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## Radio Test Report C9120AXP-x & C9120AXP-EWC-x, V06 (x = A, B, N, T)

FCC ID: LDKROFSN2177 IC: 2461N-ROFSN2177

> 5150 MHz – 5250 MHz 5250 MHz – 5350 MHz 5470 MHz – 5725 MHz 5725 MHz – 5850 MHz

Against the following Specifications:

### Radiated TX Spurious Emissions CFR47 Part 15.407; LP0002 (2018); RSS-247 Issue 2, Feb 2017; RSS-GEN Issue 5, Feb 2019



**Cisco Systems** 170 West Tasman Drive San Jose, CA 95134

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Revision: 1.2	Issue Date: 19-JAN-2021

This report replaces any previously entered test report under EDCS – 19928593. This test report has been electronically authorized and archived using the CISCO Engineering Document Control system. Test Report Template EDCS# 1526148

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#### **Section 1: Overview**

#### 1.1 Test Summary

The samples were assessed against the tests detailed in section 3 under the requirements of the following specifications:

Specifications

Radiated TX Spurious Emissions only CFR47 Part 15.407; LP0002 (2018); RSS-247 Issue 2, Feb 2017; RSS-GEN Issue 5, Feb 2019

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#### Section 2: Assessment Information

#### 2.1 General

This report contains an assessment of an apparatus against Radio Standards based upon tests carried out on the samples submitted. The testing was performed by and for the use of Cisco systems Inc:

With regard to this assessment, the following points should be noted:

- The results contained in this report relate only to the items tested and were obtained in the period between the date of the initial assessment and the date of issue of the report. Manufactured products will not necessarily give identical results due to production and measurement tolerances.
- b) The apparatus was set up and exercised using the configuration and modes of operation defined in this report only.
- c) Where relevant, the apparatus was only assessed using the susceptibility criteria defined in this report and the Test Assessment Plan (TAP).
- d) All testing was performed under the following environmental conditions:

Temperature	15°C to 35°C (54°F to 95°F)
Atmospheric Pressure	860mbar to 1060mbar (25.4" to 31.3")
Humidity	10% to 75*%

 All AC testing was performed at one or more of the following supply voltages: 110V 60 Hz (+/-20%)

#### 2.2 Units of Measurement

The units of measurements defined in the appendices are reported in specific terms, which are test dependent. Where radiated measurements are concerned these are defined at a particular distance. Basic voltage measurements are defined in units of [dBuV]

As an example, the basic calculation for all measurements is as follows:

Emission level [dBuV] = Indicated voltage level [dBuV] + Cable Loss [dB] + Other correction factors [dB]

The combinations of correction factors are dependent upon the exact test configurations [see test equipment lists for further details] and may include:-

Antenna Factors, Pre Amplifier Gain, LISN Loss, Pulse Limiter Loss and Filter Insertion Loss..

Note: to convert the results from dBuV/m to uV/m use the following formula:-

Level in uV/m = Common Antilogarithm [(X dBuV/m)/20] = Y uV/m

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Measurement Uncertainty Values

voltage and power measurements	± 2 dB
conducted EIRP measurements	± 1.4 dB
radiated measurements	± 3.2 dB
frequency measurements	± 2.4 10-7
temperature measurements	± 0.54°.
humidity measurements	± 2.3%
DC and low frequency measurements	± 2.5%.

Where relevant measurement uncertainty levels have been estimated for tests performed on the apparatus. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Radiated emissions (expanded uncertainty, confidence interval 95%)

+/- 3.8 dB
+/- 4.3 dB
+/- 4.0 dB
+/- 8.2 dB
+/- 4.1 dB
+/- 3.9 dB

Conducted emissions (expanded uncertainty, confidence interval 95%)

30 MHz – 40GHz	+/- 0.38 dB
----------------	-------------

A product is considered to comply with a requirement if the nominal measured value is below the limit line. The product is considered to not be in compliance in case the nominal measured value is above the limit line.

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#### 2.3 Date of testing (initial sample receipt date to last date of testing)

01-JUL-2020 to 09-JUL-2020

#### 2.4 Report Issue Date

See cover page.

#### 2.5 Testing facilities

This assessment was performed by:

#### **Testing Laboratory**

Cisco Systems, Inc. 125 West Tasman Drive (Building P) San Jose, CA 95134 USA

#### Headquarters

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

#### **Registration Numbers for Industry Canada**

Cisco System Site	Address	Site Identifier
Building P, 10m Chamber	125 West Tasman Dr	Company #: 2461N-2
	San Jose, CA 95134	
Building P, 5m Chamber	125 West Tasman Dr	Company #: 2461N-1
	San Jose, CA 95134	
Building I, 5m Chamber	285 W. Tasman Drive	Company #: 2461M-1
	San Jose, California 95134	
	United States	

Test Engineers Allan Beecroft

**2.6 Equipment Assessed (EUT)** C9120AXP-A, V06

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#### 2.7 EUT Description

The radio supports the following modes of operation. The modes are further defined in the radio Theory of Operation. The modes included in this report represent the worst case data for all modes. Data is recorded at the lowest supported data rate for each mode. This report covers operation on channel 1-11.

802.11g - Non HT20, One Antenna, 6 to 54 Mbps, 1ss

The following antennas are supported by this product series.

The data included in this report represent the worst case data for all antennas.

			Antenna Gain
Frequency	Part Number	Antenna Type	(dBi)
		-P SKU	
2.4GHz&5GHz		2.4 GHz 2 dBi/5 GHz 4 dBi Dipole Ant.,	2dBi@2.4GHz
	AIR-ANT2524DB-R/=	Black, connectors RP-TNC	4dBi@5GHz
2.4GHz&5GHz		2.4 GHz 2 dBi/5 GHz 4 dBi Dipole Ant.,	2dBi@2.4GHz
	AIR-ANT2524DG-R/=	Gray, connectors RP-TNC	4dBi@5GHz
2.4GHz&5GHz		2.4 GHz 2 dBi/5 GHz 4 dBi Dipole Ant.,	2dBi@2.4GHz
	AIR-ANT2524DW-R/=	White, connectors RP-TNC	4dBi@5GHz
2.4GHz&5GHz		2.4 GHz 3dBi/5 GHz 5 dBi Low Profile	3dBi@2.4GHz
	AIR-ANT2535SDW-R	Antenna, White, connectors RP-TNC	5dBi@5GHz
2.4GHz&5GHz		2.4 GHz 6 dBi/5 GHz 6 dBi Directionnel	6dBi@2.4GHz
	AIR-ANT2566P4W-R=	Ant., 4-port, connectors RP-TNC	6dBi@5GHz
2.4GHz&5GHz		2.4GHz 2 dBi/5GHz 4 dBi Ceiling Mount	2dBi@2.4GHz
	AIR-ANT2524V4C-R=	Omni Ant., 4-port, connectors RP-TNC	4dBi@5GHz
2.4GHz&5GHz		2.4GHz 4 dBi/5GHz 4 dBi Wall Mount	4dBi@2.4GHz
	AIR-ANT2544V4M-R=	Omni Ant., 4-port, connectors RP-TNC	4dBi@5GHz
2.4GHz&5GHz		2.4 GHz 6 dBi/5 GHz 6 dBi 60 Deg. Patch	6dBi@2.4GHz
	AIR-ANT2566D4M-R=	Ant., 4-port, RP-TNC	6dBi@5GHz
2.400-0.500		2.4 GHz 13 dBi/5 GHz 13 dBi Patch Ant.,	13dBi@2.4GHz
2.4GHz&5GHz	AIR-ANT2513P4M-N=	4-port, N Type	13dBi@5GHz

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#### 3.1 Results Summary Table

#### Radiated Emissions (General requirements)

Basic Standard	Technical Requirements / Details	Result
FCC 15.209; FCC 15.205; FCC 15.407(b); RSS-GEN Sec 8.9, 8.10; RSS-247 Sec 6.2; LP0002 (2018) Sec 3.10 & 4.7	<b>TX Spurious Emissions:</b> Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the field strength limits table in this section.	Pass

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#### Section 4: Sample Details

Note: Each sample was evaluated to ensure that its condition was suitable to be used as a test sample prior to the commencement of testing. Please also refer to the "Justification for worst Case test Configuration" section of this report for further details on the selection of EUT samples.

#### 4.1 Sample Details

Sample Number	Equipment Details	Serial Number	CISCO Part Number
S01	C9120AXP-x	FOC24172PXD	074-124657-01
S02	AIR-PWRINJ6 V01	C16036663000000279	341-100456-01

#### 4.2 System Details

System #	Description	Samples
1	UUT + PoE supply	S01 +S02

#### 4.3 Mode of Operation Details

Mode#	Description	Comments	
1	Continuous Transmit	All radios transmitting simultaneously.	
2	Continuous Receive	All radios simultaneously in receive mode.	

#### 4.4 Software Images

Cisco AP Software, (ap1g7), [rtp-ads-139:/nobackup/eyankevi/Vanc-E\_VE\_c172\_thr\_May09/router] Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2020 by Cisco Systems, Inc. Compiled Tue May 19 23:48:59 EDT 2020 Cisco AP Software, (ap1g7), [sjc-ads-5182:/nobackup/maruthib/vanc\_detBW] Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2020 by Cisco Systems, Inc. Compiled Thu Jun 18 15:00:00 PDT 2020 The following plots were re-measured with ant-A @ 10dBm, ant B, C & D @ 15dBm: A.1.A.16H; A.1.A.16V; A.1.A.17H; A.1.A.17V; A.1.A.18H; A.1.A.18V; A.1.A.19H; A.1.A.19V; A.1.A.20H; A.1.A.20V

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#### Appendix A: Emission Test Results

Testing Laboratory: Cisco Systems, Inc., 125 West Tasman Drive, San Jose, CA 95134, USA

## A1 Radiated Spurious Emissions 1GHz – 40GHz

**Ref.** ANSI C63.10: 2013 section 12.7.6 (peak) & 12.7.7.3 (average)

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 – 40 GHz
Reference Level:	80 dBuV
Attenuation:	10 dB
Sweep Time:	Coupled
Resolution Bandwidth:	1MHz
Video Bandwidth:	3 MHz
Detector:	Peak/Average

Terminate the access Point RF ports with 50 ohm loads.

Define worst case azimuth x, y, z. Maximize Turntable (find worst case table angle), Maximize Antenna (find worst case height)

Average Plot (Vertical and Horizontal), Limit= 54dBuV/m @3m
Peak plot (Vertical and Horizontal), Limit = 74dBuV/m @3m

This report represents data for all supported operating modes and antennas.

System Number	Description	Samples	System under test	Support equipment
1	EUT	S01	$\checkmark$	
2	Support	S02		$\checkmark$

Tested By : Date of testing: 0   Allan Beecroft Date of testing: 0	1-JUL-2020to 23-JUL-2020

See Appendix C for list of test equipment

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### A.1.A Transmitter Radiated Spurious Emissions-Average (1GHz – 10GHz)

There are no harmonic emissions to measure below 10GHz.

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#### Non-HE20, 5180MHz

rker 2 10.360000	000000 GHz PM0 Feet -	Trig: Free Run FAtten: 10 dfl	#Arg Type: RMS ArgHold: 125/125	102-17-31 PH MOL 2020	TraceDetector Select Trace	
Mkr3 5,182 4 GHz 10 αΒιάν Ref 106.99 dBμV 77.589 dBμV						
Trace 1 Pass	j				Detector Average P Auto Mar	
			02		Preset Detectors	
					Clear Trace	
es BW 1.0 MHz	#VB	W 3.0 MHz*	Sweep 20.0	Stop 13.000 GHz 56 ms (10000 pts)	Clear All Traces	
NOT T	5,180 0 GHz 10,360 0 GHz 5,182 4 GHz	75.339 dBuV 41.019 dBuV 77.589 dBuV	ACTON HINCTON VIETN	RACTENHILE	Preset All Traces	
					More 2 of 3	

#### A.1.A.1H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (1-10GHz)

#### Non-HE20, 5180MHz

rker 2 10.360000000	PNO: Fast	. Trig: Free Run	#Avg Type: RMS Avg(Held: 125/125	THE REPORT	TraceDetector
dBidw Ref 106.99 dBp	#Gaintow	SAtten: 10 dB	Mkrs	Select Trace	
Trace 1 Pass	,				Detector Average Auto
			Q <sup>2</sup>		Preset
					Clear Trace
art 1.000 GHz tes BW 1.0 MHz	10200003344		Sweep 20.6	Stop 13.000 GHz 5 ms (10000 pts)	Clear All Traces
	5 190 0 GHz 3360 0 GHz 5 182 4 GHz	74,940 dBuV 41,112 dBuV 77,630 dBuV			Prese All Traces
					More 2 of 3

A.1.A.1V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, 5200MHz

Marker 2 10.40000000000 GHz TracefOxtecto Marg Type: RMS Avg/Held: 125/125 --- Trig: Free Run Ektran: 10 dll Select Trace Mkr3 5.201 6 GH 77.788 dBµ Ref 106.99 dBpV race 1 Pass Detect Prese Detectors Clear Trac Stop 13.000 GHz Sweep 20.66 ms (10000 pts) Res BW 1.0 MHz #VBW 3.0 MHz\* **Clear All Trace** 10,400 Q Pres All Traces More 2 of 3

A.1.A.2H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, 5200MHz

arker 2 10.40000000	FND: Feel Trig: Free Run B Gaint over BAtten: 10 dtl	#Avg Type: RMS Avg/Held: 125/125	The Select Trace
dBidiv Ref 106.99 dt	sµV		5,201 6 GHz 7.896 dBµV
P Trace 1 Pass	3		Detector Average Mar
		¢2	Preset
			Clear Trace
art 1.000 GHz Tes BW 1.0 MHz	#VBW 3.0 MHz*	Steep 20.66	op 13.000 GHz ms (10000 pts) roctionical
	5.200.0 GHz 76.022 dBuV 10.400.0 GHz 41.491 dBuV 5.201.6 GHz 77.896 dBuV		Prese
			More

A.1.A.2V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, 5240MHz

Marker 2 10.45000000000 GHz Philippi ---- Trig Free Run Philippi ---- Trig Free Run TracefOxtecto #Avg Type: RMS AvgHold: 125/125 Select Trace Mkr3 5,241 2 GH 78.388 dBµ Ref 106.99 dBpV race 1 Pass Detect Prese Detectors Clear Trac Stop 13.000 GHz Sweep 20.66 ms (10000 pts) Res BW 1.0 MHz #VBW 3.0 MHz\* Clear All Trace 6.241.2 Pres All Traces More 2 of 3

A.1.A.3H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, 5240MHz

Marker 2 10.3500000000000 GH2 PR0 Fad ---- Trig Free Ru FAden to di Trace/Detector MArg Type: RMS AvgHald: 125/125 Select Trace Mkr3 5, 182 4 GH 77,630 dBp Ref 106.99 dBpV race 1 Pass Detect Prese Detectors λÂ Clear Trac Start 1.000 GHz Res BW 1.0 MHz Stop 13.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz\* **Clear All Trace** 10.360 0 41.112 Pres All Trace Mo 2 of

A.1.A.3V Radiated Transmitter Spurs, 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, 5260 MHz

Select Trace	THE STREET	Type: RMS Hold: 125/125	rig: Free Run Mater: 10 dB	PHO: Fast	arker 2 10,520000 ASS
· · · · · · · · · · · · · · · · · · ·	3 5.261 6 GHz 77.967 dBµV	Mkr		dBµV	dBldv Ref 106.99
Detecto Average Auto <u>Mar</u>				j <sup>a</sup>	Trace 1 Pass
Preset		Ú <sup>2</sup>			
Clear Trace					
	Stop 13.000 GHz 6 ms (10000 pts)		MH2	≠vBV	es BW 1.0 MHz
Prese All Trace			533 dBy/Y 920 dBy/Y 967 dBy/Y	5.260 0 GHz 10.520 0 GHz 5.261 6 GHz	N 1 C N 1 C N T T
More 2 of 3					

A.1.A.4H Radiated Transmitter Spurs 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, *5260 MHz* A.1.A.4V Radiated Transmitter Spurs *6 to 54 Mbps*, Average (1-10GHz)

Igheid Spectrum Analyzer - See				in the second second	11
Marker 2 10.520000	000000 GHz	Trig Free Run	#Avg Type: RMS AvgHeld, 125/125	102-45-24-24 AUGL 2020 REACE REAL	TraceDetector
ASS	a Gaint ow	#Atten: 10 dB		per Distance	Select Trace
e dBidiv Ref 106.99	dBpV		M	kr3 5,261 6 GHz 78.079 dBµV	1
Trace 1 Pass					Detector Average Mar
(73) (73) (73)				( <sup>2</sup>	Preset Detectors
11 m					Clear Trace
tart 1.000 GHz Res BW 1.0 MHz	#VE	W 3.0 MHz*	Sweep 2	Stop 13.000 GHz 0.66 ms (10000 pts)	Clear All Traces
	5.260 GHz 10.520 GHz 5.261 6 GHz	76.206 dBuV 41.150 dBuV 78.079 dBuV			Preset All Traces
					More 2 of 3
NU			3140	16	

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#### Non-HE20, 5300 MHz

A.1.A.5H Radiated Transmitter Spurs 6 to 54 Mbps, Average (1-10GHz)

					Agricuit Spectrum Analyzer - See
Tracefortector	1224 OF PH LICE, 2020	Avg Type: RMS AvgHald: 125/128	Trig Free Run	000000 GHz	Marker 2 10.600000
Select Trace	r3 5,297 6 GHz 72.734 dBµV	MK	BAtten: 10 dB	#Gaintow	PASS 10:d8/dW Ref 106.99
Detecto Average Auto Ma					Trace 1 Pass
Preset Detectors	2				672
Clear Trac					h
	Stop 13.000 GHz .66 ms (10000 pts)		13.0 MH2	≠VB	Start 1.000 GHz Res BW 1.0 MHz
Pres All Trace			69,420 dBu/V 41.606 dBu/V 72,734 dBu/V	5.300 0 GHz 10.600 0 GHz 5.297 6 GHz	
Mar 2 of					7 9 9 10
		314046			80

#### Non-HE20, 5300 MHz

arker 2 10.6000000 ASS	Phill Fard Here T	rig: Free Run Atten: 10 att	#Avg Type: RMS AvgPlate: 125/125	1234 SHIE MIC 200 Red 1910	TracefDetector.
dBidiv Ref 106.99 d	BµV.		M	r3 5,297 6 GH 72.603 dBµ\	A DESCRIPTION OF THE
Trace 1 Pass	<b>2</b> 9				Detecto Average I Auto Mar
				¢ <sup>2</sup>	Preset
h					Clear Trac
tart 1.000 GHz Res BW 1.0 MHz	#VBW 3.0		Sweep 20	Stop 13.000 GH	Clear All Trace
	10.600 0 GHz 41	529 dBuV 432 dBuV 503 dBuV			Prese All Trace
					Mor 2 of

A.1.A.5V Radiated Transmitter Spurs 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, 5320 MHz

TracelDetector Marke 2 10,6400000 Marg Type: RMS Avgitteld: 125/125 0 GHz Trig: Free Run #Atten: 10 dB -PHO: Fast Select Trace Mkr3 5,321 6 GH 72,168 dBµ\ Ref 106.99 dBpV race 1 Pass Detecto Prese Detectors 2 **Clear Trac** Stop 13.000 GHz Sweep 20.66 ms (10000 pts) 00 GHz #VBW 3.0 MHz\* **Clear All Trace** 1.0 MH 41,011 6 Pres All Traces Mor 2 of

A.1.A.6H Radiated Transmitter Spurs 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, 5320 MHz

arker 2 10.6400000	Phill Fast own To	ig: Free Run Iten: 10 dfl	Avg Type: RMS AvgHeld: 125/125	NACE NO.	Trace/Detector
dBlaw Ref 106.99	dBµV			1kr3 5.321 6 71.788 d	GHZ
Trace 1 Pass	3.				Auto Mar
				0 <sup>2</sup>	Preset
					Clear Trace
art 1.000 GHz Res BW 1.0 MHz	#VBW 3.0		Sweep	Stop 13.000 20.66 ms (1000	0 pts) Clear All Traces
N 1 F	6.320 0 GHz 71.2 10.640 0 GHz 40.9 6.321 6 GHz 71.7	0.3 dBy// 60 dBy// 18 dBy//			Prese All Traces
					More 2 of 3
			30	IN6	

A.1.A.6V Radiated Transmitter Spurs 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, 5500 MHz

TracelDetector 2 11.000 #Avg Type: RMS AvgHald: 125/125 0 GHz PHO: Fast ---- Trig: Free Run #Gaint.ow #Atten: 10 dB Select Trace 73,725 dBp Ref 106.99 dBpV Detect Preset Detectors 12 Clear Trac 0 GHz Stop 13.000 GHz Sweep 20.66 ms (10000 pts #VBW 3.0 MHz\* **Clear All Trace** 0 pts 110000 41.165 Pres All Trace Mor 2 of

A.1.A.7H Radiated Transmitter Spurs 6 to 54 Mbps, Average (1-10GHz)

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#### Non-HE20, 5500MHz

Marker 2 11.000000000000 GHz Trace/Detector #Avg Type: RMS Avgillatd: 125/125 Trig: Free Run Select Trace, 69,411 dBu Ref 106.99 dBpV race 1 Pass Detect M Preset Detectors 12 **Clear Trac** Start 1.000 GHz Res BW 1.0 MHz Stop 13.000 GHz Sweep 20.66 ms (10000 pts #VBW 3.0 MHz\* **Clear All Trace** 60.642 dBu 41.196 dBu 69.411 dBu 110000 GHz Pres All Traces Mo 2 et 3

A.1.A.7V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, 5560 MHz

A.1.A.8H Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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	1			ege SA	Agricent Spectrum Analyzer - Swept
Trace/Defector:	1227-1146 AUG, 200	#Avg Type: RMS AvgPteld: 125/128	Trig Free Run	000000 GHz	Marker 2 11.12000000
Select Trace,	The second s		#Atten: 10 dB	BGaistow	PASS
	r3 5,561 7 GHz 75,451 dBµV	DOM:		dBuV	Ref 106.99 d
Detector Average P Auto Man					Trace 1 Pass
Preset Detectors	¢2				670
Clear Trace					
Clear All Traces	Stop 13.000 GHz 66 ms (10000 pts)		N 3.0 MHz*	#VB	Start 1.000 GHz Res BW 1.0 MHz
Prese All Traces	Identified a	104 FUNCTION VIETH	74.796 dBuV 40.764 dBuV 76.451 dBuV	6.560 0 GHz 11,120 0 GHz 6.661 7 GHz	HERE HEESE THE VEL
More 2 of 3					7 9 9 10 11
		314046			au .

#### Non-HE20, 5560MHz

Marker 2 11.120000000000 GHz TracelDetector #Avg Type: RMS AvgPlaid: 125/125 Trig Free Run Select Trace 72.663 dBu Ref 106.99 dBpV race 1 Pass Detec Prese Detectors . ž Clear Trac Start 1.000 GHz Res BW 1.0 MHz Stop 13.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz\* **Clear All Trace** 11,1200 72.307 41.605 72.663 Pres All Traces Mo 2 of

A.1.A.8V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, *5700 MHz*

A.1.A.9H Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

and the second se	-			ege SA	Agricent Speechases Assolutor - Sweep
Trace/Detector:	HE 29 41 HE MICH 2020	#Avg Type: RMS AvgPlaid: 125/125	Trig Free Run	000000 GHz	Marker 2 11.4000000
Select Trace,	the second s		#Atten: 10 dB	HGaintow	PASS
1	3 5,700 9 GHz 76.536 dBµV	Mk		dBµV	IQ dBldw Ref 106.99
Detecto Average Auto Mar			3		Trace 1 Pass
Preset	¢ <sup>2</sup>		Ĭ		673 673 673
Clear Trace					
Clear All Traces	Stop 13.000 GHz 56 ms (10000 pts)		W 3.0 MHz*	#VB	Start 1.000 GHz #Res BW 1.0 MHz
Prese All Traces	IOCIENTIQUE -	TRAN - FUNCTION WITH	73.420 dBuV 41.281 dBuV 76.536 dBuV	6.700 0 GHz 11.400 0 GHz 6.700 9 GHz	HIT HEAT THE VEL 1 N 1 7 2 N 1 7 3 N 1 7 4 5 6
Mor 2 of 3	_				7 8 9 10 11
		31454			100

#### Non-HE20, 5700MHz

Marker 2 11.4000000 ASS	AL CORRECT DUIDODO GHZ PHO: Fast B Galact.ow	Trig: Free Run SAtten: 10 dtl	BArg Type: P ArgPlate 12	CANE FILE	Select Trace
o dBidiv Ref 106.99	dBµV			Mkr3 5,700 76,707	9 GHz
Trace 1 Pass		<sup>5</sup> 5			Auto Mar
(73)				¢²	Preset
					Clear Trace
Res BW 1.0 MHz	1	SW 3.0 MHz*		Stop 13.0 ep 20.66 ms (100	00 pts) Clear All Traces
	5.700 0 GHz 11.400 0 GHz 5.700 9 GHz	73,909 dBuV 41,447 dBuV 76,707 dBuV			Prese All Traces
7					More 2 et 3

A.1.A.9V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, 5720 MHz

A.1.A.10H Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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	1			eperson .	with Spectrum Analyzer - See		
TraceDetector	1228-034 Mill 200	Marg Type: RMS AvgPlate: 125/125	Trig Free Run	000000 GHz	rker 2 11,4400000		
Select Trace	In the second		#Atten: 10 dB	HGaintow	SS 1		
	r3 5.726 1 GHz 77.812 dBµV	MK		dBpV	dBidly Ref 106.99		
Detecto					Trace 1 Pass		
Auto Mar			3				
Preset					1		
Detectors	(¢ <sup>2</sup>				1		
Clear Trace							
					1		
Clear All Traces	Stop 13.000 GHz 66 ms (10000 pts)	Sweep 20.	W 3.0 MHz*	#VB	tart 1.000 GHz Res BW 1.0 MHz #		
ENERGESSIO	FUNCTION INLIE	CIDA RACIDAVETH	76.957 clBuV	6.720 0 GHz	HUDE THE SEL		
Prese			41.533 dBuV 77.812 dBuV	11.440 0 GHz 5.725 1 GHz			
All Traces							
More							
2013	_						
		31404					

#### Non-HE20, 5720MHz

arker 2 11,44000000 ASS	DID CHIZ PRO Fast Trig: Free Run B Gaint.ow SAtter: 10 dB	AAvg Type: RMS AvgPlatz 125/125	1238-1419 (LIC) 200 9x0 100 100 1110 100 100 111 100 100	TraceDetector
dBldw Ref 106.99 dB	μ/v	Mk	r3 5,727 3 GHz 80.698 dBµV	, ,
Trace 1 Pass				Detector Average P Auto Mar
F2				Preset
<b>.</b>				Clear Trace
tart 1.000 GHz Res BW 1.0 MHz		Sweep 20 Inclus Function Vietne	Stop 13.000 GHz .66 ms (10000 pts)	Clear All Traces
	5.720 0 GHz 76.642 dBuV 11.460 0 GHz 41.491 dBuV 5.727 3 GHz 80.696 dBuV			Prese All Traces
				More 3 et 3
		31104		

A.1.A.10V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, *5745 MHz*

A.1.A.11H Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

cisco

TracefDetector	104:15:30 PH MOL 200 Post Print	#Avg Type: RMS AvgPield: 125/125	Trig Free Run	000000 GHz	ker 2 11.4900000
Select Trace	3 12.811 6 GHz 43.981 dBµV	Mkr	#Atten: 10 dB	#Gaintow	S Ref 106.99
Detecto Average Auto <u>Ma</u>					Trace 1 Pass
Preset Detectors	02 ₿		51		
Clear Trac					
Clear All Trace	Stop 13.000 GHz .66 ms (10000 pts)	Sweep 20	V 3.0 MHz*	≢vB	1.000 GHz BW 1.0 MHz
Prese All Trace			38,210 dBuV 41,126 dBuV 43,991 dBuV	6,745.0 GHz 11,490.0 GHz 12,811.6 GHz	N 1 F
Mor 2 of					
N 10	1	30004			

#### Non-HE20, 5745MHz

A.1.A.11V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

Atten to d			5,746 5 GHz 76.084 dBµV	Select Trace
a.			ý²	Auto Mar Preset
				and a second
				Clear Trace
#VBW 3.0 MHz*		Sweep 20.66	top 13.000 GHz 5 ms (10000 pts)	Clear All Trace
2 GHz 42 022 dBu/	N I			Prese All Traces
				More 2 of 3
	73 322 dBu	T Function #	#VBW 3.0 MHz* Sweep 20.66	7 Function Automation (1997) 9 GHz 73 322 GBV/V 6 GHz 72 022 GBV/V 6 GHz 76 084 dBV/V 1 GHz 76 084 dBV/V

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#### Non-HE20, 5785 MHz

A.1.A.12H Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

cisco

	1			mg# 5A	Agricuit Spectrum Analyzer - See		
TracelDelector	DATE OF THE MICH 200	#Avg Type: RMS AvgPlaid: 125/125	Trig Free Run	000000 GHz	Marker 2 11.570000		
Select Trace	3 12.901 6 GHz	Mkr	SAtten: 10 dB	# Gaintow	ASS		
	44.045 dBµV			9 dBµV	In dBldiv Ref 106.99		
Detecto Average V Auto Mar					Trace 1 Pass		
Preset	Q <sup>2</sup> 1		51		6712 0		
Clear Trace							
Clear All Traces	Stop 13.000 GHz 66 ms (10000 pts)		N 3.0 MHz*	tart 1.000 GHz Res BW 1.0 MHz #VB			
Prese	FORCTEN INLIE	CIDS - ALACIDA VETH	38.094 dBu/V 41 647 dBu/V 44 045 dBu/V	6.786.0 GHz 11.670.0 GHz 12.901.6 GHz	1 N N N N		
All Traces							
Mare 2 et 3					8 9 10 11		
		314546			*80)		

#### Non-HE20, 5785MHz

TraceDetector Marker 2 11.570000000000 GHz Marg Type: RMS Avg/Hold: 125/125 Select Trace 73,489 dBp Ref 106.99 dBpV race 1 Pass Detec 1 Preset Detectors - <sup>1</sup> Clear Trace Start 1.000 GHz Res BW 1.0 MHz Stop 13.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz\* **Clear All Trace** 5.7850 42,279 Pres AllTrace Mo 2 at 3

A.1.A.12V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

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#### Non-HE20, 5825 MHz

A.1.A.13H Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

cisco

Agriced Spectrum Analyzer - See	Se Sa	SPACE AND		Tatility 25 AM SAUL 2020	11	
Marker 2 11.6500000		Second States	#Avg Type: RMS AvgRield: 125/125	The Part of the Part	Trace/Detector	
PASS	BGaintow	#Atten: 10 dB		the second s	Select Trace	
IQ dBldv Ref 106.99	dBµV		MK	r3 5,831 7 GHz 76.537 dBµV		
Trace 1 Pass		3			Detecto Average Auto <u>Mar</u>	
413				0 <sup>2</sup>	Preset Detectors	
172 <b>b</b>					Clear Trac	
Start 1.000 GHz #Res BW 1.0 MHz	≠VB	W 3.0 MHz*		Stop 13.000 GHz 66 ms (10000 pts)	Clear All Trace	
HIT HER THE VEL	5.825 0 GHz 11.650 0 GHz 5.831 7 GHz	65.055 dBuV 41.919 dBuV 76.537 dBuV	INCTURE - PUNCTURE VIETH	FURCTION INC.	Prese All Traces	
7 8 9 10 11				_	Mar 3 ef	
45.0			31404			

Non-HE20, 5825MHz

A.1.A.13V Radiated Transmitter Spurs 6 to 54 Mbps , Average (1-10GHz)

larker 2 11.65000000 ASS	1000 GHz PND Fest - Il Gaint ow	Trig: Free Run #Atten: 10 dB	Alvg Type: RMS AvgPield: 125/125	10-KUTAN AND 2000 MACH 11-C 40 First A Frank P 1	TraceDelector Select Trace
e dBlow Ref 106.99 dB	φV		M	kr3 5.826 9 GHz 77.871 dBµV	1
Trace 1 Pass		ą			Detecto Average Auto <u>Mar</u>
(* 1) (* 1) (* 1)				0 <sup>2</sup>	Preset
112 <b></b>					Clear Trace
Res BW 1.0 MHz	II. HORIZANIA	W 3.0 MHz	Sweep 2 Function - Auction viets	Stop 13.000 GHz 0.66 ms (10000 pts) • roettis mut	Clear All Trace
	6.826 0 GHz 11.860 0 GHz 6.826 9 GHz	73.092 dBuV 42.276 dBuV 77.871 dBuV			Prese All Traces
					More 3 et 3

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cisco

#### Non-HE20, 5180MHz

A.1.A.14H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)



#### Non-HE20, 5180MHz

A.1.A.14V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz) TransDetector enter Freq 14.000000000 GHz #Avg Type: RMS Avg(Hold: 125/125 Trig Free Run Select Trace 15.541 4 GH 52.779 dBµV Ref 80.00 dBµV Trace 1 Pass Clear Writ Trace Averag Max Hol Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz\* Min Hol 15.541 4 GHz 15.541 4 GHz 15.541 4 GHz View Blank Trace Or More 1 of 3

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#### Non-HE20, 5200MHz

A.1.A.15H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

gilerit Spectrum Analyzer - 1805-03	Kannas (M Lasinov	Selferre		1			
enter Freq 14.000000	000 GHz	Trig Free Run	Marg Type: RMS AvgPlate: 125/125	100 27 10 AM AND 2020 Pact II am a second	TracelDetector		
ASS	#Gain:High	SAtten: 0 dB		and the second data with the s	Select Trace		
o dBidy Ref 80.00 dB;	v		Mkr	3 18.823 9 GHz 41.333 dBµV	,		
Trace 1 Pass					Clear Writ		
========					Clear Writ		
				3	-		
					Trace Averag		
#1					-		
					MaxHol		
nn							
tart 10.000 GHz							
Res BW 1.0 MHz	#VBV		settes function with	tuction must	Min Hol		
	16.823 9 GHz		an road that the second	TOR, THE INCLU	-		
IN BUT	16.823 9 GHz 16.823 9 GHz 16.823 9 GHz	41.333 dBuV 41.333 dBuV 41.333 dBuV			View Blank		
					Trace On		
9					Mor 1 of		
				-			
a			31404				

Non-HE20, 5200MHz

A.1.A.15V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)



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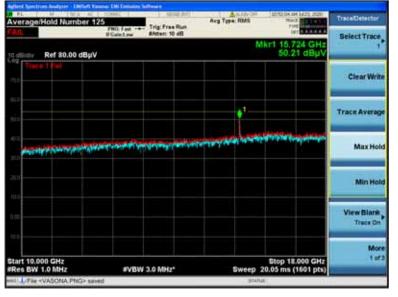
#### Non-HE20, 5240MHz

A.1.A.16H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)



#### Non-HE20, 5240MHz

A.1.A.16V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)



For	Formal Data												
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol			Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	15723.594	41.1	15.4	-10.7	45.7	Average	V	182	281	54.0	-8.3	Pass	

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#### Non-HE20, 5260MHz

A.1.A.17H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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#### Non-HE20, 5260MHz



A.1.A.17V Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)

For	Formal Data												
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm		Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	15781.719	42.5	15.4	-10.5	47.4	Average	V	182	281	54.0	-6.6	Pass	

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#### Non-HE20, 5300MHz

A.1.A.18H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)



#### Non-HE20, 5300MHz



A.1.A.18V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

For	mal Data												
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm		Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	15781.719	42.5	15.4	-10.5	47.4	Average	V	182	281	54.0	-6.6	Pass	

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#### Non-HE20, 5320MHz

A.1.A.19H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)



#### Non-HE20, 5320MHz

A.1.A.19V Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)



For	mal Data												
No	Frequency MHz		Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm		Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	15960.000	38.6	15.6	-10.5	43.7	Average	v	182	281	54.0	-10.3	Pass	

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#### Non-HE20, 5500MHz

#### A.1.A.20H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

cisco



#### Non-HE20, 5500MHz



A.1.A.20V Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)

For	mal Data												
No	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm		Limit dBuV/m	Margin dB	Pass /Fail	Comments
1	16500.000	35.5	15.8	-9.7	41.6	Average	V	182	281	54.0	-12.4	Pass	

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#### Non-HE20, 5560MHz

A.1.A.21H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)

general Spectrum Analyzer - Ellipsi	Channess (Millimitin	e della este		1	
Center Freq 14.00000	PNO Feel ~	Trig Free Run	Avg Type: RMS AvgHold: 125/125	DATE OF MART 200	TracelDetector
ASS Ref 80.00 dB	#Gain:High	SAtten: 0 dB	Mkr	3 16.685 5 GHz 47.034 dBuV	Select Trace
Trace 1 Pass					Clear Writ
					Trace Averag
					Max Hol
tart 10.000 GHz Res BW 1.0 MHz	#VB	W 3.0 MHz*	Sweep 20	Stop 18.000 GHz .66 ms (10000 pts)	Min Hol
	16.606 6 GHz 16.605 6 GHz 16.606 6 GHz	47.034 dBuV 47.034 dBuV 47.034 dBuV		TOR. THE REAL	View Blank Trace On
					Mor 1 of
NR.			ann	1 A.	

#### Non-HE20, 5560MHz

Frequency Marg Type: RMS Avg/Held: 125/125 Center Freq 14.00000 00 GHz Atten: 0 dll FNO: Fas ASS Auto Tun Mkr3 16.677 5 GH: 47.324 dBµ\ Ref 80.00 dBµV Center Fred 14.00000000 GH P StartFre 10 00000000 GP Stop Fre 18.0 000000 C Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) CF St #VBW 3.0 MHz\* 10.00 47 32 FreqOffse

A.1.A.21V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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#### Non-HE20, 5700MHz

TracelDetector Marg Type: RMS Avgitteld: 125/125 Center Freq 14.000000000 GHz Trig: Free Run #Atten: 0 dB Select Trace Mkr3 17,094 3 0 47,509 dl Ref 80.00 dBµV frace 1 Pass Clear Writ Trace Averag Max Hol Start 10.000 GHz #Res BW 1.0 MHz Stop 18,000 GH #VBW 3.0 MHz\* Sweep 20.66 ms (100 Min Hol 0 pts 17.094 3 GHz 47 509 cl View Blank Trace Or 1 of

A.1.A.22H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)

Non-HE20, 5700MHz

Frequency 00 GHz PNO: Fas IFGale:15 #Avg Type: RMS AvgHald: 125/125 Center Freq 14.000000 Free Run SAtten: 0 dB ASS Auto Tun Mkr3 17.095 1 GH: 46.692 dBµ\ Ref 80.00 dBµV Center Fred 14.000000000 GH ľ StartFre 10 00000000 GP Stop Fre 18.0 000000 G Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) CF St #VBW 3.0 MHz\* 10.00 Freq Offse

A.1.A.22V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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#### Non-HE20, 5720MHz

A.1.A.23H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)

gh 6Atten: 0 48	Mk	r3 17. 162 3 GHz 44.691 dBµV	Clear Write
		<sup>1</sup>	Trace Average
			-
			Max Hol
VBW 3.0 MHz*			Min Hok
2 44.691 dBuV 44.691 dBuV 44.691 dBuV			View Blank Trace On
			Mor 1 of
	In the second second second	T FileClon Automation 44.691 cBuV 44.691 cBuV 44.691 cBuV	T FIRETON FUNCTION WETH FUNCTION INLIE

Non-HE20, 5720MHz

Frequency Marg Type: RMS Avg/Held: 125/125 Center Freq 14.00000 00 GHz Atten: 0 dll PNO: Fas ASS Auto Tun Mkr3 17, 162 3 GH: 44, 768 dBµ\ Ref 80.00 dBµV Center Fred 14.00000000 GH StartFre 10 00000000 GP Stop Fre 18.0 000000 C Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) CF St #VBW 3.0 MHz\* 10.00 44 76 FreqOffse

A.1.A.23V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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#### Non-HE20, 5745MHz

A.1.A.24H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

Inter Freq 14.00000	FNO: Fast	Trig Free Run SAtten: 0 dll	#Avg Type: RMS AvgHold: 125/125	0437-22346 AUG7, 2220 19435 AUG7, 2220 19455 AUG7, 2220 1947 AUG7, 2220	TracefDelector
dBidly Ref 80.00 dB			Mkr	3 18.813 5 GHz 41.415 dBµV	Select Trace
Trace 1 Pass					Clear Write
				¢ <sup>3</sup>	_
					Trace Average
					MaxHold
art 10,000 GHz tes BW 1.0 MHz	#VBV	V 3.0 MHz*	Sweep 20	Stop 18.000 GHz 66 ms (10000 pts)	Min Hok
	16.8136 GHz 16.8136 GHz 16.8136 GHz	41,415 dBuV 41,415 dBuV 41,415 dBuV			View Blank Trace On
					More 1 et
			31404		

Non-HE20, 5745MHz

TraceDetector Center Freq 14.000000000 GHz Marg Type: RMS Avg/Hold: 125/125 Trig Free Run Select Trace Mkr3 17.231 9 GH: 46.690 dBµ\ Ref 80.00 dBµV frace 1 Pass Clear Write Trace Averag Max Hol Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz\* Min Hol 17 22118 17 2311 View Blank Trace Or More 1 of 3

A.1.A.24V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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#### Non-HE20, 5785MHz

A.1.A.25H Radiated Transmitter Spurs, 6 to 54 Mbps , Average (10-18GHz)

Trace/Delector	THE REPORT OF	#Arg Type: RMS ArgHold: 125/125	Trig Free Run	PHO: Fast	4.00000	r Freq
	3 17,355 1 GHz 41.627 dBµV	Mkr		Tomorp	80.00 dB	dv Re
Clear Write					55	Trace 14
-	<b>€</b> <sup>3</sup>					
Trace Average						
MaxHok						
	Stop 18.000 GHz				4z	10.000 0
Min Hok	66 ms (10000 pts)	Sweep 20		HOM HANNING	Hz	EW 1.0
View Blank Trace On			41 627 dBuV 41 627 dBuV 41 627 dBuV	365 1 GHz 365 1 GHz 366 1 GHz		
Mor 1 of						
-		3104				

Non-HE20, 5785MHz

TraceDetector Center Freq 14.000000000 GHz Marg Type: RMS Avg/Hold: 125/125 Trig Free Run Select Trace Mkr3 17,351 1 GH: 41,433 dBµ\ Ref 80.00 dBµV frace 1 Pass Clear Write •3 Trace Averag Max Hol Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz\* Min Ho 17.3611 41 433 dBu/ View Blank Trace Or More 1 of 3

A.1.A.25V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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#### Non-HE20, 5825MHz

A.1.A.26H Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

nter Freq 14.00000000	Photo Frank America	rig: Free Run Atten: 0 dB	Avg Type: RMS AvgHeid: 125/125	Title Statement	Tracelifeteter
dBidiv Ref 80.00 dBµV			Mkr	3 17,461 5 GHz 41.636 dBµV	1
Trace 1 Pass					Clear Write
				9 <sup>3</sup>	Trace Average
					Max Hold
art 10.000 GHz les BW 1.0 MHz	#VBW 3.0		Sweep 20	Stop 18.000 GHz 66 ms (10000 pts)	Min Hok
	461 6 GHz 41 461 6 GHz 41 461 6 GHz 41	636 dBuV 636 dBuV 636 dBuV			View Blank Trace On
					More 1 of 3

#### Non-HE20, 5825MHz

Trace/Detector Center Freq 14.000000000 GHz #Avg Type: RMS Avg(Held: 125/125 Trig Free Run Select Trace Mkr3 17.477 5 GH 51.415 dBµ Ref 80.00 dBµV race 1 Pass Clear Writ Trace Averag Max Hol Res BW 1.0 MH Stop 18.000 GH2 20.66 ms (10000 pts #VBW 3.0 MHz\* Sweep Min Hol 7.477 51/4151 View Blank Trace Or 1 et 3

A.1.A.26V Radiated Transmitter Spurs, 6 to 54 Mbps, Average (10-18GHz)

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## A.1.P Transmitter Radiated Spurious Emissions-Peak (1GHz – 10GHz)

uluiu cisco

There are no harmonic emissions to measure below 10GHz.

#### Non-HE20, 5180MHz

P.1.P.1H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)



Non-HE20, 5180MHz P.1.P.1V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz)



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#### Non-HE20, 5200MHz

arker 2 10.4000000 ASS	DOODO GHz Phốt Fast E Gaint ne	Trig Free Run EAtten: 10 dB	#Arg Type: RMS ArgHeld: 125/125	NO. 18 19 19 19 19 19 19 19 19 19 19 19 19 19	TraceDetector Select Trace
dBidly Ref 106.99	tBµV		Mk	r3 5.207 6 GHz 85 104 dBµV	attect mate,
Trace 1 Pass	*				Detector Peak* Auto Mati
					Preset, Detectors
					Clear Trace
tart 1.000 GHz Res BW 1.0 MHz	≢VB	W 3.0 MHz	Sweep 20	Stop 13.000 GHz 66 ms (10000 pts)	Clear All Traces
	5.200.0 GHz 10.400.0 GHz 5.207.6 GHz	92 764 dBuV 49.827 dBuV 95.104 dBuV			Preset All Traces
7					More 2 of 3
	_				11

P.1.P.2H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5200MHz

TracelDetector	Hard Read and August and Aug	Marg Type: RMS AvgPlaid: 125/125	Trig: Free Run	PND Feel *	larker 2 10.400000
Select Trace	3 5,202 8 GHz 85,498 dBµV	Mkr	#Atten: 10 dB	#Gaistow 18pV	dBidw Ref 106.99
Detector Peak? Auto Mar				j	Trace 1 Pass
Preset, Detectors		0 <sup>2</sup>			
Clear Trace					
Clear Trace	Stop 13.000 GHz 56 ms (10000 pts)	Sweep 20.6	V 3.0 MHz	#VB	
				\$200 0 GH2 10.400 0 GH2 6.202 8 GHz	Aart 1.000 GHz Res BW 1.0 MHz Heres BW 1

P.1.P.2V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz)

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#### Non-HE20, 5240MHz

arker 2 10.4800000	1000000 GHz PND Feel EGaint ow	Trig Free Run #Atten: 10 dB	Marg Type: RMS AvgPlaid: 125/125	THE IS AT ME AND, 200	Trace/Detector
dBldw Ref 106.99	dByV		M	r3 5,242 4 GHz 86,555 dBµV	selectifiace
Trace 1 Pass	<b>s</b> i				Detector Peak* Auto Mati
				2	Preset, Detectors
1 3 <b></b>					Clear Trace
tart 1.000 GHz Res BW 1.0 MHz In Note: THC 101	The second second		Sweep 20 actos Ascrosvere	Stop 13.000 GHz .66 ms (10000 pts) Forche mut	Clear All Traces
	5.240.0 GHz 10.480.0 GHz 5.242.4 GHz	90.996 dBu/V 49.610 dBu/V 96.556 dBu/V			Preset All Traces
					More 2 of 3
			30494	-	

P.1.P.3H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5240MHz

Trace/Detector Select Trace	THE PERSON	#Avg Type: RMS Avg(Hold: 125/125	Trig Free Run SAtten: 10 dB	000000 GHz PND Fast - EGaint aw	arker 2 10.480000
aelect frace,	3 5,242 4 GHz 86,131 dBµV	MKr		dBµV	dBidiv Ref 106.99
Defecto Peaki Auto Mar				*	Trace 1 Pass
Preset Detectors		a <sup>2</sup>			
Clear Trac					
Clear Trac	5top 13.000 GHz 6 ms (10000 pts)	Sweep 20.6	W 3.0 MHz	#VB	tart 1.000 GHz Res BW 1.0 MHz
				#VB 52400 GHz 10.460 0 GHz 5242 4 GHz	

P.1.P.3V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5260MHz

terit Spectrum Analyzer - See	Sec.	Server and	ALENATO	102-21-20-HH AJOL 2020	
arker 2 10.520000 ASS	Phili Fast		#Avg Type: RMS Avg(Hold: 125/125	Port Designed	Trace/Delector
dBlow Ref 106.99		and the set	Mk	r3 5,262 8 GHz 85.886 dBµV	Select Trace
Trace 1 Pass	,				Detector Peak* Auto Man
				2	Preset, Detectors
					Clear Trace
Res BW 1.0 MHz	100000000000000000000000000000000000000		Sweep 20 actos hactosvere	Stop 13.000 GHz .66 ms (10000 pts)	Clear All Traces
	5.260 0 GHz 10.520 0 GHz 5.262 8 GHz	93,565 dBu/V 49,037 dBu/V 95,896 dBu/V			Prese All Traces
					More 2 of 3

P.1.P.4H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5260MHz

Trace/Detector	HO-44 HO-FR AACL 200	g Type: RMS Plaid: 125/125	g: Free Run	000 GHz	arker 2 10.520000
Select Trace	3 5,262 8 GHz 85.621 dBµV	Mkra	tten: 10 dB	#Gaistow	ASS Ref 106.99
Detecto Peaki Auto Mar				3  }	Trace 1 Pass
Preset		0 <sup>2</sup>			#10
A DESCRIPTION OF THE OWNER OF THE		No. of Street, Square, S	COLUMN STREET	the set in section of the	1 and the second second
Clear Trace					
Clear Trace	Stop 13.000 GHz 66 ms (10000 pts)	Sweep 20.6		≢VBV	Res BW 1.0 MHz
			MHz 7 70 22 6847 45 6897 21 6847	#VBV 5.260 0 GHz 10.550 0 GHz 5.262 8 GHz	tart 1.000 GHz Res BW 1.0 MHz PN NGB 102 VOL N 3 F

P.1.P.4V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5300MHz

larker 2 10.600000 ASS	000000 GHz PND Fest - B Gaint ow	Trig Free Run SAtten: 10 dB	#Avg Type: RMS AvgPield: 125/125	122310746 M01, 200 1990 82 100 1997 97 20 200	TraceDetector
dBidiv Ref 106.99	dBpV		M	r3 5,298 8 GHz 81.062 dBµV	
Trace 1 Pass					Detector Peak* Auto Man
				2	Preset, Detectors
73					Clear Trace
tart 1.000 GHz Res BW 1.0 MHz In Note THE VCL	TRANSPORT OF STREET		Sweep 20 Inclus Ancionverte	Stop 13.000 GHz .66 ms (10000 pts) roctinement	Clear All Traces
	5.300 0 GHz 10.600 0 GHz 5.298 8 GHz	79.756 dBuV 50.053 dBuV 81.052 dBuV			Preset
					All Traces
					Mare 2 of 3

P.1.P.5H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

cisco

#### Non-HE20, 5300MHz

TracelDetector	12-32-21 HH AAOL, 2020 HING BEACH	g Type: RMS Held: 125/125	Irig: Free Run	PND: Fast ~	arker 2 10.600000
Select Trace	3 5,297 6 GHz 80.814 dBµV	Mkrs	Atten: 10 dB	dBpV	o dB/dW Ref 106.95
Defecto Peaki Auto Mar					Trace 1 Pass
Preset Detectors					
Clear Trac					13
Clear Trace	Stop 13.000 GHz 6 ms (10000 pts)	Sweep 20.6	0 MHz	#VB	tart 1.000 GHz Res BW 1.0 MHz
			0 MHz 7 333 GBUV 423 GBUV 814 GBUV	#VB 5.300 0 GHz 10.600 0 GHz 5.297 6 GHz	

P.1.P.5V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz)

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#### Non-HE20, 5320MHz

arker 2 10.6400000 ASS	000000 GHz PND: Fest - If Gainchaw	Trig: Free Run SAtten: 10 dB	#Arg Type: RMS ArgPlatz 125/125	NACE AND ADDRESS OF THE OWNER	TraceDetector.
dBidiv Ref 106.99	dBµV		M	r3 5,321 6 GHz 79.883 dBµV	,
Trace 1 Pass	¢				Detector Peak* Auto Man
				0 <sup>2</sup>	Preset, Detectors
					Clear Trace
art 1.000 GHz Res BW 1.0 MHz MILLE THE VEL	The second state	W 3.0 MHz 78.607 dBuV	Sweep 20 actor hactorvete	Stop 13.000 GHz ).66 ms (10000 pts)	Clear All Traces
	6.320 0 GHz 10.540 0 GHz 6.321 6 GHz	48.417 dBuV 79.863 dBuV			Preset All Traces
					More 2 of 3
			21404	6.	

P.1.P.6H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

cisco

#### Non-HE20, 5320MHz

TraceDetector	Red ALMANCE 200	Type: RMS Held: 125/125		Trig Free Rut	PNO: Fast -	ker 2 10.640000
Select Trace	3 5,321 6 GHz 79.808 dBµV			#Atten: 10 dB	#Gaistow	Blain Ref 106.99
Detector Peak? Auto Mar						Trace 1 Pass
Preset Detectors	2					
Clear Trace						
Clear Trace	Stop 13.000 GHz 6 ms (10000 pts)	Sweep 20.66	-	3.0 MHz	#VB	t 1.000 GHz s BW 1.0 MHz
			Function	77.831 dBuV 49.422 dBuV 79.808 dBuV	#VB 5.729 0 GHz 10.540 0 GHz 5.721 6 GHz	

P.1.P.6V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz)

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#### Non-HE20, 5500MHz

larker 2 11.000000 ASS	000000 GHz PRO Feel	Trig Free Run EAtten: 10 dll	Avg Type RMS AvgPlate 125/125	122045419K AUG, 2020 Pixed Differences International Control of Co	TracelDelector
Bellev Ref 106.95		Southern, Yor and	M	13 5,507 7 GHz 81.871 dBµV	Select Trace
Trace 1 Pass		3			Detector Peak P Auto Man
		NUMBER OF STREET		\$ <sup>2</sup>	Preset
					Clear Trace
tart 1.000 GHz Res BW 1.0 MHz	≢VB	W 3.0 MHz	Sweep 20	Stop 13.000 GHz ).66 ms (10000 pts)	Clear All Traces
	5.500 0 GHz 11.000 0 GHz 5.507 7 GHz	79.295 dBu/V 50.095 dBu/V 81.871 dBu/V			Preset All Traces
6					21
					More 2 et 3

P.1.P.7H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5500MHz

Trace/Detector Select Trace	THE PERSON	#Arg Type: RMS Arg/Held: 125/125	Trig Free Run SAtten: 10 dB	PNO Fast - Il Gaint aw	arker 2 11.000000
aelect frace,	3 5,501 7 GHz 76,714 dBµV	Mkr		dByV	dBldw Ref 106.9
Detecto Peak Auto Ma			3		Trace 1 Pass
Preset Detectors	Ø <sup>2</sup>				
					- Aller
Clear Trac					12
Clear Trace	Stop 13.000 GHz 56 ms (10000 pts)	Sweep 20.0	W 3.0 MHz	#VB	art 1.000 GHz Res BW 1.0 MHz
	Stop 13.000 GHz St ms (10000 pts) Flactin must	Sweep 20.6		#VB 5.500 0 GHz 11.000 0 GHz 5.501 7 GHz	

P.1.P.7V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5560MHz

arker 2 11.1200000	100000 GHz PND Feel E Gaint ow	Trig Free Run EAtten: 10 dfl	#Avg Type: RMS AvgPlaid: 125/125	1226,5344,140, 200 9543 RF 112 149	TracefDelector
dBlaw Ref 106.99		anality, or all	MA	r3 5,561 7 GHz 82,932 dBµV	Select Trace,
Trace 1 Pass					Detector Peak? Auto Mar
					Preset Detectors
					Clear Trace
art 1.000 GHz Res BW 1.0 MHz B Hote, TRC tot.	THORNER AND		Sweep 20 actos hactosverse	Stop 13.000 GHz .66 ms (10000 pts)	Clear All Traces
	6.560 0 GHz 11.120 0 GHz 6.561 7 GHz	80.695 dBu/V 49.431 dBu/V 82.932 dBu/V			Preset All Traces
7					More 3 of 3

P.1.P.8H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

cisco

#### Non-HE20, 5560MHz

TraceDetector	12:20:50 PM AUG, 2020 Marci Resolution from the second second	Harg Type: RMS largHold: 126/126	Trig Free Run	PNO: Fast =	rker 2 11.120000
Select Trace	3 5,564 1 GHz 81.094 dBµV	MK	SAtten: 10 dB	#Gaistow	dBłdw Ref 106.95
Detector Peak? Auto Mar			a		Trace 1 Pass
Preset	\$ <sup>2</sup>				
Clear Trace					
					art 1.000 GHz
Clear All Traces	Stop 13.000 GHz 56 ms (10000 pts)		W 3.0 MHz	#VB	tes BW 1.0 MHz
			W 3.0 MHz 79.353 cBuV 51.273 cBuV 81.054 cBuV	#VB 5.560 0 GHz 11,120 0 GHz 5.564 1 GHz	

P.1.P.8V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz)

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#### Non-HE20, 5700MHz

pland Spectrum Analyzer - Swep	esca:	Sector Sector	21 T 20 10 10 10	102-28-571W MULL 2020	
arker 2 11.4000000		Trig Free Run	#Avg Type: RMS AvgPlaid: 125/125	PLACE DESCRIPTION	TracelDelector
ASS	# Gaint ow	#Atten: 10 dB			Select Trace
dilidie Ref 106.99	dBµV		MR	r3 5.702 1 GHz 84.898 dBµV	1
Trace 1 Pass					Detector
		§3			Auto Man
75		f			
#10 m					Preset
U 1.			No. of Concession, Name of Street, or other	0 <sup>2</sup>	Detectors
All and a second s					
					Clear Trace
(1) · · · · · · · · · · · · · · · · · · ·					
tart 1.000 GHz				Stop 13,000 GHz	
Res BW 1.0 MHz	#VB	W 3.0 MHz	Sweep 20	66 ms (10000 pts)	<b>Clear All Traces</b>
THE MODE THE SEL		50.051 dB/V	INCIDE FUNCTION WITH	FUNCTION INLUE	Contraction of the
	5.700 0 GHz 11.400 0 GHz 5.702 1 GHz	50.244 dBy// 84.898 dBy//			Preset
	0.702 1 0442	04.039 GDUV			All Traces
6					
0					More
					2 of 3
				1.8	
			31404		

P.1.P.9H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

cisco

#### Non-HE20, 5700MHz

TracelDelector	THE REPORT	g Type: RMS Phote: 125/125	Trig Free R	PN0: Fest - Il Gaint ow	rker 2 11.400000
Select Trace	3 5,702 1 GHz 84 494 dBµV	MKr			dBidiv Ref 106.99
Detecto Peak Auto Ma			<b>?</b>		Trace 1 Pass
Preset Detectors					
Clear Trac					
Clear Trac	Stop 13.000 GHz 56 ms (10000 pts)		W 3.0 MHz	#VB	art 1.000 GHz es BW 1.0 MHz
			W 3.0 MHz 80.829 dBu% 49.854 dBu% 84.494 dBu%	#VB 6.700 0 GHz 11.400 0 GHz 5.702 1 GHz	

P.1.P.9V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5720MHz

ASS	000000 GHz PND Fast	Trig Free Run	#Avg Type: RMS AvgPlaid: 125/125	12275794 AND 250	TracelDetector
ABION Ref 106.99	#Gaistow	#Atten: 10 dB	Mk	3 5,726 1 GHz 86,101 dBµV	Select Trace
Trace 1 Pass	ophy	3			Detector Peak* Auto Marc
				0 <sup>2</sup>	Preset Detectors
					Clear Trace
art 1.000 GHz tes BW 1.0 MHz	1		Sweep 20. Inclus function with	Stop 13.000 GHz 56 ms (10000 pts) Function must	Clear All Traces
A REAL PROPERTY AND A REAL	5.720 0 GHz 11.440 0 GHz 5.725 1 GHz	84.385 dBu/V 50.150 dBu/V 86.101 dBu/V			Prese
	6.726 1 GHz				All Traces

P.1.P.10H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5720MHz

TracelDelector MANS Type: RMS Avgitteld, 125/12 2 11,4400000 Trig Free Select Trace Mkr3 5,727 3 89,153 c Ref 106.99 dBpV 233 Detec Prese  $\lambda^2$ Detectors Clear Trac op 13.000 GH #VBW 3.0 MHz Sweep 20.66 ms (10) **Clear All Trace** D DCS Pres All Trace 2 ef

P.1.P.10V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz)

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#### Non-HE20, 5745MHz

larker 2 11.490000	000000 GHz	Trig Free Run	#Avg Type AvgHald 1	RMS 25/125	10-0-36-AM ANUL 2026 Rect There	TracelDelector
A55 Ref 106.99	#Gaintow	BAtten: 10 dB		MKr	3 5.752 5 GHz 86.126 dBµV	Select Trace
Trace 1 Pass		ł				Detector PeakP Auto Man
			-		0 <sup>2</sup>	Preset
						Clear Trace
art 1.000 GHz Res BW 1.0 MHz	100000000000000000000000000000000000000				Stop 13.000 GHz 56 ms (10000 pts)	Clear All Traces
	6.745 0 GHz 11.490 0 GHz 6.752 6 GHz	90.724 dBu/V 50.344 dBu/V 96.126 dBu/V				Preset All Traces
						Mare 2 of 3
d'				31104		

P.1.P.11H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

սիսիս **CISCO** 

Non-HE20, 5745MHz P.1.P.11V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (1-10GHz) TracelDelector MANS Type: RMS Avgitteld, 125/12 2 11.4900000 Trig Free Select Trace Mkr3 5,748 9 Ref 106.99 dBpV 233 Detec Prese Detectors Clear Trac op 13.000 GH #VBW 3.0 MHz Sweep 20.66 ms (10) **Clear All Trace** D DCS Pres All Trace 2 ef

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#### Non-HE20, 5785MHz

arker 2 11.5700000 ASS	000000 GHz PND Fest B Gaint ow	Trig Free Run EAtten: 10 dB	#Avg Type: RMS AvgPlaid: 125/125	10-6604 AN ANUL 200	Effective Constant
dBidiy Ref 106.99	dBpV		Mki	3 5.787 3 GHz 87.902 dBµV	
Trace 1 Pass		3 1			Detector Peak? Auto Man
				6 <sup>2</sup>	Preset Detectors
					Clear Trace
art 1.000 GHz Res BW 1.0 MHz B HOSE TRC SCL	1000 CAN		Sweep 20.	Stop 13.000 GHz 56 ms (10000 pts) factorised	Clear All Traces
	5.785 0 GHz 11.570 0 GHz 5.787 3 GHz	77.996 dBu/V 50.190 dBu/V 87.902 dBu/V			Prese
					More 2 of 3

P.1.P.12H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5785MHz

	10 44 00 48 March 2000	ALIPHUTO	NER-BARS		and a second	um Analyzer - 3	Serie Spectrue
TraceDetector	THACK DESIGNATION	g Type: RMS phala: 125/125			000000 GHz	11.57000	
Select Trace,	In stands		0 461	SAtten; 1	HGaintow		ASS
	3 5,787 3 GHz 81.026 dBµV	Mkr			dBµV	Ref 106.	dBidly
Detecto						e 1 Pass	Trace
Auto Mar				3			
				¥.			72
Preset							/ D
and a second	.2						rt
Detectors	and the second second						
Detectors	0		-				مسعد
	and the second s						
Clear Trace	5 5 fop 13.000 GHz 6 ms (10000 pts)			W 3.0 MHz	#VB		Lart 1.000 Res BW 1
Clear Trace			22.00 Fit		ALCONOMIC		Res BW 1
Clear Trac	6 ms (10000 pts)	Sweep 20.0	- 	76.814 di 51.057 di	57850 GHH	1.0 MHz	Res BW 1
Clear Trace Clear All Trace Prese	6 ms (10000 pts)	Sweep 20.0	- 	76,814 <	ALCONOMIC	1.0 MHz	Res BW 1
Clear Trace Clear All Trace Prese	6 ms (10000 pts)	Sweep 20.0	- 	76.814 di 51.057 di	57850 GHH	1.0 MHz	Res BW 1
Clear Trac Clear All Trace Press All Trace	6 ms (10000 pts)	Sweep 20.0	- 	76.814 di 51.057 di	57850 GHH	1.0 MHz	Res BW 1
Clear Trac Clear All Trace Prese	6 ms (10000 pts)	Sweep 20.0	- 	76.814 di 51.057 di	57850 GHH	1.0 MHz	Res BW 1

P.1.P.12V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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#### Non-HE20, 5825MHz

arker 2 11.650000 ASS	000000 GHz Ph0 Fest #Gaistow	Trig: Free Run #Atten: 10 dtl	AvgHeld 125/128	HAND BEER	TraceDelector Select Trace
dBidiv Ref 106.99	dBµV		Mkr	3 5,832 9 GHz 84.048 dBµV	1
Trace 1 Pass		<b>3</b> 1			Detector Peak? Auto Man
				Ø <sup>2</sup>	Preset Detectors
					Clear Trace
art 1.000 GHz tes BW 1.0 MHz	#VE	W 3.0 MHz	Sweep 20.	Stop 13.000 GHz 56 ms (10000 pts)	Clear All Traces
			ONCION NUMBER	FOR THE MULT	
n Hote The Vel	5.825 0 GHz 11.650 0 GHz 5.832 9 GHz	76.849 dBuV 51.321 dBuV 84.048 dBuV			Prese All Traces

P.1.P.13H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

cisco

#### Non-HE20, 5825MHz

(r	101-451 (00 AM \$4403) 2020	auto and		Server of	ege SA	n Analyzer - Se	rid-Spectrum
Trace/Detector	THE REAL PROPERTY.	Type: RMS Held: 125/125	m	Trig Free Ru	000000 GHz	1.650000	
Select Trace,			1	#Atten: 10 dB	# Gaintow		\$5
a second	3 5,828 1 GHz 85,871 dBµV	Mkr			dBpV	Ref 106.99	dBidiv
Detecto Peak				<b>*</b>		1 Pass	Trace
Preset Detectors							
Clear Trac							
Clear All Trace	Stop 13.000 GHz i6 ms (10000 pts)	Sweep 20.6		W 3.0 MHz	#VB	.0 MHz	es BW 1
	FUNCTION UNLIE	ANCIDA VETH		79.233 dBuV \$1.610 dBuV	5.825 0 GHz 11.650 0 GHz 5.828 1 GHz	1	
Prese		++		95.871 dBµV	5.828 1 GHz	1	N
All Trace							

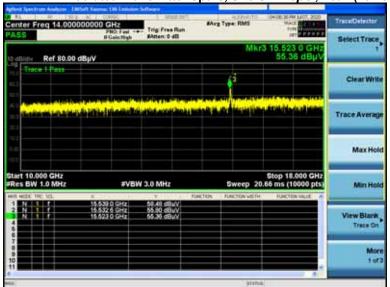
P.1.P.13V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (1-10GHz)

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Non-HE20, 5180MHz P.1.P.14H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz) TracelDelector Center Freq 14.0000 00 GHz PNO: Fast If Gale High Marg Type: R Trig Free Run SAtten: 0 dB ASS Select Trace Mkr3 15.533 4 GH 51.55 dBu Ref 80.00 dBµV race I Pass Clear Writh **Trace Averag** Max Hold Start 10.000 GHz #Res BW 1.0 MHz Stop 18.000 GHz Sweep 20.66 ms (10000 pts) #VBW 3.0 MHz Min Hol 15.549 4 GHz 15.533 4 GHz 53 20 cl View Blank Trace Or Mor 1 of 3

#### Non-HE20, 5180MHz



P.1.P.14V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5200MHz

ASS	PND: Fast - FGain: Figh	Trig: Free Run #Atten: 0 dB	#Avg Type: RMS	04.35.22.44 Aut.7, 2020 19942 112 124 1995 112 124 1997 124 125 125	Select Trace
edBldie Ref 80.00	σΒμν		Mkr3	15.616 6 GHz 55.42 dBµV	',
Trace 1 Pass			<b>∳</b> <sup>3</sup>		Clear Write
tentra di ini an				n new part	Trace Average
					Max Hold
tart 10.000 GHz	≢vB	W 3.0 MHz	Sweep 20.6	Stop 18.000 GHz 6 ms (10000 pts)	Min Hold
Res BW 1.0 MHz			ACTON VETH	FUNCTION INLIE	
Res BW 1.0 MH2 III HOB THC YOL 1 N 1 F 2 N 1 F 4 F 4	15.610 2 GHz 15.695 0 GHz 15.616 6 GHz	57.72 dBuV 57.32 dBuV 56.42 dBuV			View Blank, Trace On

P.1.P.15H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5200MHz

Select Trace	ST STREET	#Avg Type: RMS	Trig: Free Run SAtten: 0 dB	PNO: Fest IFGain:15gb	enter Freq 14.000 ASS
	3 15.612 6 GHz 52.51 dBµV	Mkr3		dBµV	dBidie Ref 80.00
ClearWri		¢3			Trace 1 Pass
Trace Averag	in the second side in	aata da baata da		annin Strawing	and a description
Max Ho					11 18
Min Ho	Stop 18.000 GHz 66 ms (10000 pts)	Sweep 20.0	W 3.0 MHz	#VBI	tart 10.000 GHz Res BW 1.0 MHz
View Blank Trace Or			56.59 48µV 55.29 48µV 52.51 48µV	15.597 4 GHz 15.590 2 GHz 15.612 6 GHz	
Mo					

P.1.P.15V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (10-18GHz)

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#### Non-HE20, 5240MHz

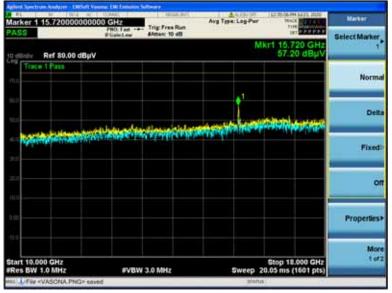
Marker 1 15.720000000000 GHz Avg Type: Log-Pur Mariter Trig Free Run etman: 10 dB Select Marker Ref \$0.00 dBp/V Trace 1 Pass Norm Conner site and Delt and the second Fixed: 01 Properties\* Mo 1 of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz IRes BW 1.0 MHz #VBW 3.0 MHz Un

P.1.P.16H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5240MHz

P.1.P.16V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)



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#### Non-HE20, 5260MHz

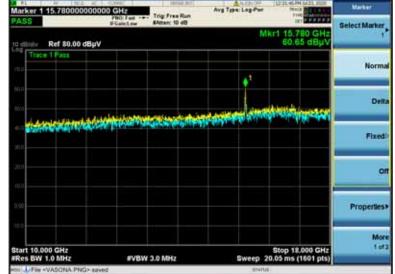
Marker 1 15.78000000000 GHz Avg Type: Log-Pur Matter Trig: Free Rum #Attan: 10 dB PNO: Fast Select Marker Ref \$0.00 dBµV Trace 1 Pass Norm 1 Delt a martine with the territorial and the state of the Fixed: 01 Properties\* Mo 1 of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz IRes BW 1.0 MHz #VBW 3.0 MHz

P.1.P.17H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

#### Non-HE20, 5260MHz

P.1.P.17V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz) Avg Type: Log-Pur Marker --- Trig Free Run Almen: 10 dB Marker 1 15.78000000000 GHz 100 Select Marker 15,780 GH 60,65 dBµ Ref 80.00 dBµV Trace 1 Pass Norm a Delta Anne and the second second ALC: NO Fixed: on Properties\* Mon 1 of 3 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz Res BW 1.0 MHz #VBW 3.0 MHz VASIONA PNG> saved

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#### Non-HE20, 5300MHz

Marker 1 15.90000000000 GHz Avg Type: Log-Pur Matter Trig: Free Run #Atten: 10 dB Select Marker 50.10 dE Ref \$0.00 dBpV Trace 1 Pass Norm •¹. Delt distant of the second second 120 Fixed: on Properties\* Mo 1 of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz IRes BW 1.0 MHz #VBW 3.0 MHz

P.1.P.18H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

cisco

#### Non-HE20, 5300MHz

Avg Type: Log-Put Marker --- Trig Free Run Almen: 10 dB Marker 1 15.90000000000 GHz 100 Select Marker 50,30 dBµ Ref 80.00 dBµV frace 1 Pass Norm ¢1 Delta 100 and a state of the Fixed: on Properties\* Mon 1 of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz Res BW 1.0 MHz #VBW 3.0 MHz VASONA PNG> saved

P.1.P.18V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5320MHz

Marker 1 15.96000000000 GHz Avg Type: Log-Pur Matter Trig Free Run #Atten: 10 dB PNO: Fast Select Marker 49.26 Ref \$0.00 dBp/V Trace 1 Pass Norm ٥. Delt And the second states of the second states and Fixed: Off Properties\* Mo 1 of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz IRes BW 1.0 MHz #VBW 3.0 MHz

P.1.P.19H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5320MHz

Avg Type: Log-Put Marker --- Trig Free Run Almen: 10 dB Marker 1 15.96000000000 GHz 100 Select Marker 58.64 dBµ Ref 80.00 dBµV Trace 1 Pass Norm Delta And the second second second Luna Fixed: on Properties\* Mon 1 of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz Res BW 1.0 MHz #VBW 3.0 MHz VASONA PNG> saved

P.1.P.19V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5500MHz

PNO: Fast -+ IFGain:High	Trig: Free Run #Atten: 0 dB	#Arg Type: RMS	HAGE BERNESS	Trace/Delector
v		Mkr3	16.491 8 GHz 58.15 dBµV	
			á	Clear Write
addy find and				Trace Average
				Max Hold
≢VBW		Sweep 20.	56 ms (10000 pts)	Min Hold
16.499 C GHz 16.506 3 GHz 16.491 8 GHz	51.02 dBuV 50.09 dBuV 58.15 dBuV			View Blank Trace On
	PNO Fed → BrGeicfligh	PB0; Fed     Trig Free Run.       If Galacting     PAtten: 0 dB       V        #VBW 3.0 MHz     #VBW 3.0 MHz       #VBW 3.0 MHz	PHO: Feet     Trig: Free Run.       # Gaicstep:     #Atten: 0 dB	Ностран     Trig: Free Run     Trig: Free Run <thtee run<="" th=""></thtee>

P.1.P.20H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5500MHz

enter Freq 14.00000000 GHz PN0 Fad	Avg Type: RMS Rec Interest art DEPERTY
o delaw Ref 80.00 dBuV	Mkr3 16,486 2 GHz Auto Tun 58,43 dBµV
79 Trace 1 Pass	Center Free 14 00000000 GH
	Start Free
11	Stop Fre 18 0000000 G-
tart 10.000 GHz Res BW 1.0 MHz ≢VBW 3.0 MHz	Stop 18.000 GHz Sweep 20.66 ms (10000 pts) Auto Ma
N 1 f 19.5047 GHz 9125 dB 2 N 1 f 19.4942 GHz 59.44 dB N 1 f 16.4952 GHz 59.44 dB 6 G	Freq Office
7	

P.1.P.20V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5560MHz

Marker 1 16.50000000000 GHz Avg Type: Log-Pur Peak Search Trig Free Run #Atten: 10 dB PNO: Fest NextPeal 49.23 Ref \$0.00 dBµV Trace 1 Pass Next Pk Right ٠ Next Pk Left SHAMA deine filte With the Marker Dela Mkr-C Mkr---RefLvi Mo t of 2 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz IRes BW 1.0 MHz #VBW 3.0 MHz

P.1.P.21H Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (10-18GHz)

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#### Non-HE20, 5560MHz

Peak Search Avg Type: Log-Pur ---- Trig Free Run Admen: 10 dB Marker 1 16.50000000000 GHz ASS 100 NextPeak 16.500 GH 56.71 dBµ Ref 80.00 dBµV Trace 1 Pass Next Pk Righ Next Pk Left STAND STATUTE PARAGES Marker Delt Mkr--CF Mkr-RefLy More 1 of 3 Stop 18.000 GHz Sweep 20.05 ms (1601 pts) Start 10.000 GHz Res BW 1.0 MHz #VBW 3.0 MHz

P.1.P.21V Radiated Transmitter Spurs, 6 to 54 Mbps , Peak (10-18GHz)

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#### Non-HE20, 5700MHz

enter Freq 14.0000 ASS	000000 GH2 FNO: Fad #Gale:tligh	Trig: Free Run #Atten: 0 dB	#Arg Type: RMS	NACE DESCRIPTION	TraceDelector.
disidiv Ref 80.00	dBµV		Mikra	17.100 7 GHz 51.69 dBµV	
Trace 1 Pass				4 <sup>3</sup>	Clear Write
					Trace Average
#					Max Hold
art 10.000 GHz tes BW 1.0 MHz	#VB	W 3.0 MHz	Sweep 20.	Stop 18.000 GHz 66 ms (10000 pts)	Min Hold
	17.096 1 GHz 17.104 7 GHz 17.100 7 GHz	55.59 dBuV 53.05 dBuV 51.69 dBuV			View Blank Trace On
					More
				-	1 013

P.1.P.22H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5700MHz

enter Freq 14.00000 ASS	PNO: Fast Trig: Fre #Gale:High #Atten: 0		10 101500144 AAO6, 200 19401 112 112 0 1970 112 112 0 1970 112 112 0	Frequency
dilidia Ref 80.00 dt	5µV	М	kr3 17.104 7 GHz 51.00 dBµV	Auto Tune
Trace 1 Pass			Q <sup>2</sup>	Center Fred 14.000000000 GH
				Start Fred
110				Stop Fred 18.00000000 GH2
tart 10.000 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	FUNCTION FUNCTION VI	Stop 18.000 GHz 20.66 ms (10000 pts)	CF Step 10.000000 MH Auto Mar
	17,099 3 GHz 56,465 GE 16,452 5 GHz 51,19 dE 17,104 7 GHz 51,00 dE	94Y		Freq Offset 9 Hi

P.1.P.22V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5720MHz

enter Freq 14.00000	100000 GH2 FNO: Fast B Galectligh	Trig Free Run	#Avg Type: RMS	04.55.25.94 M07, 250 94.61 14 144 144 147	TracelDelector
dBlow Ref 80.00 dl			Mkr	3 17,030 3 GHz 49.73 dBµV	Select Trace
Trace 1 Pass				0 <sup>2</sup> ∮ <sup>3</sup> 1	Clear Write
a jaris i sa kata sa t		or a second second	tennik de tan brato		Trace Average
					Max Hold
es BW 1.0 MHz	· · · · · · · · · · · · · · · · · · ·	W 3.0 MHz	Sweep 20	Stop 18.000 GHz 66 ms (10000 pts)	Min Hold
	17.162 3 GHz 16.665 5 GHz 17.030 3 GHz	51.44 dBuV 49.90 dBuV 49.73 dBuV			View Blank Trace On
					More 1 of 3

P.1.P.23H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5720MHz

enter Freg 14.000000000 GHz ASS Protection	Trig: Free Run #Atten: 0 dB	Avg Type RMS	NUTRI SHRAME 200	Frequency
addate Ref 80.00 dByV		Mkr3	17.244 7 GHz 50.00 dBµV	Auto Tune
Trace 1 Pass			Q <sup>2</sup> Q <sup>3</sup>	Center Fred
A COMPANY OF THE OWNER OF THE OWNER OF THE OWNER.			S DOM DALLAR	Start Free 10.00000000 GHs
				Stop Free 18.00000000 GH
tart 10.000 GHz Res BW 1.0 MHz #VB	W 3.0 MHz	Sweep 20.0	Stop 18.000 GHz 6 ms (10000 pts)	CF Step 10.000000 MH
N 1 1 1 17.165.5 GHz N 1 1 1 15.869 7 GHz N 1 1 1 15.869 7 GHz N 1 1 17.244 7 GHz	50.85 dBuV 50.55 dBuV 50.00 dBuV			Freq Offse

P.1.P.23V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5745MHz

ASS	900000 GHz PN0: Fast - FGale:High	Trig: Free Run SAtten: 0 dB	#Avg Type: RMS	104 36-41 HE AUGT, 2020 Free Control of Cont	Trace/Delector
dBldv Ref 80.00	σΒμν		Mkr	3 14,508 5 GHz 49.25 dBµV	1,
Trace 1 Pass			3	2	Clear Write
	A COLORINA DE			tali di manda	Trace Average
11 #					Max Hold
art 10.000 GHz tes BW 1.0 MHz	#VB	W 3.0 MHz	Sweep 20	Stop 18.000 GHz 66 ms (10000 pts)	Min Hold
	17.896 8 GHz 17.920 0 GHz 14.508 5 GHz	49.99 dBuV 49.94 dBuV 49.25 dBuV			View Blank Trace On
					More

P.1.P.24H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5745MHz

Bit decision     Bit decision     Mixr3 16.838 3 GHr     Select       O dBidw     Ref 80.00 dByV     51.18 dByV     Cica       Trace 1 flass     3 3 2     3 3 2     Cica       Trace 1 flass     3 3 2     Cica     Cica     Cica       State 1 flass     State 1 flass     State 1 flass     Cica     Cica       State 1 flass     State 1 flass     State 1 flass     State 1 flass     Cica     Cica       State 1 flass     State 1 fla	000000000 GHz	200 TracelDelector
Trace 1 Pass     3     2       Trace 1 Pass     3     2       Total 10,000 GHz     Stop 18,000 GHz     Stop 18,000 GHz       Res BW 1.0 MHz     #VBW 3.0 MHz     Sweep 20.66 ms (10000 pts)       Max     17,240 7 GHz     S245 SBW       1     17,240 7 GHz     S245 SBW		Select Trace
Stop 18.000 GHz     Stop 18.000 GHz       Res BW 1.0 MHz     #VBW 3.0 MHz     Sweep 20.66 ms (10000 pts)       Main Nation 110     #VBW 3.0 MHz     Sweep 20.66 ms (10000 pts)       Main Nation 110     17.2407 GHz     52.65 SBUV       2 N     1     17.2407 GHz     52.45 SBUV		Clear Writ
Stop 18.000 GHz     Stop 18.000 GHz       Res BW 1.0 MHz     #VBW 3.0 MHz     Sweep 20.66 ms (10000 pts)       Res BW 1.0 MHz     \$\$\$ \$\$ \$\$ \$\$\$ \$\$\$\$ \$\$\$\$ \$\$\$\$ \$\$\$\$ \$\$\$		Trace Averag
Res BW 1.0 MHz     #VBW 3.0 MHz     Sweep 20.66 ms (10000 pts)     M       IN Mds. THE LCL     X     Y     FileCLEN		MaxHo
V 1 f 17,2497 GHz 5285 dBiV 2 N 1 f 17,2319 GHz 52,48 dBiV View F 15,538 3 GHz 51,46 BiV	12 #VBW 3	pts) Min Hol
	17.240 7 GHz 17.231 9 GHz 16.638 3 GHz	View Blank Trace On
		Mor

P.1.P.24V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5785MHz

inter Freq 14,0000	1000000 GHz PND: Fest - IFGale:High	Trig: Free Run SAtten: 0 dB	#Avg Type: RMS	THE REAL PARTY AND AND ADDRESS	Trace/Defector Select Trace
dBldv Ref 80.00	dBµV		Mkr	3 16.701 5 GHz 49.21 dBµV	1
Trace I Pass				0 <b>3</b> 3 0 <sup>1</sup>	Clear Write
angular sina materia					Trace Average
					Max Hold
es BW 1.0 MHz	#VB	W 3.0 MHz	Sweep 20	Stop 18.000 GHz 66 ms (10000 pts)	Min Hold
N 1 F N 7 F	17.368 3 GHz 16.543 1 GHz 16.701 6 GHz	50,29 dBuV 49,43 dBuV 49,21 dBuV			View Blank Trace On
					More 1 of 3
land and the sector					

P.1.P.25H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5785MHz

Trace/Detector	AN MOL 202	10.00	Type: RMS		Trig Fre	1000 GH2 PNO: Feel - #Gale:High	14.0000	ter Fre
select trace	80 7 GHz 67 dBµV		Mk				tef 80.00 d	
Clear Write	(19-	0 <sup>2</sup>					Pass	Trace
Trace Average								ÚL AN
Max Hol								
Min Hok	8.000 GHz (10000 pts)	),66 ms (	Sweep 20	tz Funct	N 3.0 MH	#VB		t 10.00 5 BW 1
View Blank Trace On				dBu/V	50.90 d 50.11 d 49.57 d	17,367 9 GHz 16,591 9 GHz 17,480 7 GHz		N 1 N 1 N 1

P.1.P.25P Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5825MHz

enter Freq 14.000 ASS	0000000 GH2 FNO Fad FGaintligh	Trig Free Run #Atten: 0 dB	Avg Type: RMS	104.37 St.346 AuG1, 2020 Total Total Targ	TraceDelector Select Trace
disidir Ref 80.00	dΒμV		Mkr	3 16,645 5 GHz 49.53 dBµV	1
Trace 1 Pass				\$ <mark>€</mark> \$2 <sup>1</sup>	ClearWrite
	A COMPANY OF	an and a short			Trace Average
					Max Hold
tart 10.000 GHz Res BW 1.0 MHz	×		Sweep 20	Stop 18.000 GHz .66 ms (10000 pts)	Min Hold
	16.837 6 GHz 16.505 5 GHz 16.645 6 GHz	51.00 dBuV 49.51 dBuV 49.53 dBuV			View Blank Trace On
					More 1 of 3

P.1.P.26H Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

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#### Non-HE20, 5825MHz

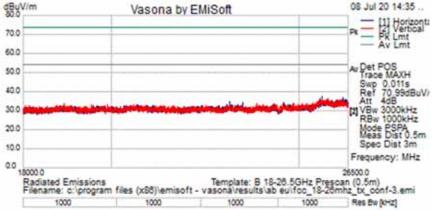
enter Freq 14.00000 ASS	0000 GH2 FNO Fail -	SING BUTS	Avg Type: RMS	10431-12744 Mot. 2020 Hood Alfred Mot. Hom Alfred Mot.	TracelDetector
aBidiy Ref 80.00 dB			Mkra	16.838 3 GHz 51.19 dBµV	select mace,
Trace 1 Pass					Clear Write
der bestehnten der bei b					Trace Average
111					Max Hold
tart 10.000 GHz Res BW 1.0 MHz	#VB	W 3.0 MHz	Sweep 20.	Stop 18.000 GHz 56 ms (10000 pts)	Min Hok
IN MICH THE YOL		52.65 dBuV			
H HOEL HE LL.	17 240 7 GHz 17 231 9 GHz 16.638 3 GHz	52.46 dByV 51.19 dByV			View Blank Trace On

P.1.P.26V Radiated Transmitter Spurs, 6 to 54 Mbps, Peak (10-18GHz)

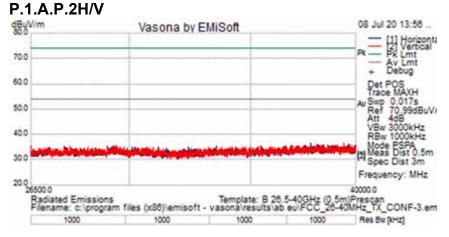
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## Radiated Transmitter Spurs, All radios, All rate, All modes, Peak & Average (26.5-40GHz) Horizontal & Vertical



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## A.2 Radiated Emissions 30MHz to 1GHz

#### 15.209 / 15.205 / 15.407:

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)).

#### Ref. ANSI C63.10: 2013 section 6.5

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.

on;
eak

Terminate the access Point RF ports with 50 ohm loads.

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

This report represents data for all supported operating modes and antennas.

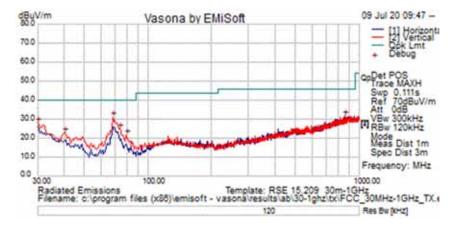
System #	Description	Samples
1	EUT	S01
2	Support Power Supply	S02

Tested By :	Date of testing: 09-JUL-2020
Allan Beecroft	
Test Result : PASS	

See Appendix C for list of test equipment

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#### All rates, all modes.

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		30MHz to 1GH	z		
Equip#	Manufacturer/ Model	Description	Last Cal	Next Due	Test Item
CIS38404	SUNOL SCIENCES / JB1	Combination Antenna, 30MHz-2GHz	27-FEB-2020	27-FEB-2021	A2
CIS18313uc	Keysight (Agilent/HP) / 8447D	AMPLIFIER	30-APR-2019	30-OCT-2020	A2
CIS8342	TIMES MICROWAVE SYSTEMS / RG-214	RG-214 Cable	30-APR-2020	30-OCT-2020	A2
CIS21117	MICRO-COAX / UFB311A-0-2484-5 20520	Coaxial Cable-18Ghz	12 Aug 2019	12 Aug 2020	A2
CIS49563	HUBER + SUHNER / Sucoflex 106A	N-type cable 18GHz	12-AUG-2019	12-AUG-2020	A2
CIS56155	HUBER + SUHNER / Sucoflex 104PA	RF N-Type Cable 2meter 18GHz	13-JAN-2020	13-JAN-2021	A2
CIS47410	Agilent / N9038A	/ MXE EMI Receiver 20Hz to 26.5GHz	06-MAR-2020	06-MAR-2021	A2
CIS8448	CISCO / NSA CAL	NSA Chamber	26 Sep 2019	26 Sep 2020	A2
CIS45166	STANLEY / 33-428	26' TAPE MEASURE	Cal not required	Cal not required	A2
CIS27233	York CNE V	Comparison Noise Emitter	Cal Not Required	Cal Not Required	A2
CIS58225	COMET / T7611-4	Temperature Probe & Monitoring Unit	20-AUG-2019	20-AUG-2020	A2

## Appendix B: List of Test Equipment Used to perform the test

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# cisco

		1GHz to 18GHz			
Equip#	Manufacturer/ Model	Description	Last Cal	Next Due	Test Item
CIS040597	CISCO Above 1GHz Site Cal	1GHz Cispr Site Verification	27 Sep 2019	27 Sep 2020	
CIS47410	Agilent / N9038A	/ MXE EMI Receiver 20Hz to 26.5GHz	06-MAR-2020	06-MAR-2021	
CIS41201	ETS Lindgren 3117	Double Ridged Horn Antenna	27-AUG- 2019	27 -AUG- 2020	
CIS45096	CISCO TH0118	Mast Mount Preamplifier Array, 1-18GHz	29-OCT-2019	29-OCT-2020	
CIS49563	HUBER + SUHNER / Sucoflex 106A	N-type cable 18GHz	12-AUG-2019	12-AUG-2020	A.1.A.1H to
CIS56060	Miteq	SMA Preamplifier 18GHz	08-APR-2020	08-OCT-2020	A.1.A.1110
CIS34740	ETS Lindgren 3117	Double Ridged Horn Antenna	10-FEB- 2020	10-FEB- 2021	A.1.A.1V to
CIS34304	Micro-Tronics HPM50112-02	High Pass Filter 6.4GHz – 18GHz	27 JUN 2019	27-DEC-2020	A.1.A.26V.
CIS21117	MICRO-COAX / UFB311A-0-2484-520520	Coaxial Cable-18Ghz	12 AUG- 2019	12 AUG- 2020	P.1.P.1H to P.1.P.26H.
CIS56155	HUBER + SUHNER / Sucoflex 104PA	RF N-Type Cable 2meter 18GHz	13-JAN-2020	13-JAN-2021	P.1P.1V to P.1.P26V
CIS45166	STANLEY 33-428	8 meter Tape Measure	Cal Not Required	Cal Not Required	
CIS58225	COMET / T7611-4	Temperature Probe & Monitoring Unit	20-AUG-2019	20-AUG-2020	
CIS54235	PASTERNACK PE5011-1	PRESET TORQUE WRENCH, 8 IN/LBS	02-MAR-2020	02-MAR-2021	
CIS34075	SCHAFFNER RSG 2000	Reference Spectrum Generator, 1-18GHz	Cal Not Required	Cal Not Required	
CIS35040	Micro-Tronics HPM50112-02	High Pass Filter 6.4GHz – 18GHz	27 JUN- 2019	27-DEC-2020	
		18GHz to 40GHz	•	•	
CIS26860	Cisco 1840	18-40GHz EMI Test Head/Verification Fixture	12-AUG-2019	12-AUG-2020	P.1.A.P1H/V P.1.A.P2H/V
CIS38393	Agilent / E4446A	PSA Spectrum Analyzer	08-JAN-2020	08-JAN-2021	P.1.A.P.1H/V P.1.A.P.2H/V
CIS7052	HP / 83731B	Synthesized Signal Generator	04-AUG-2019	04-AUG-2020	P.1.A.P.1H/V P.1.A.P.2H/V

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## Appendix C: Abbreviation Key and Definitions

The following table defines abbreviations used within this test report.

Abbreviation	Description	Abbreviation	Description
EMC	Electro Magnetic Compatibility	°F	Degrees Fahrenheit
EMI	Electro Magnetic Interference	°C	Degrees Celsius
EUT	Equipment Under Test	Temp	Temperature
ITE	Information Technology Equipment	S/N	Serial Number
TAP	Test Assessment Schedule	Qty	Quantity
ESD	Electro Static Discharge	emf	Electromotive force
EFT	Electric Fast Transient	RMS	Root mean square
EDCS	Engineering Document Control System	Qp	Quasi Peak
Config	Configuration	Av	Average
CIS#	Cisco Number (unique identification number for Cisco test equipment)	Pk	Peak
Cal	Calibration	kHz	Kilohertz (1x10 <sup>3</sup> )
EN	European Norm	MHz	MegaHertz (1x10 <sup>6</sup> )
IEC	International Electro technical Commission	GHz	Gigahertz (1x10 <sup>9</sup> )
CISPR	International Special Committee on Radio Interference	Н	Horizontal
CDN	Coupling/Decoupling Network	V	Vertical
LISN	Line Impedance Stabilization Network	dB	decibel
PE	Protective Earth	V	Volt
GND	Ground	kV	Kilovolt (1x10 <sup>3</sup> )
L1	Line 1	μV	Microvolt (1x10 <sup>-6</sup> )
L2	Line2	А	Amp
L3	Line 3	μA	Micro Amp (1x10 <sup>-6</sup> )
DC	Direct Current	mS	Milli Second (1x10 <sup>-3</sup> )
RAW	Uncorrected measurement value, as indicated by the measuring device	μS	Micro Second (1x10 <sup>-6</sup> )
RF	Radio Frequency	μS	Micro Second (1x10 <sup>-6</sup> )
SLCE	Signal Line Conducted Emissions	m	Meter
Meas dist	Measurement distance	Spec dist	Specification distance
N/A or NA	Not Applicable	SL	Signal Line (or Telecom Line)
Р	Power Line	L	Live Line
Ν	Neutral Line	R	Return
S	Supply	AC	Alternating Current



## Appendix D: Photographs of Test Setups

Please refer to the attachment

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Appendix E: Photographs of EUT



## Appendix F: Software Used to Perform Testing

EMIsoft Vasona, version 6.024

## **Appendix G:Test Procedures**

Measurements were made in accordance with

- KDB 789033 D02 General UNII Test Procedures New Rules v01r02
- KDB 662911 MIMO
- ANSI C63.10 2013 Intentional Radiators

Test procedures are summarized below:

FCC 5GHz RSE Test Procedures E	EDCS # 1511600
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## Appendix H: 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

## Appendix I: Test Assessment Plan

Target Power Tables EDCS# 18087112

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