# BAND EDGE

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

**TEST EQUIPMENT**

| Description | Manufacturer | Model | ID | Last Cal. | Interval (mo) |
|---|---|---|---|---|---|
| Analyzer - Spectrum Analyzer | Agilent | E4440A | AFE | 6/22/2015 | 12 |
| Attenuator | Fairview Microwave | SA4014-20 | TKV | 3/4/2016 | 12 |
| Block - DC | Fairview Microwave | SD3379 | AMJ | 6/6/2015 | 12 |
| Cable | ESM Cable Corp. | TTBJ-141 KMKM-72 | NC5 | 6/6/2015 | 12 |
| Generator - Signal | Agilent | N5183A | TID | 11/26/2014 | 36 |

**TEST DESCRIPTION**

The -26 dB emission bandwidth of the carrier was measured to ensure that no part of the emission of the carrier operating in a non-DFS band was operating in a band where DFS testing is required. This test is done with the U-NII-1 band (5.2 GHz band) to ensure no portion of the carrier is contained within the U-NII-2A band and with the U-NII-3 band (5.8 GHz band) to ensure no portion of the carrier is contained in the U-NII-2C band.

The transmit frequencies and data rates listed in the datasheet were measured. The transmit power was set to its default maximum.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

# BAND EDGE

NORTHWEST EMC

XMit 2015.01.14

| | | | | | |
|---|---|---|---|---|---|
| **EUT:** | Model 1631 | | | **Work Order:** | MCSO1748 |
| **Serial Number:** | 041152140753 | | | **Date:** | 04/12/16 |
| **Customer:** | Microsoft Corporation | | | **Temperature:** | 23°C |
| **Attendees:** | None | | | **Humidity:** | 33% |
| **Project:** | None | | | **Barometric Pres.:** | 1019 mbar |
| **Tested by:** | Richard Mellroth | **Power:** | 110VAC/60Hz | **Job Site:** | NC02 |
| **TEST SPECIFICATIONS** | | **Test Method** | | | |
| FCC 15.407:2016 | | ANSI C63.10:2013 | | | |

**COMMENTS**

Power setting at 11dBm for 20MHz and 40MHz channels. Power Setting at 10dBm for 80MHz channels. Client supplied adapter cable loss of 1.3dB included in reference level offset. Signal setting at > 95% Duty Cycle.

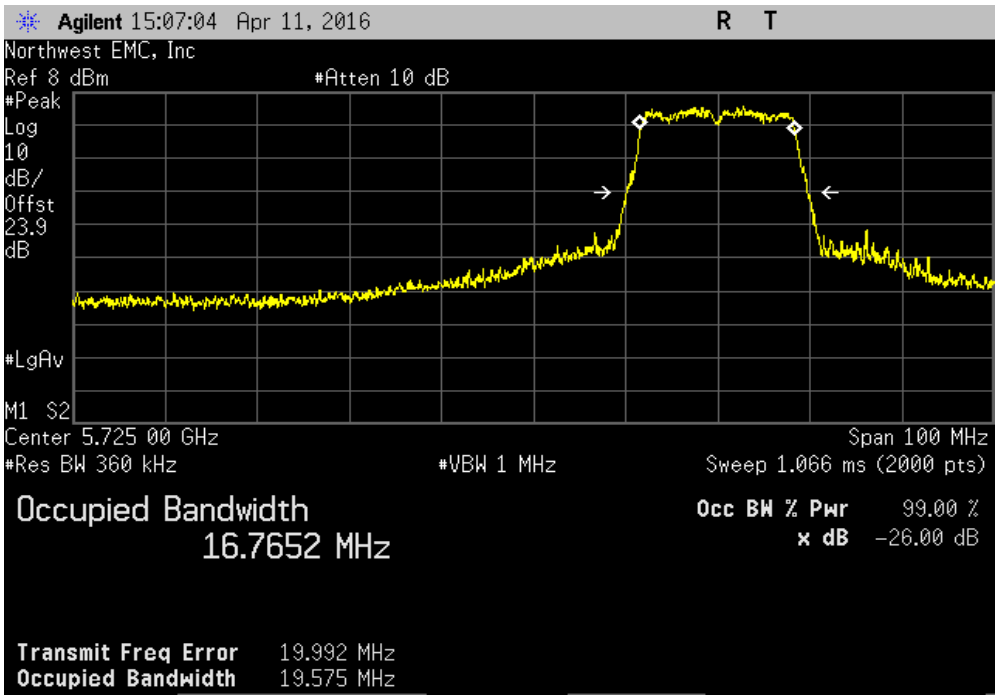
**DEVIATIONS FROM TEST STANDARD**

None

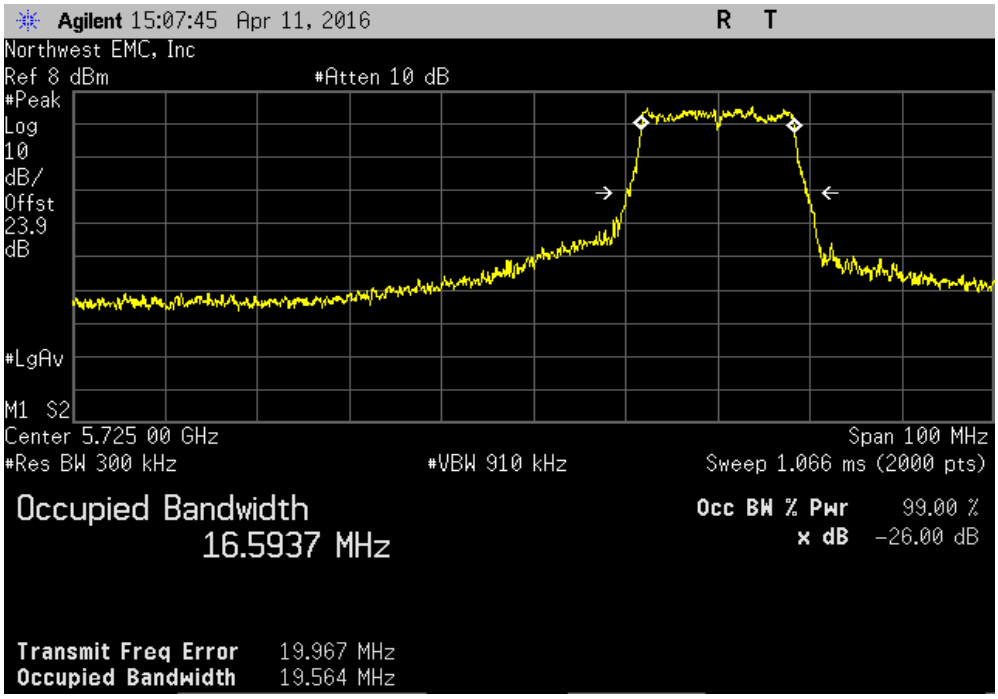
| | | |
|---|---|---|
| **Configuration #** | 1 | *Signature* |

| | | | OBW Within Band | Band Edge (MHz) | Result |
|---|---|---|---|---|---|
| SISO, Chain A | | | | | |
| | 20MHz BW | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | |
| | | 802.11(a) 6 Mbps | Yes | 5725 | Pass |
| | | 802.11(a) 36 Mbps | Yes | 5725 | Pass |
| | | 802.11(a) 54 Mbps | Yes | 5725 | Pass |
| | | 802.11(n) MCS0 | Yes | 5725 | Pass |
| | | 802.11(n) MCS7 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS8 | Yes | 5725 | Pass |
| | 40MHz BW | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | |
| | | 802.11(n) MCS0 | Yes | 5725 | Pass |
| | | 802.11(n) MCS7 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |
| | 80MHz BW | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |
| SISO, Chain B | | | | | |
| | 20MHz BW | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | |
| | | 802.11(a) 6 Mbps | Yes | 5725 | Pass |
| | | 802.11(a) 36 Mbps | Yes | 5725 | Pass |
| | | 802.11(a) 54 Mbps | Yes | 5725 | Pass |
| | | 802.11(n) MCS0 | Yes | 5725 | Pass |
| | | 802.11(n) MCS7 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS8 | Yes | 5725 | Pass |
| | 40MHz BW | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | |
| | | 802.11(n) MCS0 | Yes | 5725 | Pass |
| | | 802.11(n) MCS7 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |
| | 80MHz BW | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |

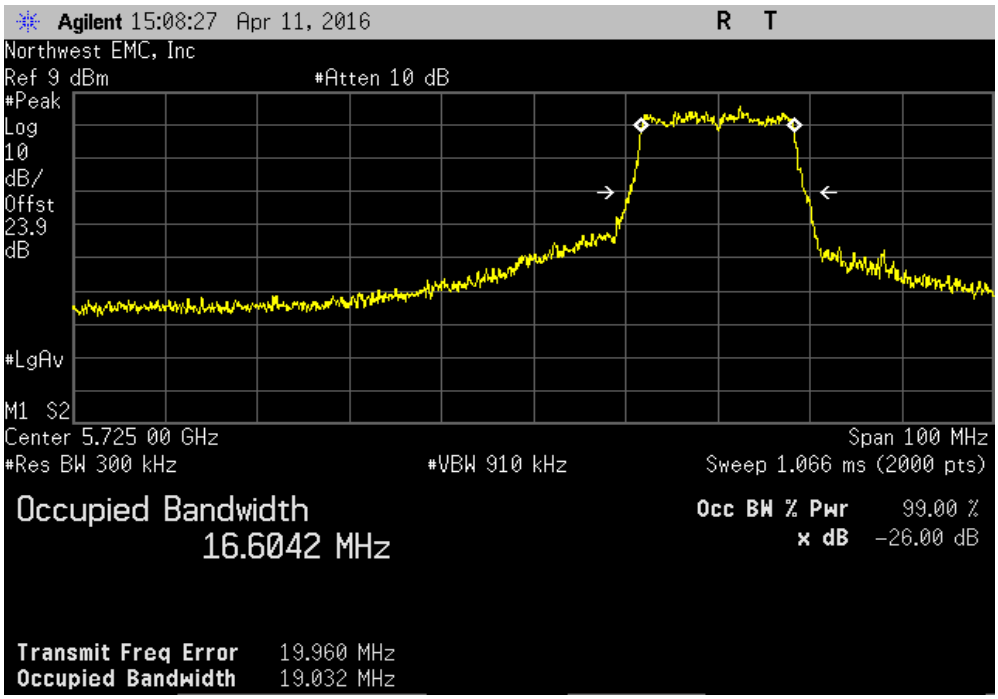
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



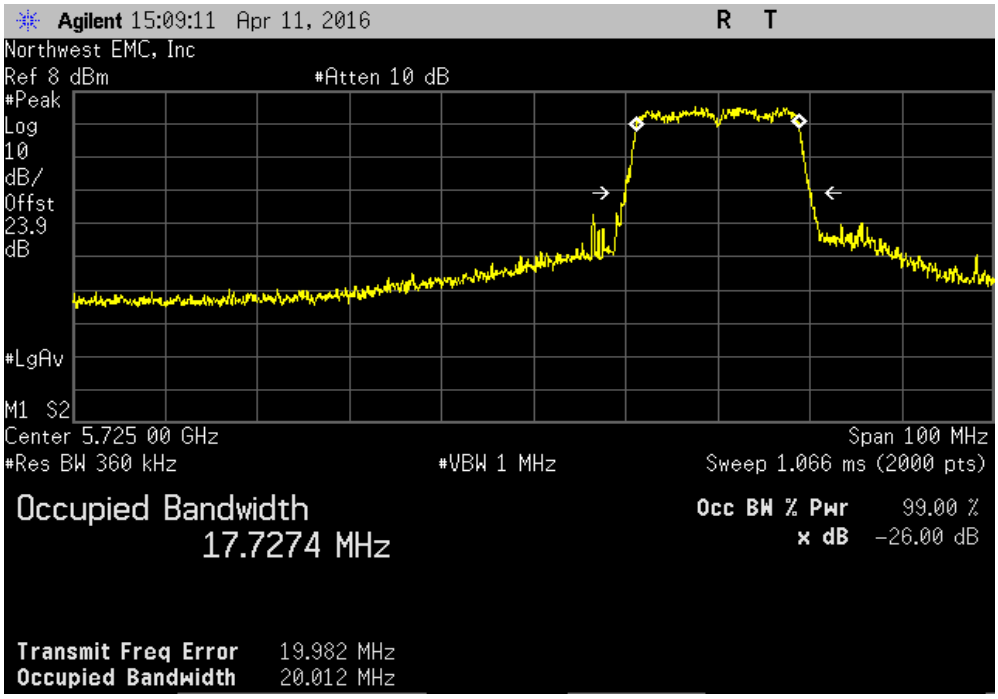

| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



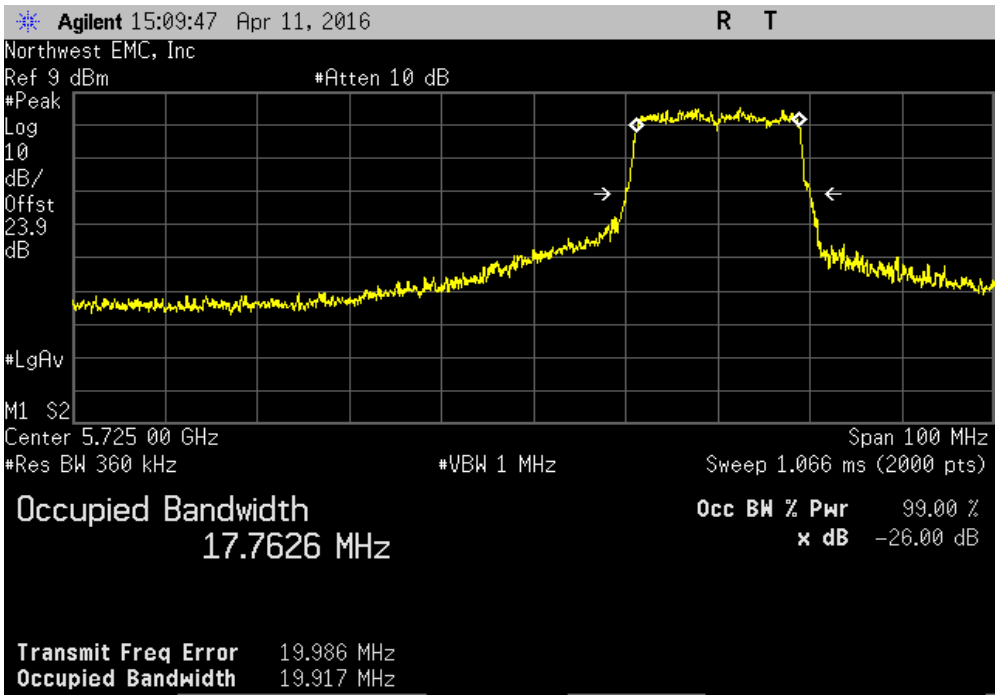
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



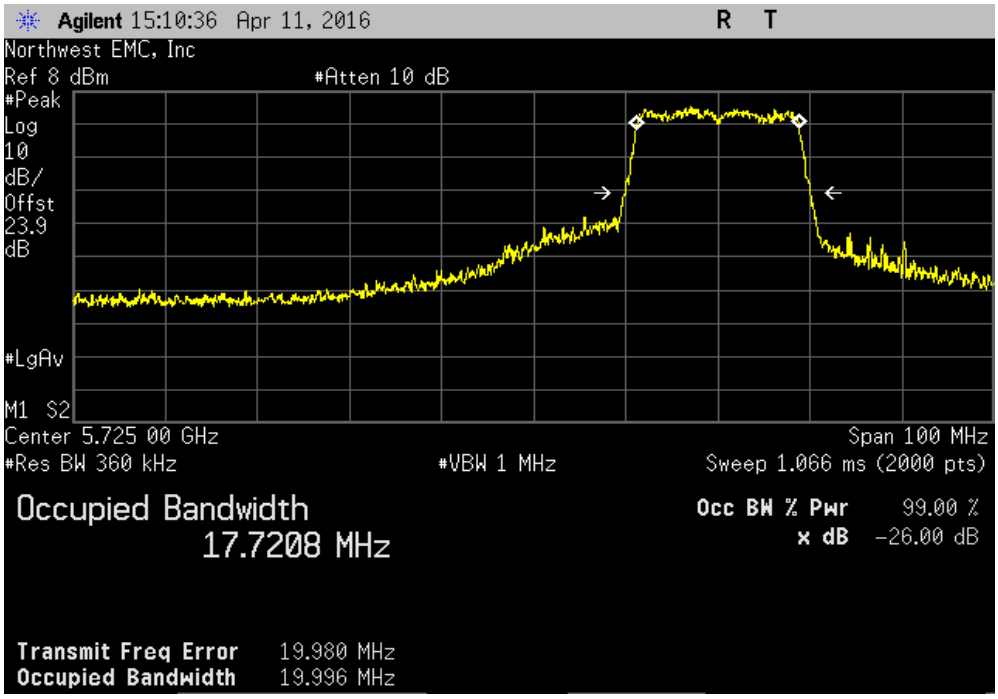

| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



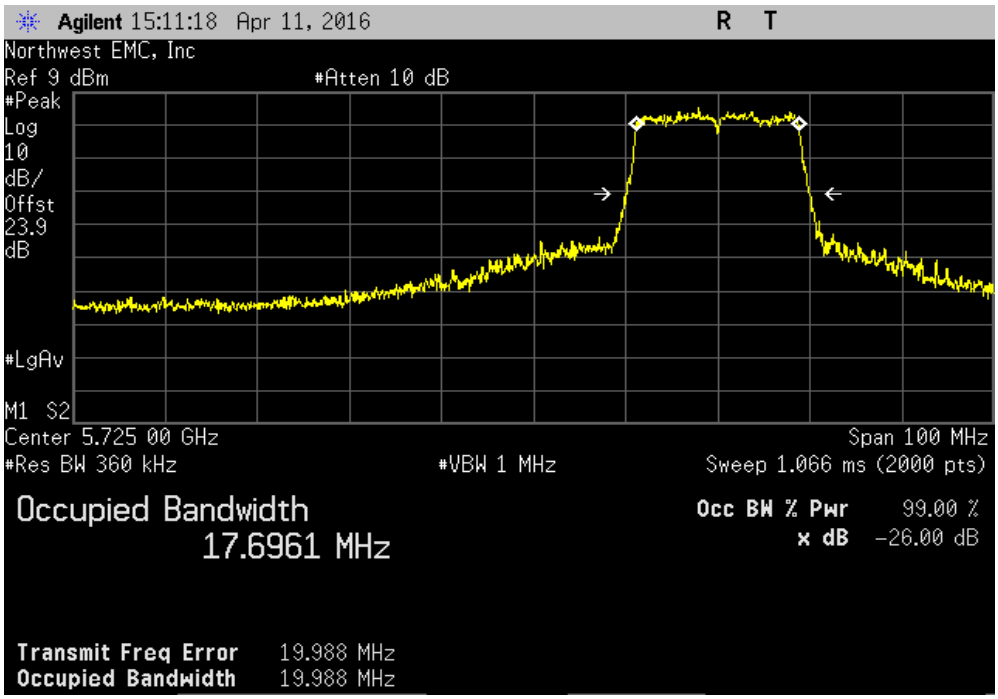
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



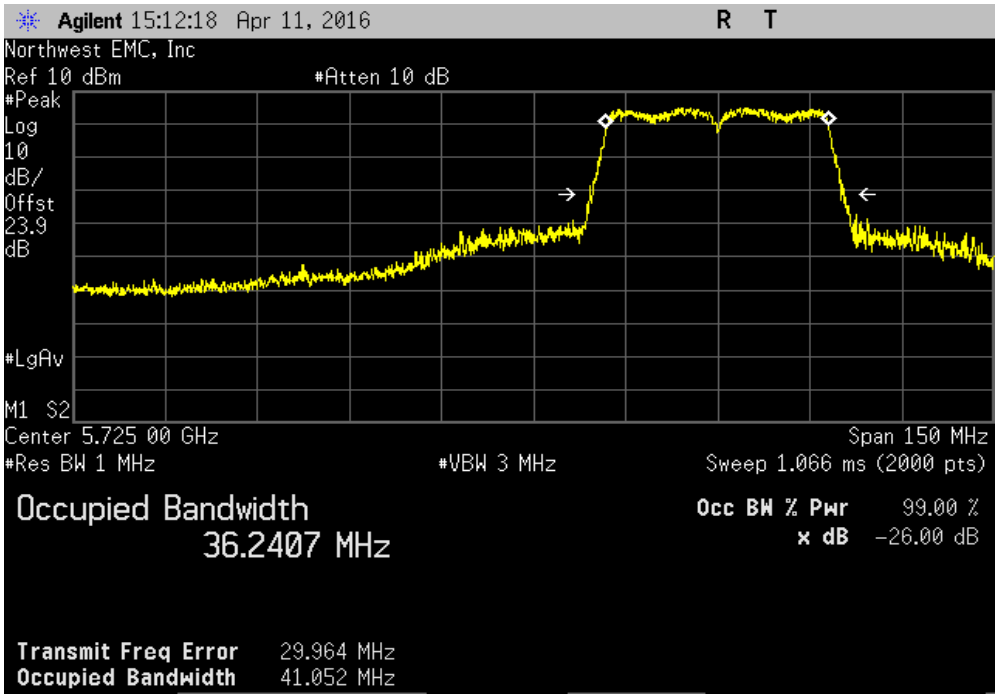

| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



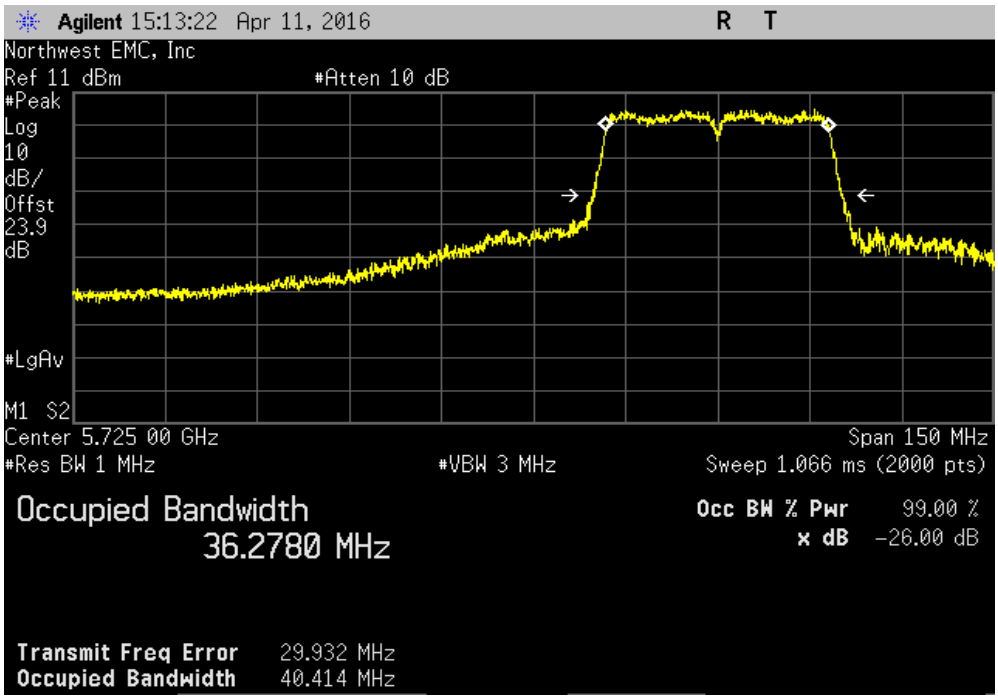
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



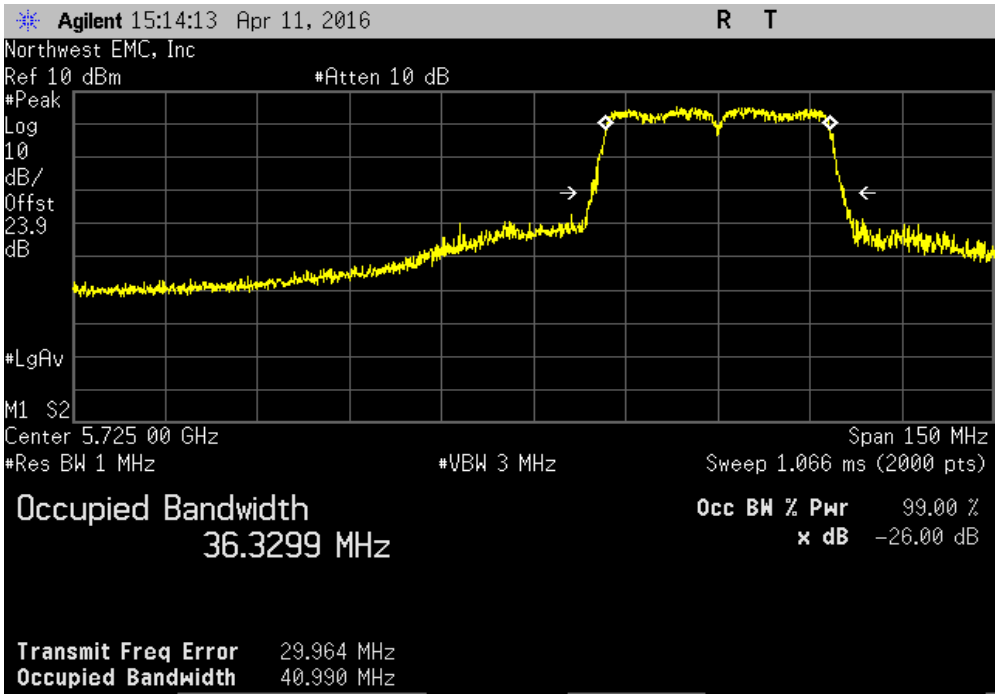

| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



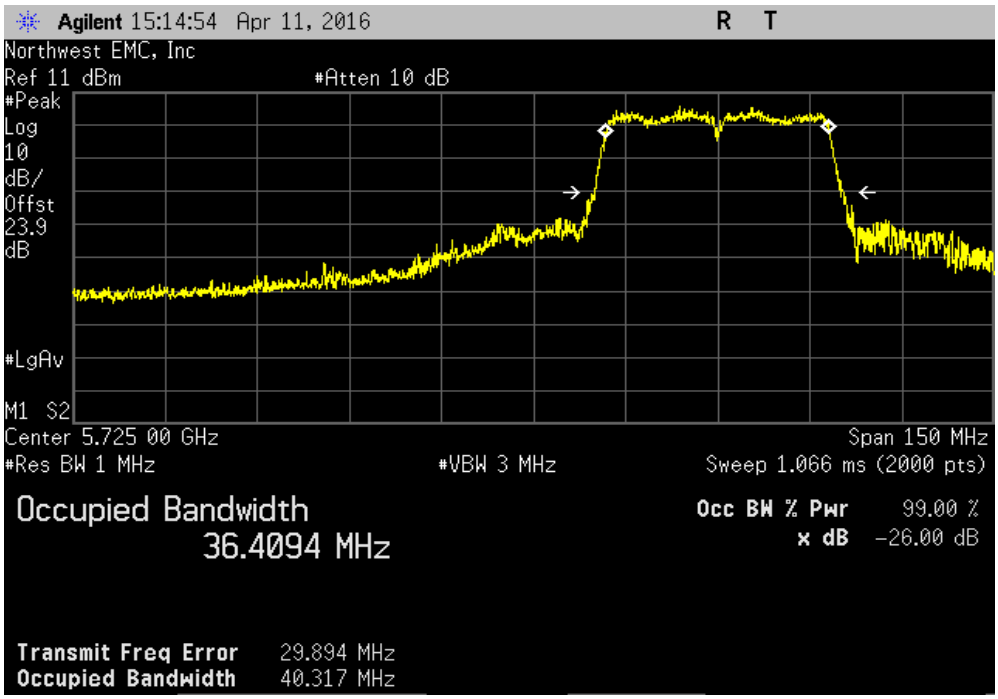
| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



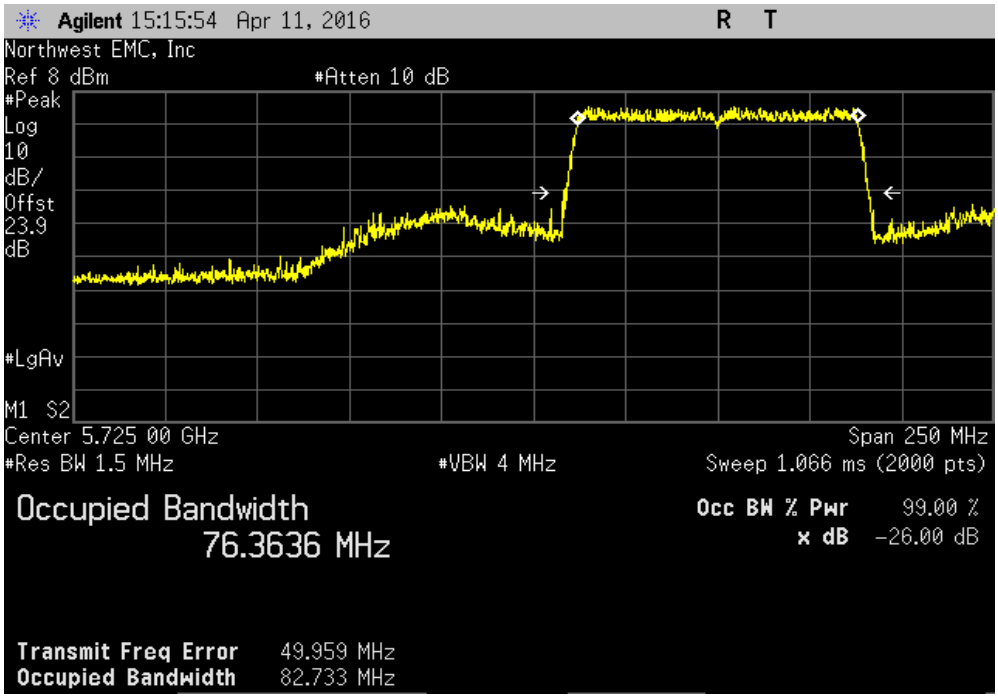

| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



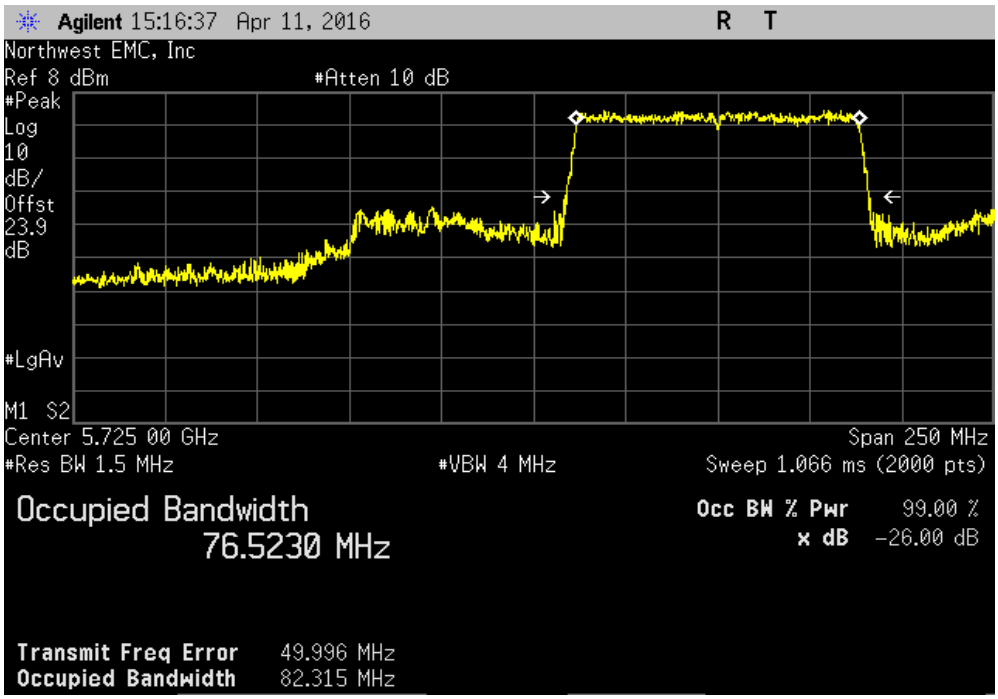
| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



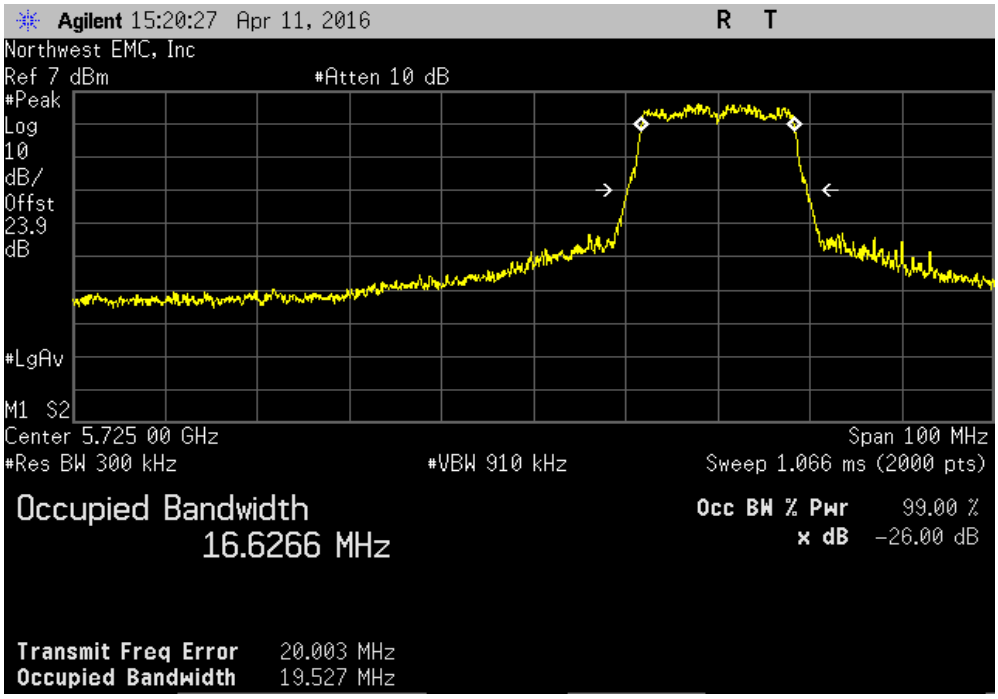

| SISO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



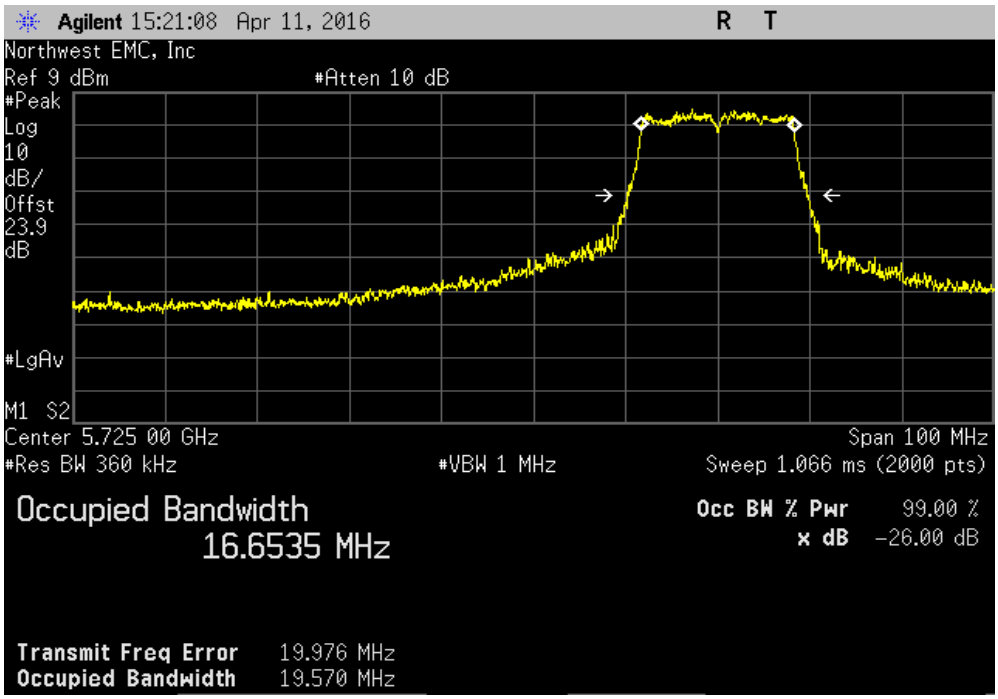
| SISO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



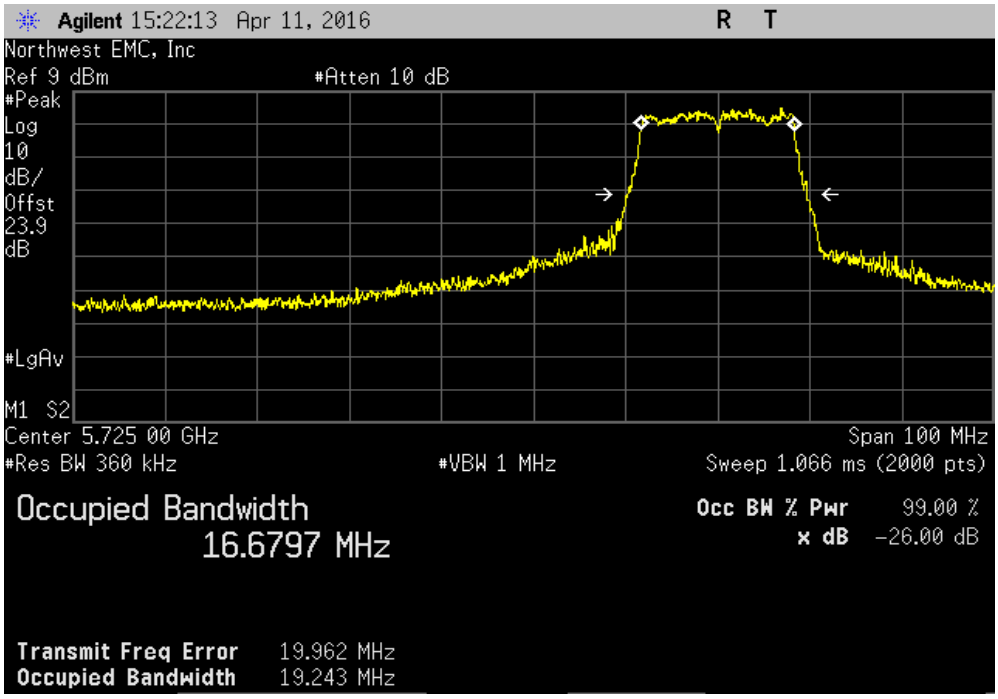

| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



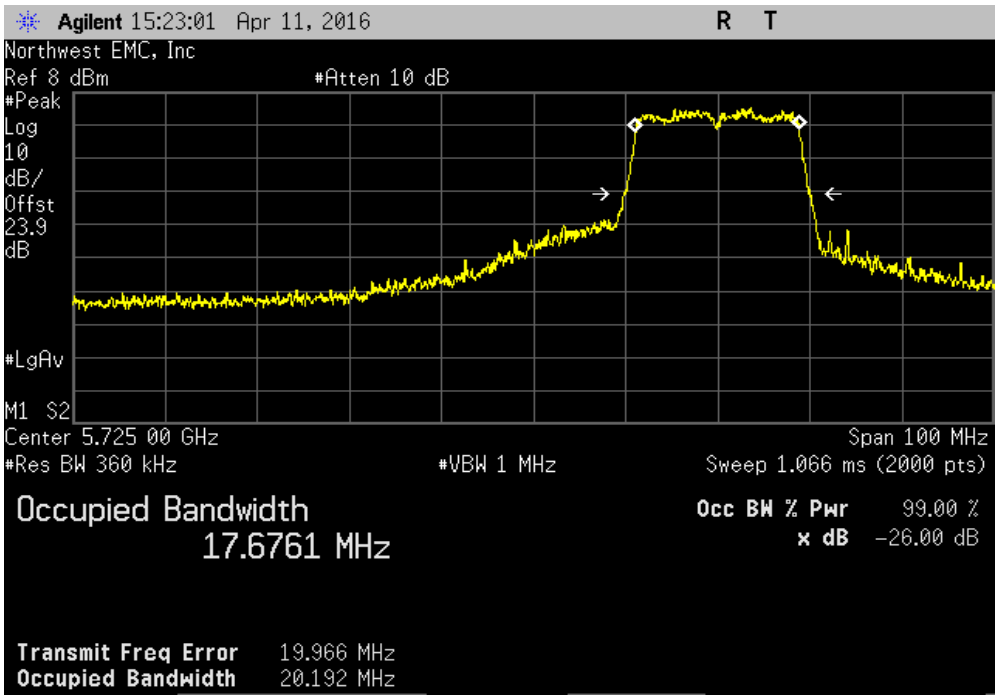
| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



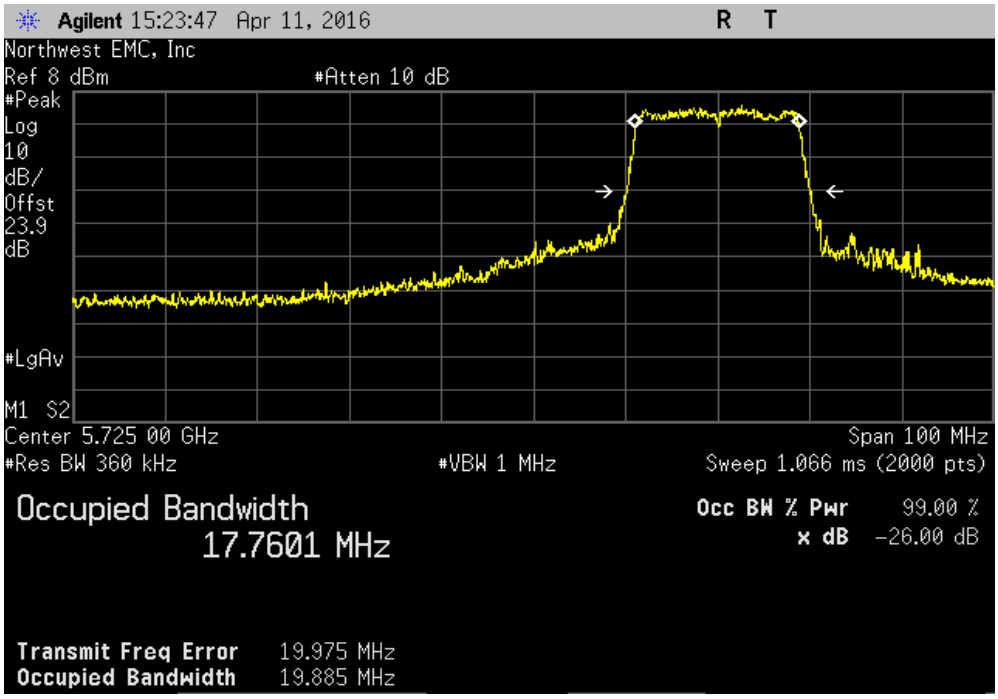

| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



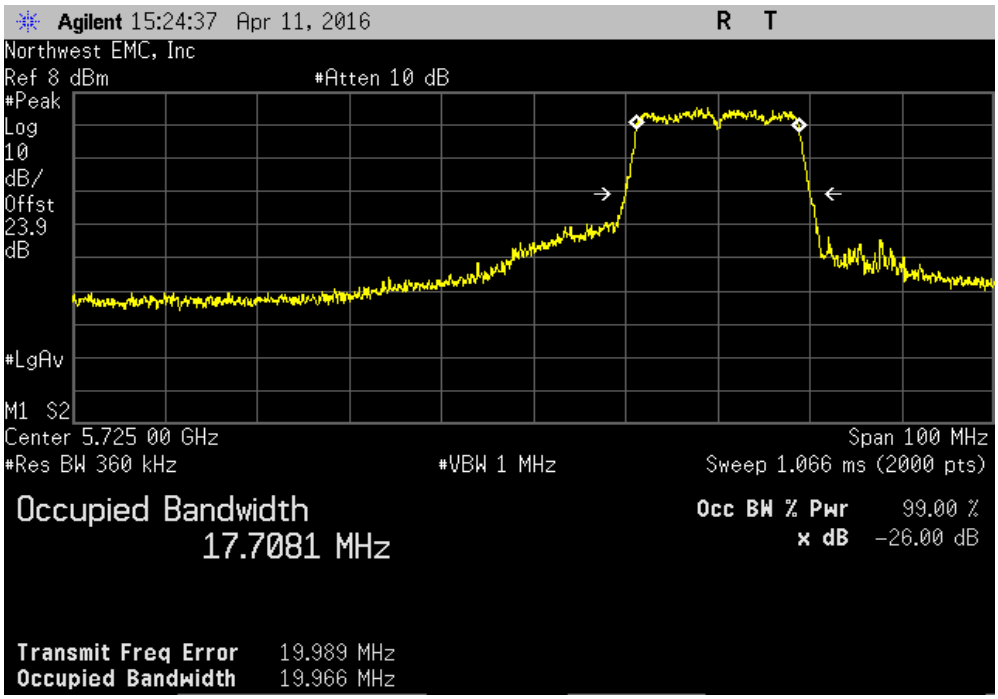
| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



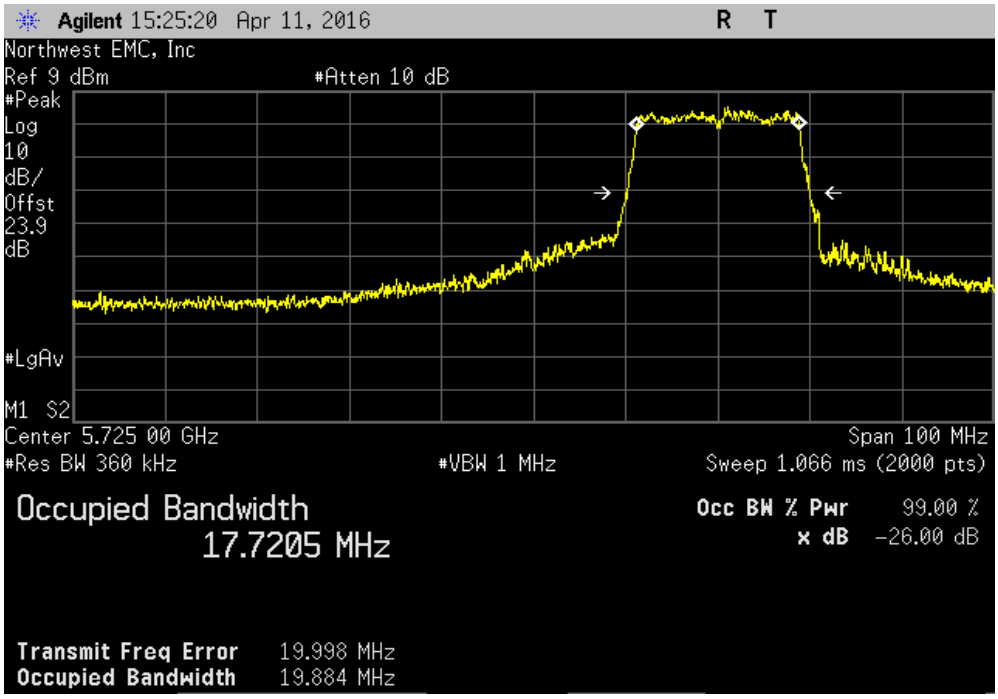

| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



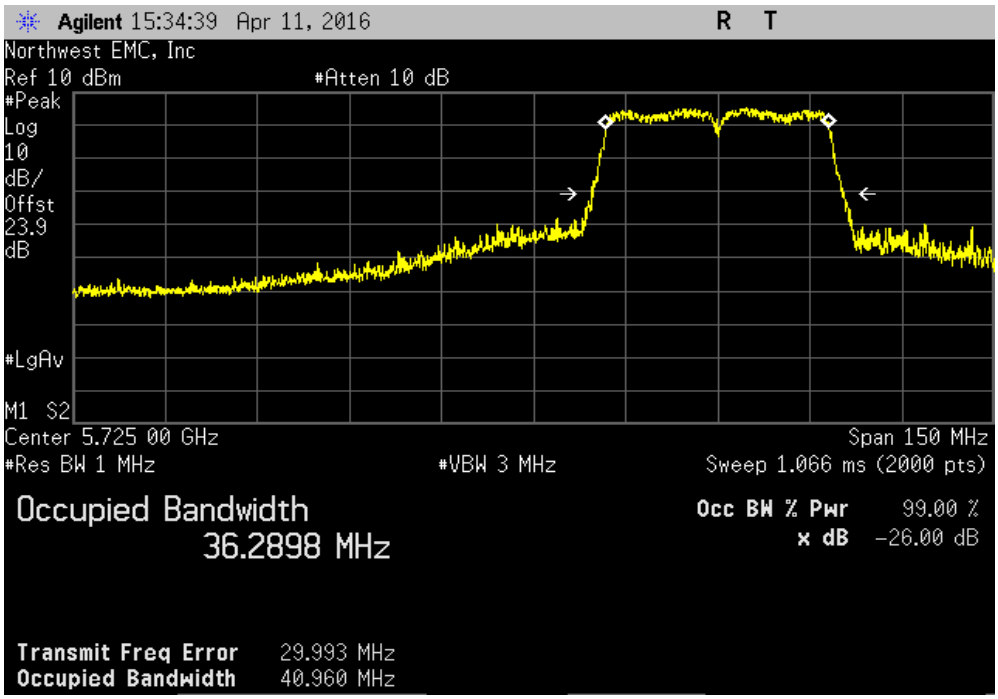
| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



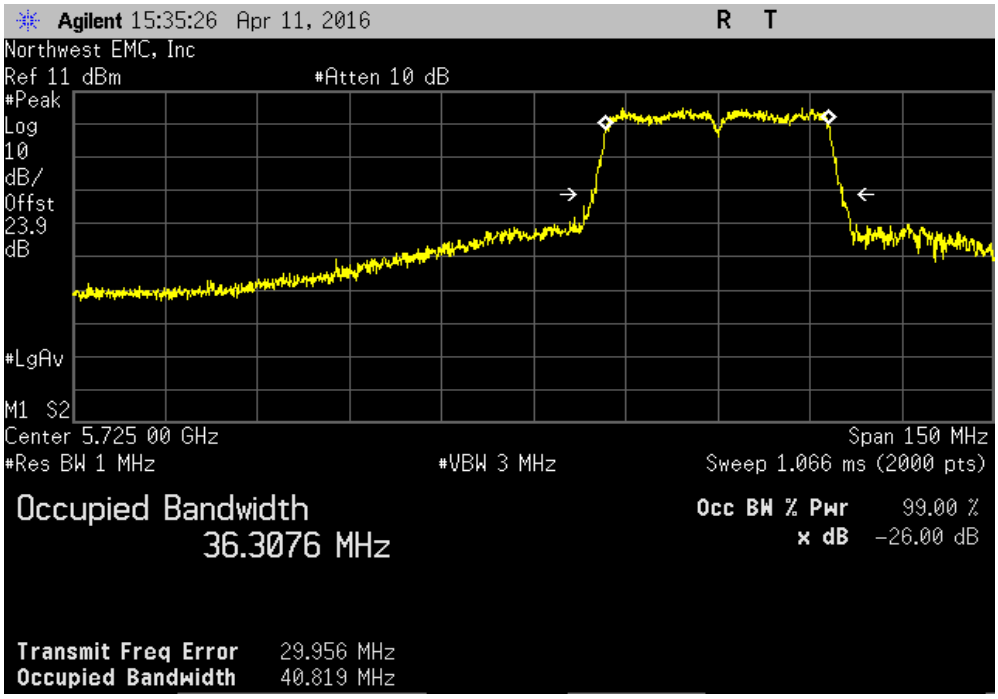

| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



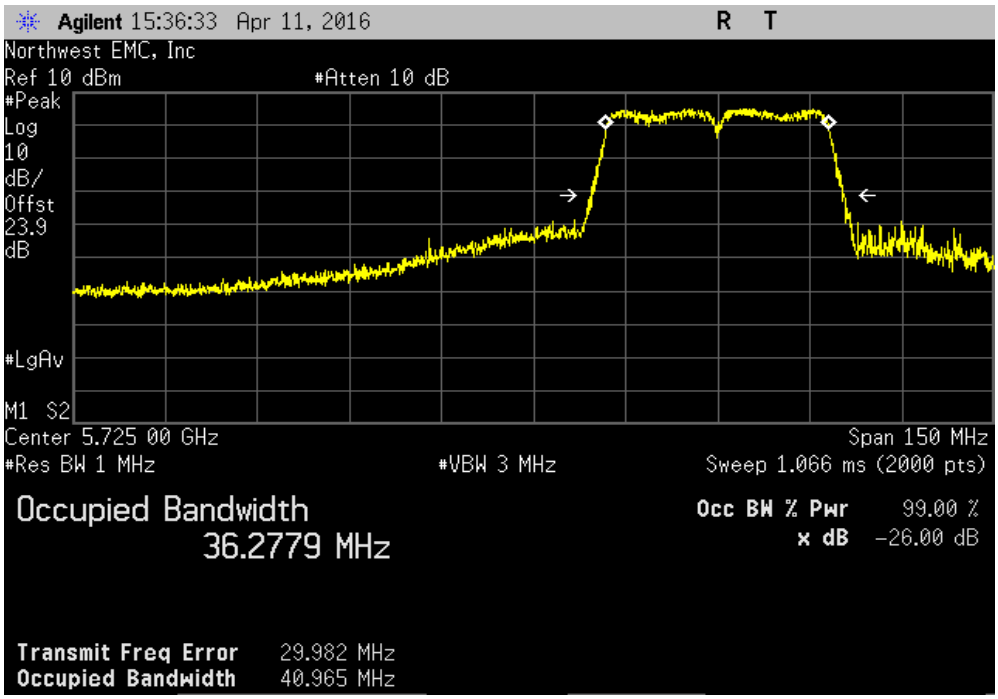
| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



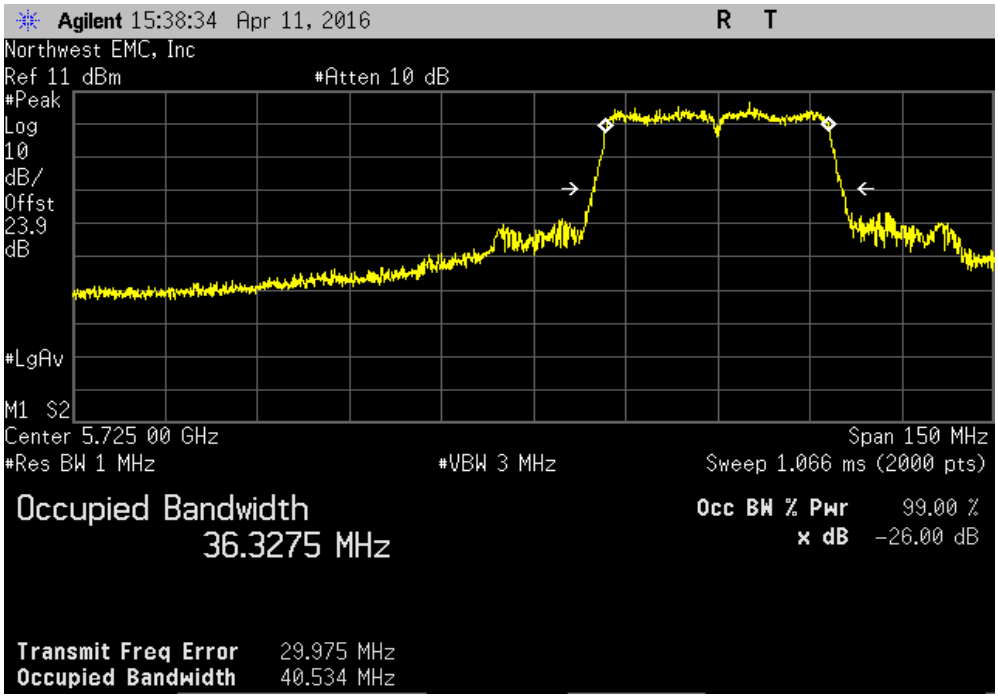

| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



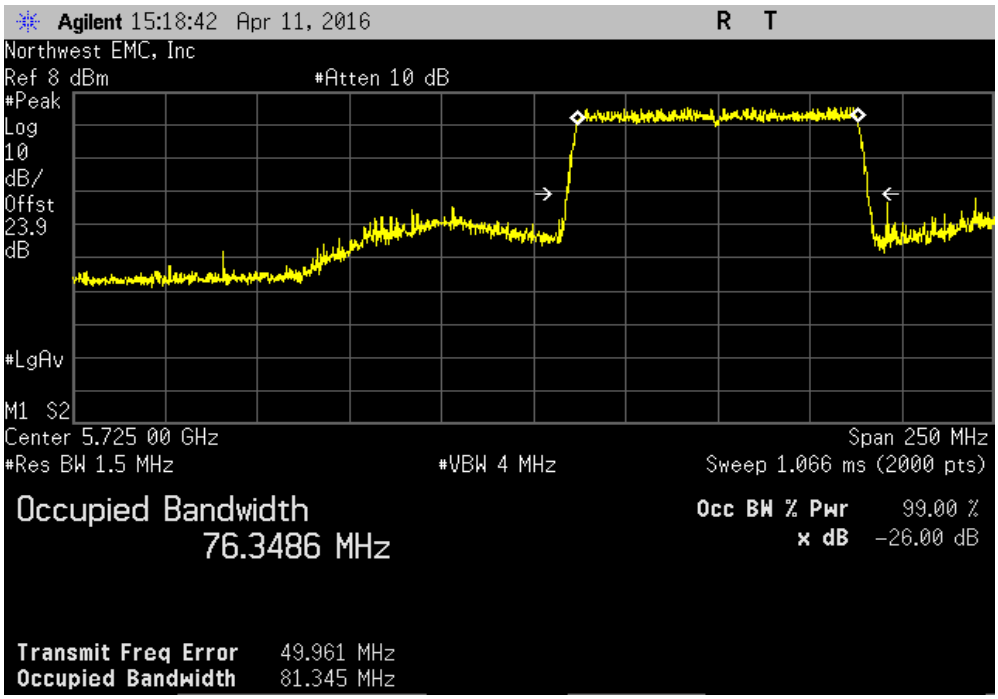
| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



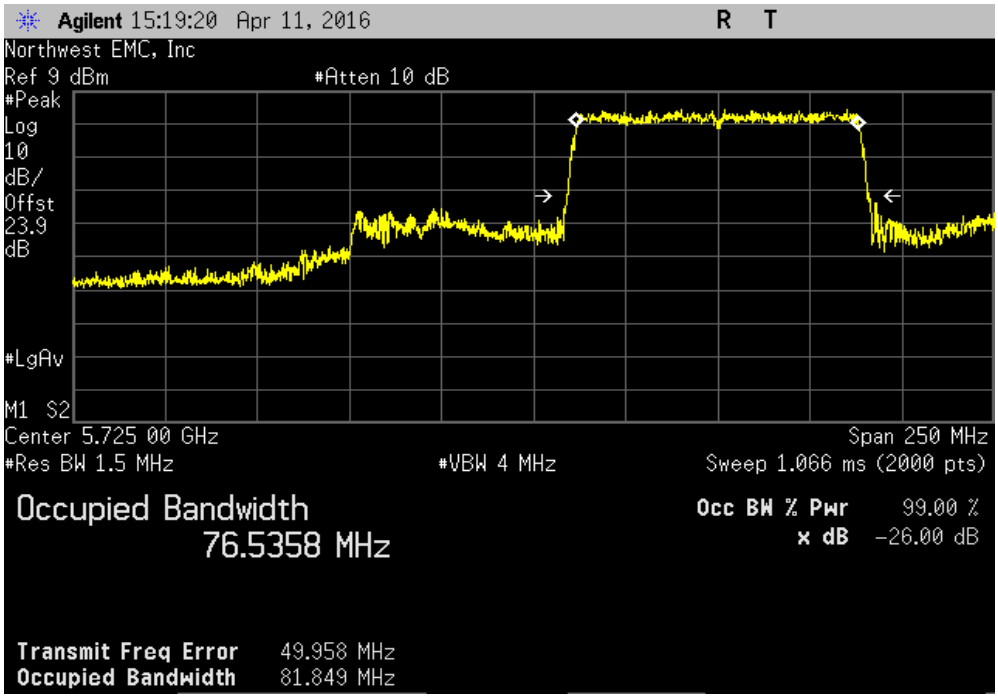

| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



| SISO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |




| SISO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



# BAND EDGE

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

**TEST EQUIPMENT**

| Description | Manufacturer | Model | ID | Last Cal. | Interval (mo) |
|---|---|---|---|---|---|
| Analyzer - Spectrum Analyzer | Agilent | E4440A | AFE | 6/22/2015 | 12 |
| Attenuator | Fairview Microwave | SA4014-20 | TKV | 3/4/2016 | 12 |
| Block - DC | Fairview Microwave | SD3379 | AMJ | 6/6/2015 | 12 |
| Cable | ESM Cable Corp. | TTBJ-141 KMKM-72 | NC5 | 6/6/2015 | 12 |
| Generator - Signal | Agilent | N5183A | TID | 11/26/2014 | 36 |

**TEST DESCRIPTION**

The -26 dB emission bandwidth of the carrier was measured to ensure that no part of the emission of the carrier operating in a non-DFS band was operating in a band where DFS testing is required. This test is done with the U-NII-1 band (5.2 GHz band) to ensure no portion of the carrier is contained within the U-NII-2A band and with the U-NII-3 band (5.8 GHz band) to ensure no portion of the carrier is contained in the U-NII-2C band.

The transmit frequencies and data rates listed in the datasheet were measured. The transmit power was set to its default maximum.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

# BAND EDGE

NORTHWEST EMC

XMit 2015.01.14

| | | | | | |
|---|---|---|---|---|---|
| **EUT:** | **Model 1631** | | | **Work Order:** | **MCSO1748** |
| **Serial Number:** | **041152140753** | | | **Date:** | **04/12/16** |
| **Customer:** | **Microsoft Corporation** | | | **Temperature:** | **23°C** |
| **Attendees:** | **None** | | | **Humidity:** | **33%** |
| **Project:** | **None** | | | **Barometric Pres.:** | **1019 mbar** |
| **Tested by:** | **Richard Mellroth** | **Power:** | **110VAC/60Hz** | **Job Site:** | **NC02** |

| **TEST SPECIFICATIONS** | **Test Method** |
|---|---|
| **FCC 15.407:2016** | ANSI C63.10:2013 |
| | |

**COMMENTS**

**Power setting at 11dBm for 20MHz and 40MHz channels. Power Setting at 10dBm for 80MHz channels. Client supplied adapter cable loss of 1.3dB included in reference level offset. Signal setting at > 95% Duty Cycle.**

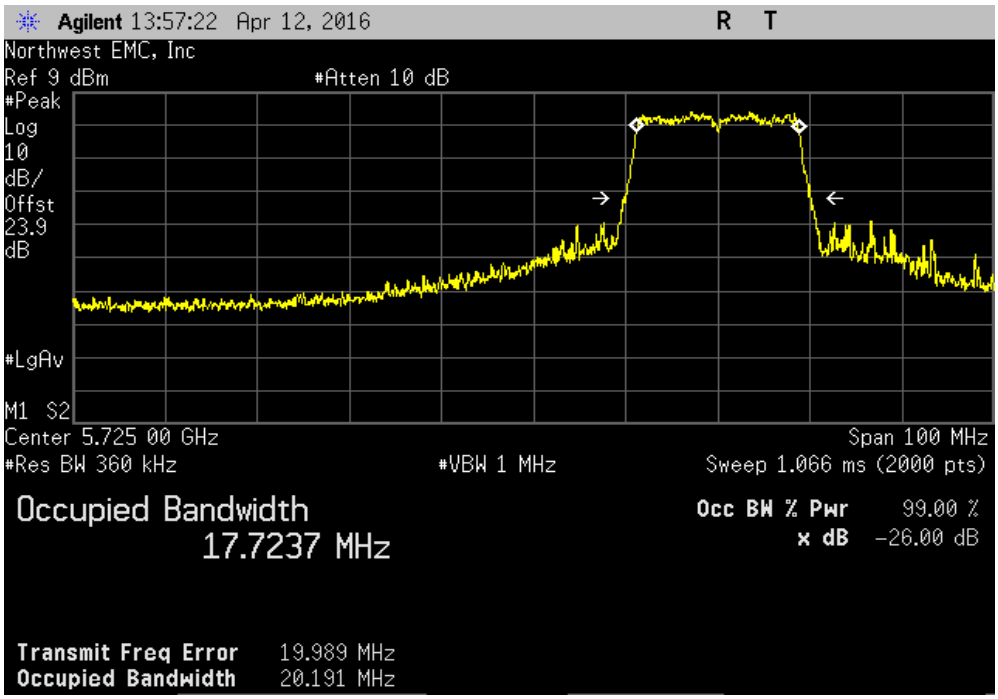
**DEVIATIONS FROM TEST STANDARD**

**None**

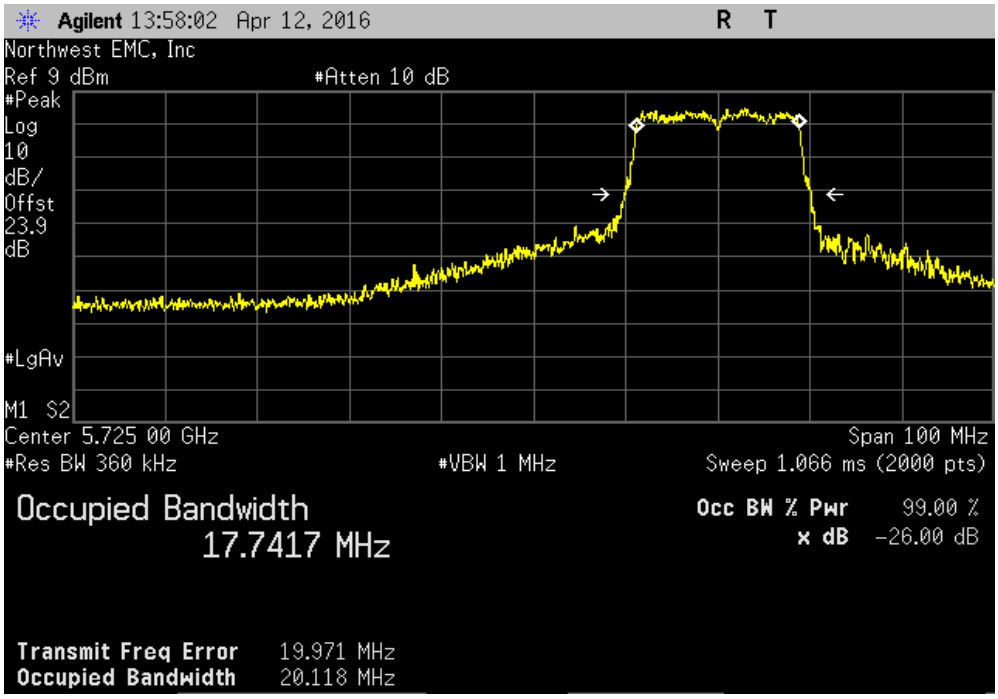
| **Configuration #** | **1** | *Signature* |
|---|---|---|

| | | | OBW Within Band | Band Edge (MHz) | Result |
|---|---|---|---|---|---|
| 2x2 MIMO, Chain A | | | | | |
| | 20MHz BW | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | |
| | | 802.11(n) MCS8 | Yes | 5725 | Pass |
| | | 802.11(n) MCS15 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS8 | Yes | 5725 | Pass |
| | 40MHz BW | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | |
| | | 802.11(n) MCS8 | Yes | 5725 | Pass |
| | | 802.11(n) MCS15 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |
| | 80MHz BW | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |
| 2x2 MIMO, Chain B | | | | | |
| | 20MHz BW | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | |
| | | 802.11(n) MCS8 | Yes | 5725 | Pass |
| | | 802.11(n) MCS15 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS8 | Yes | 5725 | Pass |
| | 40MHz BW | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | |
| | | 802.11(n) MCS8 | Yes | 5725 | Pass |
| | | 802.11(n) MCS15 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |
| | 80MHz BW | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | |
| | | 802.11(ac) MCS0 | Yes | 5725 | Pass |
| | | 802.11(ac) MCS9 | Yes | 5725 | Pass |

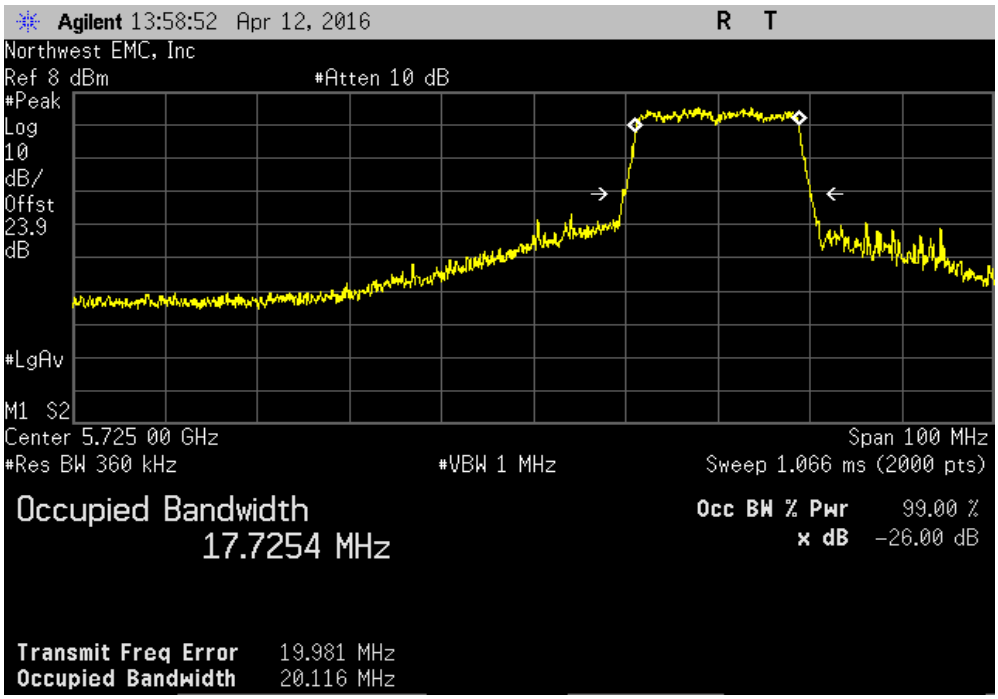
| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



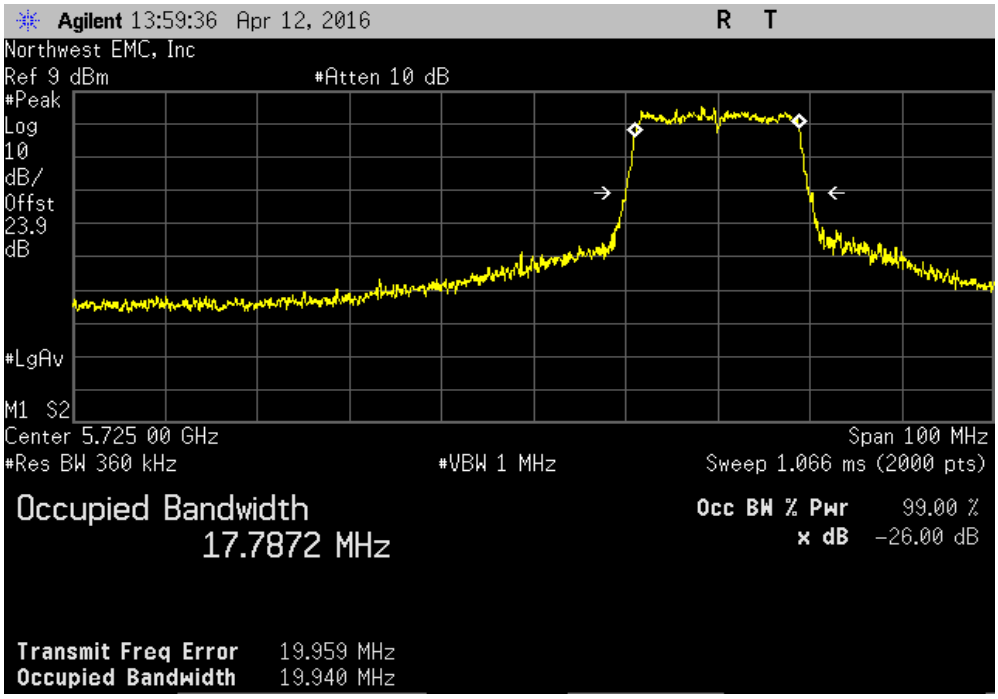

| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



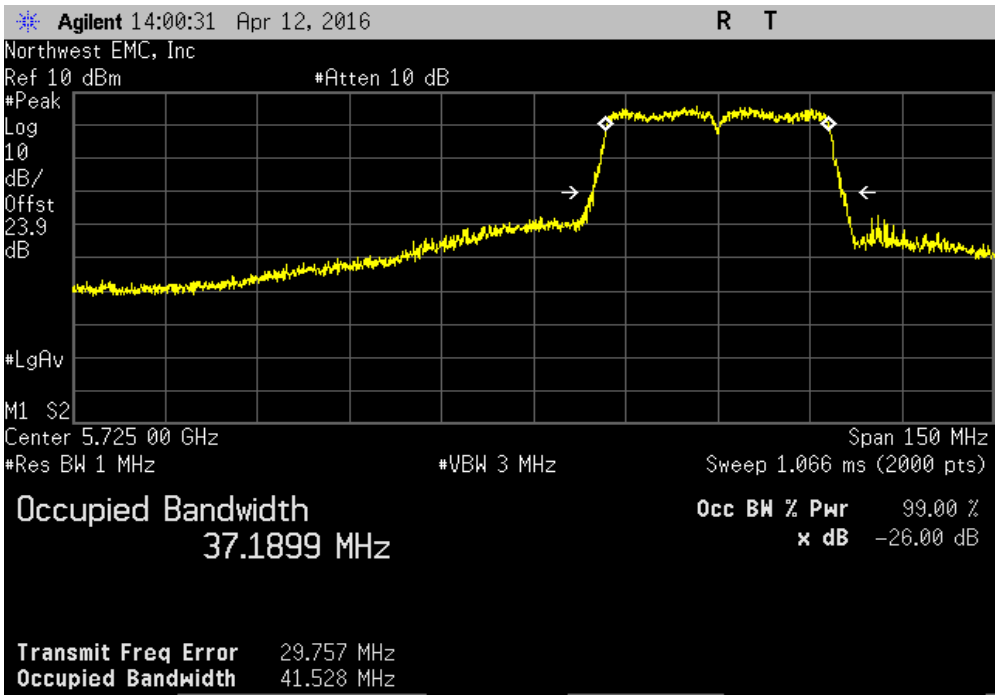
| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



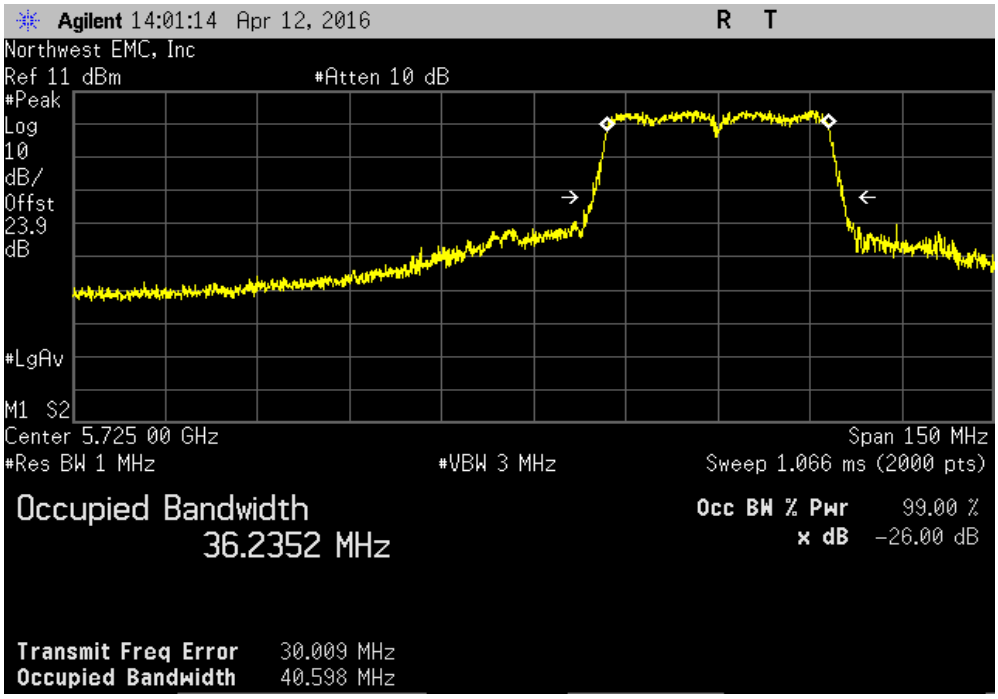

| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



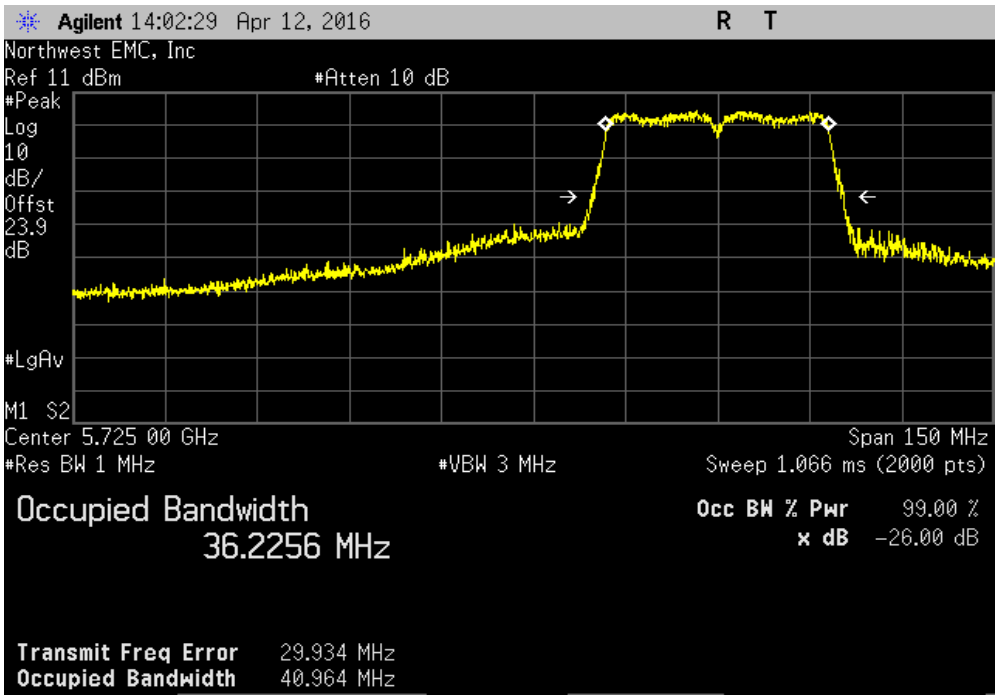
| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



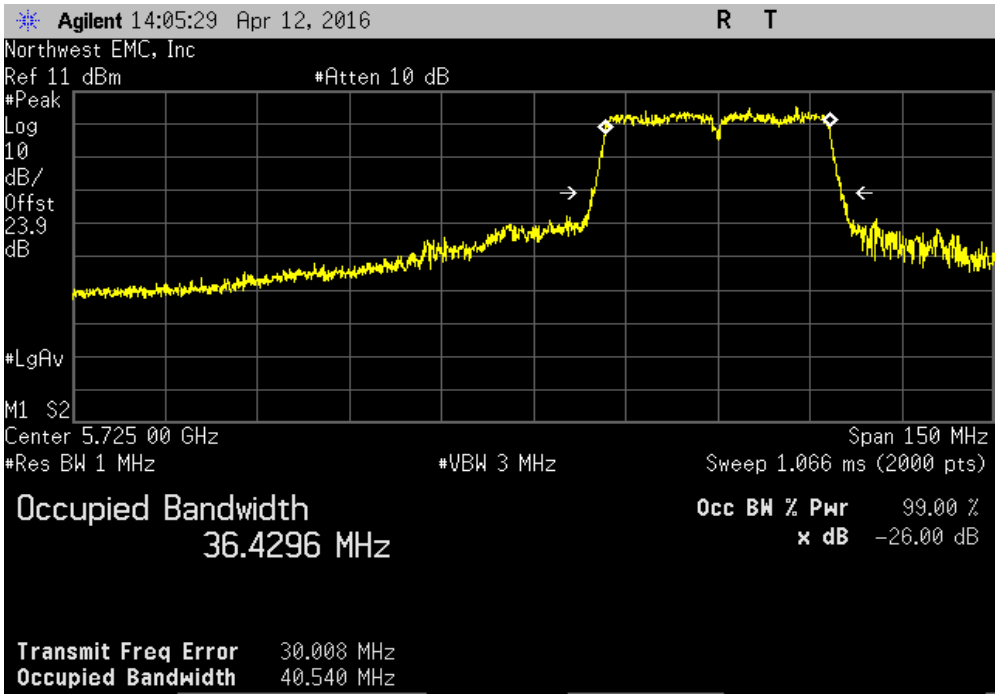

| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



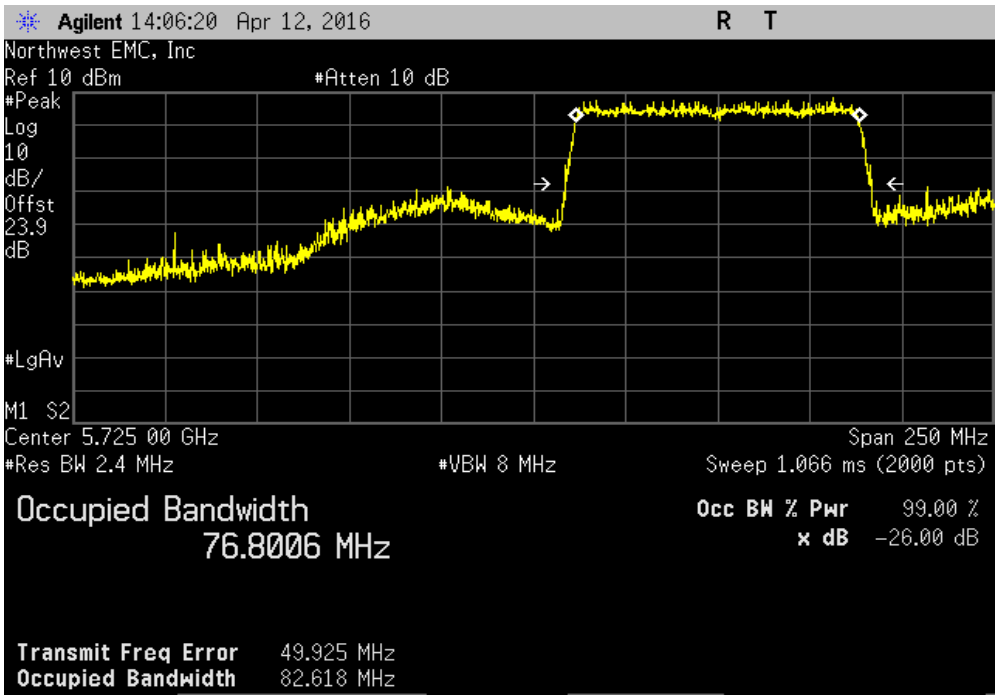
| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



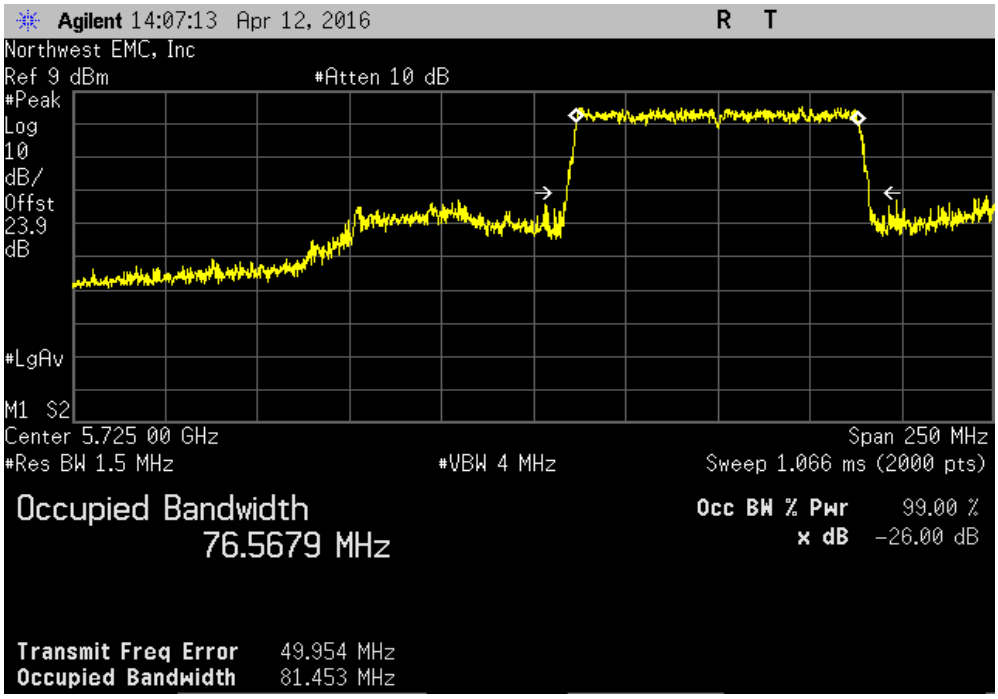

| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



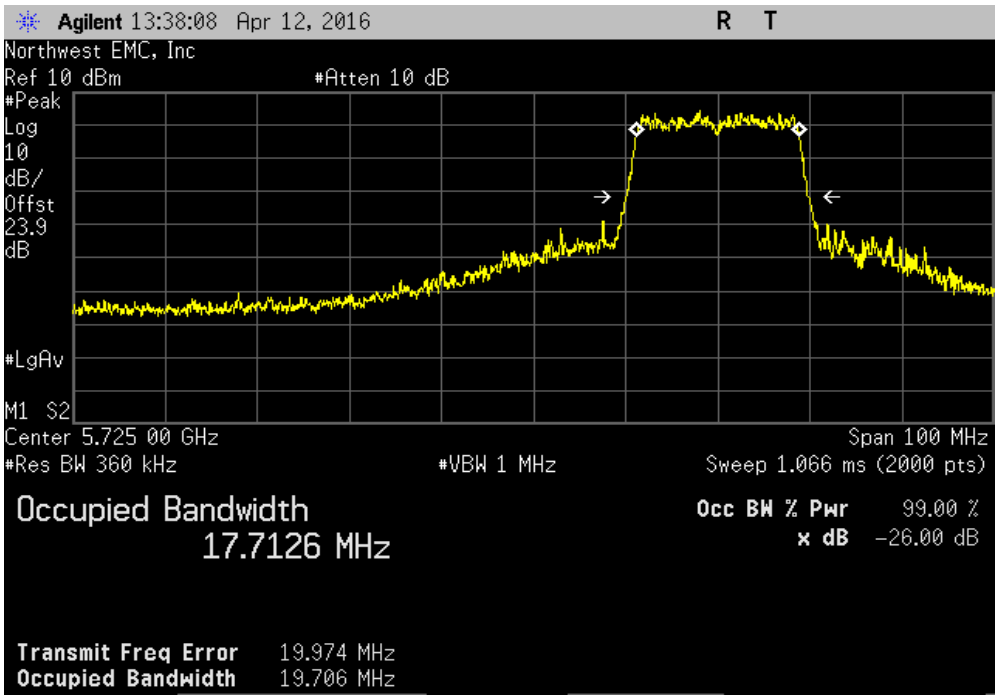
| 2x2 MIMO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



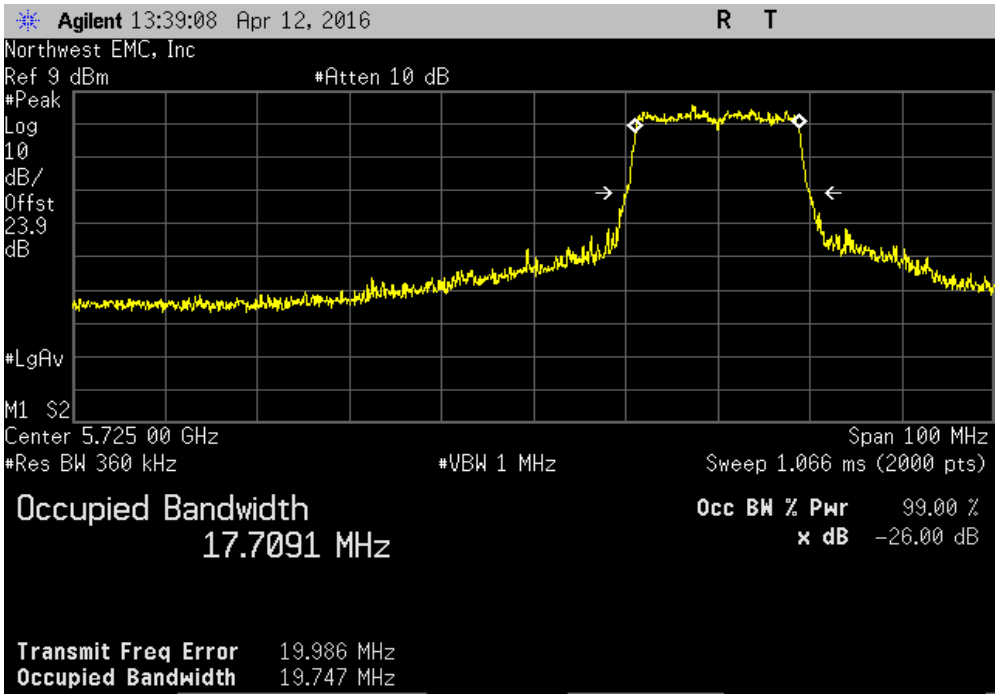

| 2x2 MIMO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



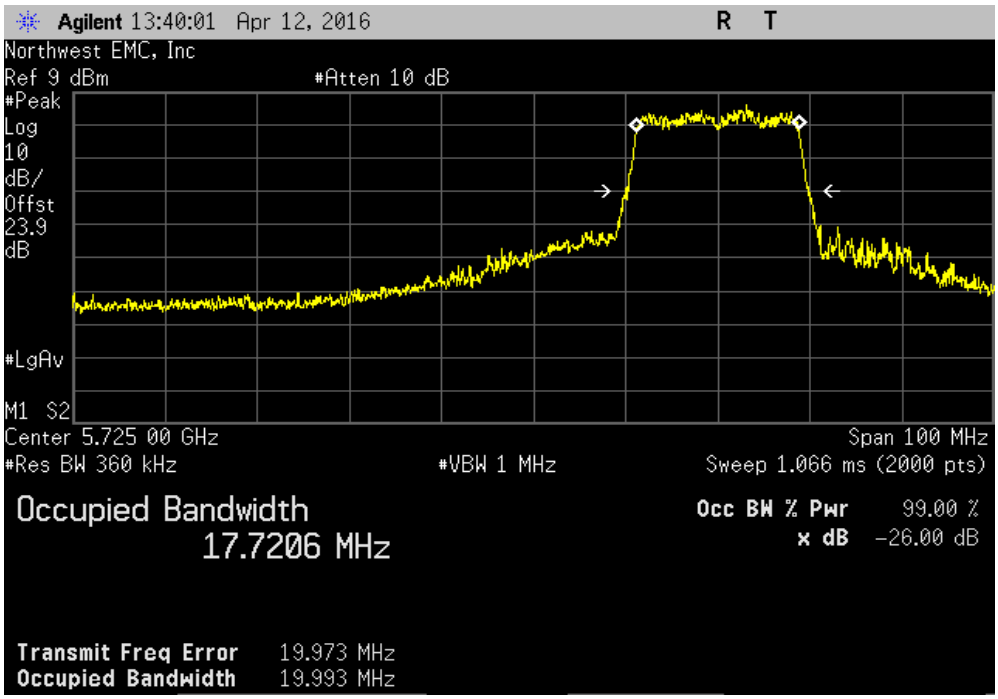
| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



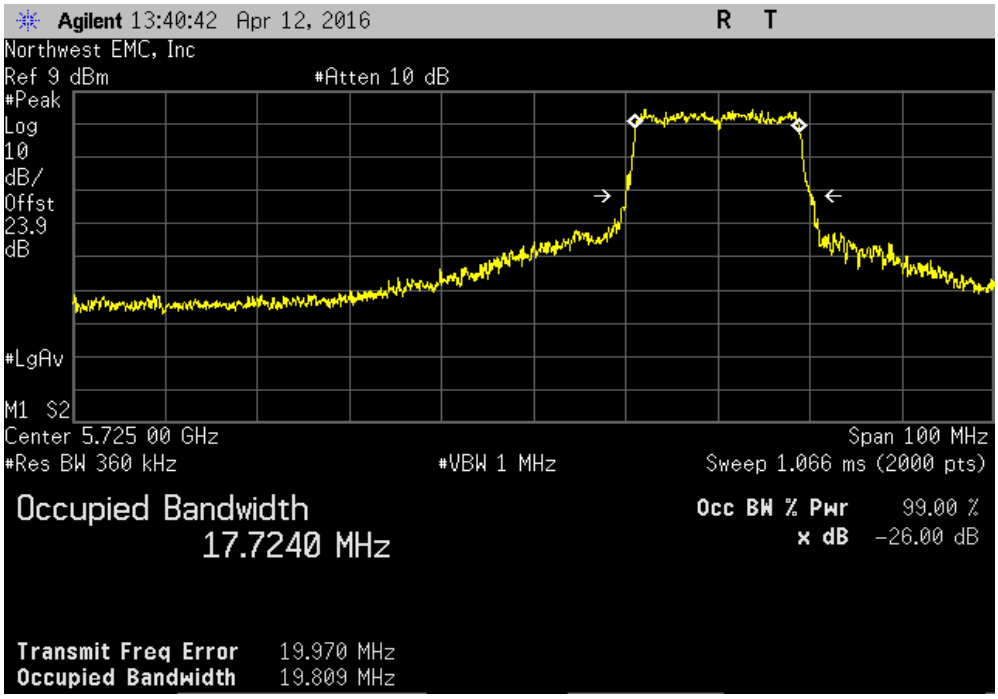

| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



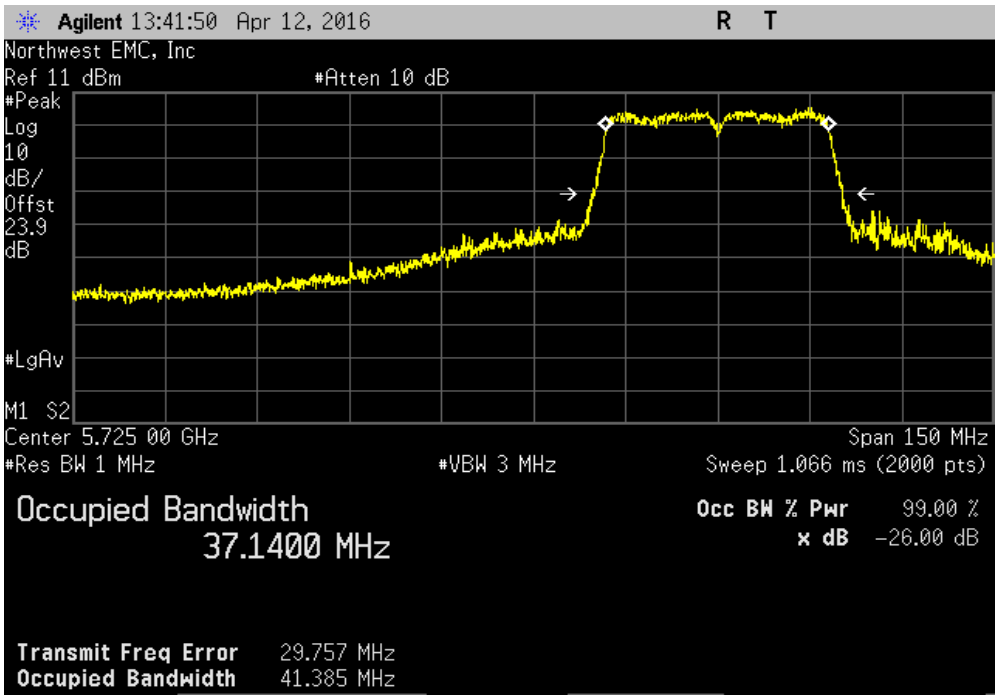
| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



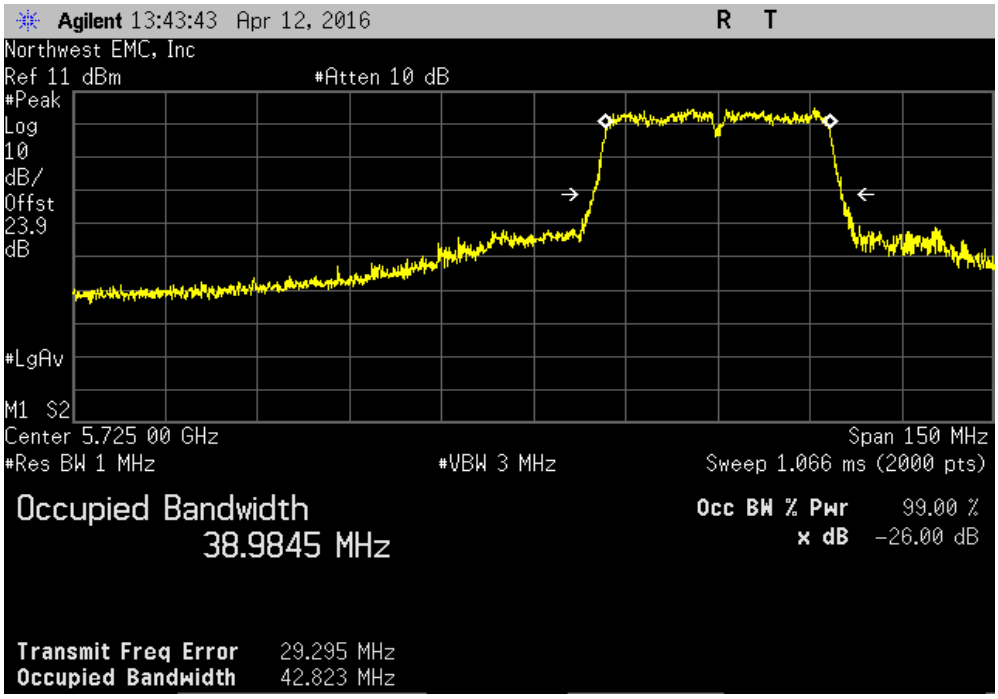

| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



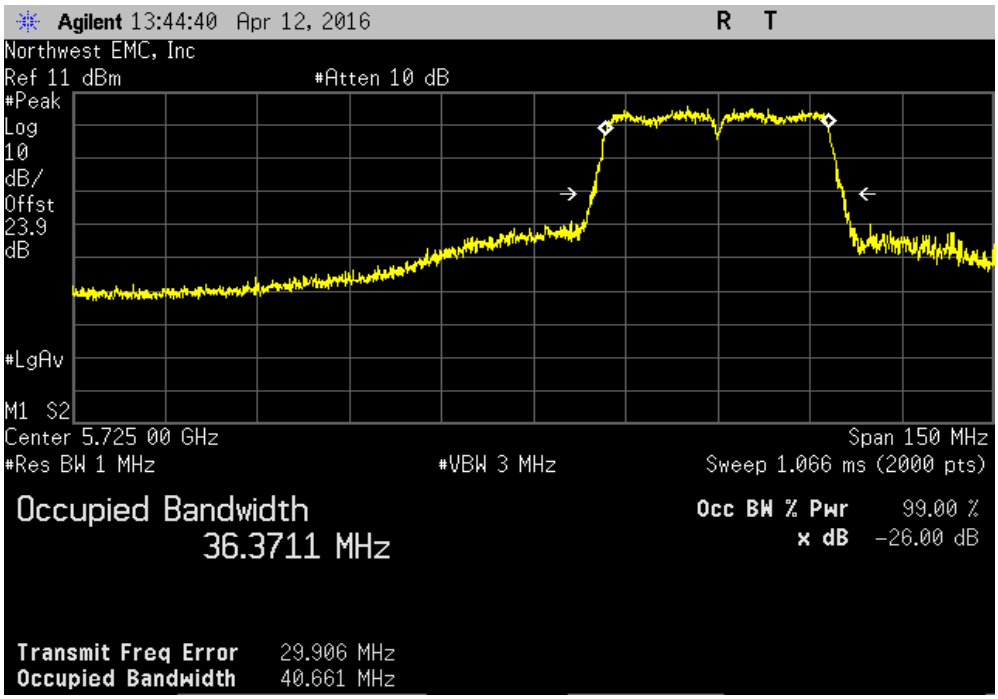
| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



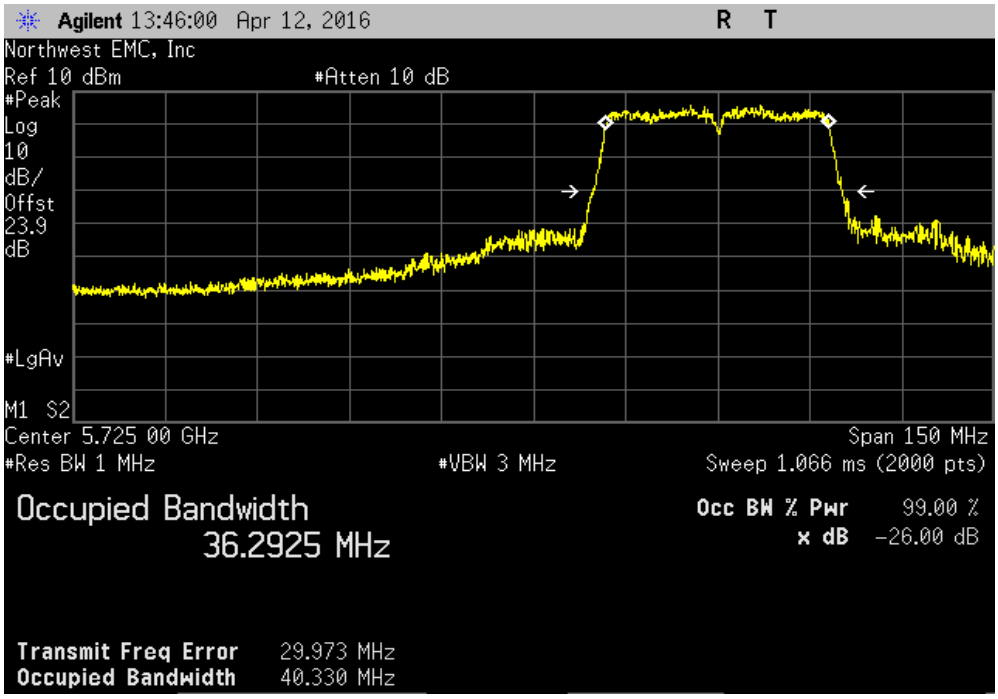

| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



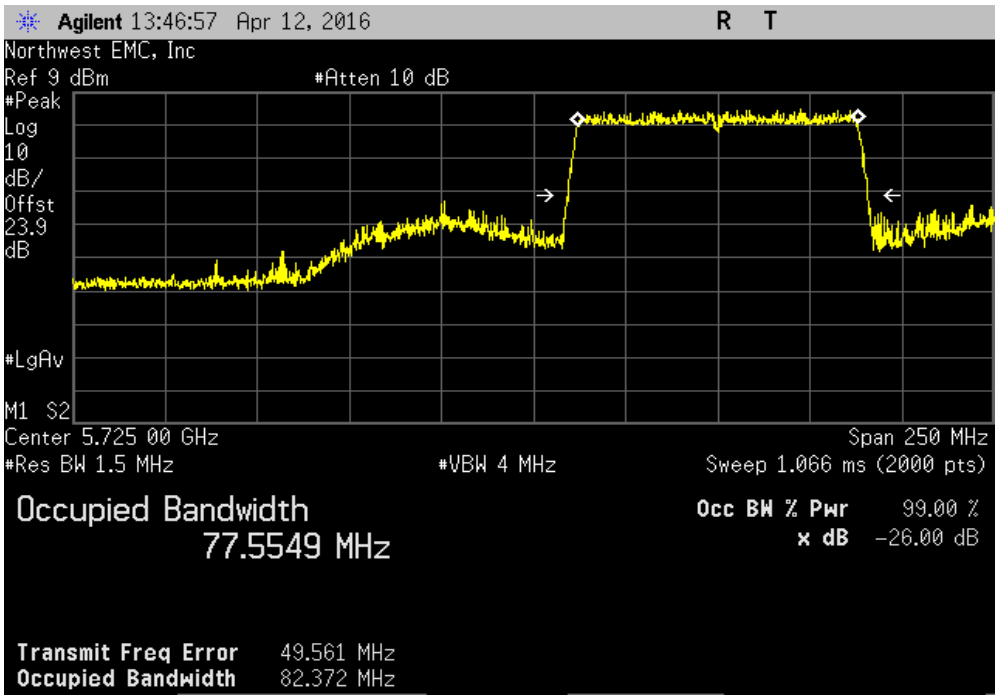
| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



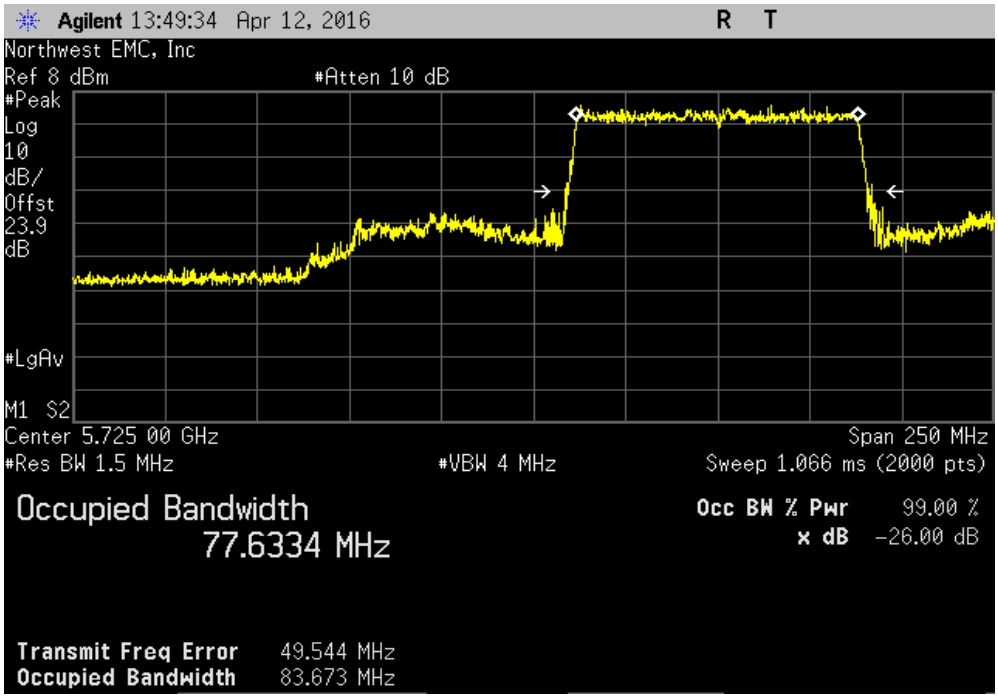

| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



| 2x2 MIMO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |




| 2x2 MIMO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | | | | OBW Within Band | Band Edge (MHz) | Result |
| | | | | Yes | 5725 | Pass |



# MAXIMUM POWER SPECTRAL DENSITY

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

**TEST EQUIPMENT**

| Description | Manufacturer | Model | ID | Last Cal. | Interval (mo) |
|---|---|---|---|---|---|
| Analyzer - Spectrum Analyzer | Agilent | E4440A | AFE | 6/22/2015 | 12 |
| Attenuator | Fairview Microwave | SA4014-20 | TKV | 3/4/2016 | 12 |
| Block - DC | Fairview Microwave | SD3379 | AMJ | 6/6/2015 | 12 |
| Cable | ESM Cable Corp. | TTBJ-141 KMKM-72 | NC5 | 6/6/2015 | 12 |
| Generator - Signal | Agilent | N5183A | TID | 11/26/2014 | 36 |

**TEST DESCRIPTION**

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The radio was operated in the modes as shown in the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring maximum power spectral density, the emission bandwidth (B) was measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report

The maximum power spectral density was measured using ANSI C63.10, Method SA-2 (RMS detection and trace averaging across the on and off times of the EUT transmission and use of a duty cycle correction factor), consistent with the method used for maximum conducted output power.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

-Resolution Bandwidth of 510 kHz

-RMS Detector

-Trace average 100 traces in power averaging mode

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in the reference bandwidth after 100 sweeps of power averaging (not video averaging).

A duty cycle correction factor was added to the measurement using the results of the formula of 10*LOG(1/D) where D is the

# MAXIMUM POWER SPECTRAL DENSITY

NORTHWEST EMC

XMit 2015.01.14

| | | | | | |
|---|---|---|---|---|---|
| **EUT:** | Model 1631 | | | **Work Order:** | MCSO1748 |
| **Serial Number:** | 041152140753 | | | **Date:** | 04/12/16 |
| **Customer:** | Microsoft Corporation | | | **Temperature:** | 23°C |
| **Attendees:** | None | | | **Humidity:** | 33% |
| **Project:** | None | | | **Barometric Pres.:** | 1019 mbar |
| **Tested by:** | Richard Mellroth | **Power:** | 110VAC/60Hz | **Job Site:** | NC02 |

| TEST SPECIFICATIONS | Test Method |
|---|---|
| FCC 15.407:2016 | ANSI C63.10:2013 |

**COMMENTS**

Power setting at 11dBm for 20MHz and 40MHz channels. Power Setting at 10dBm for 80MHz channels. Client supplied adapter cable loss of 1.3dB included in reference level offset. Signal setting at > 95% Duty Cycle.

**DEVIATIONS FROM TEST STANDARD**

None

| Configuration # | 1 | Signature |
|---|---|---|

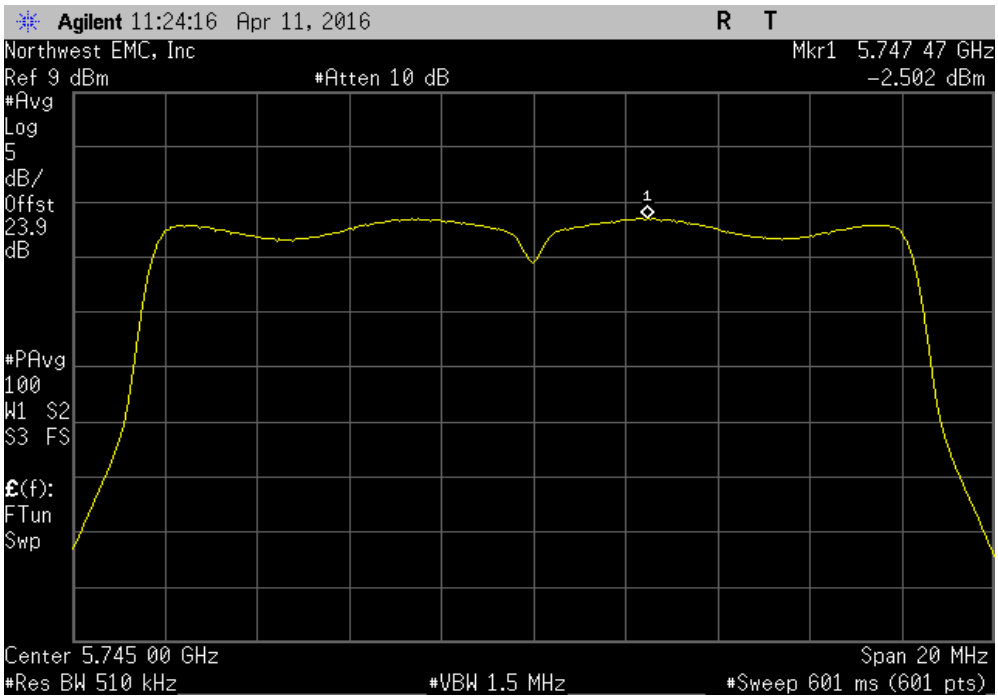
| | | | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Density (dBm/Ref BW) | Limit ≤ (dBm / Ref BW) | Results |
|---|---|---|---|---|---|---|---|
| SISO, Chain A | | | | | | | |
| | 20MHz BW | | | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | | | |
| | | 802.11(a) 6 Mbps | -2.502 | 0 | -2.5 | 30 | Pass |
| | | 802.11(a) 36 Mbps | -2.664 | 0.3 | -2.4 | 30 | Pass |
| | | 802.11(a) 54 Mbps | -2.77 | 0.4 | -2.3 | 30 | Pass |
| | | 802.11(n) MCS0 | -2.671 | 0 | -2.6 | 30 | Pass |
| | | 802.11(n) MCS7 | -3.084 | 0.4 | -2.7 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.737 | 0 | -2.7 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.88 | 0.4 | -2.5 | 30 | Pass |
| | | Mid Channel, Ch 157 - 5785 MHz | | | | | |
| | | 802.11(a) 6 Mbps | -2.455 | 0 | -2.4 | 30 | Pass |
| | | 802.11(a) 36 Mbps | -2.545 | 0.3 | -2.3 | 30 | Pass |
| | | 802.11(a) 54 Mbps | -2.632 | 0.4 | -2.2 | 30 | Pass |
| | | 802.11(n) MCS0 | -2.632 | 0 | -2.6 | 30 | Pass |
| | | 802.11(n) MCS7 | -2.914 | 0.4 | -2.5 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.587 | 0 | -2.5 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.703 | 0.4 | -2.3 | 30 | Pass |
| | | High Channel, Ch 165 - 5825 MHz | | | | | |
| | | 802.11(a) 6 Mbps | -2.338 | 0 | -2.3 | 30 | Pass |
| | | 802.11(a) 36 Mbps | -2.618 | 0.3 | -2.4 | 30 | Pass |
| | | 802.11(a) 54 Mbps | -2.606 | 0.4 | -2.2 | 30 | Pass |
| | | 802.11(n) MCS0 | -2.661 | 0 | -2.6 | 30 | Pass |
| | | 802.11(n) MCS7 | -2.718 | 0.4 | -2.3 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.633 | 0 | -2.6 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.672 | 0.4 | -2.3 | 30 | Pass |
| | 40MHz BW | | | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | | | |
| | | 802.11(n) MCS0 | -6.021 | 0.2 | -5.8 | 30 | Pass |
| | | 802.11(n) MCS7 | -5.997 | 1.5 | -4.5 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.947 | 0.2 | -5.8 | 30 | Pass |
| | | 802.11(ac) MCS9 | -5.88 | 1.6 | -4.2 | 30 | Pass |
| | | High Channel, Ch 157/161 - 5795 MHz | | | | | |
| | | 802.11(n) MCS0 | -5.898 | 0.2 | -5.7 | 30 | Pass |
| | | 802.11(n) MCS7 | -6.111 | 1.5 | -4.6 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.913 | 0.2 | -5.8 | 30 | Pass |
| | | 802.11(ac) MCS9 | -5.972 | 1.6 | -4.3 | 30 | Pass |
| | 80MHz BW | | | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | | | |
| | | 802.11(ac) MCS0 | -11.041 | 0.3 | -10.7 | 30 | Pass |
| | | 802.11(ac) MCS9 | -10.952 | 1.8 | -9.1 | 30 | Pass |
| SISO, Chain B | | | | | | | |
| | 20MHz BW | | | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | | | |
| | | 802.11(a) 6 Mbps | -2.858 | 0 | -2.8 | 30 | Pass |
| | | 802.11(a) 36 Mbps | -2.547 | 0.3 | -2.3 | 30 | Pass |
| | | 802.11(a) 54 Mbps | -2.9 | 0.4 | -2.5 | 30 | Pass |
| | | 802.11(n) MCS0 | -3.032 | 0 | -3 | 30 | Pass |
| | | 802.11(n) MCS7 | -3.097 | 0.4 | -2.7 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.956 | 0 | -2.9 | 30 | Pass |
| | | 802.11(ac) MCS8 | -3.018 | 0.4 | -2.6 | 30 | Pass |
| | | Mid Channel, Ch 157 - 5785 MHz | | | | | |
| | | 802.11(a) 6 Mbps | -2.417 | 0 | -2.4 | 30 | Pass |
| | | 802.11(a) 36 Mbps | -2.785 | 0.3 | -2.5 | 30 | Pass |
| | | 802.11(a) 54 Mbps | -2.773 | 0.4 | -2.4 | 30 | Pass |
| | | 802.11(n) MCS0 | -2.794 | 0 | -2.8 | 30 | Pass |
| | | 802.11(n) MCS7 | -2.912 | 0.4 | -2.5 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.79 | 0 | -2.8 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.927 | 0.4 | -2.5 | 30 | Pass |
| | | High Channel, Ch 165 - 5825 MHz | | | | | |
| | | 802.11(a) 6 Mbps | -2.57 | 0 | -2.5 | 30 | Pass |
| | | 802.11(a) 36 Mbps | -2.716 | 0.3 | -2.5 | 30 | Pass |
| | | 802.11(a) 54 Mbps | -2.794 | 0.4 | -2.4 | 30 | Pass |
| | | 802.11(n) MCS0 | -2.858 | 0 | -2.8 | 30 | Pass |
| | | 802.11(n) MCS7 | -2.945 | 0.4 | -2.5 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.743 | 0 | -2.7 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.766 | 0.4 | -2.4 | 30 | Pass |
| | 40MHz BW | | | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | | | |
| | | 802.11(n) MCS0 | -5.84 | 0.2 | -5.7 | 30 | Pass |
| | | 802.11(n) MCS7 | -6.31 | 1.5 | -4.8 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.888 | 0.2 | -5.7 | 30 | Pass |
| | | 802.11(ac) MCS9 | -5.786 | 1.6 | -4.2 | 30 | Pass |
| | | High Channel, Ch 157/161 - 5795 MHz | | | | | |
| | | 802.11(n) MCS0 | -5.836 | 0.2 | -5.7 | 30 | Pass |
| | | 802.11(n) MCS7 | -6.224 | 1.5 | -4.7 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.785 | 0.2 | -5.6 | 30 | Pass |
| | | 802.11(ac) MCS9 | -6.023 | 1.7 | -4.4 | 30 | Pass |
| | 80MHz BW | | | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | | | |
| | | 802.11(ac) MCS0 | -10.331 | 0.2 | -10.1 | 30 | Pass |
| | | 802.11(ac) MCS9 | -10.294 | 1.9 | -8.4 | 30 | Pass |

# MAXIMUM POWER SPECTRAL DENSITY

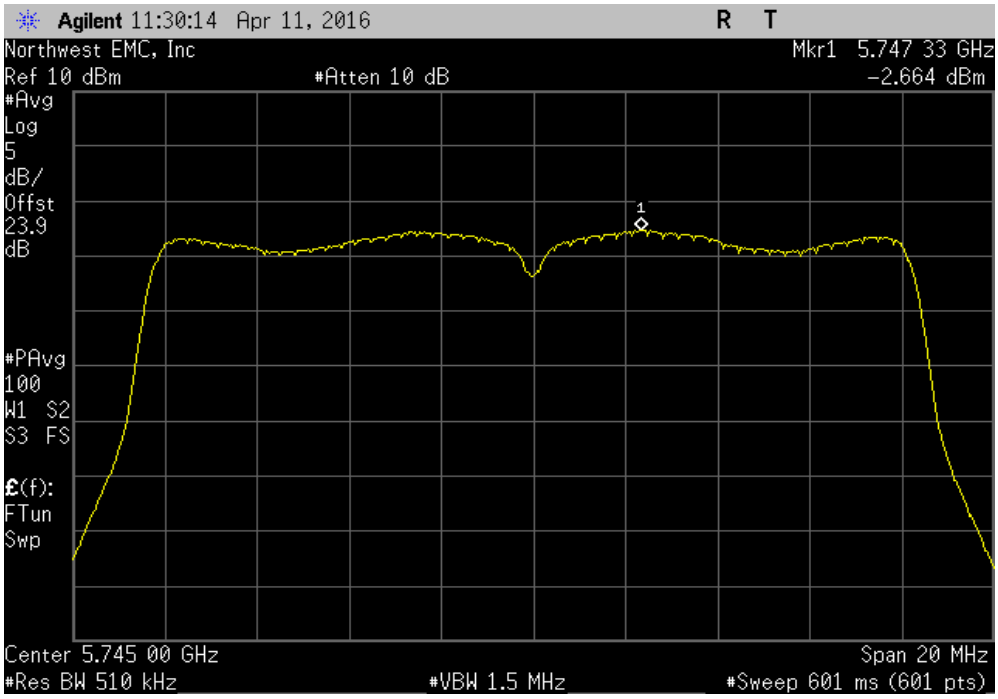
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.502 | 0 | | -2.5 | 30 | Pass |




| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.664 | 0.3 | | -2.4 | 30 | Pass |

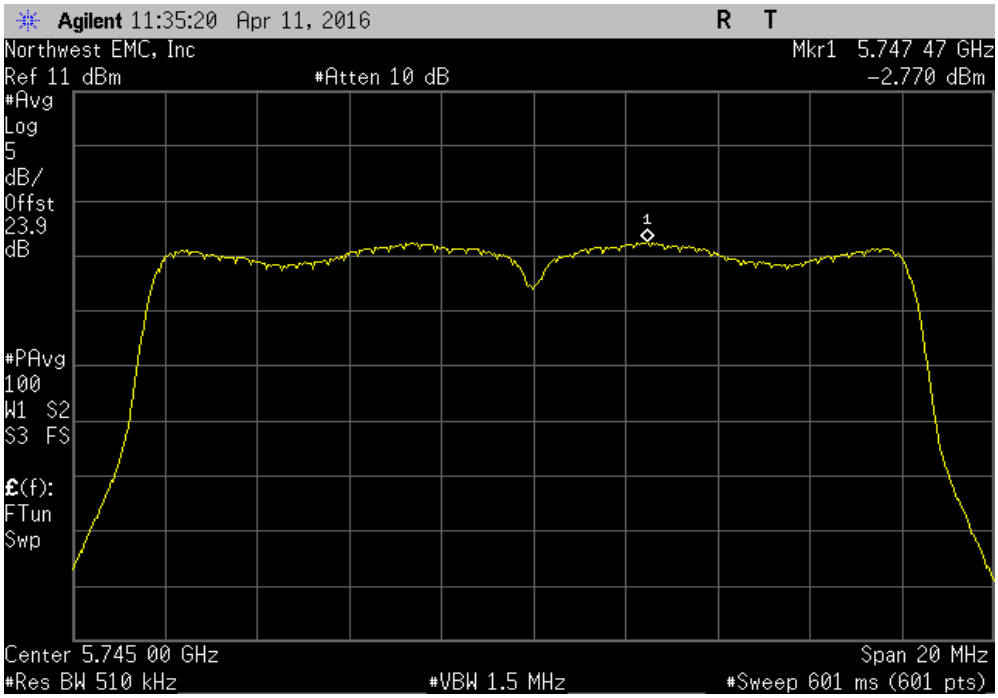


# MAXIMUM POWER SPECTRAL DENSITY

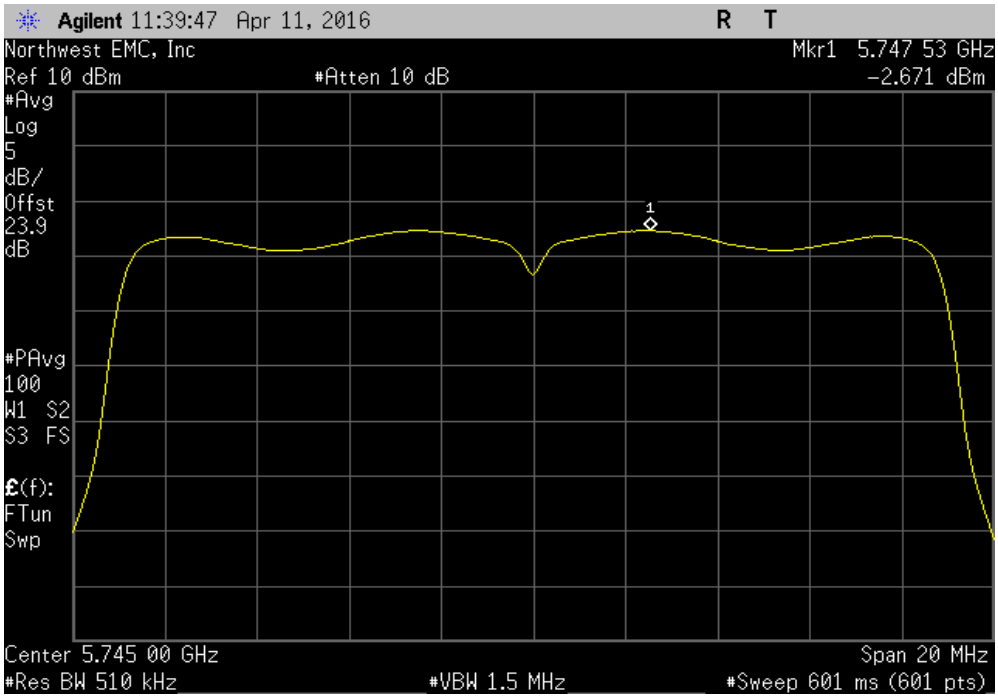
NORTHWEST EMC

XMit 2015.01.14

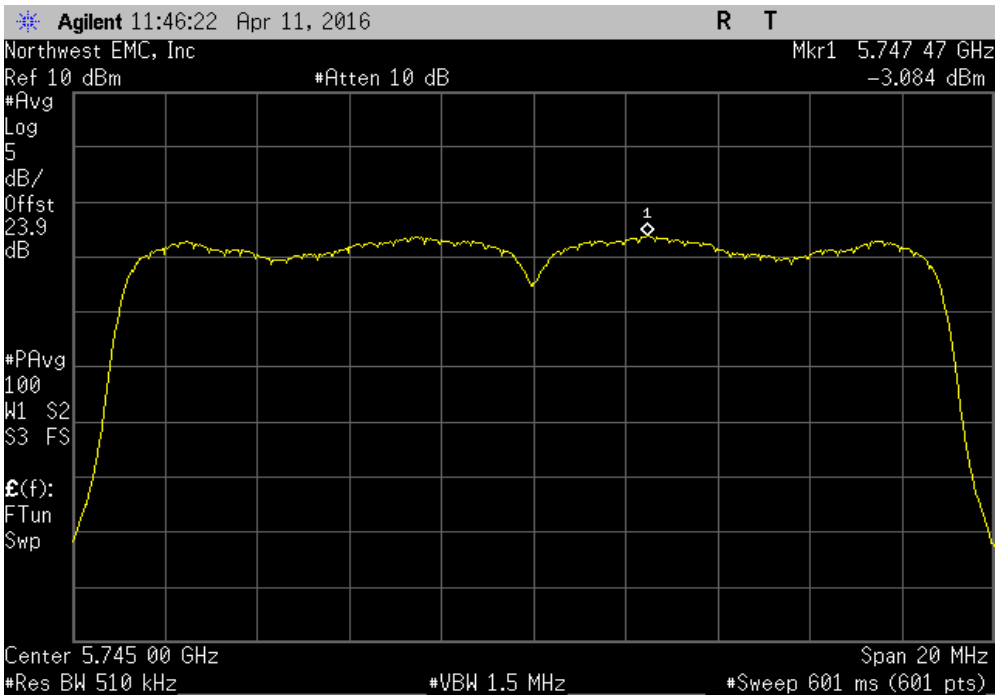
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.77 | 0.4 | | -2.3 | 30 | Pass |



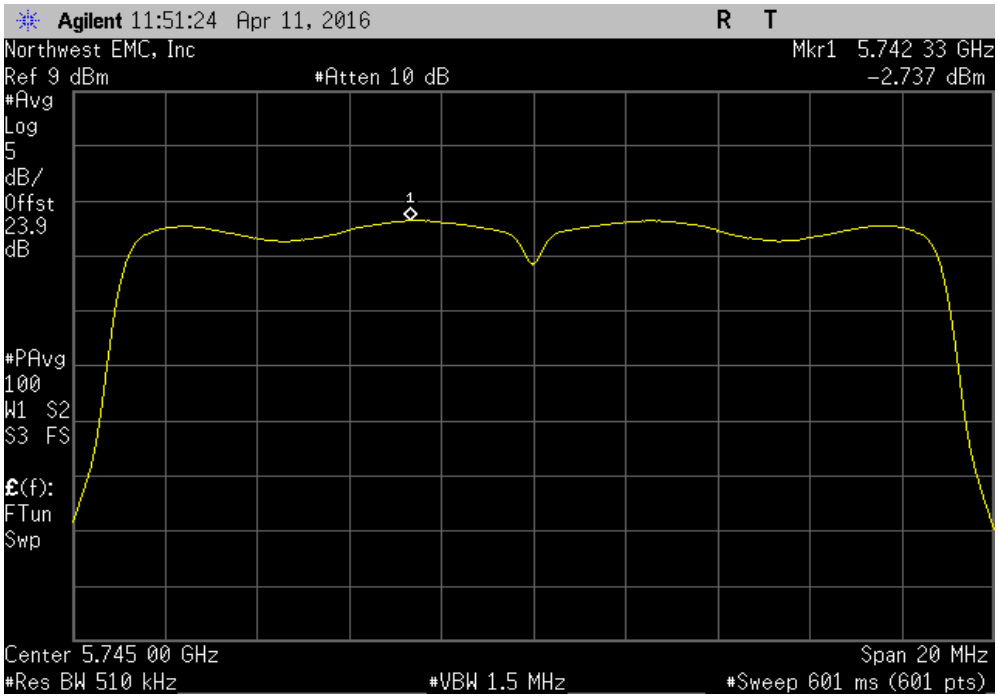

| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.671 | 0 | | -2.6 | 30 | Pass |



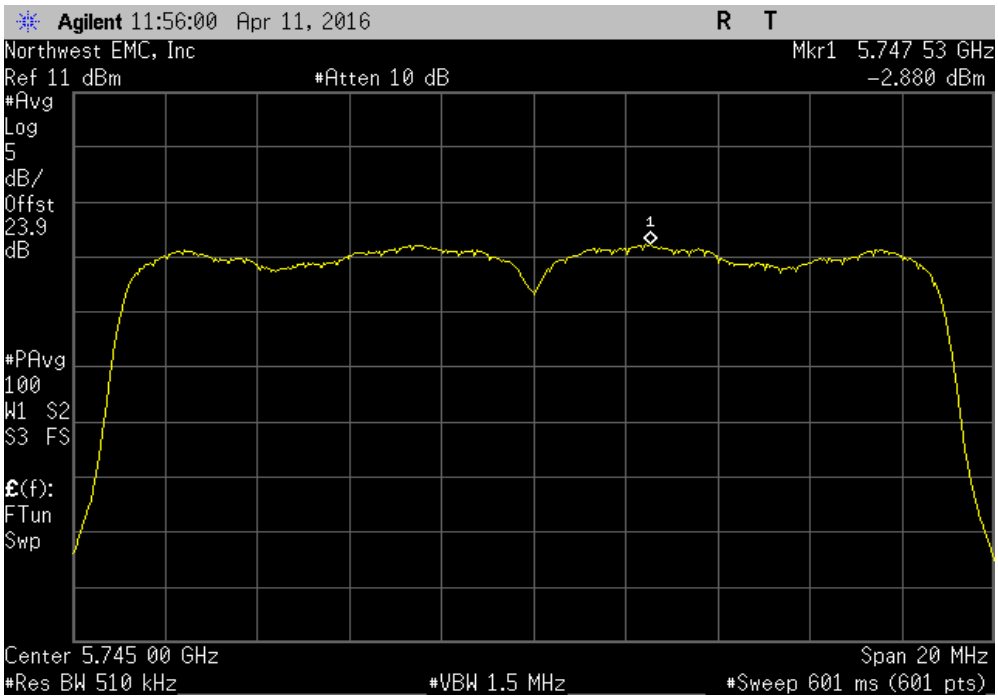
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.084 | 0.4 | | -2.7 | 30 | Pass |



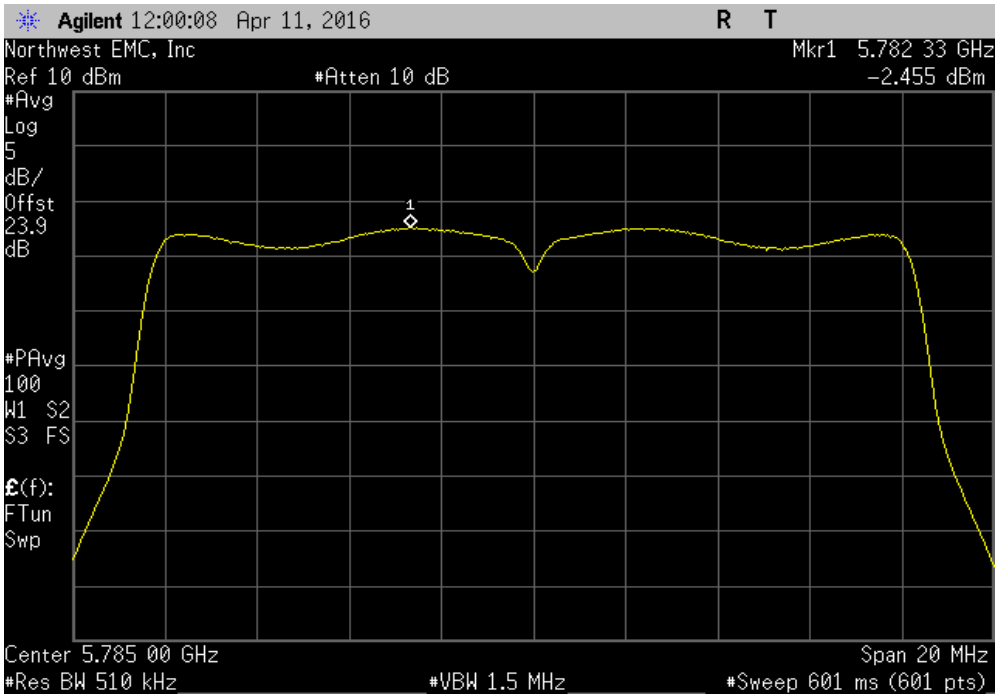

| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.737 | 0 | | -2.7 | 30 | Pass |



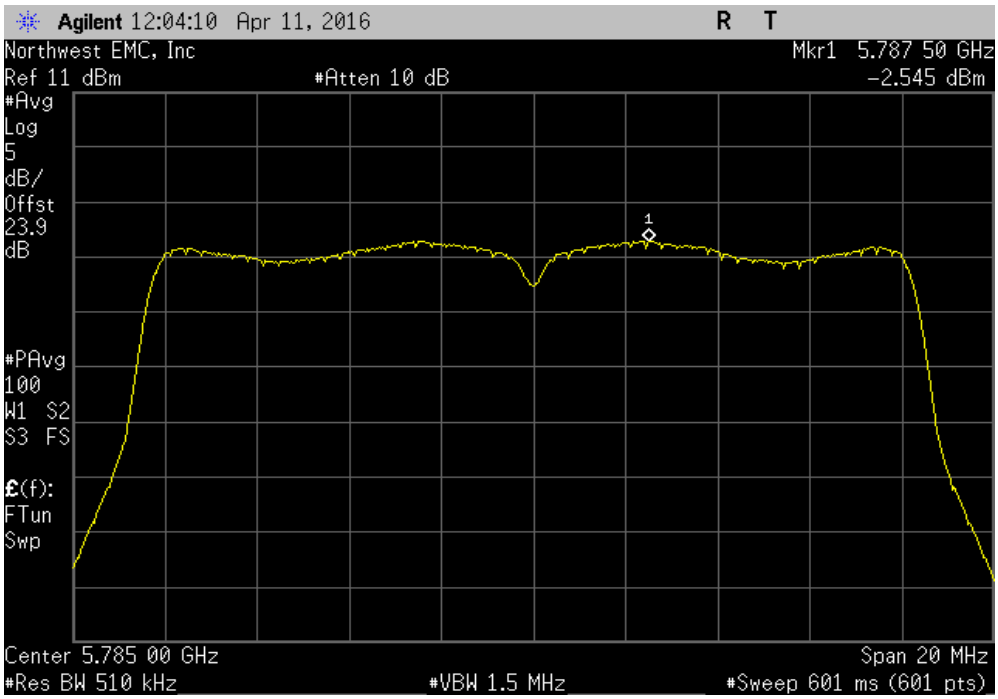
| SISO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.88 | 0.4 | | -2.5 | 30 | Pass |



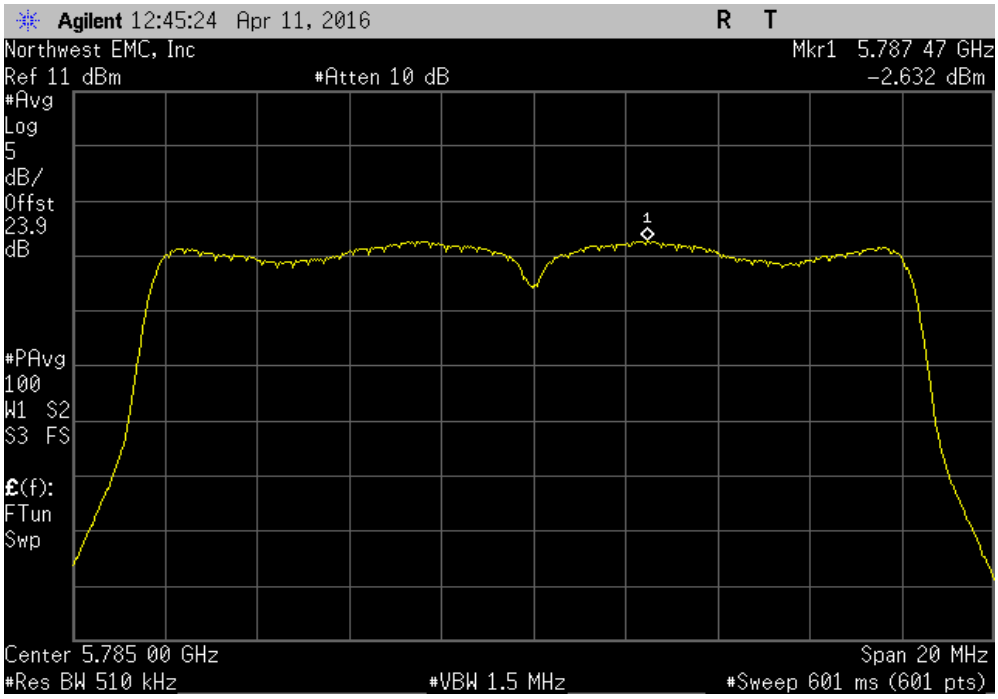

| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.455 | 0 | | -2.4 | 30 | Pass |



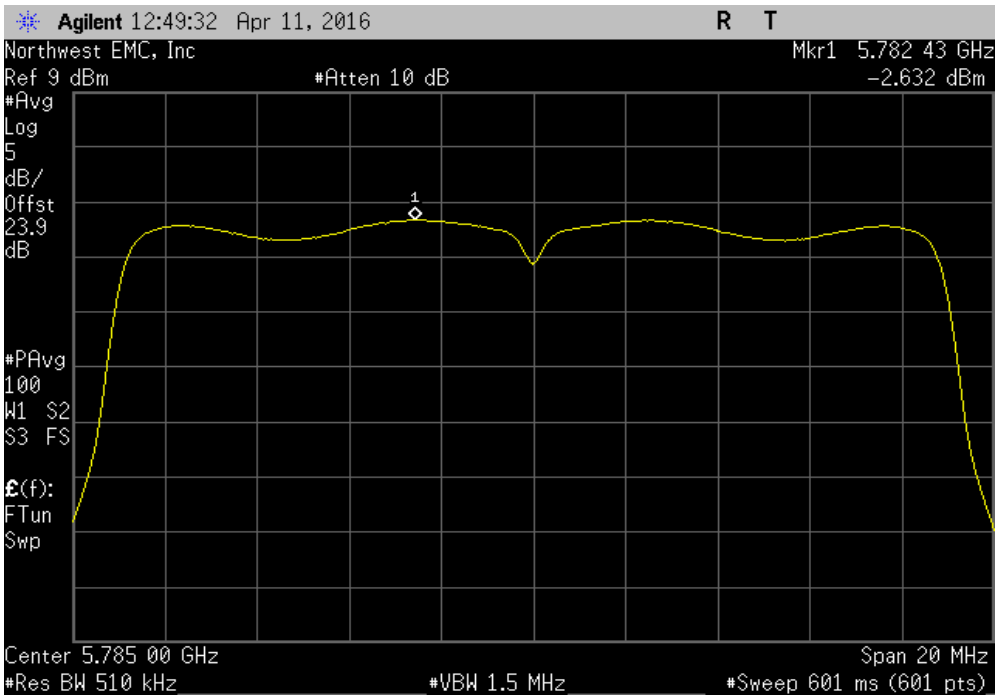
| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.545 | 0.3 | | -2.3 | 30 | Pass |



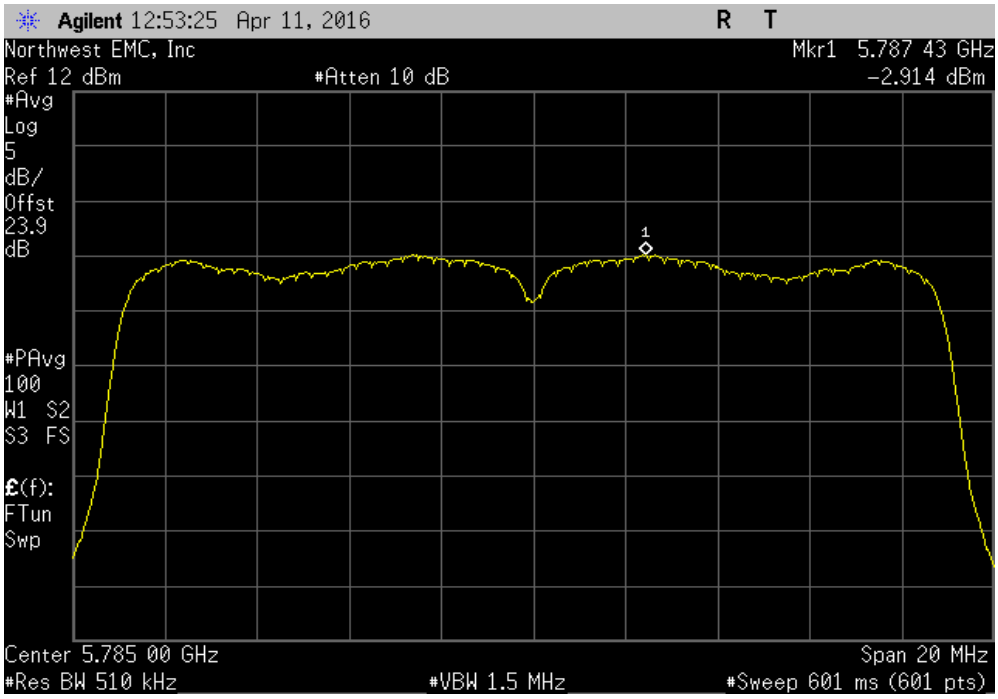

| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.632 | 0.4 | | -2.2 | 30 | Pass |



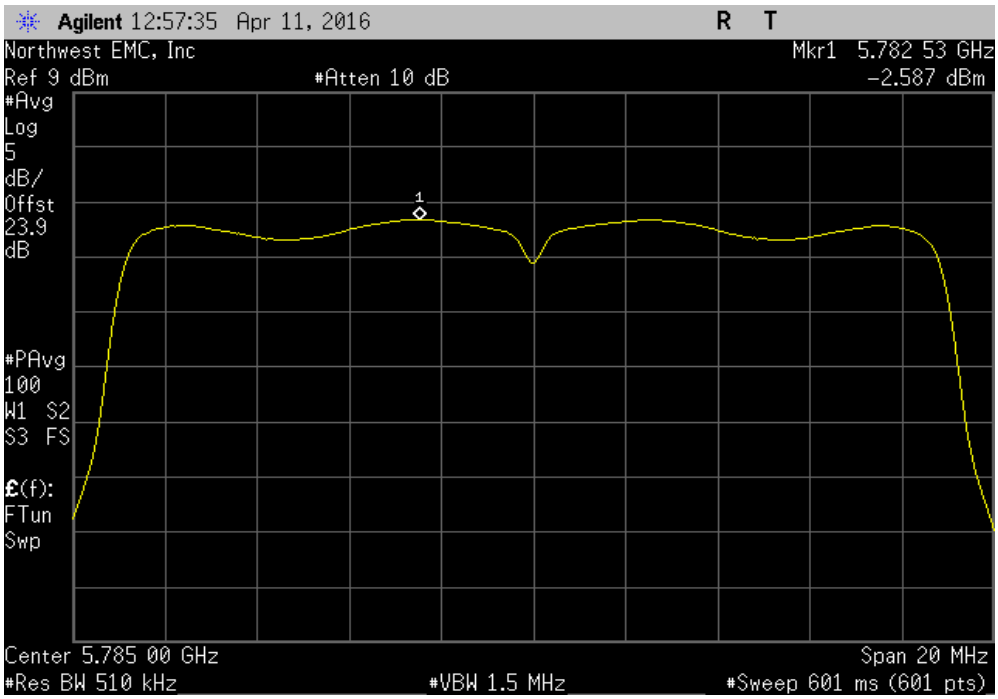
| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.632 | 0 | | -2.6 | 30 | Pass |



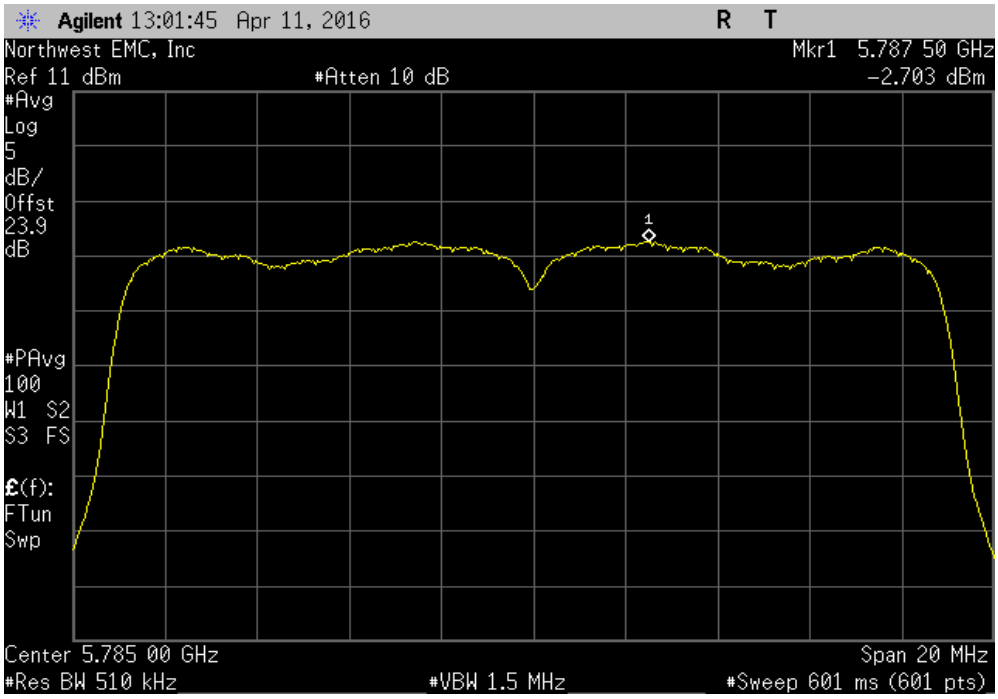

| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.914 | 0.4 | | -2.5 | 30 | Pass |



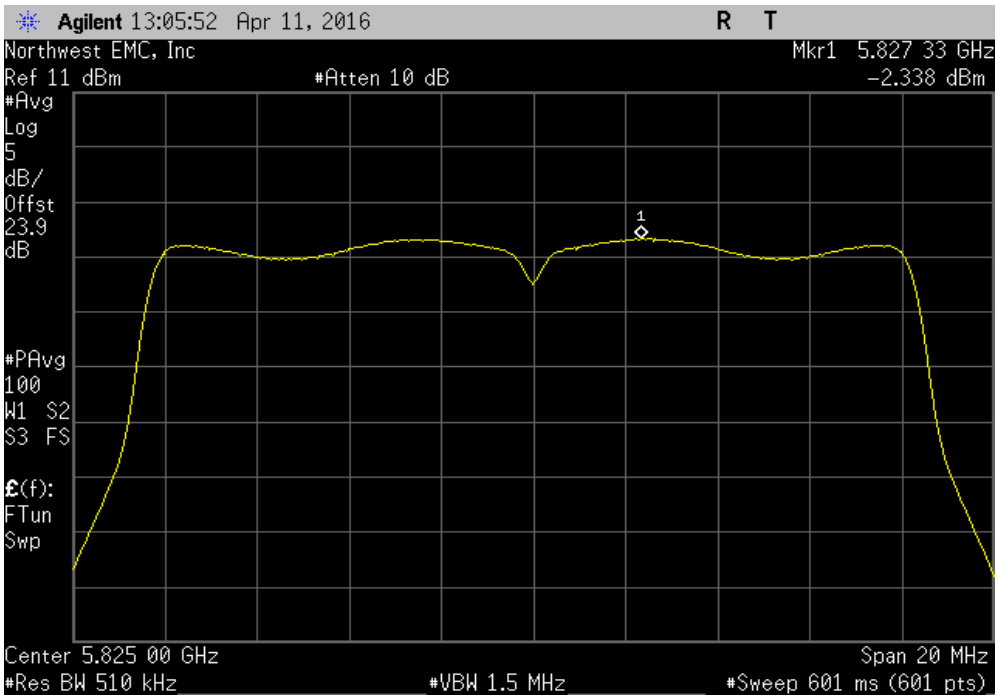
| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.587 | 0 | | -2.5 | 30 | Pass |



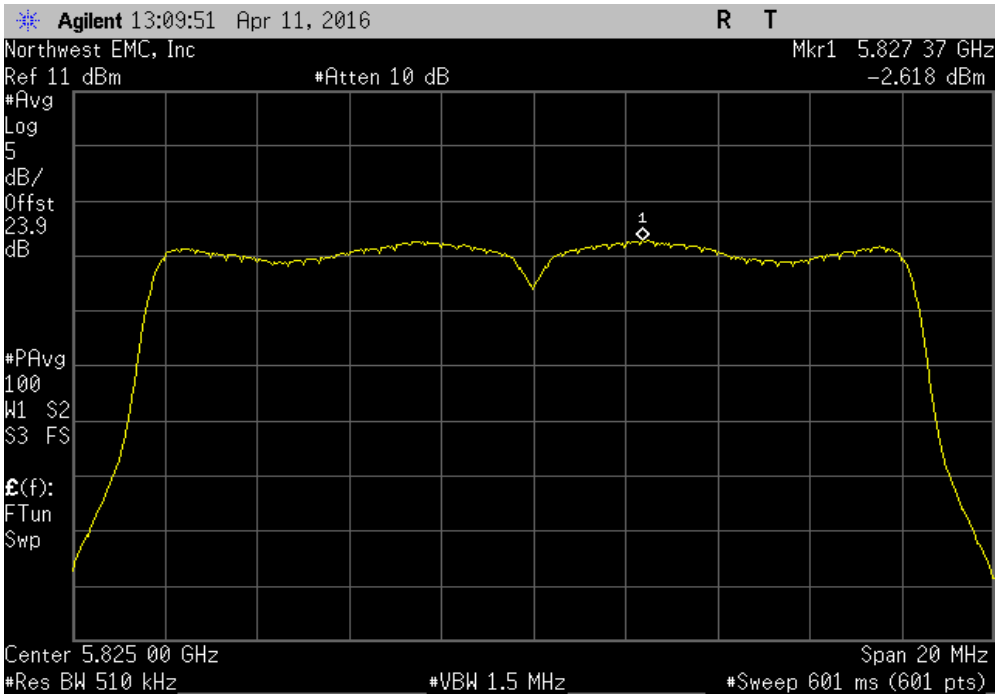

| SISO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.703 | 0.4 | | -2.3 | 30 | Pass |



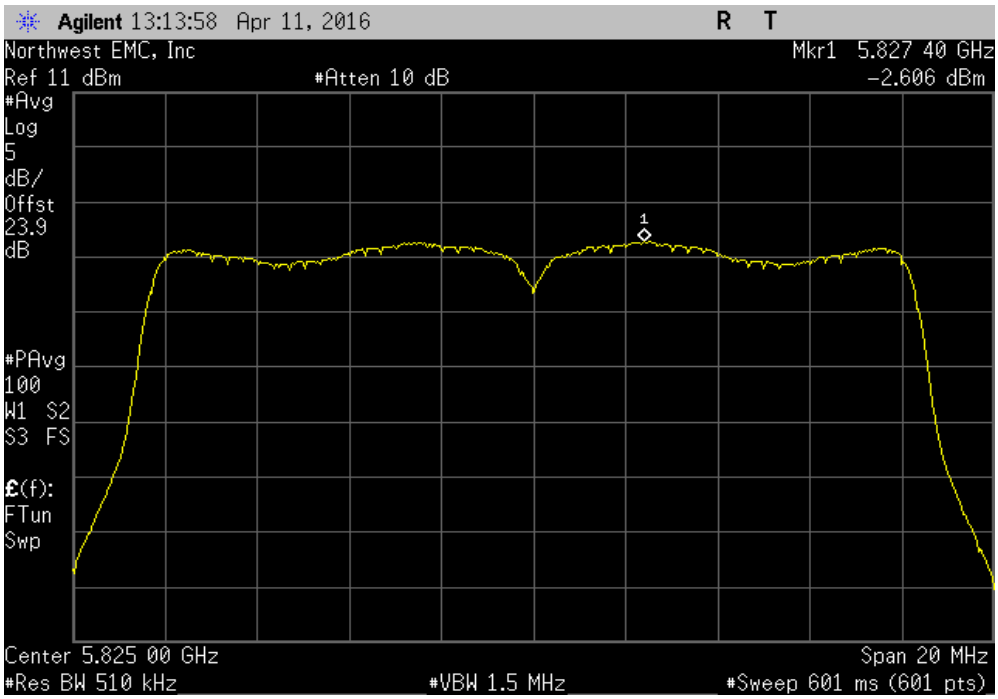
| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.338 | 0 | | -2.3 | 30 | Pass |



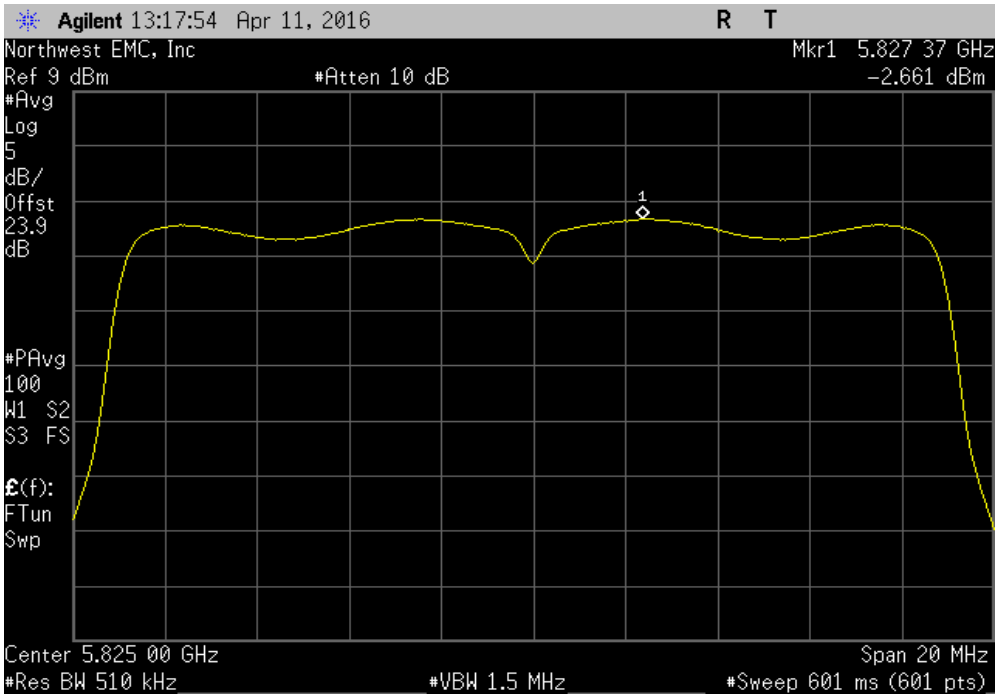

| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.618 | 0.3 | | -2.4 | 30 | Pass |



| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.606 | 0.4 | | -2.2 | 30 | Pass |




| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.661 | 0 | | -2.6 | 30 | Pass |

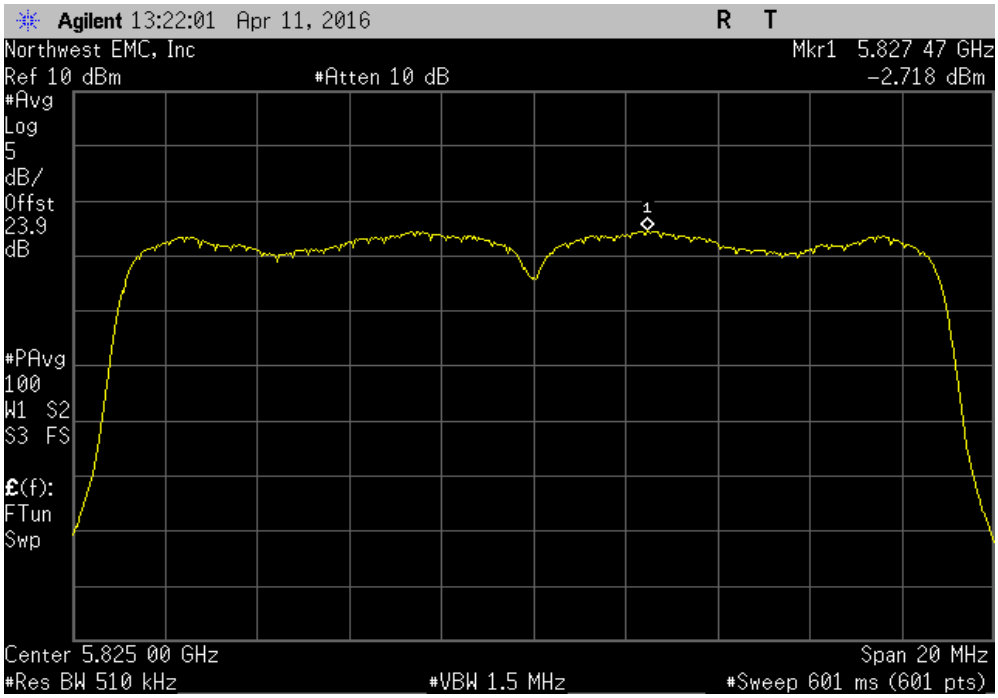


# MAXIMUM POWER SPECTRAL DENSITY

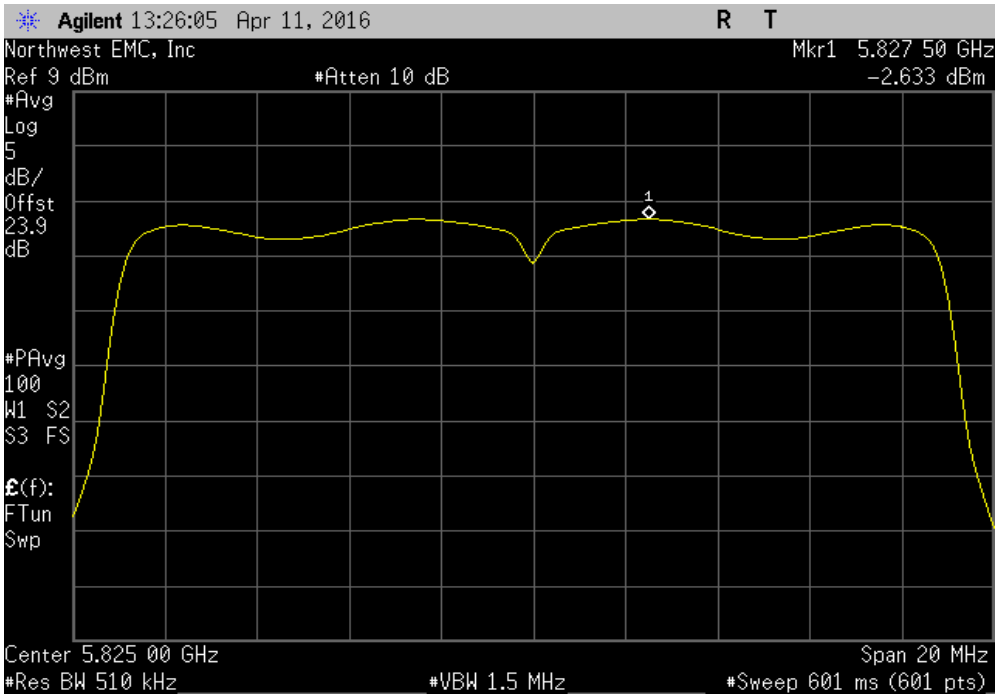
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.718 | 0.4 | | -2.3 | 30 | Pass |




| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.633 | 0 | | -2.6 | 30 | Pass |

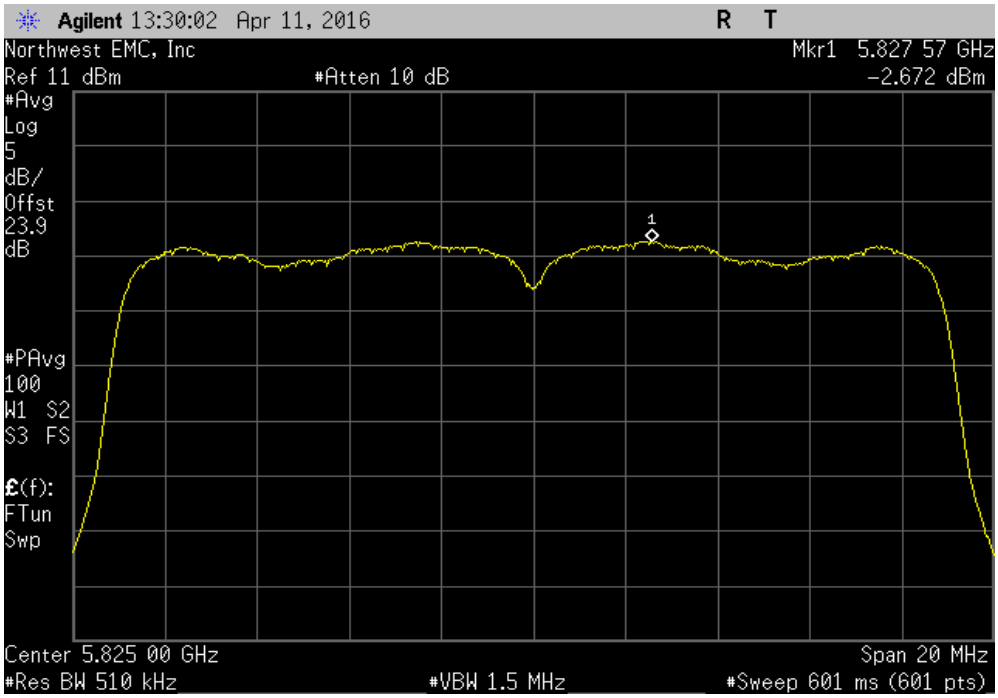


# MAXIMUM POWER SPECTRAL DENSITY

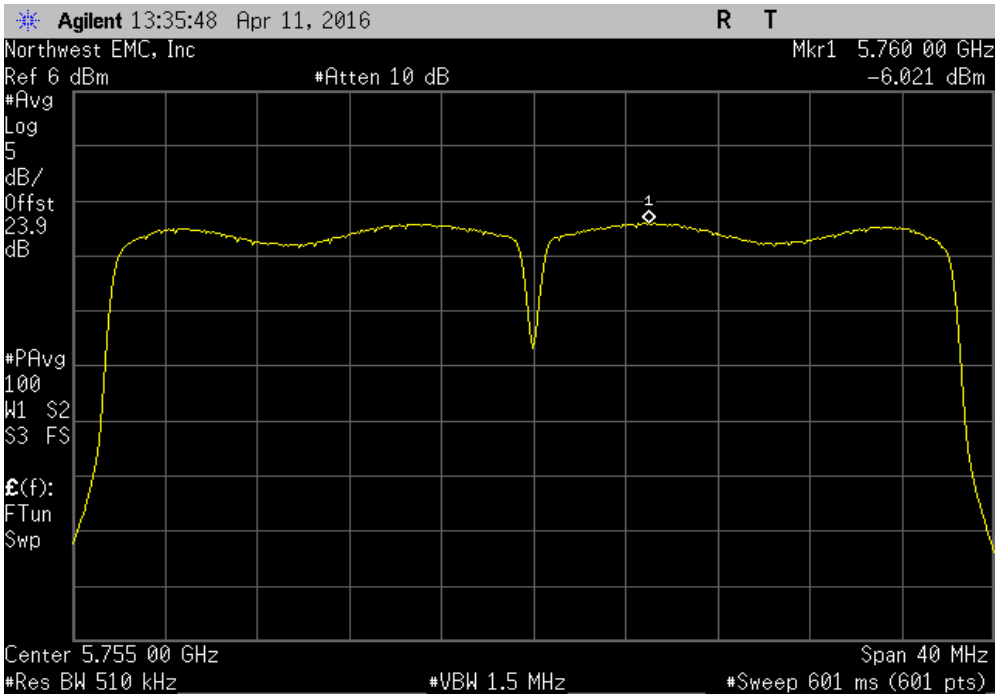
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.672 | 0.4 | | -2.3 | 30 | Pass |




| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.021 | 0.2 | | -5.8 | 30 | Pass |

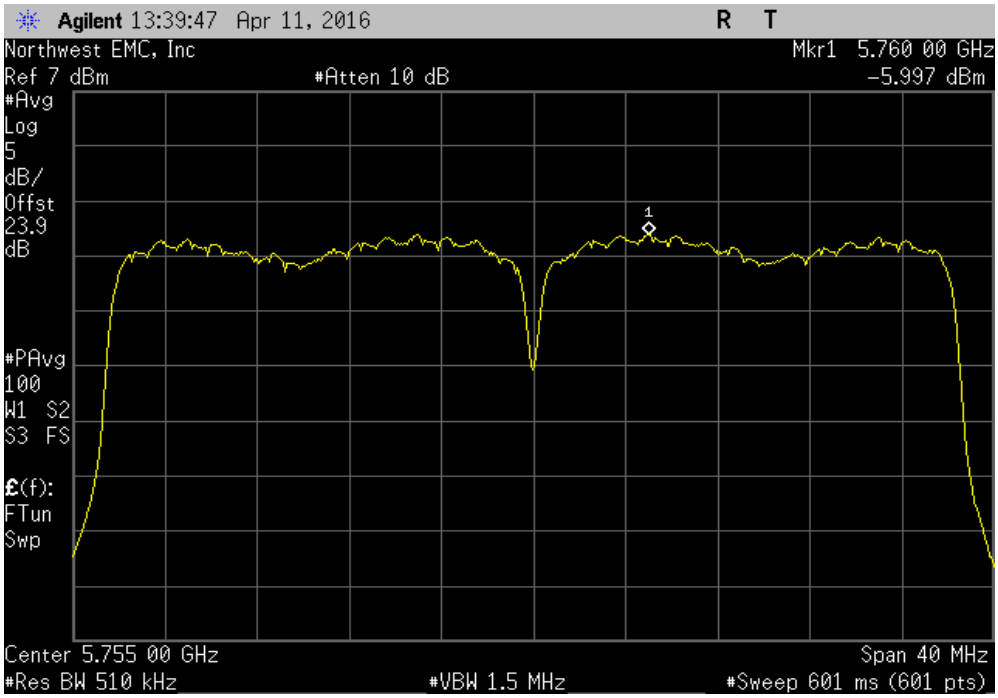


# MAXIMUM POWER SPECTRAL DENSITY

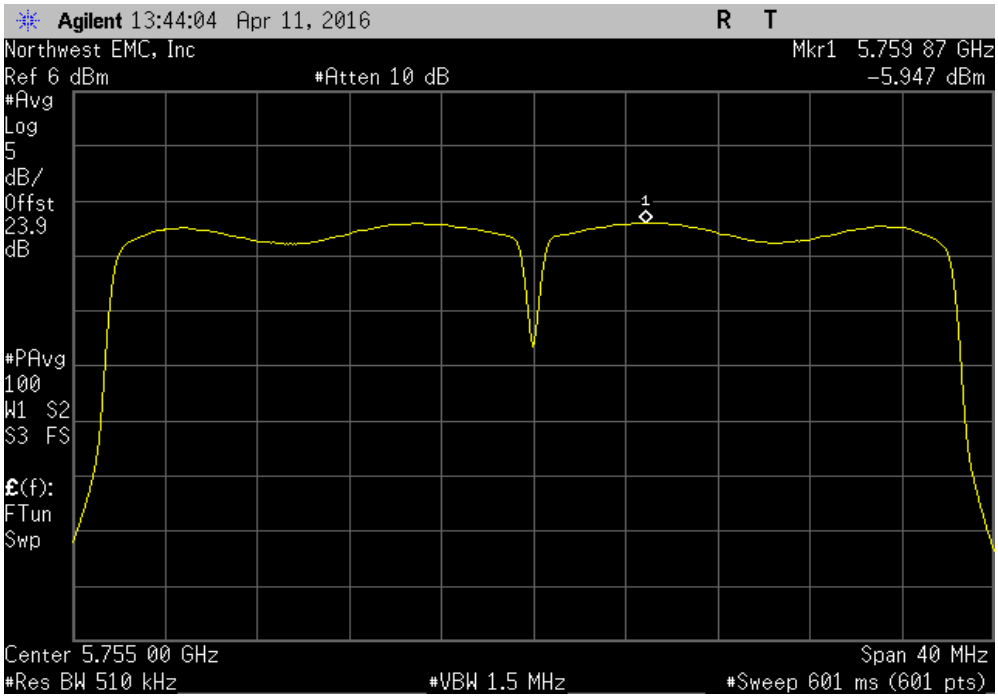
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.997 | 1.5 | | -4.5 | 30 | Pass |




| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.947 | 0.2 | | -5.8 | 30 | Pass |

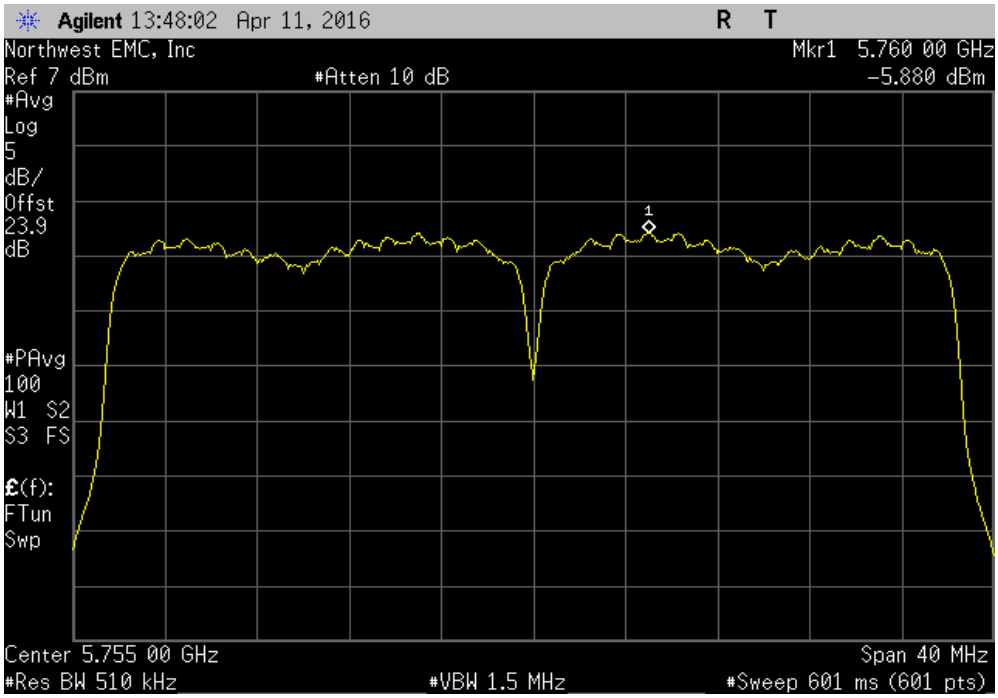


# MAXIMUM POWER SPECTRAL DENSITY

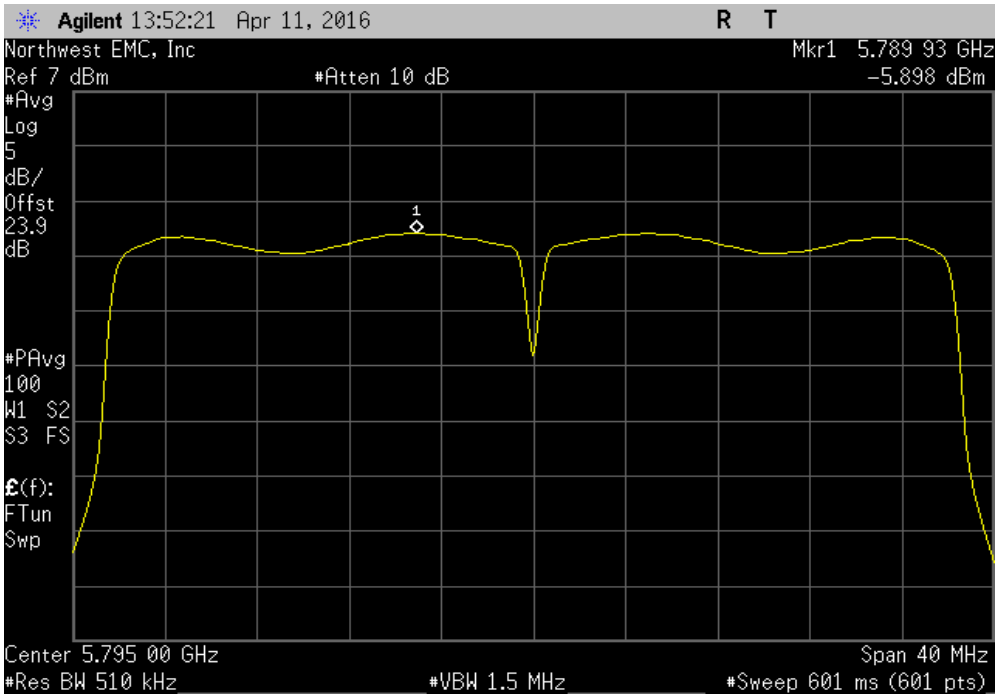
NORTHWEST EMC

XMit 2015.01.14

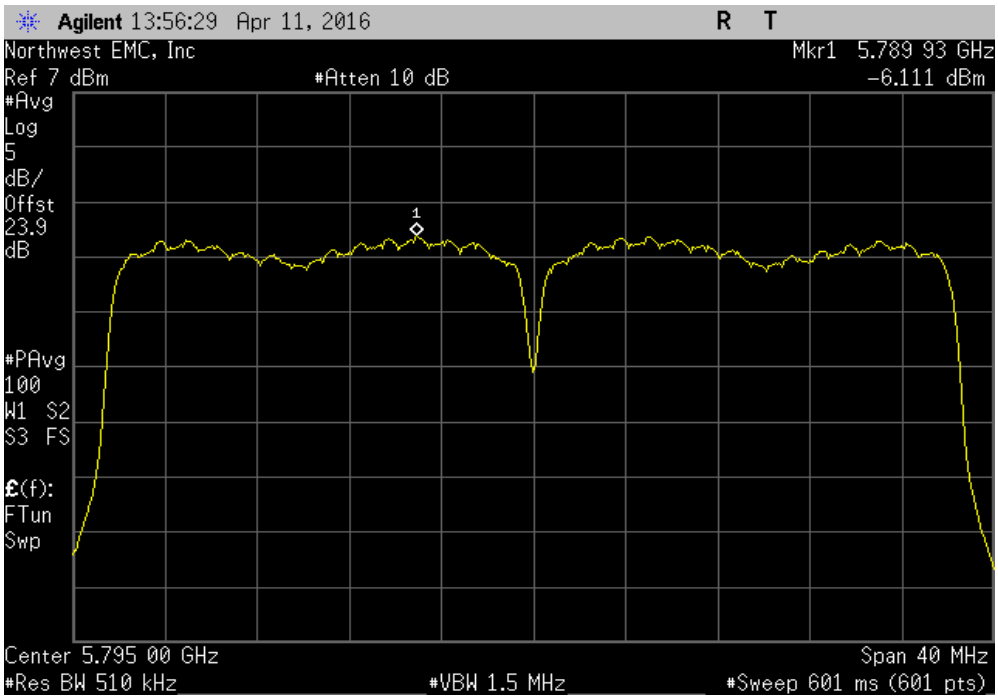
| SISO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.88 | 1.6 | | -4.2 | 30 | Pass |



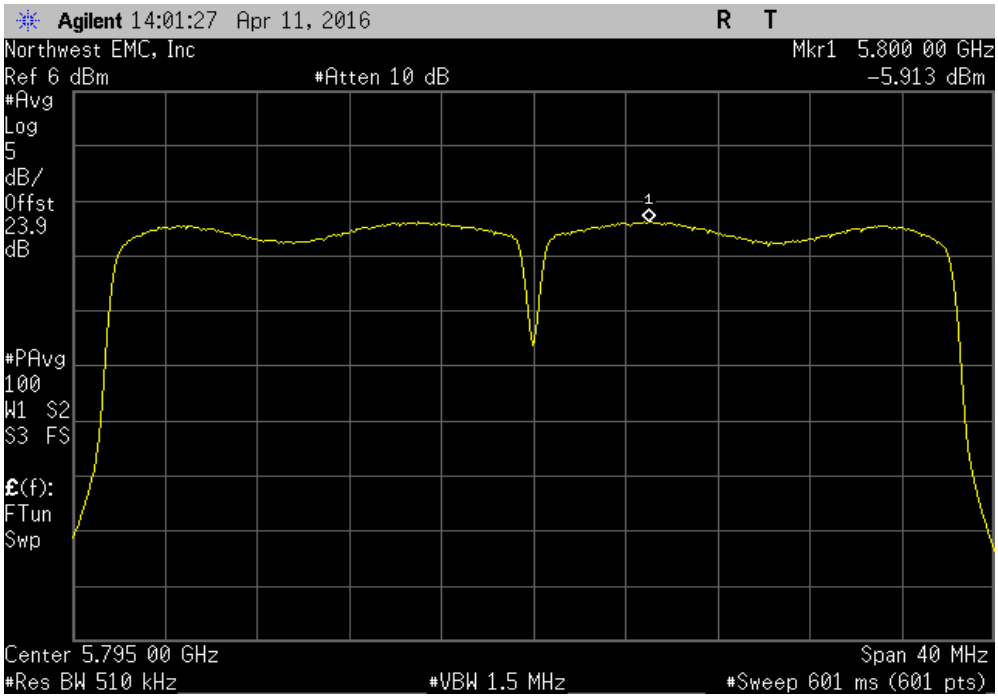

| SISO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.898 | 0.2 | | -5.7 | 30 | Pass |



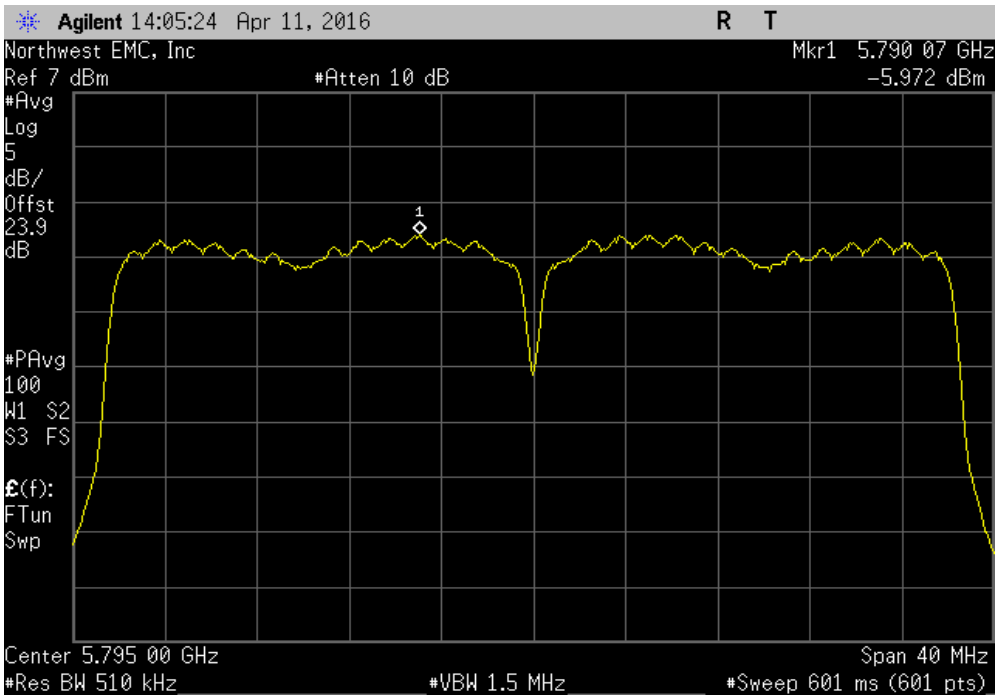
| SISO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.111 | 1.5 | | -4.6 | 30 | Pass |



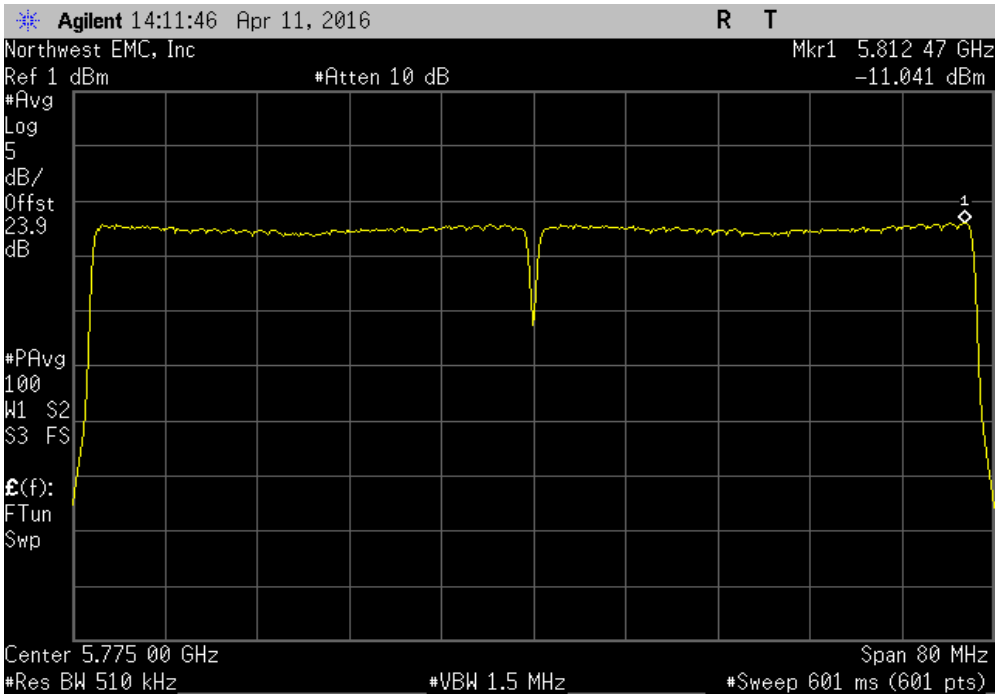

| SISO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.913 | 0.2 | | -5.8 | 30 | Pass |



| SISO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.972 | 1.6 | | -4.3 | 30 | Pass |




| SISO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -11.041 | 0.3 | | -10.7 | 30 | Pass |

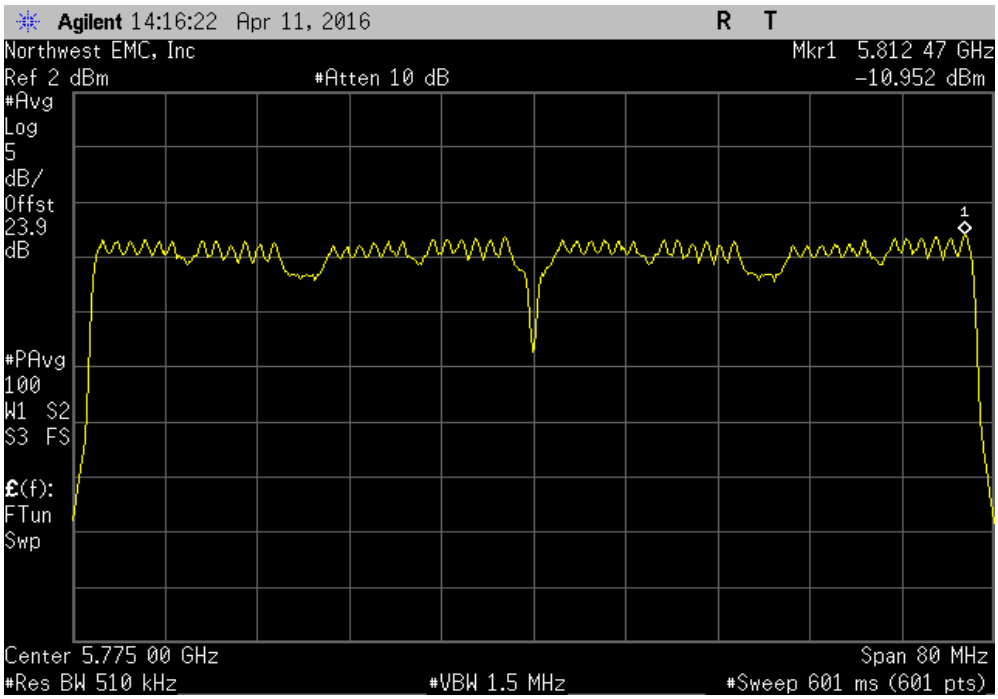


# MAXIMUM POWER SPECTRAL DENSITY

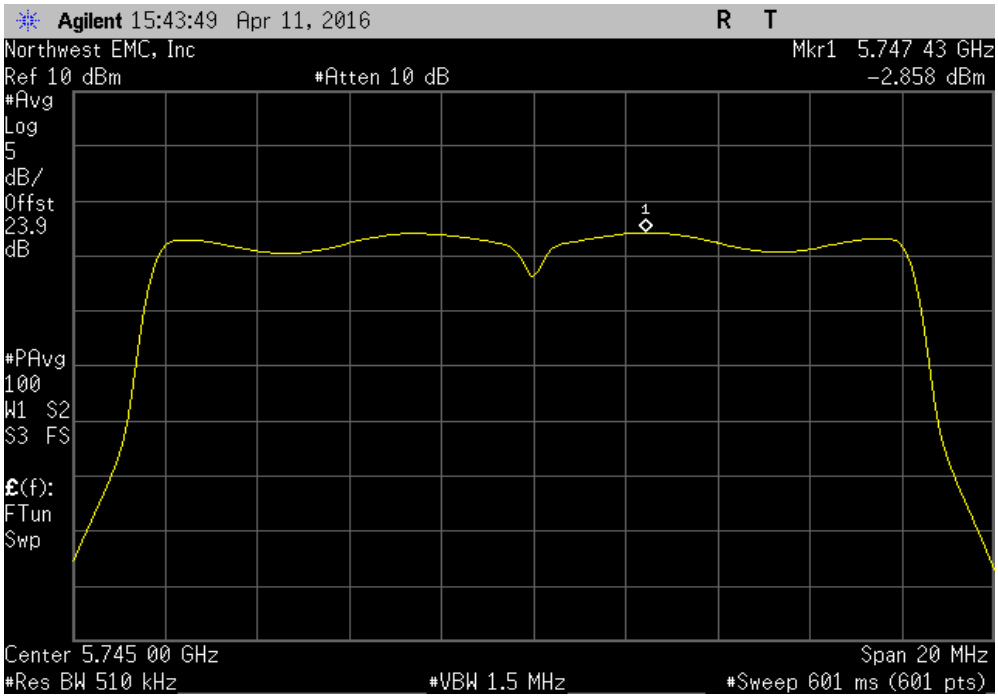
NORTHWEST EMC

XMit 2015.01.14

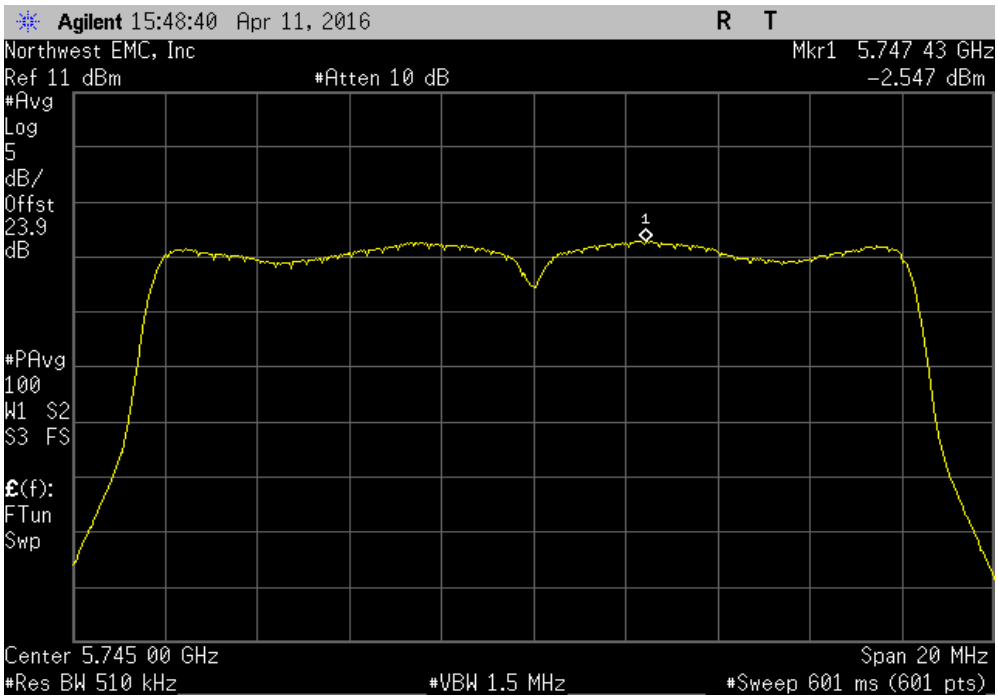
| SISO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -10.952 | 1.8 | | -9.1 | 30 | Pass |



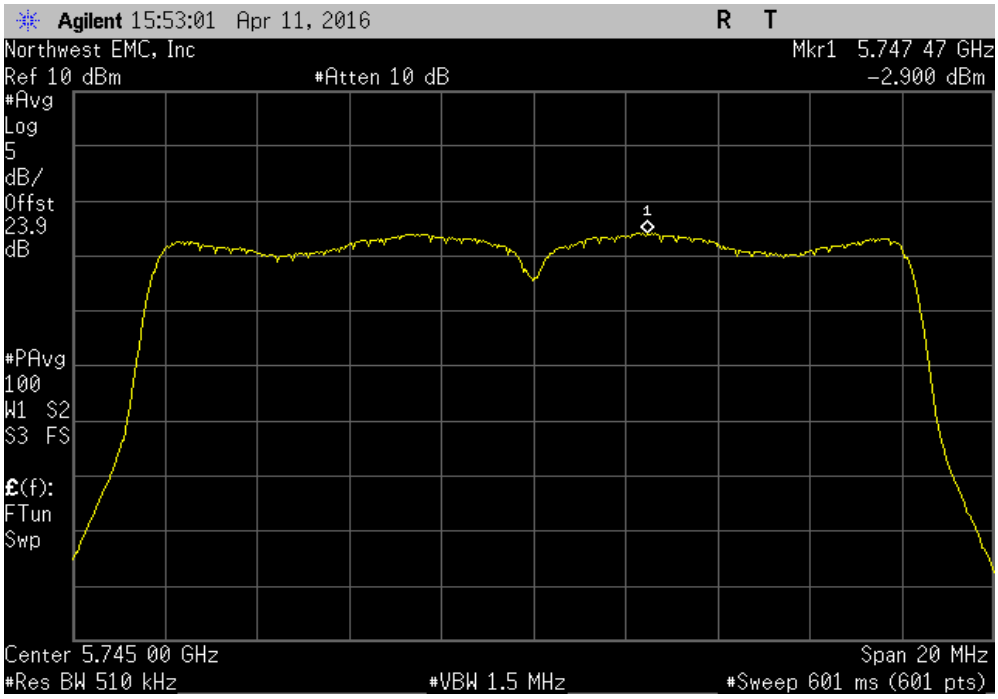

| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.858 | 0 | | -2.8 | 30 | Pass |



| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.547 | 0.3 | | -2.3 | 30 | Pass |




| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.9 | 0.4 | | -2.5 | 30 | Pass |



# MAXIMUM POWER SPECTRAL DENSITY

NORTHWEST EMC

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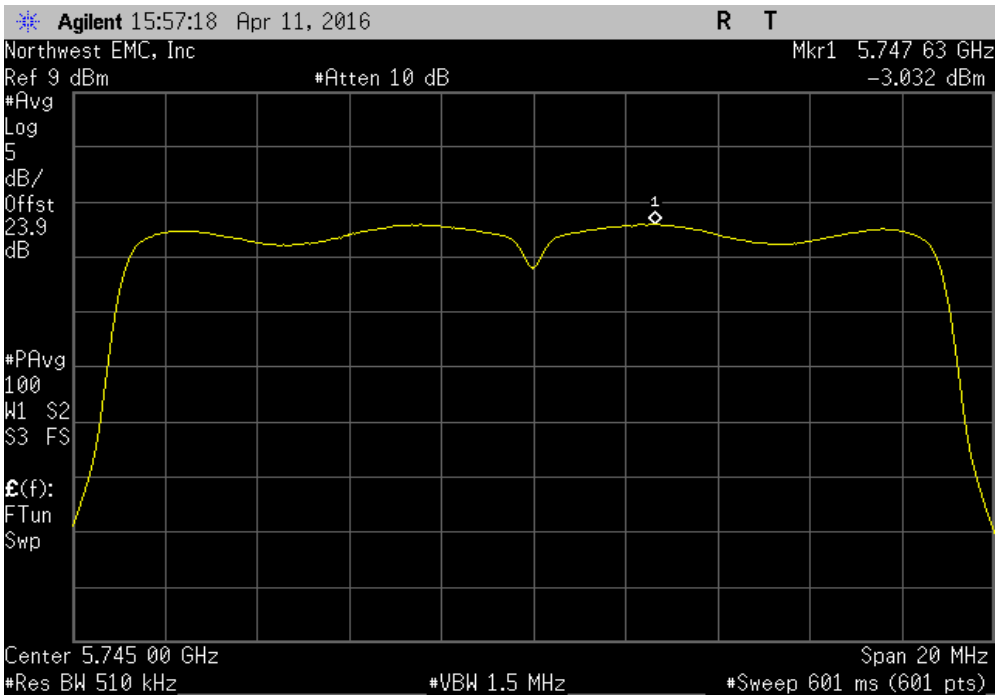
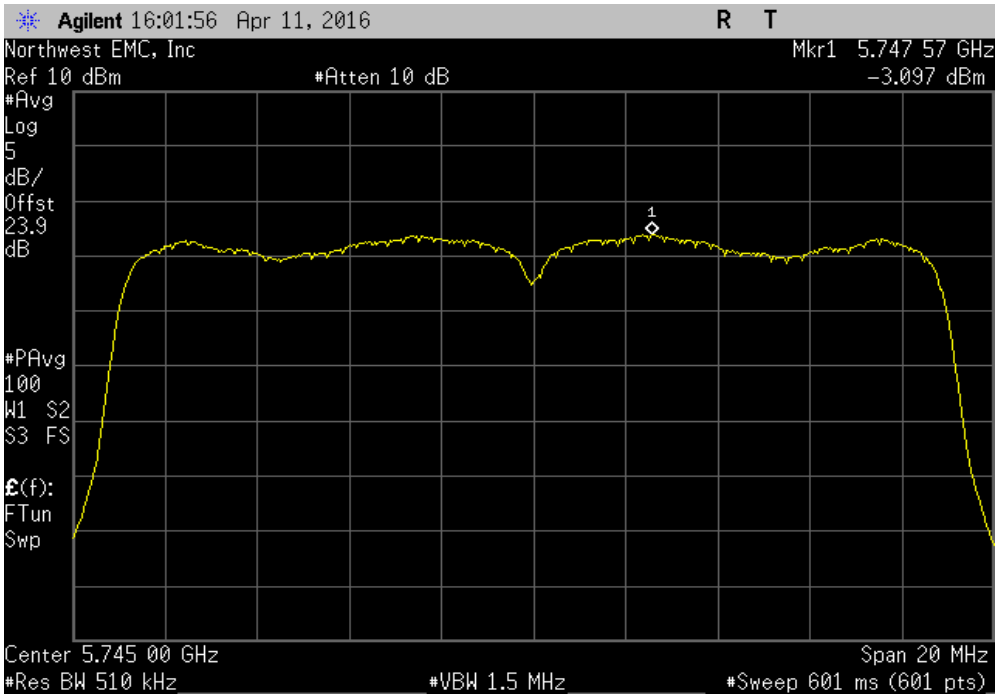
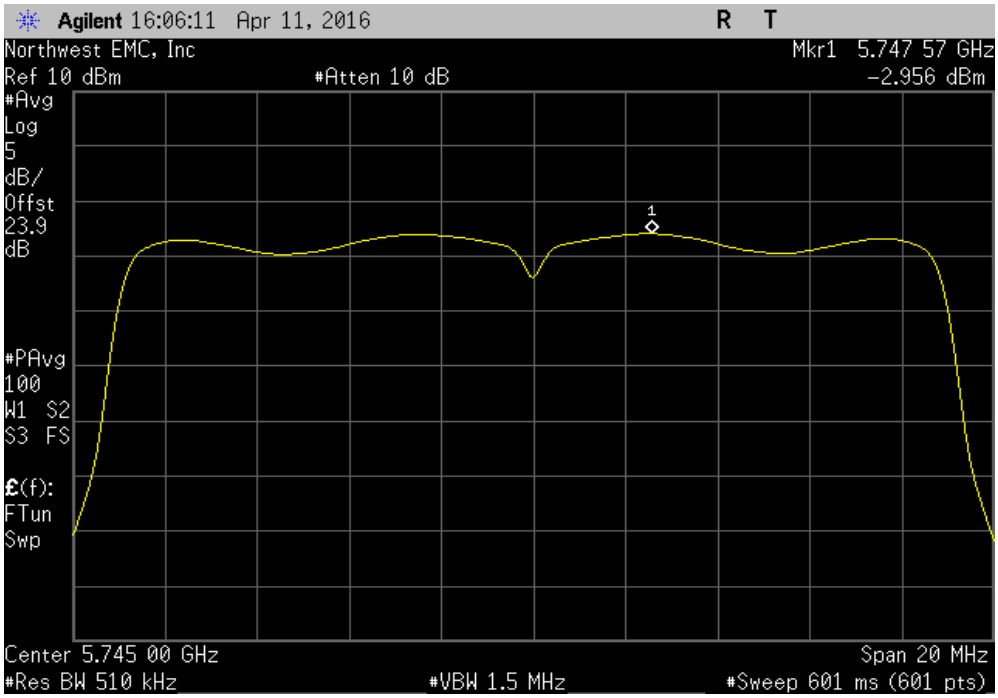
| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.032 | 0 | | -3 | 30 | Pass |



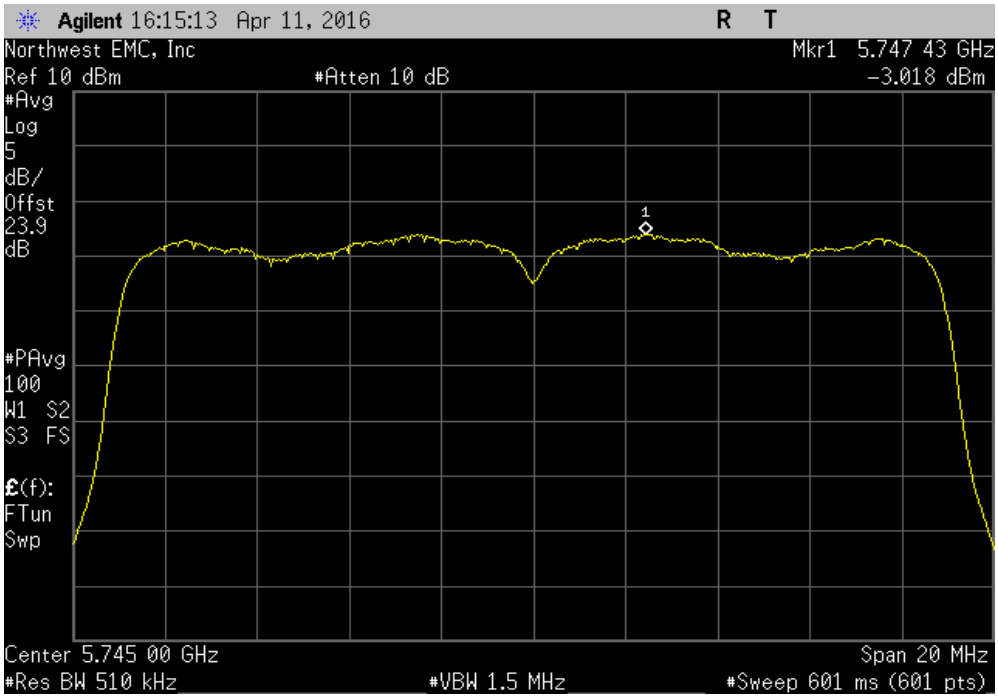

| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.097 | 0.4 | | -2.7 | 30 | Pass |



| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.956 | 0 | | -2.9 | 30 | Pass |




| SISO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.018 | 0.4 | | -2.6 | 30 | Pass |



# MAXIMUM POWER SPECTRAL DENSITY

NORTHWEST EMC

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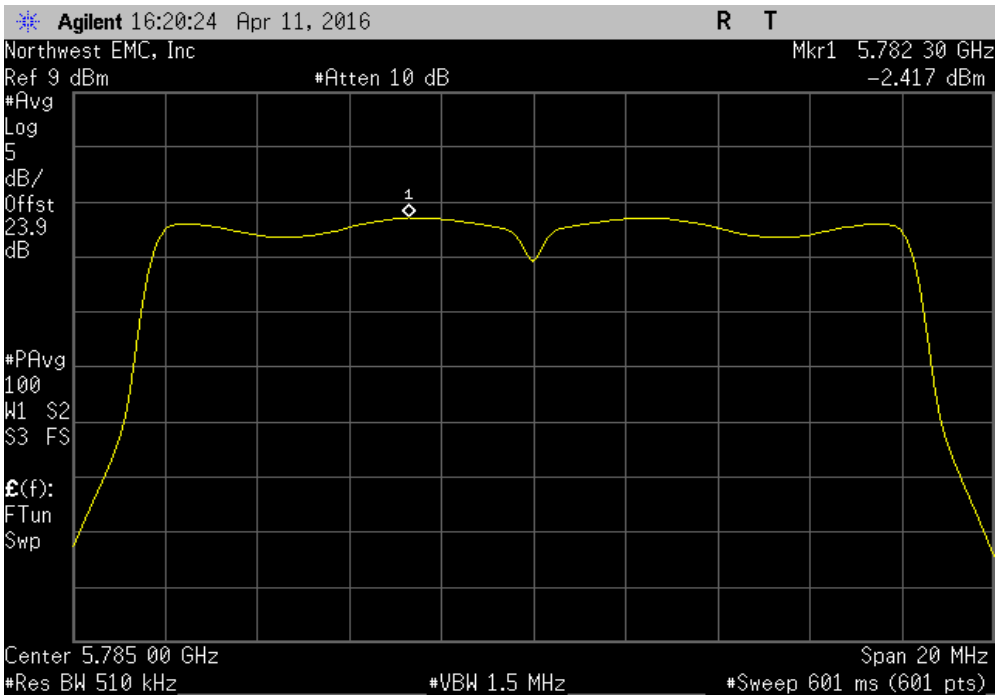
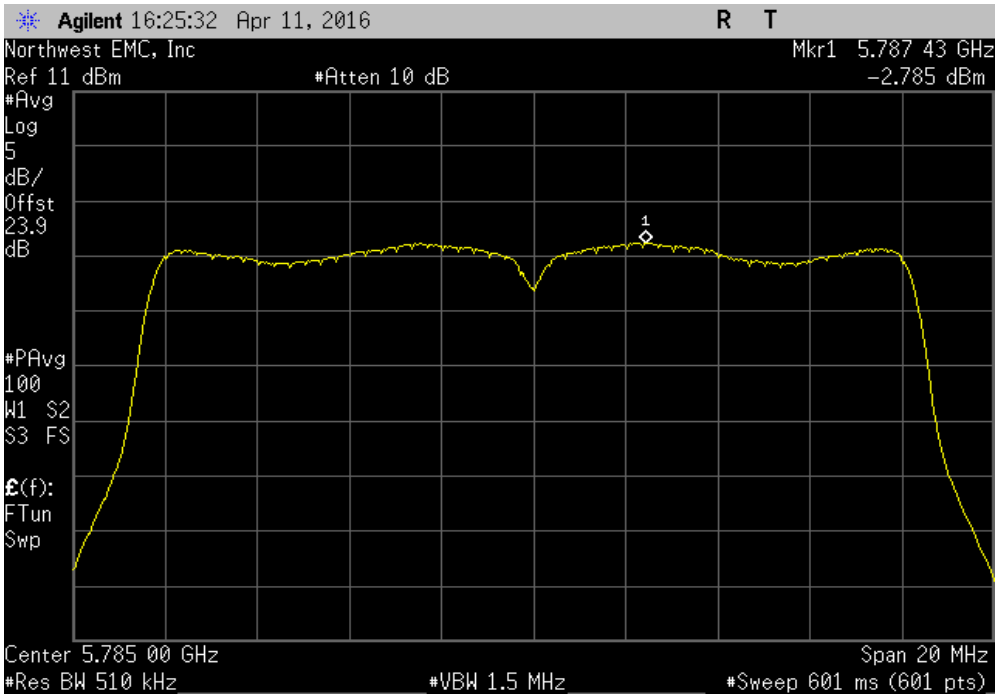
| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.417 | 0 | | -2.4 | 30 | Pass |




| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.785 | 0.3 | | -2.5 | 30 | Pass |

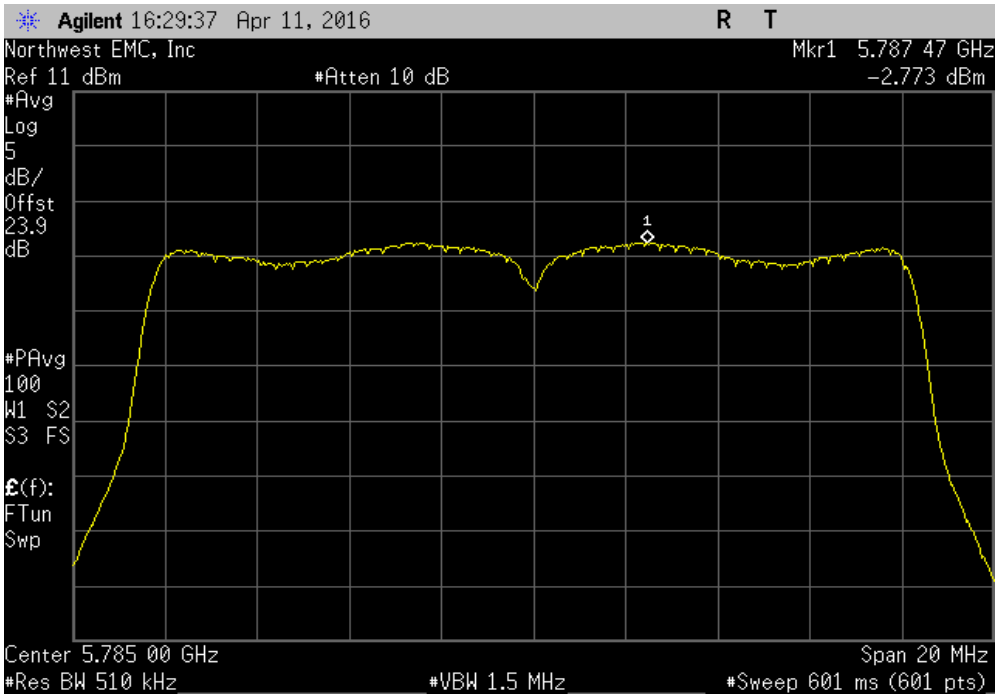


# MAXIMUM POWER SPECTRAL DENSITY

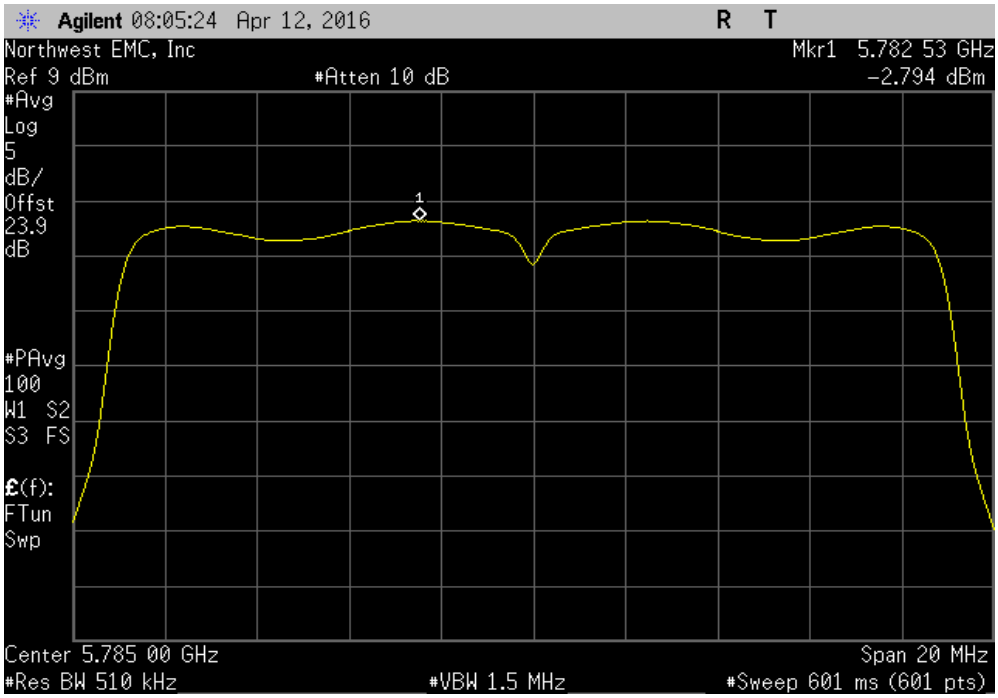
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.773 | 0.4 | | -2.4 | 30 | Pass |




| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.794 | 0 | | -2.8 | 30 | Pass |

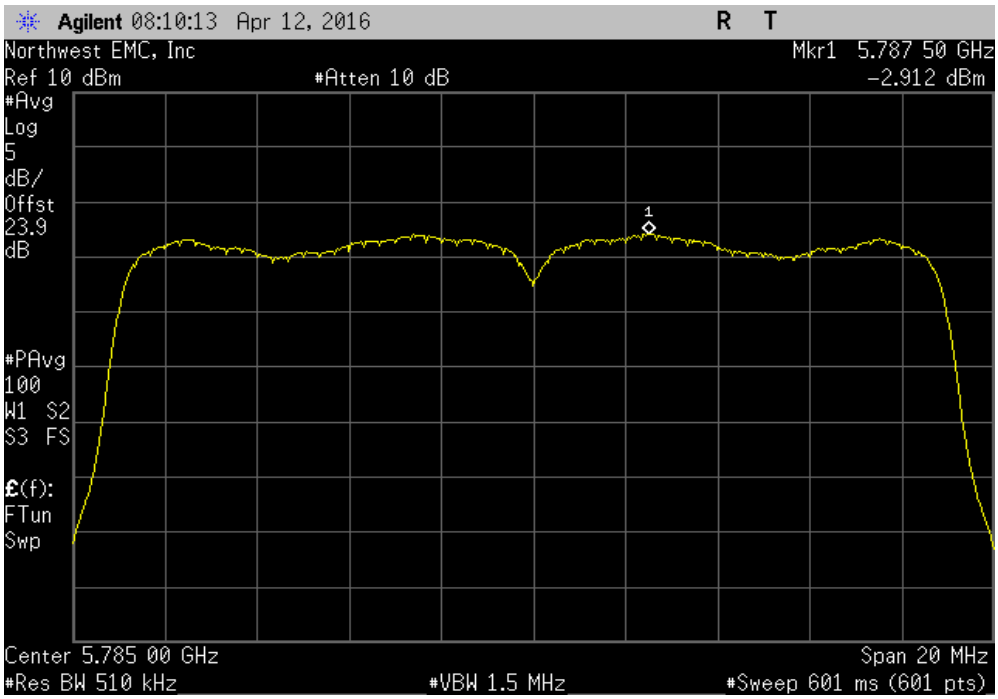


# MAXIMUM POWER SPECTRAL DENSITY

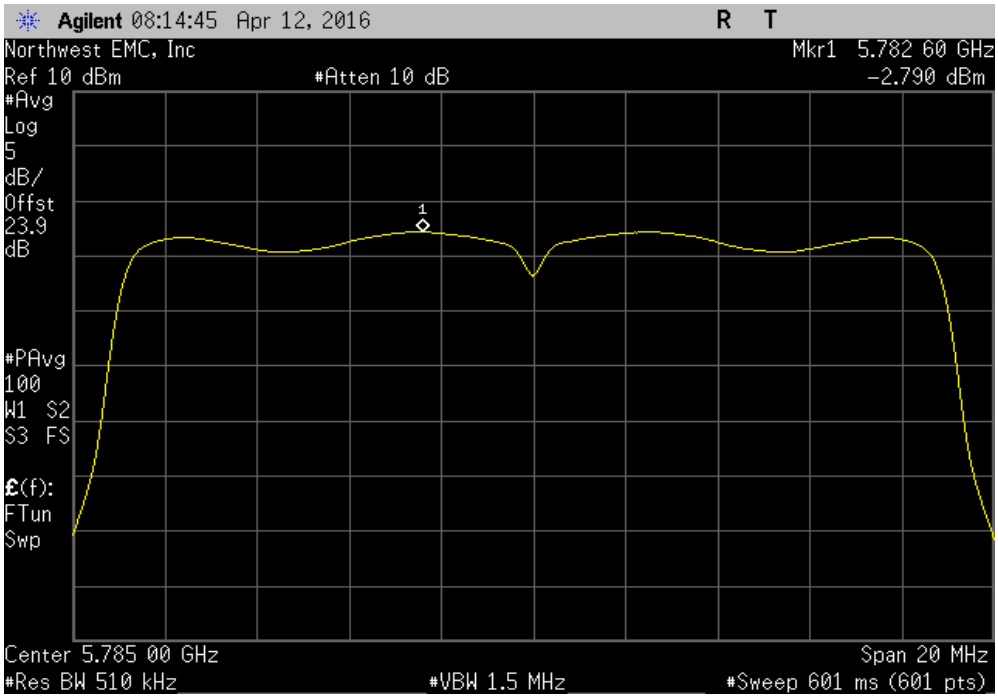
NORTHWEST EMC

XMit 2015.01.14

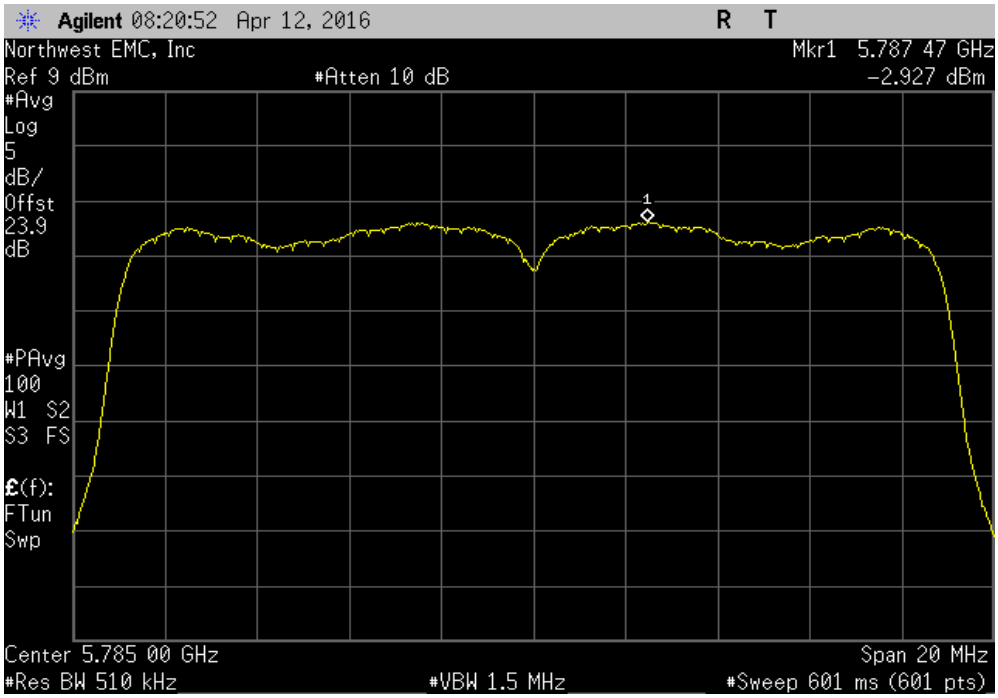
| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.912 | 0.4 | | -2.5 | 30 | Pass |



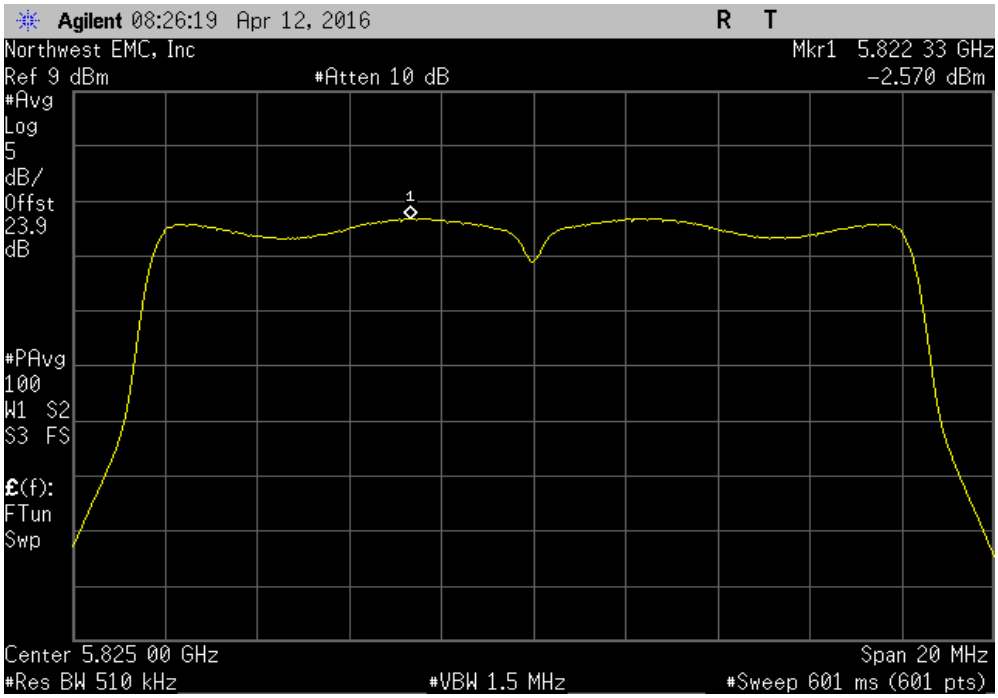

| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.79 | 0 | | -2.8 | 30 | Pass |



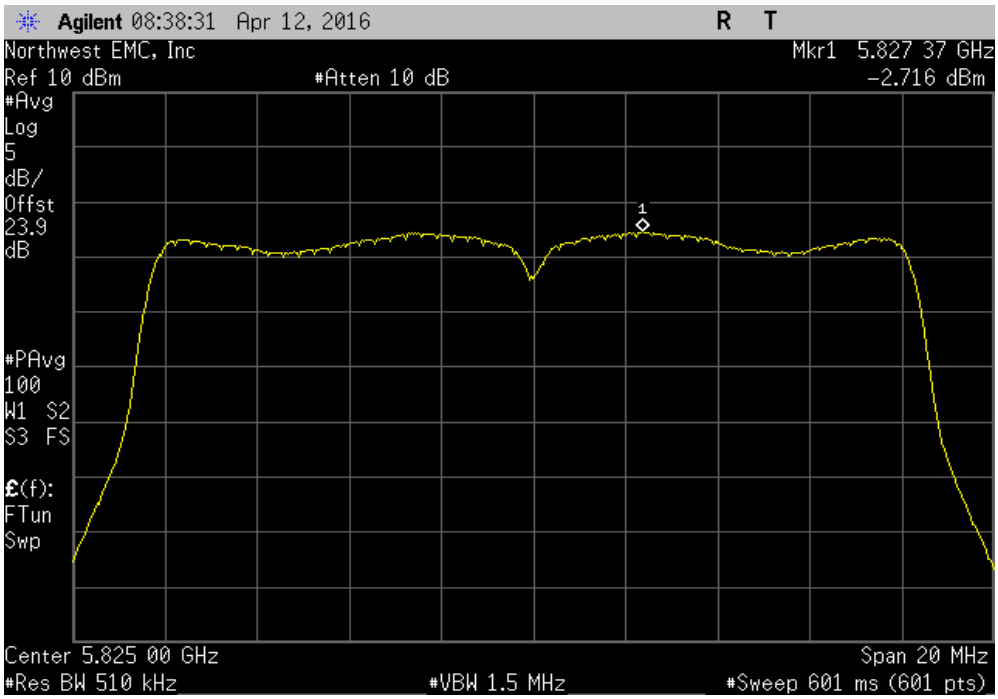
| SISO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.927 | 0.4 | | -2.5 | 30 | Pass |



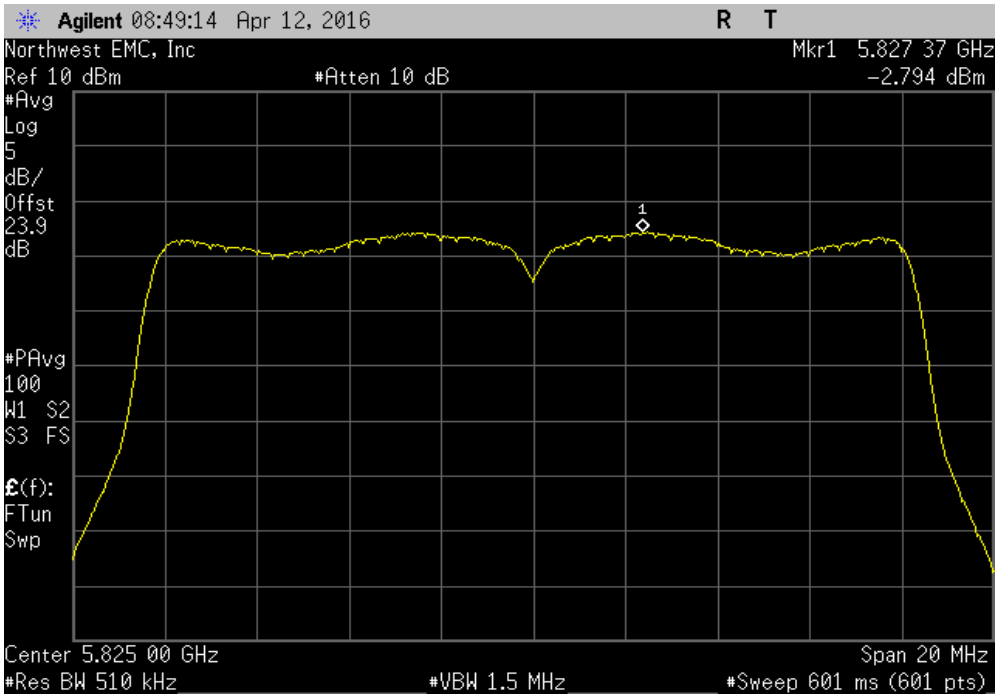

| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(a) 6 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.57 | 0 | | -2.5 | 30 | Pass |



| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(a) 36 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.716 | 0.3 | | -2.5 | 30 | Pass |




| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(a) 54 Mbps | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.794 | 0.4 | | -2.4 | 30 | Pass |

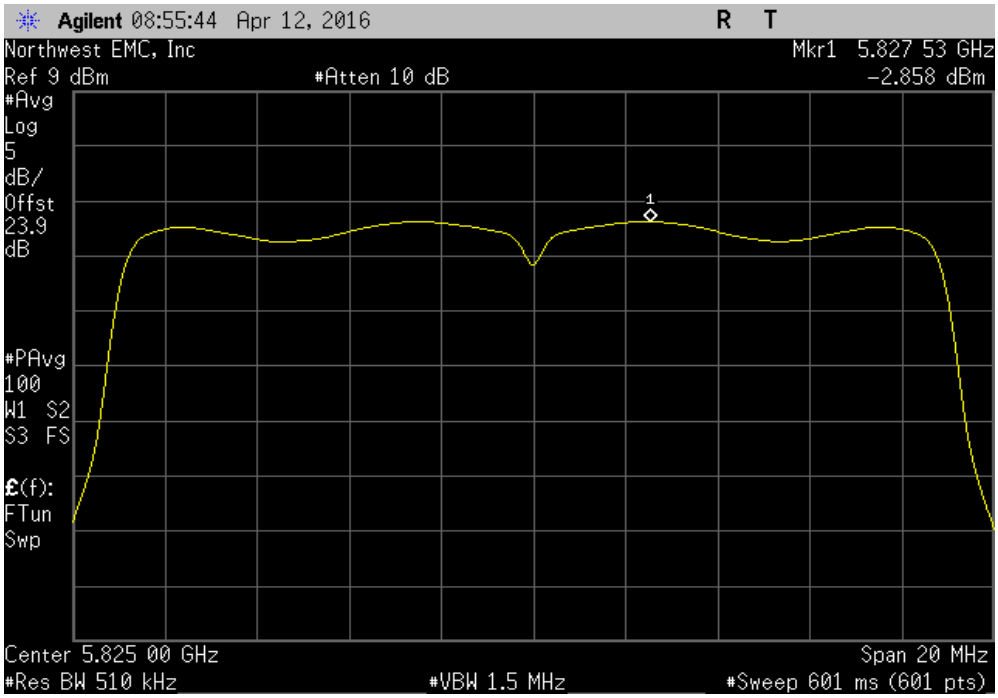


# MAXIMUM POWER SPECTRAL DENSITY

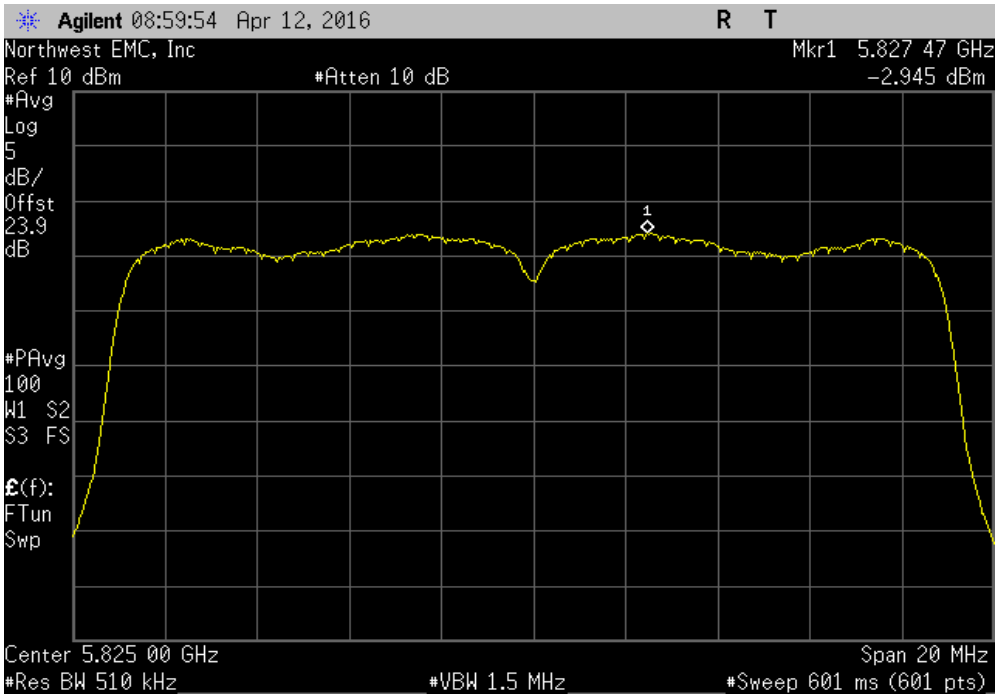
NORTHWEST EMC

XMit 2015.01.14

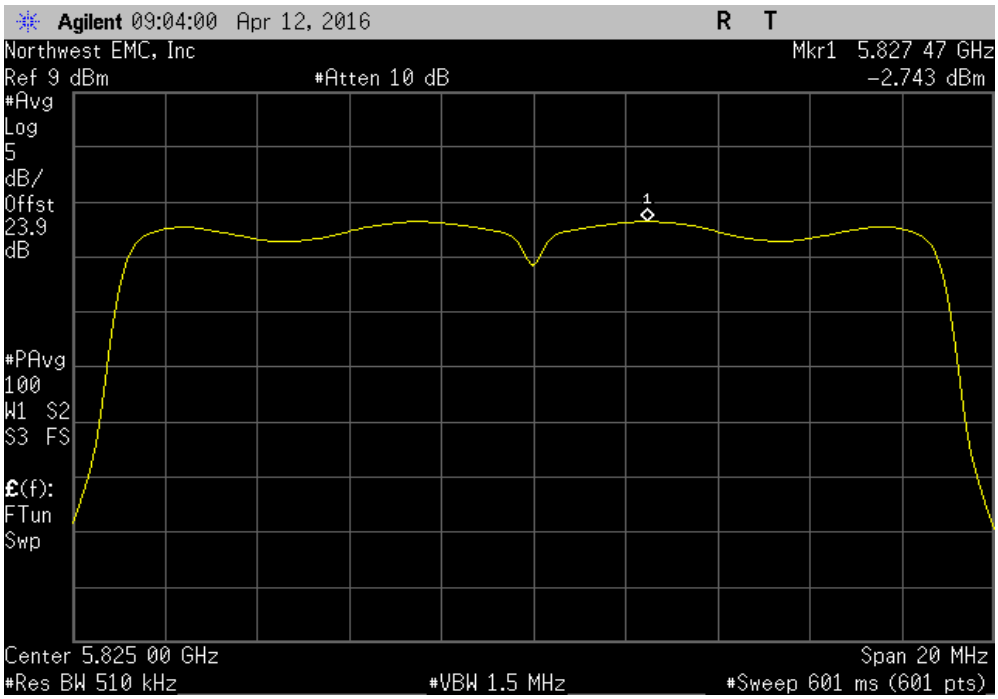
| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.858 | 0 | | -2.8 | 30 | Pass |



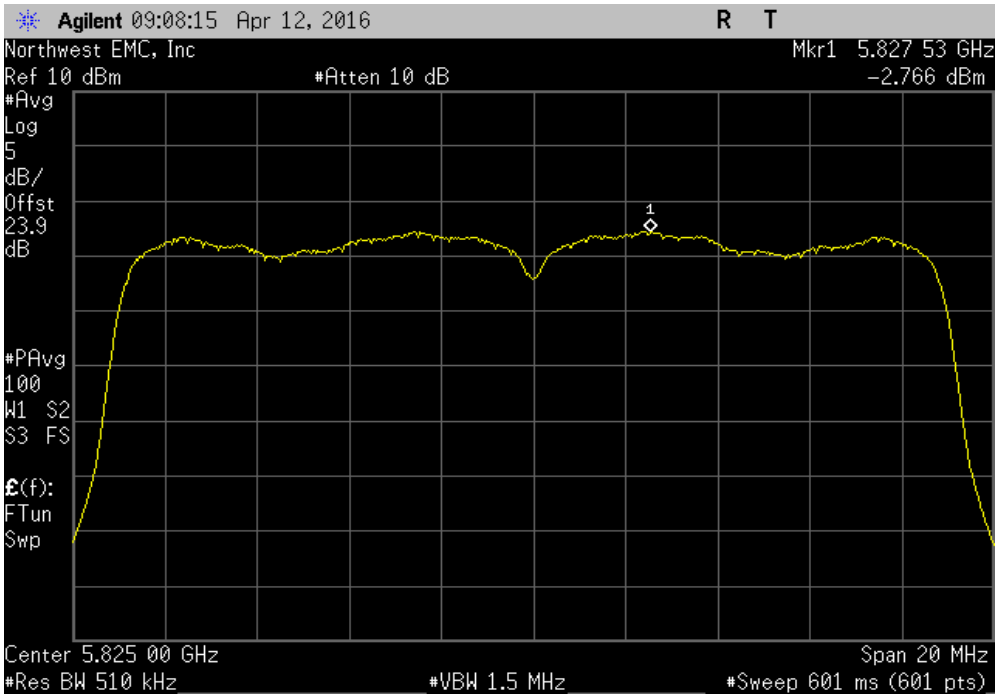

| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.945 | 0.4 | | -2.5 | 30 | Pass |



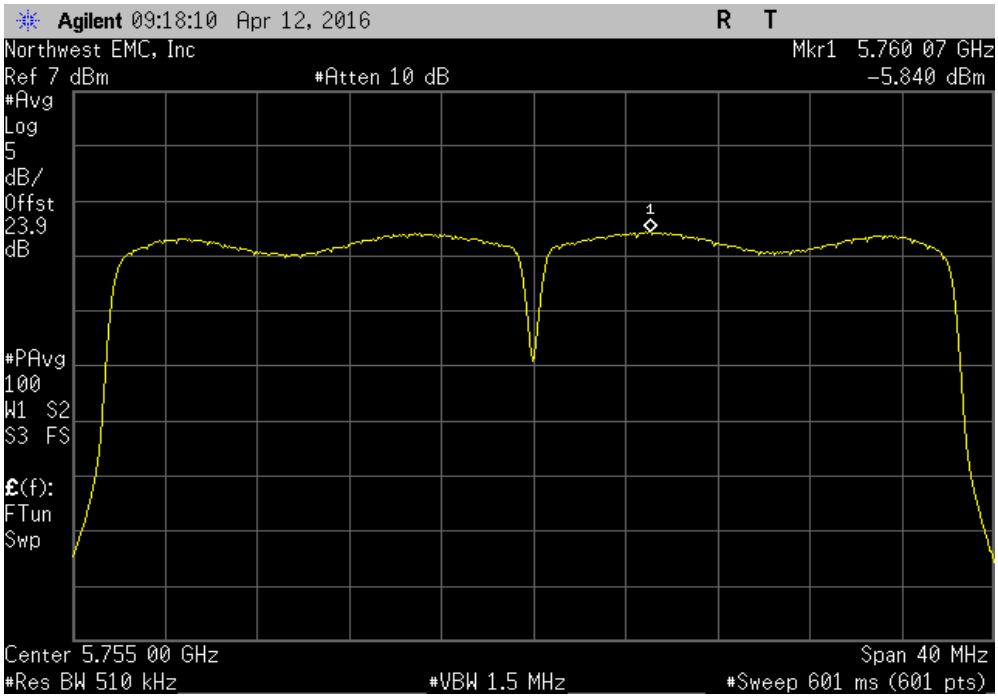
| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.743 | 0 | | -2.7 | 30 | Pass |



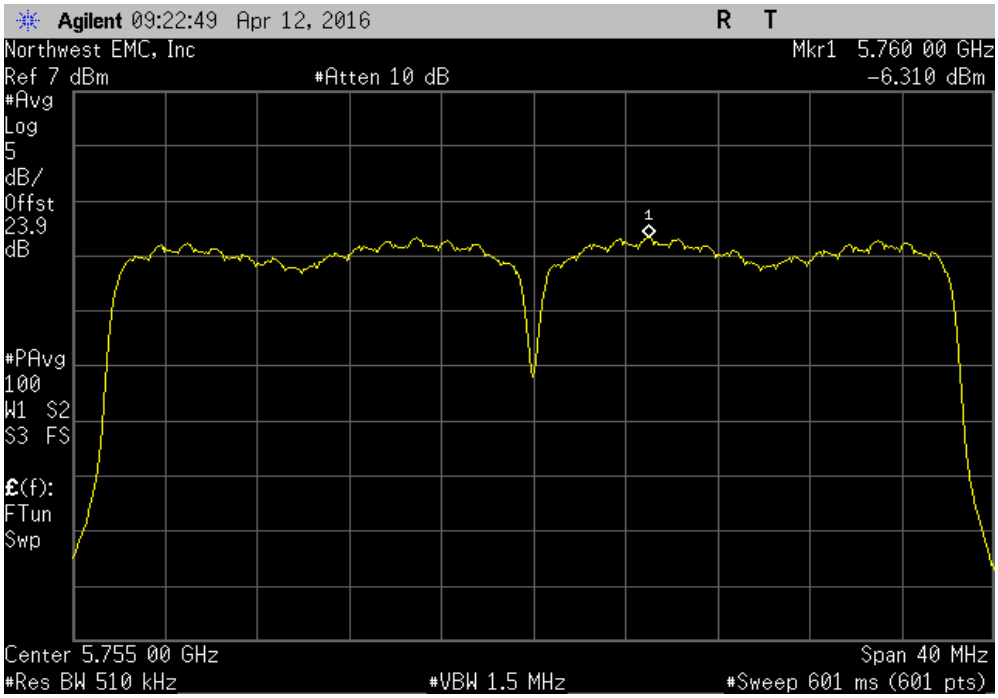

| SISO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.766 | 0.4 | | -2.4 | 30 | Pass |



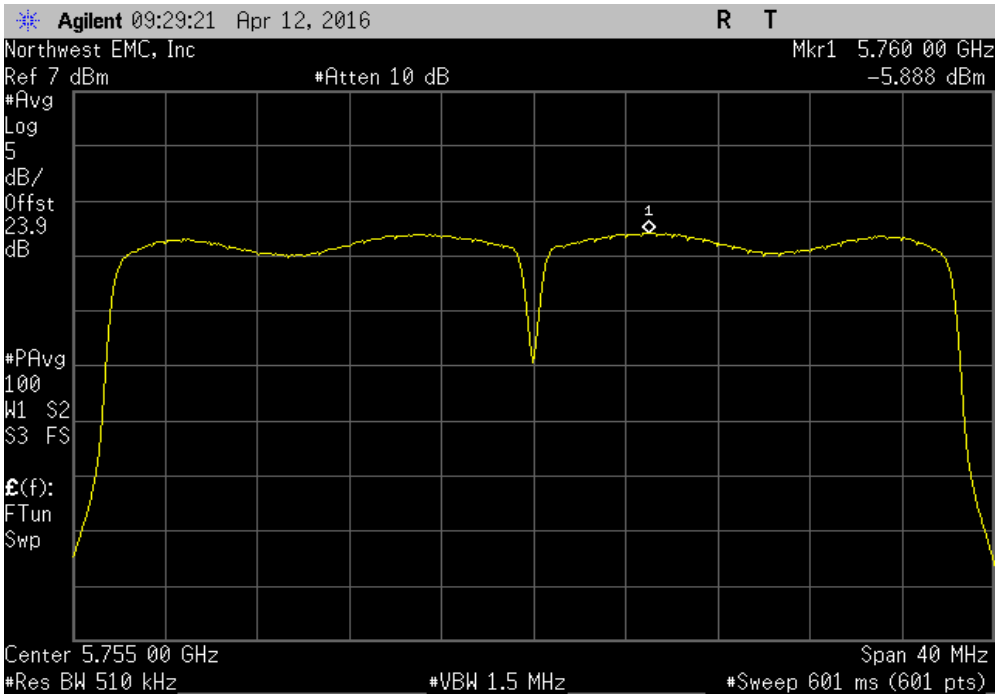
| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.84 | 0.2 | | -5.7 | 30 | Pass |



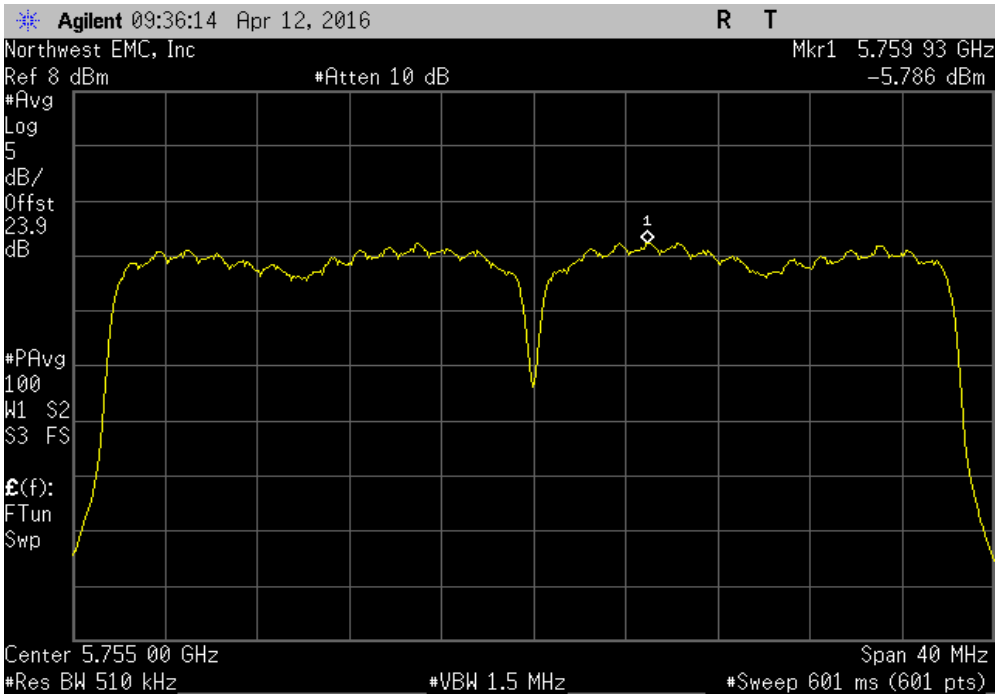

| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.31 | 1.5 | | -4.8 | 30 | Pass |



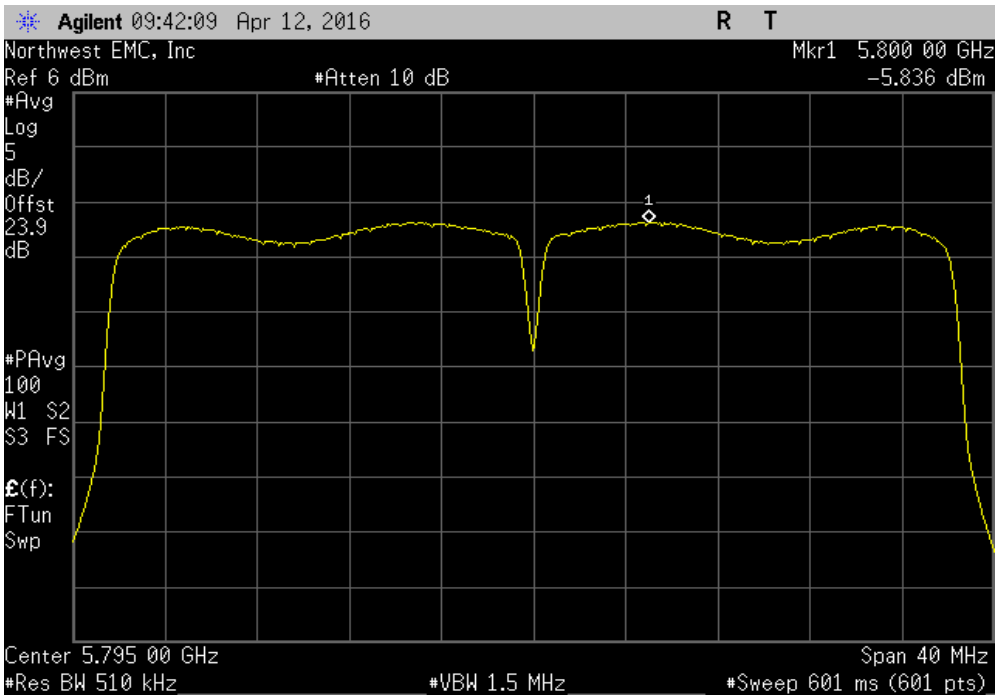
| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.888 | 0.2 | | -5.7 | 30 | Pass |



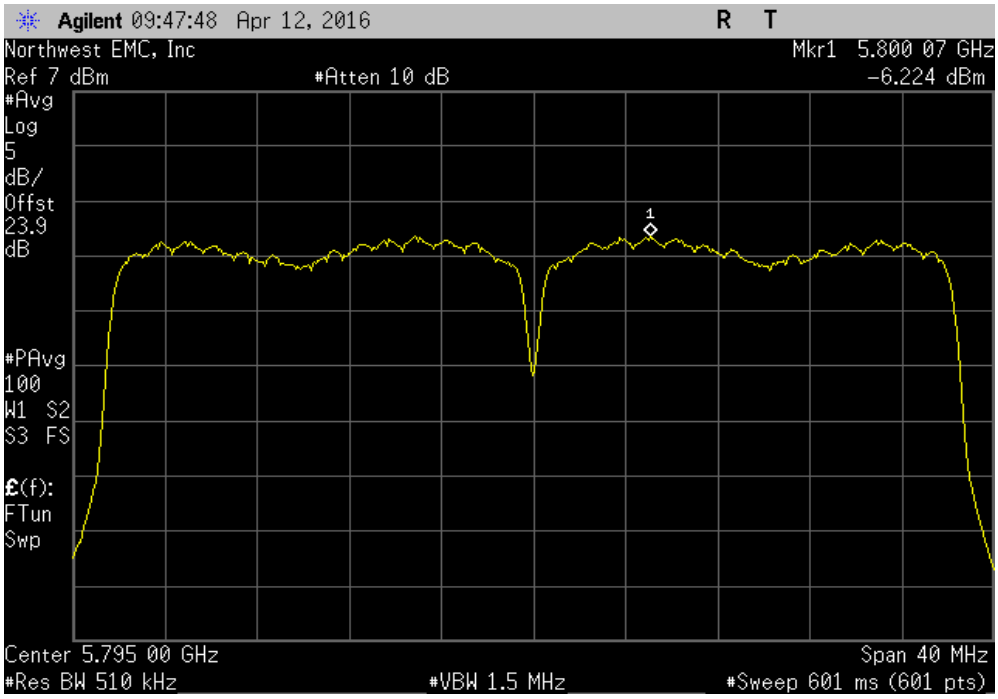

| SISO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.786 | 1.6 | | -4.2 | 30 | Pass |



| SISO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.836 | 0.2 | | -5.7 | 30 | Pass |




| SISO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS7 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.224 | 1.5 | | -4.7 | 30 | Pass |

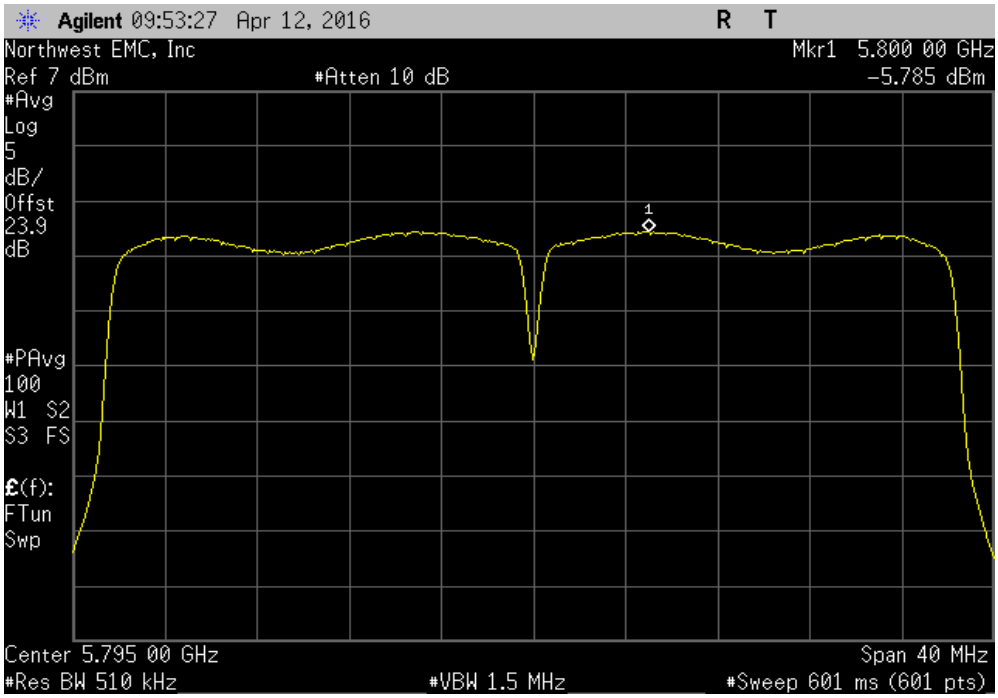


# MAXIMUM POWER SPECTRAL DENSITY

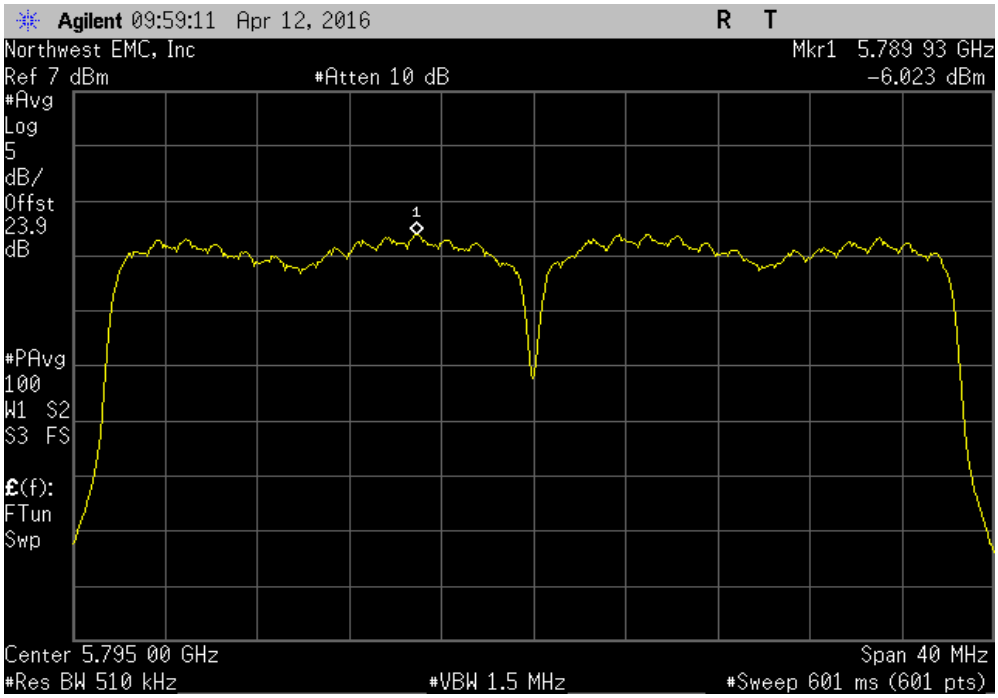
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.785 | 0.2 | | -5.6 | 30 | Pass |




| SISO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.023 | 1.7 | | -4.4 | 30 | Pass |

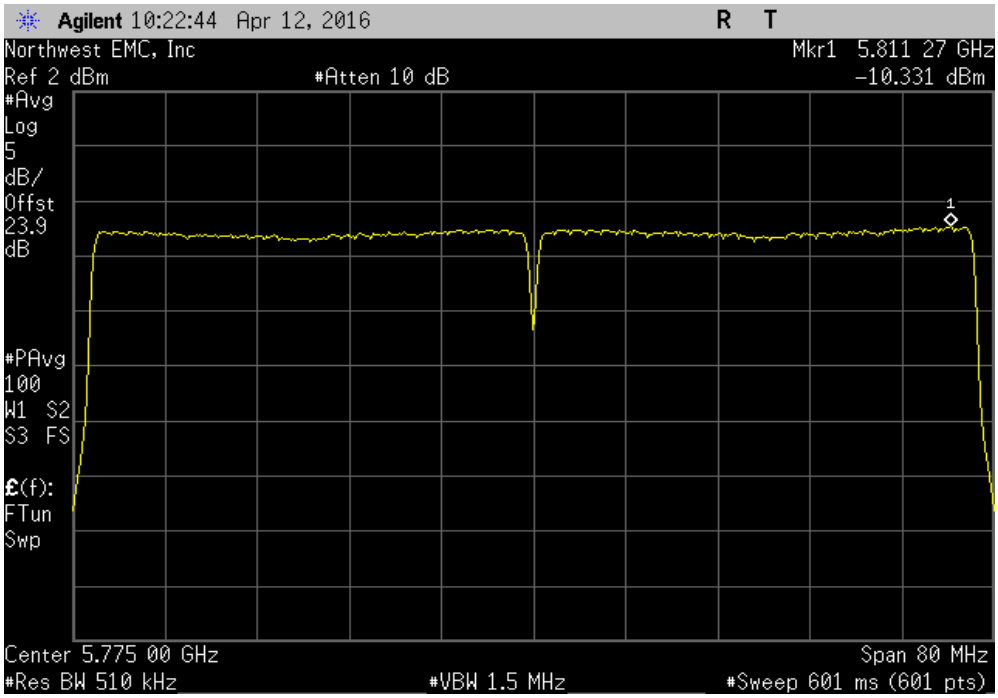


# MAXIMUM POWER SPECTRAL DENSITY

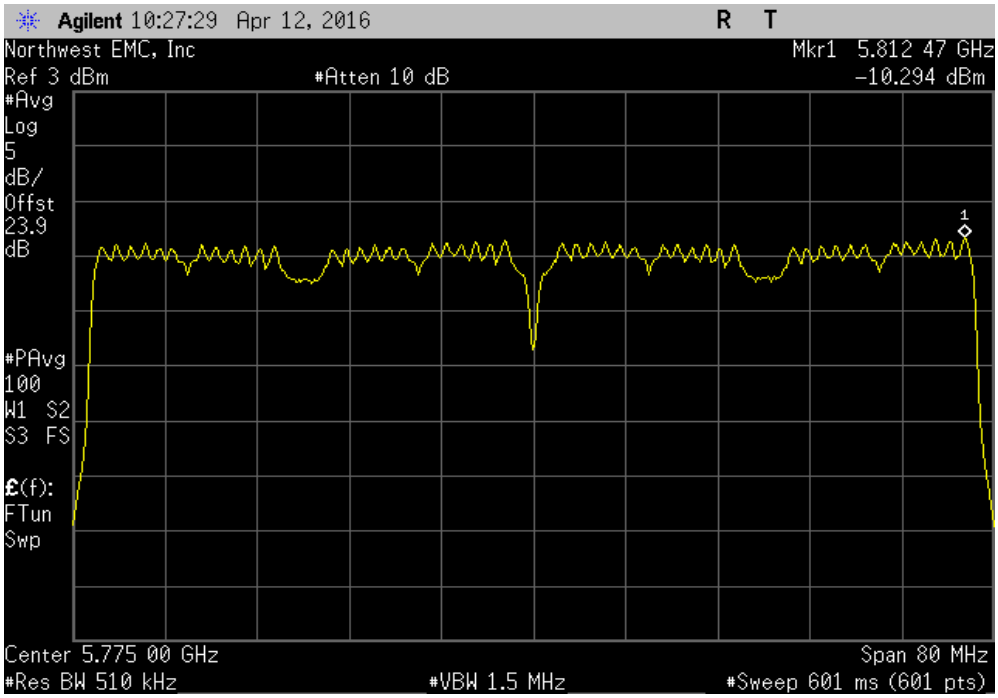
NORTHWEST EMC

XMit 2015.01.14

| SISO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -10.331 | 0.2 | | -10.1 | 30 | Pass |




| SISO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -10.294 | 1.9 | | -8.4 | 30 | Pass |



# MAXIMUM POWER SPECTRAL DENSITY

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

**TEST EQUIPMENT**

| Description | Manufacturer | Model | ID | Last Cal. | Interval (mo) |
|---|---|---|---|---|---|
| Analyzer - Spectrum Analyzer | Agilent | E4440A | AFE | 6/22/2015 | 12 |
| Attenuator | Fairview Microwave | SA4014-20 | TKV | 3/4/2016 | 12 |
| Block - DC | Fairview Microwave | SD3379 | AMJ | 6/6/2015 | 12 |
| Cable | ESM Cable Corp. | TTBJ-141 KMKM-72 | NC5 | 6/6/2015 | 12 |
| Generator - Signal | Agilent | N5183A | TIA | 4/6/2016 | 24 |

**TEST DESCRIPTION**

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The radio was operated in the modes as shown in the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring maximum power spectral density, the emission bandwidth (B) was measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report

The maximum power spectral density was measured using ANSI C63.10, Method SA-2 (RMS detection and trace averaging across the on and off times of the EUT transmission and use of a duty cycle correction factor), consistent with the method used for maximum conducted output power.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

-Resolution Bandwidth of 510 kHz

-RMS Detector

-Trace average 100 traces in power averaging mode

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in the reference bandwidth after 100 sweeps of power averaging (not video averaging).

A duty cycle correction factor was added to the measurement using the results of the formula of 10*LOG(1/D) where D is the duty cycle.

# MAXIMUM POWER SPECTRAL DENSITY

NORTHWEST EMC

XMit 2015.01.14

| | | | | | |
|---|---|---|---|---|---|
| **EUT:** | Model 1631 | | | **Work Order:** | MCSO1748 |
| **Serial Number:** | 041152140753 | | | **Date:** | 04/13/16 |
| **Customer:** | Microsoft Corporation | | | **Temperature:** | 23°C |
| **Attendees:** | None | | | **Humidity:** | 33% |
| **Project:** | None | | | **Barometric Pres.:** | 1019 mbar |
| **Tested by:** | Richard Mellroth | **Power:** | 110VAC/60Hz | **Job Site:** | NC02 |

| TEST SPECIFICATIONS | Test Method |
|---|---|
| FCC 15.407:2016 | ANSI C63.10:2013 |

**COMMENTS**

Power setting at 11dBm for 20MHz and 40MHz channels. Power Setting at 10dBm for 80MHz channels. Client supplied adapter cable loss of 1.3dB included in reference level offset. Signal setting at > 95% Duty Cycle.

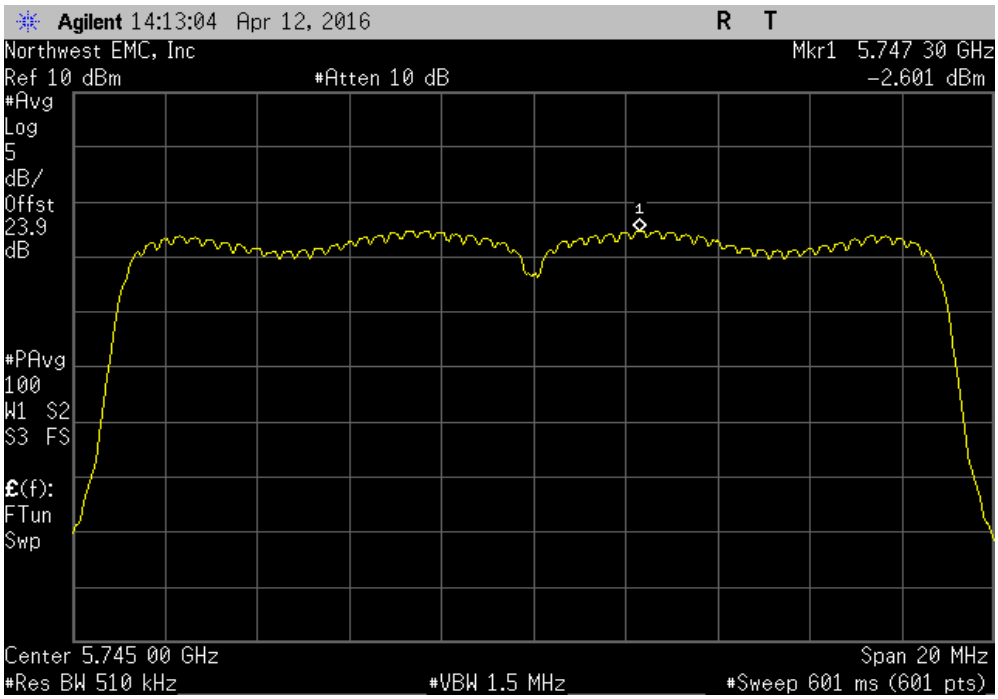
**DEVIATIONS FROM TEST STANDARD**

None

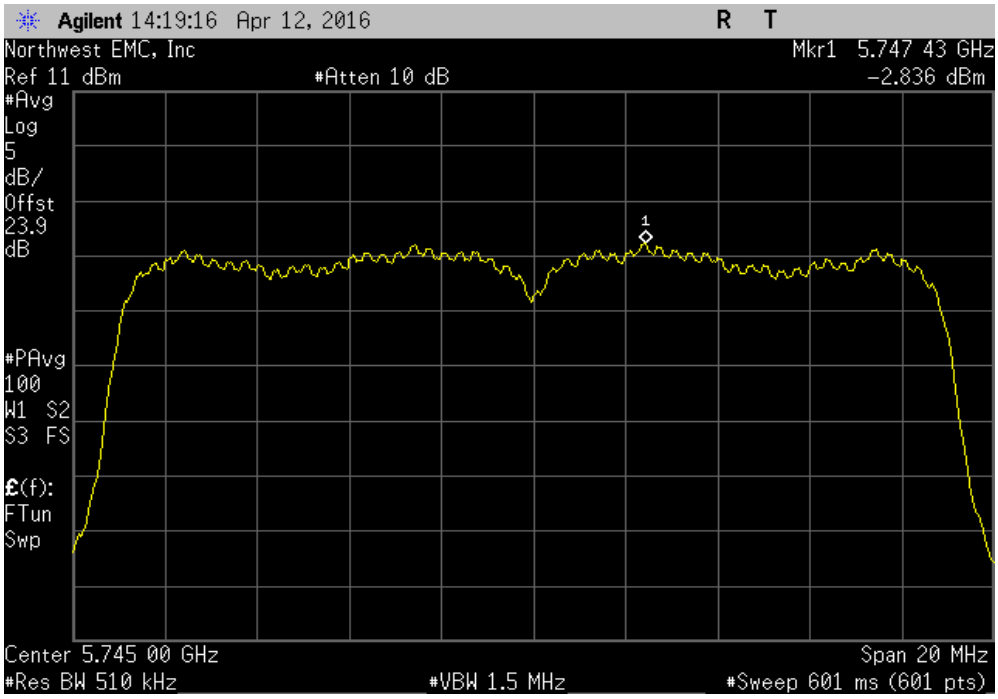
| Configuration # | 1 | Signature |
|---|---|---|

| | | | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit ≤ (dBm / Ref BW) | Results |
|---|---|---|---|---|---|---|---|---|
| 2x2 MIMO, Chain A | | | | | | | | |
| | 20MHz BW | | | | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | | | | |
| | | 802.11(n) MCS8 | -2.601 | 0.1 | 3.0 | 0.5 | 30 | Pass |
| | | 802.11(n) MCS15 | -2.836 | 0.7 | 3.0 | 0.9 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.582 | 0.1 | 3.0 | 0.5 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.983 | 0.7 | 3.0 | 0.7 | 30 | Pass |
| | | Mid Channel, Ch 157 - 5785 MHz | | | | | | |
| | | 802.11(n) MCS8 | -2.534 | 0.1 | 3.0 | 0.6 | 30 | Pass |
| | | 802.11(n) MCS15 | -2.877 | 0.7 | 3.0 | 0.8 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.465 | 0.1 | 3.0 | 0.6 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.882 | 0.7 | 3.0 | 0.8 | 30 | Pass |
| | | High Channel, Ch 165 - 5825 MHz | | | | | | |
| | | 802.11(n) MCS8 | -2.424 | 0.1 | 3.0 | 0.7 | 30 | Pass |
| | | 802.11(n) MCS15 | -2.518 | 0.7 | 3.0 | 1.2 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.606 | 0.1 | 3.0 | 0.5 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.475 | 0.7 | 3.0 | 1.2 | 30 | Pass |
| | 40MHz BW | | | | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | | | | |
| | | 802.11(n) MCS8 | -5.908 | 0.2 | 3.0 | -2.7 | 30 | Pass |
| | | 802.11(n) MCS15 | -7.051 | 1.5 | 3.0 | -2.5 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.941 | 0.3 | 3.0 | -2.6 | 30 | Pass |
| | | 802.11(ac) MCS9 | -6.72 | 1.2 | 3.0 | -2.5 | 30 | Pass |
| | | High Channel, Ch 157/161 - 5795 MHz | | | | | | |
| | | 802.11(n) MCS8 | -5.985 | 0.3 | 3.0 | -2.7 | 30 | Pass |
| | | 802.11(n) MCS15 | -6.876 | 1.5 | 3.0 | -2.4 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.913 | 0.3 | 3.0 | -2.6 | 30 | Pass |
| | | 802.11(ac) MCS9 | -6.32 | 2.5 | 3.0 | -0.8 | 30 | Pass |
| | 80MHz BW | | | | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | | | | |
| | | 802.11(ac) MCS0 | -11.77 | 0.6 | 3.0 | -8.2 | 30 | Pass |
| | | 802.11(ac) MCS9 | -11.482 | 2.8 | 3.0 | -5.7 | 30 | Pass |
| 2x2 MIMO, Chain B | | | | | | | | |
| | 20MHz BW | | | | | | | |
| | | Low Channel, Ch 149 - 5745 MHz | | | | | | |
| | | 802.11(n) MCS8 | -2.768 | 0.1 | 3.0 | 0.3 | 30 | Pass |
| | | 802.11(n) MCS15 | -3.04 | 0.8 | 3.0 | 0.8 | 30 | Pass |
| | | 802.11(ac) MCS0 | -3.162 | 0.1 | 3.0 | -0.1 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.99 | 0.7 | 3.0 | 0.7 | 30 | Pass |
| | | Mid Channel, Ch 157 - 5785 MHz | | | | | | |
| | | 802.11(n) MCS8 | -2.739 | 0.1 | 3.0 | 0.4 | 30 | Pass |
| | | 802.11(n) MCS15 | -3.011 | 0.8 | 3.0 | 0.8 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.648 | 0.1 | 3.0 | 0.5 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.846 | 0.7 | 3.0 | 0.9 | 30 | Pass |
| | | High Channel, Ch 165 - 5825 MHz | | | | | | |
| | | 802.11(n) MCS8 | -2.692 | 0.1 | 3.0 | 0.4 | 30 | Pass |
| | | 802.11(n) MCS15 | -2.883 | 0.8 | 3.0 | 0.9 | 30 | Pass |
| | | 802.11(ac) MCS0 | -2.563 | 0.1 | 3.0 | 0.5 | 30 | Pass |
| | | 802.11(ac) MCS8 | -2.84 | 0.7 | 3.0 | 0.9 | 30 | Pass |
| | 40MHz BW | | | | | | | |
| | | Low Channel, Ch 149/153 - 5755 MHz | | | | | | |
| | | 802.11(n) MCS8 | -6.46 | 0.3 | 3.0 | -3.1 | 30 | Pass |
| | | 802.11(n) MCS15 | -6.806 | 2.4 | 3.0 | -1.4 | 30 | Pass |
| | | 802.11(ac) MCS0 | -5.985 | 0.3 | 3.0 | -2.7 | 30 | Pass |
| | | 802.11(ac) MCS9 | -6.235 | 1.1 | 3.0 | -2.1 | 30 | Pass |
| | | High Channel, Ch 157/161 - 5795 MHz | | | | | | |
| | | 802.11(n) MCS8 | -6.337 | 0.3 | 3.0 | -3.0 | 30 | Pass |
| | | 802.11(n) MCS15 | -6.723 | 2.4 | 3.0 | -1.3 | 30 | Pass |
| | | 802.11(ac) MCS0 | -6.009 | 0.3 | 3.0 | -2.7 | 30 | Pass |
| | | 802.11(ac) MCS9 | -6.416 | 2.5 | 3.0 | -0.9 | 30 | Pass |
| | 80MHz BW | | | | | | | |
| | | Mid Channel, Ch 149/161 - 5775 MHz | | | | | | |
| | | 802.11(ac) MCS0 | -11.495 | 0.6 | 3.0 | -7.9 | 30 | Pass |
| | | 802.11(ac) MCS9 | -11.092 | 1.5 | 3.0 | -6.6 | 30 | Pass |

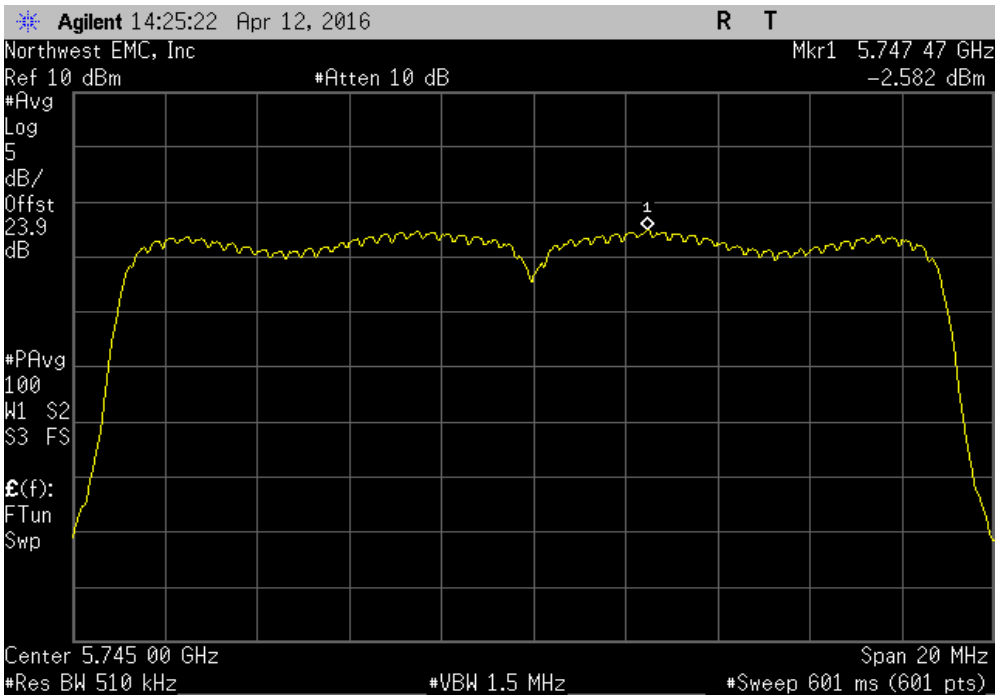
| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.601 | 0.1 | 3.0 | 0.5 | 30 | Pass |



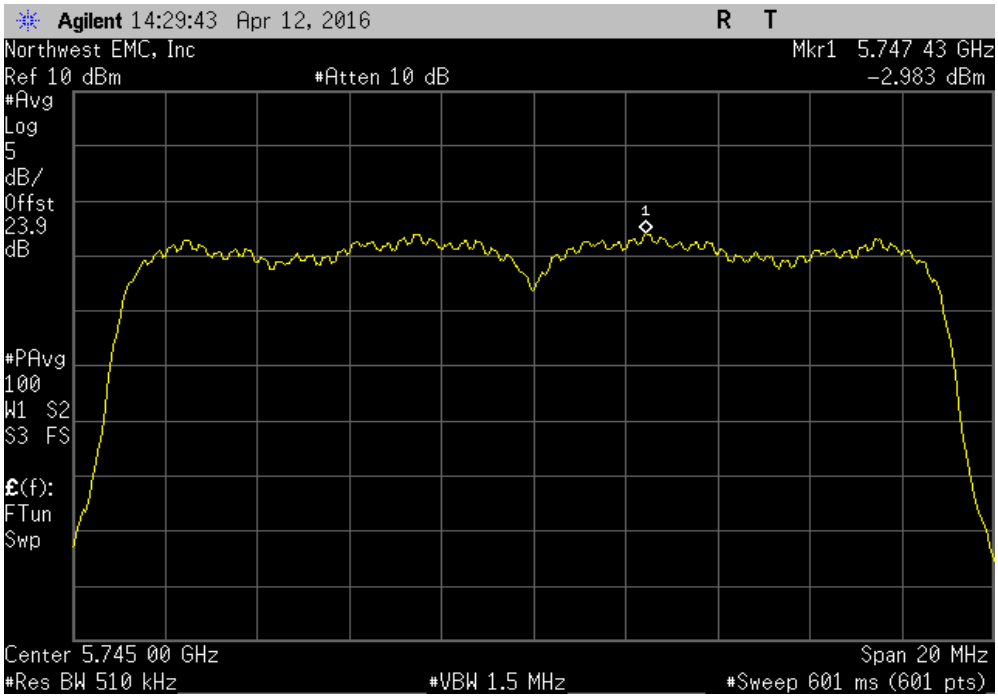

| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.836 | 0.7 | 3.0 | 0.9 | 30 | Pass |



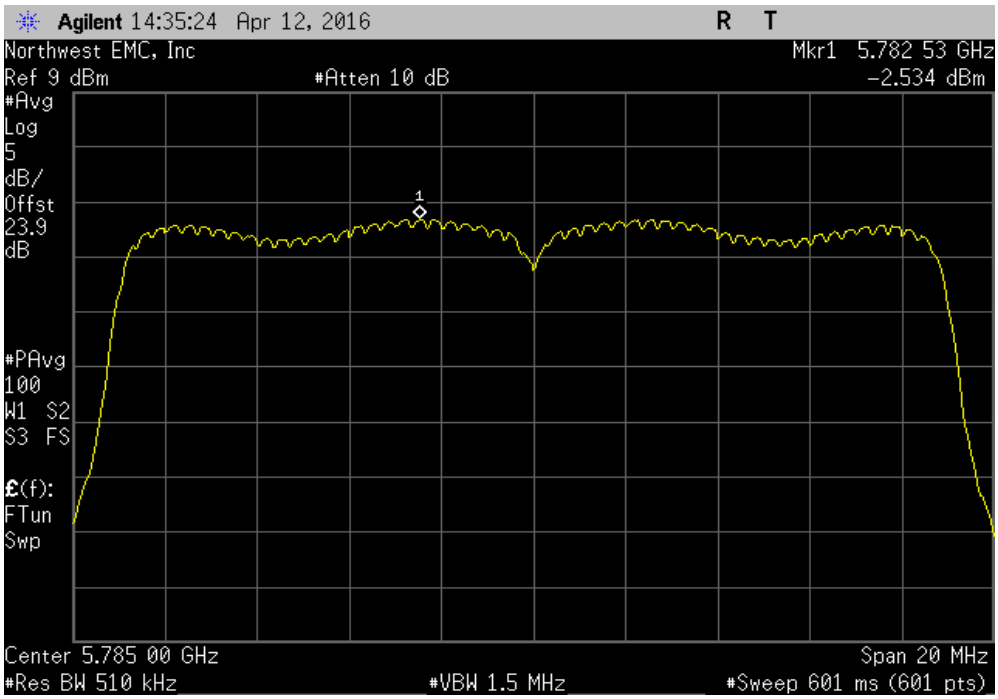
| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.582 | 0.1 | 3.0 | 0.5 | 30 | Pass |



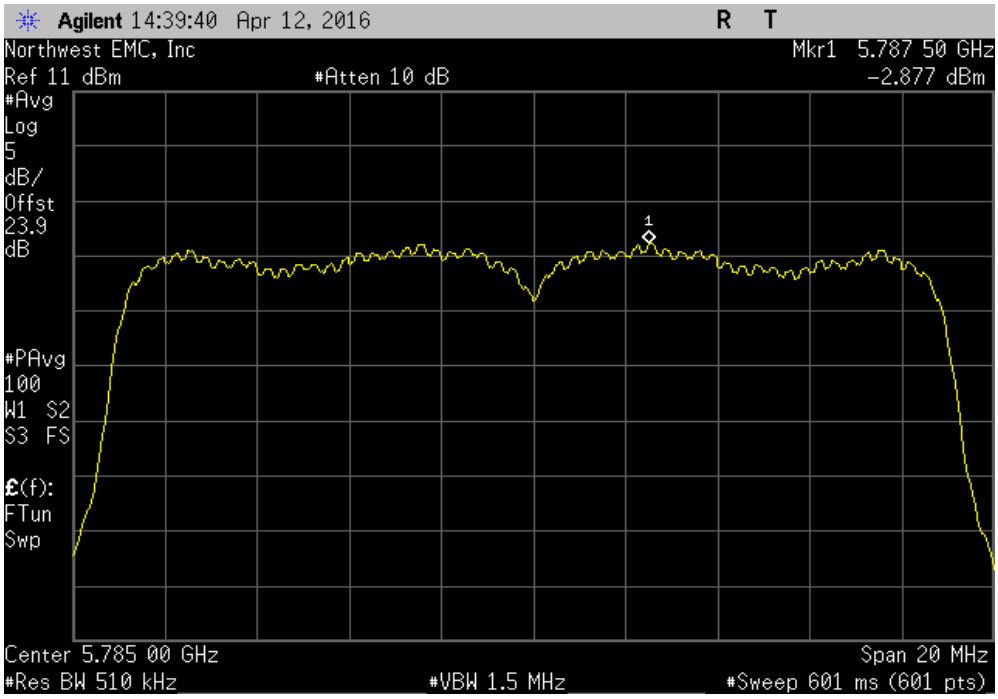

| 2x2 MIMO, Chain A, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.983 | 0.7 | 3.0 | 0.7 | 30 | Pass |



| 2x2 MIMO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.534 | 0.1 | 3.0 | 0.6 | 30 | Pass |




| 2x2 MIMO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.877 | 0.7 | 3.0 | 0.8 | 30 | Pass |



# MAXIMUM POWER SPECTRAL DENSITY

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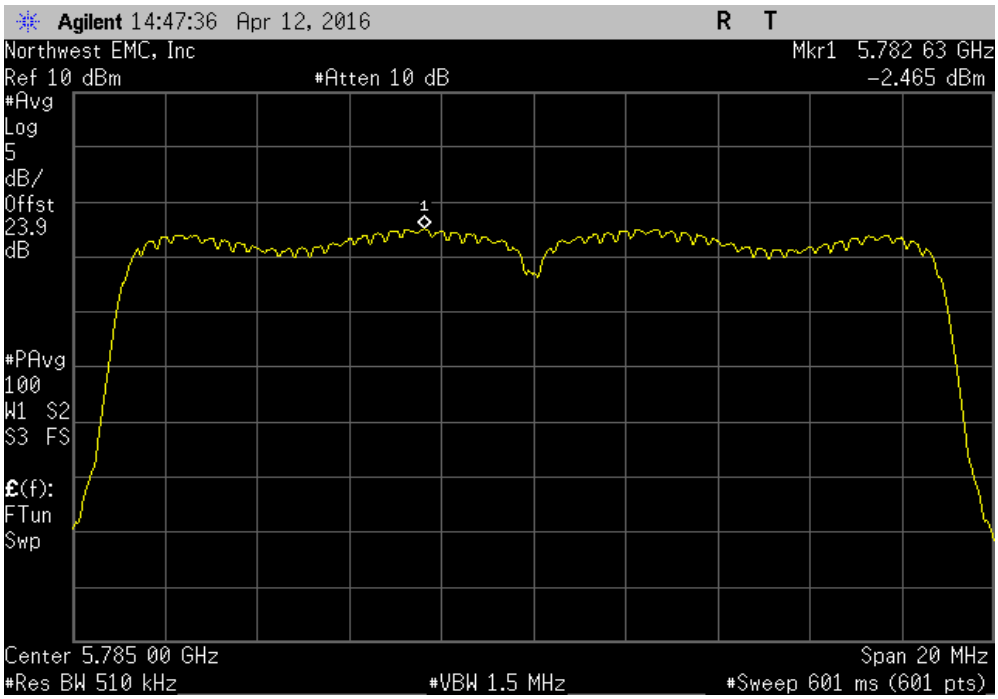
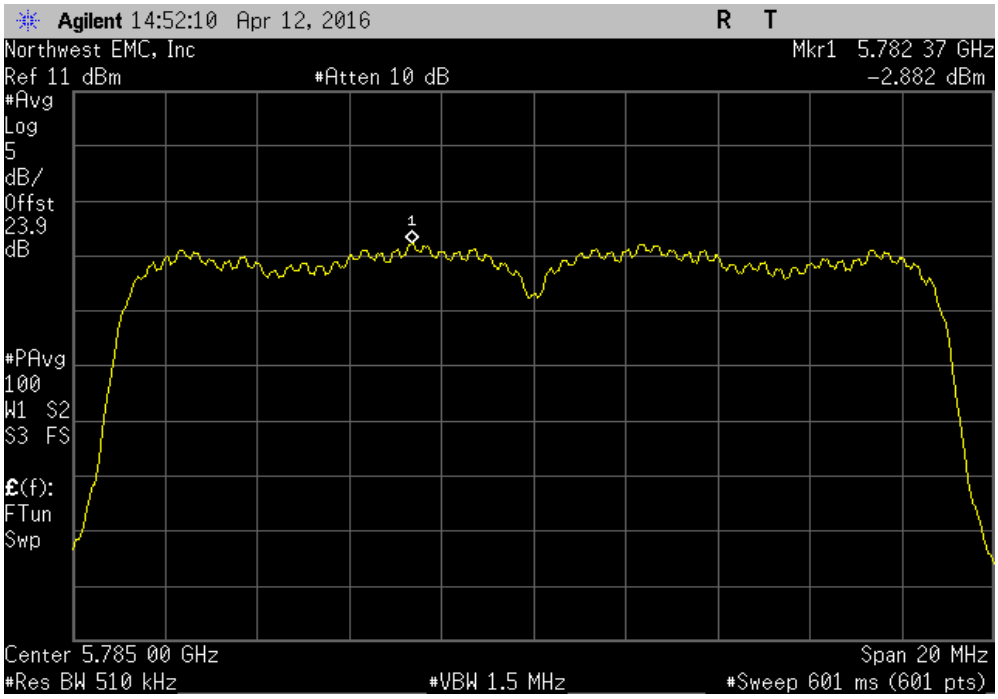
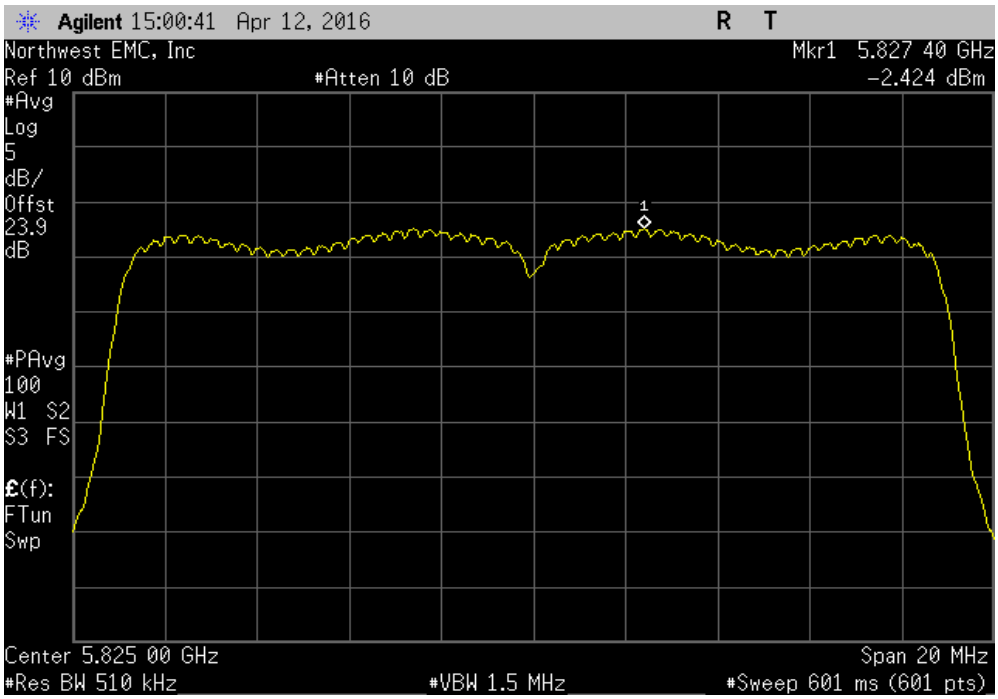
| 2x2 MIMO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.465 | 0.1 | 3.0 | 0.6 | 30 | Pass |



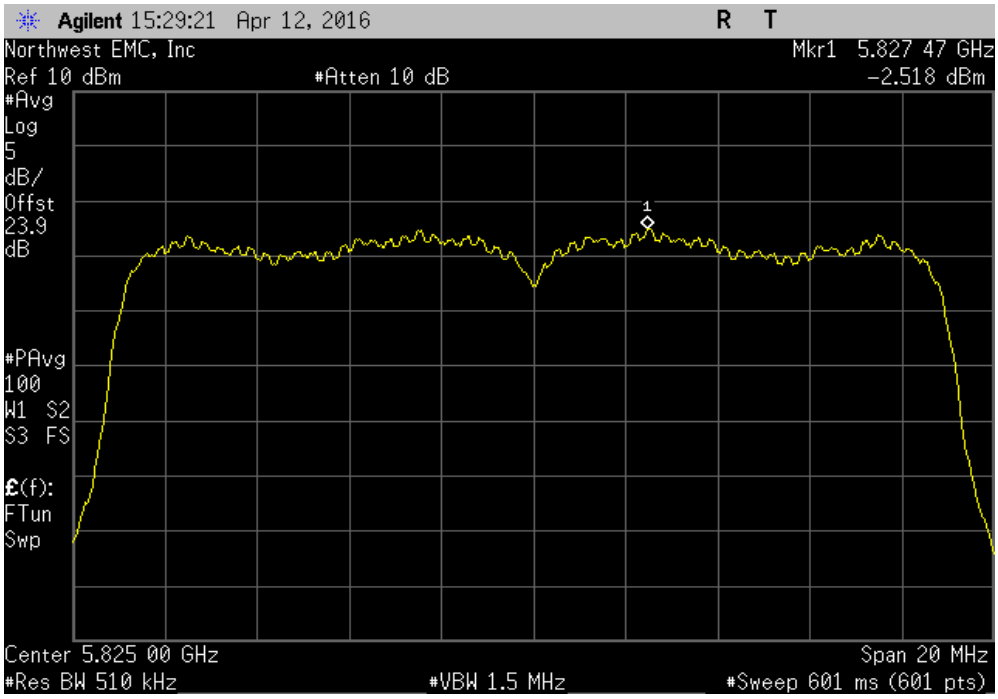

| 2x2 MIMO, Chain A, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.882 | 0.7 | 3.0 | 0.8 | 30 | Pass |



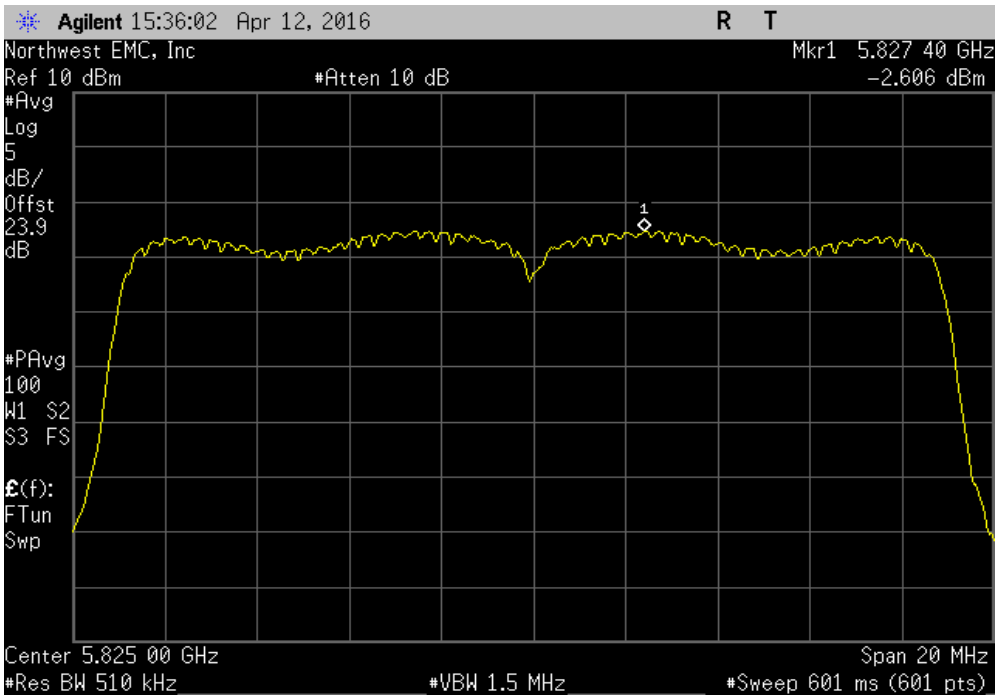
| 2x2 MIMO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.424 | 0.1 | 3.0 | 0.7 | 30 | Pass |



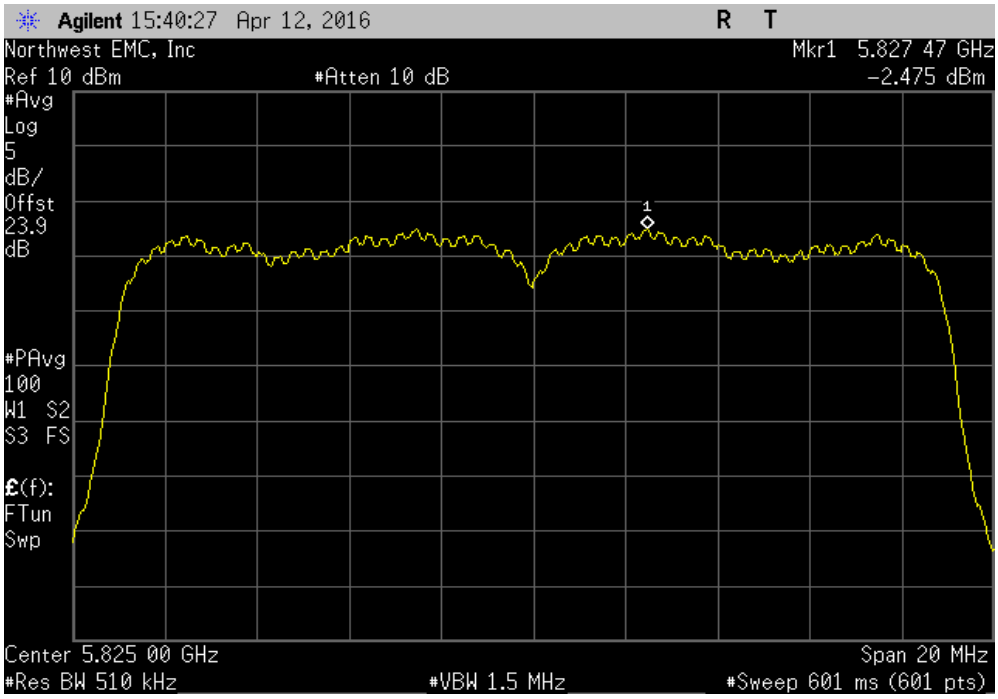

| 2x2 MIMO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.518 | 0.7 | 3.0 | 1.2 | 30 | Pass |



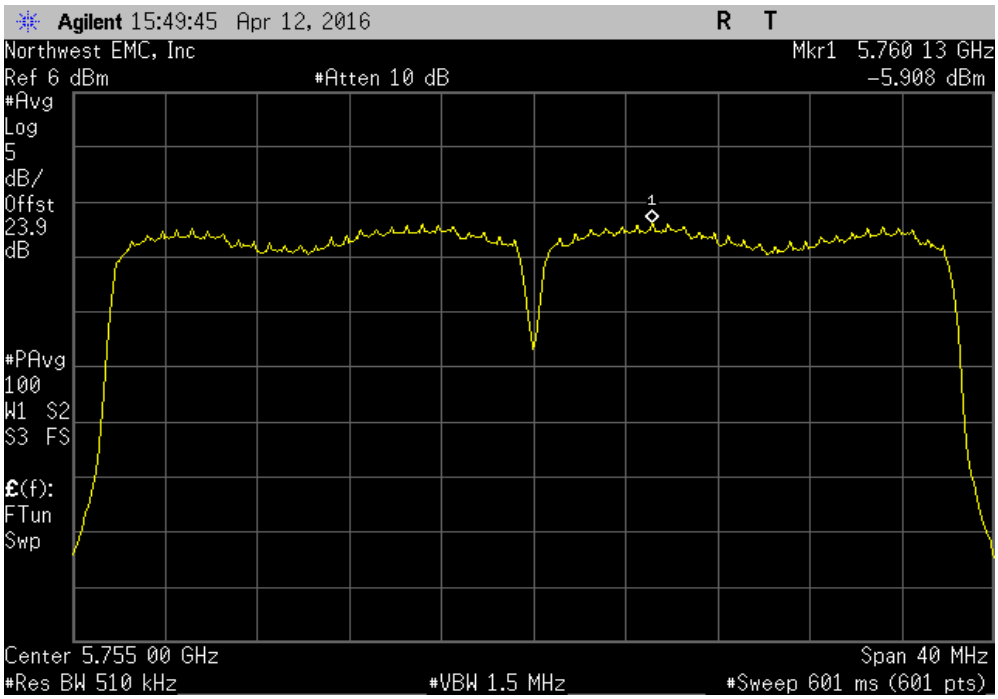
| 2x2 MIMO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.606 | 0.1 | 3.0 | 0.5 | 30 | Pass |



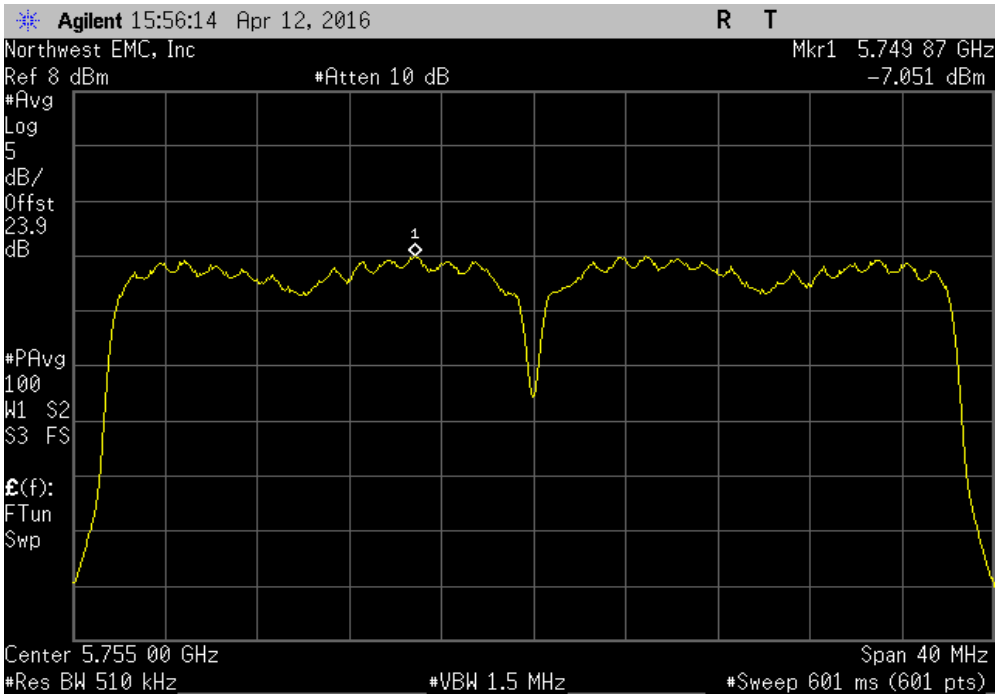

| 2x2 MIMO, Chain A, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.475 | 0.7 | 3.0 | 1.2 | 30 | Pass |



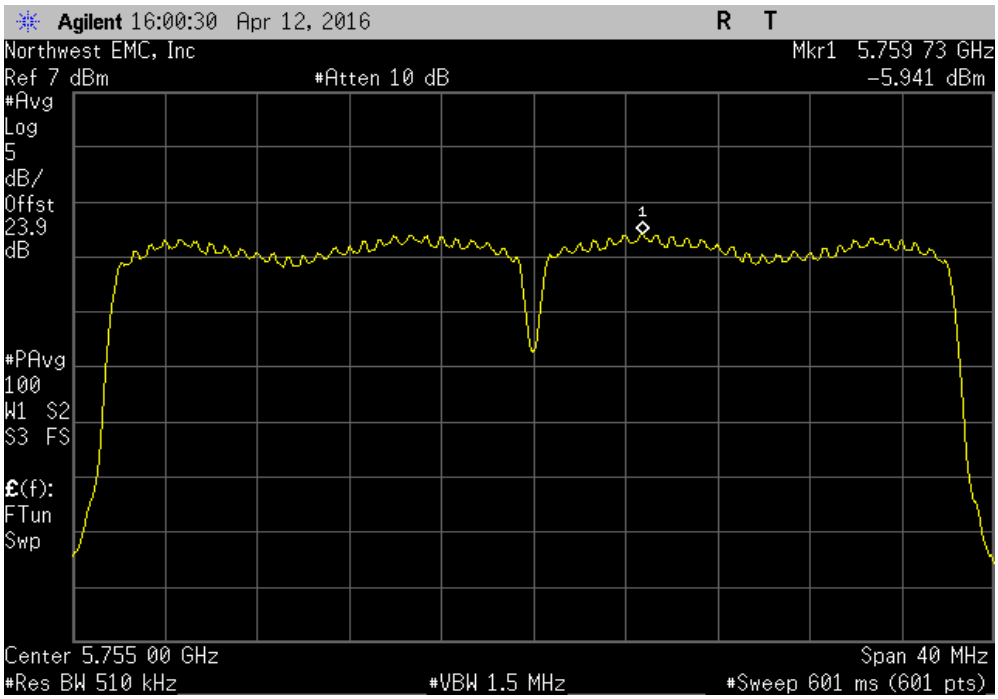
| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.908 | 0.2 | 3.0 | -2.7 | 30 | Pass |



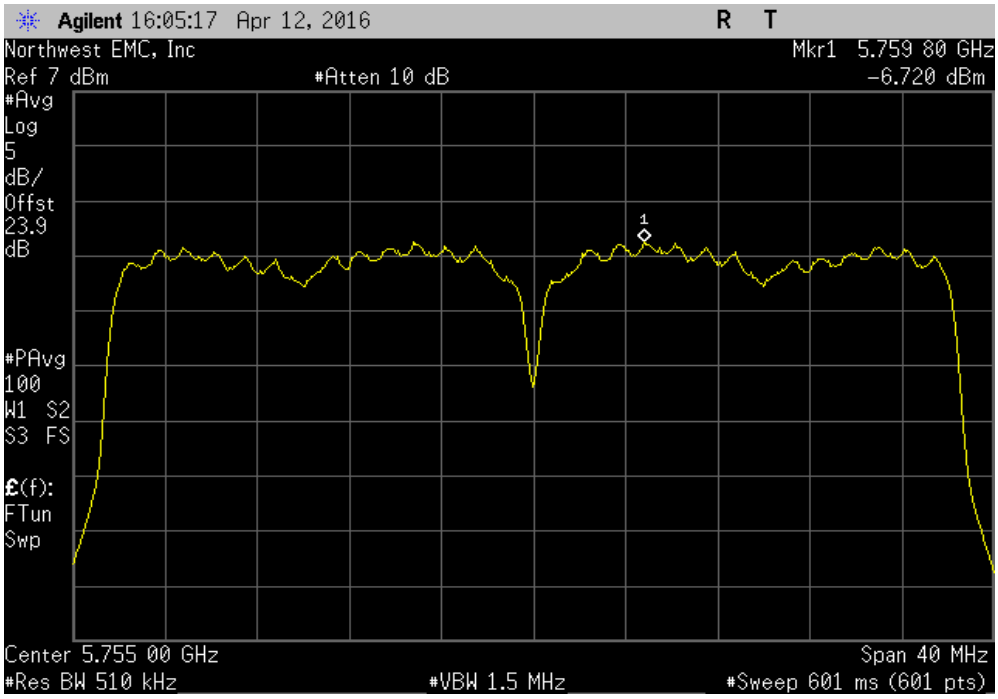

| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -7.051 | 1.5 | 3.0 | -2.5 | 30 | Pass |



| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.941 | 0.3 | 3.0 | -2.6 | 30 | Pass |




| 2x2 MIMO, Chain A, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.72 | 1.2 | 3.0 | -2.5 | 30 | Pass |



# MAXIMUM POWER SPECTRAL DENSITY

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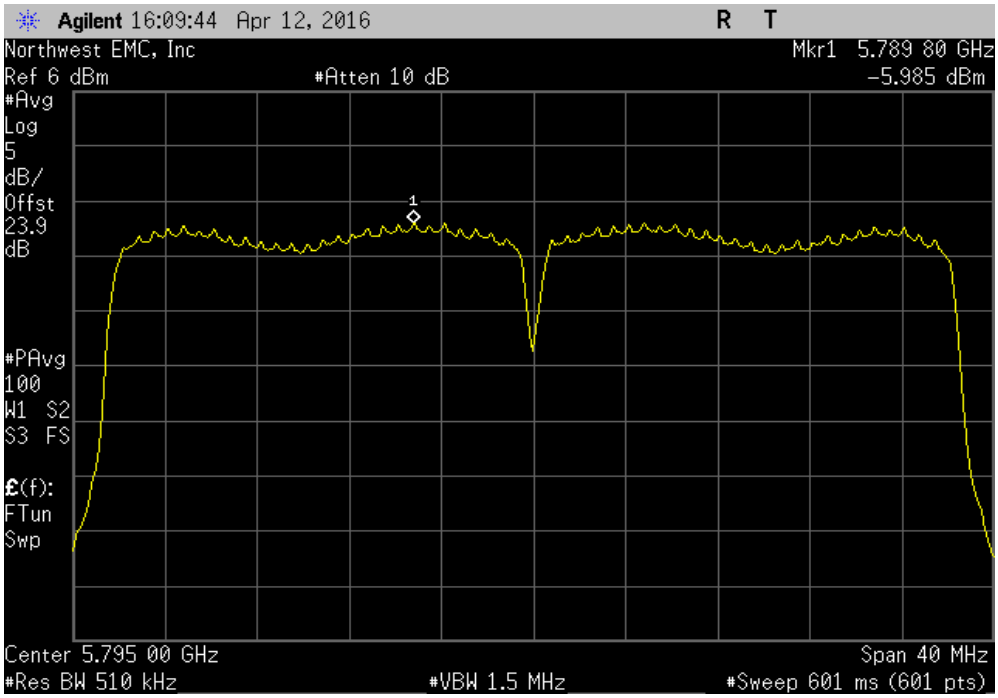
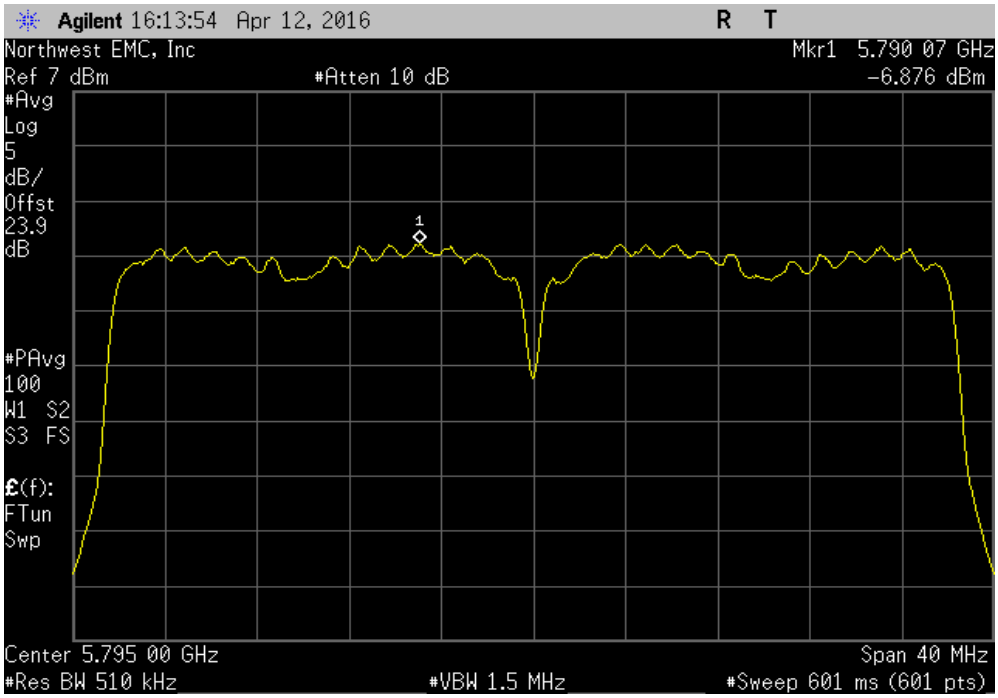
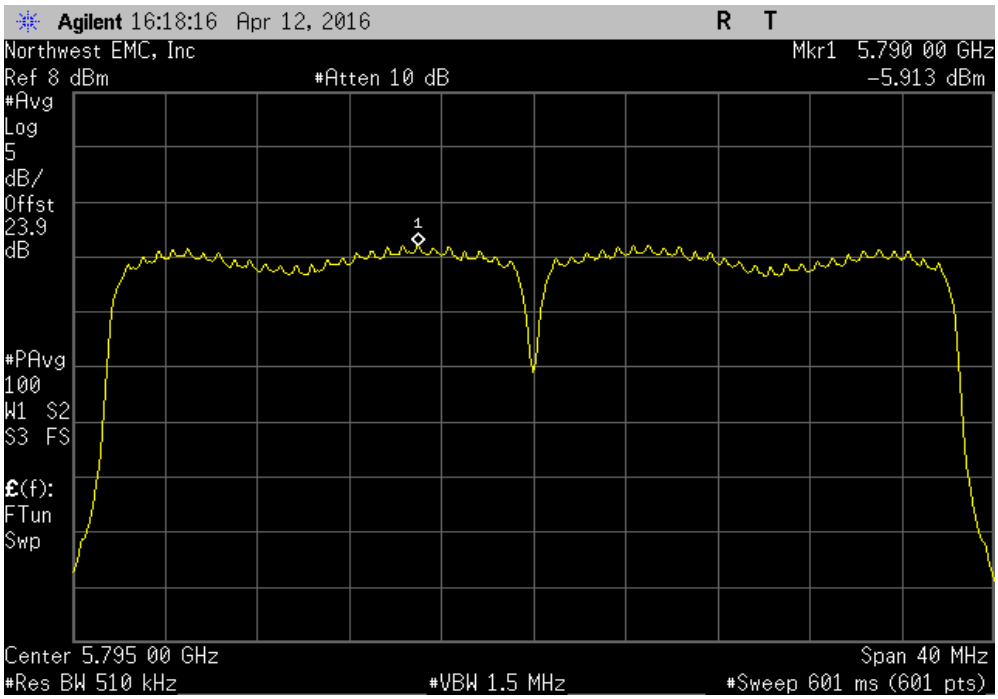
| 2x2 MIMO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.985 | 0.3 | 3.0 | -2.7 | 30 | Pass |



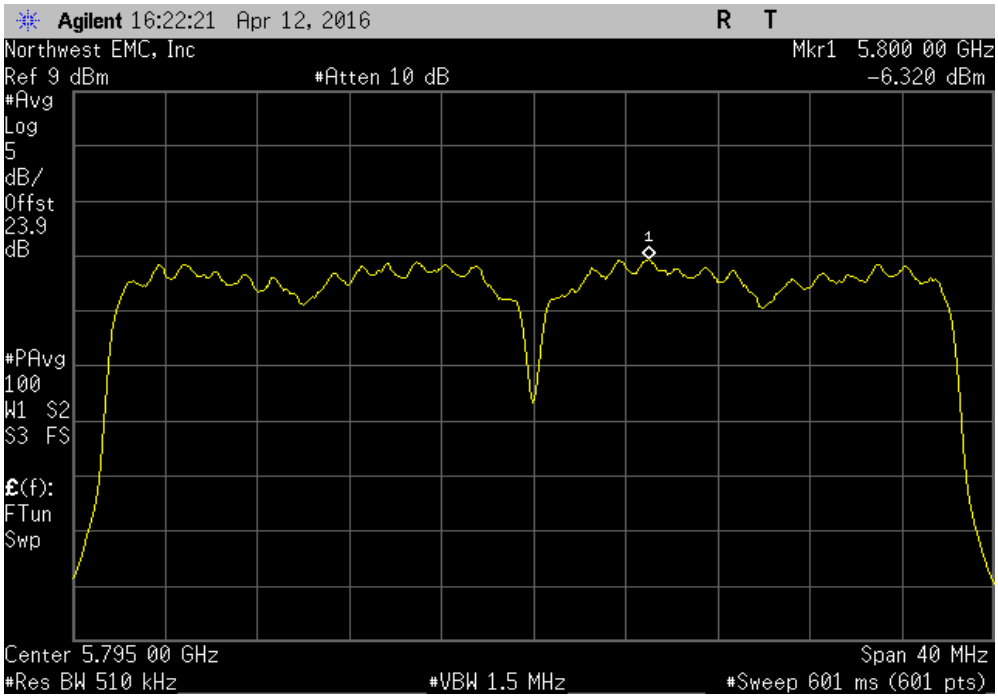

| 2x2 MIMO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.876 | 1.5 | 3.0 | -2.4 | 30 | Pass |



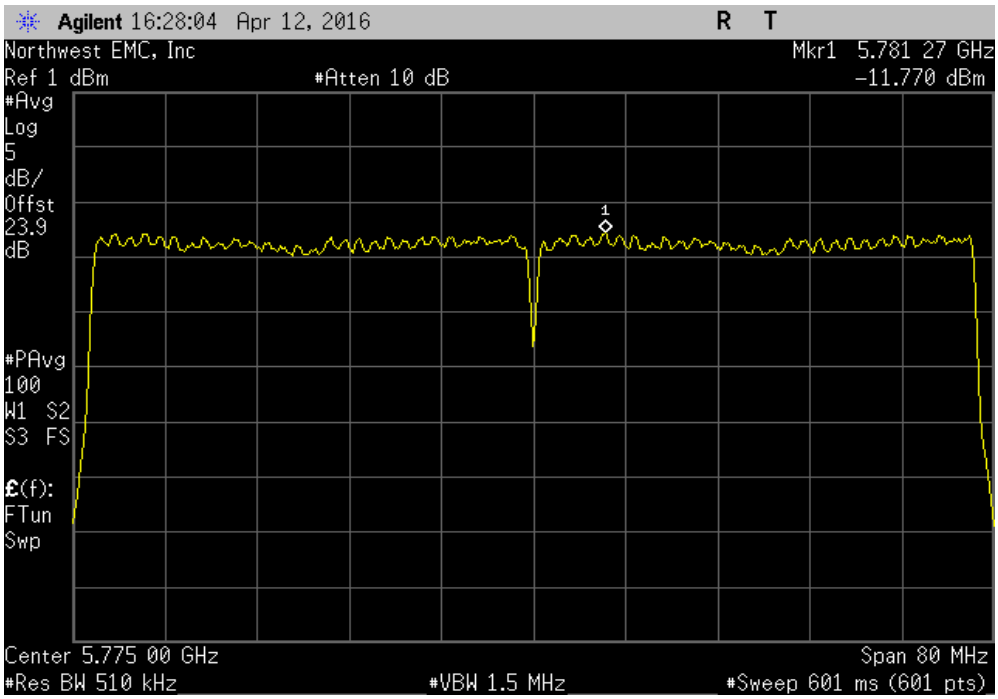
| 2x2 MIMO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.913 | 0.3 | 3.0 | -2.6 | 30 | Pass |



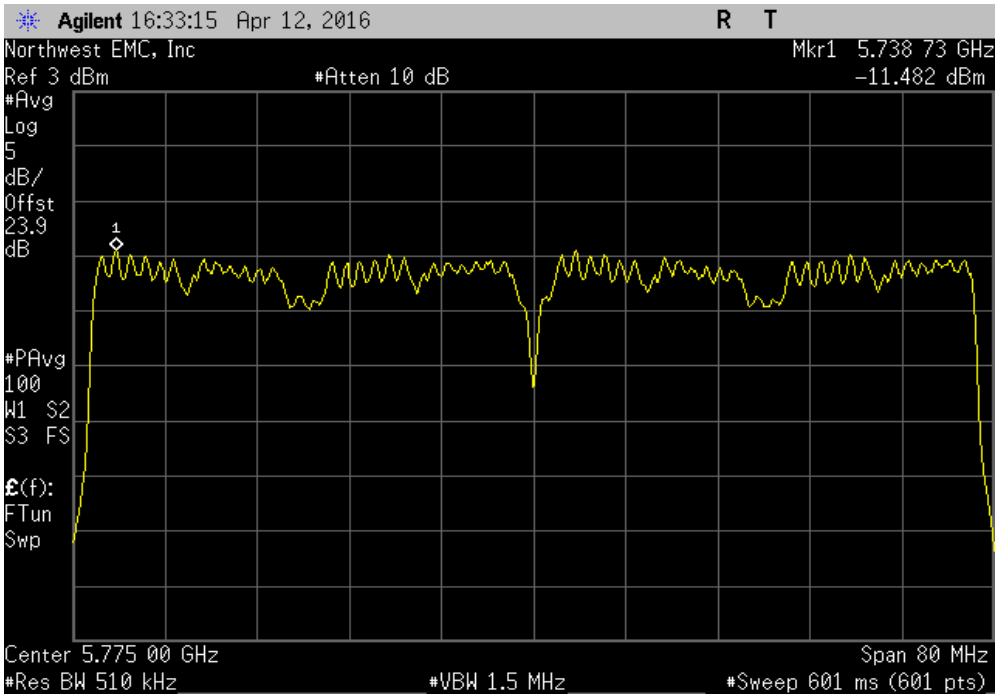

| 2x2 MIMO, Chain A, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.32 | 2.5 | 3.0 | -0.8 | 30 | Pass |



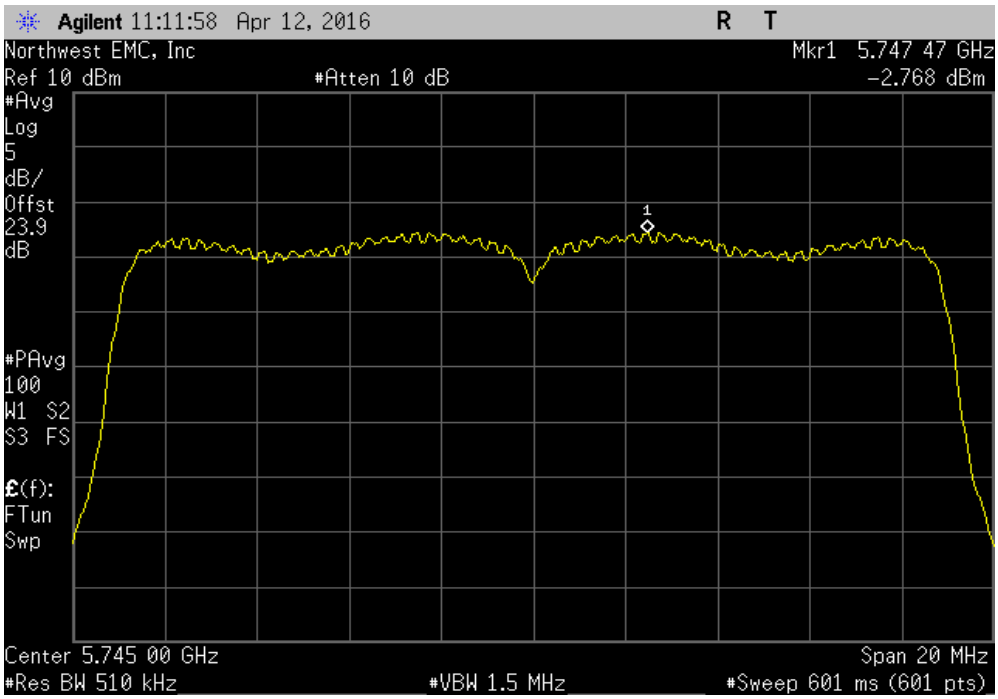
| 2x2 MIMO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -11.77 | 0.6 | 3.0 | -8.2 | 30 | Pass |



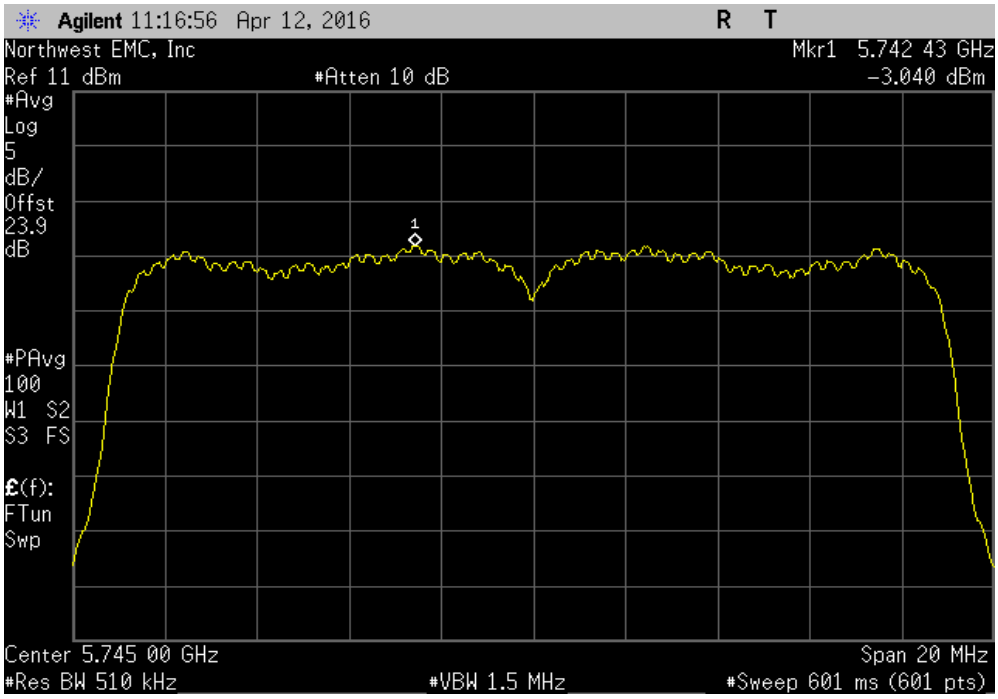

| 2x2 MIMO, Chain A, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -11.482 | 2.8 | 3.0 | -5.7 | 30 | Pass |



| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.768 | 0.1 | 3.0 | 0.3 | 30 | Pass |




| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.04 | 0.8 | 3.0 | 0.8 | 30 | Pass |

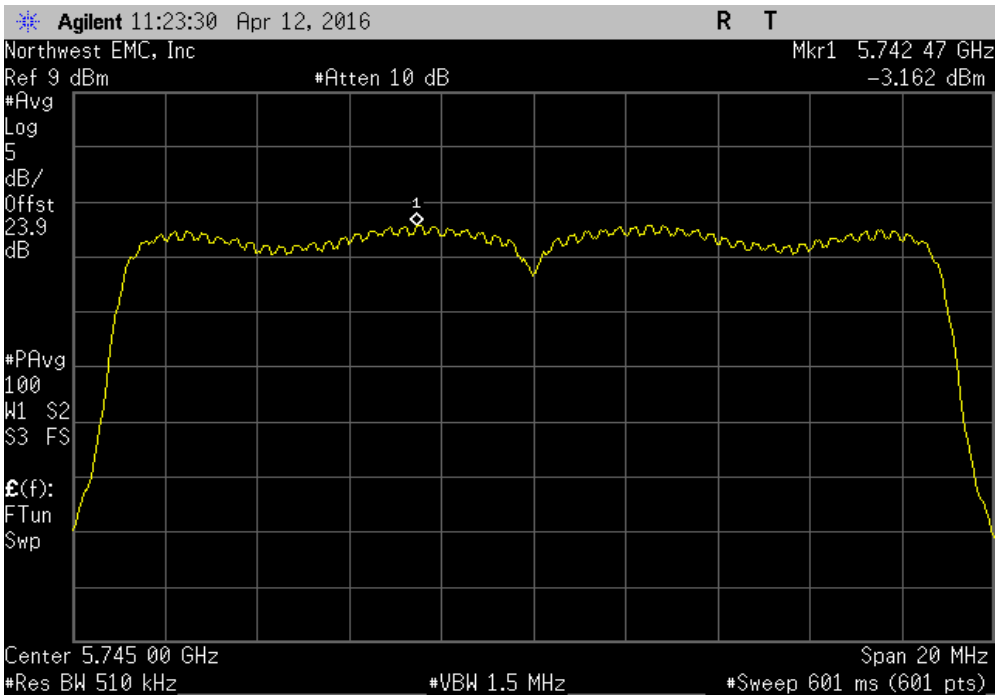


# MAXIMUM POWER SPECTRAL DENSITY

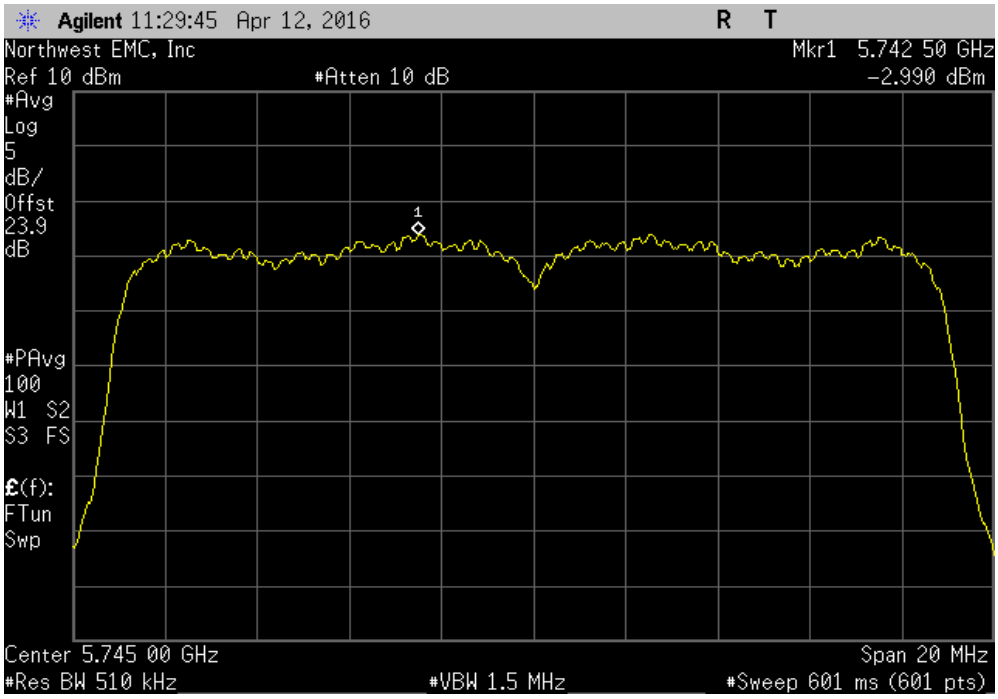
NORTHWEST EMC

XMit 2015.01.14

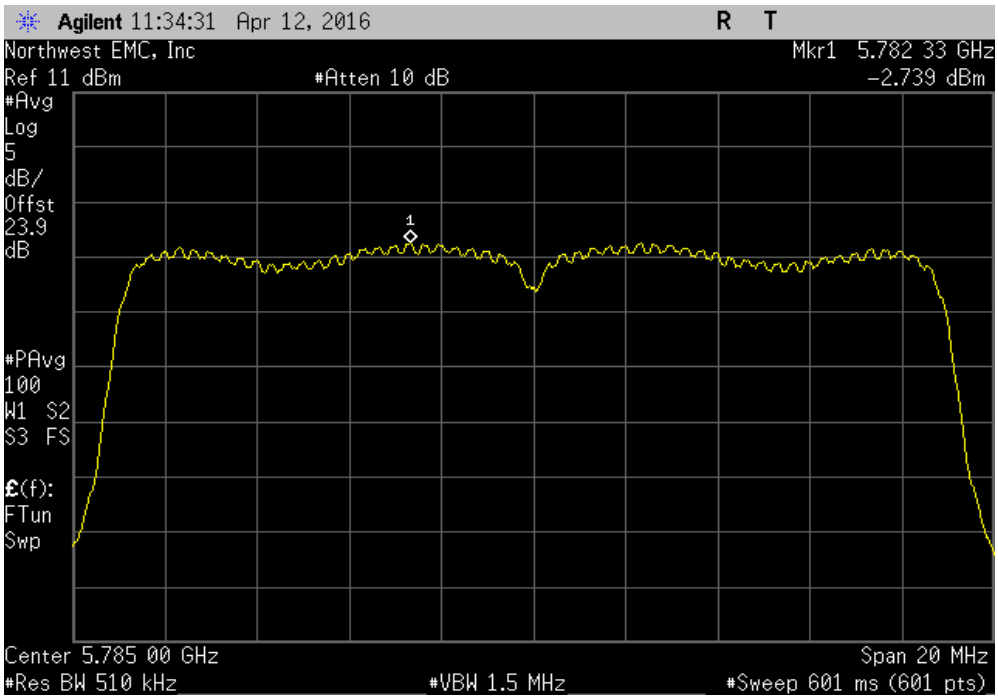
| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.162 | 0.1 | 3.0 | -0.1 | 30 | Pass |



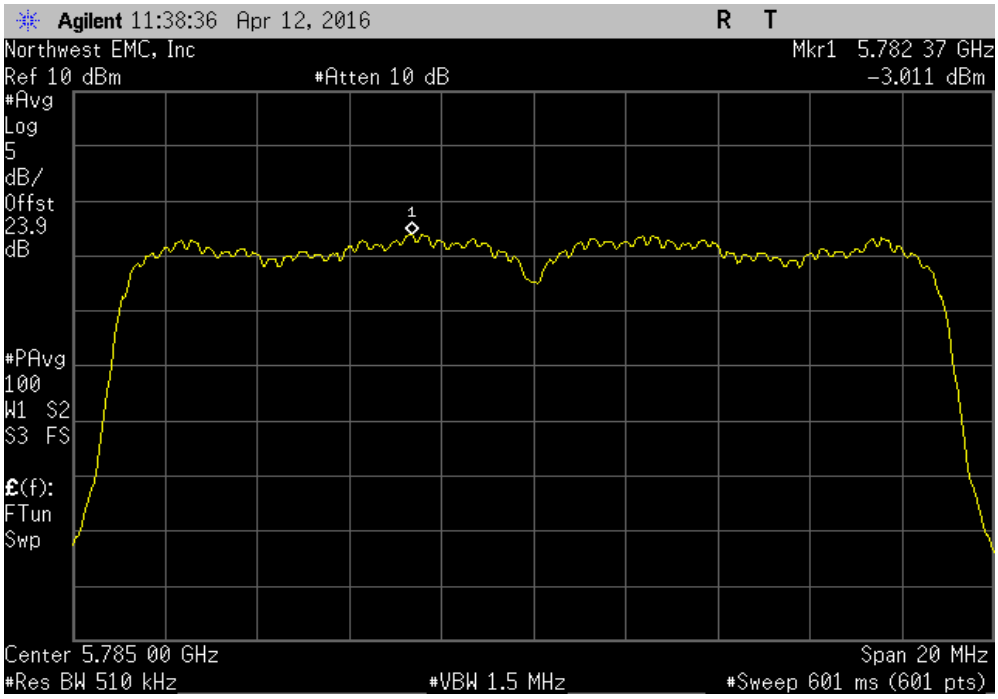

| 2x2 MIMO, Chain B, 20MHz BW, Low Channel, Ch 149 - 5745 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.99 | 0.7 | 3.0 | 0.7 | 30 | Pass |



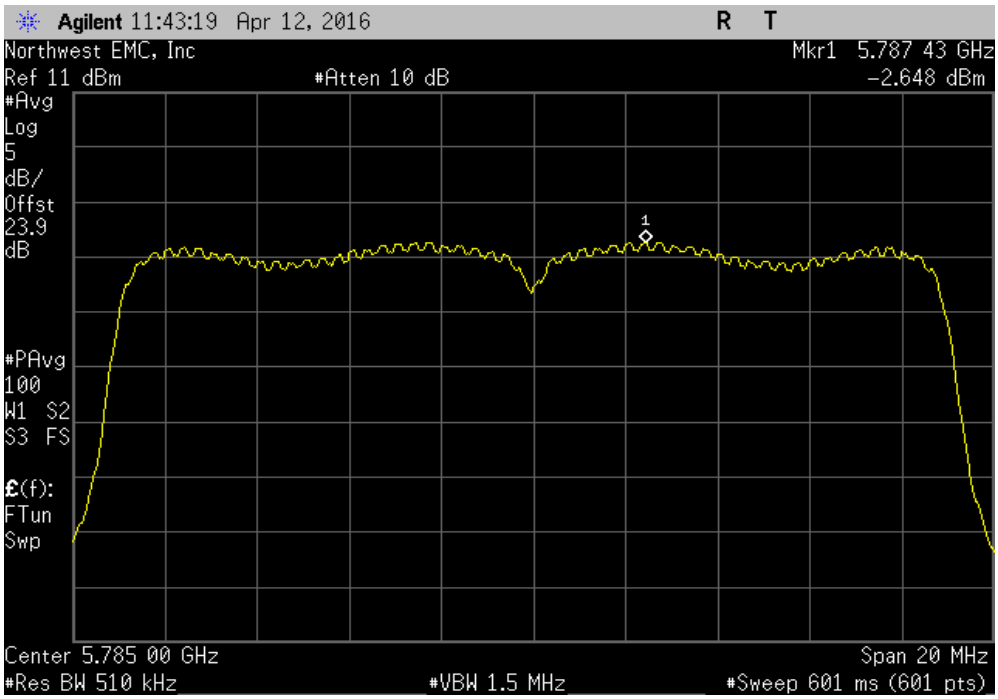
| 2x2 MIMO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.739 | 0.1 | 3.0 | 0.4 | 30 | Pass |



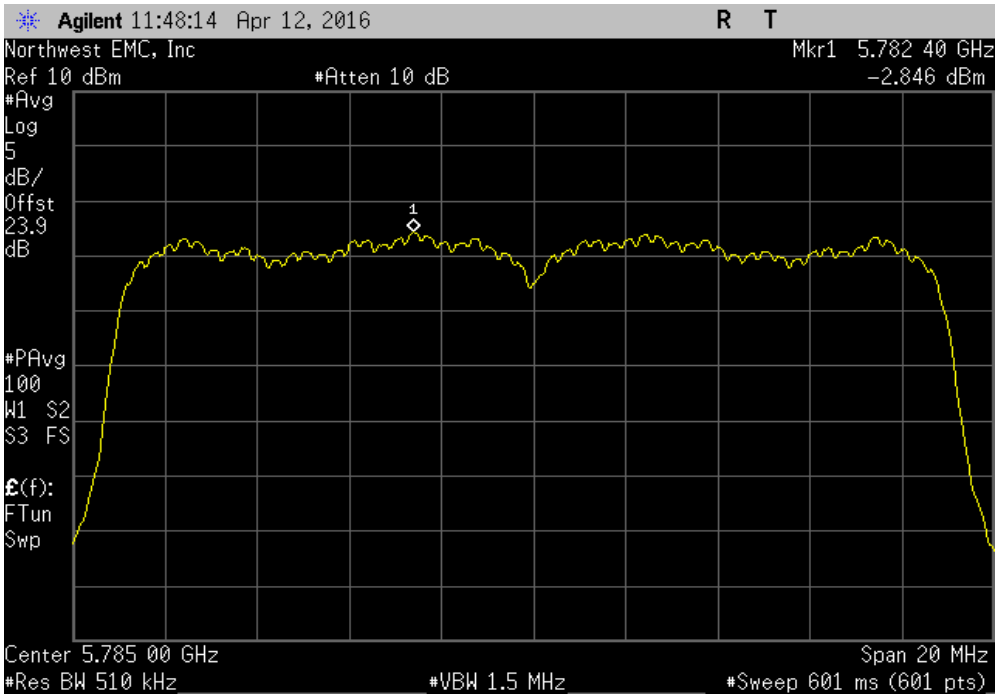

| 2x2 MIMO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -3.011 | 0.8 | 3.0 | 0.8 | 30 | Pass |



| 2x2 MIMO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.648 | 0.1 | 3.0 | 0.5 | 30 | Pass |




| 2x2 MIMO, Chain B, 20MHz BW, Mid Channel, Ch 157 - 5785 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.846 | 0.7 | 3.0 | 0.9 | 30 | Pass |

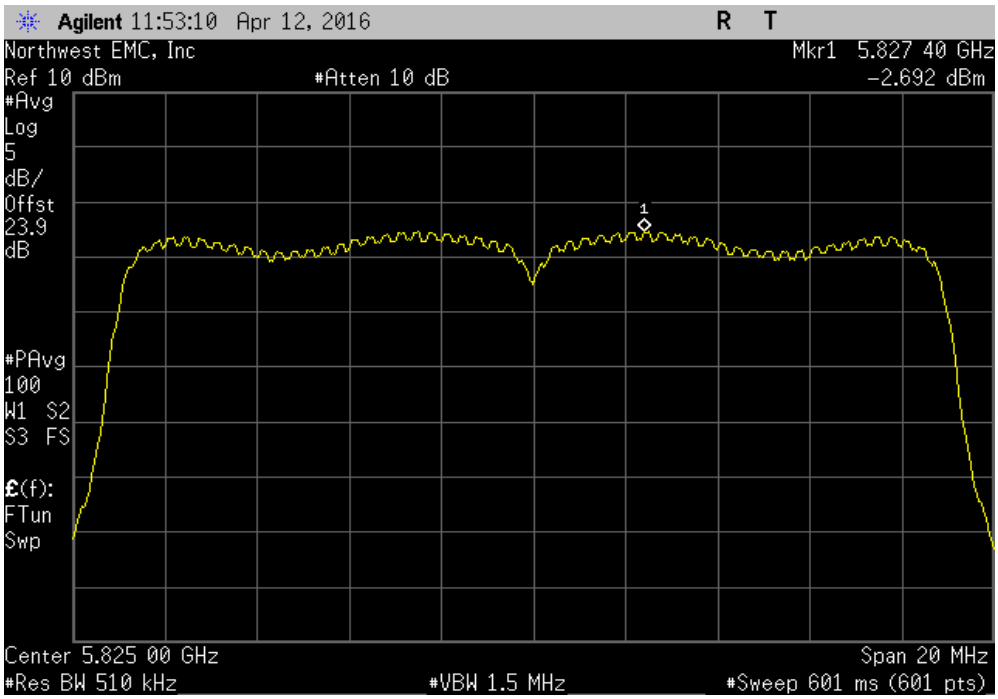


# MAXIMUM POWER SPECTRAL DENSITY

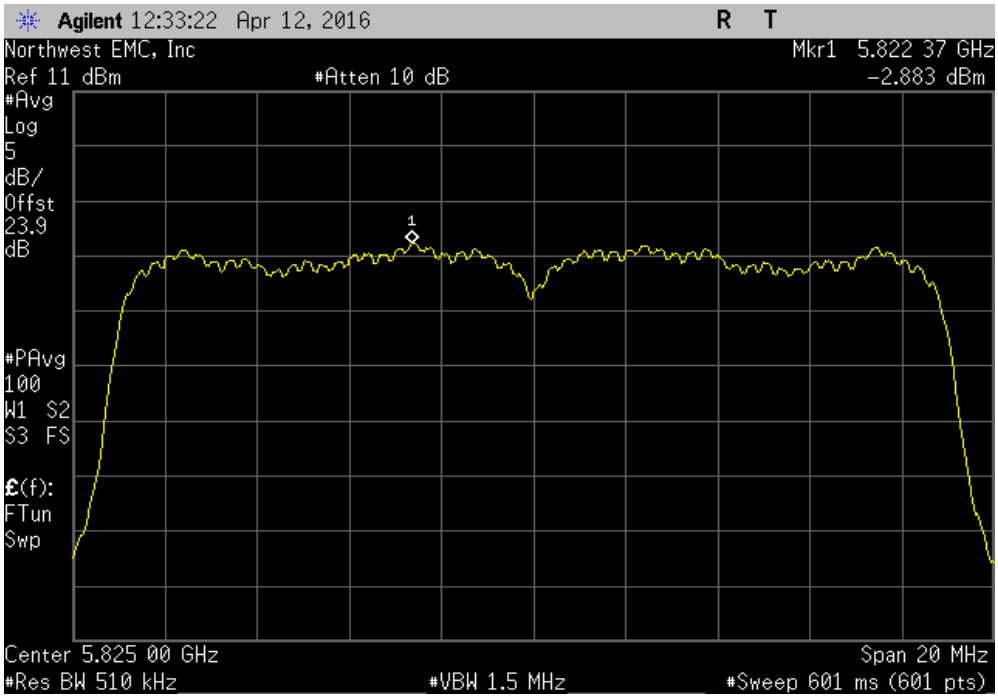
NORTHWEST EMC

XMit 2015.01.14

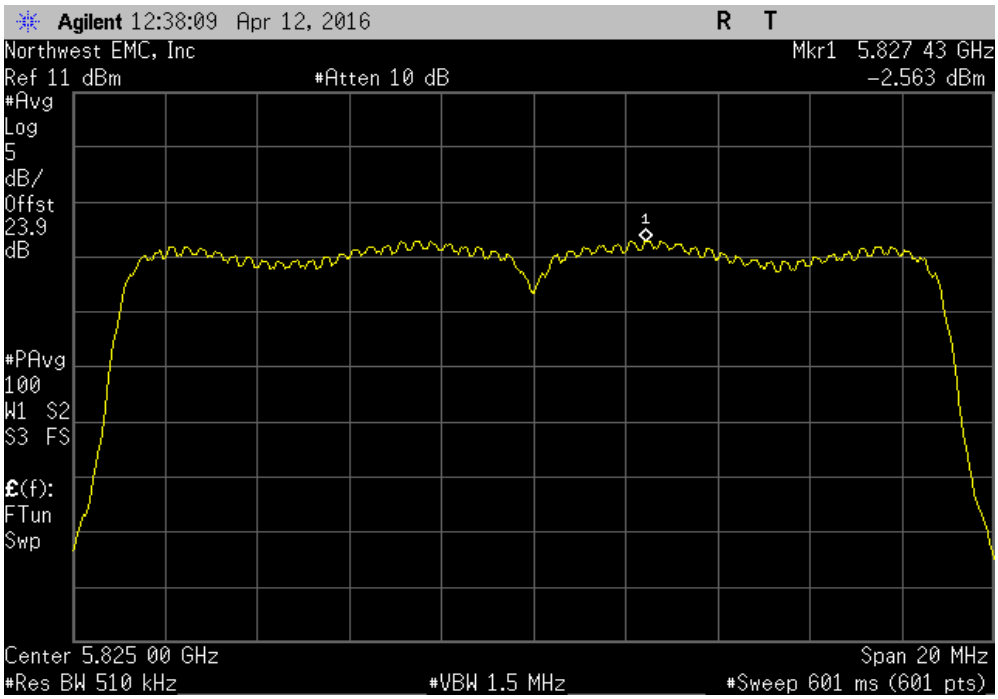
| 2x2 MIMO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.692 | 0.1 | 3.0 | 0.4 | 30 | Pass |



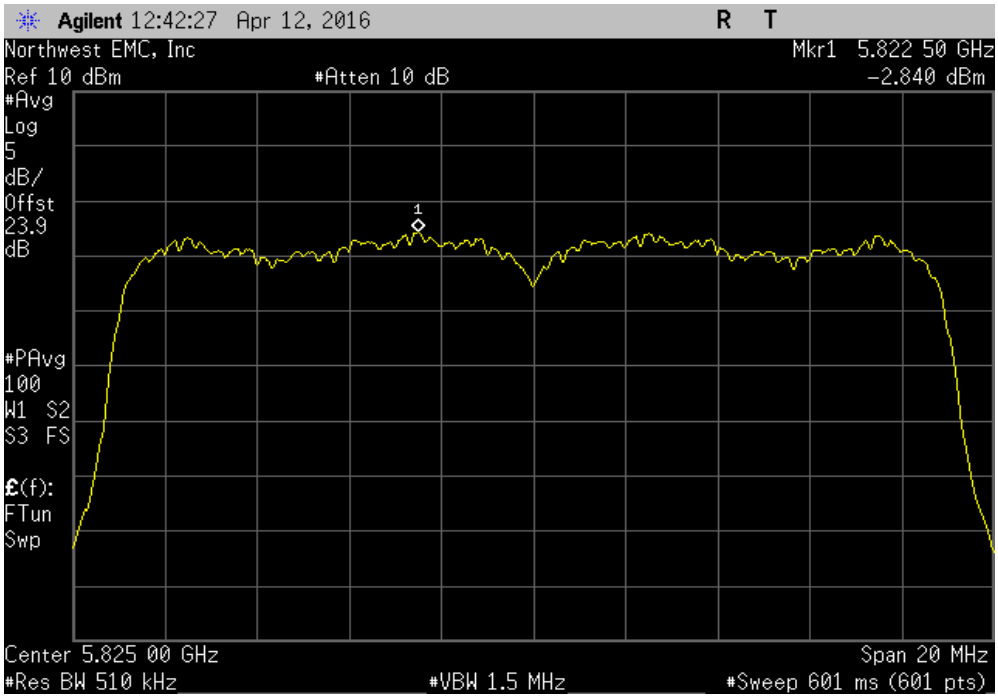

| 2x2 MIMO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.883 | 0.8 | 3.0 | 0.9 | 30 | Pass |



| 2x2 MIMO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.563 | 0.1 | 3.0 | 0.5 | 30 | Pass |




| 2x2 MIMO, Chain B, 20MHz BW, High Channel, Ch 165 - 5825 MHz, 802.11(ac) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -2.84 | 0.7 | 3.0 | 0.9 | 30 | Pass |

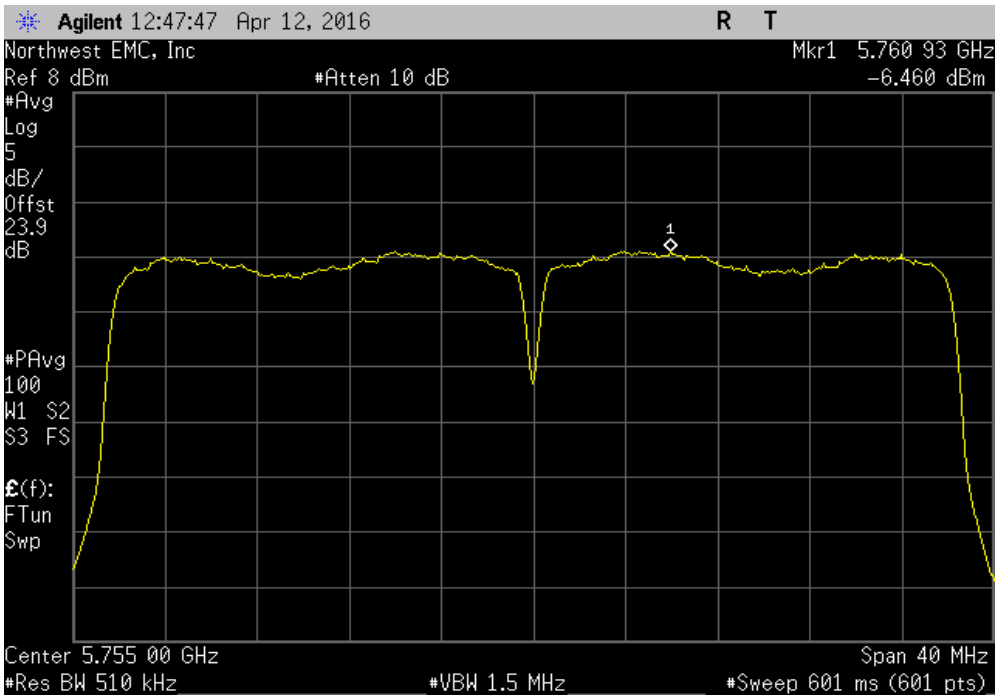


# MAXIMUM POWER SPECTRAL DENSITY

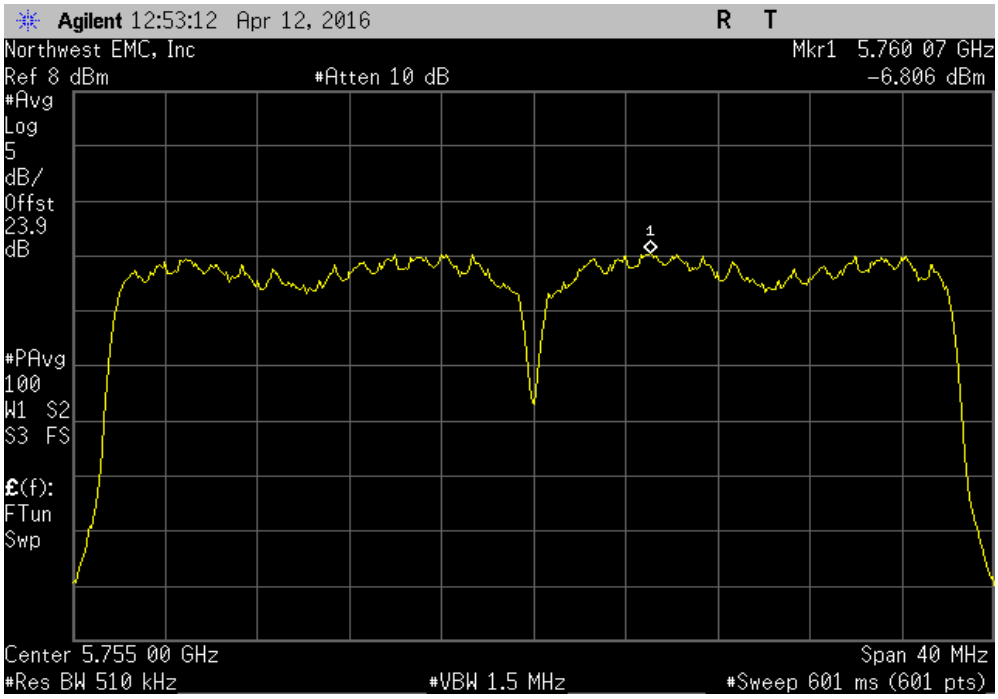
NORTHWEST EMC

XMit 2015.01.14

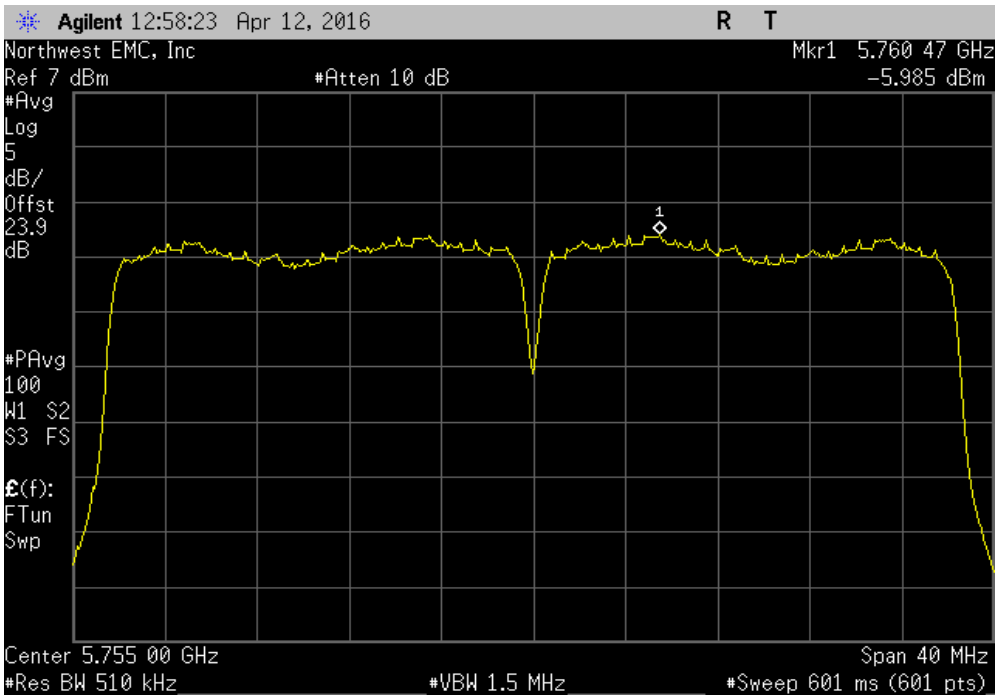
| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.46 | 0.3 | 3.0 | -3.1 | 30 | Pass |



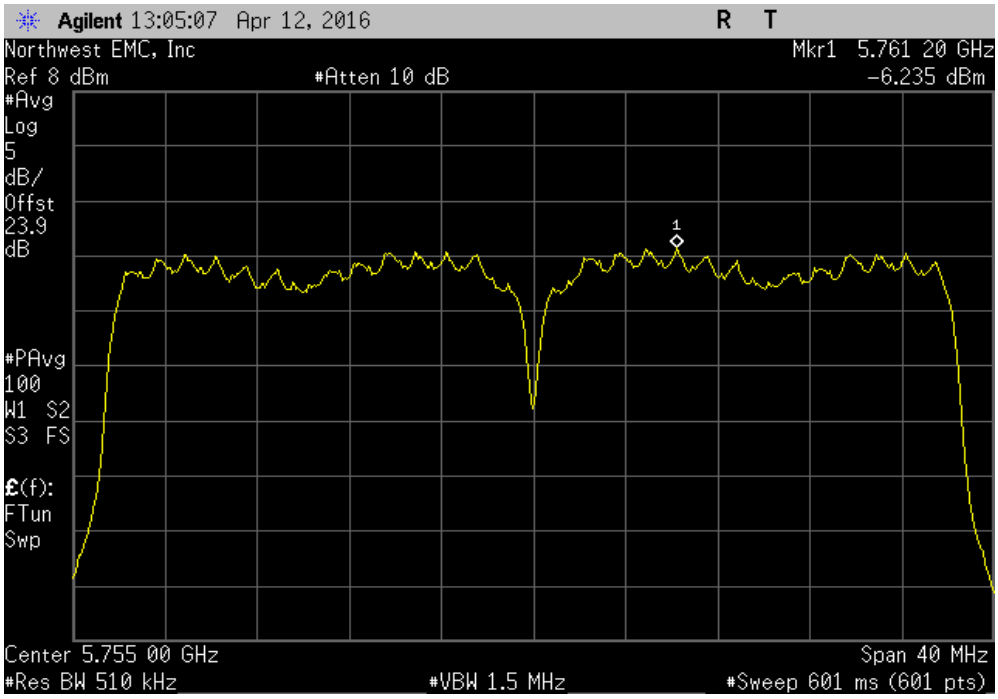

| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.806 | 2.4 | 3.0 | -1.4 | 30 | Pass |



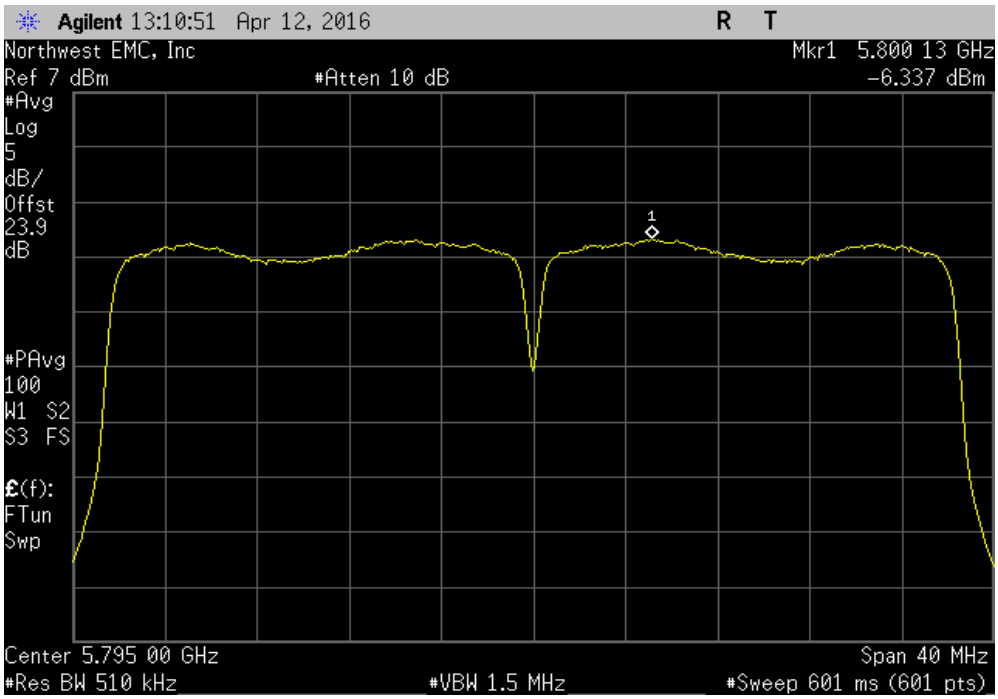
| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -5.985 | 0.3 | 3.0 | -2.7 | 30 | Pass |



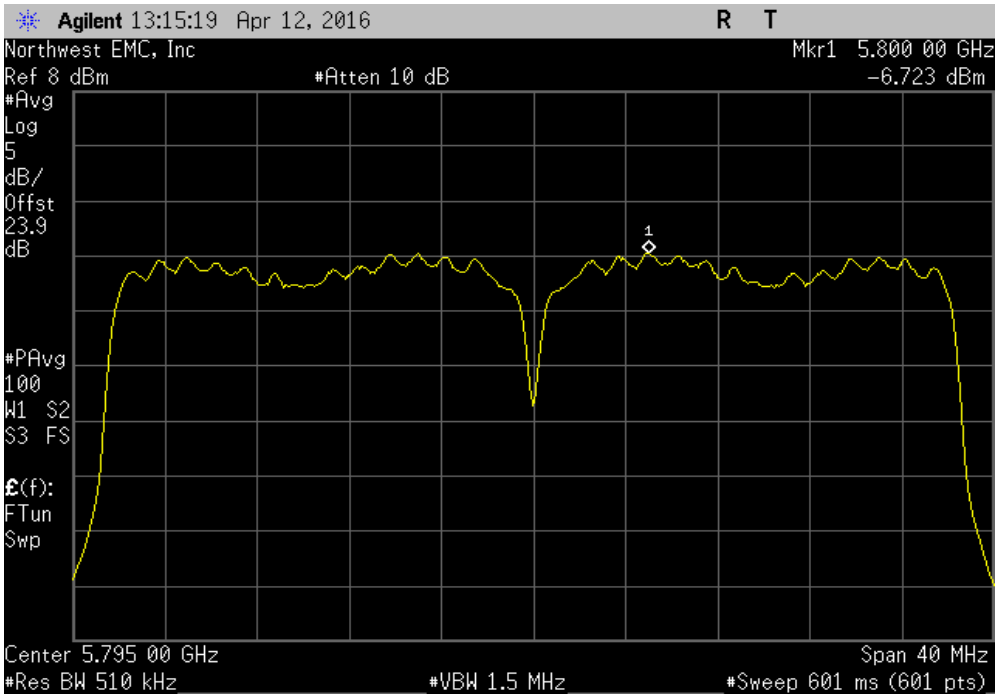

| 2x2 MIMO, Chain B, 40MHz BW, Low Channel, Ch 149/153 - 5755 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.235 | 1.1 | 3.0 | -2.1 | 30 | Pass |



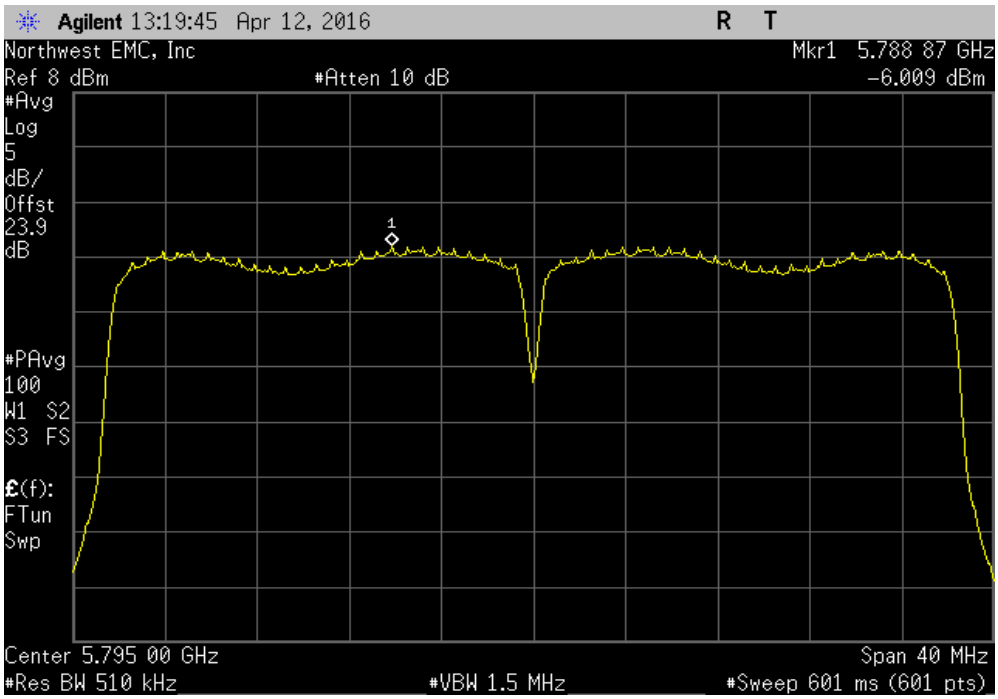
| 2x2 MIMO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS8 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.337 | 0.3 | 3.0 | -3.0 | 30 | Pass |



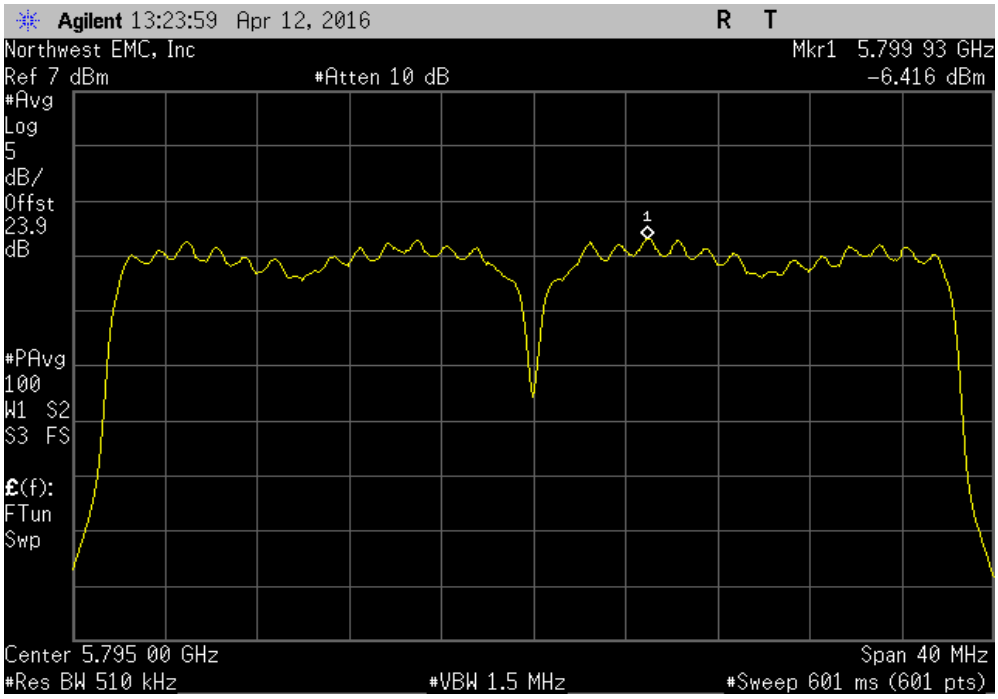

| 2x2 MIMO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(n) MCS15 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.723 | 2.4 | 3.0 | -1.3 | 30 | Pass |



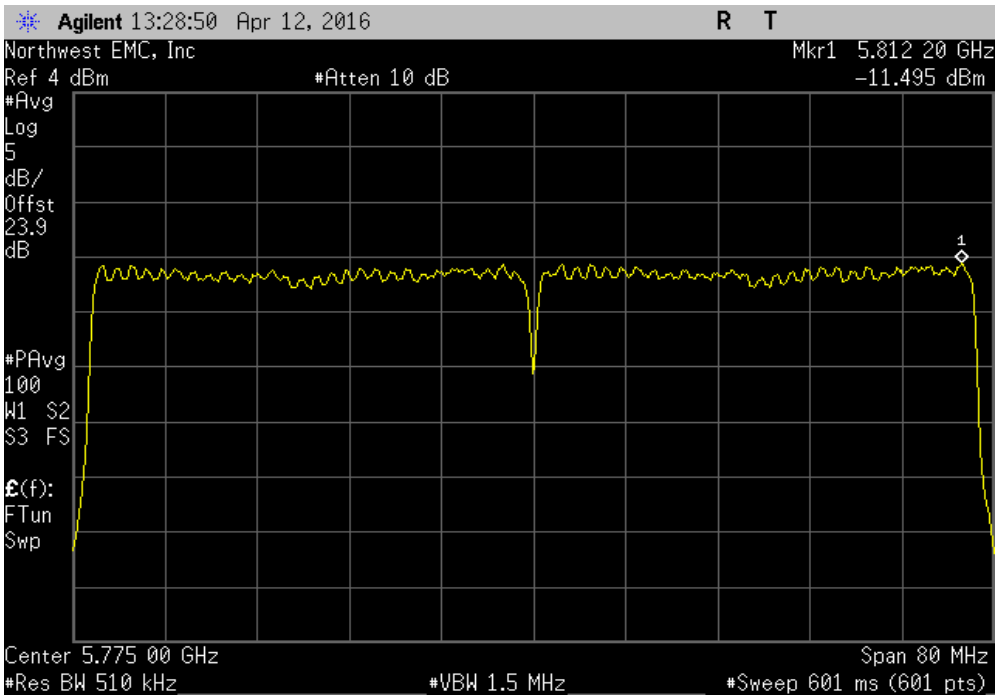
| 2x2 MIMO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.009 | 0.3 | 3.0 | -2.7 | 30 | Pass |




| 2x2 MIMO, Chain B, 40MHz BW, High Channel, Ch 157/161 - 5795 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -6.416 | 2.5 | 3.0 | -0.9 | 30 | Pass |



| 2x2 MIMO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS0 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -11.495 | 0.6 | 3.0 | -7.9 | 30 | Pass |




| 2x2 MIMO, Chain B, 80MHz BW, Mid Channel, Ch 149/161 - 5775 MHz, 802.11(ac) MCS9 | | | | | | |
|---|---|---|---|---|---|---|
| | Power (dBm/Ref BW) | Duty Cycle Factor (dB) | Summing Factor (dB) | Density (dBm/Ref BW) | Limit (dBm / Ref BW | Results |
| | -11.092 | 1.5 | 3.0 | -6.6 | 30 | Pass |