FCC CFR47 PART 15 SUBPART E
INDUSTRY CANADA RSS-210 ISSUE 8

C2PC CERTIFICATION TEST REPORT

FOR
802.11a/b/g/n WLAN + Bluetooth PCI-E Custom Combination Card

MODEL NUMBER: BCM94360CD

FCC ID: QDS-BRCM1070
IC: 4324A-BRCM1070

REPORT NUMBER: 12U14669-4, Revision E

ISSUE DATE: APRIL 23, 2013

Prepared for
BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A.

Prepared by
UL CCS
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	02/01/13	Initial Issue	F. Ibrahim
A	02/06/13	Revised section 5.3, removed AC80 data in the UNII bands, Revised justification description for testing 3TX to cover 2TX where applicable, added the 20 dB BW results for AC80 modes, and removed the second set of antennas list and their AG from the report	F. Ibrahim
B	02/06/13	Revised section 5.2	F. Ibrahim
C	02/08/13	Revised section 5.2	F. Ibrahim
D	04/18/13	Added AC80 data in the 5.3 and 5.6 GHz bands for C2PC purpose.	F. Ibrahim
E	04/23/13	Added UNII/UNII 3 total power table.	K. Nguyen

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, USA

EUT DESCRIPTION: 802.11a/b/g/n WLAN + Bluetooth PCI-E Custom Combination Card

MODEL: BCM94360CD

SERIAL NUMBER: 1626297 (RF TESTING) and 862386007BF6RY01 (DFS)

DATE TESTED: OCTOBER 26, 2012 - JANUARY 30, 2013

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 9	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

UL CCS tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

FRANK IBRAHIM
WiSE PROJECT LEAD
UL CCS

Tested By:

DAVID GARCIA
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 06-96, FCC KDB 789033, ANSI C63.10-2009, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an 802.11a/g/n/ac WLAN + Bluetooth PCI-E Custom Combination.

The radio module is manufactured by Broadcom.

5.2. DESCRIPTION OF C2PC

AC80 mode has been added to UNII bands.

5.3. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5150-5250 MHz Authorized Frequency Band						
Frequency Range (MHz)	Mode	PK Power, Chain 0 (dBm)	PK Power, Chain 1 (dBm)	PK Power, Chain 2 (dBm)	Total PK power (dBm)	Total PK power (mW)
5180-5240	802.11a Legacy 1TX	14.65	N/A	N/A	14.65	29.17
5180-5240	802.11a CDD 2TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5180-5240	802.11a CDD 3TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5180-5240	802.11n HT20 STBC 2TX	Covered by the worst case 802.11n HT20 STBC 3TX Mode testing				
5180-5240	802.11n HT20 STBC 3TX	12.05	12.34	12.07	16.93	49.32
5190-5230	802.11n HT40 1TX	16.53	N/A	N/A	16.53	44.98
5190-5230	802.11n HT40 CDD 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5190-5230	802.11n HT40 STBC 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5190-5230	802.11n HT40 CDD 3TX	11.79	12.37	11.97	16.82	48.08
5190-5230	802.11n HT40 STBC 3TX	11.09	12.65	11.92	16.70	46.77
5190-5230	802.11n HT40 BF 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5190-5230	802.11n AC40 BF 3TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5210	802.11n AC80 1TX	13.40	N/A	N/A	13.40	21.88
5210	802.11n AC80 CDD 2TX	Covered by the worst case 802.11n HT80 CDD 3TX Mode testing				
5210	802.11n AC80 CDD 3TX	11.75	12.53	12.02	16.88	48.75
5210	802.11n AC80 BF 2TX	Covered by the worst case 802.11n AC80 BF 3TX Mode testing				
5210	802.11n AC80 BF 3TX	9.95	10.56	10.25	15.03	31.84

Note:

802.11n HT20 CDD is disabled in the driver for 5.2 GHz band, however, radiated BE and Harmonics were performed to cover 802.11a CDD 2TX, 802.11a CDD 3TX, 802.11n STBC 2TX, and 802.11n STBC 3TX.

5250-5325 MHz Authorized Frequency Band						
Frequency Range (MHz)	Mode	PK Power, Chain 0 (dBm)	PK Power, Chain 1 (dBm)	PK Power, Chain 2 (dBm)	Total PK power (dBm)	Total PK power (mW)
5260-5320	802.11a Legacy 1TX	21.67	N/A	N/A	21.67	146.89
5260-5320	802.11a CDD 2TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5260-5320	802.11a CDD 3TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5260-5320	802.11n HT20 STBC 2TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5260-5320	802.11n HT20 STBC 3TX	18.50	18.59	18.71	23.37	217.27
5260-5320	802.11n HT20 CDD 3TX	14.46	14.35	14.21	19.11	81.47
5260-5320	802.11n HT20 BF 2TX	Covered by the worst case 802.11n HT20 BF 3TX Mode testing				
5260-5320	802.11n AC20 BF 2TX	Covered by the worst case 802.11n HT20 BF 3TX Mode testing				
5260-5320	802.11n AC20 BF 3TX	Covered by the worst case 802.11n HT20 BF 3TX Mode testing				
5270-5310	802.11n HT40 1TX	21.54	N/A	N/A	21.54	142.56
5270-5310	802.11n HT40 CDD 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5270-5310	802.11n HT40 CDD 3TX	19.13	19.33	19.07	23.95	248.31
5270-5310	802.11n HT40 STBC 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5270-5310	802.11n HT40 STBC 3TX	19.00	19.08	18.75	23.72	235.50
5270-5310	802.11n HT40 BF 2TX	Covered by the worst case 802.11n HT40 BF 3TX Mode testing				
5270-5310	802.11n AC40 BF 2TX	Covered by the worst case 802.11n HT40 BF 3TX Mode testing				
5270-5310	802.11n AC40 BF 3TX	Covered by the worst case 802.11n HT40 BF 3TX Mode testing				
5290	802.11n AC80 1TX	14.73	N/A	N/A	14.73	29.72
5290	802.11n AC80 2TX	Covered by the worst case 802.11n HT80 CDD 3TX Mode testing				
5290	802.11n AC80 3TX	13.06	13.61	12.20	17.77	59.84
5290	802.11n HT80 BF 2TX	Covered by the worst case 802.11n HT80 CDD 3TX Mode testing				
5290	802.11n AC80 BF 3TX	12.58	12.88	12.82	17.53	56.62

Note:

802.11n HT20 BF 3TX was tested for BE and Harmonics, and this covers 802.11n HT20 BF 2TX, 802.11n AC20 BF 2TX, and 802.11n AC20 BF 3TX. For antenna port, 802.11n HT20 BF 3TX mode shares the same data and results from 802.11n HT20 CDD 3TX.

5450-5725 MHz Authorized Frequency Band						
Frequency Range (MHz)	Mode	PK Power, Chain 0 (dBm)	PK Power, Chain 1 (dBm)	PK Power, Chain 2 (dBm)	Total PK power (dBm)	Total PK power (mW)
5500-5700	802.11a Legacy 1TX	20.25	N/A	N/A	20.25	105.93
5500-5700	802.11a CDD 2TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5500-5700	802.11a CDD 3TX	Covered by the worst case 802.11n HT20 CDD 3TX Mode testing				
5500-5700	802.11n HT20 STBC 3TX	18.78	18.59	18.58	23.42	219.79
5500-5700	802.11n HT20 CDD 3TX	14.78	14.27	14.32	19.23	83.75
5720	802.11n AC20 CDD 3TX	14.81	14.48	14.65	19.42	87.50
5720	802.11n AC20 STBC 3TX	17.03	16.63	16.93	21.64	145.81
5500-5700	802.11n HT20 BF 2TX	Covered by the worst case 802.11n HT20 BF 3TX Mode testing				
5500-5700	802.11n AC20 BF 2TX	Covered by the worst case 802.11n HT20 BF 3TX Mode testing				
5500-5700	802.11n AC20 BF 3TX	Covered by the worst case 802.11n HT20 BF 3TX Mode testing				
5510-5670	802.11n HT40 1TX	23.49	N/A	N/A	23.49	223.36
5510-5670	802.11n HT40 CDD 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5510-5670	802.11n HT40 CDD 3TX	17.57	17.01	17.25	22.05	160.32
5710	802.11n AC40 CDD 3TX	17.77	17.07	17.73	22.31	170.07
5710	802.11n AC40 STBC 3TX	19.54	19.09	19.42	24.13	258.54
5510-5670	802.11n HT40 STBC 2TX	Covered by the worst case 802.11n HT40 CDD 3TX Mode testing				
5510-5670	802.11n HT40 STBC 3TX	19.22	19.05	18.61	23.97	249.46
5510-5670	802.11n HT40 BF 2TX	Covered by the worst case 802.11n HT40 BF 3TX Mode testing				
5510-5670	802.11n AC40 BF 2TX	Covered by the worst case 802.11n HT40 BF 3TX Mode testing				
5510-5670	802.11n AC40 BF 3TX	Covered by the worst case 802.11n HT40 BF 3TX Mode testing				
5530	802.11n AC80 1TX	21.35	N/A	N/A	21.35	136.46
5530	802.11n AC80 2TX	Covered by the worst case 802.11n HT80 CDD 3TX Mode testing				
5530	802.11n AC80 3TX	19.30	19.26	18.93	23.94	247.74
5690	802.11n AC80 3TX	18.76	18.65	19.01	23.58	228.06
5530	802.11n HT80 BF 2TX	Covered by the worst case 802.11n AC80 BF 3TX Mode testing				
5530	802.11n AC80 BF 3TX	17.11	16.78	16.61	21.61	144.88
5690	802.11n AC80 BF 3TX	16.72	16.88	16.75	21.56	143.06

Note:

802.11n HT20 BF 3TX was tested for BE and Harmonics, and this covers 802.11n HT20 BF 2TX, 802.11n AC20 BF 2TX, and 802.11n AC20 BF 3TX. For antenna port, 802.11n HT20 BF 3TX mode shares the same data and results from 802.11n HT20 CDD 3TX.

Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Power, Chain 2 (dBm)	Output Power (dBm)
5.6 GHz band, 3TX (Channels overlapping UNII and DTS bands)					
5720 (UNII portion)	802.11n HT20 CDD 3TX	13.94	13.53	13.75	18.51
5720 (DTS portion)	802.11n HT20 CDD 3TX	7.38	7.40	7.38	12.16
5720 (Whole signal)	802.11n HT20 CDD 3TX	14.81	14.48	14.65	19.42
5720 (UNII portion)	802.11n HT20 STBC 3TX	16.07	15.66	15.89	20.65
5720 (DTS portion)	802.11n HT20 STBC 3TX	10.02	9.65	10.19	14.73
5720 (Whole signal)	802.11n HT20 STBC 3TX	17.03	16.63	16.93	21.64
5710 (UNII portion)	802.11n HT40 CDD 3TX	17.62	16.93	17.58	22.16
5710 (DTS portion)	802.11n HT40 CDD 3TX	7.08	6.34	7.11	11.63
5710 (Whole signal)	802.11n HT40 CDD 3TX	17.99	17.29	17.95	22.53
5710 (UNII portion)	802.11n HT40 STBC 3TX	19.33	18.88	19.20	23.91
5710 (DTS portion)	802.11n HT40 STBC 3TX	9.61	9.14	9.57	14.22
5710 (Whole signal)	802.11n HT40 STBC 3TX	19.77	19.32	19.65	24.35
5690 (UNII portion)	802.11ac VHT80 CDD 3TX	19.05	18.94	19.32	23.88
5690 (DTS portion)	802.11ac VHT80 CDD 3TX	5.14	4.87	4.73	9.69
5690 (Whole signal)	802.11ac VHT80 CDD 3TX	19.22	19.11	19.47	24.04
5690 (UNII portion)	802.11ac VHT80 BF 3TX	16.95	17.15	17.03	21.82
5690 (DTS portion)	802.11ac VHT80 BF 3TX	4.21	3.75	3.39	8.57
5690 (Whole signal)	802.11ac VHT80 BF 3TX	17.18	17.34	17.21	22.02

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Set 1:

No.	Antenna Manufacturer	Antenna Type	Model	Peak gain @ 2412, 2422, 2432MHz, (BT)	Peak gain @ 2412, 2422, 2432MHz, (WL:AN)	Peak gain (5150-5250MHz) @5200MHz	Peak gain (5250-5350MHz) @5320MHz	Peak gain (5470-5725MHz) @5500, 5700MHz	Peak gain (5725-5850MHz) @5785, 5805MHz
1	Amphenol/Molex	802.11abgn WLAN Antenna	WF2 (604-3073)	NA	4.32	4.83	4.52	4.72	4.86
1	Amphenol/Molex	802.11abgn WLAN Antenna	WF3 (604-3075)	NA	4.77	2.84	3.21	2.09	1.95
1	Amphenol/Molex	802.11abgn WLAN Antenna	WF4 (604-3074)	NA	3.72	1.18	1.48	2.85	3.09
1	Amphenol/Molex	BT Antenna	WF1 (604-3076)	3.29					

Band (GHz)	Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.40	4.32	4.77	3.72	4.29
5.20	4.83	2.84	1.18	3.21
5.30	4.52	3.21	1.48	3.24
5.60	4.72	2.09	2.85	3.36
5.80	4.86	1.95	3.09	3.47

Band (GHz)	Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.40	4.32	4.77	3.72	9.05
5.20	4.83	2.84	1.18	7.85
5.30	4.52	3.21	1.48	7.93
5.60	4.72	2.09	2.85	8.06
5.80	4.86	1.95	3.09	8.15

5.5. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Broadcom, rev. 6.30.118.23.
The test utility software used during testing was BCM Internal, rev. 6.30.RC118.23.

5.6. WORST-CASE CONFIGURATION AND MODE

The EUT was tested as an external module installed in a test jig board connected to a host Laptop PC.

Worst-Case data rates, as provided by the client, were as follows:

All final tests in the 802.11a Legacy mode were made at 6 Mb/s.
All final tests in the 802.11n 20 MHz CDD & STBC modes were made at MCS0.
All final tests in the 802.11n 40 MHz CDD & STBC modes were made at MCS0.

Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.

For Radiated Band Edge measurements preliminary testing showed that the worst case was vertical polarization, so some final measurements were performed with vertical polarization only.

For the modes where a second LOW channel and a second HIGH channel were tested for output power, all other test items at the second LOW and second HIGH channels were performed with the higher power level between LOW and second LOW channels, and between HIGH and second HIGH channels, as worst-case scenario.

For all modes with single chain, chain 1 was selected per the software provided by the client. Based on the client a preliminary investigation was performed on the three chains and chain 1 was found to be worst-case.

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	HP	DV6000	CNF7120G34	DoC
Laptop	Apple	A11465	C02JFA69DRV6	DoC
AC Adapter	HP	PA-1900-08R1	599830ALLUB6N1	N/A
AC Adapter	Apple	PA-1450-8	NSW25804	N/A
Adapter Board	Catalyst	MINI2EXP	BRCM 07	N/A
Adapter Board	Adex	PE-MINI-FLEX	HH	N/A
Adapter Board	Broadcom	BCM94331CSMFG	1458947	N/A

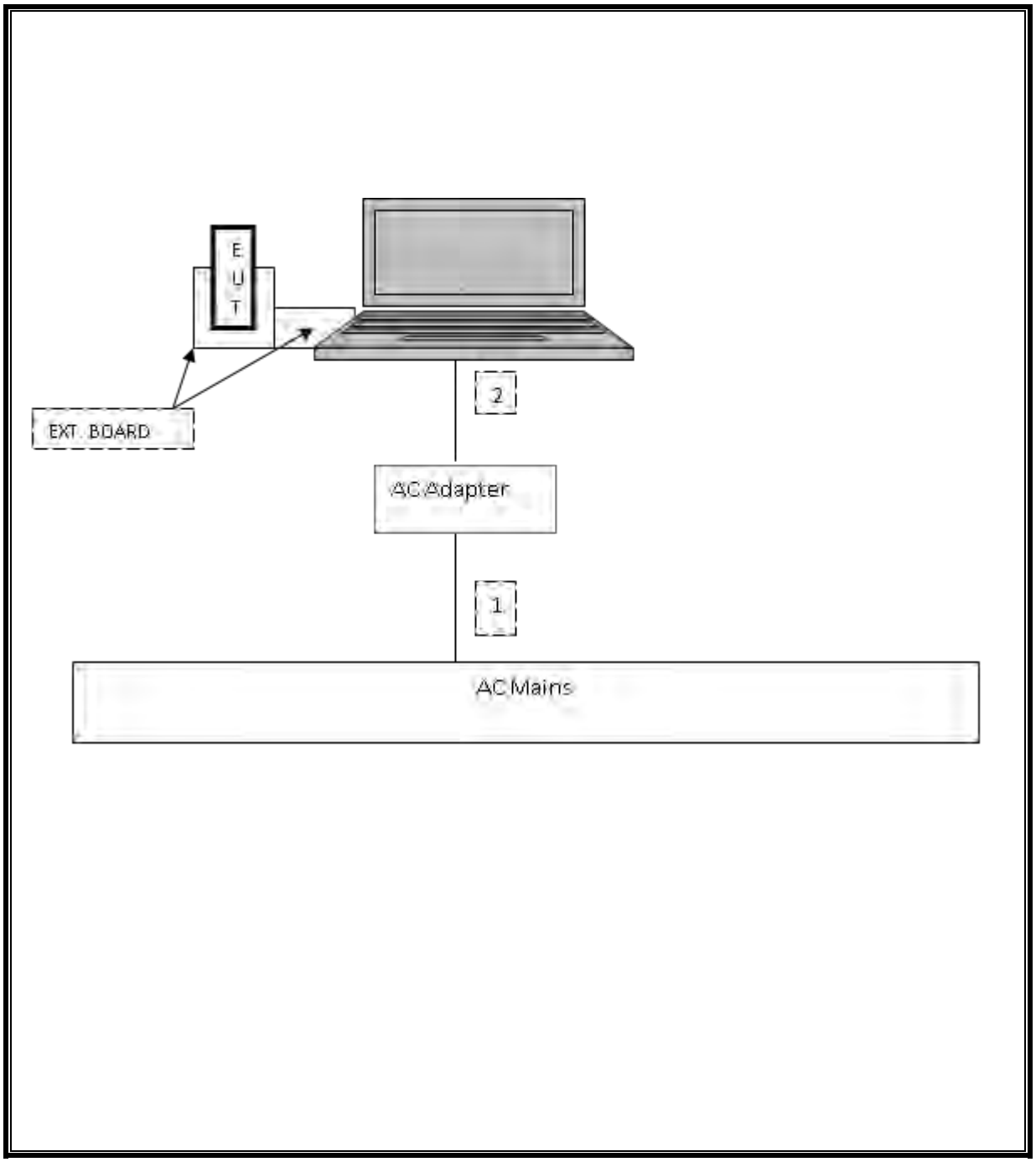
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	US 115V	Un-Shielded	1m	NA
2	DC	1	DC	Un-Shielded	1.8m	NA

TEST SETUP

The EUT is attached to a jig board which is installed in the PCMCI slot of a host laptop computer during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List					
Description	**Manufacturer**	**Model**	**Asset**	**Cal Date**	**Cal Due**
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01179	02/16/12	02/16/13
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	03/22/12	03/22/13
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	10/21/12	10/21/13
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/08/12	08/08/13
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	0	08/21/12	08/21/13
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/08/12	08/08/13
Antenna, Horn, 18 GHz	EMCO	3115	C01218/1000614	01/18/13	01/18/14
Antenna, Horn, 18 GHz	EMCO	3115	C00945	11/12/12	11/12/13
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	11/14/12	11/14/13
Antenna, Horn, 40 GHz	ARA	MWH-2640/B	C00981	06/14/11	06/14/13
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	0	02/07/12	02/07/13
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C00749	10/19/12	10/19/13
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/12	10/22/13
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	08/02/11	08/02/13
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00885	12/20/11	12/30/13
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/11	12/13/12
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/11	12/13/12
Power Meter	Agilent / HP	N1911A	0	07/27/12	07/27/13
Peak / Average Power Sensor	Agilent / HP	E9323A	0	07/26/12	07/26/13
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/13	01/14/14

7. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.1.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11a 20 MHz	2.06	2.09	0.988	98.8%	0.00	0.010
802.11n HT20 CDD	1.93	1.95	0.987	98.7%	0.00	0.010
802.11n HT20 STBC	11.53	11.67	0.988	98.8%	0.00	0.010
802.11n HT40	0.91	0.96	0.948	94.8%	0.23	1.095
802.11n HT40 CDD	0.92	0.96	0.952	95.2%	0.22	1.091
802.11n HT40 STBC	0.92	0.97	0.948	94.8%	0.23	1.087
802.11n HT80	0.43	0.48	0.899	89.9%	0.46	2.316
802.11n HT80 CDD	0.43	0.48	0.899	89.9%	0.46	2.316

7.1.2. MEASUREMENT METHOD FOR POWER AND PPSD

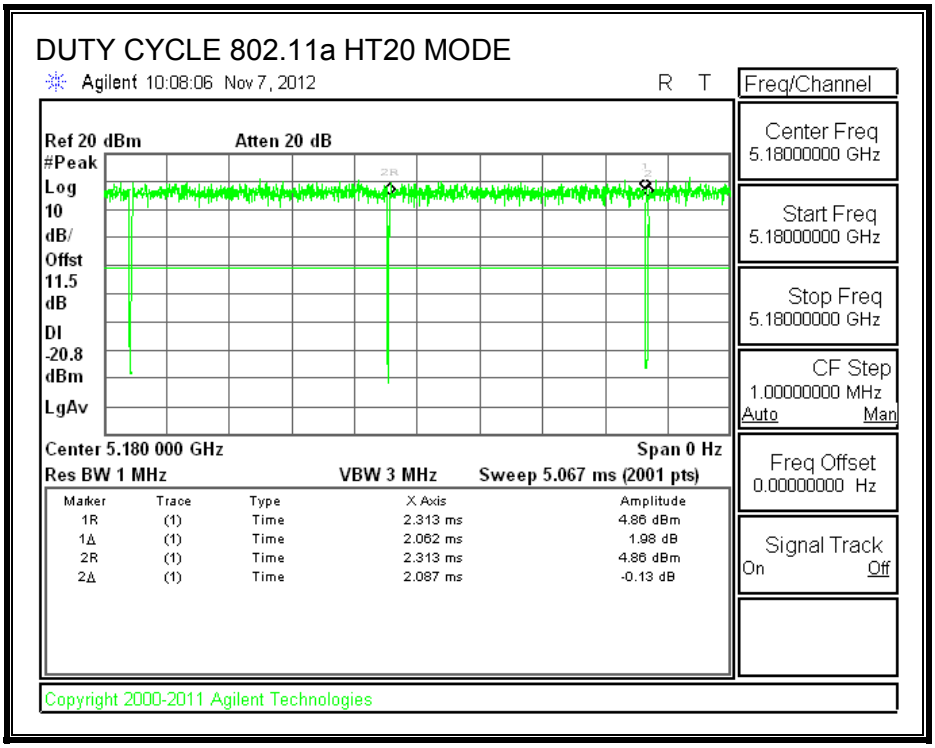
For output power measurement, KDB 789033 Method PM as described in section C) f) was used.

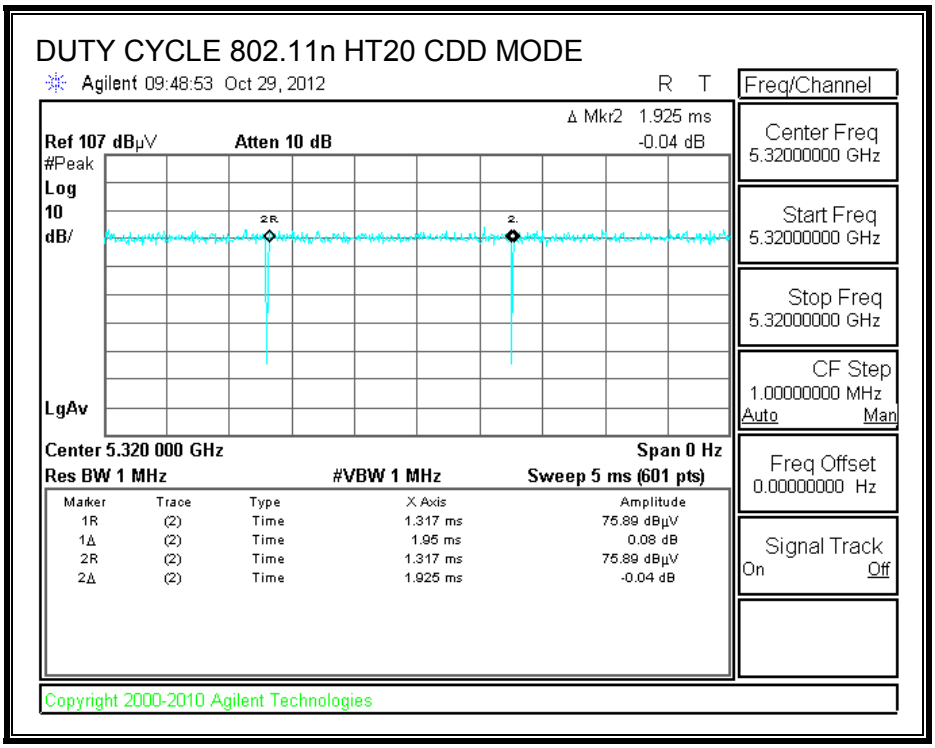
For PSD measurement, KDB 789033 Method SA-1 was used when Duty Cycle is greater than or equal to 98%.
For PSD measurement, KDB 789033 Method SA-2 was used when Duty Cycle is less than 98%.

7.1.3. MEASUREMENT METHOD FOR AVG SPURIOUS EMISSIONS ABOVE 1 GHz

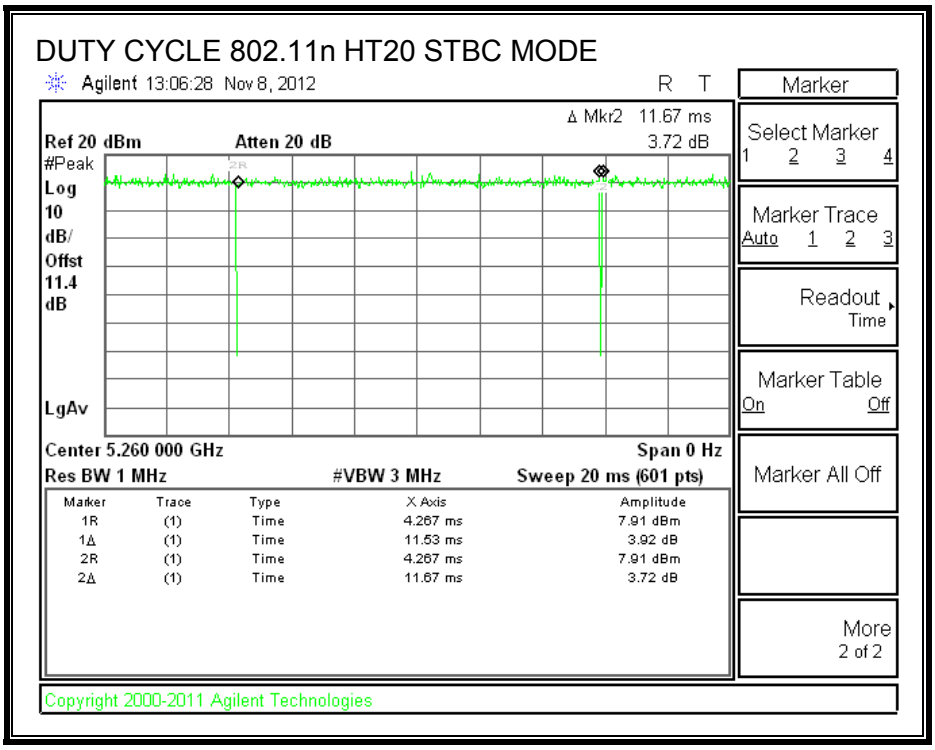
KDB 789033 Method VB with Power RMS Averaging is used.

7.1.4. DUTY CYCLE PLOTS

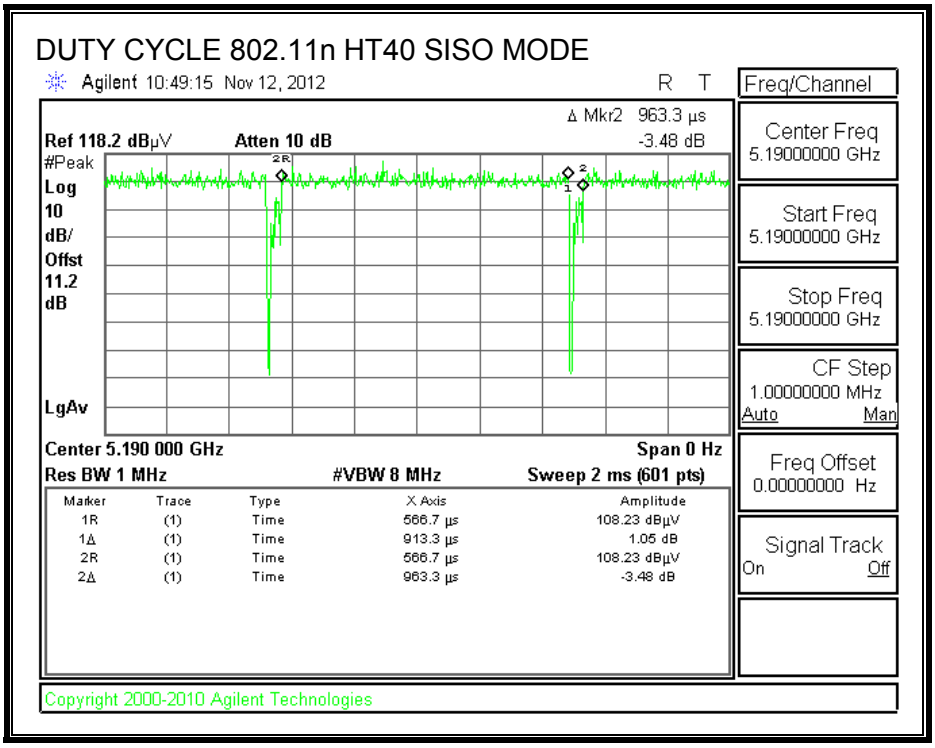




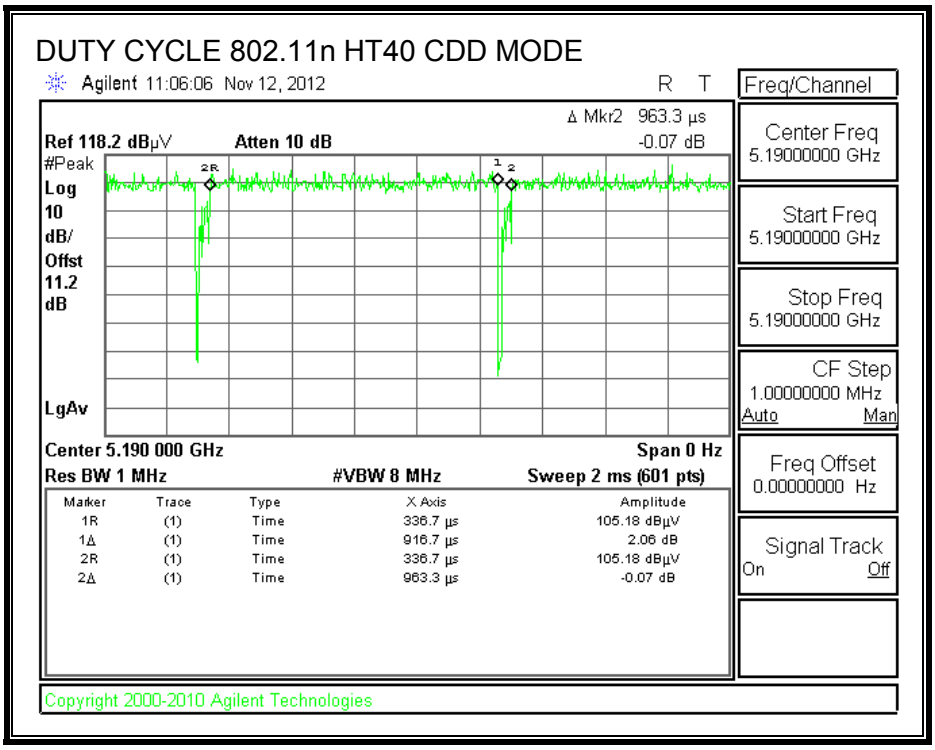
DUTY CYCLE 802.11n HT20 STBC MODE



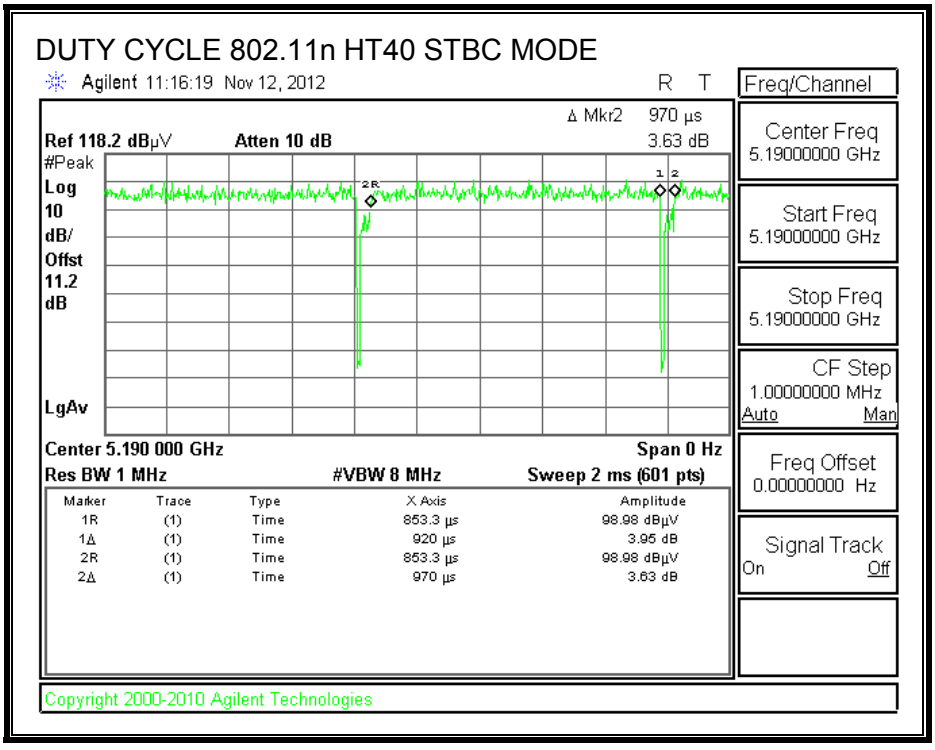
DUTY CYCLE 802.11n HT40 SISO MODE



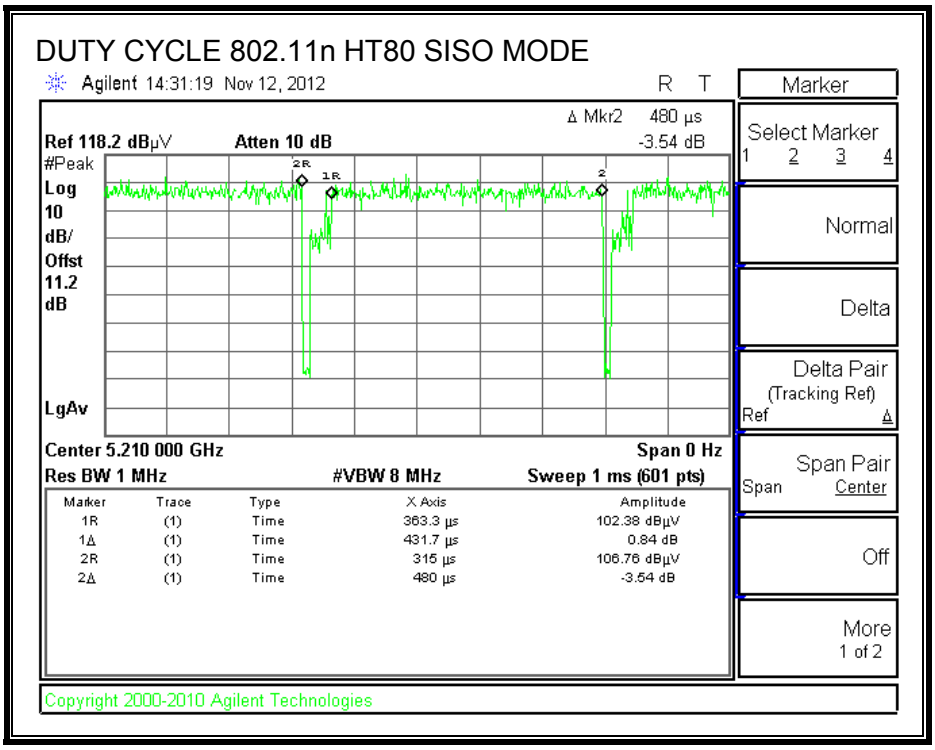
DUTY CYCLE 802.11n HT40 CDD MODE



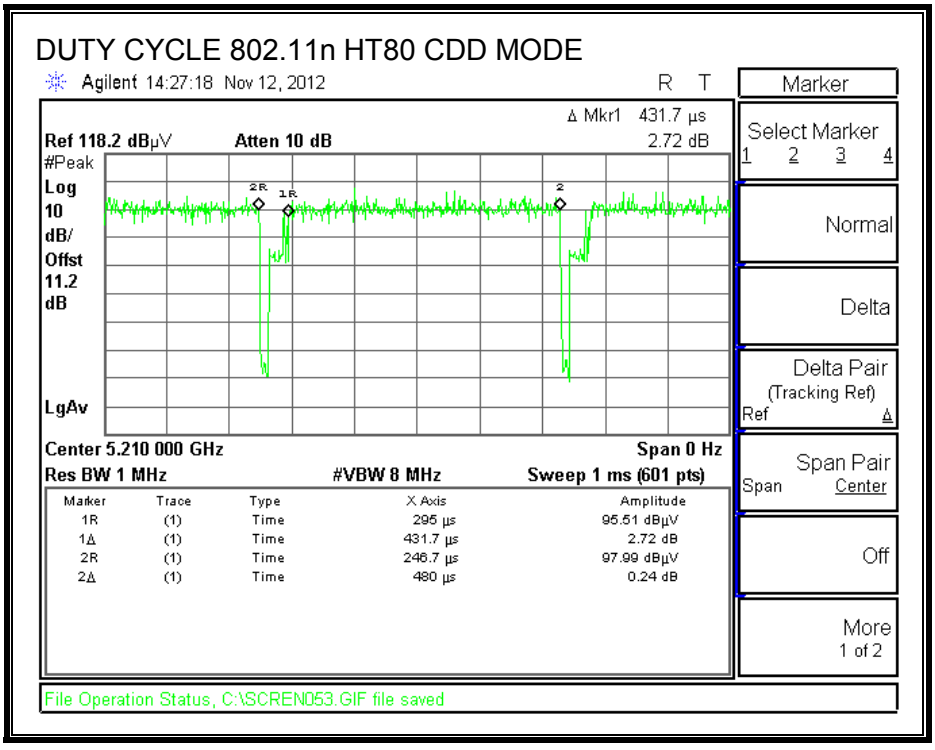
DUTY CYCLE 802.11n HT40 STBC MODE



DUTY CYCLE 802.11n HT80 SISO MODE



DUTY CYCLE 802.11n HT80 CDD MODE



8. ANTENNA PORT TEST RESULTS

8.1. 802.11a Legacy 1TX MODE, 5.2 GHz BAND

8.1.1. 26 dB BANDWIDTH

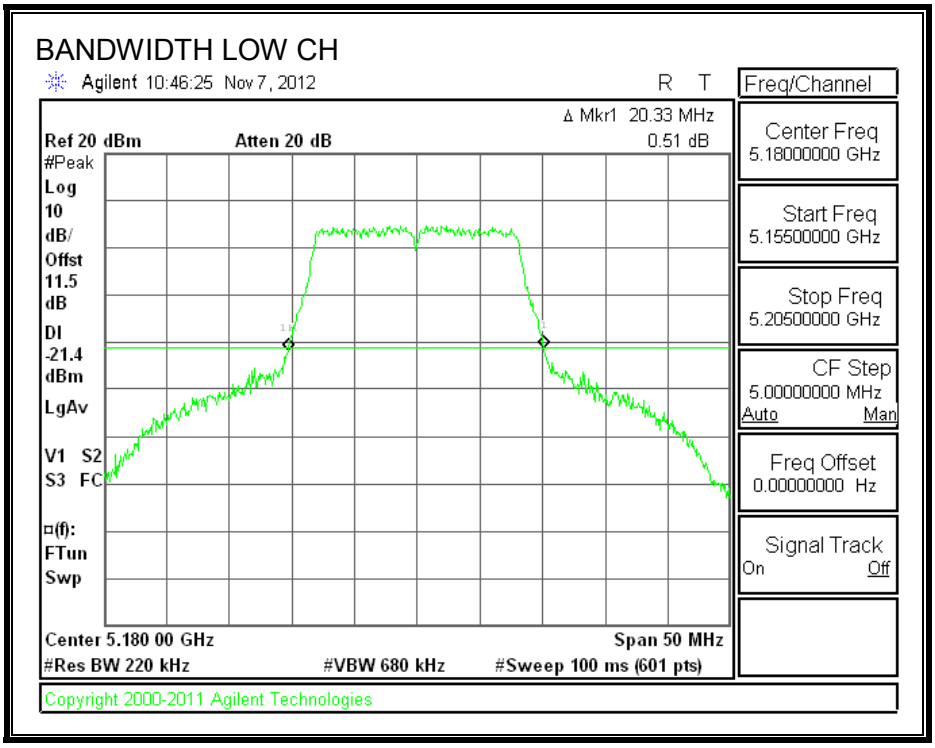
LIMITS

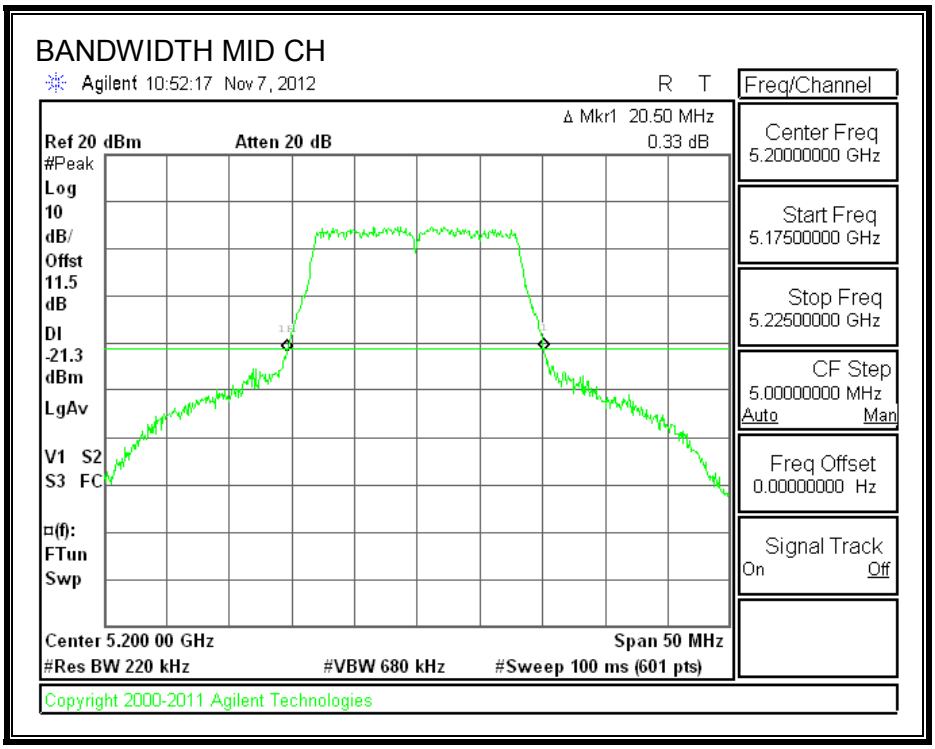
None; for reporting purposes only.

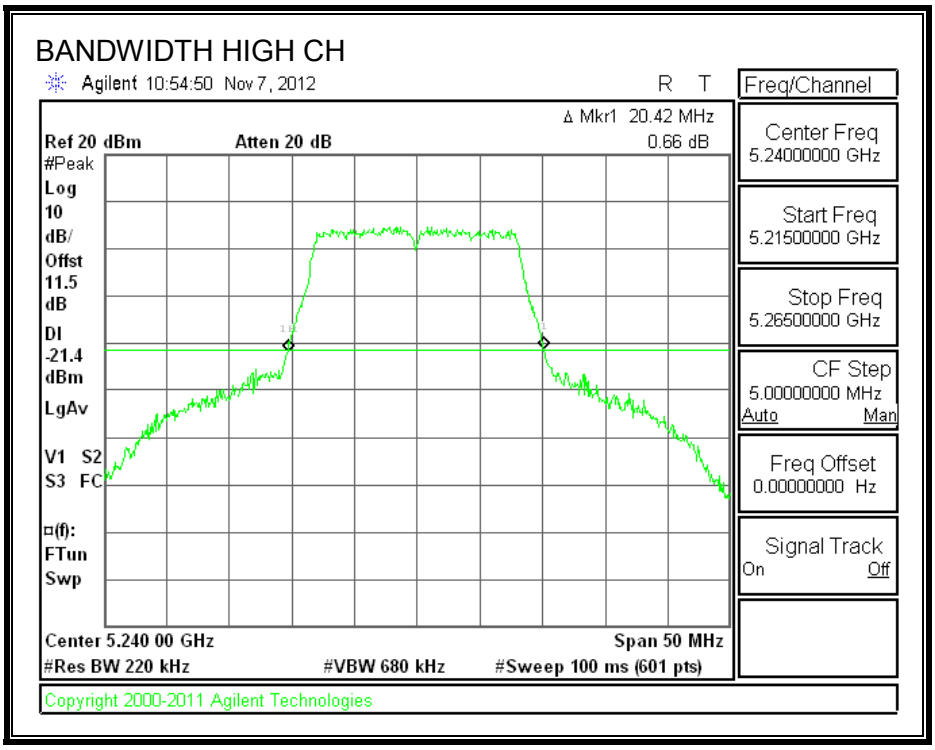
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	20.33
Mid	5200	20.50
High	5240	20.42

26 dB BANDWIDTH







8.1.2. 99% BANDWIDTH

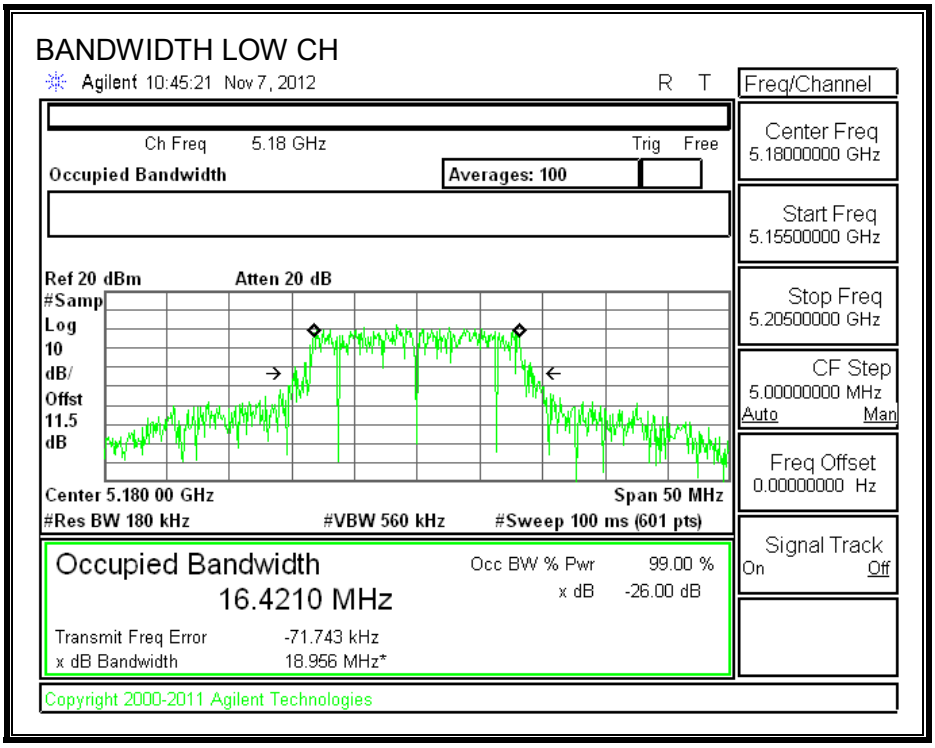
LIMITS

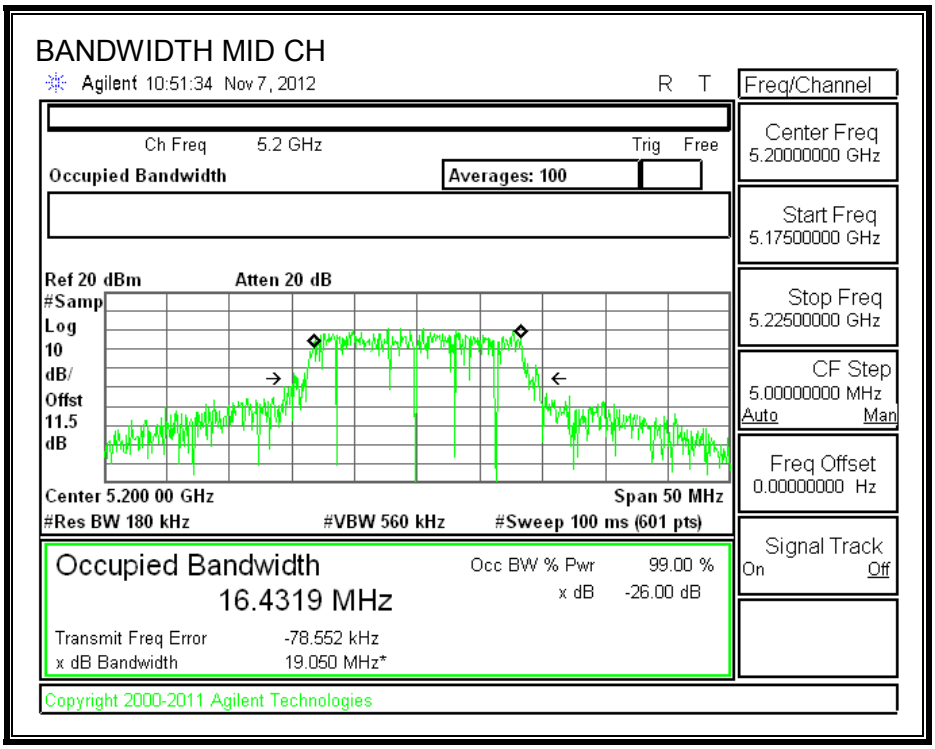
None; for reporting purposes only.

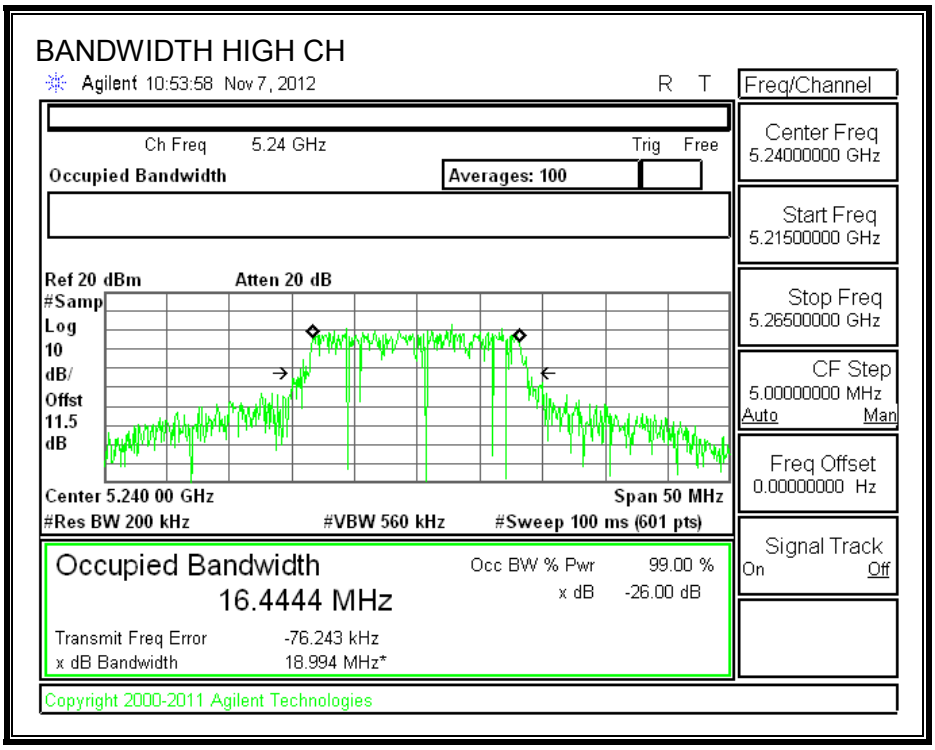
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	16.4210
Mid	5200	16.4319
High	5240	16.4444

99% BANDWIDTH







8.1.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Low	5180	20.33	16.4210	4.83
Mid	5200	20.50	16.4319	4.83
High	5240	20.42	16.4444	4.83

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)
Low	5180	17.00	22.15	17.32	17.00	4.00	10.00	4.00
Mid	5200	17.00	22.16	17.33	17.00	4.00	10.00	4.00
High	5240	17.00	22.16	17.33	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

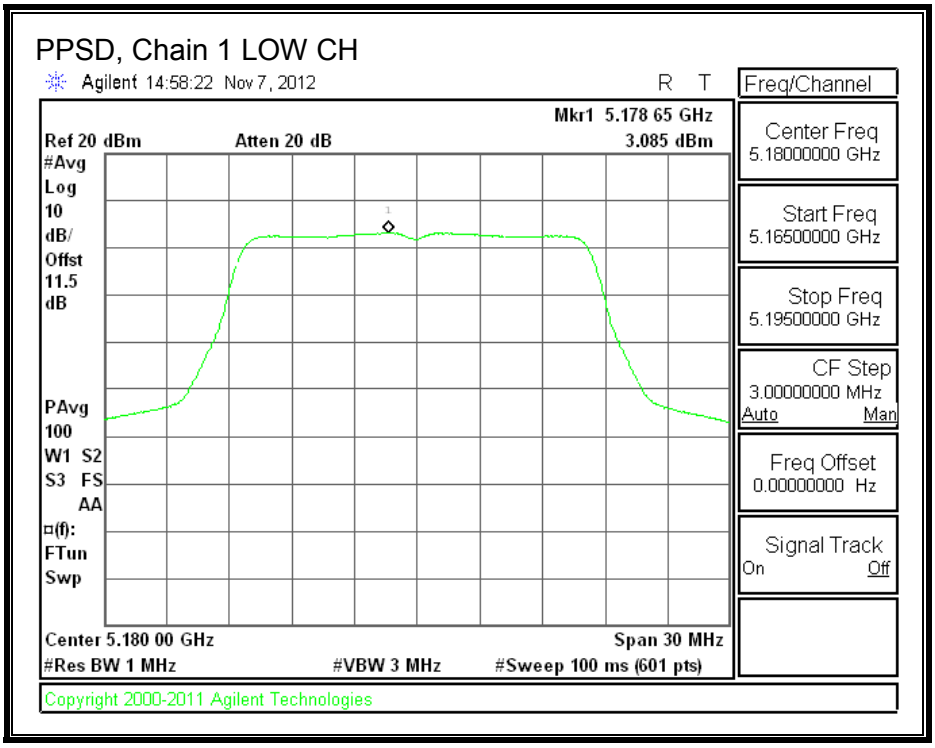
Output Power Results

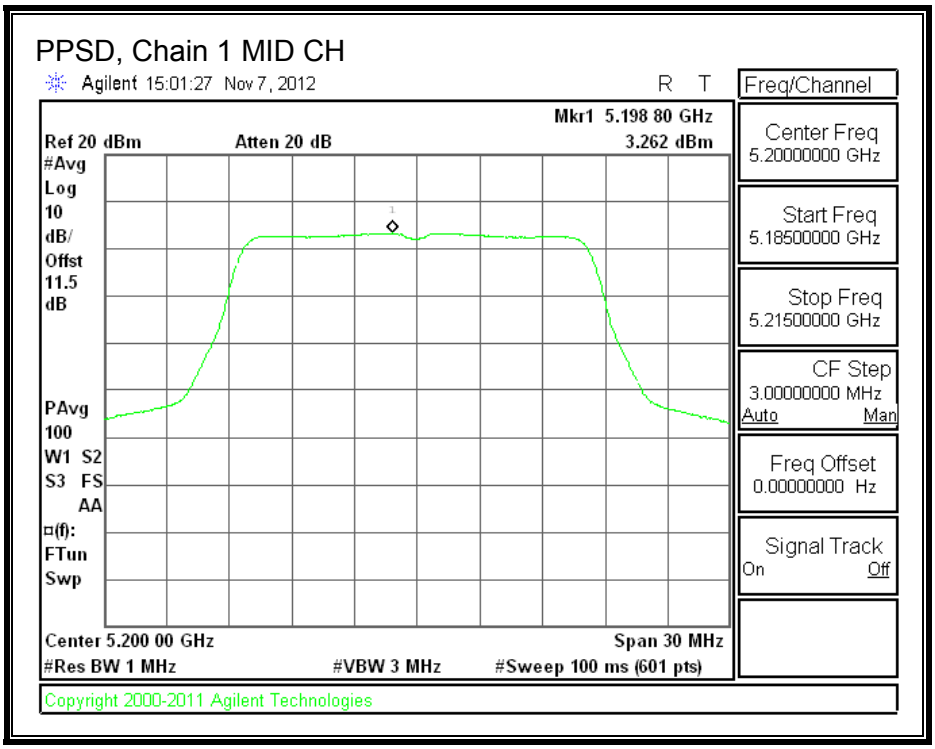
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	14.65	14.65	17.00	-2.35
Mid	5200	14.51	14.51	17.00	-2.49
High	5240	14.45	14.45	17.00	-2.55

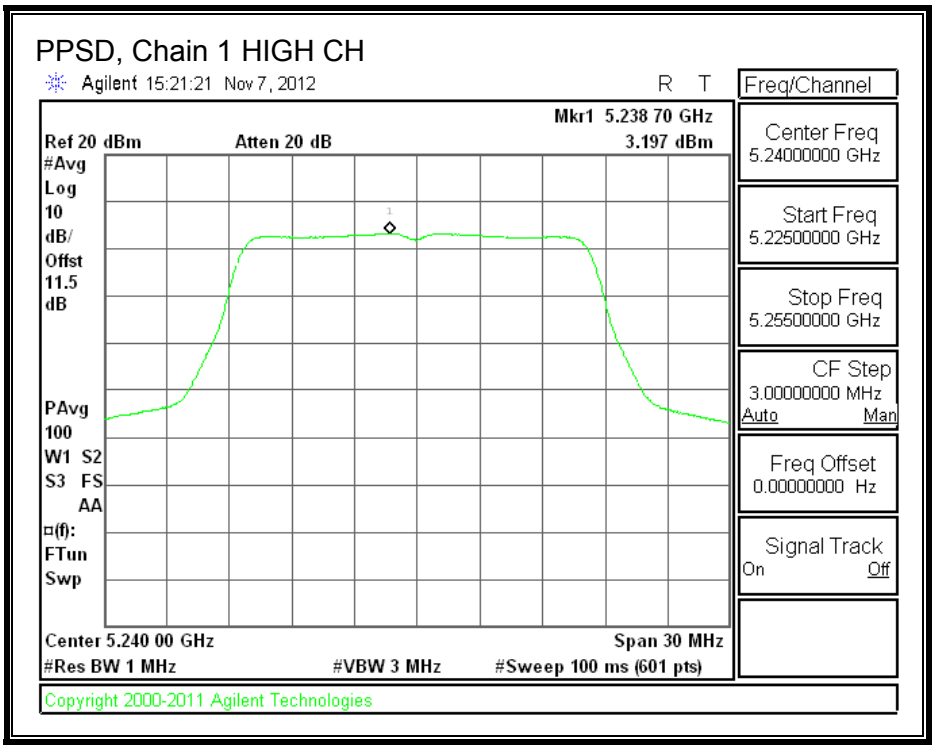
PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	3.085	3.085	4.00	-0.915
Mid	5200	3.262	3.262	4.00	-0.738
High	5240	3.197	3.197	4.00	-0.803

PPSD, Chain 1







8.1.4. PEAK EXCURSION

LIMITS

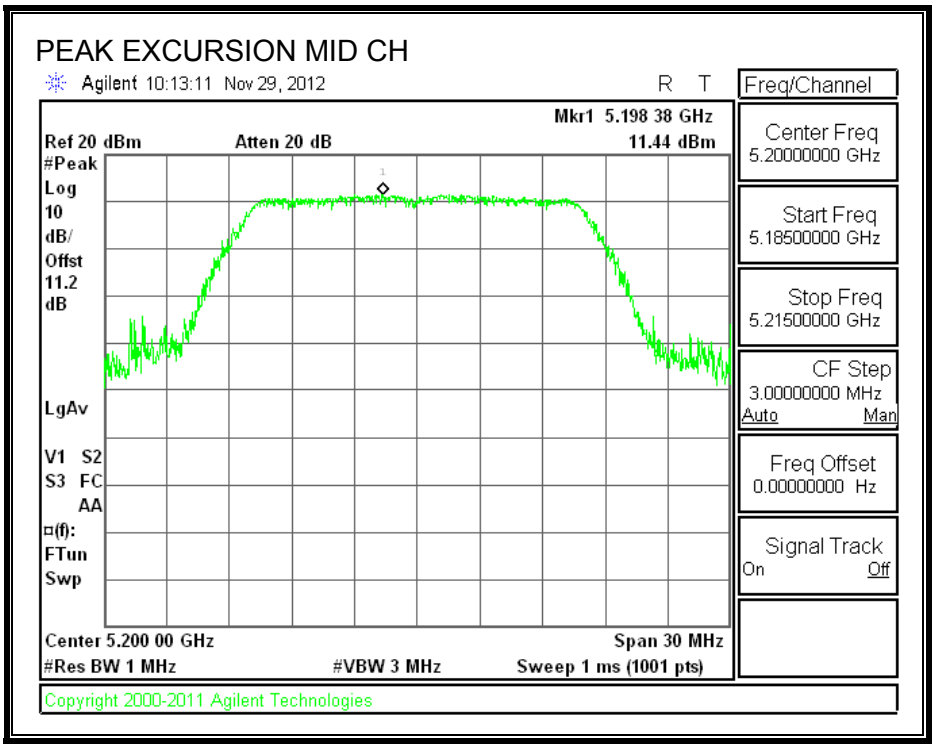
FCC §15.407 (a) (6)

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)
Mid	5200	11.44	3.262	0.00	8.178	13	-4.822

PEAK EXCURSION



8.2. 802.11n HT20 STBC 3TX MODE, 5.2 GHz BAND

8.2.1. 26 dB BANDWIDTH

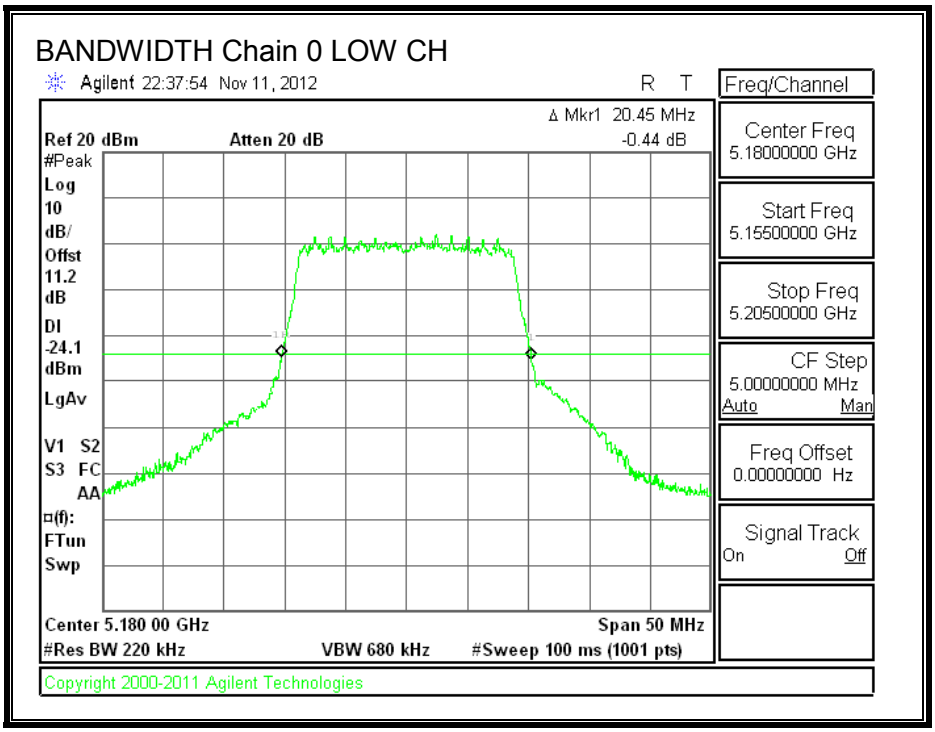
LIMITS

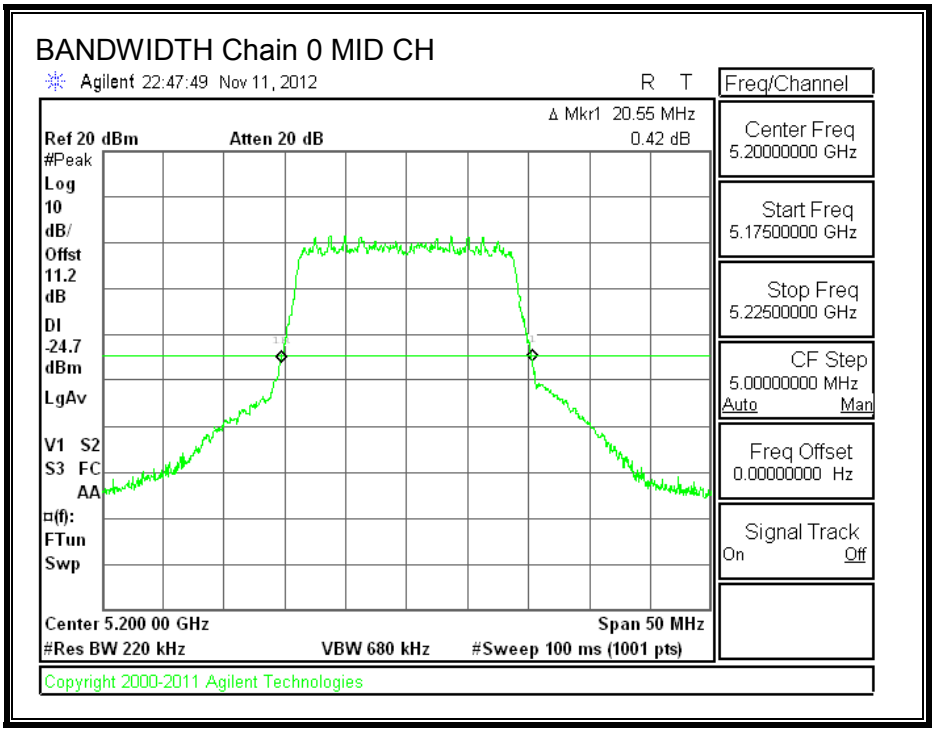
None; for reporting purposes only.

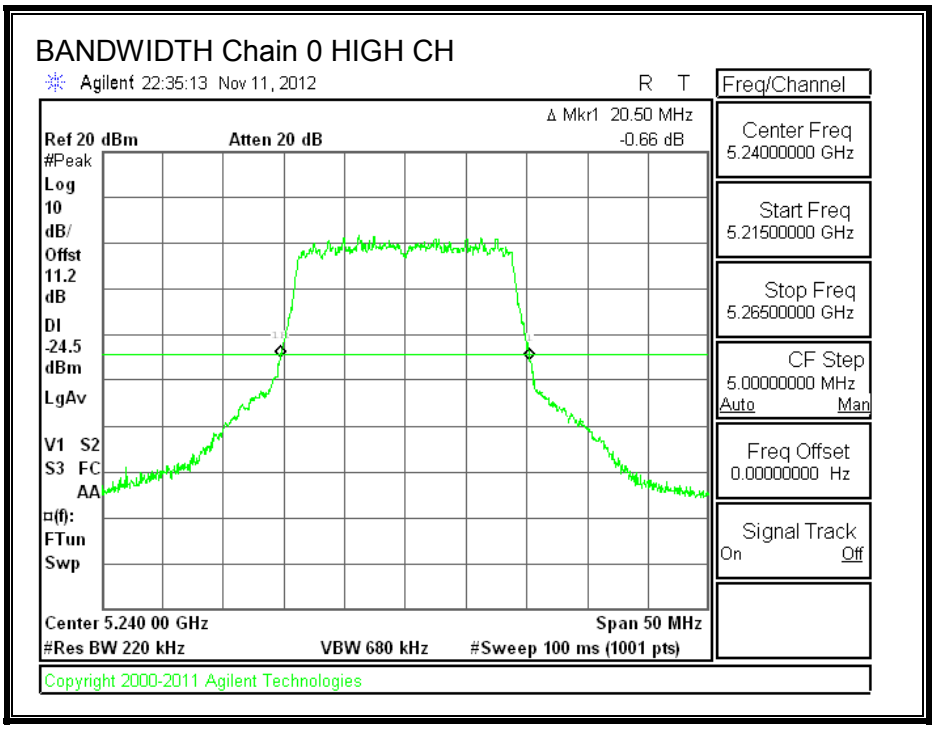
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5180	20.45	20.40	20.40
Mid	5200	20.55	20.45	20.40
High	5240	20.50	20.35	20.40

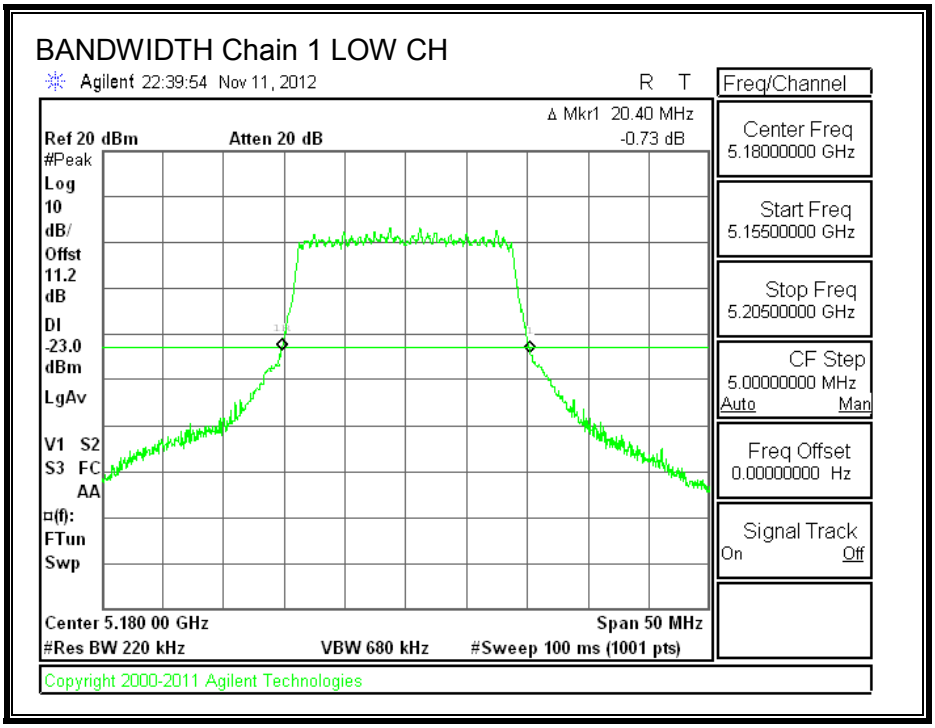
26 dB BANDWIDTH, Chain 0



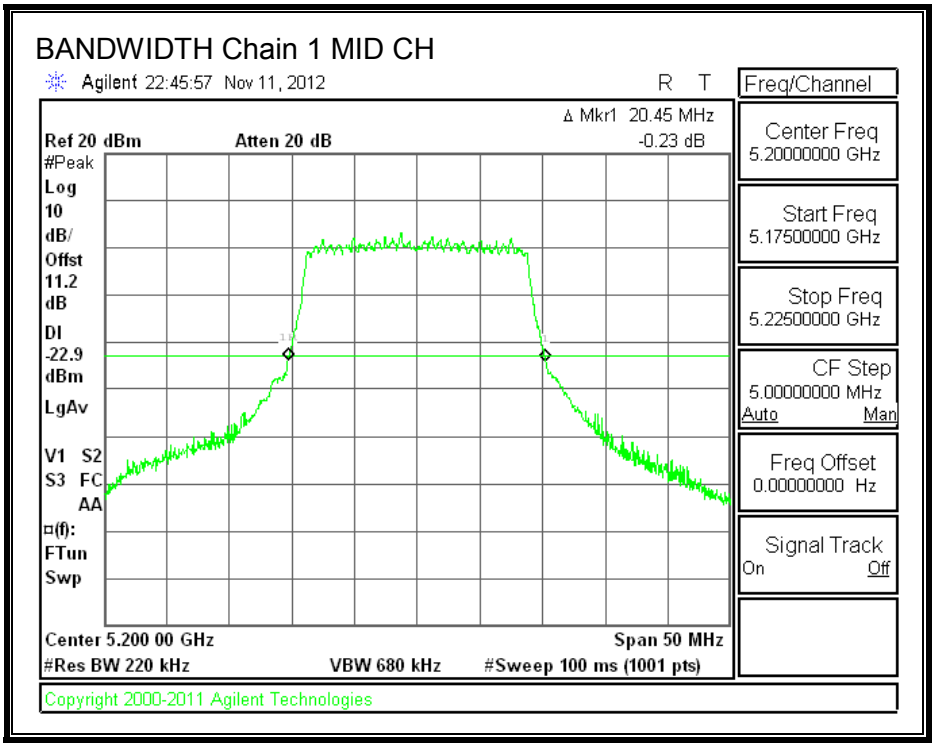




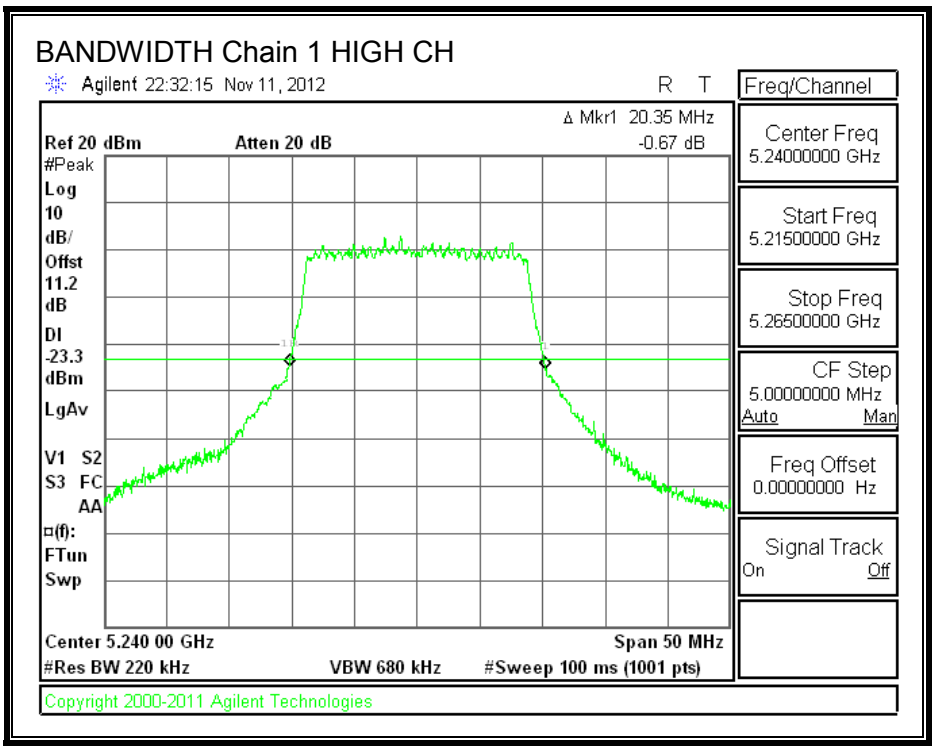
26 dB BANDWIDTH, Chain 1



BANDWIDTH Chain 1 MID CH

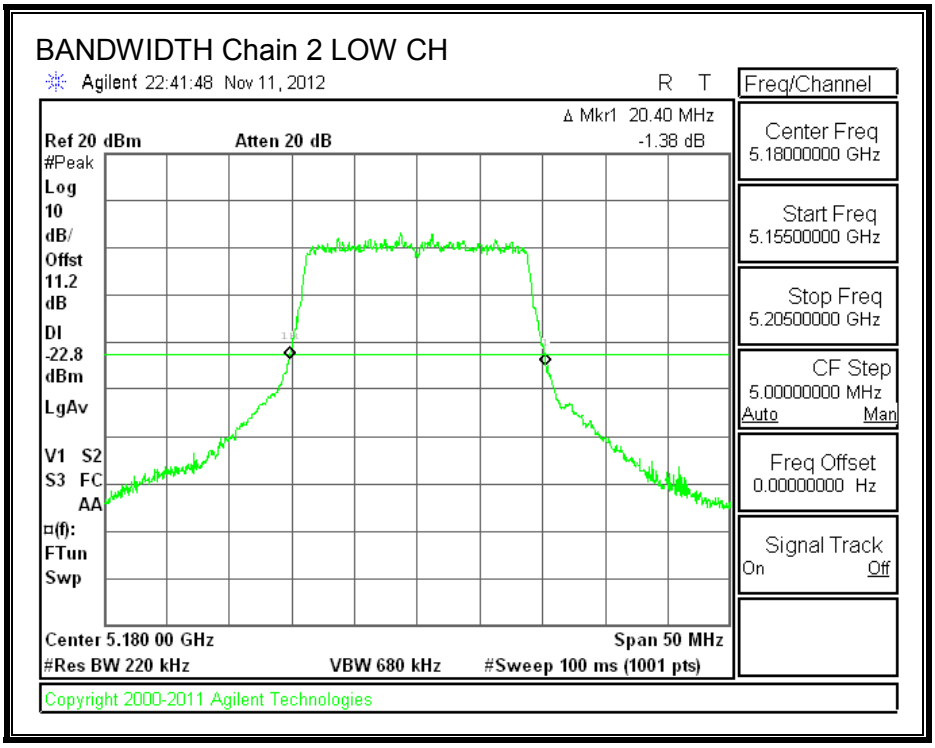


BANDWIDTH Chain 1 HIGH CH

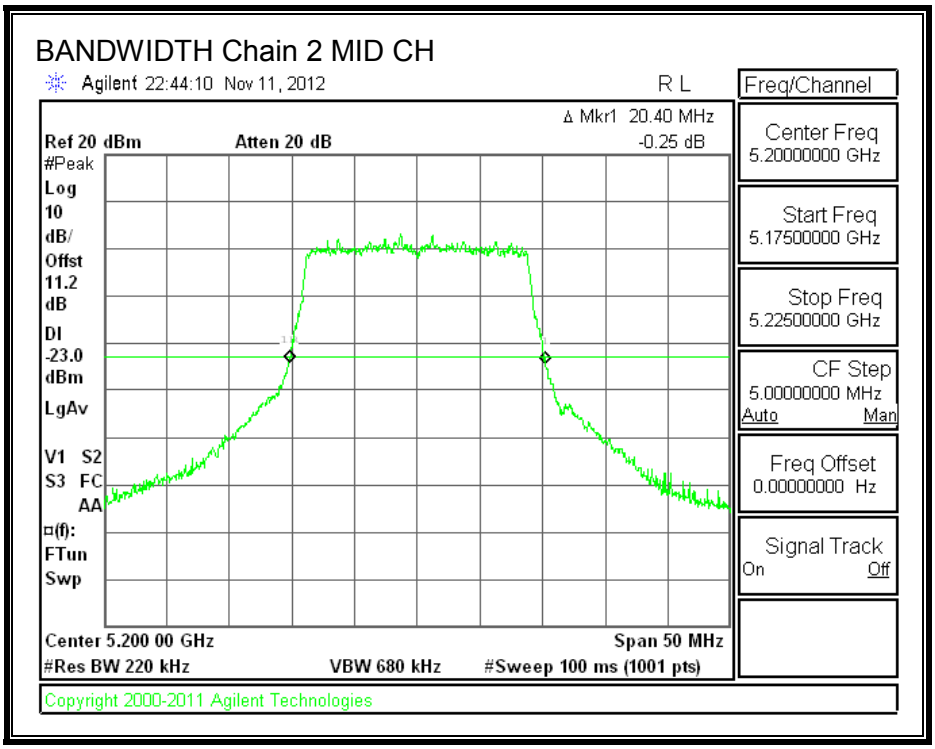


26 dB BANDWIDTH, Chain 2

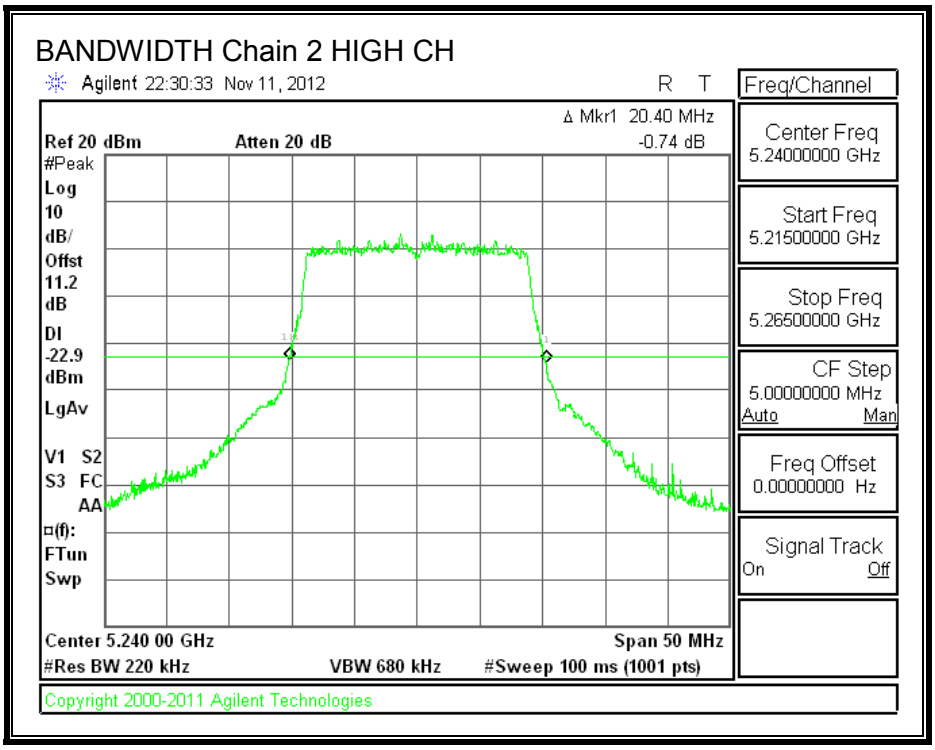
BANDWIDTH Chain 2 LOW CH



BANDWIDTH Chain 2 MID CH



BANDWIDTH Chain 2 HIGH CH



8.2.2. 99% BANDWIDTH

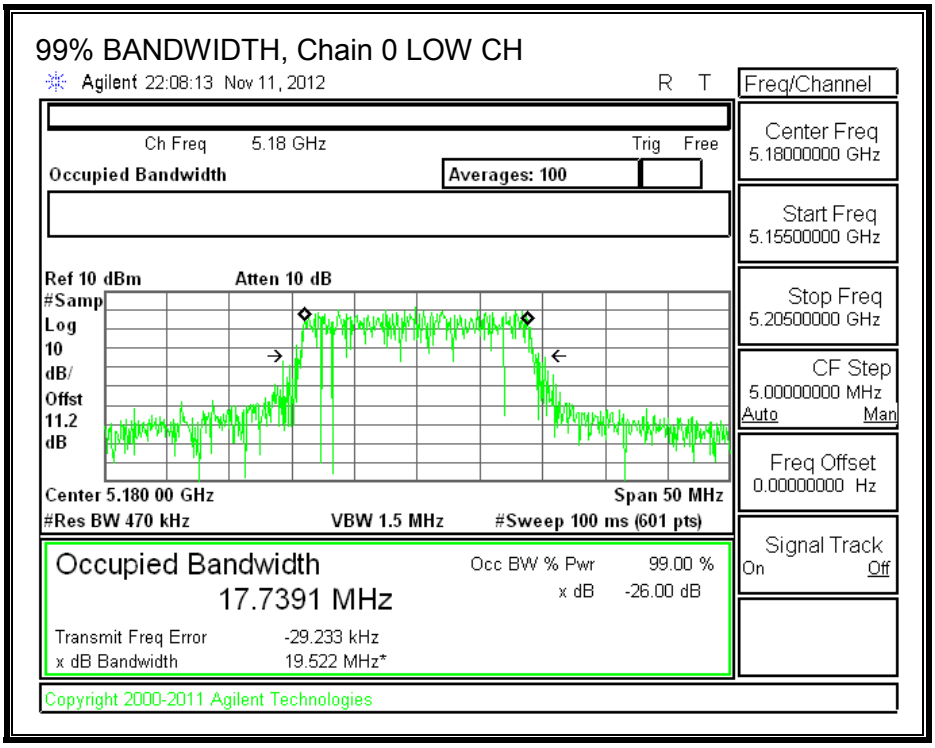
LIMITS

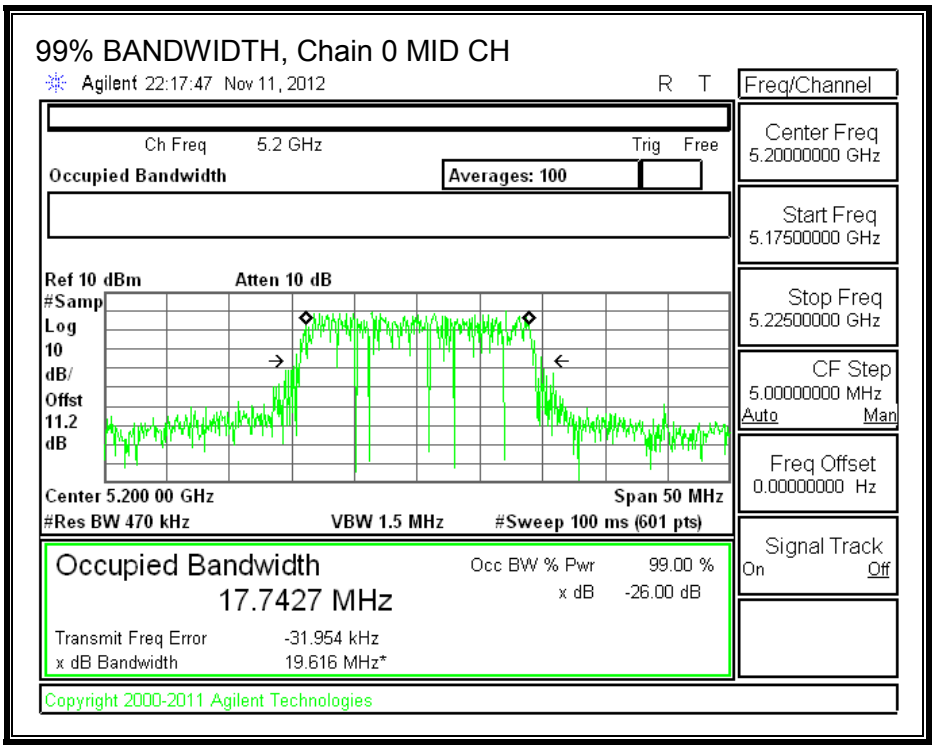
None; for reporting purposes only.

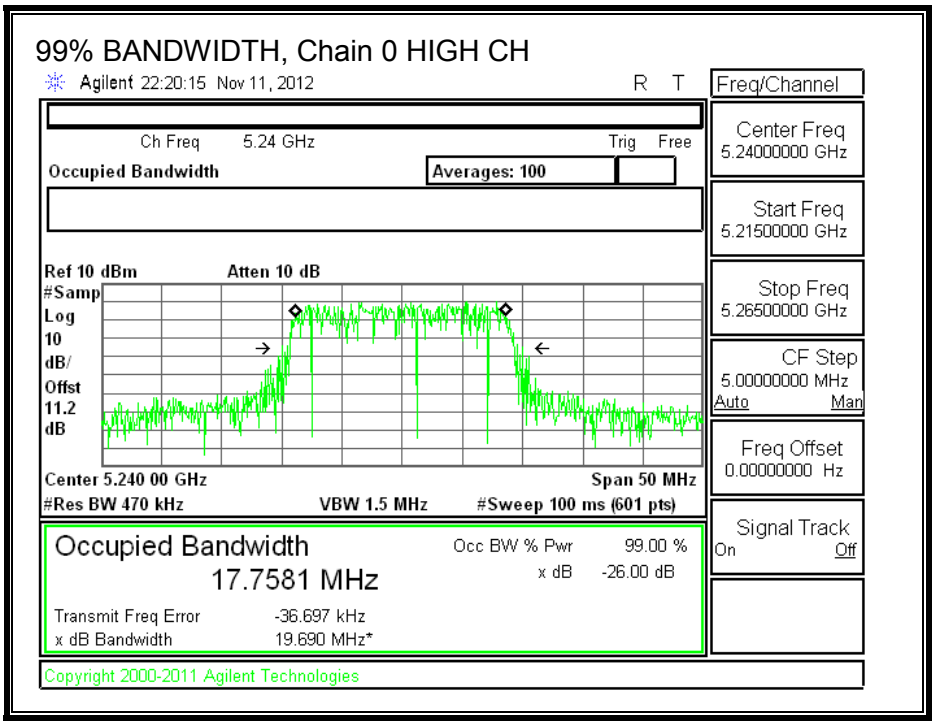
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5180	17.7391	17.7258	17.7221
Mid	5200	17.7427	17.7478	17.7256
High	5240	17.7581	17.7281	17.7330

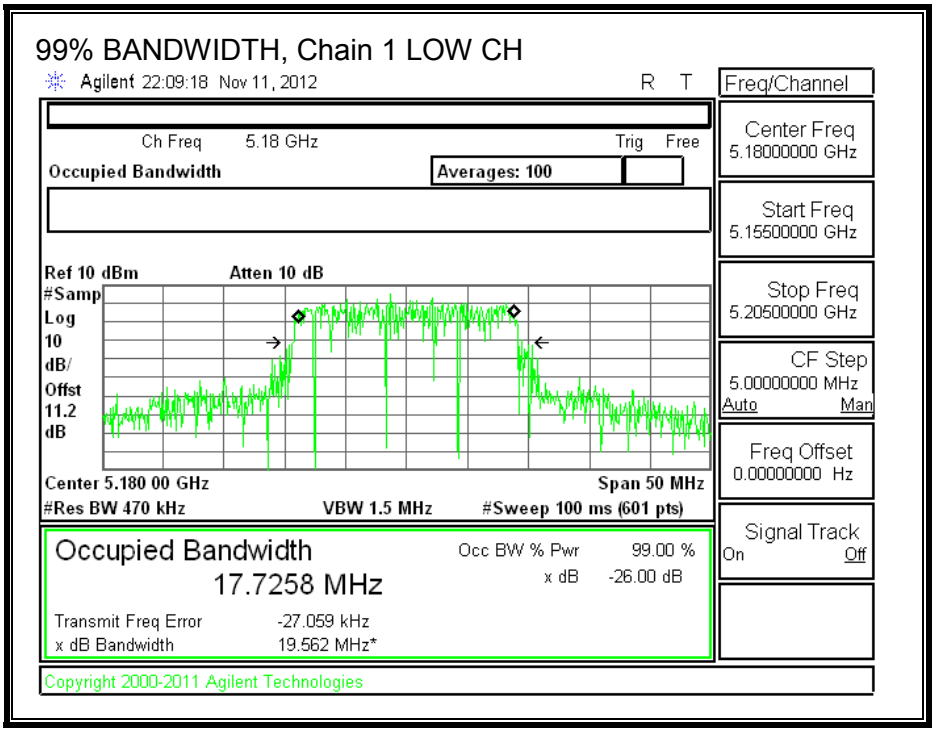
99% BANDWIDTH, Chain 0



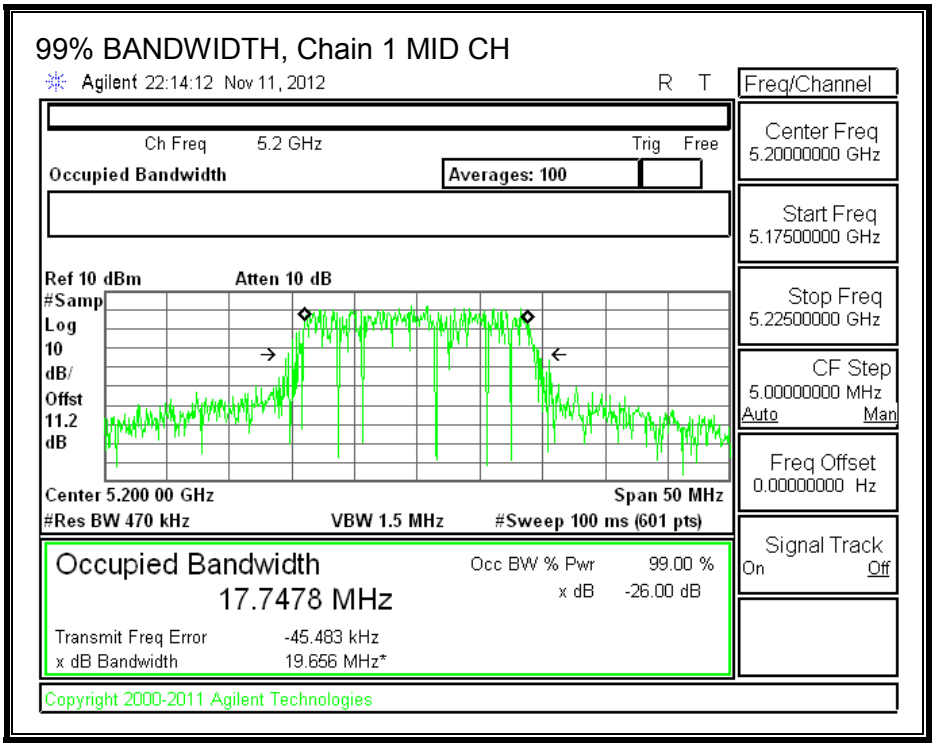




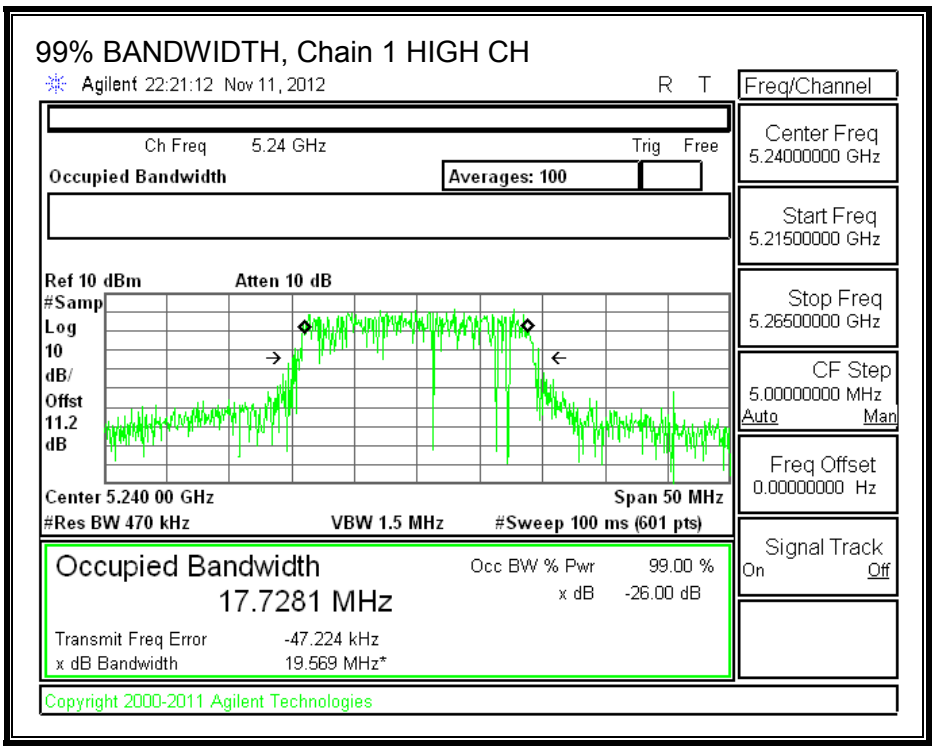
99% BANDWIDTH, Chain 1



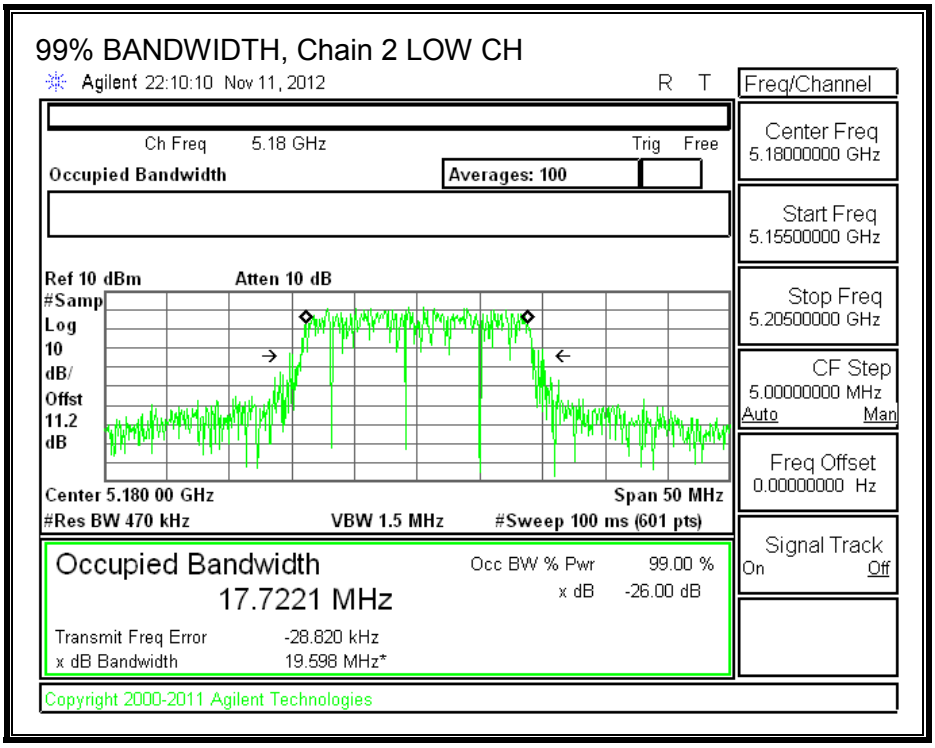
99% BANDWIDTH, Chain 1 MID CH

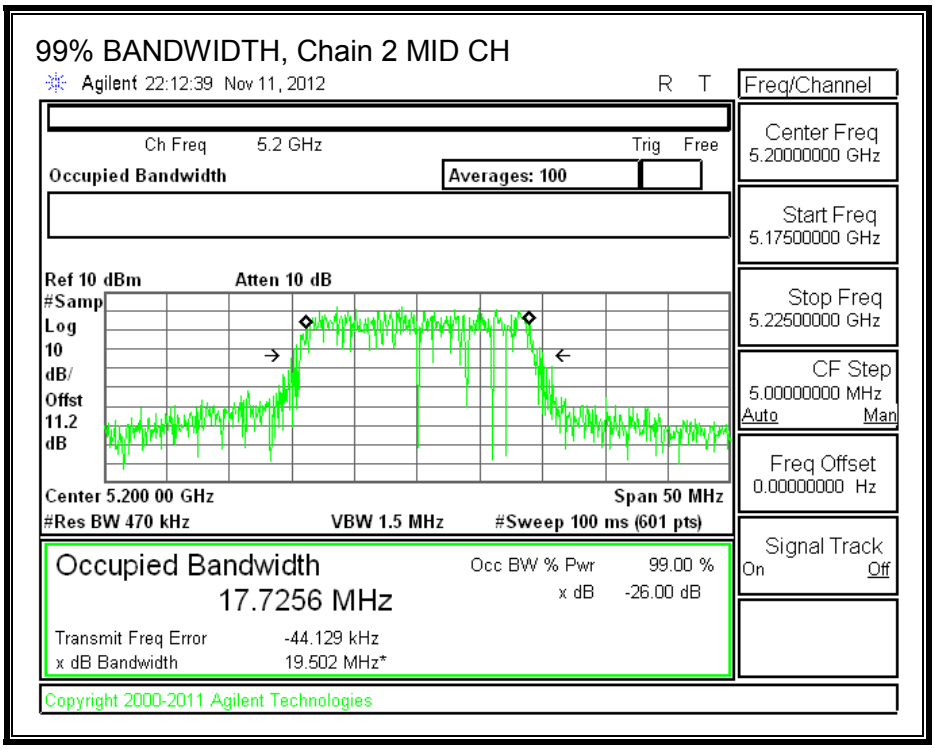


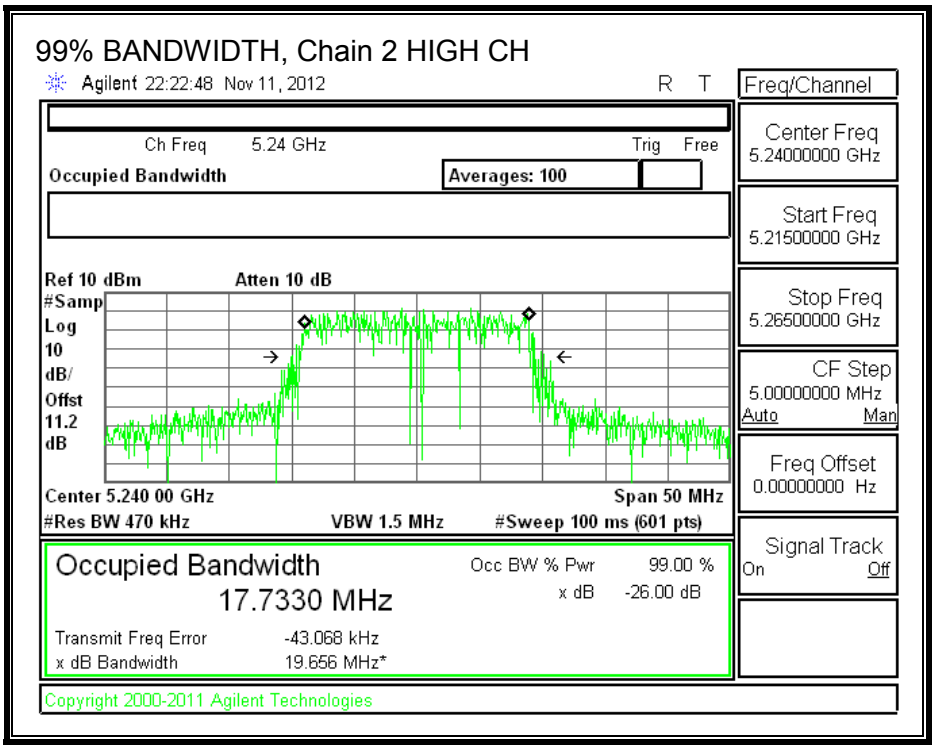
99% BANDWIDTH, Chain 1 HIGH CH



99% BANDWIDTH, Chain 2







8.2.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

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)
4.83	2.84	1.18	3.21

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	20.40	17.7221	3.21
Mid	5200	20.40	17.7256	3.21
High	5240	20.35	17.7281	3.21

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)
Low	5180	17.00	22.49	19.28	17.00	4.00	10.00	4.00
Mid	5200	17.00	22.49	19.28	17.00	4.00	10.00	4.00
High	5240	17.00	22.49	19.28	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

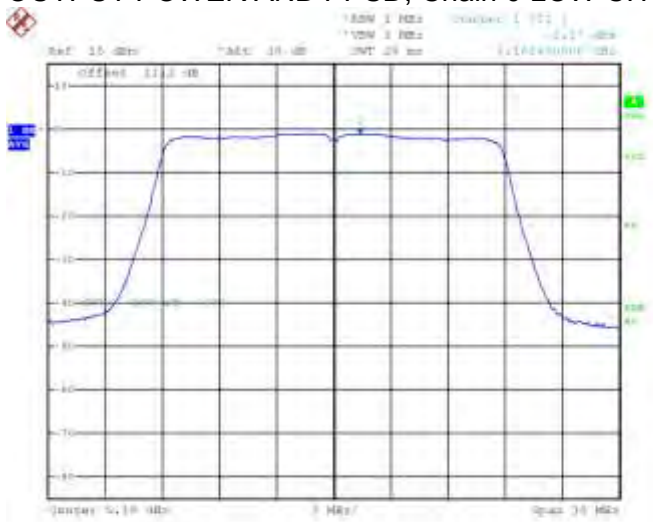
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	12.20	12.21	12.03	16.92	17.00	-0.08
Mid	5200	11.81	11.71	11.78	16.54	17.00	-0.46
High	5240	12.05	12.34	12.07	16.93	17.00	-0.07

PPSD Results

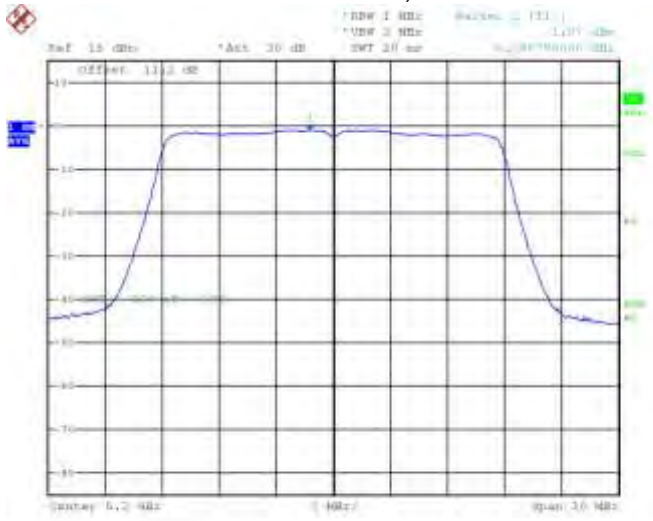
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	-1.17	-0.57	-0.79	3.93	4.00	-0.07
Mid	5200	-1.07	-1.02	-0.93	3.76	4.00	-0.24
High	5240	-1.60	-0.89	-1.01	3.62	4.00	-0.38

OUTPUT POWER AND PPSD, Chain 0

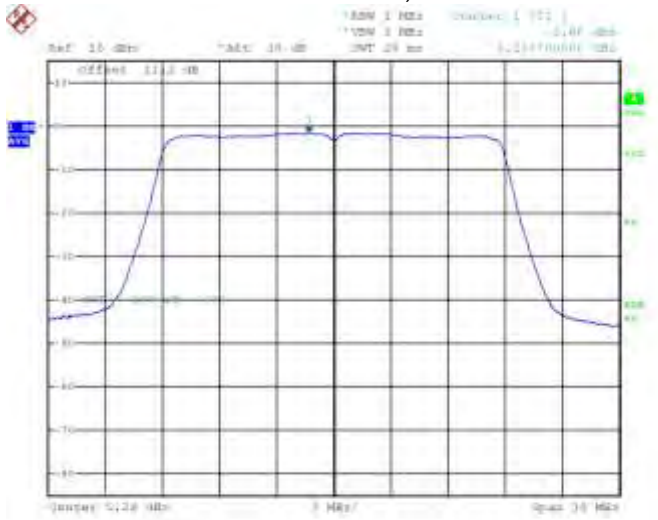
OUTPUT POWER AND PPSD, Chain 0 LOW CH



OUTPUT POWER AND PPSD, Chain 0 MID CH

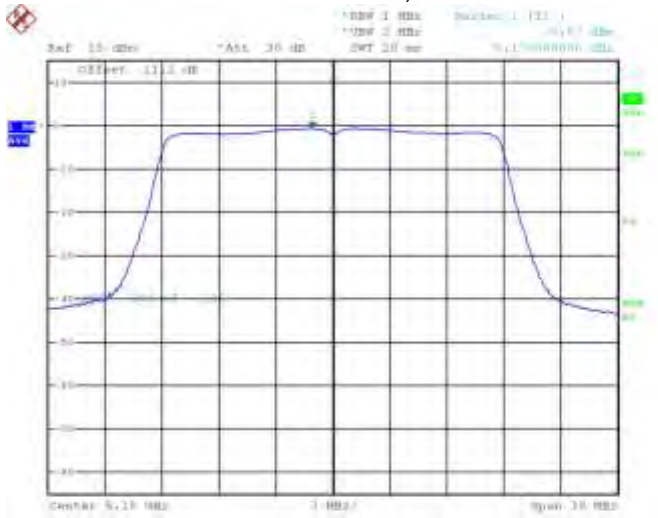


OUTPUT POWER AND PPSD, Chain 0 HIGH CH

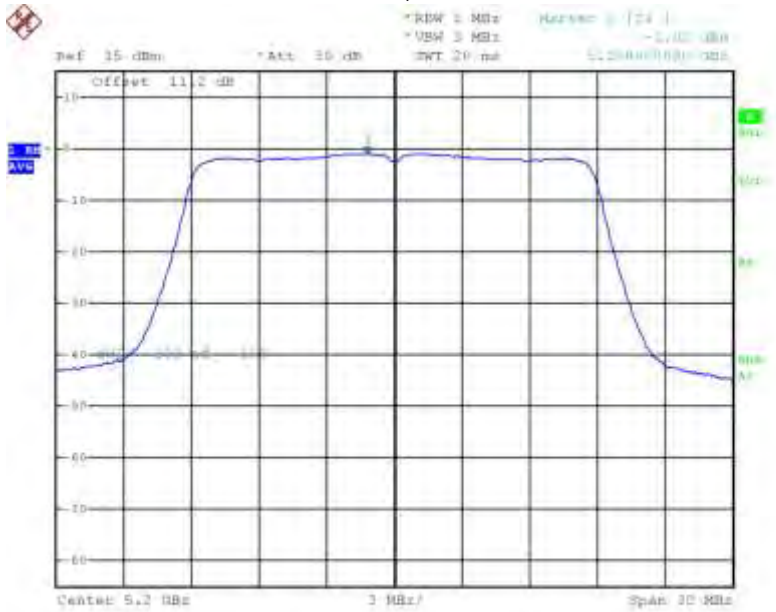


OUTPUT POWER AND PPSD, Chain 1

OUTPUT POWER AND PPSD, Chain 1 LOW CH



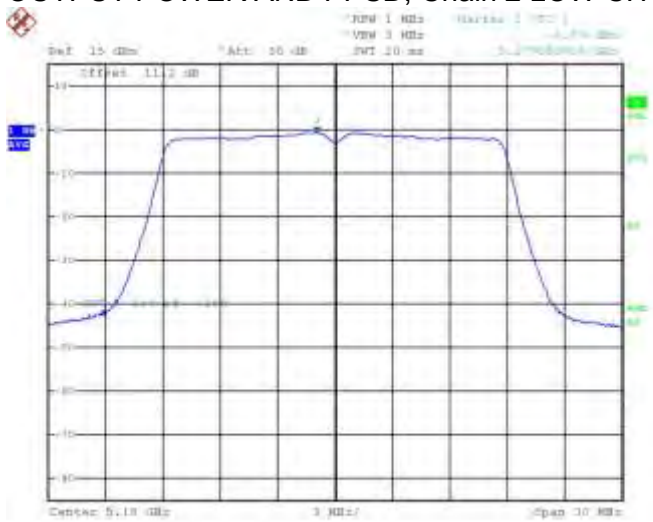
OUTPUT POWER AND PPSD, Chain 1 MID CH



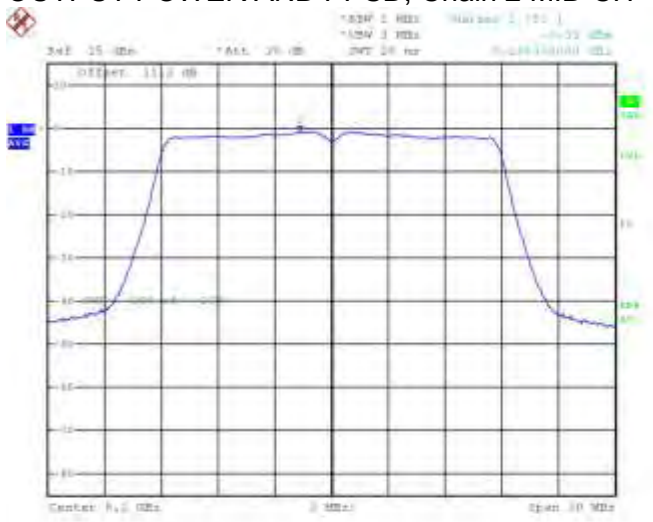
OUTPUT POWER AND PPSD, Chain 1 HIGH CH

OUTPUT POWER AND PPSD, Chain 2

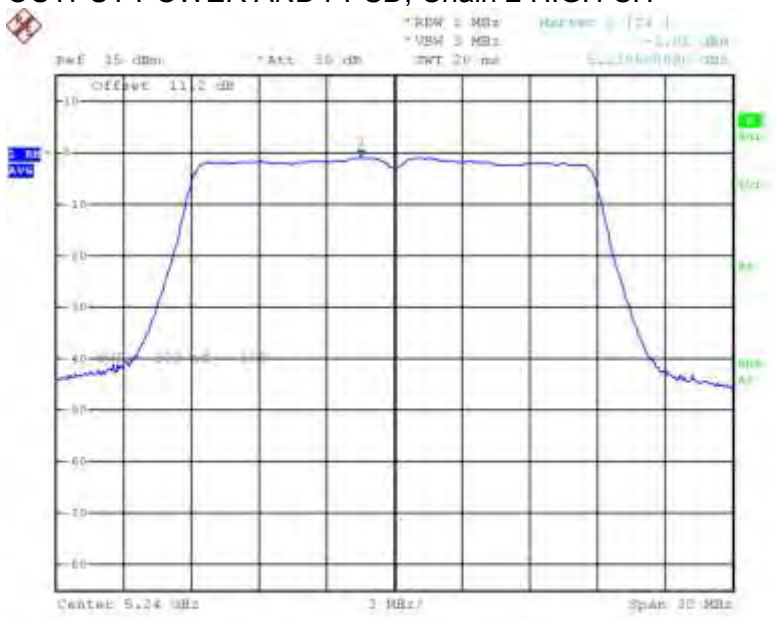
OUTPUT POWER AND PPSD, Chain 2 LOW CH



OUTPUT POWER AND PPSD, Chain 2 MID CH



OUTPUT POWER AND PPSD, Chain 2 HIGH CH



8.2.4. 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)
Mid	5200	7.58	-1.07	0.00	8.65	13	-4.35

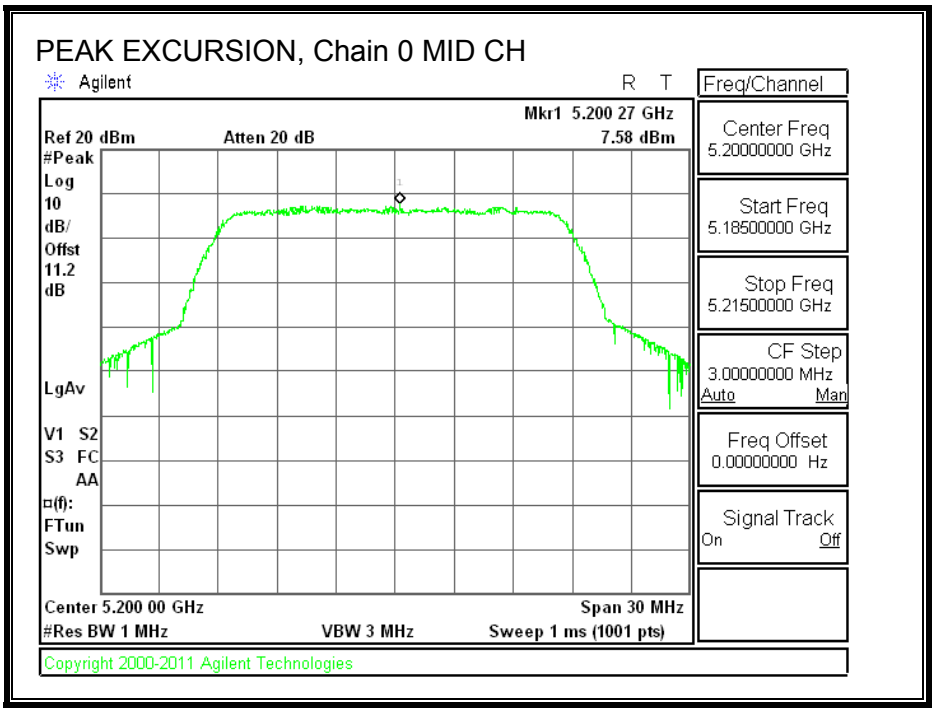
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5200	10.00	-1.02	0.00	11.02	13	-1.98

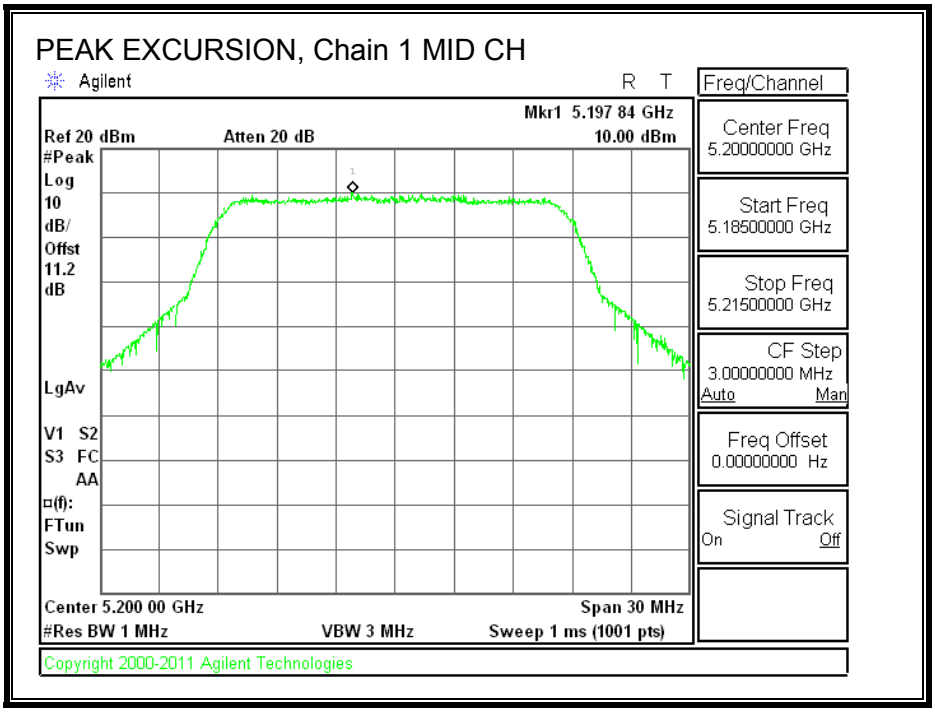
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5200	9.40	-0.93	0.00	10.33	13	-2.67

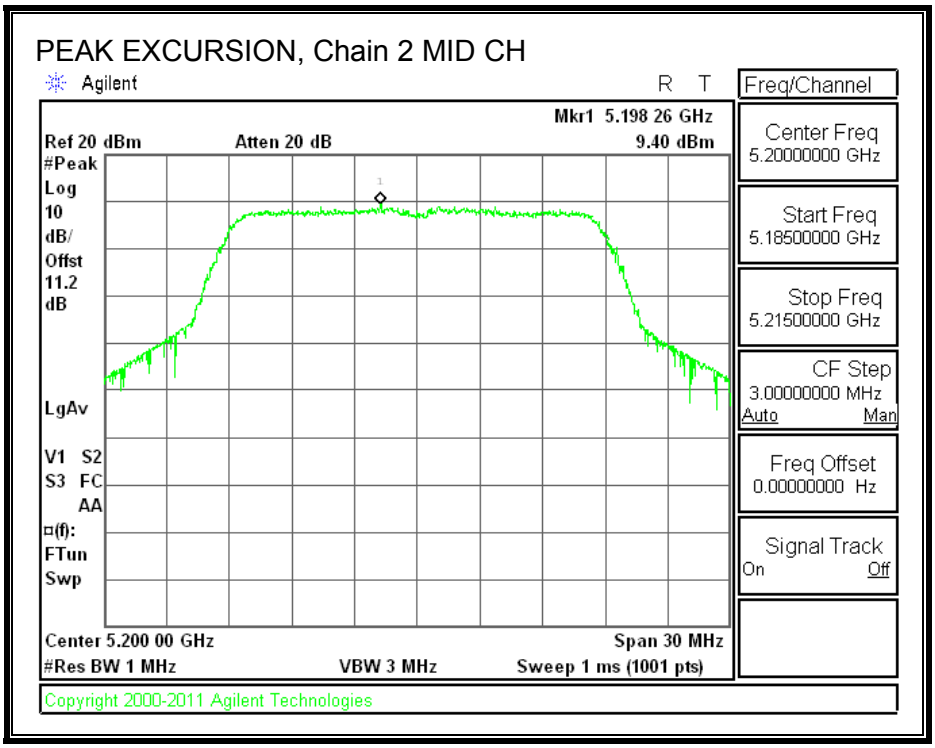
PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



PEAK EXCURSION, Chain 2



8.3. 802.11n HT40 1TX MODE, 5.2 GHz BAND

8.3.1. 26 dB BANDWIDTH

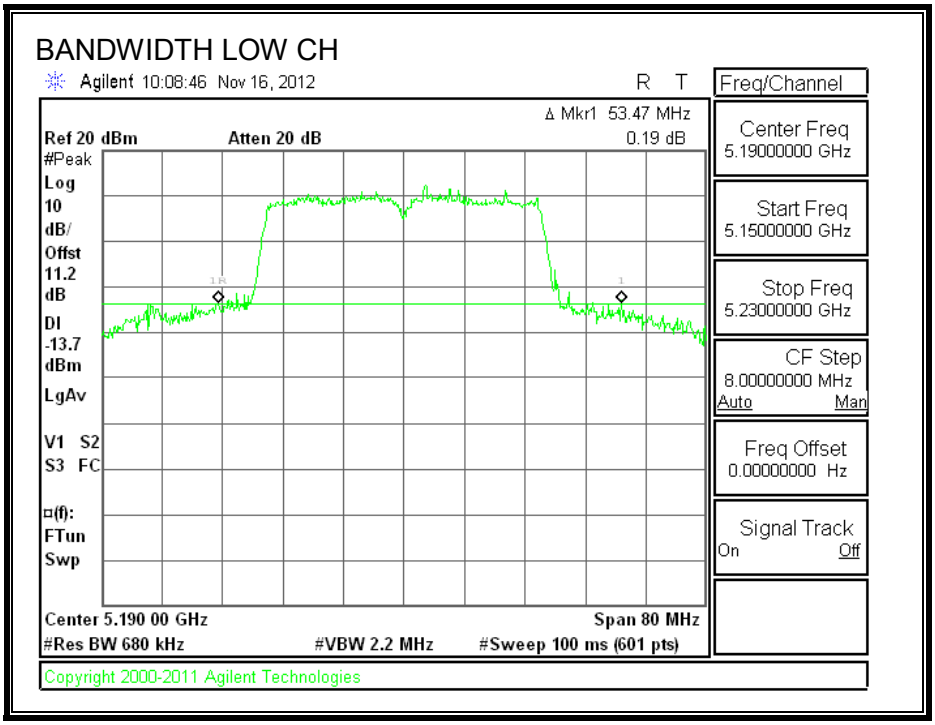
LIMITS

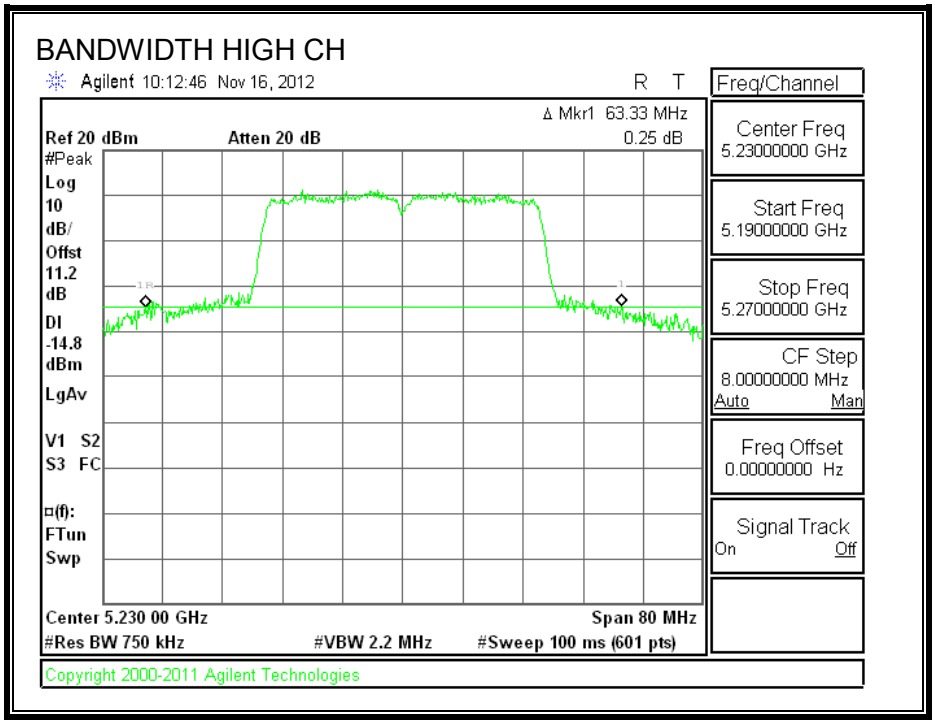
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5190	53.47
High	5230	63.33

26 dB BANDWIDTH





8.3.2. 99% BANDWIDTH

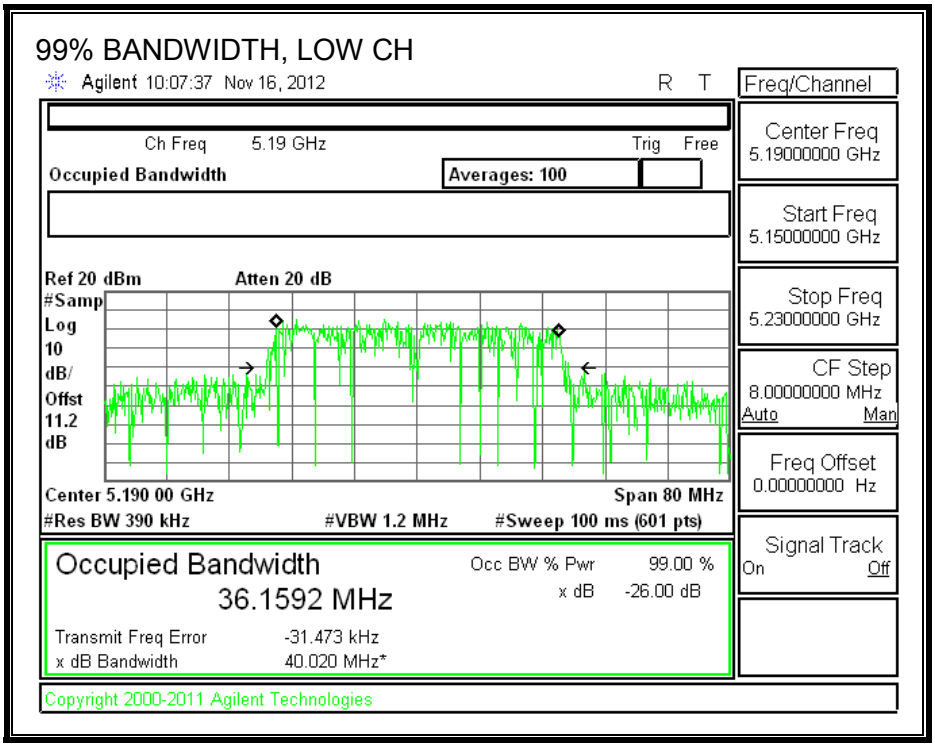
LIMITS

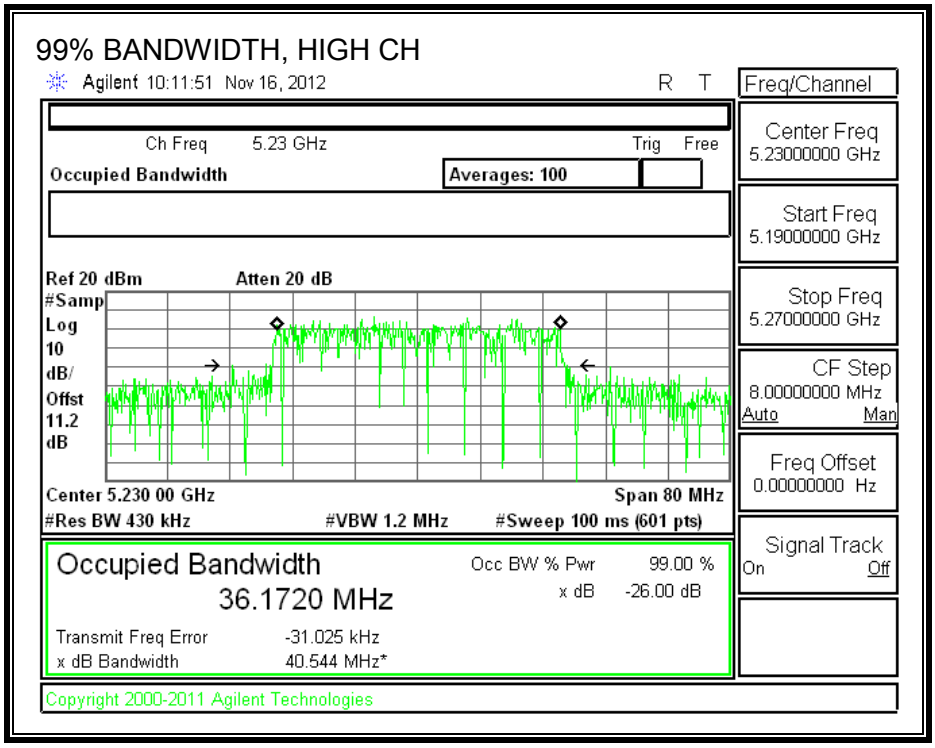
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	36.1592
High	5230	36.1720

99% BANDWIDTH





8.3.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Low	5190	53.47	36.1592	4.83
High	5230	63.33	36.1720	4.83

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)
Low	5190	17.00	23.00	18.17	17.00	4.00	10.00	4.00
High	5230	17.00	23.00	18.17	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd PPSD

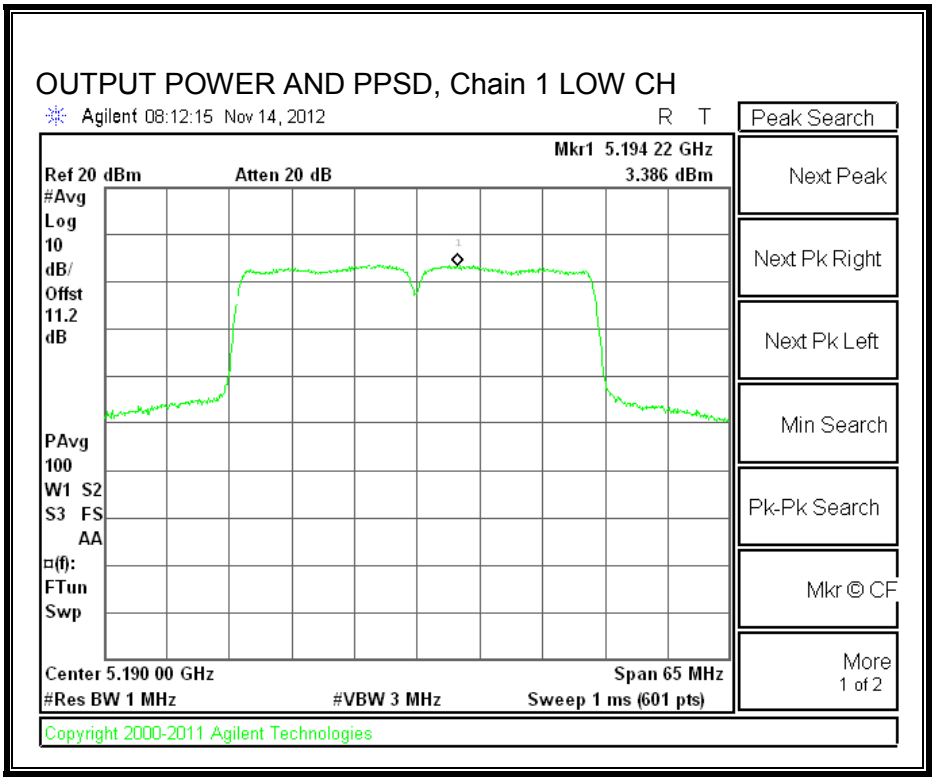
Output Power Results

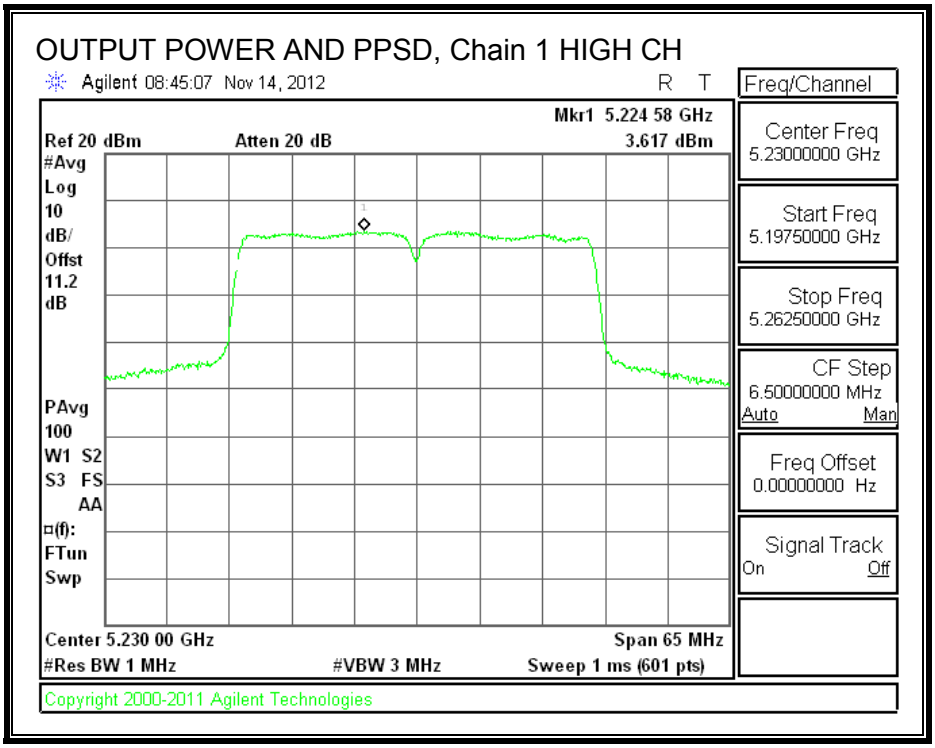
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	14.61	14.61	17.00	-2.39
High	5230	16.53	16.53	17.00	-0.47

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	3.386	3.616	4.00	-0.384
High	5230	3.617	3.847	4.00	-0.153

OUTPUT POWER AND PPSD, Chain 1





8.3.4. PEAK EXCURSION

LIMITS

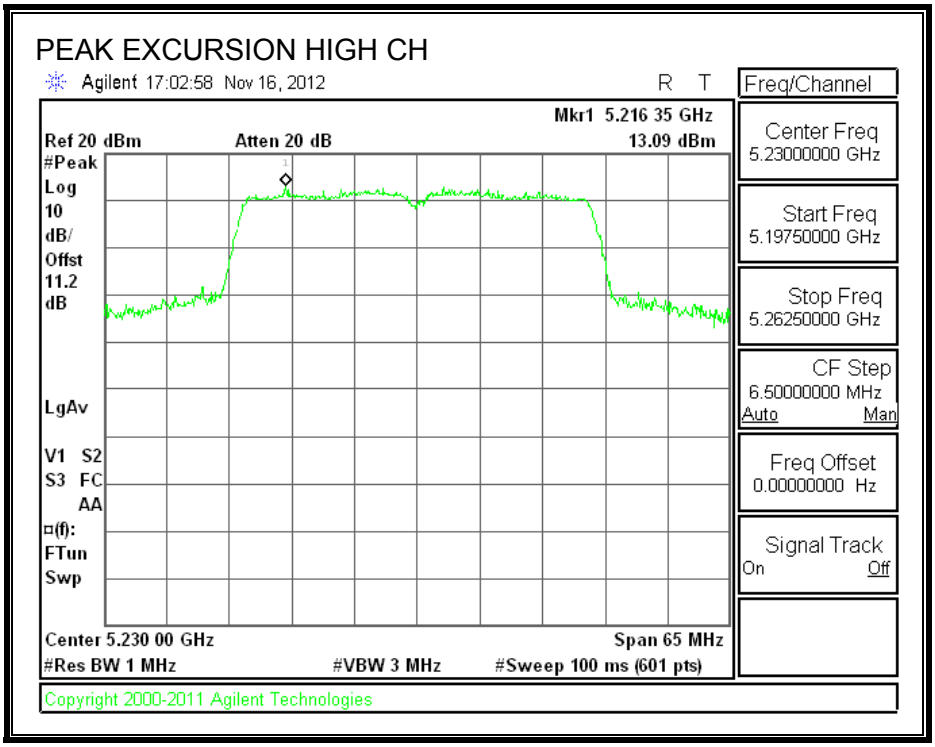
FCC §15.407 (a) (6)

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)
High	5230	13.09	3.617	0.23	9.243	13	-3.757

PEAK EXCURSION



8.4. 802.11n HT40 CDD 3TX MODE, 5.2 GHz BAND

8.4.1. 26 dB BANDWIDTH

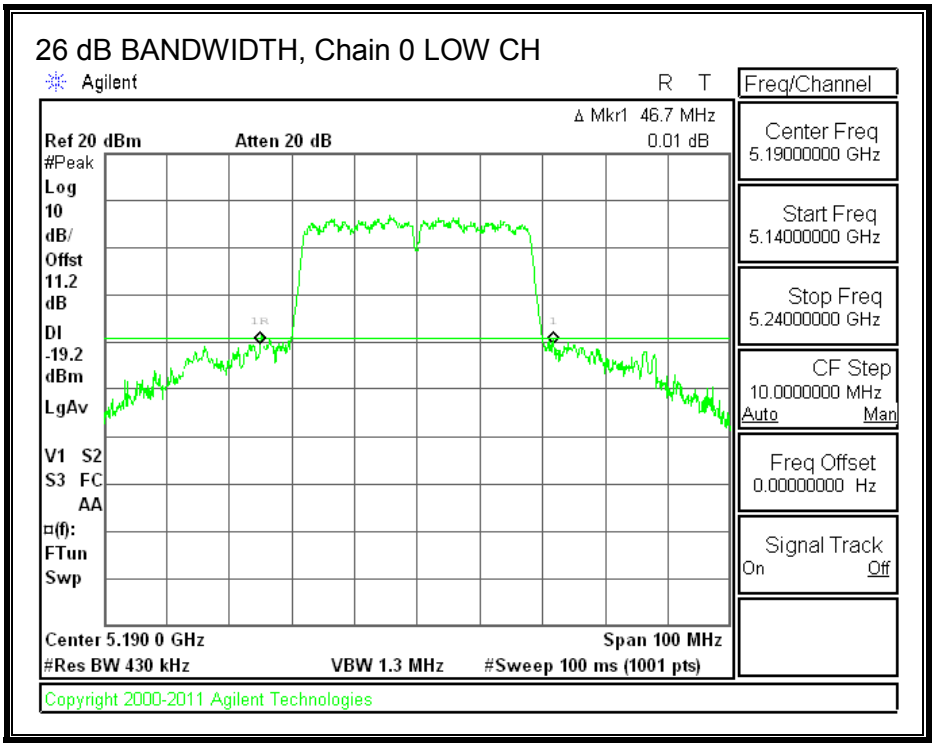
LIMITS

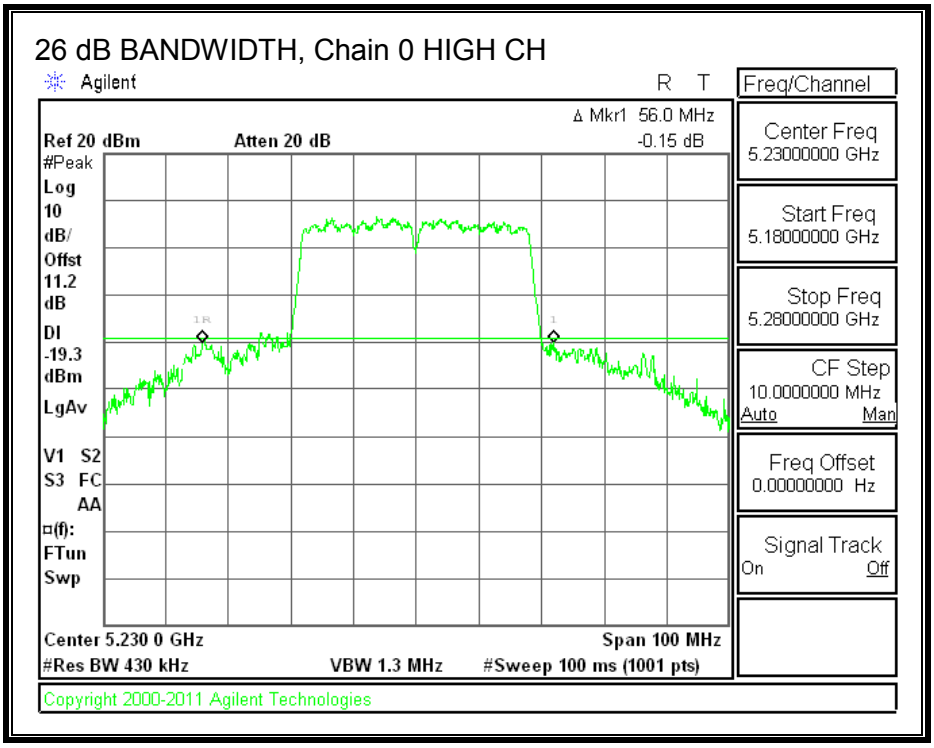
None; for reporting purposes only.

RESULTS

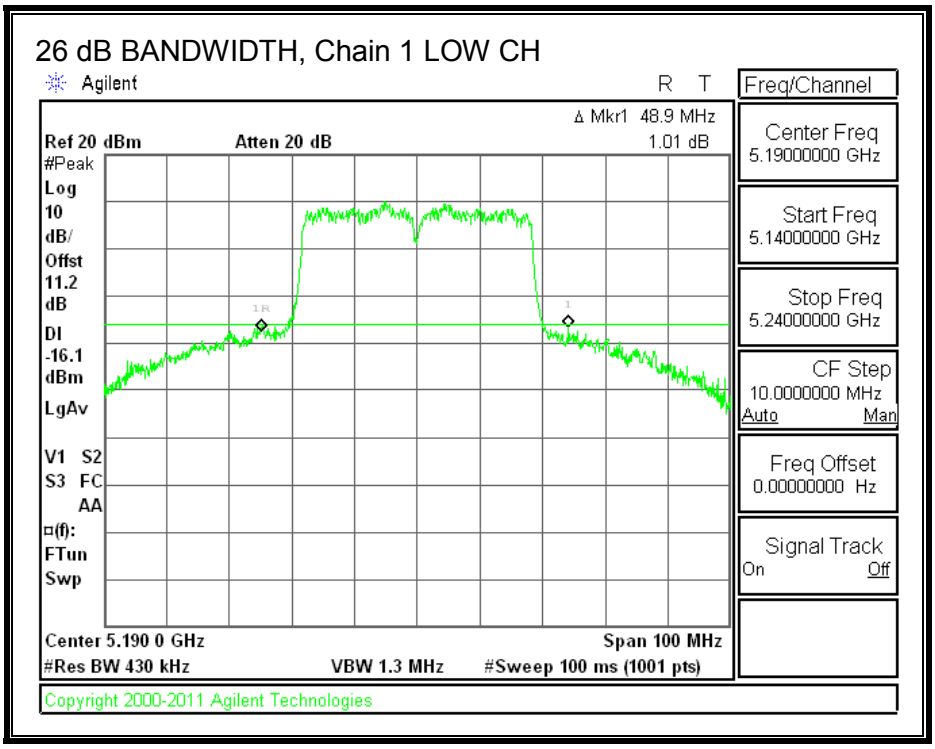
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5190	46.7	48.9	47.5
High	5230	56.0	47.8	47.5

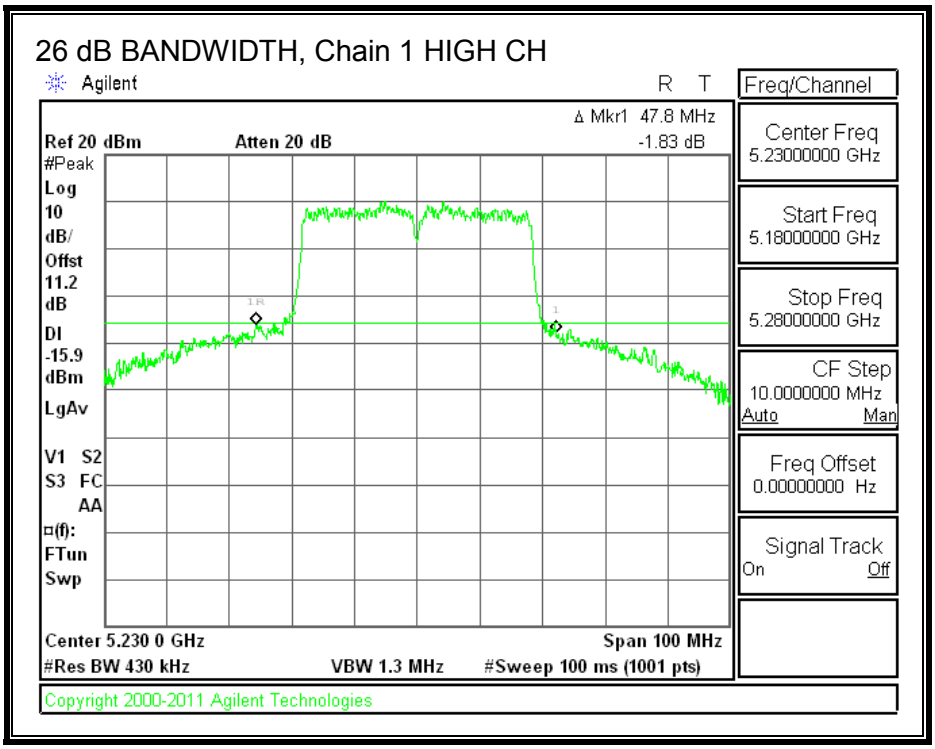
26 dB BANDWIDTH, Chain 0



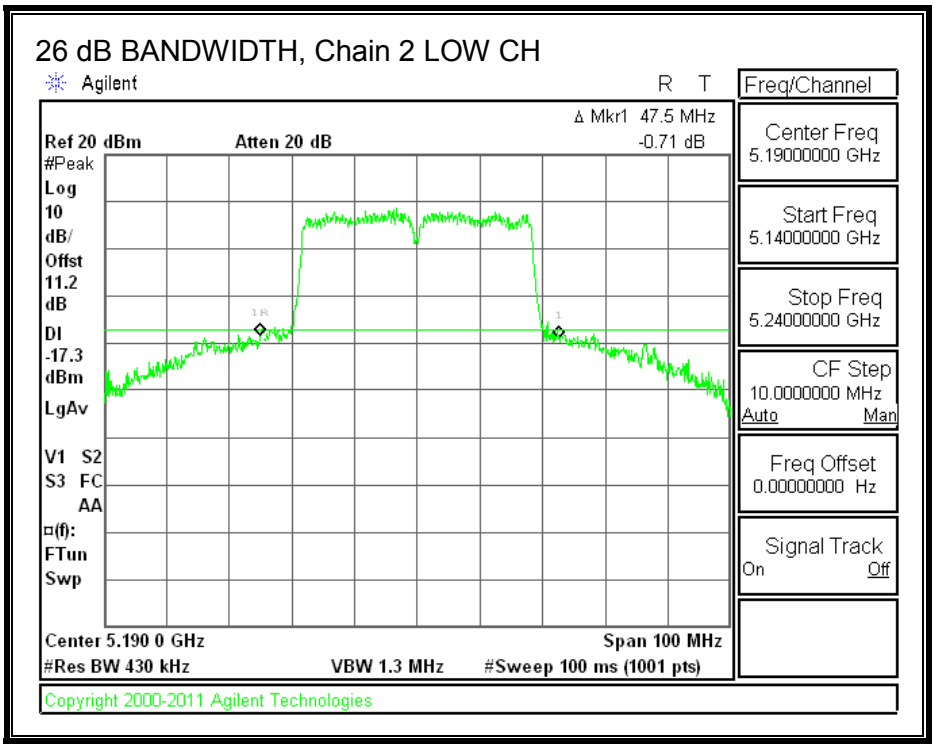


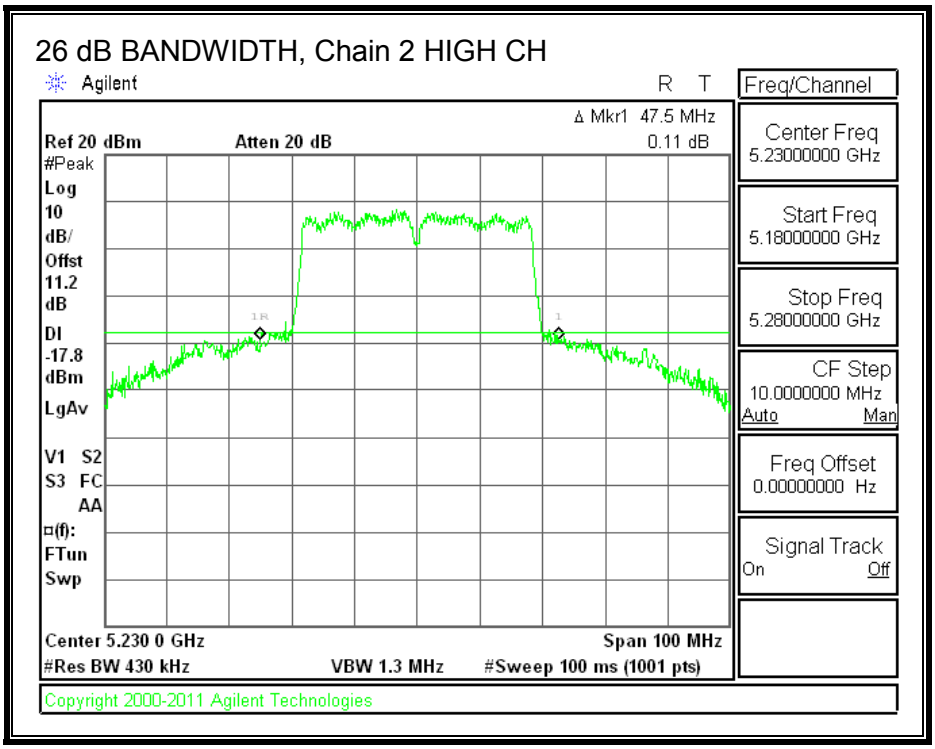
26 dB BANDWIDTH, Chain 1





26 dB BANDWIDTH, Chain 2





8.4.2. 99% BANDWIDTH

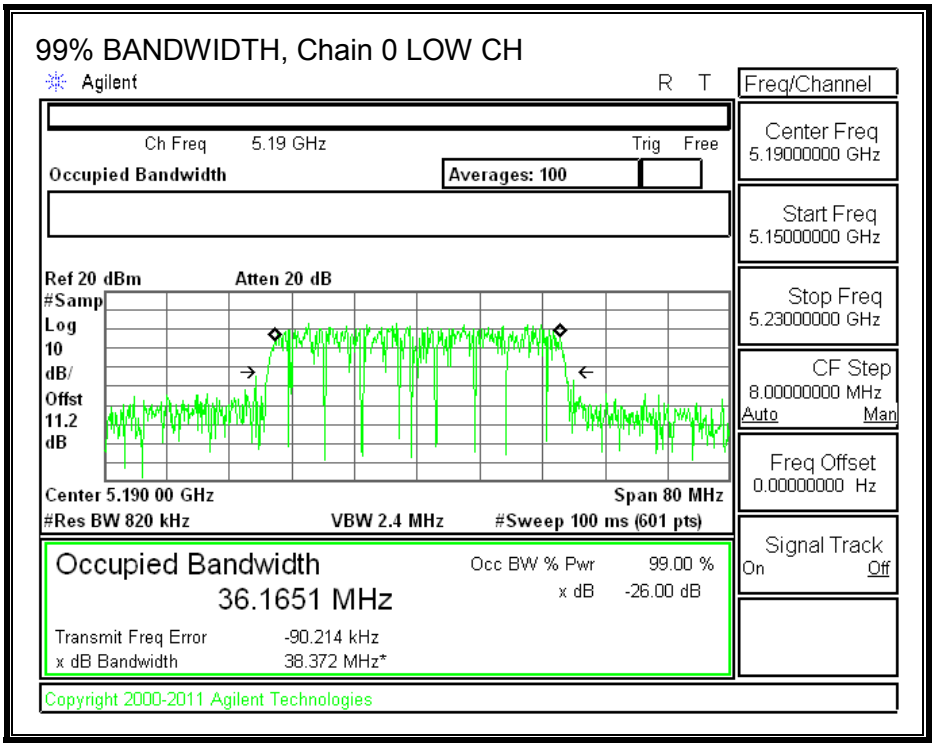
LIMITS

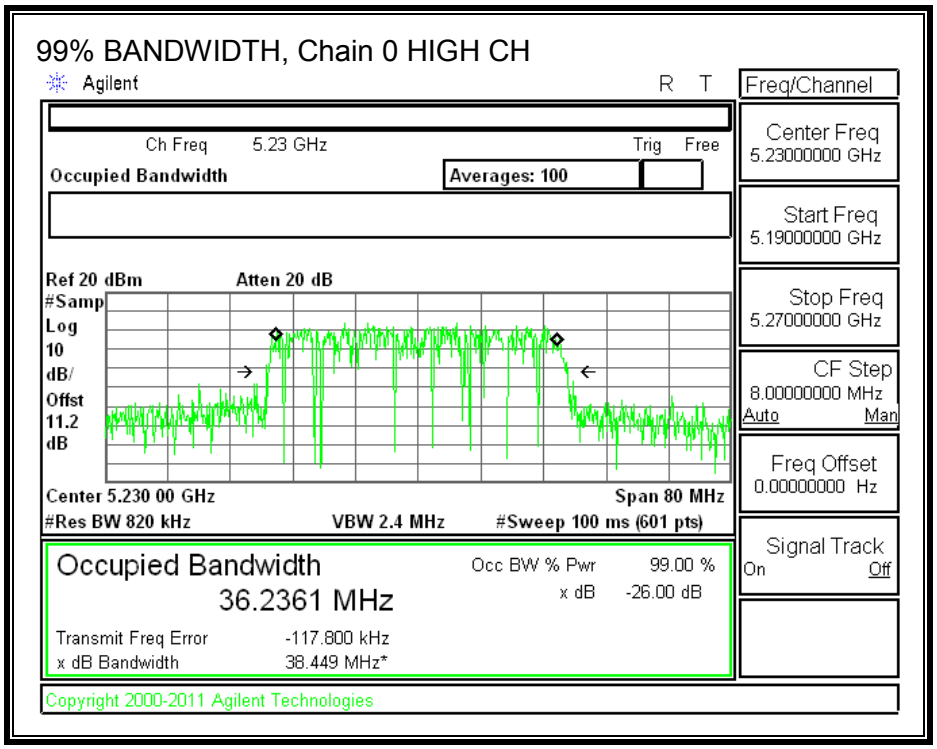
None; for reporting purposes only.

RESULTS

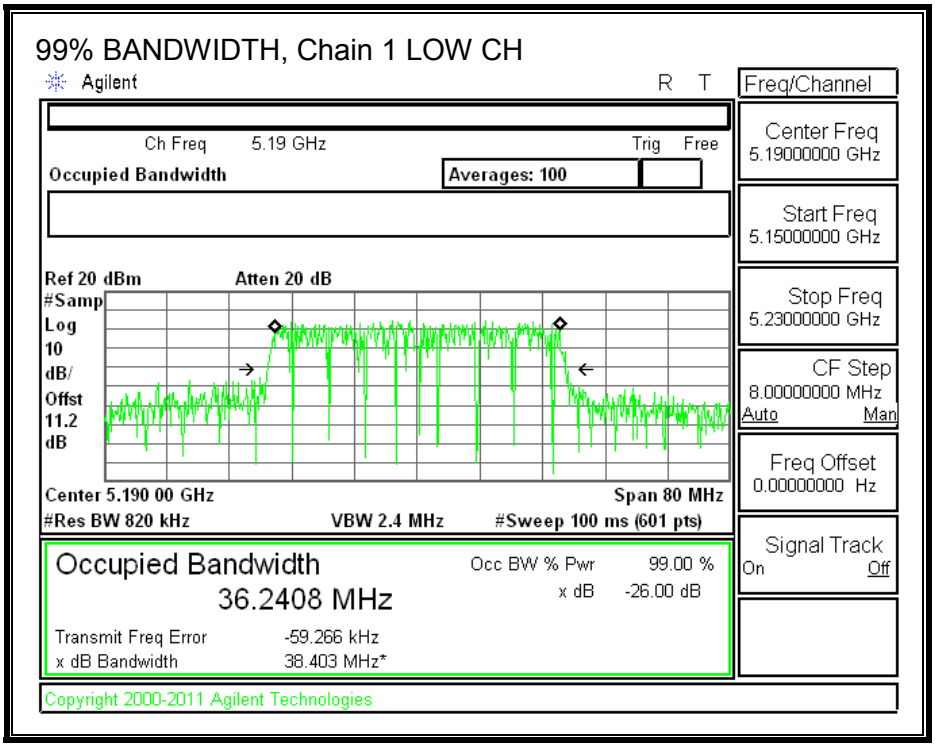
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5190	36.1651	36.2408	36.3004
High	5230	36.2361	36.2442	36.3845

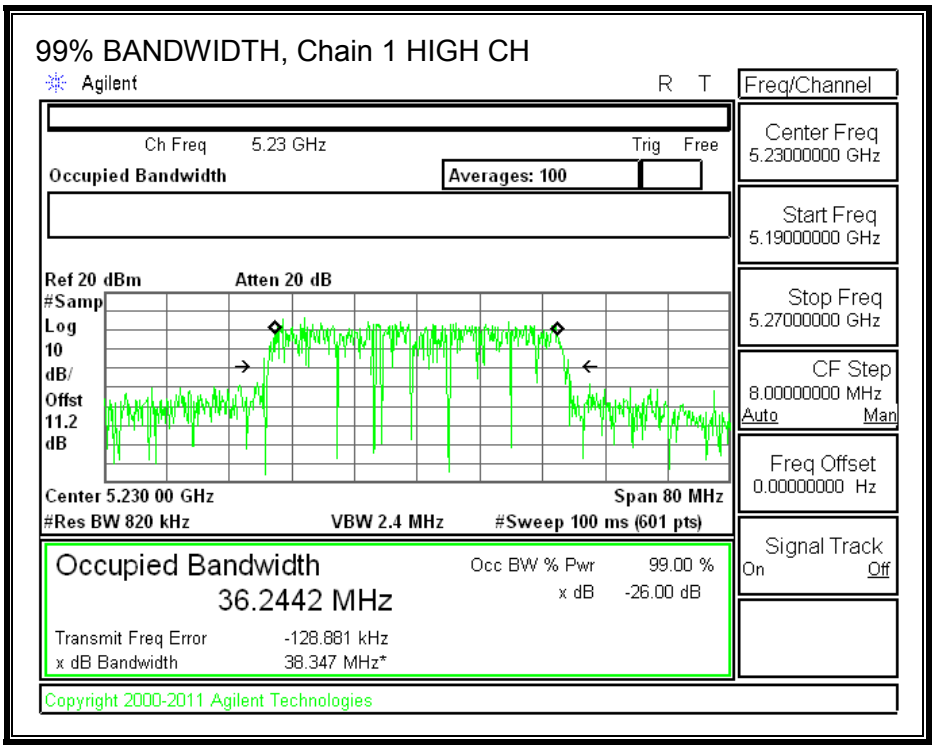
99% BANDWIDTH, Chain 0



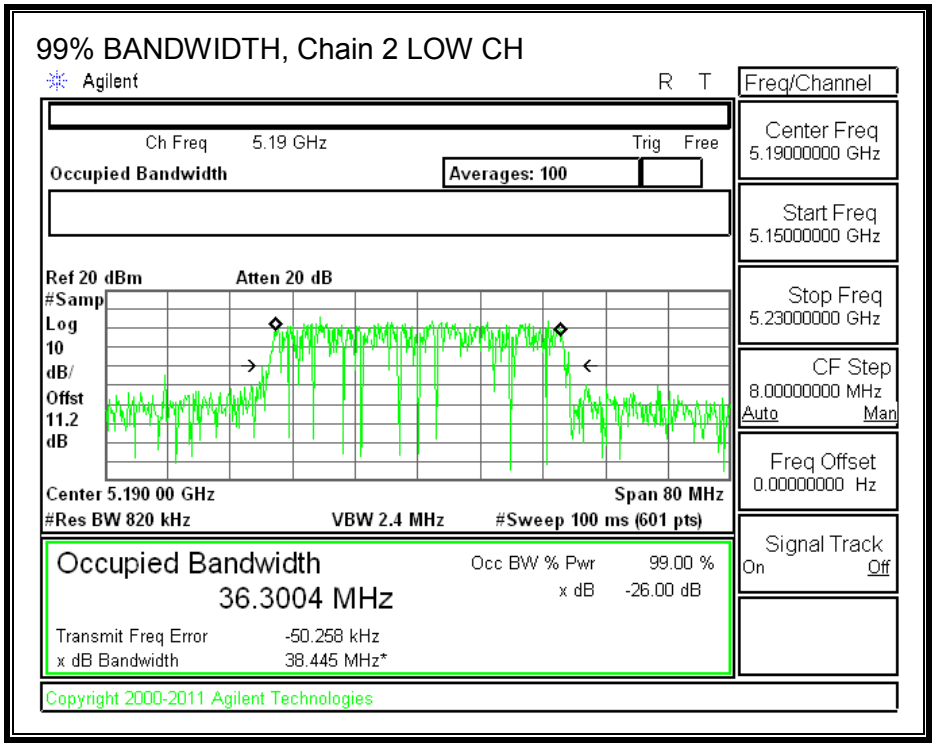


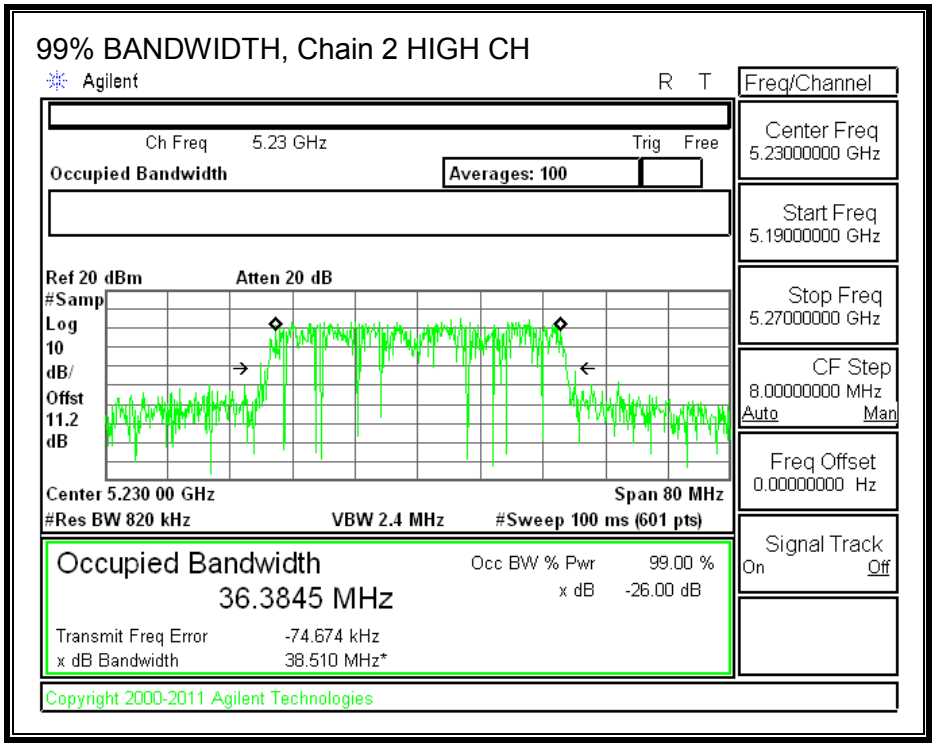
99% BANDWIDTH, Chain 1





99% BANDWIDTH, Chain 2





8.4.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

The TX chains are uncorrelated for output power 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)
4.83	2.84	1.18	3.21

The TX chains are correlated for PSD 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)
4.83	2.84	1.18	7.85

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5190	46.7	36.1651	3.21
High	5230	47.5	36.2361	3.21

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)
Low	5190	17.00	23.00	19.79	17.00	4.00	10.00	4.00
High	5230	17.00	23.00	19.79	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Gated 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	5190	11.74	12.23	11.85	16.72	17.00	-0.28
High	5230	11.79	12.37	11.97	16.82	17.00	-0.18

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5190	46.7	36.1651	7.85
High	5230	47.5	36.2361	7.85

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)
Low	5190	15.15	23.00	15.15	15.15	2.15	10.00	2.15
High	5230	15.15	23.00	15.15	15.15	2.15	10.00	2.15

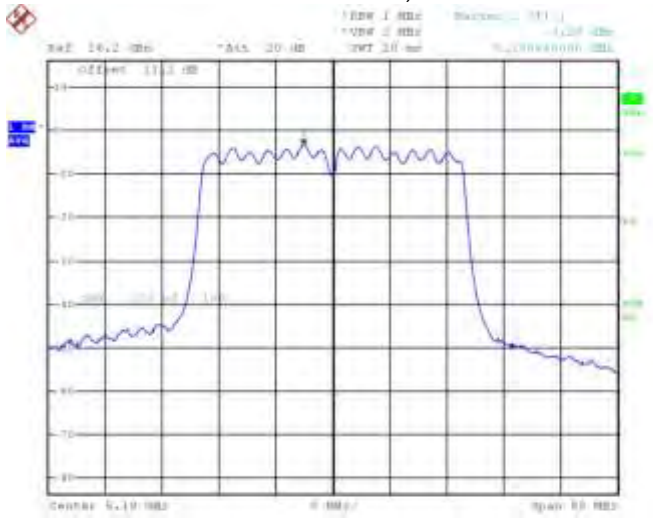
Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd PPSD

PPSD Results

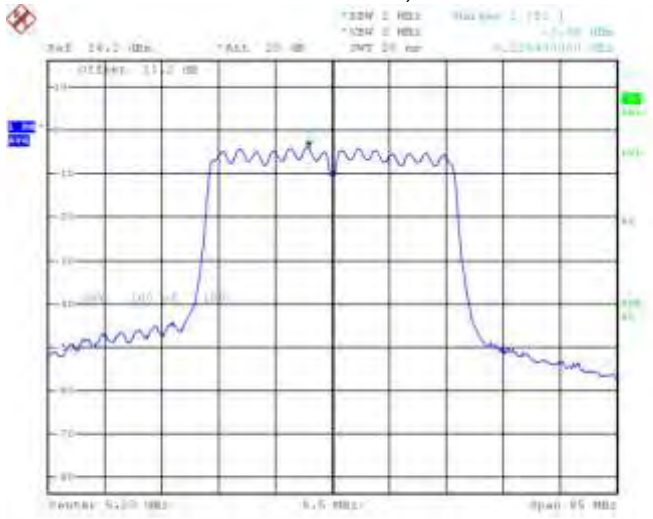
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-3.29	-2.46	-4.32	1.70	2.15	-0.45
High	5230	-3.95	-3.21	-4.01	1.28	2.15	-0.87

OUTPUT POWER AND PPSD, Chain 0

OUTPUT POWER AND PPSD, Chain 0 LOW CH

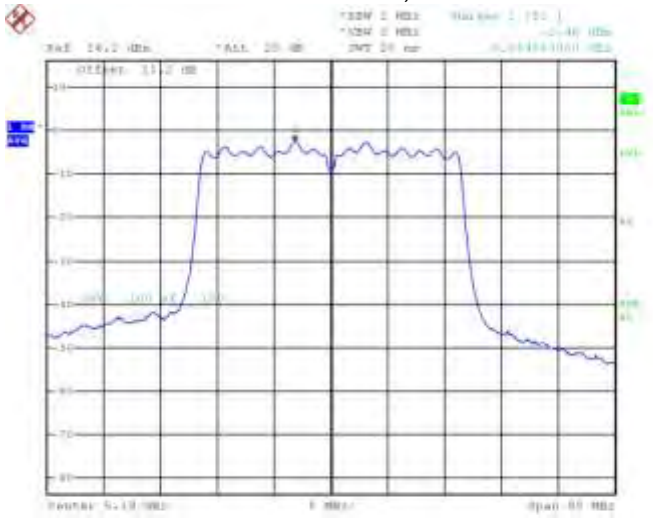


OUTPUT POWER AND PPSD, Chain 0 HIGH CH

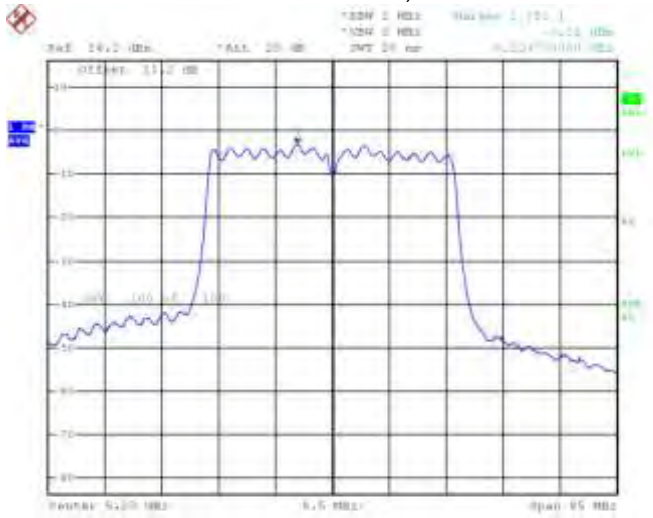


OUTPUT POWER AND PPSD, Chain 1

OUTPUT POWER AND PPSD, Chain 1 LOW CH

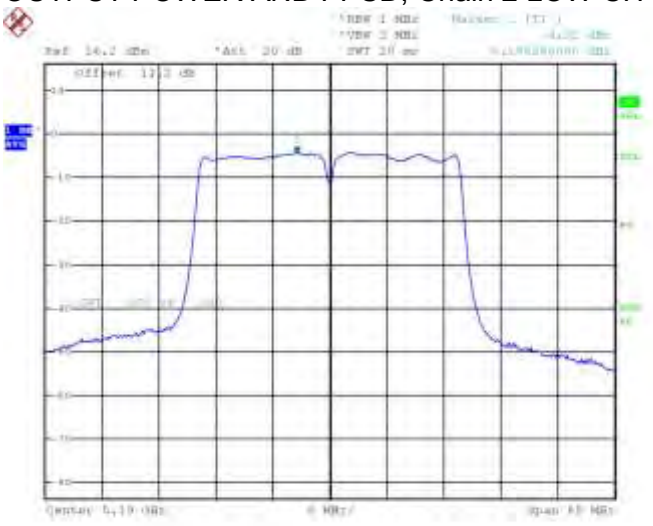


OUTPUT POWER AND PPSD, Chain 0 HIGH CH

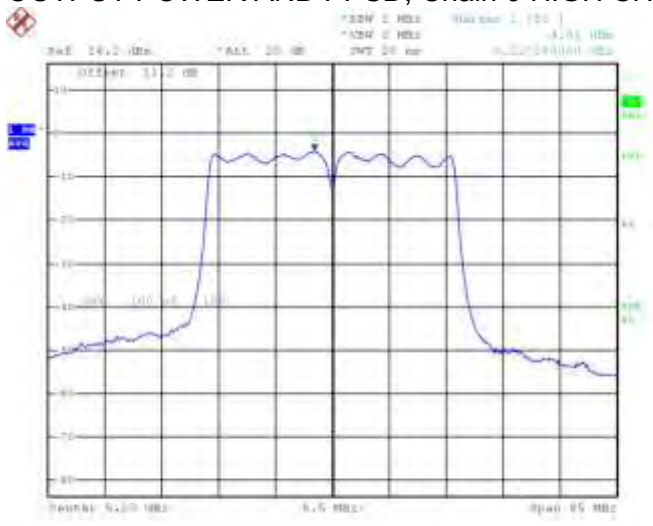


OUTPUT POWER AND PPSD, Chain 2

OUTPUT POWER AND PPSD, Chain 2 LOW CH



OUTPUT POWER AND PPSD, Chain 0 HIGH CH



8.4.4. 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)
Low	5190	4.50	-3.29	0.22	7.57	13	-5.43

Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5190	6.98	-2.46	0.22	9.22	13	-3.78

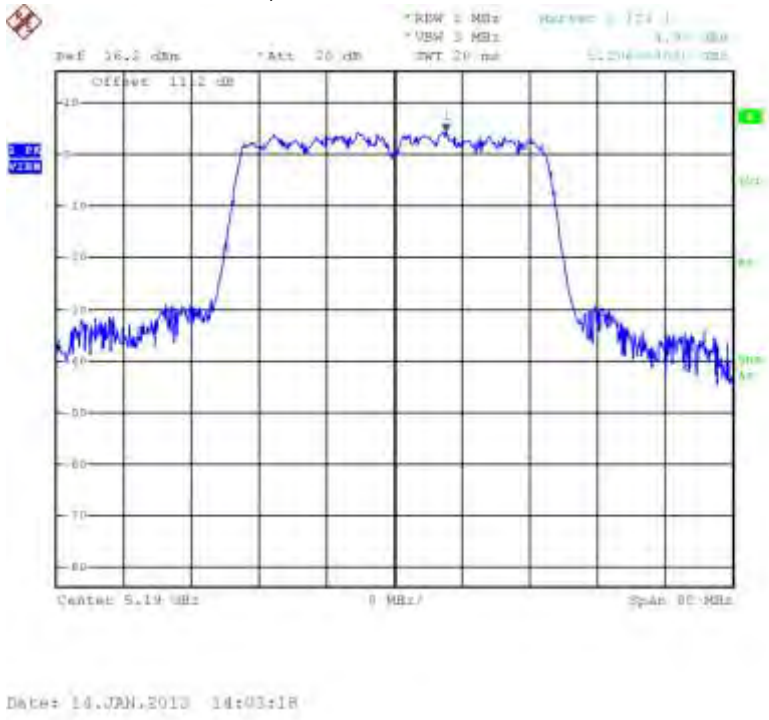
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5190	5.35	-4.32	0.22	9.45	13	-3.55

PEAK EXCURSION

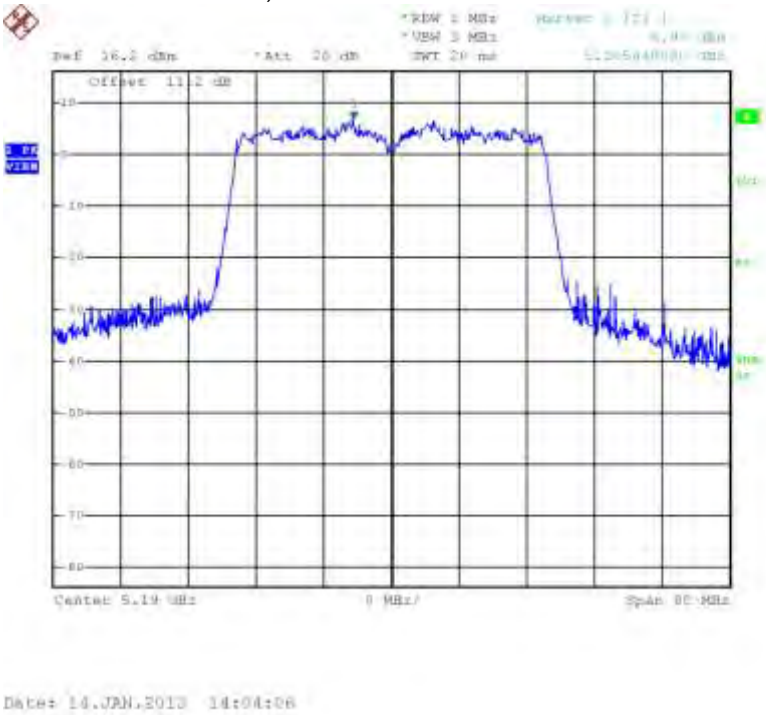
PEAK EXCURSION, Chain 0

PEAK EXCURSION, Chain 0 LOW CH



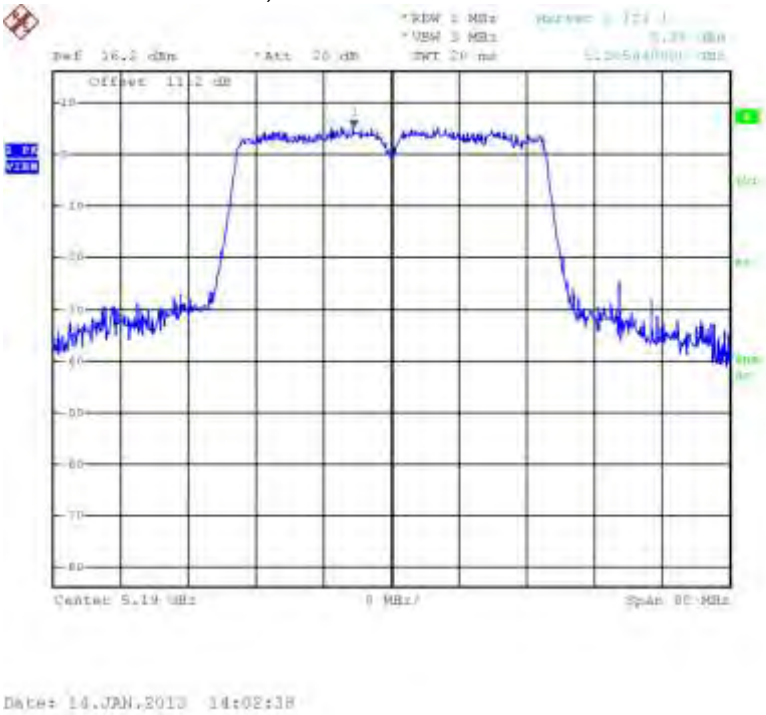
PEAK EXCURSION, Chain 1

PEAK EXCURSION, Chain 1 LOW CH



PEAK EXCURSION, Chain 2

PEAK EXCURSION, Chain 2 LOW CH



8.5. 802.11n HT40 STBC 3TX MODE, 5.2 GHz BAND

8.5.1. 26 dB BANDWIDTH

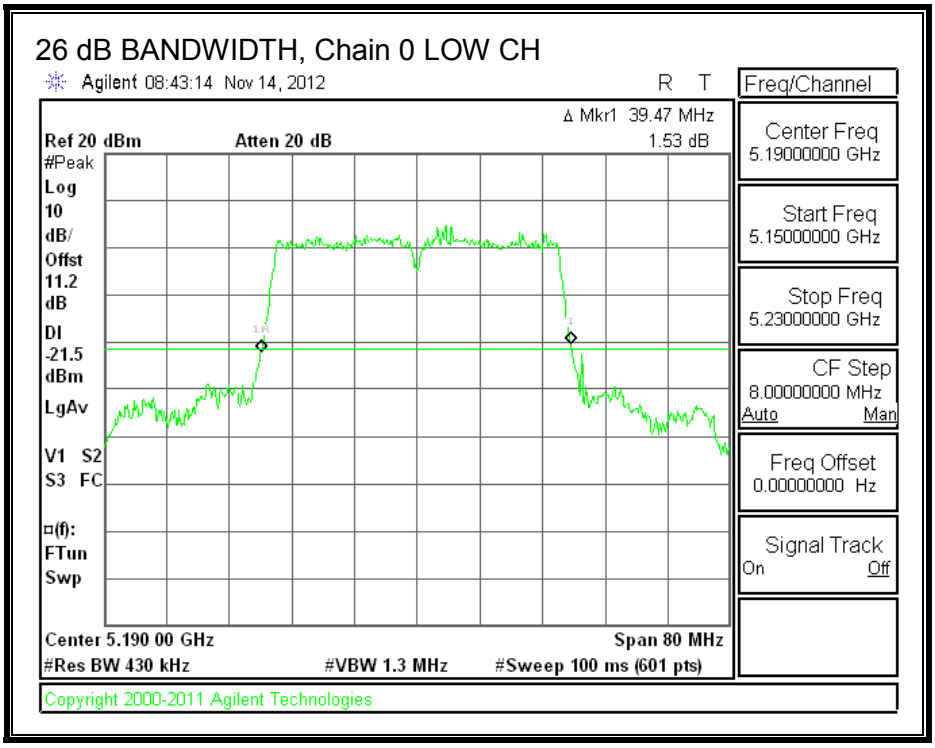
LIMITS

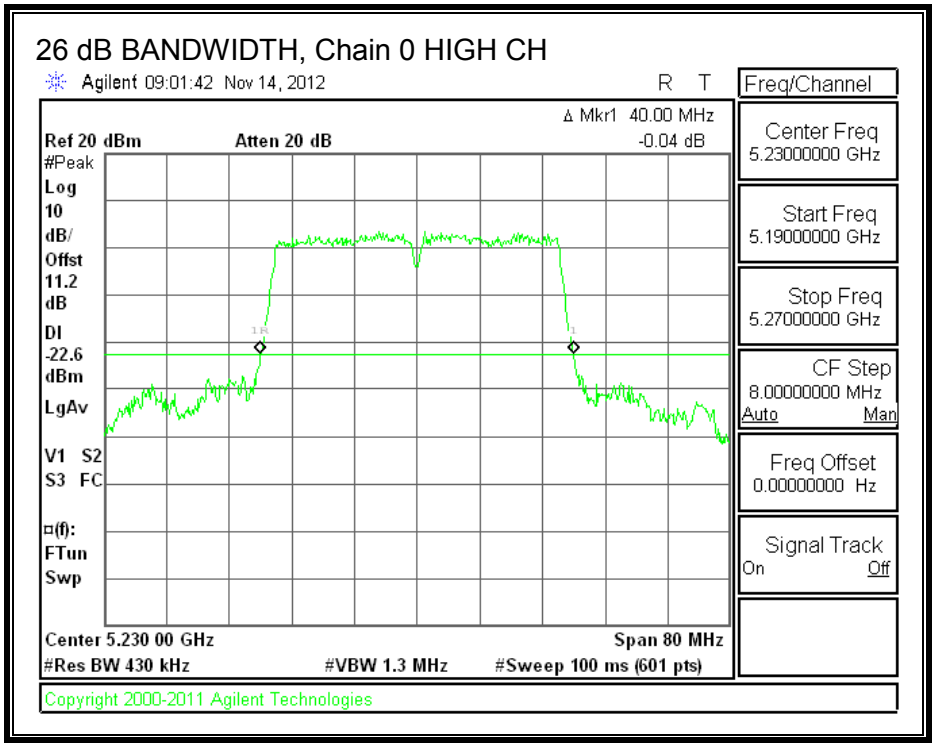
None; for reporting purposes only.

RESULTS

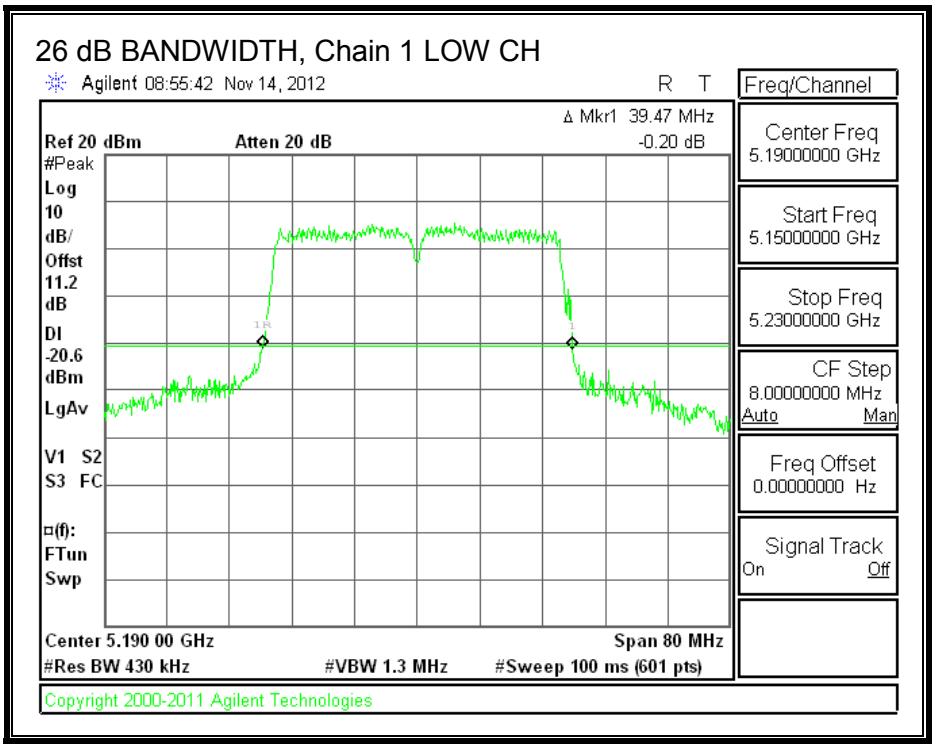
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5190	39.47	39.47	39.73
High	5230	40.00	39.47	39.73

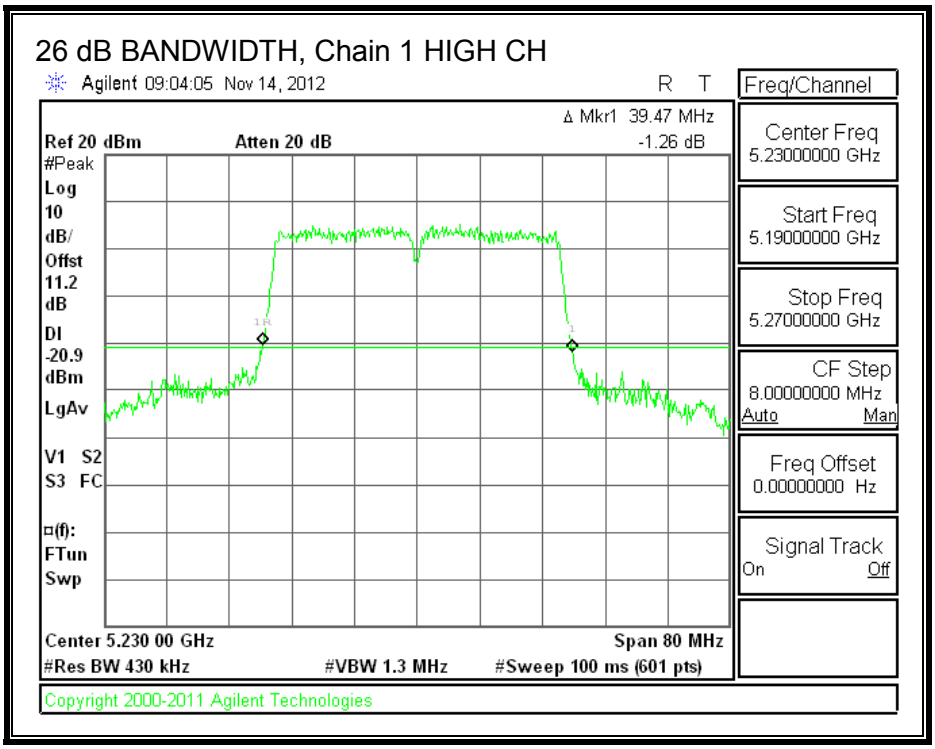
26 dB BANDWIDTH, Chain 0



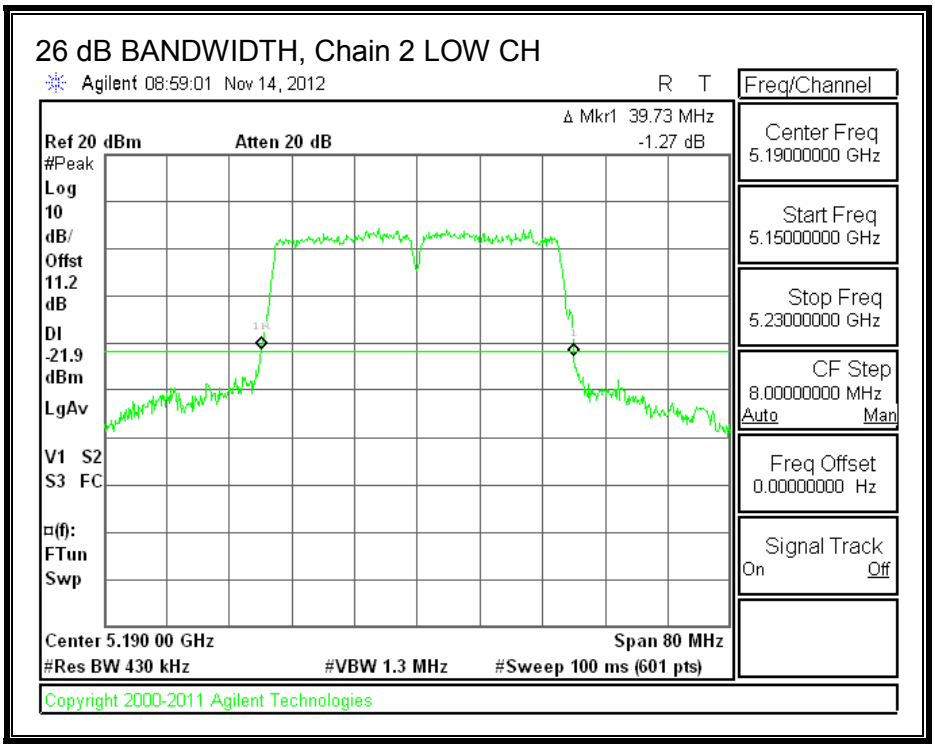


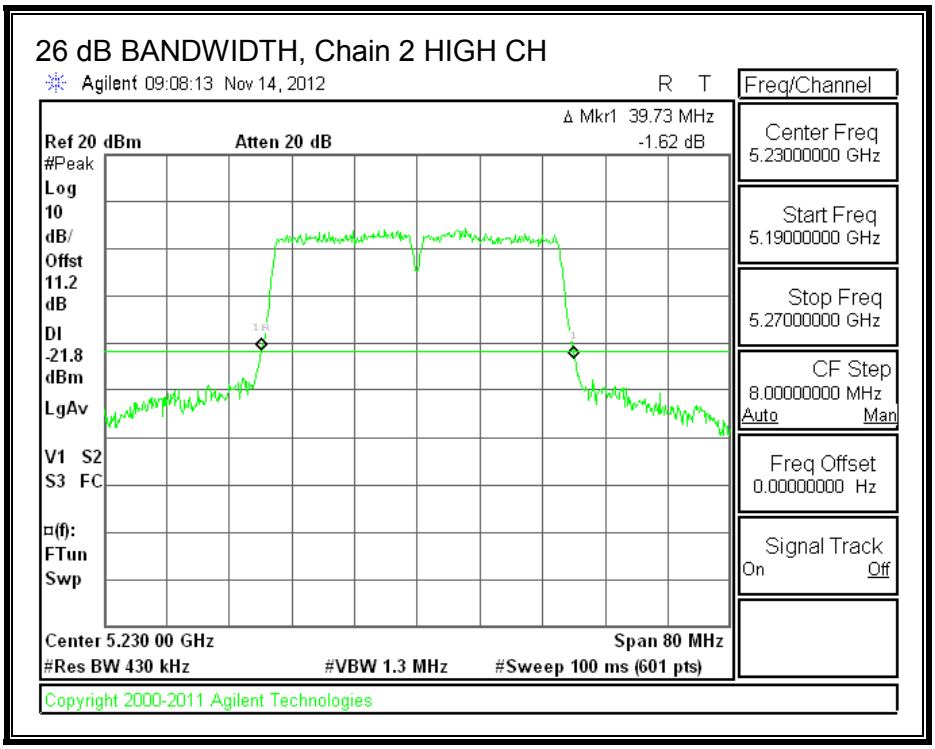
26 dB BANDWIDTH, Chain 1





26 dB BANDWIDTH, Chain 2





8.5.2. 99% BANDWIDTH

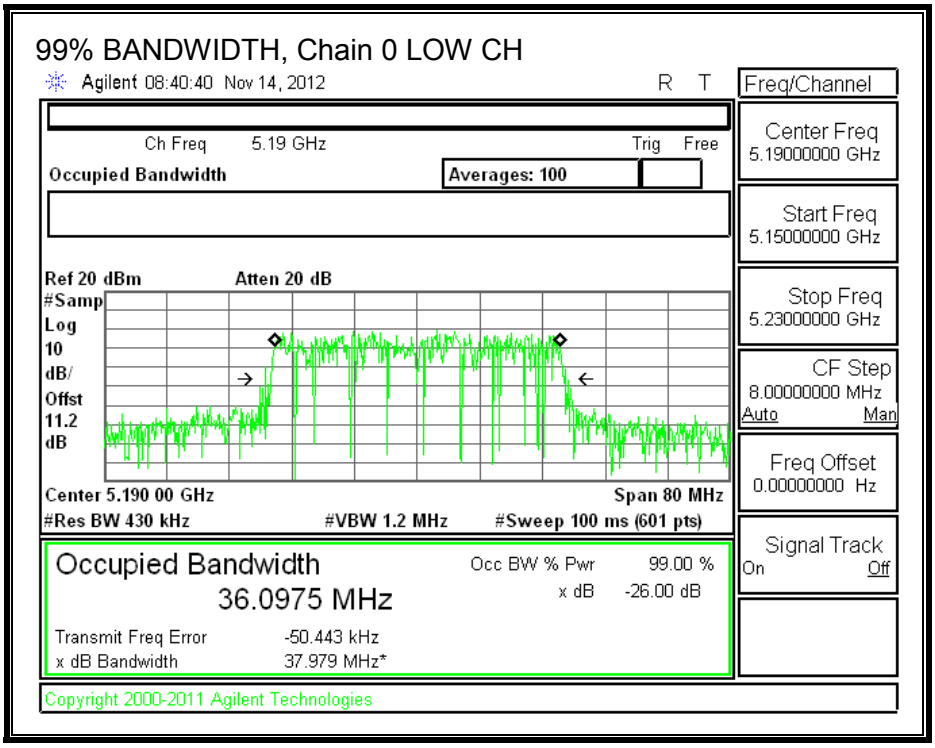
LIMITS

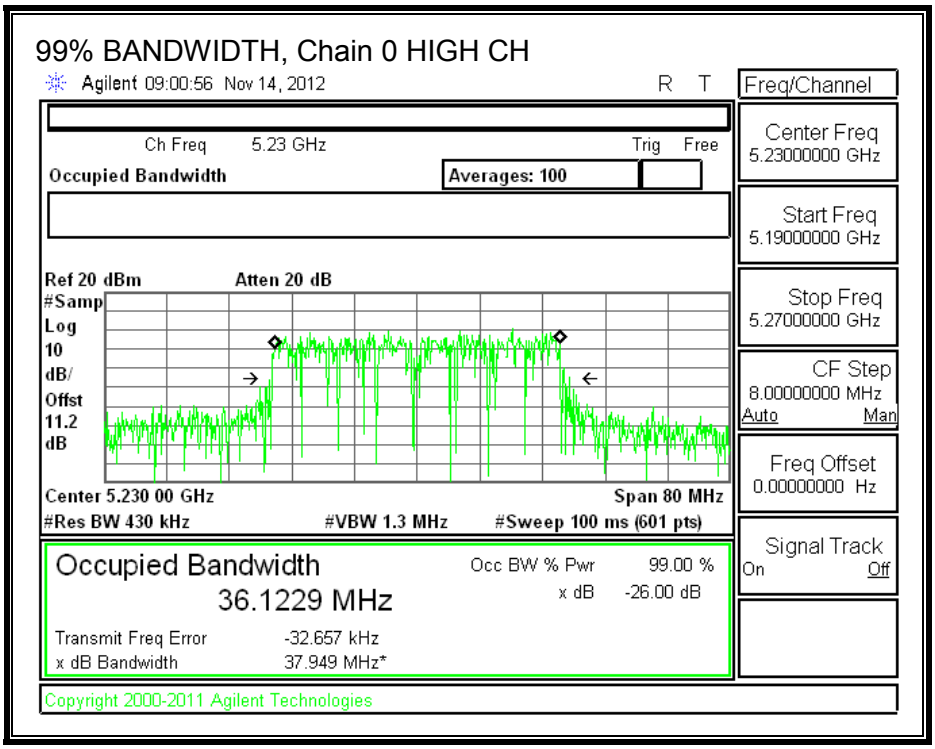
None; for reporting purposes only.

RESULTS

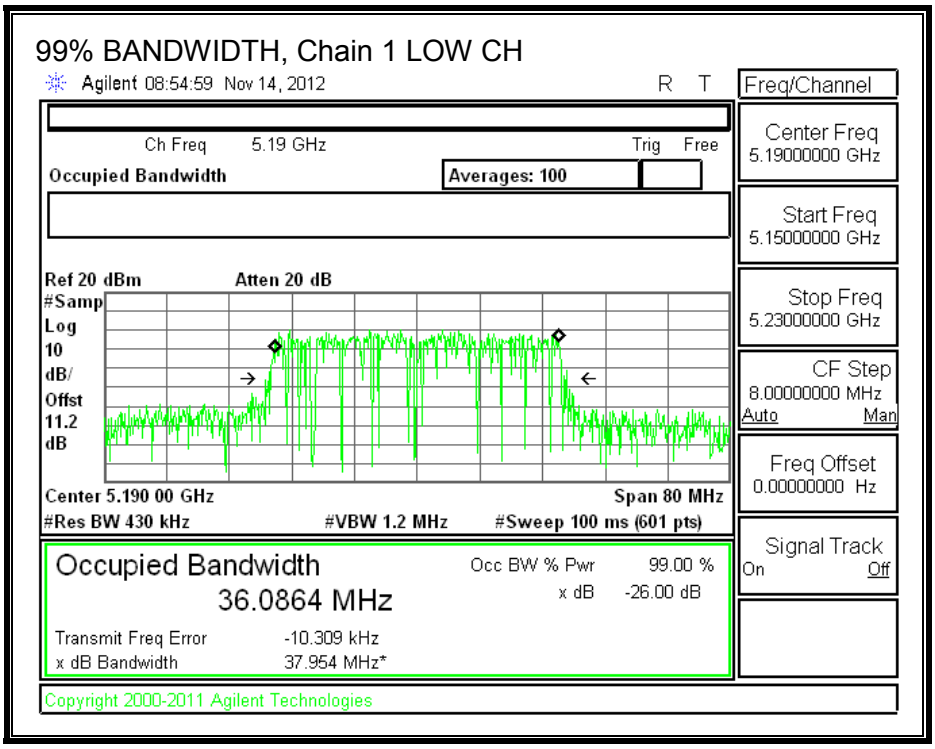
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5190	36.0975	36.0864	36.1435
High	5230	36.1229	36.1177	36.1760

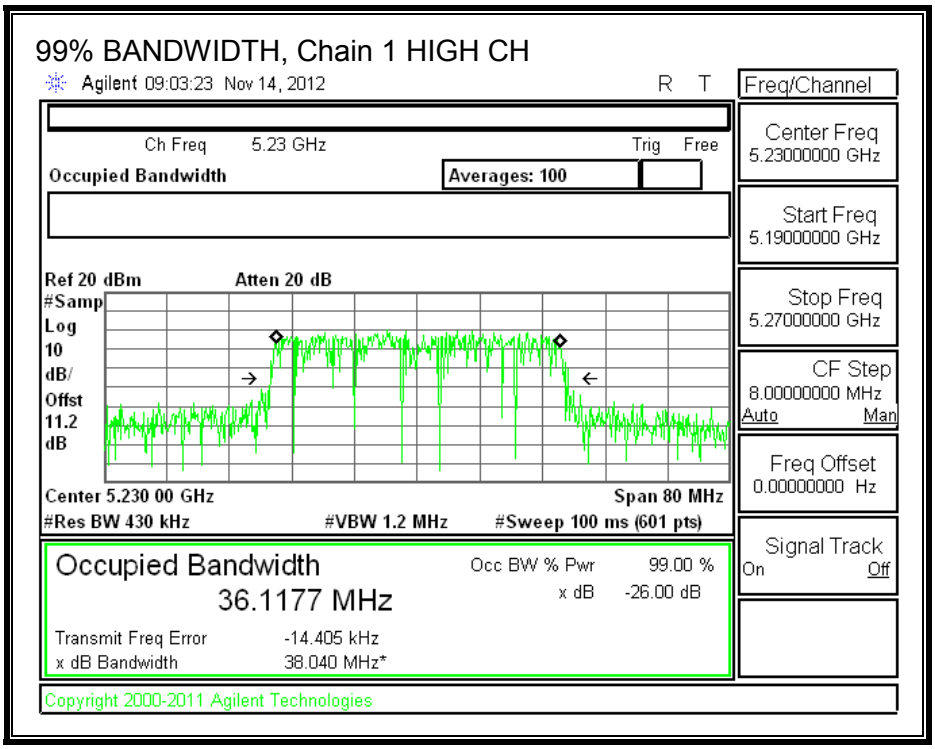
99% BANDWIDTH, Chain 0



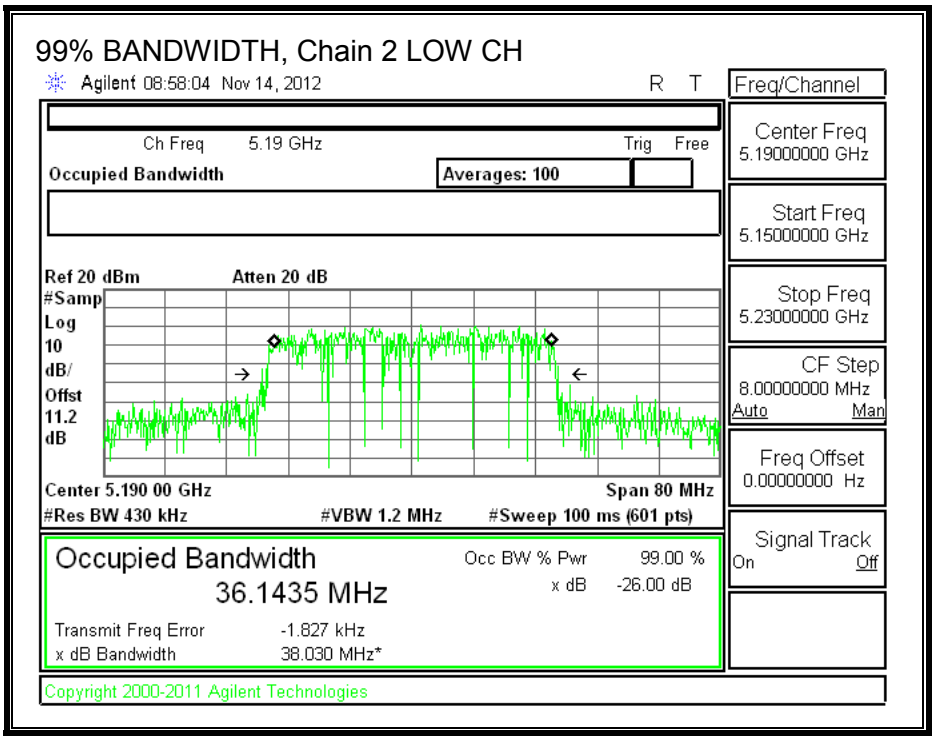


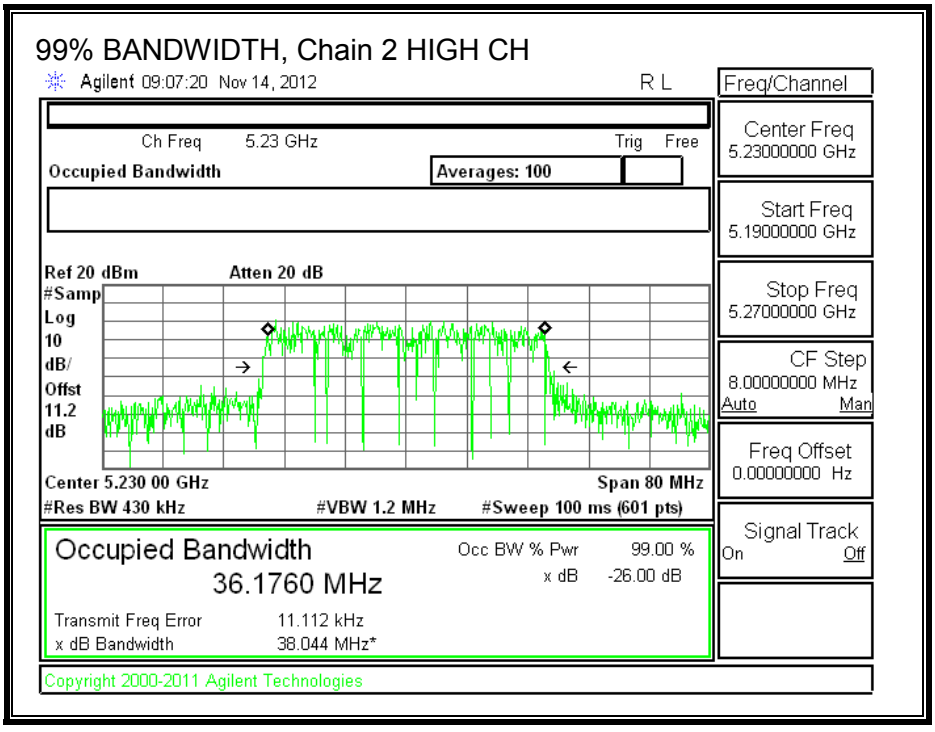
99% BANDWIDTH, Chain 1





99% BANDWIDTH, Chain 2





8.5.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

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)
4.83	2.84	1.18	3.21

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5190	39.47	36.0864	3.21
High	5230	39.47	36.1177	3.21

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)
Low	5190	17.00	23.00	19.79	17.00	4.00	10.00	4.00
High	5230	17.00	23.00	19.79	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd PPSD

Output Power Results

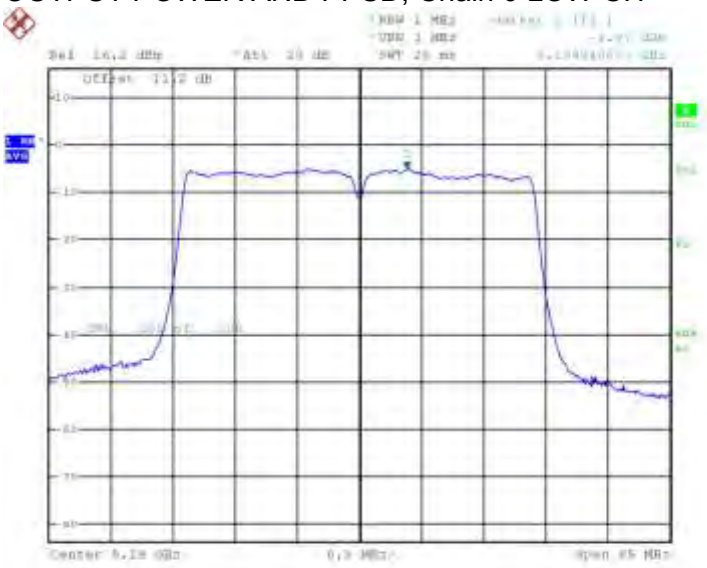
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	11.09	12.65	11.92	16.70	17.00	-0.30
High	5230	11.25	12.32	12.06	16.67	17.00	-0.33

PPSD Results

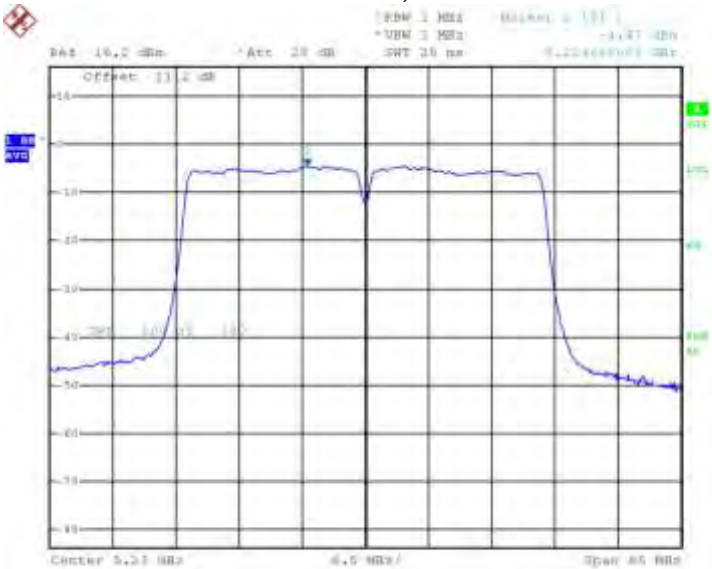
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-4.97	-3.41	-4.05	0.90	4.00	-3.10
High	5230	-4.47	-3.87	-4.43	0.75	4.00	-3.25

OUTPUT POWER AND PPSD, Chain 0

OUTPUT POWER AND PPSD, Chain 0 LOW CH

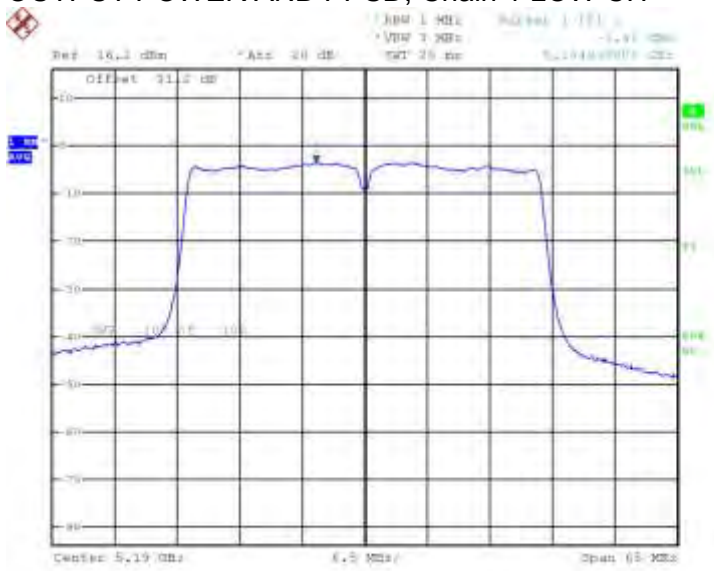


OUTPUT POWER AND PPSD, Chain 0 HIGH CH

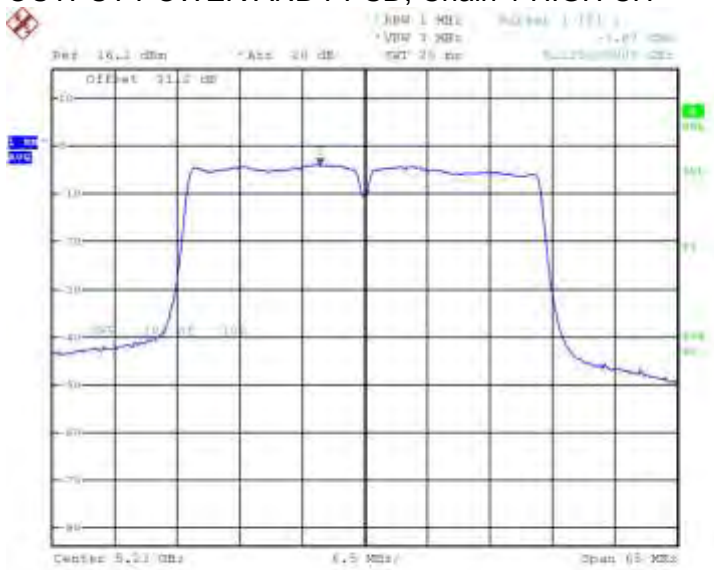


OUTPUT POWER AND PPSD, Chain 1

OUTPUT POWER AND PPSD, Chain 1 LOW CH

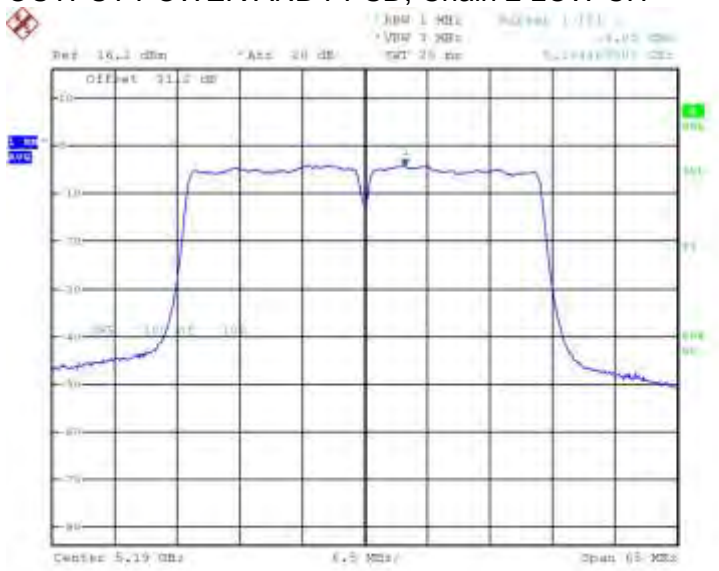


OUTPUT POWER AND PPSD, Chain 1 HIGH CH

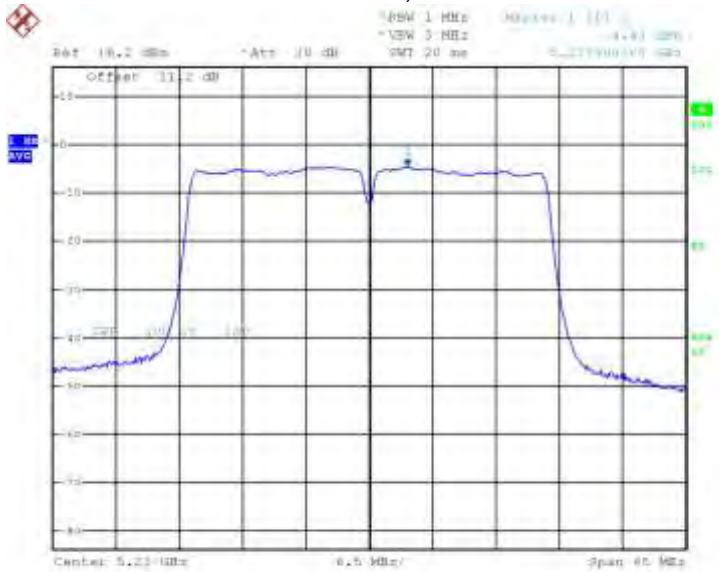


OUTPUT POWER AND PPSD, Chain 2

OUTPUT POWER AND PPSD, Chain 2 LOW CH



OUTPUT POWER AND PPSD, Chain 2 HIGH CH



8.5.4. 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)
High	5230	7.14	-4.47	0.23	11.38	13	-1.62

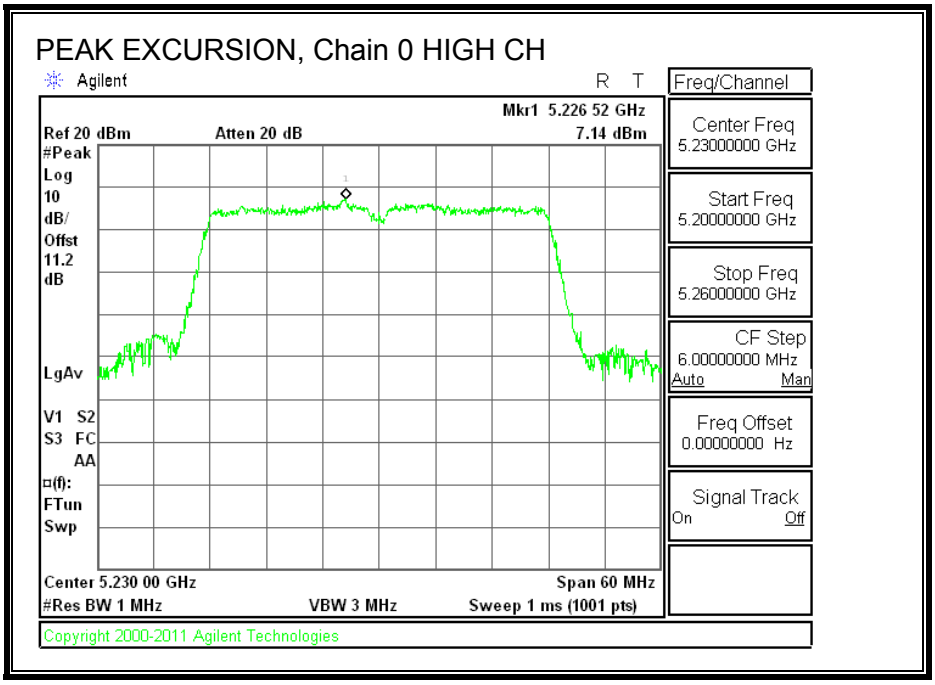
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
High	5230	9.34	-3.87	0.23	12.98	13	-0.02

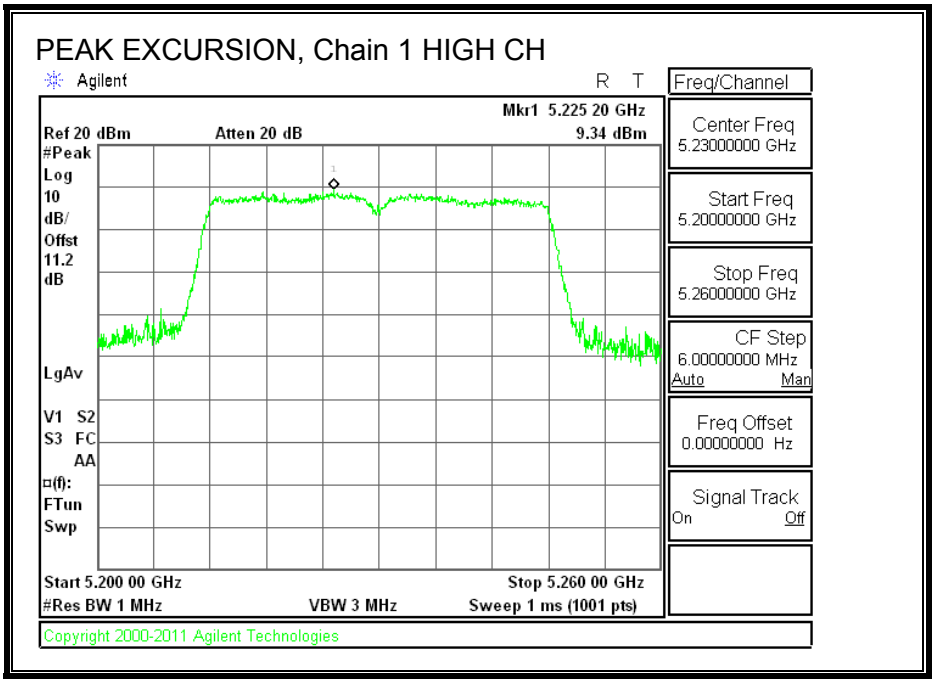
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
High	5230	8.25	-4.43	0.23	12.45	13	-0.55

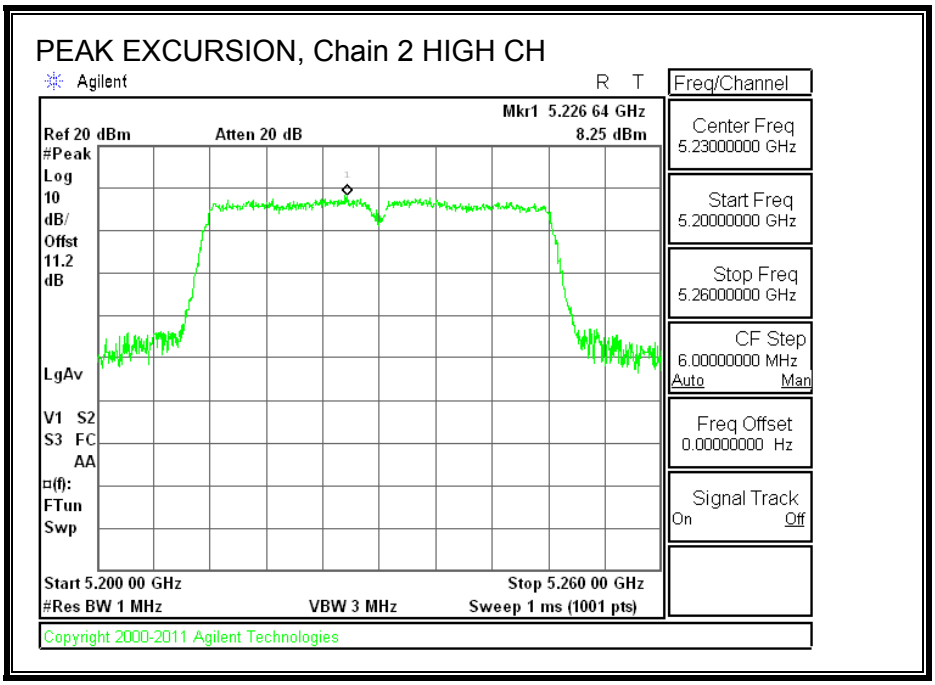
PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



PEAK EXCURSION, Chain 2



8.6. 802.11n AC80 1TX MODE, 5.2 GHz BAND

8.6.1. 20 dB BANDWIDTH

LIMITS

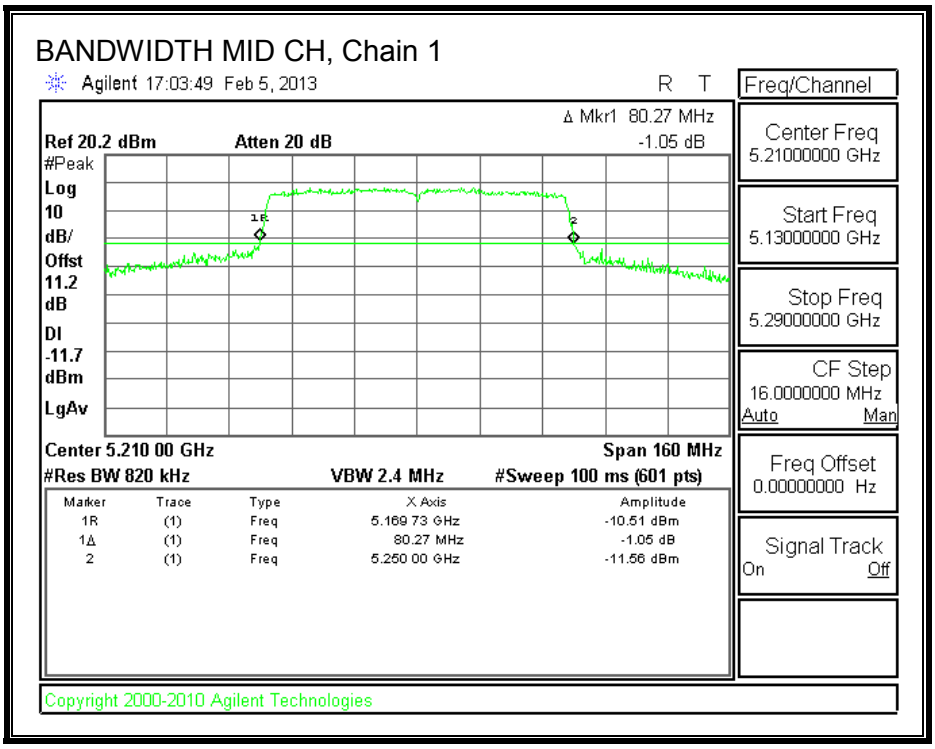
The 20 dB BW of the fundamental signal shall be contained within the band of 5150 – 5250 MHz.

RESULTS

Chain 1

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	Marker 1 (MHz)	Marker 2 (MHz)
Mid	5210	80.27	5169.73	5250.00

20 dB BANDWIDTH



8.6.2. 26 dB BANDWIDTH

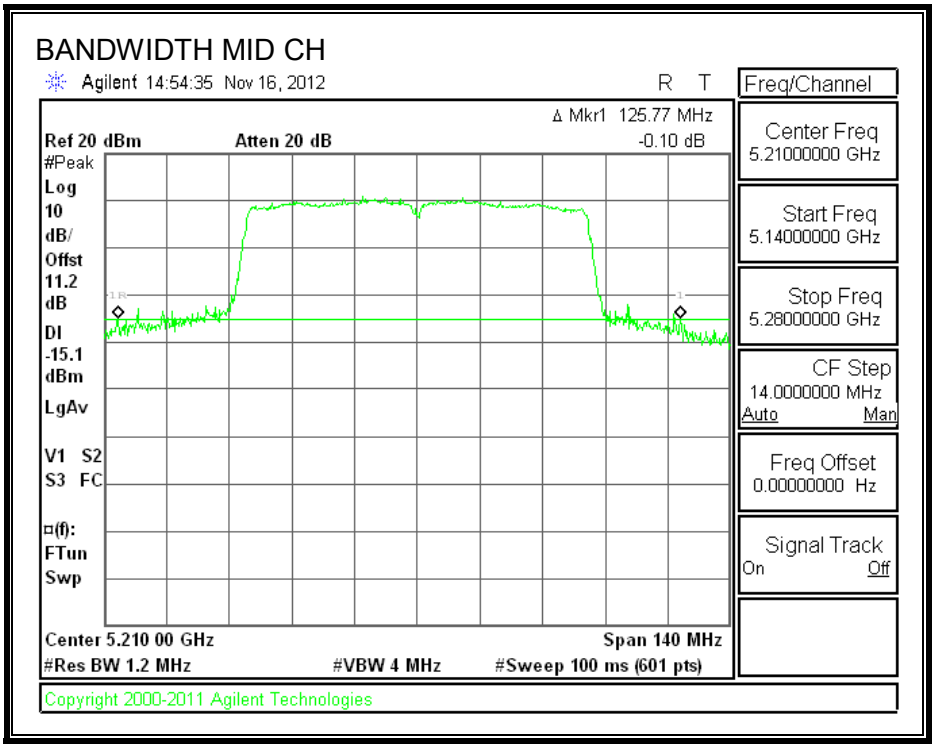
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Mid	5210	125.77

26 dB BANDWIDTH



8.6.3. 99% BANDWIDTH

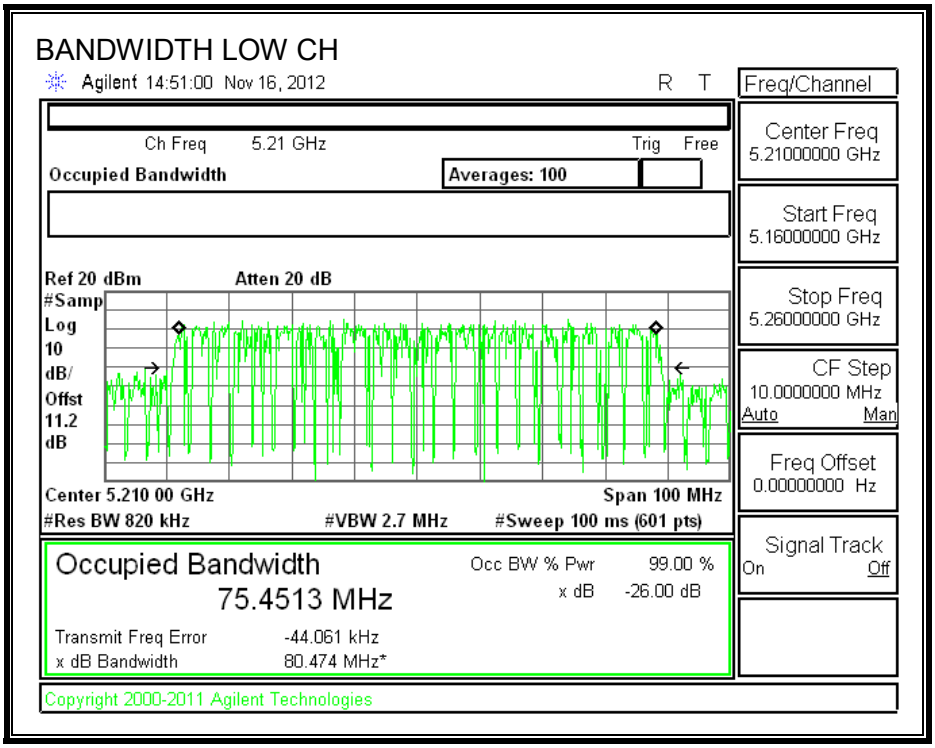
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5210	75.4513

99% BANDWIDTH



8.6.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Mid	5210	125.77	75.4513	4.83

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)
Mid	5210	17.00	23.00	18.17	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd PPSD

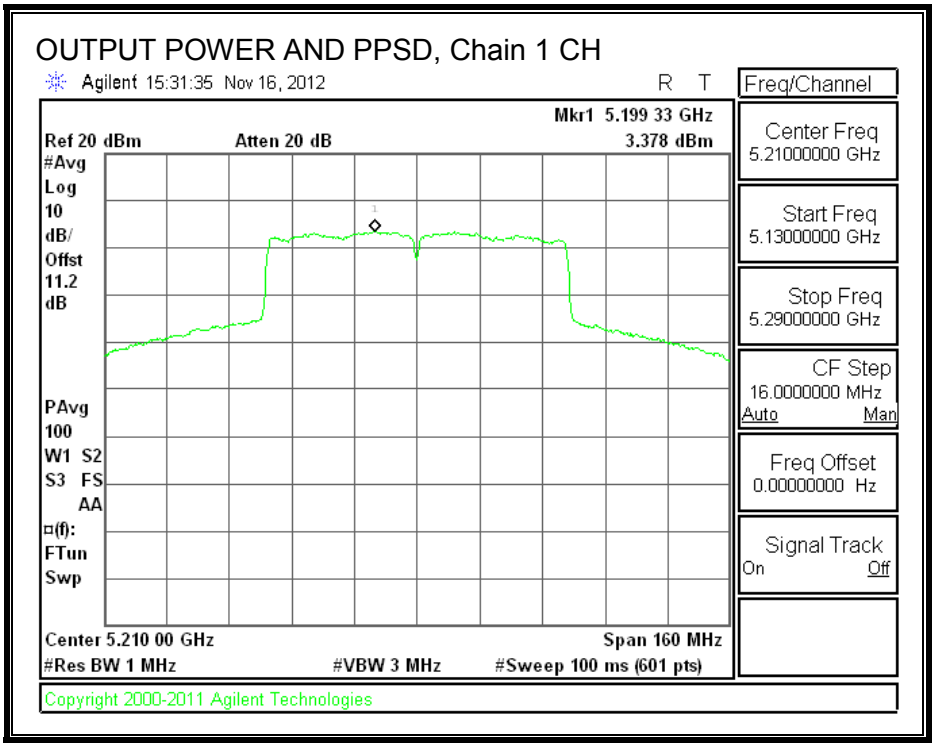
Gated Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	13.40	13.40	17.00	-3.60

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Mid	5210	3.378	3.838	4.00	-0.162

OUTPUT POWER AND PPSD, Chain 1



8.6.5. PEAK EXCURSION

LIMITS

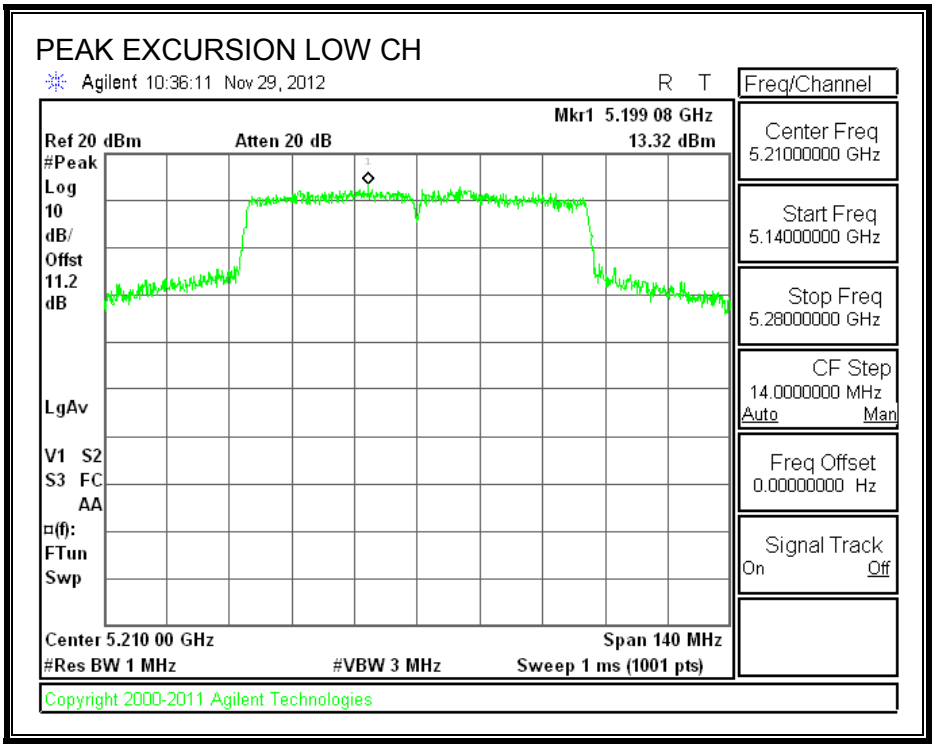
FCC §15.407 (a) (6)

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)
Mid	5210	13.32	3.378	0.46	9.482	13	-3.518

PEAK EXCURSION



8.7. 802.11n AC80 CDD MCS0 3TX MODE, 5.2 GHz BAND

8.7.1. 20 dB BANDWIDTH

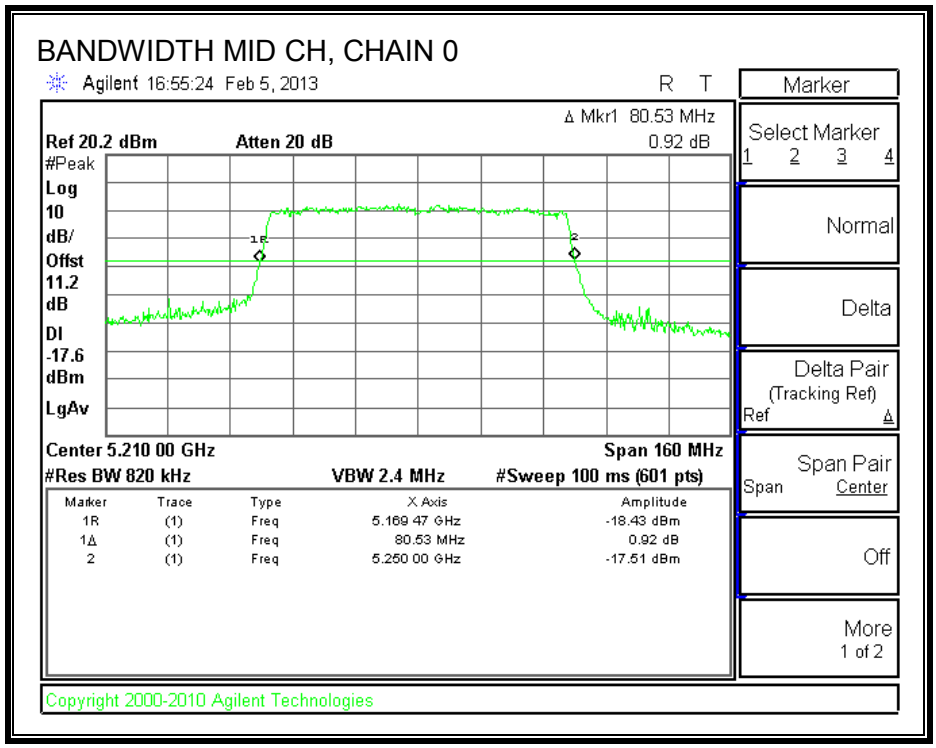
LIMITS

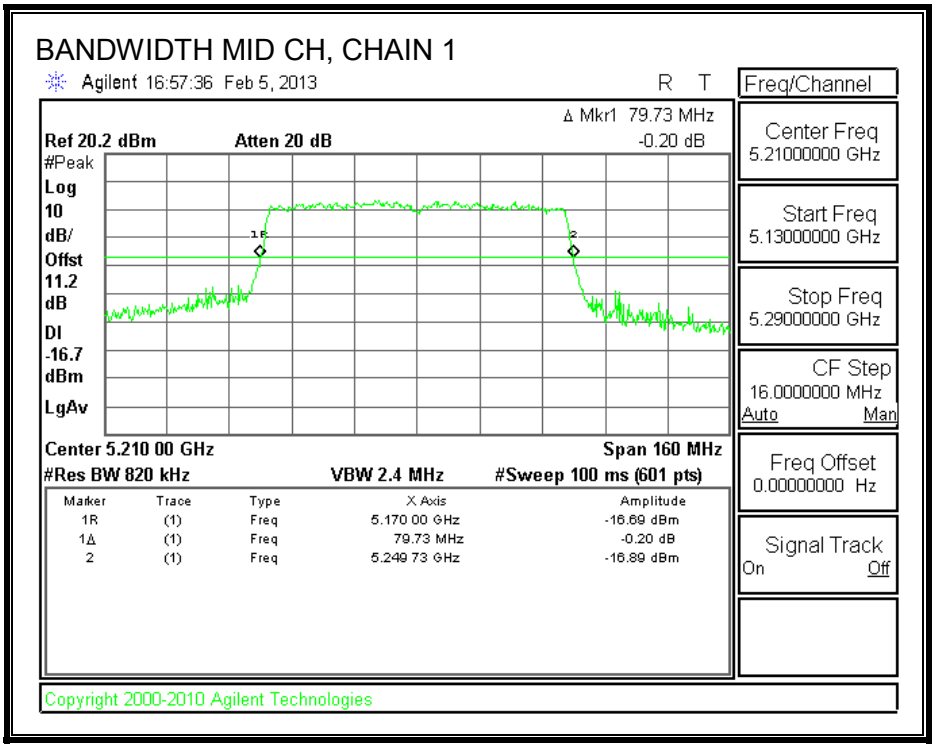
The 20 dB BW of the fundamental signal shall be contained within the band of 5150 – 5250 MHz.

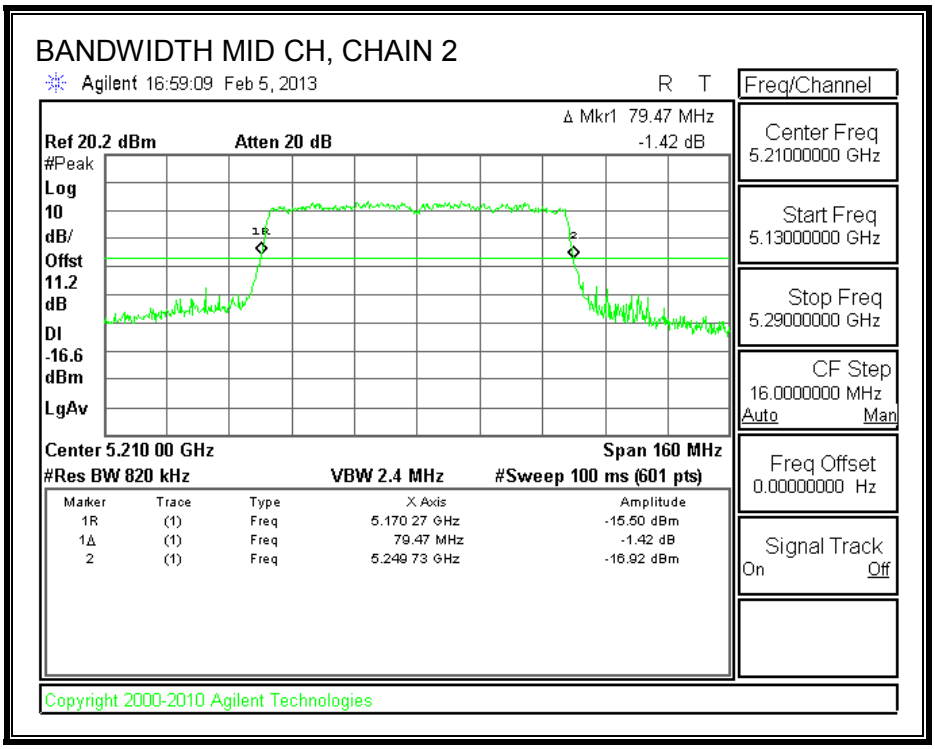
RESULTS

Chain	Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	Marker 1 (MHz)	Marker 2 (MHz)
Chain 0	Mid	5210	80.53	5169.47	5250.00
Chain 1	Mid	5210	79.73	5170.00	5249.73
Chain 2	Mid	5210	79.47	5170.27	5249.73

20 dB BANDWIDTH







8.7.2. 26 dB BANDWIDTH

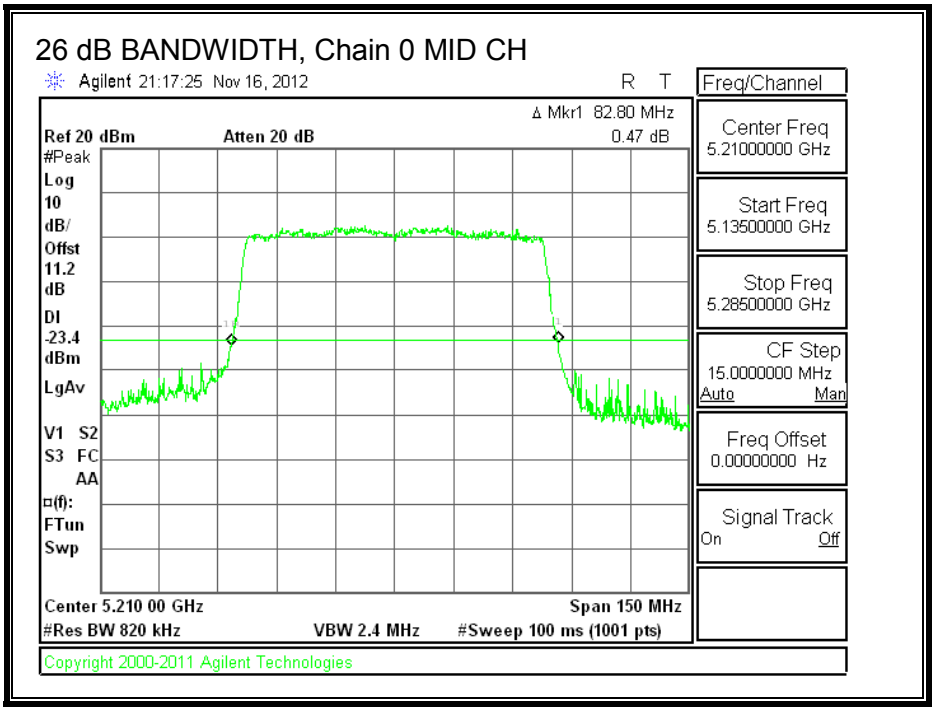
LIMITS

None; for reporting purposes only.

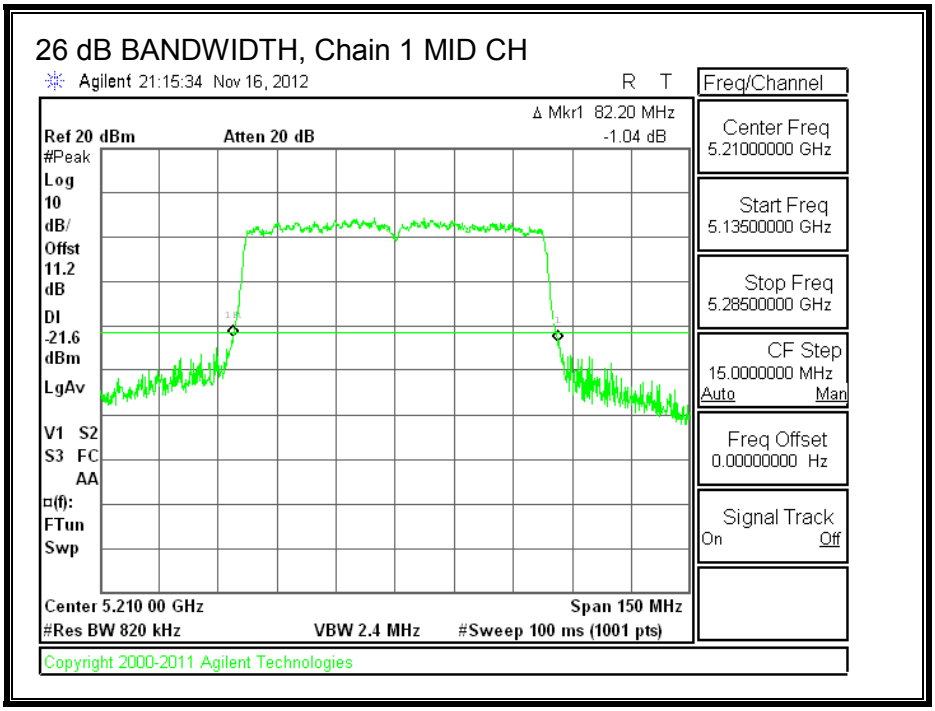
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Mid	5210	82.80	82.20	82.20

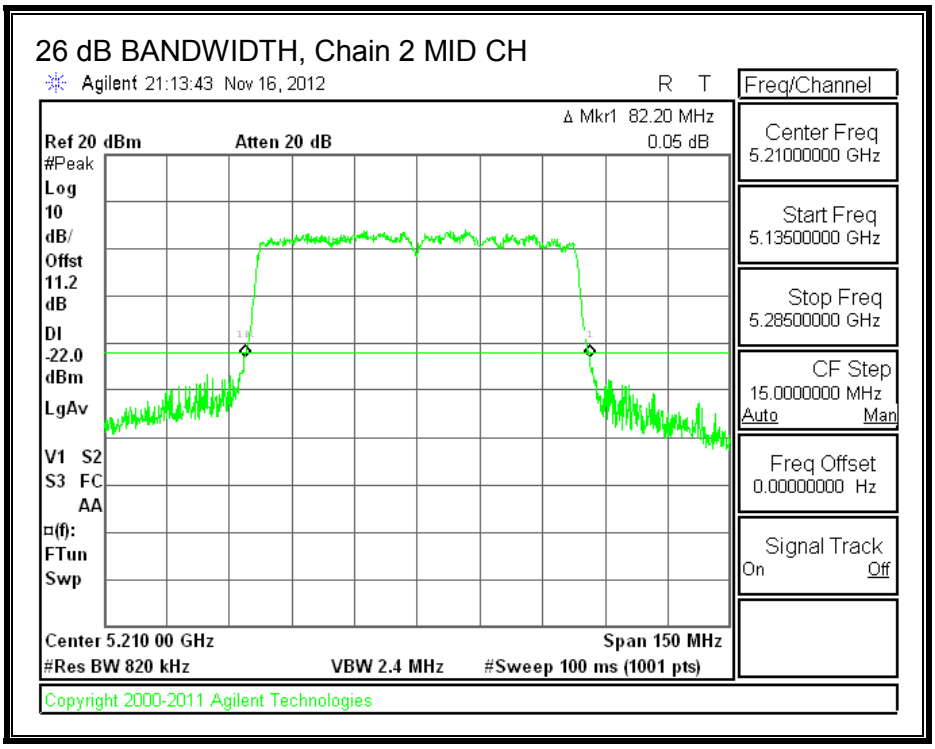
26 dB BANDWIDTH, Chain 0



26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



8.7.3. 99% BANDWIDTH

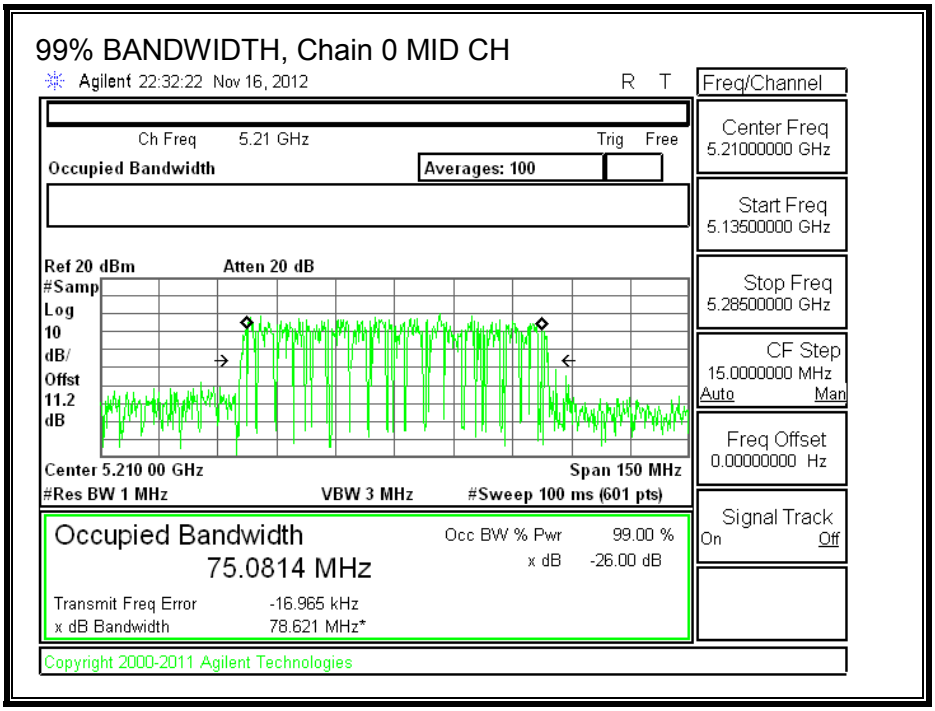
LIMITS

None; for reporting purposes only.

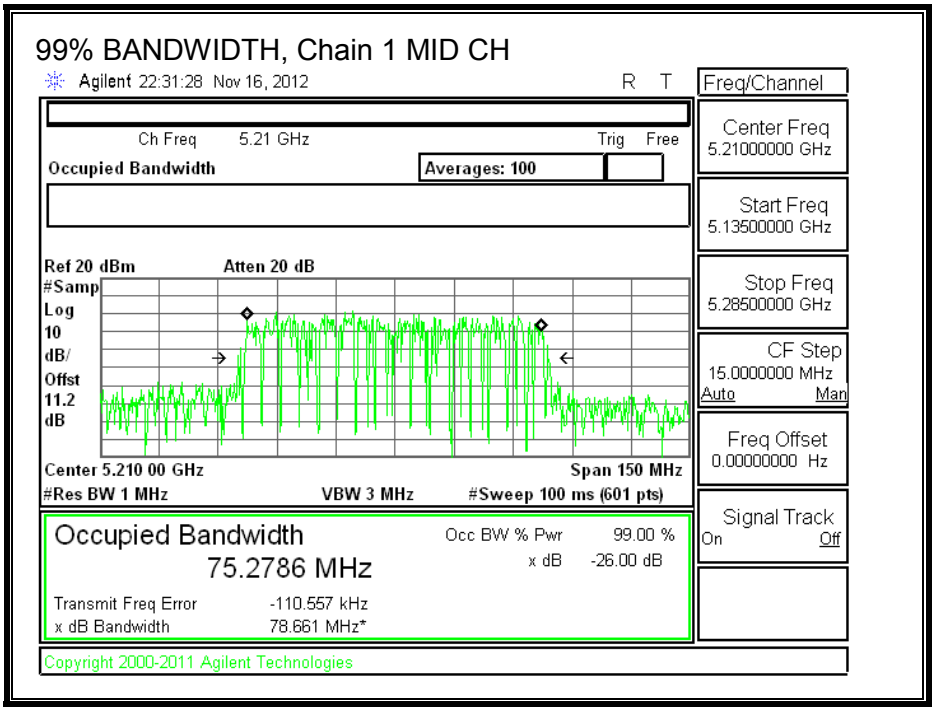
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Mid	5210	75.0814	75.2786	75.4751

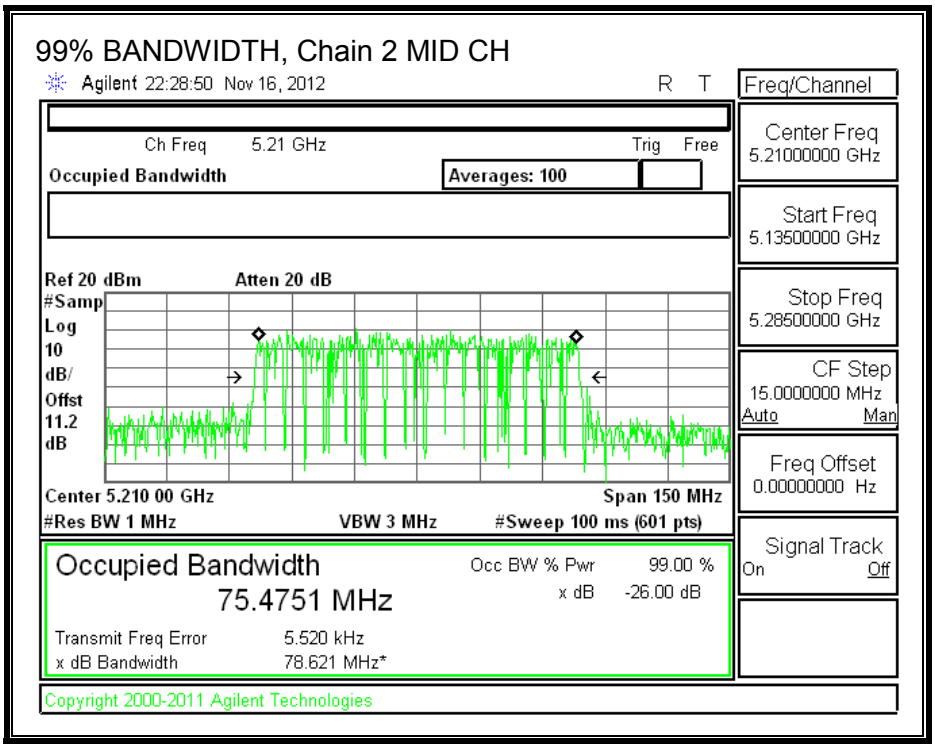
99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



8.7.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

The TX chains are uncorrelated for output power 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)
4.83	2.84	1.18	3.21

The TX chains are correlated for PSD 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)
4.83	2.84	1.18	7.85

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Mid	5210	82.2	75.0814	3.21

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)
Mid	5210	17.00	23.00	19.79	17.00	4.00	10.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Gated 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	5210	11.75	12.53	12.02	16.88	17.00	-0.12

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Mid	5210	82.2	75.0814	7.85

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)
Mid	5210	15.15	23.00	15.15	15.15	2.15	10.00	2.15

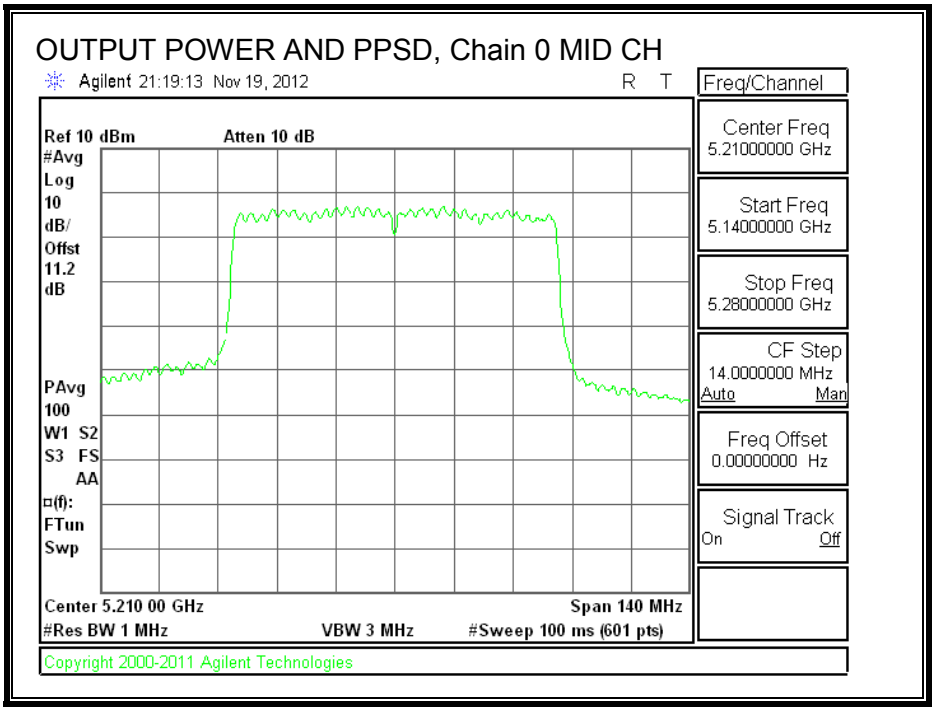
Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd PPSD

PPSD Results

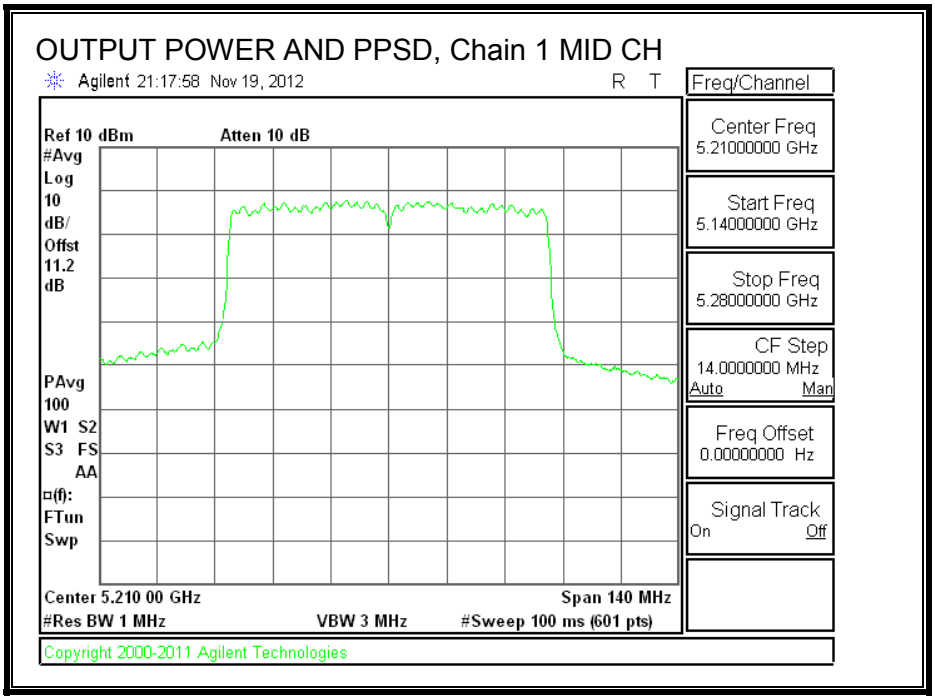
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Mid	5210	-3.40	-2.97	-3.33	2.00	2.15	-0.15

Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

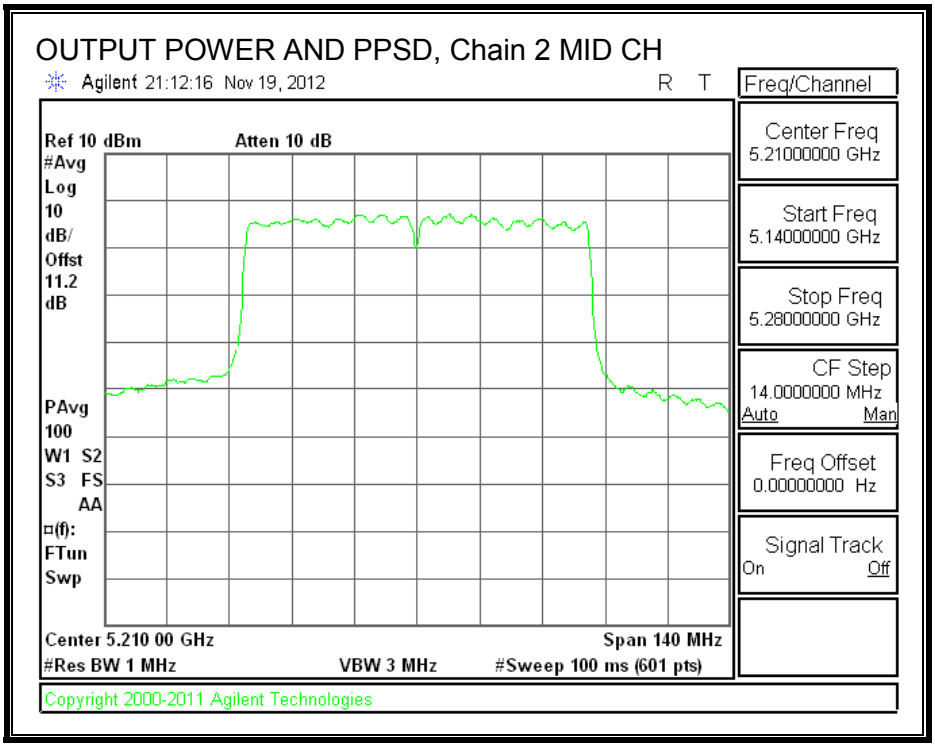
OUTPUT POWER AND PPSD, Chain 0



OUTPUT POWER AND PPSD, Chain 1



OUTPUT POWER AND PPSD, Chain 2



8.7.5. 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)
Mid	5210	6.24	-3.40	0.46	9.18	13	-3.82

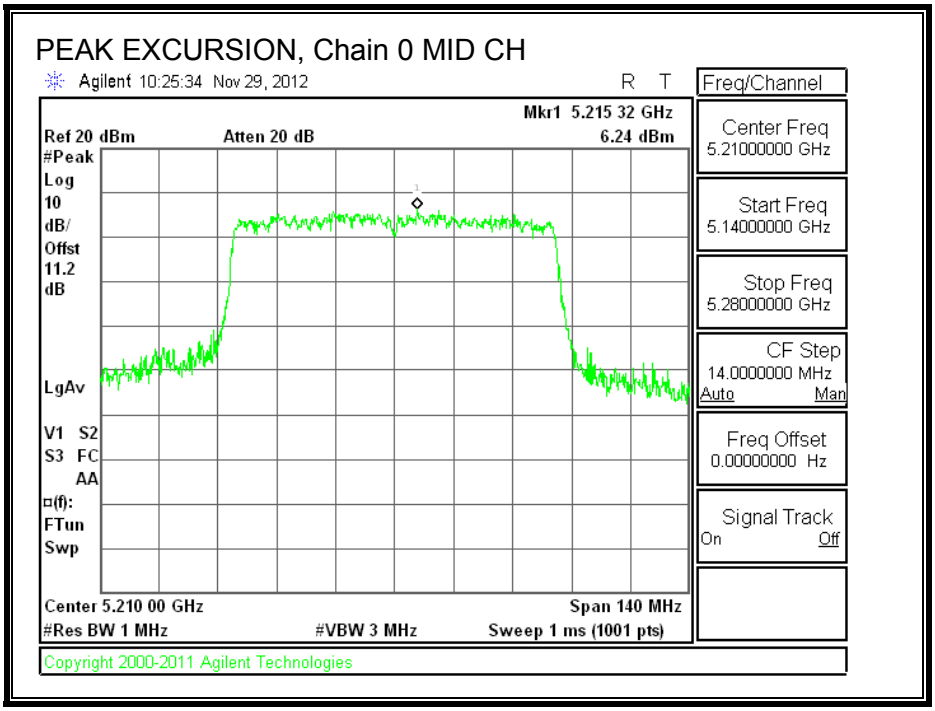
Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5210	7.50	-2.97	0.46	10.01	13	-2.99

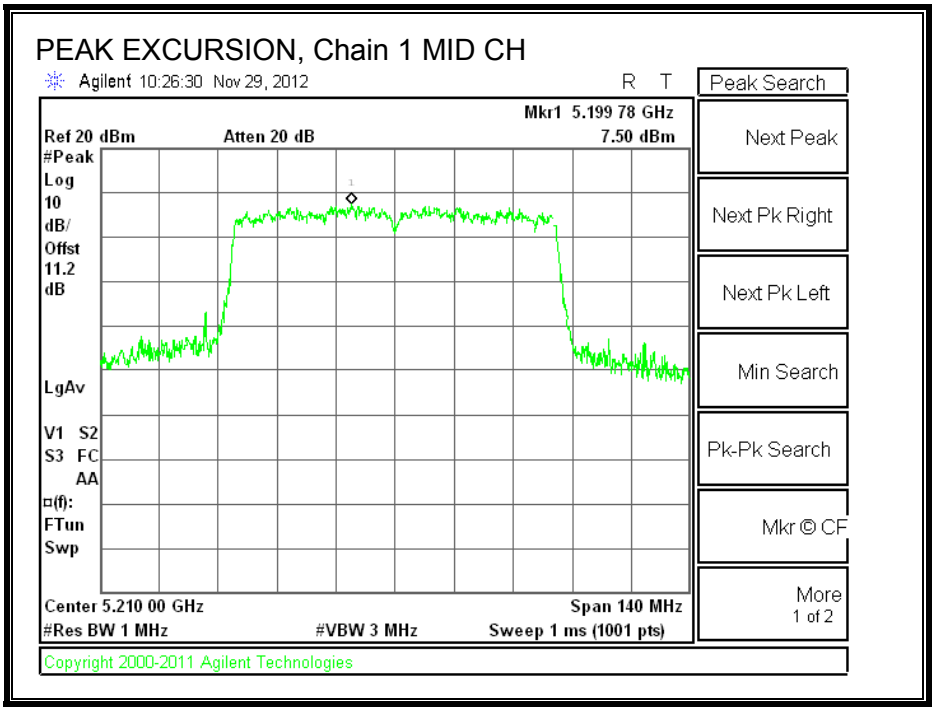
Chain 2

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5210	7.06	-3.33	0.46	9.93	13	-3.07

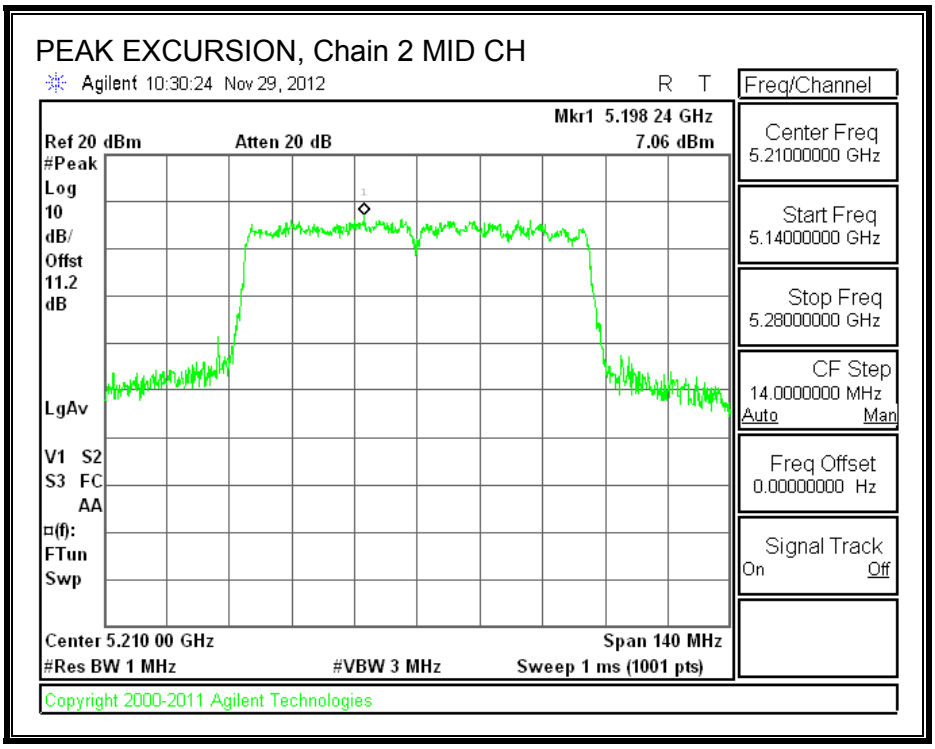
PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



PEAK EXCURSION, Chain 2



8.8. 802.11n AC80 3TX BF MODE, 5.2 GHz BAND

8.8.1. 20 dB BANDWIDTH

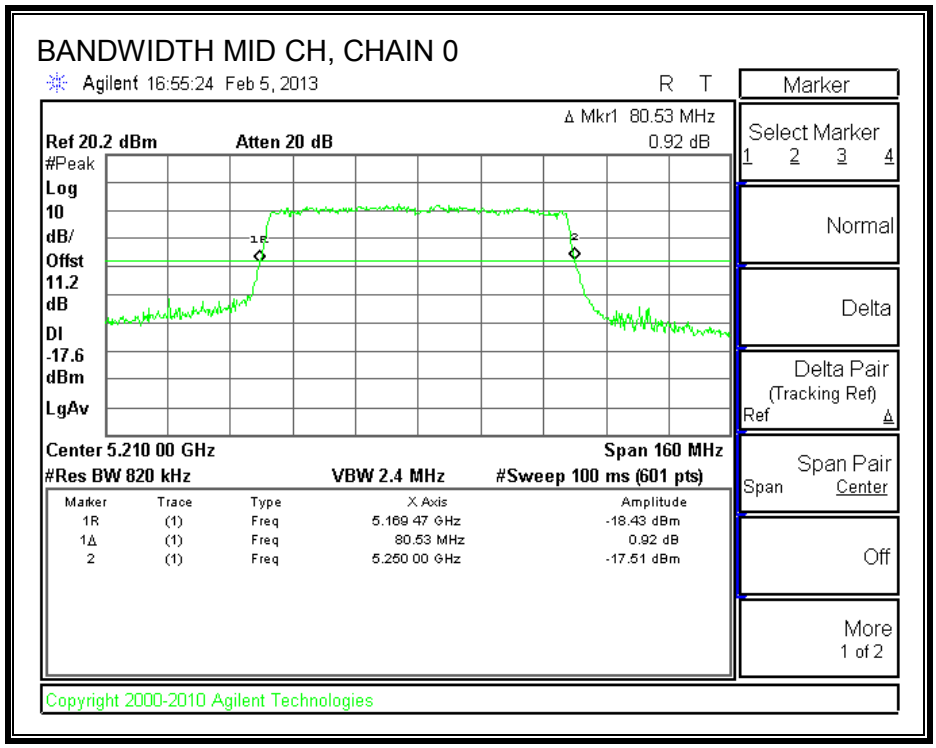
LIMITS

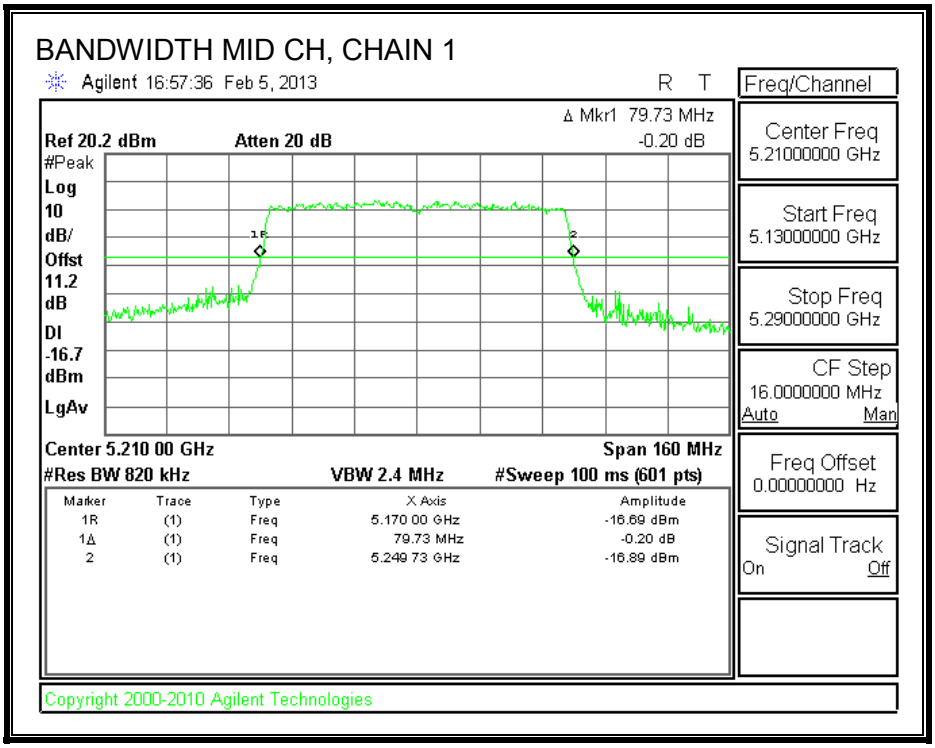
The 20 dB BW of the fundamental signal shall be contained within the band of 5150 – 5250 MHz.

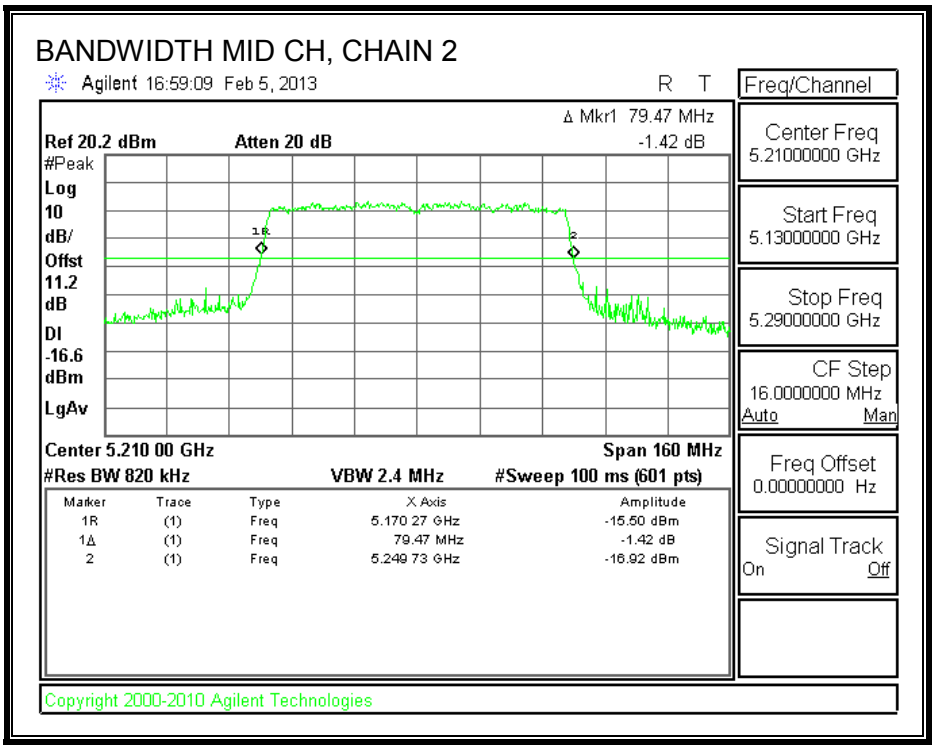
RESULTS

Chain	Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	Marker 1 (MHz)	Marker 2 (MHz)
Chain 0	Mid	5210	80.53	5169.47	5250.00
Chain 1	Mid	5210	79.73	5170.00	5249.73
Chain 2	Mid	5210	79.47	5170.27	5249.73

20 dB BANDWIDTH







8.8.2. 26 dB BANDWIDTH

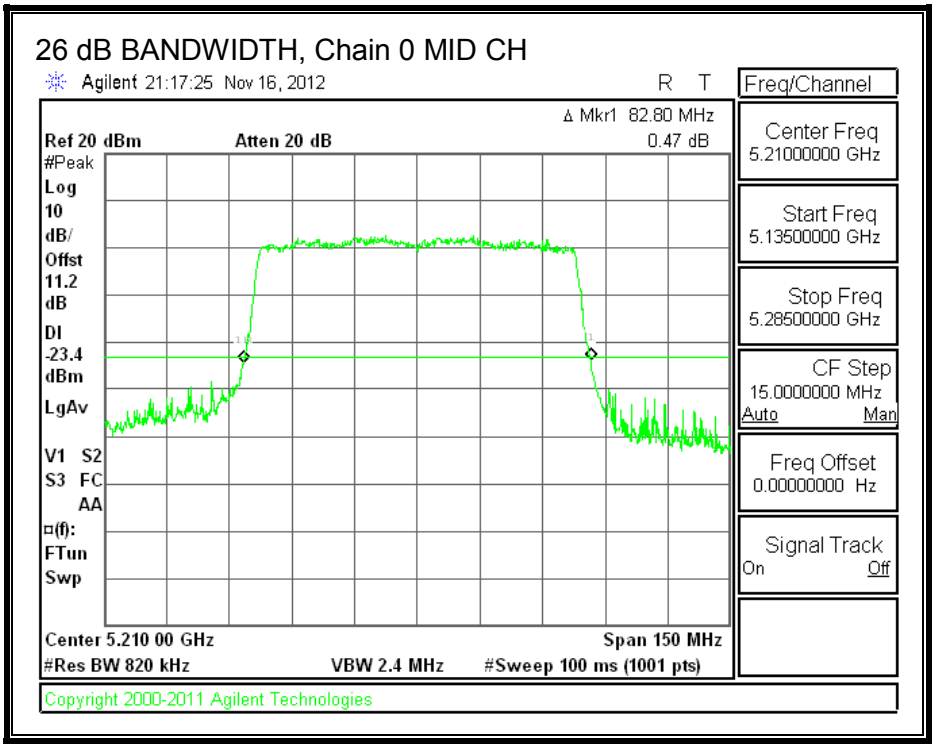
LIMITS

None; for reporting purposes only.

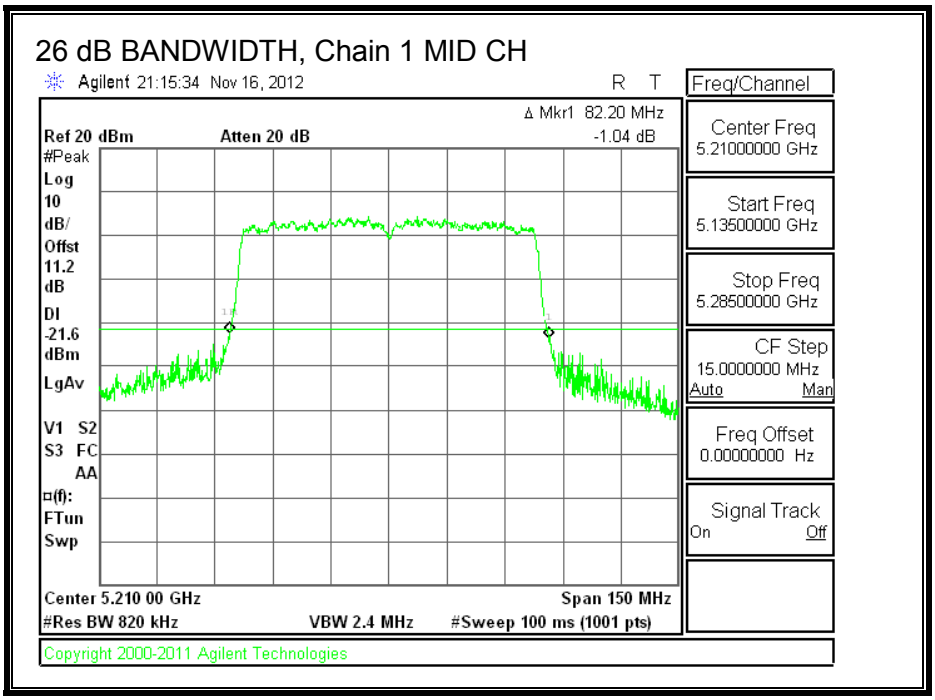
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Mid	5210	82.80	82.20	82.20

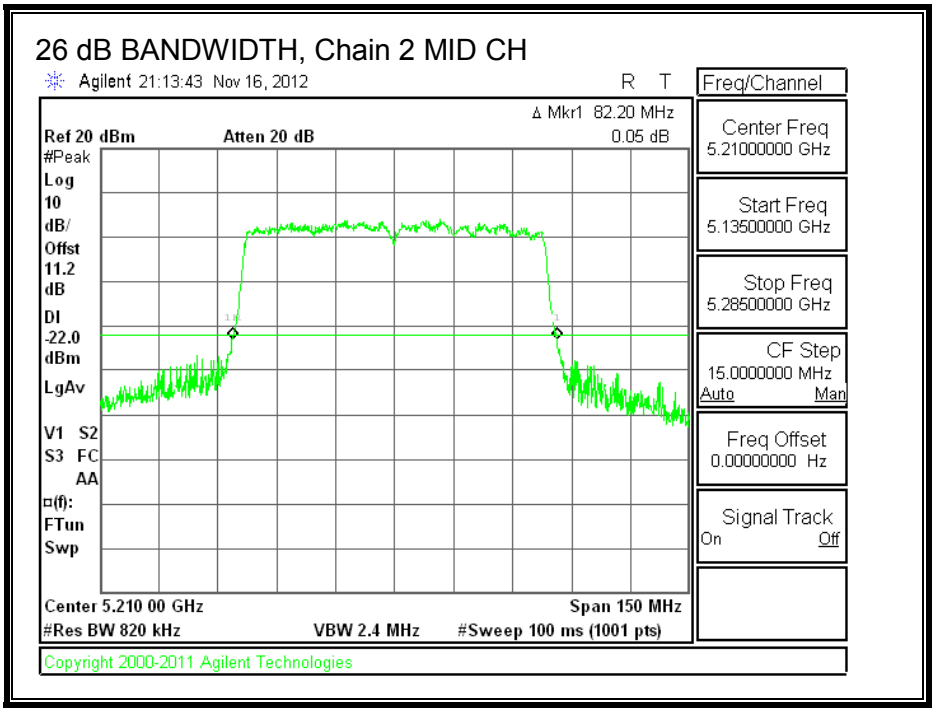
26 dB BANDWIDTH, Chain 0



26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



8.8.3. 99% BANDWIDTH

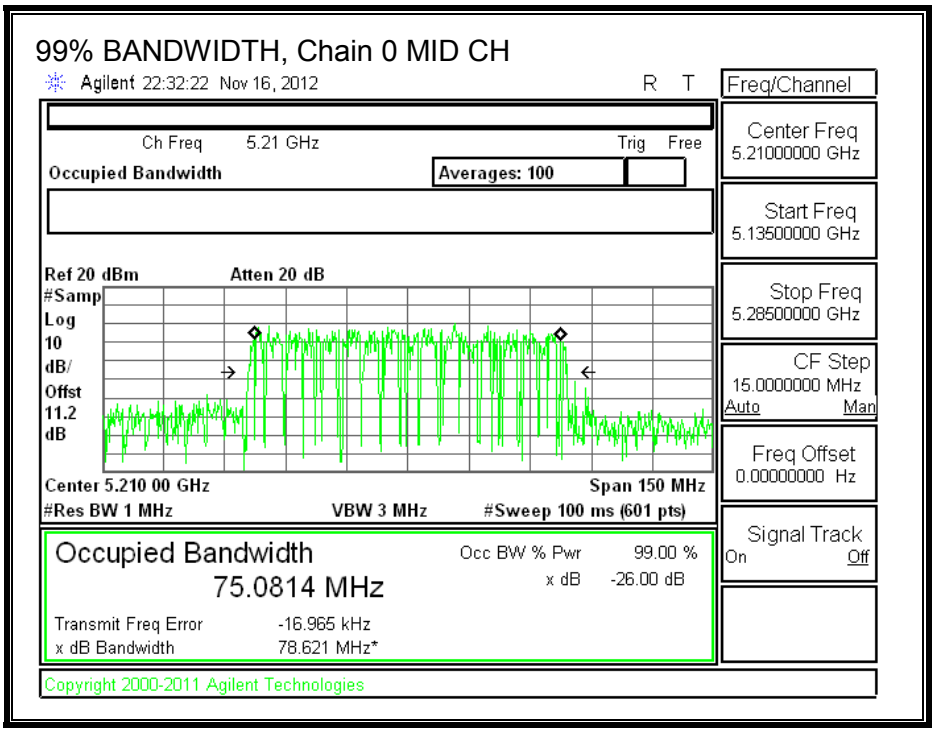
LIMITS

None; for reporting purposes only.

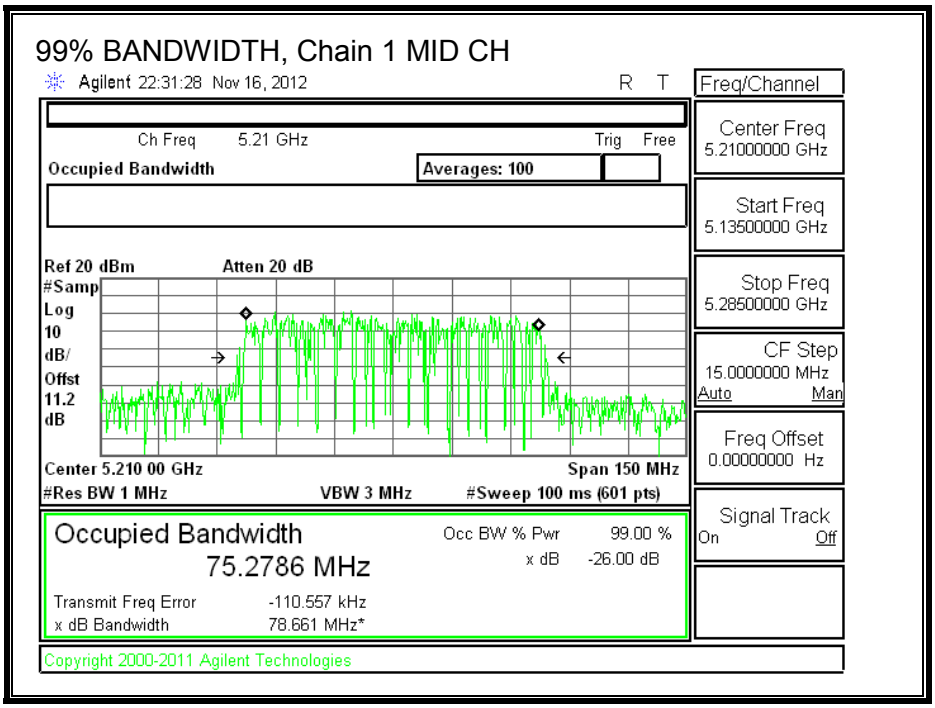
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Mid	5210	75.0814	75.2786	75.4751

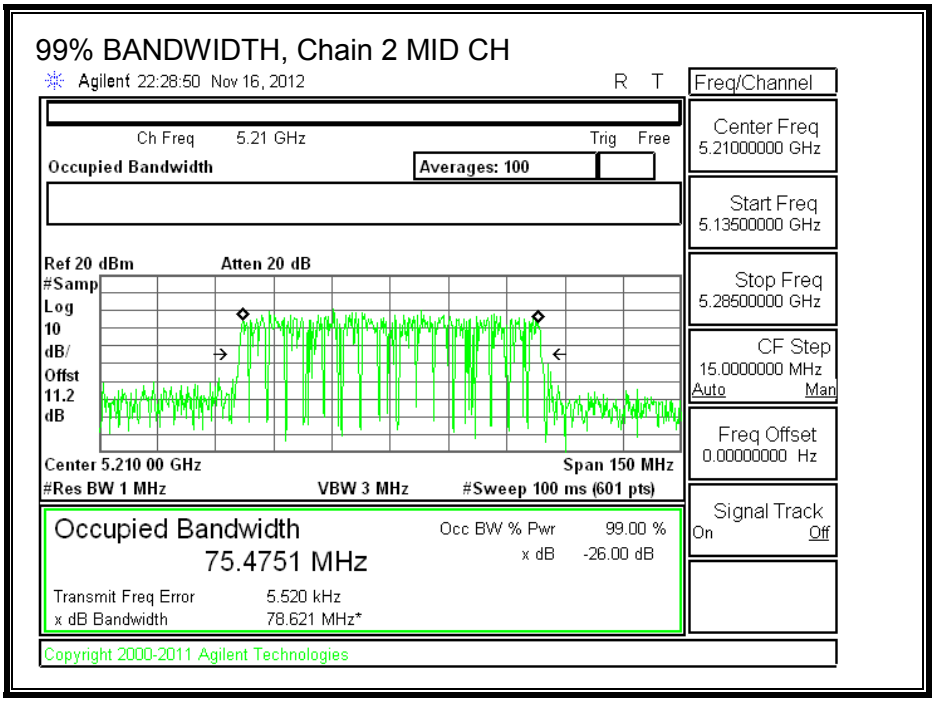
99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



8.8.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

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)
4.83	2.84	1.18	7.85

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Mid	5210	82.2	75.0814	7.85

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)
Mid	5210	15.15	23.00	15.15	15.15	2.15	10.00	2.15

Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd Power & PPSD

Output Power Results

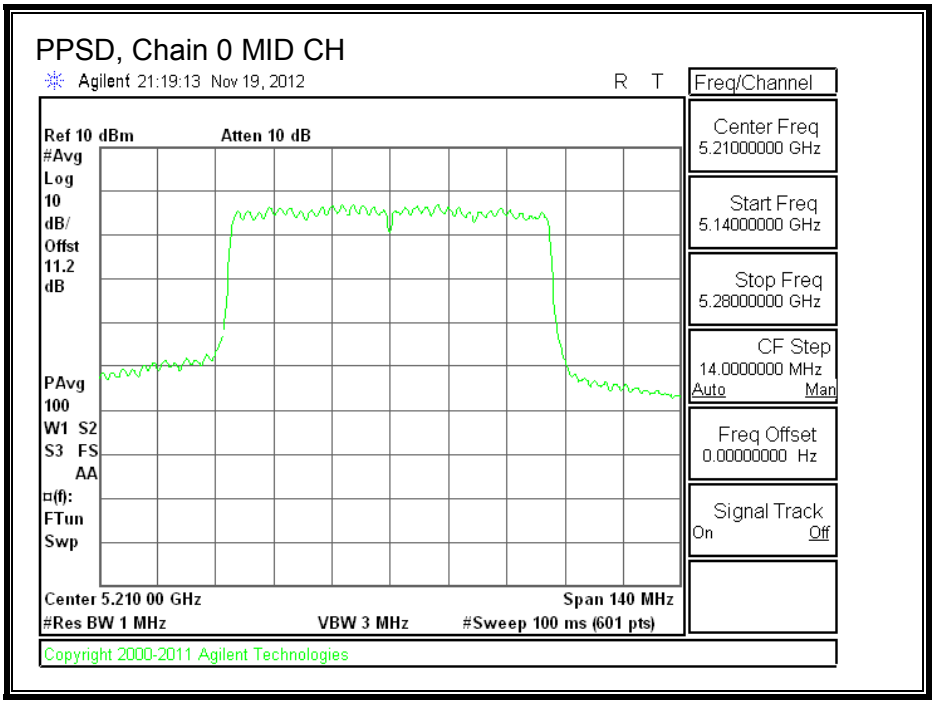
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	9.95	10.56	10.25	15.03	15.15	-0.12

PPSD Results

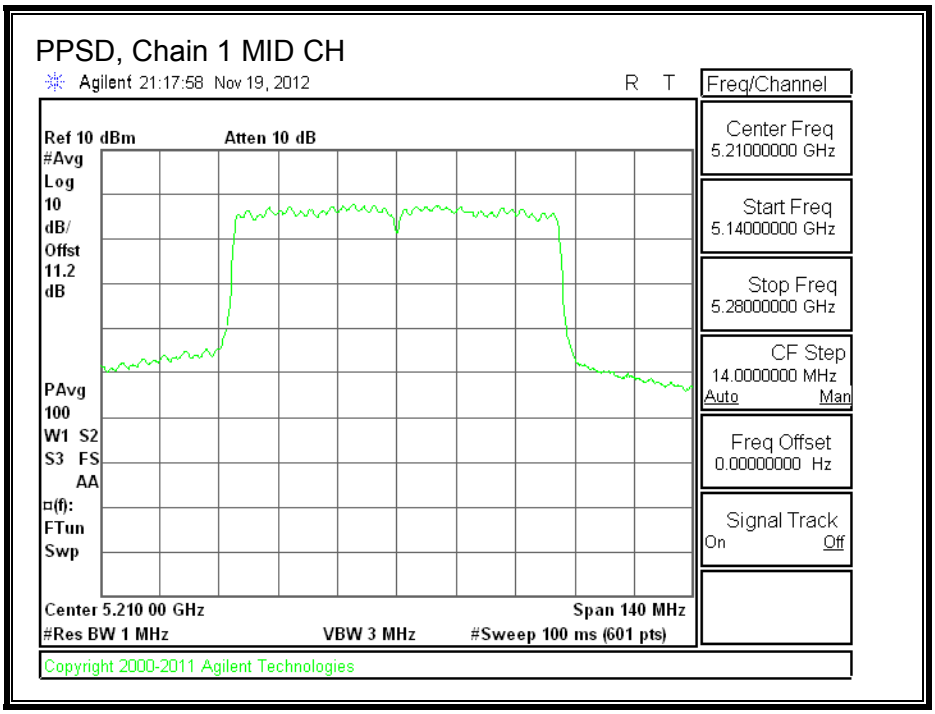
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Mid	5210	-3.40	-2.97	-3.33	2.00	2.15	-0.15

Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

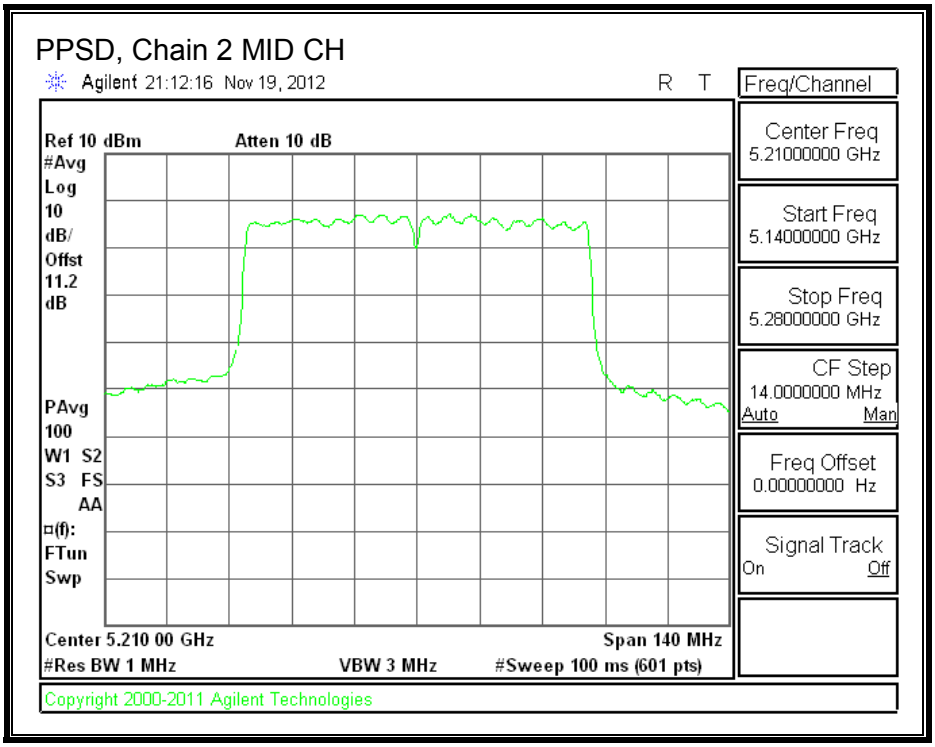
PPSD, Chain 0



PPSD, Chain 1



PPSD, Chain 2



8.9. 802.11a Legacy 1TX MODE, 5.3 GHz BAND

8.9.1. 26 dB BANDWIDTH

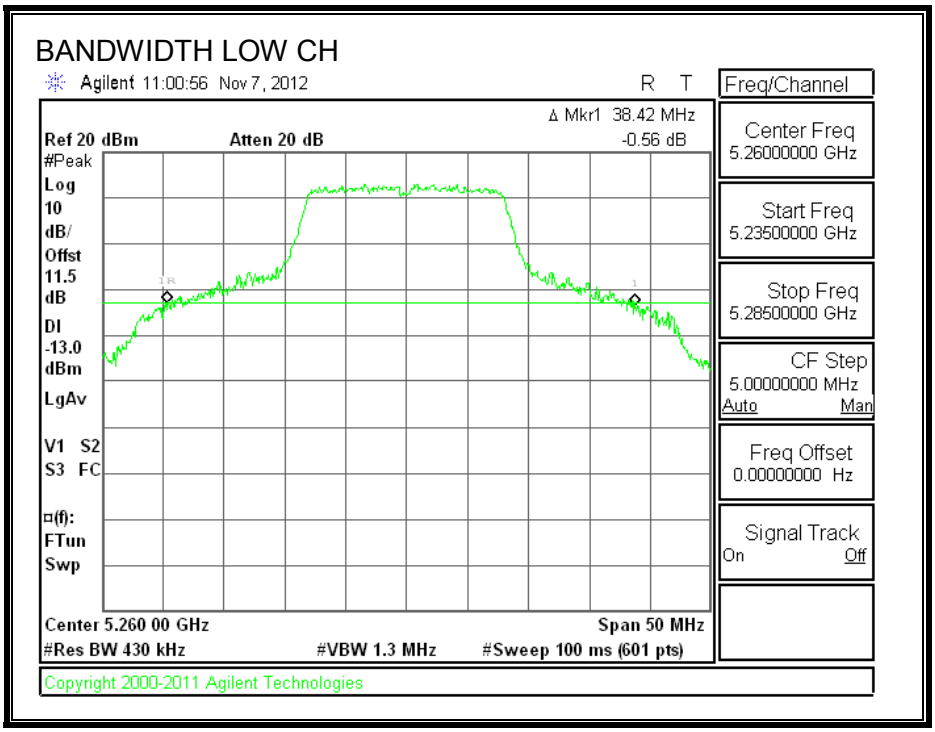
LIMITS

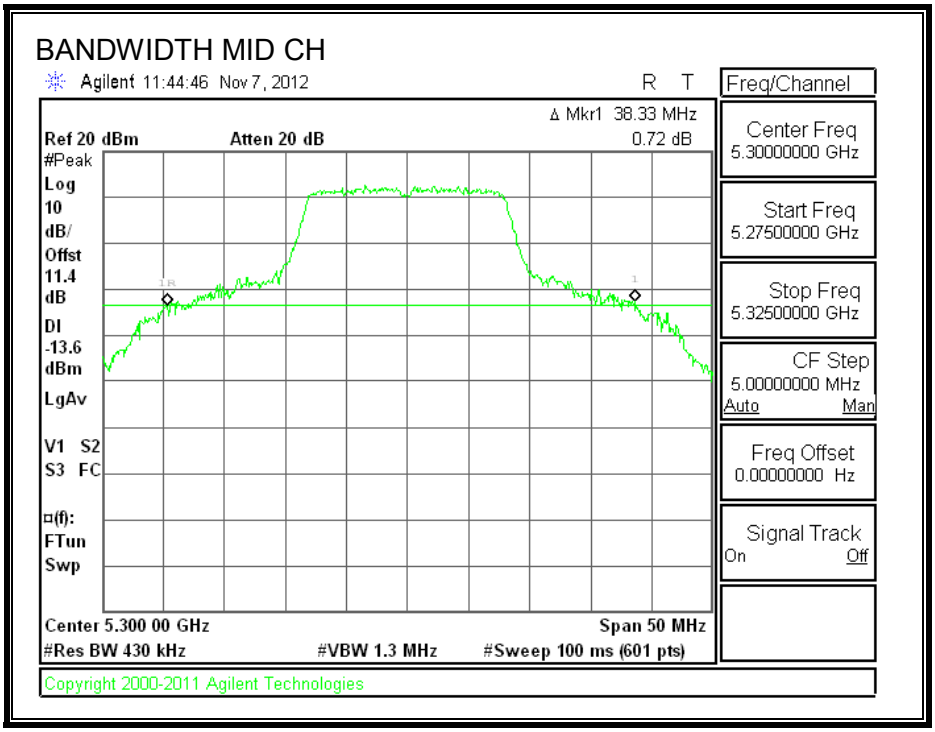
None; for reporting purposes only.

RESULTS

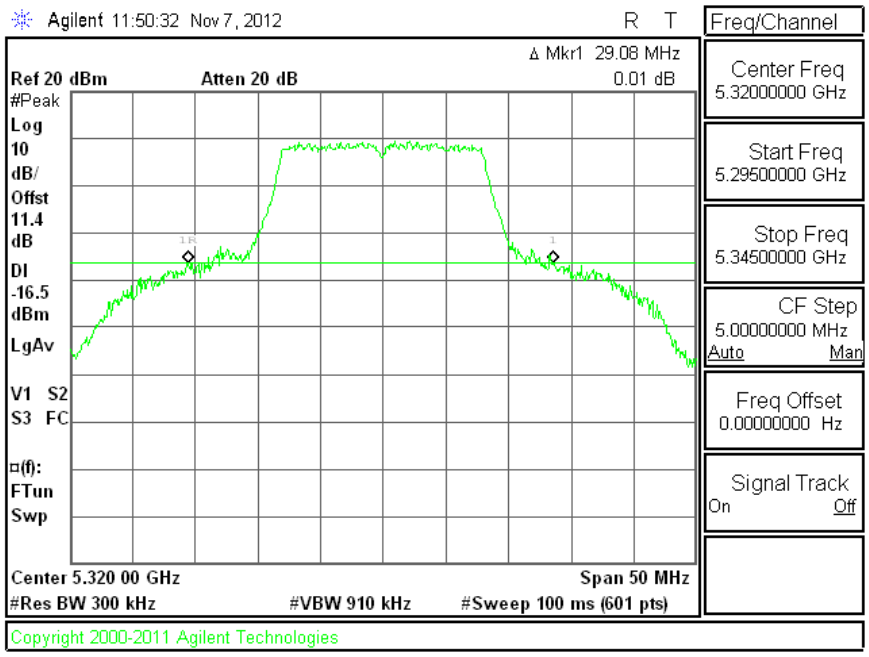
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	38.42
Mid	5300	38.33
High	5320	29.08

26 dB BANDWIDTH





BANDWIDTH HIGH CH



8.9.2. 99% BANDWIDTH

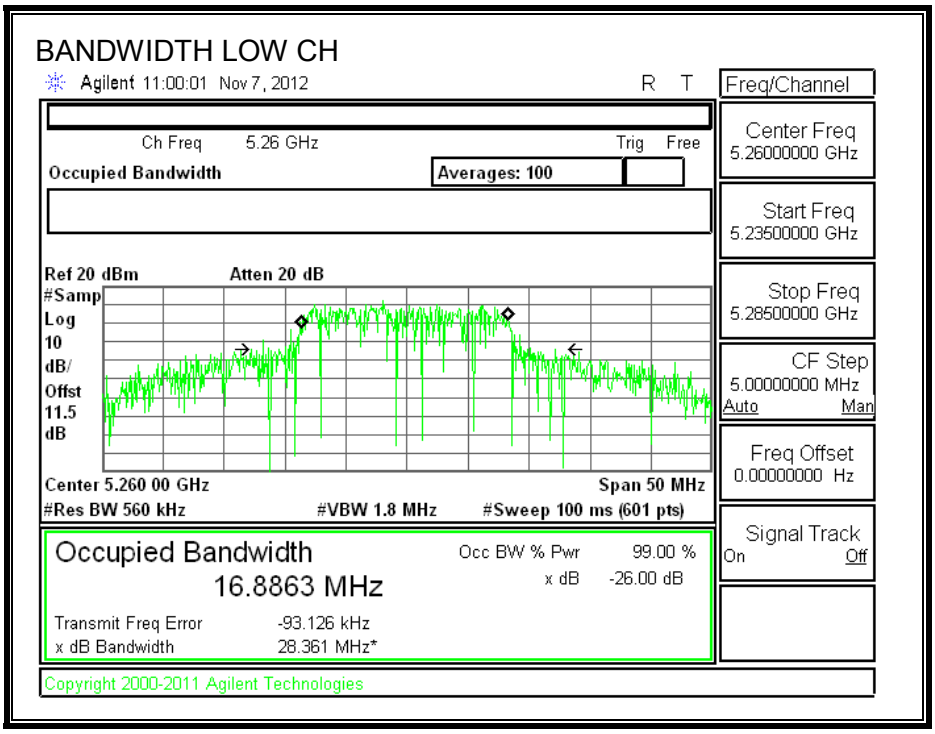
LIMITS

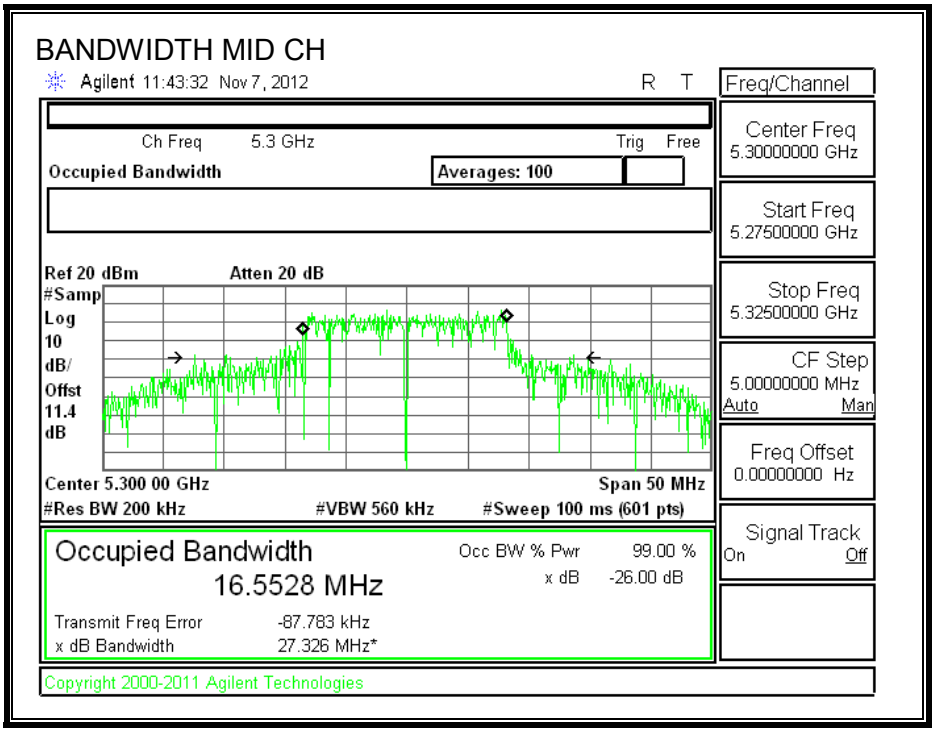
None; for reporting purposes only.

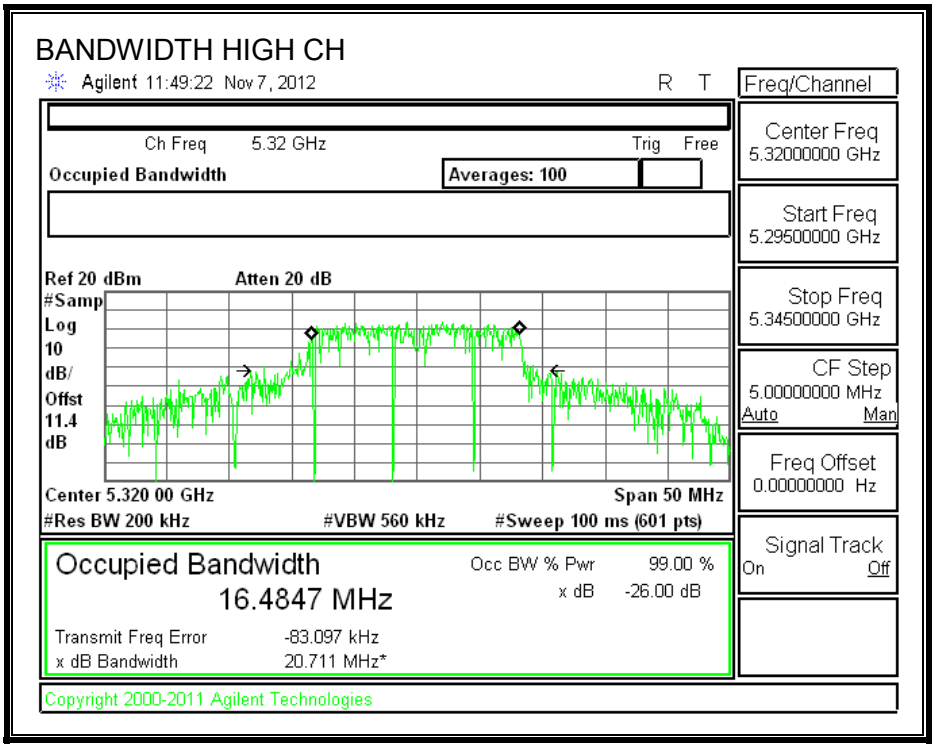
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	16.8863
Mid	5300	16.5528
High	5320	16.4847

99% BANDWIDTH







8.9.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Low	5260	38.42	16.8863	4.52
Mid	5300	38.33	16.5528	4.52
High	5320	29.08	16.4847	4.52

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	5260	24.00	23.28	29.28	23.28	11.00	11.00	11.00
Mid	5300	24.00	23.19	29.19	23.19	11.00	11.00	11.00
High	5320	24.00	23.17	29.17	23.17	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

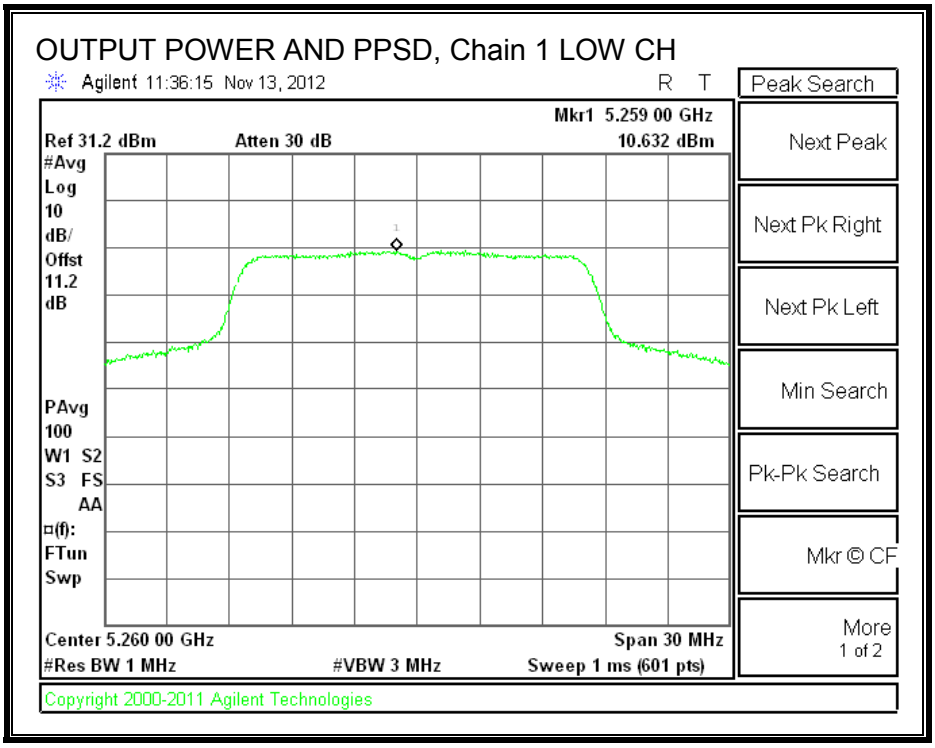
Output Power Results

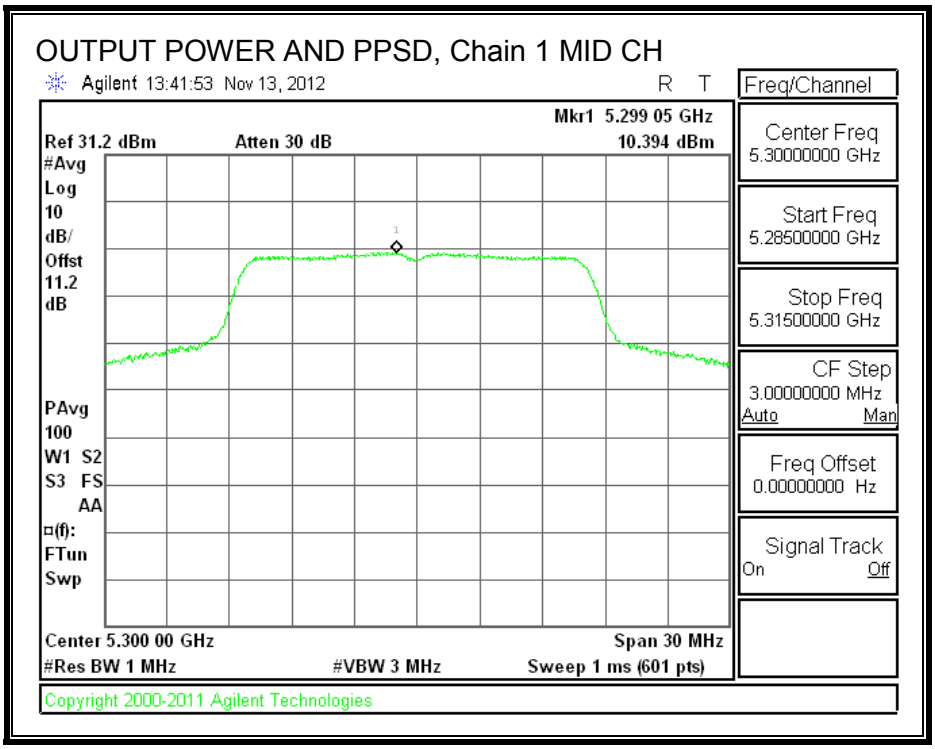
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	21.67	21.67	23.28	-1.61
Mid	5300	20.63	20.63	23.19	-2.56
High	5320	19.51	19.51	23.17	-3.66

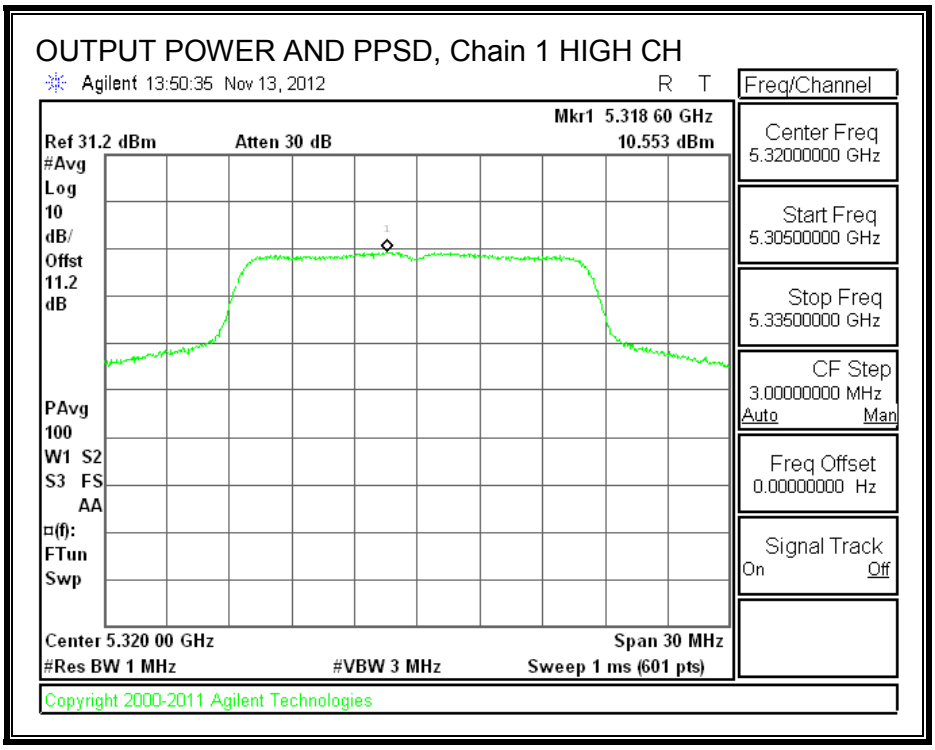
PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	10.632	10.632	11.00	-0.368
Mid	5300	10.394	10.394	11.00	-0.606
High	5320	10.553	10.553	11.00	-0.447

OUTPUT POWER AND PPSD, Chain 1







8.10. 802.11n HT20 CDD 3TX MODE, 5.3 GHz BAND

8.10.1. 26 dB BANDWIDTH

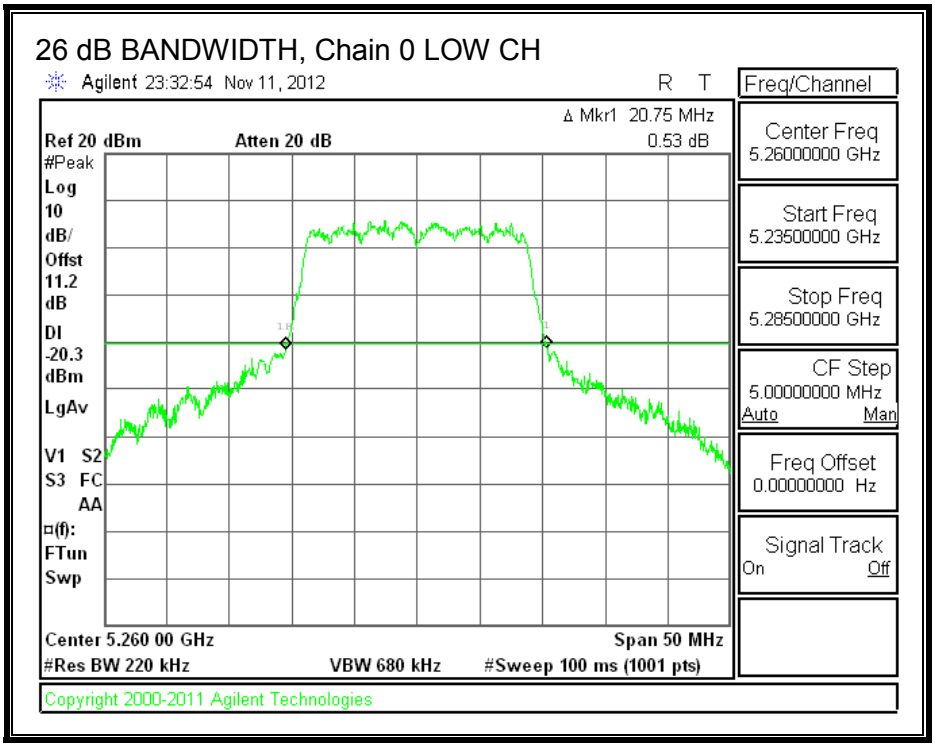
LIMITS

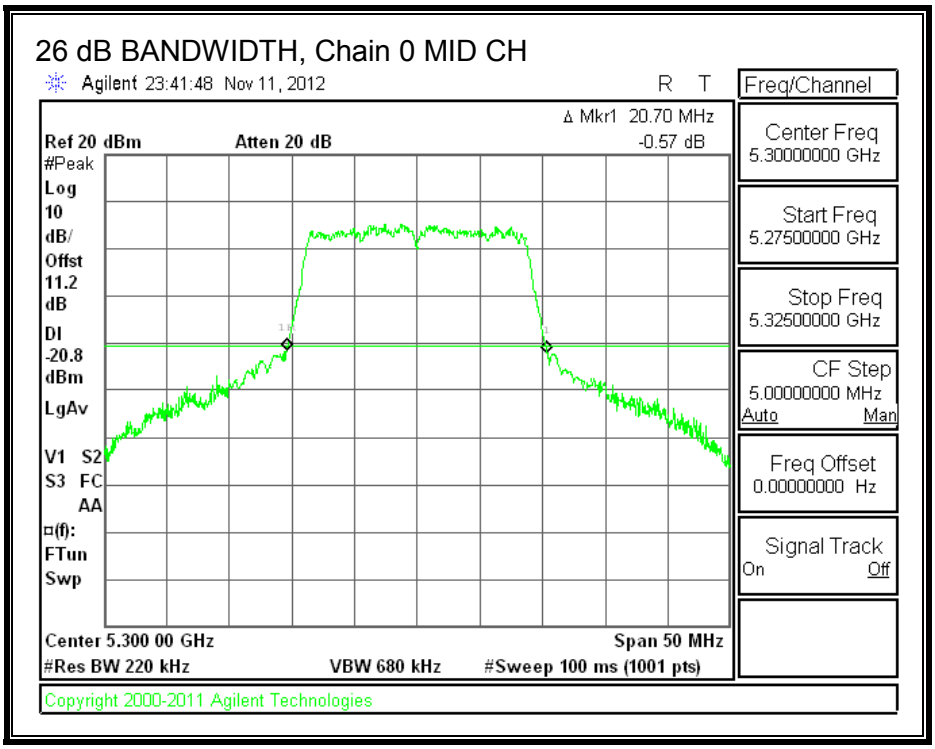
None; for reporting purposes only.

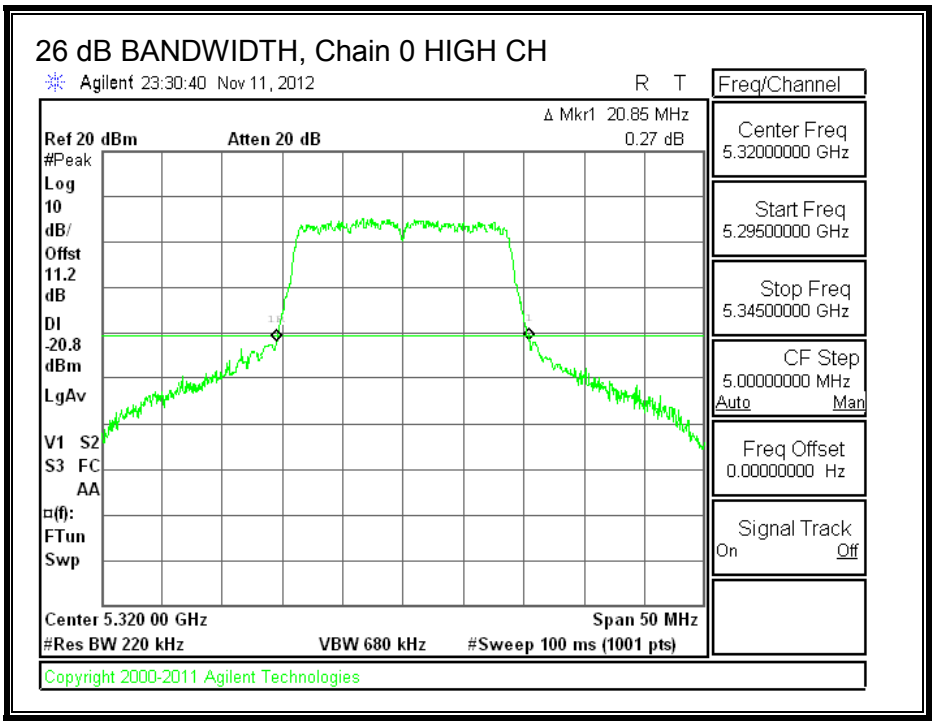
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5260	20.75	20.85	21.75
Mid	5300	20.70	21.45	21.75
High	5320	20.85	21.00	22.25

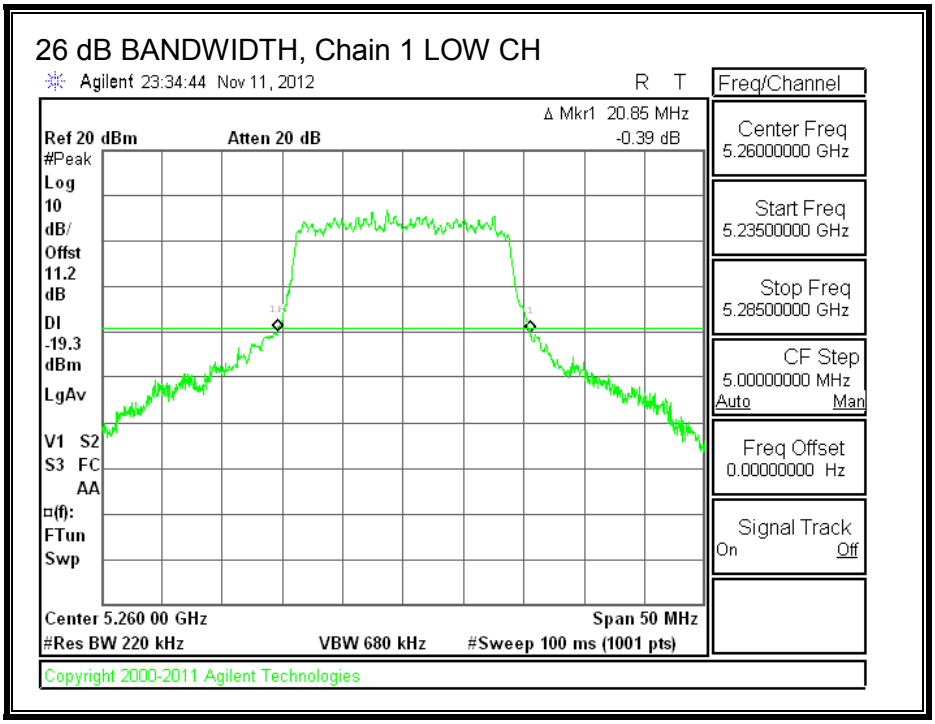
26 dB BANDWIDTH, Chain 0

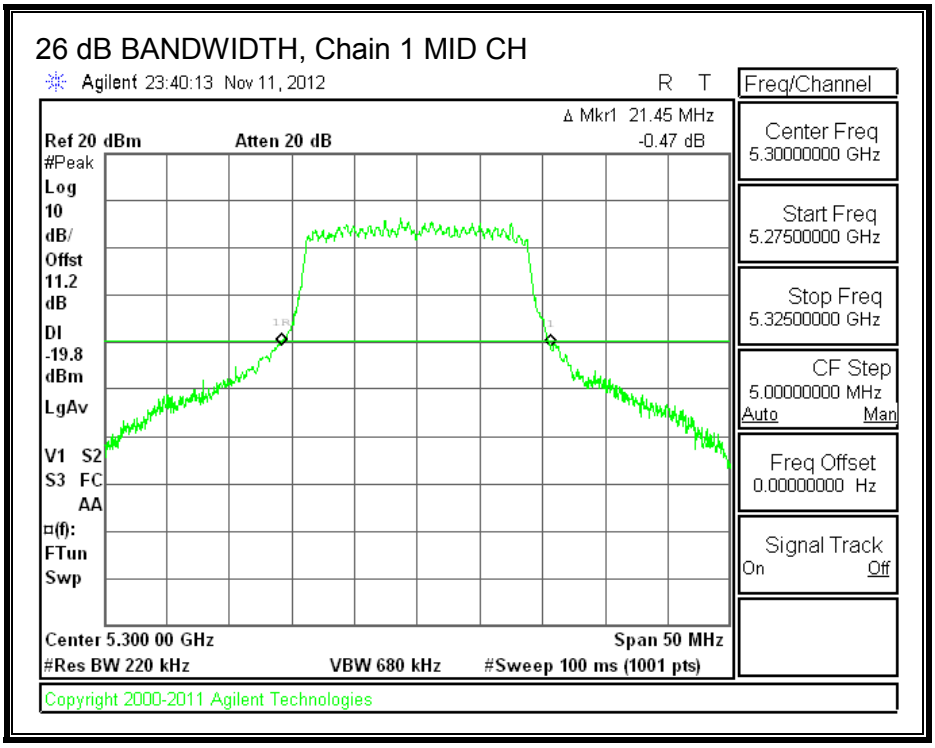


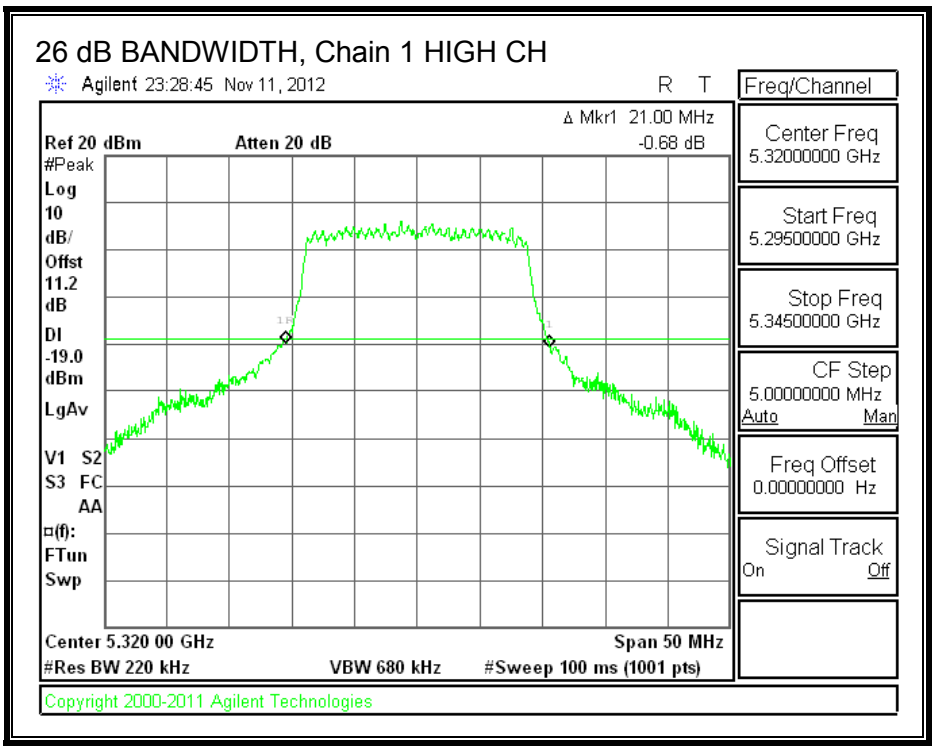




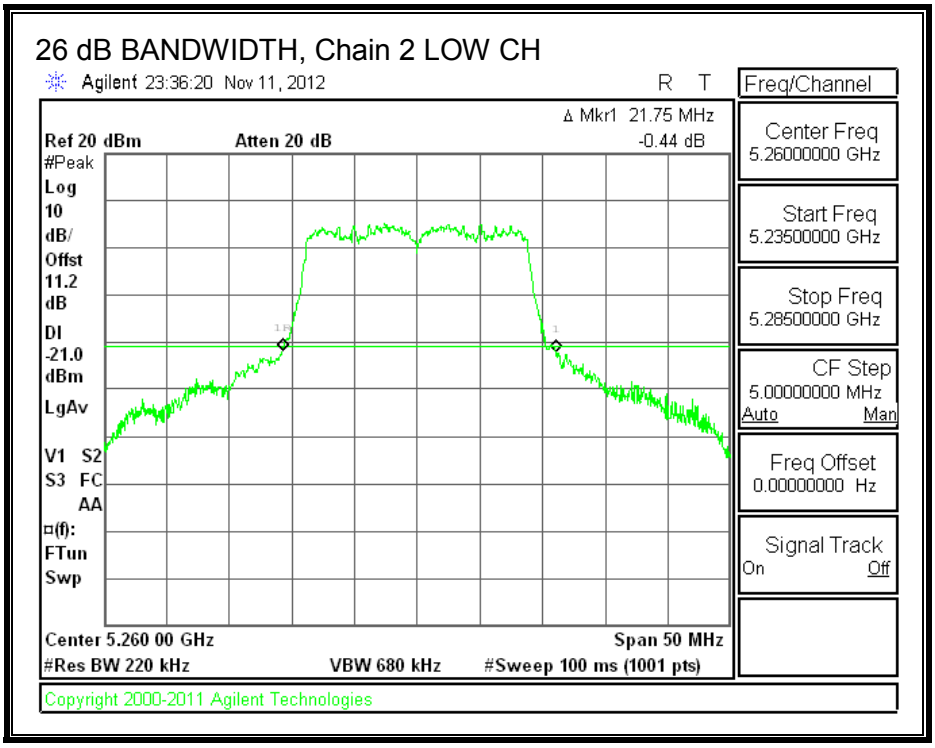
26 dB BANDWIDTH, Chain 1

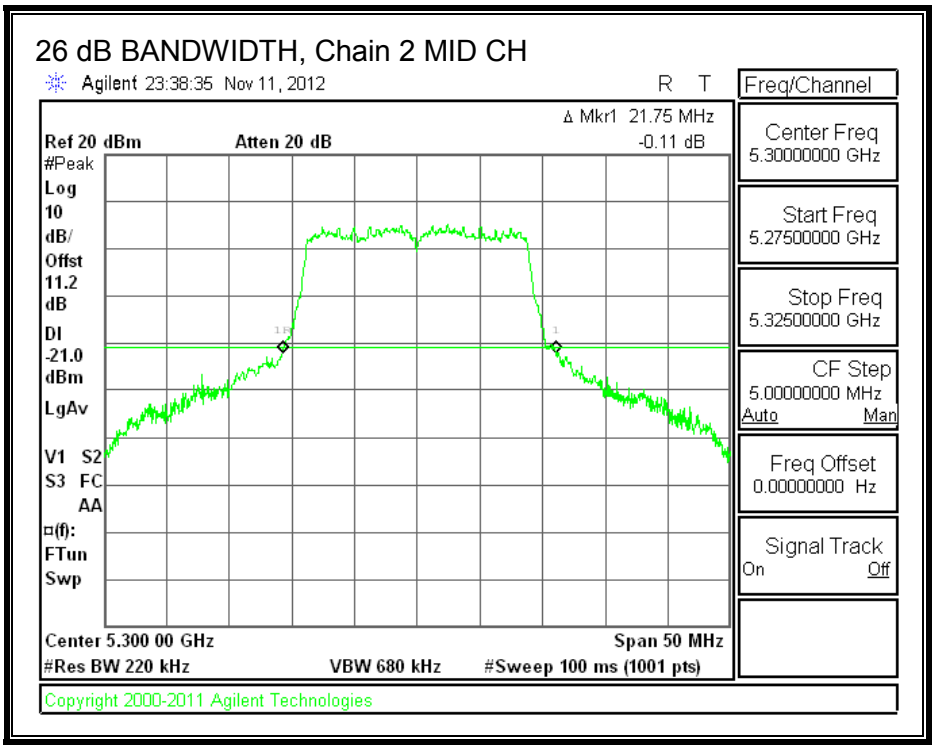


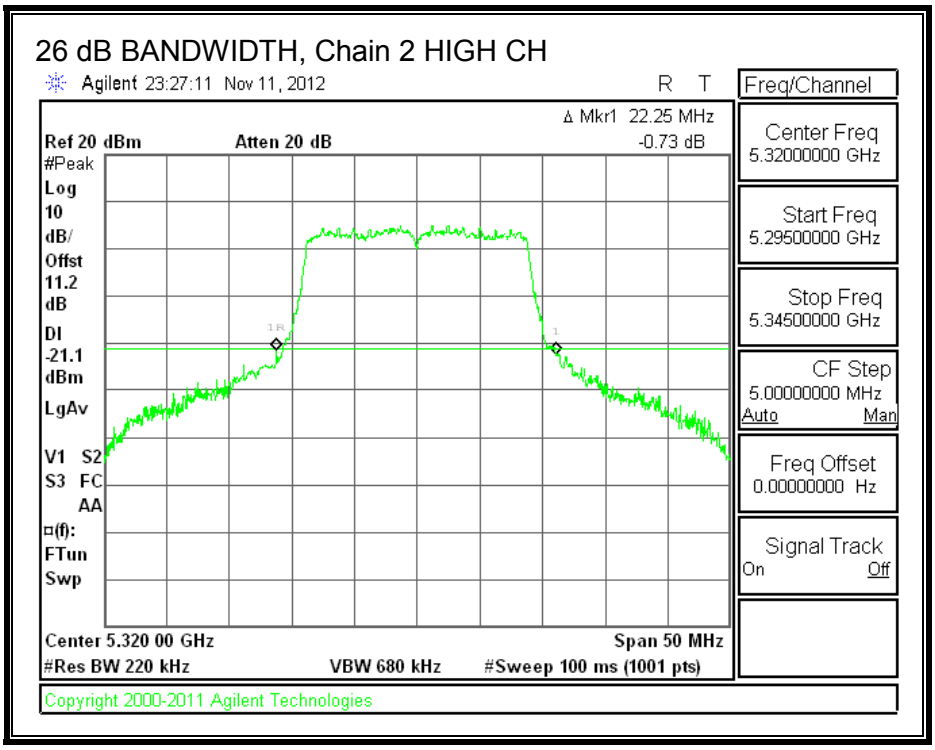




26 dB BANDWIDTH, Chain 2







8.10.2. 99% BANDWIDTH

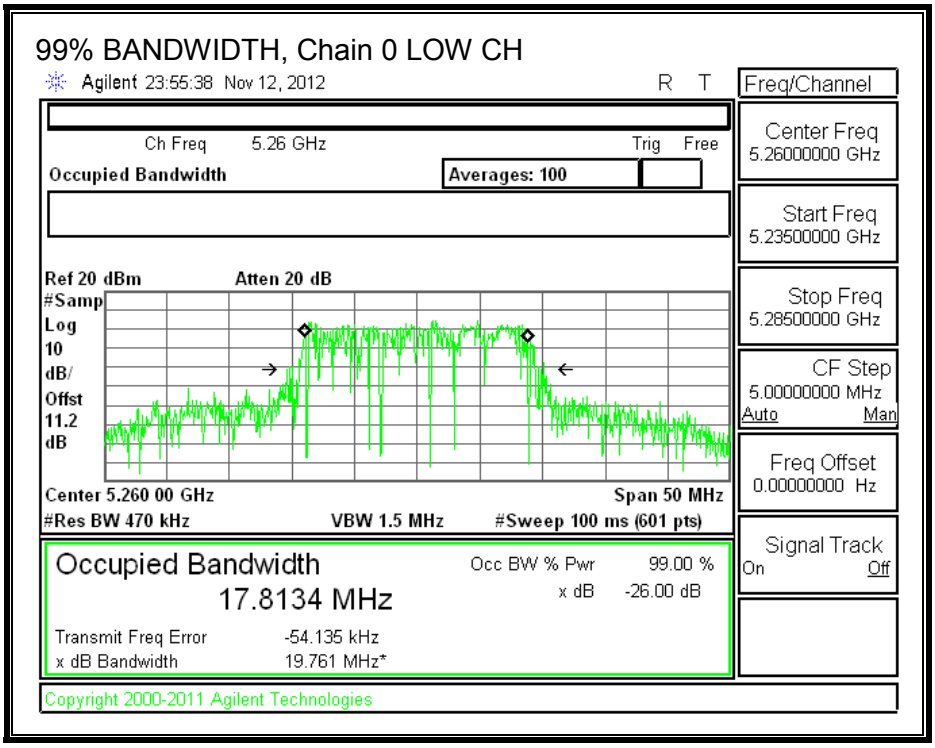
LIMITS

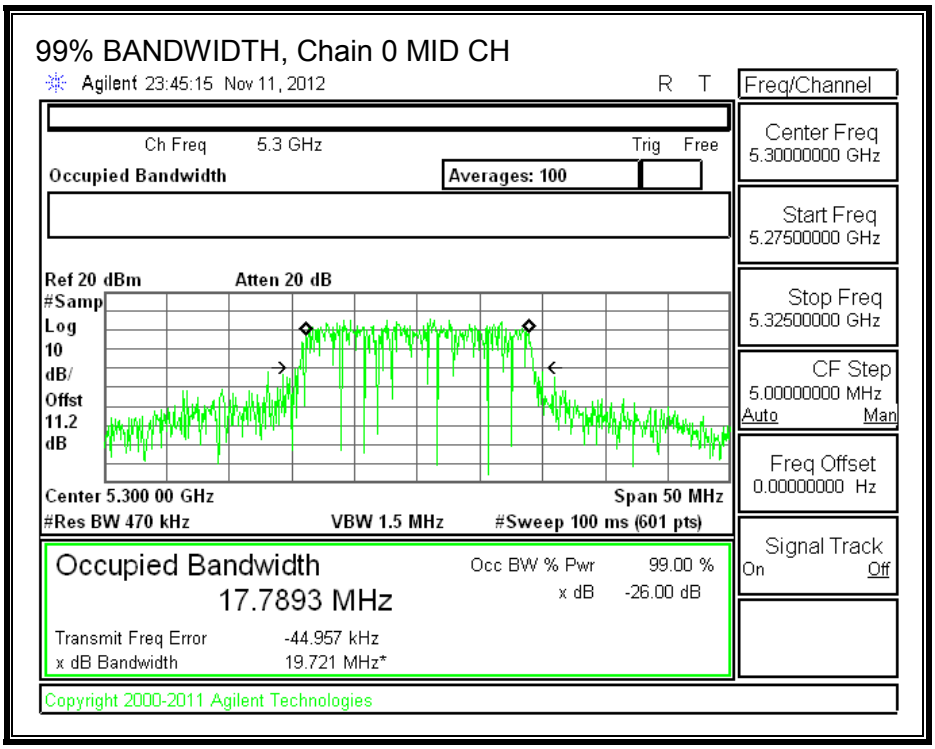
None; for reporting purposes only.

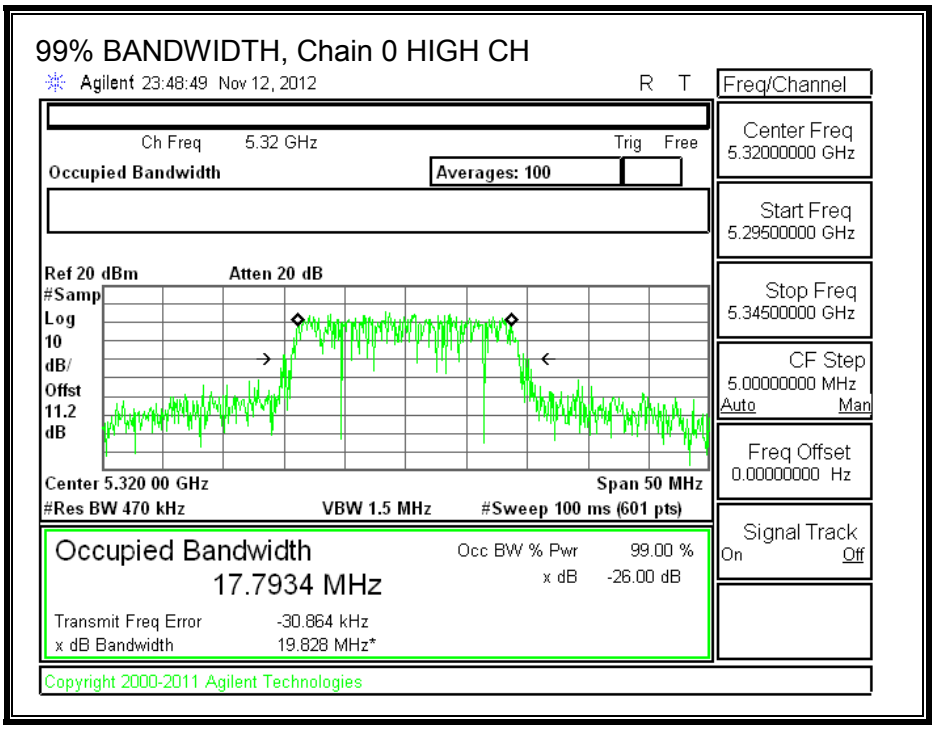
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5260	17.8134	17.7441	17.7654
Mid	5300	17.7893	17.7528	17.7974
High	5320	17.7934	17.7700	17.7560

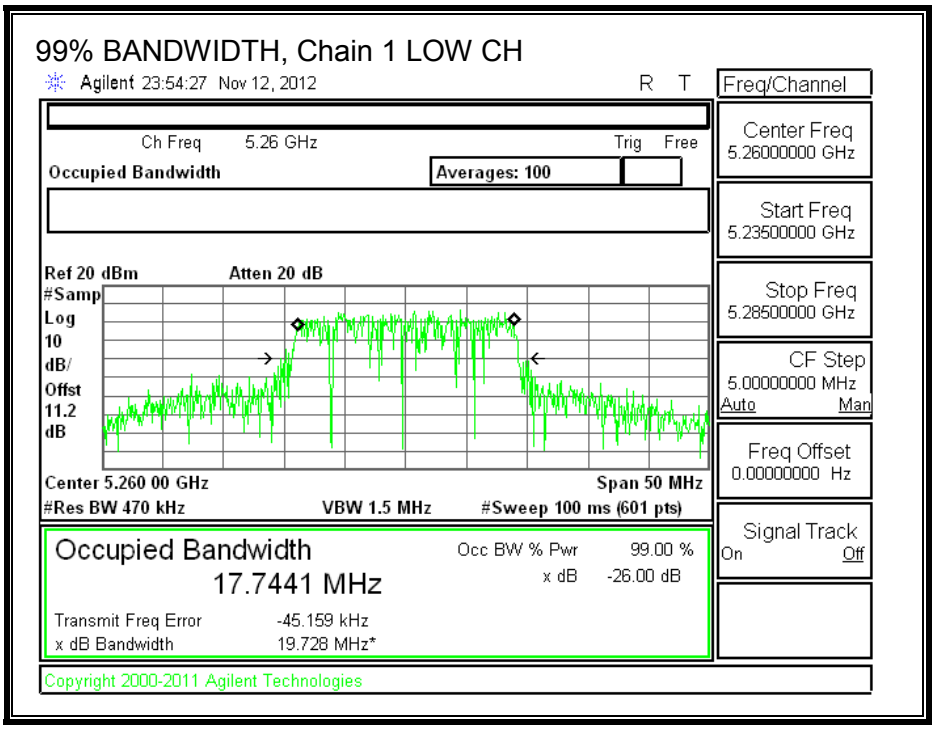
99% BANDWIDTH, Chain 0



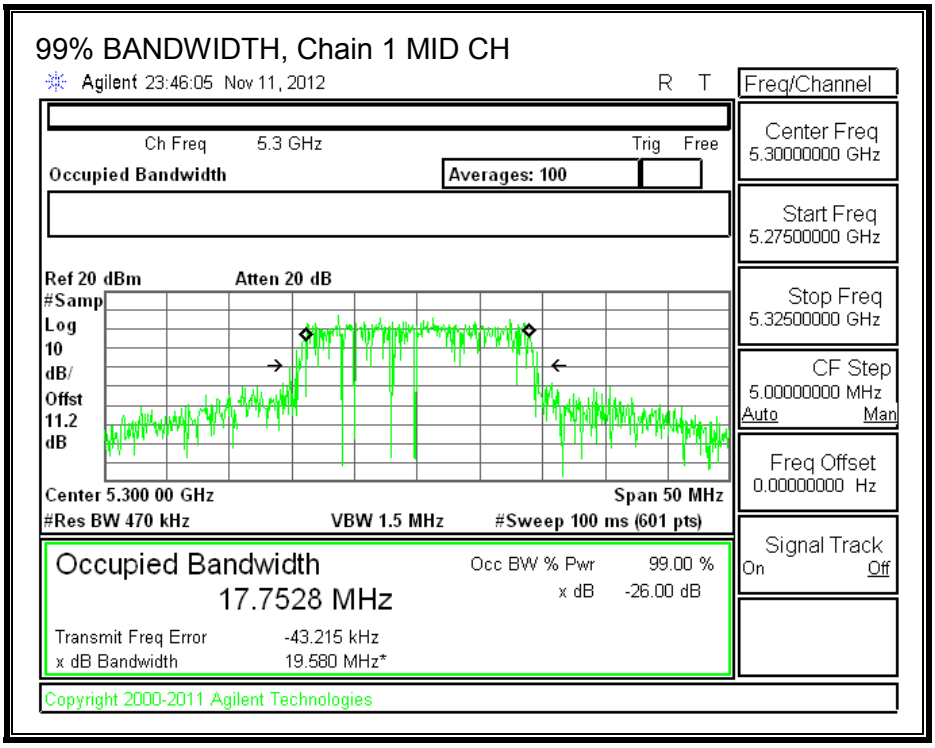




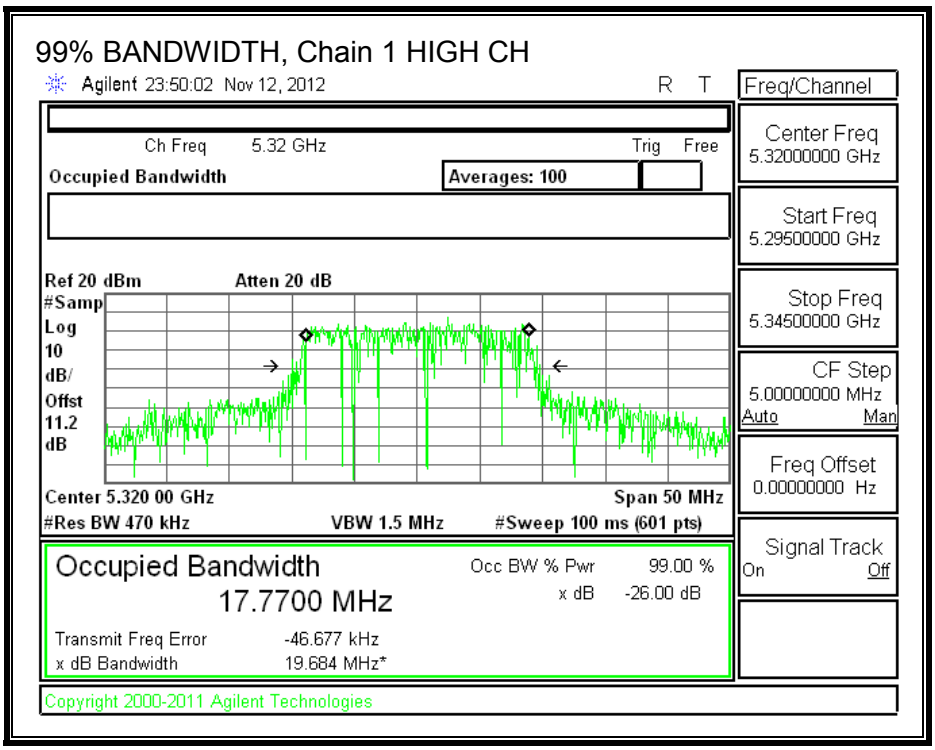
99% BANDWIDTH, Chain 1



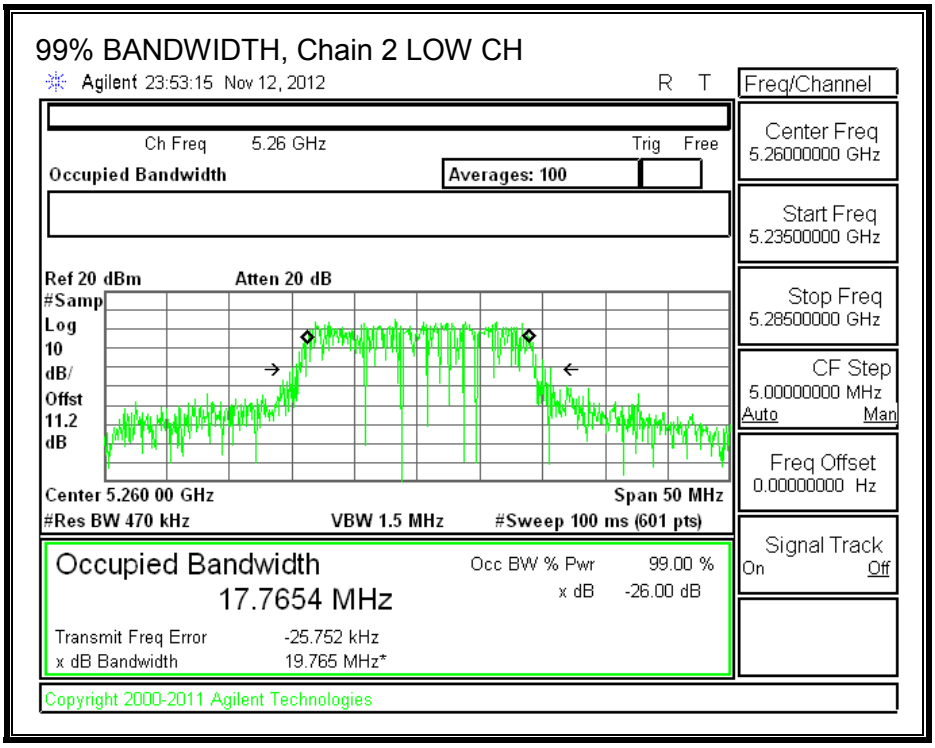
99% BANDWIDTH, Chain 1 MID CH

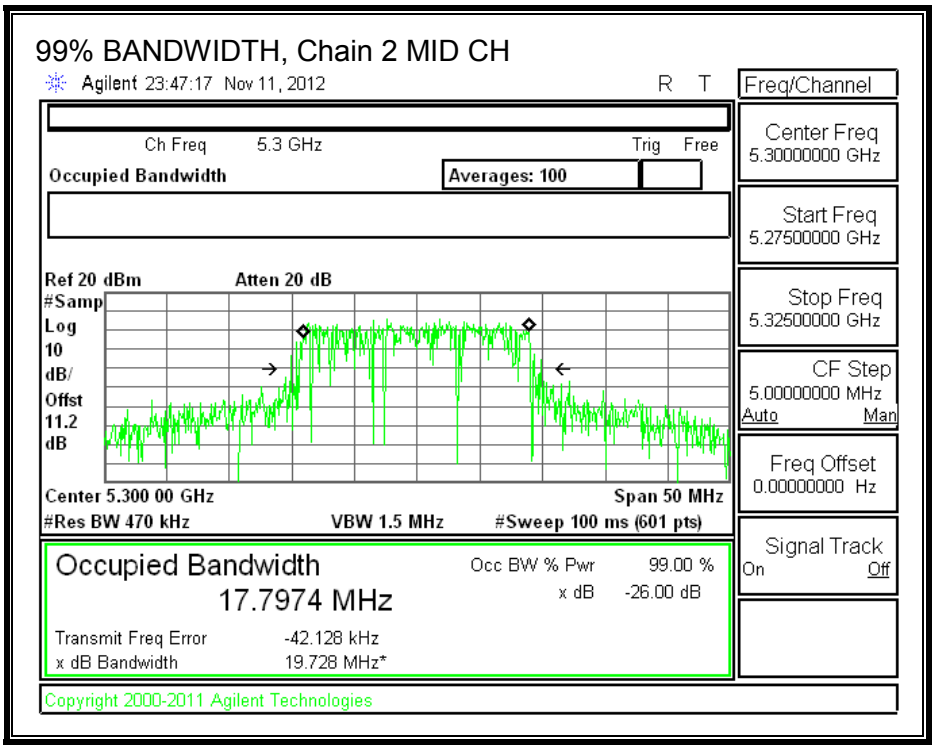


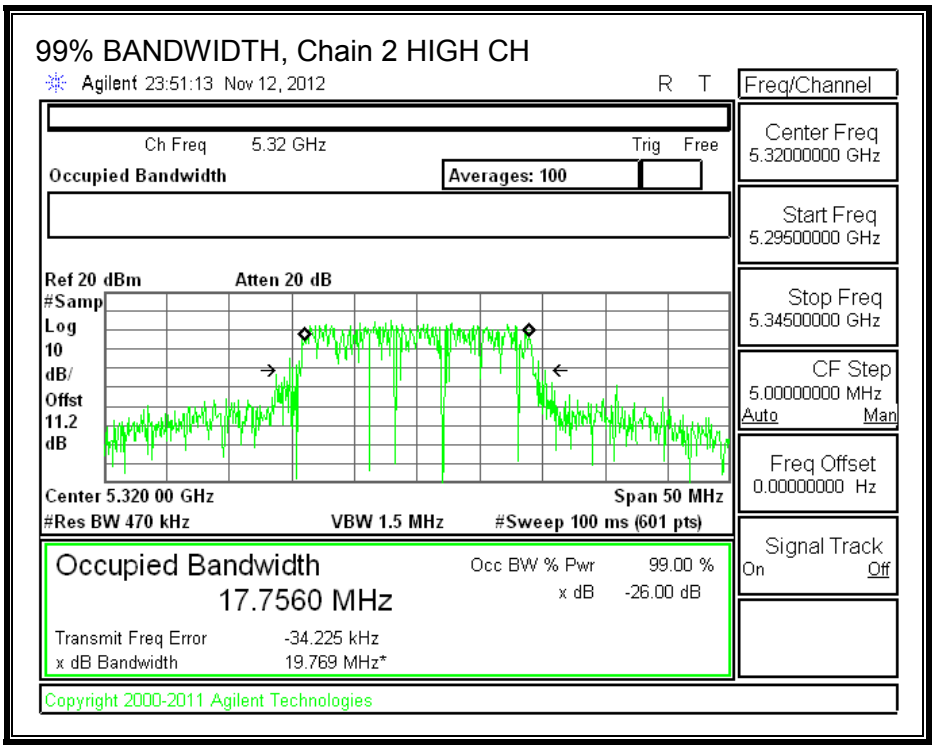
99% BANDWIDTH, Chain 1 HIGH CH



99% BANDWIDTH, Chain 2







8.10.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

The TX chains are uncorrelated for output power 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)
4.52	3.21	1.48	3.24

The TX chains are correlated for PSD 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)
4.52	3.21	1.48	7.93

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5260	20.75	17.7441	3.24
Mid	5300	20.70	17.7528	3.24
High	5320	20.85	17.7560	3.24

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	5260	24.00	23.49	29.49	23.49	11.00	11.00	11.00
Mid	5300	24.00	23.49	29.49	23.49	11.00	11.00	11.00
High	5320	24.00	23.49	29.49	23.49	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Gated 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	5260	14.47	14.28	14.11	19.06	23.49	-4.43
Mid	5300	14.46	14.35	14.21	19.11	23.49	-4.38
High	5320	14.35	14.16	14.21	19.01	23.49	-4.48

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5260	20.75	17.7441	7.93
Mid	5300	20.70	17.7528	7.93
High	5320	20.85	17.7560	7.93

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	5260	22.07	23.49	29.49	21.56	9.07	11.00	9.07
Mid	5300	22.07	23.49	29.49	21.56	9.07	11.00	9.07
High	5320	22.07	23.49	29.49	21.56	9.07	11.00	9.07

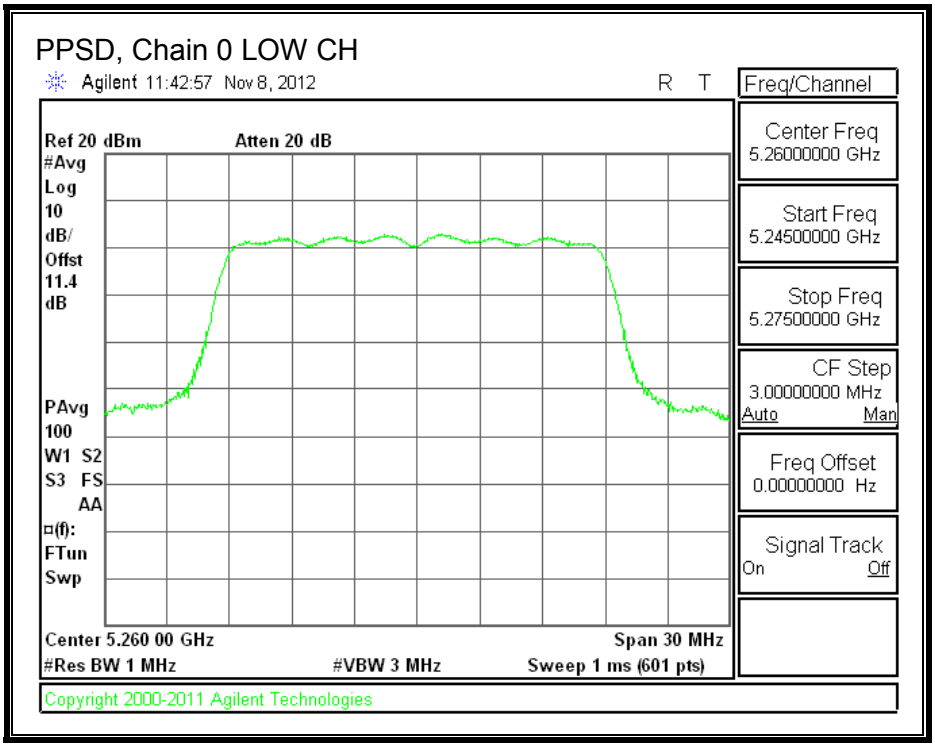
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

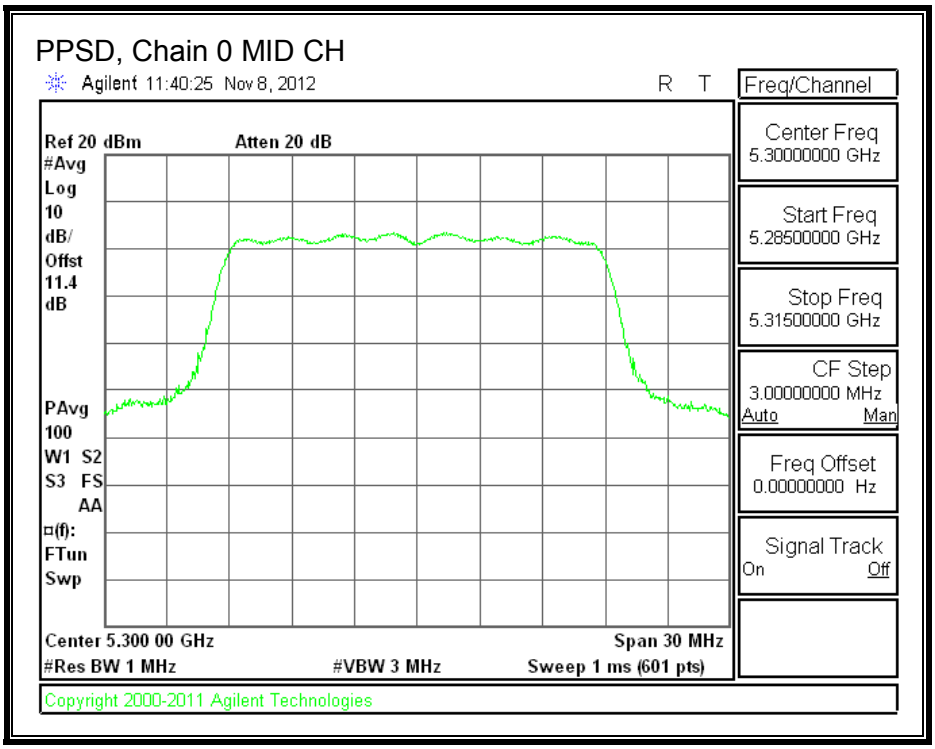
PPSD Results

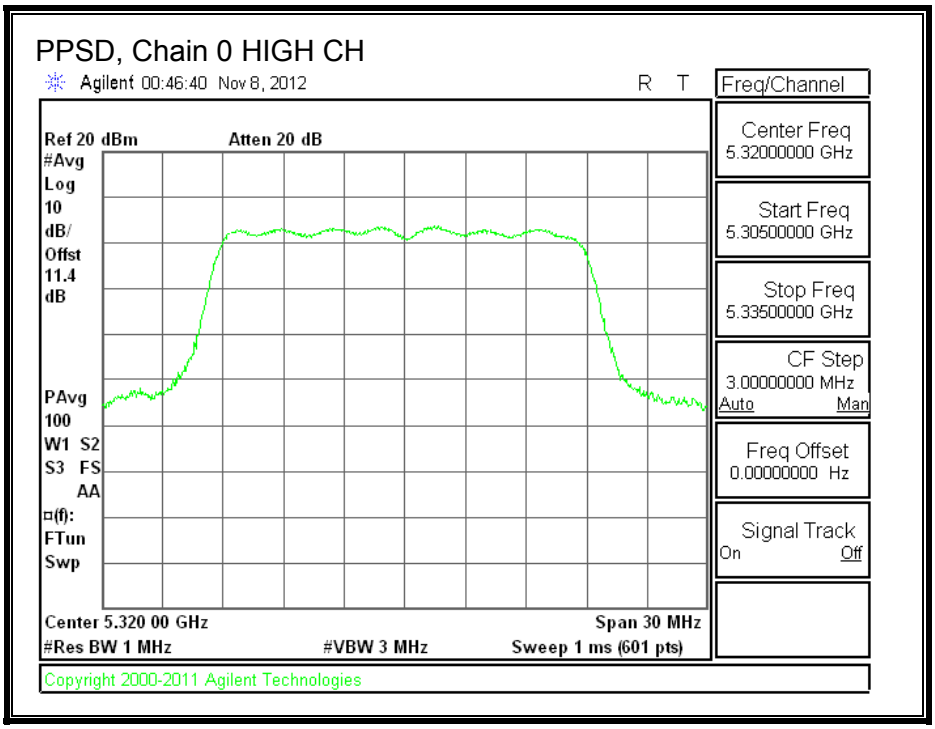
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	3.37	4.29	3.00	8.36	9.07	-0.71
Mid	5300	3.33	3.67	3.67	8.33	9.07	-0.74
High	5320	3.56	3.12	3.48	8.16	9.07	-0.91

Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

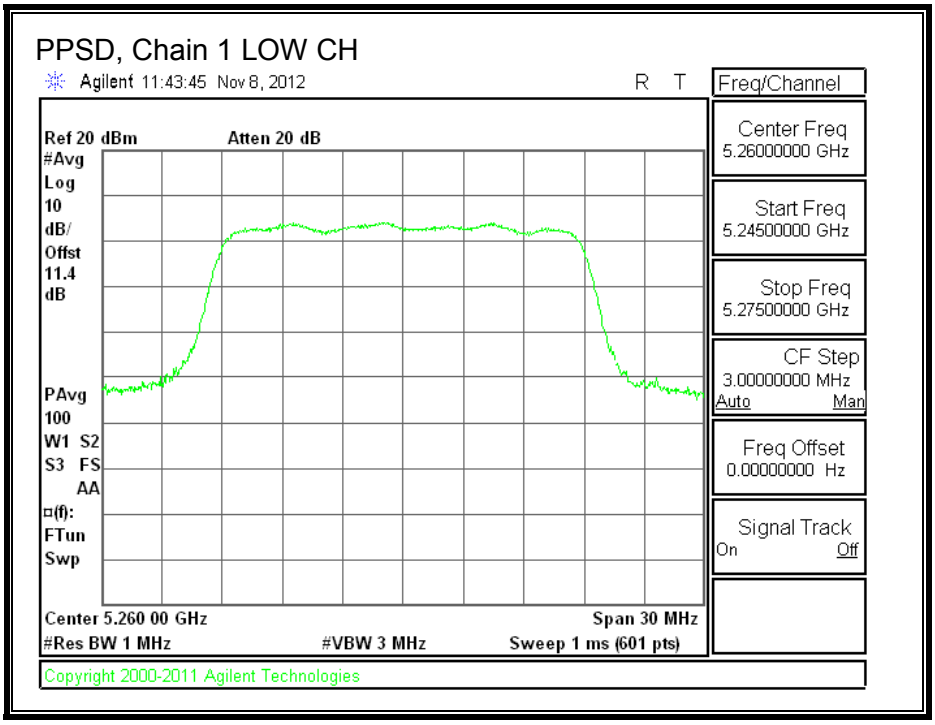
PPSD, Chain 0



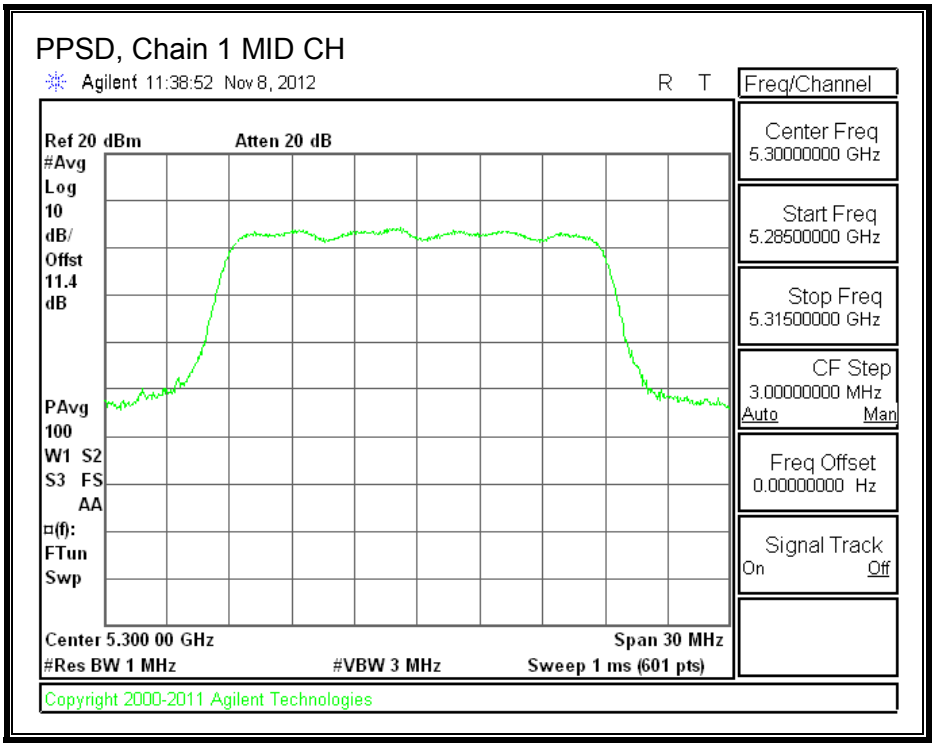




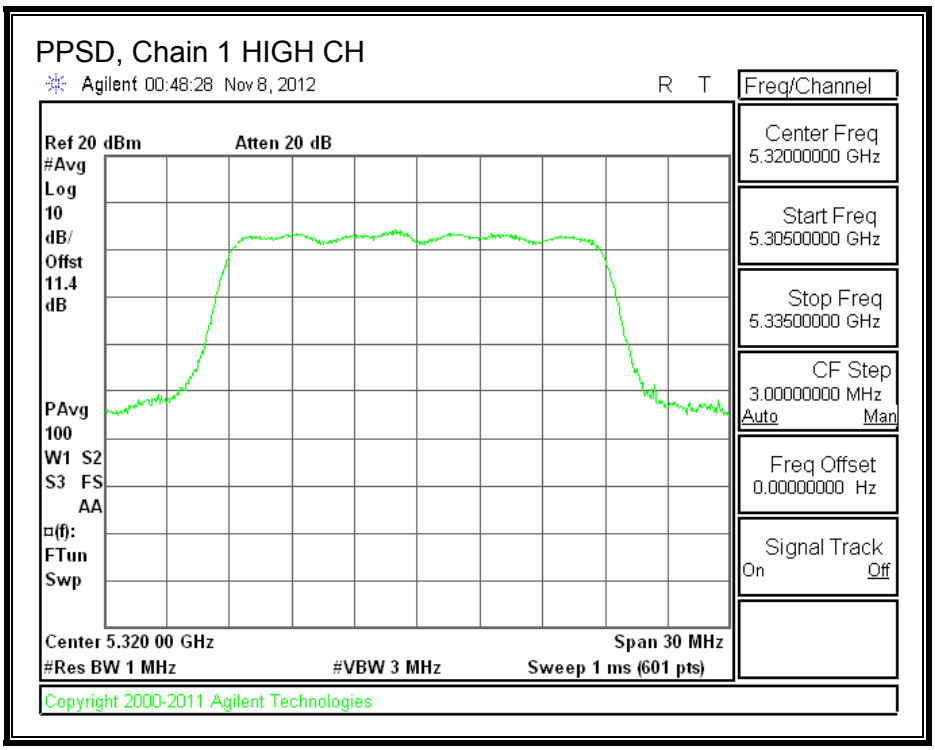
PPSD, Chain 1



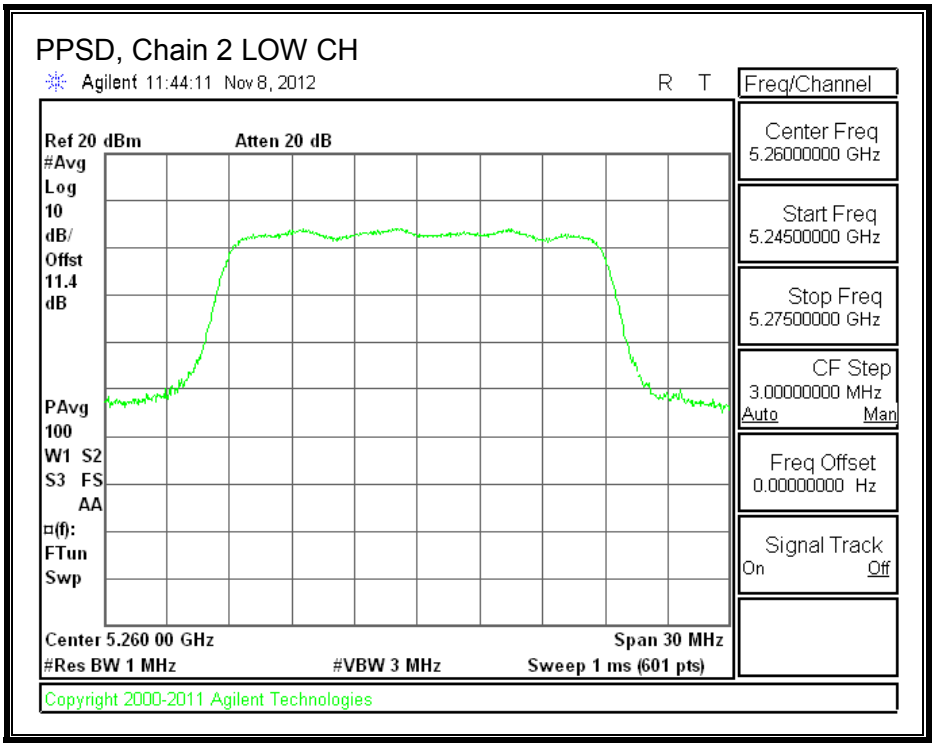
PPSD, Chain 1 MID CH

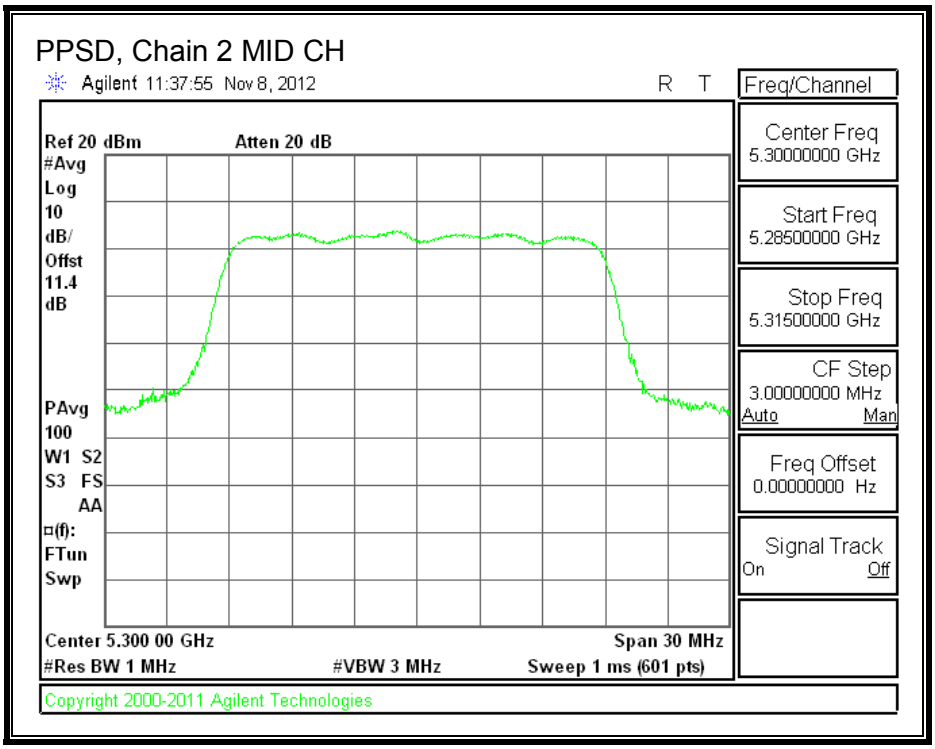


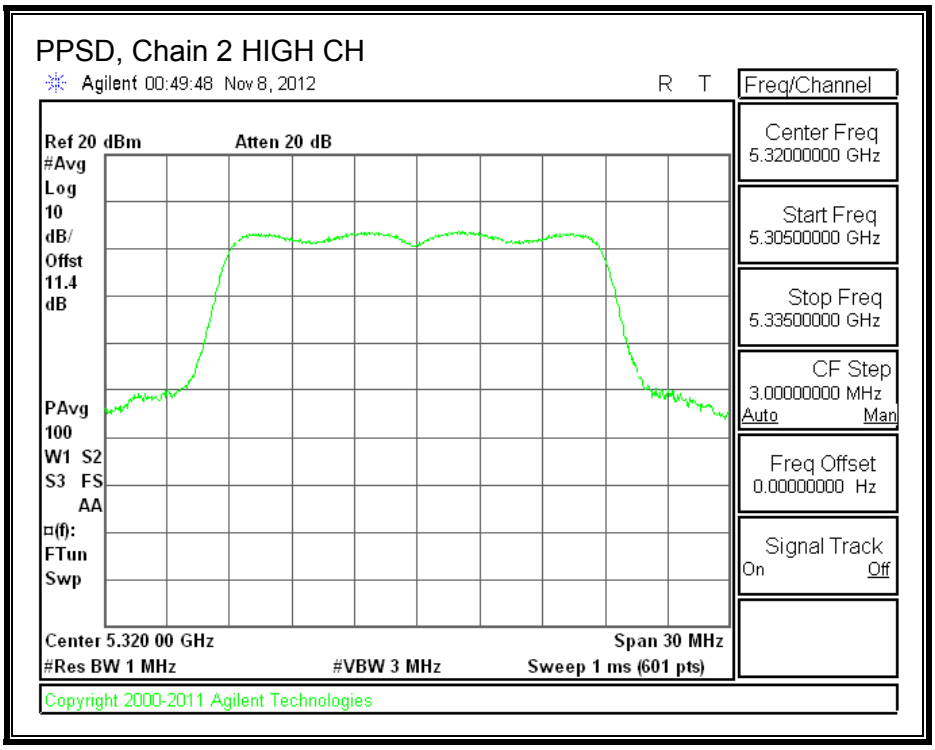
PPSD, Chain 1 HIGH CH



PPSD, Chain 2







8.11. 802.11n HT20 STBC 3TX MODE, 5.3 GHz BAND

8.11.1. 26 dB BANDWIDTH

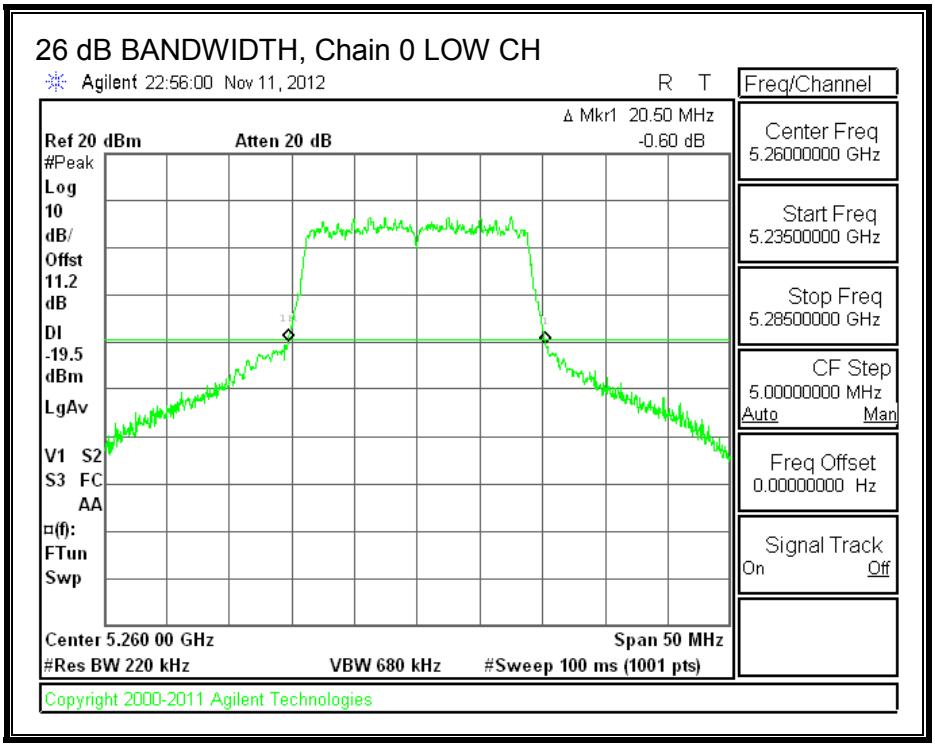
LIMITS

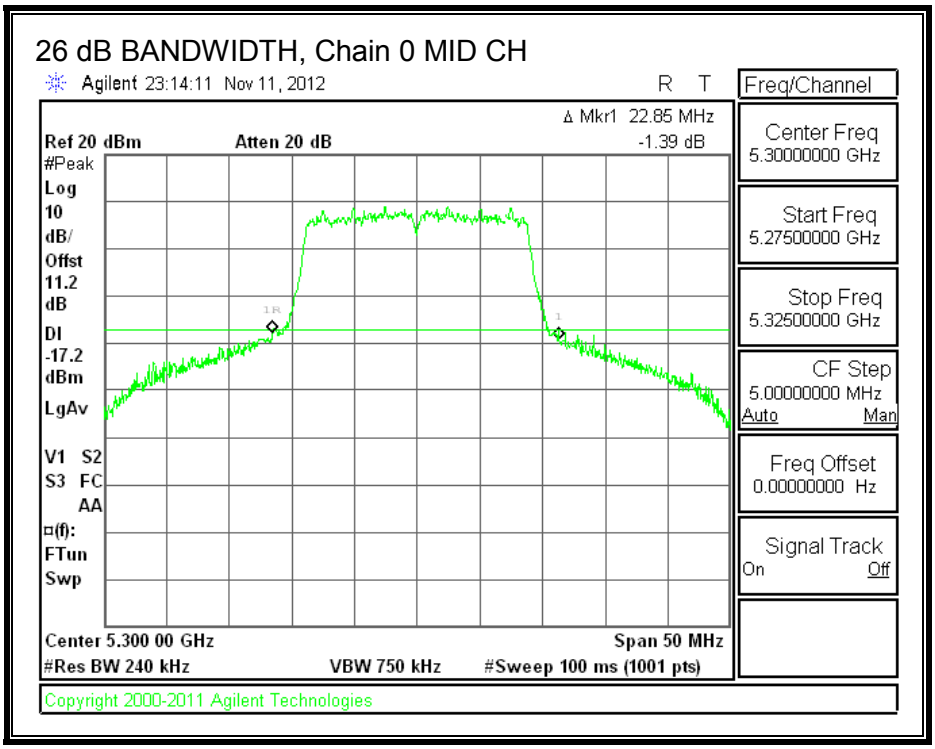
None; for reporting purposes only.

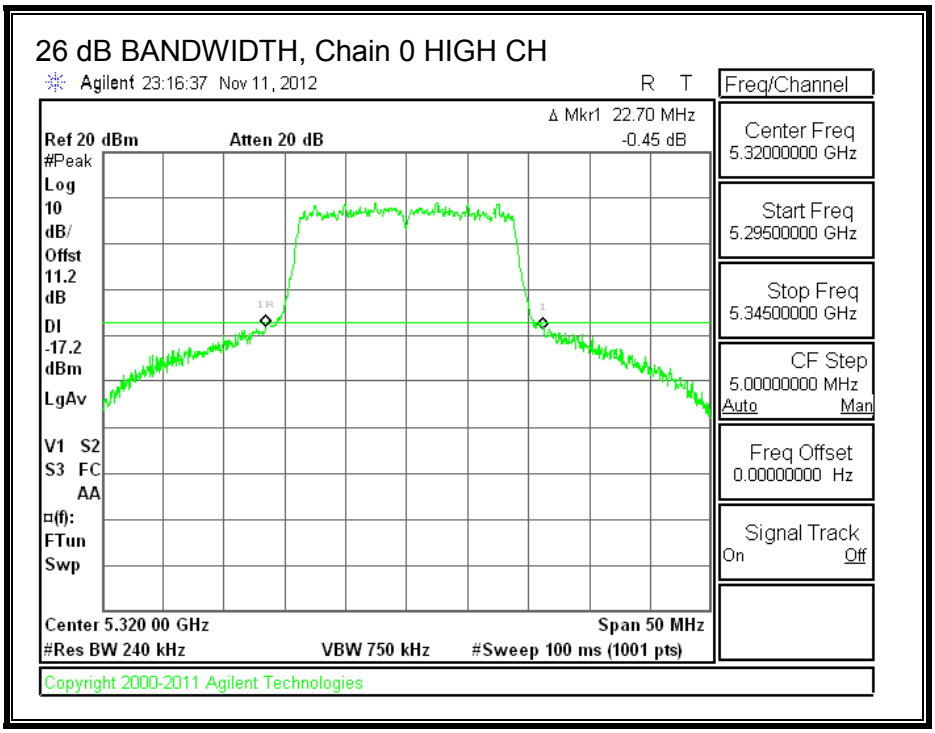
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5260	20.50	20.80	20.35
Mid	5300	22.85	23.05	23.15
High	5320	22.70	23.25	22.45

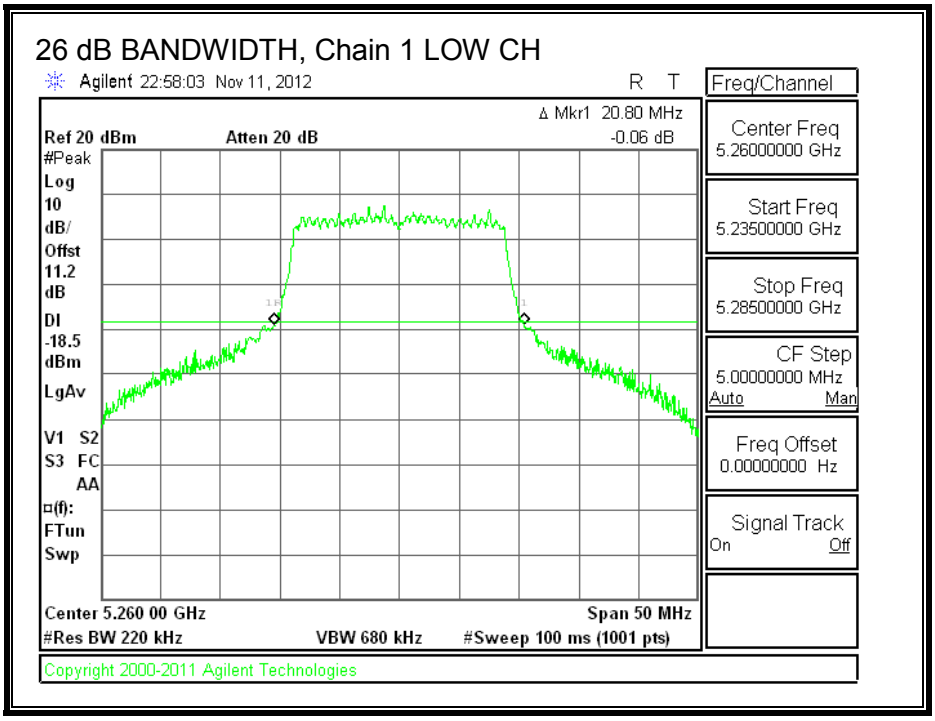
26 dB BANDWIDTH, Chain 0



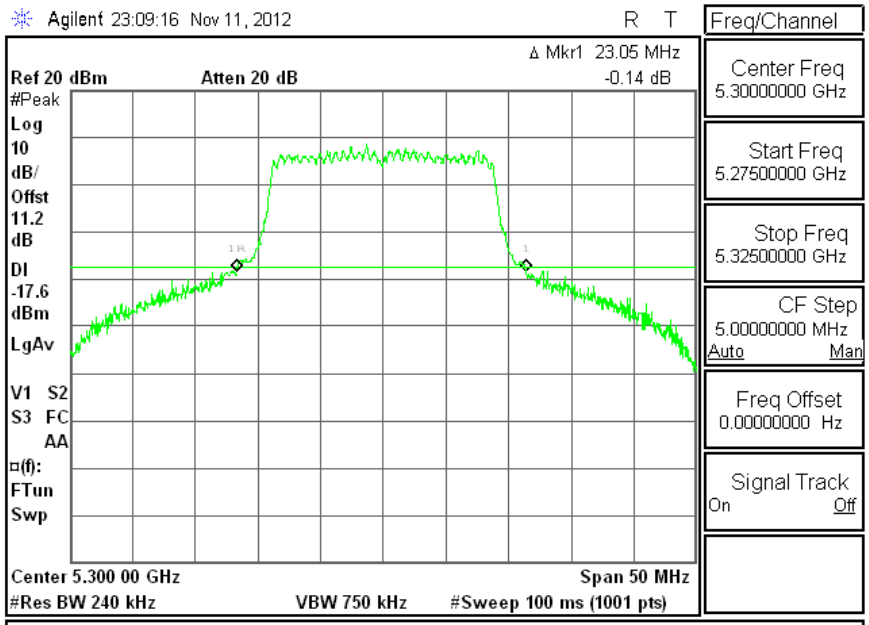




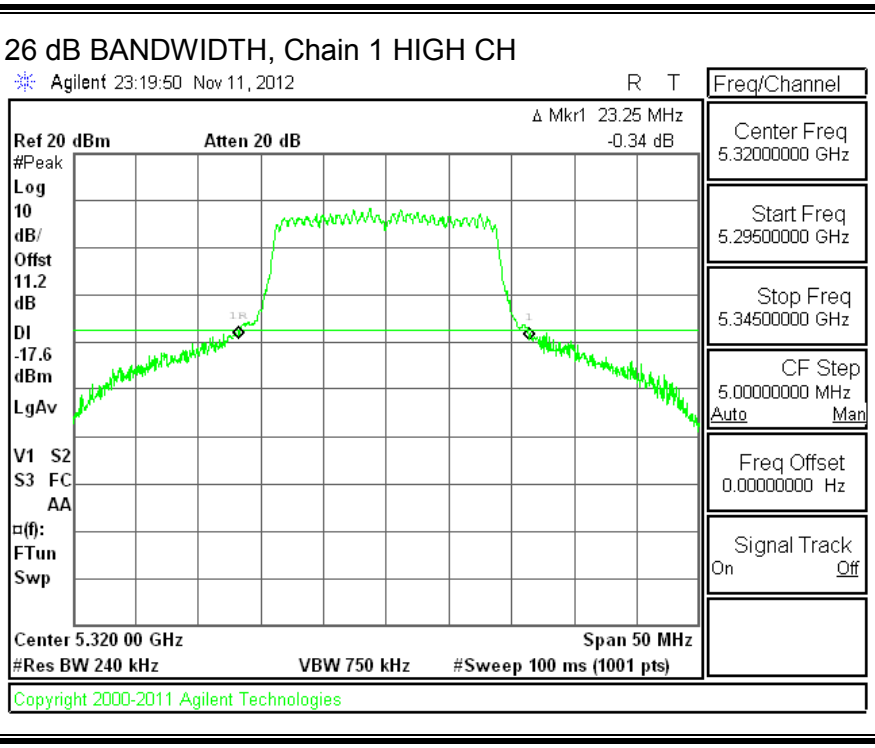
26 dB BANDWIDTH, Chain 1



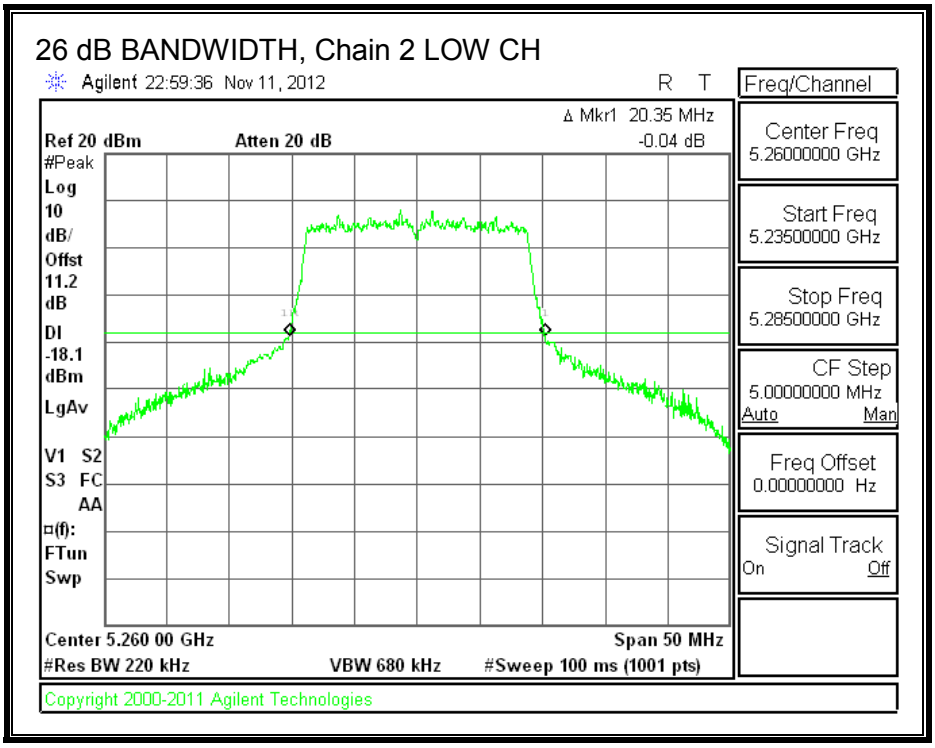
26 dB BANDWIDTH, Chain 1 MID CH

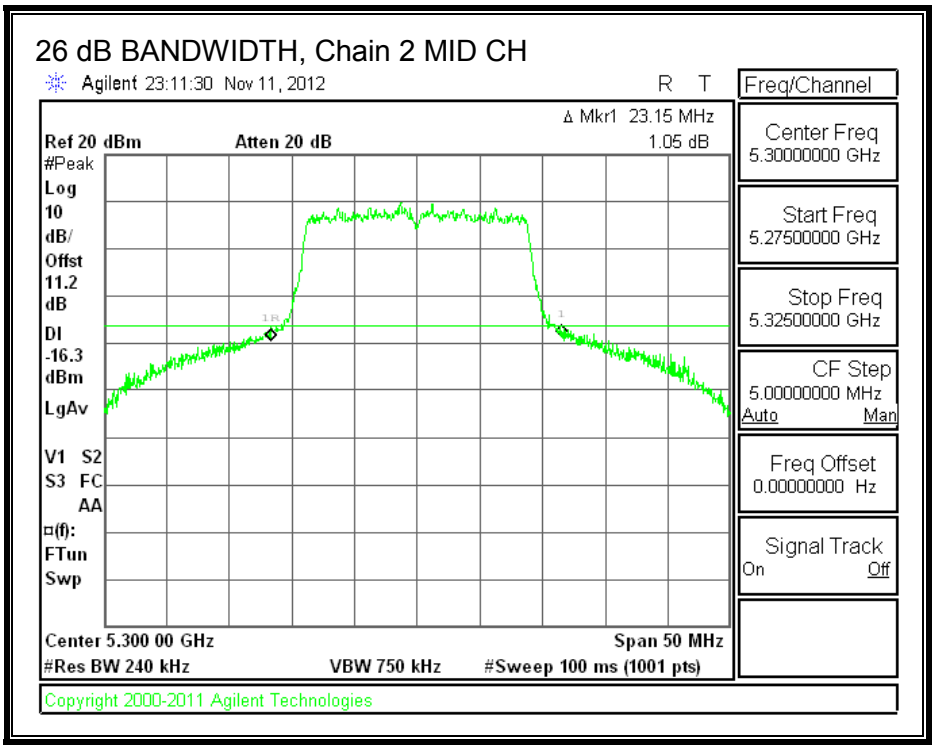


26 dB BANDWIDTH, Chain 1 HIGH CH

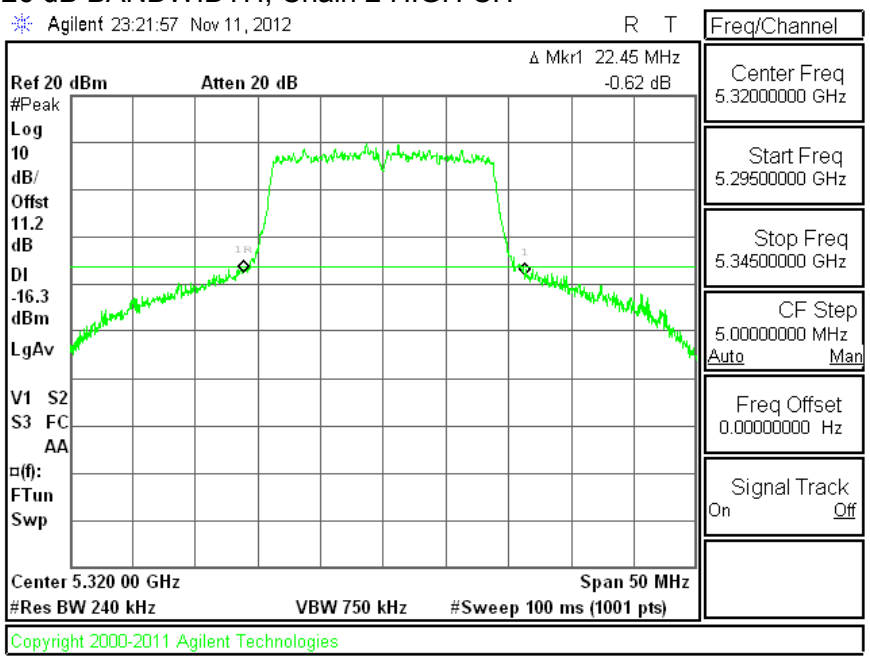


26 dB BANDWIDTH, Chain 2





26 dB BANDWIDTH, Chain 2 HIGH CH



8.11.2. 99% BANDWIDTH

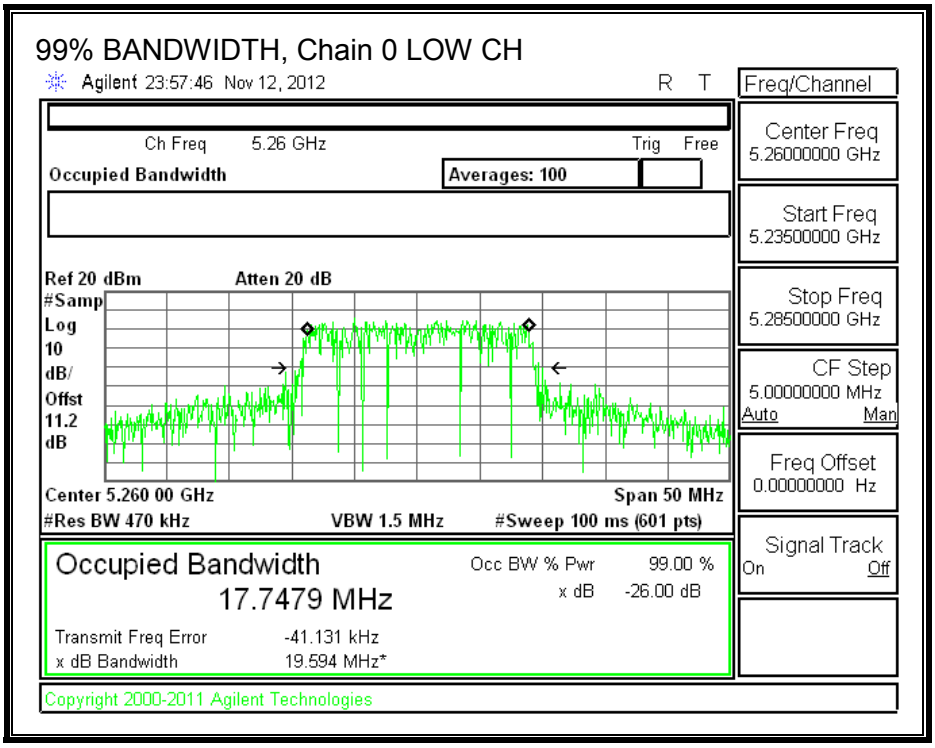
LIMITS

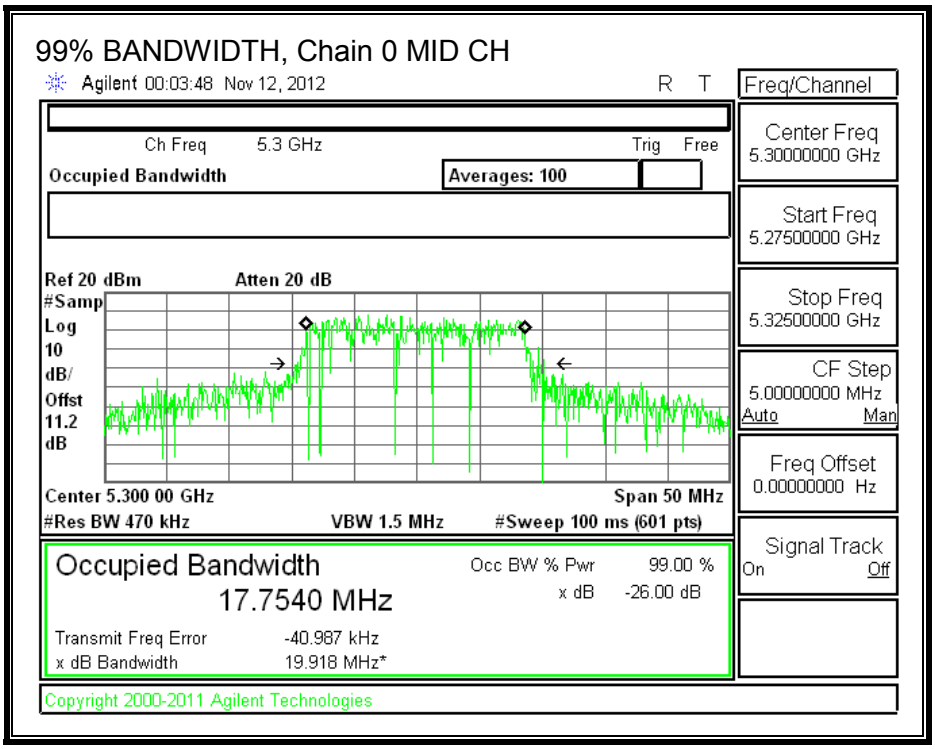
None; for reporting purposes only.

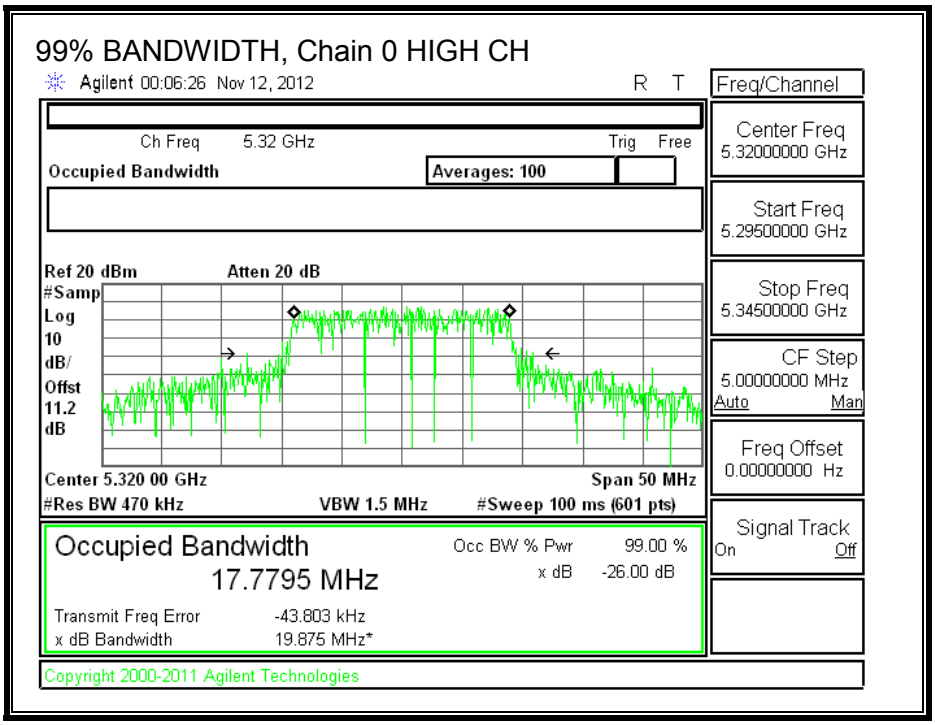
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5260	17.7479	17.7726	17.7428
Mid	5300	17.7540	17.7621	17.7505
High	5320	17.7795	17.7658	17.7561

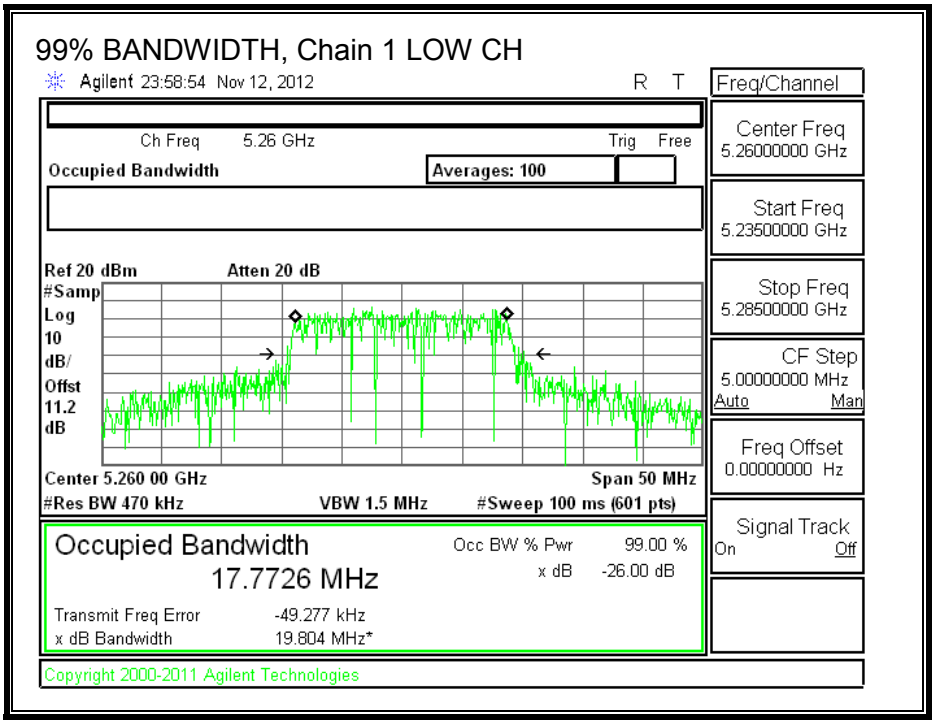
99% BANDWIDTH, Chain 0

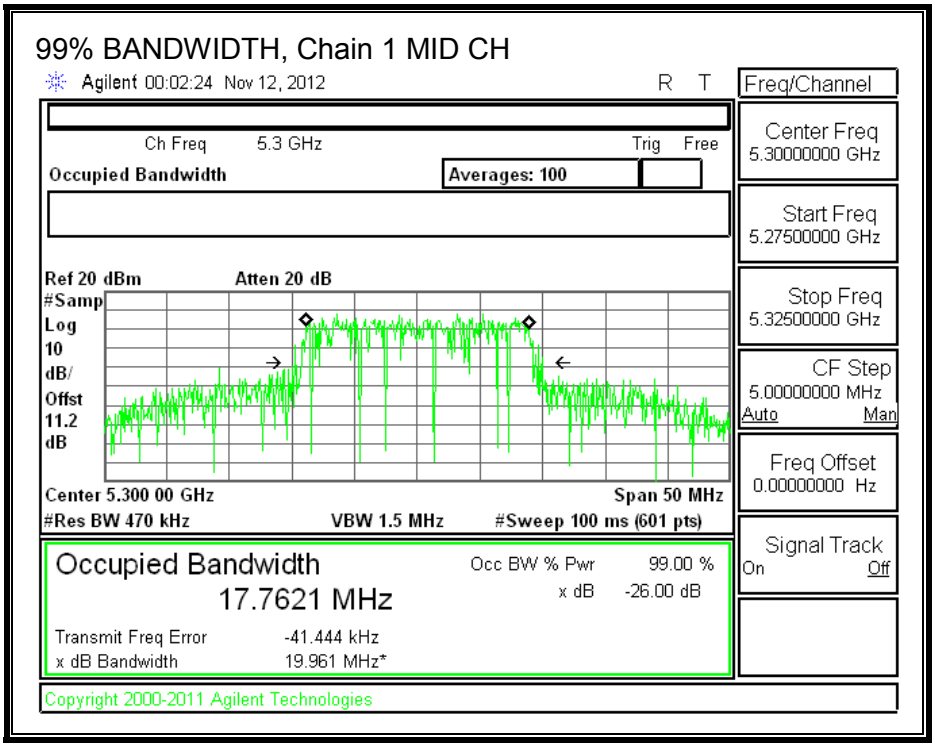


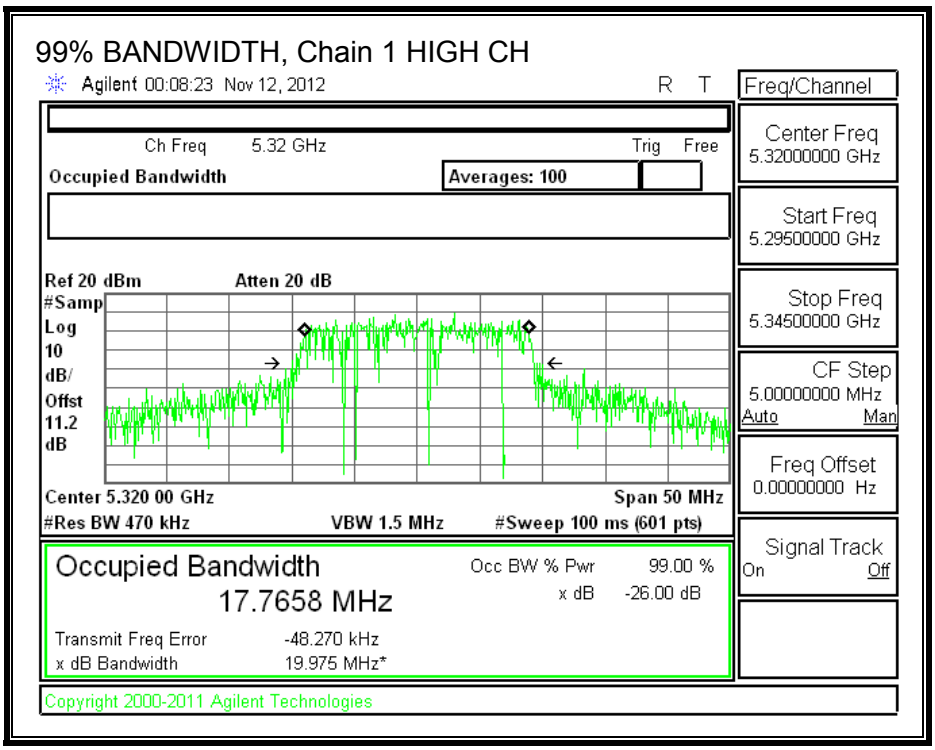




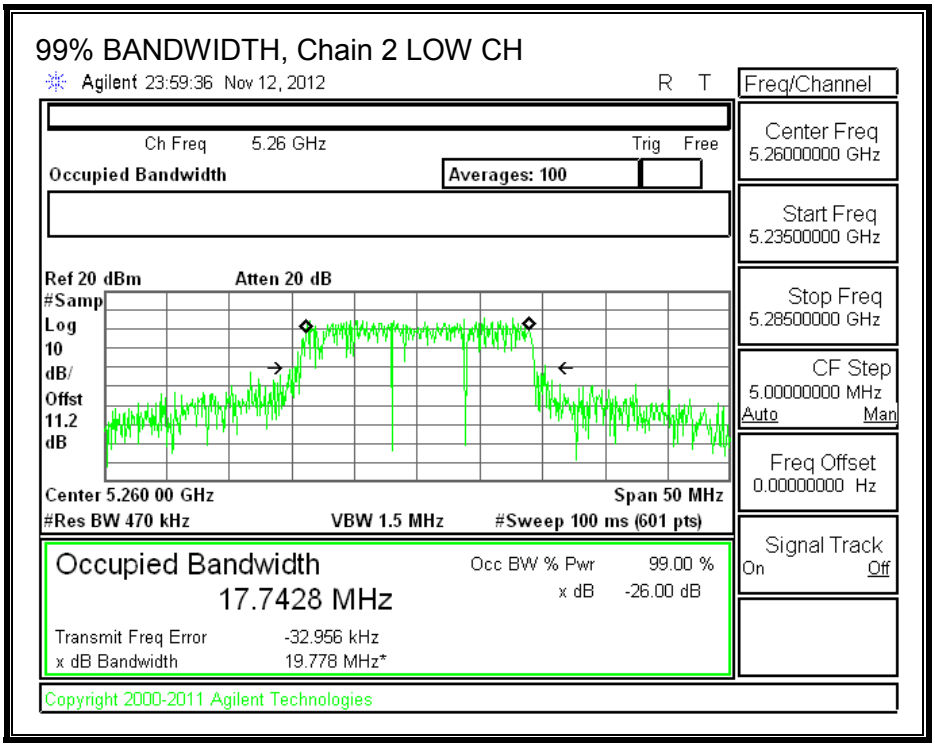
99% BANDWIDTH, Chain 1

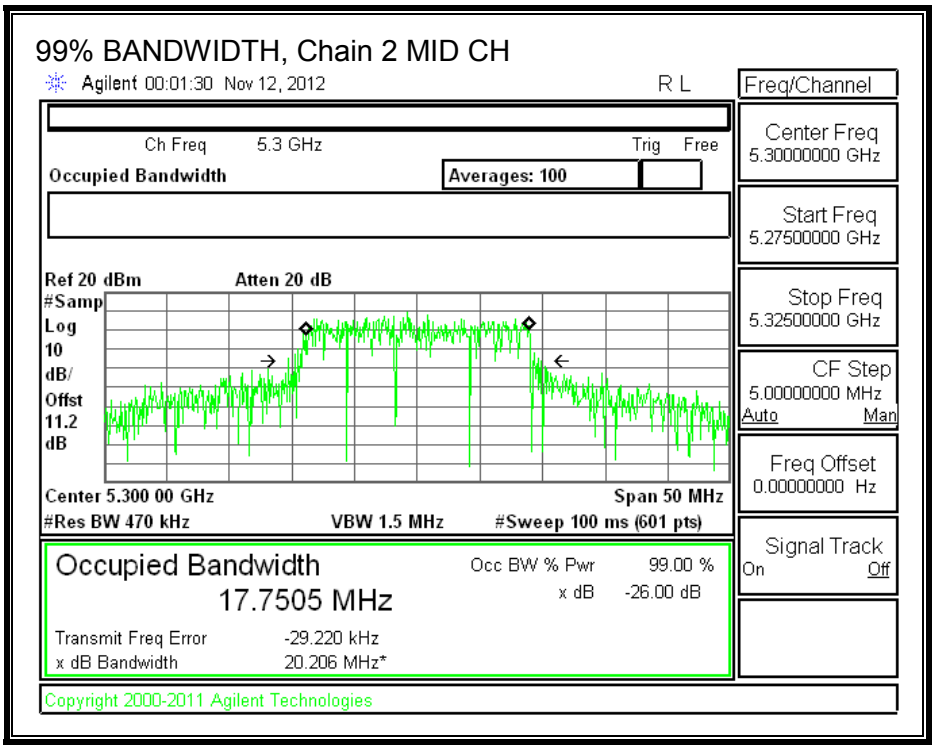


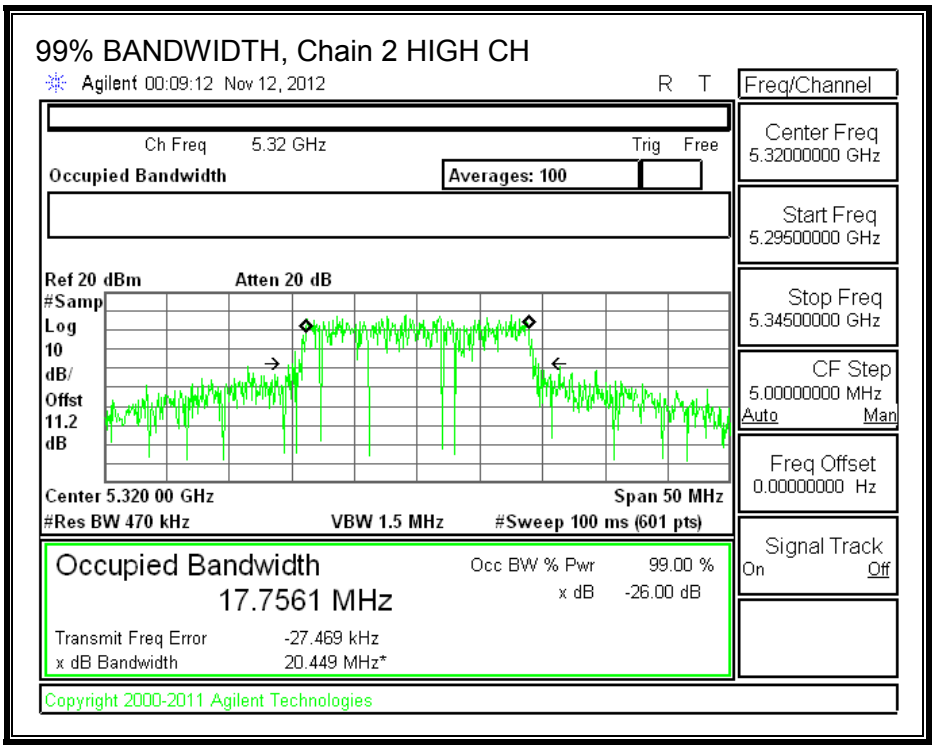




99% BANDWIDTH, Chain 2







8.11.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

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)
4.52	3.21	1.48	3.24

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5260	20.35	17.7428	3.24
Mid	5300	22.85	17.7505	3.24
High	5320	22.45	17.7561	3.24

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	5260	24.00	23.49	29.49	23.49	11.00	11.00	11.00
Mid	5300	24.00	23.49	29.49	23.49	11.00	11.00	11.00
High	5320	24.00	23.49	29.49	23.49	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

Output Power Results

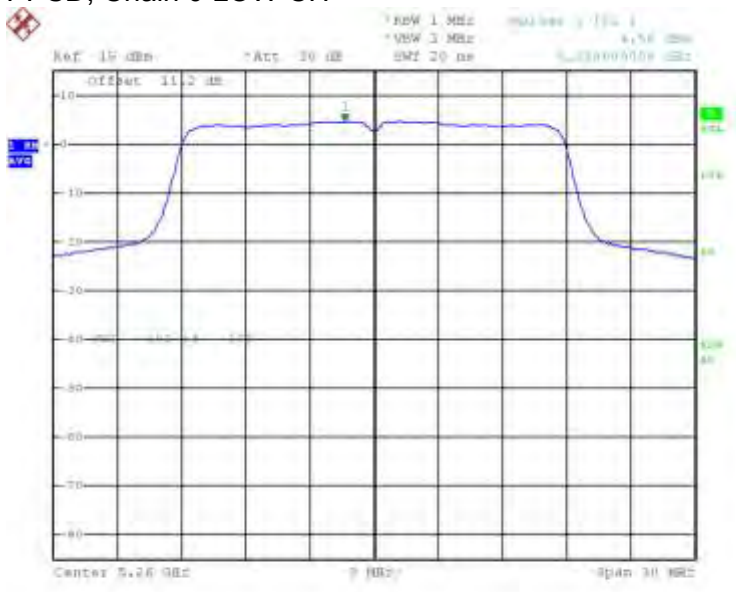
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	18.50	18.59	18.71	23.37	23.49	-0.12
Mid	5300	18.71	18.33	18.41	23.26	23.49	-0.23
High	5320	16.18	16.25	16.65	21.14	23.49	-2.36

PPSD Results

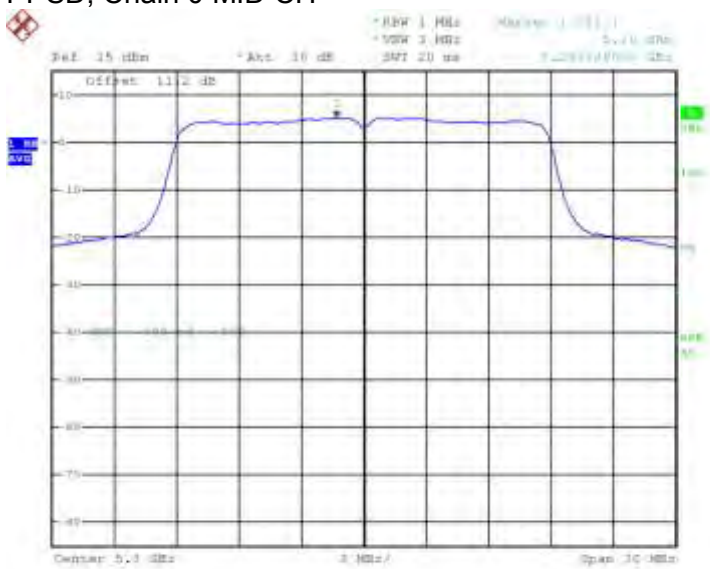
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	4.56	4.83	5.12	9.61	11.00	-1.39
Mid	5300	5.10	4.93	5.17	9.84	11.00	-1.16
High	5320	4.55	6.04	5.82	10.29	11.00	-0.71

PPSD, Chain 0

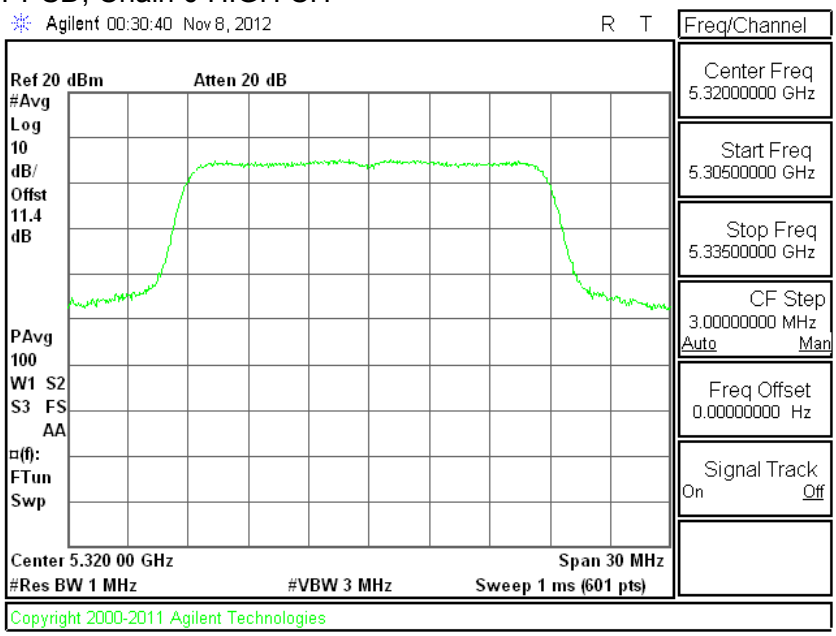
PPSD, Chain 0 LOW CH



PPSD, Chain 0 MID CH



PPSD, Chain 0 HIGH CH

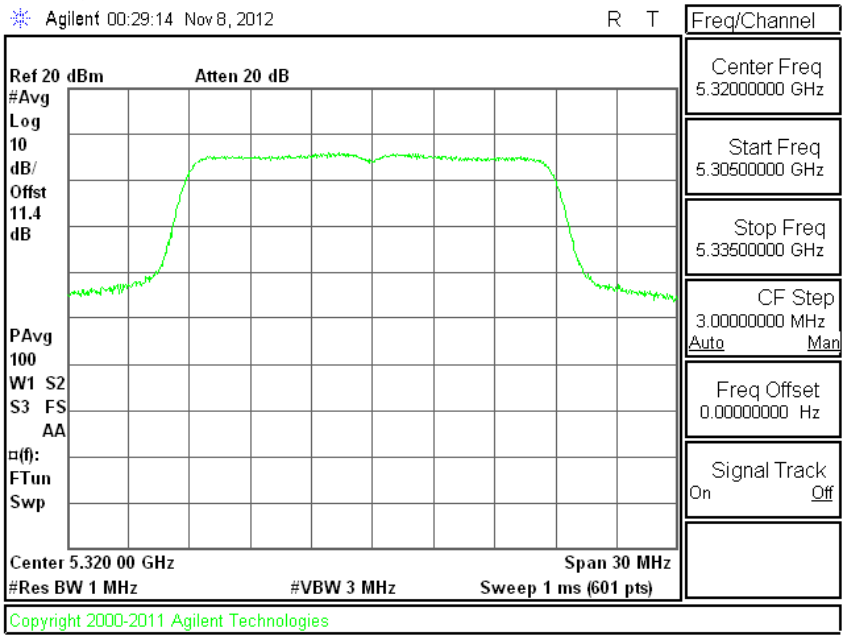


PPSD, Chain 1

PPSD, Chain 1 LOW CH

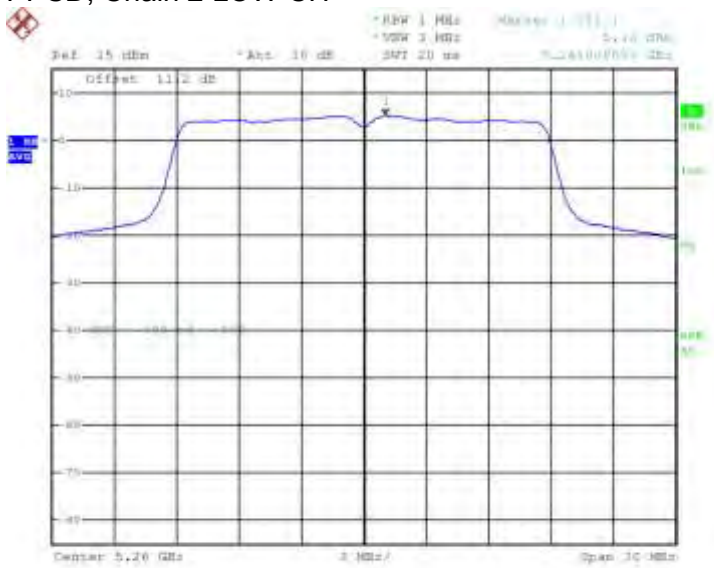
PPSD, Chain 1 MID CH

PPSD, Chain 1 HIGH CH

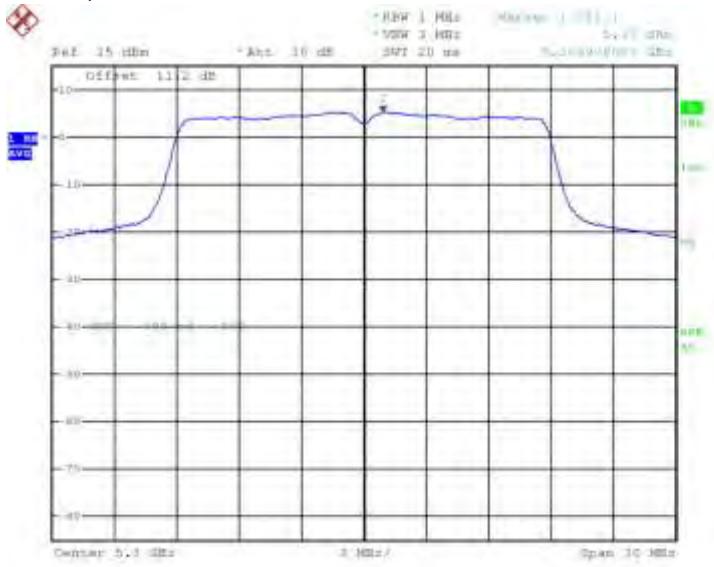


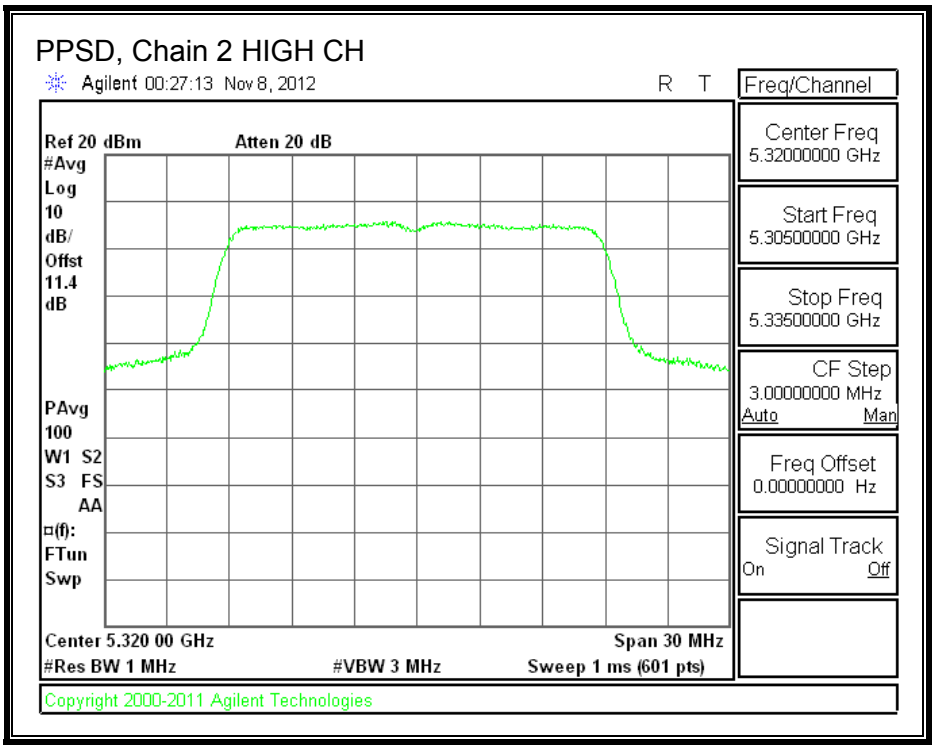
PPSD, Chain 2

PPSD, Chain 2 LOW CH



PPSD, Chain 2 MID CH





8.12. 802.11n HT40 1TX MODE IN THE 5.3 GHz BAND

8.12.1. 26 dB BANDWIDTH

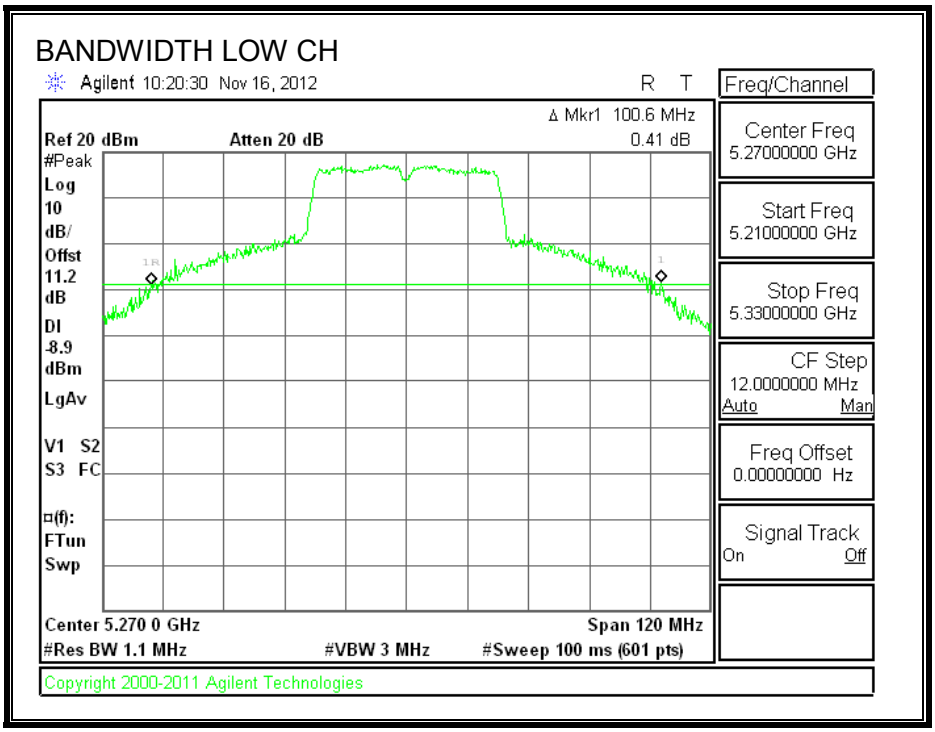
LIMITS

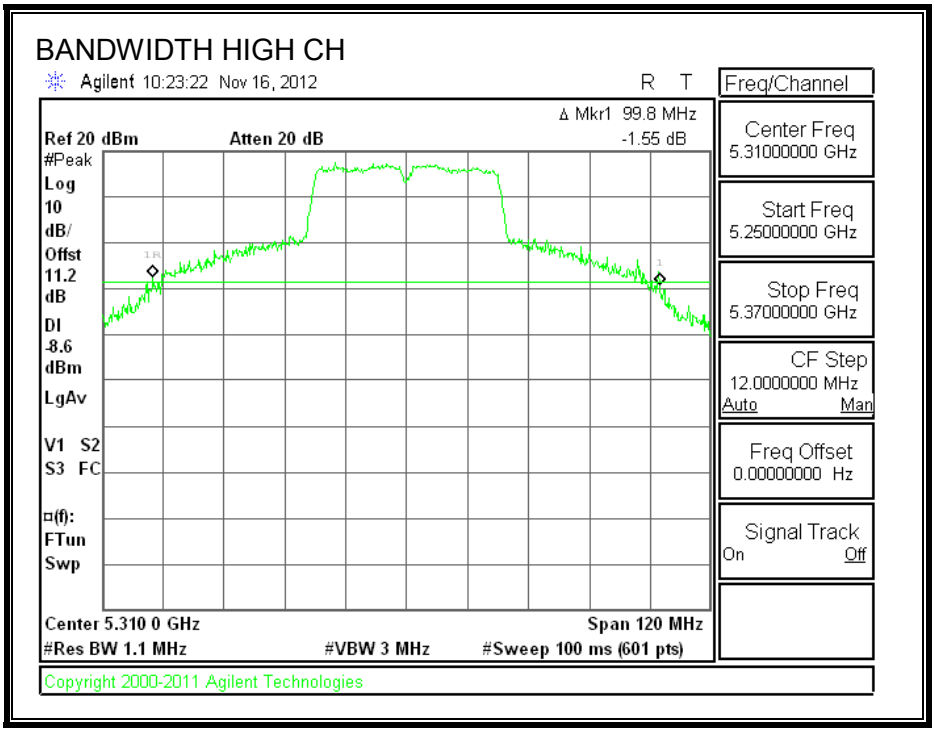
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5270	100.6
High	5310	99.8

26 dB BANDWIDTH





8.12.2. 99% BANDWIDTH

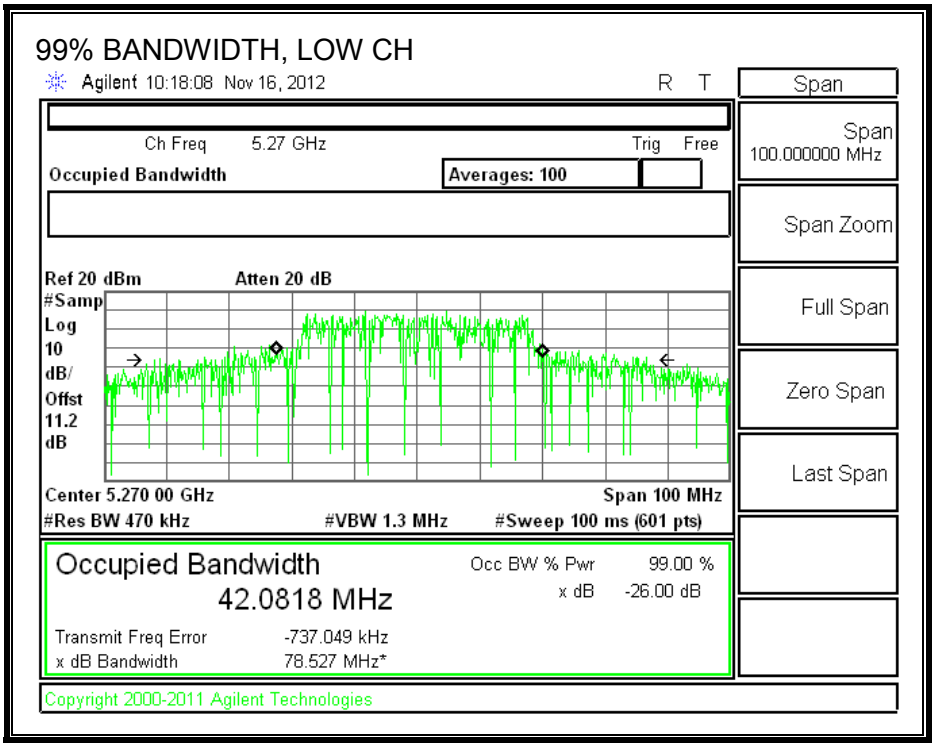
LIMITS

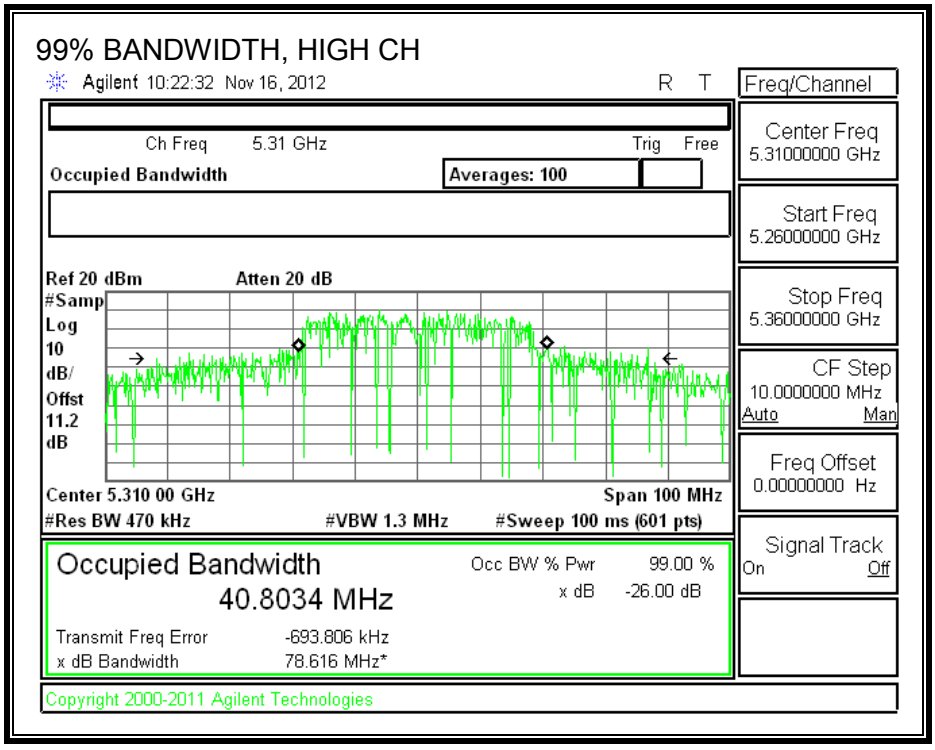
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5270	42.0818
High	5310	40.8034

99% BANDWIDTH





8.12.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Low	5270	100.6	42.1	4.52
High	5310	99.8	40.8	4.52

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	5270	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5310	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd PPSD

Output Power Results

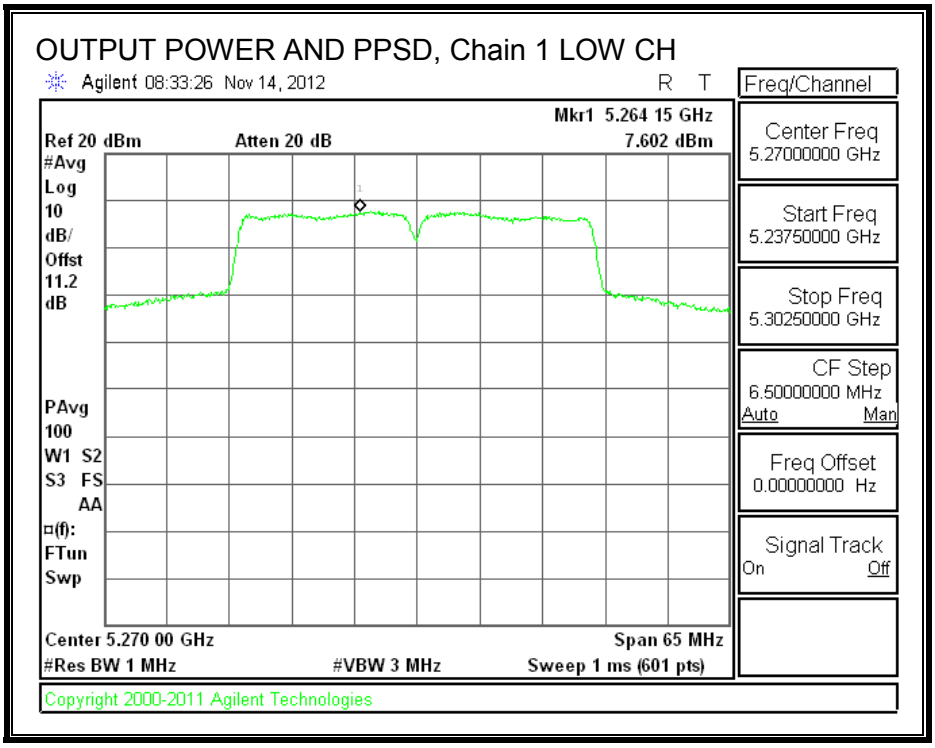
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	21.54	21.54	24.00	-2.46
High	5310	15.55	15.55	24.00	-8.45

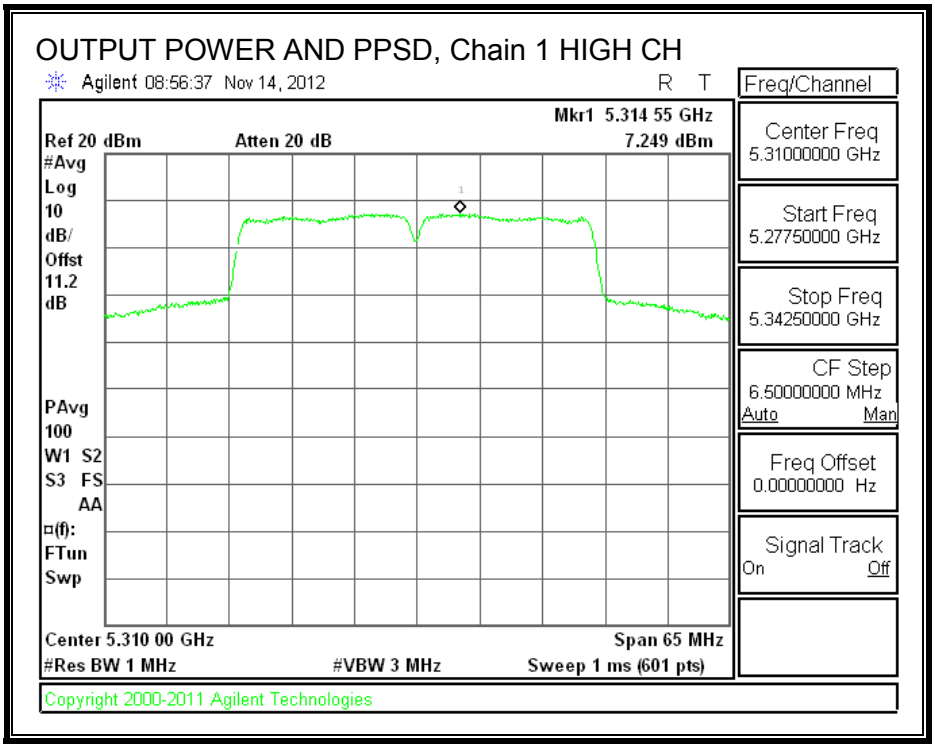
PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	7.60	7.83	11.00	-3.17
High	5310	7.25	7.48	11.00	-3.52

Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for Low and Middle channels for this PSD measurements.

OUTPUT POWER AND PPSD, Chain 1





8.13. 802.11n HT40 CDD 3TX MODE, 5.3 GHz BAND

8.13.1. 26 dB BANDWIDTH

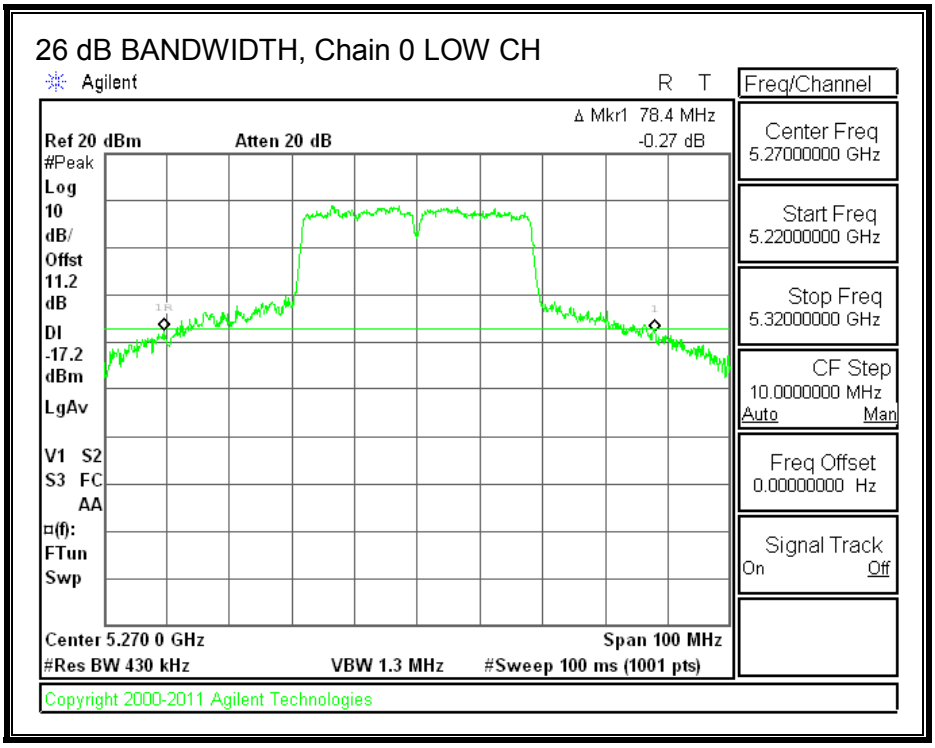
LIMITS

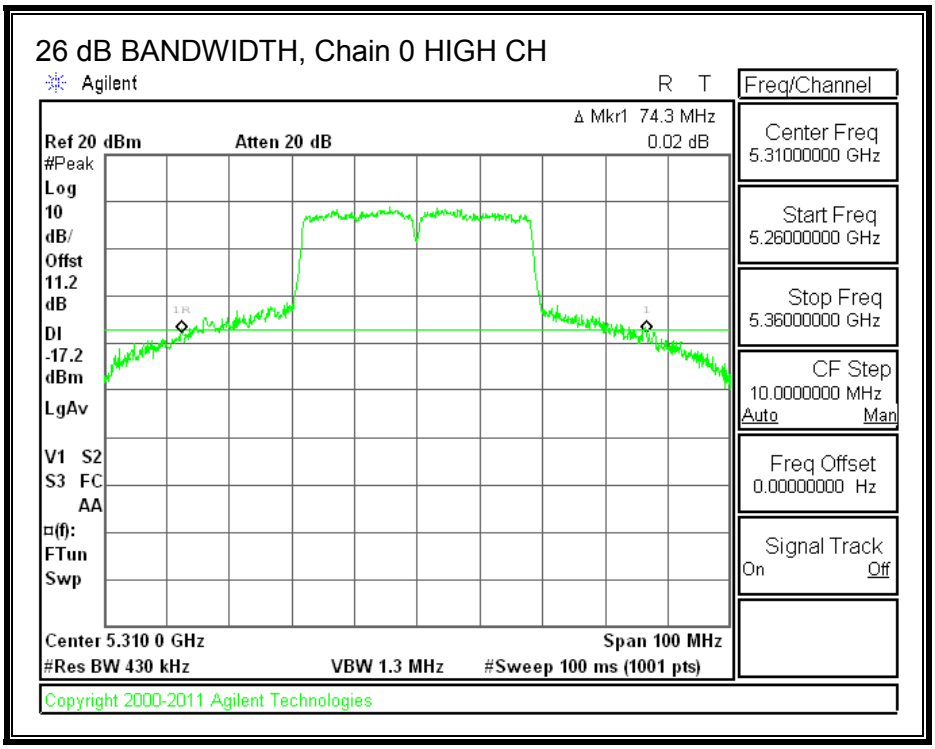
None; for reporting purposes only.

RESULTS

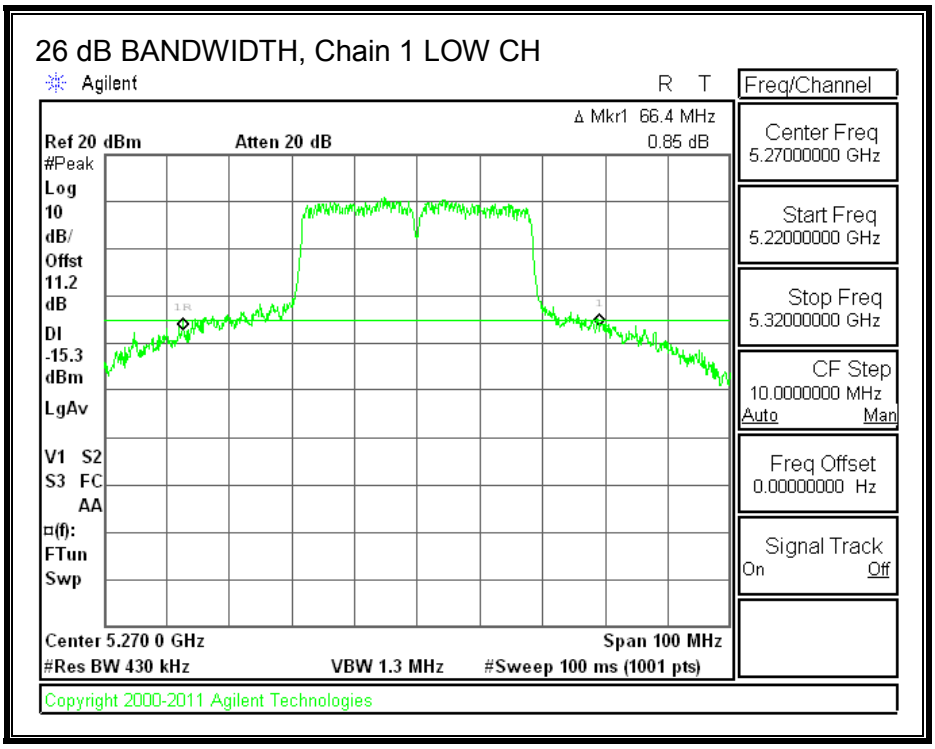
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5270	78.40	66.40	73.60
High	5310	74.30	66.00	71.30

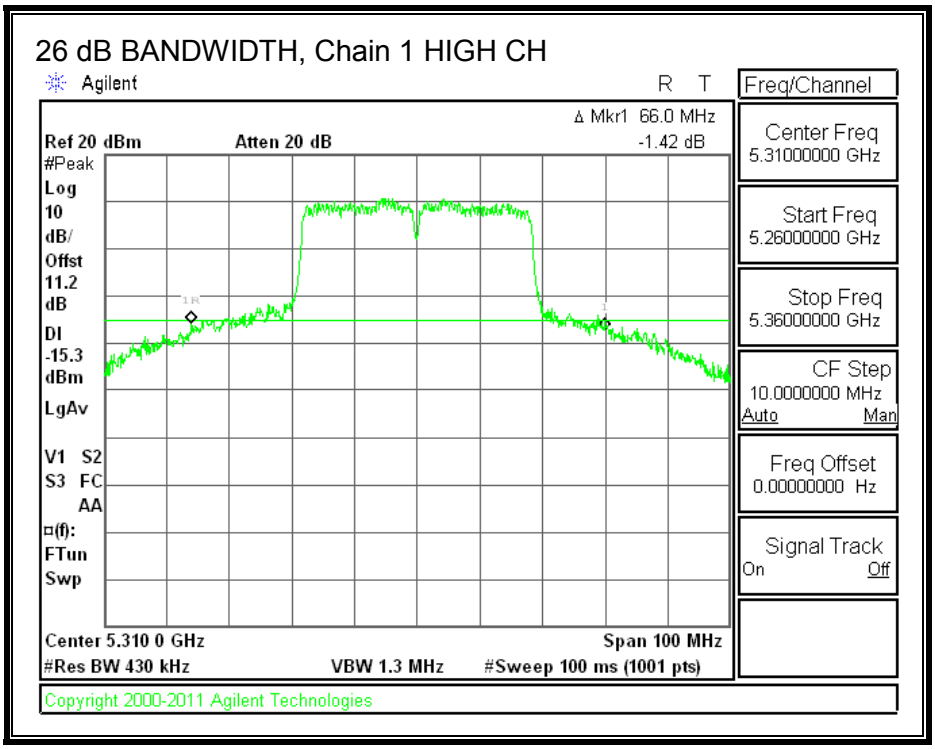
26 dB BANDWIDTH, Chain 0



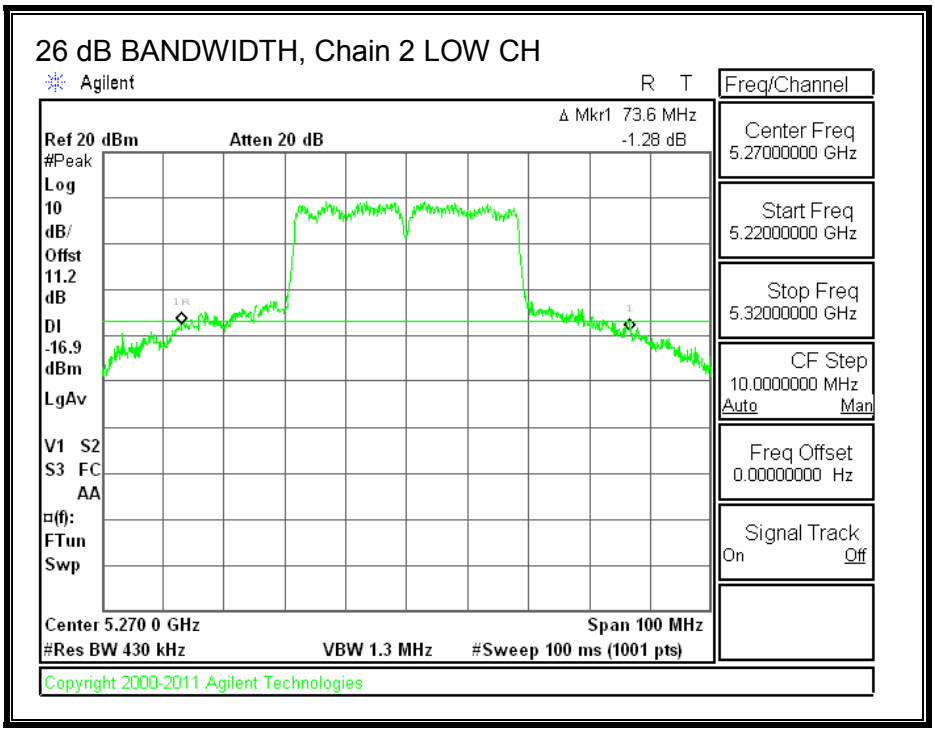


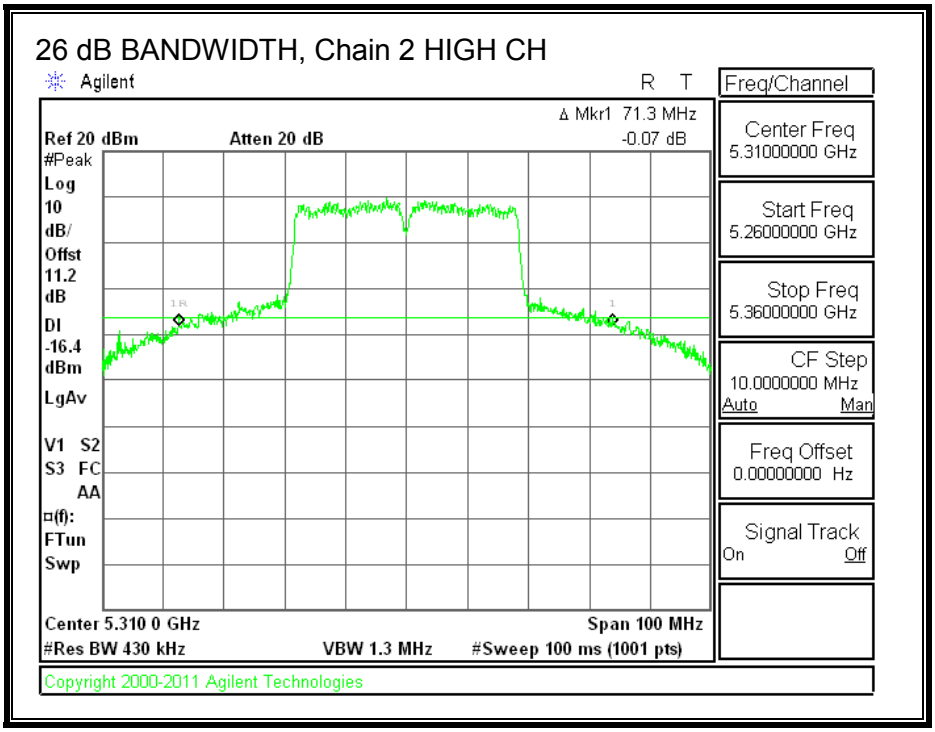
26 dB BANDWIDTH, Chain 1





26 dB BANDWIDTH, Chain 2





8.13.2. 99% BANDWIDTH

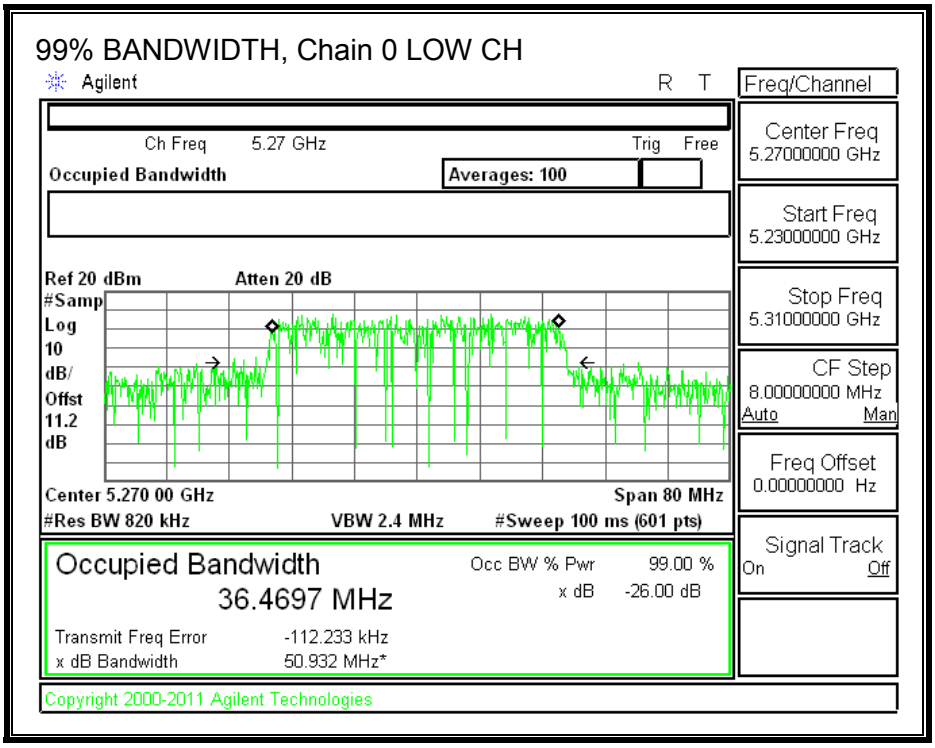
LIMITS

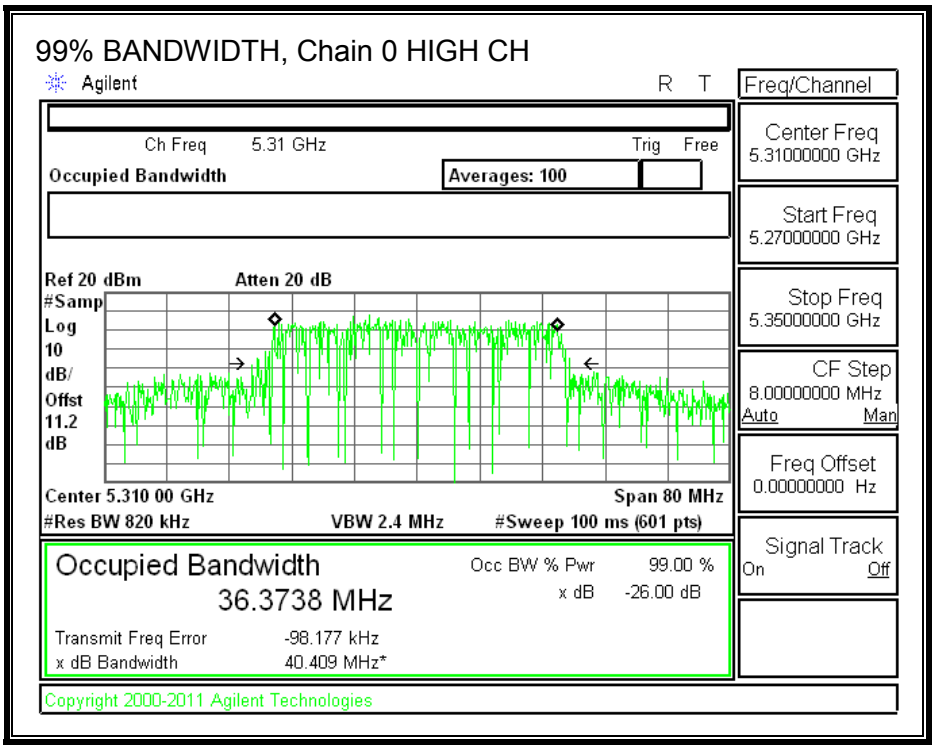
None; for reporting purposes only.

RESULTS

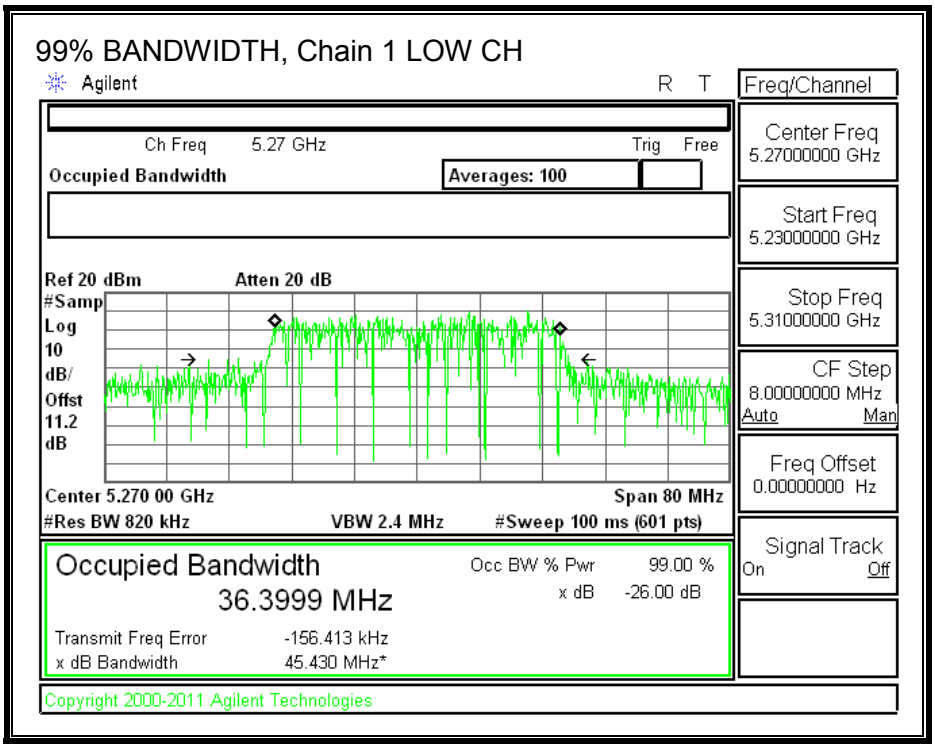
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5270	36.4697	36.3999	36.5332
High	5310	36.3738	36.2968	36.3783

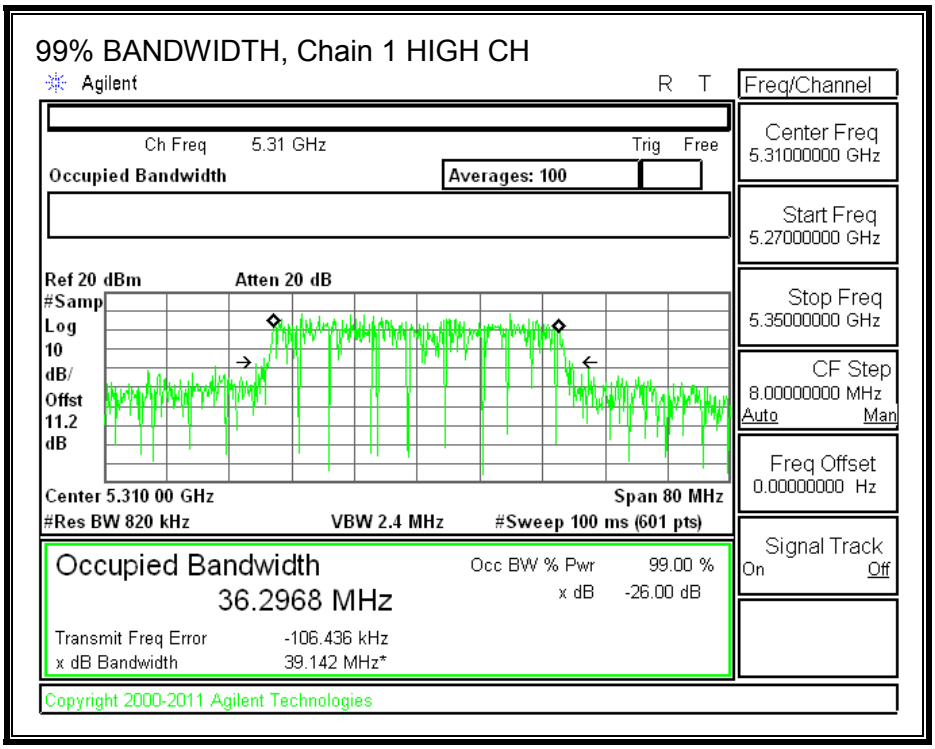
99% BANDWIDTH, Chain 0



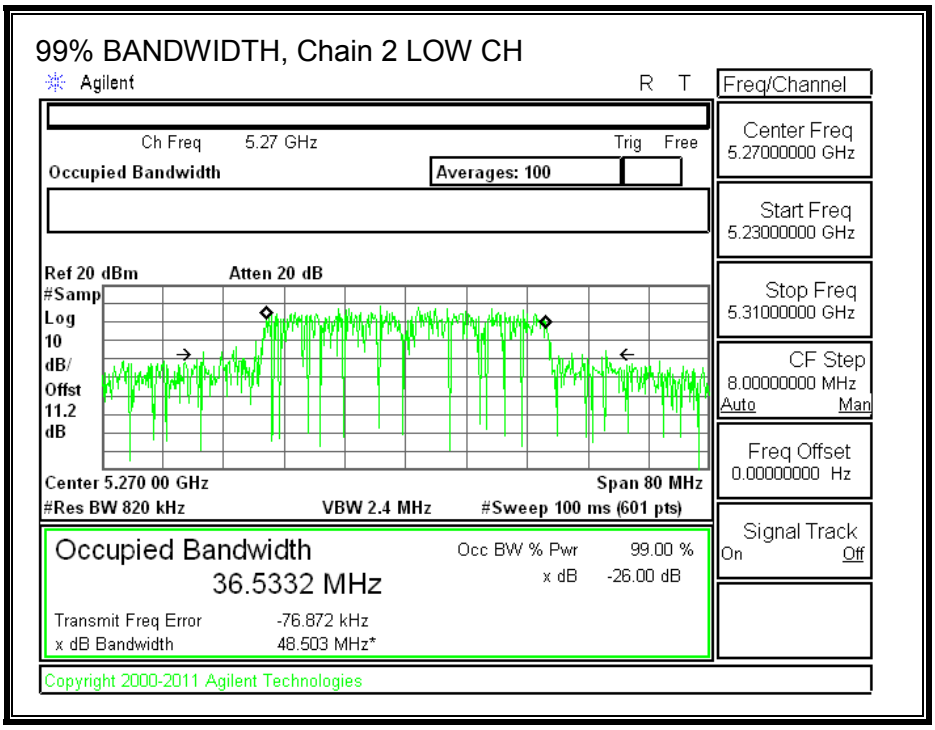


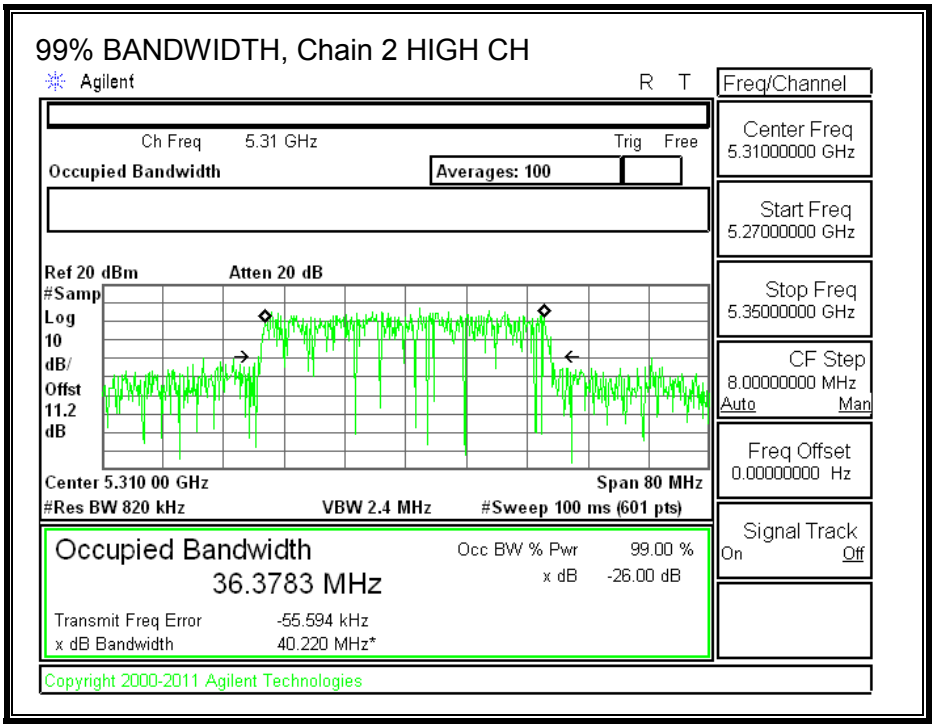
99% BANDWIDTH, Chain 1





99% BANDWIDTH, Chain 2





8.13.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

The TX chains are uncorrelated for output power 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)
4.52	3.21	1.48	3.24

The TX chains are correlated for PSD 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)
4.52	3.21	1.48	7.93

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5270	66.40	36.3999	3.24
High	5310	66.00	36.2968	3.24

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)
Low	5270	24.00	24.00	30.00	24.00
High	5310	24.00	24.00	30.00	24.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Gated 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	5270	19.13	19.33	19.07	23.95	24.00	-0.05
High	5310	13.71	14.04	13.66	18.58	24.00	-5.42

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5270	66.40	36.3999	7.93
High	5310	66.00	36.2968	7.93

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	5270	22.07	24.00	30.00	22.07	9.07	11.00	9.07
High	5310	22.07	24.00	30.00	22.07	9.07	11.00	9.07

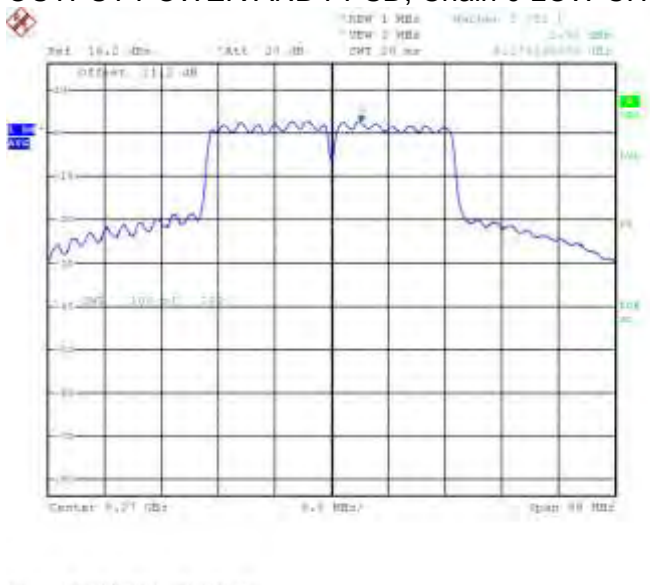
Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd PPSD

PPSD Results

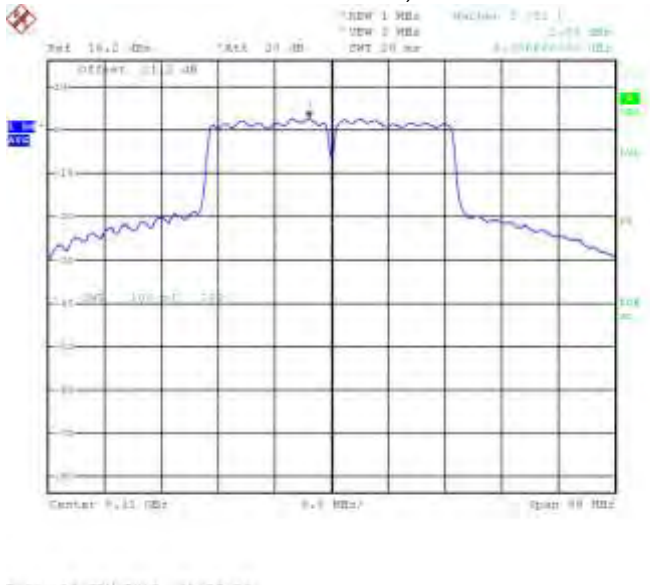
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	2.80	3.14	2.55	7.83	9.07	-1.24
High	5310	2.89	3.14	2.78	7.93	9.07	-1.14

OUTPUT POWER AND PPSD, Chain 0

OUTPUT POWER AND PPSD, Chain 0 LOW CH

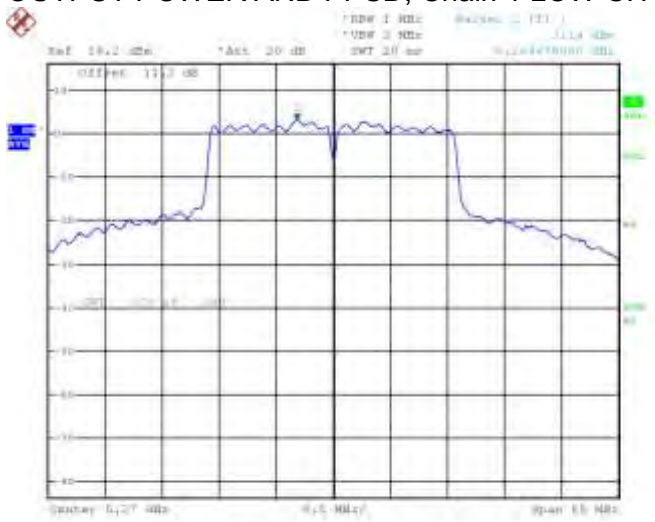


OUTPUT POWER AND PPSD, Chain 0 HIGH CH

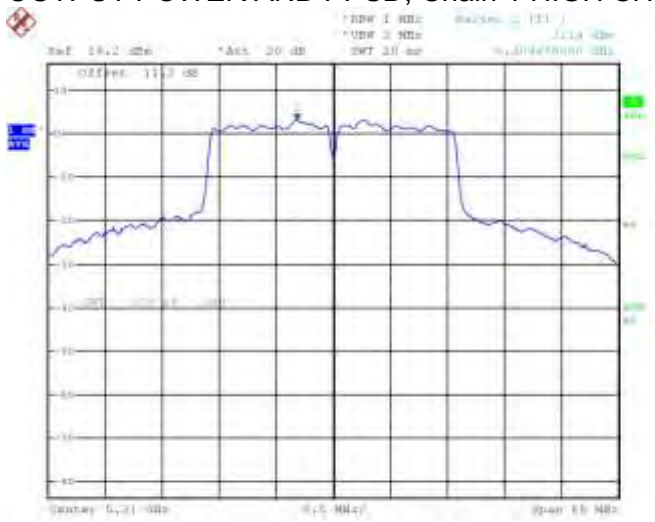


OUTPUT POWER AND PPSD, Chain 1

OUTPUT POWER AND PPSD, Chain 1 LOW CH



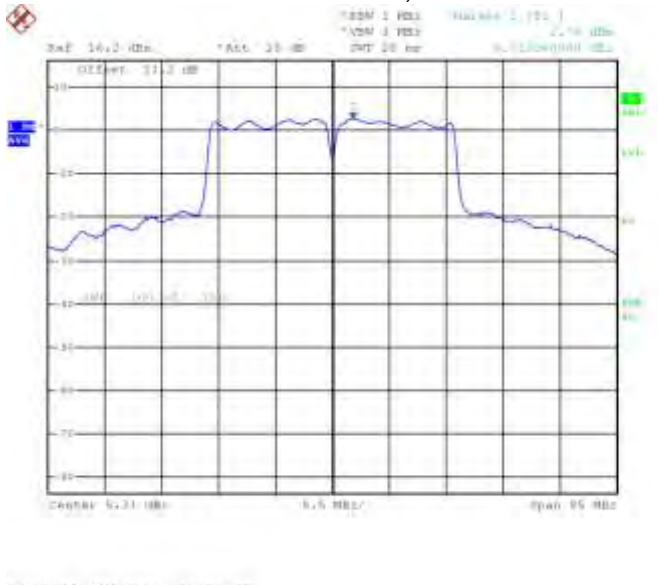
OUTPUT POWER AND PPSD, Chain 1 HIGH CH



OUTPUT POWER AND PPSD, Chain 2

OUTPUT POWER AND PPSD, Chain 2 LOW CH

OUTPUT POWER AND PPSD, Chain 2 HIGH CH



8.14. 802.11n HT40 STBC 3TX MODE, 5.3 GHz BAND

8.14.1. 26 dB BANDWIDTH

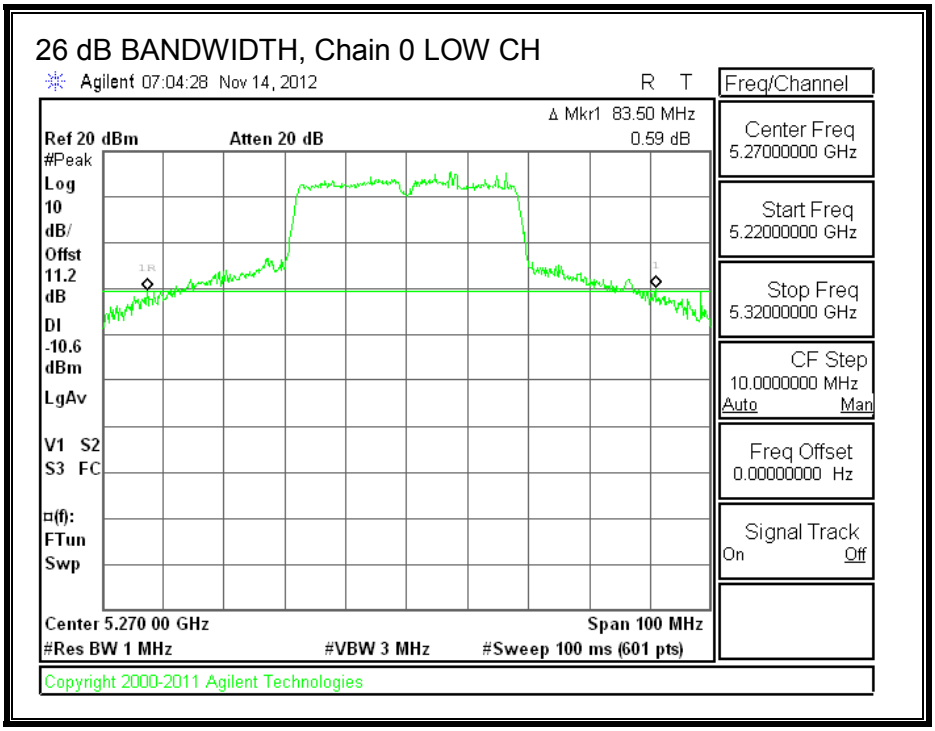
LIMITS

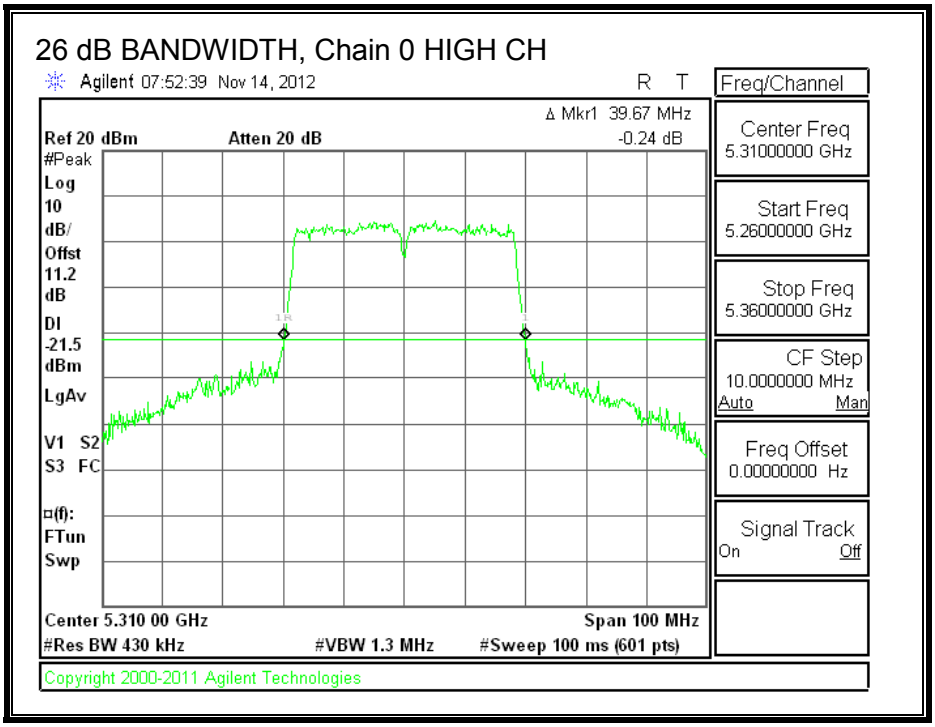
None; for reporting purposes only.

RESULTS

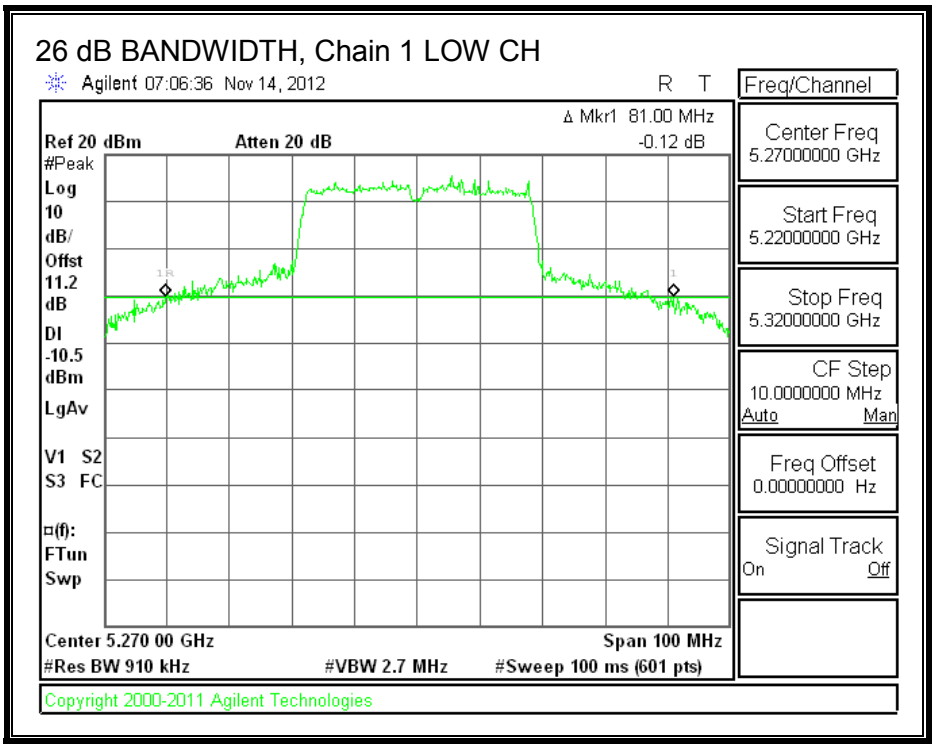
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5270	83.50	81.00	86.17
High	5310	39.67	39.50	39.83

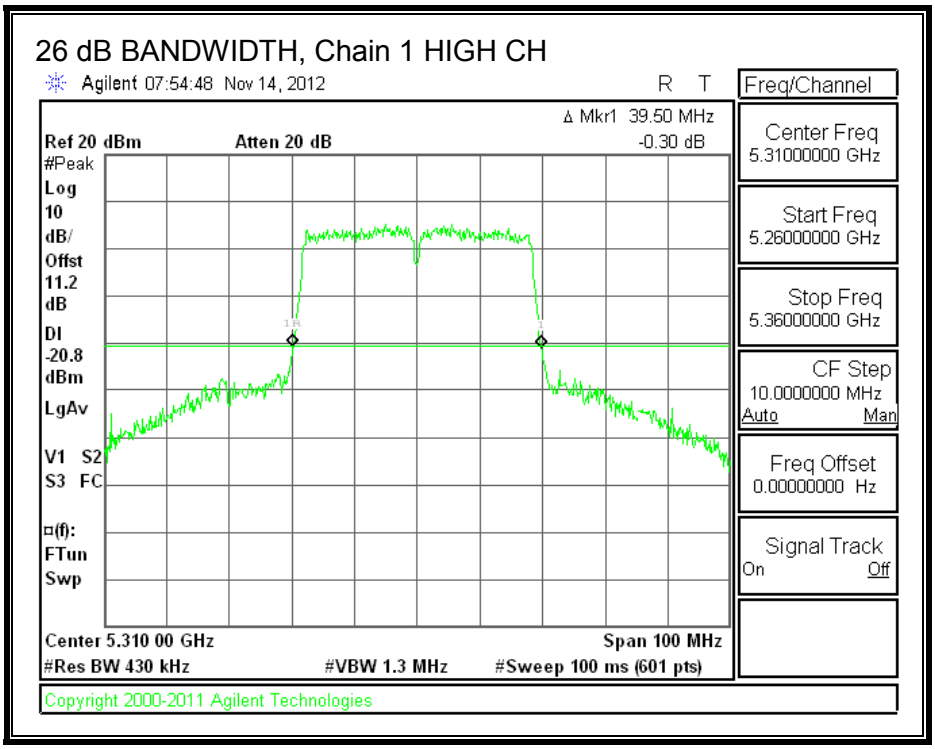
26 dB BANDWIDTH, Chain 0



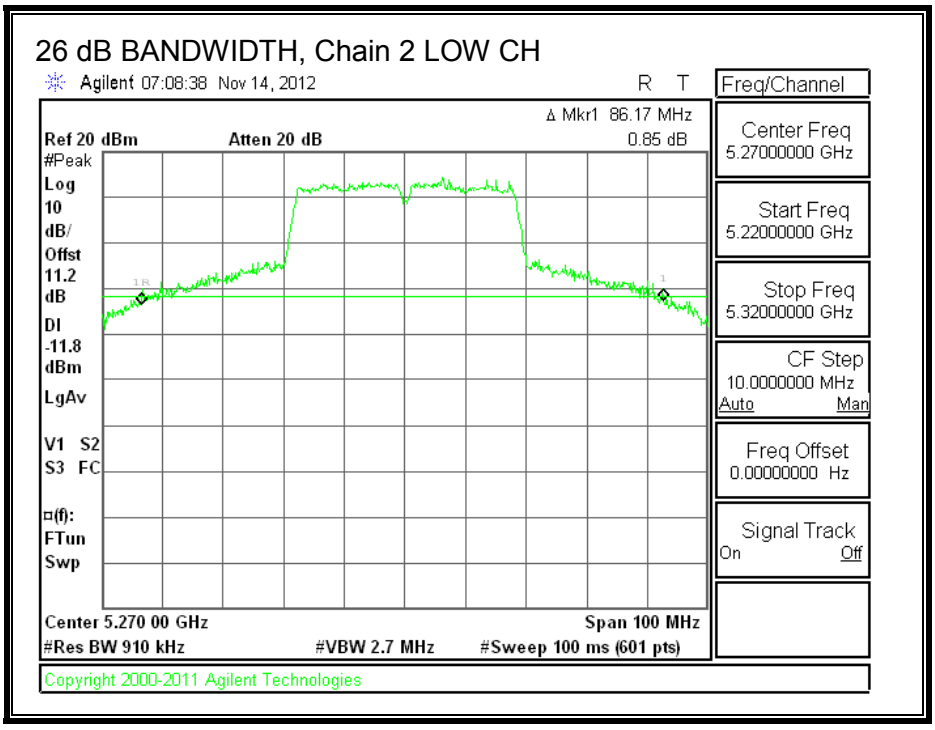


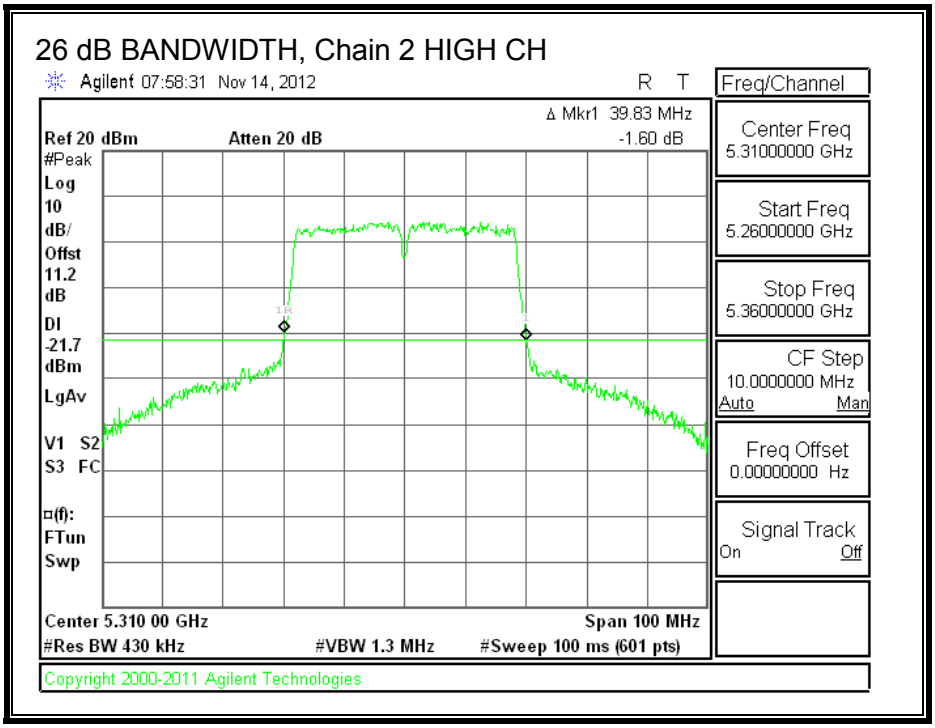
26 dB BANDWIDTH, Chain 1





26 dB BANDWIDTH, Chain 2





8.14.2. 99% BANDWIDTH

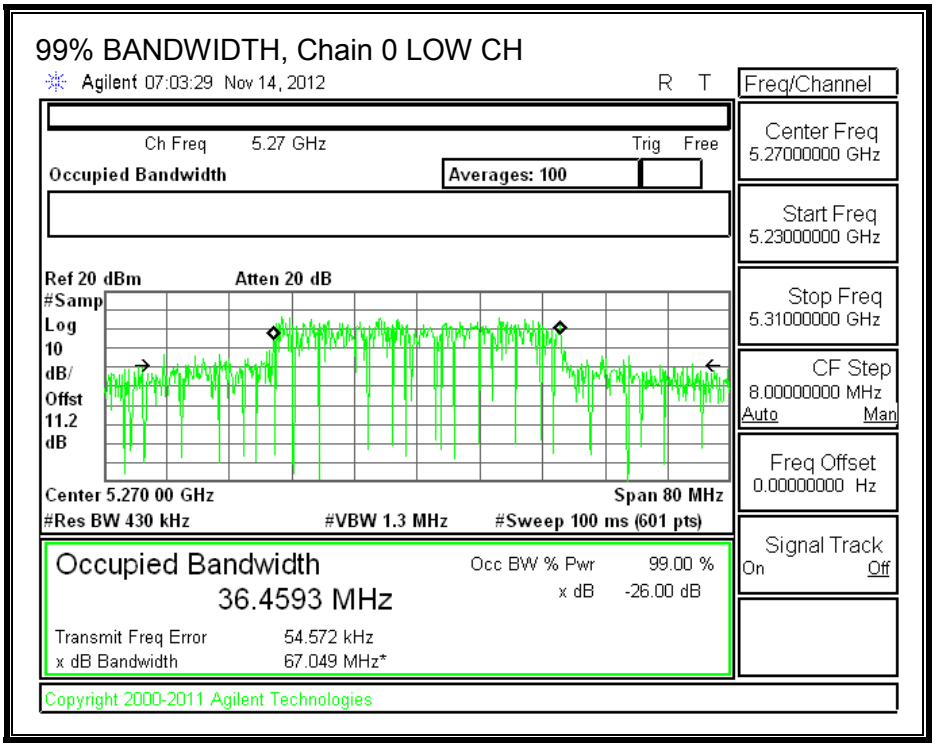
LIMITS

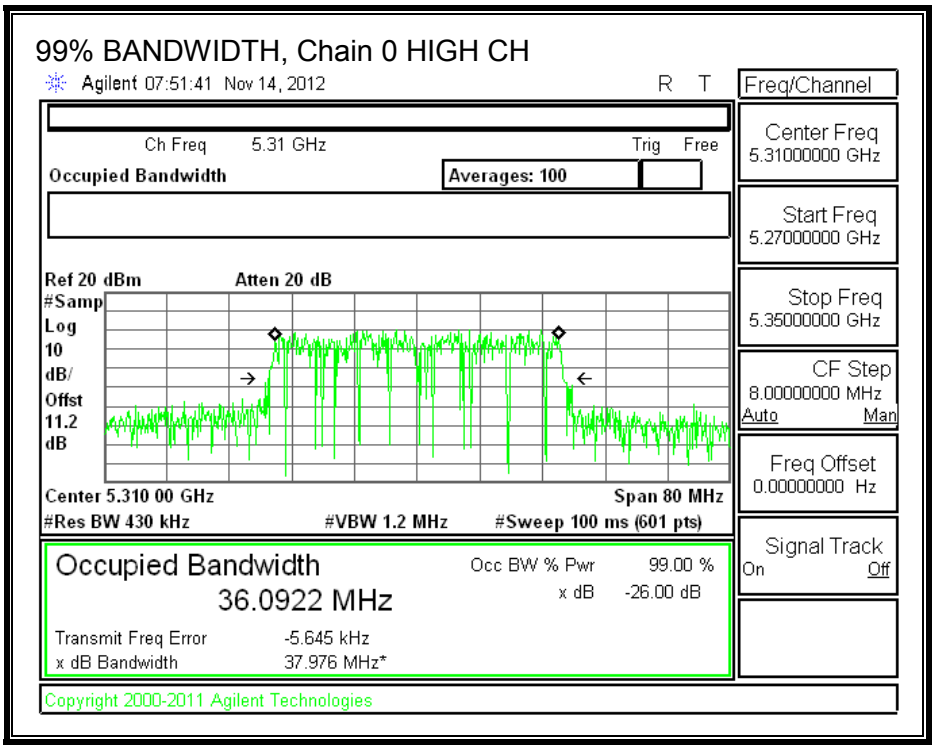
None; for reporting purposes only.

RESULTS

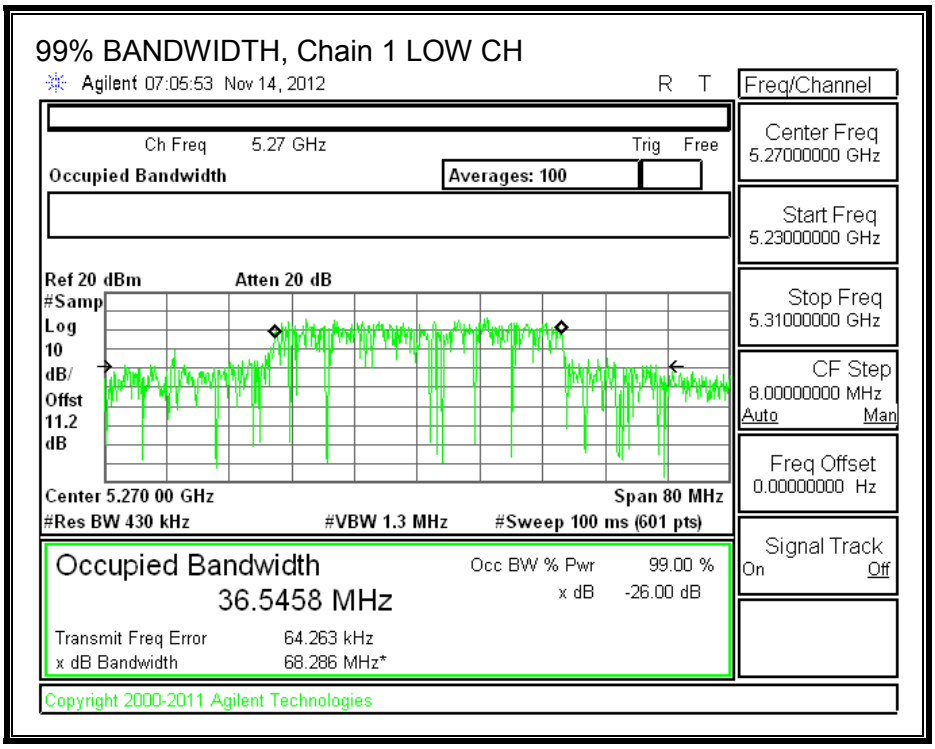
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5270	36.4593	36.5458	36.7931
High	5310	36.0922	36.1138	36.1664

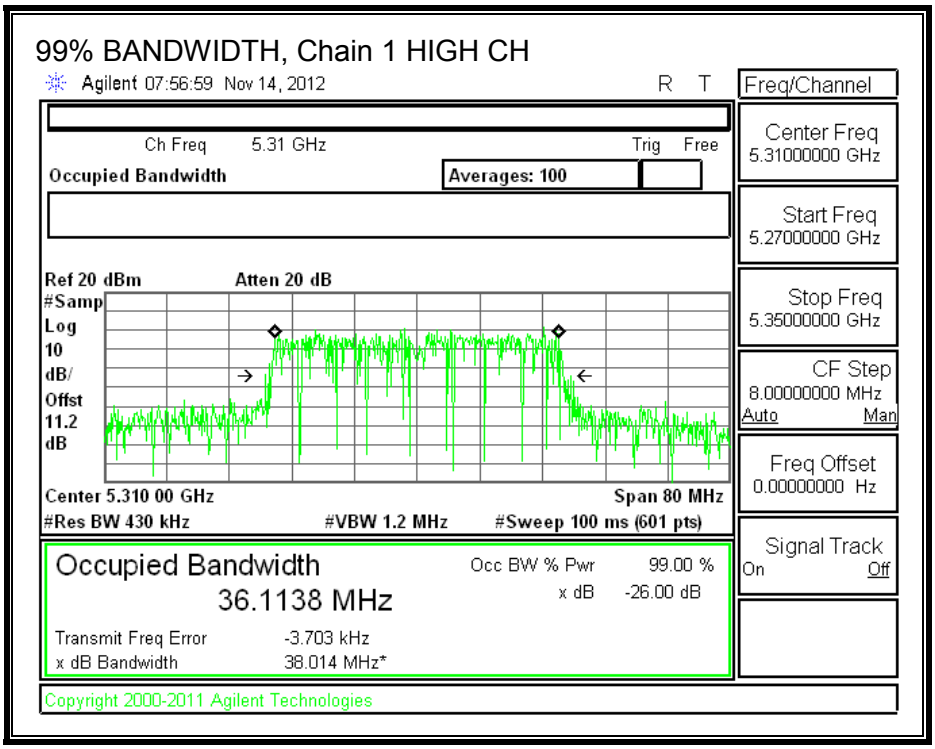
99% BANDWIDTH, Chain 0



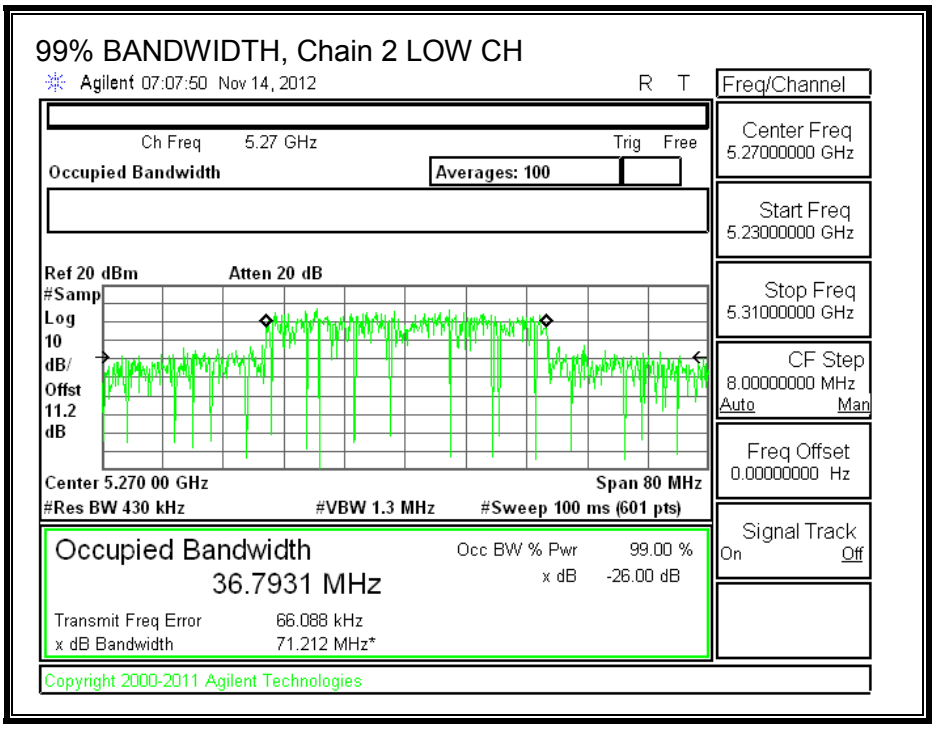


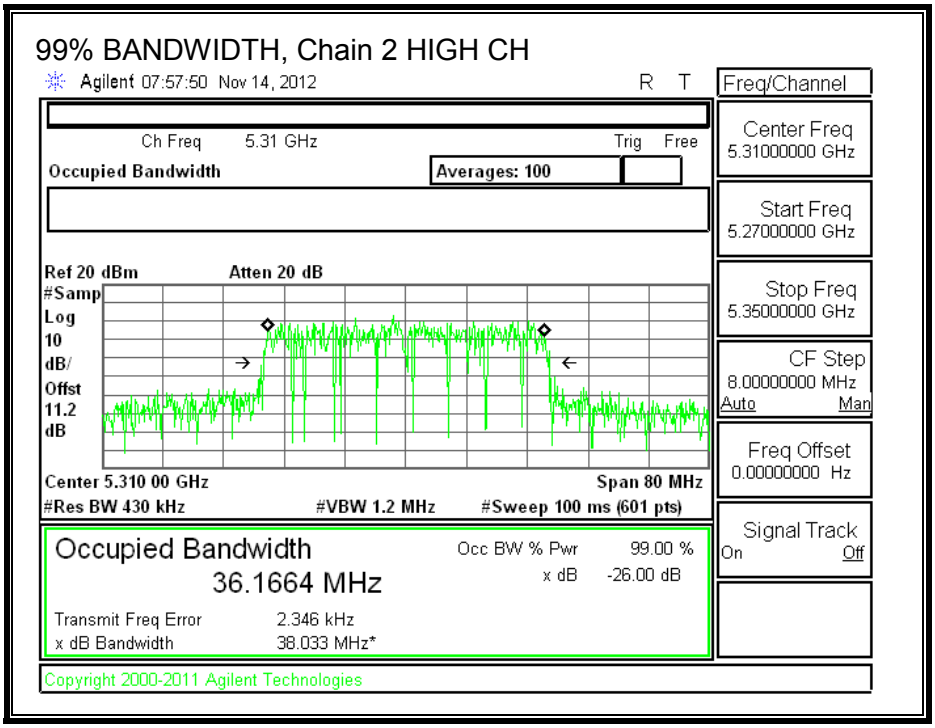
99% BANDWIDTH, Chain 1





99% BANDWIDTH, Chain 2





8.14.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

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)
4.52	3.21	1.48	3.24

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5270	81.00	36.4593	3.24
High	5310	39.50	36.0922	3.24

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	5270	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5310	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd PPSD

Output Power Results

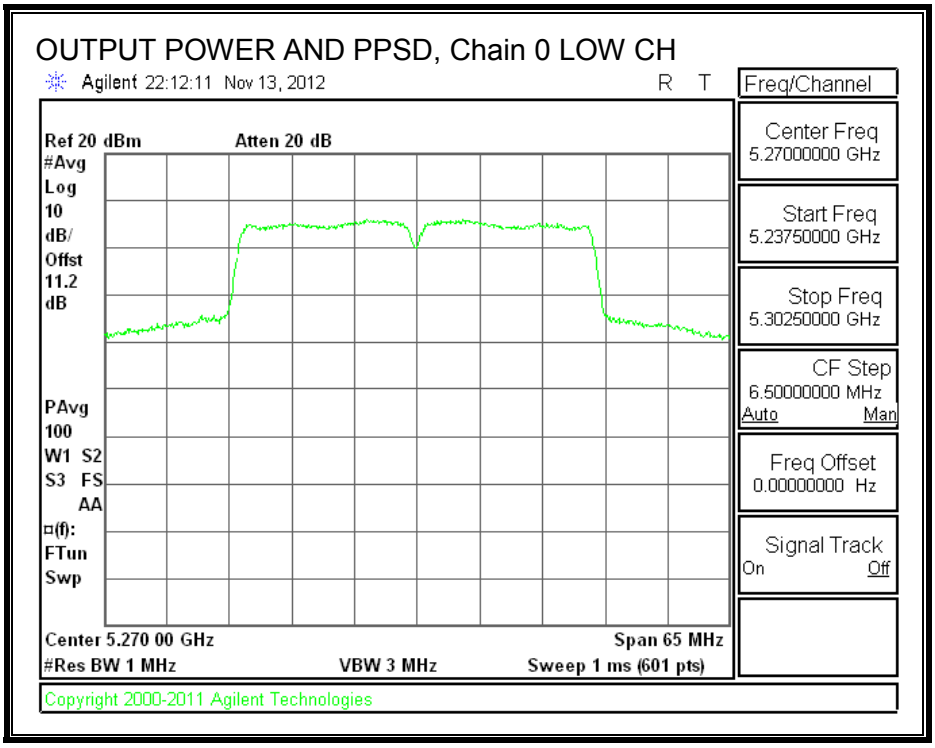
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	19.00	19.08	18.75	23.72	24.00	-0.28
High	5310	13.71	14.04	13.66	18.58	24.00	-5.42

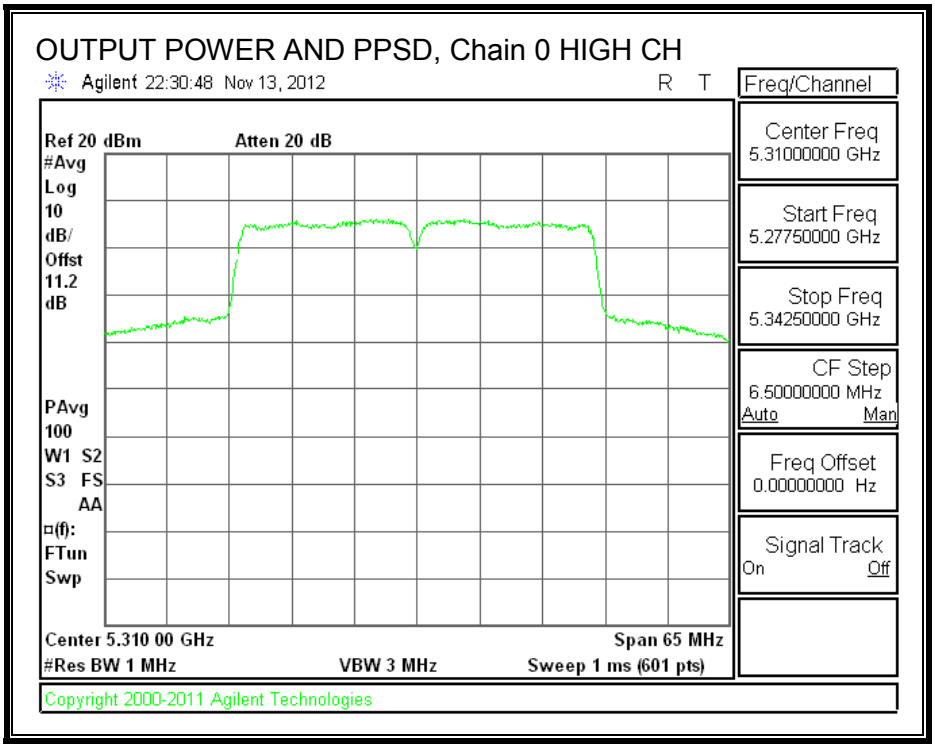
PPSD Results

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)
Low	5270	5.57	6.30	5.64	10.85	11.00	-0.15
High	5310	5.64	6.22	6.02	10.97	11.00	-0.03

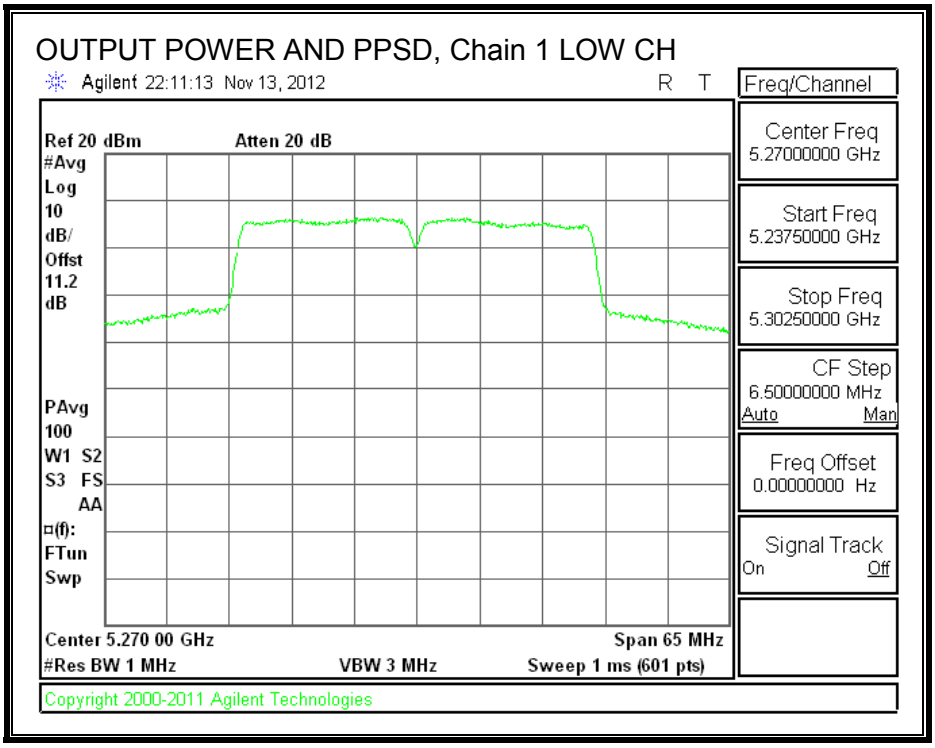
Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

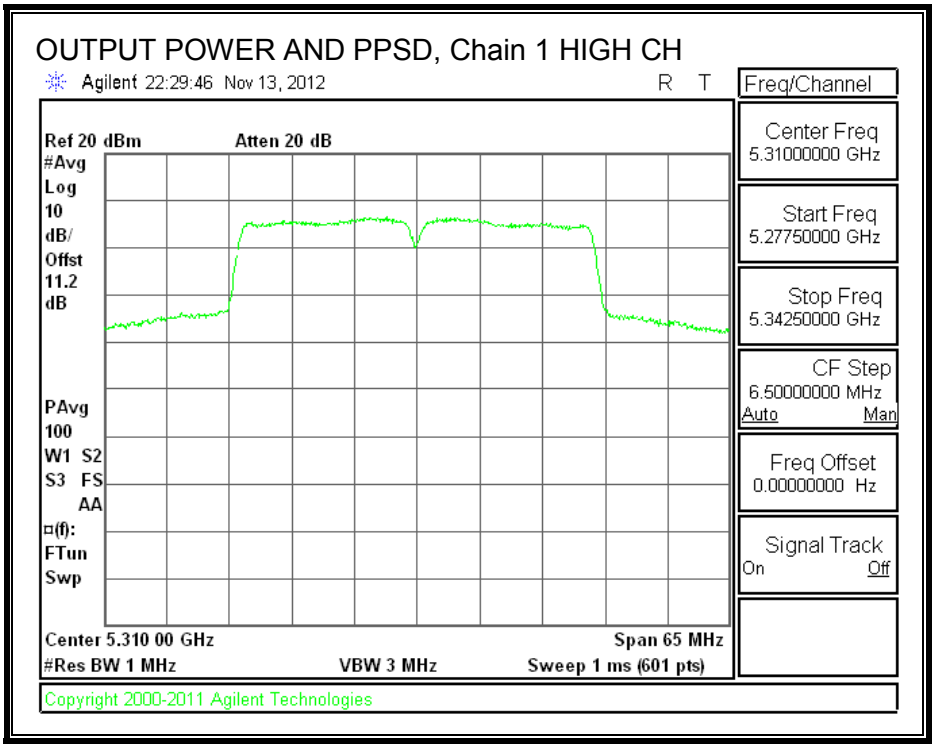
OUTPUT POWER AND PPSD, Chain 0



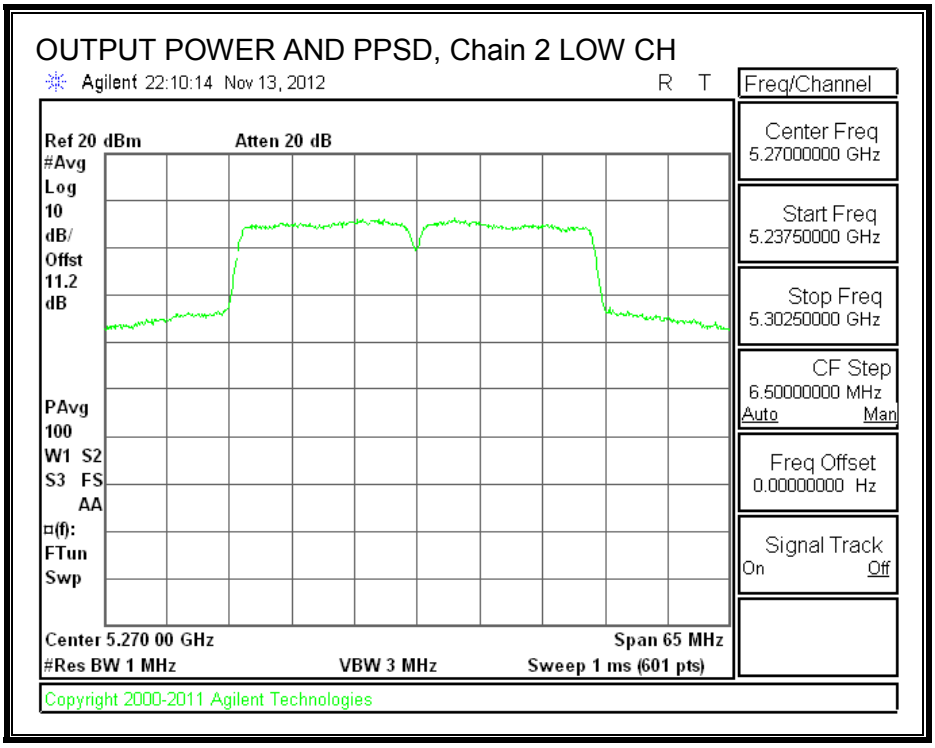


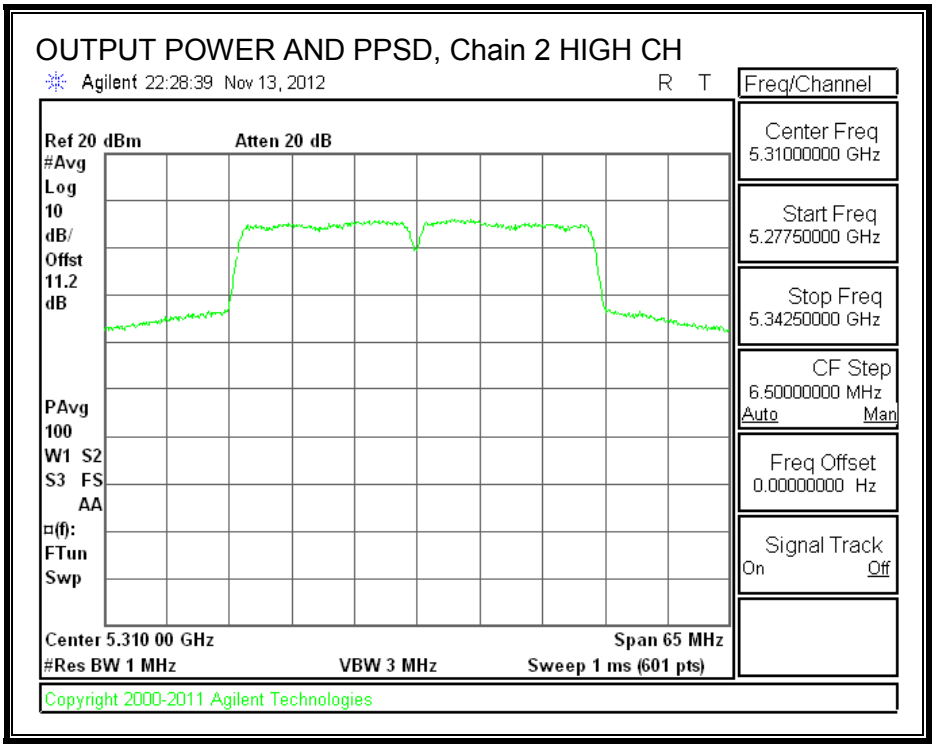
OUTPUT POWER AND PPSD, Chain 1





OUTPUT POWER AND PPSD, Chain 2





8.15. 802.11n AC80 1TX MODE, 5.3 GHz BAND

8.15.1. 26 dB BANDWIDTH

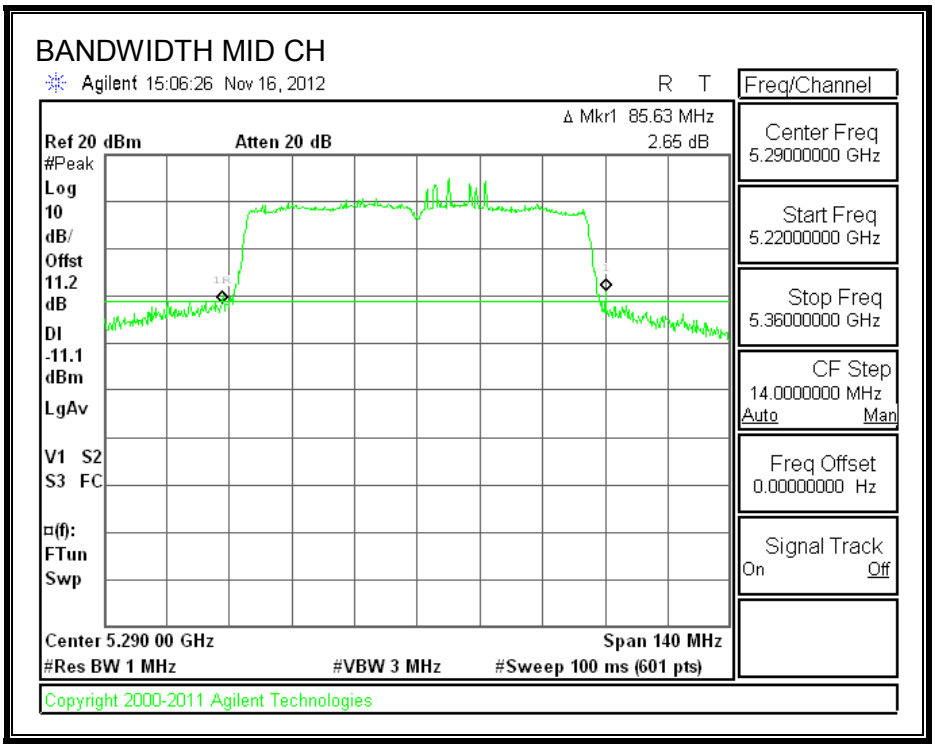
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Mid	5290	85.63

26 dB BANDWIDTH



8.15.2. 99% BANDWIDTH

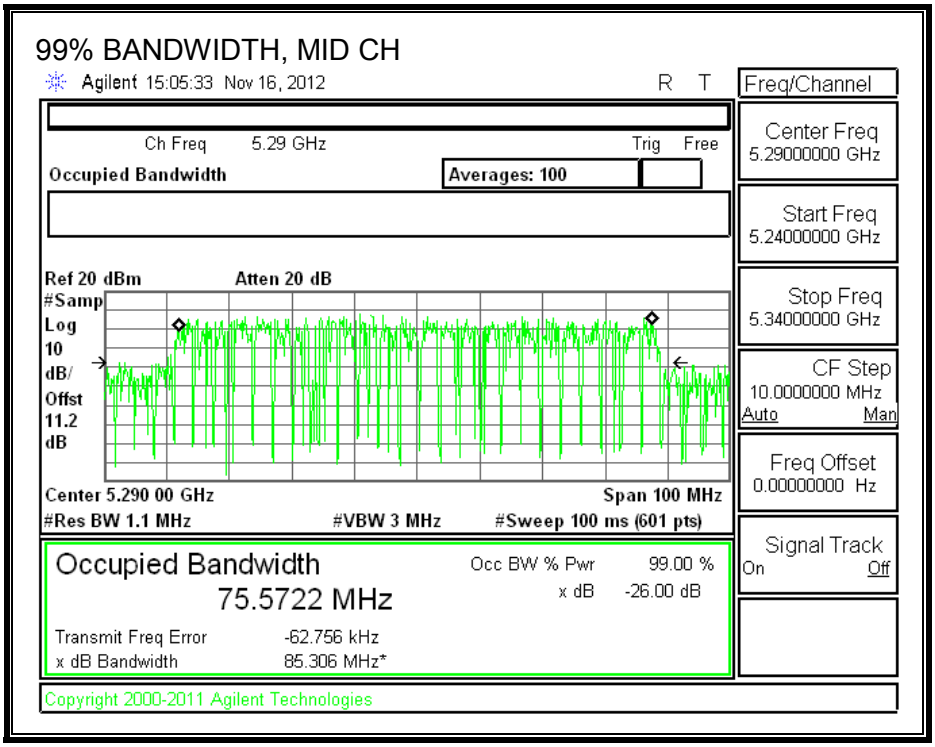
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5290	75.5722

99% BANDWIDTH



8.15.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Mid	5290	85.63	75.5722	5.53

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	5290	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd PPSD

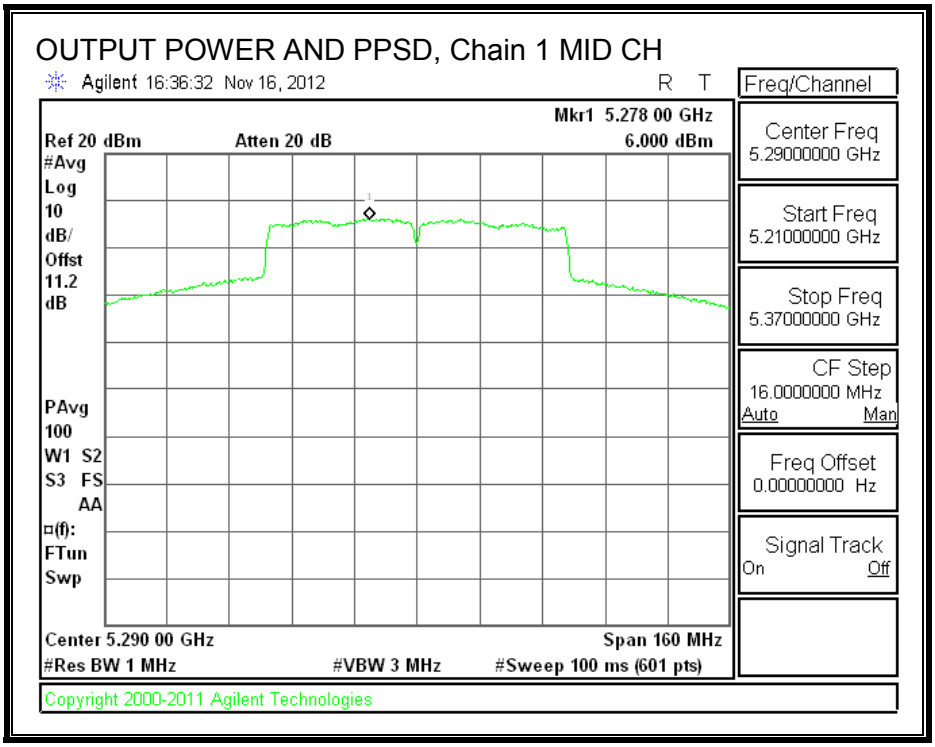
Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	14.73	14.73	24.00	-9.27

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Mid	5290	6.00	6.46	11.00	-4.54

OUTPUT POWER AND PPSD, Chain 1



8.16. 802.11n AC80 CDD 3TX MODE, 5.3 GHz BAND

8.16.1. 26 dB BANDWIDTH

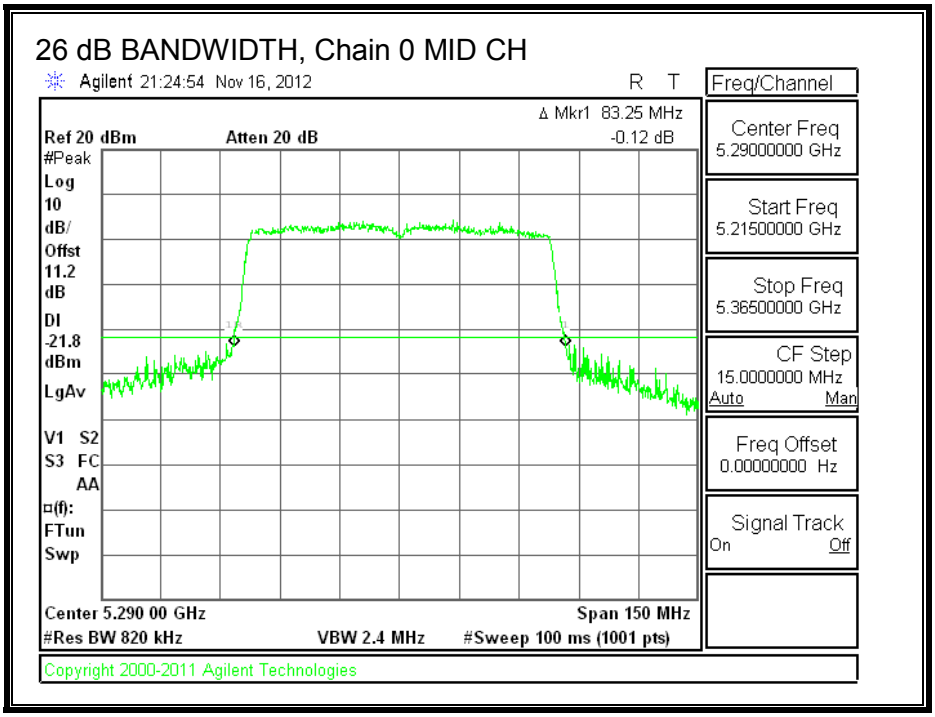
LIMITS

None; for reporting purposes only.

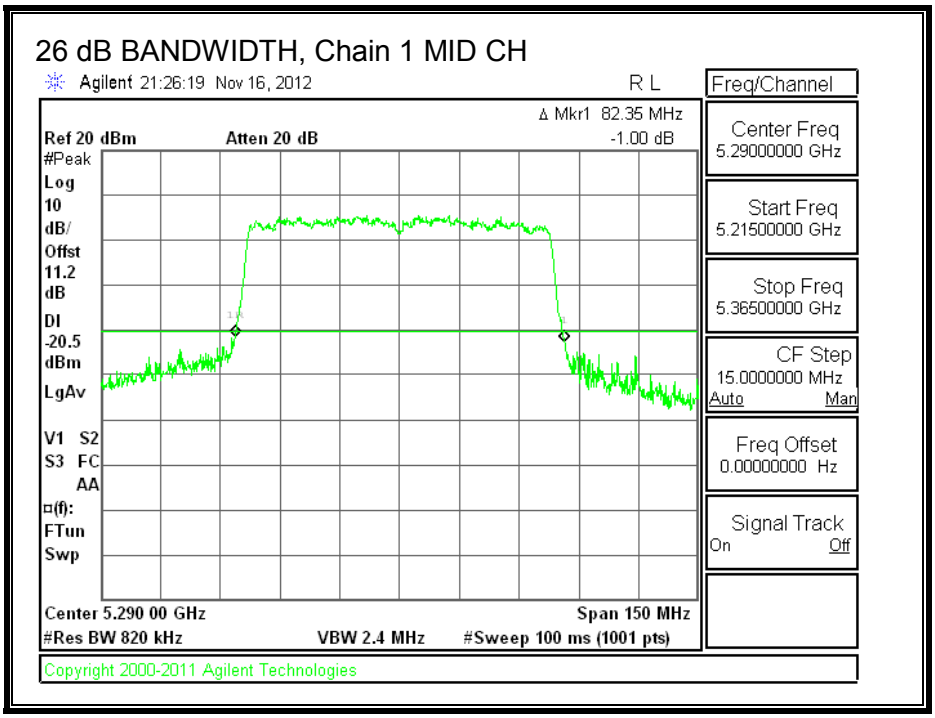
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Mid	5290	83.25	82.35	82.05

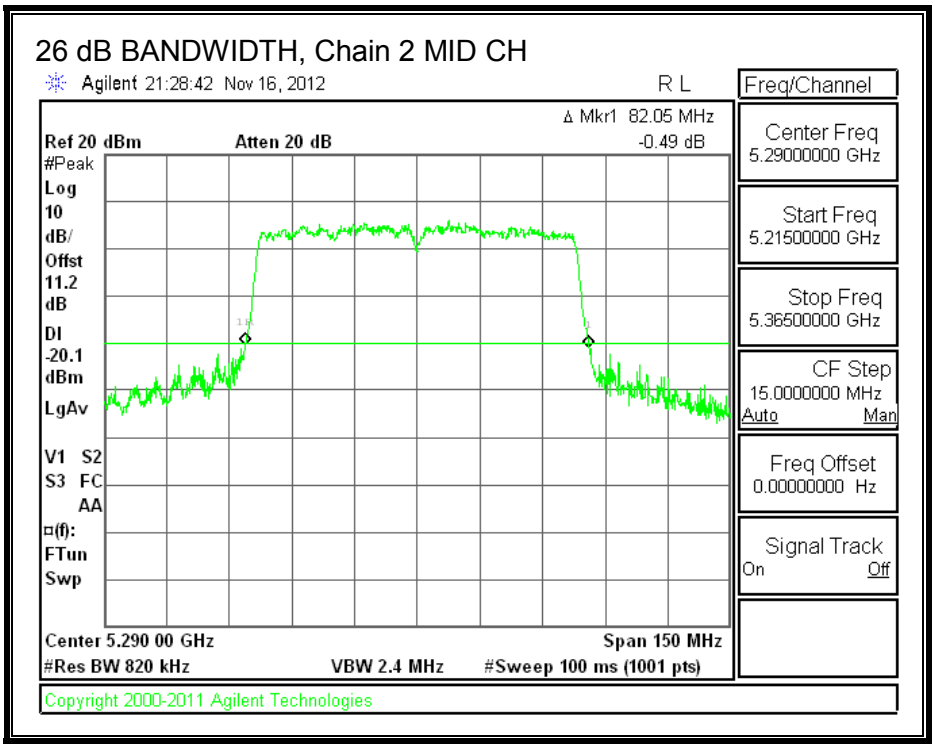
26 dB BANDWIDTH, Chain 0



26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



8.16.2. 99% BANDWIDTH

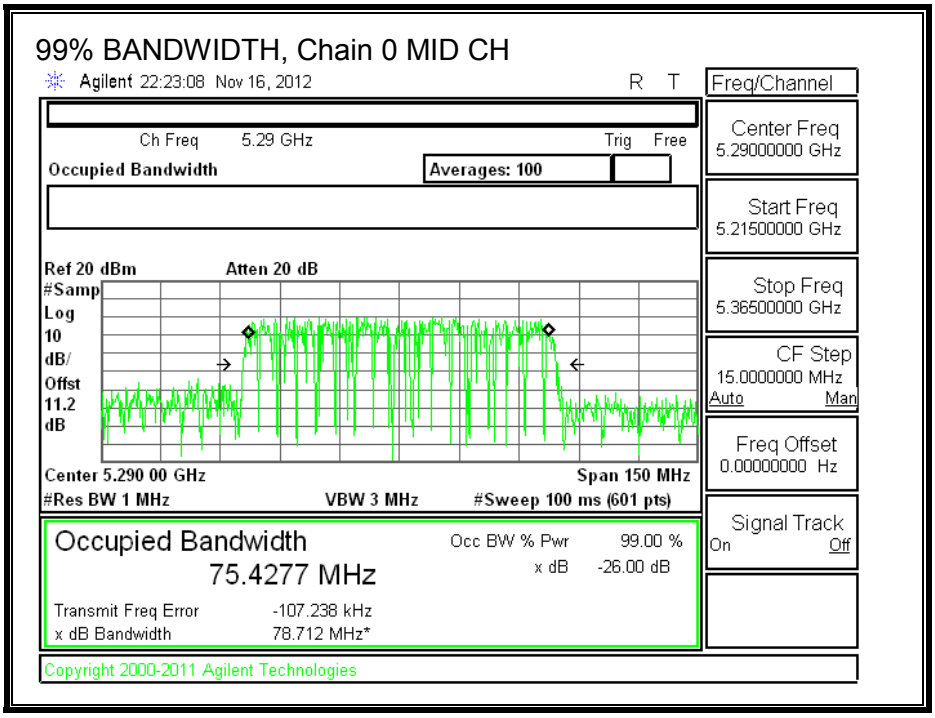
LIMITS

None; for reporting purposes only.

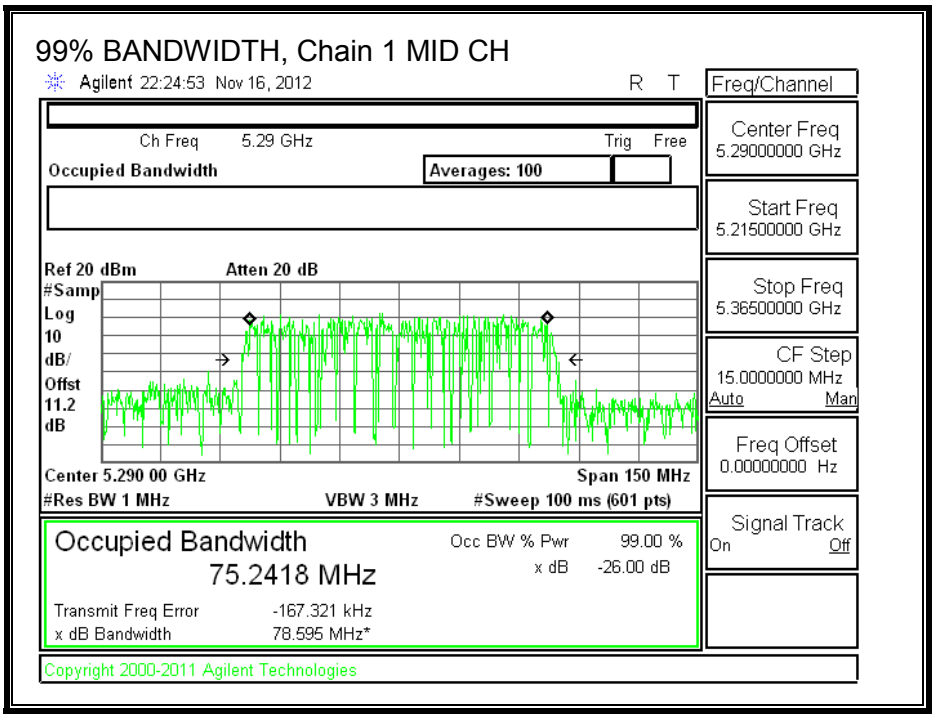
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Mid	5290	75.4277	74.2418	75.6102

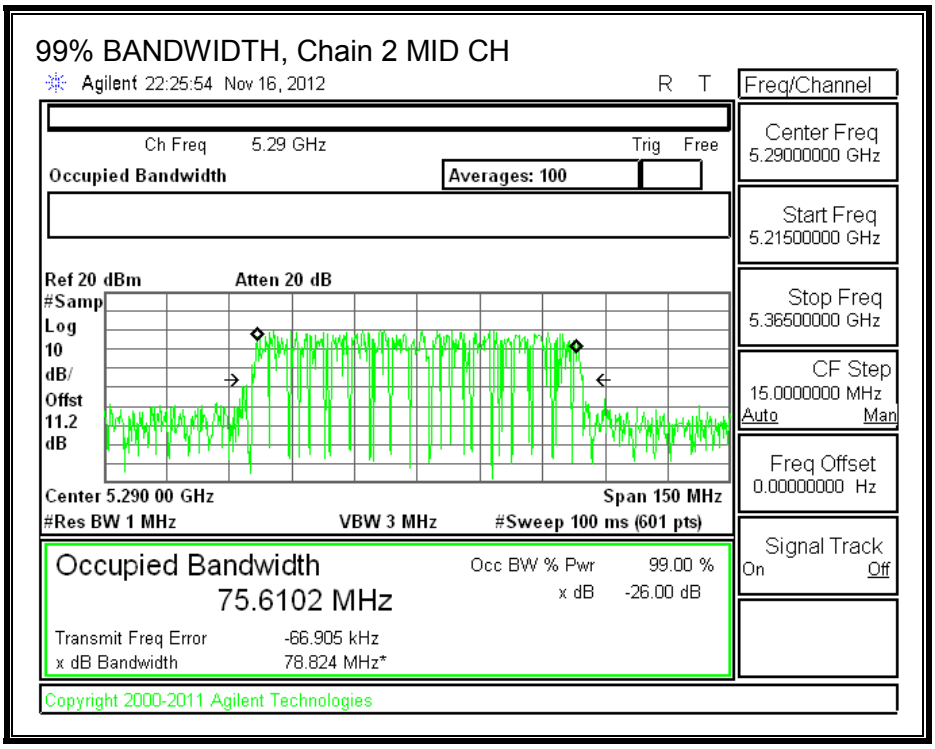
99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



8.16.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

The TX chains are uncorrelated for output power 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)
5.53	1.34	1.96	3.36

The TX chains are correlated for PSD 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)
5.53	1.34	1.96	7.92

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5290	82.05	75.2418	3.36

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	5290	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Gated 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	5290	13.06	13.61	12.20	17.77	24.00	-6.23

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5290	82.05	75.2418	7.92

Limits

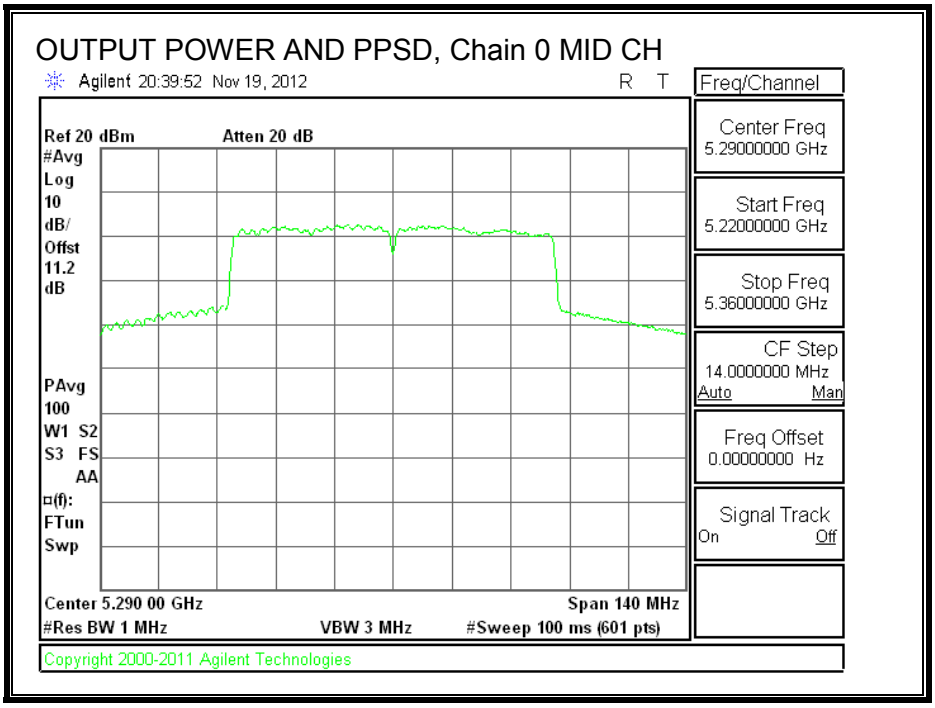
Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5290	22.08	24.00	30.00	22.08	9.08	11.00	9.08

Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd Power & PPSD

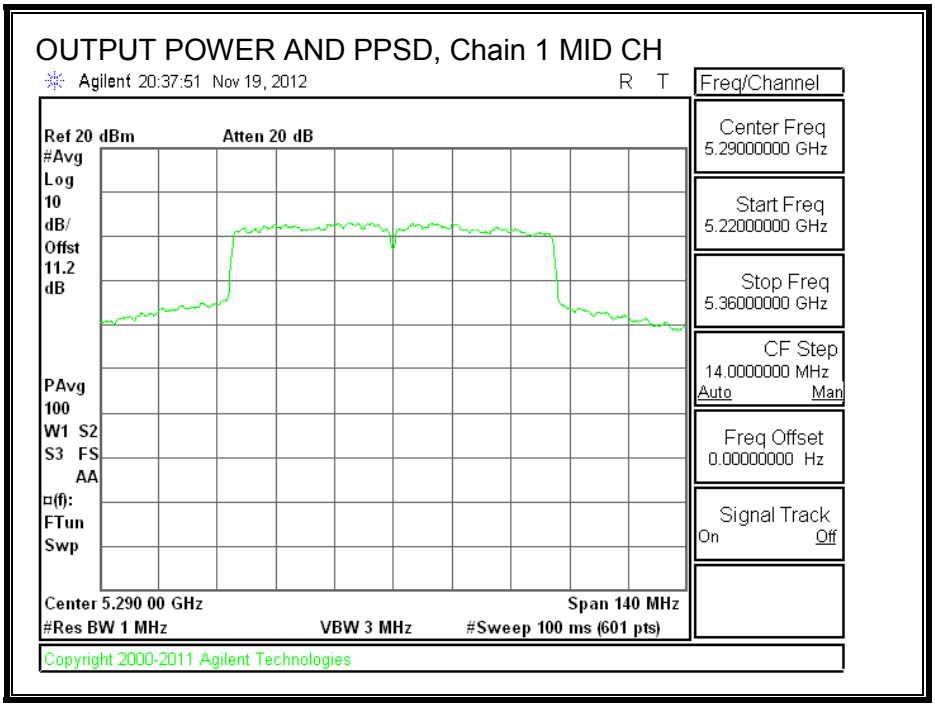
PPSD Results

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	5290	2.31	2.85	1.89	7.60	9.08	-1.48

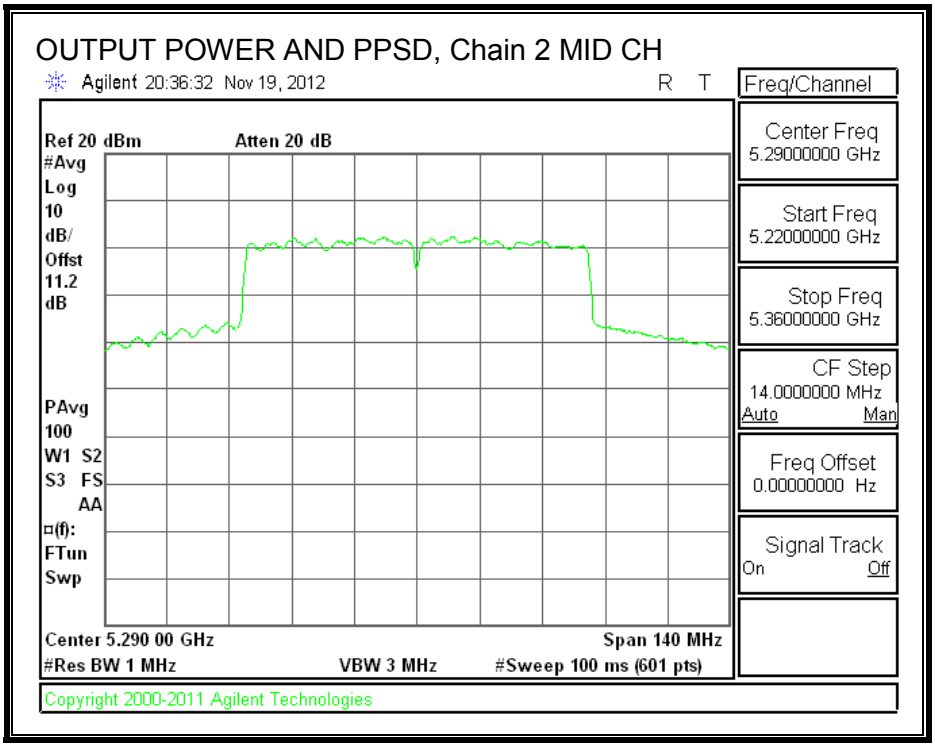
OUTPUT POWER AND PPSD, Chain 0



OUTPUT POWER AND PPSD, Chain 1



OUTPUT POWER AND PPSD, Chain 2



8.17. 802.11n AC80 3TX BF MODE, 5.3 GHz BAND

8.17.1. 26 dB BANDWIDTH

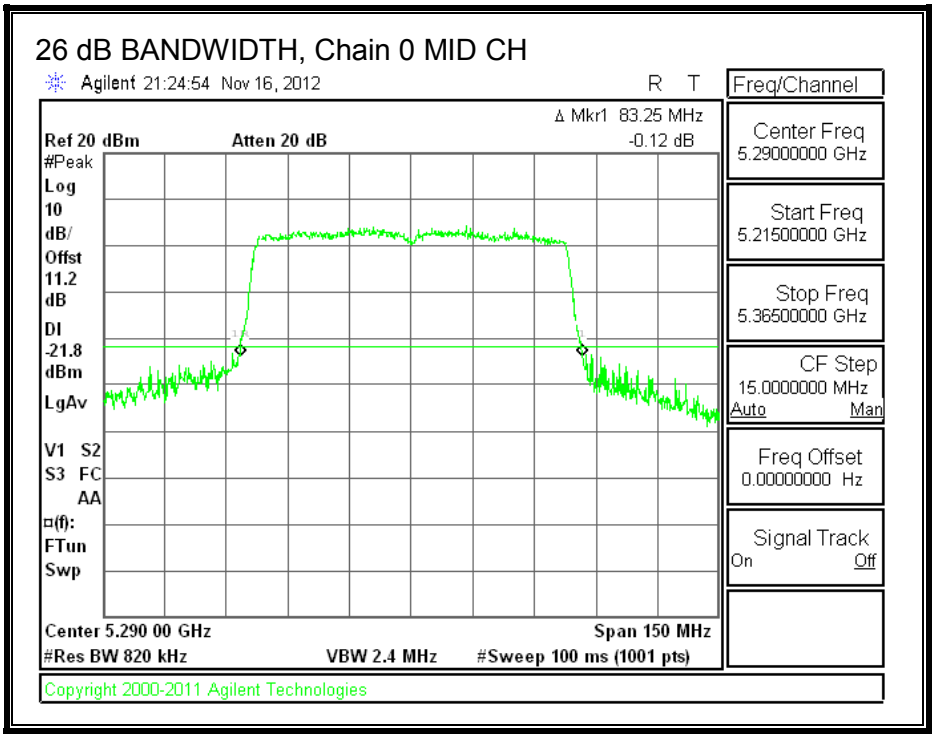
LIMITS

None; for reporting purposes only.

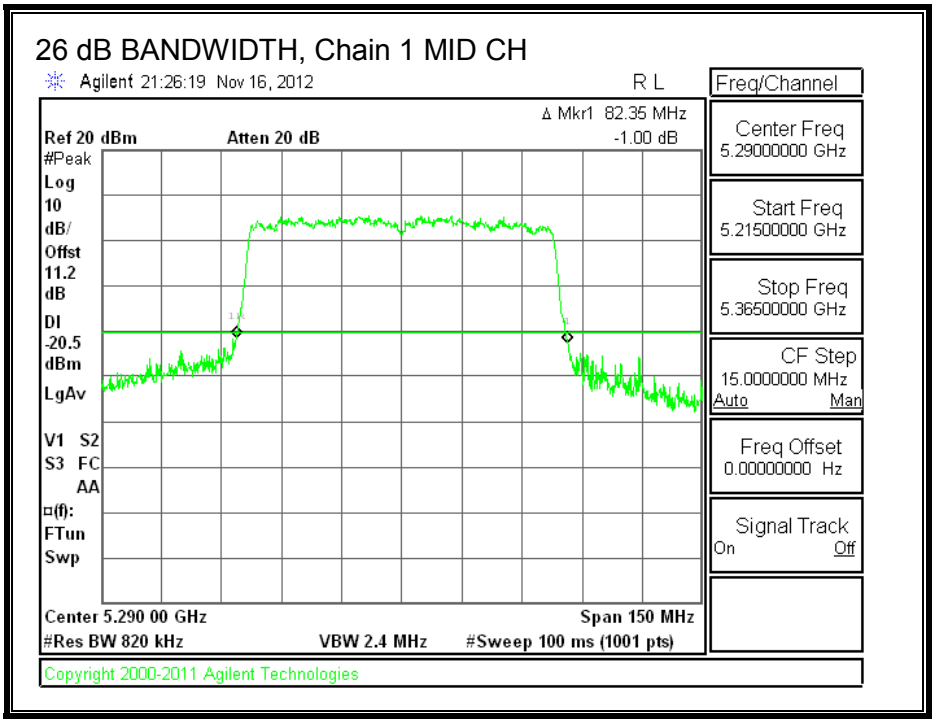
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Mid	5290	83.25	82.35	82.05

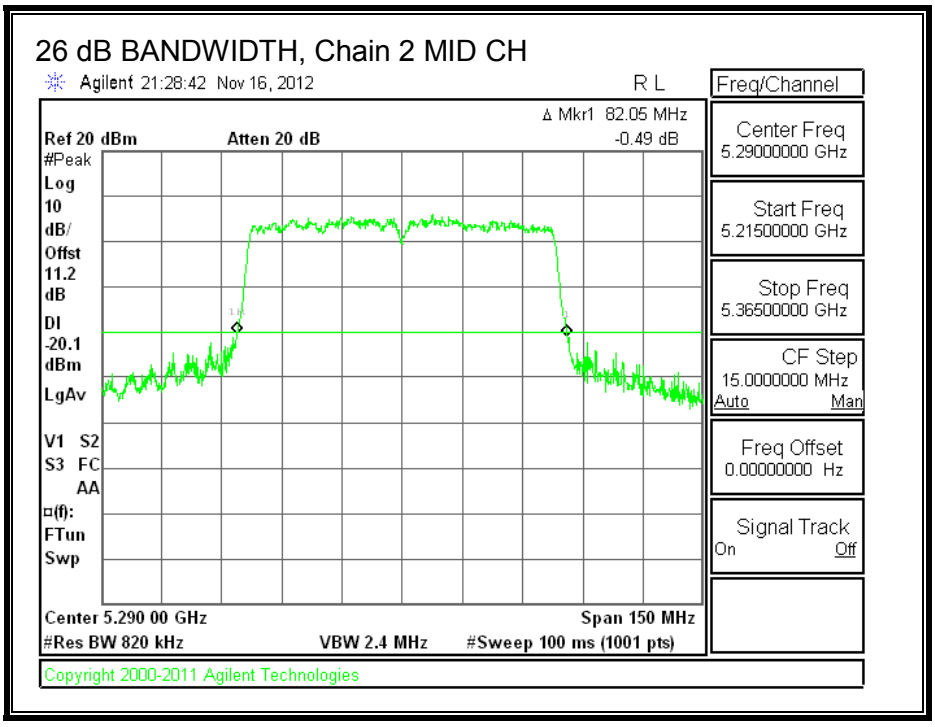
26 dB BANDWIDTH, Chain 0



26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



8.17.2. 99% BANDWIDTH

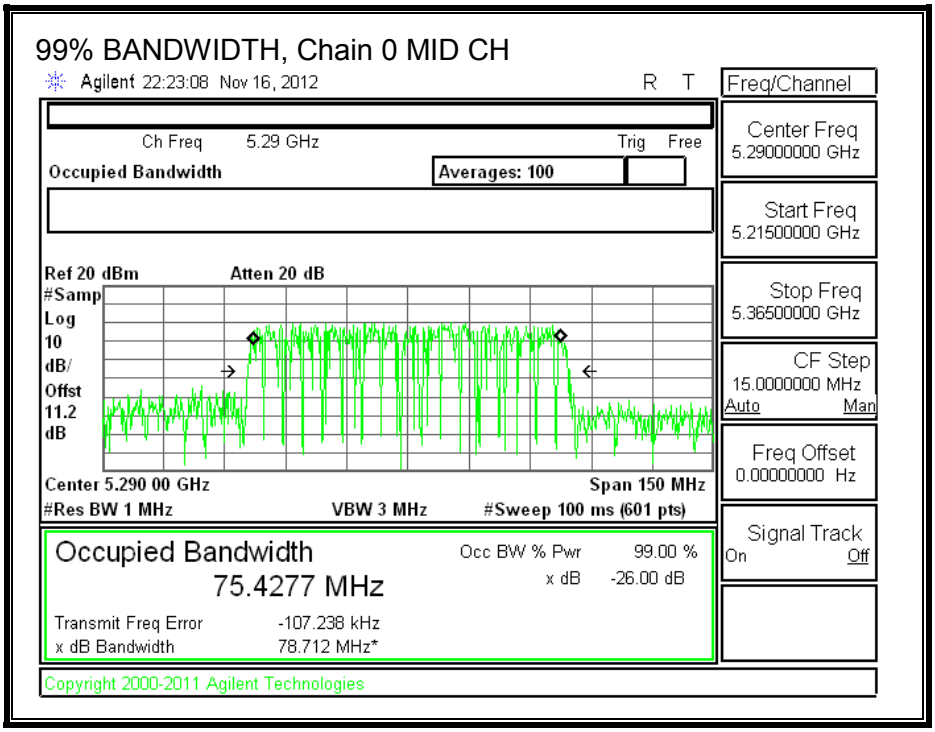
LIMITS

None; for reporting purposes only.

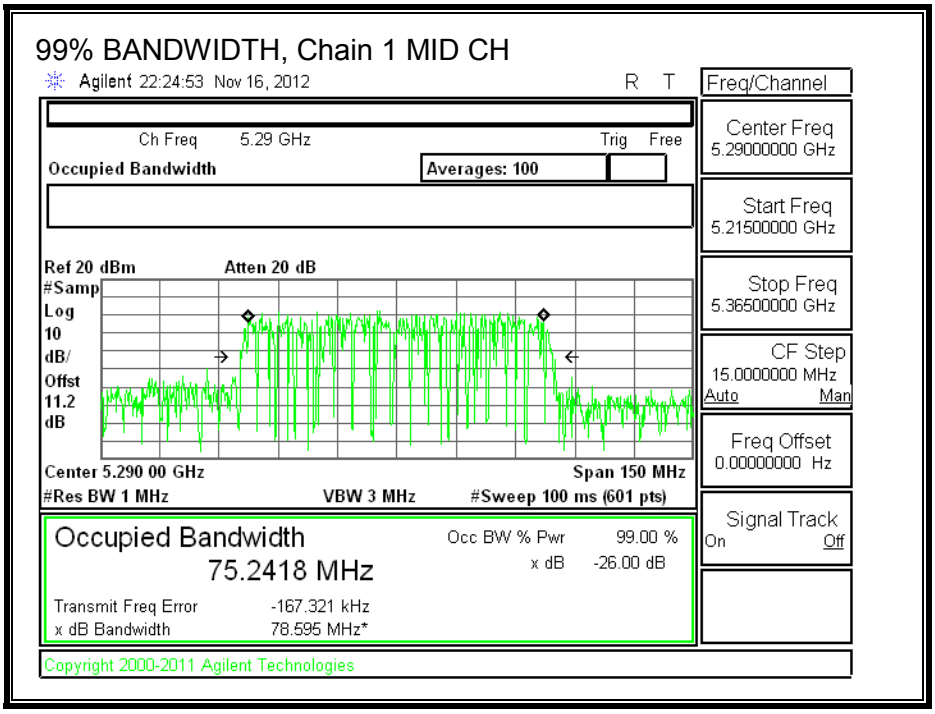
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Mid	5290	75.4277	74.2418	75.6102

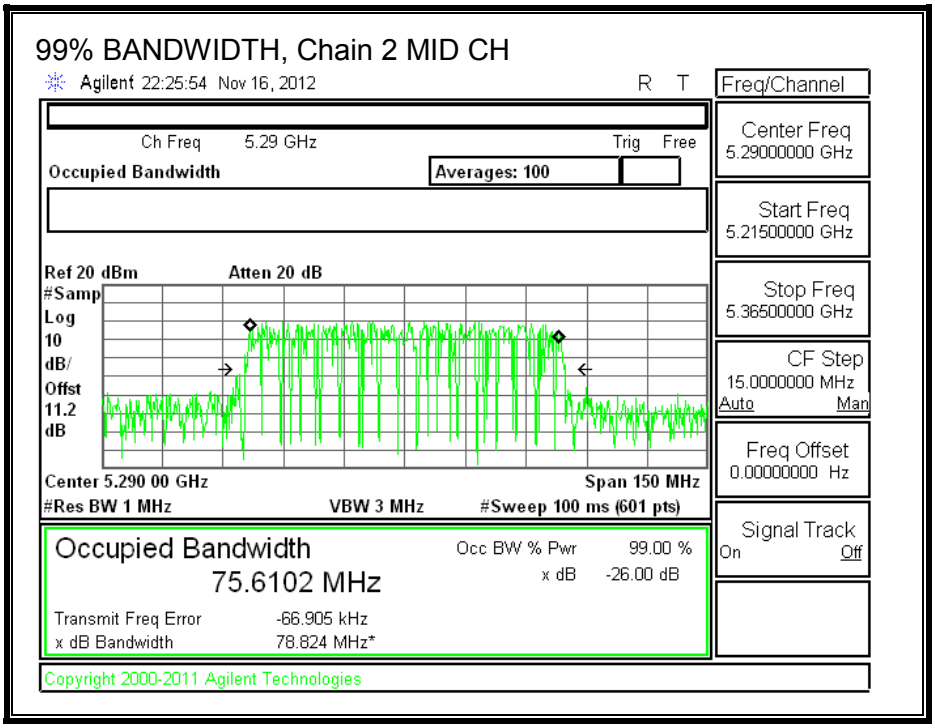
99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



8.17.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

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)
5.53	1.34	1.96	7.92

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5290	82.05	74.2418	7.92

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	5290	22.08	24.00	30.00	22.08	9.08	11.00	9.08

Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd PPSD

Output Power Results

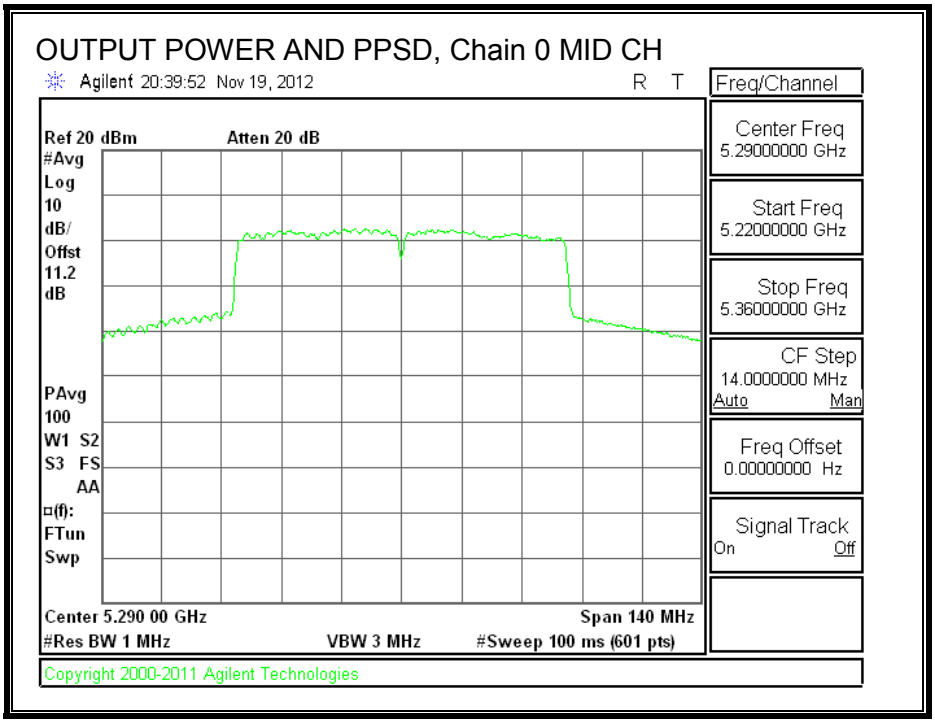
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5290	12.58	12.88	12.82	17.53	22.08	-4.55

PPSD Results

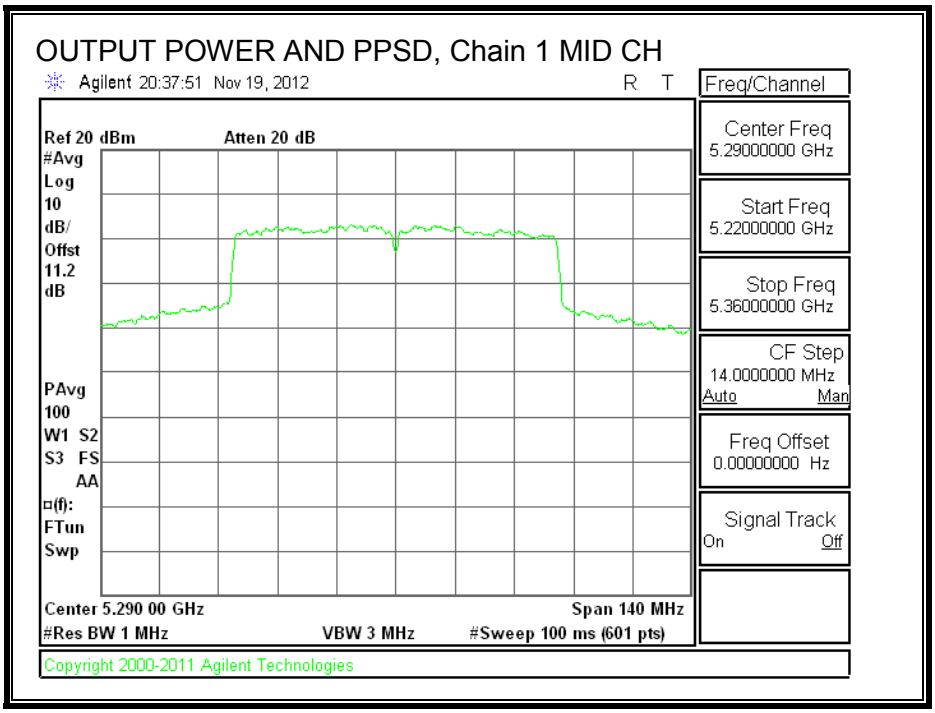
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5290	2.31	2.85	1.89	7.60	9.08	-1.48

Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

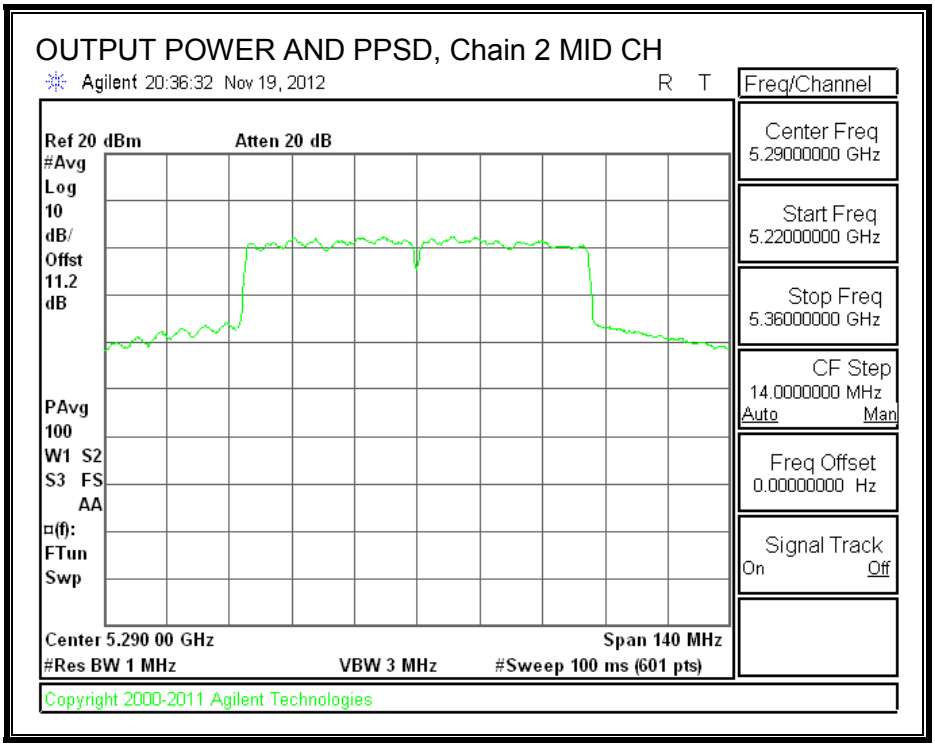
OUTPUT POWER AND PPSD, Chain 0



OUTPUT POWER AND PPSD, Chain 1



OUTPUT POWER AND PPSD, Chain 2



8.18. 802.11a Legacy 1TX MODE, 5.6 GHz BAND

8.18.1. 26 dB BANDWIDTH

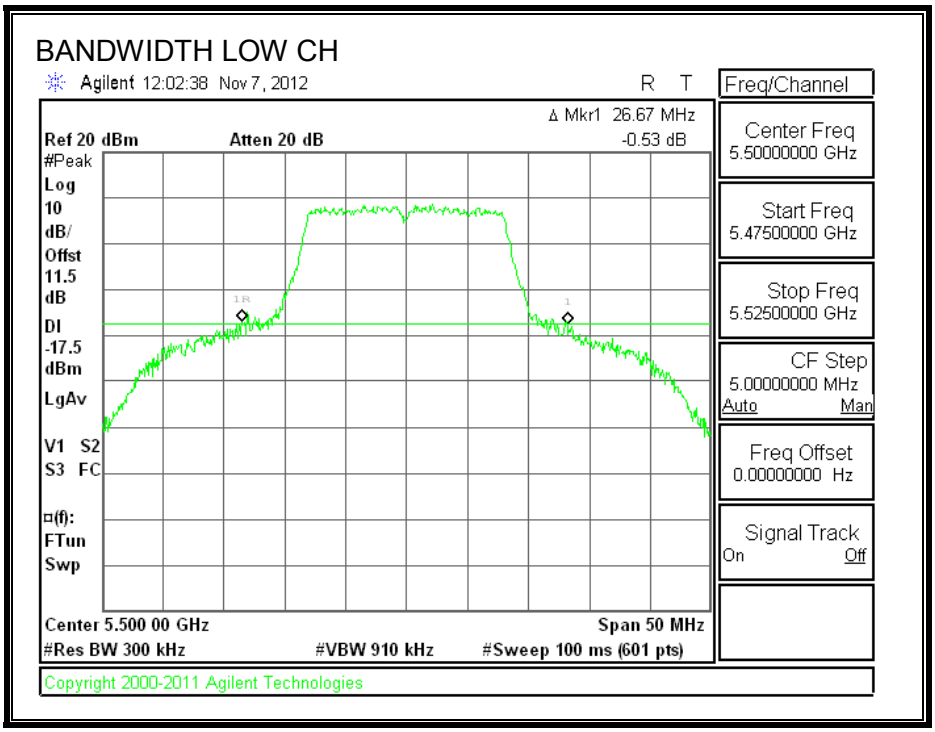
LIMITS

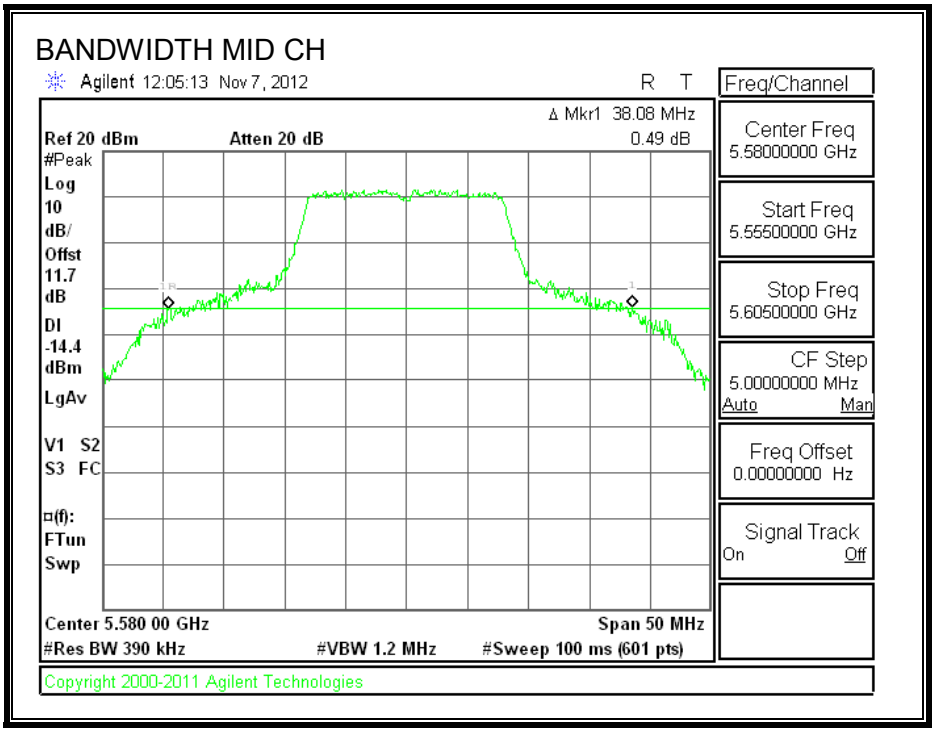
None; for reporting purposes only.

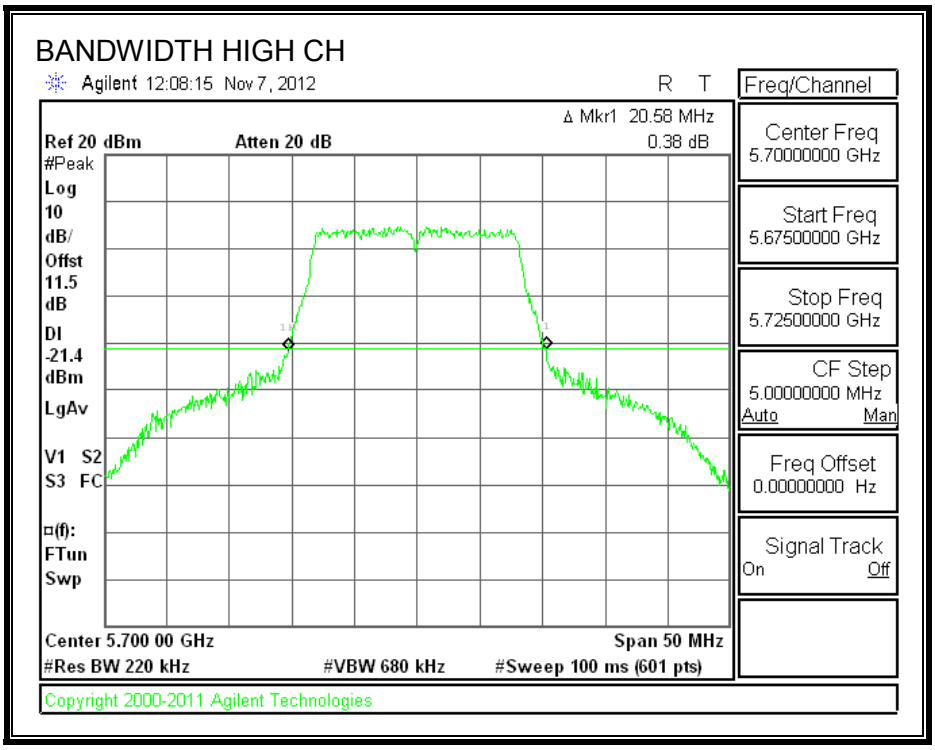
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	26.67
Mid	5580	38.08
High	5700	20.58

26 dB BANDWIDTH







8.18.2. 99% BANDWIDTH

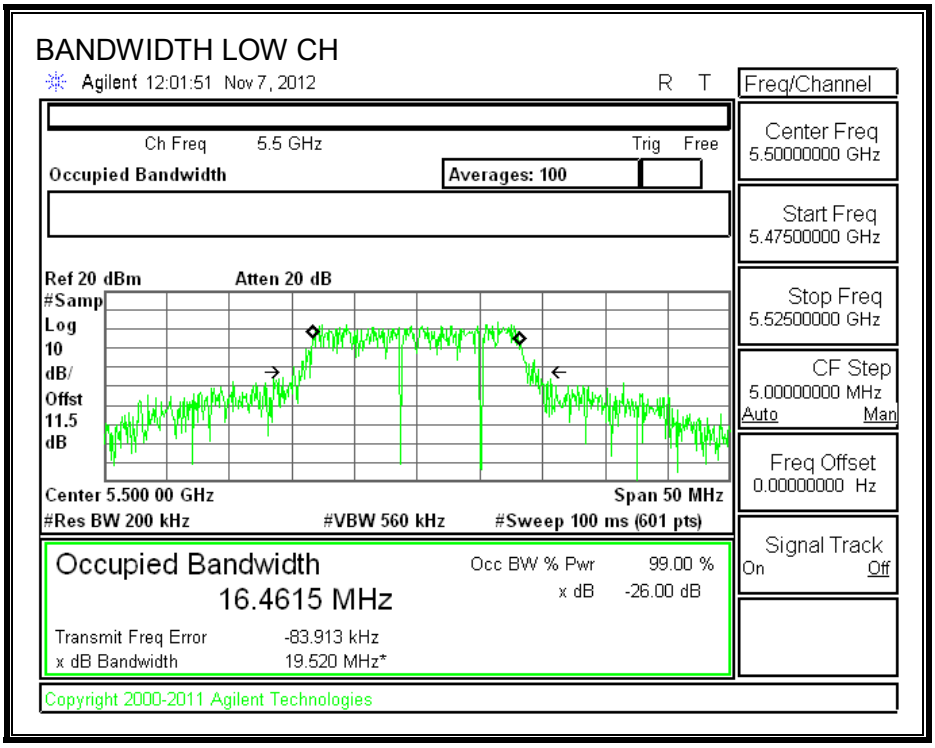
LIMITS

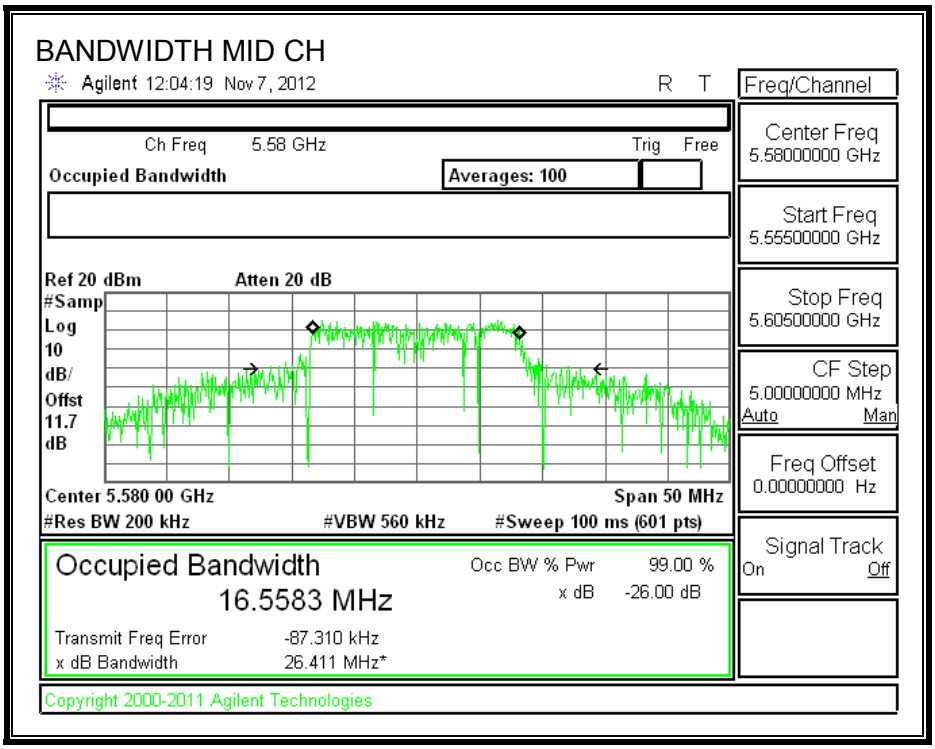
None; for reporting purposes only.

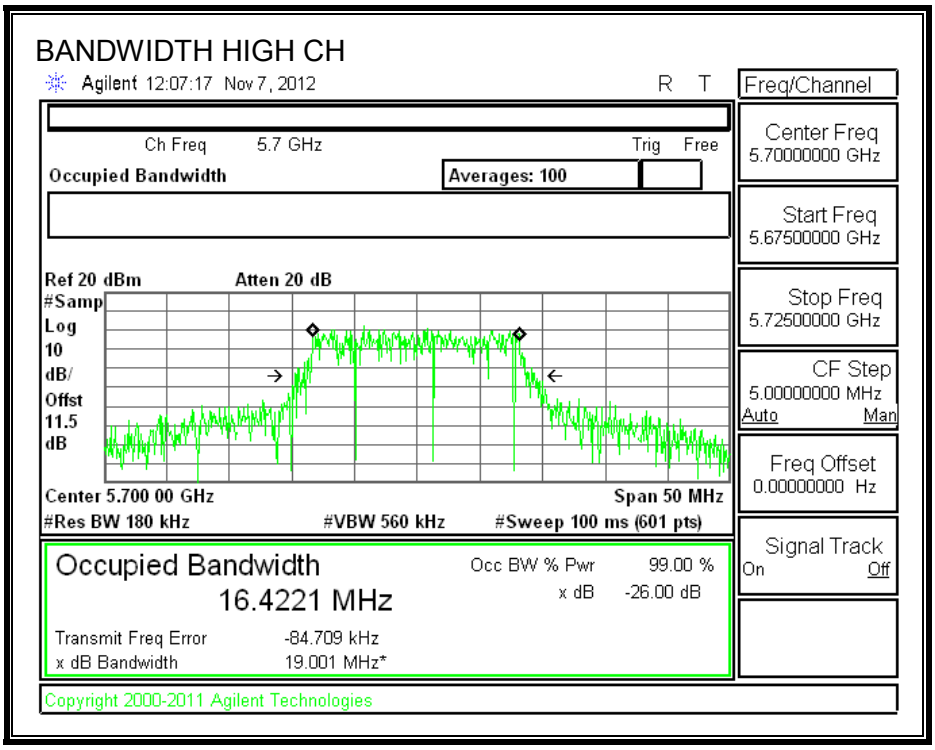
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	16.4615
Mid	5580	16.5583
High	5700	16.4221

99% BANDWIDTH







8.18.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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)
Low	5500	26.67	16.4615	4.72
Mid	5580	38.08	16.5583	4.72
High	5700	20.58	16.4221	4.72

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	5500	24.00	23.16	29.16	23.16	11.00	11.00	11.00
Mid	5580	24.00	23.19	29.19	23.19	11.00	11.00	11.00
High	5700	24.00	23.15	29.15	23.15	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PPSD

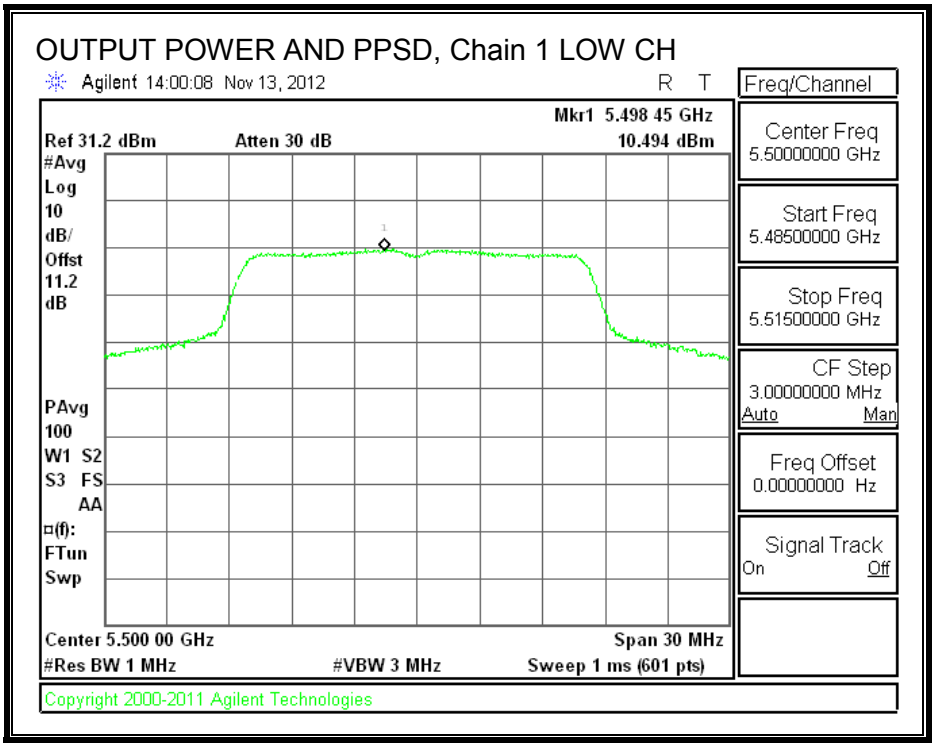
Output Power Results

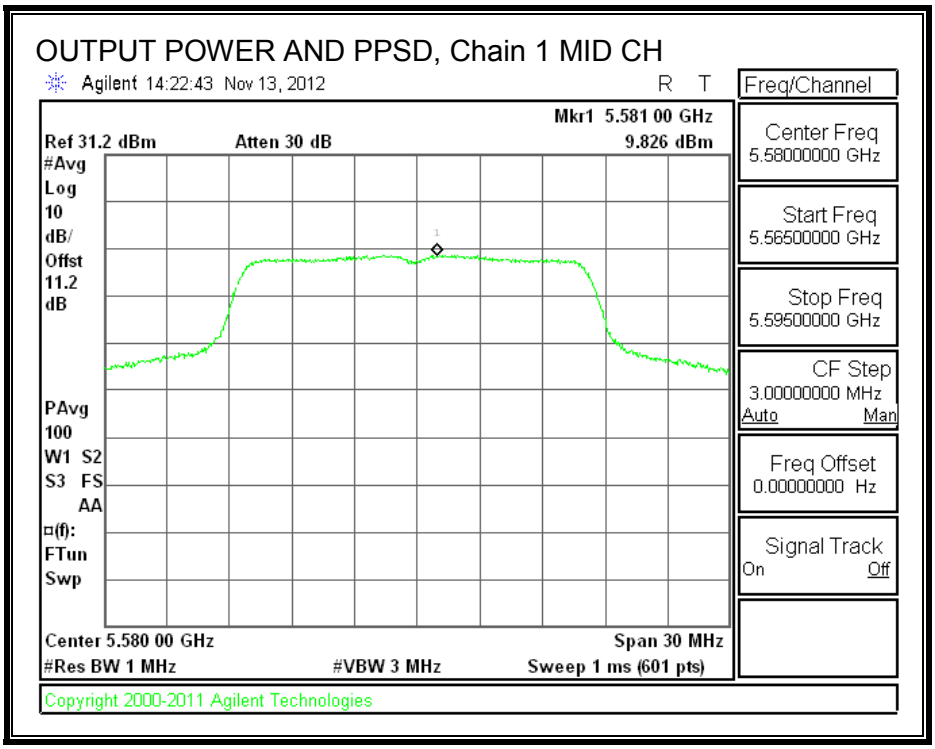
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	18.21	18.21	23.16	-4.95
Mid	5580	20.25	20.25	23.19	-2.94
High	5700	17.20	17.20	23.15	-5.95

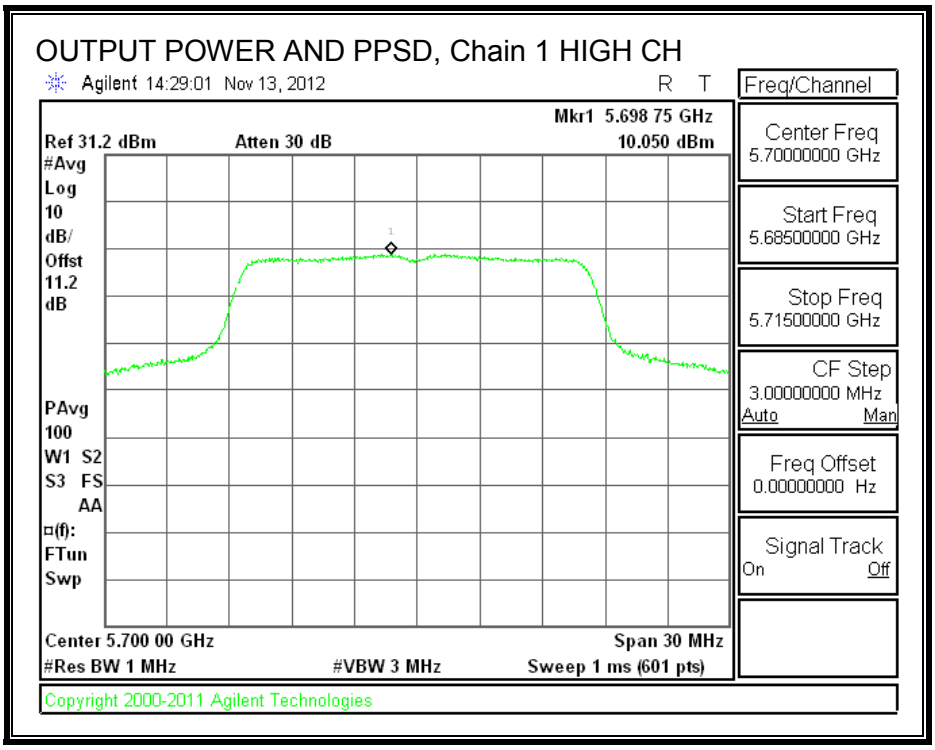
PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	10.494	10.494	11.00	-0.506
Mid	5580	9.826	9.826	11.00	-1.174
High	5700	10.050	10.050	11.00	-0.950

OUTPUT POWER AND PPSD, Chain 1







8.19. 802.11n HT20 3TX CDD MODE, 5.6 GHz BAND

8.19.1. 26 dB BANDWIDTH

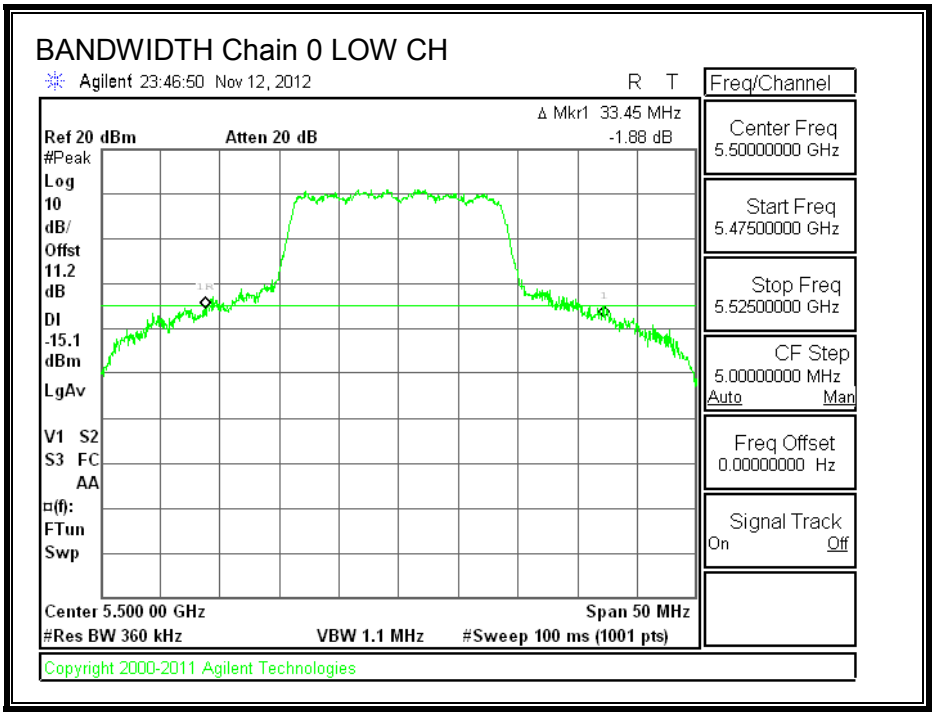
LIMITS

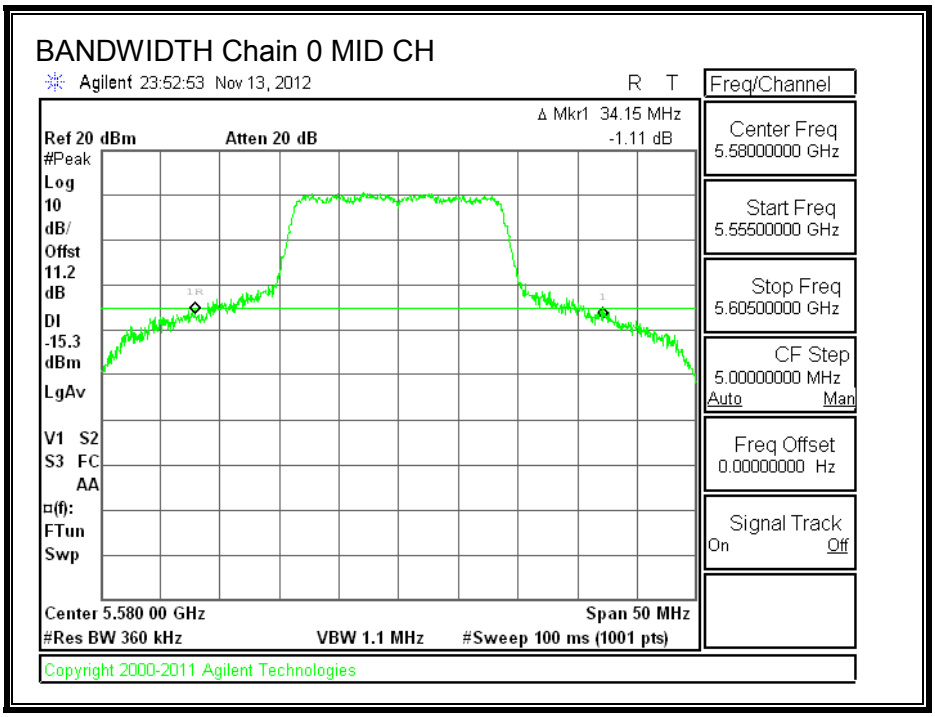
None; for reporting purposes only.

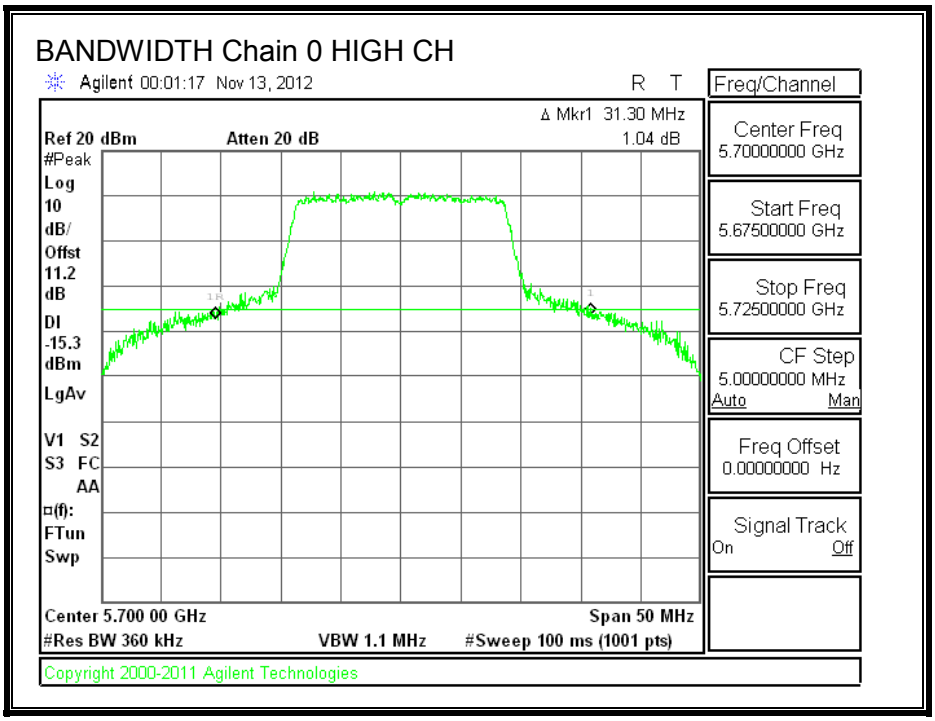
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5500	33.45	30.80	33.55
Mid	5580	34.15	28.95	34.75
High	5700	31.30	31.10	34.50

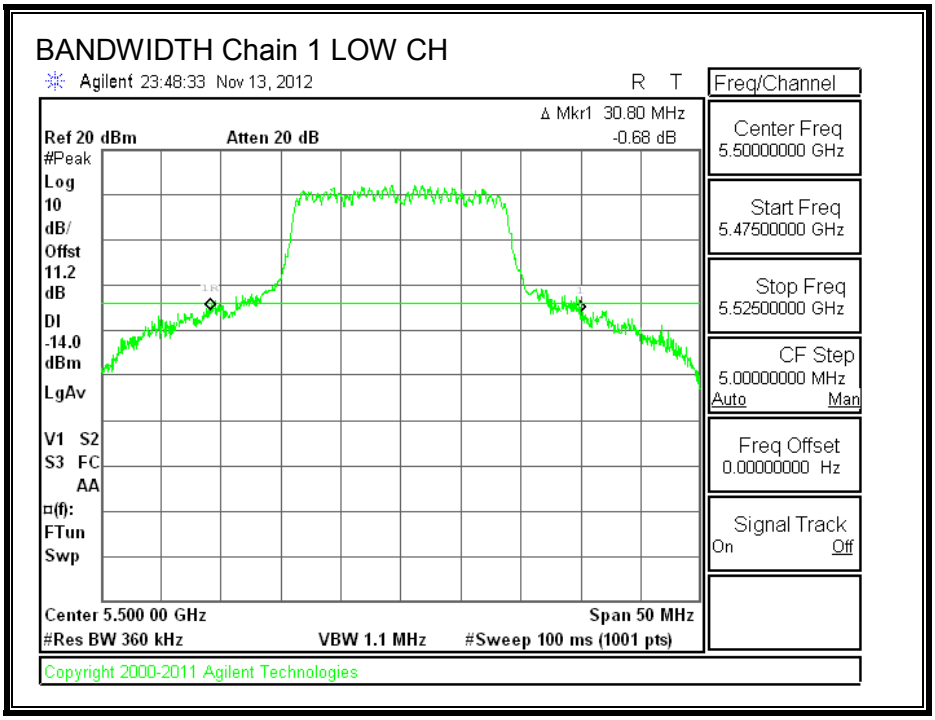
26 dB BANDWIDTH, Chain 0



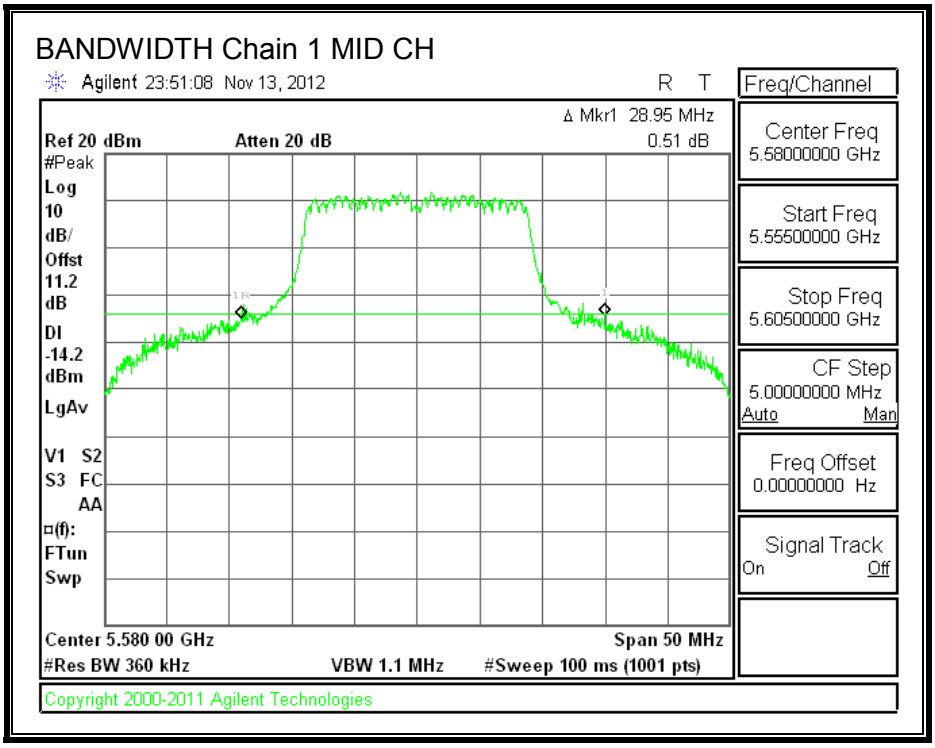




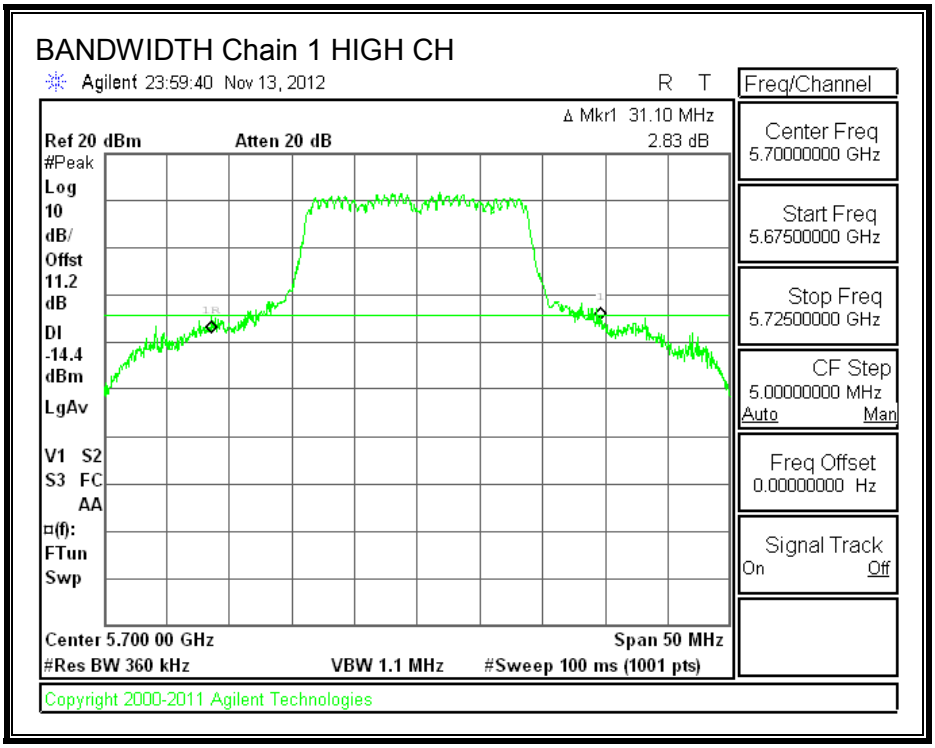
26 dB BANDWIDTH, Chain 1



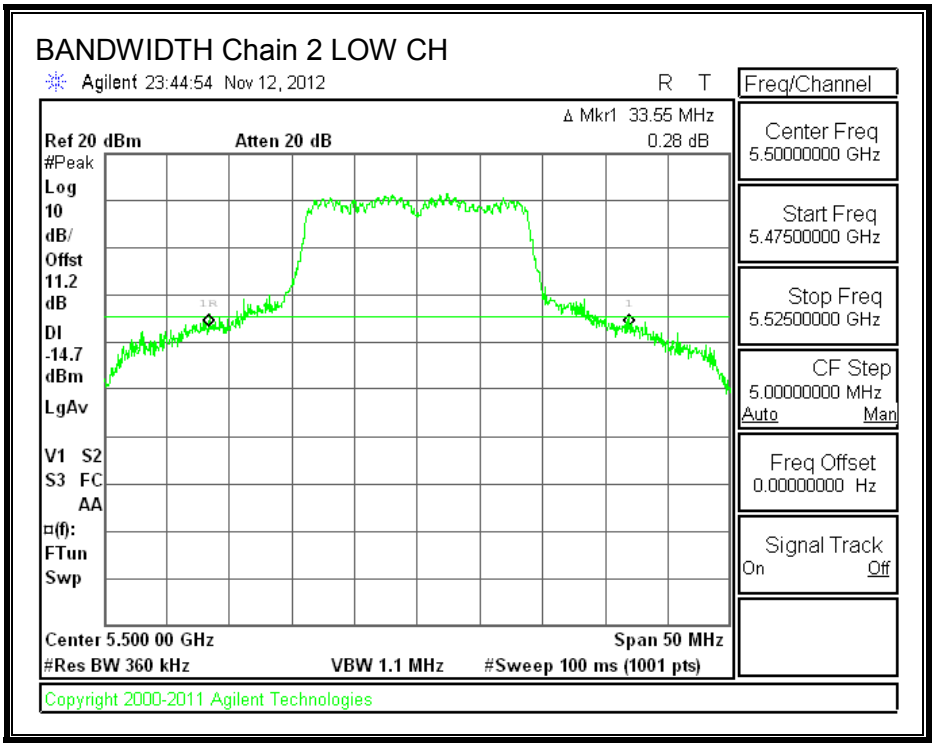
BANDWIDTH Chain 1 MID CH

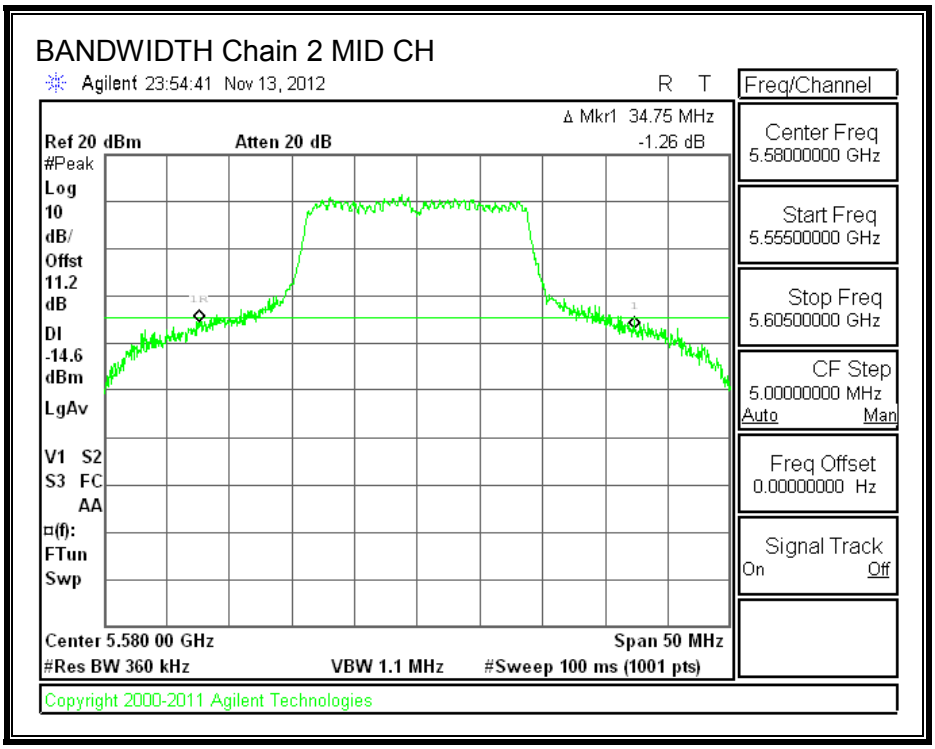


BANDWIDTH Chain 1 HIGH CH

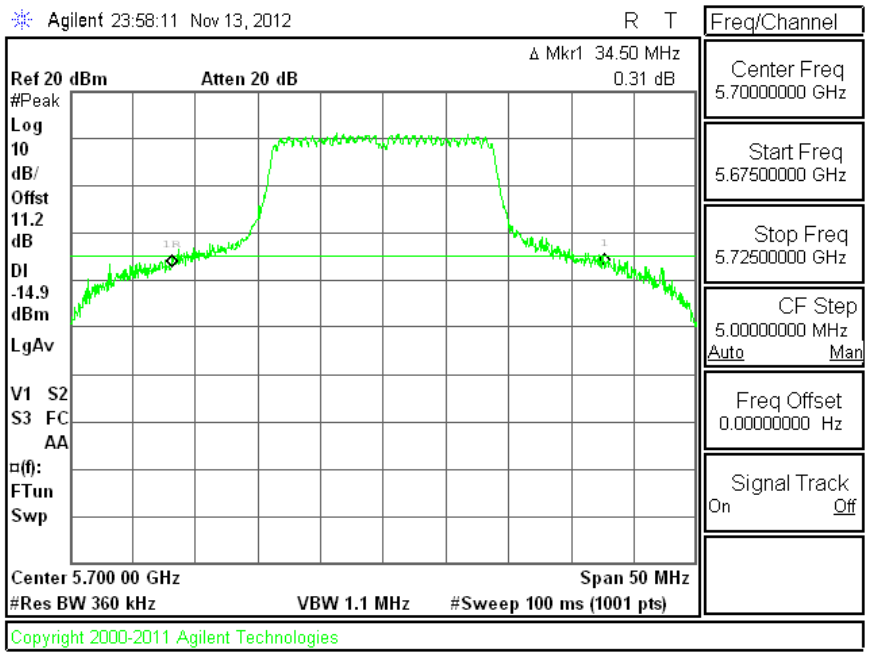


26 dB BANDWIDTH, Chain 2





BANDWIDTH Chain 2 HIGH CH



8.19.2. 99% BANDWIDTH

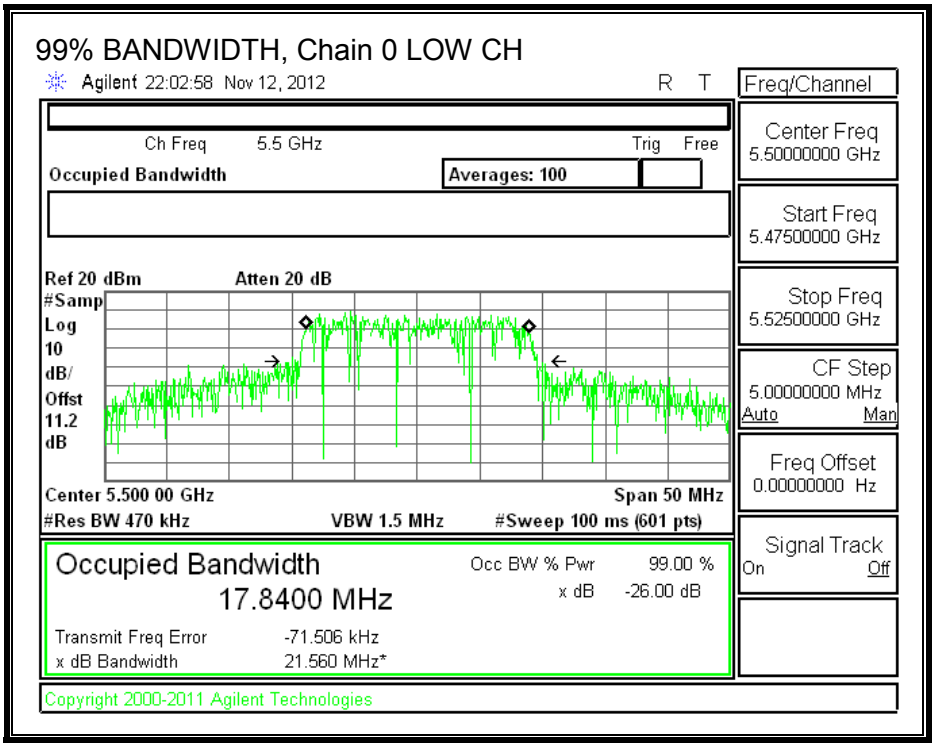
LIMITS

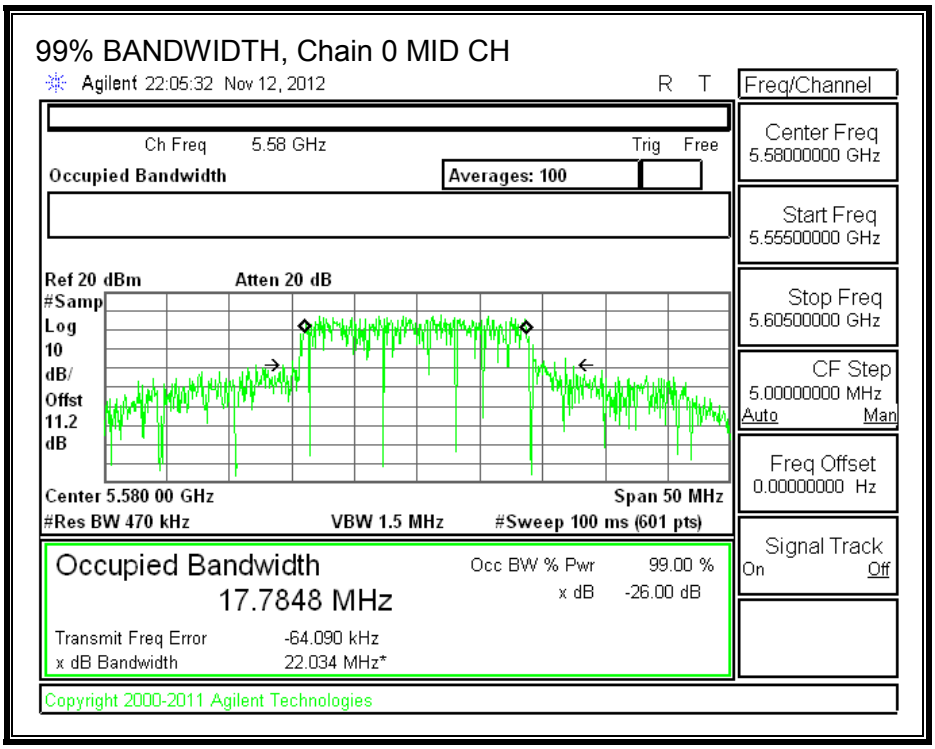
None; for reporting purposes only.

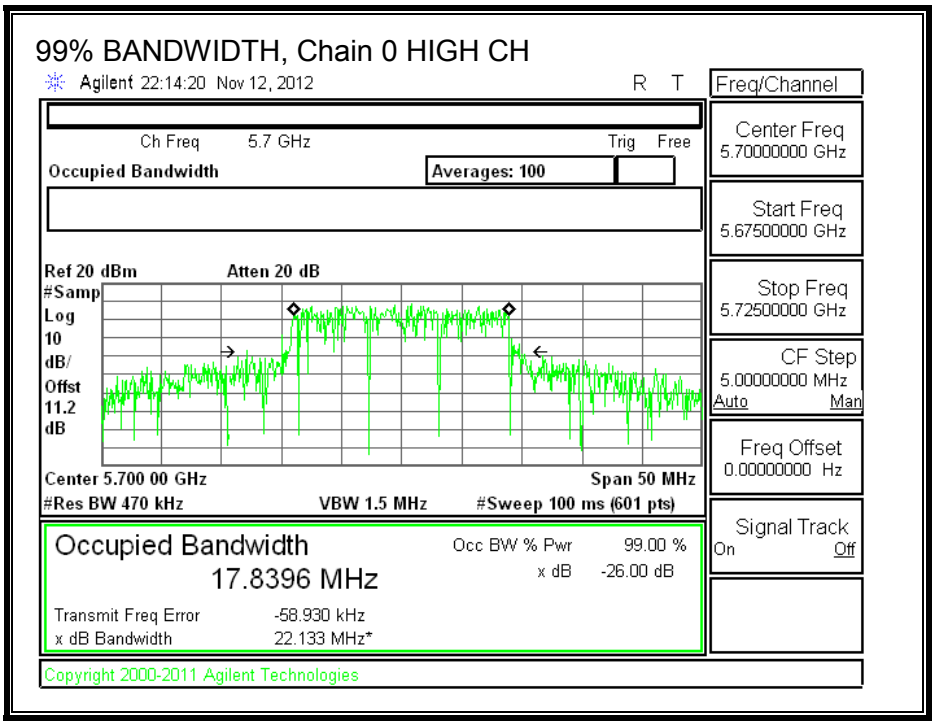
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5500	17.8400	17.8064	17.8075
Mid	5580	17.7848	17.8420	17.8446
High	5700	17.8396	17.7995	17.8373

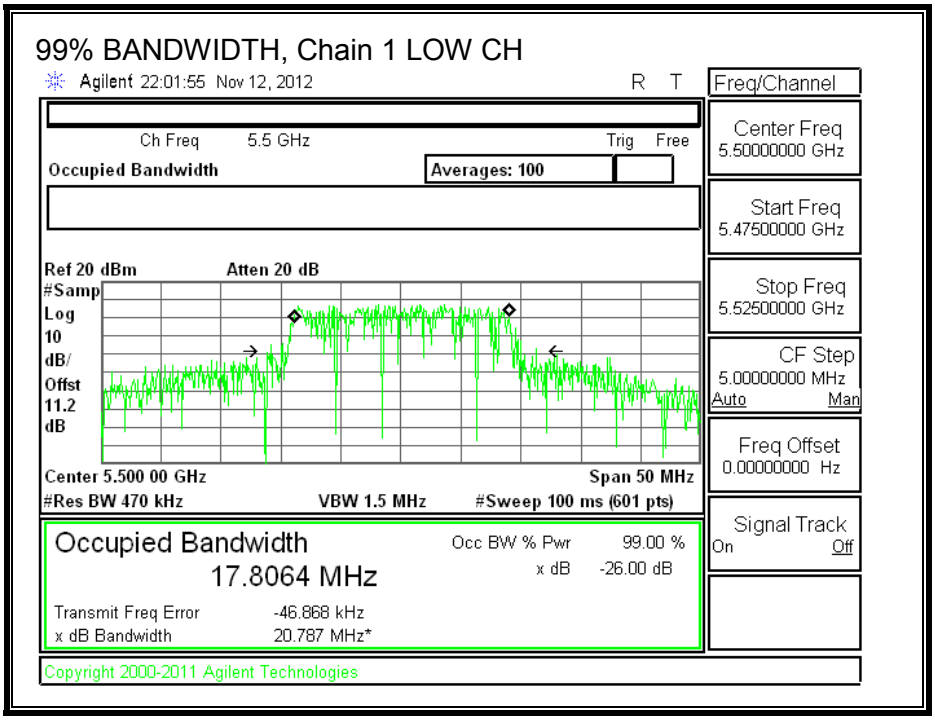
99% BANDWIDTH, Chain 0

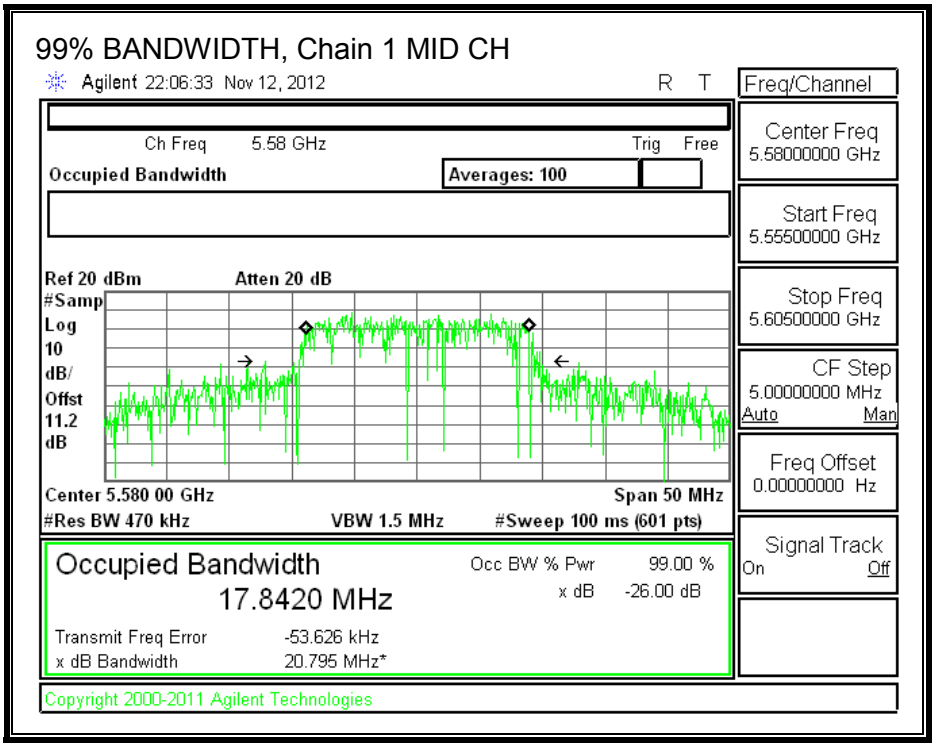


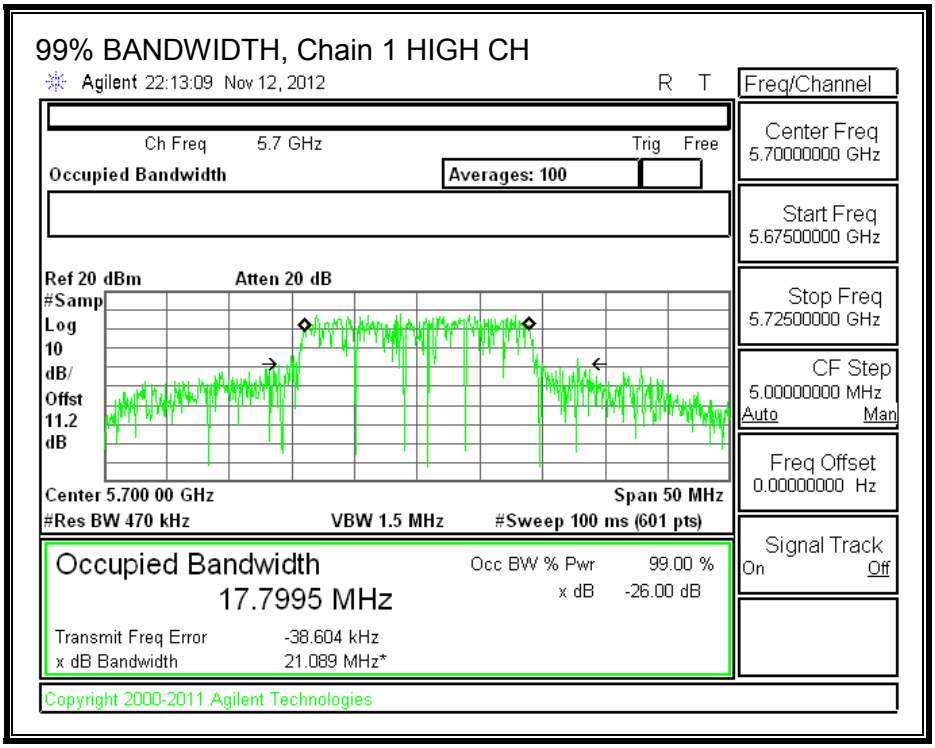




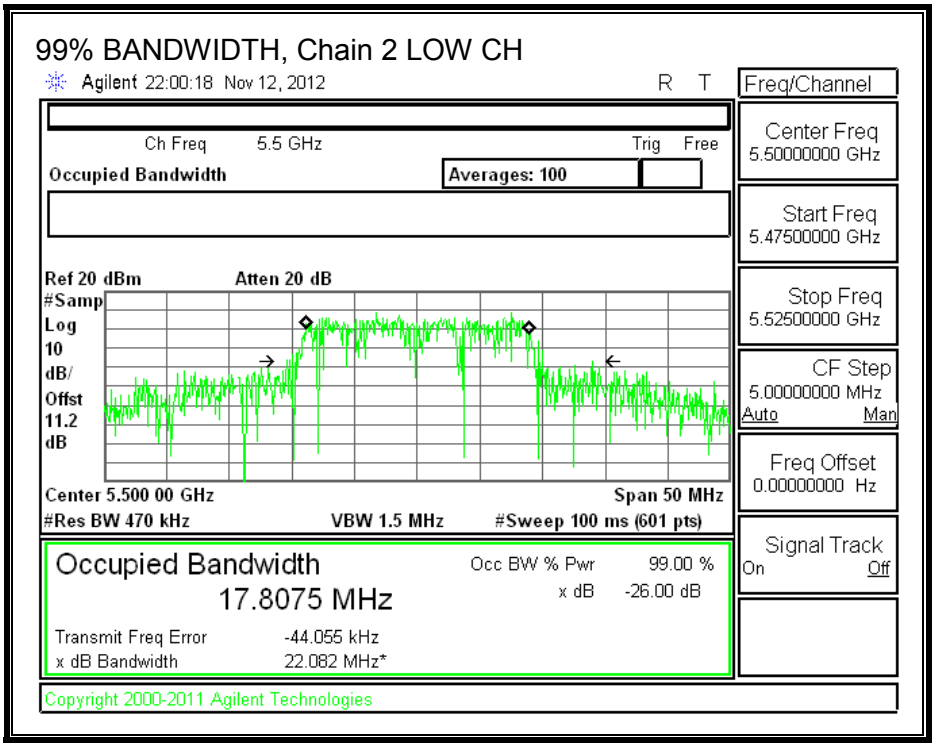
99% BANDWIDTH, Chain 1

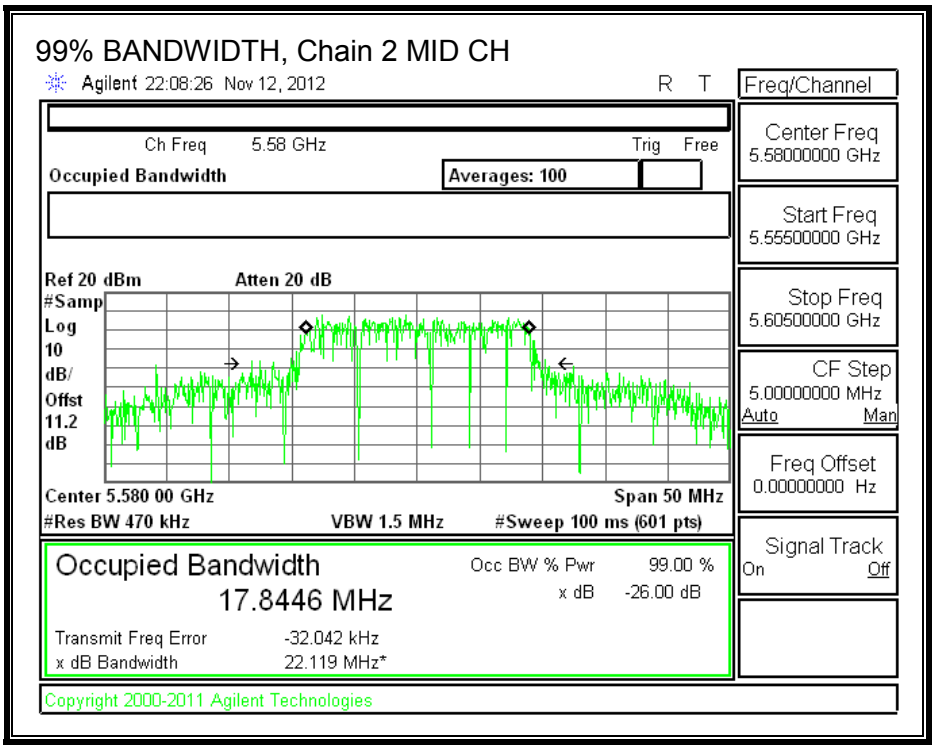


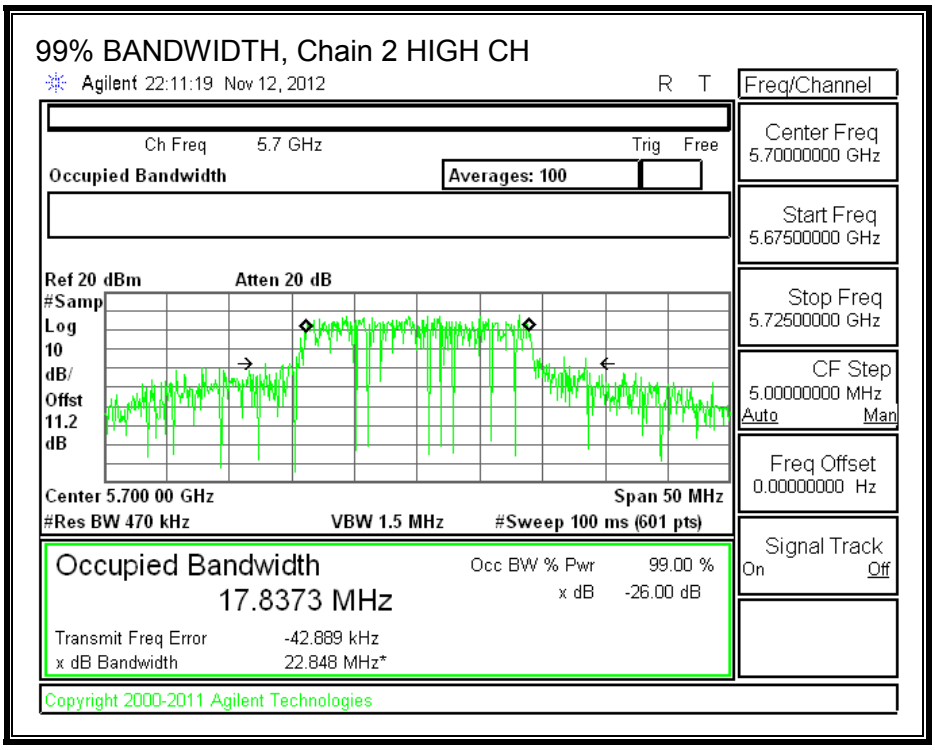




99% BANDWIDTH, Chain 2







8.19.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 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.

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

The TX chains are uncorrelated for output power 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)
4.72	2.09	2.85	3.36

The TX chains are correlated for PSD 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)
4.72	2.09	2.85	8.06

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	30.80	17.8064	3.36
Mid	5580	28.95	17.7848	3.36
High	5700	31.10	17.7995	3.36

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	5500	24.00	23.51	29.51	23.51	11.00	11.00	11.00
Mid	5580	24.00	23.50	29.50	23.50	11.00	11.00	11.00
High	5700	24.00	23.50	29.50	23.50	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Gated 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	5500	14.56	14.34	14.15	19.12	23.51	-4.38
Mid	5580	14.78	14.27	14.32	19.23	23.50	-4.27
High	5700	14.70	14.21	14.39	19.21	23.50	-4.29

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	30.80	17.8064	8.06
Mid	5580	28.95	17.7848	8.06
High	5700	31.10	17.7995	8.06

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	5500	21.94	23.51	29.51	21.45	8.94	11.00	8.94
Mid	5580	21.94	23.50	29.50	21.44	8.94	11.00	8.94
High	5700	21.94	23.50	29.50	21.44	8.94	11.00	8.94

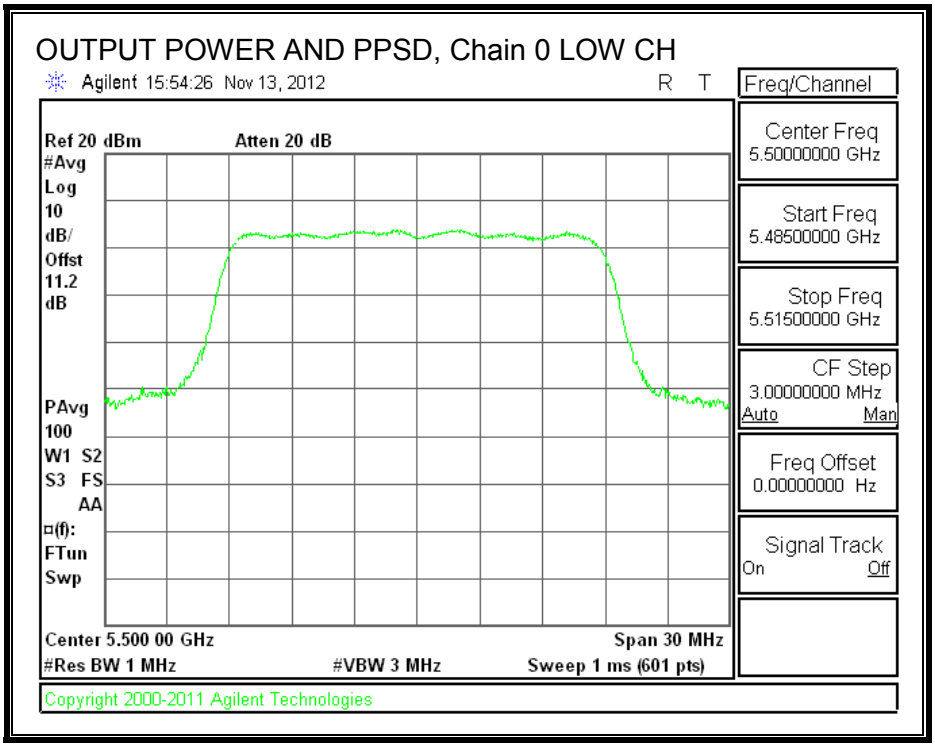
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'dPPSD

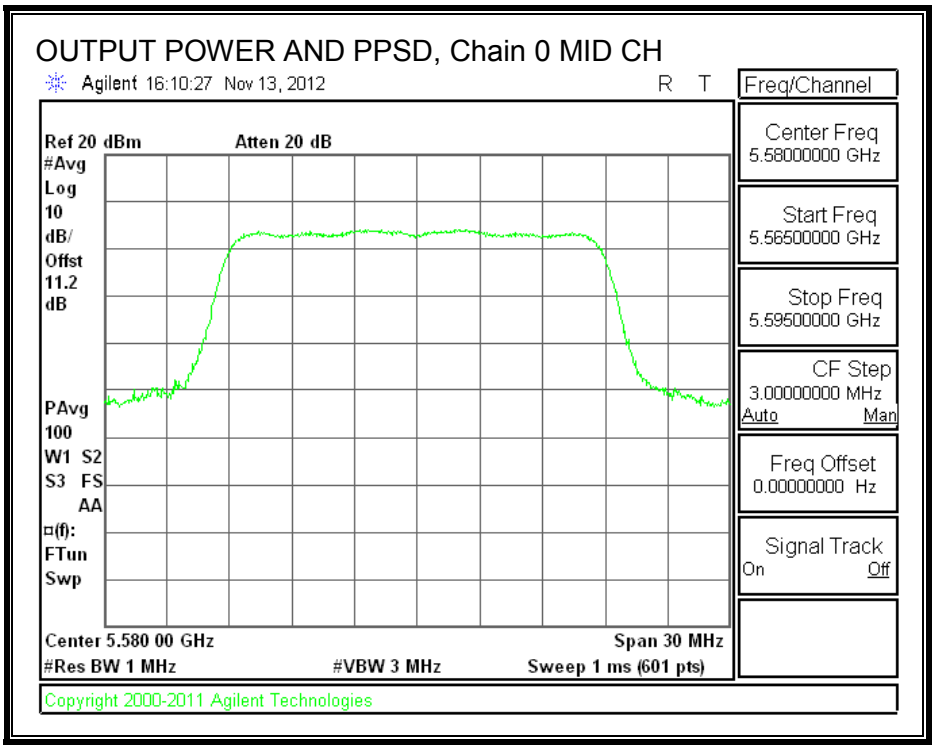
PPSD Results

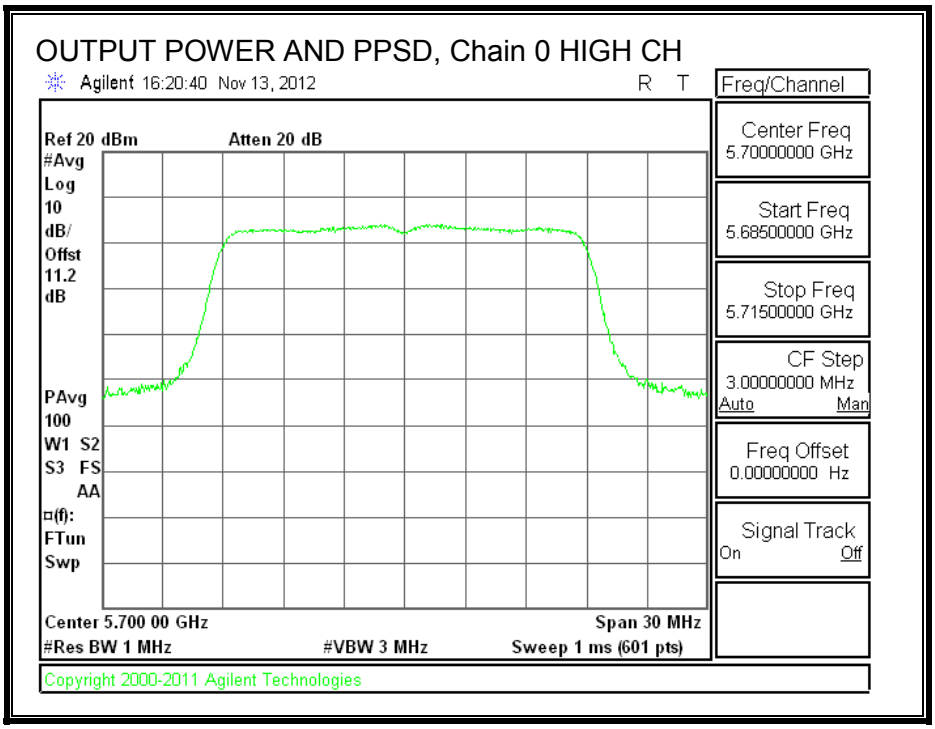
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Chain 2 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	3.59	3.89	3.29	8.37	8.94	-0.57
Mid	5580	3.62	4.27	3.56	8.60	8.94	-0.34
High	5700	3.95	3.58	3.63	8.49	8.94	-0.45

Note: method (1) “Measure and sum the spectra across the outputs” as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

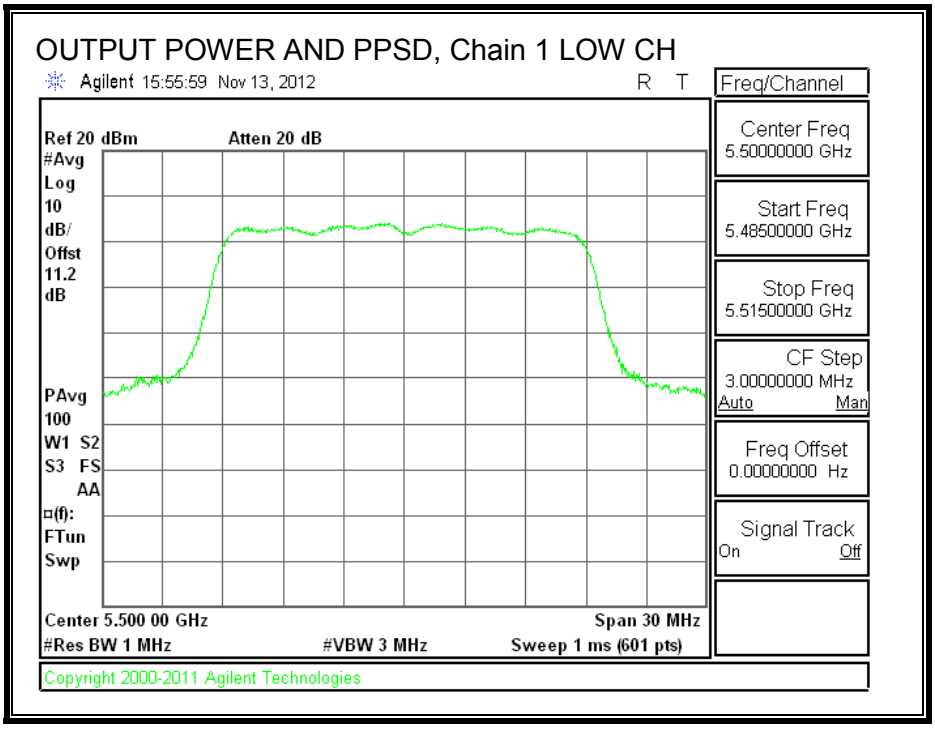
OUTPUT POWER AND PPSD, Chain 0



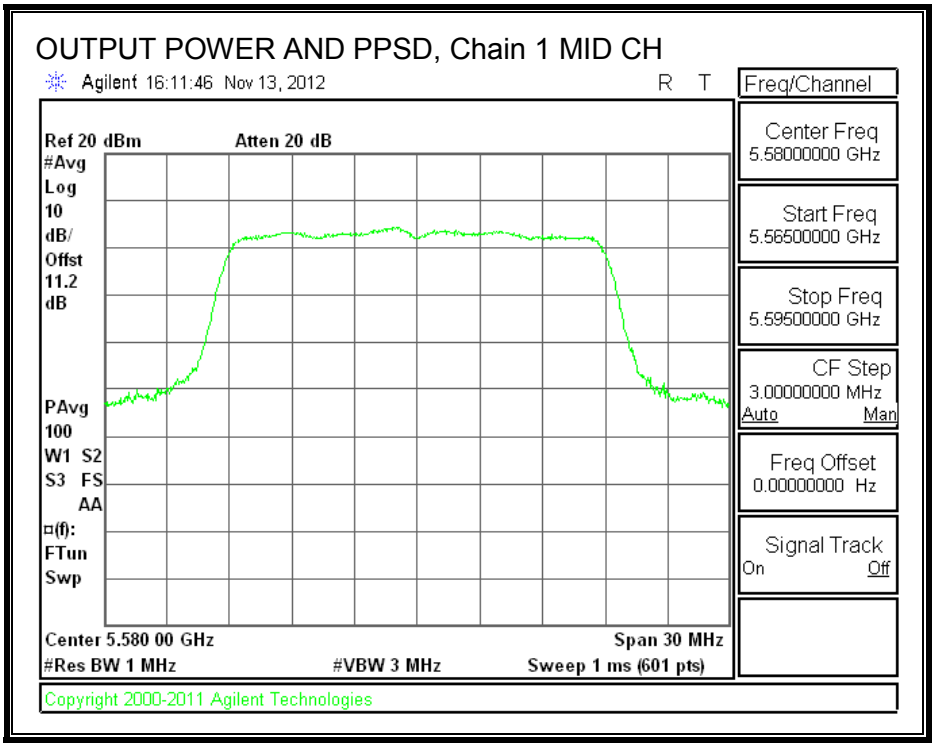




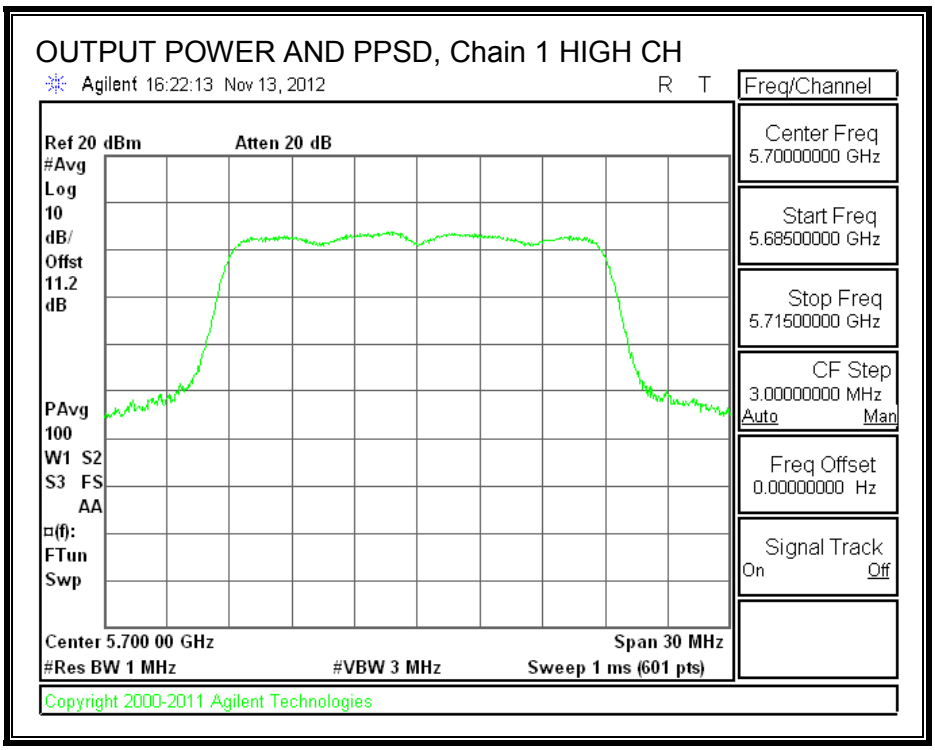
OUTPUT POWER AND PPSD, Chain 1



OUTPUT POWER AND PPSD, Chain 1 MID CH



OUTPUT POWER AND PPSD, Chain 1 HIGH CH



OUTPUT POWER AND PPSD, Chain 2