



**FCC PART 15, SUBPART E
ISED C RSS-247, ISSUE 2, FEBRUARY 2017**

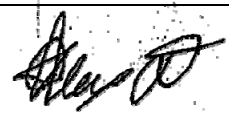
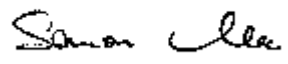
TEST REPORT

For

Cisco Systems, Inc.

125 W Tasman Drive,
San Jose, CA 95134, USA

**FCC ID: LDK948342197
IC: 2461N-948342197**

Report Type: CIIPC Report	Product Type: Cisco Catalyst 9130AXE Series Wi-Fi 6 Access Points
Prepared By: Alexandrae Duran Test Technician	
Report Number: R2104052-02	
Report Date: 2021-11-04	
Reviewed By: Simon Ma RF Supervisor	
Bay Area Compliance Laboratories Corp. 1274 Anvilwood Avenue, Sunnyvale, CA 94089, USA Tel: +1 (408) 732-9162, Fax: +1 (408) 732-9164	



Note: This test report was prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This test report shall not be used by the customer to claim product certification, approval, or endorsement by A2LA or any agency of the United States Government or any foreign government.

* This test report may contain data and test methods that are not covered by BACL's scope of accreditation as of the test report date shown above. These items are marked within the test report text with an asterisk "**"

TABLE OF CONTENTS

1	GENERAL DESCRIPTION.....	4
1.1	PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	4
1.2	MECHANICAL DESCRIPTION OF EUT	4
1.3	OBJECTIVE.....	4
1.4	RELATED SUBMITTAL(S)/GRANT(S)	4
1.5	TEST METHODOLOGY	4
1.6	MEASUREMENT UNCERTAINTY	5
1.7	TEST FACILITY REGISTRATIONS	5
1.8	TEST FACILITY ACCREDITATIONS.....	5
2	EUT TEST CONFIGURATION.....	8
2.1	JUSTIFICATION.....	8
2.2	EUT EXERCISE SOFTWARE.....	8
2.3	DUTY CYCLE CORRECTION FACTOR.....	8
2.4	EQUIPMENT MODIFICATIONS	9
2.5	LOCAL SUPPORT EQUIPMENT	9
2.6	REMOTE SUPPORT EQUIPMENT	9
2.7	POWER SUPPLY/ADAPTER	9
2.8	INTERFACE PORTS AND CABLING	9
3	SUMMARY OF TEST RESULTS.....	10
4	FCC §15.203 & ISED RSS-GEN §6.8 - ANTENNA REQUIREMENTS.....	11
4.1	APPLICABLE STANDARDS	11
4.2	ANTENNA DESCRIPTION	12
5	FCC §2.1091, §15.407(F) & ISED RSS-102 - RF EXPOSURE.....	13
5.1	APPLICABLE STANDARDS	13
5.2	MPE PREDICTION	14
5.3	MPE RESULTS FOR FCC.....	14
5.4	RF EXPOSURE EVALUATION EXEMPTION FOR IC	16
6	FCC §407(A) & ISED RSS-247 §6.2 - OUTPUT POWER.....	17
6.1	APPLICABLE STANDARDS	17
6.2	MEASUREMENT PROCEDURE	19
6.3	TEST EQUIPMENT LIST AND DETAILS	19
6.4	TEST ENVIRONMENTAL CONDITIONS.....	19
6.5	TEST RESULTS	19
7	FCC §15.407(A) & ISED RSS-247 §6.2 – POWER SPECTRAL DENSITY.....	44
7.1	APPLICABLE STANDARDS	44
7.2	MEASUREMENT PROCEDURE	45
7.3	TEST EQUIPMENT LIST AND DETAILS	46
7.4	TEST ENVIRONMENTAL CONDITIONS.....	46
7.5	TEST RESULTS	46
8	FCC §15.407(B) & ISED RSS-247 §6.2 - OUT OF BAND EMISSIONS.....	66
8.1	APPLICABLE STANDARDS	66
8.2	MEASUREMENT PROCEDURE	67
8.3	TEST EQUIPMENT LIST AND DETAILS	67
8.4	TEST ENVIRONMENTAL CONDITIONS.....	67
8.5	TEST RESULTS	68
9	ANNEX A (NORMATIVE) – EUT EXTERNAL PHOTOGRAPHS	121
10	ANNEX B (NORMATIVE) – EUT INTERNAL PHOTOGRAPHS	122
11	ANNEX C (NORMATIVE)– A2LA ELECTRICAL TESTING CERTIFICATE	123

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R2104052-02	Original Report	2021-08-03
1	R2104052-02	Updated 17065 Reviewer's comments	2021-11-04

1 General Description

1.1 Product Description for Equipment under Test (EUT)

This test report was prepared on behalf of *Cisco Systems Inc.*, and their product model: *C9130AXE-B (US)*, *C9130AXE-A (Canada)*, FCC ID: LDK948342197, IC: 2461N-948342197 with Marlin Antenna Model: C-ANT9104 as referred to as EUT in this report. The product is an 802.11ax Access Point operates in 2.4 GHz and 5 GHz bands.

1.2 Mechanical Description of EUT

Length (cm)	Width (cm)	Height (cm)	Weight (kg)
40	59	46	8.48

S/N: ACE21060026, assigned by Cisco System, Inc.

1.3 Objective

This report was prepared on behalf of *Cisco Systems Inc.*, in accordance with Part 2, Subpart J, and Part 15, Subparts B and E of the Federal Communication Commission's rules, ISEDC RSS-247 Issue 2 on February 2017.

The objective was to determine continuous compliance for an additional external antenna with FCC Part 15.407 and ISEDC RSS-247 rules. In order to determine continuous compliance with the new antenna, Output Power, Power Spectral Density, and Band-edge Emissions were spot tested.

1.4 Related Submittal(s)/Grant(s)

Equipment Class: DTS, FCC ID: LDK948342197, IC: 2461N-948342197

1.5 Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.10-2013, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz, and FCC KDB 789033 D02 General UNII Test Procedure New Rules v02r01.

1.6 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Parameter	Measurement uncertainty
Occupied Channel Bandwidth	34kHz
RF output power, conducted	4.84 dB
Power Spectral Density, conducted	1.69 dB
Unwanted Emissions, conducted	4.84dB
All emissions, radiated	5.18 dB
AC power line Conducted Emission	4.22 dB
Temperature	±2 ° C
Humidity	±5 %
DC and low frequency voltages	±1.0 %
Time	±2 %
Duty Cycle	±3 %

1.7 Test Facility Registrations

BACLs test facilities that are used to perform Radiated and Conducted Emissions tests are currently recognized by the Federal Communications Commission as Accredited with NIST Designation Number US1129.

BACL's test facilities that are used to perform Radiated and Conducted Emissions tests are currently registered with Industry Canada under Registration Numbers: 3062A-1, 3062A-2, and 3062A-3.

BACL is a Chinese Taipei Bureau of Standards Metrology and Inspection (BSMI) validated Conformity Assessment Body (CAB), under Appendix B, Phase I Procedures of the APEC Mutual Recognition Arrangement (MRA). BACL's BSMI Lab Code Number is: SL2-IN-E-1002R

BACL's test facilities that are used to perform AC Line Conducted Emissions, Telecommunications Line Conducted Emissions, Radiated Emissions from 30 MHz to 1 GHz, and Radiated Emissions from 1 GHz to 6 GHz are currently recognized as Accredited in accordance with the Voluntary Control Council for Interference [VCCI] Article 15 procedures under Registration Number A-0027.

1.8 Test Facility Accreditations

Bay Area Compliance Laboratories Corp. (BACL) is:

A- An independent, 3rd-Party, Commercial Test Laboratory accredited to ISO/IEC 17025:2005 by A2LA (Test Laboratory Accreditation Certificate Number 3297.02), in the fields of: Electromagnetic Compatibility and Telecommunications. Unless noted by an Asterisk (*) in the Compliance Matrix (See Section 3 of this Test Report), BACL's ISO/IEC 17025:2005 Scope of Accreditation includes all of the Test Method Standards and/or the Product Family Standards detailed in this Test Report..

BACL's ISO/IEC 17025:2005 Scope of Accreditation includes a comprehensive suite of EMC Emissions, EMC Immunity, Radio, RF Exposure, Safety and wireline Telecommunications test methods applicable to a wide range of product categories. These product categories include Central Office Telecommunications Equipment [including NEBS - Network Equipment Building Systems], Unlicensed and Licensed Wireless and RF devices, Information Technology Equipment (ITE); Telecommunications Terminal Equipment (TTE); Medical Electrical Equipment; Industrial, Scientific and Medical Test Equipment; Professional Audio and Video Equipment;

Industrial and Scientific Instruments and Laboratory Apparatus; Cable Distribution Systems, and Energy Efficient Lighting.

B- A Product Certification Body accredited to ISO/IEC 17065:2012 by A2LA (Product Certification Body Accreditation Certificate Number 3297.03) to certify

- For the USA (Federal Communications Commission):
 - 1- All Unlicensed radio frequency devices within FCC Scopes A1, A2, A3, and A4;
 - 2- All Licensed radio frequency devices within FCC Scopes B1, B2, B3, and B4;
 - 3- All Telephone Terminal Equipment within FCC Scope C.
- For the Canada (Industry Canada):
 - 1 All Scope 1-Licence-Exempt Radio Frequency Devices;
 - 2 All Scope 2-Licensed Personal Mobile Radio Services;
 - 3 All Scope 3-Licensed General Mobile & Fixed Radio Services;
 - 4 All Scope 4-Licensed Maritime & Aviation Radio Services;
 - 5 All Scope 5-Licensed Fixed Microwave Radio Services
 - 6 All Broadcasting Technical Standards (BETS) in the Category I Equipment Standards List.
- For Singapore (Info-Communications Development Authority (IDA)):
 - 1 All Line Terminal Equipment: All Technical Specifications for Line Terminal Equipment – Table 1 of IDA MRA Recognition Scheme: 2011, Annex 2
 - 2. All Radio-Communication Equipment: All Technical Specifications for Radio-Communication Equipment – Table 2 of IDA MRA Recognition Scheme: 2011, Annex 2
- For the Hong Kong Special Administrative Region:
 - 1 All Radio Equipment, per KHCA 10XX-series Specifications;
 - 2 All GMDSS Marine Radio Equipment, per HKCA 12XX-series Specifications;
 - 3 All Fixed Network Equipment, per HKCA 20XX-series Specifications.
- For Japan:
 - 1 MIC Telecommunication Business Law (Terminal Equipment):
 - All Scope A1 - Terminal Equipment for the Purpose of Calls;
 - All Scope A2 - Other Terminal Equipment
 - 2 Radio Law (Radio Equipment):
 - All Scope B1 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 1 of the Radio Law
 - All Scope B2 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 2 of the Radio Law
 - All Scope B3 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 3 of the Radio Law

C- A Product Certification Body accredited to ISO/IEC 17065:2012 by A2LA (Product Certification Body Accreditation Certificate Number 3297.01) to certify Products to USA's Environmental Protection Agency (EPA) ENERGY STAR Product Specifications for:

- 1 Electronics and Office Equipment:
 - for Telephony (ver. 3.0)
 - for Audio/Video (ver. 3.0)
 - for Battery Charging Systems (ver. 1.1)
 - for Set-top Boxes & Cable Boxes (ver. 4.1)
 - for Televisions (ver. 6.1)
 - for Computers (ver. 6.0)
 - for Displays (ver. 6.0)
 - for Imaging Equipment (ver. 2.0)
 - for Computer Servers (ver. 2.0)
- 2 Commercial Food Service Equipment
 - for Commercial Dishwashers (ver. 2.0)
 - for Commercial Ice Machines (ver. 2.0)
 - for Commercial Ovens (ver. 2.1)
 - for Commercial Refrigerators and Freezers

- 3 Lighting Products
 - For Decorative Light Strings (ver. 1.5)
 - For Luminaires (including sub-components) and Lamps (ver. 1.2)
 - For Compact Fluorescent Lamps (CFLs) (ver. 4.3)
 - For Integral LED Lamps (ver. 1.4)
- 4 Heating, Ventilation, and AC Products
 - for Residential Ceiling Fans (ver. 3.0)
 - for Residential Ventilating Fans (ver. 3.2)
- 5 Other
 - For Water Coolers (ver. 3.0)

D- A NIST Designated Phase-I and Phase-II Conformity Assessment Body (CAB) for the following economies and regulatory authorities under the terms of the stated MRAs/Treaties:

- Australia: ACMA (Australian Communication and Media Authority) – APEC Tel MRA -Phase I;
- Canada: (Innovation, Science and Economic development Canada - ISED) Foreign Certification Body – FCB – APEC Tel MRA -Phase I & Phase II;
- Chinese Taipei (Republic of China – Taiwan):
 - o BSMI (Bureau of Standards, Metrology and Inspection) APEC Tel MRA -Phase I;
 - o NCC (National Communications Commission) APEC Tel MRA -Phase I;
- European Union:
 - o EMC Directive 2014/30/EU US-EU EMC & Telecom MRA CAB (NB)
 - o Radio Equipment (RE) Directive 2014/53/EU US-EU EMC & Telecom MRA CAB (NB)
 - o Low Voltage Directive (LVD) 2014/35/EU
- Hong Kong Special Administrative Region: (Office of the Telecommunications Authority – OFTA) APEC Tel MRA -Phase I & Phase II
- Israel – US-Israel MRA Phase I
- Republic of Korea (Ministry of Communications - Radio Research Laboratory) APEC Tel MRA -Phase I
- Singapore: (Infocomm Media Development Authority - IMDA) APEC Tel MRA -Phase I & Phase II;
- Japan: VCCI - Voluntary Control Council for Interference US-Japan Telecom Treaty VCCI Side Letter-
- USA:
 - o ENERGY STAR Recognized Test Laboratory – US EPA
 - o Telecommunications Certification Body (TCB) – US FCC;
 - o Nationally Recognized Test Laboratory (NRTL) – US OSHA
- Vietnam: APEC Tel MRA -Phase I;

2 EUT Test Configuration

2.1 Justification

The EUT was configured for testing according to ANSI C63.10-2013 and FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

The EUT was tested in a testing mode to represent worst-case results during the final qualification test.

2.2 EUT Exercise Software

The test utility used was a script provided by Cisco Systems, Inc. The test software used was *Chelsea*, version 0.1.93 – developed by *Alexandrae Duran*. The test software was verified by *Alexandrae Duran* to comply with the standard requirements being tested against.

2.3 Duty Cycle Correction Factor

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 section B:

All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.

Radio Mode	On Time (ms)	Period (ms)	Duty Cycle (%)	DCCF* (dB)
Non HT20	1.420	1.549	91.721	0.375
HT/VHT20	5.411	5.683	95.206	0.213
HE20	5.435	5.731	94.827	0.231
Non HT40	1.424	1.561	91.271	0.397
HT/VHT40	91.538	100	91.538	0.384
HE40	97.500	100	97.500	0.110
Non HT80	1.426	1.555	91.730	0.375
VHT80	92.083	100	92.083	0.358
HE80	92.356	100	92.356	0.345

Note*: DCCF = Duty Cycle Correction Factor = $10 \cdot \log(1/\text{duty cycle})$, when power averaging was applied in average measurement.

2.4 Equipment Modifications

None.

2.5 Local Support Equipment

Manufacturer	Description	Model
Dell	Laptop	E6410

2.6 Remote Support Equipment

None

2.7 Power Supply/Adapter

Manufacturer	Description	Model
Cisco	PoE Injector	AIR-PWRIN-J6 V01

2.8 Interface Ports and Cabling

Cable Description	Length (m)	To	From
Cat5e	~1	EUT	POE Injector
Cat5e	~1	POE Injector	NB

3 Summary of Test Results

Results reported relate only to the product tested.

FCC & ISED Rules	Description of Test	Result
FCC §2.1091, §15.407(f), ISED RSS-102	RF Exposure	Compliant
FCC §15.203 ISED RSS-Gen §6.8	Antenna Requirement	Compliant
FCC §407(a) ISED RSS-247 §6.2	Output Power	Compliant
FCC §2.1051, §15.407(b) ISED RSS-247 §6.2	Band Edges	Compliant
FCC §15.407(a) ISED RSS-247 §6.2	Power Spectral Density	Compliant

4 FCC §15.203 & ISEDC RSS-Gen §6.8 - Antenna Requirements

4.1 Applicable Standards

According to FCC §15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to FCC §15.247 (b) (4), if transmitting antennas of directional gain greater than 6 dBi are used the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to ISEDC RSS-Gen §6.8: Transmitter Antenna

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

4.2 Antenna Description

Part Number	Description	Frequency Range (MHz)	Antenna Port	Polarization	Gain
C-ANT9104	Cisco Catalyst 2.4 GHz and 5 GHz Eight-Port Polarization-Diverse Low Sidelobe Patch Antenna	2400-2483.5	EG	Vertical	6 dBi
			FH	Horizontal	
		5150-5350	ACEG	Vertical	10 dBi (Narrow Beam)
			BDFH	Horizontal	
			AC	Vertical	8 dBi (Wide Beam)
			BD	Horizontal	
		5470-5875	ACEG	Vertical	10 dBi (Narrow Beam)
			BDFH	Horizontal	
			EG	Vertical	8 dBi (Wide Beam)
			FH	Horizontal	

Antenna information was provided by customer.

5 FCC §2.1091, §15.407(f) & ISED RSS-102 - RF Exposure

5.1 Applicable Standards

According to FCC §15.247(i), §15.407(f) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	* (100)	30
1.34-30	824/f	2.19/f	* (180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

According to ISED RSS-102 Issue 5:

2.5.2 Exemption Limits for Routine Evaluation – RF Exposure Evaluation

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz⁶ and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

5.2 MPE Prediction

Predication of MPE limit at a given distance, Equation from OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

5.3 MPE Results for FCC

Radio Standalone RF Exposure Configuration

2.4 GHz Wi-Fi: 802.11g, Mid Channel 2442 MHz

<u>Maximum output power at antenna input terminal (dBm):</u>	<u>19.8</u>
<u>Maximum output power at antenna input terminal (mW):</u>	<u>95.50</u>
<u>Prediction distance (cm):</u>	<u>30</u>
<u>Prediction frequency (MHz):</u>	<u>2442</u>
<u>Maximum Antenna Gain, typical (dBi):</u>	<u>9</u>
<u>Maximum Antenna Gain (numeric):</u>	<u>7.94</u>
<u>Power density of prediction frequency at 30.0 cm (mW/cm²):</u>	<u>0.067</u>
<u>FCC MPE limit for uncontrolled exposure at prediction frequency (mW/cm²):</u>	<u>1.0</u>

2.4 GHz Wi-Fi ChillWave: 802.11g, Low Channel 2412 MHz

<u>Maximum output power at antenna input terminal (dBm):</u>	<u>9.2</u>
<u>Maximum output power at antenna input terminal (mW):</u>	<u>8.32</u>
<u>Prediction distance (cm):</u>	<u>30</u>
<u>Prediction frequency (MHz):</u>	<u>2412</u>
<u>Maximum Antenna Gain, typical (dBi):</u>	<u>7</u>
<u>Maximum Antenna Gain (numeric):</u>	<u>5.012</u>
<u>Power density of prediction frequency at 30.0 cm (mW/cm²):</u>	<u>0.004</u>
<u>FCC MPE limit for uncontrolled exposure at prediction frequency (mW/cm²):</u>	<u>1.0</u>

5 GHz Wi-Fi: 802.11a, Low Channel 5745 MHz

<u>Maximum output power at antenna input terminal (dBm):</u>	<u>21.67</u>
<u>Maximum output power at antenna input terminal (mW):</u>	<u>146.89</u>
<u>Prediction distance (cm):</u>	<u>30</u>
<u>Prediction frequency (MHz):</u>	<u>5745</u>
<u>Maximum Antenna Gain, typical (dBi):</u>	<u>11</u>
<u>Maximum Antenna Gain (numeric):</u>	<u>12.59</u>
<u>Power density of prediction frequency at 30.0 cm (mW/cm²):</u>	<u>0.164</u>
<u>FCC MPE limit for uncontrolled exposure at prediction frequency (mW/cm²):</u>	<u>1.0</u>

5 GHz Wi-Fi ChillWave: 802.11a, Middle Channel 5560 MHz

<u>Maximum output power at antenna input terminal (dBm):</u>	<u>9.8</u>
<u>Maximum output power at antenna input terminal (mW):</u>	<u>9.55</u>
<u>Prediction distance (cm):</u>	<u>30</u>
<u>Prediction frequency (MHz):</u>	<u>5560</u>
<u>Maximum Antenna Gain, typical (dBi):</u>	<u>10</u>
<u>Maximum Antenna Gain (numeric):</u>	<u>10</u>
<u>Power density of prediction frequency at 30.0 cm (mW/cm²):</u>	<u>0.008</u>
<u>FCC MPE limit for uncontrolled exposure at prediction frequency (mW/cm²):</u>	<u>1.0</u>

BLE: Low Channel 2402 MHz

<u>Maximum output power at antenna input terminal (dBm):</u>	<u>2.4</u>
<u>Maximum output power at antenna input terminal (mW):</u>	<u>1.74</u>
<u>Prediction distance (cm):</u>	<u>30</u>
<u>Prediction frequency (MHz):</u>	<u>2402</u>
<u>Maximum Antenna Gain, typical (dBi):</u>	<u>6</u>
<u>Maximum Antenna Gain (numeric):</u>	<u>3.98</u>
<u>Power density of prediction frequency at 30.0 cm (mW/cm²):</u>	<u>0.0006</u>
<u>FCC MPE limit for uncontrolled exposure at prediction frequency (mW/cm²):</u>	<u>1.0</u>

The device is compliant with the requirement MPE limit for uncontrolled exposure at 30 cm distance.

Radio Co-location RF Exposure Configuration

Standalone MPE (mW/cm ²)					Total MPE Ratio	Limit
BLE	2.4 GHz ChillWave	5 GHz ChillWave	2.4 GHz	5 GHz		
0.0006	0.004	0.008	0.067	0.164	0.244	1

5.4 RF exposure evaluation exemption for IC

2.4 GHz Wi-Fi: 802.11g, Mid Channel 2442 MHz

Maximum EIRP power = 19.8 dBm + 9 dBi = 28.8 dBm, which is less than $1.31 \times 10^{-2} f^{0.6834} = 2.70 \text{ W} = 34.31 \text{ dBm}$

2.4 GHz Wi-Fi ChillWave: 802.11g, Low Channel 2412 MHz

Maximum EIRP power = 9.2 dBm + 7 dBi = 16.2 dBm, which is less than $1.31 \times 10^{-2} f^{0.6834} = 2.70 \text{ W} = 34.31 \text{ dBm}$

5 GHz Wi-Fi: 802.11ax80, Low Channel 5745 MHz

Maximum EIRP power = 21.67 dBm + 11 dBi = 32.67 dBm, which is less than $1.31 \times 10^{-2} f^{0.6834} = 4.86 \text{ W} = 36.87 \text{ dBm}$

5 GHz Wi-Fi ChillWave: 802.11a, Middle Channel 5560 MHz

Maximum EIRP power = 9.8 dBm + 10 dBi = 19.80 dBm, which is less than $1.31 \times 10^{-2} f^{0.6834} = 4.75 \text{ W} = 36.77 \text{ dBm}$

BLE: Low Channel 2402 MHz

Maximum EIRP power = 2.4 dBm + 6 dBi = 8.4 dBm, which is less than $1.31 \times 10^{-2} f^{0.6834} = 2.68 \text{ W} = 34.3 \text{ dBm}$

Therefore, the RF exposure Evaluation is not required.

6 FCC §407(a) & ISEDC RSS-247 §6.2 - Output Power

6.1 Applicable Standards

According to FCC §15.407(a):

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Note to paragraph (a)(3): The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

(4) The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

(5) The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

According to ISERC RSS-247 §6.2.1 for frequency band 5150-5250 MHz:

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to ISERC RSS-247 §6.2.2 for frequency band 5250-5350 MHz:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to ISERC RSS-247 §6.2.3 for frequency band 5470-5600 MHz and 5650-5725 MHz:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to ISERC RSS-247 §6.2.4 for frequency band 5725-5850 MHz:

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

6.2 Measurement Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a spectrum analyzer.

6.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	MY48250238	2021-02-12	1 year
Radiall	SP8T Coax Switch	R574F11801	2011	N/A	N/A
-	RF cable	-	-	Each time ¹	N/A

Note¹: cable and attenuator included in the test set-up will be checked each time before testing.

Statement of Traceability: *BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to NIST or to another internationally recognized National Metrology Institute (NMI), and were compliant with the latest version of A2LA policy P102 "A2LA Policy on Metrological Traceability".*

6.4 Test Environmental Conditions

Temperature:	21-25 °C
Relative Humidity:	40-55 %
ATM Pressure:	101.3-102.9 kPa

The testing was performed by Alexandrae Duran on 2021-07-08 to 2021-07-12 in bench.

6.5 Test Results

Please refer to the following tables and plots.

U-NII-1 (FCC Only)

5180 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8	-	12.92	-	-	0.38	13.29	28.00	-14.71
non HT20, 6 to 54 Mbps	4	8	8.70	12.71	12.78	13.05	0.38	18.52	28.00	-9.48
non HT20, 6 to 54 Mbps-BF	4	11	8.87	12.80	12.78	13.03	0.38	18.56	25.00	-6.44
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8	-	15.60	-	-	0.21	15.81	28.00	-12.19
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8	9.75	13.76	13.54	13.93	0.21	19.27	28.00	-8.73
VHT20, M0.4 to M9.4-BF	4	8	9.83	13.82	13.62	14.00	0.21	19.34	28.00	-8.66
HE20, M0.1 to M9.1	1	8	-	15.02	-	-	0.23	15.25	28.00	-12.75
HE20, M0.1 to M9.1	4	8	10.17	14.32	14.03	14.11	0.23	19.70	28.00	-8.30
HE20, M0.4 to M9.4-BF	4	8	9.95	14.11	14.04	13.99	0.23	19.58	28.00	-8.42

5200 MHz:

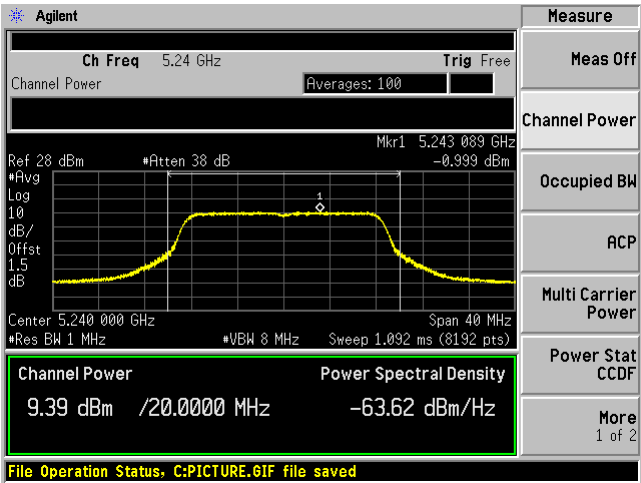
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8	-	15.92	-	-	0.38	16.30	28.00	-11.70
non HT20, 6 to 54 Mbps	4	8	9.51	14.04	14.08	13.88	0.38	19.63	28.00	-8.37
non HT20, 6 to 54 Mbps-BF	4	11	8.58	13.05	12.54	12.78	0.38	18.46	25.00	-6.54
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8	-	15.91	-	-	0.21	16.12	28.00	-11.88
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8	9.57	14.06	13.94	13.71	0.21	19.39	28.00	-8.61
VHT20, M0.4 to M9.4-BF	4	8	11.62	15.91	16.14	15.78	0.21	21.44	28.00	-6.56
HE20, M0.1 to M9.1	1	8	-	16.13	-	-	0.23	16.36	28.00	-11.64
HE20, M0.1 to M9.1	4	8	9.86	14.37	14.32	13.88	0.23	19.70	28.00	-8.30
HE20, M0.4 to M9.4-BF	4	8	11.81	16.22	16.13	16.00	0.23	21.63	28.00	-6.37

5240 MHz:

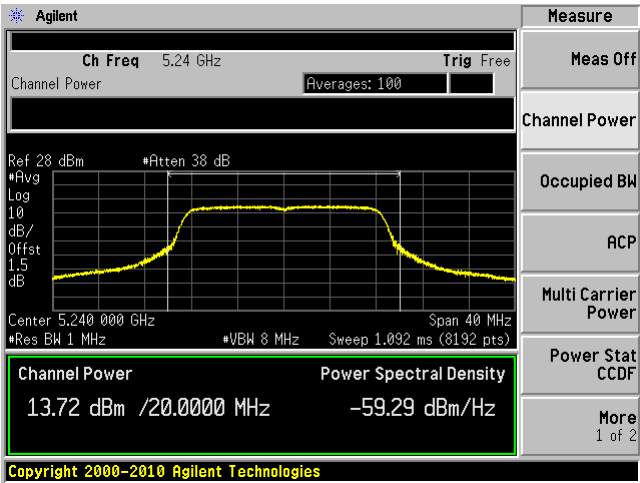
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8	-	15.64	-	-	0.38	16.01	28.00	-11.99
non HT20, 6 to 54 Mbps	4	8	9.31	13.70	14.33	13.52	0.38	19.49	28.00	-8.51
non HT20, 6 to 54 Mbps-BF	4	11	9.39	13.72	14.27	13.44	0.38	19.46	25.00	-5.54
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8	-	15.60	-	-	0.21	15.81	28.00	-12.19
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8	9.11	13.74	14.07	13.47	0.21	19.22	28.00	-8.78
VHT20, M0.4 to M9.4-BF	4	8	11.30	15.49	16.36	15.29	0.21	21.22	28.00	-6.78
HE20, M0.1 to M9.1	1	8	-	15.78	-	-	0.23	16.01	28.00	-11.99
HE20, M0.1 to M9.1	4	8	9.60	13.84	14.53	13.80	0.23	19.56	28.00	-8.44
HE20, M0.4 to M9.4-BF	4	8	11.60	15.83	16.61	15.61	0.23	21.53	28.00	-6.47

Please refer to the following plots for the worst case configuration

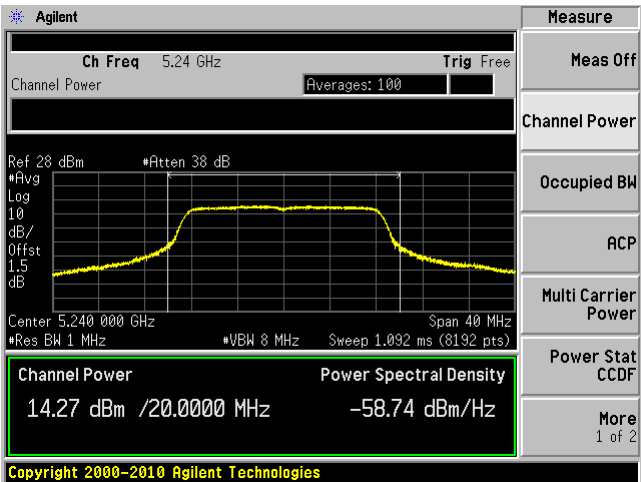
Ant-1



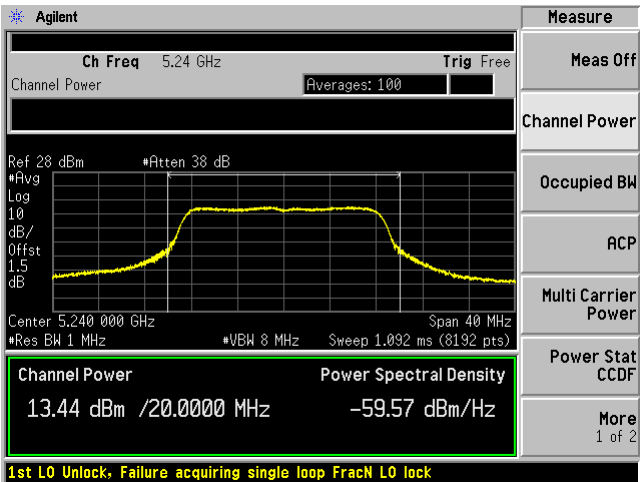
Ant-2



Ant-3



Ant-4



5190 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8	-	12.62	-	-	0.40	13.02	28.00	-14.98
non HT40, 6 to 54 Mbps	4	8	5.60	9.69	9.79	9.65	0.40	15.41	28.00	-12.59
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8	-	12.83	-	-	0.38	13.21	28.00	-14.79
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8	6.16	10.77	10.67	10.72	0.38	16.36	28.00	-11.64
VHT40, M0.4 to M9.4-BF	4	8	6.30	10.52	10.69	10.43	0.38	16.22	28.00	-11.78
HE40, M0.1 to M9.1	1	8	-	13.28	-	-	0.11	13.39	28.00	-14.61
HE40, M0.1 to M9.1	4	8	5.85	10.01	10.23	10.19	0.11	15.53	28.00	-12.47
HE40, M0.4 to M9.4-BF	4	8	5.82	10.10	10.15	10.19	0.11	15.53	28.00	-12.47

5230 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8	-	15.43	-	-	0.40	15.82	28.00	-12.18
non HT40, 6 to 54 Mbps	4	8	11.09	15.49	15.96	15.30	0.40	21.24	28.00	-6.76
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8	-	15.82	-	-	0.38	16.20	28.00	-11.80
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8	11.11	15.76	16.61	15.37	0.38	21.55	28.00	-6.45
VHT40, M0.4 to M9.4-BF	4	8	11.22	15.56	16.38	15.47	0.38	21.45	28.00	-6.55
HE40, M0.1 to M9.1	1	8	-	15.85	-	-	0.11	15.96	28.00	-12.04
HE40, M0.1 to M9.1	4	8	11.68	16.15	16.73	15.97	0.11	21.65	28.00	-6.35
HE40, M0.4 to M9.4-BF	4	8	11.69	16.00	16.70	15.90	0.11	21.58	28.00	-6.42

5210 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8	-	10.83	-	-	0.37	11.20	28.00	-16.80
non HT80, 6 to 54 Mbps	4	8	3.22	7.63	7.86	7.61	0.37	13.34	28.00	-14.66
VHT80, M0.1 to M9.1	1	8	-	10.99	-	-	0.36	11.35	28.00	-16.65
VHT80, M0.1 to M9.1	4	8	4.30	8.88	8.95	8.58	0.36	14.42	28.00	-13.58
VHT80, M0.4 to M9.4-BF	4	8	4.38	8.63	8.93	8.27	0.36	14.26	28.00	-13.74
HE80, M0.1 to M9.1	1	8	-	11.40	-	-	0.35	11.75	28.00	-16.25
HE80, M0.1 to M9.1	4	8	3.85	8.19	8.55	8.07	0.35	13.89	28.00	-14.11
HE80, M0.4 to M9.4-BF	4	8	3.73	8.26	8.36	7.94	0.35	13.80	28.00	-14.20

U-NII-1 e.i.r.p. for elevation angle above 30 degrees (FCC Only)

5180 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total e.i.r.p. (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	-2	-	12.92	-	-	0.38	11.3	21	-9.70
non HT20, 6 to 54 Mbps	4	-2	8.70	12.71	12.78	13.05	0.38	16.52	21	-4.48
non HT20, 6 to 54 Mbps-BF	4	1	8.87	12.80	12.78	13.03	0.38	19.56	21	-1.44
HT/VHT20, M0 to M7, M0.1 to M9.1	1	-2	-	15.60	-	-	0.21	13.81	21	-7.19
HT/VHT20, M0 to M7, M0.1 to M9.1	4	-2	9.75	13.76	13.54	13.93	0.21	17.27	21	-3.73
VHT20, M0.4 to M9.4-BF	4	-2	9.83	13.82	13.62	14.00	0.21	17.34	21	-3.66
HE20, M0.1 to M9.1	1	-2	-	15.02	-	-	0.23	13.25	21	-7.75
HE20, M0.1 to M9.1	4	-2	10.17	14.32	14.03	14.11	0.23	17.70	21	-3.30
HE20, M0.4 to M9.4-BF	4	-2	9.95	14.11	14.04	13.99	0.23	17.58	21	-3.42

5200 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total e.i.r.p. (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	-2	-	15.92	-	-	0.38	14.3	21	-6.70
non HT20, 6 to 54 Mbps	4	-2	9.51	14.04	14.08	13.88	0.38	17.64	21	-3.36
non HT20, 6 to 54 Mbps-BF	4	1	8.58	13.05	12.54	12.78	0.38	19.46	21	-1.54
HT/VHT20, M0 to M7, M0.1 to M9.1	1	-2	-	15.91	-	-	0.21	14.12	21	-6.88
HT/VHT20, M0 to M7, M0.1 to M9.1	4	-2	9.57	14.06	13.94	13.71	0.21	17.39	21	-3.61
VHT20, M0.4 to M9.4-BF	4	-2	11.62	15.91	16.14	15.78	0.21	19.43	21	-1.57
HE20, M0.1 to M9.1	1	-2	-	16.13	-	-	0.23	14.36	21	-6.64
HE20, M0.1 to M9.1	4	-2	9.86	14.37	14.32	13.88	0.23	17.70	21	-3.30
HE20, M0.4 to M9.4-BF	4	-2	11.81	16.22	16.13	16.00	0.23	19.63	21	-1.37

5240 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total e.i.r.p. (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	-2	-	15.64	-	-	0.38	14.02	21	-6.98
non HT20, 6 to 54 Mbps	4	-2	9.31	13.70	14.33	13.52	0.38	17.50	21	-3.50
non HT20, 6 to 54 Mbps-BF	4	1	9.39	13.72	14.27	13.44	0.38	20.47	21	-0.53
HT/VHT20, M0 to M7, M0.1 to M9.1	1	-2	-	15.60	-	-	0.21	13.81	21	-7.19
HT/VHT20, M0 to M7, M0.1 to M9.1	4	-2	9.11	13.74	14.07	13.47	0.21	17.22	21	-3.78
VHT20, M0.4 to M9.4-BF	4	-2	11.30	15.49	16.36	15.29	0.21	19.21	21	-1.79
HE20, M0.1 to M9.1	1	-2	-	15.78	-	-	0.23	14.01	21	-6.99
HE20, M0.1 to M9.1	4	-2	9.60	13.84	14.53	13.80	0.23	17.56	21	-3.44
HE20, M0.4 to M9.4-BF	4	-2	11.60	15.83	16.61	15.61	0.23	19.53	21	-1.47

5190 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total e.i.r.p. (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	-2	-	12.62	-	-	0.40	11.02	21	-9.98
non HT40, 6 to 54 Mbps	4	-2	5.60	9.69	9.79	9.65	0.40	13.41	21	-7.59
HT/VHT40, M0 to M7, M0.1 to M9.1	1	-2	-	12.83	-	-	0.38	11.21	21	-9.79
HT/VHT40, M0 to M7, M0.1 to M9.1	4	-2	6.16	10.77	10.67	10.72	0.38	14.35	21	-6.65
VHT40, M0.4 to M9.4-BF	4	-2	6.30	10.52	10.69	10.43	0.38	14.21	21	-6.79
HE40, M0.1 to M9.1	1	-2	-	13.28	-	-	0.11	11.39	21	-9.61
HE40, M0.1 to M9.1	4	-2	5.85	10.01	10.23	10.19	0.11	13.53	21	-7.47
HE40, M0.4 to M9.4-BF	4	-2	5.82	10.10	10.15	10.19	0.11	13.53	21	-7.47

5230 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total e.i.r.p. (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	-2	-	15.43	-	-	0.40	13.83	21	-7.17
non HT40, 6 to 54 Mbps	4	-2	11.09	15.49	15.96	15.30	0.40	19.25	21	-1.75
HT/VHT40, M0 to M7, M0.1 to M9.1	1	-2	-	15.82	-	-	0.38	14.2	21	-6.80
HT/VHT40, M0 to M7, M0.1 to M9.1	4	-2	11.11	15.76	16.61	15.37	0.38	19.55	21	-1.45
VHT40, M0.4 to M9.4-BF	4	-2	11.22	15.56	16.38	15.47	0.38	19.45	21	-1.55
HE40, M0.1 to M9.1	1	-2	-	15.85	-	-	0.11	13.96	21	-7.04
HE40, M0.1 to M9.1	4	-2	11.68	16.15	16.73	15.97	0.11	19.65	21	-1.35
HE40, M0.4 to M9.4-BF	4	-2	11.69	16.00	16.70	15.90	0.11	19.58	21	-1.42

5210 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total e.i.r.p. (dBm)	FCC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	-2	-	10.83	-	-	0.37	9.2	21	-11.80
non HT80, 6 to 54 Mbps	4	-2	3.22	7.63	7.86	7.61	0.37	11.33	21	-9.67
VHT80, M0.1 to M9.1	1	-2	-	10.99	-	-	0.36	9.35	21	-11.65
VHT80, M0.1 to M9.1	4	-2	4.30	8.88	8.95	8.58	0.36	12.42	21	-8.58
VHT80, M0.4 to M9.4-BF	4	-2	4.38	8.63	8.93	8.27	0.36	12.26	21	-8.74
HE80, M0.1 to M9.1	1	-2	-	11.40	-	-	0.35	9.75	21	-11.25
HE80, M0.1 to M9.1	4	-2	3.85	8.19	8.55	8.07	0.35	11.89	21	-9.11
HE80, M0.4 to M9.4-BF	4	-2	3.73	8.26	8.36	7.94	0.35	11.80	21	-9.20

Note: antenna gain at elevation angle above 30 degrees was obtained from C-ANT9104 “Marlin-4” Radio Frequency Device Validation Test Results Summary (EDCS Number: 21968895) provided by customer.

U-NII-2A

5260 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC/IC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.46	-	-	0.38	15.84	22.00	-6.16
non HT20, 6 to 54 Mbps	4	8.00	3.05	7.61	7.85	7.27	0.38	13.21	22.00	-8.79
non HT20, 6 to 54 Mbps-BF	4	11.00	2.93	7.55	8.02	7.21	0.38	13.22	19.00	-5.78
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.48	-	-	0.21	15.69	22.00	-6.31
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	2.78	7.32	7.74	7.15	0.21	12.87	22.00	-9.13
VHT20, M0.4 to M9.4-BF	4	8.00	9.17	13.66	13.68	13.50	0.21	19.09	22.00	-2.91
HE20, M0.1 to M9.1	1	8.00	-	15.56	-	-	0.23	15.80	22.00	-6.20
HE20, M0.1 to M9.1	4	8.00	3.30	7.57	8.19	7.49	0.23	13.25	22.00	-8.75
HE20, M0.4 to M9.4-BF	4	8.00	9.26	13.59	14.01	13.52	0.23	19.21	22.00	-2.79

5300 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC/IC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.52	-	-	0.38	15.89	22.00	-6.11
non HT20, 6 to 54 Mbps	4	8.00	3.55	7.49	7.75	7.67	0.38	13.32	22.00	-8.68
non HT20, 6 to 54 Mbps-BF	4	11.00	3.52	7.64	7.71	7.77	0.38	13.37	19.00	-5.63
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.45	-	-	0.21	15.66	22.00	-6.34
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	3.52	7.33	6.98	7.41	0.21	12.80	22.00	-9.20
VHT20, M0.4 to M9.4-BF	4	8.00	9.73	13.54	13.89	13.70	0.21	19.24	22.00	-2.76
HE20, M0.1 to M9.1	1	8.00	-	15.67	-	-	0.23	15.90	22.00	-6.10
HE20, M0.1 to M9.1	4	8.00	3.62	7.65	8.09	7.91	0.23	13.40	22.00	-8.60
HE20, M0.4 to M9.4-BF	4	8.00	9.93	13.77	14.07	14.11	0.23	19.52	22.00	-2.48

5320 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC/IC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.93	-	-	0.38	16.31	22.00	-5.69
non HT20, 6 to 54 Mbps	4	8.00	2.59	6.83	6.56	7.31	0.38	12.56	22.00	-9.44
non HT20, 6 to 54 Mbps-BF	4	11.00	3.43	7.78	8.12	7.86	0.38	13.56	19.00	-5.44
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.65	-	-	0.21	15.87	22.00	-6.13
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	3.24	7.66	8.12	7.83	0.21	13.33	22.00	-8.67
VHT20, M0.4 to M9.4-BF	4	8.00	9.34	13.96	14.33	14.03	0.21	19.55	22.00	-2.45
HE20, M0.1 to M9.1	1	8.00	-	15.05	-	-	0.23	15.28	22.00	-6.72
HE20, M0.1 to M9.1	4	8.00	3.60	8.10	8.35	8.14	0.23	13.68	22.00	-8.32
HE20, M0.4 to M9.4-BF	4	8.00	9.68	14.14	14.44	14.24	0.23	19.75	22.00	-2.25

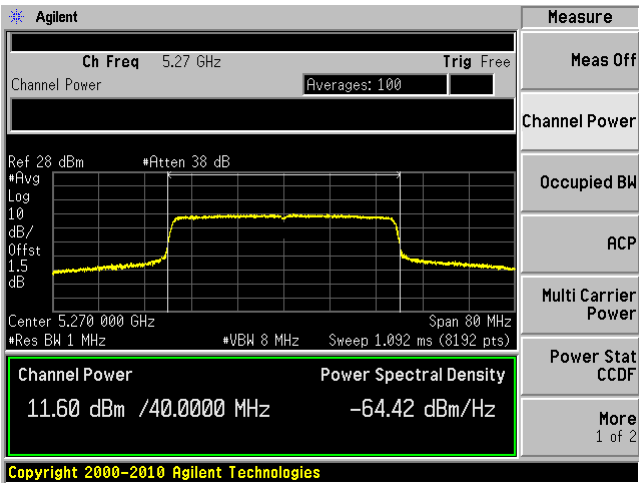
5270 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC/IC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	15.19	-	-	0.40	15.59	22.00	-6.41
non HT40, 6 to 54 Mbps	4	8.00	5.93	10.36	10.79	10.28	0.40	16.13	22.00	-5.87
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	15.35	-	-	0.38	15.73	22.00	-6.27
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	6.12	10.34	10.62	10.30	0.38	16.08	22.00	-5.92
VHT40, M0.4 to M9.4-BF	4	8.00	10.98	15.50	15.94	15.30	0.38	21.22	22.00	-0.78
HE40, M0.1 to M9.1	1	8.00	-	15.94	-	-	0.11	16.05	22.00	-5.95
HE40, M0.1 to M9.1	4	8.00	6.47	10.91	11.09	10.88	0.11	16.32	22.00	-5.68
HE40, M0.4 to M9.4-BF	4	8.00	11.60	15.72	16.38	15.64	0.11	21.31	22.00	-0.69

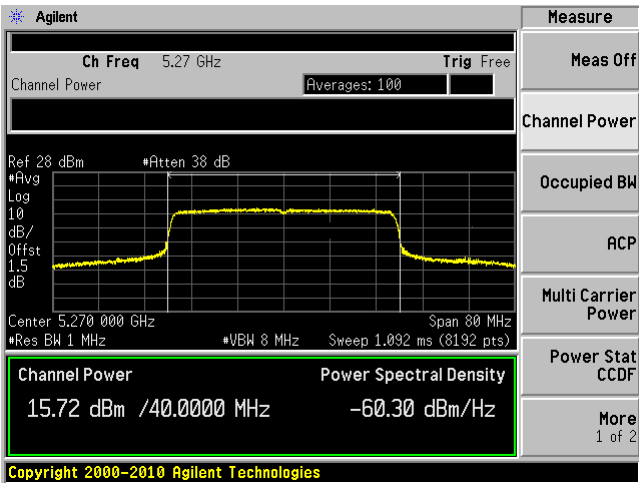
Please refer to the following plots for the worst case configuration

5270 MHz

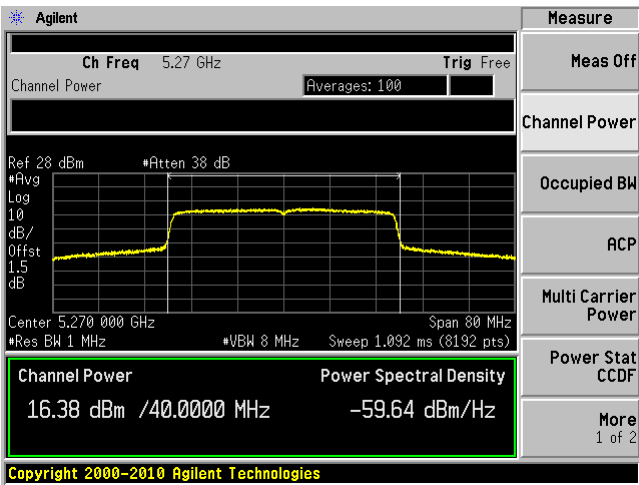
Ant-1



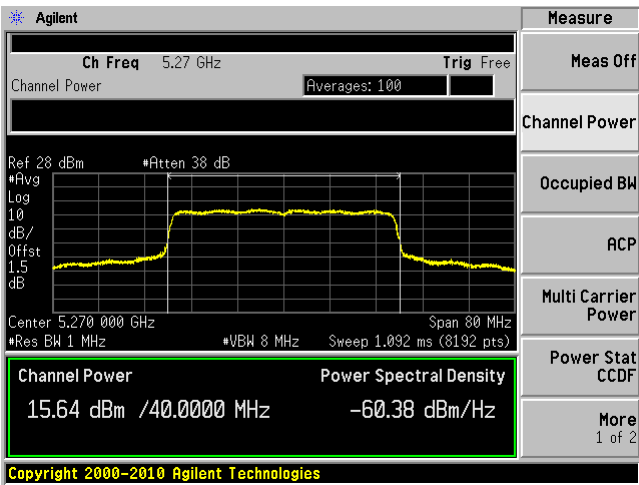
Ant-2



Ant-3



Ant-4



5310 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC/IC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	12.60	-	-	0.40	13.00	22.00	-9.00
non HT40, 6 to 54 Mbps	4	8.00	6.53	10.46	10.68	10.60	0.40	16.28	22.00	-5.72
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	12.66	-	-	0.38	13.04	22.00	-8.96
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	6.33	10.55	10.53	10.70	0.38	16.26	22.00	-5.74
VHT40, M0.4 to M9.4-BF	4	8.00	6.67	10.39	10.57	10.59	0.38	16.24	22.00	-5.76
HE40, M0.1 to M9.1	1	8.00	-	13.13	-	-	0.11	13.24	22.00	-8.76
HE40, M0.1 to M9.1	4	8.00	7.09	10.91	11.19	11.05	0.11	16.48	22.00	-5.52
HE40, M0.4 to M9.4-BF	4	8.00	7.18	10.91	11.24	11.13	0.11	16.53	22.00	-5.47

5290 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC/IC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	12.30	-	-	0.37	12.68	22.00	-9.32
non HT80, 6 to 54 Mbps	4	8.00	5.09	9.13	9.57	9.58	0.37	15.08	22.00	-6.92
VHT80, M0.1 to M9.1	1	8.00	-	11.20	-	-	0.36	11.56	22.00	-10.44
VHT80, M0.1 to M9.1	4	8.00	5.15	9.47	9.74	9.42	0.36	15.17	22.00	-6.83
VHT80, M0.4 to M9.4-BF	4	8.00	5.29	9.34	9.77	9.85	0.36	15.29	22.00	-6.71
HE80, M0.1 to M9.1	1	8.00	-	11.84	-	-	0.35	12.19	22.00	-9.81
HE80, M0.1 to M9.1	4	8.00	4.89	8.72	9.00	9.00	0.35	14.57	22.00	-7.43
HE80, M0.4 to M9.4-BF	4	8.00	5.11	8.61	9.02	8.99	0.35	14.56	22.00	-7.44

U-NII-2C

5500 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.15	-	-	0.38	15.53	22.00	-6.47
non HT20, 6 to 54 Mbps	4	8.00	3.81	6.47	6.99	6.74	0.38	12.57	22.00	-9.43
non HT20, 6 to 54 Mbps-BF	4	11.00	4.17	7.15	7.95	7.83	0.38	13.41	19.00	-5.59
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	14.19	-	-	0.21	14.40	22.00	-7.60
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	4.12	7.16	7.62	7.71	0.21	13.10	22.00	-8.90
VHT20, M0.4 to M9.4-BF	4	8.00	8.33	11.19	11.94	11.80	0.21	17.27	22.00	-4.73
HE20, M0.1 to M9.1	1	8.00	-	14.50	-	-	0.23	14.73	22.00	-7.27
HE20, M0.1 to M9.1	4	8.00	4.45	7.30	8.21	8.02	0.23	13.48	22.00	-8.52
HE20, M0.4 to M9.4-BF	4	8.00	9.56	12.45	13.32	13.08	0.23	18.58	22.00	-3.42

5580 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.69	-	-	0.38	16.07	22.00	-5.93
non HT20, 6 to 54 Mbps	4	8.00	3.81	6.47	7.57	6.72	0.38	12.74	22.00	-9.26
non HT20, 6 to 54 Mbps-BF	4	11.00	3.86	6.54	7.44	6.75	0.38	12.74	21.00	-8.26
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.70	-	-	0.21	15.91	22.00	-6.09
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	4.77	7.51	8.05	7.46	0.21	13.35	22.00	-8.65
VHT20, M0.4 to M9.4-BF	4	8.00	8.86	11.62	12.63	11.45	0.21	17.58	22.00	-4.42
HE20, M0.1 to M9.1	1	8.00	-	15.89	-	-	0.23	16.12	22.00	-5.88
HE20, M0.1 to M9.1	4	8.00	5.10	7.81	8.67	7.51	0.23	13.71	22.00	-8.29
HE20, M0.4 to M9.4-BF	4	8.00	10.23	12.94	13.80	13.00	0.23	18.93	22.00	-3.07

5700 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.00	-	-	0.38	15.37	22.00	-6.63
non HT20, 6 to 54 Mbps	4	8.00	3.97	6.84	6.53	6.51	0.38	12.50	22.00	-9.50
non HT20, 6 to 54 Mbps-BF	4	11.00	3.97	6.86	6.50	6.54	0.38	12.50	19.00	-6.50
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	13.59	-	-	0.21	13.80	22.00	-8.20
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	4.69	7.59	7.54	7.27	0.21	13.16	22.00	-8.84
VHT20, M0.4 to M9.4-BF	4	8.00	9.54	12.70	12.48	12.28	0.21	18.15	22.00	-3.85
HE20, M0.1 to M9.1	1	8.00	-	14.12	-	-	0.23	14.35	22.00	-7.65
HE20, M0.1 to M9.1	4	8.00	5.20	8.09	7.72	7.74	0.23	13.58	22.00	-8.42
HE20, M0.4 to M9.4-BF	4	8.00	9.27	11.94	11.77	11.73	0.23	17.55	22.00	-4.45

5720 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	16.17	-	-	0.38	16.55	22.00	-5.45
non HT20, 6 to 54 Mbps	4	8.00	3.30	6.86	6.82	6.45	0.38	12.47	22.00	-9.53
non HT20, 6 to 54 Mbps-BF	4	11.00	3.30	7.05	6.79	6.44	0.38	12.52	19.00	-6.48
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	16.05	-	-	0.21	16.27	22.00	-5.73
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	4.11	8.08	7.58	7.35	0.21	13.26	22.00	-8.74
VHT20, M0.4 to M9.4-BF	4	8.00	10.18	14.10	13.75	13.65	0.21	19.41	22.00	-2.59
HE20, M0.1 to M9.1	1	8.00	-	16.29	-	-	0.23	16.52	22.00	-5.48
HE20, M0.1 to M9.1	4	8.00	4.39	8.15	8.01	7.61	0.23	13.53	22.00	-8.47
HE20, M0.4 to M9.4-BF	4	8.00	9.46	13.28	12.98	12.63	0.23	18.57	22.00	-3.43

5510 MHz:

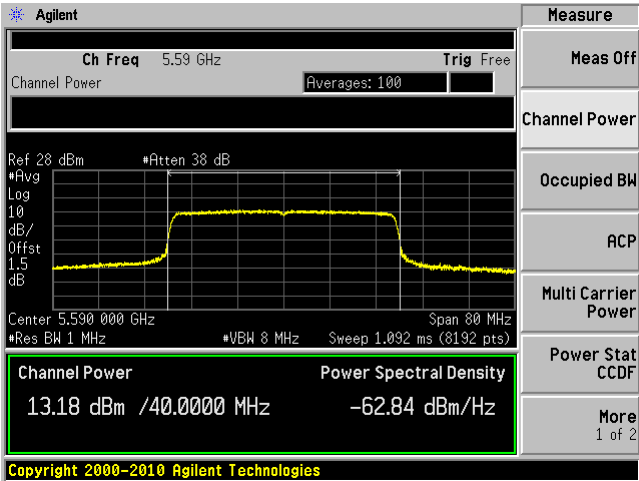
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	11.08	-	-	0.40	11.48	22.00	-10.52
non HT40, 6 to 54 Mbps	4	8.00	6.00	8.90	9.66	9.51	0.40	15.16	22.00	-6.84
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	12.32	-	-	0.38	12.71	22.00	-9.29
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	7.27	9.98	10.91	10.49	0.38	16.27	22.00	-5.73
VHT40, M0.4 to M9.4-BF	4	8.00	8.26	10.95	12.06	11.68	0.38	17.37	22.00	-4.63
HE40, M0.1 to M9.1	1	8.00	-	12.49	-	-	0.11	12.60	22.00	-9.40
HE40, M0.1 to M9.1	4	8.00	7.62	10.39	11.30	11.11	0.11	16.46	22.00	-5.54
HE40, M0.4 to M9.4-BF	4	8.00	8.52	11.60	12.27	12.14	0.11	17.50	22.00	-4.50

5590 MHz:

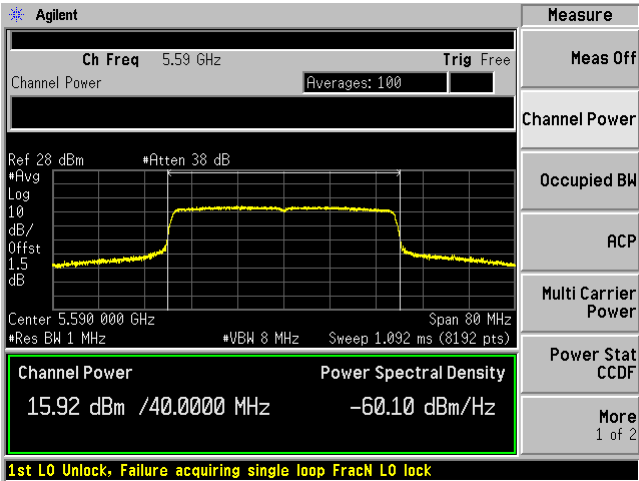
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	15.33	-	-	0.40	15.72	22.00	-6.28
non HT40, 6 to 54 Mbps	4	8.00	6.65	9.40	10.25	9.35	0.40	15.52	22.00	-6.48
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	15.47	-	-	0.38	15.85	22.00	-6.15
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	7.60	10.20	11.42	10.37	0.38	16.51	22.00	-5.49
VHT40, M0.4 to M9.4-BF	4	8.00	12.93	15.61	16.68	15.72	0.38	21.84	22.00	-0.16
HE40, M0.1 to M9.1	1	8.00	-	15.99	-	-	0.11	16.10	22.00	-5.90
HE40, M0.1 to M9.1	4	8.00	7.19	9.86	10.70	9.88	0.11	15.72	22.00	-6.28
HE40, M0.4 to M9.4-BF	4	8.00	13.18	15.92	17.28	15.99	0.11	21.96	22.00	-0.04

Please refer to the following plots for the worst case configuration

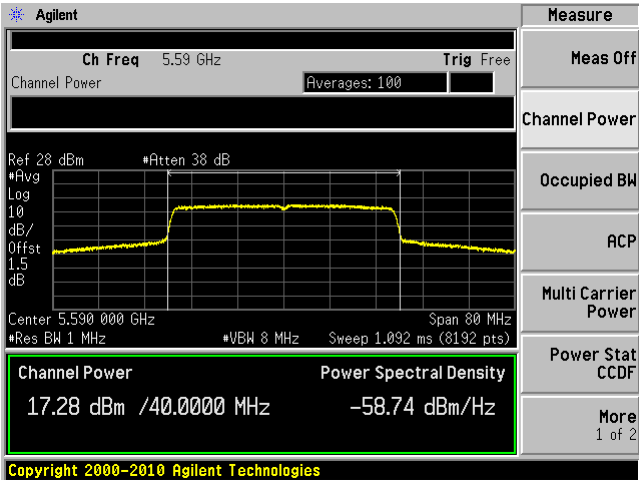
Ant-1



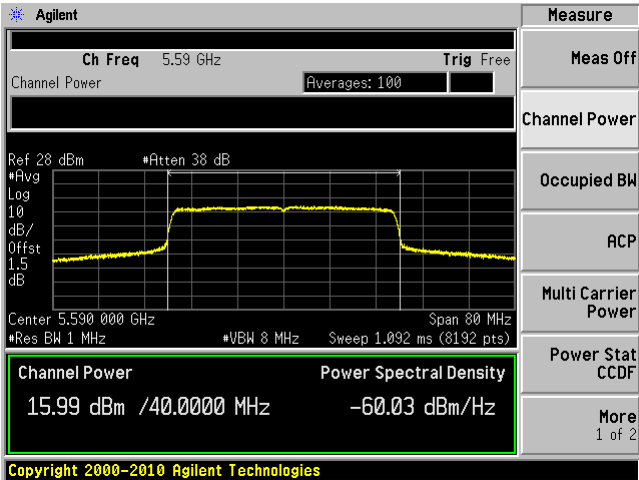
Ant-2



Ant-3



Ant-4



5670 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	13.44	-	-	0.40	13.83	22.00	-8.17
non HT40, 6 to 54 Mbps	4	8.00	7.35	9.35	9.47	9.27	0.40	15.36	22.00	-6.64
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	15.51	-	-	0.38	15.90	22.00	-6.10
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	8.20	10.56	10.90	10.25	0.38	16.50	22.00	-5.50
VHT40, M0.4 to M9.4-BF	4	8.00	11.36	13.26	13.82	13.34	0.38	19.44	22.00	-2.56
HE40, M0.1 to M9.1	1	8.00	-	15.00	-	-	0.11	15.11	22.00	-6.89
HE40, M0.1 to M9.1	4	8.00	8.71	10.93	11.17	10.81	0.11	16.64	22.00	-5.36
HE40, M0.4 to M9.4-BF	4	8.00	10.64	12.95	13.12	12.94	0.11	18.65	22.00	-3.35

5710 MHz

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	15.71	-	-	0.40	16.10	22.00	-5.90
non HT40, 6 to 54 Mbps	4	8.00	7.45	10.68	10.50	10.24	0.40	16.31	22.00	-5.69
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	16.10	-	-	0.38	16.48	22.00	-5.52
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	7.66	10.68	10.63	10.39	0.38	16.41	22.00	-5.59
VHT40, M0.4 to M9.4-BF	4	8.00	12.34	16.13	15.97	15.58	0.38	21.65	22.00	-0.35
HE40, M0.1 to M9.1	1	8.00	-	16.42	-	-	0.11	16.53	22.00	-5.47
HE40, M0.1 to M9.1	4	8.00	6.94	10.16	9.89	9.81	0.11	15.51	22.00	-6.49
HE40, M0.4 to M9.4-BF	4	8.00	12.84	16.22	16.33	15.97	0.11	21.68	22.00	-0.32

5530 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	11.02	-	-	0.37	11.40	22.00	-10.60
non HT80, 6 to 54 Mbps	4	8.00	5.13	7.98	8.53	8.34	0.37	14.09	22.00	-7.91
VHT80, M0.1 to M9.1	1	8.00	-	11.45	-	-	0.36	11.81	22.00	-10.19
VHT80, M0.1 to M9.1	4	8.00	6.53	9.07	9.82	9.53	0.36	15.29	22.00	-6.71
VHT80, M0.4 to M9.4-BF	4	8.00	6.17	8.95	9.81	9.51	0.36	15.20	22.00	-6.80
HE80, M0.1 to M9.1	1	8.00	-	11.40	-	-	0.35	11.75	22.00	-10.25
HE80, M0.1 to M9.1	4	8.00	5.90	8.55	9.38	8.86	0.35	14.72	22.00	-7.28
HE80, M0.4 to M9.4-BF	4	8.00	5.83	8.47	9.39	8.85	0.35	14.69	22.00	-7.31

5610 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	15.29	-	-	0.37	15.67	22.00	-6.33
non HT80, 6 to 54 Mbps	4	8.00	9.25	12.13	12.87	12.06	0.37	18.17	22.00	-3.83
VHT80, M0.1 to M9.1	1	8.00	-	15.49	-	-	0.36	15.85	22.00	-6.15
VHT80, M0.1 to M9.1	4	8.00	10.56	13.34	14.24	13.25	0.36	19.42	22.00	-2.58
VHT80, M0.4 to M9.4-BF	4	8.00	12.47	15.58	16.56	15.75	0.36	21.71	22.00	-0.29
HE80, M0.1 to M9.1	1	8.00	-	15.58	-	-	0.35	15.92	22.00	-6.08
HE80, M0.1 to M9.1	4	8.00	9.85	12.62	13.58	12.68	0.35	18.75	22.00	-3.25
HE80, M0.4 to M9.4-BF	4	8.00	12.84	15.57	16.62	15.92	0.35	21.82	22.00	-0.18

5690 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Max Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	15.77	-	-	0.37	16.14	22.00	-5.86
non HT80, 6 to 54 Mbps	4	8.00	9.75	12.54	12.43	12.24	0.37	18.28	22.00	-3.72
VHT80, M0.1 to M9.1	1	8.00	-	15.67	-	-	0.36	16.02	22.00	-5.98
VHT80, M0.1 to M9.1	4	8.00	9.91	12.89	12.84	12.59	0.36	18.60	22.00	-3.40
VHT80, M0.4 to M9.4-BF	4	8.00	12.59	15.75	15.81	15.65	0.36	21.52	22.00	-0.48
HE80, M0.1 to M9.1	1	8.00	-	16.05	-	-	0.35	16.39	22.00	-5.61
HE80, M0.1 to M9.1	4	8.00	10.40	13.13	13.07	12.77	0.35	18.84	22.00	-3.16
HE80, M0.4 to M9.4-BF	4	8.00	13.09	15.79	16.08	15.94	0.35	21.75	22.00	-0.25

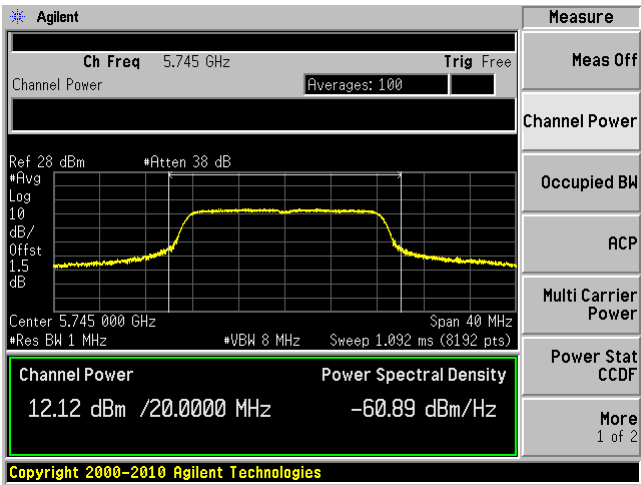
U-NII-3

5745 MHz:

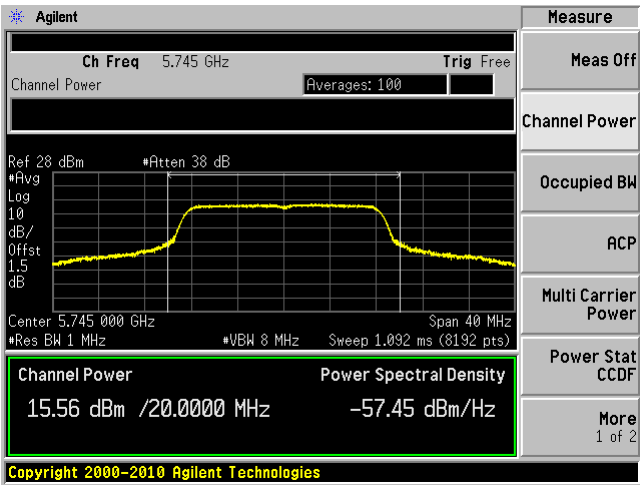
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total conducted Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.56	-	-	0.38	15.94	28.00	-12.06
non HT20, 6 to 54 Mbps	4	8.00	12.01	15.45	16.53	15.74	0.38	21.63	28.00	-6.37
non HT20, 6 to 54 Mbps-BF	4	11.00	12.12	15.56	16.50	15.78	0.38	21.67	25.00	-3.33
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.81	-	-	0.21	16.03	28.00	-11.97
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	12.15	15.45	16.66	15.88	0.21	21.56	28.00	-6.44
VHT20, M0.4 to M9.4-BF	4	8.00	12.01	15.46	16.60	15.72	0.21	21.49	28.00	-6.51
HE20, M0.1 to M9.1	1	8.00	-	15.84	-	-	0.23	16.07	28.00	-11.93
HE20, M0.1 to M9.1	4	8.00	12.34	15.77	16.74	15.96	0.23	21.74	28.00	-6.26
HE20, M0.4 to M9.4-BF	4	8.00	12.39	15.81	16.74	16.01	0.23	21.77	28.00	-6.23

Please refer to the following plots for the worst case configuration

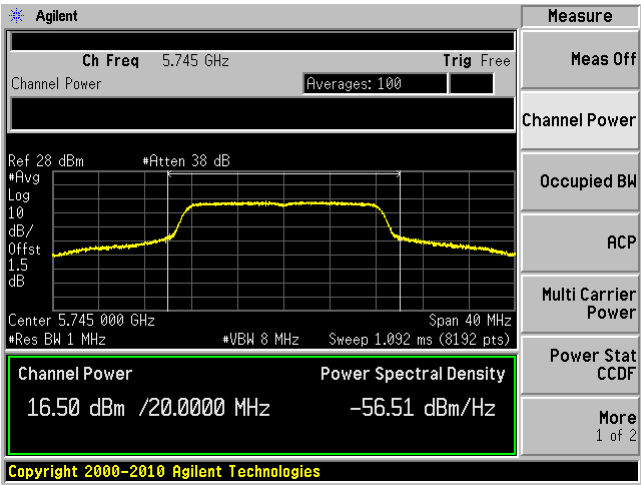
Ant-1



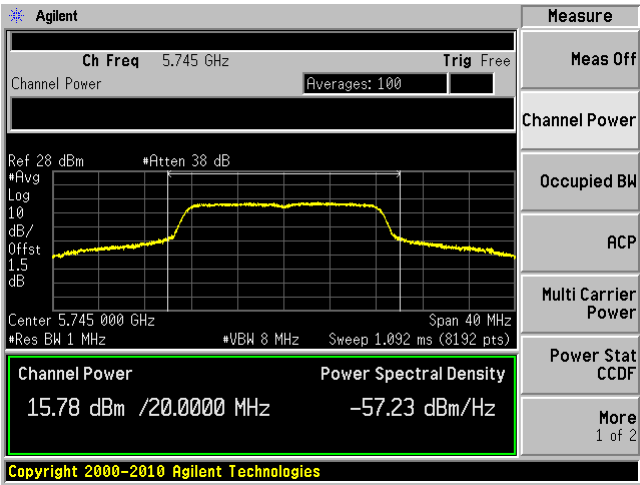
Ant-2



Ant-3



Ant-4



5785 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Conducted Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	15.98	-	-	0.38	16.36	28.00	-11.64
non HT20, 6 to 54 Mbps	4	8.00	12.69	15.93	16.59	16.36	0.38	22.04	28.00	-5.96
non HT20, 6 to 54 Mbps-BF	4	11.00	11.53	14.99	15.60	15.39	0.38	21.04	25.00	-3.96
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.81	-	-	0.21	16.02	28.00	-11.98
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	12.61	15.89	16.54	16.08	0.21	21.76	28.00	-6.24
VHT20, M0.4 to M9.4-BF	4	8.00	12.53	15.74	16.64	16.39	0.21	21.83	28.00	-6.17
HE20, M0.1 to M9.1	1	8.00	-	16.12	-	-	0.23	16.35	28.00	-11.65
HE20, M0.1 to M9.1	4	8.00	12.88	16.18	16.85	16.47	0.23	22.10	28.00	-5.90
HE20, M0.4 to M9.4-BF	4	8.00	12.76	16.20	16.89	16.29	0.23	22.05	28.00	-5.95

5825 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Conducted Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	16.03	-	-	0.38	16.40	28.00	-11.60
non HT20, 6 to 54 Mbps	4	8.00	12.31	16.02	16.37	16.45	0.38	21.97	28.00	-6.03
non HT20, 6 to 54 Mbps-BF	4	11.00	11.27	15.01	15.22	15.67	0.38	20.99	25.00	-4.01
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	15.83	-	-	0.21	16.05	28.00	-11.95
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	12.11	15.94	16.18	16.61	0.21	21.76	28.00	-6.24
VHT20, M0.4 to M9.4-BF	4	8.00	12.30	16.02	16.32	16.46	0.21	21.80	28.00	-6.20
HE20, M0.1 to M9.1	1	8.00	-	16.06	-	-	0.23	16.29	28.00	-11.71
HE20, M0.1 to M9.1	4	8.00	12.56	16.15	16.09	16.82	0.23	21.93	28.00	-6.07
HE20, M0.4 to M9.4-BF	4	8.00	12.48	16.25	16.45	16.51	0.23	21.96	28.00	-6.04

5755 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Conducted Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	15.44	-	-	0.40	15.83	28.00	-12.17
non HT40, 6 to 54 Mbps	4	8.00	12.11	15.47	16.42	15.69	0.40	21.62	28.00	-6.38
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	15.75	-	-	0.38	16.13	28.00	-11.87
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	12.35	15.82	16.81	15.98	0.38	21.94	28.00	-6.06
VHT40, M0.4 to M9.4-BF	4	8.00	12.28	15.62	16.75	16.10	0.38	21.89	28.00	-6.11
HE40, M0.1 to M9.1	1	8.00	-	16.12	-	-	0.11	16.23	28.00	-11.77
HE40, M0.1 to M9.1	4	8.00	12.77	16.14	17.12	16.49	0.11	22.04	28.00	-5.96
HE40, M0.4 to M9.4-BF	4	8.00	12.79	16.02	17.21	16.50	0.11	22.05	28.00	-5.95

5795 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Conducted Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	15.53	-	-	0.40	15.93	28.00	-12.07
non HT40, 6 to 54 Mbps	4	8.00	12.61	15.74	16.32	16.04	0.40	21.82	28.00	-6.18
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	15.92	-	-	0.38	16.30	28.00	-11.70
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	12.62	16.10	16.86	16.61	0.38	22.24	28.00	-5.76
VHT40, M0.4 to M9.4-BF	4	8.00	12.64	16.02	17.04	16.54	0.38	22.26	28.00	-5.74
HE40, M0.1 to M9.1	1	8.00	-	16.18	-	-	0.11	16.29	28.00	-11.71
HE40, M0.1 to M9.1	4	8.00	13.31	16.24	17.27	16.85	0.11	22.29	28.00	-5.71
HE40, M0.4 to M9.4-BF	4	8.00	13.31	16.14	17.24	16.91	0.11	22.27	28.00	-5.73

5775 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Tx 4 Max Power (dBm)	DCCF (dB)	Total Conducted Power (dBm)	FCC Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	15.43	-	-	0.37	15.80	28.00	-12.20
non HT80, 6 to 54 Mbps	4	8.00	12.29	15.55	16.42	15.91	0.37	21.70	28.00	-6.30
VHT80, M0.1 to M9.1	1	8.00	-	15.78	-	-	0.36	16.14	28.00	-11.86
VHT80, M0.1 to M9.1	4	8.00	12.49	15.88	16.78	16.32	0.36	22.03	28.00	-5.97
VHT80, M0.4 to M9.4-BF	4	8.00	12.58	15.75	16.89	16.17	0.36	22.00	28.00	-6.00
HE80, M0.1 to M9.1	1	8.00	-	16.15	-	-	0.35	16.50	28.00	-11.50
HE80, M0.1 to M9.1	4	8.00	12.86	15.90	17.09	16.49	0.35	22.22	28.00	-5.78
HE80, M0.4 to M9.4-BF	4	8.00	12.96	16.04	17.15	16.46	0.35	22.28	28.00	-5.72

7 FCC §15.407(a) & ISEDC RSS-247 §6.2 – Power Spectral Density

7.1 Applicable Standards

According to FCC §15.407(a):

For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The

operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

According to ISERC RSS-247 §6.2.1 for frequency band 5150-5250 MHz:

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to ISERC RSS-247 §6.2.2 for frequency band 5250-5350 MHz:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to ISERC RSS-247 §6.2.3 for frequency band 5470-5600 MHz and 5650-5725 MHz:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to ISERC RSS-247 §6.2.4 for frequency band 5725-5850 MHz:

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

7.2 Measurement Procedure

- (i) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- (ii) Set RBW = 1 MHz.
- (iii) Set VBW $\geq$ 3 MHz.
- (iv) Number of points in sweep $\geq$ 2 Span / RBW. (This ensures that bin-to-bin spacing is $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)
- (v) Sweep time = auto.
- (vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- (vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle $\geq$ 98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
- (viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- (ix) Use the peak search function on the instrument to find the peak of the spectrum and record its value.

7.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	MY48250238	2021-02-12	1 year
Radiall	SP8T Coax Switch	R574F11801	2011	N/A	N/A
-	RF cable	-	-	Each time ¹	N/A

Note¹: cable and attenuator included in the test set-up will be checked each time before testing.

Statement of Traceability: *BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to NIST or to another internationally recognized National Metrology Institute (NMI), and were compliant with the latest version of A2LA policy P102 "A2LA Policy on Metrological Traceability".*

7.4 Test Environmental Conditions

Temperature:	21-25 °C
Relative Humidity:	40-55 %
ATM Pressure:	101.3-102.9 kPa

The testing was performed by Alexandrae Duran on 2021-07-08 to 2021-07-12 in bench.

7.5 Test Results

Please refer to the following tables and plots

U-NII-1 (FCC Only)

5180 MHz:

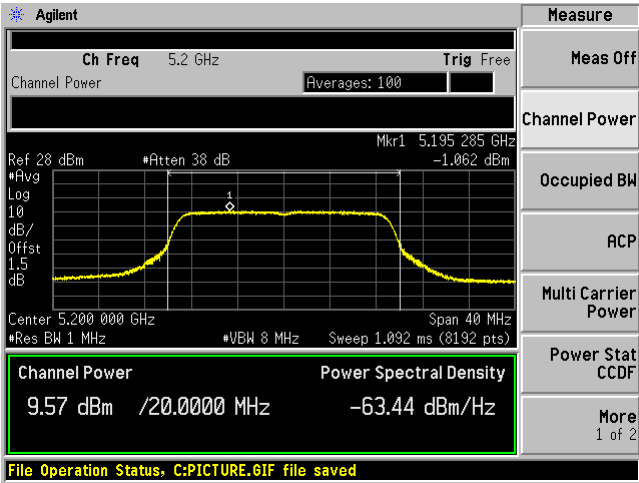
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	2.897	-	-	0.38	3.27	15.00	-11.73
non HT20, 6 to 54 Mbps	4	11.00	-1.805	2.219	2.498	2.937	0.38	8.21	12.00	-3.79
non HT20, 6 to 54 Mbps-BF	4	11.00	-1.657	2.29	2.254	2.694	0.38	8.10	12.00	-3.90
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	4.788	-	-	0.21	5.00	15.00	-10.00
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-0.804	2.921	2.959	3.47	0.21	8.66	12.00	-3.34
VHT20, M0.4 to M9.4-BF	4	8.00	-0.623	3.005	2.98	3.239	0.21	8.64	15.00	-6.36
HE20, M0.1 to M9.1	1	8.00	-	3.887	-	-	0.23	4.12	15.00	-10.88
HE20, M0.1 to M9.1	4	11.00	-0.723	3.183	3.148	3.282	0.23	8.76	12.00	-3.24
HE20, M0.4 to M9.4-BF	4	8.00	-0.715	3.241	3.133	3.409	0.23	8.81	15.00	-6.19

5200 MHz:

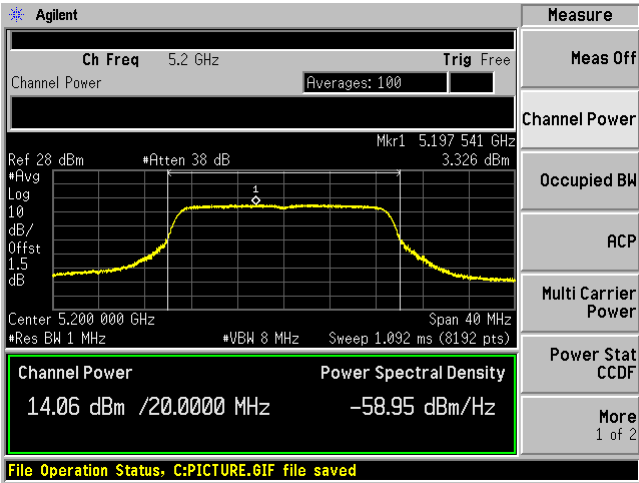
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	5.6	-	-	0.38	5.98	15.00	-9.02
non HT20, 6 to 54 Mbps	4	11.00	-1.36	3.16	3.26	2.91	0.38	8.75	12.00	-3.25
non HT20, 6 to 54 Mbps-BF	4	11.00	-2.025	2.58	2.209	2.414	0.38	8.04	12.00	-3.96
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	5.265	-	-	0.21	5.48	15.00	-9.52
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-1.062	3.326	3.249	3.584	0.21	8.86	12.00	-3.14
VHT20, M0.4 to M9.4-BF	4	8.00	0.923	5.387	5.524	5.539	0.21	10.95	15.00	-4.05
HE20, M0.1 to M9.1	1	8.00	-	5.037	-	-	0.23	5.27	15.00	-9.73
HE20, M0.1 to M9.1	4	11.00	-1.16	2.96	2.82	3.11	0.23	8.49	12.00	-3.51
HE20, M0.4 to M9.4-BF	4	8.00	0.911	5.614	5.443	5.744	0.23	11.07	15.00	-3.93

Please refer to the following plots for the worst case configuration

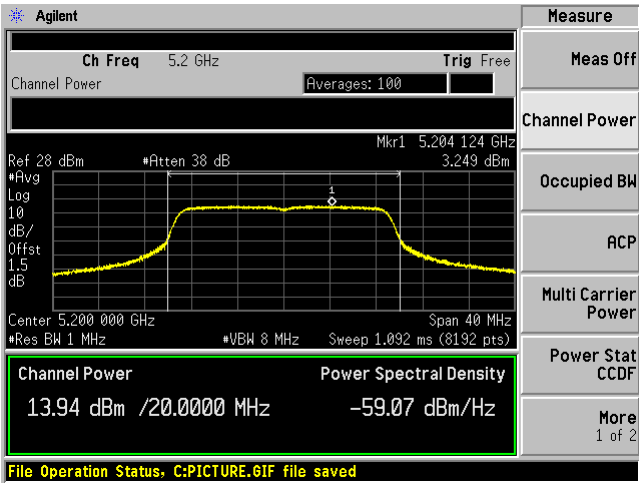
Ant-1



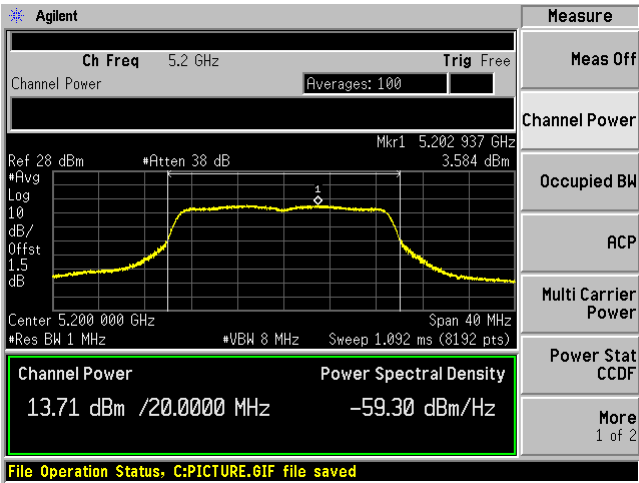
Ant-2



Ant-3



Ant-4



5240 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	5.007	-	-	0.38	5.38	15.00	-9.62
non HT20, 6 to 54 Mbps	4	11.00	-1.68	3.02	3.43	2.76	0.38	8.68	12.00	-3.32
non HT20, 6 to 54 Mbps-BF	4	11.00	-1.50	2.77	3.46	2.67	0.38	8.62	12.00	-3.38
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	4.87	-	-	0.21	5.08	15.00	-9.92
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-1.631	3.051	3.261	3.099	0.21	8.58	12.00	-3.42
VHT20, M0.4 to M9.4-BF	4	8.00	0.809	5.143	5.576	5.393	0.21	10.84	15.00	-4.16
HE20, M0.1 to M9.1	1	8.00	-	4.858	-	-	0.23	5.09	15.00	-9.91
HE20, M0.1 to M9.1	4	11.00	-1.66	2.45	3.43	3.13	0.23	8.49	12.00	-3.51
HE20, M0.4 to M9.4-BF	4	8.00	0.754	4.741	5.467	5.269	0.23	10.67	15.00	-4.33

5190 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-0.862	-	-	0.40	-0.47	15.00	-15.47
non HT40, 6 to 54 Mbps	4	11.00	-7.816	-3.741	-3.713	-3.201	0.40	2.13	12.00	-9.87
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-0.601	-	-	0.38	-0.22	15.00	-15.22
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-7.554	-3.111	-3.089	-2.571	0.38	2.71	12.00	-9.29
VHT40, M0.4 to M9.4-BF	4	8.00	-7.073	-3.298	-3.022	-2.482	0.38	2.76	15.00	-12.24
HE40, M0.1 to M9.1	1	8.00	-	-0.388	-	-	0.11	-0.28	15.00	-15.28
HE40, M0.1 to M9.1	4	11.00	-7.961	-3.925	-3.588	-3.444	0.11	1.74	12.00	-10.26
HE40, M0.4 to M9.4-BF	4	8.00	-8.019	-3.906	-3.508	-2.922	0.11	1.93	15.00	-13.07

5230 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	2.184	-	-	0.40	2.58	15.00	-12.42
non HT40, 6 to 54 Mbps	4	11.00	-2.289	1.882	2.581	2.408	0.40	7.94	12.00	-4.06
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	2.244	-	-	0.38	2.63	15.00	-12.37
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-2.722	2.366	2.835	2.534	0.38	8.14	12.00	-3.86
VHT40, M0.4 to M9.4-BF	4	8.00	-2.316	1.876	2.729	2.426	0.38	7.98	15.00	-7.02
HE40, M0.1 to M9.1	1	8.00	-	2.052	-	-	0.11	2.16	15.00	-12.84
HE40, M0.1 to M9.1	4	11.00	-2.297	2.406	3.145	2.502	0.11	8.01	12.00	-3.99
HE40, M0.4 to M9.4-BF	4	8.00	-2.086	2.365	3.063	2.468	0.11	7.99	15.00	-7.01

5210 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-4.85	-	-	0.37	-4.48	15.00	-19.48
non HT80, 6 to 54 Mbps	4	11.00	-12.651	-8.196	-8.182	-8.083	0.37	-2.52	12.00	-14.52
VHT80, M0.1 to M9.1	1	8.00	-	-5.623	-	-	0.36	-5.26	15.00	-20.26
VHT80, M0.1 to M9.1	4	11.00	-12.52	-7.525	-7.47	-7.876	0.36	-2.05	12.00	-14.05
VHT80, M0.4 to M9.4-BF	4	8.00	-12.587	-7.918	-7.765	-8.025	0.36	-2.31	15.00	-17.31
HE80, M0.1 to M9.1	1	8.00	-	-5.227	-	-	0.35	-4.88	15.00	-19.88
HE80, M0.1 to M9.1	4	11.00	-13.07	-8.384	-8.247	-8.302	0.35	-2.74	12.00	-14.74
HE80, M0.4 to M9.4-BF	4	8.00	-12.796	-8.578	-8.101	-8.355	0.35	-2.73	15.00	-17.73

U-NII-2A

5260 MHz

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC/IC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	4.95	-	-	0.38	5.32	9.00	-3.68
non HT20, 6 to 54 Mbps	4	11.00	-8.59	-3.67	-3.36	-3.59	0.38	2.04	6.00	-3.96
non HT20, 6 to 54 Mbps-BF	4	11.00	-7.65	-2.68	-2.45	-3.12	0.38	2.85	6.00	-3.15
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	4.72	-	-	0.21	4.93	9.00	-4.07
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-7.86	-3.24	-2.98	-3.38	0.21	2.26	6.00	-3.74
VHT20, M0.4 to M9.4-BF	4	8.00	-1.47	3.33	3.14	3.33	0.21	8.71	9.00	-0.29
HE20, M0.1 to M9.1	1	8.00	-	4.62	-	-	0.23	4.85	9.00	-4.15
HE20, M0.1 to M9.1	4	11.00	-7.40	-3.23	-2.56	-3.10	0.23	2.54	6.00	-3.46
HE20, M0.4 to M9.4-BF	4	8.00	-1.70	2.60	3.24	3.43	0.23	8.56	9.00	-0.44

5280 MHz

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC/IC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	4.85	-	-	0.38	5.23	9.00	-3.77
non HT20, 6 to 54 Mbps	4	11.00	-7.85	-3.66	-3.87	-3.37	0.38	2.03	6.00	-3.97
non HT20, 6 to 54 Mbps-BF	4	11.00	-7.82	-3.66	-3.63	-3.27	0.38	2.14	6.00	-3.86
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	4.75	-	-	0.21	4.96	9.00	-4.04
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-7.25	-3.19	-3.80	-2.95	0.21	2.23	6.00	-3.77
VHT20, M0.4 to M9.4-BF	4	8.00	-1.01	2.78	3.17	3.35	0.21	8.62	9.00	-0.38
HE20, M0.1 to M9.1	1	8.00	-	4.92	-	-	0.23	5.15	9.00	-3.85
HE20, M0.1 to M9.1	4	11.00	-7.13	-2.73	-2.90	-2.44	0.23	2.81	6.00	-3.19
HE20, M0.4 to M9.4-BF	4	8.00	-0.80	3.18	3.24	3.54	0.23	8.85	9.00	-0.15

5320 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC/IC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	5.58	-	-	0.38	5.96	9.00	-3.04
non HT20, 6 to 54 Mbps	4	11.00	-7.87	-3.29	-3.98	-2.61	0.38	2.36	6.00	-3.64
non HT20, 6 to 54 Mbps-BF	4	11.00	-7.87	-3.71	-3.38	-3.48	0.38	2.13	6.00	-3.87
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	4.99	-	-	0.21	5.20	9.00	-3.80
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-7.46	-2.90	-2.65	-2.66	0.21	2.71	6.00	-3.29
VHT20, M0.4 to M9.4-BF	4	8.00	-2.37	2.71	2.52	2.69	0.21	8.06	9.00	-0.94
HE20, M0.1 to M9.1	1	8.00	-	4.20	-	-	0.23	4.43	9.00	-4.57
HE20, M0.1 to M9.1	4	11.00	-8.48	-3.54	-3.48	-3.19	0.23	2.03	6.00	-3.97
HE20, M0.4 to M9.4-BF	4	8.00	-2.50	2.36	2.61	2.74	0.23	8.00	9.00	-1.00

5270 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC/IC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	1.68	-	-	0.40	2.08	9.00	-6.92
non HT40, 6 to 54 Mbps	4	11.00	-8.62	-3.91	-3.30	-3.39	0.40	2.07	6.00	-3.93
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	2.08	-	-	0.38	2.47	9.00	-6.54
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-7.61	-3.36	-3.10	-3.06	0.38	2.47	6.00	-3.53
VHT40, M0.4 to M9.4-BF	4	8.00	-2.65	2.19	2.26	1.89	0.38	7.73	9.00	-1.27
HE40, M0.1 to M9.1	1	8.00	-	1.90	-	-	0.11	2.01	9.00	-6.99
HE40, M0.1 to M9.1	4	11.00	-7.23	-2.79	-2.37	-2.71	0.11	2.74	6.00	-3.26
HE40, M0.4 to M9.4-BF	4	8.00	-2.20	2.15	2.90	2.41	0.11	7.84	9.00	-1.16

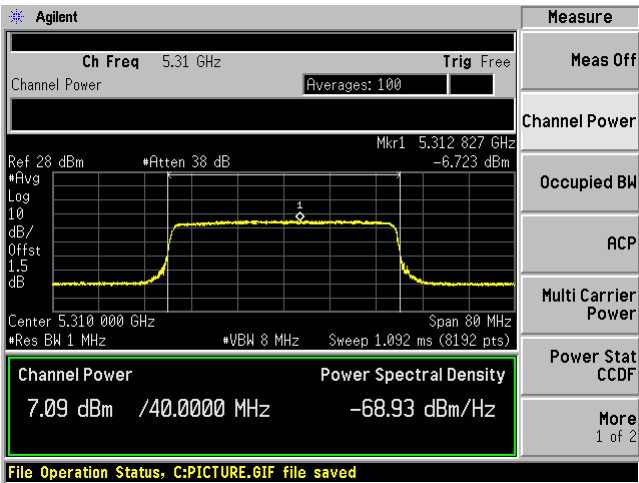
5310 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC/IC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-0.75	-	-	0.40	-0.36	9.00	-9.36
non HT40, 6 to 54 Mbps	4	11.00	-7.74	-3.74	-3.52	-3.11	0.40	2.23	6.00	-3.77
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-0.80	-	-	0.38	-0.41	9.00	-9.41
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-8.41	-4.04	-4.00	-2.93	0.38	1.99	6.00	-4.01
VHT40, M0.4 to M9.4-BF	4	8.00	-7.15	-3.24	-3.22	-2.66	0.38	2.65	9.00	-6.35
HE40, M0.1 to M9.1	1	8.00	-	-0.27	-	-	0.11	-0.16	9.00	-9.16
HE40, M0.1 to M9.1	4	11.00	-6.72	-2.64	-2.63	-2.29	0.11	2.88	6.00	-3.12
HE40, M0.4 to M9.4-BF	4	8.00	-6.40	-2.55	-2.61	-2.26	0.11	2.96	9.00	-6.04

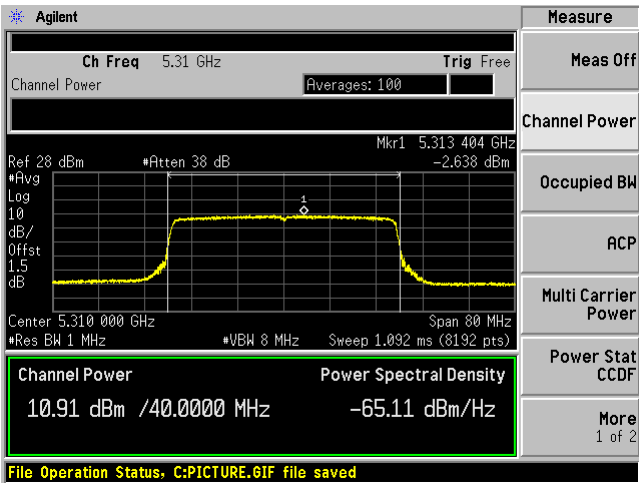
Please refer to the following plots for the worst case configuration

5310 MHz

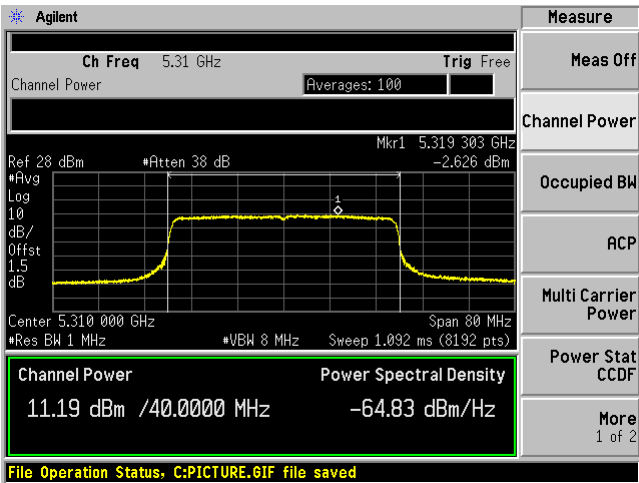
Ant-1



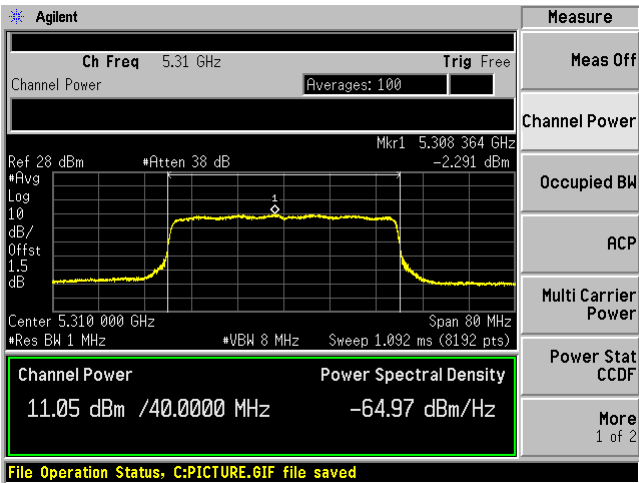
Ant-2



Ant-3



Ant-4



5290 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC/IC Limit (dBm/MHz)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-3.60	-	-	0.37	-3.22	9.00	-12.22
non HT80, 6 to 54 Mbps	4	11.00	-11.16	-6.87	-6.36	-6.41	0.37	-0.92	6.00	-6.92
VHT80, M0.1 to M9.1	1	8.00	-	-5.67	-	-	0.36	-5.31	9.00	-14.31
VHT80, M0.1 to M9.1	4	11.00	-11.54	-7.33	-7.09	-7.14	0.36	-1.56	6.00	-7.56
VHT80, M0.4 to M9.4-BF	4	8.00	-11.15	-7.41	-6.88	-6.41	0.36	-1.24	9.00	-10.24
HE80, M0.1 to M9.1	1	8.00	-	-5.05	-	-	0.35	-4.70	9.00	-13.70
HE80, M0.1 to M9.1	4	11.00	-11.90	-8.10	-7.89	-6.99	0.35	-2.00	6.00	-8.00
HE80, M0.4 to M9.4-BF	4	8.00	-11.79	-8.01	-7.78	-6.76	0.35	-1.86	9.00	-10.86

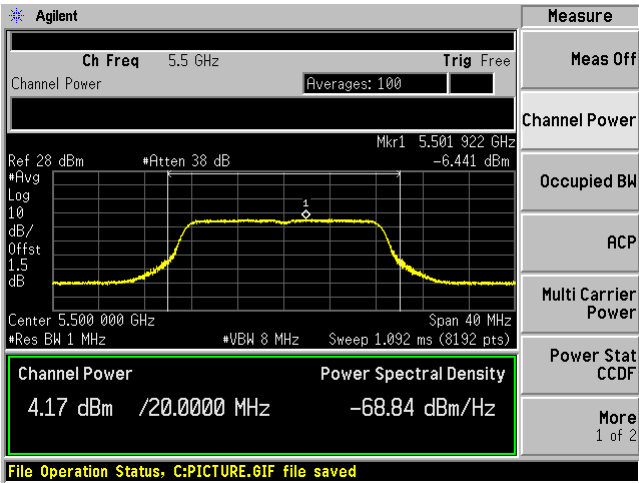
U-NII-2C

5500 MHz:

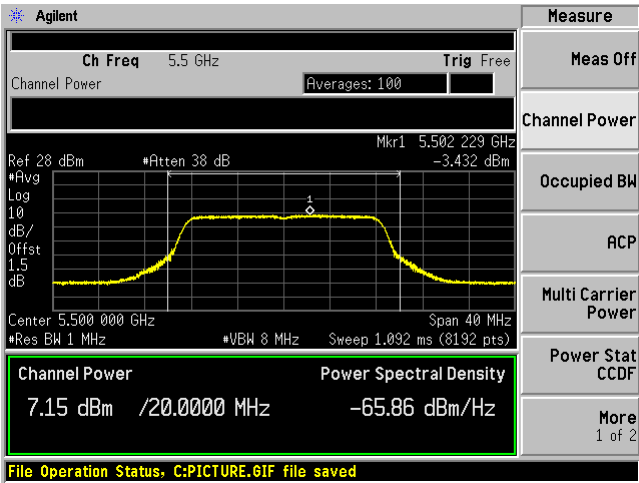
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	4.59	-	-	0.38	4.96	9.00	-4.04
non HT20, 6 to 54 Mbps	4	11.00	-6.82	-3.97	-3.33	-3.53	0.38	2.19	6.00	-3.81
non HT20, 6 to 54 Mbps-BF	4	11.00	-6.44	-3.43	-2.50	-2.53	0.38	2.93	6.00	-3.07
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	3.42	-	-	0.21	3.64	9.00	-5.36
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-6.69	-3.40	-3.04	-2.92	0.21	2.46	6.00	-3.54
VHT20, M0.4 to M9.4-BF	4	8.00	-2.29	0.56	1.24	1.27	0.21	6.65	9.00	-2.35
HE20, M0.1 to M9.1	1	8.00	-	3.74	-	-	0.23	3.97	9.00	-5.03
HE20, M0.1 to M9.1	4	11.00	-6.50	-3.46	-2.51	-2.68	0.23	2.72	6.00	-3.28
HE20, M0.4 to M9.4-BF	4	8.00	-1.42	1.66	2.44	2.36	0.23	7.76	9.00	-1.24

Please refer to the following plots for the worst case configuration

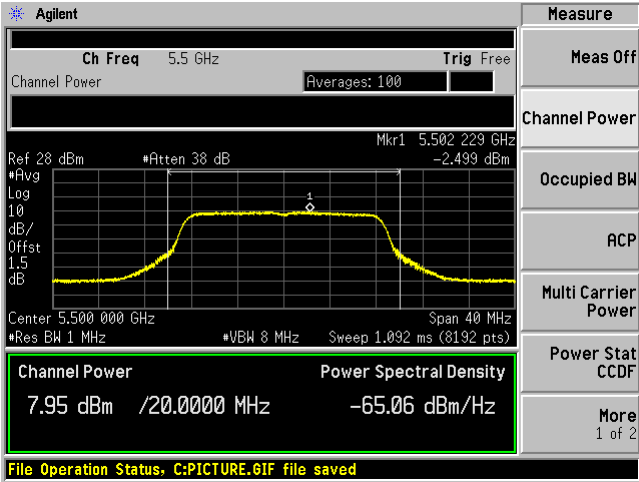
Ant-1



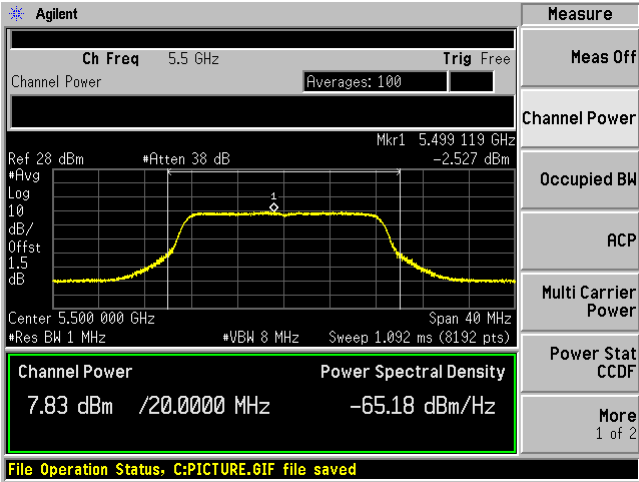
Ant-2



Ant-3



Ant-4



5580 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	5.09	-	-	0.38	5.47	9.00	-3.53
non HT20, 6 to 54 Mbps	4	11.00	-6.82	-3.97	-2.74	-3.70	0.38	2.33	6.00	-3.67
non HT20, 6 to 54 Mbps-BF	4	11.00	-6.64	-3.92	-3.00	-3.60	0.38	2.31	6.00	-3.69
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	4.74	-	-	0.21	4.95	9.00	-4.05
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-5.96	-3.10	-2.61	-3.36	0.21	2.65	6.00	-3.35
VHT20, M0.4 to M9.4-BF	4	8.00	-2.03	0.81	1.82	0.85	0.21	6.81	9.00	-2.19
HE20, M0.1 to M9.1	1	8.00	-	5.05	-	-	0.23	5.28	9.00	-3.72
HE20, M0.1 to M9.1	4	11.00	-6.02	-3.27	-2.35	-3.18	0.23	2.75	6.00	-3.25
HE20, M0.4 to M9.4-BF	4	8.00	-0.92	1.91	2.77	2.06	0.23	7.91	9.00	-1.09

5700 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	4.37	-	-	0.38	4.74	9.00	-4.26
non HT20, 6 to 54 Mbps	4	11.00	-6.63	-3.41	-3.97	-3.84	0.38	2.10	6.00	-3.9
non HT20, 6 to 54 Mbps-BF	4	11.00	-6.28	-3.67	-3.86	-3.97	0.38	2.07	6.00	-3.93
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	2.66	-	-	0.21	2.88	9.00	-6.12
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-5.82	-2.92	-3.15	-3.01	0.21	2.66	6.00	-3.34
VHT20, M0.4 to M9.4-BF	4	8.00	-1.04	2.26	1.87	1.65	0.21	7.59	9.00	-1.41
HE20, M0.1 to M9.1	1	8.00	-	3.07	-	-	0.23	3.30	9.00	-5.70
HE20, M0.1 to M9.1	4	11.00	-5.51	-2.86	-2.84	-3.06	0.23	2.82	6.00	-3.18
HE20, M0.4 to M9.4-BF	4	8.00	-1.47	1.24	0.94	0.94	0.23	6.79	9.00	-2.21

5720 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	5.77	-	-	0.38	6.15	9.00	-2.85
non HT20, 6 to 54 Mbps	4	11.00	-7.38	-3.31	-3.27	-4.24	0.38	2.13	6.00	-3.87
non HT20, 6 to 54 Mbps-BF	4	11.00	-6.83	-3.32	-3.67	-3.89	0.38	2.17	6.00	-3.83
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	5.44	-	-	0.21	5.65	9.00	-3.35
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-6.11	-2.61	-3.22	-3.06	0.21	2.68	6.00	-3.32
VHT20, M0.4 to M9.4-BF	4	8.00	-0.18	3.21	3.12	2.95	0.21	8.71	9.00	-0.29
HE20, M0.1 to M9.1	1	8.00	-	5.47	-	-	0.23	5.70	9.00	-3.30
HE20, M0.1 to M9.1	4	11.00	-6.22	-2.56	-2.99	-3.36	0.23	2.68	6.00	-3.32
HE20, M0.4 to M9.4-BF	4	8.00	-1.37	2.56	2.17	1.66	0.23	7.75	9.00	-1.25

5510 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-2.40	-	-	0.40	-2.00	9.00	-11.00
non HT40, 6 to 54 Mbps	4	11.00	-7.32	-4.27	-3.52	-3.60	0.40	1.98	6.00	-3.32
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-1.35	-	-	0.38	-0.97	9.00	-9.97
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-6.36	-3.54	-2.79	-2.89	0.38	2.73	6.00	-3.27
VHT40, M0.4 to M9.4-BF	4	8.00	-5.60	-2.44	-1.65	-1.86	0.38	3.77	9.00	-5.23
HE40, M0.1 to M9.1	1	8.00	-	-1.35	-	-	0.11	-1.24	9.00	-10.24
HE40, M0.1 to M9.1	4	11.00	-6.30	-3.40	-2.56	-2.52	0.11	2.67	6.00	-3.33
HE40, M0.4 to M9.4-BF	4	8.00	-5.37	-2.12	-1.30	-1.54	0.11	3.81	9.00	-5.19

5590 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	1.78	-	-	0.40	2.18	9.00	-6.82
non HT40, 6 to 54 Mbps	4	11.00	-6.64	-3.95	-3.13	-4.32	0.40	2.09	6.00	-3.91
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	1.68	-	-	0.38	2.07	9.00	-6.94
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-6.04	-3.42	-2.44	-3.29	0.38	2.80	6.00	-3.2
VHT40, M0.4 to M9.4-BF	4	8.00	-0.84	1.74	2.94	2.09	0.38	8.10	9.00	-0.90
HE40, M0.1 to M9.1	1	8.00	-	2.07	-	-	0.11	2.18	9.00	-6.82
HE40, M0.1 to M9.1	4	11.00	-6.43	-4.18	-3.18	-3.89	0.11	1.87	6.00	-4.13
HE40, M0.4 to M9.4-BF	4	8.00	-0.29	2.17	3.23	2.20	0.11	8.14	9.00	-0.86

5670 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-0.03	-	-	0.40	0.37	9.00	-8.63
non HT40, 6 to 54 Mbps	4	11.00	-6.07	-4.19	-3.78	-4.23	0.40	1.94	6.00	-4.06
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	1.73	-	-	0.38	2.12	9.00	-6.88
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-5.56	-2.87	-2.92	-3.28	0.38	2.88	6.00	-3.12
VHT40, M0.4 to M9.4-BF	4	8.00	-2.37	-0.53	0.06	-0.08	0.38	5.77	9.00	-3.23
HE40, M0.1 to M9.1	1	8.00	-	1.01	-	-	0.11	1.12	9.00	-7.88
HE40, M0.1 to M9.1	4	11.00	-5.19	-2.91	-2.89	-3.09	0.11	2.71	6.00	-3.29
HE40, M0.4 to M9.4-BF	4	8.00	-3.29	-0.77	-0.53	-0.72	0.11	4.94	9.00	-4.06

5710 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	2.42	-	-	0.40	2.82	9.00	-6.18
non HT40, 6 to 54 Mbps	4	11.00	-6.69	-3.66	-3.83	-4.12	0.40	2.00	6.00	-4.00
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	2.30	-	-	0.38	2.69	9.00	-6.31
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-5.85	-3.12	-3.06	-3.31	0.38	2.71	6.00	-3.29
VHT40, M0.4 to M9.4-BF	4	8.00	-1.13	2.48	2.04	1.93	0.38	7.94	9.00	-1.06
HE40, M0.1 to M9.1	1	8.00	-	2.47	-	-	0.11	2.58	9.00	-6.42
HE40, M0.1 to M9.1	4	11.00	-6.72	-3.64	-3.74	-3.72	0.11	1.85	6.00	-4.15
HE40, M0.4 to M9.4-BF	4	8.00	-0.89	2.46	2.66	2.07	0.11	7.91	9.00	-1.09

5530 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-4.78	-	-	0.37	-4.41	9.00	-13.41
non HT80, 6 to 54 Mbps	4	11.00	-11.21	-8.25	-7.59	-7.84	0.37	-2.12	6.00	-8.12
VHT80, M0.1 to M9.1	1	8.00	-	-5.42	-	-	0.36	-5.06	9.00	-14.06
VHT80, M0.1 to M9.1	4	11.00	-10.14	-7.76	-6.92	-6.92	0.36	-1.38	6.00	-7.38
VHT80, M0.4 to M9.4-BF	4	8.00	-10.77	-7.81	-6.91	-6.88	0.36	-1.46	9.00	-10.46
HE80, M0.1 to M9.1	1	8.00	-	-5.31	-	-	0.35	-4.96	9.00	-13.96
HE80, M0.1 to M9.1	4	11.00	-11.12	-8.39	-7.38	-8.07	0.35	-2.16	6.00	-8.16
HE80, M0.4 to M9.4-BF	4	8.00	-11.07	-8.29	-7.56	-7.52	0.35	-2.03	9.00	-11.03

5610 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-0.47	-	-	0.37	-0.09	9.00	-9.09
non HT80, 6 to 54 Mbps	4	11.00	-6.72	-3.64	-2.99	-3.65	0.37	2.36	6.00	-3.64
VHT80, M0.1 to M9.1	1	8.00	-	-1.35	-	-	0.36	-0.99	9.00	-9.99
VHT80, M0.1 to M9.1	4	11.00	-5.89	-3.11	-2.62	-3.44	0.36	2.78	6.00	-3.22
VHT80, M0.4 to M9.4-BF	4	8.00	-4.36	-0.83	-0.34	-0.96	0.36	5.01	9.00	-3.99
HE80, M0.1 to M9.1	1	8.00	-	-0.94	-	-	0.35	-0.59	9.00	-9.59
HE80, M0.1 to M9.1	4	11.00	-6.96	-3.98	-3.09	-4.06	0.35	2.06	6.00	-3.94
HE80, M0.4 to M9.4-BF	4	8.00	-4.04	-0.98	0.00	-0.90	0.35	5.12	9.00	-3.88

5690 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/MHz)	Tx 2 PSD (dBm/MHz)	Tx 3 PSD (dBm/MHz)	Tx 4 PSD (dBm/MHz)	DCCF (dB)	Total PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-0.17	-	-	0.37	0.20	9.00	-8.80
non HT80, 6 to 54 Mbps	4	11.00	-5.84	-3.38	-3.43	-3.72	0.37	2.41	6.00	-3.59
VHT80, M0.1 to M9.1	1	8.00	-	-1.16	-	-	0.36	-0.80	9.00	-9.80
VHT80, M0.1 to M9.1	4	11.00	-6.52	-3.72	-3.82	-4.06	0.36	1.99	6.00	-4.01
VHT80, M0.4 to M9.4-BF	4	8.00	-3.51	-0.84	-1.00	-1.20	0.36	4.86	9.00	-4.14
HE80, M0.1 to M9.1	1	8.00	-	-0.86	-	-	0.35	-0.52	9.00	-9.52
HE80, M0.1 to M9.1	4	11.00	-5.80	-3.54	-3.68	-3.97	0.35	2.21	6.00	-3.79
HE80, M0.4 to M9.4-BF	4	8.00	-3.51	-0.87	-0.50	-0.96	0.35	5.05	9.00	-3.95

U-NII-3

5745 MHz:

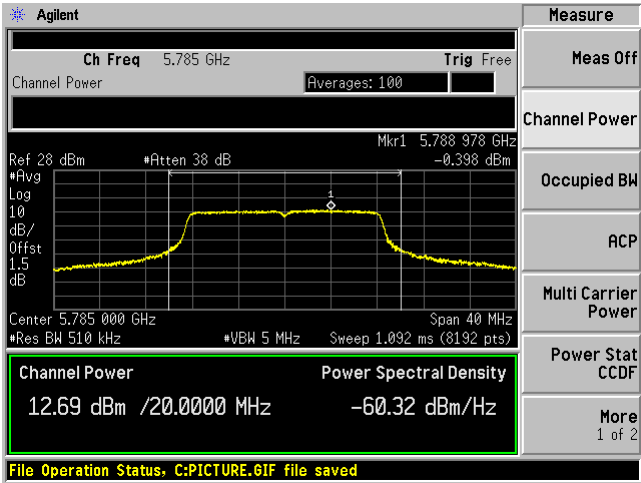
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/500 kHz)	Tx 2 PSD (dBm/500 kHz)	Tx 3 PSD (dBm/500 kHz)	Tx 4 PSD (dBm/500 kHz)	DCCF (dB)	Total PSD (dBm/500 kHz)	FCC Limit (dBm/500 kHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	2.10	-	-	0.38	2.48	28.00	-25.52
non HT20, 6 to 54 Mbps	4	11.00	-1.30	1.97	3.34	2.24	0.38	8.26	25.00	-16.74
non HT20, 6 to 54 Mbps-BF	4	11.00	-1.25	2.36	3.14	2.62	0.38	8.41	25.00	-16.59
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	2.12	-	-	0.21	2.33	28.00	-25.67
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-1.77	1.64	2.88	2.30	0.21	7.82	25.00	-17.18
VHT20, M0.4 to M9.4-BF	4	8.00	-1.79	1.98	2.96	2.28	0.21	7.93	28.00	-20.07
HE20, M0.1 to M9.1	1	8.00	-	1.88	-	-	0.23	2.11	28.00	-25.89
HE20, M0.1 to M9.1	4	11.00	-1.35	2.17	3.04	2.14	0.23	8.03	25.00	-16.97
HE20, M0.4 to M9.4-BF	4	8.00	-1.69	2.09	3.22	2.28	0.23	8.07	28.00	-19.93

5785 MHz:

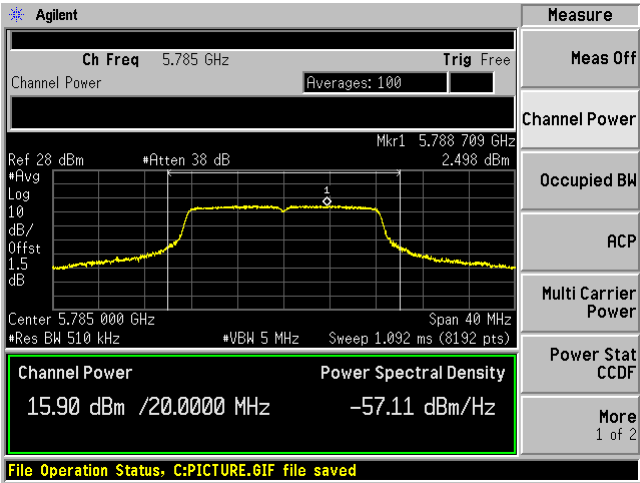
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/500 kHz)	Tx 2 PSD (dBm/500 kHz)	Tx 3 PSD (dBm/500 kHz)	Tx 4 PSD (dBm/500 kHz)	DCCF (dB)	Total PSD (dBm/500 kHz)	FCC Limit (dBm/500 kHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	2.53	-	-	0.38	2.90	28.00	-25.10
non HT20, 6 to 54 Mbps	4	11.00	-0.82	2.74	3.61	2.83	0.38	8.78	25.00	-16.22
non HT20, 6 to 54 Mbps-BF	4	11.00	-0.40	2.50	3.55	3.00	0.38	8.80	25.00	-16.20
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	2.23	-	-	0.21	2.44	28.00	-25.56
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-1.14	2.16	2.90	3.09	0.21	8.27	25.00	-16.73
VHT20, M0.4 to M9.4-BF	4	8.00	-0.91	2.18	2.89	2.62	0.21	8.16	28.00	-19.84
HE20, M0.1 to M9.1	1	8.00	-	2.26	-	-	0.23	2.49	28.00	-25.51
HE20, M0.1 to M9.1	4	11.00	-0.84	2.15	2.92	2.83	0.23	8.26	25.00	-16.74
HE20, M0.4 to M9.4-BF	4	8.00	-1.05	2.39	2.82	2.62	0.23	8.20	28.00	-19.80

Please refer to the following plots for the worst case configuration

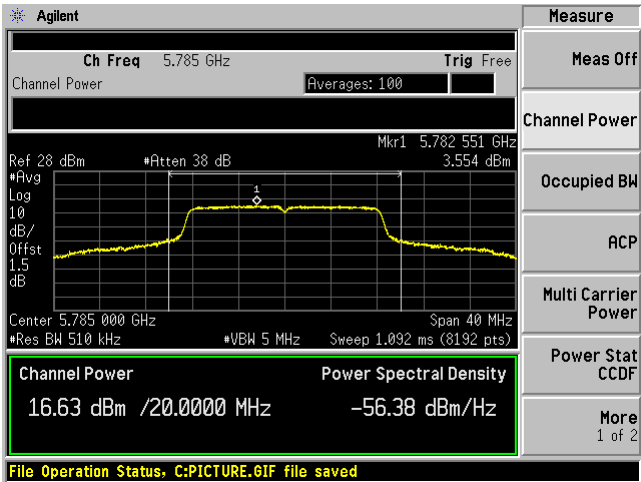
Ant-1



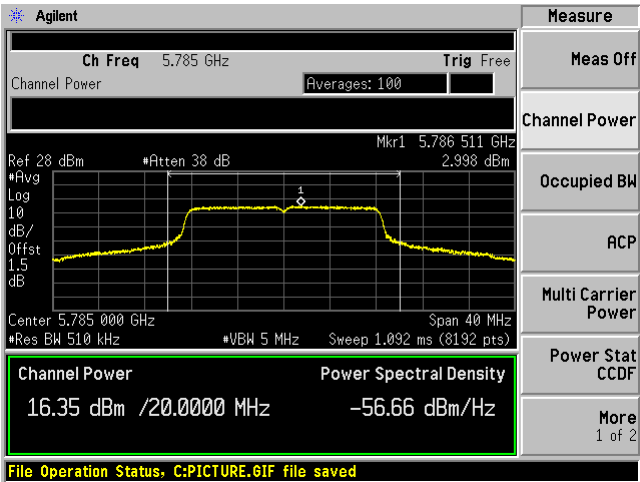
Ant-2



Ant-3



Ant-4



5825 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/500 kHz)	Tx 2 PSD (dBm/500 kHz)	Tx 3 PSD (dBm/500 kHz)	Tx 4 PSD (dBm/500 kHz)	DCCF (dB)	Total PSD (dBm/500 kHz)	FCC Limit (dBm/500 kHz)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	2.35	-	-	0.38	2.73	28.00	-25.27
non HT20, 6 to 54 Mbps	4	11.00	-0.65	2.56	2.81	3.10	0.38	8.58	25.00	-16.42
non HT20, 6 to 54 Mbps-BF	4	11.00	-0.77	2.58	2.84	3.15	0.38	8.59	25.00	-16.41
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	2.13	-	-	0.21	2.34	28.00	-25.66
HT/VHT20, M0 to M7, M0.1 to M9.1	4	11.00	-1.28	2.40	2.69	2.65	0.21	8.12	25.00	-16.88
VHT20, M0.4 to M9.4-BF	4	8.00	-1.30	2.51	2.44	2.60	0.21	8.06	28.00	-19.94
HE20, M0.1 to M9.1	1	8.00	-	2.25	-	-	0.23	2.48	28.00	-25.52
HE20, M0.1 to M9.1	4	11.00	-1.36	2.35	2.57	2.71	0.23	8.10	25.00	-16.90
HE20, M0.4 to M9.4-BF	4	8.00	-0.97	2.56	2.70	3.09	0.23	8.36	28.00	-19.64

5755 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/500 kHz)	Tx 2 PSD (dBm/500 kHz)	Tx 3 PSD (dBm/500 kHz)	Tx 4 PSD (dBm/500 kHz)	DCCF (dB)	Total PSD (dBm/500 kHz)	FCC Limit (dBm/500 kHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-0.94	-	-	0.40	-0.54	28.00	-28.54
non HT40, 6 to 54 Mbps	4	11.00	-4.00	-0.92	0.15	-0.72	0.40	5.30	25.00	-19.7
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-1.13	-	-	0.38	-0.75	28.00	-28.75
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-4.22	-1.04	0.26	-0.33	0.38	5.37	25.00	-19.63
VHT40, M0.4 to M9.4-BF	4	8.00	-4.82	-1.29	0.38	-0.70	0.38	5.18	28.00	-22.82
HE40, M0.1 to M9.1	1	8.00	-	-0.77	-	-	0.11	-0.66	28.00	-28.66
HE40, M0.1 to M9.1	4	11.00	-4.02	-0.73	0.72	-0.44	0.11	5.33	25.00	-19.67
HE40, M0.4 to M9.4-BF	4	8.00	-4.02	-0.87	0.63	-0.43	0.11	5.26	28.00	-22.74

5795 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/500 kHz)	Tx 2 PSD (dBm/500 kHz)	Tx 3 PSD (dBm/500 kHz)	Tx 4 PSD (dBm/500 kHz)	DCCF (dB)	Total PSD (dBm/500 kHz)	FCC Limit (dBm/500 kHz)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-1.02	-	-	0.40	-0.62	28.00	-28.62
non HT40, 6 to 54 Mbps	4	11.00	-3.53	-0.72	0.29	-0.12	0.40	5.63	25.00	-19.37
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-1.12	-	-	0.38	-0.74	28.00	-28.74
HT/VHT40, M0 to M7, M0.1 to M9.1	4	11.00	-3.82	-0.85	0.19	0.01	0.38	5.55	25.00	-19.45
VHT40, M0.4 to M9.4-BF	4	8.00	-3.75	-1.16	0.21	-0.29	0.38	5.40	28.00	-22.60
HE40, M0.1 to M9.1	1	8.00	-	-0.57	-	-	0.11	-0.46	28.00	-28.46
HE40, M0.1 to M9.1	4	11.00	-3.23	-0.70	0.55	-0.05	0.11	5.49	25.00	-19.51
HE40, M0.4 to M9.4-BF	4	8.00	-3.66	-0.82	0.68	0.10	0.11	5.49	28.00	-22.51

5775 MHz:

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 PSD (dBm/500 kHz)	Tx 2 PSD (dBm/500 kHz)	Tx 3 PSD (dBm/500 kHz)	Tx 4 PSD (dBm/500 kHz)	DCCF (dB)	Total PSD (dBm/500 kHz)	FCC Limit (dBm/500 kHz)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-3.28	-	-	0.37	-2.90	28.00	-30.90
non HT80, 6 to 54 Mbps	4	11.00	-6.45	-3.35	-2.32	-2.66	0.37	2.97	25.00	-22.03
VHT80, M0.1 to M9.1	1	8.00	-	-4.01	-	-	0.36	-3.65	28.00	-31.65
VHT80, M0.1 to M9.1	4	11.00	-7.17	-3.55	-2.33	-3.19	0.36	2.66	25.00	-22.34
VHT80, M0.4 to M9.4-BF	4	8.00	-7.26	-3.77	-2.56	-3.57	0.36	2.41	28.00	-25.59
HE80, M0.1 to M9.1	1	8.00	-	-3.29	-	-	0.35	-2.95	28.00	-30.95
HE80, M0.1 to M9.1	4	11.00	-6.59	-3.16	-2.02	-3.28	0.35	2.90	25.00	-22.10
HE80, M0.4 to M9.4-BF	4	8.00	-6.74	-3.32	-2.00	-2.98	0.35	2.93	28.00	-25.07

8 FCC §15.407(b) & ISEDC RSS-247 §6.2 - Out of Band Emissions

8.1 Applicable Standards

According to FCC §15.407(b):

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

The provisions of §15.205 apply to intentional radiators operating under this section.

According to ISEDC RSS-247 §6.2.1 for devices operating in the frequency band 5150-5250 MHz:

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz.

According to ISEDC RSS-247 §6.2.2 for devices operating in the frequency band 5250-5350 MHz:

For devices with both operating frequencies and channel bandwidths contained within the band 5250-5350 MHz, the device shall comply with the following:

1. All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. if the equipment is intended for outdoor use; or
2. All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and any emissions within the band 5150-5250 MHz shall meet the power spectral density limits of Section 6.2.1. The device shall be labelled "for indoor use only."

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices' unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled "for indoor use only."

According to ISEDC RSS-247 §6.2.3 for devices operating in the frequency band 5470-5600 MHz and 5650-5725 MHz. Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

According to ISED RSS-247 §6.2.4 for devices operating in the frequency band 5725-5850 MHz:

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.

For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz.

8.2 Measurement Procedure

Add a correction factor (antenna gain+ Attenuator loss+cable loss) to the offset of the spectrum analyzer.

Integration Method

1. For peak emissions measurements, follow the procedures described in section H)5), “Procedures for Peak Unwanted Emissions Measurements above 1000 MHz”, except for the following changes:
 - Set RBW = 100 kHz
 - Set VBW = 3RBW
 - Perform a band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured. CAUTION: You must ensure that the spectrum analyzer or EMI receiver is set for peak-detection and max-hold for this measurement.
2. For average emissions measurements, follow the procedures described in section H)6), “Procedures for Average Unwanted Emissions Measurements above 1000 MHz”, except for the following changes:
 - Set RBW = 100 kHz
 - Set VBW = 3RBW
 - Perform a band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured.

8.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	MY48250238	2021-02-12	1 year
Radiall	SP8T Coax Switch	R574F11801	2011	N/A	N/A
-	RF cable	-	-	Each time ¹	N/A

Note¹: cable and attenuator included in the test set-up will be checked each time before testing.

Statement of Traceability: *BACL Corp.* attests that all of the calibrations on the equipment items listed above were traceable to NIST or to another internationally recognized National Metrology Institute (NMI), and were compliant with the latest version of A2LA policy P102 “A2LA Policy on Metrological Traceability”.

8.4 Test Environmental Conditions

Temperature:	21-25 °C
Relative Humidity:	40-55 %
ATM Pressure:	101.3-102.9 kPa

The testing was performed by Alexandrae Duran on 2021-07-08 to 2021-07-12 in bench.

8.5 Test Results

U-NII-1 (FCC Only)

5180 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-37.58	-	-	-29.58	-21.25	-8.33
non HT20, 6 to 54 Mbps	4	8.00	-54.90	-52.29	-49.17	-52.49	-37.70	-21.25	-16.45
non HT20, 6 to 54 Mbps-BF	4	11.00	-54.51	-52.20	-47.85	-52.42	-33.99	-21.25	-12.74
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-39.14	-	-	-31.14	-21.25	-9.89
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-53.58	-49.63	-46.20	-50.40	-35.16	-21.25	-13.91
VHT20, M0.4 to M9.4-BF	4	8.00	-50.85	-50.51	-46.06	-49.80	-34.81	-21.25	-13.56
HE20, M0.1 to M9.1	1	8.00	-	-41.24	-	-	-33.24	-21.25	-11.99
HE20, M0.1 to M9.1	4	8.00	-47.52	-45.71	-44.78	-46.24	-31.93	-21.25	-10.68
HE20, M0.4 to M9.4-BF	4	8.00	-49.14	-43.77	-41.64	-45.59	-30.23	-21.25	-8.98

5180 MHz (Average):

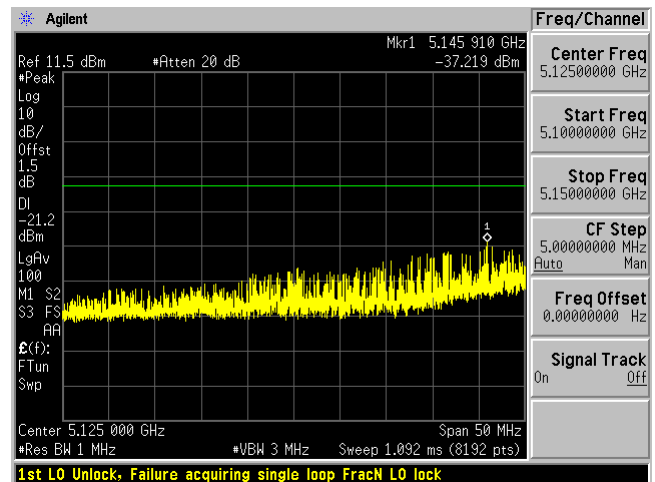
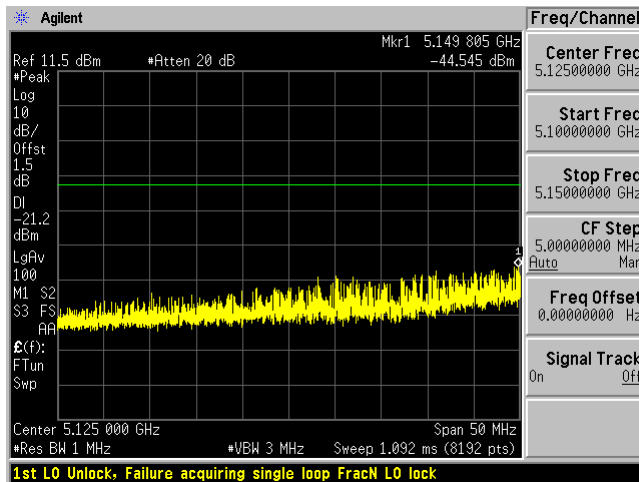
Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-50.08	-	-	0.38	-41.70	-41.25	-0.45
non HT20, 6 to 54 Mbps	4	8.00	-64.23	-62.00	-60.19	-62.16	0.38	-47.52	-41.25	-6.27
non HT20, 6 to 54 Mbps-BF	4	11.00	-64.10	-61.99	-60.24	-61.87	0.38	-44.44	-41.25	-3.19
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-51.18	-	-	0.21	-42.97	-41.25	-1.72
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-62.89	-60.52	-57.09	-60.65	0.21	-45.54	-41.25	-4.29
VHT20, M0.4 to M9.4-BF	4	8.00	-62.46	-60.57	-56.59	-61.14	0.21	-45.35	-41.25	-4.10
HE20, M0.1 to M9.1	1	8.00	-	-53.13	-	-	0.23	-44.90	-41.25	-3.65
HE20, M0.1 to M9.1	4	8.00	-59.60	-57.21	-55.13	-58.18	0.23	-42.97	-41.25	-1.72
HE20, M0.4 to M9.4-BF	4	8.00	-59.84	-57.42	-54.77	-58.51	0.23	-42.96	-41.25	-1.71

5190 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-36.82	-	-	-28.82	-21.25	-7.57
non HT40, 6 to 54 Mbps	4	8.00	-44.55	-37.22	-48.28	-45.35	-27.70	-21.25	-6.45
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-39.72	-	-	-31.72	-21.25	-10.47
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-47.33	-43.85	-45.69	-43.02	-30.65	-21.25	-9.40
VHT40, M0.4 to M9.4-BF	4	8.00	-46.81	-43.74	-45.70	-42.93	-30.51	-21.25	-9.26
HE40, M0.1 to M9.1	1	8.00	-	-38.03	-	-	-30.03	-21.25	-8.78
HE40, M0.1 to M9.1	4	8.00	-46.15	-44.74	-45.45	-43.36	-30.78	-21.25	-9.53
HE40, M0.4 to M9.4-BF	4	8.00	-47.84	-44.02	-45.57	-42.86	-30.68	-21.25	-9.43

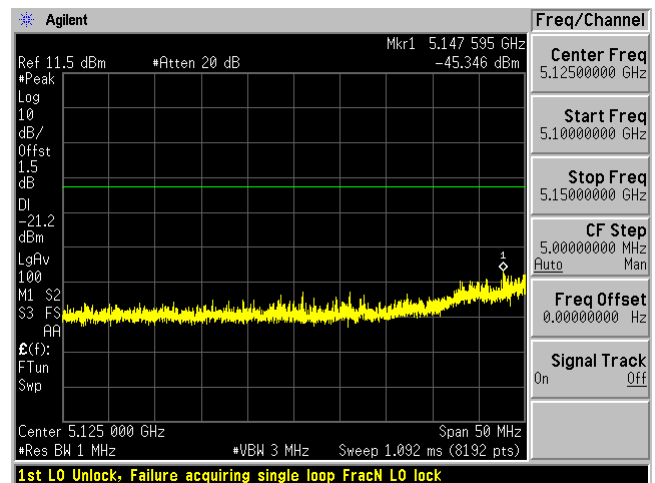
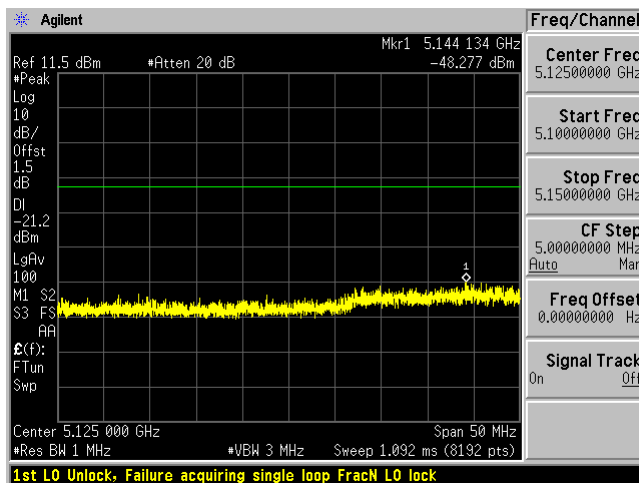
Ant-1

Ant-2



Ant-3

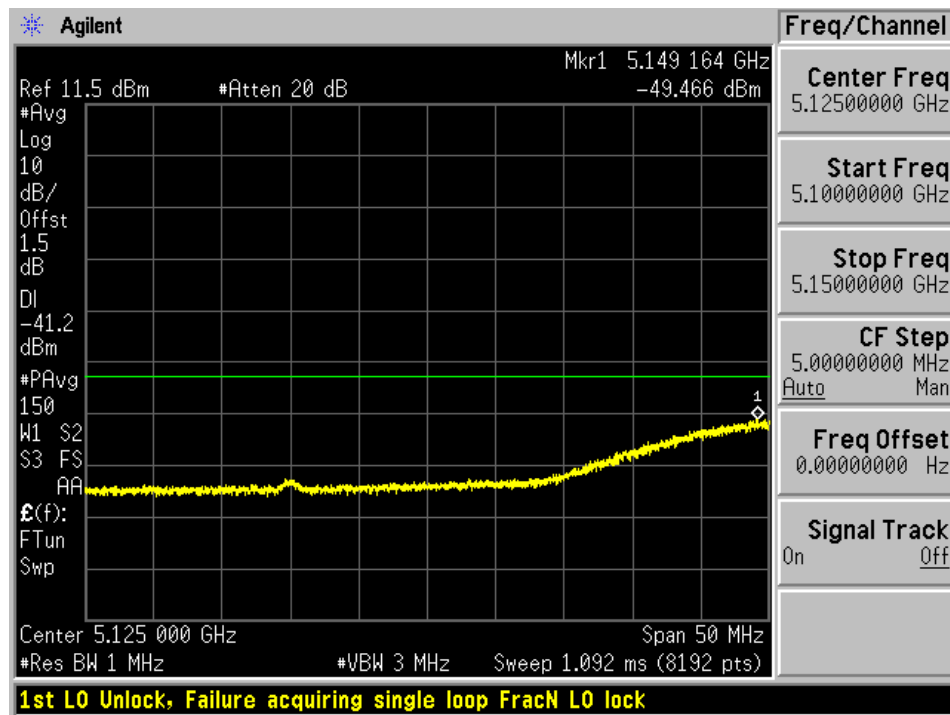
Ant-4



5190 MHz (Average):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-50.26	-	-	0.40	-41.86	-41.25	-0.61
non HT40, 6 to 54 Mbps	4	8.00	-59.73	-55.86	-58.90	-57.15	0.40	-43.23	-41.25	-1.98
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-50.50	-	-	0.38	-42.12	-41.25	-0.87
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-58.42	-55.53	-56.21	-54.46	0.38	-41.52	-41.25	-0.27
VHT40, M0.4 to M9.4-BF	4	8.00	-58.34	-55.27	-56.62	-54.21	0.38	-41.44	-41.25	-0.19
HE40, M0.1 to M9.1	1	8.00	-	-49.47	-	-	0.11	-41.36	-41.25	-0.11
HE40, M0.1 to M9.1	4	8.00	-58.75	-56.10	-57.24	-55.05	0.11	-42.44	-41.25	-1.19
HE40, M0.4 to M9.4-BF	4	8.00	-58.22	-55.67	-57.05	-54.85	0.11	-42.13	-41.25	-0.88

Ant-2



5210 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-38.26	-	-	-30.26	-21.25	-9.01
non HT80, 6 to 54 Mbps	4	8.00	-51.45	-46.08	-46.15	-45.10	-32.60	-21.25	-11.35
VHT80, M0.1 to M9.1	1	8.00	-	-38.25	-	-	-30.25	-21.25	-9.00
VHT80, M0.1 to M9.1	4	8.00	-47.14	-43.04	-41.18	-44.30	-29.39	-21.25	-8.14
VHT80, M0.4 to M9.4-BF	4	8.00	-48.53	-44.73	-43.21	-42.85	-30.32	-21.25	-9.07
HE80, M0.1 to M9.1	1	8.00	-	-39.85	-	-	-31.85	-21.25	-10.60
HE80, M0.1 to M9.1	4	8.00	-49.81	-46.16	-44.80	-45.49	-32.18	-21.25	-10.93
HE80, M0.4 to M9.4-BF	4	8.00	-49.80	-46.82	-44.46	-44.98	-32.05	-21.25	-10.80

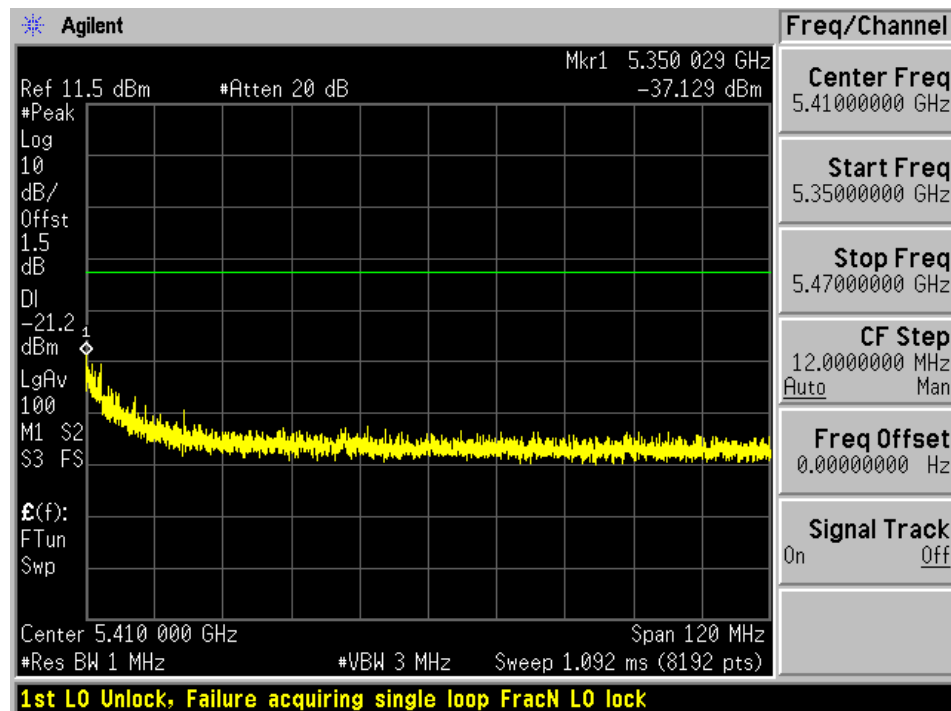
5210 MHz (Average):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-49.96	-	-	0.37	-41.58	-41.25	-0.33
non HT80, 6 to 54 Mbps	4	8.00	-61.39	-57.14	-56.17	-56.27	0.37	-42.91	-41.25	-1.66
VHT80, M0.1 to M9.1	1	8.00	-	-49.96	-	-	0.36	-41.60	-41.25	-0.35
VHT80, M0.1 to M9.1	4	8.00	-59.47	-55.62	-55.41	-54.84	0.36	-41.63	-41.25	-0.38
VHT80, M0.4 to M9.4-BF	4	8.00	-59.51	-55.83	-55.49	-54.85	0.36	-41.72	-41.25	-0.47
HE80, M0.1 to M9.1	1	8.00	-	-50.13	-	-	0.35	-41.79	-41.25	-0.54
HE80, M0.1 to M9.1	4	8.00	-59.81	-56.82	-56.08	-56.10	0.35	-42.60	-41.25	-1.35
HE80, M0.4 to M9.4-BF	4	8.00	-59.61	-56.73	-56.09	-55.85	0.35	-42.48	-41.25	-1.23

U-NII-2A

5320 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-37.13	-	-	-29.13	-21.25	-7.88
non HT20, 6 to 54 Mbps	4	8.00	-56.13	-55.74	-55.40	-54.62	-41.41	-21.25	-20.16
non HT20, 6 to 54 Mbps-BF	4	11.00	-53.56	-55.19	-54.54	-54.58	-37.41	-21.25	-16.16
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-37.73	-	-	-29.73	-21.25	-8.48
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-54.08	-55.25	-54.99	-54.47	-40.65	-21.25	-19.40
VHT20, M0.4 to M9.4-BF	4	8.00	-50.10	-51.15	-46.21	-50.23	-34.93	-21.25	-13.68
HE20, M0.1 to M9.1	1	8.00	-	-40.00	-	-	-32.00	-21.25	-10.75
HE20, M0.1 to M9.1	4	8.00	-57.54	-55.26	-54.48	-55.29	-41.48	-21.25	-20.23
HE20, M0.4 to M9.4-BF	4	8.00	-51.10	-46.97	-42.27	-45.20	-31.30	-21.25	-10.05

Ant-2

5320 MHz (Average):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-50.26	-	-	0.38	-41.88	-41.25	-0.63
non HT20, 6 to 54 Mbps	4	8.00	-67.25	-65.40	-65.31	-63.73	0.38	-50.85	-41.25	-9.60
non HT20, 6 to 54 Mbps-BF	4	11.00	-66.54	-65.42	-64.85	-64.27	0.38	-47.79	-41.25	-6.54
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-50.72	-	-	0.21	-42.51	-41.25	-1.26
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-66.70	-65.23	-65.12	-63.92	0.21	-50.90	-41.25	-9.65
VHT20, M0.4 to M9.4-BF	4	8.00	-63.77	-61.26	-57.05	-59.97	0.21	-45.61	-41.25	-4.36
HE20, M0.1 to M9.1	1	8.00	-	-53.56	-	-	0.23	-45.33	-41.25	-4.08
HE20, M0.1 to M9.1	4	8.00	-66.70	-65.28	-64.92	-63.89	0.23	-50.83	-41.25	-9.58
HE20, M0.4 to M9.4-BF	4	8.00	-62.65	-57.59	-54.80	-59.29	0.23	-43.46	-41.25	-2.21

5310 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-40.40	-	-	-32.40	-21.25	-11.15
non HT40, 6 to 54 Mbps	4	8.00	-42.32	-51.26	-41.80	-38.85	-27.81	-21.25	-6.56
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-48.66	-	-	-40.66	-21.25	-19.41
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-47.23	-51.56	-42.38	-50.32	-32.31	-21.25	-11.06
VHT40, M0.4 to M9.4-BF	4	8.00	-51.70	-51.04	-44.39	-50.27	-34.19	-21.25	-12.94
HE40, M0.1 to M9.1	1	8.00	-	-45.56	-	-	-37.56	-21.25	-16.31
HE40, M0.1 to M9.1	4	8.00	-52.30	-51.50	-43.29	-44.83	-32.32	-21.25	-11.07
HE40, M0.4 to M9.4-BF	4	8.00	-52.38	-51.12	-42.58	-43.23	-31.35	-21.25	-10.10

5310 MHz (Average):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-54.43	-	-	0.40	-46.03	-41.25	-4.78
non HT40, 6 to 54 Mbps	4	8.00	-61.19	-60.75	-52.52	-56.33	0.40	-41.81	-41.25	-0.56
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-59.63	-	-	0.38	-51.24	-41.25	-9.99
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-62.36	-61.69	-54.95	-60.48	0.38	-44.33	-41.25	-3.08
VHT40, M0.4 to M9.4-BF	4	8.00	-62.39	-61.34	-54.77	-60.61	0.38	-44.20	-41.25	-2.95
HE40, M0.1 to M9.1	1	8.00	-	-58.42	-	-	0.11	-50.31	-41.25	-9.06
HE40, M0.1 to M9.1	4	8.00	-61.60	-60.93	-52.88	-59.20	0.11	-42.94	-41.25	-1.69
HE40, M0.4 to M9.4-BF	4	8.00	-61.69	-61.12	-52.81	-59.40	0.11	-42.95	-41.25	-1.70

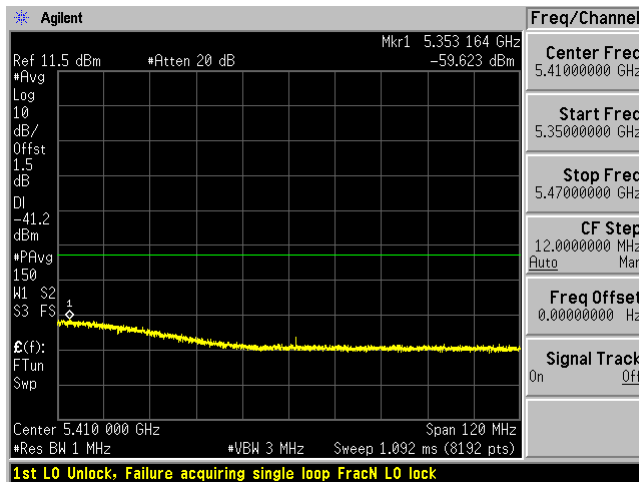
5290 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-42.18	-	-	-34.18	-21.25	-12.93
non HT80, 6 to 54 Mbps	4	8.00	-45.09	-43.61	-42.66	-47.21	-30.30	-21.25	-9.05
VHT80, M0.1 to M9.1	1	8.00	-	-45.56	-	-	-37.56	-21.25	-16.31
VHT80, M0.1 to M9.1	4	8.00	-46.62	-42.94	-40.85	-46.50	-29.51	-21.25	-8.26
VHT80, M0.4 to M9.4-BF	4	8.00	-44.84	-44.64	-40.43	-45.36	-29.28	-21.25	-8.03
HE80, M0.1 to M9.1	1	8.00	-	-44.78	-	-	-36.78	-21.25	-15.53
HE80, M0.1 to M9.1	4	8.00	-44.59	-47.18	-44.46	-47.43	-31.67	-21.25	-10.42
HE80, M0.4 to M9.4-BF	4	8.00	-46.64	-47.40	-45.14	-48.24	-32.68	-21.25	-11.43

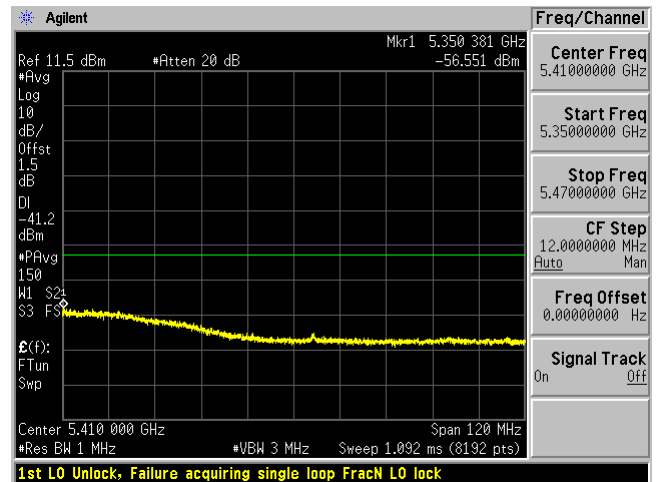
5290 MHz (Average):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-53.11	-	-	0.37	-44.73	-41.25	-3.48
non HT80, 6 to 54 Mbps	4	8.00	-59.79	-56.14	-54.17	-57.18	0.37	-41.97	-41.25	-0.72
VHT80, M0.1 to M9.1	1	8.00	-	-55.56	-	-	0.36	-47.20	-41.25	-5.95
VHT80, M0.1 to M9.1	4	8.00	-59.50	-56.86	-53.40	-57.17	0.36	-41.79	-41.25	-0.54
VHT80, M0.4 to M9.4-BF	4	8.00	-59.62	-56.55	-52.78	-57.19	0.36	-41.44	-41.25	-0.19
HE80, M0.1 to M9.1	1	8.00	-	-54.99	-	-	0.35	-46.64	-41.25	-5.39
HE80, M0.1 to M9.1	4	8.00	-60.65	-58.22	-55.66	-58.44	0.35	-43.52	-41.25	-2.27
HE80, M0.4 to M9.4-BF	4	8.00	-60.29	-58.01	-55.32	-58.20	0.35	-43.22	-41.25	-1.97

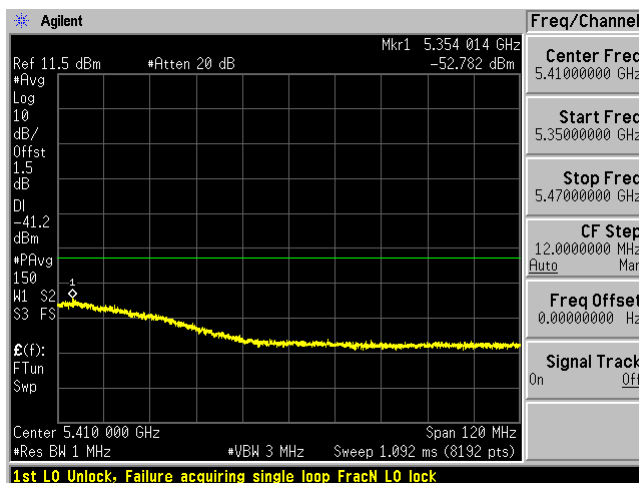
Ant-1



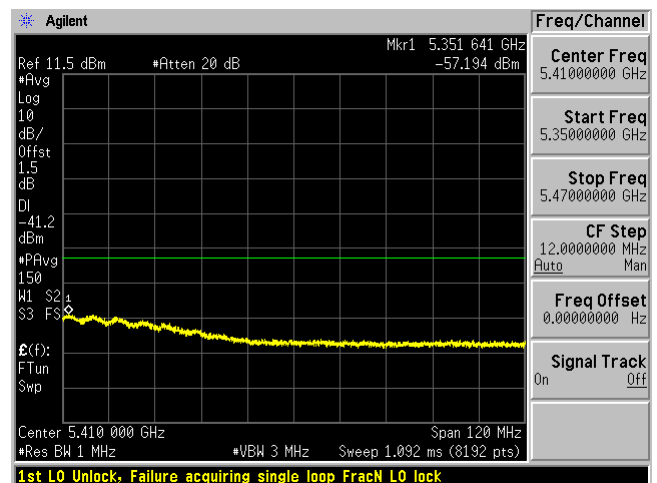
Ant-2



Ant-3



Ant-4



U-NII-2C

5500 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-41.70	-	-	-33.70	-27	-6.7
non HT20, 6 to 54 Mbps	4	8.00	-59.44	-54.92	-54.39	-55.43	-41.64	-27	-14.6
non HT20, 6 to 54 Mbps-BF	4	11.00	-55.57	-53.15	-54.73	-54.05	-37.26	-27	-10.26
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-60.58	-	-	-52.58	-27	-25.6
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-56.90	-54.12	-54.20	-55.43	-41.00	-27	-14
VHT20, M0.4 to M9.4-BF	4	8.00	-52.20	-51.02	-50.50	-52.30	-37.42	-27	-10.4
HE20, M0.1 to M9.1	1	8.00	-	-44.74	-	-	-36.74	-27	-9.74
HE20, M0.1 to M9.1	4	8.00	-56.74	-53.47	-53.85	-55.48	-40.68	-27	-13.7
HE20, M0.4 to M9.4-BF	4	8.00	-53.87	-50.15	-48.30	-49.35	-35.96	-27	-8.96

5500 MHz (Average)

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-53.28	-	-	0.38	-44.90	-41.20	-3.70
non HT20, 6 to 54 Mbps	4	8.00	-69.02	-63.59	-63.97	-65.21	0.38	-50.60	-41.20	-9.40
non HT20, 6 to 54 Mbps-BF	4	11.00	-66.80	-63.20	-63.90	-64.93	0.38	-47.11	-41.25	-5.86
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-58.45	-	-	0.21	-50.24	-41.20	-9.04
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-66.54	-63.46	-64.30	-65.18	0.21	-50.49	-41.20	-9.29
VHT20, M0.4 to M9.4-BF	4	8.00	-64.41	-60.19	-61.01	-62.25	0.21	-47.46	-41.20	-6.26
HE20, M0.1 to M9.1	1	8.00	-	-56.41	-	-	0.23	-48.18	-41.20	-6.98
HE20, M0.1 to M9.1	4	8.00	-66.77	-63.36	-64.09	-65.05	0.23	-50.39	-41.20	-9.19
HE20, M0.4 to M9.4-BF	4	8.00	-63.99	-59.97	-58.48	-60.12	0.23	-45.97	-41.20	-4.77

5700 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-39.10	-	-	-31.10	-27	-4.1
non HT20, 6 to 54 Mbps	4	8.00	-56.78	-55.45	-54.79	-55.54	-41.56	-27	-14.6
non HT20, 6 to 54 Mbps-BF	4	11.00	-56.96	-54.27	-55.64	-55.88	-38.56	-27	-11.56
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-44.58	-	-	-36.58	-27	-9.58
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-55.62	-54.50	-55.24	-55.43	-41.15	-27	-14.2
VHT20, M0.4 to M9.4-BF	4	8.00	-46.05	-45.99	-45.66	-50.04	-32.60	-27	-5.6
HE20, M0.1 to M9.1	1	8.00	-	-38.38	-	-	-30.38	-27	-3.38
HE20, M0.1 to M9.1	4	8.00	-54.12	-53.63	-52.69	-52.81	-39.25	-27	-12.3
HE20, M0.4 to M9.4-BF	4	8.00	-48.07	-47.58	-44.35	-48.10	-32.69	-27	-5.69

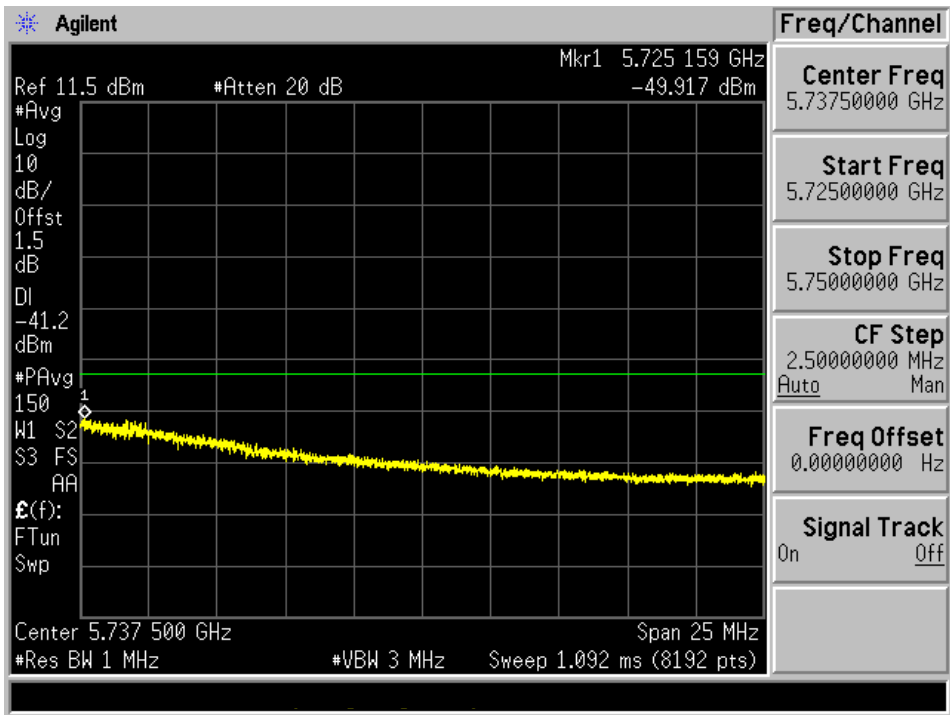
5700 MHz (Average)

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT20, 6 to 54 Mbps	1	8.00	-	-49.92	-	-	0.38	-41.54	-41.20	-0.34
non HT20, 6 to 54 Mbps	4	8.00	-66.93	-64.83	-65.65	-65.77	0.38	-51.34	-41.20	-10.14
non HT20, 6 to 54 Mbps-BF	4	11.00	-66.74	-64.87	-65.46	-65.89	0.38	-48.29	-41.25	-7.04
HT/VHT20, M0 to M7, M0.1 to M9.1	1	8.00	-	-57.09	-	-	0.21	-48.87	-41.20	-7.67
HT/VHT20, M0 to M7, M0.1 to M9.1	4	8.00	-65.93	-64.64	-65.35	-64.99	0.21	-50.97	-41.20	-9.77
VHT20, M0.4 to M9.4-BF	4	8.00	-59.99	-58.71	-58.14	-60.30	0.21	-44.96	-41.20	-3.76
HE20, M0.1 to M9.1	1	8.00	-	-53.64	-	-	0.23	-45.41	-41.20	-4.21
HE20, M0.1 to M9.1	4	8.00	-65.38	-63.73	-63.64	-63.93	0.23	-49.86	-41.20	-8.66
HE20, M0.4 to M9.4-BF	4	8.00	-59.88	-58.60	-55.97	-58.77	0.23	-43.80	-41.20	-2.60

Please refer to the following plots for the worst case configuration

5700 MHz (Average)

Ant-1



5510 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-46.55	-	-	-38.55	-27	-11.5
non HT40, 6 to 54 Mbps	4	8.00	-55.6	-48.7	-42.3	-43.5	-31.24	-27	-4.24
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-45.08	-	-	-37.08	-27	-10.1
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-49.01	-46.16	-50.39	-48.72	-34.27	-27	-7.27
VHT40, M0.4 to M9.4-BF	4	8.00	-46.96	-47.13	-49.08	-45.18	-32.85	-27	-5.85
HE40, M0.1 to M9.1	1	8.00	-	-44.10	-	-	-36.10	-27	-9.1
HE40, M0.1 to M9.1	4	8.00	-46.45	-48.20	-49.66	-47.30	-33.72	-27	-6.72
HE40, M0.4 to M9.4-BF	4	8.00	-45.41	-46.32	-45.69	-44.00	-31.25	-27	-4.25

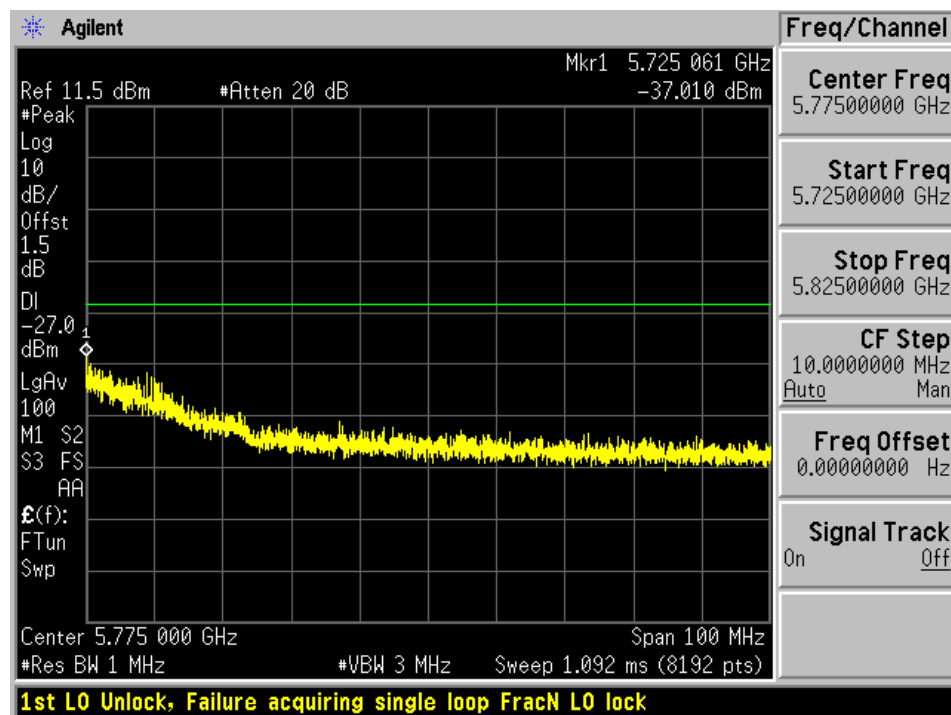
5510 MHz (Average)

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-58.98	-	-	0.40	-50.58	-41.20	-9.38
non HT40, 6 to 54 Mbps	4	8.00	-61.82	-60.08	-56.29	-54.92	0.40	-43.02	-41.20	-1.82
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-55.43	-	-	0.38	-47.05	-41.20	-5.85
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-59.11	-57.61	-59.85	-57.91	0.38	-44.12	-41.20	-2.92
VHT40, M0.4 to M9.4-BF	4	8.00	-56.89	-57.36	-59.05	-56.25	0.38	-42.86	-41.20	-1.66
HE40, M0.1 to M9.1	1	8.00	-	-54.66	-	-	0.11	-46.55	-41.20	-5.35
HE40, M0.1 to M9.1	4	8.00	-57.97	-58.01	-59.43	-57.53	0.11	-44.05	-41.20	-2.85
HE40, M0.4 to M9.4-BF	4	8.00	-55.75	-56.28	-58.00	-55.07	0.11	-42.02	-41.20	-0.82

5670 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-37.01	-	-	-29.01	-27	-2.01
non HT40, 6 to 54 Mbps	4	8.00	-43.95	-42.33	-42.19	-53.44	-29.86	-27	-2.86
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-38.78	-	-	-30.78	-27	-3.78
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-54.66	-52.73	-53.00	-52.83	-39.22	-27	-12.2
VHT40, M0.4 to M9.4-BF	4	8.00	-44.60	-48.16	-44.45	-46.68	-31.70	-27	-4.7
HE40, M0.1 to M9.1	1	8.00	-	-39.06	-	-	-31.06	-27	-4.06
HE40, M0.1 to M9.1	4	8.00	-54.30	-52.31	-52.83	-53.41	-39.13	-27	-12.1
HE40, M0.4 to M9.4-BF	4	8.00	-46.46	-47.31	-43.04	-47.07	-31.56	-27	-4.56

Ant-1



5670 MHz (Average)

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT40, 6 to 54 Mbps	1	8.00	-	-50.06	-	-	0.40	-41.66	-41.20	-0.46
non HT40, 6 to 54 Mbps	4	8.00	-61.78	-59.80	-59.09	-63.11	0.40	-46.25	-41.20	-5.05
HT/VHT40, M0 to M7, M0.1 to M9.1	1	8.00	-	-50.84	-	-	0.38	-42.45	-41.20	-1.25
HT/VHT40, M0 to M7, M0.1 to M9.1	4	8.00	-64.49	-62.72	-62.57	-63.73	0.38	-48.90	-41.20	-7.70
VHT40, M0.4 to M9.4-BF	4	8.00	-58.31	-59.17	-57.60	-57.98	0.38	-43.82	-41.20	-2.62
HE40, M0.1 to M9.1	1	8.00	-	-53.20	-	-	0.11	-45.09	-41.20	-3.89
HE40, M0.1 to M9.1	4	8.00	-64.30	-62.34	-62.61	-63.51	0.11	-48.99	-41.20	-7.79
HE40, M0.4 to M9.4-BF	4	8.00	-60.61	-60.56	-59.27	-59.99	0.11	-45.94	-41.20	-4.74

5530 MHz (Peak):

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	Total (dBm)	FCC Peak Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-43.42	-	-	-35.42	-27	-8.42
non HT80, 6 to 54 Mbps	4	8.00	-49.16	-46.89	-59.86	-46.68	-34.59	-27	-7.59
VHT80, M0.1 to M9.1	1	8.00	-	-42.76	-	-	-34.76	-27	-7.76
VHT80, M0.1 to M9.1	4	8.00	-46.14	-43.90	-46.90	-41.27	-29.95	-27	-2.95
VHT80, M0.4 to M9.4-BF	4	8.00	-46.77	-43.38	-47.27	-43.81	-30.95	-27	-3.95
HE80, M0.1 to M9.1	1	8.00	-	-42.25	-	-	-34.25	-27	-7.25
HE80, M0.1 to M9.1	4	8.00	-48.16	-46.13	-44.77	-45.46	-31.94	-27	-4.94
HE80, M0.4 to M9.4-BF	4	8.00	-48.34	-46.00	-42.79	-44.65	-30.97	-27	-3.97

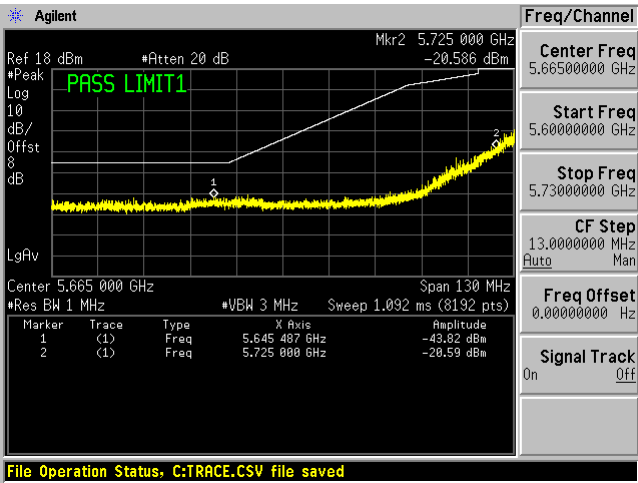
5530 MHz (Average)

Mode	Tx paths	correlated antenna gain (dBi)	Tx 1 Band-edge (dBm)	Tx 2 Band-edge (dBm)	Tx 3 Band-edge (dBm)	Tx 4 Band-edge (dBm)	DCCF (dB)	Total (dBm)	FCC Average Limit (dBm)	Margin (dB)
non HT80, 6 to 54 Mbps	1	8.00	-	-53.09	-	-	0.37	-44.72	-41.20	-3.52
non HT80, 6 to 54 Mbps	4	8.00	-59.24	-58.07	-57.98	-56.61	0.37	-43.48	-41.20	-2.28
VHT80, M0.1 to M9.1	1	8.00	-	-53.33	-	-	0.36	-44.97	-41.20	-3.77
VHT80, M0.1 to M9.1	4	8.00	-56.99	-56.10	-57.46	-55.09	0.36	-41.93	-41.20	-0.73
VHT80, M0.4 to M9.4-BF	4	8.00	-56.58	-55.95	-57.80	-55.08	0.36	-41.86	-41.20	-0.66
HE80, M0.1 to M9.1	1	8.00	-	-52.98	-	-	0.35	-44.63	-41.20	-3.43
HE80, M0.1 to M9.1	4	8.00	-58.35	-56.80	-56.42	-56.29	0.35	-42.53	-41.20	-1.33
HE80, M0.4 to M9.4-BF	4	8.00	-58.01	-56.83	-56.30	-56.29	0.35	-42.44	-41.20	-1.24

U-NII-3

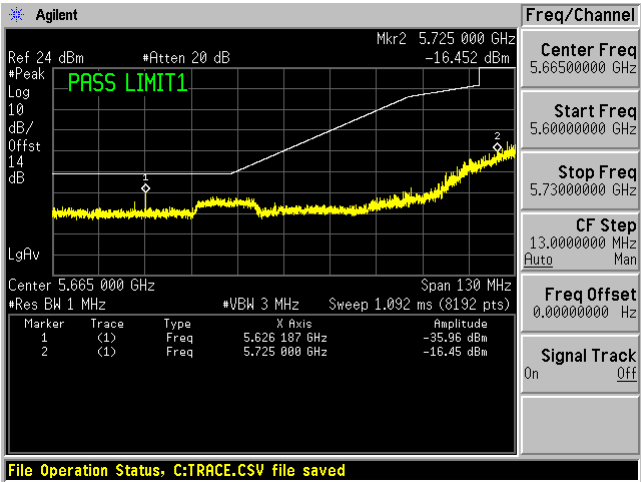
5745 MHz non HT20, 6 to 54 Mbps SISO:

Ant-2

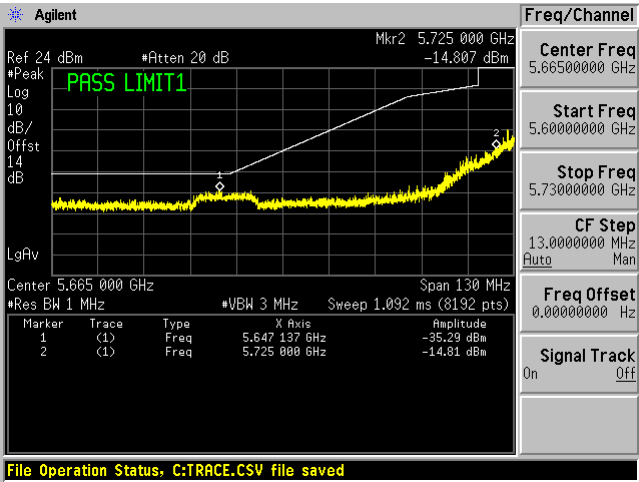


5745 MHz non HT20, 6 to 54 Mbps MIMO:

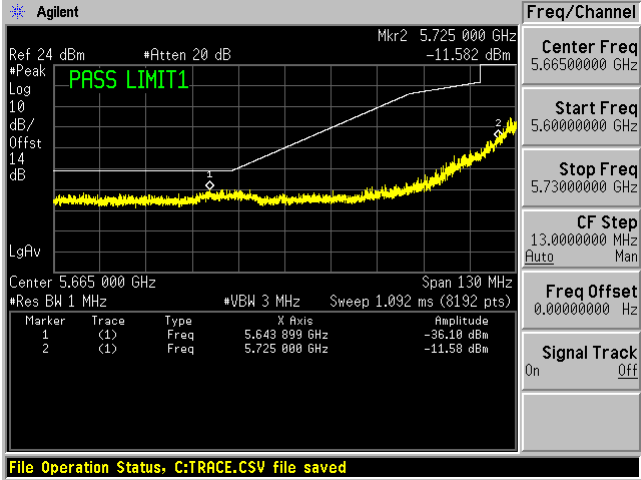
Ant-1



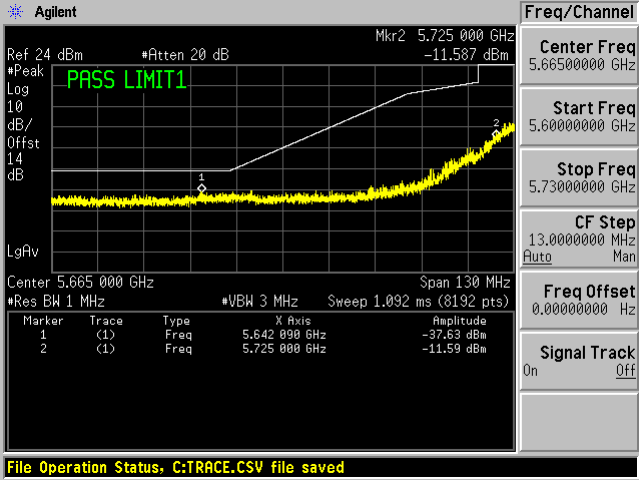
Ant-2



Ant-3

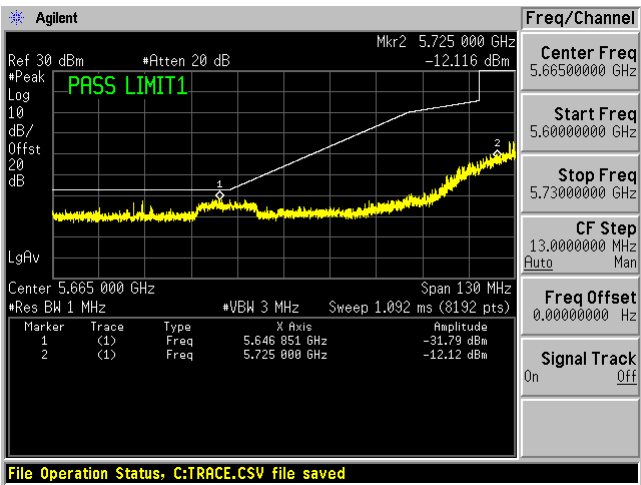


Ant-4

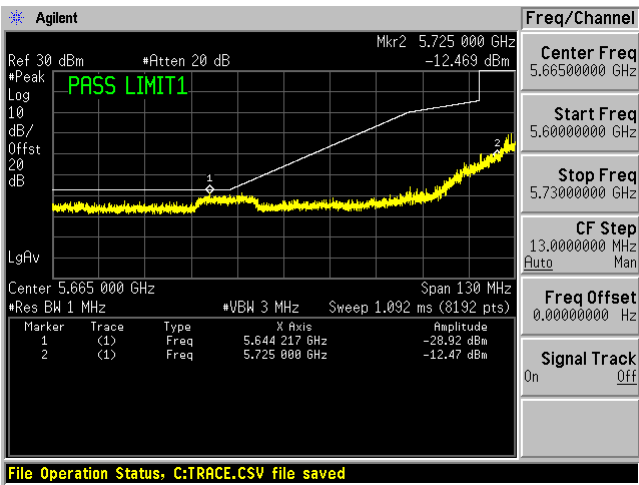


5745 MHz non HT20, 6 to 54 Mbps-BF MIMO:

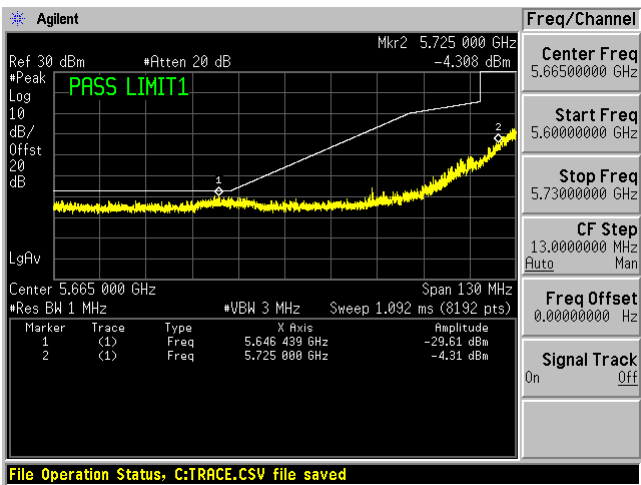
Ant-1



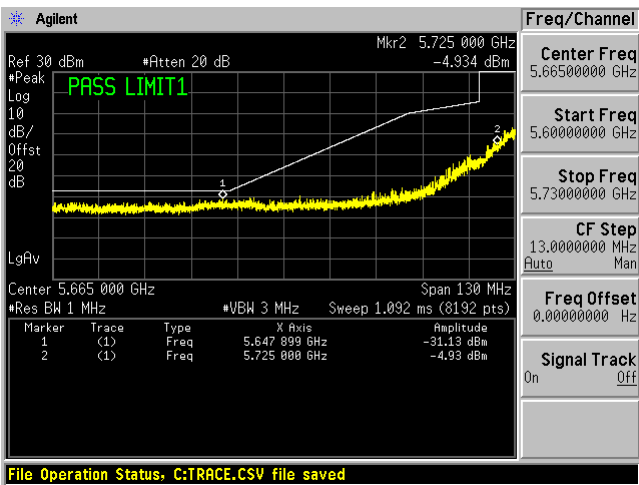
Ant-2



Ant-3

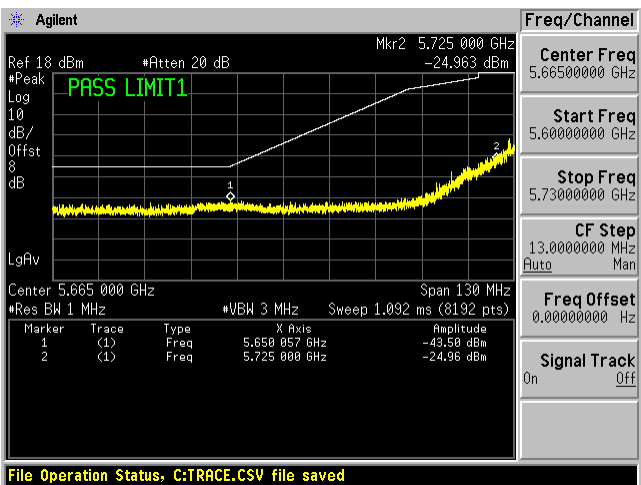


Ant-4



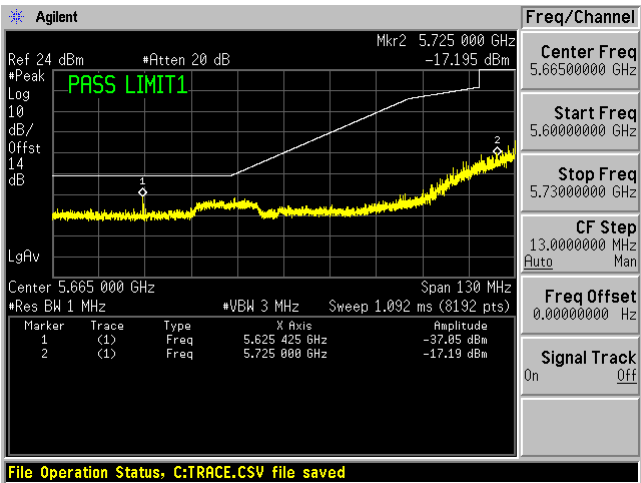
5745 MHz HT/VHT20, M0 to M7, M0.1 to M9.1 SISO:

Ant-2

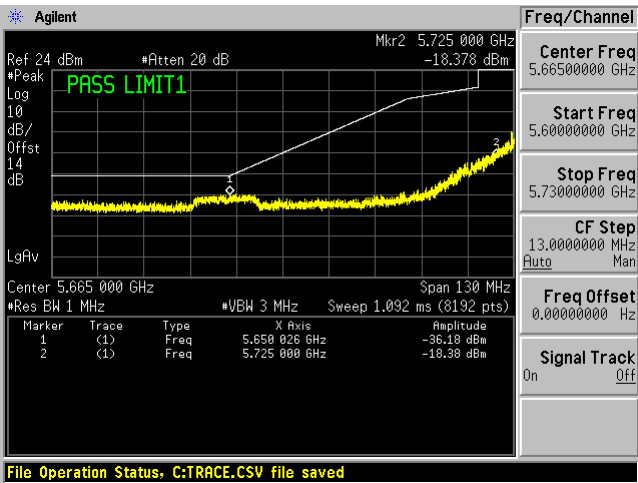


5745 MHz HT/VHT20, M0 to M7, M0.1 to M9.1 MIMO:

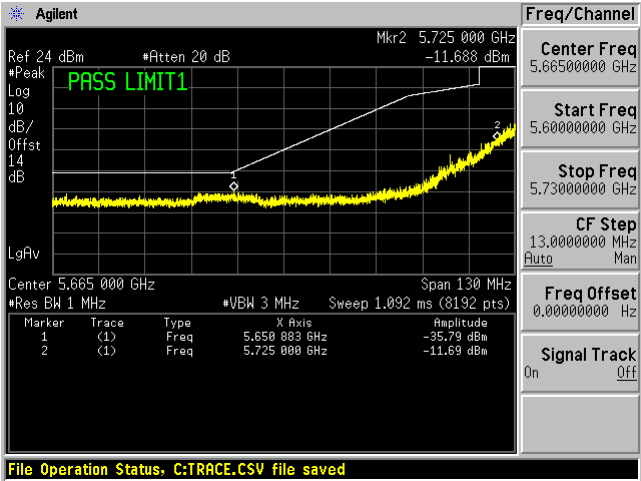
Ant-1



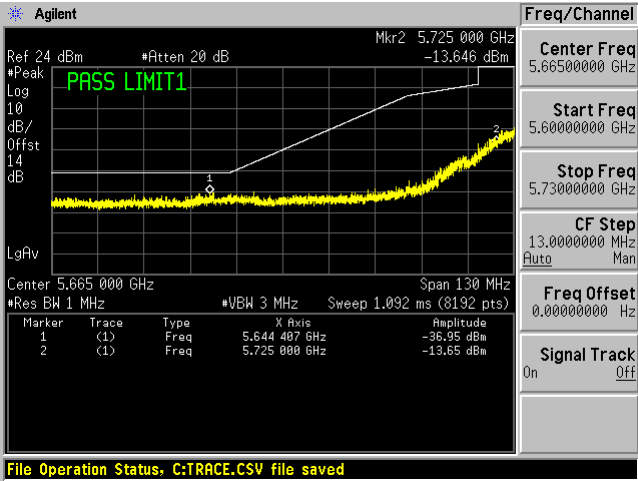
Ant-2



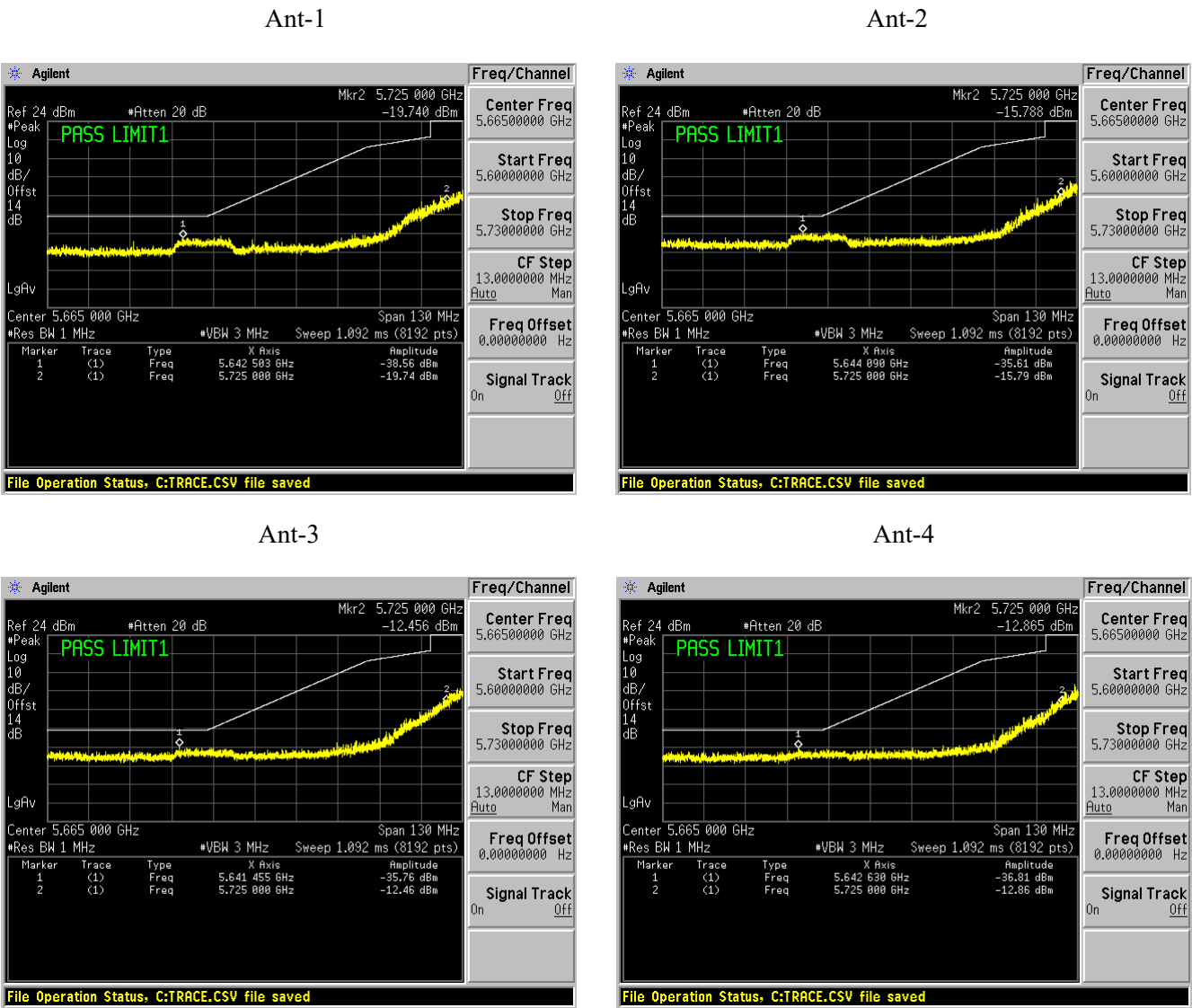
Ant-3



Ant-4

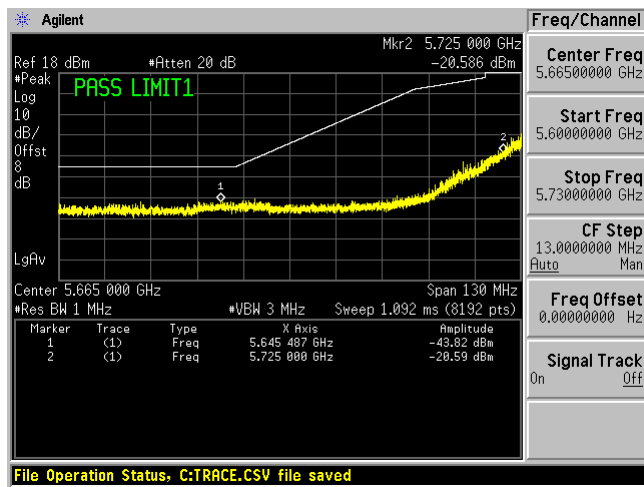


5745 MHz VHT20, M0.4 to M9.4-BF MIMO:



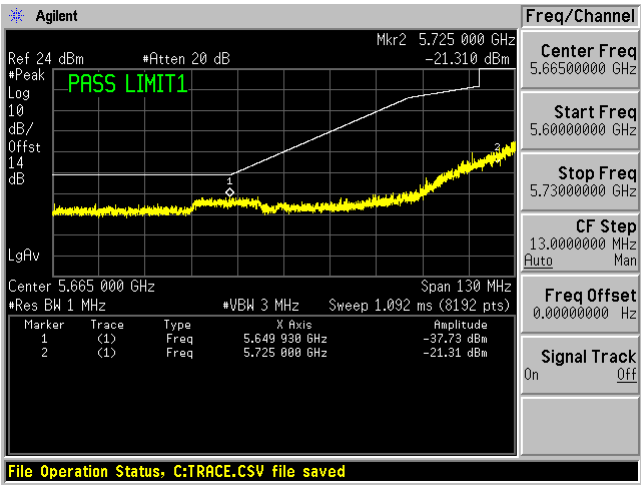
5745 MHz HE20, M0.1 to M9.1 SISO:

Ant-2

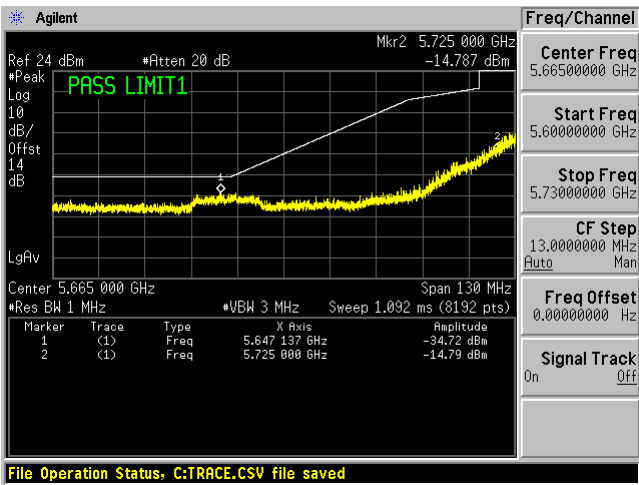


5745 MHz HE20, M0.1 to M9.1 MIMO:

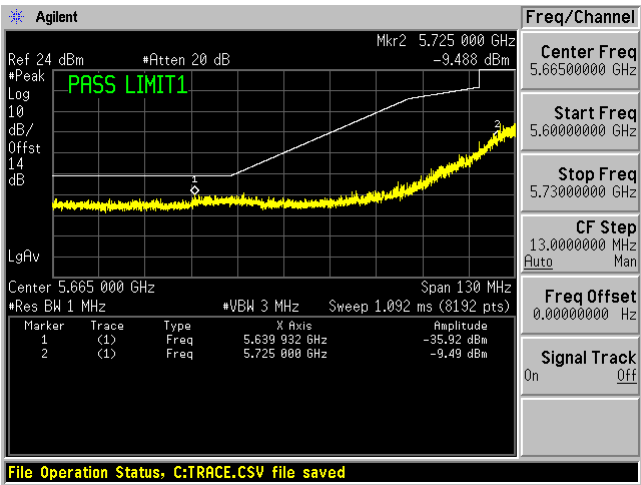
Ant-1



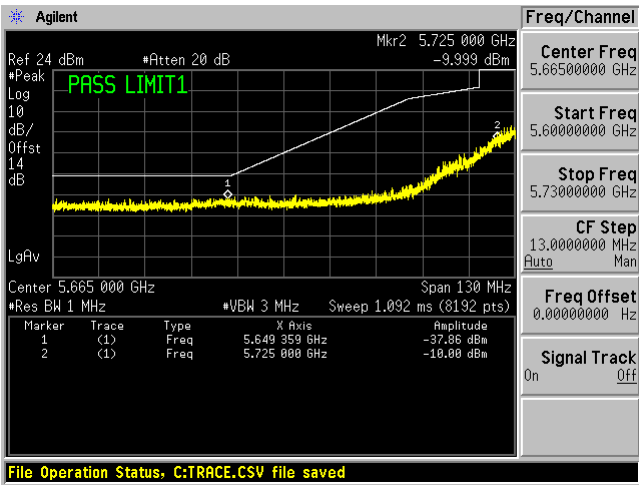
Ant-2



Ant-3

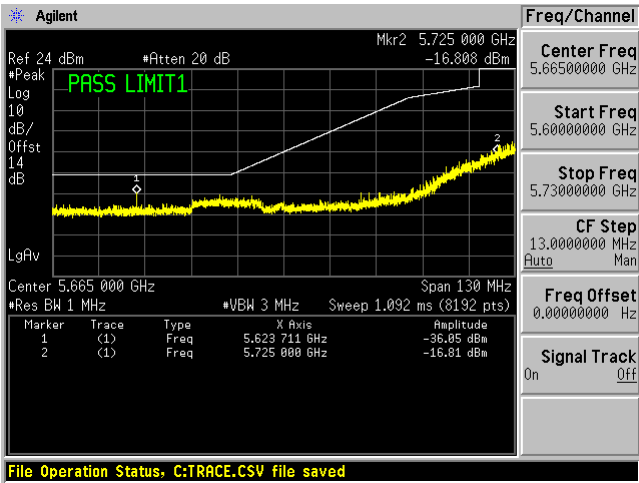


Ant-4

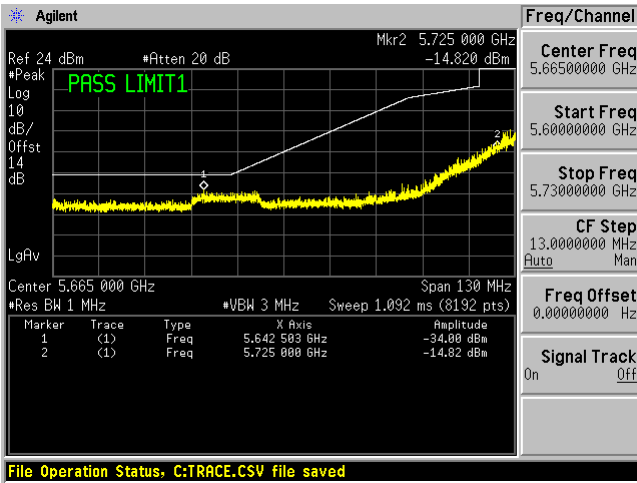


5745 MHz HE20, M0.4 to M9.4-BF MIMO:

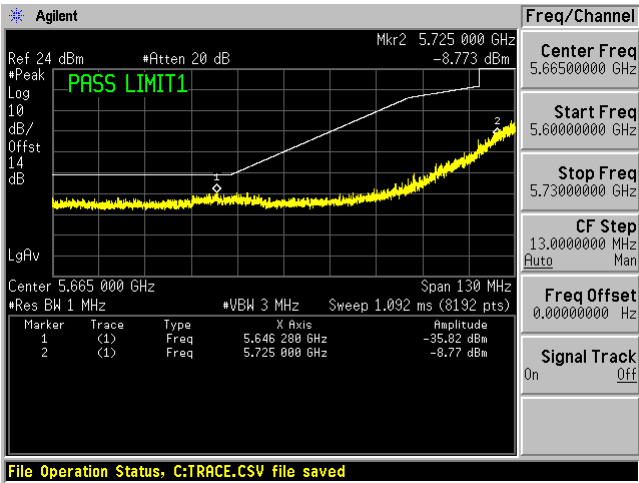
Ant-1



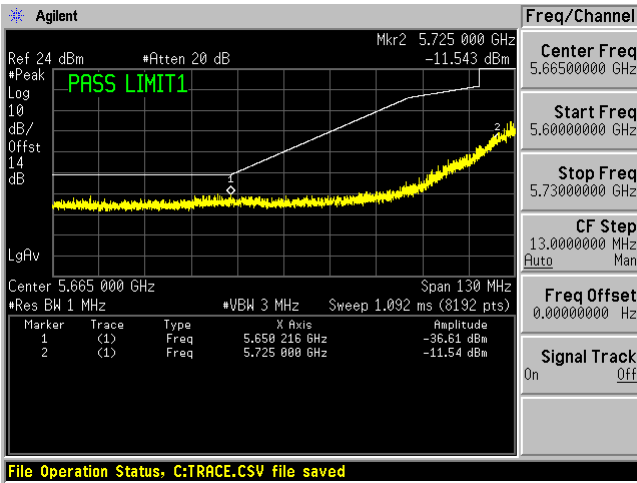
Ant-2



Ant-3

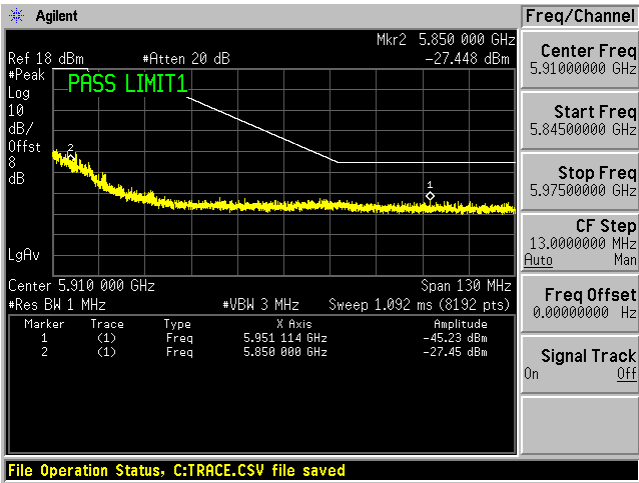


Ant-4



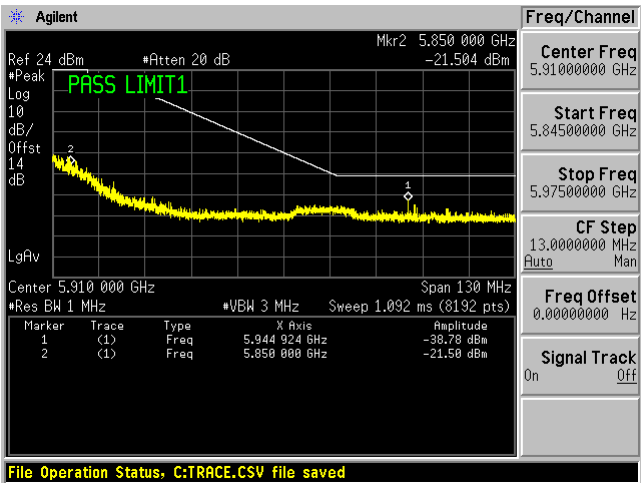
5825 MHz non HT20, 6 to 54 Mbps SISO:

Ant-2

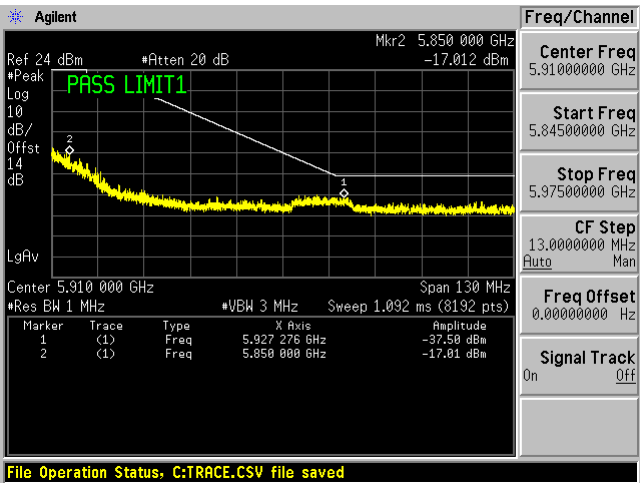


5825 MHz non HT20, 6 to 54 Mbps MIMO:

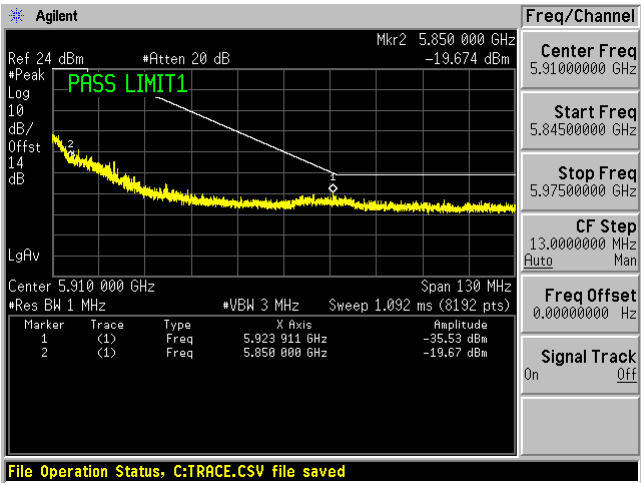
Ant-1



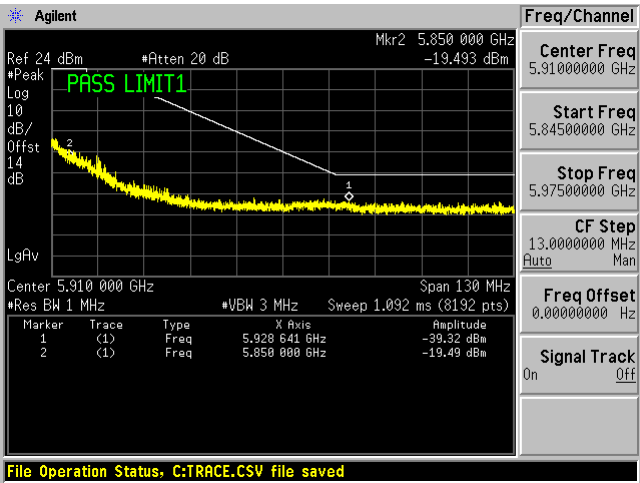
Ant-2



Ant-3

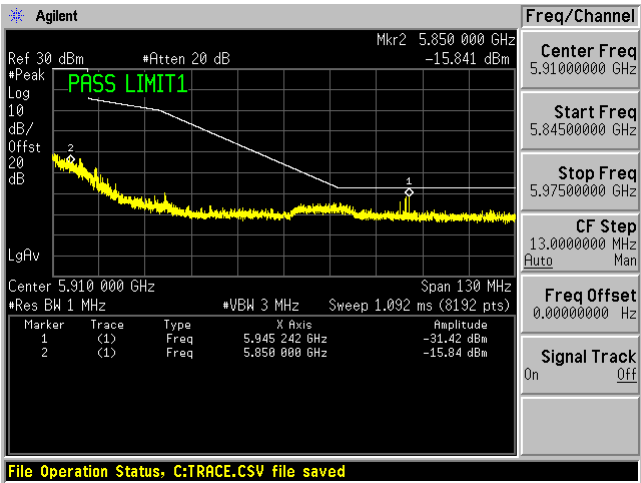


Ant-4

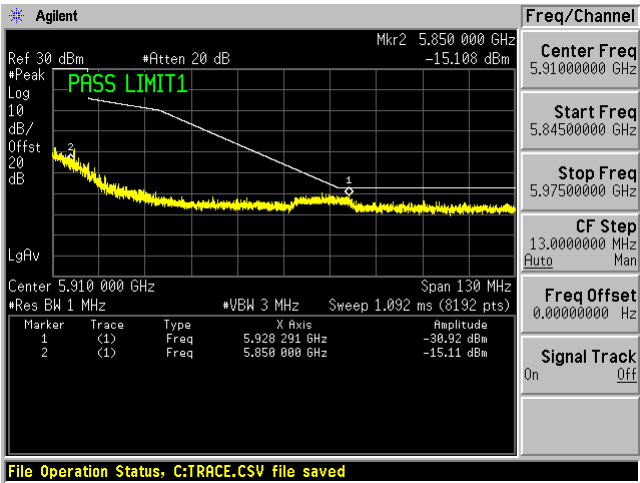


5825 MHz non HT20, 6 to 54 Mbps-BF MIMO:

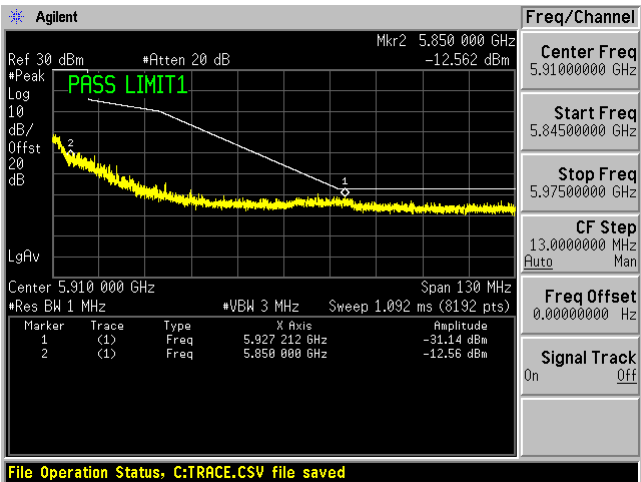
Ant-1



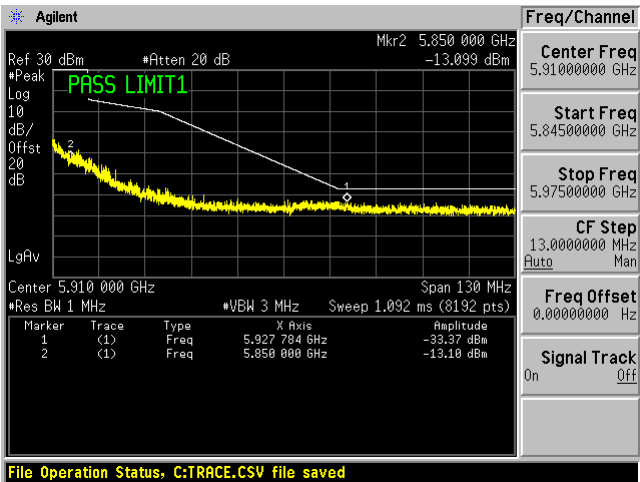
Ant-2



Ant-3

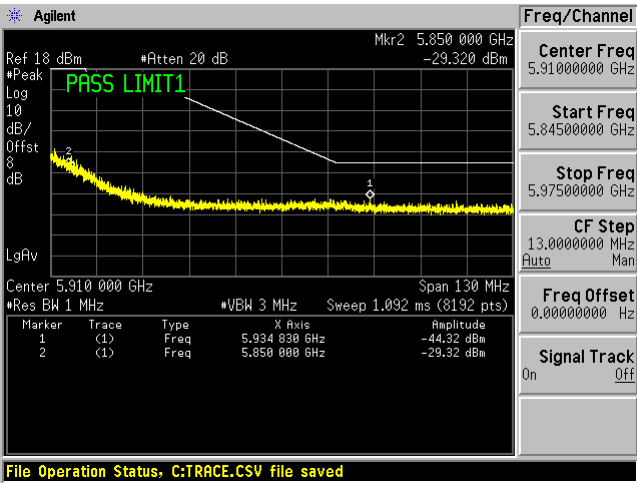


Ant-4



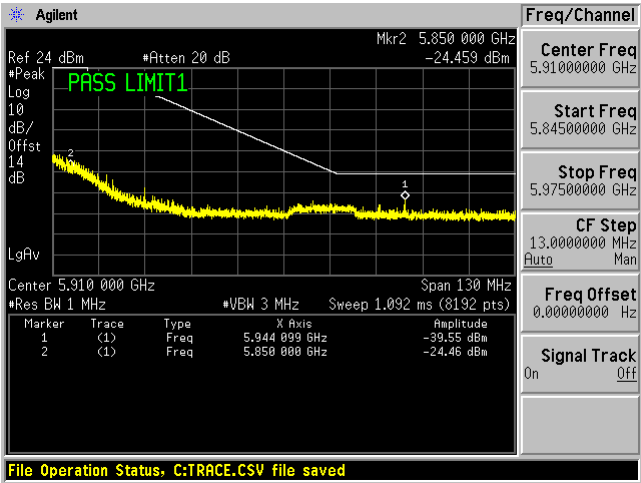
5825 MHz HT/VHT20, M0 to M7, M0.1 to M9.1 SISO:

Ant-2

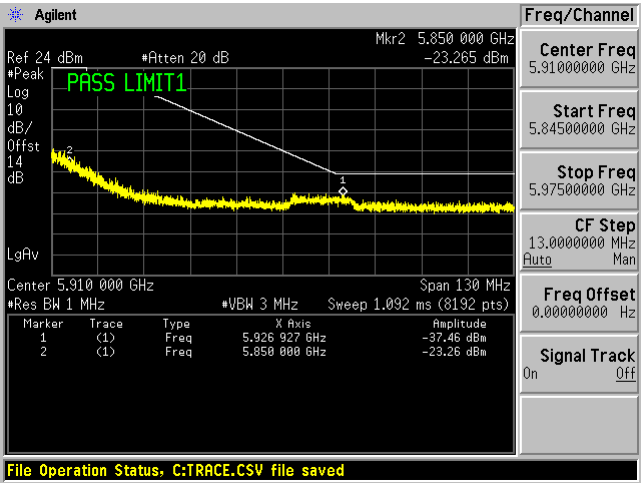


5825 MHz HT/VHT20, M0 to M7, M0.1 to M9.1 MIMO:

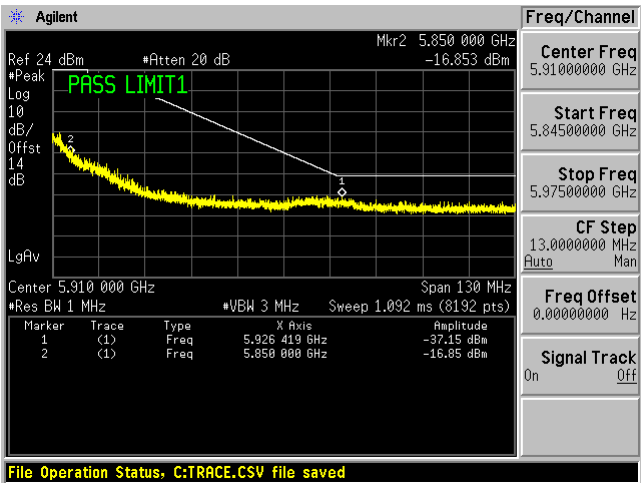
Ant-1



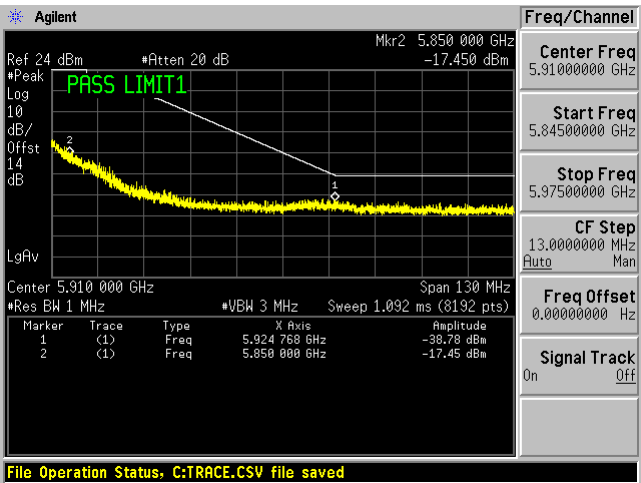
Ant-2



Ant-3

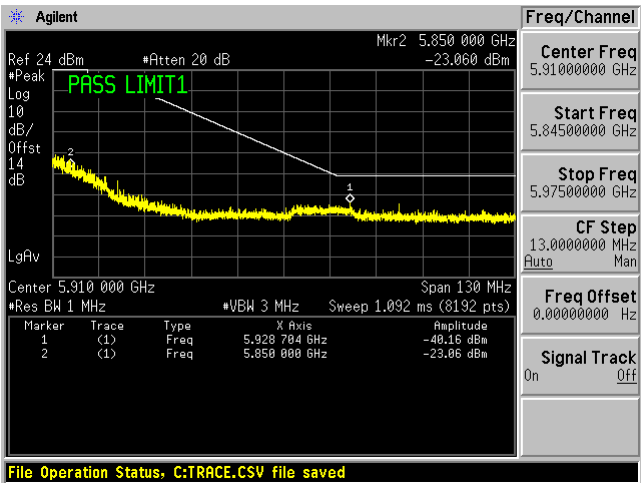


Ant-4

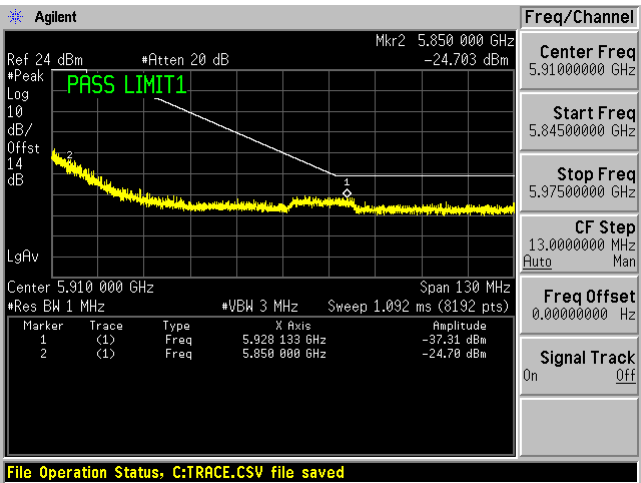


5825 MHz VHT20, M0.4 to M9.4-BF MIMO:

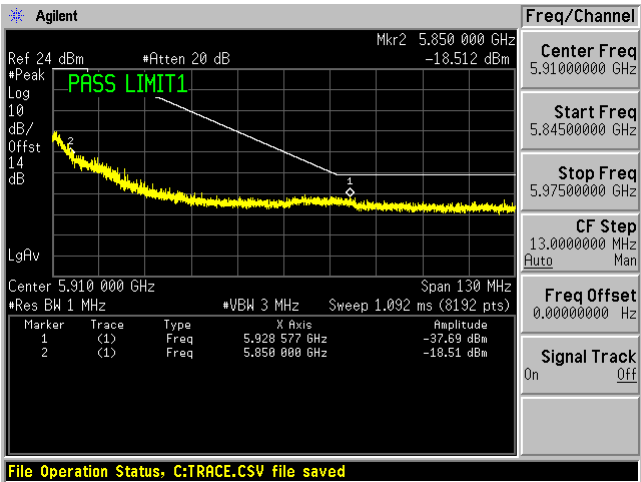
Ant-1



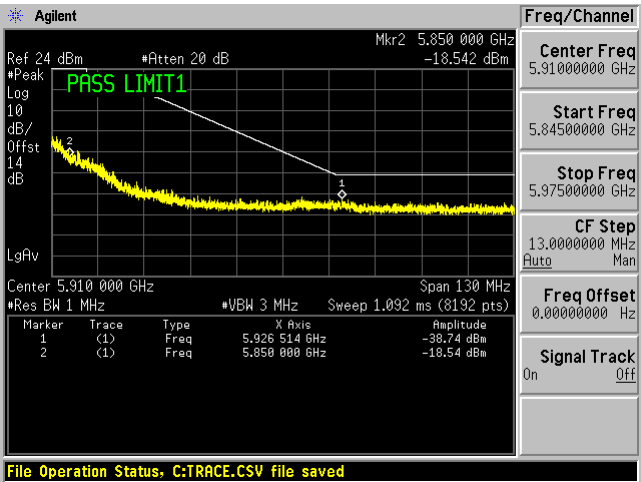
Ant-2



Ant-3

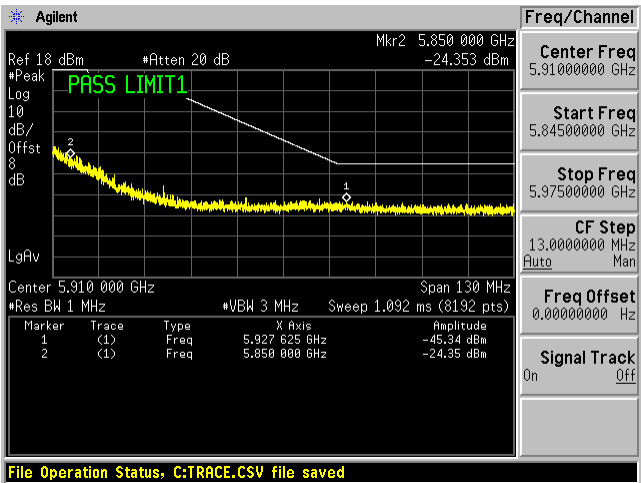


Ant-4



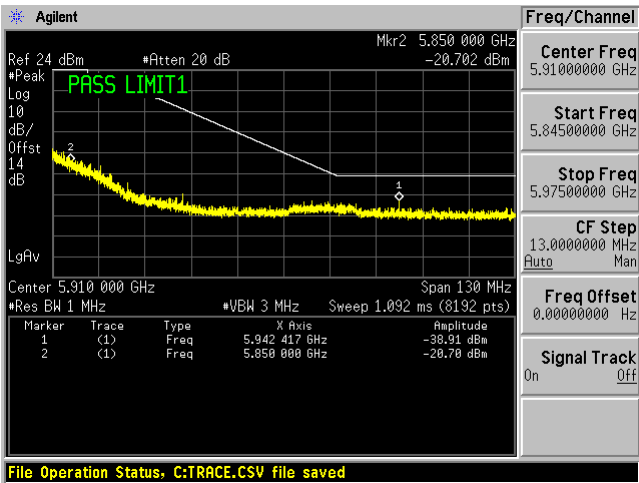
5825 MHz HE20, M0.1 to M9.1 SISO:

Ant-2

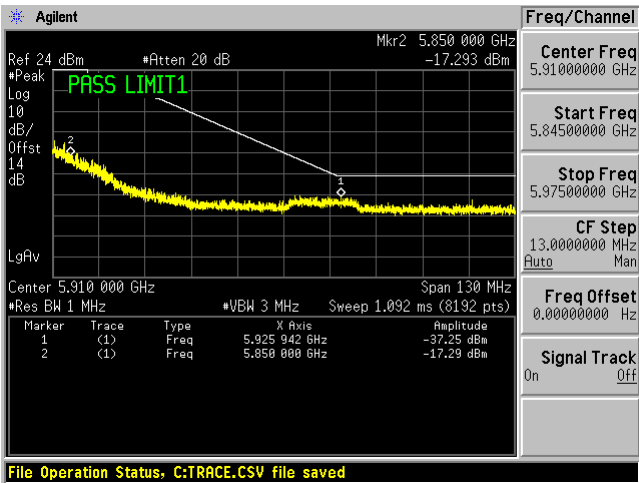


5825 MHz HE20, M0.1 to M9.1 MIMO:

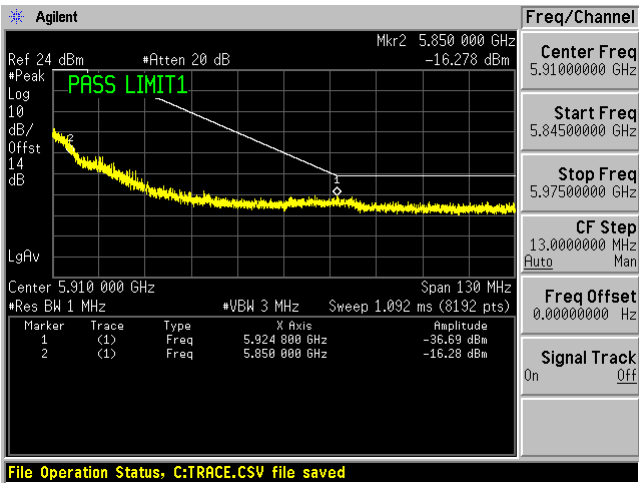
Ant-1



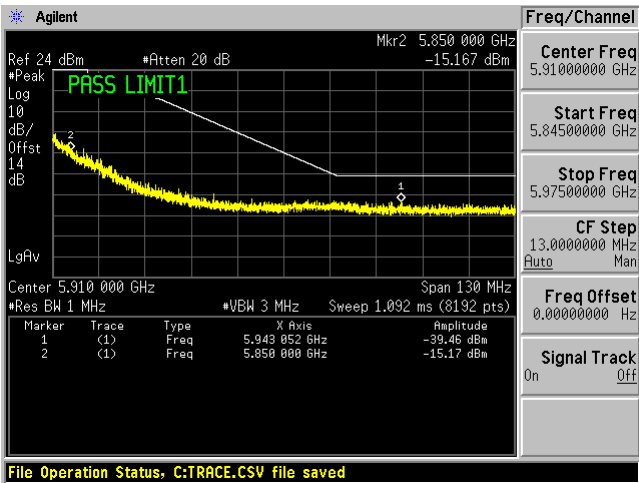
Ant-2



Ant-3

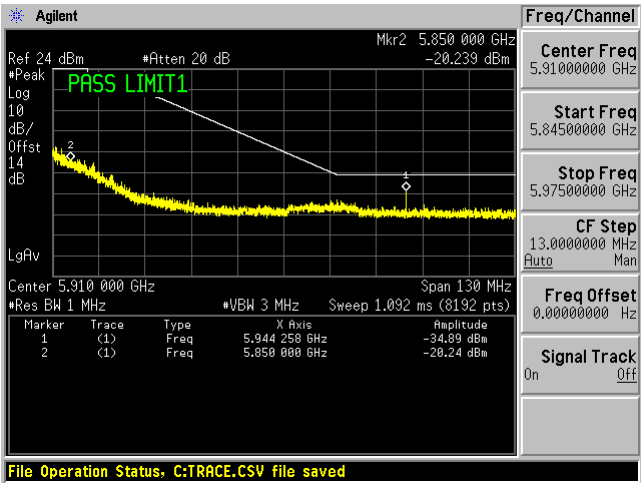


Ant-4

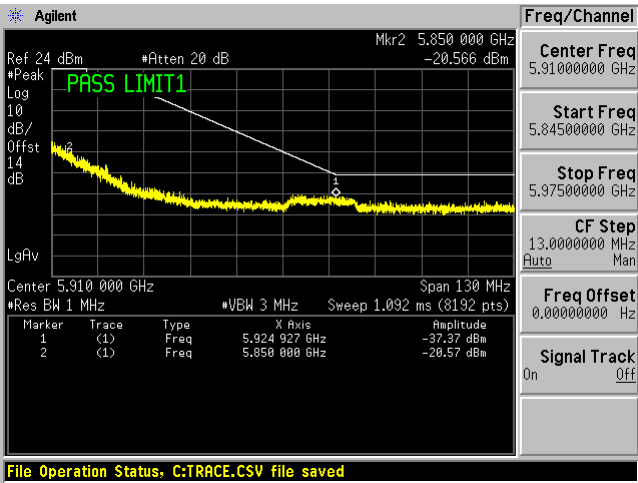


5825 MHz HE20, M0.4 to M9.4-BF MIMO:

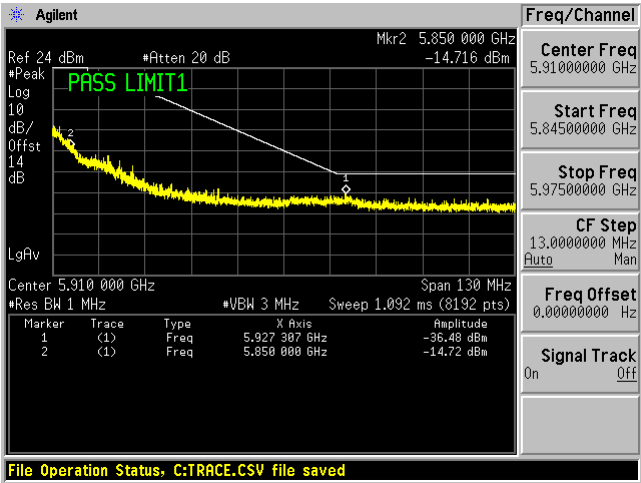
Ant-1



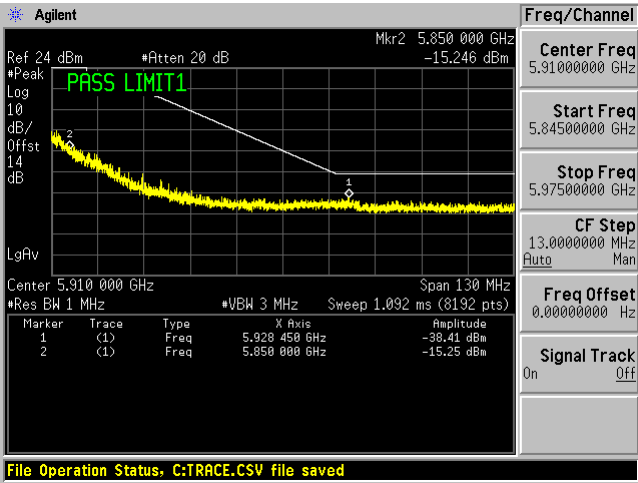
Ant-2



Ant-3

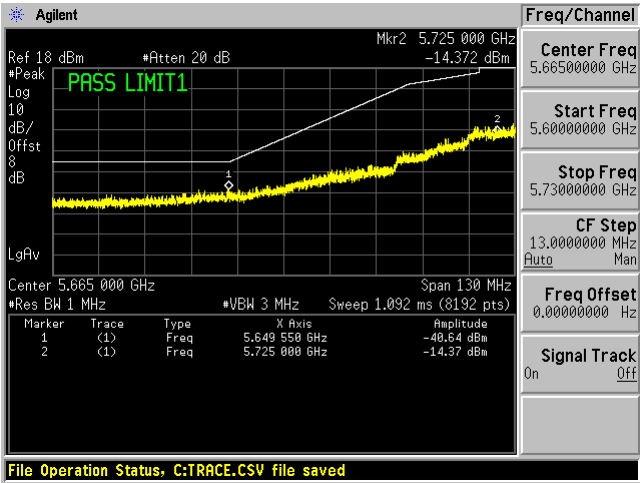


Ant-4



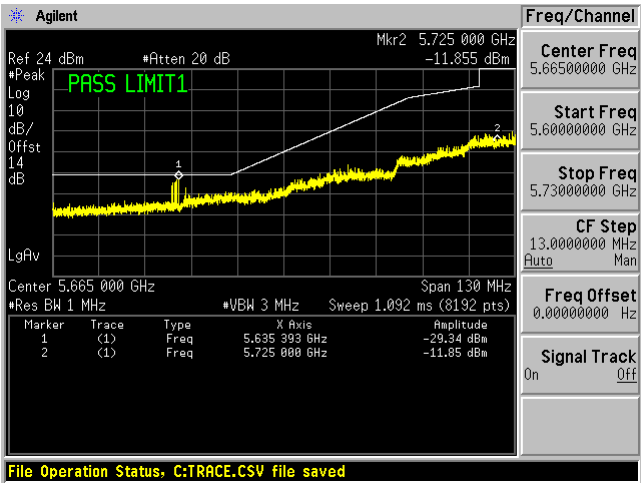
5755 MHz non HT40, 6 to 54 Mbps SISO:

Ant-2

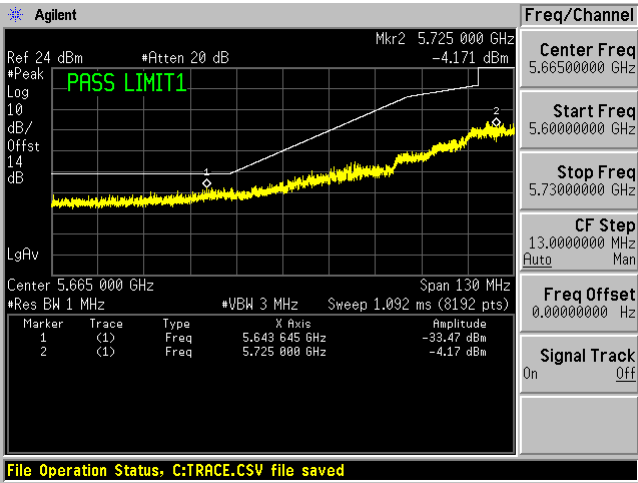


5755 MHz non HT40, 6 to 54 Mbps MIMO:

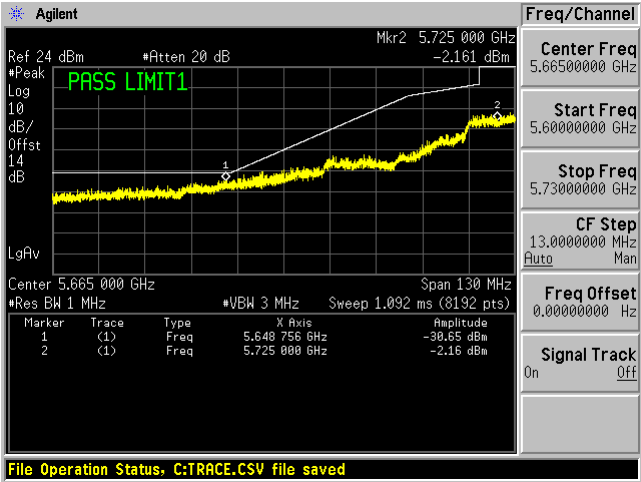
Ant-1



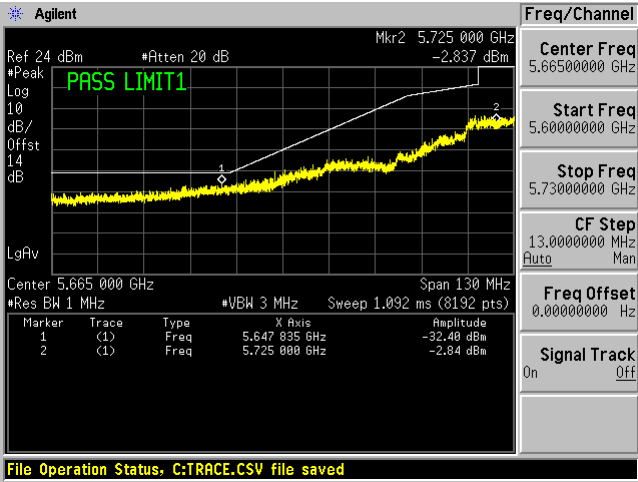
Ant-2



Ant-3

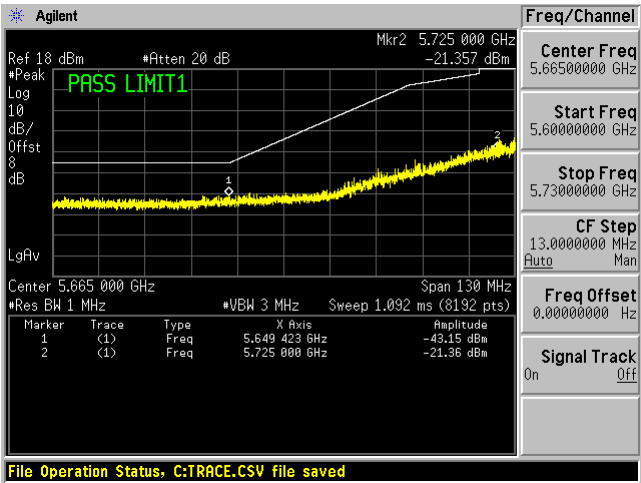


Ant-4



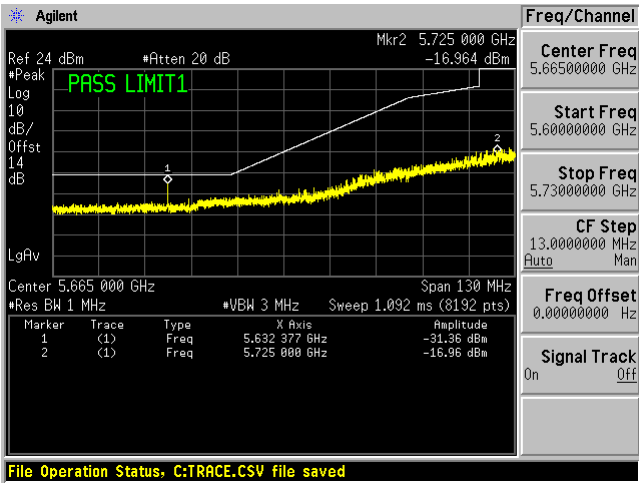
5755 MHz HT/VHT40, M0 to M7, M0.1 to M8.1 SISO:

Ant-2

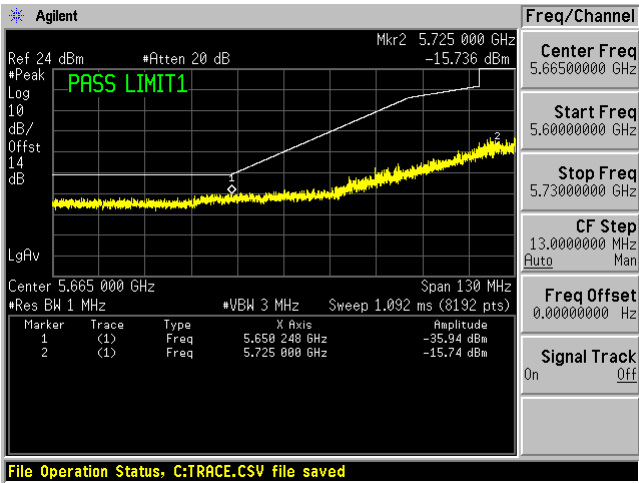


5755 MHz HT/VHT40, M0 to M7, M0.1 to M8.1 MIMO:

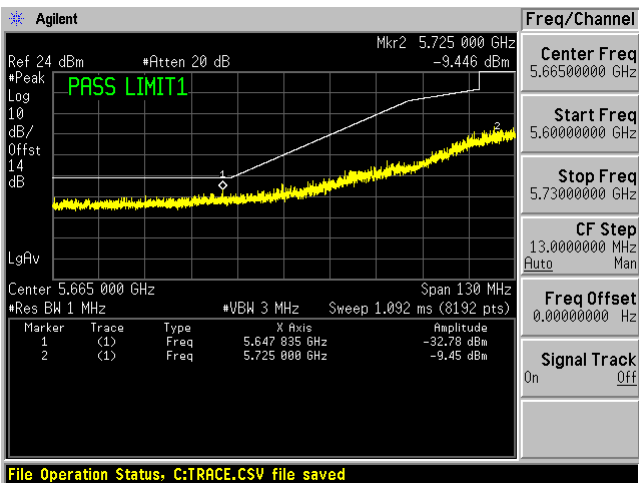
Ant-1



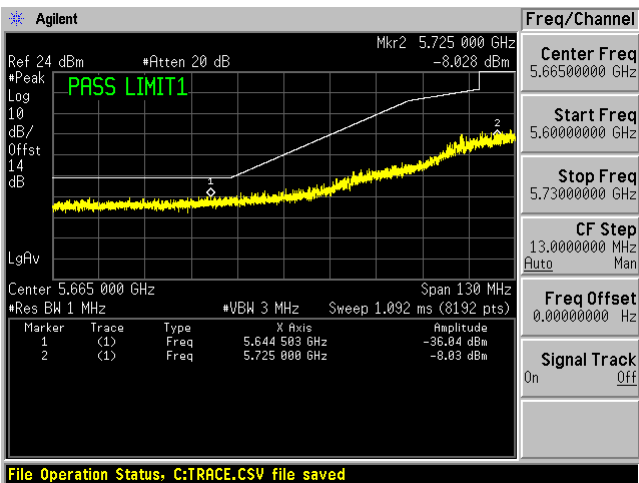
Ant-2



Ant-3

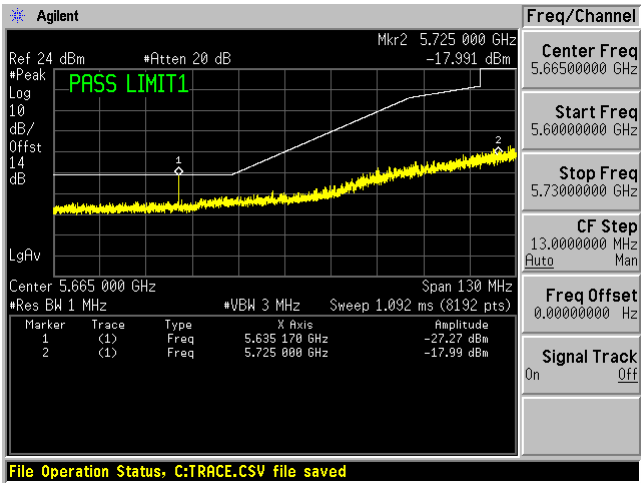


Ant-4

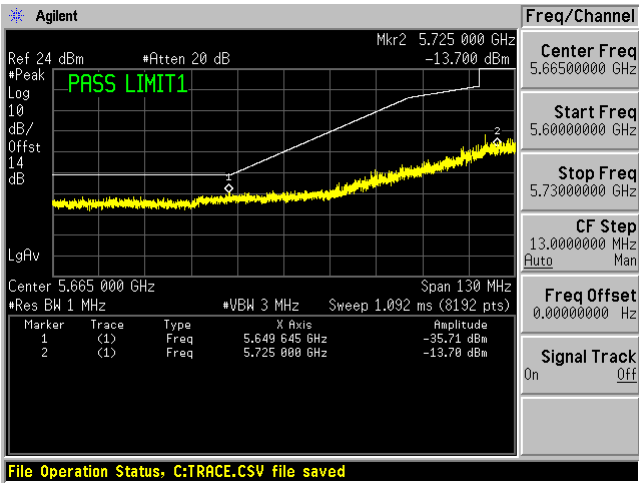


5755 MHz VHT40, M0.4 to M8.4-BF MIMO:

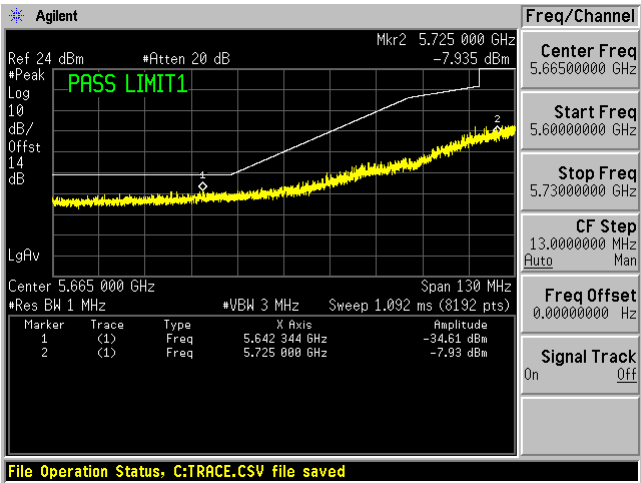
Ant-1



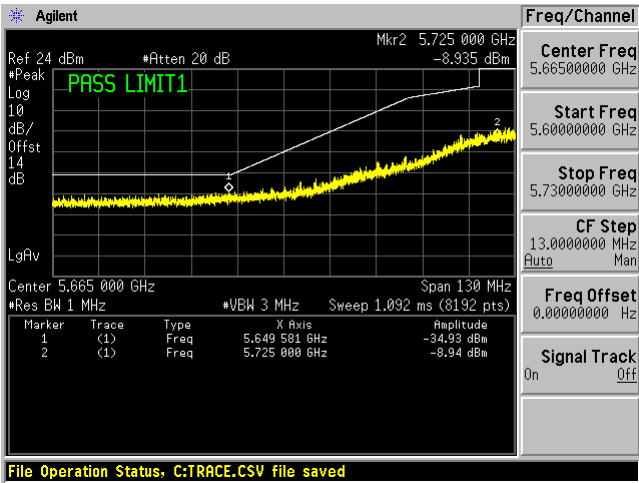
Ant-2



Ant-3

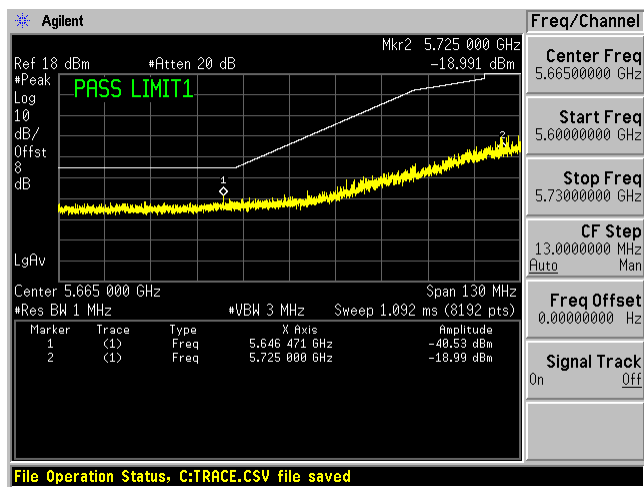


Ant-4



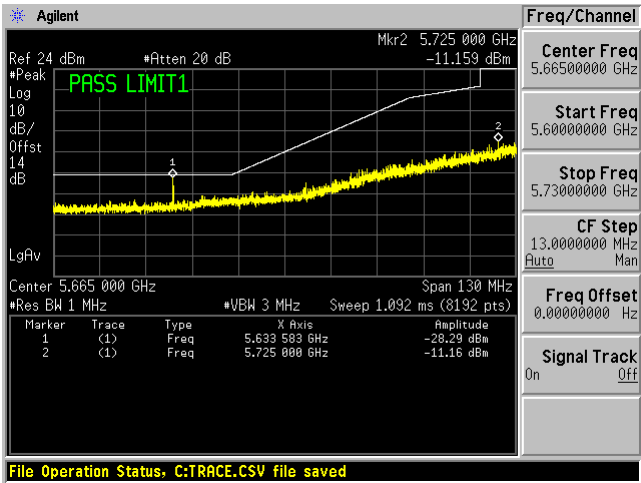
5755 MHz HE40, M0.1 to M11.1 SISO:

Ant-2

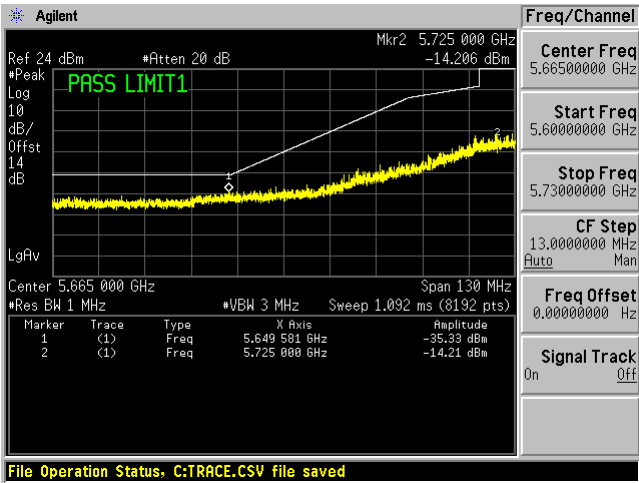


5755 MHz HE40, M0.1 to M11.1 MIMO:

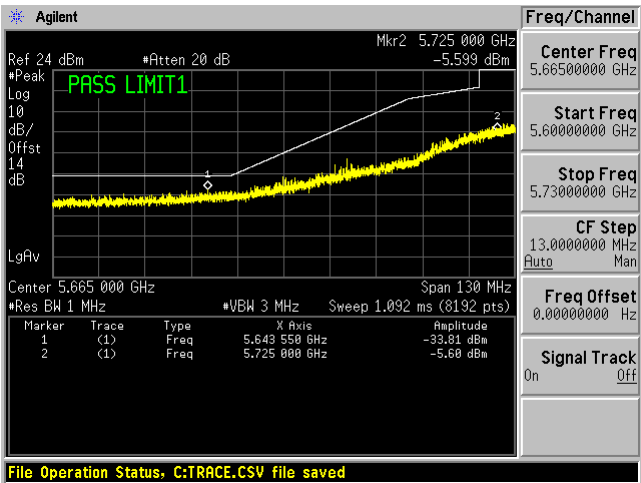
Ant-1



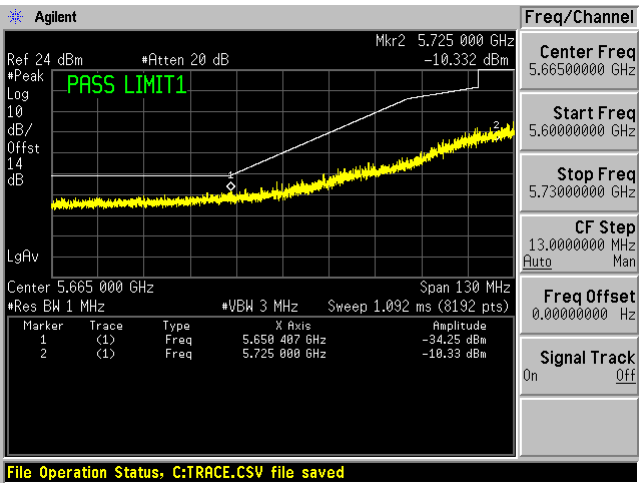
Ant-2



Ant-3

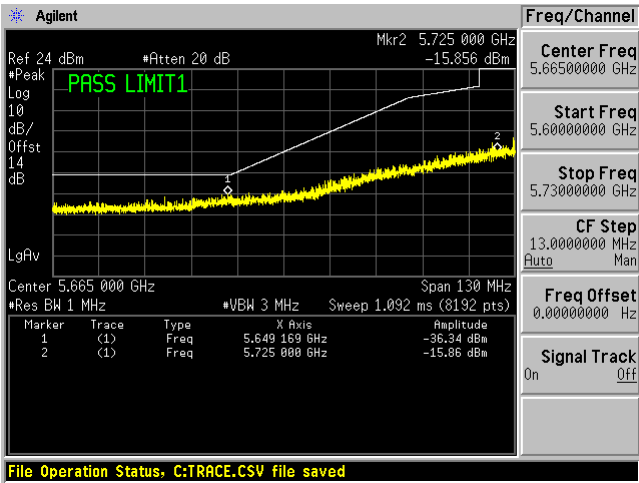


Ant-4

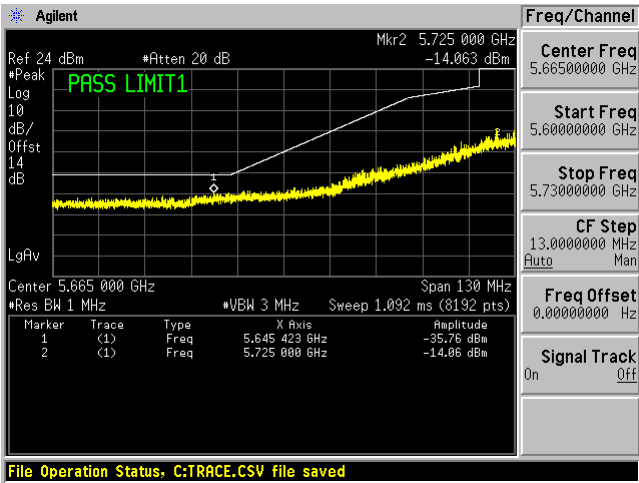


5755 MHz HE40, M0.4 to M11.4-BF MIMO:

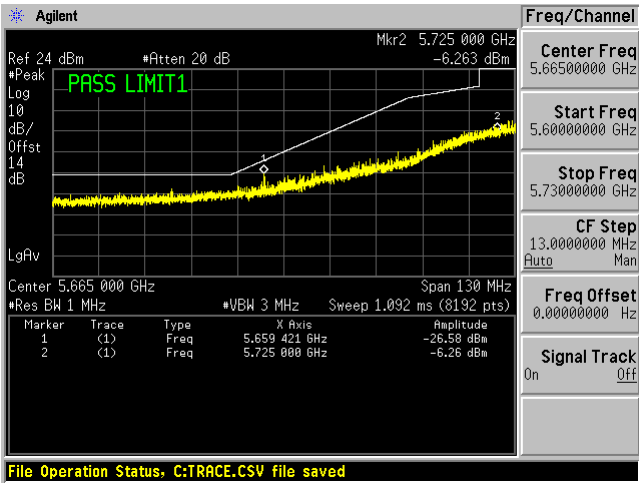
Ant-1



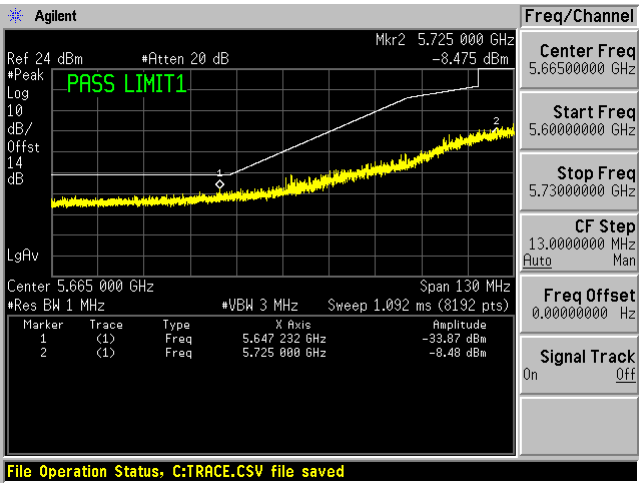
Ant-2



Ant-3

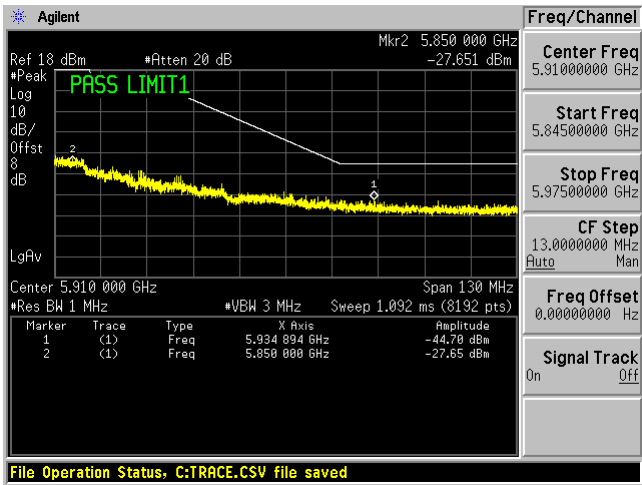


Ant-4



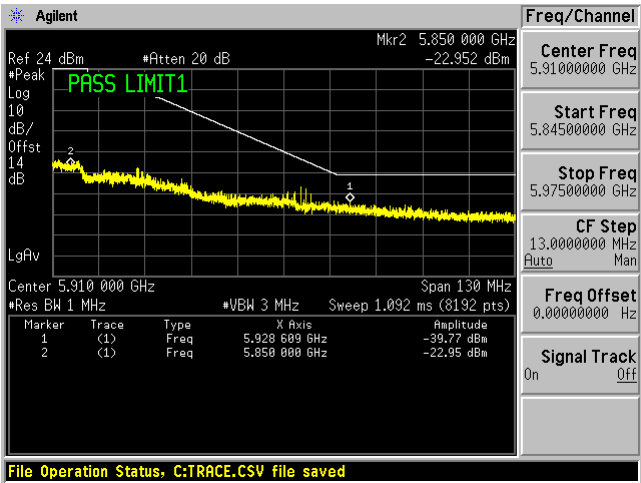
5795 MHz non HT40, 6 to 54 Mbps SISO:

Ant-2

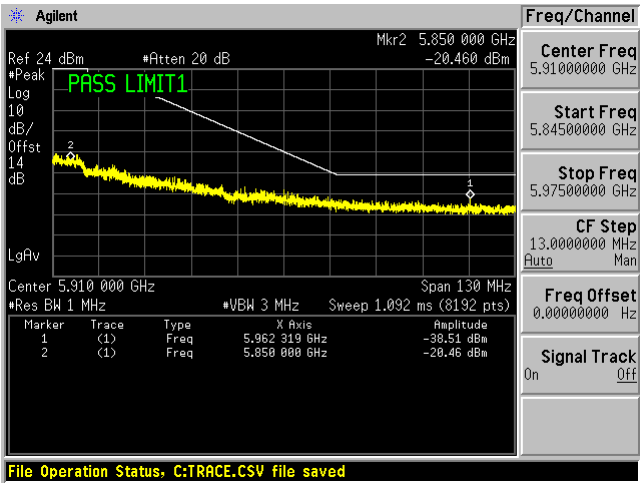


5795 MHz non HT40, 6 to 54 Mbps MIMO:

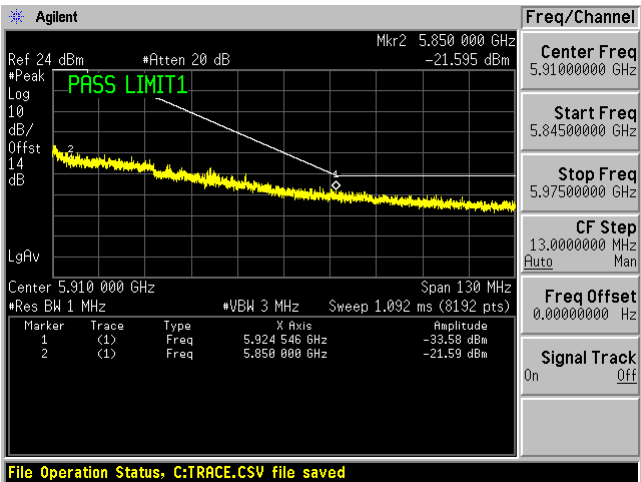
Ant-1



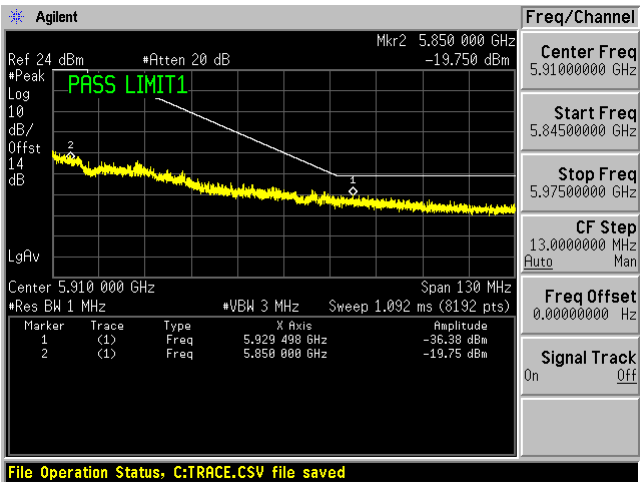
Ant-2



Ant-3

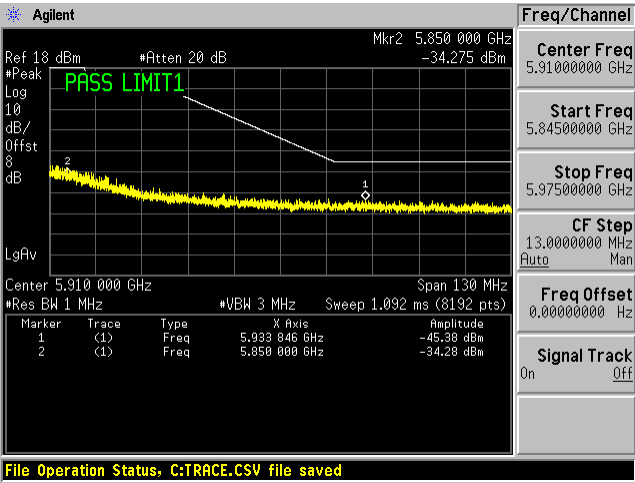


Ant-4



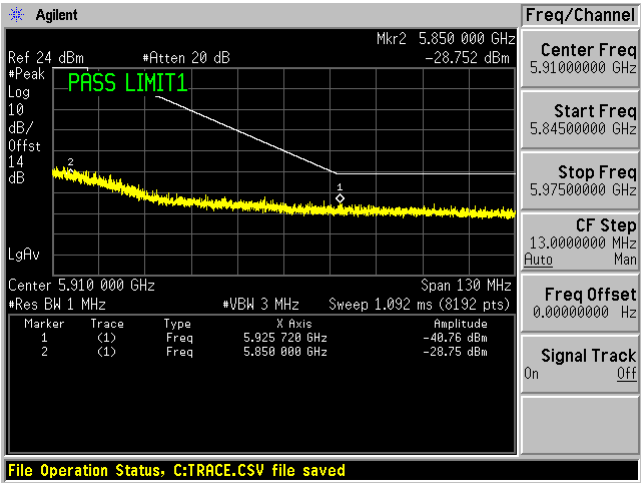
5795 MHz HT/VHT40, M0 to M7, M0.1 to M8.1 SISO:

Ant-2

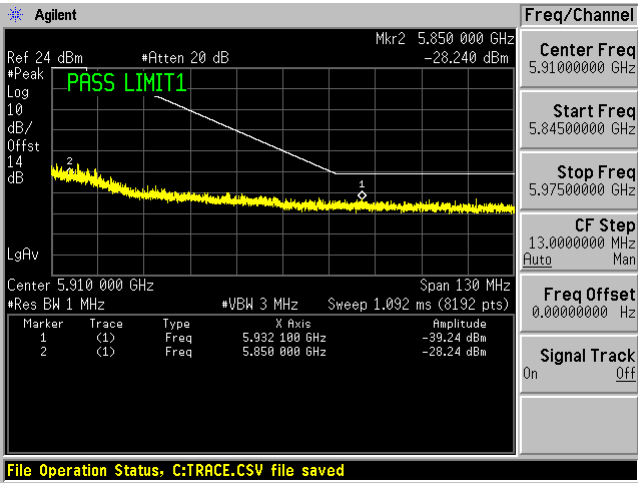


5795 MHz HT/VHT40, M0 to M7, M0.1 to M8.1 MIMO:

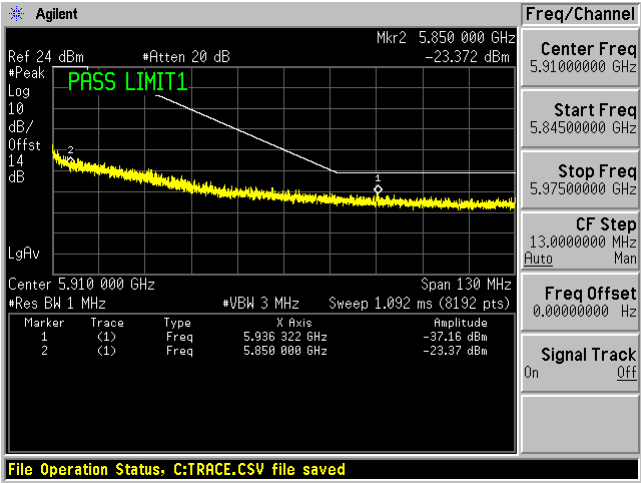
Ant-1



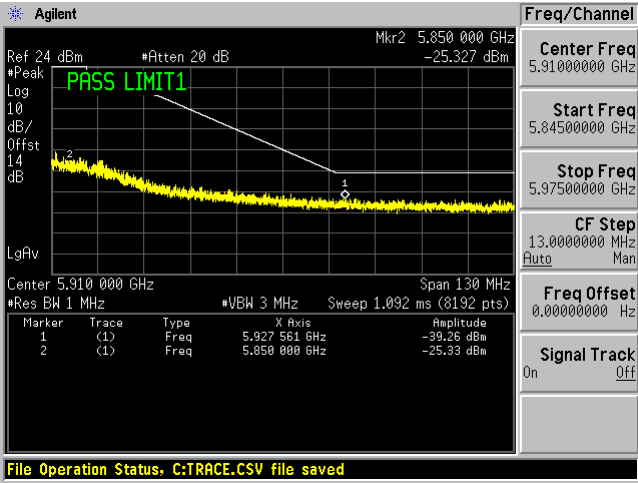
Ant-2



Ant-3

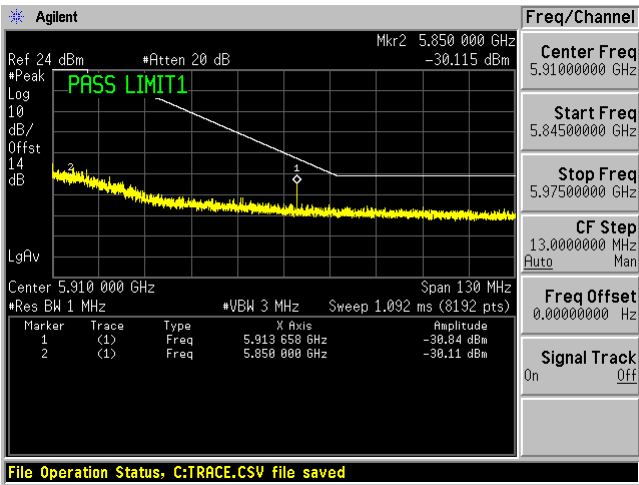


Ant-4

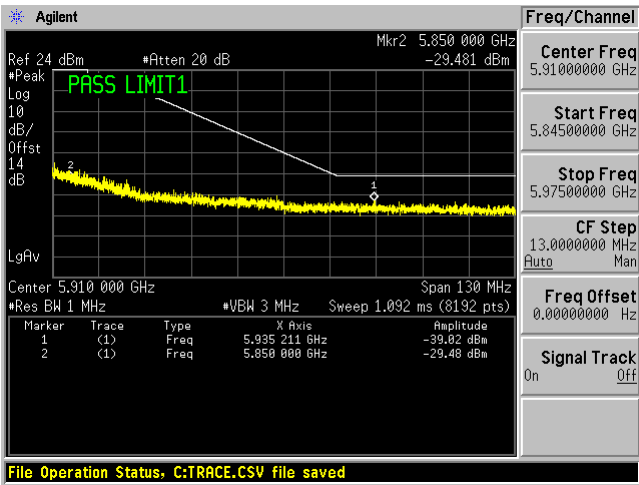


5795 MHz VHT40, M0.4 to M8.4-BF MIMO:

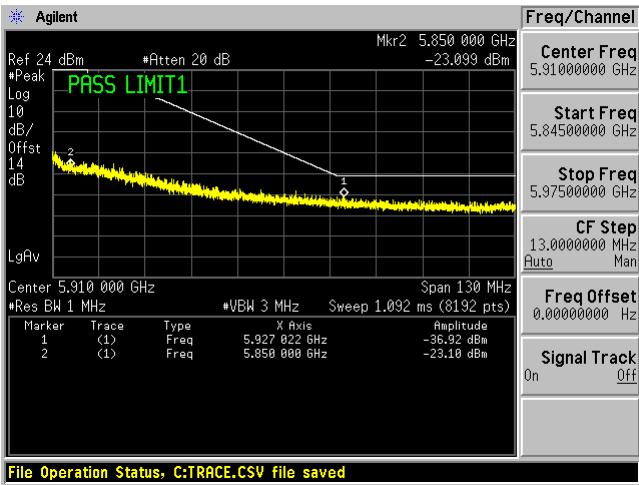
Ant-1



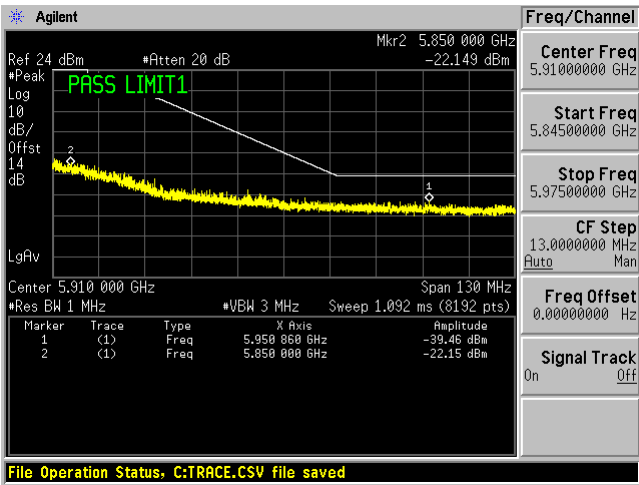
Ant-2



Ant-3

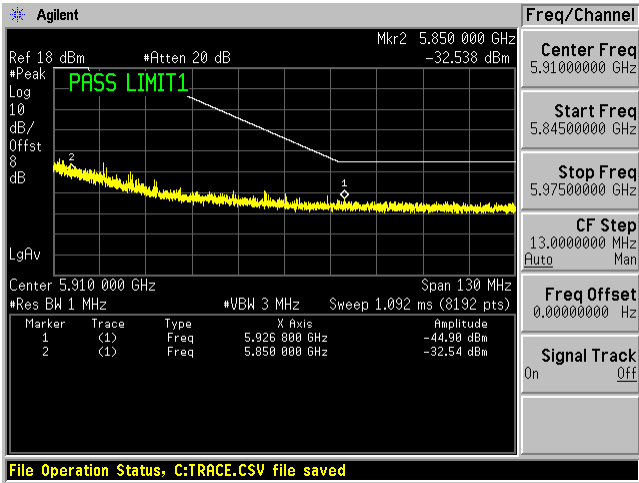


Ant-4



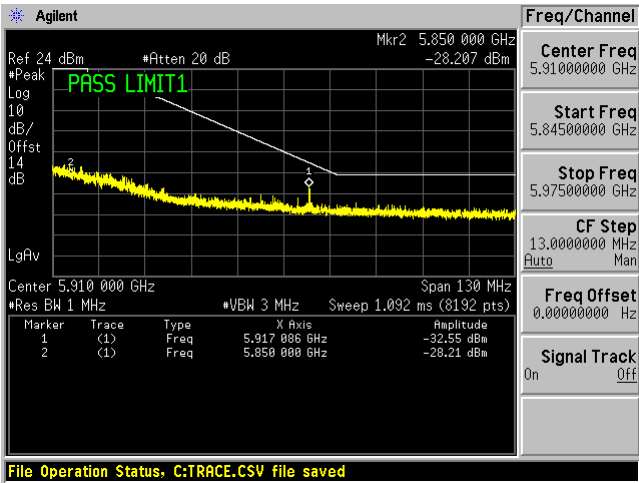
5795 MHz HE40, M0.1 to M11.1 SISO:

Ant-2

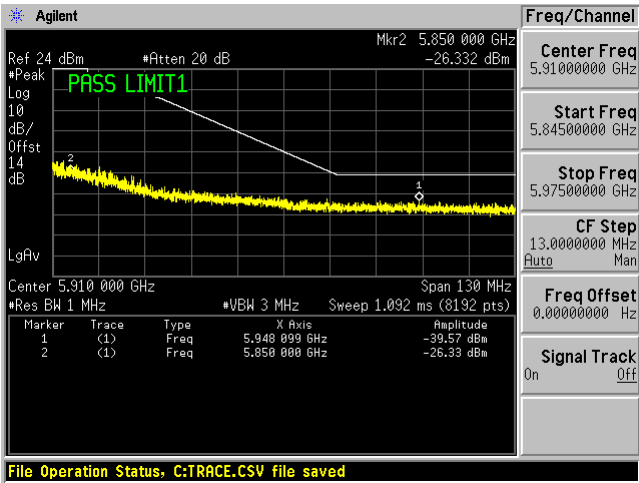


5795 MHz HE40, M0.1 to M11.1 MIMO:

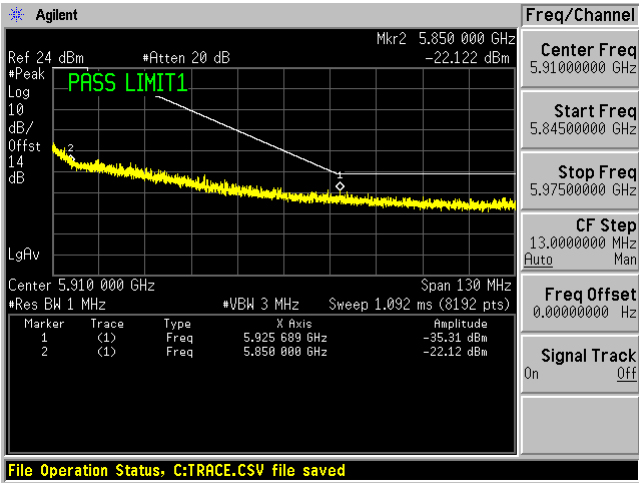
Ant-1



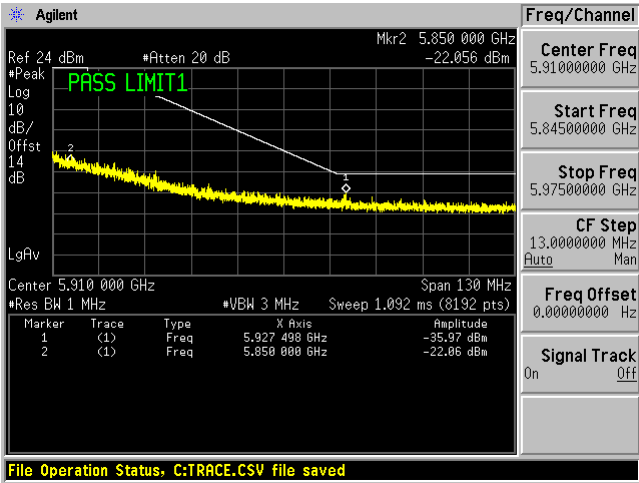
Ant-2



Ant-3

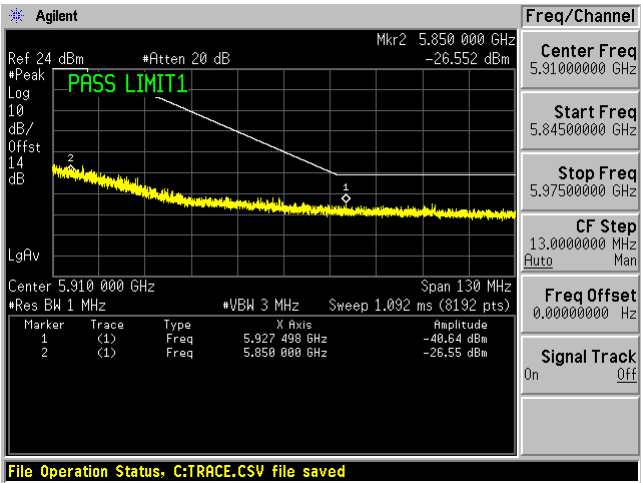


Ant-4

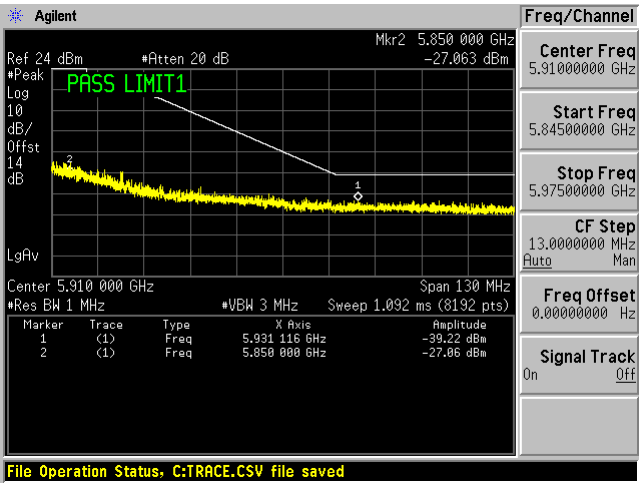


5795 MHz HE40, M0.4 to M11.4-BF MIMO:

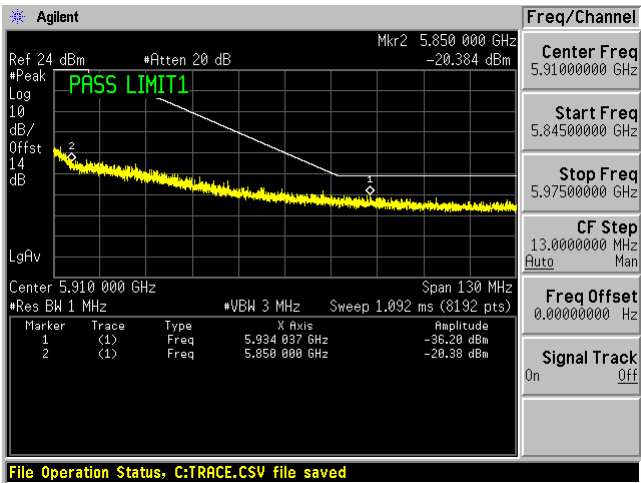
Ant-1



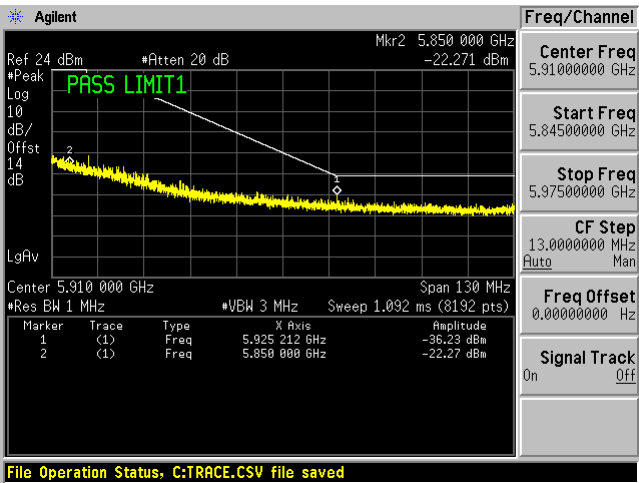
Ant-2



Ant-3



Ant-4

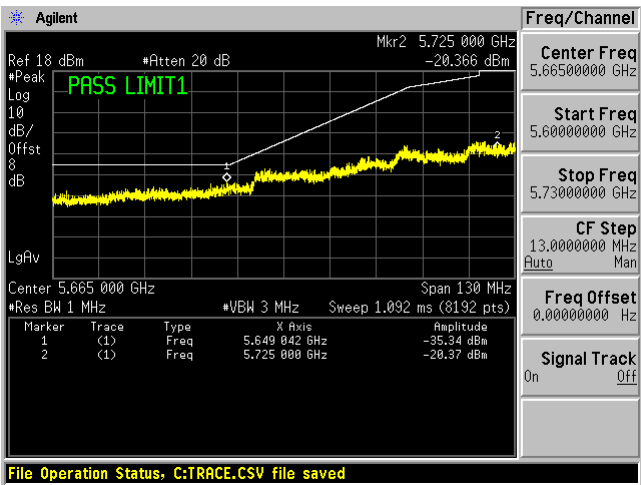


5775 MHz:

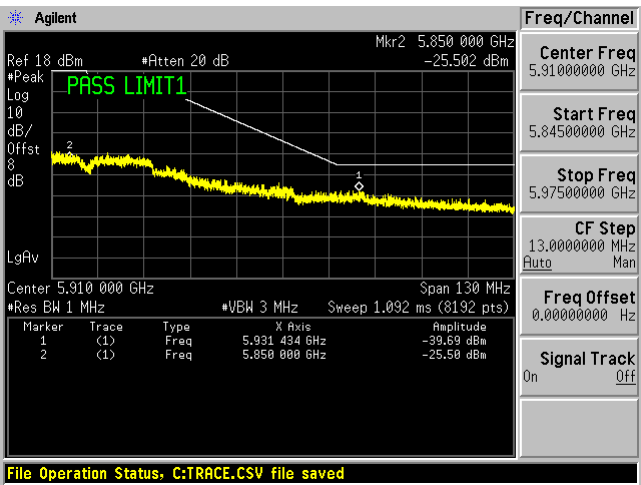
5775 MHz non HT80, 6 to 54 Mbps SISO:

Ant-2

Left



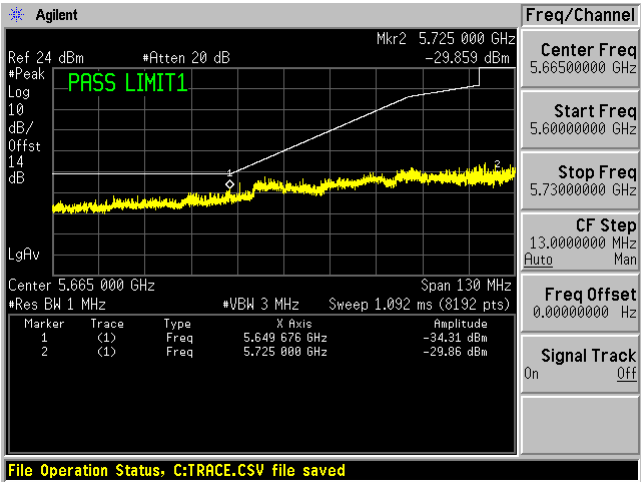
Right



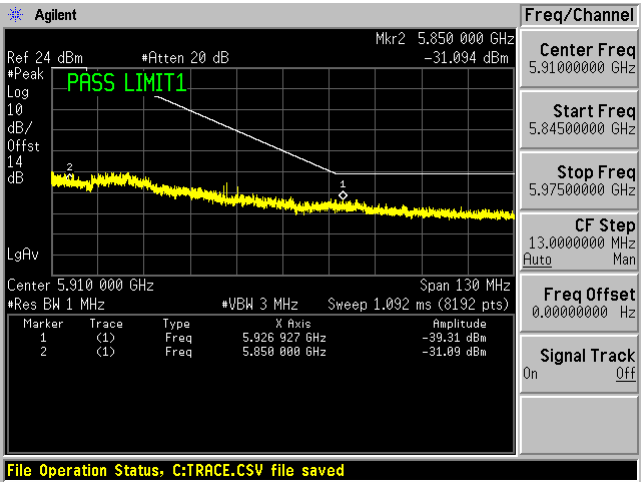
5775 MHz non HT80, 6 to 54 Mbps MIMO:

Ant-1

Left

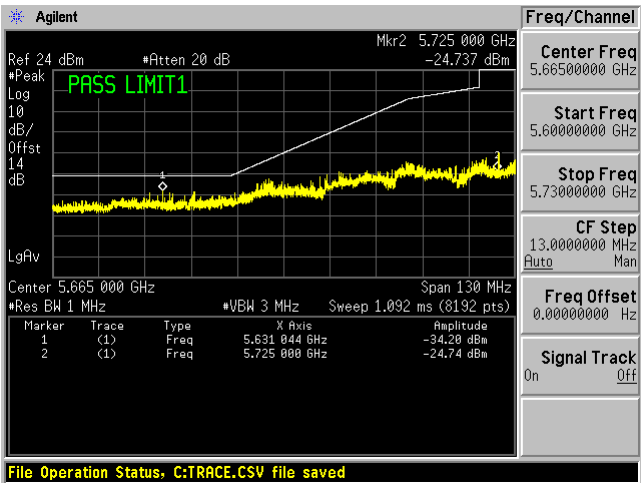


Right

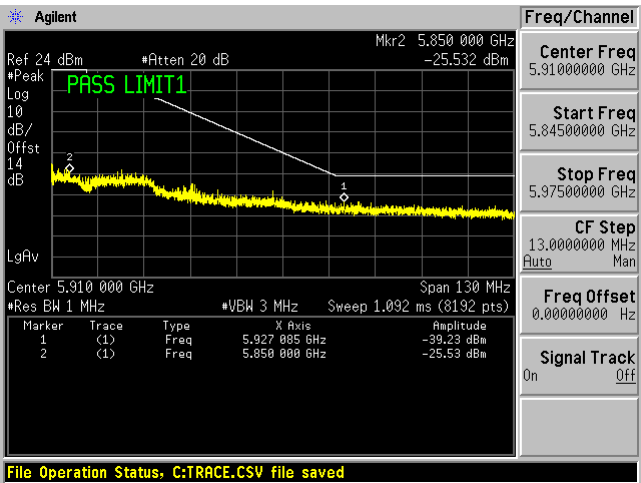


Ant-2

Left

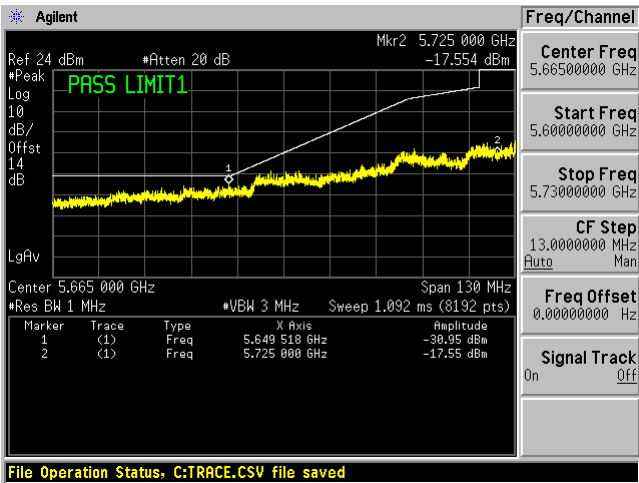


Right

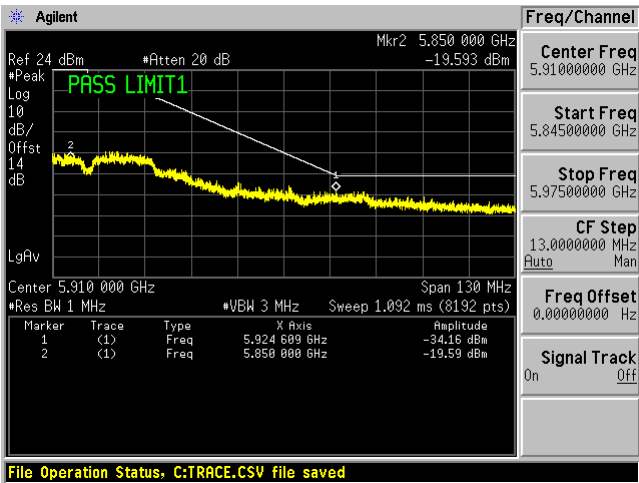


Ant-3

Left

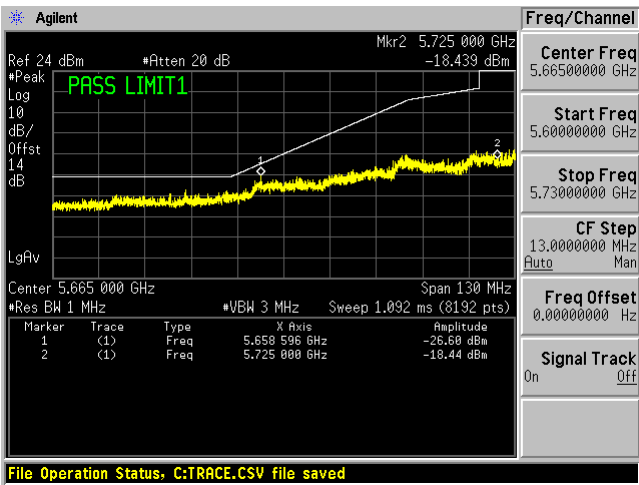


Right

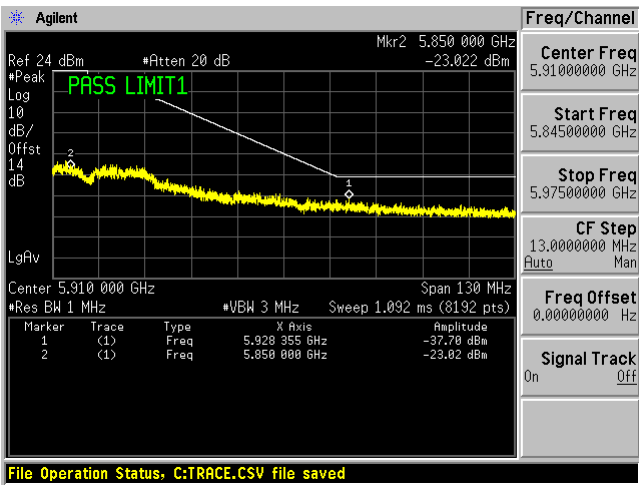


Ant-4

Left



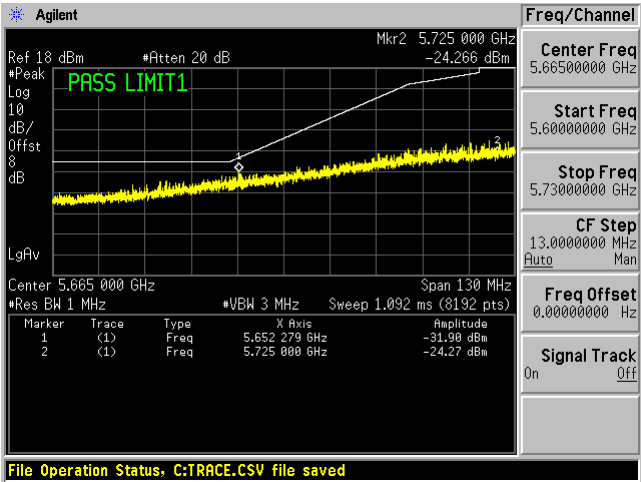
Right



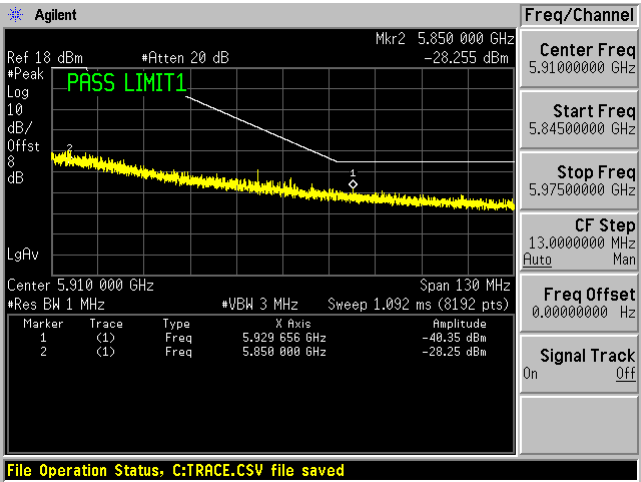
5775 MHz HT/VHT80, M0 to M7, M0.1 to M8.1 SISO:

Ant-2

Left



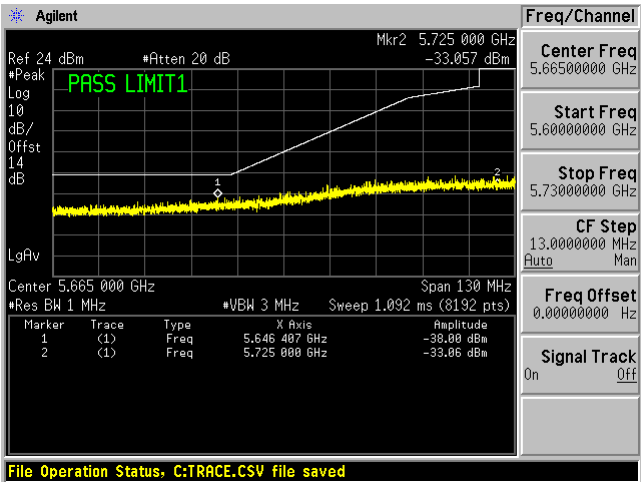
Right



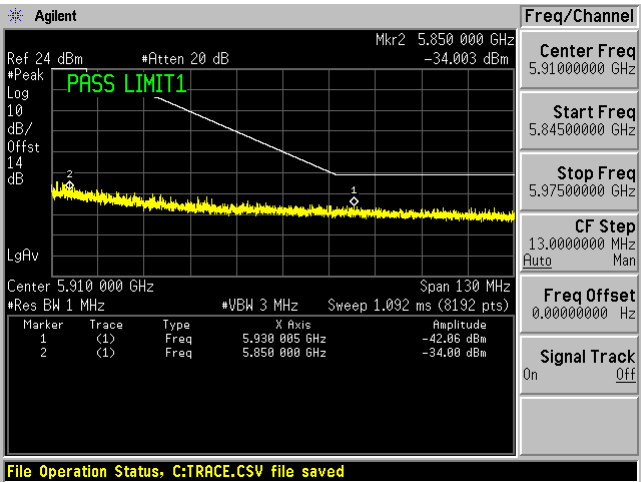
5775 MHz HT/VHT80, M0 to M7, M0.1 to M8.1 MIMO:

Ant-1

Left

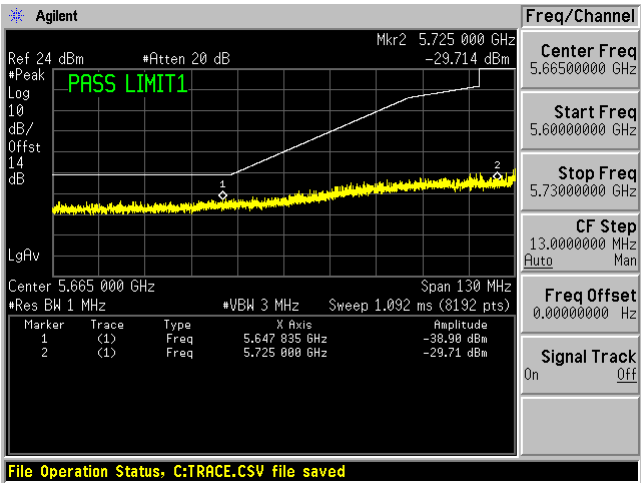


Right

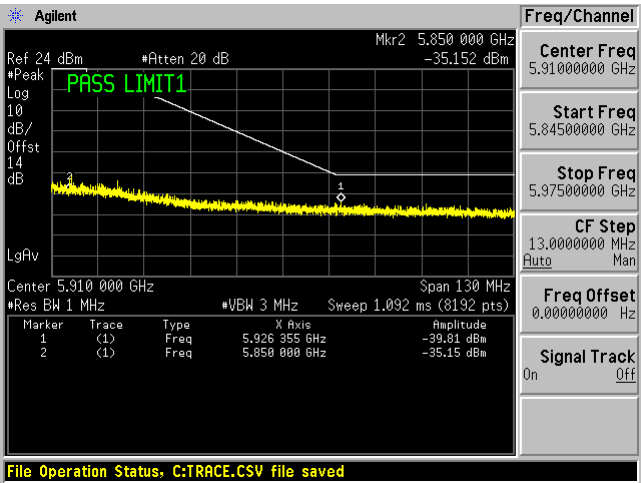


Ant-2

Left

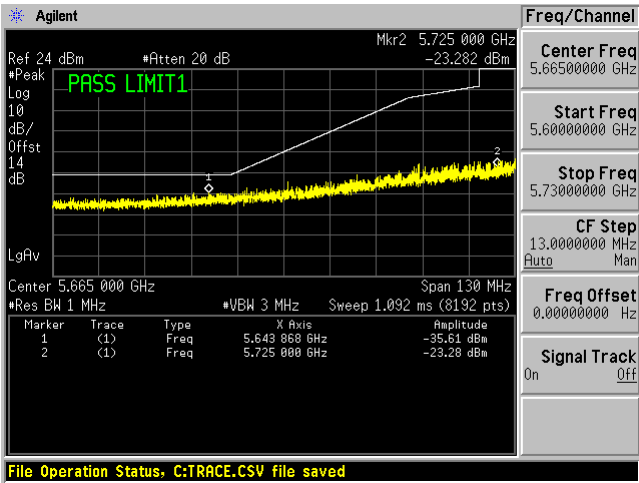


Right

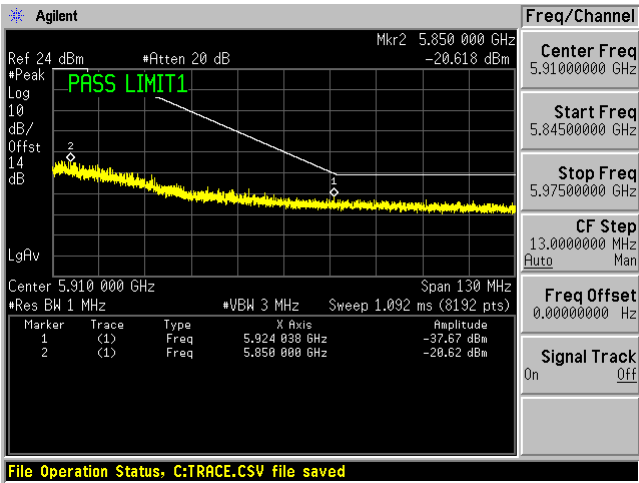


Ant-3

Left

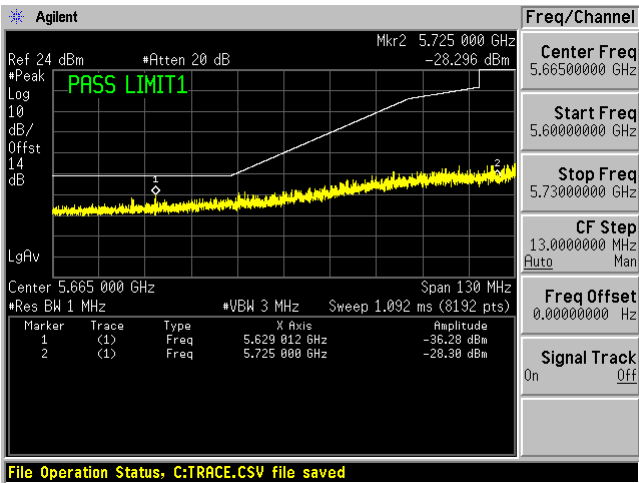


Right

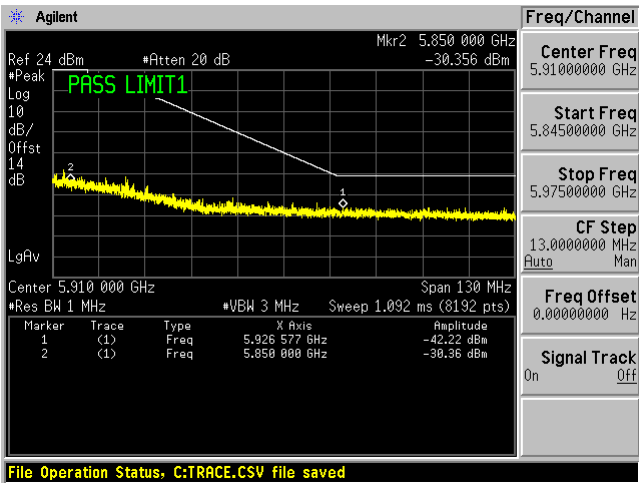


Ant-4

Left



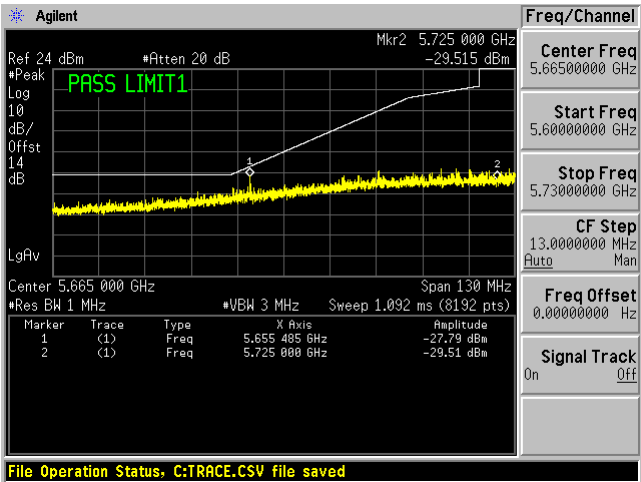
Right



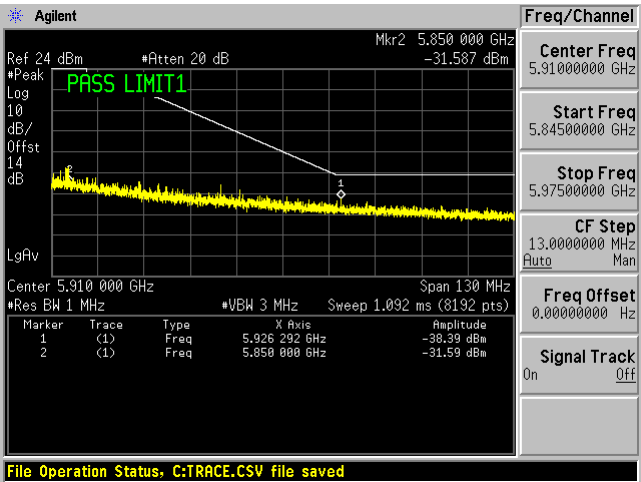
5775 MHz VHT80, M0.4 to M8.4-BF MIMO:

Ant-1

Left

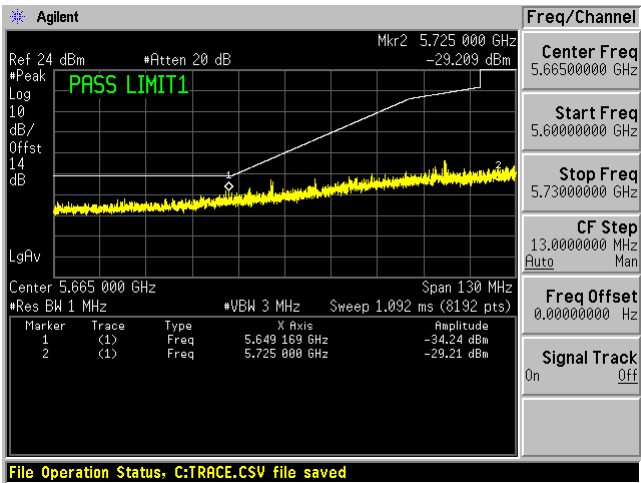


Right

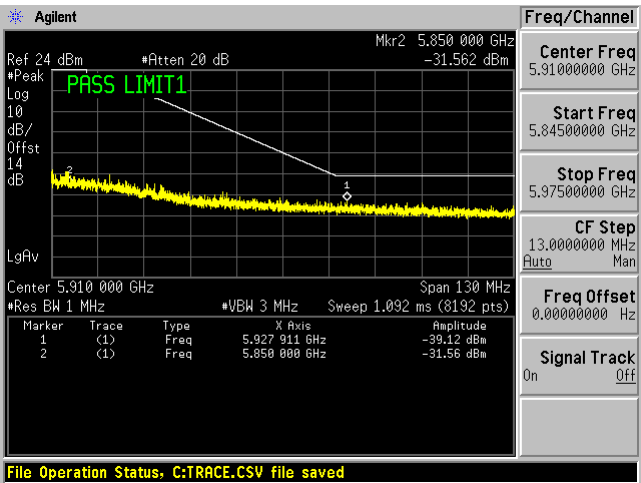


Ant-2

Left

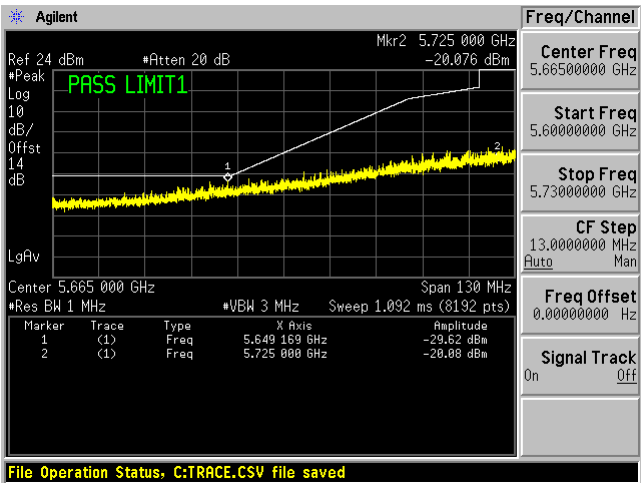


Right

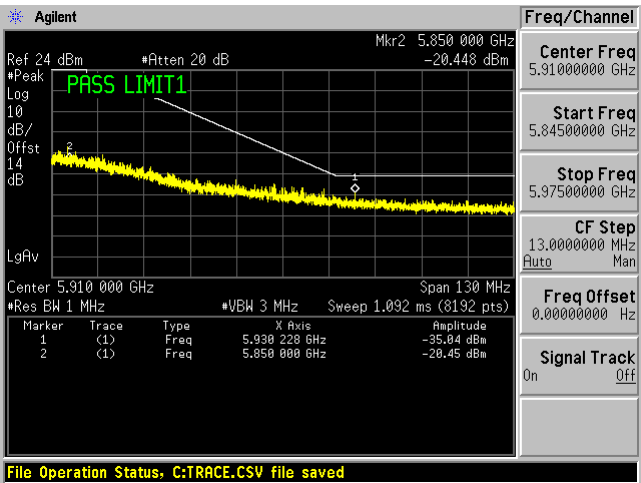


Ant-3

Left

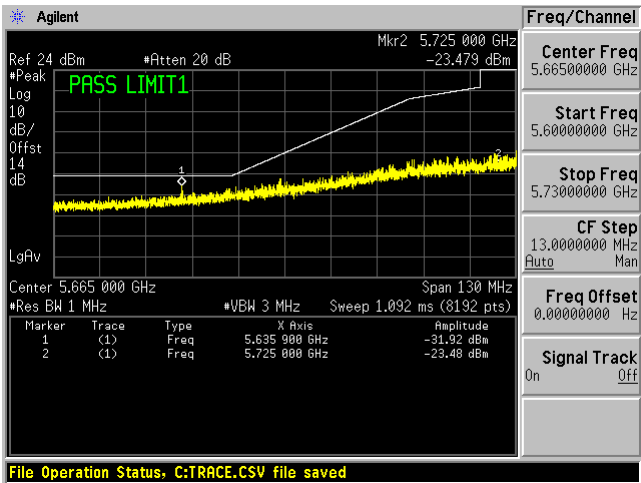


Right

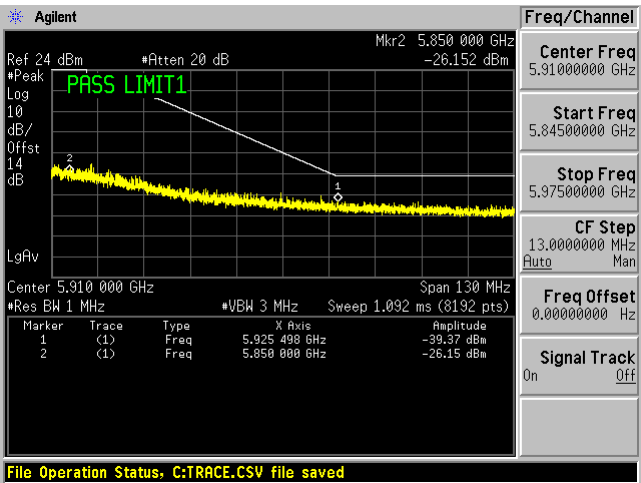


Ant-4

Left



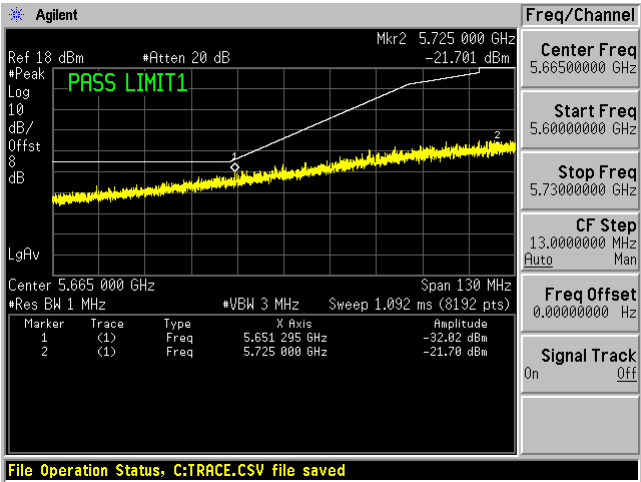
Right



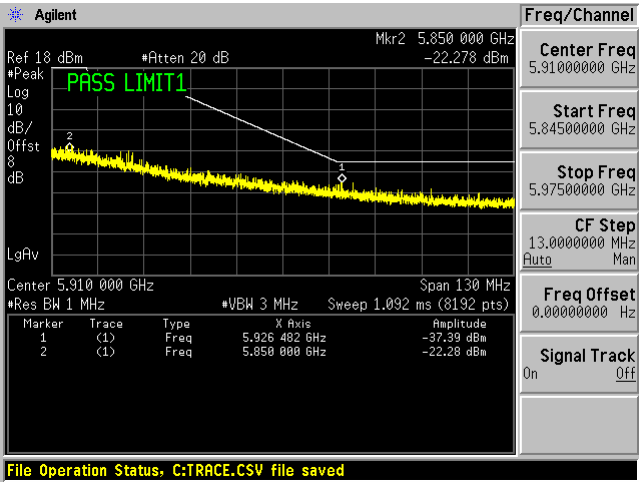
5775 MHz HE80, M0.1 to M11.1 SISO:

Ant-2

Left



Right

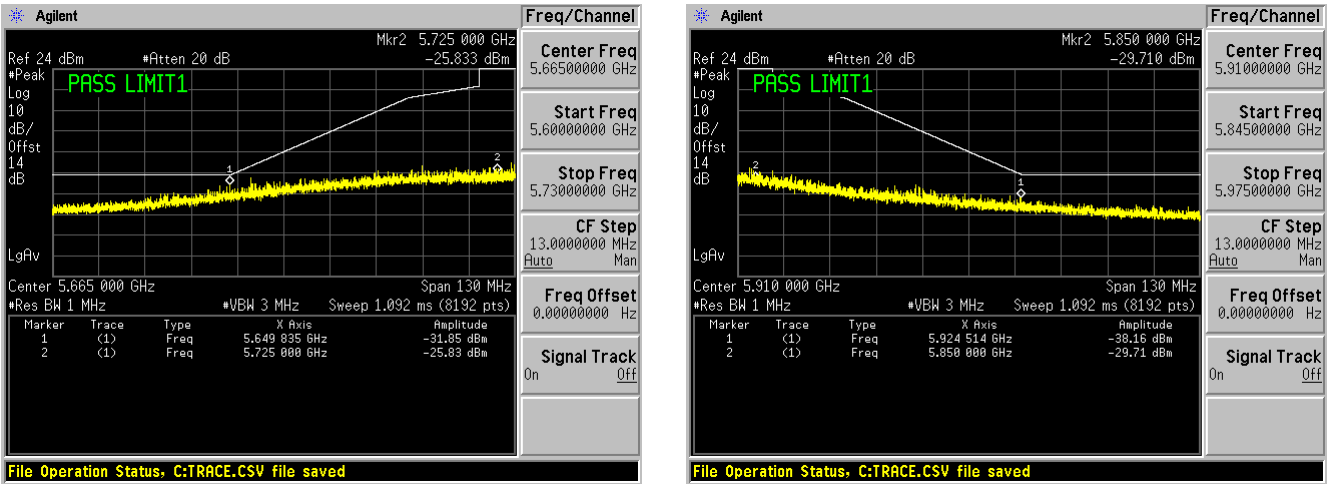


5775 MHz HE80, M0.1 to M11.1 MIMO:

Ant-1

Left

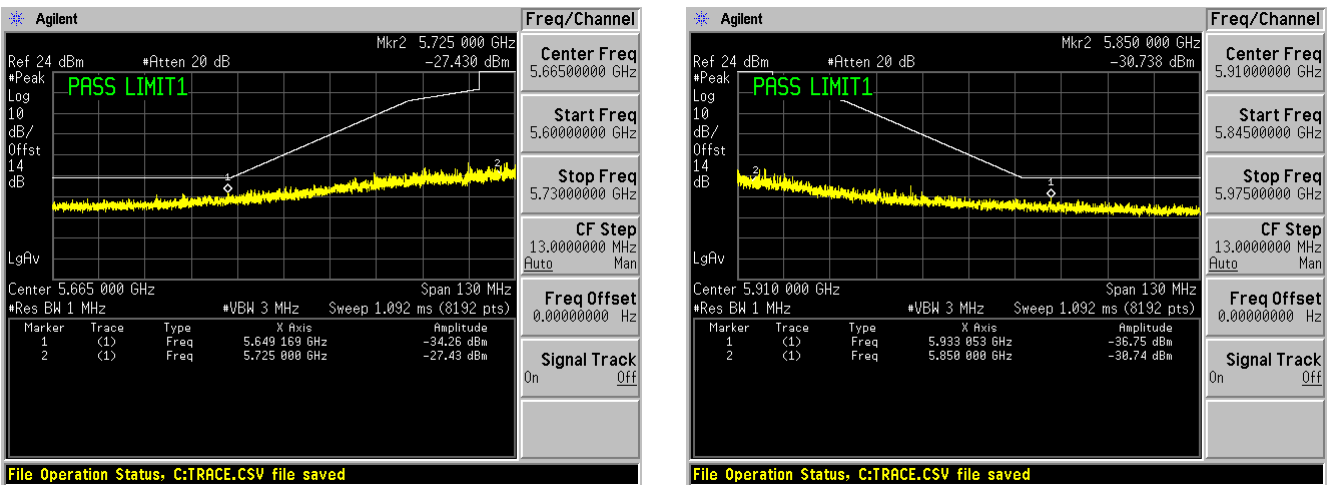
Right



Ant-2

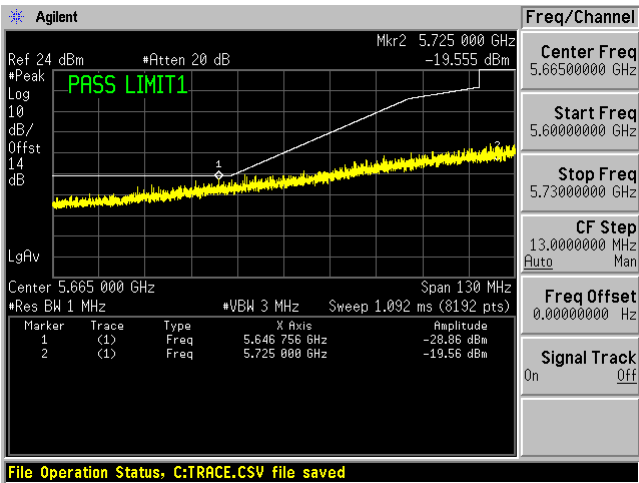
Left

Right

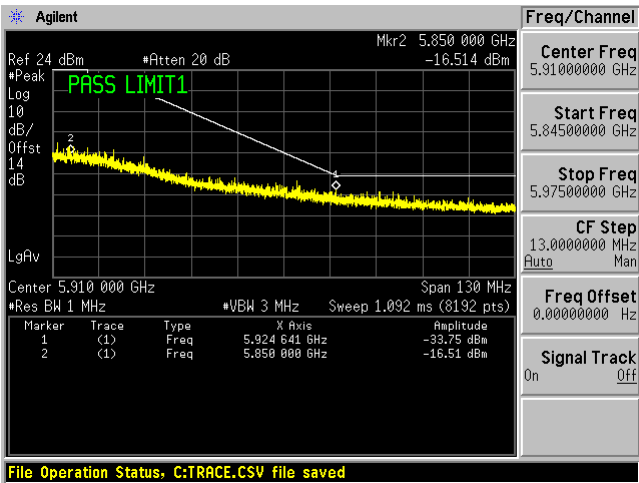


Ant-3

Left

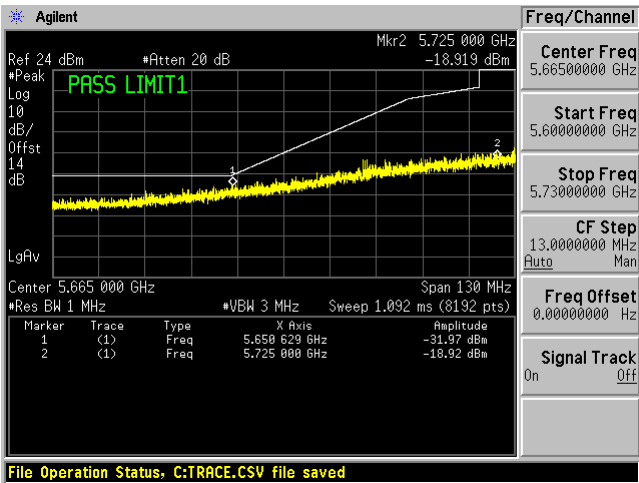


Right

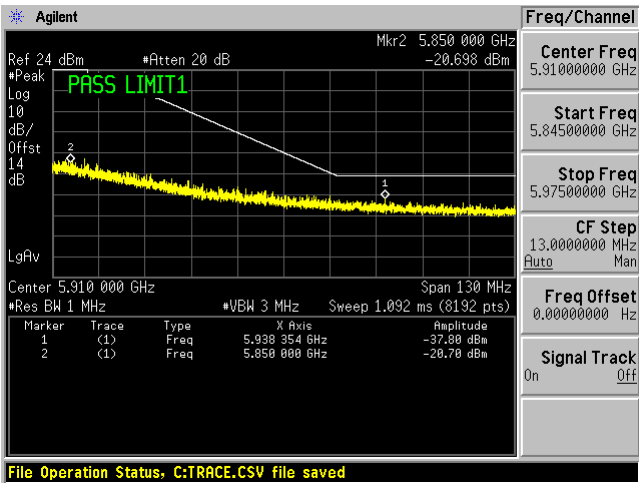


Ant-4

Left



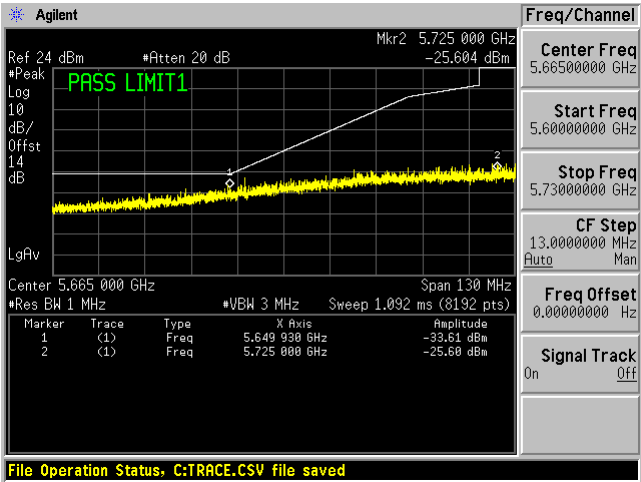
Right



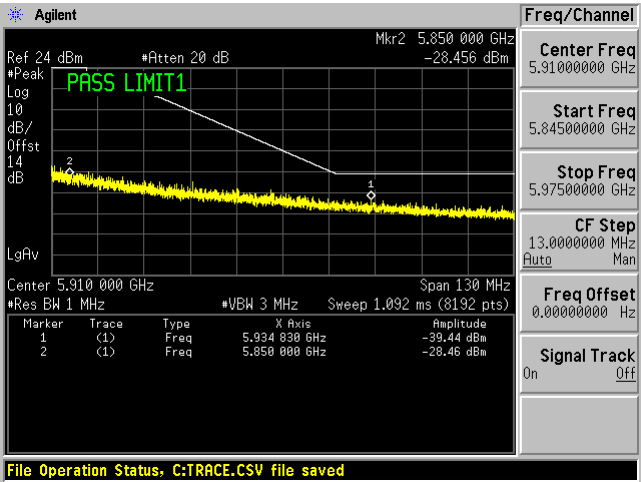
5775 MHz HE80, M0.4 to M11.4-BF MIMO:

Ant-1

Left

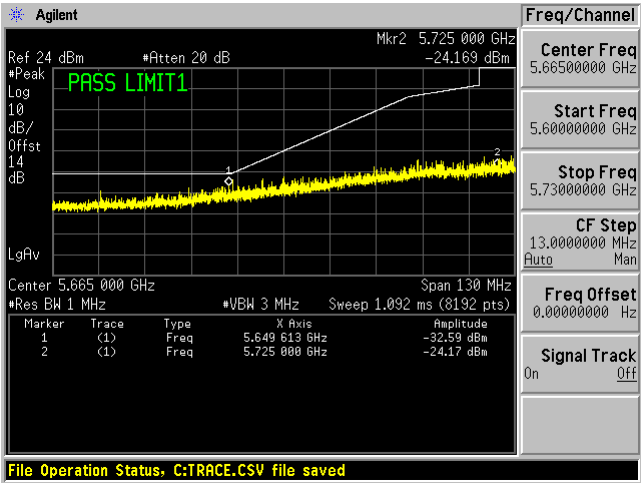


Right

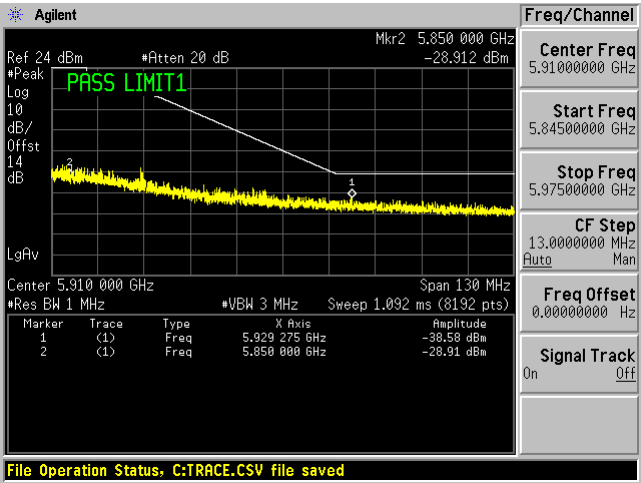


Ant-2

Left

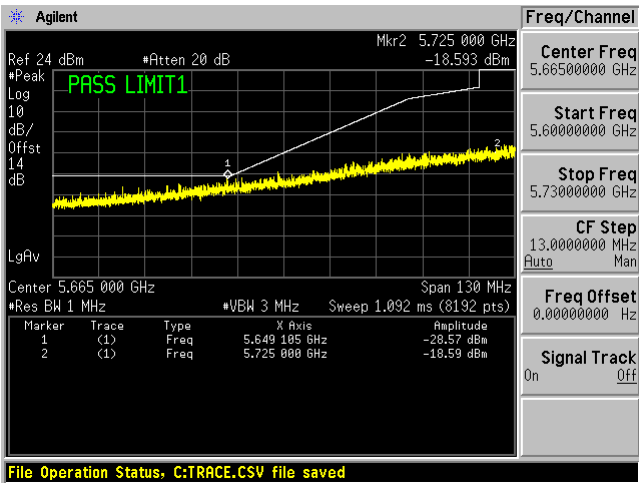


Right

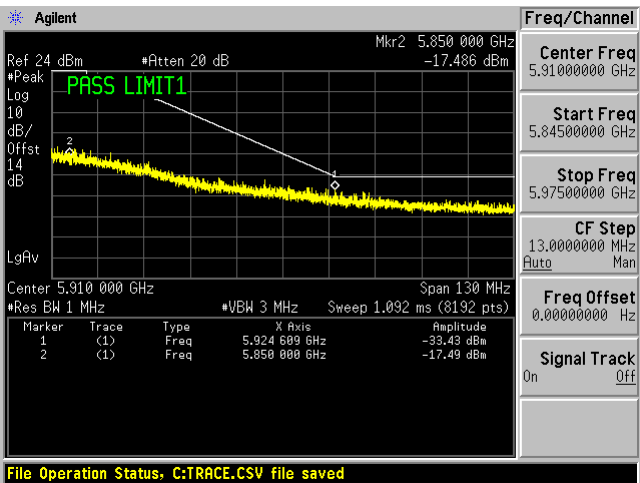


Ant-3

Left

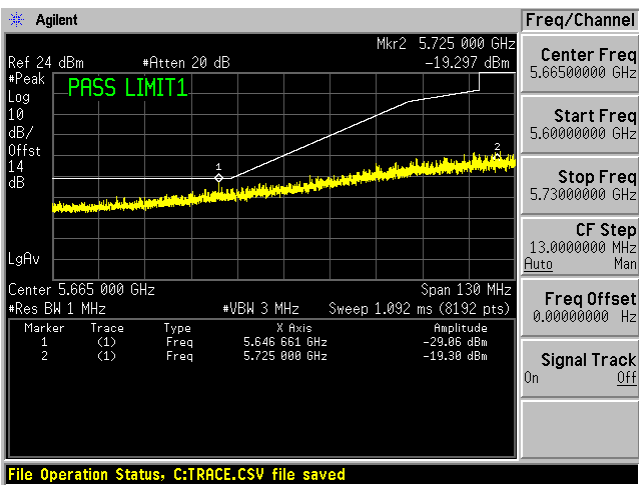


Right

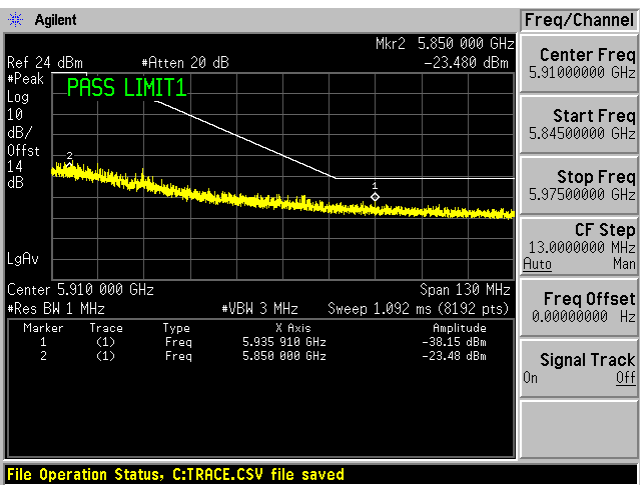


Ant-4

Left



Right



9 Annex A (Normative) – EUT External Photographs

Please refer to the attachment.

10 Annex B (Normative) – EUT Internal Photographs

Please refer to the attachment.

11 Annex C (Normative)– A2LA Electrical Testing Certificate



Accredited Laboratory

A2LA has accredited

BAY AREA COMPLIANCE LABORATORIES CORP.

Sunnyvale, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This laboratory also meets A2LA R222 - Specific Requirements EPA ENERGY STAR Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 10th day of March 2021.

A blue ink signature of Trace McInturf.

Trace McInturf, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3297.02
Valid to September 30, 2022

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

Please follow the web link below for a full ISO 17025 scope

<https://www.a2la.org/scopepdf/3297-02.pdf>

--- END OF REPORT ---