

## For Antenna 2:

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Port 1	Port 2	Total		
20M	5260 MHz	5.53	4.29	7.96	7.98	Complies
	5300 MHz	5.52	4.26	7.95	7.97	Complies
	5320 MHz	3.19	0.87	5.19	7.98	Complies
	5500 MHz	3.58	3.16	6.39	7.98	Complies
	5580 MHz	5.37	4.23	7.85	7.98	Complies
	5650 MHz	-3.12	-2.39	0.27	7.98	Complies
80M	5290 MHz	5.58	4.17	7.94	7.98	Complies
	5300 MHz	5.61	4.18	7.96	7.98	Complies
	5510 MHz	4.43	3.53	7.01	7.98	Complies
	5610 MHz	5.29	4.47	7.91	7.98	Complies
	5650 MHz	-2.06	-1.51	1.23	7.98	Complies

### Straddle Channel

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Port 1	Port 2	Total		
20M	5250 MHz (UNII 1)	2.39	1.38	4.92	14.00	Complies
	5250 MHz (UNII 2A)	2.47	0.63	4.66	5.33	Complies
	5720 MHz (UNII 2C)	3.51	3.64	6.59	6.86	Complies
	5720 MHz (UNII 3)	-2.62	-2.65	0.38	14.00	Complies
80M	5250 MHz (UNII 1)	2.76	3.09	5.94	14.00	Complies
	5250 MHz (UNII 2A)	3.21	-0.42	4.77	7.98	Complies
	5720 MHz (UNII 2C)	-4.27	-3.48	-0.85	7.98	Complies
	5720 MHz (UNII 3)	-5.22	-5.87	-2.52	14.00	Complies

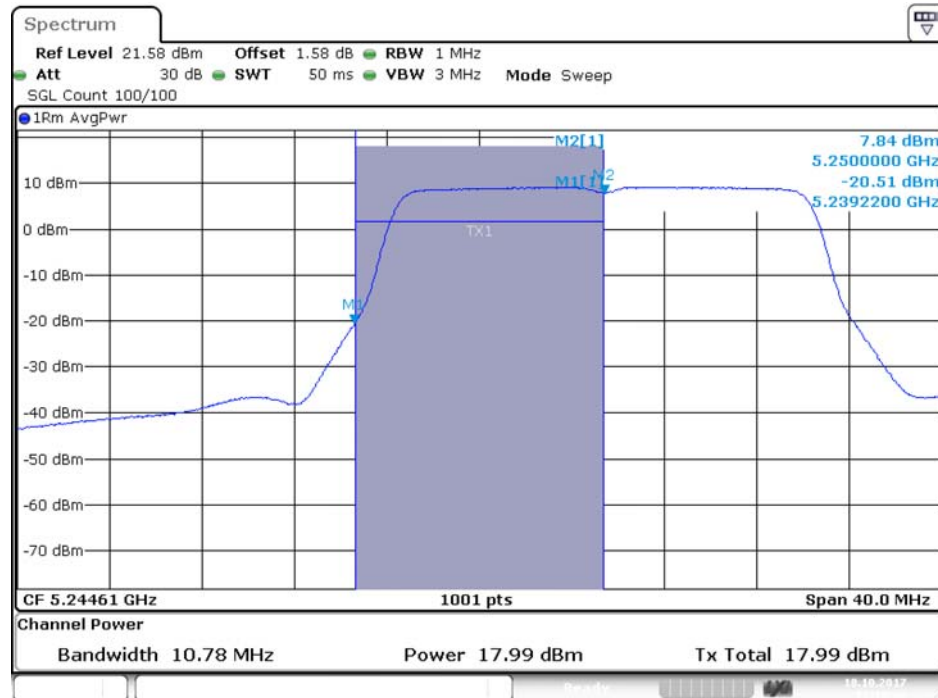
Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

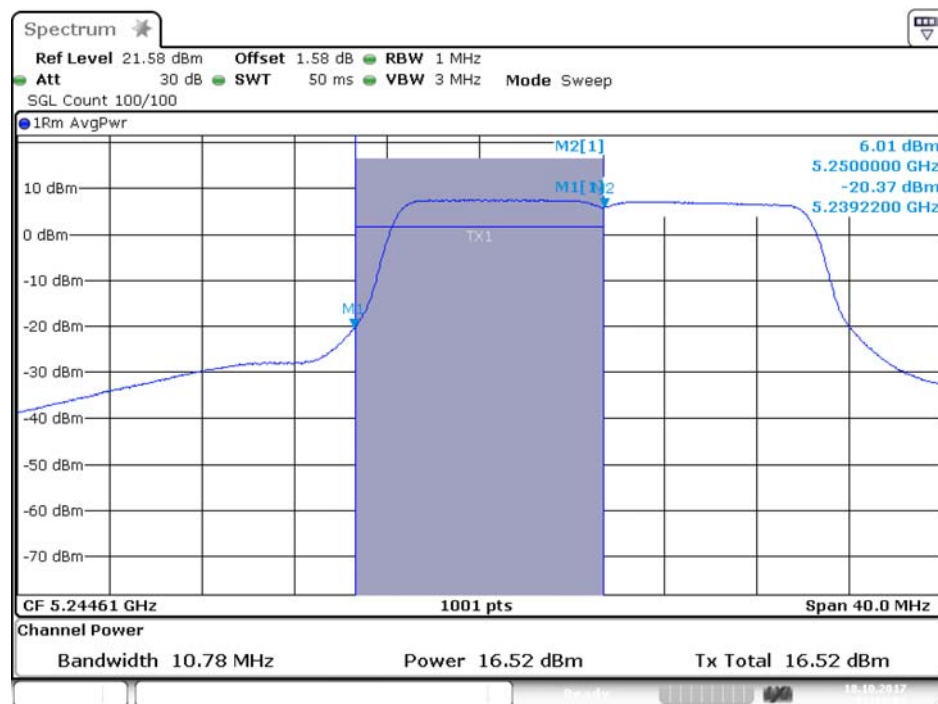
For Antenna 1:

Straddle Channel

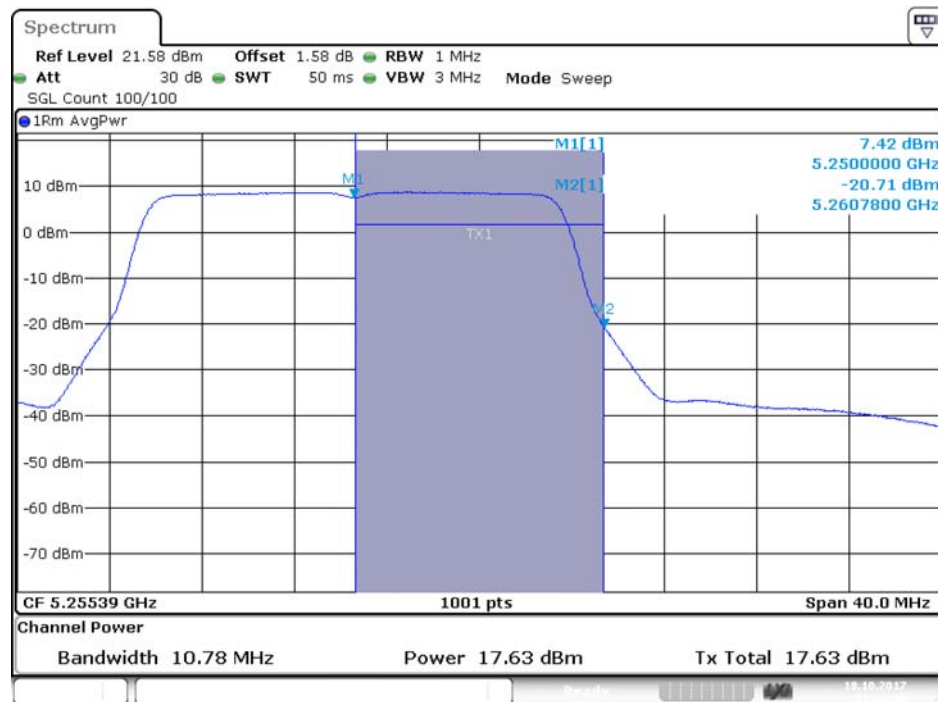
Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5250 MHz (UNII 1)



Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5250 MHz (UNII 1)

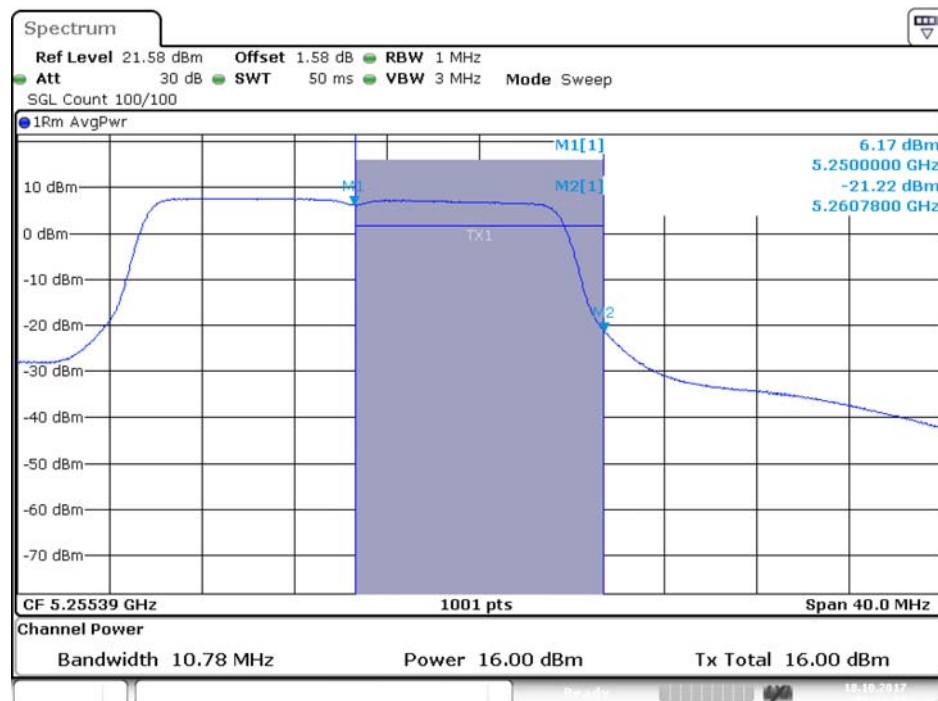


### Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5250 MHz (UNII 2A)



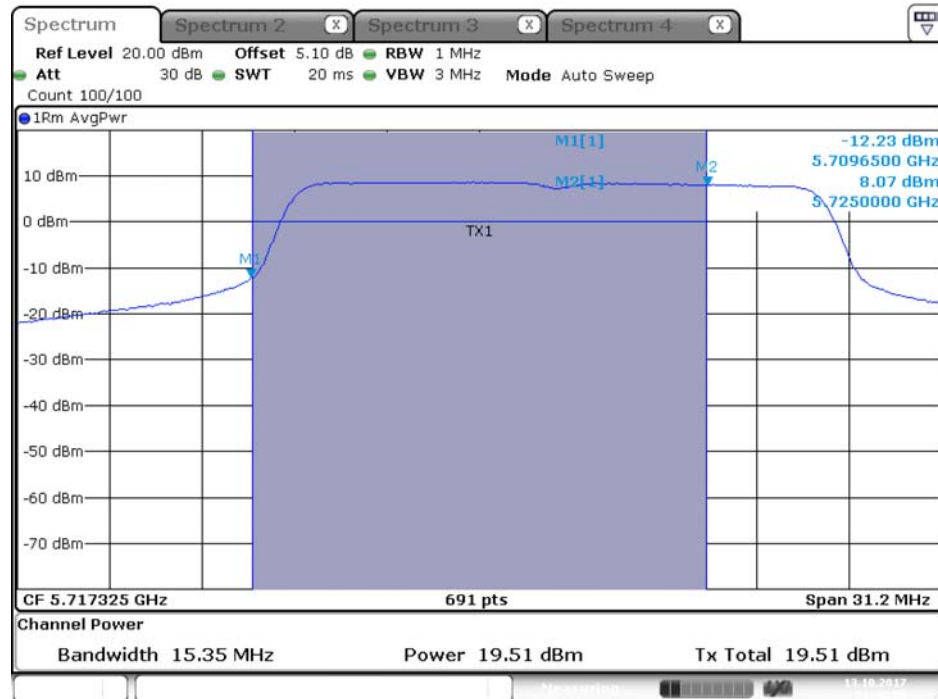
Date: 18.OCT.2017 11:43:40

### Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5250 MHz (UNII 2A)



Date: 18.OCT.2017 11:44:33

### Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5720 MHz (UNII 2C)



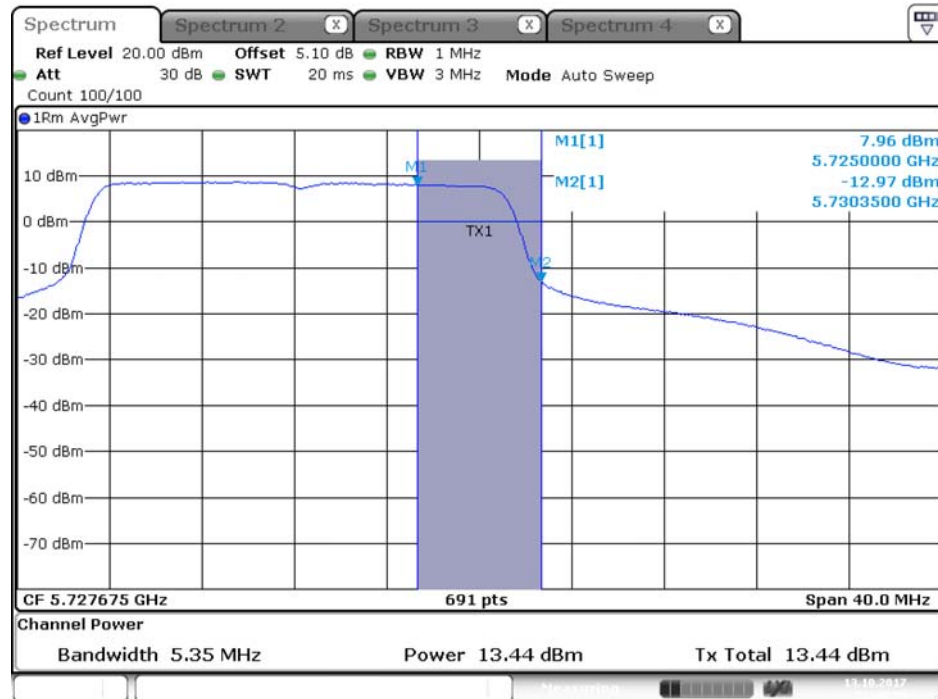
Date: 13.OCT.2017 22:45:49

### Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5720 MHz (UNII 2C)

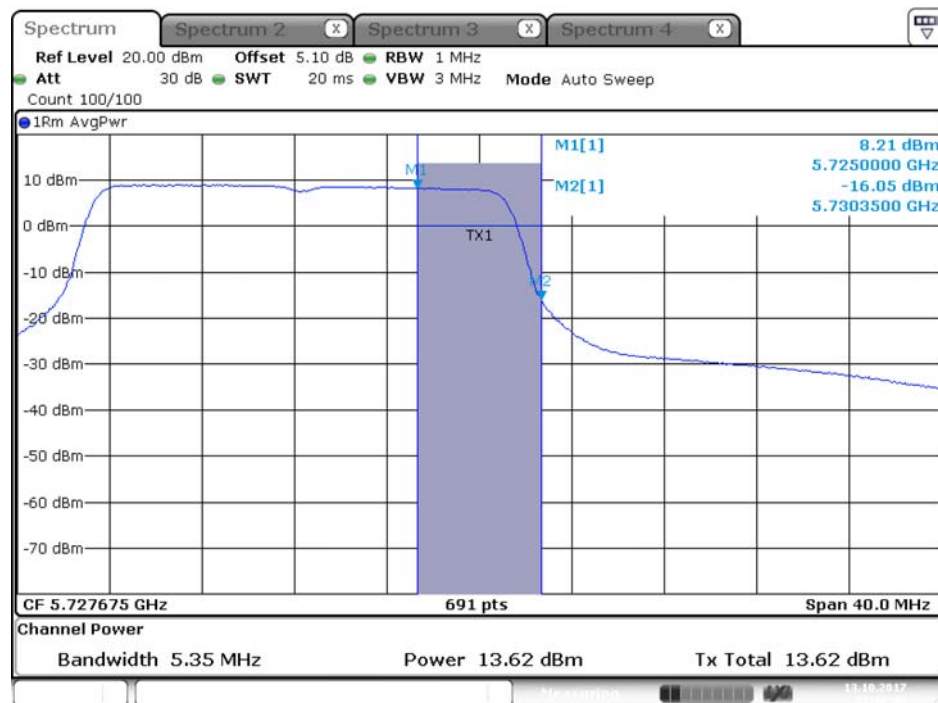


Date: 13.OCT.2017 22:47:46

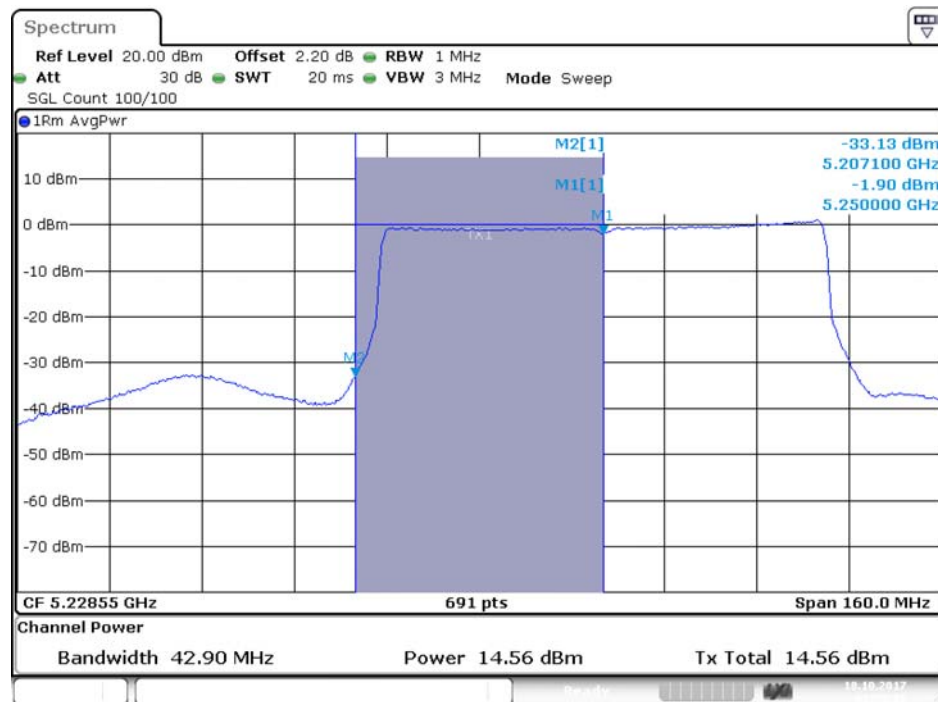
### Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5720 MHz (UNII 3)



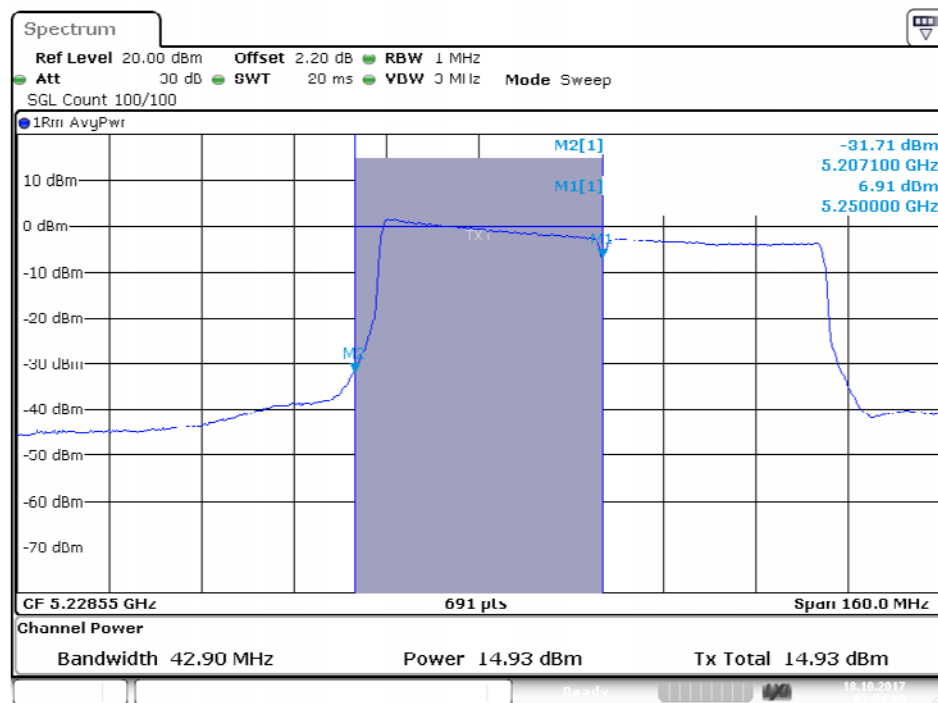
### Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5720 MHz (UNII 3)



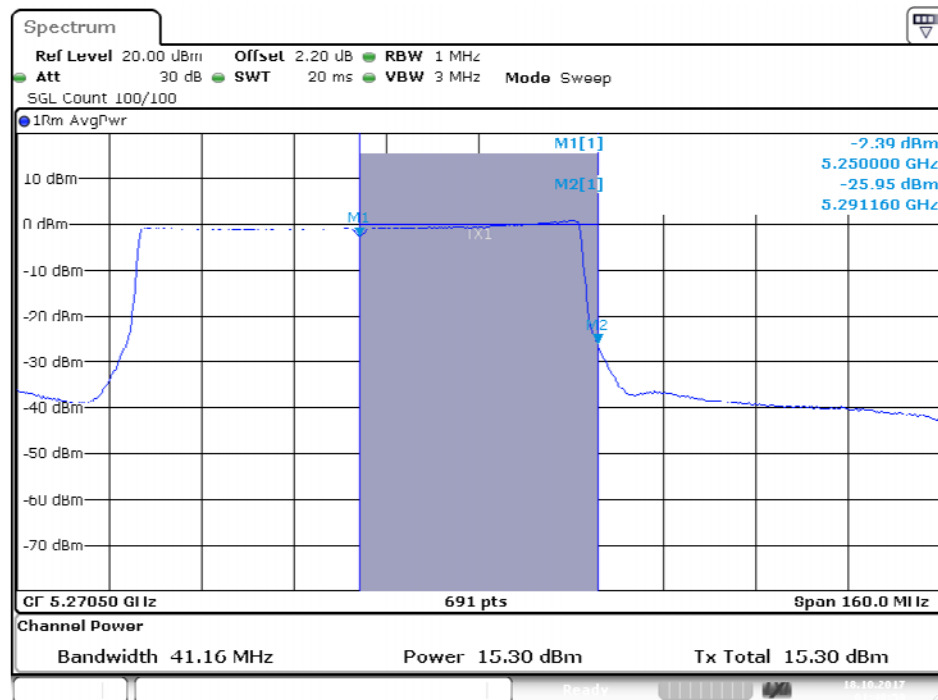
### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5250 MHz (UNII 1)



### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5250 MHz (UNII 1)

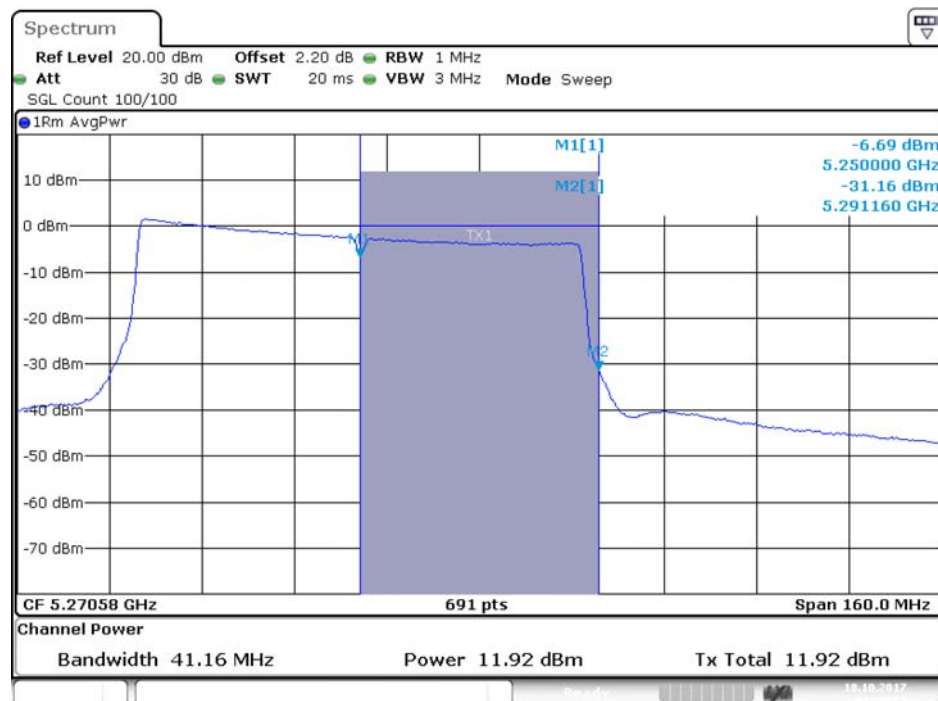


### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5250 MHz (UNII 2A)



Date: 18.OCT.2017 01:48:58

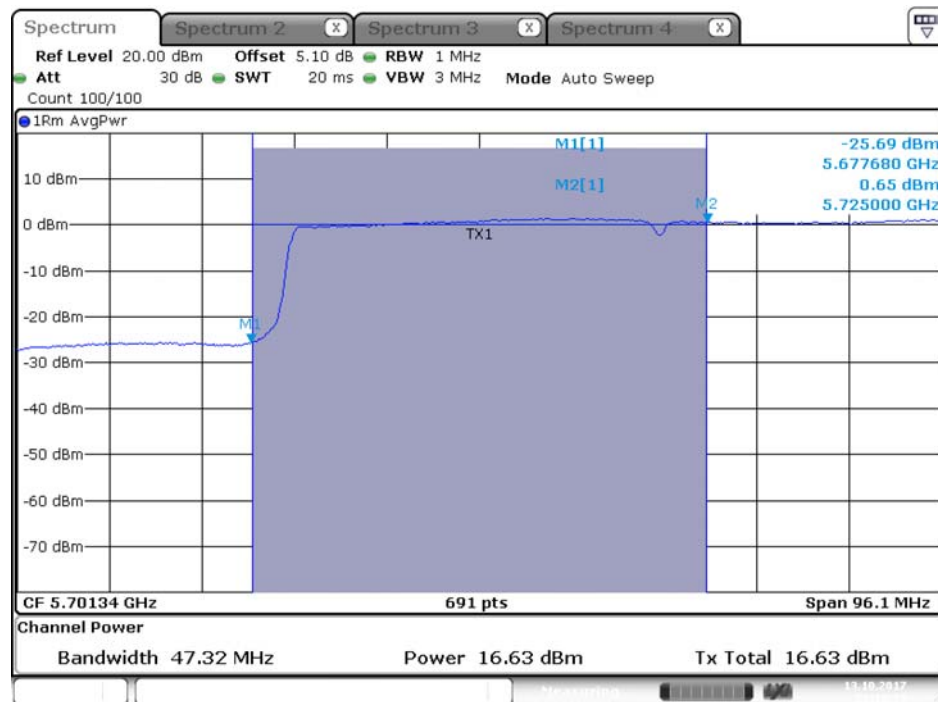
### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5250 MHz (UNII 2A)



Date: 18.OCT.2017 01:50:34

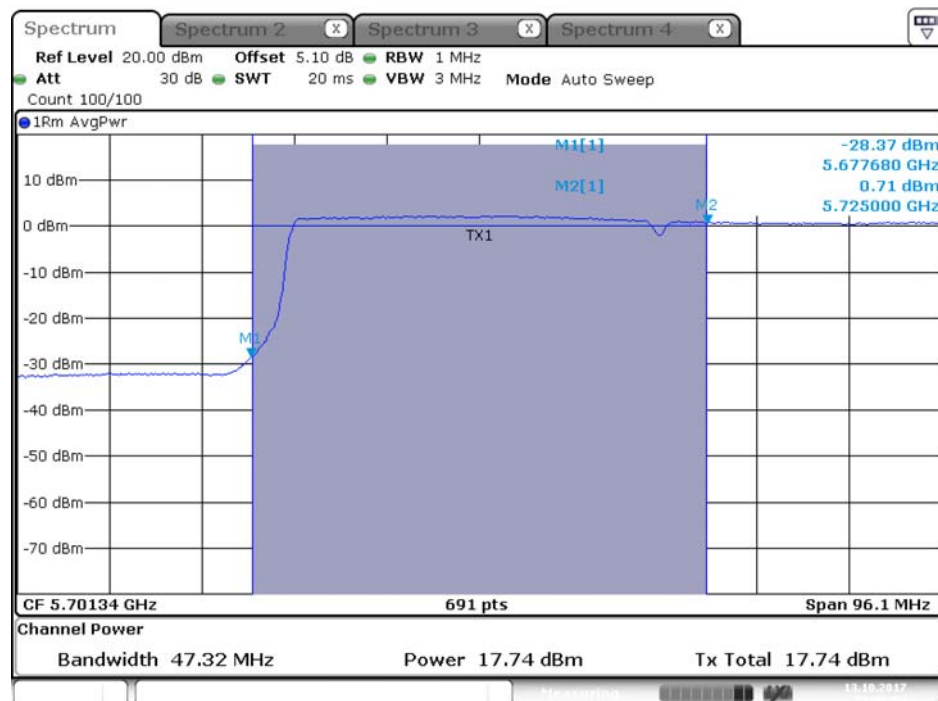


### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5720 MHz (UNII 2C)



Date: 13.OCT.2017 23:10:33

### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5720 MHz (UNII 2C)

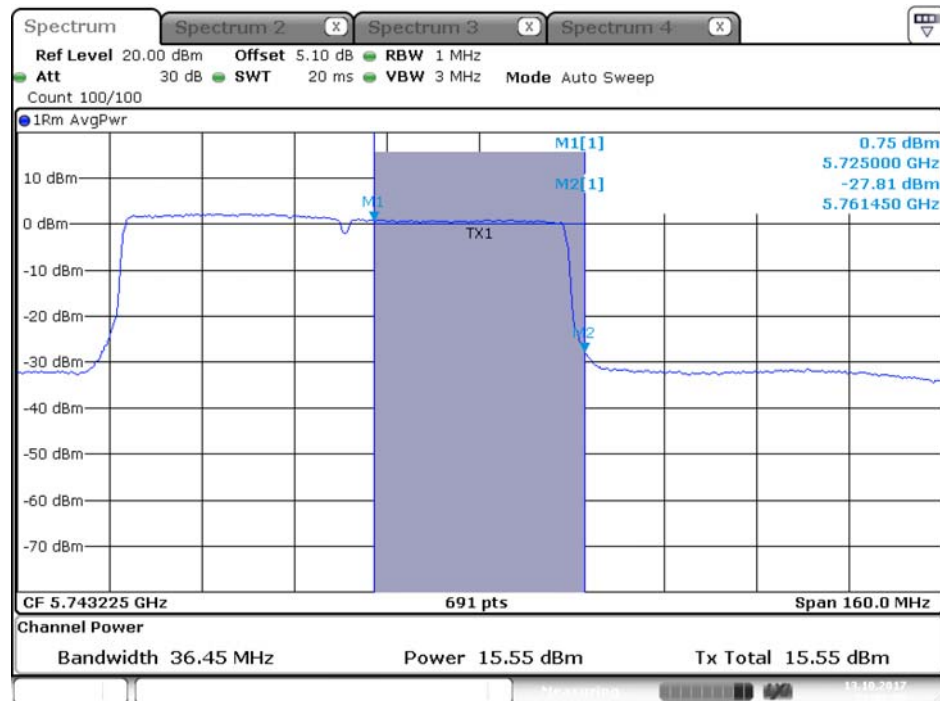


Date: 13.OCT.2017 23:08:54

### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5720 MHz (UNII 3)



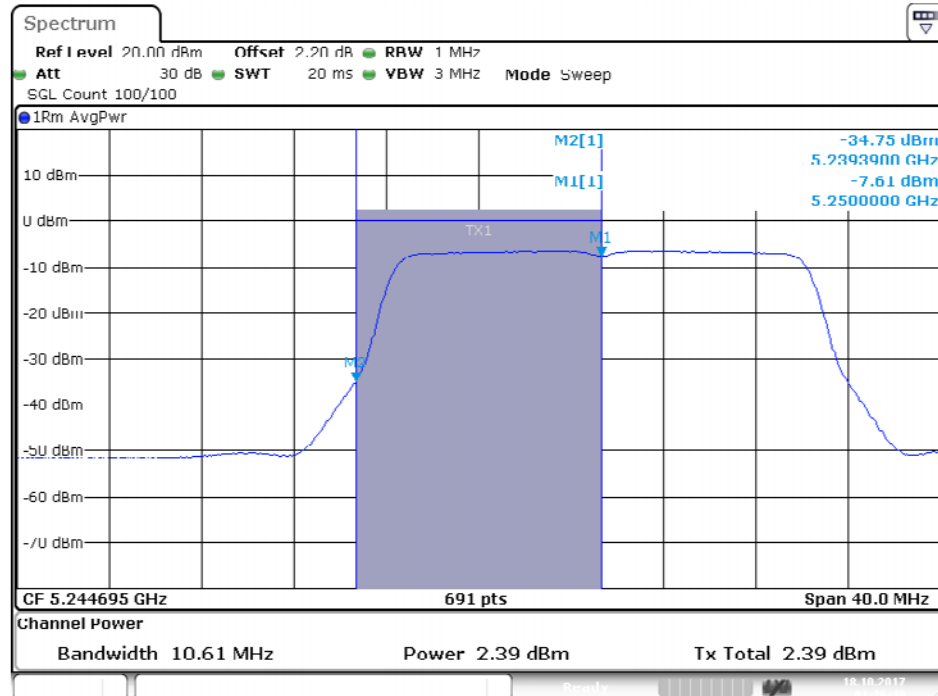
### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5720 MHz (UNII 3)



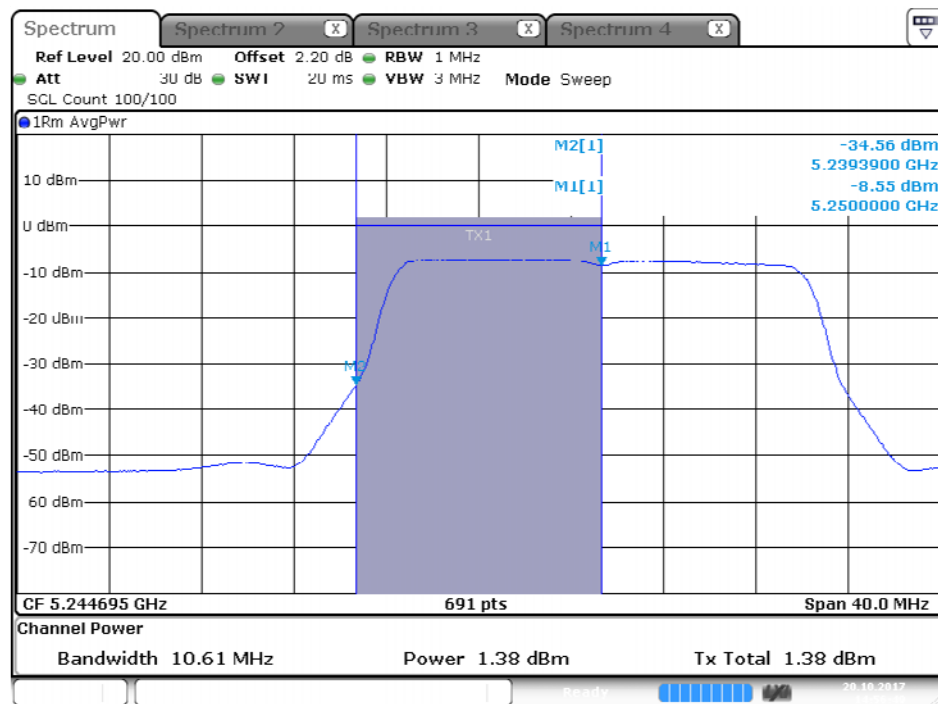
For Antenna 2:

Straddle Channel

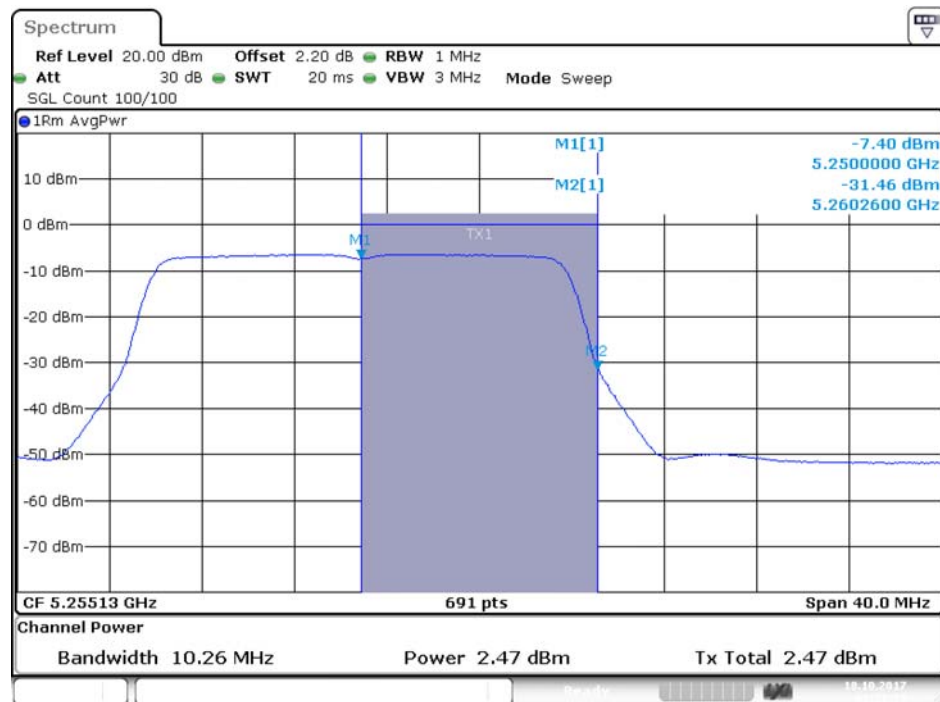
Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5250 MHz (UNII 1)



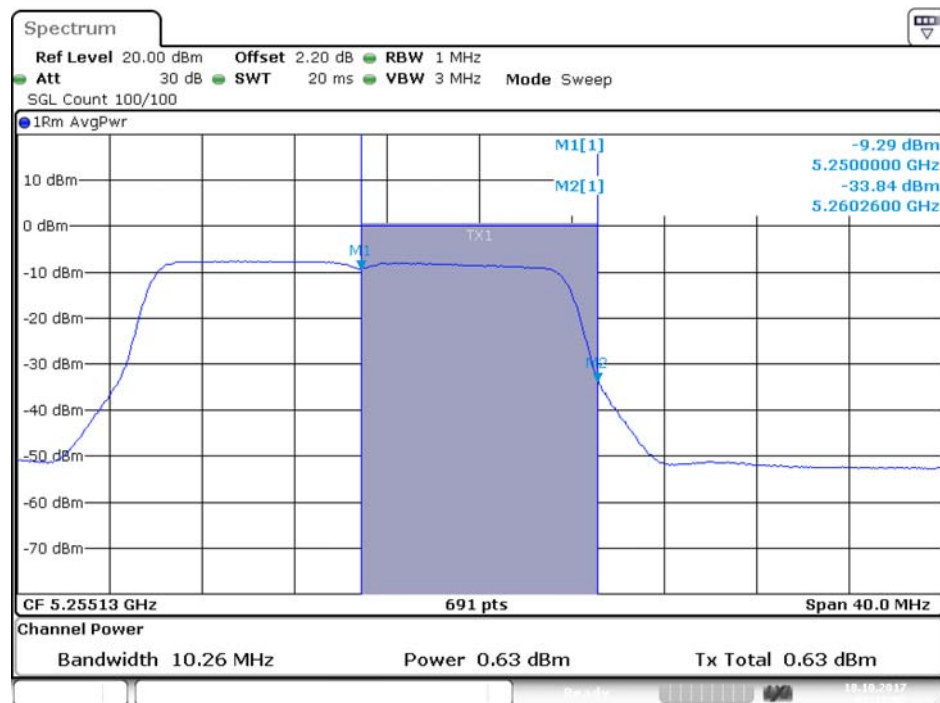
Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5250 MHz (UNII 1)



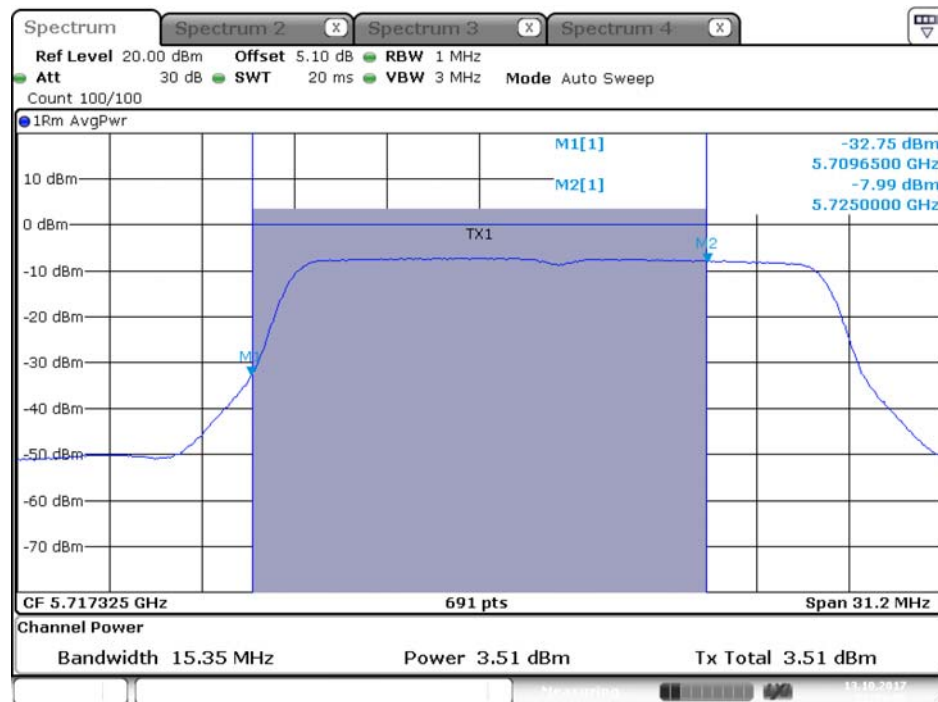
### Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5250 MHz (UNII 2A)



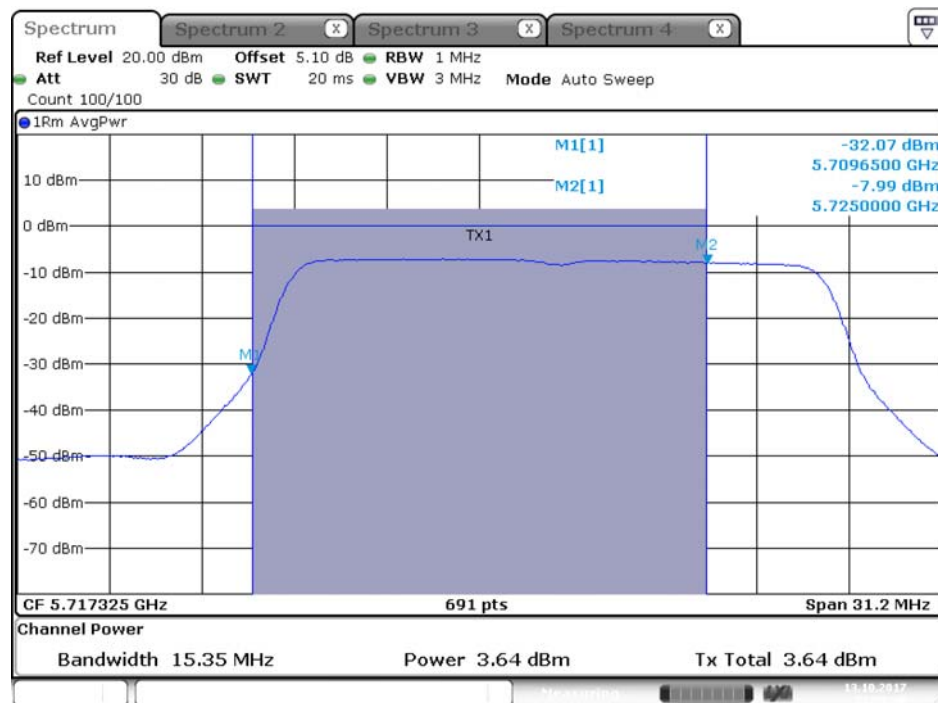
### Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5250 MHz (UNII 2A)



### Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5720 MHz (UNII 2C)



### Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5720 MHz (UNII 2C)



### Conducted Output Power Plot on Configuration QPSK, 20M / Port 1 / 5720 MHz (UNII 3)



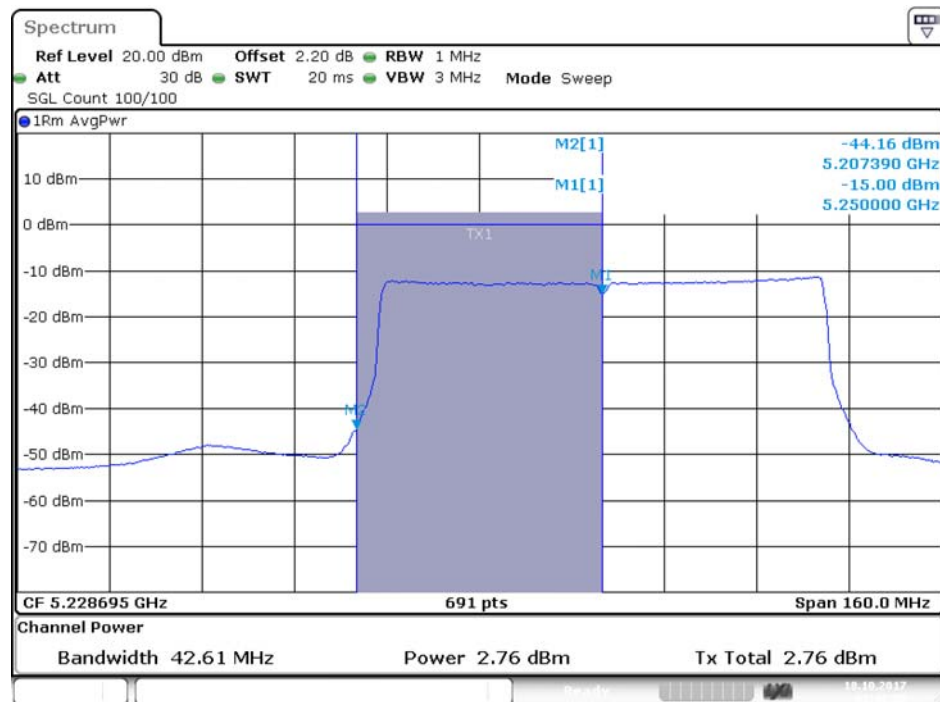
Date: 13.OCT.2017 22:59:59

### Conducted Output Power Plot on Configuration QPSK, 20M / Port 2 / 5720 MHz (UNII 3)

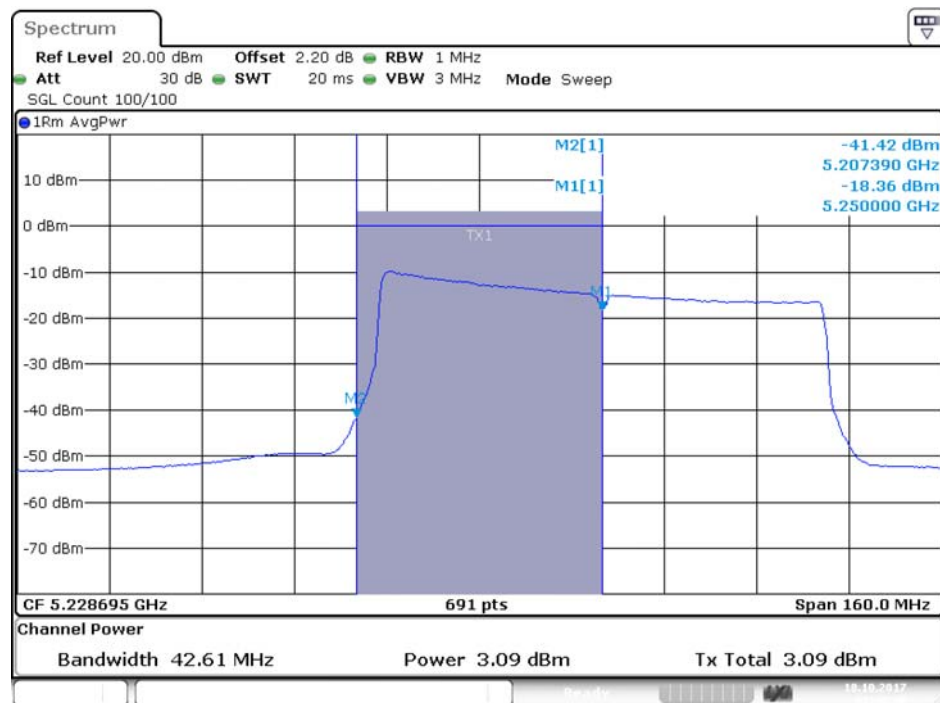


Date: 13.OCT.2017 22:58:52

### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5250 MHz (UNII 1)

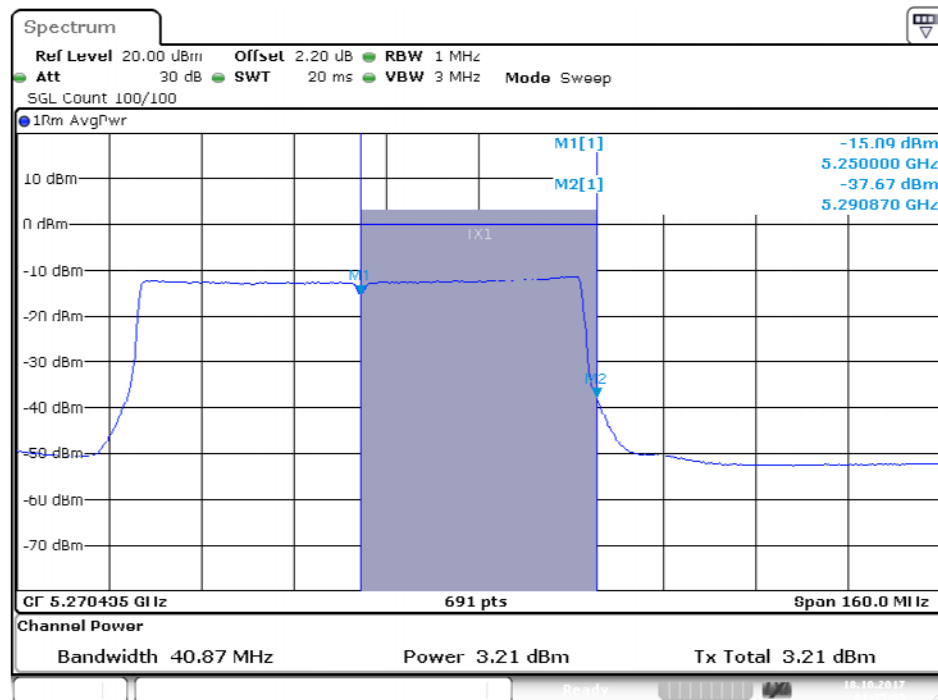


### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5250 MHz (UNII 1)



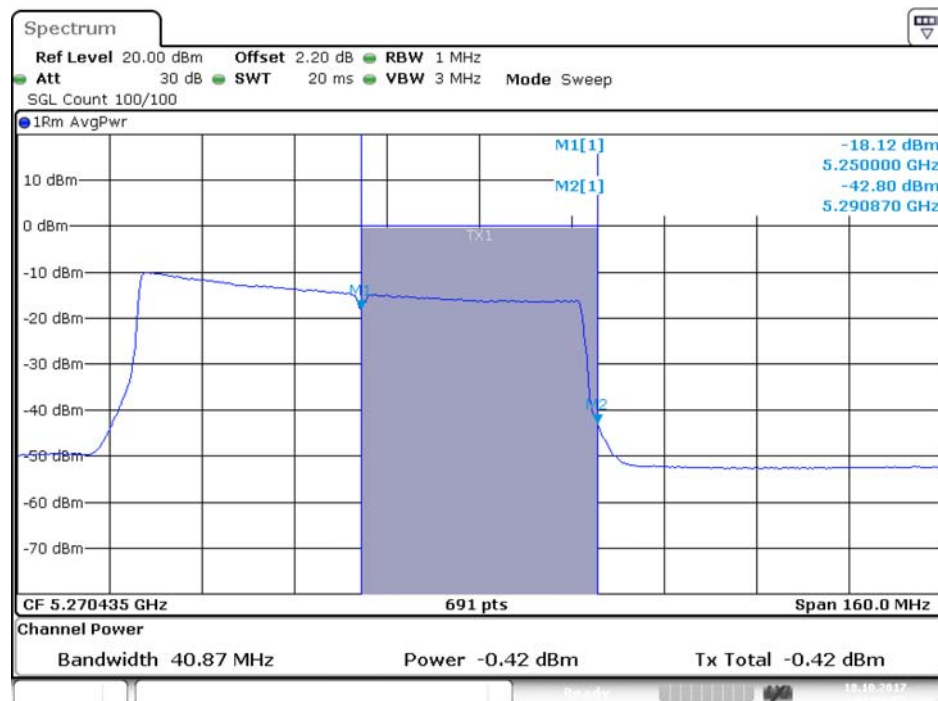


### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5250 MHz (UNII 2A)



Date: 18.OCT.2017 01:35:06

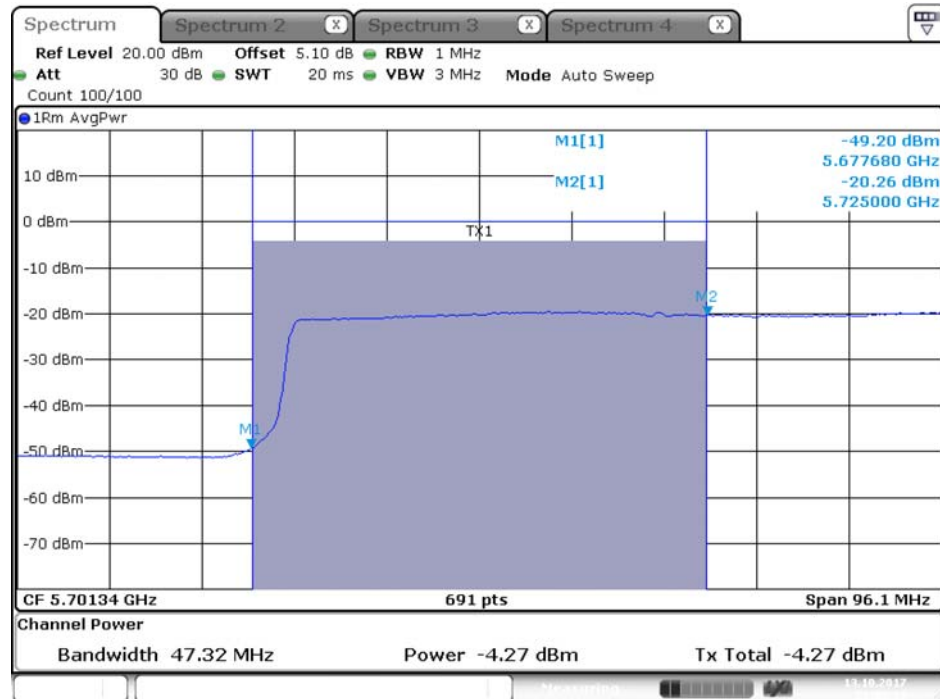
### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5250 MHz (UNII 2A)



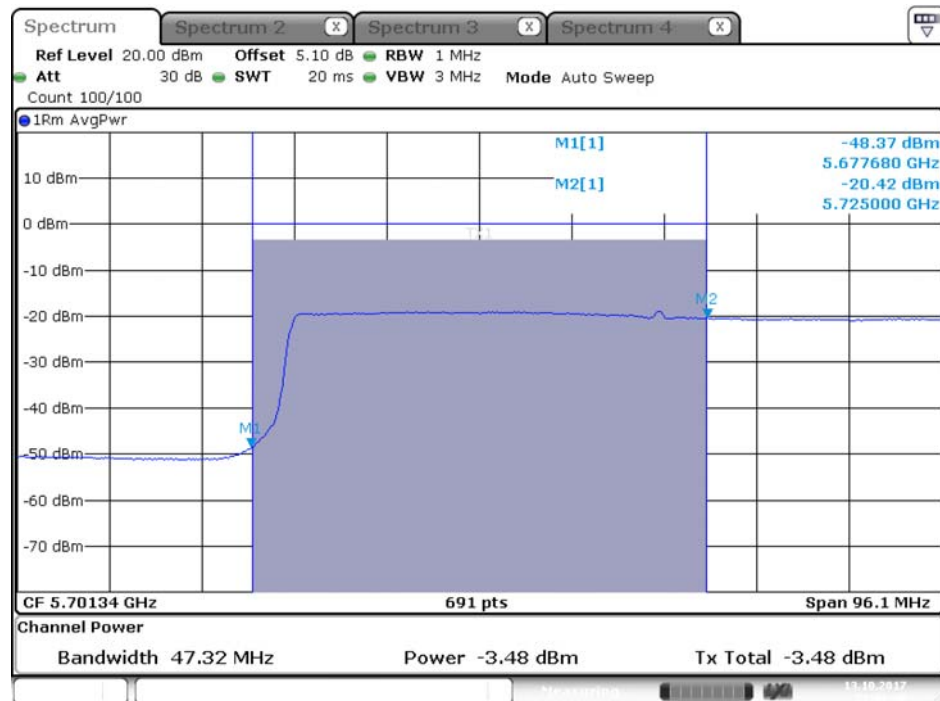
Date: 18.OCT.2017 01:36:53



### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5720 MHz (UNII 2C)



### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5720 MHz (UNII 2C)

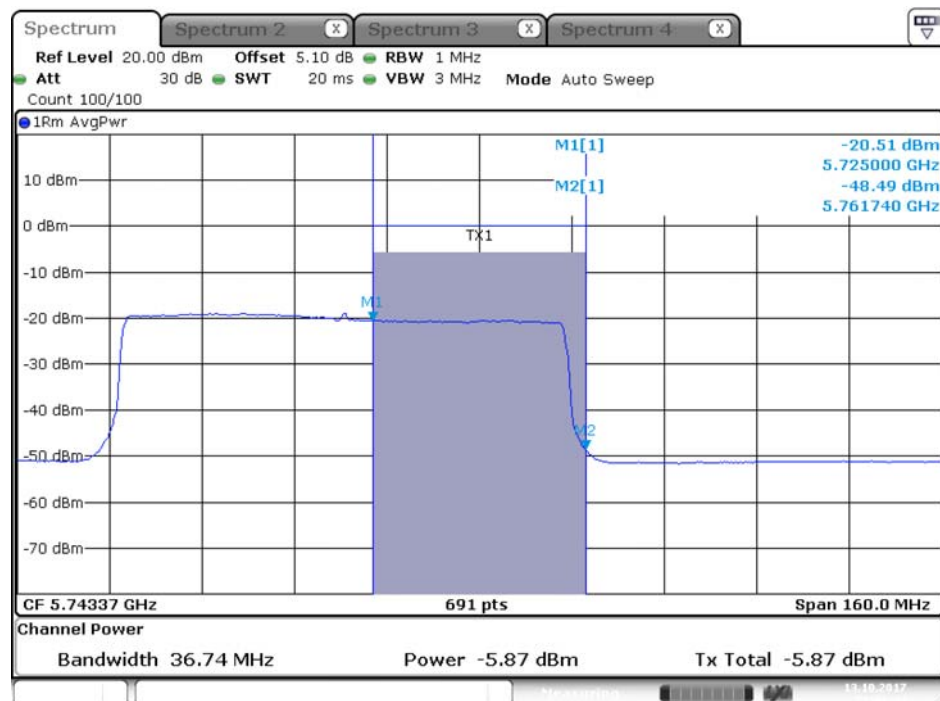


### Conducted Output Power Plot on Configuration QPSK, 80M / Port 1 / 5720 MHz (UNII 3)



Date: 13.OCT.2017 23:05:21

### Conducted Output Power Plot on Configuration QPSK, 80M / Port 2 / 5720 MHz (UNII 3)



Date: 13.OCT.2017 23:06:43

#### 4.4. Power Spectral Density Measurement

##### 4.4.1. Limit

The following table is power spectral density limits and decrease power density limit rule refer to section 4.3.1.

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25 GHz	
	Operating Mode	
<input checked="" type="checkbox"/>	Outdoor access point	17 dBm/MHz
<input type="checkbox"/>	Indoor access point	17 dBm/MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm/MHz
<input type="checkbox"/>	Mobile and portable client devices	11 dBm/MHz
<input checked="" type="checkbox"/>	5.25-5.35 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	5.470-5.725 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	5.725~5.85 GHz	30 dBm/500kHz

##### 4.4.2. Measuring Instruments and Setting

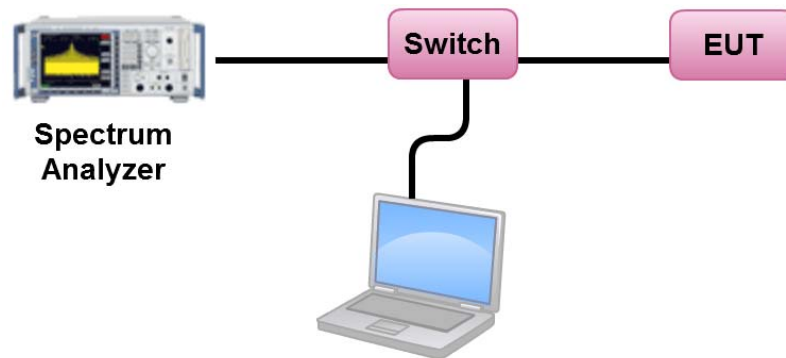
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1000 kHz
VBW	3000 kHz
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times
Note: If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.	

#### 4.4.3. Test Procedures

1. The transmitter output (antenna port) was connected RF switch to the spectrum analyzer.
2. Test was performed in accordance with KDB789033 D02 v02r01 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - section (F) Maximum Power Spectral Density (PSD).
3. Multiple antenna systems was performed in accordance KDB662911 D01 v02r01 in-Band Power Spectral Density (PSD) Measurements and sum the spectra across the outputs.
4. For 5.725~5.85 GHz, the measured result of PSD level must add  $10\log(500\text{kHz}/\text{RBW})$  and the final result should  $\leq 30 \text{ dBm}$ .

#### 4.4.4. Test Setup Layout



#### 4.4.5. Test Deviation

There is no deviation with the original standard.

#### 4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.4.7. Test Result of Power Spectral Density

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang		

For Antenna 1:

Configuration QPSK, 20M / Port 1 + Port 2

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
2	5260 MHz	10.56	11.00	Complies
10	5300 MHz	10.98	11.00	Complies
14	5320 MHz	5.06	11.00	Complies
1	5500 MHz	10.36	11.00	Complies
17	5580 MHz	10.85	11.00	Complies
30	5650 MHz	10.92	11.00	Complies

Configuration QPSK, 80M / Port 1 + Port 2

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
2	5290 MHz	4.52	11.00	Complies
4	5300 MHz	5.24	11.00	Complies
6	5310 MHz	-7.33	11.00	Complies
1	5510 MHz	3.05	11.00	Complies
22	5610 MHz	2.96	11.00	Complies
30	5650 MHz	1.12	11.00	Complies

### Straddle Channel

#### Configuration QPSK, 20M / Port 1 + Port 2

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 1)	11.11	17.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 2A)	10.81	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
32	5720 MHz (UNII 2C)	10.41	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
32	5720 MHz (UNII 3)	8.54	-3.01	5.53	30.00	Complies

**Configuration QPSK, 80M / Port 1 + Port 2**

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 1)	3.37	17.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 2A)	1.19	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
32	5720 MHz (UNII 2C)	2.23	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
32	5720 MHz (UNII 3)	0.08	-3.01	-2.93	30.00	Complies

For Antenna 2:

Configuration QPSK, 20M / Port 1 + Port 2

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
2	5260 MHz	-5.11	-5.00	Complies
10	5300 MHz	-5.04	-5.00	Complies
14	5320 MHz	-5.10	-5.00	Complies
1	5500 MHz	-5.04	-5.00	Complies
17	5580 MHz	-5.04	-5.00	Complies
30	5650 MHz	-12.85	-5.00	Complies

Configuration QPSK, 80M / Port 1 + Port 2

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5290 MHz	-8.18	-5.00	Complies
4	5300 MHz	-7.64	-5.00	Complies
1	5510 MHz	-9.91	-5.00	Complies
22	5610 MHz	-10.50	-5.00	Complies
30	5650 MHz	-16.50	-5.00	Complies



### Straddle Channel

#### Configuration QPSK, 20M / Port 1 + Port 2

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 1)	-5.75	1.00	Complies

Note:

$$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 22\text{dBi} > 6\text{dBi}, \text{ so limit} = 17 - (22 - 6) = 1\text{ dBm}.$$

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 2A)	-6.20	-5.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
32	5720 MHz (UNII 2C)	-5.41	-5.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
32	5720 MHz (UNII 3)	-7.39	-3.01	-10.40	14.00	Complies

**Configuration QPSK, 80M / Port 1 + Port 2**

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 1)	-8.93	1.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
1	5250 MHz (UNII 2A)	-11.57	-5.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
32	5720 MHz (UNII 2C)	-16.25	-5.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
32	5720 MHz (UNII 3)	-20.93	-3.01	-23.94	14.00	Complies

Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

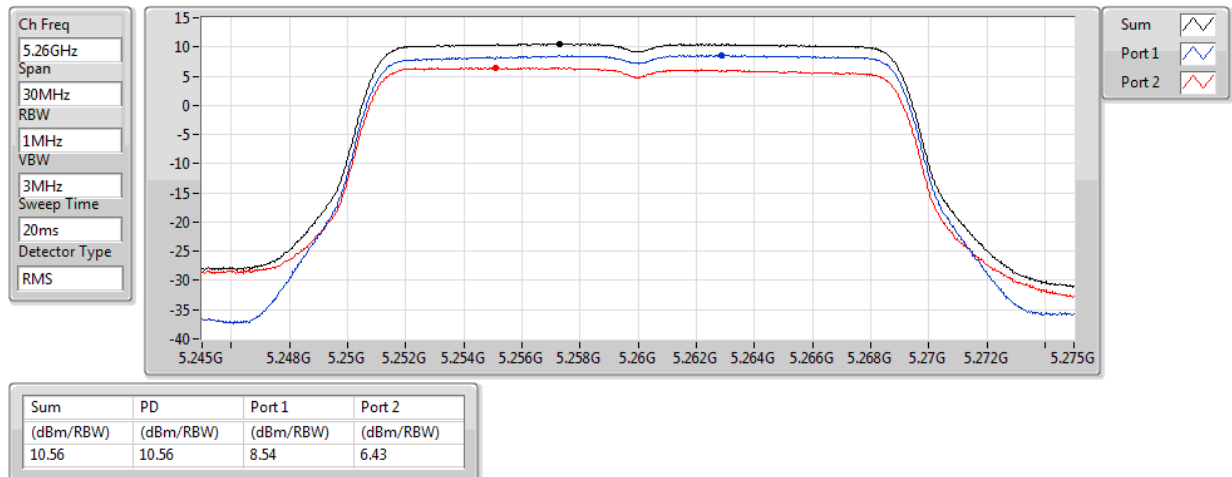
For Antenna 1:

Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5260 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5260MHz

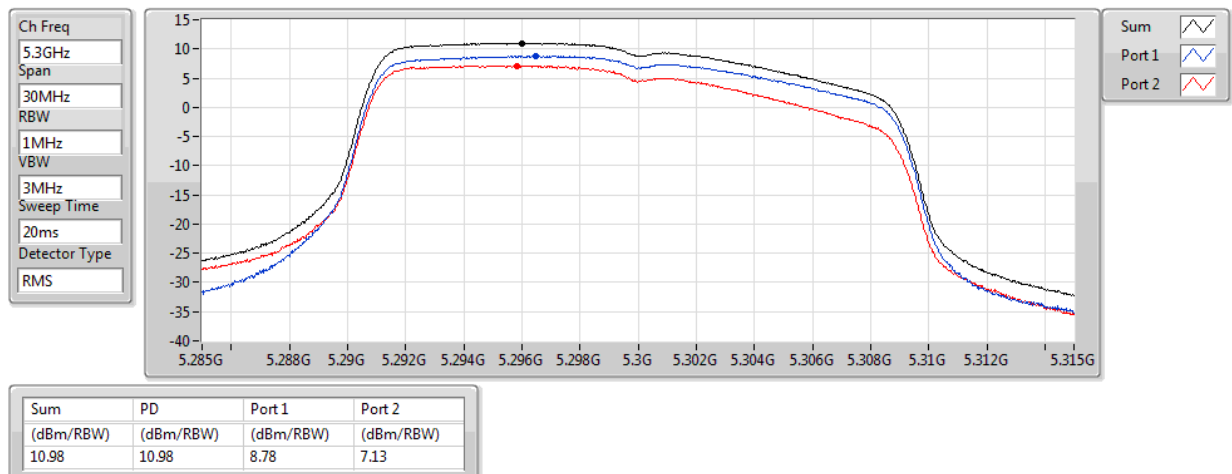


Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5300 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5300MHz

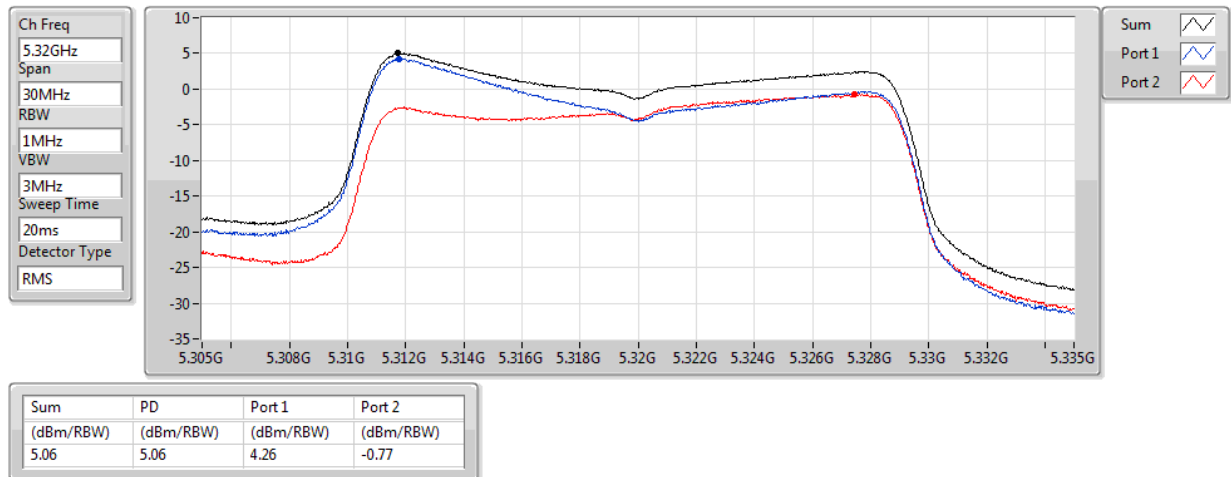


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5320 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5320MHz

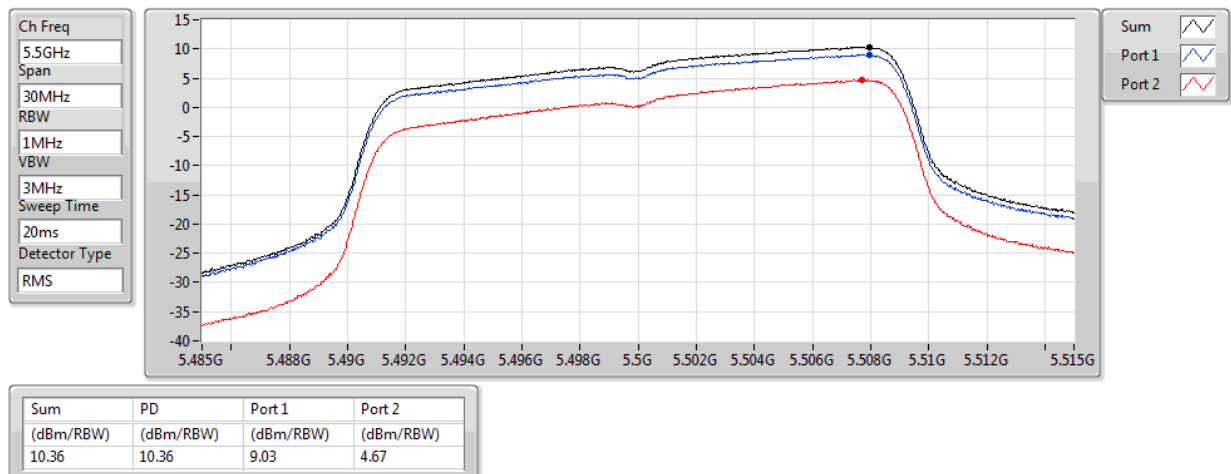


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5500 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5500MHz

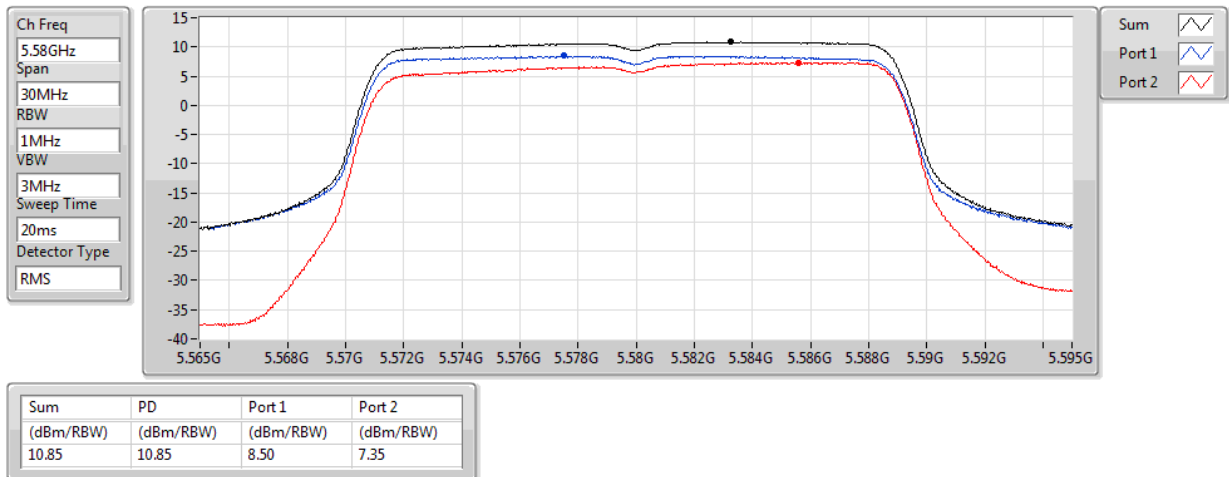


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5580 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5580MHz

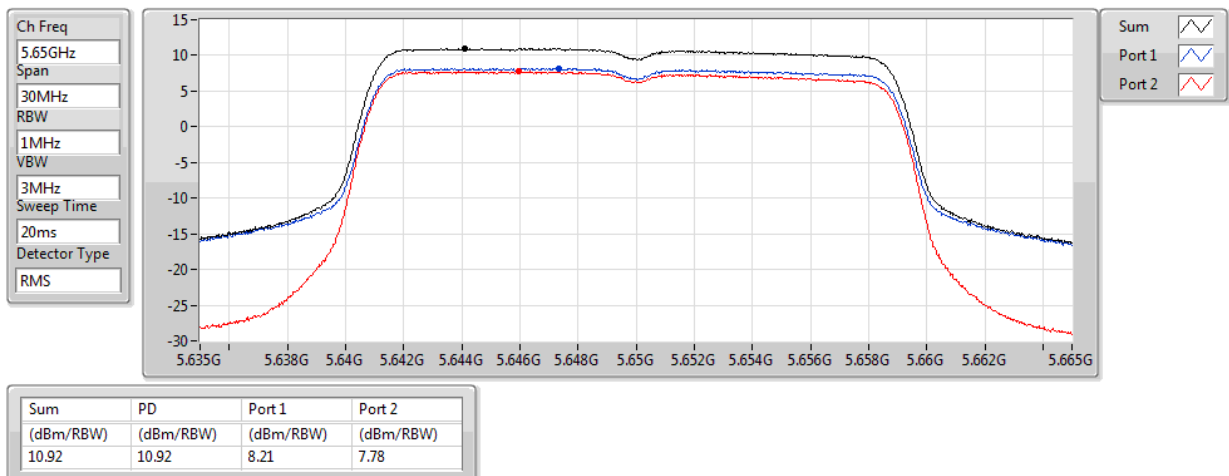


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5650 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5650MHz

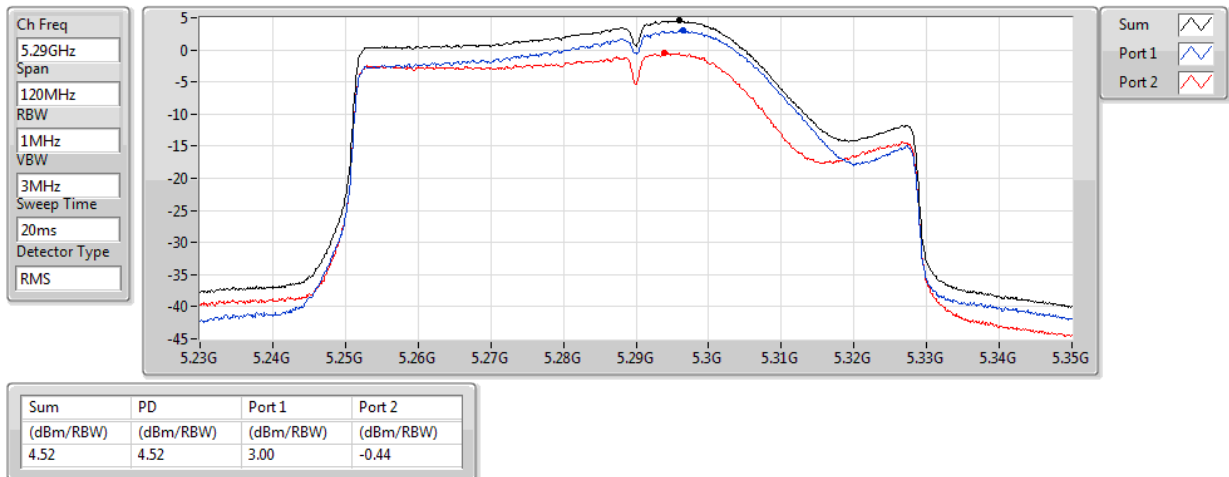


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5290 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5290MHz

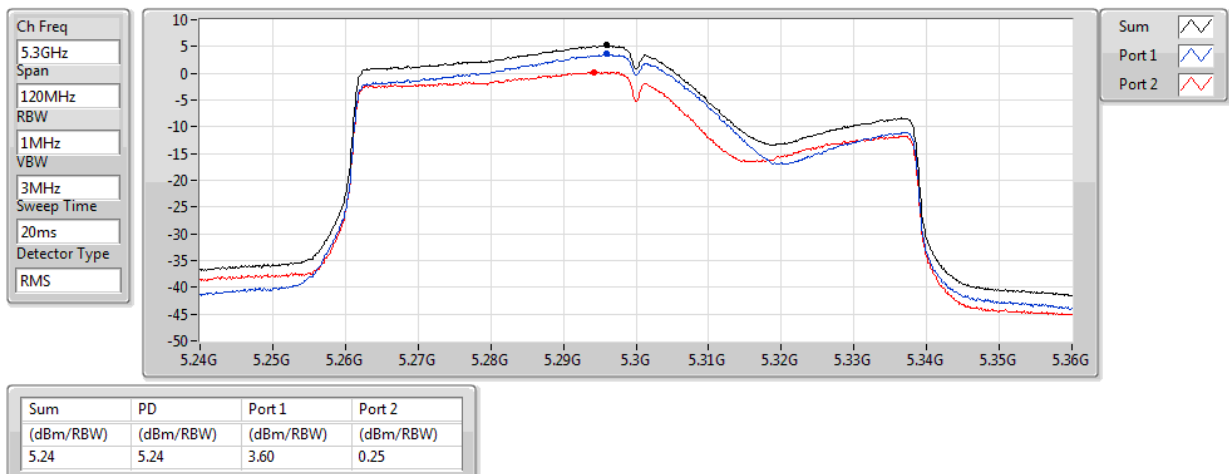


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5300 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5300MHz

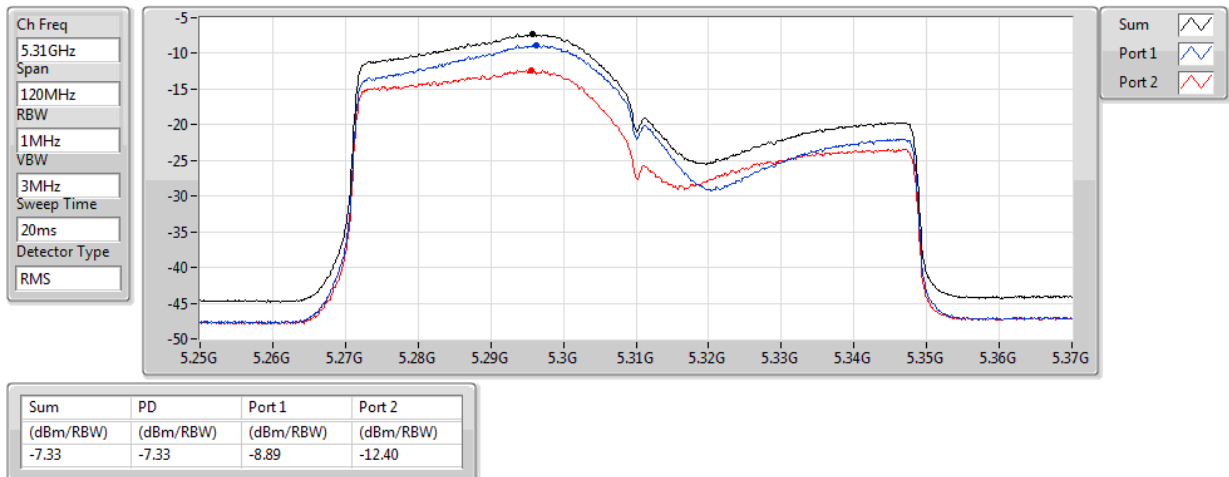


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5310 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5310MHz

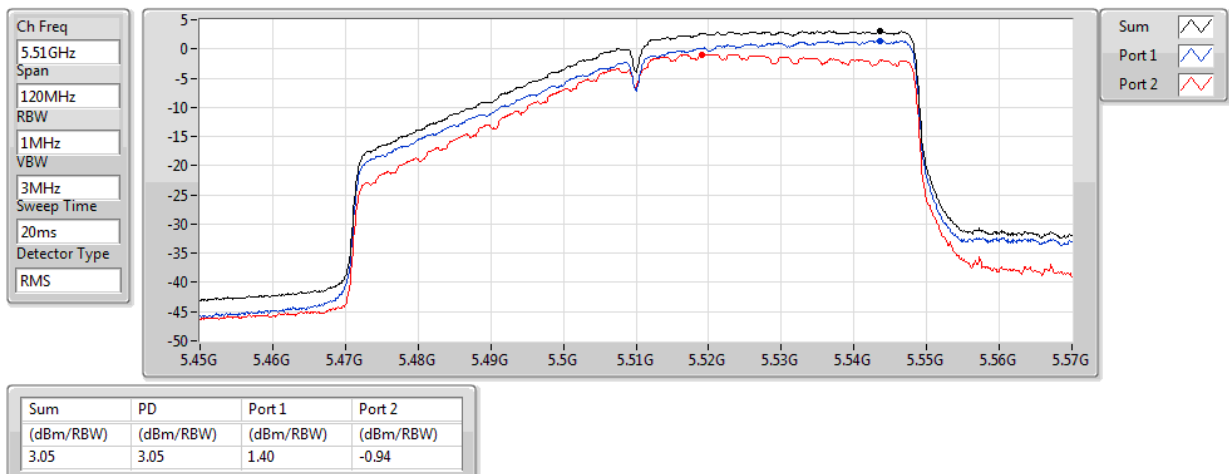


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5510 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5510MHz

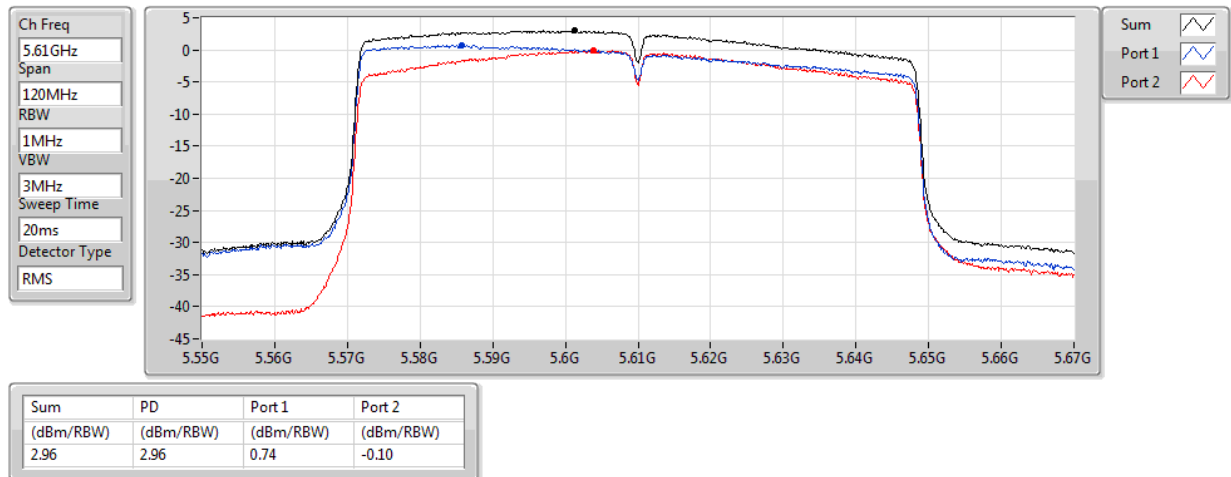


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5610 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5610MHz

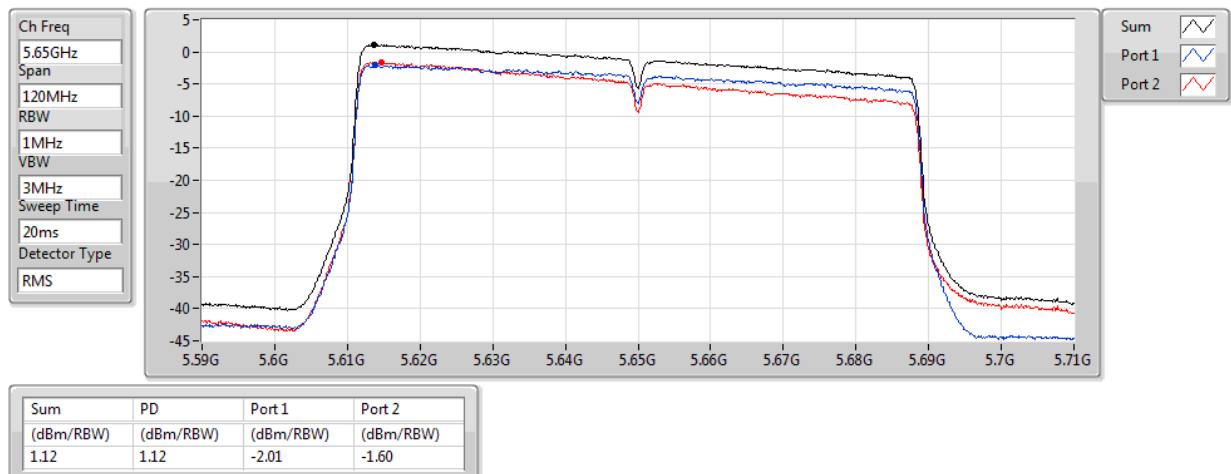


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5650 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5650MHz





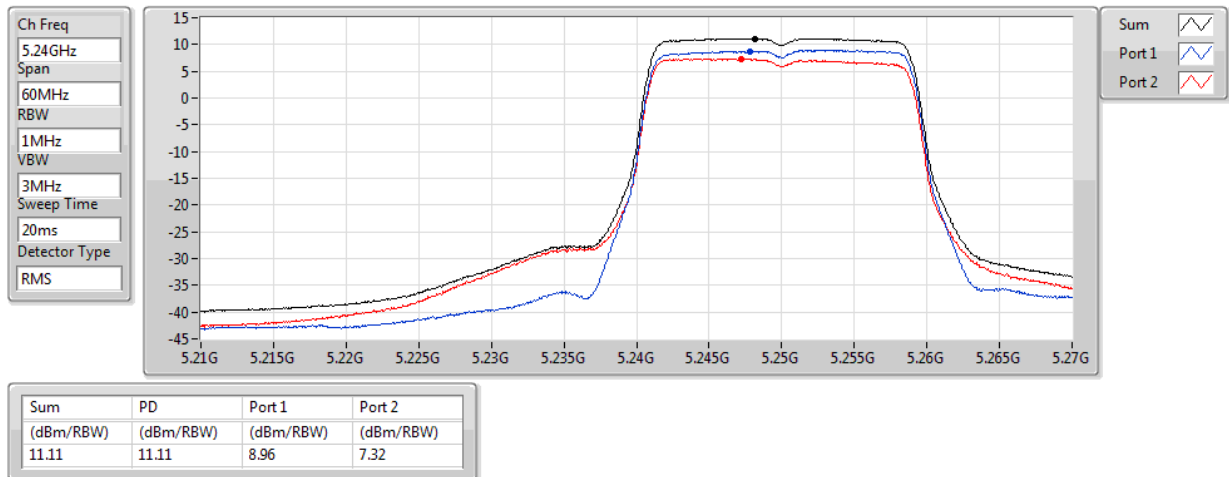
## Straddle Channel

Power Density Plot on Configuration QPSK, 20M / 5250 MHz (UNII 1)

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.15-5.25GHz

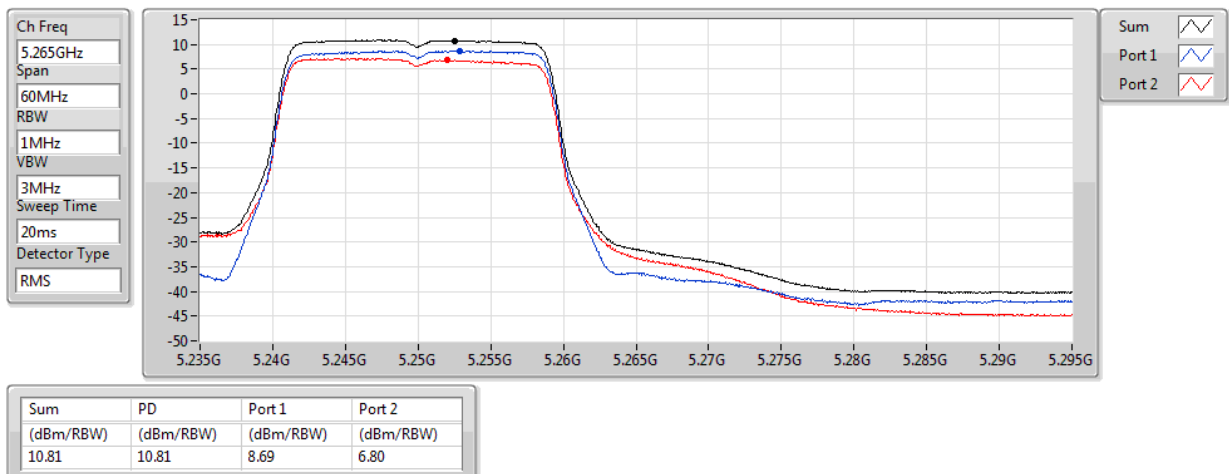


Power Density Plot on Configuration QPSK, 20M / 5250 MHz (UNII 2A)

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.25-5.35GHz

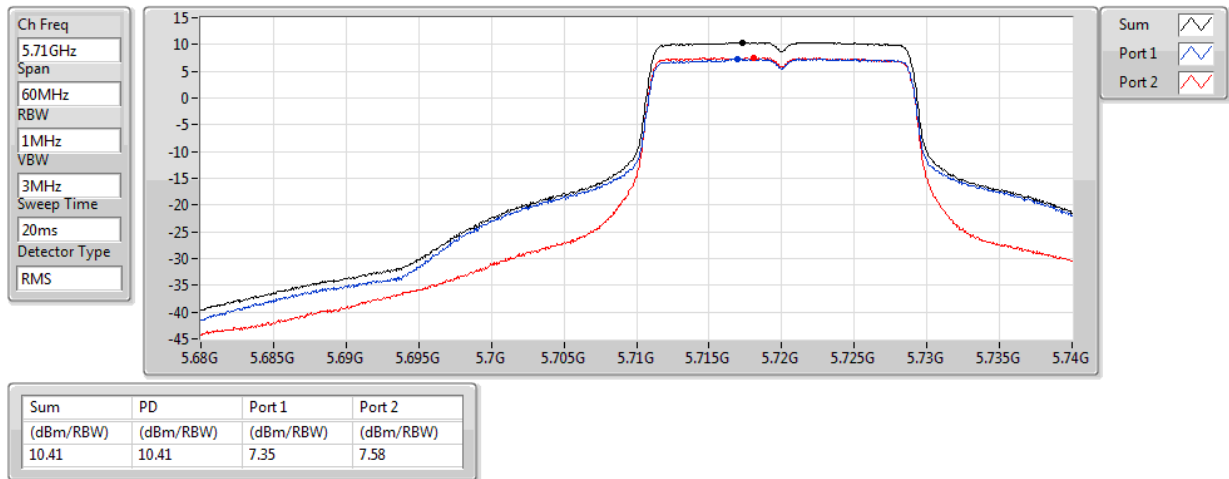


# Power Density Plot on Configuration QPSK, 20M / 5720 MHz (UNII 2C)

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

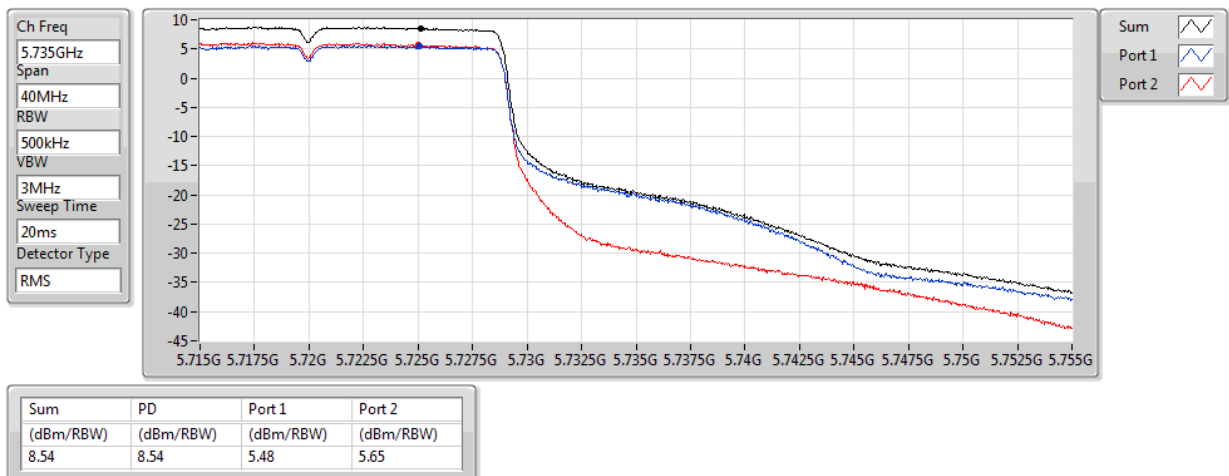


# Power Density Plot on Configuration QPSK, 20M / 5720 MHz (UNII 3)

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

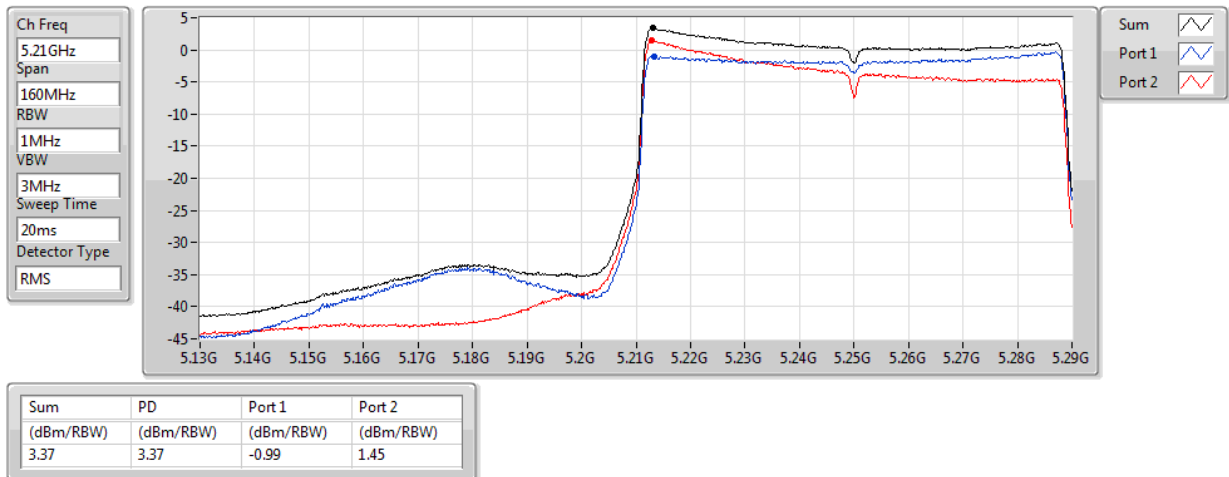


# Power Density Plot on Configuration QPSK, 80M / 5250 MHz (UNII 1)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.15-5.25GHz

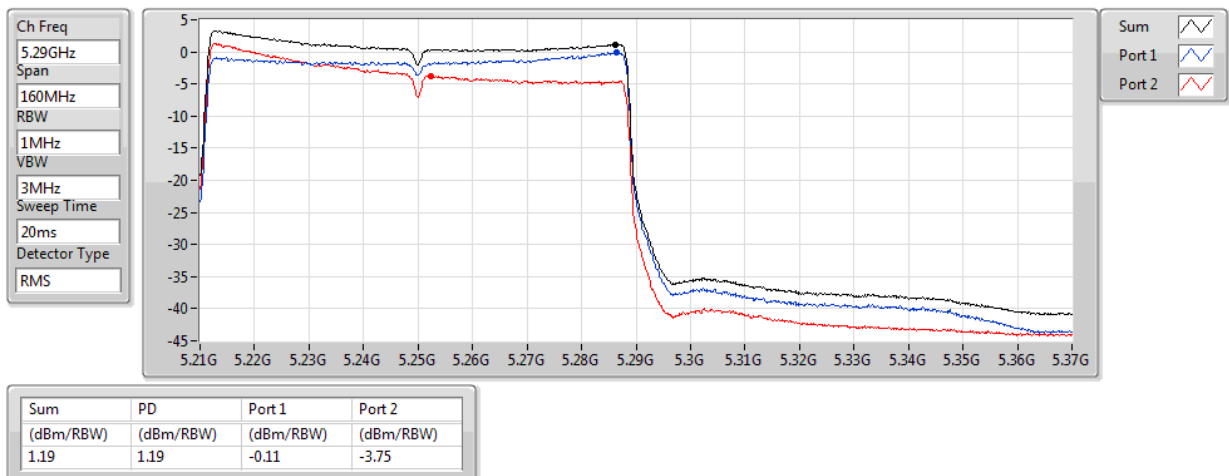


# Power Density Plot on Configuration QPSK, 80M / 5250 MHz (UNII 2A)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.25-5.35GHz

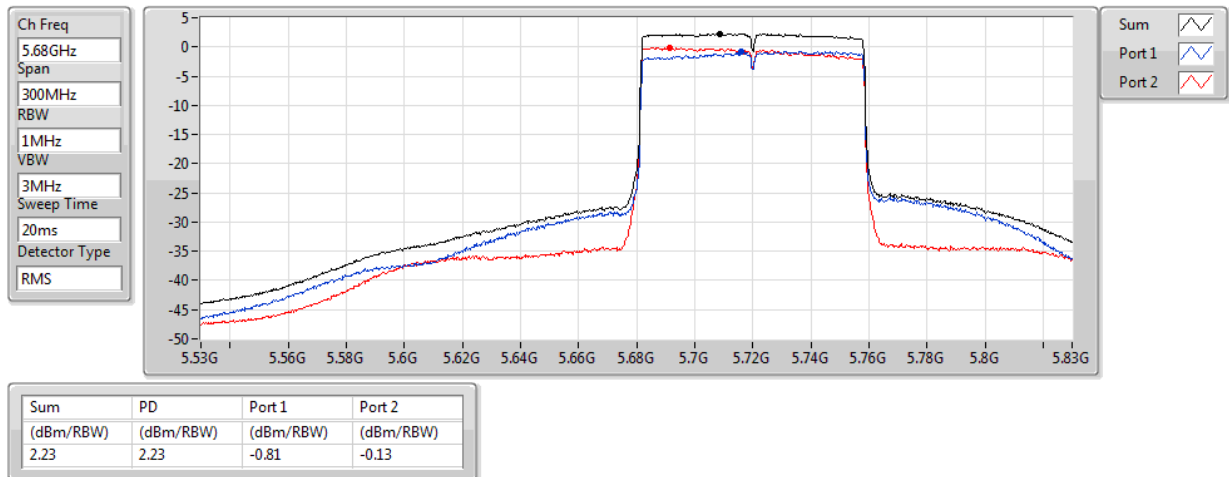


# Power Density Plot on Configuration QPSK, 80M / 5720 MHz (UNII 2C)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

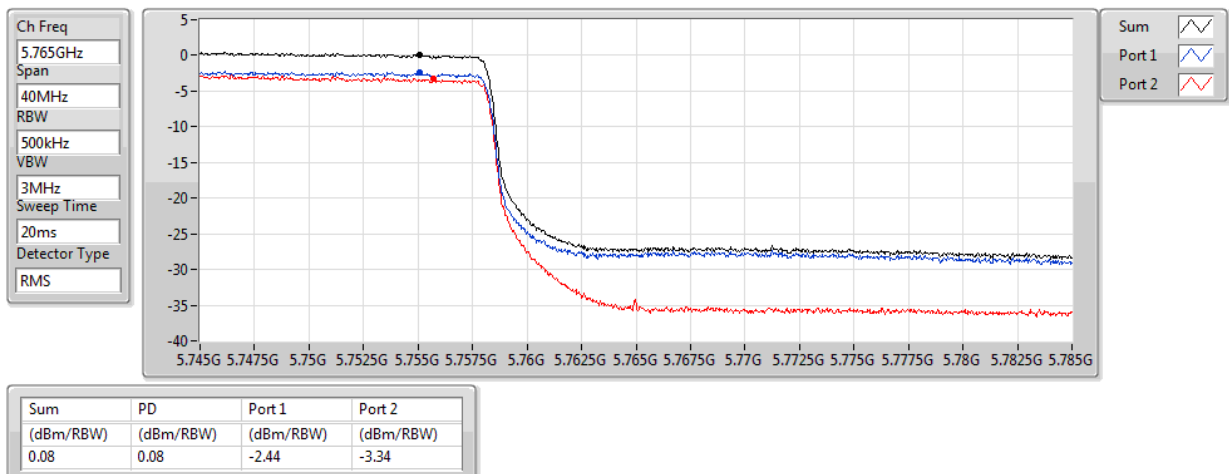


# Power Density Plot on Configuration QPSK, 80M / 5720 MHz (UNII 3)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5720MHz Straddle 5.725-5.85GHz



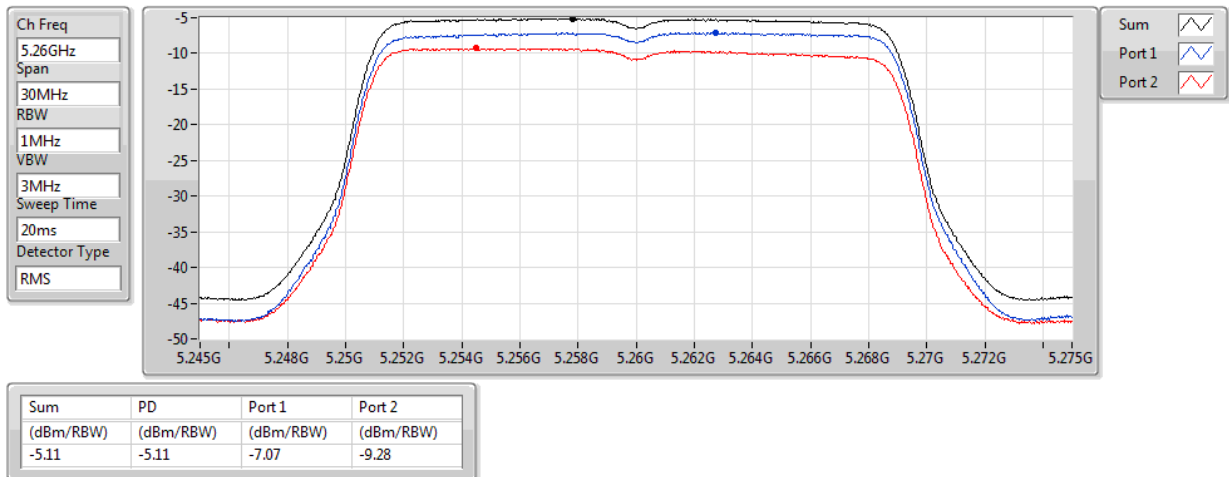
For Antenna 2:

Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5260 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5260MHz

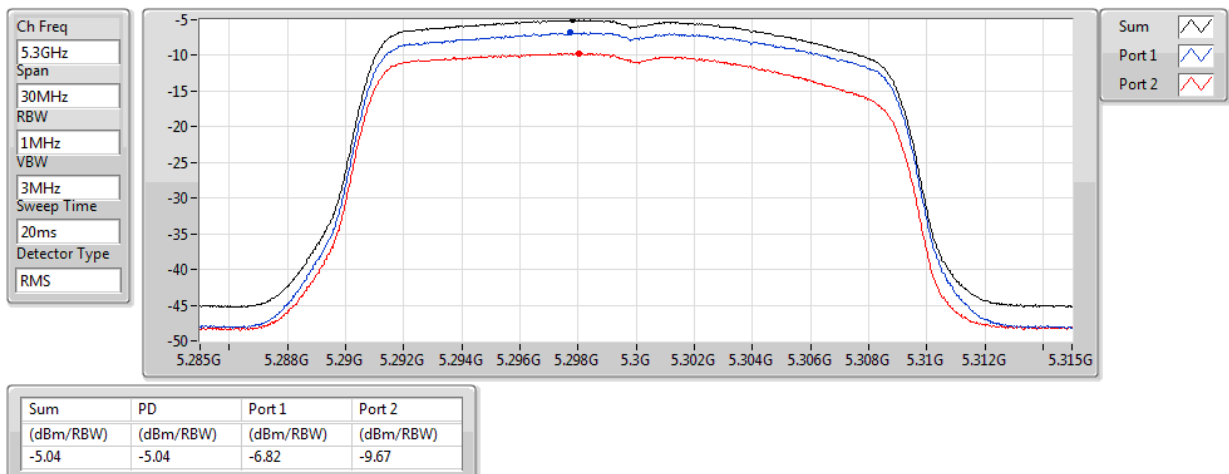


Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5300 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5300MHz

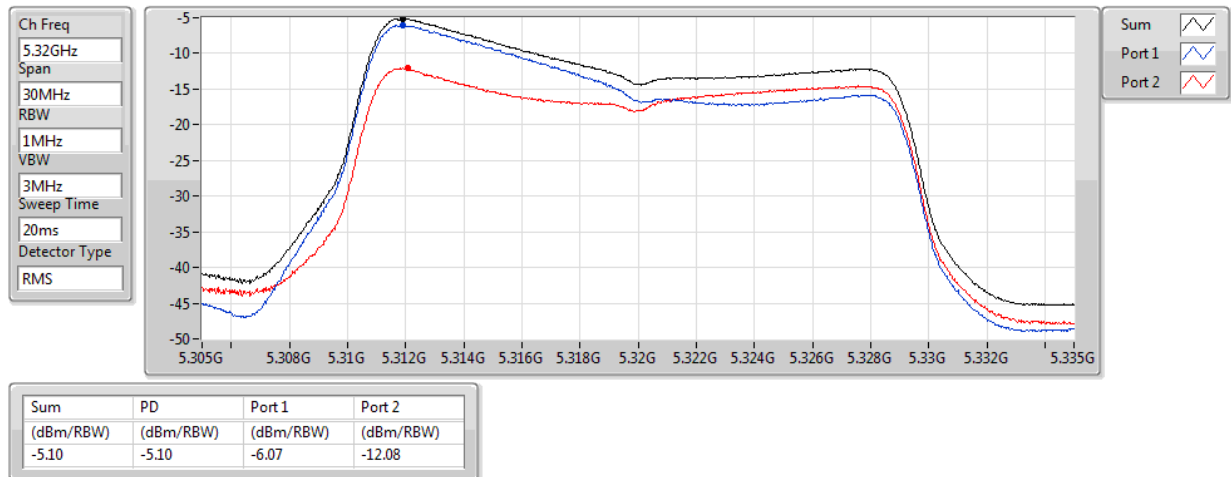


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5320 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5320MHz

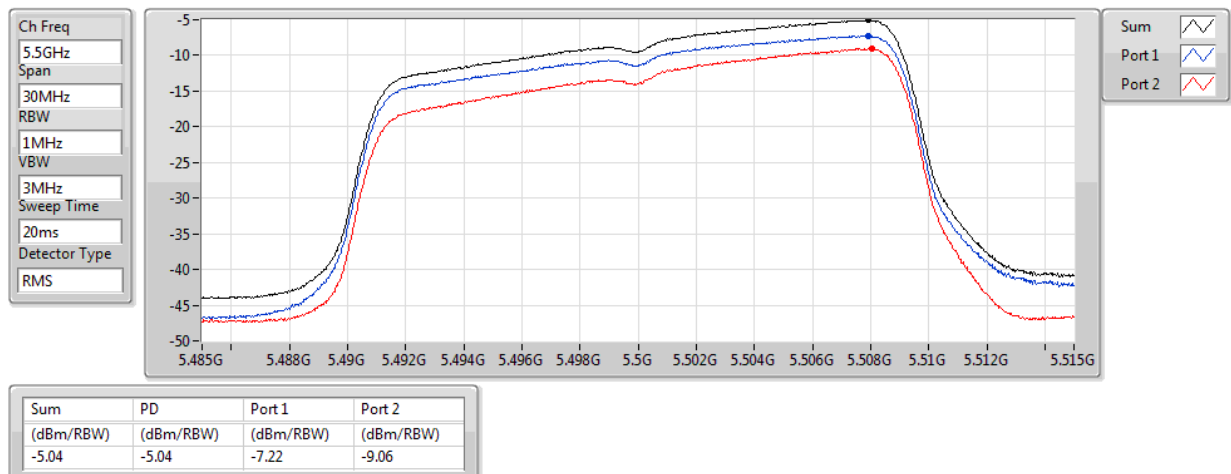


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5500 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5500MHz

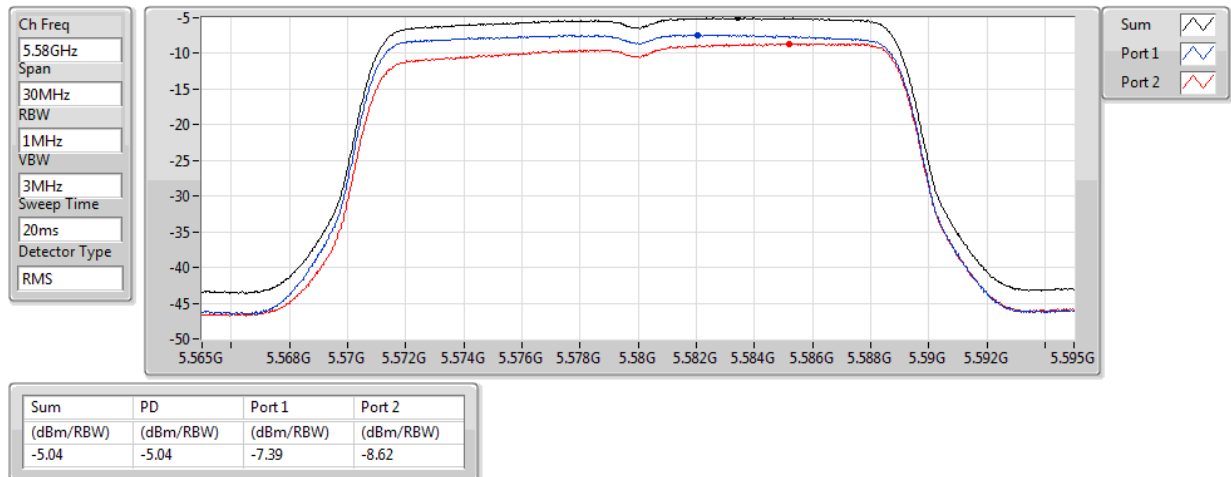


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5580 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5580MHz

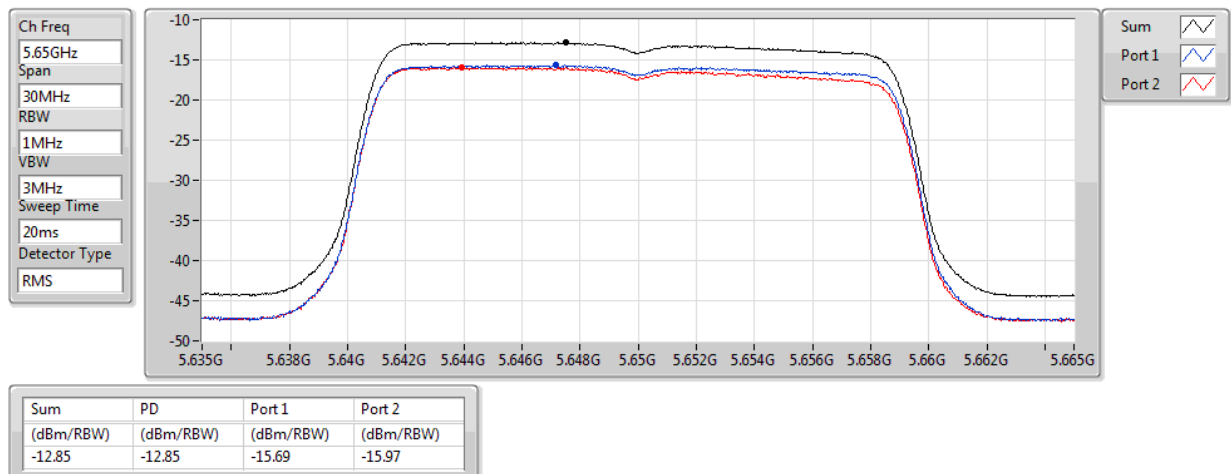


# Power Density Plot on Configuration QPSK, 20M / Port 1 + Port 2 / 5650 MHz

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5650MHz

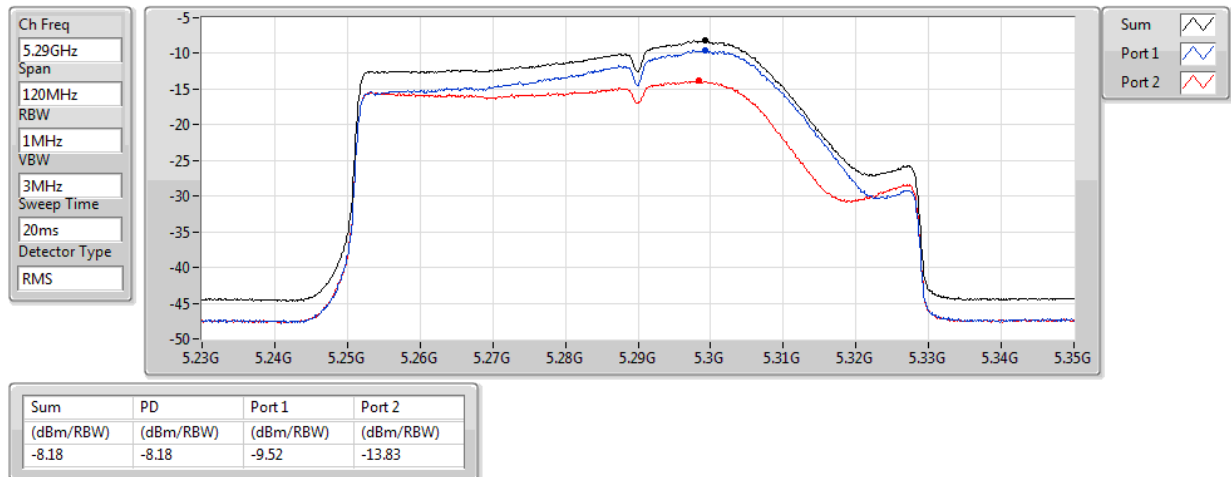


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5290 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5290MHz

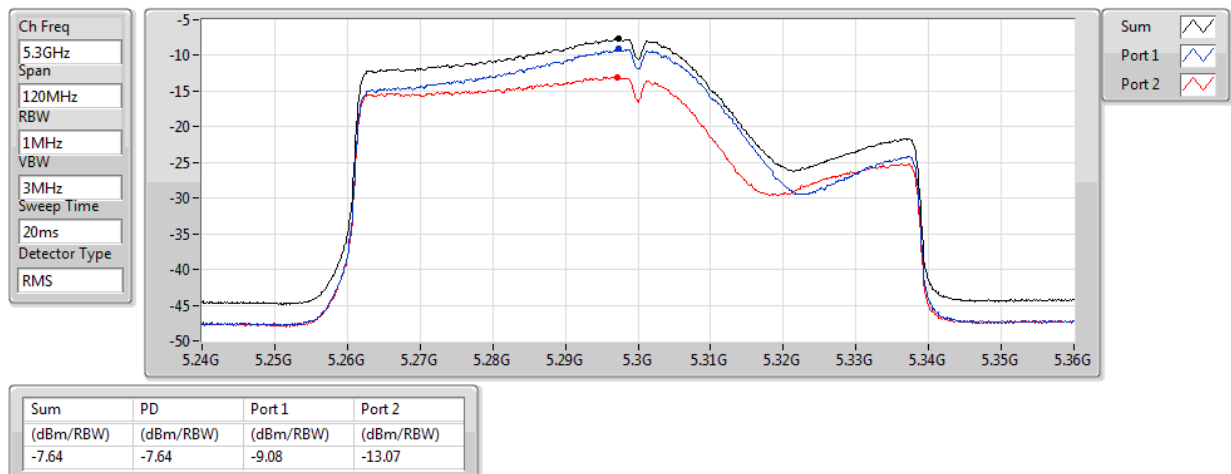


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5300 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5300MHz



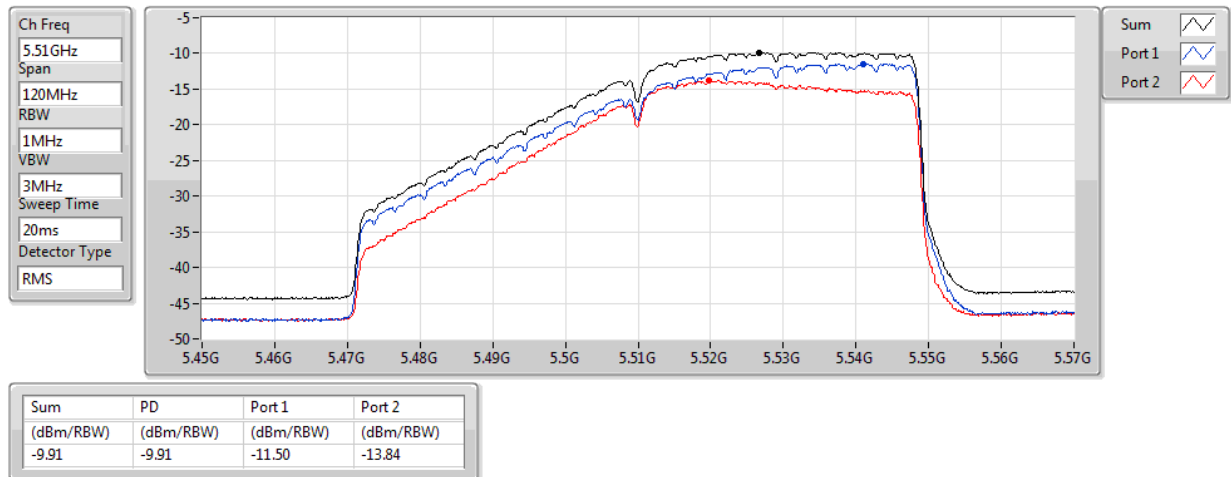


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5510 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5510MHz

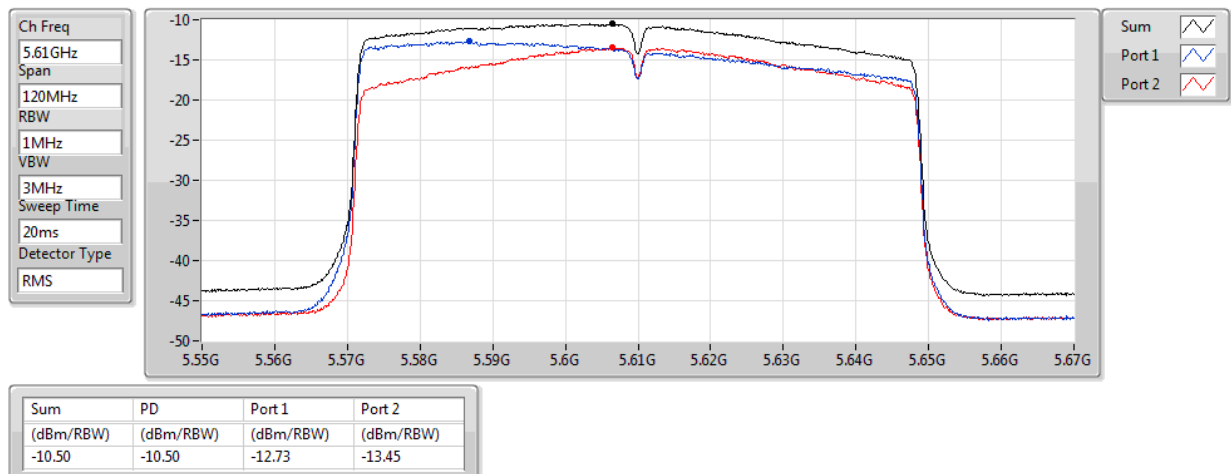


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5610 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5610MHz

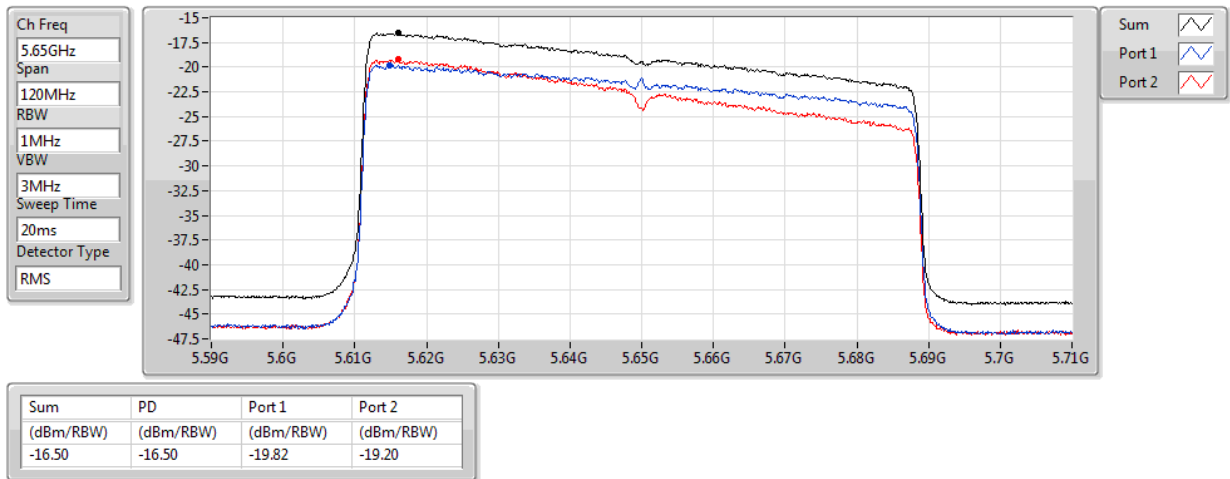


# Power Density Plot on Configuration QPSK, 80M / Port 1 + Port 2 / 5650 MHz

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5650MHz



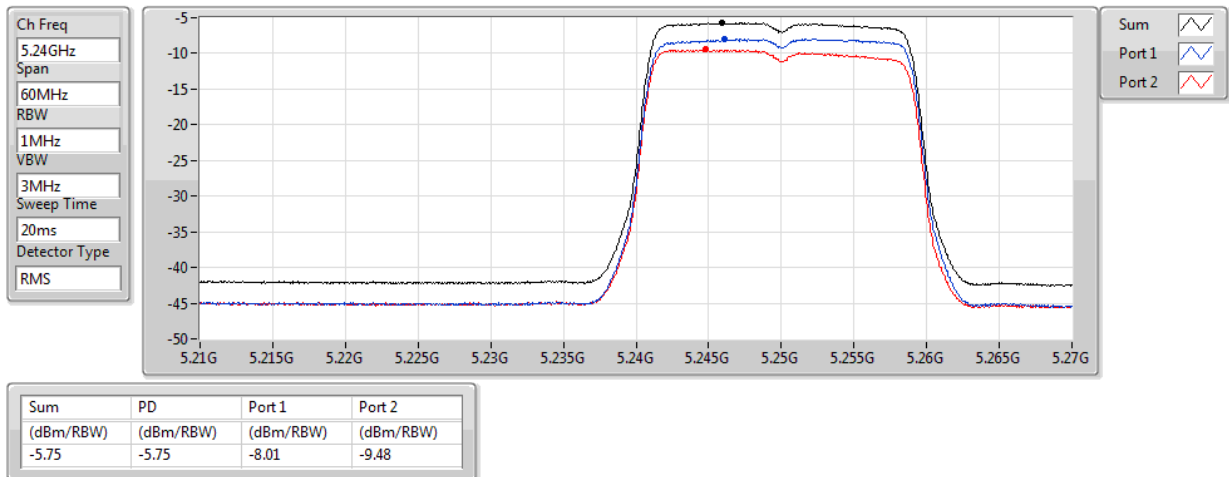
## Straddle Channel

Power Density Plot on Configuration QPSK, 20M / 5250 MHz (UNII 1)

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.15-5.25GHz

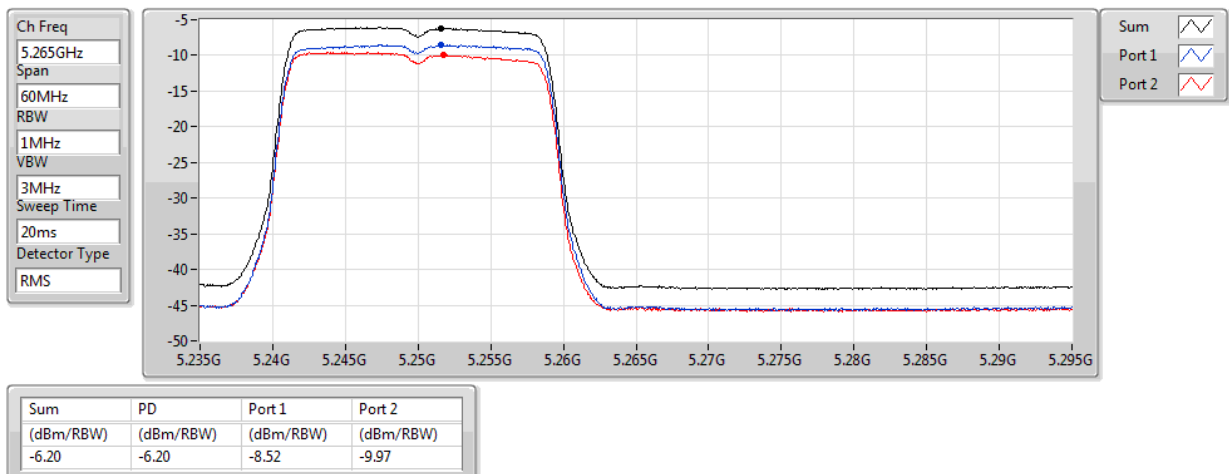


Power Density Plot on Configuration QPSK, 20M / 5250 MHz (UNII 2A)

802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

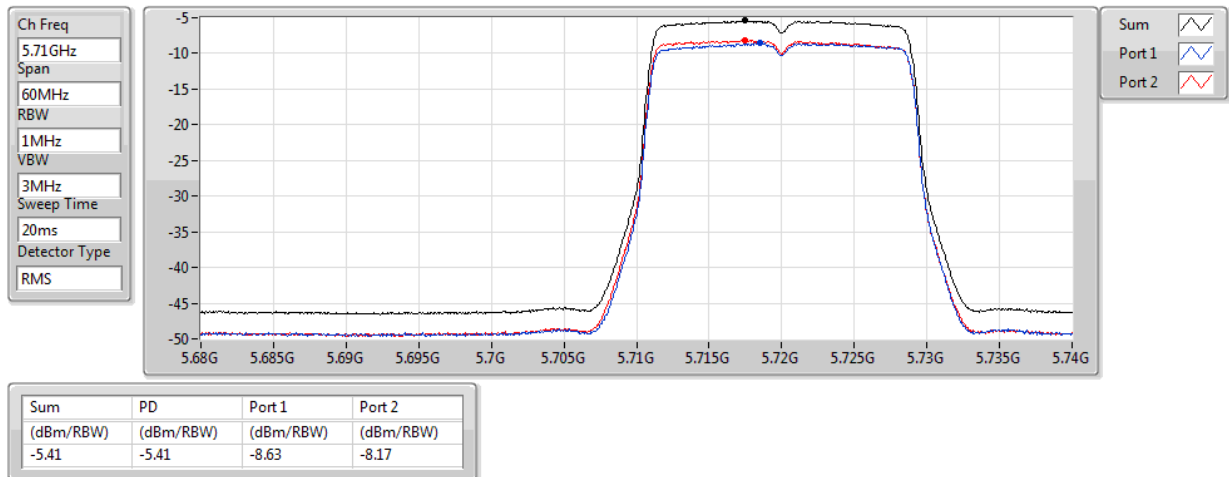
5250MHz Straddle 5.25-5.35GHz



### Power Density Plot on Configuration QPSK, 20M / 5720 MHz (UNII 2C)

#### 802.11ac VHT20\_Nss1,(MCS0)\_2TX 5720MHz Straddle 5.47-5.725GHz

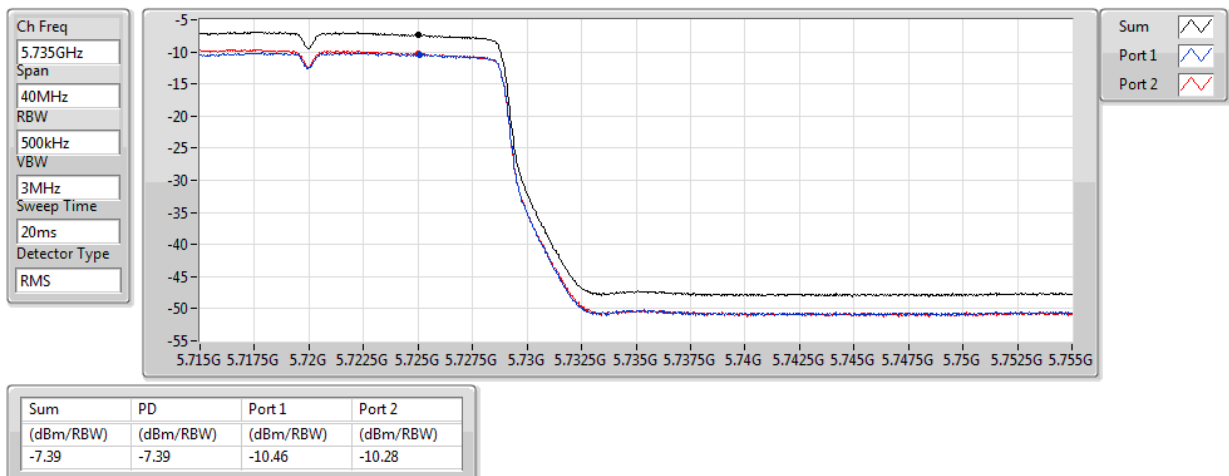
PSD



### Power Density Plot on Configuration QPSK, 20M / 5720 MHz (UNII 3)

#### 802.11ac VHT20\_Nss1,(MCS0)\_2TX 5720MHz Straddle 5.725-5.85GHz

PSD

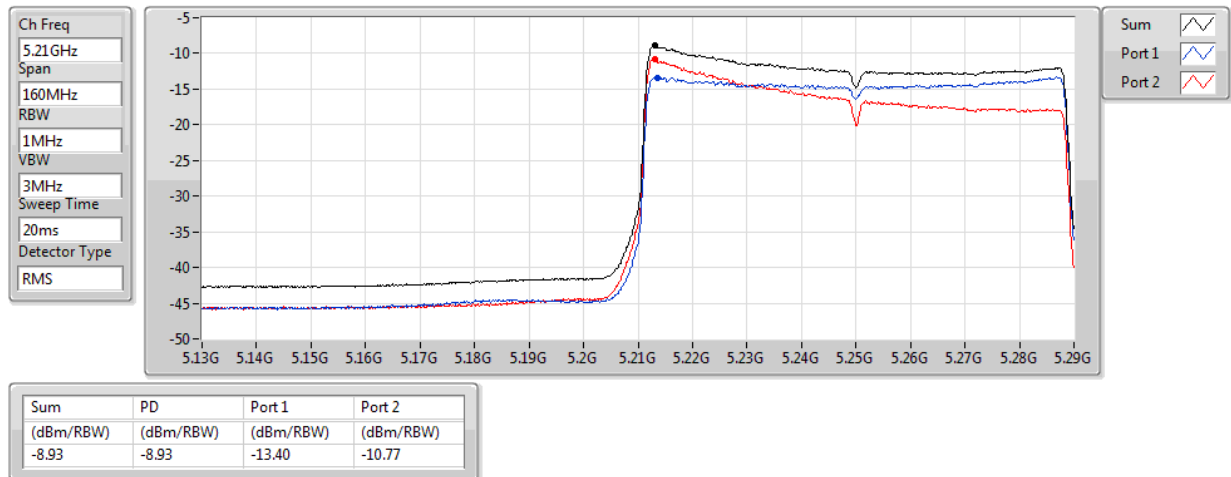


# Power Density Plot on Configuration QPSK, 80M / 5250 MHz (UNII 1)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.15-5.25GHz

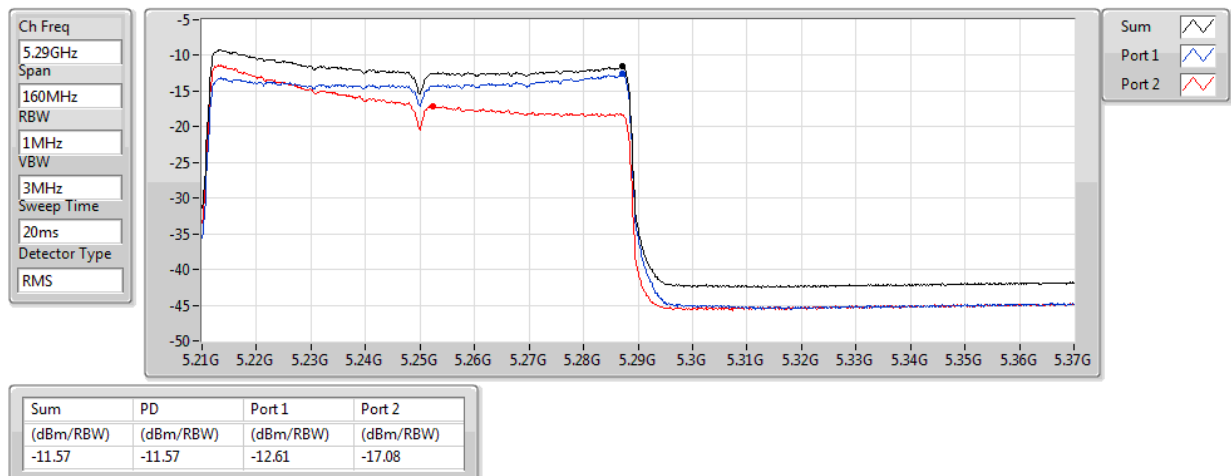


# Power Density Plot on Configuration QPSK, 80M / 5250 MHz (UNII 2A)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5250MHz Straddle 5.25-5.35GHz

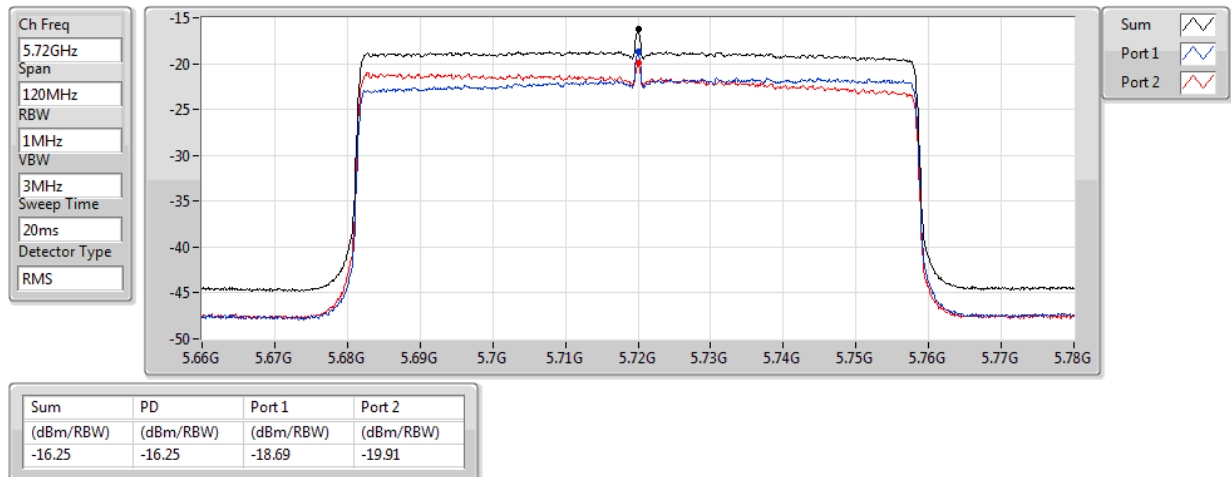


### Power Density Plot on Configuration QPSK, 80M / 5720 MHz (UNII 2C)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

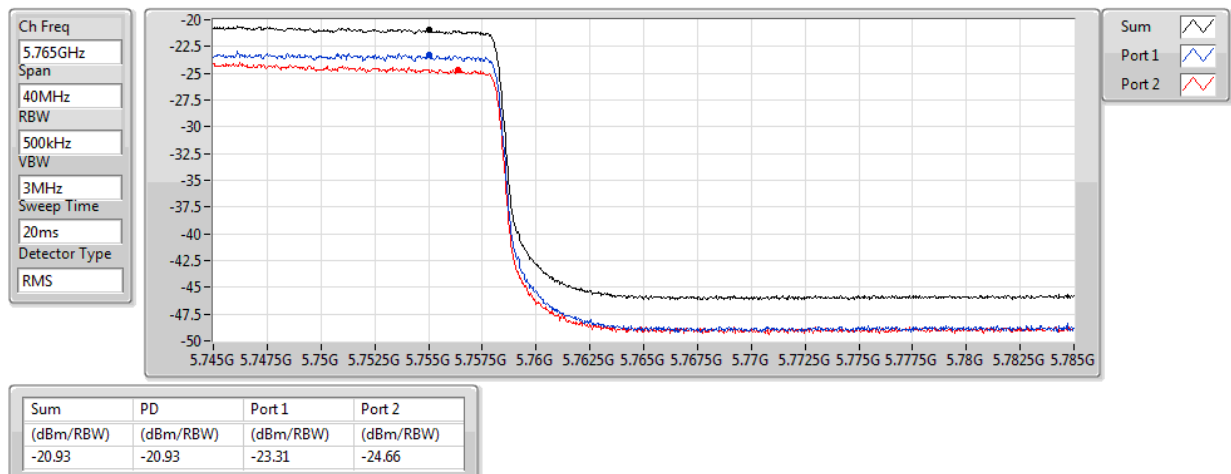


### Power Density Plot on Configuration QPSK, 80M / 5720 MHz (UNII 3)

802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5720MHz Straddle 5.725-5.85GHz



## 4.5. Radiated Emissions Measurement

### 4.5.1. Limit

For transmitters operating in the 5.15-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.

For transmitters operating in the 5.470-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: all emissions shall be limited to a level of  $-27$  dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

### 4.5.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40 GHz
RBW / VBW (Emission in restricted band)	1 MHz / 3MHz for Peak, 1 MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	1 MHz / 3MHz for peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

#### 4.5.3. Test Procedures

##### For Radiated measurement:

1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1m & 3m far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 1/T VBW for average reading in spectrum analyzer.
7. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
8. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

##### For Conducted measurement:

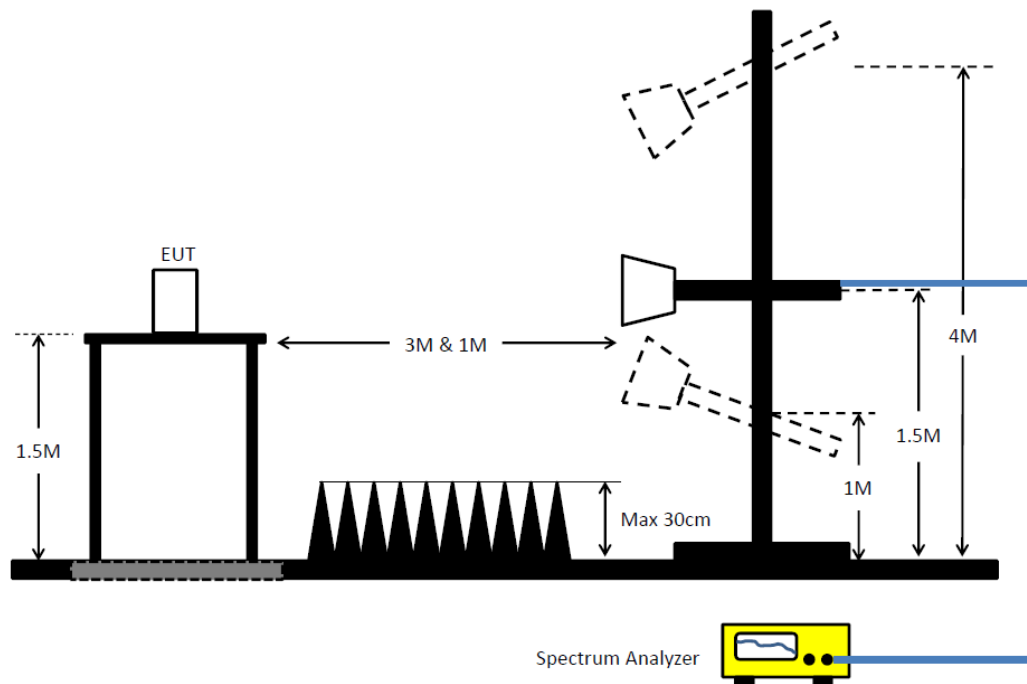
The EUT was perform conducted measurement and measurement level added antenna gain shall be comply to section 4.4.3.



#### 4.5.4. Test Setup Layout

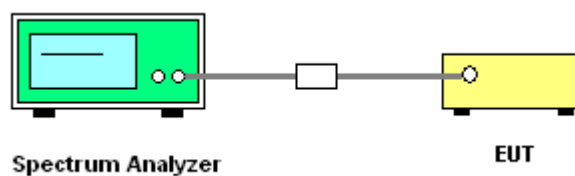
For Radiated test:

Above 1GHz



For Conducted measurement:

For Above 1GHz only:



#### 4.5.5. Test Deviation

There is no deviation with the original standard.

#### 4.5.6. EUT Operation during Test

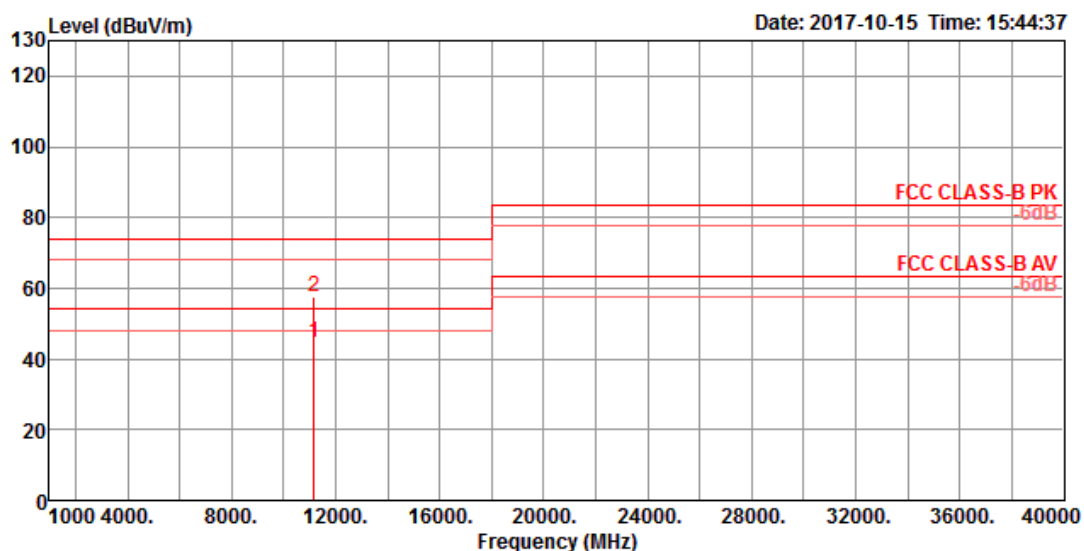
The EUT was programmed to be in continuously transmitting mode.

#### 4.5.7. Results for Radiated Emissions (1GHz~40GHz)

For Radiated test:

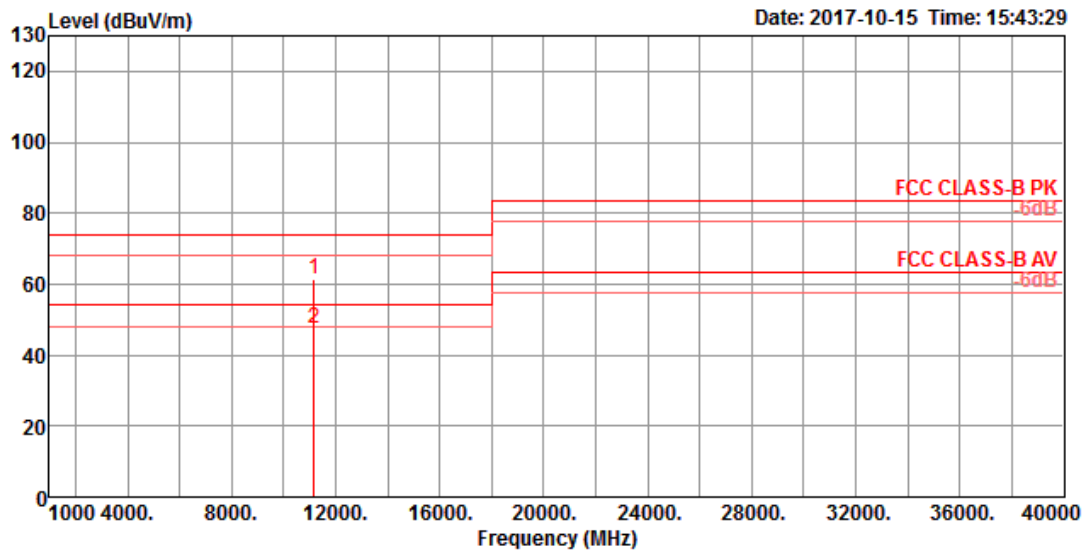
Temperature	22°C	Humidity	56%
Test Engineer	Justin Lin	Configurations	QPSK, 20M / CH 116 / Port 1 + Port 2
Test Date	Oct. 15, 2017		

Horizontal



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11160.24	44.49	54.00	-9.51	26.02	12.74	40.20	34.47	207	303 Average	HORIZONTAL
2	11160.24	57.53	74.00	-16.47	39.06	12.74	40.20	34.47	207	303 Peak	HORIZONTAL

### Vertical



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	11160.52	61.41	74.00	-12.59	42.94	12.74	40.20	34.47	101	20 Peak	VERTICAL
2	11161.26	47.69	54.00	-6.31	29.22	12.74	40.20	34.47	101	20 Average	VERTICAL

For Conducted test:

For Antenna 1:

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-83.63	-84.62	-80.50	-41.25	39.25
5300 MHz	-85.66	-87.32	-81.40	-41.25	40.15
5320 MHz	-87.39	-81.25	-78.30	-41.25	37.05
5250 MHz	-86.59	-87.44	-81.98	-41.25	40.73

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-74.72	-75.08	-69.89	-21.25	48.64
5300 MHz	-71.90	-74.01	-67.82	-21.25	46.57
5320 MHz	-74.70	-73.60	-69.10	-21.25	47.85
5250 MHz	-70.46	-73.92	-66.84	-21.25	45.59

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-87.32	-87.32	-82.31	-41.25	41.06
5300 MHz	-85.95	-81.07	-77.85	-41.25	36.60
5310 MHz	-87.01	-87.22	-82.10	-41.25	40.85
5250 MHz	-87.64	-87.45	-82.53	-41.25	41.28

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-73.81	-72.03	-67.82	-21.25	46.57
5300 MHz	-74.68	-71.41	-67.73	-21.25	46.48
5310 MHz	-75.15	-71.60	-68.01	-21.25	46.76
5250 MHz	-74.54	-74.68	-69.60	-21.25	48.35

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-88.99	-89.33	-84.15	-41.25	42.90
5580 MHz	-89.33	-88.14	-83.68	-41.25	42.43
5650 MHz	-88.07	-87.92	-82.98	-41.25	41.73
5720 MHz	-89.36	-88.74	-84.03	-41.25	42.78

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-76.04	-75.55	-70.78	-21.25	49.53
5580 MHz	-74.17	-77.09	-70.38	-21.25	49.13
5650 MHz	-69.49	-76.91	-66.77	-21.25	45.52
5720 MHz	-68.68	-76.29	-65.99	-21.25	44.74

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-89.34	-89.27	-84.29	-41.25	43.04
5610 MHz	-89.20	-89.46	-84.32	-41.25	43.07
5650 MHz	-88.37	-87.69	-83.01	-41.25	41.76
5720 MHz	-81.79	-86.01	-78.40	-41.25	37.15

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-76.53	-74.59	-70.44	-21.25	49.19
5610 MHz	-76.66	-75.58	-71.08	-21.25	49.83
5650 MHz	-66.11	-73.44	-63.37	-21.25	42.12
5720 MHz	-68.59	-76.99	-66.00	-21.25	44.75

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-59.37	-70.31	-57.03	-41.25	15.78
5300 MHz	-57.05	-68.01	-54.72	-41.25	13.47
5320 MHz	-58.38	-61.70	-54.72	-41.25	13.47
5250 MHz	-55.52	-70.58	-53.39	-41.25	12.14

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-53.78	-57.07	-50.11	-21.25	28.86
5300 MHz	-36.95	-56.53	-34.90	-21.25	13.65
5320 MHz	-45.68	-48.09	-41.71	-21.25	20.46
5250 MHz	-39.48	-58.23	-37.42	-21.25	16.17

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-55.26	-56.10	-50.65	-41.25	9.40
5300 MHz	-54.89	-54.66	-49.76	-41.25	8.51
5310 MHz	-59.96	-69.65	-57.52	-41.25	16.27
5250 MHz	-55.70	-54.56	-50.08	-41.25	8.83

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-39.14	-41.65	-35.21	-21.25	13.96
5300 MHz	-38.78	-41.27	-34.84	-21.25	13.59
5310 MHz	-55.54	-55.12	-50.31	-21.25	29.06
5250 MHz	-39.02	-38.02	-33.48	-21.25	12.23

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-59.54	-58.05	-53.72	-41.25	12.47
5580 MHz	-61.37	-69.24	-58.71	-41.25	17.46
5650 MHz	-60.07	-64.33	-56.69	-41.25	15.44
5720 MHz	-69.25	-77.40	-66.63	-41.25	25.38

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-47.24	-46.27	-41.72	-21.25	20.47
5580 MHz	-43.94	-57.59	-41.76	-21.25	20.51
5650 MHz	-45.74	-51.68	-42.75	-21.25	21.50
5720 MHz	-58.02	-64.11	-55.06	-21.25	33.81

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-62.66	-62.06	-57.34	-41.25	16.09
5610 MHz	-55.35	-60.72	-52.24	-41.25	10.99
5650 MHz	-58.31	-60.61	-54.30	-41.25	13.05
5720 MHz	-68.35	-78.07	-65.91	-41.25	24.66



Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-50.83	-51.23	-46.02	-21.25	24.77
5610 MHz	-40.77	-47.87	-38.00	-21.25	16.75
5650 MHz	-43.40	-46.19	-39.56	-21.25	18.31
5720 MHz	-52.22	-62.00	-49.79	-21.25	28.54

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-73.16	-80.56	-70.43	-41.25	29.18
5300 MHz	-73.16	-80.44	-70.42	-41.25	29.17
5320 MHz	-72.40	-76.02	-68.83	-41.25	27.58
5250 MHz	-70.34	-80.79	-67.97	-41.25	26.72

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-64.78	-69.23	-61.45	-21.25	40.20
5300 MHz	-58.43	-68.78	-56.05	-21.25	34.80
5320 MHz	-64.09	-68.94	-60.86	-21.25	39.61
5250 MHz	-51.26	-69.30	-49.19	-21.25	27.94

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-71.98	-80.79	-69.44	-41.25	28.19
5300 MHz	-70.89	-78.34	-68.17	-41.25	26.92
5310 MHz	-71.22	-77.46	-68.29	-41.25	27.04
5250 MHz	-79.76	-80.94	-75.30	-41.25	34.05

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-63.73	-70.18	-60.84	-21.25	39.59
5300 MHz	-63.43	-69.30	-60.43	-21.25	39.18
5310 MHz	-64.73	-69.25	-61.42	-21.25	40.17
5250 MHz	-69.64	-68.68	-64.12	-21.25	42.87

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-67.60	-68.06	-62.81	-41.25	21.56
5580 MHz	-72.48	-75.63	-68.77	-41.25	27.52
5650 MHz	-71.27	-76.16	-68.05	-41.25	26.80
5720 MHz	-68.22	-71.24	-64.46	-41.25	23.21

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-53.48	-55.25	-49.27	-21.25	28.02
5580 MHz	-63.01	-64.01	-58.47	-21.25	37.22
5650 MHz	-61.67	-63.78	-57.59	-21.25	36.34
5720 MHz	-55.96	-59.90	-52.49	-21.25	31.24

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-67.58	-72.20	-64.29	-41.25	23.04
5610 MHz	-67.16	-75.32	-64.54	-41.25	23.29
5650 MHz	-68.36	-74.15	-65.34	-41.25	24.09
5720 MHz	-59.44	-67.10	-56.75	-41.25	15.50

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-55.20	-60.01	-51.96	-21.25	30.71
5610 MHz	-54.15	-62.81	-51.60	-21.25	30.35
5650 MHz	-56.04	-62.12	-53.08	-21.25	31.83
5720 MHz	-46.22	-55.68	-43.75	-21.25	22.50

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-75.78	-77.88	-71.69	-41.25	30.44
5300 MHz	-72.05	-77.05	-68.86	-41.25	27.61
5320 MHz	-77.91	-76.70	-72.25	-41.25	31.00
5250 MHz	-76.45	-78.23	-72.24	-41.25	30.99

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-65.67	-65.68	-60.66	-21.25	39.41
5300 MHz	-59.81	-65.72	-56.82	-21.25	35.57
5320 MHz	-66.66	-65.09	-60.79	-21.25	39.54
5250 MHz	-64.29	-65.19	-59.71	-21.25	38.46

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-77.77	-77.89	-72.82	-41.25	31.57
5300 MHz	-77.74	-77.83	-72.77	-41.25	31.52
5310 MHz	-77.74	-77.71	-72.71	-41.25	31.46
5250 MHz	-78.10	-78.14	-73.11	-41.25	31.86

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-66.70	-66.12	-61.39	-21.25	40.14
5300 MHz	-66.63	-66.15	-61.37	-21.25	40.12
5310 MHz	-66.97	-66.23	-61.57	-21.25	40.32
5250 MHz	-66.65	-65.94	-61.27	-21.25	40.02

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-79.79	-80.59	-75.16	-41.25	33.91
5580 MHz	-80.61	-75.55	-72.37	-41.25	31.12
5650 MHz	-79.60	-73.98	-70.93	-41.25	29.68
5720 MHz	-71.26	-71.12	-66.18	-41.25	24.93

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-65.73	-67.80	-61.63	-21.25	40.38
5580 MHz	-68.69	-63.09	-60.03	-21.25	38.78
5650 MHz	-67.65	-60.13	-57.42	-21.25	36.17
5720 MHz	-60.26	-60.05	-55.14	-21.25	33.89

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-79.59	-80.40	-74.97	-41.25	33.72
5610 MHz	-80.53	-80.50	-75.50	-41.25	34.25
5650 MHz	-80.49	-80.65	-75.56	-41.25	34.31
5720 MHz	-80.53	-80.71	-75.61	-41.25	34.36

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-67.55	-67.18	-62.35	-21.25	41.10
5610 MHz	-69.05	-68.66	-63.84	-21.25	42.59
5650 MHz	-68.57	-68.22	-63.38	-21.25	42.13
5720 MHz	-69.15	-68.58	-63.85	-21.25	42.60

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-73.72	-73.71	-68.70	-41.25	27.45
5300 MHz	-73.44	-73.78	-68.60	-41.25	27.35
5320 MHz	-73.75	-73.58	-68.65	-41.25	27.40
5250 MHz	-73.94	-73.98	-68.95	-41.25	27.70

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-61.46	-62.25	-56.83	-21.25	35.58
5300 MHz	-62.18	-61.52	-56.83	-21.25	35.58
5320 MHz	-61.50	-62.02	-56.74	-21.25	35.49
5250 MHz	-61.55	-61.89	-56.71	-21.25	35.46

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-73.67	-73.77	-68.71	-41.25	27.46
5300 MHz	-73.62	-73.73	-68.66	-41.25	27.41
5310 MHz	-73.72	-73.67	-68.68	-41.25	27.43
5250 MHz	-73.83	-73.90	-68.85	-41.25	27.60

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-61.58	-61.71	-56.63	-21.25	35.38
5300 MHz	-62.09	-61.72	-56.89	-21.25	35.64
5310 MHz	-62.39	-61.97	-57.16	-21.25	35.91
5250 MHz	-61.29	-61.98	-56.61	-21.25	35.36

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-75.20	-75.32	-70.25	-41.25	29.00
5580 MHz	-75.38	-75.33	-70.34	-41.25	29.09
5650 MHz	-75.22	-75.24	-70.22	-41.25	28.97
5720 MHz	-75.34	-75.27	-70.29	-41.25	29.04

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-62.43	-62.39	-49.98	-21.25	28.73
5580 MHz	-63.66	-62.92	-58.26	-21.25	37.01
5650 MHz	-63.52	-63.01	-58.25	-21.25	37.00
5720 MHz	-63.66	-61.95	-57.71	-21.25	36.46

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-75.21	-75.16	-70.17	-41.25	28.92
5610 MHz	-75.28	-75.39	-70.32	-41.25	29.07
5650 MHz	-75.40	-75.13	-70.25	-41.25	29.00
5720 MHz	-74.98	-75.24	-70.10	-41.25	28.85



<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 80M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-62.71	-63.39	-58.03	-21.25	36.78
5610 MHz	-63.44	-63.27	-58.34	-21.25	37.09
5650 MHz	-63.37	-62.88	-58.11	-21.25	36.86
5720 MHz	-63.02	-63.08	-58.04	-21.25	36.79

## For Antenna 2:

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-89.39	-89.16	-64.26	-41.25	23.01
5300 MHz	-88.13	-89.33	-63.68	-41.25	22.43
5320 MHz	-89.22	-88.42	-85.79	-41.25	44.54
5250 MHz	-87.47	-87.56	-62.50	-41.25	21.25

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-76.16	-76.91	-51.51	-21.25	30.26
5300 MHz	-76.74	-75.52	-51.08	-21.25	29.83
5320 MHz	-76.82	-75.59	-73.15	-21.25	51.90
5250 MHz	-75.19	-74.40	-49.77	-21.25	28.52

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-89.24	-87.86	-63.49	-41.25	22.24
5300 MHz	-89.42	-86.96	-63.01	-41.25	21.76
5250 MHz	-87.64	-87.49	-62.55	-41.25	21.30

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 80M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-77.28	-76.07	-51.62	-21.25	30.37
5300 MHz	-76.62	-76.13	-51.36	-21.25	30.11
5250 MHz	-75.26	-72.67	-48.76	-21.25	27.51

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 20M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-89.21	-89.07	-64.13	-41.25	22.88
5580 MHz	-89.10	-89.30	-64.19	-41.25	22.94
5650 MHz	-89.00	-89.11	-64.04	-41.25	22.79
5720 MHz	-89.37	-84.88	-61.56	-41.25	20.31

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 20M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-71.26	-73.86	-47.36	-21.25	26.11
5580 MHz	-72.84	-74.61	-48.63	-21.25	27.38
5650 MHz	-67.59	-75.93	-45.00	-21.25	23.75
5720 MHz	-76.66	-72.52	-49.10	-21.25	27.85

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-89.27	-89.13	-64.19	-41.25	22.94
5610 MHz	-89.16	-89.23	-64.18	-41.25	22.93
5650 MHz	-88.98	-89.28	-64.12	-41.25	22.87
5720 MHz	-80.24	-79.09	-54.62	-41.25	13.37

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-66.63	-71.59	-43.43	-21.25	22.18
5610 MHz	-71.33	-73.08	-47.11	-21.25	25.86
5650 MHz	-71.50	-74.04	-47.58	-21.25	26.33
5720 MHz	-64.08	-72.10	-41.44	-21.25	20.19

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-66.83	-71.43	-43.54	-41.25	2.29
5300 MHz	-68.20	-71.04	-44.38	-41.25	3.13
5320 MHz	-68.94	-72.85	-45.46	-41.25	4.21
5250 MHz	-70.00	-74.97	-46.80	-41.25	5.55

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-55.57	-58.18	-31.67	-21.25	10.42
5300 MHz	-56.07	-58.07	-31.95	-21.25	10.70
5320 MHz	-56.25	-56.53	-31.38	-21.25	10.13
5250 MHz	-57.67	-62.88	-34.53	-21.25	13.28

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-68.32	-71.42	-44.59	-41.25	3.34
5300 MHz	-68.55	-71.65	-44.82	-41.25	3.57
5250 MHz	-69.52	-75.89	-46.62	-41.25	5.37

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-57.23	-59.97	-33.38	-21.25	12.13
5300 MHz	-57.76	-58.95	-33.30	-21.25	12.05
5250 MHz	-58.94	-63.02	-35.51	-21.25	14.26

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-68.45	-69.45	-43.91	-41.25	2.66
5580 MHz	-67.31	-74.09	-44.48	-41.25	3.23
5650 MHz	-67.18	-73.95	-44.35	-41.25	3.10
5720 MHz	-64.57	-70.16	-41.51	-41.25	0.26

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-56.70	-57.78	-32.20	-21.25	10.95
5580 MHz	-54.67	-62.55	-32.01	-21.25	10.76
5650 MHz	-55.16	-62.40	-32.41	-21.25	11.16
5720 MHz	-51.97	-58.14	-29.03	-21.25	7.78

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-67.50	-74.22	-44.66	-41.25	3.41
5610 MHz	-67.10	-74.46	-44.37	-41.25	3.12
5650 MHz	-66.93	-73.74	-44.11	-41.25	2.86
5720 MHz	-64.69	-69.84	-41.53	-41.25	0.28

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-55.08	-61.75	-32.23	-21.25	10.98
5610 MHz	-54.80	-61.50	-31.96	-21.25	10.71
5650 MHz	-54.94	-61.68	-32.11	-21.25	10.86
5720 MHz	-51.45	-56.63	-28.30	-21.25	7.05

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-84.73	-84.87	-59.79	-41.25	18.54
5300 MHz	-84.81	-84.77	-59.78	-41.25	18.53
5320 MHz	-84.79	-84.82	-81.79	-41.25	40.54
5250 MHz	-79.69	-80.67	-55.14	-41.25	13.89

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-72.39	-72.71	-47.54	-21.25	26.29
5300 MHz	-72.99	-72.67	-47.82	-21.25	26.57
5320 MHz	-72.48	-72.60	-69.53	-21.25	48.28
5250 MHz	-68.55	-68.75	-43.64	-21.25	22.39

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 80M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-84.86	-84.87	-59.85	-41.25	18.60
5300 MHz	-84.75	-84.94	-59.83	-41.25	18.58
5250 MHz	-79.97	-80.93	-55.41	-41.25	14.16

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 80M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-72.70	-72.05	-47.35	-21.25	26.10
5300 MHz	-72.52	-72.51	-47.50	-21.25	26.25
5250 MHz	-69.24	-68.17	-43.66	-21.25	22.41

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 20M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-71.61	-69.30	-45.29	-41.25	4.04
5580 MHz	-71.23	-75.05	-47.72	-41.25	6.47
5650 MHz	-70.50	-74.61	-47.08	-41.25	5.83
5720 MHz	-66.89	-75.16	-44.29	-41.25	3.04



Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-61.47	-61.56	-36.50	-21.25	15.25
5580 MHz	-59.75	-66.42	-36.90	-21.25	15.65
5650 MHz	-58.96	-66.57	-36.27	-21.25	15.02
5720 MHz	-53.43	-62.93	-30.97	-21.25	9.72

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-71.63	-77.46	-48.62	-41.25	7.37
5610 MHz	-70.81	-76.46	-47.76	-41.25	6.51
5650 MHz	-70.66	-76.55	-47.66	-41.25	6.41
5720 MHz	-67.82	-73.27	-44.73	-41.25	3.48

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-59.76	-66.40	-36.91	-21.25	15.66
5610 MHz	-59.81	-66.38	-36.95	-21.25	15.70
5650 MHz	-59.89	-66.72	-37.07	-21.25	15.82
5720 MHz	-56.01	-62.69	-33.17	-21.25	11.92

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-80.35	-80.24	-55.28	-41.25	14.03
5300 MHz	-80.42	-80.64	-55.52	-41.25	14.27
5320 MHz	-80.49	-80.39	-77.43	-41.25	36.18
5250 MHz	-78.12	-78.05	-53.07	-41.25	11.82

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-67.69	-68.16	-42.91	-21.25	21.66
5300 MHz	-68.83	-68.42	-43.61	-21.25	22.36
5320 MHz	-68.26	-68.93	-65.57	-21.25	44.32
5250 MHz	-65.91	-66.03	-40.96	-21.25	19.71

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-80.36	-80.36	-55.35	-41.25	14.10
5300 MHz	-80.41	-80.31	-55.35	-41.25	14.10
5250 MHz	-77.96	-78.14	-53.04	-41.25	11.79

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-68.86	-69.11	-43.97	-21.25	22.72
5300 MHz	-68.67	-68.87	-43.76	-21.25	22.51
5250 MHz	-66.13	-66.06	-41.08	-21.25	19.83

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-80.74	-80.85	-55.78	-41.25	14.53
5580 MHz	-80.67	-80.73	-55.69	-41.25	14.44
5650 MHz	-80.68	-80.67	-55.66	-41.25	14.41
5720 MHz	-80.45	-80.60	-55.51	-41.25	14.26

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-67.58	-68.28	-42.91	-21.25	21.66
5580 MHz	-68.34	-67.90	-43.10	-21.25	21.85
5650 MHz	-67.97	-67.78	-42.86	-21.25	21.61
5720 MHz	-68.27	-68.36	-43.30	-21.25	22.05

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-80.75	-80.62	-55.67	-41.25	14.42
5610 MHz	-80.74	-80.65	-55.68	-41.25	14.43
5650 MHz	-80.68	-80.69	-55.67	-41.25	14.42
5720 MHz	-80.55	-80.77	-55.65	-41.25	14.40

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-67.24	-67.93	-42.56	-21.25	21.31
5610 MHz	-67.54	-68.02	-42.76	-21.25	21.51
5650 MHz	-66.85	-68.56	-42.61	-21.25	21.36
5720 MHz	-67.63	-67.82	-42.71	-21.25	21.46

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-75.05	-75.17	-50.10	-41.25	8.85
5300 MHz	-75.20	-75.29	-50.23	-41.25	8.98
5320 MHz	-75.32	-75.36	-72.33	-41.25	31.08
5250 MHz	-73.76	-73.99	-48.86	-41.25	7.61

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5260 MHz	-61.14	-62.45	-36.74	-21.25	15.49
5300 MHz	-64.03	-63.95	-38.98	-21.25	17.73
5320 MHz	-63.18	-64.17	-60.64	-21.25	39.39
5250 MHz	-61.14	-61.32	-36.22	-21.25	14.97

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-75.03	-75.24	-50.12	-41.25	8.87
5300 MHz	-75.23	-75.38	-50.29	-41.25	9.04
5250 MHz	-73.91	-73.85	-48.87	-41.25	7.62

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5290 MHz	-63.54	-64.25	-38.87	-21.25	17.62
5300 MHz	-63.68	-64.27	-38.95	-21.25	17.70
5250 MHz	-62.30	-61.93	-37.10	-21.25	15.85

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-75.25	-75.29	-50.26	-41.25	9.01
5580 MHz	-75.06	-75.18	-50.11	-41.25	8.86
5650 MHz	-75.07	-75.20	-50.12	-41.25	8.87
5720 MHz	-75.33	-75.28	-50.29	-41.25	9.04

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 20M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5500 MHz	-62.73	-62.47	-37.59	-21.25	16.34
5580 MHz	-62.52	-61.75	-37.11	-21.25	15.86
5650 MHz	-61.35	-62.74	-36.98	-21.25	15.73
5720 MHz	-62.19	-62.70	-37.43	-21.25	16.18

Temperature	27.1°C	Humidity	79%
Test Engineer	Ron Huang	Configurations	QPSK, 80M / Average / Port 1 + Port 2 / 18GHz~40GHz

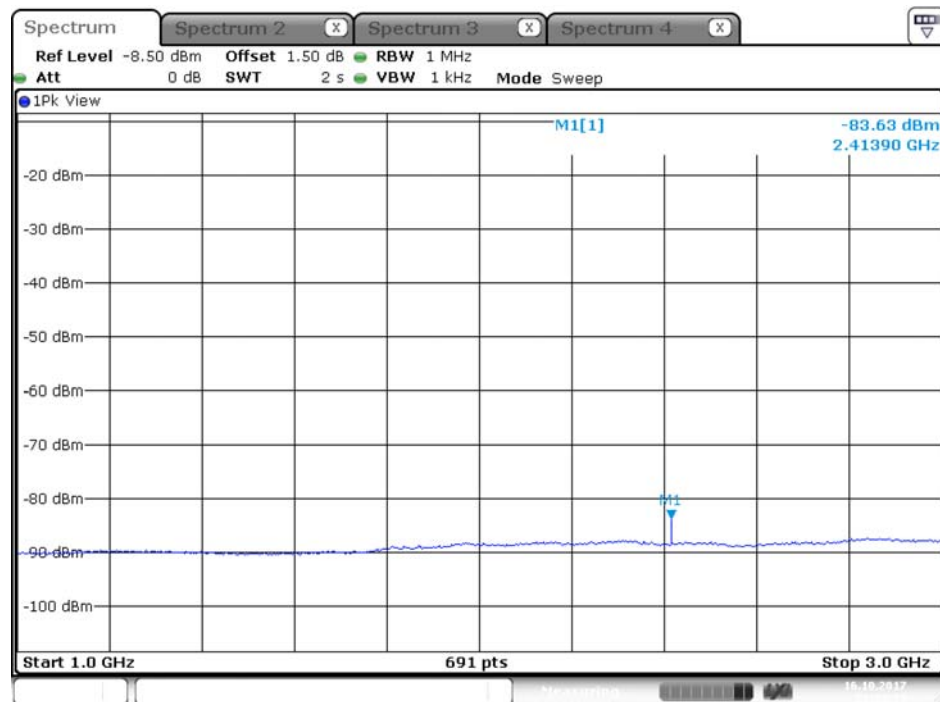
Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-75.16	-75.05	-50.09	-41.25	8.84
5610 MHz	-75.11	-75.22	-50.15	-41.25	8.90
5650 MHz	-75.23	-75.14	-50.17	-41.25	8.92
5720 MHz	-75.23	-75.37	-50.29	-41.25	9.04

<b>Temperature</b>	27.1°C	<b>Humidity</b>	79%
<b>Test Engineer</b>	Ron Huang	<b>Configurations</b>	QPSK, 80M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency(MHz)	Chain 1 (TX1) Spurious Level (dBm)	Chain 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5510 MHz	-62.48	-61.73	-37.08	-21.25	15.83
5610 MHz	-62.11	-61.96	-37.02	-21.25	15.77
5650 MHz	-62.56	-62.03	-37.28	-21.25	16.03
5720 MHz	-62.71	-62.92	-37.80	-21.25	16.55

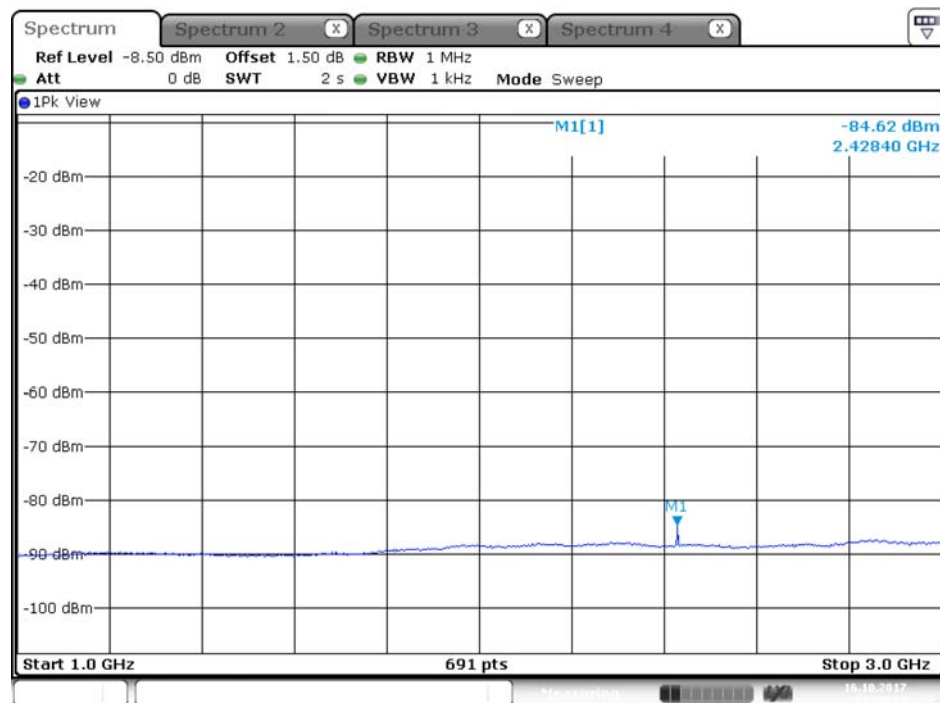
For Antenna 1:

Plot on Configuration QPSK, 20M / 5260 MHz / Average / Port 1 / 1GHz~3GHz



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Plot on Configuration QPSK, 20M / 5260 MHz / Average / Port 2 / 1GHz~3GHz



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