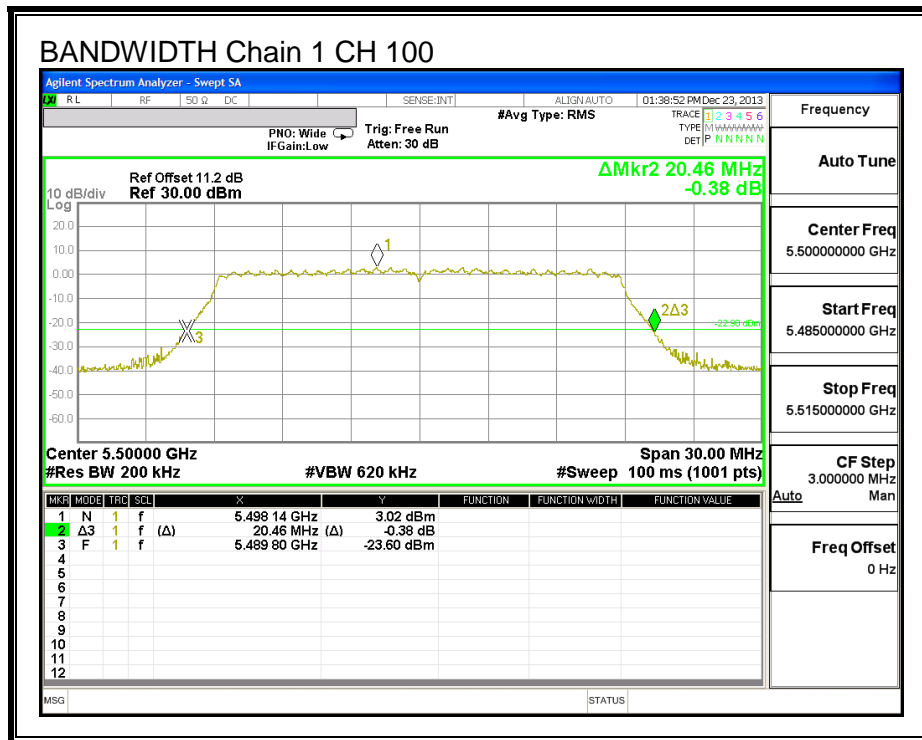
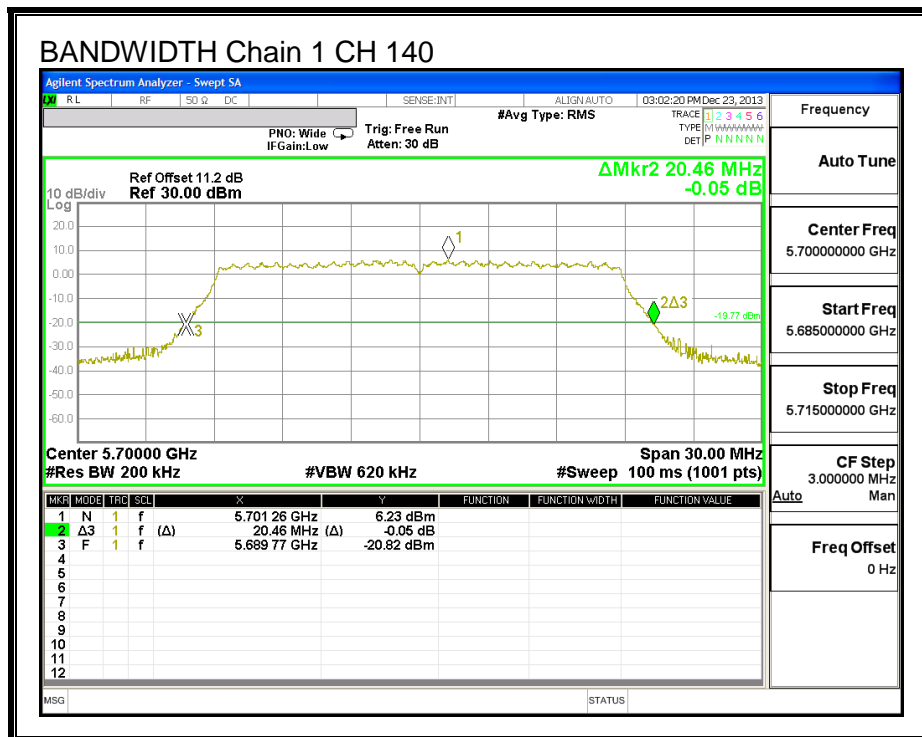
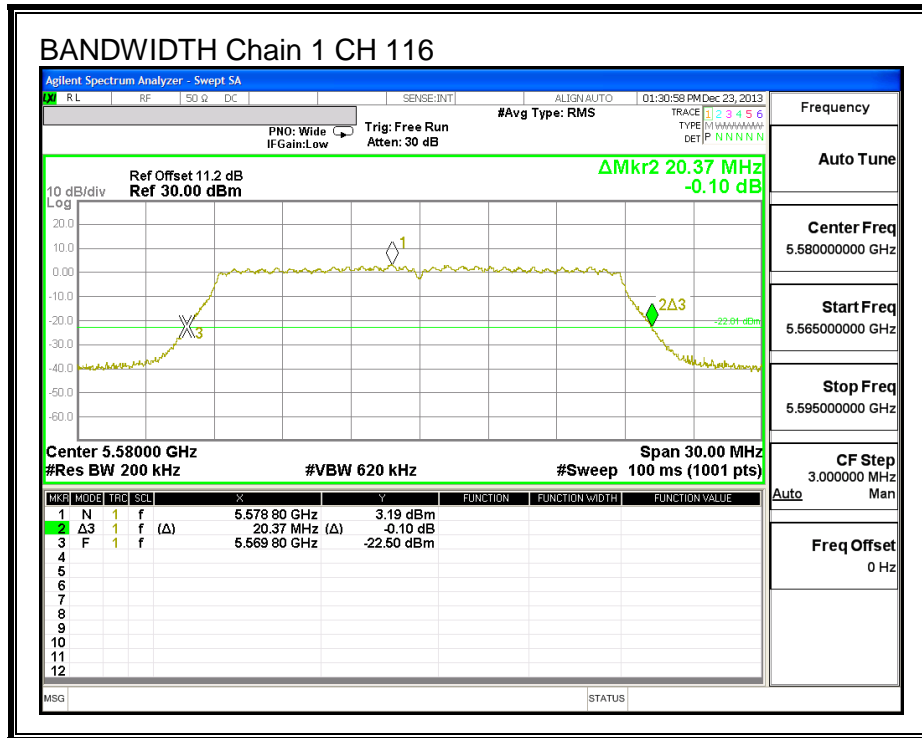
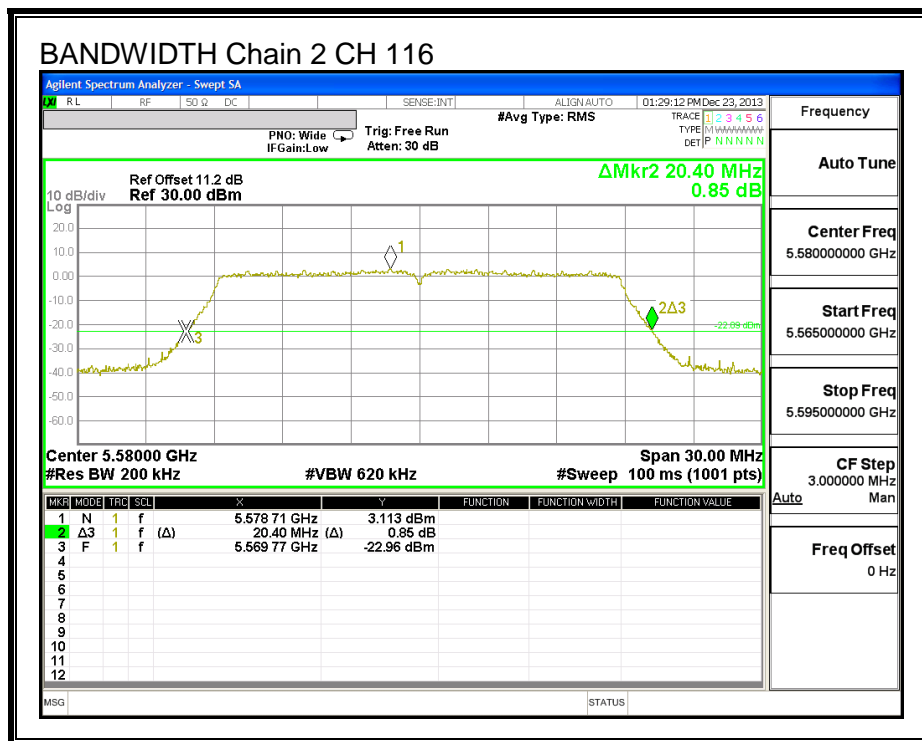
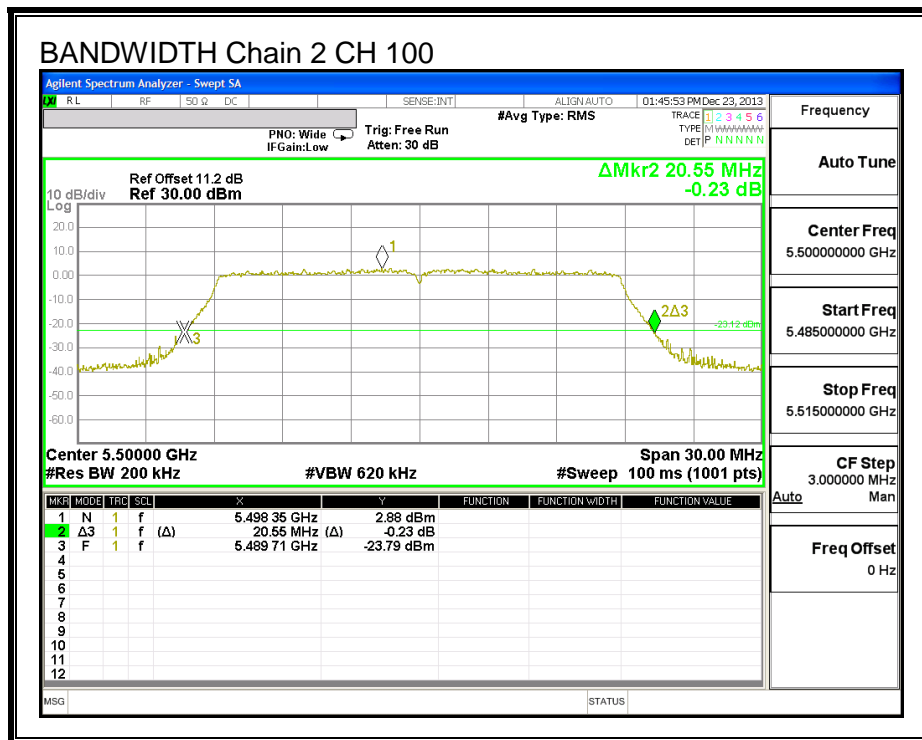


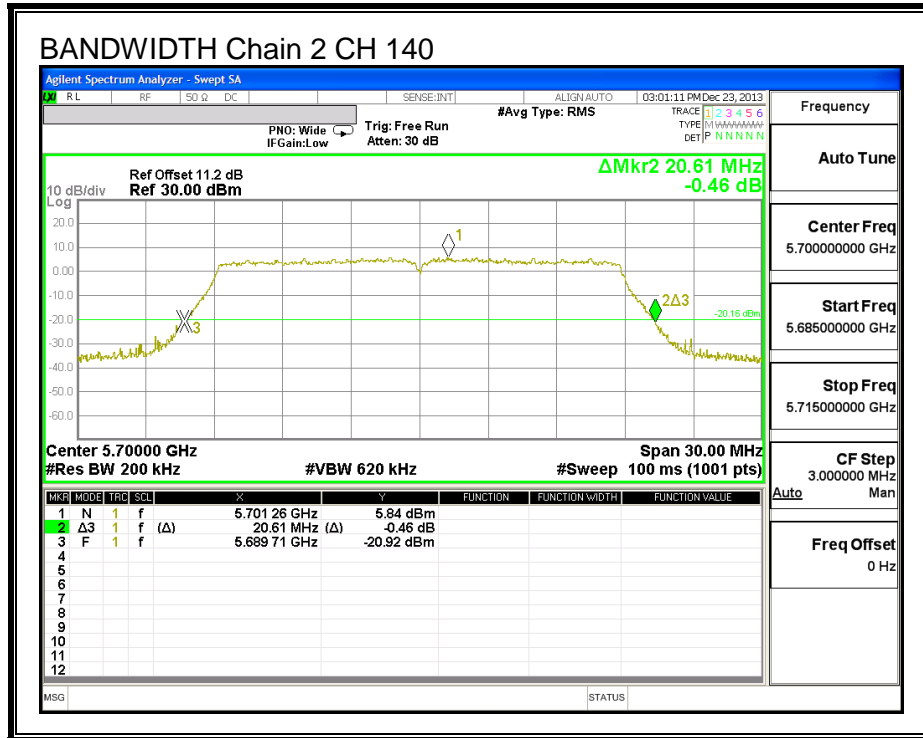
**26 dB BANDWIDTH, Chain 1**





**26 dB BANDWIDTH, Chain 2**





**8.24.2. 99% BANDWIDTH**

**LIMITS**

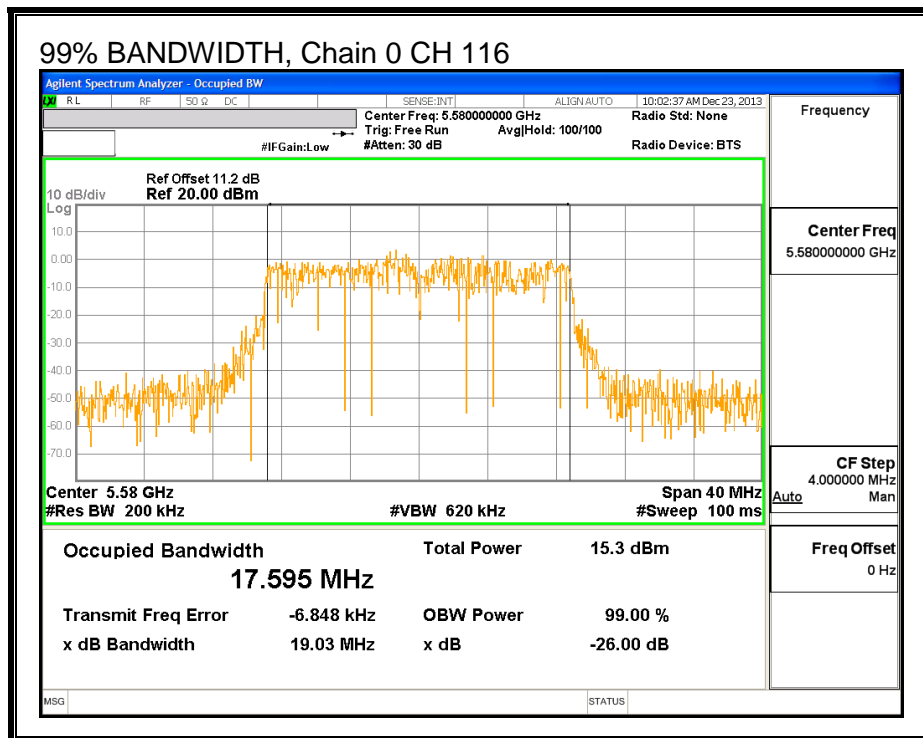
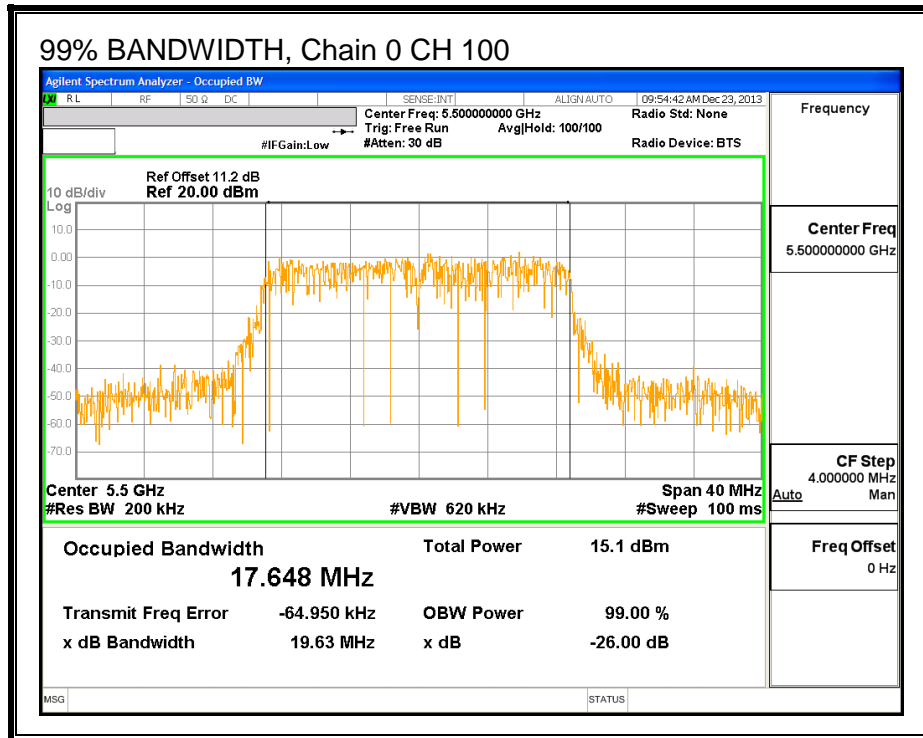
None; for reporting purposes only.

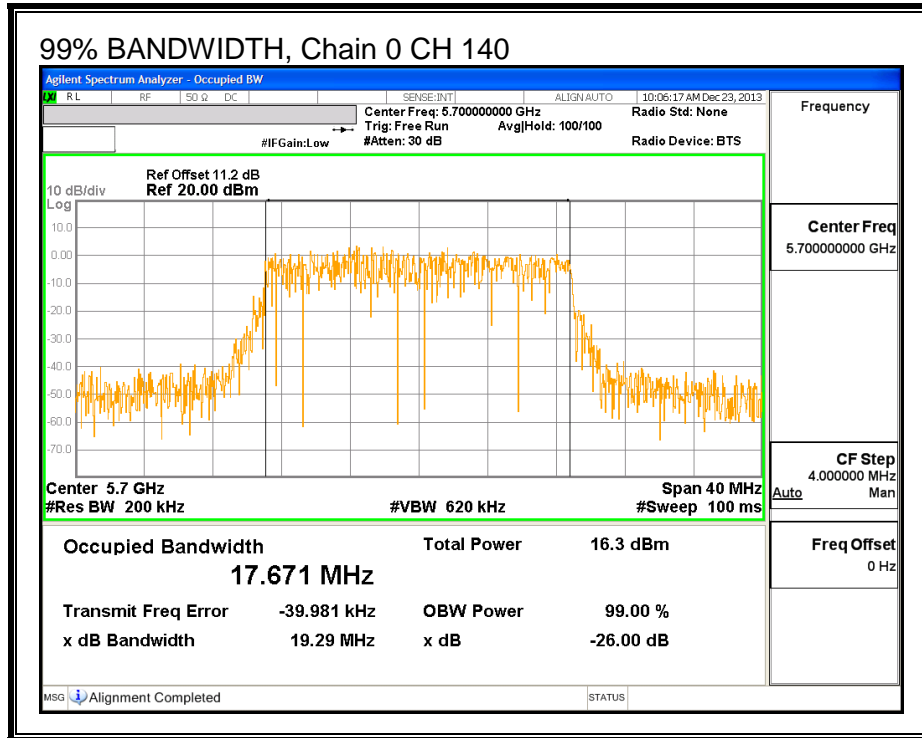
**RESULTS**

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
100	5500	17.648	17.589	17.657
116	5580	17.595	17.665	17.671
140	5700	17.671	17.724	17.705

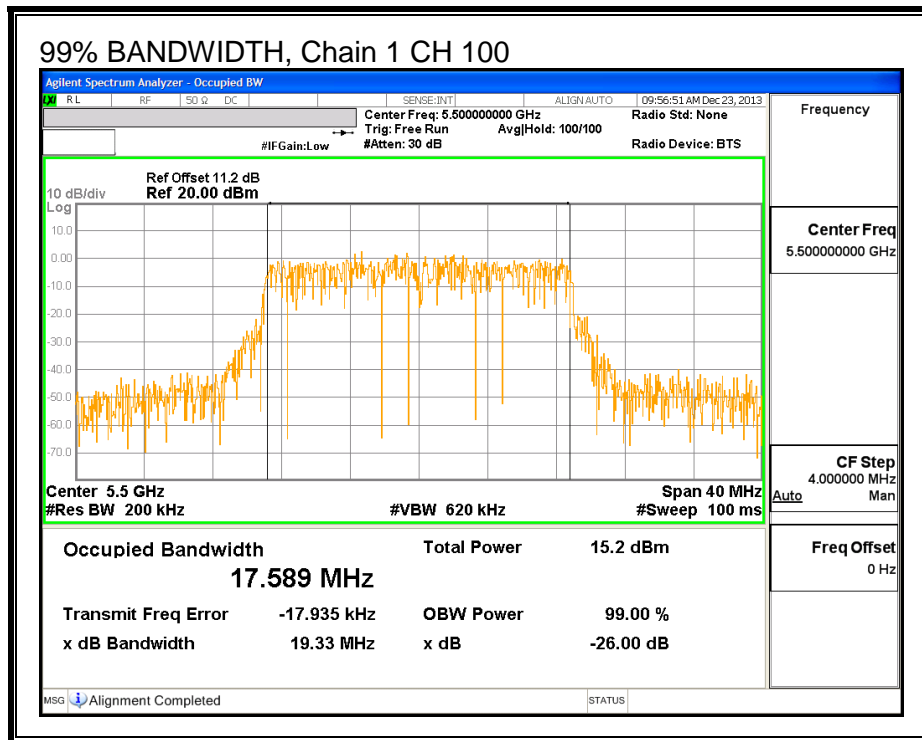
**99% BANDWIDTH**

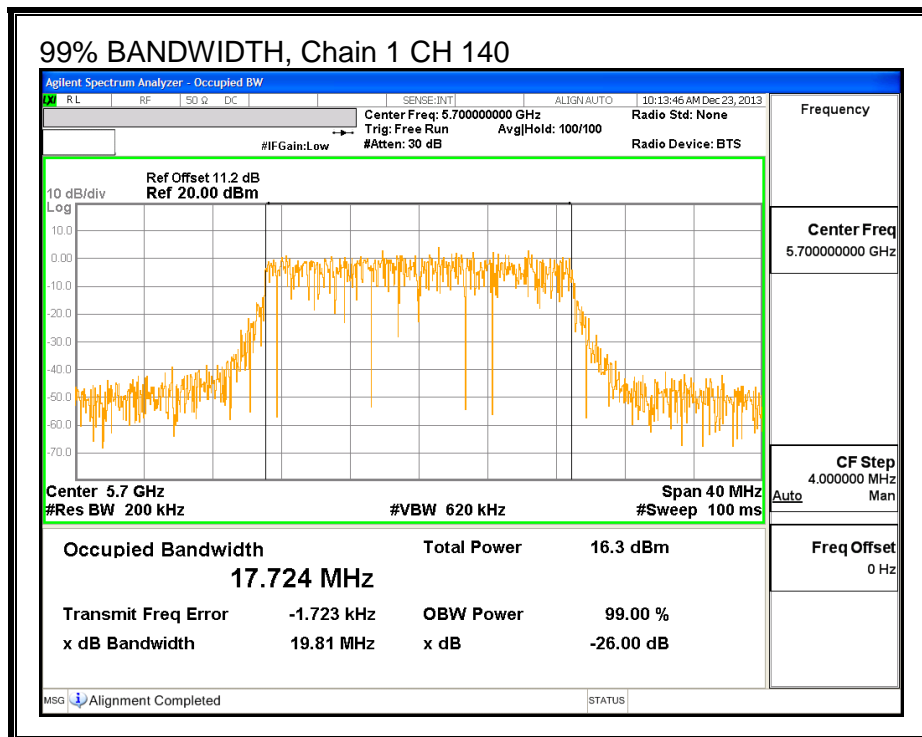
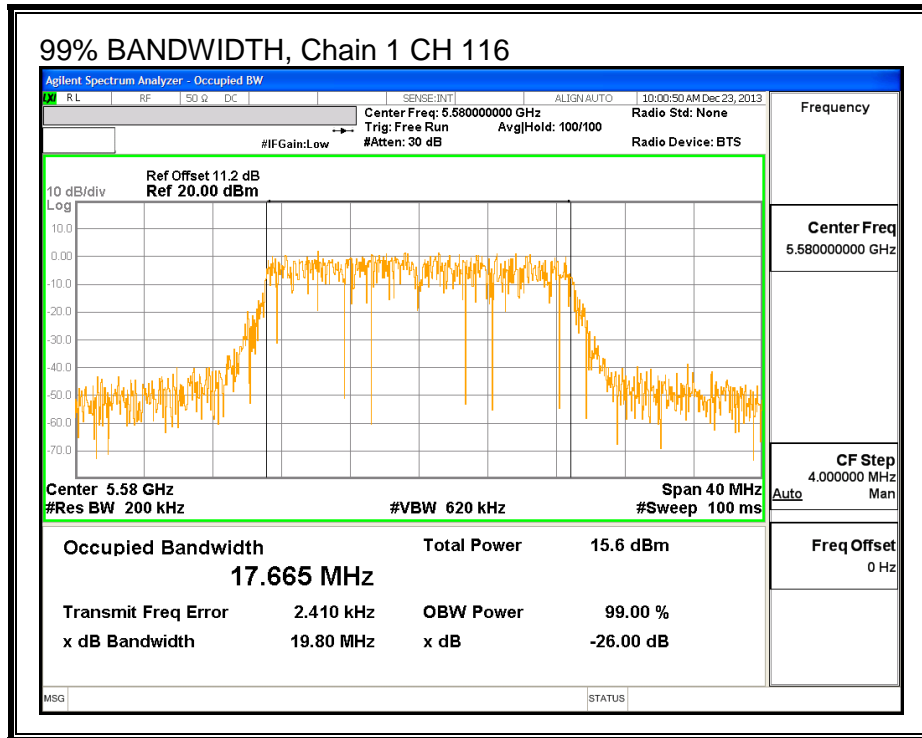
**99% BANDWIDTH, Chain 0**





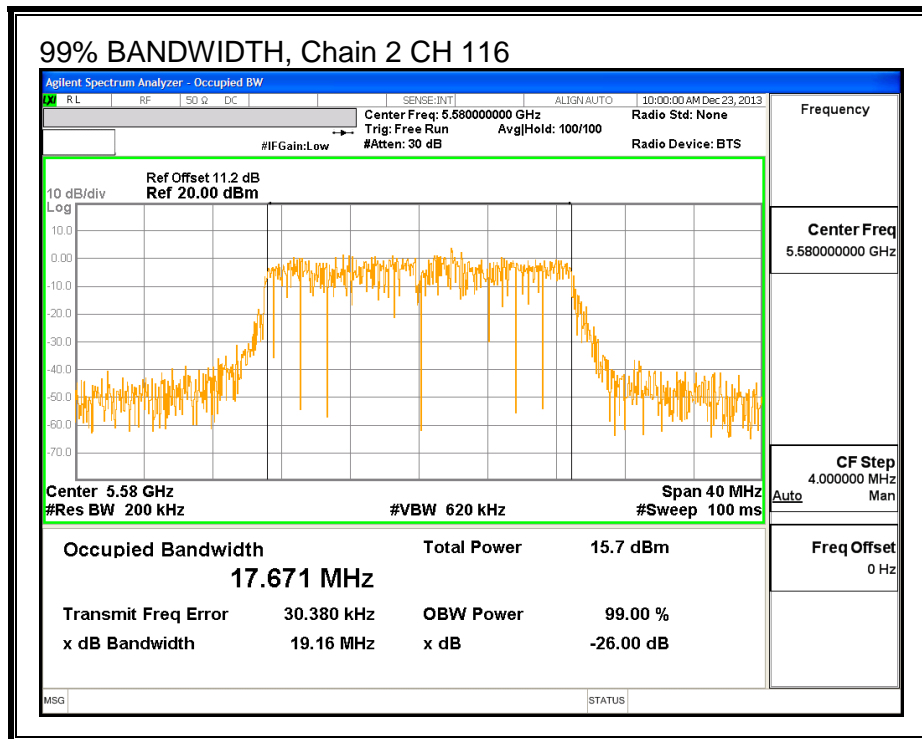
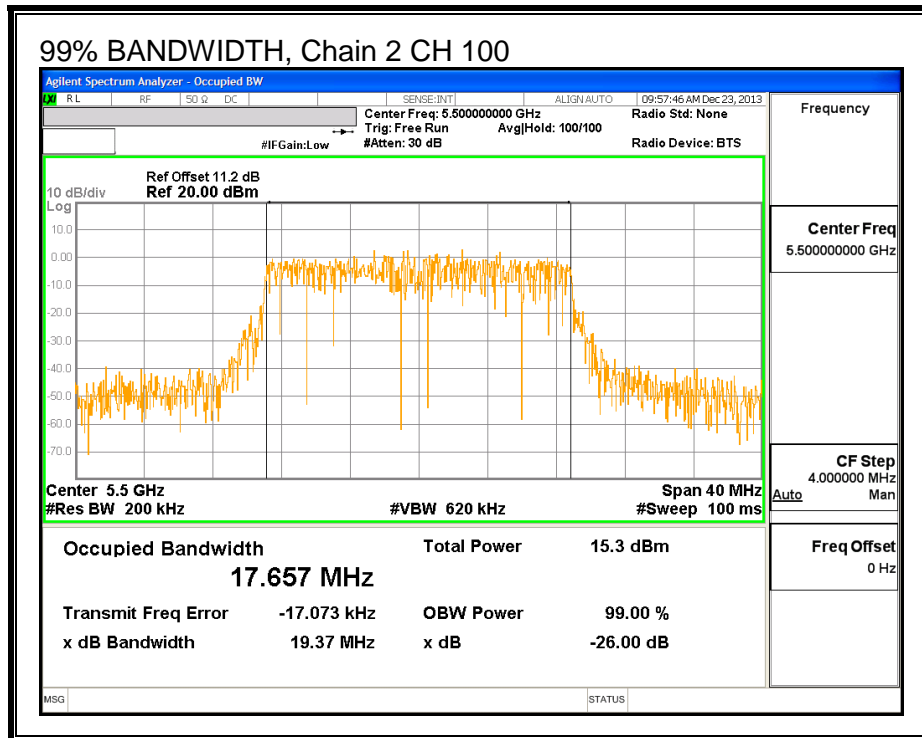
### 99% BANDWIDTH, Chain 1

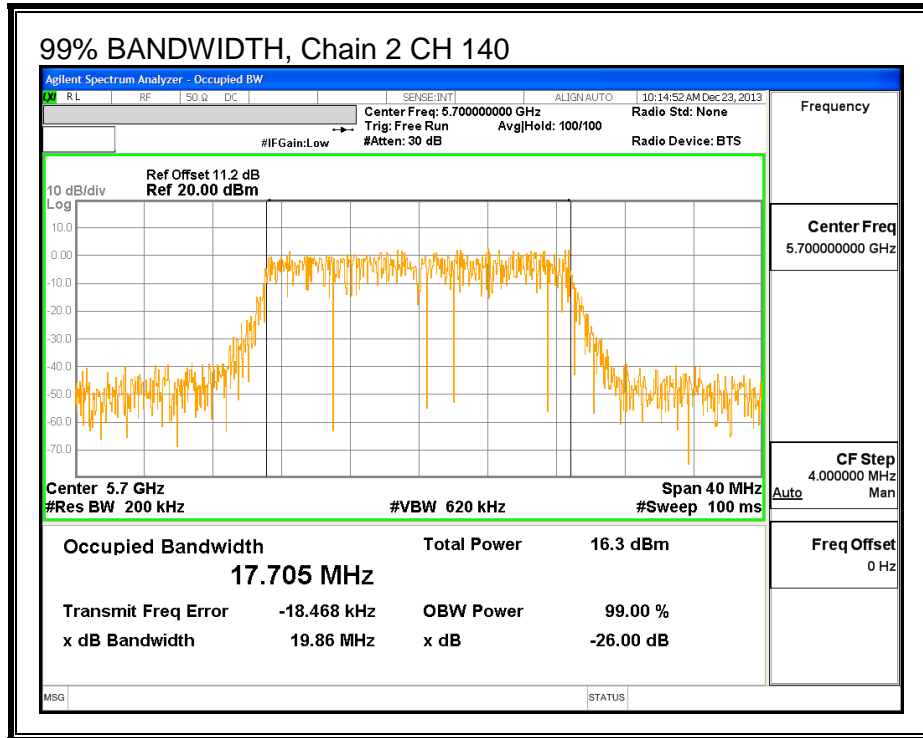






**99% BANDWIDTH, Chain 2**





### 8.24.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.21 dB (including 10 dB pad and 1.21 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
100	5500	13.22	13.45	13.88	18.30
116	5580	12.03	12.21	12.51	17.03
140	5700	14.45	14.41	17.75	20.61

### 8.24.4. OUTPUT POWER AND PPSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (3 chains) (dB)	Correlated Chains Directional Gain (dBi)
2.82	4.77	7.59

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
100	5500	20.46	17.589	2.82	7.59
116	5580	20.37	17.595	2.82	7.59
140	5700	20.46	17.671	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
100	5500	24.00	23.45	29.45	23.45	9.41	11.00	9.41
116	5580	24.00	23.45	29.45	23.45	9.41	11.00	9.41
140	5700	24.00	23.47	29.47	23.47	9.41	11.00	9.41

<b>Duty Cycle CF (dB)</b>	0.22	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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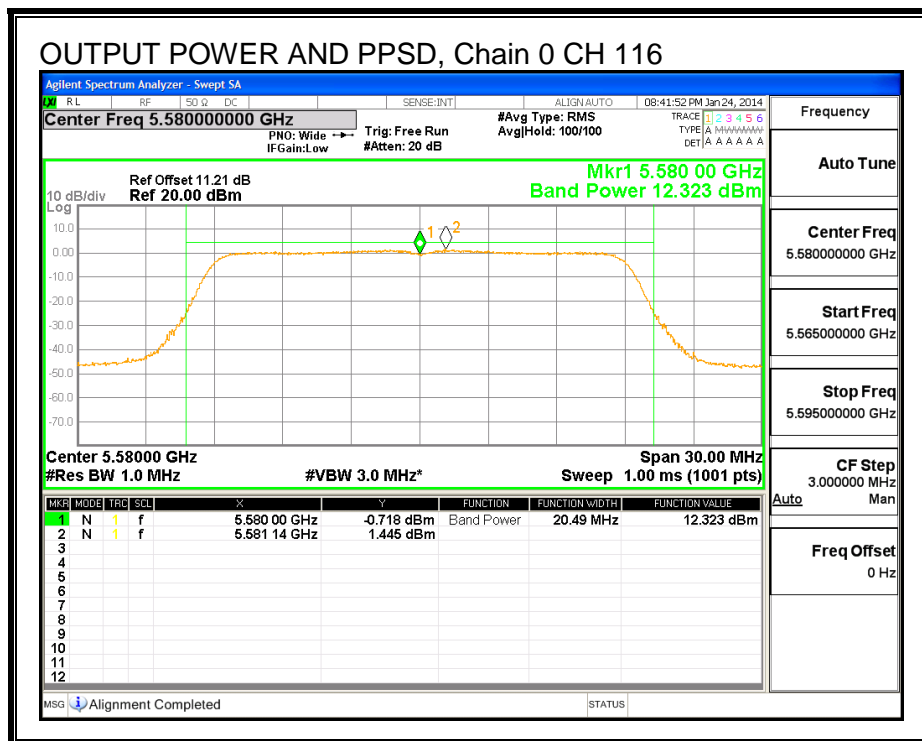
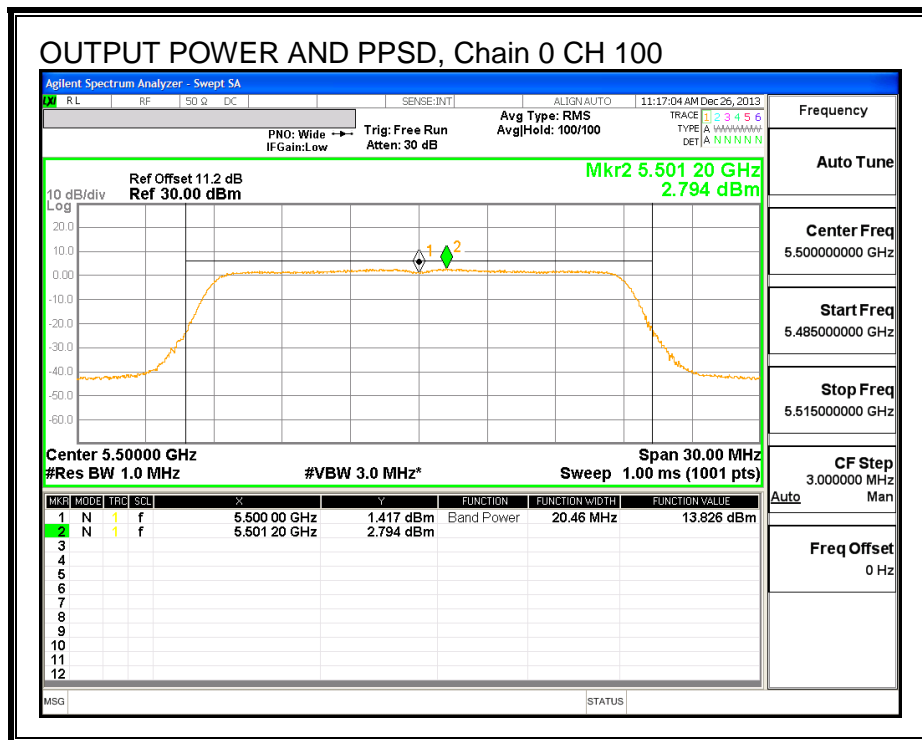
**Output Power Results**

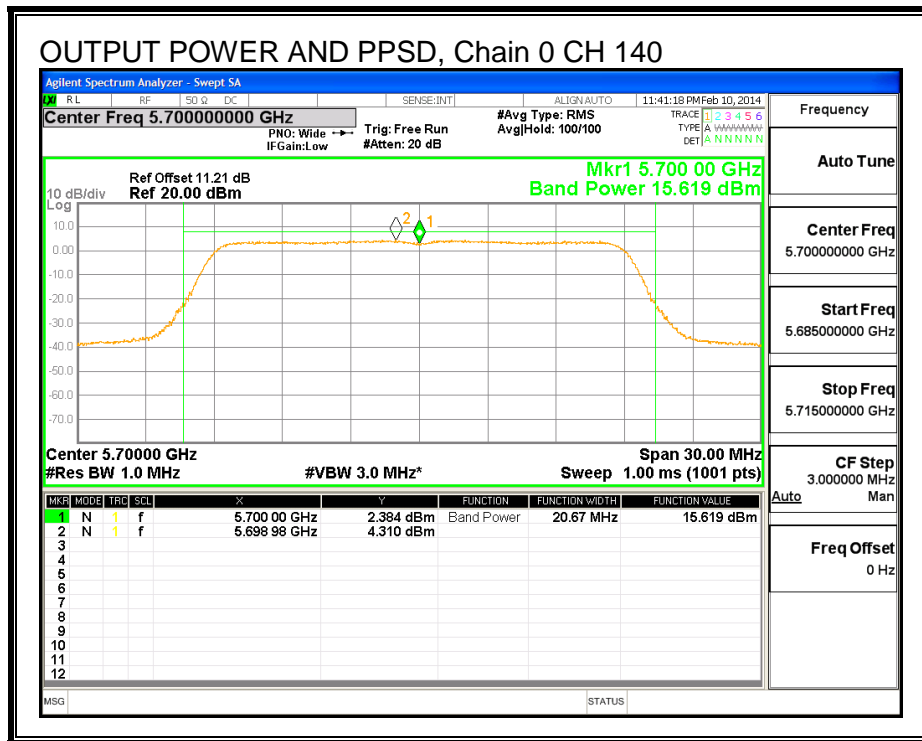
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
100	5500	13.83	13.76	14.17	18.91	23.45	-4.54
116	5580	12.32	12.34	12.69	17.44	23.45	-6.01
140	5700	15.62	15.38	15.75	20.58	23.47	-2.90

**PPSD Results**

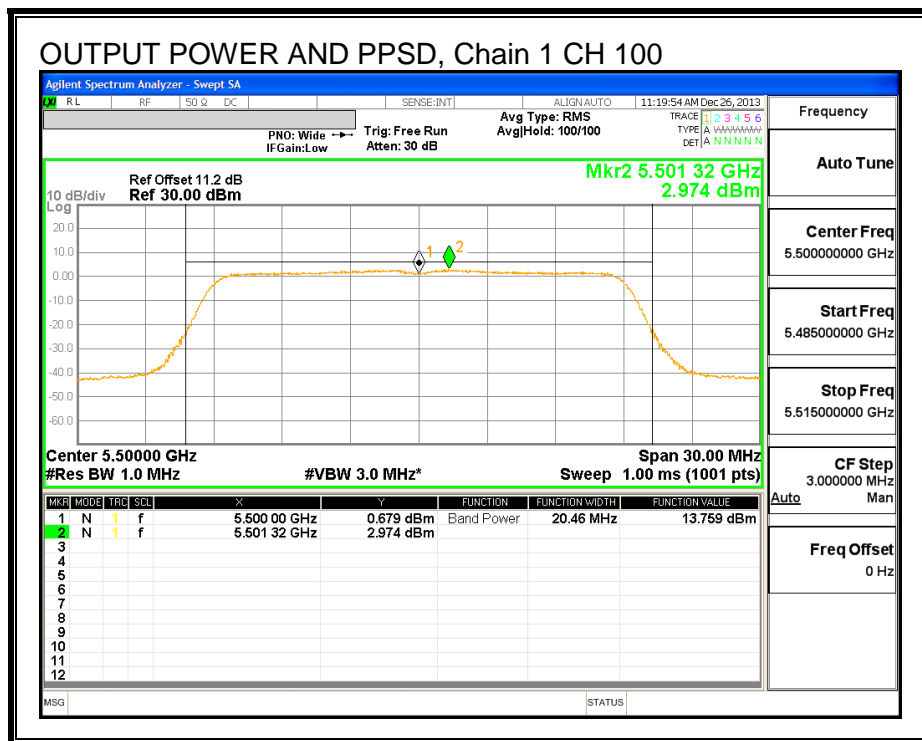
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
100	5500	2.79	2.97	3.16	7.97	9.41	-1.44
116	5580	1.45	1.29	1.62	6.45	9.41	-2.96
140	5700	4.31	4.29	4.56	9.38	9.41	-0.03

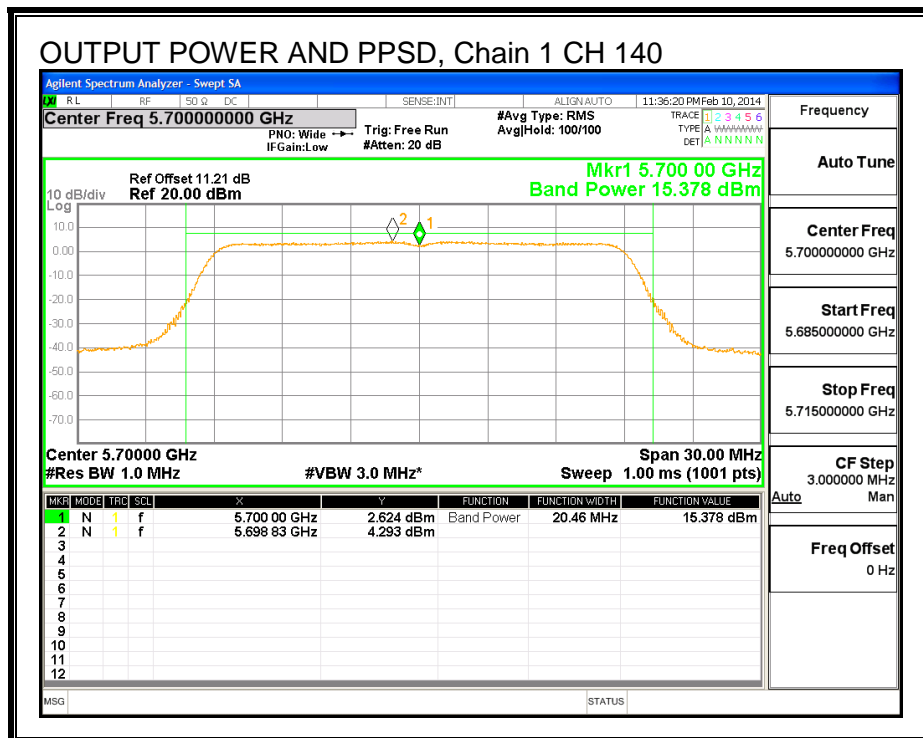
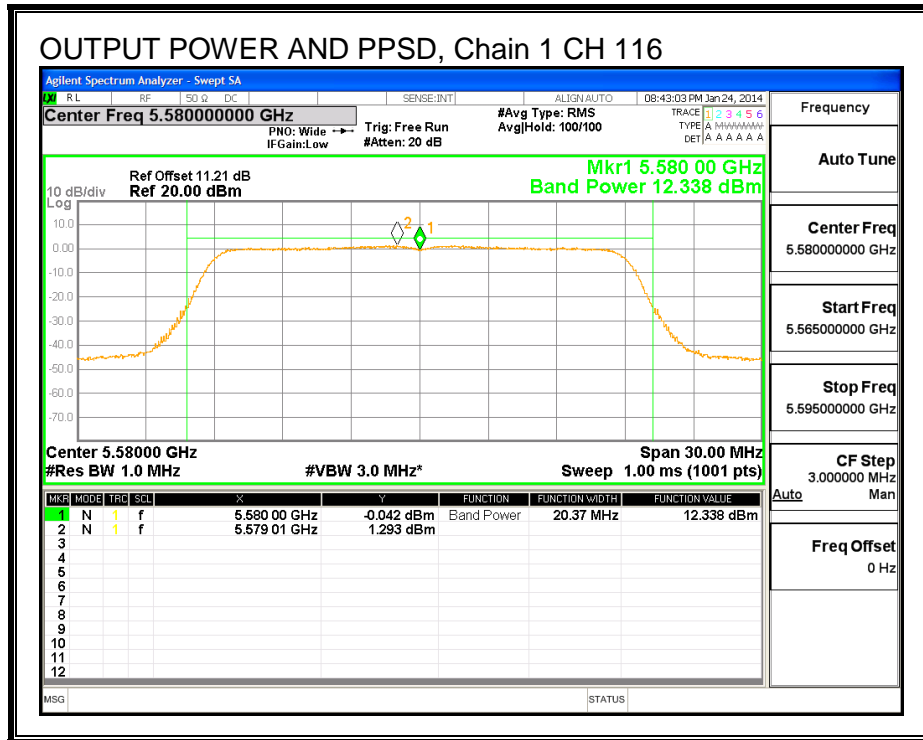
**OUTPUT POWER AND PPSD, Chain 0**





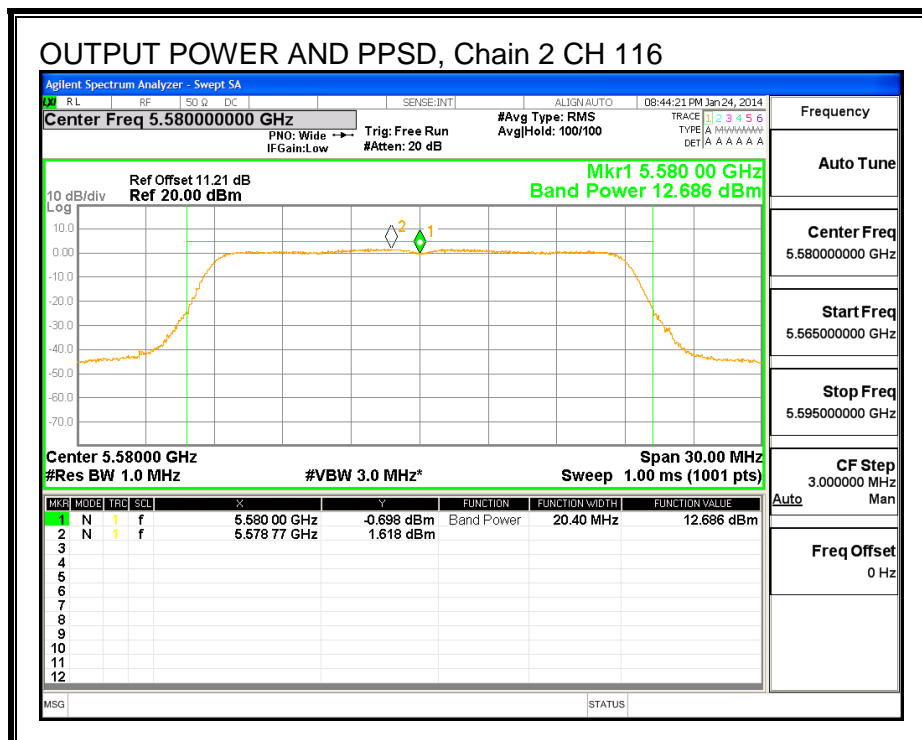
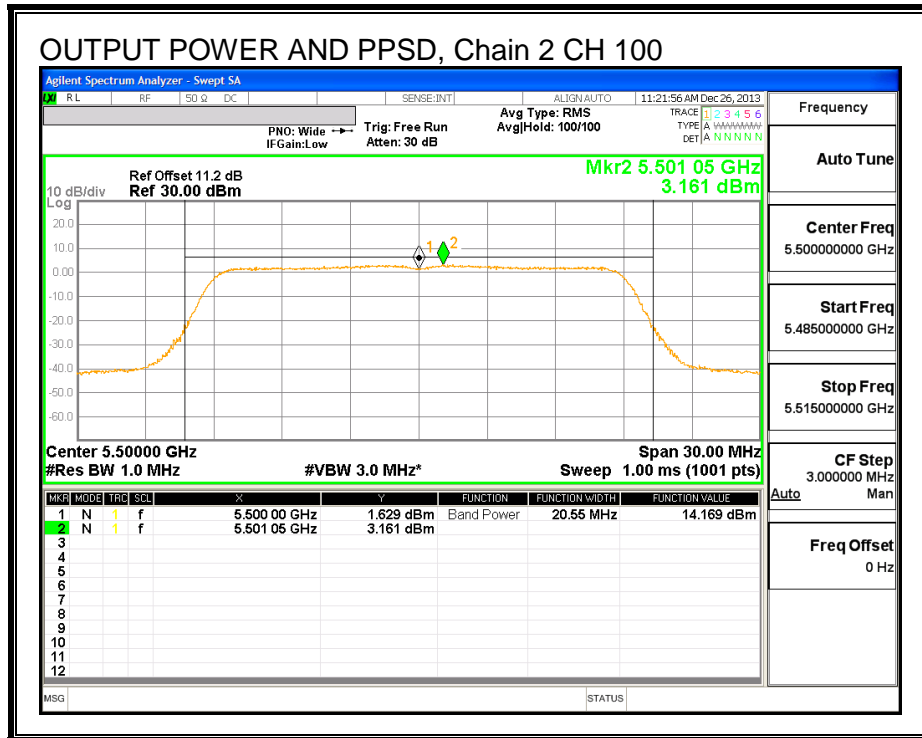
### OUTPUT POWER AND PPSD, Chain 1

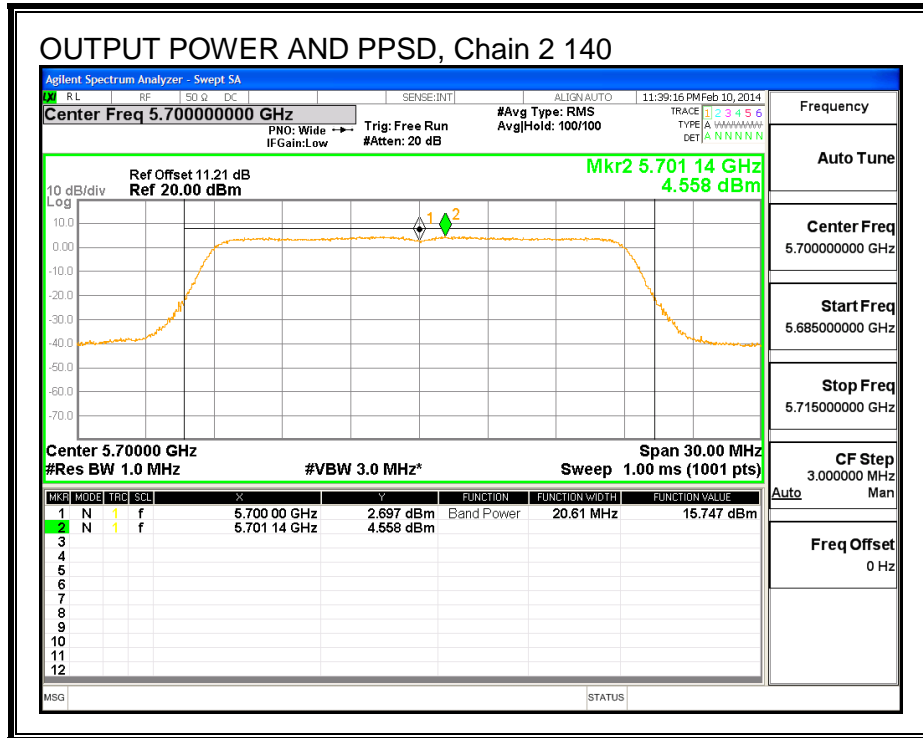






**OUTPUT POWER AND PPSD, Chain 2**





### 8.24.5. PEAK EXCURSION

#### LIMITS

FCC §15.407 (a) (6)

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

#### RESULTS

Chain 0

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
116	5580	9.17	1.45	0.22	7.50	13	-5.50

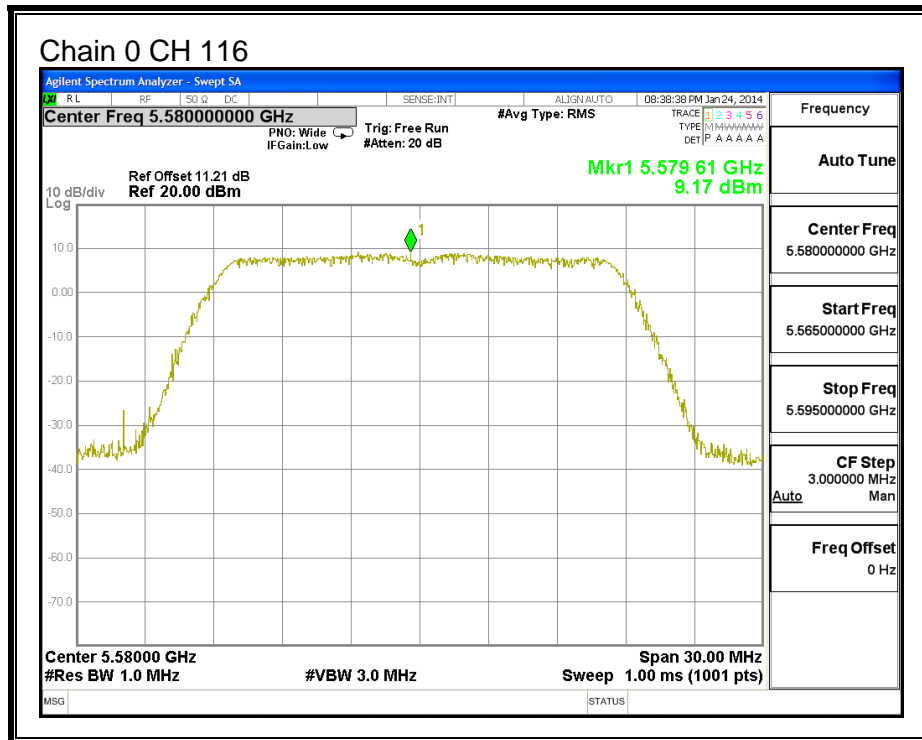
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
116	5580	10.67	1.29	0.22	9.16	13	-3.84

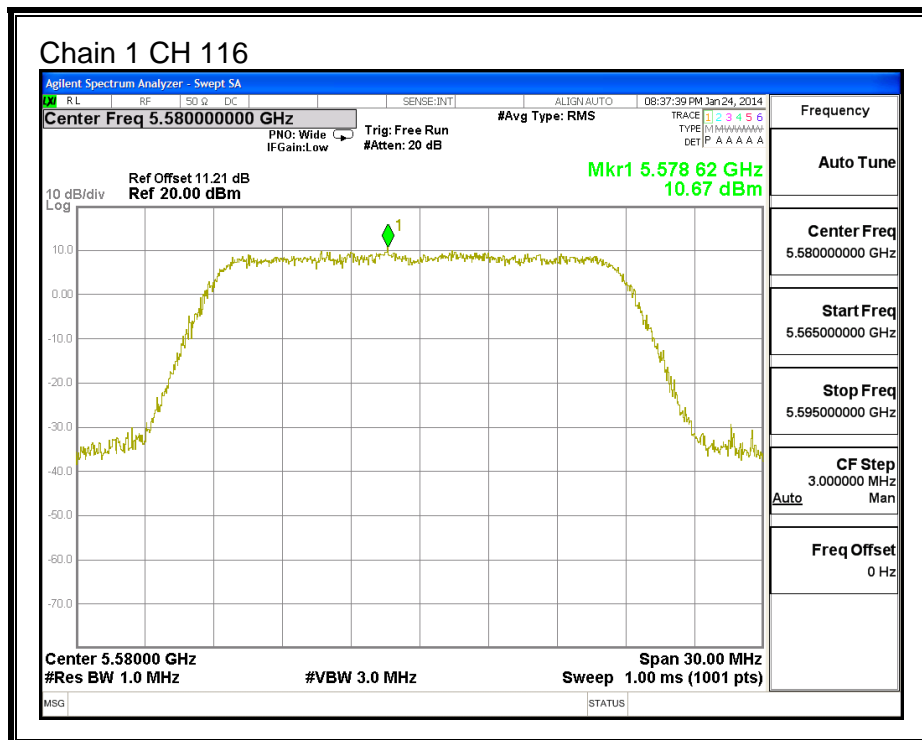
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
116	5580	11.05	1.62	0.22	9.21	13	-3.79

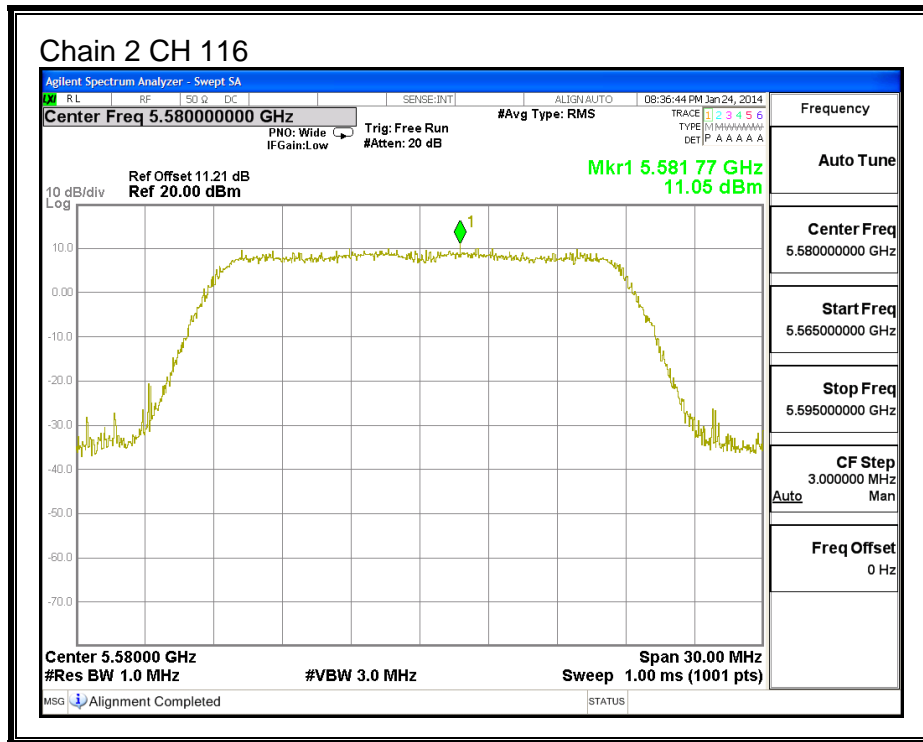
**PEAK EXCURSION, Chain 0**



**PEAK EXCURSION, Chain 1**



**PEAK EXCURSION, Chain 2**



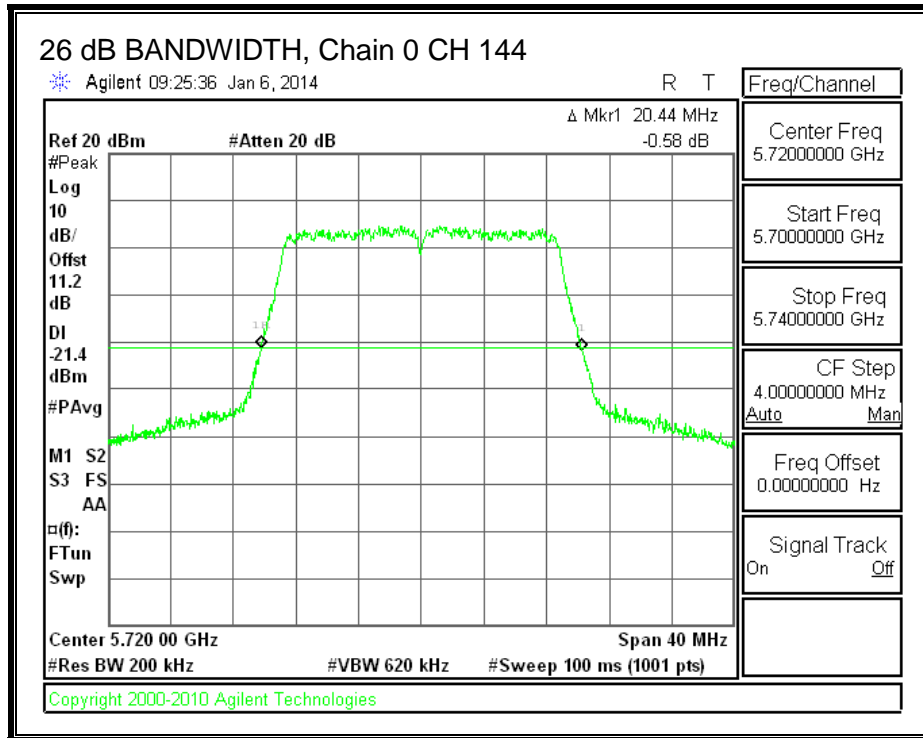
**8.25. 802.11ac 20MHz 3TX CDD MODE, CHANNEL 144, 5.6 GHz BAND****8.25.1. 26 dB BANDWIDTH- UNII****LIMITS**

None; for reporting purposes only.

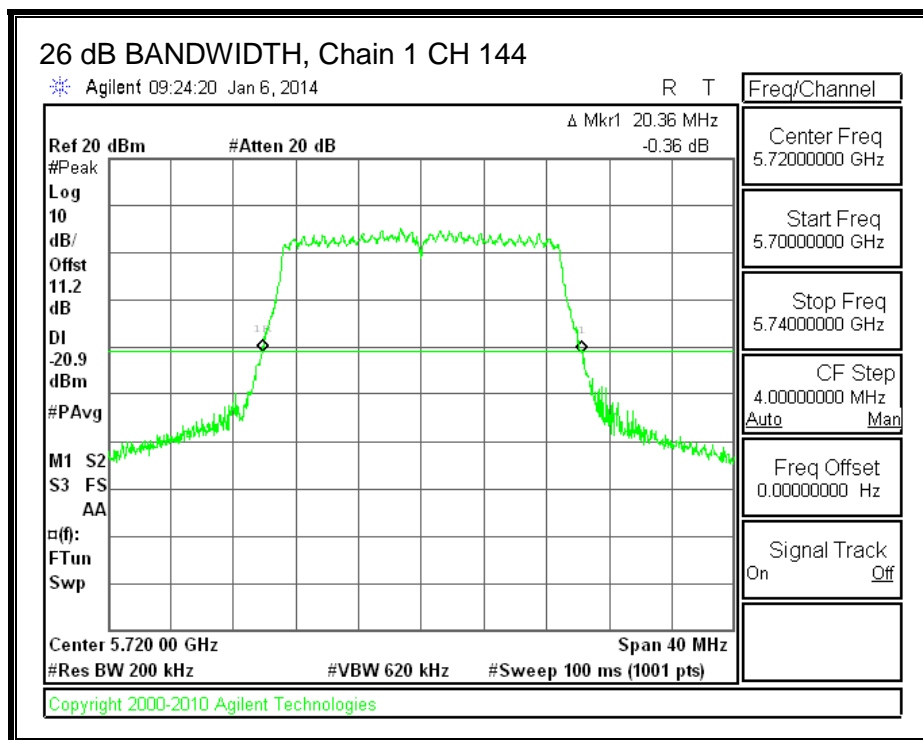
**RESULTS**

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
144	5720	20.44	20.36	20.40

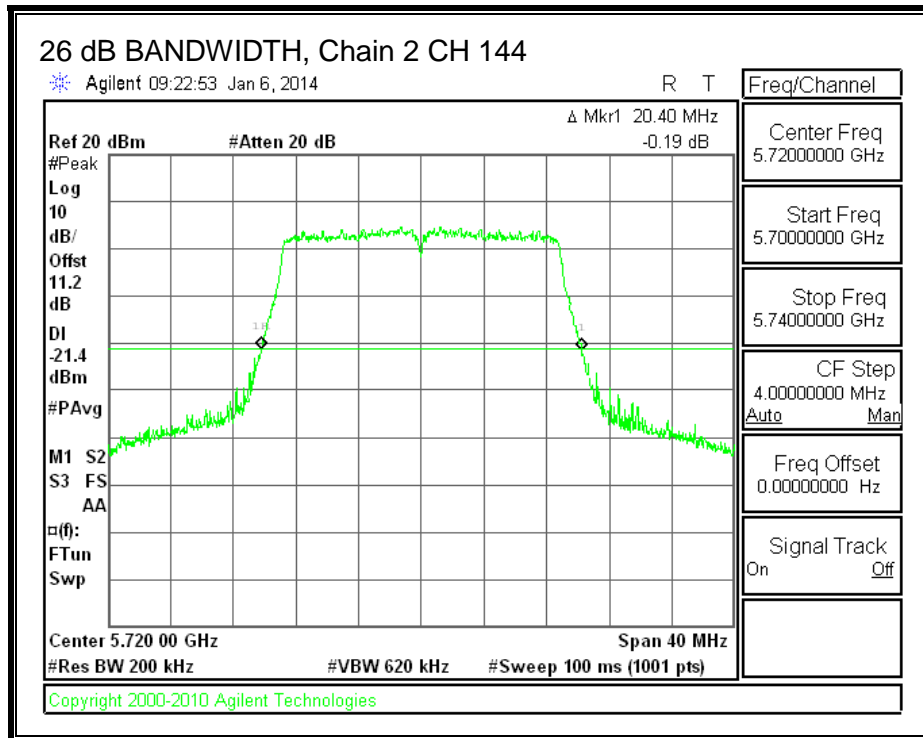
**26 dB BANDWIDTH, Chain 0**



**26 dB BANDWIDTH, Chain 1**



**26 dB BANDWIDTH, Chain 2**





### 8.25.2.99% BANDWIDTH

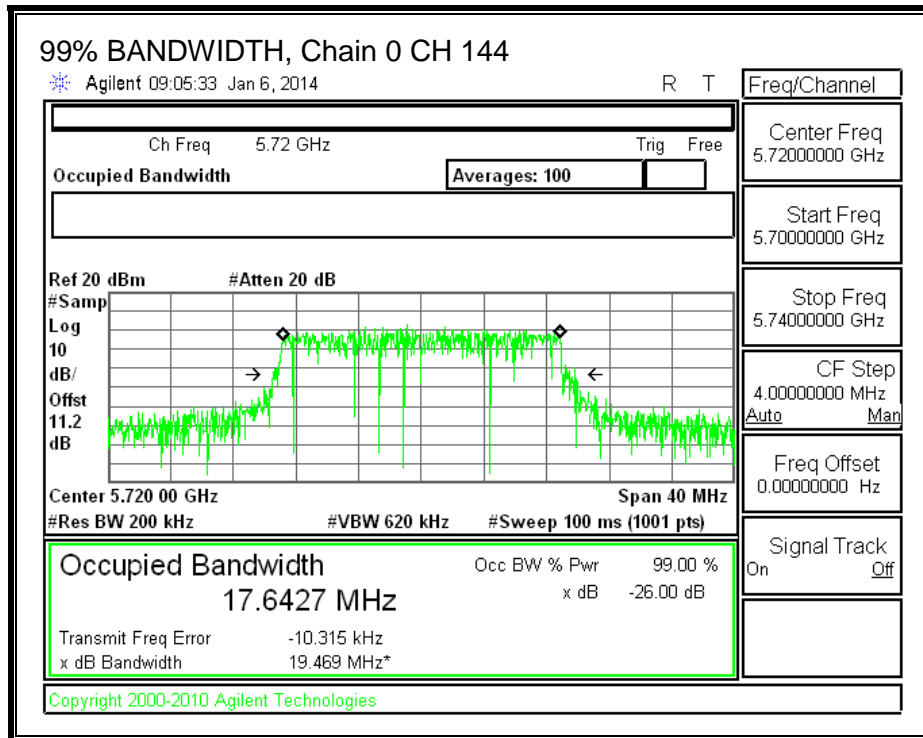
#### LIMITS

None; for reporting purposes only.

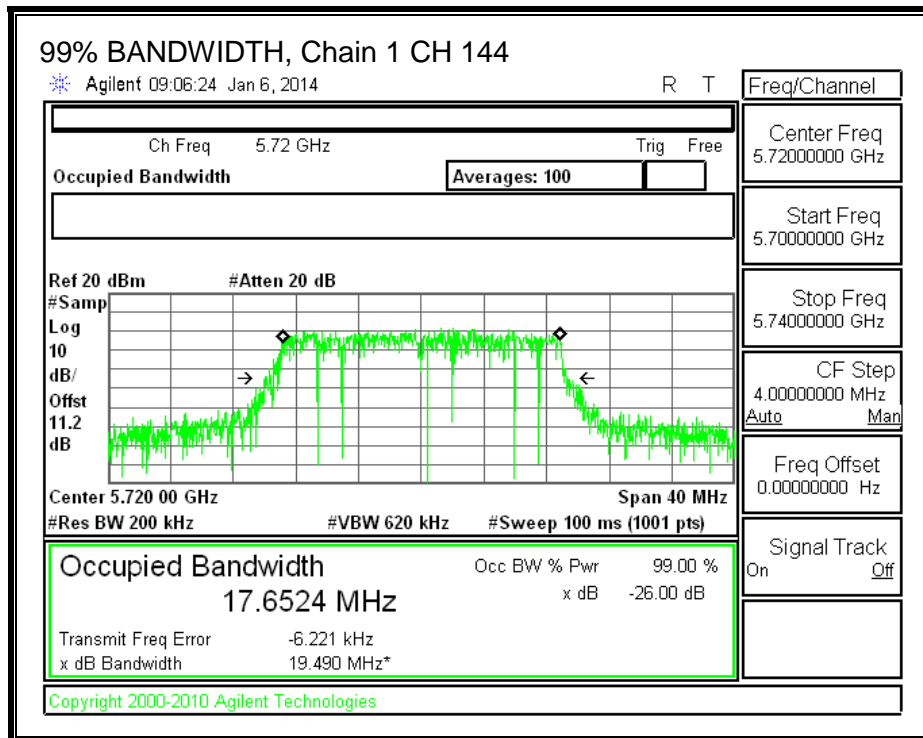
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
144	5720	17.6427	17.6524	17.6398

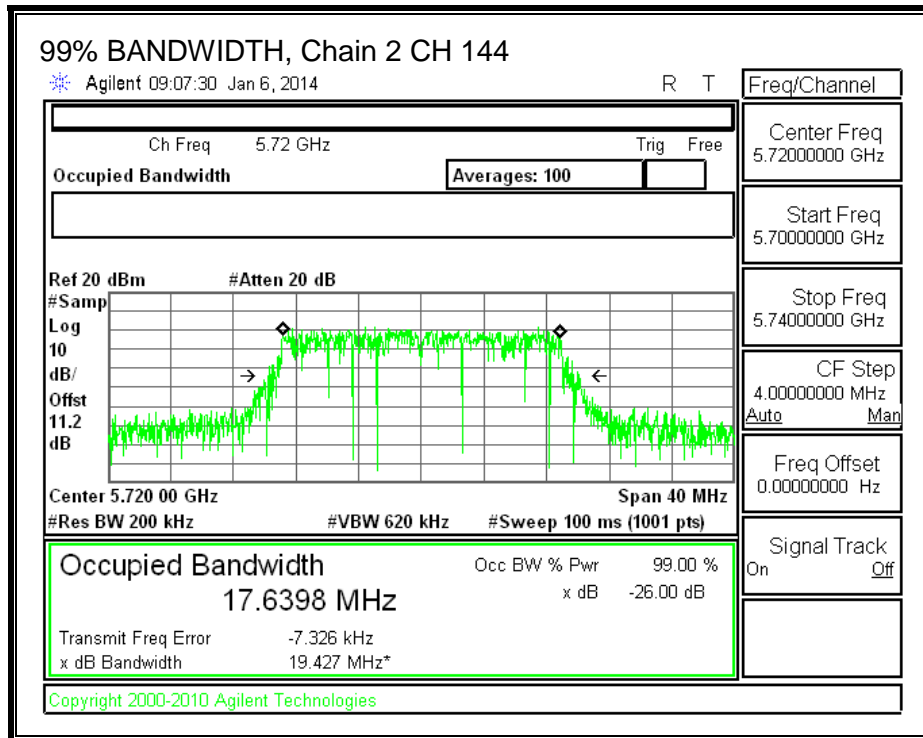
**99% BANDWIDTH, Chain 0**



**99% BANDWIDTH, Chain 1**



**99% BANDWIDTH, Chain 2**



### 8.25.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

For output power and PPSD, the TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (3 chains) (dB)	Correlated Chains Directional Gain (dBi)
2.82	4.77	7.59

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5720	15.220	13.8214	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	21.23	22.41	28.41	20.82	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.22	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	14.03	13.86	14.10	18.99	20.82	-1.83

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	3.58	3.46	3.67	8.56	11.00	-2.44

**Limits (FCC), portion in 5.8 GHz DTS band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Mid	5720	5.220	3.8214	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Mid	5720	16.59	16.82	22.82	15.23	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.22	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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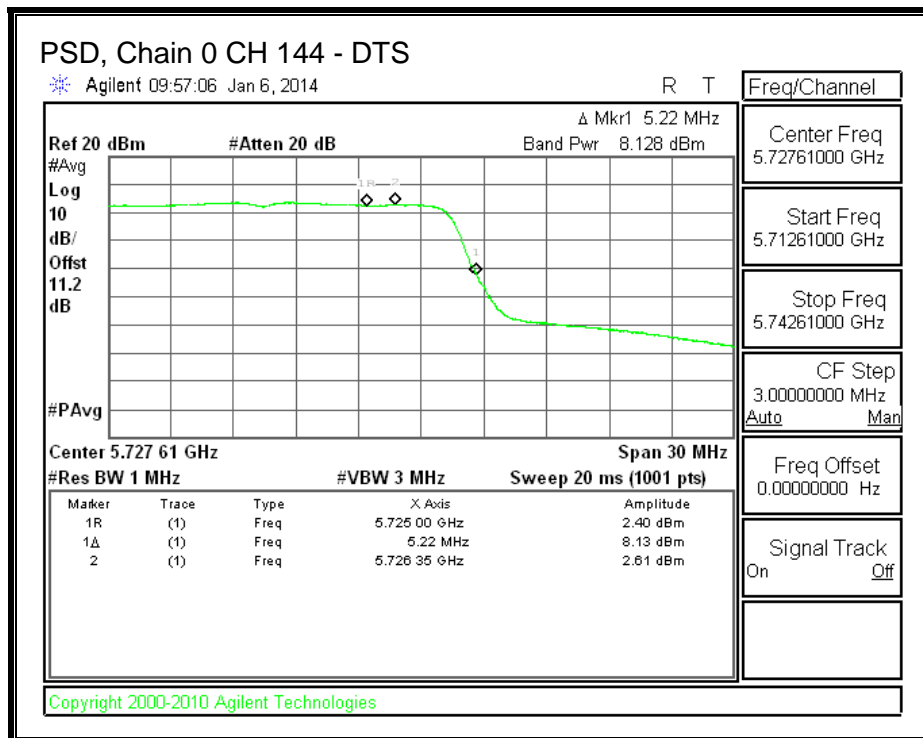
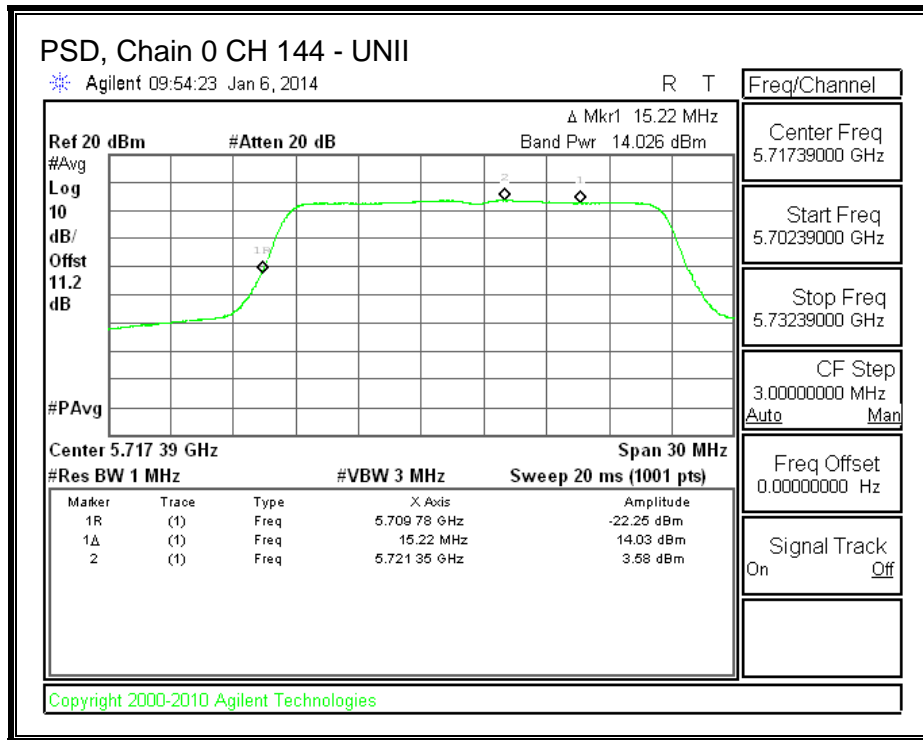
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5720	8.13	7.77	8.14	13.01	15.23	-2.22

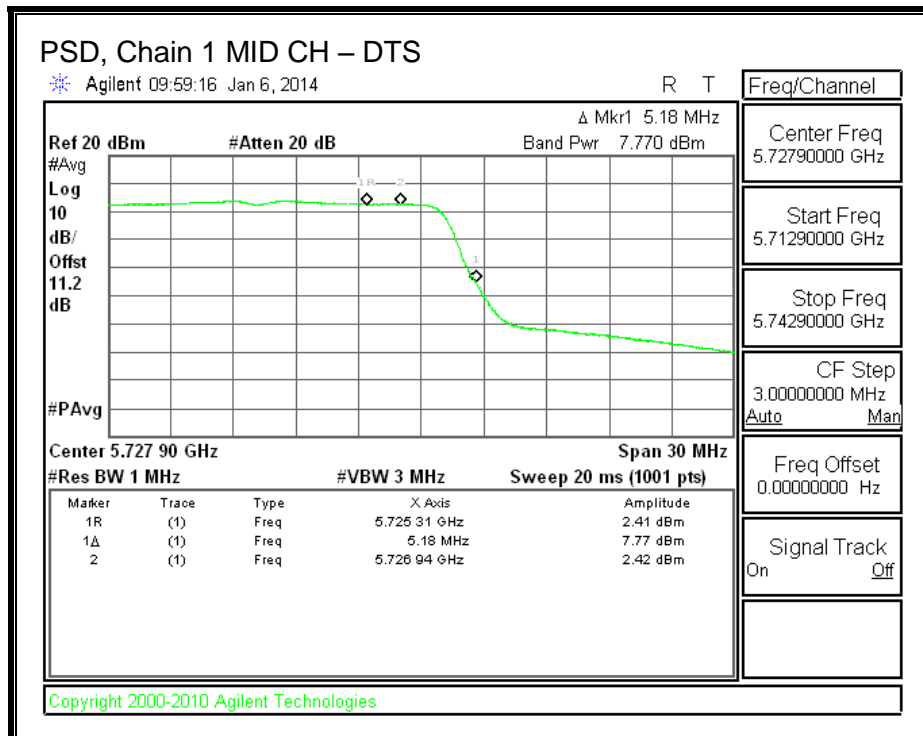
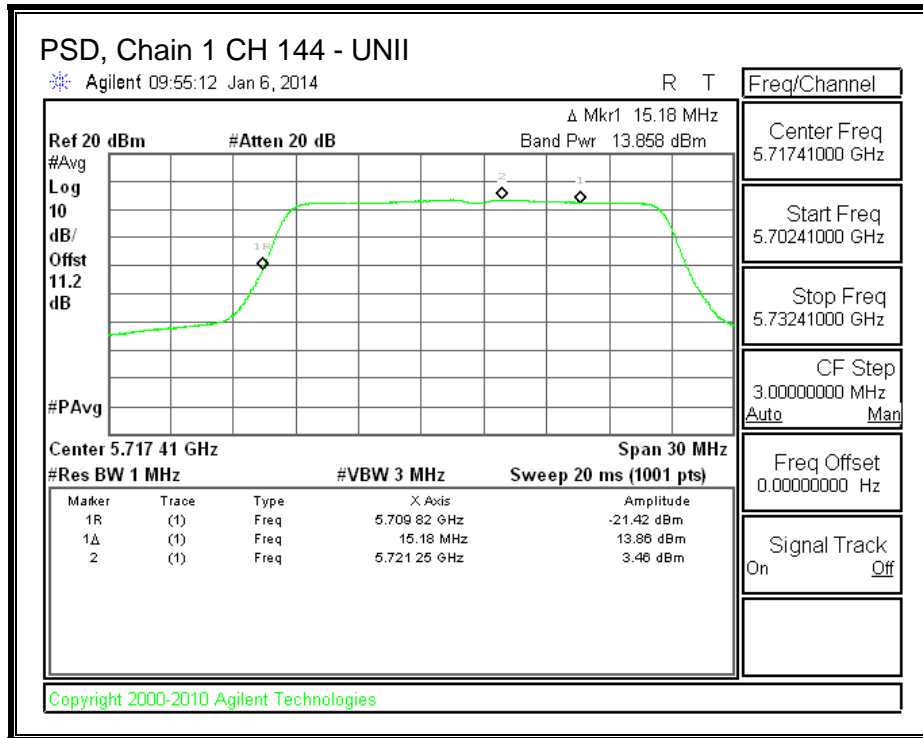
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Mid	5720	2.610	2.42	2.63	7.55	11.00	-3.45

**OUTPUT POWER & PSD, Chain 0**

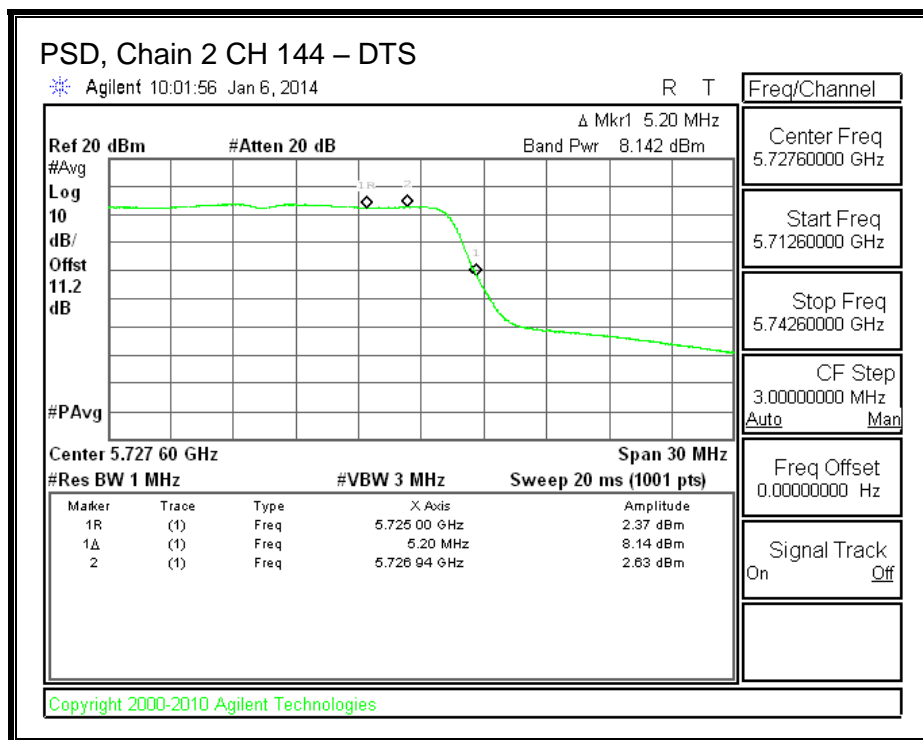
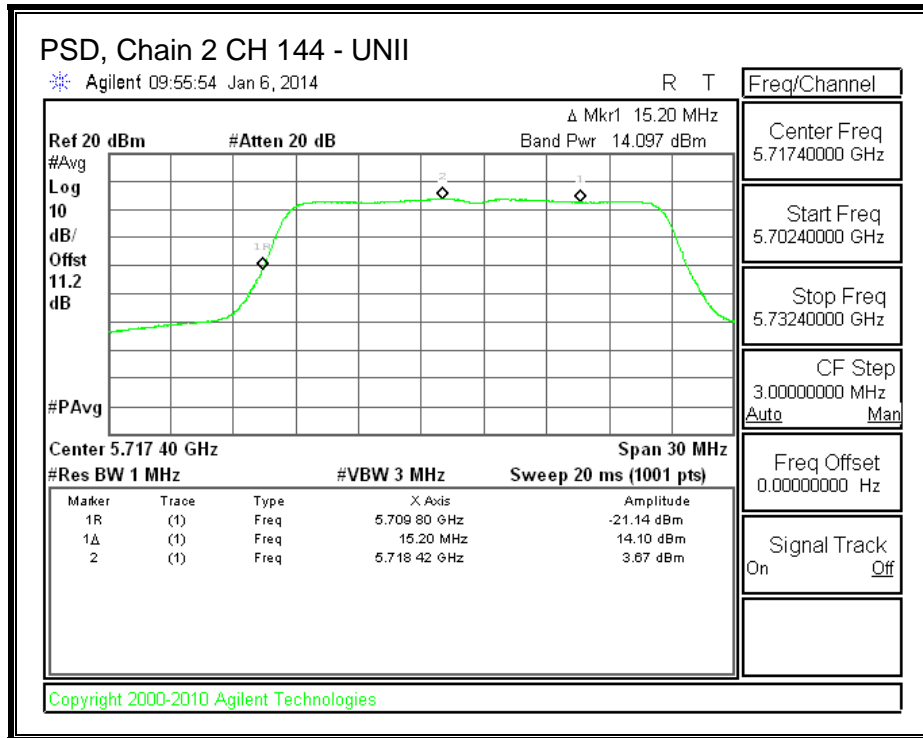


**OUTPUT POWER & PSD, Chain 1**





**OUTPUT POWER & PPSD, Chain 2**



## 8.26. 802.11n HT20 3TX SDM MODE IN THE 5.6 GHz BAND

### 8.26.1. 26 dB BANDWIDTH

#### LIMITS

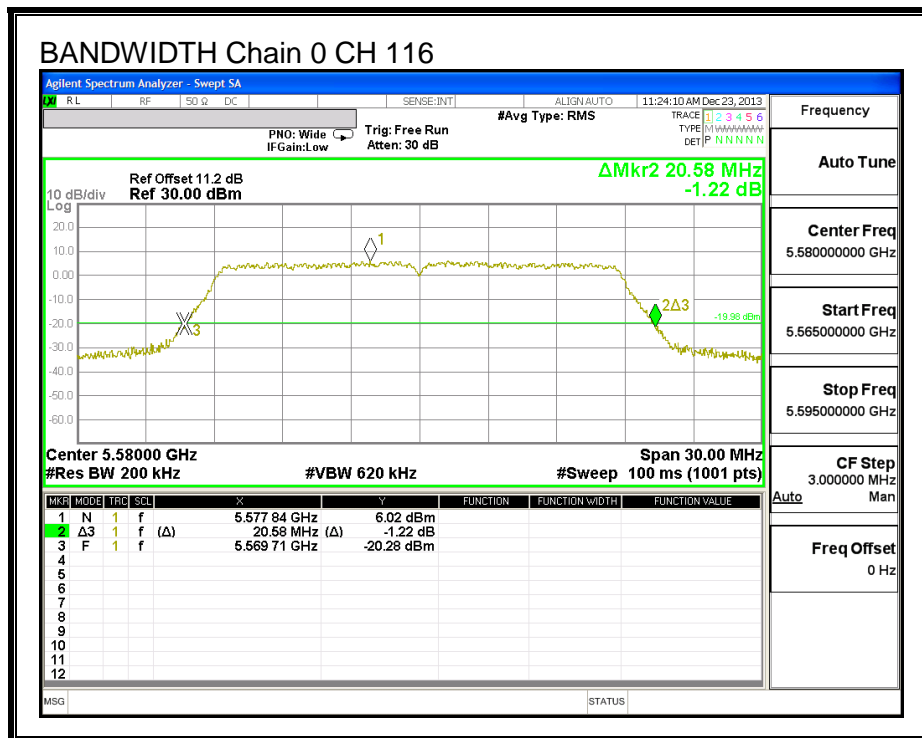
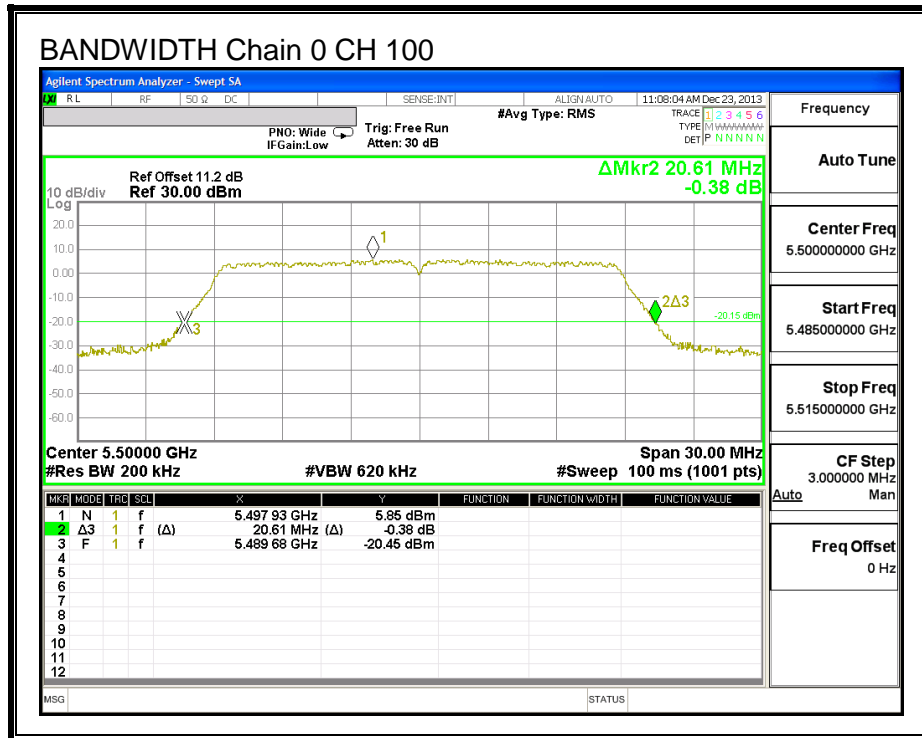
None; for reporting purposes only.

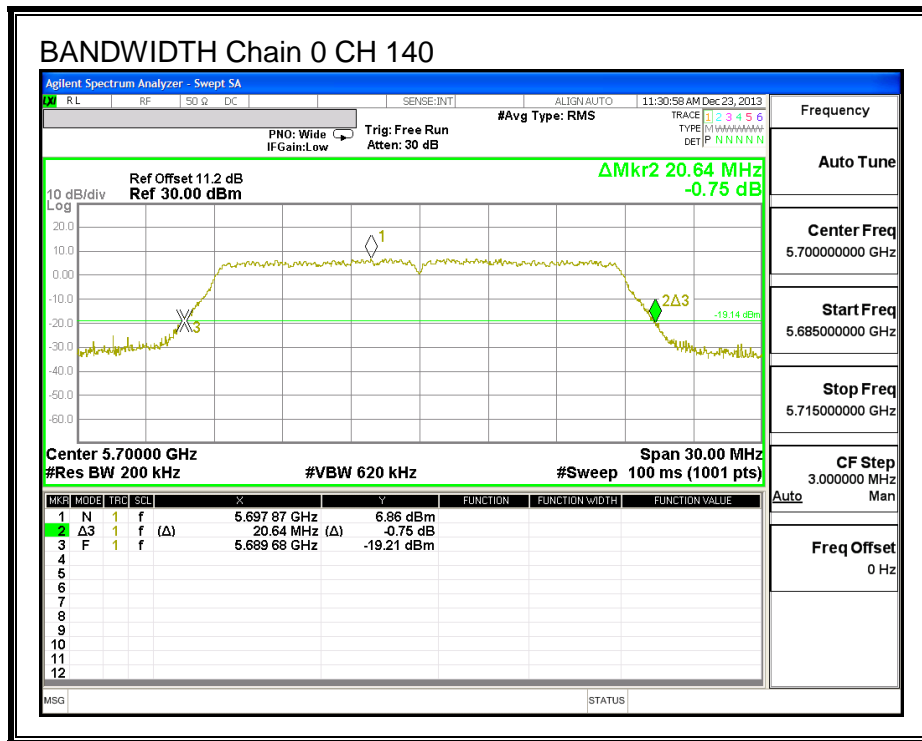
#### RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
100	5500	20.61	20.37	20.61
116	5580	20.58	20.46	20.43
140	5700	20.64	20.52	20.49

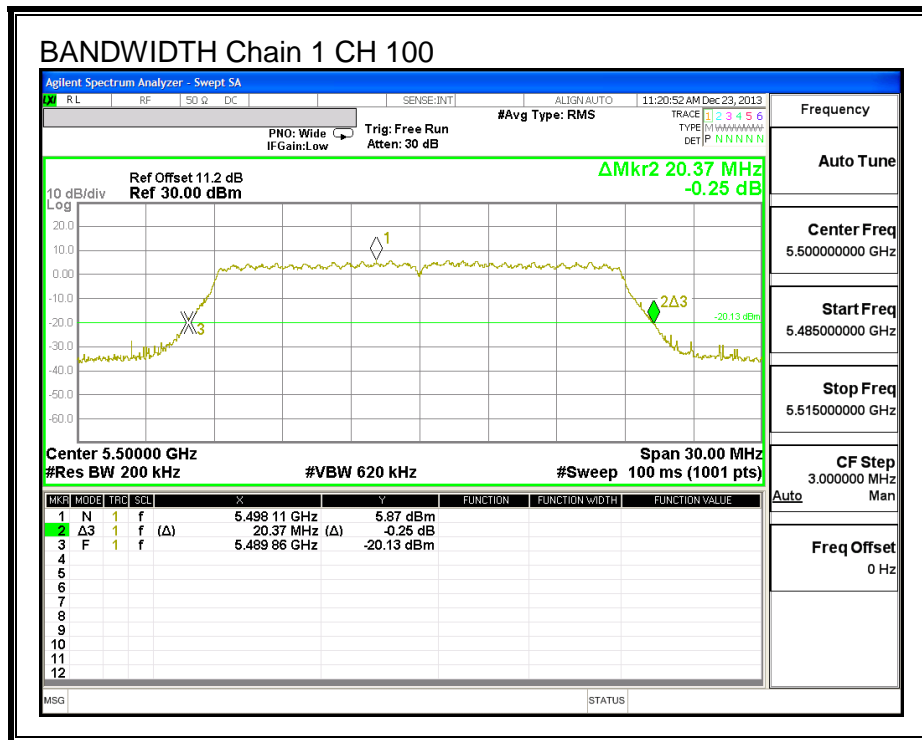
**26 dB BANDWIDTH**

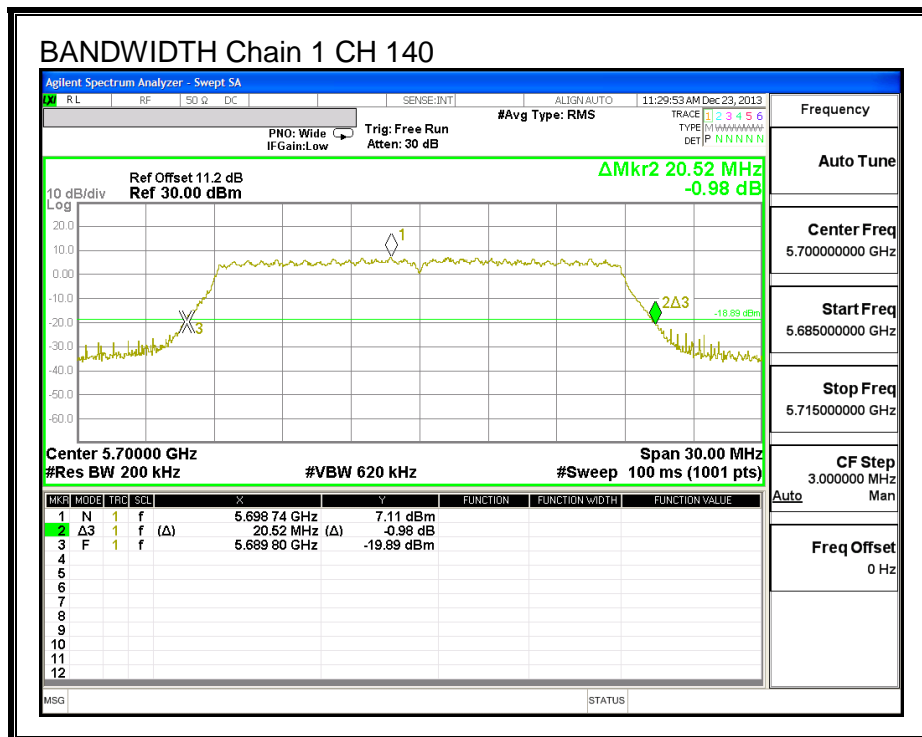
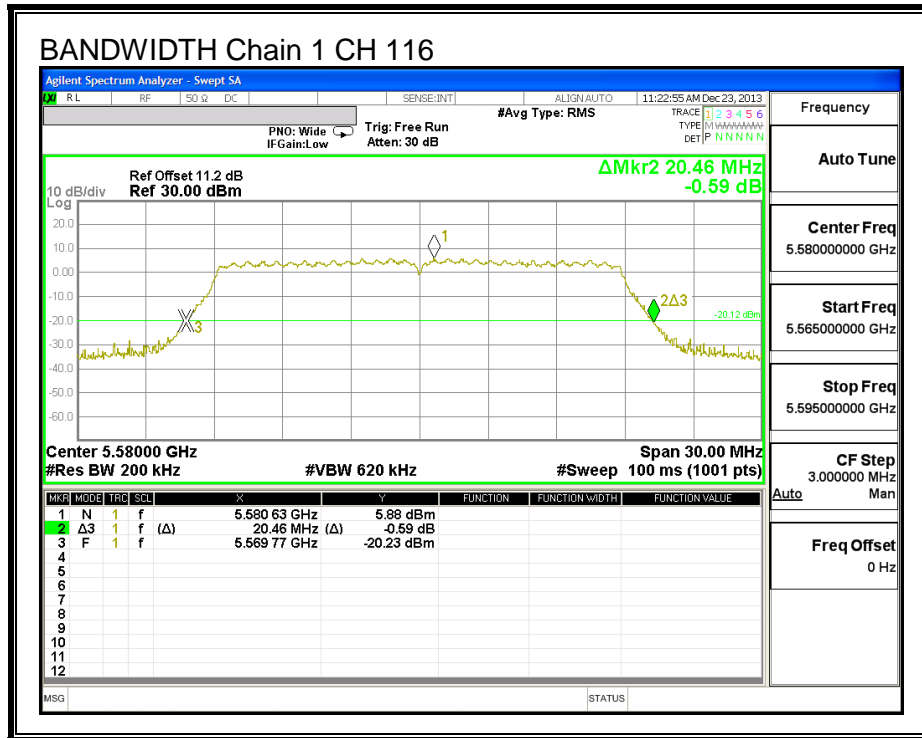
**26 dB BANDWIDTH, Chain 0**



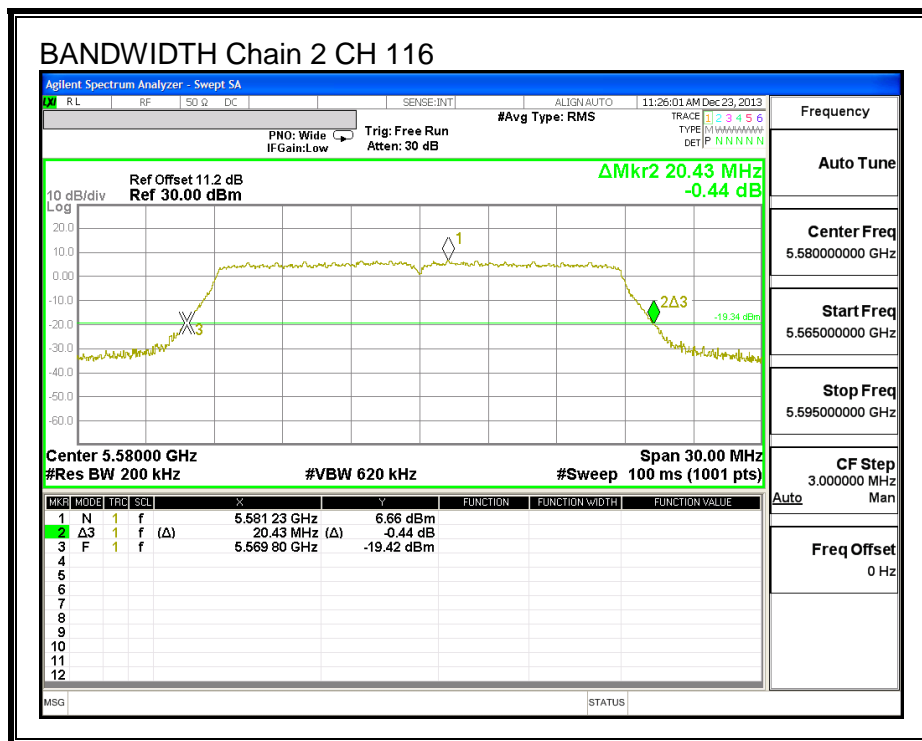
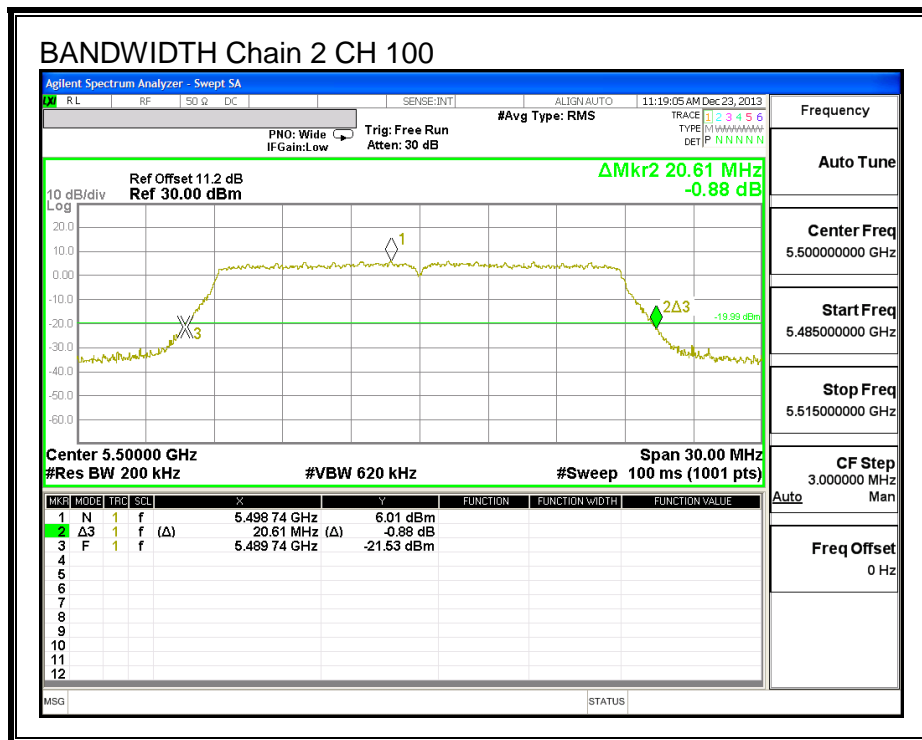


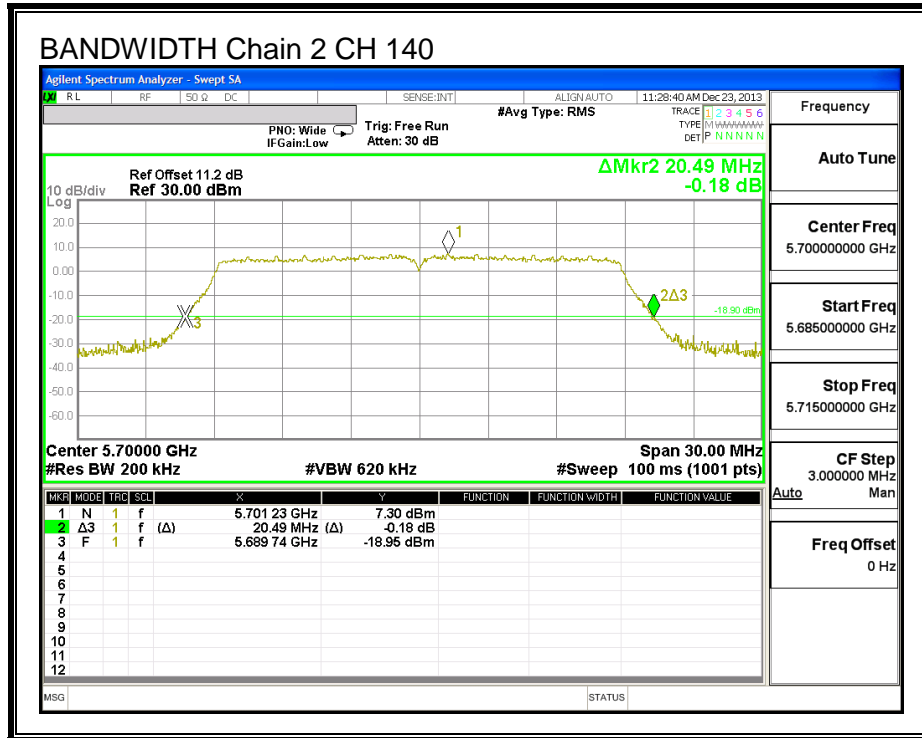
**26 dB BANDWIDTH, Chain 1**





**26 dB BANDWIDTH, Chain 2**





**8.26.2. 99% BANDWIDTH**

**LIMITS**

None; for reporting purposes only.

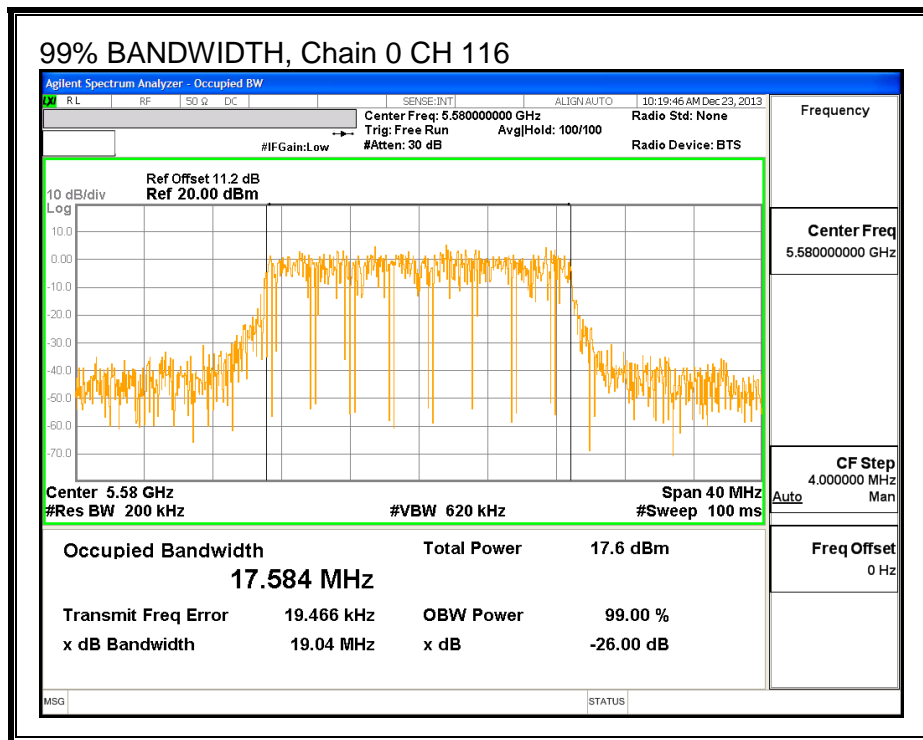
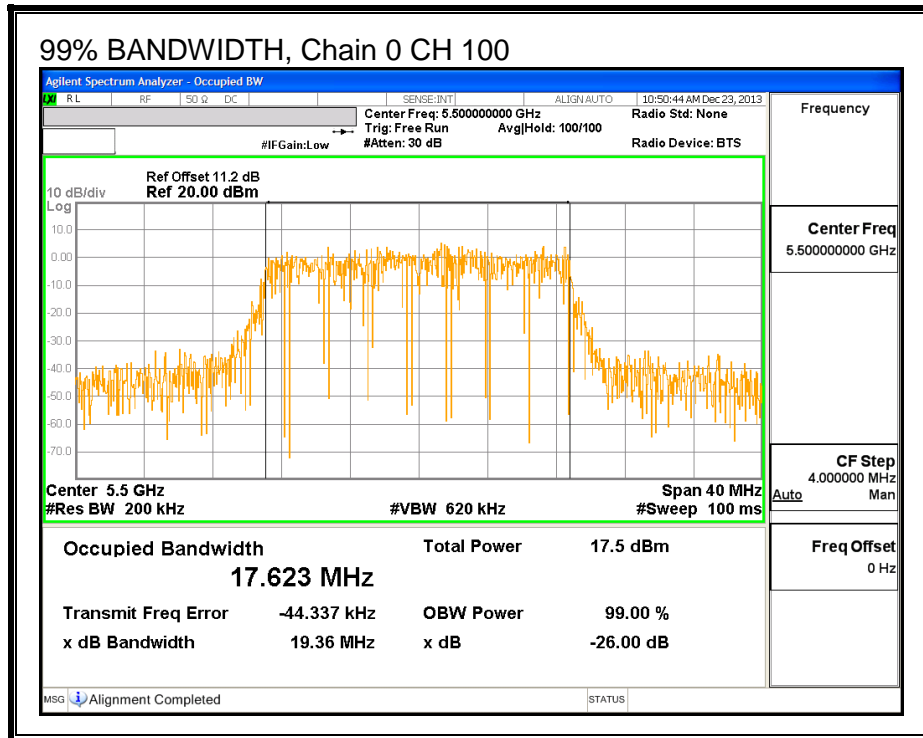
**RESULTS**

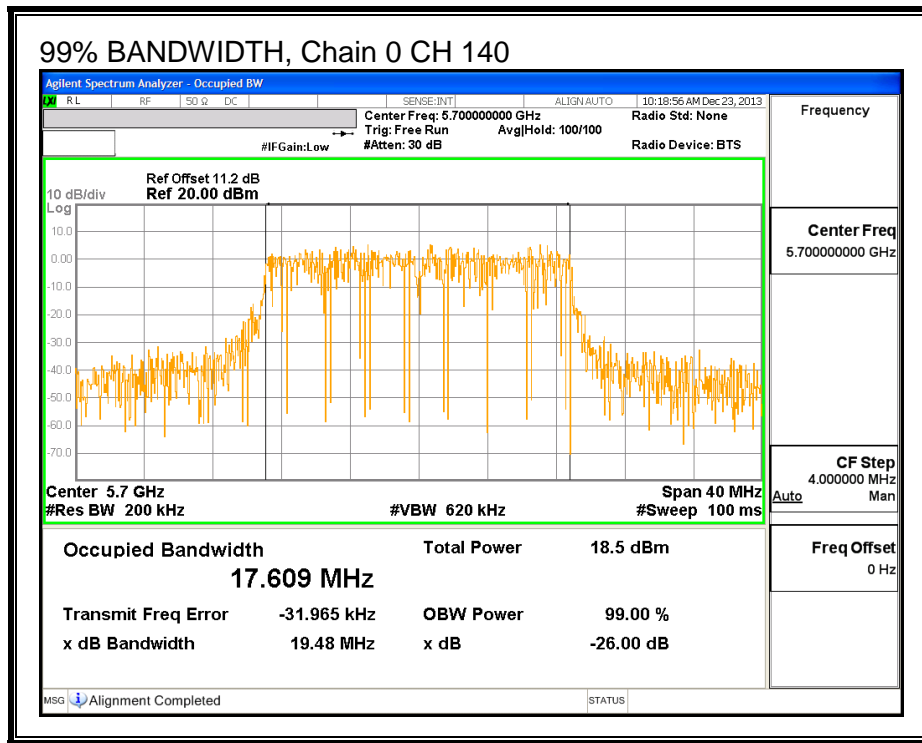
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
100	5500	17.623	17.658	17.638
116	5580	17.584	17.636	17.656
140	5700	17.609	17.639	17.726



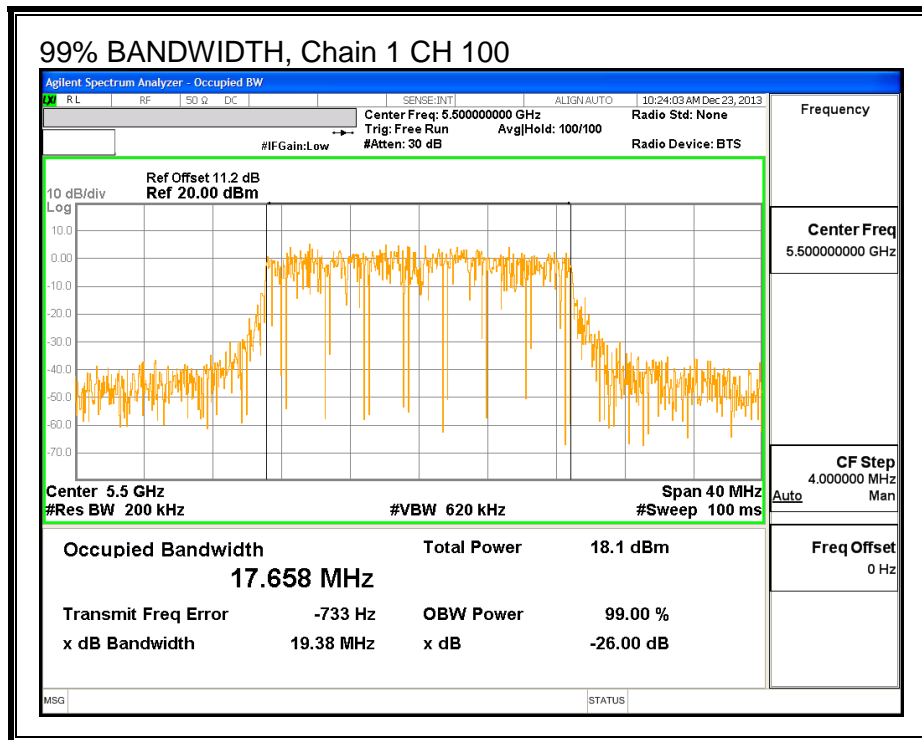
**99% BANDWIDTH**

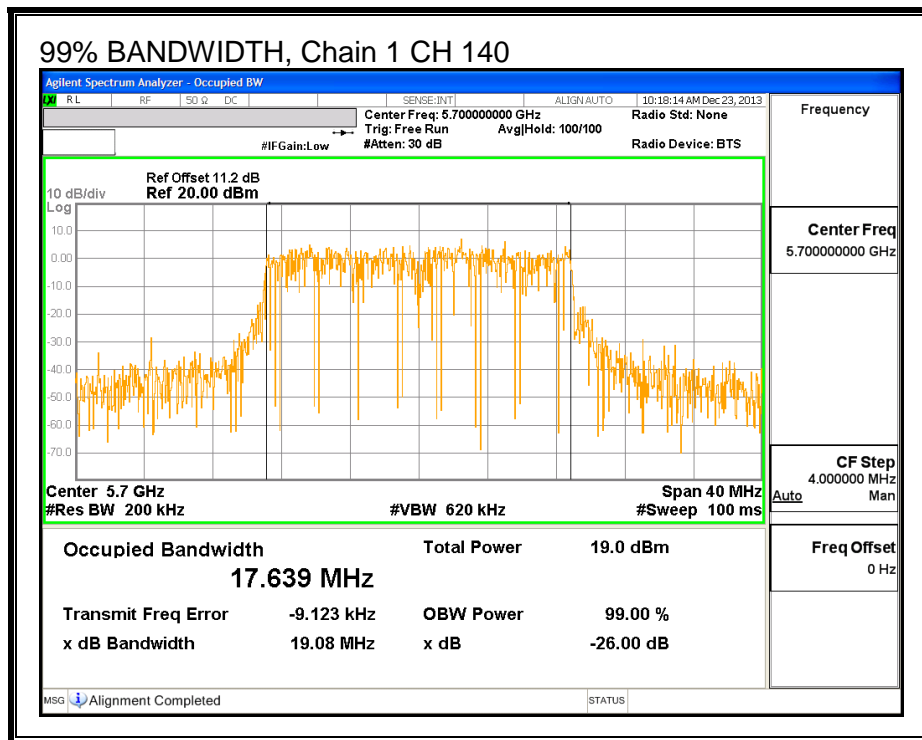
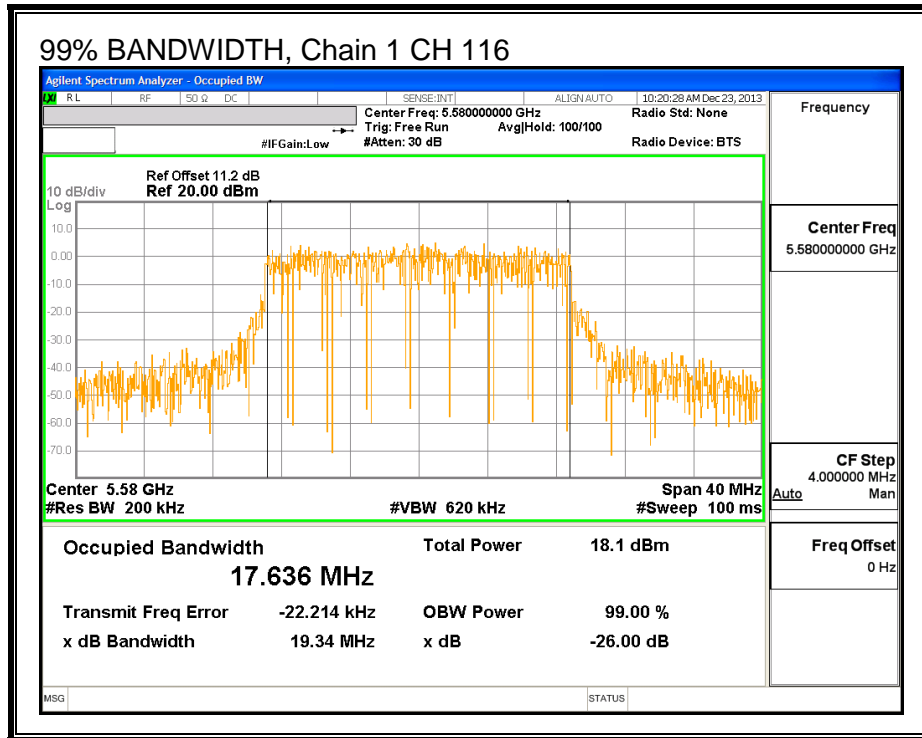
**99% BANDWIDTH, Chain 0**



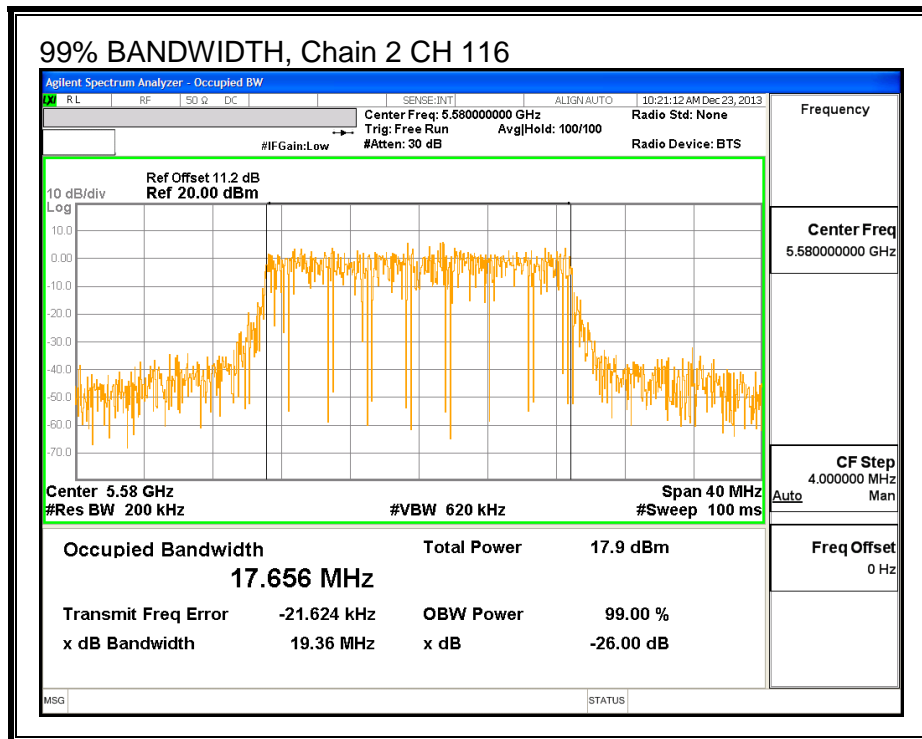
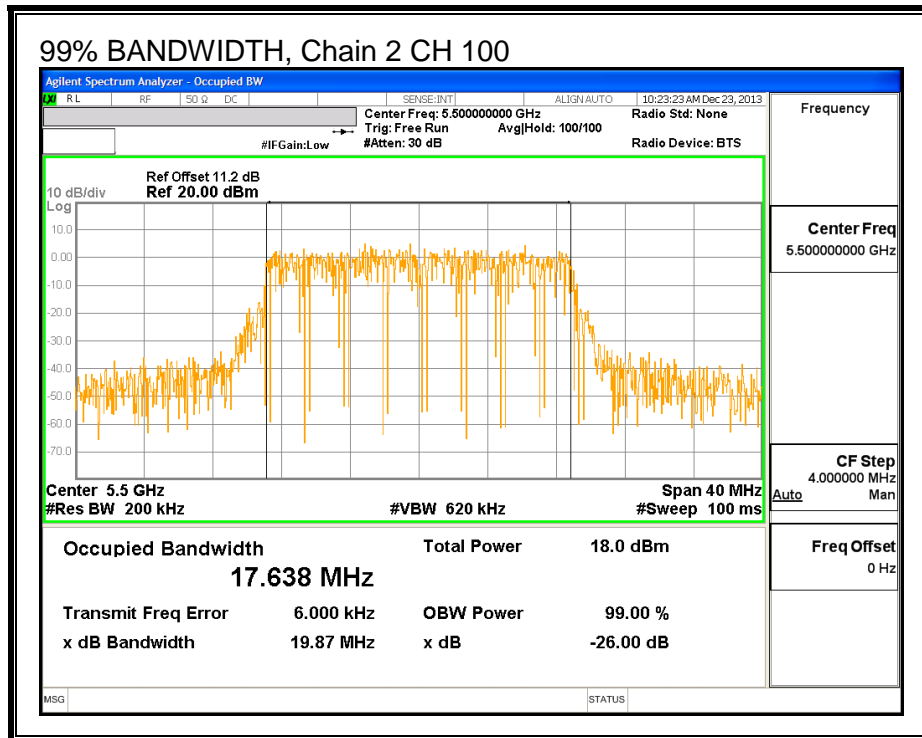


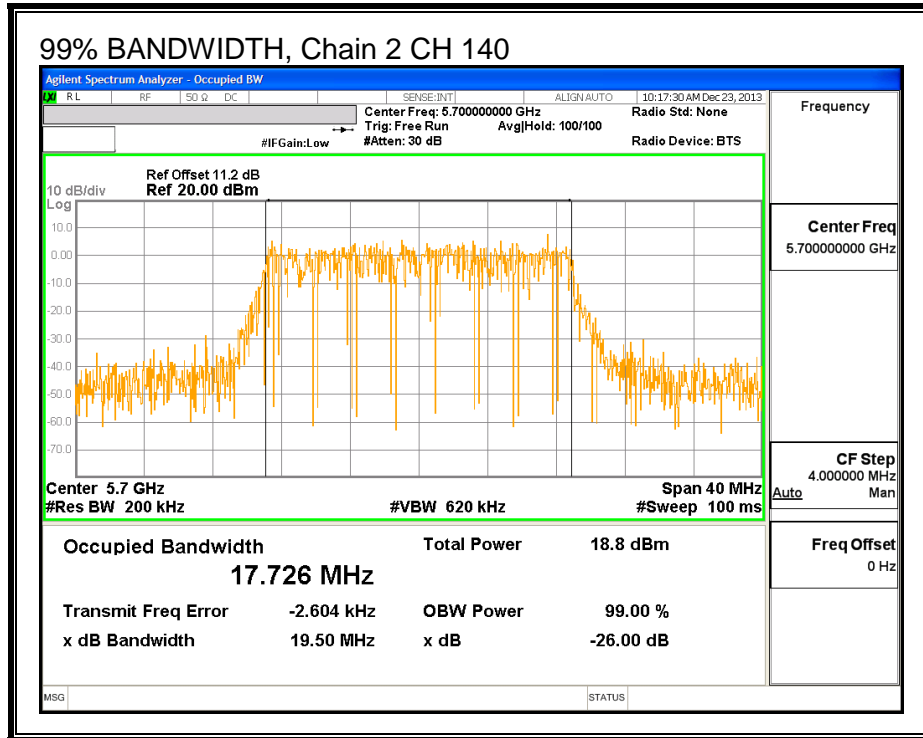
**99% BANDWIDTH, Chain 1**





**99% BANDWIDTH, Chain 2**





### 8.26.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.21 dB (including 10 dB pad and 1.21 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
100	5500	16.34	16.43	16.85	21.32
116	5580	14.92	15.10	15.45	19.93
140	5700	15.31	15.38	15.41	20.14

## **8.26.4. OUTPUT POWER AND PPSD**

### **LIMITS**

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **DIRECTIONAL ANTENNA GAIN**

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
100	5500	20.37	17.623	2.82	2.82
116	5580	20.43	17.584	2.82	2.82
140	5700	20.49	17.609	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
100	5500	24.00	23.46	29.46	23.46	11.00	11.00	11.00
116	5580	24.00	23.45	29.45	23.45	11.00	11.00	11.00
140	5700	24.00	23.46	29.46	23.46	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.17	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

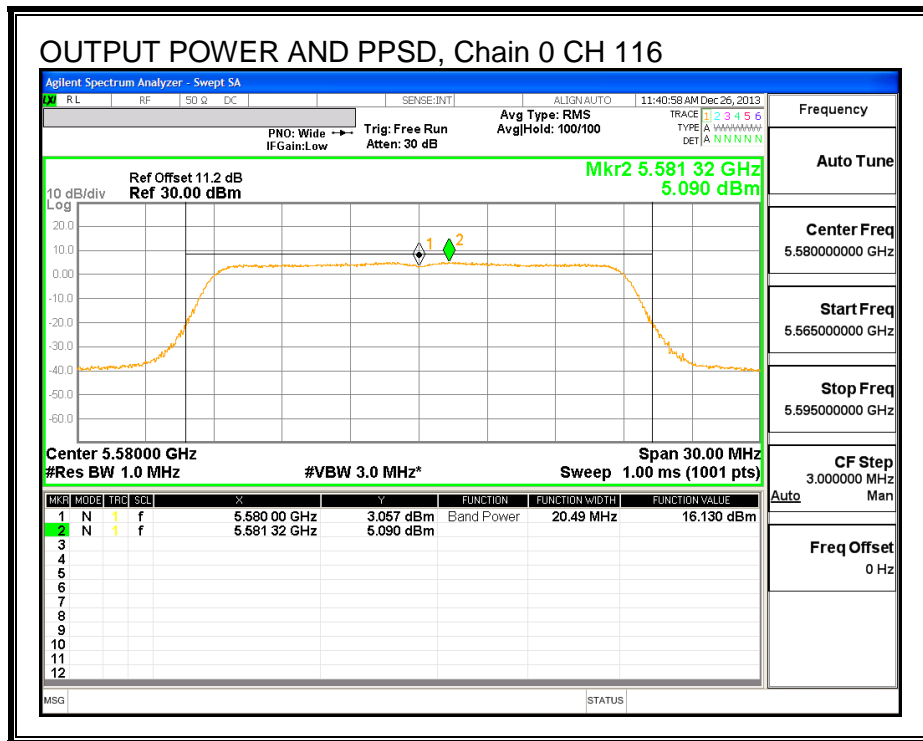
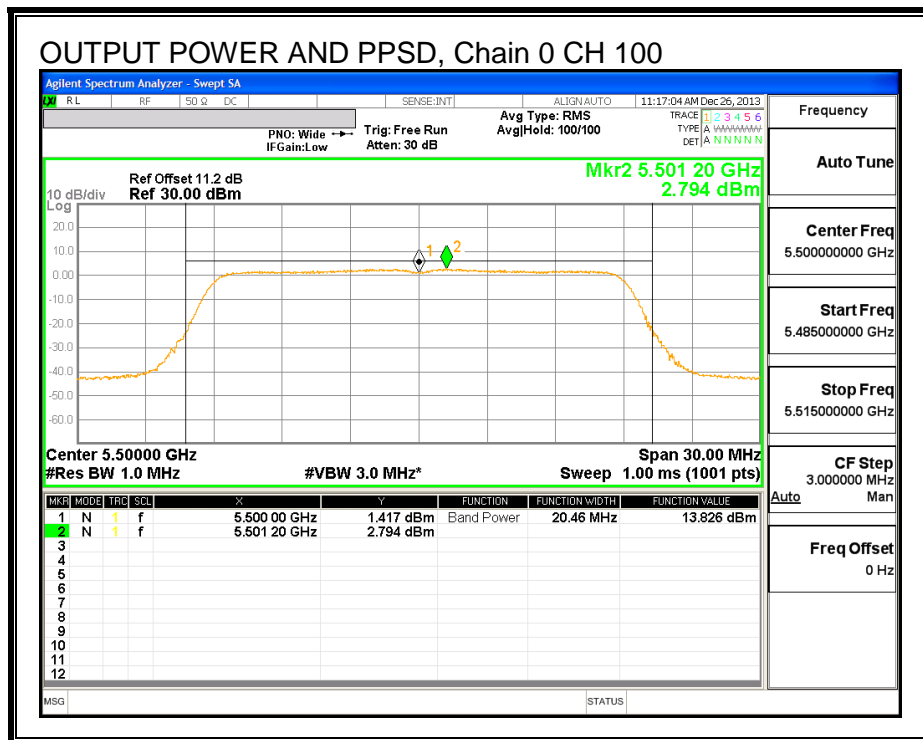
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
100	5500	13.826	13.759	14.169	18.86	23.46	-4.60
116	5580	16.130	16.084	16.332	21.12	23.45	-2.33
140	5700	15.975	16.318	16.293	21.14	23.46	-2.32

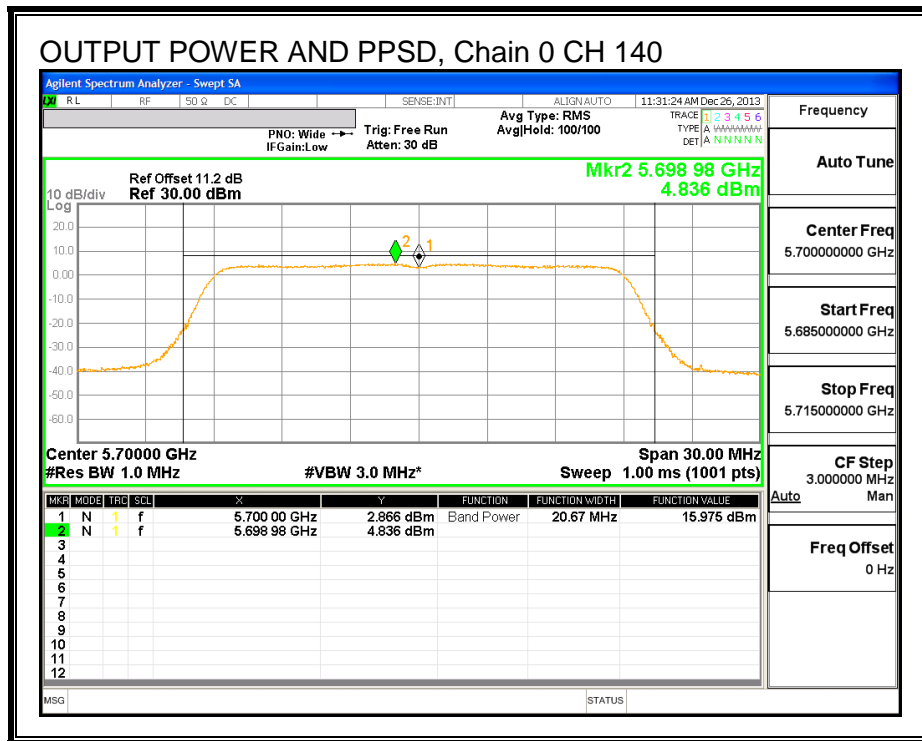
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
100	5500	2.794	2.974	3.161	7.92	11.00	-3.08
116	5580	5.090	5.086	5.250	10.08	11.00	-0.92
140	5700	4.836	5.450	5.168	10.10	11.00	-0.90

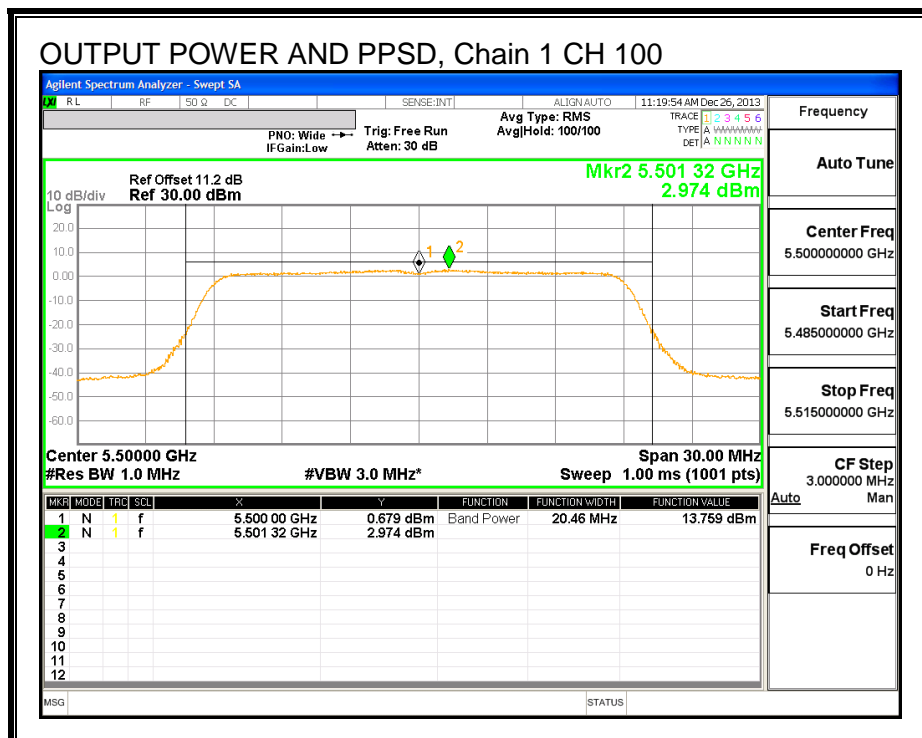


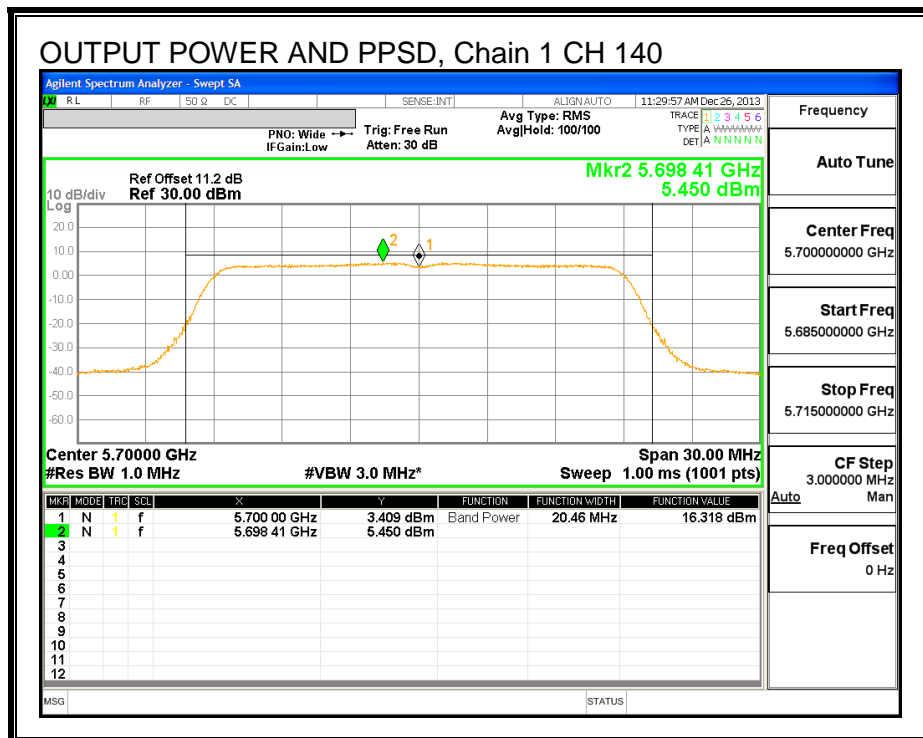
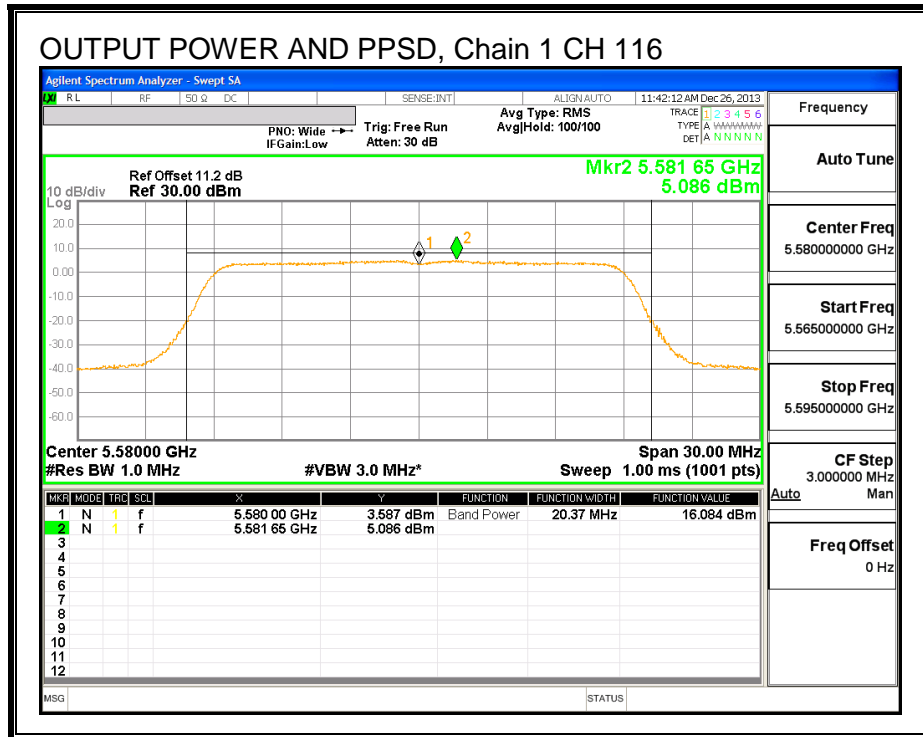
**OUTPUT POWER AND PPSD, Chain 0**



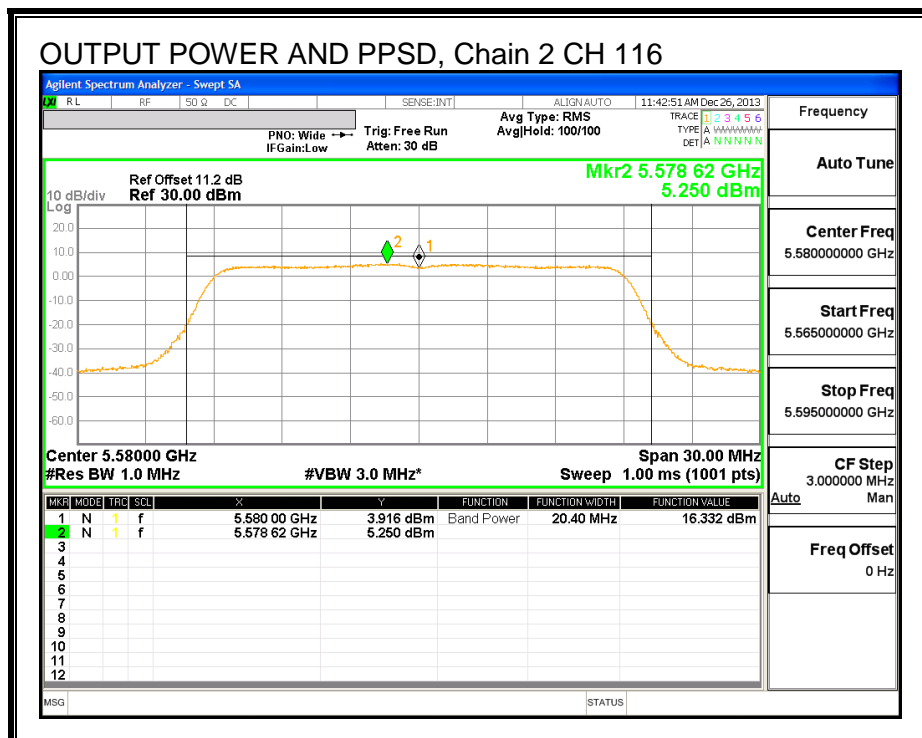
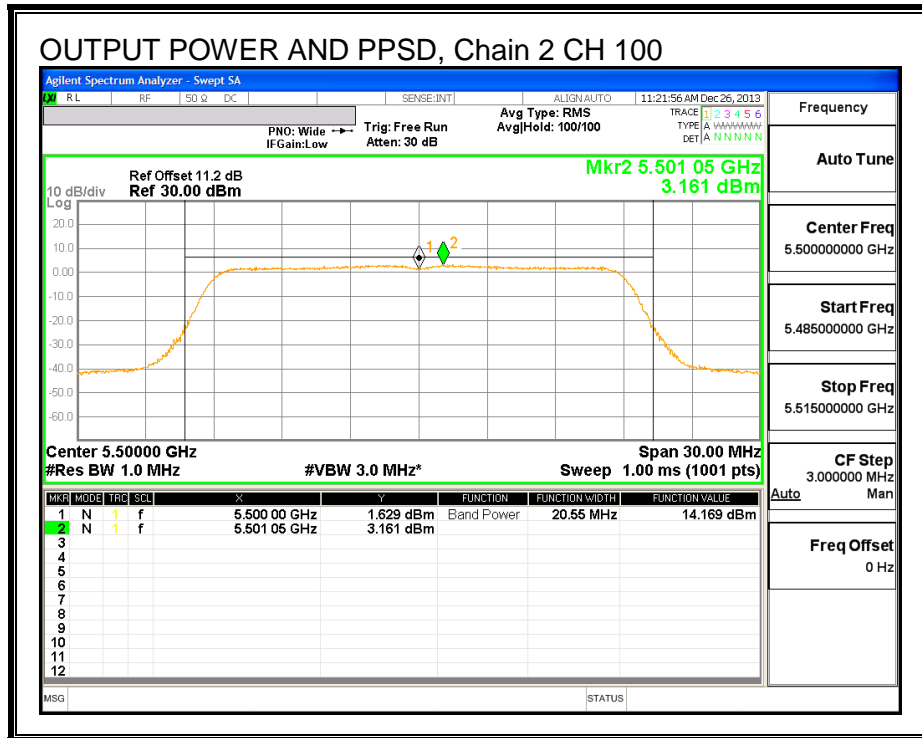


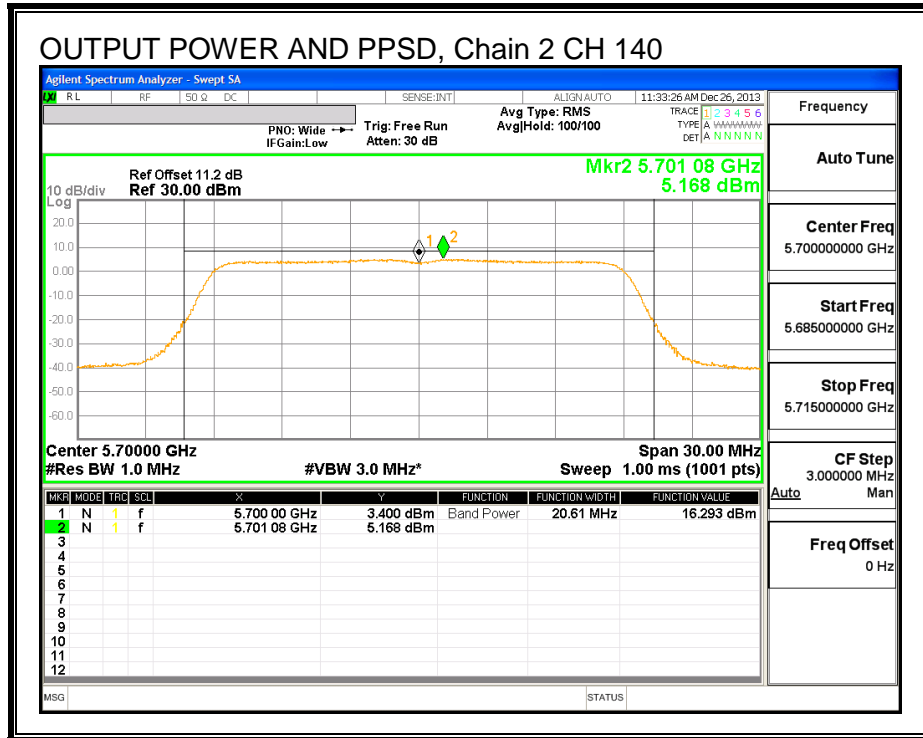
### OUTPUT POWER AND PPSD, Chain 1





**OUTPUT POWER AND PPSD, Chain 2**





### 8.26.5. PEAK EXCURSION

#### LIMITS

FCC §15.407 (a) (6)

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

#### RESULTS

Chain 0

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
116	5580	12.78	5.15	0.17	7.46	13	-5.54

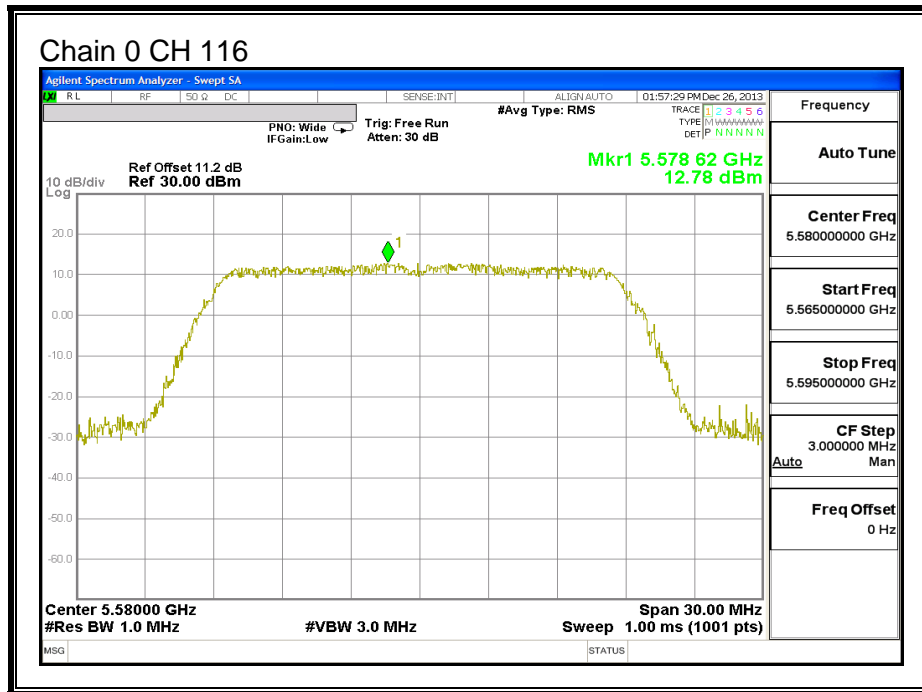
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
116	5580	13.97	5.77	0.17	8.03	13	-4.97

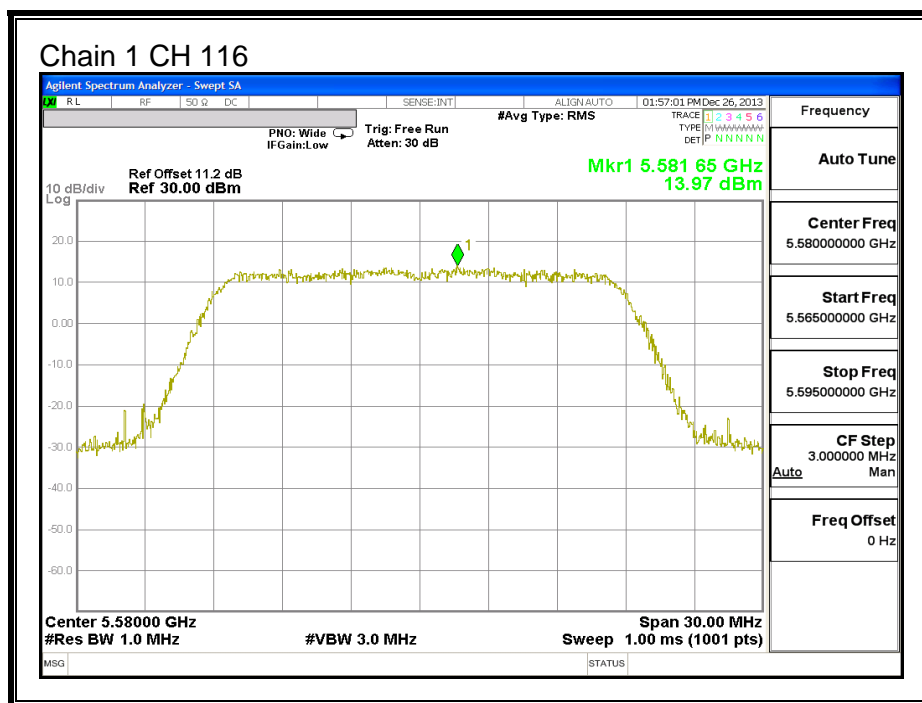
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
116	5580	13.89	5.59	0.17	8.13	13	-4.87

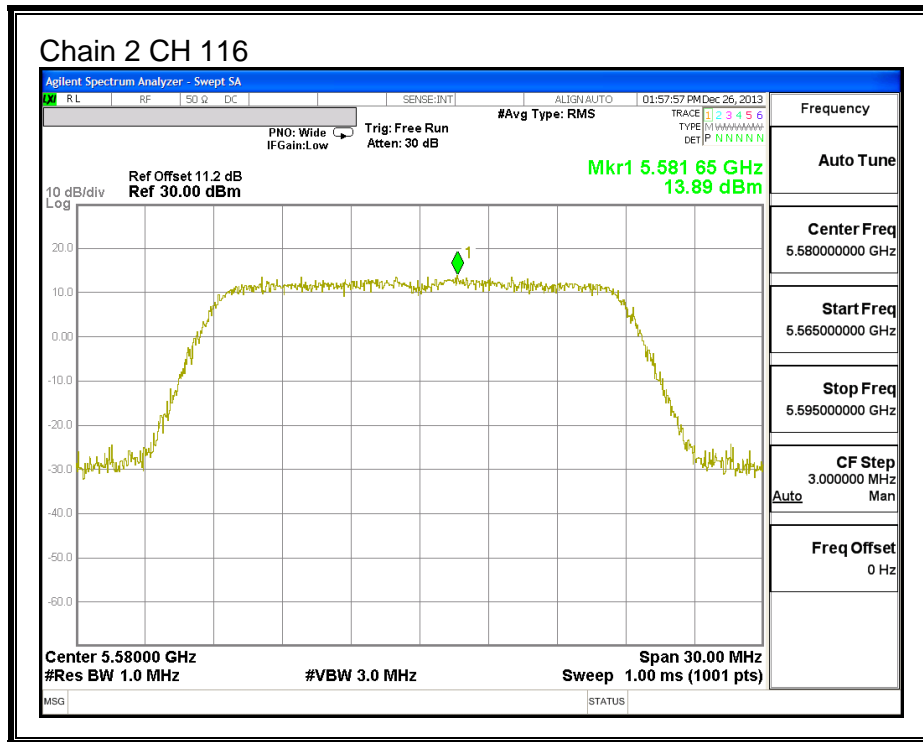
**PEAK EXCURSION, Chain 0**



**PEAK EXCURSION, Chain 1**



**PEAK EXCURSION, Chain 2**





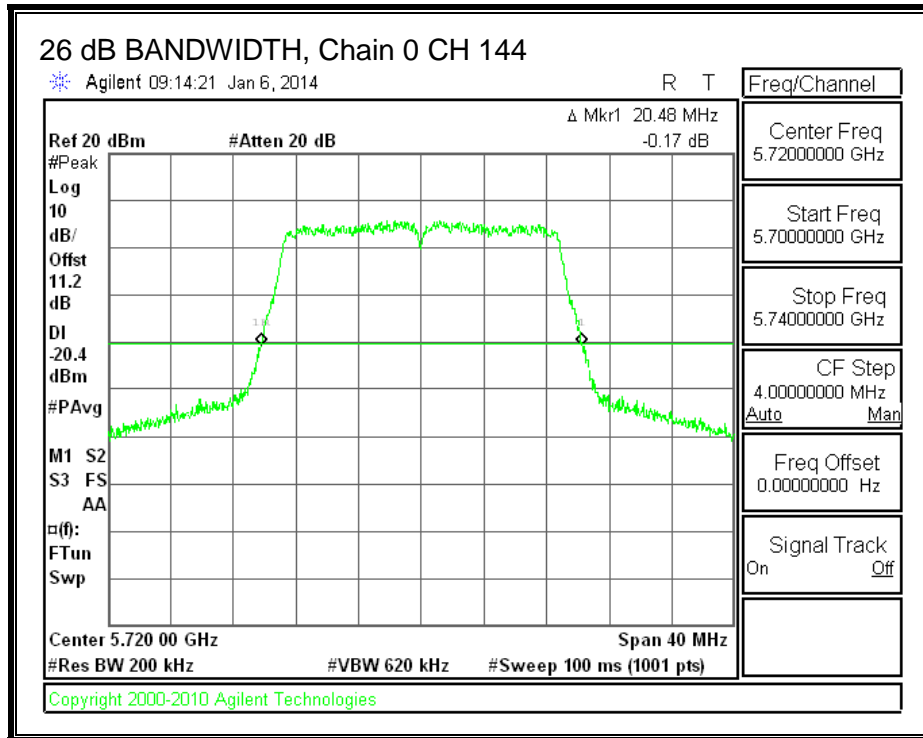
**8.27. 802.11ac 20MHz 3TX SDM MODE, CHANNEL 144, 5.6 GHz BAND****8.27.1.26 dB BANDWIDTH- UNII****LIMITS**

None; for reporting purposes only.

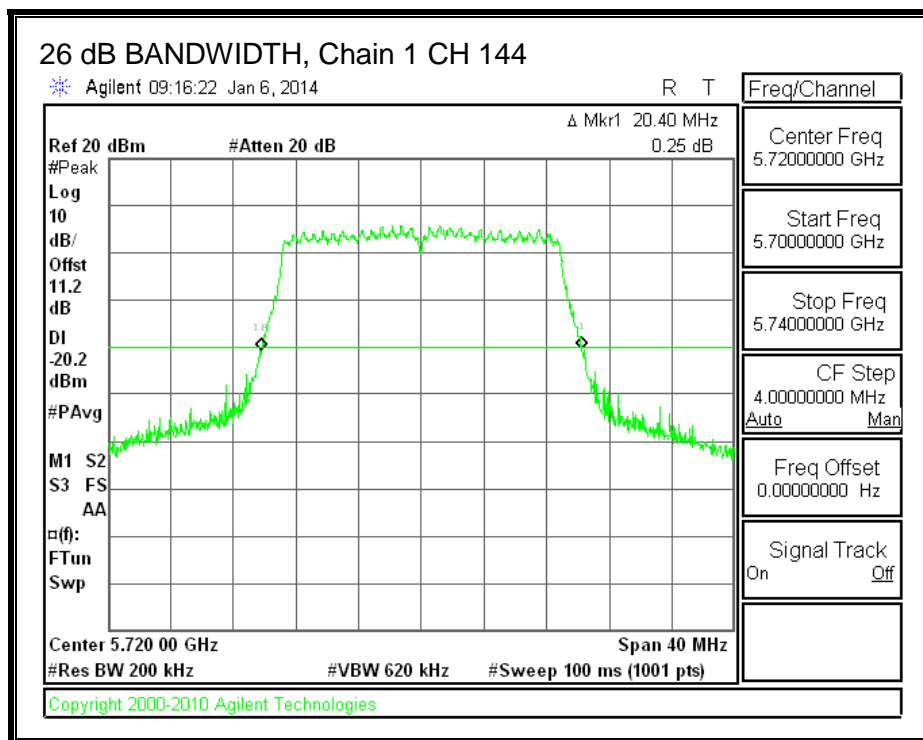
**RESULTS**

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
144	5720	20.48	20.40	20.48

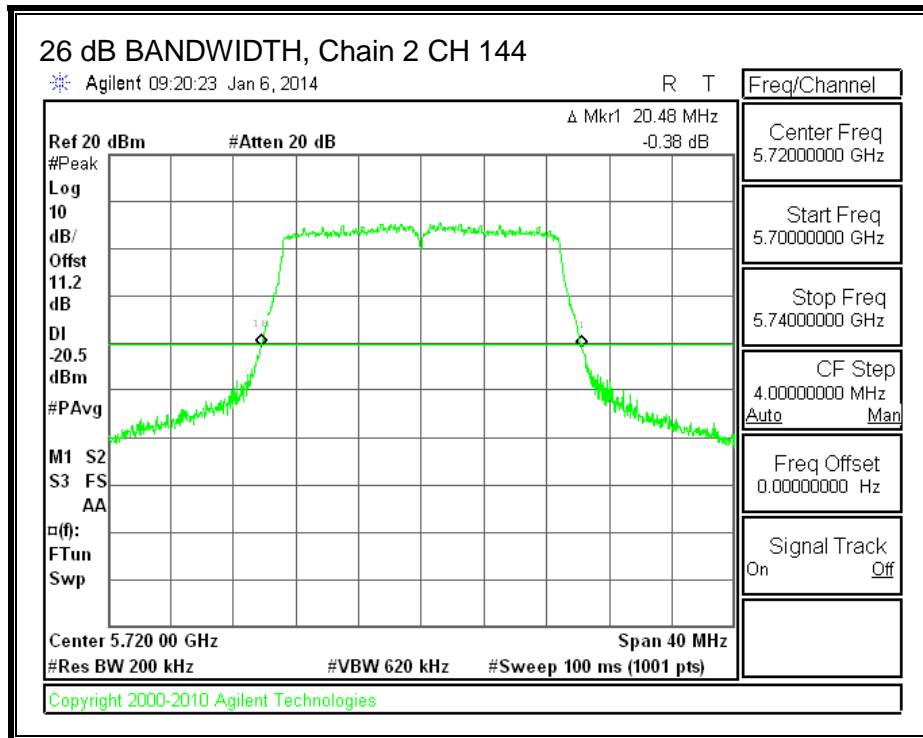
**26 dB BANDWIDTH, Chain 0**



**26 dB BANDWIDTH, Chain 1**



**26 dB BANDWIDTH, Chain 2**



### 8.27.2.99% BANDWIDTH

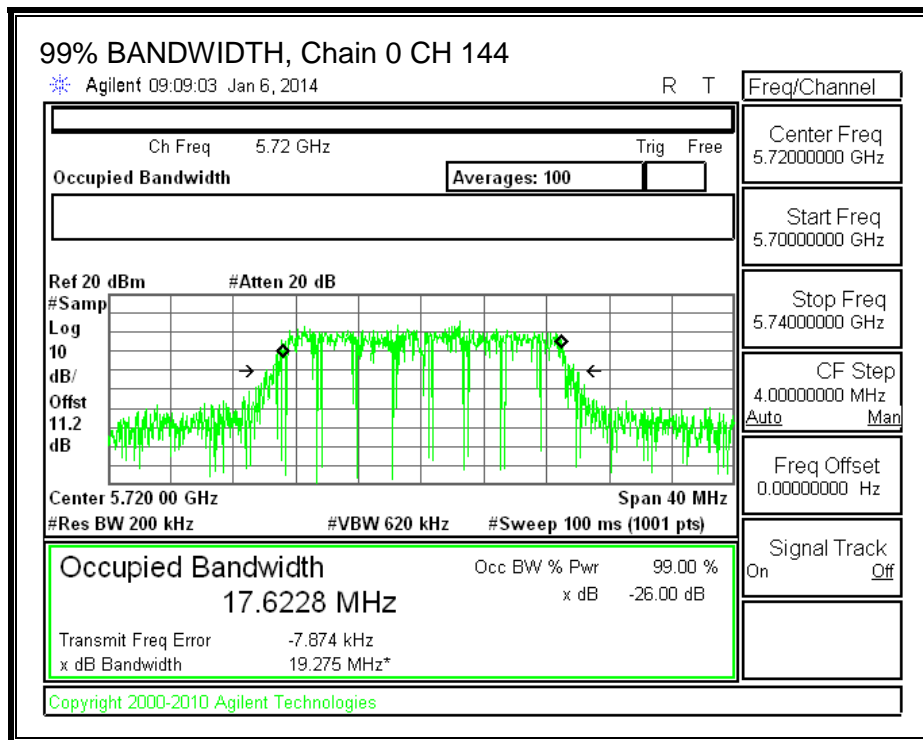
#### LIMITS

None; for reporting purposes only.

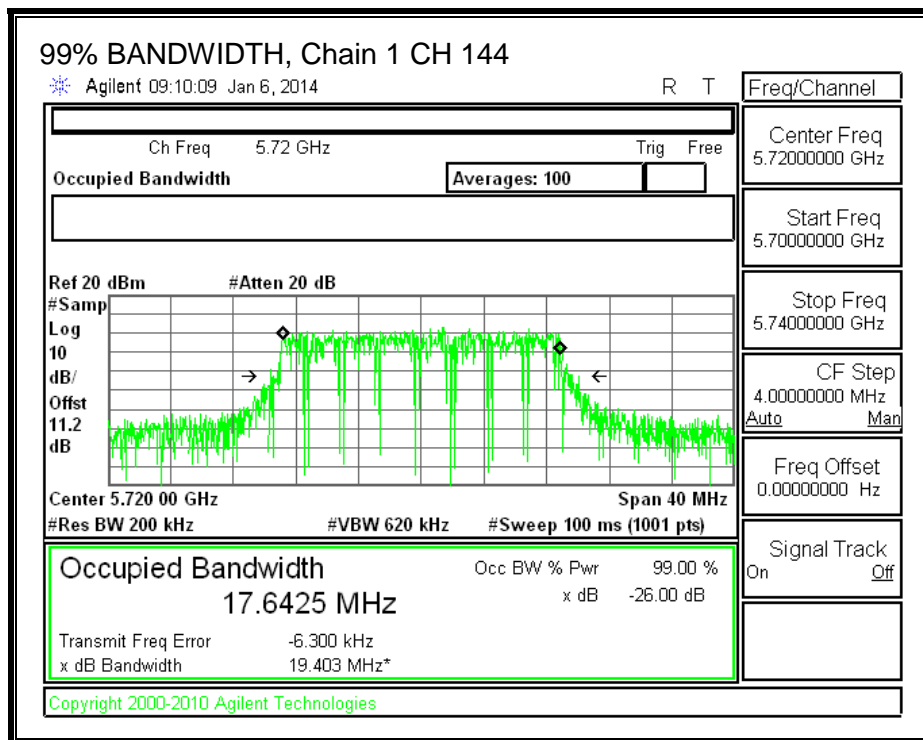
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
144	5720	17.6228	17.6425	17.6311

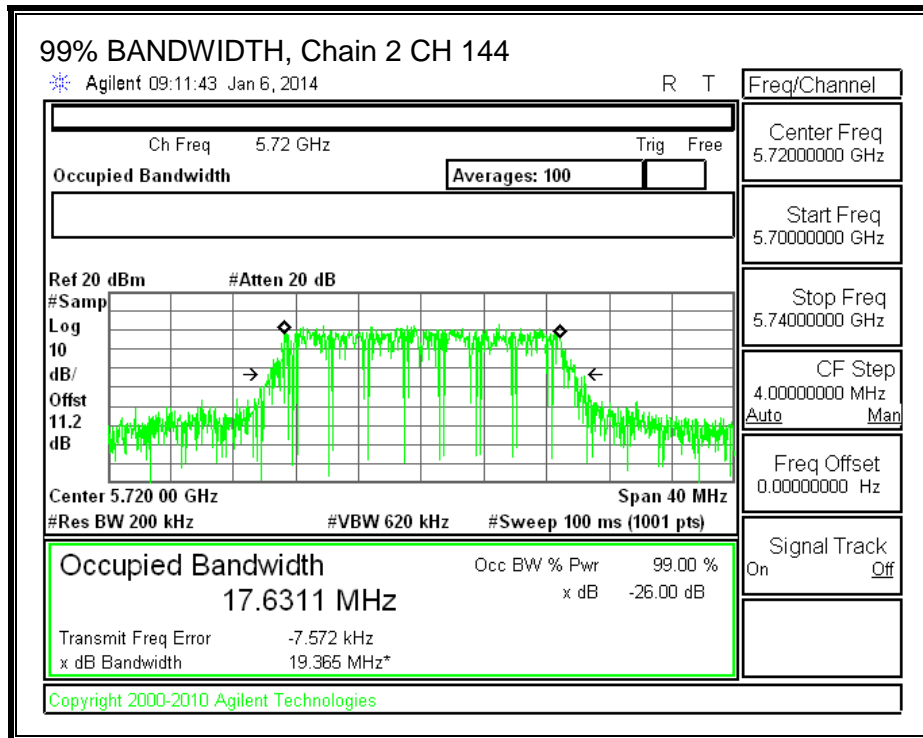
**99% BANDWIDTH, Chain 0**



**99% BANDWIDTH, Chain 1**



**99% BANDWIDTH, Chain 2**



### 8.27.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

For output power and PPSD, the TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5720	15.200	13.8199	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	22.82	22.41	28.41	22.41	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.17	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	14.81	14.73	14.71	19.69	22.41	-2.71

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	4.21	4.22	4.15	9.13	11.00	-1.87



**Limits (FCC), portion in 5.8 GHz DTS band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5720	5.200	3.8199	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	18.16	16.82	22.82	16.82	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.17	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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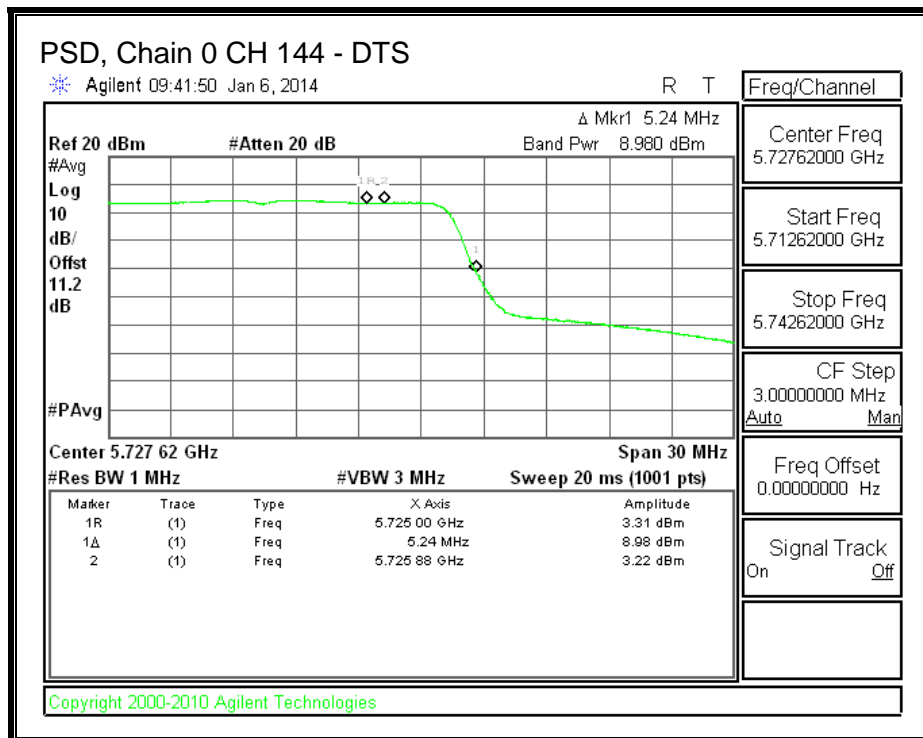
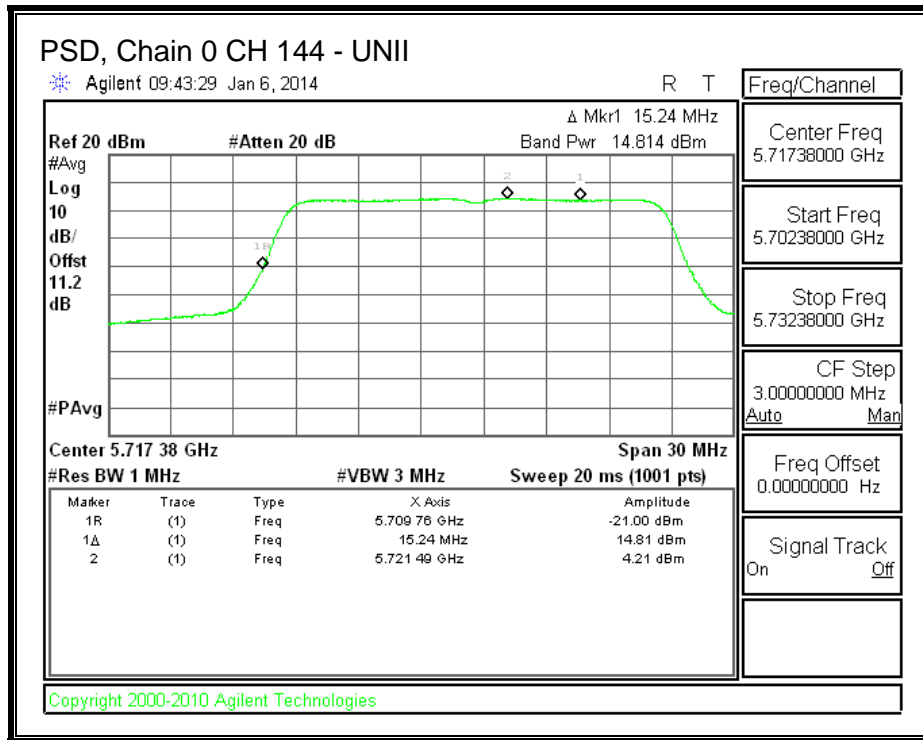
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	8.98	8.74	8.78	13.78	16.82	-3.04

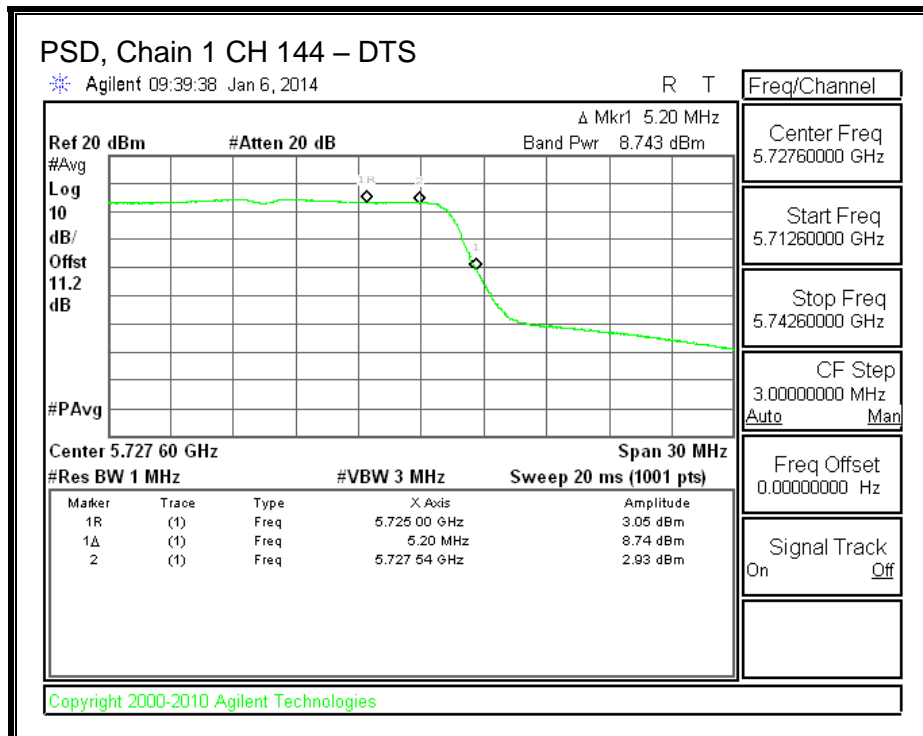
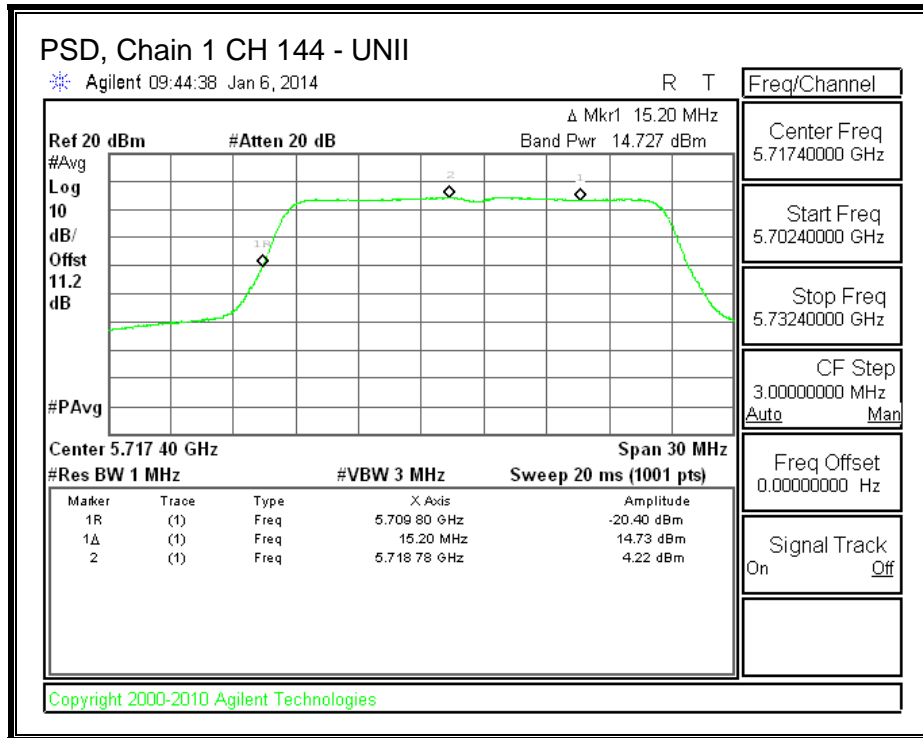
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	3.220	2.93	2.94	7.97	11.00	-3.03

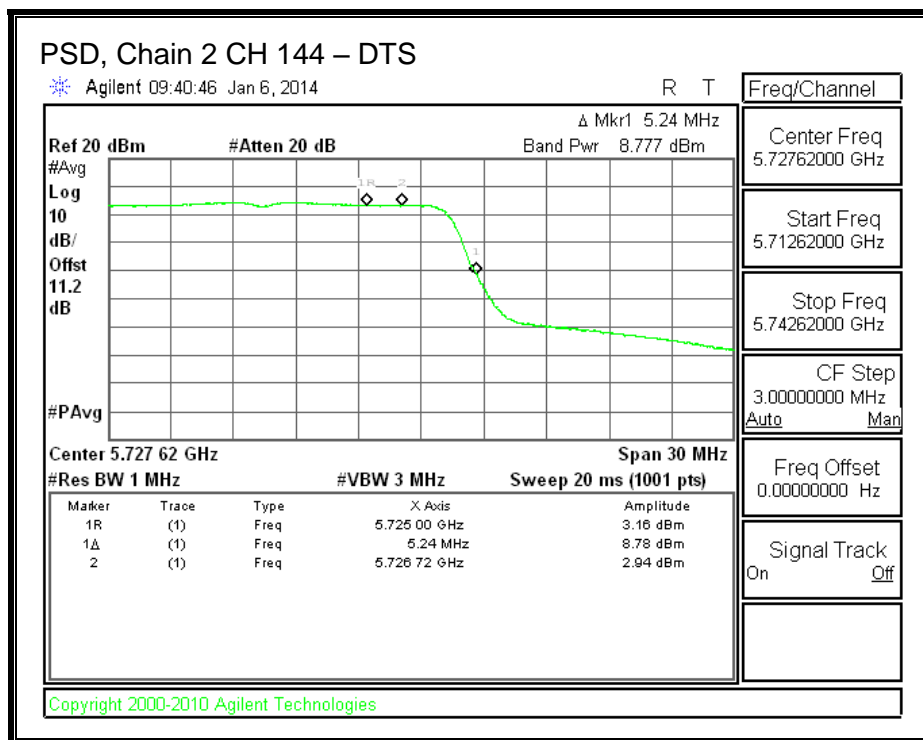
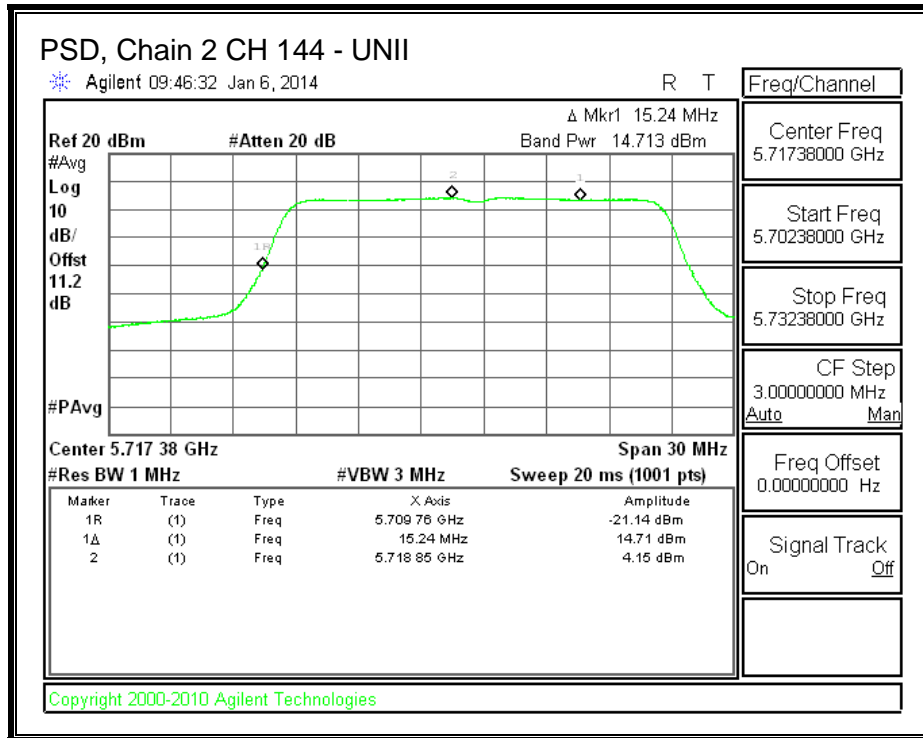
**OUTPUT POWER & PSD, Chain 0**



**OUTPUT POWER & PPSD, Chain 1**



**OUTPUT POWER & PPSD, Chain 2**



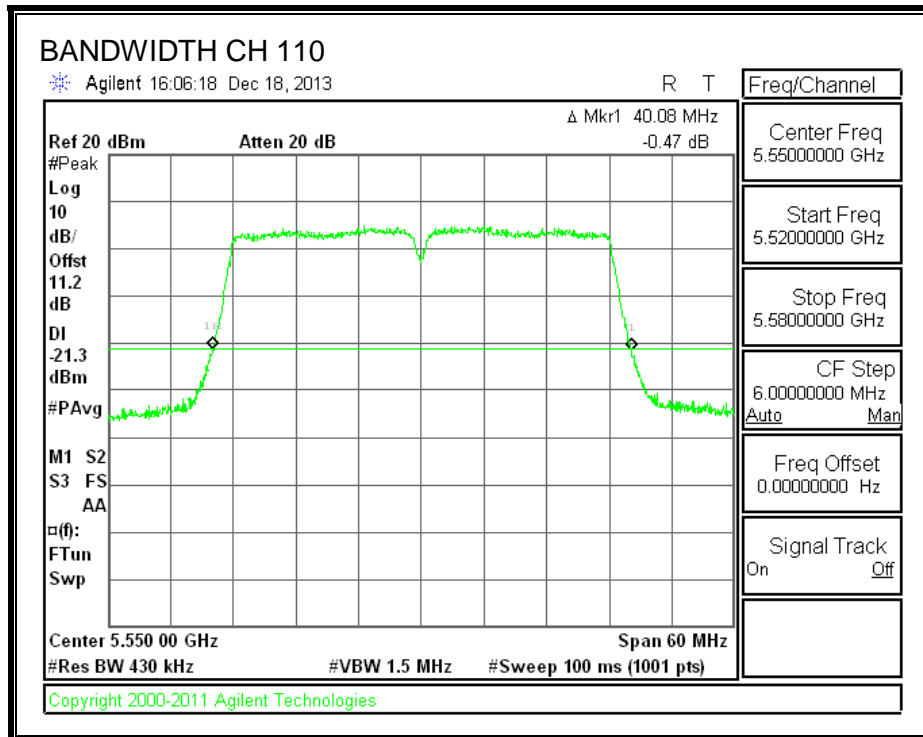
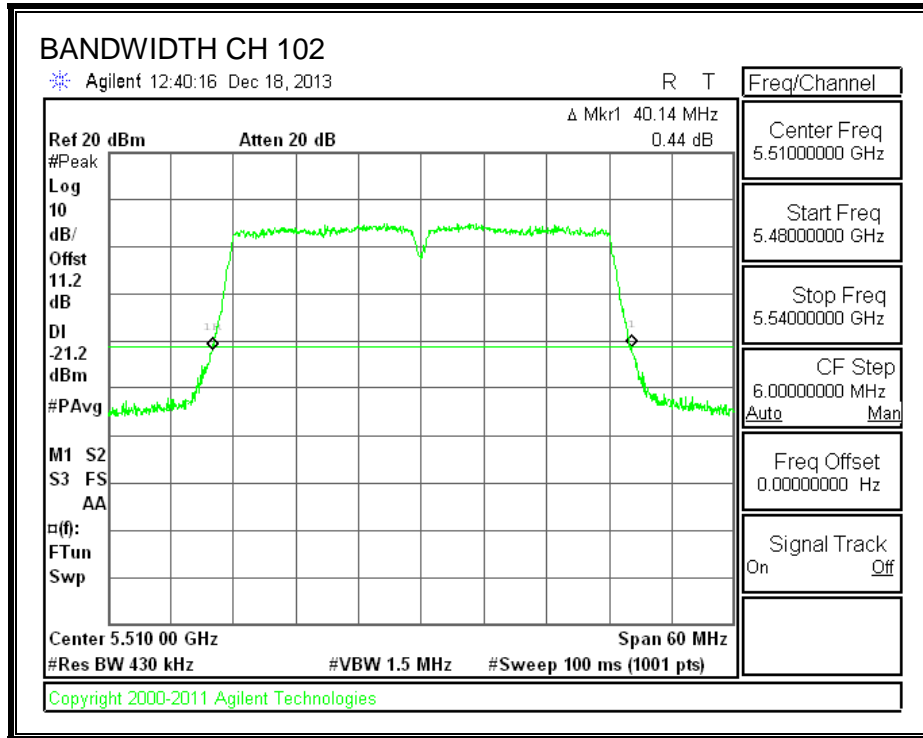
**8.28. 802.11n HT40 1TX SISO MODE IN THE 5.6 GHz BAND****8.28.1. 26 dB BANDWIDTH****LIMITS**

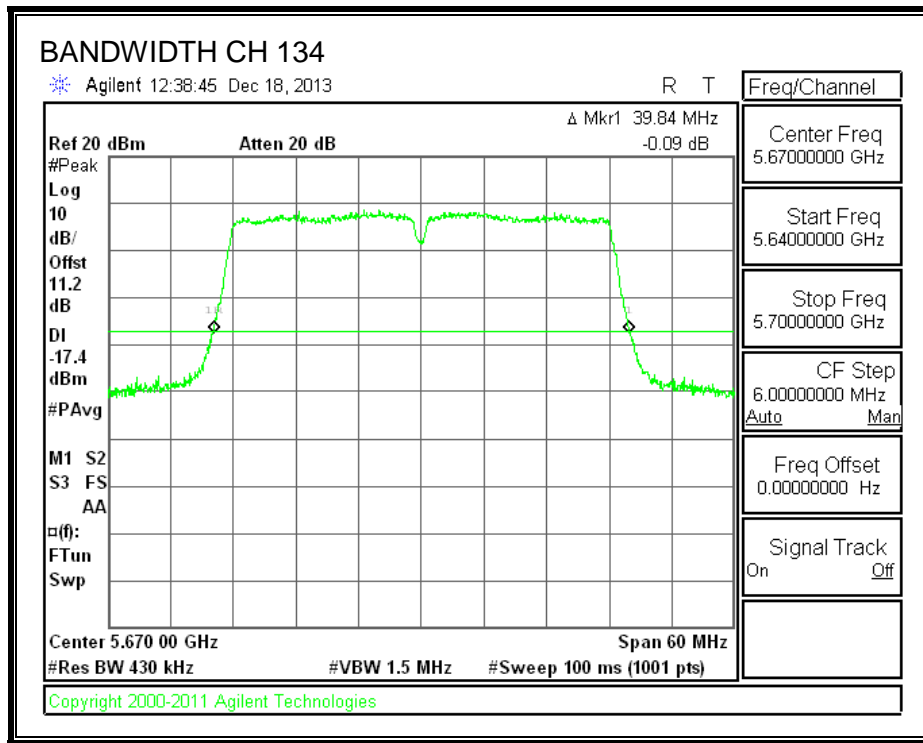
None; for reporting purposes only.

**RESULTS**

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
102	5510	40.14
110	5550	40.08
134	5670	39.84

**26 dB BANDWIDTH**





**8.28.2. 99% BANDWIDTH**

**LIMITS**

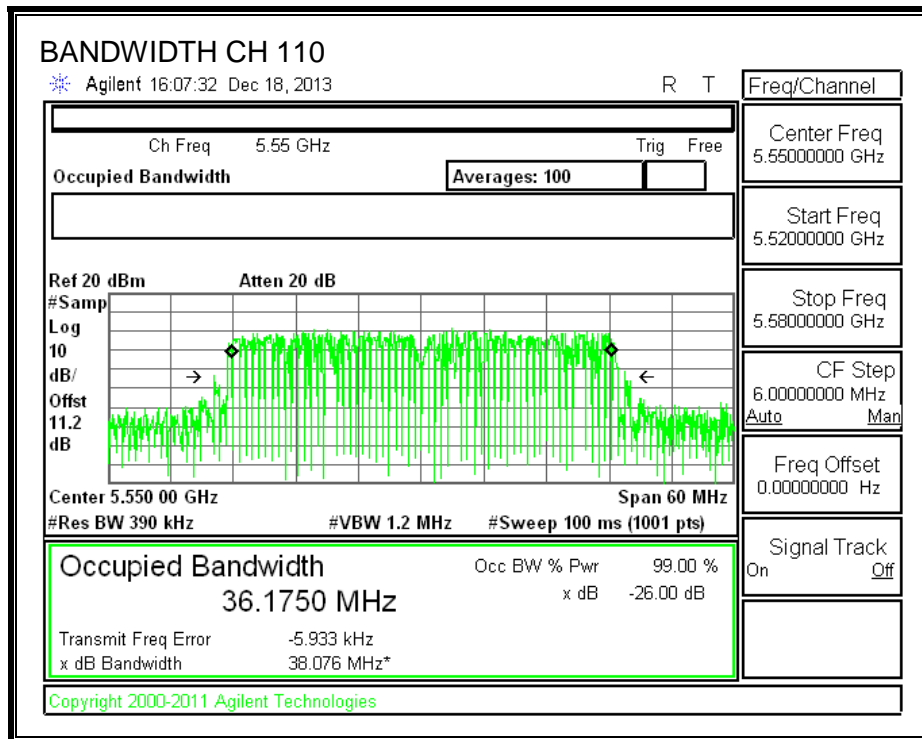
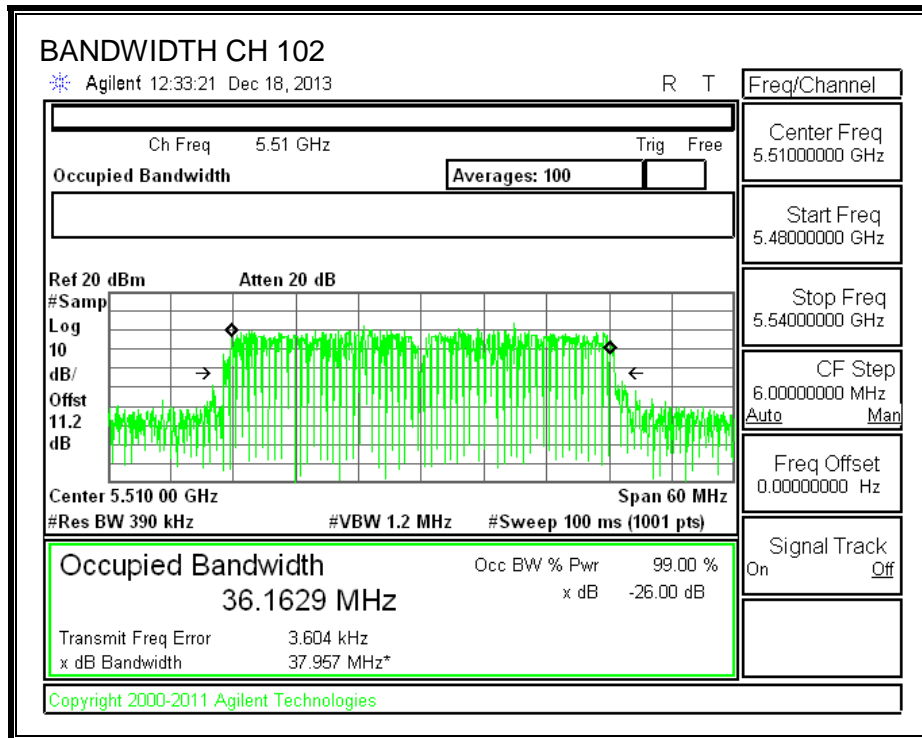
None; for reporting purposes only.

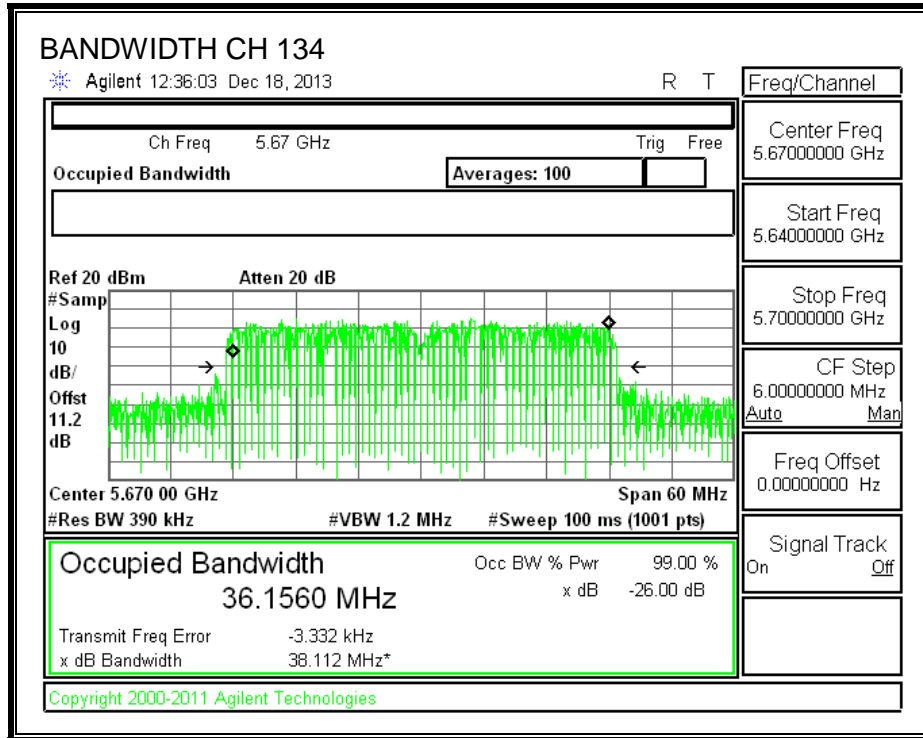
**RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
102	5510	36.1629
110	5550	36.1750
134	5670	36.1560



**99% BANDWIDTH**





### 8.28.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.21 dB (including 10 dB pad and 1.21 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

Channel	Frequency (MHz)	Power (dBm)
102	5510	13.8
110	5550	22.4
134	5670	16.7

### 8.28.4. OUTPUT POWER AND PPSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
102	5510	40.1	36.2	2.82
110	5550	40.1	36.2	2.82
134	5670	39.8	36.2	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
102	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
110	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
134	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.42	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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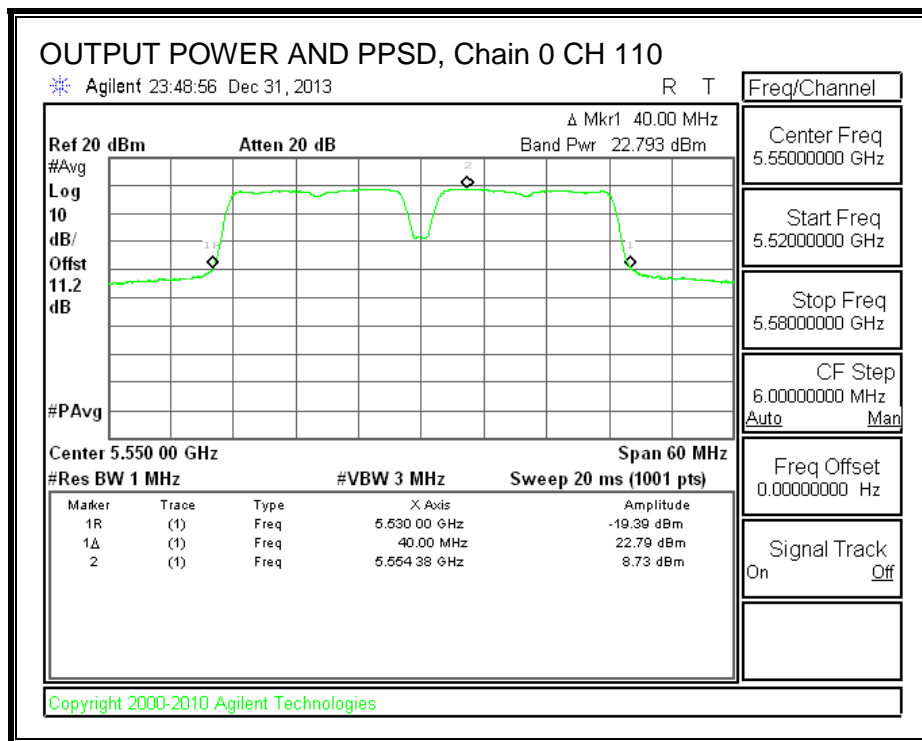
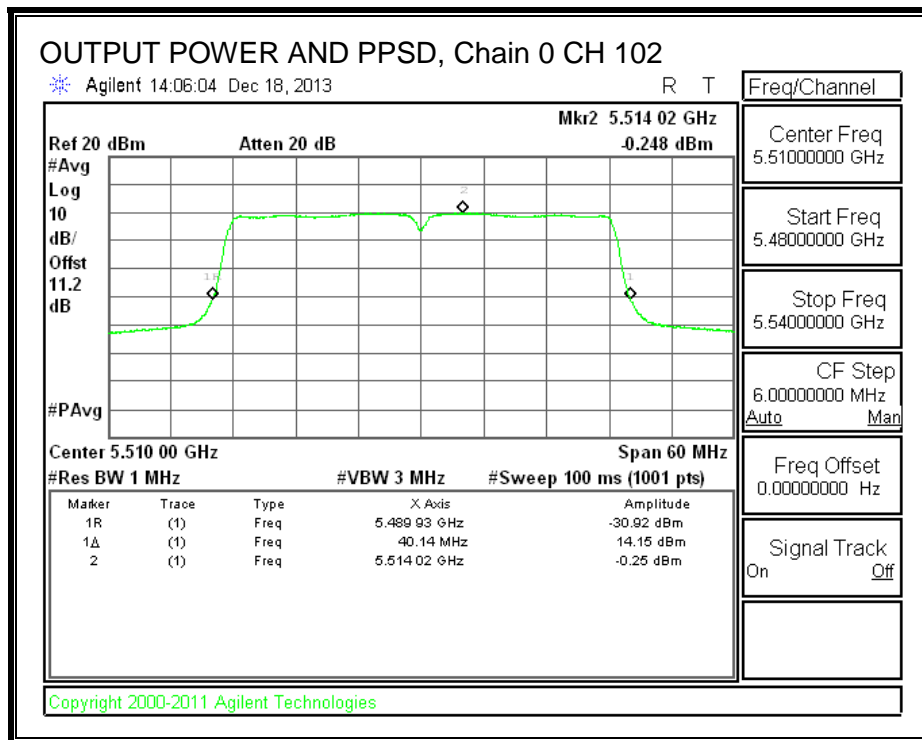
**Output Power Results**

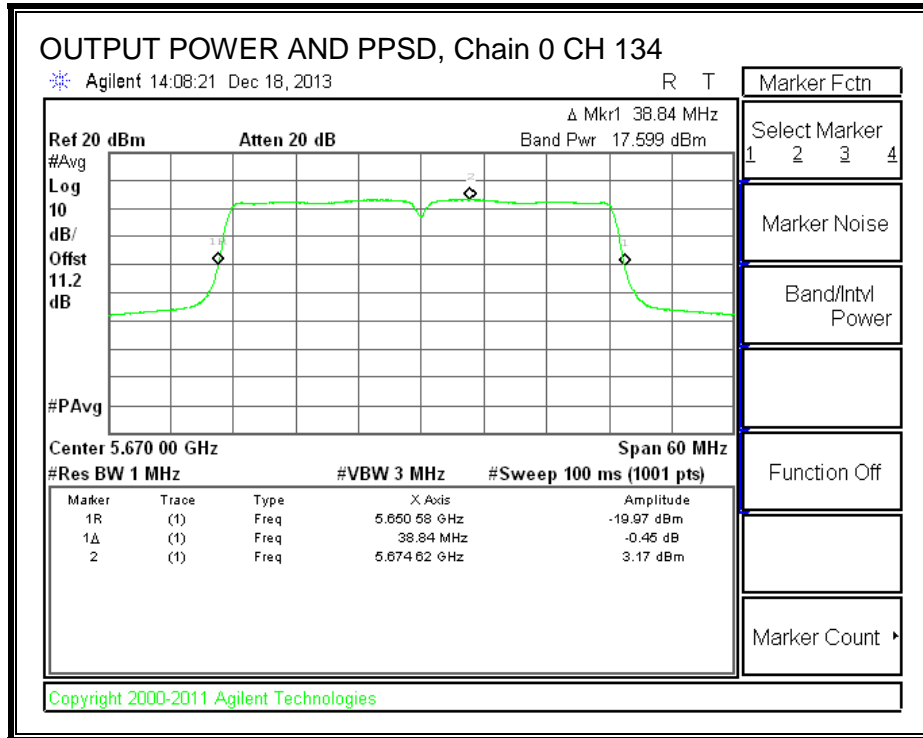
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
102	5510	14.15	14.57	24.00	-9.43
110	5550	22.79	23.21	24.00	-0.79
134	5670	17.60	18.02	24.00	-5.98

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
102	5510	-0.25	0.17	11.00	-10.83
110	5550	8.73	9.15	11.00	-1.85
134	5670	3.17	3.59	11.00	-7.41

**OUTPUT POWER AND PPSD, Chain 0**





### 8.28.5. PEAK EXCURSION

#### LIMITS

FCC §15.407 (a) (6)

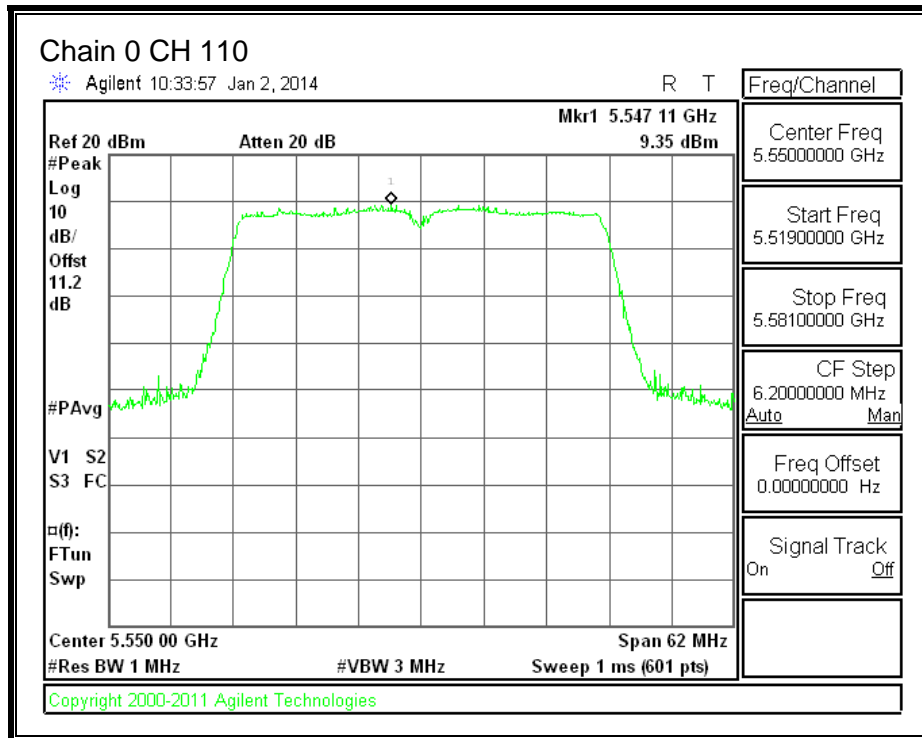
The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

#### RESULTS

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	9.35	8.73	0.42	0.20	13	-12.80



**PEAK EXCURSION, Chain 0**



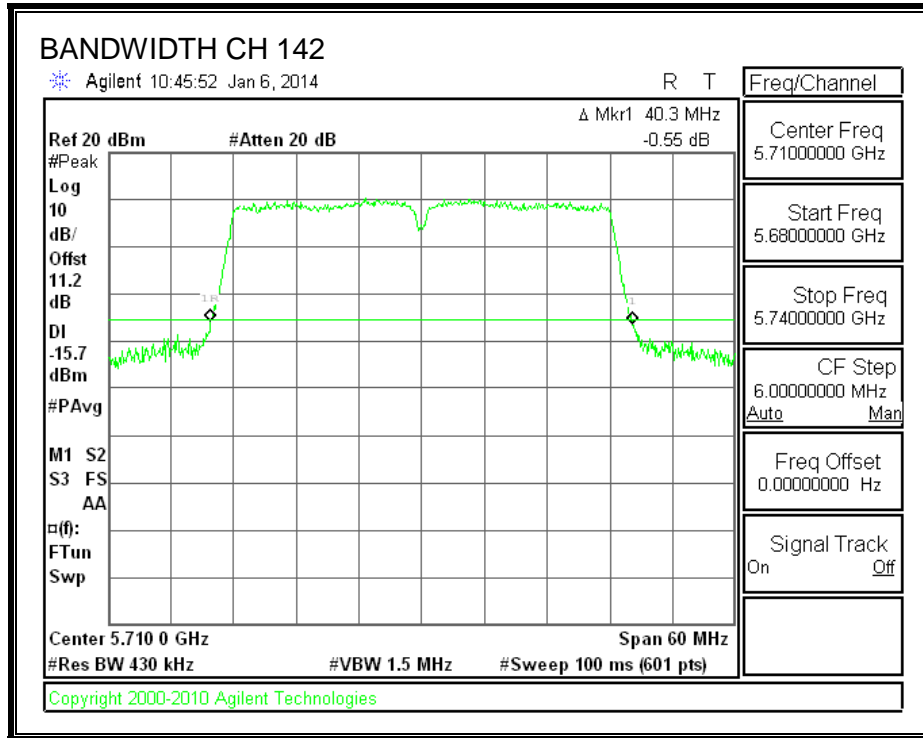
**8.29. 802.11ac 40MHz 1TX SISO MODE, CHANNEL 142, 5.6 GHz BAND****8.29.1. 26 dB BANDWIDTH****LIMITS**

None; for reporting purposes only.

**RESULTS**

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
142	5710	40.30

**26 dB BANDWIDTH**



**8.29.2. 99% BANDWIDTH**

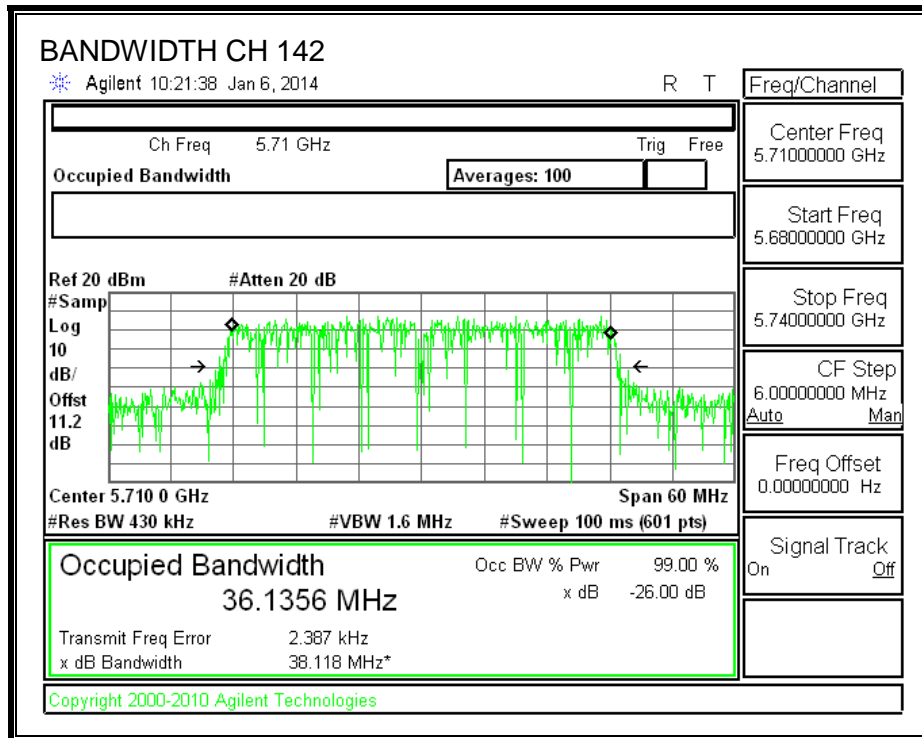
**LIMITS**

None; for reporting purposes only.

**RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
142	5710	36.1356

**99% BANDWIDTH**



### 8.29.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
142	5710	35.15	33.0678	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
142	5710	24.00	24.00	30.00	24.00	11.00	11.00	11.00

**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	22.89	23.31	24.00	-0.69

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	9.320	9.74	11.00	-1.26

<b>Duty Cycle CF (dB)</b>	0.42	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Limits (FCC), portion in 5.8 GHz DTS band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
142	5710	5.15	3.0678	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
142	5710	18.12	15.87	21.87	15.87	11.00	11.00	11.00

**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	12.47	12.89	15.87	-2.98

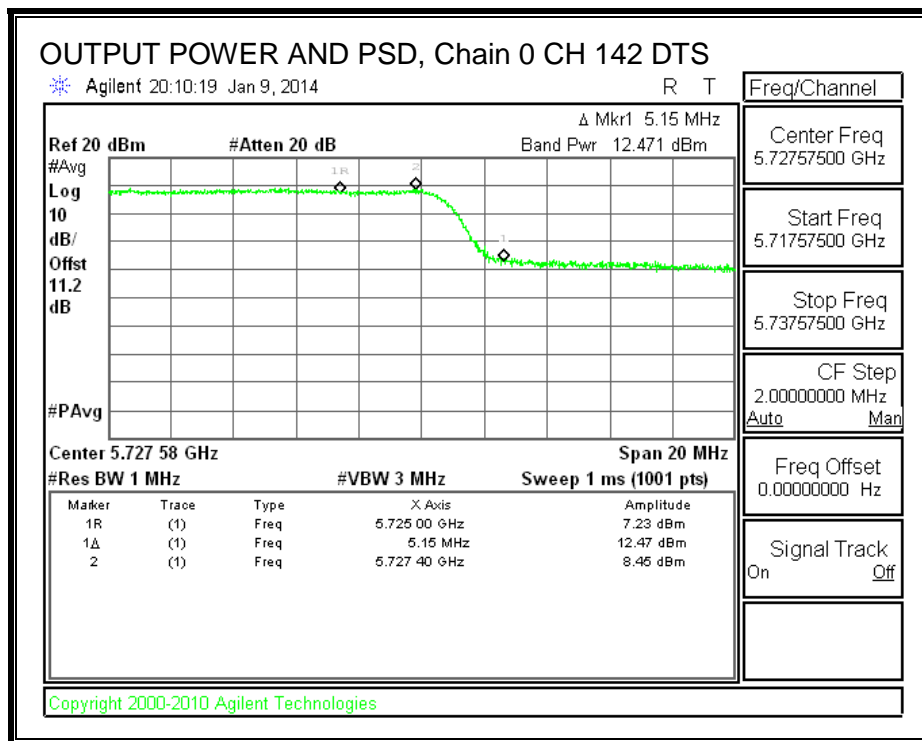
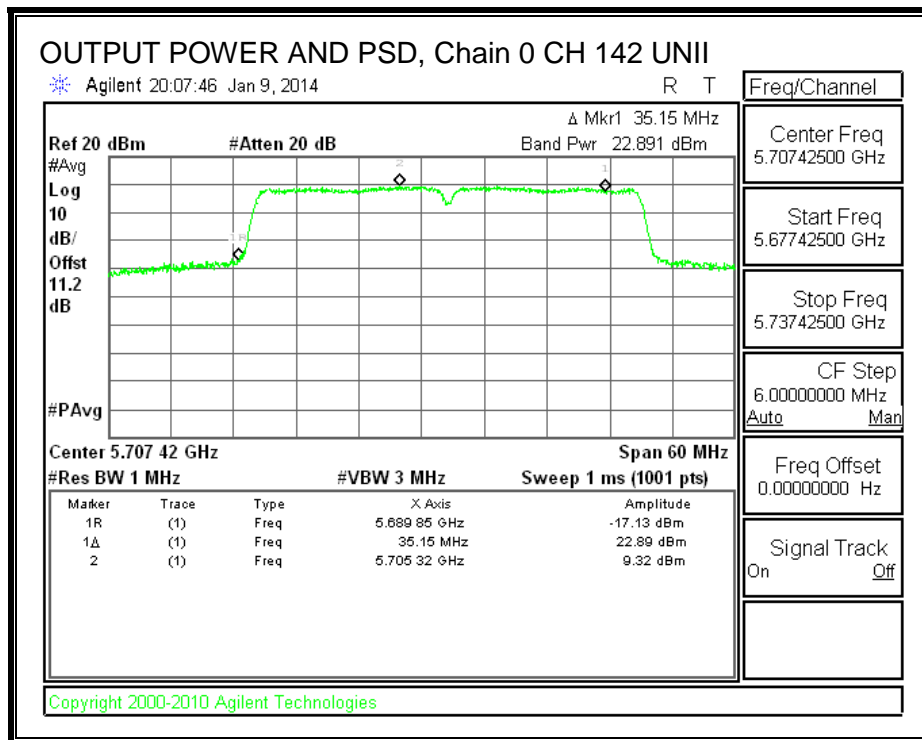
**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	8.450	8.87	11.00	-2.13

<b>Duty Cycle CF (dB)</b>	0.42	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**OUTPUT POWER AND PSD, Chain 0**



### 8.30. 802.11n HT40 3TX CDD MODE IN THE 5.6 GHZ BAND

#### 8.30.1. 26 dB BANDWIDTH

##### LIMITS

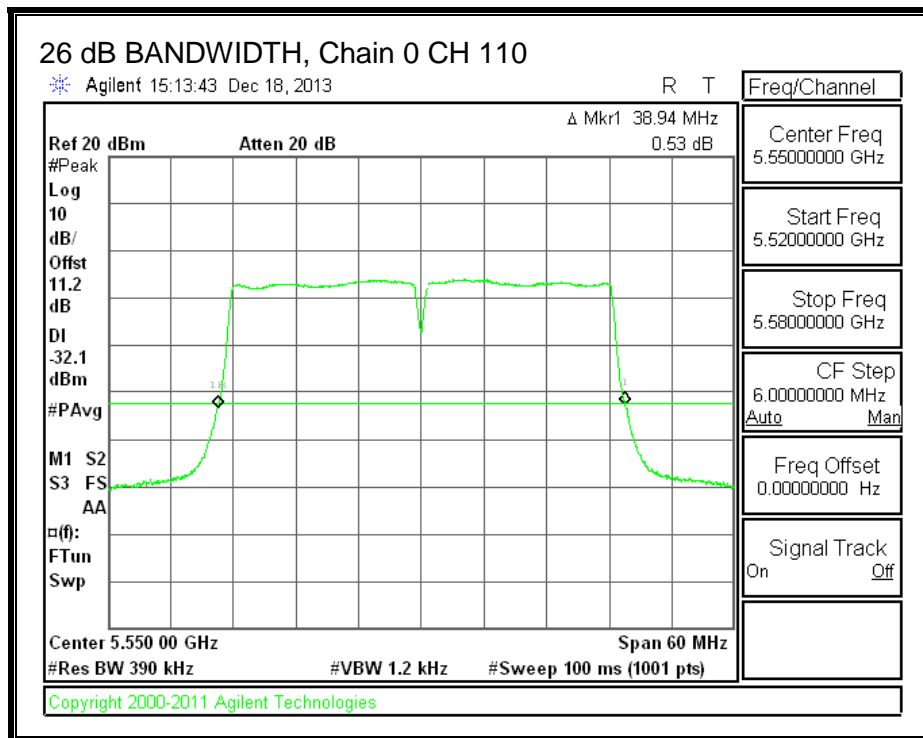
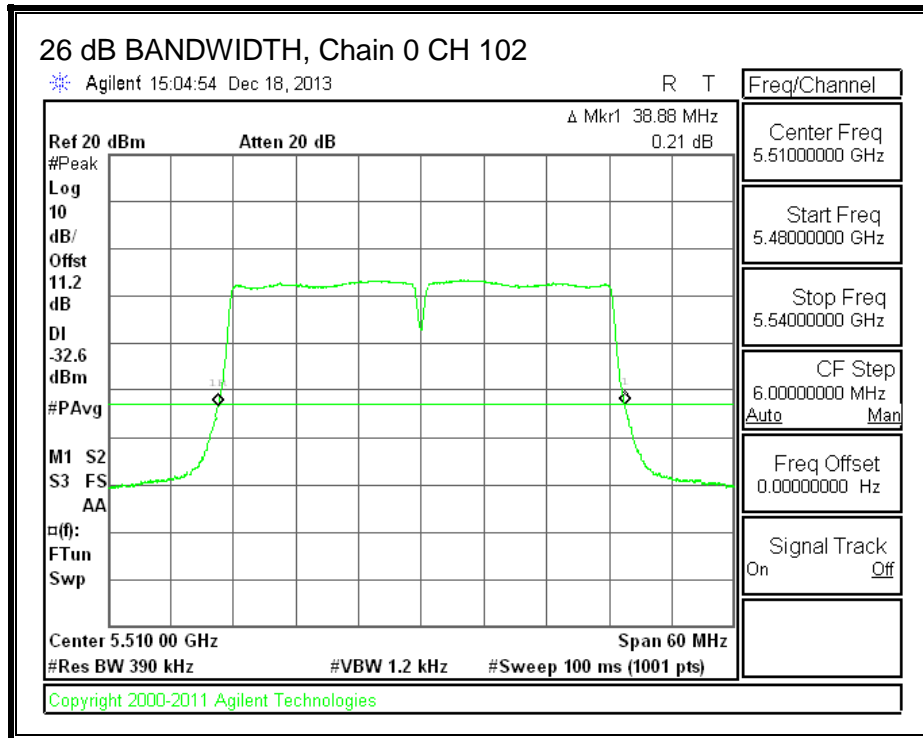
None; for reporting purposes only.

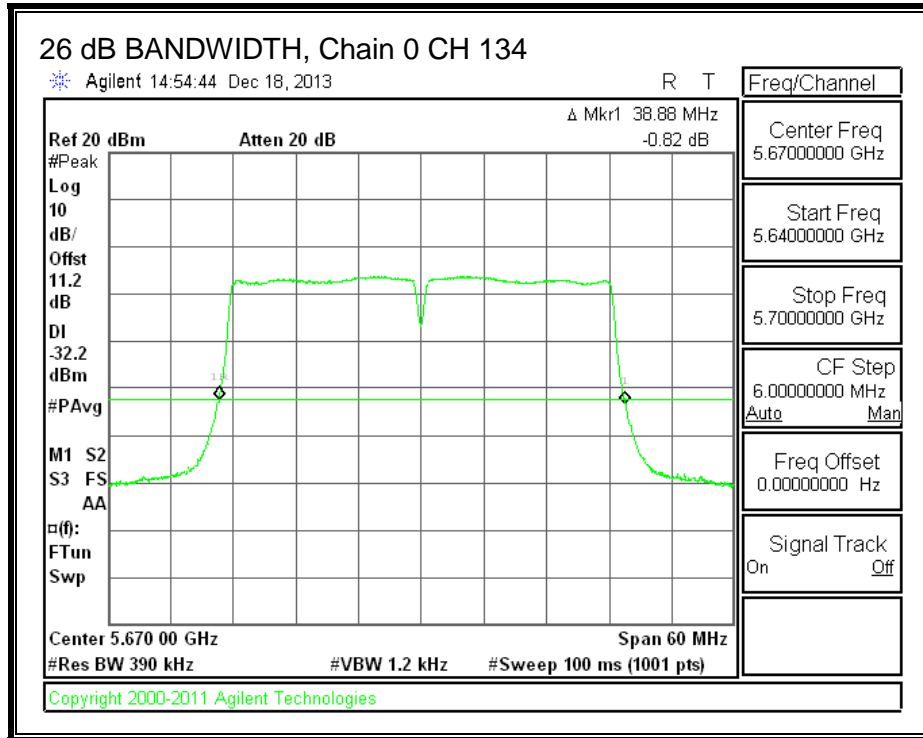
##### RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
102	5510	38.88	38.88	38.94
110	5550	38.94	38.82	38.88
134	5670	38.88	38.76	38.76

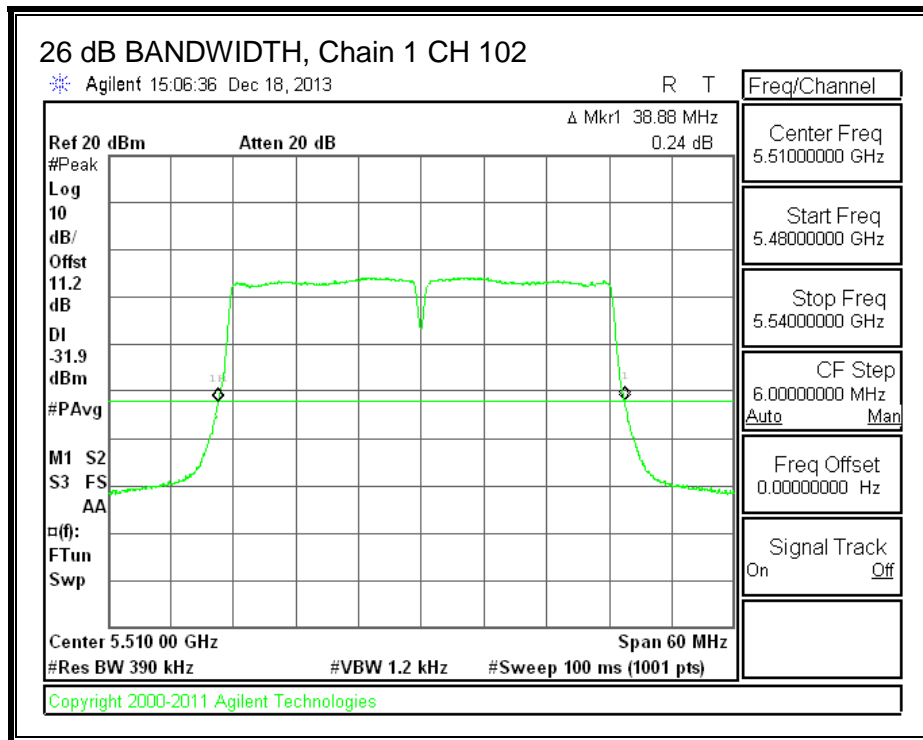
**26 dB BANDWIDTH**

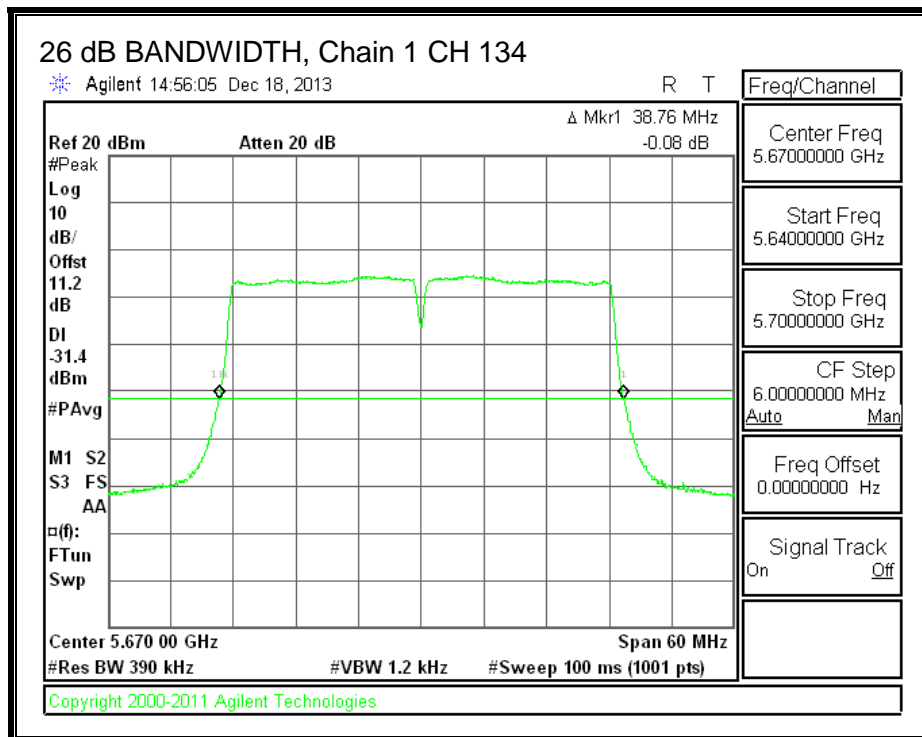
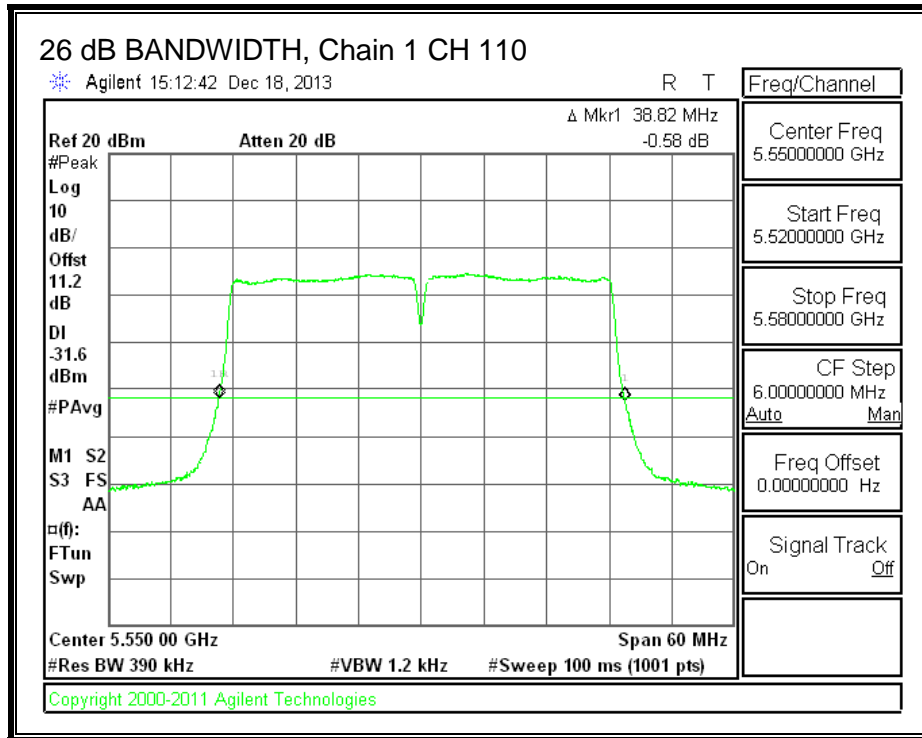
**26 dB BANDWIDTH, Chain 0**



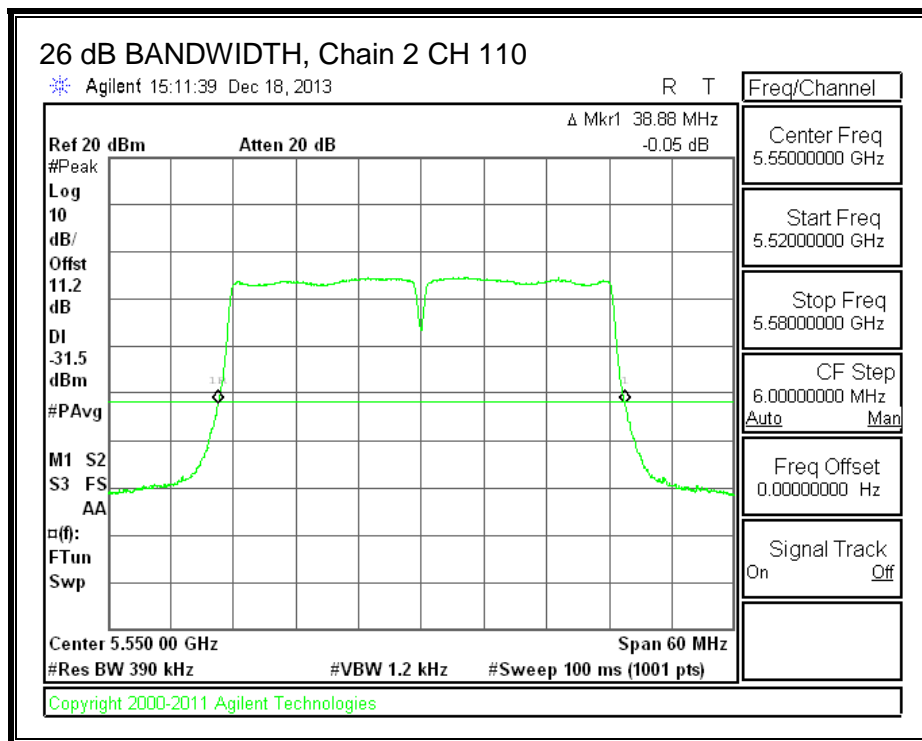
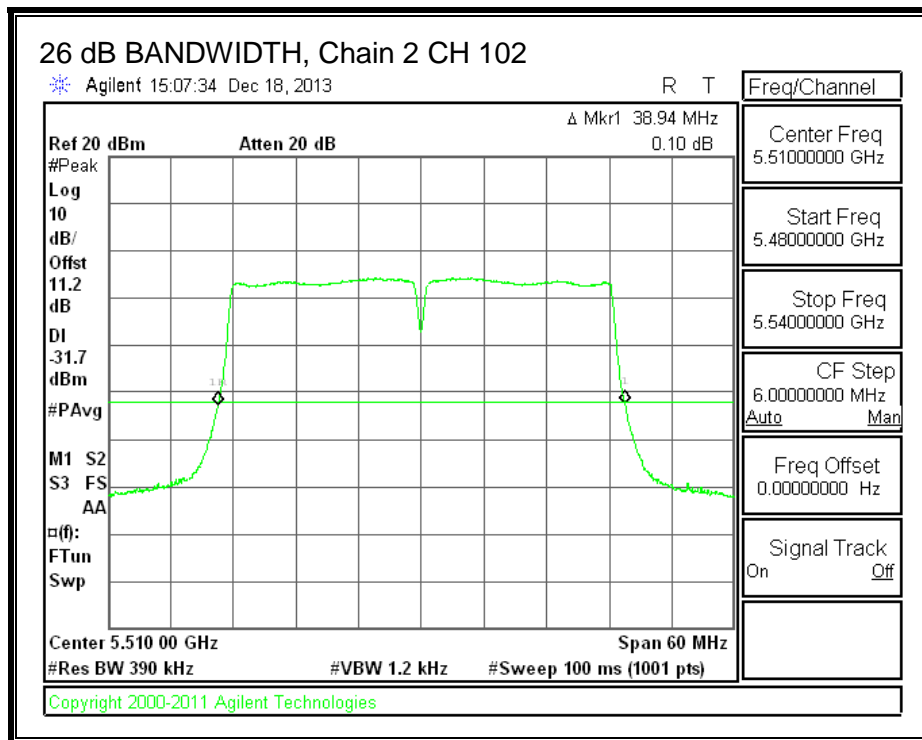


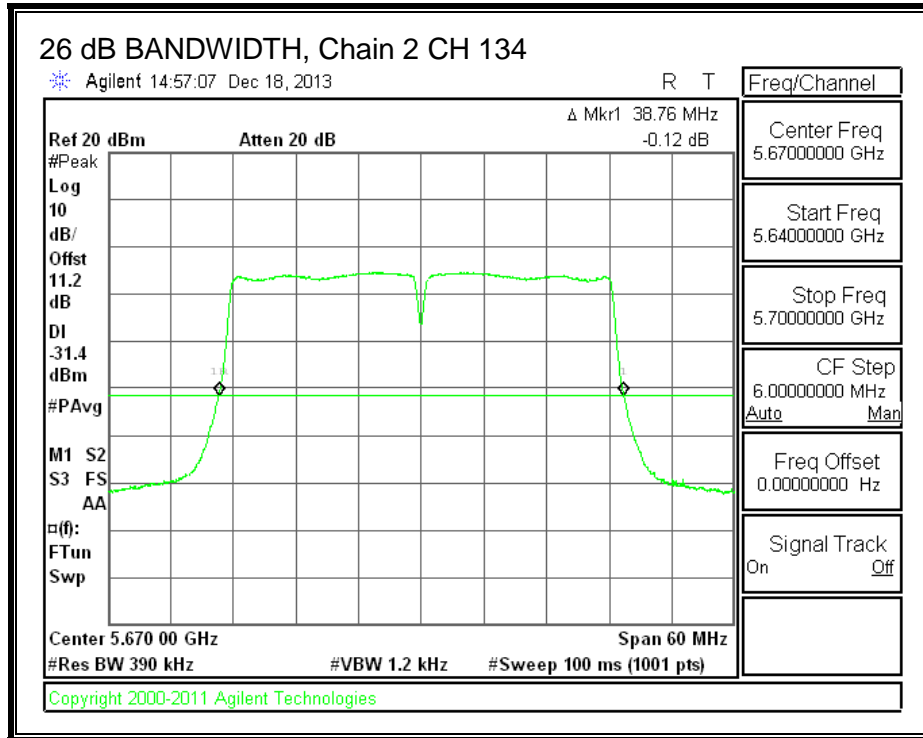
### 26 dB BANDWIDTH, Chain 1





**26 dB BANDWIDTH, Chain 2**





### 8.30.2. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

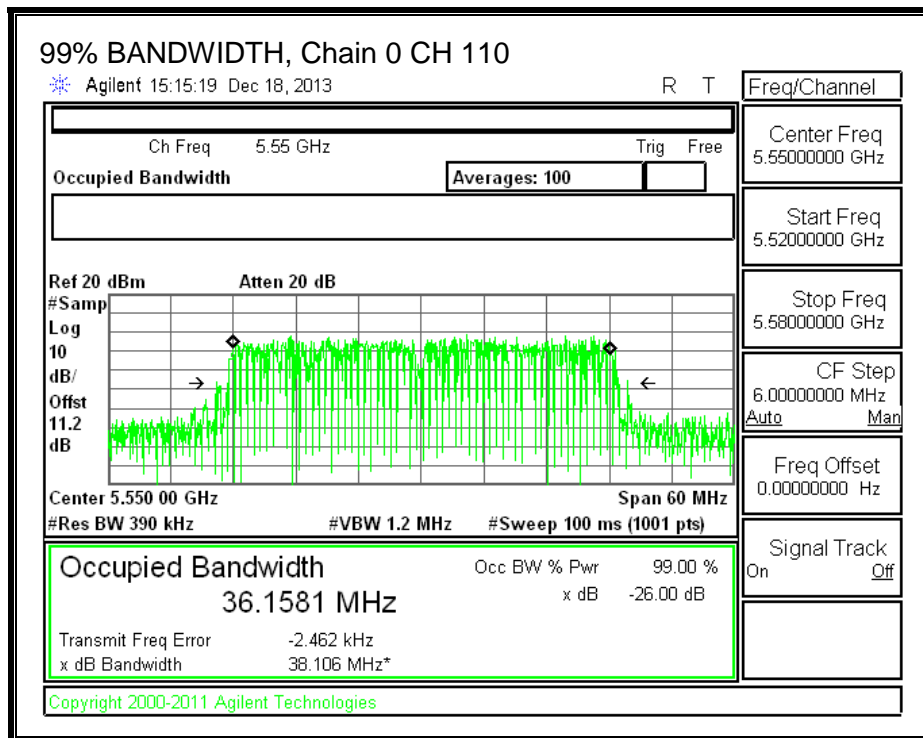
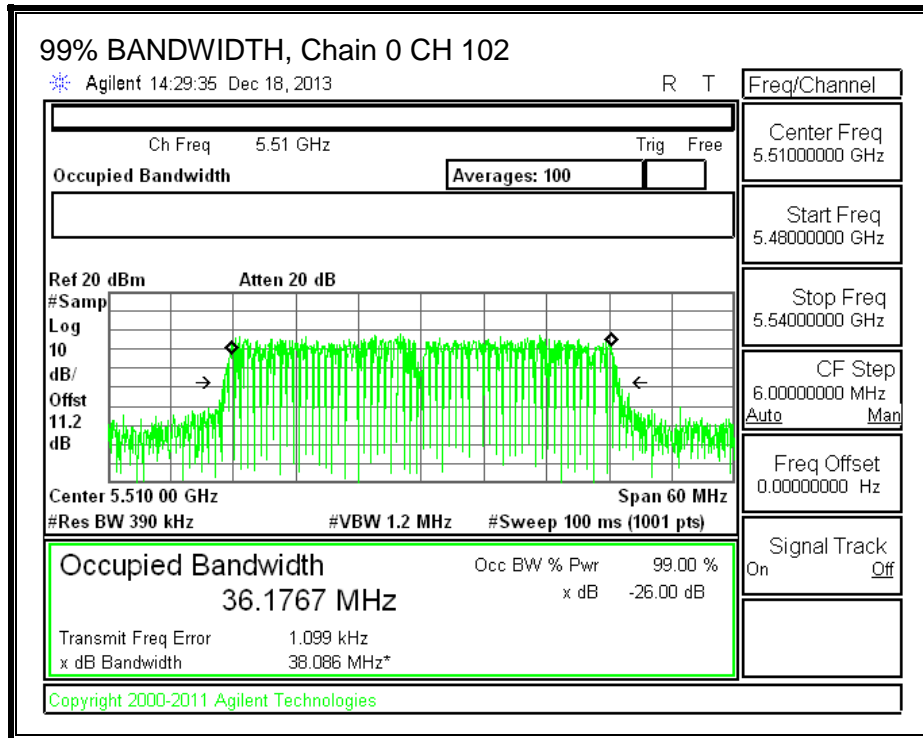
#### RESULTS

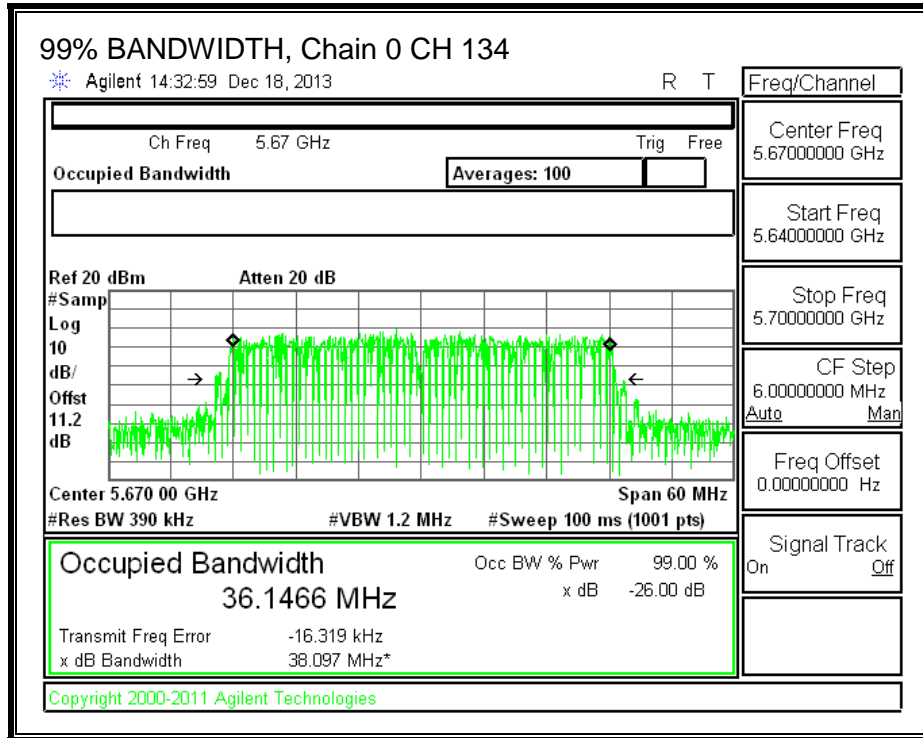
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
102	5510	36.1767	36.1412	36.1652
110	5550	36.1581	36.1627	36.1600
134	5670	36.1466	36.1444	36.1491



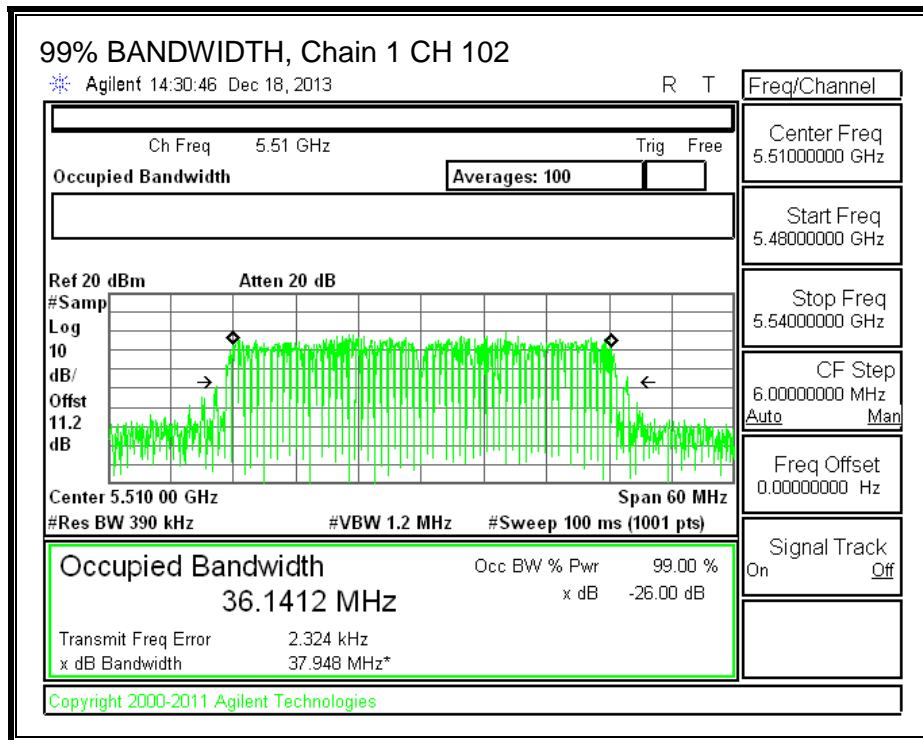
**99% BANDWIDTH**

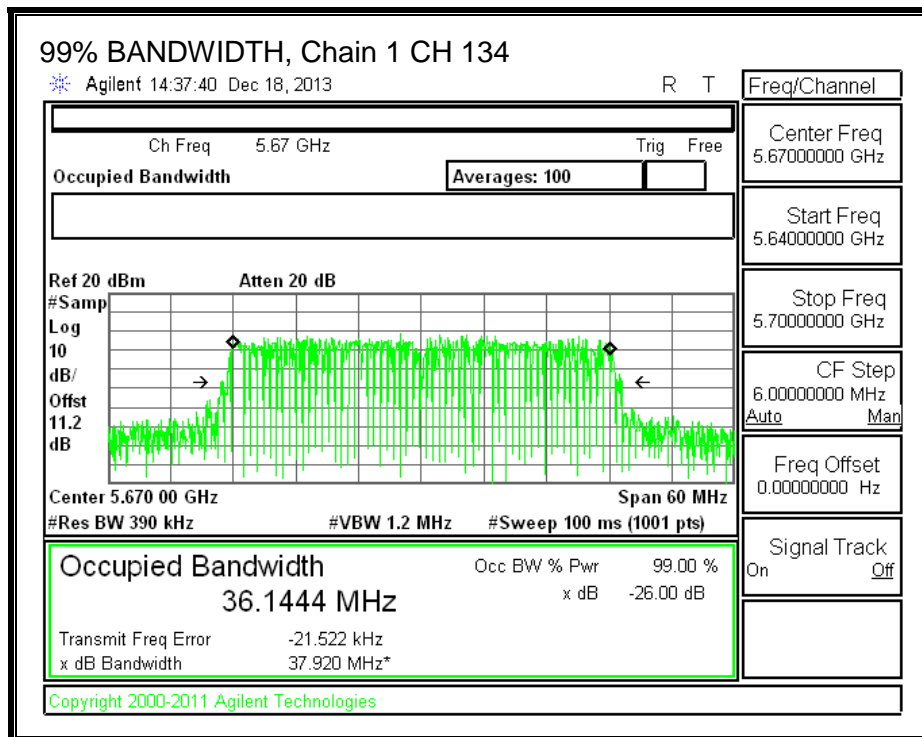
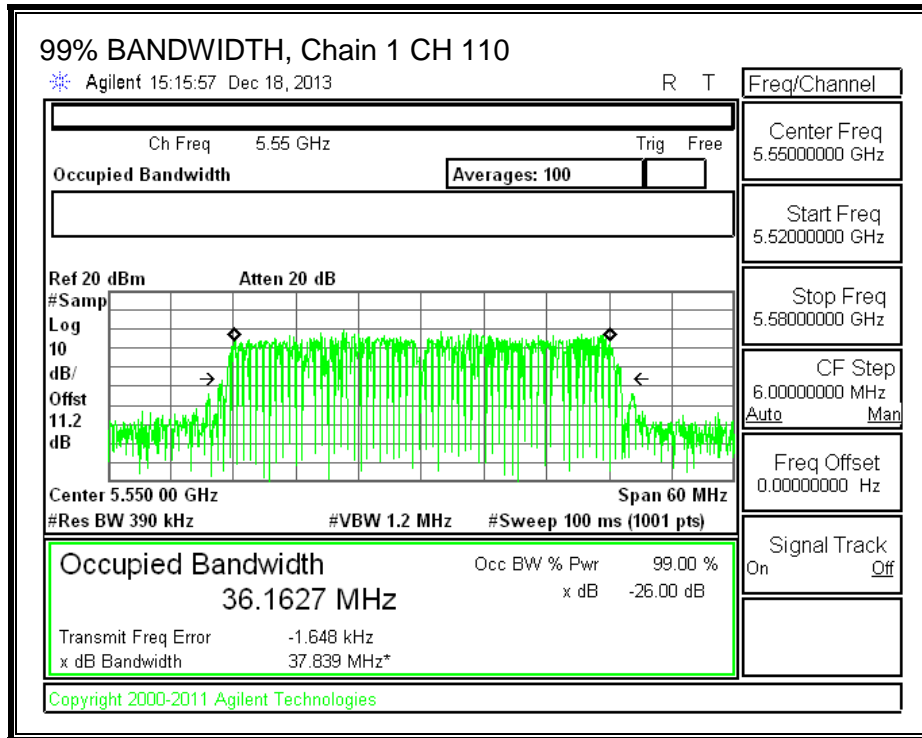
**99% BANDWIDTH, Chain 0**



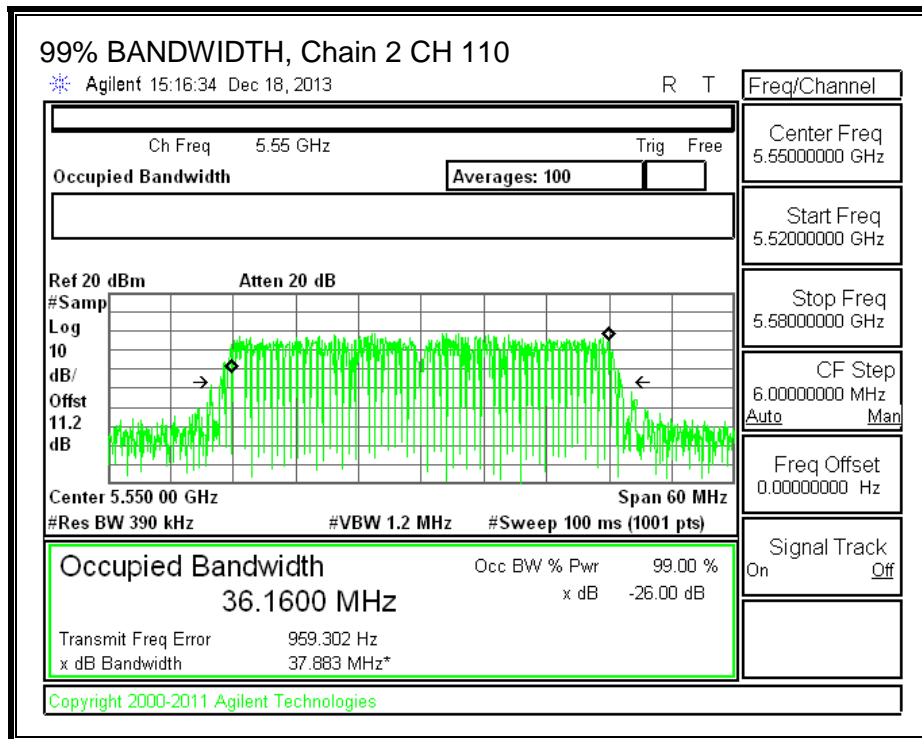
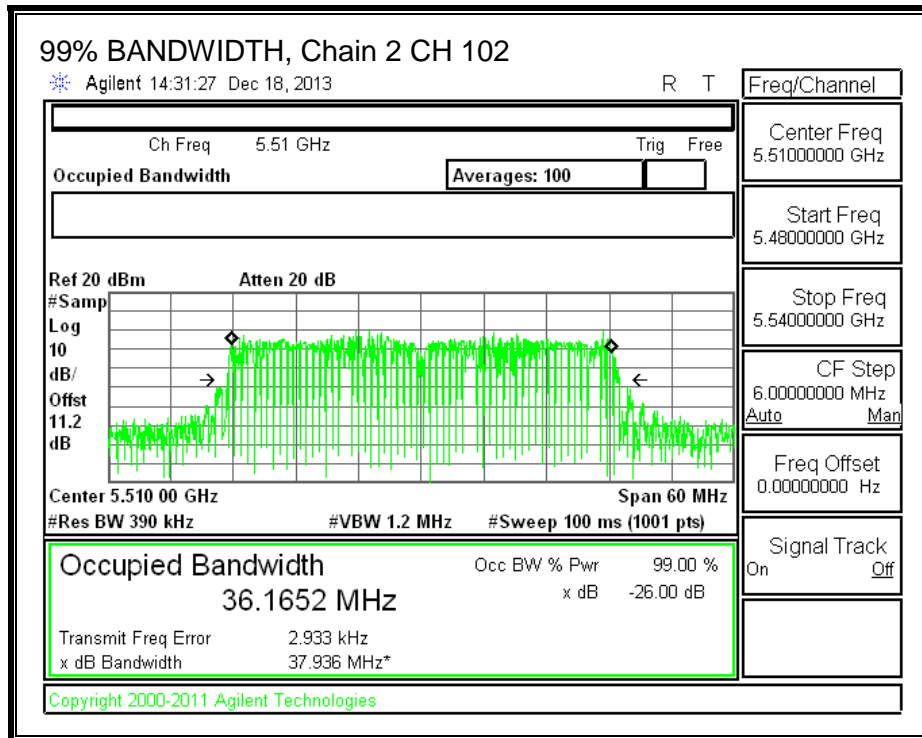


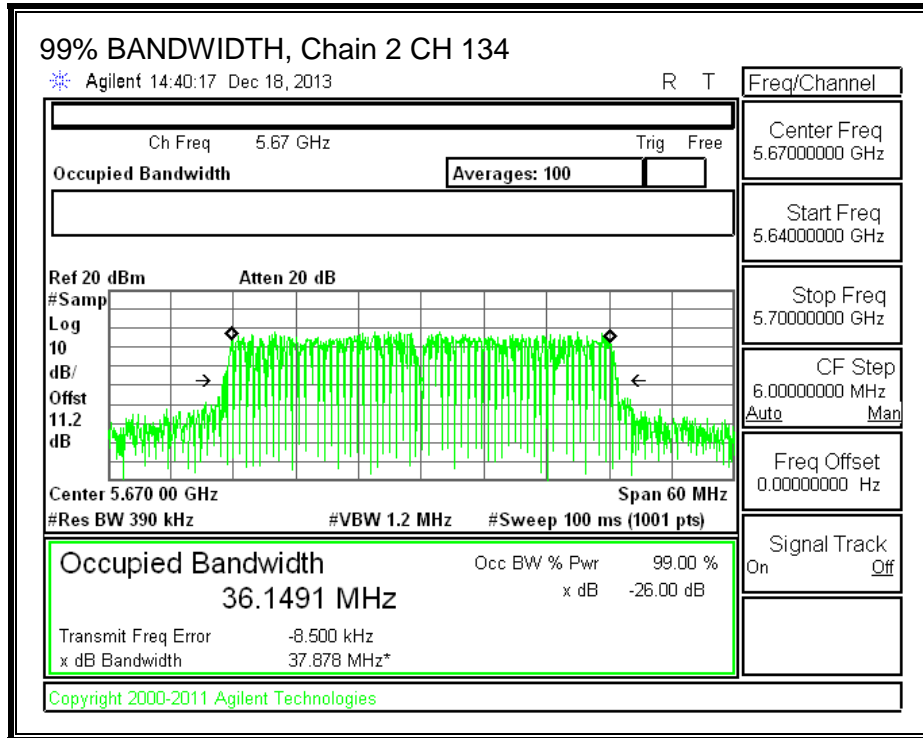
**99% BANDWIDTH, Chain 1**





**99% BANDWIDTH, Chain 2**





### 8.30.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.21 dB (including 10 dB pad and 1.21 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
102	5510	7.41	8.70	9.16	13.26
110	5550	17.12	17.01	17.25	21.90
140	5670	9.91	10.21	10.82	15.10

### 8.30.4. OUTPUT POWER AND PPSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (3 chains) (dB)	Correlated Chains Directional Gain (dBi)
2.82	4.77	7.59

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
102	5510	38.88	36.1412	2.82	7.59
110	5550	38.82	36.1581	2.82	7.59
134	5670	38.76	36.1444	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
102	5510	24.00	24.00	30.00	24.00	9.41	11.00	9.41
110	5550	24.00	24.00	30.00	24.00	9.41	11.00	9.41
134	5670	24.00	24.00	30.00	24.00	9.41	11.00	9.41

<b>Duty Cycle CF (dB)</b>	0.14	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

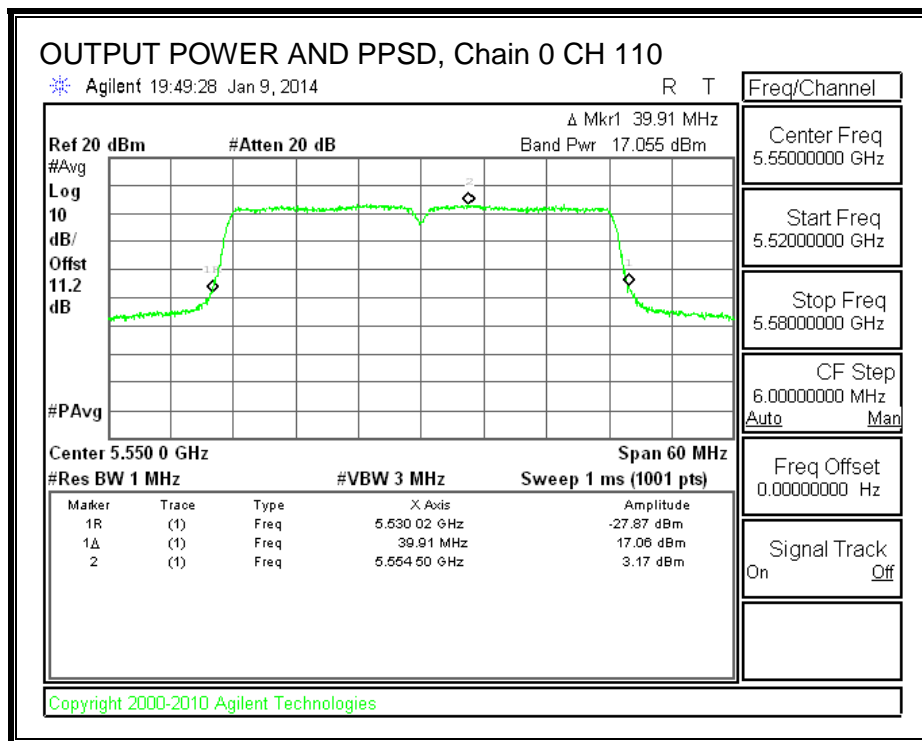
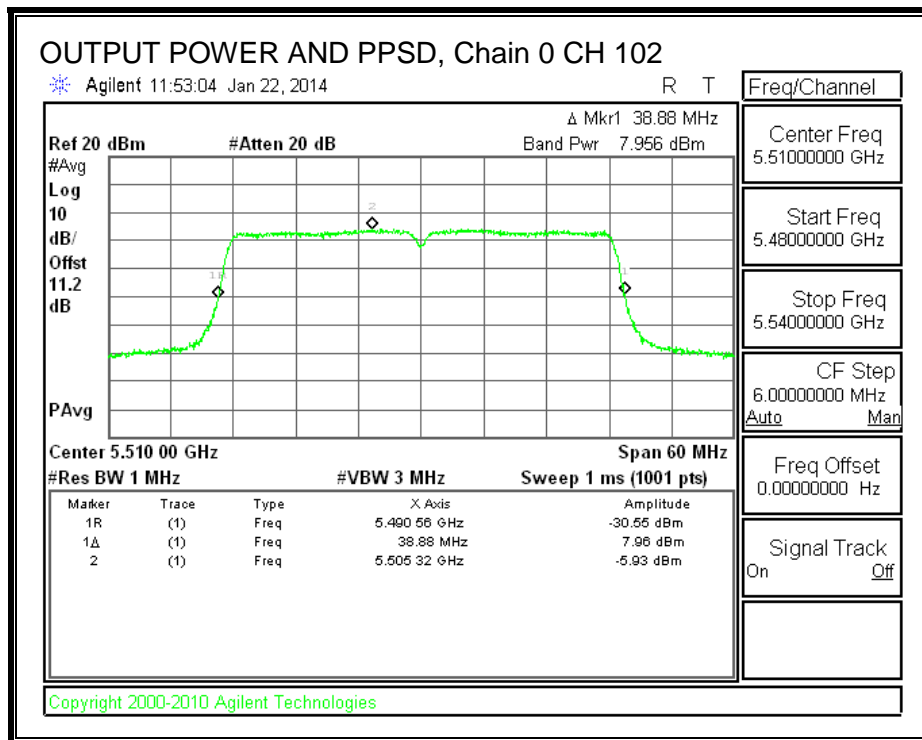
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
102	5510	7.96	9.12	9.49	13.82	24.00	-10.18
110	5550	17.06	17.05	17.80	22.23	24.00	-1.77
134	5670	11.95	12.41	12.75	17.29	24.00	-6.71

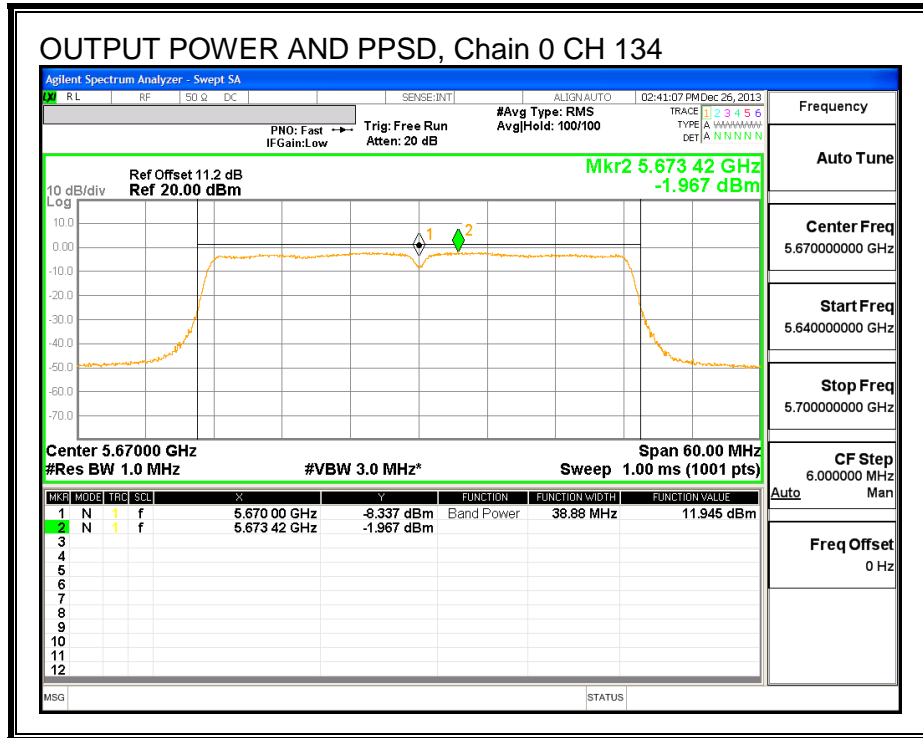
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
102	5510	-5.93	-4.53	-4.31	0.04	9.41	-9.37
110	5550	3.17	3.54	4.12	8.54	9.41	-0.87
134	5670	-1.97	-1.49	-1.25	3.35	9.41	-6.06

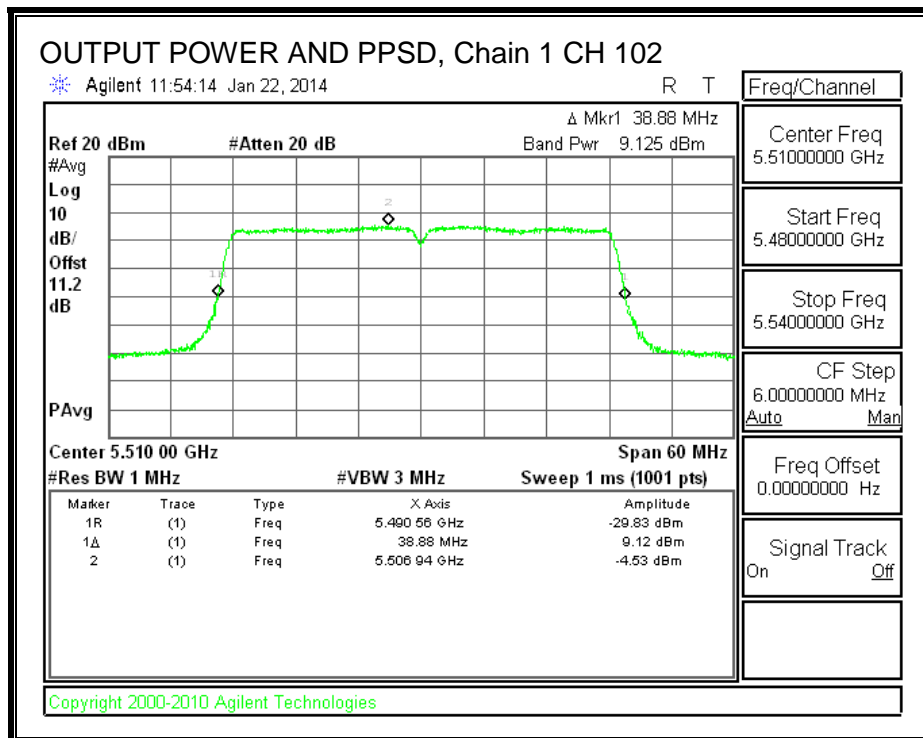


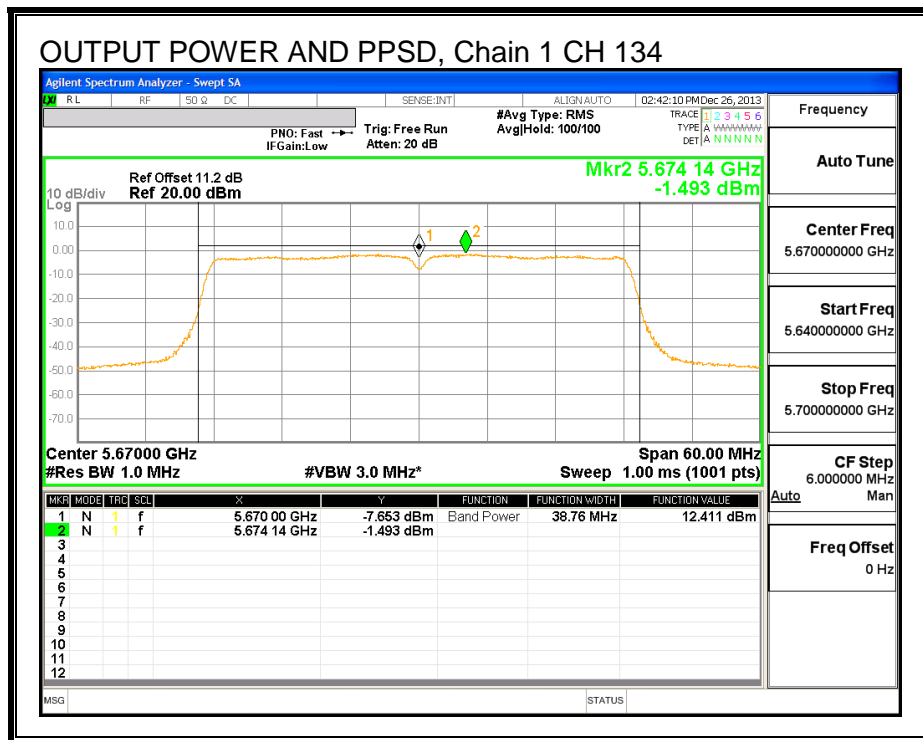
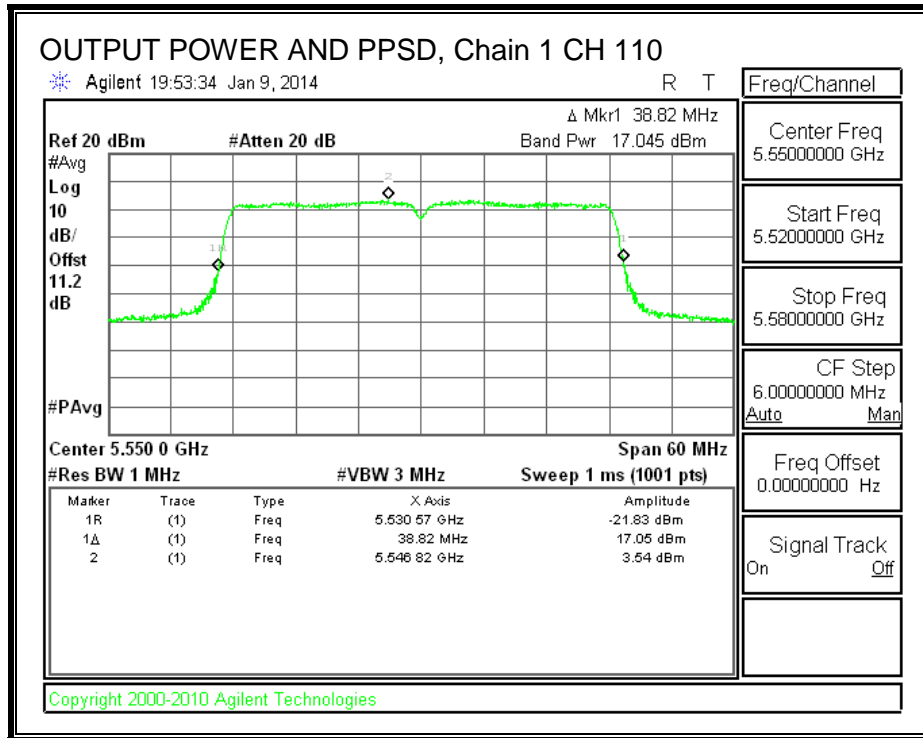
**OUTPUT POWER AND PPSD, Chain 0**



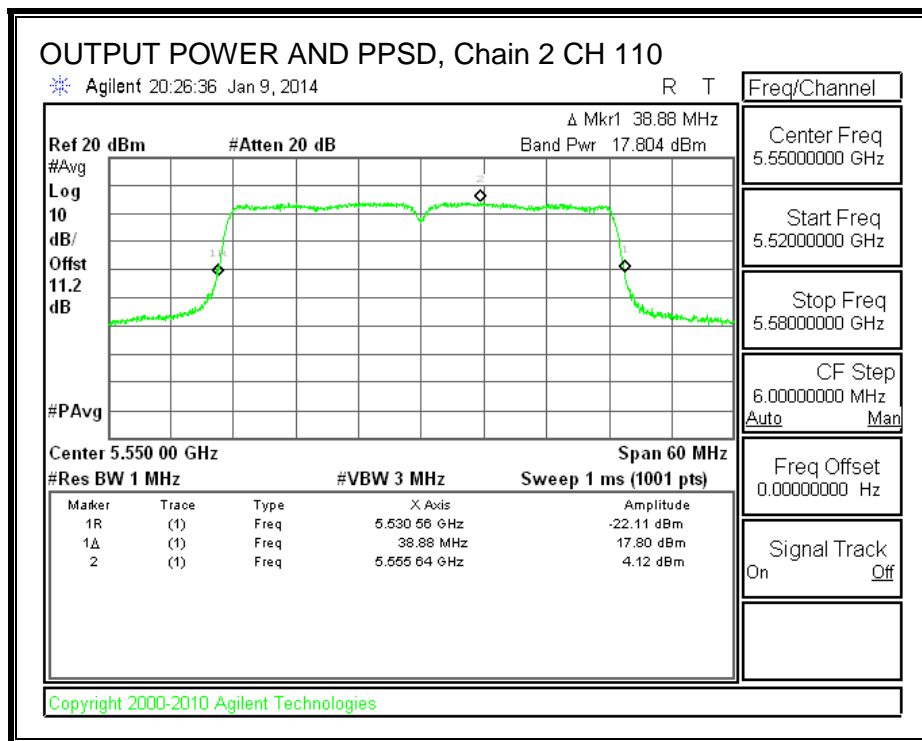
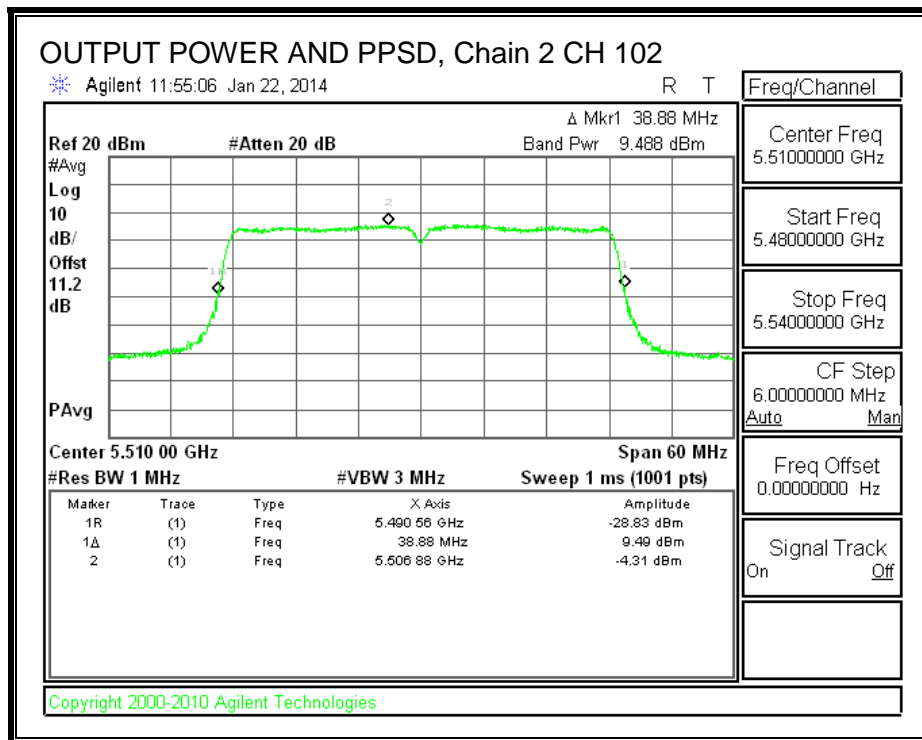


### OUTPUT POWER AND PPSD, Chain 1





**OUTPUT POWER AND PPSD, Chain 2**





### 8.30.5. PEAK EXCURSION

#### LIMITS

FCC §15.407 (a) (6)

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

#### RESULTS

Chain 0

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	5.32	3.17	0.14	2.01	13	-10.99

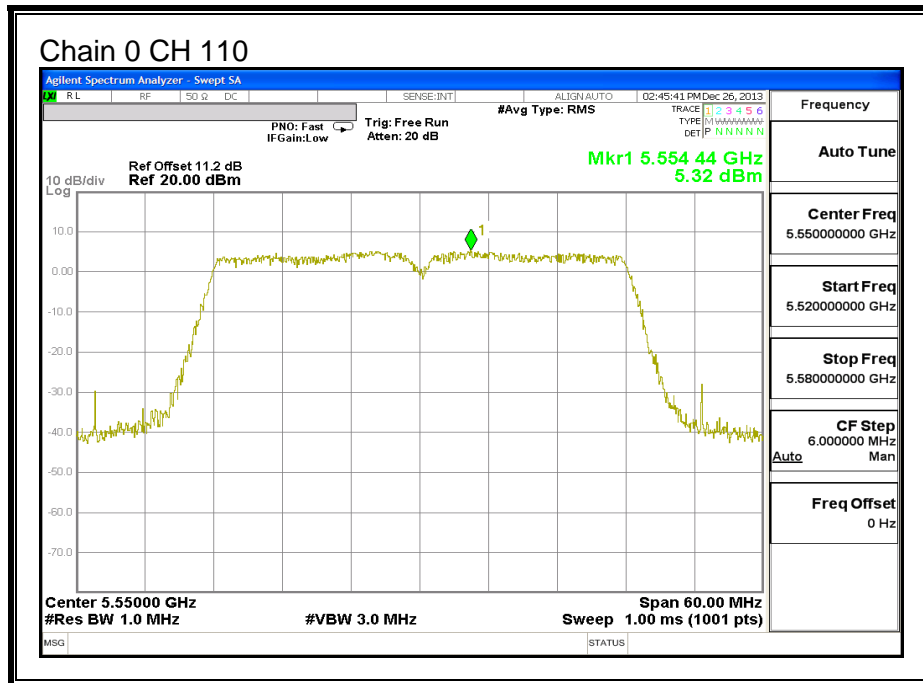
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	7.09	3.54	0.14	3.41	13	-9.59

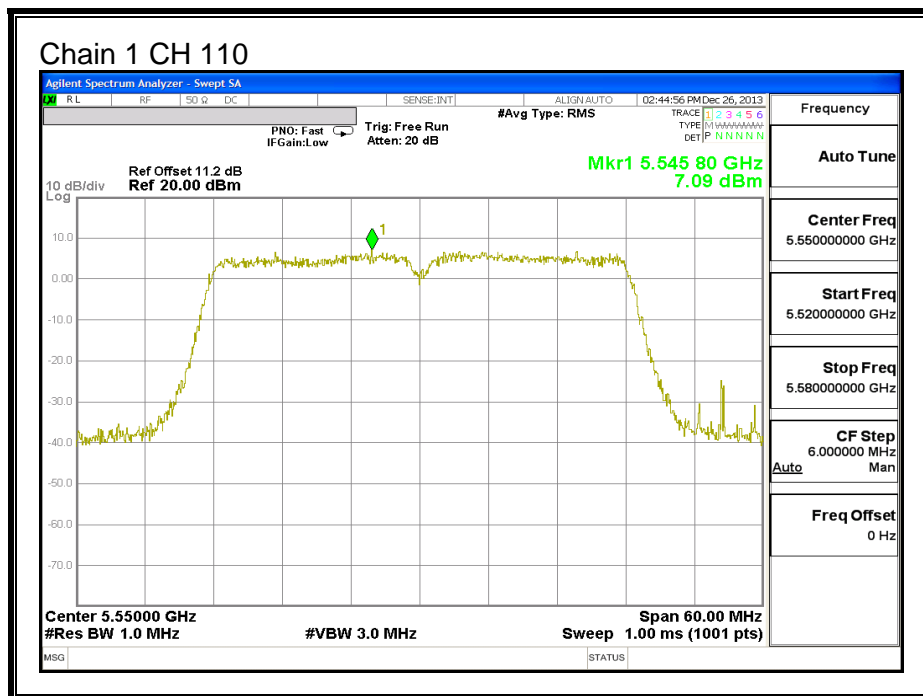
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	7.45	4.12	0.14	3.19	13	-9.81

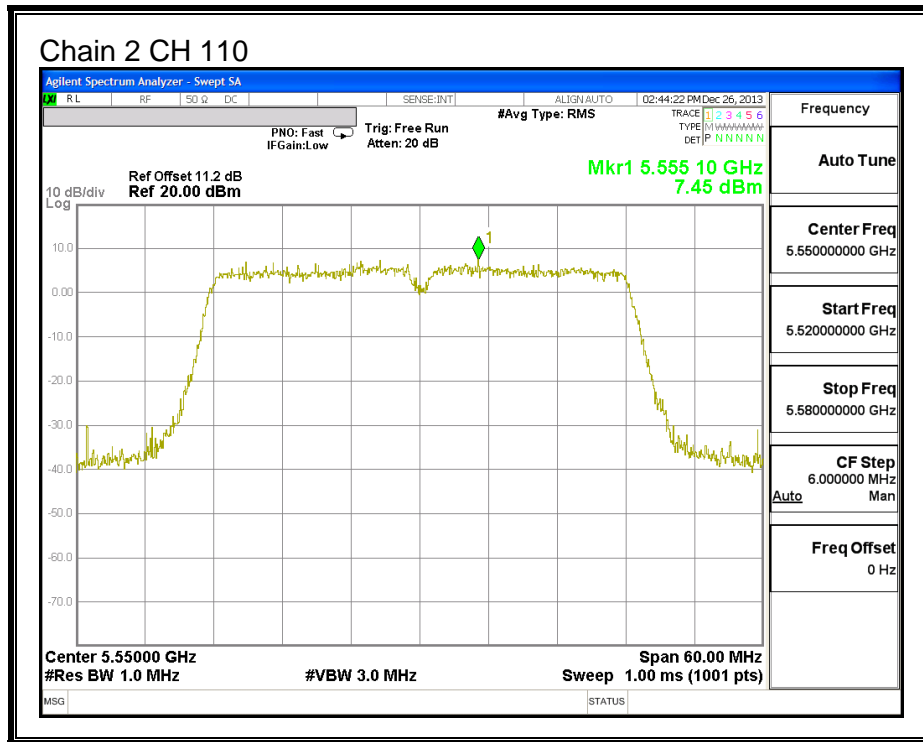
**PEAK EXCURSION, Chain 0**



**PEAK EXCURSION, Chain 1**



**PEAK EXCURSION, Chain 2**





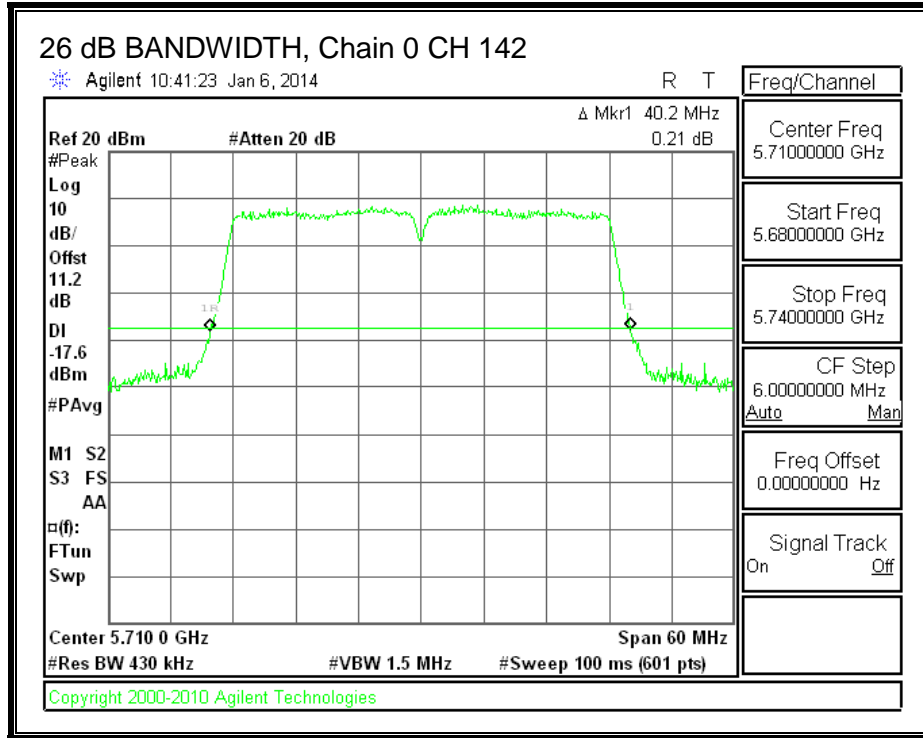
**8.31. 802.11ac 40MHz 3TX CDD MODE, CHANNEL 142, 5.6 GHz BAND****8.31.1. 26 dB BANDWIDTH- UNII****LIMITS**

None; for reporting purposes only.

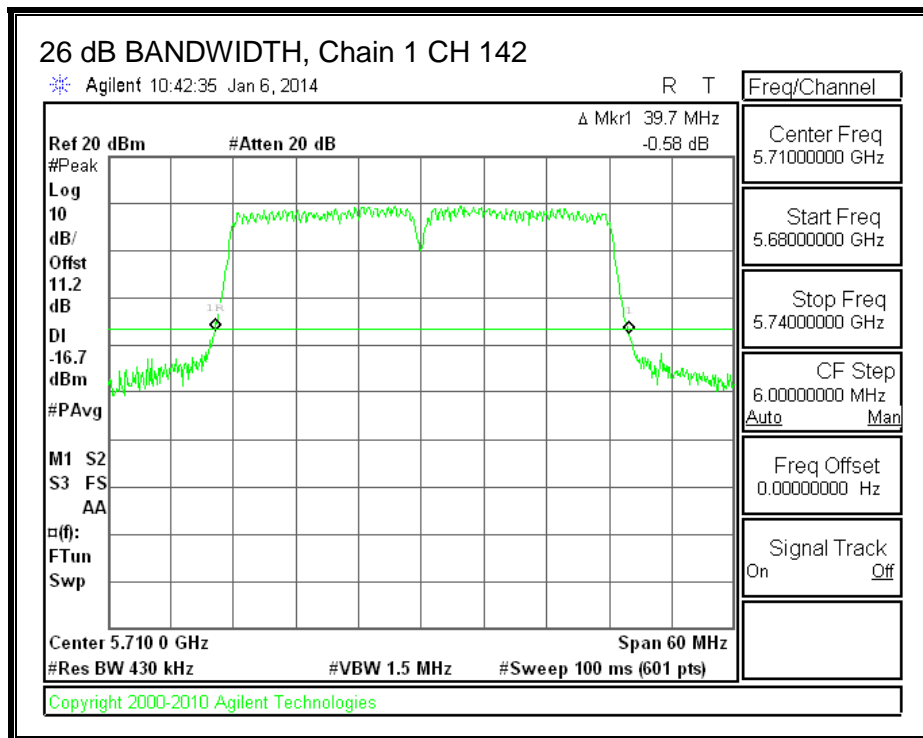
**RESULTS**

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
142	5710	40.20	39.70	39.80

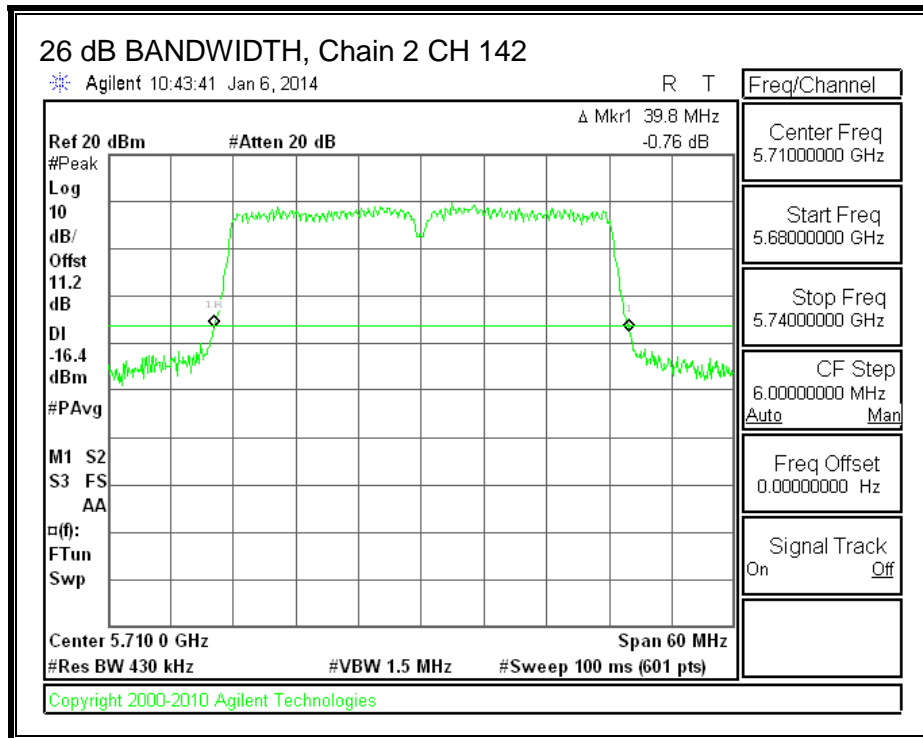
**26 dB BANDWIDTH, Chain 0**



**26 dB BANDWIDTH, Chain 1**



**26 dB BANDWIDTH, Chain 2**



### 8.31.2.99% BANDWIDTH

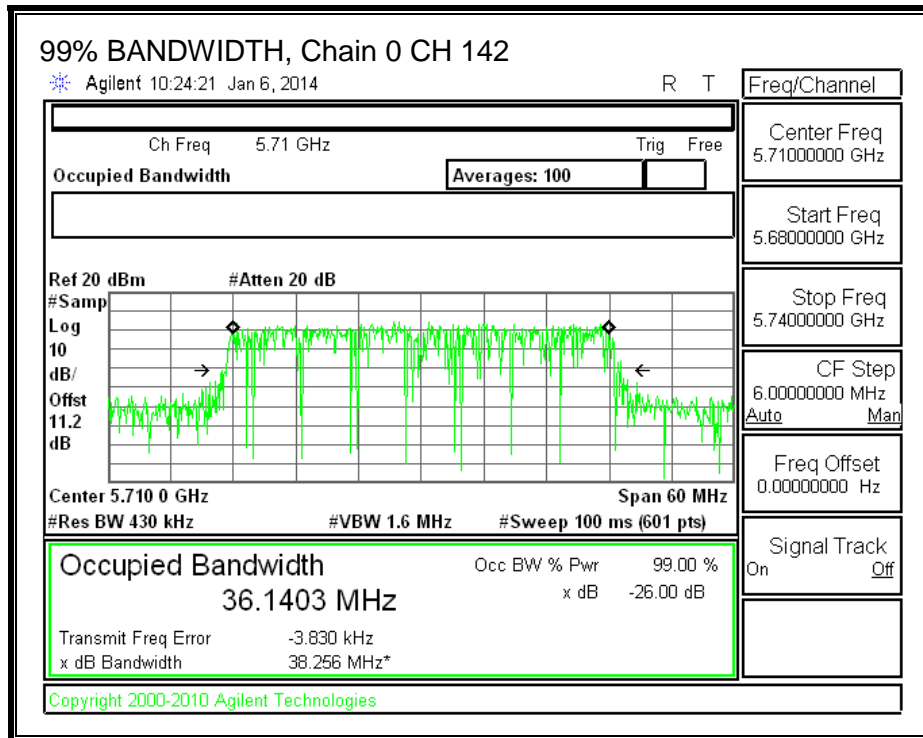
#### LIMITS

None; for reporting purposes only.

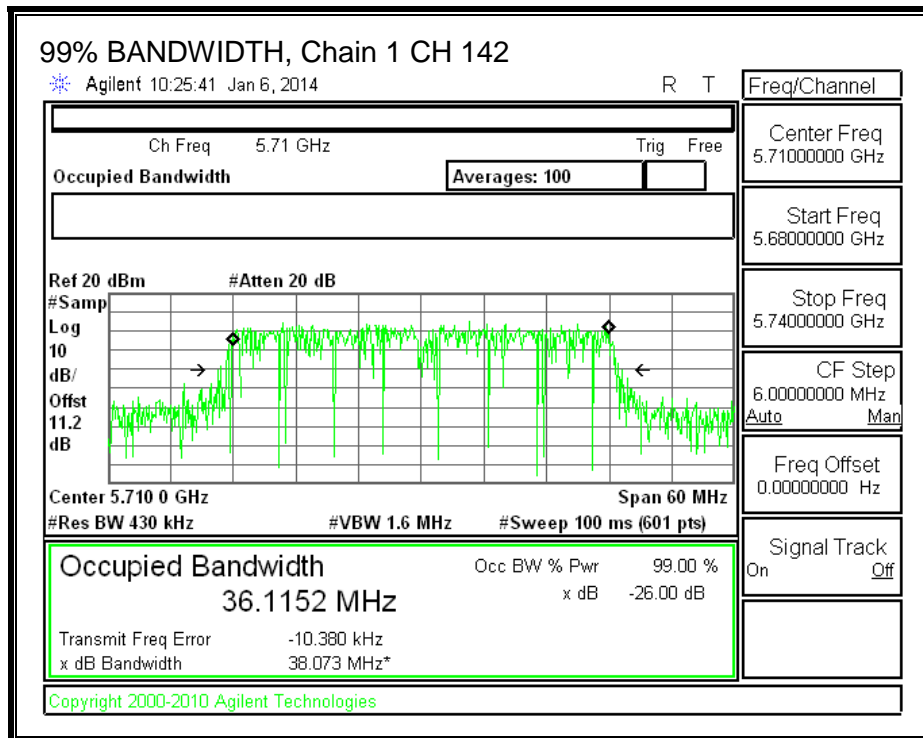
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
142	5710	36.1403	36.1152	36.1492

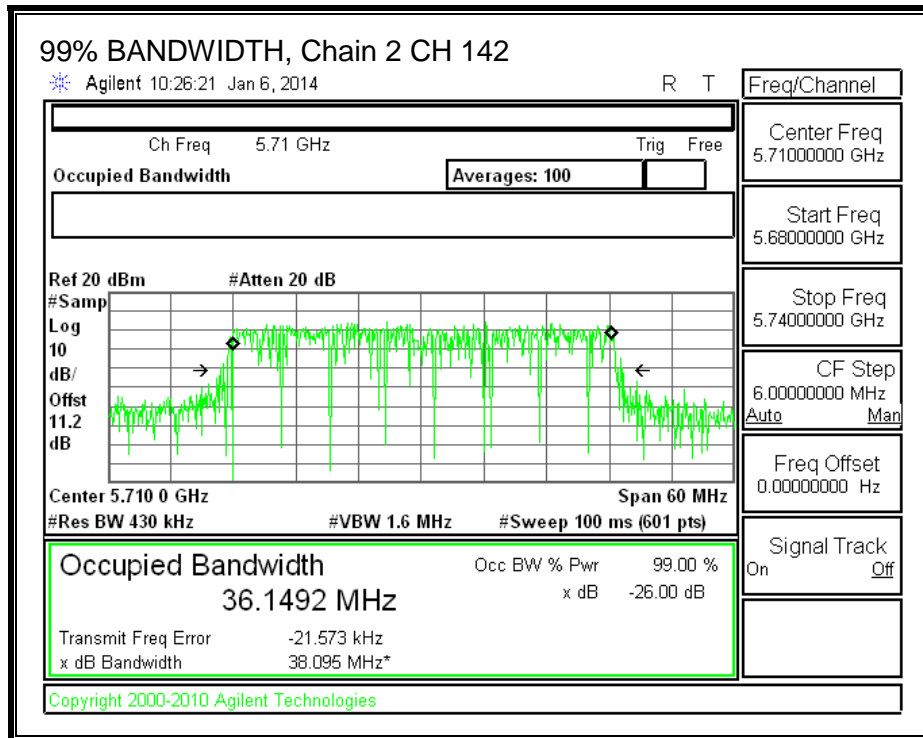
**99% BANDWIDTH, Chain 0**



**99% BANDWIDTH, Chain 1**



**99% BANDWIDTH, Chain 2**



### 8.31.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

For output power and PPSD, the TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (3 chains) (dB)	Correlated Chains Directional Gain (dBi)
2.82	4.77	7.59

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
142	5710	34.850	33.0576	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
142	5710	22.41	24.00	30.00	22.41	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.14	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	16.90	16.72	16.85	21.74	22.41	-0.67

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
142	5710	3.55	3.51	3.63	8.47	11.00	-2.53



Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
142	5710	4.850	3.0576	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
142	5710	17.86	15.85	21.85	15.85	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.14	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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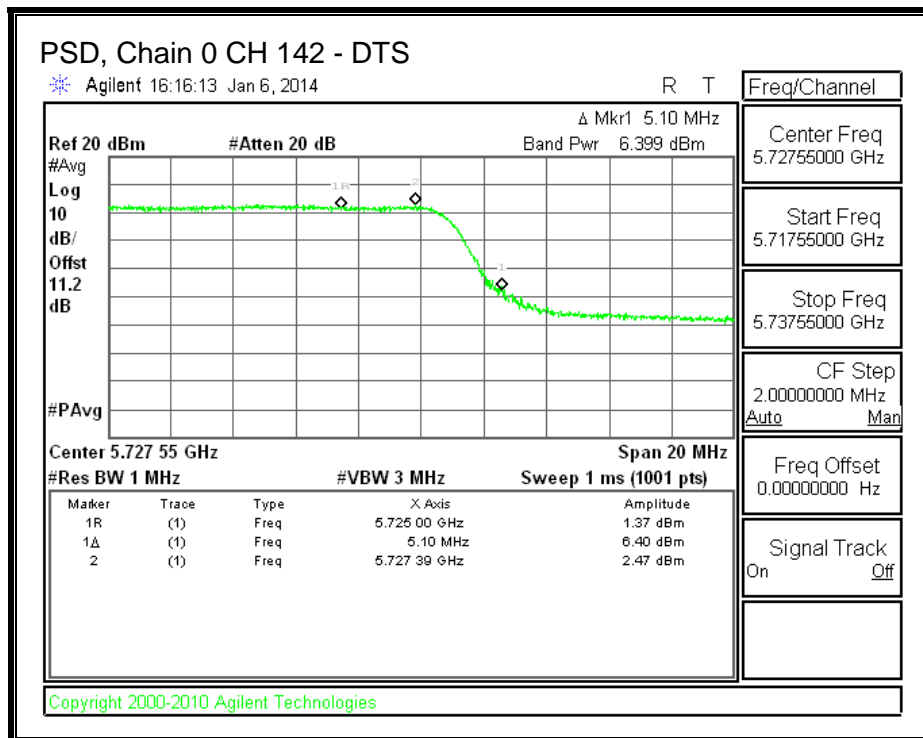
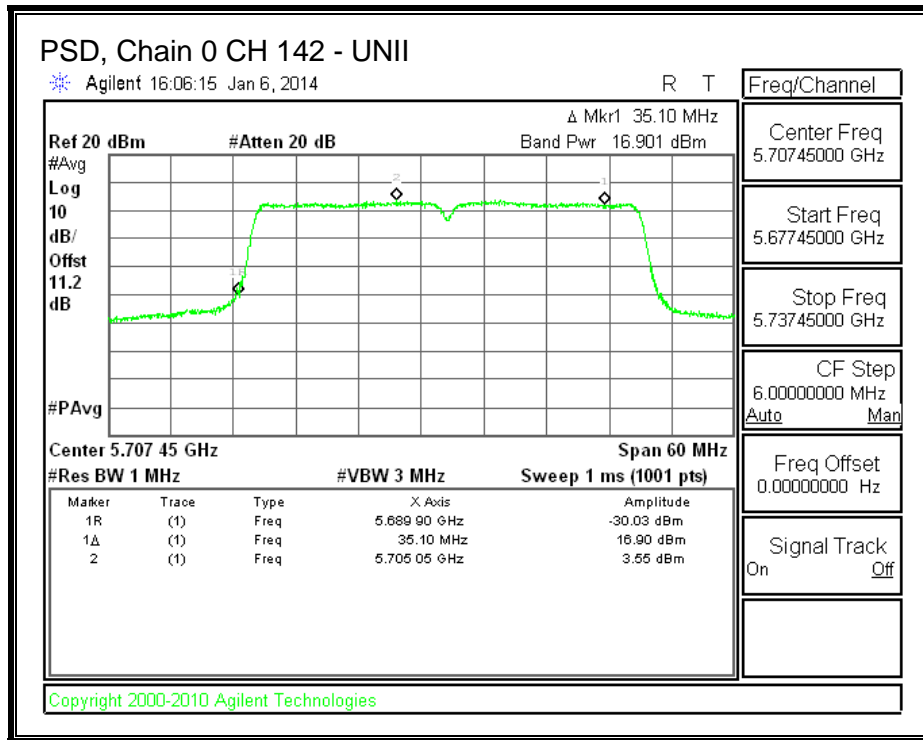
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	6.40	6.16	6.29	11.20	15.85	-4.66

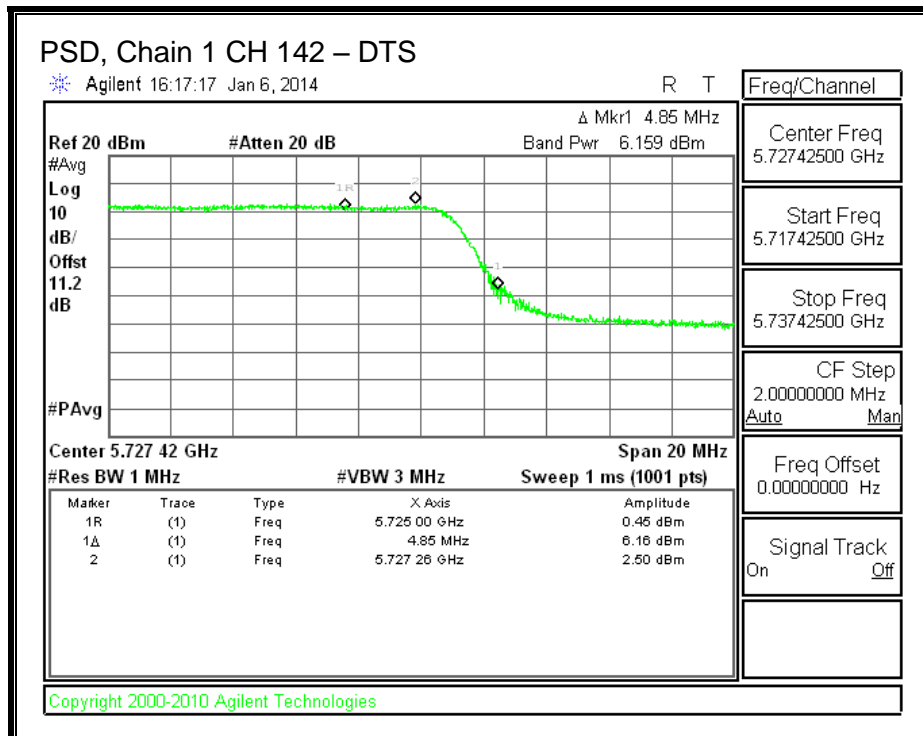
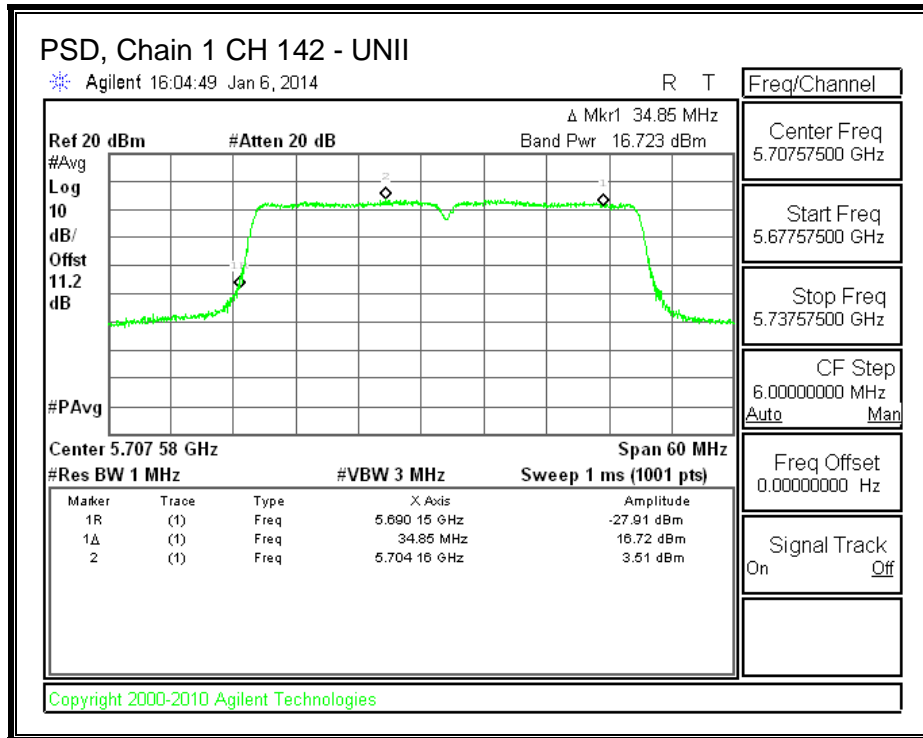
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
142	5710	2.470	2.50	2.19	7.30	11.00	-3.70

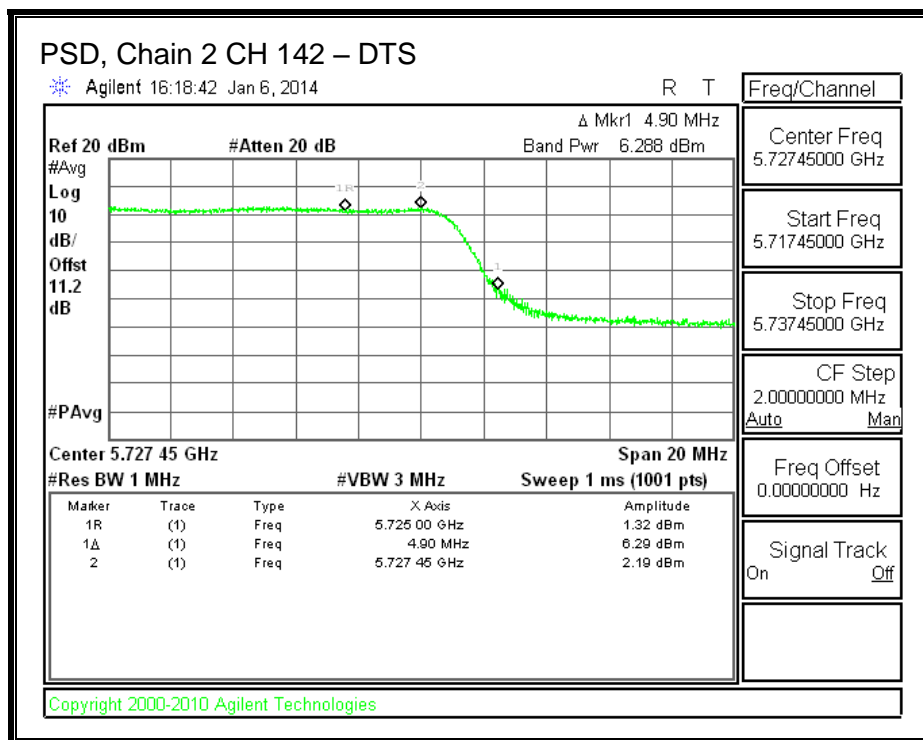
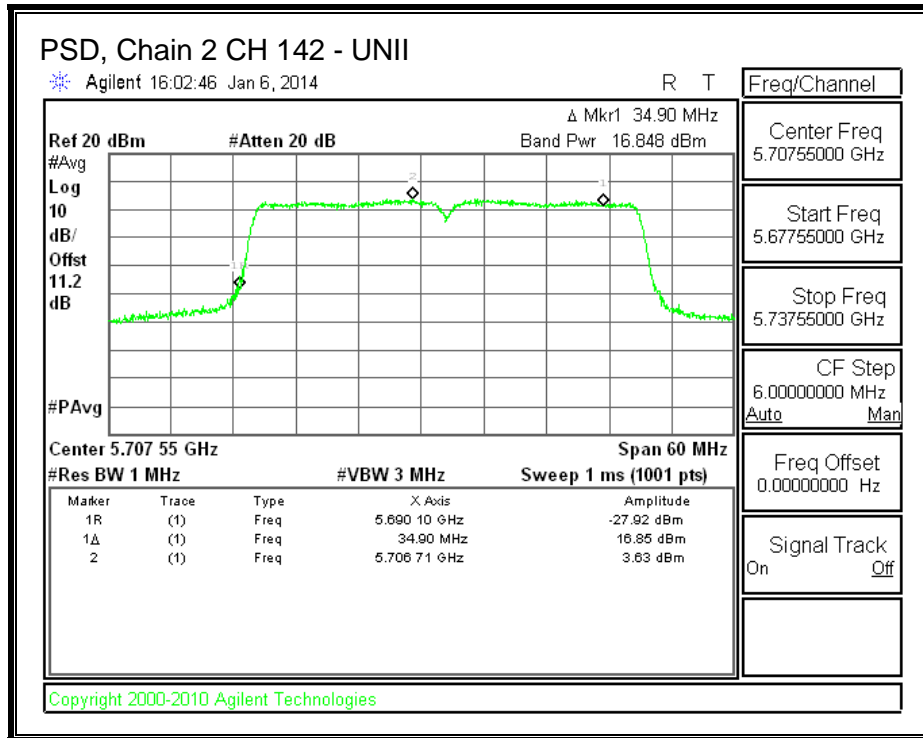
**OUTPUT POWER & PPSD, Chain 0**



**OUTPUT POWER & PSD, Chain 1**



**OUTPUT POWER & PPSD, Chain 2**



**8.32. 802.11n HT40 3TX SDM MODE IN THE 5.6 GHz BAND****8.32.1. 26 dB BANDWIDTH****LIMITS**

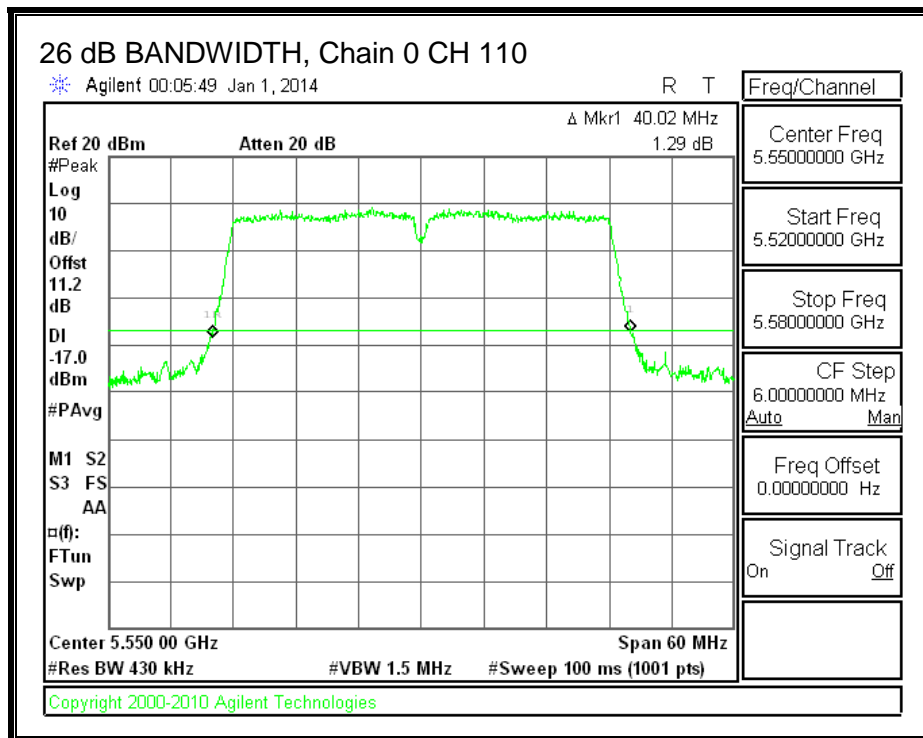
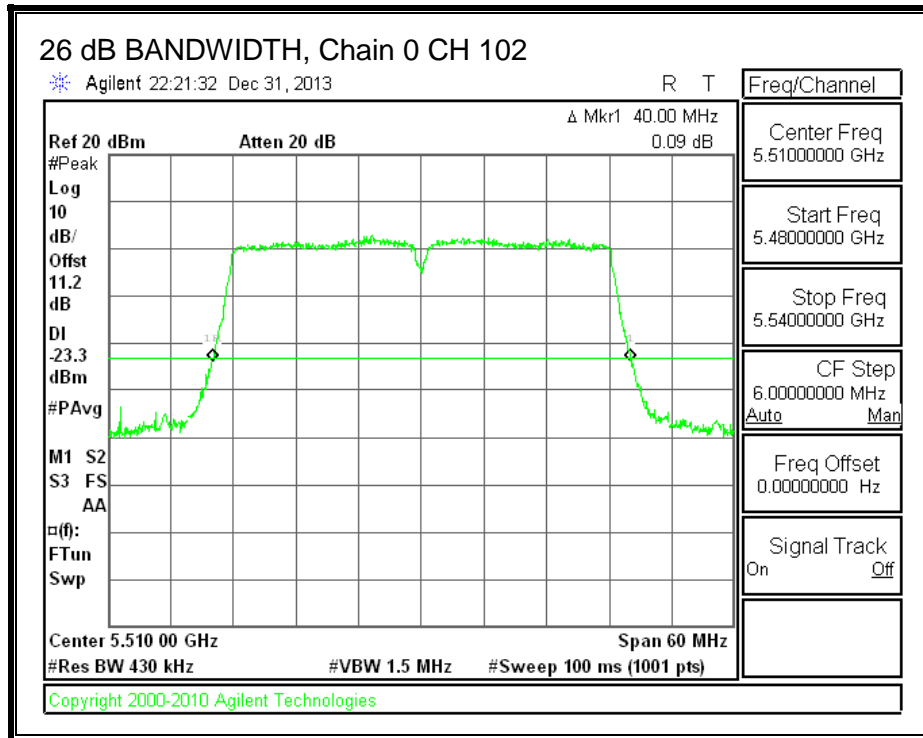
None; for reporting purposes only.

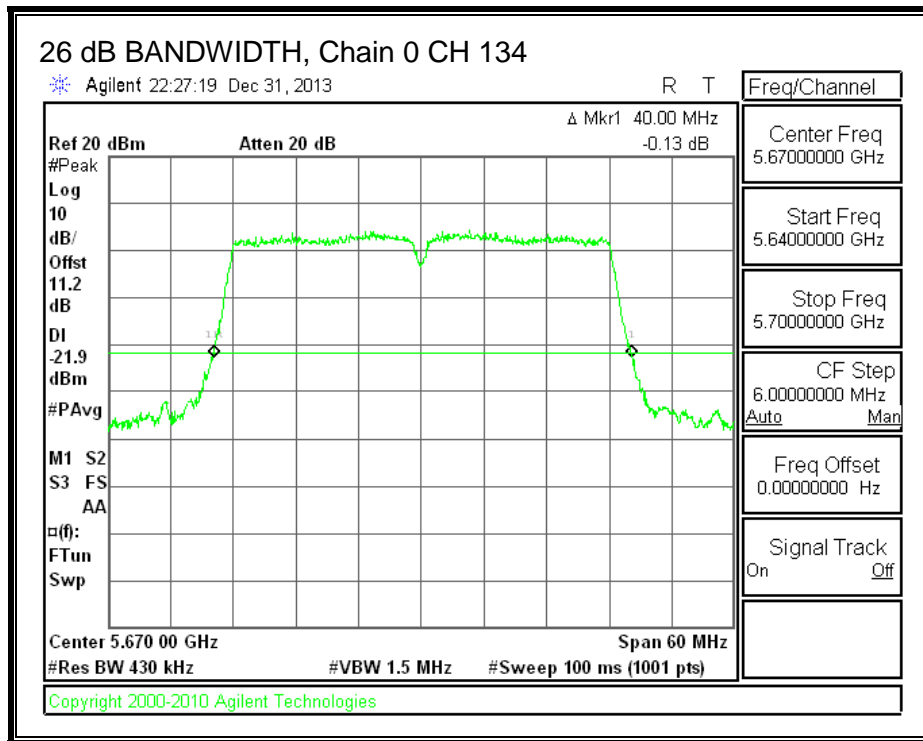
**RESULTS**

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
102	5510	40.00	39.40	39.40
110	5550	40.02	39.34	39.58
134	5670	40.00	39.34	39.40

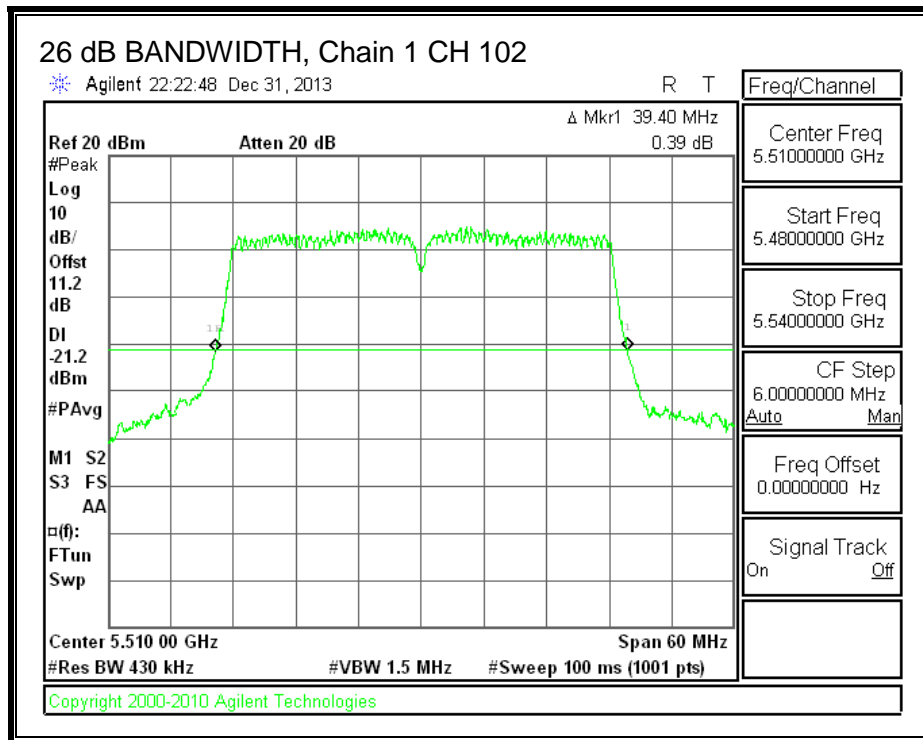
**26 dB BANDWIDTH**

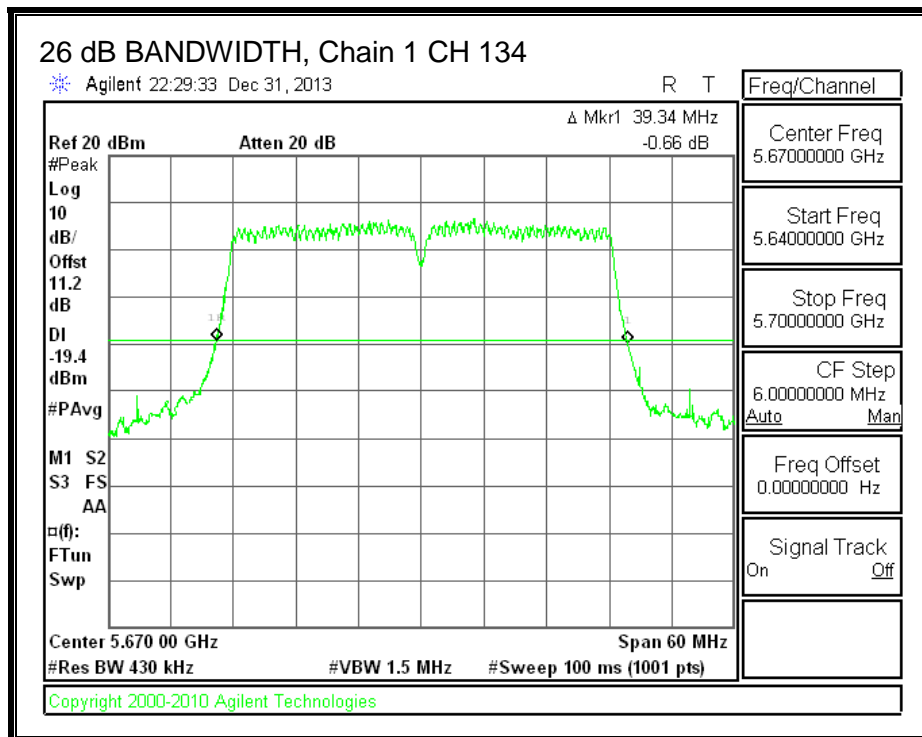
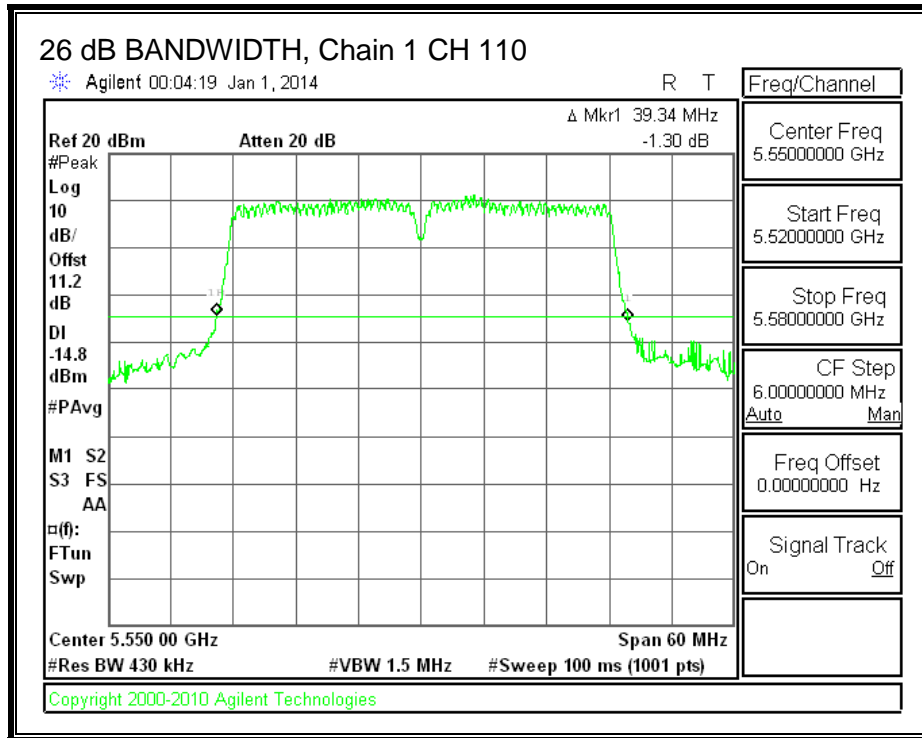
**26 dB BANDWIDTH, Chain 0**





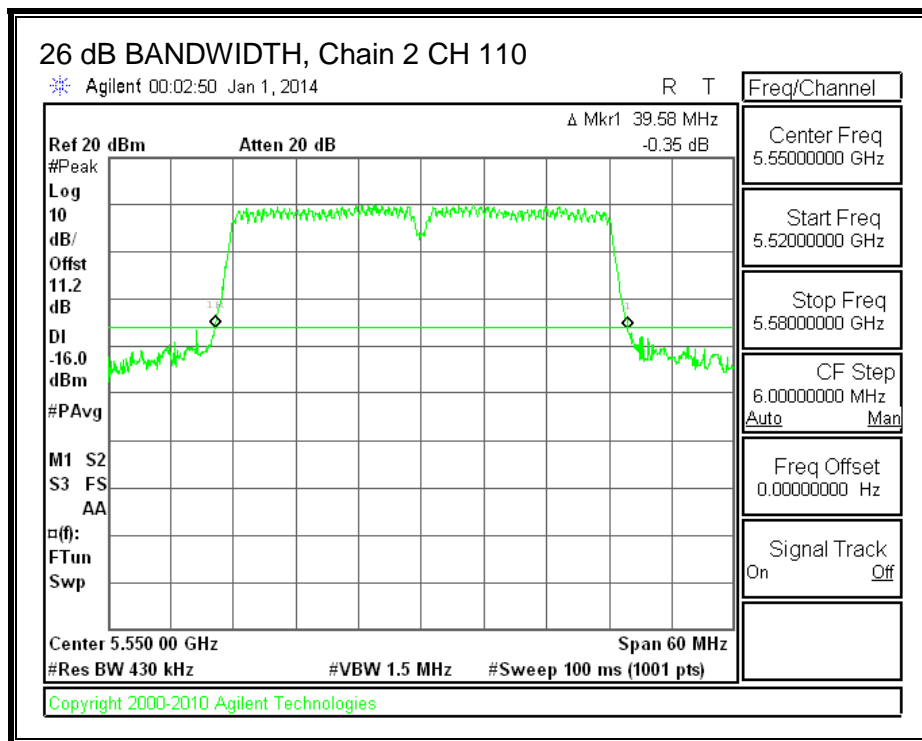
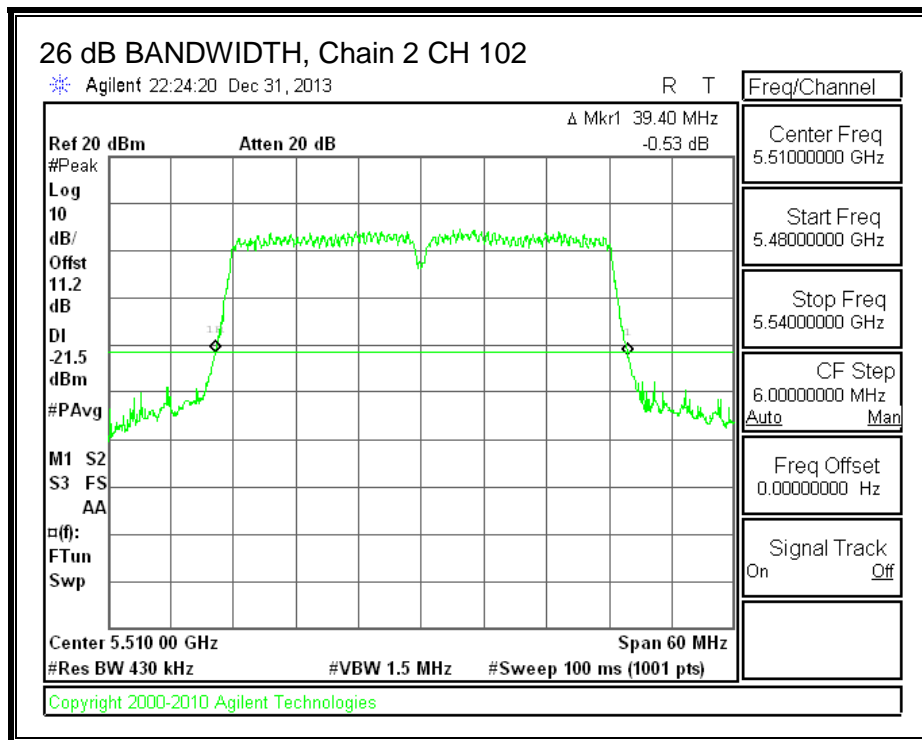
**26 dB BANDWIDTH, Chain 1**

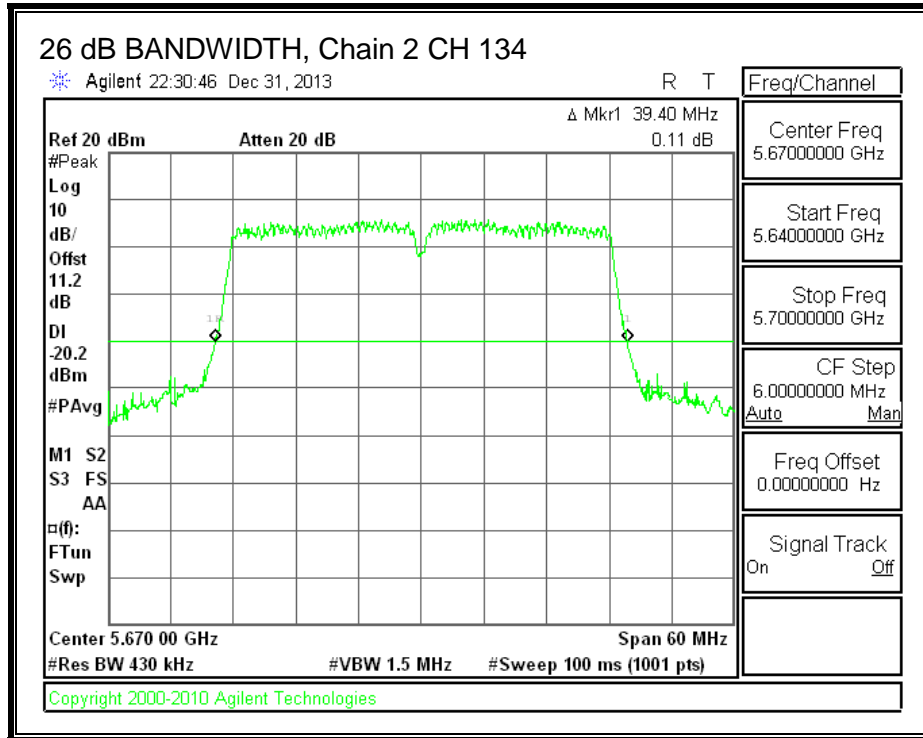






**26 dB BANDWIDTH, Chain 2**





**8.32.2. 99% BANDWIDTH**

**LIMITS**

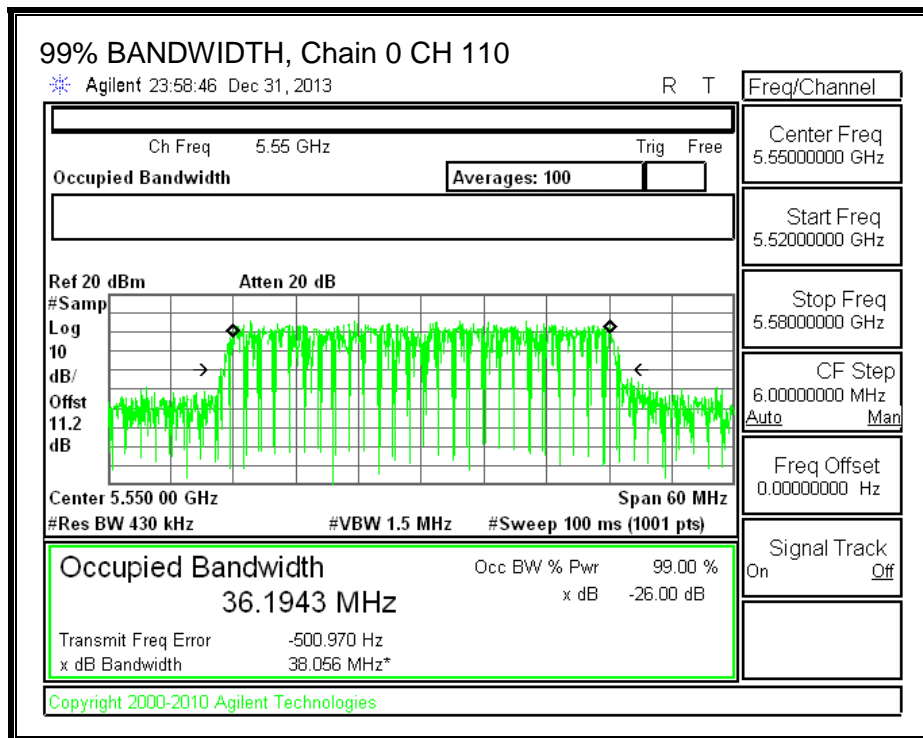
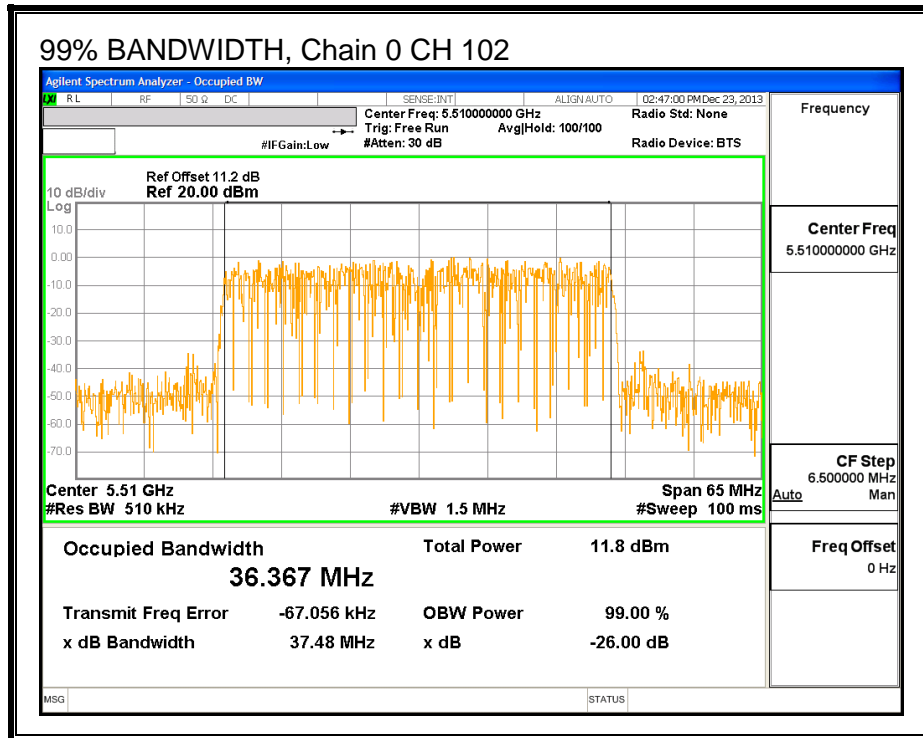
None; for reporting purposes only.

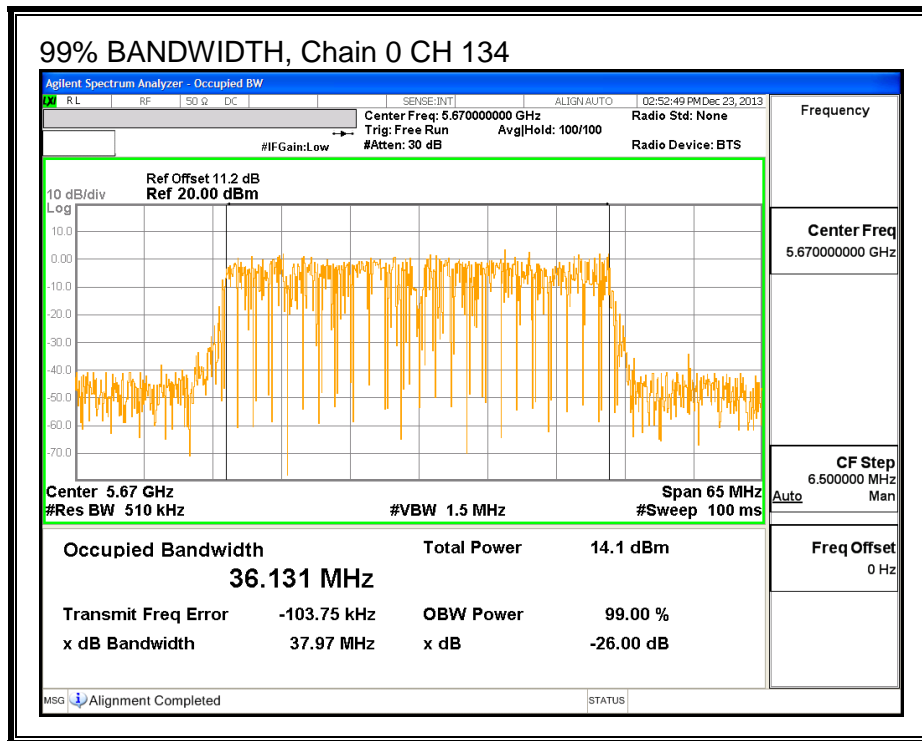
**RESULTS**

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
102	5510	36.367	36.353	36.389
110	5550	36.194	36.170	36.173
134	5670	36.131	36.272	36.116

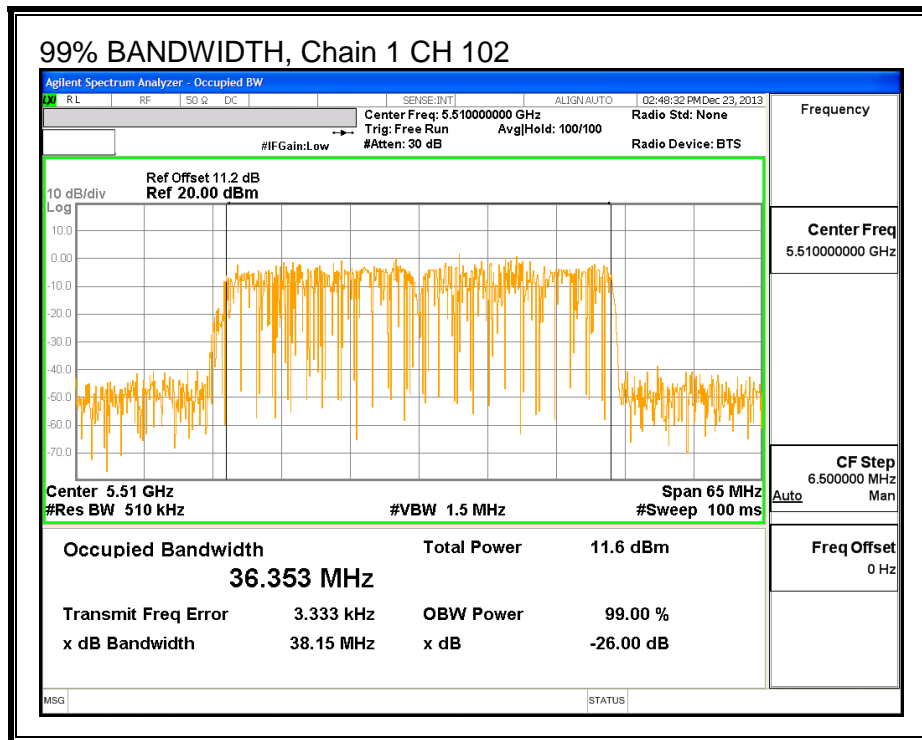
**99% BANDWIDTH**

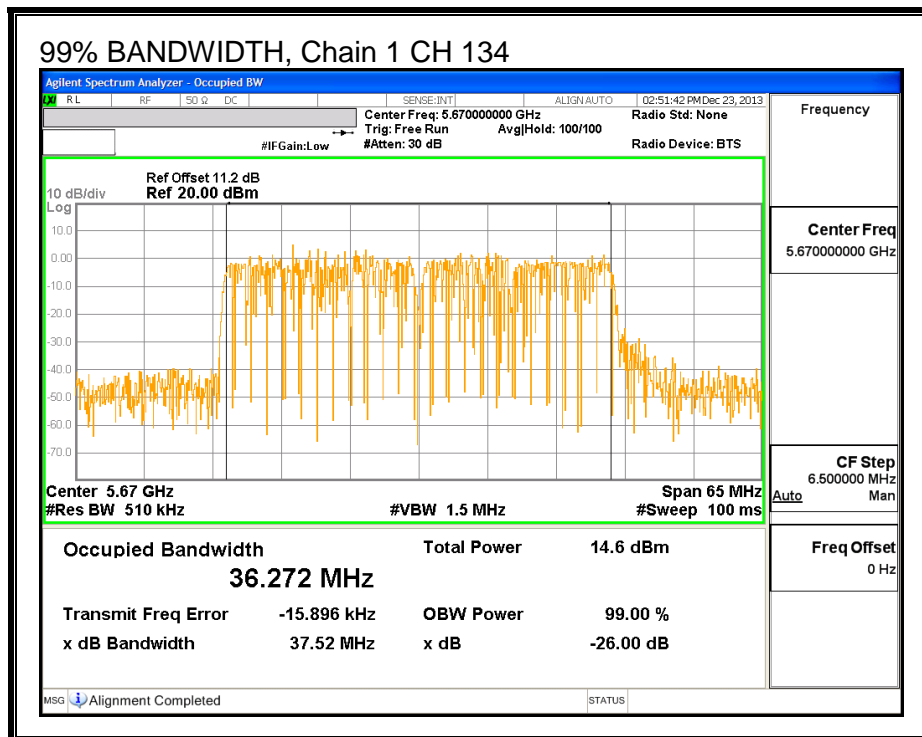
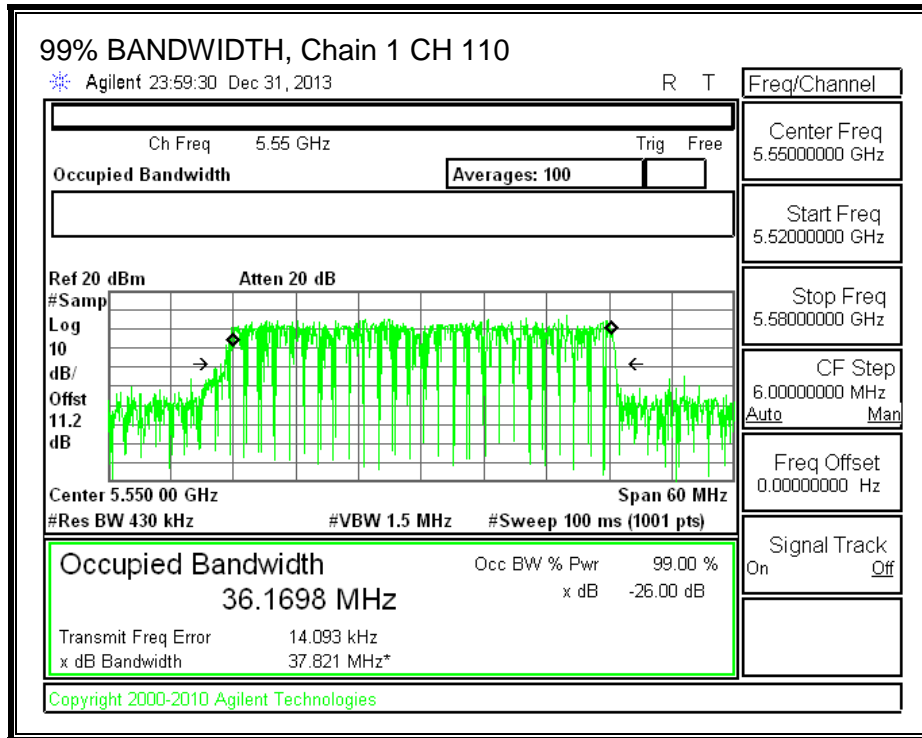
**99% BANDWIDTH, Chain 0**



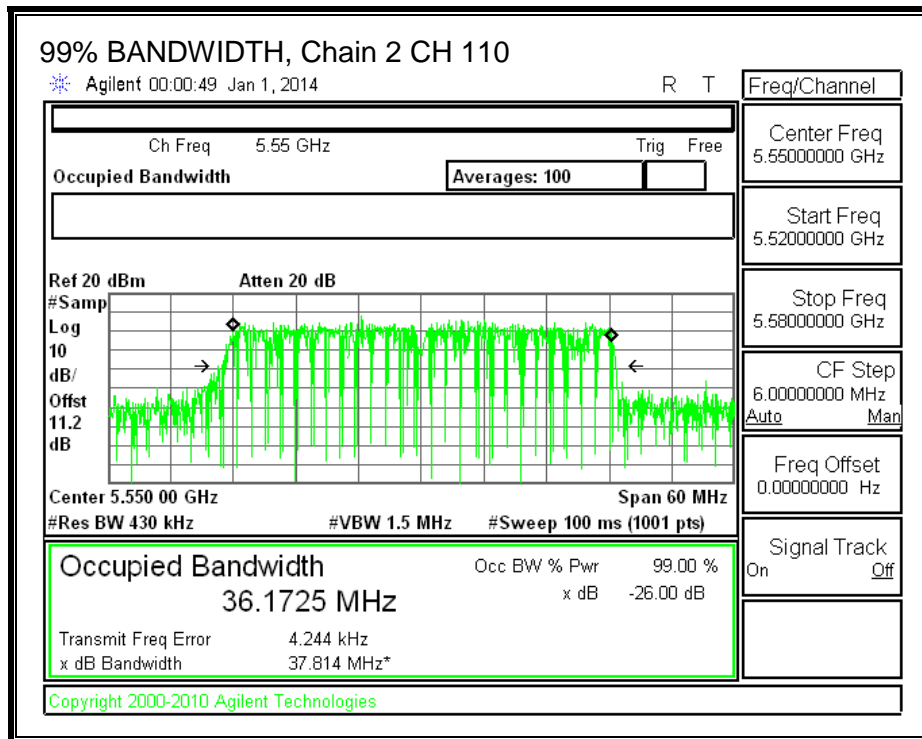
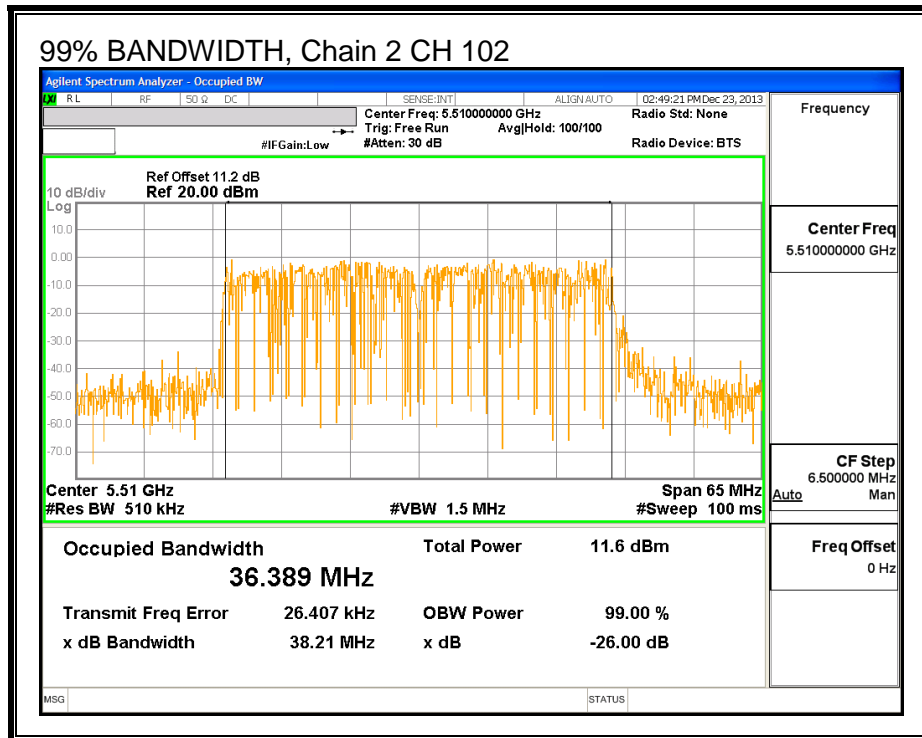


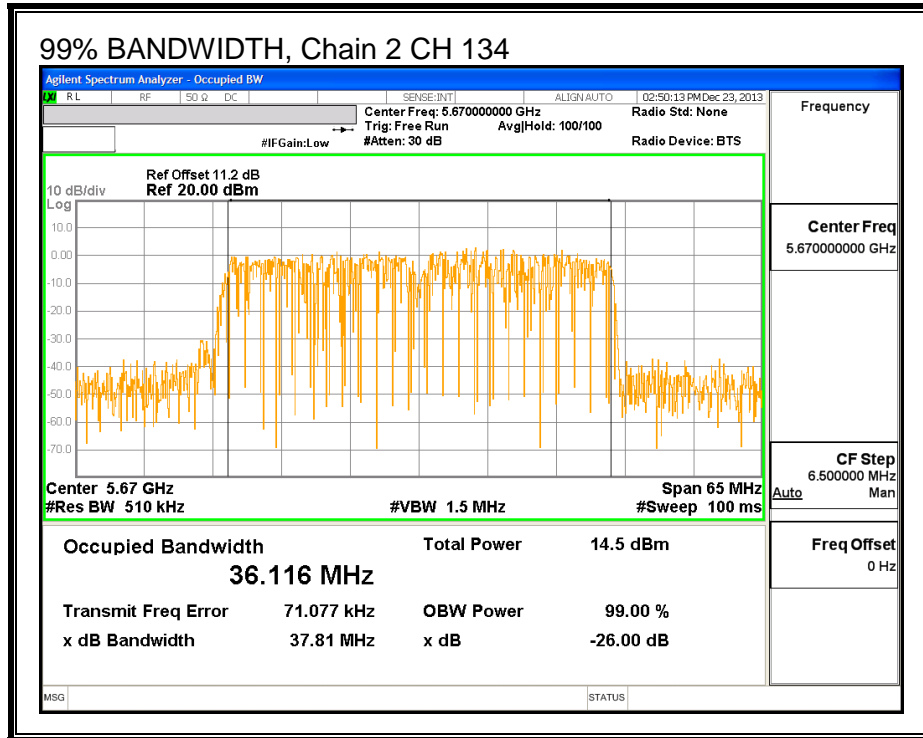
### 99% BANDWIDTH, Chain 1





**99% BANDWIDTH, Chain 2**







### 8.32.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.21 dB (including 10 dB pad and 1.21 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
102	5510	11.70	11.72	12.39	16.72
110	5550	17.68	17.74	17.95	22.56
134	5670	13.32	13.38	13.76	18.26

### 8.32.4. OUTPUT POWER AND PPSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
102	5510	39.40	36.3530	2.82	2.82
110	5550	39.80	36.3640	2.82	2.82
134	5670	39.34	36.1160	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
102	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
110	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
134	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.34	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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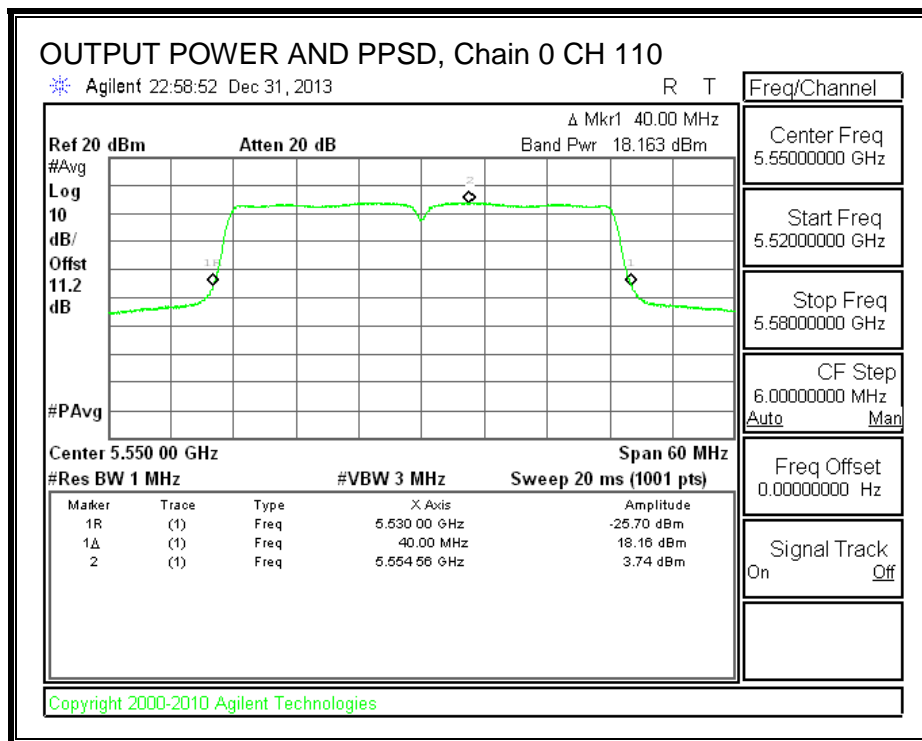
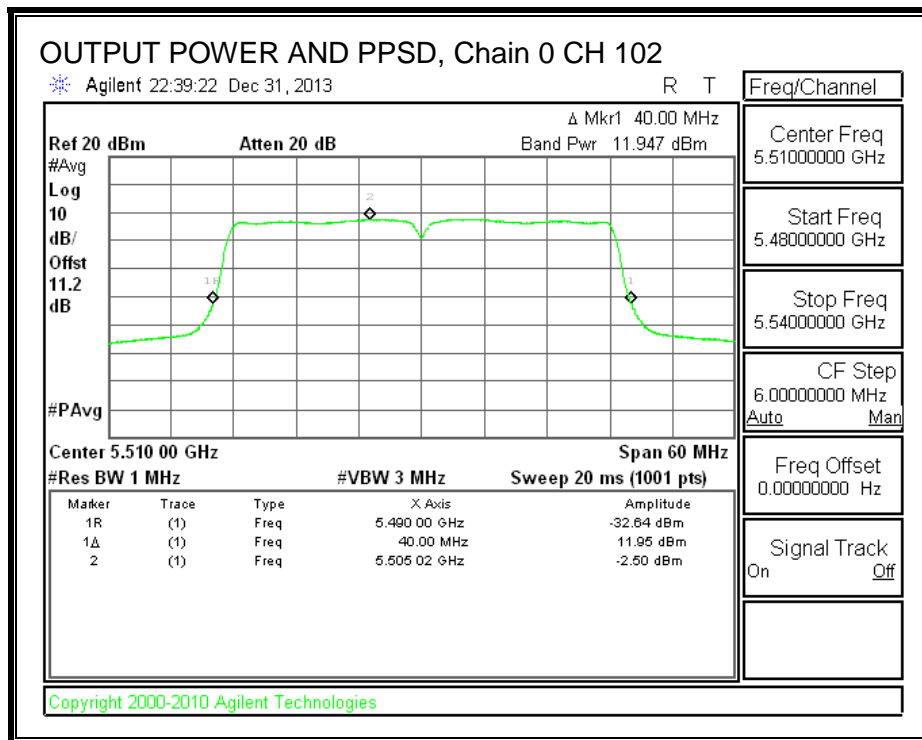
**Output Power Results**

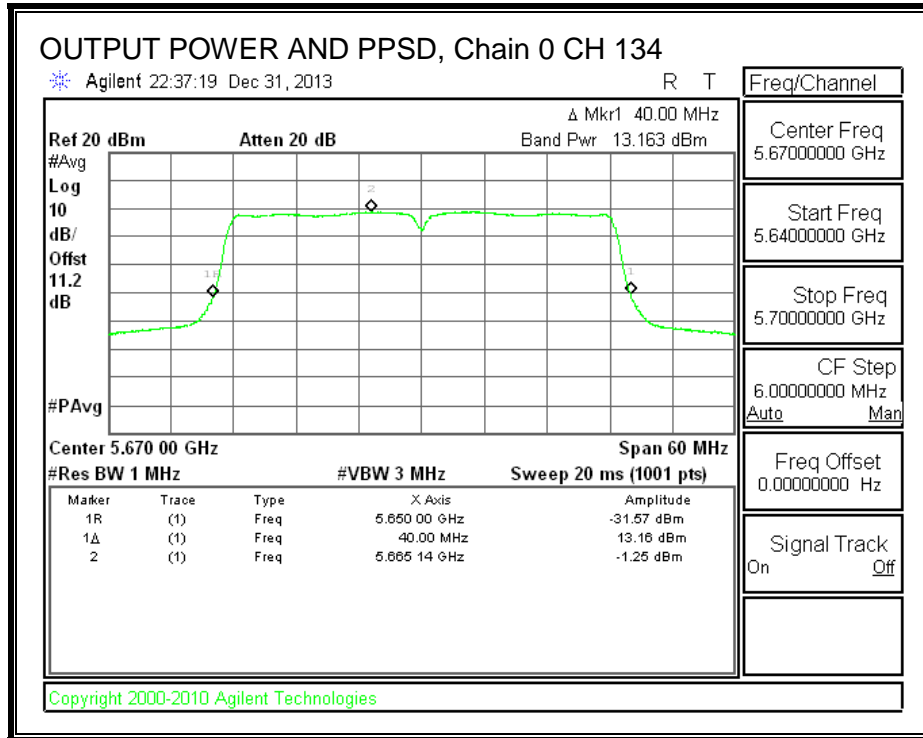
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
102	5510	11.95	12.38	12.71	17.47	24.00	-6.53
110	5550	18.16	18.43	18.36	23.43	24.00	-0.57
134	5670	13.16	13.76	13.93	18.74	24.00	-5.26

**PPSD Results**

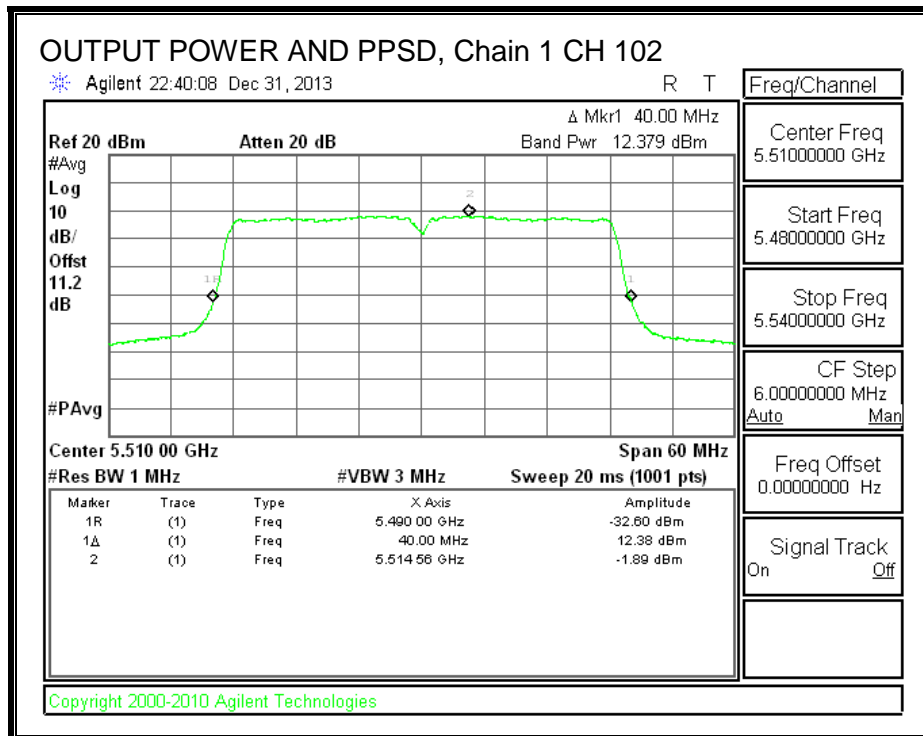
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
102	5510	-2.50	-1.89	-1.57	3.14	11.00	-7.86
110	5550	3.74	4.10	4.02	9.07	11.00	-1.93
134	5670	-1.25	-0.59	-0.45	4.36	11.00	-6.64

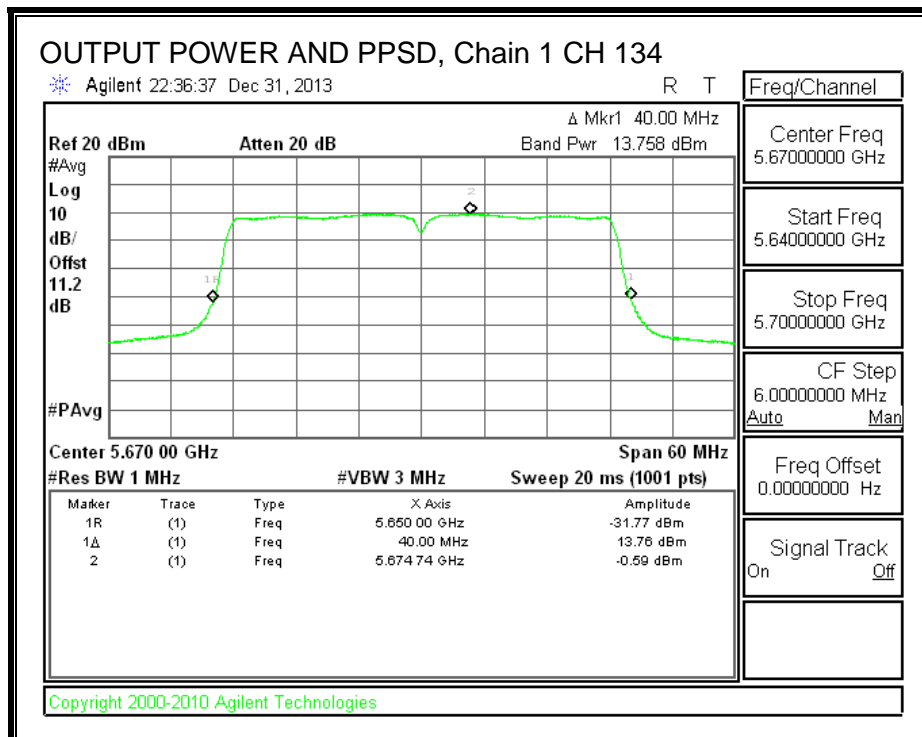
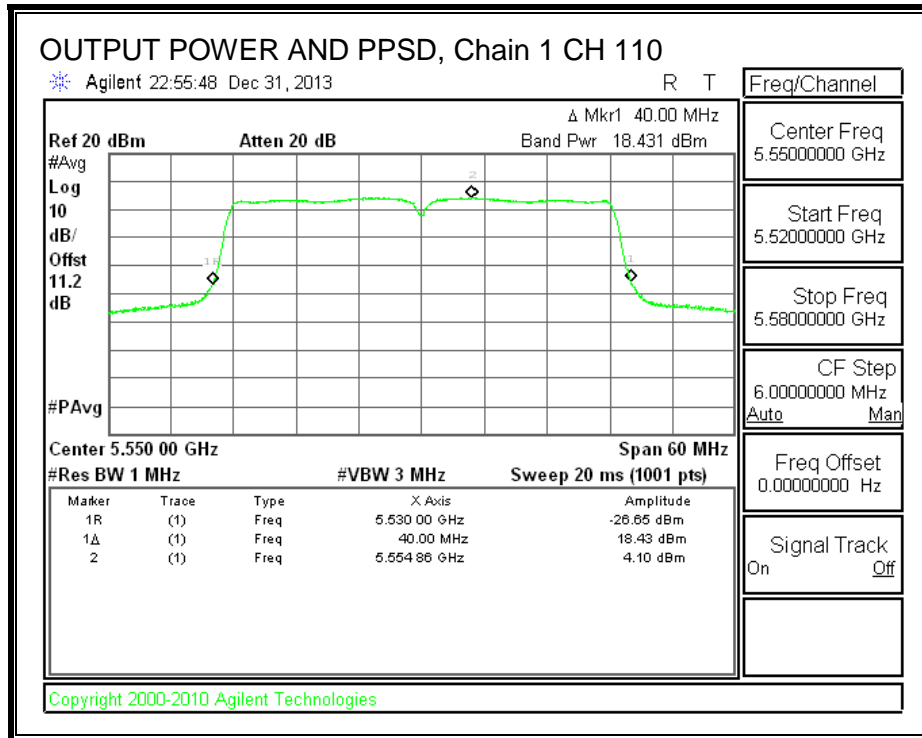
**OUTPUT POWER AND PPSD, Chain 0**



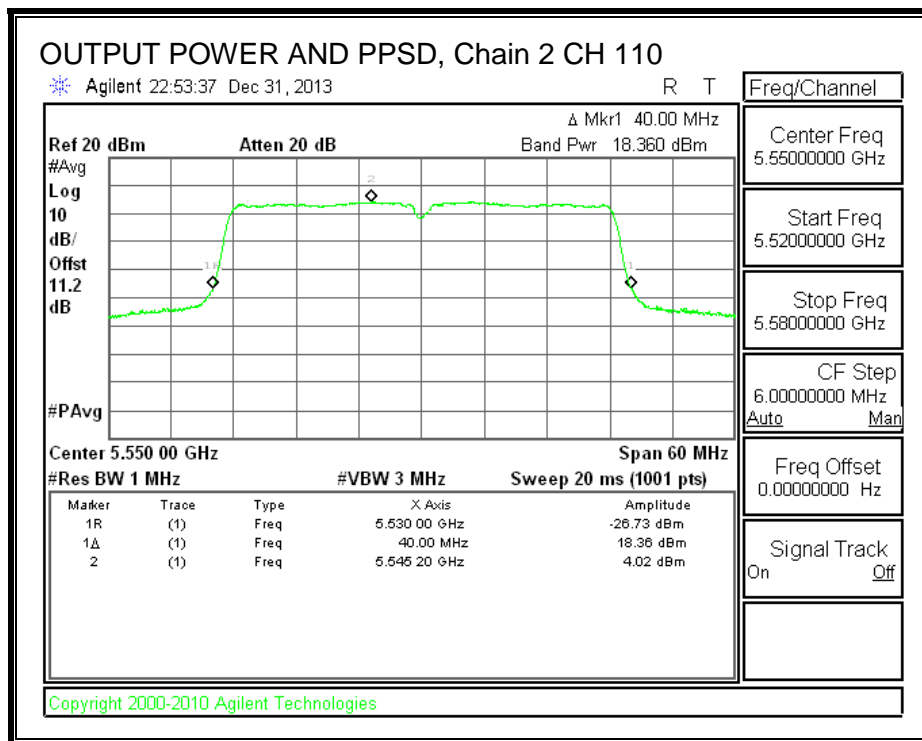
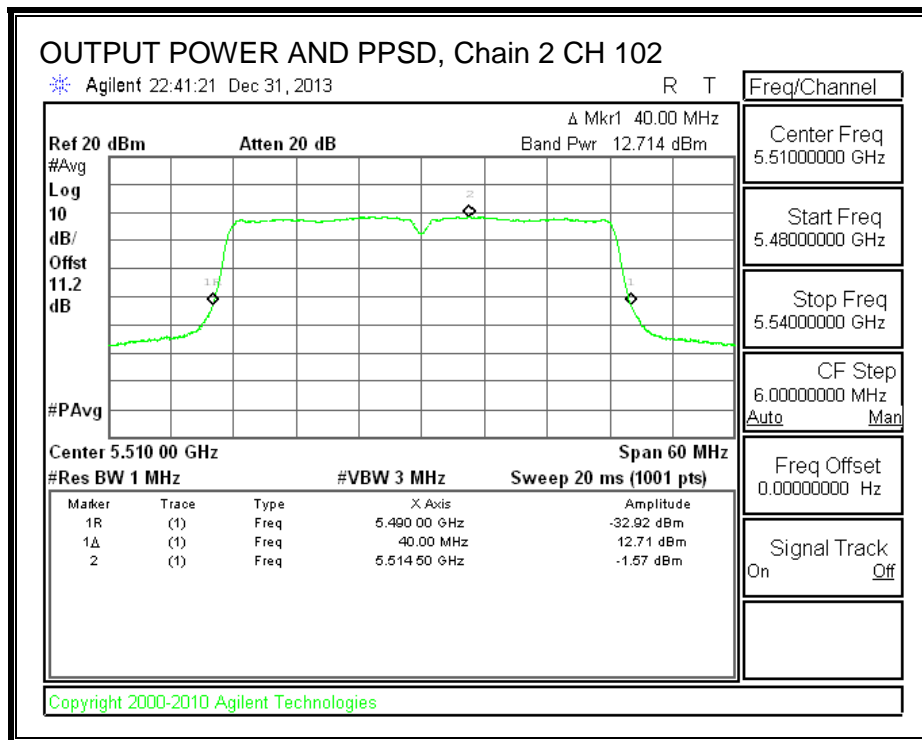


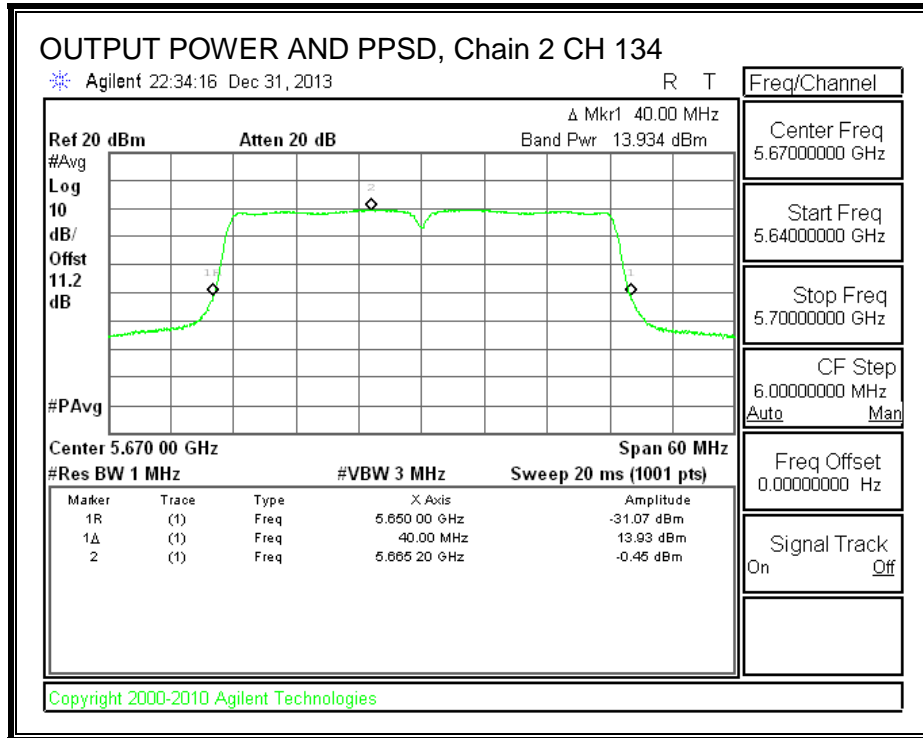
### OUTPUT POWER AND PPSD, Chain 1





**OUTPUT POWER AND PPSD, Chain 2**







### 8.32.5. PEAK EXCURSION

#### LIMITS

FCC §15.407 (a) (6)

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

#### RESULTS

Chain 0

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	9.29	3.74	0.34	5.21	13	-7.79

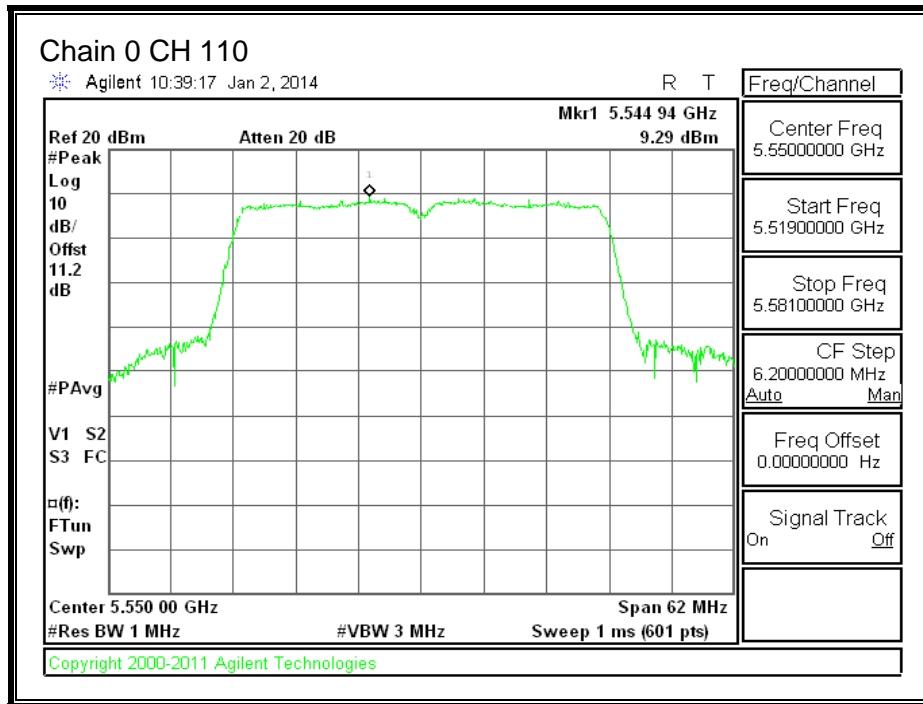
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	9.62	4.10	0.34	5.18	13	-7.82

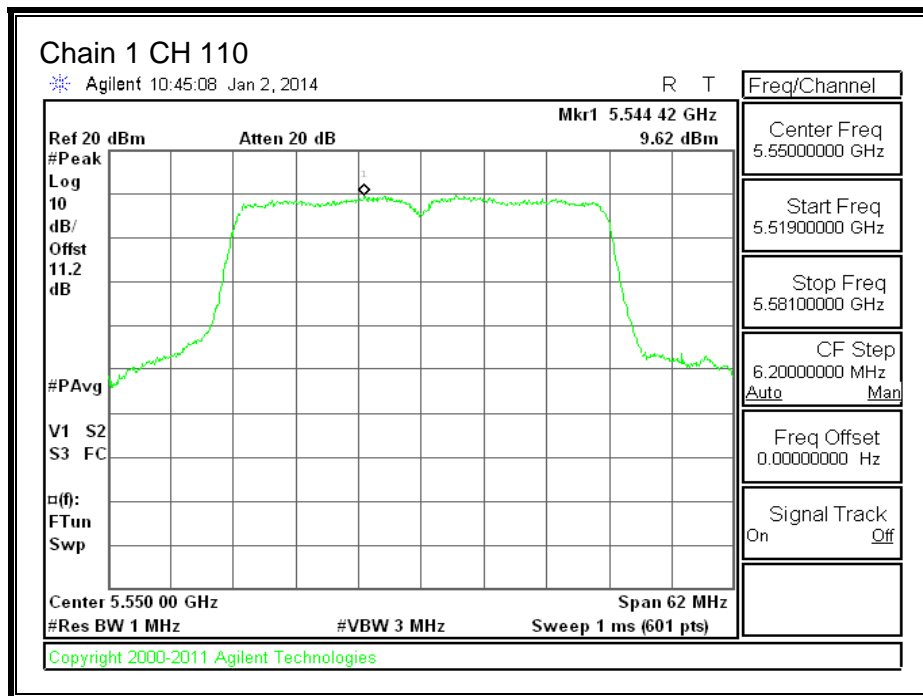
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
110	5550	10.27	4.02	0.34	5.91	13	-7.09

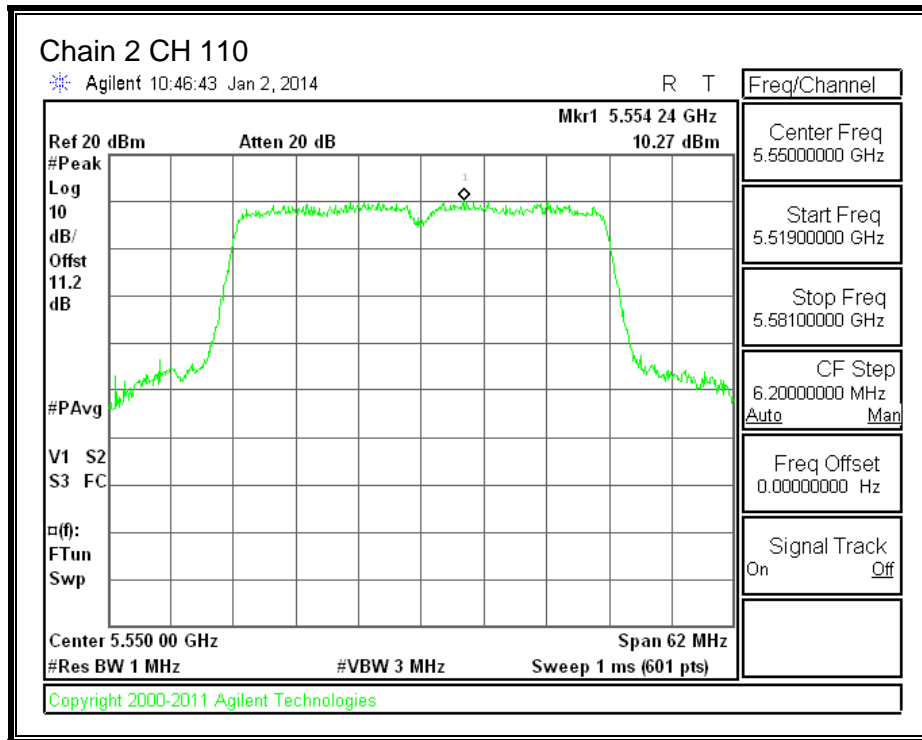
**PEAK EXCURSION, Chain 0**



**PEAK EXCURSION, Chain 1**



**PEAK EXCURSION, Chain 2**



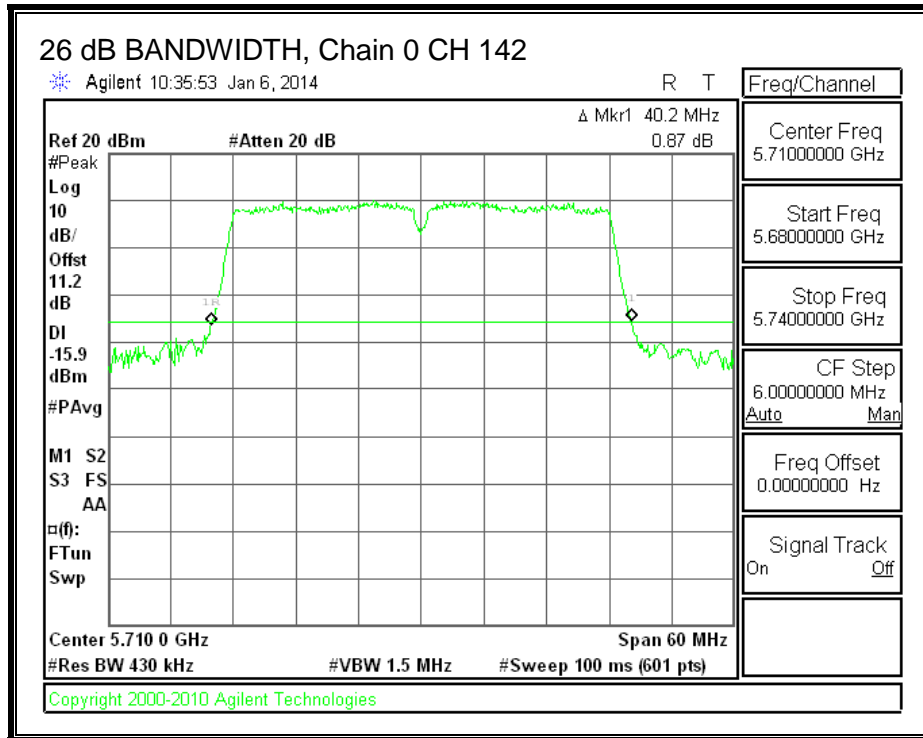
**8.33. 802.11ac 40MHz 3TX SDM MODE, CHANNEL 142, 5.6 GHz BAND****8.33.1.26 dB BANDWIDTH- UNII****LIMITS**

None; for reporting purposes only.

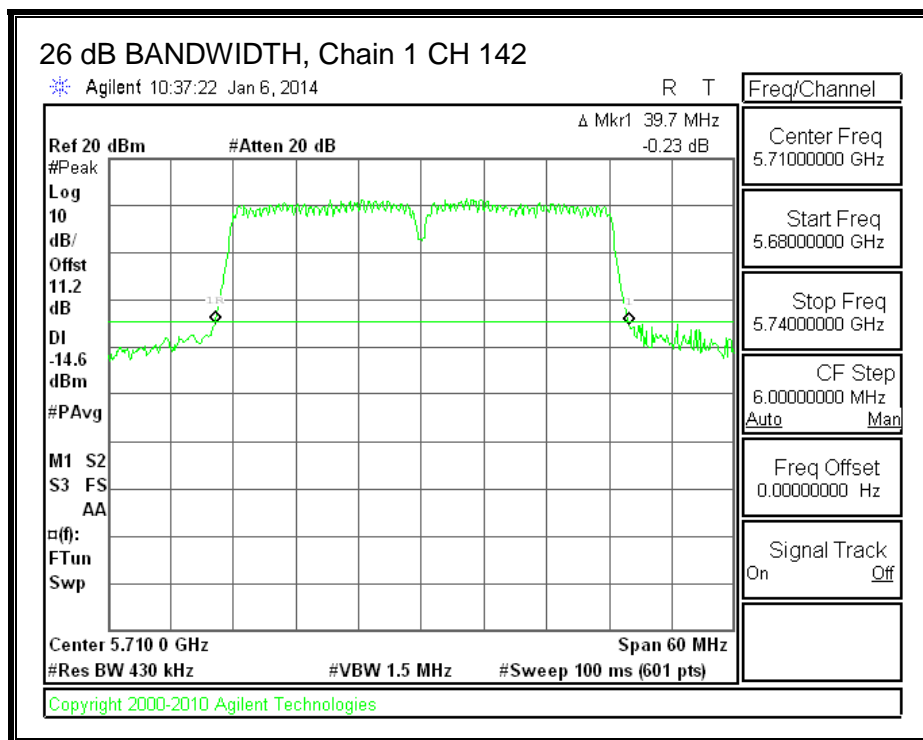
**RESULTS**

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
142	5710	40.20	39.70	43.50

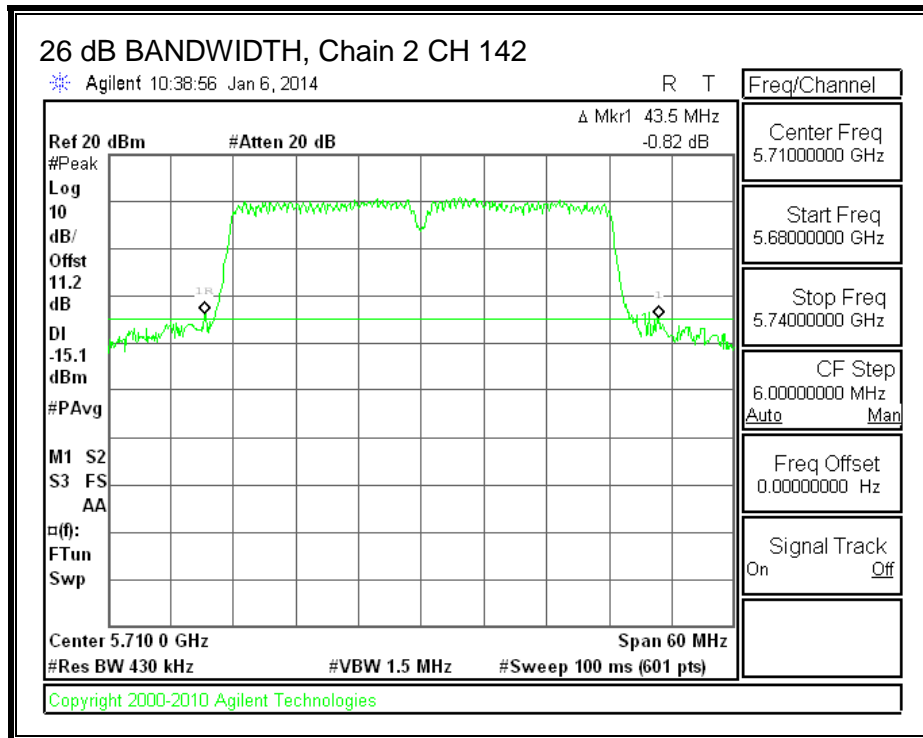
**26 dB BANDWIDTH, Chain 0**



**26 dB BANDWIDTH, Chain 1**



**26 dB BANDWIDTH, Chain 2**



### 8.33.2.99% BANDWIDTH

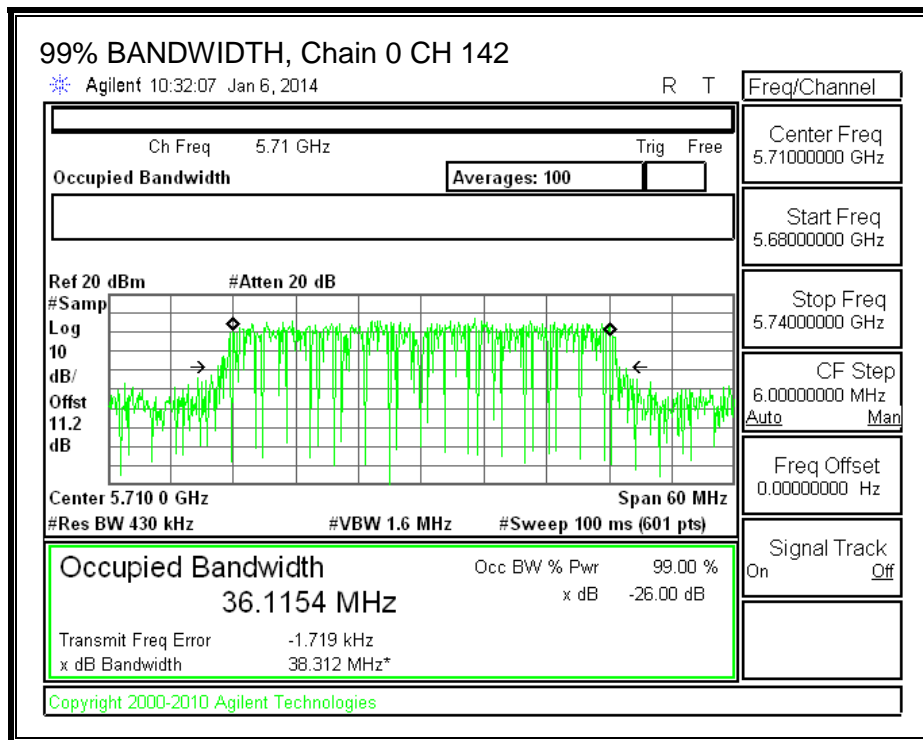
#### LIMITS

None; for reporting purposes only.

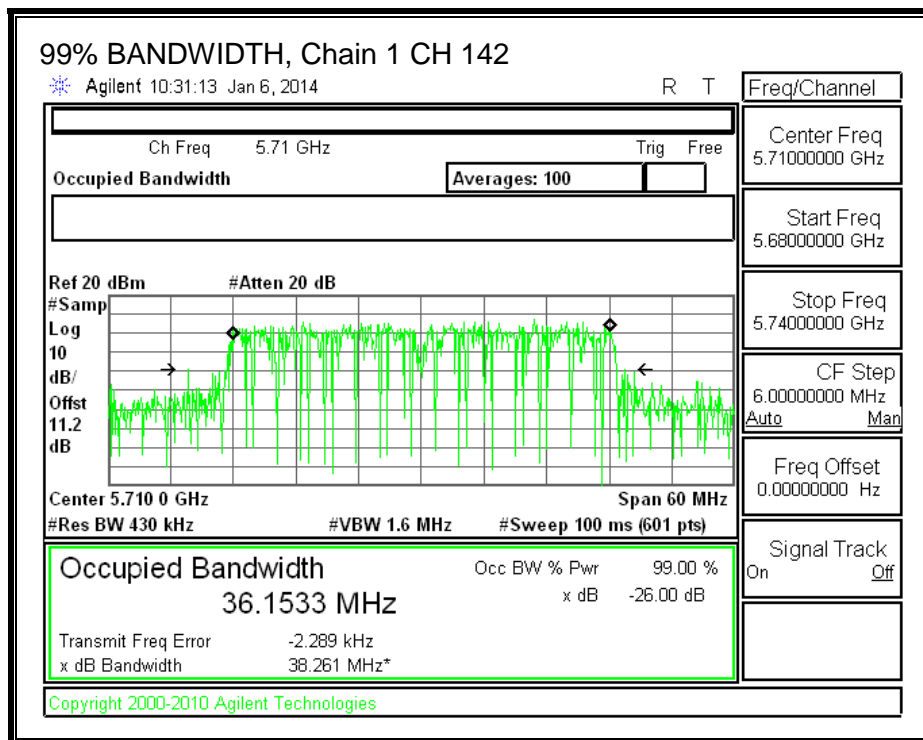
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
142	5710	36.1154	36.1533	36.1471

**99% BANDWIDTH, Chain 0**

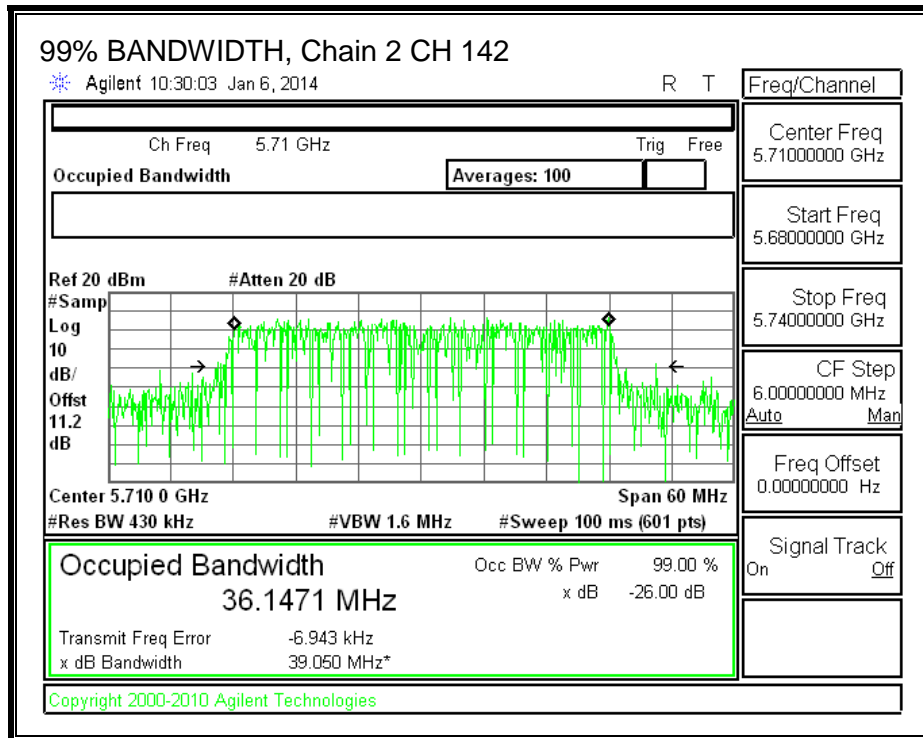


**99% BANDWIDTH, Chain 1**





**99% BANDWIDTH, Chain 2**



### 8.33.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
142	5710	34.850	33.0577	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
142	5710	24.00	24.00	30.00	24.00	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.34	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	18.98	18.86	18.81	23.9	24.00	-0.10

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
142	5710	5.53	5.73	5.35	10.65	11.00	-0.35

**Limits (FCC), portion in 5.8 GHz DTS band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
142	5710	4.850	3.0577	2.82	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
142	5710	17.86	15.85	21.85	15.85	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.22	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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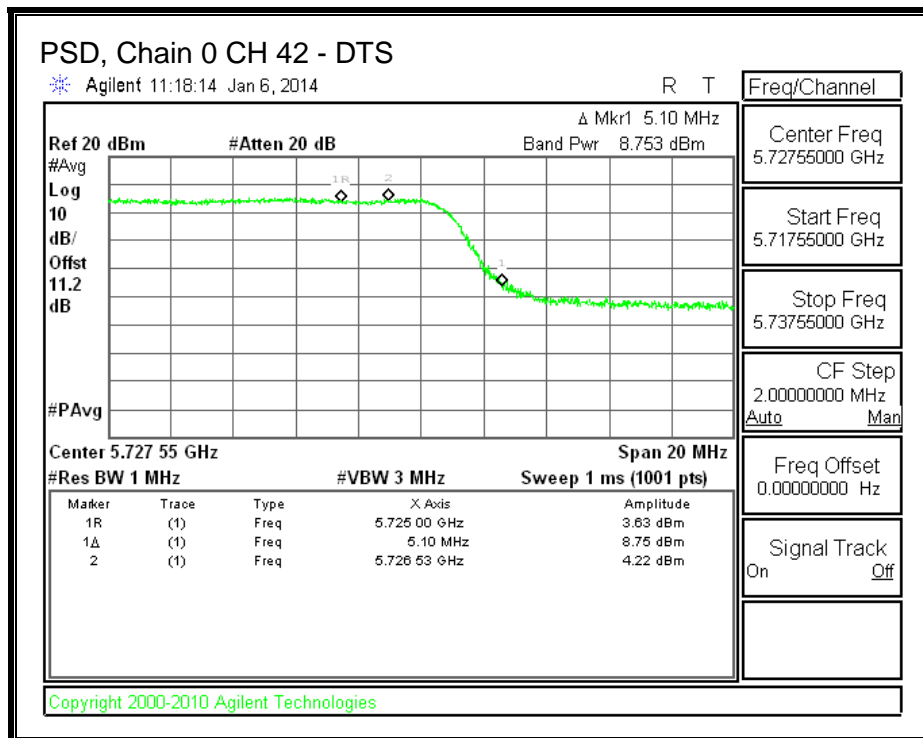
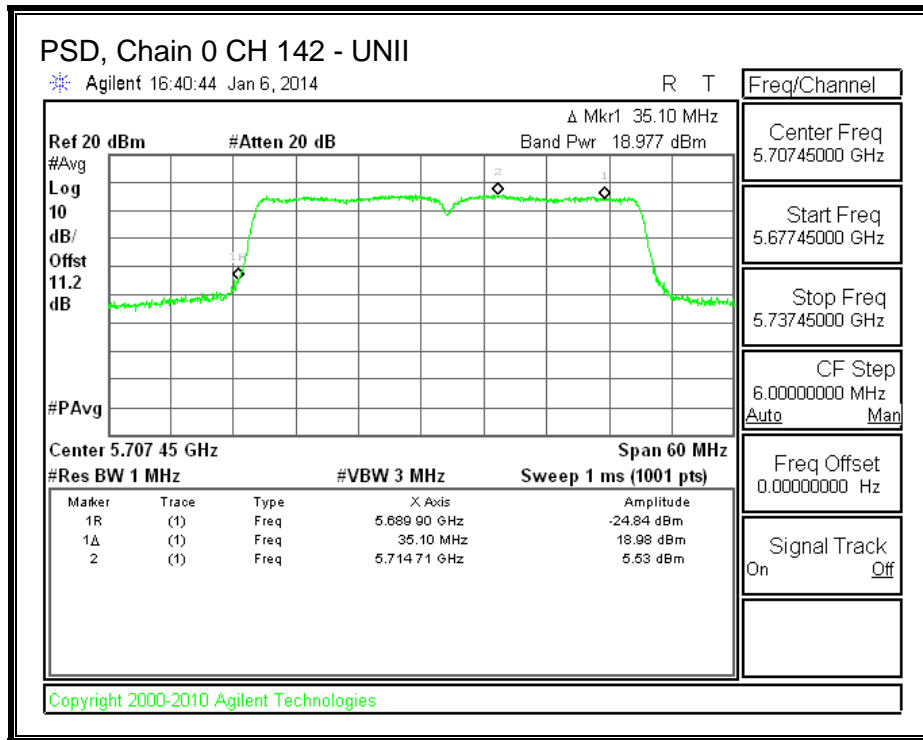
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	8.75	8.41	8.50	13.55	15.85	-2.31

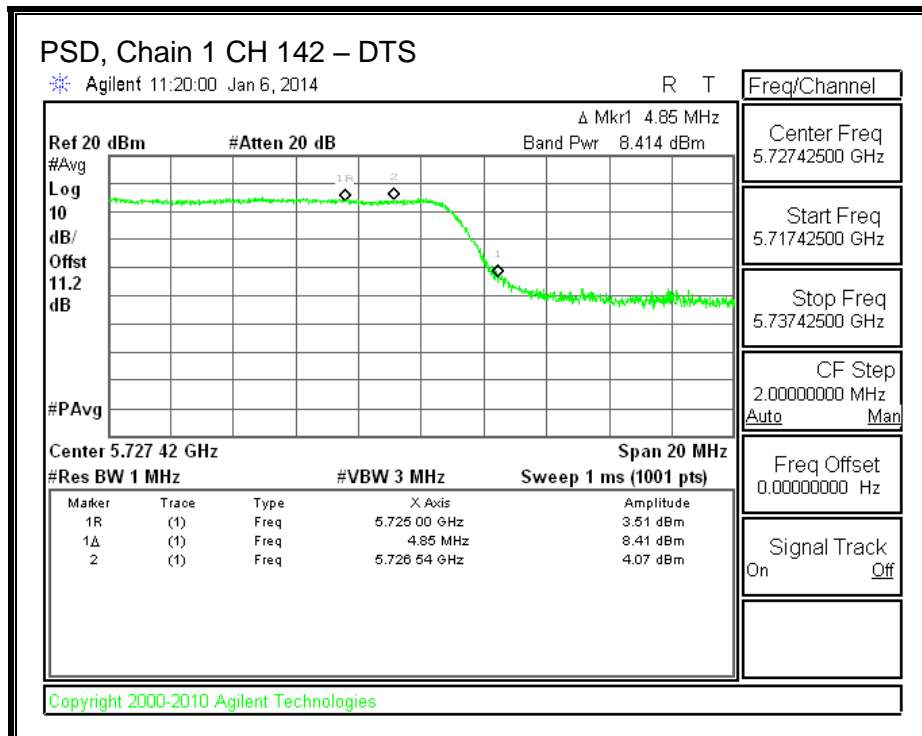
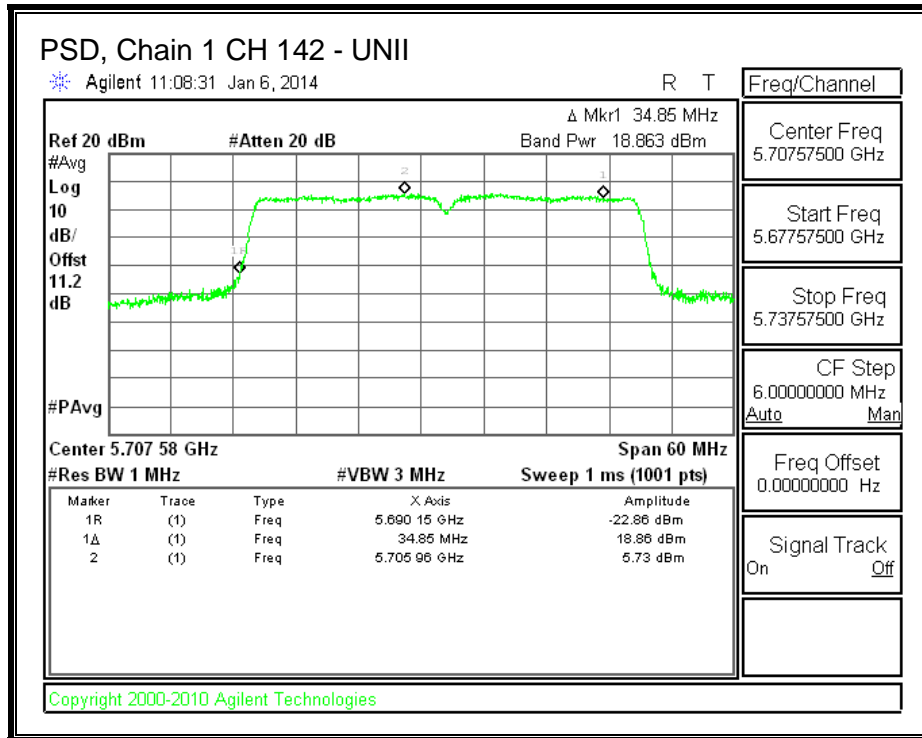
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
142	5710	4.220	4.07	3.62	8.97	11.00	-2.03

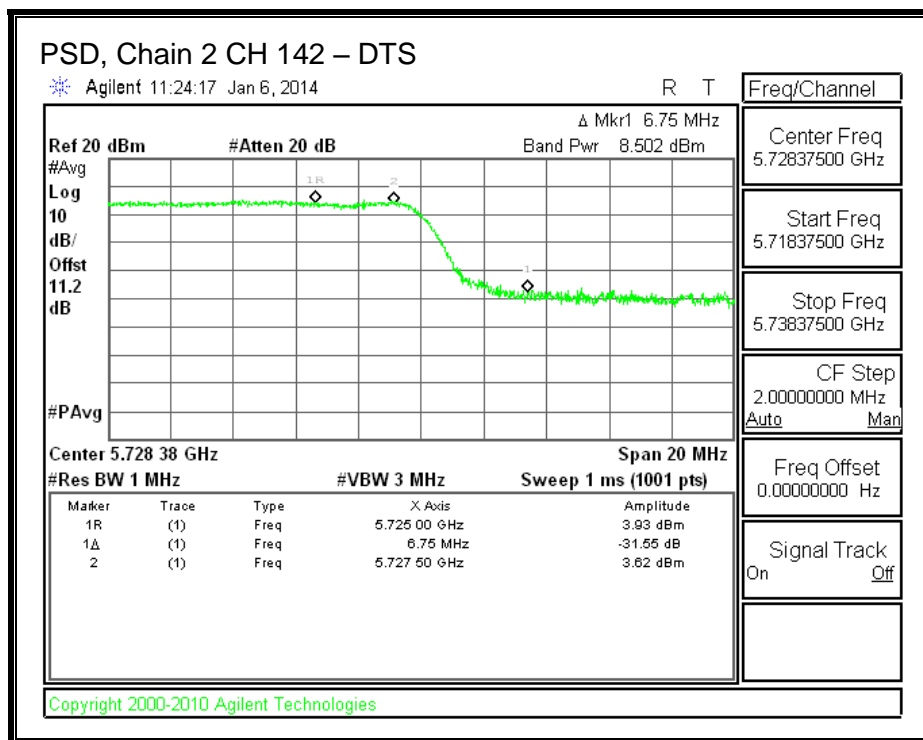
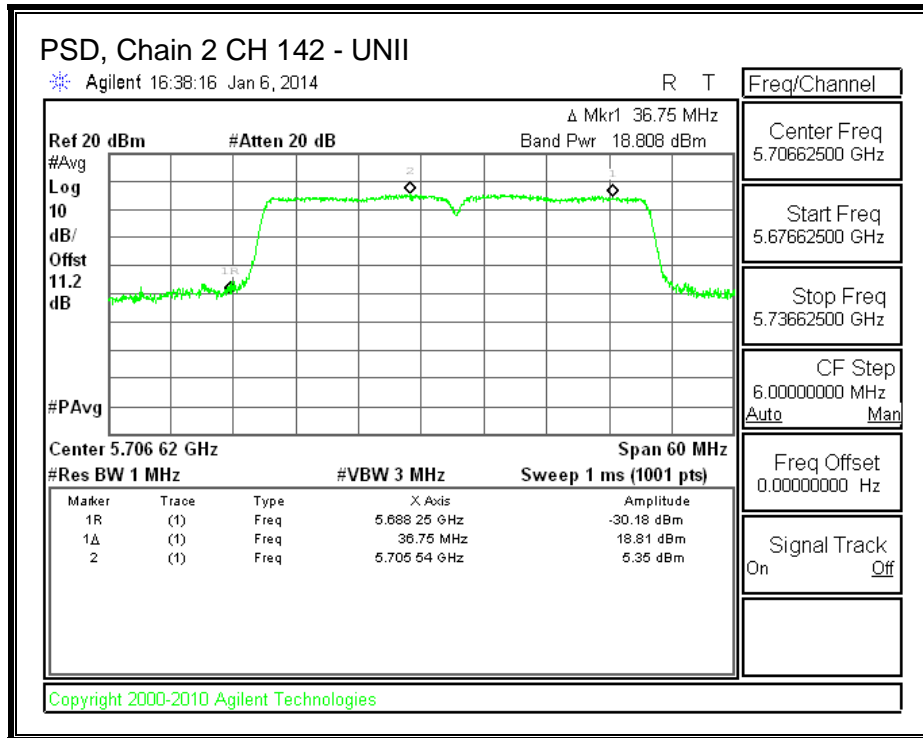
**OUTPUT POWER & PSD, Chain 0**



**OUTPUT POWER & PSD, Chain 1**



**OUTPUT POWER & PPSD, Chain 2**



## 8.34. 802.11ac 80MHz 1TX SISO MODE IN THE 5.6 GHz BAND

### 8.34.1. 26 dB BANDWIDTH

#### LIMITS

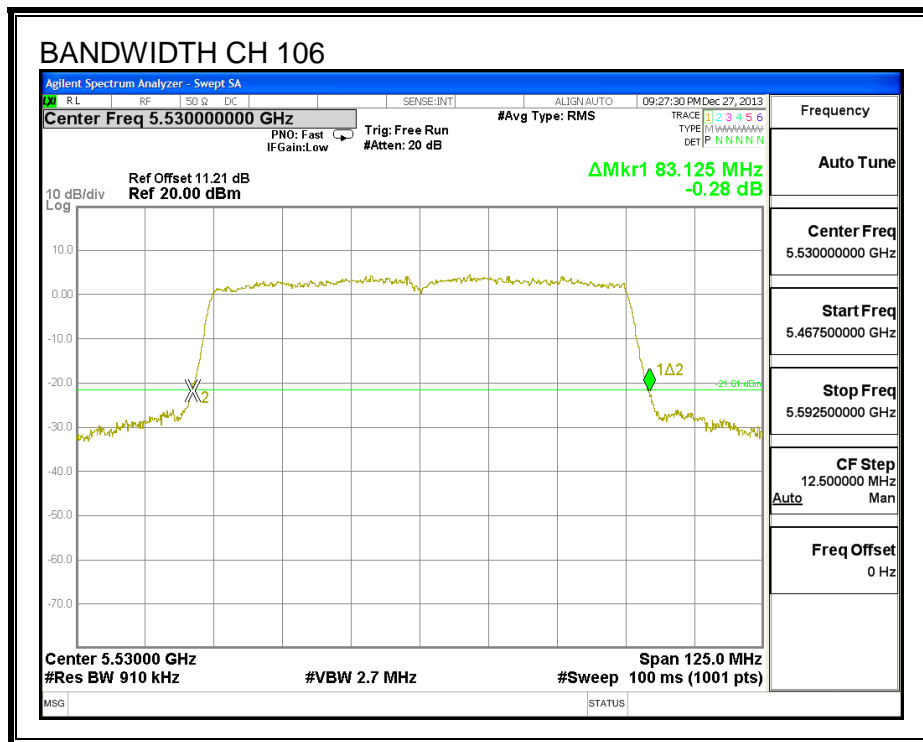
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
106	5530	83.125



**26 dB BANDWIDTH**



**8.34.2. 99% BANDWIDTH**

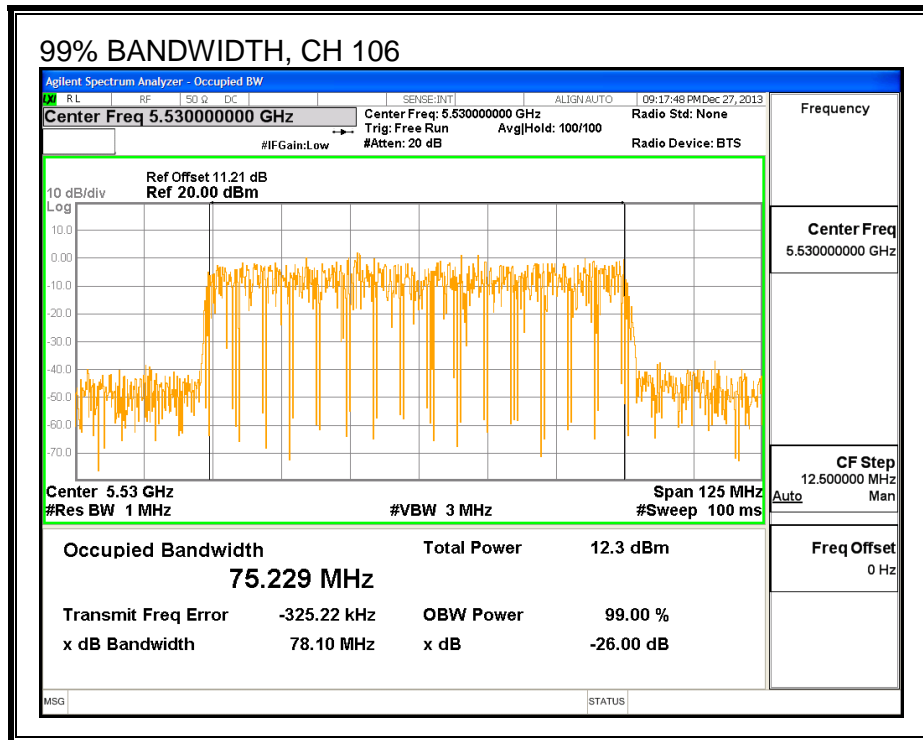
**LIMITS**

None; for reporting purposes only.

**RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
106	5530	75.229

**99% BANDWIDTH**



### 8.34.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.26 dB (including 10 dB pad and 1.26 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

Channel	Frequency (MHz)	Power (dBm)
106	5530	13.54

### 8.34.4. OUTPUT POWER AND PPSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
106	5530	83.125	75.2	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
106	5530	24.00	24.00	30.00	24.00	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.27	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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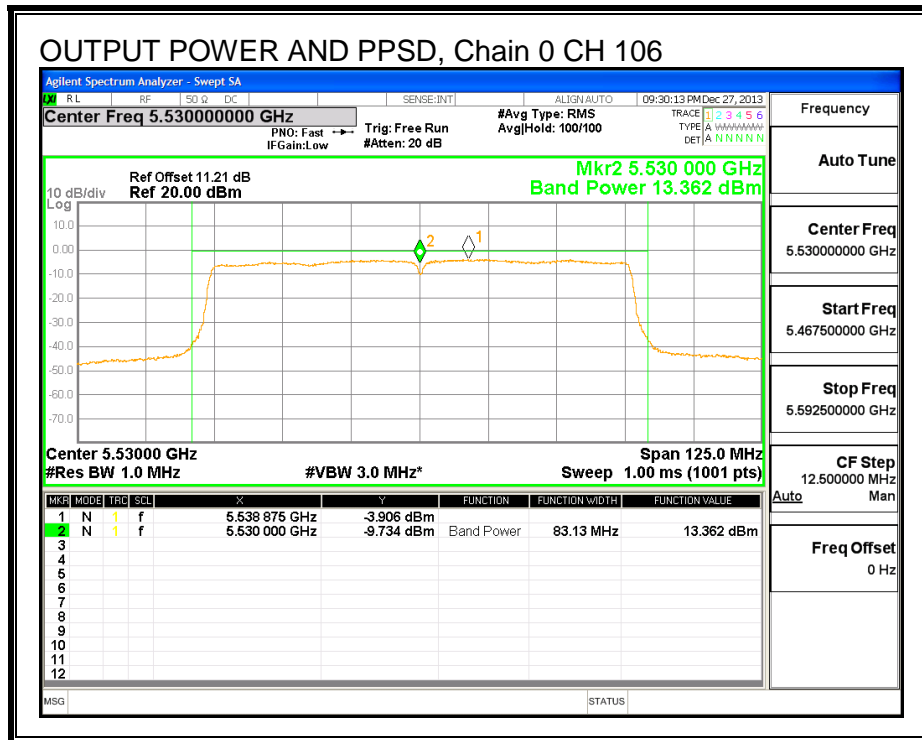
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
106	5530	13.362	13.63	24.00	-10.37

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
106	5530	-3.91	-3.64	11.00	-14.64

**OUTPUT POWER AND PPSD, Chain 0**



### 8.34.5. PEAK EXCURSION

#### LIMITS

FCC §15.407 (a) (6)

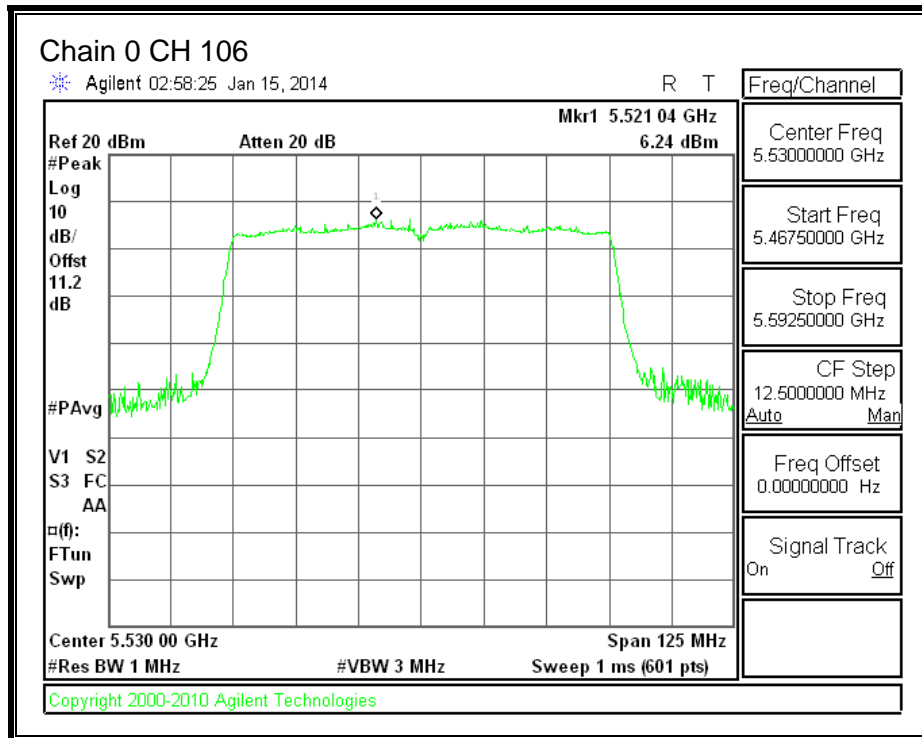
The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

#### RESULTS

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
106	5530	6.24	-3.91	0.27	9.88	13	-3.12



**PEAK EXCURSION, Chain 0**



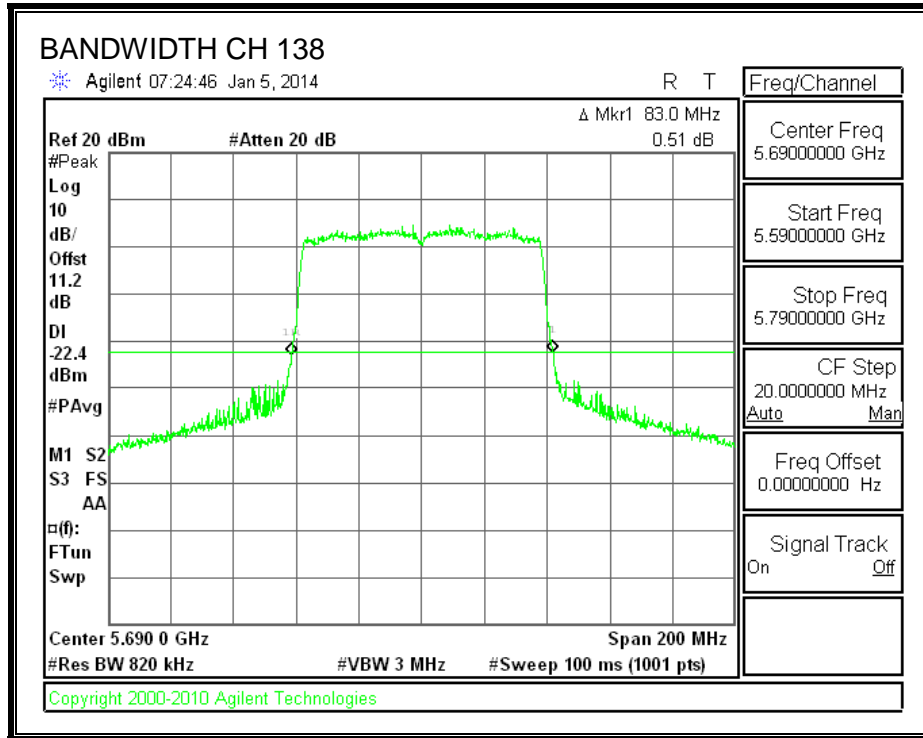
**8.35. 802.11ac 80MHz 1TX SISO MODE, CHANNEL 138, 5.6 GHz BAND****8.35.1. 26 dB BANDWIDTH****LIMITS**

None; for reporting purposes only.

**RESULTS**

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
138	5690	83.00

**26 dB BANDWIDTH**



**8.35.2. 99% BANDWIDTH**

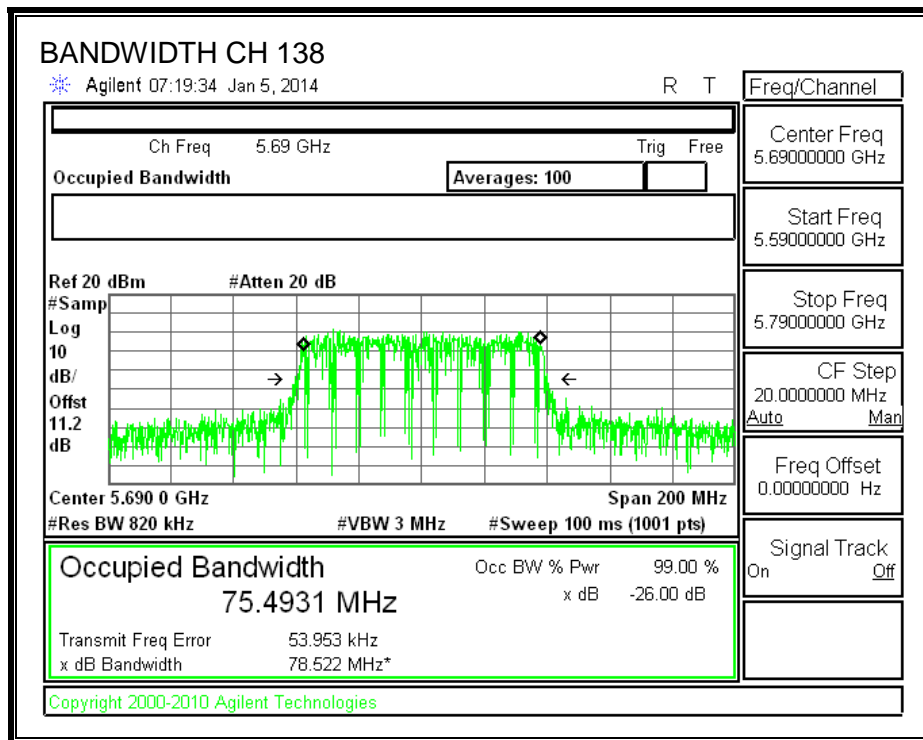
**LIMITS**

None; for reporting purposes only.

**RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
138	5690	75.4931

**99% BANDWIDTH**



### 8.35.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

<b>Antenna Gain (dBi)</b>
2.82

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
138	5690	76.50	72.7196	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
138	5690	24.00	24.00	30.00	24.00	11.00	11.00	11.00

**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	21.41	21.68	24.00	-2.32

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	3.990	4.26	11.00	-6.74

<b>Duty Cycle CF (dB)</b>	0.27	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Limits (FCC), portion in 5.8 GHz DTS band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
138	5690	6.50	2.7196	2.82

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
138	5690	19.13	15.34	21.34	15.34	11.00	11.00	11.00

**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	7.48	7.75	15.34	-7.59

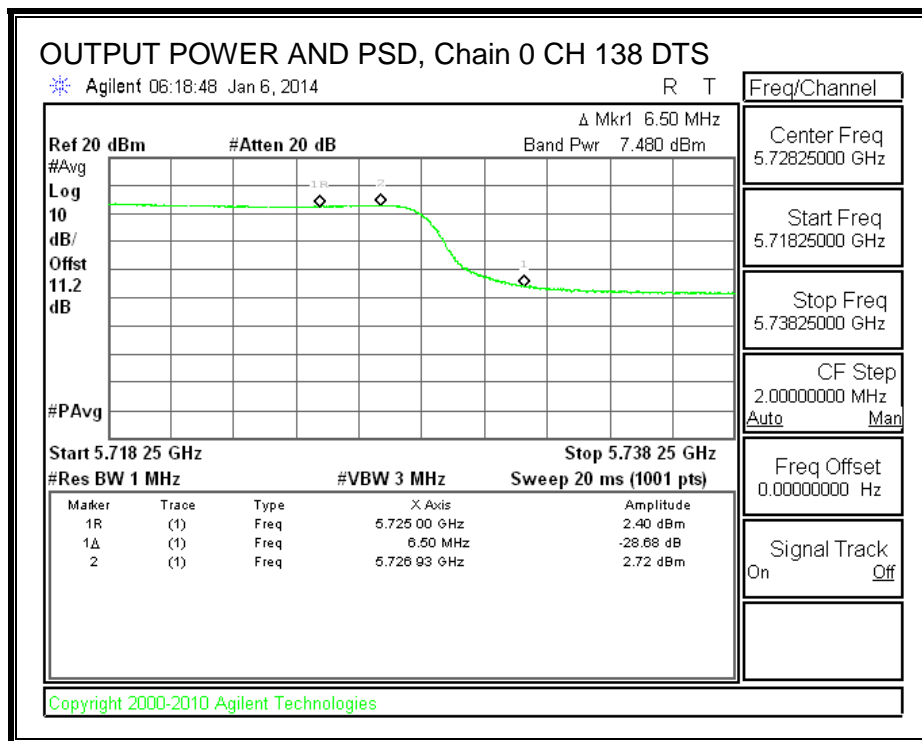
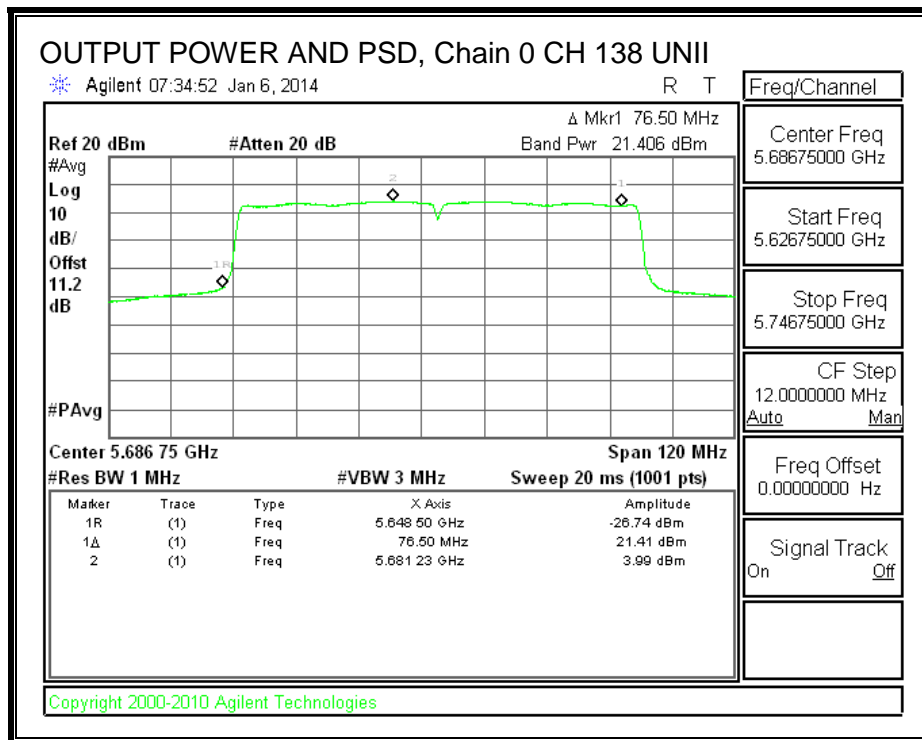
**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	2.720	2.99	11.00	-8.01

<b>Duty Cycle CF (dB)</b>	0.27	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**OUTPUT POWER AND PSD, Chain 0**



### 8.36. 802.11ac 80MHz 3TX CDD MODE IN THE 5.6 GHz BAND

#### 8.36.1. 26 dB BANDWIDTH

##### LIMITS

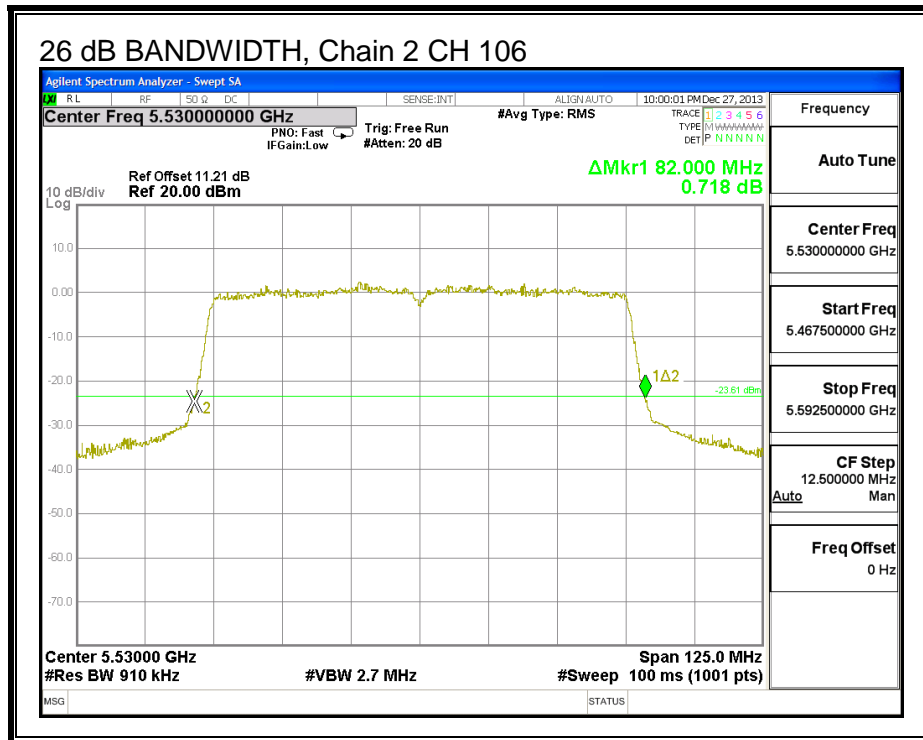
None; for reporting purposes only.

##### RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
106	5530	83.000	82.250	82.000



**26 dB BANDWIDTH, Chain 2**



**8.36.2. 99% BANDWIDTH**

**LIMITS**

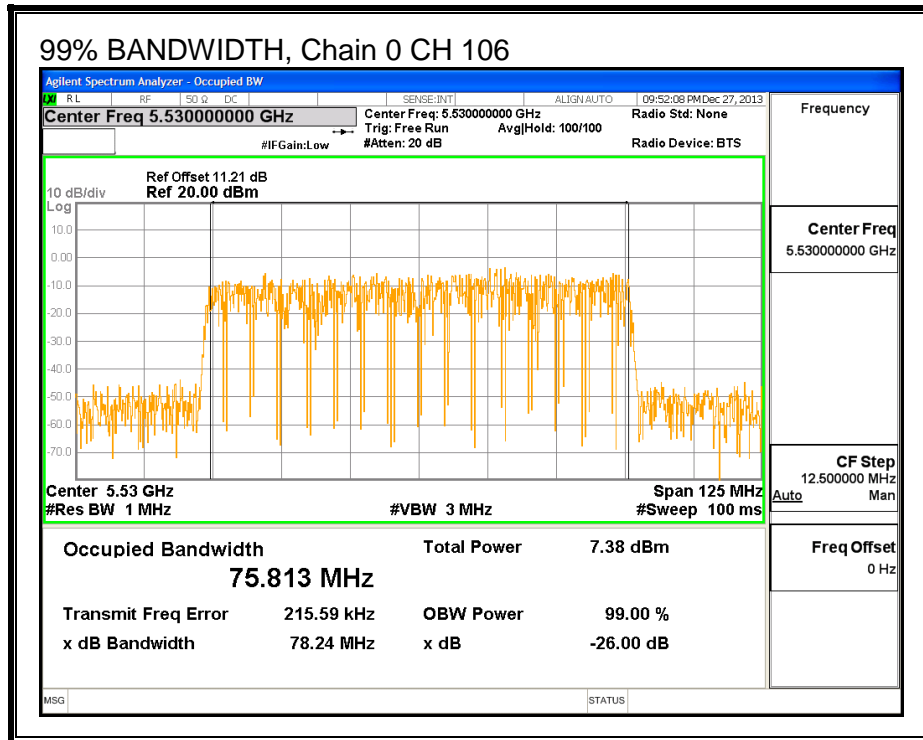
None; for reporting purposes only.

**RESULTS**

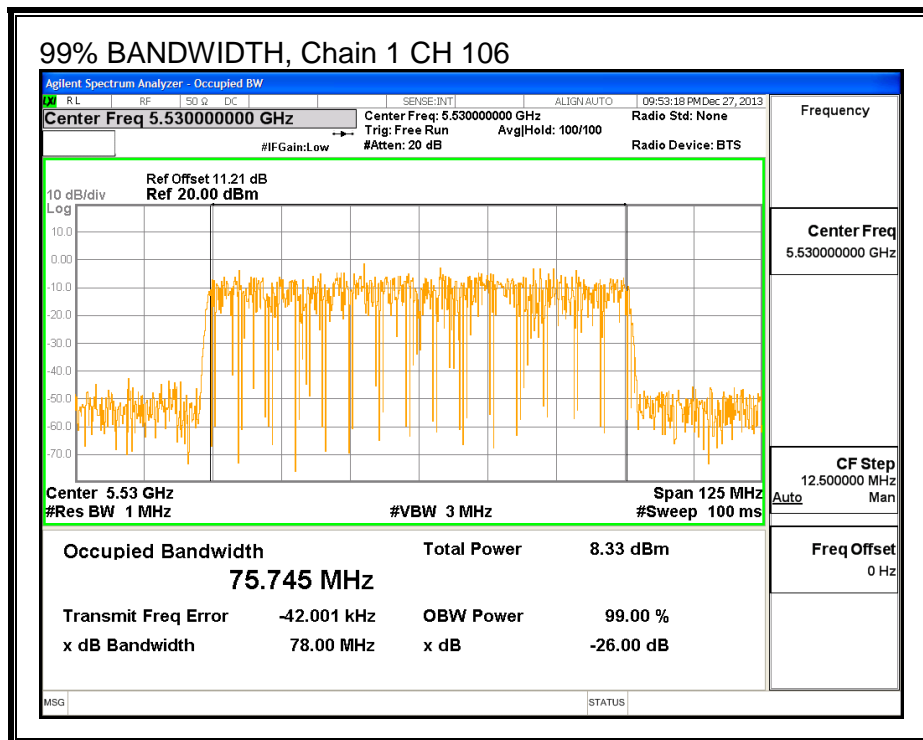
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
106	5530	75.813	75.745	75.775

**99% BANDWIDTH**

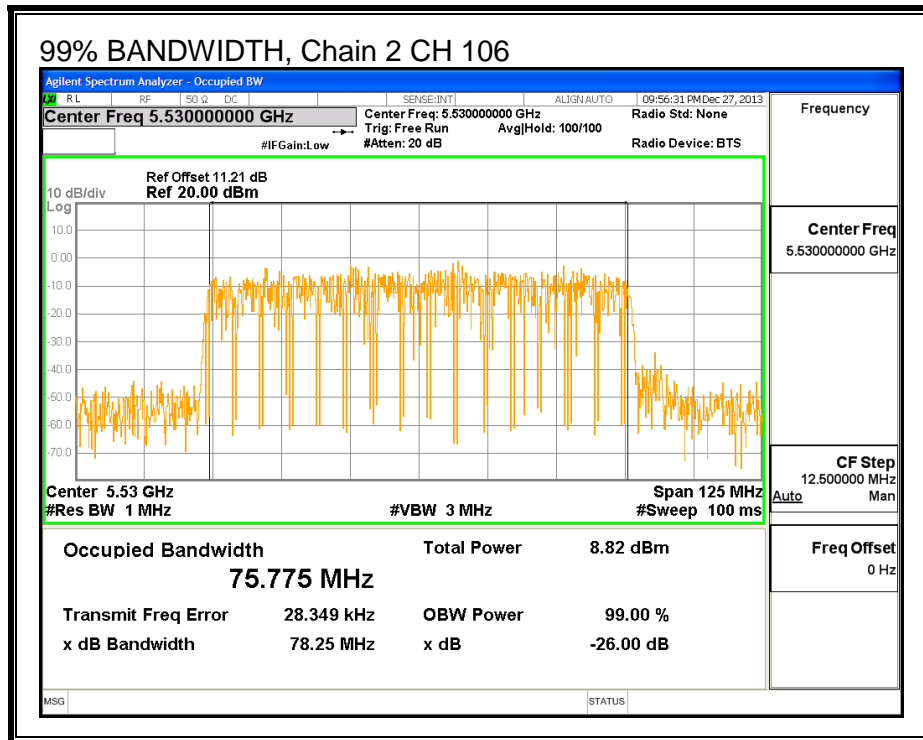
**99% BANDWIDTH, Chain 0**



**99% BANDWIDTH, Chain 1**



**99% BANDWIDTH, Chain 2**



### 8.36.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.26 dB (including 10 dB pad and 1.26 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
106	5530	8.50	9.50	10.30	14.27



### 8.36.4. OUTPUT POWER AND PPSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

<b>Antenna Gain (dBi)</b>	<b>10 * Log (3 chains) (dB)</b>	<b>Correlated Chains Directional Gain (dBi)</b>
2.82	4.77	7.59

**RESULTS**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
106	5530	83.00	75.8130	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
106	5530	24.00	24.00	30.00	24.00	9.41	11.00	9.41

<b>Duty Cycle CF (dB)</b>	0.27	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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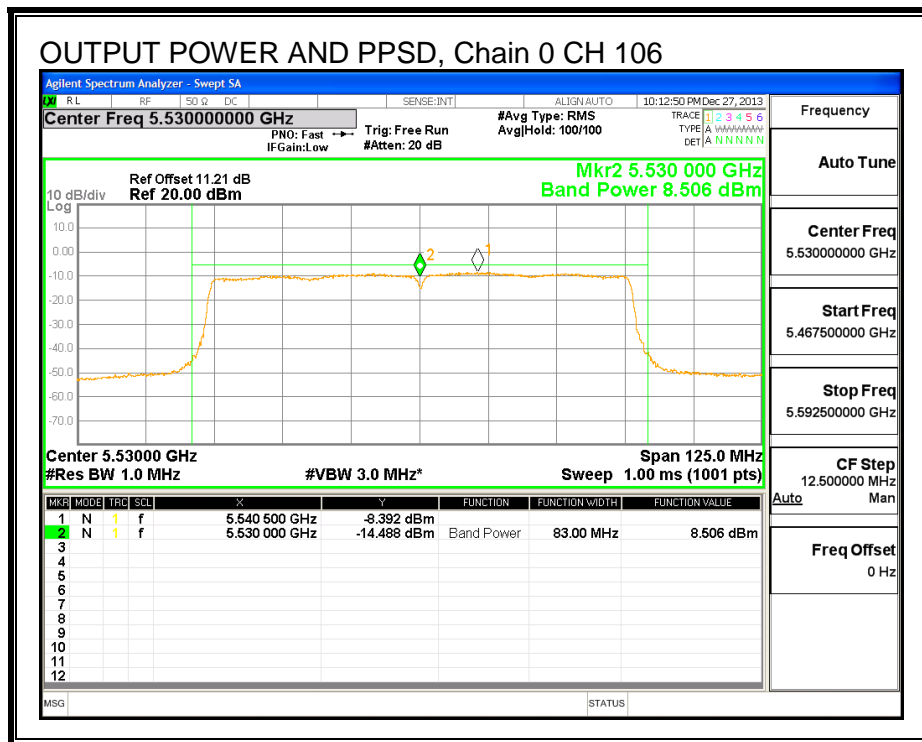
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
106	5530	8.51	9.55	10.36	14.58	24.00	-9.42

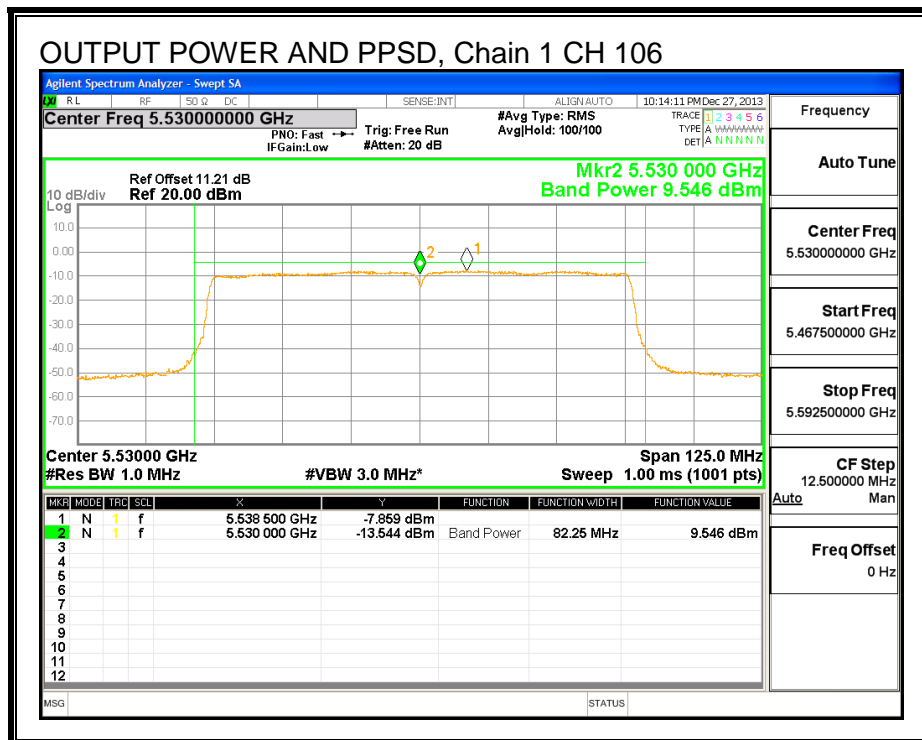
**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
106	5530	-8.39	-7.86	-6.77	-2.58	9.41	-11.99

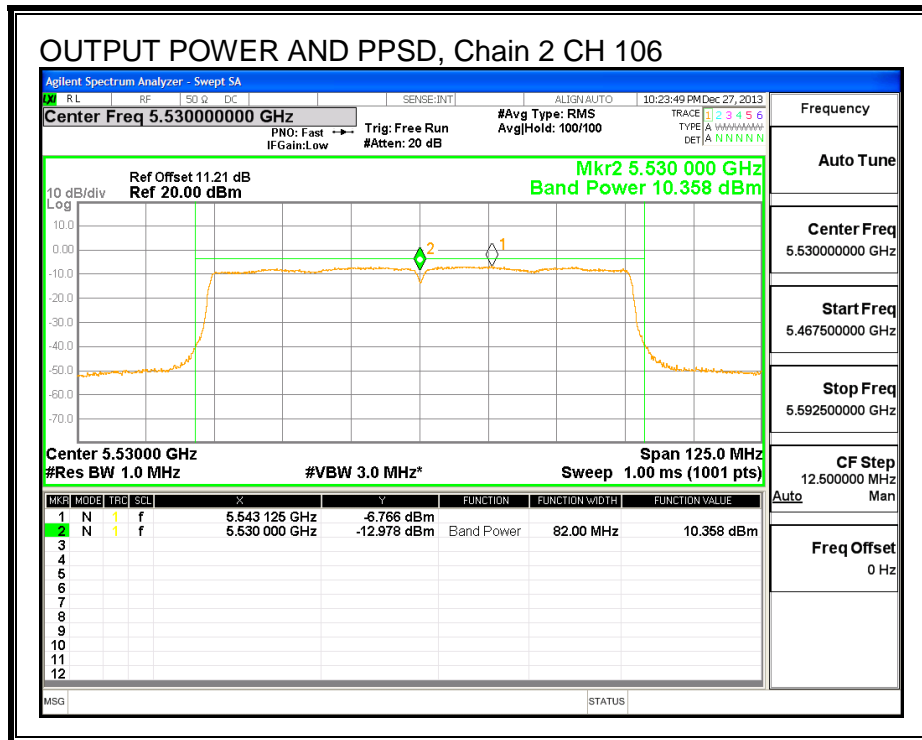
**OUTPUT POWER AND PPSD, Chain 0**



**OUTPUT POWER AND PPSD, Chain 1**



**OUTPUT POWER AND PPSD, Chain 2**



**8.36.5. PEAK EXCURSION**

**LIMITS**

FCC §15.407 (a) (6)

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

**RESULTS**

Chain 0

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
106	5530	1.50	-8.39	0.27	9.62	13	-3.38

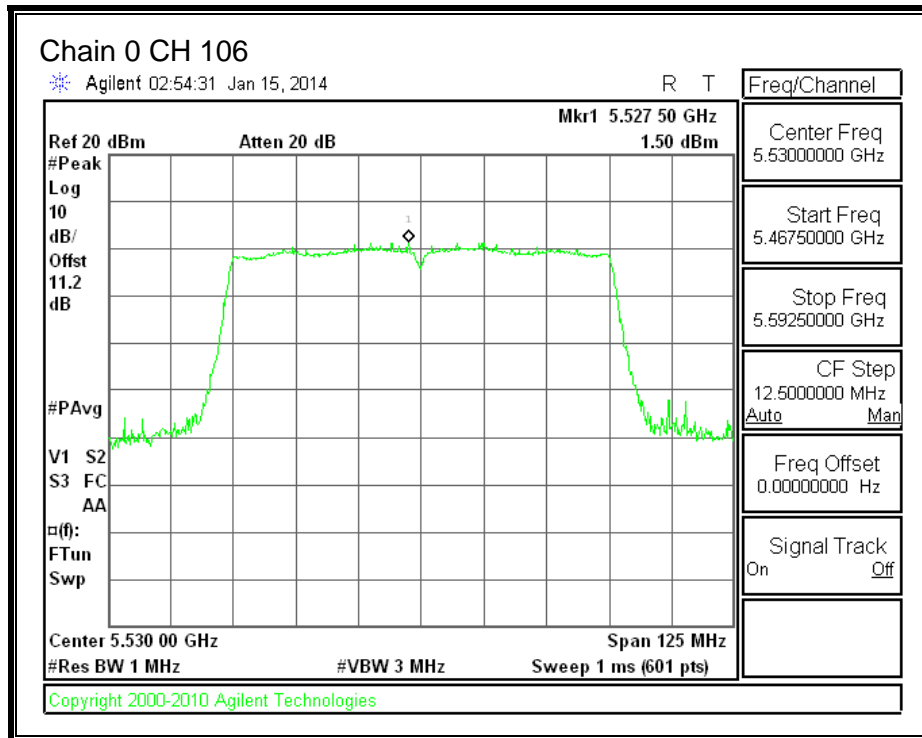
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
106	5530	2.60	-7.86	0.27	10.19	13	-2.81

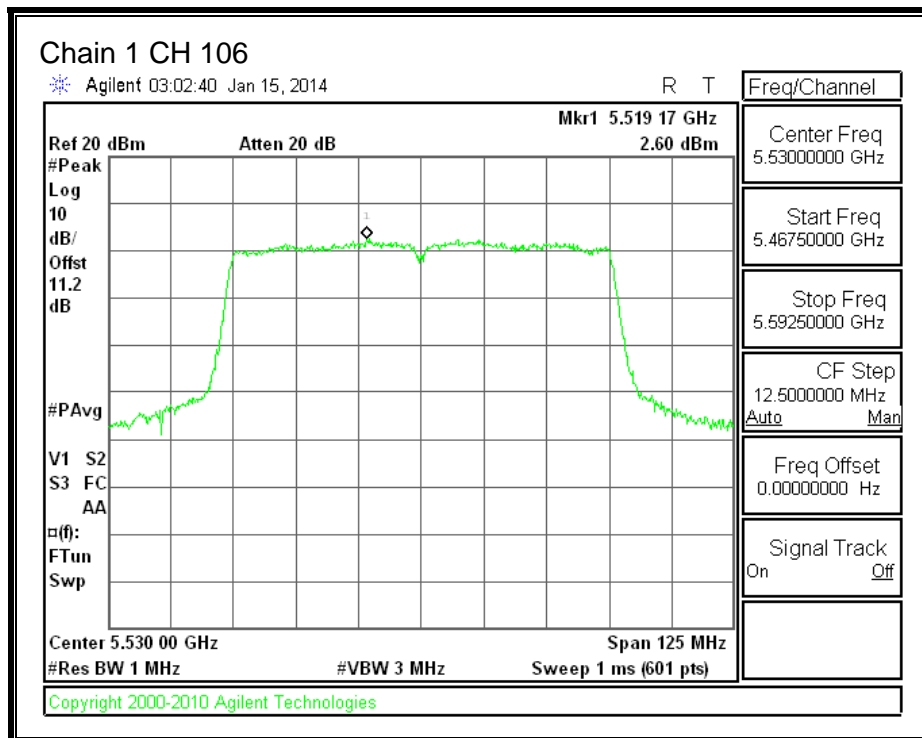
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
106	5530	3.77	-6.77	0.27	10.27	13	-2.73

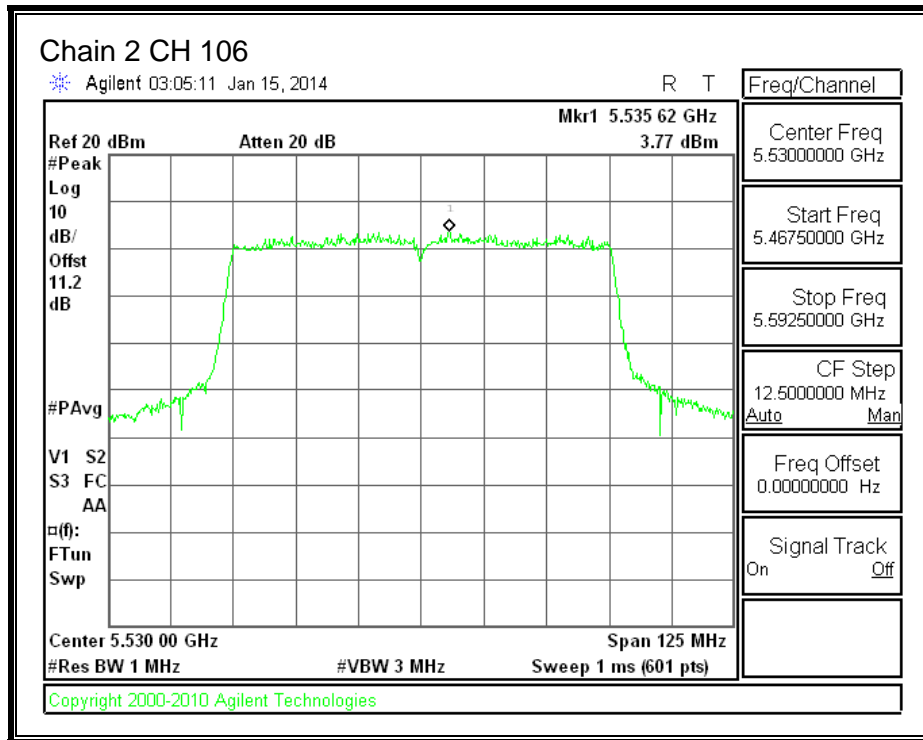
**PEAK EXCURSION, Chain 0**



**PEAK EXCURSION, Chain 1**



**PEAK EXCURSION, Chain 2**



**8.37. 802.11ac 80MHz CDD 3TX MODE, CHANNEL 138, 5.6 GHz BAND****8.37.1.26 dB BANDWIDTH- UNII**LIMITS

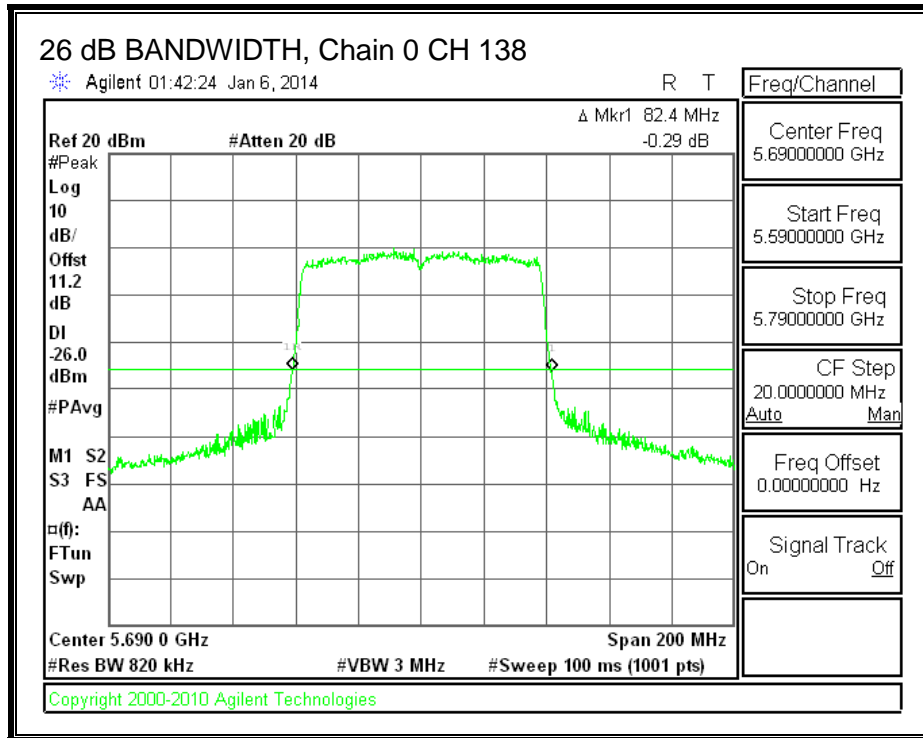
None; for reporting purposes only.

**RESULTS**

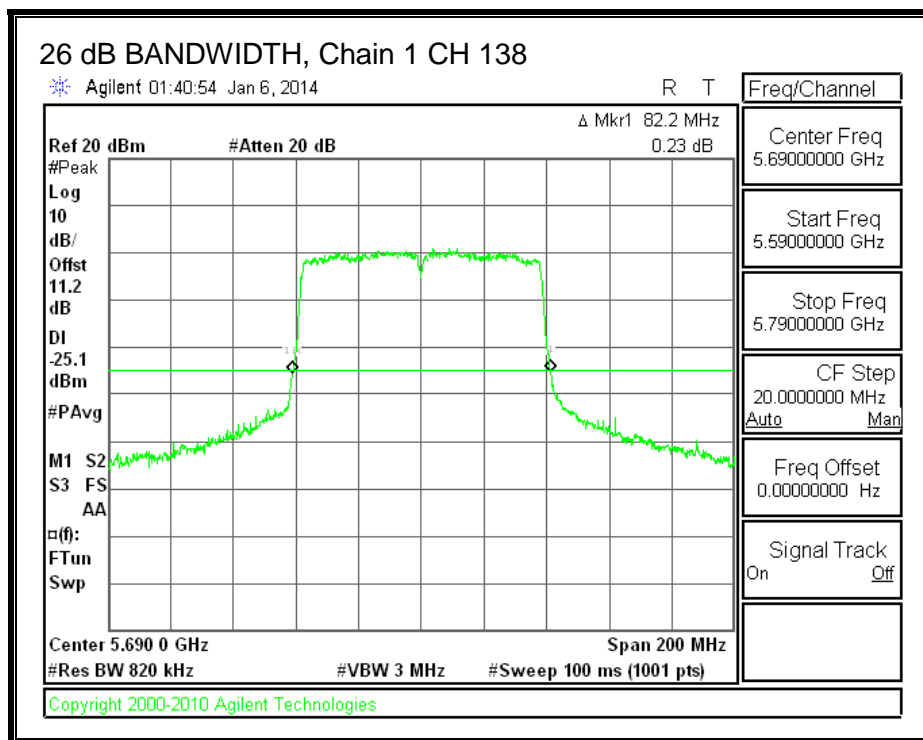
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
138	5690	82.400	82.200	82.000



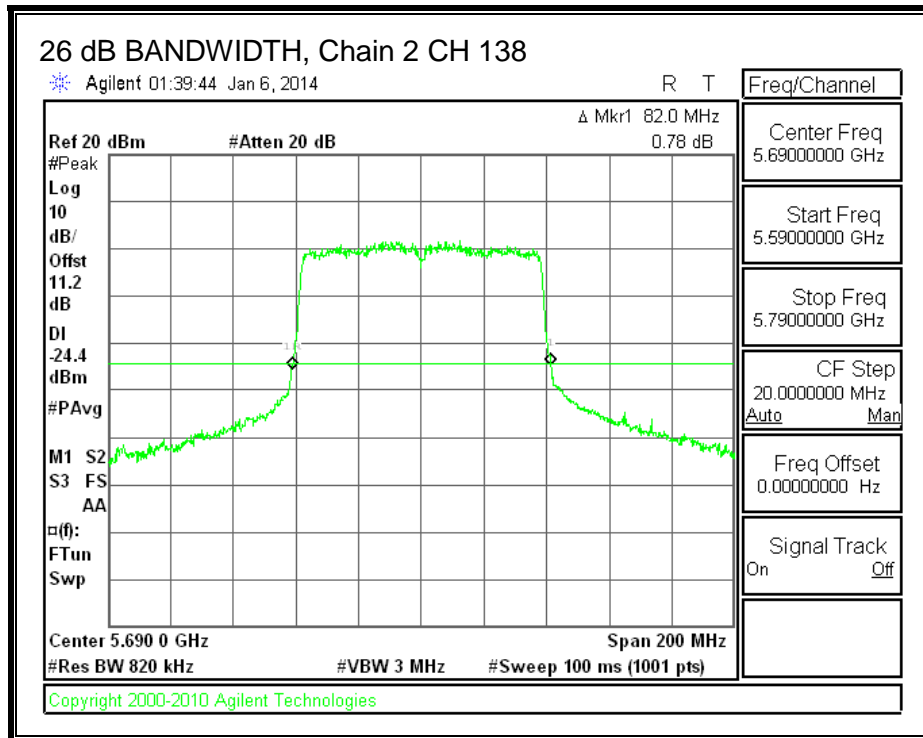
**26 dB BANDWIDTH, Chain 0**



**26 dB BANDWIDTH, Chain 1**



**26 dB BANDWIDTH, Chain 2**



### 8.37.2.99% BANDWIDTH

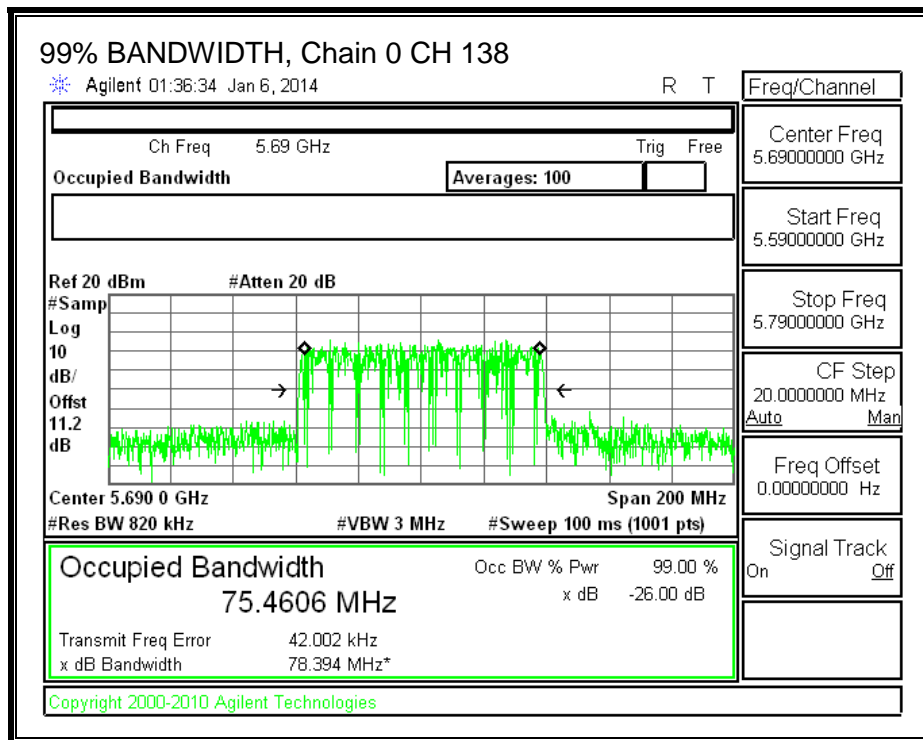
#### LIMITS

None; for reporting purposes only.

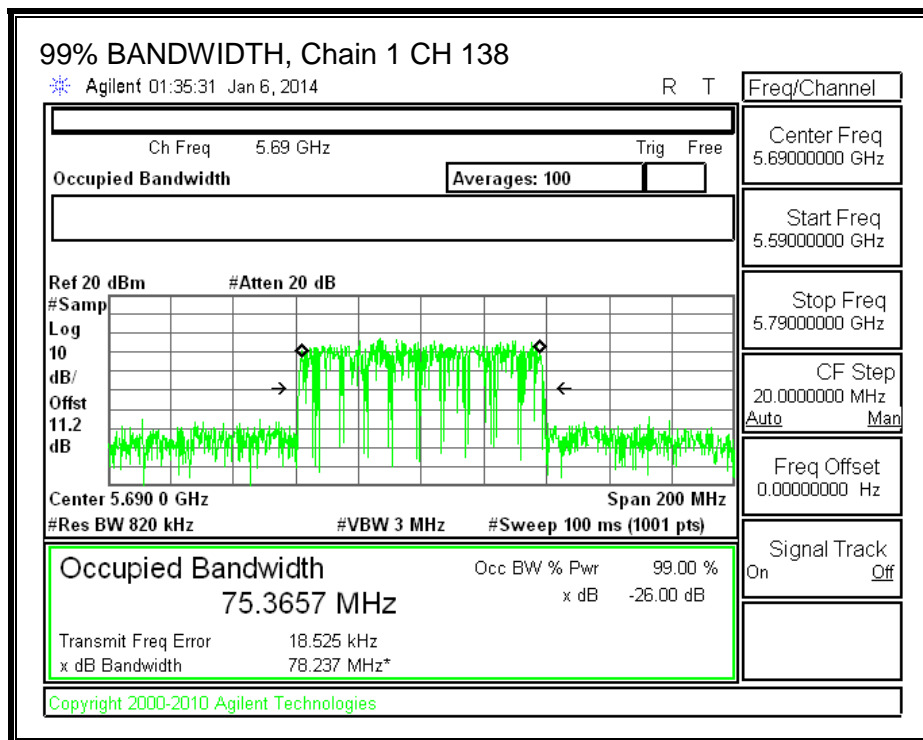
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
138	5690	75.4606	75.3657	75.5018

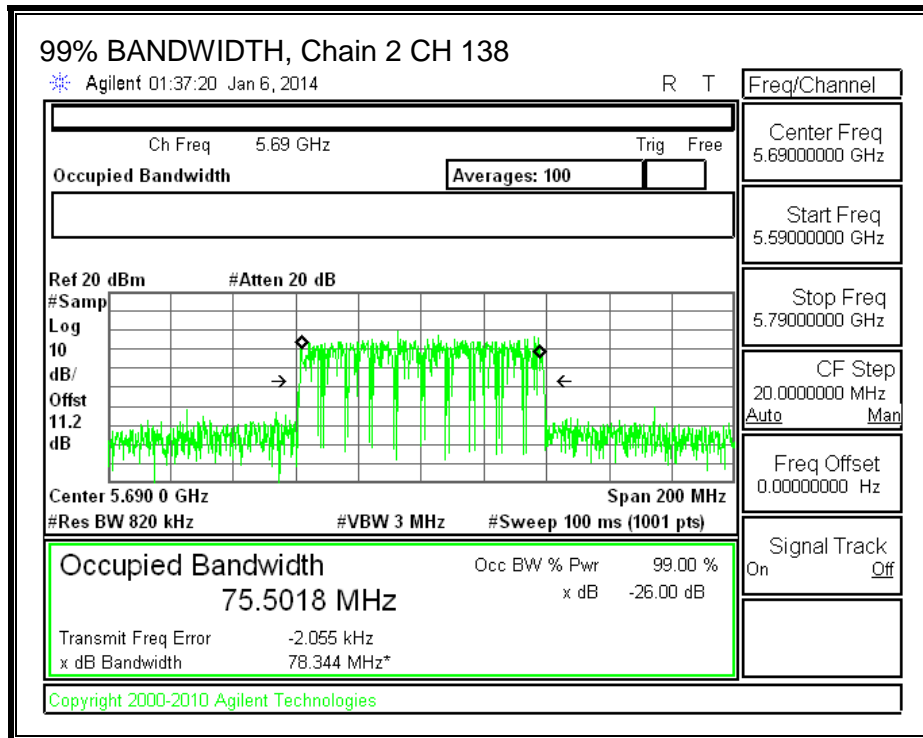
**99% BANDWIDTH, Chain 0**



**99% BANDWIDTH, Chain 1**



**99% BANDWIDTH, Chain 2**



### 8.37.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.5–5.7 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

For output power and PPSD, the TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (3 chains) (dB)	Correlated Chains Directional Gain (dBi)
2.82	4.77	7.59

**RESULTS**

**Limits (FCC), portion in UNII 2 ext band**

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
138	5690	76.000	72.7303	2.82	7.59

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
138	5690	22.41	24.00	30.00	22.41	11.00	11.00	11.00

<b>Duty Cycle CF (dB)</b>	0.27	<b>Included in Calculations of Corr'd Power &amp; PPSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	13.30	13.52	13.89	18.62	22.41	-3.79

**PPSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
138	5690	-4.11	-3.94	-3.67	1.14	11.00	-9.86