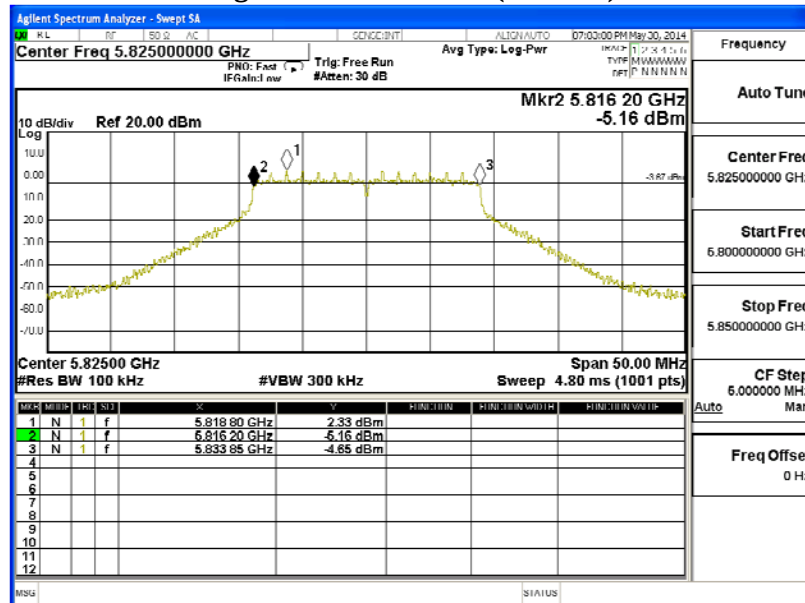


Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW-14.4Mbps) (5825MHz) - Sector Antenna

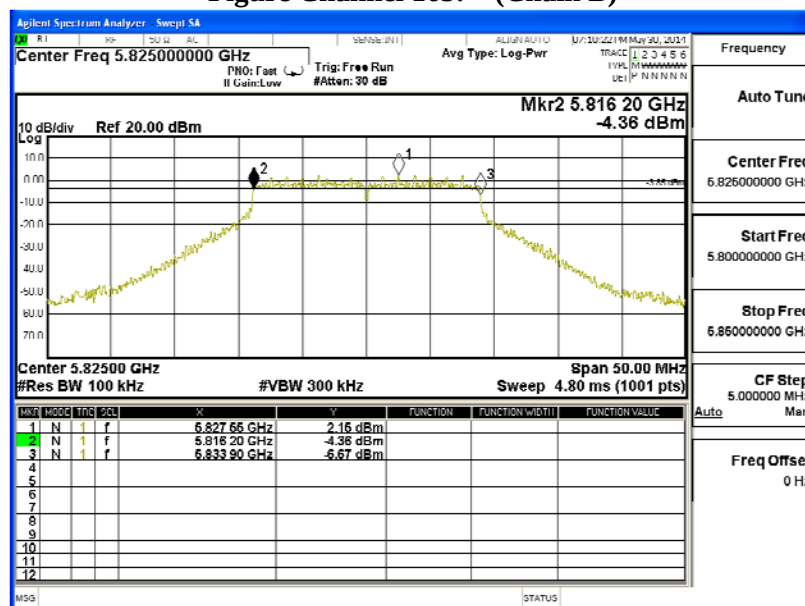
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17650	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17700	>500	Pass

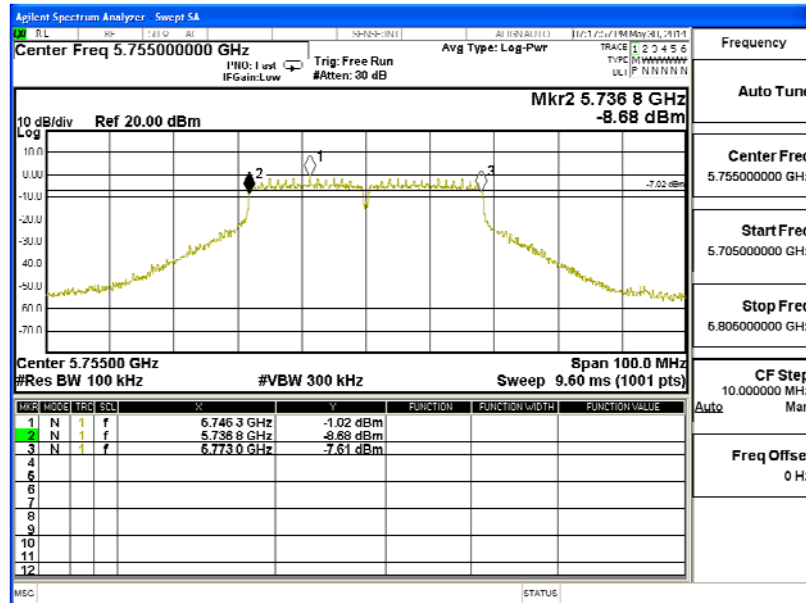
Figure Channel 165: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW-30Mbps) (5755MHz) - Sector Antenna

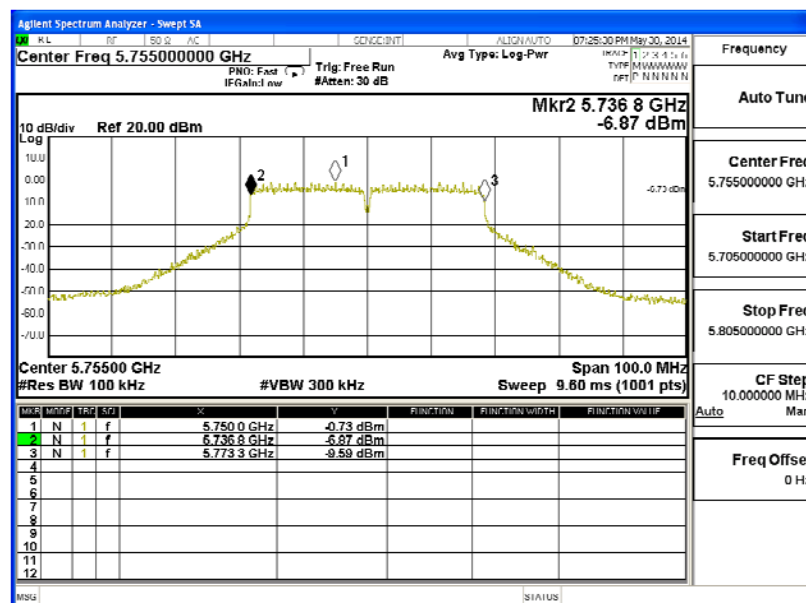
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36200	>500	Pass

Figure Channel 151: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

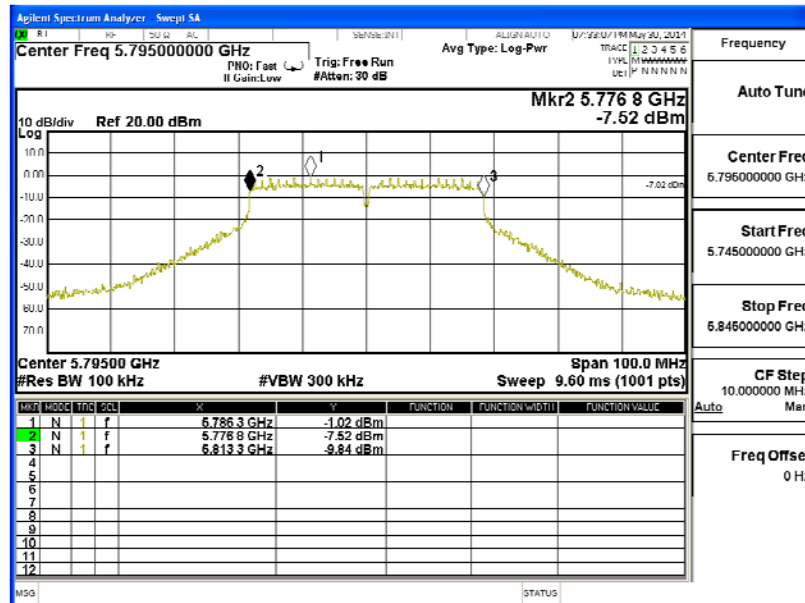
Figure Channel 151: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW-30Mbps) (5795MHz) - Sector Antenna

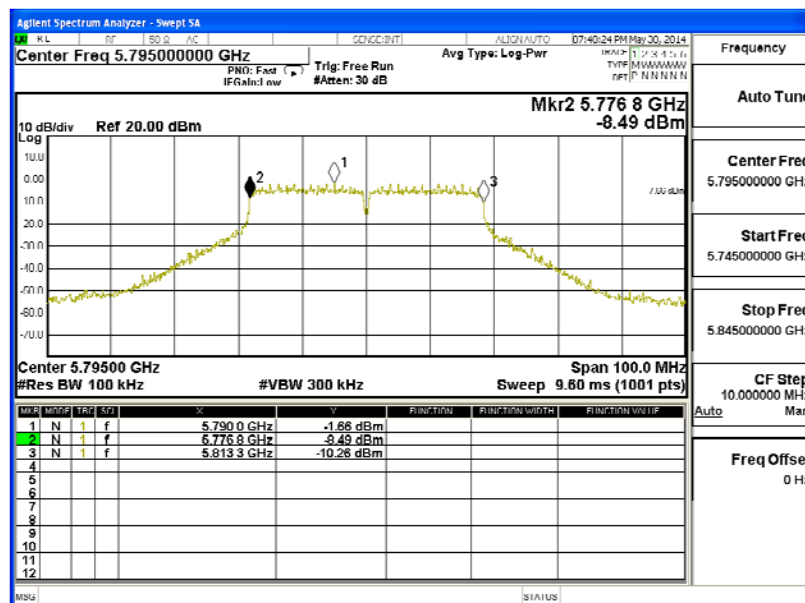
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

Figure Channel 159: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

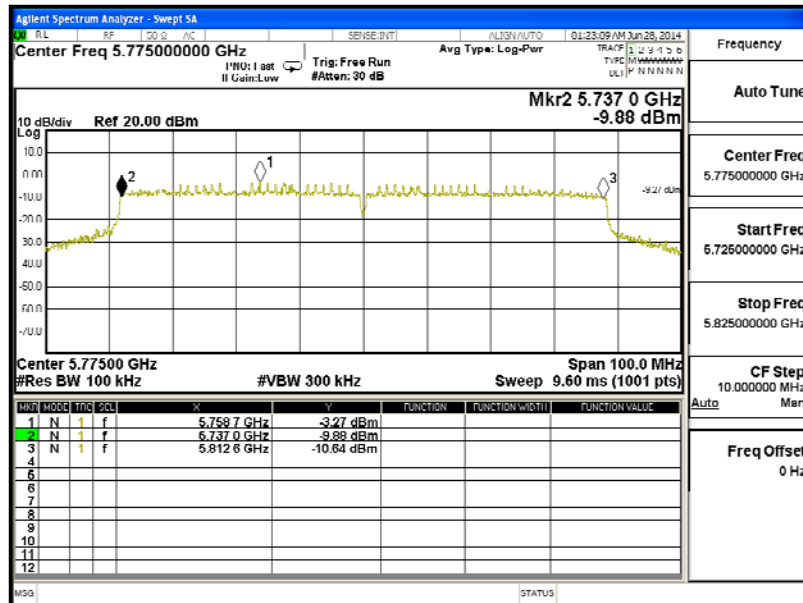
Figure Channel 159: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz) - Sector Antenna

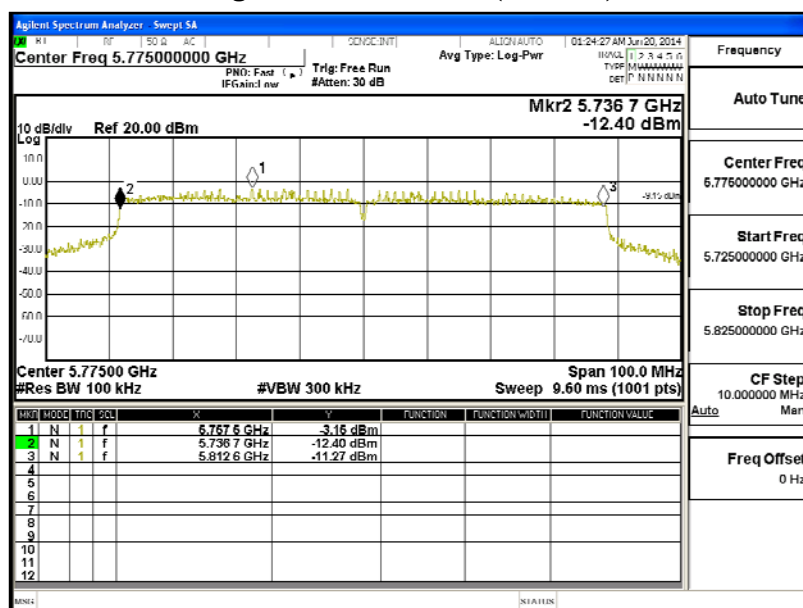
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775.00	76500	>500	Pass

Figure Channel 155: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775.00	75900	>500	Pass

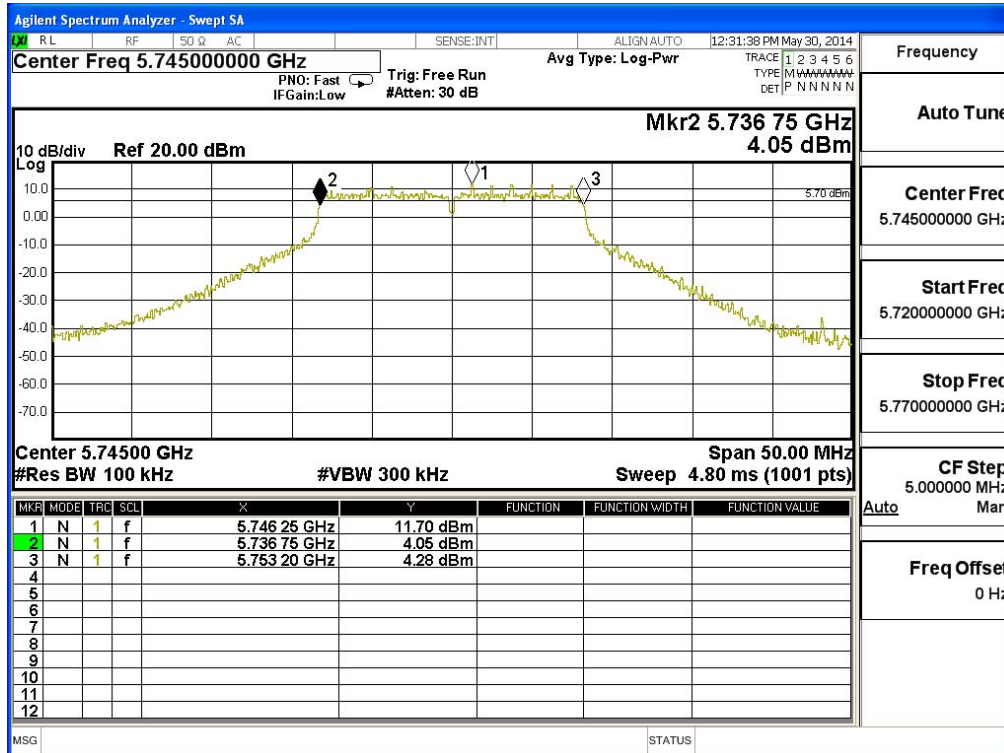
Figure Channel 155: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz) - Omni Antenna

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	16450	>500	Pass

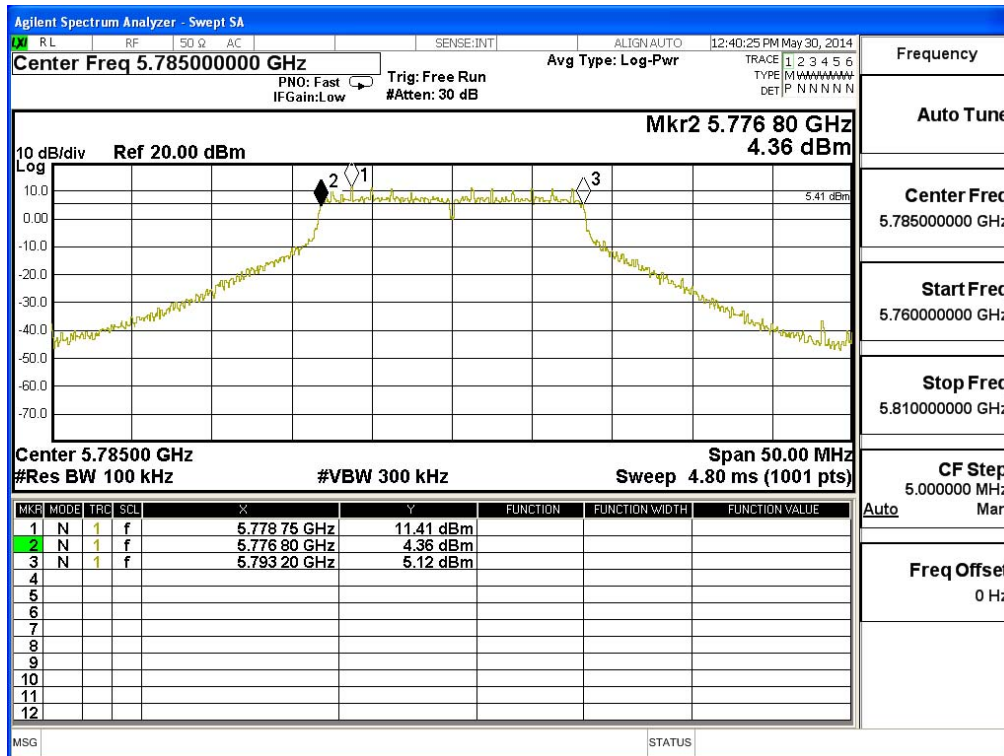
Figure Channel 149:



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz) - Omni Antenna

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	16450	>500	Pass

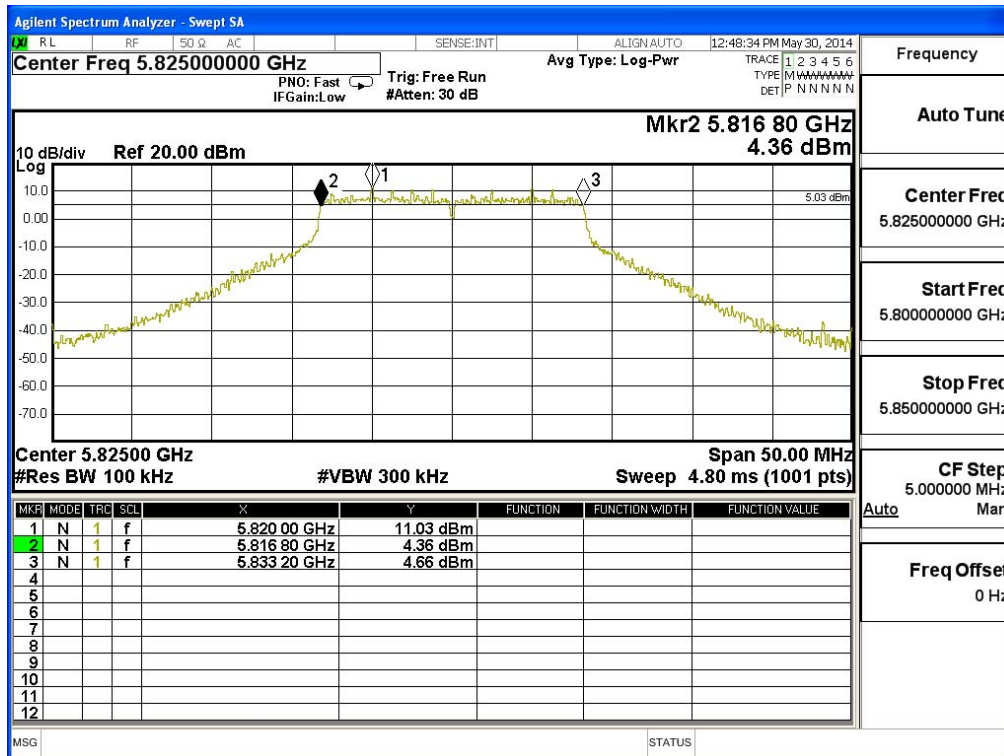
Figure Channel 157:



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz) - Omni Antenna

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	16450	>500	Pass

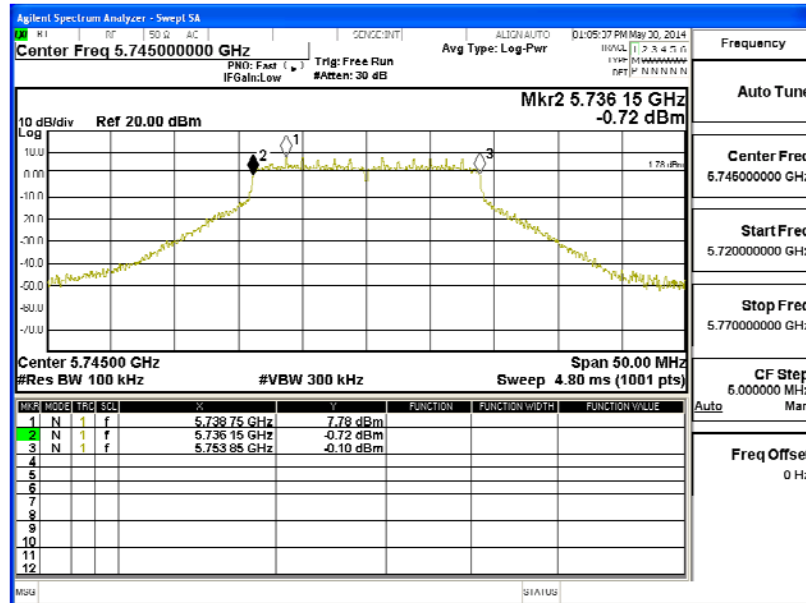
Figure Channel 165:



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW-14.4Mbps) (5745MHz) - Omni Antenna

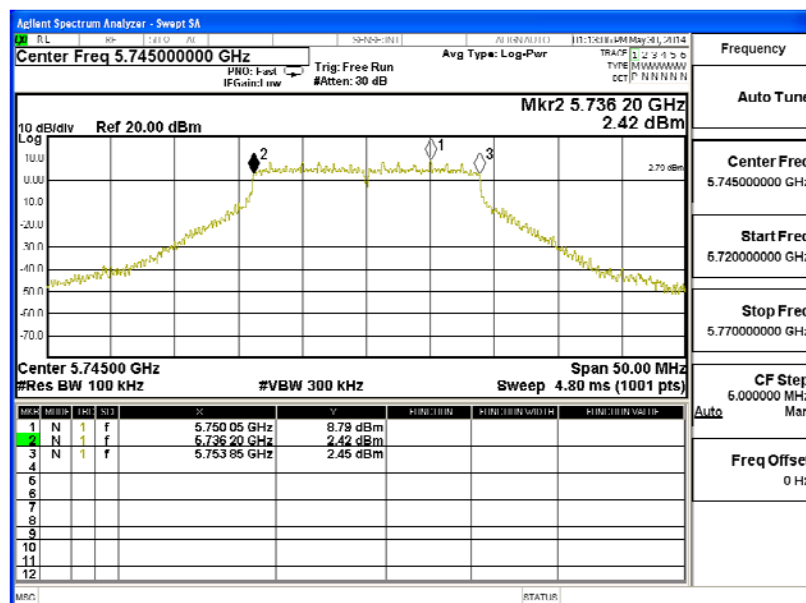
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	17650	>500	Pass

Figure Channel 149: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	17650	>500	Pass

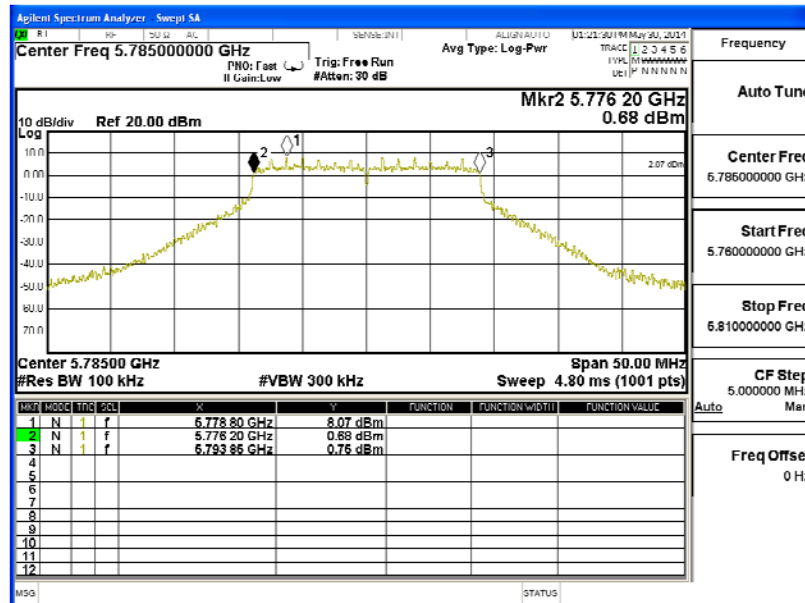
Figure Channel 149: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW-14.4Mbps) (5785MHz) - Omni Antenna

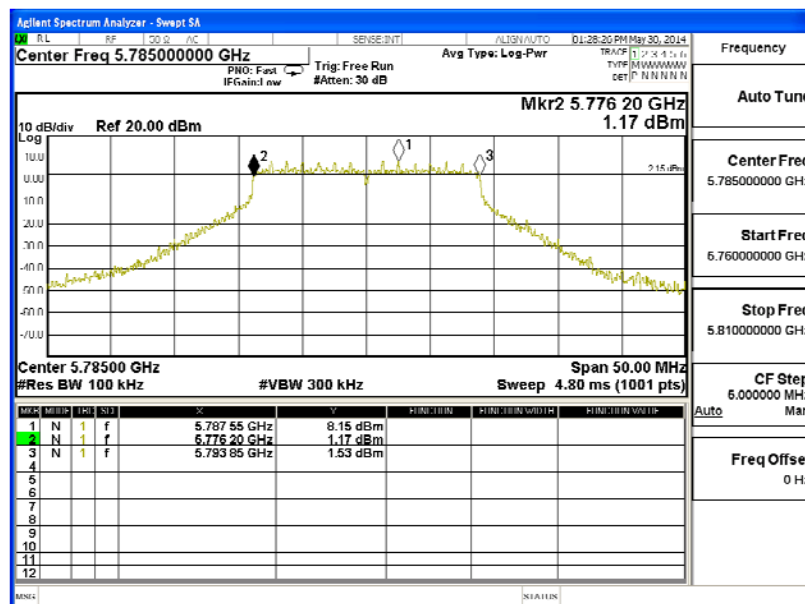
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	17650	>500	Pass

Figure Channel 157: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	17650	>500	Pass

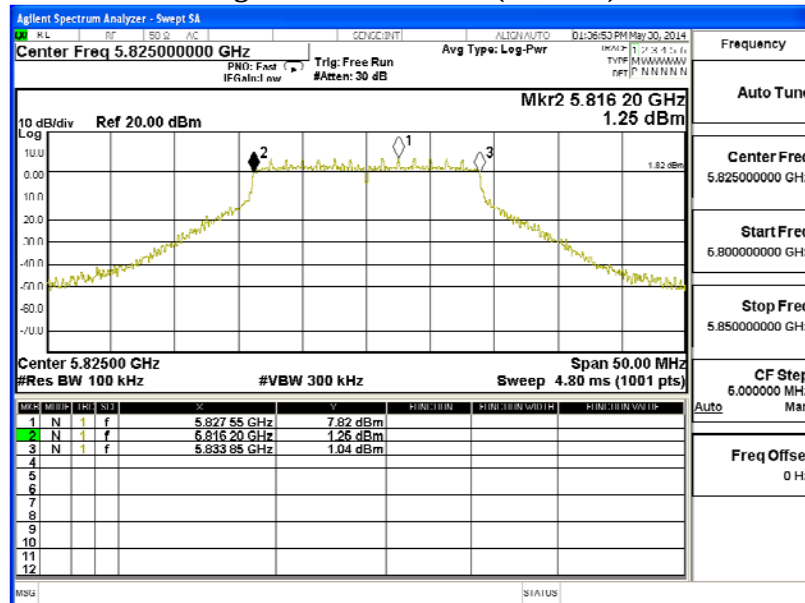
Figure Channel 157: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW-14.4Mbps) (5825MHz) - Omni Antenna

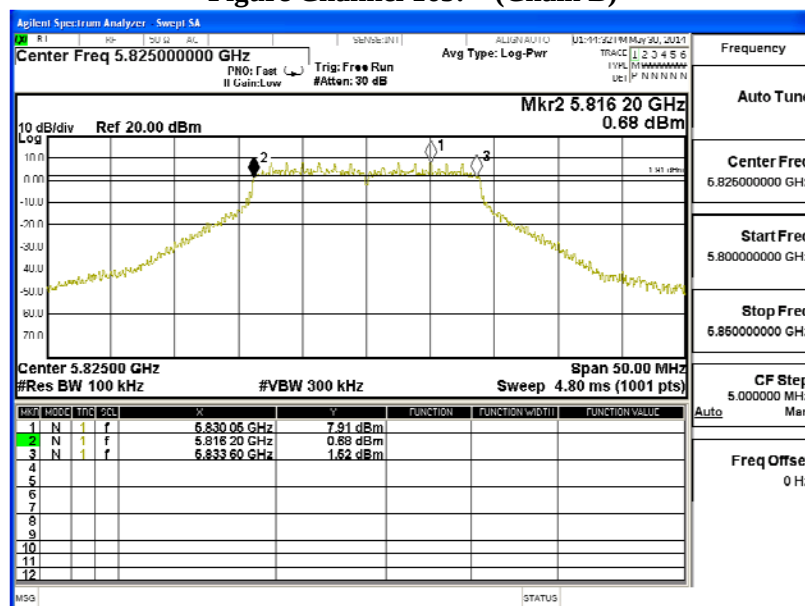
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17650	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17650	>500	Pass

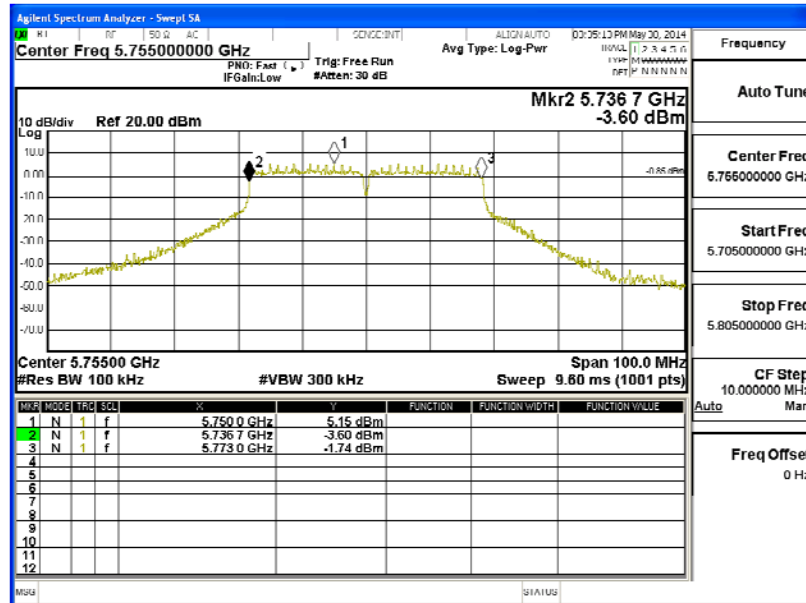
Figure Channel 165: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW-30Mbps) (5755MHz) - Omni Antenna

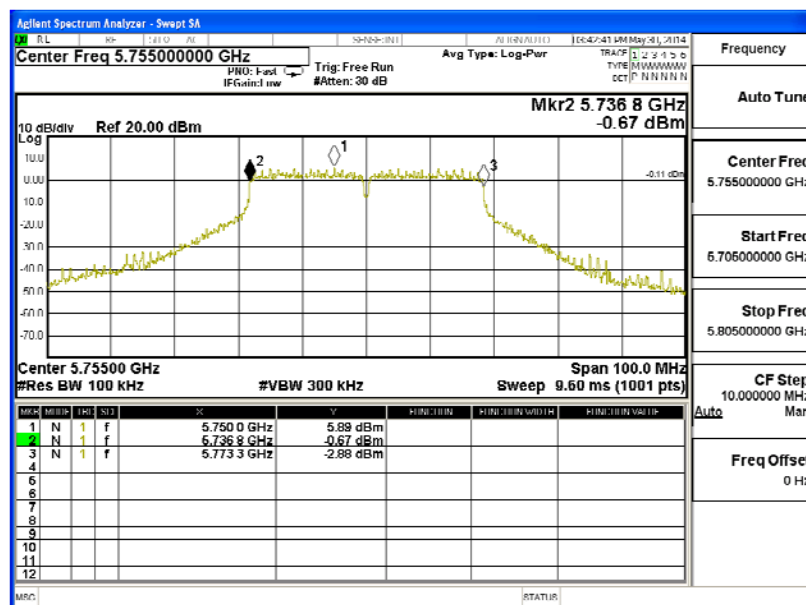
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

Figure Channel 151: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36400	>500	Pass

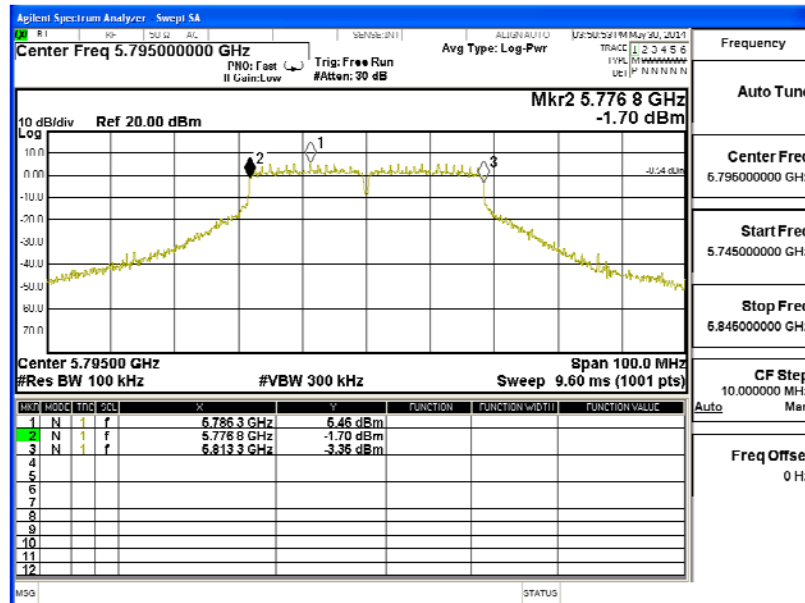
Figure Channel 151: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW-30Mbps) (5795MHz) - Omni Antenna

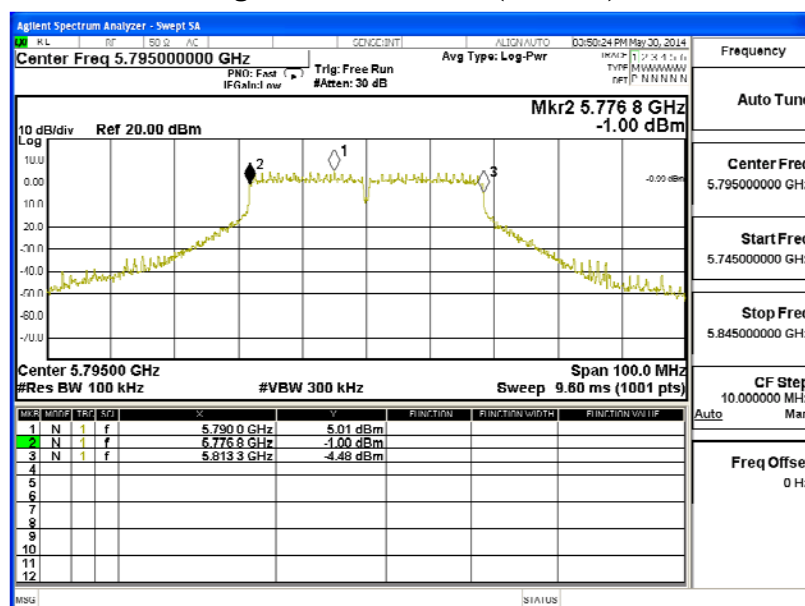
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

Figure Channel 159: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

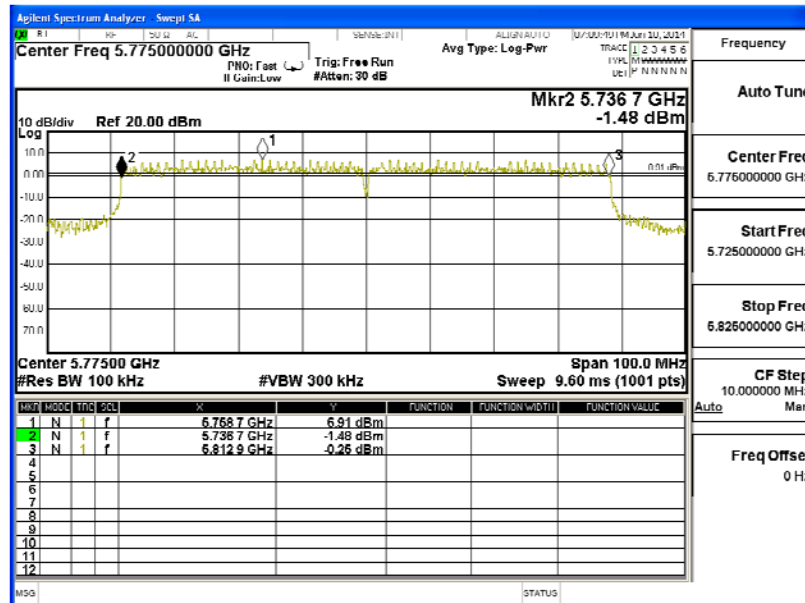
Figure Channel 159: (Chain B)



Product : Access Point
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-80BW-65Mbps) (5775MHz) - Omni Antenna

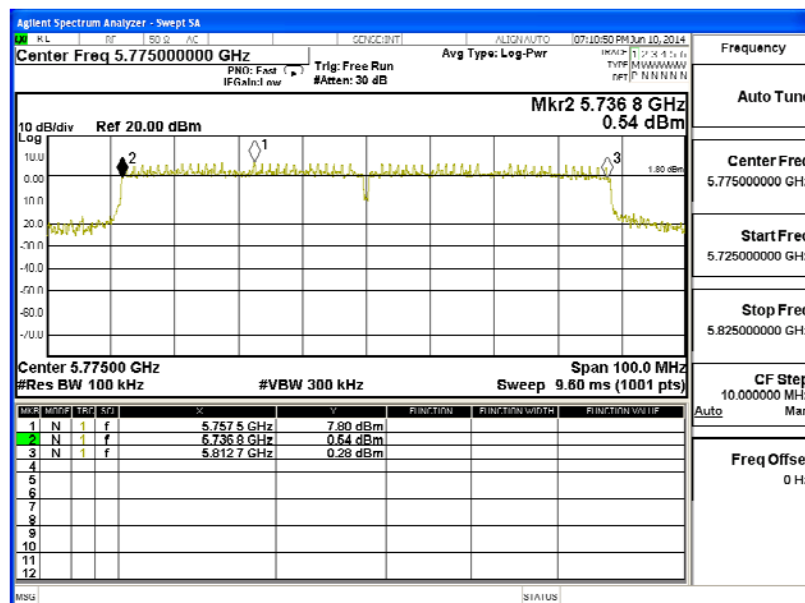
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775.00	75500	>500	Pass

Figure Channel 155: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775.00	74200	>500	Pass

Figure Channel 155: (Chain B)



8. Frequency Stability

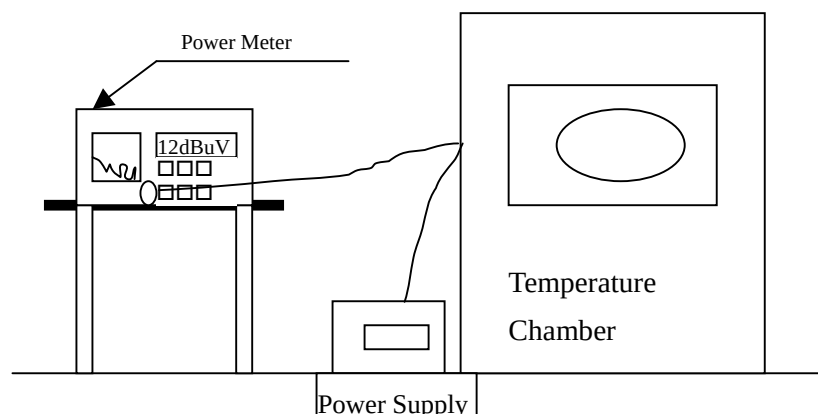
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

8.2. Test Setup



8.3. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

8.4. Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

8.5. Uncertainty

± 150 Hz

8.6. Test Result of Frequency Stability

Product : Access Point
 Test Item : Frequency Stability
 Test Site : Temperature Chamber
 Test Mode : Carrier Wave - Dish Antenna

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) °C	Vnom (120)V	149	5745.0000	5745.0123	-0.0123
		151	5755.0000	5755.0086	-0.0086
		155	5775.0000	5775.0094	-0.0094
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0094	-0.0094
		165	5825.0000	5825.0092	-0.0092
Tmax (50) °C	Vmax (138)V	149	5745.0000	5745.0110	-0.0110
		151	5755.0000	5755.0082	-0.0082
		155	5775.0000	5775.0101	-0.0101
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0089	-0.0089
		165	5825.0000	5825.0088	-0.0088
Tmax (50) °C	Vmin (102)V	149	5745.0000	5745.0110	-0.0110
		151	5755.0000	5755.0082	-0.0082
		155	5775.0000	5775.0101	-0.0101
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0089	-0.0089
		165	5825.0000	5825.0088	-0.0088
Tmin (0) °C	Vmax (138)V	149	5745.0000	5745.0109	-0.0109
		151	5755.0000	5755.0092	-0.0092
		155	5775.0000	5775.0085	-0.0085
		157	5785.0000	5785.0089	-0.0089
		159	5795.0000	5795.0083	-0.0083
		165	5825.0000	5825.0081	-0.0081
Tmin (0) °C	Vmin (102)V	149	5745.0000	5745.0109	-0.0109
		151	5755.0000	5755.0092	-0.0092
		155	5775.0000	5775.0085	-0.0085
		157	5785.0000	5785.0089	-0.0089
		159	5795.0000	5795.0083	-0.0083
		165	5825.0000	5825.0081	-0.0081

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) °C	Vnom (120)V	149	5745.0000	5745.0099	-0.0099
		151	5755.0000	5755.0103	-0.0103
		155	5775.0000	5775.0089	-0.0089
		157	5785.0000	5785.0103	-0.0103
		159	5795.0000	5795.0094	-0.0094
		165	5825.0000	5825.0086	-0.0086
Tmax (50) °C	Vmax (138)V	149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0101	-0.0101
		155	5775.0000	5775.0093	-0.0093
		157	5785.0000	5785.0099	-0.0099
		159	5795.0000	5795.0090	-0.0090
		165	5825.0000	5825.0091	-0.0091
Tmax (50) °C	Vmin (102)V	149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0101	-0.0101
		155	5775.0000	5775.0093	-0.0093
		157	5785.0000	5785.0099	-0.0099
		159	5795.0000	5795.0090	-0.0090
		165	5825.0000	5825.0091	-0.0091
Tmin (0) °C	Vmax (138)V	149	5745.0000	5745.0094	-0.0094
		151	5755.0000	5755.0097	-0.0097
		155	5775.0000	5775.0076	-0.0076
		157	5785.0000	5785.0091	-0.0091
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0083	-0.0083
Tmin (0) °C	Vmin (102)V	149	5745.0000	5745.0094	-0.0094
		151	5755.0000	5755.0097	-0.0097
		155	5775.0000	5775.0076	-0.0076
		157	5785.0000	5785.0091	-0.0091
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0083	-0.0083

Product : Access Point
 Test Item : Frequency Stability
 Test Site : Temperature Chamber
 Test Mode : Carrier Wave - Sector Antenna

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) °C	Vnom (120)V	149	5745.0000	5745.0123	-0.0123
		151	5755.0000	5755.0086	-0.0086
		155	5775.0000	5775.0094	-0.0094
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0094	-0.0094
		165	5825.0000	5825.0092	-0.0092
Tmax (50) °C	Vmax (138)V	149	5745.0000	5745.0110	-0.0110
		151	5755.0000	5755.0082	-0.0082
		155	5775.0000	5775.0101	-0.0101
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0089	-0.0089
		165	5825.0000	5825.0088	-0.0088
Tmax (50) °C	Vmin (102)V	149	5745.0000	5745.0110	-0.0110
		151	5755.0000	5755.0082	-0.0082
		155	5775.0000	5775.0101	-0.0101
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0089	-0.0089
		165	5825.0000	5825.0088	-0.0088
Tmin (0) °C	Vmax (138)V	149	5745.0000	5745.0109	-0.0109
		151	5755.0000	5755.0092	-0.0092
		155	5775.0000	5775.0085	-0.0085
		157	5785.0000	5785.0089	-0.0089
		159	5795.0000	5795.0083	-0.0083
		165	5825.0000	5825.0081	-0.0081
Tmin (0) °C	Vmin (102)V	149	5745.0000	5745.0109	-0.0109
		151	5755.0000	5755.0092	-0.0092
		155	5775.0000	5775.0085	-0.0085
		157	5785.0000	5785.0089	-0.0089
		159	5795.0000	5795.0083	-0.0083
		165	5825.0000	5825.0081	-0.0081

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) °C	Vnom (120)V	149	5745.0000	5745.0099	-0.0099
		151	5755.0000	5755.0103	-0.0103
		155	5775.0000	5775.0089	-0.0089
		157	5785.0000	5785.0103	-0.0103
		159	5795.0000	5795.0094	-0.0094
		165	5825.0000	5825.0086	-0.0086
Tmax (50) °C	Vmax (138)V	149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0101	-0.0101
		155	5775.0000	5775.0093	-0.0093
		157	5785.0000	5785.0099	-0.0099
		159	5795.0000	5795.0090	-0.0090
		165	5825.0000	5825.0091	-0.0091
Tmax (50) °C	Vmin (102)V	149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0101	-0.0101
		155	5775.0000	5775.0093	-0.0093
		157	5785.0000	5785.0099	-0.0099
		159	5795.0000	5795.0090	-0.0090
		165	5825.0000	5825.0091	-0.0091
Tmin (0) °C	Vmax (138)V	149	5745.0000	5745.0094	-0.0094
		151	5755.0000	5755.0097	-0.0097
		155	5775.0000	5775.0076	-0.0076
		157	5785.0000	5785.0091	-0.0091
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0083	-0.0083
Tmin (0) °C	Vmin (102)V	149	5745.0000	5745.0094	-0.0094
		151	5755.0000	5755.0097	-0.0097
		155	5775.0000	5775.0076	-0.0076
		157	5785.0000	5785.0091	-0.0091
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0083	-0.0083

Product : Access Point
 Test Item : Frequency Stability
 Test Site : Temperature Chamber
 Test Mode : Carrier Wave - Omni Antenna

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) °C	Vnom (120)V	149	5745.0000	5745.0123	-0.0123
		151	5755.0000	5755.0086	-0.0086
		155	5775.0000	5775.0094	-0.0094
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0094	-0.0094
		165	5825.0000	5825.0092	-0.0092
Tmax (50) °C	Vmax (138)V	149	5745.0000	5745.0110	-0.0110
		151	5755.0000	5755.0082	-0.0082
		155	5775.0000	5775.0101	-0.0101
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0089	-0.0089
		165	5825.0000	5825.0088	-0.0088
Tmax (50) °C	Vmin (102)V	149	5745.0000	5745.0110	-0.0110
		151	5755.0000	5755.0082	-0.0082
		155	5775.0000	5775.0101	-0.0101
		157	5785.0000	5785.0096	-0.0096
		159	5795.0000	5795.0089	-0.0089
		165	5825.0000	5825.0088	-0.0088
Tmin (0) °C	Vmax (138)V	149	5745.0000	5745.0109	-0.0109
		151	5755.0000	5755.0092	-0.0092
		155	5775.0000	5775.0085	-0.0085
		157	5785.0000	5785.0089	-0.0089
		159	5795.0000	5795.0083	-0.0083
		165	5825.0000	5825.0081	-0.0081
Tmin (0) °C	Vmin (102)V	149	5745.0000	5745.0109	-0.0109
		151	5755.0000	5755.0092	-0.0092
		155	5775.0000	5775.0085	-0.0085
		157	5785.0000	5785.0089	-0.0089
		159	5795.0000	5795.0083	-0.0083
		165	5825.0000	5825.0081	-0.0081

Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
Tnom (20) °C	Vnom (120)V	149	5745.0000	5745.0099	-0.0099
		151	5755.0000	5755.0103	-0.0103
		155	5775.0000	5775.0089	-0.0089
		157	5785.0000	5785.0103	-0.0103
		159	5795.0000	5795.0094	-0.0094
		165	5825.0000	5825.0086	-0.0086
Tmax (50) °C	Vmax (138)V	149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0101	-0.0101
		155	5775.0000	5775.0093	-0.0093
		157	5785.0000	5785.0099	-0.0099
		159	5795.0000	5795.0090	-0.0090
		165	5825.0000	5825.0091	-0.0091
Tmax (50) °C	Vmin (102)V	149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0101	-0.0101
		155	5775.0000	5775.0093	-0.0093
		157	5785.0000	5785.0099	-0.0099
		159	5795.0000	5795.0090	-0.0090
		165	5825.0000	5825.0091	-0.0091
Tmin (0) °C	Vmax (138)V	149	5745.0000	5745.0094	-0.0094
		151	5755.0000	5755.0097	-0.0097
		155	5775.0000	5775.0076	-0.0076
		157	5785.0000	5785.0091	-0.0091
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0083	-0.0083
Tmin (0) °C	Vmin (102)V	149	5745.0000	5745.0094	-0.0094
		151	5755.0000	5755.0097	-0.0097
		155	5775.0000	5775.0076	-0.0076
		157	5785.0000	5785.0091	-0.0091
		159	5795.0000	5795.0084	-0.0084
		165	5825.0000	5825.0083	-0.0083

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.