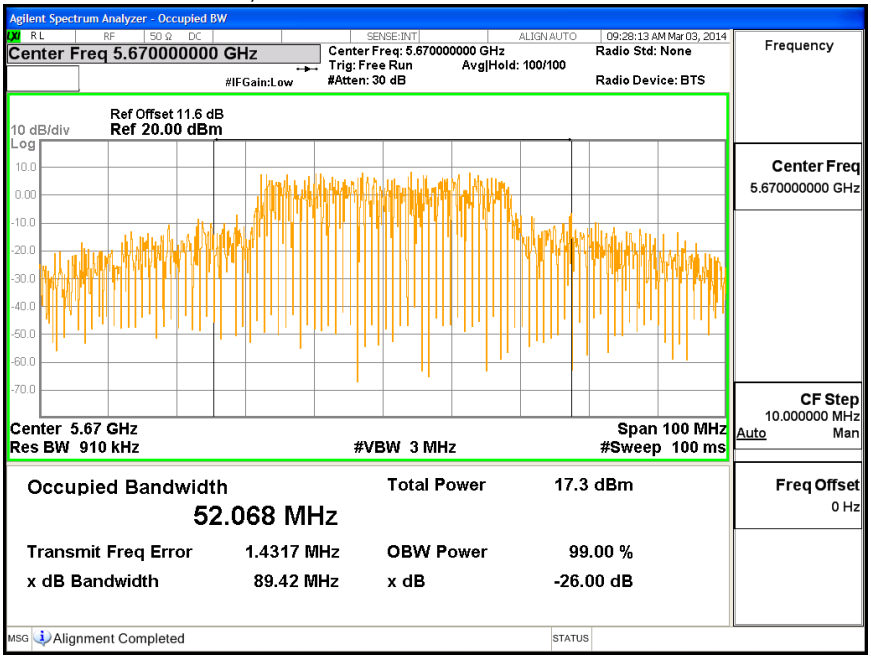
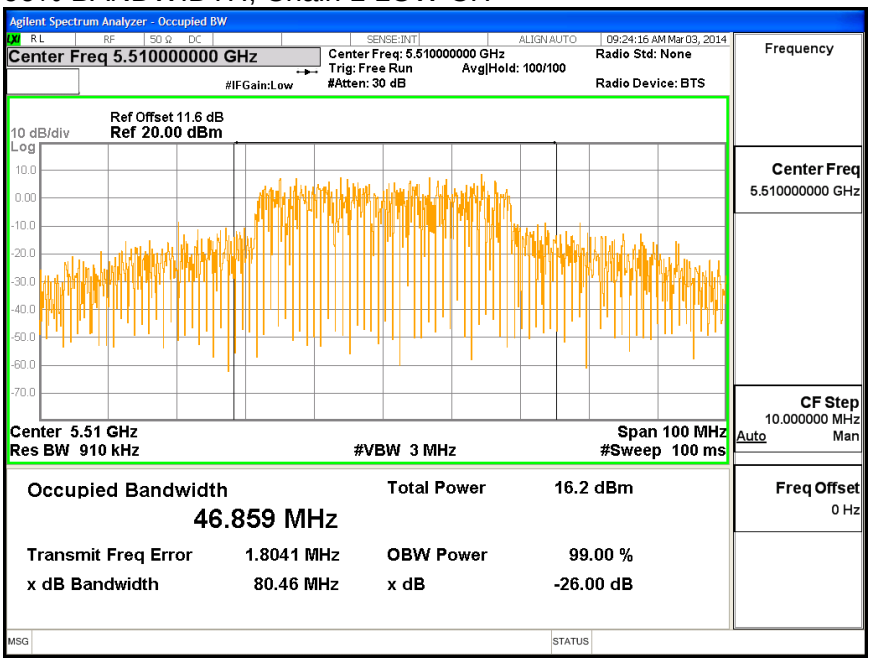
99% BANDWIDTH, Chain 0 HIGH CH

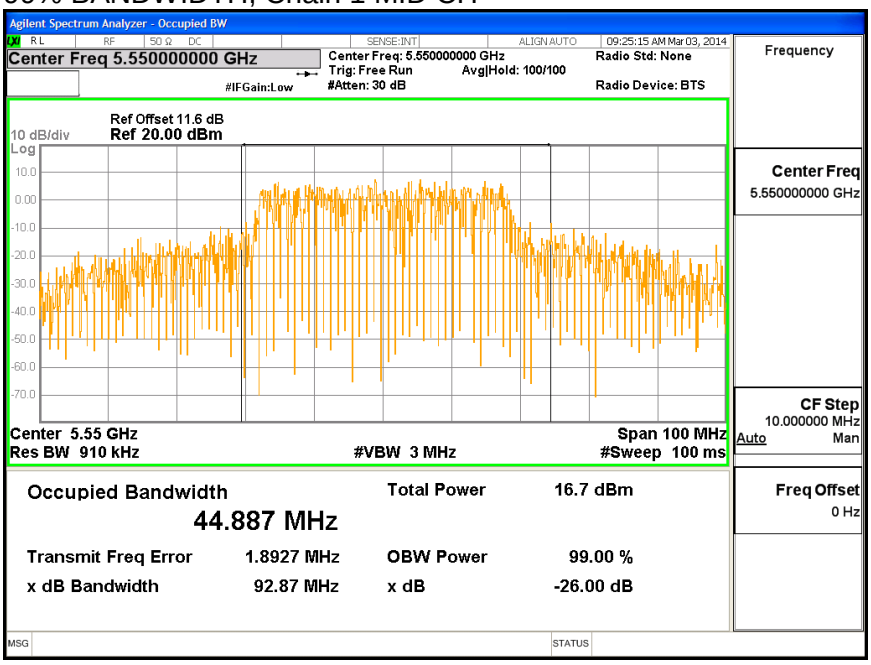


99% BANDWIDTH, Chain 1

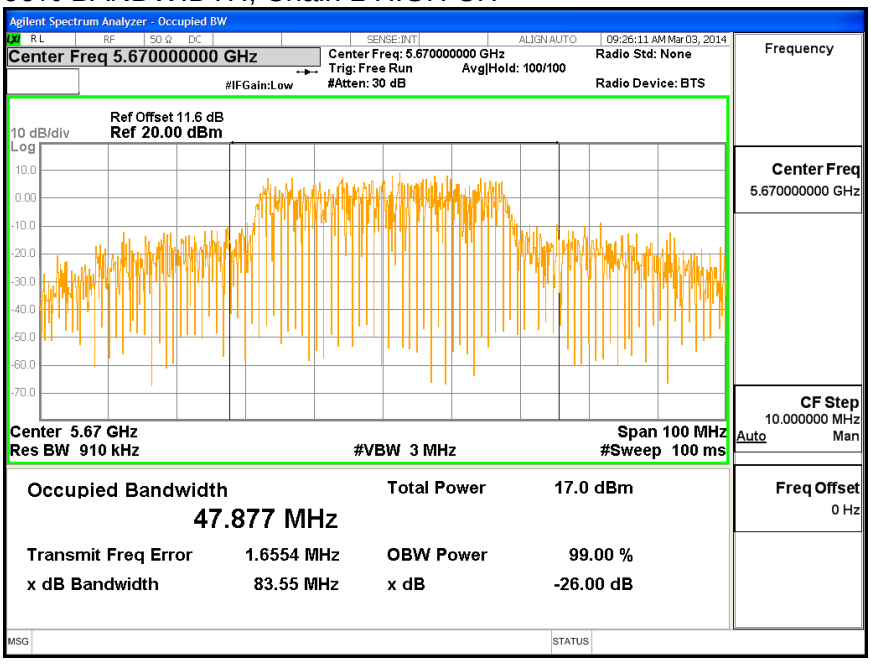
99% BANDWIDTH, Chain 1 LOW CH



99% BANDWIDTH, Chain 1 MID CH

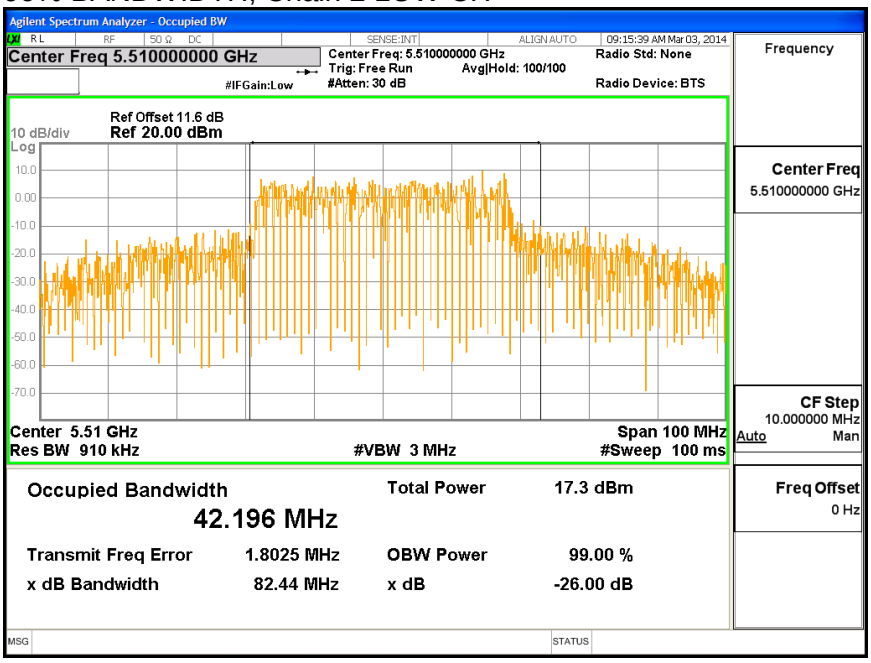


99% BANDWIDTH, Chain 1 HIGH CH

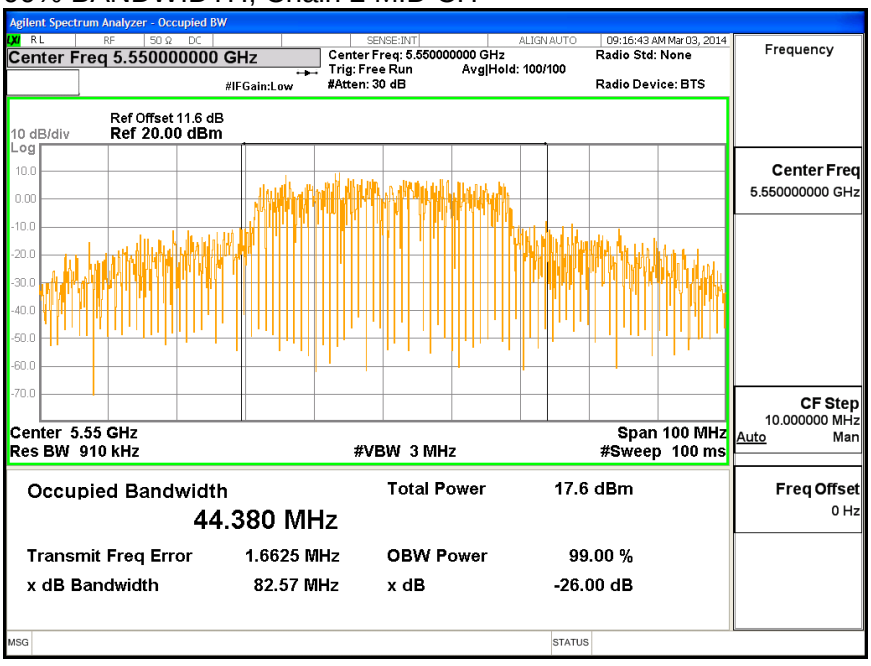


99% BANDWIDTH, Chain 2

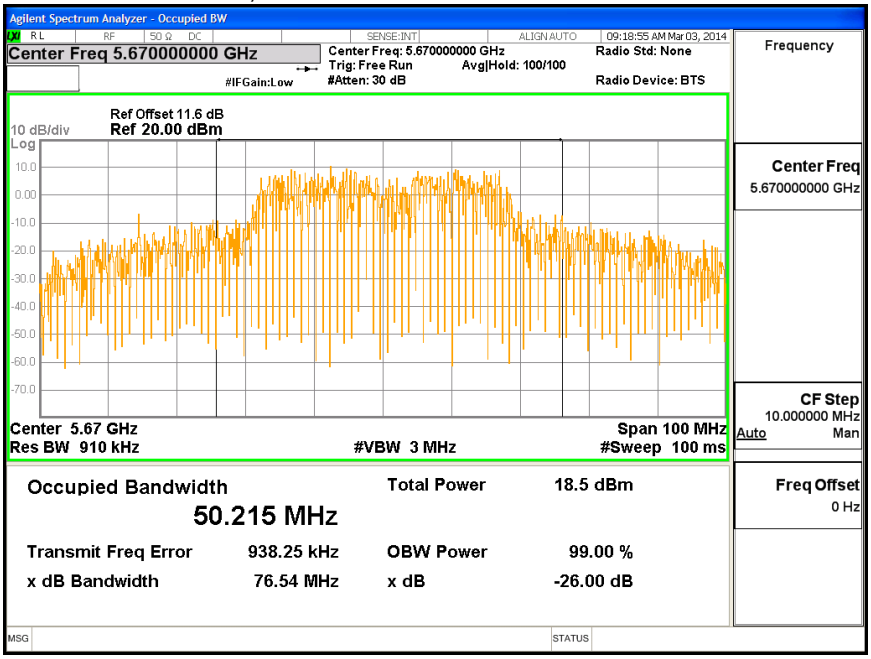
99% BANDWIDTH, Chain 2 LOW CH



99% BANDWIDTH, Chain 2 MID CH



99% BANDWIDTH, Chain 2 HIGH CH



8.29.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

DIRECTIONAL ANTENNA GAIN

For output power the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.03	6.66	3.94	5.36

For PPSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

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)
Low	5510	84.625	42.196	5.36	10.05
Mid	5550	88.625	44.380	5.36	10.05
High	5670	92.125	47.877	5.36	10.05

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)
Low	5510	24.00	24.00	30.00	24.00	6.95	11.00	6.95
Mid	5550	24.00	24.00	30.00	24.00	6.95	11.00	6.95
High	5670	24.00	24.00	30.00	24.00	6.95	11.00	6.95

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd PPSD

Output Power Results

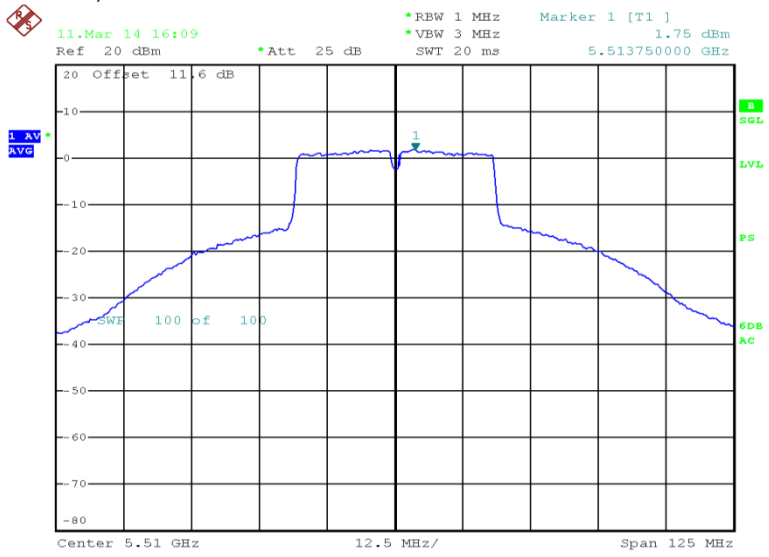
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.05	12.24	12.55	17.06	24.00	-6.94
Mid	5550	19.05	18.77	19.20	23.78	24.00	-0.22
High	5670	16.57	16.95	17.02	21.62	24.00	-2.38

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)
Low	5510	1.75	1.34	1.81	6.88	6.95	-0.07
Mid	5550	1.60	1.38	1.62	6.78	6.95	-0.17
High	5670	1.54	1.66	1.80	6.91	6.95	-0.04

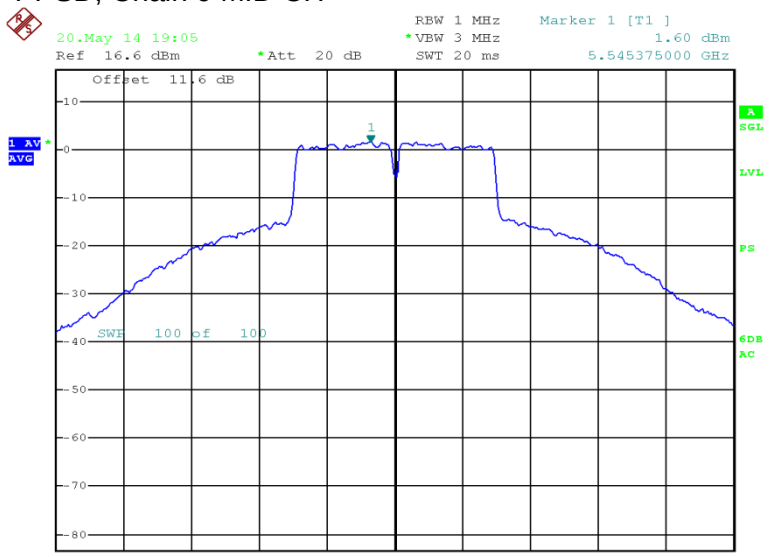
PPSD, Chain 0

PPSD, Chain 0 LOW CH

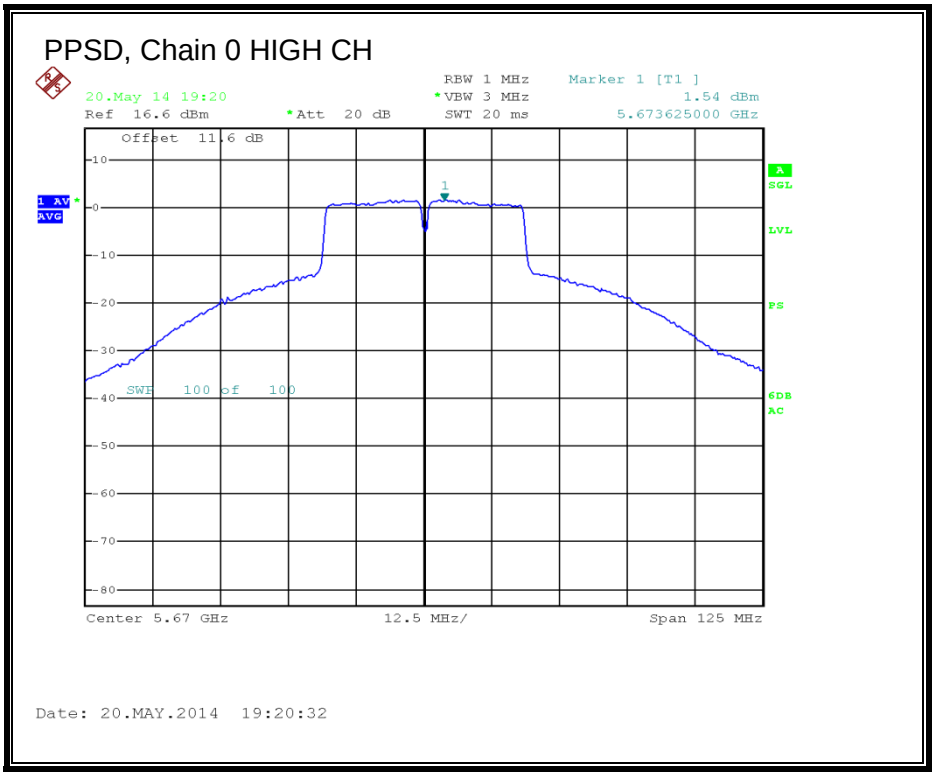


Date: 11.MAR.2014 16:09:37

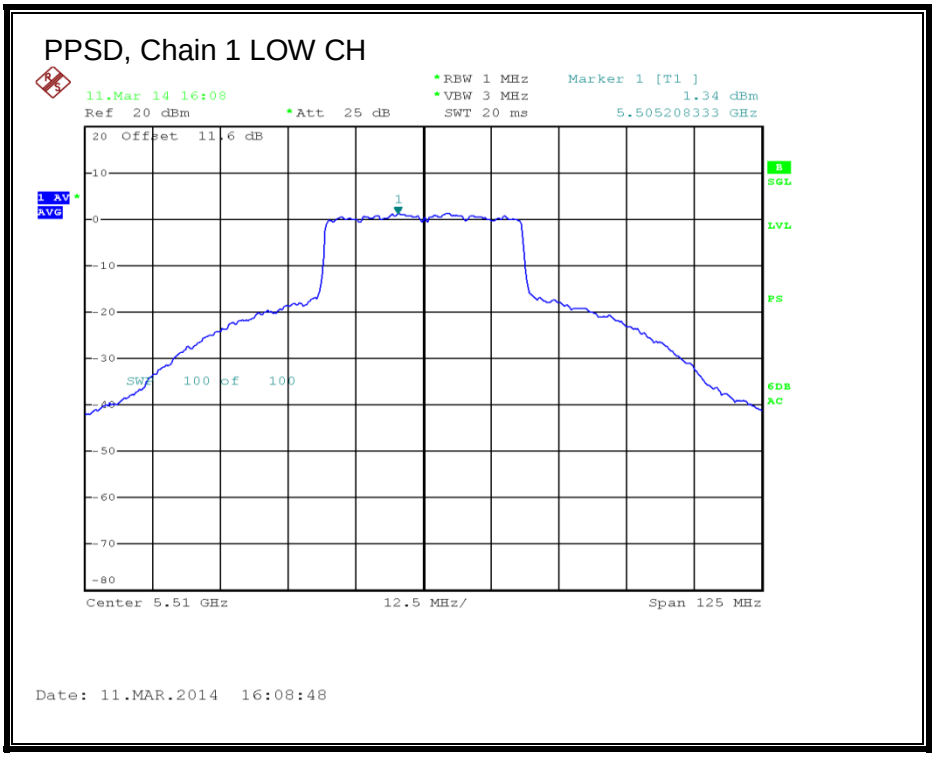
PPSD, Chain 0 MID CH



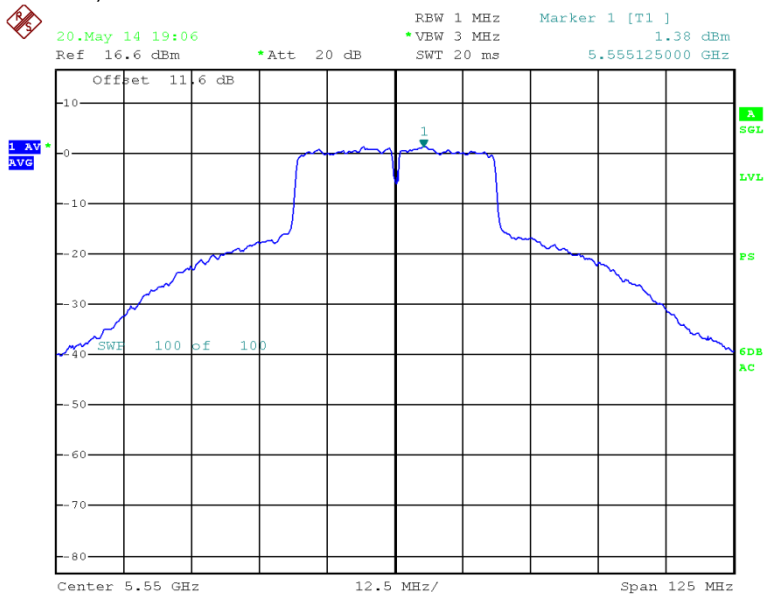
Date: 20.MAY.2014 19:05:27



PPSD, Chain 1

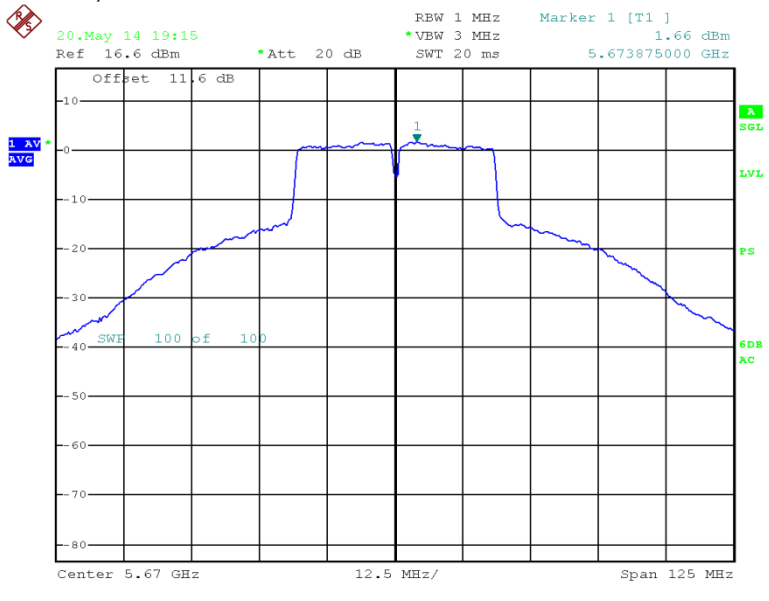


PPSD, Chain 1 MID CH



Date: 20.MAY.2014 19:06:59

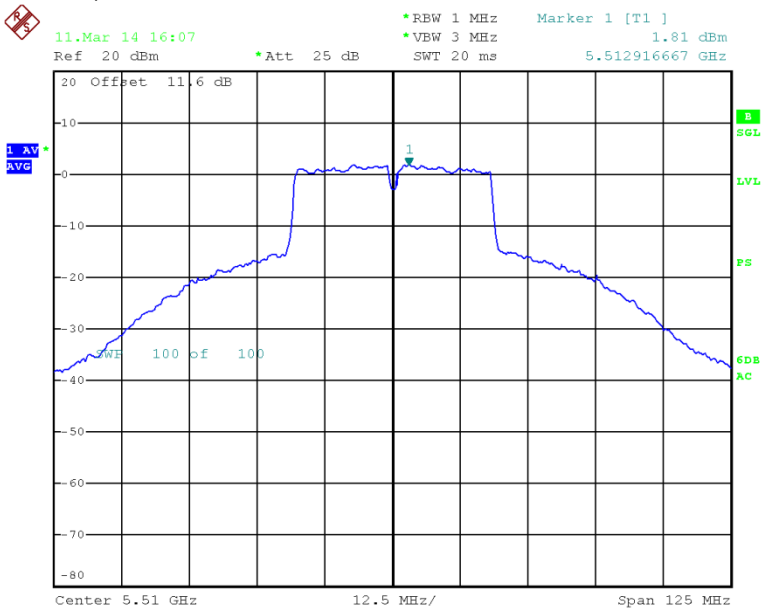
PPSD, Chain 1 HIGH CH



Date: 20.MAY.2014 19:15:36

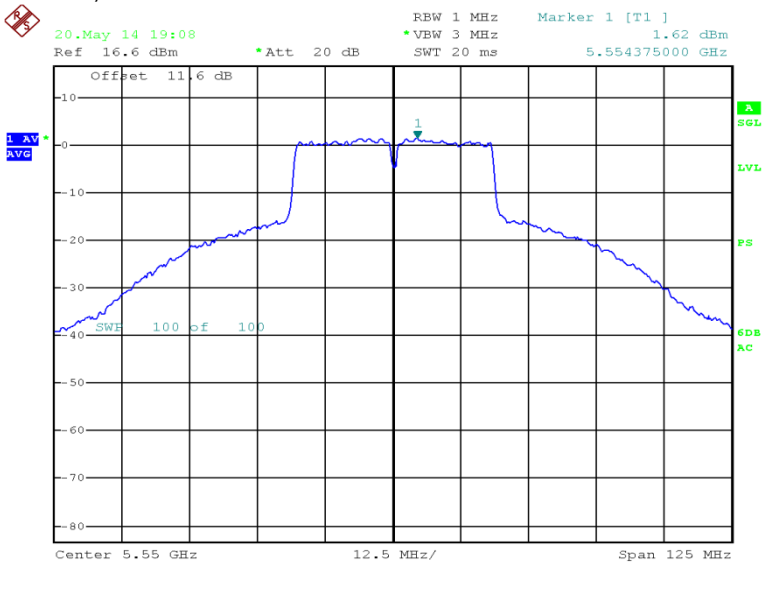
PPSD, Chain 2

PPSD, Chain 2 LOW CH



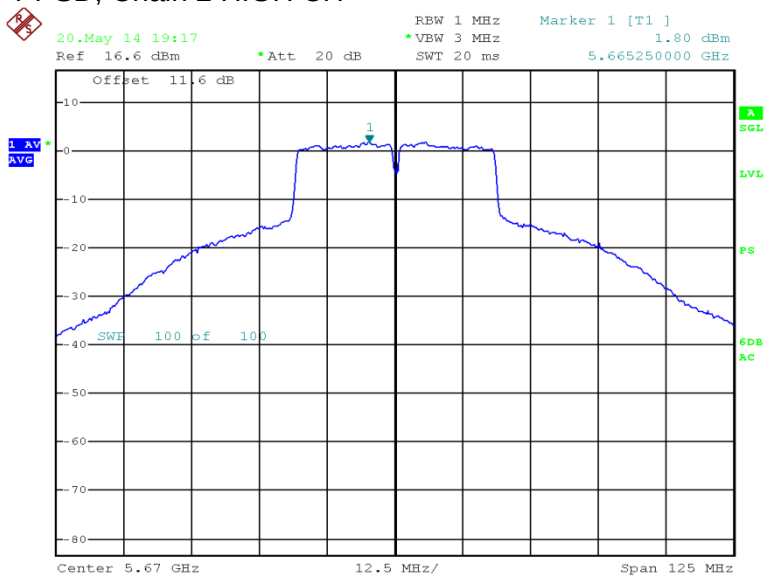
Date: 11.MAR.2014 16:07:24

PPSD, Chain 2 MID CH



Date: 20.MAY.2014 19:08:11

PPSD, Chain 2 HIGH CH



Date: 20.MAY.2014 19:17:49

8.30. 802.11n HT40 BF 3TX MODE IN THE 5.6 GHz BAND

8.30.1. 26 dB BANDWIDTH

LIMITS

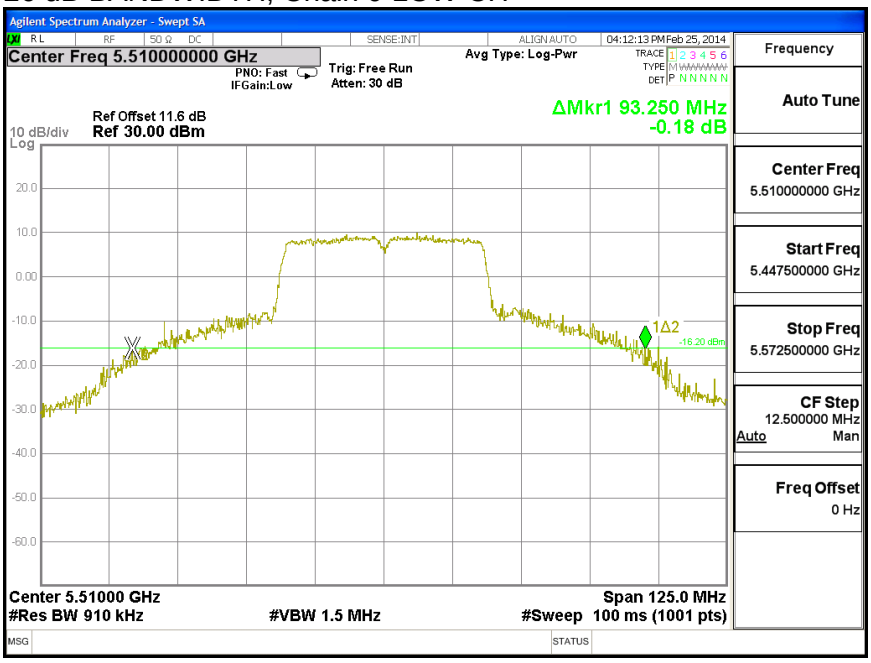
None; for reporting purposes only.

RESULTS

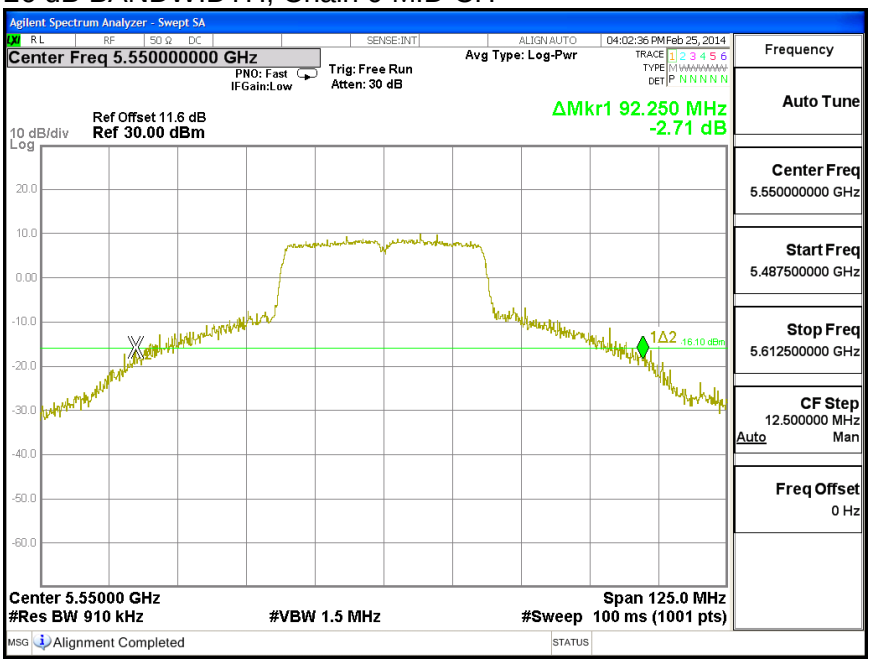
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5510	93.250	84.625	86.375
Mid	5550	92.250	88.625	89.375
High	5670	96.625	92.500	92.125

26 dB BANDWIDTH, Chain 0

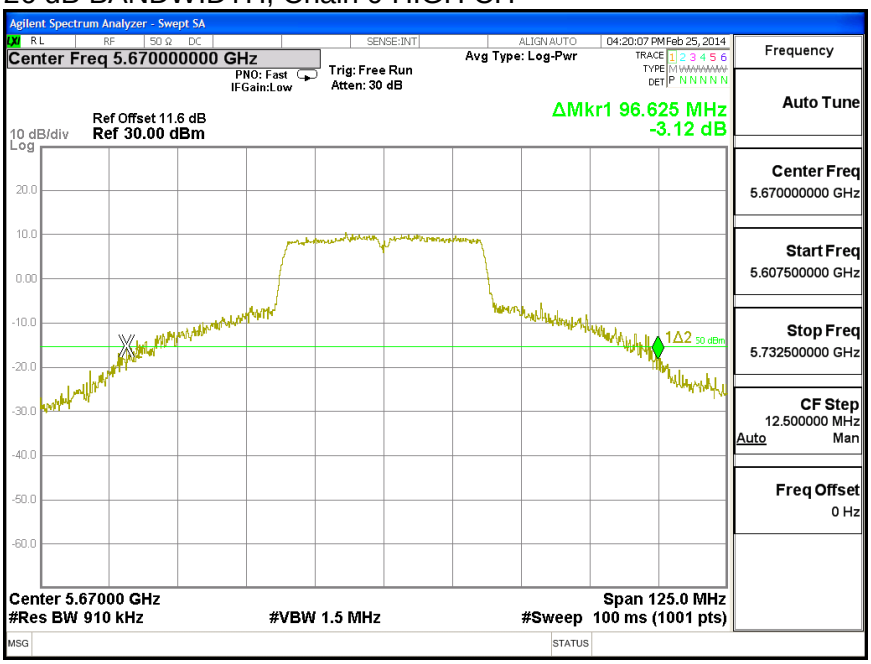
26 dB BANDWIDTH, Chain 0 LOW CH



26 dB BANDWIDTH, Chain 0 MID CH

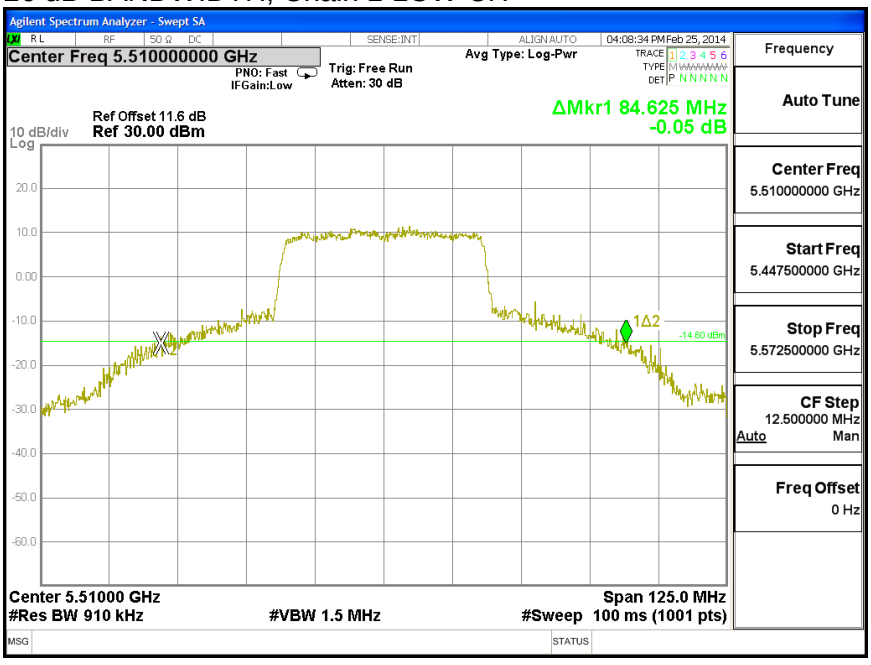


26 dB BANDWIDTH, Chain 0 HIGH CH

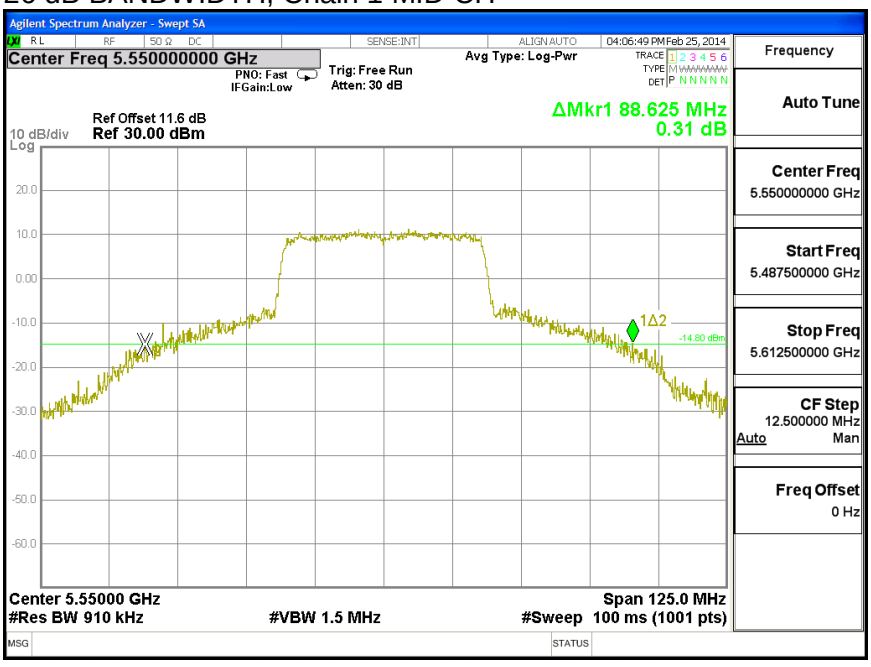


26 dB BANDWIDTH, Chain 1

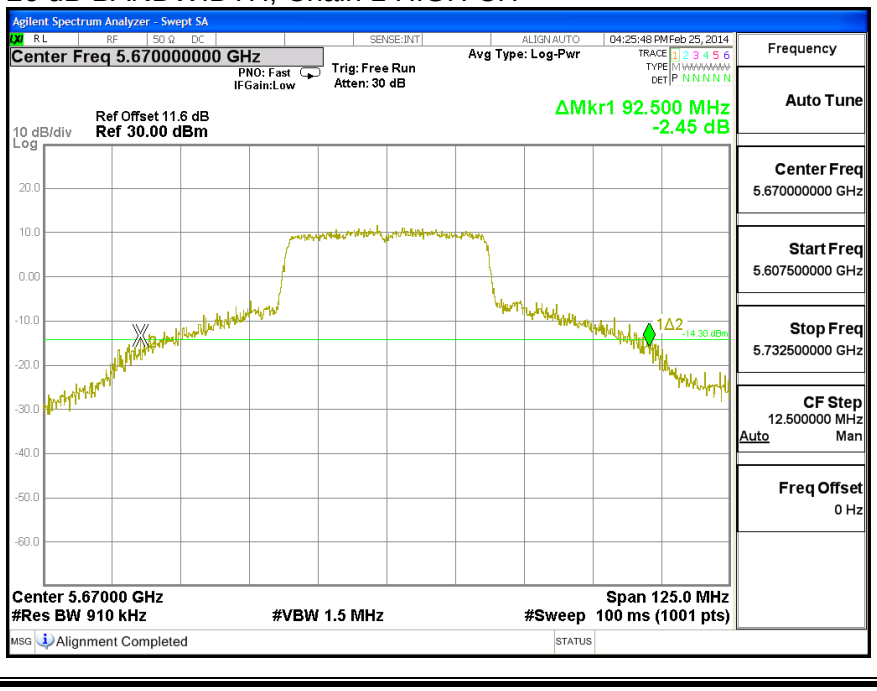
26 dB BANDWIDTH, Chain 1 LOW CH



26 dB BANDWIDTH, Chain 1 MID CH

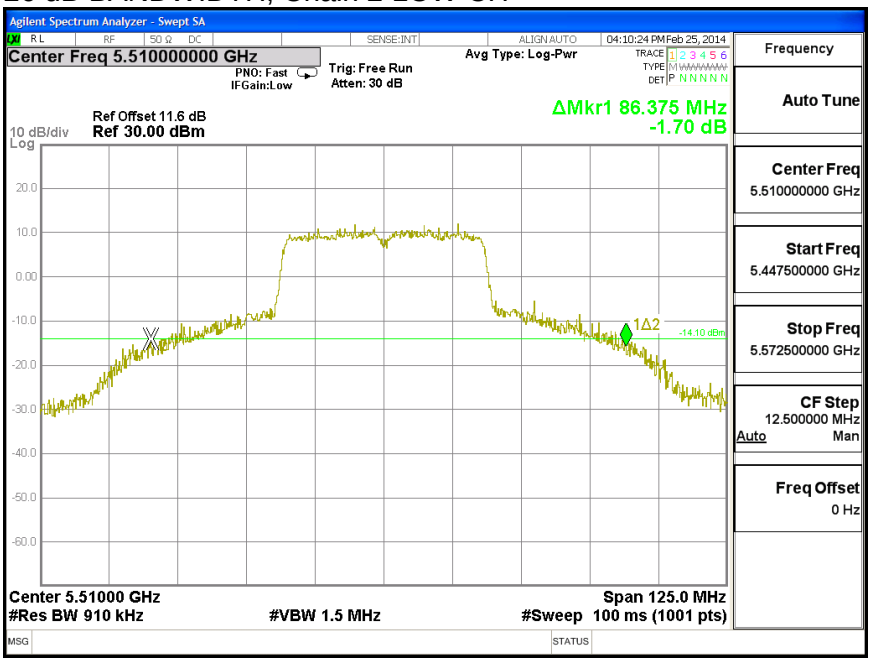


26 dB BANDWIDTH, Chain 1 HIGH CH



26 dB BANDWIDTH, Chain 2

26 dB BANDWIDTH, Chain 2 LOW CH



26 dB BANDWIDTH, Chain 2 MID CH

26 dB BANDWIDTH, Chain 2 HIGH CH

8.30.2. 99% BANDWIDTH

LIMITS

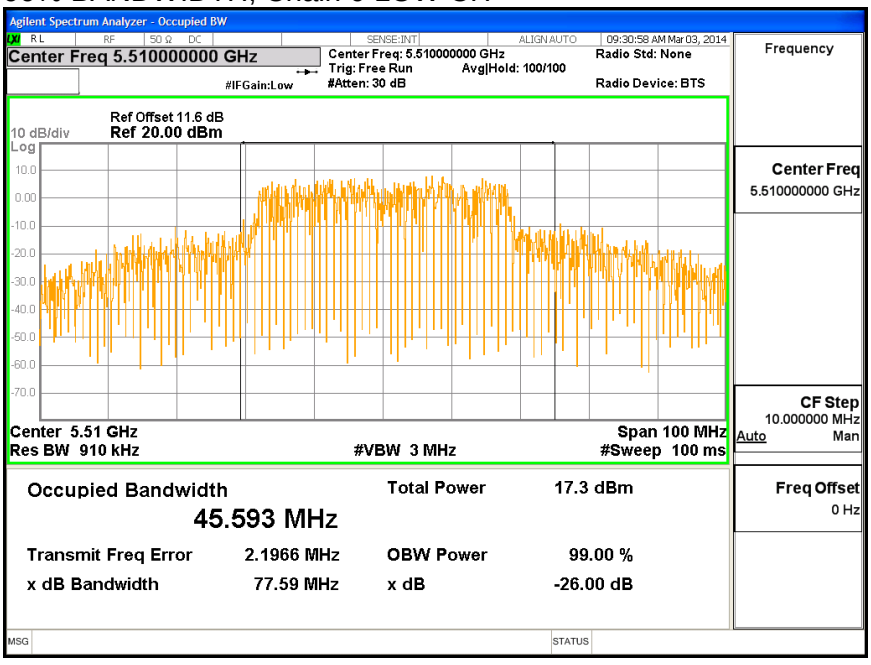
None; for reporting purposes only.

RESULTS

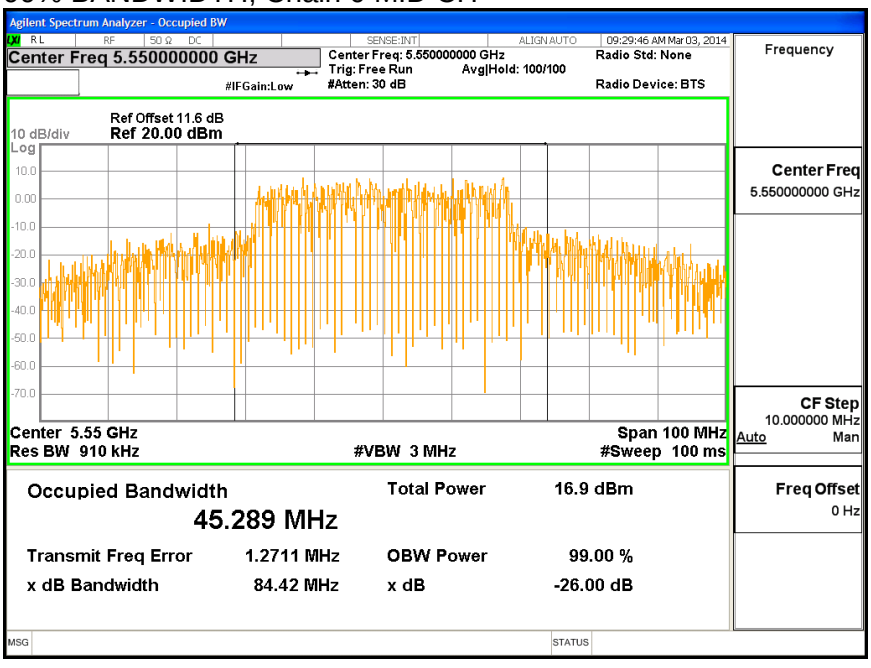
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5510	45.593	46.859	42.196
Mid	5550	45.289	44.887	44.380
High	5670	52.068	47.877	50.215

99% BANDWIDTH, Chain 0

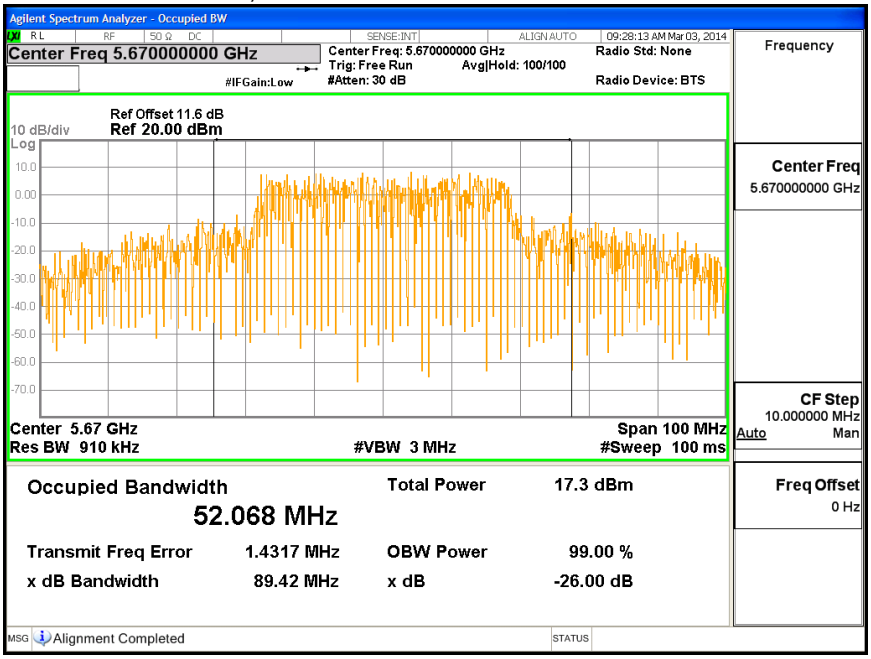
99% BANDWIDTH, Chain 0 LOW CH



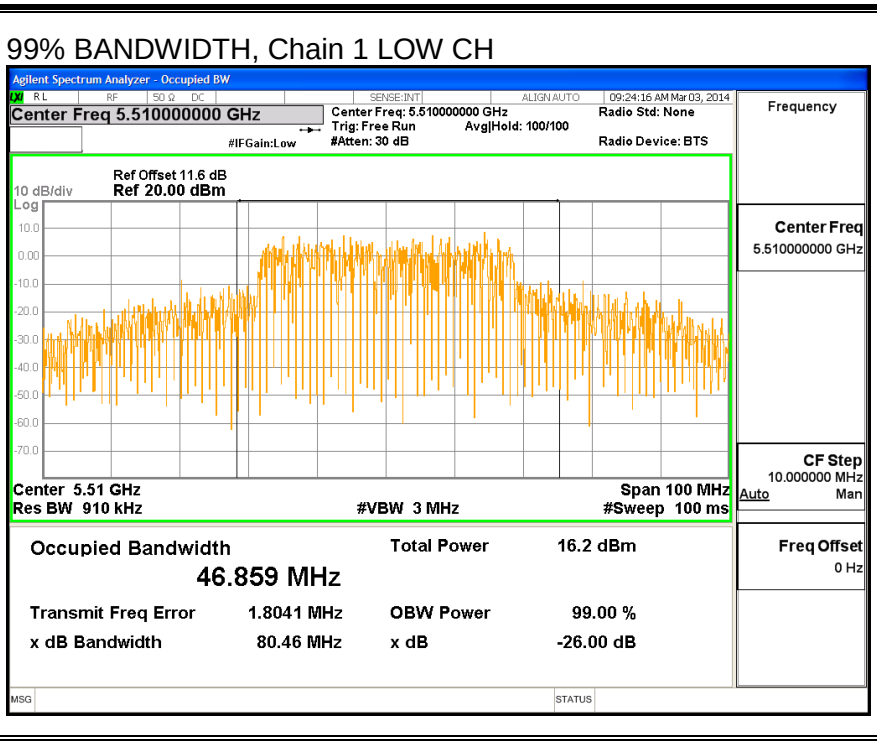
99% BANDWIDTH, Chain 0 MID CH



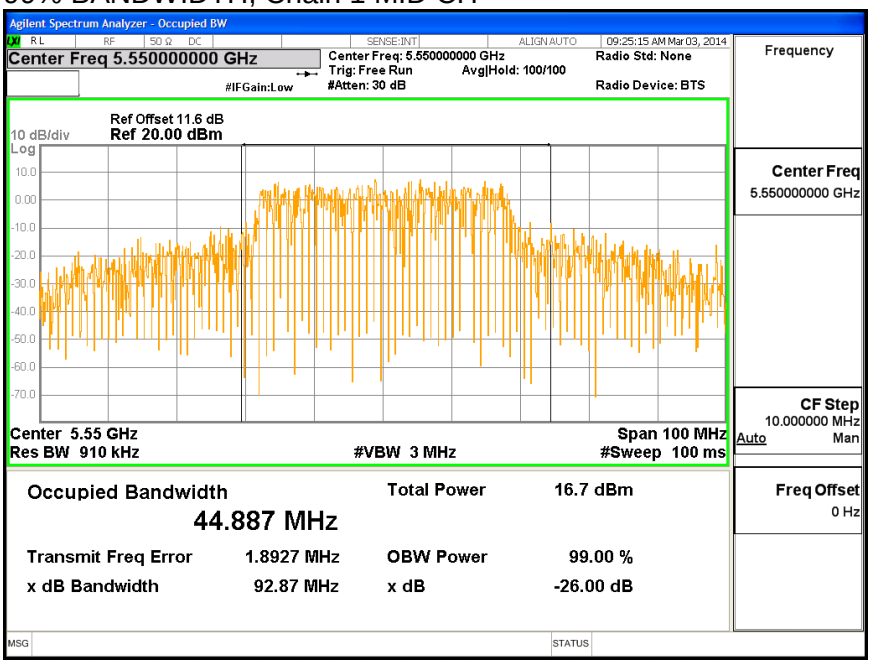
99% BANDWIDTH, Chain 0 HIGH CH



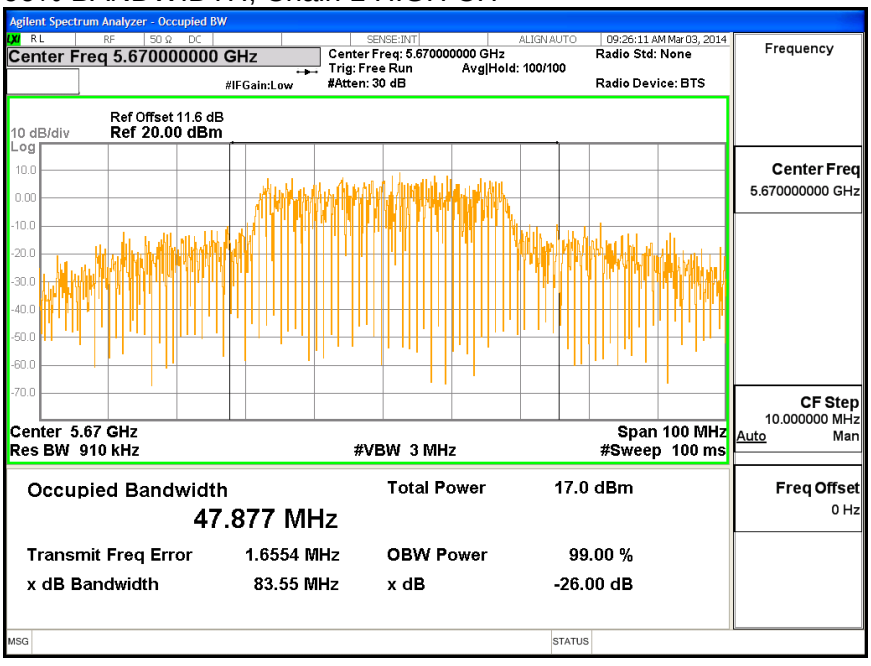
99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 1 MID CH

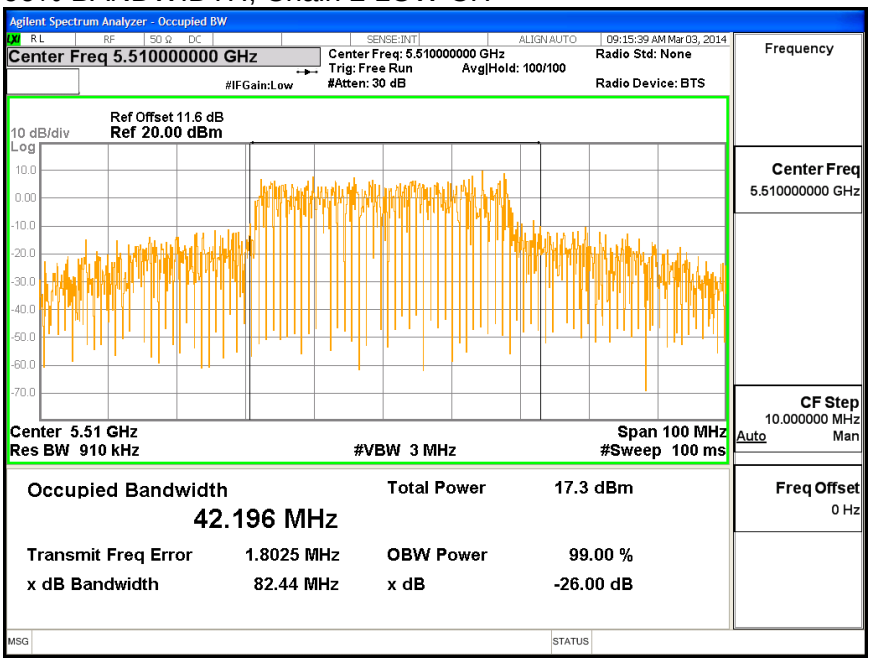


99% BANDWIDTH, Chain 1 HIGH CH

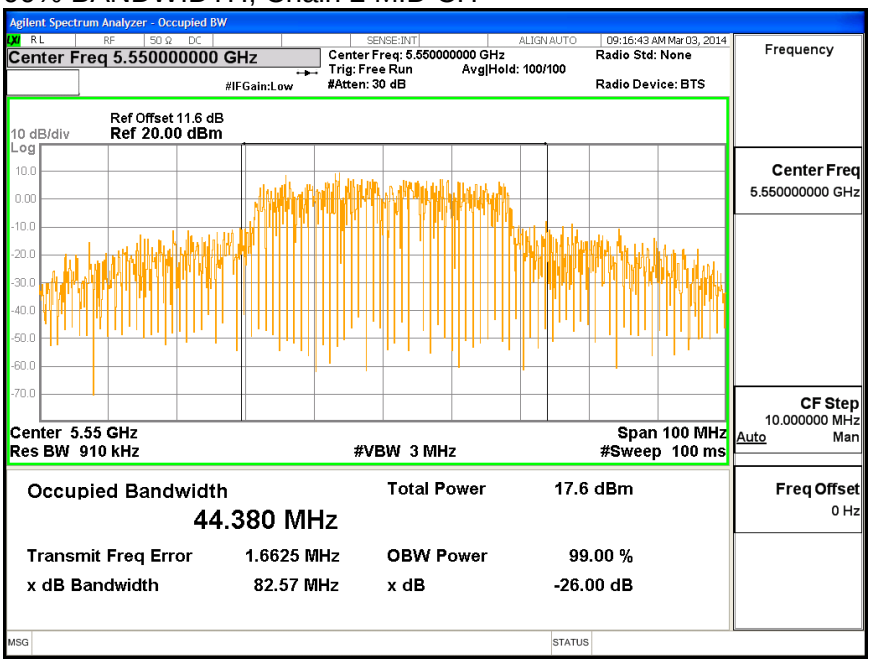


99% BANDWIDTH, Chain 2

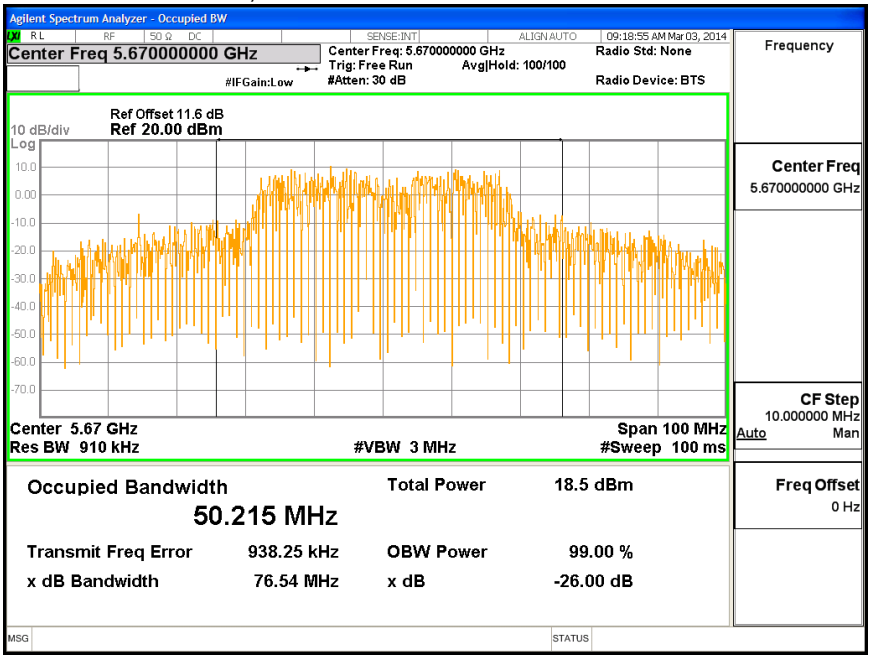
99% BANDWIDTH, Chain 2 LOW CH



99% BANDWIDTH, Chain 2 MID CH



99% BANDWIDTH, Chain 2 HIGH CH



8.30.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

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)
Low	5510	84.625	42.196	10.05	10.05
Mid	5550	88.625	44.380	10.05	10.05
High	5670	92.125	47.877	10.05	10.05

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)
Low	5510	19.95	24.00	30.00	19.95	6.95	11.00	6.95
Mid	5550	19.95	24.00	30.00	19.95	6.95	11.00	6.95
High	5670	19.95	24.00	30.00	19.95	6.95	11.00	6.95

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd PPSD

Output Power Results

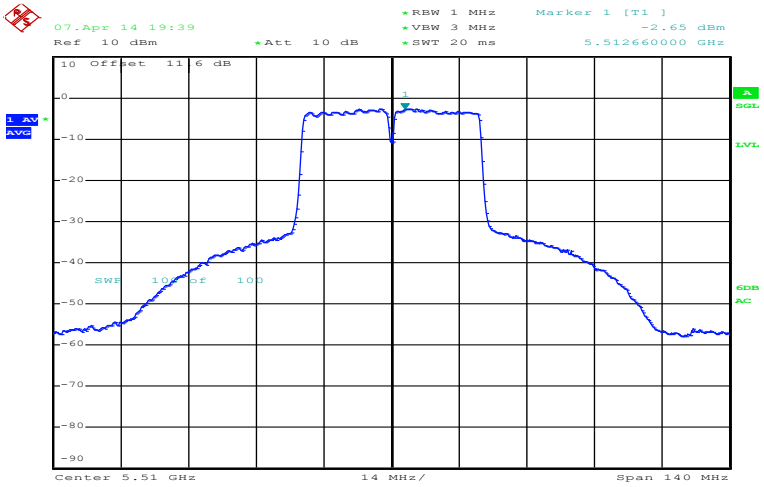
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	11.30	11.30	11.20	16.04	19.95	-3.91
Mid	5550	14.94	14.82	14.77	19.62	19.95	-0.33
High	5670	14.76	14.85	14.72	19.55	19.95	-0.40

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)
Low	5510	-2.65	-2.51	-2.77	2.60	6.95	-4.35
Mid	5550	-2.65	-2.26	-2.77	2.69	6.95	-4.26
High	5670	-2.41	-2.09	-2.30	2.98	6.95	-3.97

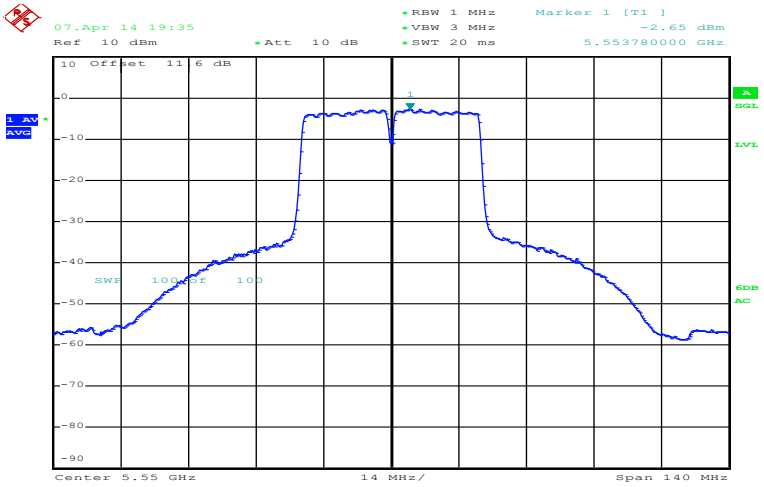
PPSD, Chain 0

PPSD, Chain 0 LOW CH



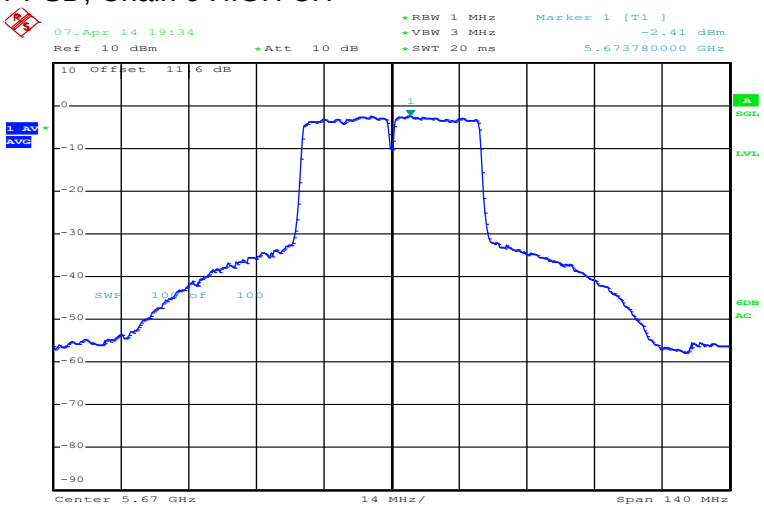
Date: 7.APR.2014 19:39:07

PPSD, Chain 0 MID CH



Date: 7.APR.2014 19:35:04

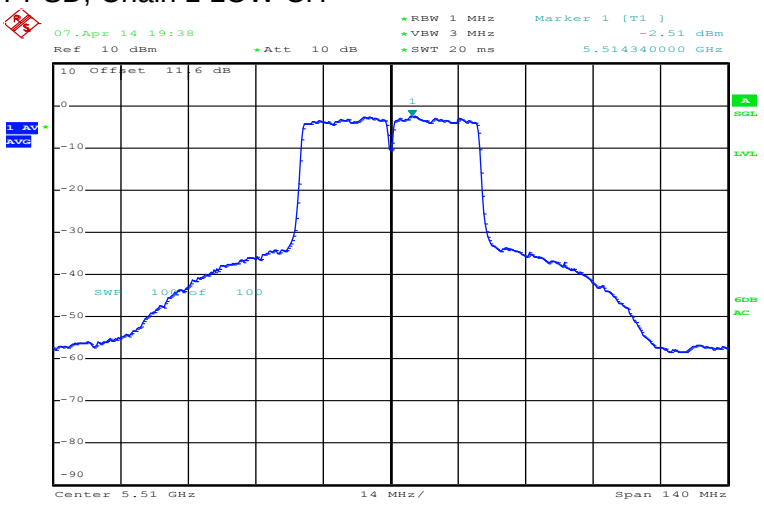
PPSD, Chain 0 HIGH CH



Date: 7.APR.2014 19:34:25

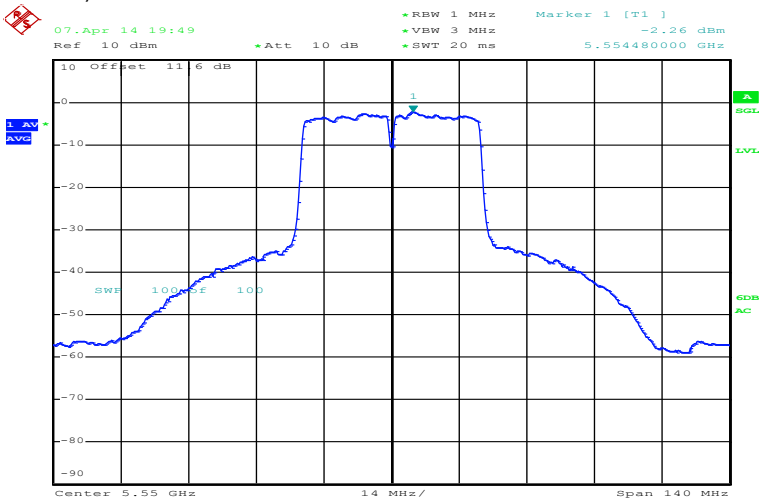
PPSD, Chain 1

PPSD, Chain 1 LOW CH



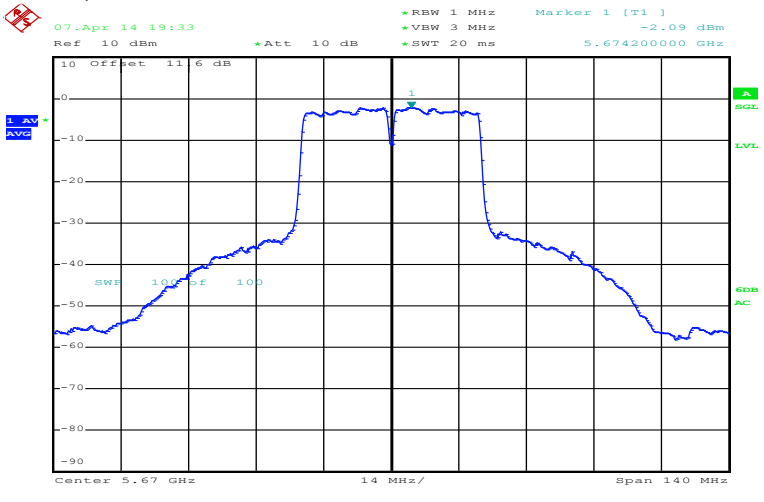
Date: 7.APR.2014 19:38:21

PPSD, Chain 1 MID CH



Date: 7.APR.2014 19:49:25

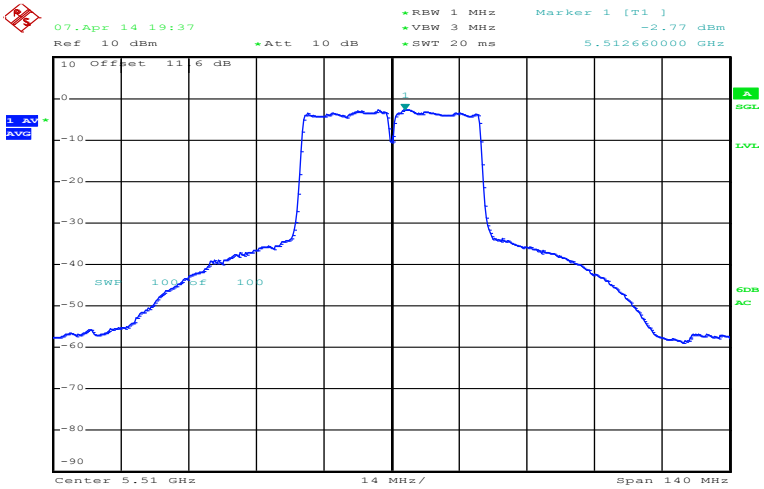
PPSD, Chain 1 HIGH CH



Date: 7.APR.2014 19:33:45

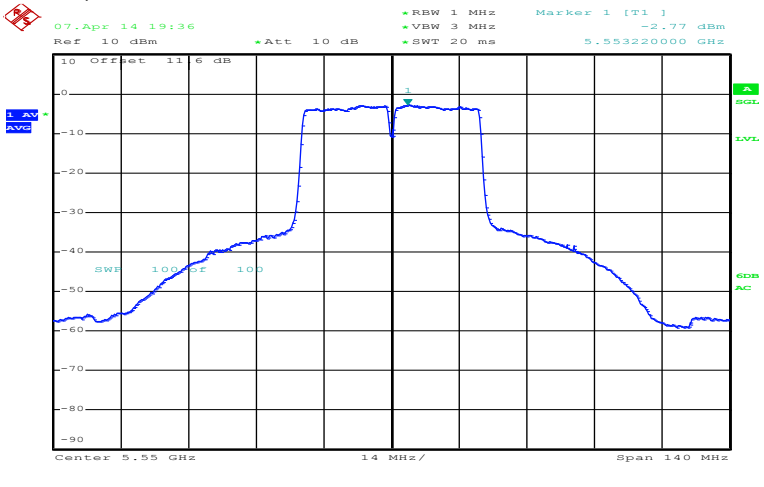
PPSD, Chain 2

PPSD, Chain 2 LOW CH



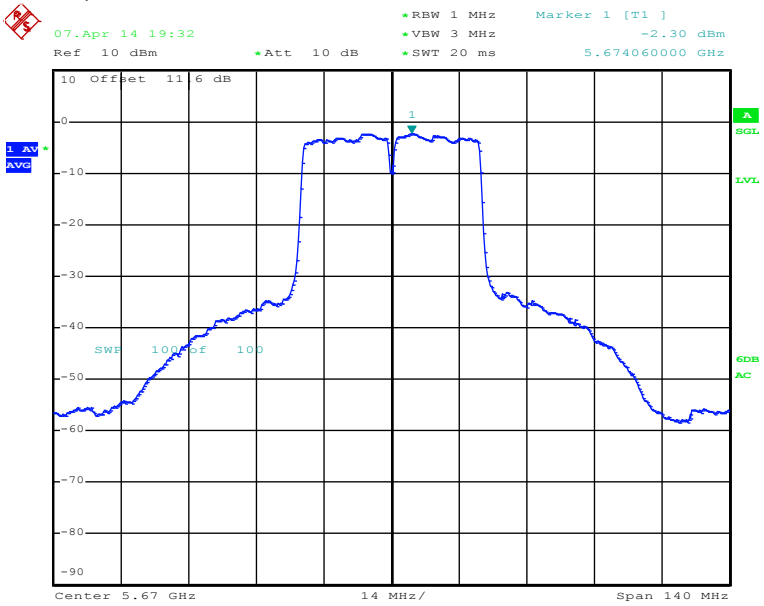
Date: 7.APR.2014 19:37:32

PPSD, Chain 2 MID CH



Date: 7.APR.2014 19:36:44

PPSD, Chain 2 HIGH CH



Date: 7.APR.2014 19:32:57

8.31. 802.11n HT40 CDD 3TX MODE 5.6 GHz BAND, CHANNEL 142

8.31.1. 26 dB BANDWIDTH

LIMITS

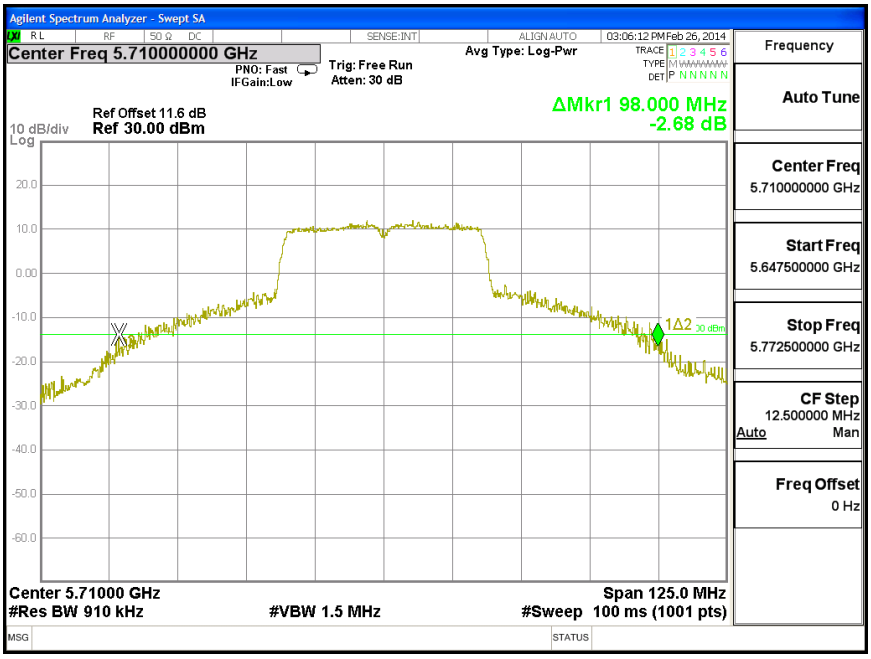
None; for reporting purposes only.

RESULTS

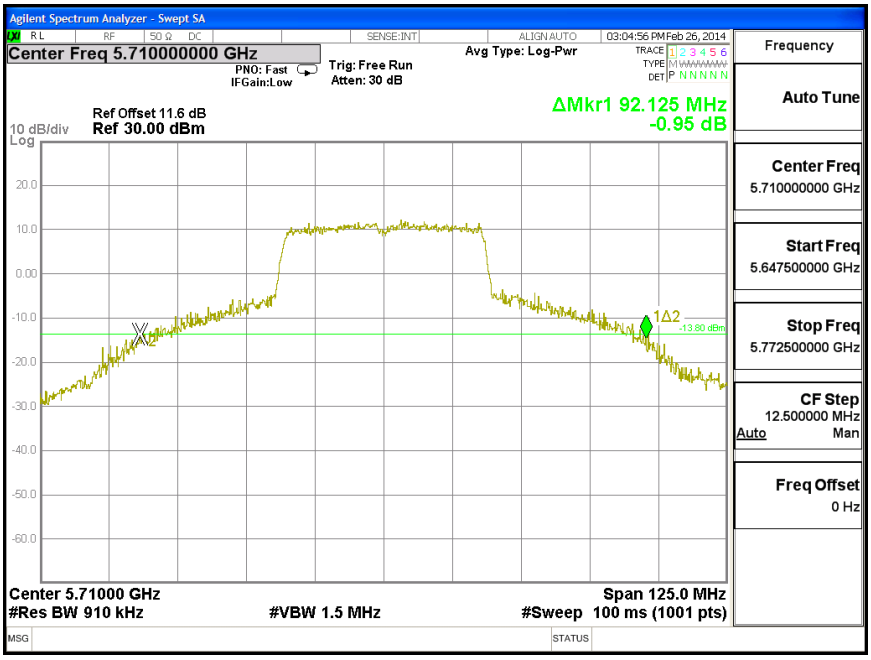
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
142	5710	98.000	92.125	93.750

26 dB BANDWIDTH

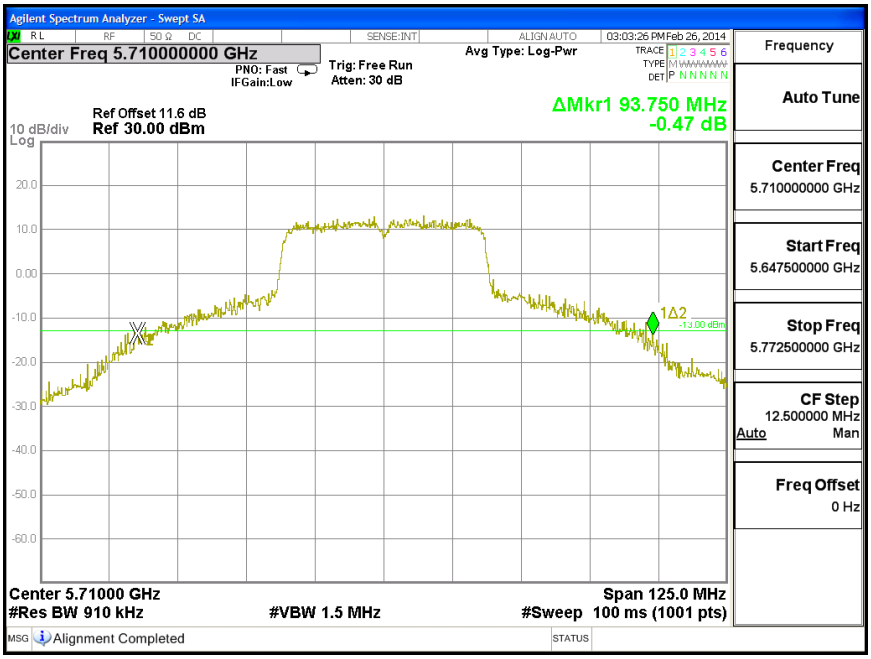
BANDWIDTH Chain 0 CH 142



BANDWIDTH Chain 1 CH 142



BANDWIDTH Chain 1 CH 142



8.31.2. 99% BANDWIDTH

LIMITS

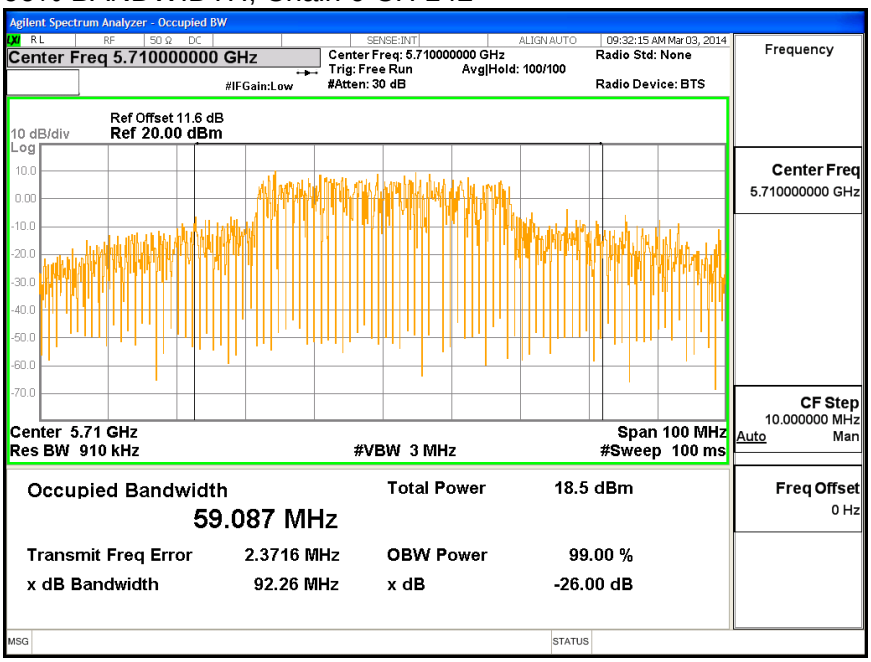
None; for reporting purposes only.

RESULTS

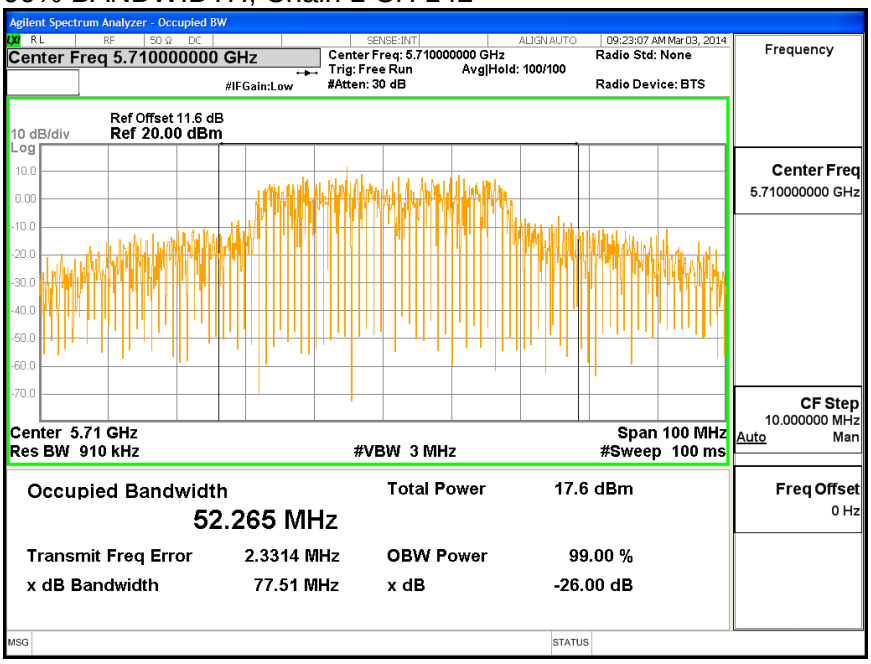
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
142	5710	59.087	52.265	55.890

99% BANDWIDTH

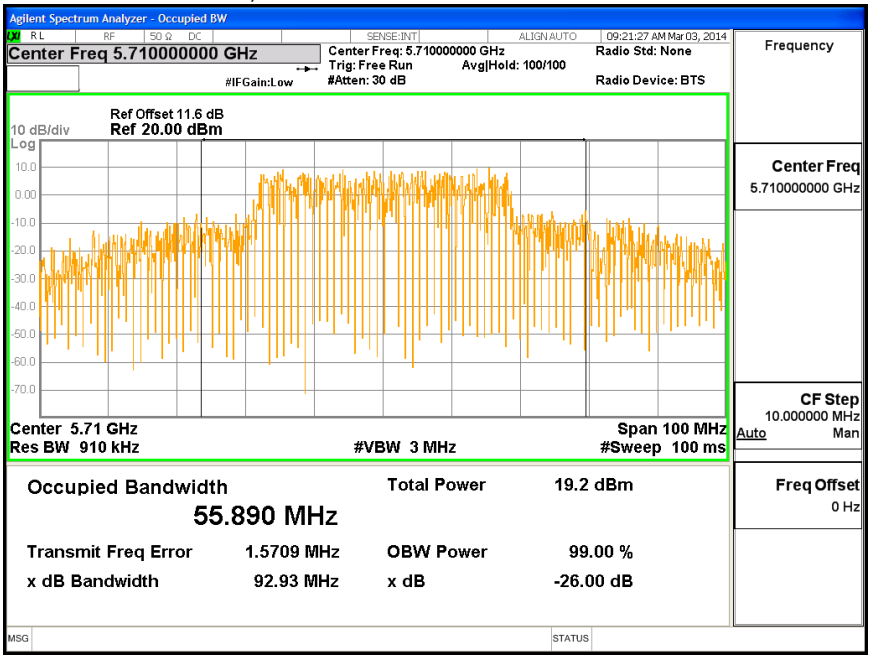
99% BANDWIDTH, Chain 0 CH 142



99% BANDWIDTH, Chain 1 CH 142



99% BANDWIDTH, Chain 2 CH 142



8.31.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

For output power the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.03	6.66	3.94	5.36

For PPSD, The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

RESULTS

OUTPUT POWER AND PPSD – UNII

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)
High	5710	61.06	41.1320	5.36	10.05

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)
High	5710	24.00	24.00	30.00	24.00	6.95	11.00	6.95

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd PPSD

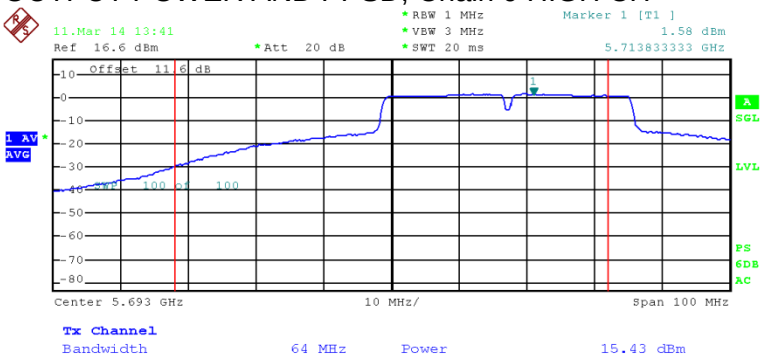
Output Power Results

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)
High	5710	15.43	15.54	15.89	20.87	24.00	-3.13

PPSD Results

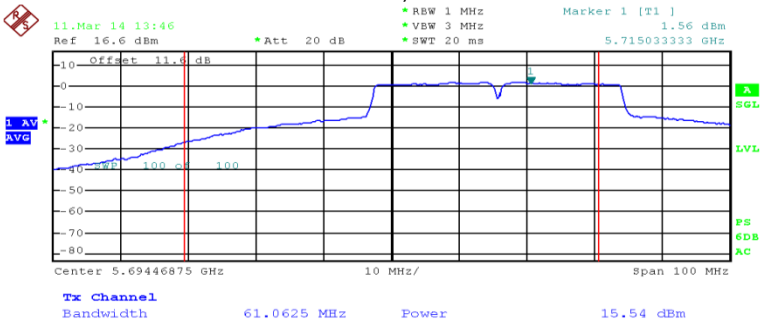
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
High	5710	1.58	1.56	1.82	6.90	6.95	-0.05

OUTPUT POWER AND PPSD, Chain 0 HIGH CH



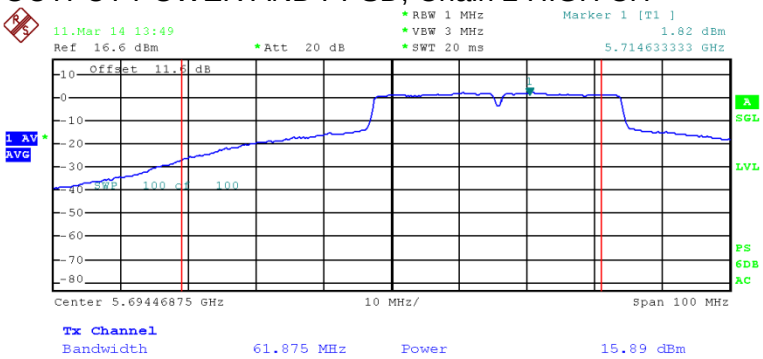
Date: 11.MAR.2014 13:41:55

OUTPUT POWER AND PPSD, Chain 1 HIGH CH



Date: 11.MAR.2014 13:46:23

OUTPUT POWER AND PPSD, Chain 2 HIGH CH



Tx Channel

Bandwidth	61.875 MHz	Power	15.89 dBm

Date: 11.MAR.2014 13:49:25

OUTPUT POWER AND PPSD – UNII-3

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)
High	5710	31.06	11.1320	6.19	10.83

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)
High	5710	29.81	21.47	27.47	29.81	25.17	11.00	11.00

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd Power & PPSD

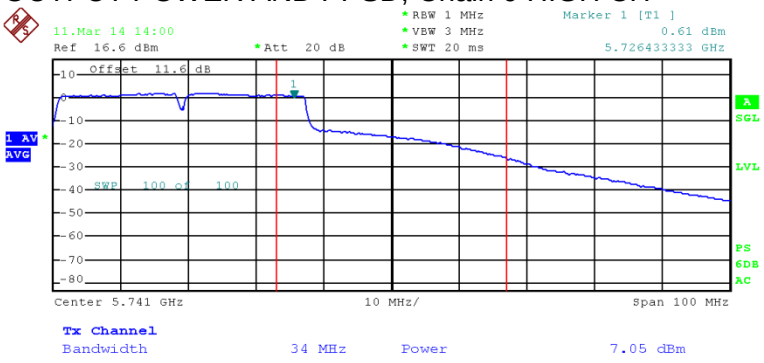
Output Power Results

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)
High	5710	7.05	5.36	6.14	11.48	29.81	-18.33

PPSD Results

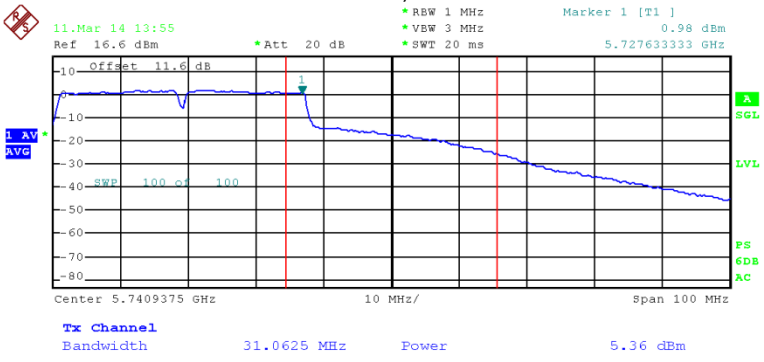
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
High	5710	0.61	0.98	1.12	6.15	25.17	-19.02

OUTPUT POWER AND PPSD, Chain 0 HIGH CH



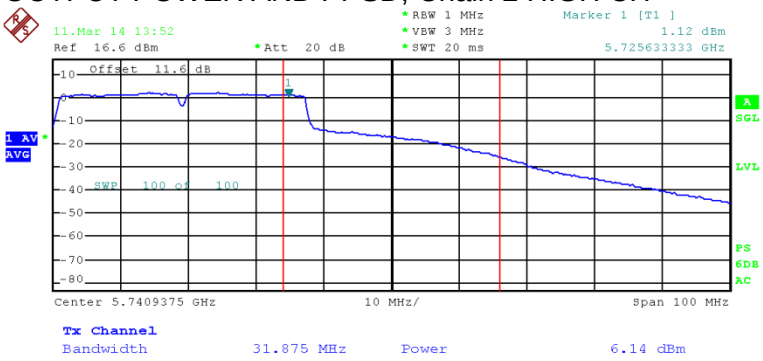
Date: 11.MAR.2014 14:00:52

OUTPUT POWER AND PPSD, Chain 1 HIGH CH



Date: 11.MAR.2014 13:55:12

OUTPUT POWER AND PPSD, Chain 2 HIGH CH



Tx Channel

Bandwidth	31.875 MHz	Power	6.14 dBm

Date: 11.MAR.2014 13:52:43

8.31.4. AVERAGE OUTPUT POWER (WHOLE FUNDAMENTAL)

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10.6 dB (including 10 dB pad and .6dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

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)
142	5710	16.45	16.42	16.44	21.21

8.32. 802.11n HT40 BF 3TX MODE 5.6 GHz BAND, CHANNEL 142

8.32.1. 26 dB BANDWIDTH

LIMITS

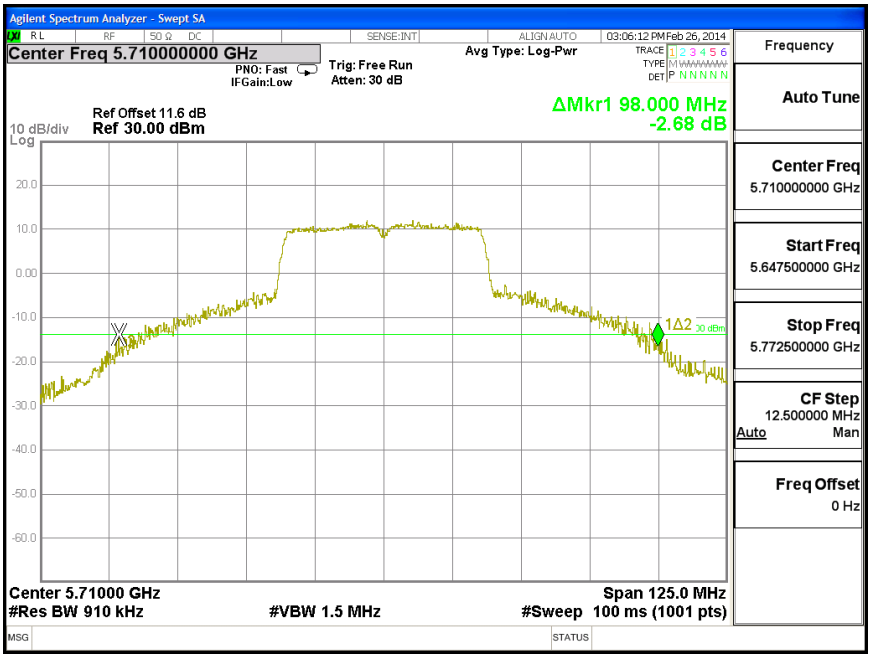
None; for reporting purposes only.

RESULTS

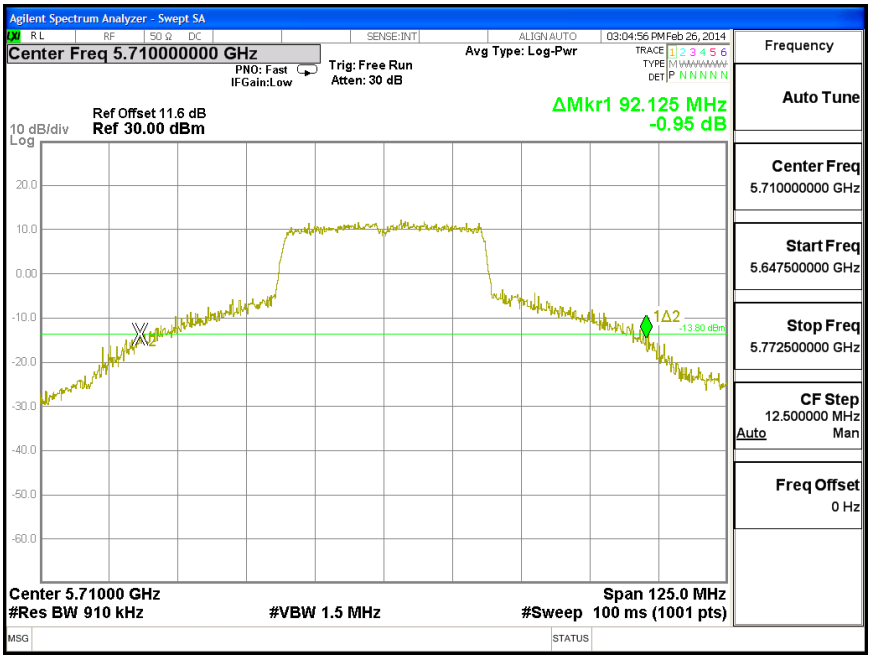
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
142	5710	98.000	92.125	93.750

26 dB BANDWIDTH

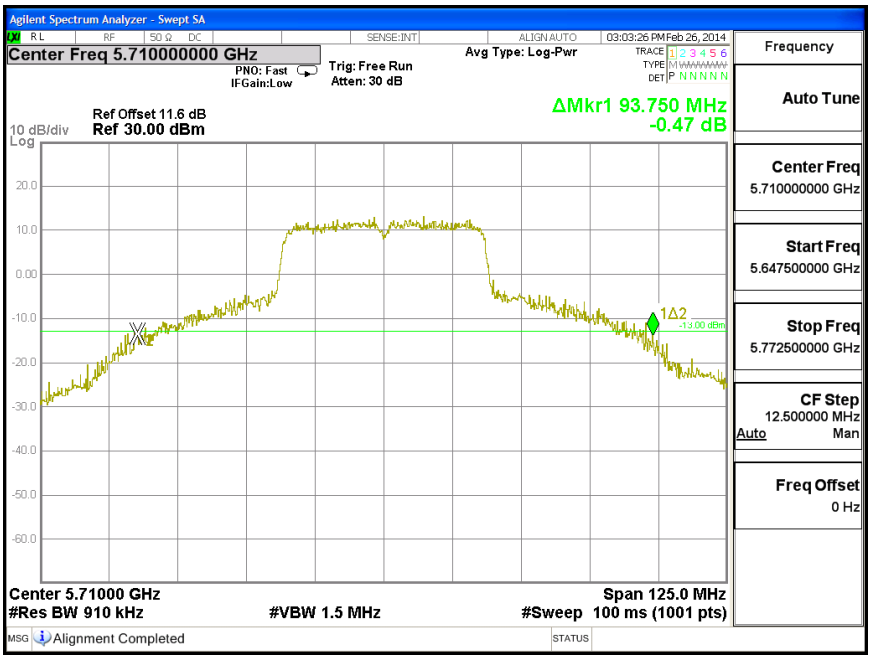
BANDWIDTH Chain 0 CH 142



BANDWIDTH Chain 1 CH 142



BANDWIDTH Chain 1 CH 142



8.32.2. 99% BANDWIDTH

LIMITS

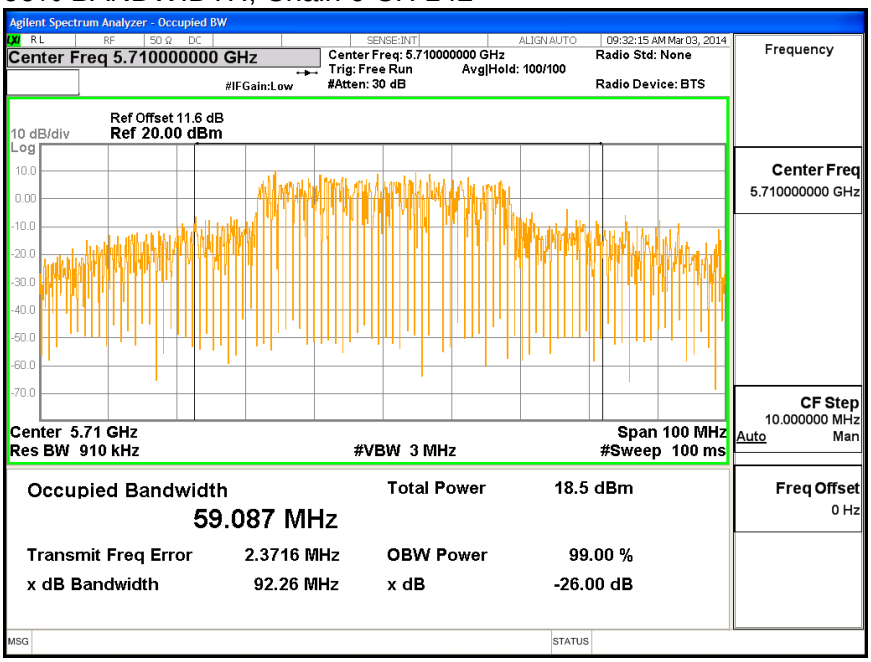
None; for reporting purposes only.

RESULTS

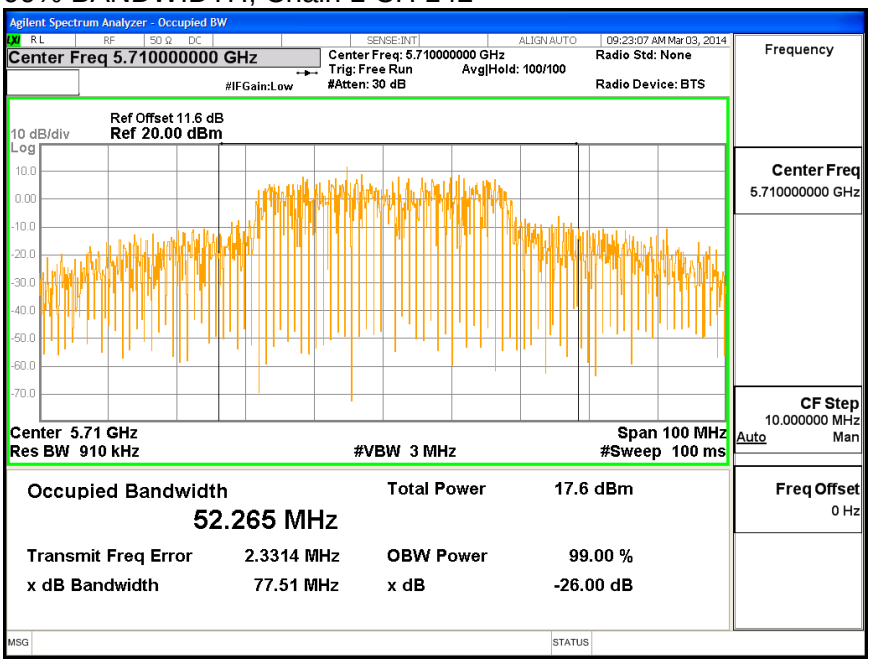
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
142	5710	59.087	52.265	55.890

99% BANDWIDTH

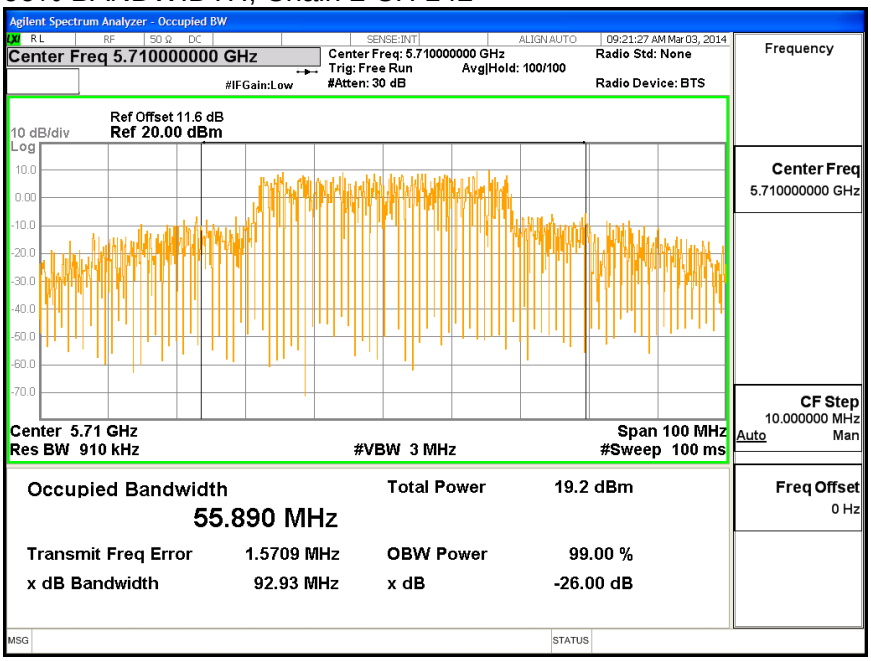
99% BANDWIDTH, Chain 0 CH 142



99% BANDWIDTH, Chain 1 CH 142



99% BANDWIDTH, Chain 2 CH 142



8.32.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

RESULTS

OUTPUT POWER AND PPSD – UNII

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	61.0625	41.1325	10.05	10.05

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	19.95	24.00	30.00	19.95	6.95	11.00	6.95

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd PPSD

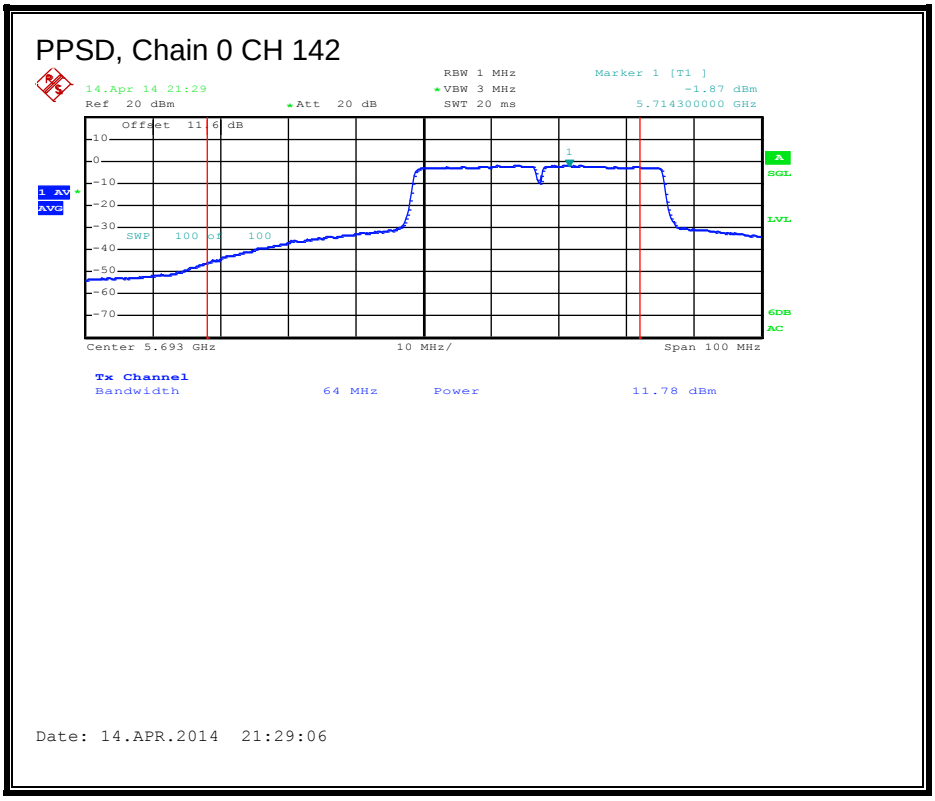
Output Power Results

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	11.78	11.87	12.06	17.15	19.95	-2.80

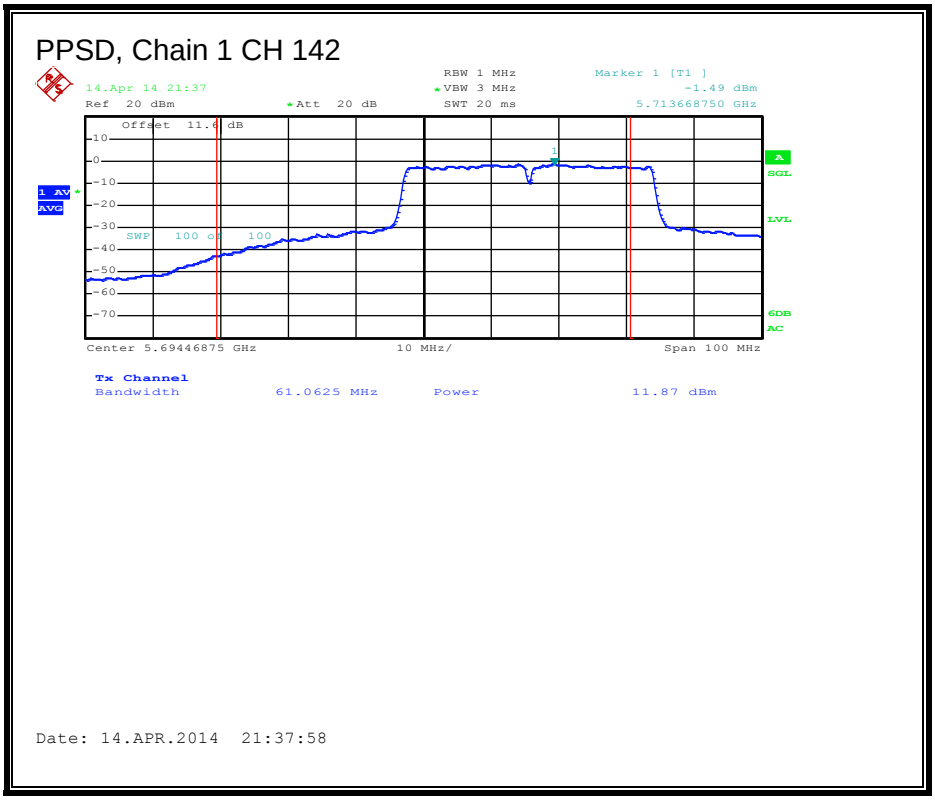
PPSD Results

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	-1.87	-1.49	-1.36	3.67	6.95	-3.28

OUTPUT POWER AND PPSD, Chain 0

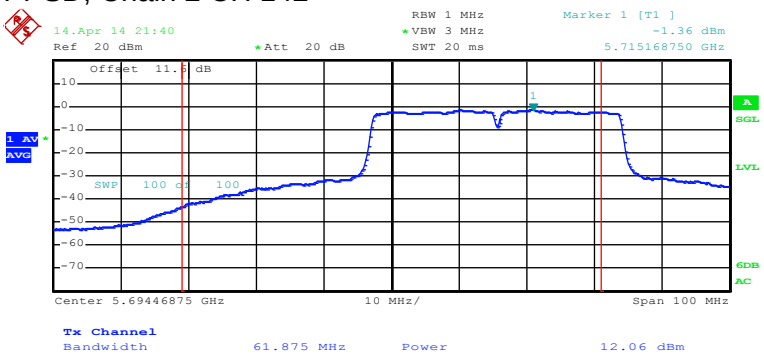


OUTPUT POWER AND PPSD, Chain 1



OUTPUT POWER AND PPSD, Chain 2

PPSD, Chain 2 CH 142



Date: 14.APR.2014 21:40:19

RESULTS

OUTPUT POWER AND PPSD – UNII-3

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	31.0625	11.1325	10.05	10.05

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	25.95	21.47	27.47	25.95	25.95	11.00	11.00

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd PPSD

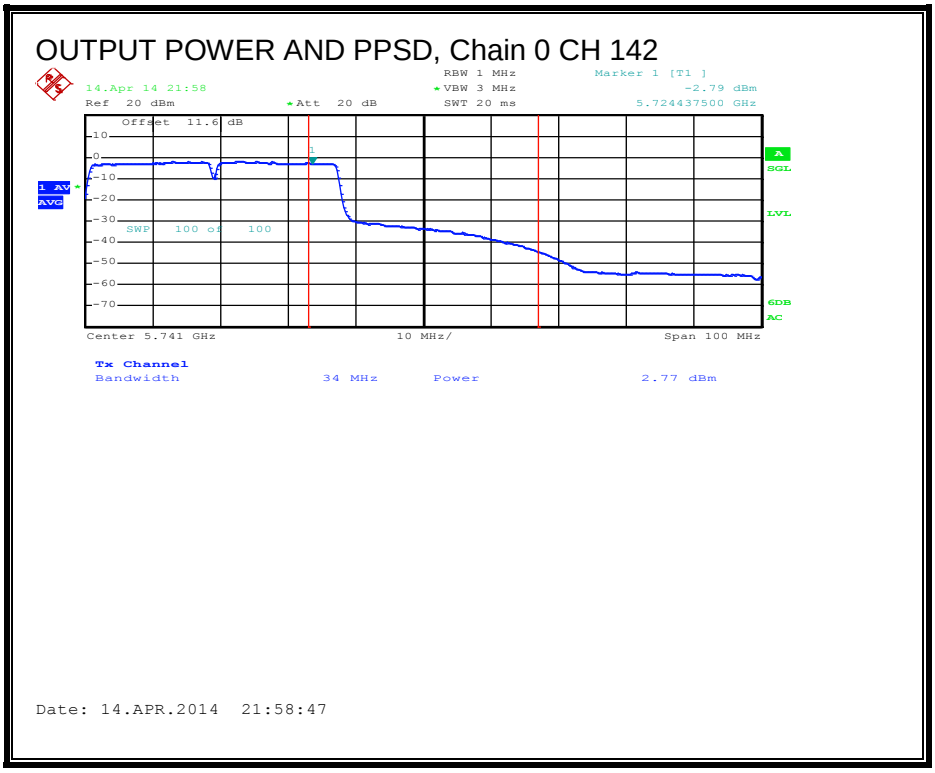
Output Power Results

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	2.77	1.04	1.71	7.14	25.95	-18.81

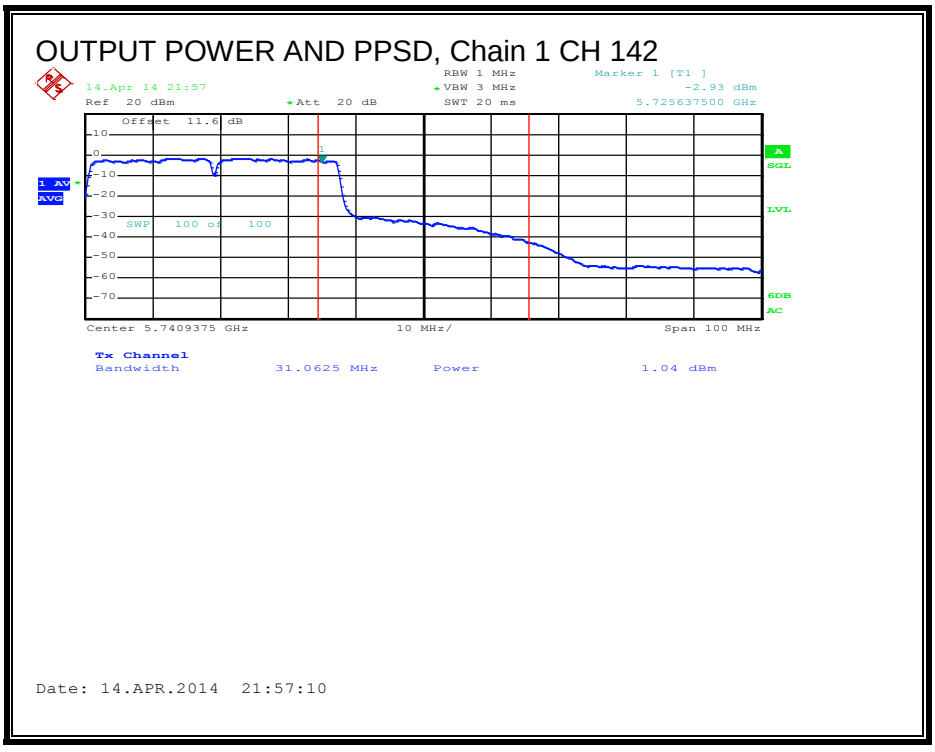
PPSD Results

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	-2.79	-2.93	-2.47	2.52	25.95	-23.43

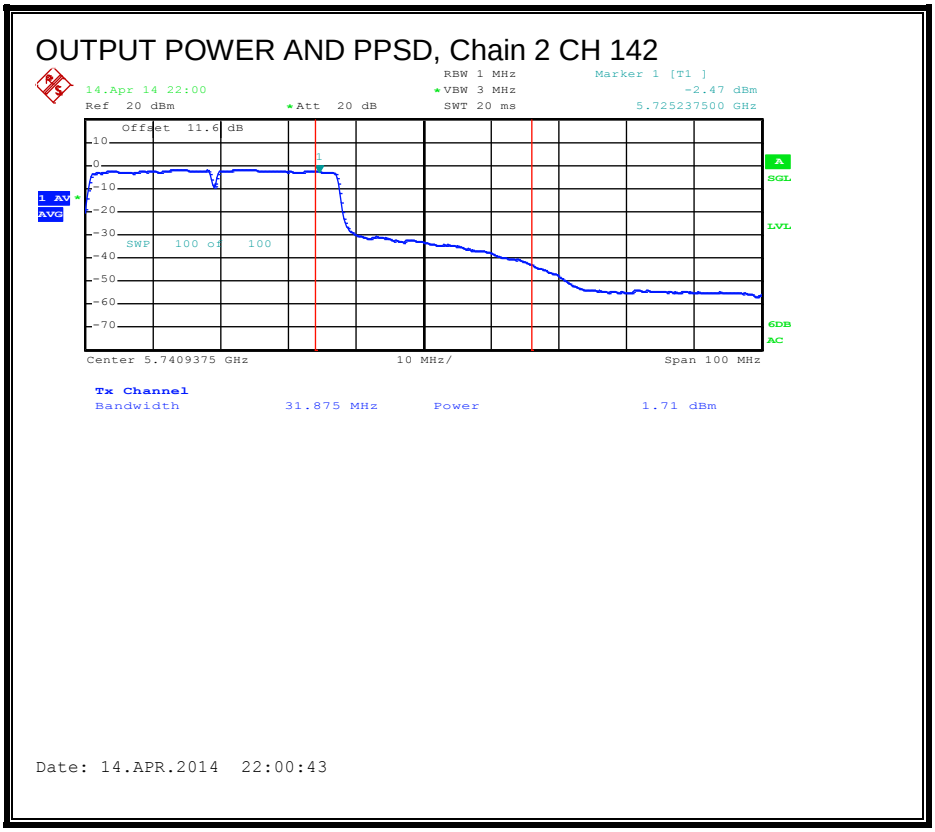
OUTPUT POWER AND PPSD, Chain 0



OUTPUT POWER AND PPSD, Chain 1



OUTPUT POWER AND PPSD, Chain 2



8.32.4. AVERAGE OUTPUT POWER (WHOLE FUNDAMENTAL)

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10.6 dB (including 10 dB pad and 0.6 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

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)
142	5710	15.08	15.25	15.00	19.88

8.33. 802.11ac VHT80 1TX MODE IN THE 5.6GHz BAND

8.33.1. AVERAGE OUTPUT POWER (WHOLE FUNDAMENTAL)

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore 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 (dBi)
Low	5530	82.1	75.826	6.60

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)
Low	5530	23.40	24.00	30.00	23.40

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	12.78	12.78	23.40	-10.62

Note: for Chain 0, 26dB & 99% data & plots, see section 802.11n HT80 CDD 3TX MODE IN THE 5.6 GHz BAND

8.34. 802.11ac VHT80 CDD 3TX MODE IN THE 5.6 GHz BAND

8.34.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

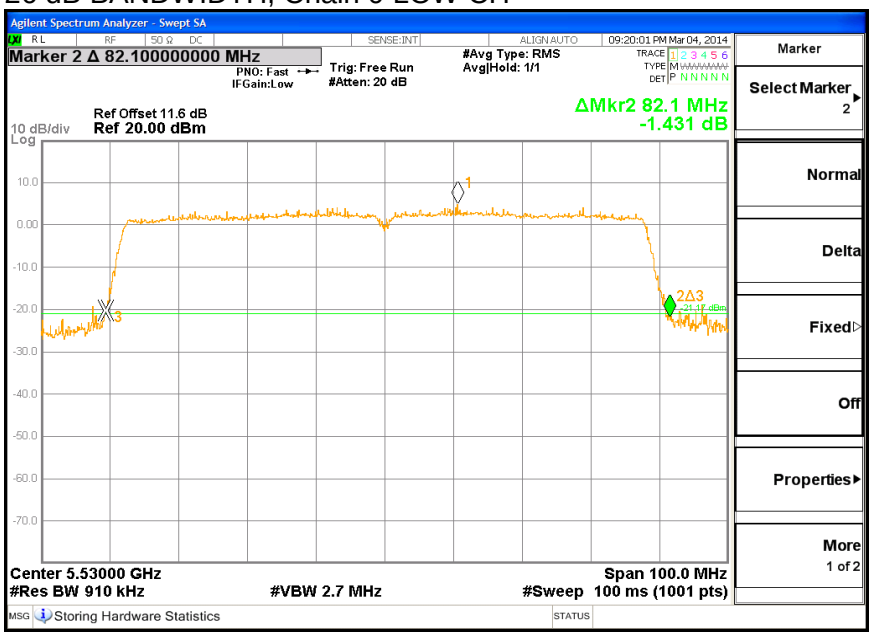
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5530	82.10	82.10	82.06

26 dB BANDWIDTH

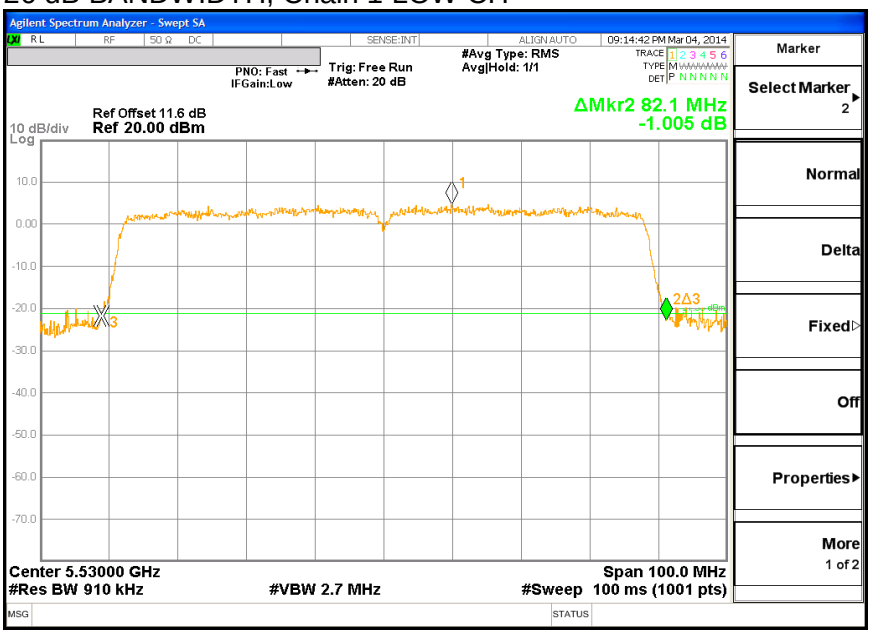
Chain 0

26 dB BANDWIDTH, Chain 0 LOW CH



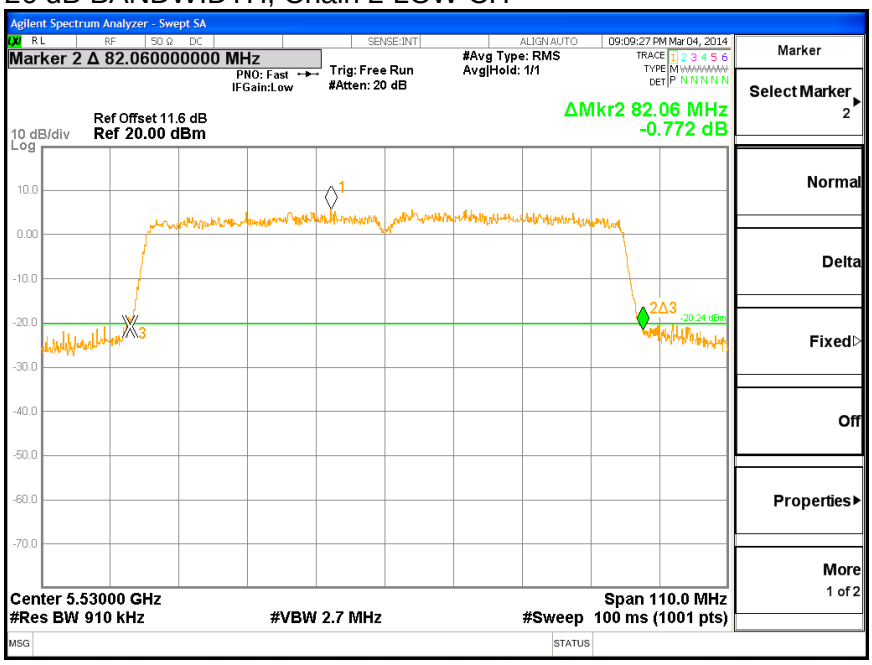
Chain 1

26 dB BANDWIDTH, Chain 1 LOW CH



Chain 2

26 dB BANDWIDTH, Chain 2 LOW CH



8.34.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

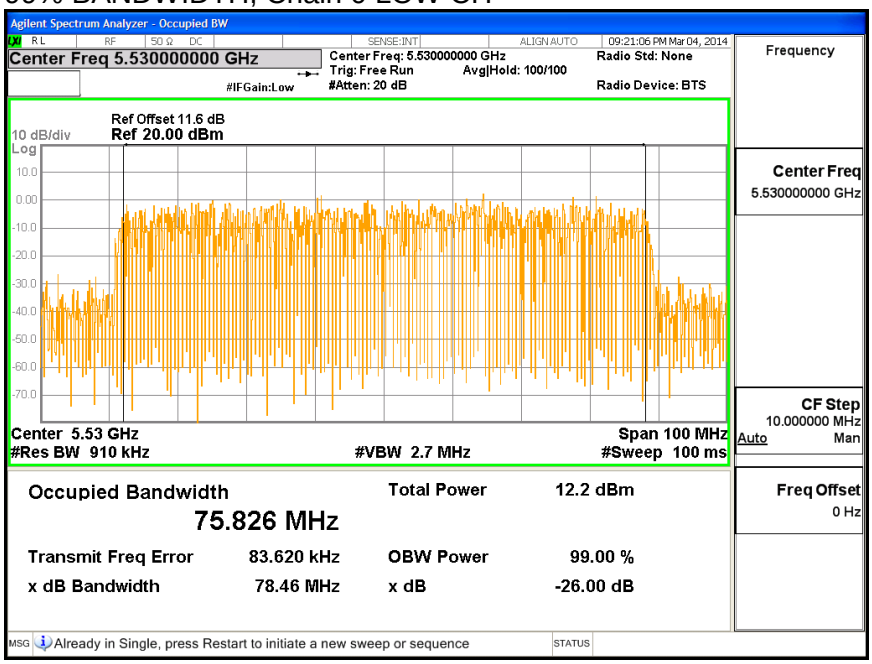
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5530	75.826	75.947	75.524

99% BANDWIDTH

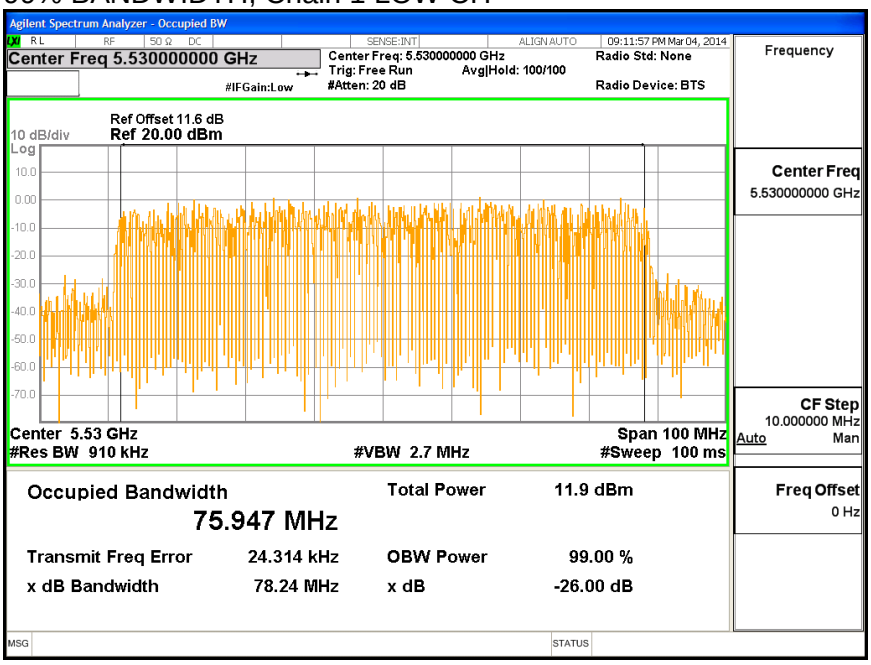
Chain 0

99% BANDWIDTH, Chain 0 LOW CH



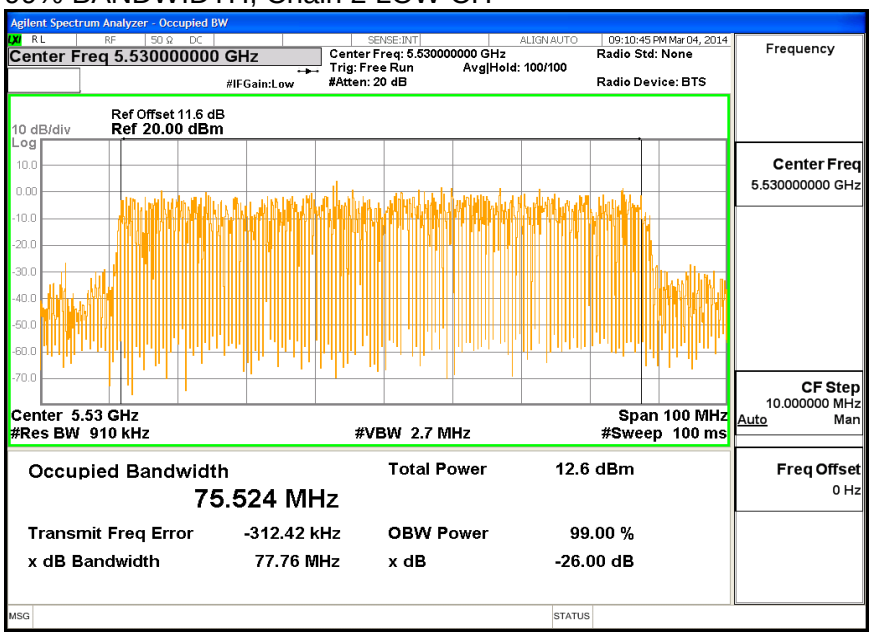
Chain 1

99% BANDWIDTH, Chain 1 LOW CH



Chain 2

99% BANDWIDTH, Chain 2 LOW CH



8.34.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

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.

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.03	6.66	3.94	5.36

For PPSD, The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

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)
Low	5530	82.06	75.524	5.36	10.05

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)
Low	5530	24.00	24.00	30.00	24.00	6.95	11.00	6.95

Duty Cycle CF (dB)	0.85	Included in Calculations of Corr'd PPSD

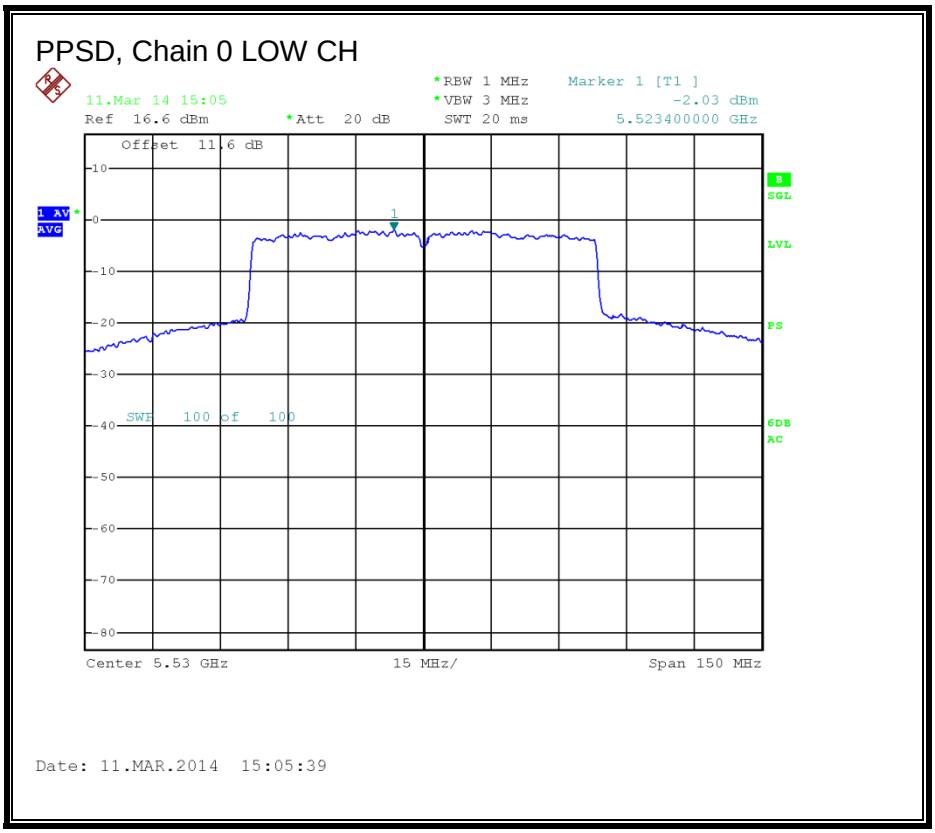
Output Power Results

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)
Low	5530	11.71	11.86	12.07	16.65	24.00	-7.35

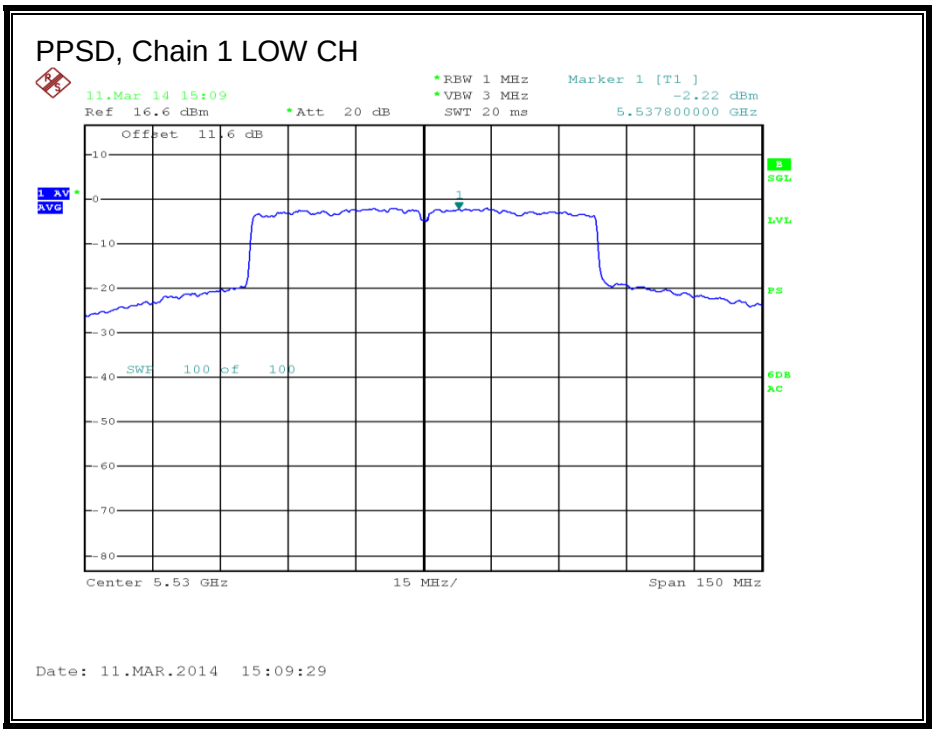
PPSD Results

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)
Low	5530	-2.03	-2.22	-1.91	3.57	6.95	-3.38

PPSD, Chain 0

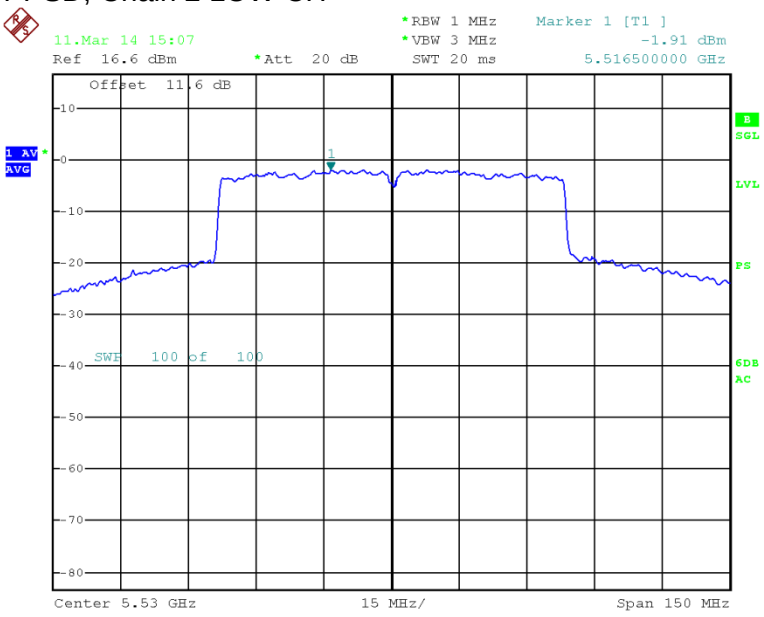


PPSD, Chain 1



PPSD, Chain 2

PPSD, Chain 2 LOW CH



8.35. 802.11ac VHT80 BF 3TX MODE IN THE 5.6 GHz BAND

8.35.1. 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)
Low	5530	82.10	82.10	82.06

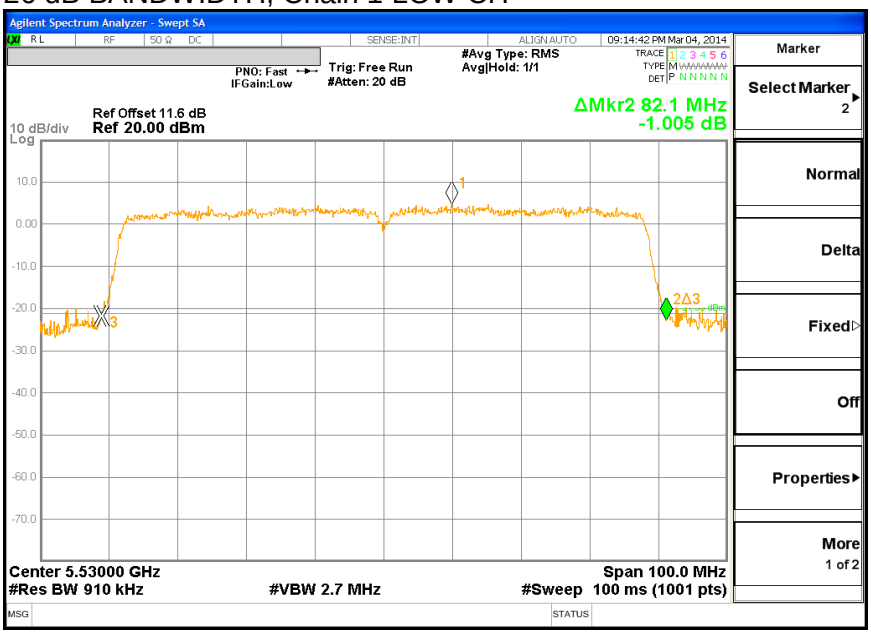
26 dB BANDWIDTH

Chain 0

26 dB BANDWIDTH, Chain 0 LOW CH

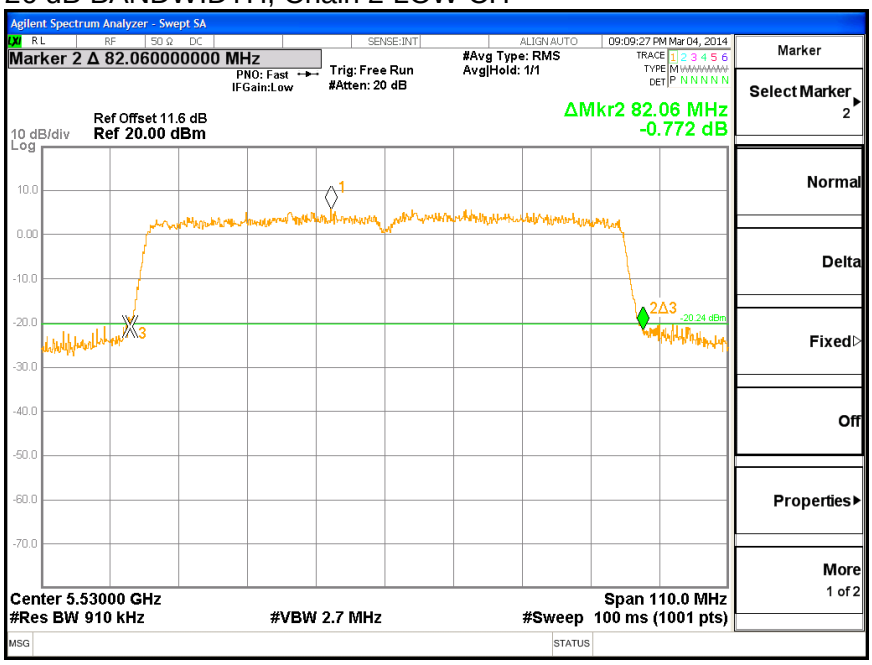
Chain 1

26 dB BANDWIDTH, Chain 1 LOW CH



Chain 2

26 dB BANDWIDTH, Chain 2 LOW CH



8.35.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

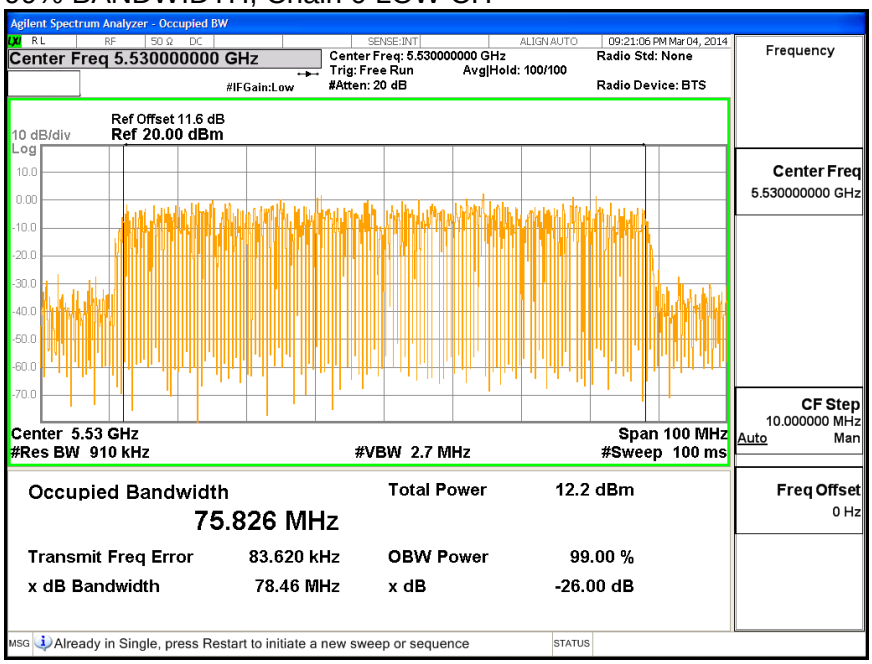
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5530	75.826	75.947	75.524

99% BANDWIDTH

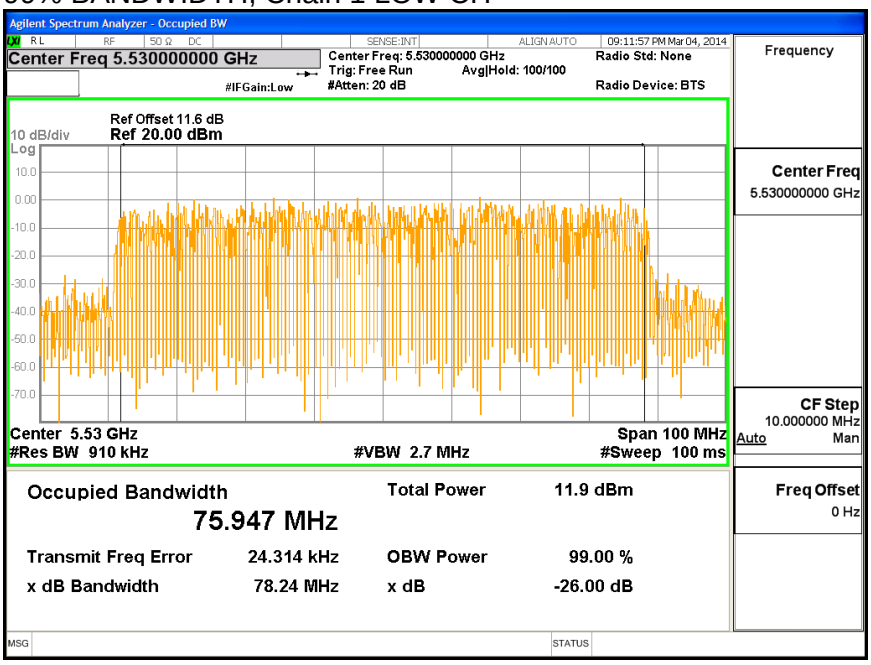
Chain 0

99% BANDWIDTH, Chain 0 LOW CH



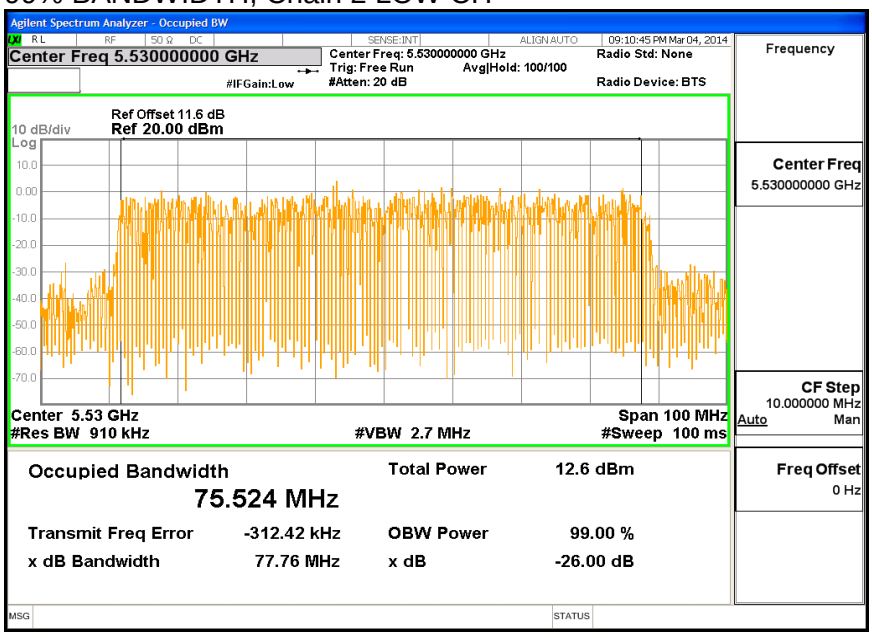
Chain 1

99% BANDWIDTH, Chain 1 LOW CH



Chain 2

99% BANDWIDTH, Chain 2 LOW CH



8.35.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

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)
Low	5530	82.06	75.524	10.05	10.05

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)
Low	5530	19.95	24.00	30.00	19.95	6.95	11.00	6.95

Duty Cycle CF (dB)	0.85	Included in Calculations of Corr'd Power & PPSD

Output Power Results

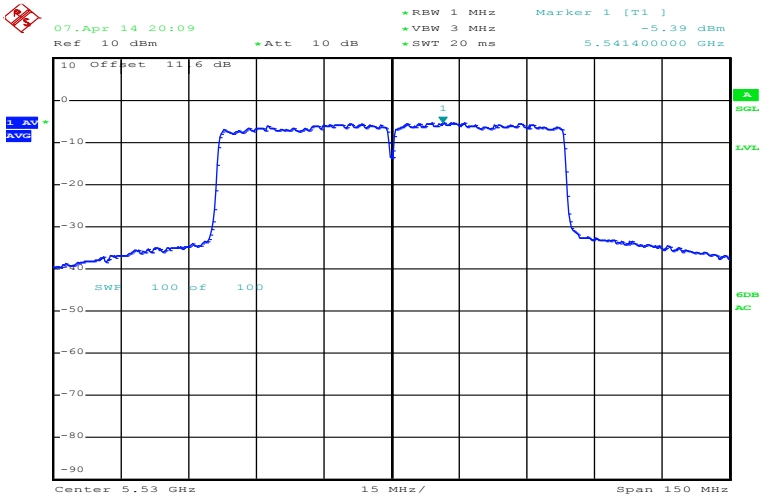
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	11.00	10.80	11.00	15.71	19.95	-4.24

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)
Low	5530	-5.39	-4.97	-5.51	0.34	6.95	-6.61

PPSD, Chain 0

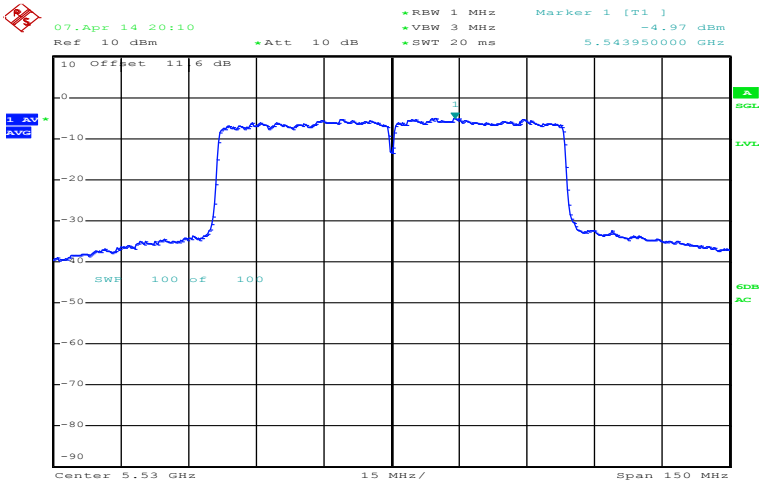
PPSD, Chain 0 LOW CH



Date: 7.APR.2014 20:09:38

PPSD, Chain 1

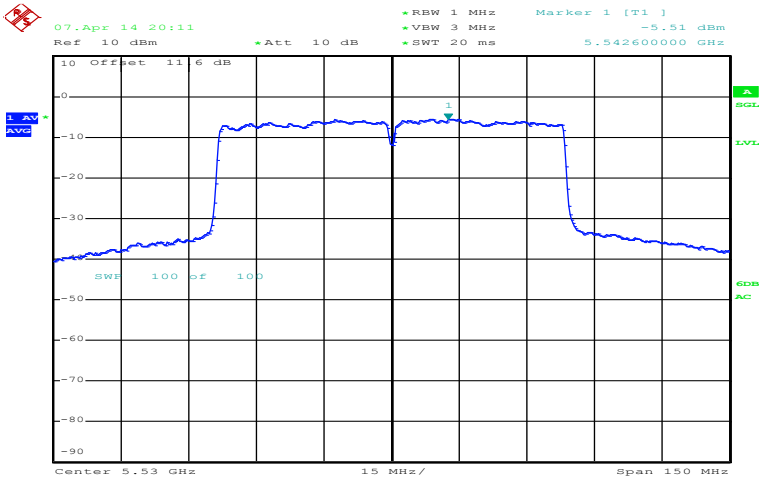
PPSD, Chain 1 LOW CH



Date: 7.APR.2014 20:10:22

PPSD, Chain 2

PPSD, Chain 2 LOW CH



Date: 7.APR.2014 20:11:41

8.36. 802.11ac VHT80 1TX MODE IN THE 5.6GHz BAND, CHANNEL 138

8.36.1. AVERAGE OUTPUT POWER (WHOLE FUNDAMENTAL)

LIMITS

IC RSS-210 A9.2 (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore 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 (dBi)
High	5690	82.3	76.021	6.66

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)
High	5690	23.34	24.00	30.00	23.34

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
High	5690	16.30	16.30	23.34	-7.04

Note: for Chain 0, 26dB & 99% data & plots, see section 802.11ac VHT80 CDD 3TX MODE IN THE 5.6 GHz BAND

8.37. 802.11ac VHT80 CDD 3TX MODE 5.6 GHz BAND, CHANNEL 138

8.37.1. 26 dB BANDWIDTH

LIMITS

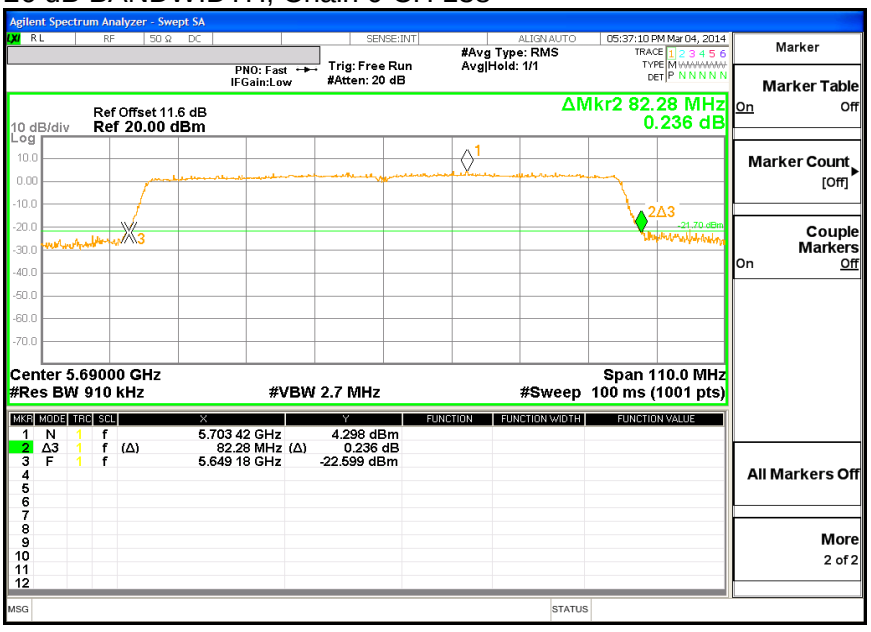
None; for reporting purposes only.

RESULTS

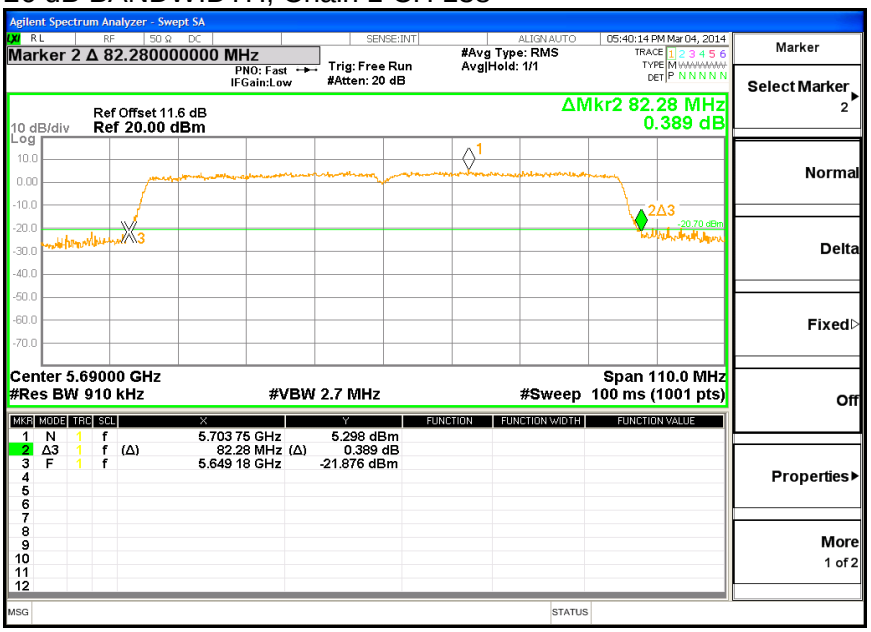
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
138	5690	82.28	82.28	82.72

26 dB BANDWIDTH

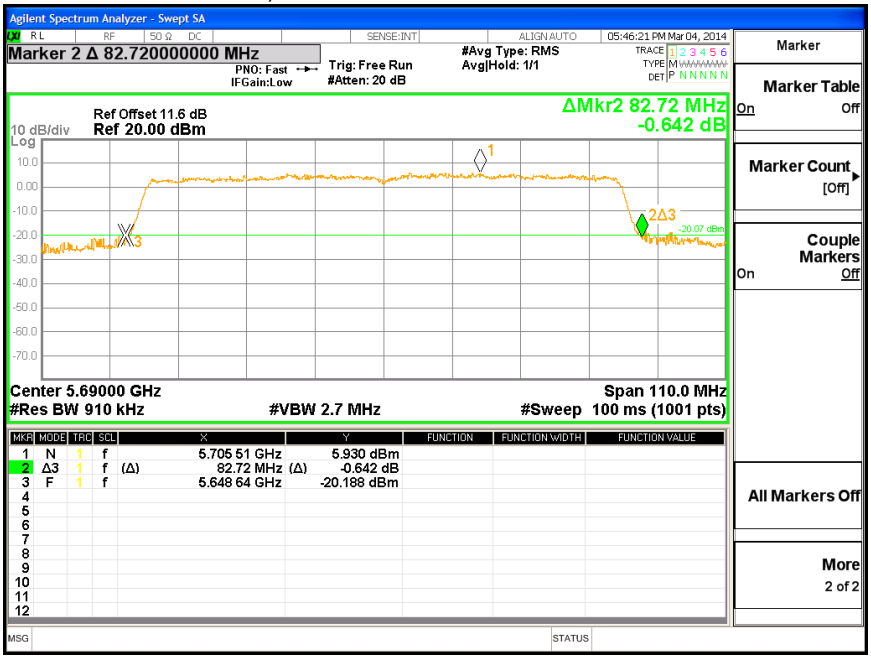
26 dB BANDWIDTH, Chain 0 CH 138



26 dB BANDWIDTH, Chain 1 CH 138



26 dB BANDWIDTH, Chain 2 CH 138



8.37.2. 99% BANDWIDTH

LIMITS

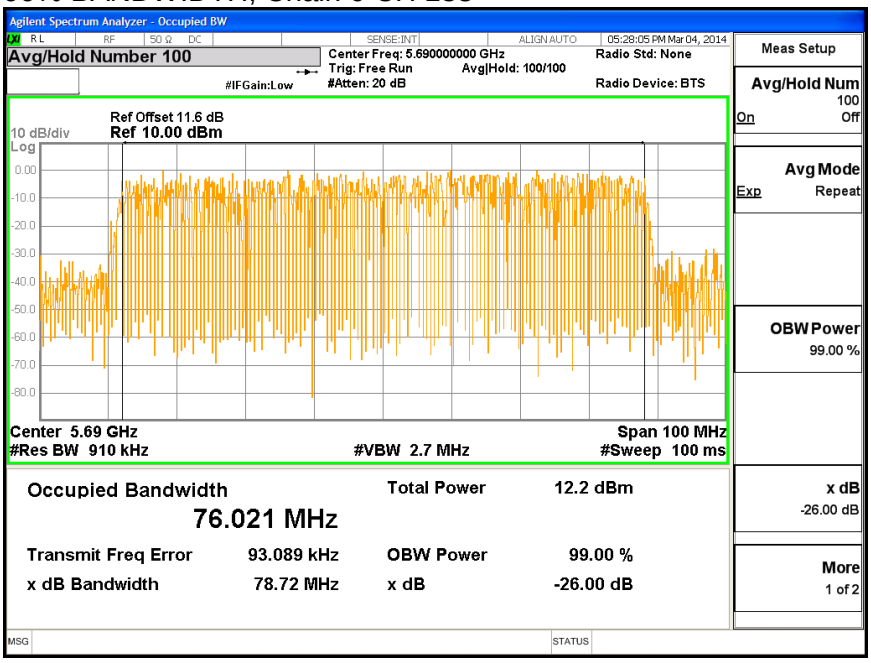
None; for reporting purposes only.

RESULTS

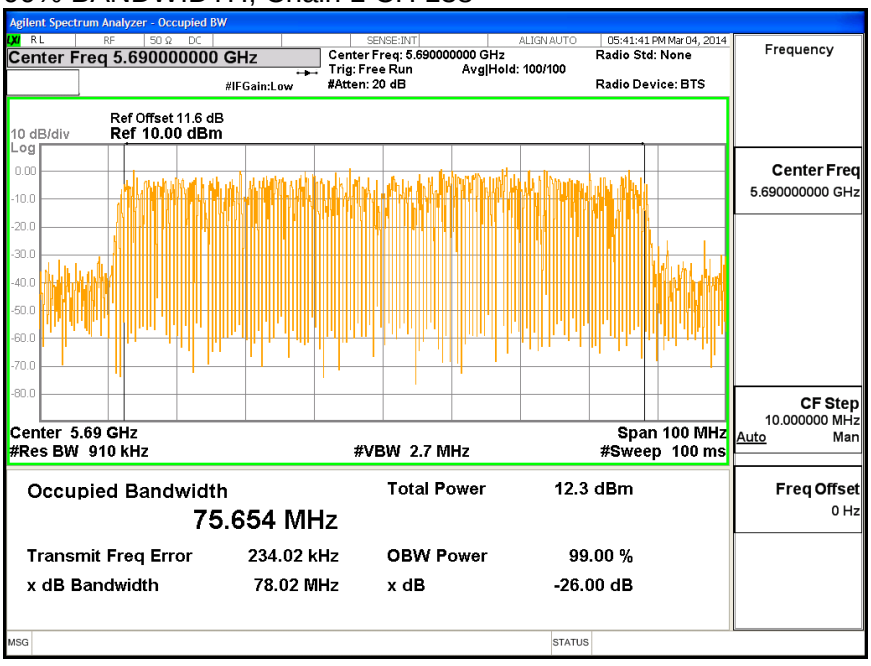
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
138	5690	76.021	75.654	75.514

99% BANDWIDTH

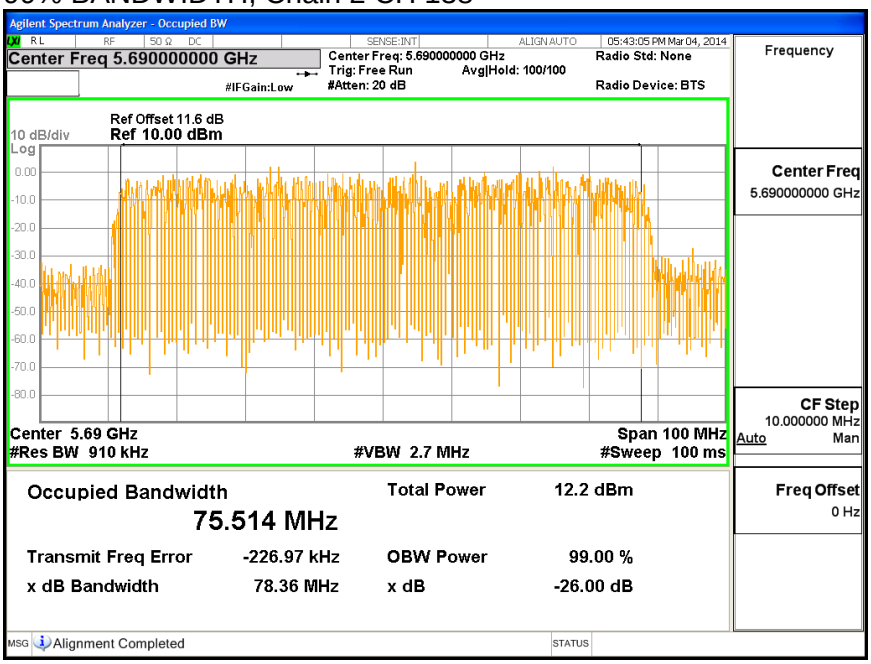
99% BANDWIDTH, Chain 0 CH 138



99% BANDWIDTH, Chain 1 CH 138



99% BANDWIDTH, Chain 2 CH 138



8.37.3. OUTPUT POWER AND PPSD

LIMITS

IC RSS-210 A9.2 (3)

The maximum e.i.r.p. shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. The Maximum e.i.r.p shall not exceed 1.0W or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.03	6.66	3.94	5.36

For PPSD, The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.03	6.66	3.94	10.05

RESULTS

For UNII 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	76.14	72.757	5.36	10.05

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	24.00	24.00	30.00	24.00	6.95	11.00	6.95

Duty Cycle CF (dB)	0.85	Included in Calculations of Corr'd PPSD

Output Power Results

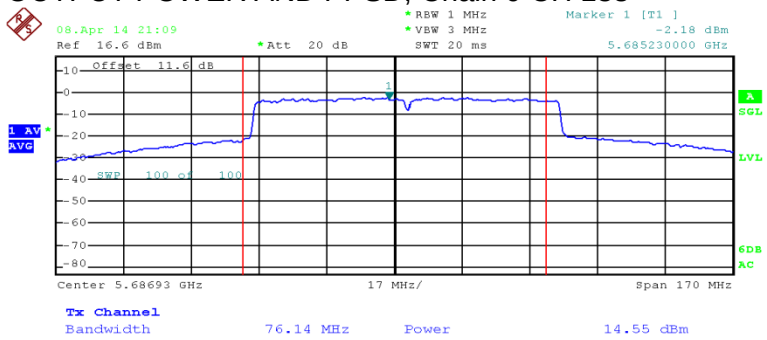
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	14.55	13.51	14.19	19.73	24.00	-4.27

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	-2.18	-3.39	-2.57	2.94	6.95	-4.01

UNII BAND OUTPUT POWER AND PPSD

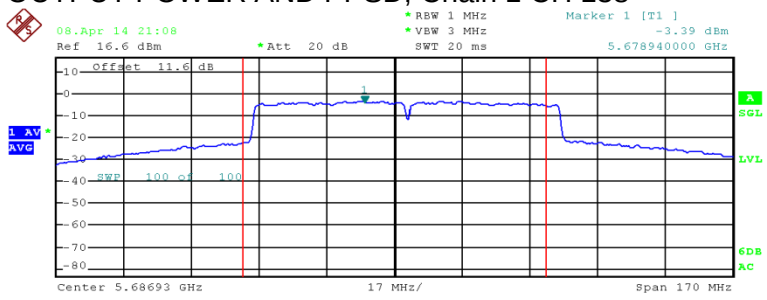
OUTPUT POWER AND PPSD, Chain 0 CH 138



Tx Channel
Bandwidth 76.14 MHz Power 14.55 dBm

Date: 8.APR.2014 21:09:17

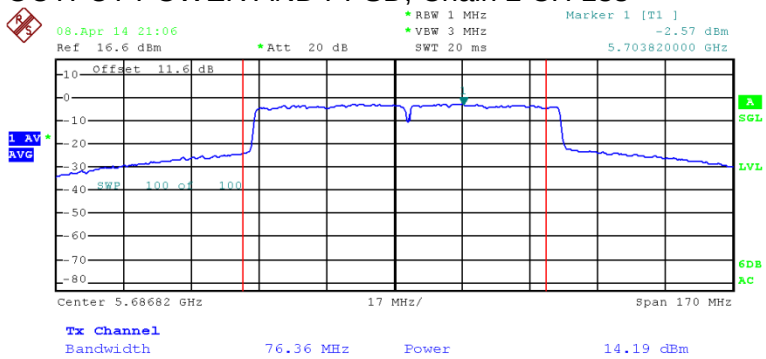
OUTPUT POWER AND PPSD, Chain 1 CH 138



Tx Channel
Bandwidth 76.14 MHz Power 13.51 dBm

Date: 8.APR.2014 21:08:07

OUTPUT POWER AND PPSD, Chain 2 CH 138



Tx Channel

Bandwidth	76.36 MHz	Power	14.19 dBm

Date: 8.APR.2014 21:06:19

For UNII-3 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	6.14	2.757	6.19	10.05

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	29.81	15.40	21.40	29.81	25.95	11.00	11.00

Duty Cycle CF (dB)	0.85	Included in Calculations of Corr'd Power & PPSD

Output Power Results

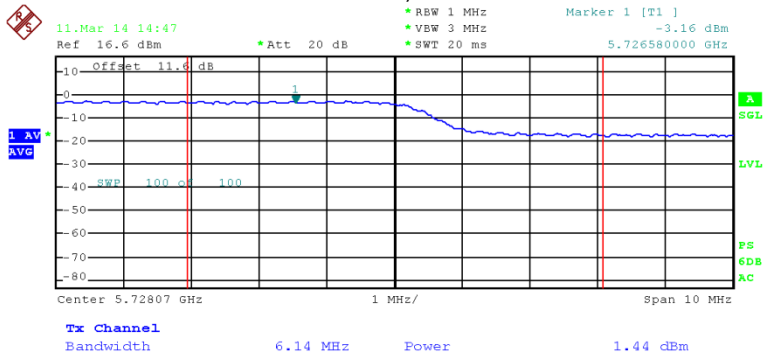
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	1.44	0.83	0.80	6.65	29.81	-23.16

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	-3.16	-3.70	-3.84	2.06	25.95	-23.89

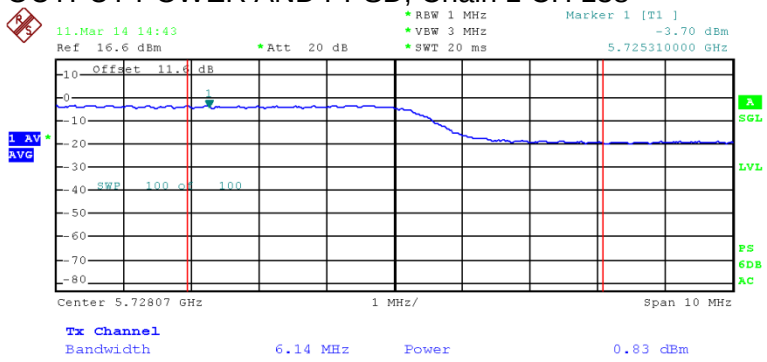
UNII-3 BAND OUTPUT POWER AND PPSD

OUTPUT POWER AND PPSD, Chain 0 CH 138



Date: 11.MAR.2014 14:47:10

OUTPUT POWER AND PPSD, Chain 1 CH 138



Date: 11.MAR.2014 14:43:27