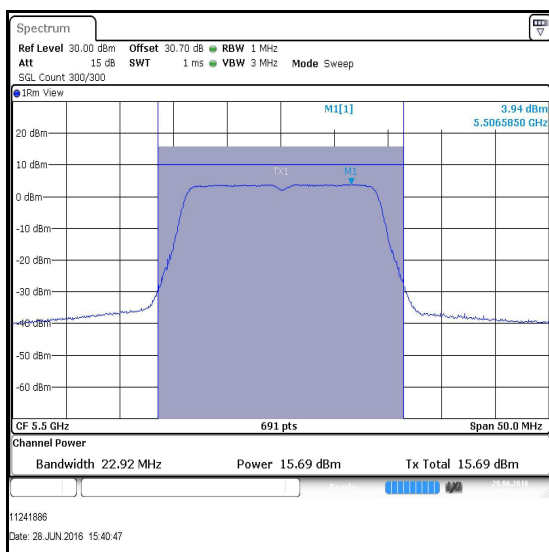


Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands) (continued)

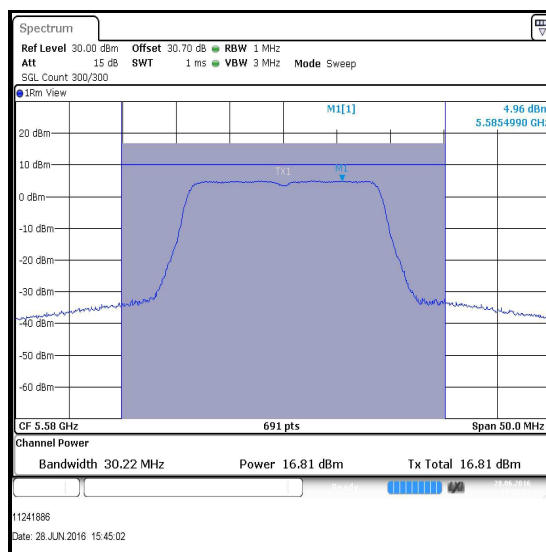
Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO / 5.47-5.725 GHz band

Channel	Frequency (MHz)	Conducted Peak Power Port 1 (dBm)	Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5500	15.7	14.5	18.2	24.0	5.8	Complied
Middle	5580	16.8	15.3	19.1	24.0	4.9	Complied
Top	5700	16.2	14.6	18.5	24.0	5.5	Complied

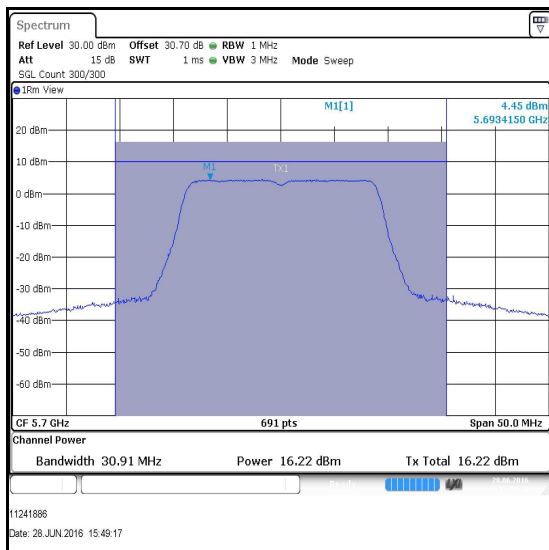
Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO / 5.47-5.725 GHz band / Port 1



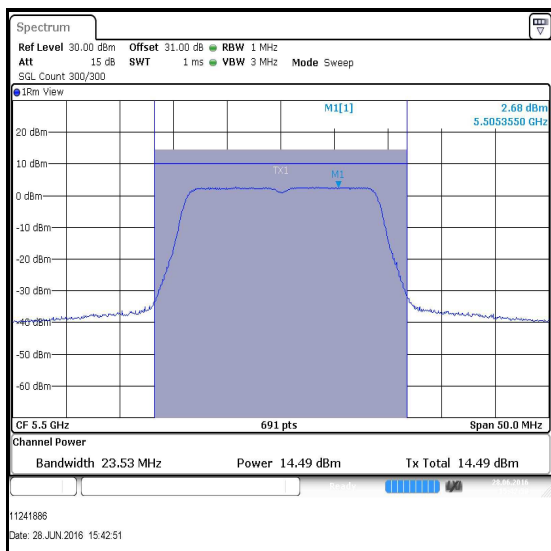
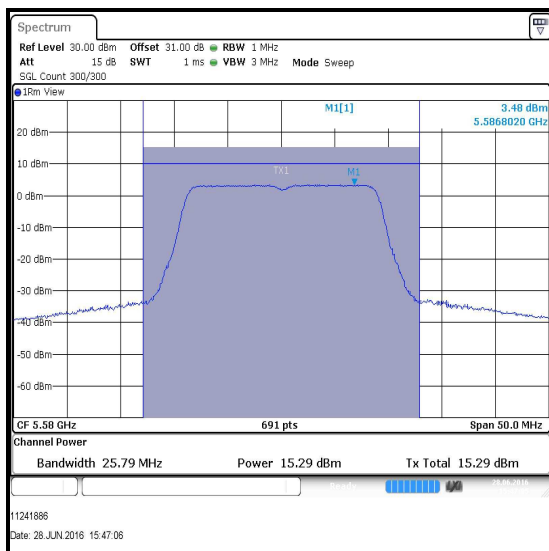
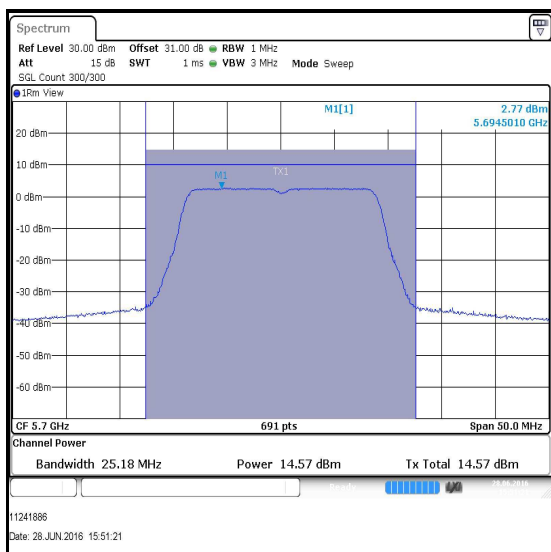
Bottom Channel



Middle Channel



Top Channel

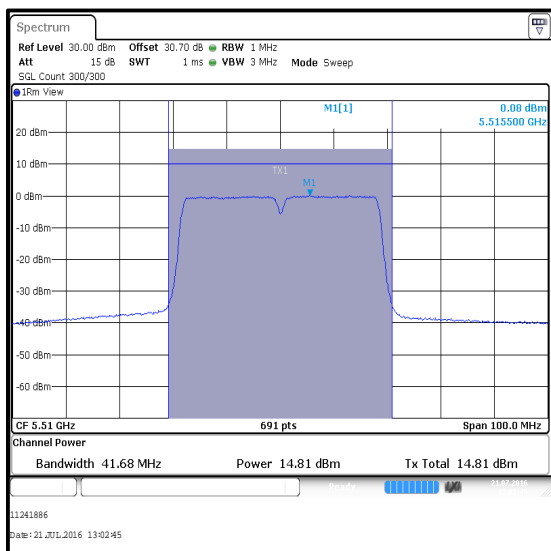
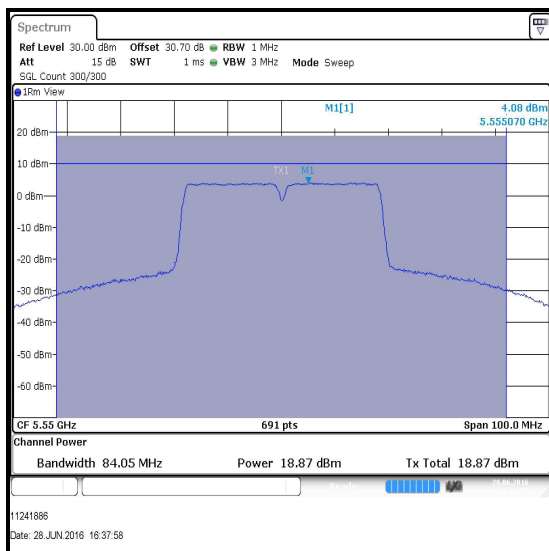
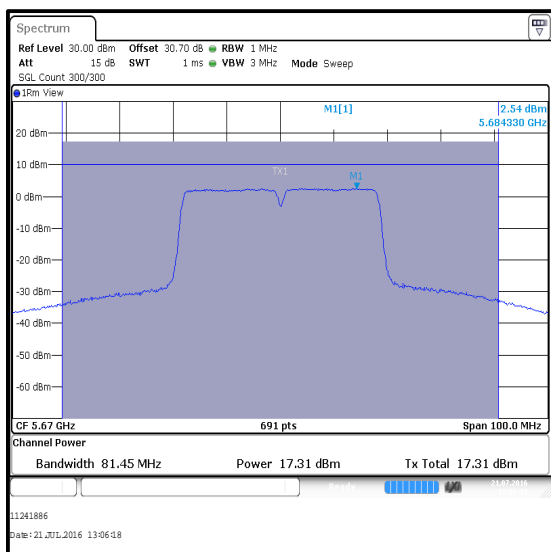
**Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands)
(continued)****Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO / 5.47-5.725 GHz band / Port 2****Bottom Channel****Middle Channel****Top Channel**

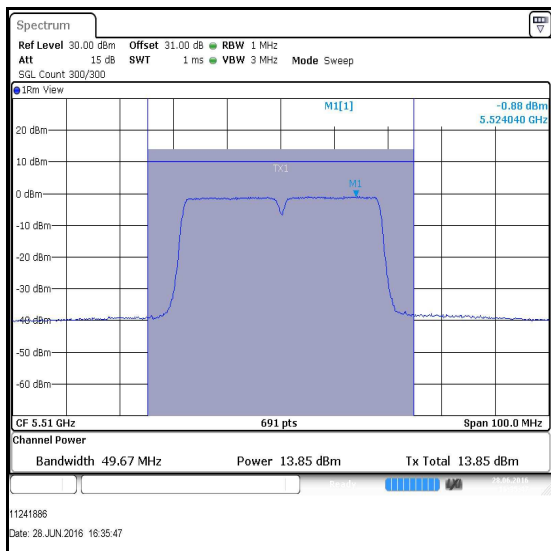
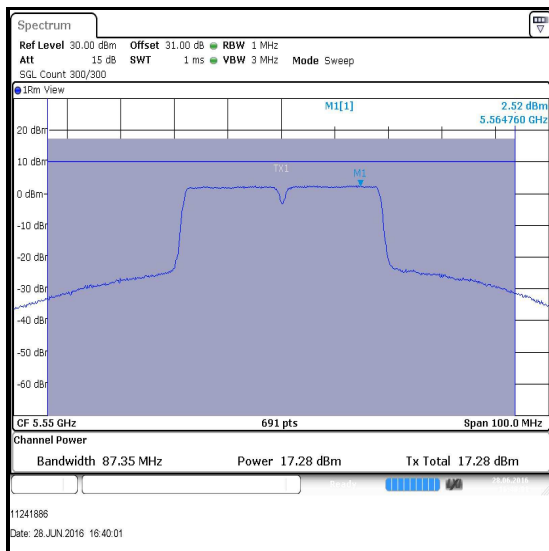
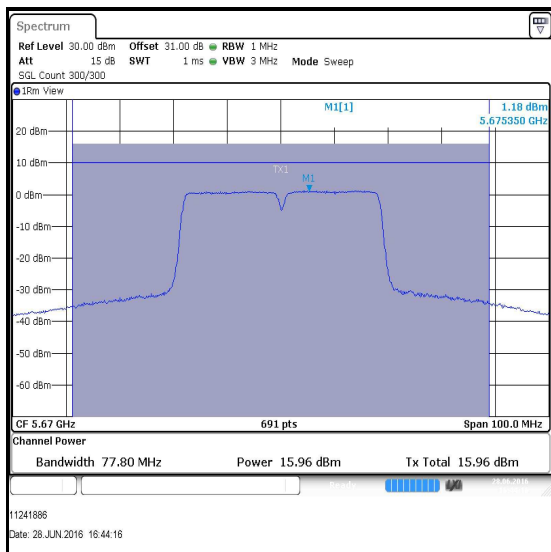
Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands)
(continued)

Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO / 5.47-5.725 GHz band

Channel	Frequency (MHz)	Port 1			Port 2		
		Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)	Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)
Bottom	5510	14.8	0.1	14.9	13.9	0.1	14.0
Middle	5550	18.9	0.1	19.0	17.3	0.1	17.4
Top	5670	17.3	0.1	17.4	16.0	0.1	16.1

Channel	Frequency (MHz)	Corrected Conducted Peak Power Port 1 (dBm)	Corrected Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5510	14.9	14.0	17.5	24.0	6.5	Complied
Middle	5550	19.0	17.4	21.3	24.0	2.7	Complied
Top	5670	17.4	16.1	19.8	24.0	4.2	Complied

**Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands)
(continued)****Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO / 5.47-5.725 GHz band / Port 1****Bottom Channel****Middle Channel****Top Channel**

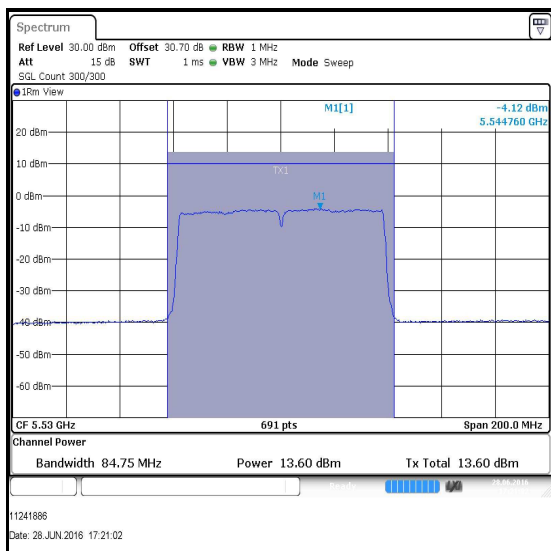
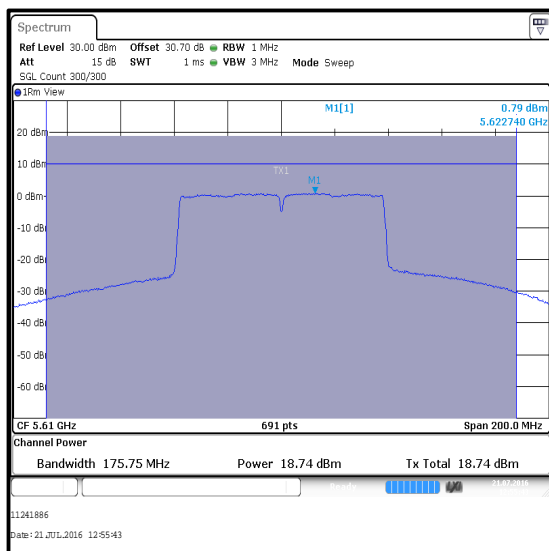
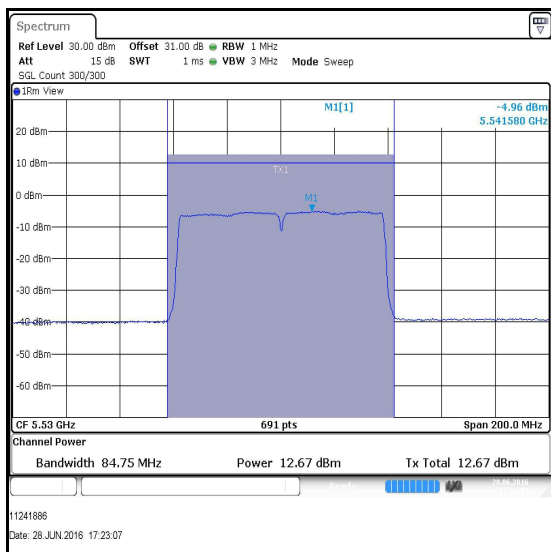
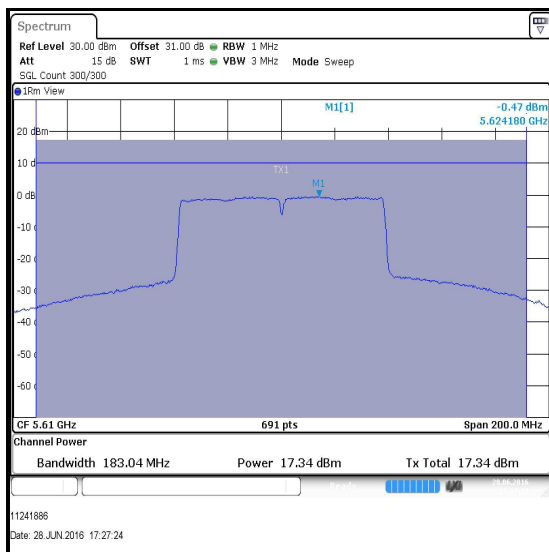
**Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands)
(continued)****Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO / 5.47-5.725 GHz band / Port 2****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands)
(continued)

Results: 802.11ac / 80 MHz / BPSK / MCS0x1 / MIMO / 5.47-5.725 GHz band

Channel	Frequency (MHz)	Port 1			Port 2		
		Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)	Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)
Bottom	5530	13.6	0.2	13.8	12.7	0.2	12.9
Top	5610	18.7	0.2	18.9	17.3	0.2	17.5

Channel	Frequency (MHz)	Corrected Conducted Peak Power Port 1 (dBm)	Corrected Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5530	13.8	12.9	16.4	24.0	7.6	Complied
Top	5610	18.9	17.5	21.3	24.0	2.7	Complied

**Transmitter Maximum Conducted Output Power (5.25-5.35 GHz & 5.47-5.725 GHz bands)
(continued)****Results: 802.11ac / 80 MHz / BPSK / MCS0x1 / MIMO / 5.47-5.725 GHz band / Port 1****Bottom Channel****Top Channel****Results: 802.11ac / 80 MHz / BPSK / MCS0x1 / MIMO / 5.47-5.725 GHz band / Port 2****Bottom Channel****Top Channel**

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz)**Test Summary:**

Test Engineer:	Georgios Vrezas	Test Dates:	28 June 2016 & 21 July 2016
Test Sample IMEI:	358640070098109		

FCC Reference:	Part 15.407(a)(3)
Test Method Used:	KDB 789033 D02 Section II.E.2.b) and II.E.2.d)

Environmental Conditions:

Temperature (°C):	24 to 25
Relative Humidity (%):	45 to 46

Note(s):

- Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz, need to meet requirements of both U-NII bands. Due to maximum conducted power limit being more stringent on U-NII-2C, compliance is shown against the limits of U-NII-2C. By default the EUT also complies on U-NII-3.
- 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. The 26 dB EBW is greater than 20 MHz:

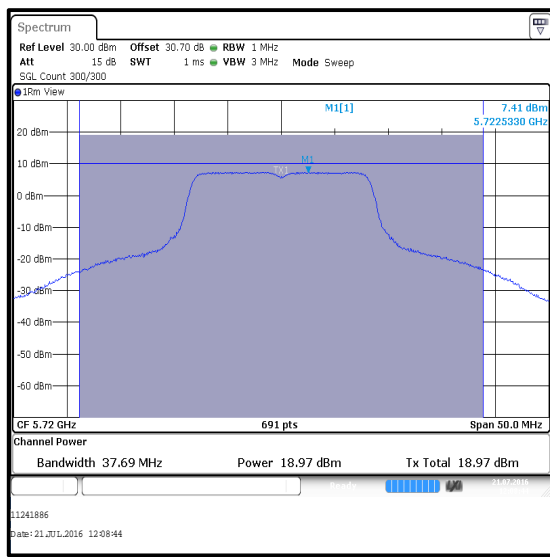
$$\begin{aligned}
 &\text{For } B > 20 \text{ MHz} \rightarrow \\
 &\rightarrow \log_{10} B > \log_{10} 20 \rightarrow \\
 &\rightarrow 10 \log_{10} B > 10 \log_{10} 20 \rightarrow \\
 &\rightarrow 11 + 10 \log_{10} B > 11 + 10 \log_{10} 20 \rightarrow \\
 &\rightarrow 11 + 10 \log_{10} B > 24.0 \text{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

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.

- The EUT's directional antenna gain is $< 6 \text{ dBi}$ on both U-NII-2C and U-NII-3 bands. Please refer to the relevant sections of this test report for directional antenna gain calculations.

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)**Results: 802.11a / 20 MHz / BPSK / 6 Mbps**

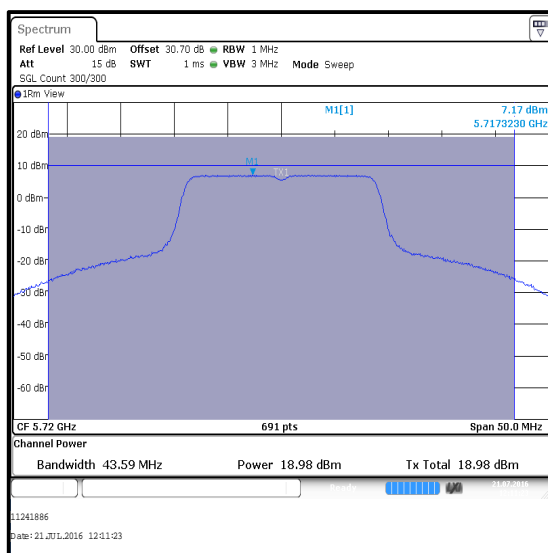
Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5720	19.0	24.0	5.0	Complied

**Single Channel**

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11n / 20 MHz / BPSK / MCS0 / SISO

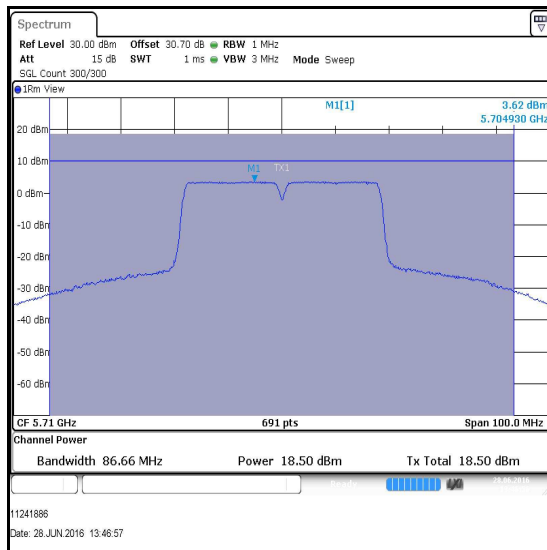
Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5720	19.0	24.0	5.0	Complied



Single Channel

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)**Results: 802.11n / 40 MHz / BPSK / MCS0 / SISO**

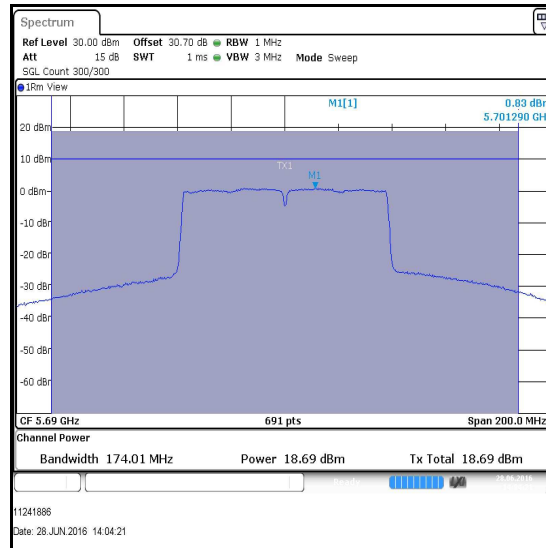
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5710	18.5	0.1	18.6	24.0	5.4	Complied

**Single Channel**

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11ac / 80 MHz / BPSK / MCS0 / SISO

Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5690	18.7	0.2	18.9	24.0	5.1	Complied

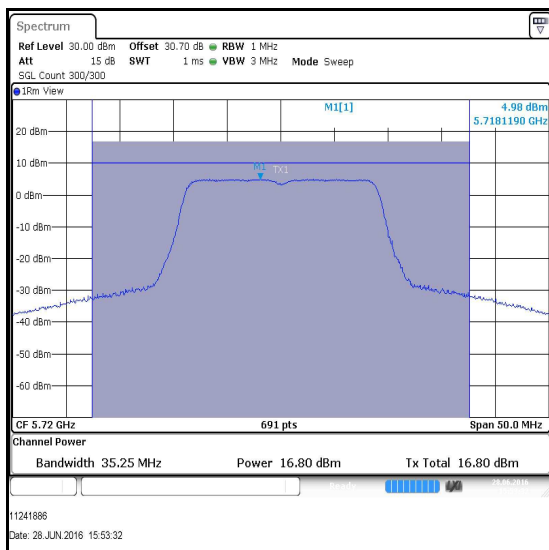


Single Channel

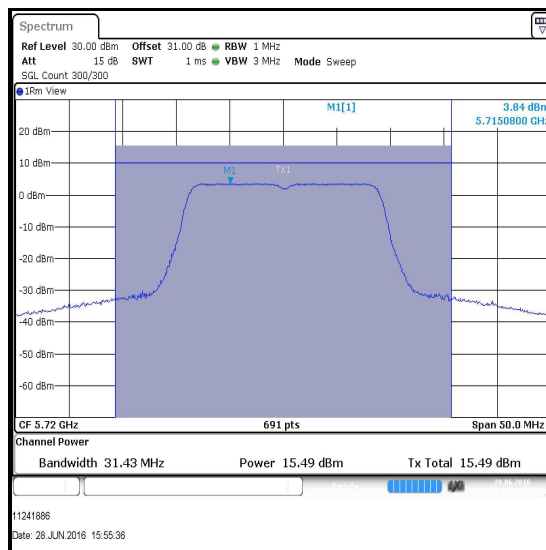
Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO

Channel	Frequency (MHz)	Conducted Peak Power Port 1 (dBm)	Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Top	5720	16.8	15.5	19.2	24.0	4.8	Complied



Single Channel / Port 1



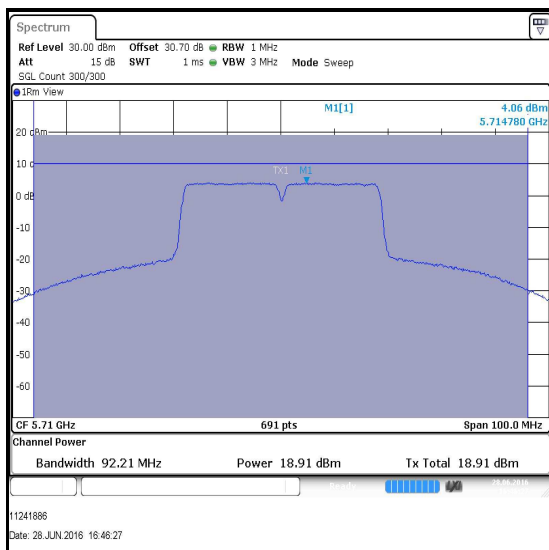
Single Channel / Port 2

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

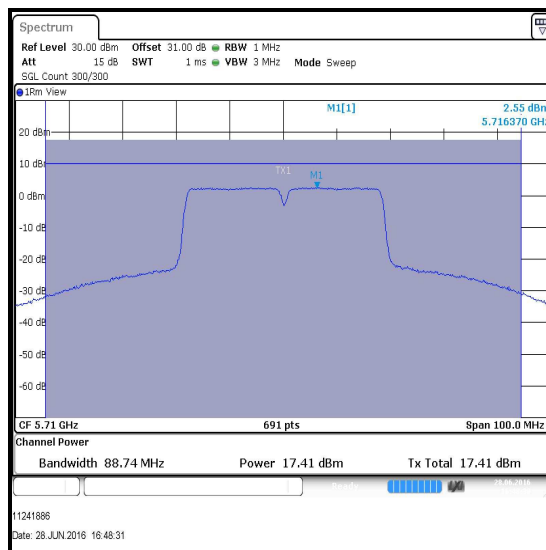
Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO

Channel	Frequency (MHz)	Port 1			Port 2		
		Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)	Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)
Single	5710	18.9	0.1	19.0	17.4	0.1	17.5

Channel	Frequency (MHz)	Corrected Conducted Peak Power Port 1 (dBm)	Corrected Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5710	19.0	17.5	21.3	24.0	2.7	Complied



Single Channel / Port 1



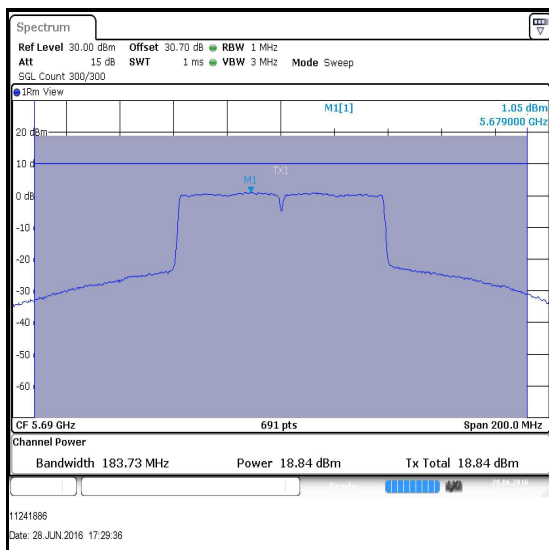
Single Channel / Port 2

Transmitter Maximum Conducted Output Power (Channels that straddle the U-NII-2C and U-NII-3 bands at 5725 MHz) (continued)

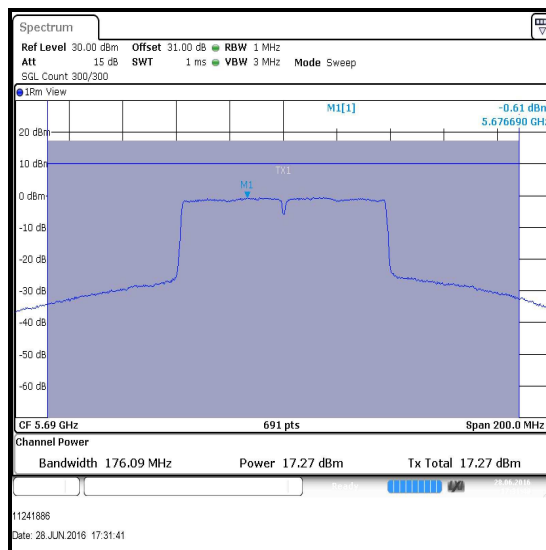
Results: 802.11ac / 80 MHz / BPSK / MCS0x1 / MIMO

Channel	Frequency (MHz)	Port 1			Port 2		
		Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)	Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)
Single	5690	18.8	0.2	19.0	17.3	0.2	17.5

Channel	Frequency (MHz)	Corrected Conducted Peak Power Port 1 (dBm)	Corrected Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5690	19.0	17.5	21.3	24.0	2.7	Complied



Single Channel / Port 1



Single Channel / Port 2

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band)**Test Summary:**

Test Engineer:	Georgios Vrezas	Test Dates:	28 June 2016 & 21 July 2016
Test Sample IMEI:	358640070098109		

FCC Reference:	Part 15.407(a)(3)
Test Method Used:	KDB 789033 D02 Section II.E.2.b) and II.E.2.d)

Environmental Conditions:

Temperature (°C):	24 to 25
Relative Humidity (%):	45 to 46

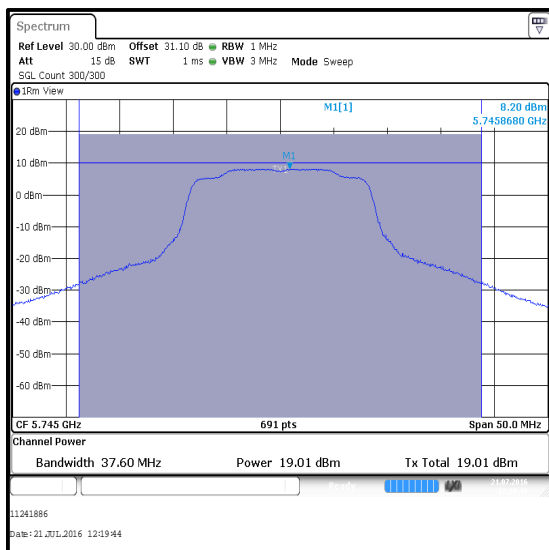
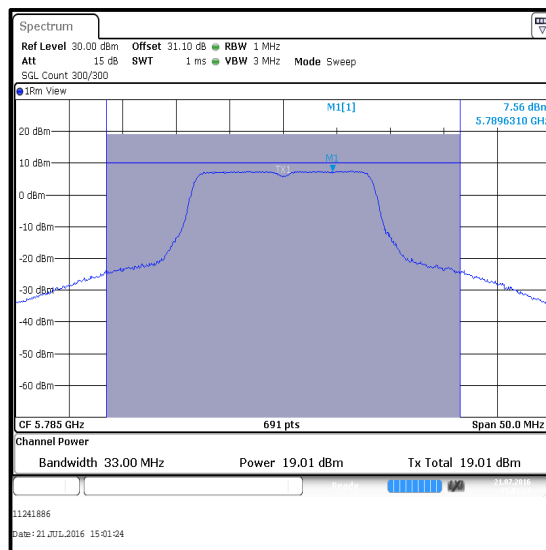
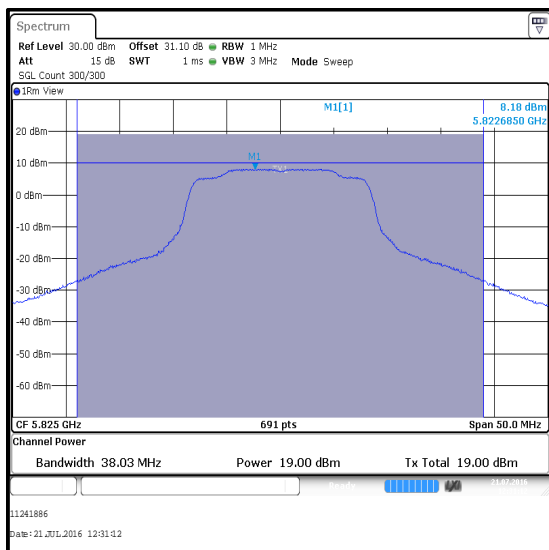
Note(s):

- The FCC Part 15.407(a)(3) limit shall not exceed 1 W (30.0 dBm).
- For SISO modes, the antenna gain is < 6 dBi.
- For MIMO modes presented in this section of the test report, the data stream is correlated as it is single stream with CDD on. The directional antenna gain has been calculated in accordance with ANSI C63.10 Section 14.4.3.2.4 b). The EUT antenna has a gain of -2.7 dBi for port 1 and -5.3 dBi for port 2, in the frequency range 5.725 GHz to 5.85 GHz:

$$\begin{aligned}
 \text{Directional Gain} &= 10 \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 10 \log \left[\frac{\sum_{j=1}^1 \left(\sum_{k=1}^2 g_{j,k} \right)^2}{2} \right] \\
 &= 10 \log \left[\frac{(g_{1,1} + g_{1,2})^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{G_1}{20}} + 10^{\frac{G_2}{20}} \right)^2}{2} \right] = 10 \log \left[\frac{\left(10^{\frac{-2.7}{20}} + 10^{\frac{-5.3}{20}} \right)^2}{2} \right] = -0.9 \text{ dBi}
 \end{aligned}$$

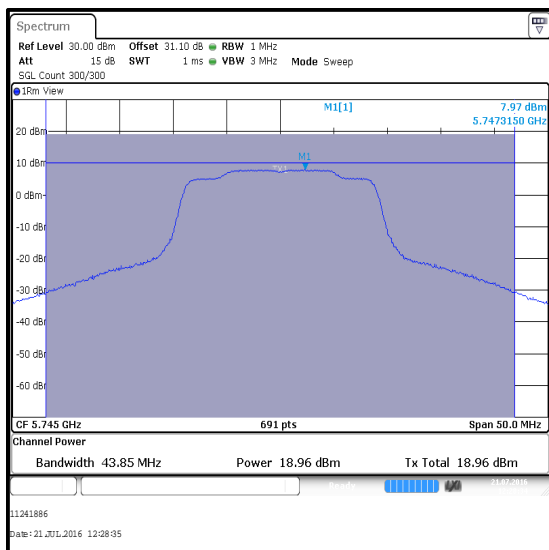
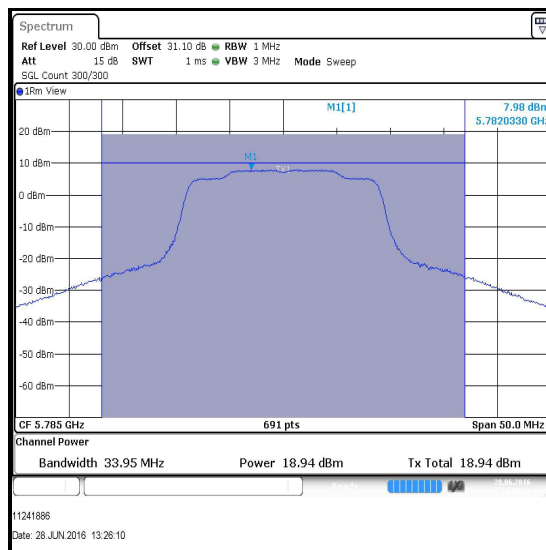
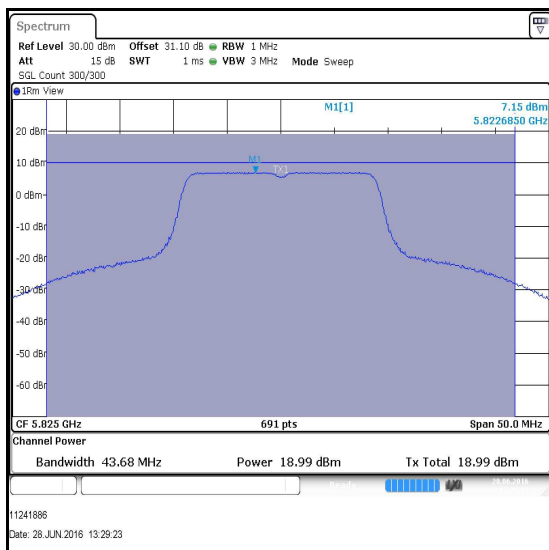
Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11a / 20 MHz / BPSK / 6 Mbps**

Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5745	19.0	30.0	11.0	Complied
Middle	5785	19.0	30.0	11.0	Complied
Top	5825	19.0	30.0	11.0	Complied

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

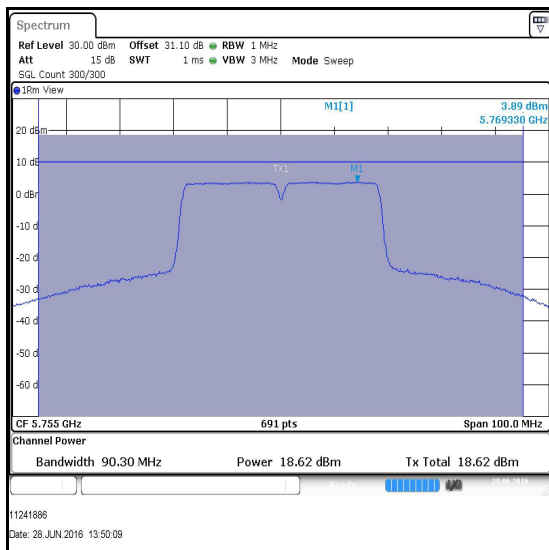
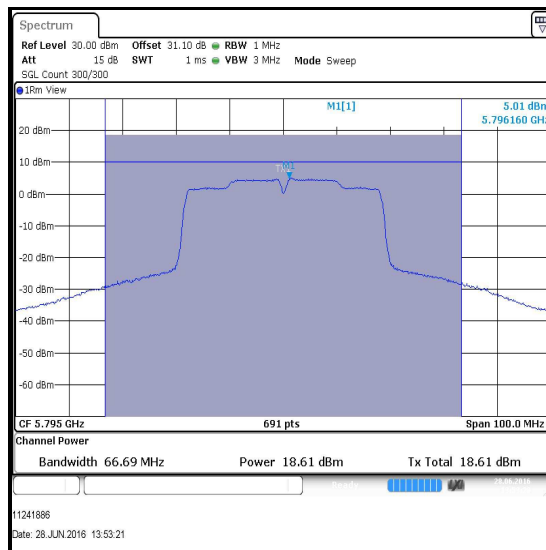
Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11n / 20 MHz / BPSK / MCS0 / SISO**

Channel	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5745	19.0	30.0	11.0	Complied
Middle	5785	18.9	30.0	11.1	Complied
Top	5825	19.0	30.0	11.0	Complied

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

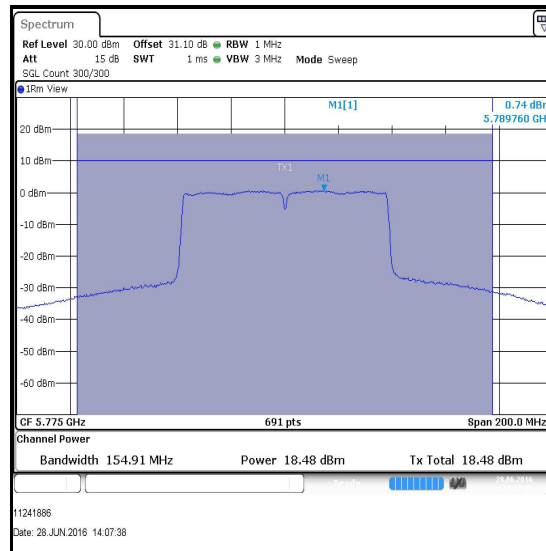
Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11n / 40 MHz / BPSK / MCS0 / SISO**

Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5755	18.6	0.1	18.7	30.0	11.3	Complied
Top	5795	18.6	0.1	18.7	30.0	11.3	Complied

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

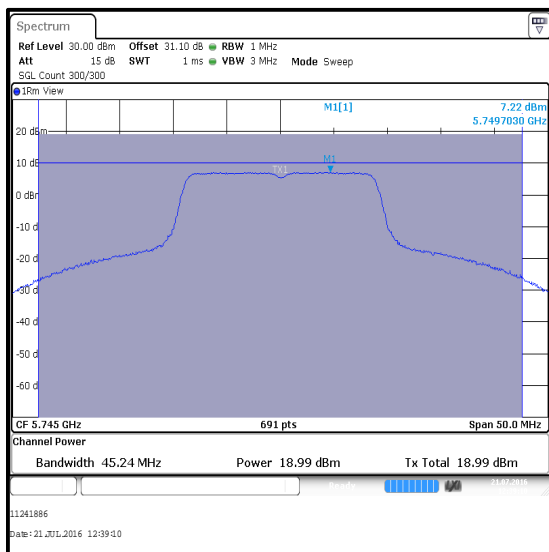
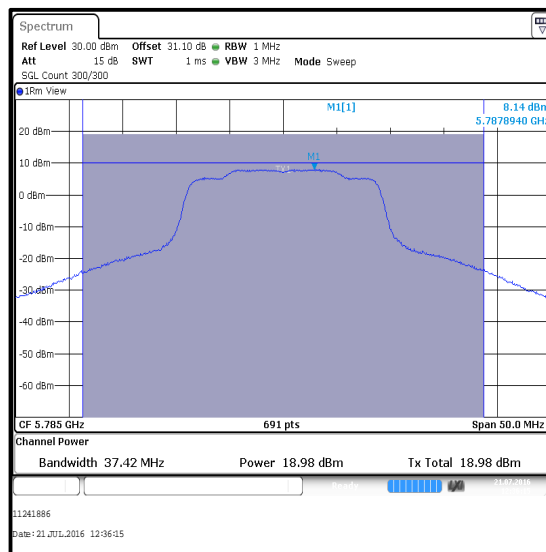
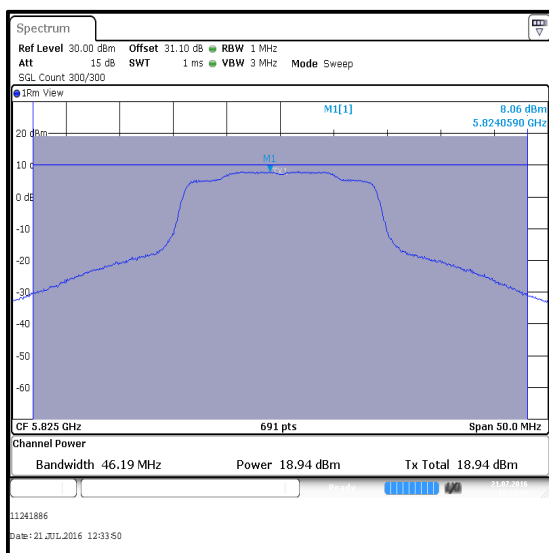
Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11ac / 80 MHz / BPSK / MCS0 / SISO**

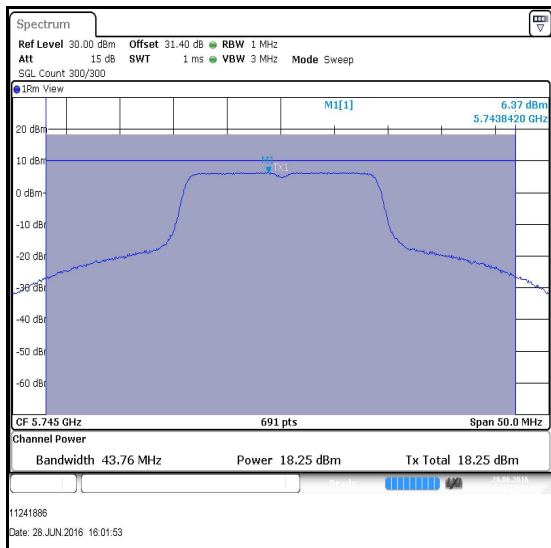
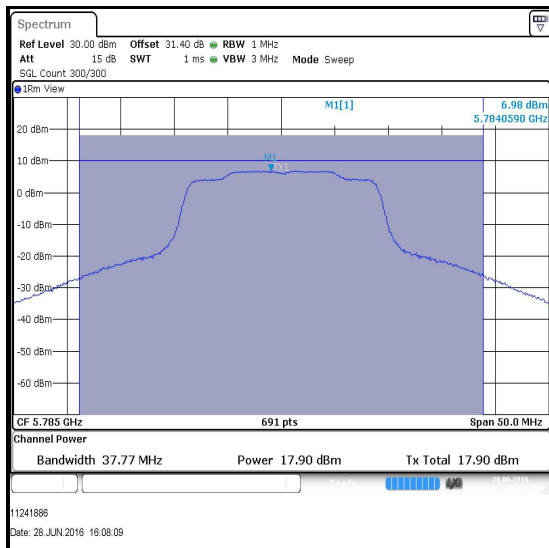
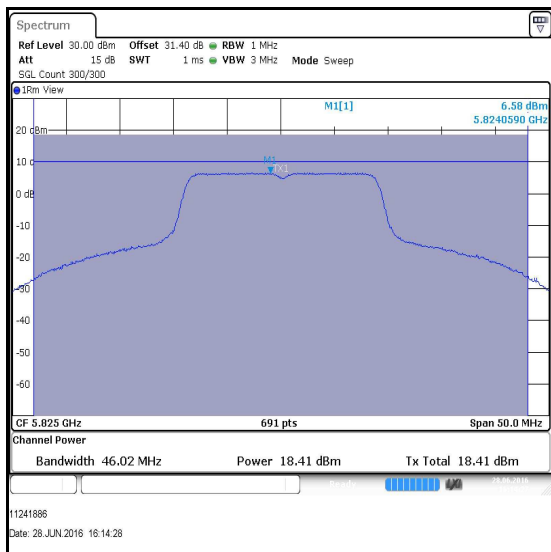
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Single	5775	18.5	0.2	18.7	30.0	11.3	Complied

**Single Channel**

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO**

Channel	Frequency (MHz)	Conducted Peak Power Port 1 (dBm)	Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5745	19.0	18.3	21.7	30.0	8.3	Complied
Middle	5785	19.0	17.9	21.5	30.0	8.5	Complied
Top	5825	18.9	18.4	21.7	30.0	8.3	Complied

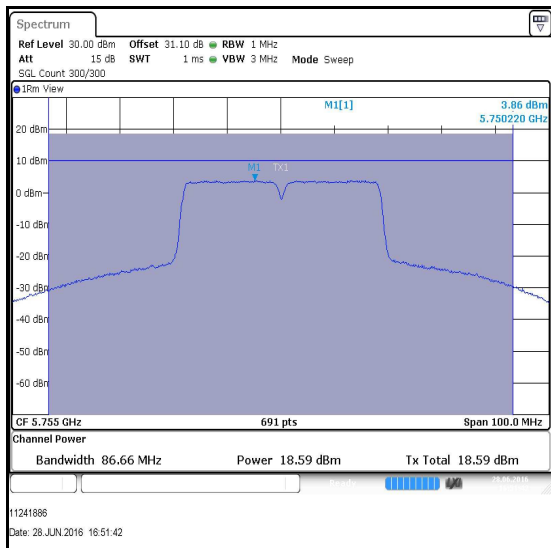
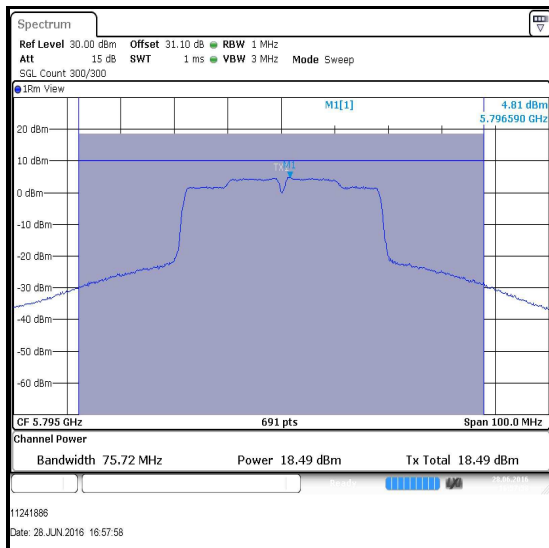
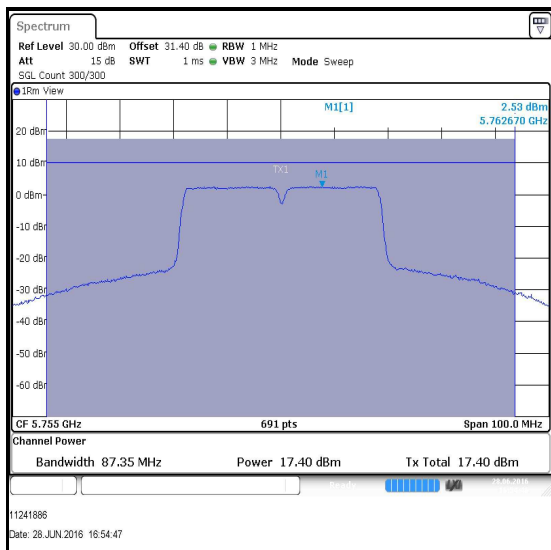
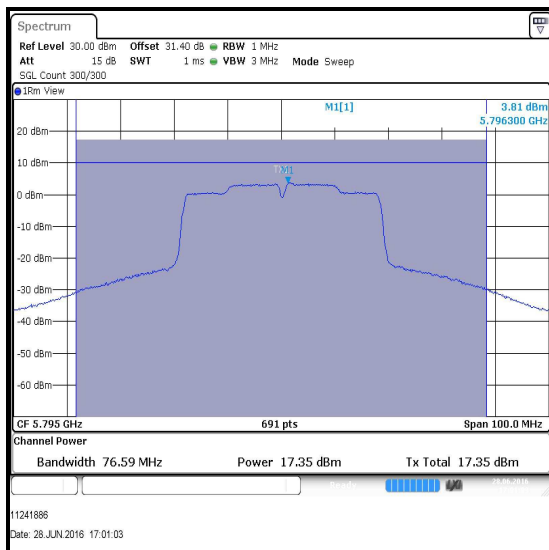
Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO / Port 1**Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11n / 20 MHz / BPSK / MCS0 / MIMO / Port 2****Bottom Channel****Middle Channel****Top Channel**

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO**

Channel	Frequency (MHz)	Port 1			Port 2		
		Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)	Conducted Peak Power (dBm)	Duty Cycle Correction (dB)	Corrected Conducted Peak Power (dBm)
Bottom	5755	18.6	0.1	18.7	17.4	0.1	17.5
Top	5795	18.5	0.1	18.6	17.4	0.1	17.5

Channel	Frequency (MHz)	Corrected Conducted Peak Power Port 1 (dBm)	Corrected Conducted Peak Power Port 2 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5755	18.7	17.5	21.2	30.0	8.8	Complied
Top	5795	18.6	17.5	21.1	30.0	8.9	Complied

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)**Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO / Port 1****Bottom Channel****Top Channel****Results: 802.11n / 40 MHz / BPSK / MCS0 / MIMO / Port 2****Bottom Channel****Top Channel**