

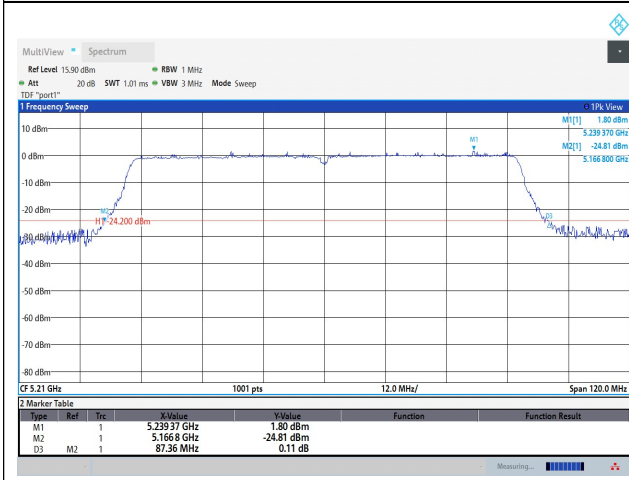
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TEL: 82-31-285-0894 FAX: 82-505-299-8311  
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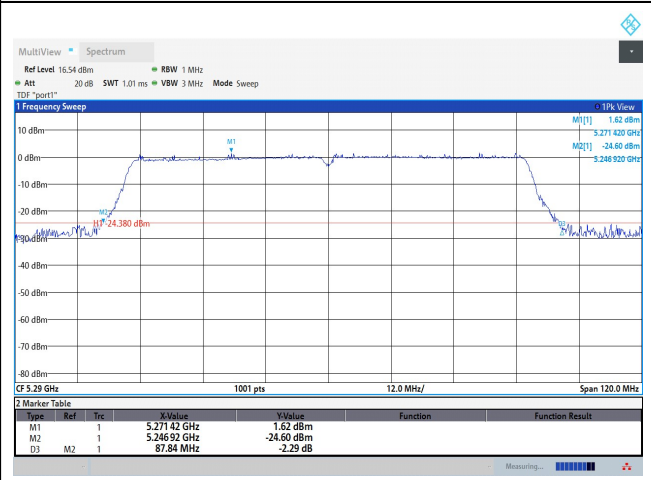
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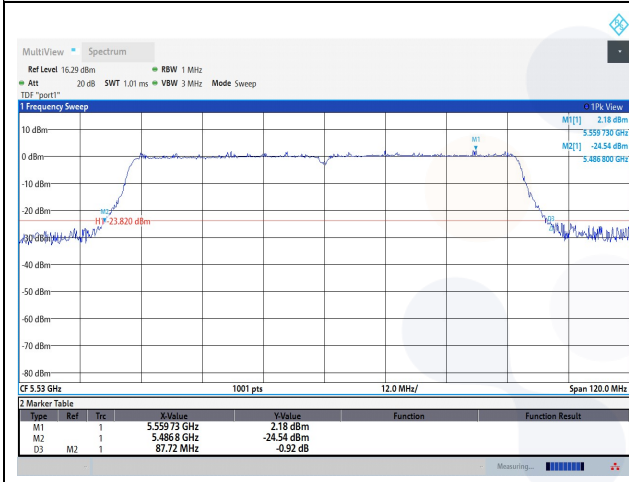
## UNII-1 / 802.11ac VHT80 / Low ch.



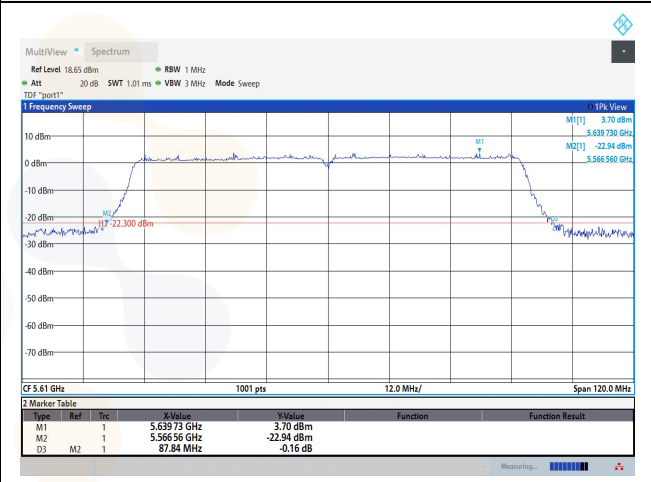
## UNII-2A / 802.11ac VHT80 / Low ch.



## UNII-2C / 802.11ac VHT80 / Low ch.



## UNII-2C / 802.11ac VHT80 / High ch.



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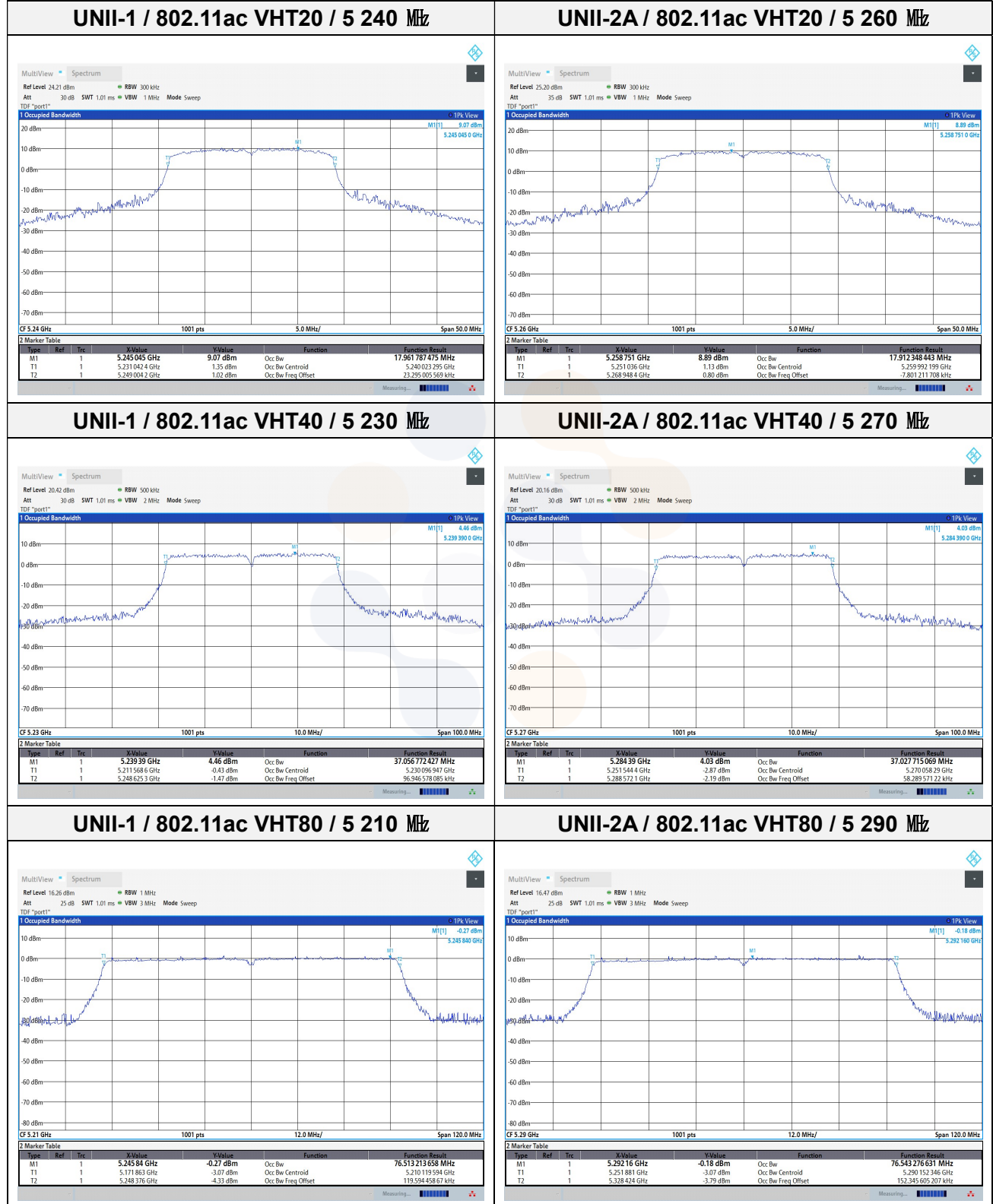
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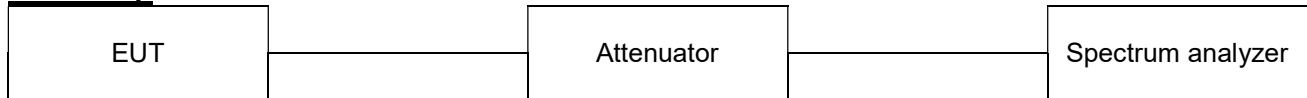
## 99% bandwidth

In order to simplify the report, only ac mode test plots are attached.



## 7.4. 6 dB Bandwidth

### Test setup



### Limit

According to §15.407(e)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500kHz

### Test procedure

ANSI C63.10-2013 Section 6.9.2

KDB 789033 D02 v02r01 - Section C.2

### Test settings

Minimum Emission Bandwidth for the band 5.725–5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725–5.85 GHz. The following procedure shall be used for measuring this bandwidth:

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW)  $\geq 3$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

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**Test results**

Test mode	Band	Frequency (MHz)	Measured Bandwidth (MHz)	Limit (MHz)
802.11a	UNII-3	5 745	16.40	0.50
		5 785	16.40	0.50
		5 825	16.40	0.50
802.11n HT20	UNII-3	5 745	17.15	0.50
		5 785	16.75	0.50
		5 825	16.80	0.50
802.11n HT40	UNII-3	5 755	36.60	0.50
		5 795	36.60	0.50
802.11ac VHT20	UNII-3	5 745	17.15	0.50
		5 785	17.15	0.50
		5 825	17.05	0.50
802.11ac VHT40	UNII-3	5 755	36.60	0.50
		5 795	36.60	0.50
802.11ac VHT80	UNII-3	5 775	76.32	0.50

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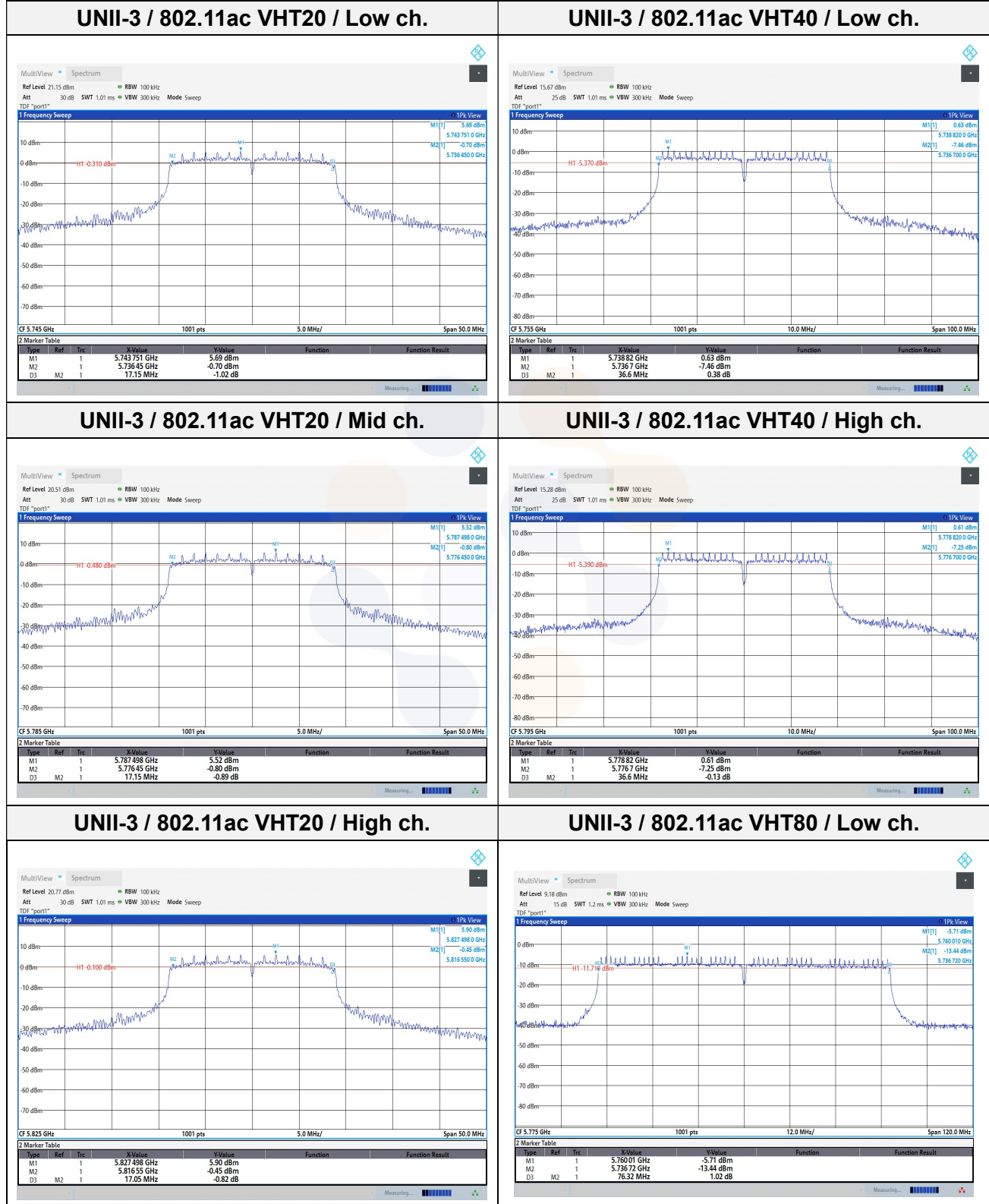
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## 6 dB bandwidth

In order to simplify the report, only ac mode test plots are attached.



## 7.5. Straddle channel

### 26dB bandwidth

Test mode	Band	Frequency (MHz)	26dB Bandwidth (MHz)
802.11a	UNII-2C	5 720	15.45
802.11n HT20			17.65
802.11ac VHT20			19.80
802.11a	UNII-3	5 720	6.25
802.11n HT20			8.20
802.11ac VHT20			8.55
802.11n HT40	UNII-2C	5 710	38.70
802.11ac VHT40			38.60
802.11n HT40	UNII-3	5 710	14.30
802.11ac VHT40			8.20
802.11ac VHT80	UNII-2C	5 690	78.56
	UNII-3	5 690	8.92

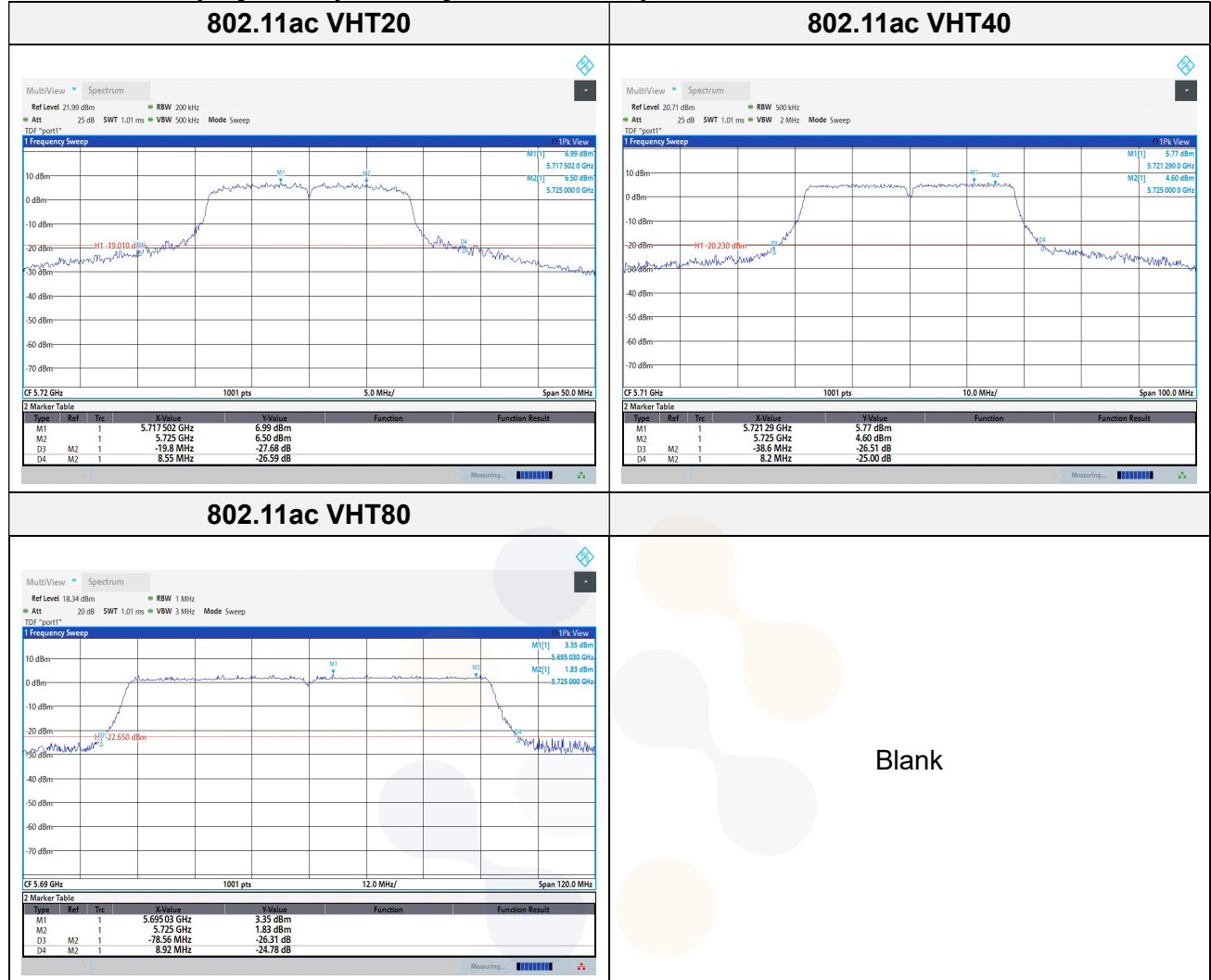
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In order to simplify the report, only ac mode test plots are attached.



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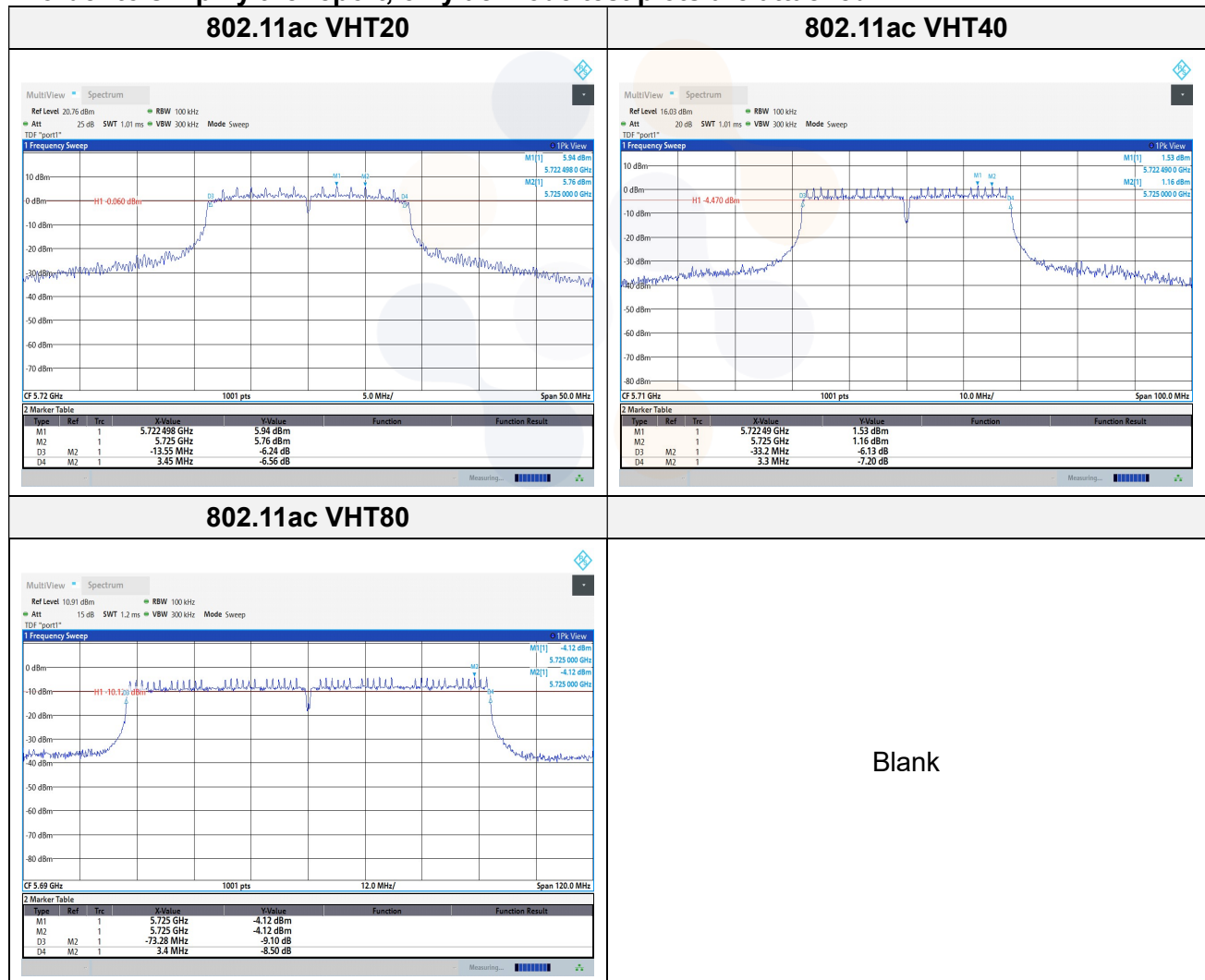
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## 6dB bandwidth

Test mode	Band	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
802.11a	UNII-3	5 720	3.20	0.50
802.11n HT20			3.20	0.50
802.11ac VHT20			3.45	0.50
802.11n HT40	UNII-3	5 710	3.30	0.50
802.11ac VHT40			3.30	0.50
802.11ac VHT80	UNII-3	5 690	3.40	0.50

In order to simplify the report, only ac mode test plots are attached.





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**Output Power**

Test mode	Band	Frequency (MHz)	Measured output power			Limit (dBm)
			Reading (dBm)	DCF (dB)	Result (dBm)	
802.11a	UNII-2C	5 720	15.89	0.27	16.16	22.89
802.11n HT20			16.04	0.37	16.41	23.47
802.11ac VHT20			16.12	0.39	16.51	23.97
802.11a	UNII-3	5 720	8.99	0.27	9.26	30.00
802.11n HT20			9.73	0.37	10.10	
802.11ac VHT20			9.68	0.39	10.07	
802.11n HT40	UNII-2C	5 710	14.30	0.65	14.95	23.98
802.11ac VHT40			14.26	0.65	14.91	
802.11n HT40	UNII-3	5 710	4.81	0.65	5.46	30.00
802.11ac VHT40			4.79	0.65	5.44	
802.11ac VHT80	UNII-2C	5 690	10.27	1.22	11.49	23.98
	UNII-3	5 690	-3.48	1.22	-2.26	30.00

**Note.**

1. Result(dB m) = Reading Power + D.C.F

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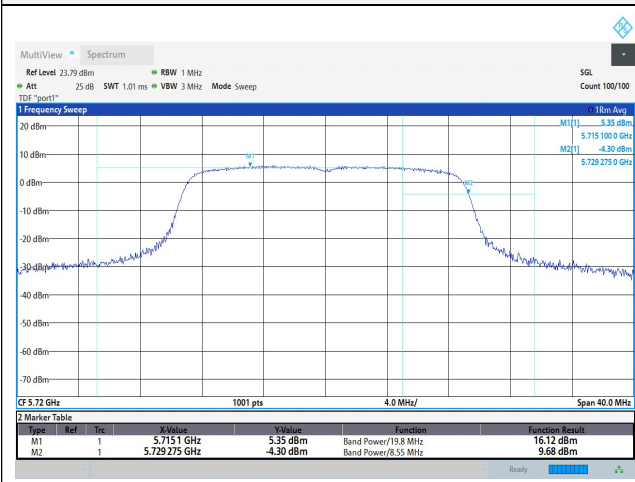
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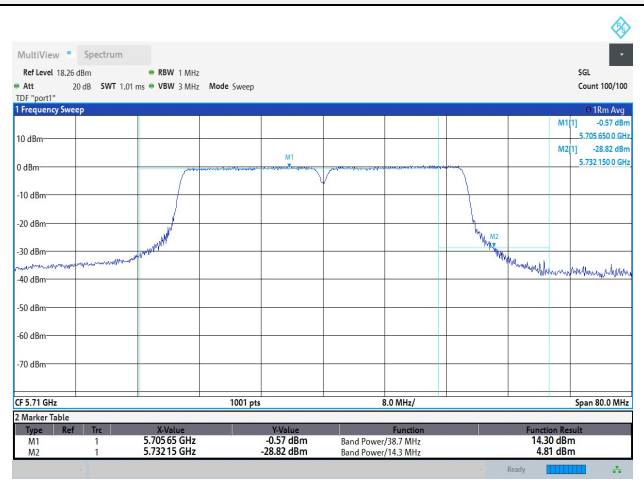


In order to simplify the report, attached plots were only the Worst Case per bandwidth.

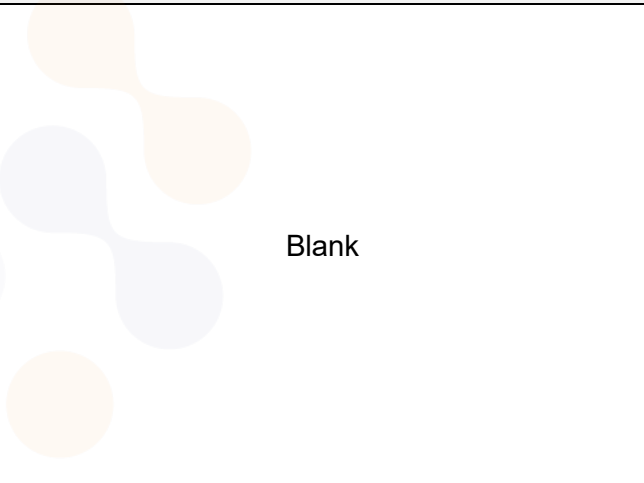
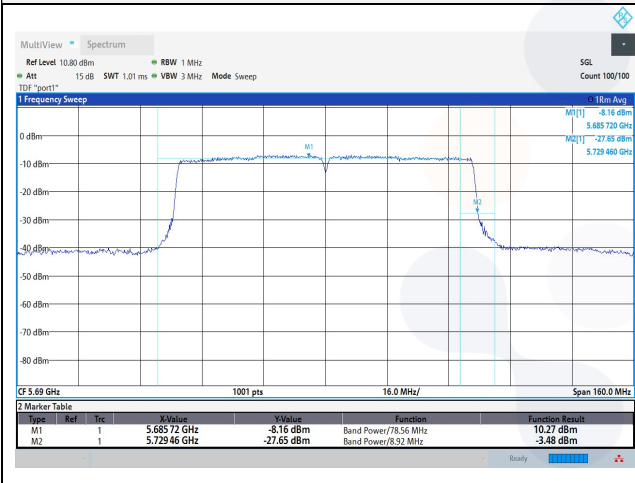
## 802.11ac VHT20



## 802.11n HT40



## 802.11ac VHT80



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**Power Spectral Density**

Test mode	Band	Frequency (MHz)	Measured PSD (dBm/MHz)	DCF (dB)	Maximum PSD (dB m/MHz)	Limit (dBm/MHz)
802.11a	UNII-2C	5 720	6.00	0.27	6.27	11.00
802.11n HT20			6.06	0.37	6.43	
802.11ac VHT20			5.98	0.39	6.37	
802.11n HT40		5 710	0.33	0.65	0.98	
802.11ac VHT40			0.56	0.65	1.21	
802.11ac VHT80			5 690	-5.22	1.22	

Test mode	Band	Frequency (MHz)	Measured PSD (dBm/ 500 kHz)	DCF (dB)	Maximum PSD (dBm/ 500 kHz)	Limit (dBm /500 kHz)
802.11a	UNII-3	5 720	2.34	0.27	2.61	30.00
802.11n HT20			2.56	0.37	2.93	
802.11ac VHT20			2.57	0.39	2.96	
802.11n HT40		5 710	-2.33	0.65	-1.68	
802.11ac VHT40			-2.29	0.65	-1.64	
802.11ac VHT80			5 690	-8.15	1.22	

**Notes:**

- Maximum PSD calculation  
- Maximum PSD = Measured PSD + D.C.F