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8.20. 802.11n HT20 CDD CH 144 3TX MODE, 5.6 GHz BAND

8.20.1.26 dB BANDWIDTH- UNII

LIMITS

None; for reporting purposes only.

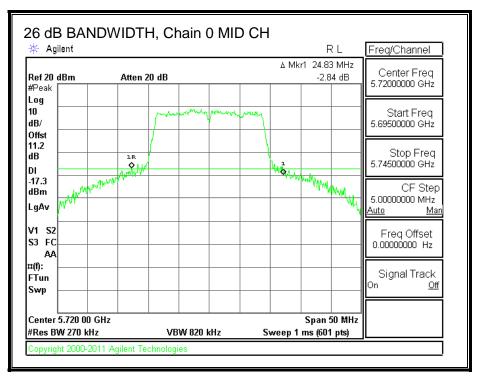
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5720	24.83	23.25	26.83

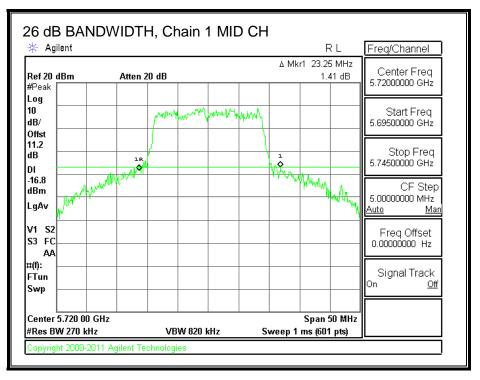
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26 dB BANDWIDTH, Chain 0



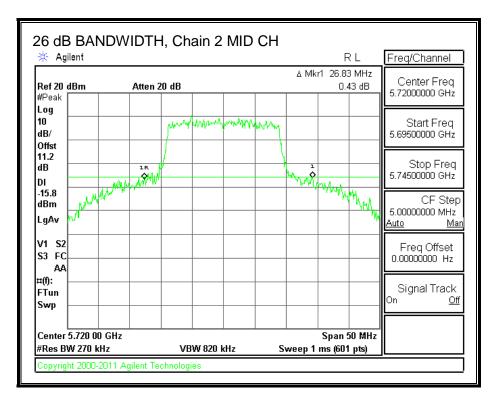
26 dB BANDWIDTH, Chain 1



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26 dB BANDWIDTH, Chain 2



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8.20.2.99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

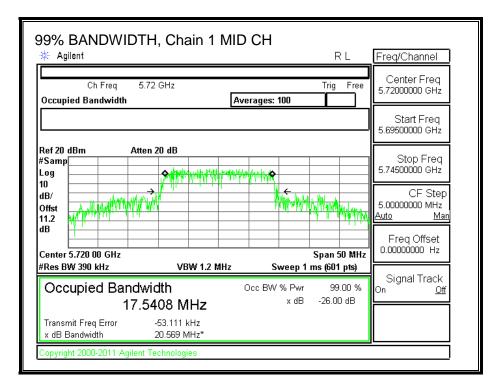
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5720	17.6861	17.5408	17.7453

99% BANDWIDTH, Chain 0

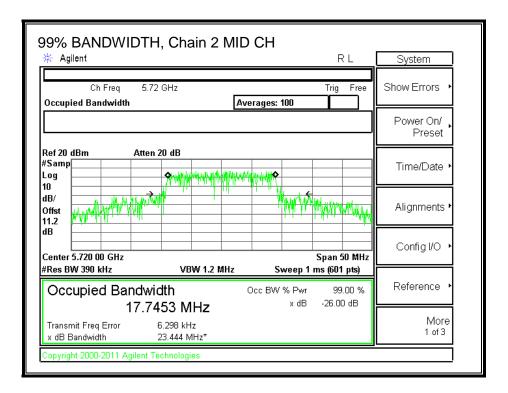
99% BANDWIDTH, Chain 0 MID CH * Agilent RL	Freq/Channel
Ch Freq 5.72 GHz Trig Free Occupied Bandwidth Averages: 100	Center Freq 5.72000000 GHz
	Start Freq 5.69500000 GHz
Ref 20 dBm Atten 20 dB #Samp Log Quinter and the subscription of t	Stop Freq 5.74500000 GHz
dB/ Offst 11.2	CF Step 5.00000000 MHz Auto <u>Man</u>
dB dB center 5.720 00 GHz Span 50 MHz	Freq Offset 0.00000000 Hz
#Res BW 390 kHz VBW 1.2 MHz Sweep 1 ms (601 pts) Occupied Bandwidth Occ BW % Pwr 99.00 %	Signal Track
Occupied Bandwidth Occ BW % Pwr 99.00 % 17.6861 MHz × dB -26.00 dB	On <u>Off</u>
Transmit Freq Error -30.648 kHz x dB Bandwidth 20.748 MHz*	
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99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



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8.20.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	3.36

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	8.06

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RESULTS

Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Correlated	Uncorrelated
		26 dB	99%	Gain	Gain
		BW	BW		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)
Mid	5720	16.63	13.7704	8.06	3.36

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5720	23.21	22.39	28.39	22.39	8.94	11.00	8.94

Duty Cycle CF (dB)0.00Included in Calculations of PPSD

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
							-
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							-
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5720	3.96	3.94	3.98	8.73	8.94	-0.21

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Limits (FCC), portion in 5.8 GHz UNII 3 band

Channel	Frequency	Min	Min	Correlated	Uncorrelated
		26 dB	99%	Gain	Gain
		BW	BW		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)
Mid	5720	7.4	3.8431	8.06	3.36

Bandwidth and Antenna Gain

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5720	19.70	16.85	22.85	16.85	8.94	11.00	8.94

 Duty Cycle CF (dB)
 0.00
 Included in Calculations of PPSD

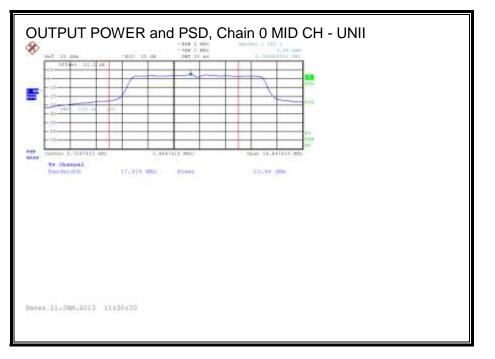
Output Power Results

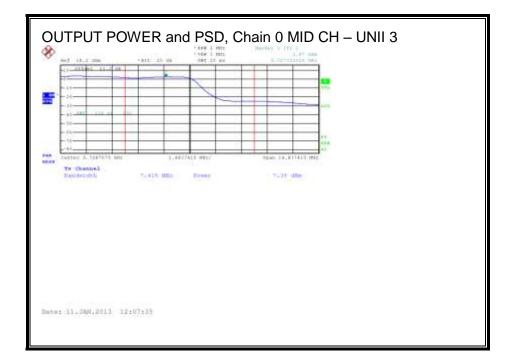
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
							-
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
			· · ·	· · ·		•	

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5720	2.870	2.820	2.860	7.62	8.94	-1.32

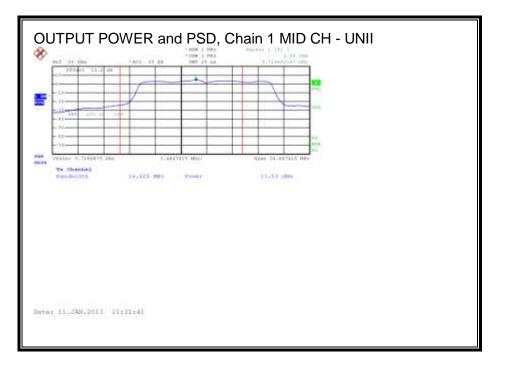
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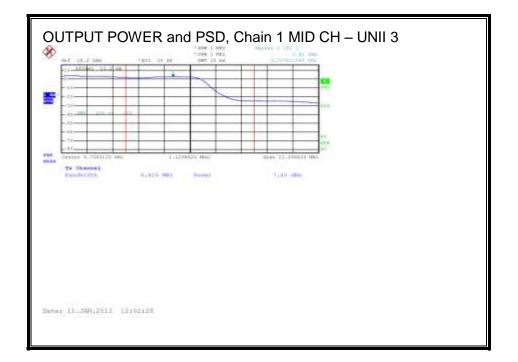




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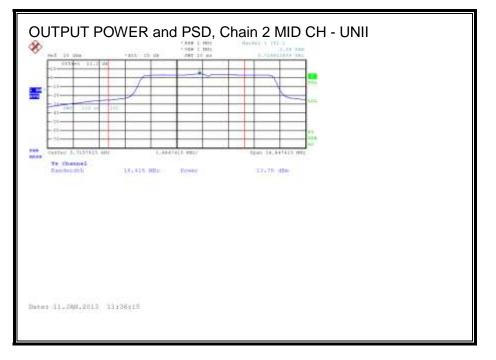
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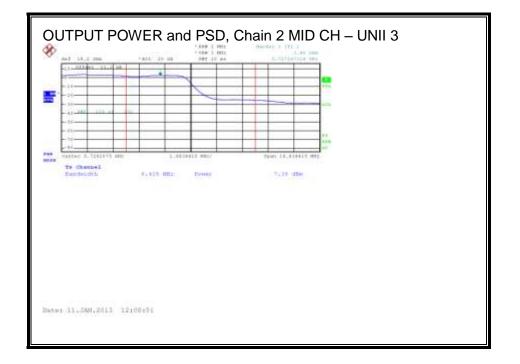




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8.21. 802.11n HT20 STBC CH 144 3TX MODE, 5.6 GHz BAND

8.21.1.26 dB BANDWIDTH- UNII

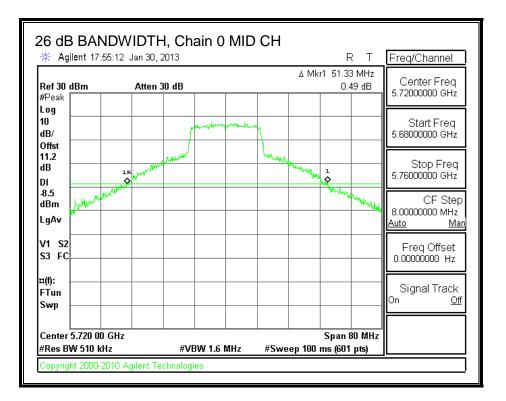
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW	
		Chain 0	Chain 1	Chain 2	
	(MHz)	(MHz)	(MHz)	(MHz)	
Mid	5720	51.33	51.73	53.07	

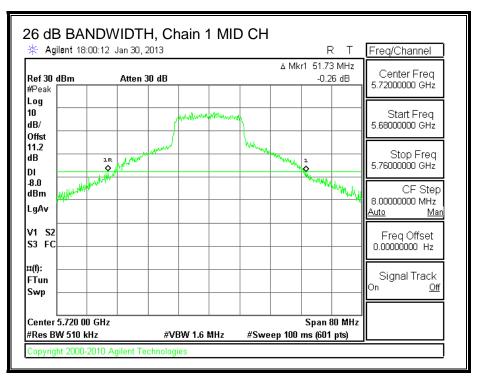
26 dB BANDWIDTH, Chain 0



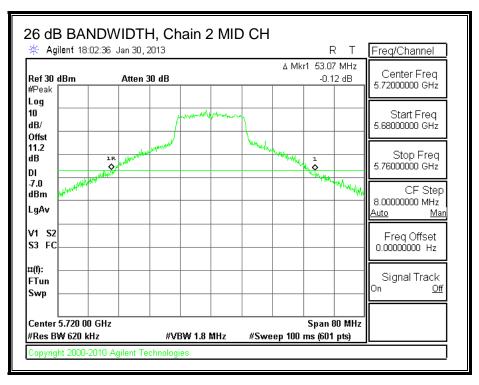
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26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



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8.21.2.99% BANDWIDTH

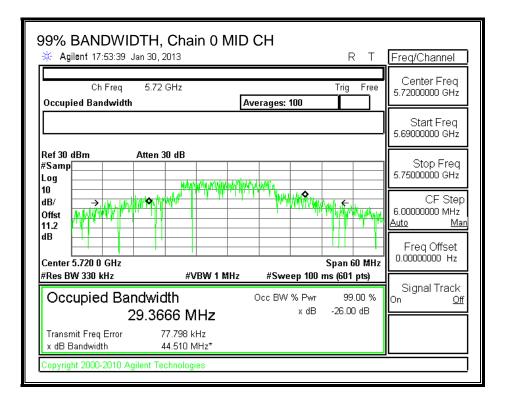
LIMITS

None; for reporting purposes only.

RESULTS

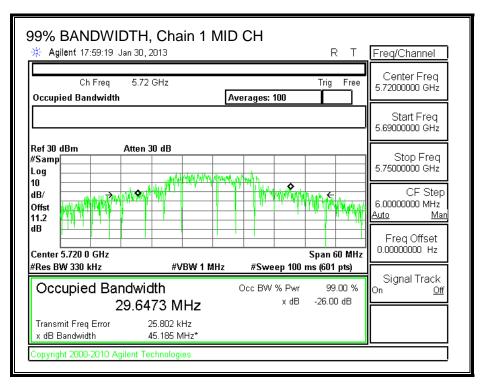
Channel	Frequency	99% BW	99% BW	99% BW	
		Chain 0	Chain 1	Chain 2	
	(MHz)	(MHz)	(MHz)	(MHz)	
Mid	5720	29.3666	29.6473	31.2352	

99% BANDWIDTH, Chain 0

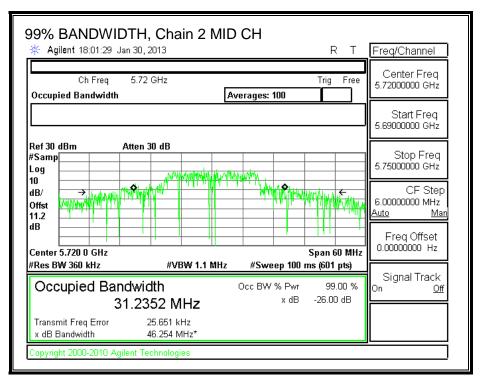


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99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



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8.21.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	3.36

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RESULTS

Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Uncorrelated
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
High	5720	30.7	20.6650	3.36

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
High	5720	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB) 0.00 Included in Calculations of PPSD

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	<i>(</i>)						
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
High	5720	5.96	5.65	6.06	10.66	11.00	-0.34

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Limits (FCC), portion in 5.8 GHz UNII 3 band

Channel	Frequency	Min	Min	Uncorrelated
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
High	5720	20.7	9.6833	3.36

Bandwidth and Antenna Gain

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
High	5720	24.00	20.86	26.86	20.86	11.00	11.00	11.00

Duty Cycle CF (dB) 0.00 Included in Calculations of PPSD

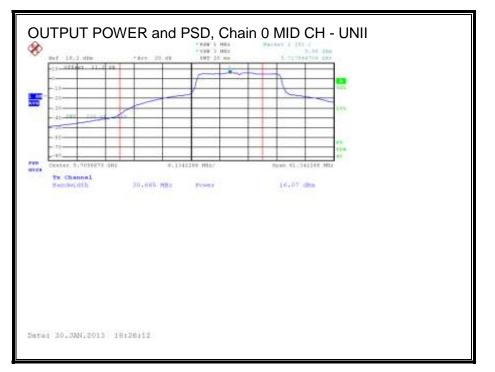
Output Power Results

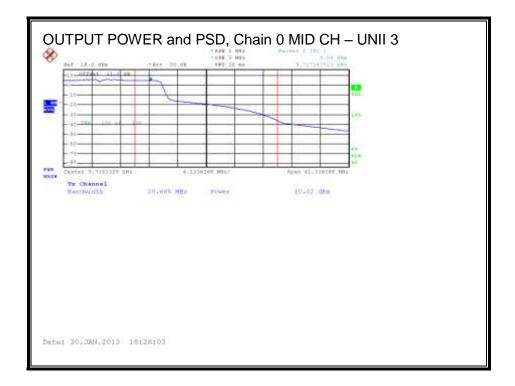
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
	((abiii)	(abiii)	(aBiii)	(abiii)	(~~~)	(42)

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
High	5720	5.04	4.54	5.20	9.71	11.00	-1.29

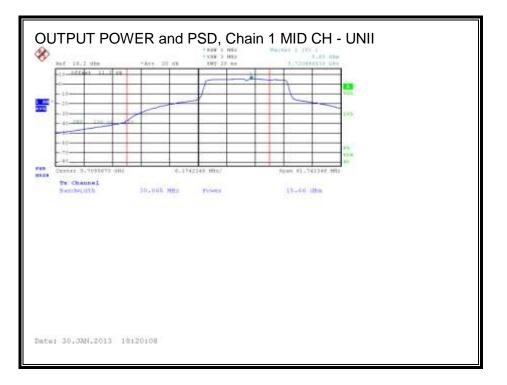
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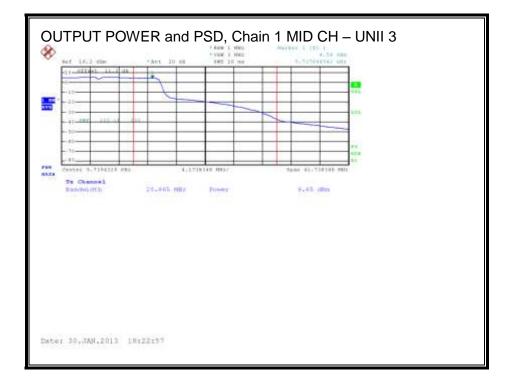




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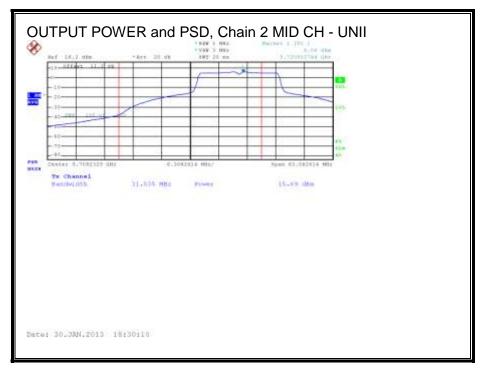
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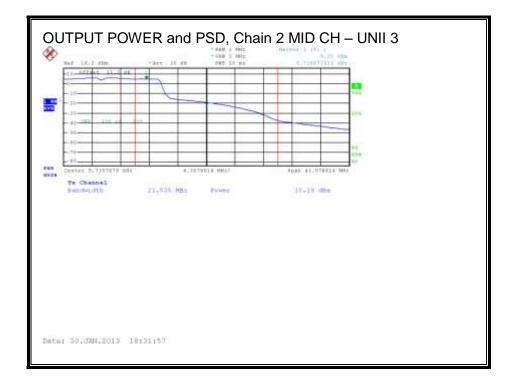




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8.22. 802.11n HT20 STBC 3TX MODE, 5.6 GHz BAND

8.22.1. 26 dB BANDWIDTH

LIMITS

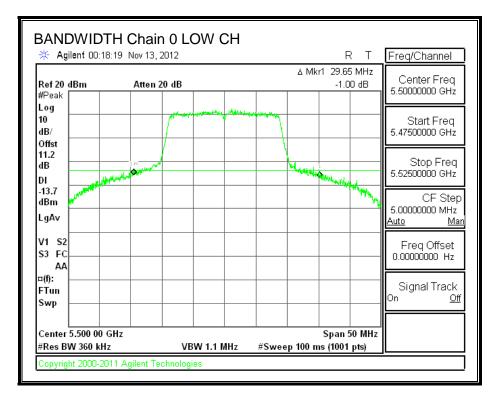
None; for reporting purposes only.

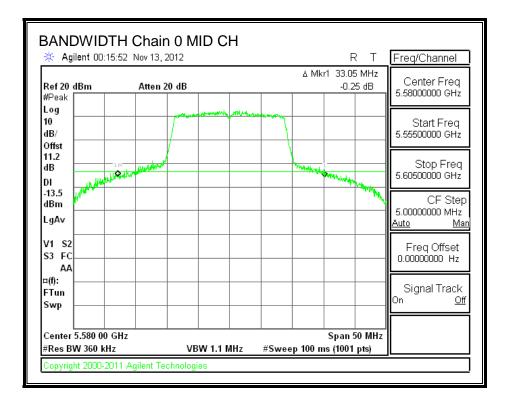
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5500	29.65	30.40	30.70
Mid	5580	33.05	29.50	34.00
High	5700	30.20	30.65	32.95

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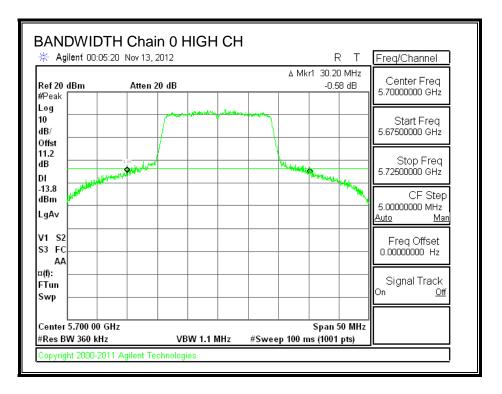
26 dB BANDWIDTH, Chain 0



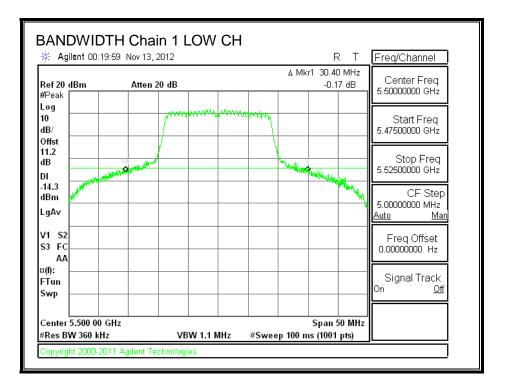


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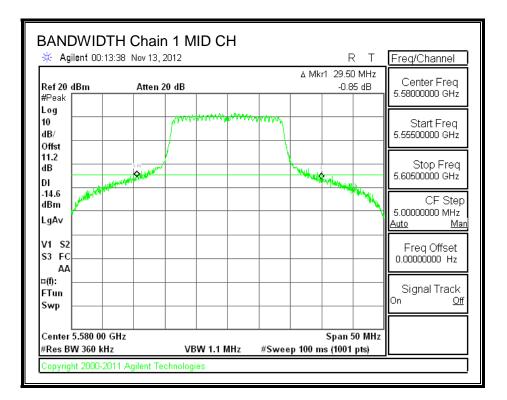


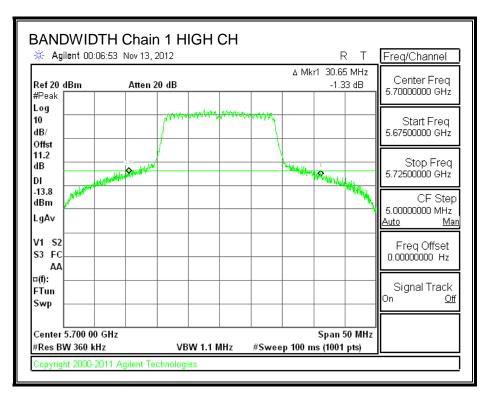
26 dB BANDWIDTH, Chain 1



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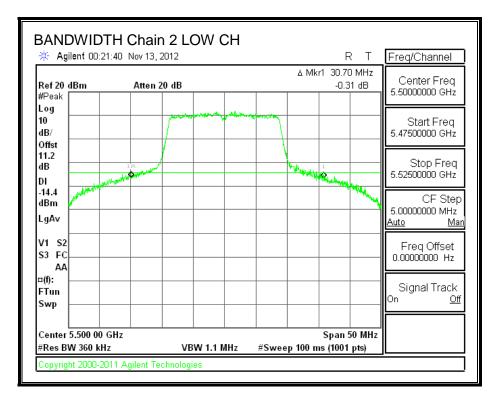


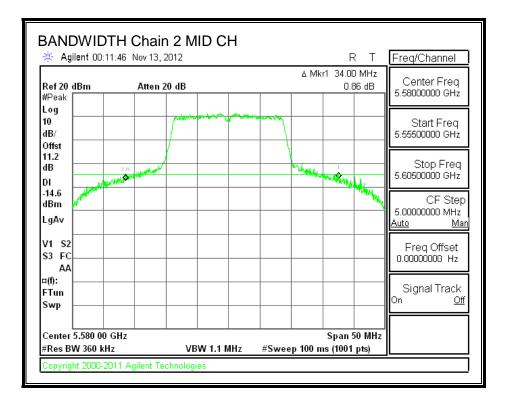


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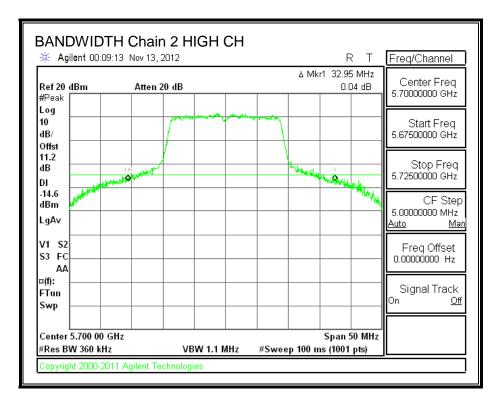
26 dB BANDWIDTH, Chain 2





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8.22.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

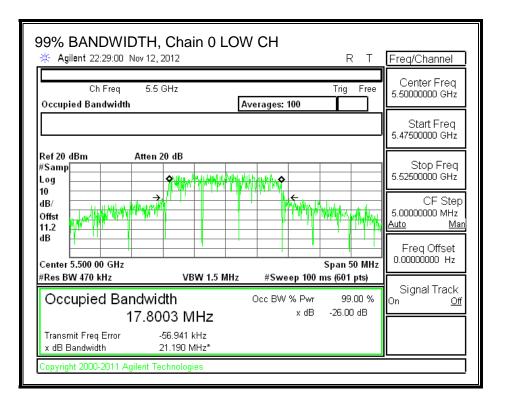
<u>RESULTS</u>

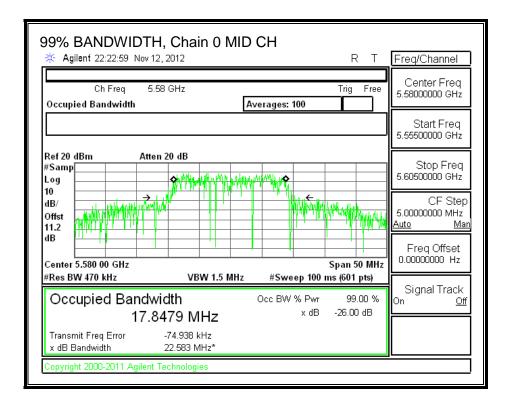
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5500	17.8003	17.7921	17.7959
Mid	5580	17.8479	17.8045	17.8294
High	5700	17.8005	17.8038	17.7957

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99% BANDWIDTH, Chain 0

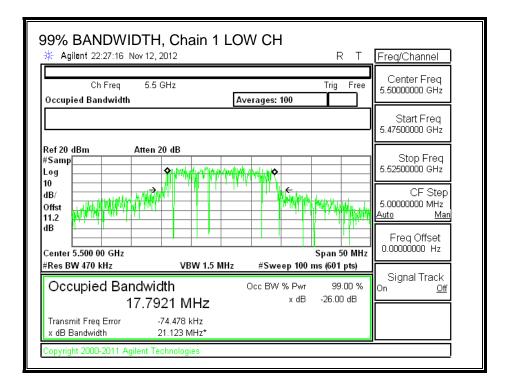




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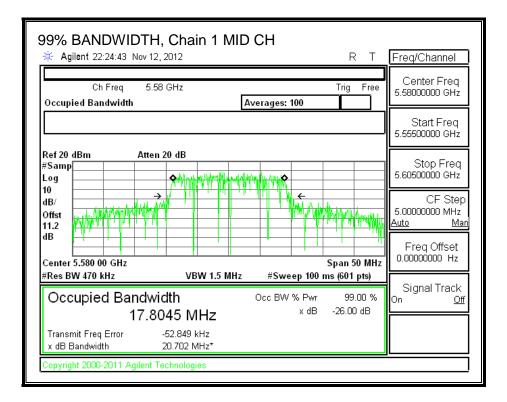
Agilent 22:17:30 Nov 12, 2012			RT	Freq/Channel Center Freq	╡
Ch Freq 5.7 GHz Occupied Bandwidth	P	verages: 100	Trig Free	5.70000000 GHz	
				Start Freq 5.67500000 GHz	
tef 20 dBm Atten 20 dB Samp				Stop Freq 5.72500000 GHz	
0 B/ 1.2 A A A A A A A A A A A A A A A A A A A		€		CF Step 5.0000000 MHz <u>Auto M</u> a	
Center 5.700 00 GHz	VBW 1.5 MHz	#Sweep 10	Span 50 MH; 0 ms (601 pts)	Freq Offset z 0.00000000 Hz	
Occupied Bandwidth 17.8005		Occ BW % Pwi x dE	r 99.00 %	Signal Track On <u>O</u> i	
Transmit Freq Error -60.10 x dB Bandwidth 21.215	4 kHz 5 MHz*				

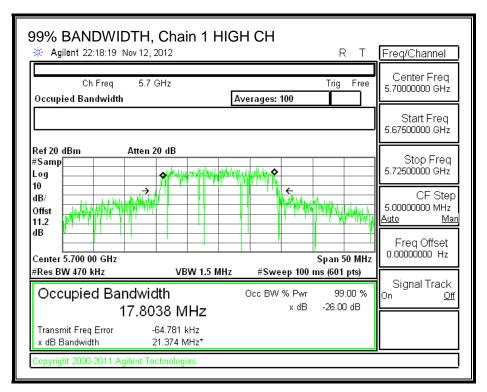
99% BANDWIDTH, Chain 1



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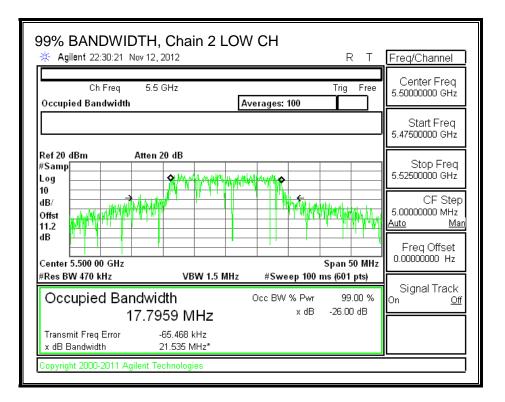
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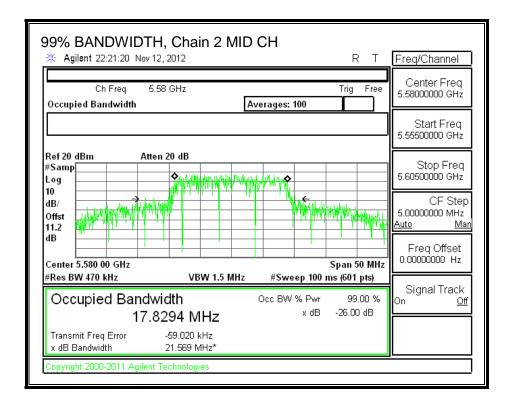




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99% BANDWIDTH, Chain 2





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99% BANDWIDTH, C		Н СН	RТ	Freq/Channel
Ch Freq 5.7 GHz Occupied Bandwidth		erages: 100	Trig Free	Center Freq 5.70000000 GHz
				Start Freq 5.67500000 GHz
Ref 20 dBm Atten 20 d #Samp Log 10	B MANANA			Stop Freq 5.72500000 GHz
dB/ Offst				CF Step 5.0000000 MHz <u>Auto Man</u>
Center 5.700 00 GHz #Res BW 470 kHz	VBW 1.5 MHz	#Sweep 100	Span 50 MHz ms (601 pts)	Freq Offset 0.00000000 Hz
Occupied Bandwidth 17.7957		Occ BW % Pwr x dB	99.00 % -26.00 dB	Signal Track On <u>Off</u>
x dB Bandwidth 21.5	362 kHz 20 MHz*			
Copyright 2000-2011 Agilent Techno	ologies			

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8.22.3. 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	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	3.36

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RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5500	30.80	17.7921	3.36
Mid	5580	28.95	17.8045	3.36
High	5700	31.10	17.7957	3.36

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5500	24.00	23.50	29.50	23.50	11.00	11.00	11.00
Mid	5580	24.00	23.51	29.51	23.51	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 & PPSD
--------------------	------	-------------------------------------------------

Output Power Results

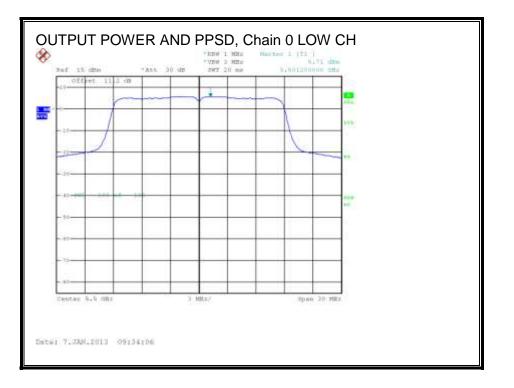
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	18.68	18.63	18.30	23.31	23.50	-0.19
Mid	5580	18.78	18.59	18.58	23.42	23.51	-0.08
High	5700	17.51	17.50	17.40	22.24	23.50	-1.26

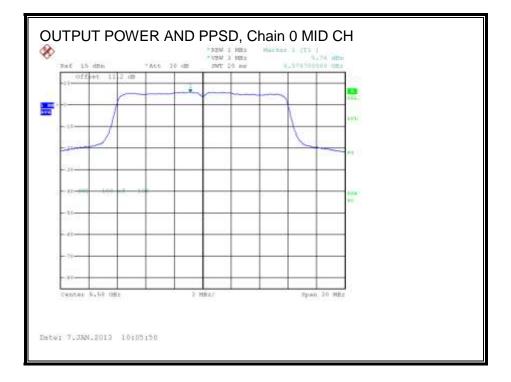
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		8805	BB0D	0000	5505		
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	5.71	5.59	5.42	10.35	11.00	-0.65
Mid	5580	5.76	5.77	5.77	10.54	11.00	-0.46
High	5700	5.89	6.18	6.23	10.87	11.00	-0.13

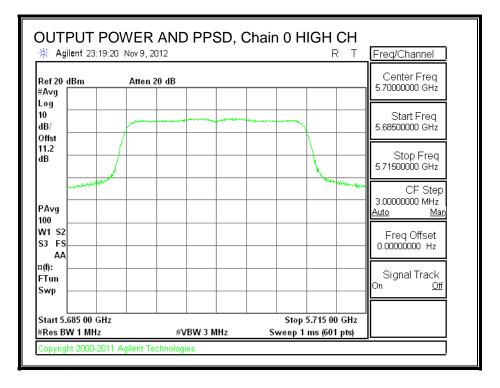
Note: method (1) "Measure and sum the spectra across the outputs" as specified in KDB 662911 D01 v01r02 was used for Low and Middle channels for this PSD measurements.

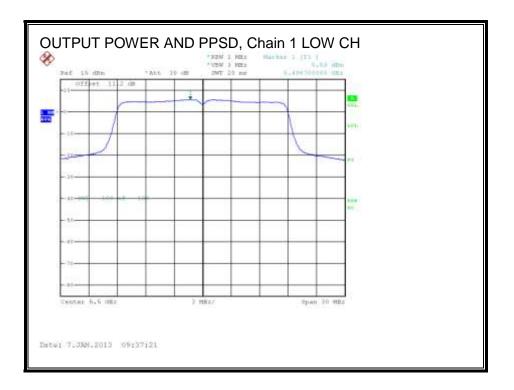
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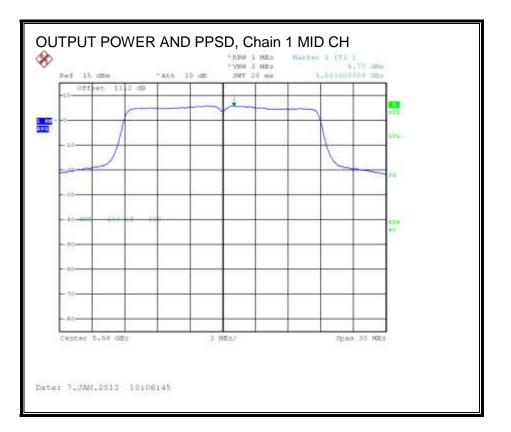


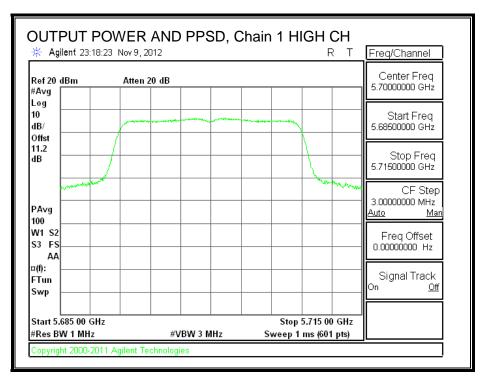


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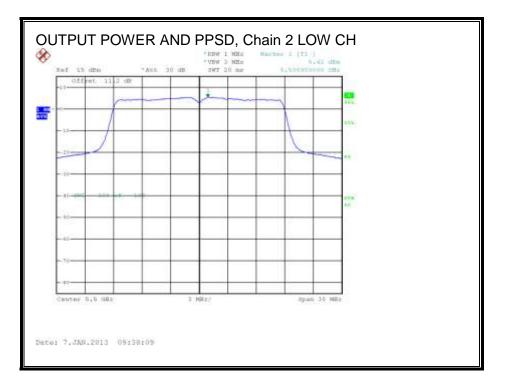


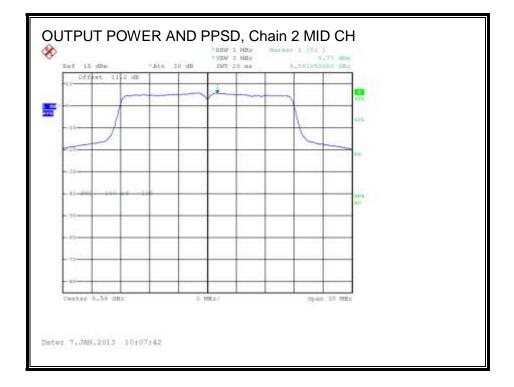




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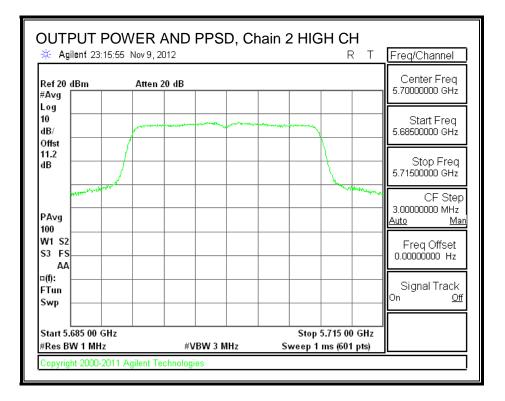
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8.23. 802.11n HT40 1TX MODE, 5.6 GHz BAND

8.23.1. 26 dB BANDWIDTH

LIMITS

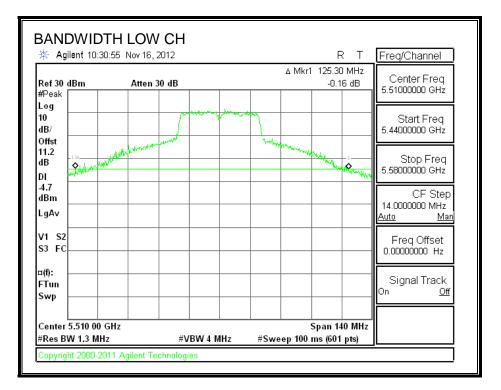
None; for reporting purposes only.

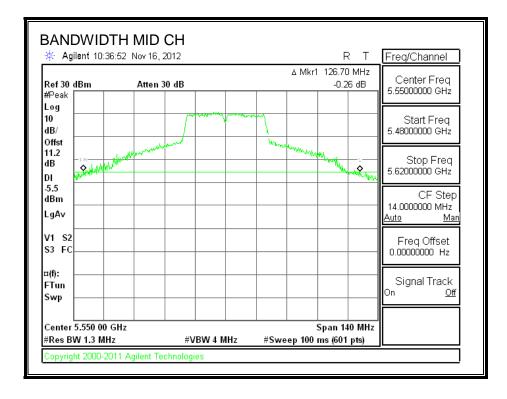
RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5510	125.30
Mid	5550	126.70
High	5670	125.77

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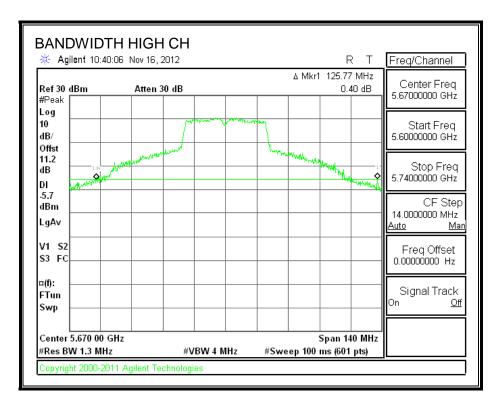
26 dB BANDWIDTH





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8.23.2. 99% BANDWIDTH

<u>LIMITS</u>

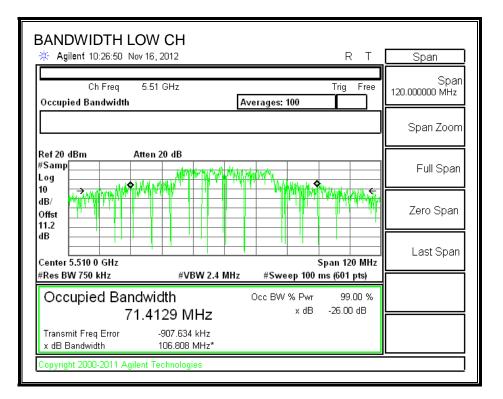
None; for reporting purposes only.

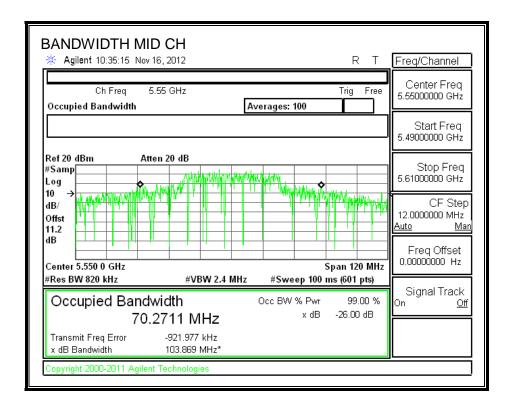
<u>RESULTS</u>

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5510	71.4129
Mid	5550	70.2711
High	5670	65.8448

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99% BANDWIDTH





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BANDWIDTH HIGH CH # Agilent 10:41:03 Nov 16, 2012		RТ	Freq/Channel
Ch Freq 5.67 GHz Occupied Bandwidth	Averages: 100	Trig Free	Center Freq 5.67000000 GHz
	-		Start Freq 5.6100000 GHz
Ref 20 dBm Atten 20 dB #Samp Log 10 → → → → → → → → → → → → → → → → → → →		Pia a	Stop Freq 5.73000000 GHz
05/ 07/07/07/07/07/07/07/07/07/07/07/07/07/0			CF Step 12.000000 MHz <u>Auto Man</u>
dB		Span 120 MHz	Freq Offset 0.00000000 Hz
	2.2 MHz #Sweep 10	00 ms (601 pts) vr 99 00 %	Signal Track
Occupied Bandwidth 65.8448 MH;		/r 99.00 % B -26.00 dB	On <u>Off</u>
Transmit Freq Error -379.886 kH: x dB Bandwidth 98.230 MHz ⁺			
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8.23.3. 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.

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RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5510	125.30	71.4129	4.72
Mid	5550	126.70	70.2711	4.72
High	5670	125.77	65.8448	4.72

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	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

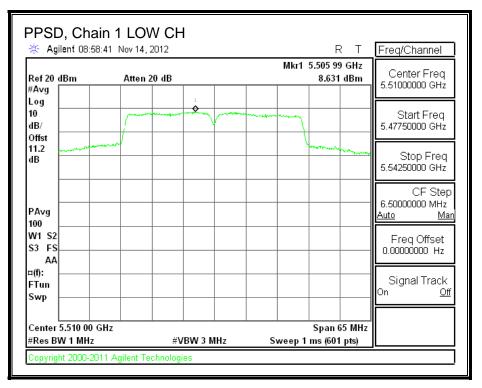
Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	16.57	16.57	24.00	-7.43
Mid	5550	23.05	23.05	24.00	-0.95
High	5670	18.71	18.71	24.00	-5.29

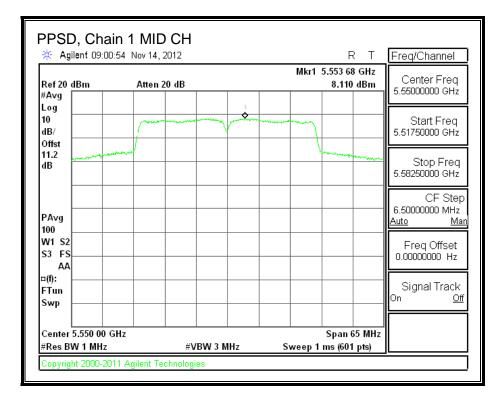
PPSD Results

Channel	Frequency	Chain 1	Total	PPSD	PPSD
		Meas	Corr'd	Limit	Margin
		PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	8.631	8.861	11.00	-2.139
Mid	5550	8.110	8.340	11.00	-2.660
High	5670	7.994	8.224	11.00	-2.776

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PPSD, Chain 1





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🔆 Agilent 09:00	6:56 Nov 14, 2012		R T	Peak Search
Ref 20 dBm #Avg	Atten 20 dB		Mkr1 5.664 26 GHz 7.994 dBm	Next Peak
Log 10 dB/		1		Next Pk Right
Offst 11.2 dB				Next Pk Left
PAvg 100				Min Search
W1 S2 S3 FS AA				Pk-Pk Search
¤(f): FTun Swp				Mkr © CF
Center 5.670 00 (#Res BW 1 MHz		/BW 3 MHz	Span 65 MHz Sweep 1 ms (601 pts)	More 1 of 2

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8.24. 802.11n HT40 CDD 3TX MODE, 5.6 GHz BAND

8.24.1. 26 dB BANDWIDTH

<u>LIMITS</u>

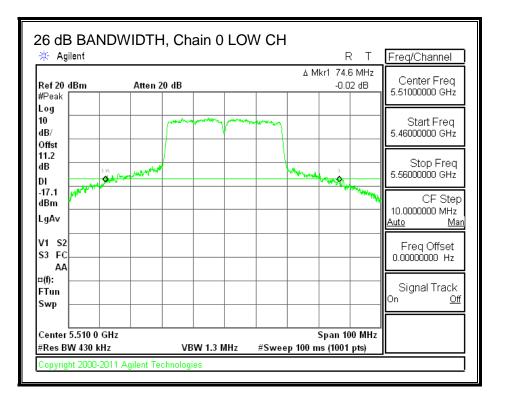
None; for reporting purposes only.

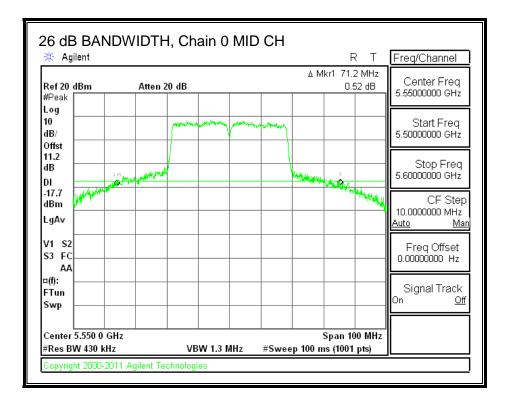
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5510	74.6	65.2	72.1
Mid	5550	71.2	63.8	72.1
High	5670	73.0	58.3	74.1

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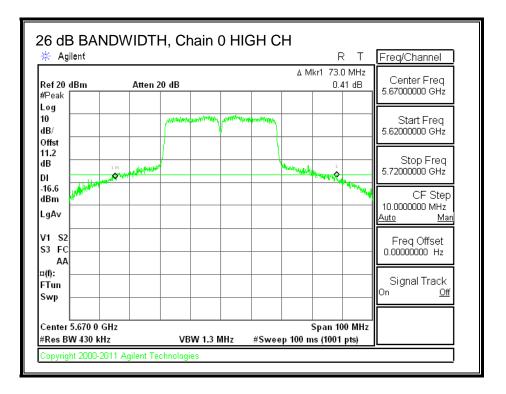
26 dB BANDWIDTH, Chain 0



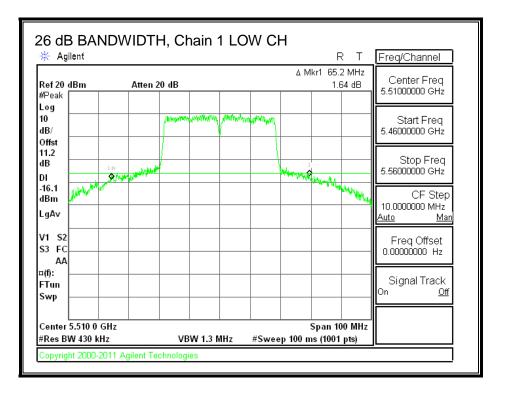


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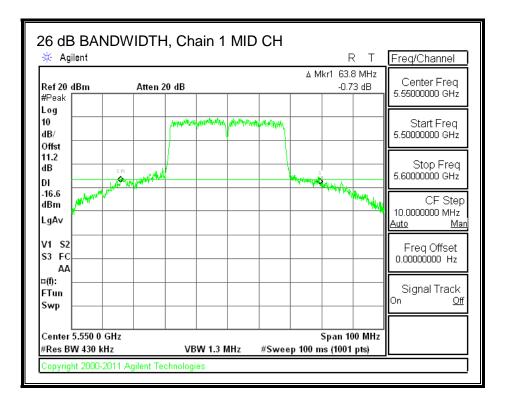
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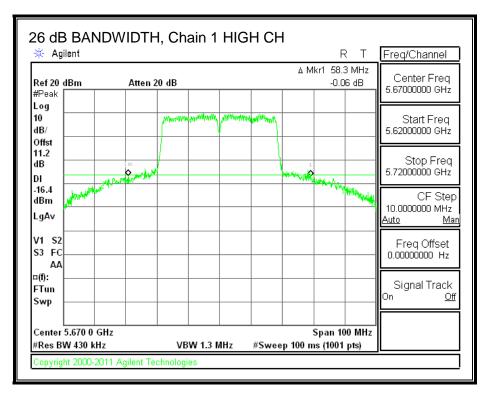


26 dB BANDWIDTH, Chain 1



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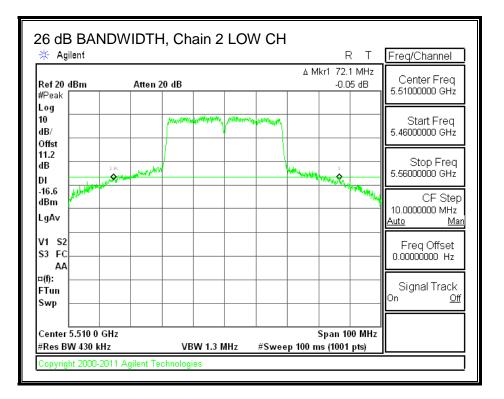


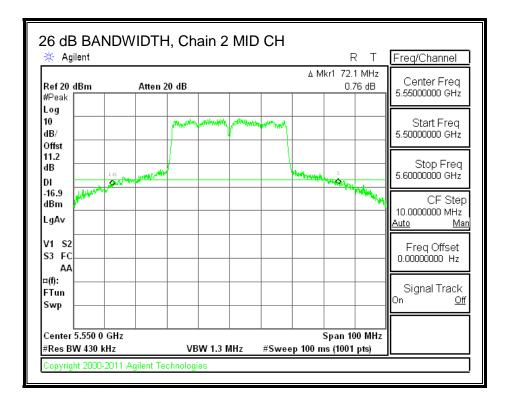


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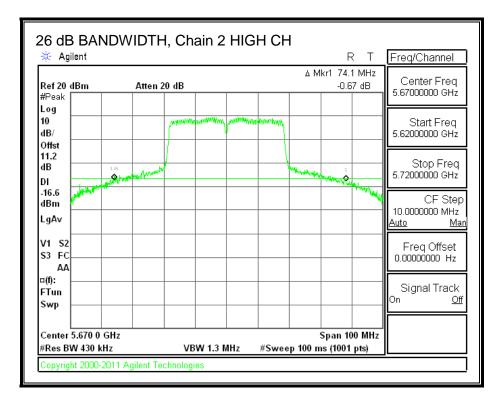
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26 dB BANDWIDTH, Chain 2





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8.24.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

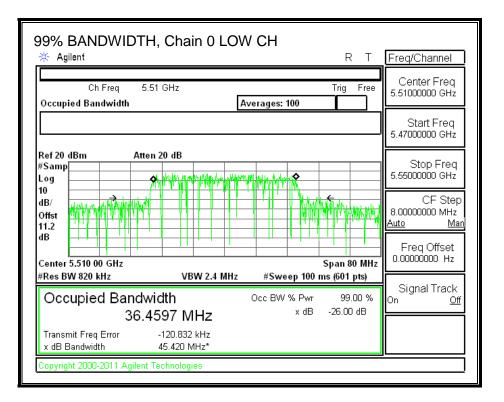
<u>RESULTS</u>

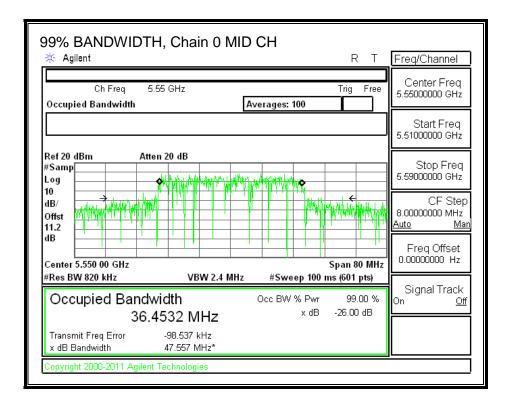
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5510	36.4597	36.3766	36.4974
Mid	5550	36.4532	36.3626	36.4896
High	5670	36.4082	36.3671	36.3928

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99% BANDWIDTH, Chain 0

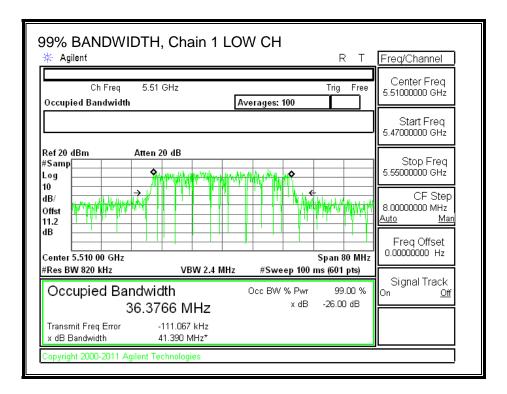




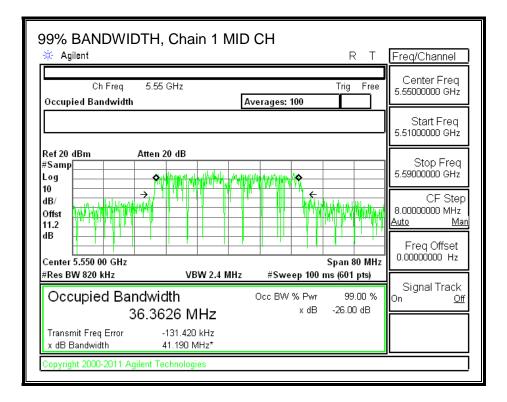
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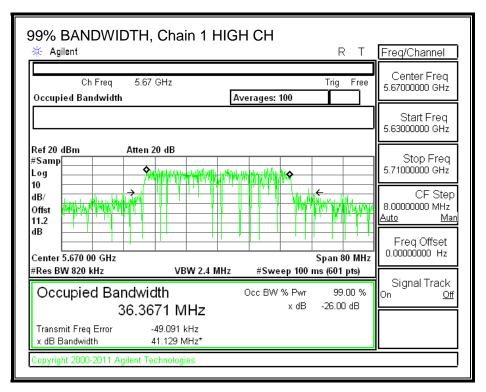
🤄 Agilent			R T	Freq/Channel
Ch Freq 5.67 Occupied Bandwidth		Averages: 100	Trig Free	Center Freq 5.67000000 GHz
	Ľ	rverages. 100		Start Freq 5.6300000 GHz
Ref 20 dBm Atten 2 Samp				Stop Freq 5.71000000 GHz
IB/ Dffst 1.2		· II I'I II II .		CF Step 8.0000000 MHz <u>Auto Man</u>
Center 5.670 00 GHz			Span 80 MHz	Freq Offset 0.00000000 Hz
Res BW 820 kHz	VBW 2.4 MHz	#Sweep 100	· · /	Signal Track
Occupied Bandwid 36.40	lth 82 MHz	Occ BW % Pwr x dB	99.00 % -26.00 dB	On <u>Off</u>
	69.799 kHz 44.793 MHz*			

99% BANDWIDTH, Chain 1



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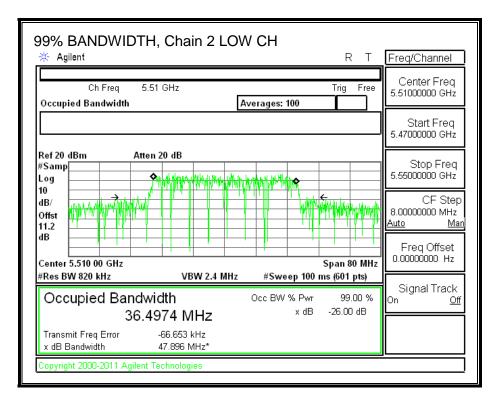


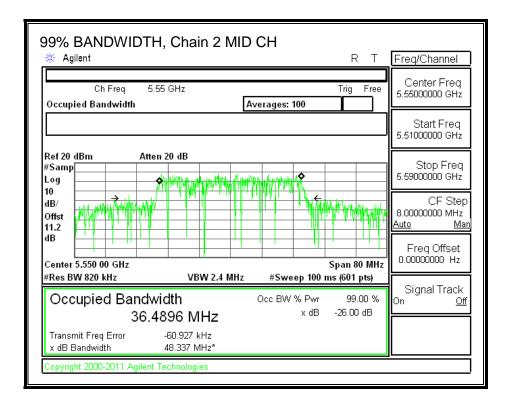


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99% BANDWIDTH, Chain 2





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99% BANDWIDTH, Chain	2 HIGH CH	RТ	Freq/Channel
Ch Freq 5.67 GHz Occupied Bandwidth	Averages: 100	Trig Free	Center Freq 5.67000000 GHz
			Start Freq 5.63000000 GHz
Ref 20 dBm Atten 20 dB #Samp Log Original Atten 20 dB			Stop Freq 5.71000000 GHz
dB/ Offst M/M/A/M/A/A/A/A/ 11.2 dB			CF Step 8.0000000 MHz <u>Auto Man</u>
Center 5.670 00 GHz	2.4 MHz #Sweep 100	Span 80 MHz ms (601 pts)	Freq Offset 0.00000000 Hz
Occupied Bandwidth 36.3928 MH	Occ BW % Pwr x dB		Signal Track On <u>Off</u>
Transmit Freq Error -33.194 kHz x dB Bandwidth 47.912 MHz	•		
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8.24.3. 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	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	3.36

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	8.06

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RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5510	65.20	36.3766	3.36
Mid	5550	63.80	36.3626	3.36
High	5670	58.30	36.3671	3.36

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	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
-------------------------	------------------------------------------

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Bower		
					Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	13.23	12.96	12.50	17.68	24.00	-6.32
Mid	5550	17.54	17.17	16.85	21.97	24.00	-2.03
High	5670	17.57	17.01	17.25	22.05	24.00	-1.95

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Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5510	65.20	36.3766	8.06
Mid	5550	63.80	36.3626	8.06
High	5670	58.30	36.3671	8.06

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5510	21.94	24.00	30.00	21.94	8.94	11.00	8.94
Mid	5550	21.94	24.00	30.00	21.94	8.94	11.00	8.94
High	5670	21.94	24.00	30.00	21.94	8.94	11.00	8.94

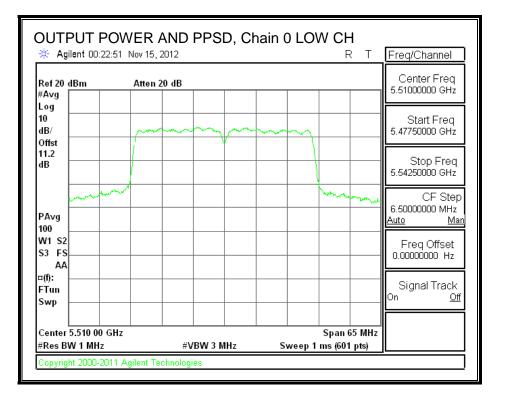
Duty Cycle CF (dB) 0.22 Included in Calculations of Corr'd Power & PPSD

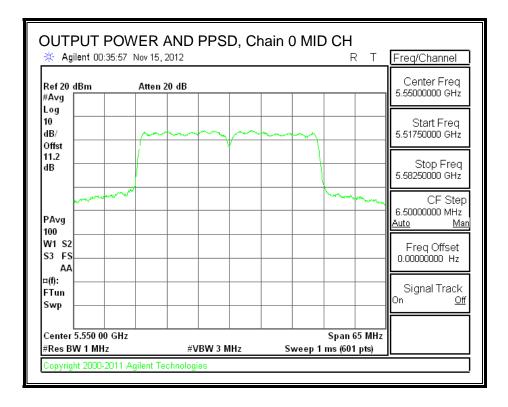
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margi
							n
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	3.95	3.77	3.28	8.67	8.94	-0.27
Mid	5550	3.43	3.90	3.40	8.58	8.94	-0.36
High	5670	3.60	3.53	3.62	8.58	8.94	-0.36

<u>Note:</u> method (1) "Measure and sum the spectra across the outputs" as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

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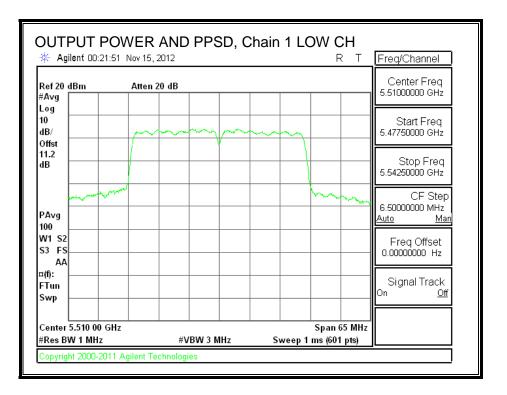




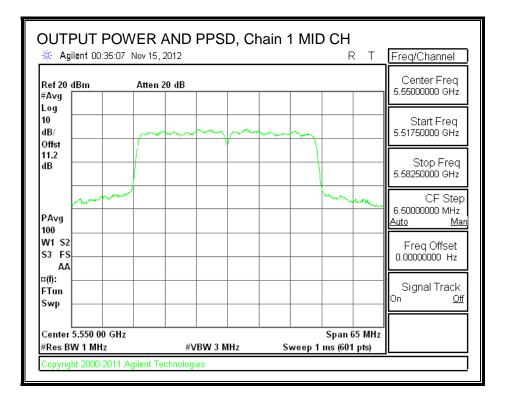
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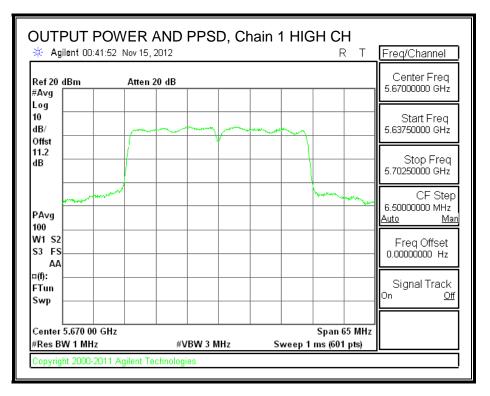
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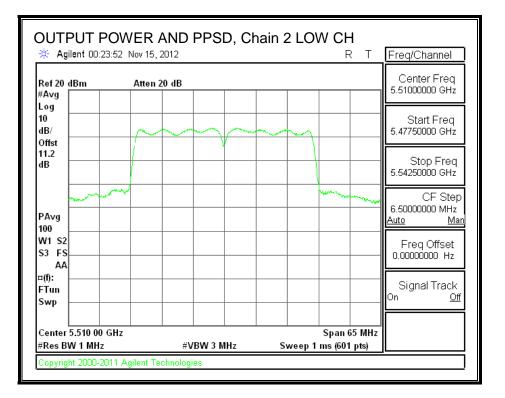
OUTPUT F			D, Chair	0 HIGH		
🔆 Agilent 00:40	0:43 Nov 15, 2012				RL	Freq/Channel
Ref 20 dBm #A∨g	Atten 20 dl	3				Center Freq 5.6700000 GHz
Log 10 dB/ Offst						Start Freq 5.63750000 GHz
dB						Stop Freq 5.70250000 GHz
PAvg 100	excum/			l hora	-	CF Step 6.5000000 MHz <u>Auto Man</u>
W1 S2 S3 FS AA						Freq Offset 0.00000000 Hz
¤(f): FTun Swp						Signal Track ^{On <u>Off</u>}
Center 5.670 00 (#Res BW 1 MHz	GHz	#VBW 3 MH	z S	Spa weep 1 ms	an 65 MHz (601 pts)	
Copyright 2000-20	111 Agilent Techno	logies				

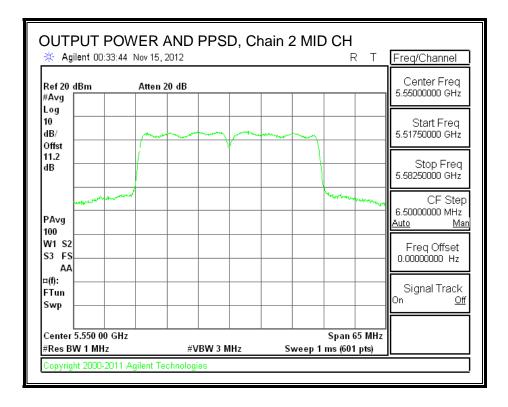


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OUTPUT POWER		ain 2 HIGH CH	Freq/Channel
	n 20 dB		Center Freq 5.67000000 GHz
Log 10 dB/ Offst			Start Freq 5.63750000 GHz
11.2 dB			Stop Freq 5.70250000 GHz
PAvg 100			CF Step 6.50000000 MHz <u>Auto Man</u>
W1 S2 S3 FS AA			Freq Offset 0.00000000 Hz
¤(f): FTun Swp			Signal Track On <u>Off</u>
Center 5.670 00 GHz #Res BW 1 MHz	#VBW 3 MHz	Span 65 MHz Sweep 1 ms (601 pts)	
Copyright 2000-2011 Agilent	Fechnologies		

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8.25. 802.11n HT40 CDD CH 142 3TX MODE, 5.6 GHz BAND

8.25.1.26 dB BANDWIDTH- UNII

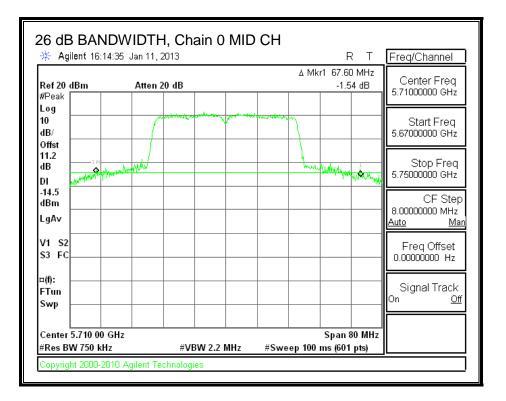
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5710	67.60	69.60	72.80

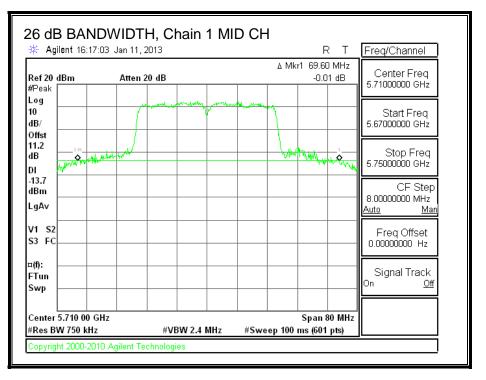
26 dB BANDWIDTH, Chain 0



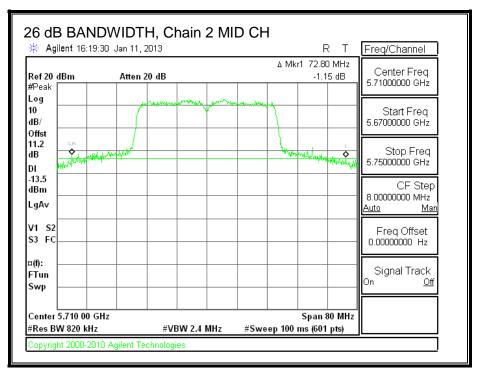
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26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



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8.25.2.99% BANDWIDTH

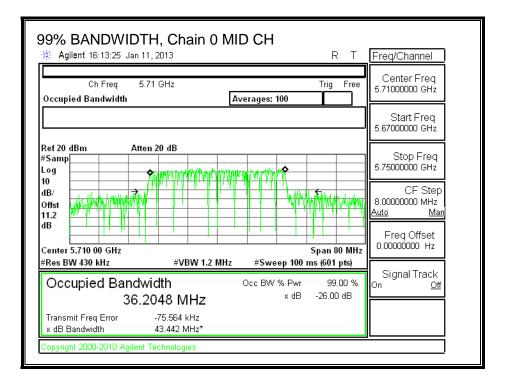
LIMITS

None; for reporting purposes only.

RESULTS

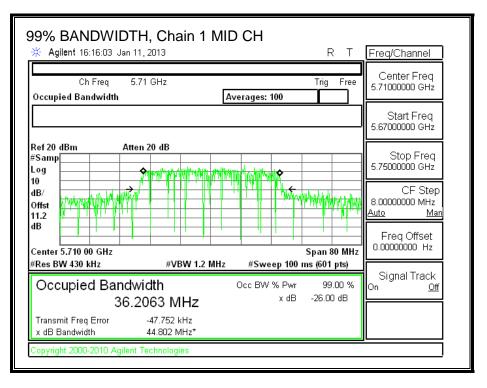
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5710	36.2048	36.2063	36.2220

99% BANDWIDTH, Chain 0

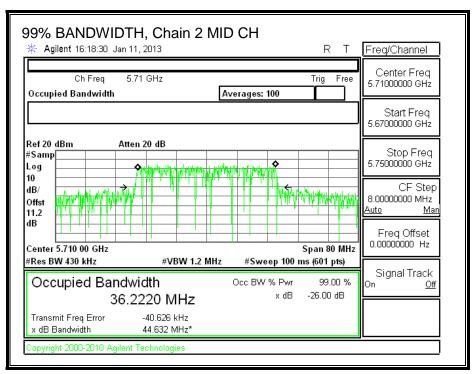


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99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



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8.25.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(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	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	8.06

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RESULTS

Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Correlated	Uncorrelated
		26 dB	99%	Gain	Gain
		BW	BW		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)
Mid	5710	38.8	23.1024	8.06	3.36

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5710	24.00	24.00	30.00	24.00	8.94	11.00	8.94

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5710	3.79	3.30	3.85	8.64	8.94	-0.30

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Limits (FCC), portion in 5.8 GHz UNII 3 band

Channel	Frequency	Min	Min	Correlated	Uncorrelated
		26 dB	99%	Gain	Gain
		BW	BW		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)
Mid	5710	28.8	13.1024	8.06	3.36

Bandwidth and Antenna Gain

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5710	24.00	22.17	28.17	22.17	8.94	11.00	8.94

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

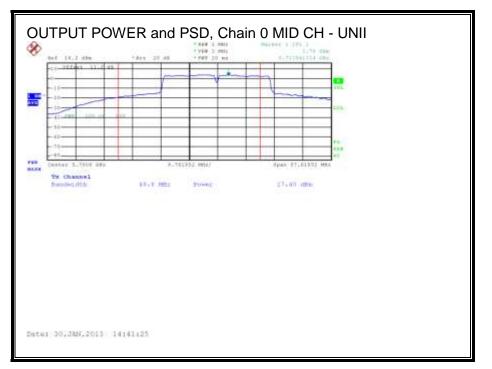
Output Power Results

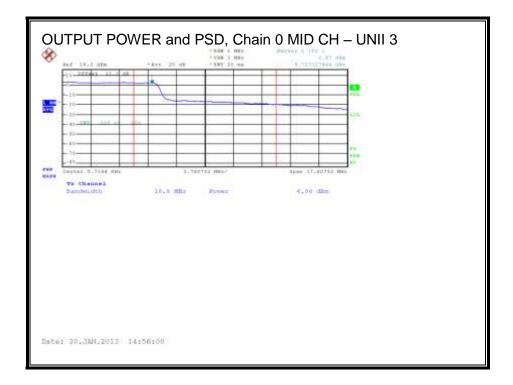
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
	(((abiii)	(abiii)	(abiii)	((

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5710	2.67	2.08	2.63	7.46	8.94	-1.48

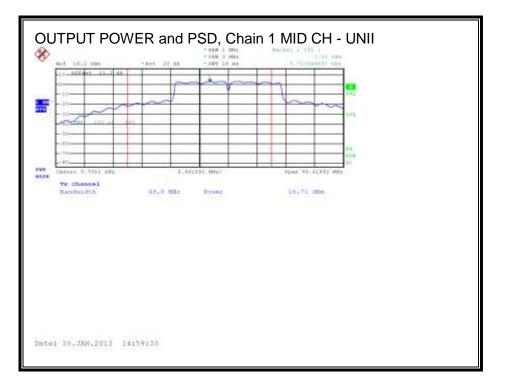
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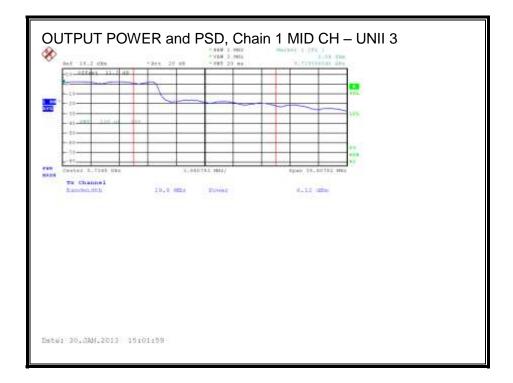




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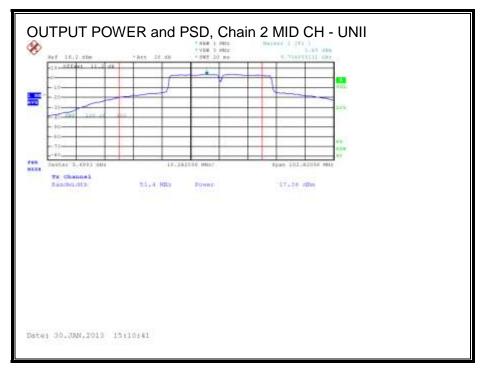
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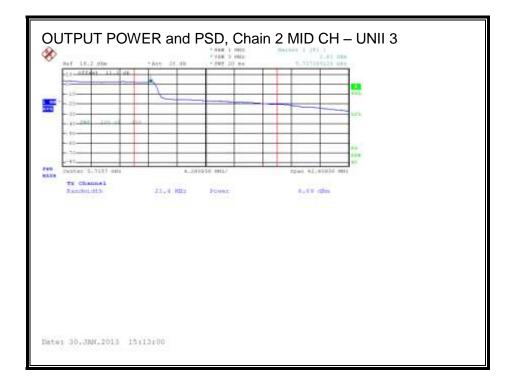




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8.26. 802.11n HT40 STBC CH 142 3TX MODE, 5.6 GHz BAND

8.26.1.26 dB BANDWIDTH- UNII

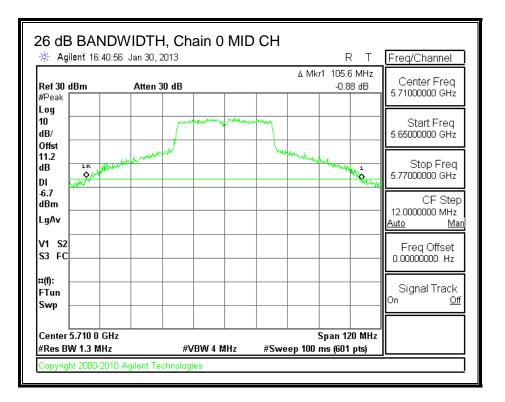
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5710	105.60	107.60	111.00

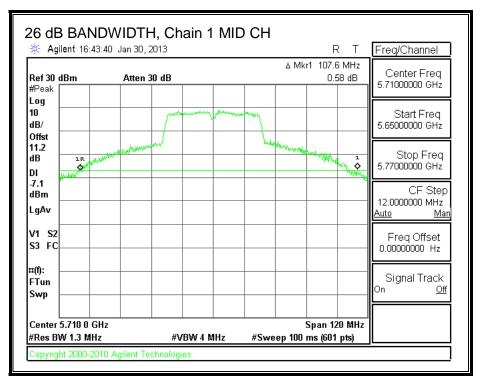
26 dB BANDWIDTH, Chain 0



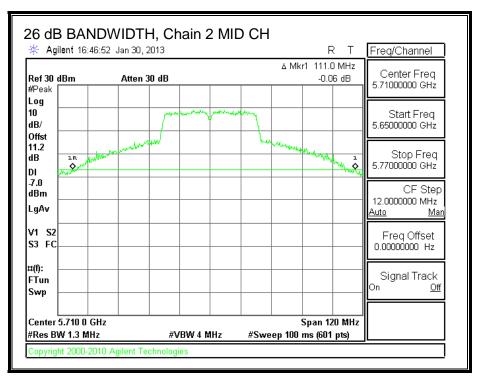
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26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



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8.26.2.99% BANDWIDTH

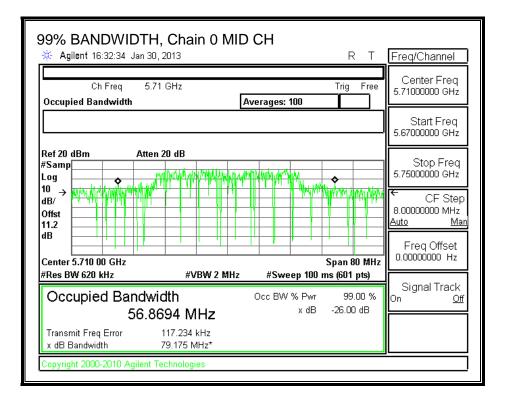
LIMITS

None; for reporting purposes only.

RESULTS

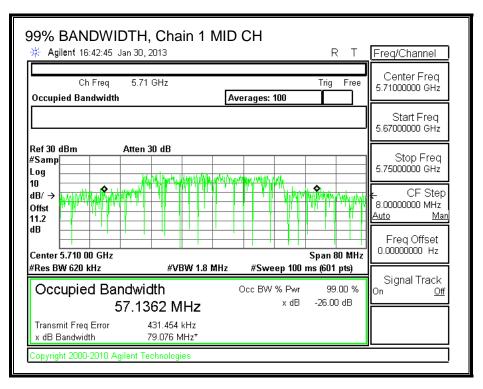
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5710	56.8694	57.1362	58.7496

99% BANDWIDTH, Chain 0

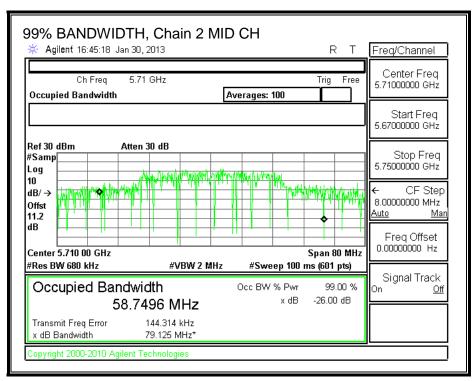


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99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



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8.26.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	3.36

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RESULTS

Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Uncorrelated
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Mid	5710	57.8	33.4347	3.36

Limits

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

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5710	5.51	4.98	5.26	10.26	11.00	-0.74

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Limits (FCC), portion in 5.8 GHz UNII 3 band

Channel	Frequency	Min	Min	Uncorrelated
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Mid	5710	47.8	23.4347	3.36

Bandwidth and Antenna Gain

Limits

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

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

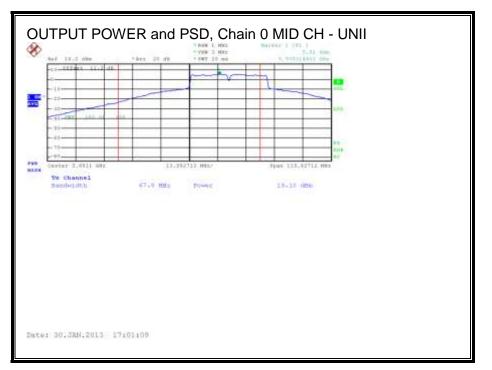
Output Power Results

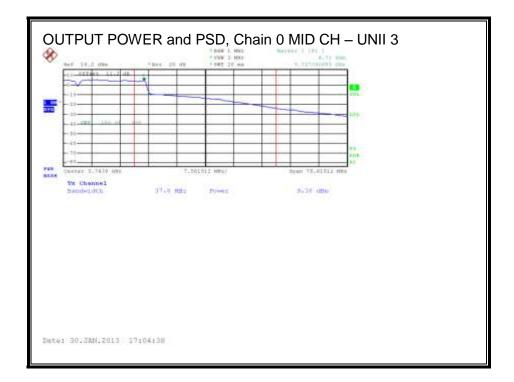
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5710	9.38	8.91	9.34	14.22	24.00	-9.78

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5710	4.71	4.11	4.35	9.40	11.00	-1.60

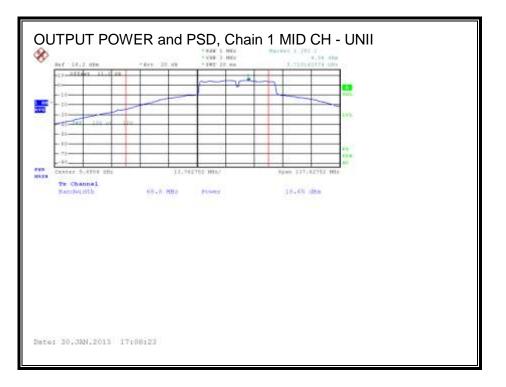
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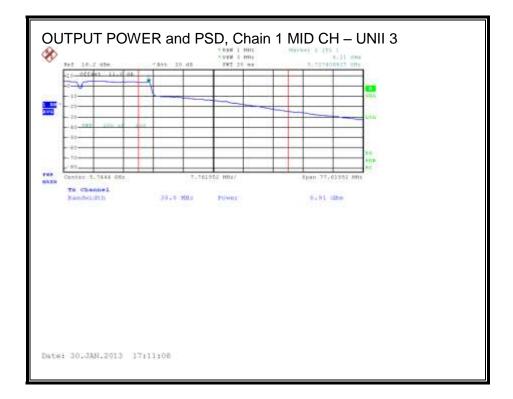




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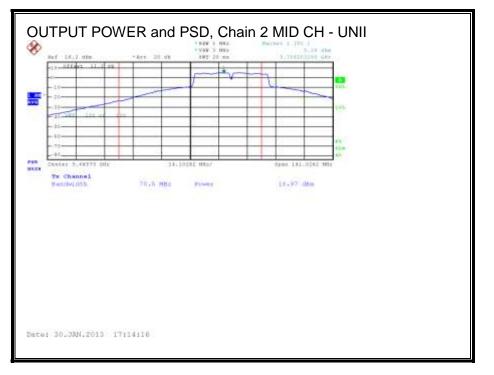
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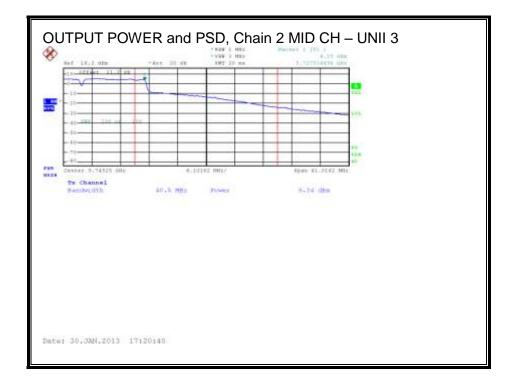




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8.27. 802.11n HT40 STBC 3TX MODE, 5.6 GHz BAND

8.27.1. 26 dB BANDWIDTH

LIMITS

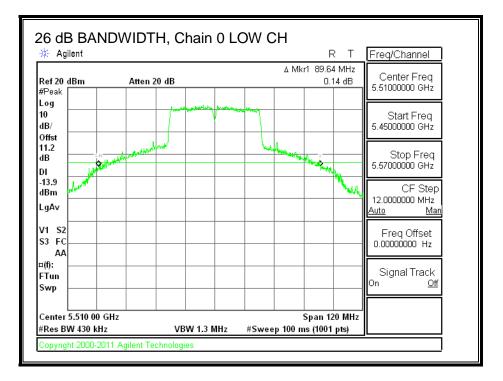
None; for reporting purposes only.

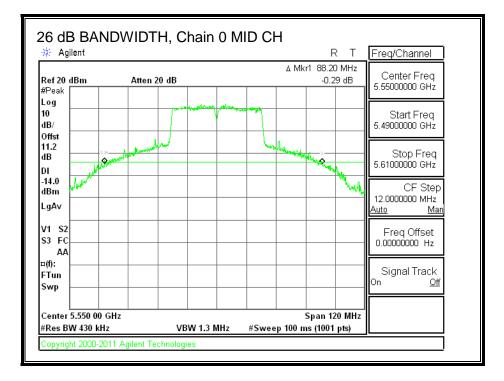
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5510	89.64	85.44	92.40
Mid	5550	88.20	84.00	89.88
High	5670	87.12	85.80	91.68

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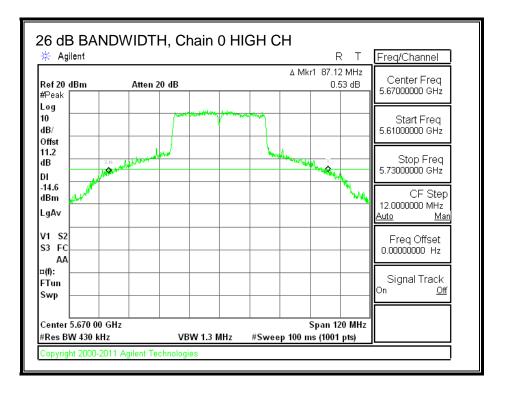
26 dB BANDWIDTH, Chain 0



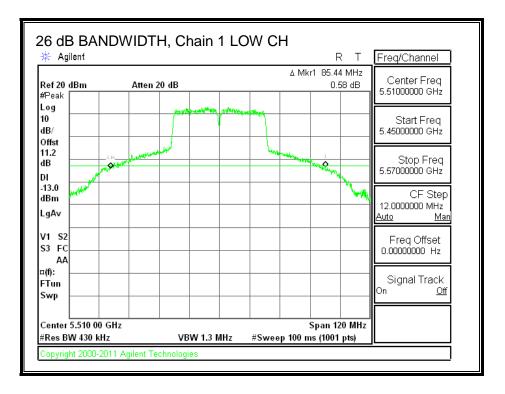


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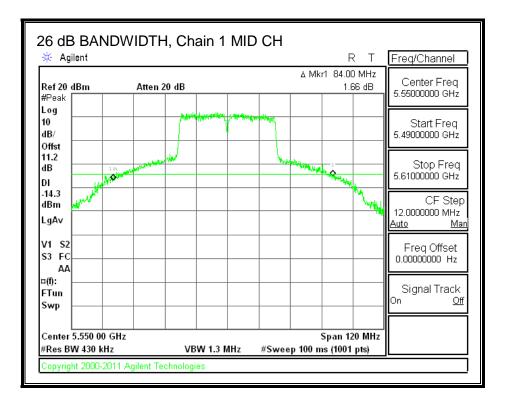
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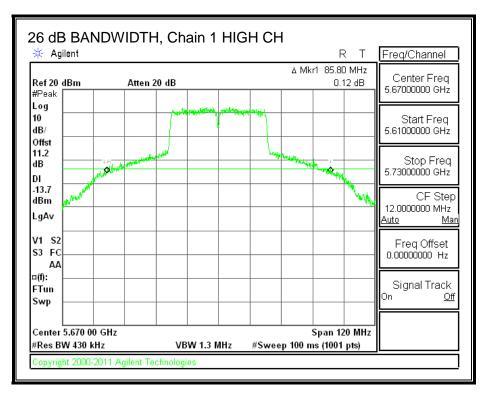


26 dB BANDWIDTH, Chain 1



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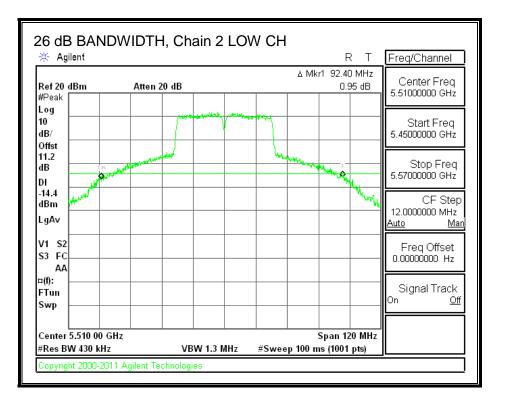


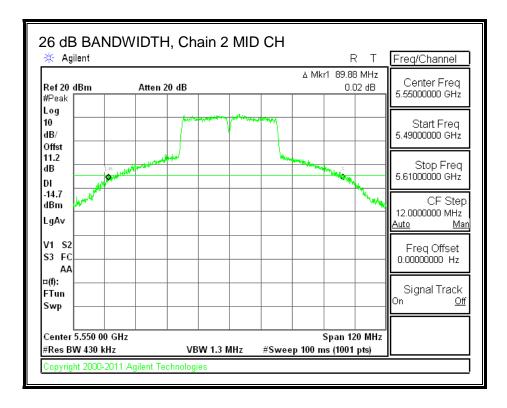


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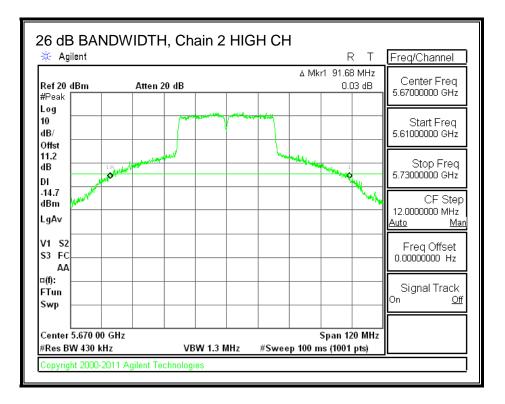
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26 dB BANDWIDTH, Chain 2





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8.27.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

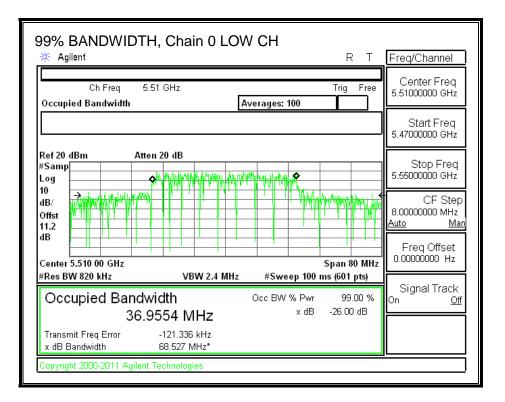
<u>RESULTS</u>

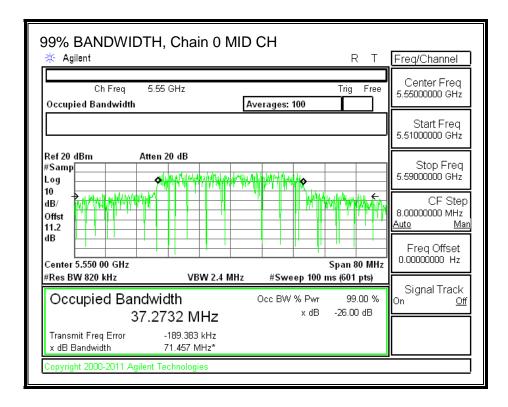
Channel	Frequency	99% BW	99% BW	99% BW	
		Chain 0	Chain 1	Chain 2	
	(MHz)	(MHz)	(MHz)	(MHz)	
Low	5510	36.9554	36.9069	37.3429	
Mid	5550	37.2732	36.7588	37.4053	
High	5670	36.8370	36.7167	37.2254	

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99% BANDWIDTH, Chain 0

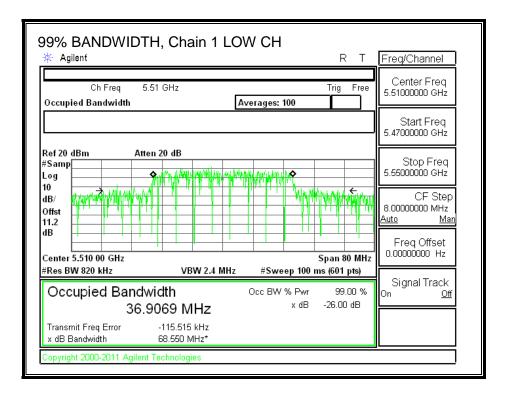




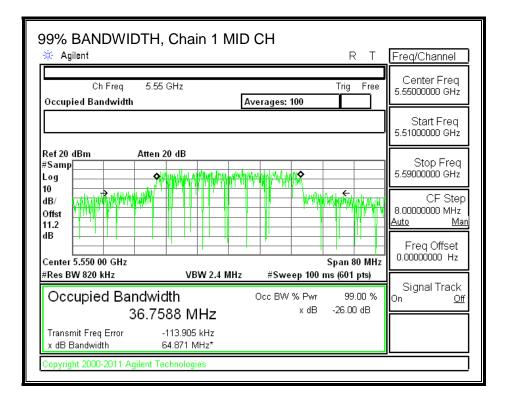
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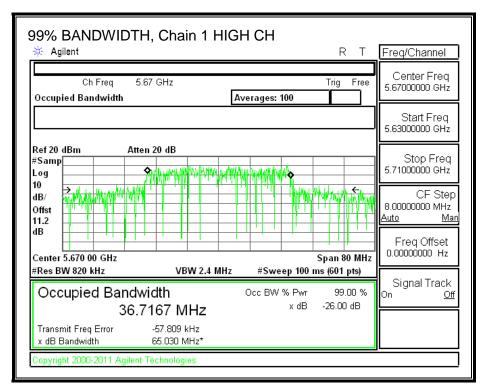
99% BANDWIDTH * Agilent	, Chain 0 HI	GH CH	RT	Freq/Channel
Ch Freq 5.67 Occupied Bandwidth	GHz	Averages: 100	Trig Free	Center Freq 5.67000000 GHz
	L			Start Freq 5.63000000 GHz
Ref 20 dBm Atten #Samp Log	20 dB			Stop Freq 5.71000000 GHz
dB/ Offst 11.2				CF Step 8.0000000 MHz <u>Auto Man</u>
dB			Span 80 MHz	Freq Offset 0.00000000 Hz
#Res BW 820 kHz	VBW 2.4 MHz	#Sweep 100 i	ns (601 pts)	Signal Track
Occupied Bandwie 36.83	dth 570 MHz	Occ BW % Pwr x dB	99.00 % -26.00 dB	On <u>Off</u>
	-75.355 kHz 68.199 MHz*			
Copyright 2000-2011 Agilent Te	chnologies			

99% BANDWIDTH, Chain 1



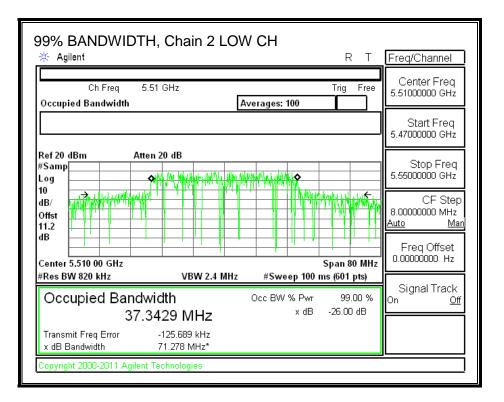
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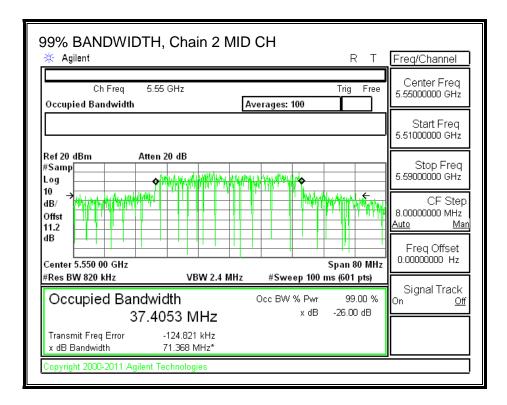




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99% BANDWIDTH, Chain 2





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Ch Freq 5.67 GHz Trig Free Occupied Bandwidth Averages: 100	Center Freq 5.67000000 GHz
Ref 20 dBm Atten 20 dB	Start Freq 5.63000000 GHz
#Samp Log 10	Stop Freq 5.71000000 GHz CF Step
dB/ www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.harmer.com/www.ha	8.00000000 MHz <u>Auto Man</u>
Center 5.670 00 GHz Span 80 MHz #Res BW 820 kHz VBW 2.4 MHz #Sweep 100 ms (601 pts)	Freq Offset 0.00000000 Hz Signal Track
Occupied Bandwidth Occ BW % Pwr 99.00 % 37.2254 MHz x dB -26.00 dB	On <u>Off</u>
Transmit Freq Error -26.179 kHz x dB Bandwidth 71.511 MHz* Copyright 2000-2011 Agilent Technologies	

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8.27.3. 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	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
4.72	2.09	2.85	3.36

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RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5510	85.44	36.9069	3.36
Mid	5550	84.00	36.7588	3.36
High	5670	85.80	36.7167	3.36

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	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	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	13.23	12.96	12.50	17.68	24.00	-6.32
Mid	5550	18.95	18.65	18.45	23.46	24.00	-0.54
High	5670	18.99	18.69	18.68	23.56	24.00	-0.44

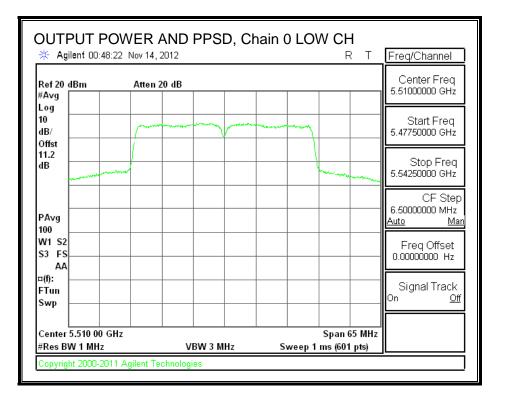
PPSD Results

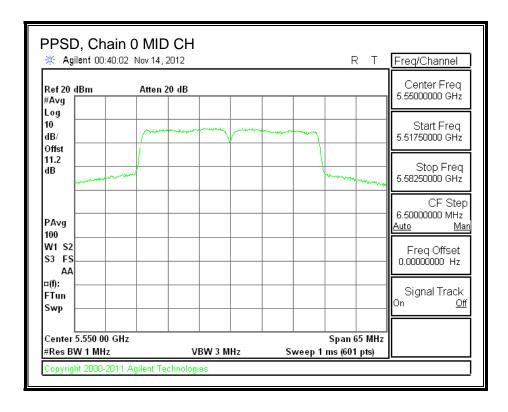
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		5505	DDOD	DDOD	5505		
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	5.99	5.99	5.41	10.81	11.00	-0.19
Mid	5550	6.06	6.00	5.02	10.72	11.00	-0.28
High	5670	5.53	5.94	5.71	10.73	11.00	-0.27

<u>Note:</u> method (1) "Measure and sum the spectra across the outputs" as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

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PPSD, Chain 0

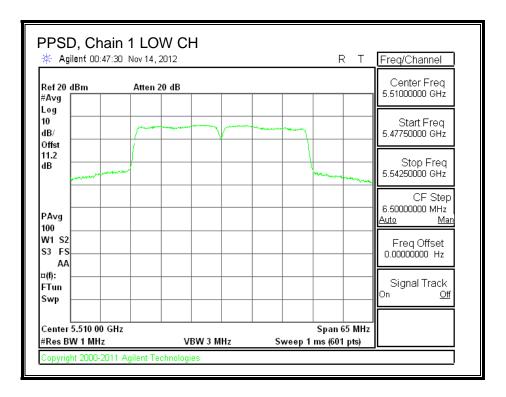




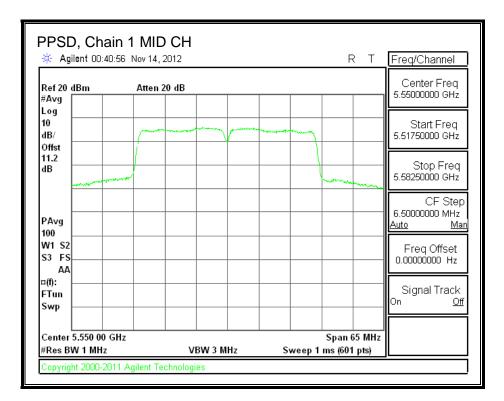
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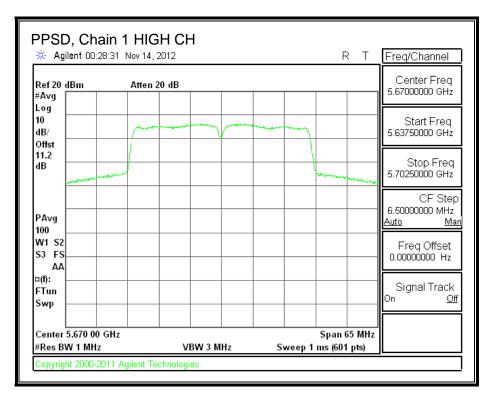
Agilent 00:29	20 Nov 14, 2012	RT	Freq/Channel
ef 20 dBm Avg	Atten 20 dB		Center Freq 5.67000000 GHz
og) B/			Start Freq 5.63750000 GHz
B			Stop Freq 5.70250000 GHz
A∨g)0			CF Step 6.5000000 MHz <u>Auto Man</u>
/1 S2 3 FS AA			Freq Offset 0.00000000 Hz
f): Fun wp			Signal Track ^{On <u>Off</u>}
enter 5.670 00 G Res BW 1 MHz	Hz VBW 3 MHz	Span 65 MHz Sweep 1 ms (601 pts)	

PPSD, Chain 1



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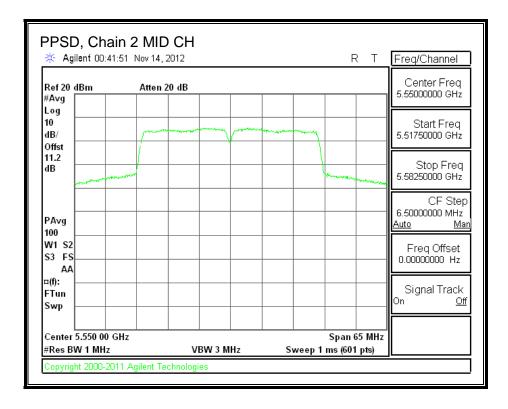




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PPSD, Chain 2

ef 20 dBm		Atten 2	a JD					Center Freq
Avg		Atten 2						5.51000000 GHz
og D B/				and	 · · · · · · · · · · · · · · · · · · ·			Start Freq 5.47750000 GHz
1.2 В	-					4	manne	Stop Freq 5.54250000 GHz
Avg								CF Ste 6.5000000 MHz <u>Auto M</u> a
/1 S2 3 FS AA								Freq Offset 0.00000000 Hz
(f): Tun wp								Signal Track On <u>O</u>
enter 5.510 Res BW 1 M				3W 3 M	 	 Span 6 ms (601		



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Agilent 00:27				RT	Freq/Channel Center Freq
Ref 20 dBm #Avg	Atten 20	<u>qp</u>			5.67000000 GHz
Log 10 dB/ Offst					Start Freq 5.63750000 GHz
11.2 dB				hanna	Stop Frec 5.70250000 GHz
PAvg 100					CF Ste 6.5000000 MHz <u>Auto M</u>
100 W1 S2 S3 FS AA					Freq Offset 0.00000000 Hz
¤(f): FTun Swp					Signal Track On <u>C</u>
Center 5.670 00 G #Res BW 1 MHz	GHz	VBW 3 MHz	Sween 1	Span 65 MHz ms (601 pts)	

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8.28. 802.11n AC80 1TX MODE, 5.6 GHz BAND

8.28.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

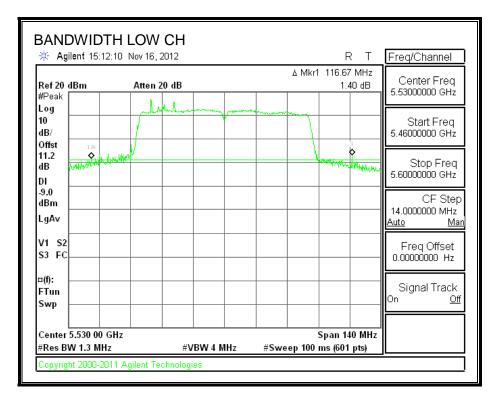
RESULTS

Channel Frequency		26 dB Bandwidth
	(MHz)	(MHz)
Low	5530	116.67

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26 dB BANDWIDTH



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8.28.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

<u>RESULTS</u>

Channel Frequency 99% Bandwidth						
	(MHz)	(MHz)				
Low	5530	75.0907				

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99% BANDWIDTH

BANDWIDTH LOW CH	Freq/Channel
Ch Freq 5.53 GHz Trig Free Occupied Bandwidth Averages: 100	Center Freq 5.53000000 GHz
	Start Freq 5.48000000 GHz
Ref 20 dBm Atten 20 dB #Samp	Stop Freq 5.58000000 GHz CF Step 10.0000000 MHz <u>Auto</u> Man Freq Offset 0.00000000 Hz
#Res BW 910 kHz #VBW 2.7 MHz #Sweep 100 ms (601 pts) Occupied Bandwidth Occ BW % Pwr 99.00 %	Signal Track On <u>Off</u>
75.0907 MHz x dB -26.00 dB Transmit Freq Error -72.515 kHz x dB Bandwidth 90.386 MHz* Copyright 2000-2011 Agilent Technologies	

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8.28.3. 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.

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RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5530	116.67	75.0907	5.53

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5530	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	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	12.84	12.84	24.00	-11.16

PPSD Results

Channel	Frequency	Chain 1	Total	PPSD	PPSD
		Meas	Corr'd	Limit	Margin
		PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	5.845	6.305	11.00	-4.695

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OUTPUT POWER AND PPSD, Chain 1

		PPSD, C	hain 1 LO		
🔆 Agilent 16:41:	US NOV 16, 2012			RT	Peak Search
Ref 20 dBm #Avg	Atten 20 dB		Mkr1	5.518 53 GHz 5.845 dBm	Next Peak
Log 10 dB/		1			Next Pk Right
Offst 11.2 dB			l lm		Next Pk Left
PAvg 100					Min Search
W1 S2 S3 FS AA					Pk-Pk Search
⊐(f): FTun Swp					Mkr © CF
Center 5.530 00 G #Res BW 1 MHz		/BW 3 MHz	#Sweep 100	Span 160 MHz ms (601 pts)	More 1 of 2
Copyright 2000-201	1 Agilent Technologi	es			

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8.29. 802.11n AC80 CDD 3TX MODE, 5.6 GHz BAND

8.29.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

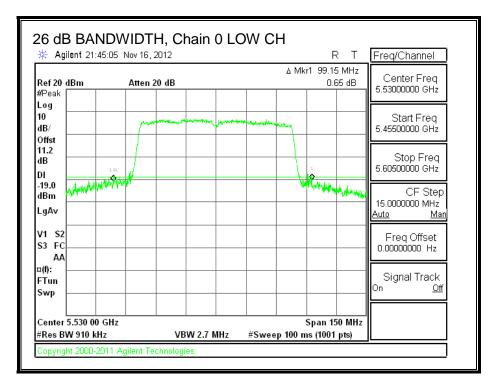
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW	
		Chain 0	Chain 1	Chain 2	
	(MHz)	(MHz)	(MHz)	(MHz)	
Low	5530	99.15	97.50	92.70	

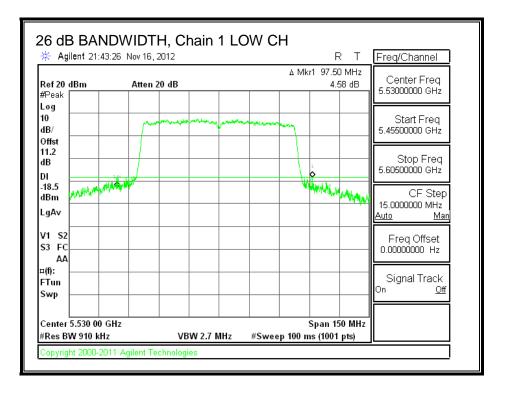
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26 dB BANDWIDTH, Chain 0



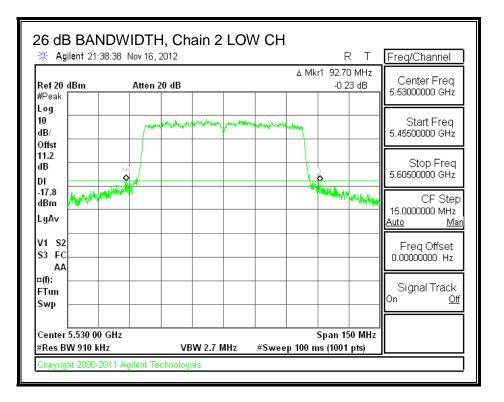
26 dB BANDWIDTH, Chain 1



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26 dB BANDWIDTH, Chain 2



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8.29.2. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

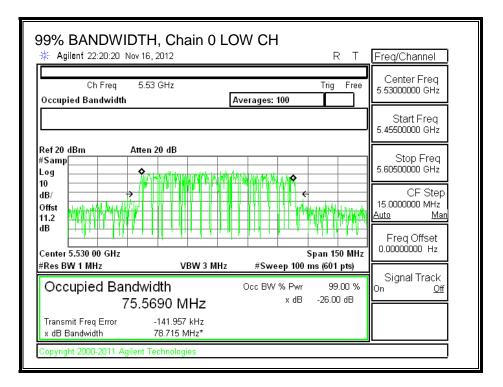
<u>RESULTS</u>

Channel	Frequency	Frequency 99% BW		99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5530	75.5690	75.3174	75.5696

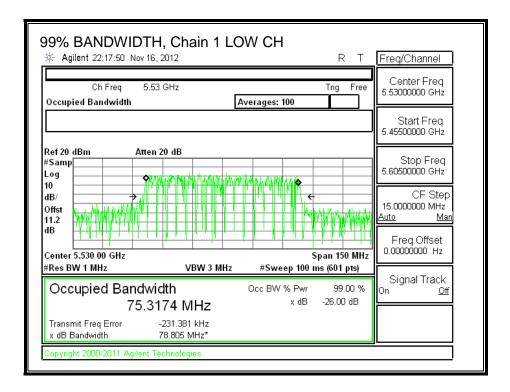
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99% BANDWIDTH, Chain 0

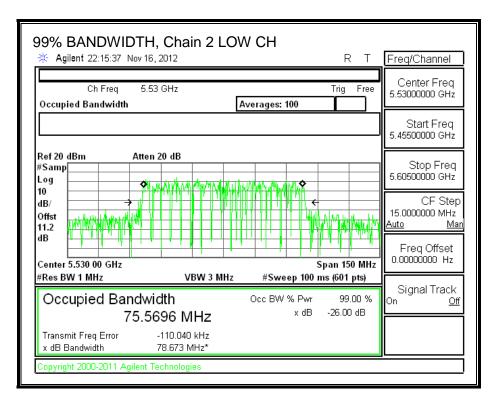


99% BANDWIDTH, Chain 1



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99% BANDWIDTH, Chain 2



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8.29.3. 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	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
5.53	2.68	1.26	3.53

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
5.53	2.68	1.26	8.11

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5530	92.70	75.3174	3.53

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC
		Power	Power	EIRP	Limit	PPSD
		Limit	Limit	Limit		Limit
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
Low	5530	24.00	24.00	30.00	24.00	11.00

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

Gated Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
							-
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	12.80	12.44	12.20	17.26	24.00	-6.74

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Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5530	92.70	75.3174	8.11

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5530	21.89	24.00	30.00	21.89	8.89	11.00	8.89

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

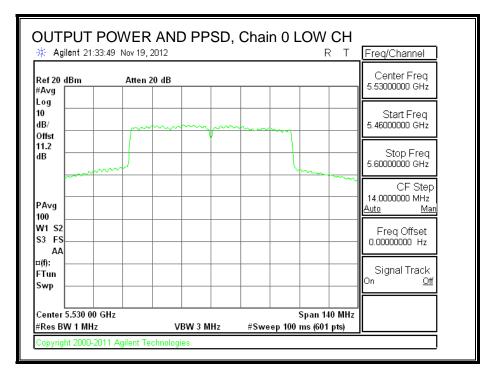
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	1.98	3.06	3.78	8.23	8.89	-0.66

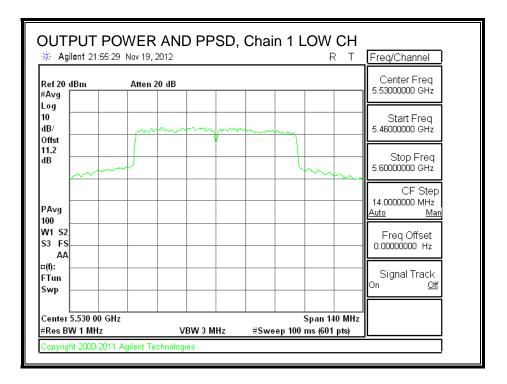
<u>Note:</u> method (1) "Measure and sum the spectra across the outputs" as specified in KDB 662911 D01 v01r02 was used for this PSD measurements.

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OUTPUT POWER AND PPSD, Chain 0



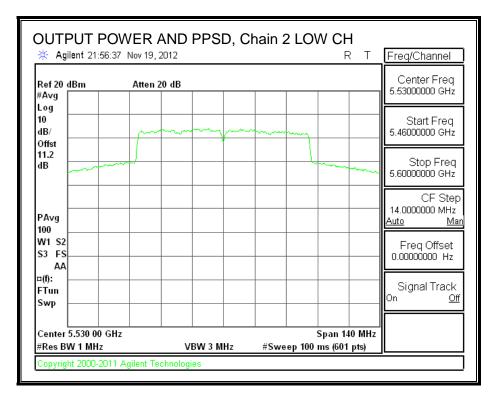
OUTPUT POWER AND PPSD, Chain 1



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OUTPUT POWER AND PPSD, Chain 2



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8.30. 802.11n AC80 BF 3TX MODE, 5.6 GHz BAND

8.30.1. 26 dB BANDWIDTH

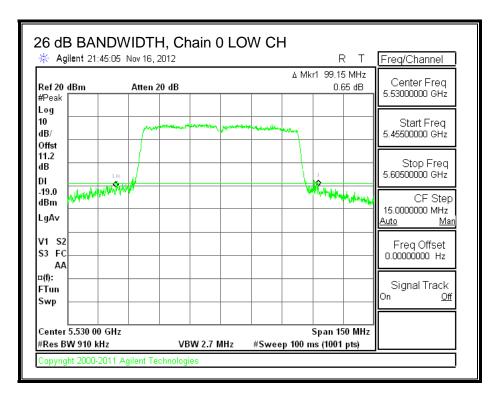
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

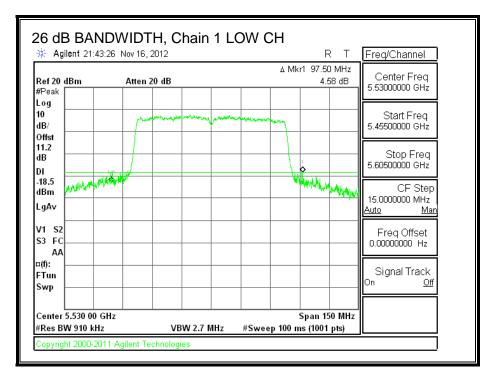
Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5530	99.15	97.50	92.70

26 dB BANDWIDTH, Chain 0

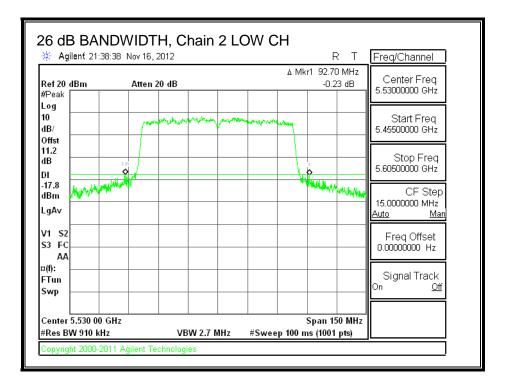


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26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



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8.30.2. 99% BANDWIDTH

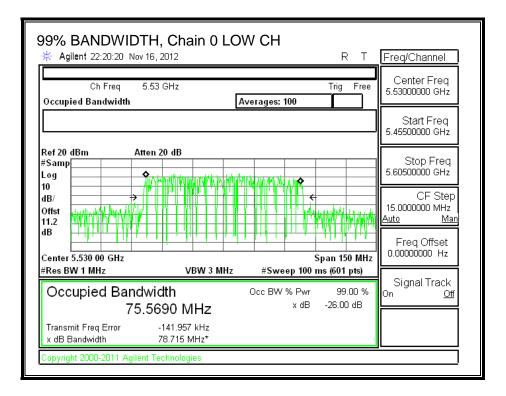
LIMITS

None; for reporting purposes only.

RESULTS

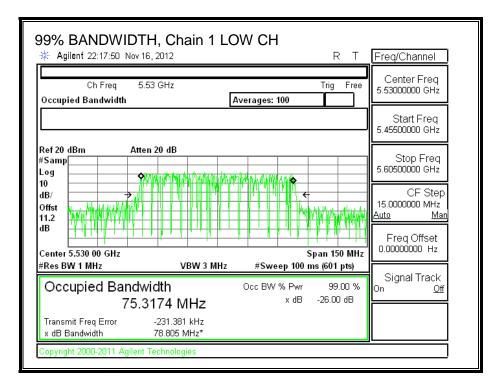
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5530	75.5690	75.3174	75.5696

99% BANDWIDTH, Chain 0

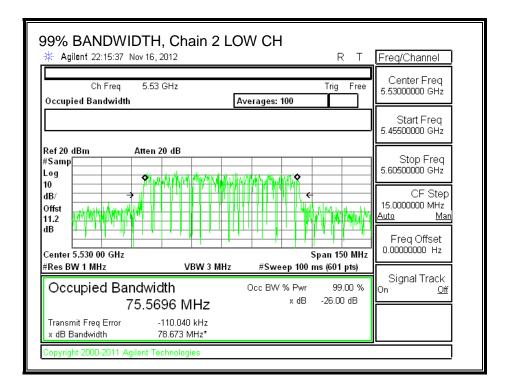


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99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 2



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8.30.3. 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	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
5.53	2.68	1.26	8.11

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RESULTS

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Directional
		26 dB	99%	Gain
		BW	BW	
	(MHz)	(MHz)	(MHz)	(dBi)
Low	5530	92.70	75.3174	8.11

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Low	5530	21.89	24.00	30.00	21.89	8.89	11.00	8.89

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

Output Power Results

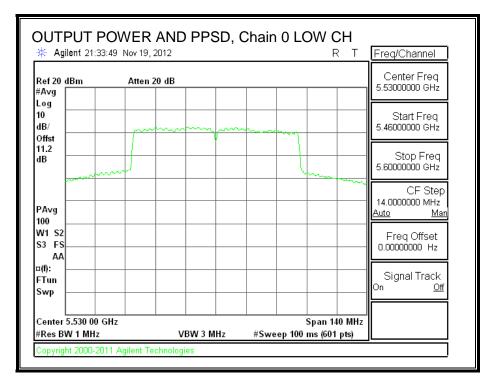
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)

PPSD Results

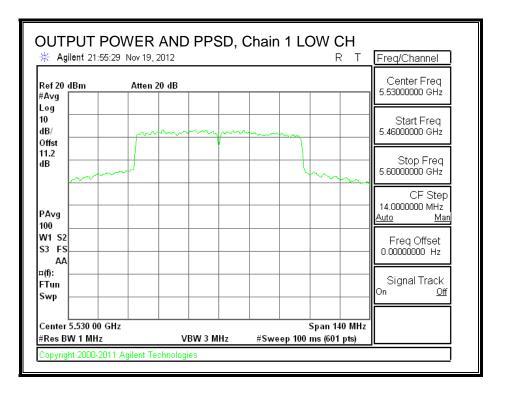
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	1.98	3.06	3.78	8.23	8.89	-0.66

<u>Note:</u> 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

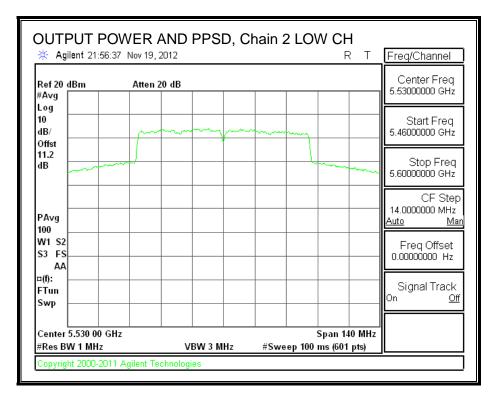


OUTPUT POWER AND PPSD, Chain 1



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OUTPUT POWER AND PPSD, Chain 2



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8.31. 802.11n AC80 CDD CH 138 3TX MODE, 5.6 GHz BAND

8.31.1.26 dB BANDWIDTH- UNII

LIMITS

None; for reporting purposes only.

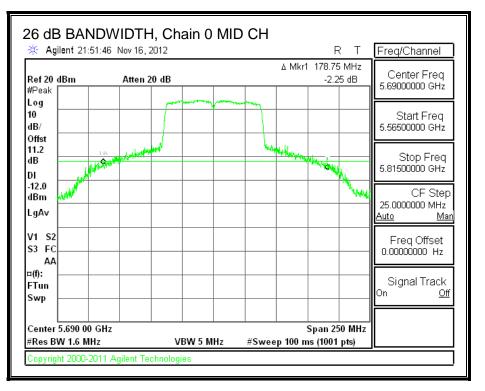
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5690	178.75	184.00	172.00

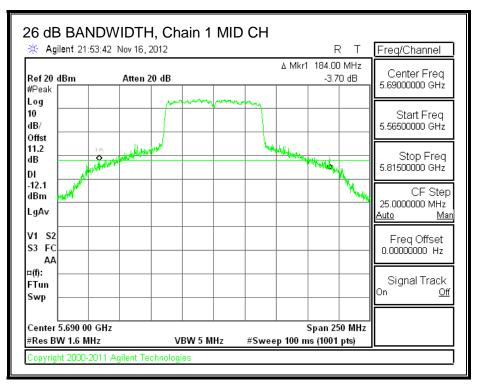
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26 dB BANDWIDTH, Chain 0



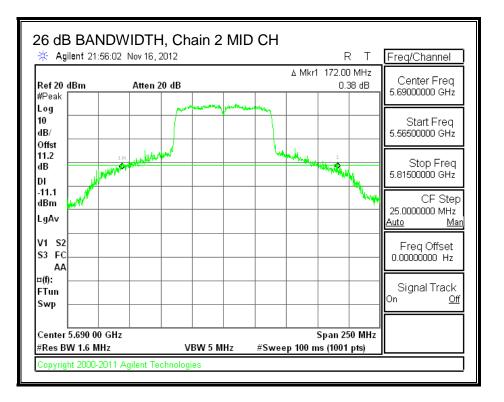
26 dB BANDWIDTH, Chain 1



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26 dB BANDWIDTH, Chain 2



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8.31.2.99% BANDWIDTH

LIMITS

None; for reporting purposes only.

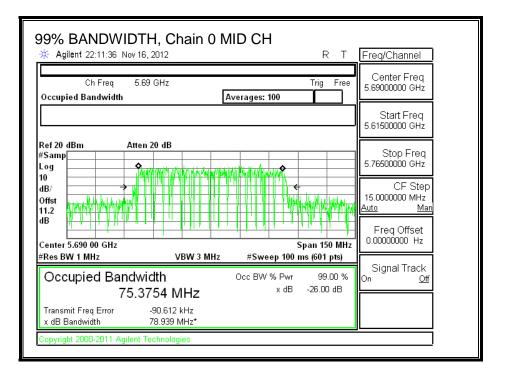
<u>RESULTS</u>

Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5690	75.3754	75.5286	75.4394

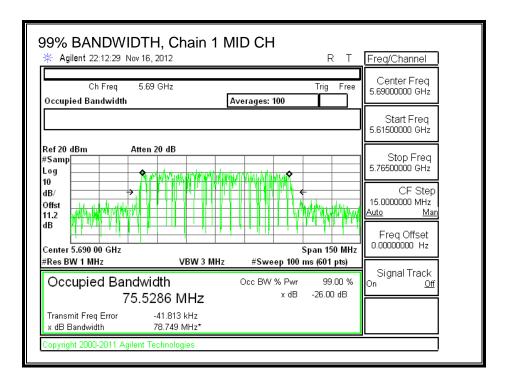
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99% BANDWIDTH, Chain 0

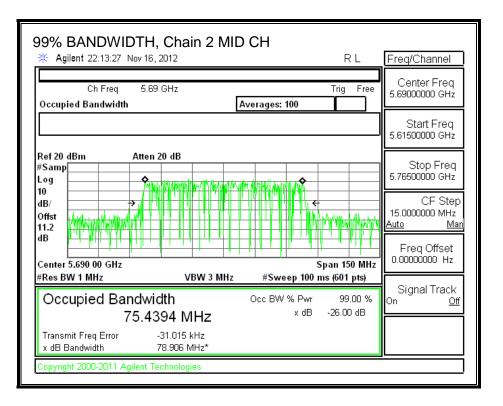


99% BANDWIDTH, Chain 1



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99% BANDWIDTH, Chain 2



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8.31.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
5.53	2.68	1.26	3.53

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
5.53	2.68	1.26	8.11

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RESULTS

Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Correlated	Uncorrelated
		26 dB	99%	Gain	Gain
		BW	BW		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)
Mid	5690	121.00	72.6877	8.11	3.53

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5690	24.00	24.00	30.00	24.00	8.89	11.00	8.89

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
							-
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	18.59	18.48	18.86	23.88	24.00	-0.12

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	0.605	0.740	1.016	6.02	8.89	-2.87

Limits (FCC), portion in 5.8 GHz UNII 3 band

	Channel	Frequency	Min	Min	Correlated	Uncorrelated
			26 dB	99%	Gain	Gain
			BW	BW		
		(MHz)	(MHz)	(MHz)	(dBi)	(dBi)
ľ	Mid	5690	51.00	2.6877	8.11	3.53

Bandwidth and Antenna Gain

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5690	24.00	15.29	21.29	15.29	8.89	11.00	8.89

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

Output Power Results

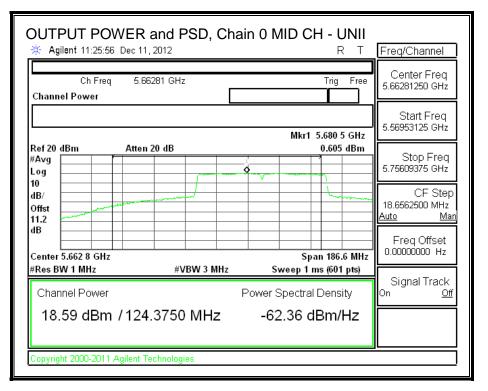
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	4.68	4.41	4.27	9.69	15.29	-5.61

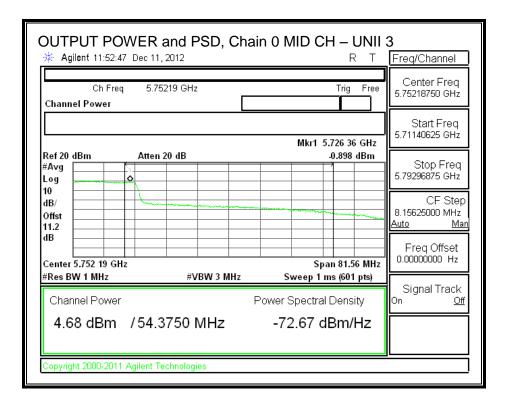
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	-0.898	-1.042	-0.835	4.31	8.890	-4.583

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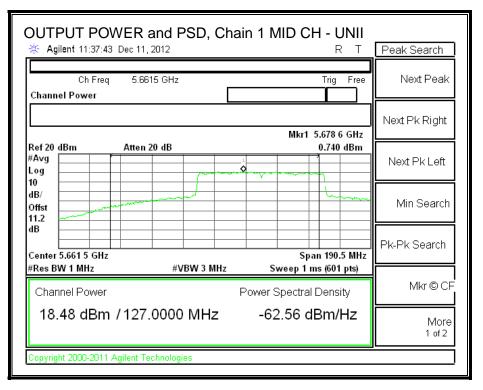
OUTPUT POWER and PSD, Cain 0

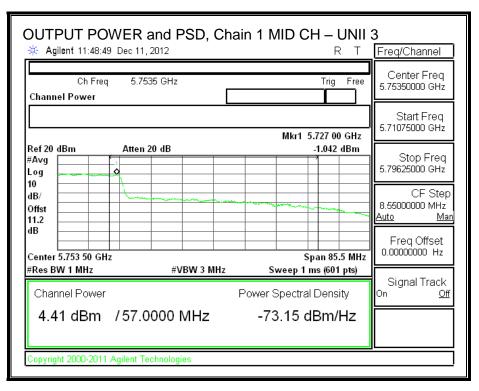




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OUTPUT POWER and PSD, Chain 1

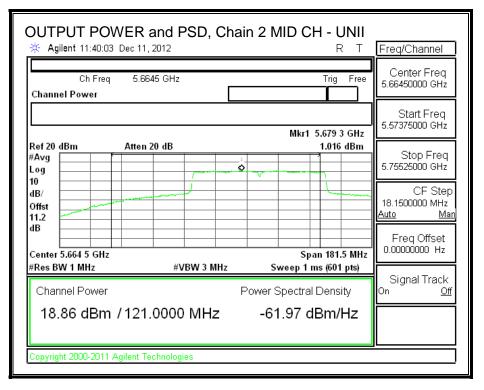




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OUTPUT POWER and PSD, Chain 2



OUTPUT POWER and PS	SD, Chain	2 MID CH	I – UNII I R T	3 Freq/Channel
Ch Freq 5.7505 GHz Channel Power			Trig Free	Center Freq 5.75050000 GHz
		Mkr1 5.7	25 64 GHz	Start Freq 5.71225000 GHz
Ref 20 dBm Atten 20 dB #Avg).835 dBm	Stop Freq 5.78875000 GHz
dB/ Offst 11.2 dB				CF Step 7.6500000 MHz <u>Auto Man</u>
Center 5.750 50 GHz	W 3 MHz	Spa Sweep 1 ms	an 76.5 MHz s (601 pts)	Freq Offset 0.00000000 Hz
Channel Power 4.27 dBm /51.0000 N	Signal Track On <u>Off</u>			
L Copyright 2000-2011 Agilent Technologie:	S][]

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8.32. 802.11n AC80 BF CH 138 3TX MODE IN THE 5.6 GHz BAND

8.32.1.26 dB BANDWIDTH- UNII

LIMITS

None; for reporting purposes only.

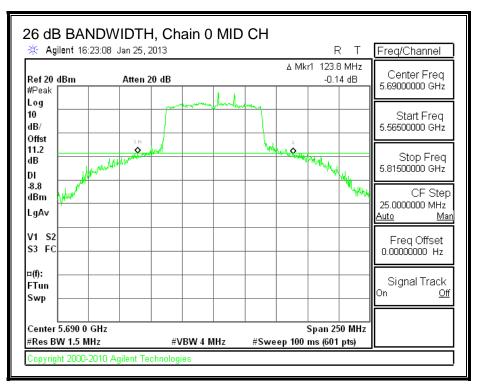
RESULTS

Channel	Channel Frequency		26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5690	123.80	131.70	120.80

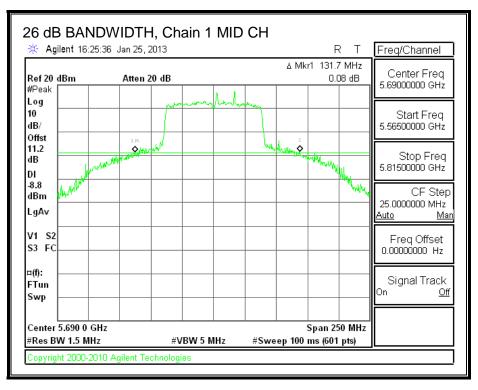
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26 dB BANDWIDTH, Chain 0



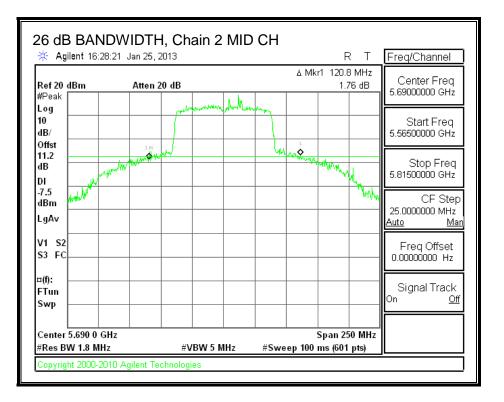
26 dB BANDWIDTH, Chain 1



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26 dB BANDWIDTH, Chain 2



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8.32.2.99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

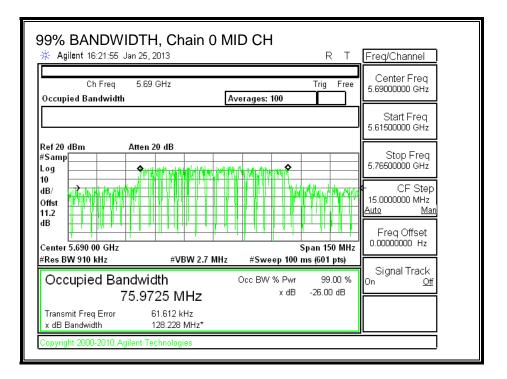
<u>RESULTS</u>

Channel	Frequency	99% BW	99% BW	99% BW	
		Chain 0	Chain 1	Chain 2	
	(MHz)	(MHz)	(MHz)	(MHz)	
Mid	5690	75.9725	76.1059	75.4394	

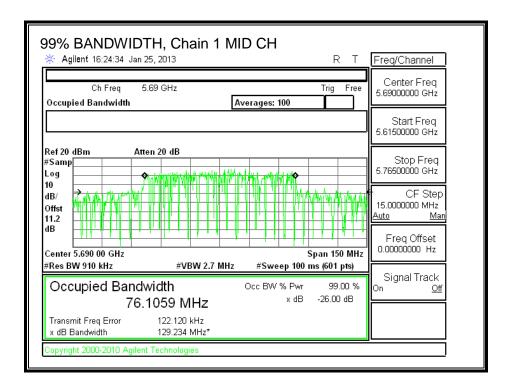
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99% BANDWIDTH, Chain 0

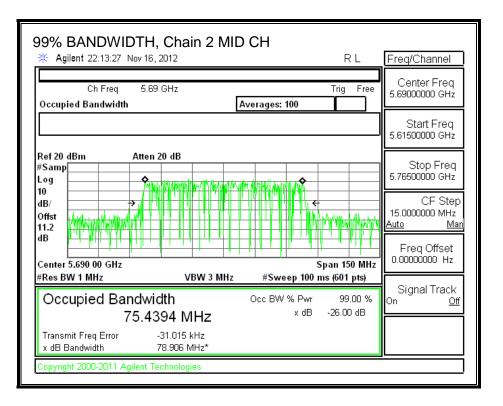


99% BANDWIDTH, Chain 1



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99% BANDWIDTH, Chain 2



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8.32.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
5.53	2.68	1.26	8.11

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RESULTS

Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

Channel	Frequency	Min	Min	Correlated	
		26 dB	99%	Gain	
		BW	BW		
	(MHz)	(MHz)	(MHz)	(dBi)	
Mid	5690	65.4	42.9863	8.11	

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5690	24.00	24.00	30.00	21.89	8.89	11.00	8.89

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	16.49	16.69	16.57	21.82	21.89	-0.07

PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							_
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	-1.441	-0.893	-0.903	4.160	8.89	-4.730

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Limits (FCC), portion in 5.8 GHz UNII 3 band

С	hannel	Frequency	Min	Min	Correlated	
			26 dB	99%	Gain	
			BW	BW		
		(MHz)	(MHz)	(MHz)	(dBi)	
	Mid	5690	55.4	32.9863	8.11	

Bandwidth and Antenna Gain

Limits

Channel	Frequency	FCC	IC	IC	Power	FCC	IC	PPSD
		Power	Power	EIRP	Limit	PPSD	PSD	Limit
		Limit	Limit	Limit		Limit	Limit	
	(MHz)	(dBm)						
Mid	5690	24.00	24.00	30.00	21.89	8.89	11.00	8.89

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

Output Power Results

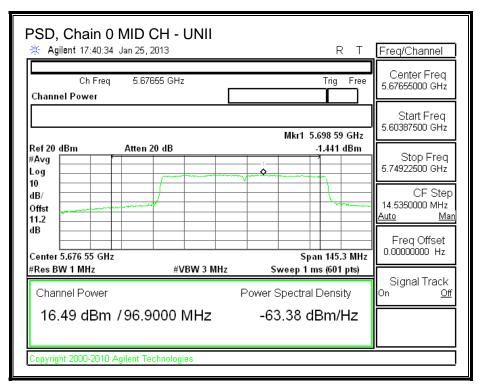
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)

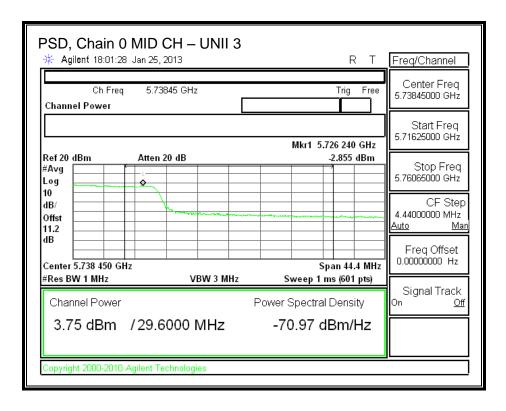
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
							-
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5690	-2.855	-2.173	-2.548	2.71	8.89	-6.18

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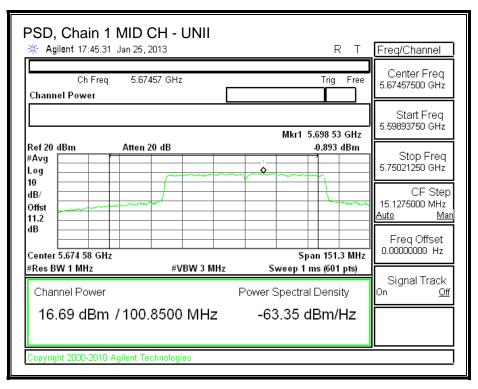
PSD, Cain 0

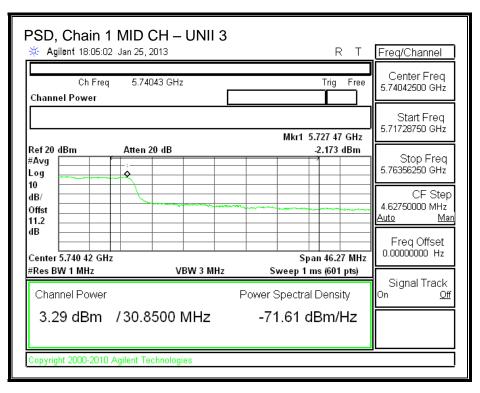




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PSD, Chain 1

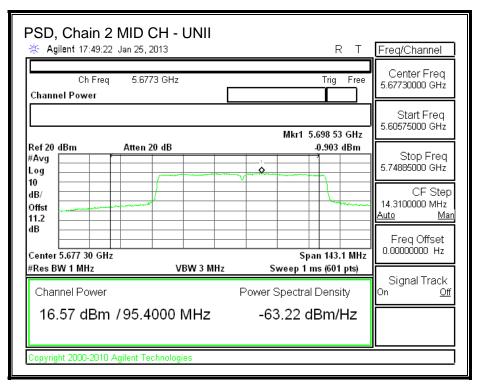




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PSD, Chain 2



	Chain 2		H – UNII 3 ¹¹³	3		RТ	Freq/Channel
Channe	Ch Freq el Power	5.7377	′ GHz			Trig Free	Center Freq 5.73770000 GHz
				LN	lkr1 5.720	905 0 GHz	Start Freq 5.71865000 GHz
Ref20 o #A∨g Log	lBm	Atten 20	dB			-2.548 dBm	Stop Freq 5.75675000 GHz
10 dB/ Offst 11.2					****		CF Step 3.81000000 MHz <u>Auto Man</u>
	5.737 700 0 (N 1 MHz	GHz	VBW 3 MHz		•	oan 38.1 MHz ns (601 pts)	Freq Offset 0.00000000 Hz
Chan	nel Power			Power	Spectral	Density	Signal Track ^{On <u>Off</u>}
2.9	3 dBm	/25.40	00 MHz	-7	1.12 d	Bm/Hz	
Copyrigh	nt 2000-2010	Agilent Tech	nologies				

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9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

<u>LIMITS</u>

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 1 MHz for peak measurements and as applicable for average measurements.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

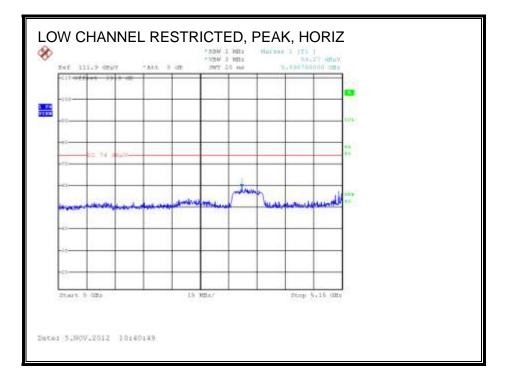
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

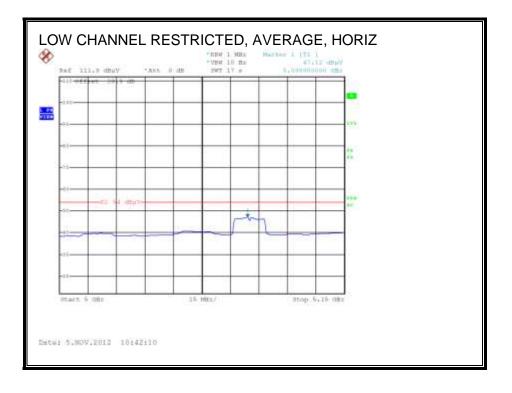
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9.2. TRANSMITTER ABOVE 1 GHz

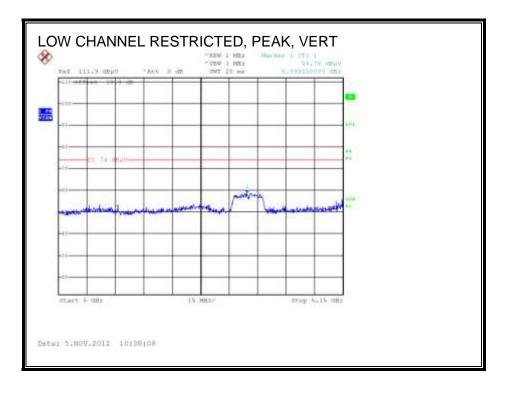
9.2.1. TX ABOVE 1 GHz 802.11a Legacy 1TX MODE, 5.2 GHz BAND

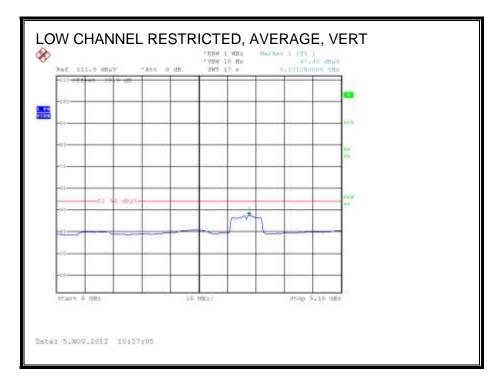
RESTRICTED BANDEDGE (LOW CHANNEL)





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HARMONICS AND SPURIOUS EMISSIONS

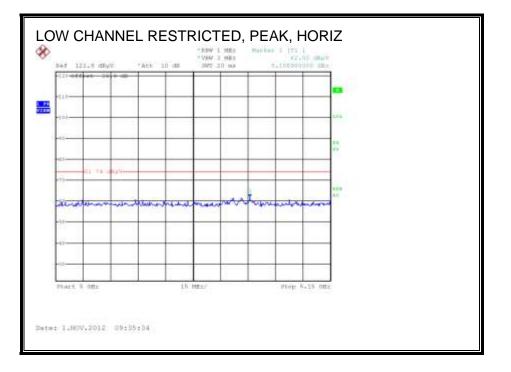
Covered by testing HT20 CDD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

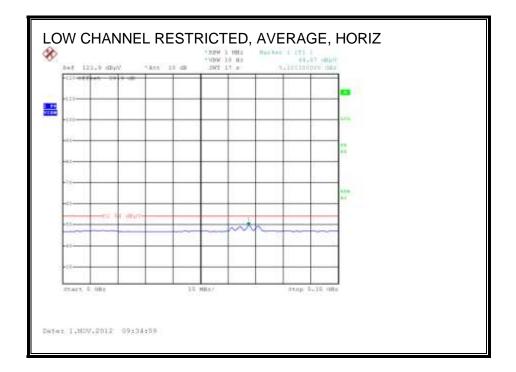
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9.2.2. TX ABOVE 1 GHz 802.11n HT20 CDD 3TX MODE, 5.2 GHz BAND

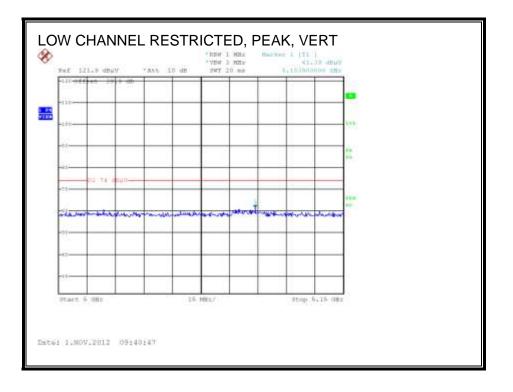
RESTRICTED BANDEDGE (LOW CHANNEL)

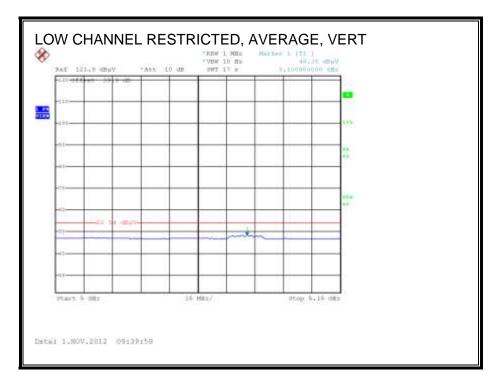




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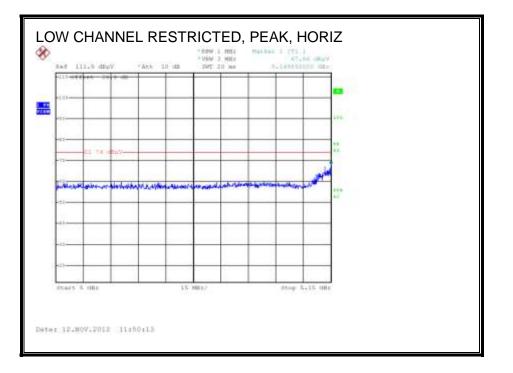
HARMONICS AND SPURIOUS EMISSIONS

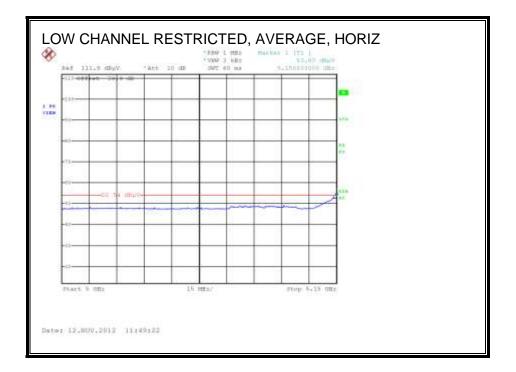
Complia Company Project / Date: Cest Eny Configur Jode:	y: ¥: gineer:		Services, Fr Broadcom 12/014669 12/5/2012 M. Mekunia D EUT, Adapter 11n HT20 3TX	anny Vu Board, A											
est Eq	ulpmen	<u>t:</u>													
He	orn 1-	18GHz	Pre-ar	nplifer	1-260	GHz	Pre-am	plifer	26-40GH	z	Н	orn > 180	Hz		Limit
T60; S	/N: 223	8 @3m	• T34 HF	P 8449B		-	T88 Mit	eq 26-	40GHz	• T39	: ARA 18-264	GHz; S/N:10	13	-	FCC 15.205 -
		2807700	-	able 2 ble 228		500	20° cab		2807500		HPF	_	oject Filte 001	RBV Average	Measurements W=VBW=1MHz ge Measurements IMHz ; VBW=10Hz
f	Dist		Read Avg.	100000	CL	Ашр	D Corr		Peak	Avg	Pk Lins		10000000000000	Avg Mar	Notes
GHz ow Char	(m)	dBuV m MHz)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB	(V/H)
5.540 5.540	3.0 3.0	44.5 43.3	33.9 32.6	39.1 39.1	13.0 13.0	-31.9 -31.9	0.0 0.0	0.0 0.0	64.6 63.4	53.9 52.7	74 74	54 54	-9,4 -10.6	-0,1 -1.3	H, q90 V, q90
fid Chan	nel (520	0 MHz)						-		-		-			
5.600	3.0	43.5	33.3 33.9	38.8 38.8	13.0 13.0	-31.9	0.0	0.0	63.4 19.9	53.3 53.8	74	54 54	-10.6	-0.7	H, 985 V, 986
					_							1			1.00
ligh Chai 5.720	3.0	37.2	15.8	38.4	13.1	-31.9	0.0	0.0	56.8	45.4	74	54	-17.2	-8.6	H, 988
5,720	3.0	37.9	26.5	38.4	13.1	-51.9	0.0	0.0	\$7,5	46.1	74	54	-16.5	.7.9	V, 988
ev. 11.10	f Dist Read	Distance to Analyzer R	eading	Y		Avg	Average	Corre Field 1	ct to 3 mete Strength @	3 m		Pk Lim Avg Mar	Peak Field Margin vs	field Strength d Strength Li Average Li	mit mit
	AF CL	Antenna Fa Cable Loss				Peak HPF	Calculate High Pas		k Field Stre	ngth		Pk Mar	Margin vs	. Peak Limit	li

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9.2.3. TX ABOVE 1 GHz 802.11n HT40 1TX MODE, 5.2 GHz BAND

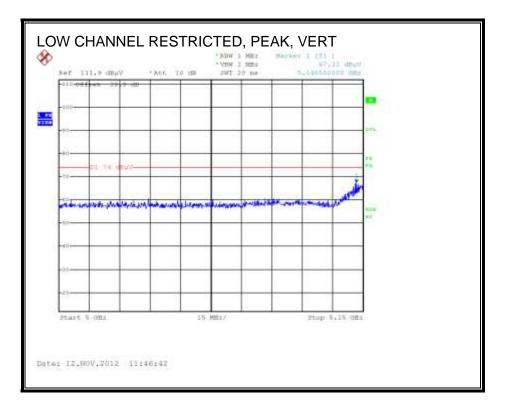
RESTRICTED BANDEDGE (LOW CHANNEL)

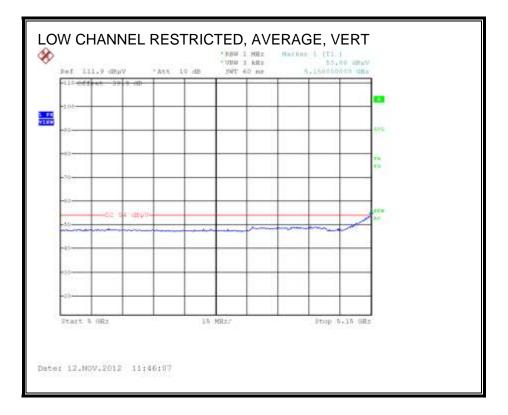




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HARMONICS AND SPURIOUS EMISSIONS

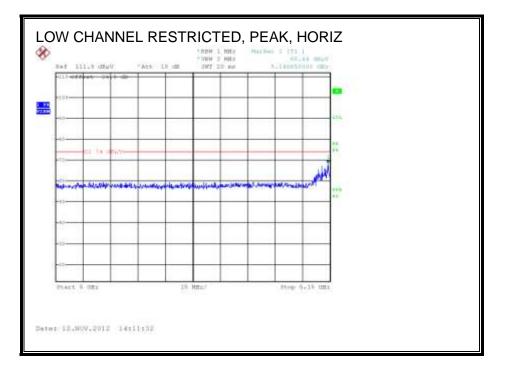
Covered by testing 11n HT40 CCD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

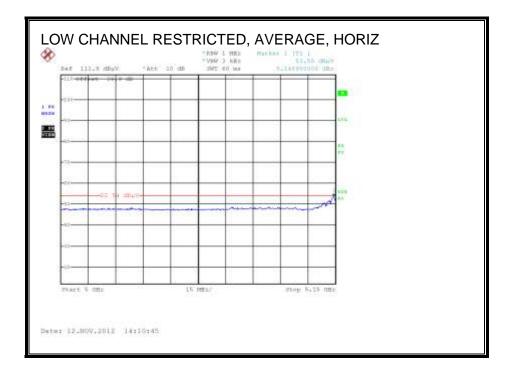
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9.2.4. TX ABOVE 1 GHz 802.11n HT40 CDD 3TX MODE, 5.2 GHz BAND

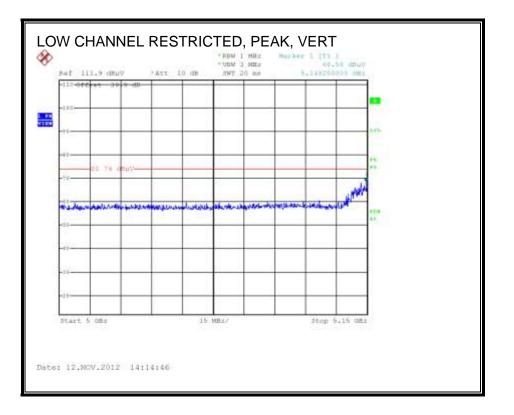
RESTRICTED BANDEDGE (LOW CHANNEL)

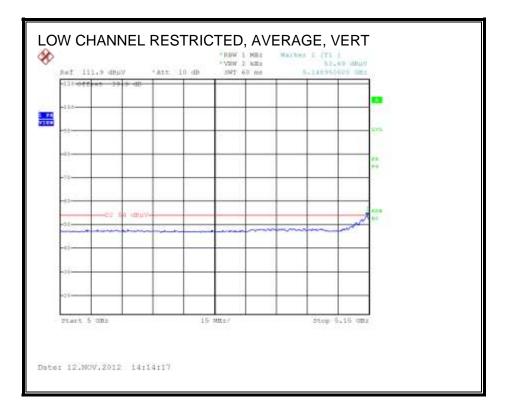




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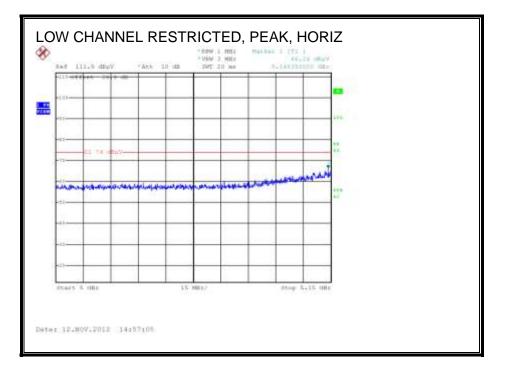
HARMONICS AND SPURIOUS EMISSIONS

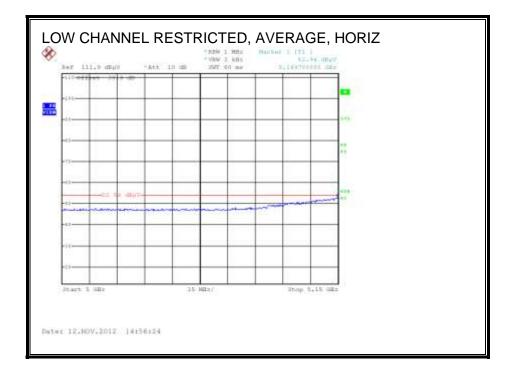
Horn 1-18GH; 173; SIN: 6717 @3m H Prequency Cables 3' cable 228077		r Board, A	1-260	1	Pre-am	plifer							
T73; S/N: 6717 @3m H Prequency Cables 3' cable 228077			-	GHz	Pre-am	nlifar		<u>r</u>					
T73; S/N: 6717 @3m H Prequency Cables 3' cable 228077	- 10 Mar		-	SPIZ	Pre-am		26 40CU		110	rn > 18G	104		Limit
H Prequency Cables				31 -	T88 Min	-			ARA 18-260		0.00		FCC 15.205
3' cable 228077			- arrow			ed roa		• 1.39		107/07/07/2	30) 	-	
	12'	cable 2	28076	00	20' cal	ble 22	807500		HPF	Re	ject Filter		Measurements
3' cable 22807700	• 12 0	able 228	07600	•	20° cab	le 2280	•	HP	F_7.6GHz	•			ge Measurement MHz ; VBW=1.1k
f Dist Read GHz (m) dBu	Pk Read Avg V dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
ow Channel (\$190.0 MHz 5.570 3.0 48.		38.9	12.2	-34,0	0.0	0.7	65.9	53.9	74	54	-5.1	-0.1	H, q81
5.570 3.0 46.	5 34.3	38.9	12.2	-34.0	0.0	0.7	64.4	52.2	74	54	-9.6	-1.8	V, qSI
High Channel (\$230 MHz) 5.690 3.0 49.		38.5	12.3	-34.0	0.0	0.7	66.9	53.2	74	54	-7.1	-0.8	H, q83
5.690 3.0 47.		38.5	12.3	-34.0	0.0	0.7	65.0	53.1	74	54	-9,0	-2.9	V, q83
Dist Distan Read Analyz	ua Factor		Amp D Corr Avg Peak HPF	Average	Corre Field S d Peal	ct to 3 mete Strength @ k Field Stre	3 m		Pk Lim Avg Mar	Peak Field	eld Strength Strength Lis Average Lis Peak Limit	mit	

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9.2.5. TX ABOVE 1 GHz 802.11n AC80 1TX MODE, 5.2 GHz BAND

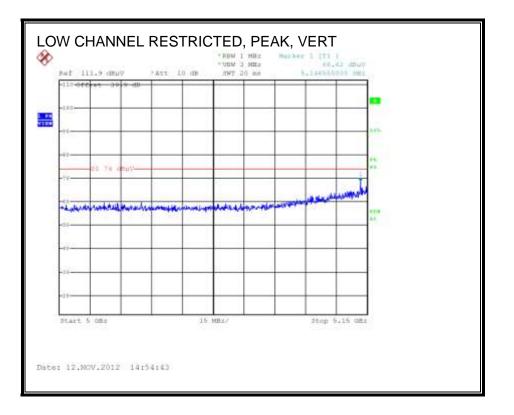
RESTRICTED BANDEDGE (LOW CHANNEL)

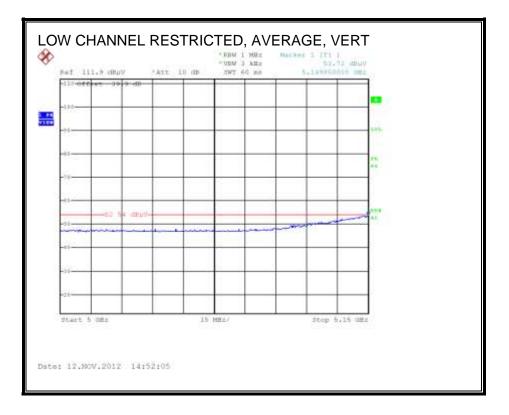




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HARMONICS AND SPURIOUS EMISSIONS

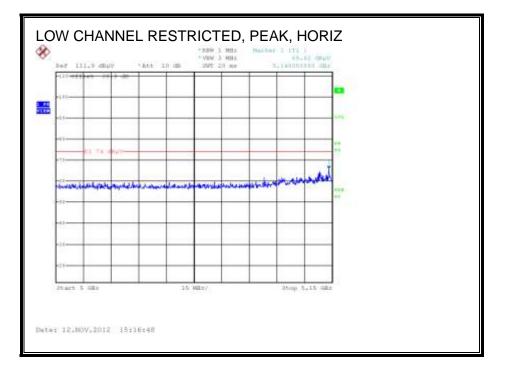
Covered by testing 11n AC80 CCD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

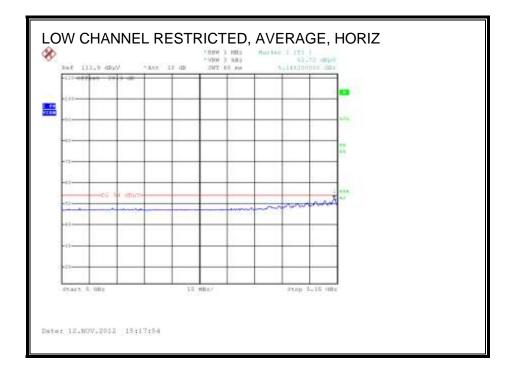
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9.2.6. TX ABOVE 1 GHz 802.11n AC80 CDD 3Tx MODE, 5.2 GHz BAND

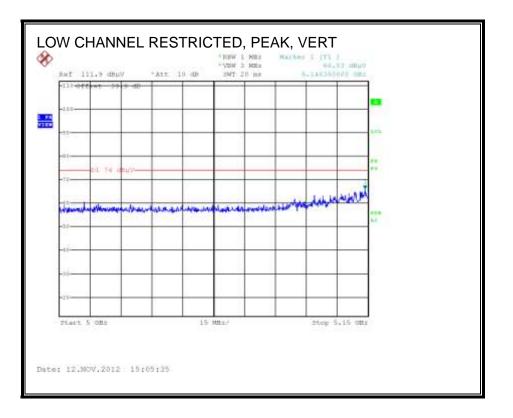
RESTRICTED BANDEDGE (LOW CHANNEL)

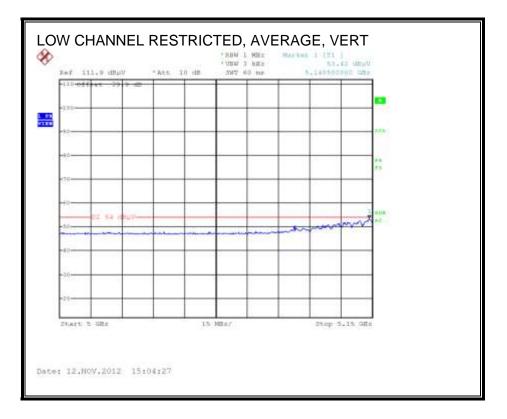




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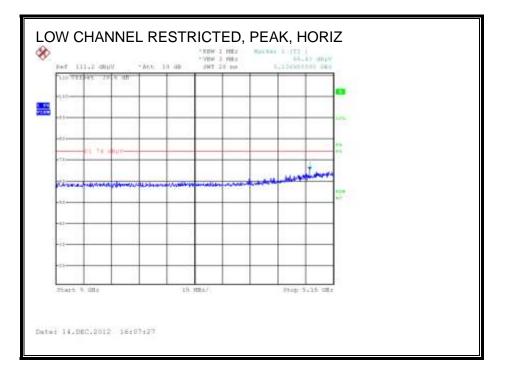
HARMONICS AND SPURIOUS EMISSIONS

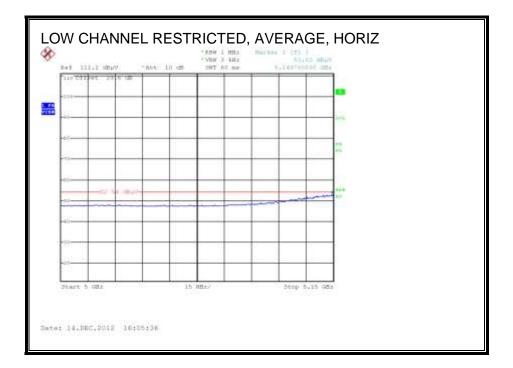
est Engineer: M. Melunia onfiguration: EUT, Adapter Board, Antenna ode: 11a HT00 3TX mode est Equipment: Pre-amplifer 1-26GHz Pre-amplifer 26-40GHz Horn > 18GHz Limit T73; S/N: 6717 @3m T144 Mineq 3008A00931 T88 Mineq 26.40GHz T39: ARA 18-26GHz; S/N: 1013 European European 3' cable 22807700 12' cable 22807600 20' cable 22807500 HPF_7 & GHz Reject Filter Peak Measurements RBW1MHz; BW=3MHz f Dist Read Pk Read Avg. AF CL Amp D Corr Ftr Peak Avg Pk Lim Avg Lim Pk Mar Avg Mar Notes 630 3.0 47.3 36.0 36.7 12.2 34.0 0.0 0.7 65.0 53.7 74 54 9.0 0.3 H, q85 630 3.0 43.7 31.9 38.7 12.2 34.0 0.0 0.7 65.0 53.7 74 54 9.0 0.3 H, q85	voject #: 12U14669 te: 128-2012 set Engineent: Horn 1-18GHz T73; SN: 6717 @3m * T144 Miteq 3008A00931 T44 Miteq 3008A00931 T44 Miteq 3008A00931 T48 Miteq 26-40GHz T73; SN: 6717 @3m * T144 Miteq 3008A00931 T48 Miteq 26-40GHz T73; SN: 6717 @3m * T144 Miteq 3008A00931 T48 Miteq 26-40GHz T73; SN: 6717 @3m * T144 Miteq 3008A00931 T2 cable 22807600 T2 cable 22807500 T2 cable 22807600 T2 cable 32807600 T2 cable 32807760 T2 cable 32807600 T2 cable 32	voject #: 12U14669 te: 128-2012 set Engineer: Mokunia anfiguration: EUT, Adapter Board, Antenna ode: 11a HT39 3TX node test Equipment: Horn 1-18GHz IIa HT39 3TX node test Equipment: Horn 1-18GHz IIa HT39 3TX node test Equipment: 13' cable 22807700 12' cable 22807600 20' cable 22807500 20	voject #: 12U14699 te: 12+2012 set Engineer: Moduli anfiguration: EUT, Adapter Board, Antenna ode: 11aHT30 3TX node est Equipment: Horn 1-18GHz T73; SN: 6717 @3m T144 Miteq 3008A00931 T144 Miteq 3008A00931 T144 Miteq 3008A00931 T144 Miteq 3008A00931 T88 Miteq 26-40GHz 3' cable 22807700 12' cable 22807600 20' cable 22807500 12' cable 22807600 12' cable 22807500 12' cable 22807500 14' C	ompli			Measurem Services, Fr		5m Ch	amber-	A																
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9.2.7. TX ABOVE 1 GHz 802.11n AC80 BF 3Tx MODE, 5.2 GHz BAND

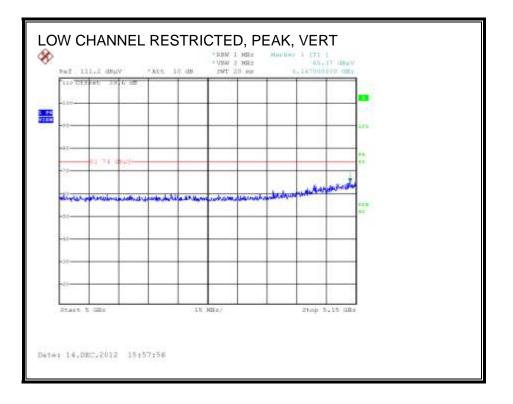
RESTRICTED BANDEDGE (LOW CHANNEL)

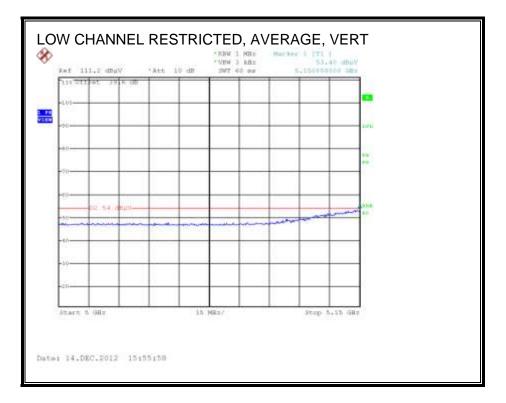




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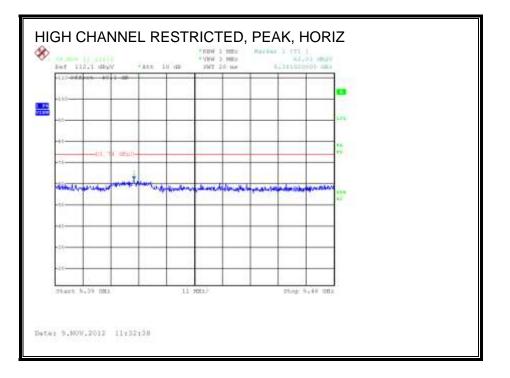
Page 455 of 553

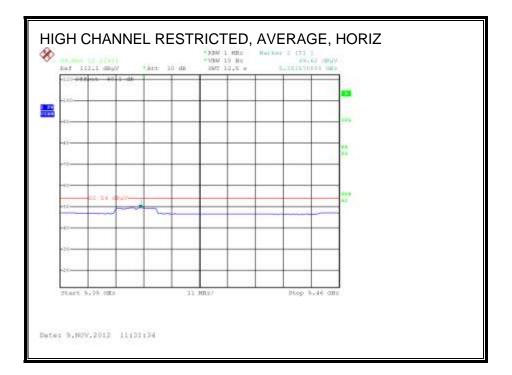
Compary: Breadree Project #: 1213-030 Fort Engineer: MAkins Configuration: EUT, Adapter Bound, Antenna Node: Itel H200 BP JTX mode Horn 1-18GHz Pre-amplifer 1-26GHz Pre-amplifer 26-40GHz Horn > 18GHz Limit T3: Site 6717 @2m T144 Mineg 3000A00931 Pre-amplifer 26-40GHz T39: ARA 18-26GHz; SR-1013 Peak Measurements Stable 22807700 12' cable 22807600 20' cable 22807500 20' cable 22807500 Peak Measurements RBWILMEr, BW-3MEr, Average Measurements GHz (m) dBa V dBa dB BeaV Max avg Mar Notes CHable 22807700 12' cable 22807600 22' cable 22807500 22' cable 22807500 Peak Masurements Reject Filter Peak Measurements CHable 300 Add Ba V B dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB dB <t< th=""><th></th><th>ance Ce</th><th>rtification !</th><th>Measurem Services, Fr</th><th></th><th>5m Ch</th><th>amber-</th><th>A</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>		ance Ce	rtification !	Measurem Services, Fr		5m Ch	amber-	A									
Note: 1213/2012 Test Engineer: M. Makanis Configuration: ELT, Adopter Board, Anternas Jode: Ile HT39 BF 3TX mode Test Equipment: Pre-amplifer 1-26GHz Pre-amplifer 26-40GHz Horn > 18GHz Linit T73: SN: 65717 @3m Pre-amplifer 1-26GHz Pre-amplifer 26-40GHz Horn > 18GHz Pre-structure 3' cable 22807700 12' cable 22807600 20' cable 22807500 Pre-structure Pre-amplifer 26-40GHz Reject Filter Peak Measurements G Dist Read Avg AF CL Amp D Corr Fltr Peak Avg Mar Avg Mar Notes GHz Old BaV dBa dB dB <thddb< th=""> dB dB d</thddb<>																	
Line Higher Hourd, Antenna Ind HT303 BF 3TX mode Pre-amplifer 1-26 GHz Pre-amplifer 26-40 GHz Horn > 18 GHz Linit T73; S/R: 6717 @3m Pre-amplifer 1-26 GHz Pre-amplifer 26-40 GHz T39; ARA 18-26 GHz; S/R:1013 Image: Comparison of the two states of the two states of two s	Date:			the second second													
Mode: IIIn HT39 BF 3TX mode Sett Equipment: Pre-amplifer 1-26 GHz Pre-amplifer 26-40 GHz Horn > 18 GHz Limit T73; S/N: 5/17 @3m T144 Miteq 3008A00931 T88 Miteq 26-40 GHz T39; ARA 18-26 GHz; S/N:1013 ECC 15-205 3' cable 22807700 12' cable 22807600 20' cable 22807500 D' cable 22807500 Pre-amplifer 26-40 GHz T39; ARA 18-26 GHz; S/N:1013 Peak Measurements RBW:1MHz, BW=3MHz 3' cable 22807700 12' cable 22807600 20' cable 22807500 Pre-amplifer 26-40 GHz T39; ARA 18-26 GHz State 18-20 GHz FCC 15-205 FCC 15-205 FCC 15-205 FCC 15-205 FCC 15-205 FCC 15-205 Pre-amplifer 26-40 GHz FCC 15-205 FCC																	
Horn 1-18GHz Pre-amplifer 1-26GHz Pre-amplifer 26-40GHz Horn > 18GHz Limit T73; S/N: 6717 @3m T144 Miteg 3008A00931 T88 Miteg 26-40GHz T39; ARA 18-26GHz; S/R-1013 FCC 15.205 *** *** T2* cable 22807700 12* cable 22807600 20* cable 22807500 **** ***** ****** ************************************		ration:															
Trist Srit: 6717 @Jm Ti44 Miteq 3008A00931 Ti86 Miteq 26.40GHz Ti9; ARA 18.26GHz; S/8-1013 FCC 15.205 Tig rable 22807700 12' cable 22807600 20' cable 22807500 Tig rable 22807500 3' cable 22807700 Ti2' cable 22807600 20' cable 22807500 3' cable 22807700 Ti2' cable 22807600 20' cable 22807500 3' cable 22807700 Ti2' cable 22807600 Peak Measurements A provide 22807600 20' cable 22807500 3' cable 22807700 Peak Measurements 12' cable 22807600 Peak Masurements 20' cable 22807500 Peak Measurements Average Measurements Cable 22807700 Peak Measurements Average Masurements Cable 22807600 Peak Masurements Average Masurements Cable 22807500 Peak Masurements Arg Masurements Peak Masurements Cable 22807500	lest Eq	ulpmen	E.														
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f Measurement Frequency Amp Preamp Gain Avg Lin Avg Lin Average Field Strength Limit f Measurement Frequency Amp Preamp Gain Avg Lin Average Field Strength Limit AF Antenna Factor Peak Caluated Peak Field Strength Pk Margin vs. Peak Limit		100000000	Contraction of the Contract		Contraction of the			and the second second							the state of the s		
15.630 3.0 48.1 35.1 38.7 12.2 34.0 0.0 0.7 65.8 52.7 74 54 -8.2 -1.3 H, q89 15.630 3.0 45.3 33.2 38.7 12.2 -34.0 0.0 0.7 63.0 50.9 74 54 -8.2 -1.3 H, q89 15.630 3.0 45.3 33.2 38.7 12.2 -34.0 0.0 0.7 63.0 50.9 74 54 -11.0 -3.1 V, q89 tev. 11.10.11 Arge presents prequency Amp Preamp Gain Avg Lim Avg Lim Avgrage Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Pk Lim Peak Field Strength Limit AF Analyzer Reading Avg Avg Avg Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Pk Mar Margin vs. Peak Limit	- Andrewson and the second			dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBa	iV/m	dBuV/m	dBuV/m	dB	dB	(V/H)
15.630 3.0 45.3 33.2 38.7 12.2 -34.0 0.0 0.7 63.0 50.9 74 54 -11.0 -3.1 V.q89 tev: 11.10.11				35.1	38.7	12.2	-34.0	0.0	0.7	65.8	5	2.7	74	54	-8.2	-13	H. 689
f Measurement Frequency Amp Preamp Gain Avg Lin Average Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Pk Lim Peak Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m Avg Mar Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Pk Mar Margin vs. Peak Limit										63.0	5	0.9					
		Dist Read	Distance to Analyzer R	Antenna eading	<i></i>		D Corr Avg	Distance Average	Corre Field S	strength @	3 m			Pk Lim Avg Mar	Peak Field Margin vs	d Strength Li . Average Li	mit
											ugui			PK Juar	Stargin vs.	Peak Link	

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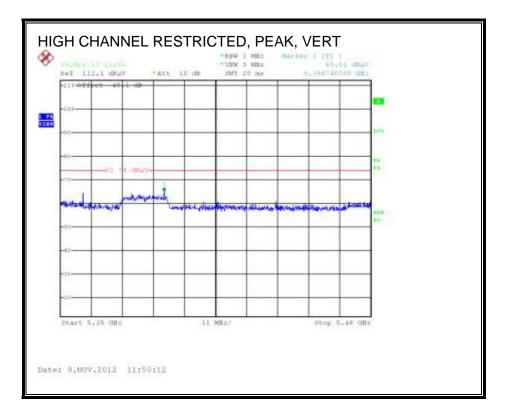
9.2.8. TX ABOVE 1 GHz 802.11a 1TX MODE, 5.3 GHz BAND

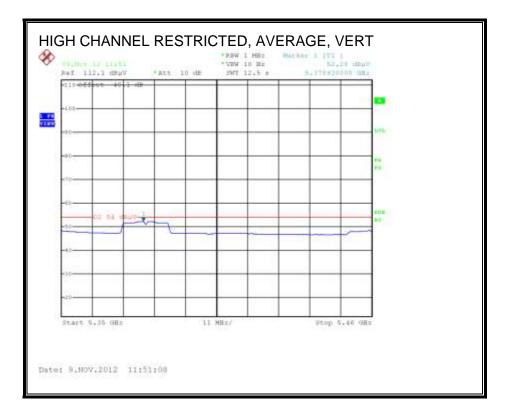
RESTRICTED BANDEDGE (HIGH CHANNEL, 5300 MHz)





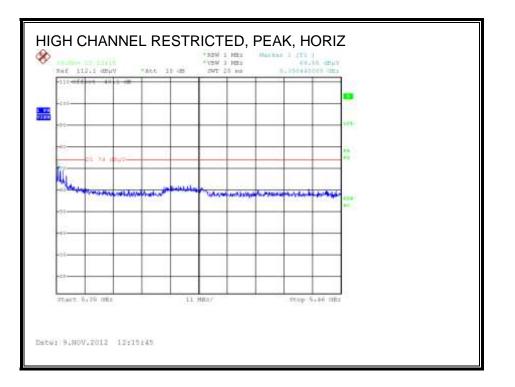
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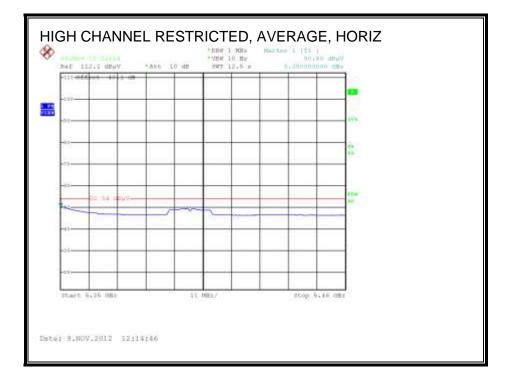




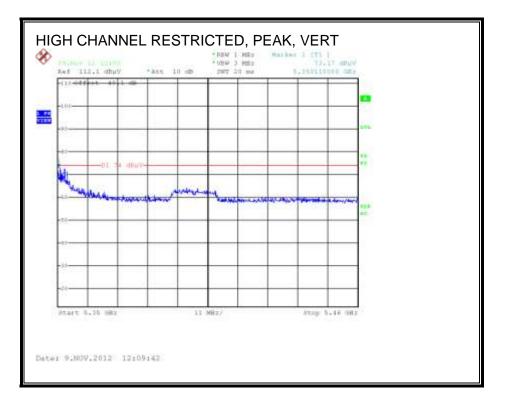
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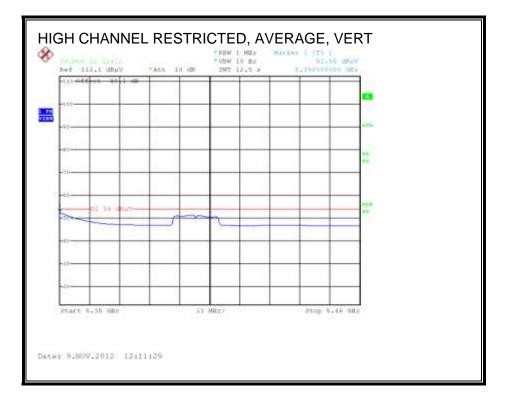
RESTRICTED BANDEDGE (HIGH CHANNEL, 5320 MHz)





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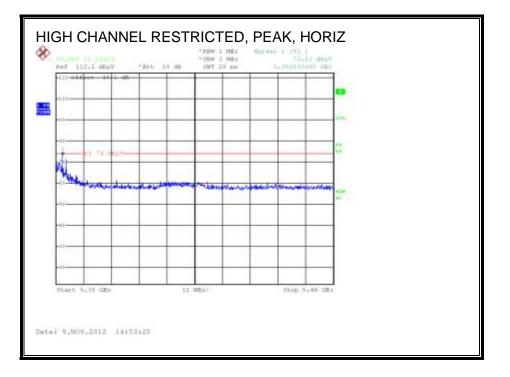
Covered by testing 11n HT20 CCD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

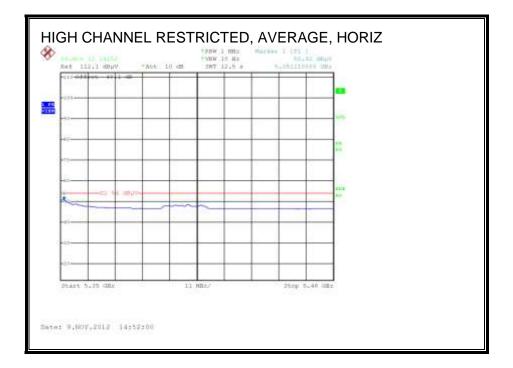
UL CCS FORM NO: CCSUP4701H 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL CCS.

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9.2.9. TX ABOVE 1 GHz 802.11n HT20 CDD 3TX MODE, 5.3 GHz BAND

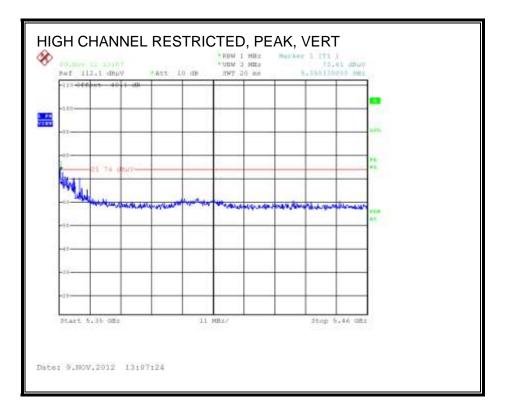
RESTRICTED BANDEDGE (HIGH CHANNEL)

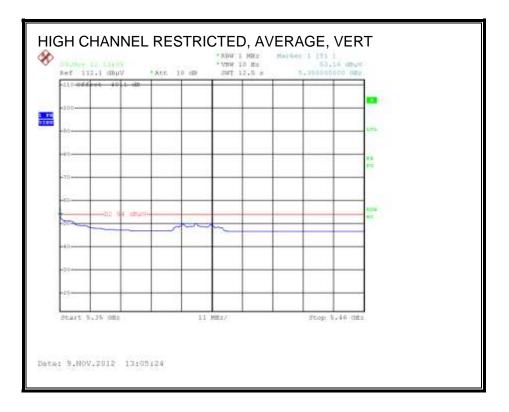




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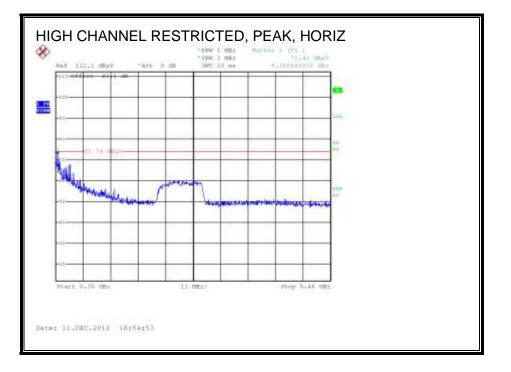
Compan Project (Date: Test En Configu Mode:	v: gineer:		licoadcom 12U14669 12:5/2912 M. Mekuria D EUT, Adapter 11m HT20 3T2	Bourd, /											
lest Eq	ulpmen	6	-			1				T.				10	
		18GHz	Part and a	mplifer	0.2223	GHz		10.1	26-40GH		1977	rn > 180			Limit
T60; 5	IN: 223	1 @Jm	• T34 H	P 8449B		•	T88 Mit	eg 26-	40GHz	• 139	ARA 18.260	Hz; S/N:10	13	-	FCC 15.205
3. 0	able 228	2807700		able 2		500	20° cab		2807500 ⁰⁷⁵⁰⁰		HPF	_	iject Filtr 001	RB'	Measurements W=VBW=1MHz ge Measurements 1MHz ; VBW=10Hz
ſ	Dist	Read Pk			CL	Ашр	D Corr	Fltr	Peak	Avg	Pk Lim		Pk Mar	Avg Mar	Notes
GH2	(m)	dBuV	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBaV/m	dBuV/m	dBuV/m	dB	dB	(V/H)
5,780	3.0	44.3	33.6	38.2	13.1	-31.9	0.0	0.0	63.7	\$3.0	74	54	-10.3	-1.0	н
5.780	3.0	43.0	32,2	38.2	13,1	-31.9	0.0	0.0	62.4	51.6	74	54	-11.6	-2.4	v
fid Chan	nel (530	MHz)					-								
0.600	3.0	48.6	35.6	38.4	9.9	-34.0	0.0	0.0	62.9	49.8	74	54	-11.1	-4.2	H
5,900	3.0	46.4	34.8	37.8	13.2	-31.8	0.0	0.0	65.5	53.9	74	54	8.5	-0.1	H
0.600	3.0	47.3 48.6	35.7	38.4	9.9	-34.0 -34.0	0.0	0.0	61.6	50.0 50.4	74	54 54	-12.4	-4.0	v v
5.900	3.0	42.7	33.6	37.8	13.2	31.8	0.0	0,0	61.8	\$2.7	74	54	12.2	-1.3	v
Rev. 11.10	f Dist Read AF	Measureme Distance to Analyzer Re Antenna Fa Cable Loss	Antenna ading ctor	y.		Amp D Corr Avg Peak HPF	Average	Corre Field S of Peal	ct to 3 met Strength @ k Field Stre	3 m		Pk Lim Avg Mar	Peak Fiel Margin vi	Field Strengti d Strength Li 1. Average Li 2. Peak Limit	mit mit

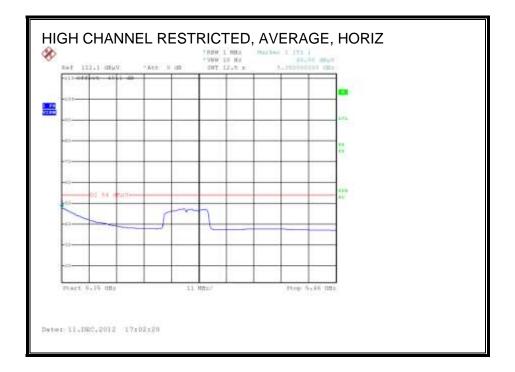
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Project #: 1 Date: 1 Test Engineer: 1 Configuration: 1 Mode: 1 Test Equipment: 1 Horn 1-18GHz 1 T73; S/N: 6717 @3m 1 Horn 1-18GHz 1 3' cable 22807700 1 3' cable 22807700 1 GHz (m) dBuV High Channel (5320.0 MHz) 10.640 3.0 15.960 3.0 46.1 15.960 3.0 44.5	Ereadcom 12014669 127/2012 D. Garcia Danny EUT, Adapter B Uin HT20 3TX c Pre-am T144 Mi 12' ca 12' cab Read Avg.	y Vu Board, A wode	1-260 08A009 28076	GHz 931 -	Pre-am		26-40GH		Ho : ARA 18-260	rn > 180 iHz; S/N:10	51071		Limit FCC 15.205
Project #: 1 Date: 1 Date: 1 Test Engineer: 1 Interview 1 Test Equipment: 1 Horn 1-18GHz 1 T73; S/N: 6717 @3m 1 Is PrequencyCoble 3' cable 22807700 3' cable 22807700 1 GHz (m) dBuV High Channel (5320, 0 MHr) 10.640 3.0 44.5	12U14669 12/1/2012 D. Garcia Danny EUT, Adapter B Lin HT20 3TX e T144 Mi 12' ca 12' cab	Sound, A mode uplifer iteq 300 able 25	1-260 08A009 28076	GHz 931 -	T88 Min				37,022		51071		
Date: I Cest Engineer: I Configuration: E Mode: I Internet: Horn 1-18GHz T73; S/N: 6717 @3m T8 frequency Cobles 3' cable 22807700 3' cable 22807700 GHz (m) GHz (m) Jost 3.0 46.1 S40 3.0 44.5	12/7/2012 D. Garcia Danny EUT, Adapter B Ilin HT29 3TX (Pre-am T144 Mi 12' ca 12' cab Read Avg.	Sound, A mode uplifer iteq 300 able 25	1-260 08A009 28076	GHz 931 -	T88 Min				37,022		51071		
Configuration: E Mode: 1 Cest Equipment: 1 Horn 1-18GHz 1 T73; S/N: 6717 @3m 1 T8 Prequency Cables 3' cable 22807700 3' cable 22807700 1 f Dist Read Pix 1 GHz (m) dBuV ligb Channel (S320.0 MHz) 0.640 3.0 0.640 3.0 44.5	Pre-am T144 Mi 12' cab Read Avg.	Sound, A mode uplifer iteq 300 able 25	1-260 08A009 28076	GHz 931 -	T88 Min				37,022		51071		
Interference Image: Second system Image: Second sys	Pre-am T144 Mi 12' ca 12' cab Read Avg.	node uplifer iteq 300 able 22	1-260 08A009 28076	GHz 931 -	T88 Min				37,022		51071		
Horn 1-18GHz T73; S/N: 6717 @3m IS Prequency Cables 3' cable 22807700 3' cable 22807700 (Dist Read Pk J GHz (m) dBuV High Channel (5320.0 MHz) 0.640 3.0 46.1 5560 3.0 44.5	 T144 Mi 12' ca 12' cab Read Avg. 	iteq 300 able 21	08A005 28076	931 .	T88 Min				37,022		51071		
T73; S/N: 6717 @Jm T73; S/N: 6717 @Jm T8 Prequency Cables 3' cable 22807700 3' cable 22807700 f Dist Read Pk GHz (m) dBuV ligh Channel (S320: 0.MHz) 0.640 3.0 46.1 5560 3.0 44.5 560 3.0 44.5	 T144 Mi 12' ca 12' cab Read Avg. 	iteq 300 able 21	08A005 28076	931 .	T88 Min				37,022		51071		
IS Prequency Cobles 3' cable 22807700 3' cable 22807700 f Dist Read Pk J GRz (m) dBuV High Channel (\$320.0 MHz) 0.640 3.0 46.1 5.540 3.0 44.5	12' ca 12' cab Read Avg.	able 22	28076		ASSAULT	leq 26-	40GHz	 T39 	ARA 18-260	Hz; S/N=10	113	-	FCC 15.205
3' cable 22807700 3' cable 22807700 I Dist Read Plk GHz (m) dBuV High Channel (5320.0 MHz) 0.640 3.0 46.1 5560 3.0	, 12 cab			100	201-1								
f Dist Read Pk 3 GHz (m) dBuV High Channel (5320.0 MHz) 0.640 3.0 46.1 5.540 3.0 44.5	Read Avg.	ble 2280	07600		20 cal	ble 22	807500		HPF	R	eject Filte		Measurements W=VBW=1MHz
GHz (m) dBuV High Channel (5320.0 MHz) 0.640 3.0 46.1 15.960 3.0 44.5 3.0 3.0		_		•	20' cab	ile 2280	. 07500			• R	_001	Avera	ge Measurements 1MHz ; VBW=10Hz
10.640 3.0 46.1 15.960 3.0 44.5		AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m		Avg Mar dB	Notes (V/H)
15.960 3.0 44.5													
	38.7 37.5	38.3 37.6	9.8 12.4	-35.7	0.0	0.0	58.4 60.6	\$1.0 \$3.7	74	54 54	-15.6	-3.0	H, q83 H, q83
0.640 3.0 46.8	32.9	38.3	9.8	.35.7	0.0	0.0	59.2	45.2	74	54	-14.8	-8.8	V, 983
5.960 3.0 48.2	35.0	37.6	12.4	-33.9	0.0	0.0	64.3	51.1	74	54	.9.7	-2.9	V, 983
f Measuremen Dist Distance to / Read Analyzer Re AF Antenna Fac CL Cable Loss	sading ctor			Amp D Corr Avg Peak HPF	Average	Corres Field S ed Peal	ct to 3 mete Strength @ k Field Stre	3 m		Pk Lim	Peak Field Margin vs	ield Strength 1 Strength Li Average Li Peak Limit	mit nuit
CL CARLON	ίί.		-		1101100								

9.2.10. TX ABOVE 1 GHz 802.11n HT20 BF 3TX MODE, 5.3 GHz BAND

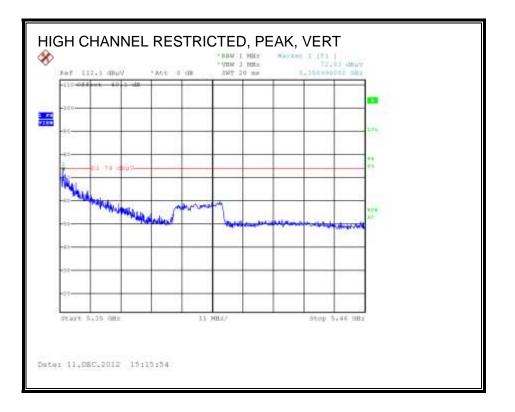
RESTRICTED BANDEDGE (HIGH CHANNEL)

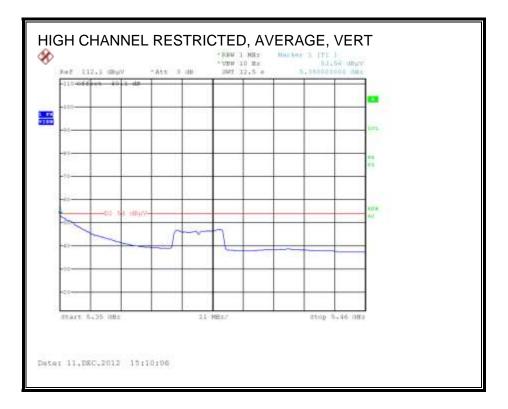




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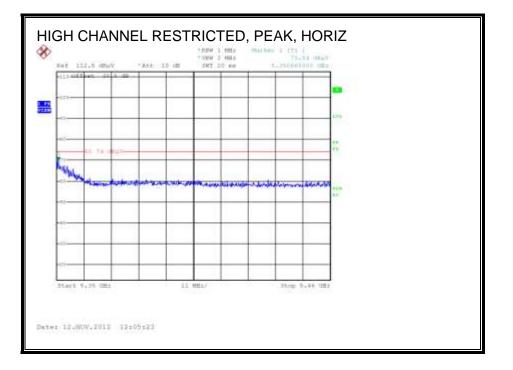
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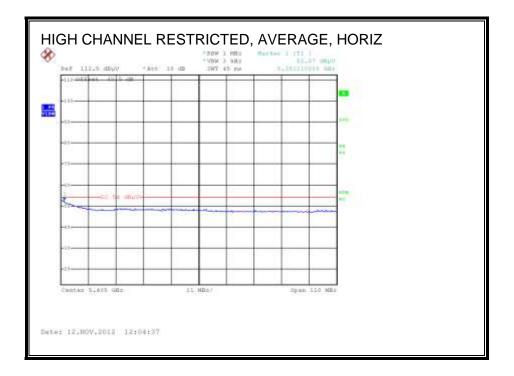
Complia		rtification 3	Services, Fr	emont	3m Ch	amber									
roject #			12U14669												
late:			12/12/2012												
est Eng			M. Mekuria	31793											
Configur Lode:	ration:		EUT, Adapter 11n HT20 BF												
est Equ	ulpmen	<u>t:</u>													
Н	om 1-	18GHz	Pre-ar	mplifer	1-26	GHz	Pre-am	plifer	26-40GH	z	н	orn > 18	GHz	1	Limit
T60; 5	/N: 2238	8 @Jm	• T34 H	P 8449B		•	T88 Mit	eq 26.	10GHz	• 13	9; ARA 18-266	iHz; S/N:	1013	-	FCC 15.205 •
	uency Cab		401-	able 2	0007		201 cal	bla 22	807500		HPF	Ť.		Peal	c Measurements
	able 228	2807700	-	able 228		00	20 cab				HPF	_	teject Filte R_001	RB Avera	W=VBW=1MHz ge Measurements
1		00000 J				2	1.000					a I.		KBW=	1MHz ; VBW=10Hz
f GH2	Dist (m)	dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/n	Pk Lim dBuV/m	Avg Li dBuV/		Avg Mar dB	Notes (V/H)
Low Chan 5.780	mel (526 3.0	0 MHz) 47.9	33.7	38.2	13.1	-31.9	0.0	0.0	67.3	53.2	74	54	-6.7	-0.8	н
5.780	3.0	42.5	32.5	38.2	13.1	-31.9	0.0	0.0	61.9	51.9	74	54	-12.1	-2.1	v
fid Chan						-		-							
0.600	3.0	51.9	39.6	38.4	9.9	-34.0	0.0	0.0	66.2	53.8	74	54	-7.8	-0.2	H
5,900	3.0	47.3	34.8	37.8	13.2	-31.8	0.0	0.0	66.4 63.3	53.9 49.6	74	54	-10.7	-0.1	H V
5.900	3.0	45.7	31.8	37,8	13.2	-31.8	0.0	0.0	64.8	50.9	74	54	-9,2	-3.1	v
ligh Char	nnel (532	0 MHz)										-	1		
0.640	3.0	52.1	38.9	38.4	10.0	-34.0	0.0	0.0	66.5	53.3	74	54	.7.5	-0.7	H
5.960	3.0	49.5	34.9 37.9	37.6	13.2	-31.8	0.0	0.0	68.4	53.8 52.3	74	54 54	-5.6	-0.2	H
5.960	3.0	46.0	331	37,6	13.2	-31.8	0.0	0.0	65.0	52.0	74	54	.9.0	.2.0	Ŷ
lev. 11.10	.11														
	f		ent Frequenc	x		Атр	Preamp (20.012		Field Strengt	
		Distance to							ct to 3 mete			Pk Lim		d Strength L	
		Analyzer R Antenna Fa				Avg Peak			strength @ c Field Stre					Average L	
						HPF	High Pas			ngth		PK Mar	Margin vi	s. Peak Limit	

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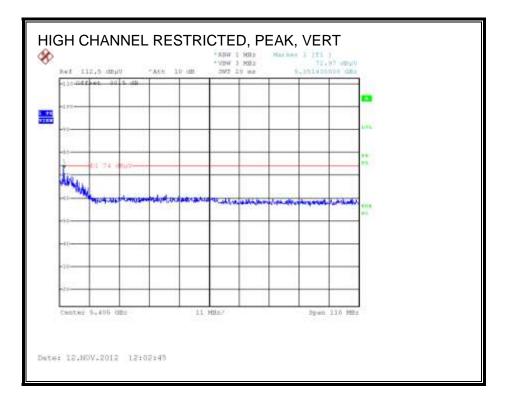
9.2.11. TX ABOVE 1 GHz 802.11n HT40 1TX MODE, 5.3 GHz BAND

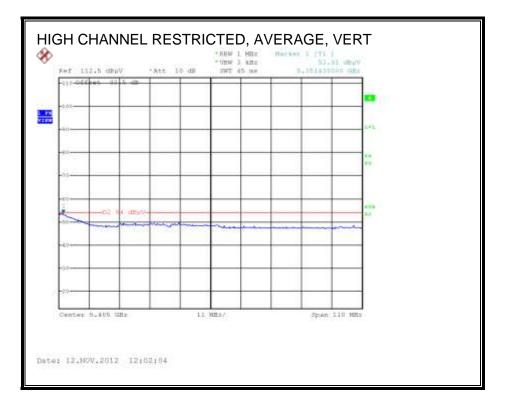
RESTRICTED BANDEDGE (HIGH CHANNEL)





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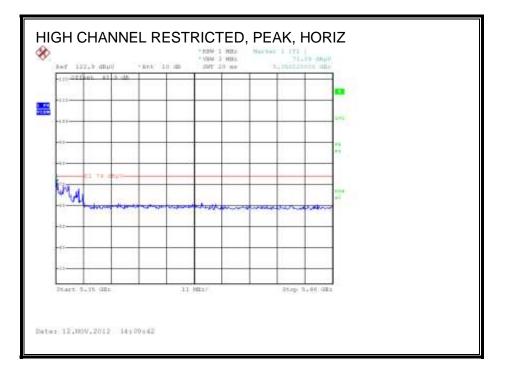
Covered by testing 11n HT40 CCD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

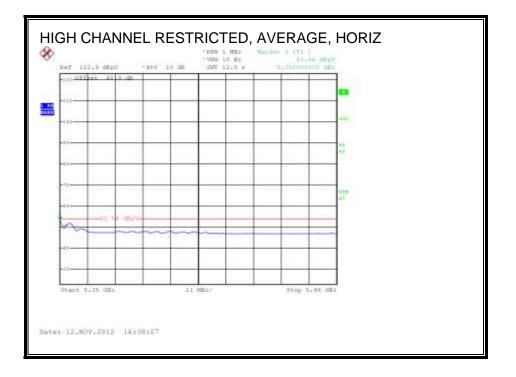
UL CCS FORM NO: CCSUP4701H 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL CCS.

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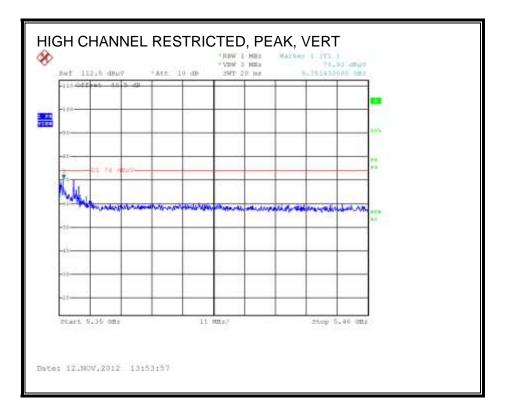
9.2.12. TX ABOVE 1 GHz 802.11n HT40 CDD 3TX MODE, 5.3 GHz BAND

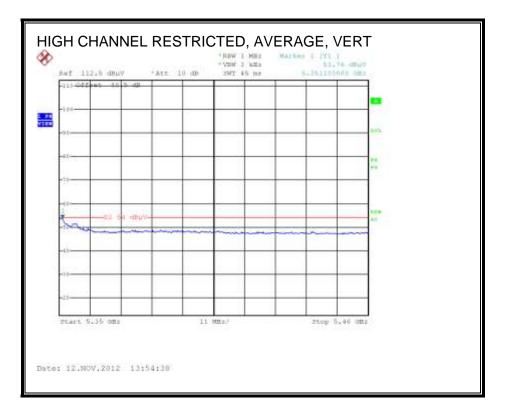
RESTRICTED BANDEDGE (HIGH CHANNEL)





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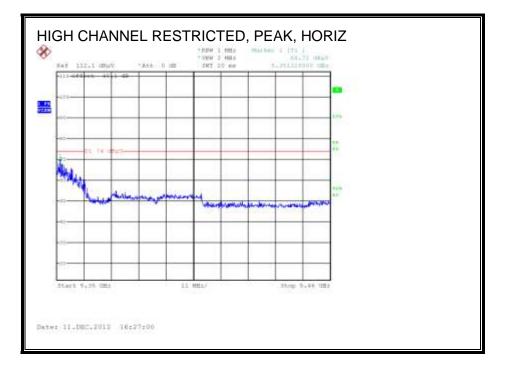
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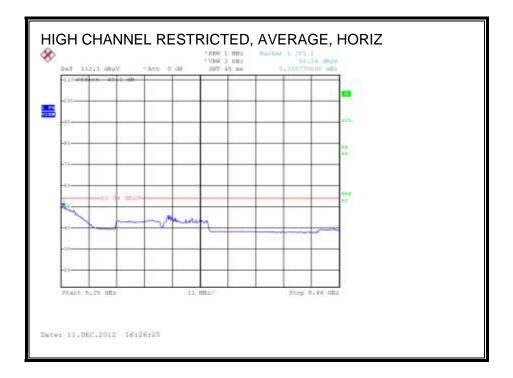
Configu Mode:	#: igineer: iration:		Broadcon 12U14669 12-7/2012 D. Garcia Dan EUT, Adapter 11n HT40 3T2	Board, A	ntenna										
	nipmen	-	1	mplifer	4.00	-			26-40GH	T.	211	orn > 180		1	Limit
	lorn 1-	2222012	0.776	Miteq 30	100		T88 Mit	1.111	205-HB(26)		9: ARA 18-266		2000		FCC 15.205
1195390	quency Cab	2757 day	-		Surroo.		1000 1000		in an a	1	1012040200	105 2000	373	•	1 2
		2807700	12' 0	able 2	28076	500	20' ca	ble 22	807500		HPF	Re	ject Filte		Measurements 1MHz, BW=3MHz
3.0	able 228	07700	• 17 ci	ible 228	07600	•	20' cab	le 228)7500 •	H	PF_7.6GHz	· [Avera	ge Measurements MHz ; VBW=1.1kHz
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL. dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBaV/m	Pk Lins dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
	unel (527)					.11.9				511			-8.7		
5.810	3.0	48.1	36.0	38,1 38,1	12.3	-33.9	0.0	0.7	65.3 62.0	51.5	74	54 54	-12.0	-0.7	H, q88 V, q88
ligh Cha	novel (531			1000000	50.00	- Section of the	10000	1.00021						1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	1000
10,620	3.0	50.7	39.2 36.7	38.3 37.7	9.7 12.4	-35.7 -33.9	0.0	0.8	63.8 64.1	52.2 53.6	74	54 54	-10.2	-1.8	H, q90 H, q89
10.620	3.0	44.4	33.2	38.3	9.7	-35.7	0.0	0.8	57.5	46.2	74	54	-16.5	-7.8	V, q89
15.930	3.0	44.7	34.1	37.7	12.4	-33.9	0.0	0.7	61.6	51.0	74	54	-12.4	-3.0	V, q89
Rev. 11.10	f Dist Read AF	Measureme Distance to Analyzer R Antenna Fa Cable Loss	eading actor	у		Amp D Corr Avg Peak HPF	Average	Corre Field S d Peal	ct to 3 mete strength @ c Field Stre	3 m		Pk Lim Avg Mar	Peak Field Margin vs	ield Strengt I Strength L Average L Peak Limit	mit mit

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9.2.13. TX ABOVE 1 GHz 802.11n HT40 BF 3TX MODE, 5.3 GHz BAND

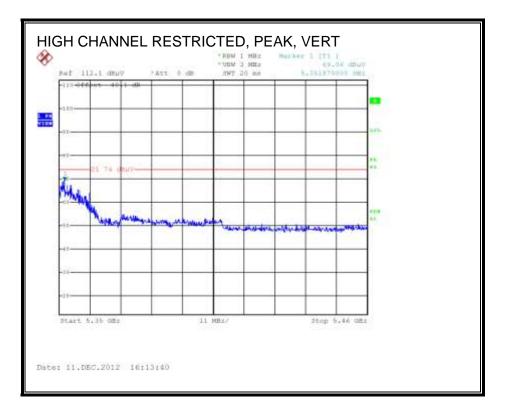
RESTRICTED BANDEDGE (HIGH CHANNEL)

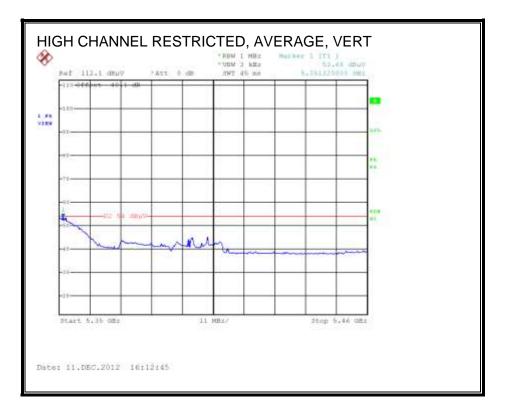




UL CCS 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL CCS.

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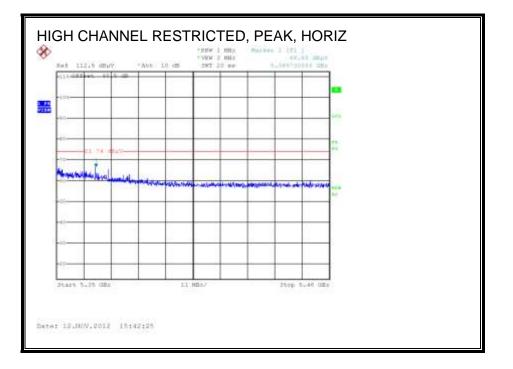
Instruction of the manual science o												iode			Breadcon 12U14669 12-12-2012 D. Garcia EUT, Adapter 11n HT40 3TX			
T38 Miteq 26.40GHz T39: ARA 18-26GHz; S/N:1013 FCC 15.205 T73; S/N: 6717 @3m T144 Mitteq 3008A00931 T88 Miteq 26.40GHz T39: ARA 18-26GHz; S/N:1013 FCC 15.205 Miteq 22807700 12' cable 22807600 20' cable 22807500 MIPF Reject Filter Peak Measureme RBW=1MHz; VBW= S able 22807700 12' cable 22807600 20' cable 22807500 PC 15.205 If Dist Read Pk Read Avg. AF CL Amp D Corr Fltr Peak Avg Pk Lim Avg Lim Pk Mar Avg Mar Note GH2 (m) OBsV/m dBsV/m dBsV	1 Instit	- 13						1							1			
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		-0.1			34		.74	53.5	94,9	0.0	0.0	33.9	13.4	31.1	36.9	4/3		
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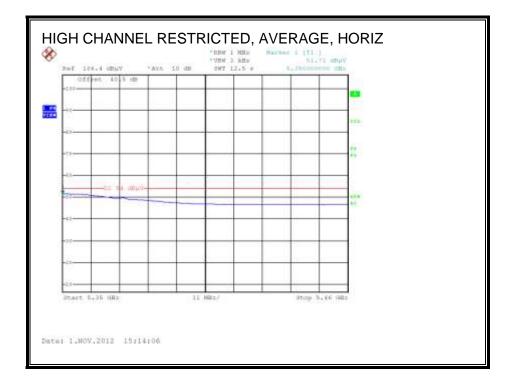
UL CCS FORM NO: CCSUP4701H 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL CCS.

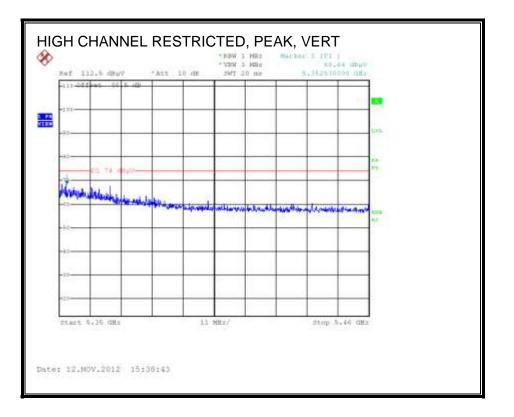
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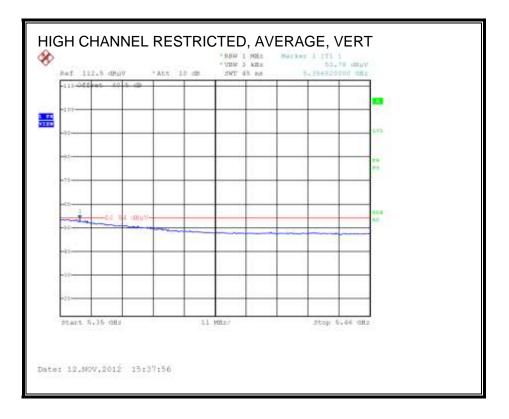
9.2.14. TX ABOVE 1 GHz 802.11n AC80 1TX MODE, 5.3 GHz BAND

RESTRICTED BANDEDGE (HIGH CHANNEL)









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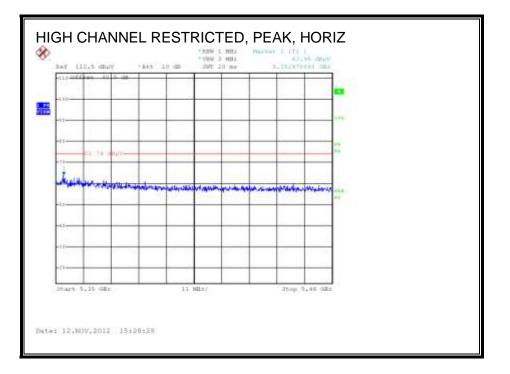
Covered by testing 11n AC80 CCD MCS0 3TX at the same power level.

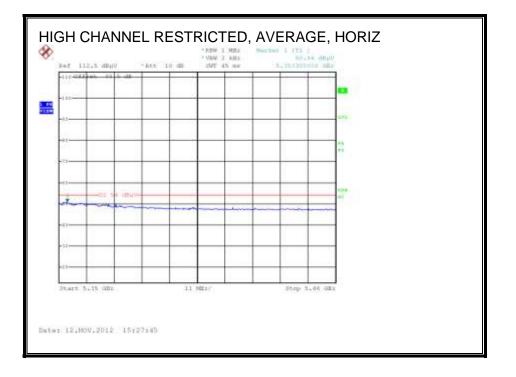
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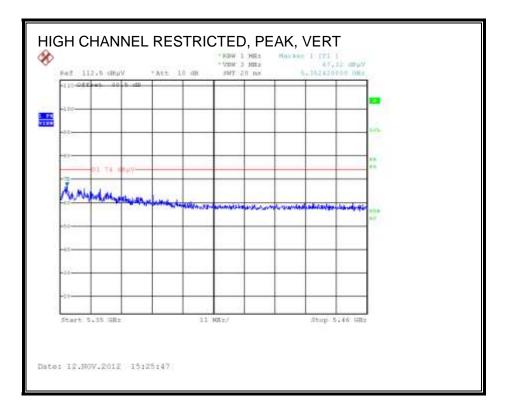
9.2.15. TX ABOVE 1 GHz 802.11n AC80 CDD 3TX MODE, 5.3 GHz BAND

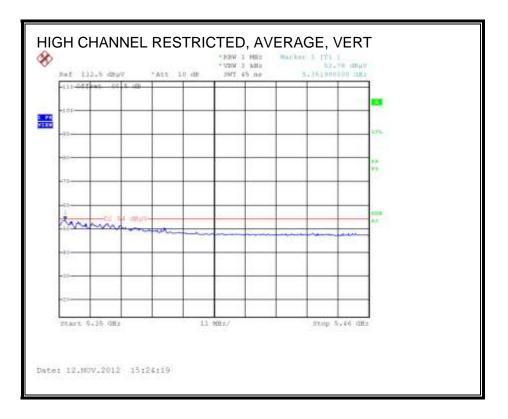
RESTRICTED BANDEDGE (HIGH CHANNEL)





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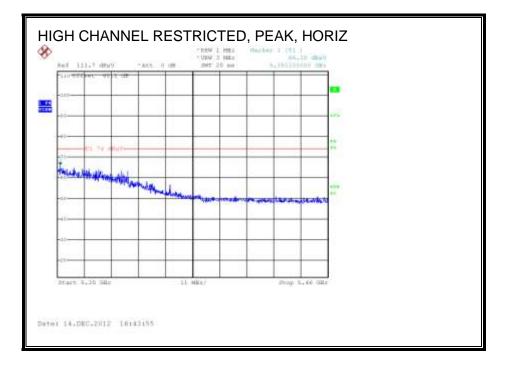
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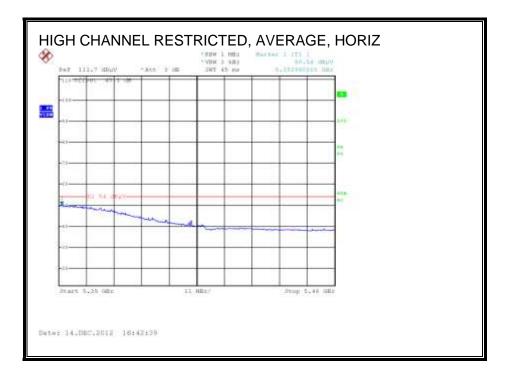
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Total Pictor Product T73; S/N: 6717 @Dm T144 Mineq 3000A00931 T88 Mineq 26.40GHz T39; ARA 18.26GHz; S/N:1013 FCC 15.205 T37; S/N: 6717 @Dm T144 Mineq 3000A00931 T88 Mineq 26.40GHz T39; ARA 18.26GHz; S/N:1013 FCC 15.205 A respect Cable 2807500 D' cable 22807500 Peak Measurements 3' cable 22807700 12' cable 22807600 D' cable 22807500 Peak Measurements 3' cable 22807700 12' cable 22807600 PO' cable 22807500 12' cable 22807600 D' cable 22807500 Peak Measurements RBW=IMHz; VBW=1LIHz; O' cable 22807500 Peak Measurements RBW=10H1; VBW=1LIHz; O' cable 22807500 P' Cable 22807500 O' cable 22807500 P' Cable 22807500 O' cable 22807500 P' Cable 22807500 O' cable 22807500 P' Peak Peak Margarements O' cable 22807500<	Project Date: Cest En	#: gineer:		12U14669 12/9/2912 M. Mekuria EUT, Adapter		ntenna											
Total Pictor Product T73; S/N: 6717 @Dm T144 Mineq 3000A00931 T88 Mineq 26.40GHz T39; ARA 18.26GHz; S/N:1013 FCC 15.205 T37; S/N: 6717 @Dm T144 Mineq 3000A00931 T88 Mineq 26.40GHz T39; ARA 18.26GHz; S/N:1013 FCC 15.205 A respect Cable 2807500 D' cable 22807500 Peak Measurements 3' cable 22807700 12' cable 22807600 D' cable 22807500 Peak Measurements 3' cable 22807700 12' cable 22807600 PO' cable 22807500 12' cable 22807600 D' cable 22807500 Peak Measurements RBW=IMHz; VBW=1LIHz; O' cable 22807500 Peak Measurements RBW=10H1; VBW=1LIHz; O' cable 22807500 P' Cable 22807500 O' cable 22807500 P' Cable 22807500 O' cable 22807500 P' Cable 22807500 O' cable 22807500 P' Peak Peak Margarements O' cable 22807500<		julpmen															
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GHz (m) dBuV dBuV dBuV dB dW/m dB dB dB (V/H) or Channel (5290.0 MBz)	3.0	able 221	807700	• 12 ca	ible 228	07600	•	20° cab	ile 228	07500 •		HPF	_7.6GHz	•	5.0	Avera	ge Measurements
f Measurement Frequency Amp Preamp Gain Avg Lim Average Field Strength Limit f Measurement Frequency Amp Preamp Gain Avg Lim Average Field Strength Limit pit Distance to Antenna D Corr Distance Correct to 3 meters Pk Lim Peak Field Strength Limit AF Antenna Factor Peak Cakulated Peak Field Strength Pk Mar Margin vs. Peak Limit		100000	1 - 1 - C - C - C - C - C - C - C - C -		COMPANIES IN		1077020	4 - 10 - 1 - 1 - 1 - 1 - 1		1	115.502	-					
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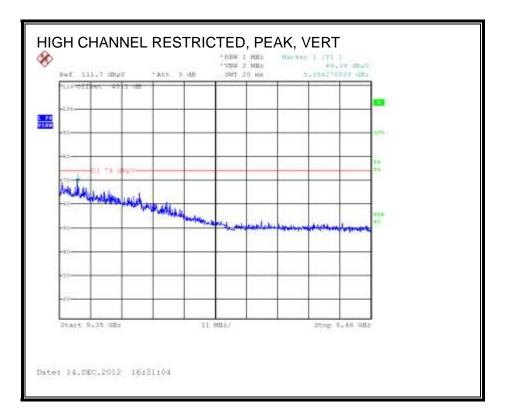
9.2.16. TX ABOVE 1 GHz 802.11n AC80 BF 3TX MODE, 5.3 GHz BAND

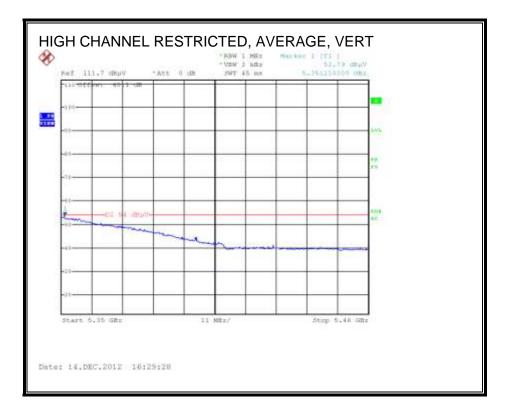
RESTRICTED BANDEDGE (HIGH CHANNEL)





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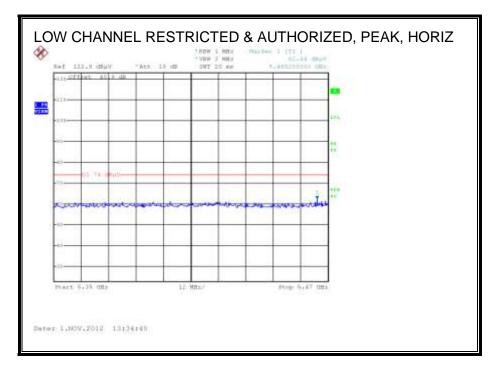
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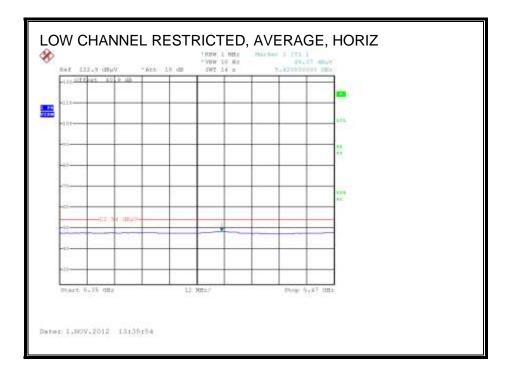
Est Engineer: M. Mekunia onfiguration: EUT, Adapter Board, Antenna ode: 11a HT39 3TX mode Intermettion: Morn 1-18GHz Pre-amplifer 1-26GHz Horn 26-40GHz Horn > 18GHz Limit Horn 1-18GHz Pre-amplifer 1-26GHz Pre-amplifer 26-40GHz Horn > 18GHz European (Colspan="2">FCC 15.205 3' cable 22807700 12' cable 22807600 20' cable 22807500 Pre-amplifer 26-40GHz Reject Filter Peak Measurements RBW1MHz, BW=3MHz 3' cable 22807700 12' cable 22807600 20' cable 22807500 Pre-amplifer 26-40GHz Reject Filter Peak Measurements RBW1MHz, BW=3MHz 4 Pre-amplifer 26-40GHz <	oject ff: 12U14669 te: 12U140	mplia		Frequency rtification 5	Measurem Services, Fr		5m Ch	amber-	A										
Test Equipment: Horn 1-18GHz Pre-amplifer 26-40GHz Horn > 18GHz Limit T73; SN: 6717 @3m Ti44 Miteq 3008A00931 Pre-amplifer 26-40GHz Horn > 18GHz Limit T3; SN: 6717 @3m Ti44 Miteq 3008A00931 Pre-amplifer 26-40GHz Horn > 18GHz Limit T3; SN: 6717 @3m Ti44 Miteq 3008A00931 Pre-amplifer 26-40GHz Ti39; ARA 18-26GHz; SN:1013 Limit T Requency Cables 20° cable 22807500 Pre-amplifer 26-40GHz Time: Tige: Titler Peak Measurements T cable 22807700 12' cable 22807600 Pre-amplifer 26-40GHz Pre-amplifer 26-40GHz Time: Tige: Titler Peak Measurements T cable 22807700 12' cable 22807600 Pre-amplifer 26-40GHz <	Test Equipment: Horn 1-18GHz Pre-amplifer 26-40GHz Horn > 18GHz Limit T73; SR: 6717 @3m Test mplifer 1-26GHz Test mplifer 26-40GHz TBS Miteq 26-40GHz TS Mite 22807500 TS Mite 22807500 TS Mite 22807500 TS Mite 228077600	roject late: 'est En	#: gineer:		12U14669 12/13/2012 M. Mekuria EUT, Adapter		ntenna												
Trist filter Trist Mitten 3008A00931 Trist Mitten 3008A00931 Trist Mitten 3008A00931 Trist Mitten 3008A00931 FCC 15.205 Trist Mitten 3008A00931 Trist Mitten 3008A00931 Trist Mitten 3008A00931 FCC 15.205 3' cable 22807700 12' cable 22807600 Peak Measurements 3' cable 22807700 12' cable 22807600 Peak Measurements 20' cable 22807500 Peak Measurements 12' cable 22807500 Peak Measurements Preset Pield Strength Imit Average Measurements Preset Manp D Corr Fitr Peak Avg Pk Lim Avg Im Avg Mar Marg Notes Gai Avg Im Avg Mar Marg Notes Field Strength Imit State to Antenna <th colspan<="" th=""><th>Trist Srit: 6717 @3m Title Mineq 3000A00931 Tab Mineq 26.40GHz Title Mineq 3000A00931 Total Mineq 3000A00931 Title Mineq 26.40GHz Title Mineq 26.40GHz Title Mineq 26.40GHz FCC 15.205 Stable 22807700 12' cable 22807600 Colspan="2">Colspan="2">Peak Measurements RBW=IMHz Peak Measurements RBW=</th><th></th><th>ulpmen</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th>Trist Srit: 6717 @3m Title Mineq 3000A00931 Tab Mineq 26.40GHz Title Mineq 3000A00931 Total Mineq 3000A00931 Title Mineq 26.40GHz Title Mineq 26.40GHz Title Mineq 26.40GHz FCC 15.205 Stable 22807700 12' cable 22807600 Colspan="2">Colspan="2">Peak Measurements RBW=IMHz Peak Measurements RBW=</th> <th></th> <th>ulpmen</th> <th></th>	Trist Srit: 6717 @3m Title Mineq 3000A00931 Tab Mineq 26.40GHz Title Mineq 3000A00931 Total Mineq 3000A00931 Title Mineq 26.40GHz Title Mineq 26.40GHz Title Mineq 26.40GHz FCC 15.205 Stable 22807700 12' cable 22807600 Colspan="2">Colspan="2">Peak Measurements RBW=IMHz Peak Measurements RBW=		ulpmen															
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3' cable 22807700 12' cable 22807600 20' cable 22807500 HPF_ Reject Filter Peak Measurements RBW1MHz, BW=3MHz 3' cable 22807700 0 12' cable 22807600 0 0' cable 22807500 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <td>3' cable 22807700 12' cable 22807600 20' cable 22807500 HPF Reject Filter Peak Measurements 3' cable 22807700 12' cable 22807600 20' cable 22807500 PF PF Reject Filter Peak Measurements RBW1MHz, BW=3MHz 12' cable 22807600 12' cable 22807600 20' cable 22807500 PF Peak Avg PF PF Reject Filter Peak Measurements RBW1MHz, BW=3MHz 12' cable 22807600 12' cable 22807600 P Peak Avg PF PF PF Peak Average Measurements 12' cable 22807600 12' cable 22807600 P Peak Avg PF Pit Mar Avg Mar Average Measurements 6 Dist Read Pk Read Avg AF CL Amp D Corr Filt Peak Avg Pk Lim Avg Lim Avg Mar Average Measurements 6 Bas70 3.0 45.1 33.3 37.9 12.4 33.9 0.0 0.7 61.0 48.1 74 54 13.0 5.9 V, q89 Netes</td> <td>173; 5</td> <td>S/N: 671</td> <td>7 @3m</td> <td>- T144 N</td> <td>Aiteq 30</td> <td>08A90</td> <td>931 .</td> <td>T88 Mit</td> <td>eq 26-</td> <td>40GHz</td> <td>•</td> <td>T39;</td> <td>ARA 18-264</td> <td>GHz; S/N:10</td> <td>13</td> <td>-</td> <td>FCC 15.205</td>	3' cable 22807700 12' cable 22807600 20' cable 22807500 HPF Reject Filter Peak Measurements 3' cable 22807700 12' cable 22807600 20' cable 22807500 PF PF Reject Filter Peak Measurements RBW1MHz, BW=3MHz 12' cable 22807600 12' cable 22807600 20' cable 22807500 PF Peak Avg PF PF Reject Filter Peak Measurements RBW1MHz, BW=3MHz 12' cable 22807600 12' cable 22807600 P Peak Avg PF PF PF Peak Average Measurements 12' cable 22807600 12' cable 22807600 P Peak Avg PF Pit Mar Avg Mar Average Measurements 6 Dist Read Pk Read Avg AF CL Amp D Corr Filt Peak Avg Pk Lim Avg Lim Avg Mar Average Measurements 6 Bas70 3.0 45.1 33.3 37.9 12.4 33.9 0.0 0.7 61.0 48.1 74 54 13.0 5.9 V, q89 Netes	173; 5	S/N: 671	7 @3m	- T144 N	Aiteq 30	08A90	931 .	T88 Mit	eq 26-	40GHz	•	T39;	ARA 18-264	GHz; S/N:10	13	-	FCC 15.205	
3° cable 22807700 12° cable 22807600 20° cable 22807500 MPF_7 &GHz Average Measurements RBW=1MHz; VBW=1.1kHz f Dist Read Pk Read Avg. dBuV AF CL Amp D Corr dB Fltr Peak dB Avg Pk Lim dBuV/m Avg Mar Avg Mar Notes GHz (m) dBuV dB/m dB dW dB dB dW dB dB dW dW <thdw< th=""> dW dW dW</thdw<>	3' cable 22807700 12' cable 22807600 20' cable 22807500 MPF_7.6GHz Average Measurements RBW=1MHz; VBW=1.1kHz f Dist Read Pk Read Avg. dBuV AF CL Amp D Corr Fltr Peak Avg Pk Lina Avg Lim Pk Mar Avg Mar Notes GHz (m) dBuV dBuV dB				12' c	able 2	28076	500	20' ca	ble 22	2807500			HPF	R	ject Filte			
GHz (m) dBuV dBuV dB/m dB dB dB dB dB dB dB dB dB dV/m dBaV/m dB dB dB (V/H) or Channel (5290.0 MBz) 0.0 45.1 33.3 37.9 12.4 33.9 0.0 0.7 62.1 50.4 74 54 -11.9 -3.6 H, q89 5870 3.0 45.1 33.3 37.9 12.4 33.9 0.0 0.7 61.0 48.1 74 54 -11.9 -3.6 H, q89 ex 11.10.11 Arge primes of the summer of the s	GHz (m) dBuV dBuV dBv/m dB	3.0	able 221	107700	• 12 ca	ible 228	07600	•	20' cab	le 228	07500 •		HPF	F_7.6GHz	•	200 	Avera	ge Measurements	
or Channel (\$290.0 MHz) or Channel (\$200.0 MHz) or Channel (\$2	or Channel (\$290.0 MHz) or Channel (\$290.0 MHz) or Channel (\$290.0 MHz) or Channel (\$290.0 MHz) 5.870 3.0 45.1 33.3 37.9 12.4 -33.9 0.0 0.7 62.1 50.4 74 54 -11.9 -3.6 H, q89 5.870 3.0 43.9 31.1 37.9 12.4 -33.9 0.0 0.7 61.0 48.1 74 54 -11.9 -3.6 H, q89 ev. 11.10.11 Amp Preamp Gain Avg Lim Average Field Strength Limit f Measurement Frequency Amp Preamp Gain Avg Lim Average Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Pk Lim Peak Field Strength Limit AF Analyzer Reading Avg Average Field Strength @ 3 m Avg Mar <margia average="" limit<="" td="" vs.=""> AF Antenna Factor Peak Cakulated Peak Field Strength Pk Mar Margia vs. Peak Limit</margia>		100000		- 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	COMPANIES IN		10770120	and the second second		1	100.00	-						
8.870 3.0 43.9 31.1 37.9 12.4 -33.9 0.0 0.7 61.0 48.1 74 54 -13.0 -5.9 V, q89 ev 11.10.11 f Measurement Frequency Dist Distance to Antenna D Corr Distance Correct to 3 meters Avg Lim Average Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m Avg Mar Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Pk Mar Margin vs. Peak Limit	5.870 3.0 43.9 31.1 37.9 12.4 33.9 0.0 0.7 61.0 48.1 74 54 13.0 6.9 V, 989 ev 11.10.11 f Measurement Frequency Distance to Antenna D Corr Distance Correct to 3 meters Avg Lim Average Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m Avg Mar Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Pk Mar Margin vs. Peak Limit	ow Char	unel (529	0.0 MHz)	and the second							and so that is a		Landonna Kontenista					
f Measurement Frequency Amp Preamp Gain Avg Lin Average Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Pk Lin Peak Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m Avg Mar Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Pk Mar Margin vs. Peak Limit	f Measurement Frequency Amp Preamp Gain Avg Lim Average Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Pk Lim Peak Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m Avg Mar Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Pk Mar Margin vs. Peak Limit																		
			AF	Analyzer R Antenna Fa	eading ctor			Avg Peak	Average Calculate	Field 9 of Pea	Strength @ k Field Stre	3 m				Margin vs	Average Li	mit	

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9.2.17. TX ABOVE 1 GHz 802.11a MODE, 5.6 GHz BAND

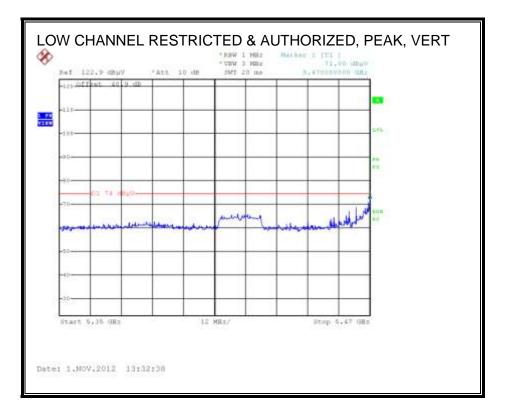
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

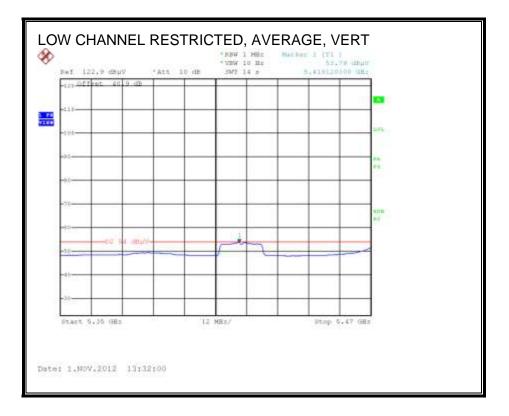




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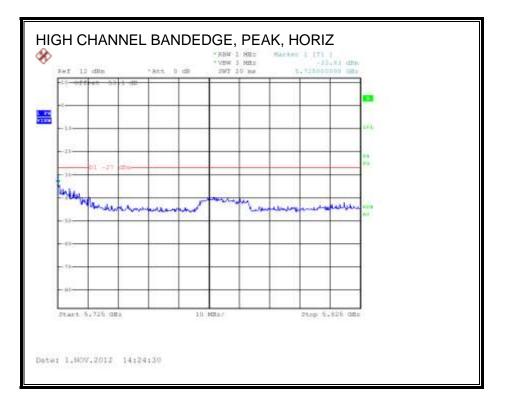
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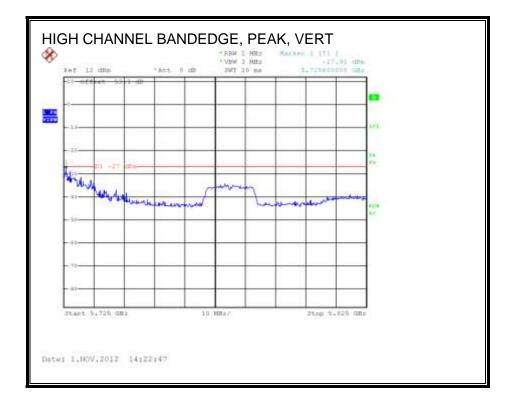




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AUTHORIZED BANDEDGE (HIGH CHANNEL)





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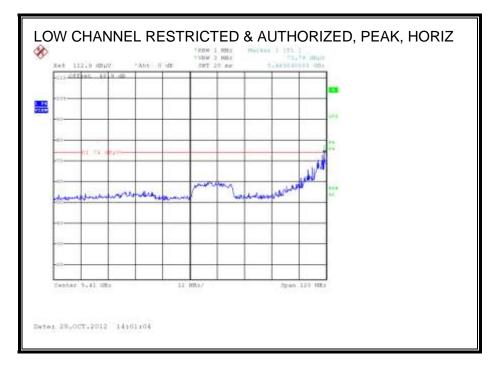
Covered by testing HT20 CDD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

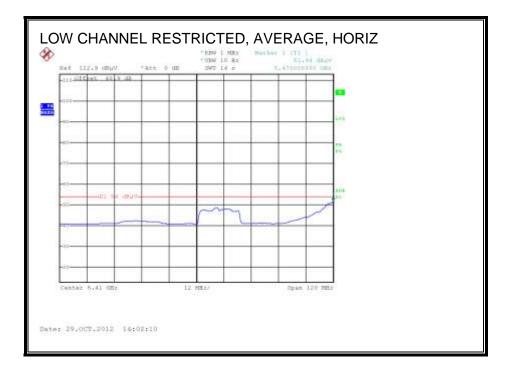
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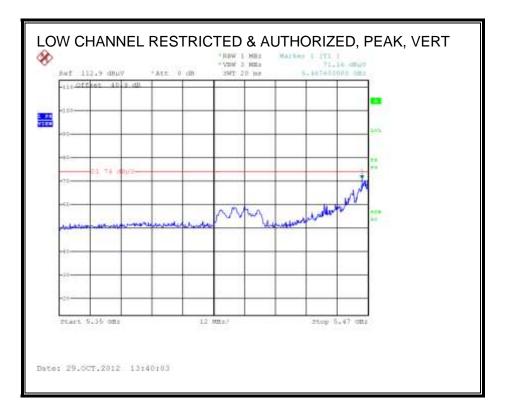
9.2.18. TX ABOVE 1 GHz 802.11n HT20 CDD 3TX MODE, 5.6 GHz BAND

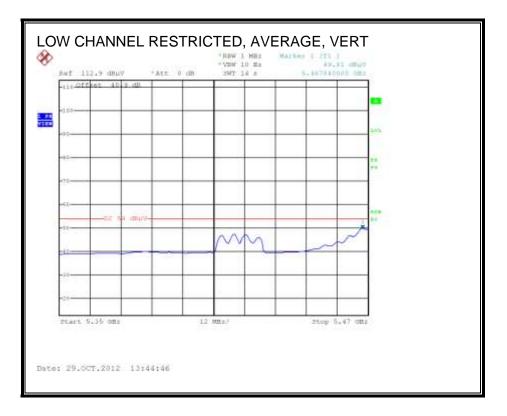
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)





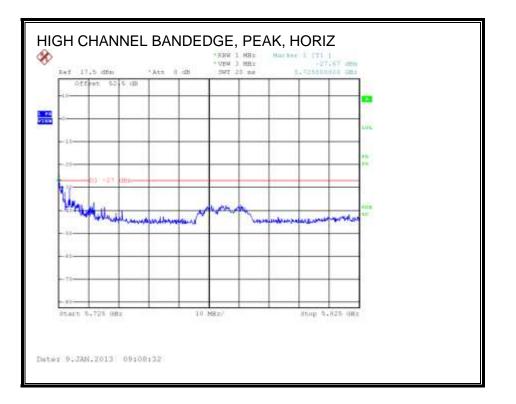
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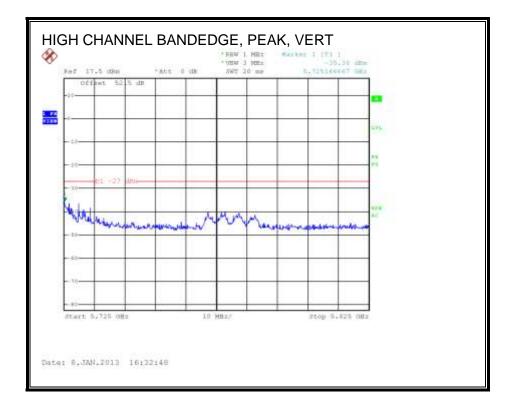




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AUTHORIZED BANDEDGE (HIGH CHANNEL)





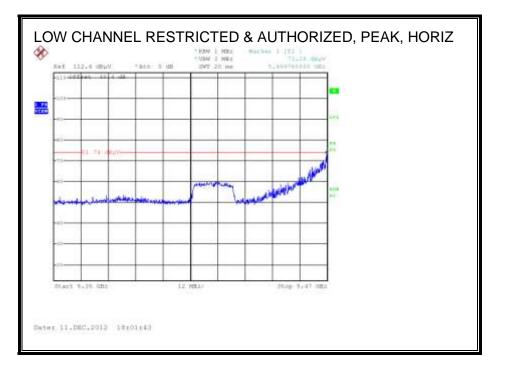
Complia			y Measurem Services, Fr		Im Ch	amber									
		runcanoa .	Services, 11	emour .	Mill Color	Juoer									
Compan			Breadcom												
Project / Date:	WI .		12U14669												
Cest Eng	gineer;		M. Mekuria D	Annery Vu											
onfigur			EUT, Adapter	r Board, A											
Mode:			11n HT20 3TX	mode											
lest Equ	ulpmen	t:				1.7				400					
Н	orn 1-	18GHz	Pre-ar	mplifer	1-260	SHz	Pre-am	plifer	26-40GH	z	Ho	orn > 180	Limit		
10.03555	S/N: 671	10/10/07	• T144 M	Miteq 30	08A009	31 -	T88 Mite	eq 26-	40GHz	• T39;	ARA 18-260	GHz; S/N:10	113	•	FCC 15.205 .
- Hi Freq	puency Cab	yes	1			1	a state of	100000	a market the second	1		1		1 1000	1968-1960-1997-1998-1998-1998-1998-1998-1998-1998
3' 0	able 2	2807700	12' c	able 2	28076	00	20' cal	ble 22	2807500		HPF	R	eject Filte		Measurements W=VBW=1MHz
3' ca	3' cable 22807700 • 12' cable 22807600 •		•	20' cable 22807500						001	Averas	ge Measurements MHz ; VBW=10Hz			
[1	Dist	Read Pk	Read Avg.	AF	CL	Ашр	D Corr	Fltr	Peak	Avg	Pk Lina	Avg Lim	Pk Mar	Avg Mar	Notes
GHz	(m)	dBuV	dBuV	dB/m	dB	dB	dB	dB	dBaV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB	(V/H)
Low Char 11.000	mel (55)	10 MHz) 49.3	37.9	38.4	10.5	-35.6	0.0	0.0	62.5	51.1	74	54	-11.5	-2.9	H, q86
11.000	3.0	50.6	39.7	38.4	10.5	35.6	0.0	0.0	63.8	52.9	74	54	-11.5	-1.1	H, q86 V, q86
Mid Chan	-al (558)	(MHz)													0.5860
11.160	3.0	48.8	37.1	38.5	10.7	.38.6	0.0	0.0	62.4	50.7	74	54	11.6	-3.3	H, 985
11.160	3.0	53.1	39.4	38.5	10.7	-35.6	0.0	0.0	66.7	53.1	74	54	-7.3	-0.9	V, 982
al free and the second		00 MHz)	1	Sec.			1		-	-		1			102000
	3.0	53.1	38.4	38.7	11.1	-35.6	0.0	0.0	67.4	52.7	74	54	-6.6	-13	H, q85
11.400			38.6	38.7	11.1	35.6	0.0	0.0	14.3	52.8	74	54	-59.7	-1.2	V, 985
11.400	370			Annual second se											
11.400 11.400															
11.400 11.400 Rev. 11.10		Measurem	ent Frequency	y.		Ашр	Preamp (Jain		Tables 1		Avg Lim	Average F	ield Strength	ı Limit
11.400 11.400 Rev. 11.10	f Dist	Distance to	Antenna	Y		D Corr	Distance	Corre	ect to 3 mete			Pk Lim	Peak Field	Strength Li	mit
11.400 11.400 Rev. 11.10	f Dist Read	Distance to Analyzer R	o Antenna leading	Ÿ	1000	D Corr Avg	Distance Average	Corre Field S	Strength @	3 m		Pk Lim Avg Mar	Peak Field Margin vs	Strength Li Average Li	mit mit
11.400 11.400 Rev. 11.10	f Dist Read AF	Distance to	o Antenna leading actor	Y		D Corr	Distance Average	Corre Field S od Peal	Strength @ k Field Stre	3 m		Pk Lim	Peak Field Margin vs	Strength Li	mit mit

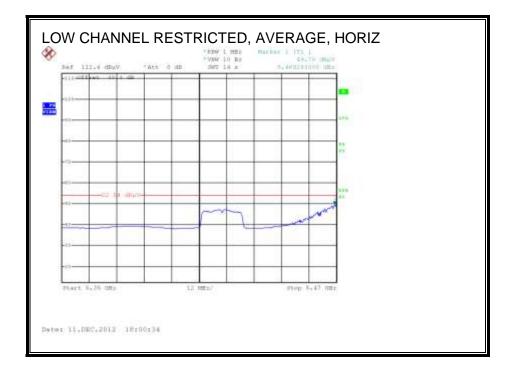
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9.2.19. TX ABOVE 1 GHz 802.11n HT20 BF 3TX MODE, 5.6 GHz BAND

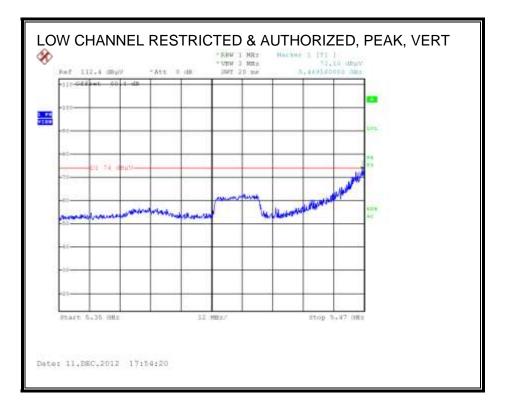
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

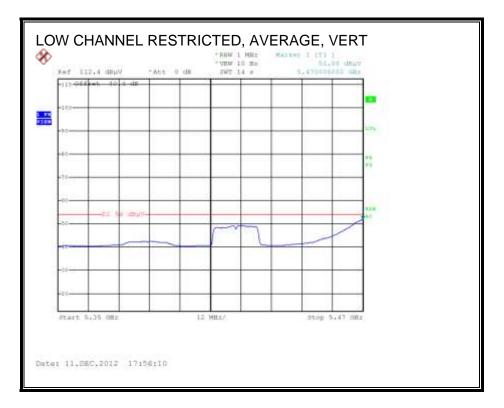




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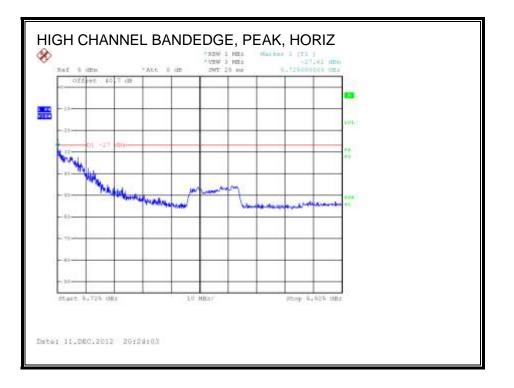


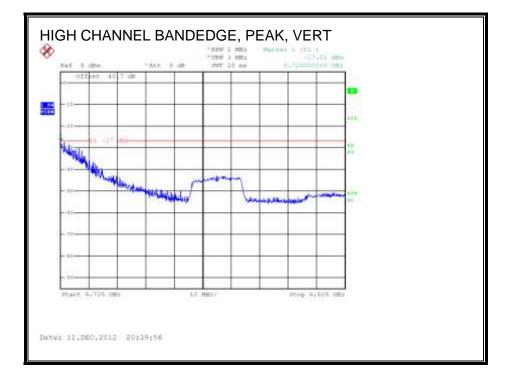


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AUTHORIZED BANDEDGE (HIGH CHANNEL)





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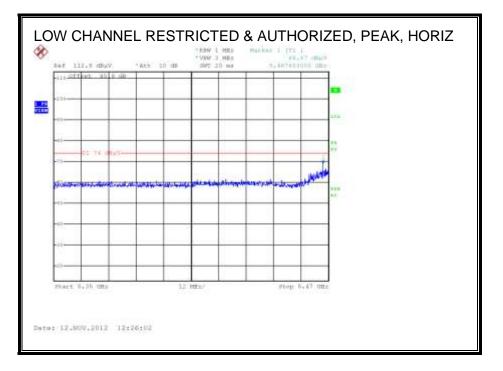
		Frequency													
omplia	ince Ce	rtification S	iervices, Fr	emont	3m Ch	amber									
Compan Project Date: Cest En Configu	#: gineer:		Broadcon 12U14669 12/12/2012 D. Garcia EUT, Adapter	Board, A	Lintenna										
Iode:			11n HT20 3TX	Beam F	oming	node									
est Eq	ulpmen	t:													
н	orn 1-	18GHz	Pre-ar	nplifer	1-260	GHz	Pre-am	plifer	26-40GH	z	Н	orn > 180	GHz		Limit
173; 5	S/N: 671	7 @3m	• T144 M	fiteq 30	08400	931 .	T88 Miteq 26-40GHz • 739				9; ARA 18-264	•	FCC 15.205		
3' cable 22807700		12' c	12' cable 22607600					2807500		HPF		Reject Filts		<u>w=VBW=1MHz</u>	
3 6	able 221	807700	12' ca	ible 228	07600	•	20° cab	le 228	07500			• R	001		ge Measurements 1MHz ; VBW=10Hz
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lina dBaV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
ow Char 1.000	anel (55)	0 MHz) 52.9	38.2	38.4	10.5	-35.6	0.0	0.0	66.1	51.4	74	54	-7.9	-1.6	H, q86
1.000	3.0	54.8	39.9	38.4	10.5	35.6	0.0	0.0	68.0	53.1	74	54	-6.0	.0.9	V, q85
lid Chan	nel (558)	0 MHz)		-				-			-				
1.160	3.0	49.2	33.2	38.5	10.7	-35.6	0.0	0.0	62.8	46.8	74	54	31.2	-7.2	H 480
1.160	3.0	55.8	40.1	38.5	10.7	-35.6	0.0	0.0	69.4	53.7	74	54	-4.6	-0.3	V, 980
	nnel (57	00 MHz)		(HSR)		1000	4.2		10.15	1.910-2-			1.595		
1.400 1.400	3.0	49,3	36.3 38.1	38.7 38.7	11.1	-35.6 -35.6	0.0	0.0	14.3 63.6	50.6 49,4	74	54 54	-59.7	-3.4 -4.6	H, q86 V, q86
lev. 11.10															
	f Dist Read AF CL	Measureme Distance to Analyzer Ra Antenna Fa Cable Loss	sading ctor	ŕ		Amp D Corr Avg Peak HPF	Average	Corre Field S d Peal	ct to 3 mete Strength @ k Field Stre	3 m		Pk Lim	Peak Fiel Margin vs	Field Strength d Strength Li & Average Li & Peak Limit	mit

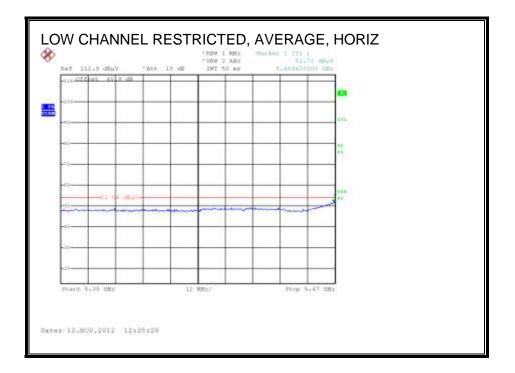
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9.2.20. TX ABOVE 1 GHz 802.11n HT40 1TX MODE, 5.6 GHz BAND

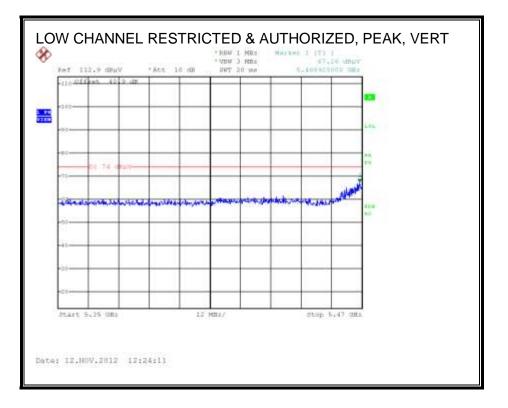
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

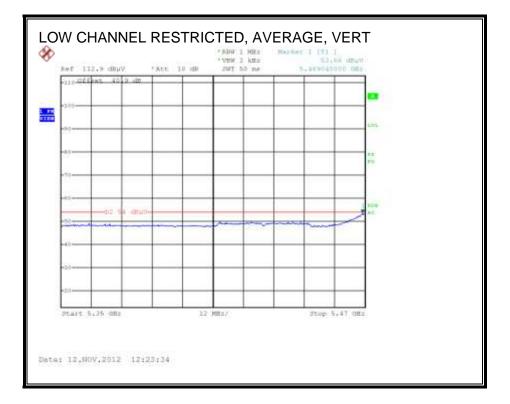




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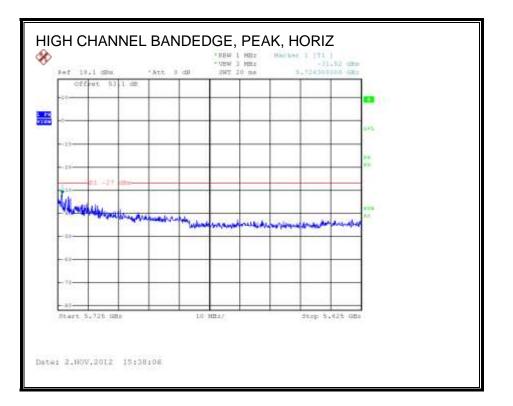
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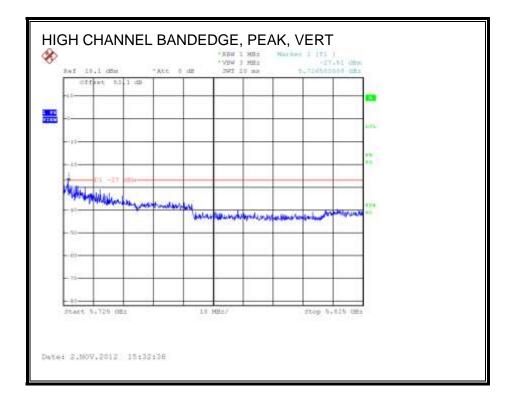




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AUTHORIZED BANDEDGE (HIGH CHANNEL)





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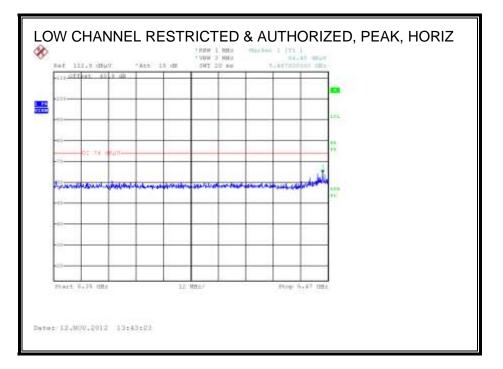
Covered by testing HT40 CDD MCS0 3TX, total power across all three chains is higher than the power level the device will operate at.

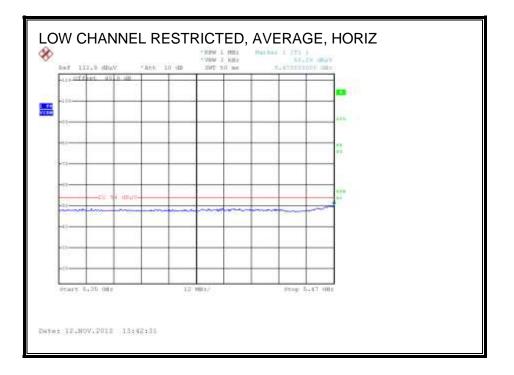
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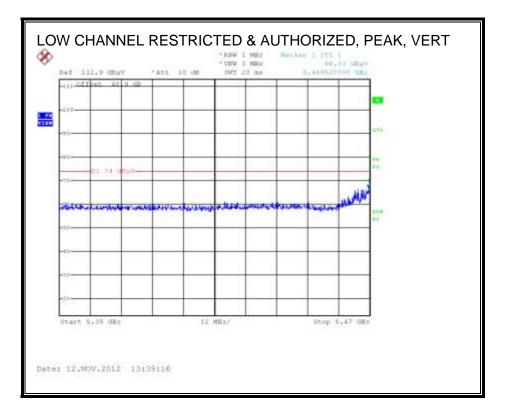
9.2.21. TX ABOVE 1 GHz 802.11n HT40 CDD 3TX MODE, 5.6 GHz BAND

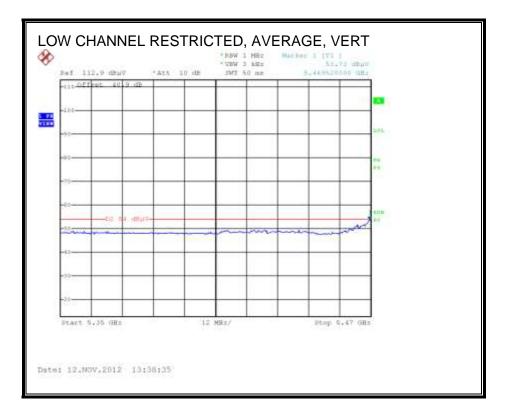
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)





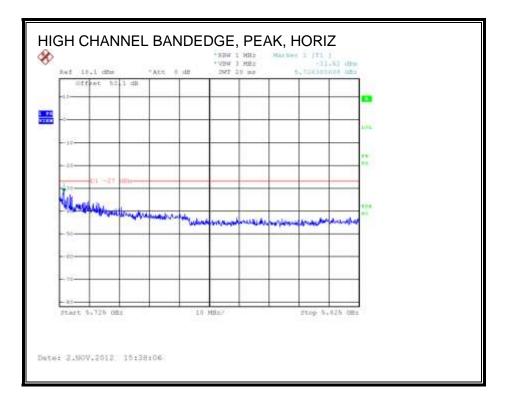
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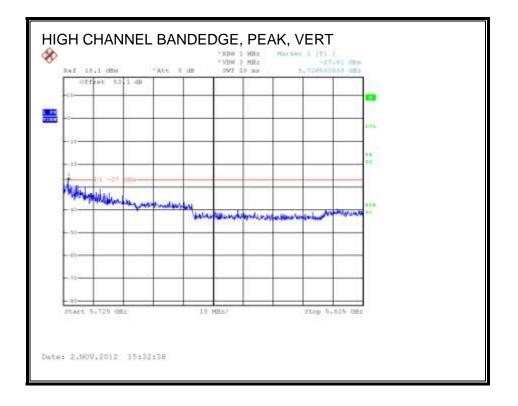




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AUTHORIZED BANDEDGE (HIGH CHANNEL)





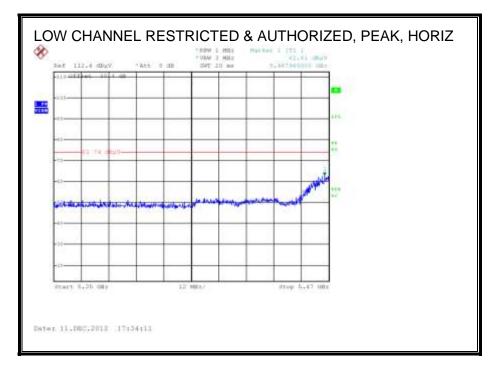
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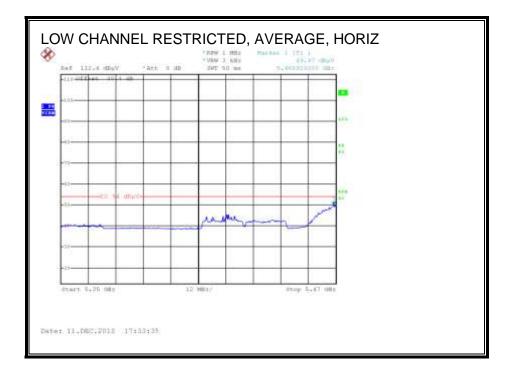
			Measurem		9 192	1255									
ompli	ance Co	rtification	Services, Fr	emont	3m Ch	amber									
Compa	IN:		Broadcon												
roject			12U14669												
Date:			12/7/2012												
	igineer.		M. Mekuna	8 . W.											
lode:	iration:		EUT, Adapter 11n HT40 3TX		ntenna										
Test Ec	ulpmen	t:													
H	lorn 1-	18GHz	Pre-ar	nplifer	1-260	GHz	Pre-am	plifer	26-40GH	z	Но	orn > 180	Limit		
173;	S/N: 671	7 @3m	- T144 I	Aiteq 30	08A00		T88 Miteq 26-40GHz T39: ARA 18-26				-26GHz; S/N:1013				
	quency Ca			22.2			-					Ĩ.		Beak	Measurements
3,	3' cable 22807700 12' cable 22807600 3' cable 22807700 12' cable 22807600			00	20' cable 22807500				HPF	Re	ject Filte		W=VBW=1MHz		
3 0	3' cable 22807700			•	20° cable 22807500				- R_001 -				ge Measurements 1MHz ; VBW=10Hz		
ſ	Dist	Read Pk	Read Avg.	AF	CL	Ашр	D Corr	Fltr	Peak	Avg	Pk Lina	Avg Lim	Pk Mar	Avg Mar	Notes
GHz	(m)	dBuV	dBuV	dB/m	dB	dB	dB	dB	dBaV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB	(V/H)
Low Cha 1.020	annel (55)	49.6	38.1	38.4	10.5	-35.6	0.0	0.0	62.8	51.4	74	54	-11.2	-2.6	H, q89
1.020	3.0	49.5	39.3	38.4	10.5	35.6	0.0	0.0	62.7	52.5	74	54	-11.3	-1.5	V, q88
	unel (555														
1.100	3.0	47.8	36.1 37.9	38.5 38.5	10.6	35.6	0.0	0.0	61.3 62.7	49.5 51.4	74	54 54	-12.7	-4.5	H, 987 V, 987
		anoce.	31.9	36.5	10.0	-35/0	0.0	0.0	04.7	21.4	24	04	-11.5	-2.0	*.407
A	nnel (\$6		1. 10.00	Start's		1000		-	1000	Segmel 1		1	6.2	-	1992
	3.0	48.9	36.6	38.7 38.7	11.0	-35.6	0.0	0.0	63.0	50.7 51.7	74	54	-11.0	-3.3	H, q88 V, q88
1.340	3.0														
High Chi (1.340 (1.340 (1.340															
1.340 1.340		Measurem	ent Frequenc	y		Атр	Preamp (Jain				Avg Lim	Average I	field Strength	s Limit
1.340	0.11 f Dist	Distance to	Antenna	y		0008-	Distance	Corre	ct to 3 mete			Pk Lim	Peak Fiel	d Strength Li	mit
1.340	0.11 f Dist Read	Distance to Analyzer R	Antenna eading	y		D Corr Avg	Distance Average	Corre Field S	Strength @	3 m		Pk Lim Avg Mar	Peak Fiel Margin vs	d Strength Li Average Li	mit mit
1.340	0.11 f Dist	Distance to	Autenna eading actor	Y		D Corr	Distance Average	Corre Field S d Peal	Strength @ k Field Stre	3 m		Pk Lim	Peak Fiel Margin vs	d Strength Li	mit mit

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9.2.22. TX ABOVE 1 GHz 802.11n HT40 BF 3TX MODE, 5.6 GHz BAND

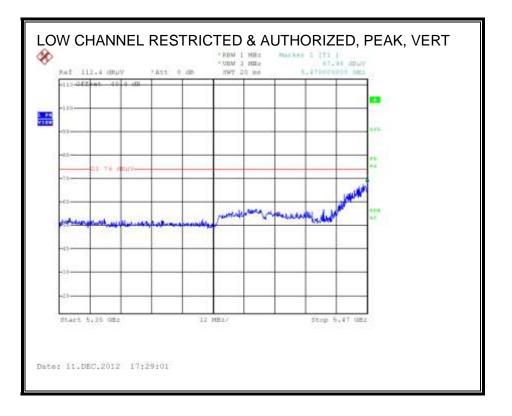
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

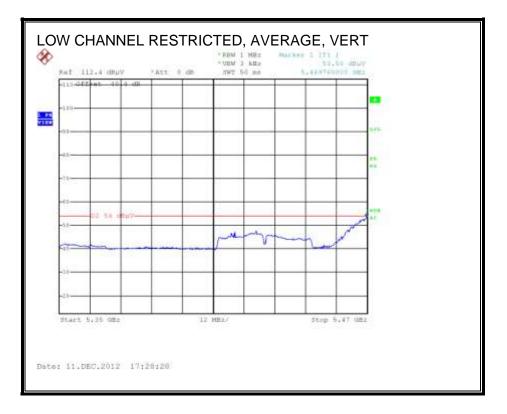




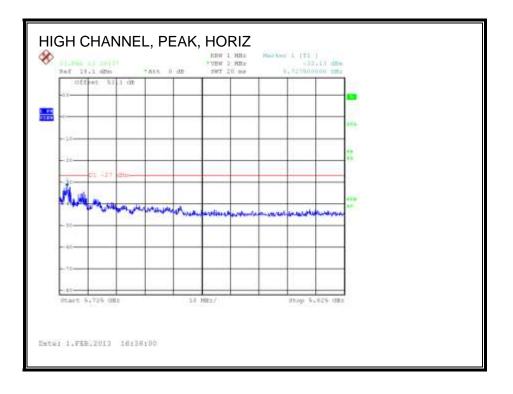
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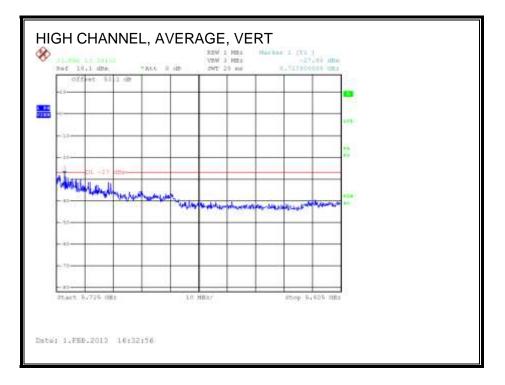
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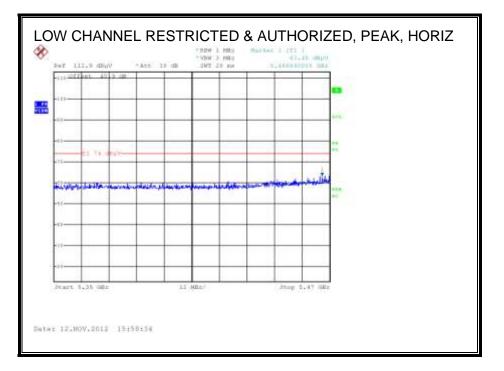
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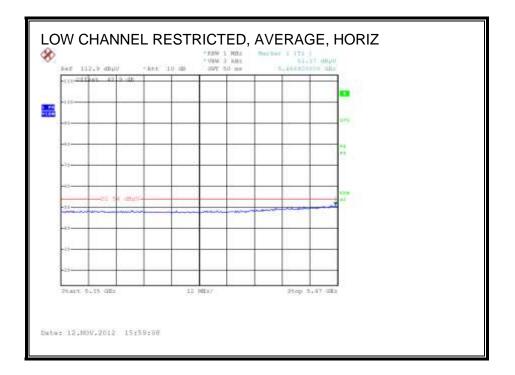
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173;	S/N: 671	7 @3m	• T144 M	Aiteq 30	084009	131 .	T88 Miteq 26-40GHz T39; ARA 18-26				26GHz; S/N:1013 FCC 15:205				
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3 0	3' cable 22807700			•	20' cable 22807500			Г	- R_001			Avera	ge Measurements MHz ; VBW=1.1kHz		
ſ	Dist	Read Pk	Read Avg.	AF	CL	Ашр	D Corr	Fltr	Peak	Avg	Pk Lim	Avg Lim	Pk Mar	Avg Mar	Notes
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Low Cha 1.020	annel (55) 3.0	10 MHz) 49.2	37.8	38.4	10.5	-35.6	0.0	0.0	62.4	51.1	74	54	-11.6	-2.9	H, q89
1.020	3.0	32.3	40.1	38.4	10.5	35.6	0.0	0.0	45.6	53.4	74	54	-11.6	-0.6	V, q88
did Cha	mel (555	0 MHz)			-			-							
11.100	3.0	51.5	40.0	38.5	10.6	-38.6	0.0	0.0	65.0	\$3.4	74	54	.9.0	-0.6	V, 986
1.100	3.0	47.2	36.2	38.5	10.6	-35.6	0.0	0.0	60.7	49.7	74	54	-13.3	-43	H, q86
	anel (56			(HSR)	·	Lines	1.4.2	1.2.1	1046			1. 10.	6.72		40-0-20
1_340	3.0	47.4	36.8	38.7	11.0	-35.6	0.0	0.0	61.5	50.9	74	54	-12.5	-3.1	V, q86
1.340	3.0	48.4	36.9	38.7	11.0	-35.6	0.0	0.0	62.5	51.0	74	54	-11.5	-3.0	II, q86
	0.11														
lev. 11.1	9.54						Preamp (Gain				Ave Lim	Average I	Field Strength	Limit
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lev. 11.1	f Dist	Measurem Distance to	ent Frequenc Antenna	Y		Amp D Corr		Corre	ct to 3 mete	15		Pk Lim	Peak Field	d Strength Li	mit
lev. 11.1	f Dist		Antenna	Y		12008-	Distance		ct to 3 mete Strength @					d Strength Li . Average Li	
lev. 11.1	f Dist	Distance to	Antenna eading	Y		D Corr	Distance Average	Field 1		3 m		Avg Mar	Margin vs		mit

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TX ABOVE 1 GHz 802.11n AC80 1TX MODE, 5.6 GHz BAND 9.2.23.

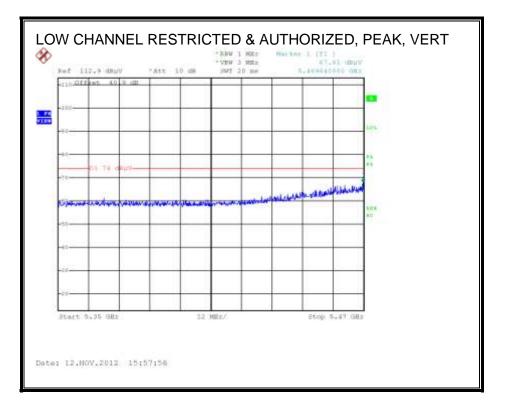
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

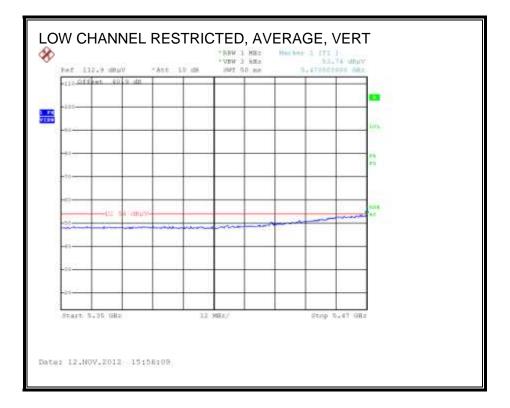




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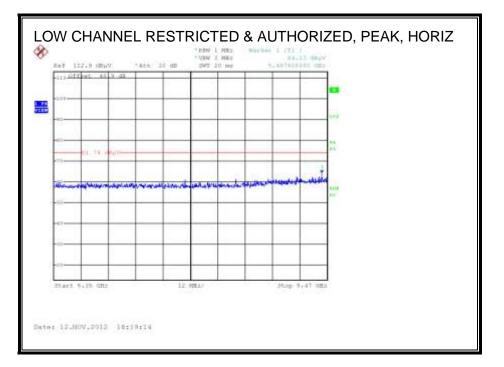
Covered by testing AC80 CDD MCS0 3TX at the same power level.

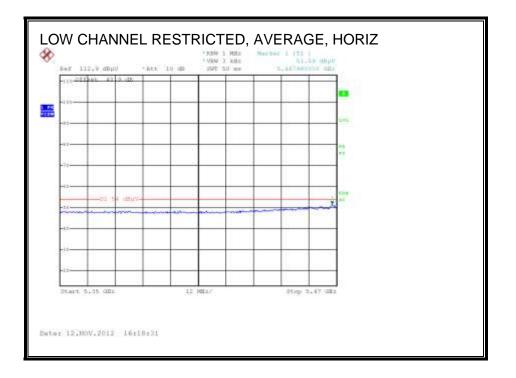
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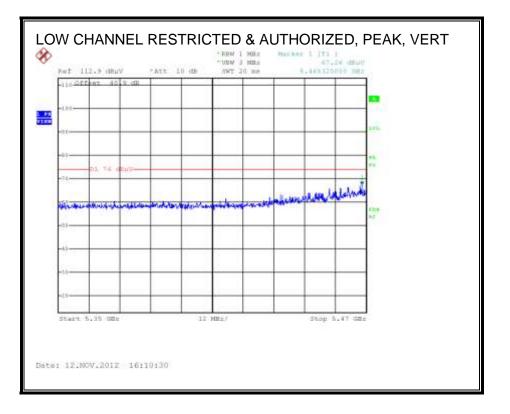
9.2.24. TX ABOVE 1 GHz 802.11n AC80 CDD 3TX MODE, 5.6 GHz BAND

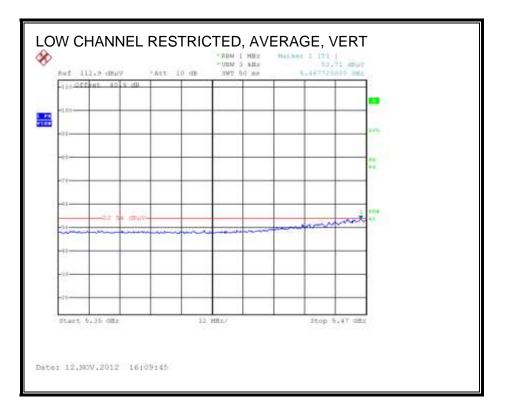
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)





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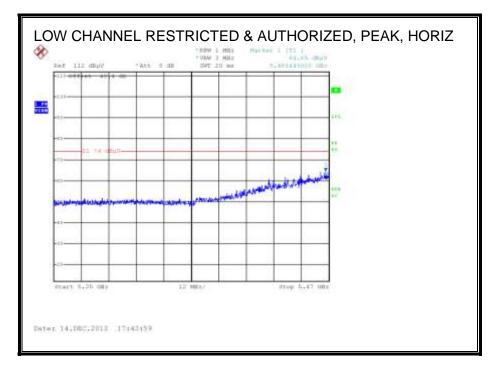
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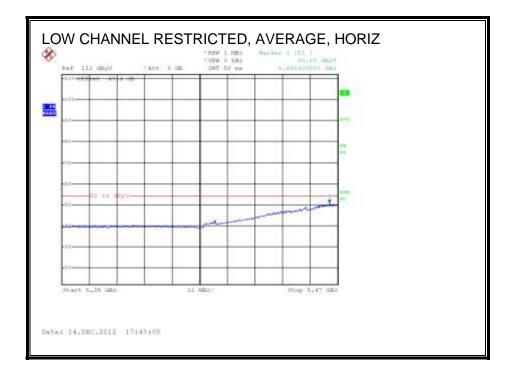
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	22807700	12' c	able 2	2807	500			2807500		HPF	R	eject Filte	RB	Measurements W=VBW=1MHz
3' cable 22	5957)1981 (1		ible 228	07600	•	20' cab	le 228	07500			312	_001	RBW=	ge Measurements 1MHz ; VBW=10Hz
f Dist GHz (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m		Avg Mar dB	Notes (V/H)
ow Channel (55	30 MHz) \$0.1	38.3	38.4	10.6	-35.6	0.0	0.0	63.5	\$1.7	74	54	-10.5	-23	H, 989
L060 3.0	52.5	39.7	38.4	10.6	-35.6	0.0	0.0	65.8	53.1	74	54	-8.2	0.9	V, q89
igh Channel (50														
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						4204244		2						

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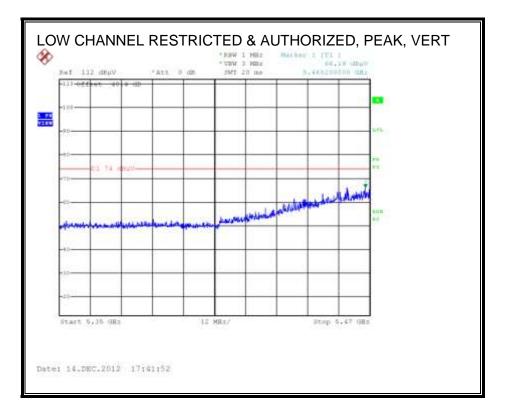
9.2.25. TX ABOVE 1 GHz 802.11n AC80 BF 3TX MODE, 5.6 GHz BAND

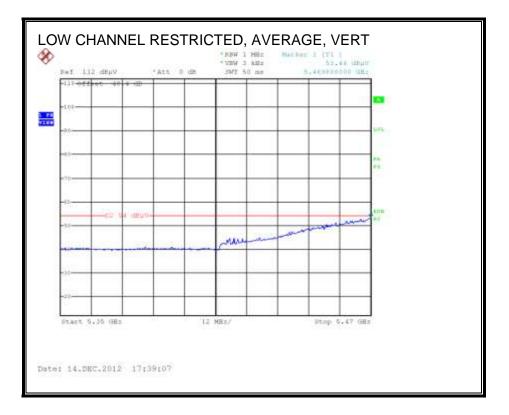
RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)





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			Measuren Services, Fr		3m Ch	amber									
Company Project # Date: Cest Eng Configura Mode:	i: pineer:		Broadcon 12U14669 12/13/2012 M. Mekuna EUT, Adapter 11n HT39 BF												
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f GH2	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBaV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Chang 1.060	nel (553		34.7	38.4	10.6	.35.6	0.0	0.0	62.4	48.1	74	54	-11.6	-5.9	H, q88
1.060	3.0 3.0	53.1	38.3	38.4	10.6	-35.6	0.0	0.0	66.4	48.1 51.7	74	54	-7.6	-2.3	H, 988 V, 988
ligh Chan	mel (569	0 MHz)													
1.380	3.0	53.2 52.6	35.8 38.1	38.7 38.7	11.0	-35.6 -35.6	0.0	0.0 0.0	67.4 66.8	50.0 52.3	74	54 54	-6.6	-4.0	H, q90 V, q90
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9.3. WORST-CASE BELOW 1 GHz

HORIZONTAL AND VERTICAL DATA

Project No:12U14669 Client Name:Broadcom Model / Device: BCM94360CD Config / Other:EUT, Adapter Board, Antenna Test By:John Nguyen

Test Frequency	Meter Reading	Detector	25MHz- 1GHz ChmbrA Amplifie d.TX (dB)	T243 Sunol Bilog.TXT (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
Horizontal 3	0 - 1000MI	lz	-						
160.8453	52.8	PK	-26.5	12	38.3	43.5	-5.2	200	Horz
299.6383	55.19	PK	-25.8	13.2	42.59	46	-3.41	300	Horz
798.789	42.81	PK	-23.3	21	40.51	46	-5.49	100	Horz
Vertical 30 -	1000MHz								
47.0584	46.58	РК	-27.4	9.4	28.58	40	-11.42	100	Vert
66.249	46.38	РК	-27.2	7.8	26.98	40	-13.02	100	Vert
294.4045	44.64	PK	-25.8	13.3	32.14	46	-13.86	200	Vert

PK - Peak detector

QP - Quasi-Peak detector

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10. DYNAMIC FREQUENCY SELECTION

10.1. OVERVIEW

10.1.1. LIMITS

INDUSTRY CANADA

IC RSS-210 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-210 Issue 7 A9.4 (b) (ii) Channel Availability Check Time: ...

Additional requirements for the band 5600-5650 MHz: Until further notice, devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected.

RSS-210 Issue 7 A9.4 (b) (iv) **Channel closing time:** the maximum channel closing time is 260 ms.

FCC

§15.407 (h) and FCC 06-96 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVCIES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

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Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode					
	Master	Client (without radar detection)	Client (with radar detection)			
Non-Occupancy Period	Yes	Not required	Yes			
DFS Detection Threshold	Yes	Not required	Yes			
Channel Availability Check Time	Yes	Not required	Not required			
Uniform Spreading	Yes	Not required	Not required			

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode					
	Master	Client	Client			
		(without DFS)	(with DFS)			
DFS Detection Threshold	Yes	Not required	Yes			
Channel Closing Transmission Time	Yes	Yes	Yes			
Channel Move Time	Yes	Yes	Yes			

Table 3: Interference Threshold values, Master or Client incorporating In-ServiceMonitoring

Maximum Transmit Power	Value
	(see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver as Note 2: Throughout these test procedures an addition of the test transmission waveforms to account for vari will ensure that the test signal is at or above the detect response.	al 1 dB has been added to the amplitude ations in measurement equipment. This

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Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds
Channel Closing Transmission Time	200 milliseconds +
	approx. 60 milliseconds
	over remaining 10 second
	period

The instant that the *Channel Move Time* and the *Channel Closing Transmission Time* begins is as follows:

For the Short pulse radar Test Signals this instant is the end of the Burst.

For the Frequency Hopping radar Test Signal, this instant is the end of the last radar burst generated.

For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission.

The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate channel changes (an aggregate of approximately 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Table 5 – Short Pulse Radar Test Waveforms

Radar	Pulse Width	PRI	Pulses	Minimum	Minimum
Туре	(Microseconds)	(Microseconds)		Percentage of	Trials
				Successful	
				Detection	
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (I	Radar Types 1-4)			80%	120

Table 6 – Long Pulse Radar Test Signal

Radar Waveform	Bursts	Pulses per Burst	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Minimum Percentage of Successful Detection	Minimum Trials
5	8-20	1-3	50-100	5-20	1000- 2000	80%	30

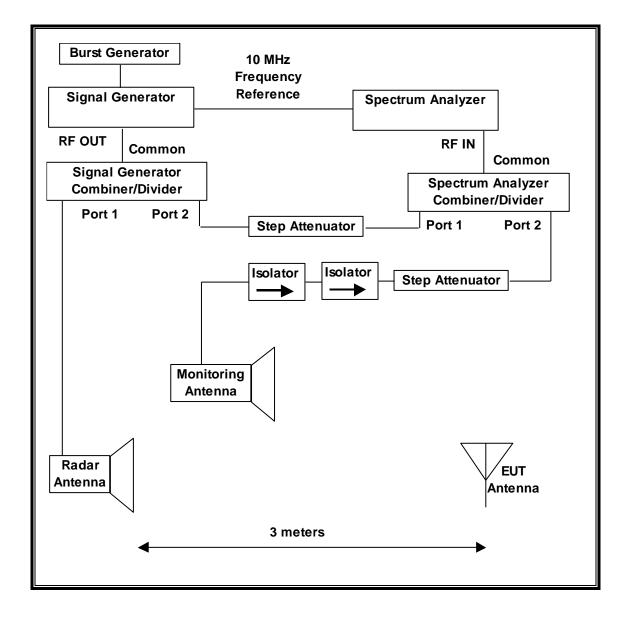
Table 7 – Frequency Hopping Radar Test Signal

Radar Waveform	Pulse Width (µsec)	PRI (µsec)	Burst Length (ms)	Pulses per Hop	Hopping Rate (kHz)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	300	9	.333	70%	30

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10.1.2. TEST AND MEASUREMENT SYSTEM

RADIATED METHOD SYSTEM BLOCK DIAGRAM



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SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at runtime.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

SYSTEM CALIBRATION

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

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ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

TEST AND MEASUREMENT EQUIPMENT

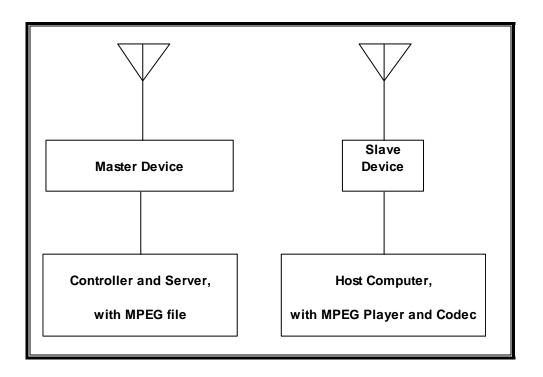
The following test and measurement equipment was utilized for the DFS tests documented in this report:

TEST EQUIPMENT LIST								
Description	Manufacturer	Model	Asset Number	Cal Due				
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/18/13				
Vector Signal Generator, 20GHz	Agilent / HP	E8267C	C01066	11/20/13				

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10.1.3. SETUP OF EUT

RADIATED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST							
Description	Manufacturer	Model	Serial Number	r FCC ID			
N600 Wireless Dual Band Router	Netgear	WNDR3400	2BK311730FF6B	PY309300116			
AC Adapter (AP) Netgear		FA-1201500SJA / FA-1201500SUA	4F105116T10209045B	DoC			
Notebook PC (Controller/Server)	HP	Pavilion zv6000	CND5290401	DoC			
AC Adapter (Controller/ Server PC)	HP	PA-1121-12HD	58B240ALLRK0HU	DoC			
Notebook PC (Host)	Apple	MacBook Pro A1297	C02H124BDV10	DoC			
AC Adapter (Host PC)	Delta Electronics	ADP-85EB T V85	C04207625HVDJ92BD	DoC			

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10.1.4. DESCRIPTION OF EUT

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

The EUT is a Slave Device without radar detection capabilities.

The highest power level within these bands is 27.34 dBm EIRP in the 5250-5350 MHz band and 27.41 dBm EIRP in the 5470-5725 MHz band.

The highest gain antenna assembly consists of 3 antennas with individual gains of 5.53 dBi, 1.34 dBi and 1.93 dBi in the 5250-5350 MHz band and 5.53 dBi, 2.68 dBi and 1.26 dBi in the 5470-5725 MHz band. The lowest gain antenna assembly consists of 3 antennas with individual gains of 4.52 dBi, 3.21 dBi and 1.48 dBi in the 5250-5350 MHz band and 4.72 dBi, 2.09 dBi and 2.85 dBi in the 5470-5725 MHz band.

Three antennas are utilized to meet the diversity and MIMO operational requirements.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is -64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides margin to the limit.

The EUT uses three transmitter/receiver chains, each connected to an antenna to perform radiated tests.

WLAN traffic exceeding the transmitter minimum activity ratio of 30% is generated by streaming the compressed video file "6 ½ Magic Hours" from the Master to the Slave in full motion video.

TPC is required since the maximum EIRP is greater than 500 mW (27 dBm).

The EUT utilizes the 802.11a/n architecture. Two nominal channel bandwidths are implemented: 20 MHz and 40 MHz.

The software installed in the access point is Linux revision 5.22.84.0.

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MANUFACTURER'S STATEMENT REGARDING UNIFORM CHANNEL SPREADING

This is not applicable to slave devices.

OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS

The Master Device is a Netgear N600 Dual Band Router, FCC ID: PY309300116. The DFS software installed in the Master Device is Linux revision 5.22.84.0. The minimum antenna gain for the Master Device is 2.73 dBi.

The calibrated radiated DFS Detection Threshold level is set to -64 dBm.

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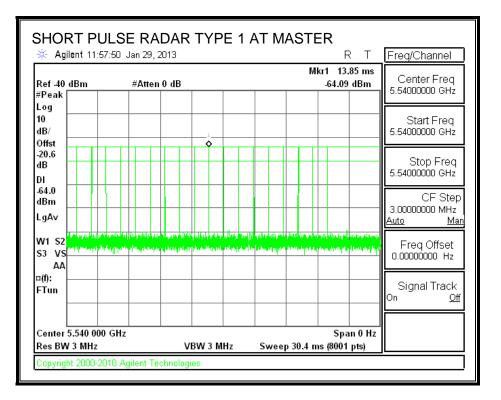
10.2. RESULTS FOR 20 MHz BANDWIDTH

10.2.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5540 MHz.

10.2.2. RADAR WAVEFORM AND TRAFFIC

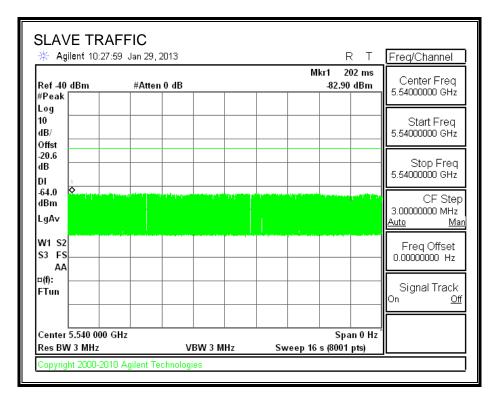
RADAR WAVEFORM



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TRAFFIC



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10.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

10.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

```
Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)
```

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

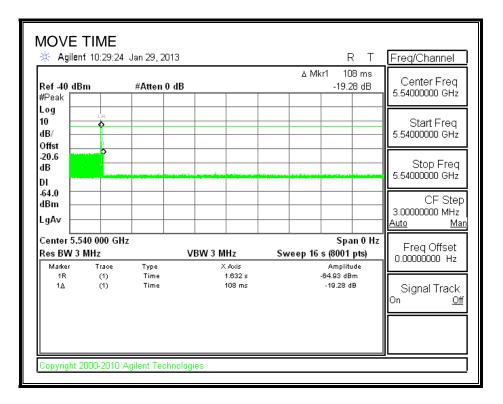
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Agency	Channel Move Time	Limit
	(sec)	(sec)
FCC / IC	0.108	10

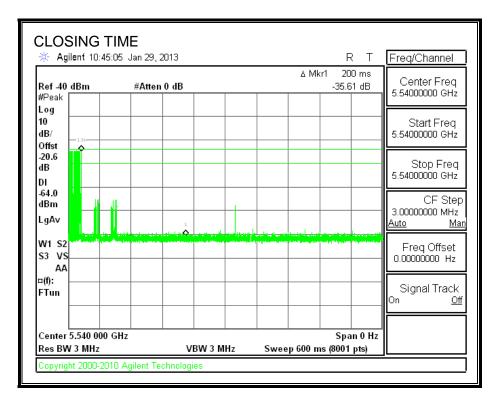
Agency	Aggregate Channel Closing Transmission Time	Limit
	(msec)	(msec)
FCC	0.0	60
IC	40.0	260

MOVE TIME



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CHANNEL CLOSING TIME

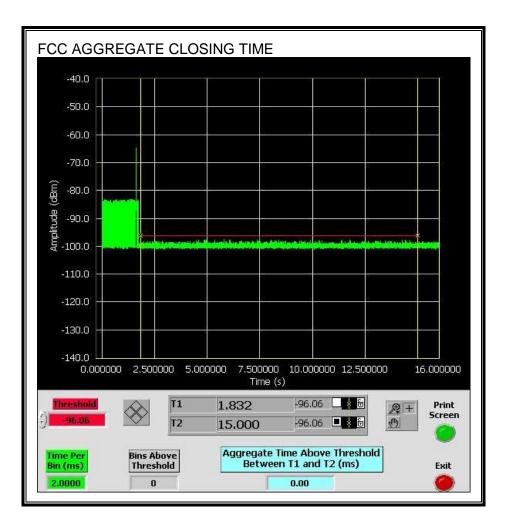


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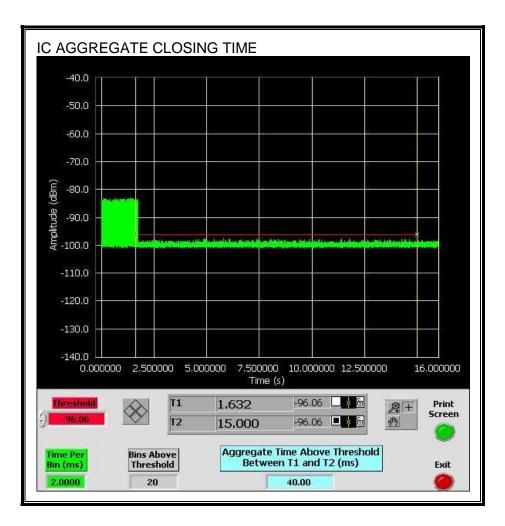
AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the FCC aggregate monitoring period.



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Only intermittent transmissions are observed during the IC aggregate monitoring period.



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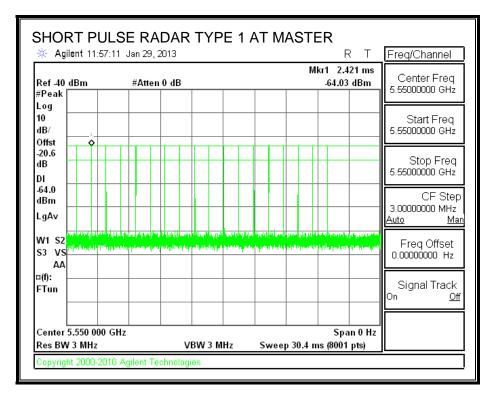
10.3. RESULTS FOR 40 MHz BANDWIDTH

10.3.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5550 MHz.

10.3.2. RADAR WAVEFORM AND TRAFFIC

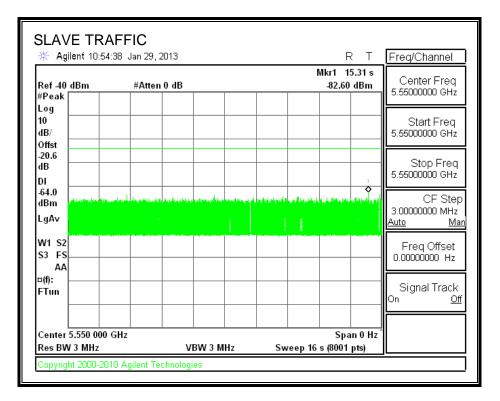
RADAR WAVEFORM



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TRAFFIC



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10.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

10.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

```
Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)
```

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

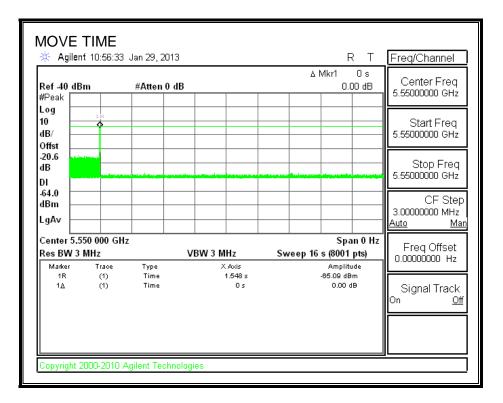
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Agency	Channel Move Time	Limit
	(sec)	(sec)
FCC / IC	0.000	10

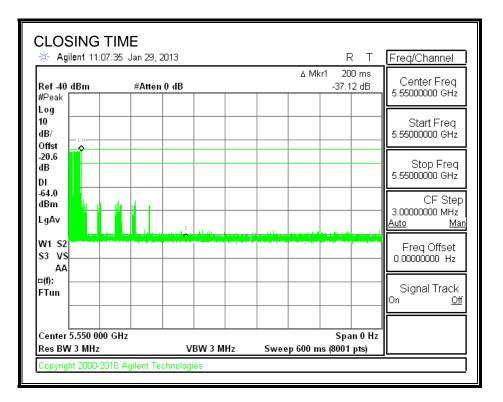
Agency	Aggregate Channel Closing Transmission Time	Limit
	(msec)	(msec)
FCC	0.0	60
IC	0.0	260

MOVE TIME



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CHANNEL CLOSING TIME

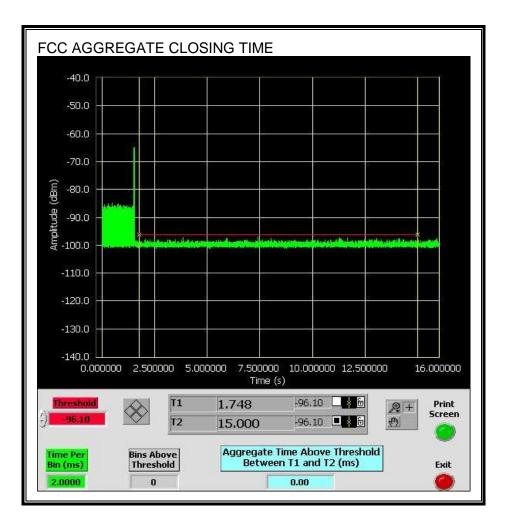


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AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

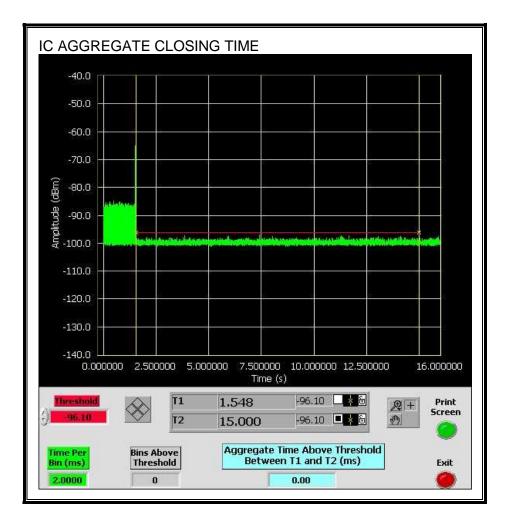
No transmissions are observed during the FCC aggregate monitoring period.



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No transmissions are observed during the IC aggregate monitoring period.



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10.3.5. NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.

Agilent 11:54			Δ.Ν	R T 1kr1 1.8 ks	Freq/Channel
Ref -40 dBm #Peak	#Atten 0 dB			-33.42 dB	Center Freq 5.55000000 GHz
Log 10 dB/ Dffst					Start Freq 5.5500000 GHz
20.6 dB DI					Stop Freq 5.5500000 GHz
64.0 dBm LgAv				1	CF Step 3.00000000 MHz <u>Auto Ma</u>
W1 S2 S3 FS AA					Freq Offset 0.00000000 Hz
a(f): FTun					Signal Track On <u>Of</u>
Center 5.550 000 Res BW 3 MHz		/BW 3 MHz	Sween 21	Span 0 Hz î (s (8001 pts)	

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11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)		
	Quasi-peak	Average	
0.15-0.5	66 to 56	56 to 46 *	
0.5-5	56	46	
5-30	60	50	

Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

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RESULTS

<u>6 WORST EMISSIONS</u>

Project No :12U14669 Client Name: Broadcom Model/Device: BCM94360CD Test Volt/Freq: EUT, Adapter Board, Antenna Test By: John Nguyen

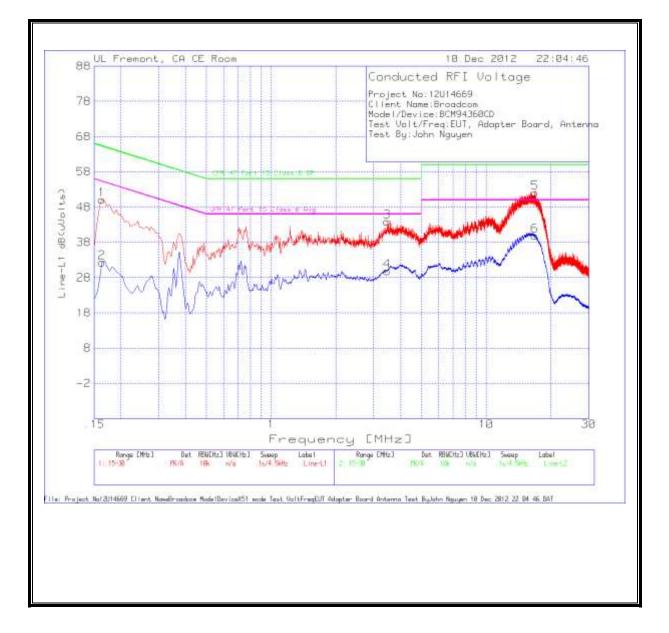
			T24 IL	LC Cables		CFR 47 Part 15		CFR 47 Part 15	
Test	Meter		L1.TXT	1&3.TXT		Class B		Class B	
Frequency	Reading	Detector	(dB)	(dB)	dB(uVolts)	QP	Margin	Avg	Margin
Line-L1 .15	- 30MHz								
0.1635	49.99	РК	0.1	0	50.09	65.3	-15.21	-	-
0.1635	32.23	Av	0.1	0	32.33	-	-	55.3	-22.97
3.579	43.91	РК	0.2	0.1	44.21	56	-11.79	-	-
3.579	30.95	Av	0.2	0.1	31.25	-	-	46	-14.75
16.9935	50.75	РК	0.2	0.2	51.15	60	-8.85	-	-
16.9935	39.3	Av	0.2	0.2	39.7	-	-	50	-10.3
Line-L2 .15	- 30MHz								
0.312	50.32	РК	0.1	0	50.42	59.9	-9.48	-	-
0.312	32.37	Av	0.1	0	32.47	-	-	49.9	-17.43
0.555	45.45	РК	0.1	0	45.55	56	-10.45	-	-
0.555	27.34	Av	0.1	0	27.44	-	-	46	-18.56
15.837	50.95	РК	0.2	0.2	51.35	60	-8.65	-	-
15.837	39.95	Av	0.2	0.2	40.35	-	-	50	-9.65

PK - Peak detector

QP - Quasi-Peak detector

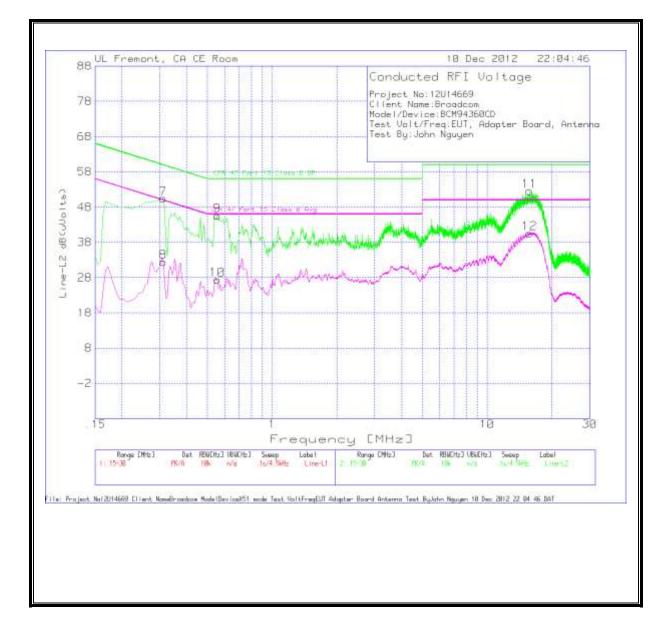
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LINE 1 RESULTS



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LINE 2 RESULTS



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