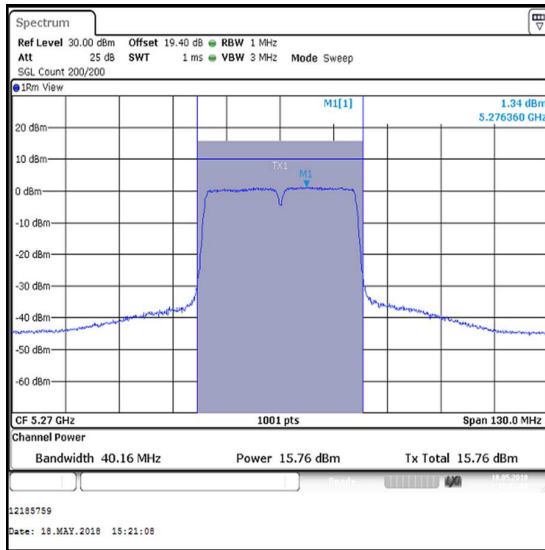
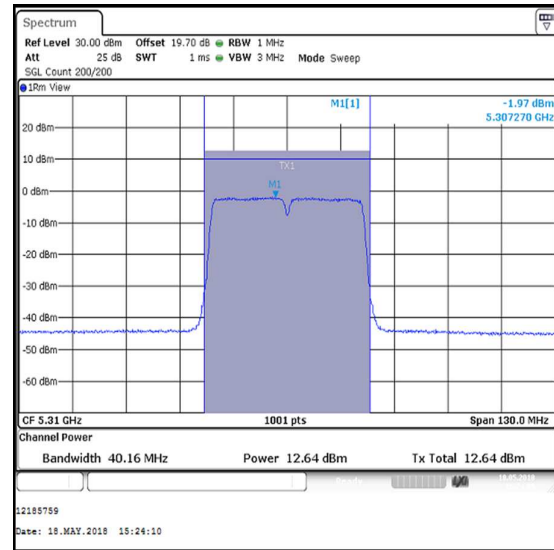
Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Core 1**Bottom Channel****Middle Channel****Top Channel**

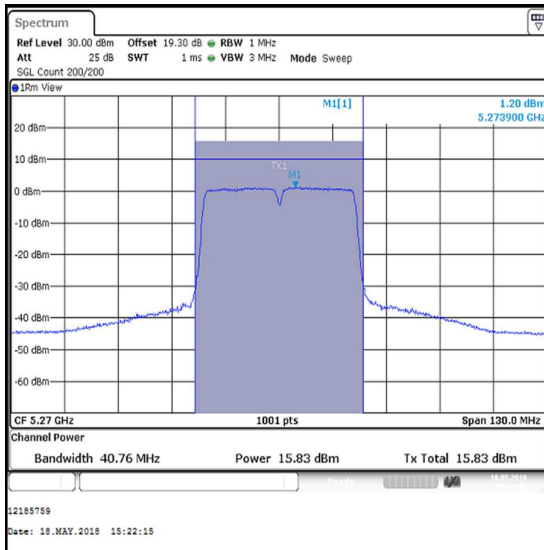
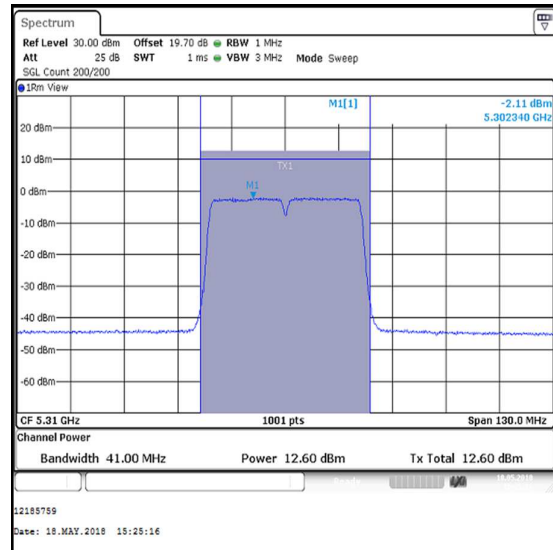
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Core 0****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Bottom	5270	15.8	0.1	15.9	15.8	0.1	15.9
Top	5310	12.6	0.1	12.7	12.6	0.1	12.7

Channel	Frequency (MHz)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	15.9	15.9	18.9	23.1	4.2	Complied
Top	5310	12.7	12.7	15.7	23.1	7.4	Complied

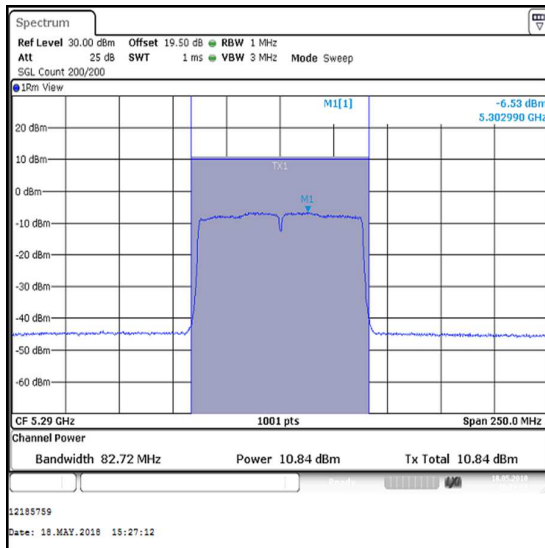
Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Core 1**Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx STBC / BPSK / MCS0 / Core 0****Bottom Channel****Top Channel**

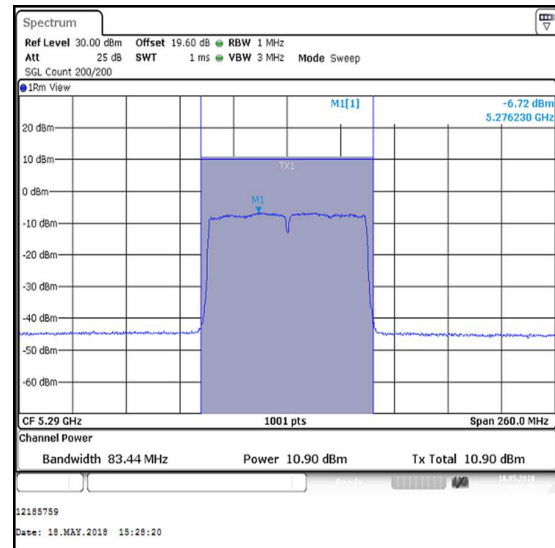
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx STBC / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Single	5290	10.8	0.2	11.0	10.9	0.2	11.1

Channel	Frequency (MHz)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5290	11.0	11.1	14.1	23.1	9.0	Complied



Single Channel / Core 1

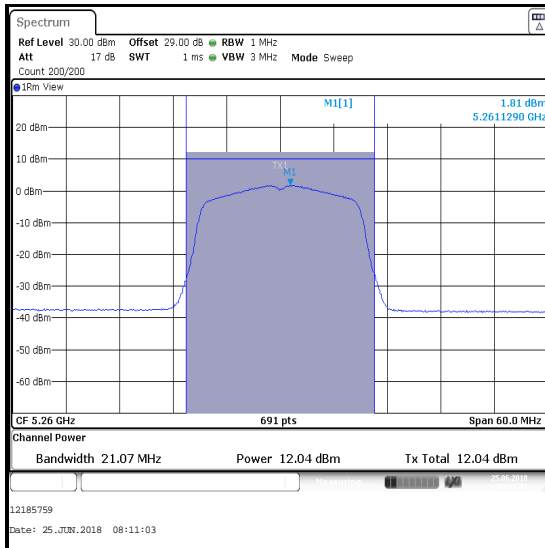
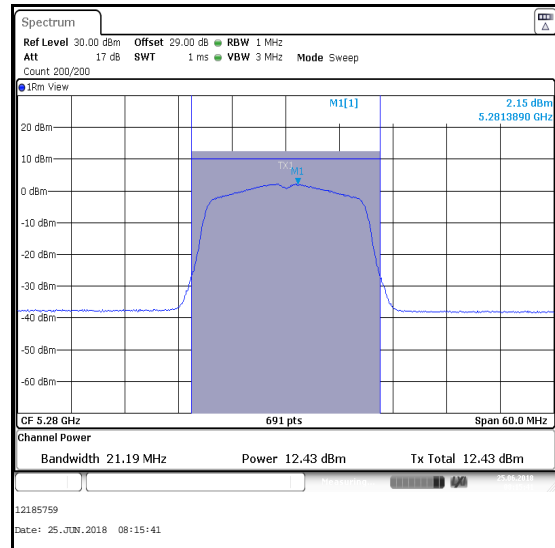
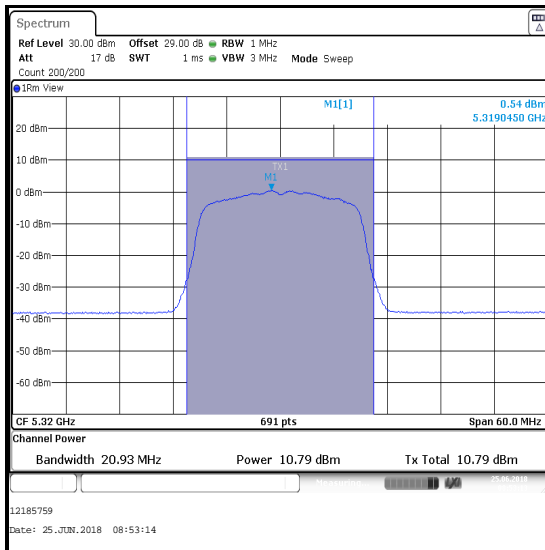


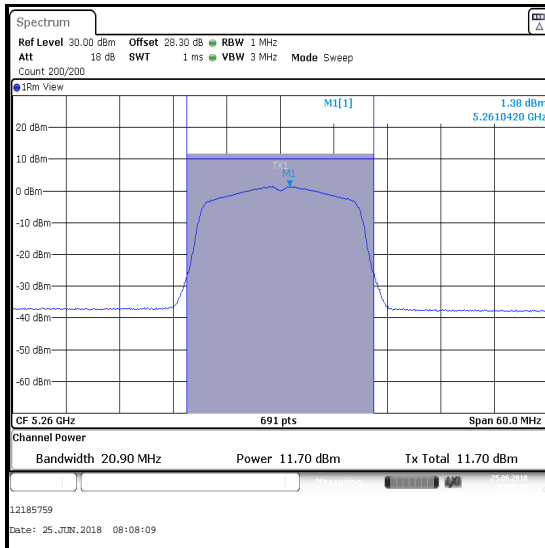
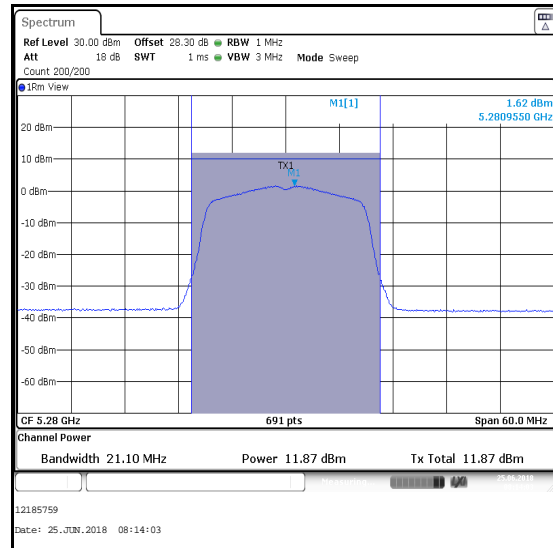
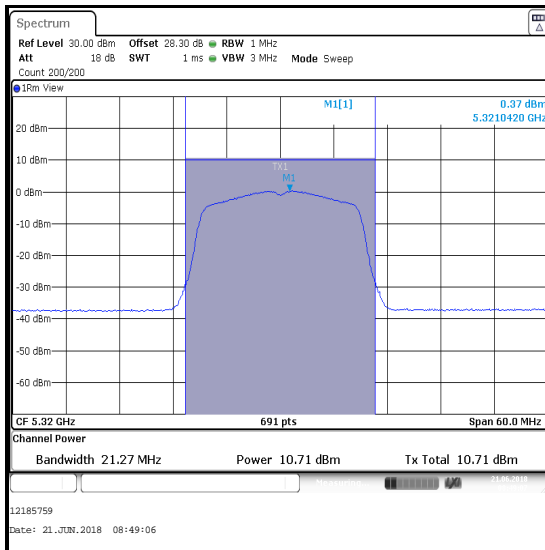
Single Channel / Core 0

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Bottom	5260	12.0	0.2	12.2	11.7	0.2	11.9
Middle	5280	12.4	0.2	12.6	11.9	0.2	12.1
Top	5320	10.8	0.2	11.0	10.7	0.2	10.9

Channel	Frequency (MHz)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	12.2	11.9	15.1	20.2	5.1	Complied
Middle	5280	12.6	12.1	15.4	20.2	4.8	Complied
Top	5320	11.0	10.9	14.0	20.2	6.2	Complied

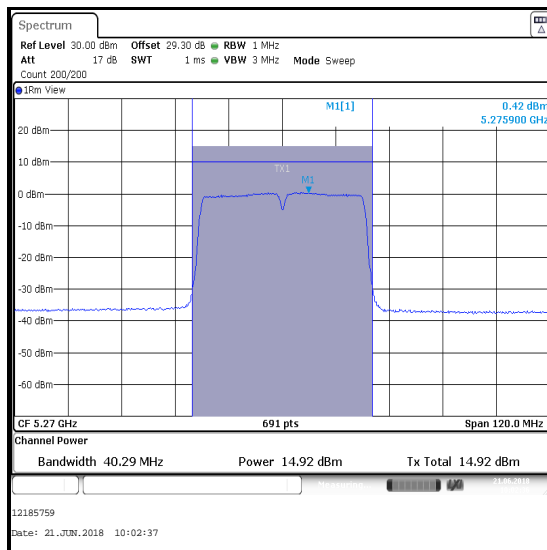
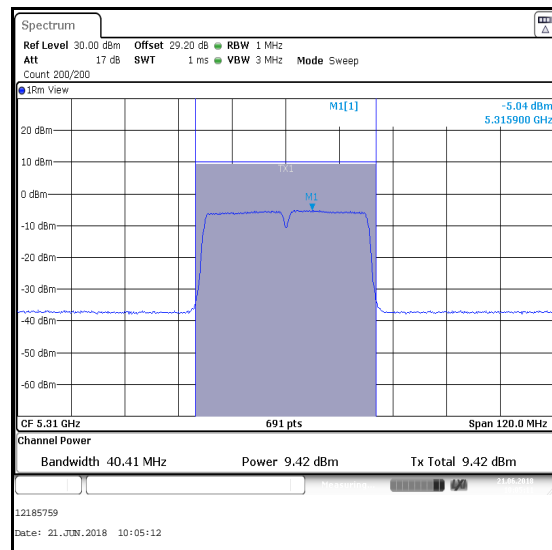
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Core 1****Bottom Channel****Middle Channel****Top Channel**

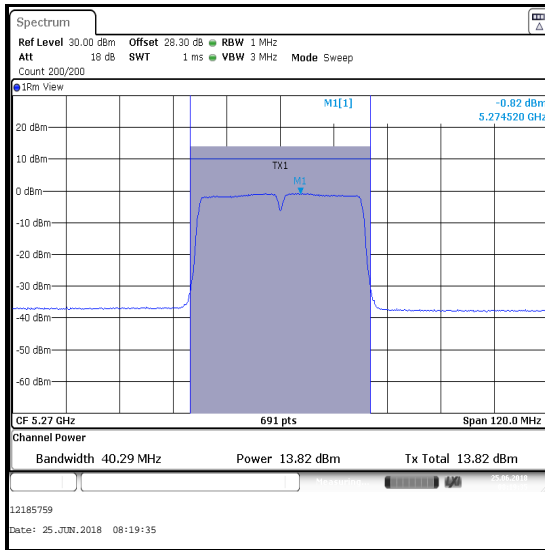
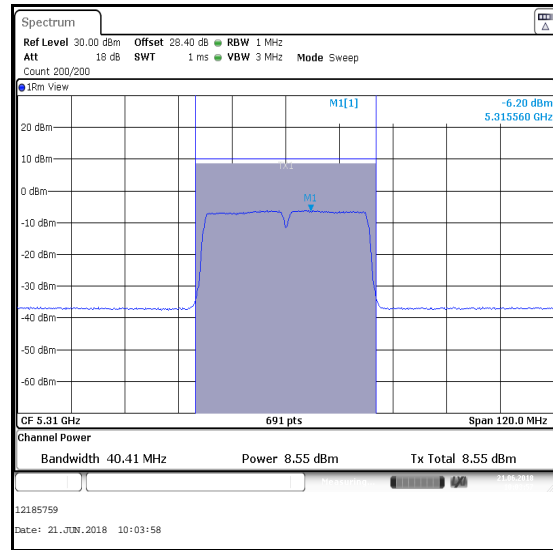
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Core 0****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Bottom	5270	14.9	0.2	15.1	13.8	0.2	14.0
Top	5310	9.4	0.2	9.6	8.6	0.2	8.8

Channel	Frequency (MHz)	Corrected Conducted Power Port Core 1 (dBm)	Corrected Conducted Power Port Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	15.1	14.0	17.6	20.2	2.6	Complied
Top	5310	9.6	8.8	12.2	20.2	8.0	Complied

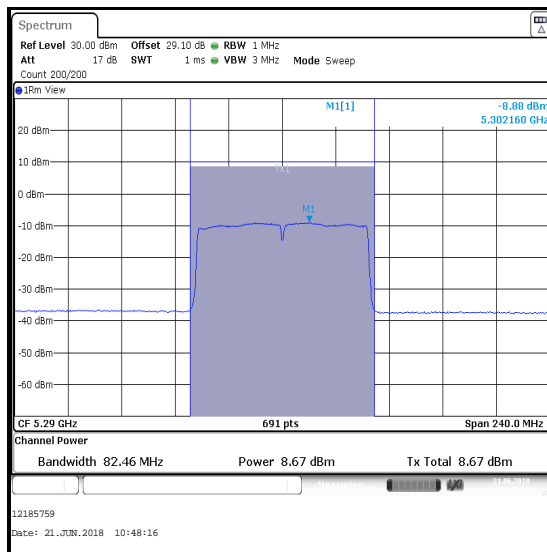
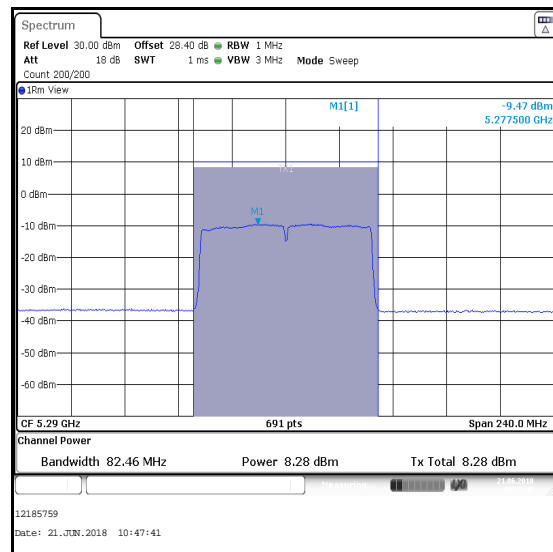
Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Core 1**Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 2Tx TxBF / BPSK / MCS0 / Core 0****Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 2Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Single	5290	8.7	0.2	8.9	8.3	0.2	8.5

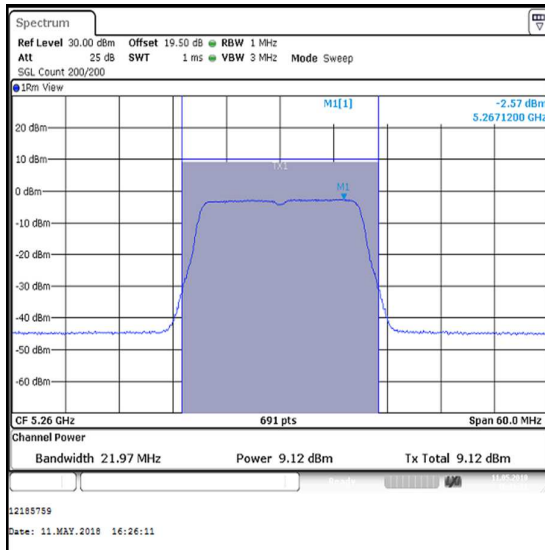
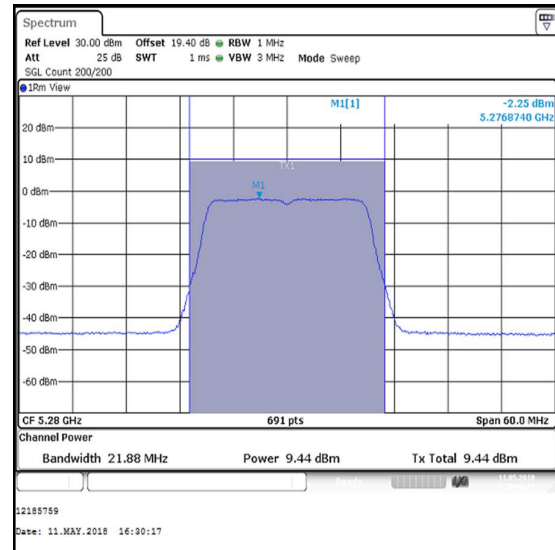
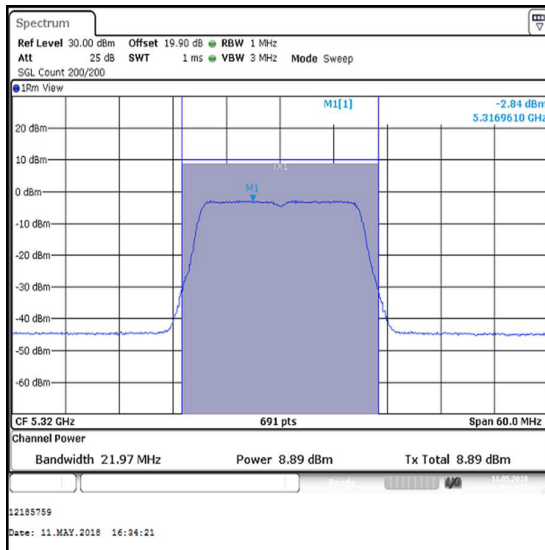
Channel	Frequency (MHz)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5290	8.9	8.5	11.7	20.2	8.5	Complied

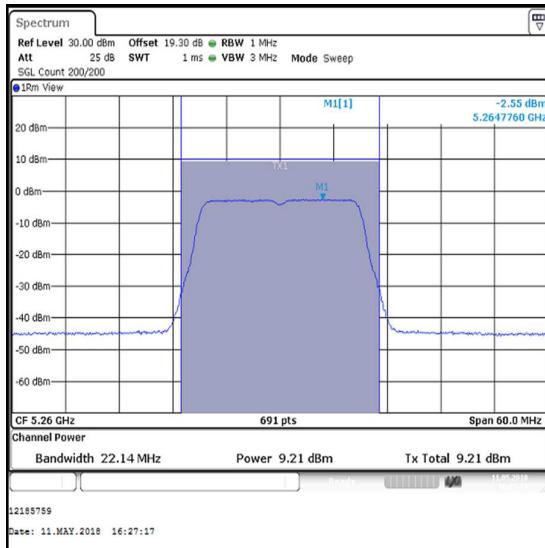
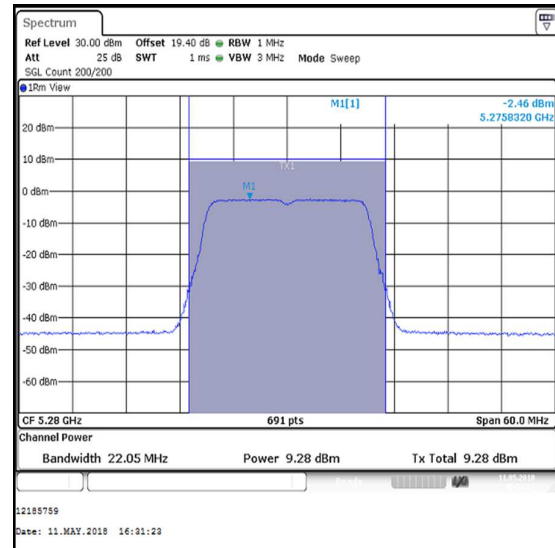
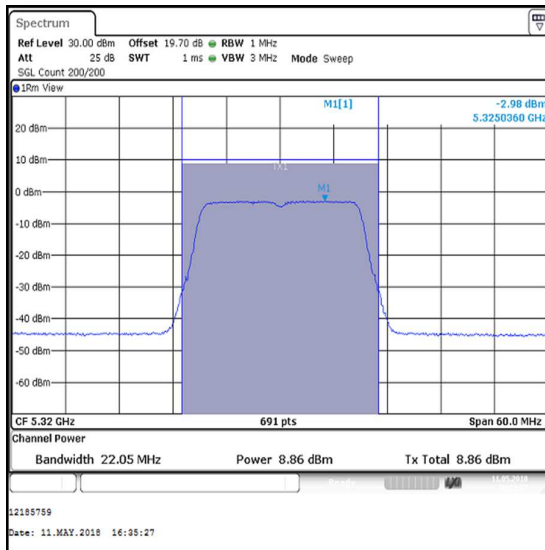
**Single Channel / Core 1****Single Channel / Core 0**

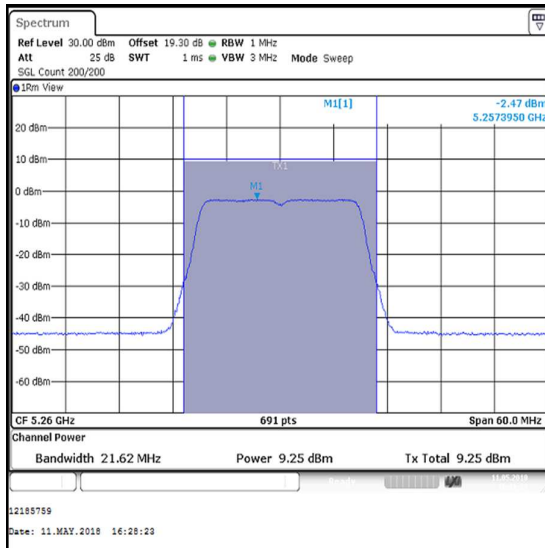
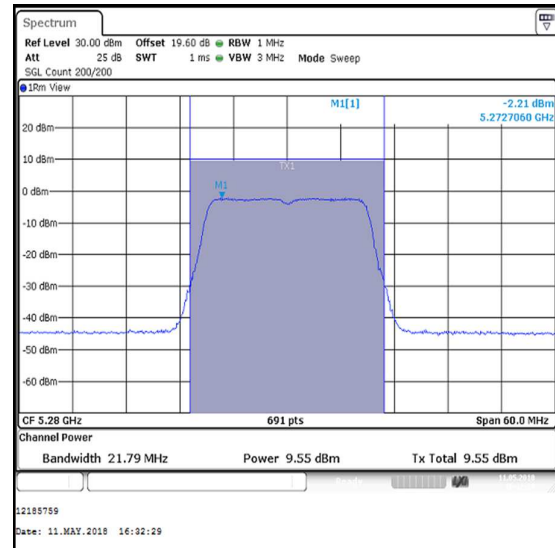
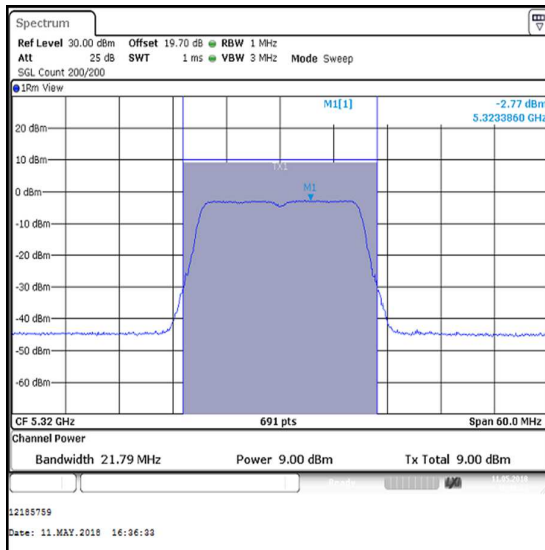
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Conducted Power Core 2 (dBm)	Combined Conducted Power (dBm)
Bottom	5260	9.1	9.2	9.3	14.0
Middle	5280	9.4	9.3	9.6	14.2
Top	5320	8.9	8.9	9.0	13.7

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	14.0	22.4	8.4	Complied
Middle	5280	14.2	22.4	8.2	Complied
Top	5320	13.7	22.4	8.7	Complied

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Core 1****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Core 0****Bottom Channel****Middle Channel****Top Channel**

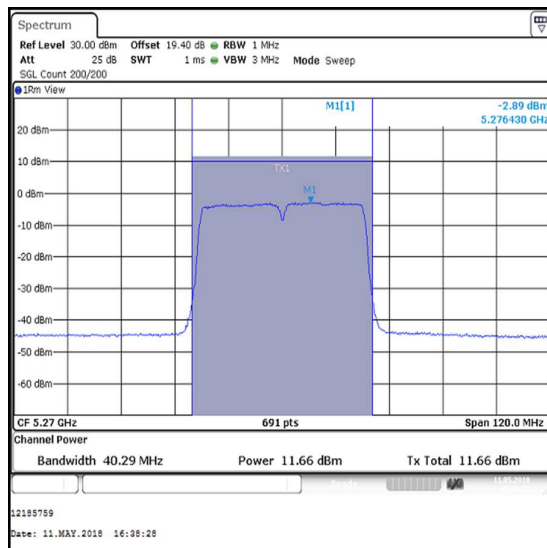
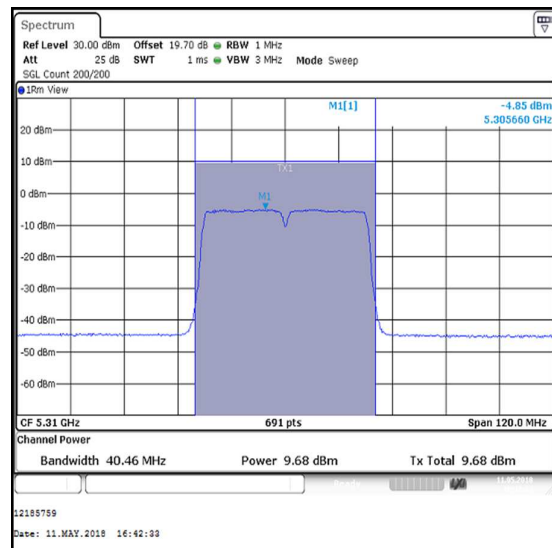
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Core 2****Bottom Channel****Middle Channel****Top Channel**

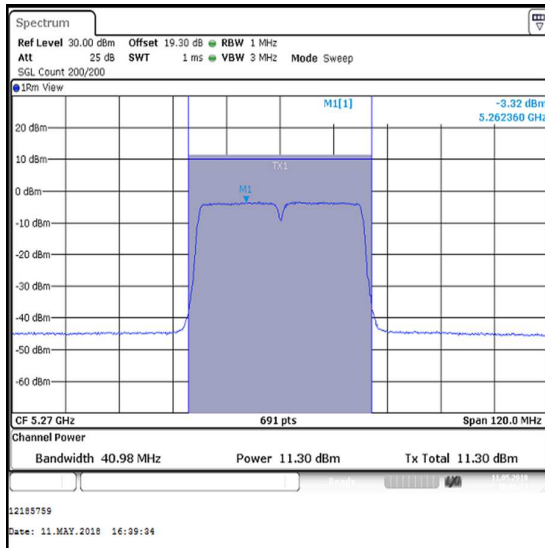
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Bottom	5270	11.7	0.1	11.8	11.3	0.1	11.4
Top	5310	9.7	0.1	9.8	9.7	0.1	9.8

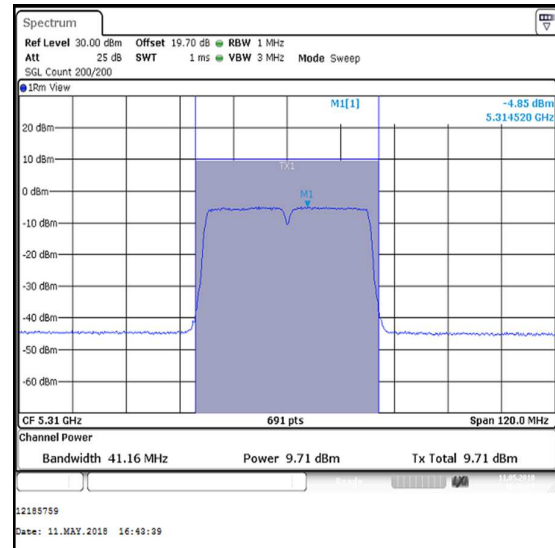
Channel	Frequency (MHz)	Core 2			Core 1, Core 0 & Core 2		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Corrected Conducted Power Core 2 (dBm)
Bottom	5270	11.7	0.1	11.8	11.8	11.4	11.8
Top	5310	9.8	0.1	9.9	9.8	9.8	9.9

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	16.4	22.4	6.0	Complied
Top	5310	14.6	22.4	7.8	Complied

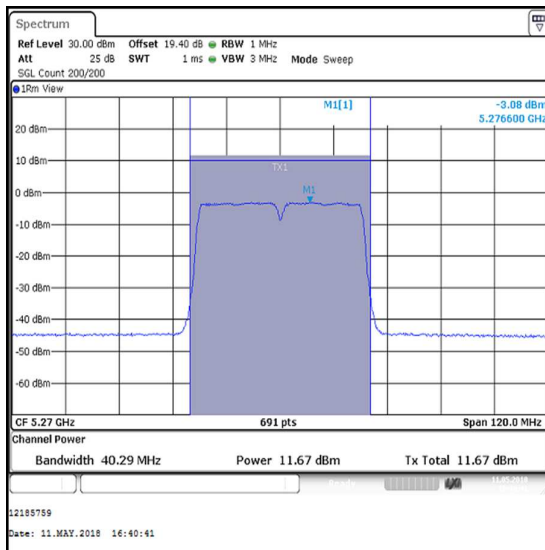
Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Core 1**Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Core 0**

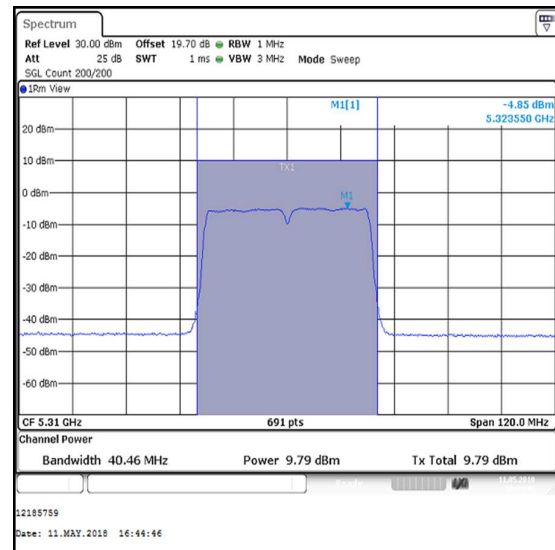
Bottom Channel



Top Channel

Results: 802.11n / 40 MHz / MIMO / 3Tx CDD / BPSK / MCS0 / Core 2

Bottom Channel



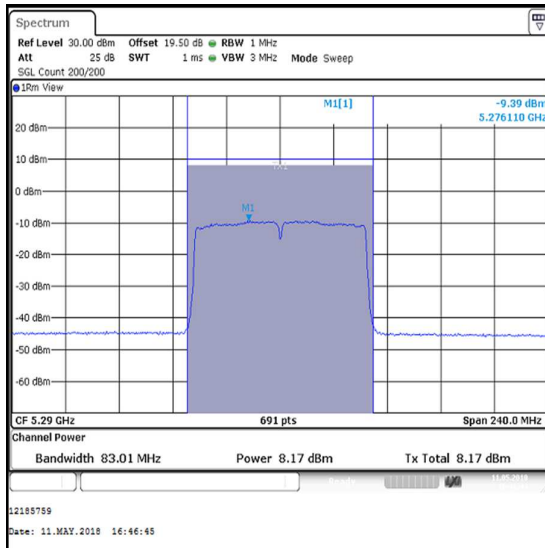
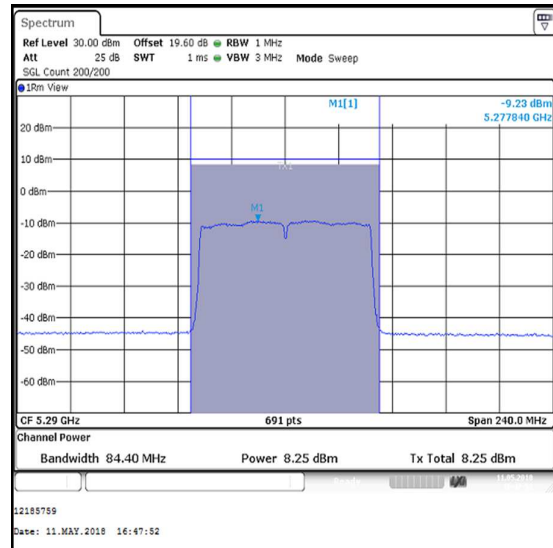
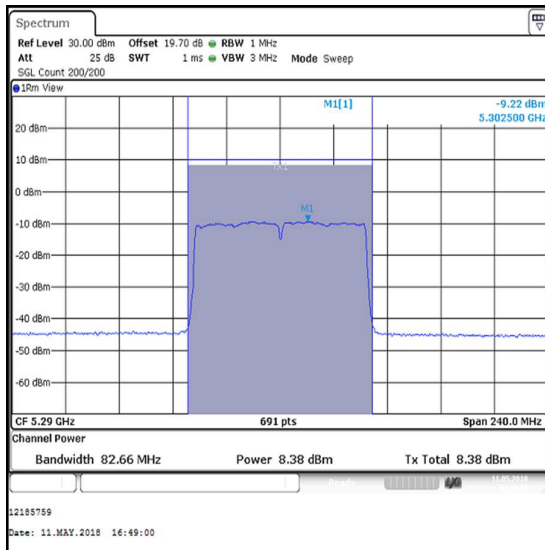
Top Channel

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0**

Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Single	5290	8.2	0.2	8.4	8.3	0.2	8.5

Channel	Frequency (MHz)	Core 2			Core 1, Core 0 & Core 2		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Corrected Conducted Power Core 2 (dBm)
Single	5290	8.4	0.2	8.6	8.4	8.5	8.6

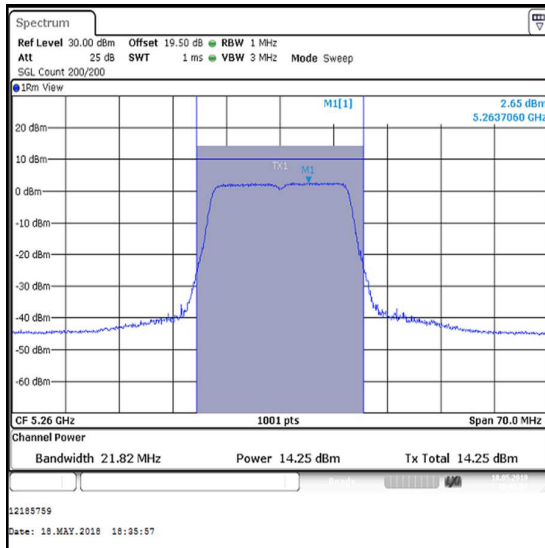
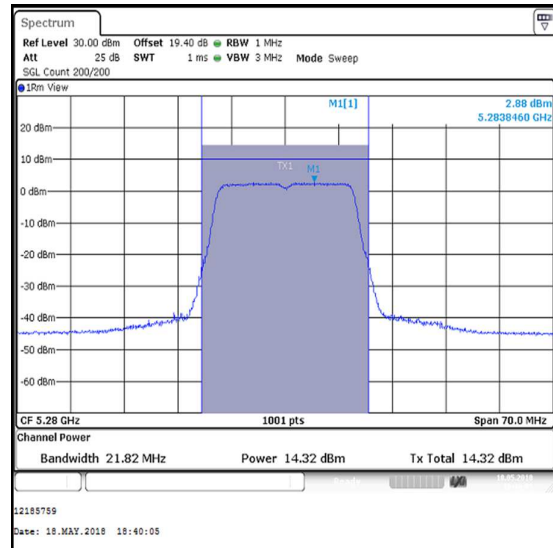
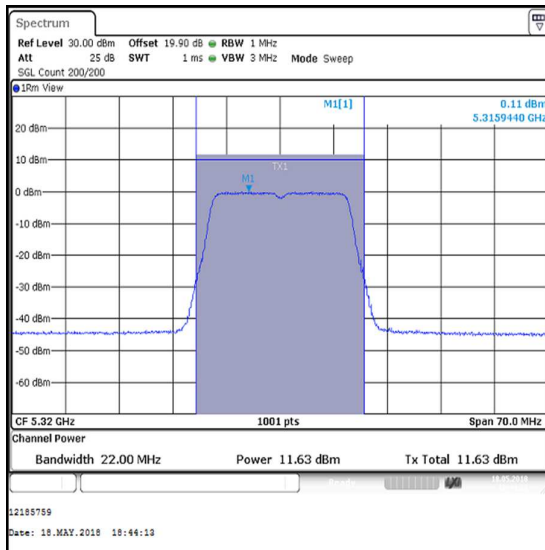
Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5210	13.3	22.4	9.1	Complied

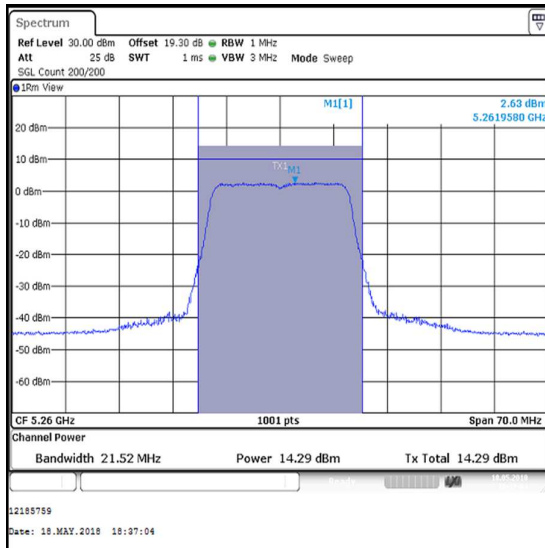
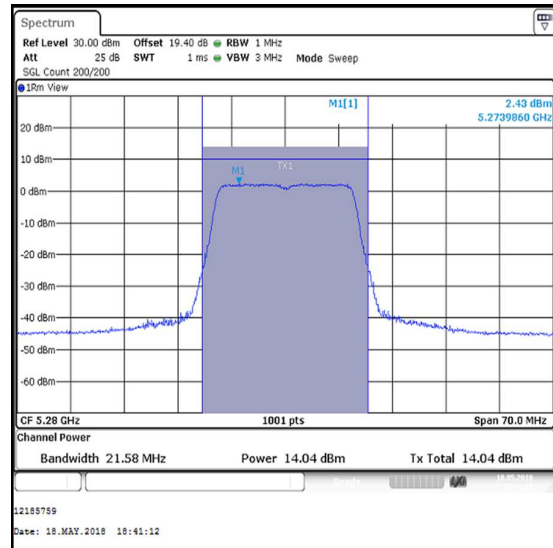
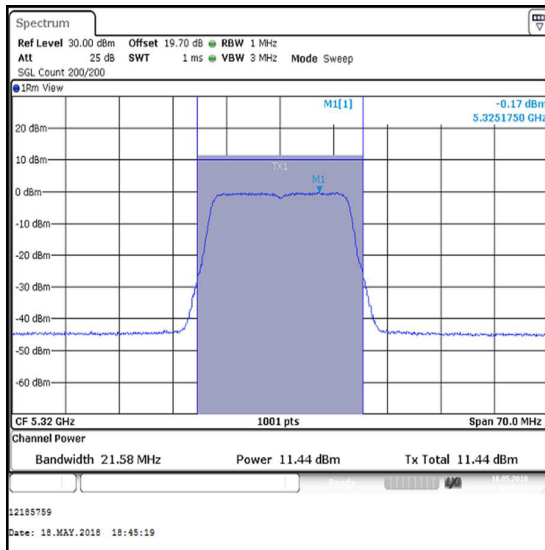
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx CDD / BPSK / MCS0****Single Channel / Core 1****Single Channel / Core 0****Single Channel / Core 2**

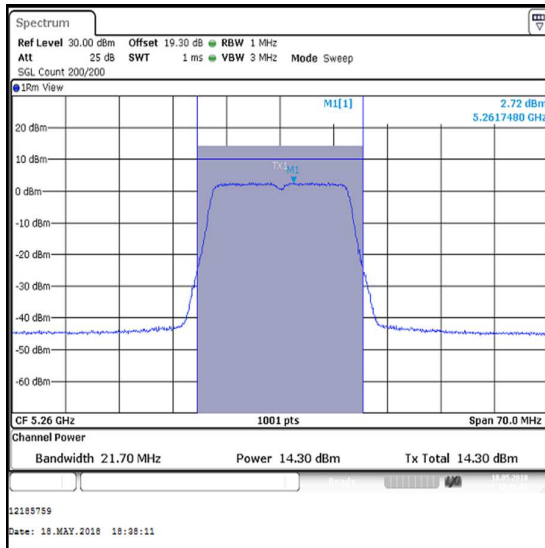
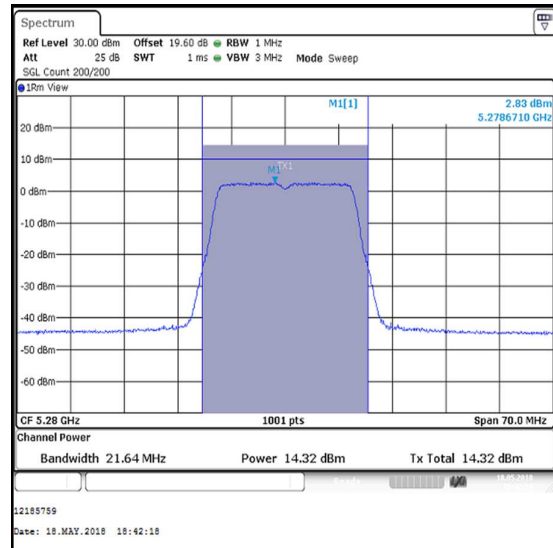
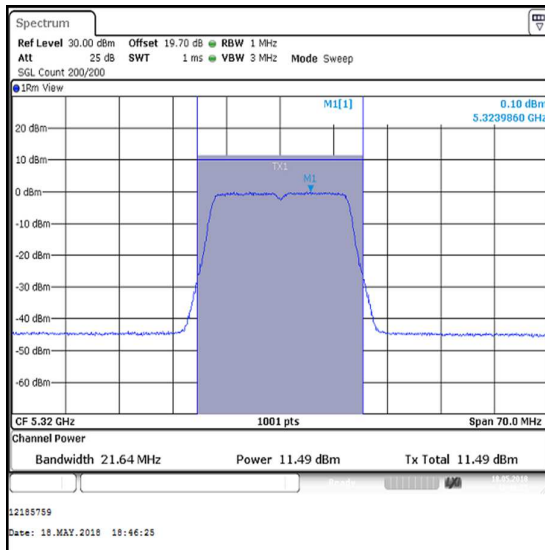
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Conducted Power Core 2 (dBm)	Combined Conducted Power (dBm)
Bottom	5260	14.3	14.3	14.3	19.1
Middle	5280	14.3	14.0	14.3	19.0
Top	5320	11.6	11.4	11.5	16.3

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	19.1	23.7	4.6	Complied
Middle	5280	19.0	23.7	4.7	Complied
Top	5320	16.3	23.7	7.4	Complied

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Core 1****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Core 0****Bottom Channel****Middle Channel****Top Channel**

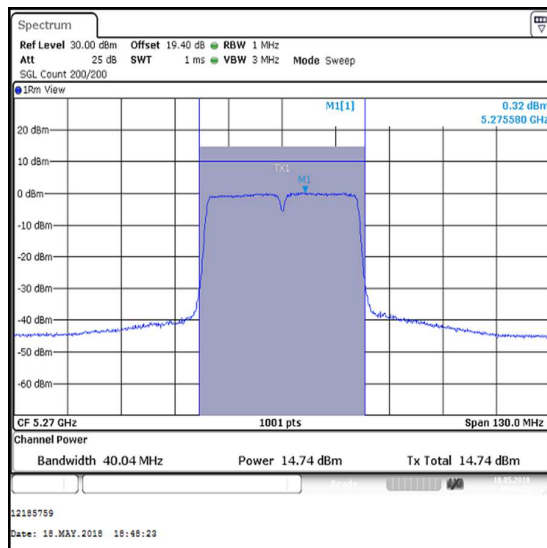
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Core 2****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0**

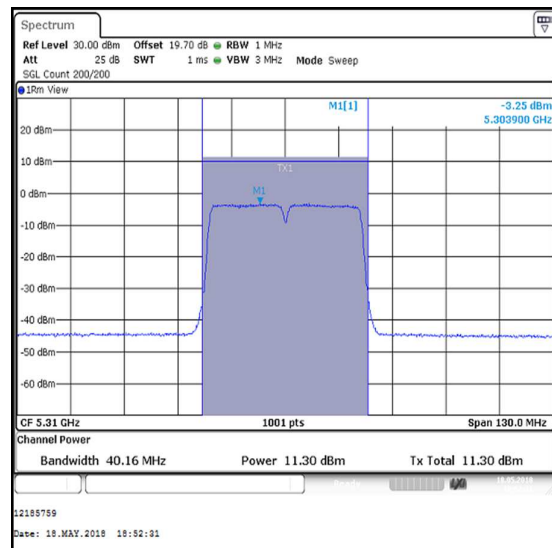
Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Bottom	5270	14.7	0.1	14.8	14.8	0.1	14.9
Top	5310	11.3	0.1	11.4	11.4	0.1	11.5

Channel	Frequency (MHz)	Core 2			Core 1, Core 0 & Core 2		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Corrected Conducted Power Core 2 (dBm)
Bottom	5270	14.6	0.1	14.7	14.8	14.9	14.7
Top	5310	11.5	0.1	11.6	11.4	11.5	11.6

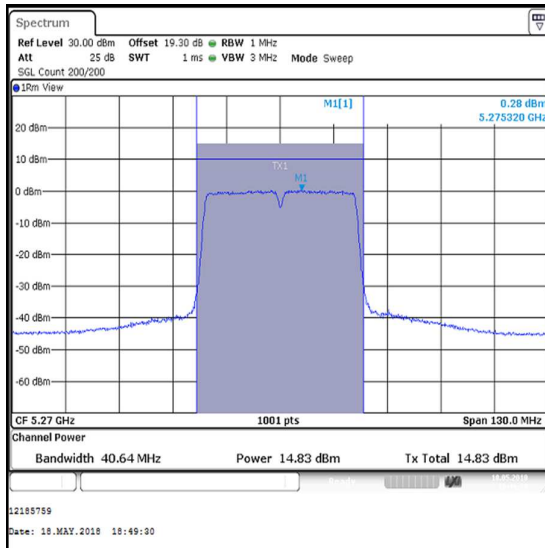
Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	19.6	23.7	4.1	Complied
Top	5310	16.3	23.7	7.4	Complied

Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Core 1

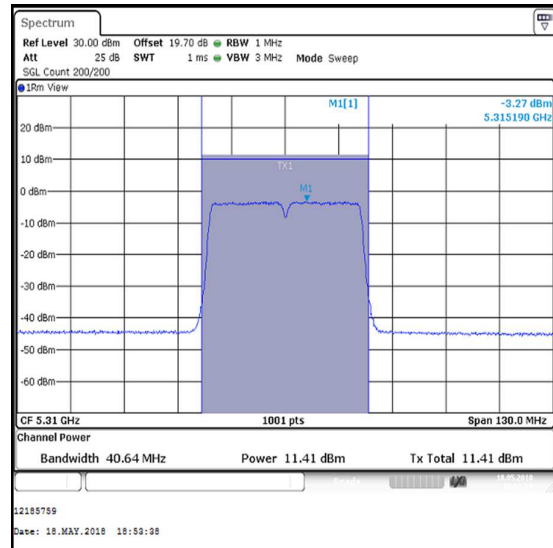
Bottom Channel



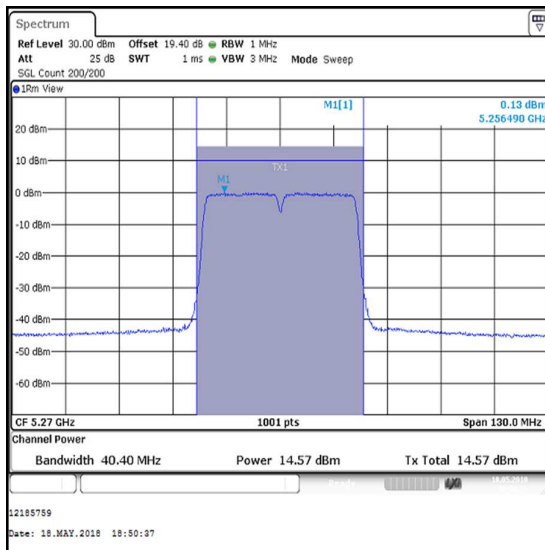
Top Channel

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Core 0**

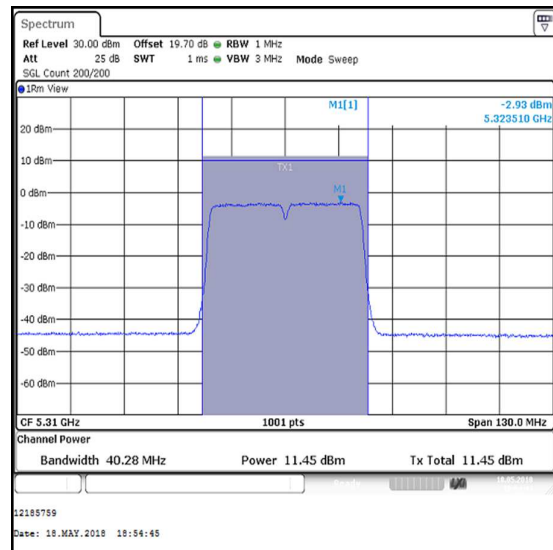
Bottom Channel



Top Channel

Results: 802.11n / 40 MHz / MIMO / 3Tx STBC / BPSK / MCS0 / Core 2

Bottom Channel



Top Channel

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0**

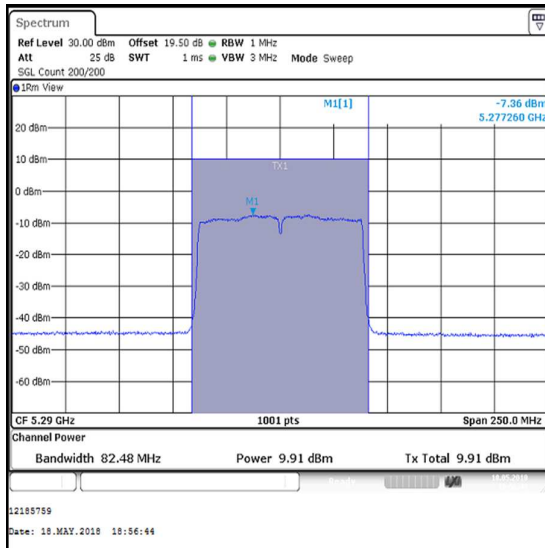
Channel	Frequency (MHz)	Core 1			Core 0		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)
Single	5290	9.9	0.2	10.1	10.1	0.2	10.3

Channel	Frequency (MHz)	Core 2			Core 1, Core 0 & Core 2		
		Conducted Power (dBm)	Duty Cycle correction (dB)	Corrected Conducted Power (dBm)	Corrected Conducted Power Core 1 (dBm)	Corrected Conducted Power Core 0 (dBm)	Corrected Conducted Power Core 2 (dBm)
Single	5290	10.3	0.2	10.5	10.1	10.3	10.5

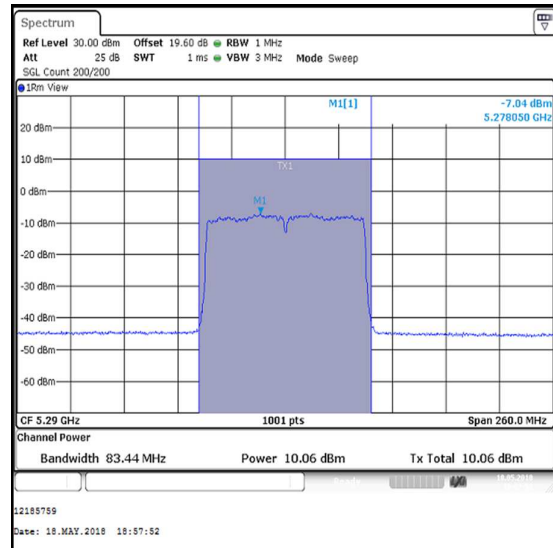
Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5210	15.1	23.7	8.6	Complied

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)

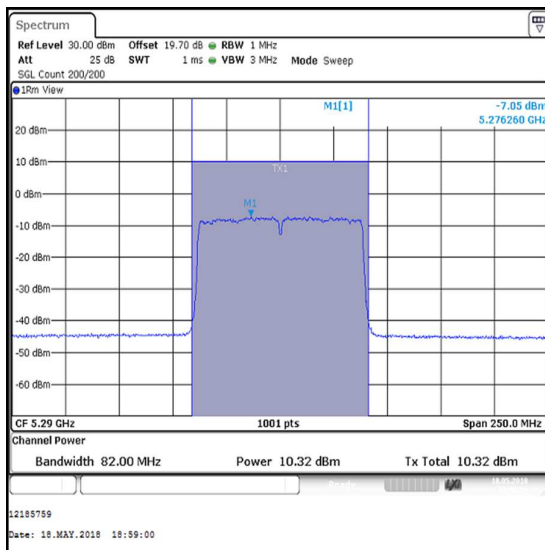
Results: 802.11ac / 80 MHz / MIMO / 3Tx STBC / BPSK / MCS0



Single Channel / Core 1



Single Channel / Core 0

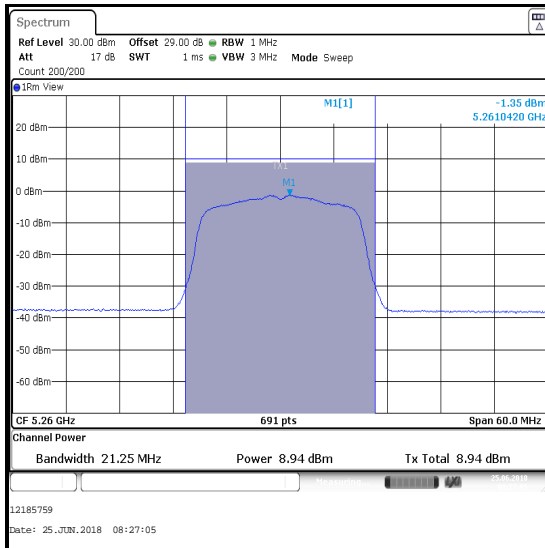
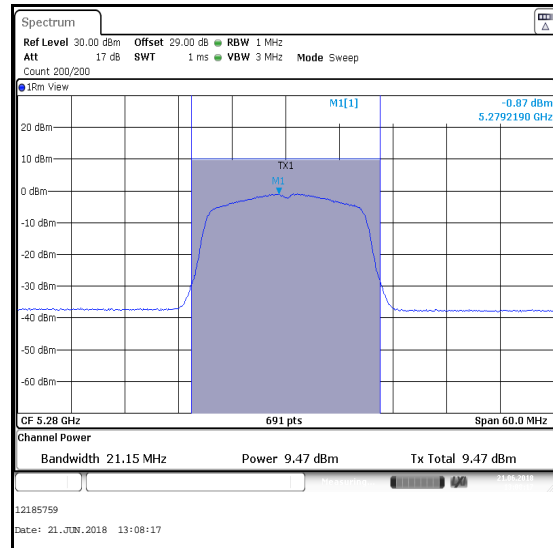
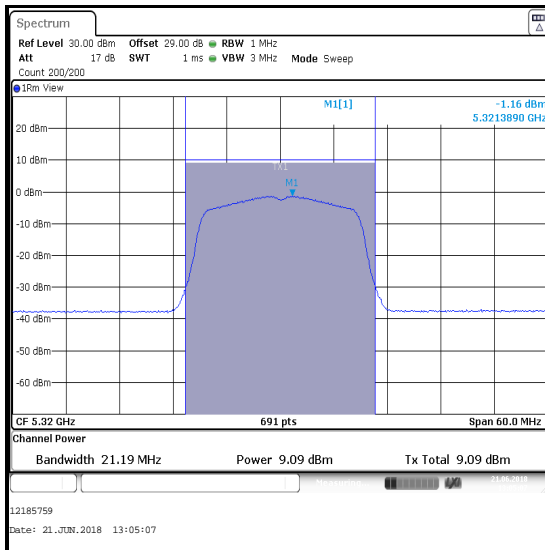


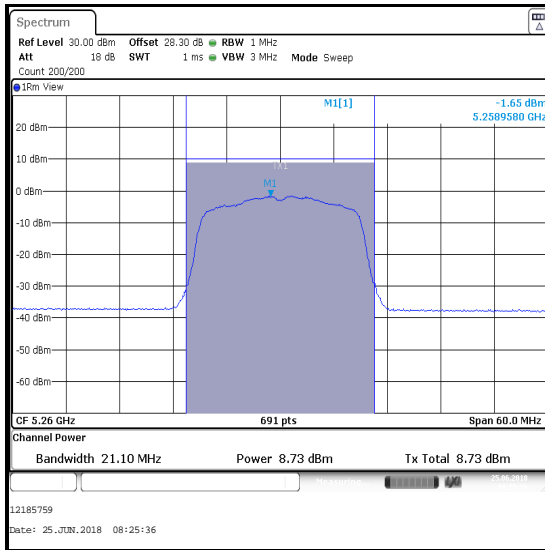
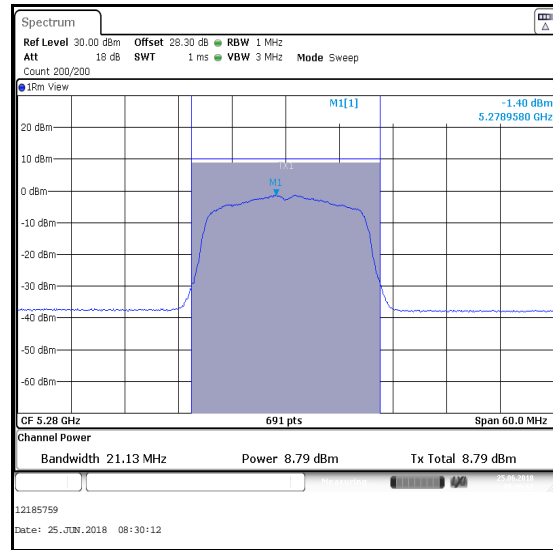
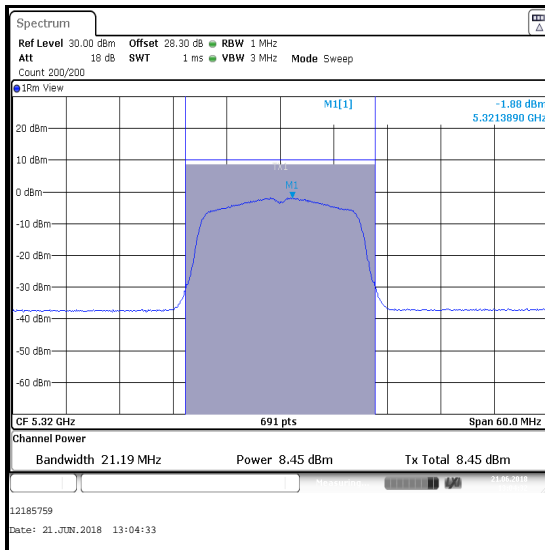
Single Channel / Core 2

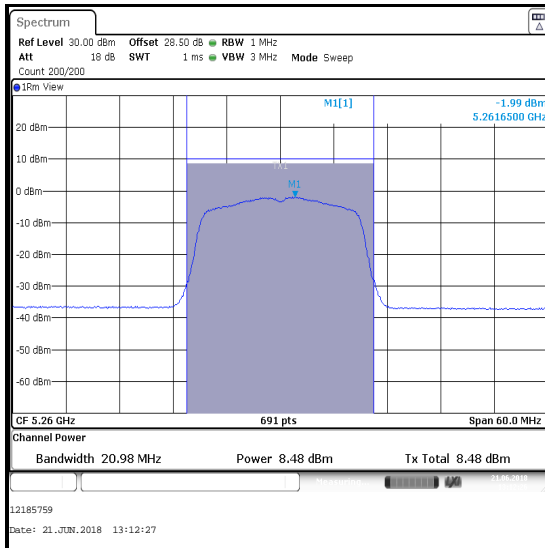
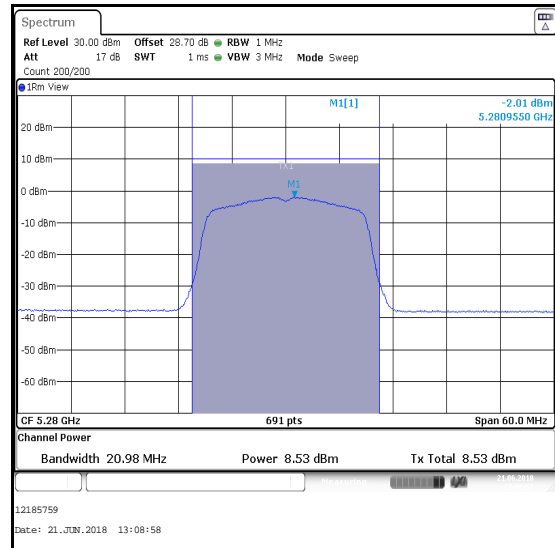
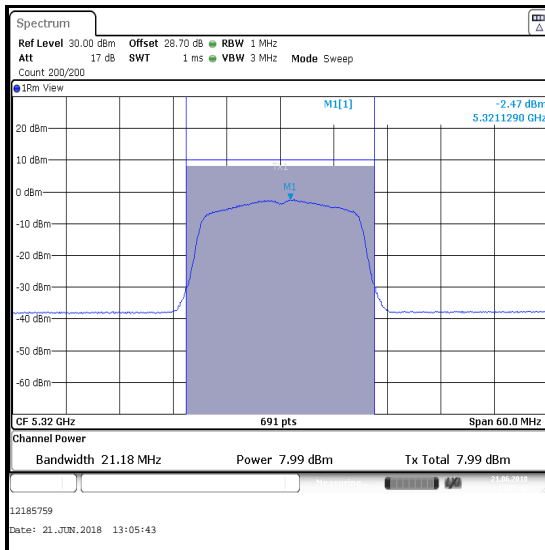
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Conducted Power Core 2 (dBm)	Combined Conducted Power (dBm)
Bottom	5260	8.9	8.7	8.5	13.5
Middle	5280	9.5	8.8	8.5	13.7
Top	5320	9.1	8.5	8.0	13.3

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	13.5	19.0	5.5	Complied
Middle	5280	13.7	19.0	5.3	Complied
Top	5320	13.3	19.0	5.7	Complied

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Core 1****Bottom Channel****Middle Channel****Top Channel**

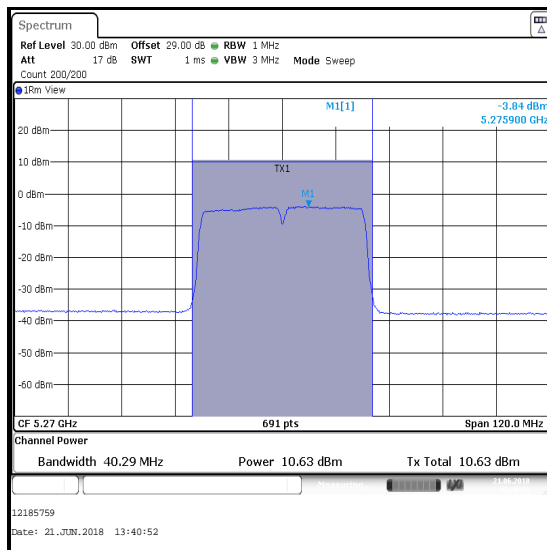
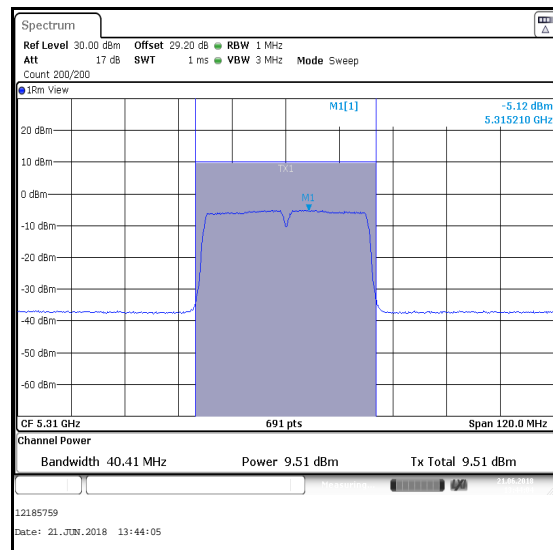
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Core 0****Bottom Channel****Middle Channel****Top Channel**

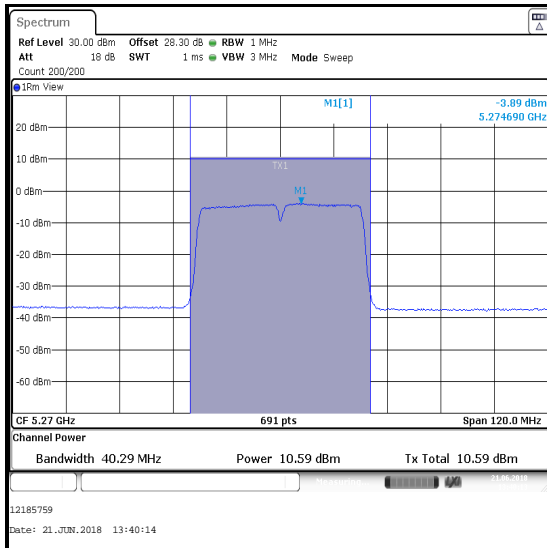
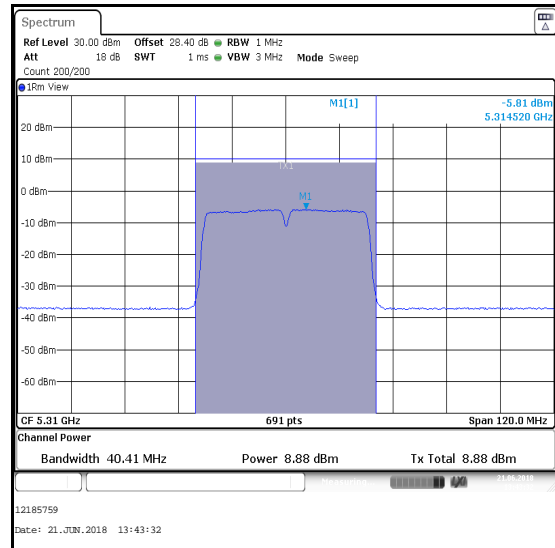
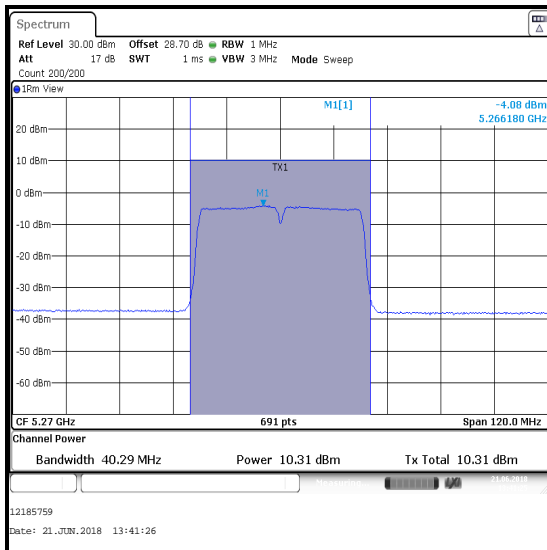
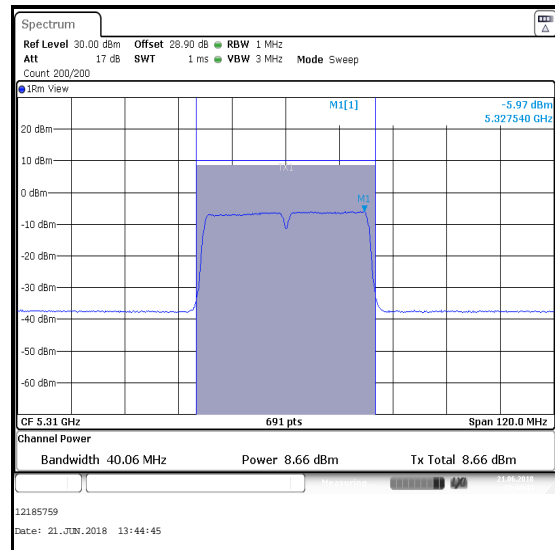
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 20 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Core 2****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Conducted Power Core 2 (dBm)	Combined Conducted Power (dBm)
Bottom	5270	10.6	10.6	10.3	15.3
Top	5310	9.5	8.9	8.7	13.8

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	15.3	19.0	3.7	Complied
Top	5310	13.8	19.0	5.2	Complied

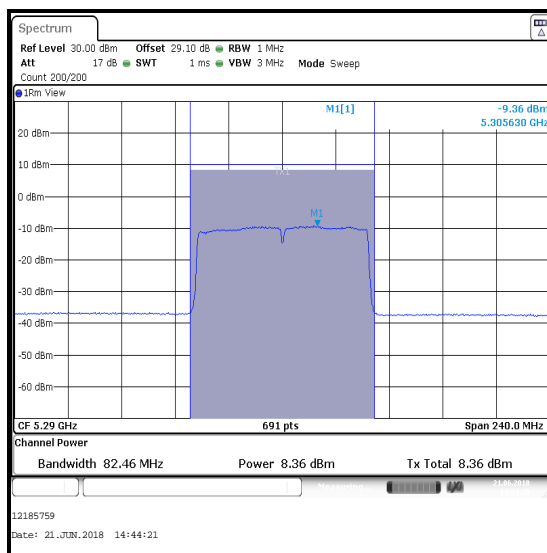
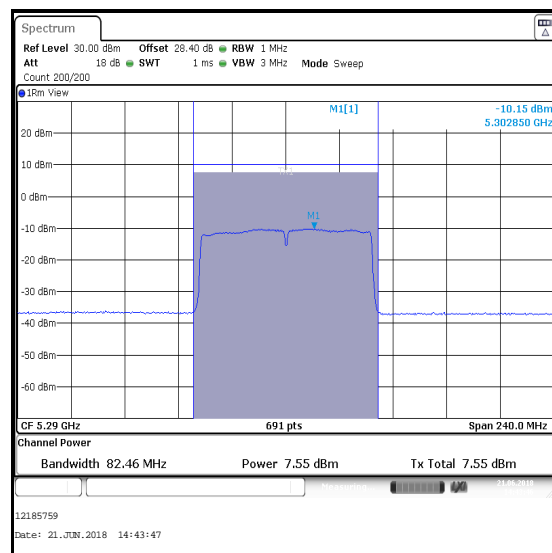
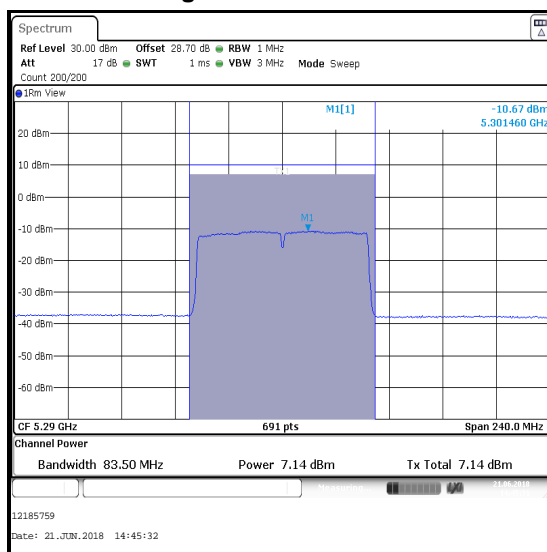
Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Core 1**Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Core 0****Bottom Channel****Top Channel****Results: 802.11n / 40 MHz / MIMO / 3Tx TxBF / BPSK / MCS0 / Core 2****Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)**Results: 802.11ac / 80 MHz / MIMO / 3Tx TxBF / BPSK / MCS0**

Channel	Frequency (MHz)	Conducted Power Core 1 (dBm)	Conducted Power Core 0 (dBm)	Conducted Power Core 2 (dBm)	Combined Conducted Power (dBm)
Single	5290	8.4	7.6	7.1	12.5

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5290	12.5	19.0	6.5	Complied

**Single Channel / Core 1****Single Channel / Core 0****Single Channel / Core 2**

Transmitter Maximum Conducted Output Power (5.47-5.725 GHz band)**4.4.3. 5.47-5.725 GHz band****Test Summary:**

Test Engineers:	Max Passell & Matthew Botfield	Test Dates:	11 May 2018 & 25 June 2018
Test Sample Serial Numbers:	C02WC003JMFN & C02WC001JTGW		

FCC Reference:	Part 15.407(a)(2)
Test Method Used:	KDB 789033 D02 Section II.E.2.b) and II.E.2.d)

Environmental Conditions:

Temperature (°C):	22 to 24
Relative Humidity (%):	42 to 55

Note(s):

- For conducted power tests where the duty cycle is >98%, the measurements were performed using a signal analyser in accordance with FCC KDB 789033 II.E.2.b) Method SA-1. Where the duty cycle is <98%, the measurements were performed in accordance with FCC KDB 789033 II.E.2.d) Method SA-2. The signal analyser's integration function was used to integrate across the 26 dB emission bandwidth. The resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. An RMS detector was used and sweep time was set to auto and 200 traces performed. The span was set to encompass the entire 26 dB emission bandwidth. The channel power results are recorded in the tables below.
- Measurements were performed using configurations detailed in Section 3.5 of this test report on the relevant channels.
- For data rates where the EUT was transmitting at <98% duty cycle, the calculated duty cycle in Section 4.1 was added to the measured power in order to compute the average power during the actual transmission time.
- The FCC Part 15.407(a)(2) limit is the lesser of 250 mW (24.0 dBm) or $11 \text{ dBm} + 10 \log_{10} B$, where B is the previously measured 26 dB emission bandwidth in MHz. For U-NII-2C band, the 26 dB EBW is greater than 20 MHz.

$$\begin{aligned}
 &\text{For } B > 20 \text{ MHz} \rightarrow \\
 &\rightarrow \log_{10} B > \log_{10} 20 \rightarrow \\
 &\rightarrow 10 \log_{10} B > 10 \log_{10} 20 \rightarrow \\
 &\rightarrow 11 + 10 \log_{10} B > 11 + 10 \log_{10} 20 \rightarrow \\
 &\rightarrow 11 + 10 \log_{10} B > 24.0 \text{ dBm}
 \end{aligned}$$

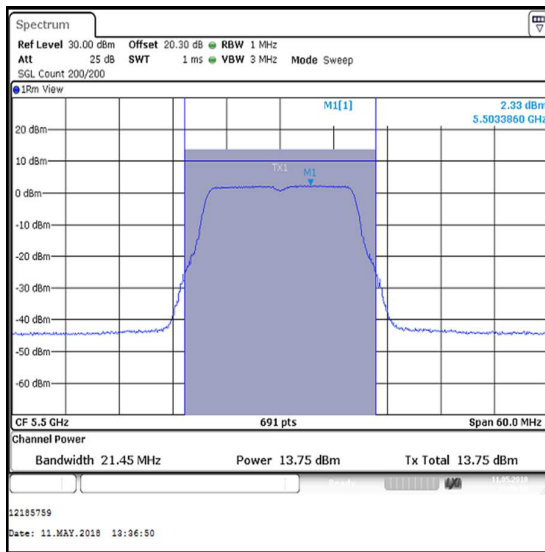
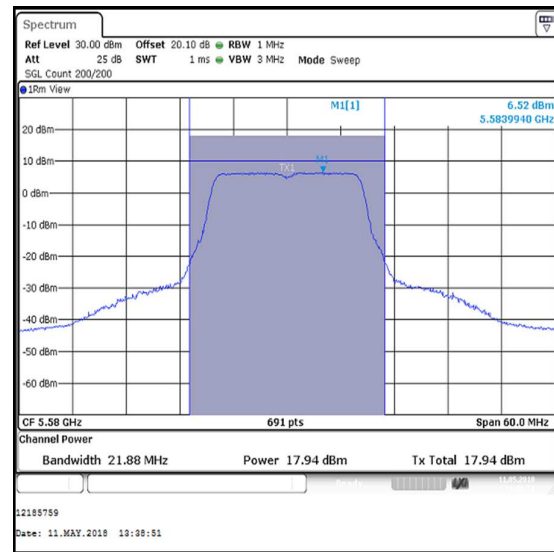
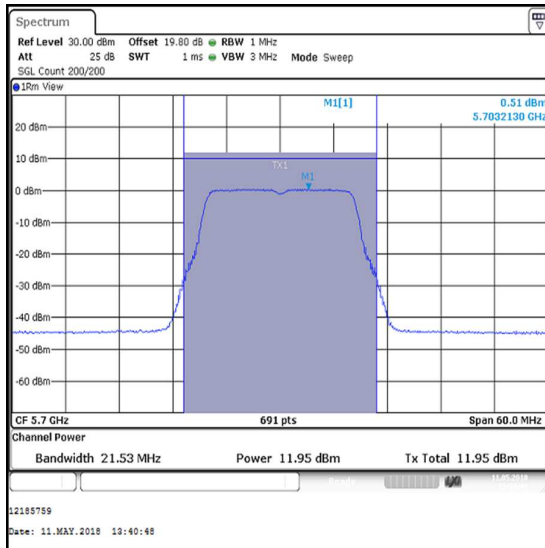
Therefore for measured emission bandwidths greater than 20 MHz, the lesser of the two limits is the fixed limit of 250 mW (24.0 dBm). This was applied to the results.

- For MIMO modes, conducted power was measured on both ports and then combined using the measure-and-sum method stated in FCC KDB 662911 D01 Section E)1).
- For 3Tx STBC modes of operation, the antenna gain is < 6 dBi.
- For SISO and MIMO CDD modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 7.4 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 1.4 dB to 22.6 dBm.

8. For 2Tx STBC modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 6.4 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 0.4 dB to 23.6 dBm.
9. For 2Tx TxBF modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 9.4 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 3.4 dB to 20.6 dBm.
10. For 3Tx TxBF modes of operation presented in this section of the test report, the EUT has a directional antenna gain of 10.7 dBi. In accordance with Part 15.407(a)(2), the limit was reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the limit of 24.0 dBm has been reduced by 4.7 dB to 19.3 dBm.
11. For details on antenna gains refer to Section 3.4 of this test report.
12. The signal analyser was connected to the RF port on the EUT using an RF switch, suitable attenuation and RF cable. An RF level offset was entered on the signal analyser to compensate for the loss of the attenuator and RF cable.
13. The EUT with serial number C02WC003JMFN was used for non-TxBF tests, the EUT with serial C02WC001JTGW number was used for TxBF tests.

Transmitter Maximum Conducted Output Power (5.47-5.725 GHz band) (continued)**Results: 802.11a / 20 MHz / SISO / BPSK / 6 Mbps / Core 0**

Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5500	13.8	22.6	8.8	Complied
Middle	5580	17.9	22.6	4.7	Complied
Top	5700	12.0	22.6	10.6	Complied

**Bottom Channel****Middle Channel****Top Channel**