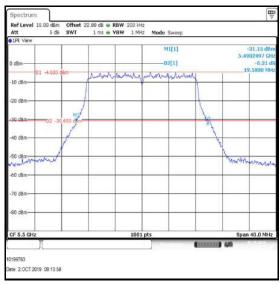
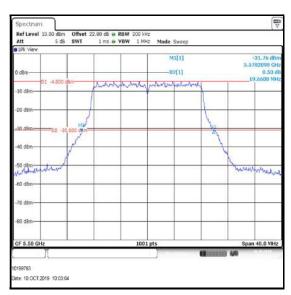
### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band)

### 4.2.2. 5.47-5.725 GHz band

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 1

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	19.580
Middle	5580	19.660
Тор	5700	19.580





### **Bottom Channel**

**Middle Channel** 



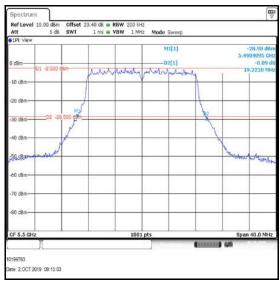
**Top Channel** 

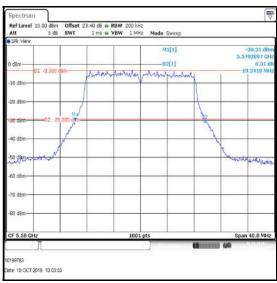
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# Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 2

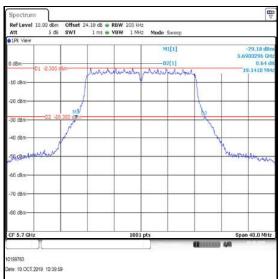
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	19.221
Middle	5580	19.341
Тор	5700	19.141





### **Bottom Channel**

**Middle Channel** 



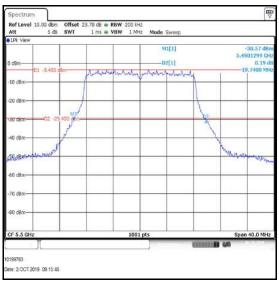
**Top Channel** 

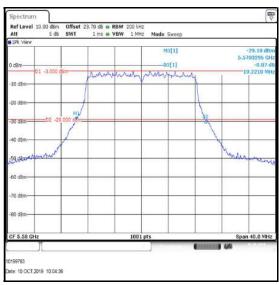
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# Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 3

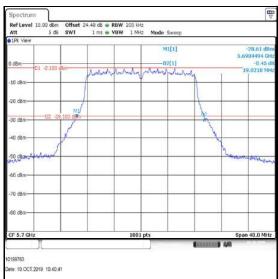
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	19.740
Middle	5580	19.221
Тор	5700	19.021





### **Bottom Channel**

Middle Channel



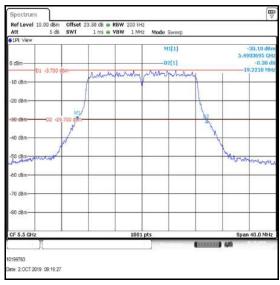
**Top Channel** 

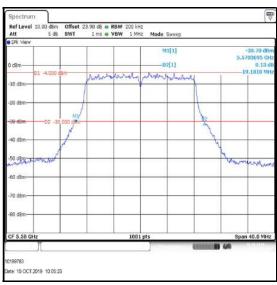
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### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 4

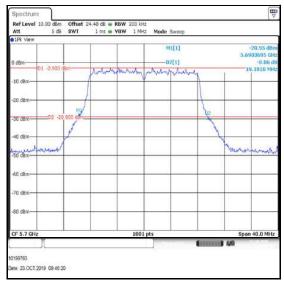
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	19.221
Middle	5580	19.181
Тор	5700	19.181





**Bottom Channel** 

Middle Channel



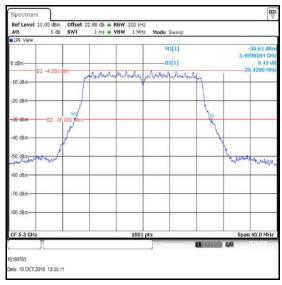
**Top Channel** 

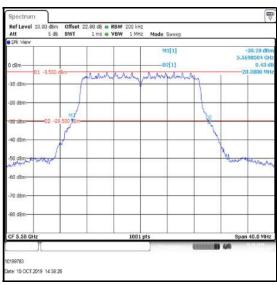
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### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 1

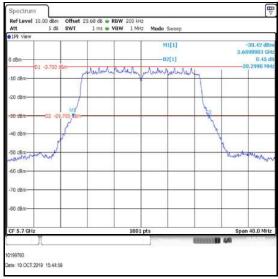
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	20.420
Middle	5580	20.380
Тор	5700	20.299





**Bottom Channel** 

Middle Channel



**Top Channel** 

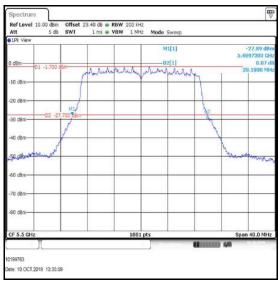
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### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 2

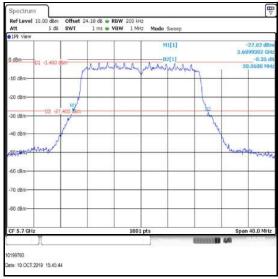
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	20.180
Middle	5580	20.300
Тор	5700	20.060





### **Bottom Channel**

**Middle Channel** 



**Top Channel** 

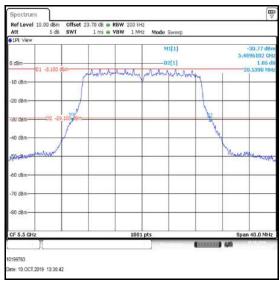
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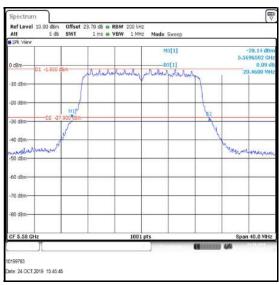
ISSUE DATE: 18 MARCH 2020

# Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 3

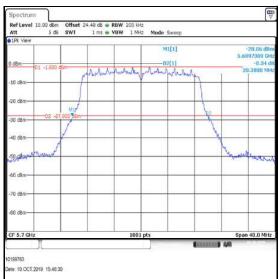
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	20.539
Middle	5580	20.460
Тор	5700	20.380





### **Bottom Channel**

Middle Channel



Top Channel

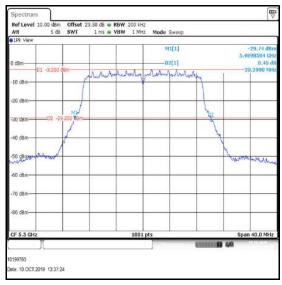
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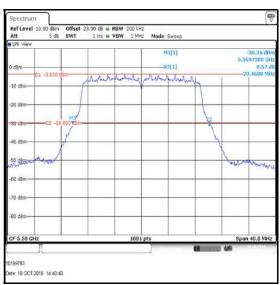
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### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 4

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5500	20.299
Middle	5580	20.460
Тор	5700	20.460





### **Bottom Channel**

Middle Channel



**Top Channel** 

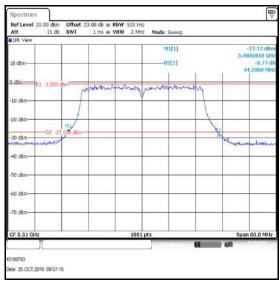
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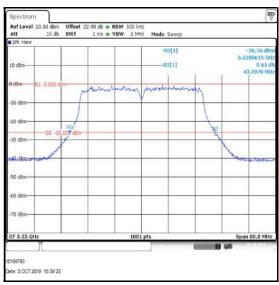
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### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3 / Port 1

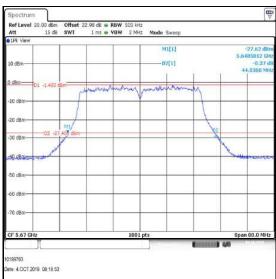
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5510	44.596
Middle	5550	43.397
Тор	5670	44.036





### **Bottom Channel**

**Middle Channel** 



**Top Channel** 

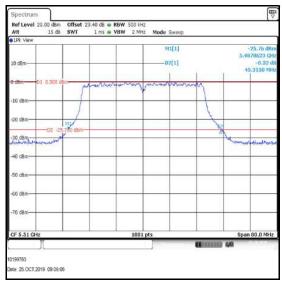
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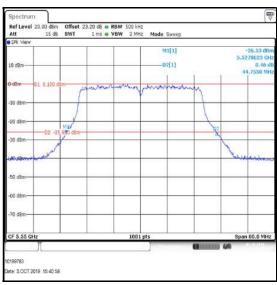
ISSUE DATE: 18 MARCH 2020

# Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3 / Port 2

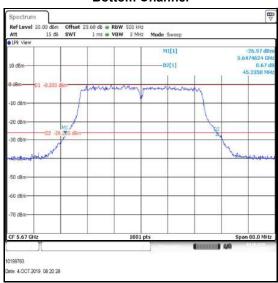
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5510	45.315
Middle	5550	44.755
Тор	5670	45.235





**Bottom Channel** 

Middle Channel



**Top Channel** 

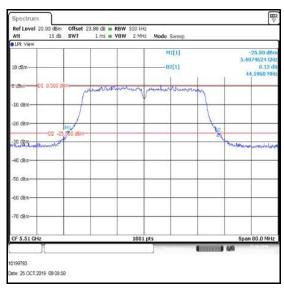
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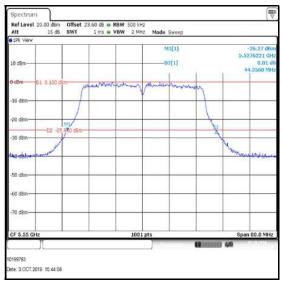
ISSUE DATE: 18 MARCH 2020

### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3 / Port 3

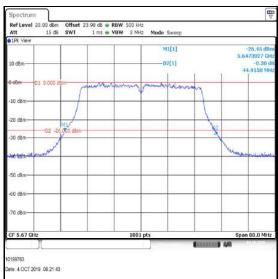
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5510	44.596
Middle	5550	44.356
Тор	5670	44.915





### **Bottom Channel**

**Middle Channel** 



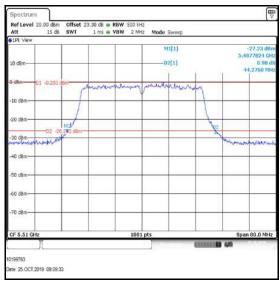
**Top Channel** 

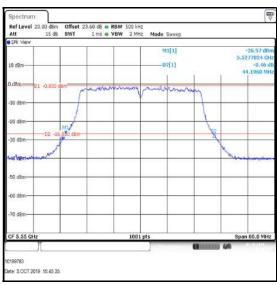
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### Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3 / Port 4

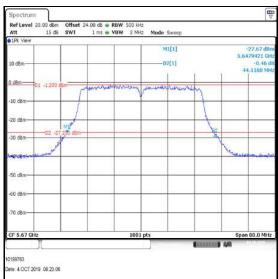
Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5510	44.276
Middle	5550	44.196
Тор	5670	44.116





**Bottom Channel** 

Middle Channel



**Top Channel** 

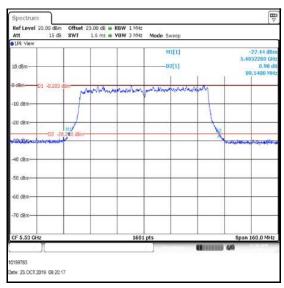
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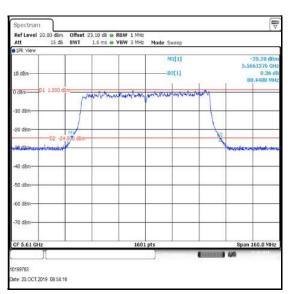
ISSUE DATE: 18 MARCH 2020

# Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11ac / 80 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3x1 / Port 1

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5530	89.540
Тор	5610	88.440



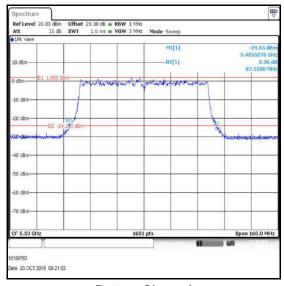


**Bottom Channel** 

**Top Channel** 

### Results: 802.11ac / 80 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3x1 / Port 2

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5530	87.550
Тор	5610	88.140



Ref Level 20.00 den Offset 23.50 d6 a RBW 1 MHz
Att 15 d8 SWT 1.6 ms a VBW 3 MHz
D1Pk View
M1[1] -24.42 den
9.5657277 GHz
0.29 d8
88.1440 MHz
-20 d8m
-02 24.0% d8m
-40 d8m
-40 d8m
-70 d8m

**Bottom Channel** 

**Top Channel** 

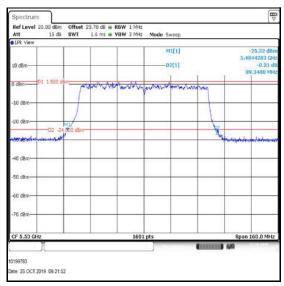
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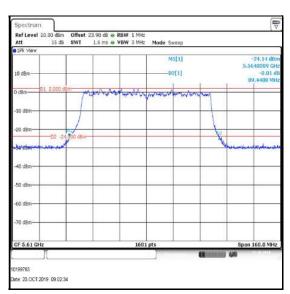
ISSUE DATE: 18 MARCH 2020

# Transmitter 26 dB Emission Bandwidth (5.47-5.725 GHz band) (continued)

### Results: 802.11ac / 80 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3x1 / Port 3

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5530	89.340
Тор	5610	89.440



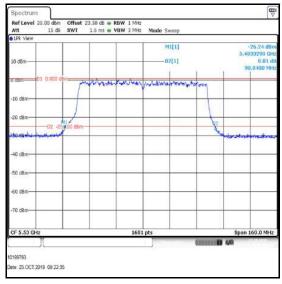


**Bottom Channel** 

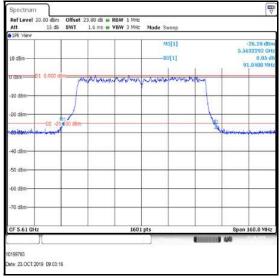
**Top Channel** 

### Results: 802.11ac / 80 MHz / MIMO / 4Tx CDD / 16-QAM / MCS3x1 / Port 4

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)
Bottom	5530	90.040
Тор	5610	91.040



**Bottom Channel** 



**Top Channel** 

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# 4.3. Transmitter Maximum Conducted Output Power

# 4.3.1. 5.25-5.35 GHz band

# **Test Summary:**

Test Engineer:	Max Passell	Test Dates:	01 October 2019 to 22 October 2019
Test Sample Serial Number:	2405067		

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

# **Environmental Conditions:**

Temperatures (°C):	21 to 24
Relative Humidity (%):	35 to 44

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

- 1. This section contains results for 4Tx modes only.
- 2. All configurations supported by the EUT were investigated on one channel. The data rates that produced the highest output power and therefore deemed worst case were:
  - 802.11a MIMO QPSK / 12 Mbps / 4Tx CDD / Ports 1, 2, 3 & 4
  - 802.11n HT20 MIMO QPSK / MCS1 / 4Tx CDD / Ports 1, 2, 3 & 4
  - 802.11n HT40 MIMO 16-QAM / MCS3 / 4Tx CDD / Ports 1, 2, 3 & 4
  - 802.11ac VHT80 MIMO 16-QAM / MCS3x1 / 4Tx CDD / Ports 1, 2, 3 & 4
- 3. 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.
- 4. 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.
- 5. 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).
- 6. 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.
- 7. For details on antenna gains refer to Section 3.4 of this test report.
- In accordance with FCC KDB 662911 F)2)f)(i), the array gain for 802.11 devices with  $N_{ANT} \le 4$  is 0 dB. No array gain has been to the measurements in this section.
- 9. The FCC Part 15.407(a)(2) limit is the lesser of 250 mW (24.0 dBm) or 11 dBm + 10 log<sub>10</sub> B, where B is the previously measured 26 dB emission bandwidth in MHz. The limit for each channel was calculated as below:

802.11a / 20 MHz / MIMO / 4Tx CDD / 12 Mbps Bottom channel = 11 dBm + 10 log<sub>10</sub> 19.181 = 23.8 dBm 802.11a / 20 MHz / MIMO / 4Tx CDD / 12 Mbps Middle channel = 11 dBm + 10 log<sub>10</sub> 19.021 = 23.8 dBm 802.11a / 20 MHz / MIMO / 4Tx CDD / 12 Mbps Top channel = 11 dBm + 10 log<sub>10</sub> 19.061 = 23.8 dBm

For all other modes, the lesser of the two limits is the fixed limit of 250 mW (24.0 dBm).

10. The EUT has an antenna gain of 9.0 dBi. In accordance with Part 15.407(a)(2), the limit shall be reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the calculated limits have been reduced by 3.0 dB.

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

Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps

			Port 1			Port 2	
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)
Bottom	5260	4.3	0.4	4.7	5.8	0.4	6.2
Middle	5280	5.0	0.4	5.4	6.4	0.4	6.8
Тор	5320	3.9	0.8	4.7	6.2	0.8	7.0

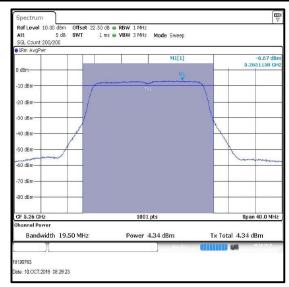
		Port 3			Port 4			
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	
Bottom	5260	5.2	0.4	5.6	4.8	0.4	5.2	
Middle	5280	5.8	0.4	6.2	5.4	0.4	5.8	
Тор	5320	5.3	0.8	6.1	5.8	0.8	6.6	

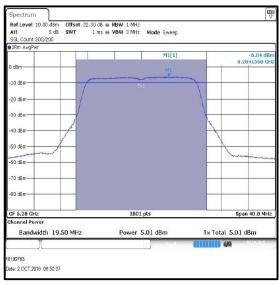
Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	11.5	20.8	9.3	Complied
Middle	5280	12.1	20.8	8.7	Complied
Тор	5320	12.2	20.8	8.6	Complied

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

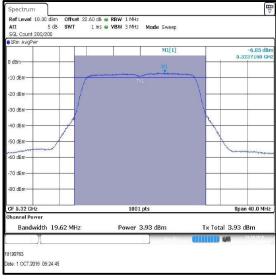
### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 1





#### **Bottom Channel**





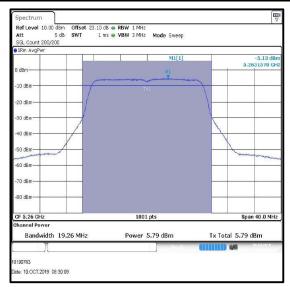
**Top Channel** 

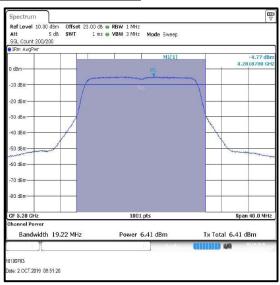
**Middle Channel** 

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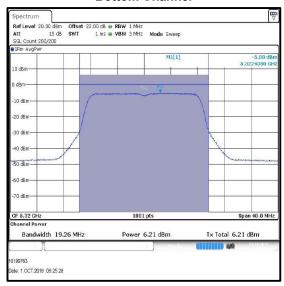
# <u>Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)</u>

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 2





#### **Bottom Channel**



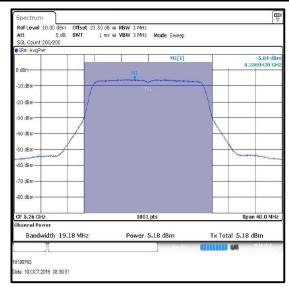
**Top Channel** 

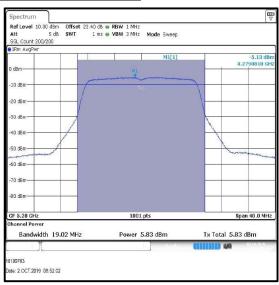
Middle Channel

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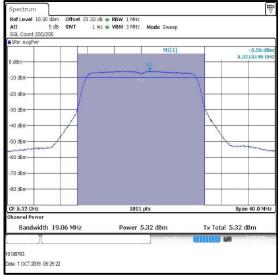
# Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 3





#### **Bottom Channel**



**Top Channel** 

**Middle Channel** 

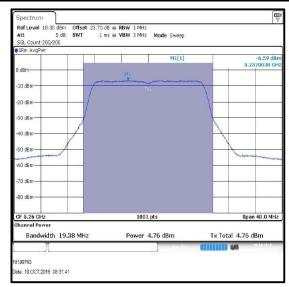
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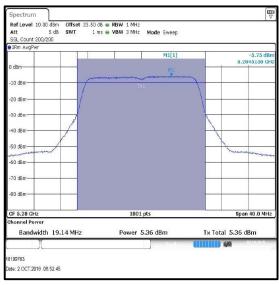
ate: 1 OCT.2019 09:27:09

ISSUE DATE: 18 MARCH 2020

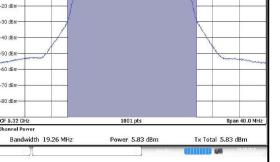
# Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)

### Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps / Port 4





#### **Bottom Channel**



**Top Channel** 

**Middle Channel** 

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# <u>Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)</u>

Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1

			Port 1	Port 2				
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	
Bottom	5260	4.4	0.6	5.0	6.3	0.6	6.9	
Middle	5280	5.2	0.5	5.7	7.1	0.5	7.6	
Тор	5320	4.7	0.6	5.3	6.9	0.6	7.5	

			Port 3			Port 4	
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)
Bottom	5260	6.0	0.6	6.6	5.5	0.6	6.1
Middle	5280	6.2	0.5	6.7	5.8	0.5	6.3
Тор	5320	5.7	0.6	6.3	6.3	0.6	6.9

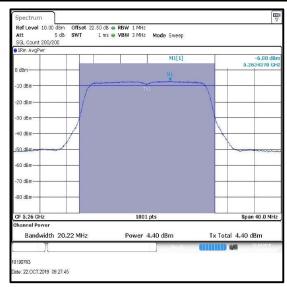
Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5260	12.2	21.0	8.8	Complied
Middle	5280	12.7	21.0	8.3	Complied
Тор	5320	12.6	21.0	8.4	Complied

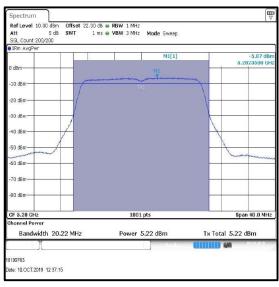
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# Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 1





#### **Bottom Channel**

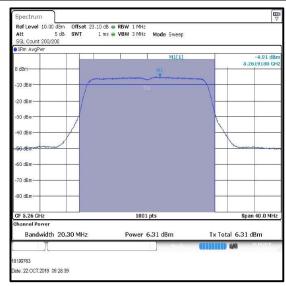
**Top Channel** 

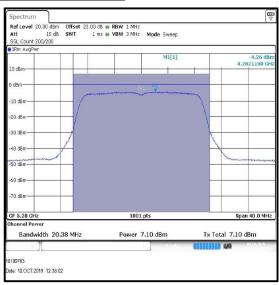
Middle Channel

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# <u>Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)</u>

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 2





#### **Bottom Channel**

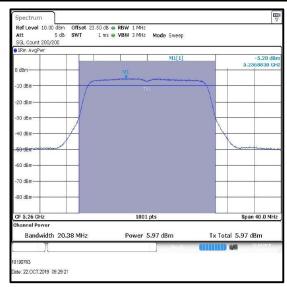
**Top Channel** 

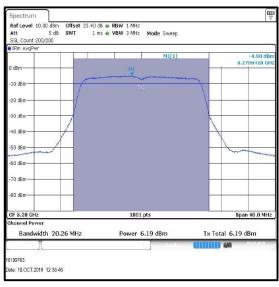
Middle Channel

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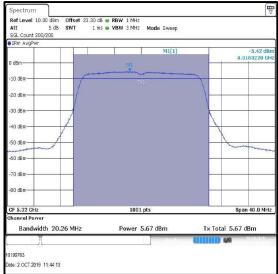
# Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 3





#### **Bottom Channel**



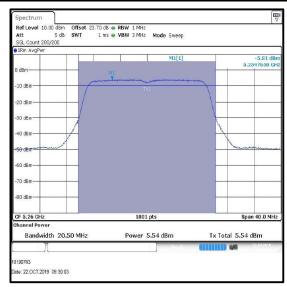
**Top Channel** 

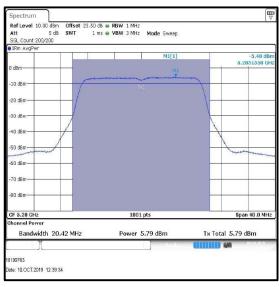
**Middle Channel** 

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

### Results: 802.11n / 20 MHz / MIMO / 4Tx CDD / QPSK / MCS1 / Port 4





#### **Bottom Channel**

**Top Channel** 

Middle Channel

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

Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16QAM / MCS3

			Port 1			Port 2	
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)
Bottom	5270	4.2	1.4	5.6	5.7	1.4	7.1
Тор	5310	3.7	1.4	5.1	5.5	1.4	6.9

			Port 3			Port 4			
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)		
Bottom	5270	5.4	1.4	6.8	4.8	1.4	6.2		
Тор	5310	5.0	1.4	6.4	4.2	1.4	5.6		

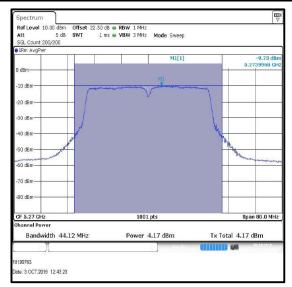
Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5270	12.5	21.0	8.5	Complied
Тор	5310	12.1	21.0	8.9	Complied

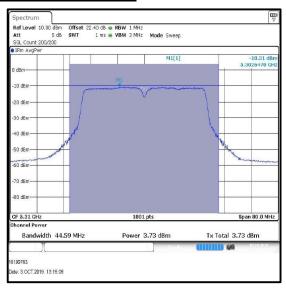
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# Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16QAM / MCS3 / Port 1

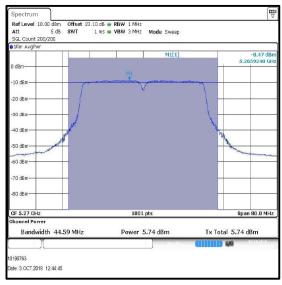


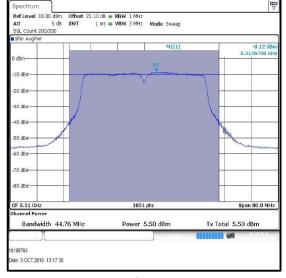


**Bottom Channel** 

**Top Channel** 

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16QAM / MCS3 / Port 2





**Bottom Channel** 

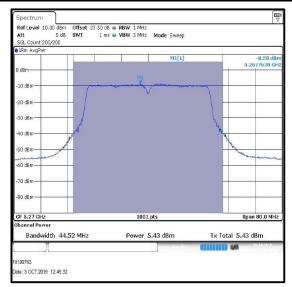
**Top Channel** 

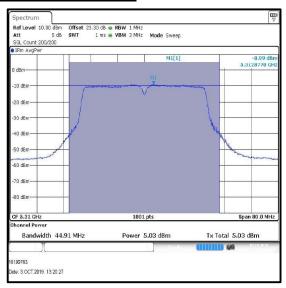
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### <u>Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)</u>

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16QAM / MCS3 / Port 3

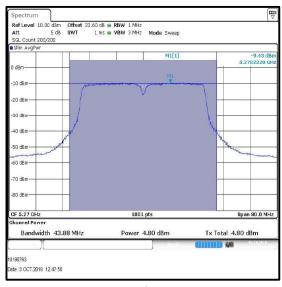


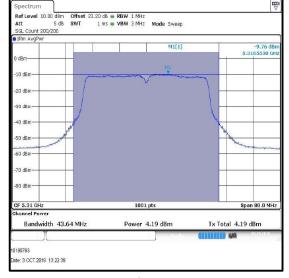


**Bottom Channel** 

**Top Channel** 

### Results: 802.11n / 40 MHz / MIMO / 4Tx CDD / 16QAM / MCS3 / Port 4





**Bottom Channel** 

**Top Channel** 

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

# Results: 802.11ac / 80 MHz / MIMO / 4Tx CDD / 16QAM / MCS3x1

			Port 1		Port 2			
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	
Single	5290	1.7	3.0	4.7	3.3	3.0	6.3	

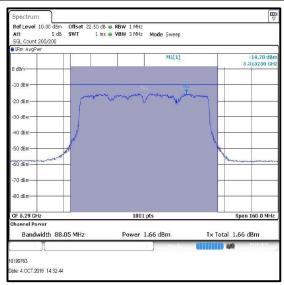
			Port 3			Port 4	
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)
Single	5290	2.8	3.0	5.8	2.0	3.0	5.0

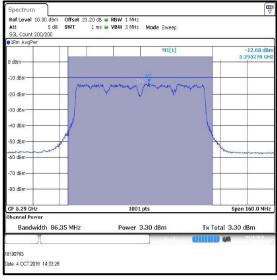
Channel	Frequency (MHz)	' '   Conducted		Margin (dB)	Result
Single	5290	11.5	21.0	9.5	Complied

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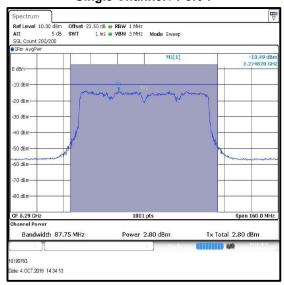
# <u>Transmitter Maximum Conducted Output Power (5.25-5.35 GHz band) (continued)</u>

### Results: 802.11ac / 80 MHz / MIMO / 4Tx CDD / 16QAM / MCS3x1

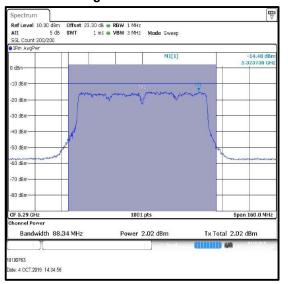




### Single Channel / Port 1



Single Channel / Port 2



Single Channel / Port 3

Single Channel / Port 4

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# **Transmitter Maximum Conducted Output Power (5.47-5.725 GHz band)**

# 4.3.2. 5.47-5.725 GHz band

# **Test Summary:**

Test Engineer:	Max Passell	Test Dates:	02 October 2019 25 October 2019
Test Sample Serial Number:	2405067		

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

# **Environmental Conditions:**

Temperatures (°C):	21 to 24
Relative Humidity (%):	35 to 44

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# <u>Transmitter Maximum Conducted Output Power (5.47-5.725 GHz band) (continued)</u> Note(s):

- 1. This section contains results for 4Tx modes only.
- 2. All configurations supported by the EUT were investigated on one channel. The data rates that produced the highest output power and therefore deemed worst case were:
  - o 802.11a MIMO QPSK / 12 Mbps / 4Tx CDD / Ports 1, 2, 3 & 4
  - o 802.11n HT20 MIMO QPSK / MCS1 / 4Tx CDD / Ports 1, 2, 3 & 4
  - 802.11n HT40 MIMO 16-QAM / MCS3 / 4Tx CDD / Ports 1, 2, 3 & 4
  - o 802.11ac VHT80 MIMO 16-QAM / MCS3x1 / 4Tx CDD / Ports 1, 2, 3 & 4
- 3. 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.
- 4. 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.
- 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).
- 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.
- 7. For details on antenna gains refer to Section 3.4 of this test report.
- 8. In accordance with FCC KDB 662911 F)2)f)(i), the array gain for 802.11 devices with  $N_{ANT} \le 4$  is 0 dB. No array gain has been to the measurements in this section.
- 9. The FCC Part 15.407(a)(2) limit is the lesser of 250 mW (24.0 dBm) or 11 dBm + 10 log<sub>10</sub> B, where B is the previously measured 26 dB emission bandwidth in MHz. The limit for each channel was calculated as below:

802.11a / 20 MHz / MIMO / 4Tx CDD / 12 Mbps Bottom channel = 11 dBm + 10 log<sub>10</sub> 19.221 = 23.8 dBm 802.11a / 20 MHz / MIMO / 4Tx CDD / 12 Mbps Middle channel = 11 dBm + 10 log<sub>10</sub> 19.181 = 23.8 dBm 802.11a / 20 MHz / MIMO / 4Tx CDD / 12 Mbps Top channel = 11 dBm + 10 log<sub>10</sub> 19.021 = 23.8 dBm

For all other modes, the lesser of the two limits is the fixed limit of 250 mW (24.0 dBm).

10. The EUT has an antenna gain of 9.0 dBi. In accordance with Part 15.407(a)(2), the limit shall be reduced by the amount in dB the antenna gain exceeds 6 dBi. Therefore the calculated limits have been reduced by 3.0 dB.

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# <u>Transmitter Maximum Conducted Output Power (5.47-5.725 GHz band) (continued)</u>

Results: 802.11a / 20 MHz / MIMO / 4Tx CDD / QPSK / 12 Mbps

		Port 1			Port 2			
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	
Bottom	5500	4.4	0.6	5.0	6.2	0.6	6.8	
Middle	5580	4.5	0.5	5.0	5.6	0.5	6.1	
Тор	5700	4.6	0.6	5.2	6.0	0.6	6.6	

			Port 3			Port 4			
Channel	Frequency (MHz)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)	Conducted Power (dBm)	Duty Cycle correction factor (dB)	Corrected Conducted Power (dBm)		
Bottom	5500	5.7	0.6	6.3	5.1	0.6	5.7		
Middle	5580	6.0	0.5	6.5	4.8	0.5	5.3		
Тор	5700	6.0	0.6	6.6	5.7	0.6	6.3		

Channel	Frequency (MHz)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5500	12.0	20.8	8.8	Complied
Middle	5580	11.8	20.8	9.0	Complied
Тор	5700	12.2	20.8	8.6	Complied

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