

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 20dB 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

KDB 558074 D01v03r05 – Section 11.2 & Section 11.3

7.5.3. Test Settling

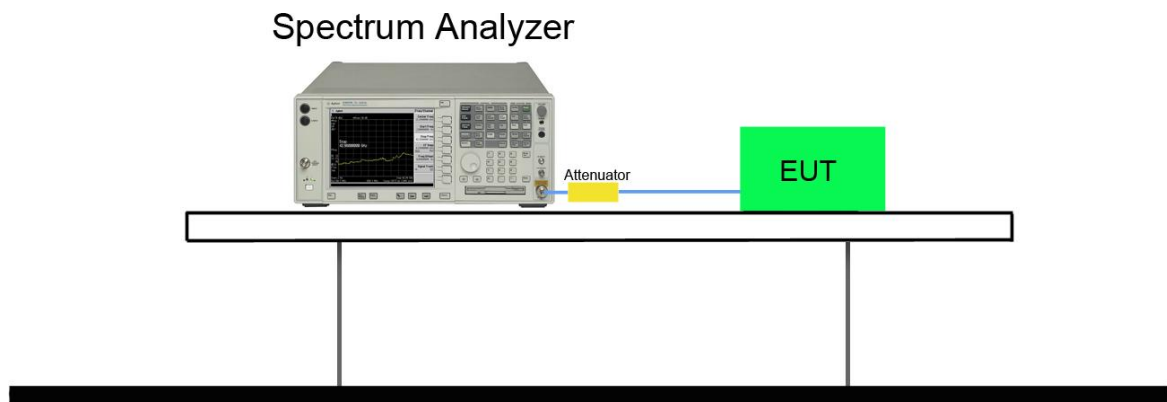
1. Reference level measurement

- (a) Set instrument center frequency to DTS channel center frequency
- (b) Set the span to ≥ 1.5 times the DTS bandwidth
- (c) Set the RBW = 100 kHz
- (d) Set the VBW $\geq 3 \times$ RBW
- (e) Detector = peak
- (f) Sweep time = auto couple
- (g) Trace mode = max hold
- (h) Allow trace to fully stabilize

2. Emission level measurement

- (a) Set the center frequency and span to encompass frequency range to be measured
- (b) RBW = 100kHz
- (c) VBW = 300kHz
- (d) Detector = Peak
- (e) Trace mode = max hold
- (f) Sweep time = auto couple
- (g) The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

Product	WIFI Module	Temperature	25°C
Test Engineer	Roy Cheng	Relative Humidity	54%
Test Site	TR3	Test Date	2016/06/17

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Ant 1					
802.11b	1	01	2412	20dBc	Pass
802.11b	1	06	2437	20dBc	Pass
802.11b	1	11	2462	20dBc	Pass
802.11g	6	01	2412	20dBc	Pass
802.11g	6	06	2437	20dBc	Pass
802.11g	6	11	2462	20dBc	Pass
Ant 2					
802.11b	1	01	2412	20dBc	Pass
802.11b	1	06	2437	20dBc	Pass
802.11b	1	11	2462	20dBc	Pass
802.11g	6	01	2412	20dBc	Pass
802.11g	6	06	2437	20dBc	Pass
802.11g	6	11	2462	20dBc	Pass
Ant 1 / Ant 1 + 2					
802.11n-HT20	13	01	2412	20dBc	Pass
802.11n-HT20	13	06	2437	20dBc	Pass
802.11n-HT20	13	11	2462	20dBc	Pass
802.11n-HT40	27	03	2422	20dBc	Pass
802.11n-HT40	27	06	2437	20dBc	Pass
802.11n-HT40	27	09	2452	20dBc	Pass
Ant 2 / Ant 1 + 2					
802.11n-HT20	13	01	2412	20dBc	Pass
802.11n-HT20	13	06	2437	20dBc	Pass
802.11n-HT20	13	11	2462	20dBc	Pass
802.11n-HT40	27	03	2422	20dBc	Pass
802.11n-HT40	27	06	2437	20dBc	Pass
802.11n-HT40	27	09	2452	20dBc	Pass

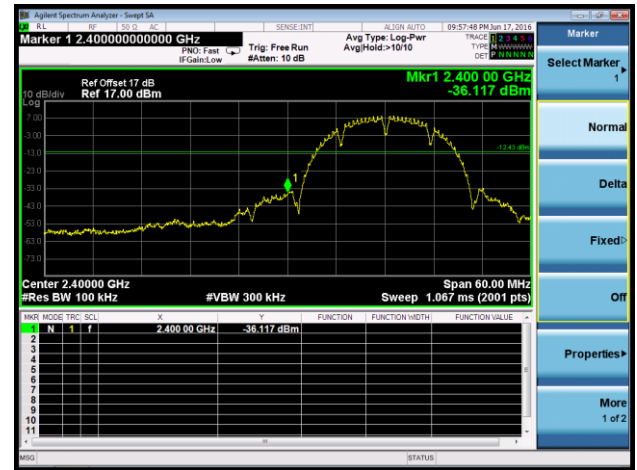
802.11b Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

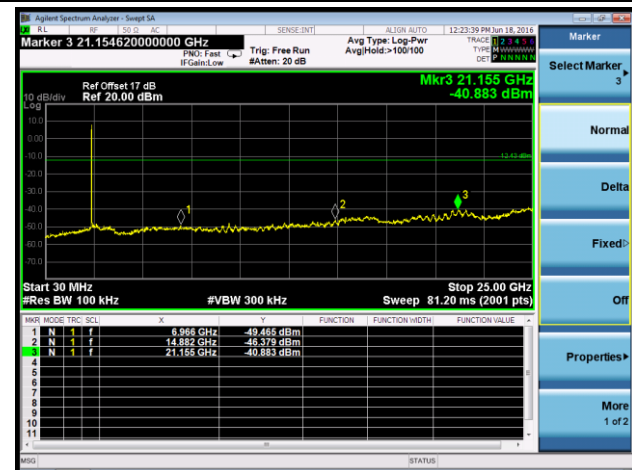
100kHz PSD Reference Level



Low Band Edge

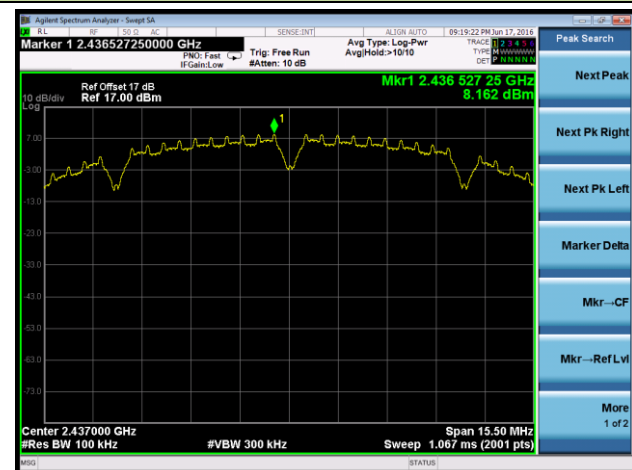


Spurious Emission

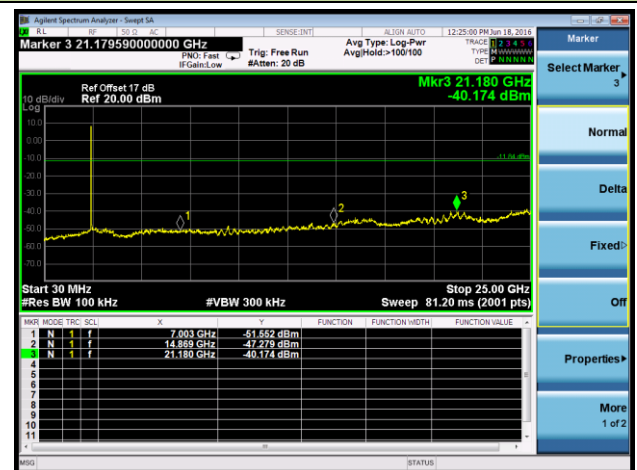


Channel 06 (2437MHz)

100kHz PSD Reference Level

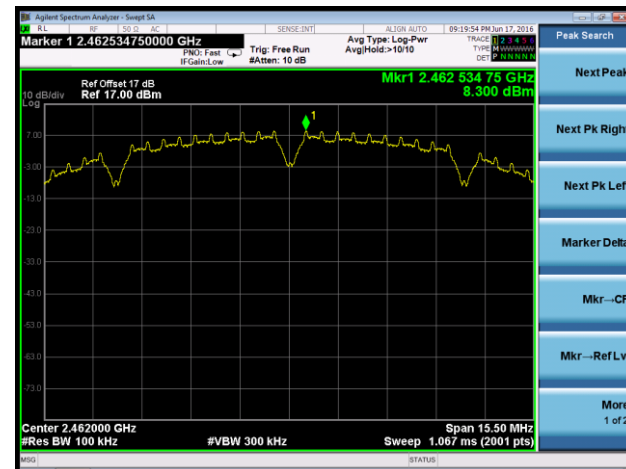


Spurious Emission

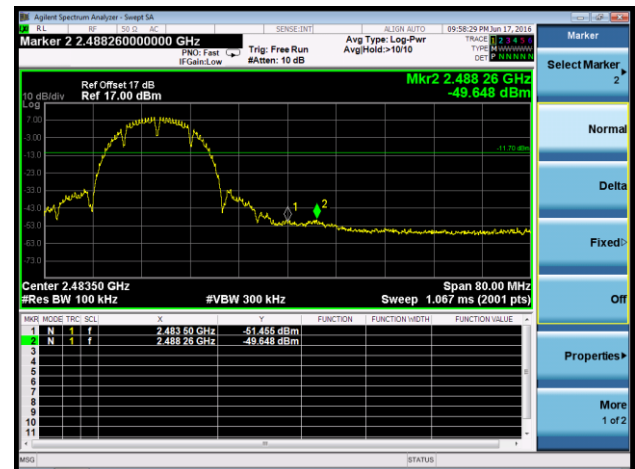


Channel 01 (2462MHz)

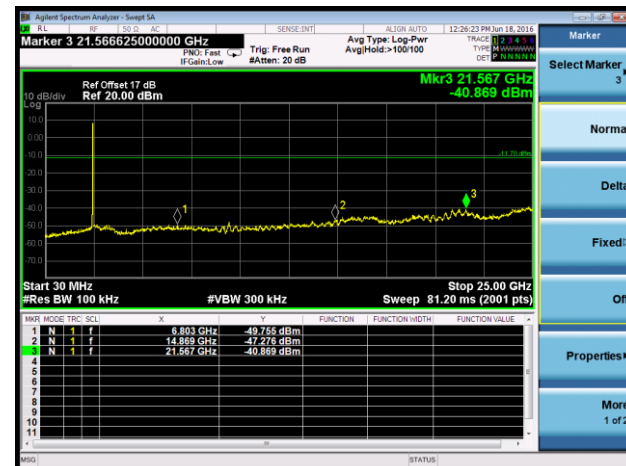
100kHz PSD Reference Level



High Band Edge



Spurious Emission



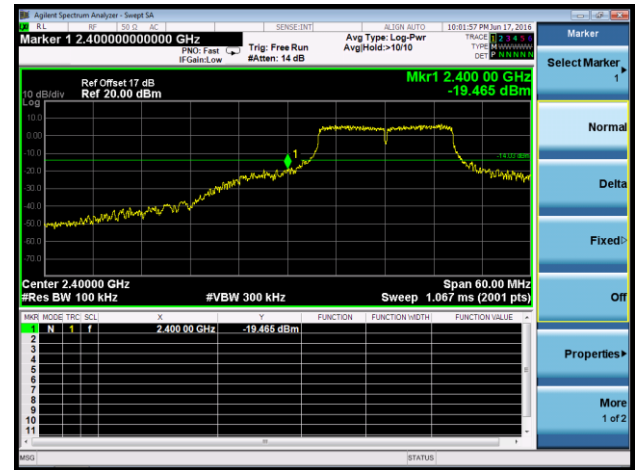
802.11g Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

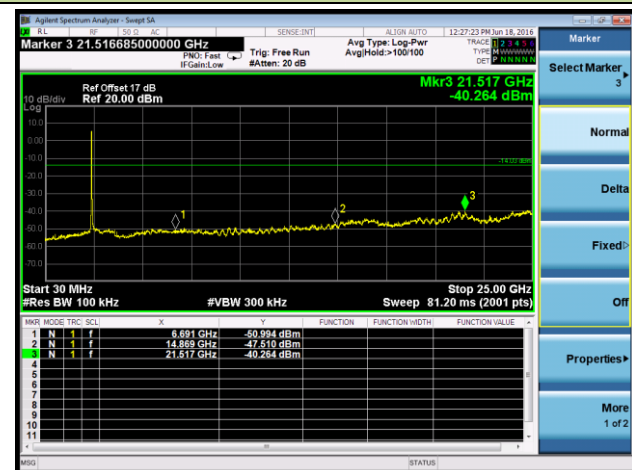
100kHz PSD Reference Level



Low Band Edge

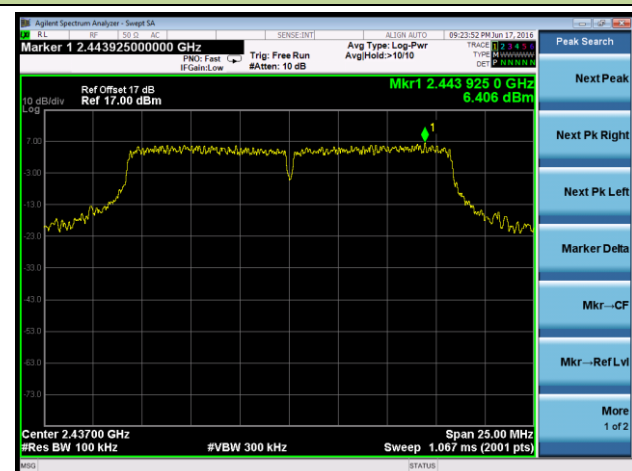


Spurious Emission

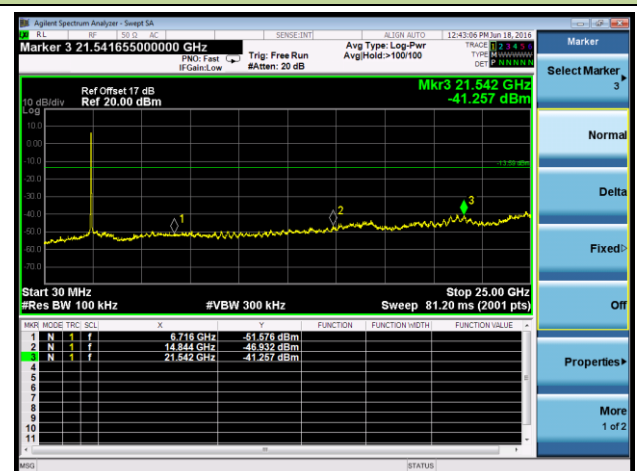


Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission

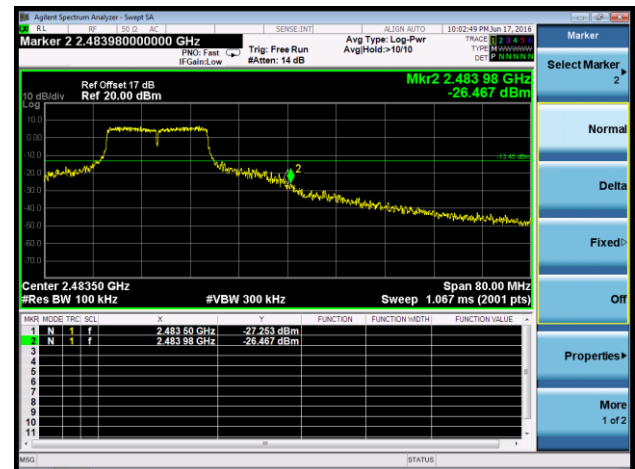


Channel 11 (2462MHz)

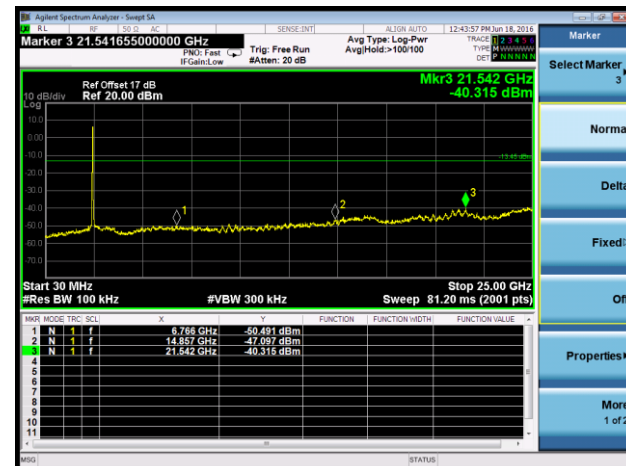
100kHz PSD Reference Level



High Band Edge



Spurious Emission



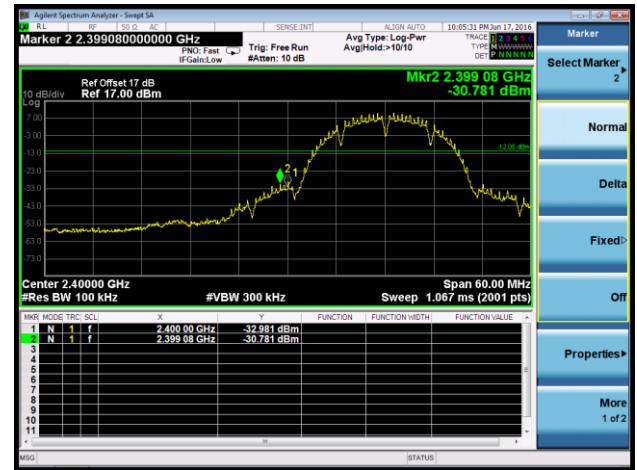
802.11b Out-of-Band Emissions - Ant 2

Channel 01 (2412MHz)

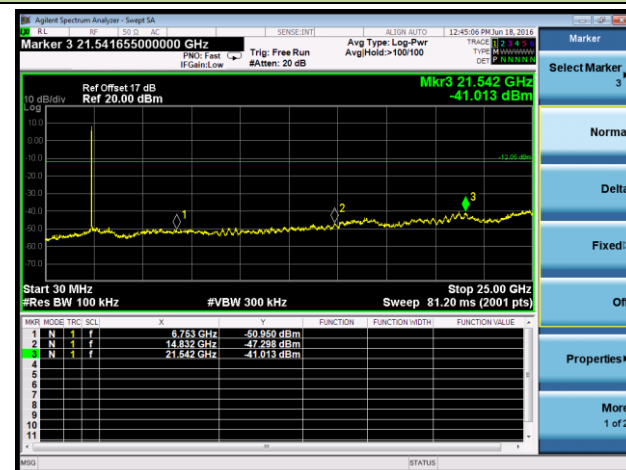
100kHz PSD Reference Level



Low Band Edge

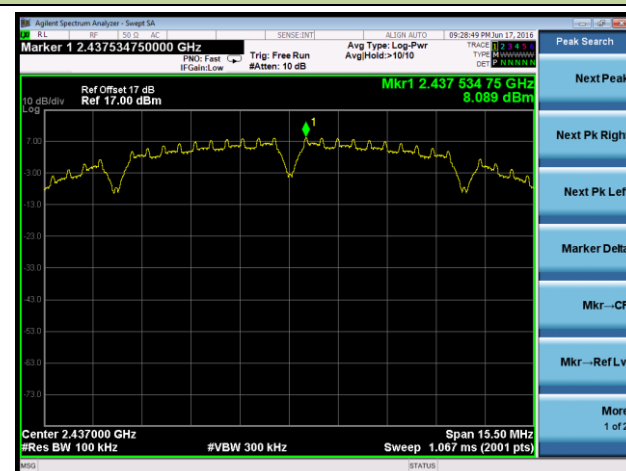


Spurious Emission

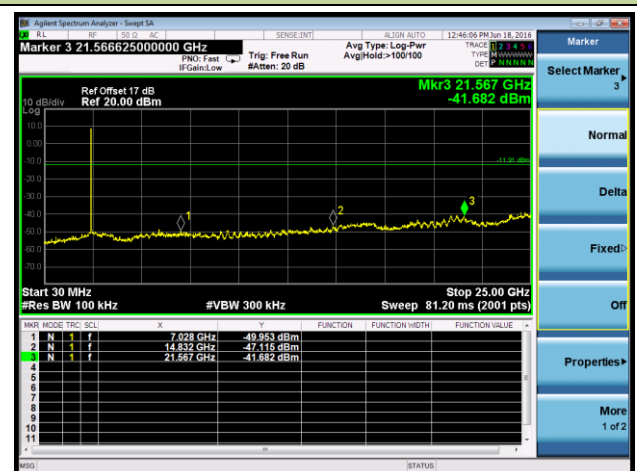


Channel 06 (2437MHz)

100kHz PSD Reference Level

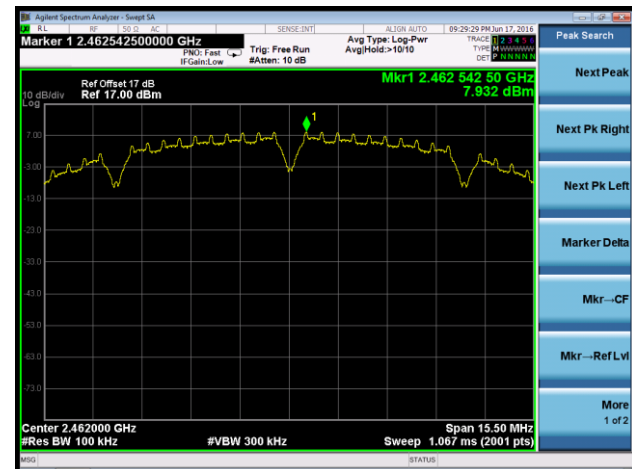


Spurious Emission

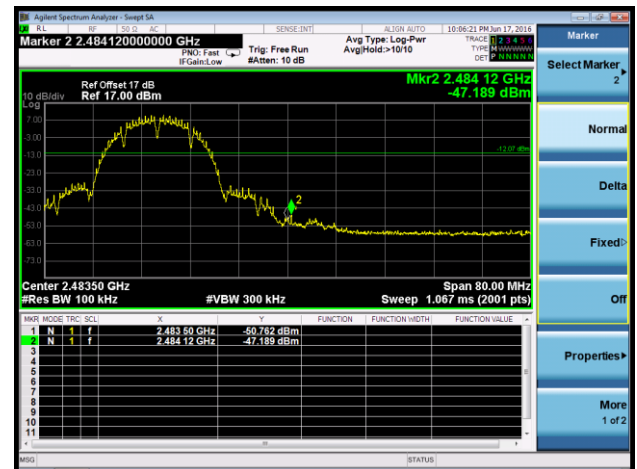


Channel 01 (2462MHz)

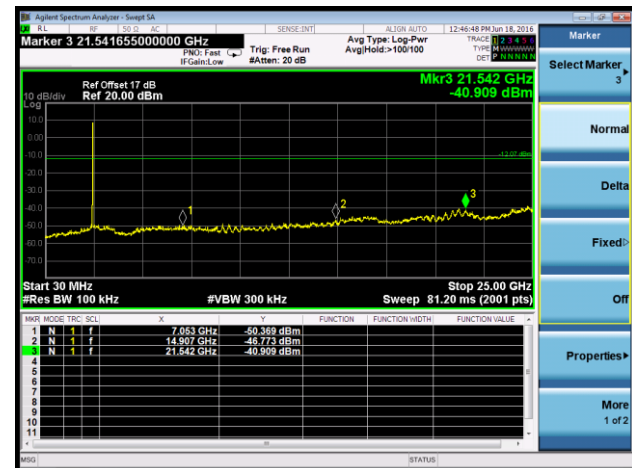
100kHz PSD Reference Level



High Band Edge



Spurious Emission



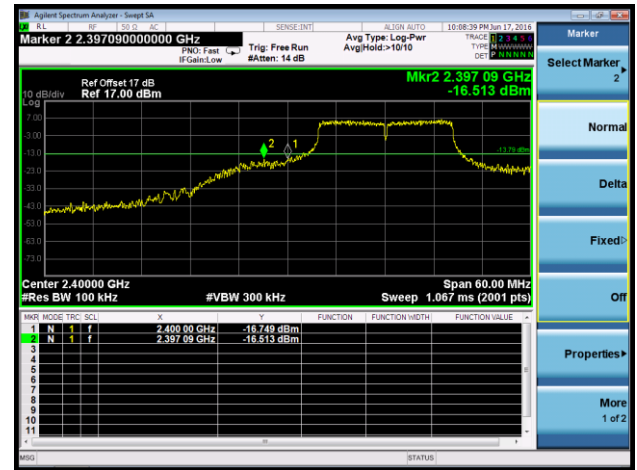
802.11g Out-of-Band Emissions - Ant 2

Channel 01 (2412MHz)

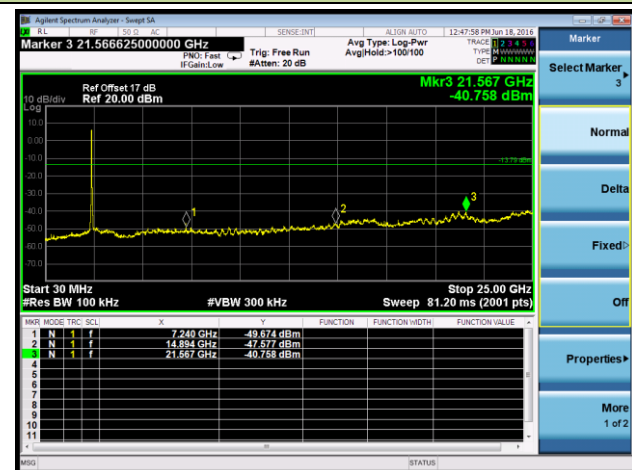
100kHz PSD Reference Level



Low Band Edge

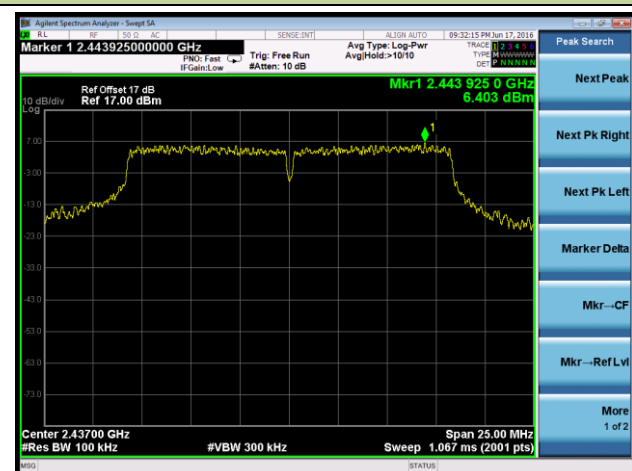


Spurious Emission

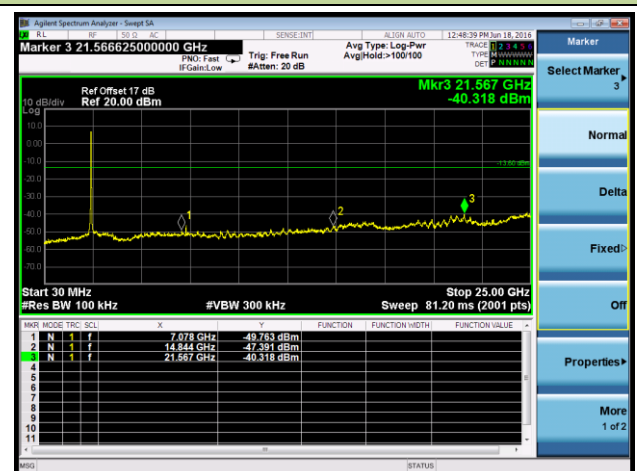


Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission



Channel 11 (2462MHz)

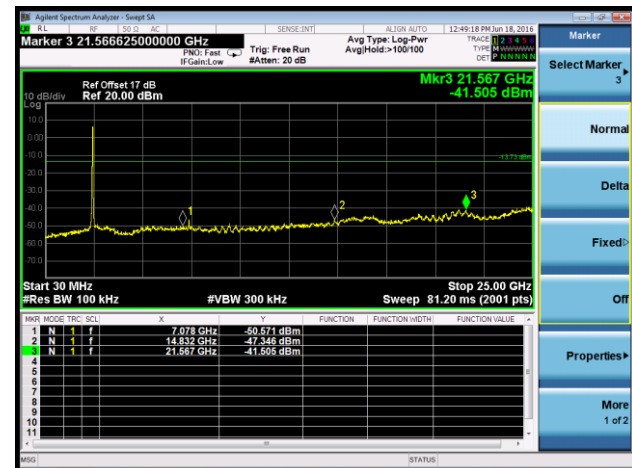
100kHz PSD Reference Level



High Band Edge



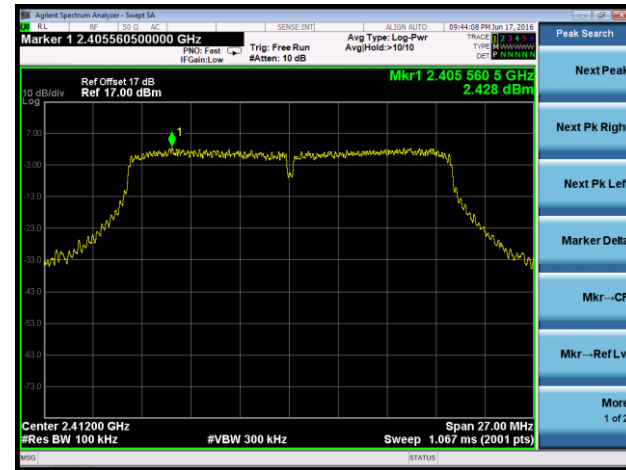
Spurious Emission



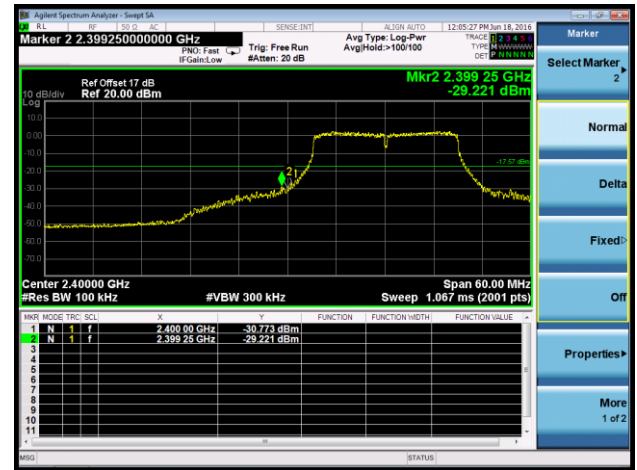
802.11n-HT20 Out-of-Band Emissions - Ant 1 / Ant 1 + 2

Channel 01 (2412MHz)

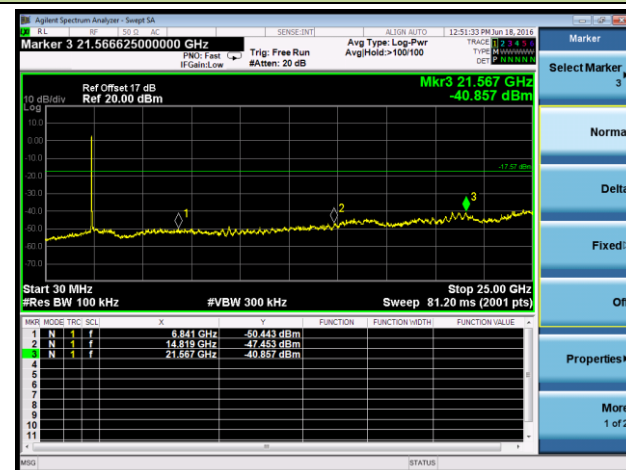
100kHz PSD Reference Level



Low Band Edge

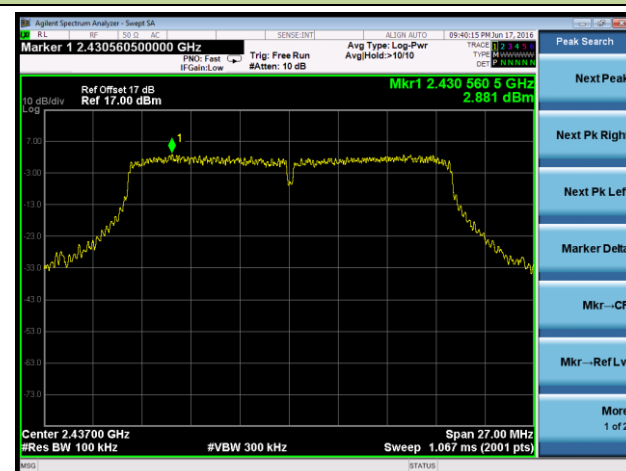


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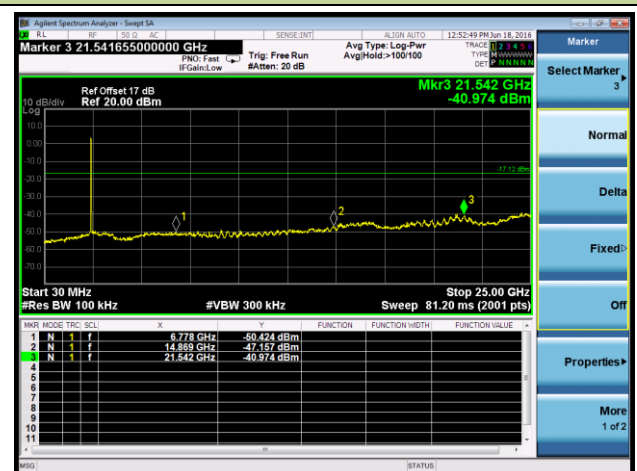


Channel 06 (2437MHz)

100kHz PSD Reference Level

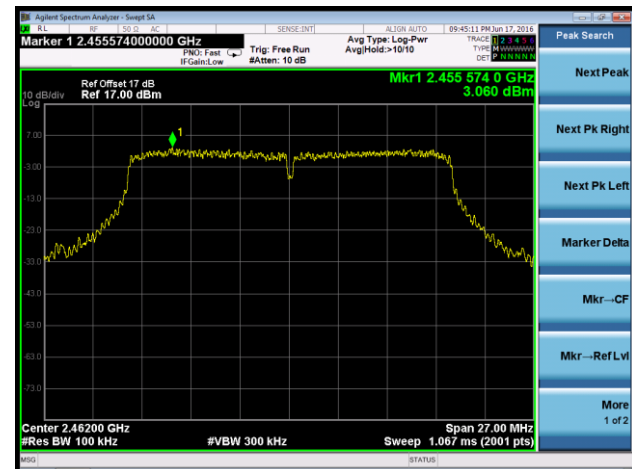


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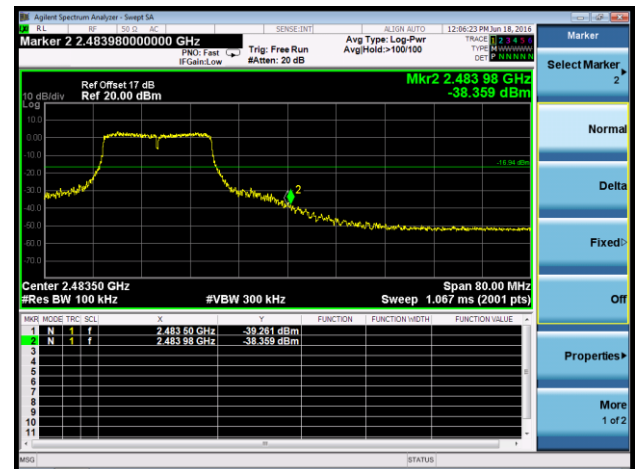


Channel 11 (2462MHz)

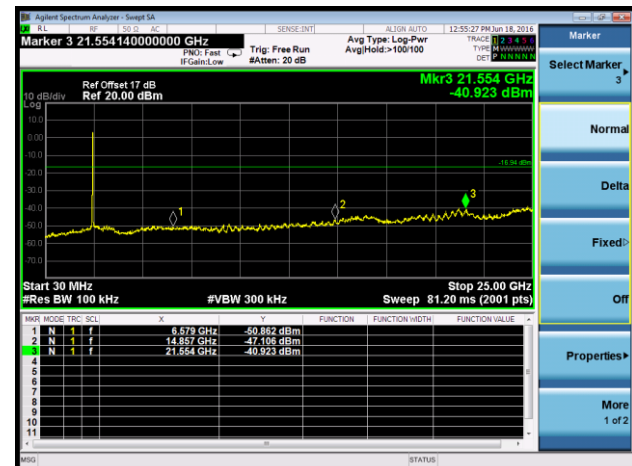
100kHz PSD Reference Level



High Band Edge



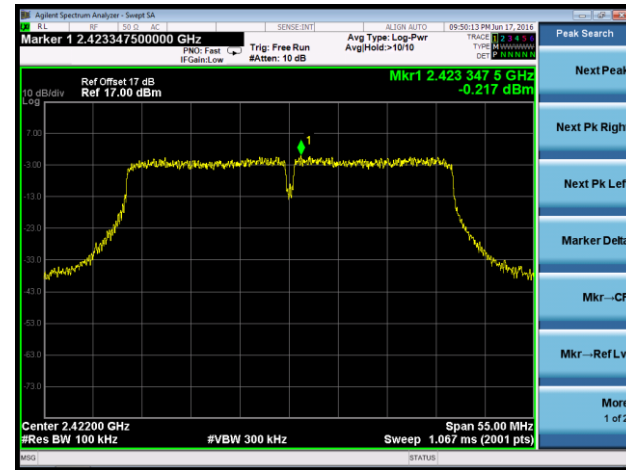
Spurious Emission



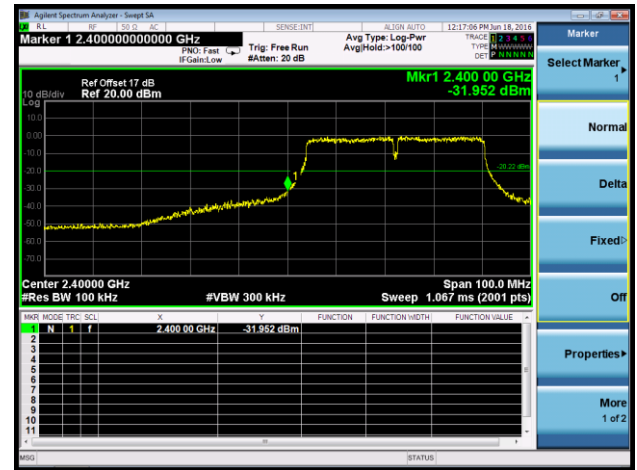
802.11n-HT40 Out-of-Band Emissions - Ant 1 / Ant 1 + 2

Channel 03 (2422MHz)

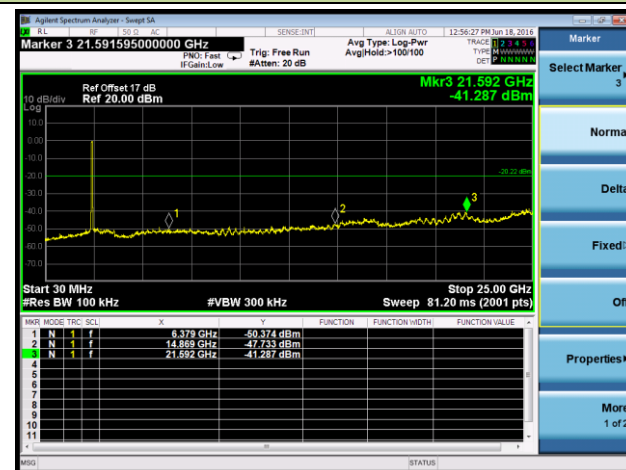
100kHz PSD Reference Level



Low Band Edge

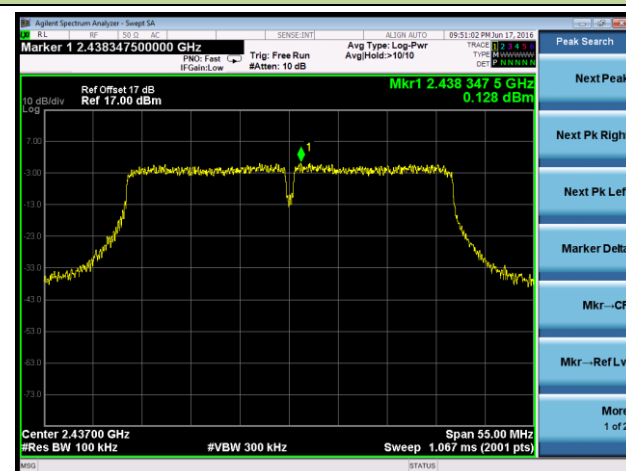


Spurious Emission

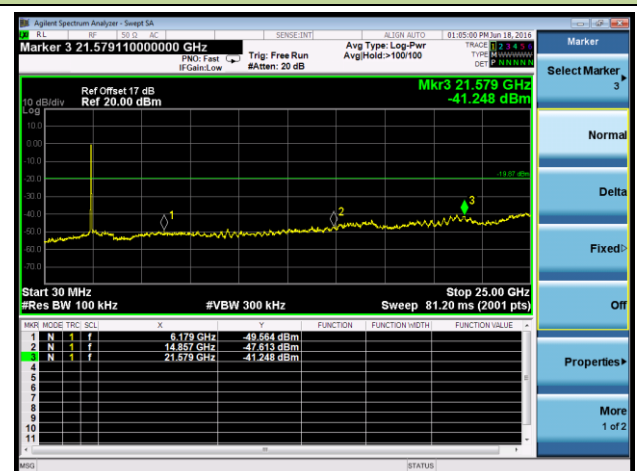


Channel 06 (2437MHz)

100kHz PSD Reference Level

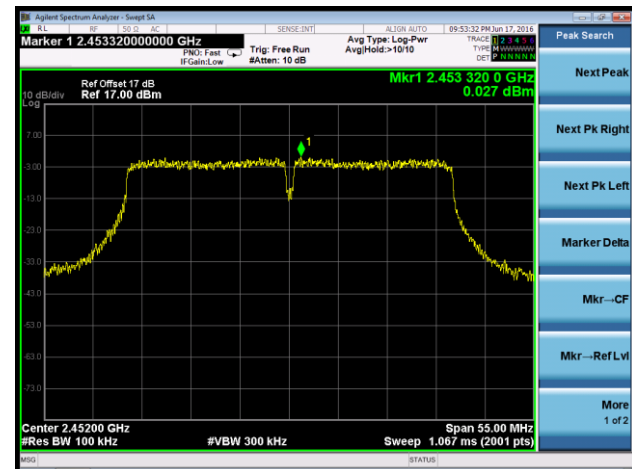


Spurious Emission

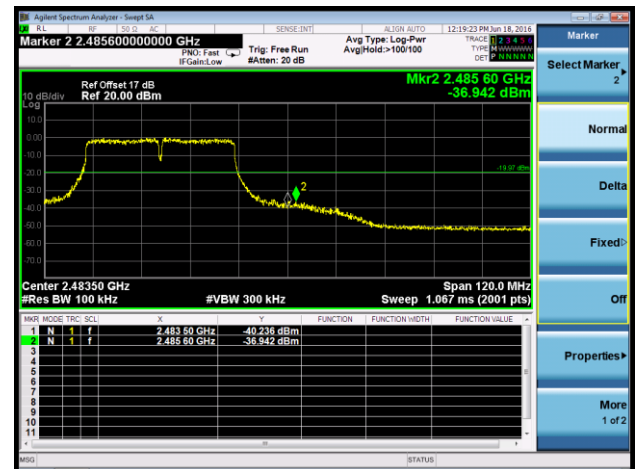


Channel 09 (2452MHz)

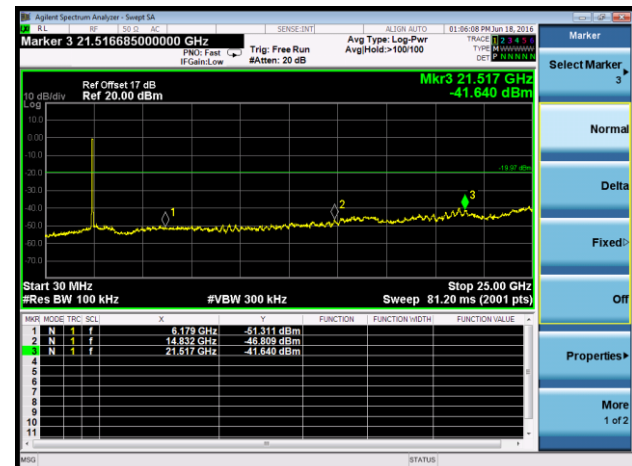
100kHz PSD Reference Level



High Band Edge



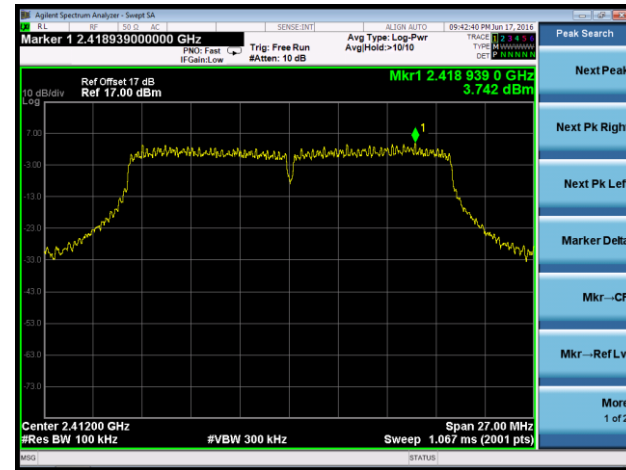
Spurious Emission



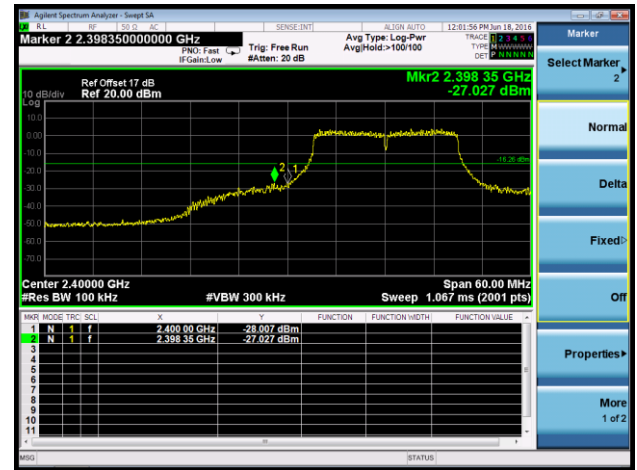
802.11n-HT20 Out-of-Band Emissions - Ant 2 / Ant 1 + 2

Channel 01 (2412MHz)

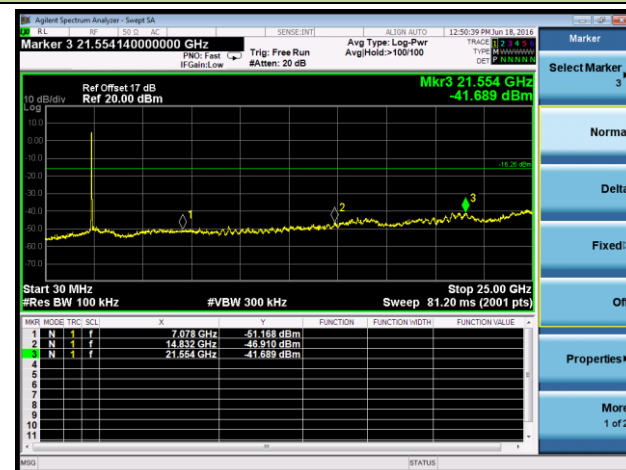
100kHz PSD Reference Level



Low Band Edge

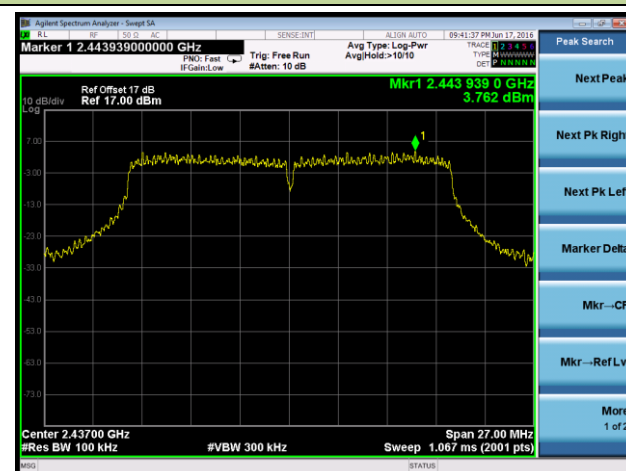


Spurious Emission

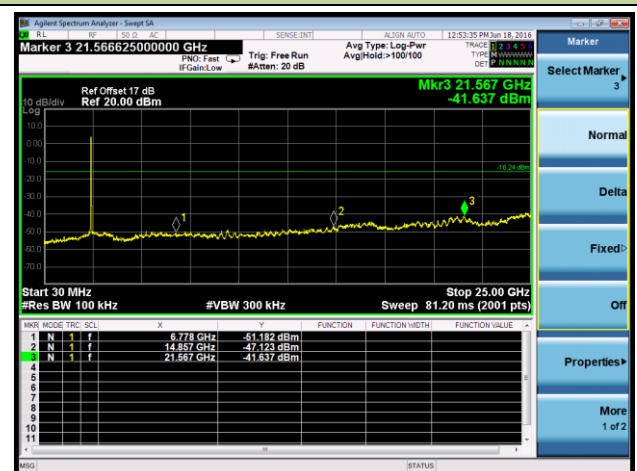


Channel 06 (2437MHz)

100kHz PSD Reference Level

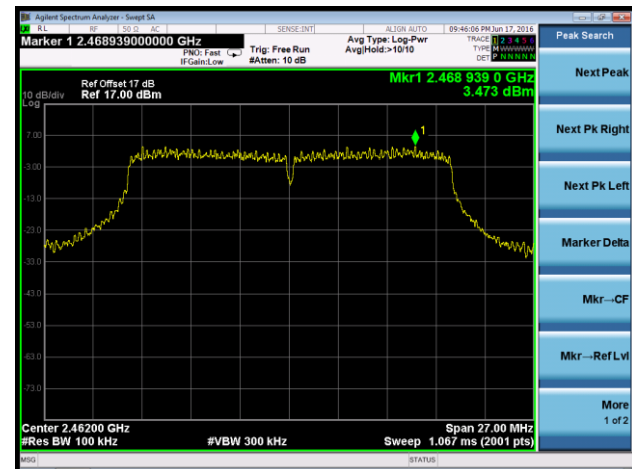


Spurious Emission

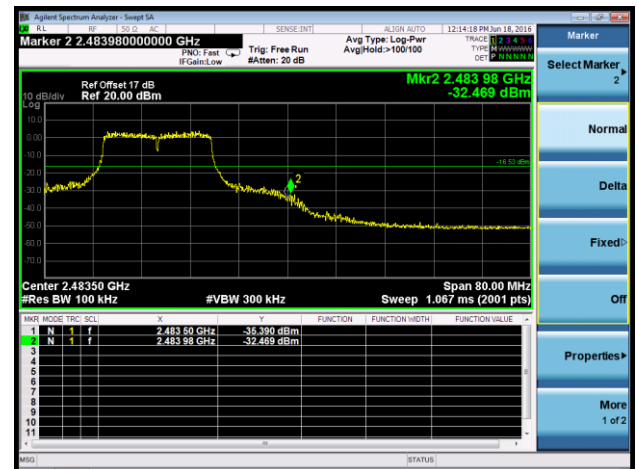


Channel 11 (2462MHz)

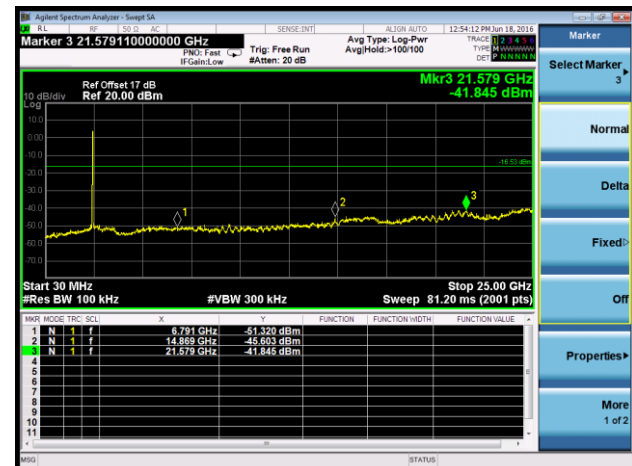
100kHz PSD Reference Level



High Band Edge



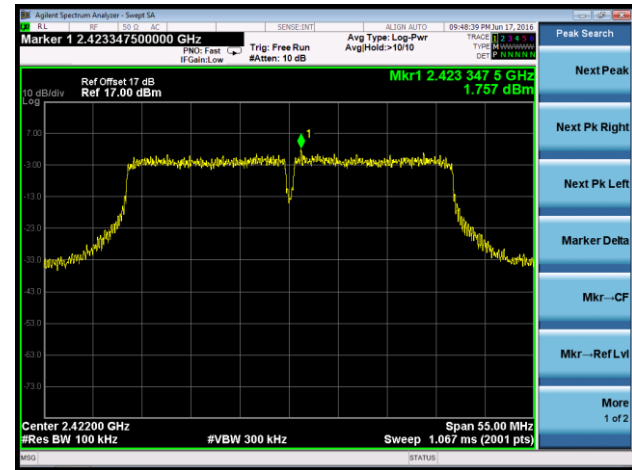
Spurious Emission



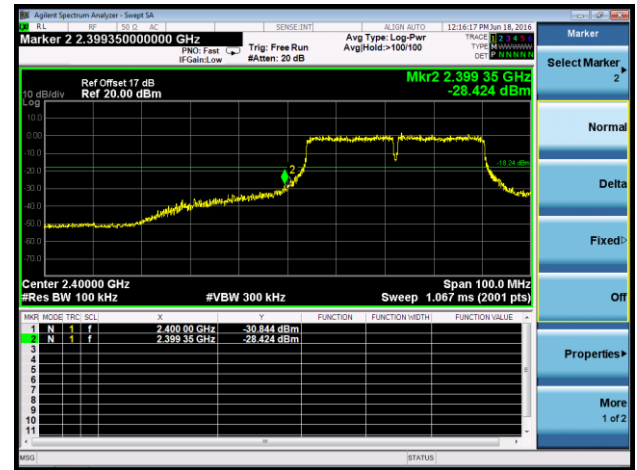
802.11n-HT40 Out-of-Band Emissions - Ant 2 / Ant 1 + 2

Channel 03 (2422MHz)

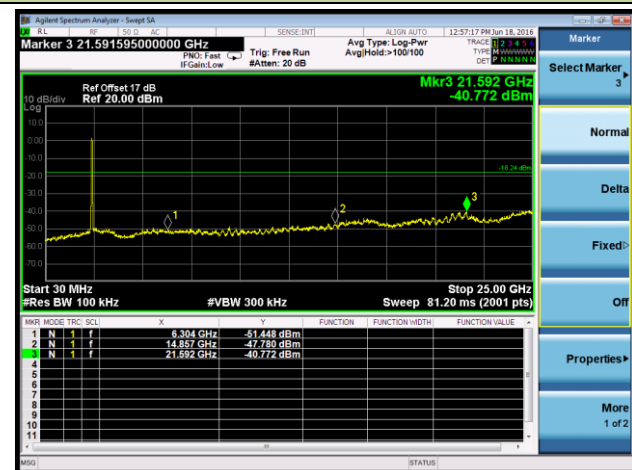
100kHz PSD Reference Level



Low Band Edge

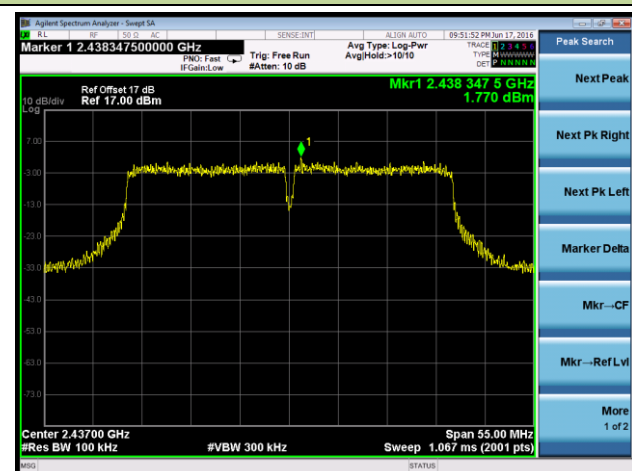


Spurious Emission



Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission

