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Non HT/VHT20 Beam Forming, 6 to 54 Mbps

Antenna A



Antenna C



Antenna B



Antenna D

🔆 Agilent	BW/A	/g
Ch Freq 5.825 GHz Channel Power Ave	Trig Free 1 Auto	es BW .0 MHz <u>Man</u>
	Vid 8 Auto	eoBW .0 MHz <u>Man</u>
Ref 20 dBm *Atten 20 dB *Avg Log	Auto VBA	/RBW .00000 <u>Man</u>
dB/ 0ffst	Ave <u>On</u>	erage 100 Off
Center 5.825 00 GHz	Span 40 MHz Span 40 MHz Auto	Type (RMS)• <u>Man</u>
TRES DA 1 MHZ TVDA 8 MHZ	SWEEP I MS (601 pts)	
Channel Power Po	ower Spectral Density	
13.90 dBm /16.7000 MHz	1.67 dBm/MHz Spar	/RBW 106
	Auto	Man
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HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1

Antenna A



Antenna C



Antenna B



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HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1

Antenna A



Antenna C



Antenna B



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Antenna D

🔅 Agilent	BW/Avg
Ch Freq 5.825 GHz Trig Fre Channel Power Averages: 100	e ResBW e 1.0 MHz Auto <u>Man</u>
	Video BW 8.0 MHz Auto <u>Man</u>
Ref 20 dBm #Atten 20 dB #Avg Log	VBW/RBW 10.00000 Auto <u>Man</u>
06/ 06/st	Average 100 <u>On</u> Off
dB Center 5.825 90 GHz Span 40 Min Control 10 Control 1	Avg/VBW Type Pwr (RMS) Auto <u>Man</u>
#RESEW I MHZ #VEW 8 MHZ SWEED I ms (601 pt	57
Channel Power Power Spectral Density	
14.12 dBm /17.6600 MHz 1.65 dBm/MHz	Span/RBW 106
	Auto <u>Man</u>
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15.247: For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

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Connect the antenna port(s) to the spectrum analyzer input. Place the radio in continuous transmit mode. Configure the spectrum analyzer as shown below.

Center Frequency:	Frequency from table below
Span:	1.5 times nominal bandwidth
Ref Level Offset:	Correct for attenuator and cable loss.
Reference Level:	20 dBm
Attenuation:	20 dB
Sweep Time:	3s
Resolution Bandwidth:	3 kHz
Video Bandwidth:	10 kHz
Detector:	Peak
Trace:	Single
Marker:	Peak Search

Record the Marker value.

Data corrected for duty cycle.

The "Measure and add 10 log(N) dB technique", where N is the number of outputs, is used for measuring in-band Power Spectral Density. With this technique, spectrum measurements are performed at each output of the device, and the quantity 10 log(4) (or 6dB) is added to the worst case spectrum value before comparing to the emission limit.

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Frequency (MHz)	Mode	Data Rate (Mbps)	Duty Cycle (%)	PSD / Antenna (dBm/3kHz)	Total PSD (dBm/3kHz)	Total PSD corrected for duty cycle (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
	Non HT/VHT2 0, 6 to 54 Mbps	6	99.4	-8.81	-2.81	-2.78	8	10.78
5745	HT/VHT2 0, M0 to M23, M0.1 to M9.3	m0	99.3	-10.17	-4.17	-4.14	8	12.14

HT 0, 1 5745/5765 M2 M0 M9	T/VHT4 M0 to 23, m0 0.1 to 9.3	98.5	-10.17	-4.17	-4.10	8	12.10
--	--	------	--------	-------	-------	---	-------

5745/5765	Non HT/VHT8 0, 6 to 54 Mbps	6	99.3	-5.3	1.3	1.33	8	6.67
5785/5805	HT/VHT8 0, M0 to M23, M0.1 to M9.3	m0x1	95.7	-11.22	-5.22	-5.03	8	13.03

5785	Non HT/VHT2 0, 6 to 54 Mbps	6	99.4	-11.4	-5.4	-5.37	8	13.37
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HT/VHT2 0, M0 to M23, M0.1 to M9.3	m0	99.3	-9.94	-3.94	-3.91	8	11.91
--	----	------	-------	-------	-------	---	-------

	Non HT/VHT4 0, 6 to 54 Mbps	6	99.3	-10.54	-4.54	-4.51	8	12.51
5785/5805	HT/VHT4 0, M0 to M23, M0.1 to M9.3	m0	98.5	-10.14	-4.14	-4.07	8	12.07

	Non HT/VHT2 0, 6 to 54 Mbps	6	99.4	-9.26	-3.26	-3.23	8	11.23
5825	HT/VHT2 0, M0 to M23, M0.1 to M9.3	m0	99.3	-9.83	-3.83	-3.80	8	11.80

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Power Spectral Density Plots



5745 MHz, NON HT/VHT20, 6 to 54Mbps (quad)

5745 MHz, HT/VHT20 Beamforming, M0 to M7, M0.1 to M9.1 (quad)



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5745 / 5765 MHz, HT/VHT40, M0 to M7, M0.1 to M9.1 (dual)

5745 / 5765 / 5785 / 5805 MHz, Non HT/VHT80, 6 to 54 Mbps (quad)



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5745 / 5765 / 5785 / 5805 MHz, HT/VHT80, M0 to M7, M0.1 to M9.1(quad)

5785 MHz, Non HT/VHT20, 6 to 54 Mbps (quad)



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5785 MHz, HT/VHT20 Beamforming, M0 to M7, M0.1 to M9.1 (quad)

5785 / 5805 MHz, Non HT/VHT40, 6 to 54 Mbps (quad)



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5785 / 5805 MHz, HT/VHT40, M0 to M7, M0.1 to M9.1 (quad)

5825 MHz, Non HT/VHT20, 6 to 54 Mbps (quad)



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5825 MHz, HT/VHT20 Beamforming, M0 to M7, M0.1 to M9. (quad)

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Conducted Spurious Emission

15.247: In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

Connect the antenna port(s) to the spectrum analyzer input. Place the radio in continuous transmit mode. Configure the spectrum analyzer as shown below (be sure to enter all losses between the transmitter output and the spectrum analyzer).

Span:	30 MHz-40 GHz
Reference Level:	20 dBm
Attenuation:	18 dB
Sweep Time:	5s
Resolution Bandwidth:	100 kHz
Video Bandwidth:	300 kHz
Detector:	Peak
Trace:	Single
Marker:	Peak

Record the marker waveform peak to spur difference

Out-of-band and spurious emissions tests are performed on each output individually without summing or adding 10 log(N) since the measurements are made relative to the in-band emissions on the individual outputs. The worst case output is recorded.

Please note that scans were performed to verify that duty cycle did not have a significant impact on the test results.

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Frequency (MHz)	Mode	Data Rate (Mbps)	Conducted Spur Delta (dB)	Limit (dB c)	Margin (dB)
5745	Non HT/VHT20, 6 to 54 Mbps	6	53.74	30	23.74
5745	HT/VHT20, M0 to M23, M0.1 to M9.3	m0	52.72	30	22.72
	Non HT/VHT40, 6 to 54 Mbps	6	49.12	30	19.12
5/45/5/65	HT/VHT40, M0 to M23, M0.1 to M9.3	m0	51.42	30	21.42
				-	
	Non HT/VHT80, 6 to 54 Mbps	6	47.16	30	17.16
578575805	HT/VHT80, M0 to M23, M0.1 to M9.3	m0x1	48.01	30	18.01
E 7 9 E	Non HT/VHT20, 6 to 54 Mbps	6	53.53	30	23.30
5785	HT/VHT20, M0 to M23, M0.1 to M9.3	m0	50.09	30	20.09
				-	
	Non HT/VHT40, 6 to 54 Mbps	6	47.49	30	17.49
578575805	HT/VHT40, M0 to M23, M0.1 to M9.3	m0	48.13	30	18.13
EQDE	Non HT/VHT20, 6 to 54 Mbps	6	52.74	30	22.74
5625	HT/VHT20, M0 to M23, M0.1 to M9.3	m0	52.11	30	22.11

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Conducted Spurs Delta, 5745 MHz, Non HT/VHT20, 6 to 54 Mbps





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Conducted Spurs Delta, 5745 / 5765 MHz, Non HT/VHT40, 6 to 54 Mbps





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Conducted Spurs Delta, 5745 / 5765 / 5785 / 5805 MHz, Non HT/VHT80, 6 to 54 Mbps

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Conducted Spurs Delta, 5745 / 5765 / 5785 / 5805 MHz, HT/VHT80, M0 to M23, M0.1 to M9.3

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Conducted Spurs Delta, 5785 MHz, Non HT/VHT20, 6 to 54 Mbps





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Conducted Spurs Delta, 5785 / 5805 MHz, Non HT/VHT40, 6 to 54 Mbps



Conducted Spurs Delta, 5785 / 5805 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3

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Conducted Spurs Delta, 5825 MHz, Non HT/VHT20, 6 to 54 Mbps

Conducted Spurs Delta, 5825 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3



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Conducted Bandedge

15.247: In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

Connect the antenna port(s) to the spectrum analyzer input. Place the radio in continuous transmit mode. Configure the spectrum analyzer as shown below (be sure to enter all losses between the transmitter output and the spectrum analyzer).

Span:	100MHz – 400MHz
Reference Level:	20 dBm
Attenuation:	18 dB
Sweep Time:	5s
Resolution Bandwidth:	100 kHz
Video Bandwidth:	300 kHz
Detector:	Peak
Trace:	Single
Marker:	Peak

Record the marker waveform peak to spur difference

Out-of-band and spurious emissions tests are performed on each output individually without summing or adding 10 log(N) since the measurements are made relative to the in-band emissions on the individual outputs. The worst case output is recorded.

Frequency (MHz)	Mode	Tx Paths	Conducted Bandedge Delta (dB)	Limit (dB c)	Margin (dB)
5745	Non HT/VHT20, 6 to 54 Mbps	2	<u>39.2</u>	>30	9.2
5745	HT/VHT20, M0 to M23, M0.1 to M9.3	2	41.33	>30	11.33
	Non HT/VHT40, 6 to 54 Mbps	1	31.22	>30	1.22
5/45/5/65	HT/VHT40, M0 to M23, M0.1 to M9.3	2	40.69	>30	10.69
	-	_		_	
5745/5765	Non HT/VHT80, 6 to 54 Mbps	1	30 <u>.14</u>	>30	0.14
5785/5805	HT/VHT80, M0 to M23, M0.1 to M9.3	1	38.72	>30	8.72
	Non HT/VHT40, 6 to 54 Mbps	3	<u>40.96</u>	>30	10.96
5/85/5805	HT/VHT40, M0 to M23, M0.1 to M9.3	1	<u>43.19</u>	>30	13.19
		_		-	_
EQDE	Non HT/VHT20, 6 to 54 Mbps	2	<u>41.09</u>	>30	11.09
5825	HT/VHT20, M0 to M23, M0.1 to M9.3	2	41.11	>30	11.11

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Conducted Bandedge, 5745 MHz, Non HT/VHT20, 6 to 54 Mbps





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Off

Conducted Bandedge, 5745 / 5765 MHz, Non HT/VHT40, 6 to 54 Mbps



Conducted Bandedge, 5745 / 5765 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3

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Conducted Bandedge, 5745 / 5765 / 5785 / 5805 MHz, Non HT/VHT80, 6 to 54 Mbps

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Conducted Bandedge, 5745 / 5765 / 5785 / 5805 MHz, HT/VHT80, M0 to M23, M0.1 to M9.3

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Conducted Bandedge, 5785 / 5805 MHz, Non HT/VHT40, 6 to 54 Mbps



Conducted Bandedge, 5785 / 5805 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3

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Conducted Bandedge, 5825 MHz, Non HT/VHT20, 6 to 54 Mbps

Conducted Bandedge, 5825 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3



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Emission Test Results

Testing Laboratory: Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134, USA

Radiated Spurious Emissions

15.205 / RSS-210 2.7: Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Using Vasona, configure the spectrum analyzer as shown below (be sure to enter all losses between the transmitter output and the spectrum analyzer). Place the radio in continuous transmit mode.

Span:	1GHz – 18 GHz
Reference Level:	87 dBuV
Attenuation:	0 dB
Sweep Time:	Coupled
Resolution Bandwidth:	1MHz
Video Bandwidth:	1 MHz for peak, 1 kHz for average
Detector:	Peak

Terminate the access Point RF ports with 50 ohm loads.

Maximize Turntable (find worst case table angle), Maximize Antenna (find worst case height)

Save 2 plots:1) Average Plot (Vertical and Horizontal), Limit= 54dBuV/m @3m2) Peak plot (Vertical and Horizontal), Limit = 74dBuV/m @3m

Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands.

This report represents the worst case data for all supported operating modes and antennas. There are no measurable emissions above 18 GHz.

Please note that scans were performed to verify that duty cycle did not have a significant impact on the test results. Also, scans with reduced RBW and VBW settings were performed to verify that no significant emissions were present under the noise floor.

Frequency (MHz)	Mode	Data Rate (Mbps)	Spurious Emission Level (dBuV/m)	Limit (dBuV/m)
	Non HT-20, 6 to 54 Mbps	6	<54	54
	Non HT-20 Beam Forming, 6 to 54 Mbps	6	<54	54
5745	HT-20, M0 to M23	m0	<54	54
	HT-20 STBC, M0 to M7	m0	<54	54
	HT-20 Beam Forming, M0 to M23	m0	<54	54
	Non HT-20, 6 to 54 Mbps	6	<54	54
	Non HT-20 Beam Forming, 6 to 54 Mbps	6	<54	54
5785	HT-20, M0 to M23	m0	<54	54
	HT-20 STBC, M0 to M7	m0	<54	54
	HT-20 Beam Forming, M0 to M23	m0	<54	54
	Non HT-20, 6 to 54 Mbps	6	<54	54
	Non HT-20 Beam Forming, 6 to 54 Mbps	6	<54	54
5825	HT-20, M0 to M23	m0	<54	54
	HT-20 STBC, M0 to M7	m0	<54	54
	HT-20 Beam Forming, M0 to M23	m0	<54	54

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Non HT-20, 6 to 54 Mbps Non HT-20 Beam Forming,

HT-20 Beam Forming, M0 to M23

HT-20 Beam Forming, M0 to M23

HT-20, M0 to M23 HT-20 STBC, M0 to M7

Frequency

(MHz)

5745

				U
	Data Rate (Mbps)	Spurious Emission Level (dBuV/m)	Limit (dBuV/m)	
	6	<74	74	
6 to 54 Mbps	6	<74	74	
	m0	<74	74	
	m0	<74	74	

m0

m0

<74

<74

74

74 74 74

74 74

74 74 74

74

74

	Non HT-20, 6 to 54 Mbps	6	<74
5785	Non HT-20 Beam Forming, 6 to 54 Mbps	6	<74
	HT-20, M0 to M23	m0	<74
	HT-20 STBC, M0 to M7	m0	<74
	HT-20 Beam Forming, M0 to M23	m0	<74
	Non HT-20, 6 to 54 Mbps	6	<74
	Non HT-20 Beam Forming, 6 to 54 Mbps	6	<74
5825	HT-20, M0 to M23	m0	<74
	HT-20 STBC, M0 to M7	m0	<74

Mode

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Radiated Spurious Emissions 1GHz to 18GHz



Radiated Transmitter Spurs, 5745 MHz, All Rates, All Modes, Average Horizontal Polarization







Radiated Transmitter Spurs, 5785 MHz, All Rates, All Modes, Average Horizontal Polarization

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Radiated Transmitter Spurs, 5785 Mł	Iz, All Rates	, All Modes	, Average Ver	tical Polariza	tion
Agilent Spectrum Analyzer - EMiSoft Vasona: EMi Emission Software					



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Radiated Transmitter Spurs, 5825 MHz, All Rates, All Modes, Average Horizontal Polarization

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Radiated Transmitter Spurs, 5825 MHz, All Rates, All Modes, Average Vertical Polarization

Trace/Det	06:22:02 PM May 20, 2015	ALIGNAUTO		ISE:INT	SEN	ORREC	AC C	RF 50	-
Hacaber	TRACE 1 2 3 4 5 6 TYPE MWWWWWWW	pe: RMS	#Avg	Run	Tria: Free	DNO: Fast		٨Hz	1.0
Select Trac	DETPPPP			dB	#Atten: 0	FGain:High	1		
	r1 5.749 GHz	M							
	77.81 dBµV						9 dBµV	Ref 86.9	/div
	74.00 dBpVg					1			
Clear Wr	2								
_	and and a second								
	and the second second	and some against		مر المراجع مر المر المر الم	anima di sina rika				
Trace Avera						and a start of the	malen windown	-	
									and the second
MaxHo				1					
-				_					
	Stop 18.000 GHz							GHz	1.00
Min Ho	.6 ms (1601 pts)	Sweep 4		-	1.0 MHz	#VBN		.0 MHz	BW :
	FUNCTION VALUE	UNCTION WIDTH	ICTION	FUI	Y		×	SCL	ODE TR
				μV	77.81 dB	49 GHz	5.7	f	N 1 N 1
View/Blan									
Trace O									
IVI									
10									
									_
		STATUS							

Radiated Transmitter Spurs, 5745 MHz, All Rates, All Modes, Peak Horizontal Polarization

Radiated Transmitter Spurs, 5745 MHz, All Rates, All Modes, Peak Vertical Polarization

L RF 50 Ω	AC CORREC	SENSE:INT	ALIGNAUTO	06:21:34 PM May 20, 2015		DW/
W 1.0 MHz	PNO: Fast	Trig: Free Run #Atten: 0 dB	#Avg_Type: RMS	TRACE 1 2 3 4 5 6 TYPE MUMANAN DET P P P P P P		Res Bl
1B/div Ref 86.99 dl	BuV		N	/lkr1 5.749 GHz 80.19 dBµV	Auto	1.0 M⊢ <u>M</u> a
1 0 	1			74.00 dBµY	Auto	Video B 1.0 MF
0		والمتحد المحمد والمستروحة بلحوار	we and the state of the state o	and and a start of the start of	VBW	1:3dB RB
With stranger and from the second	www.illine.com				Auto	1 <u>Ma</u>
9					Spar	1:3dB RE
1		•			Auto	М
rt 1.000 GHz es BW 1.0 MHz	#VBI	N 1.0 MHz	Sweep	Stop 18.000 GHz 42.6 ms (1601 pts)	RBV	V Contro
MODE TRC SCL	X	Y FU	NCTION FUNCTION WIDTH	FUNCTION VALUE	[Gaus	sian,-3 dB
N 1 f	17.639 GHz	59.87 dBµV				
			STATUS	5		

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Radiated Transmitter Spurs, 5785 MHz, All Rates, All Modes, Peak Horizontal Polarization

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Radiated Transmitter Spurs, 5785 MHz, All Rates, All Modes, Peak Vertical Polarization



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Radiated Transmitter Spurs, 5825 MHz, All Rates, All Modes, Peak Horizontal Polarization

Radiated Transmitter Spurs, 5825 MHz, All Rates, All Modes, Peak Vertical Polarization Agilent Spectrum Analyzer - EMiSoft Vasona: EMi Emission Software

L RF 50 Q AC	CORREC	SENSE: IN	IT	ALIGNAUTO	07:46:25 PM	May 20, 2015		1014/
W 1.0 MHz	PNO: Fast IFGain:High	Trig: Free Run #Atten: 0 dB	#Av 1	g Type: RMS				Res BV
dB/div Ref 86.99 dBu	v			n l	/lkr1 5.82 77.57	24 GHz ∕dBµV	Auto	1.0 MH: <u>Mar</u>
						74.00 dBuV	Auto	Video BV 1.0 MH Mar
0 Hall reverse and a second	and a subsection of the second	and the second	واسترابيونيا والمستركي	h for many failed and an and the second data and the second data and the second data and the second data and the			VBW Auto	1:3dB RBV 1.0 <u>Mar</u>
9 9			► ►				Spar <u>Auto</u>	n :3dB RBW 106 Mar
art 1.000 GHz es BW 1.0 MHz	#VB	W 1.0 MHz	- 52	Sweep	Stop 18.0 42.6 ms (1	000 GHz 601 pts)	RBV	V Control
I MODE TRC SCL	× 5.824 GHz 17.639 GHz	Υ 77.57 dBμV 61.25 dBμV	FUNCTION	FUNCTION WIDTH	FUNCTION	VALUE	[Ouus	sian, o dbj

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Radiated Spurious Emissions 18GHz to 26.5GHz



Radiated Transmitter Spurs, All Frequencies, All Rates, All Modes.

Radiated Spurious Emissions 26.5GHz to 40GHz



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Transmitter Radiated Spurious Emissions 30MHz to 1GHz

Note that the high emissions at 375MHz, 125MHz, and 625MHz are digital emissions. These will be covered in the EMC test report. A comparison measurement was made with the radio transmitter turned off (page 66). The emissions were still observed when the radio was off, so it can be concluded that the emissions are not caused by the radio.

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No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	374.956	39.8	1.8	15.1	56.7	Peak [Scan]	V	100	0	46.0	10.7	Fail	
2	624.731	32.2	2.4	19.4	54.0	Peak [Scan]	Н	200	0	46.0	8.0	Fail	
3	125.181	32.4	1.1	14.0	47.5	Peak [Scan]	v	100	0	43.5	4.0	Fail	
4	650.194	23.5	2.4	19.9	45.8	Peak [Scan]	v	100	0	46.0	2	Pass	
5	32.425	18.7	.5	19.3	38.4	Peak [Scan]	V	100	0	40.0	-1.6	Pass	
6	49.400	29.4	.6	8.1	38.1	Peak [Scan]	V	100	0	40.0	-1.9	Pass	
7	875.113	17.1	2.8	22.1	42.0	Peak [Scan]	Н	100	0	46.0	-4.0	Pass	
8	350.100	25.0	1.8	14.4	41.2	Peak [Scan]	Н	100	0	46.0	-4.8	Pass	
9	750.225	16.7	2.6	20.8	40.1	Peak [Scan]	Н	100	0	46.0	-5.9	Pass	
10	599.875	19.2	2.3	18.4	39.9	Peak [Scan]	V	100	0	46.0	-6.1	Pass	

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Receiver Radiated Spurious Emissions

Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 30MHz to 1GHz

Note that the high emissions at 375MHz, 125MHz, and 625MHz are digital emissions. These will be covered in the EMC test report. A comparison measurement was made with the radio transmitter turned off (page 66). The emissions were still observed when the radio was off, so it can be concluded that the emissions are not caused by the radio.



No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	374.956	39.6	1.8	15.1	56.5	Peak [Scan]	V	100	0	46.0	10.5	Fail	
2	624.731	32.4	2.4	19.4	54.2	Peak [Scan]	Н	200	0	46.0	8.2	Fail	
3	125.181	32.7	1.1	14.0	47.8	Peak [Scan]	V	100	0	43.5	4.3	Fail	
4	650.194	23.3	2.4	19.9	45.6	Peak [Scan]	V	100	0	46.0	4	Pass	
5	32.425	18.6	.5	19.3	38.4	Peak [Scan]	V	100	0	40.0	-1.6	Pass	
6	49.400	28.7	.6	8.1	37.3	Peak [Scan]	V	100	0	40.0	-2.7	Pass	
7	875.113	17.7	2.8	22.1	42.6	Peak [Scan]	Н	100	0	46.0	-3.4	Pass	
8	350.100	24.3	1.8	14.4	40.5	Peak [Scan]	V	200	0	46.0	-5.5	Pass	
9	99.113	27.0	.9	10.1	38.0	Peak [Scan]	Н	200	0	43.5	-5.5	Pass	
10	599.875	19.4	2.3	18.4	40.2	Peak [Scan]	V	100	0	46.0	-5.8	Pass	

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Tx turned off:



Test Results Table

FO	rmal Data												
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	374.956	40.8	1.8	15.1	57.7	Peak [Scan]	V	100	0	46.0	11.7	Fail	
2	125.181	38.6	1.1	14.0	53.6	Peak [Scan]	Н	200	0	43.5	10.1	Fail	
3	624.731	34.4	2.4	19.4	56.1	Peak [Scan]	v	100	0	46.0	10.1	Fail	
4	48.794	30.9	.6	8.4	39.8	Peak [Scan]	V	100	0	40.0	2	Pass	
5	33.031	17.4	.5	18.9	36.8	Peak [Scan]	v	100	0	40.0	-3.2	Pass	
6	38.488	21.2	.5	14.8	36.5	Peak [Scan]	V	100	0	40.0	-3.5	Pass	
7	875.113	17.1	2.8	22.1	42.0	Peak [Scan]	Н	200	0	46.0	-4.0	Pass	
8	650.194	18.9	2.4	19.9	41.2	Peak [Scan]	Н	300	0	46.0	-4.8	Pass	
9	599.875	20.4	2.3	18.4	41.2	Peak [Scan]	V	100	0	46.0	-4.8	Pass	
10	97.294	28.0	.9	9.6	38.5	Peak [Scan]	Н	200	0	43.5	-5.0	Pass	

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Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 1GHz to 18GHz Horizontal Polarization, 1GHz to 18GHz, Average

6.99													
0.00													
17.0													
												[Gaus	sian,-3 dB]
27.0	d w	aman										RBI	N Control
		. have	min	mann								1	
37.0				1	mon	m	man					Auto	Ma
								man	man	mon	and the second s	opai	106
47.0											ma	Snar	a:3dB PB
57.0											54.00 dBµ∨	Auto	Ma
												0	1.
67.0												VBW	:3dB RBN
77.0												Auto	1.0 kH Ma
													Video B
10 dE	3/div	Ref 86.	99 dBµ	V						33.2	ες αθήλ		
									Ν	/kr1 5.	49 GHz	Auto	1.0 MH
				IFGain:	High	#Atten: 0	dB			2	ETPPPPP		Res B
RBV	V 1.0	MHz		PNO	act +++	Trig: Free	e Run	#Avg T	/pe: RMS	TRA TY	CE 1 2 3 4 5 6 PE WHATAMAN		Em
		RF	JU Y AC	CORREC		58	VSE(INT		ALIGN AUTO	03(03(2))	-M May 20, 2015		BW

Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 1GHz to 18GHz Vertical Polarization, 1GHz to 18GHz, Average





Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 1GHz to 18GHz Horizontal Polarization, 1GHz to 18GHz, Peak

L BE 50.0 AC	CORREC	SENSE INT		ALIGNAUTO	06:22:31 PM May 20: 201	
V 1.0 MHz	PNO: Fast	Trig: Free Run	#Av	g Type: RMS	TRACE 1 2 3 4 5 TYPE MUMANUM DET P P P P P	Trace/Det
	IFGain:High	#Atten: 0 dB		1	Mkr1 5.749 GH	Select Trace
					74.00 400	Clear Writ
ليمان ماروم ومانين الماني والماني والم	1	and the state of the	the for the second second	hand the second states	and an a state of the second state of the	Trace Averag
		,				Max Hol
t 1.000 GHz s BW 1.0 MHz	#VBW	/ 1.0 MHz	FUNCTION	Sweep	Stop 18.000 GH2 42.6 ms (1601 pts	Min Hol
N 1 f N 1 f 1	5.749 GHz 17.639 GHz	41.64 dBµV 60.42 dBµV				View/Blank Trace On
						Mor 1 of
						10

Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 1GHz to 18GHz Vertical Polarization, 1GHz to 18GHz, Peak

L RF	50 Q AC	CORREC	SENSE:INT		ALIGNAUTO	06:22:59 P	M May 20, 2015	Transford
BW 1.0 MHz		PNO: Fast	Trig: Free Run	#Avg	Type: RMS	TRAC TYP DE	E 1 2 3 4 5 6 E M WWWWW T P P P P P P	Trace/Det
dB/div Ref 80	.99 dBuV	IFGain:High	#Atten. o db		N	Akr1 5.7 43.0	49 GHz 0 dBµV	Select Trace
7.0							74.00 dQuv	Clear Write
7.0 7.0 7.0 7.0	onton frances and	1 Automatical Antipation	a la section de la section	dogh the open state in the	and the star of the start of th			Trace Average
7.0 99 01								Max Hold
art 1.000 GHz Res BW 1.0 MH:	×	#VB	W 1.0 MHz	FUNCTION	Sweep FUNCTION WIDTH	Stop 18 42.6 ms (.000 GHz 1601 pts) N VALUE	Min Hold
N 1 f 2 N 1 f 3 4 5 6	1	5.749 GHz 7.639 GHz	43.00 dBμV 59.99 dBμV					View/Blank Trace On
7 8 9 0 1 2								More 1 of 3
G					STATUS	5		
				Pac	ae No: 105	of 126		



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Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 18GHz to 26.5GHz

Radiated Receiver Spurs, All Frequencies, All Rates, All Modes, 26.5GHz to 40GHz



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Appendix B: Photographs of Test Setups

Title: Radiated Spurious Emissions Test Configuration 30M - 1000MHz



Title: Radiated Spurious Emissions Test Configuration 1G - 18GHz

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Title: Radiated Spurious Emissions Test Configuration 18 – 40GHz



Title: Conducted Test Setup

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Appendix C:	Test Equipment Used to Perform	n Testing
--------------------	--------------------------------	-----------

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due
25658	MICRO-COAX/	Coaxial Cable, 84.0 in.		
23030	UFB311A-1-0840-504504	to 18GHz	13-Feb-15	13-Feb-16
21117	MICRO-COAX/	Coavial Cable-18Gbz		
21117	UFB311A-0-2484-520520		25-Aug-14	25-Aug-15
49563	HUBER + SUHNER/ Sucoflex 106A	Coaxial Cable, 8m	25-Aug-14	25-Aug-15
5691	MITEQ/ NSP1800-25-S1	PREAMPLIFIER	29-Jan-15	29-Jan-16
4882	EMCO/ 3115	HORN ANTENNA	30-Jul-14	24-Jul-15
40597	CISCO/ Above 1GHz Site Cal	1GHz Cispr Site Verification	28-May-14	28-May-15
47300	Keysight (Agilent/HP) / N9038A	EMI Receiver	13-Jan-15	13-Jan-16
47285		40GHz Cable K		
47200	HUBER + SUHNER / Sucoflex 102E	Connector	06 Jun 2014	06 Jun 2015
4883	FNOOLOLIE		Cal Not	Cal Not
	EMCO/ 3115	HORN ANTENNA	Required	Required
34075		Reference Spectrum	Cal Not	Cal Not
	SCHAFFNER / RSG 2000	Generator, 1-18GHz	Required	Required
8166	Keysight (Agilent/HP) / 8491B Opt			
	010	ATTENUATOR	02 Feb 2015	02 Feb 2016
47294	FAIRVIEW MICROWAVE / ST6S-10	SMA Termination 6GHz	12-Aug-14	12-Aug-15
47293	EAIR//IEW/ MICROWA//E / ST6S-10	SMA Termination 6GHz	12 <u>-</u> Δυσ-14	12-Aug-15
			12-Aug-14	12-Aug-13
49504		SMA Female 50 Ohm		
	JFW / 50T-039 SMA-F	Termination	27-Mar-15	27-Mar-16
40502		SMA Female 50 Ohm		
49503	JFW / 50T-039 SMA-F	Termination	27-Mar-15	27-Mar-16
		PRESET TORQUE		
20490		WRENCH 3.5 mm 12		
	Keysight (Agilent/HP) / 8710-1765	in/lbs	4-Feb-15	4-Feb-16
54230		5 inch Temp/RH/Press		
	Newport / iBTHP-5-DB9	Sensor w/20ft cable	1-Feb-15	1-Feb-16
40503	Keysight (Agilent/HP) / F4440A	Spectrum Analyzer	6lun-14	6lun-15
		40GHz Cable K		
54014	HUBER + SUHNER / Sucoflex 102E	Connector	27-Mar-15	27-Mar-16

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49527	Kovsight (Agilant/HD) / N8000K A38	2x4 Switch Matrix	27 Mar 15	27 Mar 16
10021		DE Cable 2 4mm N	27-10101-13	27-10101-10
54017			07 Mar 15	27 Mar 16
	HUBER + SURINER / Succilex 102		27-10181-15	27-11/181-10
54018		RF Cable 2.4mm - N	07 Mar 45	07 Mar 40
	HUBER + SUHNER / Sucoflex 102		27-Mar-15	27-Mar-16
54016		RF Cable 2.4mm - N		
	HUBER + SUHNER / Sucoflex 102	Type 18GHz	27-Mar-15	27-Mar-16
54015		RF Cable 2.4mm - N		
	HUBER + SUHNER / Sucoflex 102	Type 18GHz	27-Mar-15	27-Mar-16
33088		SPECTRUM		
22900	Keysight (Agilent/HP) / E4446A	ANALYZER, 44Ghz	9-Dec-14	9-Dec-15
		Combination Antenna,		
30654	Sunol Sciences / JB1	30MHz-2GHz	12-Dec-14	12-Dec-15
0.4.40				
8448	CISCO/ NSA 5m Chamber	NSA 5m Chamber	7-Oct-14	7-Oct-15
07000		COMPARISON NOISE	Cal Not	Cal Not
27233	York / CNE V	EMITTER	Required	Required
		18-40GHz EMI Test		
41979		Head/Verification		
	Cisco / 1840	Fixture	9-Jul-14	9-Jul-15
		PSG ANALOG SIGNAL		
38392	Keysight (Agilent/HP) / E8257D	GENERATOR	19-Aug-14	19-Aug-15
10510			0	0
49516	Keysight (Agilent/HP) / N9030A	PXA Signal Analyzer	12-Nov-14	12-Nov-15
F 4007		PRESET TORQUE		
54237	Pasternack / PE5011-1	WRENCH, 8 IN/LBS	04 Feb 2015	04 Feb 2016
07000			Cal Not	Cal Not
37236	JFW / 50CB-015	Control Box, GPIB	Required	Required

Software Used to Perform Testing:

EMIsoft Vasona, version 6.024

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Appendix D: Test Procedures

Measurements were made in accordance with

- KDB Publication No. 558074 D01 DTS Meas Guidance v03r02
- KDB Publication No. 662911 MIMO
- Measurement method of spurious emission tolerance to the International Telecommunication Union (ITU) Recommendation SM329.

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- ANSI C63.4 2009
- ANSI C63.10 2009

Test procedures are summarized below

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Appendix E: Scope of Accreditation (A2LA certificate number 1178-01)

The scope of accreditation of Cisco Systems, Inc. can be found on the A2LA web page at:

http://www.a2la.org/scopepdf/1178-01.pdf

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Appendix F: Test and Assessment Plan

Compliance Test Plan (Excel) EDCS# 1237091 Target Power Tables EDCS# 1501962

Appendix G: Worst Case Justification

IW3702 is based upon the AIR-CAP3702P-A-K9. Test results for AIR-CAP3702P-A-K9 were reviewed. Worst case modes were selected by lowest margins. A representative sample of modulation types, bit-rates, and bandwidths were selected. The AIR-CAP3702P-A-K9 report can be found here EDCS# 1278297.

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Appendix H: Duty Cycle

Mode	Data Rate	On-time (ms)	Total Time (ms)	Duty Cycle (%)	Correction Factor (dB)
NonHT20 Quad	6Mbps	1.438	1.447	99.4	0.03
NonHT20 Dual	6Mbps	1.438	1.448	99.3	0.03
HT20 BF Triple	M0	1.347	1.356	99.3	0.03
HT20 BF Quad	M0	1.346	1.356	99.3	0.03
HT40 Dual	M0	0.669	0.679	98.5	0.07
HT40 BF Triple	M0	0.67	0.68	98.5	0.07
HT40 BF Quad	M0	0.669	0.679	98.5	0.07
NonHT80 Quad	6Mbps	1.438	1.448	99.3	0.03
VHT80 Quad	M0x1	0.333	0.348	95.7	0.19
VHT80 BF Triple	M0x1	0.333	0.348	95.7	0.19
VHT80 BF Quad	M0x1	0.333	0.349	95.4	0.20
NonHT20 Single	6Mbps	1.438	1.447	99.4	0.03
NonHT20 Quad	6Mbps	1.439	1.449	99.3	0.03
NonHT20 BF Quad	6Mbps	1.346	1.448	99.4	0.03
HT20 Quad	M0	1.346	1.356	99.3	0.03
HT20 Triple	M0	1.345	1.357	99.2	0.03
HT20 BF Quad	M0	1.438	1.355	99.3	0.03
NonHT40 Quad	6Mbps	0.669	1.448	99.3	0.03
HT40 Quad	M0	0.67	0.679	98.5	0.07
HT40 BF Quad	M0	1.438	0.68	98.5	0.07
NonHT20 Quad	6Mbps	1.438	1.447	99.4	0.03
NonHT20 BF Quad	6Mbps	1.438	1.447	99.4	0.03
HT20 BF Triple	M0	1.346	1.356	99.3	0.03
HT20 BF Quad	M0	1.345	1.355	99.3	0.03

Duty Cycle table and screen captures are shown below for power/psd modes.

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NonHT20 Quad 6Mbps

🔆 🗮 Agile	ent										Marker
Ref 30 #Peak	dBm	:	#Atten	30 dB				M	kr3 1. -20.4	823 ms 3 dBm	Select Marker 1 2 <u>3</u> 4
LOG 10 dB/ Offst	inii jiiii	hoodiji Noodiji	in a second s	in haire di M ^{ana} i <mark>Manij</mark> i		<mark>ing (Man)</mark>	i fan hjer fan de fan I fan hjer fan de fan	all and all all a	(indiperior) (indiperior)		Normal
13.1 dB										>	Delta
#PAvg											Delta Pair (Tracking Ref) Ref <u>∆</u>
Center	5.745	000 G	Hz		1	1			Spa	n 0 Hz	Spon Poir
Res BW	8 MHz			#V	BM 8 M	Hz	SM	eep 2	ms (819	92 pts)	Snan Center
Marker	r Tra	ace	Type		х	Axis			Amplitu	ide	
1 2 3		1) 1) 1)	lime Time Time		1 1	376 µs .814 ms .823 ms			-41.77 c -36.88 c -20.43 c	iBm IBm IBm	Off
											More 1 of 2
Copyrig	ht 200	00-20	008 Ag	ilent T	echnol	ogies					

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NonHT20 Dual 6Mbps

🔆 🔆 Agi	ilent										Ma Ma	arker
Ref 30 #Peak [dBm		*Atten	30 dB				M	kr2 1. -26.3	.858 ms 3 dBm	Selec 1 <u>2</u>	t Marker 3 4
Log 10 dB/ Offst		<mark>(has) and and a start and a start a st In the start a s</mark>		n na haran <mark>Manani, Kap</mark>	alarada Artijtaat	n an	inder der Jahren jur ²	righter Mga ga g	an tanan an An tanan baran An tanan bar			Normal
13.1 dB			•									Delta
#PAvg											(Tra Ref)elta Pair acking Ref) <u>∆</u>
Center Res Bl	5.745 8 MH	000 G z	Hz Type	ŧ۷	'BW 8 M x	Hz Avis	Sм	eep 2	Spa ms (81 Amplit	an 0 Hz 92 pts) ude	Span	Span Pair <u>Center</u>
1 2 3		(1) (1) (1)	Time Time Time		4 1 1	20.7 µs .858 ms .868 ms			-27.94 -26.33 -26.14	dBm dBm dBm		Off
												More 1 of 2
Copyri	ght 20	000-20	108 Agi	ilent T	echnol	ogies						

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* Agilent	Marker
Mkr1 453.9 µs Ref 30 dBm #Atten 30 dB — -36.25 dBm #Peak	Select Marker <u>1</u> 234
Log 10 Julie and a line of the set of the s	Normal
13.1 dB	Delta
*PAvg	Delta Pair (Tracking Ref) Ref <u>∆</u>
Center 5.745 000 GHz Span 0 Hz Res BW 8 MHz #VBW 8 MHz Sweep 2 ms (8192 pts) Marker Trace Type X Axis Amolitude	Span Pair Span <u>Center</u>
1 (1) Time 453.9 μs -36.25 dBm 2 (1) Time 1.8 ms -26.97 dBm 3 (1) Time 1.809 ms -36.96 dBm	Off
	More 1 of 2



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3 4

Normal

Delta

Center

Off

More 1 of 2







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🔆 Agilent	Marker
Mkr1 34.18 µs Ref 30 dBm ∗Atten 30 dB -23.88 dBm ŧPeak	Select Marker <u>1</u> 2 3 4
Log 10 dB/ 0ffst	Norma
13.1 dB	Delta
#PAvg	Delta Pair (Tracking Ref) Ref <u>∆</u>
Center 5.755 000 GHz Span 0 Hz Res BW 8 MHz #VBW 8 MHz Sweep 800 µs (8192 pts) Marker Trace Type X Axis Amplitude	Span Pair Span <u>Center</u>
1 (1) Time 34.18 μs –23.88 dBm 2 (1) Time 703.3 μs –31.03 dBm 3 (1) Time 713.8 μs –33.71 dBm	Off
	More 1 of 2

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HT40 BF Quad M0

NonHT80 Quad 6Mbps

🔆 Agilent Marker Select Marker **Ref** 30 dBm #Peak #Atten 30 dB 39.17 dBm 4 2 -3 *Peak Log 10 dB/ Offst 13.1 dB Normal والمتراجع والمنافعة والمنابعة والمتراجع والمنافعة والمنافعة والمتحافظ والمنافعة والمتعادية والمتعادية والمتعاد dived y liden i den Delta Delta Pair (Tracking Ref) Ref #PAvg Center 5.775 000 GHz Res BW 8 MHz Span 0 Hz Sweep 2 ms (8192 pts) Span Pair **#VBW** 8 MHz Span Center Trace (1) (1) (1) Type Time Time Time X Axis 342.6 µs 1.78 ms 1.79 ms Amplitude -42.72 dBm -36.37 dBm -39.17 dBm Marker Off More 1 of 2 Copyright 2000-2008 Agilent Technologies

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🔆 Agilent Marker 447.4 ⊢ /kr3 Select Marker Ref 30 dBm #Peak Log #Atten 30 dB -27.71 dBm 3 10 Normal зB Offst Delta **Delta Pair** (Tracking Ref) ŧPAvg Ref Center 5.775 000 GHz Res BW 8 MHz **Span** 0 Hz (8192 pts) sweep 500 µs Span Pair *VBW 8 MHz Span <u>Center</u> Trace (1) (1) (1) Type Time Time Time X Axis 98.22 μs 431.3 μs 447.4 μs 28.10 dBm 25.20 dBm 27.71 dBm Off More 1 of 2 Copyright 2000-2008 Agilent Technologies

VHT80 BF Quad M0x1

NonHT20 Single 6Mbps

* Agilent	marker
Ref 30 dBm •Atten 30 dB -17.24 dB -17.24 dB -17.24 dB -17.24 dB	Select Marker
$ \begin{array}{l} & \\ \text{Log} \\ 10 \\ \text{dB}_{\prime} \end{array} \ \ \ \ \ \ \ \ \ \ \ \ \$	Normal
Offst	- Delta
*PAvg	Delta Pair (Tracking Ref) Ref <u>△</u>
Center 5.785 000 GHz Span 0 1 Res BW 8 MHz #VBW 8 MHz Sweep 2 ms (8192 pt Marker Trace Type X Axis Amplitude	s) Span Pair Span <u>Center</u>
1 (1) Time 244.7 µs28.91 dBm 2 (1) Time 1.682 ms17.24 dBm 3 (1) Time 1.691 ms38.82 dBm	Off
	More 1 of 2

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NonHT20 Quad 6Mbps

Mkr1 180.9 µs Ref 30 dBm #Atten 30 dB −33.57 dBm #Peak	Select Marker <u>1</u> 2 3 4
Log Up see designed a see designed a see of the set of	Normal
13.1 dB	Delta
*PAvg	Delta Pair (Tracking Ref) Ref <u>∆</u>
Center 5.785 000 GHz Res BW 8 MHz #VBW 8 MHz Sweep 2 ms (8192 pts) Marker Trace Type X Axis Amplitude	Span Pair Span <u>Center</u>
1 (1) Time 188.9 µs −33.57 dBm 2 (1) Time 1.619 ms −22.94 dBm 3 (1) Time 1.629 ms −8.38 dBm	Off
	More 1 of 2



🔆 Agilent	Marker
Mkr3 1.748 Ref 30 dBm #Atten 30 dB — 25.43 d #Peak	Bm 1 2 <u>3</u> 4
	Normal
13.1 dB	Delta
*PAvg	Delta Pair (Tracking Ref) Ref
Center 5.785 000 GHz Span @ Res BW 8 MHz #VBW 8 MHz Sweep 2 ms (8192 p Marker Trace Type X Axis Amplitude	Hz Span Pair ots) Span <u>Center</u>
1 (1) Time 300.6 µs — 36.62 dBm 2 (1) Time 1.739 ms — 34.47 dBm 3 (1) Time 1.748 ms — 25.43 dBm	Off
	More 1 of 2
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HT20 BF Quad M0



NonHT40 Quad 6Mbps



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HT40 BF Quad M0

🔆 Agilent					Marker
Ref 30 dBm #Peak	#Atten 30 dB		M	kr3 751.3µs −33.06 dBm	Select Marker
Log 10 dB/ Offst	an a	en an an Arabanian Nganangan ang ang ang ang ang ang ang ang	a da ang ang akin Apina panganang akin	in and internet and a second secon	Normal
13.1 dB					Delta
#PAvg					Delta Pair (Tracking Ref) Ref <u>∆</u>
Center 5.795 000 Res BW 8 MHz	GHz #V	/BW 8 MHz	Sweep 800	Span 0 Hz µs (8192 pts)	Span Pair Span Center
Marker Trace 1 (1) 2 (1) 3 (1)	Type Time Time Time	X Axis 71.88 µs 741.2 µs 751.3 µs		Amplitude -21.44 dBm -32.52 dBm -33.06 dBm	Off
					More 1 of 2
Copyright 2000-2	:008 Agilent T	echnologies			

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NonHT20 Quad 6Mbps

🔆 Agilent							Marker
Ref 30 dB #Peak	m	#Atten 30 d	B		Mkr.	2 1.692 m -36.38 dBm	Select Marker 1 <u>2</u> 3 4
LOG Fran 10 dB/ Offst		(align for the land the source of the source	alan kata matang katang ka Katang katang k	ing an			Normal
13.1 dB							Delta
#PAvg							Delta Pair (Tracking Ref) Ref <u>∆</u>
Center 5.8 Res BW 8 Marker	825 000 G MHz Trace	Hz	#VBW 8 MHz X A>	 	leep 2 m	Span 0 H s (8192 pt: Amplitude	Span Pair Span <u>Center</u>
1 2 3	(1) (1) (1)	Time Time Time	254. 1.69 1.70	2µs 2ms 11ms	-2 -3 -3	22.18 dBm 36.38 dBm 36.59 dBm	- Off
							More 1 of 2
Copyright	2000-20	008 Agilent	Technolog	ies			

NonHT20 BF Quad 6Mbps

🔆 🗮 🔆	gilent										P	lark	er
Ref 3 #Peak	0 dBm		*Atten	30 dB				M	kr1 2 –19.	73.5 µs 53 dBm	Sele 1	ct M 2	arker 3 4
Log 10 dB/ Offst			inder den ^{Ind} igelieten	na dhuan na <mark>ha ata</mark>		n la la const Na constantes Na constantes de la constante Na constantes de la constant	<mark>hala araj</mark>	nalinali <mark>Laippinali</mark>		n in the second s		٢	lormal
13.1 dB		•											Delta
#PAvg											(Ti Ref	Delt rackir	a Pair ng Ref) ∆
Cente Res B	r 5.825 W 8 MH	000 G z	Hz Type	#١	1814 8 1 *	1Hz Avis	Sm	ieep 2	Sp ms (81 Amplii	an 0 Hz 92 pts) ude	Span	Spa	n Pair Center
1 2 3		(1) (1) (1)	Time Time Time		2	73.5 μs .711 ms 1.72 ms			-19.53 -34.62 -23.44	dBm dBm dBm			Off
													More 1 of 2
Copyr	iaht 21	000-21	008 Aai	ilent T	echnol	ngies							

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HT20 BF Triple M0

🔆 Agilent				marker
Ref 30 dBm #Peak	#Atten 30 dB		Mkr3 1.565 ms -29.47 dBm	Select Marker 1 2 <u>3</u> 4
10 10 dB/ Offst	<mark>landi, parti sa ang induni d</mark>	and a print of the start of the s	<mark>n dah ada di dari dari da juga kati (man. 1</mark>) Ang dah ada di Marat	Normal
13.1 dB				Delta
#PAvg				Delta Pair (Tracking Ref) Ref <u>∆</u>
Center 5.825 0 Res BW 8 MHz	00 GHz #V	BW 8 MHz	Span 0 Hz Sweep 2 ms (8192 pts)	Span Pair Span Center
Marker Trac 1 (1) 2 (1) 3 (1)	ce Type D Time D Time D Time	X Axis 209.3 µs 1.555 ms 1.565 ms	Amplitude -36.86 dBm -31.47 dBm -29.47 dBm	Off
				More 1 of 2
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HT20 BF Quad M0

🔆 Ag	ilent										11	arker
Ref 30 #Peak	dBm		#Atten	30 dB				Mk	r2 1 -15.%	.625 ms 95 dBm	Sele 1 <u>2</u>	otMarker
LOg 10 dB/ Offst	u <mark>liptip</mark> t			n (n) marad <mark>(h (n</mark>) marad	ile is note Tellippi i s	<mark>jainin aldi</mark> Jainin aldi	in ty int ly A also Alph	a na hEanna <mark>- 11 ₋ 14 - 1</mark> 9 - 11 - 14 - 19 - 19 - 19 - 19 - 19 - 19		<mark>illini illin</mark> Alfred Ind		Norma
13.1 dB												Delta
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Center Res Bl	r 5.825 N 8 MH:	000 z	GHz -	#\	BW 8 N	1Hz	S۲	ieep 2	Sp ; ms (81	an 0 Hz 92 pts)	Span	Span Pair Center
Markı 1 2 3	er T	race (1) (1) (1)	Type Time Time Time) 2 1 1	Αχίς 80.1 μς .625 ms .635 ms			Amplit -21.88 -15.95 -19.92	ude dBm dBm dBm		Off
												More 1 of 2
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