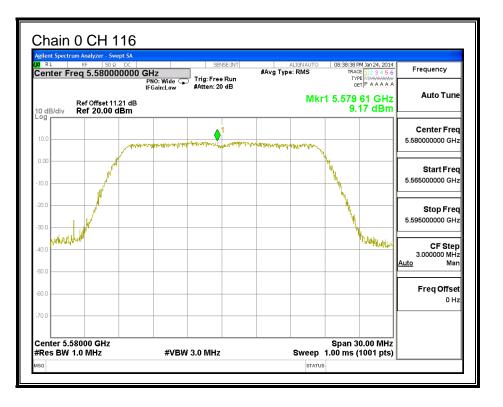
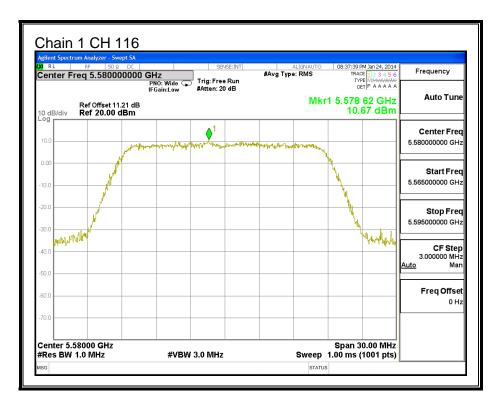
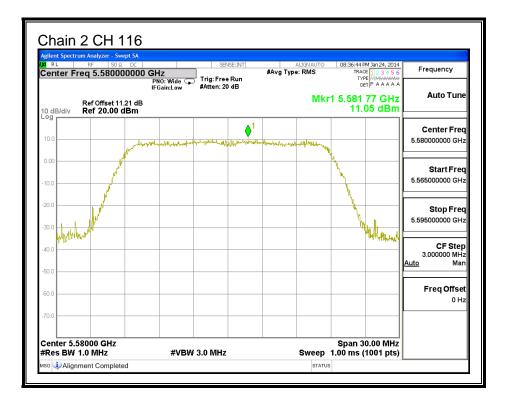
PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



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REPORT NO: 15U21905-E1V3

9.25. 802.11ac 20HMz 3TX CDD MODE, CHANNEL 144, 5.6 GHz BAND

9.25.1. 26 dB BANDWIDTH- UNII

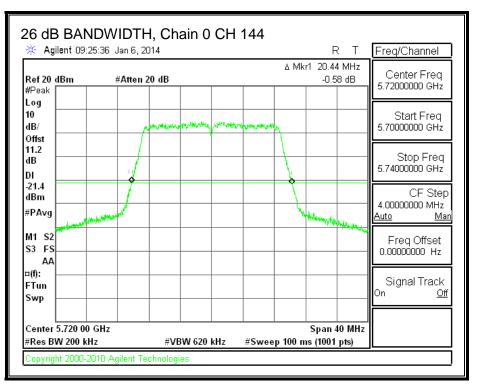
LIMITS

None; for reporting purposes only.

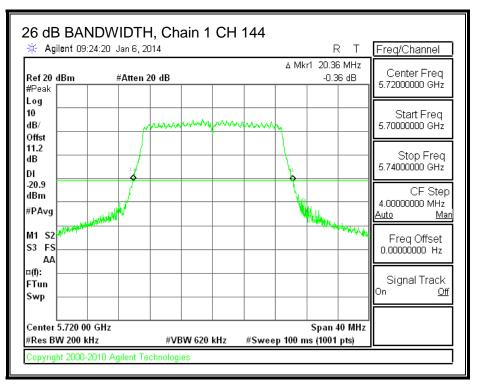
RESULTS

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

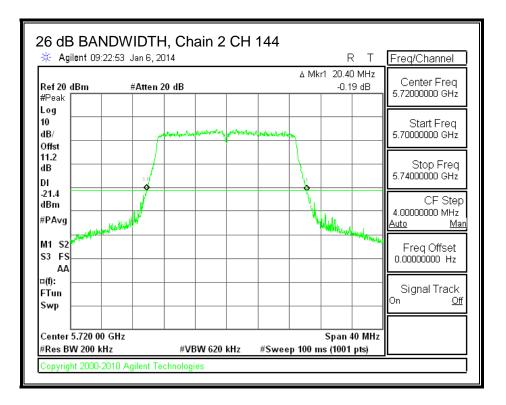
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26 dB BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.25.2.99% BANDWIDTH

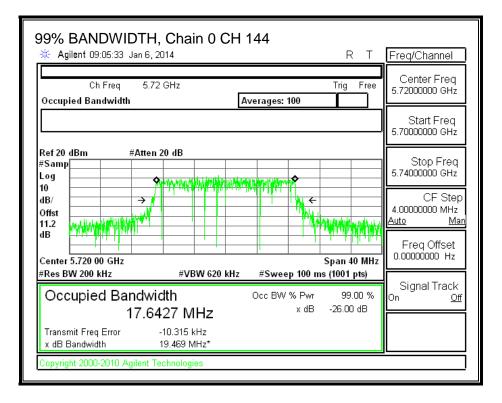
LIMITS

None; for reporting purposes only.

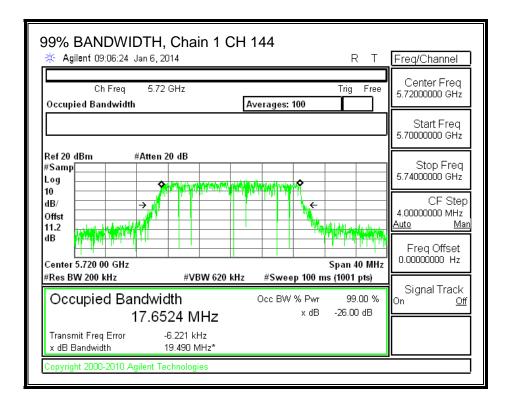
RESULTS

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

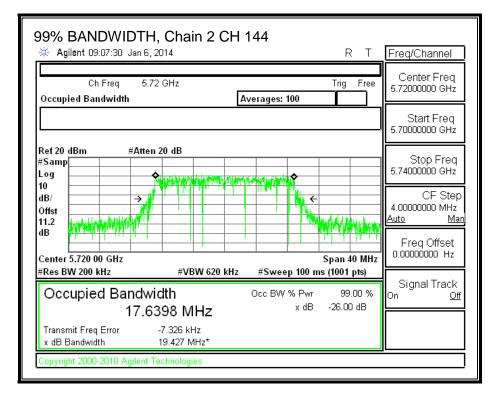
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99% BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.25.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

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

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Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

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

Limits

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

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

Output Power Results

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

PPSD Results

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

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Limits (FCC), portion in 5.8 GHz DTS band

Bandwidth and Antenna Gain

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

Limits

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

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

Output Power Results

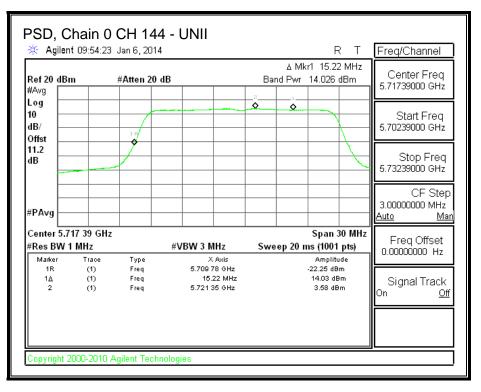
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5720	8.13	7.77	8.14	13.01	15.23	-2.22

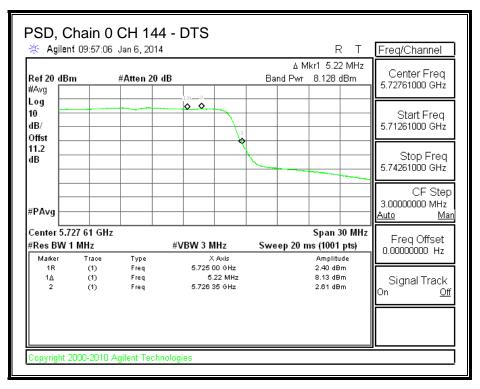
PPSD Results

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

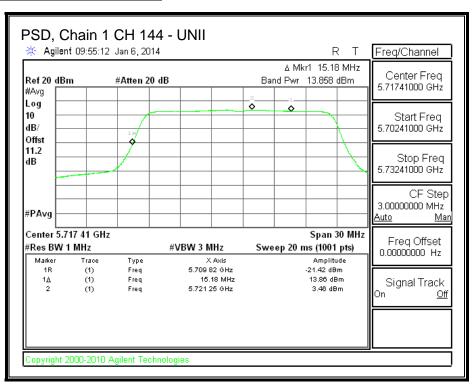
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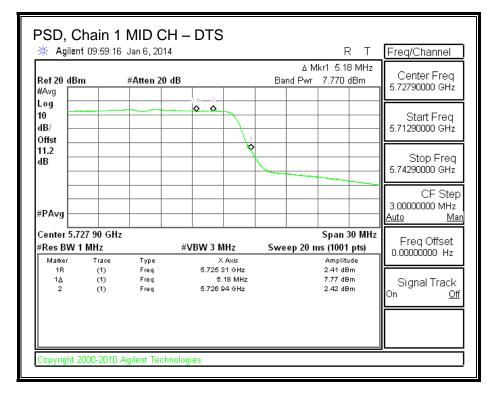
OUTPUT POWER & PPSD, Chain 0



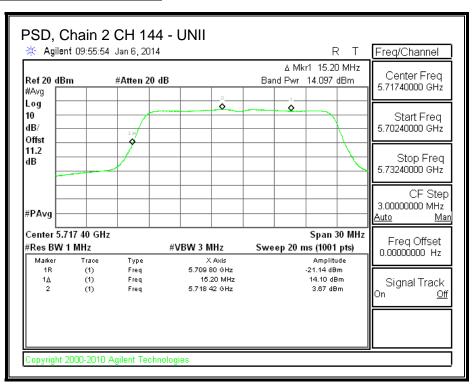


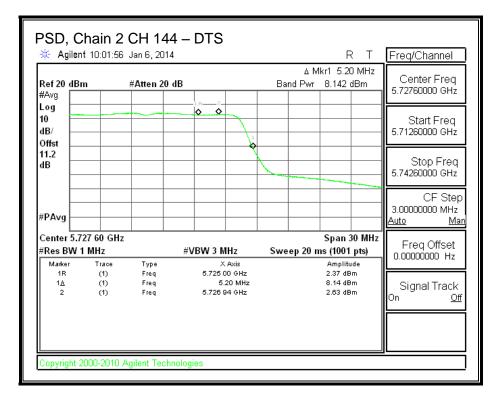
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9.26. 802.11n HT20 3TX SDM MODE IN THE 5.6 GHz BAND

26 dB BANDWIDTH 9.26.1.

LIMITS

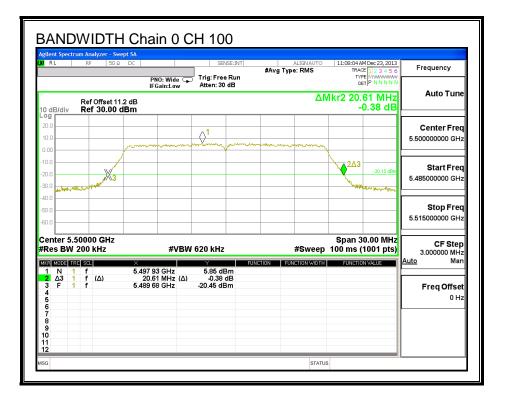
None; for reporting purposes only.

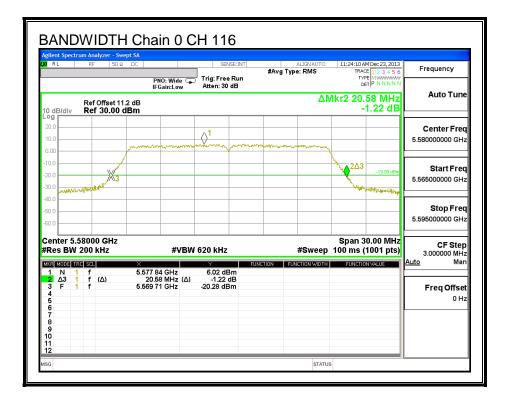
RESULTS

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

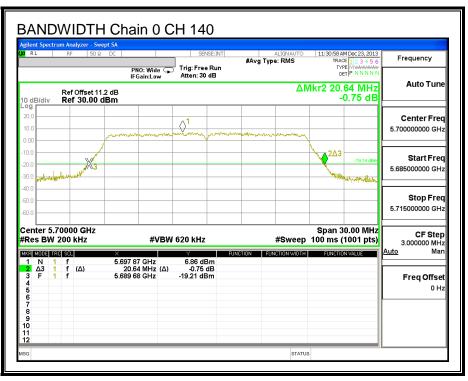
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26 dB BANDWIDTH, Chain 0

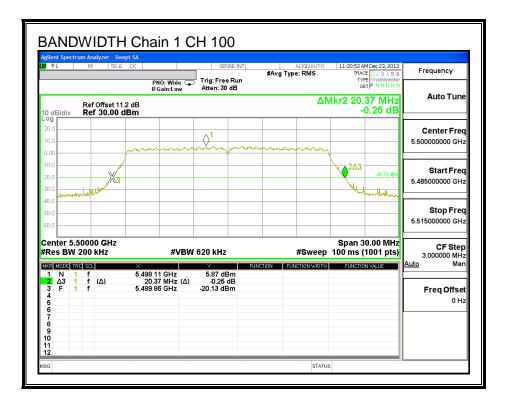




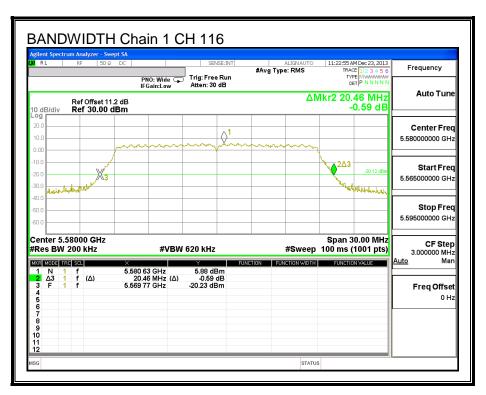
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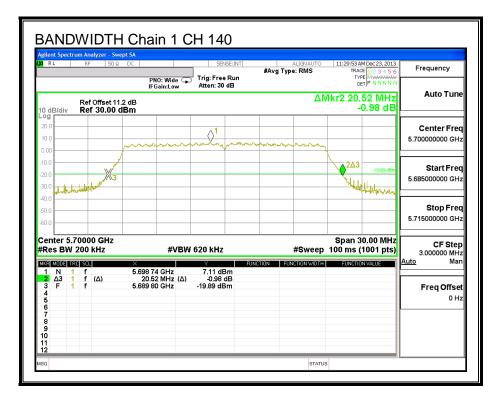


26 dB BANDWIDTH, Chain 1



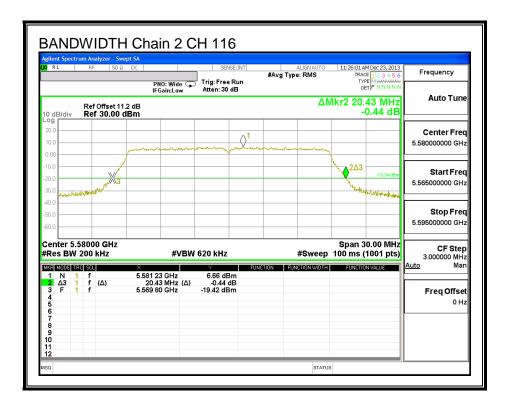
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	DC	SENSE:INT	ALIGNAUTO #Avg Type: RMS	11:19:05 AM Dec 23, 2013 TRACE 1 2 3 4 5 6	Frequency
	PNO: Wide 🦕	Trig: Free Run Atten: 30 dB	wavg type. Kins	TYPE MWWWWWWWW DET P N N N N N	
Ref Offset 11.2 dB/div Ref 30.00 dE			Δ١	/kr2 20.61 MHz -0.88 dB	Auto Tuno
					Center Free
.0		1	man million have been the		5.50000000 GH
.0				203	Start Free
.0				-19.99 dBm	5.485000000 GH
.0 .0				Marine and Marine	
.0					Stop Free 5.515000000 GH
enter 5.50000 GHz	#)/B)	/ 620 kHz	#Swoon	Span 30.00 MHz 100 ms (1001 pts)	
R MODE TRC SCL	×	Y	#Sweep	FUNCTION VALUE	3.000000 MH <u>Auto</u> Ma
N 1 f Δ3 1 f (Δ) F 1 f	5.498 74 GHz 20.61 MHz (Δ) 5.489 74 GHz	6.01 dBm -0.88 dB -21.53 dBm			
	5.46974 GHZ	-21.55 dBm			Freq Offse



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RL RL	Analyzer - Swept SA RF 50 Ω DC		SENSE:INT	-	ALIGN AUTO	11:28:40 AM Dec 23, 2013	
		PNO: Wide C		#Avg Type		TRACE 1 2 3 4 5 6 TYPE M WWWWWWW	Frequency
		IFGain:Low	Atten: 30 dB			DET P NNNN	Auto Tun
dB/div	Ref Offset 11.2 dE Ref 30.00 dBm				ΔN	/kr2 20.49 MHz -0.18 dB	Auto Tun
0.0							Center Free
0.0		an and and all	have another and		mm		5.70000000 GH
00							
.0	X					2∆3 -18.90 dBm	Start Free
.0	alles Martin					What hap that and	5.685000000 GH
0	r•					Construction of the second sec	
.0							Stop Free 5.715000000 GH
.0							5.71500000 GH
enter 5.70 les BW 20		#\(B)	N 620 kHz		#Swoon	Span 30.00 MHz 100 ms (1001 pts)	CF Step
R MODE TRO					жамсер Сполжон	FUNCTION VALUE	3.000000 MH Auto Mar
N 1	f f	5.701 23 GHz	7.30 dBm -0.18 dB	FORCHOR		FONCTION VALUE	
	f (Δ) f t	20.49 MHz (Δ 5.689 74 GHz	-18.95 dBm				Freq Offse
							0 H
) / }							
) 							
2							

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.26.2. 99% BANDWIDTH

LIMITS

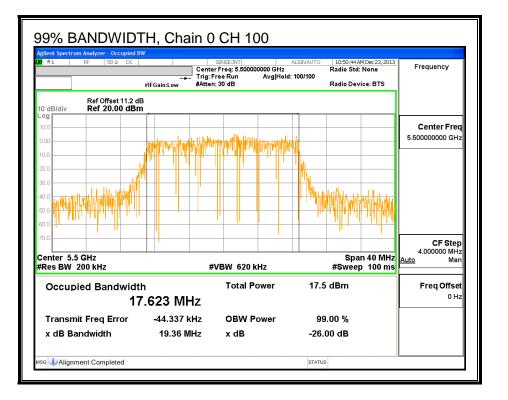
None; for reporting purposes only.

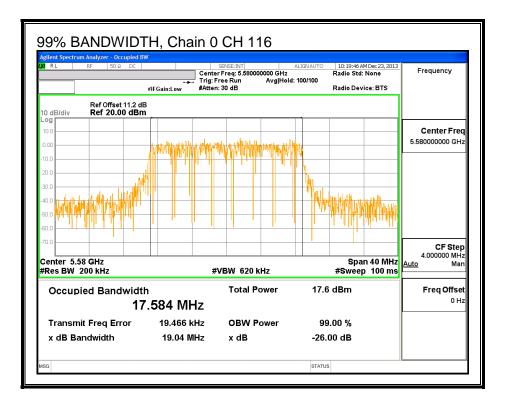
<u>RESULTS</u>

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

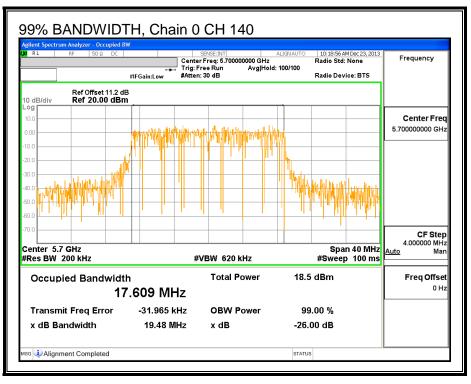
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99% BANDWIDTH, Chain 0

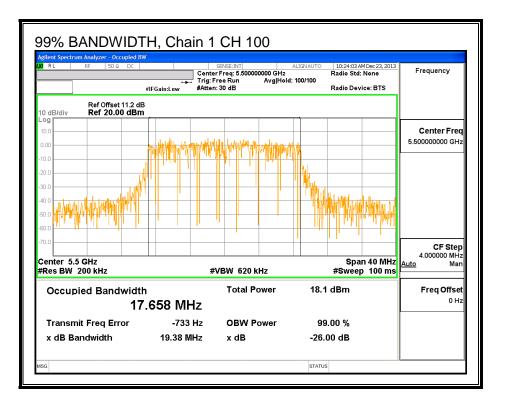




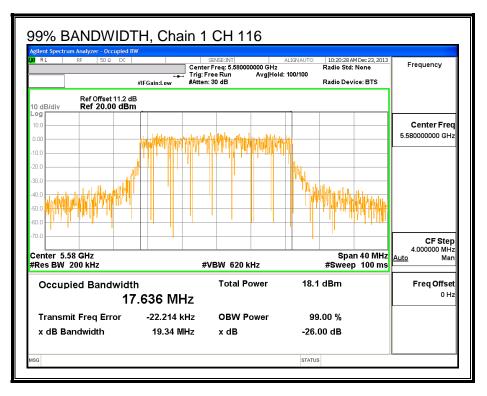
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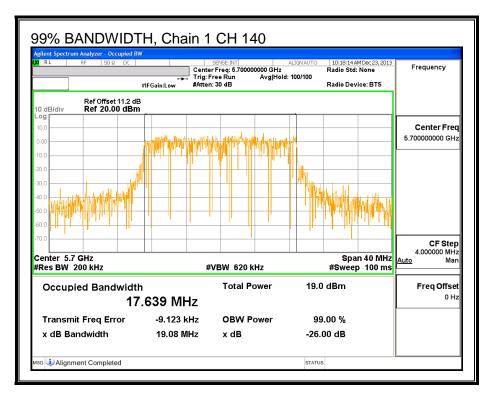


99% BANDWIDTH, Chain 1

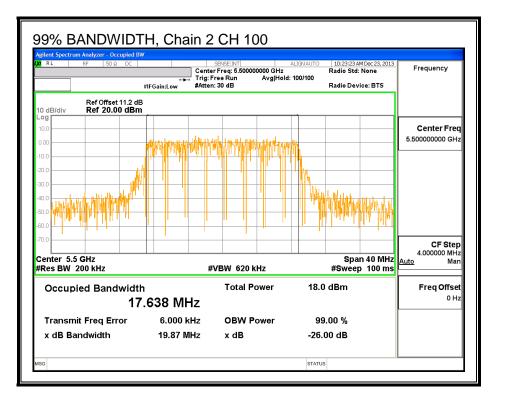


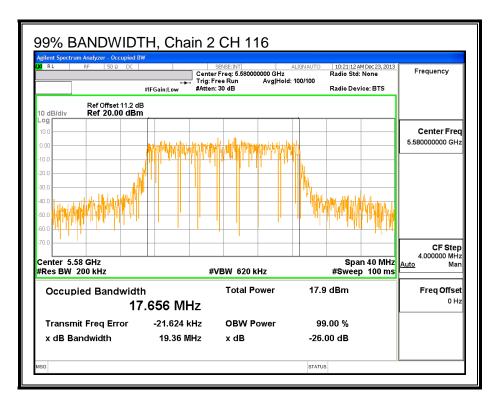
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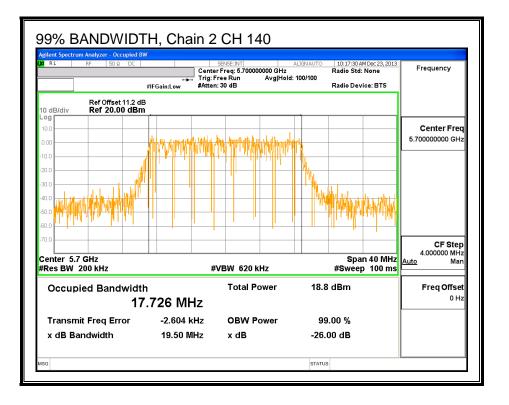


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LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

Average Power Results

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

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<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

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Bandwidth and Antenna Gain

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

Limits

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

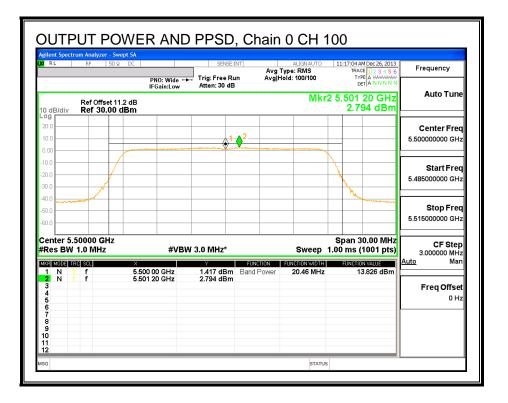
Output Power Results

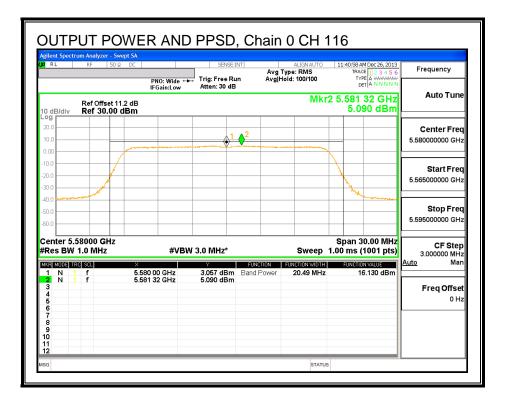
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
100	5500	13.826	13.759	14.169	18.86	23.46	-4.60
116	5580	16.130	16.084	16.332	21.12	23.45	-2.33
140	5700	15.975	16.318	16.293	21.14	23.46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

PPSD Results

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

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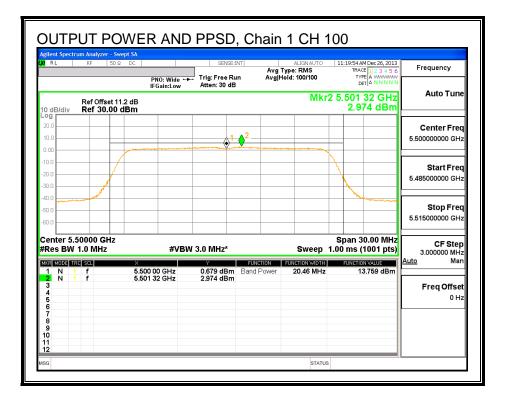




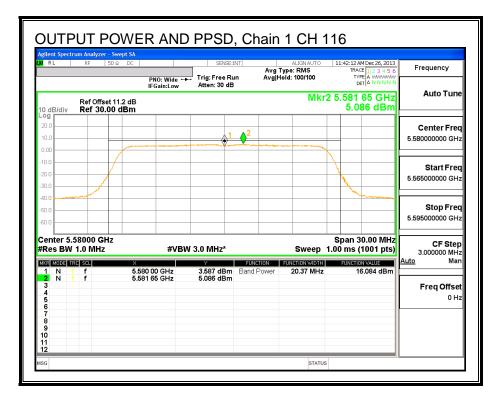
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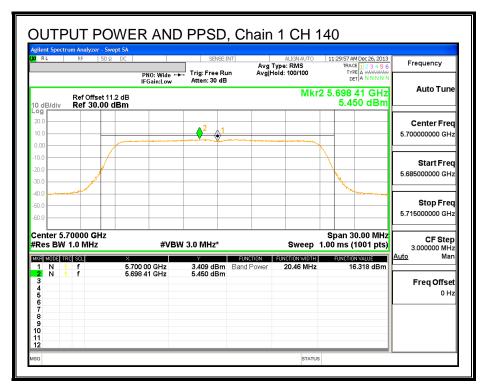
RL	RF	50 Ω		PNO: Wide + FGain:Low		Run Av	ALIGN AUTO rg Type: RMS g Hold: 100/100	11:31:24 AM Dec 26, 201 TRACE 1 2 3 4 5 TYPE A WWWW DET A N N N N	6 Frequency
0 dB/div		fset 11.3 0.00 d	2 dB	FGain:Low	Aden. oo		Mk	r2 5.698 98 GH 4.836 dBn	
og 20.0 10.0 0.00					¢ ²	1			Center Free 5.700000000 GH:
0.0 0.0 0.0									Start Free 5.685000000 GH
0.0 0.0 0.0									Stop Free 5.715000000 GH
Res BW	.70000 (/ 1.0 MH			#VB	W 3.0 MHz*		•	Span 30.00 MH 1.00 ms (1001 pts	э) 3.000000 MH
Xe Zode 1 N 2 N 3 4 5 6 7 8 9 0 1 2	IRC SCL 1 f 1 f			00 GHz 98 GHz	¥ 2.866 dB 4.836 dB		FUNCTIONWIDTH 20.67 MHz		Freq Offse

OUTPUT POWER AND PPSD, Chain 1



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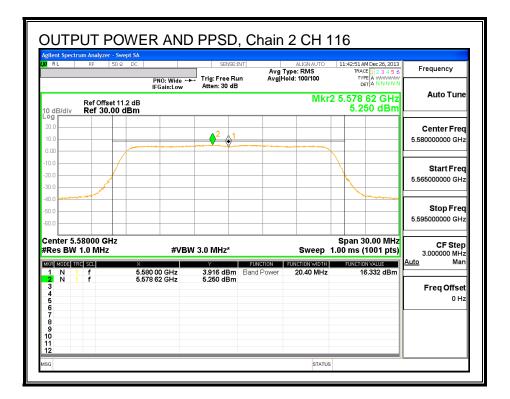




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REPORT NO: 15U21905-E1V3 MODEL: ID:072 OUTPUT POWER AND PPSD, Chain 2

RL	RF	50 Ω	DC		SEN	SE:INT		ALIGN AUTO		56 AM Dec 26, 2013	Frequency
				PNO: Wide ↔ Gain:Low	Trig: Free Atten: 30			(ype: RMS old: 100/100		TYPE A WWWW DET A N N N N N	
dB/div		fset 11.2 0.00 d						Mk		01 05 GHz 161 dBm	Auto Tune
g .0											Center Freq
.0						¹ ²		····			5.500000000 GHz
.0		+/							\mathbb{A}		Start Fred
.0											5.485000000 GHz
0	and the second sec									and the second second	Stop Freq
.0											5.515000000 GHz
	50000 (1.0 MF			#VB\	N 3.0 MHz*			Sweep		n 30.00 MHz Is (1001 pts)	CF Step 3.000000 MHz
n Mode T	f			00 GHz	1.629 dB	m Band	CTION Power	FUNCTION WIDTH 20.55 MHz		CTION VALUE 14.169 dBm	<u>Auto</u> Mar
N 1	f		5.501	05 GHz	3.161 dB	m					Freq Offset
											0 Hz
1											
1 1 											



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	analyzer - Swept SA RF 50 Ω DC	PNO: Wide ← IFGain:Low	SENSE: II Trig: Free Ru Atten: 30 dB	Avg	ALIGNAUTO Type: RMS fold: 100/100	TRA T)	AM Dec 26, 2013 CE 1 2 3 4 5 6 (PE A WANNAN) DET A N N N N N	Frequency
dB/div R	ef Offset 11.2 dB ef 30.00 dBm	ii Gaiii.Eow			Mkr		08 GHz 68 dBm	Auto Tun
99 0.0 0.0			() ()	2				Center Fre 5.700000000 GH
1.0 1.0						- Ann		Start Fre 5.685000000 GH
D.0 D.0 D.0								Stop Fre 5.715000000 GH
enter 5.700 Res BW 1.0		#VBI	N 3.0 MHz*		Sweep		30.00 MHz (1001 pts)	CF Stej 3.000000 MH
ACDD TRC SI 1 N 1 f 2 N 1 f 3 - - - 4 - - - - 5 - - - - - 6 - </td <td>5.</td> <td>700 00 GHz 701 08 GHz</td> <td>¥ 3.400 dBm 5.168 dBm</td> <td>FUNCTION Band Power</td> <td>function width 20.61 MHz</td> <td></td> <td>onvalue 16.293 dBm</td> <td>A<u>uto</u>Ma FreqOffse 0 H</td>	5.	700 00 GHz 701 08 GHz	¥ 3.400 dBm 5.168 dBm	FUNCTION Band Power	function width 20.61 MHz		onvalue 16.293 dBm	A <u>uto</u> Ma FreqOffse 0 H

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<u>LIMITS</u>

FCC §15.407 (a) (6)

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

RESULTS

Chain 0

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

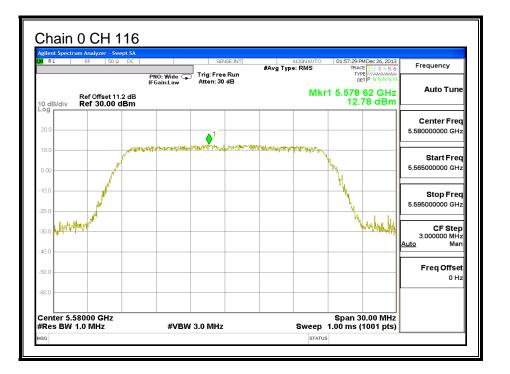
Chain 1

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

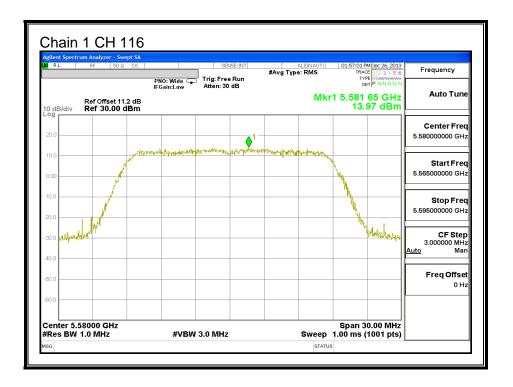
Chain 2

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

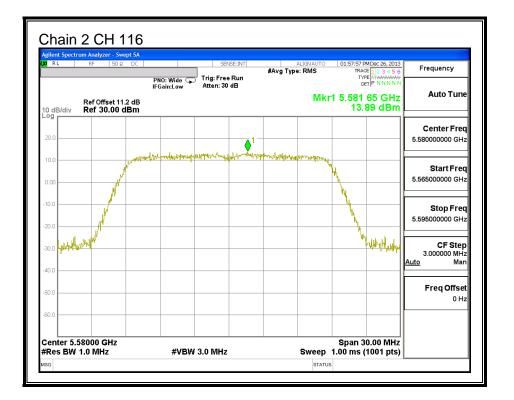
PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



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9.27. 802.11ac 20MHz 3TX SDM MODE, CHANNEL 144, 5.6 GHz BAND

9.27.1.26 dB BANDWIDTH- UNII

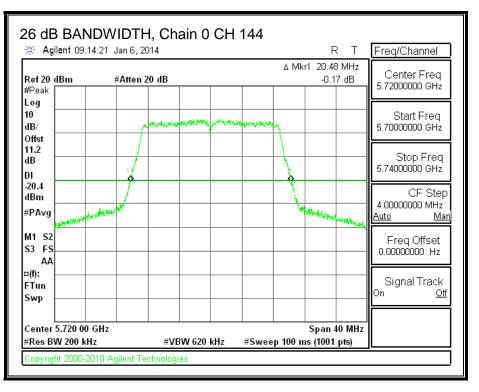
<u>LIMITS</u>

None; for reporting purposes only.

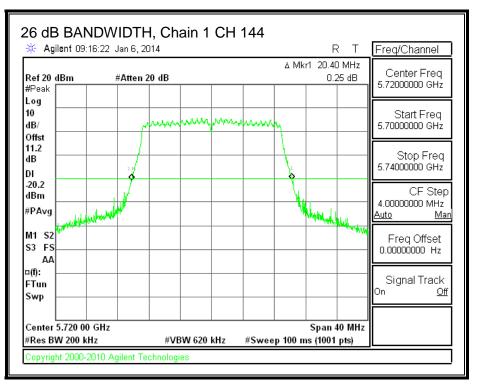
RESULTS

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

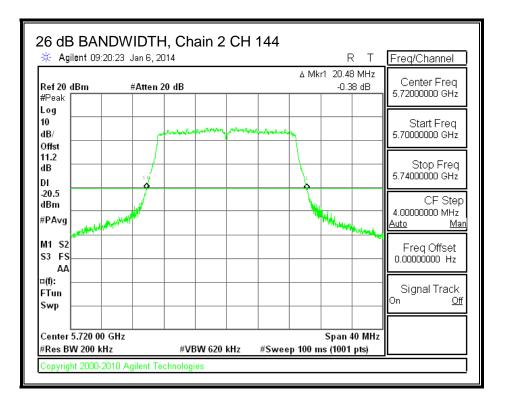
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26 dB BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.27.2.99% BANDWIDTH

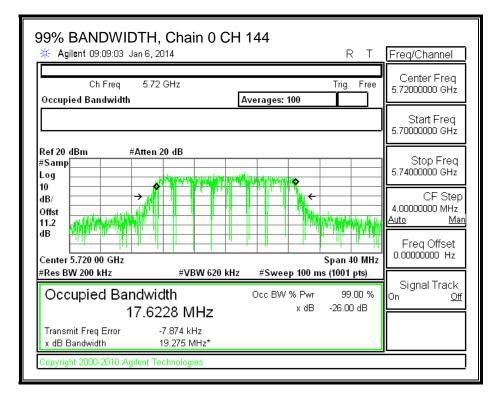
LIMITS

None; for reporting purposes only.

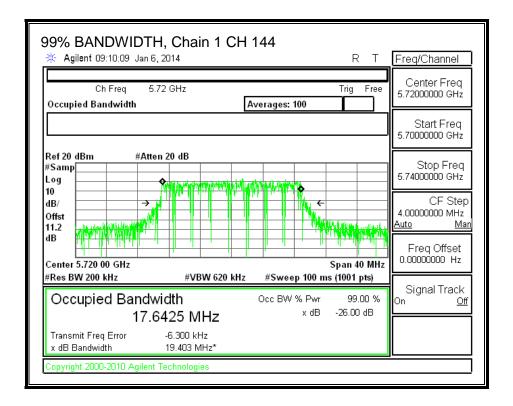
RESULTS

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

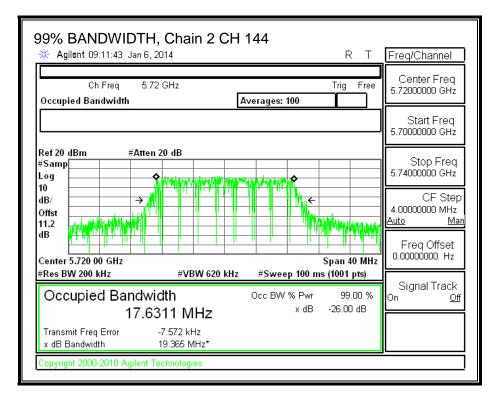
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99% BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.27.3. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna
Gain
(dBi)
2.82

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Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

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

Limits

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

Duty Cycle CF (dB)0.17Included in Calculations of Corr'd Power & PPSD

Output Power Results

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

PPSD Results

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

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Limits (FCC), portion in 5.8 GHz DTS band

Bandwidth and Antenna Gain

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

Limits

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

 Duty Cycle CF (dB)
 0.17
 Included in Calculations of Corr'd Power & PPSD

Output Power Results

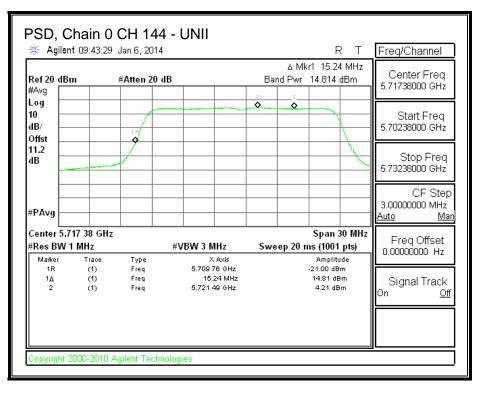
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	8.98	8.74	8.78	13.78	16.82	-3.04

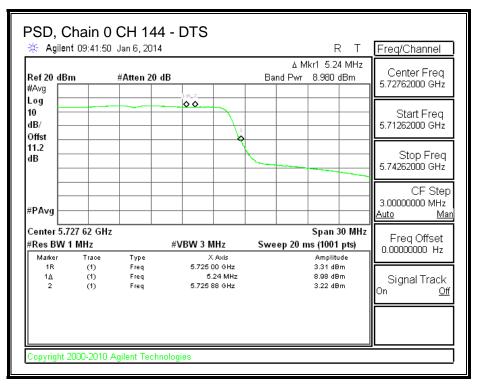
PPSD Results

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

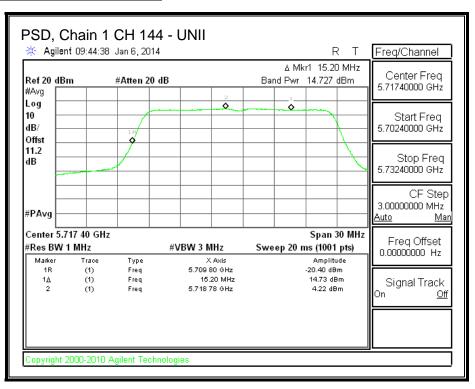
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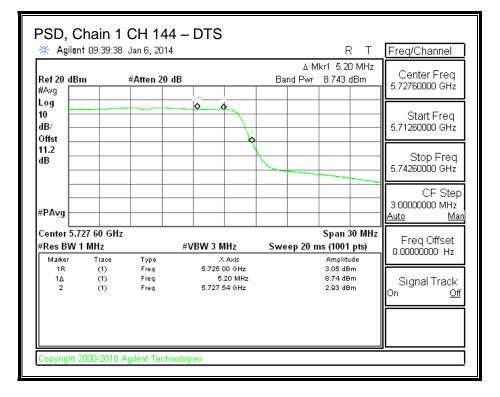
OUTPUT POWER & PPSD, Chain 0



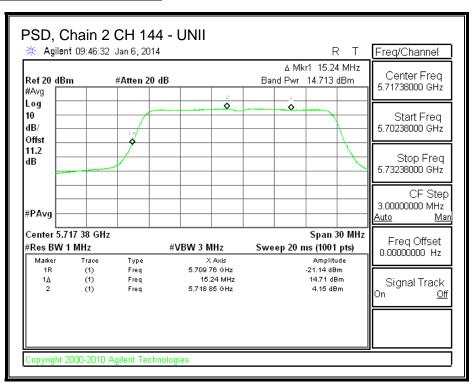


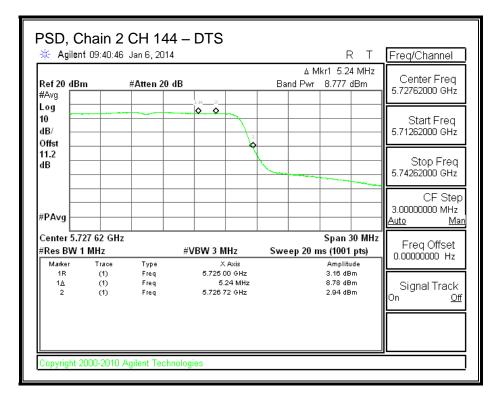
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9.28. 802.11n HT40 1TX SISO MODE IN THE 5.6 GHz BAND

9.28.1. 26 dB BANDWIDTH

LIMITS

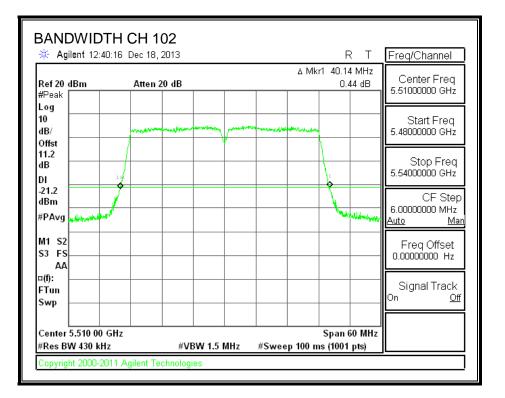
None; for reporting purposes only.

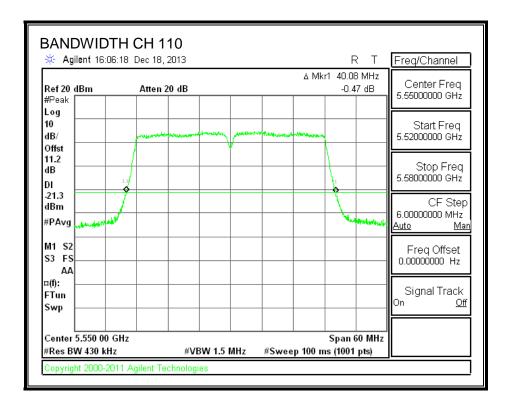
RESULTS

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

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26 dB BANDWIDTH





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-	-		۵ Mk	r1 39.84 MHz	Freq/Channel
ef 20 dBm	Atten 20 dB			-0.09 dB	Center Free 5.6700000 GH
g		an har	**************************************		Start Free 5.64000000 GH
.2	1.6				Stop Fre 5.7000000 GH
7.4 im Avg				Wenderston	CF St 6.0000000 MH <u>Auto h</u>
FS AA					Freq Offse 0.00000000 H
): Tun Vp					Signal Trac
enter 5.670 00 G es BW 430 kHz		/BW 1.5 MHz	#Sweep 100 n	Span 60 MHz	

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.28.2. 99% BANDWIDTH

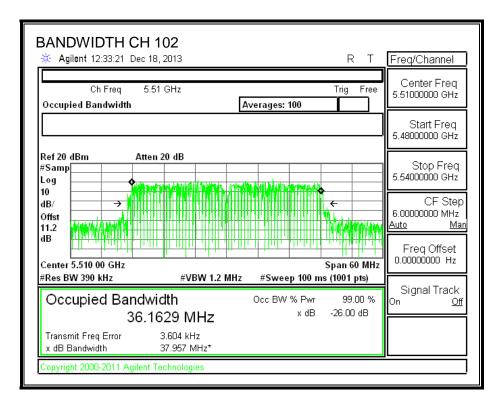
LIMITS

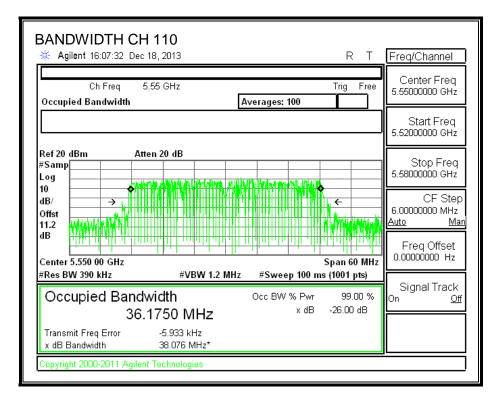
None; for reporting purposes only.

RESULTS

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

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BANDWIDTH CH 134	Freq/Channel
Ch Freq 5.67 GHz Trig Free Occupied Bandwidth Averages: 100	Center Freq 5.6700000 GHz
	Start Freq 5.64000000 GHz
Ref 20 dBm Atten 20 dB #Samp Log 10 Atten 20 dB	Stop Freq 5.7000000 GHz
dB/ Offst 11.2 Defendent of the second secon	CF Step 6.0000000 MHz <u>Auto Man</u>
dB Image: Content 5.670 00 GHz Span 60 MHz #Res BW 390 kHz #VBW 1.2 MHz #Sweep 100 ms (1001 pts)	Freq Offset 0.00000000 Hz
Arkes BW 390 kn2 #VBW 1.2 MH2 #Sweep 100 fills (100 fills) Occupied Bandwidth Occ BW % Pwr 99.00 % 36.1560 MHz × dB -26.00 dB	Signal Track On <u>Off</u>
Transmit Freq Error -3.332 kHz x dB Bandwidth 38.112 MHz*	
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LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

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

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<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna	
Gain	
(dBi)	
2.82	

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Bandwidth and Antenna Gain

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

Limits

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

Duty Cycle CF (dB) 0.42 Included in Calculations of Corr'd Power & PPSD

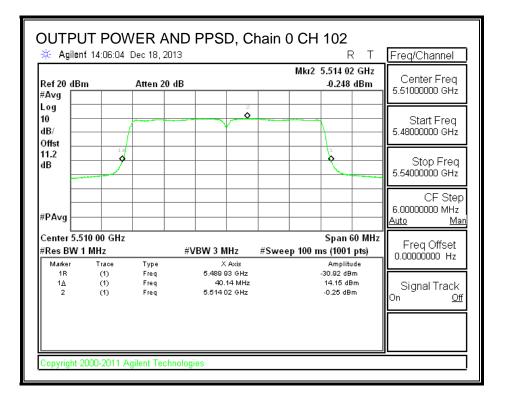
Output Power Results

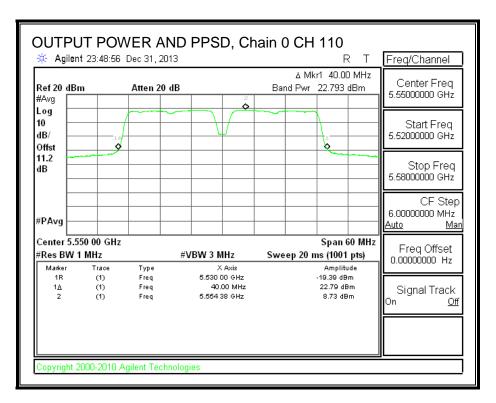
Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
102	5510	14.15	14.57	24.00	-9.43
110	5550	22.79	23.21	24.00	-0.79
134	5670	17.60	18.02	24.00	-5.98

PPSD Results

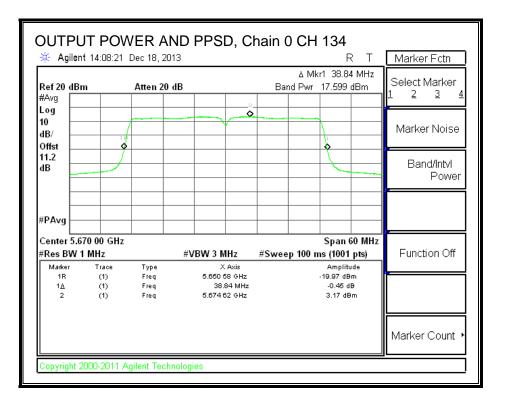
Channel	Frequency	Chain 0	Total	PPSD	PPSD
		Meas	Corr'd	Limit	Margin
		PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
102	5510	-0.25	0.17	11.00	-10.83
110	5550	8.73	9.15	11.00	-1.85
134	5670	3.17	3.59	11.00	-7.41

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<u>LIMITS</u>

FCC §15.407 (a) (6)

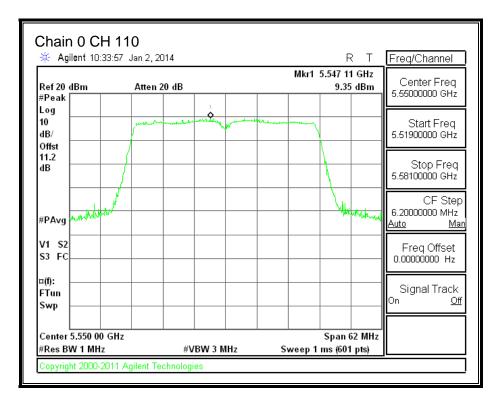
The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

RESULTS

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

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PEAK EXCURSION, Chain 0



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9.29. 802.11ac 40MHz 1TX SISO MODE, CHANNEL 142, 5.6 GHz BAND

9.29.1. 26 dB BANDWIDTH

LIMITS

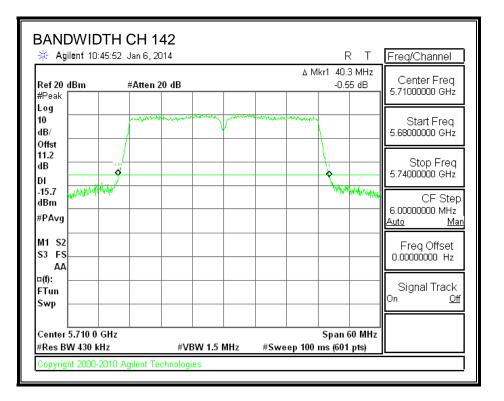
None; for reporting purposes only.

RESULTS

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

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26 dB BANDWIDTH



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.29.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

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

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BANDWIDTH CH 142	Freq/Channel
Ch Freq 5.71 GHz Trig Free Occupied Bandwidth Averages: 100	Center Freq 5.71000000 GHz
	Start Freq 5.68000000 GHz
Ref 20 dBm #Atten 20 dB #Samp Log	Stop Freq 5.74000000 GHz
dB/ Offst 11.2	CF Step 6.0000000 MHz <u>Auto Man</u>
dB Center 5.710 0 GHz Span 60 MHz	Freq Offset 0.00000000 Hz
#Res BW 430 kHz #VBW 1.6 MHz #Sweep 100 ms (601 pts)	Signal Track
Occupied Bandwidth Occ BW % Pwr 99.00 % 36.1356 MHz x dB -26.00 dB	On <u>Off</u>
Transmit Freq Error 2.387 kHz x dB Bandwidth 38.118 MHz*	
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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.29.3. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna	
Gain	
(dBi)	
2.82	

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Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

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

Limits

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

Output Power Results

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

PSD Results

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

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 Limits (FCC), portion in 5.8 GHz DTS band

Bandwidth and Antenna Gain

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

Limits

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

Output Power Results

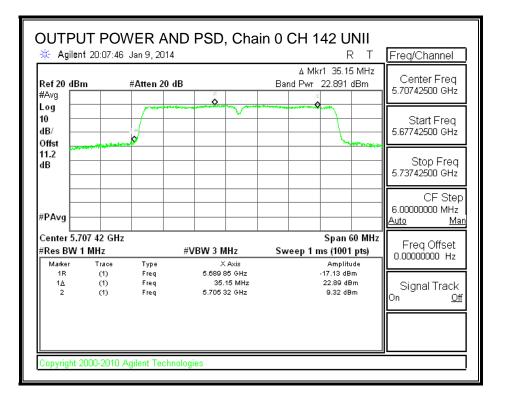
Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.47	12.89	15.87	-2.98

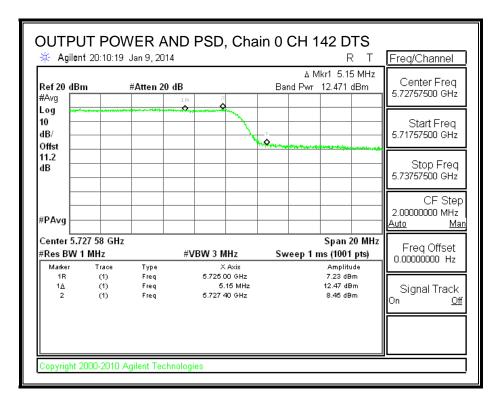
PSD Results

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

Duty Cycle CF (dB) 0.42 Included in Calculations of Corr'd Power & PPSD

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9.30. 802.11n HT40 3TX CDD MODE IN THE 5.6 GHz BAND

26 dB BANDWIDTH 9.30.1.

LIMITS

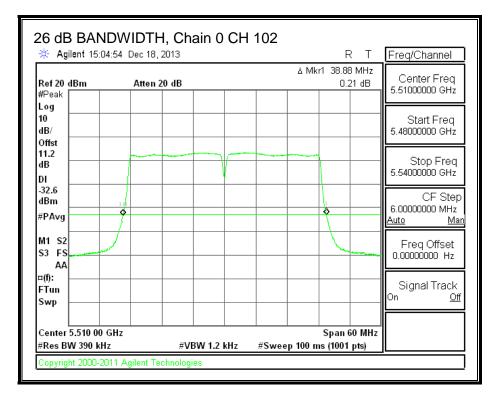
None; for reporting purposes only.

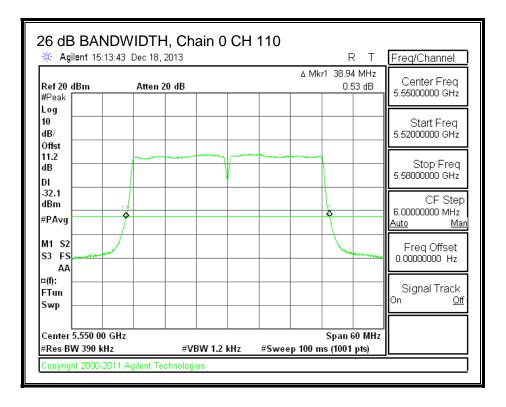
RESULTS

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

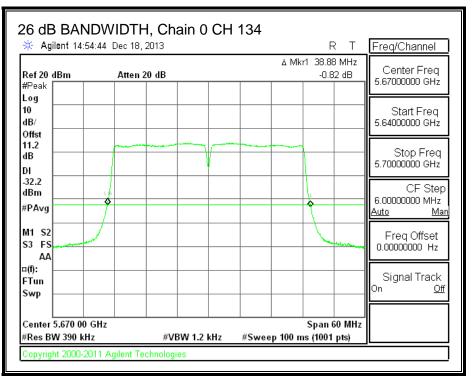
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26 dB BANDWIDTH, Chain 0

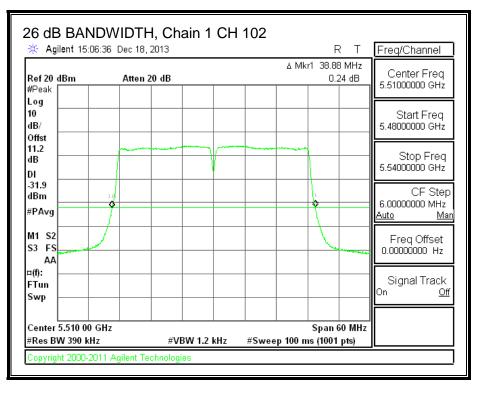




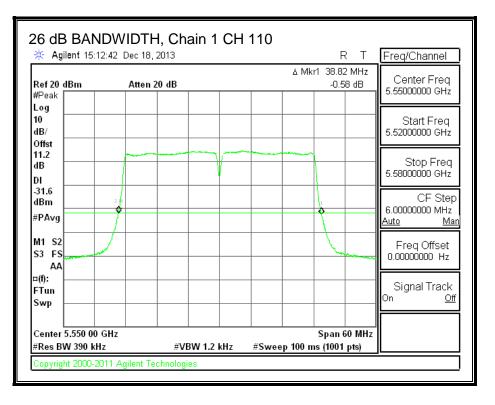
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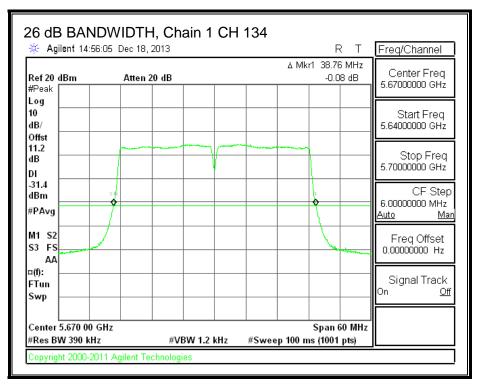


26 dB BANDWIDTH, Chain 1

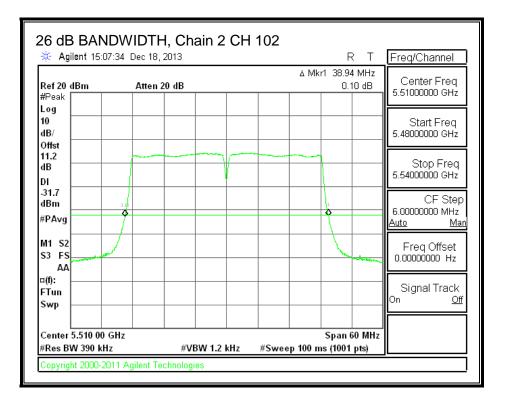


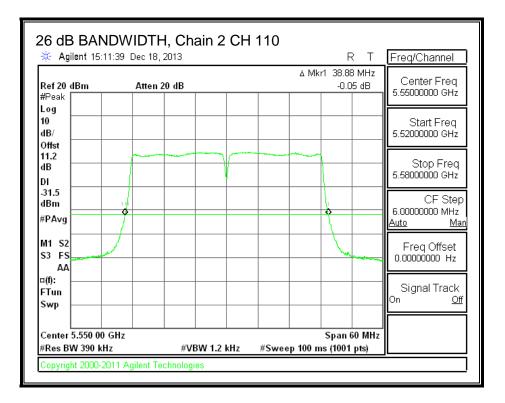
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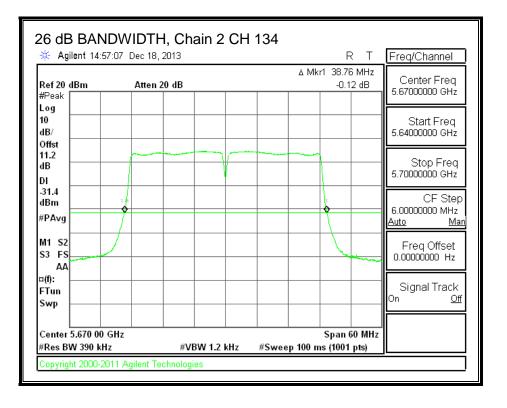


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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.30.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

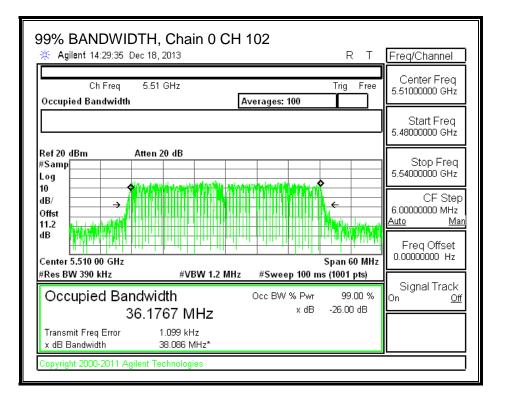
<u>RESULTS</u>

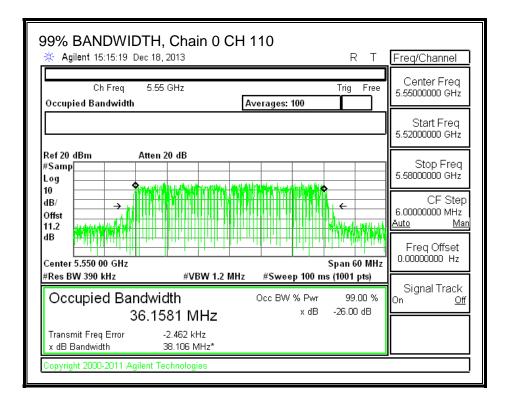
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
102	5510	36.1767	36.1412	36.1652
110	5550	36.1581	36.1627	36.1600
134	5670	36.1466	36.1444	36.1491

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 99% BANDWIDTH

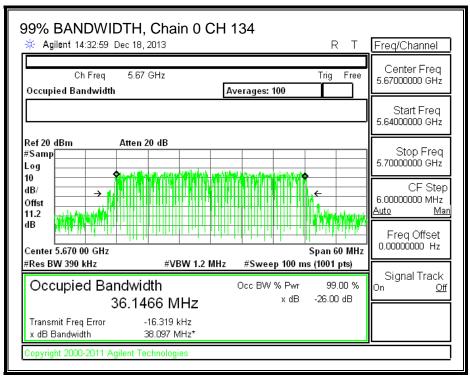
99% BANDWIDTH, Chain 0



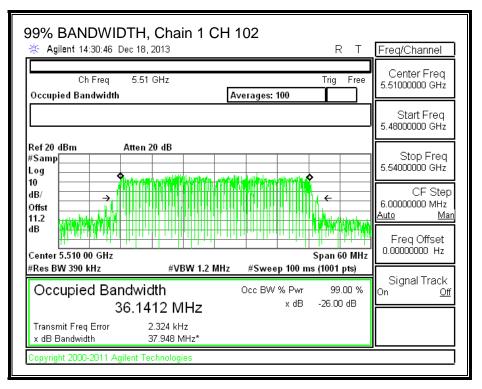


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REPORT NO: 15U21905-E1V3 MODEL: ID:072

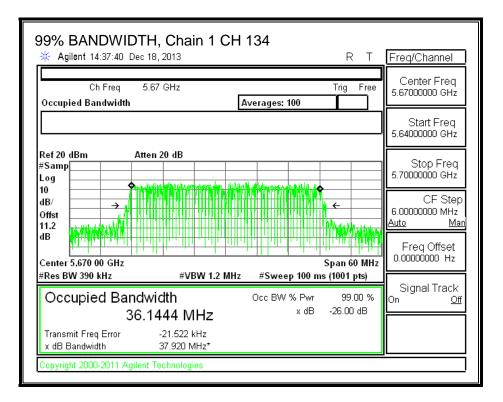


99% BANDWIDTH, Chain 1

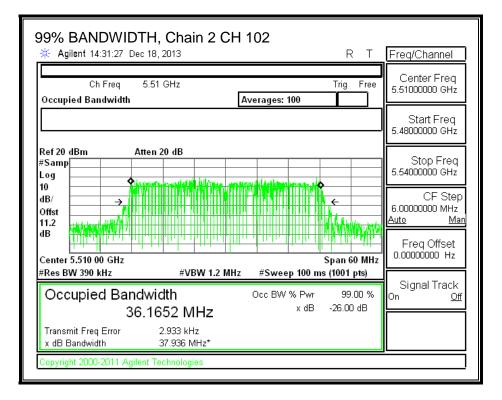


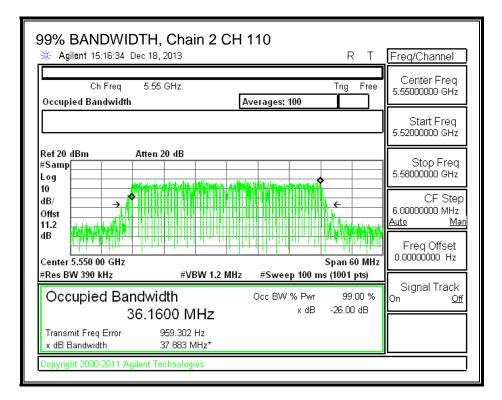
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99% BANDWIDTH, Cha	in 1 CH 110	RТ	Freq/Channel
Ch Freq 5.55 GHz Occupied Bandwidth	Averages: 100	Trig Free	Center Freq 5.55000000 GHz
			Start Freq 5.52000000 GHz
Ref 20 dBm Atten 20 dB #Samp Log	the stores and at 11/10 keystores by the relation	>	Stop Freq 5.58000000 GHz
10 dB/ Offst 11.2 dB		A Maritania	CF Step 6.00000000 MHz <u>Auto Man</u>
Center 5.550 00 GHz #Res BW 390 kHz #V	BW 1.2 MHz #Sweep 100 n	Span 60 MHz ns (1001 pts)	Freq Offset 0.00000000 Hz
Occupied Bandwidth 36.1627 N	Осс ВW % Рwr 1Hz × dB		Signal Track On <u>Off</u>
Transmit Freq Error -1.648 k x dB Bandwidth 37.839 l			
Copyright 2000-2011 Agilent Technolog	ies		

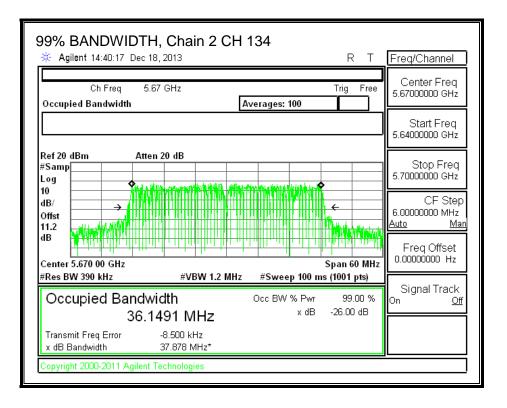


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LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

Average Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total
		Power	Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
102	5510	7.41	8.70	9.16	13.26
110	5550	17.12	17.01	17.25	21.90
134	5670	9.91	10.21	10.82	15.10

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<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

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

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Bandwidth and Antenna Gain

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

Limits

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

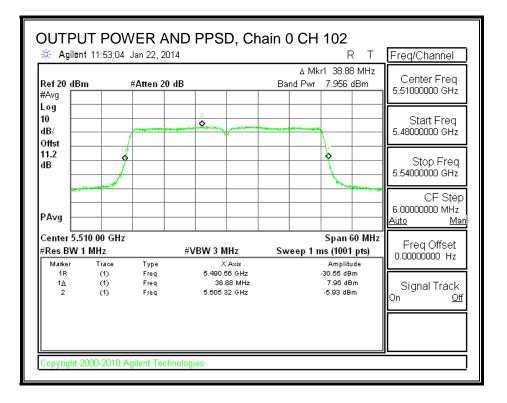
Duty Cycle CF (dB) 0.14 Included in Calculations of Corr'd Power & PPSD

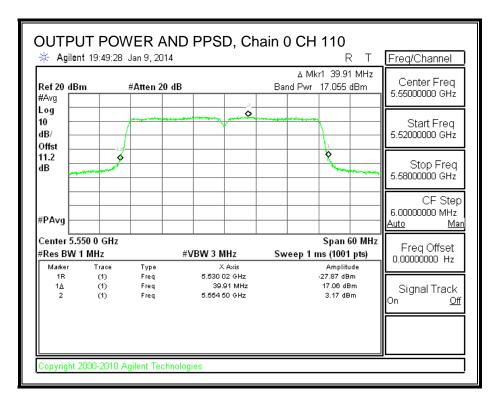
Output Power Results

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

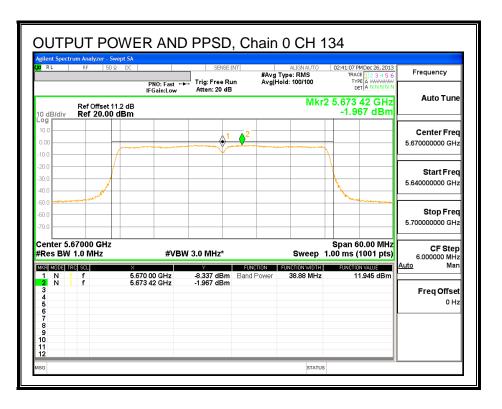
PPSD Results

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

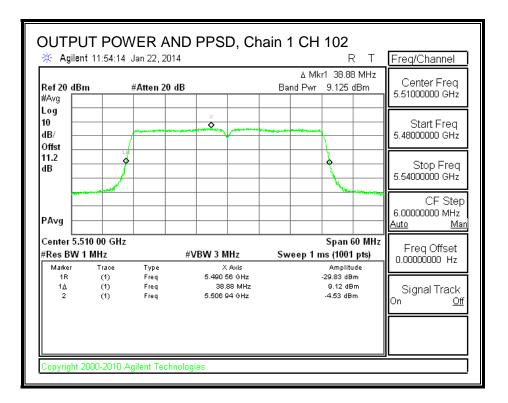




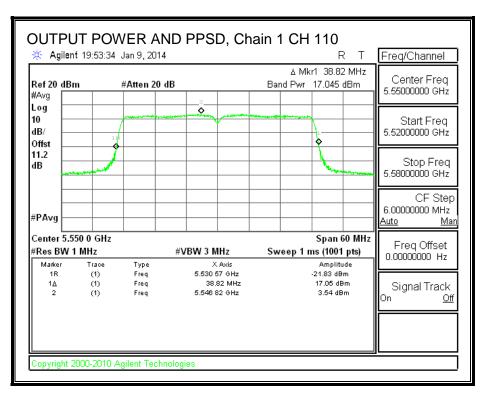
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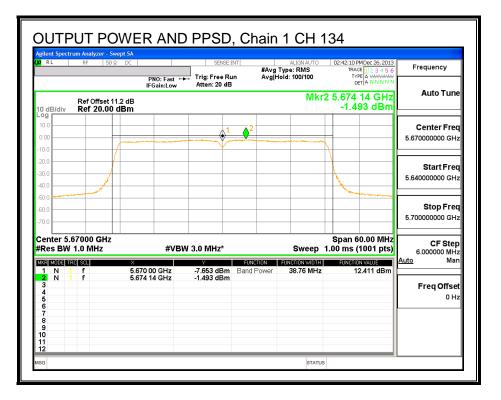


OUTPUT POWER AND PPSD, Chain 1

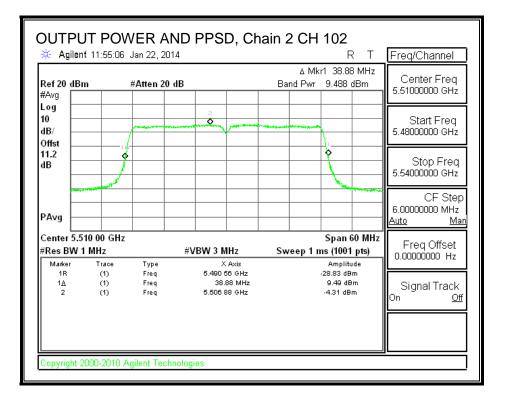


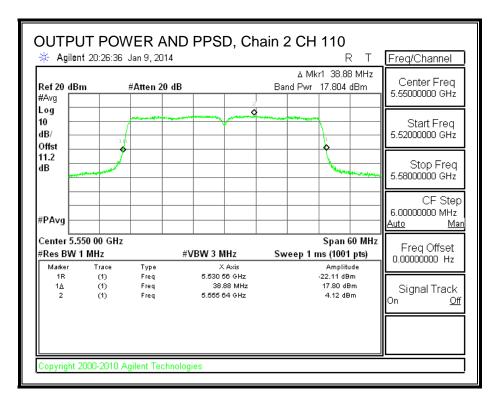
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	nalyzer - Swept SA IF 50 Ω DC	PNO: Fast ←	SENSE:IN	#Avg	ALIGN AUTO Type: RMS Hold: 100/100	TRAC	MDec 26, 2013 CE 1 2 3 4 5 6 PE A WWWWWW	Frequency
	ef Offset 11.2 dB ef 20.00 dBm	IFGain:Low	Atten: 20 dB		Mkr	2 5.673	48 GHz 46 dBm	Auto Tun
			1	¢ ²				Center Fre 5.670000000 GH
D.0 D.0								Start Fre 5.640000000 GH
D.0 D.0 D.0								Stop Fre 5.700000000 GH
enter 5.670 Res BW 1.0	MHz	#VBI	N 3.0 MHz*		•	1.00 ms (0.00 MHz 1001 pts)	CF Stej 6.000000 MH <u>Auto</u> Ma
MODE TRE SI 1 N 1 f 2 N 1 f 3 - - - 4 - - - - 5 - - - - - 6 - </td <td>5.6</td> <td>70 00 GHz 73 48 GHz</td> <td>-7.579 dBm -1.246 dBm</td> <td>EUNCTION Band Power</td> <td>FUNCTIONWIDTH 38.76 MHz</td> <td>FUNCTIO 1:</td> <td>NVALUE 2.753 dBm</td> <td>Freq Offse 0 H</td>	5.6	70 00 GHz 73 48 GHz	-7.579 dBm -1.246 dBm	EUNCTION Band Power	FUNCTIONWIDTH 38.76 MHz	FUNCTIO 1:	NVALUE 2.753 dBm	Freq Offse 0 H

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<u>LIMITS</u>

FCC §15.407 (a) (6)

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

RESULTS

Chain 0

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

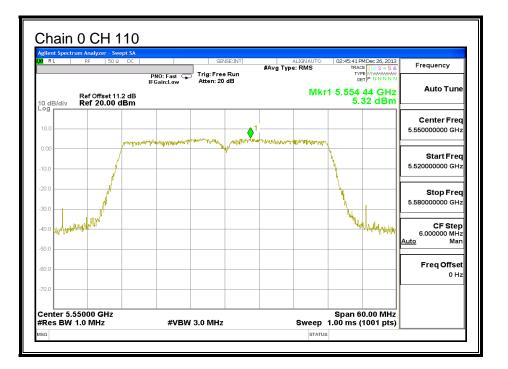
Chain 1

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

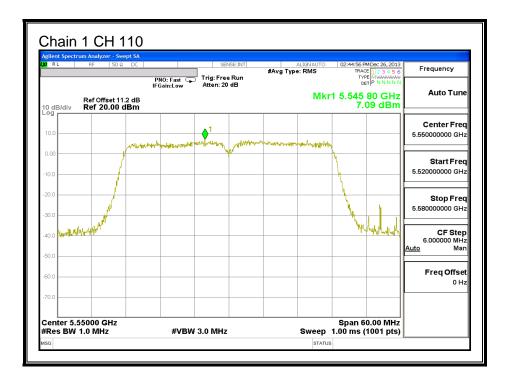
Chain 2

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

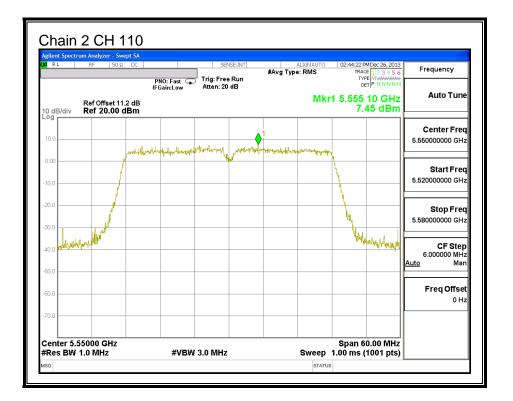
PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072

9.31. 802.11ac 40MHz 3TX CDD MODE, CHANNEL 142, 5.6 GHz BAND

9.31.1. 26 dB BANDWIDTH- UNII

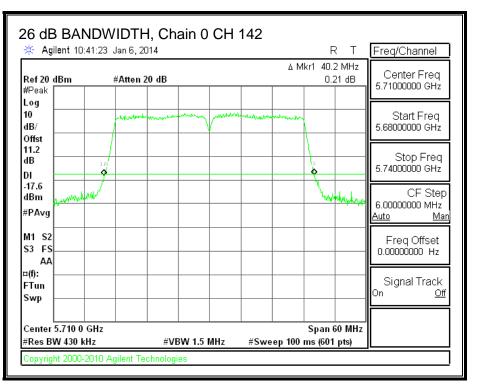
<u>LIMITS</u>

None; for reporting purposes only.

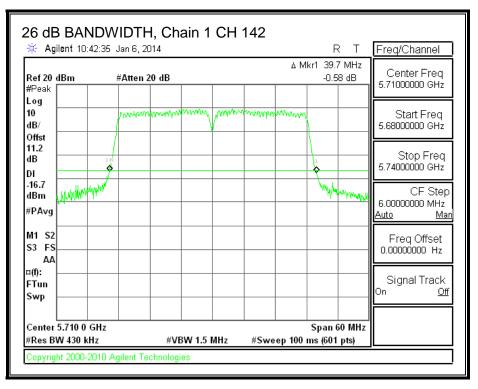
RESULTS

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

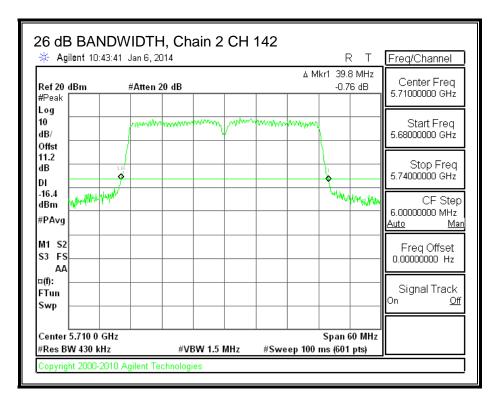
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26 dB BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.31.2.99% BANDWIDTH

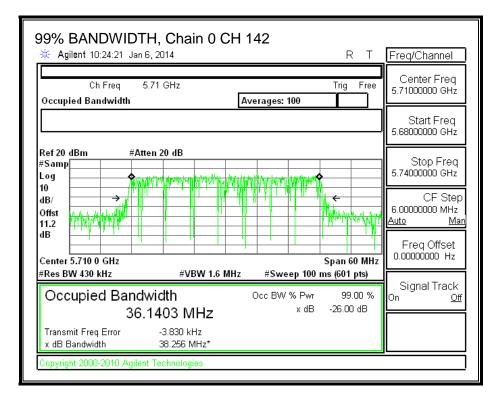
LIMITS

None; for reporting purposes only.

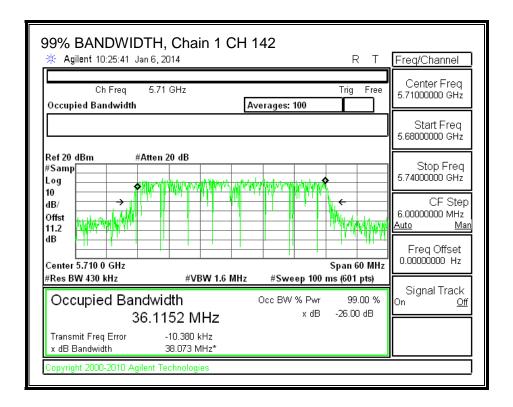
RESULTS

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

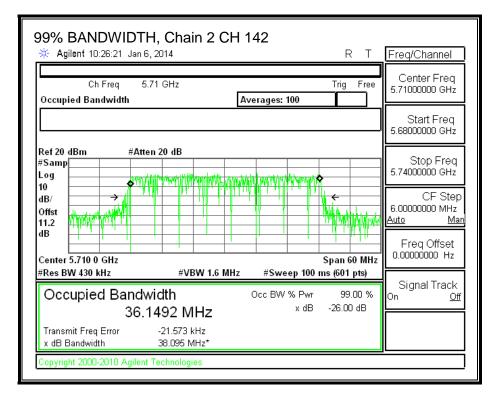
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99% BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.31.3. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

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

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Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

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

Limits

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

Duty Cycle CF (dB)0.14Included in Calculations of Corr'd Power & PPSD

Output Power Results

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

PPSD Results

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

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

Limits

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

Duty Cycle CF (dB)0.14Included in Calculations of Corr'd Power & PPSD

Output Power Results

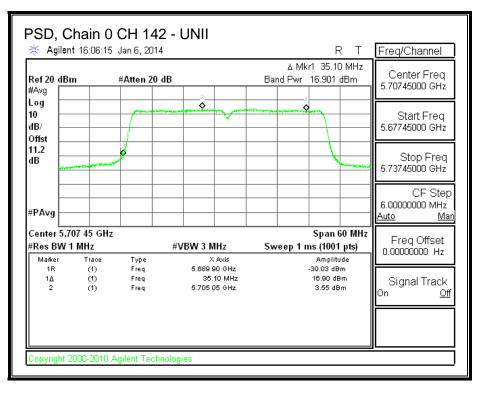
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	6.40	6.16	6.29	11.20	15.85	-4.66

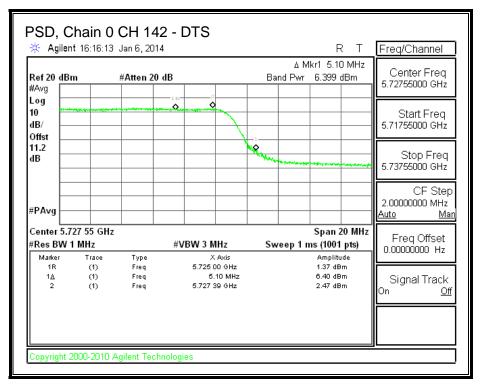
PPSD Results

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

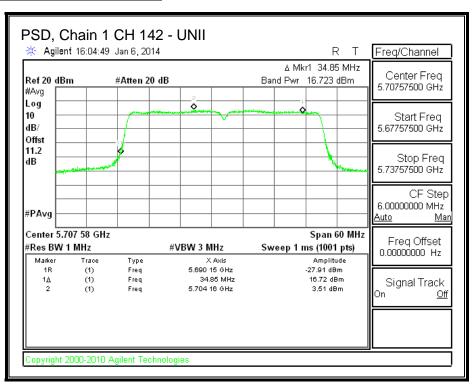
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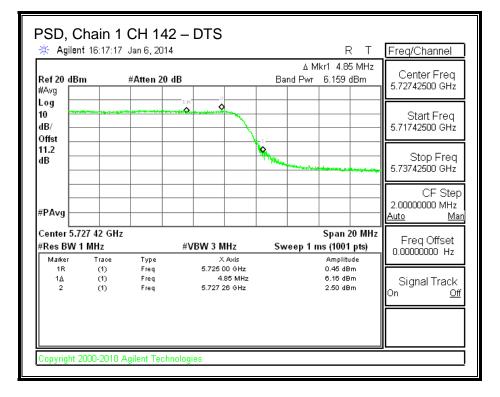
OUTPUT POWER & PPSD, Chain 0



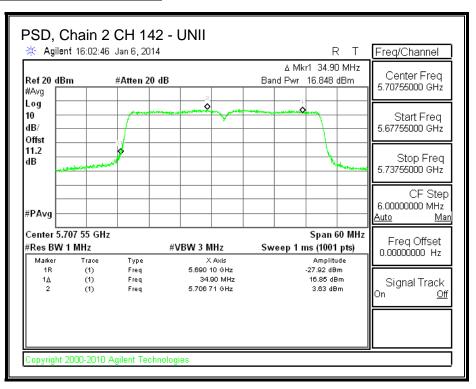


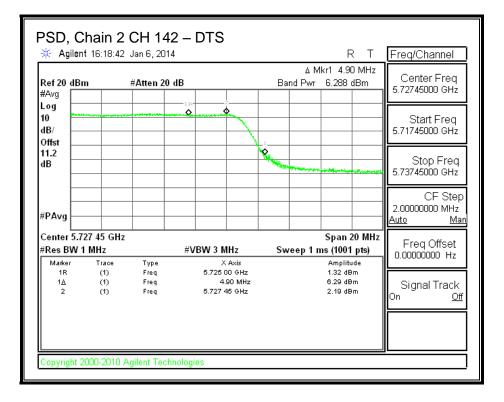
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9.32. 802.11n HT40 3TX SDM MODE IN THE 5.6 GHz BAND

9.32.1. 26 dB BANDWIDTH

<u>LIMITS</u>

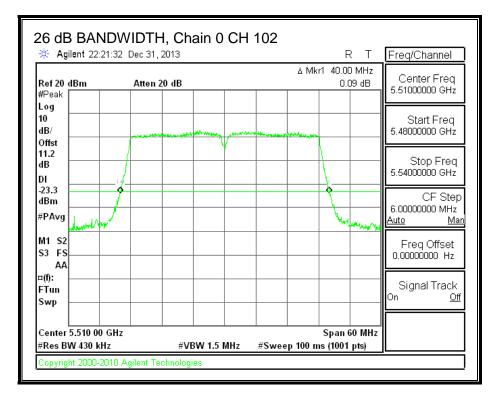
None; for reporting purposes only.

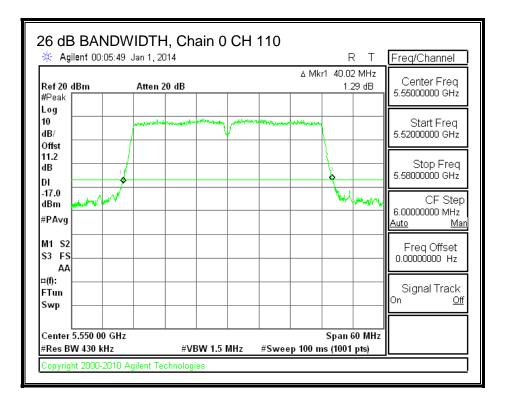
<u>RESULTS</u>

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

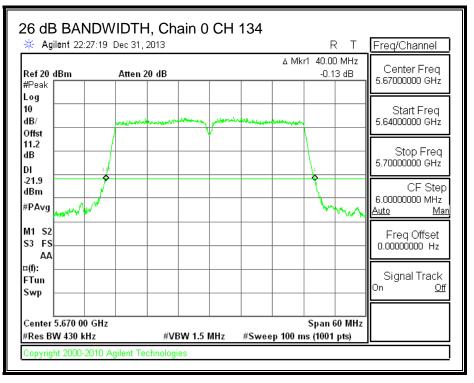
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26 dB BANDWIDTH, Chain 0

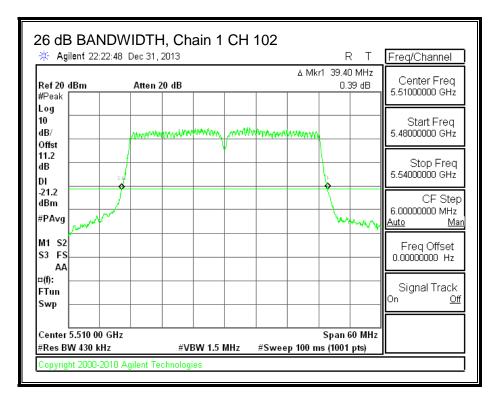




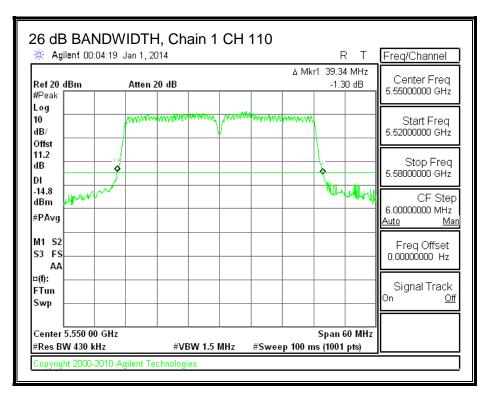
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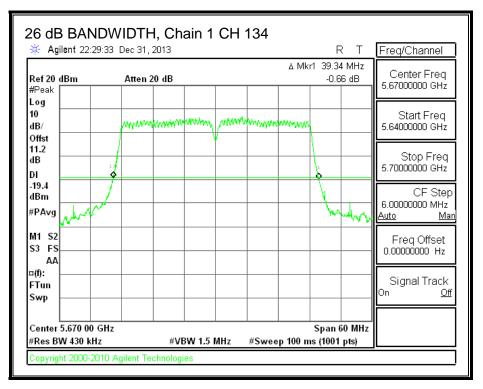


26 dB BANDWIDTH, Chain 1

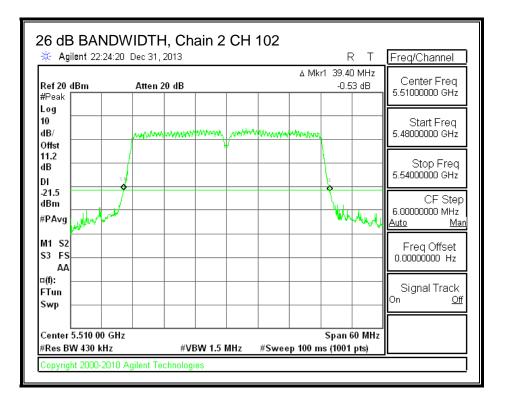


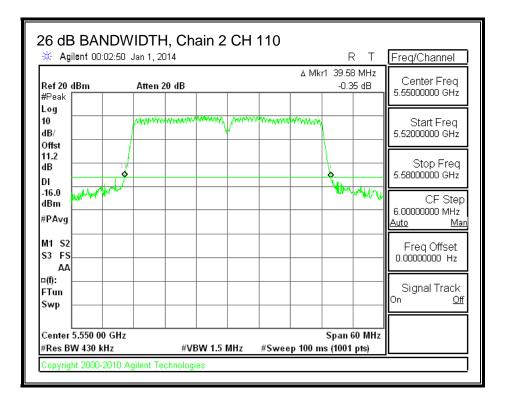
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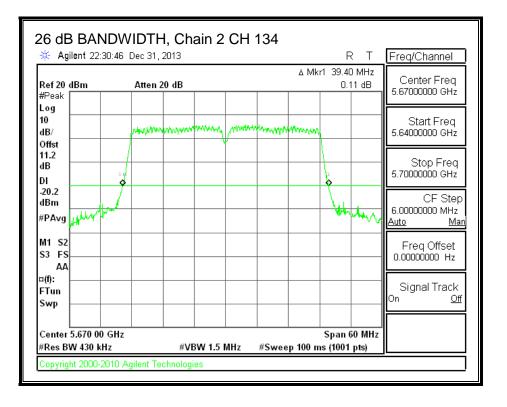


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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.32.2. 99% BANDWIDTH

LIMITS

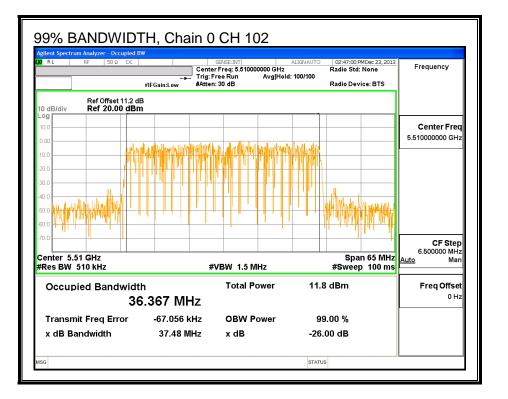
None; for reporting purposes only.

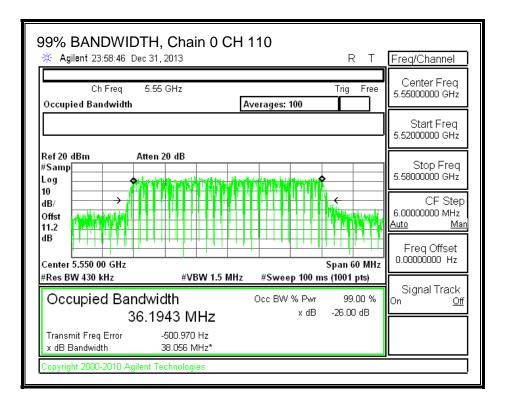
<u>RESULTS</u>

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

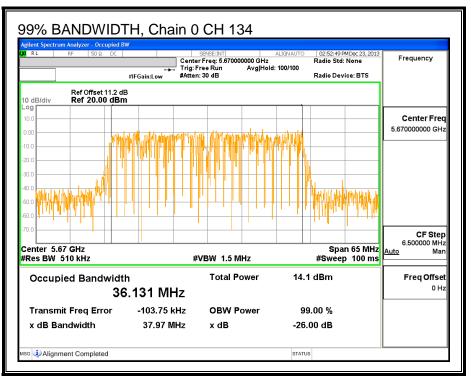
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99% BANDWIDTH, Chain 0

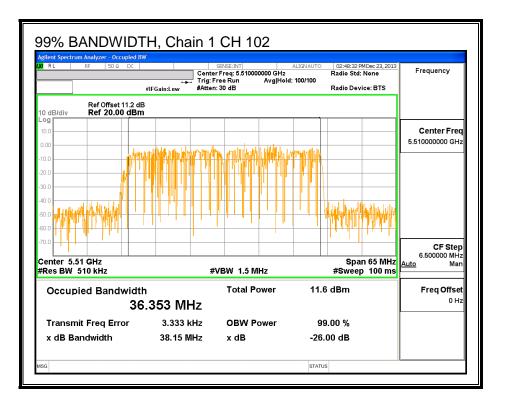




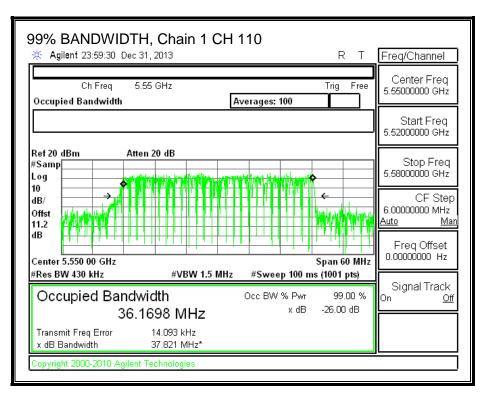
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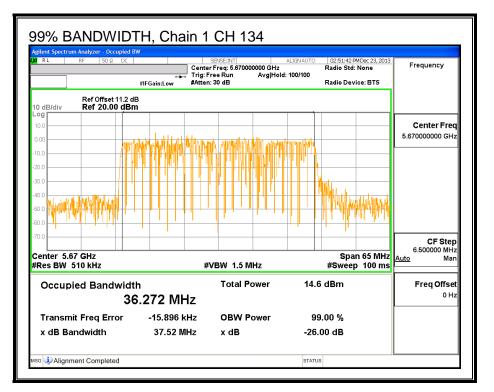


99% BANDWIDTH, Chain 1

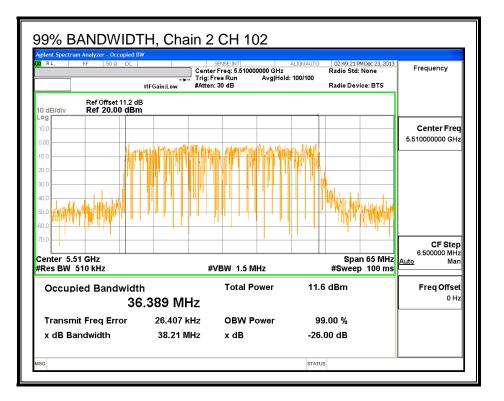


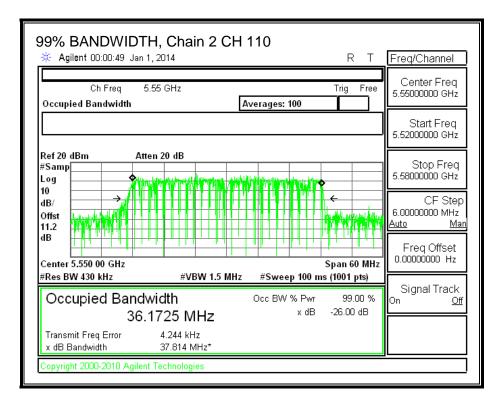
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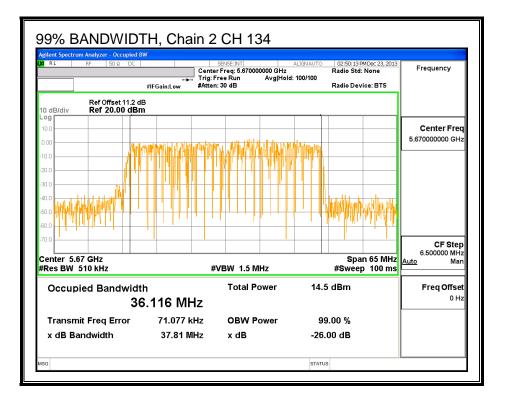


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LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

Average Power Results

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

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.32.4. OUTPUT POWER AND PPSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna
Gain
(dBi)
2.82

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Bandwidth and Antenna Gain

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

Limits

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

Duty Cycle CF (dB) 0.34 Included in Calculations of Corr'd Power & PPSD

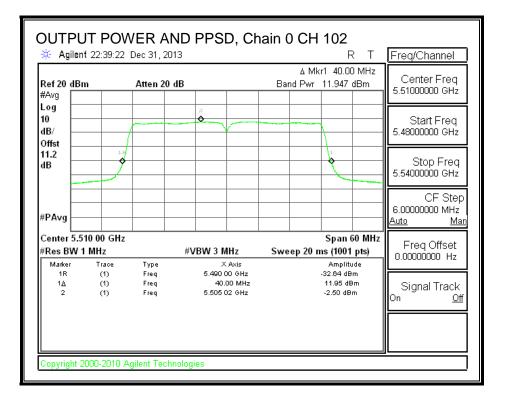
Output Power Results

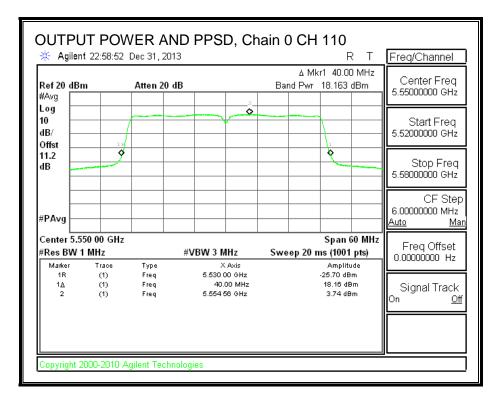
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
102	5510	11.95	12.38	12.71	17.47	24.00	-6.53
110	5550	18.16	18.43	18.36	23.43	24.00	-0.57
134	5670	13.16	13.76	13.93	18.74	24.00	-5.26

PPSD Results

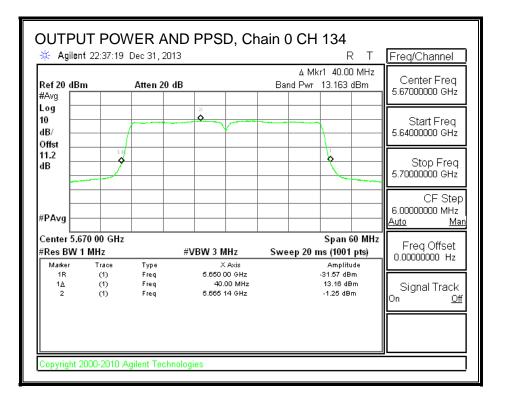
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
102	5510	-2.50	-1.89	-1.57	3.14	11.00	-7.86
110	5550	3.74	4.10	4.02	9.07	11.00	-1.93
134	5670	-1.25	-0.59	-0.45	4.36	11.00	-6.64

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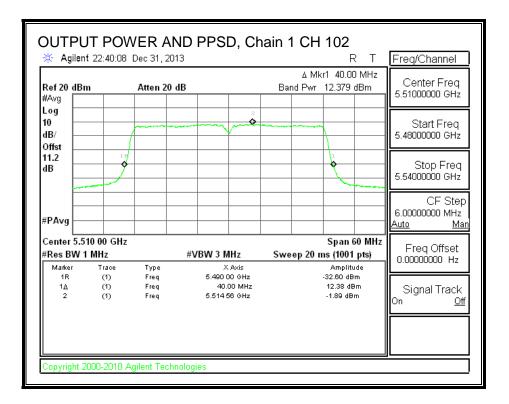




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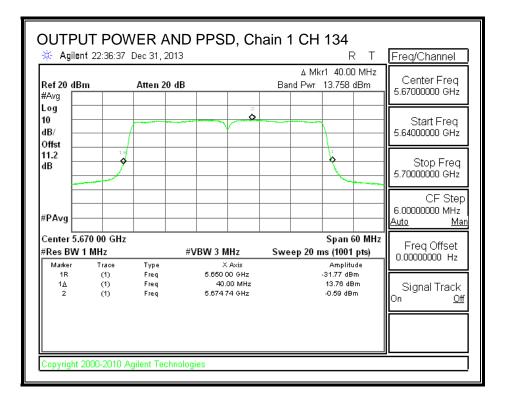


OUTPUT POWER AND PPSD, Chain 1

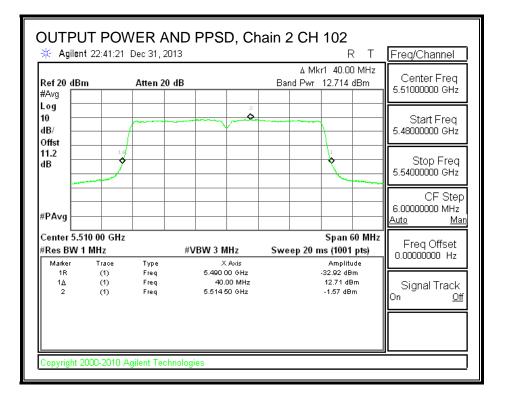


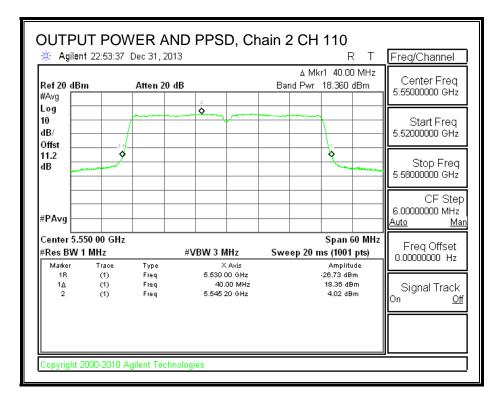
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Avg 0	Center Freq .55000000 GHz
.og	
B/ 5.	Start Freq
	.52000000 GHz
iffst 12	
B and a state of the state of t	Stop Freq
5.	.58000000 GHz
	CF Step 0000000 MHz
PAvg	
enter 5.550 00 GHz Span 60 MHz	
Pas BW 1 MHz #VBW 3 MHz Swoop 20 ms (1001 pts)	Freq Offset
Manker Trace Type XAxis Amplitude	.0000000 112
1R (1) Freq 5.530.00 GHz -26.65 dBm 1Δ (1) Freq 40.00 MHz 18.43 dBm	
	Signal Track
2 (1) Field 5.554 80 962 4.10 dbiii On	ו <u>Ot</u>

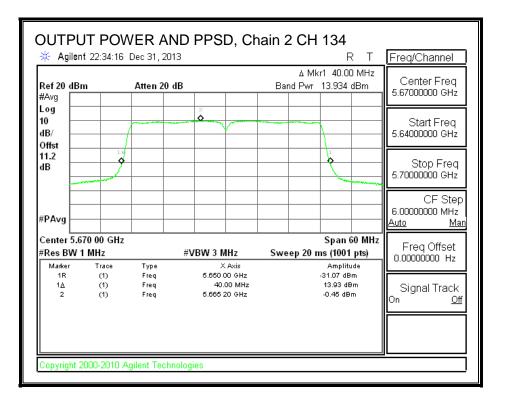


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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.32.5. PEAK EXCURSION

LIMITS

FCC §15.407 (a) (6)

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

RESULTS

Chain 0

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

Chain 1

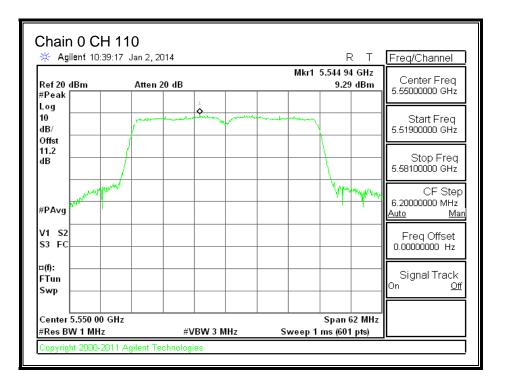
Channel	Frequency	PK Level	PSD	DCCF	Peak Excursion	Limit	Margin
	(MHz)	(dBm)	(dBm)	(dB)	(dB)	(dB)	(dB)
110	5550	9.62	4.10	0.34	5.18	13	-7.82

Chain 2

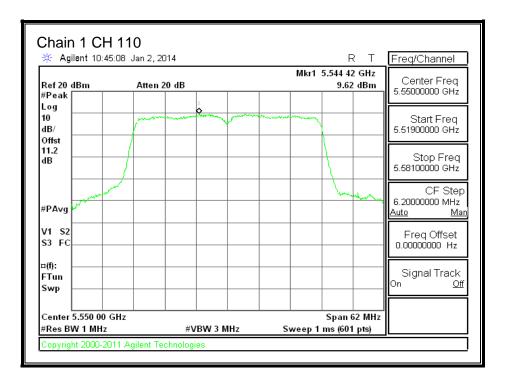
Ī	Channel	Frequency	PK Level	PSD	DCCF	Peak Excursion	Limit	Margin
		(MHz)	(dBm)	(dBm)	(dB)	(dB)	(dB)	(dB)
	110	5550	10.27	4.02	0.34	5.91	13	-7.09

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PEAK EXCURSION, Chain 0



PEAK EXCURSION, Chain 1



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🔆 Agilent 10:46	:43 Jan 2, 2014		R	T Freq/Channel
Ref 20 dBm #Peak	Atten 20 dB		Mkr1 5.554 24 (10.27 d	Contor Frod
Log 10	and the second second	www. water	many	Start Freq
dB/ Offst 11.2				5.51900000 GHz
dB				Stop Freq 5.58100000 GHz
#PAvg			- Minuny	CF Step 6.20000000 MHz <u>Auto Ma</u>
V1 S2 S3 FC				Freq Offset 0.00000000 Hz
¤(f): FTun Swp				Signal Track
Center 5.550 00 G #Res BW 1 MHz		VBW 3 MHz	Span 62 Sweep 1 ms (601 p	

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9.33. 802.11ac 40MHz 3TX SDM MODE, CHANNEL 142, 5.6 GHz BAND

9.33.1.26 dB BANDWIDTH- UNII

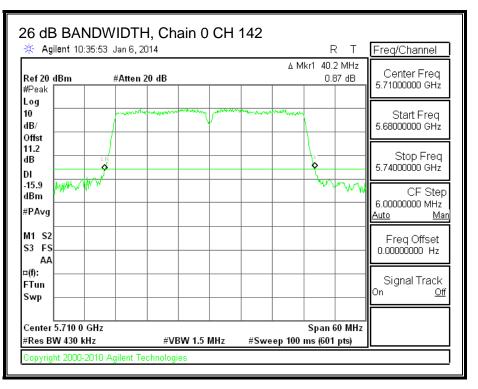
<u>LIMITS</u>

None; for reporting purposes only.

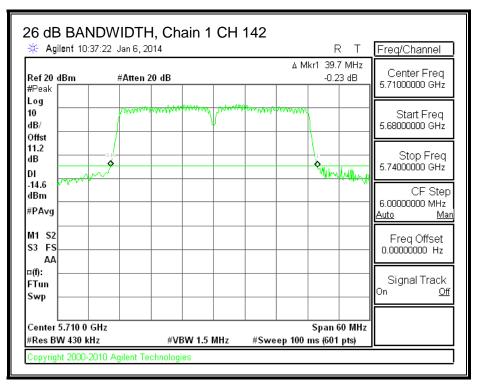
RESULTS

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

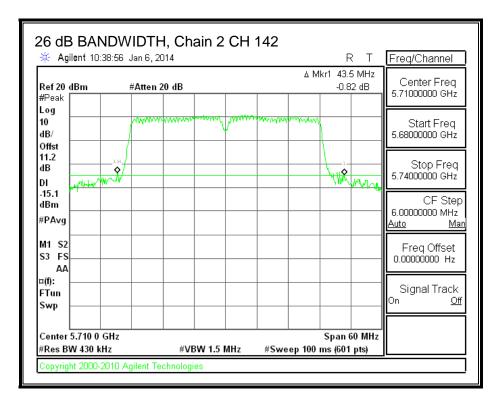
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26 dB BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.33.2.99% BANDWIDTH

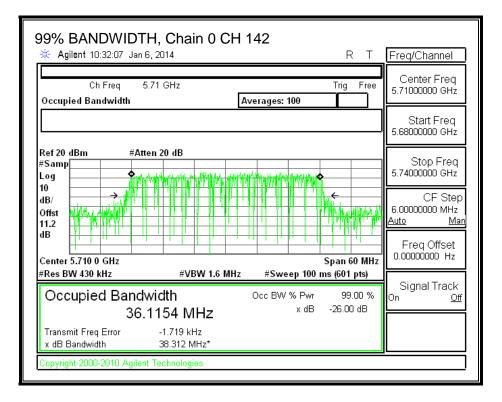
LIMITS

None; for reporting purposes only.

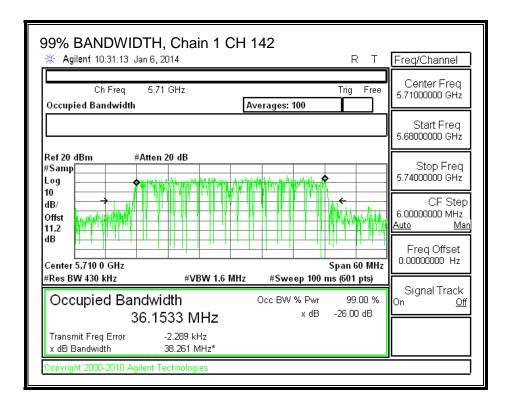
RESULTS

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

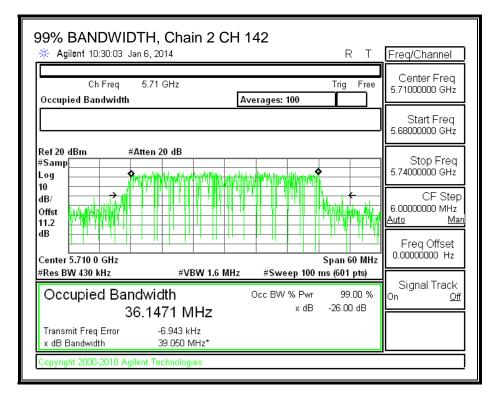
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99% BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.33.3. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna
Gain
(dBi)
2.82

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Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

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

Limits

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

Duty Cycle CF (dB)0.34Included in Calculations of Corr'd Power & PPSD

Output Power Results

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

PPSD Results

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

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Limits (FCC), portion in 5.8 GHz DTS band

Bandwidth and Antenna Gain

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

Limits

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

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

Output Power Results

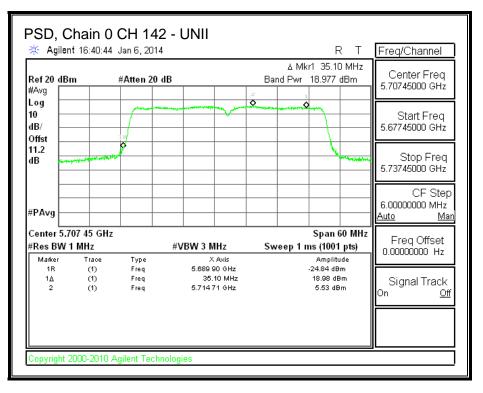
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	8.75	8.41	8.50	13.55	15.85	-2.31

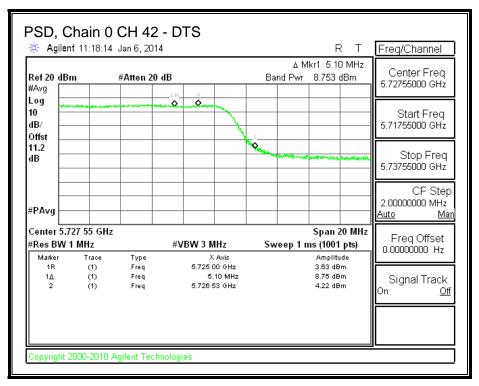
PPSD Results

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

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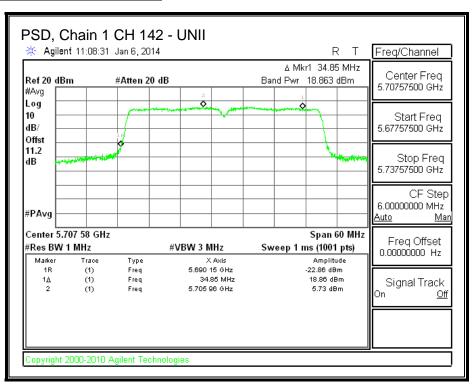
OUTPUT POWER & PPSD, Chain 0

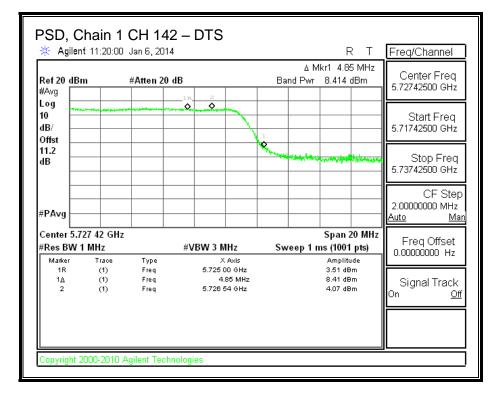




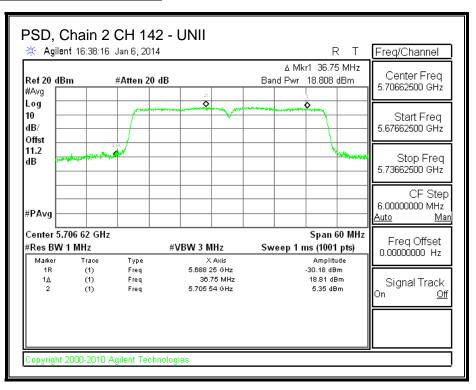
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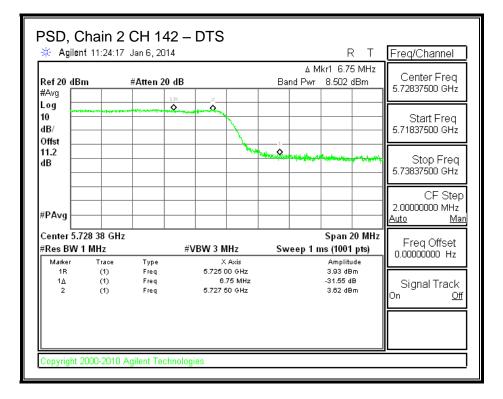
REPORT NO: 15U21905-E1V3 MODEL: ID:072 OUTPUT POWER & PPSD, Chain 1





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9.34. 802.11ac 80MHz 1TX SISO MODE IN THE 5.6 GHz BAND

9.34.1. 26 dB BANDWIDTH

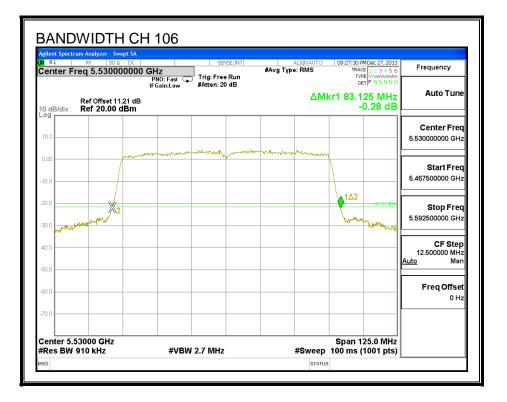
<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

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

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.34.2. 99% BANDWIDTH

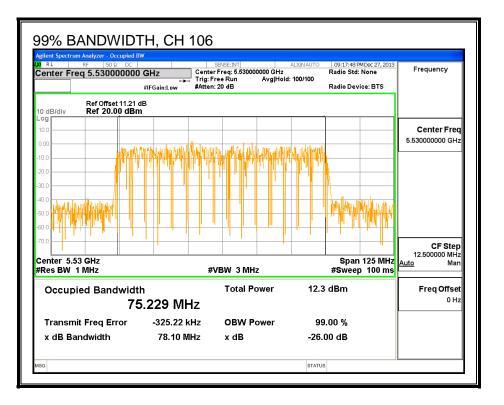
LIMITS

None; for reporting purposes only.

RESULTS

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

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LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

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

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.34.4. OUTPUT POWER AND PPSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna	
Gain	
(dBi)	
2.82	

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Bandwidth and Antenna Gain

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

Limits

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

 Duty Cycle CF (dB)
 0.27
 Included in Calculations of Corr'd Power & PPSD

Output Power Results

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

PPSD Results

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

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ent	er Fr	_{RF} eq 5.	50 Ω 53000	DC 00000	PNO: Fas		Trig: Fre				ALIGN AU Fype: RMS old: 100/100		TR. T	PM Dec 27, 201 ACE 1 2 3 4 5 YPE A WWWW DET A N N N N	6 Frequency
0 dB/	/div		ffset 11 20.00 (IFGain:Lo	w	#Atten: 2	:0 dB					530	000 GH: 362 dBn	Auto Tune
1.00								♦ ²	\Diamond^1						Center Fred 5.530000000 GH;
0.0								Y							_
0.0								-							Start Free
0.0															5.467500000 GH;
0.0													Search and a second		
0.0															Stop Fred
0.0								-							5.592500000 GH:
Res		3000 1.0 M		×	#	vвw	3.0 MHz	<u>z</u> *	CUNC	TION	Swee	ep 1.0	0 ms	125.0 MH (1001 pts	
1 1 2 1 3	N 1	f f		5.538	875 GHz 000 GHz		-3.906 d -9.734 d		Band F		83.13 M			13.362 dBm	
4 5 6															0 Ha
7															
8 9															
0 1															-

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<u>LIMITS</u>

FCC §15.407 (a) (6)

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

RESULTS

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

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PEAK EXCURSION, Chain 0

🔆 Agilent 02:58:	25 Jan 15, 2014		R	Т	Freq/Channel
Ref 20 dBm #Peak	Atten 20 dB		Mkr1 5.521 04 6.24		Center Freq 5.5300000 GHz
Log 10 dB/					Start Freq 5.46750000 GHz
Offst 11.2 dB					Stop Freq 5.59250000 GHz
#PAvg			- Why	WW.	CF Step 12.5000000 MHz <u>Auto M</u> an
V1 S2 S3 FC					Freq Offset 0.00000000 Hz
¤(f): FTun Swp					Signal Track ^{On <u>Off</u>}
Center 5.530 00 G #Res BW 1 MHz		/BW 3 MHz	Span 12 Sweep 1 ms (601		

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9.35. 802.11ac 80MHz 1TX SISO MODE, CHANNEL 138, 5.6 GHz BAND

9.35.1. 26 dB BANDWIDTH

LIMITS

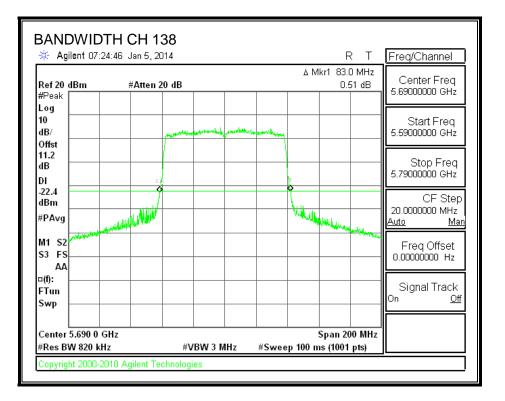
None; for reporting purposes only.

<u>RESULTS</u>

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

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26 dB BANDWIDTH



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.35.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

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

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BANDWIDTH CH 138	Freq/Channel
Ch Freq 5.69 GHz Trig Free Occupied Bandwidth Averages: 100	Center Freq 5.69000000 GHz
	Start Freq 5.59000000 GHz
Ref 20 dBm #Atten 20 dB #Samp	Stop Freq 5.79000000 GHz
10 dB/ → 11.2 dB/	CF Step 20.0000000 MHz <u>Auto Man</u>
dB df f f f	Freq Offset 0.00000000 Hz
	Signal Track ^{On <u>Off</u>}
Transmit Freq Error 53.953 kHz x dB Bandwidth 78.522 MHz*	
Copyright 2000-2010 Agilent Technologies	

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.35.3. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

Antenna	
Gain	
(dBi)	
2.82	

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Limits (FCC), portion in UNII 2 ext band

Bandwidth and Antenna Gain

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

Limits

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

Output Power Results

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

PSD Results

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

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REPORT NO: 15U21905-E1V3 MODEL: ID:072 Limits (FCC), portion in 5.8 GHz DTS band

Bandwidth and Antenna Gain

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

Limits

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

Output Power Results

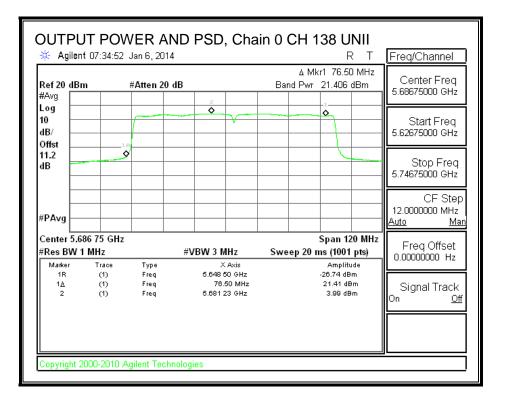
Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	7.48	7.75	15.34	-7.59

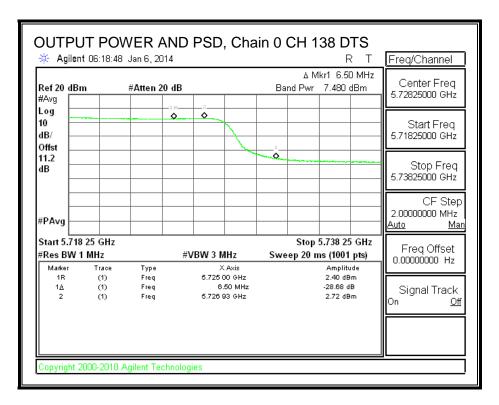
PSD Results

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

Duty	y Cy	/cle	CF ((dB)	0.27	Included in Calculations of Corr'd Power & PPSD
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9.36. 802.11ac 80MHz 3TX CDD MODE IN THE 5.6 GHz BAND

9.36.1. 26 dB BANDWIDTH

<u>LIMITS</u>

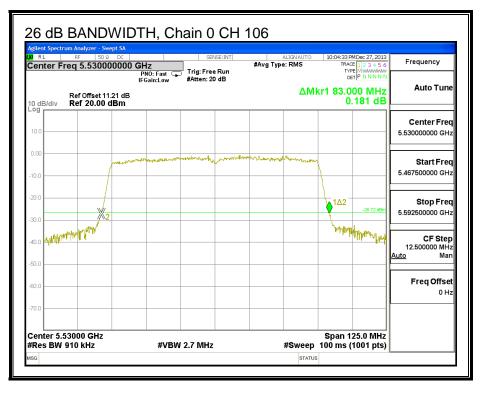
None; for reporting purposes only.

RESULTS

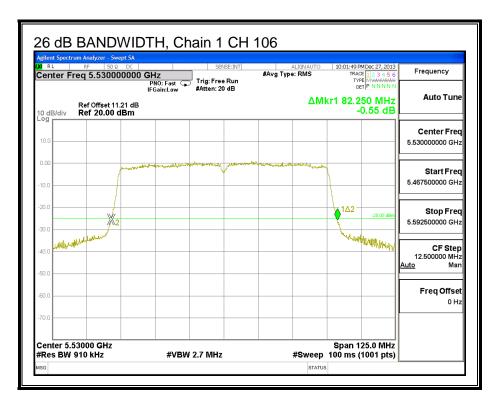
Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
106	5530	83.000	82.250	82.000

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26 dB BANDWIDTH, Chain 0



26 dB BANDWIDTH, Chain 1



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REPORT NO: 15U21905-E1V3 MODEL: ID:072 9.36.2. 99% BANDWIDTH

LIMITS

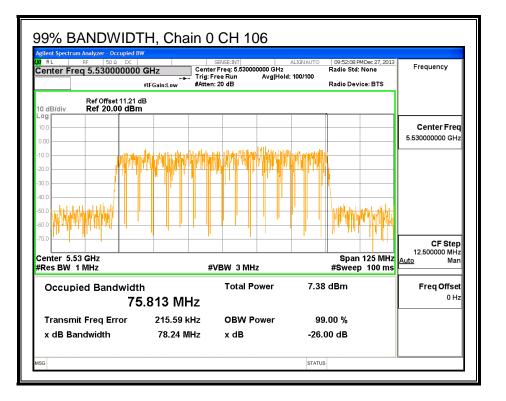
None; for reporting purposes only.

<u>RESULTS</u>

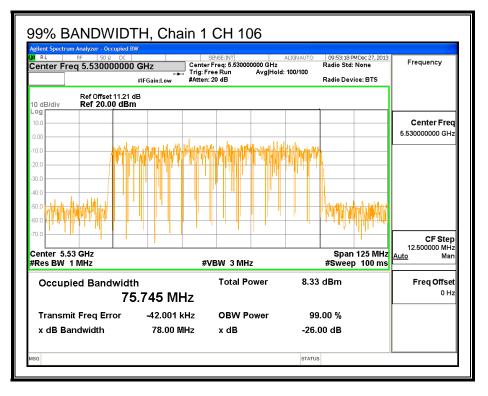
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
106	5530	75.813	75.745	75.775

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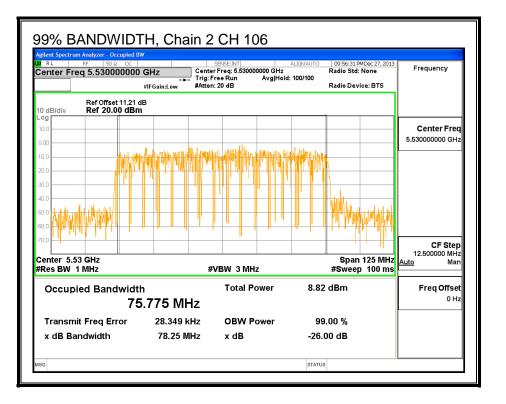
99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



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LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

Average Power Results

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

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<u>LIMITS</u>

FCC §15.407 (a) (2)

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

DIRECTIONAL ANTENNA GAIN

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

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

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Bandwidth and Antenna Gain

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

Limits

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

 Duty Cycle CF (dB)
 0.27
 Included in Calculations of Corr'd Power & PPSD

Output Power Results

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

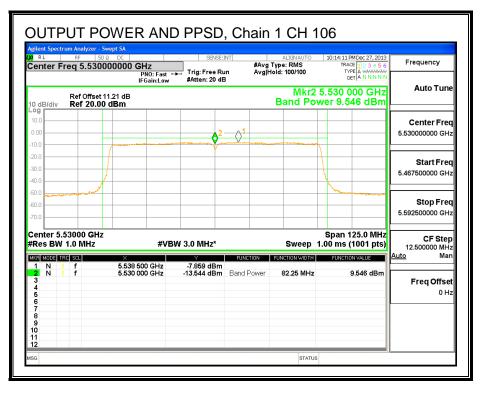
PPSD Results

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

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RL		- Swept SA 50 Ω DC 0000000		t 🛶 Trig: Fre			ALIGN AUTO Type: RMS Hold: 100/100	TRA	PM Dec 27, 2013 CE 1 2 3 4 5 6 (PE A WWWWWW DET A N N N N N	Frequency
) dB/div	Ref Offset Ref 20.0		яв	V #Auen	:0 45		Mkr2 Band Po		000 GHz 06 dBm	Auto Tune
29 0.0 .00 0.0					¢2	0				Center Fred 5.530000000 GHz
0.0 0.0 0.0										Start Fred 5.467500000 GHz
).0).0).0					+					Stop Frec 5.592500000 GHz
	53000 GH 1.0 MHz	lz		/BW 3.0 MH		FUNCTION	Sweep	1.00 ms (125.0 MHz (1001 pts)	CF Step 12.500000 MHz Auto Mar
1 N 1 2 N 1 3 4 5 6 7		5.6	540 500 GHz 530 000 GHz	-8.392 c -14.488 c	dBm	and Power	83.00 MHz		8.506 dBm	Freq Offsel
8 9 0 1										

OUTPUT POWER AND PPSD, Chain 1



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