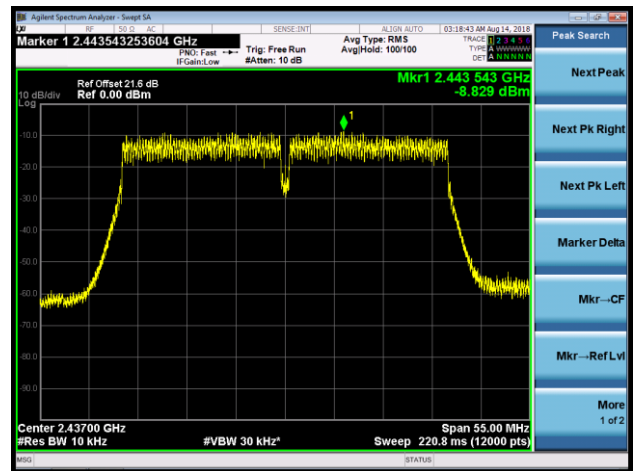


802.11ac-VHT40 AVGPSD - Ant 3 / Ant 0 + 1 +2 + 3

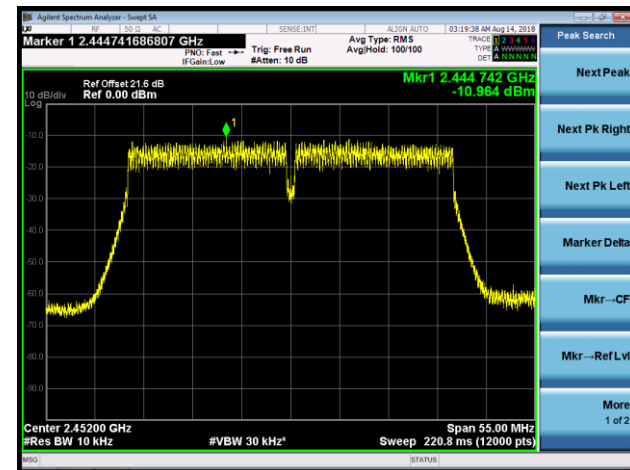
Channel 03 (2422MHz)



Channel 06 (2437MHz)

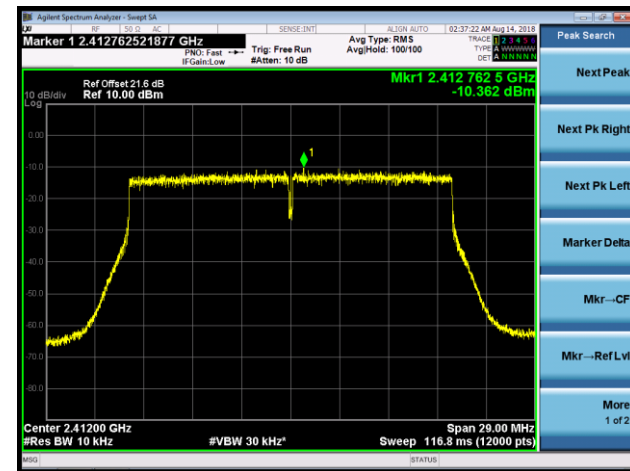


Channel 09 (2452MHz)

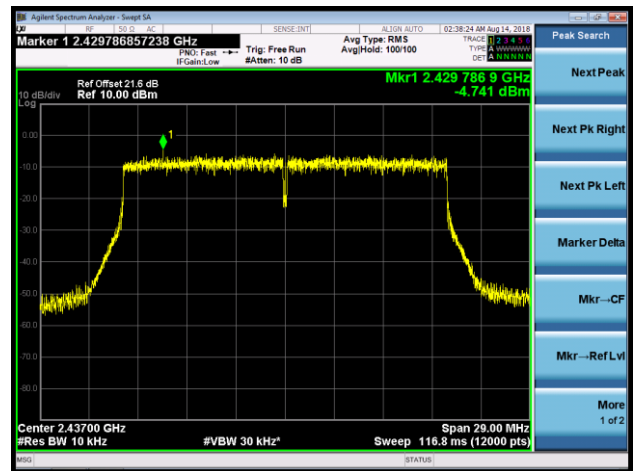


802.11ax-HE20 AVGPDS - Ant 3 / Ant 0 + 1 +2 + 3

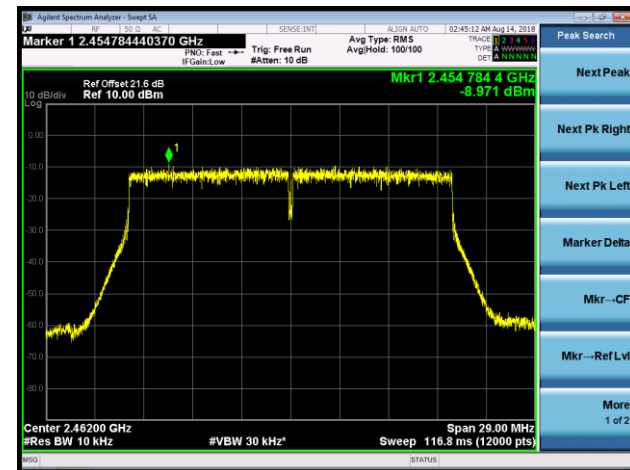
Channel 01 (2412MHz)



Channel 06 (2437MHz)

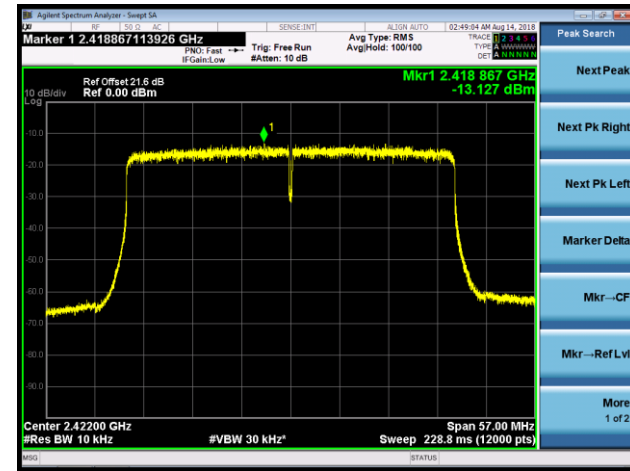


Channel 11 (2462MHz)

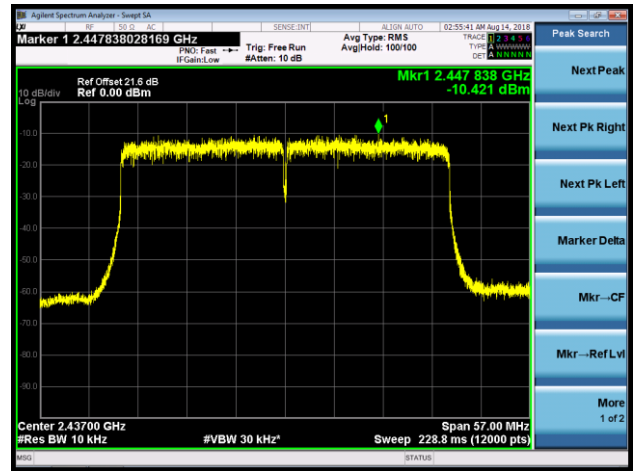


802.11ax-HE40 AVGPDS - Ant 3 / Ant 0 + 1 +2 + 3

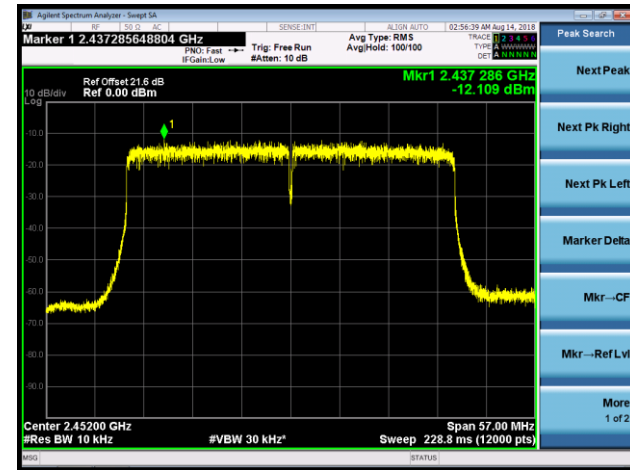
Channel 03 (2422MHz)



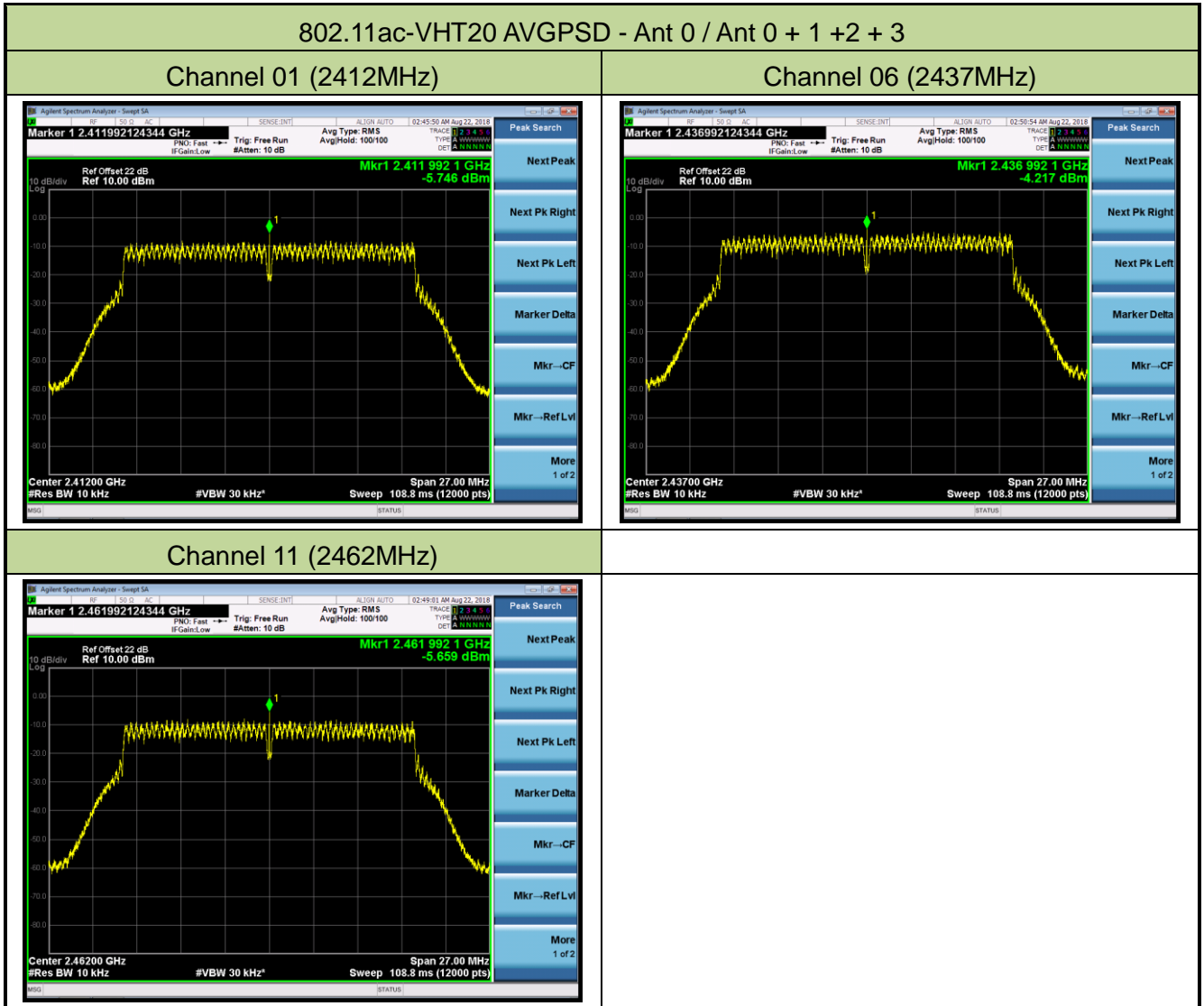
Channel 06 (2437MHz)



Channel 09 (2452MHz)

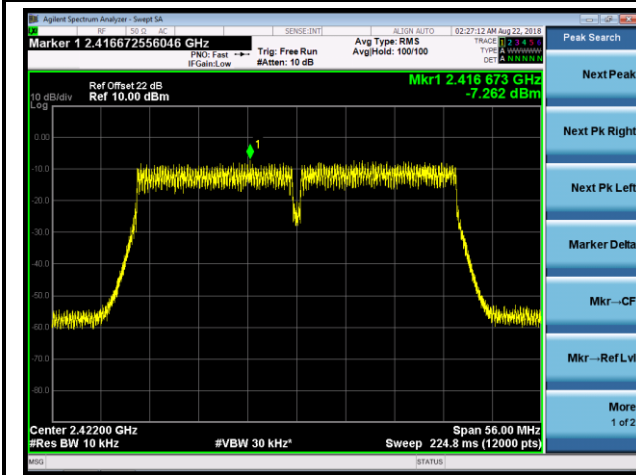


Product	AX6000 MU-MIMO Wi-Fi Router	Temperature	25°C
Test Engineer	Dandy Li	Relative Humidity	54%
Test Mode	Beam-Forming Mode		

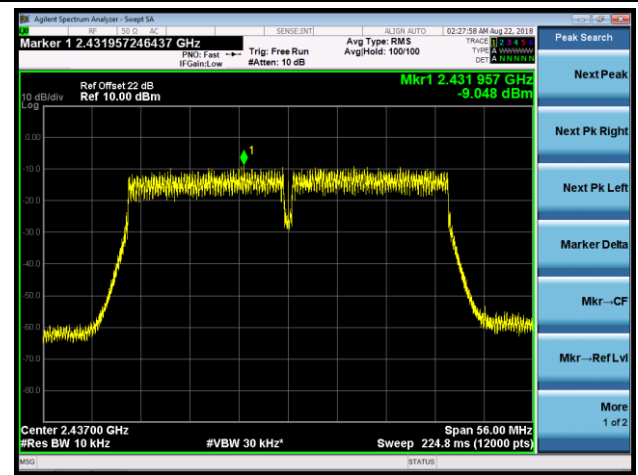


802.11ac-VHT40 AVGPDS - Ant 0 / Ant 0 + 1 +2 + 3

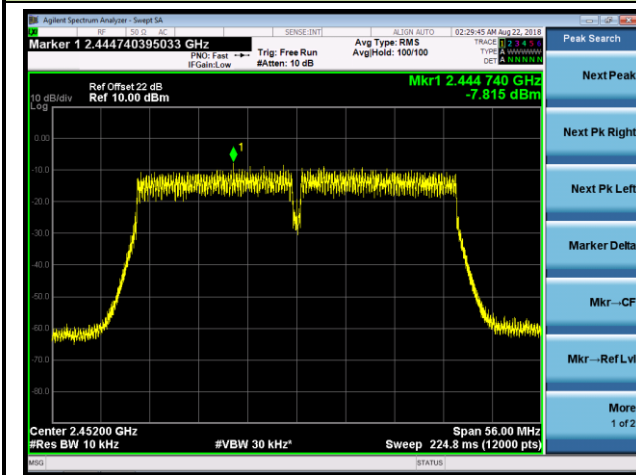
Channel 03 (2422MHz)



Channel 06 (2437MHz)

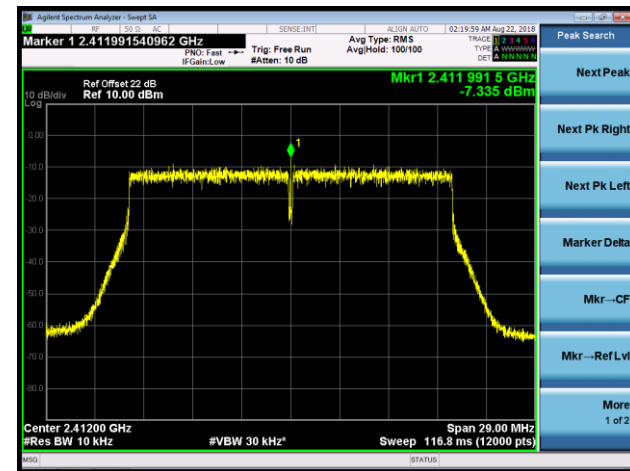


Channel 09 (2452MHz)

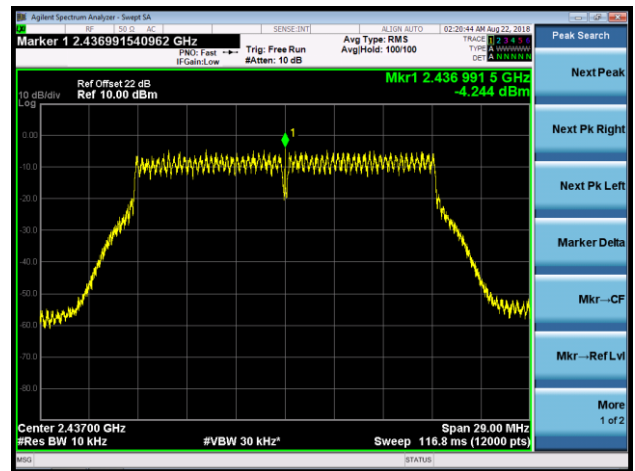


802.11ax-HE20 AVGPSPD - Ant 0 / Ant 0 + 1 +2 + 3

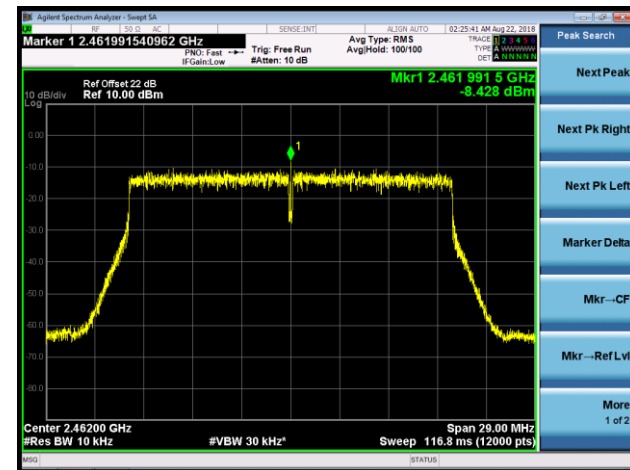
Channel 01 (2412MHz)



Channel 06 (2437MHz)

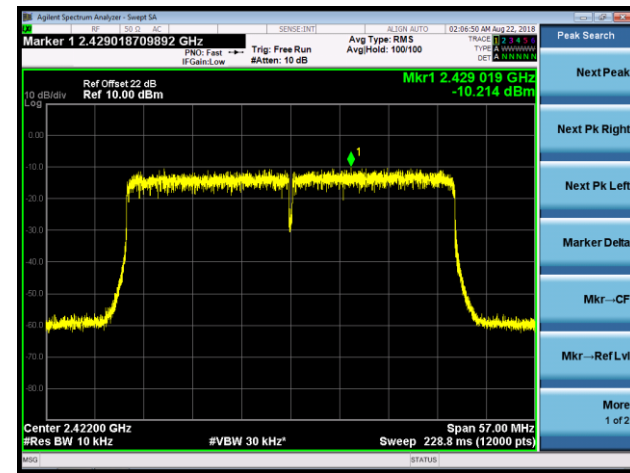


Channel 11 (2462MHz)

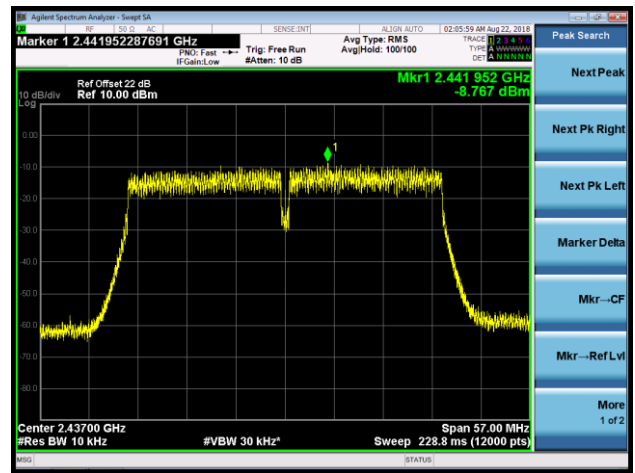


802.11ax-HE40 AVGPDS - Ant 0 / Ant 0 + 1 +2 + 3

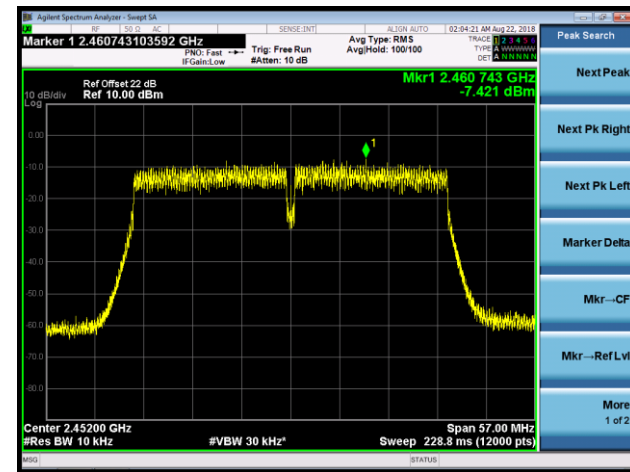
Channel 03 (2422MHz)



Channel 06 (2437MHz)

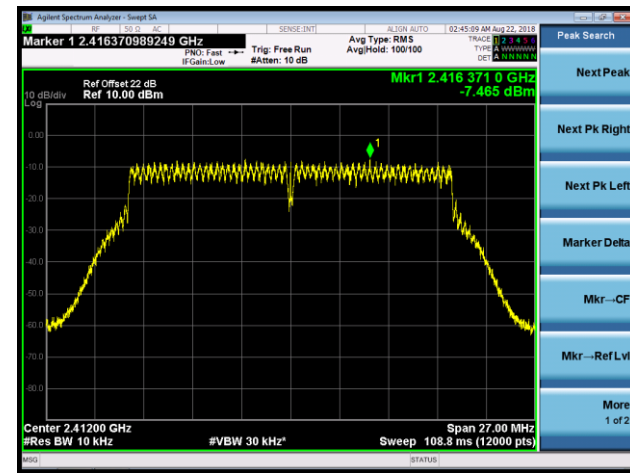


Channel 09 (2452MHz)

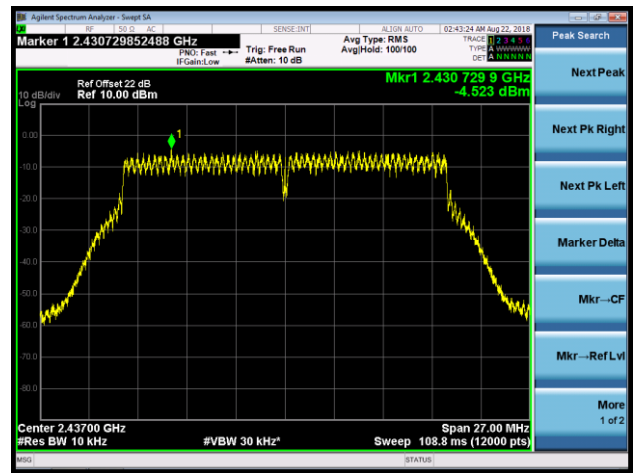


802.11ac-VHT20 AVGPDS - Ant 1 / Ant 0 + 1 +2 + 3

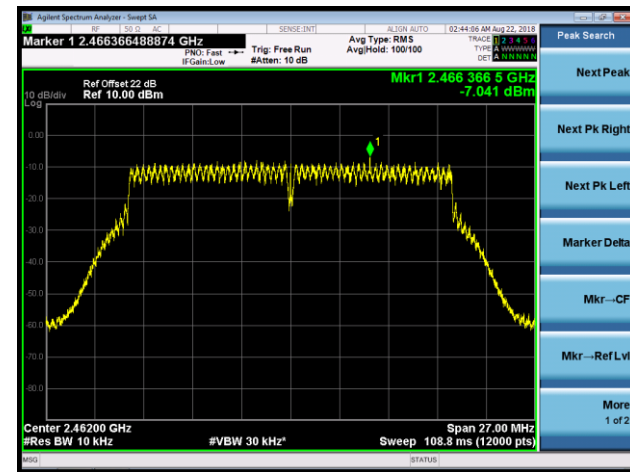
Channel 01 (2412MHz)



Channel 06 (2437MHz)



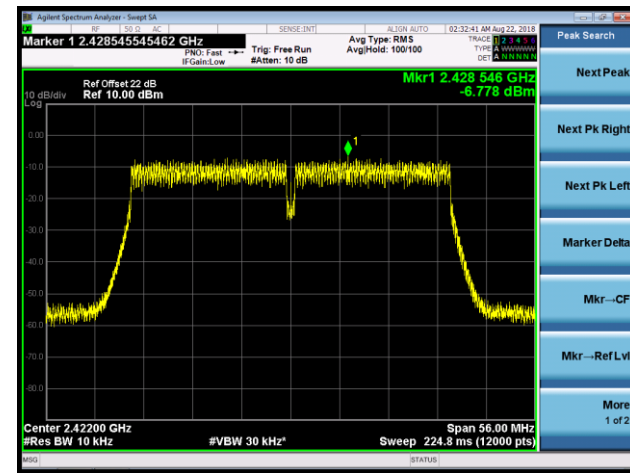
Channel 11 (2462MHz)



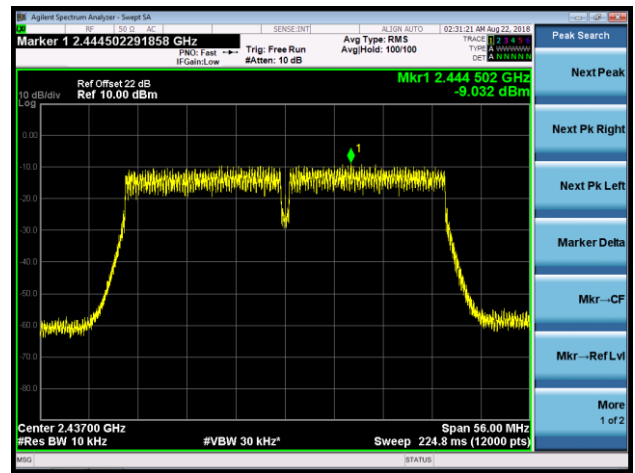


802.11ac-VHT40 AVGPDS - Ant 1 / Ant 0 + 1 +2 + 3

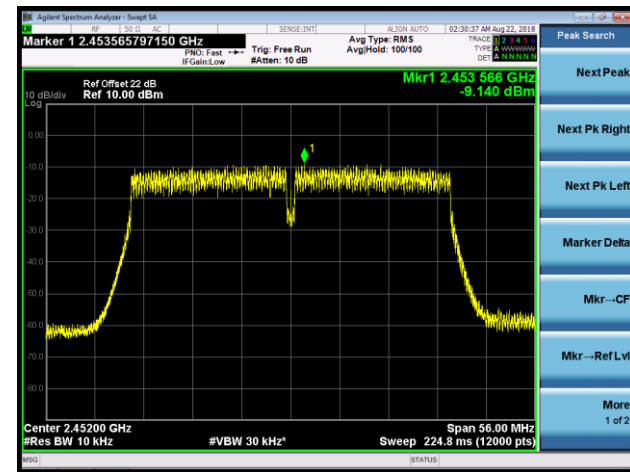
Channel 03 (2422MHz)



Channel 06 (2437MHz)

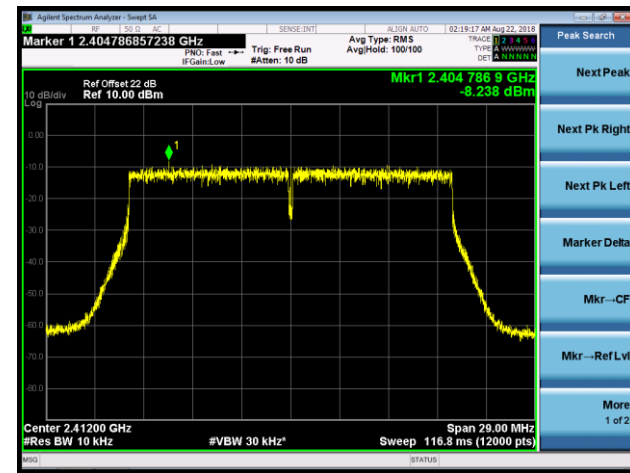


Channel 09 (2452MHz)

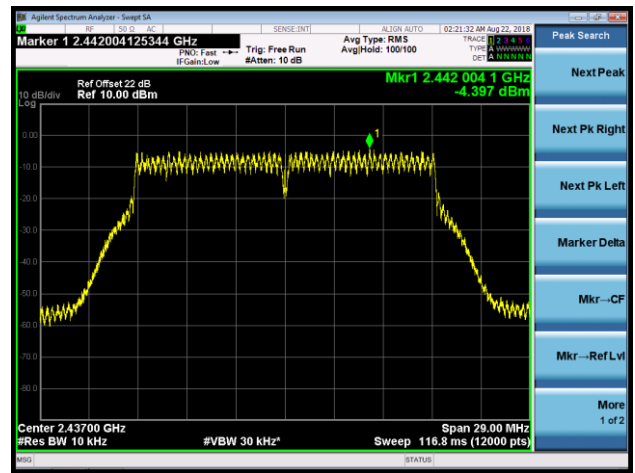


802.11ax-HE20 AVGPSPD - Ant 1 / Ant 0 + 1 +2 + 3

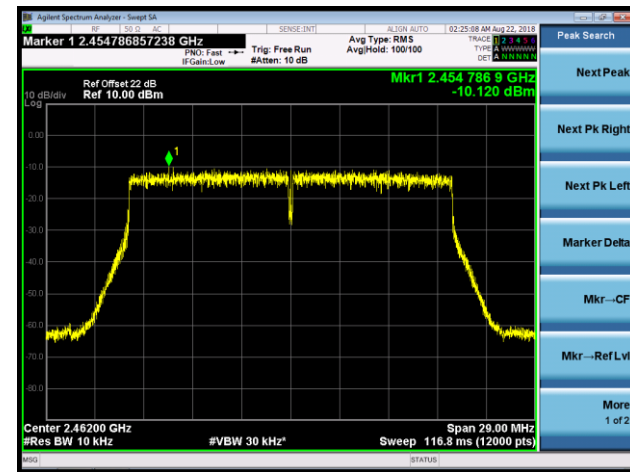
Channel 01 (2412MHz)



Channel 06 (2437MHz)

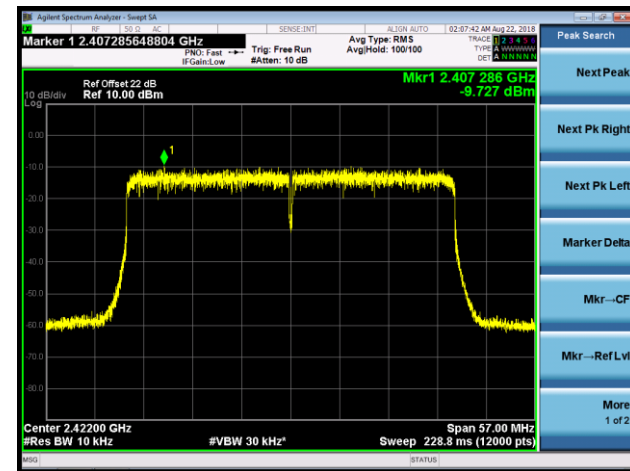


Channel 11 (2462MHz)

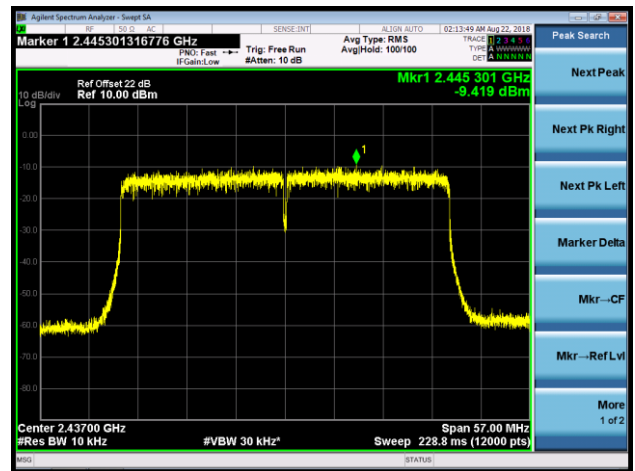


802.11ax-HE40 AVGPDS - Ant 1 / Ant 0 + 1 + 2 + 3

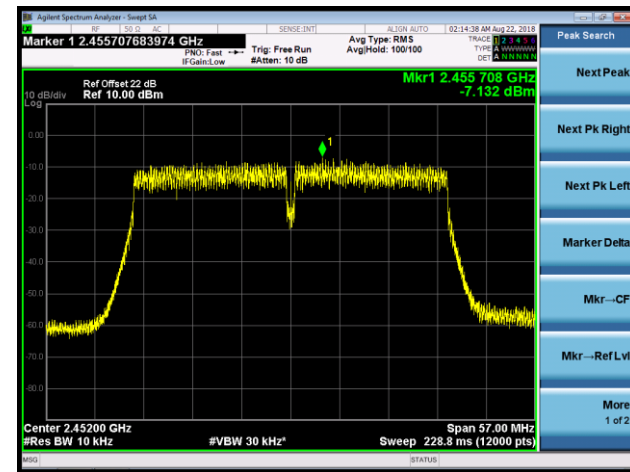
Channel 03 (2422MHz)



Channel 06 (2437MHz)

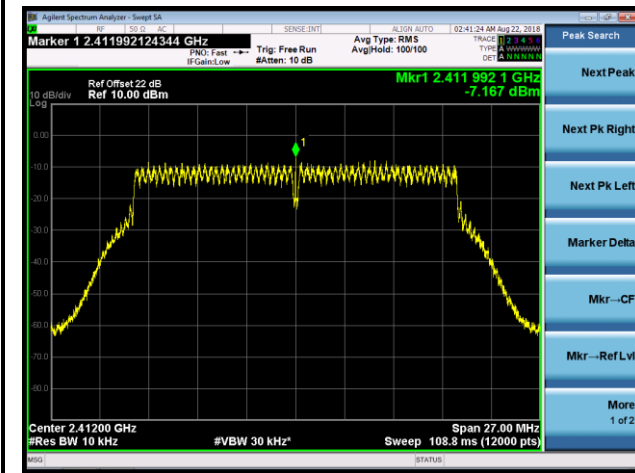


Channel 09 (2452MHz)

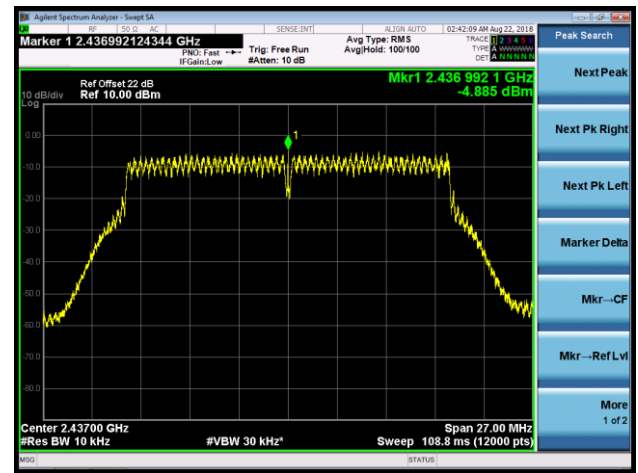


802.11ac-VHT20 AVGPDS - Ant 2 / Ant 0 + 1 +2 + 3

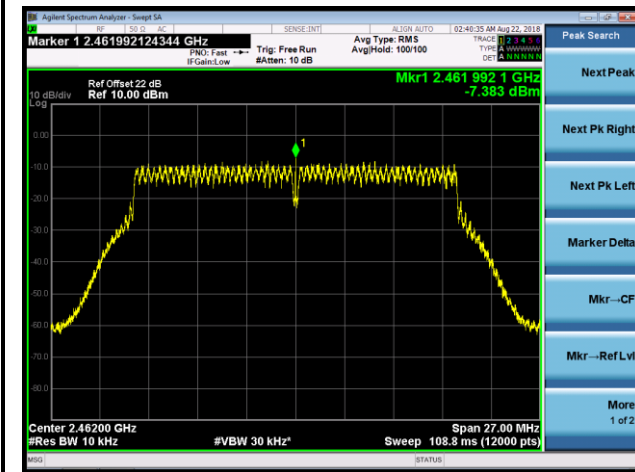
Channel 01 (2412MHz)



Channel 06 (2437MHz)



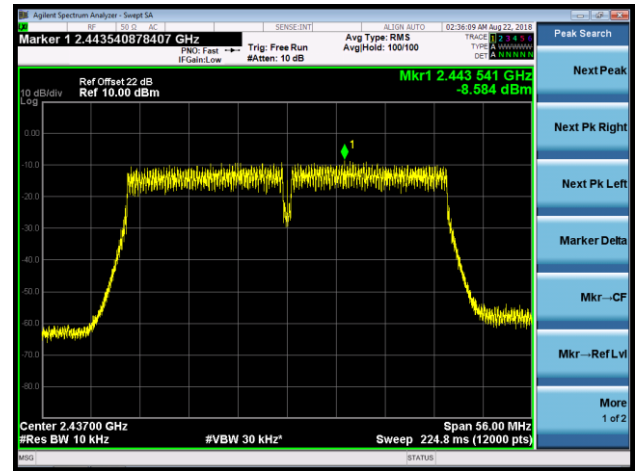
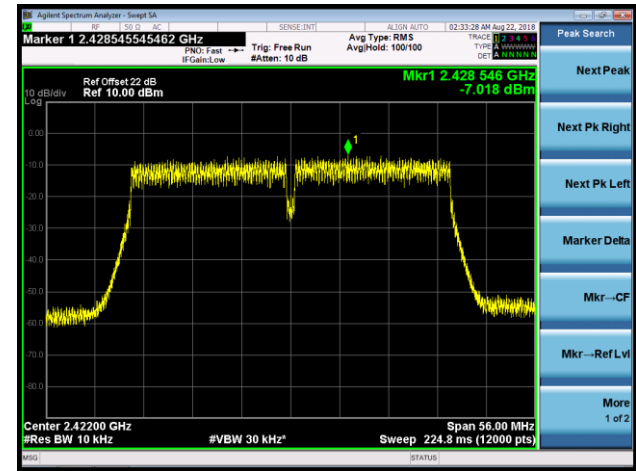
Channel 11 (2462MHz)



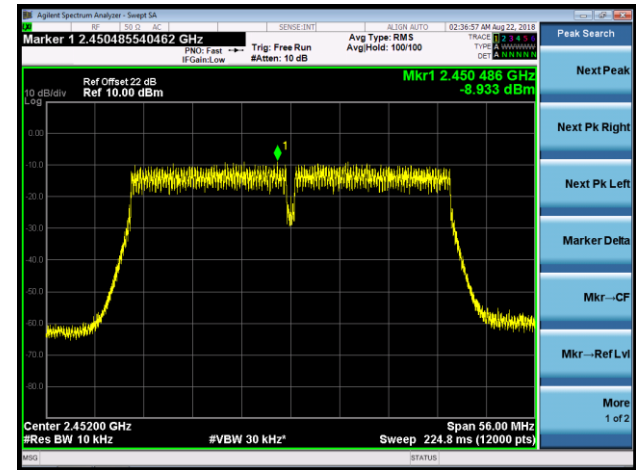
802.11ac-VHT40 AVGPDS - Ant 2 / Ant 0 + 1 +2 + 3

Channel 03 (2422MHz)

Channel 06 (2437MHz)

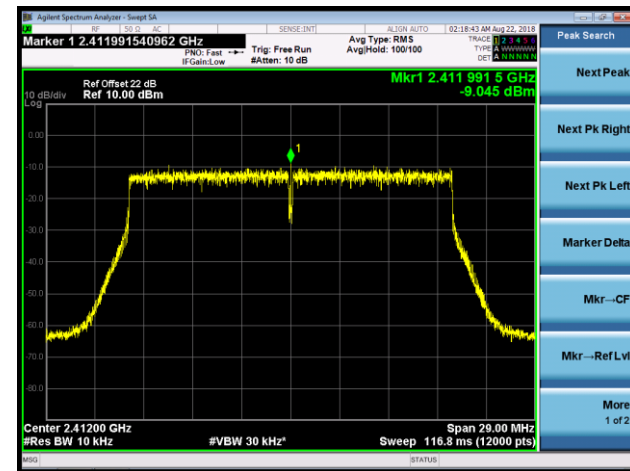


Channel 09 (2452MHz)

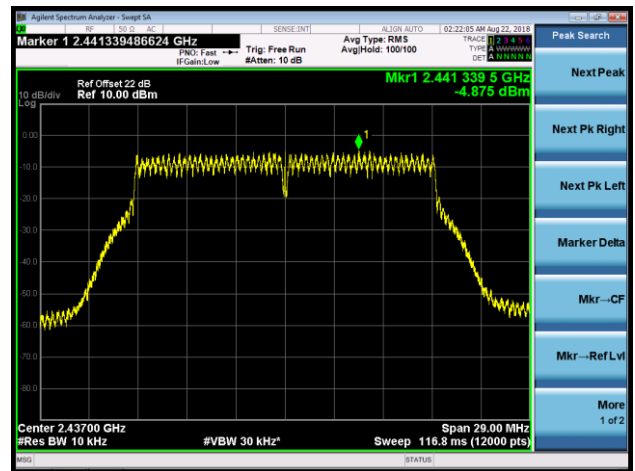


802.11ax-HE20 AVGPSPD - Ant 2 / Ant 0 + 1 +2 + 3

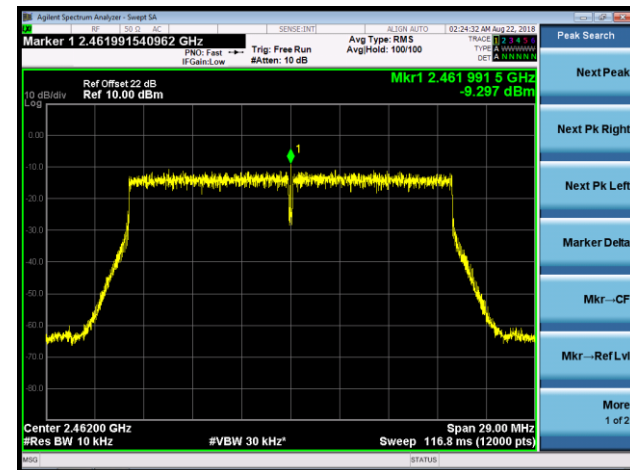
Channel 01 (2412MHz)



Channel 06 (2437MHz)

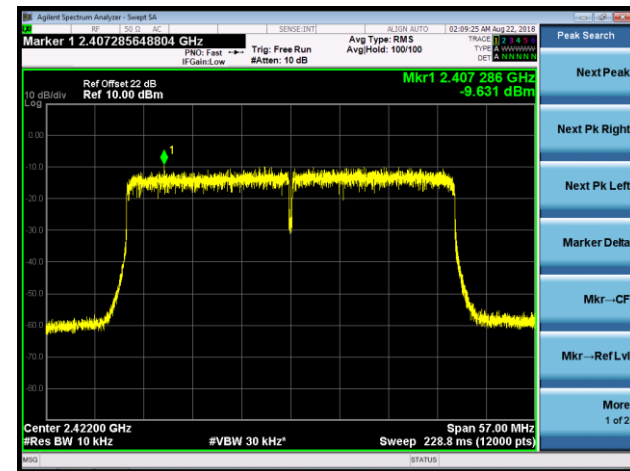


Channel 11 (2462MHz)

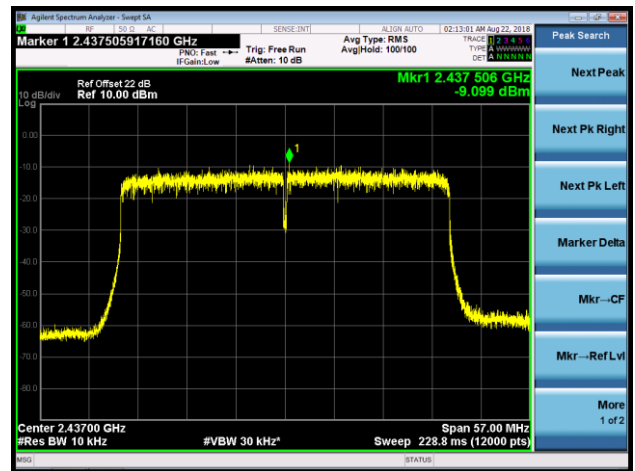


802.11ax-HE40 AVGPDS - Ant 2 / Ant 0 + 1 +2 + 3

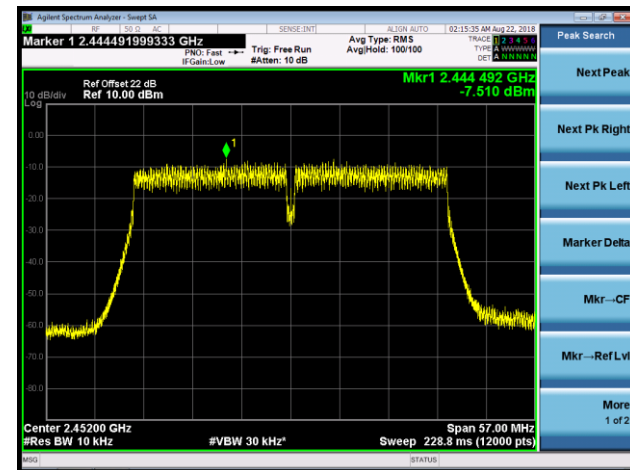
Channel 03 (2422MHz)



Channel 06 (2437MHz)

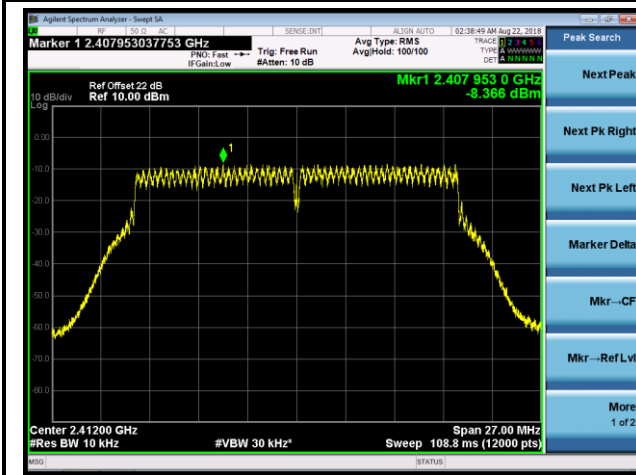


Channel 09 (2452MHz)

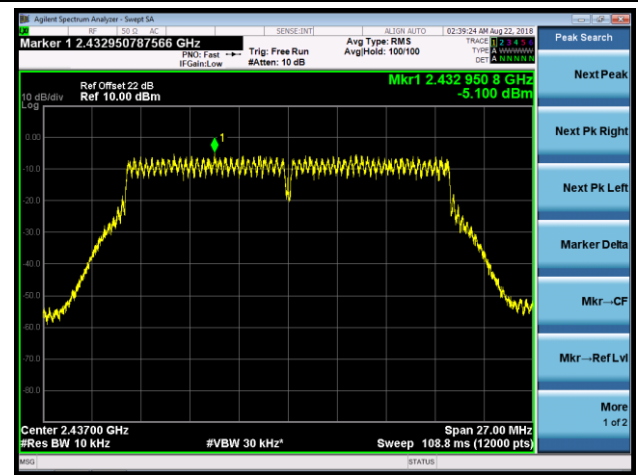


802.11ac-VHT20 AVGPSD - Ant 3 / Ant 0 + 1 +2 + 3

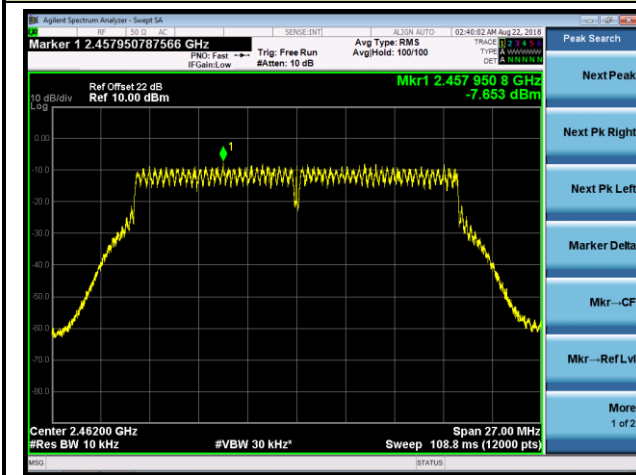
Channel 01 (2412MHz)



Channel 06 (2437MHz)



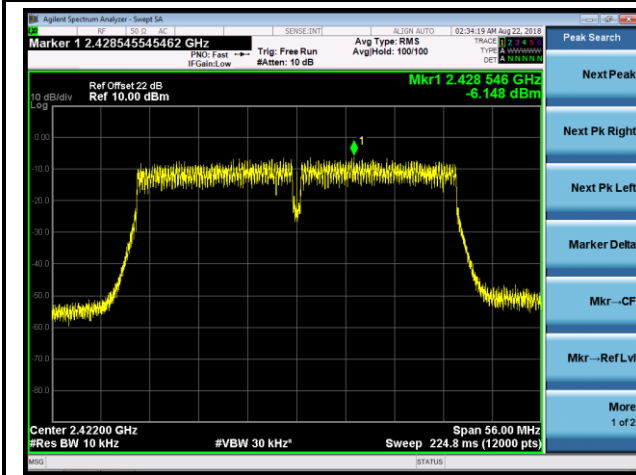
Channel 11 (2462MHz)



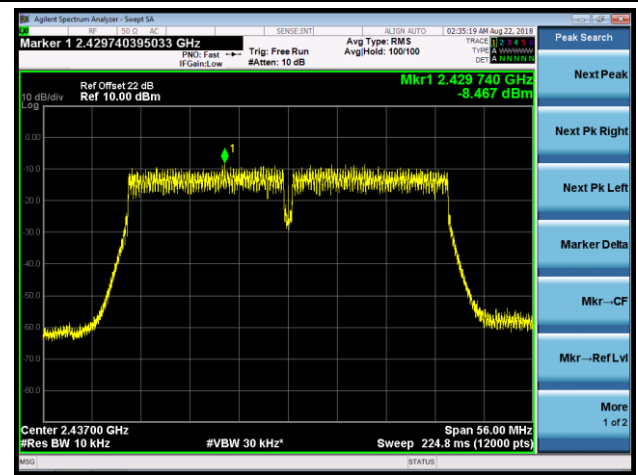


802.11ac-VHT40 AVGPSD - Ant 3 / Ant 0 + 1 +2 + 3

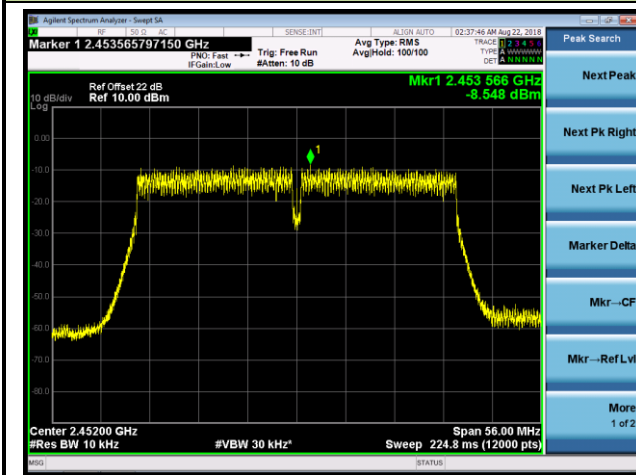
Channel 03 (2422MHz)



Channel 06 (2437MHz)

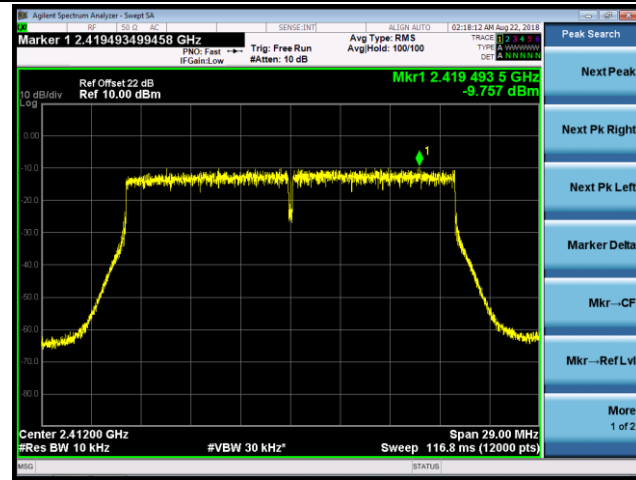


Channel 09 (2452MHz)

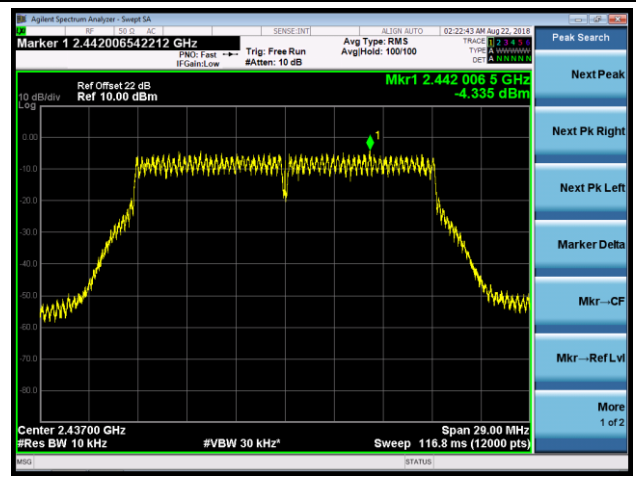


802.11ax-HE20 AVGPSPD - Ant 3 / Ant 0 + 1 +2 + 3

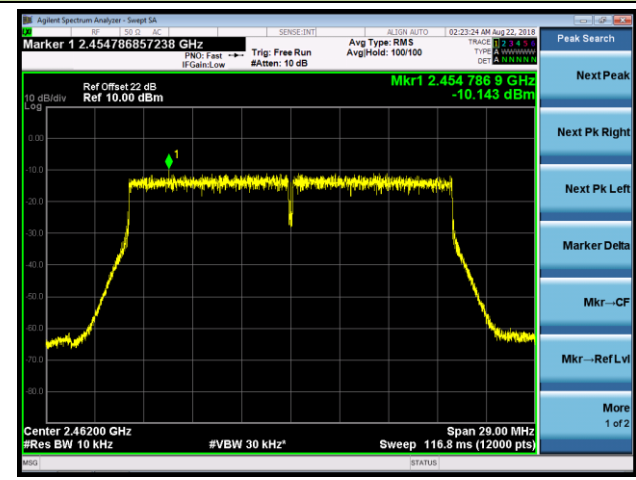
Channel 01 (2412MHz)



Channel 06 (2437MHz)

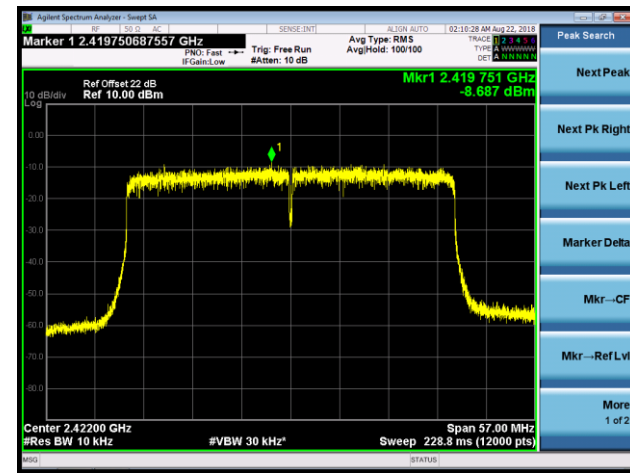


Channel 11 (2462MHz)

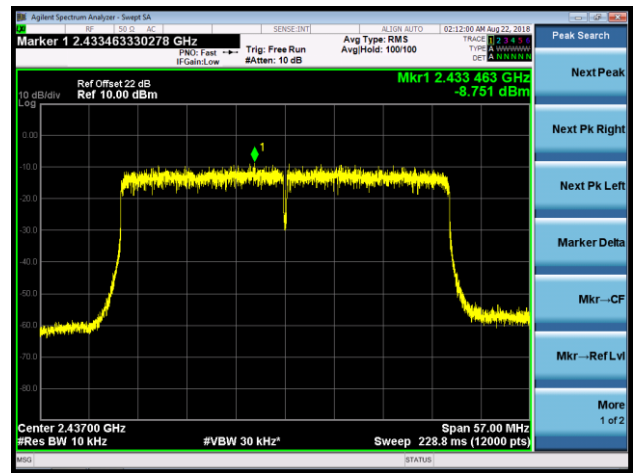


802.11ax-HE40 AVGPDS - Ant 3 / Ant 0 + 1 +2 + 3

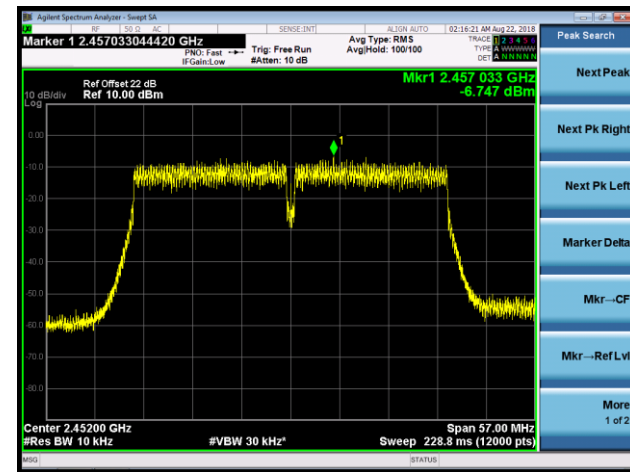
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



## **7.5. Conducted Band Edge and Out-of-Band Emissions**

### **7.5.1. Test Limit**

The limit for out-of-band spurious emissions at the band edge is 30dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

### **7.5.2. Test Procedure Used**

ANSI C63.10 Section 11.11

### **7.5.3. Test Setting**

#### **Reference level measurement**

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to  $\geq 1.5$  times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW  $\geq 3 \times$  RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

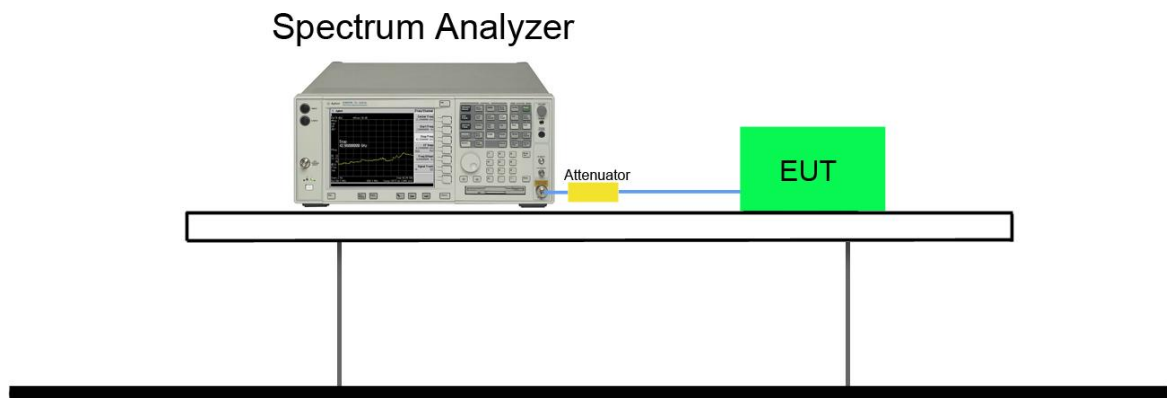
#### **Emission level measurement**

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 1.3MHz
3. VBW = 4MHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

### Test Notes

1. RBW was set to 1.3MHz rather than 100 kHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 30dB below the fundamental emission level measured in a 100 kHz bandwidth. However, since the traces in the following plots are measured with a 1.3MHz RBW, the display line may not necessarily appear to be 30dB below the level of the fundamental in a 1.3MHz bandwidth.
3. For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.

### 7.5.4. Test Setup



### 7.5.5. Test Result

Product	AX6000 MU-MIMO Wi-Fi Router	Temperature	25°C
Test Engineer	Flag Yang	Relative Humidity	54%
Test Site	SR2	Test Date	2018/08/14
Test Item	Conducted Band Edge and Out-of-Band Emissions		

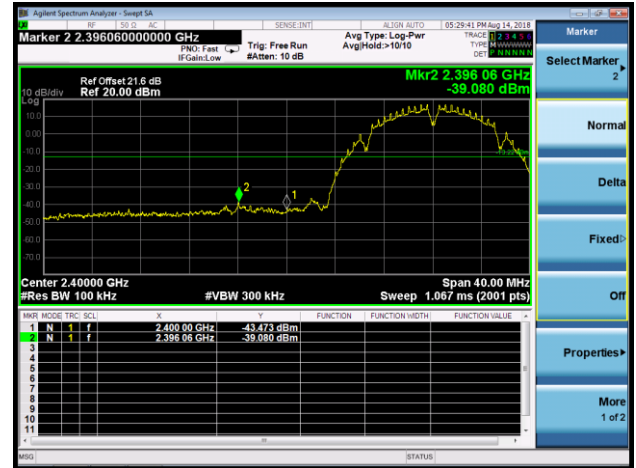
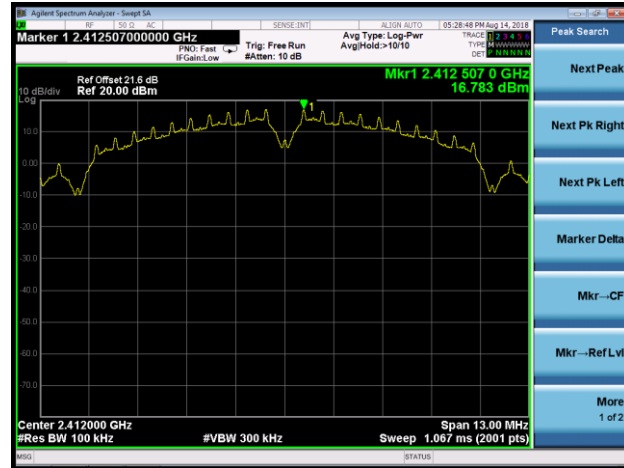
Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit (dBc)	Result
Ant 3 / Ant 0 + 1 + 2 + 3					
802.11b	1Mbps	01	2412	30	Pass
802.11b	1Mbps	06	2437	30	Pass
802.11b	1Mbps	11	2462	30	Pass
802.11g	6Mbps	01	2412	30	Pass
802.11g	6Mbps	06	2437	30	Pass
802.11g	6Mbps	11	2462	30	Pass
802.11n-HT20	MCS0	01	2412	30	Pass
802.11n-HT20	MCS0	06	2437	30	Pass
802.11n-HT20	MCS0	11	2462	30	Pass
802.11n-HT40	MCS0	03	2422	30	Pass
802.11n-HT40	MCS0	06	2437	30	Pass
802.11n-HT40	MCS0	09	2452	30	Pass
802.11ac-VHT20	MCS0	01	2412	30	Pass
802.11ac-VHT20	MCS0	06	2437	30	Pass
802.11ac-VHT20	MCS0	11	2462	30	Pass
802.11ac-VHT40	MCS0	03	2422	30	Pass
802.11ac-VHT40	MCS0	06	2437	30	Pass
802.11ac-VHT40	MCS0	09	2452	30	Pass
802.11ax-HE20	MCS0	01	2412	30	Pass
802.11ax-HE20	MCS0	06	2437	30	Pass
802.11ax-HE20	MCS0	11	2462	30	Pass
802.11ax-HE40	MCS0	03	2422	30	Pass
802.11ax-HE40	MCS0	06	2437	30	Pass
802.11ax-HE40	MCS0	09	2452	30	Pass

802.11b Out-of-Band Emissions - Ant 3 / Ant 0 + 1 + 2 + 3

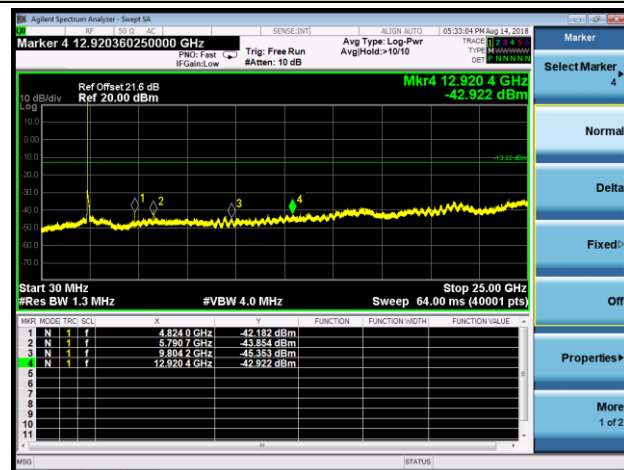
Channel 01 (2412MHz)

100kHz PSD reference Level

Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

100kHz PSD reference Level

Spurious Emission

