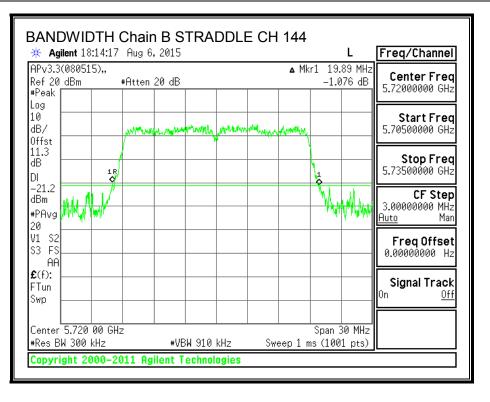
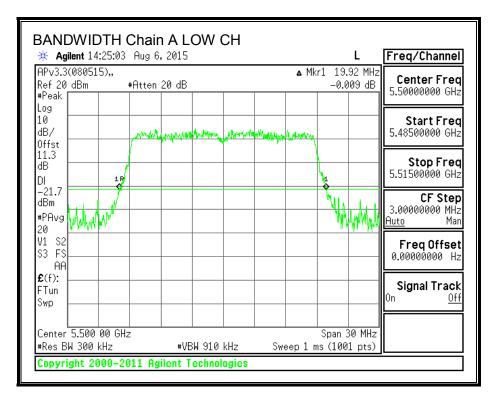


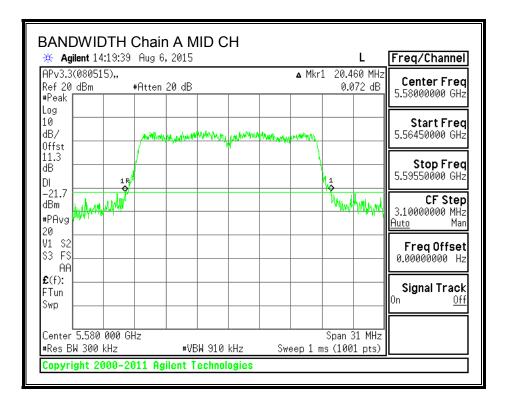
Page 151 of 437



Page 152 of 437

26 dB BANDWIDTH, Chain A

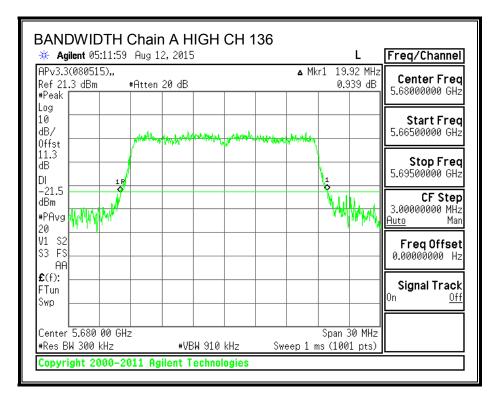


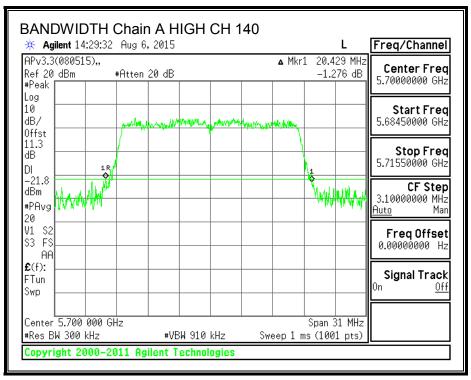


Page 153 of 437

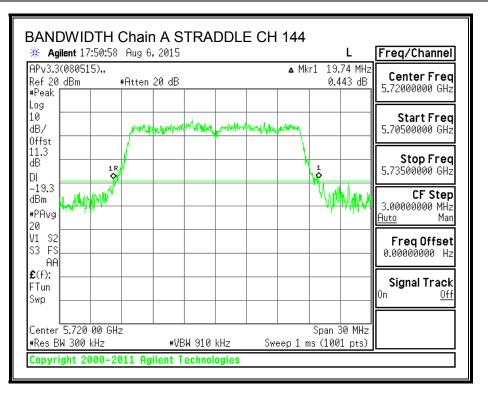
UL LLC







Page 154 of 437



Page 155 of 437

8.11.2. 99% BANDWIDTH

LIMITS

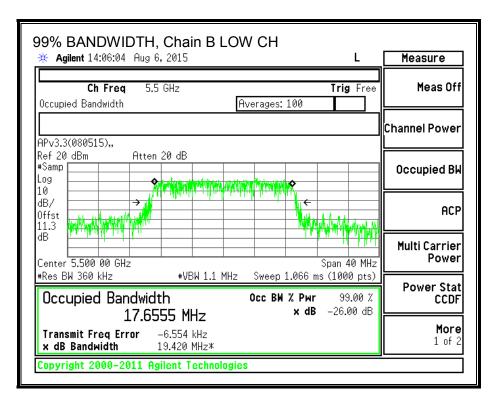
None; for reporting purposes only.

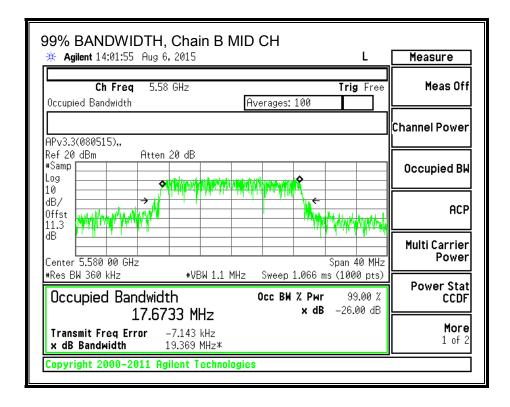
<u>RESULTS</u>

Channel	Frequency	99% BW	99% BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5500	17.6555	17.6692
Mid	5580	17.6733	17.6774
High CH 136	5680	17.6711	17.6758
High CH 140	5700	17.6725	17.6670
144	5720	17.6696	17.6685

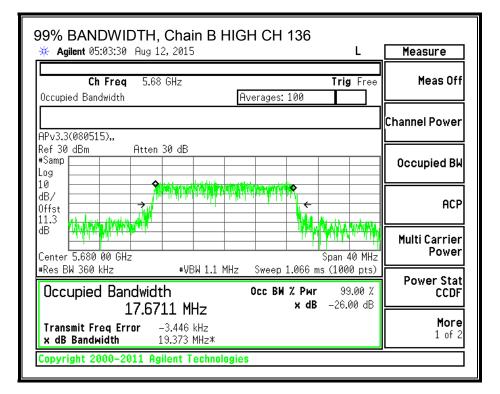
Page 156 of 437

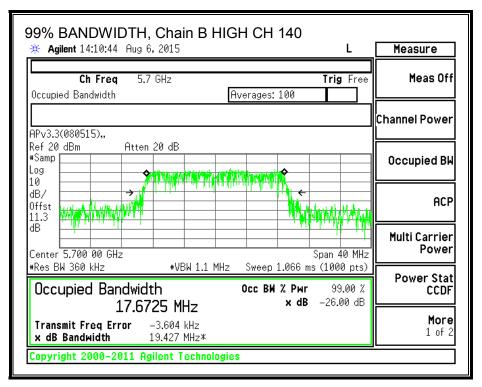
99% BANDWIDTH, Chain B





Page 157 of 437



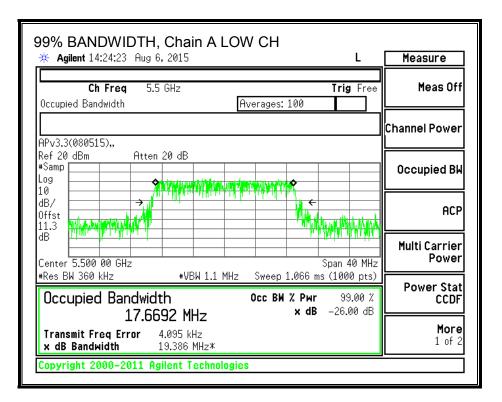


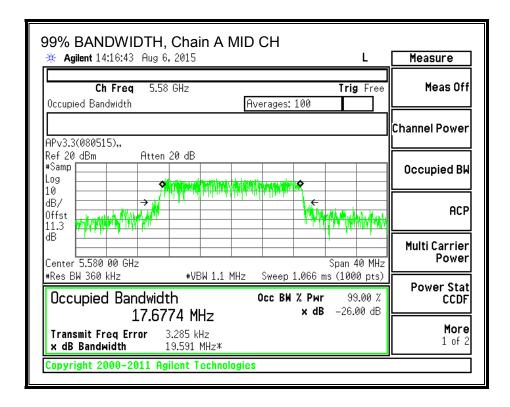
Page 158 of 437

99% BANDWIDTH, Chain B STRADDLE CH 144	Measure
Ch Freq 5.72 GHz Trig Free Occupied Bandwidth Averages: 100	Meas Off
APv3.3(080515),	Channel Power
Ref 20 dBm Atten 20 dB *Samp Log 10 • • • • • • • • • • • • • • • • • • •	Occupied BW
dB/ dB/ offst 11.3 dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/	ACP
Center 5.720 00 GHz Span 40 MHz	Multi Carrier Power
*Res BW 360 kHz *VBW 1.1 MHz Sweep 1.066 ms (1000 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % 17.6696 MHz × dB -26.00 dB	Power Stat CCDF
Transmit Freq Error 9.751 kHz x dB Bandwidth 19.525 MHz*	More 1 of 2
Copyright 2000–2011 Agilent Technologies	

Page 159 of 437

99% BANDWIDTH, Chain A

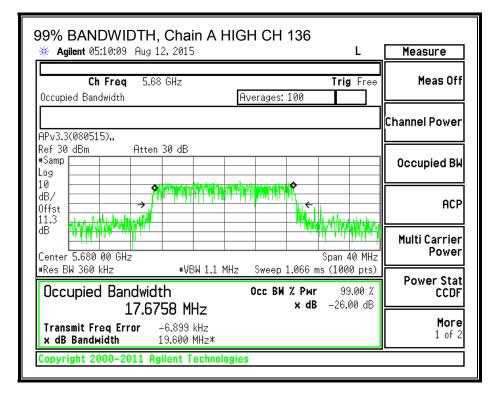


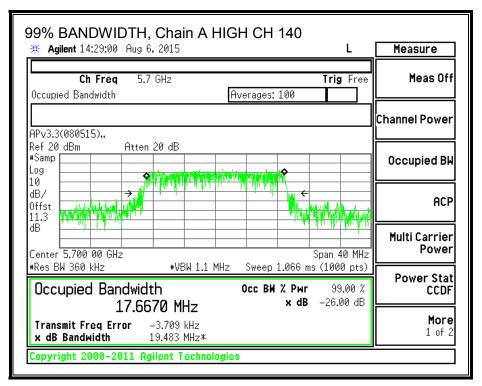


Page 160 of 437

FORM NO: 03-EM-F00858

TEL: (919) 549-1400





Page 161 of 437

99% BANDWIDTH, Chain A STRADDLE CH 144	Measure
Ch Freq 5.72 GHz Trig Free Occupied Bandwidth Averages: 100	Meas Off
APv3.3(080515),	Channel Power
Ref 20 dBm Atten 20 dB #Samp Log Assessment for the sublevel set water and the set of th	Occupied BW
10 dB/ Offst 11.3	ACP
dB dB<	Multi Carrier Power
#Res BW 360 kHz #VBW 1.1 MHz Sweep 1.066 ms (1000 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % 17 CCOE MU- X dB -26.00 dB	Power Stat CCDF
17.6685 MHz × dB -26.00 dB Transmit Freq Error 3.778 kHz × AB Bandwidth 19.988 MHz*	More 1 of 2
Copyright 2000–2011 Agilent Technologies	

Page 162 of 437

8.11.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.10	2.30	2.20

Page 163 of 437

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5500	19.80	2.20	2.20	23.97	11.00
Mid	5580	20.06	2.20	2.20	24.00	11.00
High CH 136	5680	19.92	2.20	2.20	23.99	11.00
High CH 140	5700	19.83	2.20	2.20	23.97	11.00

Duty Cycle CF (dB) 0.00

Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	13.46	13.46	16.47	23.97	-7.50
Mid	5580	13.45	13.14	16.31	24.00	-7.69
High CH 136	5680	14.30	13.51	16.93	23.99	-7.06
High CH 140	5700	12.83	12.64	15.75	23.97	-8.23

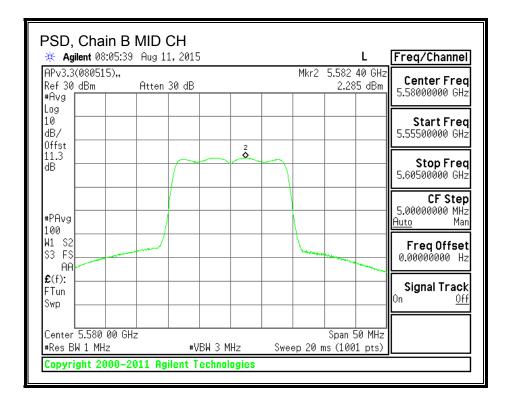
PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	2.44	2.45	5.46	11.00	-5.54
Mid	5580	2.29	2.66	5.48	11.00	-5.52
High CH 136	5680	2.88	2.86	5.88	11.00	-5.12
High CH 140	5700	1.80	1.79	4.81	11.00	-6.19

Page 164 of 437

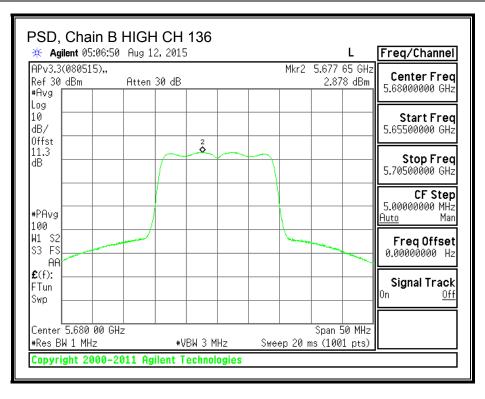
PSD, Chain B

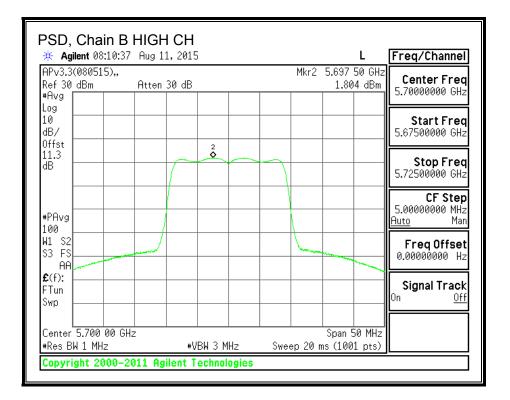
PSD, Chain B LO			L	Freq/Channel
#Avg	en 30 dB	Mkr2	5.502 35 GHz 2.443 dBm	Center Freq 5.50000000 GHz
Log 10 dB/ Offst		2		Start Freq 5.47500000 GHz
dB		Ó		Stop Freq 5.52500000 GHz
#PAvg				CF Step 5.00000000 MHz <u>Auto</u> Man
100 W1 S2 S3 FS				FreqOffset 0.00000000 Hz
£(f): FTun Swp				Signal Track ^{On <u>Off</u>}
Center 5.500 00 GHz #Res BW 1 MHz	#VBW 3 MHz	Sweep 20 i	Span 50 MHz ns (1001 pts)	



Page 165 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

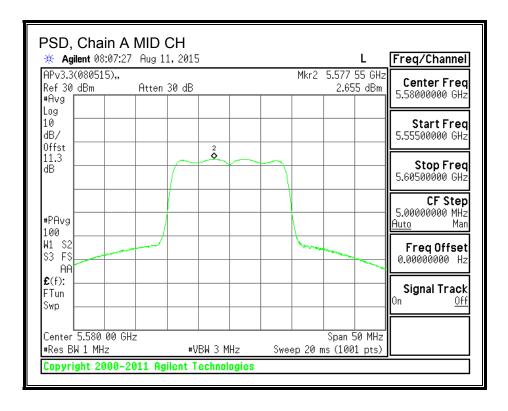




Page 166 of 437

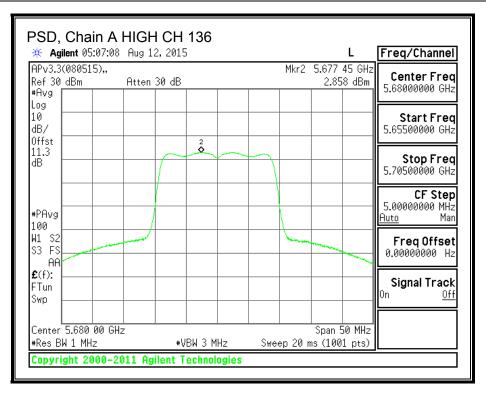
PSD, Chain A

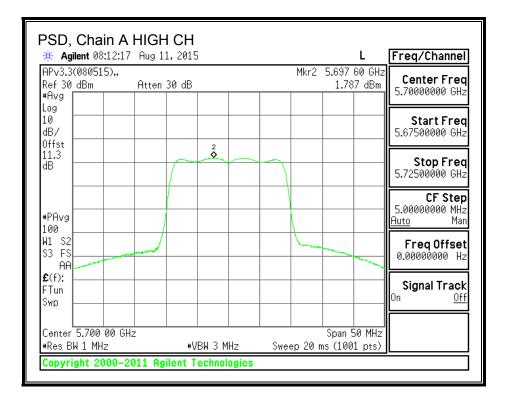
PSD, Chain A LOW * Agilent 08:03:23 Aug 1			L	Freq/Channel
APv3.3(080515),, Ref 30 dBm Atten #Avg		Mkr2 5	5.497 40 GHz 2.452 dBm	Center Freq 5.50000000 GHz
Log 10 dB/ 0ffst				Start Freq 5.47500000 GHz
dB				Stop Freq 5.52500000 GHz
#PAvg				CF Step 5.00000000 MHz <u>Auto</u> Man
W1 S2 S3 FS AA		<u> </u>		Freq Offset 0.00000000 Hz
£(f): FTun Swp				Signal Track ^{On <u>Off</u>}
Center 5.500 00 GHz #Res BW 1 MHz	#VBW 3 MHz	Sweep 20 ms	Span 50 MHz s (1001 pts)	
Copyright 2000-2011 Ag	ilent Technologies			



Page 167 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*





Page 168 of 437

STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	19.74	2.20	2.20	23.95	11.00

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

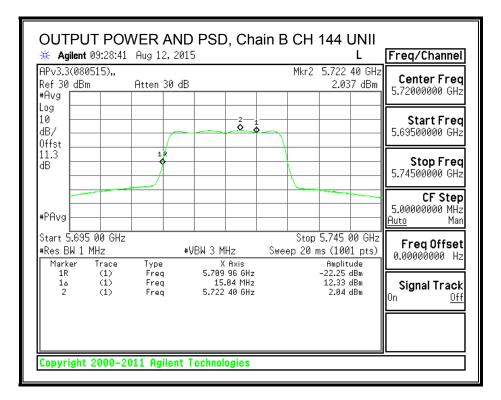
Output Power Results

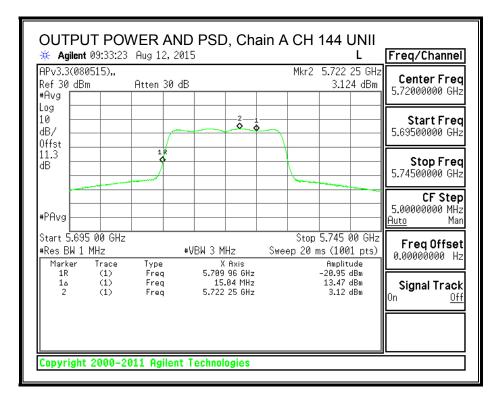
Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	12.33	13.47	15.95	23.95	-8.01

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	2.04	3.12	5.62	11.00	-5.38

Page 169 of 437





Page 170 of 437

UL LLC

Antenna Gain and Limit

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	2.20	2.20	30.00	30.00

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

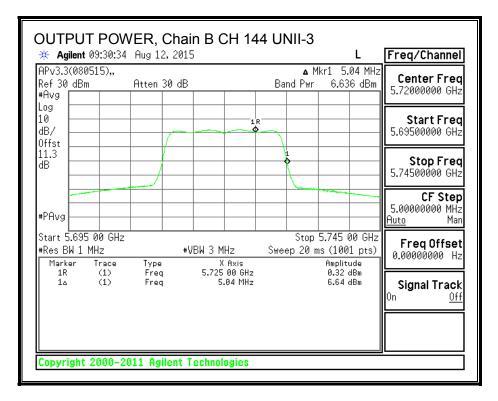
Output Power Results

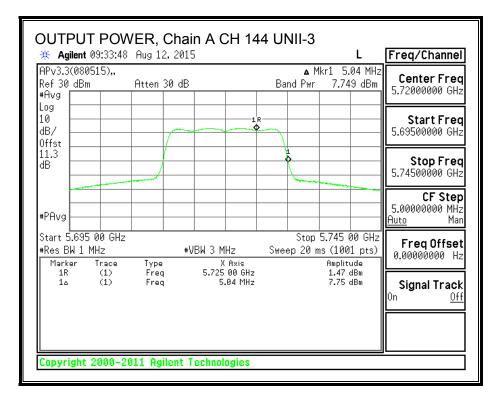
Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	6.64	7.75	10.24	30.00	-19.76

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	-0.89	-0.19	2.48	30.00	-27.52

Page 171 of 437



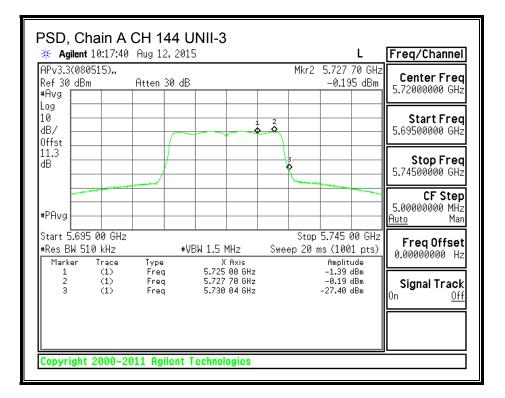


Page 172 of 437

UL LLC 12 Laboratory Dr., RTP, NC 27709

FORM NO: 03-EM-F00858 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

		CH 144 L Aug 12, 201			L	Freq/Channel
Ref 30 #Avg	(080515),, dBm	Atten 30 dB		Mkr2	5.727 70 GHz -0.887 dBm	Center Freq 5.72000000 GHz
Log 10 dB/ Offst			1	2		Start Freq 5.69500000 GHz
11.3 dB				3		Stop Freq 5.74500000 GHz
#PAvg						CF Step 5.00000000 MHz <u>Auto</u> Man
#Res B Marke		#V Type	BW 1.5 MHz X Axis		5.745 00 GHz s (1001 pts) Amplitude	Freq Offset 0.00000000 Hz
1 2 3	(1) (1) (1)	Freq Freq Freq	5.725 00 GHz 5.727 70 GHz 5.730 04 GHz		-2.21 dBm -0.89 dBm -28.74 dBm	Signal Track ^{On <u>Off</u>}
Copyri	ght 2000-2	011 Agilent	lechnologies			



Page 173 of 437

UL LLC 12 Laboratory Dr., RTP, NC 27709

FORM NO: 03-EM-F00858 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

8.11.4. TPC POWER

LIMITS

FCC §15.407 (h) (1)

Transmit power control (TPC). U-NII devices operating in the 5.25–5.35 GHz band and the 5.47–5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains	
Antenna	Antenna	Directional	
Gain	Gain	Gain	
(dBi)	(dBi)	(dBi)	
2.10	2.30	2.20	

Page 174 of 437

RESULTS

TPC Limits

Channel	Frequency	Limit Directiona		Limit
		EIRP	Gain	Cond
	(MHz)	(dBm)	(dBi)	(dBm)
Low	5500	24	2.20	21.80
Mid	5580	24	2.20	21.80
High CH 136	5680	24	2.20	21.80
High CH 140	5700	24	2.20	21.80

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

TPC Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Cond	Margin
		Meas	Meas	Corr'd	Power	
		Power	Power	Power	Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	13.46	13.46	16.47	21.80	-5.33
Mid	5580	13.45	13.14	16.31	21.80	-5.49
High CH 136	5680	14.30	13.51	16.93	21.80	-4.87
High CH 140	5700	12.83	12.64	15.75	21.80	-6.05

Page 175 of 437

8.12. 802.11n HT40 MODE IN THE 5.6 GHz BAND

8.12.1. 26 dB BANDWIDTH

LIMITS

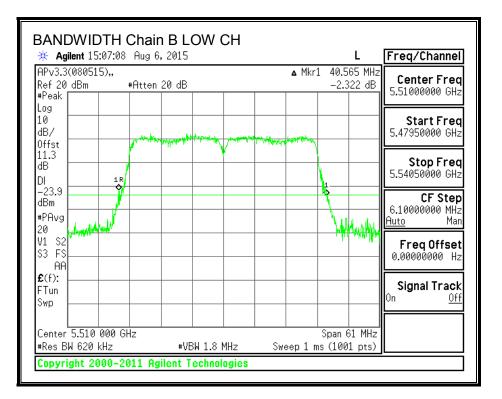
None; for reporting purposes only.

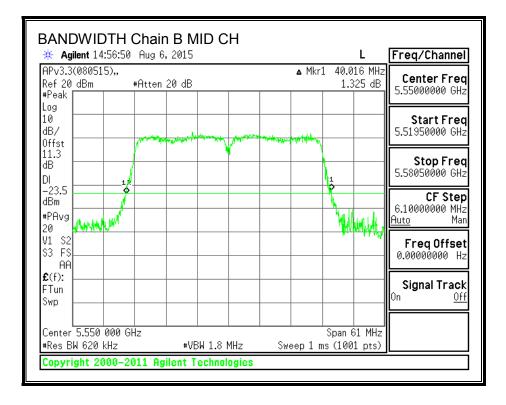
RESULTS

Channel	Frequency	26 dB BW	26 dB BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5510	40.57	40.44
Mid	5550	40.02	40.98
High	5670	40.92	39.84
142	5710	40.80	40.44

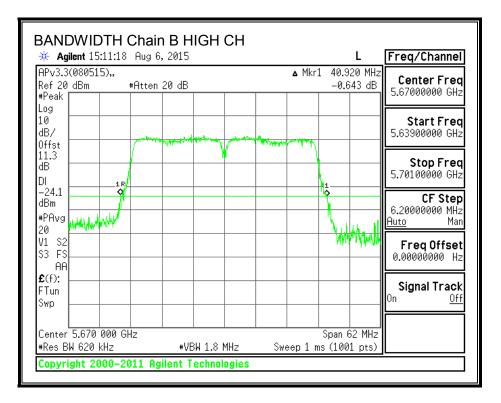
Page 176 of 437

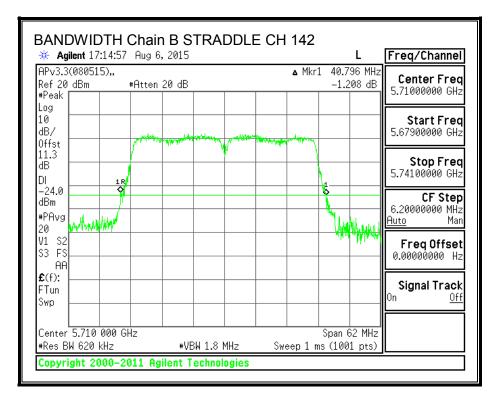
26 dB BANDWIDTH, Chain B





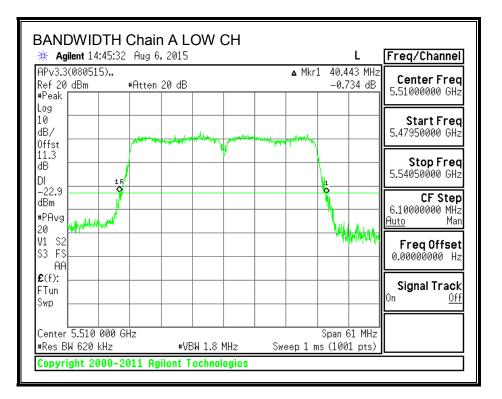
Page 177 of 437 UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

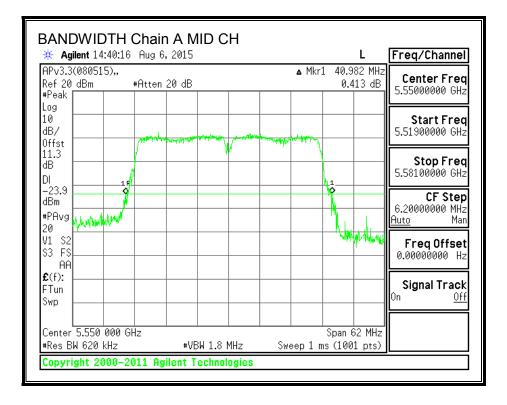




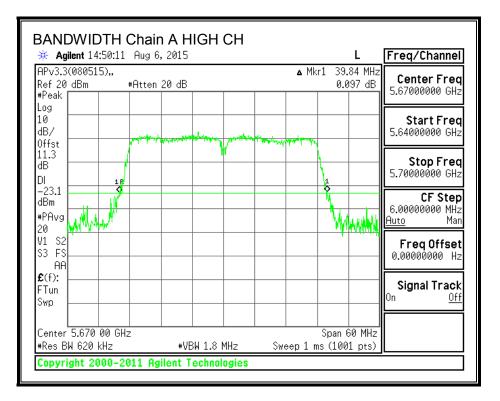
Page 178 of 437 FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

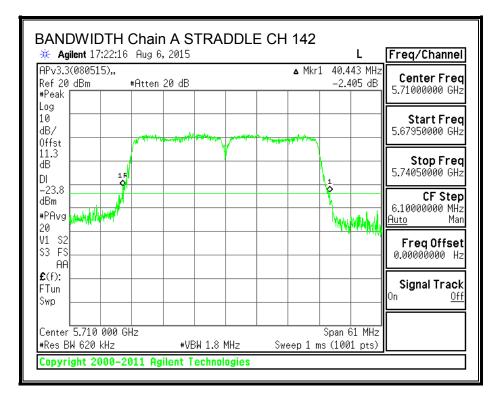
26 dB BANDWIDTH, Chain A





Page 179 of 437





Page 180 of 437

UL LLC

8.12.2. 99% BANDWIDTH

LIMITS

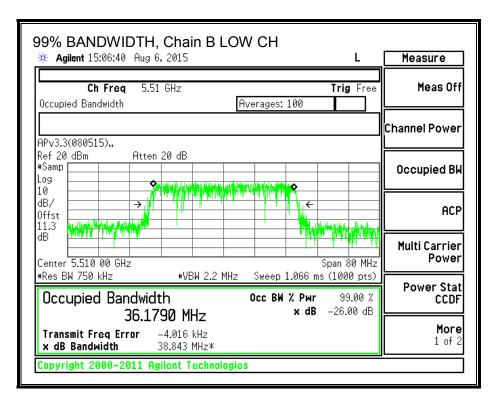
None; for reporting purposes only.

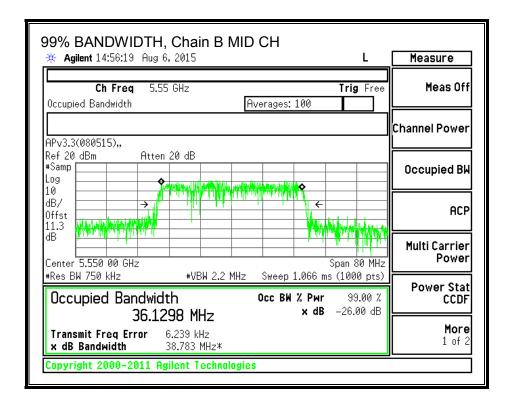
RESULTS

Channel	Frequency	99% BW	99% BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5510	36.1790	36.1628
Mid	5550	36.1298	36.1403
High	5670	36.1485	36.1731
142	5710	36.1511	36.1695

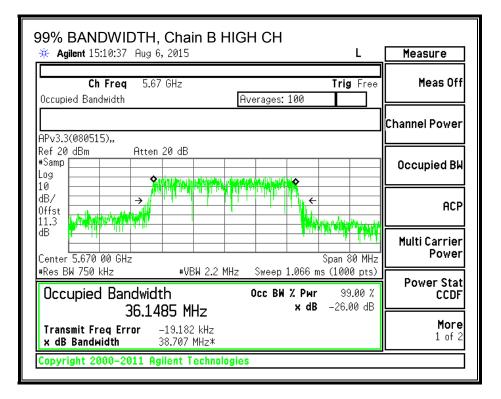
Page 181 of 437

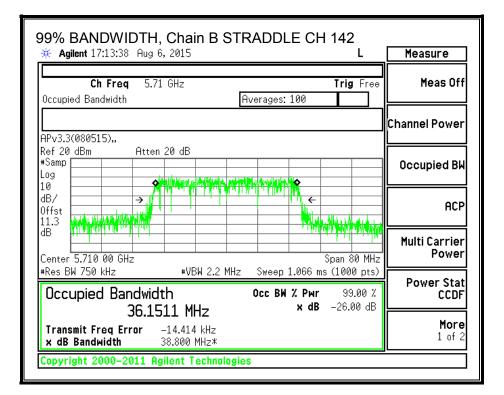
99% BANDWIDTH, Chain B





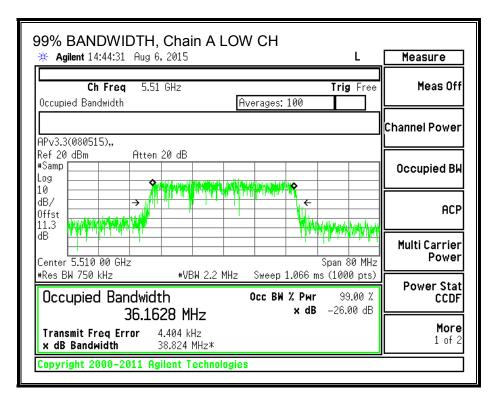
Page 182 of 437

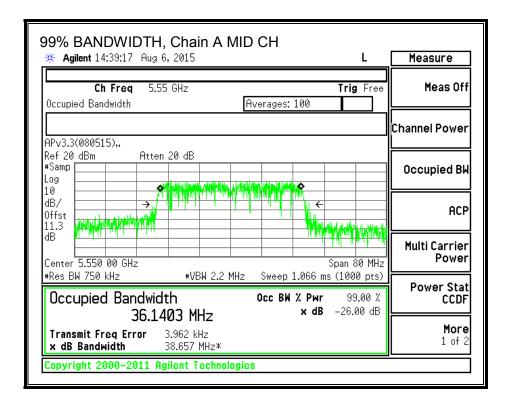




Page 183 of 437

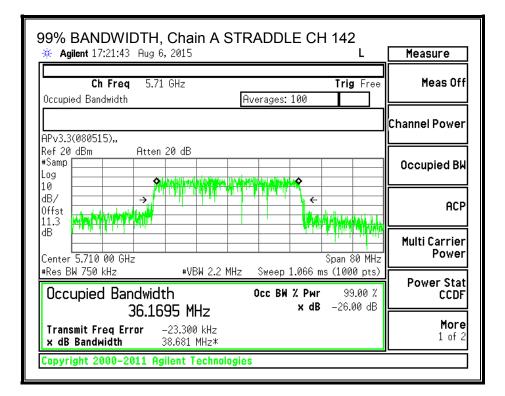
99% BANDWIDTH, Chain A





Page 184 of 437

99% BANDWIDTH, Chain /	A HIGH CH	
🔆 Agilent 14:49:39 Aug 6, 2015	L	Measure
Ch Freq 5.67 GHz Occupied Bandwidth	Trig Free Averages: 100	Meas Off
		Channel Power
APv3.3(080515),,		
Ref 20 dBm Atten 20 dB #Samp Log 10 Atten 20 dB		Occupied BW
dB/ Offst 1.3 uddetter Minister for the second s		ACP
dB	Span 80 MHz	Multi Carrier Power
#Res BW 750 kHz #VBW 2	.2 MHz Sweep 1.066 ms (1000 pts)	
Оссирied Bandwidth осс ви % Рыг 99.00 % 36.1731 MHz × dB -26.00 dB		Power Stat CCDF
Transmit Freq Error -39.564 kH x dB Bandwidth 38.839 MHz		More 1 of 2
Copyright 2000–2011 Agilent Technologies		



Page 185 of 437

8.12.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.10	2.30	2.20

Page 186 of 437

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5510	40.44	2.30	2.30	24.00	11.00
Mid	5550	40.02	2.30	2.30	24.00	11.00
High	5670	39.84	2.30	2.30	24.00	11.00

Duty Cycle CF (dB) 0.00

Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	11.04	11.06	14.06	24.00	-9.94
Mid	5550	10.92	10.81	13.88	24.00	-10.12
High	5670	11.09	11.01	14.06	24.00	-9.94

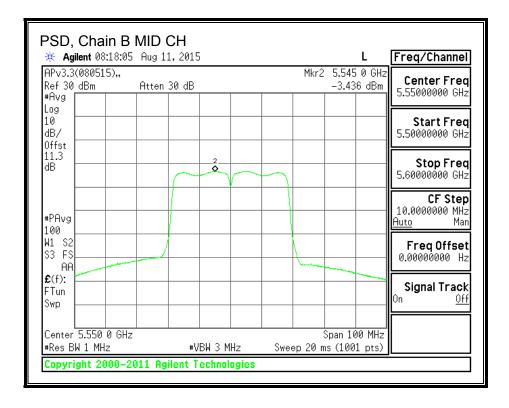
PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	-3.55	-3.18	-0.35	11.00	-11.35
Mid	5550	-3.44	-3.15	-0.28	11.00	-11.28
High	5670	-3.22	-3.13	-0.16	11.00	-11.16

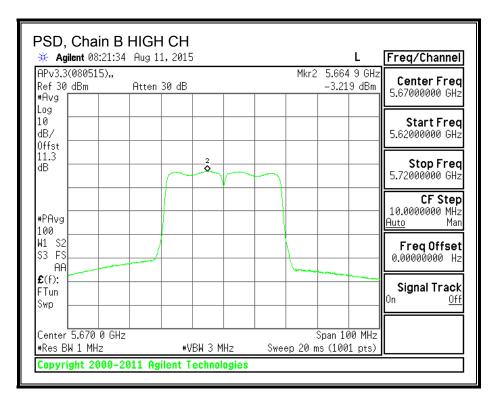
Page 187 of 437

PSD, Chain B

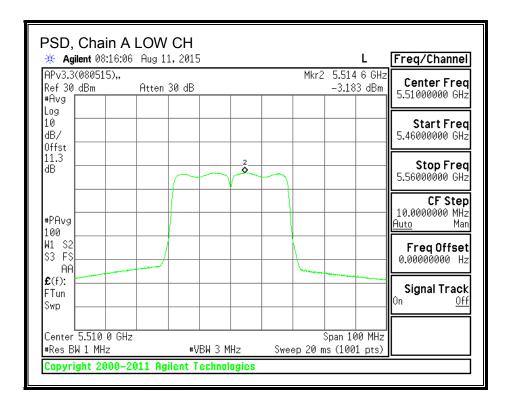
PSD, Chain B LOW		L	Freq/Channel
APv3.3(080515),, Ref 30 dBm Atten #Avg	30 dB	Mkr2 5.504 5 GH -3.545 dBm	II Contor Front
Log 10 dB/ 0ffst			Start Freq 5.46000000 GHz
11.3 dB	2		- Stop Freq 5.56000000 GHz
#PAvg			CF Step 10.0000000 MHz <u>Auto</u> Man
W1 S2 S3 FS АА			Freq Offset 0.00000000 Hz
£(f): FTun Swp			Signal Track
Center 5.510 0 GHz #Res BW 1 MHz Copyright 2000-2011 Ag	#VBW 3 MHz	Span 100 MH Sweep 20 ms (1001 pts	



Page 188 of 437

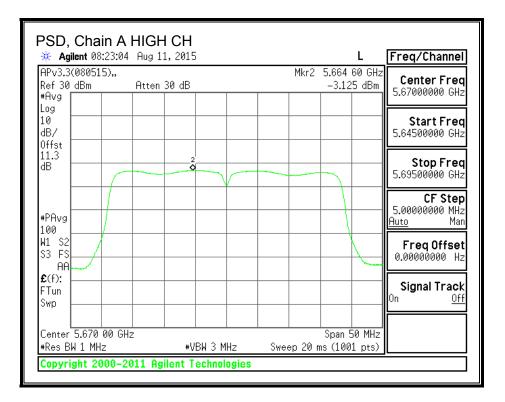


PSD, Chain A



Page 189 of 437

PSD, Chain A Ⅰ				L	Freq/Channel
#Avg	Atten 30 dB		Mkr2	5.555 6 GH: -3.150 dBm	
Log 10 dB/ Offst					Start Freq 5.50000000 GHz
dB		2	\neg		Stop Freq 5.60000000 GHz
#PAvg					CF Step 10.0000000 MHz <u>Auto</u> Man
41 S2 S3 FS AA					Freq Offset 0.00000000 Hz
E(f): Tun Swp					Signal Track On <u>Off</u>
Center 5.550 0 GHz •Res BW 1 MHz	#VBW 3	MHz		Span 100 MHz ns (1001 pts)	



Page 190 of 437

STRADDLE CHANNEL 142 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	40.44	2.20	2.20	24.00	11.00

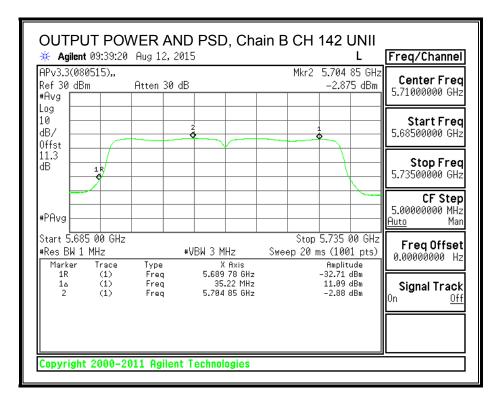
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

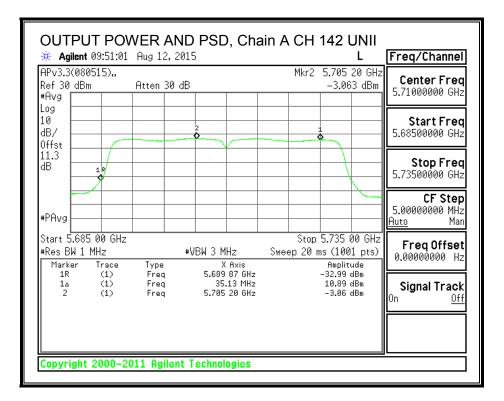
Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	11.09	10.89	14.00	24.00	-10.00

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.88	-3.06	0.04	11.00	-10.96





Page 192 of 437

UL LLC

UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power for PSD			
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	2.20	2.20	30.00	30.00

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

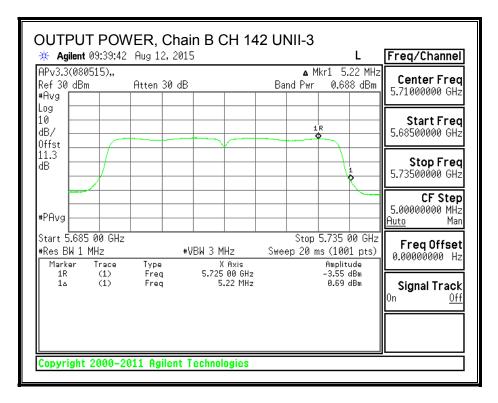
Output Power Results

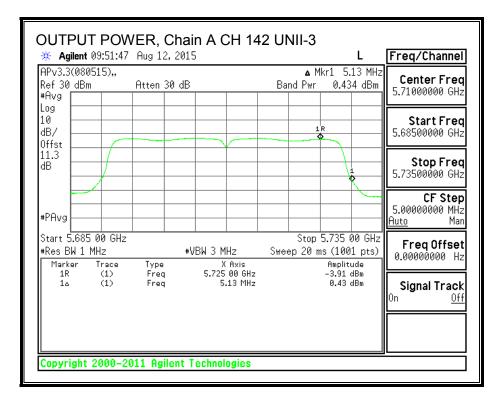
Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	0.69	0.43	3.57	30.00	-26.43

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-6.30	-6.53	-3.40	30.00	-33.40

Page 193 of 437

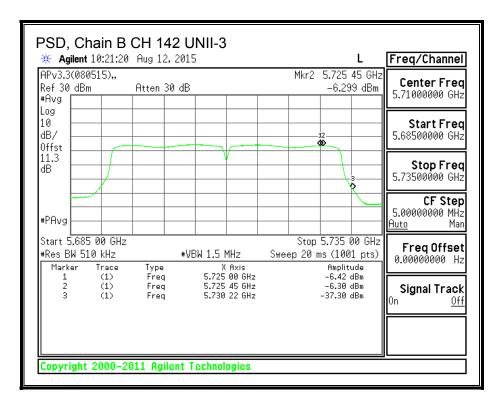


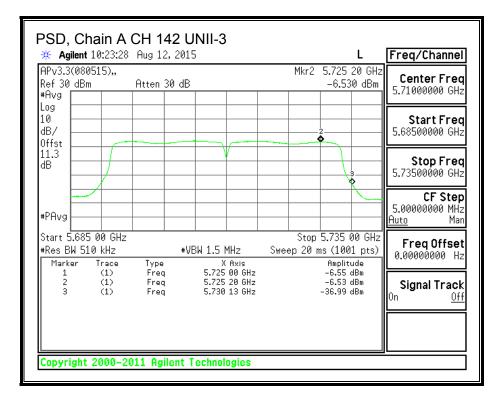


Page 194 of 437

UL LLC 12 Laboratory Dr., RTP, NC 27709

FORM NO: 03-EM-F00858 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.





Page 195 of 437

FORM NO: 03-EM-F00858 TEL: (919) 549-1400

8.12.4. TPC POWER

LIMITS

FCC §15.407 (h) (1)

Transmit power control (TPC). U-NII devices operating in the 5.25–5.35 GHz band and the 5.47–5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.10	2.30	2.20

Page 196 of 437

TPC Limits

Channel	Frequency	Limit	Directional	Limit
		EIRP	Gain	Cond
	(MHz)	(dBm)	(dBi)	(dBm)
Low	5510	24	2.20	21.80
Mid	5550	24	2.20	21.80
High	5670	24	2.20	21.80

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

TPC Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Cond	Margin
		Meas Power	Meas Power	Corr'd Power	Power Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	11.04	11.06	14.06	21.80	-7.74
Mid	5550	10.92	10.81	13.88	21.80	-7.92
High	5670	11.09	11.01	14.06	21.80	-7.74

8.13. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

8.13.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

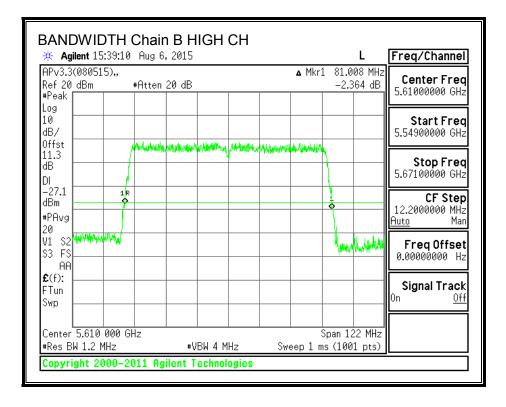
RESULTS

Channel	Frequency	26 dB BW	26 dB BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5530	81.55	81.50
High	5610	81.01	81.50
138	5690	81.80	81.01

Page 198 of 437

26 dB BANDWIDTH, Chain B

APv3.3(080515),, ▲ Mkr1 81.549 MHz Center Freq Ref 20 dBm *Atten 20 dB 0.581 dB 5.5300000 GHz *Peak	BANDWIDTH Chair		L	Freq/Channel
10 dB/ dB	Ref 20 dBm #Atten #Peak	20 dB		Center Freq
11.3 dB DI -27.6 dBm 18 dB Stop Freq 5.59150000 GHz 18 dBm 1 t CF Step 12.3000000 MHz Auto 20 V1 S2 S3 FS 18 dBm 1 t 20 V1 S2 C(f): FTun Swp Stop Freq to to to to to to to to to to to to to	10 dB/	L	The second secon	
dBm CF Step #PAvg 12.300000 MHz 20 12.300000 MHz 20 Man V1 S2 Strand AA A £(f): FTun Swp Signal Track Center 5.530 000 GHz Span 123 MHz	11.3 dB DI	and and an		Stop Freq 5.59150000 GHz
V1 S2 Freq Offset S3 FS Freq Offset 0.00000000 Hz AA Image: Signal Track Image: Signal Track Image: Signal Track Center 5.530 000 GHz Span 123 MHz Image: Signal Track Image: Signal Track	dBm 🔶 🔶			12.3000000 MHz
FTun Swp Signal Track On Off Center 5.530 000 GHz Span 123 MHz	V1 S2 S3 FS		MANNAT	FreqOffset 0.00000000 Hz
	FTun			
	Center 5.530 000 GHz #Res BW 1.2 MHz	#VBW 4 MHz	Span 123 MHz Sweep 1 ms (1001 pts)	



Page 199 of 437

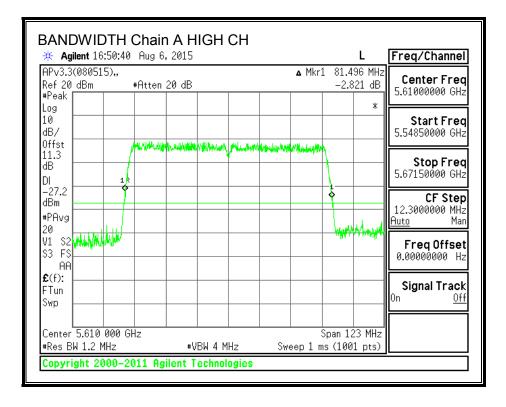
UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

🔆 Agilent 15:52:03 Aug	6,2015		L Freq/Channel
#Peak	n 20 dB	▲ Mkr1 81.79 0.21	5 MHz 2 dB 5.69000000 GHz
Log 10 dB/ 0ffst			Start Freq 5.62850000 GHz
dB	laste allen nan vite stenden til hen stillen. I Men vite stende som	Hill Hills Harablake Aurora Mark	Stop Freq 5.75150000 GHz
-27.1 18 dBm +PAvg			CF Step 12.3000000 MHz <u>Auto</u> Man
20 V1 S2 S3 FS AA		- Maran	
£(f): FTun Swp			Signal Track
Center 5.690 000 GHz #Res BW 1.2 MHz	#VBW 4 MHz	Span 123 Sweep 1 ms (1001	

Page 200 of 437

26 dB BANDWIDTH, Chain A

BANDWIDTH Chair		L	Freq/Channel
APv3.3(080515),, Ref 20 dBm #Atten #Peak	20 dB	▲ Mkr1 81.496 Mk -2.012 dl	B Center Freq 5.53000000 GHz
Log 10 dB/ 0ffst	ata ba dika tata - dika diki		Start Freq 5.46850000 GHz
11.3 dB DI	Allender Handeler an Jona (1994)		Stop Freq 5.59150000 GHz
-27.6 4 dBm 4 #PAvg 20			CF Step 12.3000000 MHz <u>Auto</u> Man
V1 S2 44444 () S3 FS АА		Willind Wi	Freq Offset 0.00000000 Hz
£(f): FTun Swp			Signal Track
Center 5.530 000 GHz #Res BW 1.2 MHz	#VBW 4 MHz	Span 123 MH Sweep 1 ms (1001 pts	



Page 201 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

-	16:54:28	Hug 6,	2015						L	Freq/Channel
APv3.3(080 Ref 20 dBm #Peak		#Atten :	20 dB				▲ Mkr:		08 MHz 30 dB	Center Freq 5.69000000 GHz
Log 10 dB/										Start Freq 5.62900000 GHz
Offst 11.3 dB DI	+	all and Light to	ulvikketen of the	WHAT ANY	18-4-14 19-4-18-4.	Verdensitelik	tor ladiated			Stop Freq 5.75100000 GHz
-26.5 dBm	1R									CF Step 12.2000000 MHz Auto Man
20 V1 S2 S3 FS	a dd freidau							- l _{ullon}	-topologica,to	Freq Offset
AA £(f): FTun Swp										Signal Track
Center 5.69 #Res BW 1.2		łz		W 4 M			ep 1 m	Span 12		

Page 202 of 437

8.13.2. 99% BANDWIDTH

LIMITS

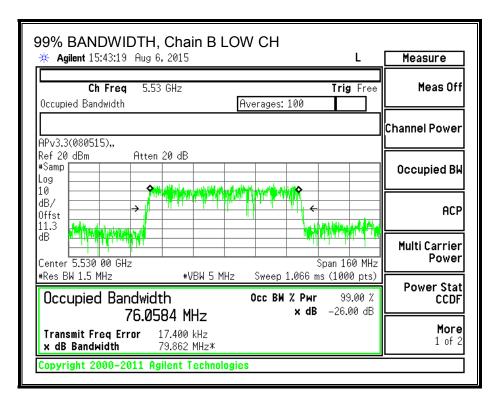
None; for reporting purposes only.

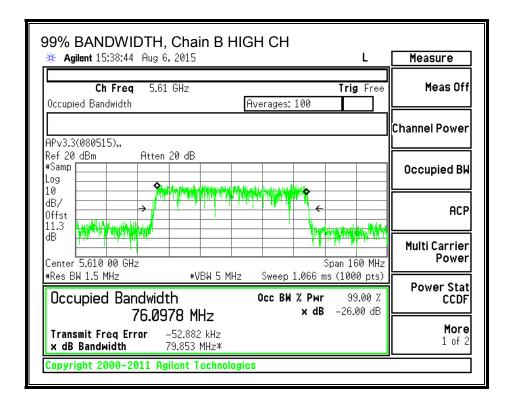
RESULTS

Channel	Frequency	99% BW	99% BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5530	76.0584	76.0690
High	5610	76.0978	76.0926
138	5690	76.0819	76.0870

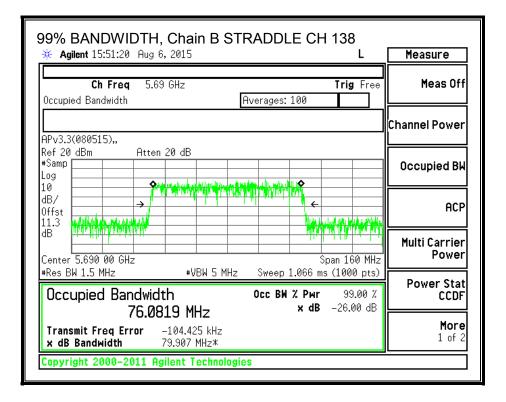
Page 203 of 437

99% BANDWIDTH, Chain B



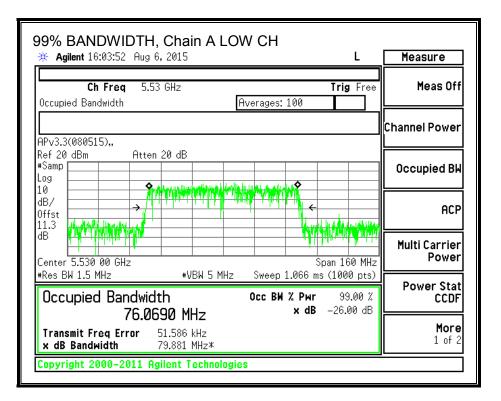


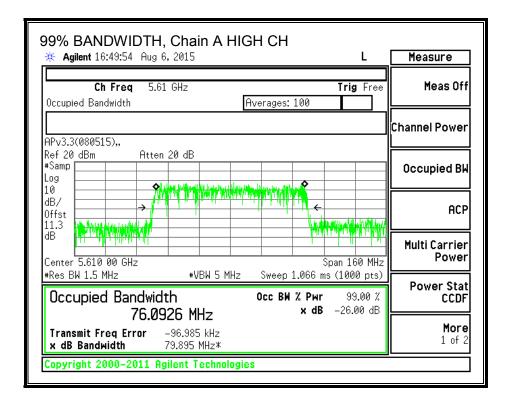
Page 204 of 437



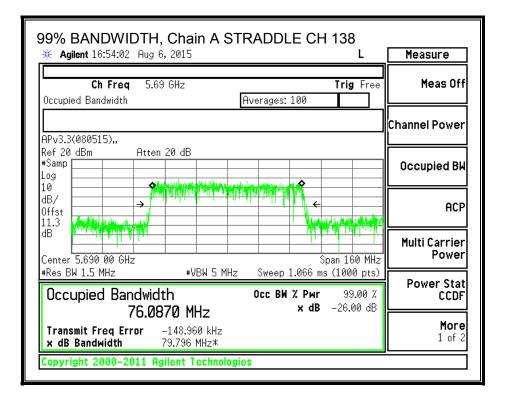
Page 205 of 437

99% BANDWIDTH, Chain A





Page 206 of 437



Page 207 of 437

8.13.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.10	2.30	2.20

Page 208 of 437

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5530	81.50	2.20	2.20	24.00	11.00
High	5610	81.01	2.20	2.20	24.00	11.00

0.00

Duty Cycle CF (dB)

Included in Calculations of Corr'd Power & PSD

Output Power Results

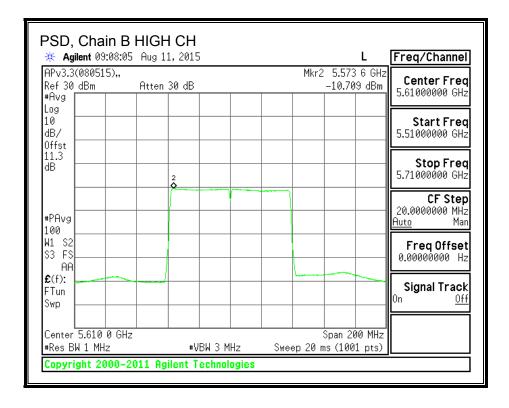
Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	6.99	7.39	10.20	24.00	-13.80
High	5610	7.16	7.31	10.25	24.00	-13.75

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	-11.20	-10.98	-8.08	11.00	-19.08
High	5610	-10.71	-10.65	-7.67	11.00	-18.67

PSD, Chain B

Agilent 08:25:38	3 Aug 11, 2015			L	Freq/Channel
Pv3.3(080515)" ef 30 dBm Avg	Atten 30 dB			5.532 2 GHz -11.200 dBm	Center Freq 5.53000000 GHz
og 0 B/ ffst					Start Freq 5.43000000 GHz
B		2			Stop Freq 5.63000000 GHz
PAvg					CF Step 20.0000000 MHz <u>Auto</u> Man
00 1 S2 3 FS AA					FreqOffset 0.00000000 Hz
(f):			\		Signal Track On <u>Off</u>
enter 5.530 0 GHz Res BW 1 MHz		3 MHz))pan 200 MHz s (1001 pts)	

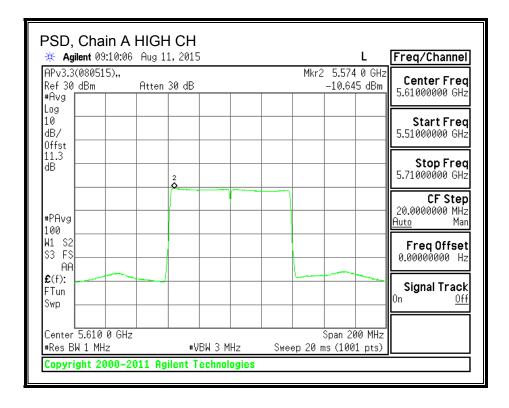


DATE: 2015-10-08

Page 210 of 437

PSD, Chain A

Agilent 08:27:03	Aug 11, 2015			L	Freq/Channel
Pv3.3(080515)" ef 30 dBm Avg	Atten 30 dB		Mkr	2 5.533 8 GHz -10.978 dBm	Center Freq 5.53000000 GHz
og 0 B/					Start Freq 5.43000000 GHz
B		2			Stop Freq 5.63000000 GHz
PAvg					CF Step 20.0000000 MHz <u>Auto</u> Man
00 1 S2 3 FS AA					FreqOffset 0.00000000 Hz
(f): Tun wp					Signal Track On <u>Off</u>
enter 5.530 0 GHz Res BW 1 MHz	#\/RW	3 MHz	Sween 20	Span 200 MHz ms (1001 pts)	



DATE: 2015-10-08

Page 211 of 437

STRADDLE CHANNEL 138 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	81.01	2.20	2.20	24.00	11.00

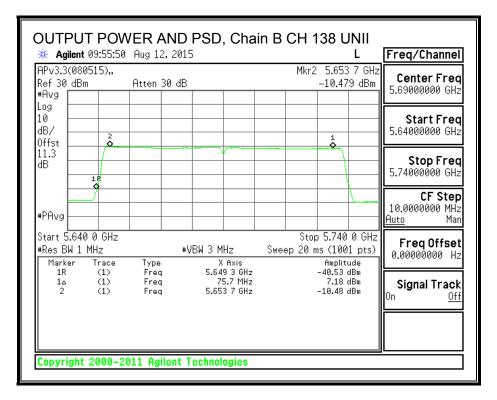
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

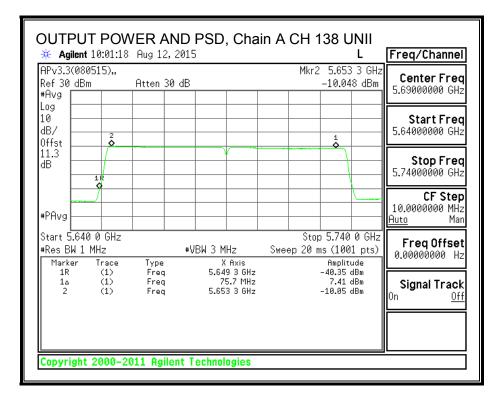
Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	7.18	7.41	10.31	24.00	-13.69

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-10.48	-10.05	-7.25	11.00	-18.25





Page 213 of 437

UL LLC 12 Laboratory Dr., RTP, NC 27709

aboratory Dr., RTP, NC 27709 This report shall not be reproduced except in full, without the written approval of UL LLC.

FORM NO: 03-EM-F00858

UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	2.20	2.20	30.00	30.00

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

Output Power Results

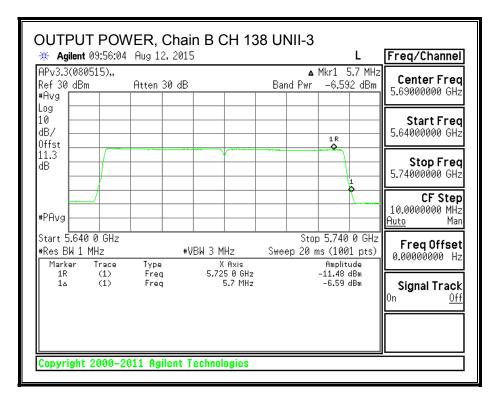
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-6.59	-6.45	-3.51	30.00	-33.51

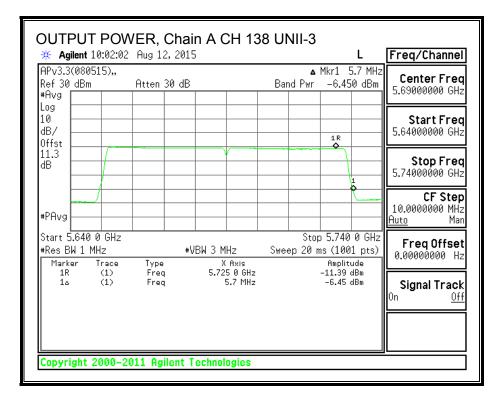
PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-14.20	-14.23	-11.20	30.00	-41.20

Page 214 of 437

FORM NO: 03-EM-F00858



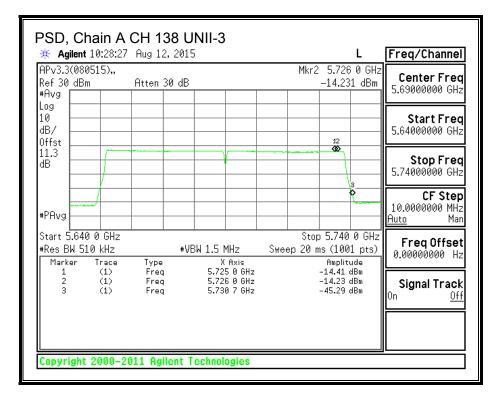


Page 215 of 437

UL LLC 12 Laboratory Dr., RTP, NC 27709

aboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

		Aug 12, 2015	0		L	Freq/Channe
APv3.3(080 ≷ef 30 dBr ⊨Avg		Atten 30 dB			5.725 2 GHz 14.204 dBm	Center Fre 5.69000000 GH
.og .0 1B/)ffst					2	Start Fre 5.64000000 GH
1.3 #B					Q	Stop Fre 5.74000000 GH
PAvg -					• •	CF Ste 10.0000000 MH <u>Auto</u> Ma
otart 5.640 Res BW 51 Marker		+ +VE	BW 1.5 MHz X Axis	Stop Sweep 20 ms	5.740 0 GHz (1001 pts) Amplitude	Freq Offse 0.00000000 H
1 2 3	(1) (1) (1)	Freq Freq Freq	5.725 0 GHz 5.725 2 GHz 5.730 7 GHz	-:	14.41 dBm 14.20 dBm 45.55 dBm	Signal Trac On <u>Of</u>



Page 216 of 437

UL LLC

8.13.4. TPC POWER

LIMITS

FCC §15.407 (h) (1)

Transmit power control (TPC). U-NII devices operating in the 5.25–5.35 GHz band and the 5.47–5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

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	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.10	2.30	2.20

Page 217 of 437

RESULTS

TPC Limits

Channel	Frequency	Limit	Directional	Limit
		EIRP	Gain	Cond
	(MHz)	(dBm)	(dBi)	(dBm)
Low	5530	24	2.20	21.80
Mid	5610	24	2.20	21.80

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

TPC Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Cond	Margin
		Meas	Meas	Corr'd	Power	
		Power	Power	Power	Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	6.99	7.39	10.20	21.80	-11.60
Mid	5610	7.16	7.31	10.25	21.80	-11.55

8.14. 802.11a MODE IN THE 5.8 GHz BAND

8.14.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

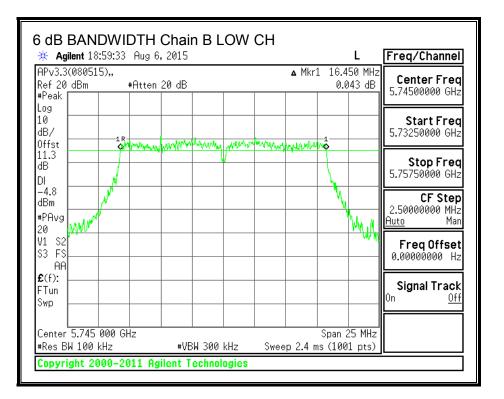
The minimum 6 dB bandwidth shall be at least 500 kHz.

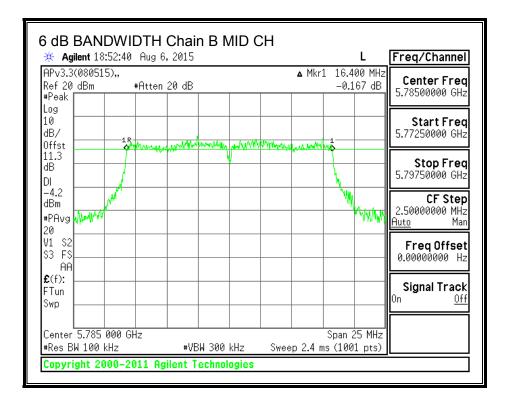
RESULTS

Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Chain B	Chain A	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5745	16.4500	16.3750	0.5
Mid	5785	16.4000	16.3750	0.5
High	5825	16.4000	16.5750	0.5

Page 219 of 437

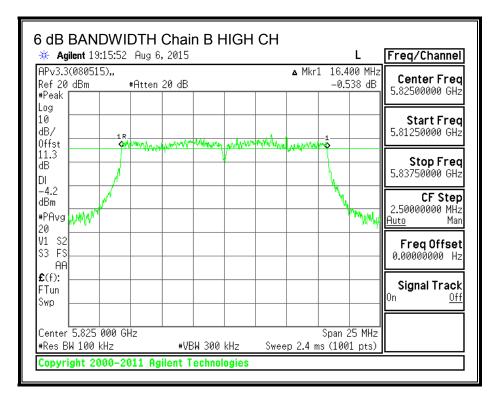
6 dB BANDWIDTH, Chain B



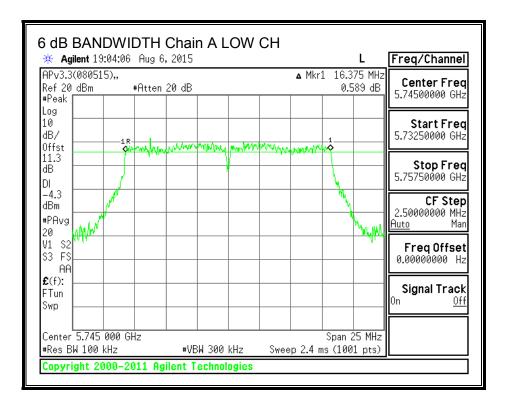


Page 220 of 437

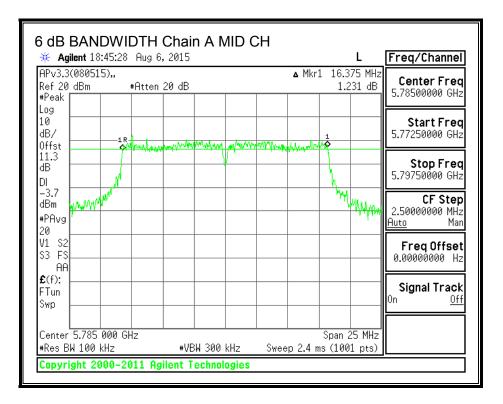
UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

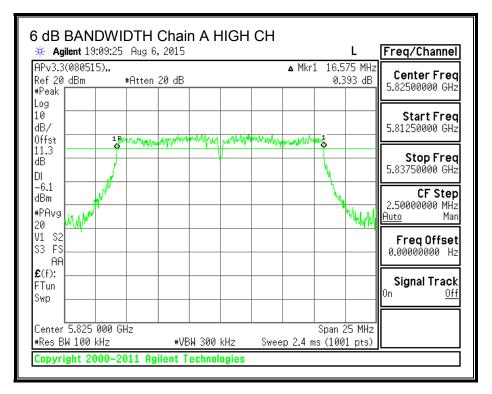


6 dB BANDWIDTH, Chain A



Page 221 of 437





Page 222 of 437

UL LLC

8.14.2. 26 dB BANDWIDTH

LIMITS

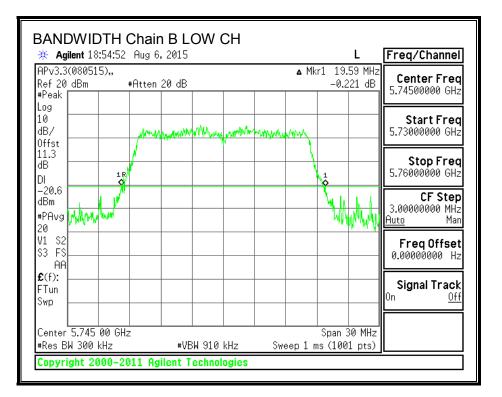
None; for reporting purposes only.

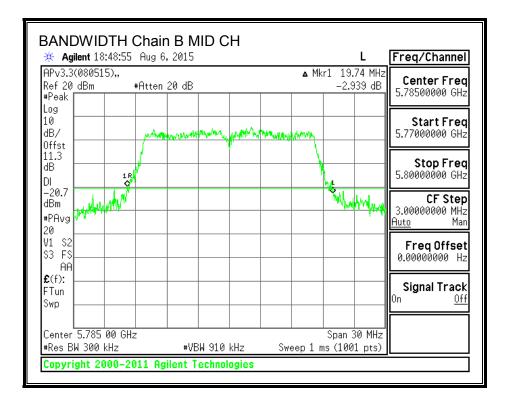
<u>RESULTS</u>

Channel	Frequency	26 dB BW	26 dB BW	
		Chain B	Chain A	
	(MHz)	(MHz)	(MHz)	
Low	5745	19.59	19.59	
Mid	5785	19.74	22.33	
High	5825	19.26	19.56	

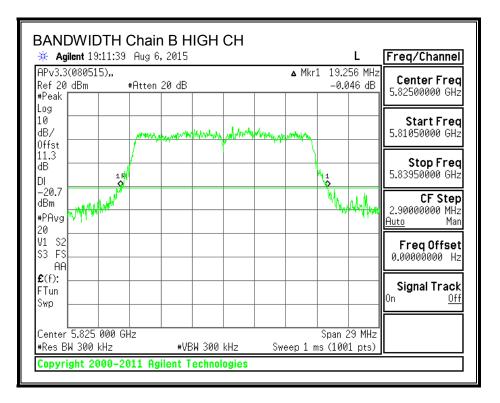
Page 223 of 437

26 dB BANDWIDTH, Chain B

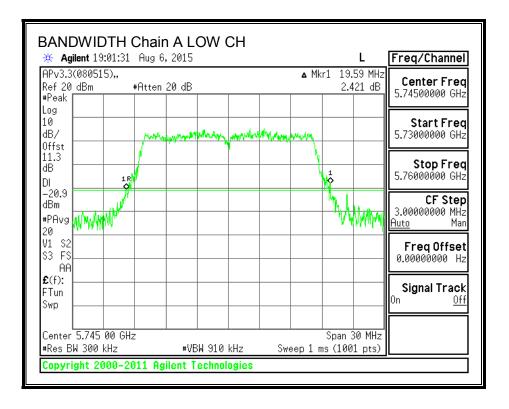




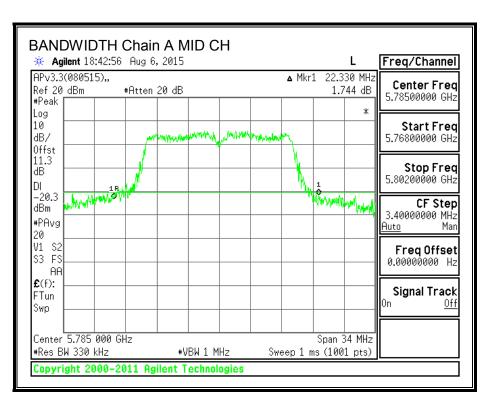
Page 224 of 437

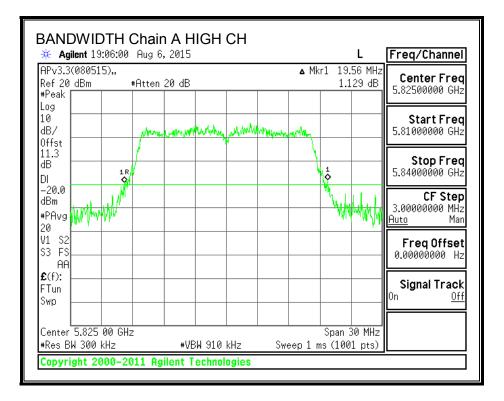


26 dB BANDWIDTH, Chain A



Page 225 of 437





Page 226 of 437

DATE: 2015-10-08

8.14.3. 99% **BANDWIDTH**

LIMITS

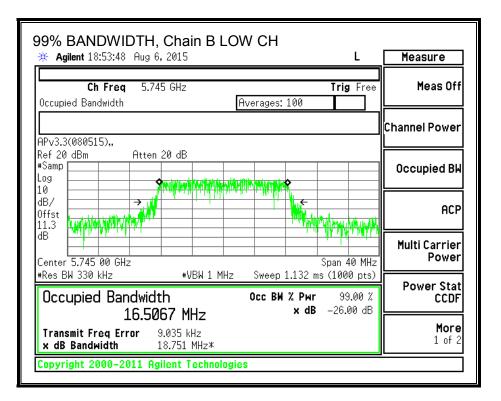
None; for reporting purposes only.

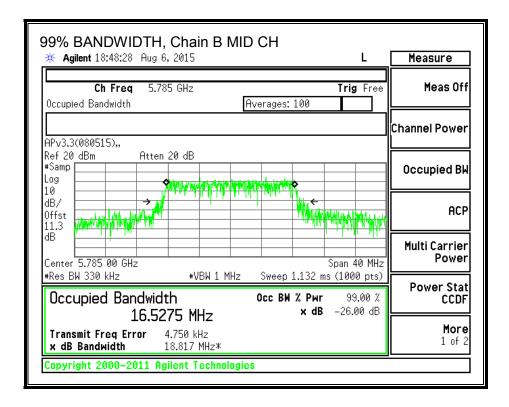
RESULTS

Channel	Frequency	99% BW	99% BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5745	16.5067	16.5016
Mid	5785	16.5275	16.5640
High	5825	16.5256	16.5255

Page 227 of 437

99% BANDWIDTH, Chain B

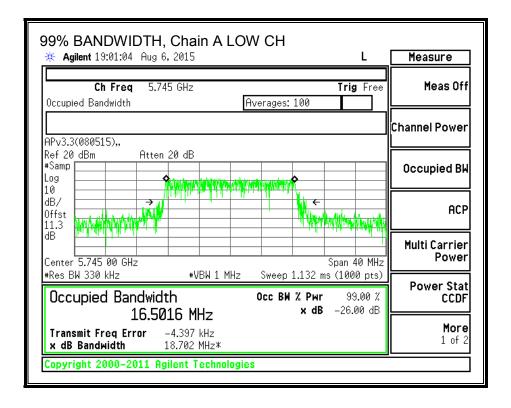




Page 228 of 437

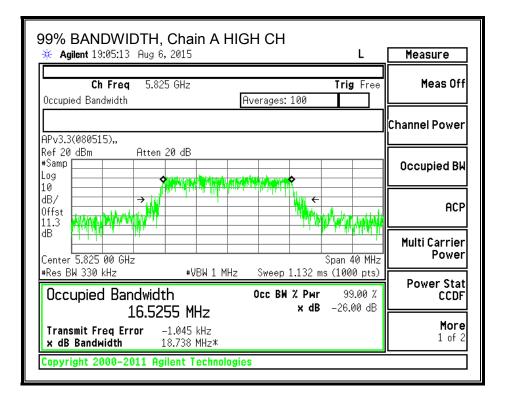
99% BANDWIDTH, Chain B HIGH CH	
ዡ Agilent 19:10:55 Aug 6, 2015	Measure
Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Averages: 100	Meas Off
	Channel Power
APv3.3(080515),, Ref 20 dBm Atten 20 dB *Samp Log 10	Occupied BW
dB/ offst 11.3 dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/	ACP
Center 5.825 00 GHz Span 40 MHz #Res BW 330 kHz #VBW 1 MHz Sweep 1.132 ms (1000 pts)	Multi Carrier Power
Image: Start Start Image: Start Start Start Image: Start Start Start Start Image: Start	Power Stat CCDF
Transmit Freq Error 903.796 Hz x dB Bandwidth 18.807 MHz*	More 1 of 2
Copyright 2000–2011 Agilent Technologies	

99% BANDWIDTH, Chain A



Page 229 of 437

99% BANDWIDTH, Chain A MID CH	
ዡ Agilent 18:41:15 Aug 6, 2015	Measure
Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Averages: 100	Meas Off
	Channel Power
APv3.3(080515),, Ref 20 dBm Atten 20 dB #Samp	Occupied BW
dB/ Offst 11.3	ACP
dB	Multi Carrier Power
Occupied Bandwidth осс ви % Рыг 99.00 % 16.5640 MHz × dB -26.00 dB	Power Stat CCDF
Transmit Freq Error 494.978 Hz x dB Bandwidth 20.328 MHz*	More 1 of 2
Copyright 2000–2011 Agilent Technologies	



Page 230 of 437

UL LLC

8.14.4. OUTPUT POWER

<u>LIMITS</u>

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
1.40	1.70	1.55

Page 231 of 437

RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	1.55	30.00
Mid	5785	1.55	30.00
High	5825	1.55	30.00

Duty Cycle CF (dB) 0.12

Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	13.37	13.43	16.53	30.00	-13.47
Mid	5785	13.80	13.68	16.87	30.00	-13.13
High	5825	13.54	13.54	16.67	30.00	-13.33

Page 232 of 437

8.14.5. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
1.40	1.70	1.55

<u>RESULTS</u>

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	1.55	30.00
Mid	5785	1.55	30.00
High	5825	1.55	30.00

Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD

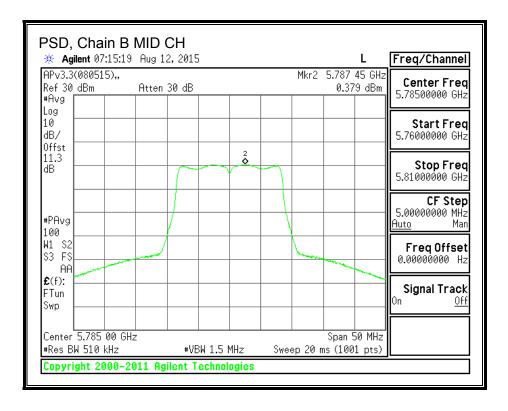
PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	0.25	0.15	3.33	30.00	-26.67
Mid	5785	0.38	0.30	3.47	30.00	-26.53
High	5825	0.26	0.30	3.41	30.00	-26.59

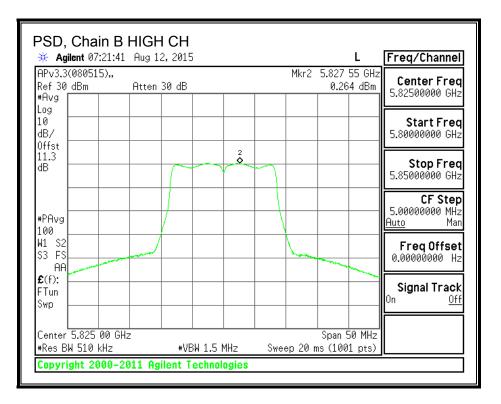
Page 234 of 437

PSD, Chain B

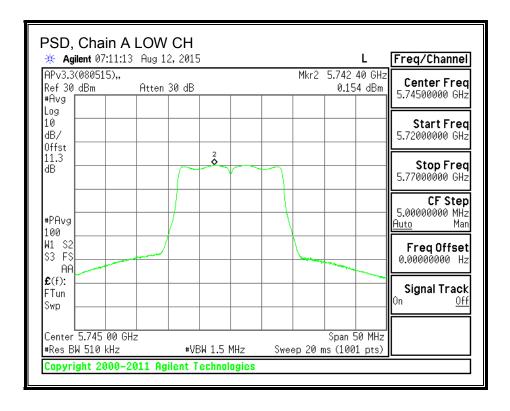
PSD, Chain B LOW * Agilent 07:08:08 Aug 1			Freg/Channel
	12,2015		
#Avg	30 dB	Mkr2 5.742 0.2	2 55 GHz 54 dBm Center Freq 5.74500000 GHz
Log 10 dB/ 0ffst			Start Freq 5.72000000 GHz
dB	2 \$	\neg	Stop Freq 5.77000000 GHz
#PAvg 100			CF Step 5.0000000 MHz <u>Auto</u> Man
W1 S2 S3 FS АА			Freq Offset 0.00000000 Hz
£(f): FTun Swp			Signal Track
Center 5.745 00 GHz #Res BW 510 kHz	#VBW 1.5 MHz	Span Sweep 20 ms (10	50 MHz 01 pts)
Copyright 2000-2011 As	gilent Technologies		



Page 235 of 437

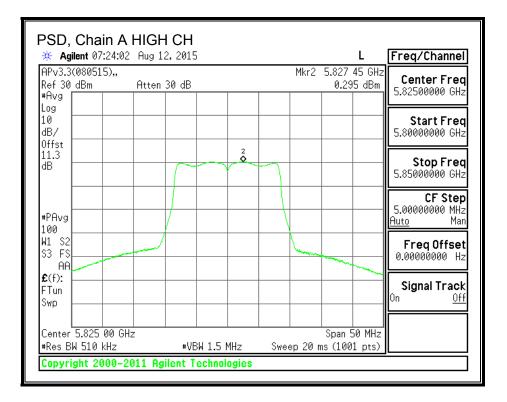


PSD, Chain A



Page 236 of 437

PSD, Chain A MID			L Freq/Channel
#Avg	n 30 dB	Mkr2 5.787 0.30	35 GHz 2 dBm 5.78500000 GHz
Log 10 dB/ 0ffst			Start Freq 5.76000000 GHz
dB	2 \$	$\left - \right $	Stop Freq 5.81000000 GHz
#PAvg			CF Step 5.00000000 MHz <u>Auto</u> Man
И1 S2 S3 FS АА		har	Freq Offset 0.00000000 Hz
£(f): FTun Swp			Signal Track
Center 5.785 00 GHz #Res BW 510 kHz	#VBW 1.5 MHz	Span Sweep 20 ms (100	50 MHz



Page 237 of 437

8.15. 802.11n HT20 MODE IN THE 5.8 GHz BAND

8.15.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

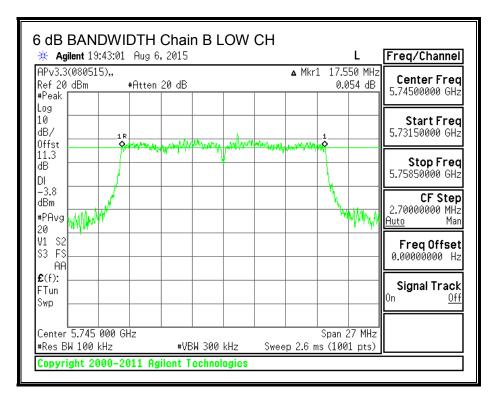
The minimum 6 dB bandwidth shall be at least 500 kHz.

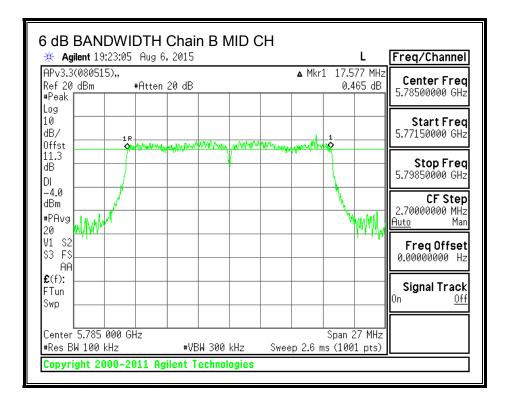
RESULTS

Channel	Frequency	6 dB BW 6 dB BW		Minimum	
		Chain B	Chain A	Limit	
	(MHz)	(MHz)	(MHz)	(MHz)	
Low	5745	17.5500	17.6850	0.5	
Mid	5785	17.5770	17.7120	0.5	
High	5825	17.6310	17.7390	0.5	

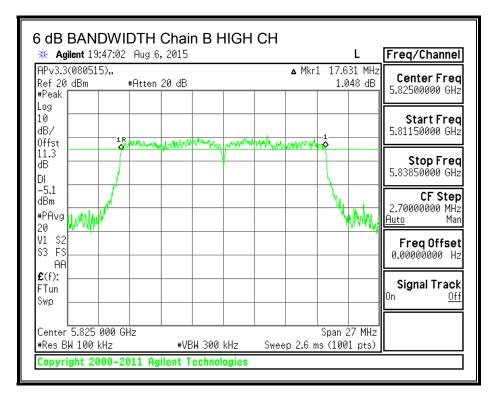
Page 238 of 437

6 dB BANDWIDTH, Chain B

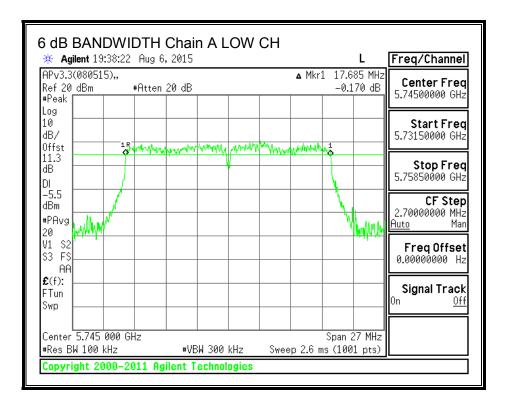




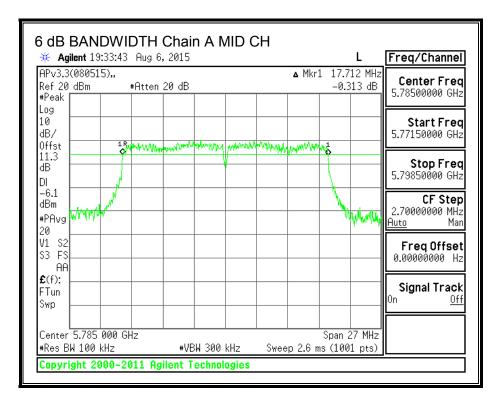
Page 239 of 437

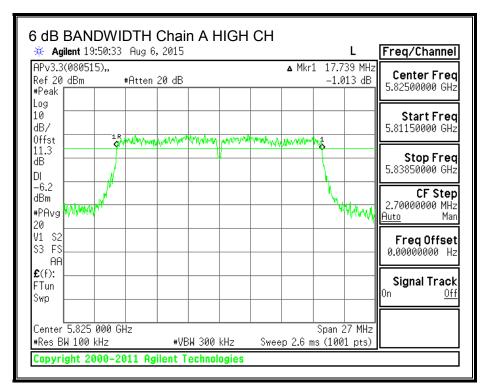


6 dB BANDWIDTH, Chain A



Page 240 of 437





Page 241 of 437

FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

UL LLC

8.15.2. 26 dB BANDWIDTH

LIMITS

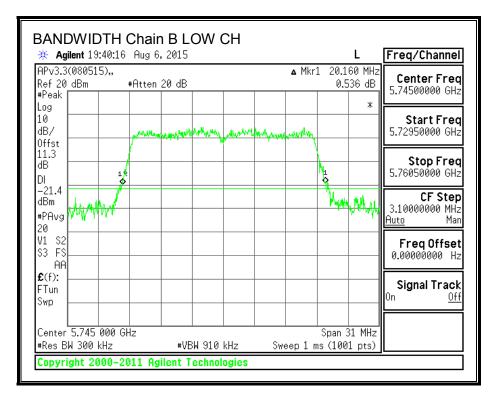
None; for reporting purposes only.

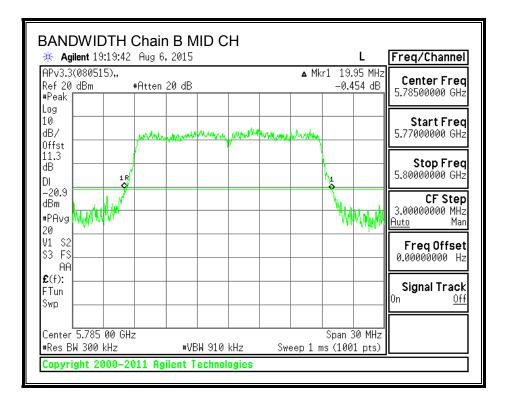
<u>RESULTS</u>

Channel	Frequency	26 dB BW	26 dB BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5745	20.16	20.27
Mid	5785	19.95	20.09
High	5825	20.21	20.03

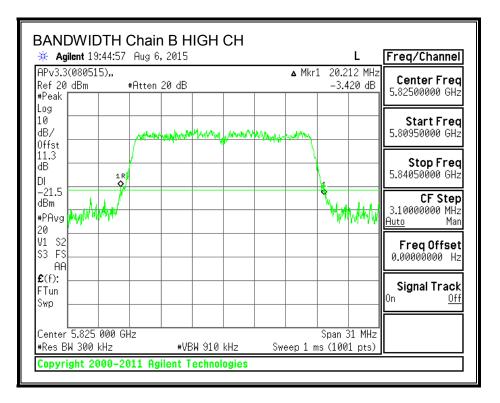
Page 242 of 437

26 dB BANDWIDTH, Chain B

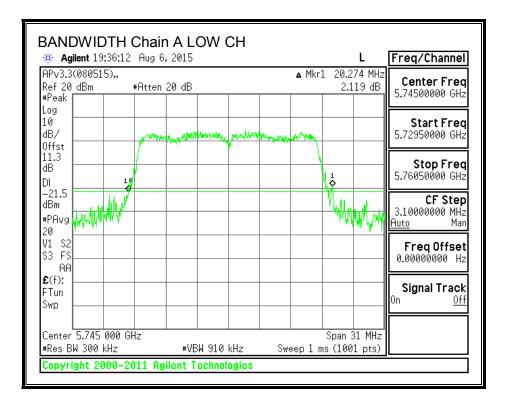




Page 243 of 437



26 dB BANDWIDTH, Chain A

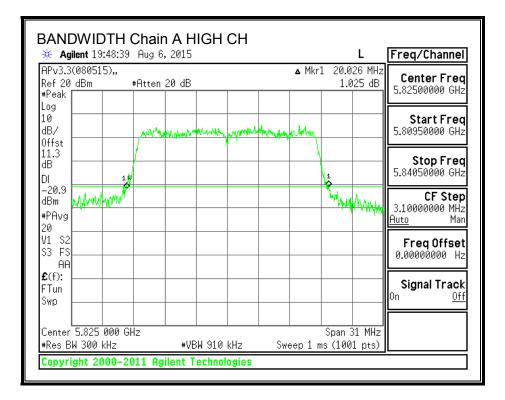


Page 244 of 437

FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

UL LLC

		Chain A Aug 6, 20		Н			1	Freq/Channel
APv3.3(08 Ref 20 dB #Peak	0515),,	#Atten 20			▲ Mkr	1 20.0 -0.2	-	
Log 10 dB/ 0ffst		. Andrew and	LAN MUMBER	an the second	angedenadertative,			Start Freq 5.76950000 GHz
11.3 dB DI	1 R/					1		Stop Freq 5.80050000 GHz
-20.8 dBm wh #PAvg 20	MALLANNAR					Mr.	lite (to be	CF Step 3.1000000 MHz <u>Auto</u> Man
V1 S2 S3 FS AA								FreqOffset 0.00000000 Hz
£(f): FTun Swp								Signal Track ^{On <u>Off</u>}
Center 5.7 #Res BW 3	785 000 GH 00 kHz		#VBW 910	kHz	Sweep 1 r		31 MHz 1 pts)	
Copyright	2000-20	11 Agilen	t Technol	ogies				



Page 245 of 437

8.15.3. 99% BANDWIDTH

LIMITS

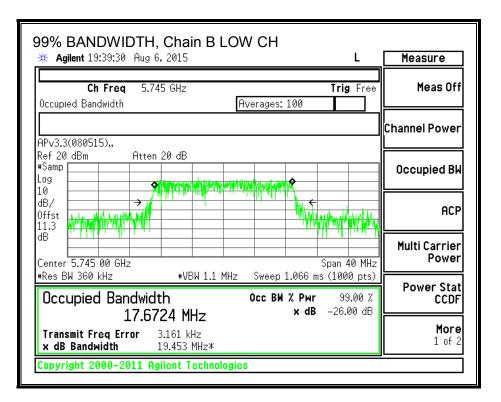
None; for reporting purposes only.

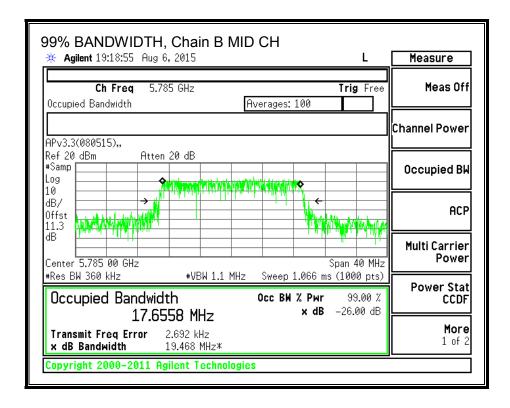
RESULTS

Channel	Frequency	99% BW	99% BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Low	5745	17.6724	17.6501
Mid	5785	17.6558	17.6849
High	5825	17.6583	17.6832

Page 246 of 437

99% BANDWIDTH, Chain B

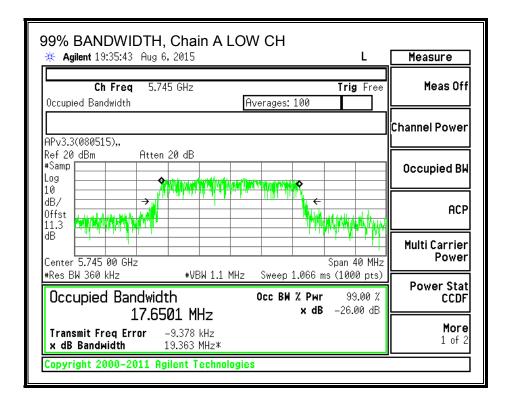




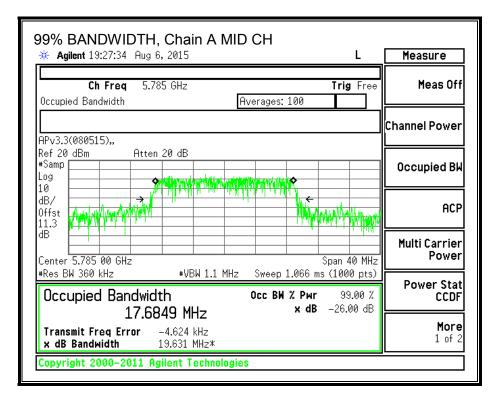
Page 247 of 437

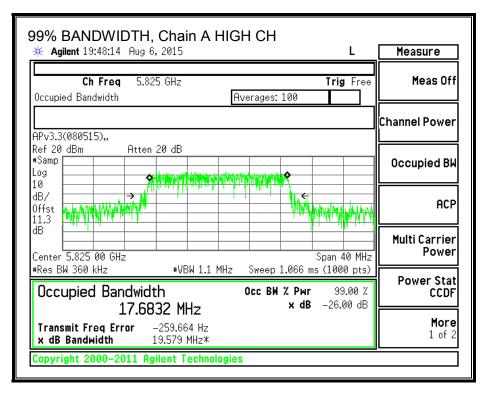
99% BANDWIDTH, Chain B HIGH CH	
ዡ Agilent 19:44:23 Aug 6, 2015	Measure
Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Averages: 100	Meas Off
	Channel Power
Ref 20 dBm Atten 20 dB #Samp	Occupied BW
dB/ Offst 11.3	ACP
dB 100 ml 100 ml	Multi Carrier Power
Occupied Bandwidth осс вм % Рыг 99.00 % 17.6583 MHz × dB -26.00 dB	Power Stat CCDF
Transmit Freq Error -4.921 kHz x dB Bandwidth 19.368 MHz*	More 1 of 2
Copyright 2000–2011 Agilent Technologies	

99% BANDWIDTH, Chain A



Page 248 of 437





Page 249 of 437

8.15.4. OUTPUT POWER

<u>LIMITS</u>

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains		
Antenna	Antenna	Directional		
Gain	Gain	Gain		
(dBi)	(dBi)	(dBi)		
1.40	1.70	1.55		

Page 250 of 437

RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	1.55	30.00
Mid	5785	1.55	30.00
High	5825	1.55	30.00

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

Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	13.45	13.47	16.47	30.00	-13.53
Mid	5785	13.82	13.68	16.76	30.00	-13.24
High	5825	13.56	13.54	16.56	30.00	-13.44

UL LLC

8.15.5. Maximum Power Spectral Density (PSD)

<u>LIMITS</u>

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains		
Antenna	Antenna	Directional		
Gain	Gain	Gain		
(dBi)	(dBi)	(dBi)		
1.40	1.70	1.55		

RESULTS

Antenna Gain and Limits

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	1.55	30.00
Mid	5785	1.55	30.00
High	5825	1.55	30.00

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

PSD Results

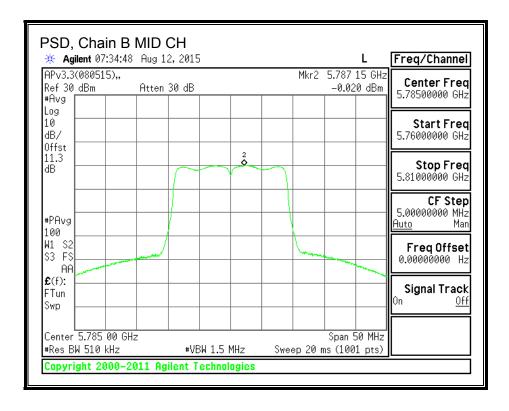
Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	0.09	-0.20	2.96	30.00	-27.04
Mid	5785	-0.02	0.13	3.06	30.00	-26.94
High	5825	0.09	0.10	3.11	30.00	-26.89

Page 253 of 437

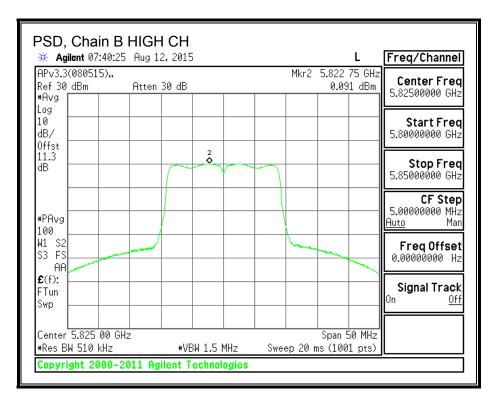
UL LLC

PSD, Chain B

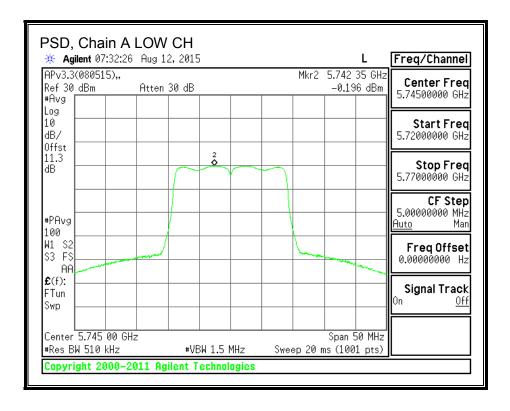
PSD, Chain B LOW						
🔆 🔆 Agilent 07:30:00 Aug 12	2,2015		L Freq/Cha	annei		
APv3.3(080515),, Ref 30 dBm Atten 3 #Avg	30 dB	Mkr2 5.742 0.0	2 30 GHz 086 dBm 5.7450000	Freq 0 GHz		
Log 10 dB/ 0ffst			Start 5.7200000			
dB	2		Stop 5.7700000	Freq 0 GHz		
#PAvg			CF 5.0000000 <u>Auto</u>	Step 0 MHz Man		
W1 S2 S3 FS АА			Freq 0	ffset 10 Hz		
£(f): FTun Swp			On Signal T	rack <u>Off</u>		
Center 5.745 00 GHz #Res BW 510 kHz	#VBW 1.5 MHz	Span Sweep 20 ms (10	n 50 MHz 001 pts)			
Copyright 2000–2011 Agilent Technologies						



Page 254 of 437

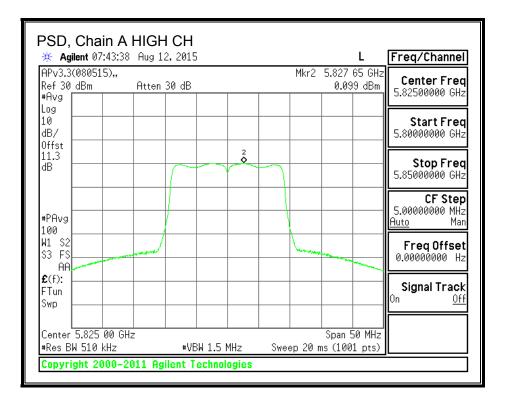


PSD, Chain A



Page 255 of 437

PSD, Chain A MID			L F	req/Channel
#Avg	30 dB	Mkr2 5.78	26 JBm	Center Freq .78500000 GHz
Log 10 dB/ 0ffst			5	Start Freq .76000000 GHz
dB	2 \$		5	Stop Freq .81000000 GHz
#PAvg				CF Step .00000000 MHz . <u>to</u> Man
W1 S2 S3 FS АА		-		FreqOffset 0.00000000 Hz
£(f): FTun Swp			0n	Signal Track Off
Center 5.785 00 GHz #Res BW 510 kHz	#VBW 1.5 MHz	Span Sweep 20 ms (10	50 MHz 001 pts)	



Page 256 of 437

8.16. 802.11n HT40 MODE IN THE 5.2 GHz BAND

8.16.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

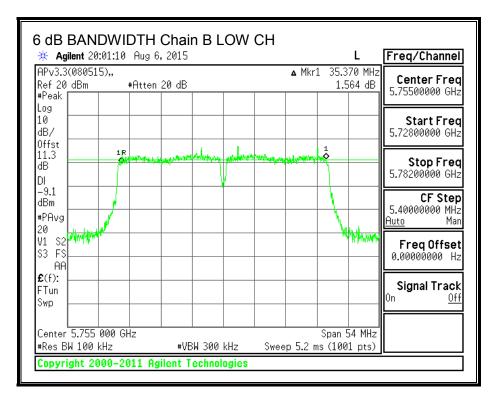
The minimum 6 dB bandwidth shall be at least 500 kHz.

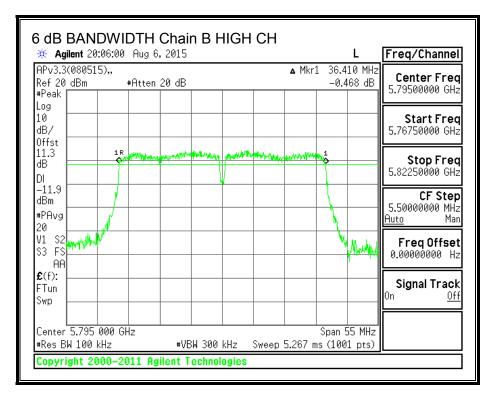
RESULTS

Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Chain B	Chain A	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5755	35.3700	36.3000	0.5
High	5795	36.4100	36.3960	0.5

Page 257 of 437

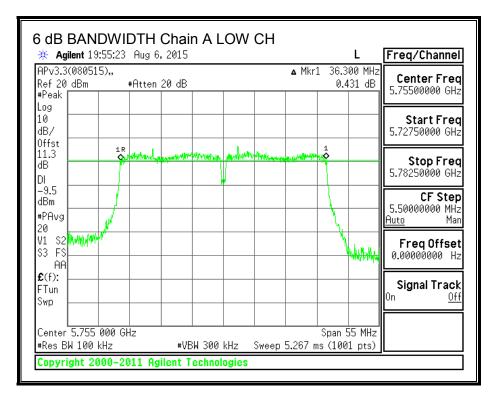
6 dB BANDWIDTH, Chain B

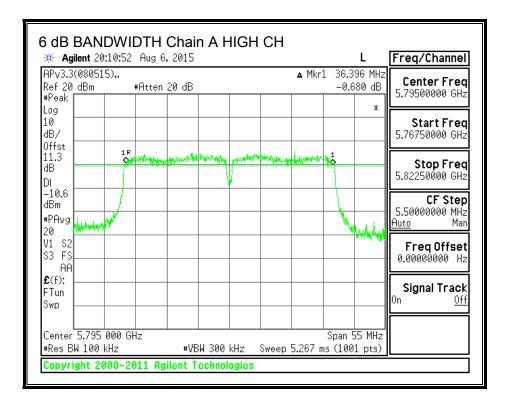




Page 258 of 437

6 dB BANDWIDTH, Chain A





Page 259 of 437

UL LLC

8.16.2. 26 dB BANDWIDTH

LIMITS

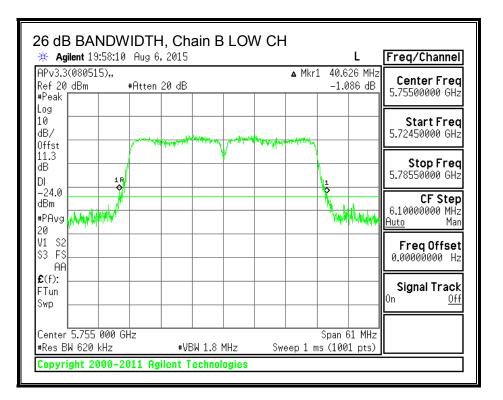
None; for reporting purposes only.

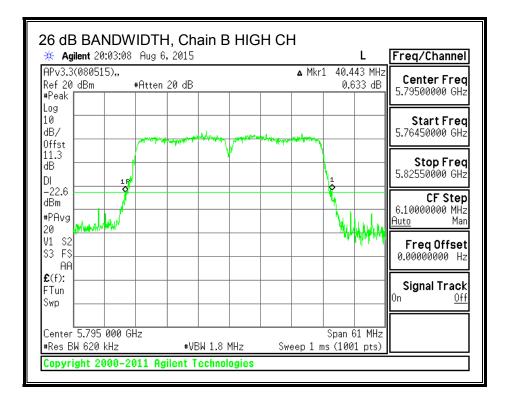
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	
			Chain A	
	(MHz)	(MHz)	(MHz)	
Low	5755	40.63	40.20	
High	5795	40.44	40.63	

Page 260 of 437

26 dB BANDWIDTH, Chain B

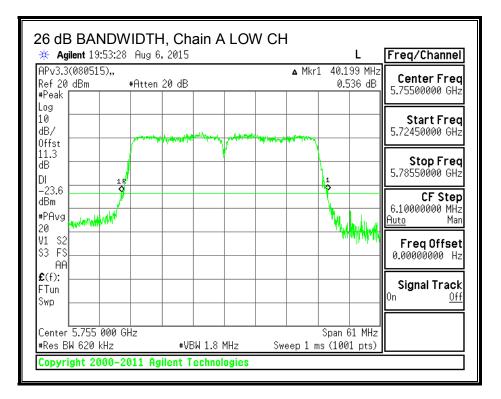


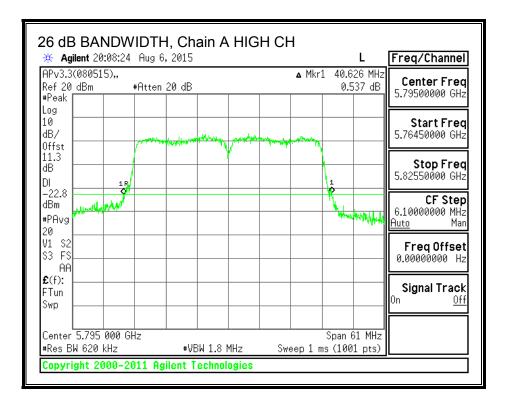


Page 261 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

26 dB BANDWIDTH, Chain A





Page 262 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

8.16.3. 99% BANDWIDTH

LIMITS

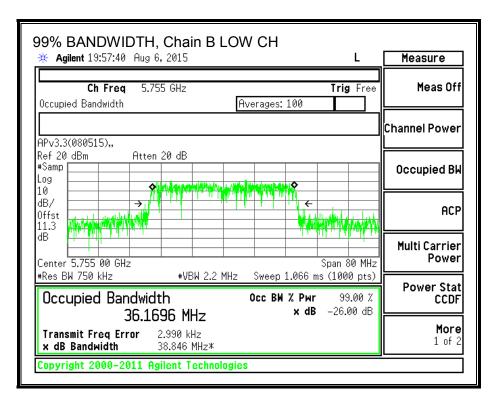
None; for reporting purposes only.

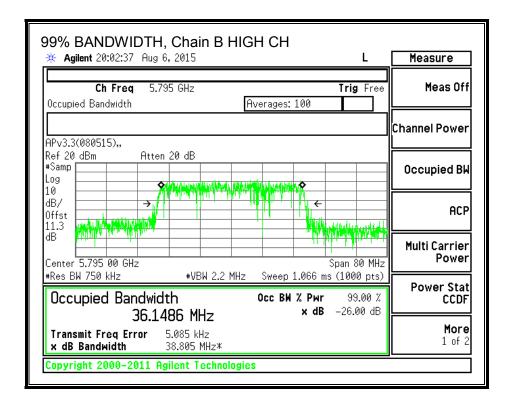
<u>RESULTS</u>

Channel	Frequency	99% BW	99% BW	
		Chain B	Chain A	
	(MHz)	(MHz)	(MHz)	
Low	5755	36.1696	36.1708	
High	5795	36.1486	36.2021	

Page 263 of 437

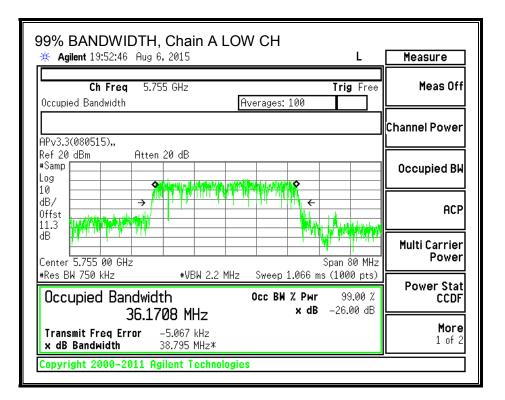
99% BANDWIDTH, Chain B

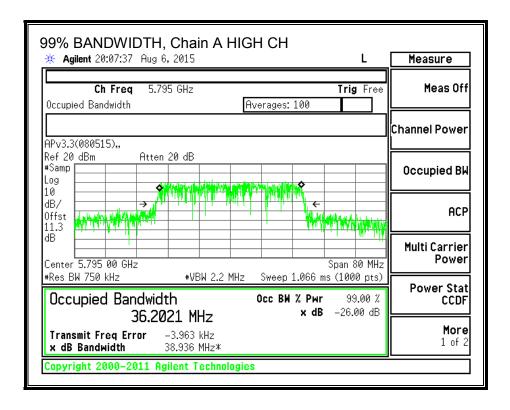




Page 264 of 437

99% BANDWIDTH, Chain A





Page 265 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

8.16.4. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains	
Antenna	Antenna	Directional	
Gain	Gain	Gain	
(dBi)	(dBi)	(dBi)	
1.40	1.70	1.55	

Page 266 of 437

<u>RESULTS</u>

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	1.55	30.00
High	5795	1.55	30.00

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

Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5755	10.72	11.11	13.93	30.00	-16.07
High	5795	10.99	11.20	14.11	30.00	-15.89

Page 267 of 437

8.16.5. Maximum Power Spectral Density (PSD)

<u>LIMITS</u>

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains	
Antenna	Antenna	Directional	
Gain	Gain	Gain	
(dBi)	(dBi)	(dBi)	
1.40	1.70	1.55	

Page 268 of 437

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	1.55	30.00
High	5795	1.55	30.00

Duty Cycle CF (dB) 0.00 Inc	luded in Calculations of Corr'd PSD
-----------------------------	-------------------------------------

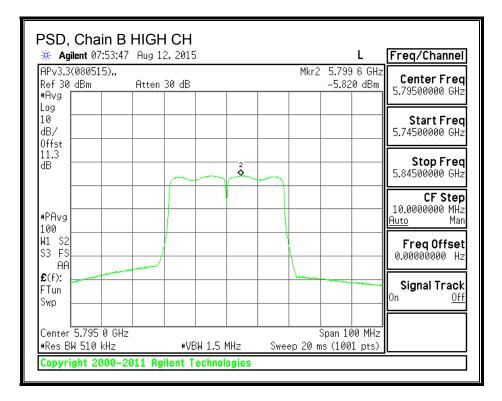
PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	(MHz) 5755	(dBm) -6.02	(dBm) -5.75	(dBm) -2.87	(dBm) 30.00	(dB) -32.87

Page 269 of 437

PSD, Chain B

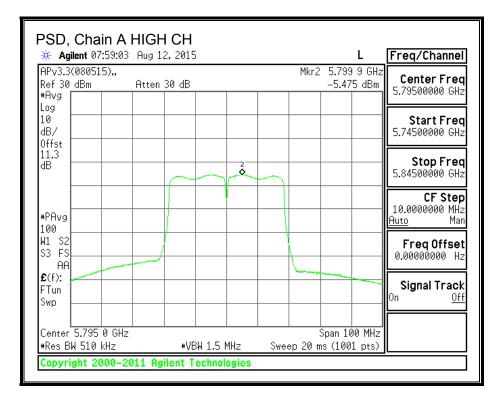
Agilent 07:48:24	Aug 12, 2015	L	Freq/Channel
APv3.3(080515),, Ref 30 dBm #Avg	Atten 30 dB	Mkr2 5.750 2 -6.023 d	II Contor Frod
Log 10 dB/ Offst			Start Freq 5.70500000 GHz
dB			Stop Freq 5.80500000 GHz
#PAvg			CF Step 10.0000000 MHz <u>Auto</u> Man
W1 S2 S3 FS AA			Freq Offset 0.00000000 Hz
E(f): FTun Swp			Signal Track On <u>Off</u>
Center 5.755 0 GHz #Res BW 510 kHz	#VBW 1.5	Span 100 MHz Sweep 20 ms (1001 p	



Page 270 of 437

UL LLC FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 *This report shall not be reproduced except in full, without the written approval of UL LLC.*

PSD, Chain A LOV * Agilent 07:50:30 Aug			1	Freq/Channel
APv3.3(080515),,	n 30 dB	Mkr2 5.74 -5.7	9 7 GHz 45 dBm	Center Freq 5.75500000 GHz
Log 10 dB/ 0ffst				Start Freq 5.70500000 GHz
dB				Stop Freq 5.80500000 GHz
#PAvg				CF Step 10.0000000 MHz <u>Auto</u> Man
W1 S2 S3 FS AA				FreqOffset 0.00000000 Hz
£(f): FTun Swp				Signal Track ^{On <u>Off</u>}
Center 5.755 0 GHz #Res BW 510 kHz	#VBW 1.5 MHz	Sweep 20 ms (10	00 MHz 01 pts)	
Copyright 2000-2011 A	gilent Technologie	S		



Page 271 of 437 FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

UL LLC

DATE: 2015-10-08

8.17. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

8.17.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

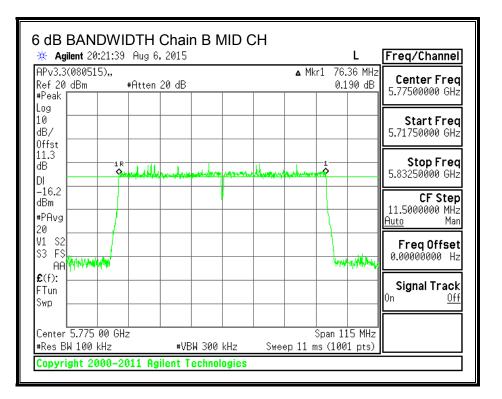
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

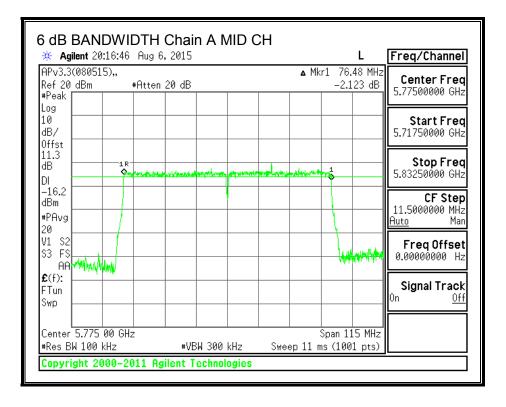
Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Chain B	Chain A	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5775	76.3600	76.4800	0.5

Page 272 of 437

6 dB BANDWIDTH, Chain B



6 dB BANDWIDTH, Chain A



Page 273 of 437

UL LLC 12 Laboratory Dr., RTP, NC 27709

FORM NO: 03-EM-F00858 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

8.17.2. 26 dB BANDWIDTH

LIMITS

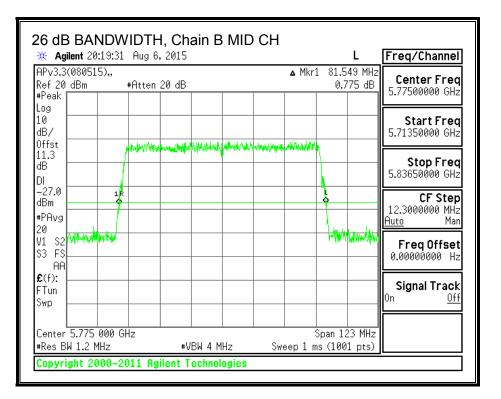
None; for reporting purposes only.

<u>RESULTS</u>

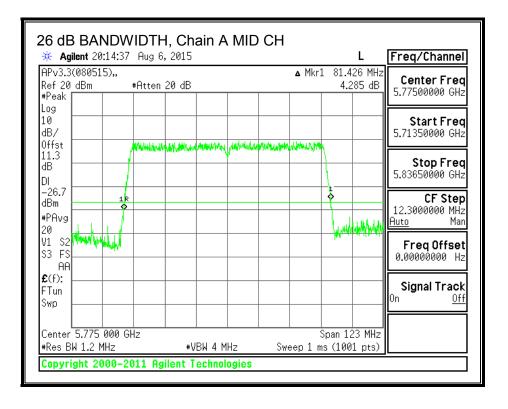
Channel	Frequency	26 dB BW	26 dB BW	
		Chain B	Chain A	
	(MHz)	(MHz)	(MHz)	
Mid	5775	81.55	81.43	

Page 274 of 437

26 dB BANDWIDTH, Chain B



26 dB BANDWIDTH, Chain A



Page 275 of 437

FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

UL LLC

8.17.3. 99% BANDWIDTH

LIMITS

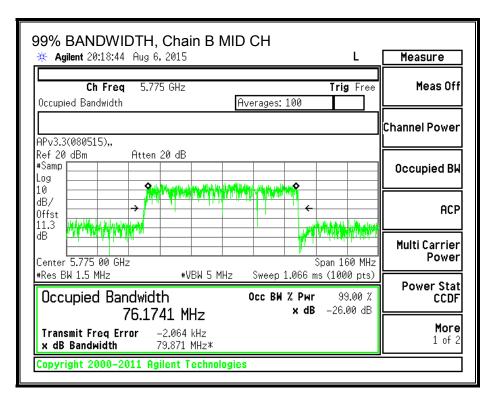
None; for reporting purposes only.

<u>RESULTS</u>

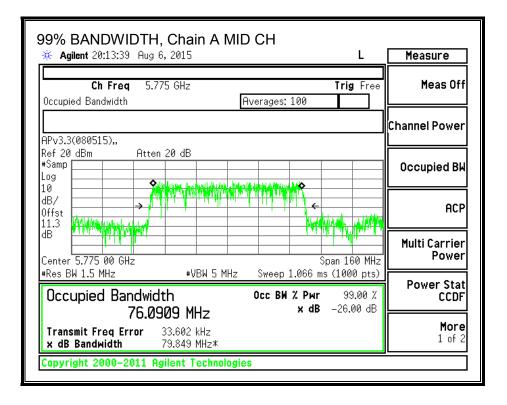
Channel	Frequency	99% BW	99% BW
		Chain B	Chain A
	(MHz)	(MHz)	(MHz)
Mid	5775	76.1741	76.0909

Page 276 of 437

99% BANDWIDTH, Chain B



99% BANDWIDTH, Chain A



Page 277 of 437

UL LLC

12 Laboratory Dr., RTP, NC 27709

FORM NO: 03-EM-F00858 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

8.17.4. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
1.40	1.70	1.55

RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Mid	5775	1.55	30.00

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

Output Power Results

Channel	Frequency	Chain B	Chain A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5775	7.42	7.88	10.67	30.00	-19.33

Page 279 of 437

8.17.5. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

Chain B	Chain A	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
1.40	1.70	1.55

Page 280 of 437

RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Mid	5775	1.55	30.00

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

PSD Results

Channel	Frequency	Chain B	Chain A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5775	-13.57	-13.32	-10.43	30.00	-40.43

Page 281 of 437

PSD, Chain B

SD, Chain B MID Agilent 08:02:54 Aug		L	Freg/Channel
v3.3(080515),,		Mkr2 5.810 6 GH	7
	1 30 dB	-13.568 dBm	
g) 3/ fst			Start Freq 5.67500000 GHz
		2	Stop Freq 5.87500000 GHz
'Avg		\$	CF Step 20.0000000 MHz <u>Auto</u> Man
. S2 3 FS AA			FreqOffset 0.00000000 Hz
(f): Fun /p	J		Signal Track
enter 5.775 0 GHz es BW 510 kHz	#VBW 1.5 MHz	Span 200 MH: Sweep 20 ms (1001 pts)	

Page 282 of 437

PSD, Chain A

SD, Chain A Agilent 08:05:31			L	Freq/Channel
Pv3.3(080515),, ef 30 dBm 1vg	Atten 30 dB		5.811 4 GHz -13.324 dBm	Center Freq 5.77500000 GHz
)g) 3/				Start Freq 5.67500000 GHz
3		2		Stop Freq 5.87500000 GHz
PAvg				CF Step 20.0000000 MHz <u>Auto</u> Man
L S2 3 FS — — — — — — — — — — — — — — — — — —				Freq Offset 0.00000000 Hz
(f): Tun YP				Signal Track ^{On <u>Off</u>}
enter 5.775 0 GHz Res BW 510 kHz	#VBW 1.5		pan 200 MHz s (1001 pts)	

DATE: 2015-10-08

Page 283 of 437

9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

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 for below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 120 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.

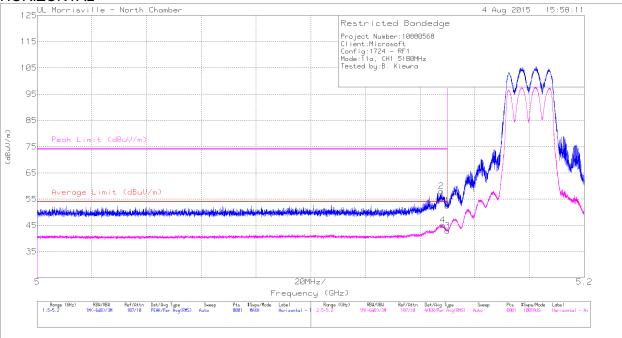
Page 284 of 437

9.2. **TRANSMITTER ABOVE 1 GHz**

9.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL



Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	DCCF	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad	(dB)	Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)			(dB)		(dBuV/m)	(dBuV/m)						
1	* 5.15	39.58	Pk	34.3	-21.4	-	52.48	-	-	74	-21.52	259	205	Н
2	* 5.148	44.96	Pk	34.3	-21.3	-	57.96	-	-	74	-16.04	259	205	н
3	* 5.15	30.08	RMS	34.3	-21.4	0.12	43.10	54	-10.9	-	-	259	205	н
4	* 5.148	32.07	RMS	34.3	-21.3	0.12	45.19	54	-8.81	-	-	259	205	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

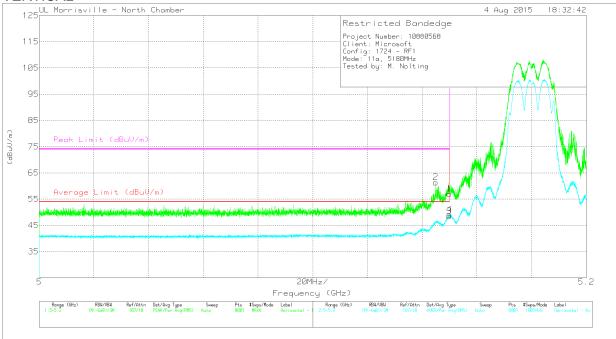
Pk - Peak detector

RMS - RMS detection

Duty Cycle Correction (DCCF) = $10\log(1/x) = 10\log(1/0.9722) = 0.12 \text{ dB}$

Page 285 of 437

VERTICAL



Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/Fl	DCCF (dB)	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	tr/Pad (dB)		Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)					(dBuV/m)	(dBuV/m)						
1	* 5.15	44.13	Pk	34.3	-21.4	-	57.03	-	-	74	-16.97	12	282	V
2	* 5.145	48.4	Pk	34.3	-21.3	-	61.4	-	-	74	-12.6	12	282	V
3	* 5.15	35.54	RMS	34.3	-21.4	0.12	48.56	54.0	-5.44	-	-	12	282	V
4	* 5.15	36.2	RMS	34.3	-21.4	0.12	49.22	54.0	-4.78	-	-	12	282	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

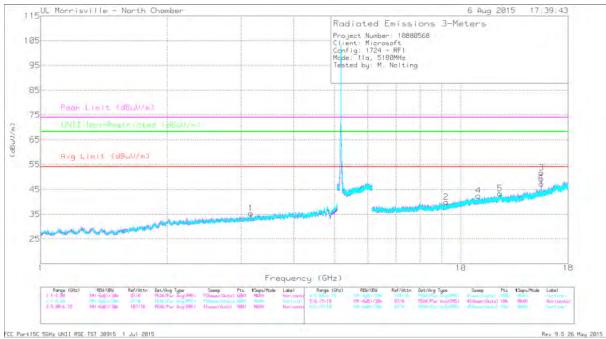
RMS - RMS detection

Duty Cycle Correction (DCCF) = $10\log(1/x) = 10\log(1/0.9722) = 0.12 \text{ dB}$

Page 286 of 437

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL



Marker	Frequency	Meter	Det	AF	Amp/Cbl/F	DCCF (dB)	Corrected	Avg Limit	Margin	Peak Limit	РК	UNII Non-	РК	Azimuth	Height	Polarity
	(GHz)	Reading		AT0072	ltr/Pad		Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)		(dB/m)	(dB)		(dBuV/m)				(dB)	(dBuV/m)	(dB)			
3	* 15.535	45.8	PK3	40.5	-23.9	-	62.4	-	-	74	-11.6	-	-	351	101	Н
	* 15.541	32.15	ADR	40.5	-23.9	0.12	48.87	54	-5.13	-	-	-	-	351	101	Н
4	* 11.008	34.3	PK3	38	-23.6	-	48.7	-	-	74	-25.3	-	-	188	314	V
	* 11.007	22.88	ADR	38	-23.6	-	37.28	54	-16.72	-	-	-	-	188	314	V
5	* 12.385	34.44	PK3	39.1	-22.9	-	50.64	-	-	74	-23.36	-	-	42	241	V
	* 12.383	22.95	ADR	39.1	-22.9	-	39.15	54	-14.85	-	-	-	-	42	241	V
6	* 15.536	44.67	PK3	40.5	-23.9	-	61.27	-	-	74	-12.73	-	-	314	236	V
	* 15.541	30.69	ADR	40.5	-23.9	0.12	47.41	54	-6.59	-	-	-	-	314	236	V
1	3.168	43.21	PK3	32.7	-33.1	-	42.81	-	-	-	-	68.2	-25.39	6	155	н
2	9.22	36.44	PK3	36.4	-26.5	-	46.34	-	-	-	-	68.2	-21.86	186	217	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

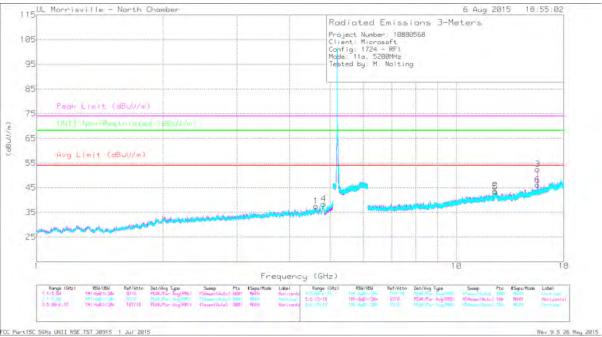
PK3 - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

Duty Cycle Correction (DCCF) = $10\log(1/x) = 10\log(1/0.9722) = 0.12$ dB

Page 287 of 437

MID CHANNEL



FCC Part15C 5GHz UNII RSE TST 30915 1 Jul 2015

Marker	Frequency	Meter	Det	AF	Amp/Cbl/F	DCCF (dB)	Corrected	Avg Limit	Margin	Peak Limit	РК	UNII Non-	РК	Azimuth	Height	Polarity
	(GHz)	Reading		AT0072	ltr/Pad		Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)		(dB/m)	(dB)		(dBuV/m)				(dB)	(dBuV/m)	(dB)			
1	* 4.626	41.07	PK3	34	-30.7	-	44.37	-	-	74	-29.63	-	-	199	244	Н
	* 4.623	29.59	ADR	34	-30.8	-	32.79	54	-21.21	-	-	-	-	199	244	Н
4	* 4.825	41.96	PK3	34.1	-30.2	-	45.86	-	-	74	-28.14	-	-	346	107	V
	* 4.824	30.26	ADR	34.1	-30.2	-	34.16	54	-19.84	-	-	-	-	346	107	V
2	* 15.603	46.91	PK3	40.6	-25	-	62.51	-	-	74	-11.49	-	-	343	102	Н
	* 15.603	33	ADR	40.6	-25	0.12	48.72	54	-5.28	-	-	-	-	343	102	Н
3	* 12.368	34.28	PK3	39	-23	-	50.28	-	-	74	-23.72	-	-	223	101	Н
	* 12.369	22.84	ADR	39	-23	-	38.84	54	-15.16	-	-	-	-	223	101	Н
5	* 12.368	35.38	PK3	39	-23	-	51.38	-	-	74	-22.62	-	-	223	103	V
	* 12.374	22.81	ADR	39	-22.9	-	38.91	54	-15.09	-	-	-	-	223	103	V
6	* 15.603	45.86	PK3	40.6	-25	-	61.46	-	-	74	-12.54	-	-	313	237	V
	* 15.603	32.34	ADR	40.6	-25	0.12	48.06	54	-5.94	-	-	-	-	313	237	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

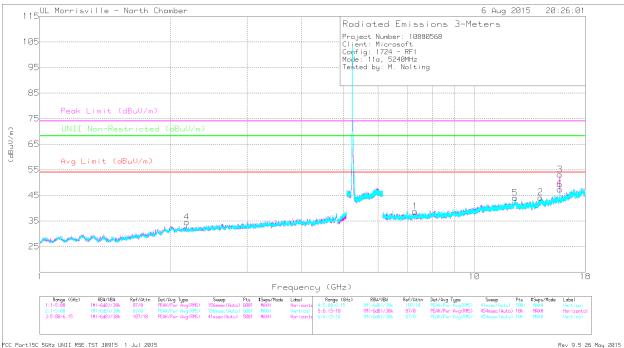
PK3 - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

Duty Cycle Correction (DCCF) = $10\log(1/x) = 10\log(1/0.9722) = 0.12 \text{ dB}$

Page 288 of 437

HIGH CHANNEL



Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	DCCF (dB)	Corrected	Avg Limit	Margin	Peak Limit	PK	UNII Non-	PK	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad		Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)			(dB)		(dBuV/m)				(dB)	(dBuV/m)	(dB)			
1	* 7.291	38.69	PK3	35.7	-28.2	-	46.19	-	-	74	-27.81	-	-	271	299	Н
	* 7.295	26.79	ADR	35.7	-28.2	-	34.29	54	-19.71	-	-	-	-	271	299	Н
3	* 15.716	47.17	PK3	40.7	-24.2	-	63.67	-	-	74	-10.33	-	-	345	103	Н
	* 15.721	33.06	ADR	40.8	-24.1	0.12	49.88	54	-4.12	-	-	-	-	345	103	Н
5	* 12.399	34.95	PK3	39.1	-22.9	-	51.15	-	-	74	-22.85	-	-	82	231	V
	* 12.401	23.13	ADR	39.1	-22.9	-	39.33	54	-14.67	-	-	-	-	82	231	V
6	* 15.716	46.17	PK3	40.7	-24.2	-	62.67	-	-	74	-11.33	-	-	313	235	V
	* 15.721	32	ADR	40.8	-24.1	0.12	48.82	54	-5.18	-	-	-	-	313	235	V
4	2.183	44.28	PK3	31.6	-34.4	-	41.48	-	-	-	-	68.2	-26.72	346	118	V
2	14.181	36	PK3	39.3	-24.9	-	50.4	-	-	-	-	68.2	-17.8	25	199	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK3 - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

Duty Cycle Correction (DCCF) = $10\log(1/x) = 10\log(1/0.9722) = 0.12 \text{ dB}$

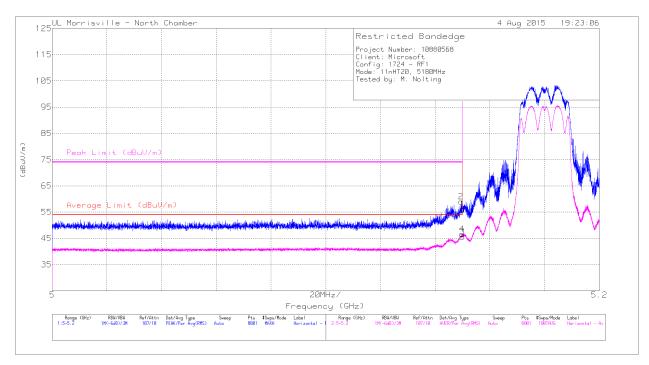
UL LLC

Page 289 of 437

9.2.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL



Marker	Frequency (GHz)	Meter Reading	Det		Amp/Cbl/Fl tr/Pad (dB)		Average Limit	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
	(012)	(dBuV)		(ub/iii)	(1) F au (ub)	0	(dBuV/m)	(ub)	(ubuv/iii)	(ub)	(Degs)	(ciii)	
1	* 5.15	43.13	Pk	34.3	-21.4	56.03	-	-	74	-17.97	260	177	Н
2	* 5.149	46.1	Pk	34.3	-21.4	59	-	-	74	-15	260	177	Н
3	* 5.15	32.62	RMS	34.3	-21.4	45.52	54	-8.48	-	-	260	177	Н
4	* 5.15	33.7	RMS	34.3	-21.4	46.6	54	-7.4	-	-	260	177	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

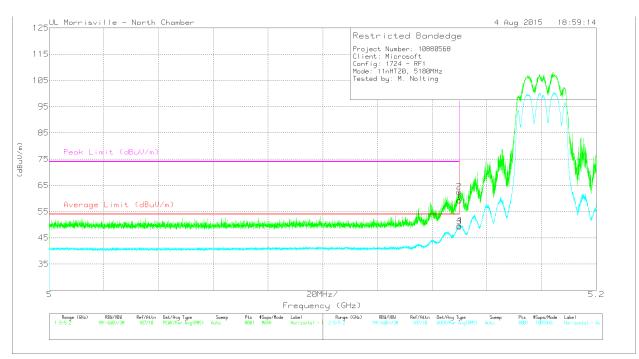
Pk - Peak detector

RMS - RMS detection

UL LLC

Page 290 of 437

VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det		Amp/Cbl/Fl tr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	46.33	Pk	34.3	-21.4	59.23	-	-	74	-14.77	12	281	V
2	* 5.15	49.67	Pk	34.3	-21.4	62.57	-	-	74	-11.43	12	281	V
3	* 5.15	36.43	RMS	34.3	-21.4	49.33	54	-4.67	-	-	12	281	V
4	* 5.15	36.74	RMS	34.3	-21.4	49.64	54	-4.36	-	-	12	281	V

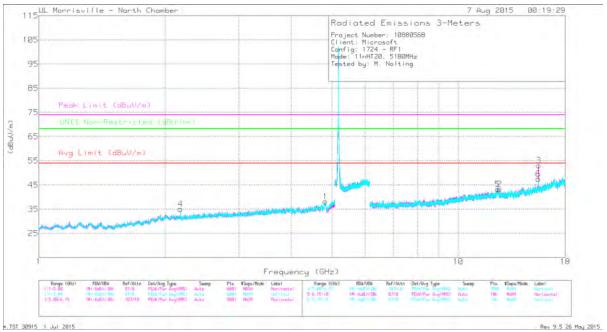
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL



Marker	Frequency	Meter	Det	AF	Amp/Cbl/	Corrected	Avg Limit	Margin	Peak Limit	РК	UNII Non-	РК	Azimuth	Height	Polarity
	(GHz)	Reading		AT0072	Fltr/Pad	Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)		(dB/m)	(dB)	(dBuV/m)				(dB)	(dBuV/m)	(dB)			
1	* 4.817	41.74	PK3	34.1	-30.2	45.64	-	-	74	-28.36	-	-	86	132	н
	* 4.814	29.78	ADR	34.1	-30.2	33.68	54	-20.32	-	-	-	-	86	132	н
2	* 12.544	34.95	PK3	39.1	-24.8	49.25	-	-	74	-24.75	-	-	95	231	н
	* 12.554	23.2	ADR	39.1	-24.9	37.4	54	-16.6	-	-	-	-	95	231	н
3	* 15.529	46.72	PK3	40.4	-23.8	63.32	-	-	74	-10.68	-	-	353	101	н
	* 15.543	32.73	ADR	40.5	-24	49.23	54	-4.77	-	-	-	-	353	101	н
5	* 12.419	35.25	PK3	39.1	-23	51.35	-	-	74	-22.65	-	-	87	146	V
	* 12.413	22.92	ADR	39.1	-23.1	38.92	54	-15.08	-	-	-	-	87	146	V
6	* 15.529	44.28	PK3	40.4	-23.8	60.88	-	-	74	-13.12	-	-	312	236	V
	* 15.543	30.25	ADR	40.5	-24	46.75	54	-7.25	-	-	-	-	312	236	V
4	2.179	44.92	PK3	31.6	-34.4	42.12	-	-	-	-	68.2	-26.08	339	138	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK3 - U-NII: Maximum Peak

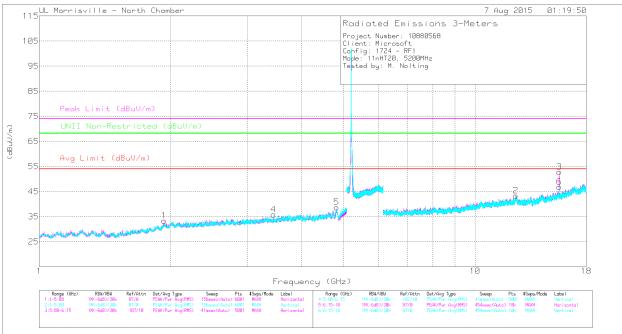
ADR - U-NII AD primary method, RMS average

UL LLC

Page 292 of 437

REPORT NO: R10880568-E2CV2 FCC ID: C3K1724B

MID CHANNEL



FCC Part15C 5GHz UNII RSE.TST 30915 1 Jul 2015

Rev 9.5 26 May 2015

Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	Corrected	Avg Limit	Margin	Peak Limit	PK	UNII Non-	РК	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad	Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)			(dB)	(dBuV/m)				(dB)	(dBuV/m)	(dB)			
5	* 4.812	42.44	PK3	34.1	-30.2	46.34	-	-	74	-27.66	-	-	360	121	V
	* 4.809	30.57	ADR	34.1	-30.2	34.47	54	-19.53	-	-	-	-	360	121	V
2	* 12.4	34.5	PK3	39.1	-22.9	50.7	-	-	74	-23.3	-	-	321	262	н
	* 12.399	22.92	ADR	39.1	-22.9	39.12	54	-14.88	-	-	-	-	321	262	н
3	* 15.603	47.81	PK3	40.6	-25	63.41	-	-	74	-10.59	-	-	352	101	н
	* 15.603	34	ADR	40.6	-25	49.6	54	-4.4	-	-	-	-	352	101	н
6	* 15.598	43.03	PK3	40.6	-25	58.63	-	-	74	-15.37	-	-	307	233	V
	* 15.603	29.24	ADR	40.6	-25	44.84	54	-9.16	-	-	-	-	307	233	V
1	1.93	44.22	PK3	31.1	-34.6	40.72	-	-	-	-	68.2	-27.48	269	154	н
4	3.447	43.69	PK3	33.1	-32.7	44.09	-	-	-	-	68.2	-24.11	350	237	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK3 - U-NII: Maximum Peak

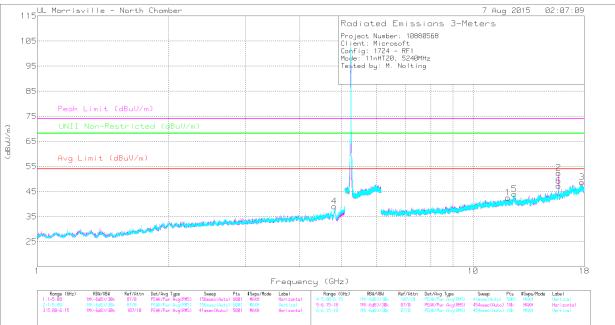
ADR - U-NII AD primary method, RMS average

UL LLC

Page 293 of 437

REPORT NO: R10880568-E2CV2 FCC ID: C3K1724B

HIGH CHANNEL



FCC Part15	C 5GHz UNII RS	E.TST 30915	1 Jul 2	2015									Rev 9.5	5 26 May 2	ð15
Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	Corrected	Avg Limit	Margin	Peak Limit	PK	UNII Non-	PK	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad	Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)			(dB)	(dBuV/m)				(dB)	(dBuV/m)	(dB)			
4	* 4.809	41.22	PK3	34.1	-30.2	45.12	-	-	74	-28.88	-	-	354	287	V
	* 4.811	30.06	ADR	34.1	-30.2	33.96	54	-20.04	-	-	-	-	354	287	V
1	* 12.021	35.03	PK3	38.9	-24.5	49.43	-	-	74	-24.57	-	-	17	131	н
	* 12.007	23.45	ADR	38.9	-24.6	37.75	54	-16.25	-	-	-	-	17	131	Н
2	* 15.731	46.21	PK3	40.8	-24	63.01	-	-	74	-10.99	-	-	345	103	Н
	* 15.721	32.58	ADR	40.8	-24.1	49.28	54	-4.72	-	-	-	-	345	103	н
3	* 17.786	33.27	PK3	41.9	-19.9	55.27	-	-	74	-18.73	-	-	118	330	Н
	* 17.78	21.73	ADR	41.9	-19.9	43.73	54	-10.27	-	-	-	-	118	330	Н
5	* 12.434	35.08	PK3	39.1	-23.1	51.08	-	-	74	-22.92	-	-	327	126	V
	* 12.423	23.01	ADR	39.1	-23	39.11	54	-14.89	-	-	-	-	327	126	V
6	* 15.73	44.48	PK3	40.8	-24	61.28	-	-	74	-12.72	-	-	309	237	V
	* 15.72	30.07	ADR	40.8	-24.1	46.77	54	-7.23	-	-	-	-	309	237	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK3 - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

UL LLC

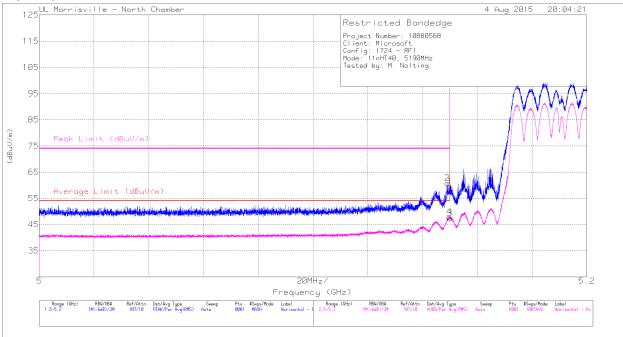
Page 294 of 437

FORM NO: 03-EM-F00858 12 Laboratory Dr., RTP, NC 27709 TEL: (919) 549-1400 This report shall not be reproduced except in full, without the written approval of UL LLC.

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

RESTRICTED BANDEDGE (LOW CHANNEL)





Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad	Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)			(dB)	(dBuV/m)	(dBuV/m)						
1	*5.15	46.75	Pk	34.3	-21.4	59.65	-	-	74	-14.35	263	205	Н
2	*5.149	47.72	Pk	34.3	-21.3	60.72	-	-	74	-13.28	263	205	Н
3	*5.15	34.38	RMS	34.3	-21.4	47.28	54	-6.72	-	-	263	205	Н
4	*5.15	35.06	RMS	34.3	-21.4	47.96	54	-6.04	-	-	263	205	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

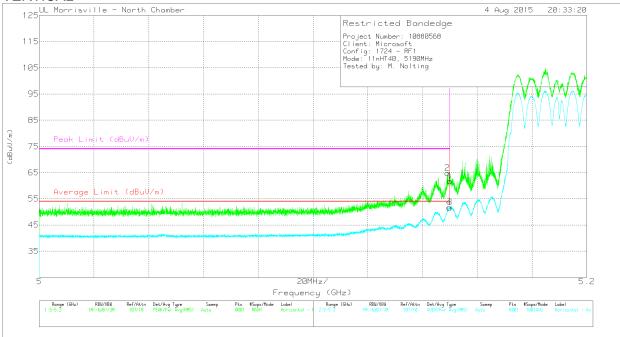
Pk - Peak detector

RMS - RMS detection

Page 295 of 437

REPORT NO: R10880568-E2CV2 FCC ID: C3K1724B

VERTICAL



Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	Corrected	Average	Margin		PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading (dBuV)		(dB/m)	Fltr/Pad (dB)	Reading (dBuV/m)	Limit (dBuV/m)	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
1	*5.15	48.96	Pk	34.3	-21.4	61.86	-	-	74	-12.14	8	281	V
2	*5.149	51.84	Pk	34.3	-21.3	64.84	-	-	74	-9.16	8	281	V
3	*5.15	38.82	RMS	34.3	-21.4	51.72	54	-2.28	-	-	8	281	V
4	*5.15	38.79	RMS	34.3	-21.4	51.69	54	-2.31	-	-	8	281	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

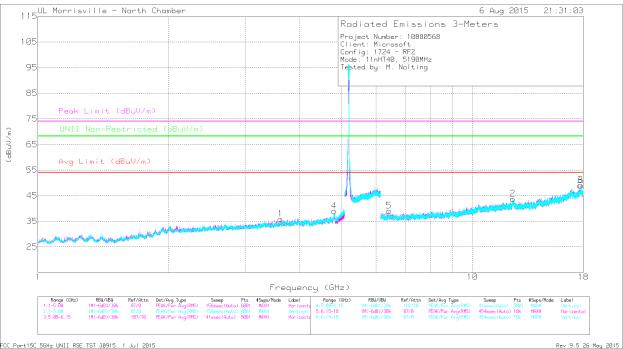
Pk - Peak detector

RMS - RMS detection

Page 296 of 437

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL



FCC Port15C 5GHz UNII RSE.TST 30915 1 Jul 2015

Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/	Corrected	Avg Limit	Margin	Peak Limit	РК	UNII Non-	PK	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	Fltr/Pad	Reading	(dBuV/m)	(dB)	(dBuV/m)	Margin	Restricted	Margin	(Degs)	(cm)	
		(dBuV)			(dB)	(dBuV/m)				(dB)	(dBuV/m)	(dB)			
1	* 3.624	40.85	PK3	33.2	-31.5	42.55	-	-	74	-31.45	-	-	344	383	н
	* 3.617	29.44	ADR	33.2	-31.5	31.14	54	-22.86	-	-	-	-	344	383	н
4	* 4.809	42.39	PK3	34.1	-30.2	46.29	-	-	74	-27.71	-	-	50	181	V
	* 4.806	30.98	ADR	34.1	-30.3	34.78	54	-19.22	-	-	-	-	50	181	V
2	* 12.393	34.86	PK3	39.1	-22.9	51.06	-	-	74	-22.94	-	-	247	258	н
	* 12.393	22.98	ADR	39.1	-22.9	39.18	54	-14.82	-	-	-	-	247	258	н
6	* 17.785	33.26	PK3	41.9	-19.9	55.26	-	-	74	-18.74	-	-	146	151	V
	* 17.769	22.05	ADR	41.9	-20.1	43.85	54	-10.15	-	-	-	-	146	151	V
5	6.427	39.58	PK3	35.5	-29.3	45.78	-	-	-	-	68.2	-22.42	4	201	V
3	17.686	35.55	PK3	41.9	-20.8	56.65	-	-	-	-	68.2	-11.55	152	293	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

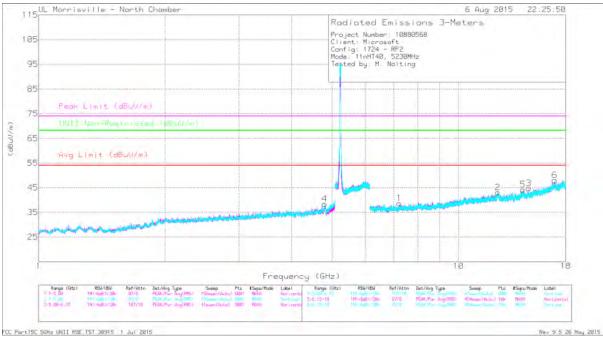
PK3 - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

UL LLC

Page 297 of 437

HIGH CHANNEL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 4.81	42.06	PK3	34.1	-30.2	45.96	-	-	74	-28.04	-	-	17	108	V
	* 4.807	30.84	ADR	34.1	-30.3	34.64	54	-19.36	-	-	-	-	17	108	V
2	* 12.408	34.45	PK3	39.1	-23	50.55	-	-	74	-23.45	-	-	254	343	Н
	* 12.408	23.07	ADR	39.1	-23	39.17	54	-14.83	-	-	-	-	254	343	Н
1	7.228	37.69	PK3	35.7	-28.1	45.29	-	-	-	-	68.2	-22.91	110	179	Н
5	14.241	36.38	PK3	39.4	-24.4	51.38	-	-	-	-	68.2	-16.82	97	300	V
3	14.707	36.83	PK3	39.8	-24.8	51.83	-	-	-	-	68.2	-16.37	137	212	Н
6	16.96	35.05	PK3	42.2	-22.2	55.05	-	-	-	-	68.2	-13.15	0	177	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK3 - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

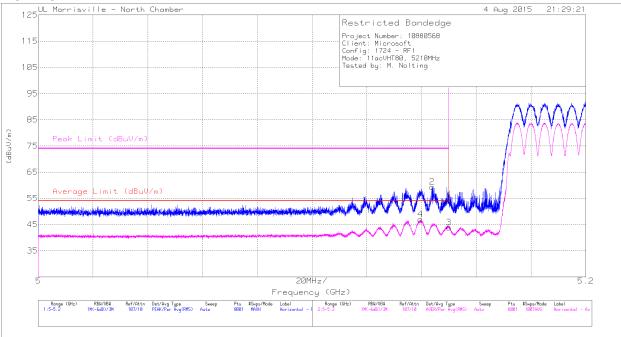
UL LLC

Page 298 of 437

9.2.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)





Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/Fl	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	tr/Pad (dB)	Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)				(dBuV/m)	(dBuV/m)						
1	* 5.15	41.28	Pk	34.3	-21.4	54.18	-	-	74	-19.82	261	185	Н
2	* 5.144	46.36	Pk	34.3	-21.3	59.36	-	-	74	-14.64	261	185	н
3	* 5.15	30.92	RMS	34.3	-21.4	43.82	54	-10.18	-	-	261	185	Н
4	* 5.14	33.93	RMS	34.3	-21.3	46.93	54	-7.07	-	-	261	185	Н

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

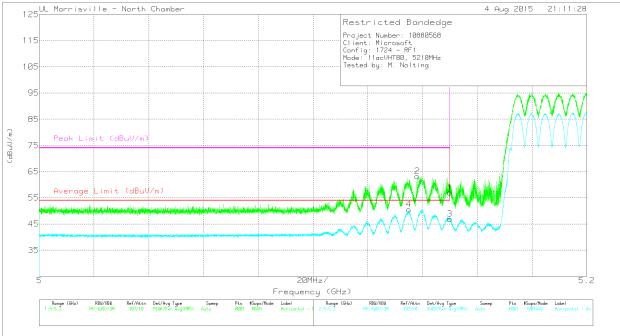
Pk - Peak detector

RMS - RMS detection

Page 299 of 437

REPORT NO: R10880568-E2CV2 FCC ID: C3K1724B

VERTICAL



Marker	Frequency	Meter	Det	AF AT0072	Amp/Cbl/Fl	Corrected	Average	Margin	Peak Limit	PK Margin	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	tr/Pad (dB)	Reading	Limit	(dB)	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)				(dBuV/m)	(dBuV/m)						
1	* 5.15	44.07	Pk	34.3	-21.4	56.97	-	-	74	-17.03	14	284	V
2	* 5.138	50.22	Pk	34.3	-21.3	63.22	-	-	74	-10.78	14	284	V
3	* 5.15	34.06	RMS	34.3	-21.4	46.96	54	-7.04	-	-	14	284	V
4	* 5.135	37.66	RMS	34.3	-21.4	50.56	54	-3.44	-	-	14	284	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

Page 300 of 437