



TESTING LABORATORY
CERTIFICATE#4323.01



FCC PART 15.407

TEST REPORT

For

Shanghai Sunmi Technology Co.,Ltd.

Room 605, Block 7, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai 200433 China

FCC ID: 2AH25T2SW

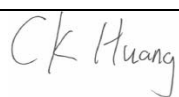
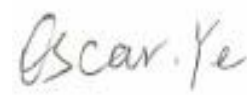
Report Type: Original Report	Product Type: POS System
Test Engineer:	<u>CK Huang</u> 
Report Number:	<u>RKSA200804002-00D</u>
Report Date:	<u>2020-10-19</u>
Reviewed By:	<u>Oscar Ye</u>  <u>EMC Manager</u>
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu province, China Tel: +86-0512-86175000 Fax: +86-0512-88934268 www.baclcorp.com.cn

TABLE OF CONTENTS

GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
RELATED SUBMITTAL(S)/GRANT(S).....	4
TEST METHODOLOGY	5
MEASUREMENT UNCERTAINTY	5
TEST FACILITY	5
SYSTEM TEST CONFIGURATION.....	6
DESCRIPTION OF TEST CONFIGURATION	6
EUT EXERCISE SOFTWARE	7
EQUIPMENT MODIFICATIONS	21
SUPPORT EQUIPMENT LIST AND DETAILS	21
EXTERNAL I/O CABLE.....	22
BLOCK DIAGRAM OF TEST SETUP	23
SUMMARY OF TEST RESULTS	26
TEST EQUIPMENT LIST	27
§1.1310& §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)	28
APPLICABLE STANDARD	28
CALCULATED FORMULARY:.....	28
CALCULATED DATA (WORST CASE):	29
FCC §15.203 – ANTENNA REQUIREMENT.....	31
APPLICABLE STANDARD	31
ANTENNA CONNECTOR CONSTRUCTION	31
FCC §15.407 (b) (6) §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS.....	32
APPLICABLE STANDARD	32
EUT SETUP.....	32
EMI TEST RECEIVER SETUP.....	32
TEST PROCEDURE	33
FACTOR & OVER LIMIT CALCULATION.....	33
TEST RESULTS SUMMARY	33
TEST DATA	33
§15.205 & §15.209 & §15.407(B)(1)(4) (8)(9) – UNDESIRABLE EMISSION & RESTRICTED BANDS.....	38
APPLICABLE STANDARD	38
EUT SETUP.....	38
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP	39
TEST PROCEDURE	39
CORRECTED AMPLITUDE & MARGIN CALCULATION	40
TEST DATA	40
FCC §15.407(a) & §15.407(e)–EMISSION BANDWIDTH.....	131
APPLICABLE STANDARD	131
TEST PROCEDURE	131
TEST DATA	132
FCC §15.407(a) (1) (3) – CONDUCTED TRANSMITTER OUTPUT POWER	176
APPLICABLE STANDARD	176
TEST PROCEDURE	176
TEST DATA	176

FCC §15.407(a) (1) (3) - POWER SPECTRAL DENSITY	178
APPLICABLE STANDARD	178
TEST PROCEDURE	178
TEST DATA	178

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Shanghai Sunmi Technology Co.,Ltd.
Product Type:	POS System
Test Model	L1563, L1573
Series Model:	L1562, L1561, L1572, L1571
Model Difference	See Declaration of Similarity
Power Supply:	DC 24.0V from Adapter
RF Function:	5G Wi-Fi
Operating Band/Frequency:	5G Wi-Fi B1: 5150-5250 MHz, B4: 5725-5850 MHz
Channel Number:	5G Wi-Fi B1: 7, B4: 8
Channel Separation:	802.11a/802.11ac20/n20: 20MHz; 802.11n40/802.11ac40:40 MHz, 802.11ac80: 80 MHz
Modulation Type:	OFDM
Antenna Type:	L1563: PCB Antenna; L1573: PCB Antenna
*Maximum Antenna Gain:	L1563: Chain0: 0.05 dBi; Chain1: 0.05 dBi L1573: Chain0: 1.57 dBi; Chain1: 1.57 dBi

Adapter1 information (L1563/L1562/L1561) : *Adapter2 information (L1573/L1572/L1571) :*
Model: CYSE65-240250 *Model: CYZS36-240150*
Input: AC 100V-240V, 50/60Hz, 1.7A *Input: AC 100V-240V, 50/60Hz, 1.5A*
Output: DC 24.0V, 2.5A, 60.0W *Output: DC 24.0V, 1.5A*

Note1: The Maximum Antenna Gain was declared by the manufacturer.

Note2: According to product differences, choose model L1563 and L1573 for full test.

**All measurement and test data in this report was gathered from production sample serial number: 20200804002. (Assigned by the BACL. The EUT supplied by the applicant was received on 2020-08-04)*

Objective

This type approval report is prepared on behalf of *Shanghai Sunmi Technology Co.,Ltd.* in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions' rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Related Submittal(s)/Grant(s)

FCC Part 15.247 DSS submissions with FCC ID: 2AH25T2SW
 FCC Part 15.247 DTS submissions with FCC ID: 2AH25T2SW
 FCC Part 15B JAB submissions with FCC ID: 2AH25T2SW

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Kunshan).

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9dB
RF Output Power with Power meter		0.5dB
Radiated emission	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Occupied Bandwidth		0.5kHz
Temperature		1.0°C
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) Lab is accredited to ISO/IEC 17025 by A2LA (Lab code: 4323.01), the FCC designation No. CN1185 under the FCC KDB 974614 D01 and CAB identifier CN0004 under the ISED requirement. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

In **5150~5250 MHz** band, test channel list is as below:

802.11a/ac20/n20 mode Channel 36, 40, 48 were tested.

802.11n40/ac40 mode Channel 38, 46 were tested.

802.11ac80 mode Channel 42 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For **5725~5850 MHz** band,

802.11a/ac20/n20 mode Channel 149, 157, 165 were tested.

802.11n40/ac40 mode Channel 151, 159 were tested.

802.11ac80 mode Channel 155 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	159	5795
151	5755	161	5805
153	5765	165	5825
155	5775	/	/
157	5785	/	/

For Conducted Test:

802.11a: each transmit chains were tested

802.11ac: each transmit chains were tested

802.11n: each transmit chains were tested

Based on the same RF electrical parameters of all models, the model of L1563 was selected for testing.

For Radiated Test:

For 802.11a: SISO for each transmit chain

For 802.11ac: MIMO for two transmit chains

For 802.11n: MIMO for two transmit chains

Based on the same RF electrical parameters except for antennas gains, the models of L1563 and L1573 were selected for testing.

EUT Exercise Software

RF test tool: QRCT3

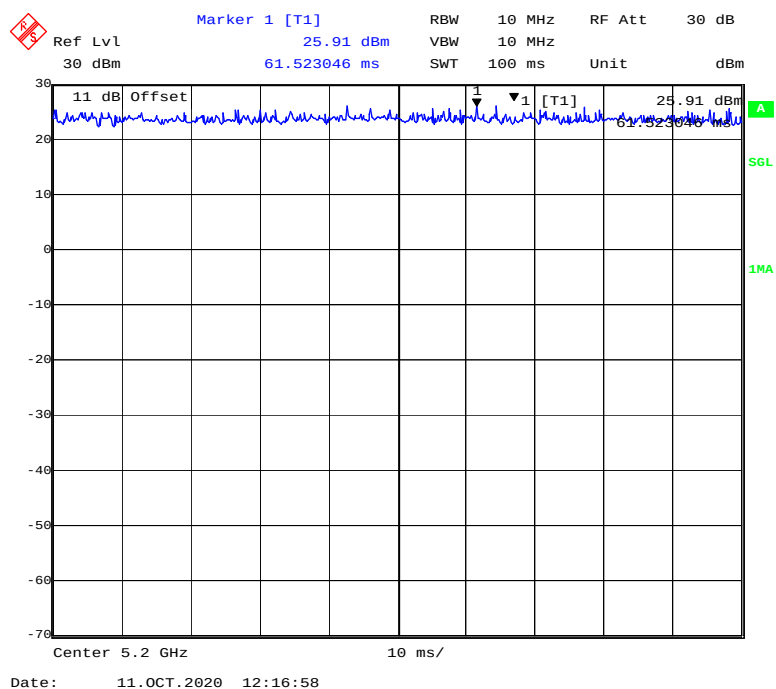
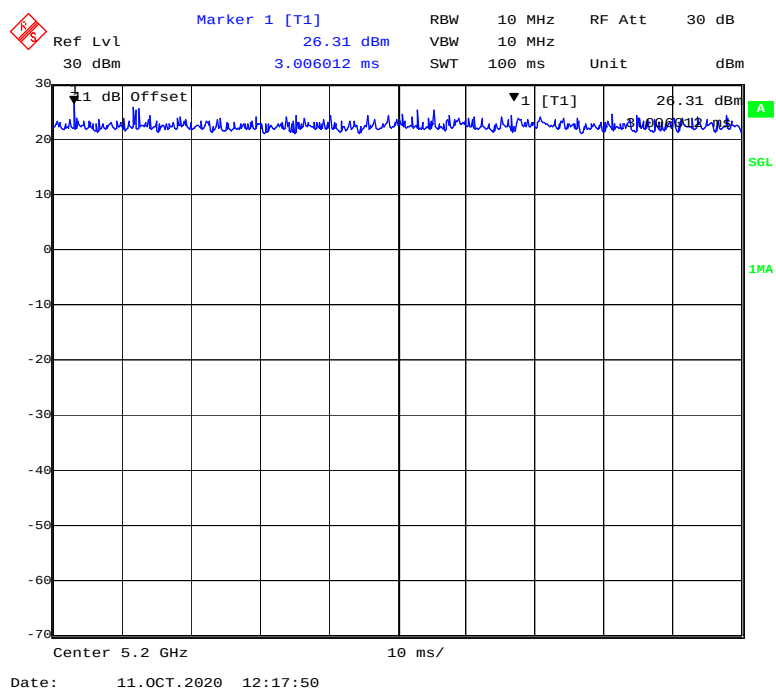
The worst case was performed under:

5150MHz-5250MHz Band:

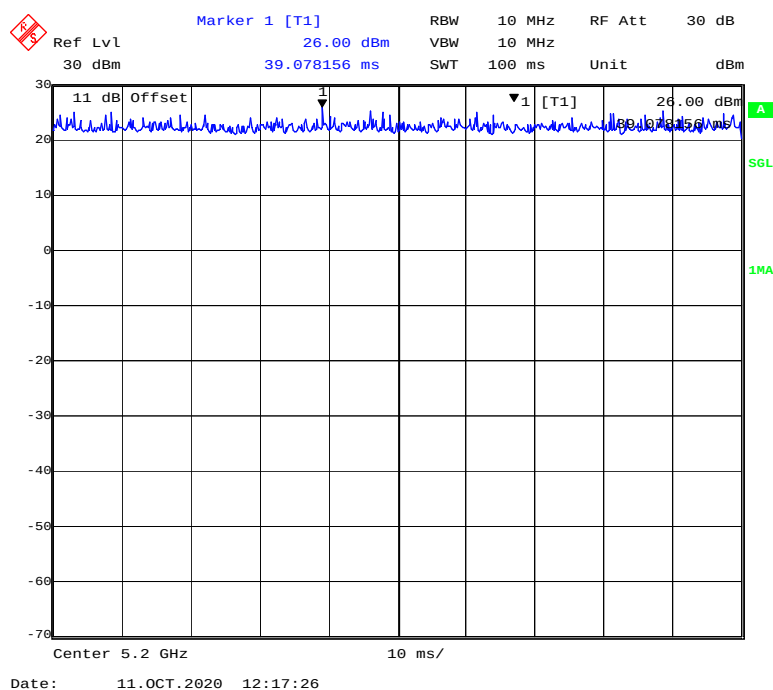
Mode	Data rate	Channel	Power Setting	
			Chain0	Chain1
802.11a	6 Mbps	5180	21	21
		5200	21	21
		5240	21	21
802.11ac20	MCS0	5180	21	20
		5200	21	20
		5240	20	20
802.11n-HT20	MCS0	5180	21	20
		5200	21	20
		5240	20	20
802.11ac40	MCS0	5190	15	15
		5230	15	15
802.11n-HT40	MCS0	5190	15	15
		5230	15	15
802.11ac80	MCS0	5210	10	10

5725MHz-5850MHz Band:

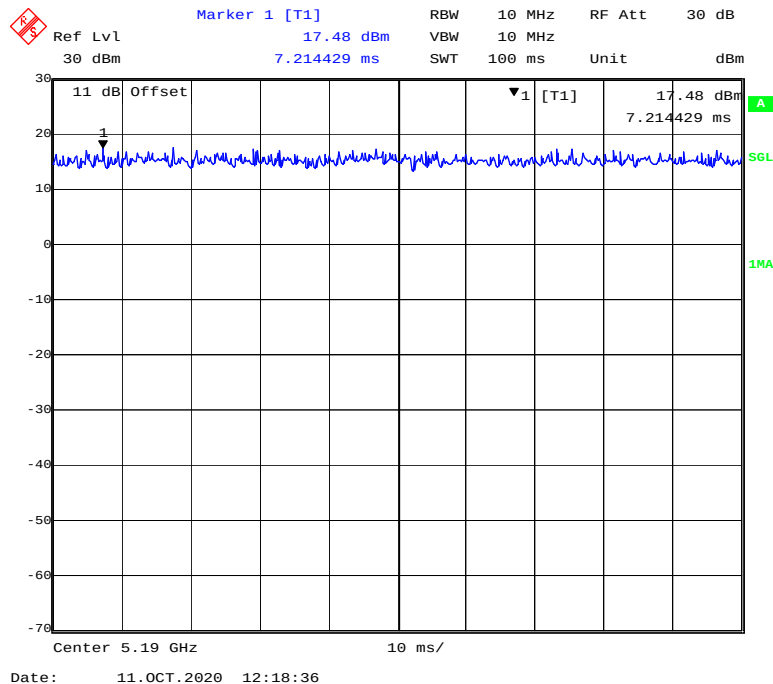
Mode	Data rate	Channel	Power Setting	
			Chain0	Chain1
802.11a	6 Mbps	5745	25	25
		5785	25	25
		5825	25	25
802.11ac20	MCS0	5745	25	25
		5785	25	25
		5825	25	25
802.11n-HT20	MCS0	5745	25	25
		5785	25	25
		5825	25	25
802.11ac40	MCS0	5755	25	25
		5795	25	25
802.11n-HT40	MCS0	5755	25	25
		5795	25	25
802.11ac80	MCS0	5775	25	25

Duty Cycle**5150MHz-5250MHz Band-Chain0:****802.11a mode****802.11ac20 mode**

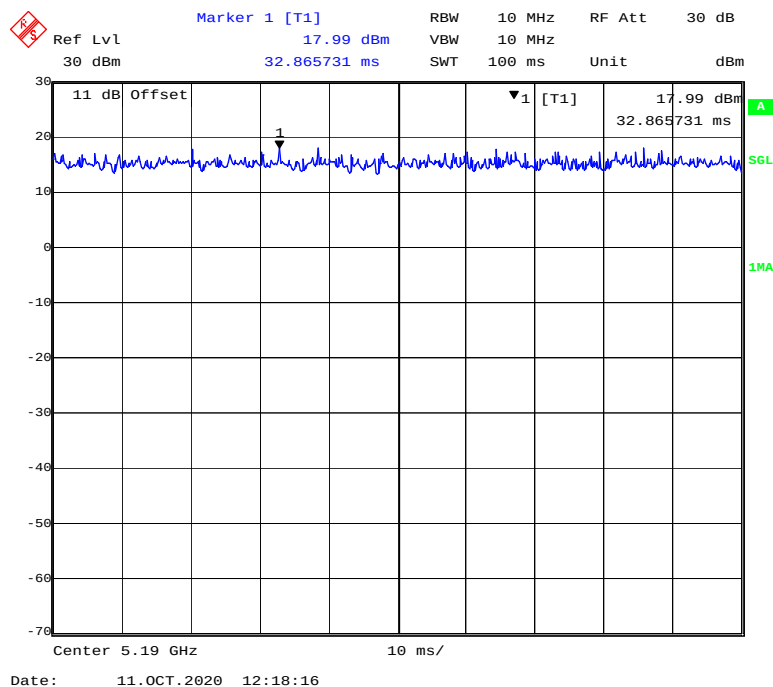
802.11n-HT20 mode



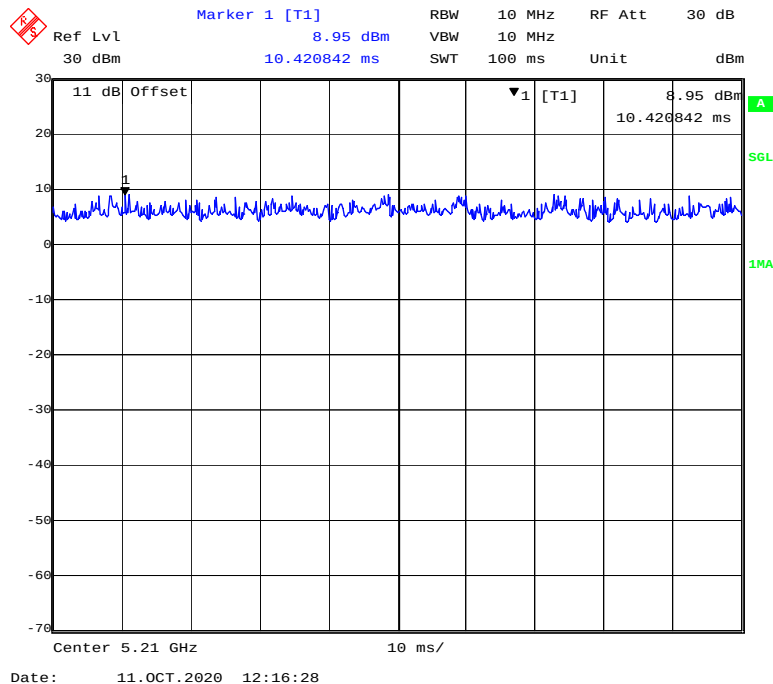
802.11ac40 mode



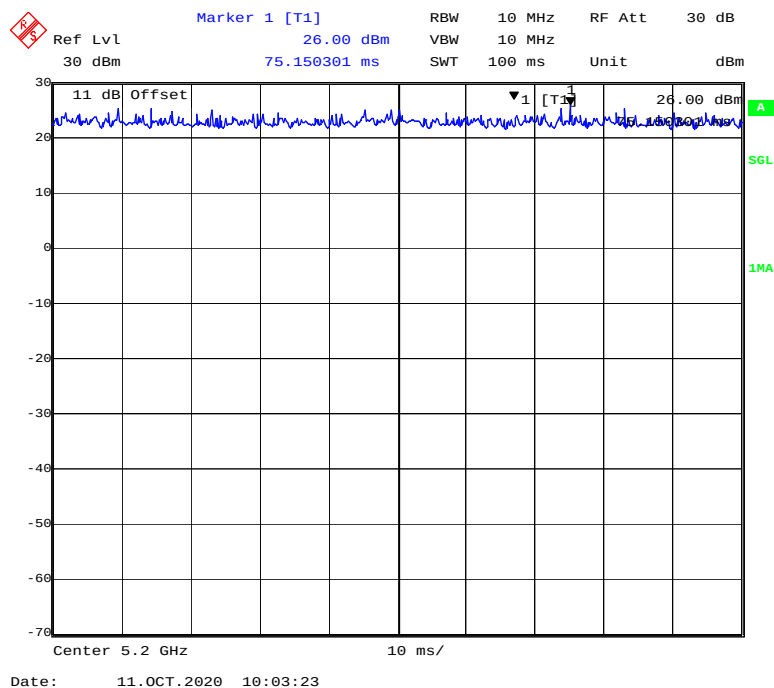
802.11n-HT40 mode



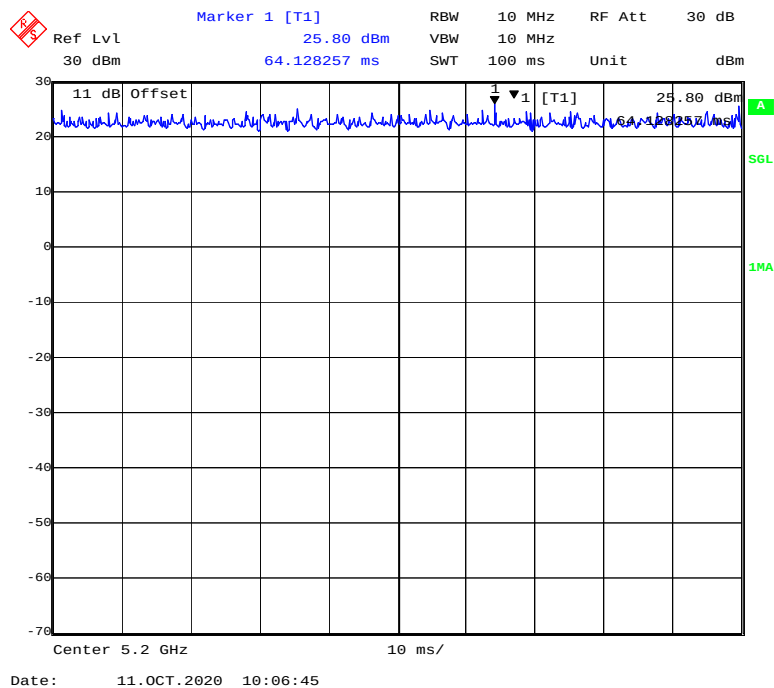
802.11ac80 mode



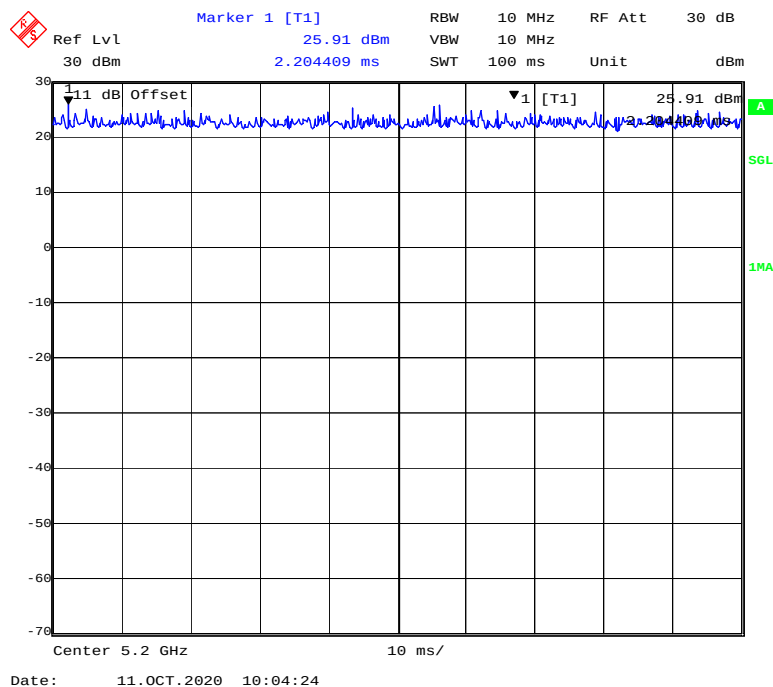
802.11a mode



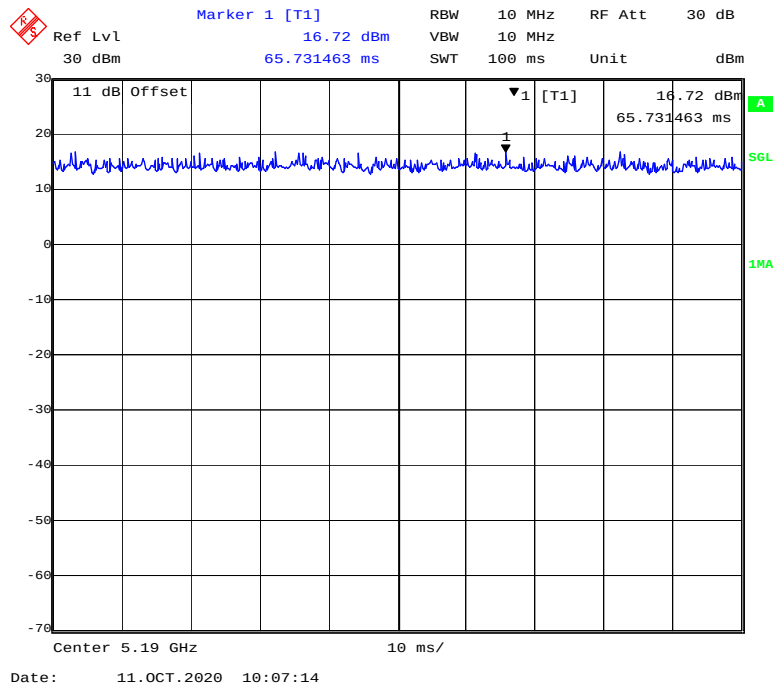
802.11ac20 mode



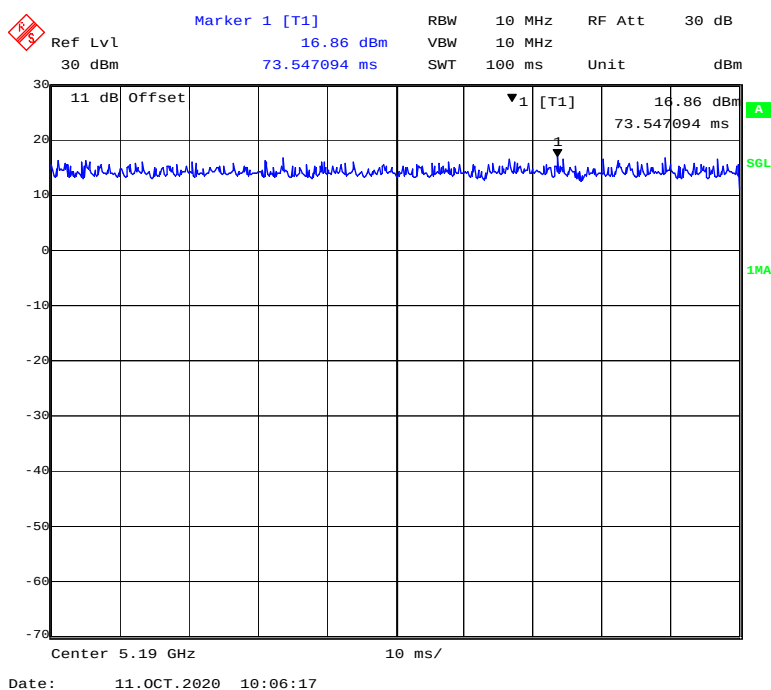
802.11n-HT20 mode



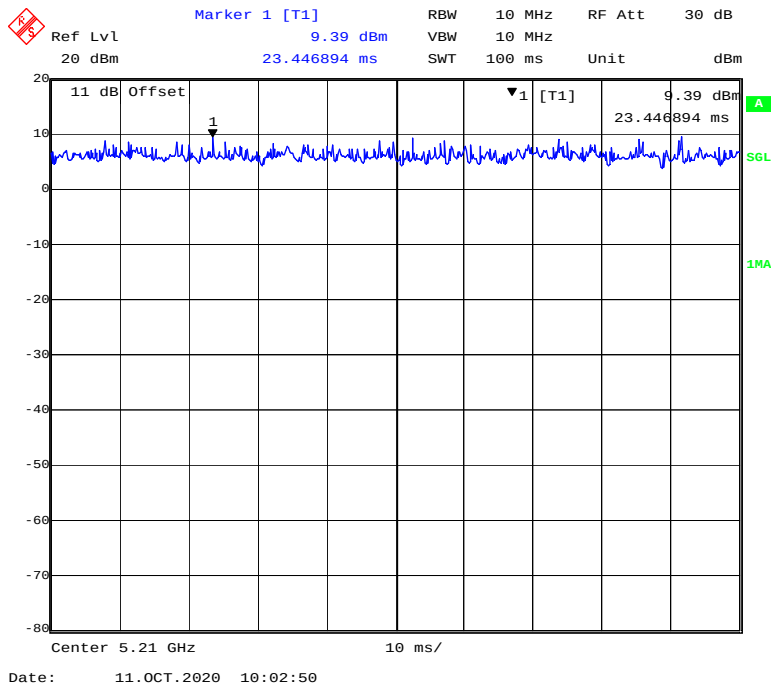
802.11ac40 mode



802.11n-HT40 mode

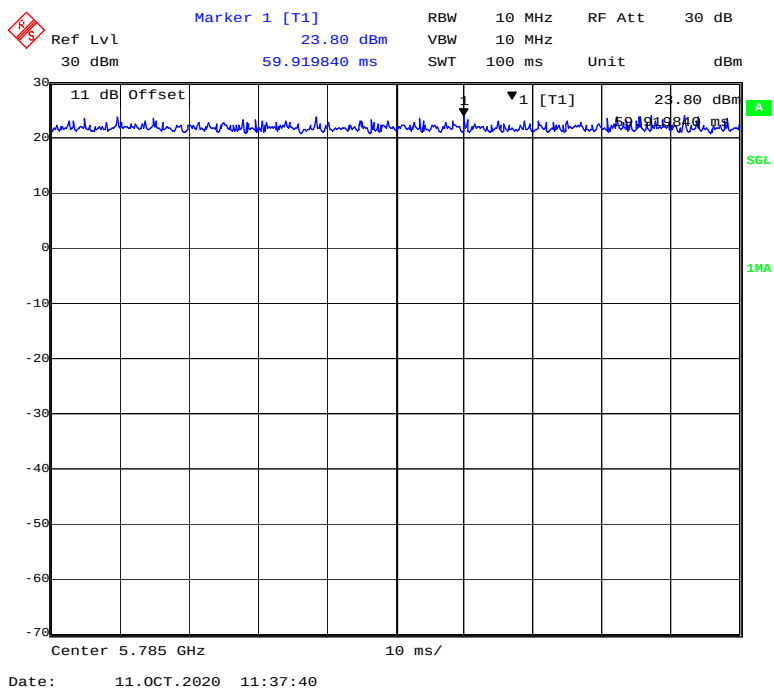


802.11ac80 mode

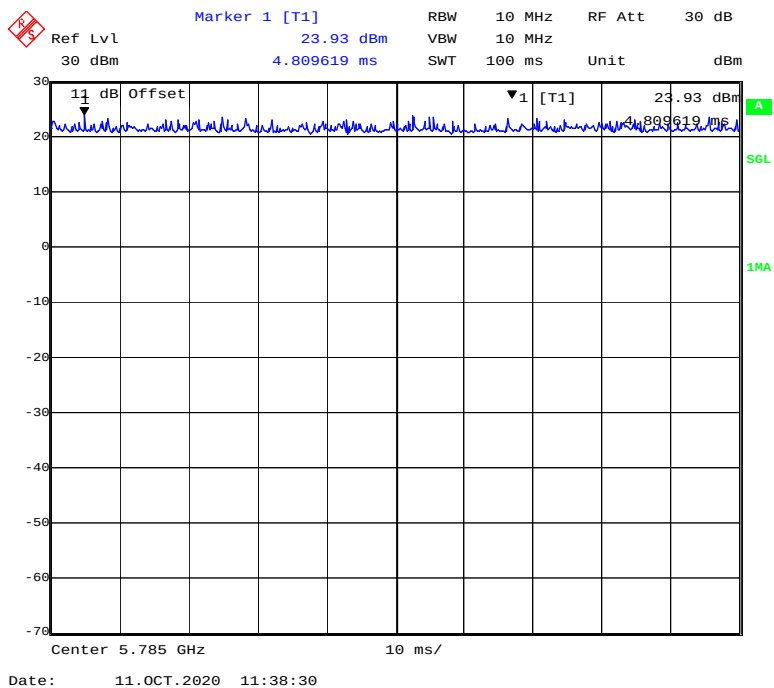


5725MHz-5850MHz Band-Chain0:

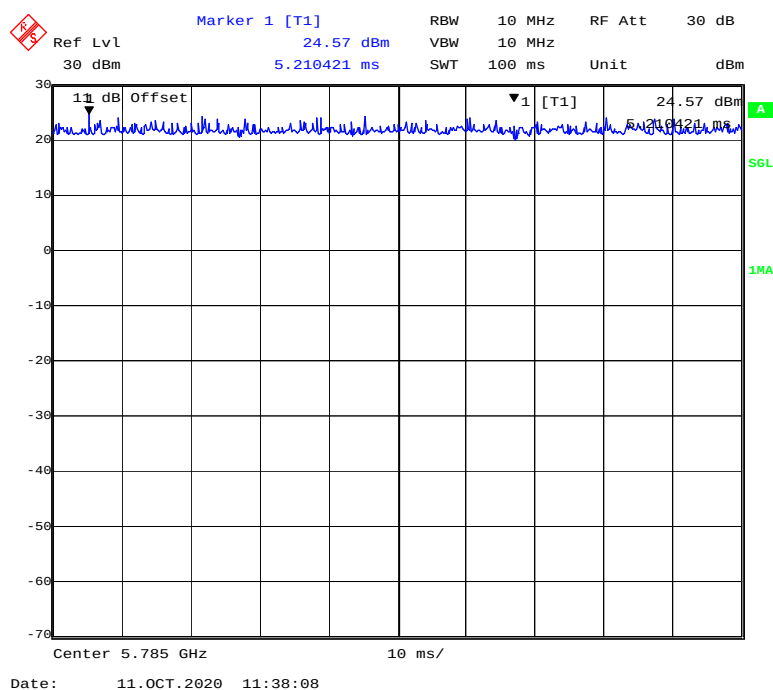
802.11a mode



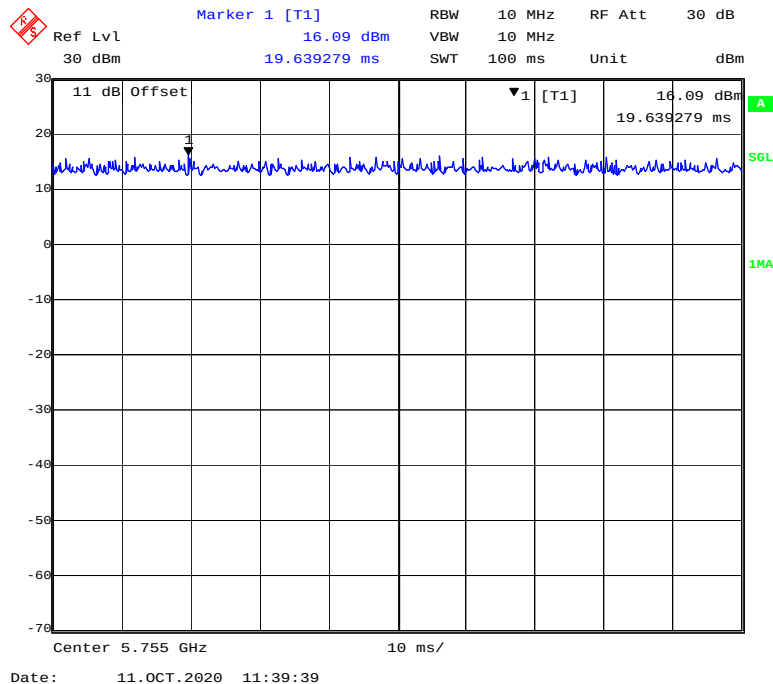
802.11ac20 mode



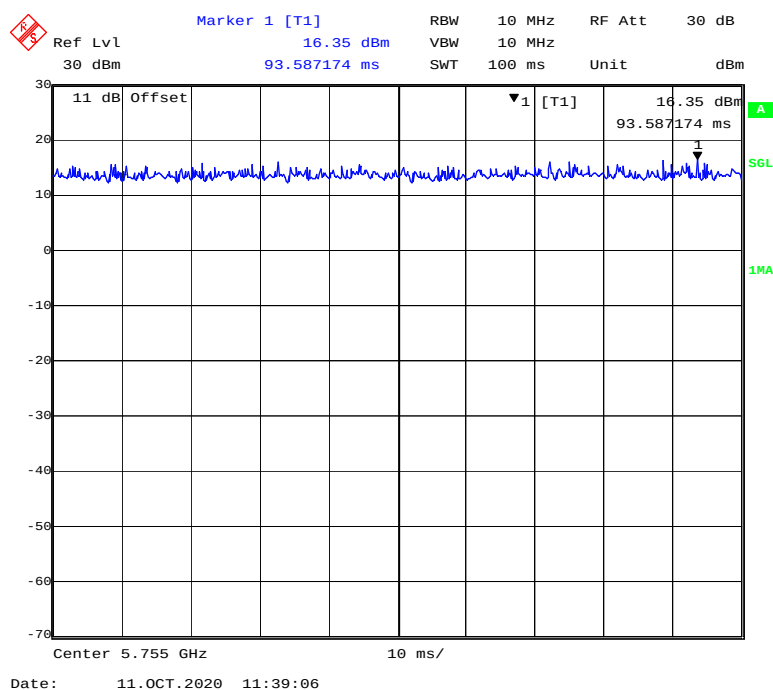
802.11n-HT20 mode



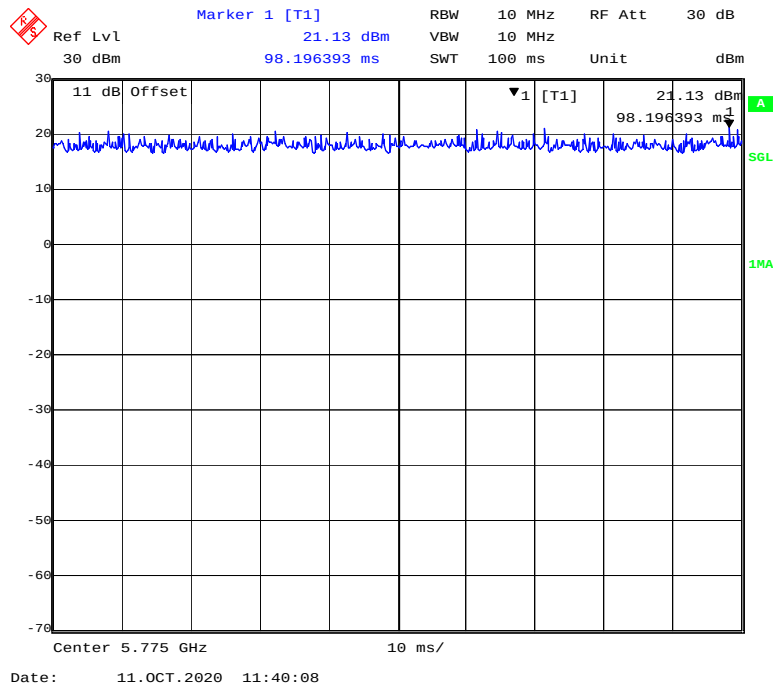
802.11ac40 mode

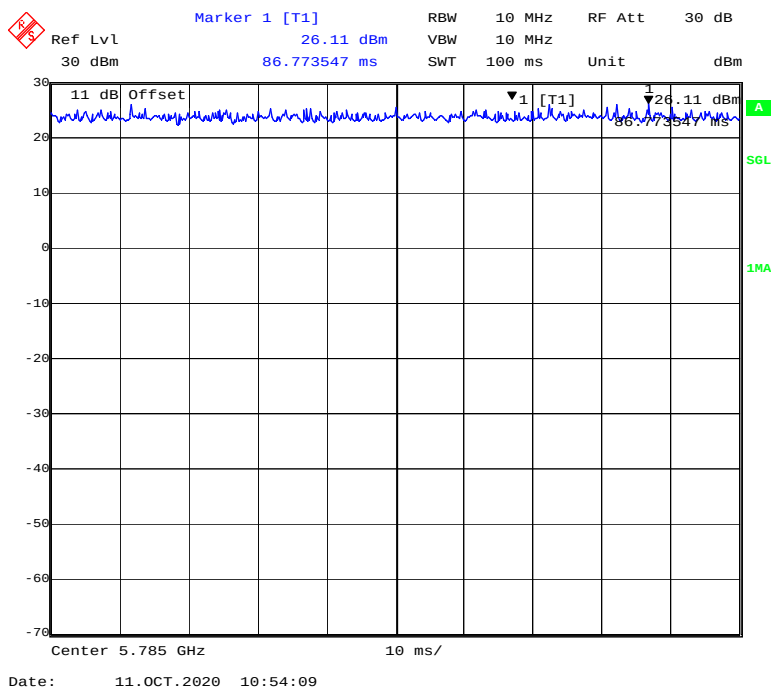
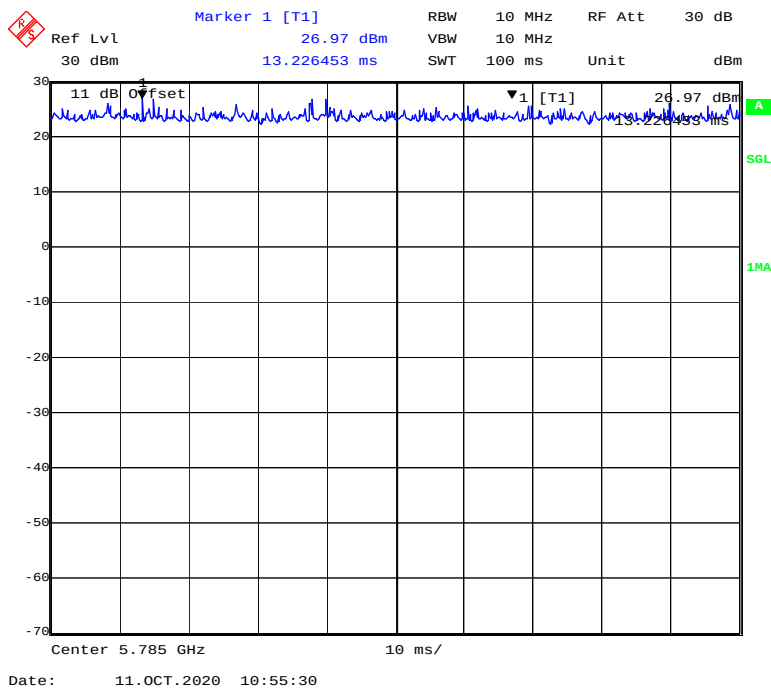


802.11n-HT40 mode

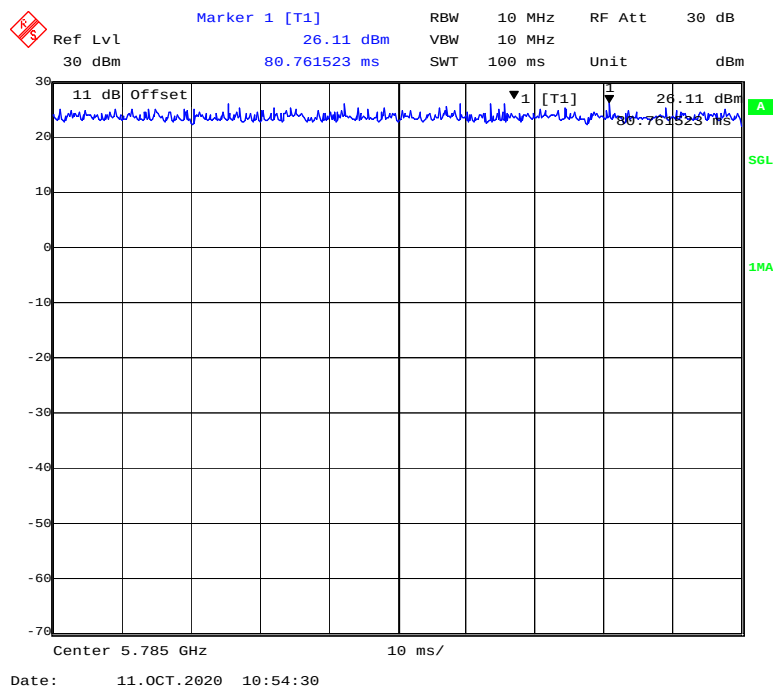


802.11ac80 mode

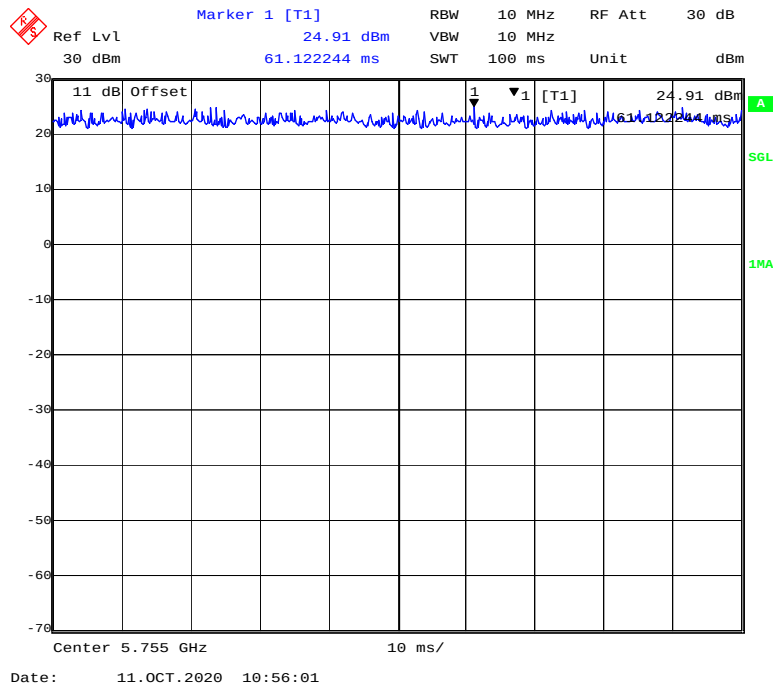


5725MHz-5850MHz Band-Chain1:**802.11a mode****802.11ac20 mode**

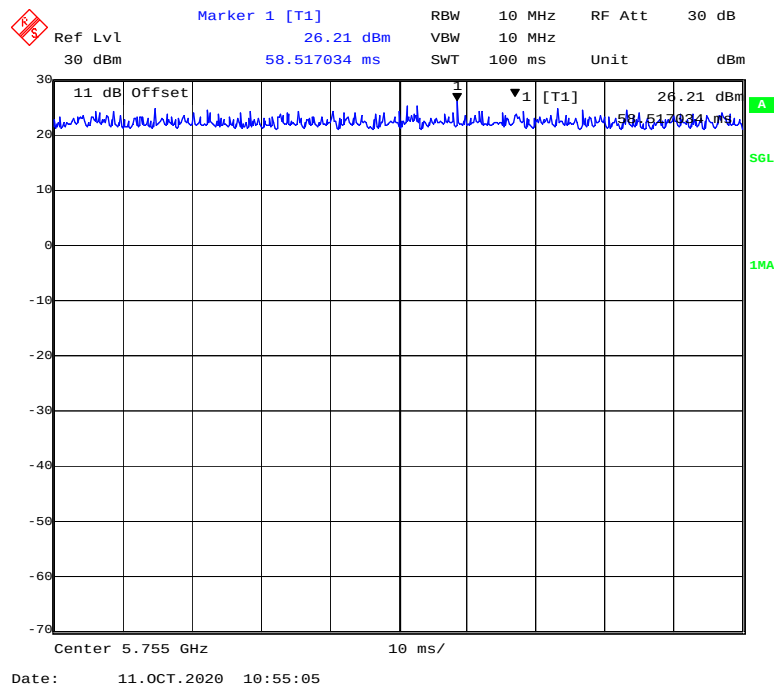
802.11n-HT20 mode



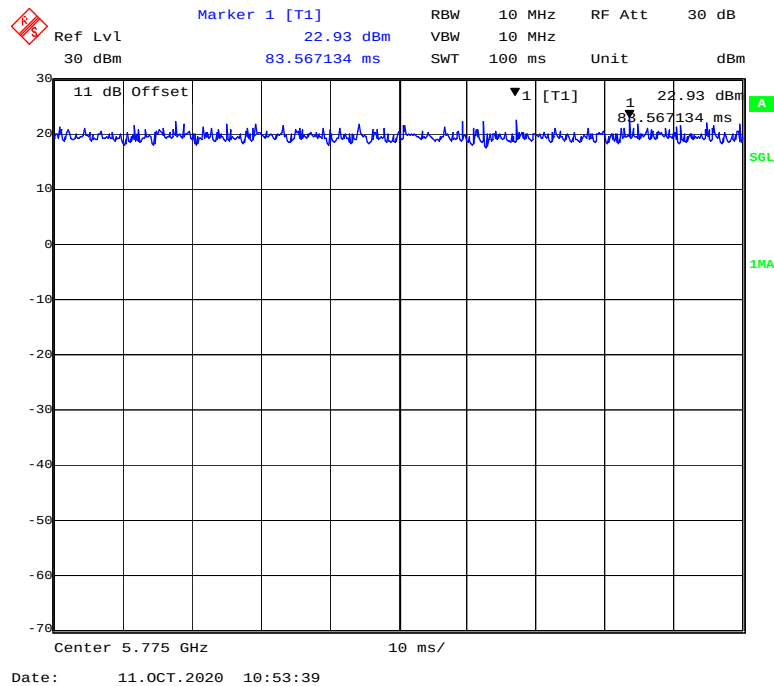
802.11ac40 mode



802.11n-HT40 mode



802.11ac80 mode



Mode	Frequency Range (MHz)	Duty Cycle (%)	T (ms)	1/T (kHz)	10log(1/x)
802.11a	5150-5250	100	/	/	0
802.11ac20		100	/	/	0
802.11n-HT20		100	/	/	0
802.11ac40		100	/	/	0
802.11n-HT40		100	/	/	0
802.11ac80		100	/	/	0
802.11a	5725-5850	100	/	/	0
802.11ac20		100	/	/	0
802.11n-HT20		100	/	/	0
802.11ac40		100	/	/	0
802.11n-HT40		100	/	/	0
802.11ac80		100	/	/	0

Note: “x” means duty cycle.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

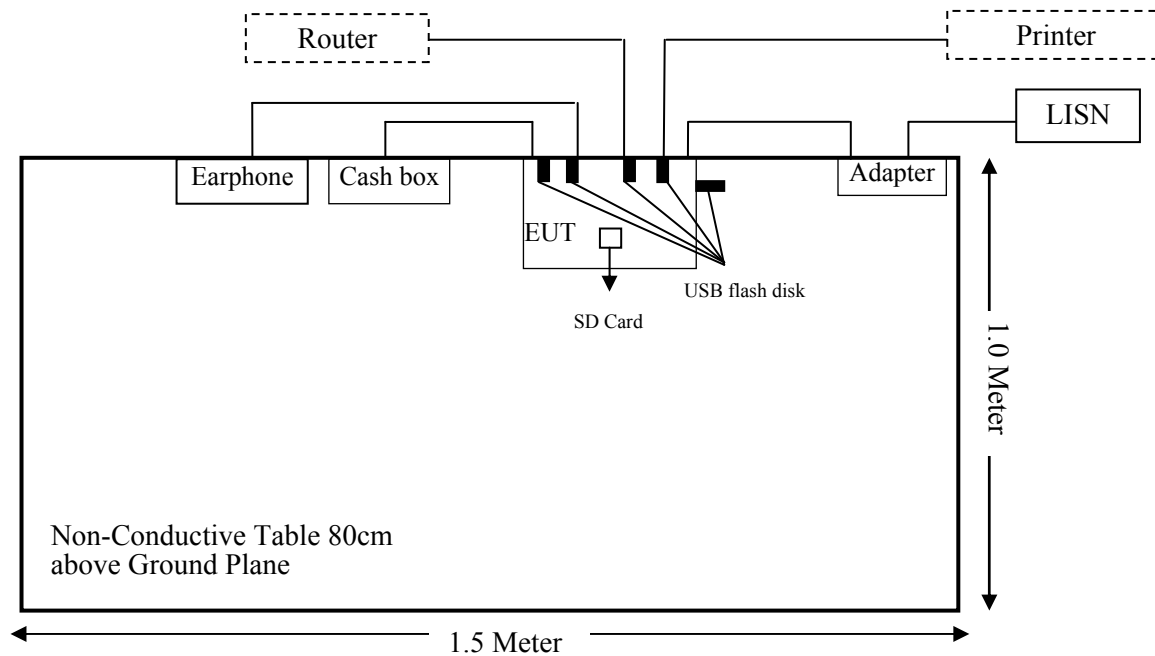
Manufacturer	Description	Model	Serial Number
Shanghai Sunmi Technology Co.,Ltd.	Cash Box	/	/
TP-LINK	Router	EC26CA652860	1153150000000
/	Printer	/	/
/	Earphone	/	/
Sandisk	USB flash disk	/	/
Sandisk	SD card	SDSQUNC-032G-ZN6MA	/

External I/O Cable

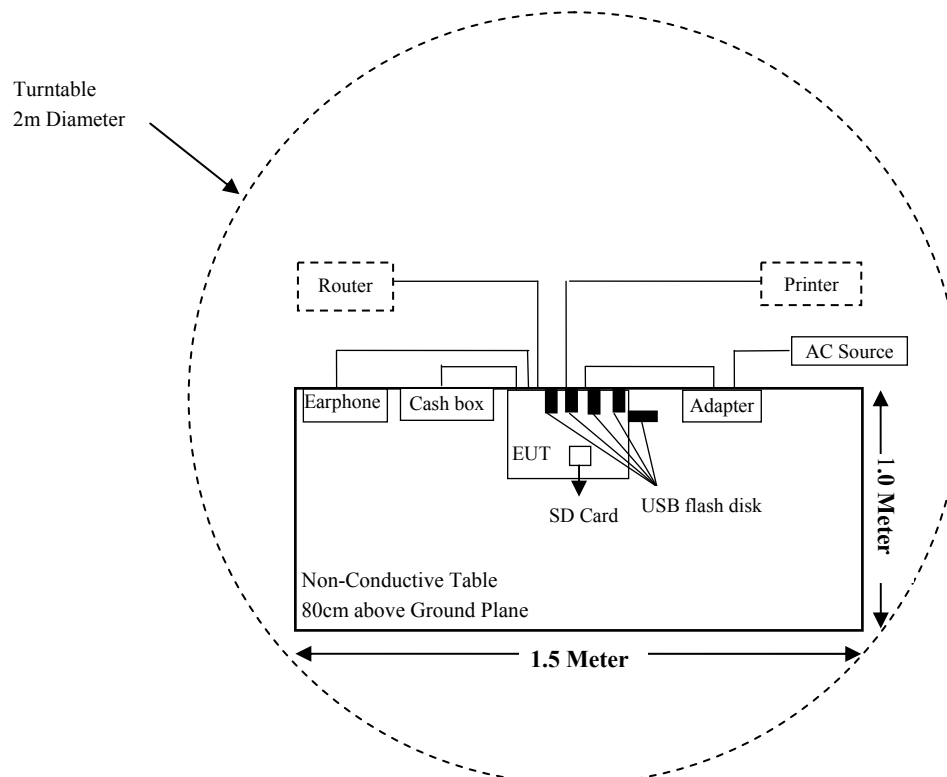
Cable Description	Shielding Type	Length (m)	From Port	To
RJ11 Cable	Un-shielding	0.5	EUT	Cash Box
USB Cable	Un-shielding	1.0	EUT	Adapter
Power Cable	Un-shielding	1.0	Adapter	LISN/AC Source
Audio Cable	Un-shielding	1.0	EUT	Earphone
Data Cable	Un-shielding	10	EUT	Printer
RJ45 Cable	Un-shielding	1.0	EUT	Router

Block Diagram of Test Setup**For model: L1563**

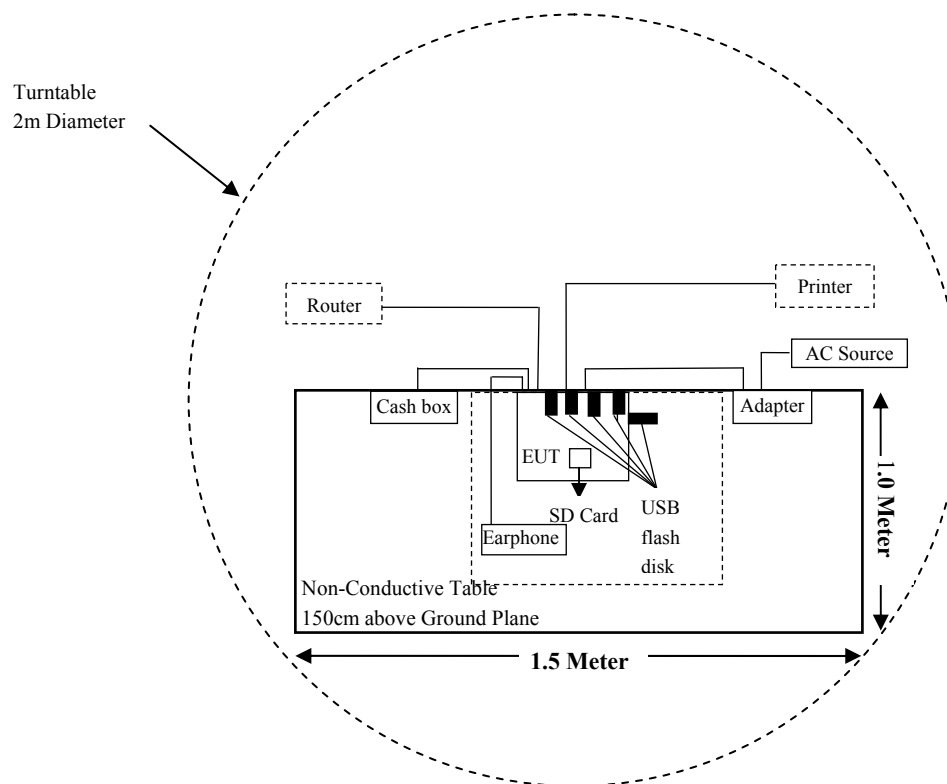
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):

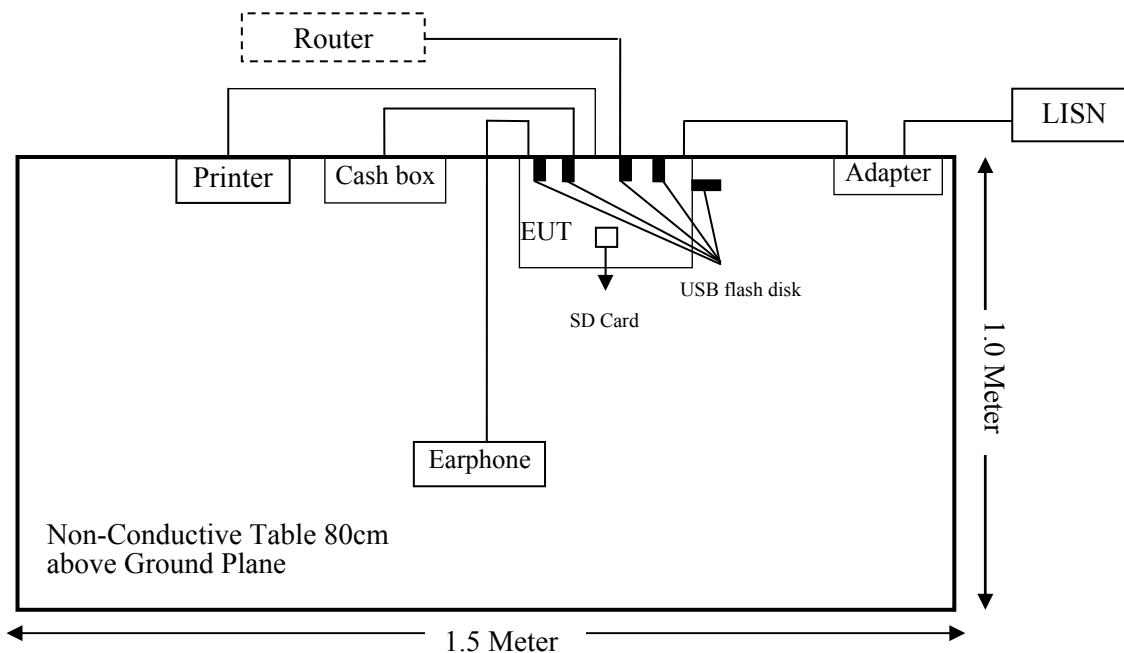


For Radiated Emissions (Above 1GHz):

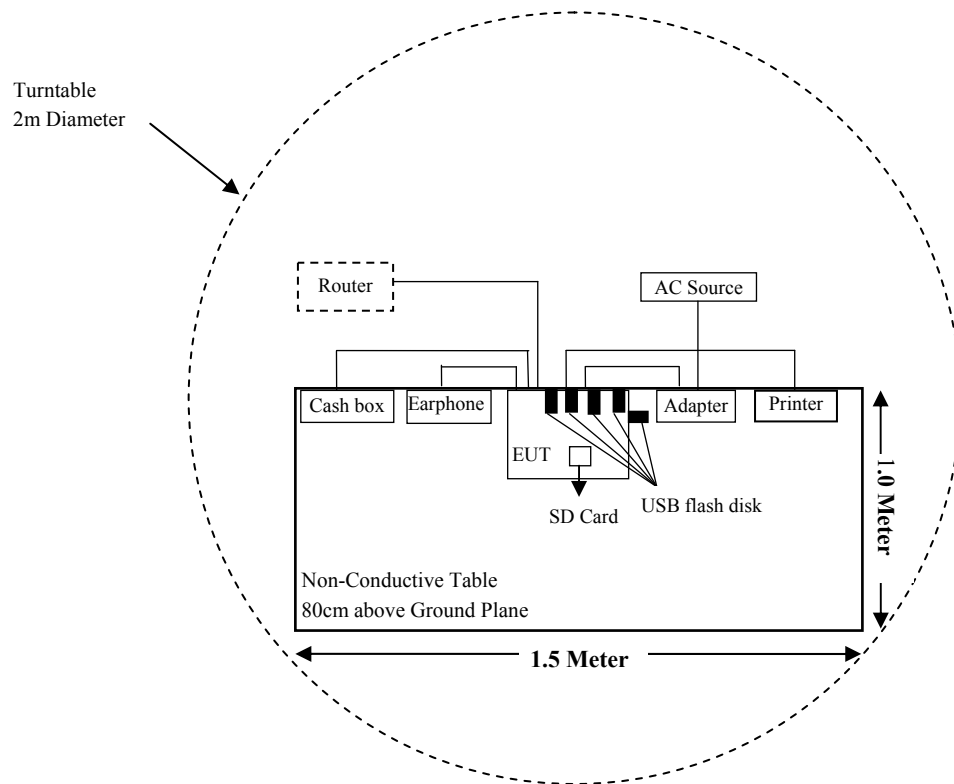


For model: L1573

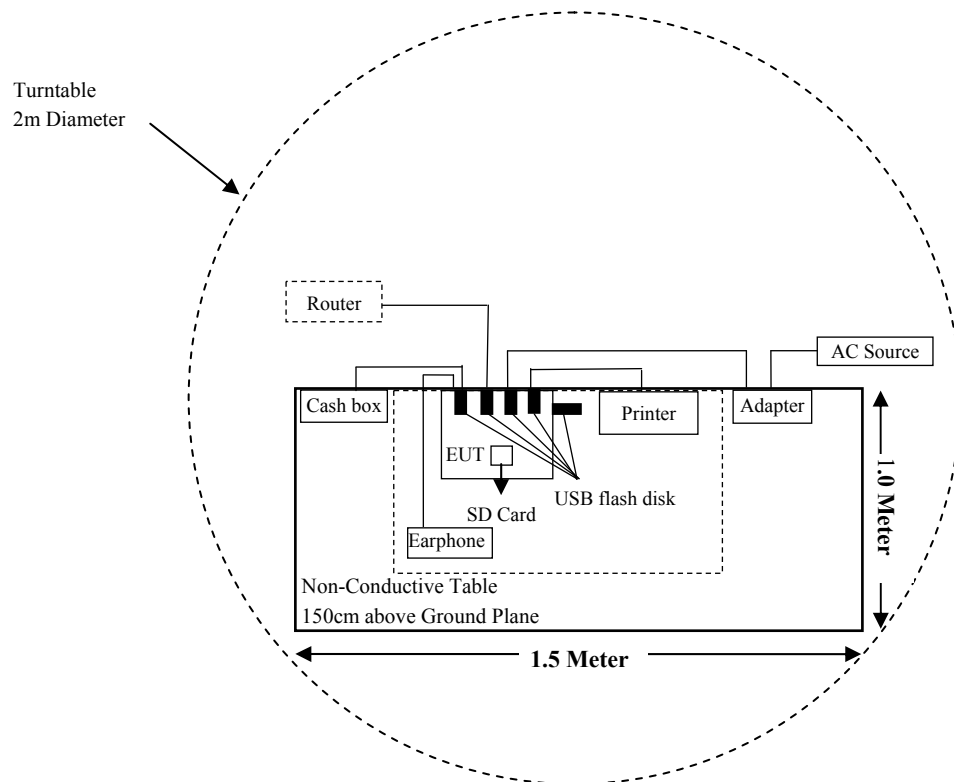
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 & §15.407(b)(8)	AC Power Line Conducted Emissions	Compliant
§15.205 & §15.209 & §15.407(B)(1)(4)(8)(9)	Undesirable Emission & Restricted Bands	Compliant
§15.407(a)(12) & §15.407(e)	Emission Bandwidth	Compliant
§15.407(a)(1)(3)	Conducted Transmitter Output Power	Compliant
§15.407(a)(1)(3)	Power Spectral Density	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber 1#)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2019-12-14	2020-12-13
Sunol Sciences	Broadband Antenna	JB3	A090413-1	2017-12-26	2020-12-25
Sonoma Instrument	Pre-amplifier	310N	171205	2020-08-14	2021-08-13
Rohde & Schwarz	Auto Test Software	EMC32	100361	/	/
MICRO-COAX	Coaxial Cable	Cable-8	008	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-9	009	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-10	010	2020-08-15	2021-08-14
Radiated Emission Test (Chamber 2#)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207	2020-04-01	2021-03-31
ETS-LINDGREN	Horn Antenna	3115	6229	2020-01-10	2023-01-09
ETS-LINDGREN	Horn Antenna	3116	00084159	2019-10-18	2022-10-17
A.H.Systems, inc	Amplifier	PAM-0118P	512	2020-02-20	2021-02-19
EM Electronics Corporation	Amplifier	EM18G40G	060726	2020-03-22	2021-03-21
MICRO-TRONICS	Band Reject Filter	BRC50703	G094	2020-08-05	2021-08-04
MICRO-TRONICS	Band Reject Filter	BRC50705	G085	2020-08-05	2021-08-04
Narda	Attenuator	10dB	010	2020-08-15	2021-08-14
Rohde & Schwarz	Auto test Software	EMC32	100361	/	/
MICRO-COAX	Coaxial Cable	Cable-6	006	2019-12-12	2020-12-11
MICRO-COAX	Coaxial Cable	Cable-11	011	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-12	012	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-13	013	2020-08-15	2021-08-14
RF Conducted Test					
Rohde & Schwarz	EMI Test Receiver	FSIQ26	836131/009	2019-12-14	2020-12-13
Agilent	Power Meter	N1912A	MY5000492	2019-11-18	2020-11-17
Agilent	Power Sensor	N1921A	MY54210024	2019-11-18	2020-11-17
Narda	Attenuator	10dB	010	2020-08-15	2021-08-14
Sunmi	RF Cable	Sunmi 01	C01	Each Time	/
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2020-08-05	2021-08-04
Rohde & Schwarz	LISN	ENV216	3560655016	2019-11-30	2020-11-29
Audix	Test Software	e3	V9	--	--
Rohde & Schwarz	Pulse limiter	ESH3-Z2	0357.8810.54	2020-08-10	2021-08-09
MICRO-COAX	Coaxial Cable	Cable-15	015	2020-08-15	2021-08-14

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

§1.1310& §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §1.1310, 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 Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) 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)
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 §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data (worst case):**Model: L1563****2.4G Wi-Fi/BLE/BT:**

Mode	Frequency Range (MHz)	Maximum Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11b	2412-2462	2.19	1.66	23.00	199.53	20	0.0659	1.0
802.11g		2.19	1.66	24.00	251.19	20	0.0829	1.0
802.11n-HT20		2.19	1.66	24.00	251.19	20	0.0829	1.0
802.11n-HT40	2422-2452	2.19	1.66	23.50	223.87	20	0.0739	1.0
BLE (1Mbps)	2402-2480	2.19	1.66	0.50	1.12	20	0.0004	1.0
BLE (2Mbps)	2402-2480	2.19	1.66	1.00	1.26	20	0.0004	1.0
BT	2402-2480	2.19	1.66	9.50	8.91	20	0.0029	1.0

5G Wi-Fi:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
802.11a	5150~5250	0.05	1.01	18.50	70.79	20	0.0142	1.0
	5725~5850	0.05	1.01	21.00	125.89	20	0.0253	1.0
802.11ac20	5150~5250	0.05	1.01	20.50	112.20	20	0.0225	1.0
	5725~5850	0.05	1.01	23.00	199.53	20	0.0401	1.0
802.11n20	5150~5250	0.05	1.01	20.50	112.20	20	0.0225	1.0
	5725~5850	0.05	1.01	23.00	199.53	20	0.0401	1.0
802.11ac40	5150~5250	0.05	1.01	16.00	39.81	20	0.0080	1.0
	5725~5850	0.05	1.01	22.50	177.83	20	0.0357	1.0
802.11n40	5150~5250	0.05	1.01	16.00	39.81	20	0.0080	1.0
	5725~5850	0.05	1.01	22.50	177.83	20	0.0357	1.0
802.11ac80	5150~5250	0.05	1.01	10.50	11.22	20	0.0023	1.0
	5725~5850	0.05	1.01	23.00	199.53	20	0.0401	1.0

- Note:**
1. The tune up power were declared by the manufacturer.
 2. Wi-Fi and BT/BLE can't transmit simultaneously.
 3. For 802.11b, 802.11g, 802.11a, the tune-up power is base on SISO mode
For 802.11ac20/n20/n40/ac40/ac80, the tune-up power is base on MIMO mode

Result: The device meet FCC MPE at 20 cm distance.

Model: L1573**2.4G Wi-Fi/BLE/BT:**

Mode	Frequency Range (MHz)	Maximum Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11b	2412-2462	1.14	1.30	23.00	199.53	20	0.0516	1.0
802.11g		1.14	1.30	24.00	251.19	20	0.0650	1.0
802.11n-HT20		1.14	1.30	24.00	251.19	20	0.0650	1.0
802.11n-HT40	2422-2452	1.14	1.30	23.50	223.87	20	0.0579	1.0
BLE (1Mbps)	2402-2480	1.14	1.30	0.50	1.12	20	0.0003	1.0
BLE (2Mbps)	2402-2480	1.14	1.30	1.00	1.26	20	0.0003	1.0
BT	2402-2480	1.14	1.30	9.50	8.91	20	0.0023	1.0

5G Wi-Fi:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
802.11a	5150~5250	1.57	1.44	18.50	70.79	20	0.0203	1.0
	5725~5850	1.57	1.44	21.00	125.89	20	0.0361	1.0
802.11ac20	5150~5250	1.57	1.44	20.50	112.20	20	0.0321	1.0
	5725~5850	1.57	1.44	23.00	199.53	20	0.0570	1.0
802.11n20	5150~5250	1.57	1.44	20.50	112.20	20	0.0321	1.0
	5725~5850	1.57	1.44	23.00	199.53	20	0.0570	1.0
802.11ac40	5150~5250	1.57	1.44	16.00	39.81	20	0.0114	1.0
	5725~5850	1.57	1.44	22.50	177.83	20	0.0509	1.0
802.11n40	5150~5250	1.57	1.44	16.00	39.81	20	0.0114	1.0
	5725~5850	1.57	1.44	22.50	177.83	20	0.0509	1.0
802.11ac80	5150~5250	1.57	1.44	10.50	11.22	20	0.0032	1.0
	5725~5850	1.57	1.44	23.00	199.53	20	0.0570	1.0

Note: 1. The tune up power were declared by the manufacturer.
 2. Wi-Fi and BT/BLE can't transmit simultaneously.
 3. For 802.11b, 802.11g, 802.11a, the tune-up power is base on SISO mode
 For 802.11ac20/n20/n40/ac40/ac80, the tune-up power is base on MIMO mode

Result: The device meet FCC MPE at 20 cm distance.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
 - b. Antenna must use a unique type of connector to attach to the EUT.
- Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407, if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Antenna Connector Construction

The EUT (model: L1563) has an internal PCB antenna for 5G Wi-Fi and antenna gain is 0.05 dBi which was permanently attached, fulfill the requirement of this section; The EUT (model: L1573) has an internal PCB antenna for 5G Wi-Fi and antenna gain is 1.57 dBi which was permanently attached, fulfill the requirement of this section Please refer to the EUT photos.

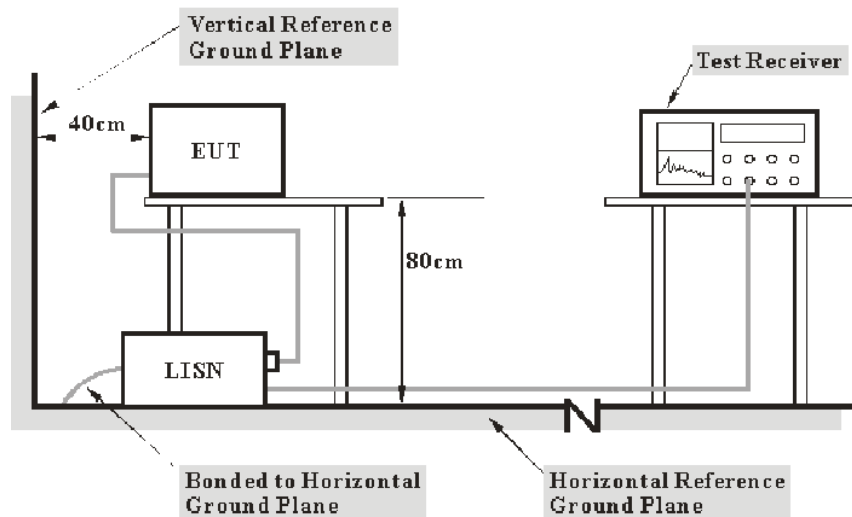
Result: Compliant.

FCC §15.407 (b) (6) §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a), §15.407(b) (6)

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

Factor & Over Limit Calculation

The Corrected factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of 7dB means the emission is 7 dB above the limit. The equation for over limit calculation is as follows:

$$\text{Over Limit (dB)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)} - \text{Limit (dB}\mu\text{V)}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data

Environmental Conditions

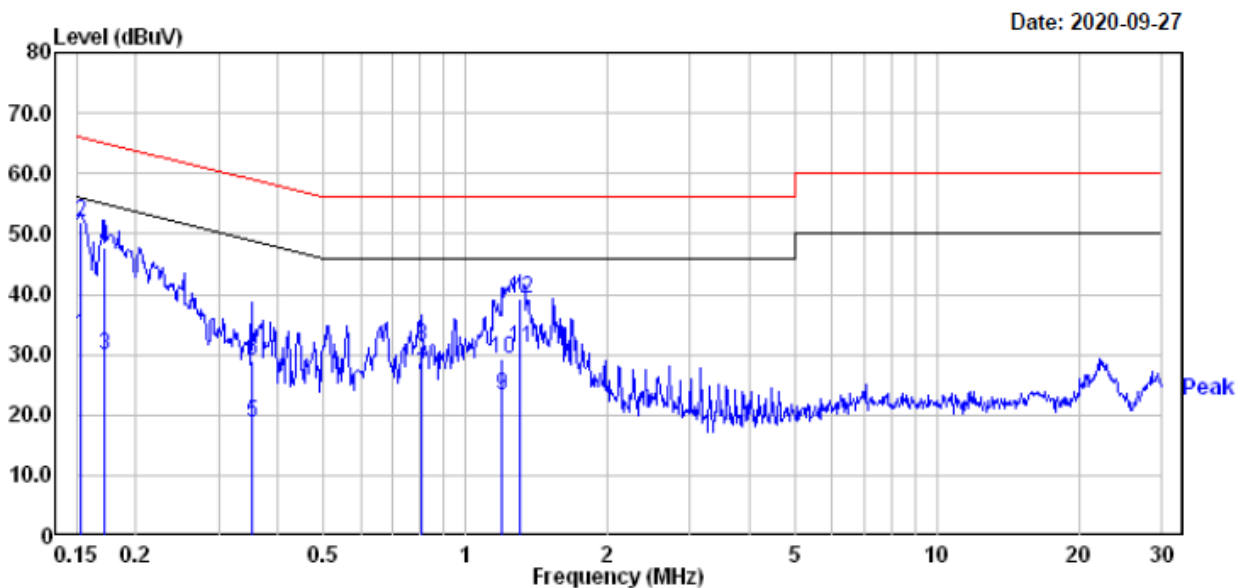
Temperature:	24.6-25.2 °C
Relative Humidity:	46-50 %
ATM Pressure:	101.3-101.6 kPa

The testing was performed by CK Huang from 2020-09-03 to 2020-09-27.

EUT operation mode: Transmitting in 802.11ac20 mode low channel of 5725-5850MHz (worst case)

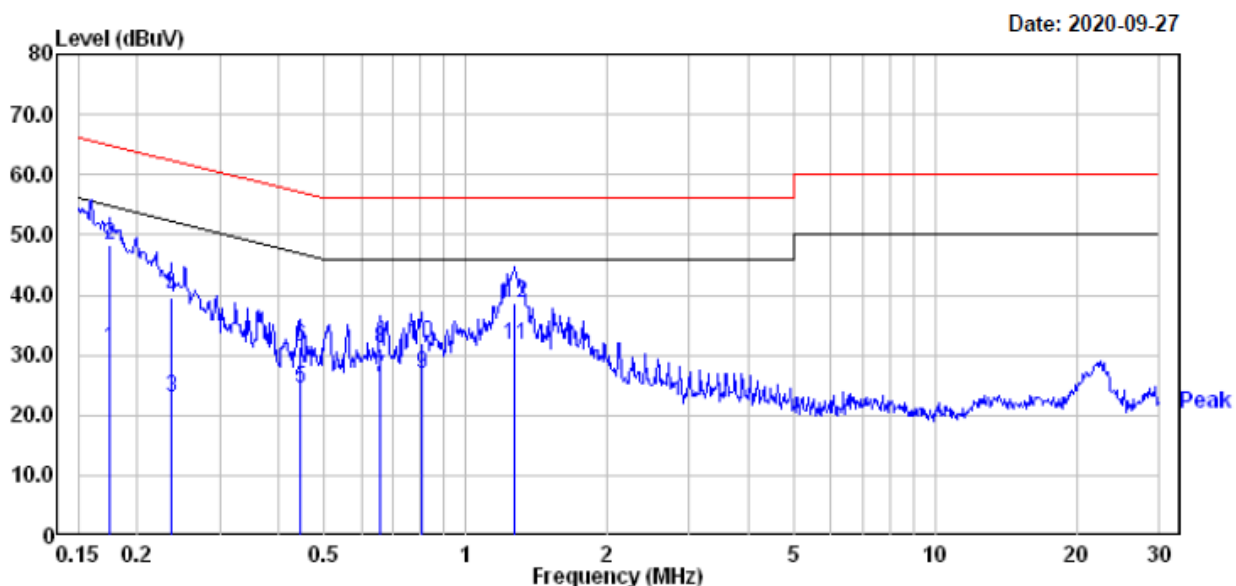
Model: L1563

AC 120V/60 Hz, Line



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	13.50	19.82	33.32	55.87	-22.55	Average
2	0.152	32.20	19.82	52.02	65.87	-13.85	QP
3	0.171	10.20	19.83	30.03	54.90	-24.87	Average
4	0.171	27.80	19.83	47.63	64.90	-17.27	QP
5	0.352	-1.01	19.81	18.80	48.91	-30.11	Average
6	0.352	9.19	19.81	29.00	58.91	-29.91	QP
7	0.804	6.80	19.70	26.50	46.00	-19.50	Average
8	0.804	11.70	19.70	31.40	56.00	-24.60	QP
9	1.197	3.40	19.81	23.21	46.00	-22.79	Average
10	1.197	9.50	19.81	29.31	56.00	-26.69	QP
11	1.303	11.30	19.82	31.12	46.00	-14.88	Average
12	1.303	19.30	19.82	39.12	56.00	-16.88	QP

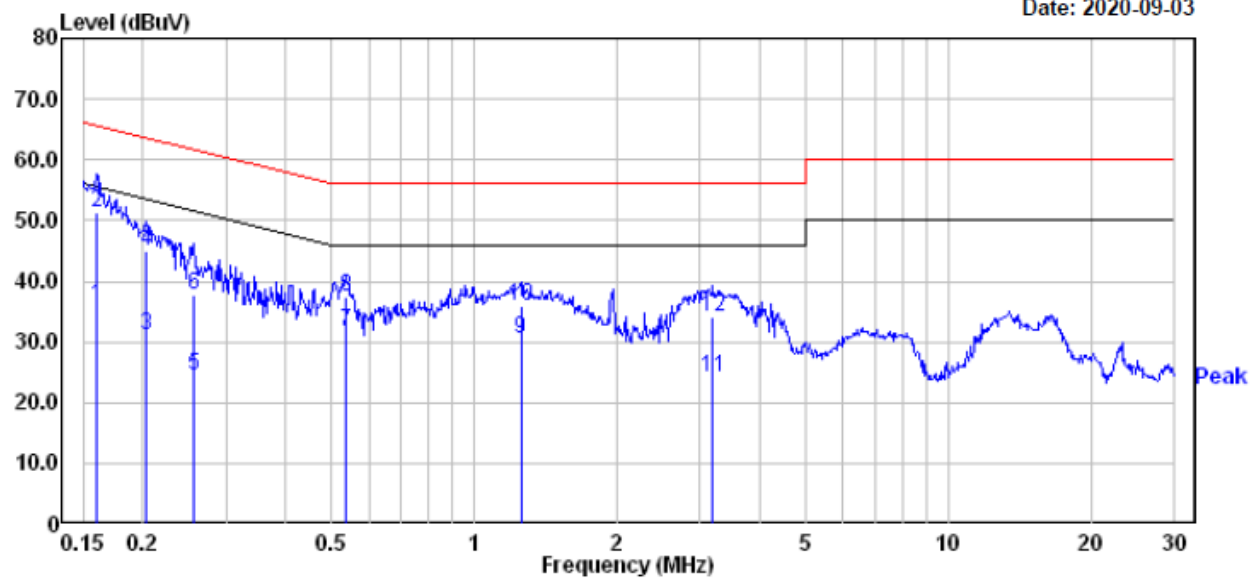
AC 120V/60 Hz, Neutral



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.175	11.20	19.83	31.03	54.72	-23.69	Average
2	0.175	28.40	19.83	48.23	64.72	-16.49	QP
3	0.237	3.00	19.82	22.82	52.22	-29.40	Average
4	0.237	19.60	19.82	39.42	62.22	-22.80	QP
5	0.444	4.60	19.75	24.35	46.98	-22.63	Average
6	0.444	11.70	19.75	31.45	56.98	-25.53	QP
7	0.658	6.50	19.75	26.25	46.00	-19.75	Average
8	0.658	11.20	19.75	30.95	56.00	-25.05	QP
9	0.804	7.30	19.70	27.00	46.00	-19.00	Average
10	0.804	12.30	19.70	32.00	56.00	-24.00	QP
11	1.276	12.00	19.82	31.82	46.00	-14.18	Average
12	1.276	18.90	19.82	38.72	56.00	-17.28	QP

Model: L1573**AC 120V/60 Hz, Line**

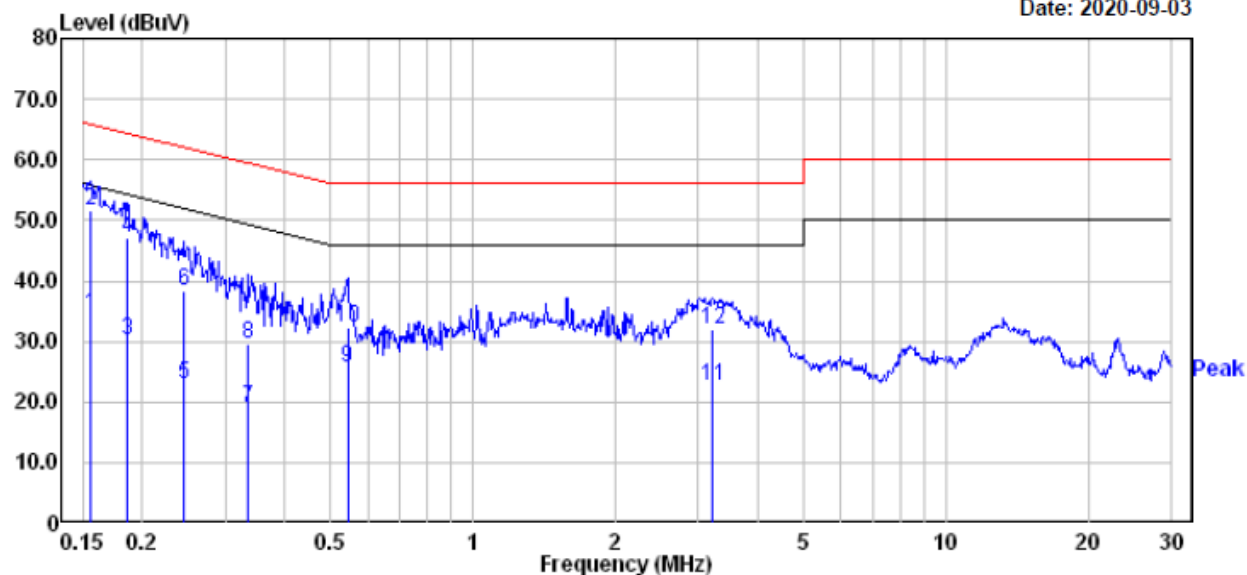
Date: 2020-09-03



		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV	dBuV	dB
1	0.160	16.00	19.83	35.83	55.47	-19.64 Average
2	0.160	31.50	19.83	51.33	65.47	-14.14 QP
3	0.204	11.30	19.82	31.12	53.45	-22.33 Average
4	0.204	25.20	19.82	45.02	63.45	-18.43 QP
5	0.256	4.50	19.82	24.32	51.56	-27.24 Average
6	0.256	17.90	19.82	37.72	61.56	-23.84 QP
7	0.535	12.01	19.75	31.76	46.00	-14.24 Average
8	0.535	17.71	19.75	37.46	56.00	-18.54 QP
9	1.255	10.60	19.82	30.42	46.00	-15.58 Average
10	1.255	16.20	19.82	36.02	56.00	-19.98 QP
11	3.190	4.80	19.46	24.26	46.00	-21.74 Average
12	3.190	14.80	19.46	34.26	56.00	-21.74 QP

AC 120V/60 Hz, Neutral

Date: 2020-09-03



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.156	14.60	19.82	34.42	55.69	-21.27	Average
2	0.156	31.70	19.82	51.52	65.69	-14.17	QP
3	0.185	10.41	19.82	30.23	54.24	-24.01	Average
4	0.185	27.21	19.82	47.03	64.24	-17.21	QP
5	0.244	3.20	19.82	23.02	51.95	-28.93	Average
6	0.244	18.40	19.82	38.22	61.95	-23.73	QP
7	0.336	-0.71	19.82	19.11	49.31	-30.20	Average
8	0.336	9.79	19.82	29.61	59.31	-29.70	QP
9	0.544	6.00	19.75	25.75	46.00	-20.25	Average
10	0.544	12.50	19.75	32.25	56.00	-23.75	QP
11	3.207	3.30	19.46	22.76	46.00	-23.24	Average
12	3.207	12.50	19.46	31.96	56.00	-24.04	QP

§15.205 & §15.209 & §15.407(B)(1)(4) (8)(9) – UNDESIRABLE EMISSION & RESTRICTED BANDS

Applicable Standard

FCC §15.407 (b)(1)(4) (8) (9); §15.209; §15.205;

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 EIRP of –27dBm/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.

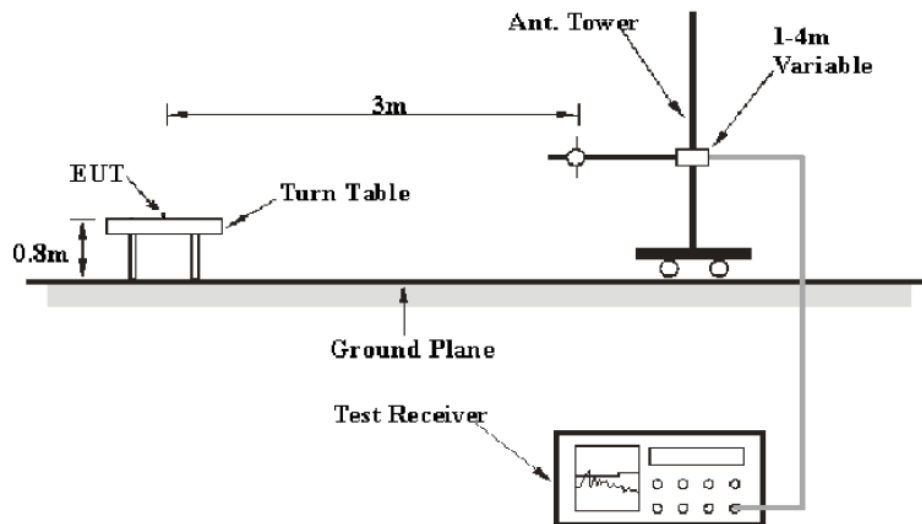
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000MHz shall be performed using a minimum resolution bandwidth of 1MHz.

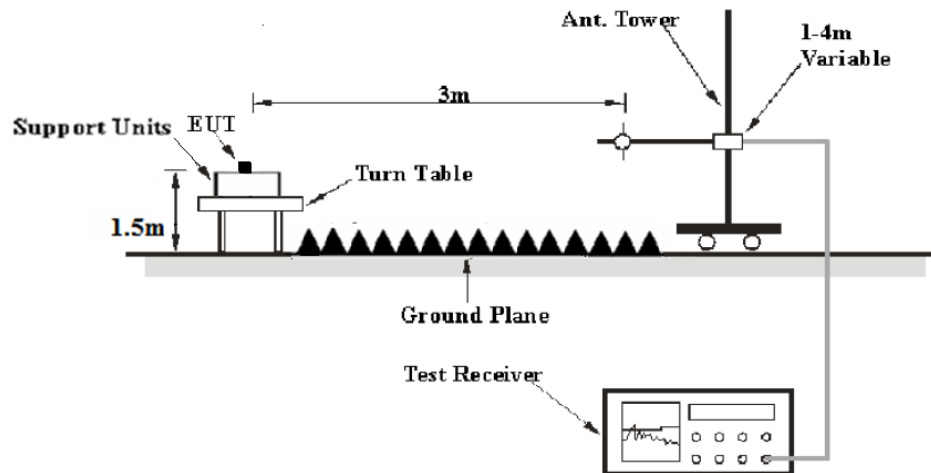
According to 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [dB\mu V/m] = EIRP [dBm] + 95.2$, for $d = 3$ meters.

EUT Setup

Below 1 GHz:



Above 1 GHz:



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver Setup was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1GHz	1MHz	3 MHz	/	PK
	1MHz	3 MHz	/	Ave.

Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Data

Environmental Conditions

Temperature:	24.6~25.0 °C
Relative Humidity:	48~53 %
ATM Pressure:	100.7~101.3 kPa

The testing was performed by CK Huang from 2020-09-04 to 2020-10-05.

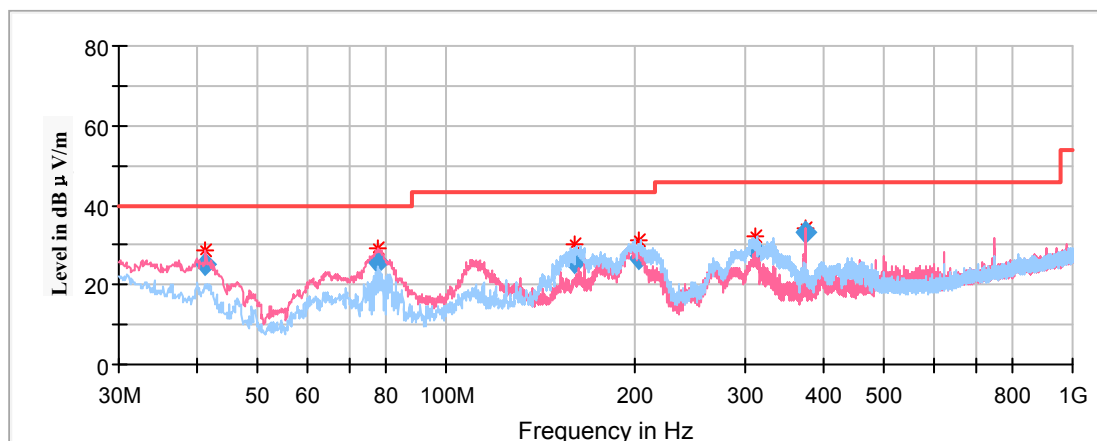
Test Mode: Transmitting

Spurious Emission Test

Model: L1563

30MHz-1GHz(5150-5250MHz Band):

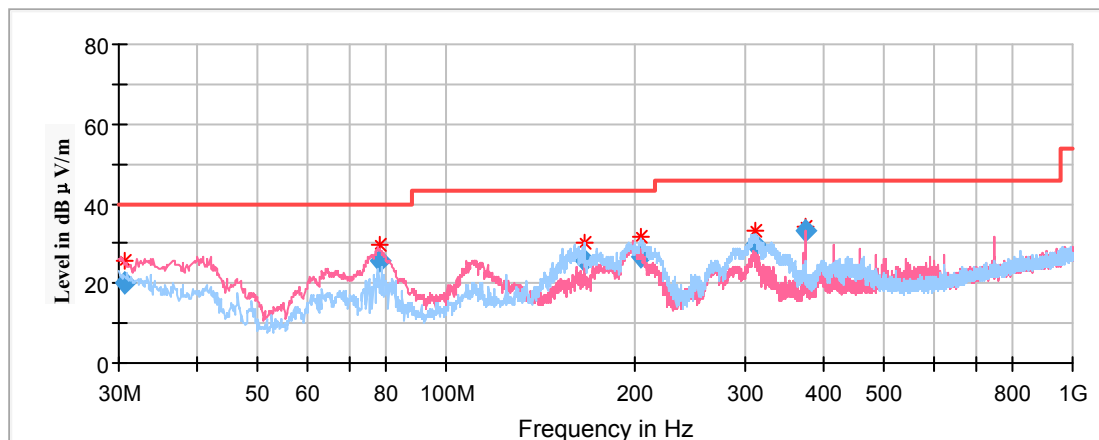
Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X, Y and Z axes of orientation, **the worst case 802.11ac20 mode high channel** in Z-axis of orientation was recorded.



Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	QuasiPeak (dBμV/m)	Height (cm)	Polar (H/V)				
41.232250	25.18	100.0	V	312.0	-18.4	40.00	14.82
77.994900	25.76	100.0	V	236.0	-23.9	40.00	14.24
160.251200	25.65	200.0	H	146.0	-18.8	43.50	17.85
203.540400	26.47	200.0	H	162.0	-17.8	43.50	17.03
310.394100	28.81	100.0	H	163.0	-16.8	46.00	17.19
374.267750	33.21	100.0	V	177.0	-15.2	46.00	12.79

30MHz-1GHz(5725-5850MHz Band):

Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X,Y and Z axes of orientation, **the worst case 802.11ac20 mode low channel** in Z-axis of orientation was recorded



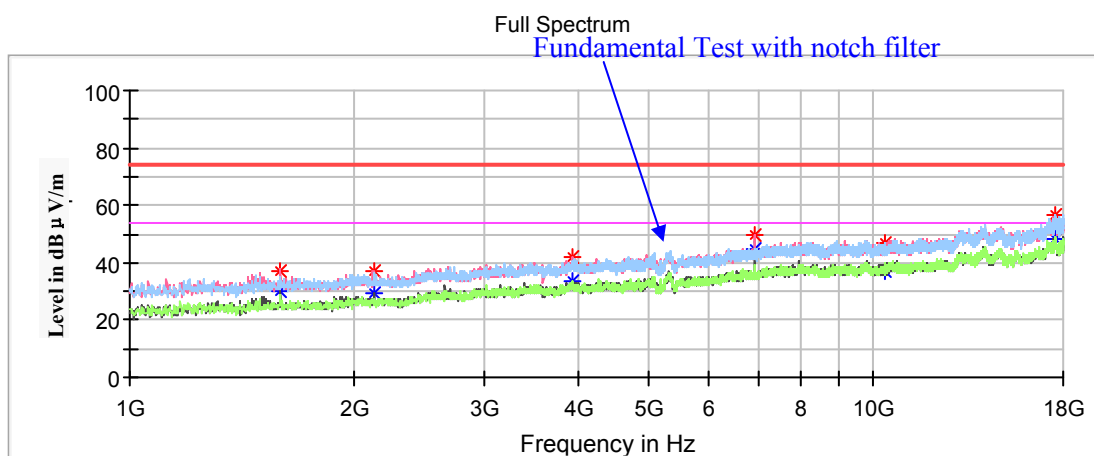
Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	QuasiPeak (dBμV/m)	Height (cm)	Polar (H/V)				
30.702858	20.18	100.0	V	213.0	-11.1	40.00	19.82
78.259400	25.83	100.0	V	233.0	-23.9	40.00	14.17
166.245100	25.75	200.0	H	132.0	-19.0	43.50	17.75
204.476300	26.84	100.0	H	146.0	-17.9	43.50	16.66
310.697100	29.48	100.0	H	173.0	-16.8	46.00	16.52
374.281250	33.17	100.0	V	181.0	-15.2	46.00	12.83

1GHz-18GHz(5150-5250MHz Band):**802.11a Mode-Chain0:**

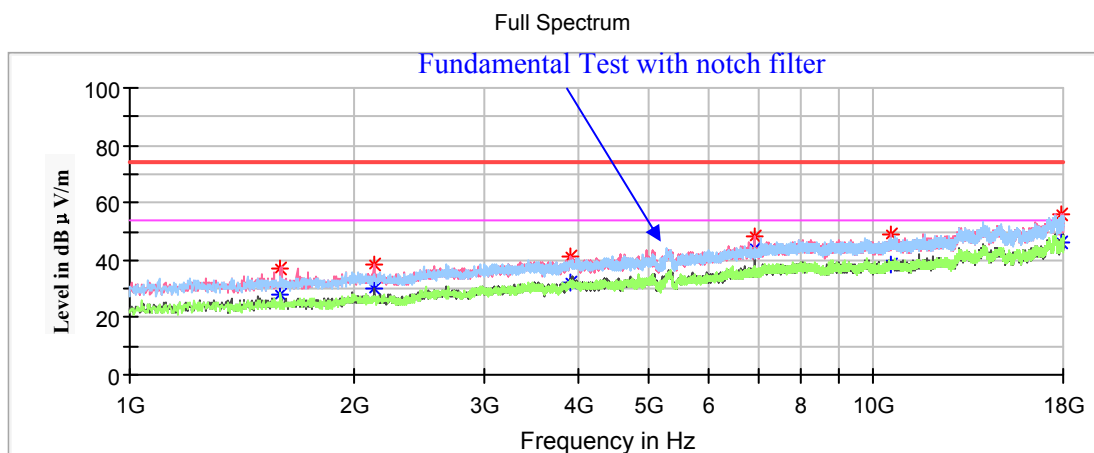
(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

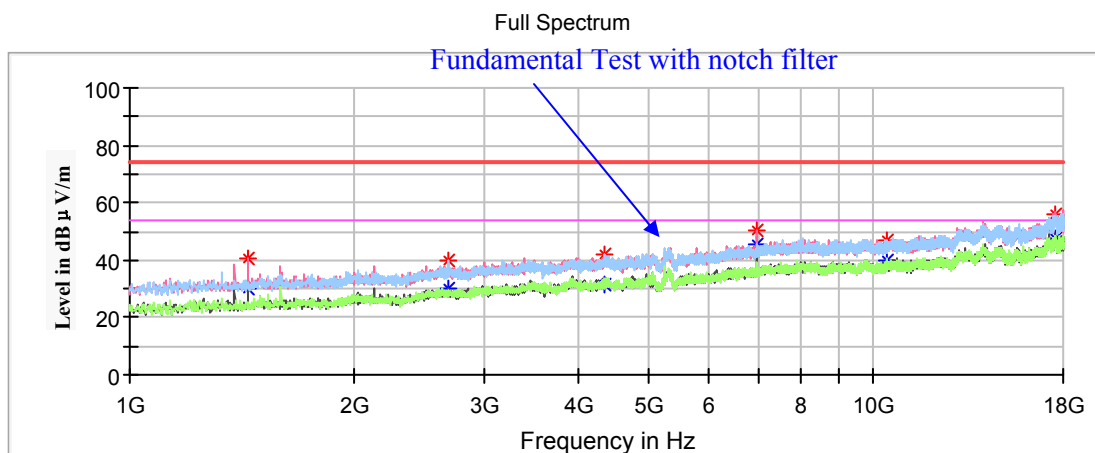
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1596.700000	---	30.17	150.0	V	234.0	-16.0	54.00	23.83
1596.700000	37.37	---	150.0	V	234.0	-16.0	74.00	36.63
2127.100000	37.05	---	200.0	V	272.0	-13.9	68.20	31.15
3939.300000	---	33.40	150.0	V	355.0	-7.2	54.00	20.60
3939.300000	42.02	---	150.0	V	355.0	-7.2	74.00	31.98
6905.800000	49.51	---	150.0	V	130.0	-0.3	68.20	18.69
10360.000000	46.72	---	150.0	H	19.0	2.2	68.20	21.48
17569.900000	56.36	---	150.0	V	359.0	8.9	68.20	11.84

Middle Channel: 5200MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1593.300000	37.30	---	150.0	V	239.0	-16.0	74.00	36.70
1593.300000	---	27.67	150.0	V	239.0	-16.0	54.00	26.33
2130.500000	38.41	---	150.0	V	252.0	-13.9	68.20	29.79
3910.400000	---	31.90	200.0	V	130.0	-7.3	54.00	22.10
3910.400000	41.34	---	200.0	V	130.0	-7.3	74.00	32.66
6933.000000	48.35	---	150.0	V	148.0	-0.2	68.20	19.85
10400.000000	48.72	---	150.0	V	316.0	2.2	68.20	19.48
17923.500000	---	46.47	150.0	V	50.0	8.8	54.00	7.53
17923.500000	55.89	---	150.0	V	50.0	8.8	74.00	18.11

High Channel: 5240MHz

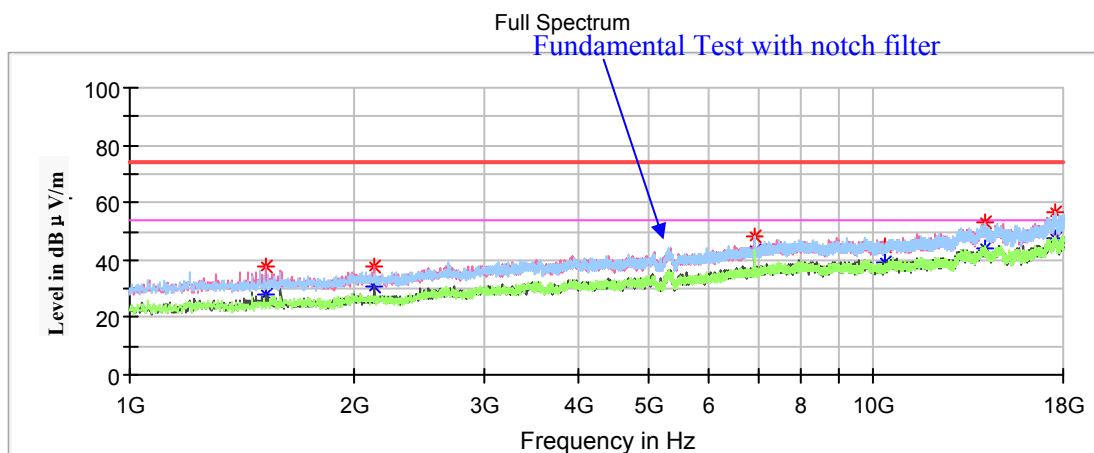
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1442.000000	---	29.81	150.0	V	301.0	-16.7	54.00	24.19
1442.000000	40.68	---	150.0	V	301.0	-16.7	74.00	33.32
2681.300000	39.97	---	150.0	V	0.0	-11.6	68.20	28.23
4355.800000	---	31.71	150.0	V	301.0	-6.4	54.00	22.29
4355.800000	41.68	---	150.0	V	301.0	-6.4	74.00	32.32
6985.700000	50.53	---	150.0	V	147.0	-0.1	68.20	17.67
10480.000000	47.17	---	200.0	H	324.0	2.3	68.20	21.03
17534.200000	55.87	---	150.0	V	288.0	8.9	68.20	12.33

802.11a Mode-Chain1:

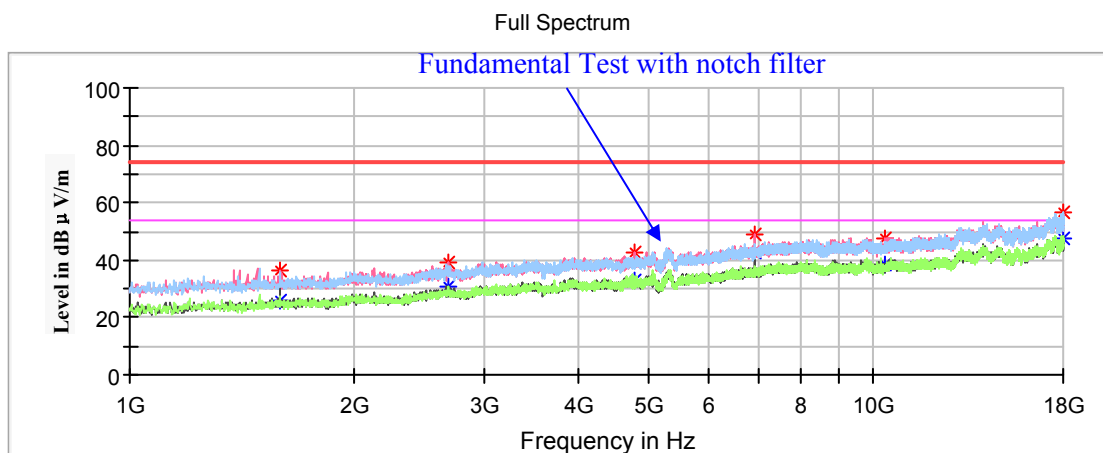
(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

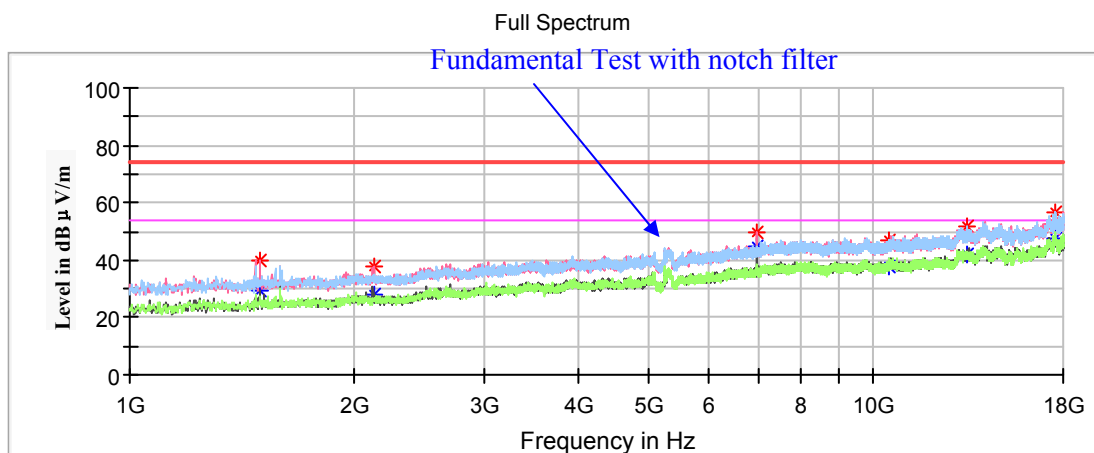
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV/m)	Average (dBµV/m)	Height (cm)	Polar (H/V)				
1527.000000	---	27.87	150.0	V	209.0	-16.3	54.00	26.13
1527.000000	38.03	---	150.0	V	209.0	-16.3	74.00	35.97
2130.500000	37.48	---	150.0	V	247.0	-13.9	68.20	30.72
6905.800000	48.54	---	200.0	V	157.0	-0.3	68.20	19.66
10360.000000	45.10	---	200.0	H	5.0	2.2	68.20	23.10
14112.100000	52.82	---	200.0	H	76.0	6.2	68.20	15.38
17585.200000	56.43	---	200.0	H	0.0	8.9	68.20	11.77

Middle Channel: 5200MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1595.000000	36.69	---	150.0	V	298.0	-16.0	74.00	37.31
1595.000000	---	26.16	150.0	V	298.0	-16.0	54.00	27.84
2681.300000	38.94	---	150.0	V	348.0	-11.6	68.20	29.26
4768.900000	---	32.60	150.0	V	260.0	-5.7	54.00	21.40
4768.900000	42.40	---	150.0	V	260.0	-5.7	74.00	31.60
6933.000000	48.74	---	200.0	V	144.0	-0.2	68.20	19.46
10400.000000	47.45	---	150.0	V	209.0	2.2	68.20	20.75
17954.100000	---	47.78	150.0	H	183.0	8.8	54.00	6.22
17954.100000	56.53	---	150.0	H	183.0	8.8	74.00	17.47

High Channel: 5240MHz

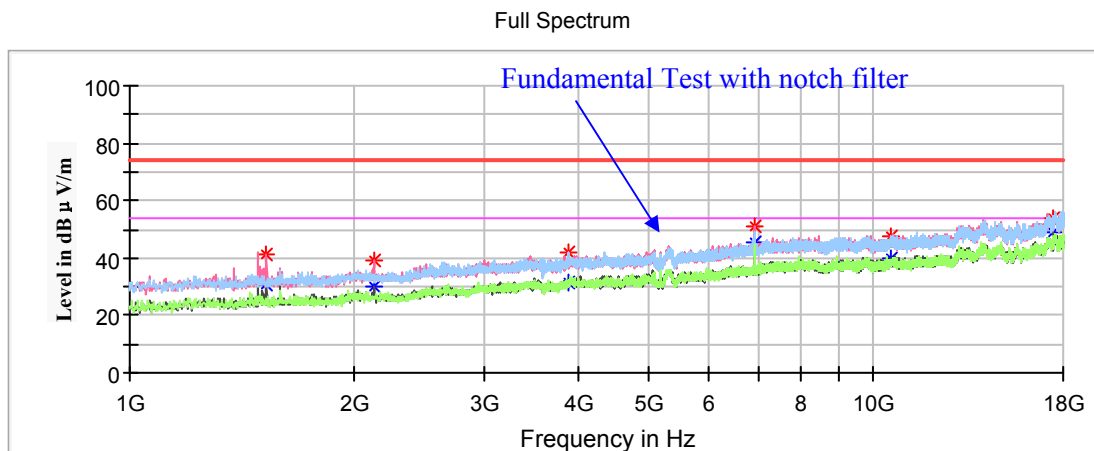
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1494.700000	39.54	---	150.0	V	239.0	-16.4	74.00	34.46
1494.700000	---	29.23	150.0	V	239.0	-16.4	54.00	24.77
2125.400000	37.61	---	200.0	V	239.0	-14.0	68.20	30.59
6985.700000	49.54	---	150.0	V	122.0	-0.1	68.20	18.66
10480.000000	46.83	---	200.0	H	100.0	2.3	68.20	21.37
13357.300000	---	41.63	150.0	V	188.0	5.5	54.00	12.37
13357.300000	51.97	---	150.0	V	188.0	5.5	74.00	22.03
17524.000000	56.48	---	150.0	H	243.0	8.9	68.20	11.72

802.11ac20 Mode(Chain0+Chain1):

(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

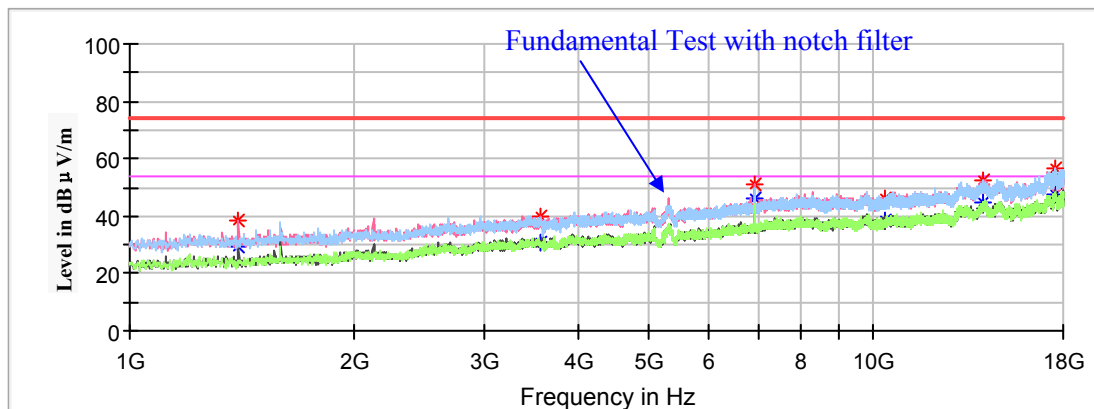
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1528.700000	---	31.02	150.0	V	212.0	-16.3	54.00	22.98
1528.700000	41.59	---	150.0	V	212.0	-16.3	74.00	32.41
2127.100000	39.01	---	150.0	V	250.0	-13.9	68.20	29.19
3896.800000	41.63	---	200.0	H	212.0	-7.4	74.00	32.37
3896.800000	---	31.17	200.0	H	212.0	-7.4	54.00	22.83
6905.800000	51.38	---	150.0	V	156.0	-0.3	68.20	16.82
10360.000000	47.89	---	150.0	V	174.0	2.2	68.20	20.31
17484.900000	53.92	---	150.0	V	225.0	8.8	68.20	14.28

Middle Channel: 5200MHz

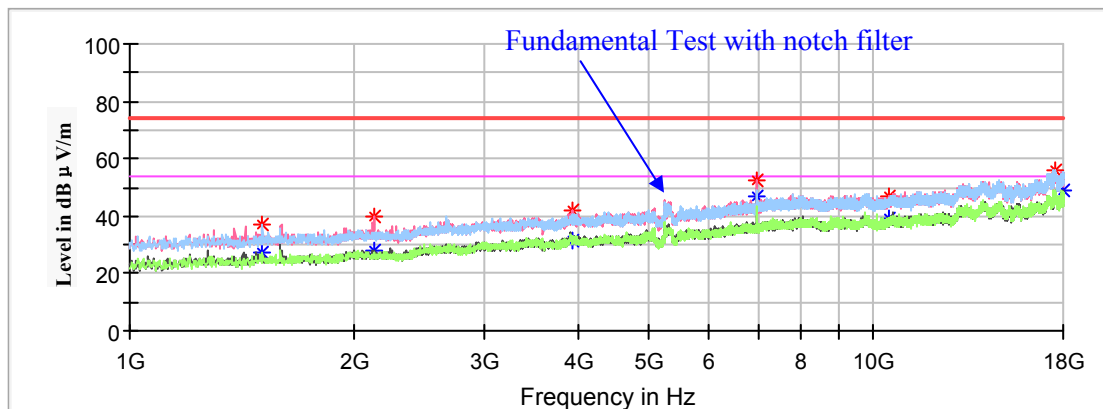
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1401.200000	38.63	---	150.0	V	289.0	-16.9	74.00	35.37
1401.200000	---	29.66	150.0	V	289.0	-16.9	54.00	24.34
3575.500000	40.02	---	150.0	V	327.0	-8.5	68.20	28.18
6933.000000	50.99	---	200.0	V	143.0	-0.2	68.20	17.21
10400.000000	46.46	---	150.0	V	327.0	2.2	68.20	21.74
14057.700000	52.35	---	200.0	H	237.0	6.2	68.20	15.85
17522.300000	56.33	---	150.0	H	331.0	8.9	68.20	11.87

High Channel: 5240MHz

Full Spectrum



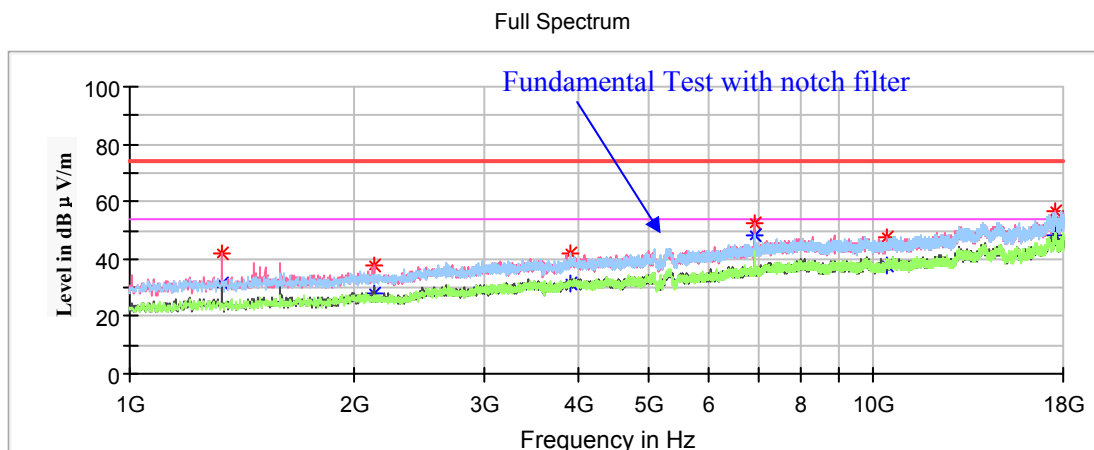
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1510.000000	---	27.49	200.0	H	217.0	-16.3	54.00	26.51
1510.000000	37.15	---	200.0	H	217.0	-16.3	74.00	36.85
2128.800000	39.73	---	150.0	V	259.0	-13.9	68.20	28.47
3939.300000	---	31.59	200.0	H	204.0	-7.2	54.00	22.41
3939.300000	41.64	---	200.0	H	204.0	-7.2	74.00	32.36
6985.700000	52.70	---	150.0	V	156.0	-0.1	68.20	15.50
10480.000000	46.57	---	150.0	V	50.0	2.3	68.20	21.63
17559.700000	55.71	---	200.0	H	9.0	8.9	68.20	12.49

802.11n-HT20 Mode(Chain0+Chain1):

Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded

Note:

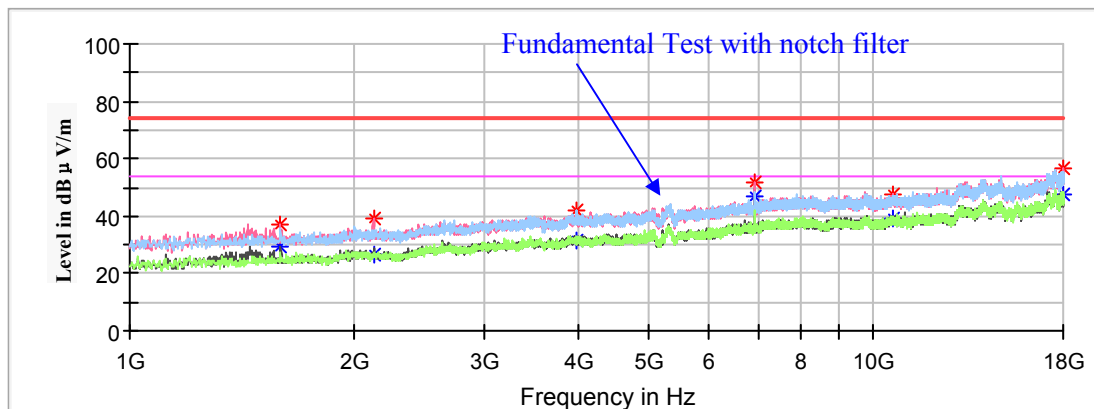
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1328.100000	42.03	---	150.0	V	239.0	-17.3	74.00	31.97
1328.100000	---	31.23	150.0	V	239.0	-17.3	54.00	22.77
2127.100000	37.77	---	150.0	V	251.0	-13.9	68.20	30.43
3924.000000	---	31.78	150.0	H	277.0	-7.3	54.00	22.22
3924.000000	42.18	---	150.0	H	277.0	-7.3	74.00	31.82
6905.800000	52.49	---	150.0	V	149.0	-0.3	68.20	15.71
10360.000000	47.29	---	200.0	V	188.0	2.2	68.20	20.91
17525.700000	56.39	---	200.0	H	5.0	8.9	68.20	11.81

Middle Channel: 5200MHz

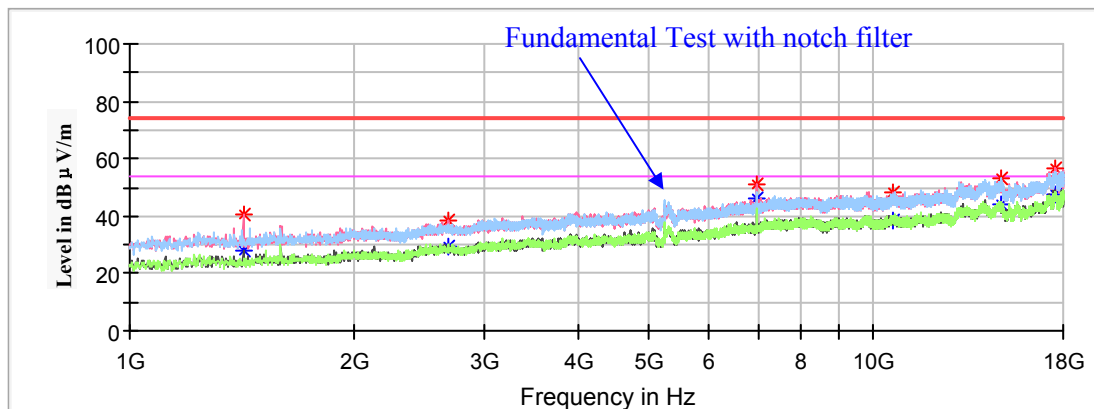
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1595.000000	37.20	---	150.0	V	227.0	-16.0	74.00	36.80
1595.000000	---	29.54	150.0	V	227.0	-16.0	54.00	24.46
2125.400000	39.10	---	150.0	V	252.0	-14.0	68.20	29.10
3988.600000	41.79	---	200.0	H	101.0	-7.0	74.00	32.21
3988.600000	---	31.40	200.0	H	101.0	-7.0	54.00	22.60
6933.000000	51.73	---	150.0	V	148.0	-0.2	68.20	16.47
10400.000000	47.70	---	150.0	V	122.0	2.2	68.20	20.50
17952.400000	56.34	---	150.0	V	256.0	8.8	74.00	17.66
17952.400000	---	47.34	150.0	V	256.0	8.8	54.00	6.66

High Channel: 5240MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1419.900000	40.53	---	150.0	V	250.0	-16.8	74.00	33.47
1419.900000	---	27.75	150.0	V	250.0	-16.8	54.00	26.25
2677.900000	38.40	---	150.0	V	350.0	-11.6	68.20	29.80
6985.700000	51.05	---	150.0	V	115.0	-0.1	68.20	17.15
10480.000000	48.41	---	200.0	V	238.0	2.3	68.20	19.79
14815.900000	52.80	---	200.0	H	121.0	5.6	68.20	15.40
17525.700000	56.62	---	200.0	H	185.0	8.9	68.20	11.58

802.11ac40 Mode(Chain0+Chain1):

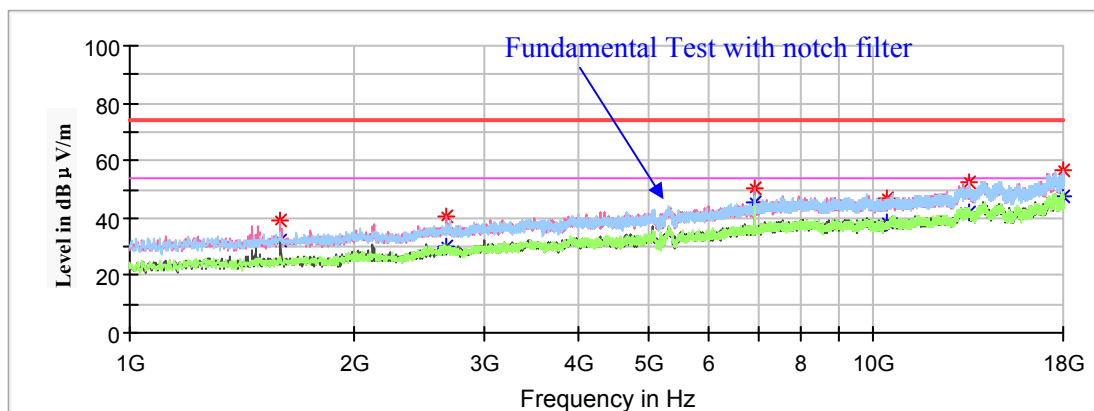
(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5190MHz

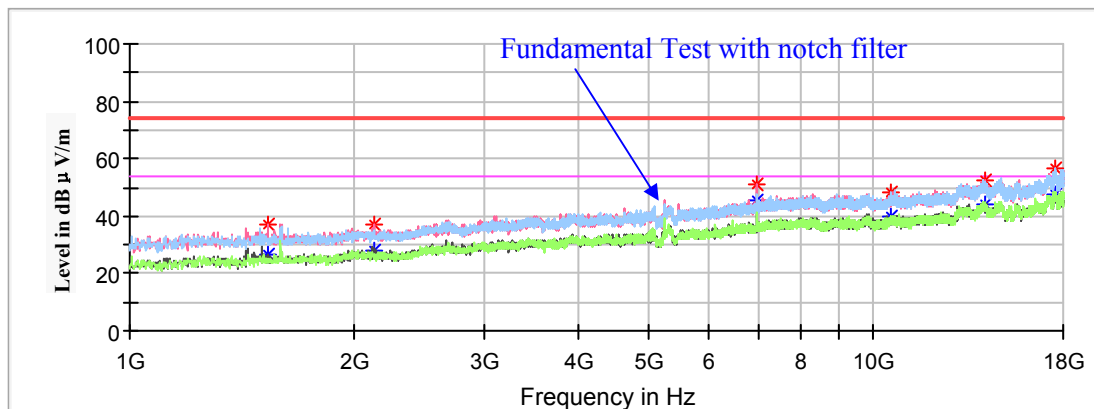
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1593.300000	---	32.45	150.0	V	264.0	-16.0	54.00	21.55
1593.300000	39.31	---	150.0	V	264.0	-16.0	74.00	34.69
2659.200000	40.72	---	200.0	V	264.0	-11.7	68.20	27.48
6919.400000	50.24	---	150.0	V	148.0	-0.2	68.20	17.96
10380.000000	47.01	---	200.0	H	278.0	2.2	68.20	21.19
13410.000000	52.32	---	150.0	V	357.0	5.6	68.20	15.88
17967.700000	56.98	---	150.0	V	64.0	8.8	74.00	17.02
17967.700000	---	47.80	150.0	V	64.0	8.8	54.00	6.20

High Channel: 5230MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1535.500000	37.04	---	150.0	V	170.0	-16.2	74.00	36.96
1535.500000	---	26.26	150.0	V	170.0	-16.2	54.00	27.74
2127.100000	36.99	---	150.0	V	271.0	-13.9	68.20	31.21
6972.100000	51.34	---	150.0	V	195.0	-0.1	68.20	16.86
10460.000000	48.10	---	200.0	H	323.0	2.3	68.20	20.10
14091.700000	52.66	---	200.0	H	75.0	6.2	68.20	15.54
17508.700000	56.42	---	150.0	V	208.0	8.9	68.20	11.78

802.11n-HT40 Mode(Chain0+Chain1):

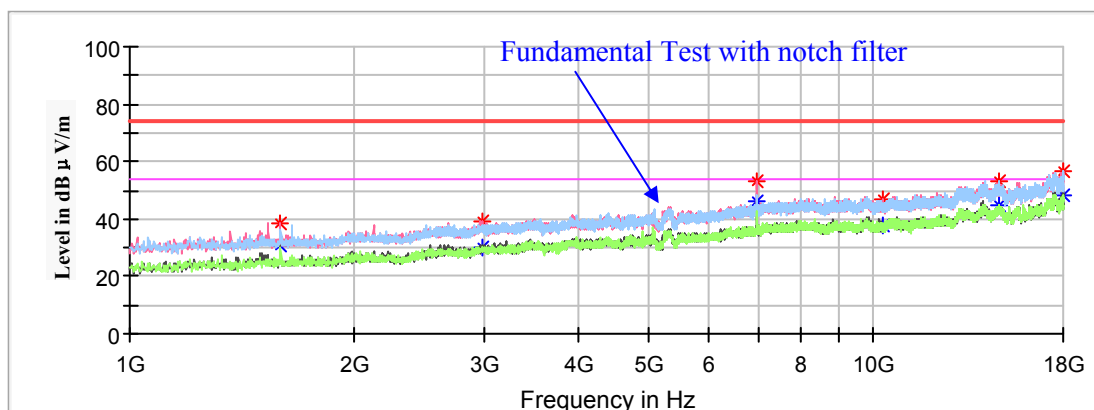
Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded

Note:

1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5190MHz

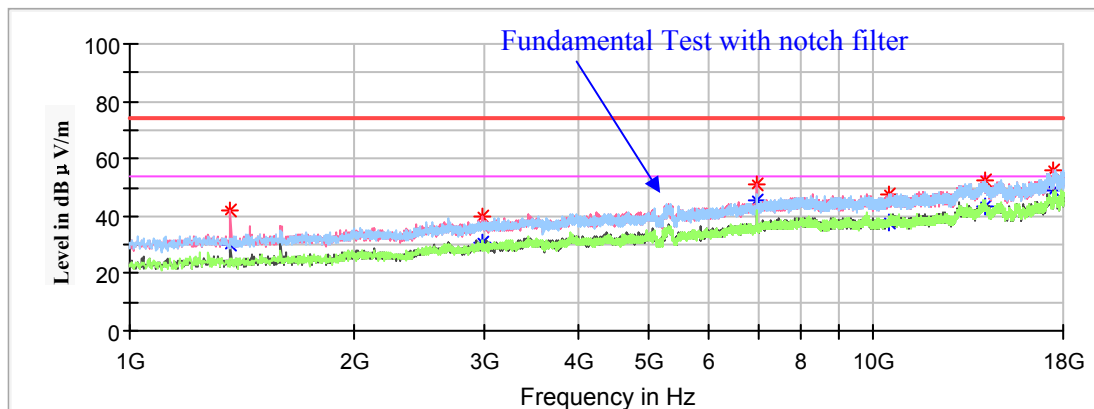
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1591.600000	38.54	---	150.0	V	245.0	-16.0	74.00	35.46
1591.600000	---	30.45	150.0	V	245.0	-16.0	54.00	23.55
2973.700000	39.05	---	200.0	H	63.0	-10.2	68.20	29.15
6972.100000	53.06	---	200.0	V	116.0	-0.1	68.20	15.14
10380.000000	46.75	---	150.0	V	143.0	2.2	68.20	21.45
14768.300000	53.23	---	200.0	H	324.0	5.8	68.20	14.97
17954.100000	---	48.05	200.0	V	50.0	8.8	54.00	5.95
17954.100000	56.73	---	200.0	V	50.0	8.8	74.00	17.27

High Channel: 5230MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1367.200000	42.19	---	150.0	V	233.0	-17.1	74.00	31.81
1367.200000	---	29.84	150.0	V	233.0	-17.1	54.00	24.16
2975.400000	39.60	---	150.0	V	309.0	-10.2	68.20	28.60
6972.100000	51.18	---	150.0	V	156.0	-0.1	68.20	17.02
10460.000000	47.76	---	200.0	H	178.0	2.3	68.20	20.44
14110.400000	52.24	---	200.0	H	75.0	6.2	68.20	15.96
17498.500000	55.83	---	150.0	V	355.0	8.9	68.20	12.37

802.11ac80 Mode(Chain0+Chain1):

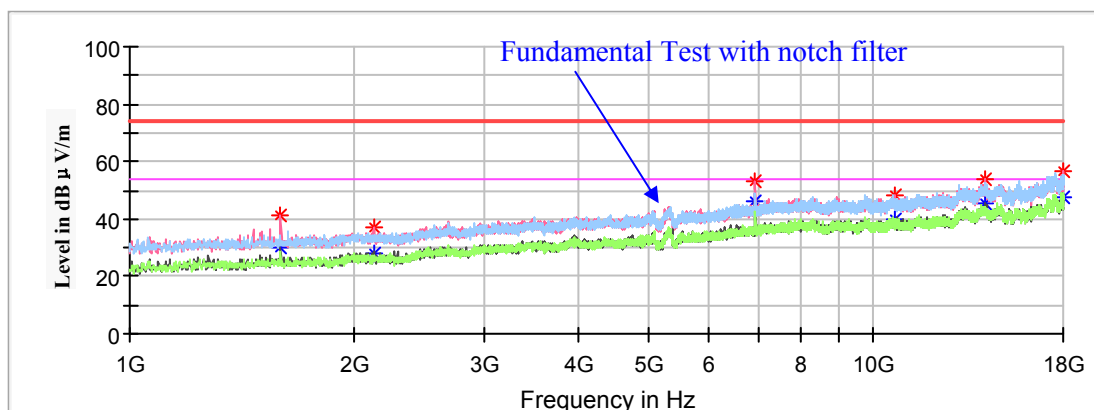
Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded

Note:

1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5210MHz

Full Spectrum



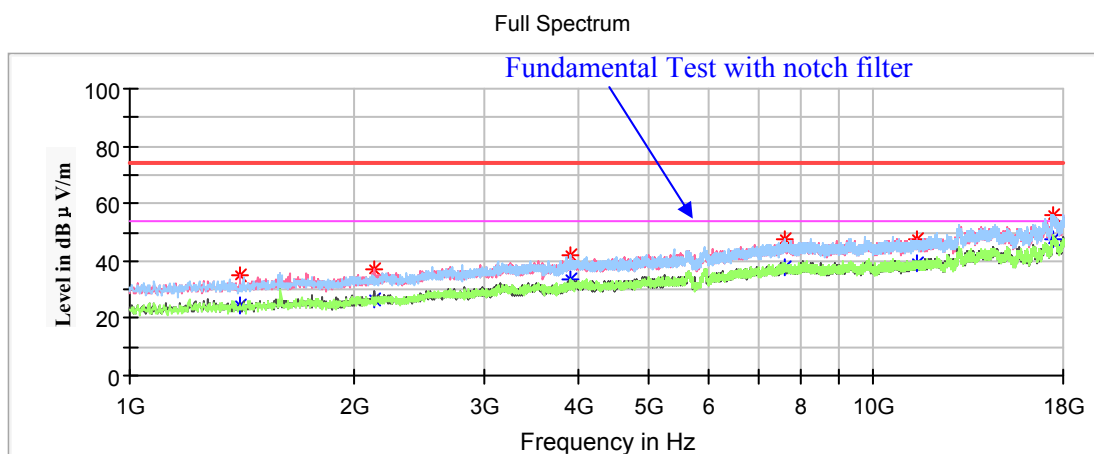
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1596.700000	41.26	---	150.0	V	274.0	-16.0	74.00	32.74
1596.700000	---	29.77	150.0	V	274.0	-16.0	54.00	24.23
2125.400000	37.10	---	150.0	V	261.0	-14.0	68.20	31.10
6946.600000	52.82	---	200.0	V	156.0	-0.2	68.20	15.38
10420.000000	48.45	---	200.0	H	139.0	2.3	68.20	19.75
14118.900000	53.57	---	150.0	V	183.0	6.2	68.20	14.63
17955.800000	---	47.26	200.0	H	113.0	8.8	54.00	6.74
17955.800000	56.86	---	200.0	H	113.0	8.8	74.00	17.14

1GHz-18GHz(5725-5850MHz Band):**802.11a Mode-Chain0:**

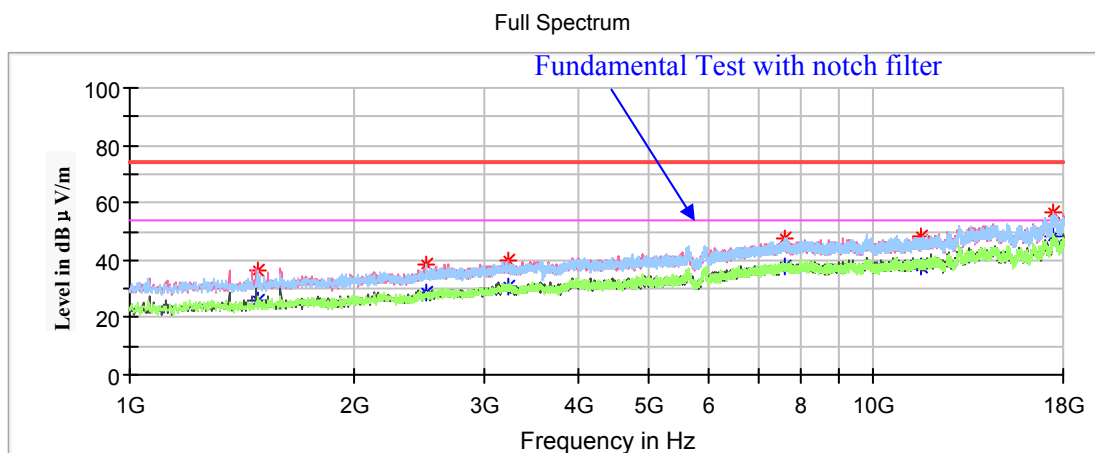
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

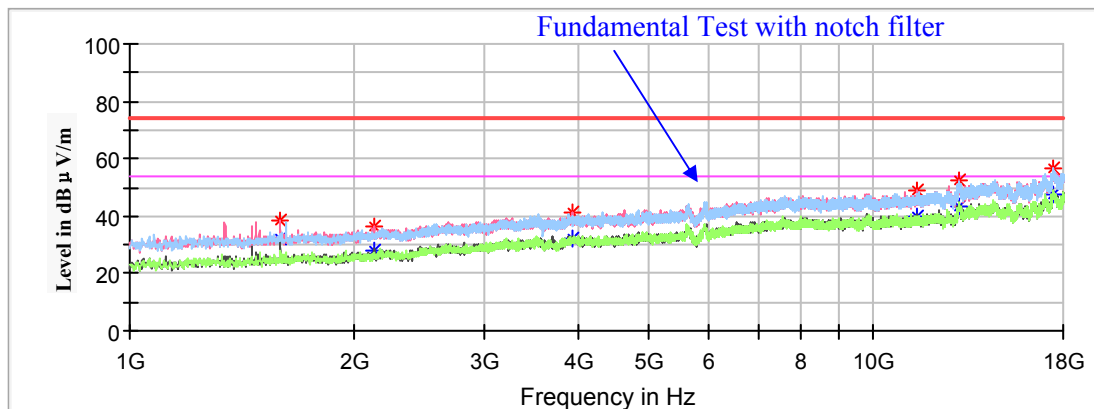
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1404.600000	35.09	---	150.0	V	288.0	-16.9	74.00	38.91
1404.600000	---	24.62	150.0	V	288.0	-16.9	54.00	29.38
2128.800000	36.83	---	150.0	V	263.0	-13.9	68.20	31.37
3908.700000	---	33.24	200.0	H	39.0	-7.3	54.00	20.76
3908.700000	41.78	---	200.0	H	39.0	-7.3	74.00	32.22
7602.800000	---	37.61	150.0	V	314.0	1.2	54.00	16.39
7602.800000	47.88	---	150.0	V	314.0	1.2	74.00	26.12
11490.000000	---	39.40	150.0	V	174.0	2.8	54.00	14.60
11490.000000	47.33	---	150.0	V	174.0	2.8	74.00	26.67
17479.800000	56.20	---	200.0	V	237.0	8.8	68.20	12.00

Middle Channel: 5785MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1482.800000	36.06	---	200.0	H	231.0	-16.5	74.00	37.94
1482.800000	---	25.58	200.0	H	231.0	-16.5	54.00	28.42
2506.200000	38.42	---	150.0	H	116.0	-12.4	68.20	29.78
3225.300000	39.98	---	150.0	H	218.0	-9.5	68.20	28.22
7584.100000	---	38.03	150.0	V	167.0	1.2	54.00	15.97
7584.100000	47.46	---	150.0	V	167.0	1.2	74.00	26.54
11570.000000	---	37.74	150.0	V	36.0	2.8	54.00	16.26
11570.000000	47.91	---	150.0	V	36.0	2.8	74.00	26.09
17461.100000	56.37	---	200.0	V	332.0	8.8	68.20	11.83

High Channel: 5825MHz

Full Spectrum



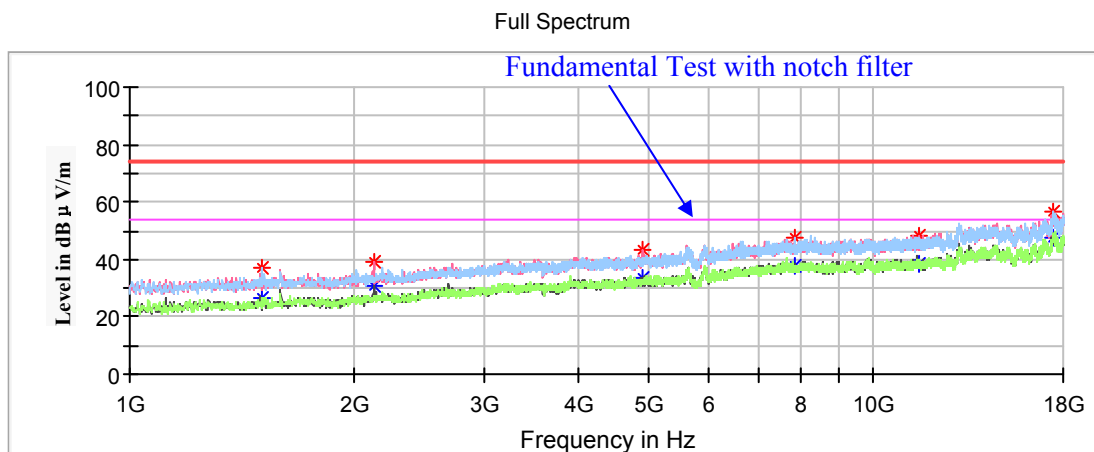
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1593.300000	38.62	---	200.0	V	236.0	-16.0	74.00	35.38
1593.300000	---	32.33	200.0	V	236.0	-16.0	54.00	21.67
2130.500000	36.20	---	150.0	V	287.0	-13.9	68.20	32.00
3929.100000	---	31.91	200.0	H	162.0	-7.3	54.00	22.09
3929.100000	41.31	---	200.0	H	162.0	-7.3	74.00	32.69
11650.000000	---	39.74	150.0	V	300.0	2.8	54.00	14.26
11650.000000	49.26	---	150.0	V	300.0	2.8	74.00	24.74
13017.300000	52.24	---	200.0	V	0.0	5.2	68.20	15.96
17475.000000	56.35	---	150.0	V	185.0	8.8	68.20	11.85

802.11a Mode-Chain1:

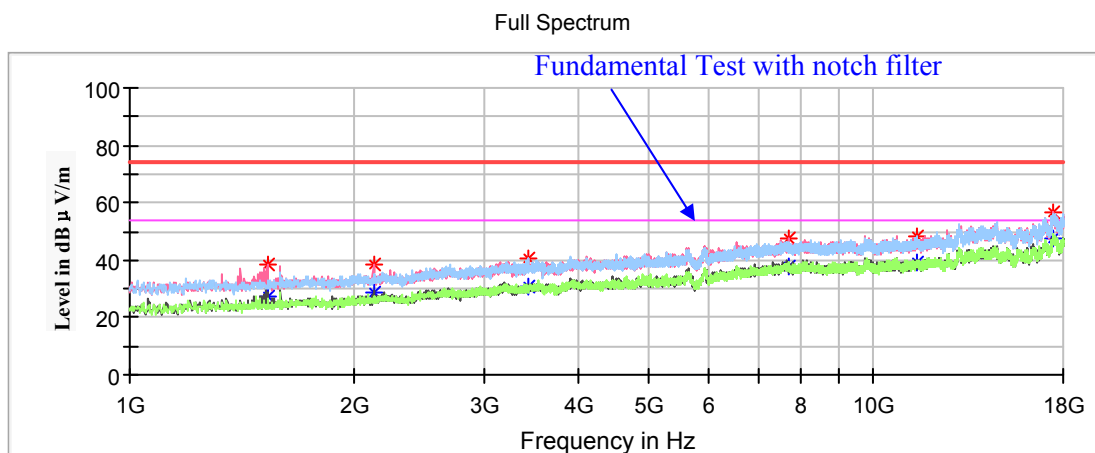
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

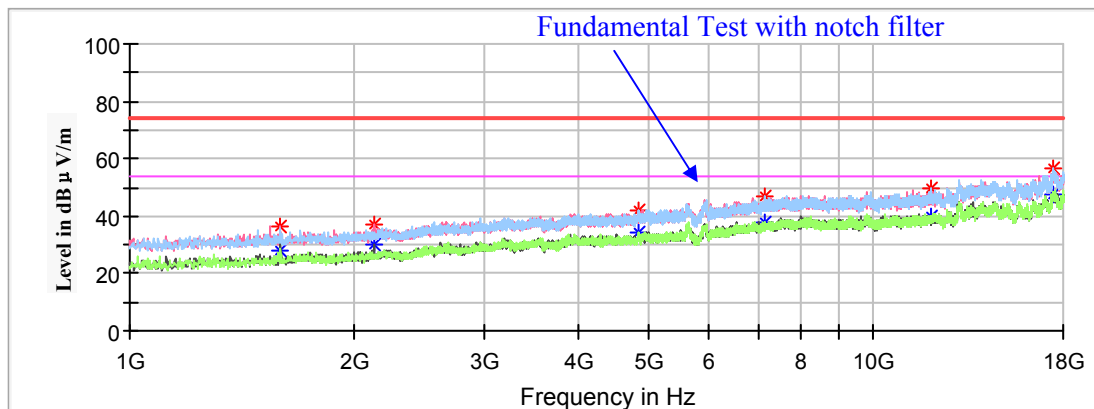
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1503.200000	37.19	---	150.0	H	217.0	-16.3	74.00	36.81
1503.200000	---	26.54	150.0	H	217.0	-16.3	54.00	27.46
2128.800000	39.22	---	150.0	V	249.0	-13.9	68.20	28.98
4908.300000	---	33.33	200.0	V	300.0	-5.4	54.00	20.67
4908.300000	43.22	---	200.0	V	300.0	-5.4	74.00	30.78
7822.100000	47.86	---	200.0	H	205.0	1.5	68.20	20.34
11490.000000	---	38.72	150.0	V	325.0	2.8	54.00	15.28
11490.000000	48.05	---	150.0	V	325.0	2.8	74.00	25.95
17450.900000	56.57	---	200.0	H	358.0	8.7	68.20	11.63

Middle Channel: 5785MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1530.400000	38.11	---	150.0	V	298.0	-16.2	74.00	35.89
1530.400000	---	27.52	150.0	V	298.0	-16.2	54.00	26.48
2125.400000	38.62	---	200.0	V	260.0	-14.0	68.20	29.58
3442.900000	40.65	---	150.0	V	235.0	-9.0	68.20	27.55
7681.000000	---	37.49	150.0	H	40.0	1.3	54.00	16.51
7681.000000	47.81	---	150.0	H	40.0	1.3	74.00	26.19
11570.000000	---	38.96	200.0	H	142.0	2.8	54.00	15.04
11570.000000	48.14	---	200.0	H	142.0	2.8	74.00	25.86
17355.000000	56.70	---	200.0	V	336.0	8.7	68.20	11.50

High Channel: 5825MHz

Full Spectrum



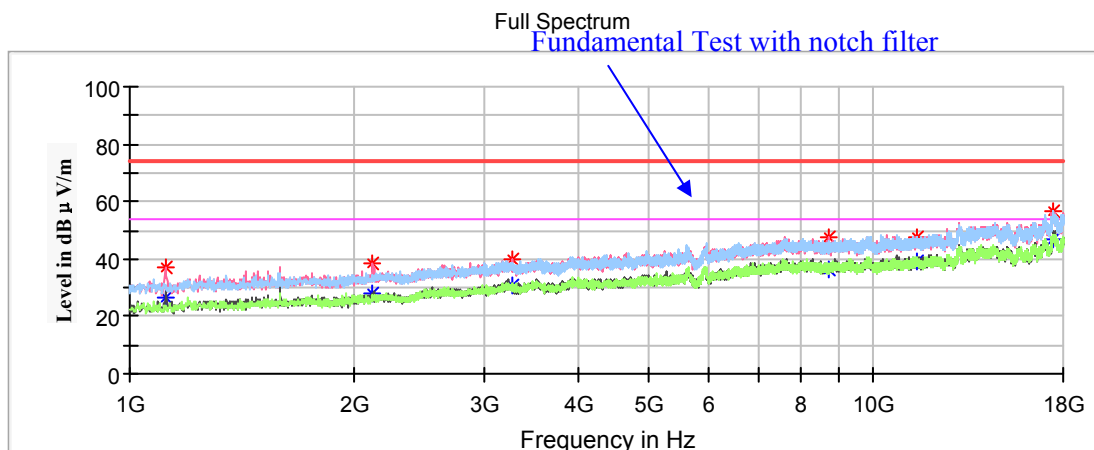
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1595.000000	36.44	---	150.0	V	244.0	-16.0	74.00	37.56
1595.000000	---	28.01	150.0	V	244.0	-16.0	54.00	25.99
2127.100000	37.19	---	150.0	V	283.0	-13.9	68.20	31.01
4825.000000	---	33.95	200.0	H	0.0	-5.5	54.00	20.05
4825.000000	42.28	---	200.0	H	0.0	-5.5	74.00	31.72
7155.700000	47.04	---	150.0	V	206.0	0.3	68.20	21.16
11650.000000	---	40.07	150.0	H	128.0	2.8	54.00	13.93
11650.000000	49.68	---	150.0	H	128.0	2.8	74.00	24.32
17475.000000	56.80	---	200.0	H	22.0	8.8	68.20	11.40

802.11ac20 Mode(Chain0+Chain1):

(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

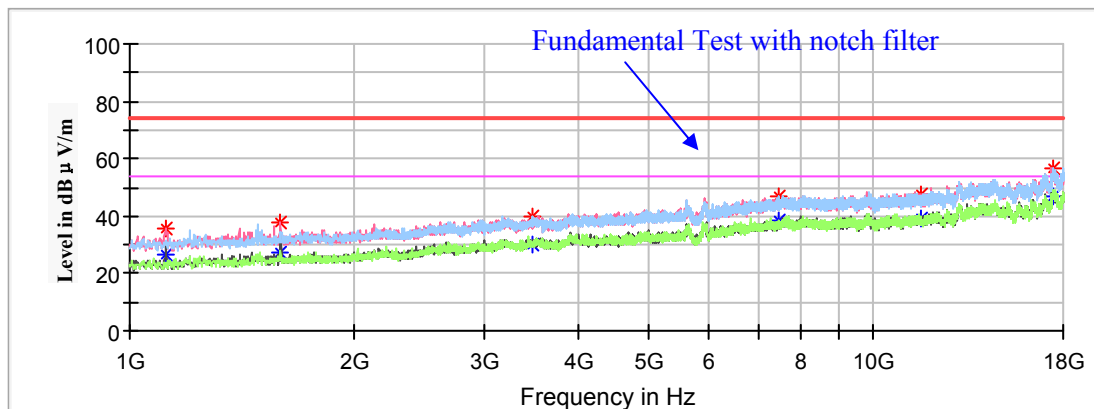
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

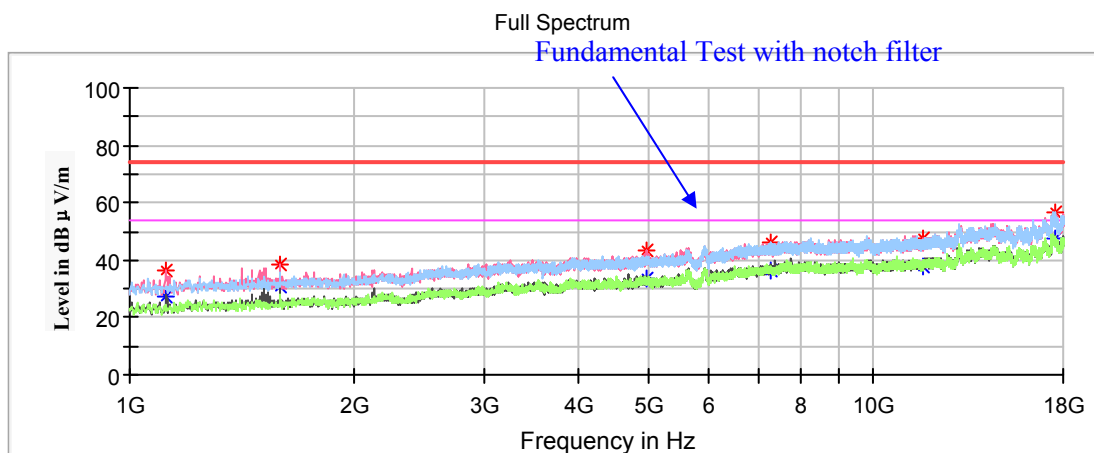
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1115.600000	---	26.77	150.0	V	13.0	-18.4	54.00	27.23
1115.600000	37.13	---	150.0	V	13.0	-18.4	74.00	36.87
2123.700000	38.14	---	150.0	V	255.0	-14.0	68.20	30.06
3267.800000	39.92	---	200.0	H	358.0	-9.4	68.20	28.28
8721.400000	47.31	---	200.0	H	144.0	1.6	68.20	20.89
11490.000000	---	39.31	150.0	V	229.0	2.8	54.00	14.69
11490.000000	47.73	---	150.0	V	229.0	2.8	74.00	26.27
17420.300000	56.41	---	200.0	H	228.0	8.6	68.20	11.79

Middle Channel: 5785MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	26.59	150.0	V	13.0	-18.4	54.00	27.41
1117.300000	35.65	---	150.0	V	13.0	-18.4	74.00	38.35
1593.300000	---	27.13	150.0	V	236.0	-16.0	54.00	26.87
1593.300000	37.89	---	150.0	V	236.0	-16.0	74.00	36.11
3478.600000	40.07	---	150.0	H	351.0	-8.9	68.20	28.13
7458.300000	---	38.21	150.0	H	264.0	0.9	54.00	15.79
7458.300000	46.70	---	150.0	H	264.0	0.9	74.00	27.30
11570.000000	---	39.33	150.0	V	37.0	2.8	54.00	14.67
11570.000000	47.72	---	150.0	V	37.0	2.8	74.00	26.28
17462.800000	56.90	---	150.0	H	200.0	8.8	68.20	11.30

High Channel: 5825MHz

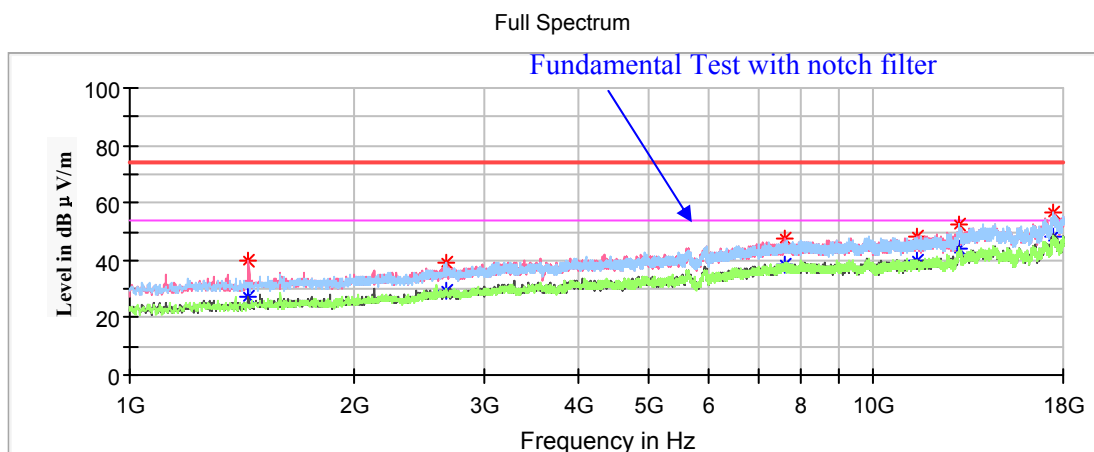
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	27.07	150.0	V	0.0	-18.4	54.00	26.93
1117.300000	36.36	---	150.0	V	0.0	-18.4	74.00	37.64
1595.000000	---	30.82	200.0	V	243.0	-16.0	54.00	23.18
1595.000000	38.20	---	200.0	V	243.0	-16.0	74.00	35.80
4952.500000	---	33.71	150.0	V	352.0	-5.3	54.00	20.29
4952.500000	43.07	---	150.0	V	352.0	-5.3	74.00	30.93
7296.800000	---	36.66	150.0	V	90.0	0.6	54.00	17.34
7296.800000	46.26	---	150.0	V	90.0	0.6	74.00	27.74
11650.000000	47.59	---	150.0	V	26.0	2.8	74.00	26.41
11650.000000	---	37.75	150.0	V	26.0	2.8	54.00	16.25
17475.000000	56.44	---	200.0	H	0.0	8.8	68.20	11.76

802.11n-HT20 Mode(Chain0+Chain1):

(Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded)

Note:

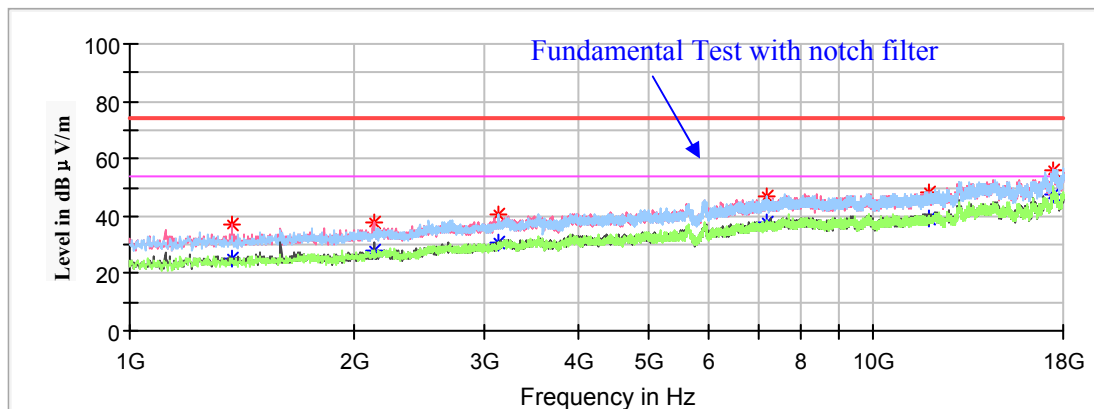
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

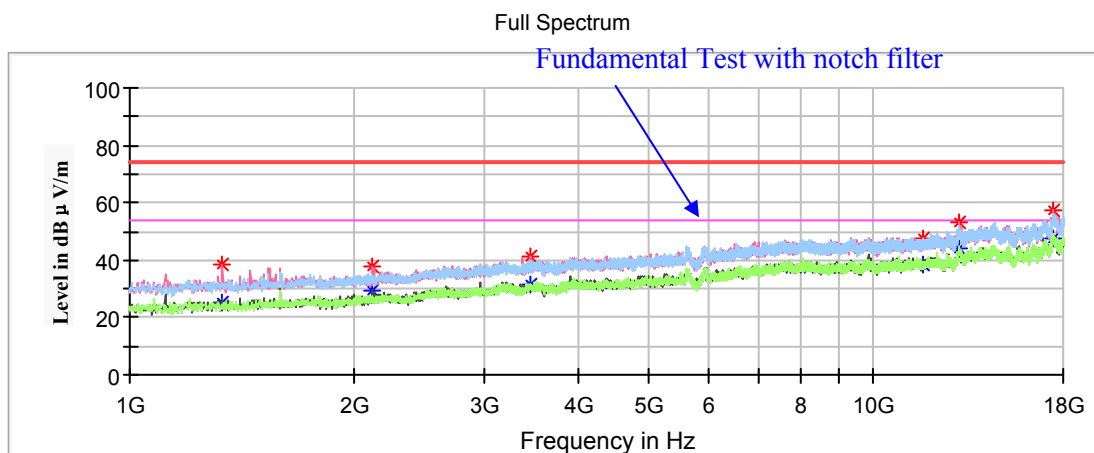
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1445.400000	40.07	---	150.0	V	299.0	-16.7	74.00	33.93
1445.400000	---	27.24	150.0	V	299.0	-16.7	54.00	26.76
2662.600000	39.09	---	200.0	H	336.0	-11.7	68.20	29.11
7607.900000	---	38.59	200.0	H	187.0	1.2	54.00	15.41
7607.900000	47.75	---	200.0	H	187.0	1.2	74.00	26.25
11490.000000	---	39.65	150.0	V	15.0	2.8	54.00	14.35
11490.000000	47.92	---	150.0	V	15.0	2.8	74.00	26.08
13051.300000	52.47	---	150.0	V	218.0	5.3	68.20	15.73
17428.800000	56.40	---	150.0	H	175.0	8.6	68.20	11.80

Middle Channel: 5785MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1372.300000	36.82	---	150.0	V	241.0	-17.1	74.00	37.18
1372.300000	---	25.14	150.0	V	241.0	-17.1	54.00	28.86
2125.400000	37.62	---	150.0	V	254.0	-14.0	68.20	30.58
3138.600000	40.68	---	200.0	H	359.0	-9.7	68.20	27.52
7176.100000	46.60	---	150.0	H	229.0	0.3	68.20	21.60
11570.000000	---	38.98	150.0	V	146.0	2.8	54.00	15.02
11570.000000	48.29	---	150.0	V	146.0	2.8	74.00	25.71
17495.100000	56.02	---	200.0	H	178.0	8.9	68.20	12.18

High Channel: 5825MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1333.200000	38.29	---	150.0	V	269.0	-17.3	74.00	35.71
1333.200000	---	25.30	150.0	V	269.0	-17.3	54.00	28.70
2123.700000	37.77	---	150.0	V	256.0	-14.0	68.20	30.43
3463.300000	41.07	---	150.0	V	30.0	-8.9	68.20	27.13
11650.000000	---	38.28	150.0	V	73.0	2.8	54.00	15.72
11650.000000	47.40	---	150.0	V	73.0	2.8	74.00	26.60
13008.800000	53.17	---	200.0	H	354.0	5.2	68.20	15.03
17475.000000	57.37	---	150.0	V	243.0	8.8	68.20	10.83

802.11ac40 Mode(Chain0+Chain1):

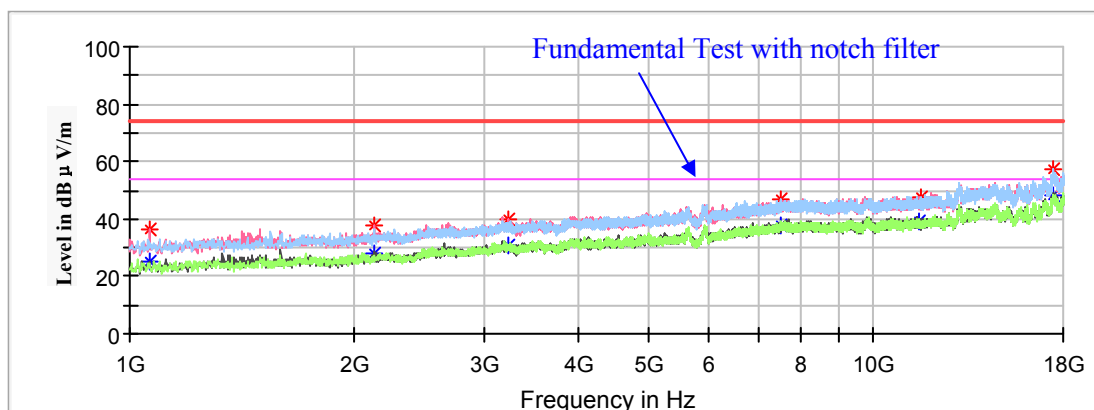
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

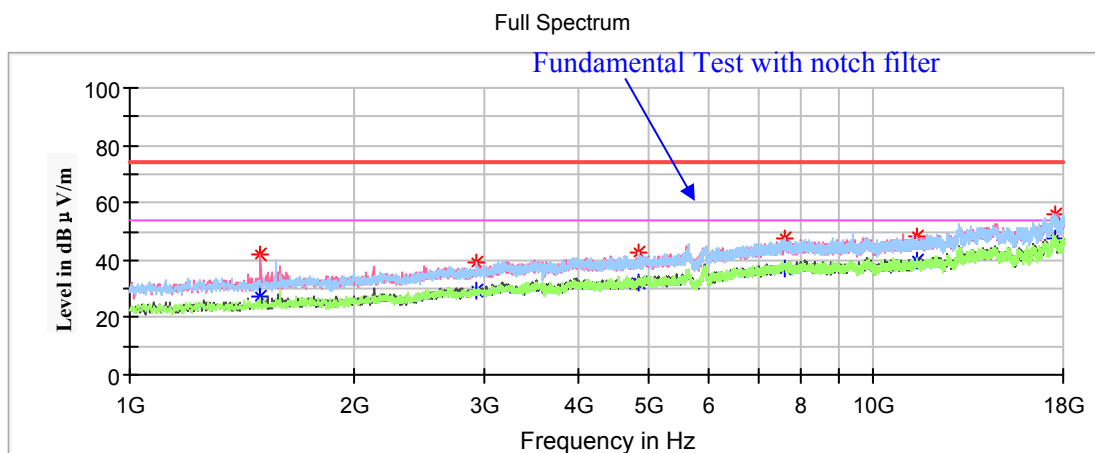
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5755MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1062.900000	36.26	---	150.0	V	284.0	-18.7	74.00	37.74
1062.900000	---	24.91	150.0	V	284.0	-18.7	54.00	29.09
2128.800000	37.78	---	150.0	V	271.0	-13.9	68.20	30.42
3228.700000	39.92	---	150.0	V	334.0	-9.5	68.20	28.28
7505.900000	---	37.82	200.0	V	156.0	1.0	54.00	16.18
7505.900000	46.65	---	200.0	V	156.0	1.0	74.00	27.35
11510.000000	---	39.38	150.0	H	354.0	2.8	54.00	14.62
11510.000000	47.74	---	150.0	H	354.0	2.8	74.00	26.26
17447.500000	57.39	---	150.0	V	182.0	8.7	68.20	10.81

High Channel: 5795MHz

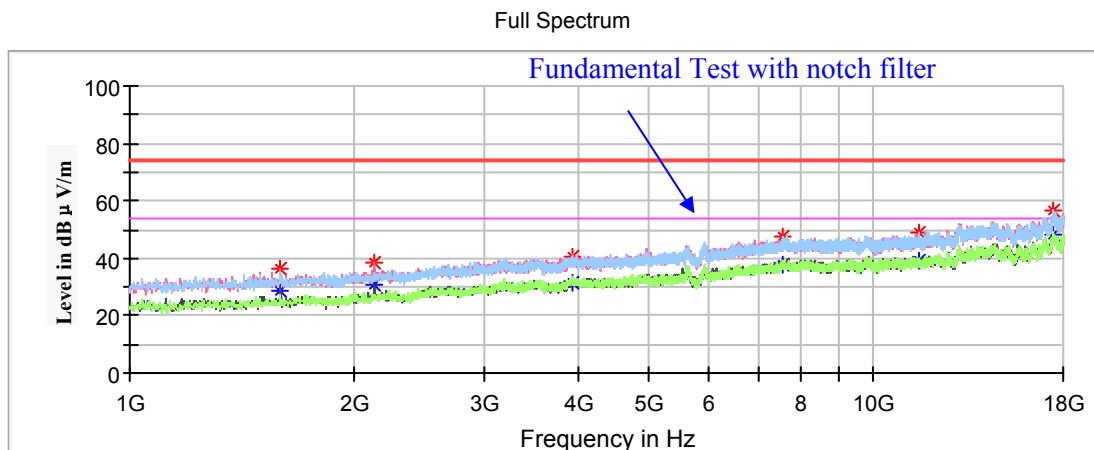
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1499.800000	41.79	---	150.0	V	225.0	-16.4	74.00	32.21
1499.800000	---	27.54	150.0	V	225.0	-16.4	54.00	26.46
2919.300000	39.48	---	150.0	H	136.0	-10.5	68.20	28.72
4830.100000	---	32.39	150.0	H	187.0	-5.5	54.00	21.61
4830.100000	42.38	---	150.0	H	187.0	-5.5	74.00	31.62
7602.800000	47.80	---	150.0	H	4.0	1.2	74.00	26.20
7602.800000	---	37.27	150.0	H	4.0	1.2	54.00	16.73
11590.000000	---	39.95	150.0	V	276.0	2.8	54.00	14.05
11590.000000	48.55	---	150.0	V	276.0	2.8	74.00	25.45
17564.800000	56.19	---	200.0	V	169.0	8.9	68.20	12.01

802.11n-HT40 Mode(Chain0+Chain1):

(Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded)

Note:

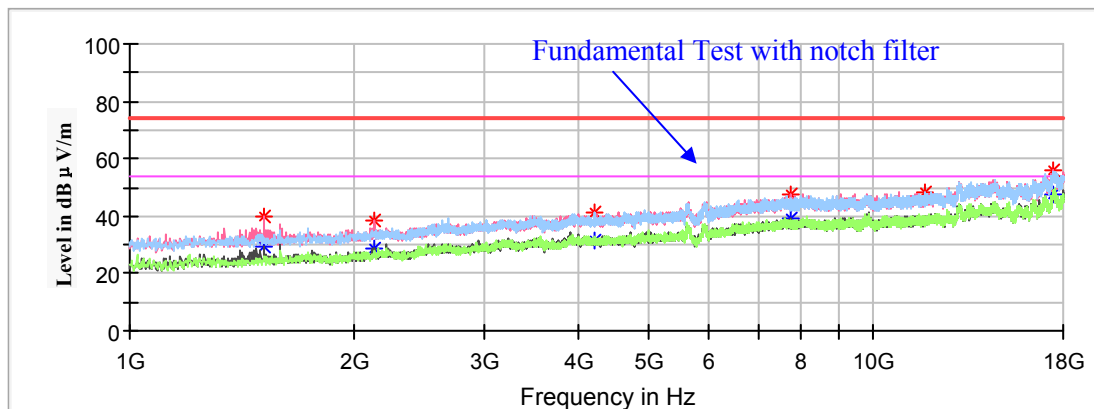
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5755MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1593.300000	---	28.43	150.0	V	245.0	-16.0	54.00	25.57
1593.300000	36.49	---	150.0	V	245.0	-16.0	74.00	37.51
2130.500000	38.48	---	150.0	V	258.0	-13.9	68.20	29.72
3947.800000	---	31.44	150.0	V	258.0	-7.2	54.00	22.56
3947.800000	40.86	---	150.0	V	258.0	-7.2	74.00	33.14
7575.600000	---	37.64	150.0	V	354.0	1.1	54.00	16.36
7575.600000	47.52	---	150.0	V	354.0	1.1	74.00	26.48
11510.000000	48.79	---	150.0	H	128.0	2.8	74.00	25.21
11510.000000	---	38.82	150.0	H	128.0	2.8	54.00	15.18
17432.200000	56.73	---	200.0	H	231.0	8.7	68.20	11.47

High Channel: 5795MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1515.100000	40.16	---	150.0	V	231.0	-16.3	74.00	33.84
1515.100000	---	29.28	150.0	V	231.0	-16.3	54.00	24.72
2130.500000	38.33	---	150.0	V	257.0	-13.9	68.20	29.87
4226.600000	41.20	---	200.0	H	40.0	-6.6	74.00	32.80
4226.600000	---	31.73	200.0	H	40.0	-6.6	54.00	22.27
7726.900000	47.37	---	150.0	V	269.0	1.4	74.00	26.63
7726.900000	---	39.21	150.0	V	269.0	1.4	54.00	14.79
11590.000000	---	38.83	200.0	H	104.0	2.8	54.00	15.17
11590.000000	48.27	---	200.0	H	104.0	2.8	74.00	25.73
17479.800000	55.69	---	150.0	V	295.0	8.8	68.20	12.51

802.11ac80 Mode(Chain0+Chain1):

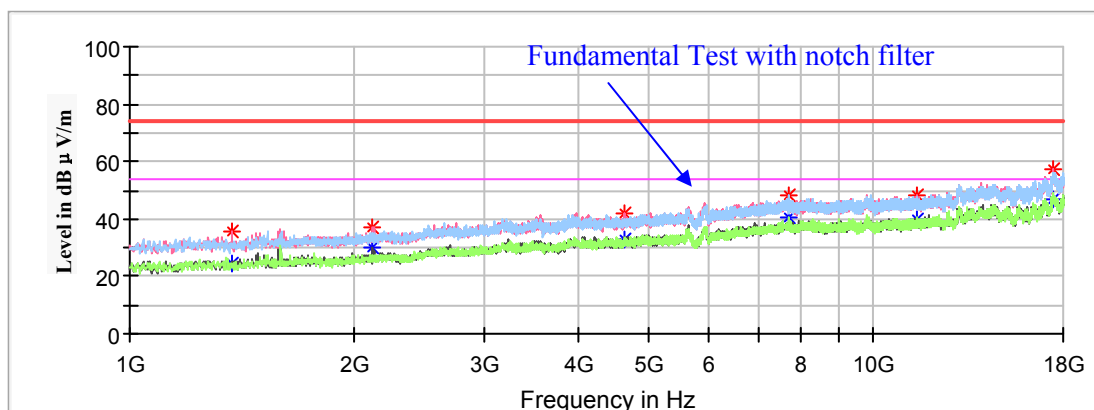
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5775MHz

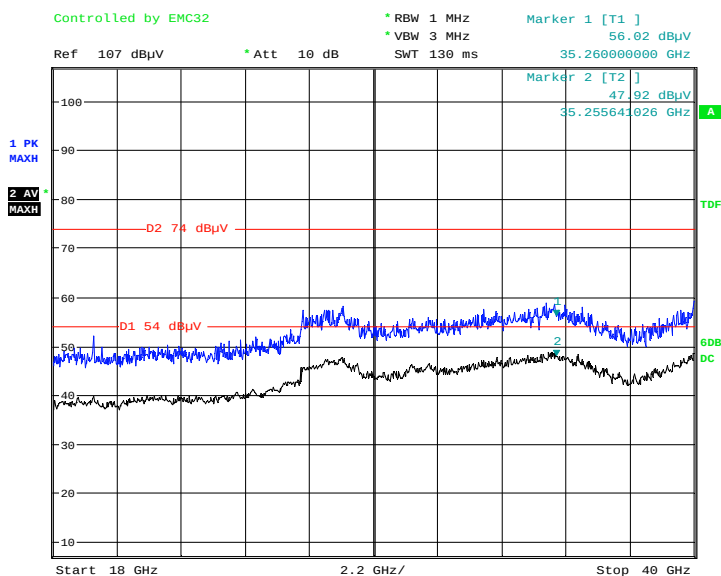
Full Spectrum



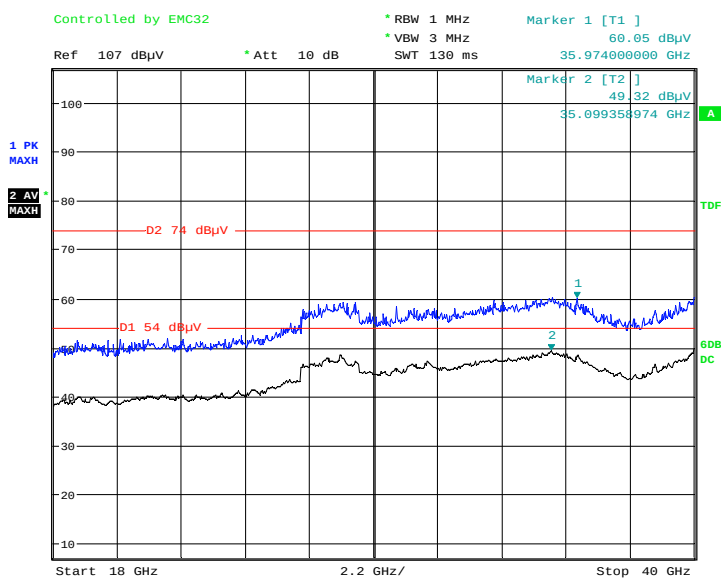
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1372.300000	---	24.56	150.0	V	287.0	-17.1	54.00	29.44
1372.300000	35.42	---	150.0	V	287.0	-17.1	74.00	38.58
2123.700000	37.08	---	200.0	V	249.0	-14.0	68.20	31.12
4622.700000	---	32.62	200.0	V	108.0	-6.0	54.00	21.38
4622.700000	41.95	---	200.0	V	108.0	-6.0	74.00	32.05
7699.700000	---	40.24	200.0	H	230.0	1.3	54.00	13.76
7699.700000	48.30	---	200.0	H	230.0	1.3	74.00	25.70
11550.000000	47.95	---	150.0	V	68.0	2.8	74.00	26.05
11550.000000	---	39.94	150.0	V	68.0	2.8	54.00	14.06
17462.800000	57.12	---	150.0	V	94.0	8.8	68.20	11.08

18GHz-40GHz(5150-5250MHz Band):

Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X, Y and Z axes of orientation, **the worst case 802.11ac20 mode high channel** in Z-axis of orientation was recorded.

Horizontal

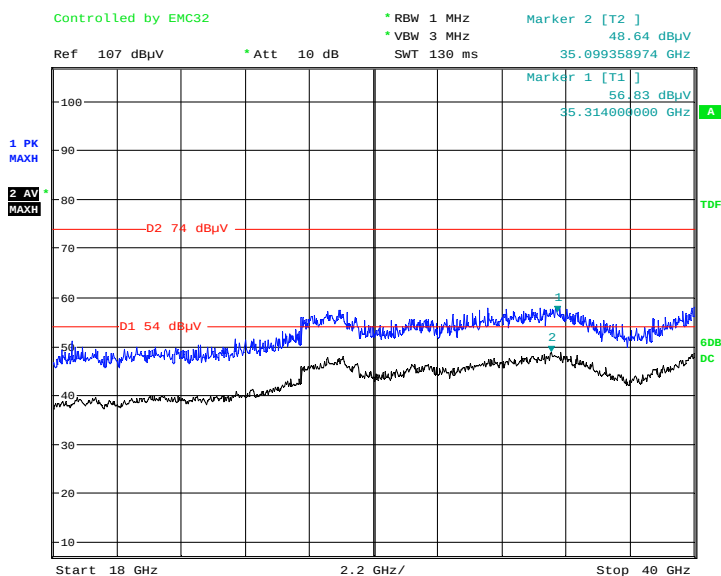
Date: 27.SEP.2020 21:36:27

Vertical

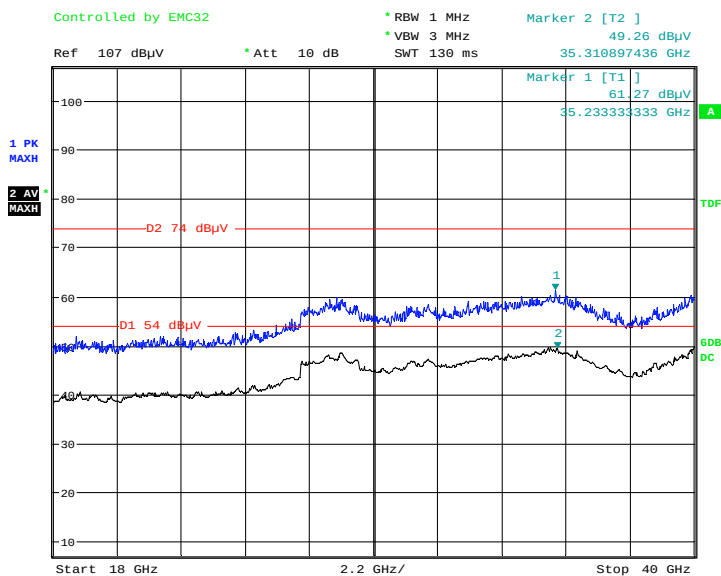
Date: 27.SEP.2020 21:44:55

18GHz-40GHz(5725-5850MHz Band):

Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X,Y and Z axes of orientation, **the worst case 802.11ac20 mode low channel** in Z-axis of orientation was recorded.

Horizontal

Date: 27.SEP.2020 21:29:36

Vertical

Date: 27.SEP.2020 21:46:38

Restricted Bands Emissions Test (5150-5250MHz Band):

Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode-Chain0: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	---	49.65	200.0	V	192.0	5.2	54.00	4.35
5150.00	54.75	---	200.0	V	192.0	5.2	74.00	19.25
High Channel: 5240MHz								
5350.00	55.51	---	150.0	V	247.0	5.7	74.00	18.49
5350.00	---	51.23	150.0	V	247.0	5.7	54.00	2.77

802.11a Mode-Chain1: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	56.03	---	200.0	H	146.0	5.2	74.00	17.97
5150.00	---	50.44	200.0	H	146.0	5.2	54.00	3.56
High Channel: 5240MHz								
5350.00	54.76	---	200.0	H	11.0	5.7	74.00	19.24
5350.00	---	51.13	200.0	H	11.0	5.7	54.00	2.87

802.11ac20 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	54.04	---	150.0	V	166.0	5.2	74.00	19.96
5150.00	---	50.71	150.0	V	166.0	5.2	54.00	3.29
High Channel: 5240MHz								
5350.00	54.12	---	150.0	V	8.0	5.7	74.00	19.88
5350.00	---	50.15	150.0	V	8.0	5.7	54.00	3.85

802.11n-HT20 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	55.16	---	200.0	V	174.0	5.2	74.00	18.84
5150.00	---	50.77	200.0	V	174.0	5.2	54.00	3.23
High Channel: 5240MHz								
5350.00	55.14	---	150.0	V	9.0	5.7	74.00	18.86
5350.00	---	50.26	150.0	V	9.0	5.7	54.00	3.74

802.11ac40 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5190MHz								
5150.00	54.06	---	200.0	V	153.0	5.2	74.00	19.94
5150.00	---	51.02	200.0	V	153.0	5.2	54.00	2.98
High Channel: 5230MHz								
5350.00	56.52	---	150.0	V	349.0	5.7	74.00	17.48
5350.00	---	51.82	150.0	V	349.0	5.7	54.00	2.18

802.11n-HT40 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5190MHz								
5150.00	55.26	---	150.0	V	146.0	5.2	74.00	18.74
5150.00	---	51.47	150.0	V	146.0	5.2	54.00	2.53
High Channel: 5230MHz								
5350.00	54.38	---	150.0	V	65.0	5.7	74.00	19.62
5350.00	---	51.45	150.0	V	65.0	5.7	54.00	2.55

802.11ac80 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5210MHz								
5150.00	56.03	---	150.0	H	340.0	5.2	74.00	17.97
5150.00	---	51.83	150.0	H	340.0	5.2	54.00	2.17
5350.00	55.50	---	200.0	H	338.0	5.7	74.00	18.50
5350.00	---	50.76	200.0	H	338.0	5.7	54.00	3.24

Restricted Bands Emissions Test (5725-5850MHz Band):

Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode-Chain0: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	53.75	---	150.0	H	98.0	6.4	68.2	14.45
5700.00	55.67	---	200.0	H	182.0	6.5	105.2	49.53
5720.00	54.49	---	200.0	H	198.0	6.5	110.8	56.31
5725.00	58.18	---	150.0	V	104.0	6.5	122.2	64.02
High Channel: 5825MHz								
5850.00	55.00	---	150.0	V	221.0	6.7	122.2	67.20
5855.00	55.28	---	200.0	H	279.0	6.7	110.8	55.52
5875.00	56.13	---	150.0	V	72.0	6.8	105.2	49.07
5925.00	55.80	---	150.0	V	187.0	6.9	68.2	12.40

802.11a Mode-Chain1: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	54.29	---	150.0	V	0.0	6.4	68.2	13.91
5700.00	54.32	---	200.0	H	279.0	6.5	105.2	50.88
5720.00	53.66	---	150.0	V	15.0	6.5	110.8	57.14
5725.00	55.46	---	200.0	H	355.0	6.5	122.2	66.74
High Channel: 5825MHz								
5850.00	54.43	---	150.0	H	184.0	6.7	122.2	67.77
5855.00	55.65	---	200.0	H	12.0	6.7	110.8	55.15
5875.00	54.71	---	200.0	H	268.0	6.8	105.2	50.49
5925.00	54.36	---	150.0	V	175.0	6.9	68.2	13.84

802.11ac20 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	54.55	---	150.0	V	166.0	6.4	68.2	13.65
5700.00	53.97	---	200.0	H	0.0	6.5	105.2	51.23
5720.00	55.42	---	150.0	V	117.0	6.5	110.8	55.38
5725.00	57.92	---	150.0	V	63.0	6.5	122.2	64.28
High Channel: 5825MHz								
5850.00	56.04	---	150.0	V	350.0	6.7	122.2	66.16
5855.00	54.58	---	200.0	H	169.0	6.7	110.8	56.22
5875.00	55.80	---	150.0	V	320.0	6.8	105.2	49.40
5925.00	55.51	---	200.0	H	13.0	6.9	68.2	12.69

802.11n-HT20 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	53.94	---	150.0	V	199.0	6.4	68.2	14.26
5700.00	53.53	---	200.0	H	1.0	6.5	105.2	51.67
5720.00	53.70	---	150.0	H	114.0	6.5	110.8	57.10
5725.00	56.71	---	200.0	V	99.0	6.5	122.2	65.49
High Channel: 5825MHz								
5850.00	54.22	---	200.0	V	292.0	6.7	122.2	67.98
5855.00	53.83	---	150.0	V	277.0	6.7	110.8	56.97
5875.00	53.51	---	150.0	H	182.0	6.8	105.2	51.69
5925.00	54.33	---	200.0	H	118.0	6.9	68.2	13.87

802.11ac40 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5755MHz								
5650.00	54.73	---	200.0	H	7.0	6.4	68.2	13.47
5700.00	56.16	---	150.0	V	350.0	6.5	105.2	49.04
5720.00	63.20	---	150.0	V	97.0	6.5	110.8	47.60
5725.00	63.88	---	200.0	V	59.0	6.5	122.2	58.32
High Channel: 5795MHz								
5850.00	54.65	---	150.0	V	0.0	6.7	122.2	67.55
5855.00	54.64	---	200.0	H	106.0	6.7	110.8	56.16
5875.00	54.62	---	150.0	H	0.0	6.8	105.2	50.58
5925.00	55.25	---	150.0	V	297.0	6.9	68.2	12.95

802.11n-HT40 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

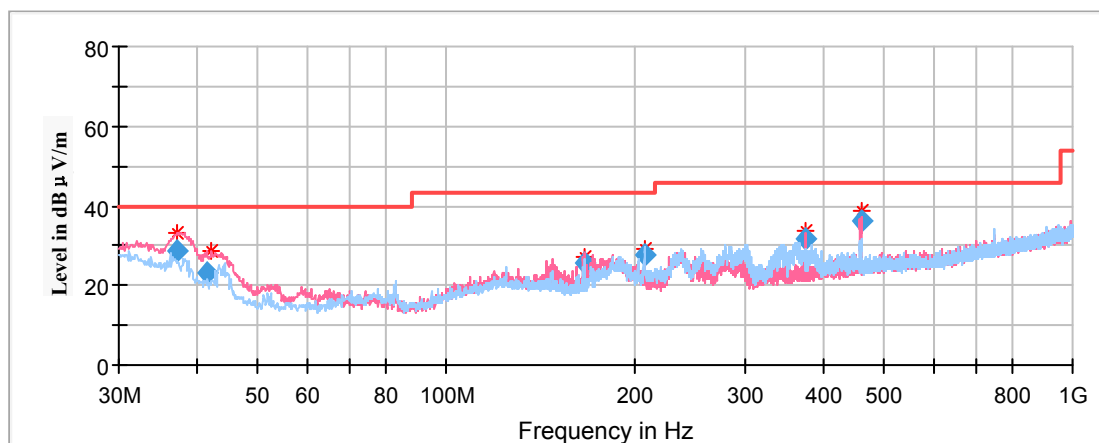
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5755MHz								
5650.00	53.96	---	200.0	H	144.0	6.4	68.2	14.24
5700.00	53.19	---	150.0	H	336.0	6.5	105.2	52.01
5720.00	56.40	---	150.0	V	88.0	6.5	110.8	54.40
5725.00	58.53	---	200.0	V	106.0	6.5	122.2	63.67
High Channel: 5795MHz								
5850.00	55.96	---	200.0	H	3.0	6.7	122.2	66.24
5855.00	54.78	---	150.0	V	258.0	6.7	110.8	56.02
5875.00	54.71	---	200.0	V	0.0	6.8	105.2	50.49
5925.00	55.18	---	150.0	V	185.0	6.9	68.2	13.02

802.11ac80 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5775MHz								
5650.00	53.14	---	200.0	H	158.0	6.4	68.2	15.06
5700.00	57.18	---	150.0	V	355.0	6.5	105.2	48.02
5720.00	60.08	---	150.0	H	140.0	6.5	110.8	50.72
5725.00	62.90	---	150.0	H	210.0	6.5	122.2	59.30
5850.00	56.73	---	150.0	V	111.0	6.7	122.2	65.47
5855.00	56.97	---	200.0	V	111.0	6.7	110.8	53.83
5875.00	55.68	---	150.0	V	92.0	6.8	105.2	49.52
5925.00	54.93	---	200.0	H	245.0	6.9	68.2	13.27

Model: L1573**30MHz-1GHz(5150-5250MHz Band):**

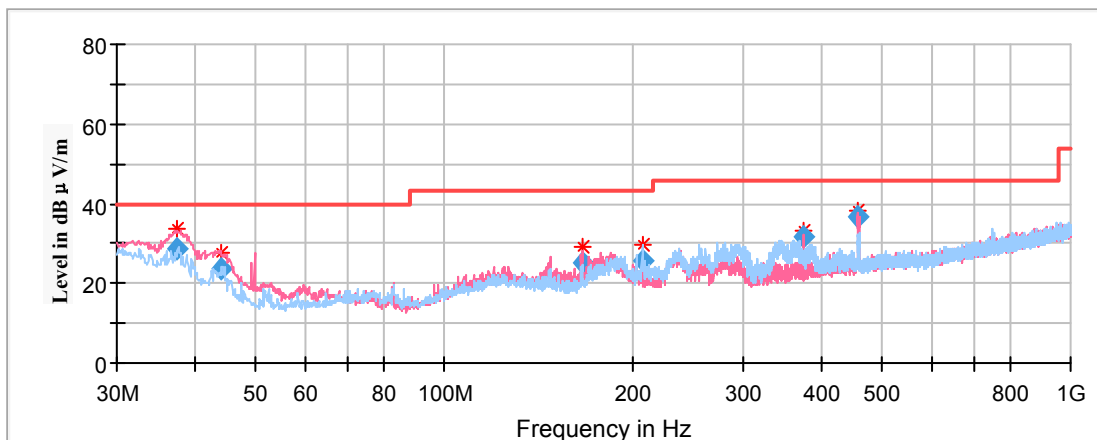
Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X, Y and Z axes of orientation, **the worst case 802.11ac20 mode high channel** in Z-axis of orientation was recorded.



Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	QuasiPeak (dBμV/m)	Height (cm)	Polar (H/V)				
37.242800	28.58	100.0	V	161.0	-9.3	40.00	11.42
41.613550	23.00	100.0	V	140.0	-12.3	40.00	17.00
166.337800	25.80	100.0	V	0.0	-13.5	43.50	17.70
207.905350	27.56	100.0	H	261.0	-12.7	43.50	15.94
374.263850	31.71	200.0	V	2.0	-9.2	46.00	14.29
459.537750	36.42	100.0	V	0.0	-7.1	46.00	9.58

30MHz-1GHz(5725-5850MHz Band):

Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X,Y and Z axes of orientation, **the worst case 802.11ac20 mode low channel** in Z-axis of orientation was recorded



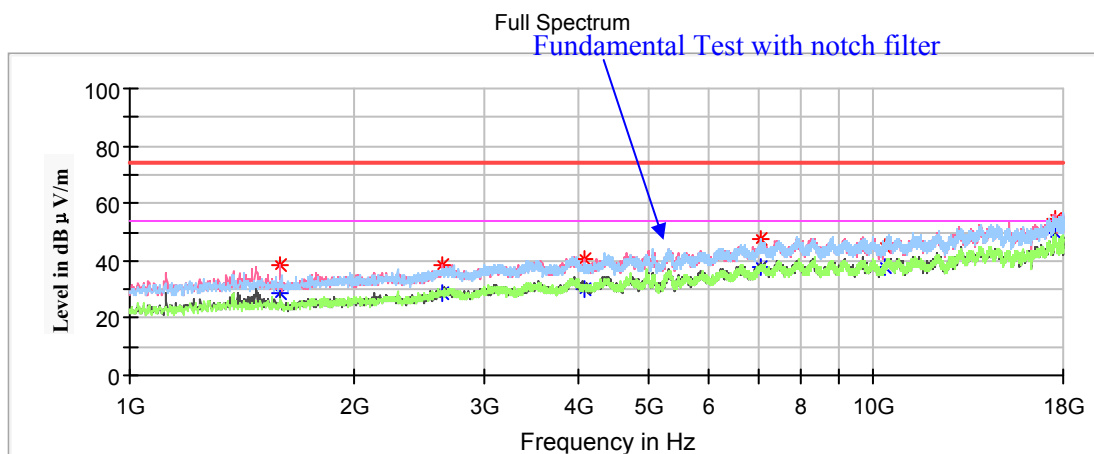
Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	QuasiPeak (dBμV/m)	Height (cm)	Polar (H/V)				
37.354200	28.76	100.0	V	322.0	-9.4	40.00	11.24
43.908350	23.54	100.0	V	2.0	-13.8	40.00	16.46
166.287100	25.26	100.0	V	258.0	-13.5	43.50	18.24
206.857950	25.54	100.0	H	270.0	-12.7	43.50	17.96
374.271050	31.46	200.0	V	0.0	-9.2	46.00	14.54
457.473200	36.54	100.0	V	353.0	-7.2	46.00	9.46

1GHz-18GHz(5150-5250MHz Band):**802.11a Mode-Chain0:**

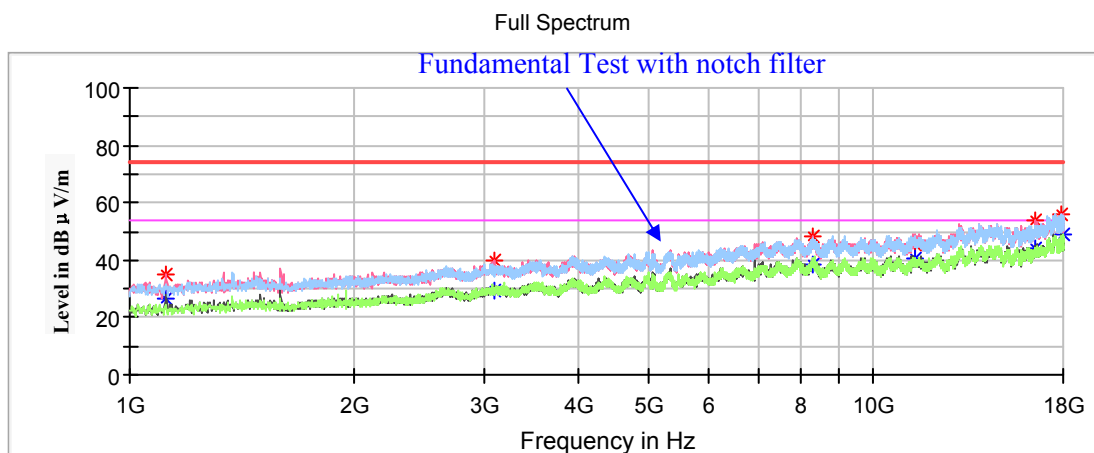
(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

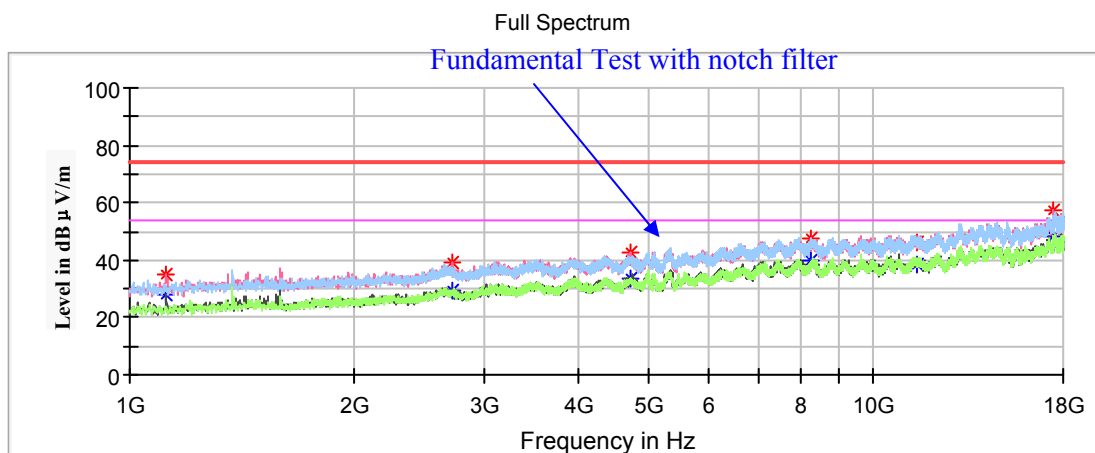
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1591.600000	38.20	---	150.0	V	271.0	-16.0	74.00	35.80
1591.600000	---	28.44	150.0	V	271.0	-16.0	54.00	25.56
2628.600000	38.50	---	150.0	V	0.0	-11.8	68.20	29.70
4075.300000	40.55	---	150.0	V	4.0	-6.9	74.00	33.45
4075.300000	---	30.09	150.0	V	4.0	-6.9	54.00	23.91
7072.400000	47.46	---	150.0	H	287.0	0.1	68.20	20.74
10360.000000	44.85	---	150.0	H	236.0	2.2	68.20	23.35
17512.100000	54.62	---	150.0	V	345.0	8.9	68.20	13.58

Middle Channel: 5200MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1119.000000	---	26.31	150.0	V	0.0	-18.4	54.00	27.69
1119.000000	35.04	---	150.0	V	0.0	-18.4	74.00	38.96
3092.700000	40.13	---	150.0	V	206.0	-9.9	68.20	28.07
8287.900000	---	38.76	150.0	V	244.0	1.5	54.00	15.24
8287.900000	48.02	---	150.0	V	244.0	1.5	74.00	25.98
11400.600000	---	40.41	150.0	V	12.0	2.8	54.00	13.59
11400.600000	45.45	---	150.0	V	12.0	2.8	74.00	28.55
16514.200000	53.52	---	150.0	V	35.0	5.5	68.20	14.68
17935.400000	56.26	---	150.0	V	129.0	8.8	74.00	17.74
17935.400000	---	48.97	150.0	V	129.0	8.8	54.00	5.03

High Channel: 5240MHz

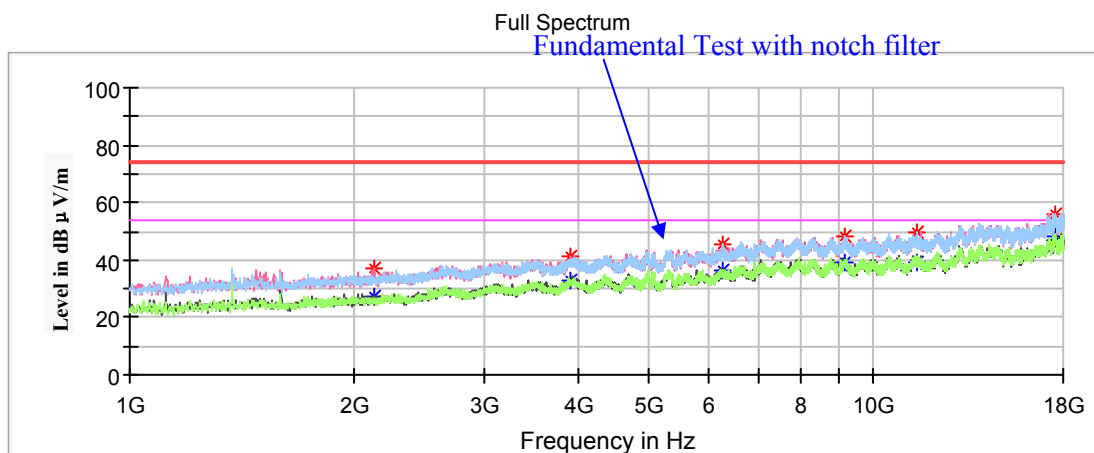
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	35.16	---	150.0	V	358.0	-18.4	74.00	38.84
1117.300000	---	27.97	150.0	V	358.0	-18.4	54.00	26.03
2708.500000	38.84	---	150.0	V	243.0	-11.5	74.00	35.16
2708.500000	---	29.64	150.0	V	243.0	-11.5	54.00	24.36
4704.300000	42.70	---	150.0	V	1.0	-5.8	74.00	31.30
4704.300000	---	33.40	150.0	V	1.0	-5.8	54.00	20.60
8259.000000	47.74	---	150.0	V	352.0	1.6	74.00	26.26
8259.000000	---	39.57	150.0	V	352.0	1.6	54.00	14.43
11480.500000	---	38.50	150.0	H	295.0	2.8	54.00	15.50
11480.500000	46.06	---	150.0	H	295.0	2.8	74.00	27.94
17495.100000	57.07	---	150.0	V	283.0	8.9	68.20	11.13

802.11a Mode-Chain1:

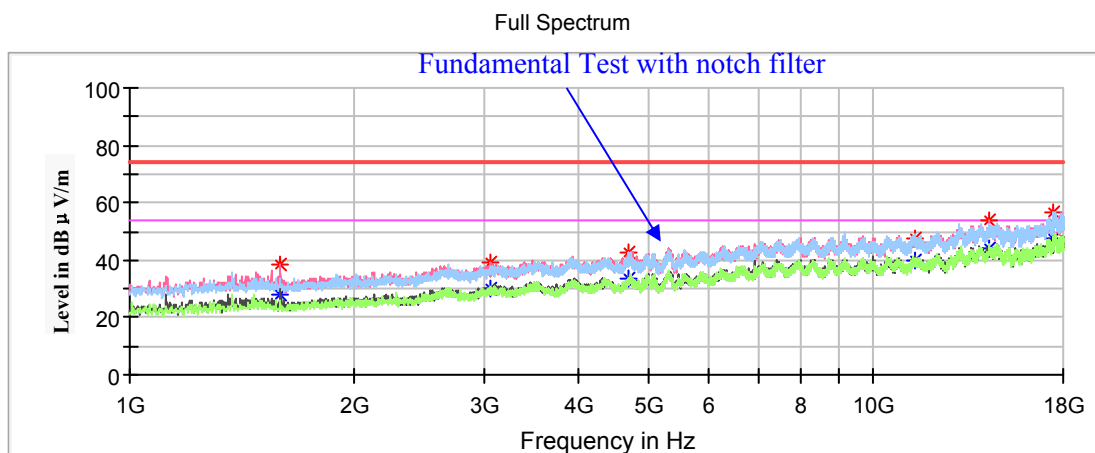
(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

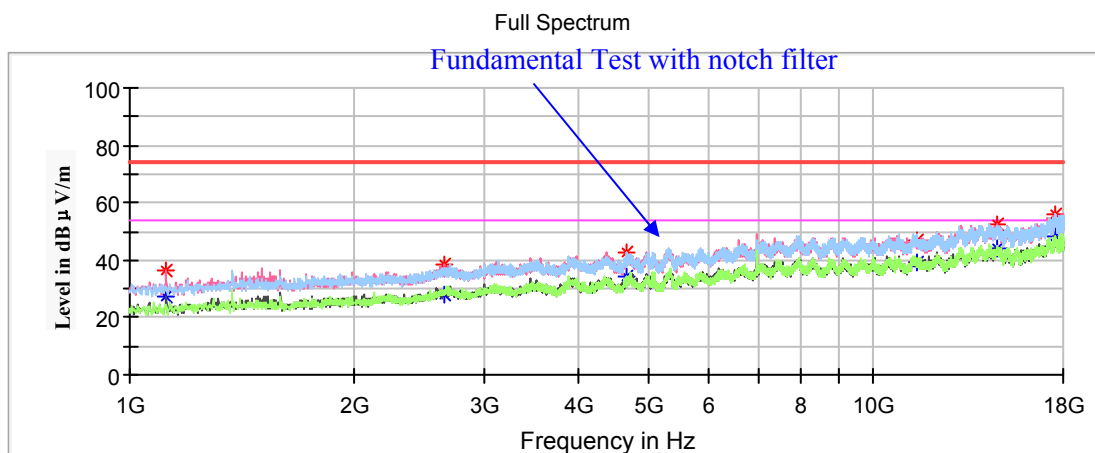
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
2130.500000	36.87	---	150.0	V	83.0	-13.9	68.20	31.33
3918.900000	---	33.21	150.0	H	326.0	-7.3	54.00	20.79
3918.900000	41.25	---	150.0	H	326.0	-7.3	74.00	32.75
6254.700000	45.34	---	150.0	H	7.0	-2.1	68.20	22.86
9166.800000	---	39.42	150.0	V	210.0	2.0	54.00	14.58
9166.800000	48.08	---	150.0	V	210.0	2.0	74.00	25.92
11443.100000	---	39.36	150.0	V	83.0	2.8	54.00	14.64
11443.100000	49.85	---	150.0	V	83.0	2.8	74.00	24.15
17583.500000	56.24	---	150.0	V	45.0	8.9	68.20	11.96

Middle Channel: 5200MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1593.300000	38.56	---	150.0	V	266.0	-16.0	74.00	35.44
1593.300000	---	27.70	150.0	V	266.0	-16.0	54.00	26.30
3058.700000	39.19	---	150.0	V	200.0	-9.9	68.20	29.01
4680.500000	42.45	---	150.0	V	239.0	-5.8	74.00	31.55
4680.500000	---	33.82	150.0	V	239.0	-5.8	54.00	20.18
11400.600000	---	39.95	150.0	V	111.0	2.8	54.00	14.05
11400.600000	47.58	---	150.0	V	111.0	2.8	74.00	26.42
14334.800000	53.97	---	150.0	V	11.0	6.4	68.20	14.23
17490.000000	56.80	---	150.0	H	64.0	8.9	68.20	11.40

High Channel: 5240MHz

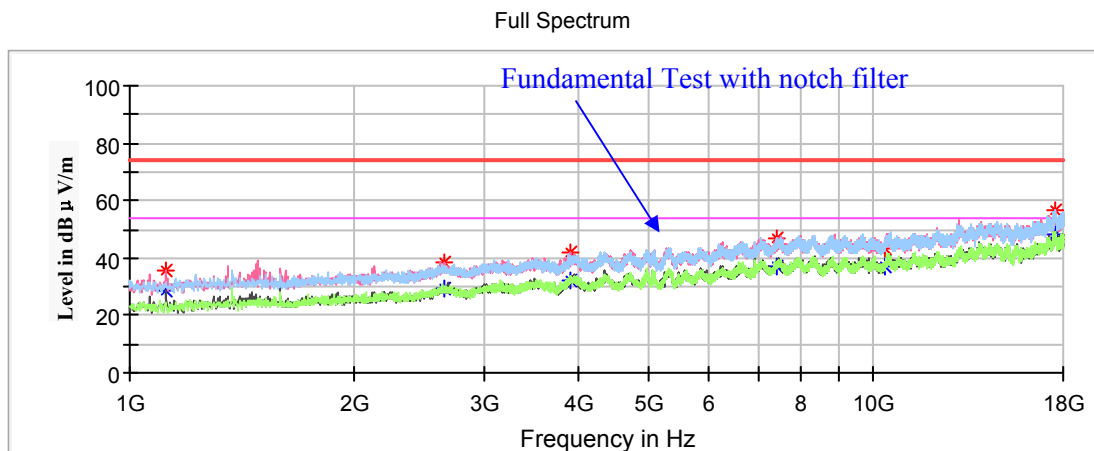
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	36.68	---	150.0	V	0.0	-18.4	74.00	37.32
1117.300000	---	27.41	150.0	V	0.0	-18.4	54.00	26.59
2654.100000	38.18	---	150.0	V	292.0	-11.7	68.20	30.02
4651.600000	42.67	---	150.0	H	15.0	-5.9	74.00	31.33
4651.600000	---	34.07	150.0	H	15.0	-5.9	54.00	19.93
11480.500000	---	39.23	150.0	V	306.0	2.8	54.00	14.77
11480.500000	47.19	---	150.0	V	306.0	2.8	74.00	26.81
14702.000000	52.65	---	150.0	V	252.0	6.0	68.20	15.55
17513.800000	55.94	---	150.0	H	346.0	8.9	68.20	12.26

802.11ac20 Mode(Chain0+Chain1):

(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

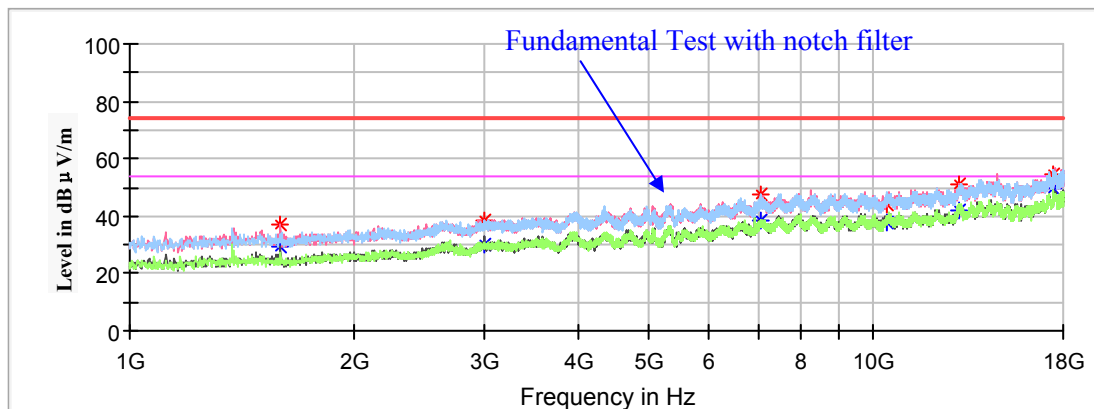
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1119.000000	---	28.53	150.0	V	5.0	-18.4	54.00	25.47
1119.000000	35.49	---	150.0	V	5.0	-18.4	74.00	38.51
2655.800000	38.39	---	150.0	V	282.0	-11.7	68.20	29.81
3920.600000	---	32.15	150.0	V	178.0	-7.3	54.00	21.85
3920.600000	42.27	---	150.0	V	178.0	-7.3	74.00	31.73
7395.400000	---	37.08	150.0	V	1.0	0.8	54.00	16.92
7395.400000	46.98	---	150.0	V	1.0	0.8	74.00	27.02
10360.000000	43.40	---	150.0	V	1.0	2.2	68.20	24.80
17563.100000	56.58	---	150.0	V	38.0	8.9	68.20	11.62

Middle Channel: 5200MHz

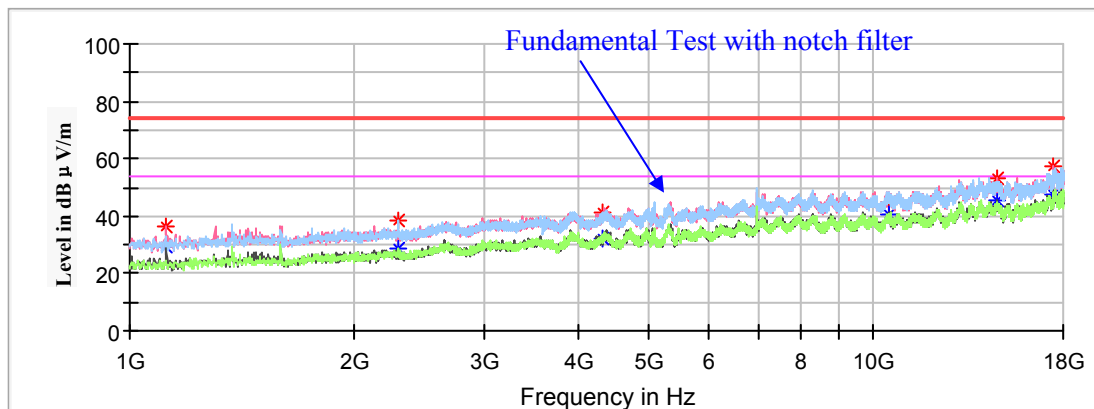
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1595.000000	---	29.23	150.0	V	265.0	-16.0	54.00	24.77
1595.000000	36.88	---	150.0	V	265.0	-16.0	74.00	37.12
2999.200000	38.71	---	150.0	H	354.0	-10.1	68.20	29.49
7058.800000	47.30	---	150.0	H	334.0	0.1	68.20	20.90
10400.000000	43.95	---	150.0	V	10.0	2.2	68.20	24.25
13025.800000	51.29	---	150.0	V	252.0	5.2	68.20	16.91
17498.500000	54.36	---	150.0	V	212.0	8.9	68.20	13.84

High Channel: 5240MHz

Full Spectrum



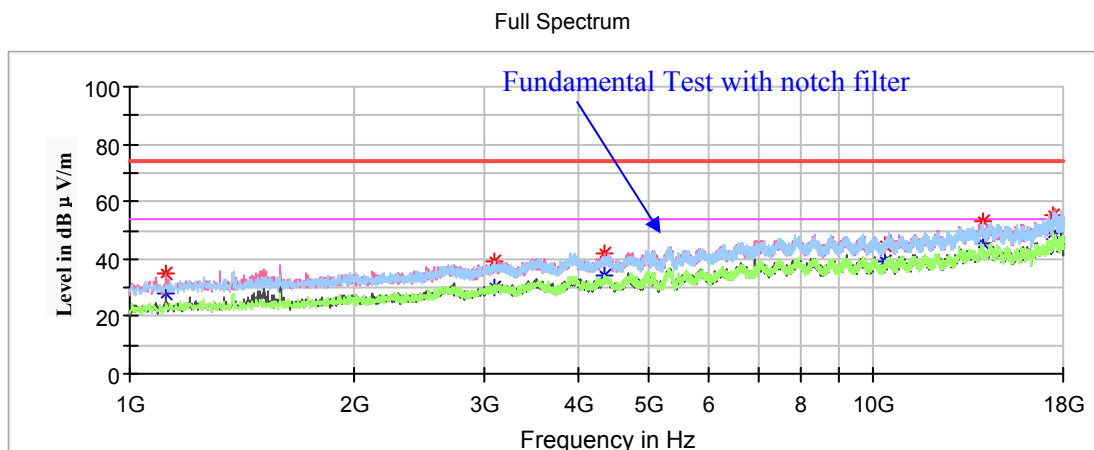
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	29.67	150.0	V	11.0	-18.4	54.00	24.33
1117.300000	36.69	---	150.0	V	11.0	-18.4	74.00	37.31
2293.700000	---	28.47	150.0	H	54.0	-13.3	54.00	25.53
2293.700000	38.50	---	150.0	H	54.0	-13.3	74.00	35.50
4332.000000	---	32.18	150.0	V	34.0	-6.5	54.00	21.82
4332.000000	41.19	---	150.0	V	34.0	-6.5	74.00	32.81
10480.000000	44.89	---	150.0	H	249.0	2.3	68.20	23.31
14669.700000	53.26	---	150.0	V	174.0	6.0	68.20	14.94
17500.200000	57.24	---	150.0	V	85.0	8.9	68.20	10.96

802.11n-HT20 Mode(Chain0+Chain1):

Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded

Note:

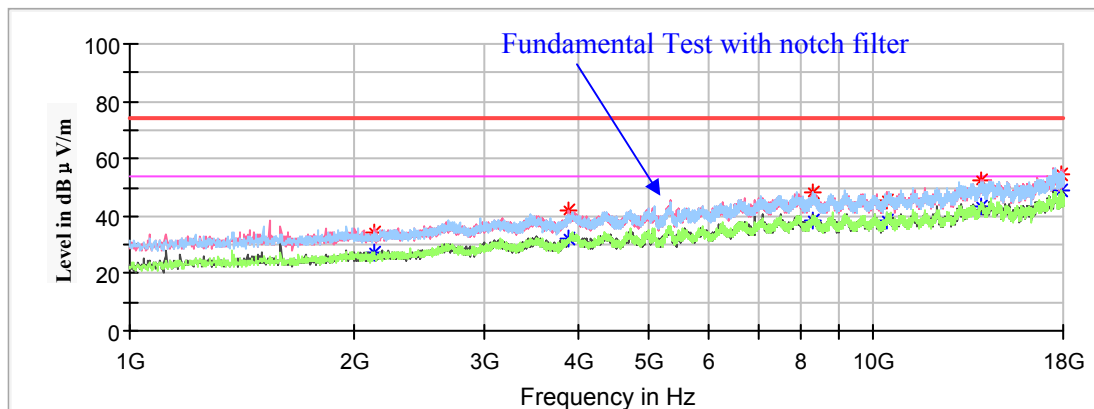
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5180MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1119.000000	---	28.13	150.0	V	0.0	-18.4	54.00	25.87
1119.000000	35.17	---	150.0	V	0.0	-18.4	74.00	38.83
3096.100000	39.08	---	150.0	V	61.0	-9.9	68.20	29.12
4355.800000	---	34.13	150.0	V	99.0	-6.4	54.00	19.87
4355.800000	42.01	---	150.0	V	99.0	-6.4	74.00	31.99
10360.000000	44.75	---	150.0	H	283.0	2.2	68.20	23.45
14013.500000	52.80	---	150.0	V	280.0	6.2	68.20	15.40
17490.000000	55.10	---	150.0	H	219.0	8.9	68.20	13.10

Middle Channel: 5200MHz

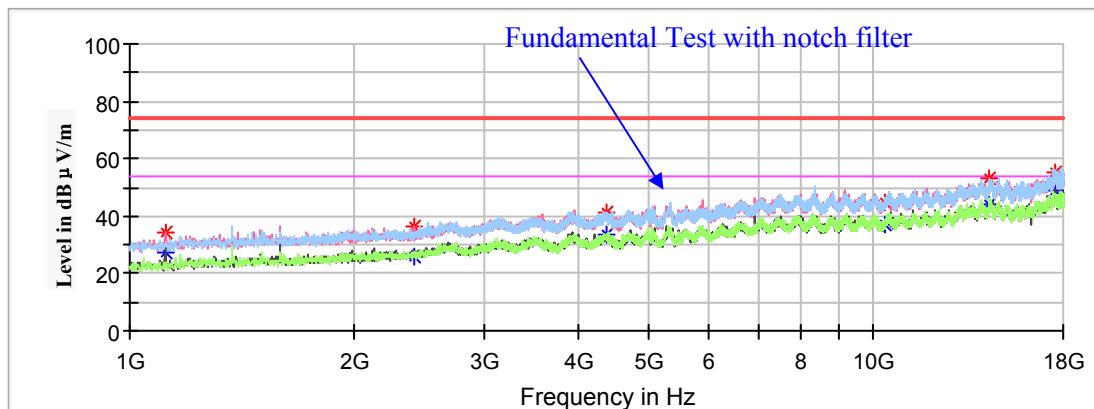
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
2127.100000	34.50	---	150.0	V	265.0	-13.9	68.20	33.70
3900.200000	---	32.37	150.0	H	334.0	-7.4	54.00	21.63
3900.200000	41.68	---	150.0	H	334.0	-7.4	74.00	32.32
8301.500000	---	38.52	150.0	V	331.0	1.5	54.00	15.48
8301.500000	47.97	---	150.0	V	331.0	1.5	74.00	26.03
10400.000000	45.25	---	150.0	H	117.0	2.2	68.20	22.95
13942.100000	52.43	---	150.0	V	9.0	6.1	68.20	15.77
17935.400000	54.28	---	150.0	V	18.0	8.8	74.00	19.72
17935.400000	---	48.78	150.0	V	18.0	8.8	54.00	5.22

High Channel: 5240MHz

Full Spectrum



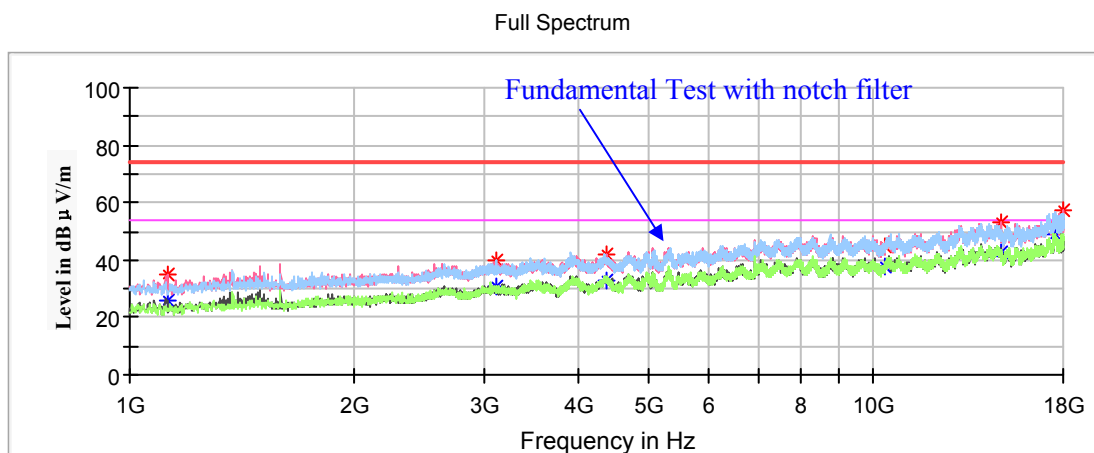
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1115.600000	34.60	---	150.0	V	0.0	-18.4	74.00	39.40
1115.600000	---	27.28	150.0	V	0.0	-18.4	54.00	26.72
2411.000000	36.32	---	150.0	V	26.0	-12.8	68.20	31.88
4377.900000	---	33.33	150.0	V	90.0	-6.4	54.00	20.67
4377.900000	41.41	---	150.0	V	90.0	-6.4	74.00	32.59
10480.000000	44.71	---	150.0	V	64.0	2.3	68.20	23.49
14348.400000	53.23	---	150.0	V	14.0	6.4	68.20	14.97
17541.000000	55.55	---	150.0	H	36.0	8.9	68.20	12.65

802.11ac40 Mode(Chain0+Chain1):

(Pre-scan in the X, Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

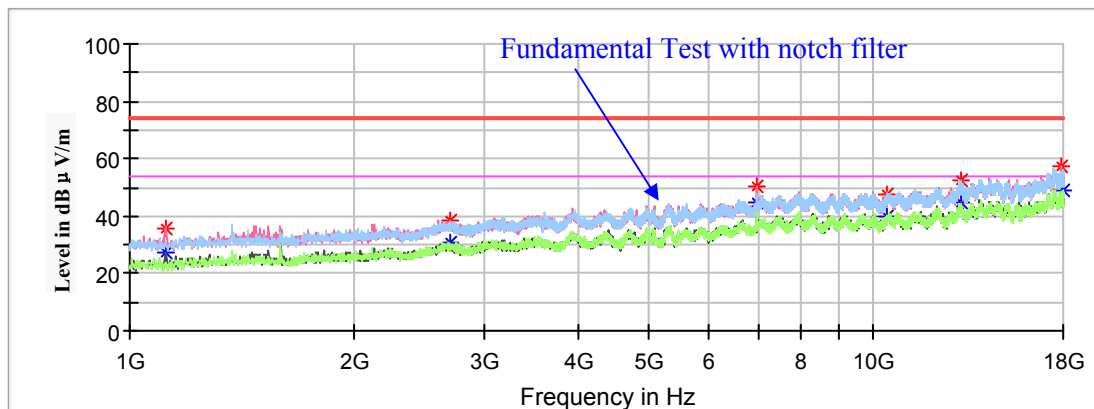
1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5190MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1122.400000	---	25.70	150.0	V	0.0	-18.4	54.00	28.30
1122.400000	35.00	---	150.0	V	0.0	-18.4	74.00	39.00
3113.100000	39.69	---	150.0	H	301.0	-9.8	68.20	28.51
4379.600000	---	33.13	150.0	V	12.0	-6.4	54.00	20.87
4379.600000	42.15	---	150.0	V	12.0	-6.4	74.00	31.85
10380.000000	44.59	---	150.0	V	311.0	2.2	68.20	23.61
14814.200000	52.85	---	150.0	V	4.0	5.6	68.20	15.35
17967.700000	---	49.19	150.0	H	29.0	8.9	54.00	4.81
17967.700000	57.43	---	150.0	H	29.0	8.9	74.00	16.57

High Channel: 5230MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1120.700000	---	27.36	150.0	V	0.0	-18.4	54.00	26.64
1120.700000	35.88	---	150.0	V	0.0	-18.4	74.00	38.12
2701.700000	---	30.57	150.0	V	352.0	-11.5	54.00	23.43
2701.700000	38.60	---	150.0	V	352.0	-11.5	74.00	35.40
6972.100000	50.63	---	150.0	V	121.0	-0.1	68.20	17.57
10460.000000	47.23	---	150.0	H	349.0	2.3	68.20	20.97
13122.700000	52.31	---	150.0	V	96.0	5.3	68.20	15.89
17940.500000	57.19	---	150.0	V	172.0	8.8	74.00	16.81
17940.500000	---	49.17	150.0	V	256.0	8.8	54.00	4.83

802.11n-HT40 Mode(Chain0+Chain1):

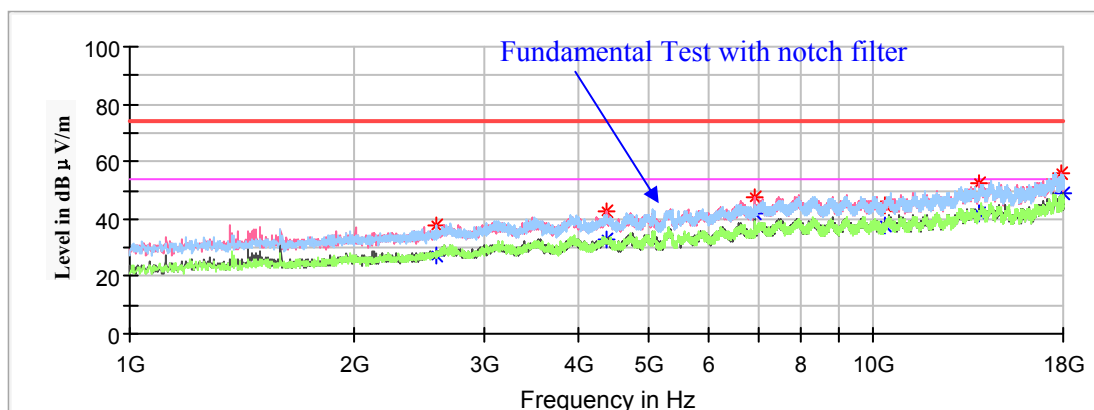
Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded

Note:

1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5190MHz

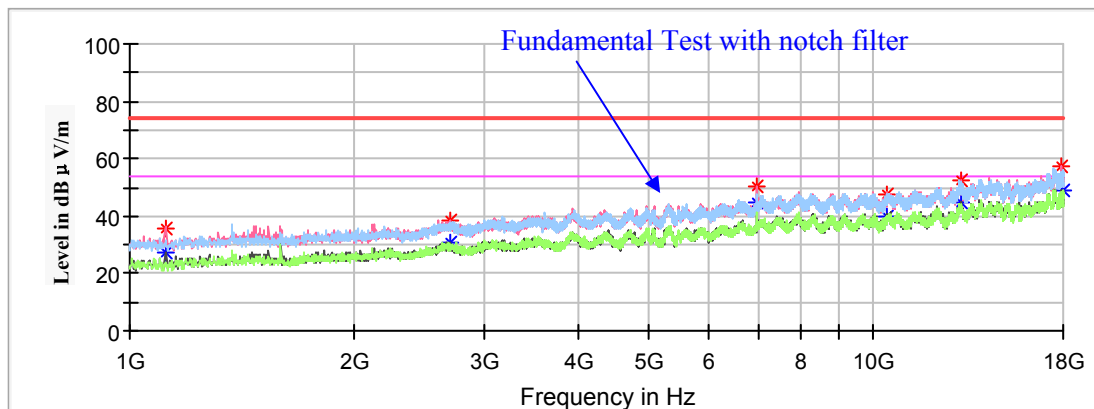
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
2579.300000	37.89	---	150.0	H	169.0	-12.1	68.20	30.31
4376.200000	---	33.01	150.0	H	356.0	-6.4	54.00	20.99
4376.200000	42.34	---	150.0	H	356.0	-6.4	74.00	31.66
6919.400000	47.38	---	150.0	V	141.0	-0.2	68.20	20.82
10380.000000	45.01	---	150.0	V	345.0	2.2	68.20	23.19
13904.700000	52.11	---	150.0	V	358.0	6.1	68.20	16.09
17938.800000	56.23	---	150.0	V	0.0	8.8	74.00	17.77
17938.800000	---	48.89	150.0	V	0.0	8.8	54.00	5.11

High Channel: 5230MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1120.700000	---	27.36	150.0	V	0.0	-18.4	54.00	26.64
1120.700000	35.88	---	150.0	V	0.0	-18.4	74.00	38.12
2701.700000	---	30.57	150.0	V	352.0	-11.5	54.00	23.43
2701.700000	38.60	---	150.0	V	352.0	-11.5	74.00	35.40
6972.100000	50.63	---	150.0	V	121.0	-0.1	68.20	17.57
10460.000000	47.23	---	150.0	H	349.0	2.3	68.20	20.97
13122.700000	52.31	---	150.0	V	96.0	5.3	68.20	15.89
17940.500000	57.19	---	150.0	V	172.0	8.8	74.00	16.81
17940.500000	---	49.17	150.0	V	172.0	8.8	54.00	4.83

802.11ac80 Mode(Chain0+Chain1):

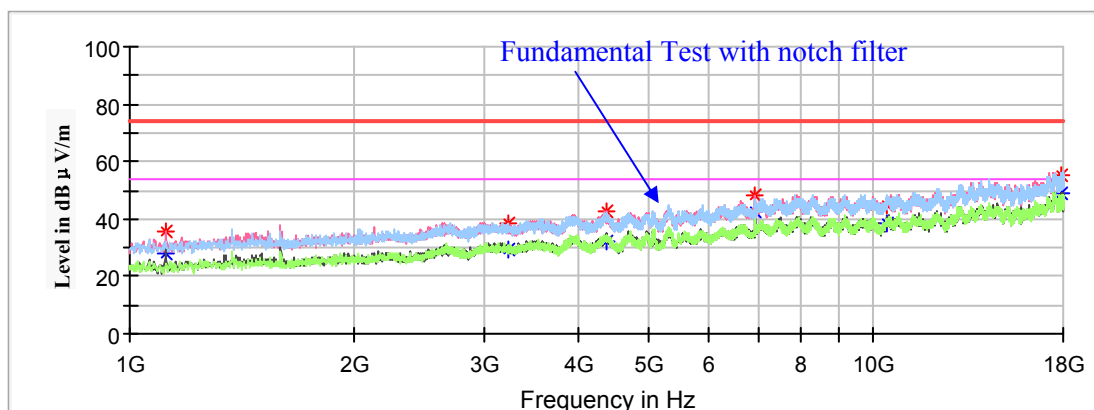
Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded

Note:

1. This test was performed with the 5150-5250MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5210MHz

Full Spectrum



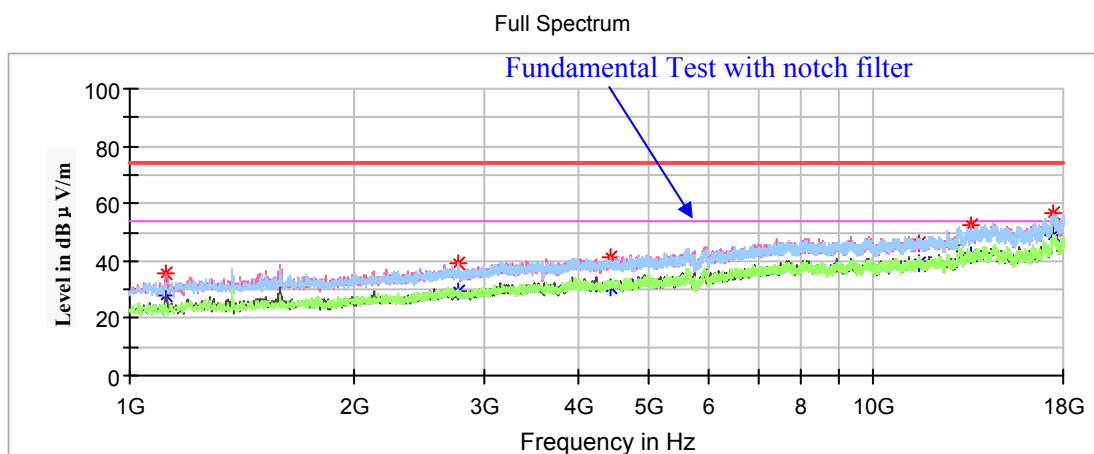
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	27.92	150.0	V	0.0	-18.4	54.00	26.08
1117.300000	35.61	---	150.0	V	0.0	-18.4	74.00	38.39
3220.200000	38.74	---	150.0	H	0.0	-9.5	68.20	29.46
4388.100000	---	32.19	150.0	H	300.0	-6.4	54.00	21.81
4388.100000	42.40	---	150.0	H	300.0	-6.4	74.00	31.60
6946.600000	48.47	---	150.0	V	149.0	-0.2	68.20	19.73
10420.000000	44.78	---	150.0	H	313.0	2.3	68.20	23.42
17938.800000	54.91	---	150.0	H	185.0	8.8	74.00	19.09
17938.800000	---	48.92	150.0	H	185.0	8.8	54.00	5.08

1GHz-18GHz(5725-5850MHz Band):**802.11a Mode-Chain0:**

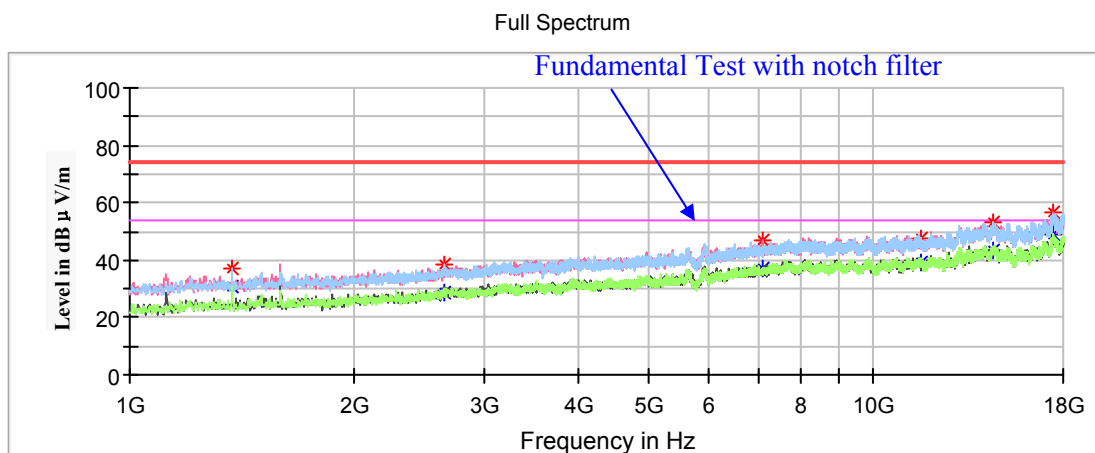
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

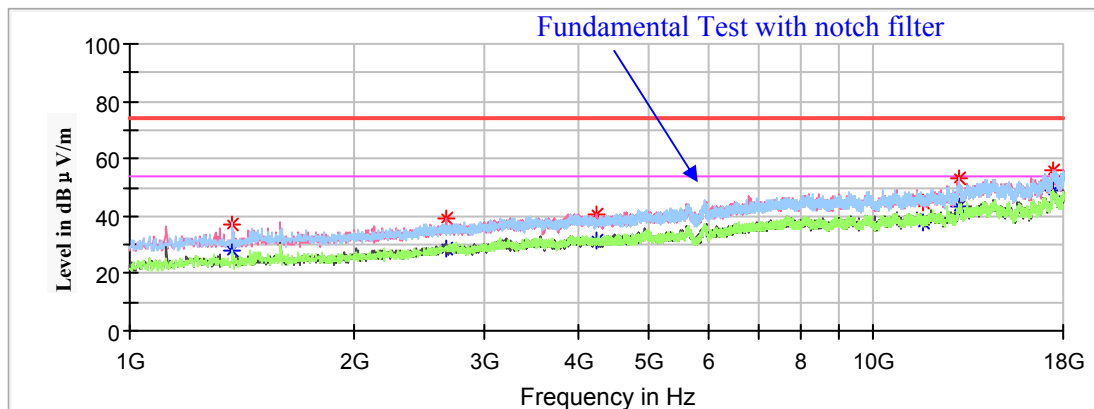
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1115.600000	---	27.72	150.0	V	0.0	-18.4	54.00	26.28
1115.600000	35.63	---	150.0	V	0.0	-18.4	74.00	38.37
2766.300000	---	29.32	150.0	H	0.0	-11.2	54.00	24.68
2766.300000	39.28	---	150.0	H	0.0	-11.2	74.00	34.72
4440.800000	41.39	---	150.0	V	191.0	-6.3	68.20	26.81
11490.000000	45.89	---	150.0	V	72.0	2.8	74.00	28.11
11490.000000	---	39.01	150.0	V	72.0	2.8	54.00	14.99
13508.600000	52.47	---	150.0	V	230.0	5.7	68.20	15.73
17459.400000	56.84	---	150.0	V	323.0	8.8	68.20	11.36

Middle Channel: 5785MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
1372.300000	---	30.47	150.0	H	282.0	-17.1	54.00	23.53
1372.300000	36.79	---	150.0	H	282.0	-17.1	74.00	37.21
2650.700000	38.39	---	150.0	H	63.0	-11.7	68.20	29.81
7097.900000	46.75	---	150.0	V	11.0	0.2	68.20	21.45
11570.000000	---	39.25	150.0	V	22.0	2.8	54.00	14.75
11570.000000	47.82	---	150.0	V	22.0	2.8	74.00	26.18
14504.800000	53.02	---	150.0	H	116.0	6.5	68.20	15.18
17500.200000	56.38	---	150.0	V	331.0	8.9	68.20	11.82

High Channel: 5825MHz

Full Spectrum



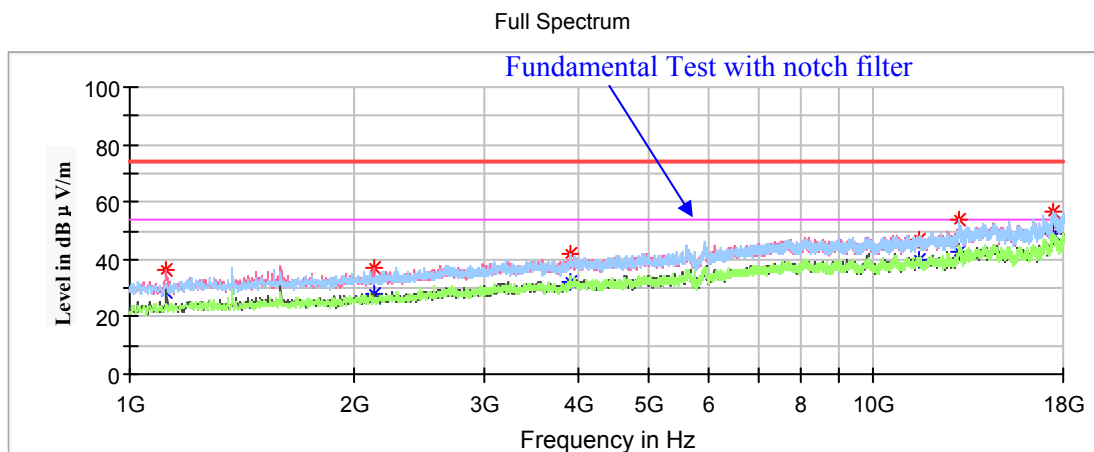
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1372.300000	---	27.80	150.0	H	296.0	-17.1	54.00	26.20
1372.300000	37.01	---	150.0	H	296.0	-17.1	74.00	36.99
2660.900000	38.90	---	150.0	V	125.0	-11.7	68.20	29.30
4238.500000	---	31.78	150.0	V	1.0	-6.6	54.00	22.22
4238.500000	40.71	---	150.0	V	1.0	-6.6	74.00	33.29
11650.000000	---	37.95	150.0	V	87.0	2.8	54.00	16.05
11650.000000	44.54	---	150.0	V	87.0	2.8	74.00	29.46
13054.700000	53.09	---	150.0	H	245.0	5.3	68.20	15.11
17445.800000	56.29	---	150.0	V	112.0	8.7	68.20	11.91

802.11a Mode-Chain1:

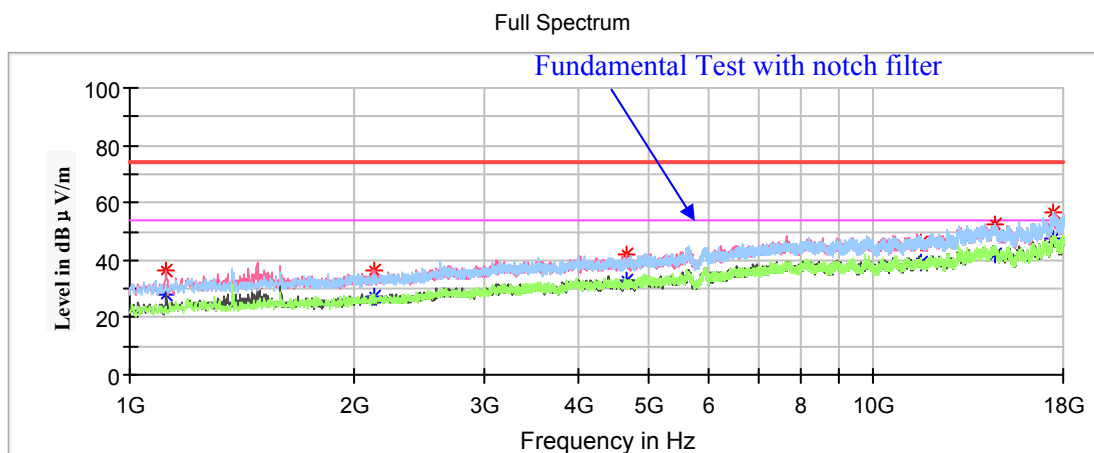
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

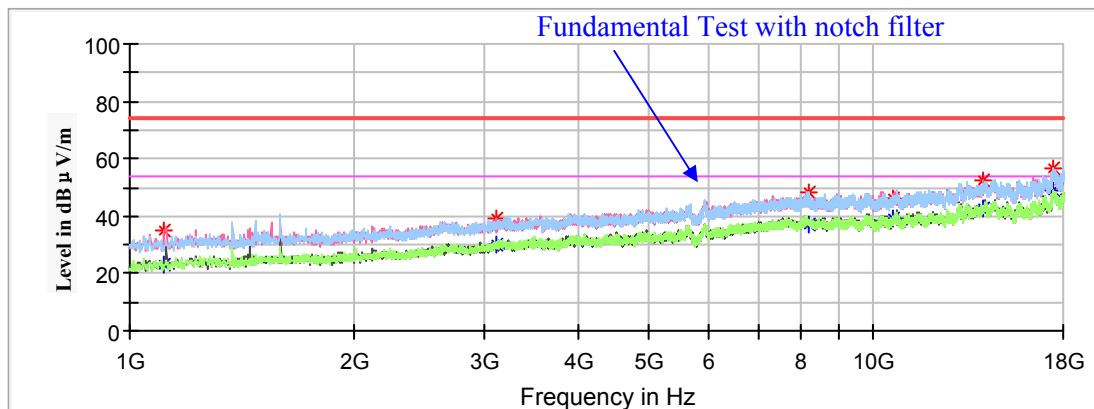
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	28.98	150.0	V	4.0	-18.4	54.00	25.02
1117.300000	36.09	---	150.0	V	4.0	-18.4	74.00	37.91
2125.400000	37.28	---	150.0	V	271.0	-14.0	68.20	30.92
3917.200000	---	32.50	150.0	H	63.0	-7.3	54.00	21.50
3917.200000	41.70	---	150.0	H	63.0	-7.3	74.00	32.30
11490.000000	---	40.08	150.0	H	36.0	2.8	54.00	13.92
11490.000000	47.10	---	150.0	H	36.0	2.8	74.00	26.90
13054.700000	53.52	---	150.0	H	2.0	5.3	68.20	14.68
17444.100000	56.92	---	150.0	H	356.0	8.7	68.20	11.28

Middle Channel: 5785MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	28.01	150.0	V	1.0	-18.4	54.00	25.99
1117.300000	36.28	---	150.0	V	1.0	-18.4	74.00	37.72
2128.800000	36.65	---	150.0	V	270.0	-13.9	68.20	31.55
4643.100000	---	33.14	150.0	V	345.0	-5.9	54.00	20.86
4643.100000	42.16	---	150.0	V	345.0	-5.9	74.00	31.84
11570.000000	46.13	---	150.0	V	116.0	2.8	74.00	27.87
11570.000000	---	38.95	150.0	V	116.0	2.8	54.00	15.05
14572.800000	52.74	---	150.0	H	334.0	6.3	68.20	15.46
17486.600000	56.57	---	150.0	V	65.0	8.8	68.20	11.63

High Channel: 5825MHz

Full Spectrum



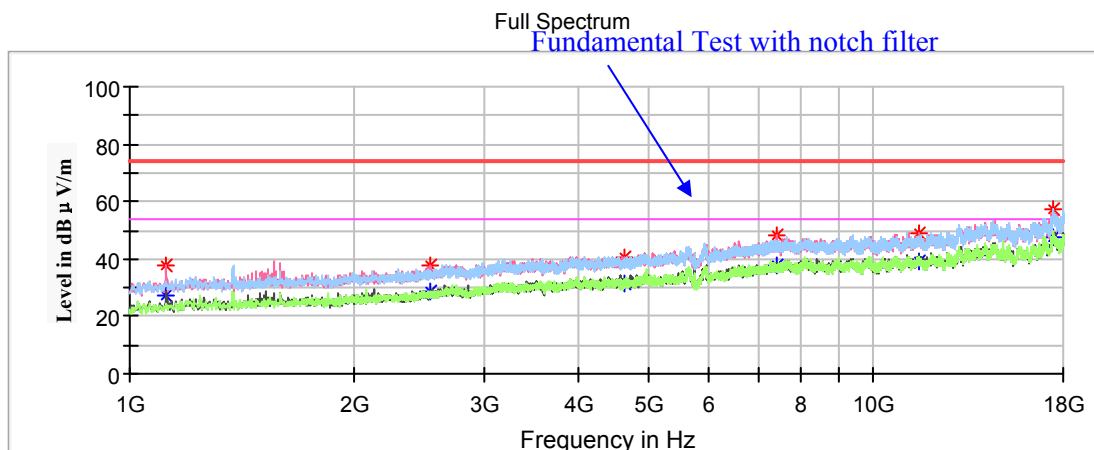
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1113.900000	---	23.15	150.0	V	0.0	-18.5	54.00	30.85
1113.900000	35.21	---	150.0	V	0.0	-18.5	74.00	38.79
3118.200000	39.19	---	150.0	V	150.0	-9.8	68.20	29.01
8168.900000	---	37.00	150.0	V	73.0	1.6	54.00	17.00
8168.900000	48.18	---	150.0	V	73.0	1.6	74.00	25.82
11650.000000	---	38.91	150.0	H	345.0	2.8	54.00	15.09
11650.000000	46.06	---	150.0	H	345.0	2.8	74.00	27.94
14027.100000	52.49	---	150.0	V	266.0	6.2	68.20	15.71
17456.000000	56.71	---	150.0	H	206.0	8.7	68.20	11.49

802.11ac20 Mode(Chain0+Chain1):

(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

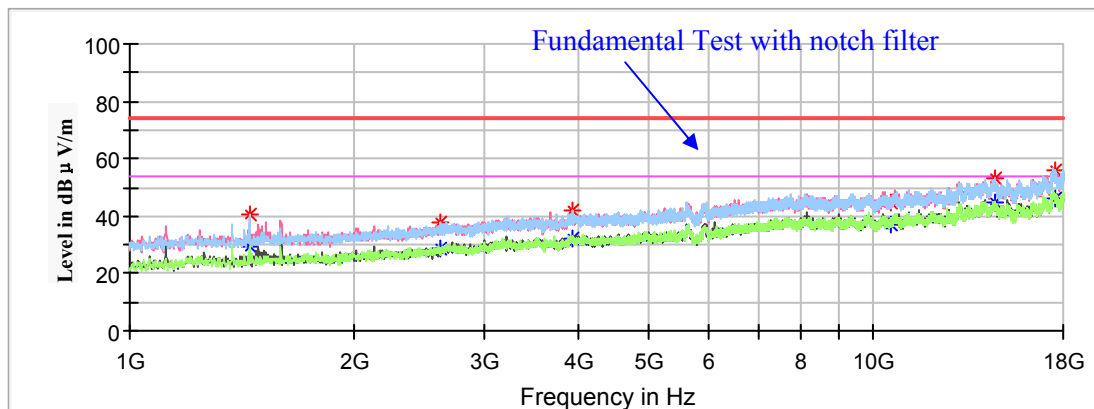
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

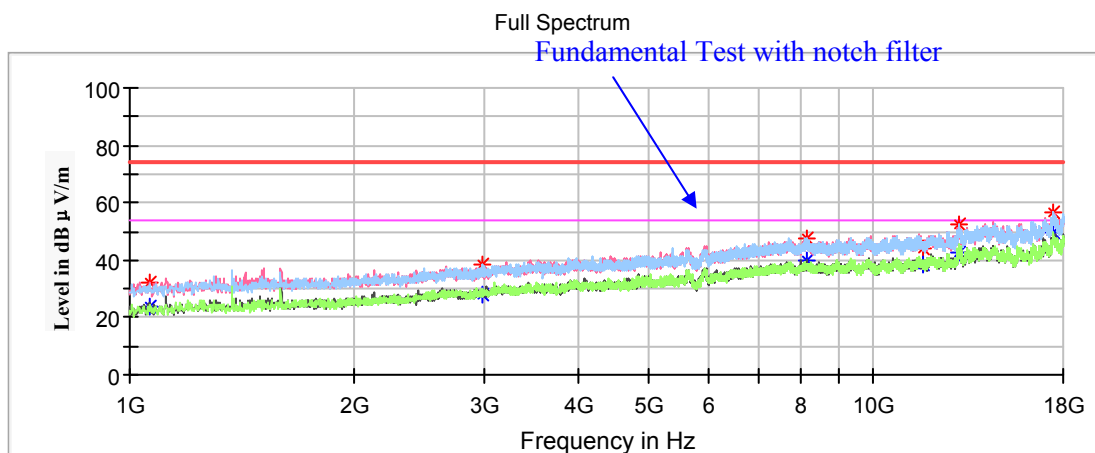
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	27.06	150.0	V	358.0	-18.4	54.00	26.94
1117.300000	37.55	---	150.0	V	358.0	-18.4	74.00	36.45
2541.900000	37.97	---	150.0	V	48.0	-12.2	68.20	30.23
4617.600000	---	31.39	150.0	H	348.0	-6.0	54.00	22.61
4617.600000	40.79	---	150.0	H	348.0	-6.0	74.00	33.21
7412.400000	---	37.52	150.0	V	61.0	0.8	54.00	16.48
7412.400000	48.09	---	150.0	V	61.0	0.8	74.00	25.91
11490.000000	48.86	---	150.0	V	124.0	2.8	74.00	25.14
11490.000000	---	39.25	150.0	V	124.0	2.8	54.00	14.75
17418.600000	57.11	---	150.0	H	299.0	8.6	68.20	11.09

Middle Channel: 5785MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1447.100000	---	29.65	150.0	H	207.0	-16.6	54.00	24.35
1447.100000	40.80	---	150.0	H	207.0	-16.6	74.00	33.20
2611.600000	37.88	---	150.0	H	271.0	-11.9	68.20	30.32
3947.800000	---	31.98	150.0	H	258.0	-7.2	54.00	22.02
3947.800000	41.87	---	150.0	H	258.0	-7.2	74.00	32.13
11570.000000	44.99	---	150.0	H	195.0	2.8	74.00	29.01
11570.000000	---	37.28	150.0	H	195.0	2.8	54.00	16.72
14593.200000	53.02	---	150.0	H	130.0	6.3	68.20	15.18
17595.400000	56.09	---	150.0	V	200.0	8.9	68.20	12.11

High Channel: 5825MHz

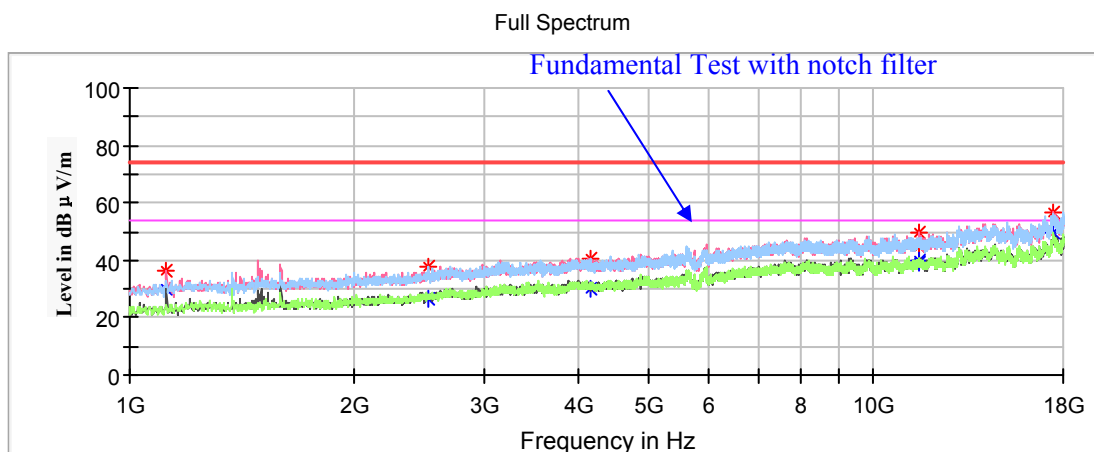
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1064.600000	---	23.69	150.0	V	117.0	-18.7	54.00	30.31
1064.600000	32.26	---	150.0	V	117.0	-18.7	74.00	41.74
2977.100000	38.20	---	150.0	H	194.0	-10.2	68.20	30.00
8133.200000	---	39.96	150.0	V	142.0	1.7	54.00	14.04
8133.200000	47.58	---	150.0	V	142.0	1.7	74.00	26.42
11650.000000	---	38.21	150.0	H	308.0	2.8	54.00	15.79
11650.000000	44.38	---	150.0	H	308.0	2.8	74.00	29.62
13059.800000	52.73	---	150.0	H	244.0	5.3	68.20	15.47
17488.300000	56.78	---	150.0	V	16.0	8.8	68.20	11.42

802.11n-HT20 Mode(Chain0+Chain1):

(Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded)

Note:

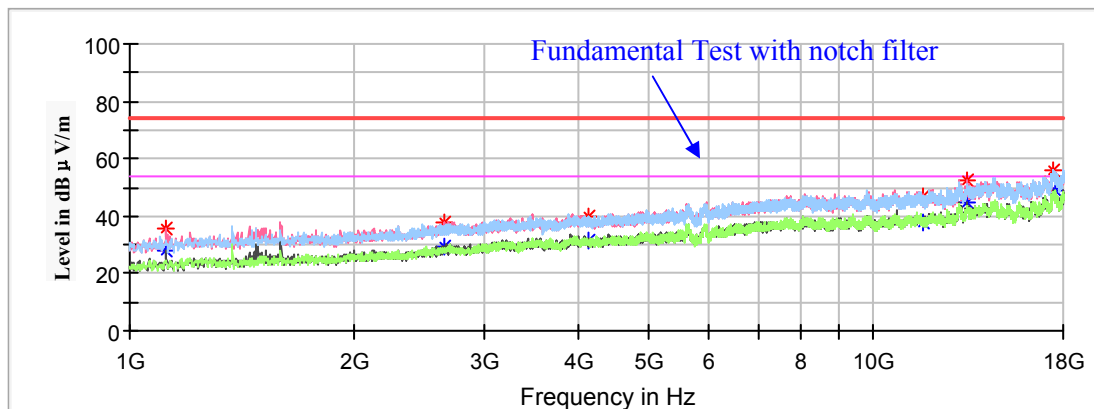
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5745MHz

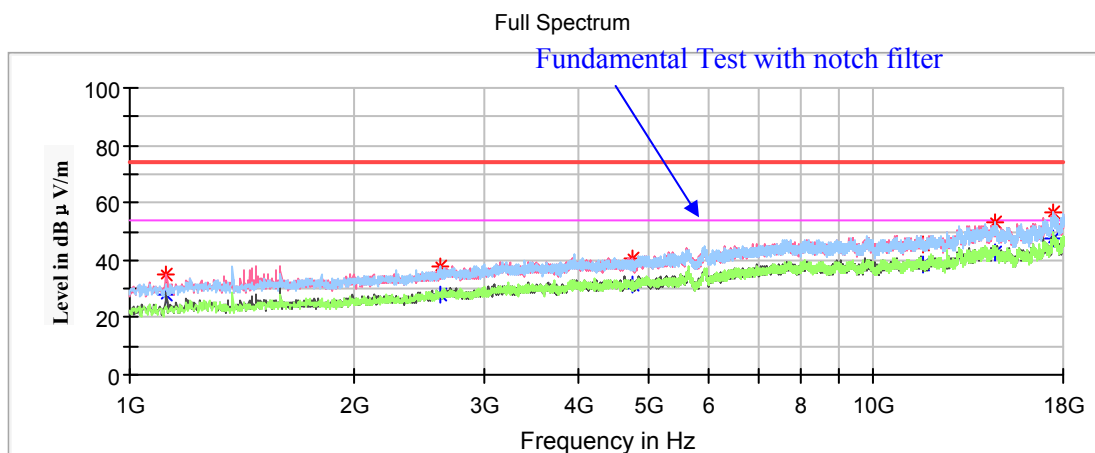
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1120.700000	36.08	---	150.0	V	0.0	-18.4	74.00	37.92
1120.700000	---	30.36	150.0	V	0.0	-18.4	54.00	23.64
2524.900000	37.84	---	150.0	H	104.0	-12.3	68.20	30.36
4163.700000	40.79	---	150.0	H	207.0	-6.7	74.00	33.21
4163.700000	---	30.36	150.0	H	207.0	-6.7	54.00	23.64
11490.000000	44.71	---	150.0	V	6.0	2.8	74.00	29.29
11490.000000	---	39.08	150.0	V	6.0	2.8	54.00	14.92
11550.200000	49.75	---	150.0	V	116.0	2.9	74.00	24.25
11550.200000	---	39.83	150.0	V	116.0	2.9	54.00	14.17
17459.400000	56.88	---	150.0	V	180.0	8.8	68.20	11.32

Middle Channel: 5785MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	27.63	150.0	V	0.0	-18.4	54.00	26.37
1117.300000	35.69	---	150.0	V	0.0	-18.4	74.00	38.31
2654.100000	37.69	---	150.0	V	1.0	-11.7	68.20	30.51
4146.700000	---	31.39	150.0	V	40.0	-6.8	54.00	22.61
4146.700000	40.08	---	150.0	V	40.0	-6.8	74.00	33.92
11570.000000	---	37.52	150.0	V	271.0	2.8	54.00	16.48
11570.000000	46.88	---	150.0	V	271.0	2.8	74.00	27.12
13382.800000	---	44.66	150.0	V	258.0	5.6	54.00	9.34
13382.800000	52.72	---	150.0	V	258.0	5.6	74.00	21.28
17496.800000	56.23	---	150.0	H	168.0	8.9	68.20	11.97

High Channel: 5825MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1120.700000	---	27.79	150.0	V	0.0	-18.4	54.00	26.21
1120.700000	35.19	---	150.0	V	0.0	-18.4	74.00	38.81
2616.700000	37.91	---	150.0	H	224.0	-11.9	68.20	30.29
4729.800000	---	31.75	150.0	V	23.0	-5.7	54.00	22.25
4729.800000	40.71	---	150.0	V	23.0	-5.7	74.00	33.29
11650.000000	---	38.60	150.0	V	142.0	2.8	54.00	15.40
11650.000000	45.41	---	150.0	V	142.0	2.8	74.00	28.59
14586.400000	53.29	---	150.0	H	275.0	6.3	68.20	14.91
17450.900000	56.65	---	150.0	V	53.0	8.7	68.20	11.55

802.11ac40 Mode(Chain0+Chain1):

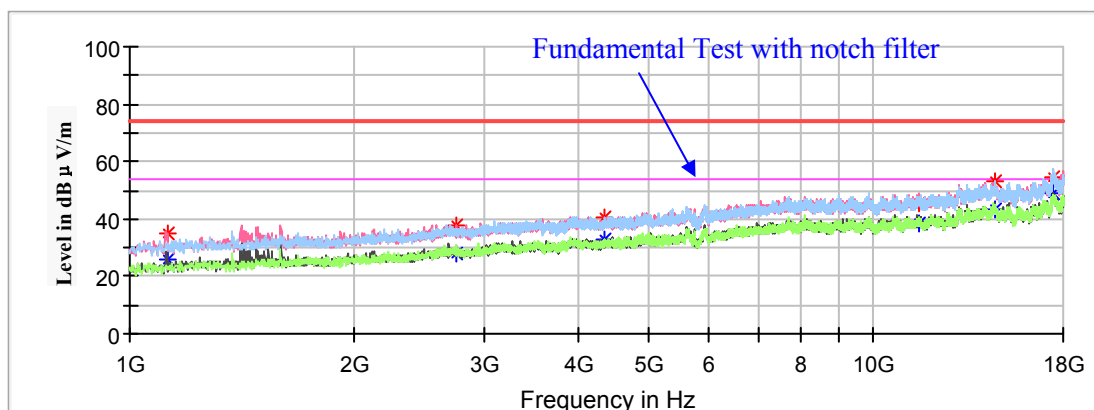
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

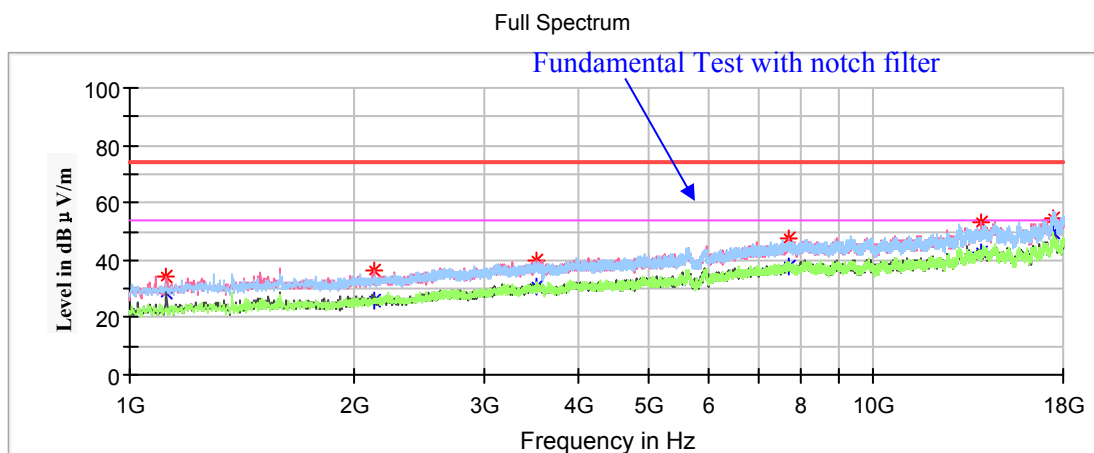
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5755MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1122.400000	---	25.67	150.0	V	7.0	-18.4	54.00	28.33
1122.400000	34.84	---	150.0	V	7.0	-18.4	74.00	39.16
2742.500000	---	28.22	150.0	H	218.0	-11.3	54.00	25.78
2742.500000	37.88	---	150.0	H	218.0	-11.3	74.00	36.12
4362.600000	---	32.66	150.0	V	211.0	-6.4	54.00	21.34
4362.600000	40.81	---	150.0	V	211.0	-6.4	74.00	33.19
11510.000000	45.79	---	150.0	V	356.0	2.8	74.00	28.21
11510.000000	---	38.71	150.0	V	356.0	2.8	54.00	15.29
14567.700000	52.85	---	150.0	H	27.0	6.3	68.20	15.35
17464.500000	54.45	---	150.0	V	108.0	8.8	68.20	13.75

High Channel: 5795MHz

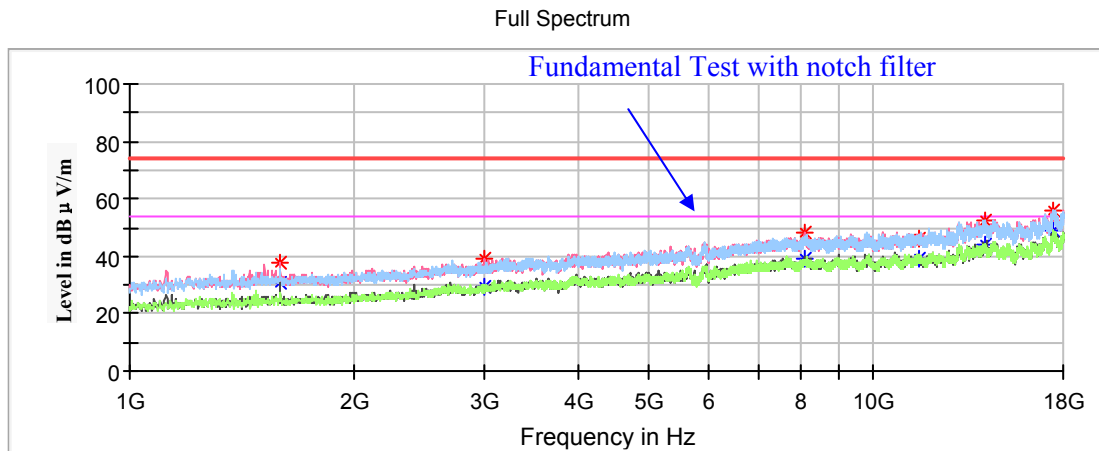
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1120.700000	---	28.54	150.0	V	0.0	-18.4	54.00	25.46
1120.700000	34.49	---	150.0	V	0.0	-18.4	74.00	39.51
2128.800000	36.19	---	150.0	V	85.0	-13.9	68.20	32.01
3529.600000	39.85	---	150.0	V	85.0	-8.7	68.20	28.35
7677.600000	---	38.02	150.0	V	60.0	1.3	54.00	15.98
7677.600000	47.50	---	150.0	V	60.0	1.3	74.00	26.50
13996.500000	52.90	---	150.0	V	266.0	6.1	68.20	15.30
17478.100000	54.67	---	150.0	V	252.0	8.8	68.20	13.53

802.11n-HT40 Mode(Chain0+Chain1):

(Pre-scan with X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded)

Note:

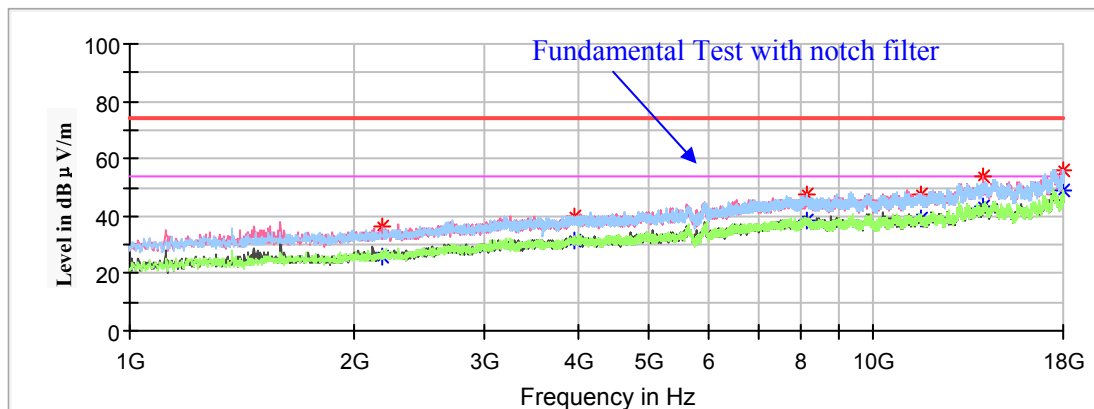
1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5755MHz

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1593.300000	---	30.81	150.0	V	257.0	-16.0	54.00	23.19
1593.300000	37.72	---	150.0	V	257.0	-16.0	74.00	36.28
3006.000000	38.99	---	150.0	V	128.0	-10.1	68.20	29.21
8080.500000	---	39.21	150.0	V	0.0	1.7	54.00	14.79
8080.500000	47.93	---	150.0	V	0.0	1.7	74.00	26.07
11510.000000	---	39.23	150.0	V	64.0	2.8	54.00	14.77
11510.000000	46.03	---	150.0	V	64.0	2.8	74.00	27.97
14118.900000	52.70	---	150.0	H	0.0	6.2	68.20	15.50
17462.800000	55.63	---	150.0	V	90.0	8.8	68.20	12.57

High Channel: 5795MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Height (cm)	Polar (H/V)				
2190.000000	36.32	---	150.0	V	157.0	-13.7	68.20	31.88
3954.600000	---	31.66	150.0	V	8.0	-7.2	54.00	22.34
3954.600000	40.20	---	150.0	V	8.0	-7.2	74.00	33.80
8160.400000	---	38.61	150.0	V	221.0	1.7	54.00	15.39
8160.400000	47.40	---	150.0	V	221.0	1.7	74.00	26.60
11590.000000	---	39.00	150.0	V	335.0	2.8	54.00	15.00
11590.000000	47.87	---	150.0	V	335.0	2.8	74.00	26.13
14023.700000	53.54	---	150.0	V	335.0	6.2	68.20	14.66
17966.000000	---	49.06	150.0	H	358.0	8.8	54.00	4.94
17966.000000	56.25	---	150.0	H	358.0	8.8	74.00	17.75

802.11ac80 Mode(Chain0+Chain1):

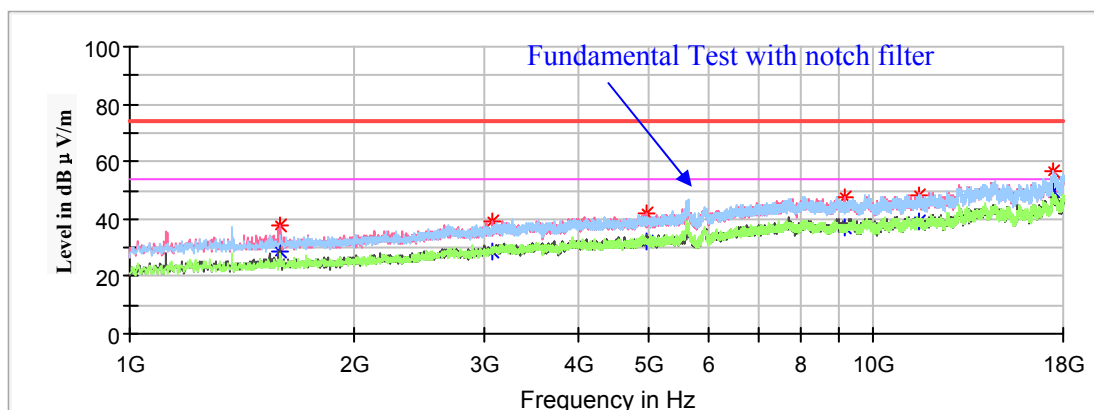
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Z-axis of orientation** was recorded.)

Note:

1. This test was performed with the 5725-5850MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Limit - Corrected. Amplitude

Low Channel: 5775MHz

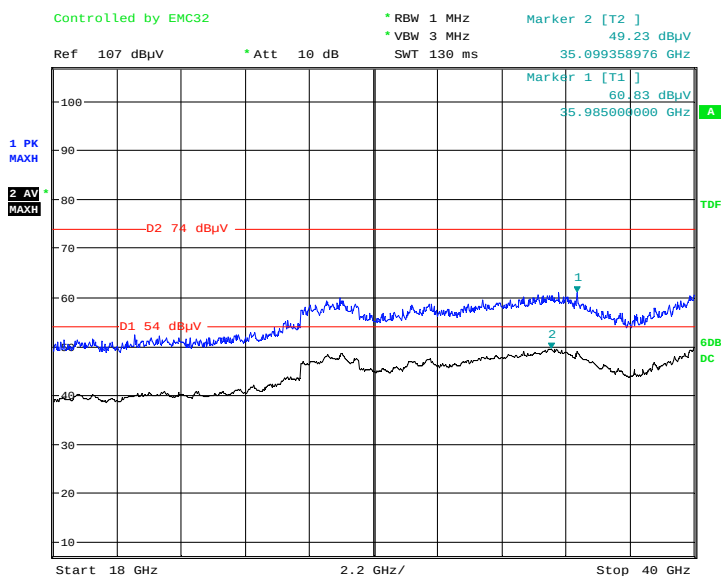
Full Spectrum



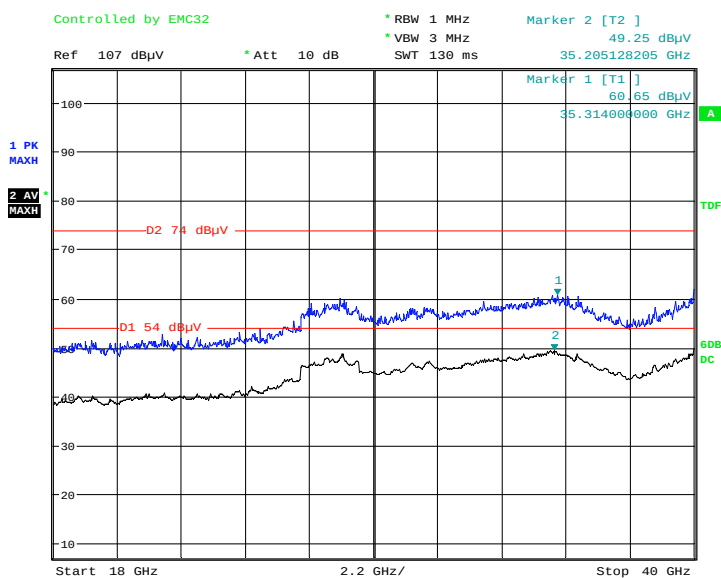
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1596.700000	---	28.68	150.0	V	244.0	-16.0	54.00	25.32
1596.700000	38.00	---	150.0	V	244.0	-16.0	74.00	36.00
3080.800000	39.20	---	150.0	V	179.0	-9.9	68.20	29.00
4949.100000	---	31.95	150.0	V	0.0	-5.3	54.00	22.05
4949.100000	42.25	---	150.0	V	0.0	-5.3	74.00	31.75
9129.400000	---	37.33	150.0	V	204.0	1.9	54.00	16.67
9129.400000	47.31	---	150.0	V	204.0	1.9	74.00	26.69
11550.000000	---	39.16	150.0	H	90.0	2.8	54.00	14.84
11550.000000	47.94	---	150.0	H	90.0	2.8	74.00	26.06
17452.600000	56.75	---	150.0	H	52.0	8.7	68.20	11.45

18GHz-40GHz(5150-5250MHz Band):

Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X, Y and Z axes of orientation, **the worst case 802.11ac20 mode high channel** in Z-axis of orientation was recorded.

Horizontal

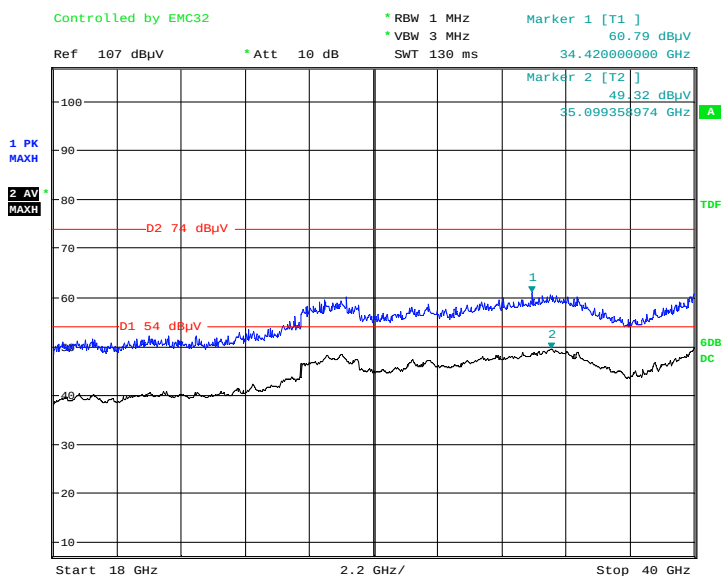
Date: 5.OCT.2020 14:02:42

Vertical

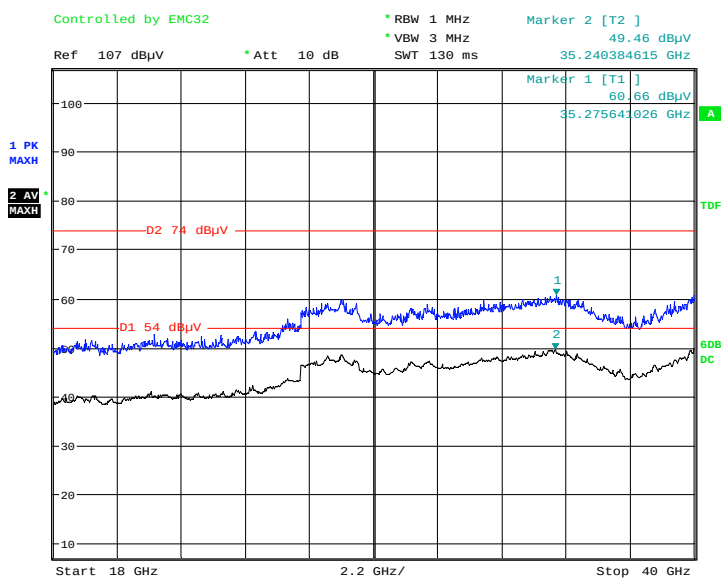
Date: 5.OCT.2020 14:14:27

18GHz-40GHz(5725-5850MHz Band):

Pre-scan with 802.11a, 802.11ac20, 802.11n-HT20, 802.11ac40, 802.11n-HT40 and 802.11 ac80 modes of operation in the X,Y and Z axes of orientation, **the worst case 802.11ac20 mode low channel** in Z-axis of orientation was recorded.

Horizontal

Date: 5.OCT.2020 14:37:11

Vertical

Date: 5.OCT.2020 14:28:08

Restricted Bands Emissions Test (5150-5250MHz Band):

Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode-Chain0: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	---	48.82	200.0	V	107.0	5.2	54.00	5.18
5150.00	56.38	---	200.0	V	107.0	5.2	74.00	17.62
High Channel: 5240MHz								
5350.00	---	48.09	150.0	V	242.0	5.7	54.00	5.91
5350.00	54.86	---	150.0	V	242.0	5.7	74.00	19.14

802.11a Mode-Chain1: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	---	49.09	200.0	V	89.0	5.2	54.00	4.91
5150.00	56.25	---	200.0	V	89.0	5.2	74.00	17.75
High Channel: 5240MHz								
5350.00	---	48.65	150.0	V	337.0	5.7	54.00	5.35
5350.00	55.44	---	150.0	V	337.0	5.7	74.00	18.56

802.11ac20 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	---	49.94	200.0	H	318.0	5.2	54.00	4.06
5150.00	55.17	---	200.0	H	318.0	5.2	74.00	18.83
High Channel: 5240MHz								
5350.00	---	48.06	200.0	H	24.0	5.7	54.00	5.94
5350.00	56.10	---	200.0	H	24.0	5.7	74.00	17.90

802.11n-HT20 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5180MHz								
5150.00	---	47.28	150.0	V	1.0	5.2	54.00	6.72
5150.00	55.18	---	150.0	V	1.0	5.2	74.00	18.82
High Channel: 5240MHz								
5350.00	---	46.72	150.0	V	10.0	5.7	54.00	7.28
5350.00	55.79	---	150.0	V	10.0	5.7	74.00	18.21

802.11ac40 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5190MHz								
5150.00	---	48.64	150.0	V	222.0	5.2	54.00	5.36
5150.00	55.65	---	150.0	V	222.0	5.2	74.00	18.35
High Channel: 5230MHz								
5350.00	---	47.79	200.0	V	56.0	5.7	54.00	6.21
5350.00	57.19	---	200.0	V	56.0	5.7	74.00	16.81

802.11n-HT40 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5190MHz								
5150.00	---	46.96	150.0	V	238.0	5.2	54.00	7.04
5150.00	54.77	---	150.0	V	238.0	5.2	74.00	19.23
High Channel: 5230MHz								
5350.00	53.84	---	150.0	V	347.0	5.7	74.00	20.16
5350.00	---	50.69	150.0	V	347.0	5.7	54.00	3.31

802.11ac80 Mode (Chain0+ Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5210MHz								
5150.00	---	48.31	150.0	V	340.0	5.2	54.00	5.69
5150.00	56.60	---	200.0	V	340.0	5.2	74.00	17.40
5350.00	---	49.85	150.0	V	180.0	5.7	54.00	4.15
5350.00	56.31	---	150.0	V	180.0	5.7	74.00	17.69

Restricted Bands Emissions Test (5725-5850MHz Band):

Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode-Chain0: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	53.99	---	200.0	V	0.0	6.4	68.2	14.21
5700.00	53.24	---	200.0	H	107.0	6.5	105.2	51.96
5720.00	54.70	---	150.0	H	9.0	6.5	110.8	56.10
5725.00	55.81	---	150.0	V	359.0	6.5	122.2	66.39
High Channel: 5825MHz								
5850.00	54.46	---	150.0	V	268.0	6.7	122.2	67.74
5855.00	54.80	---	150.0	H	80.0	6.7	110.8	56.00
5875.00	55.10	---	150.0	H	126.0	6.8	105.2	50.10
5925.00	55.79	---	150.0	V	356.0	6.9	68.2	12.41

802.11a Mode-Chain1: (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	54.01	---	150.0	H	267.0	6.4	68.2	14.19
5700.00	55.35	---	150.0	V	340.0	6.5	105.2	49.85
5720.00	54.24	---	150.0	H	183.0	6.5	110.8	56.56
5725.00	55.75	---	150.0	V	308.0	6.5	122.2	66.45
High Channel: 5825MHz								
5850.00	53.94	---	150.0	H	169.0	6.7	122.2	68.26
5855.00	53.69	---	150.0	H	84.0	6.7	110.8	57.11
5875.00	55.68	---	150.0	H	0.0	6.8	105.2	49.52
5925.00	55.14	---	150.0	H	115.0	6.9	68.2	13.06

802.11ac20 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	53.99	---	150.0	H	87.0	6.4	68.2	14.21
5700.00	54.45	---	150.0	H	25.0	6.5	105.2	50.75
5720.00	55.74	---	150.0	H	25.0	6.5	110.8	55.06
5725.00	59.81	---	150.0	V	116.0	6.5	122.2	62.39
High Channel: 5825MHz								
5850.00	66.34	---	150.0	H	218.0	6.7	122.2	55.86
5855.00	58.11	---	150.0	H	218.0	6.7	110.8	52.69
5875.00	56.39	---	150.0	V	320.0	6.8	105.2	48.81
5925.00	56.29	---	150.0	V	257.0	6.9	68.2	11.91

802.11n-HT20 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5745MHz								
5650.00	54.67	---	150.0	H	118.0	6.4	68.2	13.53
5700.00	53.98	---	150.0	V	273.0	6.5	105.2	51.22
5720.00	56.87	---	150.0	H	201.0	6.5	110.8	53.93
5725.00	62.97	---	150.0	H	167.0	6.5	122.2	59.23
High Channel: 5825MHz								
5850.00	55.96	---	150.0	V	145.0	6.7	122.2	66.24
5855.00	55.00	---	150.0	H	88.0	6.7	110.8	55.80
5875.00	54.72	---	150.0	H	218.0	6.8	105.2	50.48
5925.00	53.73	---	150.0	H	201.0	6.9	68.2	14.47

802.11ac40 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5755MHz								
5650.00	53.40	---	150.0	H	349.0	6.4	68.2	14.80
5700.00	53.39	---	150.0	V	195.0	6.5	105.2	51.81
5720.00	57.77	---	150.0	H	161.0	6.5	110.8	53.03
5725.00	57.99	---	150.0	H	161.0	6.5	122.2	64.21
High Channel: 5795MHz								
5850.00	57.16	---	150.0	V	124.0	6.7	122.2	65.04
5855.00	55.90	---	150.0	H	98.0	6.7	110.8	54.90
5875.00	54.44	---	150.0	V	78.0	6.8	105.2	50.76
5925.00	54.88	---	150.0	H	145.0	6.9	68.2	13.32

802.11n-HT40 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5755MHz								
5650.00	51.92	---	150.0	H	180.0	6.4	68.2	16.28
5700.00	53.40	---	150.0	H	51.0	6.5	105.2	51.80
5720.00	54.69	---	150.0	V	138.0	6.5	110.8	56.11
5725.00	56.89	---	150.0	H	163.0	6.5	122.2	65.31
High Channel: 5795MHz								
5850.00	55.49	---	150.0	H	82.0	6.7	122.2	66.71
5855.00	54.24	---	150.0	V	215.0	6.7	110.8	56.56
5875.00	54.42	---	150.0	V	168.0	6.8	105.2	50.78
5925.00	56.56	---	150.0	H	320.0	6.9	68.2	11.64

802.11ac80 Mode (Chain0+Chain1): (Pre-scan in the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded)

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
Low Channel: 5775MHz								
5650.00	54.97	---	150.0	H	141.0	6.4	68.2	13.23
5700.00	60.59	---	150.0	H	175.0	6.5	105.2	44.61
5720.00	63.56	---	150.0	H	175.0	6.5	110.8	47.24
5725.00	64.02	---	150.0	V	118.0	6.5	122.2	58.18
5850.00	63.05	---	150.0	H	229.0	6.7	122.2	59.15
5855.00	62.20	---	150.0	V	118.0	6.7	110.8	48.60
5875.00	58.45	---	150.0	V	214.0	6.8	105.2	46.75
5925.00	54.28	---	150.0	V	62.0	6.9	68.2	13.92

FCC §15.407(a) & §15.407(e)–EMISSION BANDWIDTH

Applicable Standard

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.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

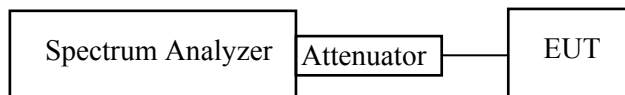
1. Emission Bandwidth (EBW)

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- Set RBW = 100 kHz.
 - Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
 - Detector = Peak.
 - Trace mode = max hold.
 - Sweep = auto couple.
 - Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Test Data**Environmental Conditions**

Temperature:	24.8 °C
Relative Humidity:	54 %
ATM Pressure:	101.5 kPa

The testing was performed by CK Huang on 2020-10-11.

Test Result: Compliant

5150-5250 MHz:

Test mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)		99% Bandwidth (MHz)	
			Chain0	Chain1	Chain0	Chain1
802.11a	Low	5180	26.052	25.892	17.074	16.994
	Middle	5200	25.812	25.411	17.074	16.994
	High	5240	25.651	25.090	16.994	16.994
802.11ac20	Low	5180	25.331	24.770	18.116	18.116
	Middle	5200	24.930	25.170	18.116	18.116
	High'	5240	25.170	24.048	18.036	18.036
802.11n-HT20	Low	5180	24.930	25.411	18.116	18.116
	Middle	5200	25.651	25.491	18.116	18.116
	High	5240	24.369	24.289	18.116	17.956
802.11ac40	Low	5190	42.204	41.964	36.553	36.553
	High'	5230	41.964	42.204	36.553	36.433
802.11n-HT40	Low	5190	42.204	42.204	36.433	36.553
	High	5230	42.204	42.084	36.433	36.433
802.11ac80	Low	5210	84.890	84.409	75.992	75.992

5725-5850MHz:

Test mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		99% Bandwidth (MHz)		Limit (MHz)
			Chain0	Chain1	Chain0	Chain1	
802.11a	Low	5745	16.192	16.273	21.523	21.824	≥ 0.5
	Middle	5785	16.353	16.273	21.583	20.621	≥ 0.5
	High	5825	16.353	16.273	21.042	22.124	≥ 0.5
802.11ac20	Low	5745	17.555	17.234	21.583	21.703	≥ 0.5
	Middle	5785	17.555	17.635	21.463	21.042	≥ 0.5
	High	5825	17.234	17.635	20.922	22.425	≥ 0.5
802.11n-HT20	Low	5745	17.315	17.555	21.764	21.703	≥ 0.5
	Middle	5785	17.555	16.914	21.283	20.982	≥ 0.5
	High	5825	16.994	17.555	20.982	22.244	≥ 0.5
802.11ac40	Low	5755	35.832	35.832	39.198	39.439	≥ 0.5
	High	5795	35.711	35.471	39.198	38.116	≥ 0.5
802.11n-HT40	Low	5755	35.711	35.832	39.078	38.597	≥ 0.5
	High	5795	35.952	35.832	39.198	38.236	≥ 0.5
802.11ac80	Low	5775	75.511	75.511	84.409	82.485	≥ 0.5

Delta 1 [T1]

Ref Lvl 1.41 dB

30 dBm 25.65130261 MHz

RBW 300 kHz RF Att 30 dB

VBW 1 MHz

SWT 5 ms Unit dBm

11 dB Offset

▼1 [T1] -15.68 dBm

▲1 [T1] 1.41 dB

25.65130261 MHz

OPB 16.99398798 MHz

▼T1 [T1] -6.53 dBm

T2 5.23154309 GHz

▼T2 [T1] -6.33 dBm

5.24853707 GHz

D1 10.2 dBm

D2 -15.8 dBm

1MAX

1

Center 5.24 GHz

4 MHz/

Span 40 MHz

Date: 11.OCT.2020 12:01:11

[illegible]

[illegible]

Delta 1 [T1]
 Ref Lvl -0.55 dB
 30 dBm 25.17034068 MHz
 RBW 300 kHz RF Att 30 dB
 VBW 1 MHz
 SWT 5 ms Unit dBm

11 dB Offset
 1 [T1] -16.52 dBm
 1 [T1] -0.55 dB
 25.17034068 MHz
 18.03607214 MHz
 0.24 dBm
 5.23106212 GHz
 -0.78 dBm
 5.24909820 GHz

D1 9.14 dBm
 1MAX
 D2 -16.86 dBm
 1
 1MAX

Center 5.24 GHz
 4 MHz/
 Span 40 MHz

Date: 11.OCT.2020 12:08:42

Delta 1 [T1] -1.36 dB

Ref Lvl 30 dBm

24.92985972 MHz

RBW 300 kHz

VBW 1 MHz

SWT 5 ms

RF Att 30 dB

Unit dBm

11 dB Offset

D1 8.75 dBm

1MAX

D2 -17.25 dBm

1

T1

T2

1

▼1 [T1] -16.14 dBm

▲1 [T1] -1.36 dB

OPB 24.92985972 MHz

▼1 [T1] 18.11623246 MHz

▼1 [T1] -6.65 dBm

▼1 [T1] 5.17098196 GHz

▼1 [T1] -1.19 dBm

▼1 [T1] 5.18999820 GHz

1MAX

Center 5.18 GHz

4 MHz/

Span 40 MHz

Date: 11.OCT.2020 12:02:33

Delta 1 [T1] 0.97 dB
 RBW 300 kHz VBW 1 MHz RF Att 30 dB
 SWT 5 ms Unit dBm

Ref Lvl 30 dBm
 30 dBm 25.65130261 MHz

11 dB Offset
 -18.43 dBm
 5.18681363 GHz
 0.97 dB
 25.65130261 MHz
 18.11623246 MHz
 -1.13 dBm
 5.19098196 GHz
 -1.96 dBm
 5.20909820 GHz

D1 8.16 dBm
 1MAX
 D2 -17.9 dBm
 1
 T1
 T2
 T1
 T1

Center 5.2 GHz 4 MHz/ Span 40 MHz

Date: 11.OCT.2020 12:03:29

Delta 1 [T1]

Ref Lvl 30 dBm

0.48 dB

24.36873747 MHz

RBW 300 kHz

RF Att 30 dB

VBW 1 MHz

SWT 5 ms

Unit dBm

11 dB Offset

D1 9.47 dBm

1MAX

D2 -16.53 dBm

1

T1

▼1 [T1]

▲1 [T1]

OPB

▼T1 [T1]

▼T2 [T1]

1

-17.17 dBm

5.22793587 GHz

0.48 dB

24.36873747 MHz

-0.90 dBm

5.23098196 GHz

0.04 dBm

5.24909820 GHz

1MAX

Center 5.24 GHz

4 MHz/

Span 40 MHz

Date: 11.OCT.2020 12:04:49

Delta 1 [T1] 0.48 dB
 RBW 500 kHz RF Att 30 dB
 Ref Lvl 30 dBm VBW 2 MHz
 30 dBm 42.20440882 MHz SWT 5 ms Unit dBm

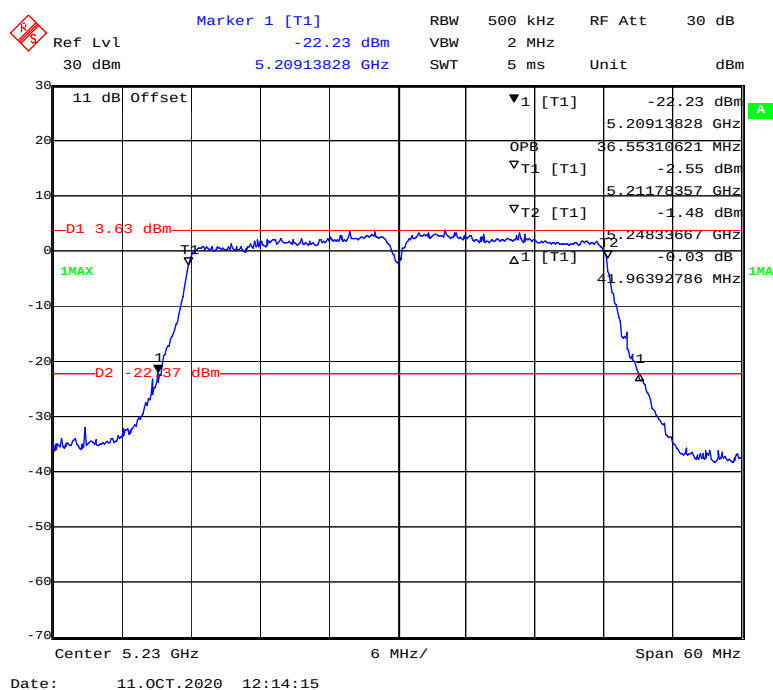
11 dB Offset
 -23.32 dBm
 5.16877756 GHz
 0.48 dB
 42.20440882 MHz
 36.55316621 MHz
 -2.99 dBm
 5.17178357 GHz
 -2.19 dBm
 5.20833667 GHz

D1 3.14 dBm
 1MAX
 D2 -22.86 dBm
 1

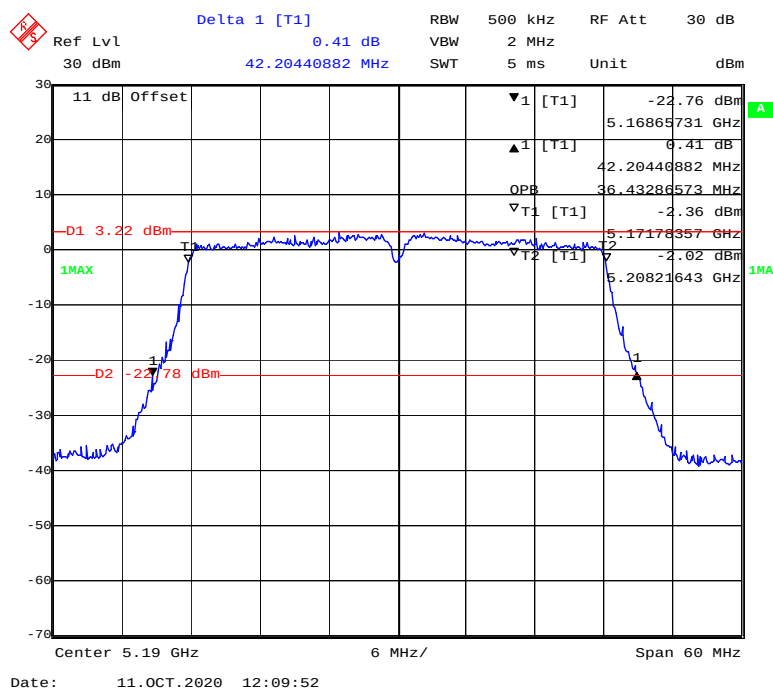
Center 5.19 GHz
 6 MHz/
 Span 60 MHz

Date: 11.OCT.2020 12:12:26

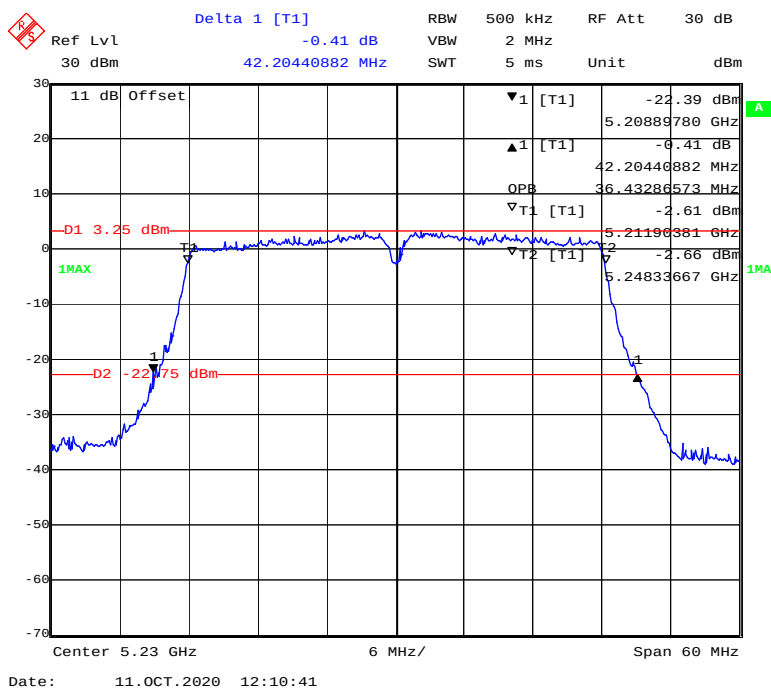
802.11ac40 mode, 5230MHz



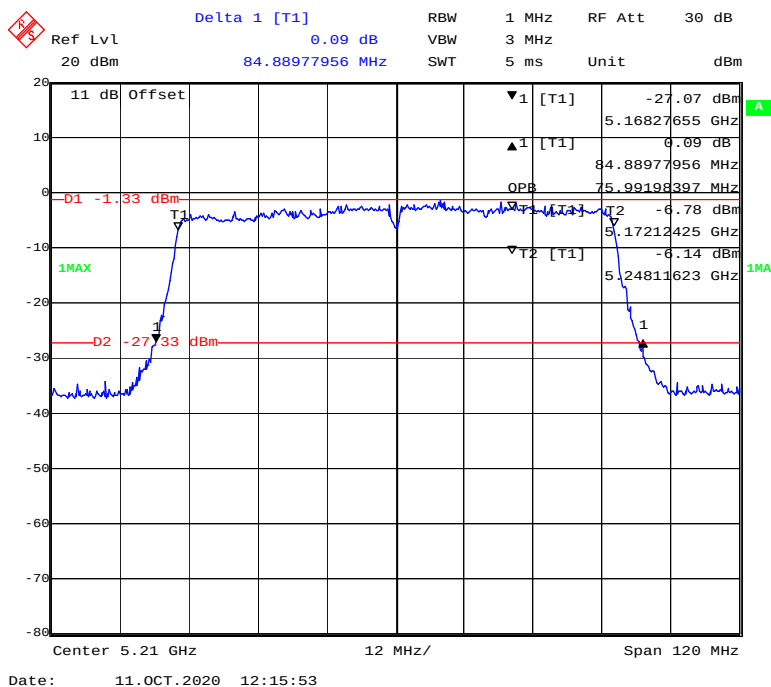
802.11n-HT40 mode, 5190MHz



802.11n-HT40 mode, 5230MHz



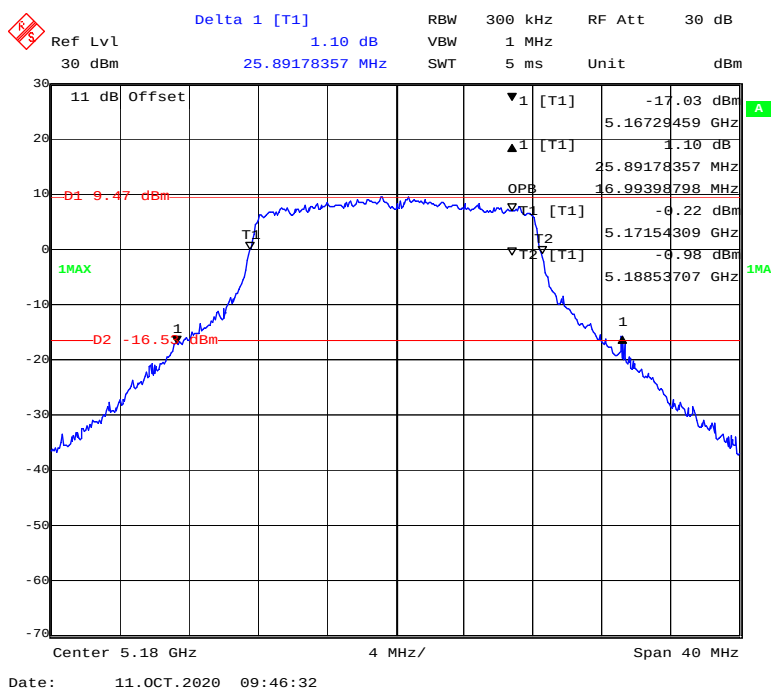
802.11ac80 mode, 5210MHz



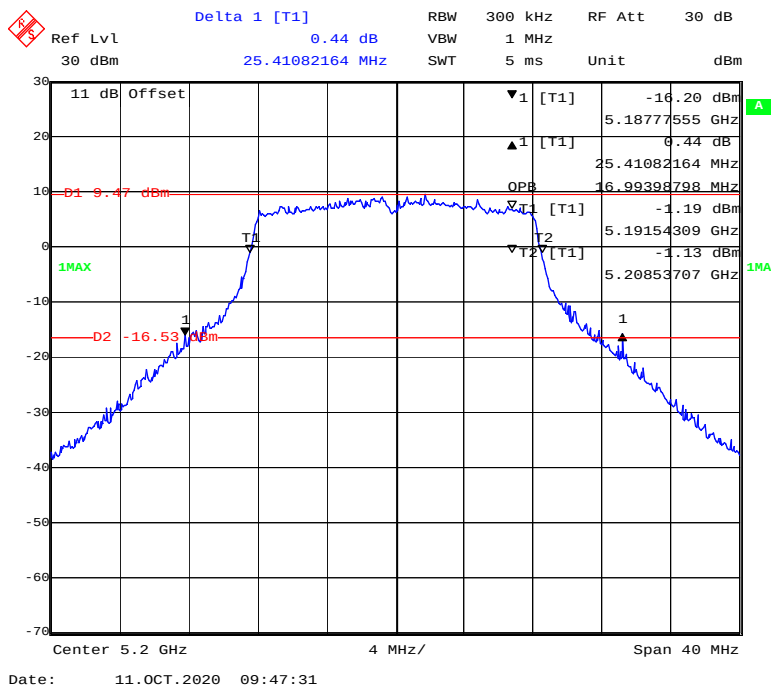
Chain1

26 Bandwidth&99% Occupied Bandwidth

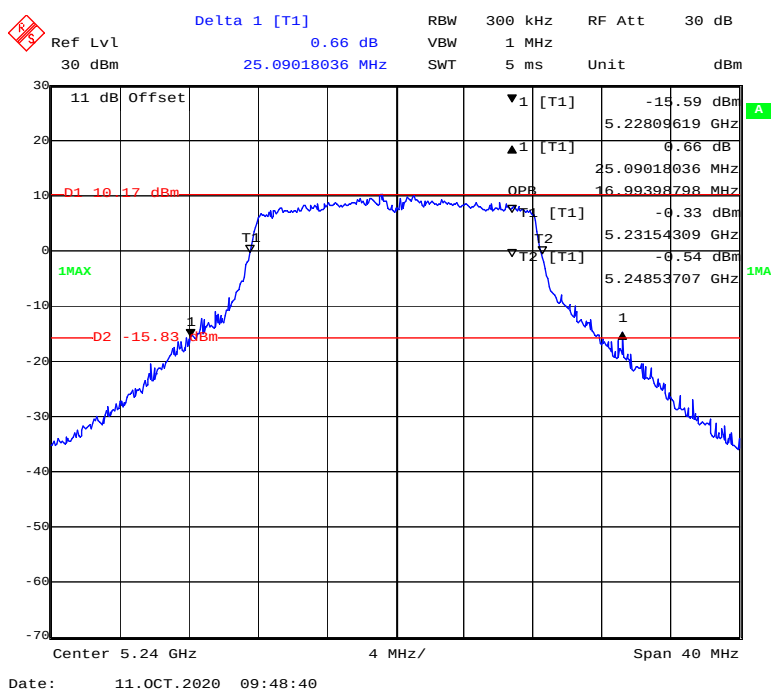
802.11a mode, 5180MHz



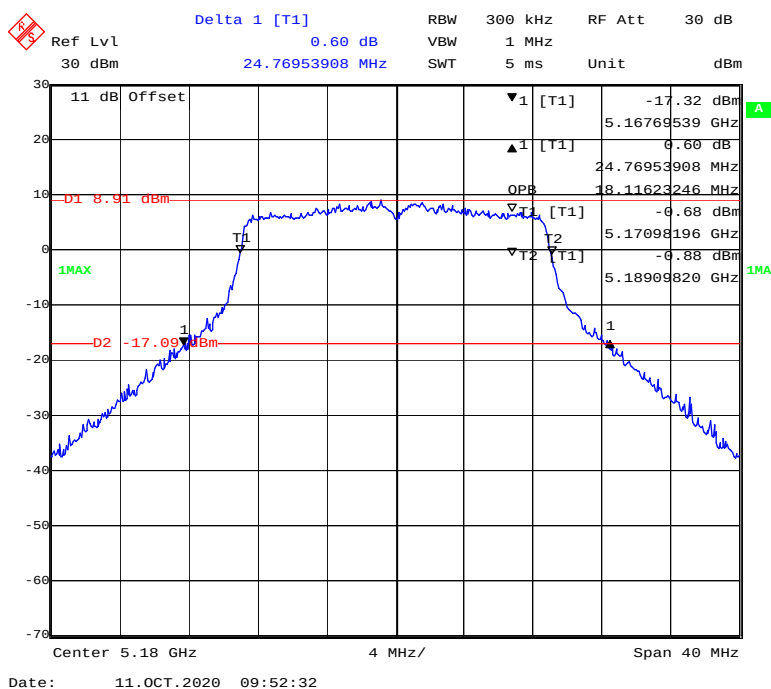
802.11a mode, 5200MHz



802.11a mode, 5240MHz



802.11ac20 mode, 5180MHz



Delta 1 [T1] RBW 300 kHz RF Att 30 dB
 Ref Lvl -0.38 dB VBW 1 MHz
 30 dBm SWT 5 ms Unit dBm
 25.17034068 MHz

11 dB Offset ▼1 [T1] -16.40 dBm
 5.18761523 GHz ▲1 [T1] -0.38 dB
 25.17034068 MHz OPB 18.11623246 MHz
 9.22 dBm ▽T1 [T1] -0.66 dBm
 1MAX T2 [T1] 5.19098196 GHz
 -16.78 dBm ▽T2 [T1] -1.11 dBm
 5.20909820 GHz 1MAX

Center 5.2 GHz 4 MHz/
 Span 40 MHz

Date: 11.OCT.2020 09:53:49

Delta 1 [T1]

Ref Lvl -0.36 dB

30 dBm 24.04809619 MHz

RBW 300 kHz RF Att 30 dB

VBW 1 MHz

SWT 5 ms Unit dBm

11 dB Offset

D1 8.88 dBm

1MAX

D2 -17.12 dBm

1

T1

T2

T1 [T1]

T2 [T1]

5.22825651 GHz -17.13 dBm

5.23106212 GHz -0.36 dB

5.24909820 GHz -0.33 dBm

5.24909820 GHz -0.94 dBm

1

Center 5.24 GHz

4 MHz/

Span 40 MHz

Date: 11.OCT.2020 09:54:35

Delta 1 [T1] 1.47 dB
 Ref Lvl 30 dBm 25.41082164 MHz
 RBW 300 kHz RF Att 30 dB
 VBW 1 MHz
 SWT 5 ms Unit dBm

11 dB Offset
 D1 8.48 dBm
 1MAX
 T1
 T2
 D2 -17.5 dBm
 1MA

Center 5.18 GHz 4 MHz/
 Span 40 MHz

Date: 11.OCT.2020 09:49:42

[illegible]

Delta 1 [T1] 0.41 dB

Ref Lvl 30 dBm

RBW 300 kHz

RF Att 30 dB

VBW 1 MHz

SWT 5 ms

Unit dBm

24.28857715 MHz

11 dB Offset

D1 8.71 dBm

1MAX

D2 -17.29 dBm

T1

T2

1

▼1 [T1] -17.84 dBm

▲1 [T1] 0.41 dB

OPB 24.28857715 MHz

▼T1 [T1] -0.53 dBm

▼T2 [T1] -0.11 dBm

5.22809619 GHz

5.23106212 GHz

5.24901804 GHz

Center 5.24 GHz

4 MHz/

Span 40 MHz

Date: 11.OCT.2020 09:51:28

Ref Lvl 20 dBm
 Delta 1 [T1] 1.77 dB
 RBW 500 kHz
 VBW 2 MHz
 SWT 5 ms
 RF Att 30 dBm
 Unit dBm

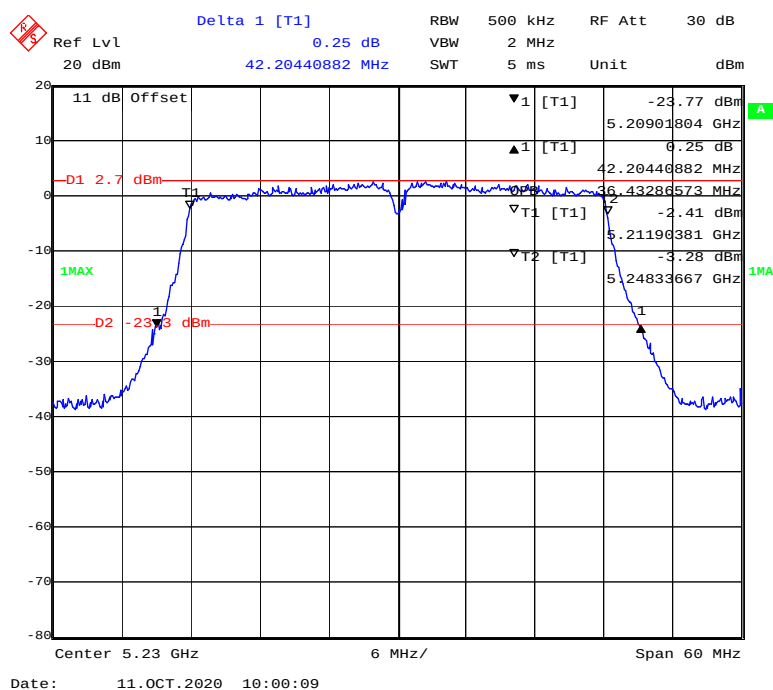
11 dB Offset
 D1 1.98 dBm
 1MAX
 D2 -24.02 dBm

▼1 [T1] -25.10 dBm
 ▲1 [T1] 1.77 dB
 ▽T1 [T1] 41.96392786 MHz
 ▽T2 [T1] 36.55316621 MHz
 5.16901804 GHz
 5.17178357 GHz
 5.20833667 GHz

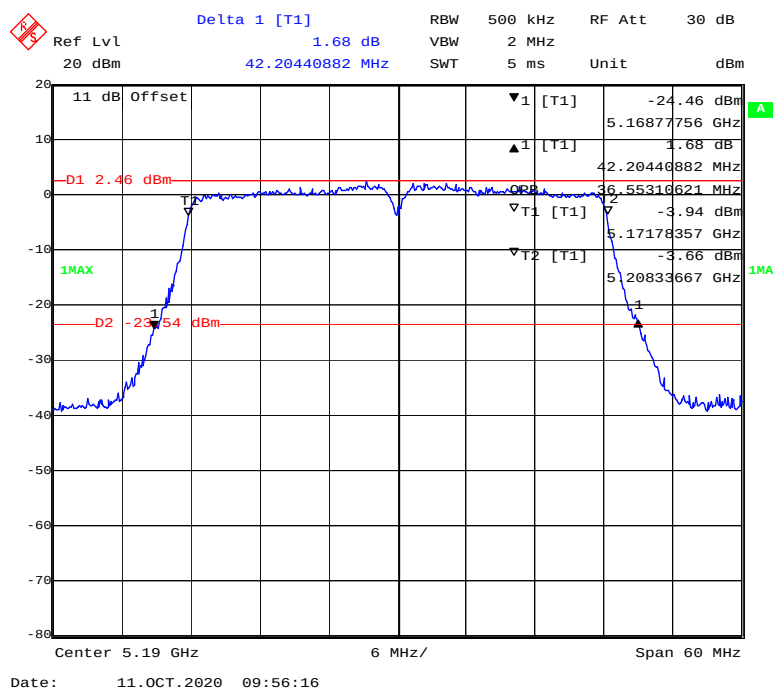
Center 5.19 GHz
 6 MHz/
 Span 60 MHz

Date: 11.OCT.2020 09:59:19

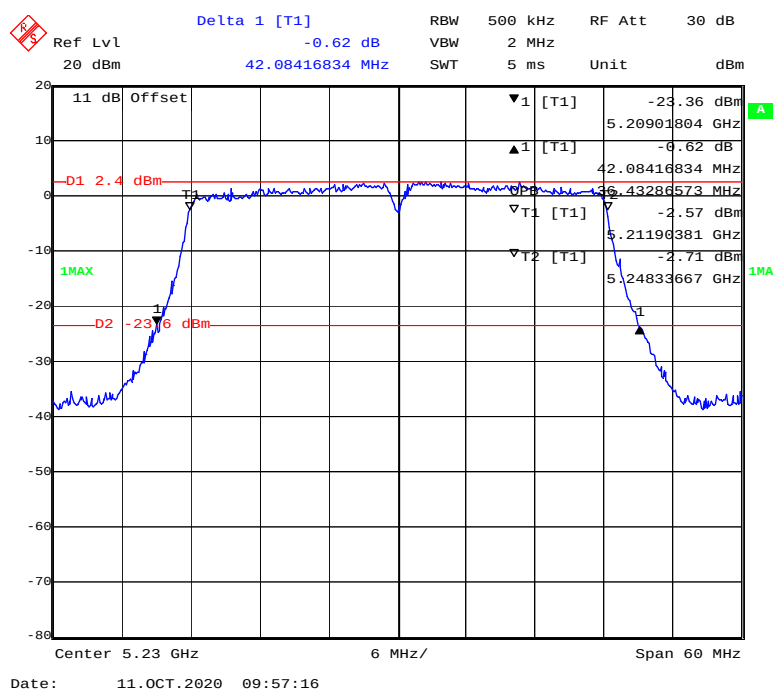
802.11ac40 mode, 5230MHz



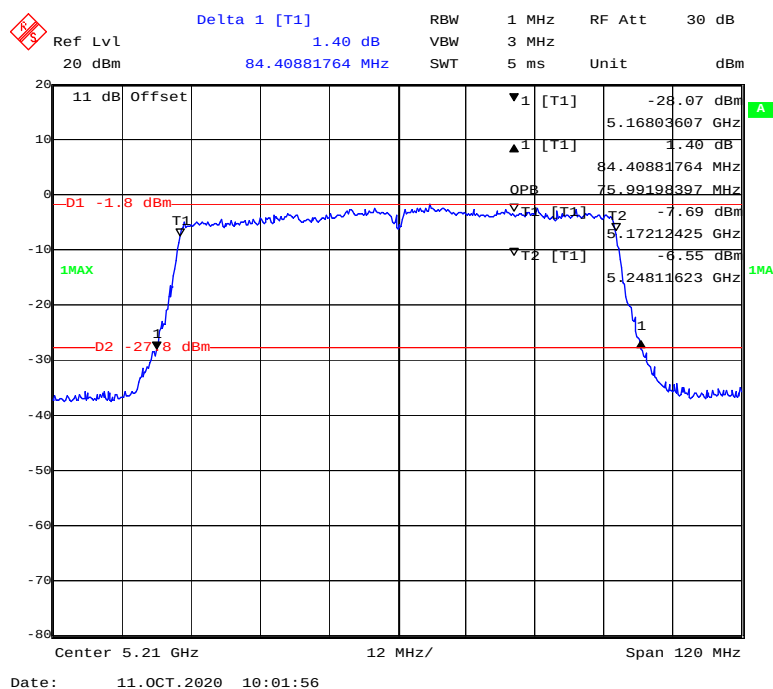
802.11n-HT40 mode, 5190MHz



802.11n-HT40 mode, 5230MHz



802.11ac80 mode, 5210MHz

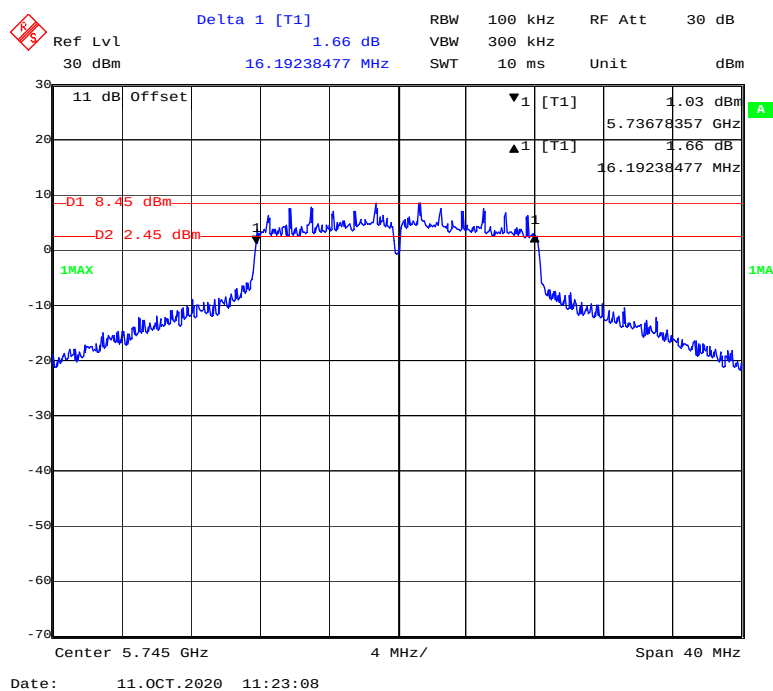


5725-5850 MHz Band

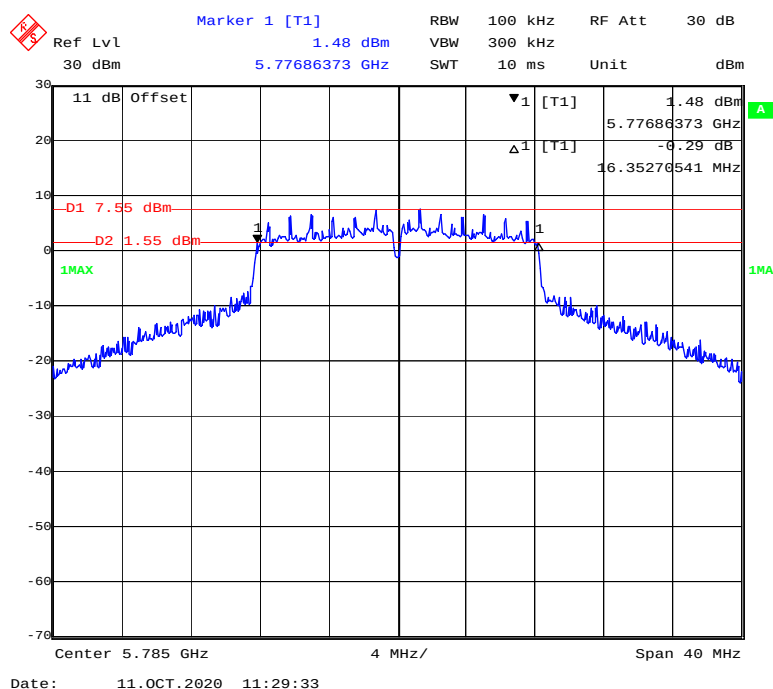
Chain0

6dB Bandwidth

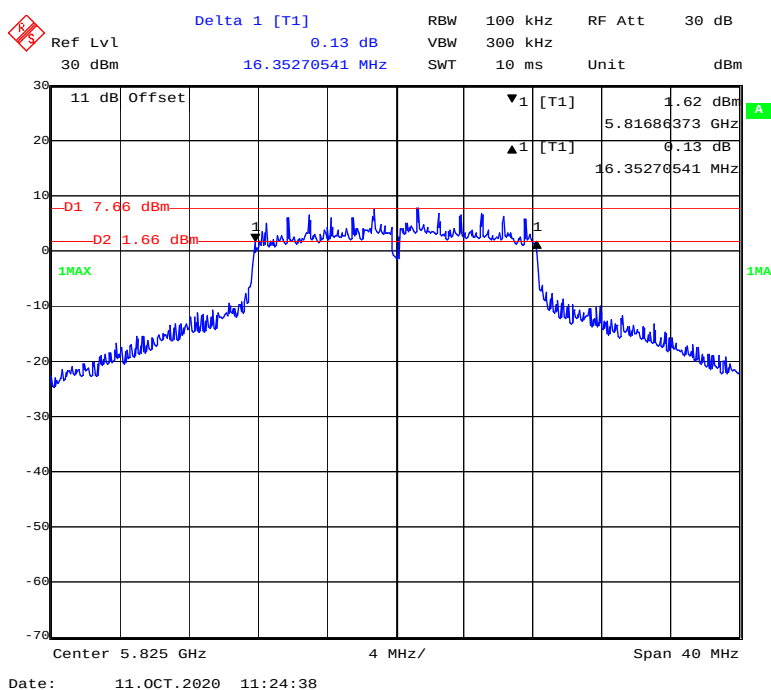
802.11a mode, 5745MHz



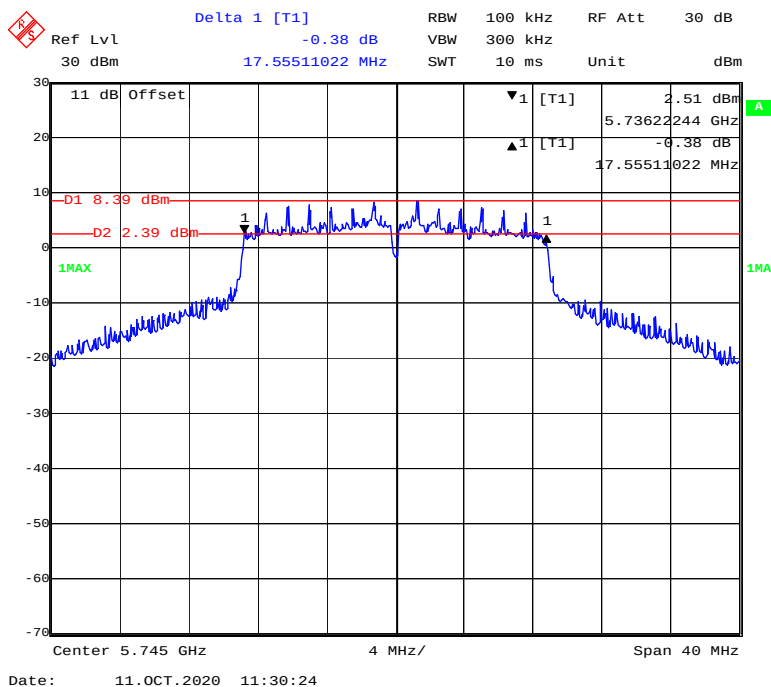
802.11a mode, 5785MHz



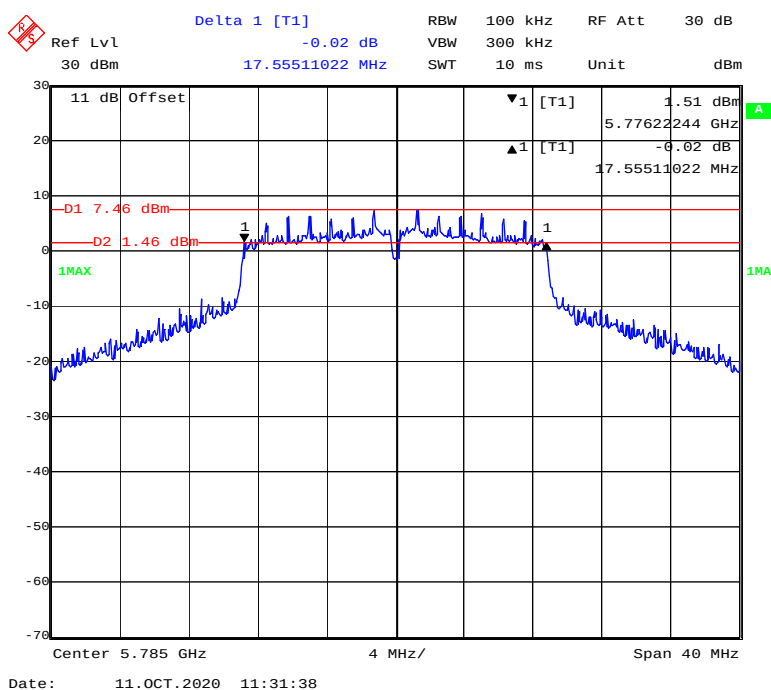
802.11a mode, 5825MHz



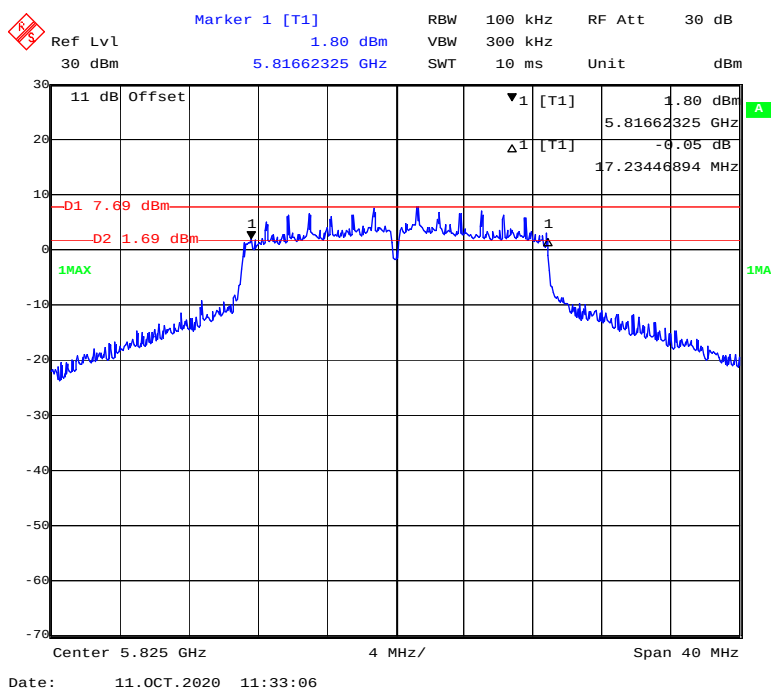
802.11ac20 mode, 5745MHz



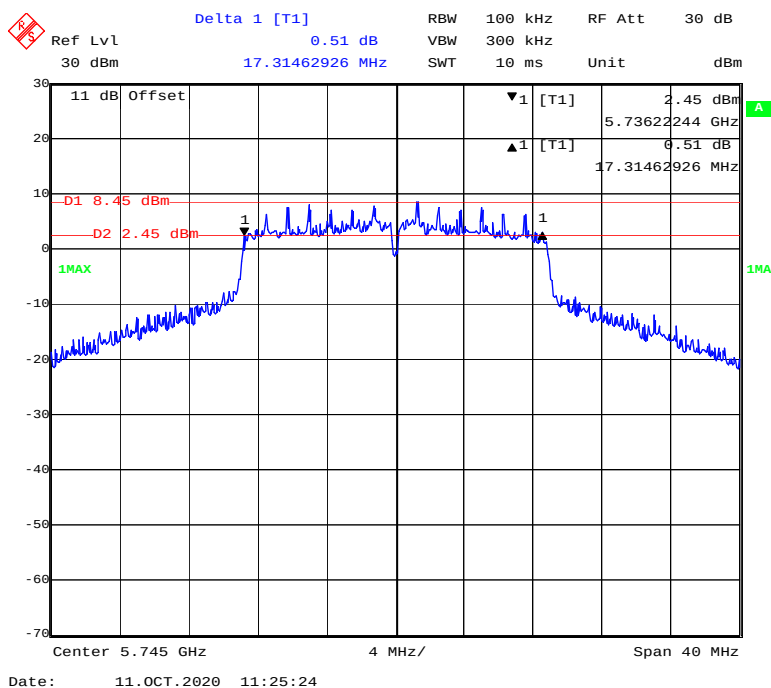
802.11ac20 mode, 5785MHz



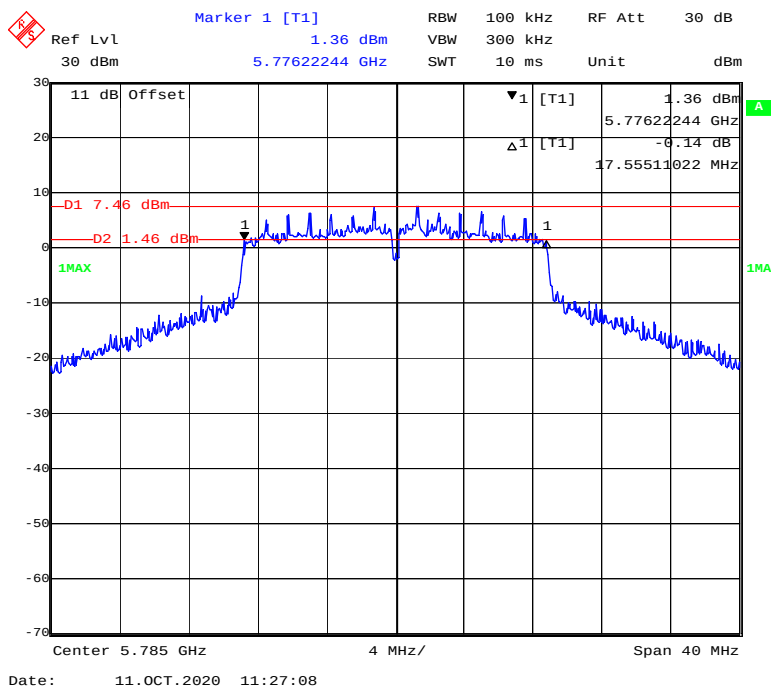
802.11ac20 mode, 5825MHz



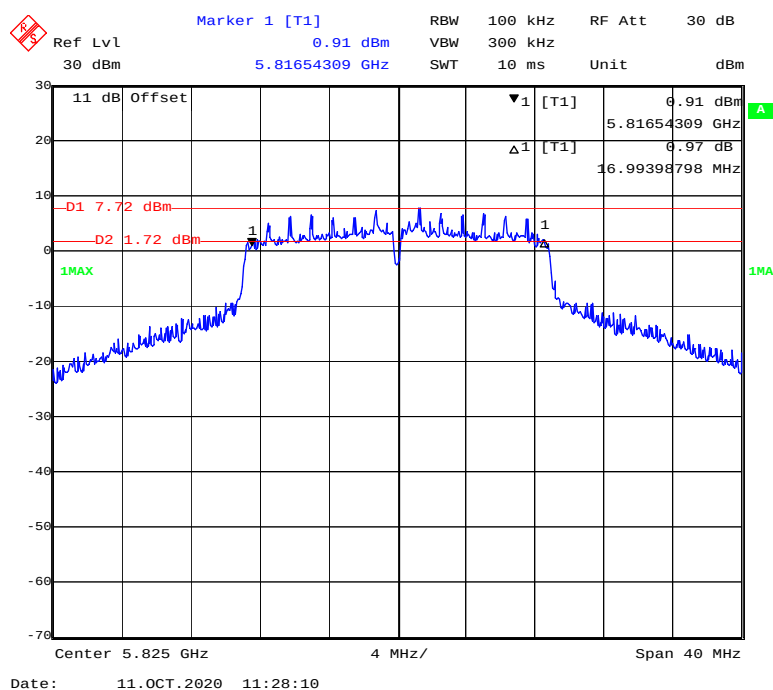
802.11n-HT20 mode, 5745MHz



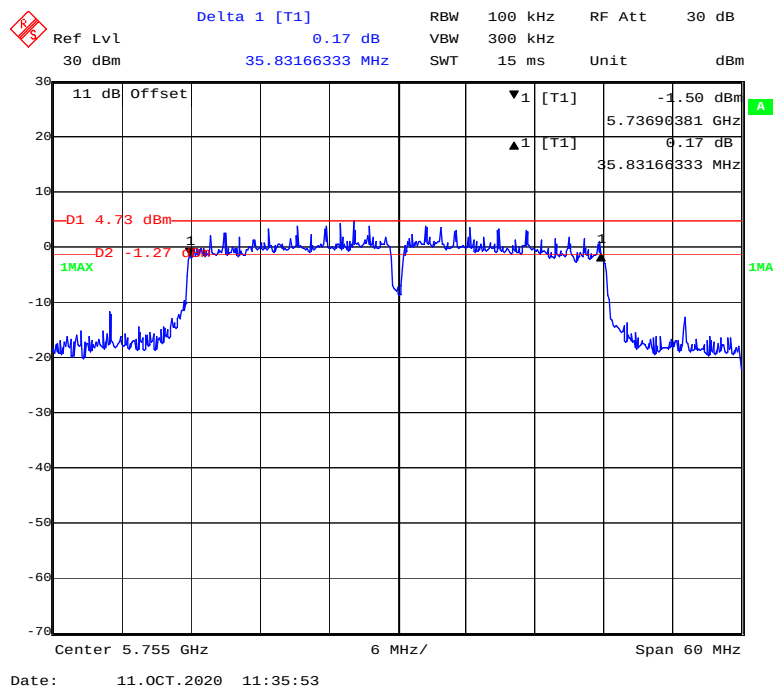
802.11n-HT20 mode, 5785MHz



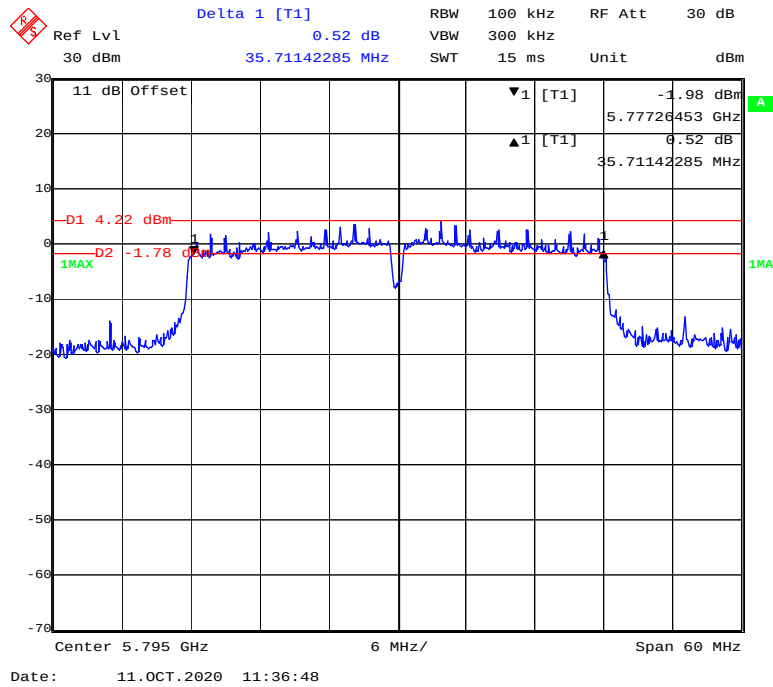
802.11n-HT20 mode, 5825MHz



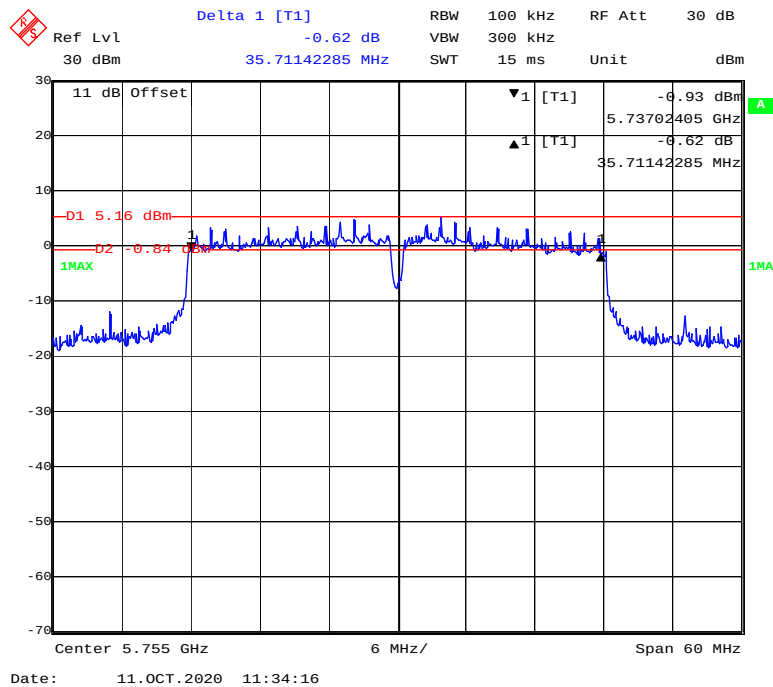
802.11ac40 mode, 5755MHz



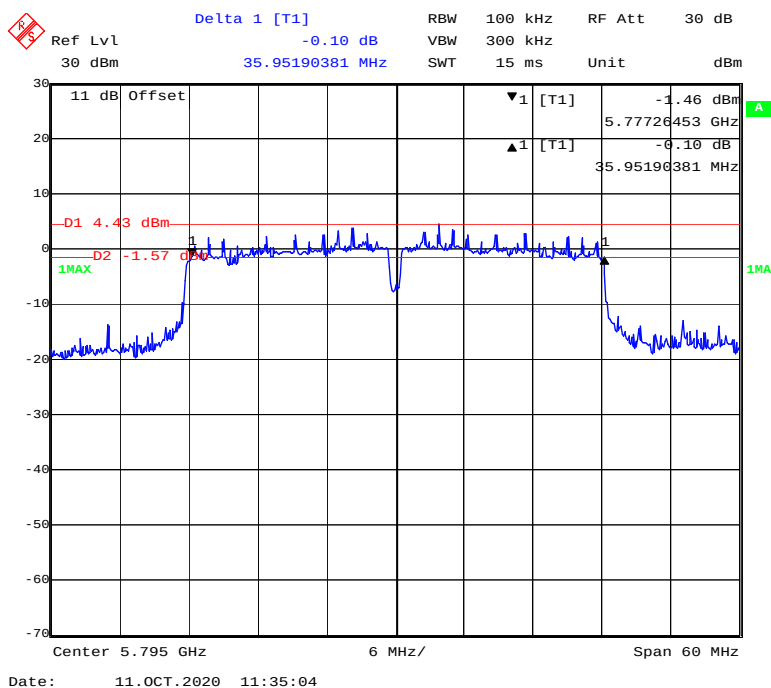
802.11ac40 mode, 5795MHz



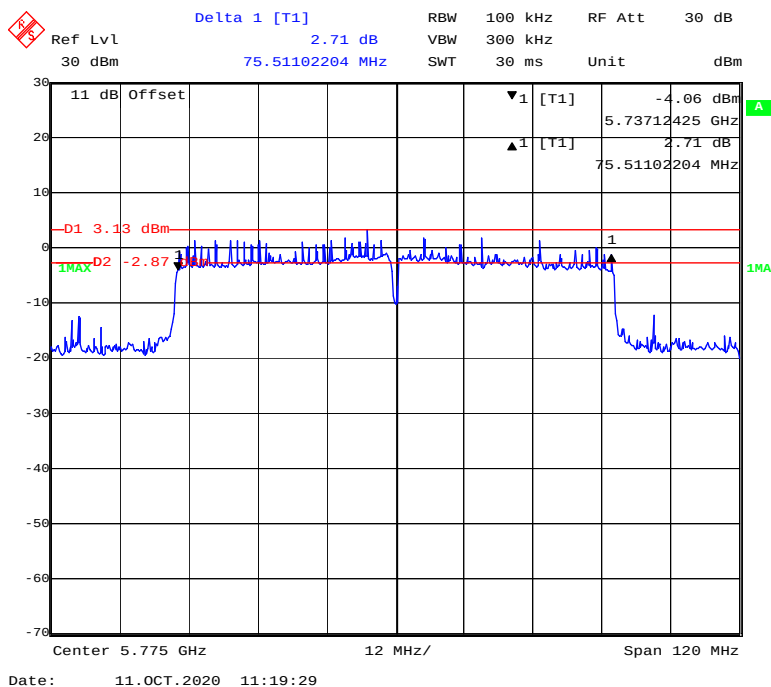
802.11n-HT40 mode, 5755MHz



802.11n-HT40 mode, 5795MHz

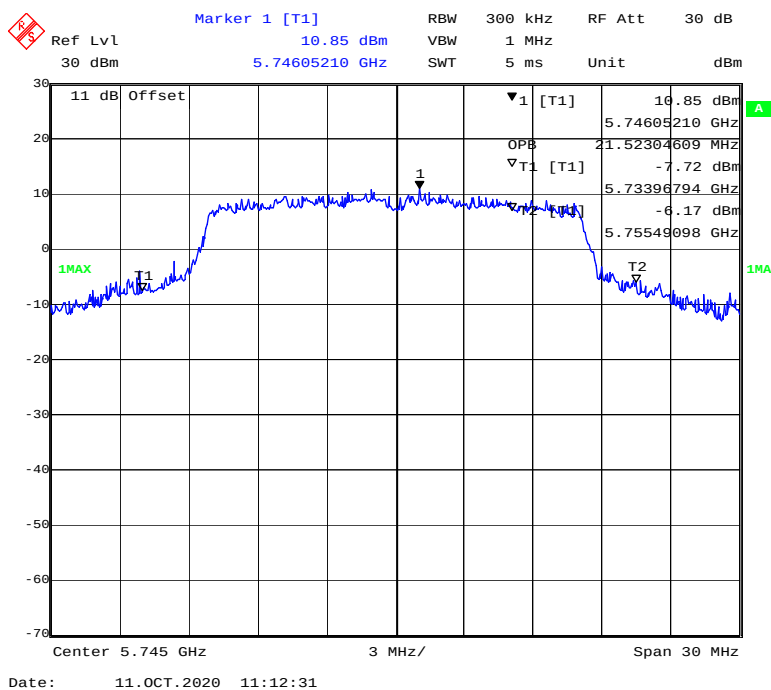


802.11ac80 mode, 5775MHz

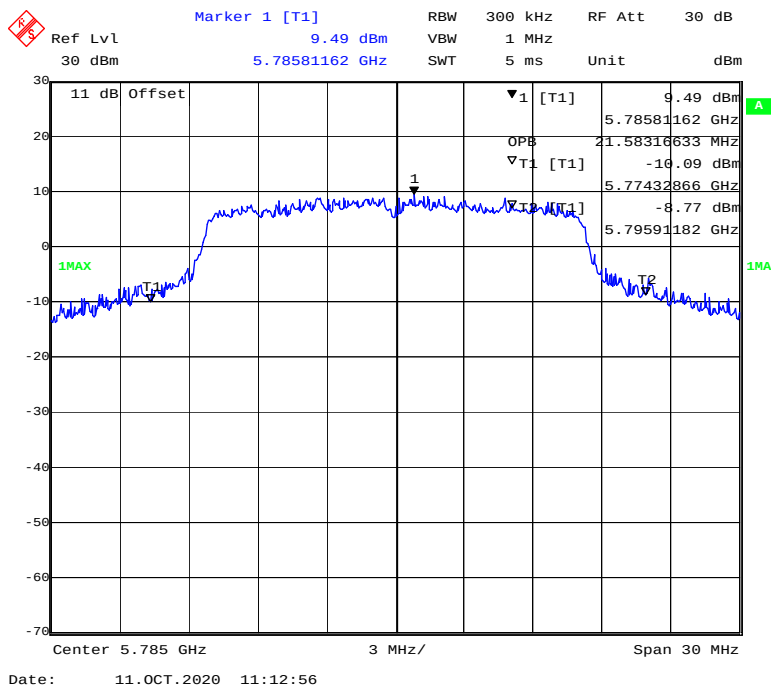


99% Occupied Bandwidth:

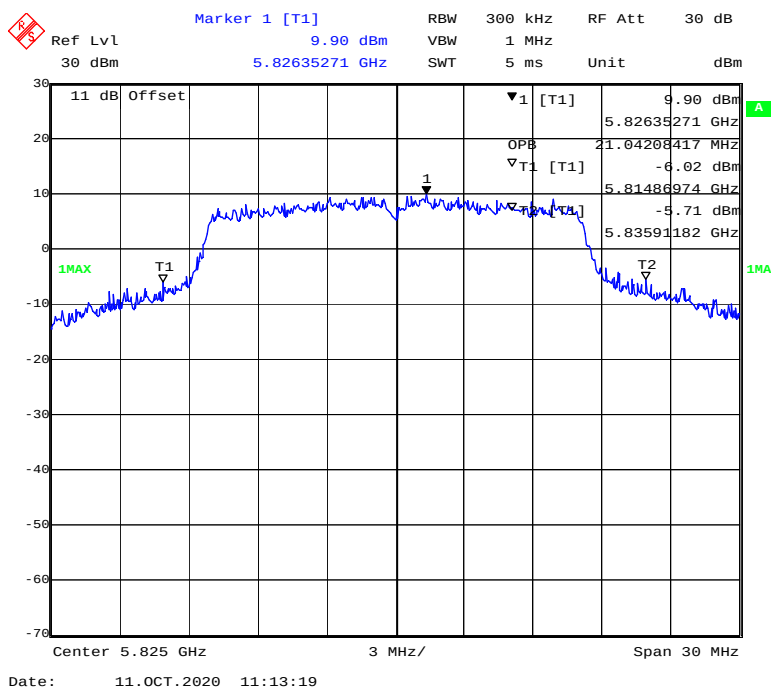
802.11a mode, 5745MHz



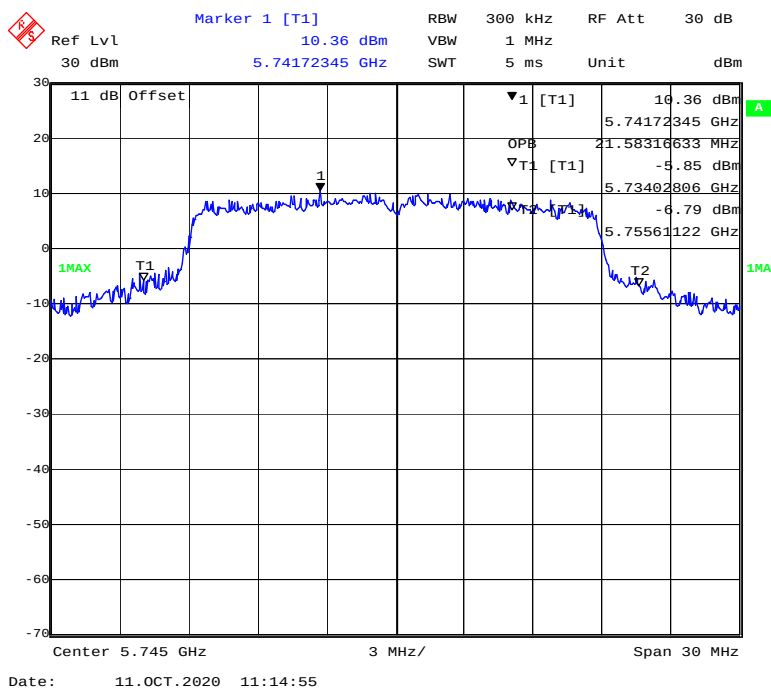
802.11a mode, 5785MHz



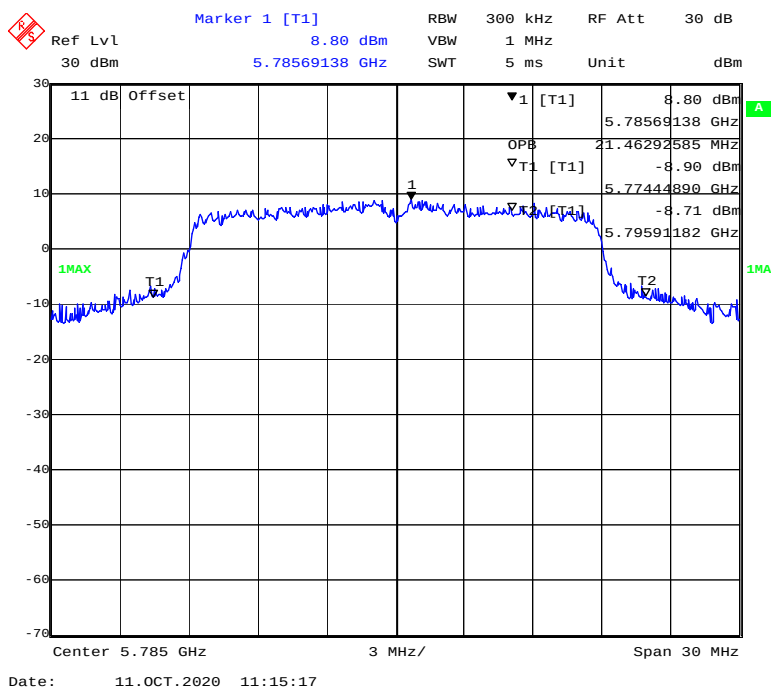
802.11a mode, 5825MHz



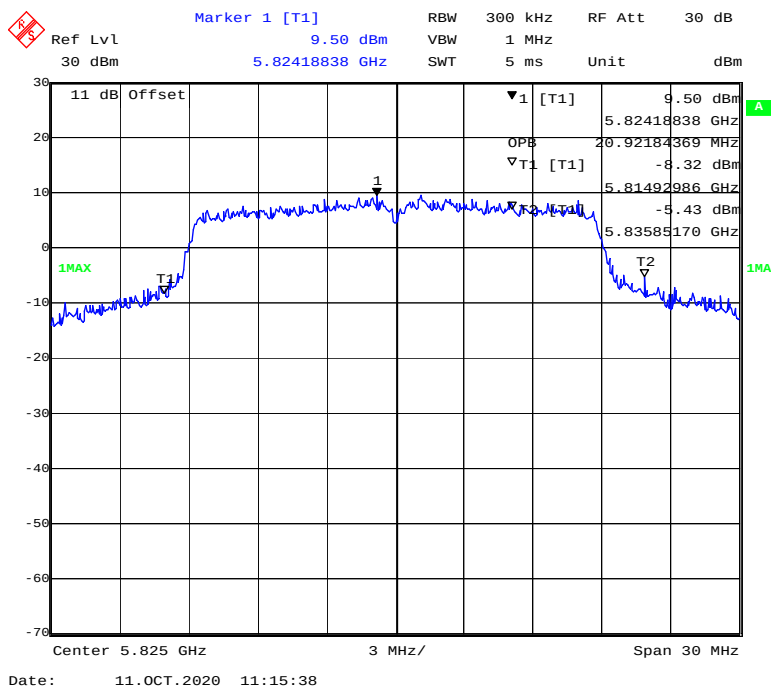
802.11ac20 mode, 5745MHz



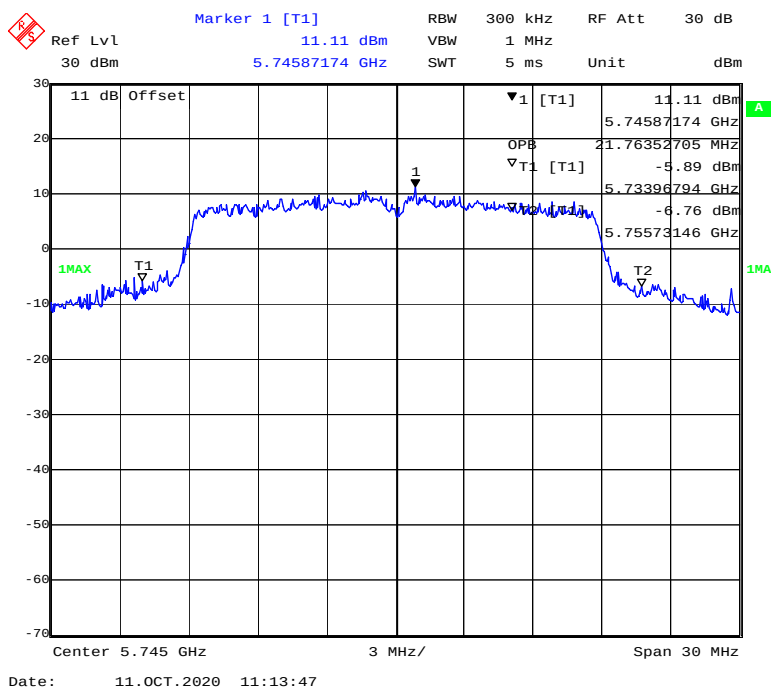
802.11ac20 mode, 5785MHz



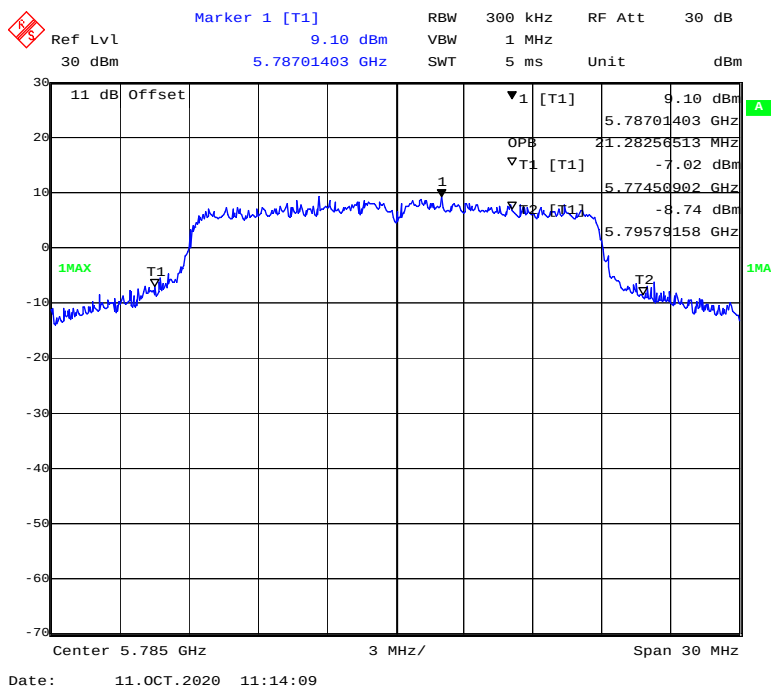
802.11ac20 mode, 5825MHz

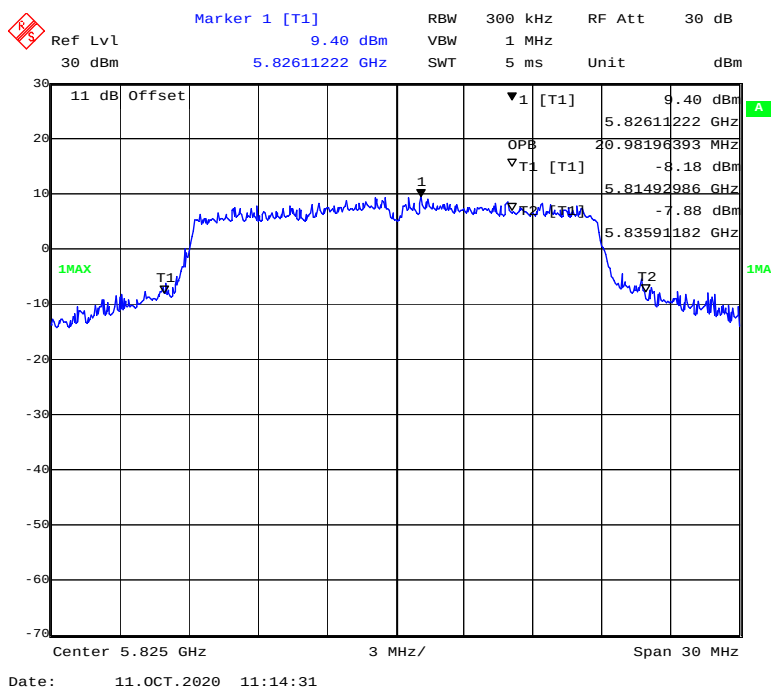
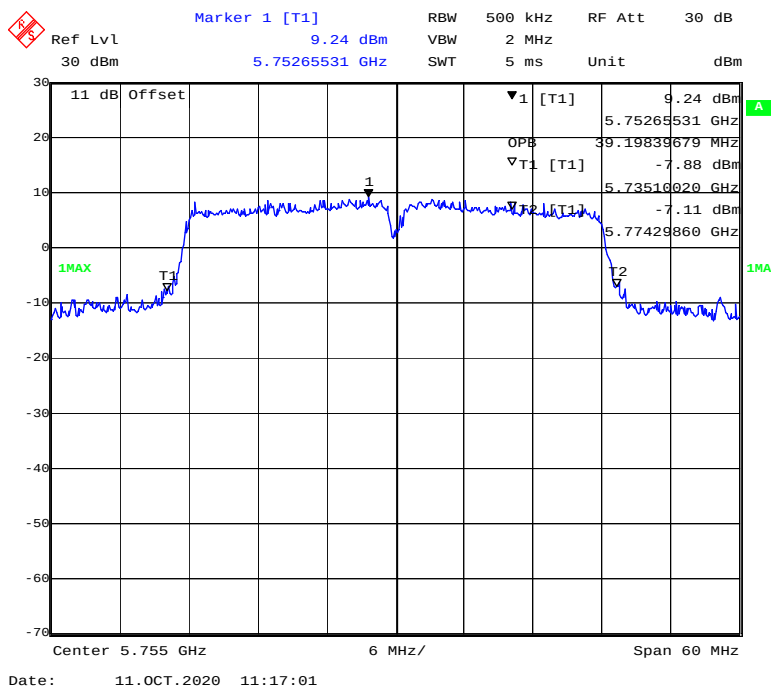


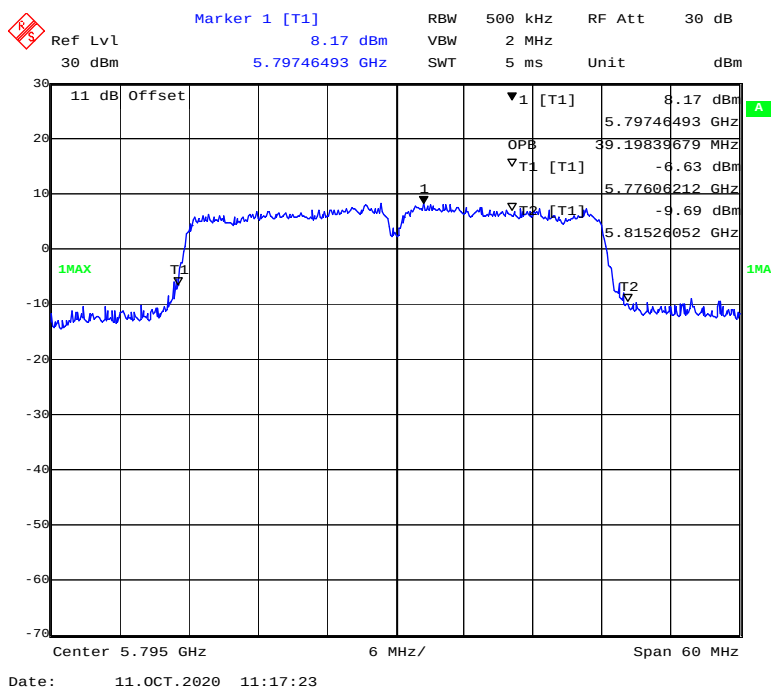
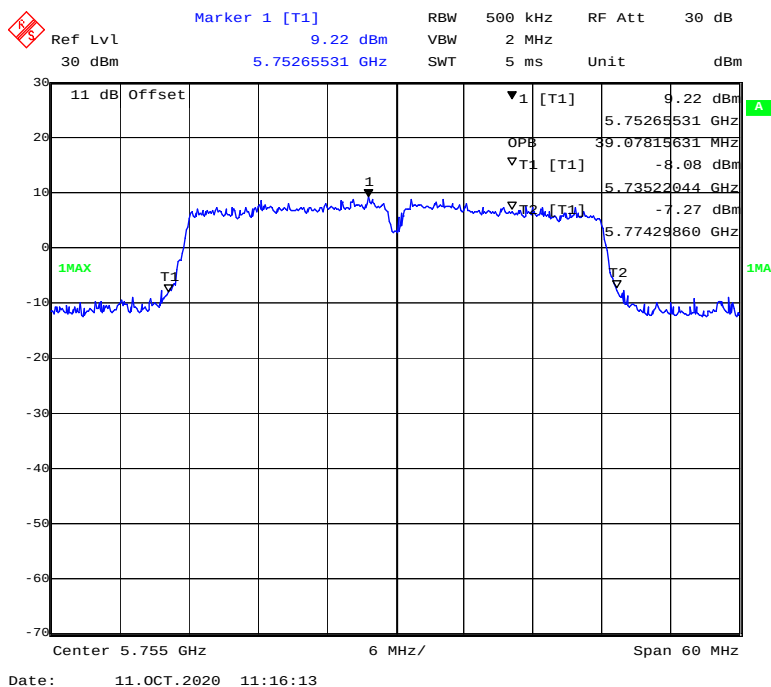
802.11n-HT20 mode, 5745MHz



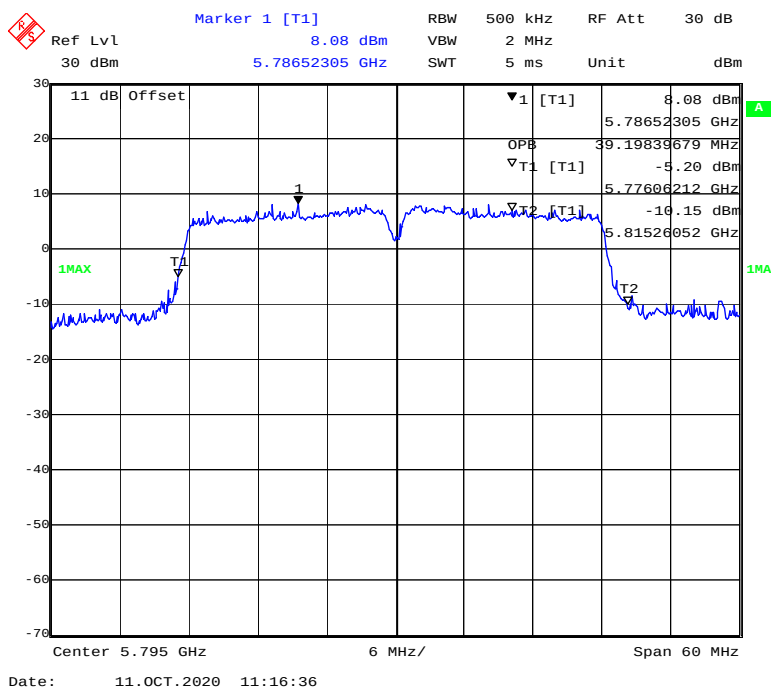
802.11n-HT20 mode, 5785MHz



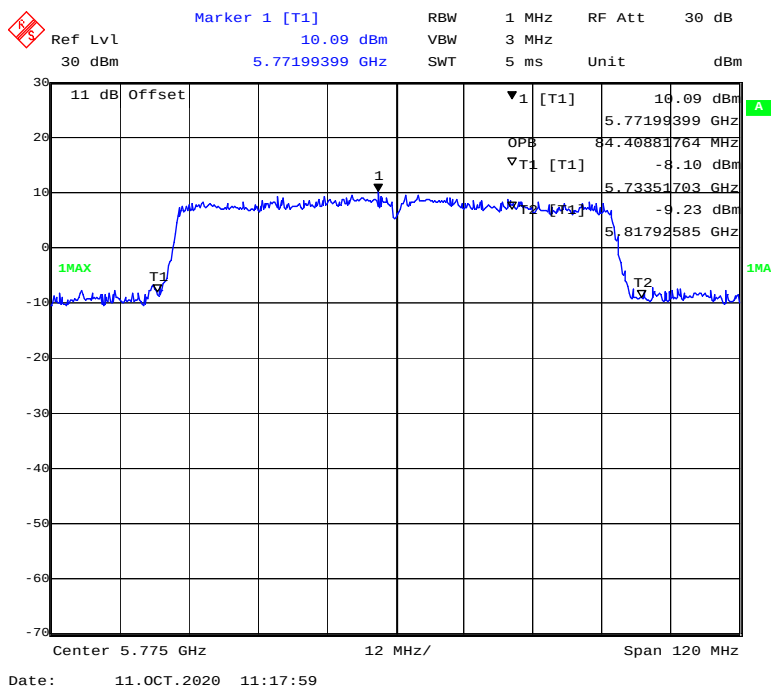
802.11n-HT20 mode, 5825MHz**802.11ac40 mode, 5755MHz**

802.11ac40 mode, 5795MHz**802.11n-HT40 mode, 5755MHz**

802.11n-HT40 mode, 5795MHz



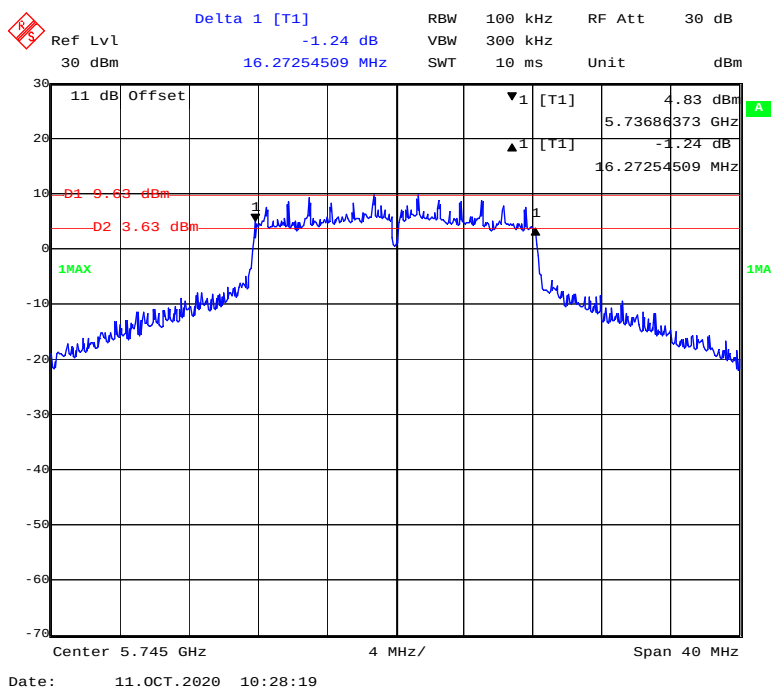
802.11n-ac80 mode, 5775MHz



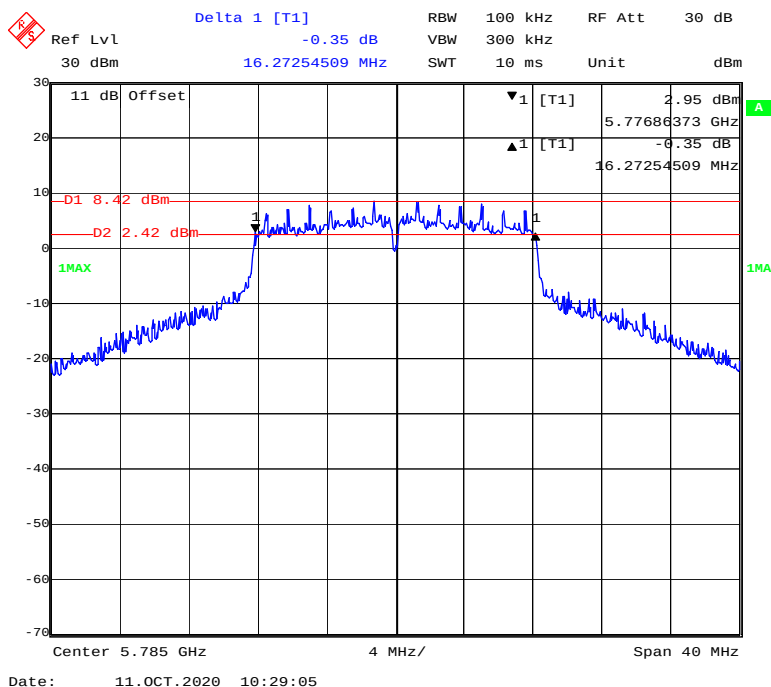
Chain1

6dB Bandwidth

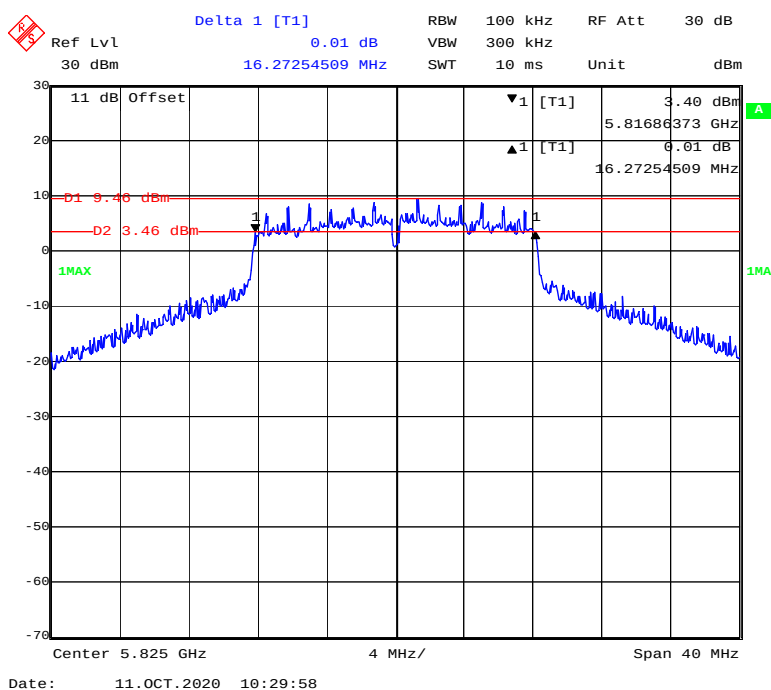
802.11a mode, 5745MHz



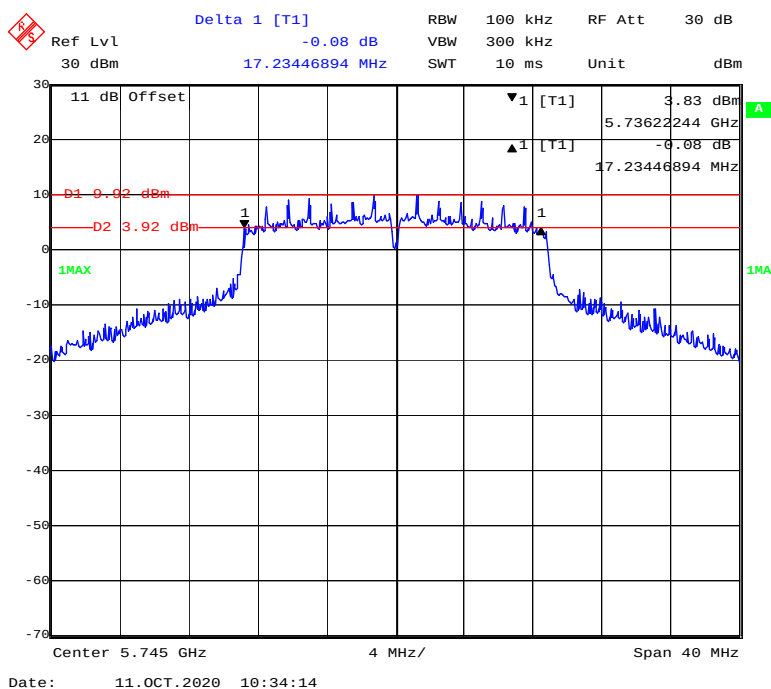
802.11a mode, 5785MHz



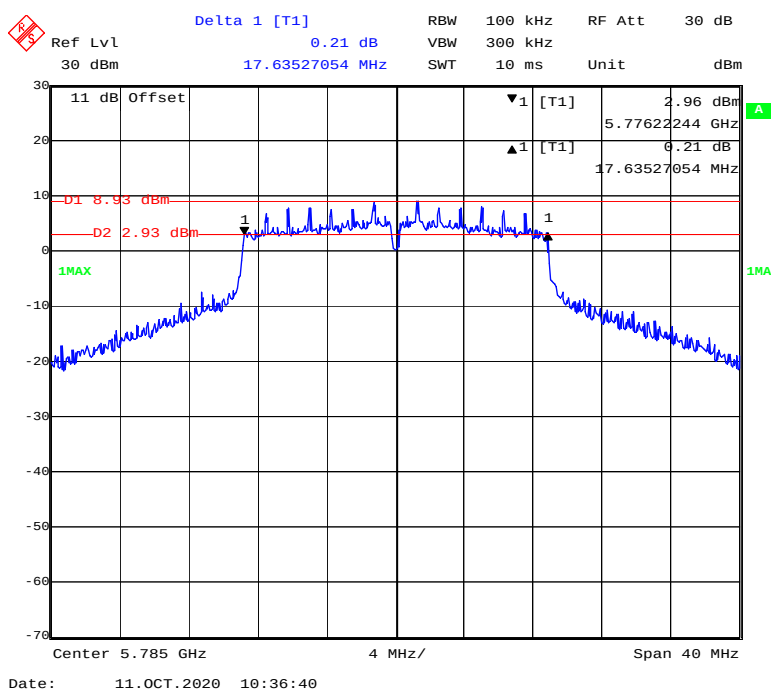
802.11a mode, 5825MHz



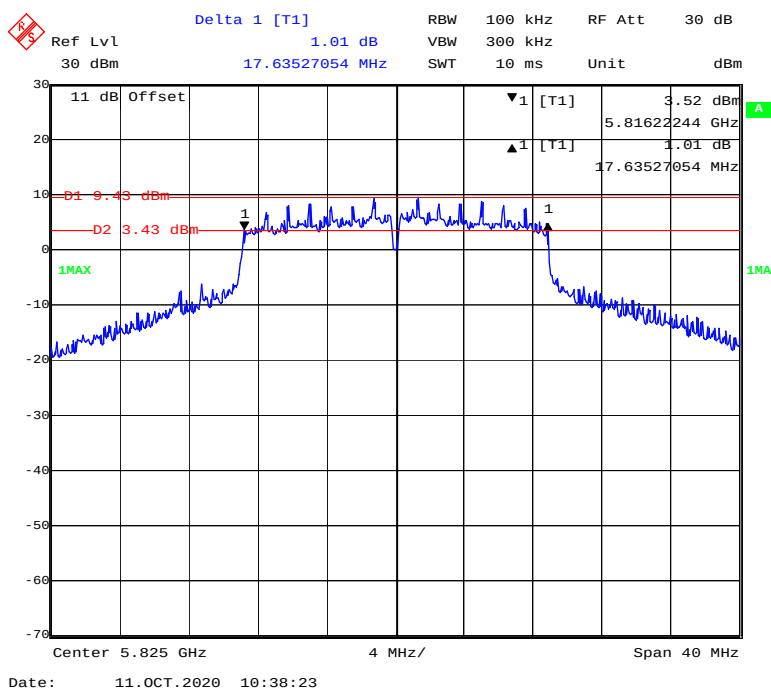
802.11ac20 mode, 5745MHz



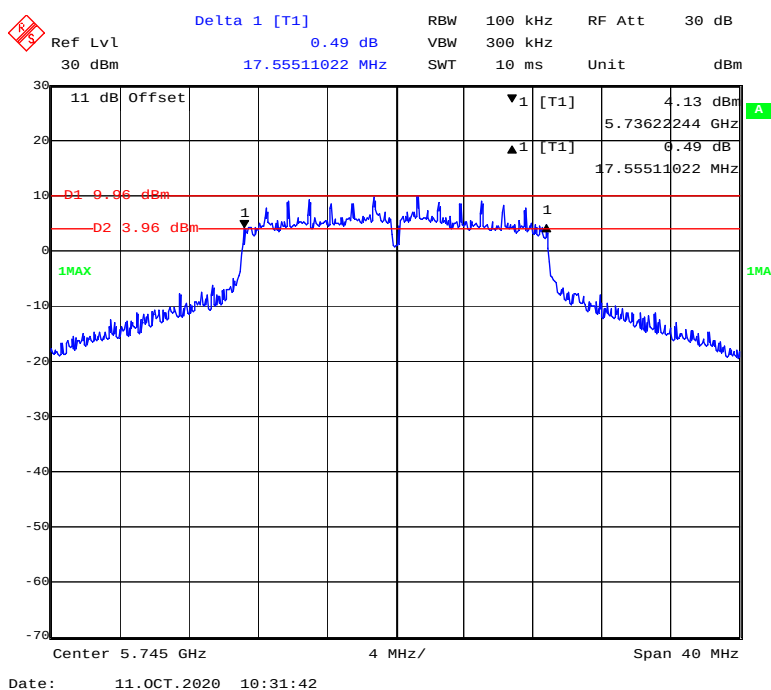
802.11ac20 mode, 5785MHz



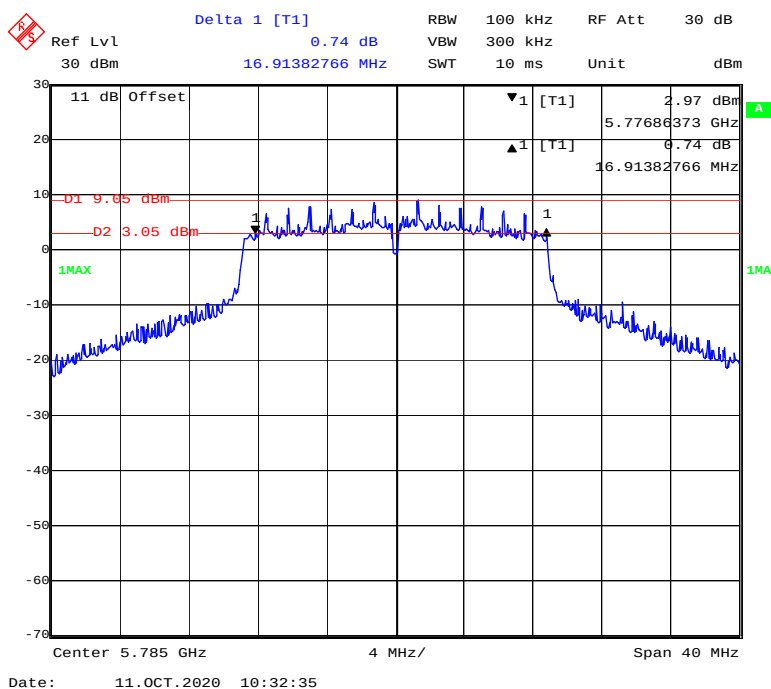
802.11ac20 mode, 5825MHz



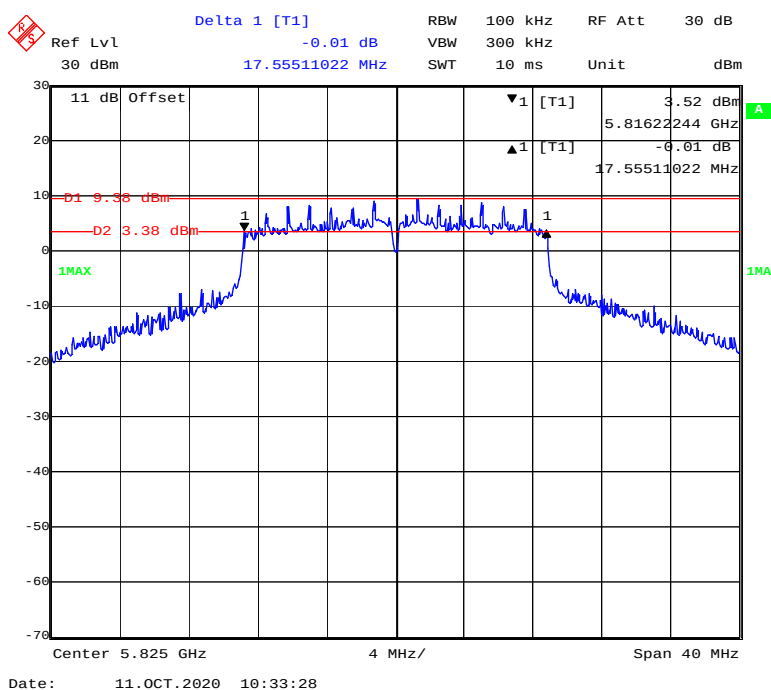
802.11n-HT20 mode, 5745MHz



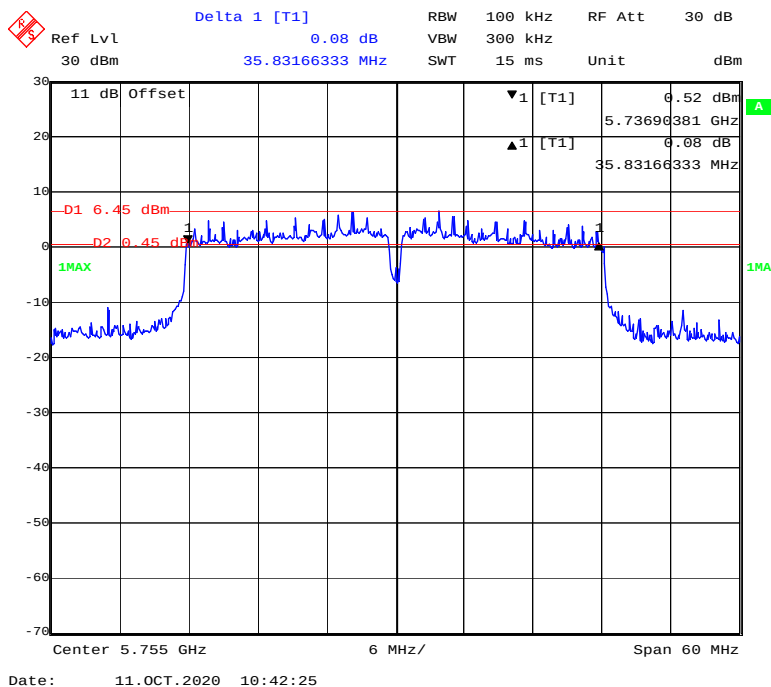
802.11n-HT20 mode, 5785MHz



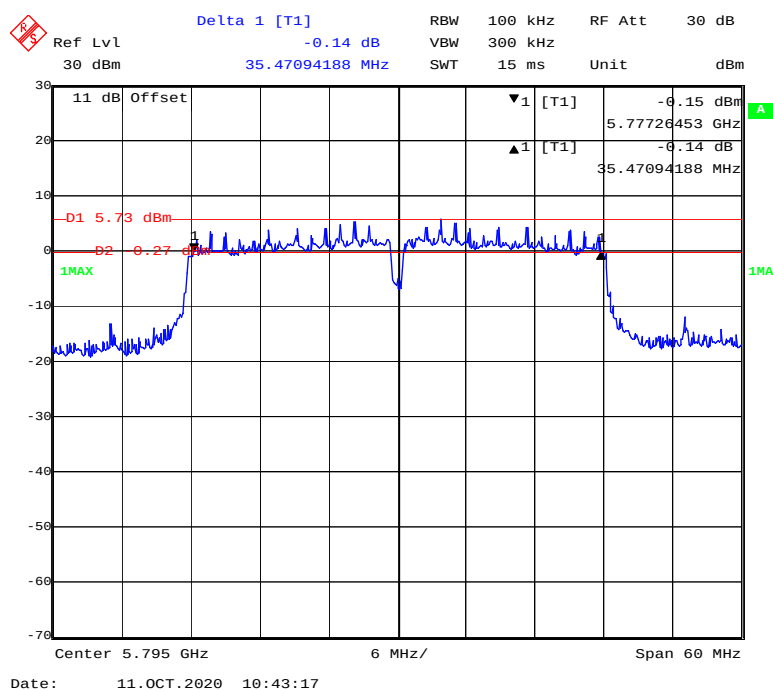
802.11n-HT20 mode, 5825MHz



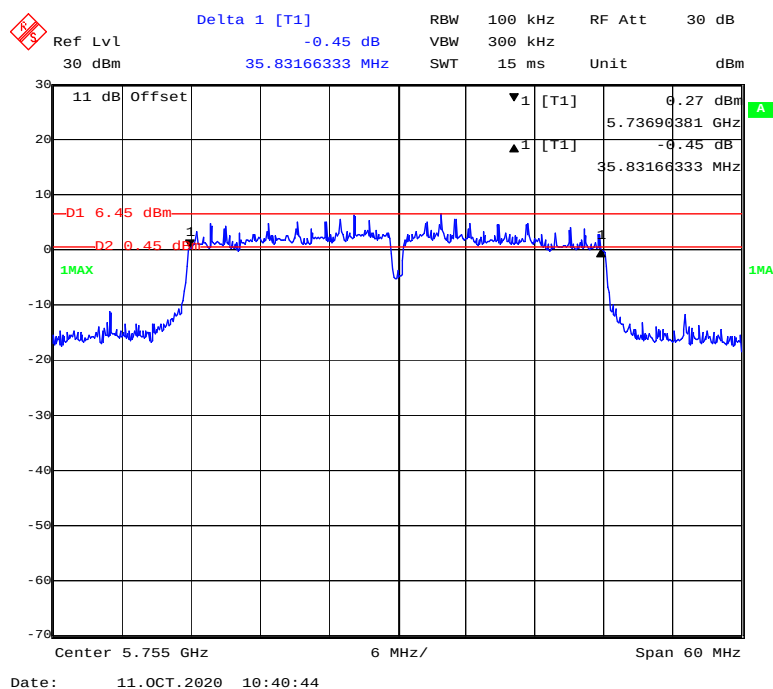
802.11ac40 mode, 5755MHz



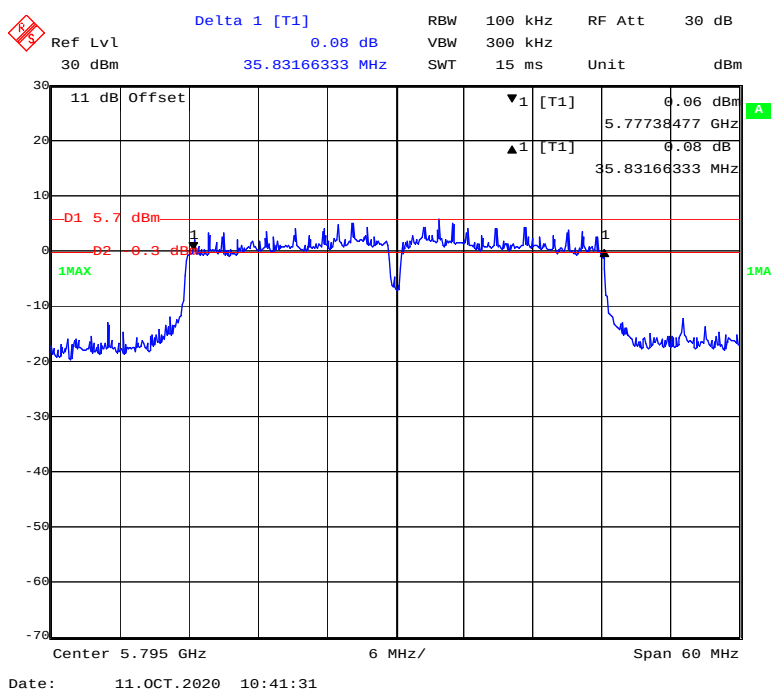
802.11ac40 mode, 5795MHz



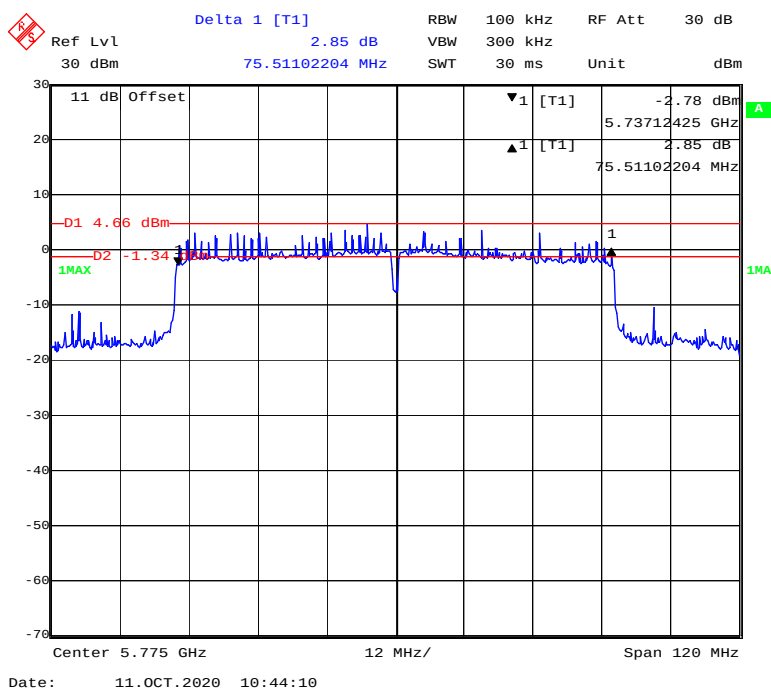
802.11n-HT40 mode, 5755MHz



802.11n-HT40 mode, 5795MHz

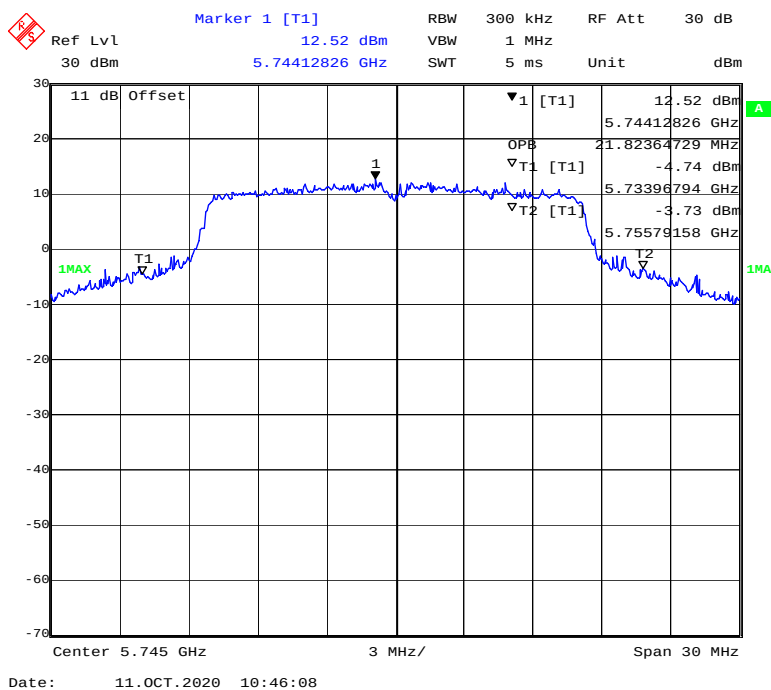


802.11ac80 mode, 5775MHz

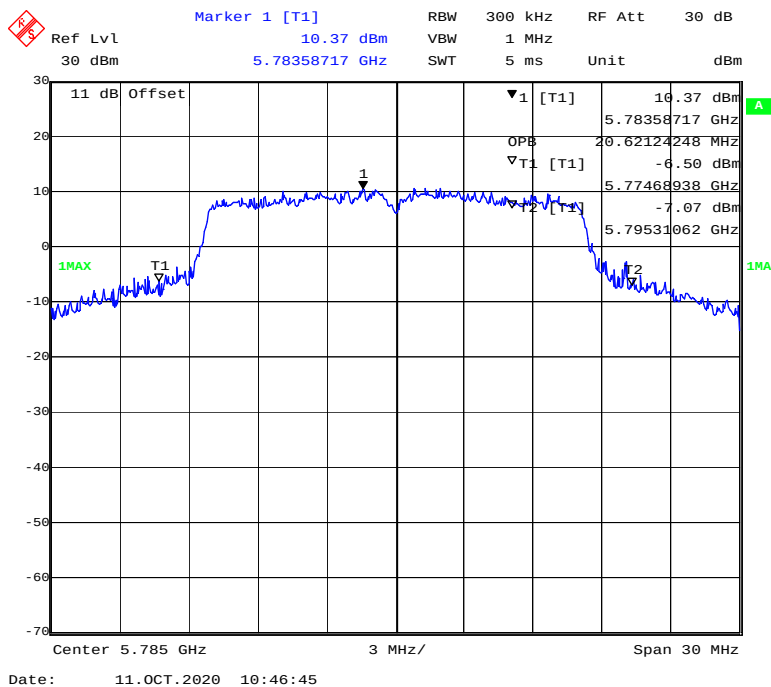


99% Occupied Bandwidth:

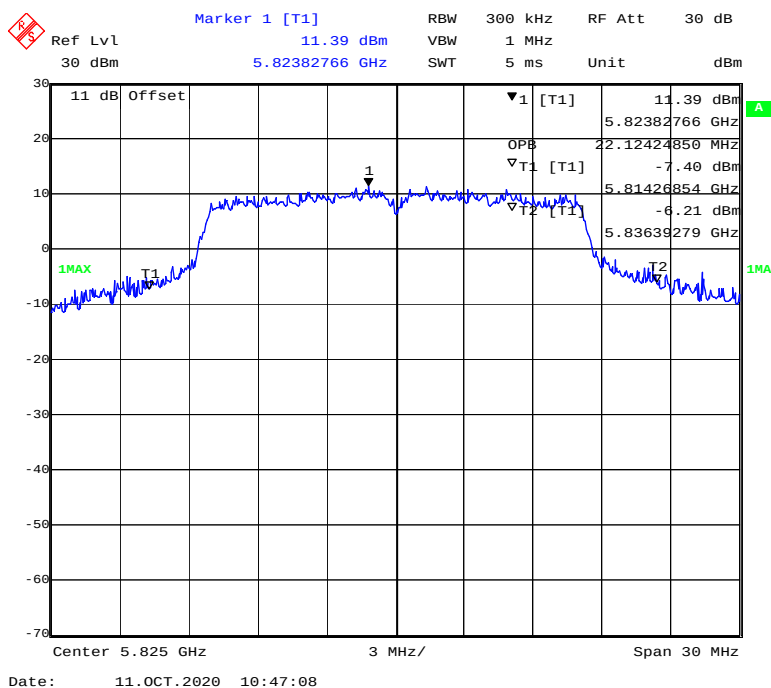
802.11a mode, 5745MHz



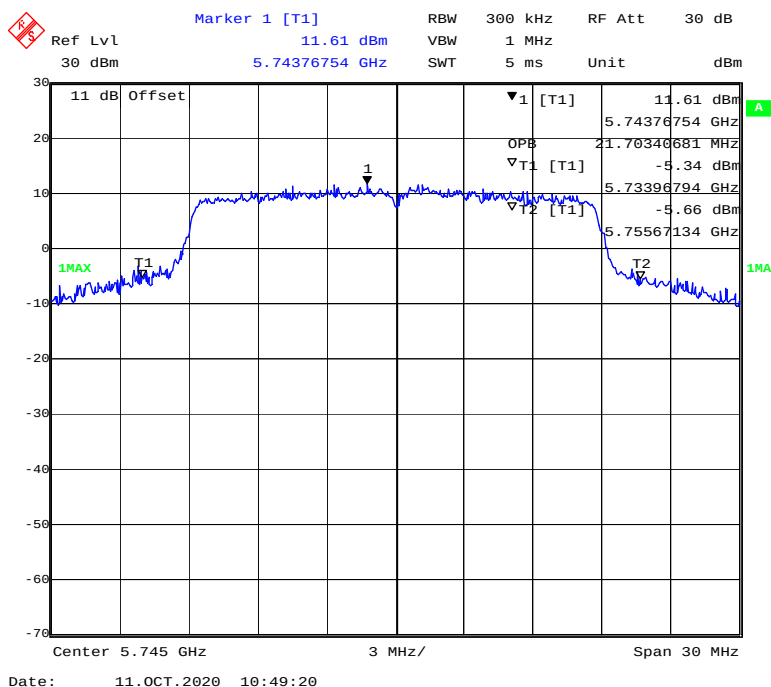
802.11a mode, 5785MHz



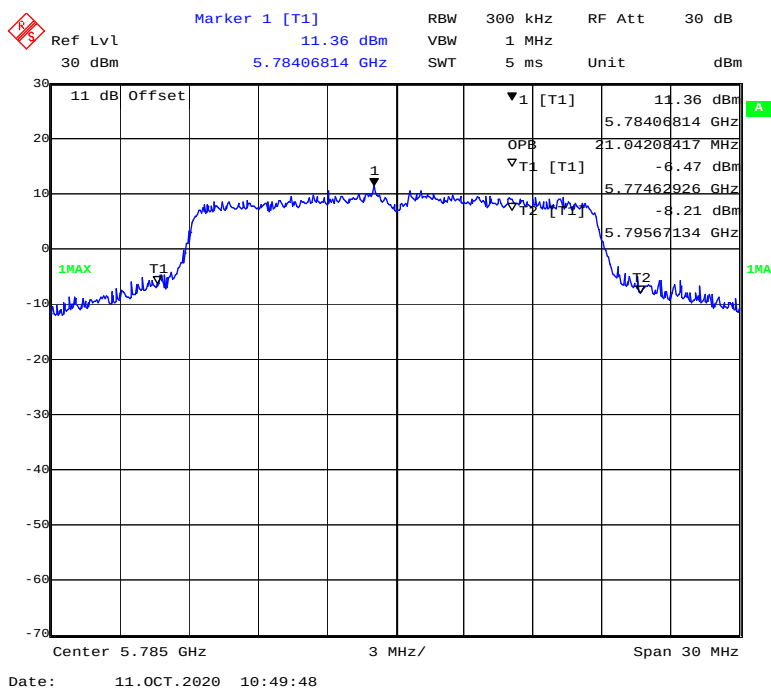
802.11a mode, 5825MHz



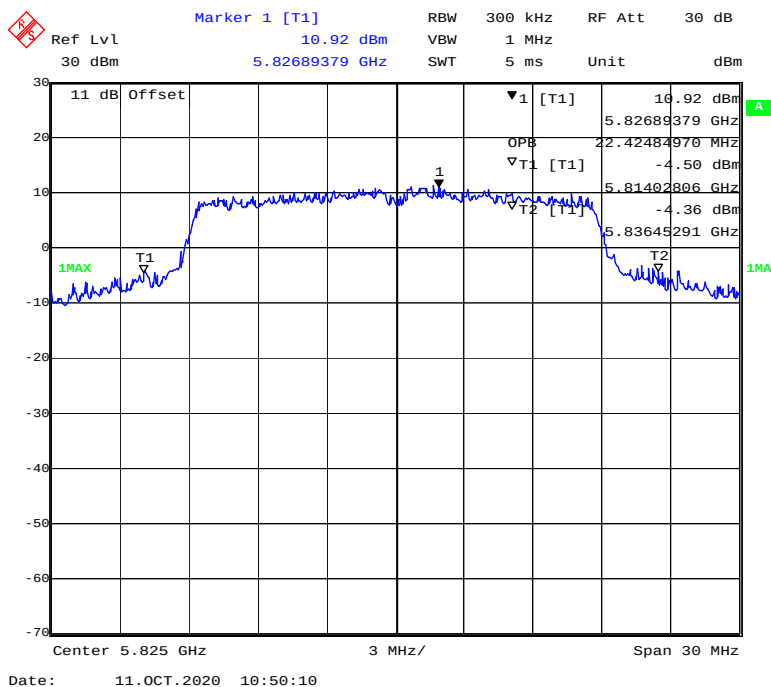
802.11ac20 mode, 5745MHz



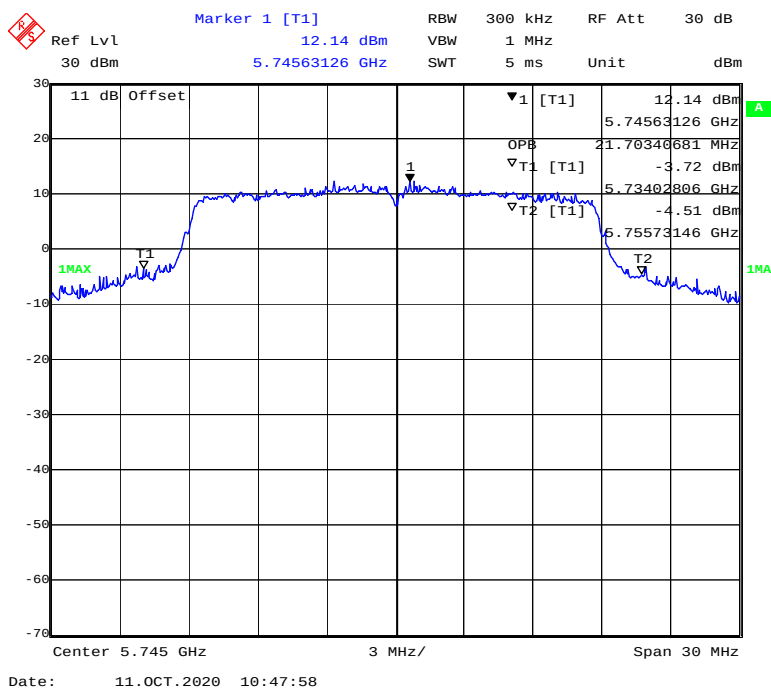
802.11ac20 mode, 5785MHz



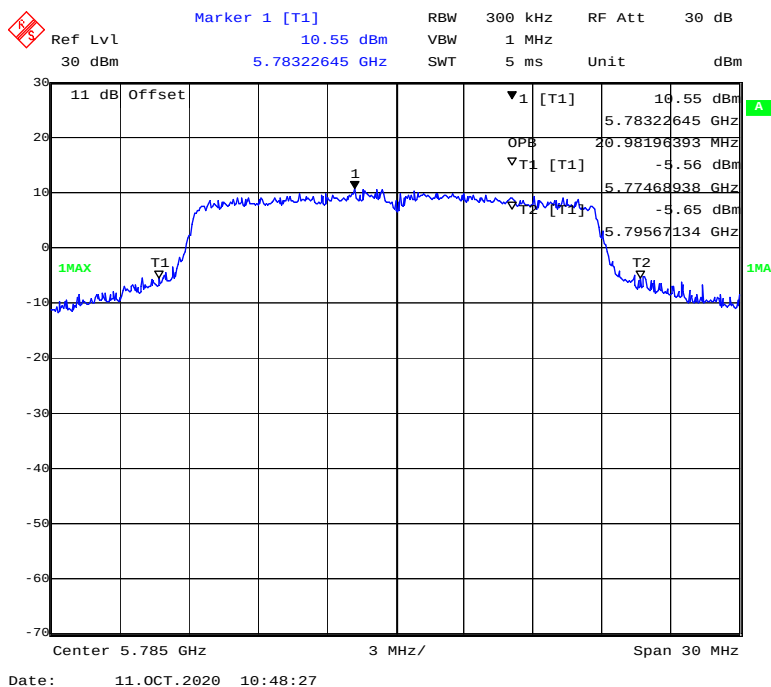
802.11ac20 mode, 5825MHz

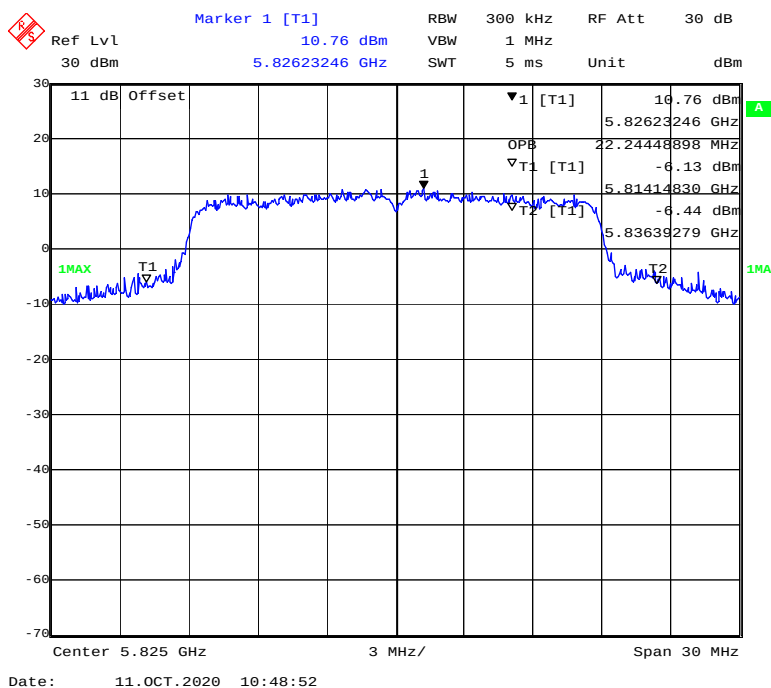
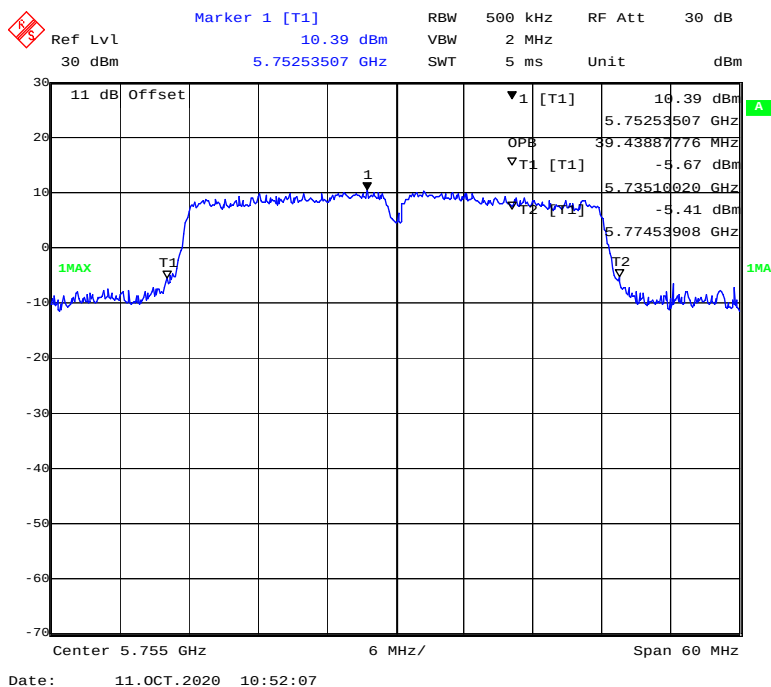


802.11n-HT20 mode, 5745MHz

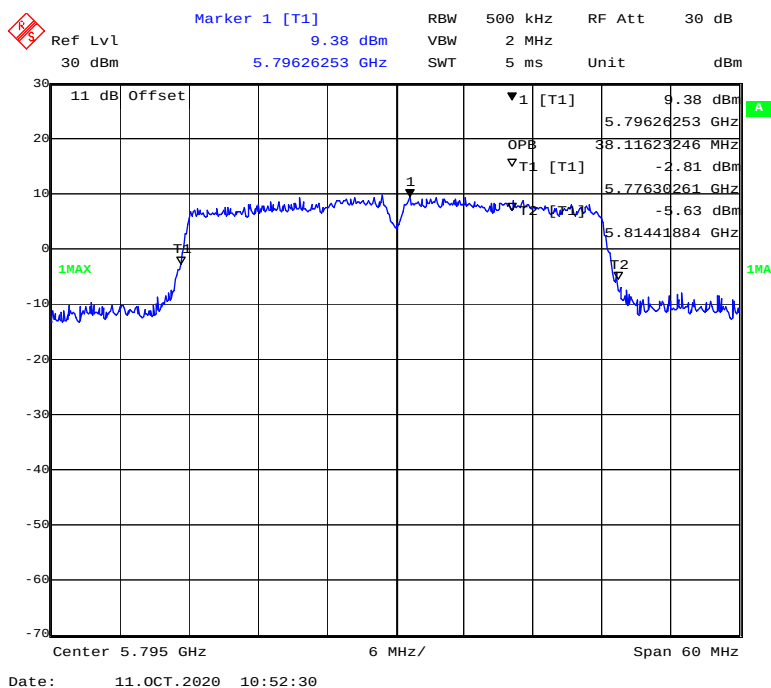


802.11n-HT20 mode, 5785MHz

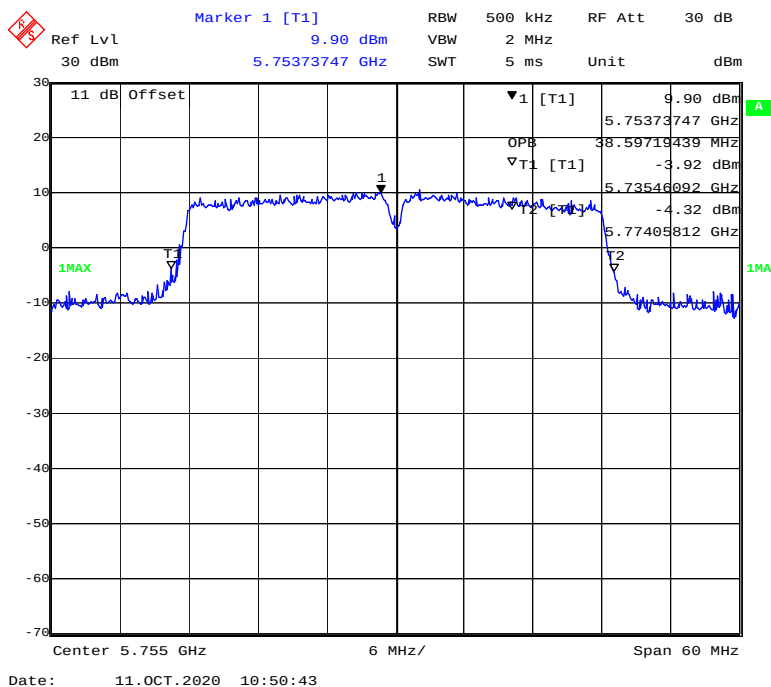


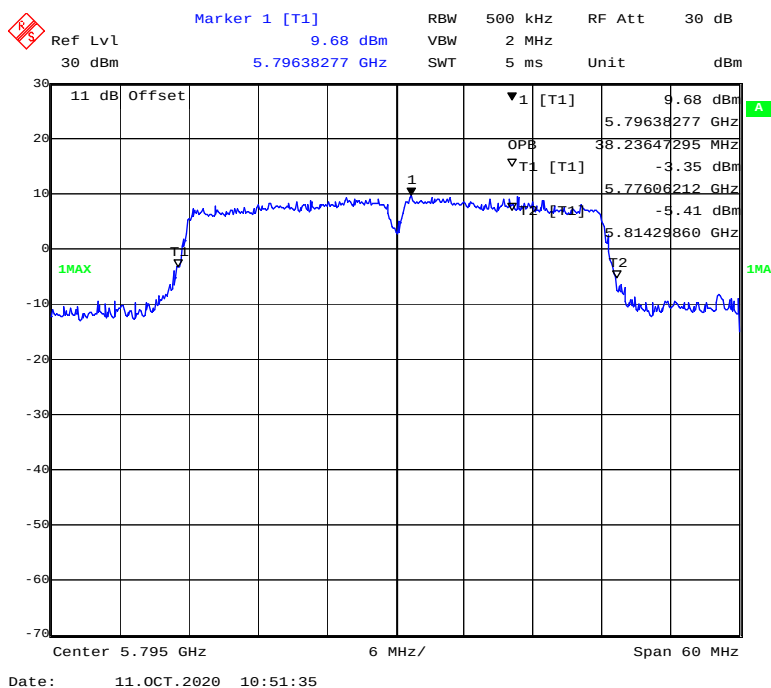
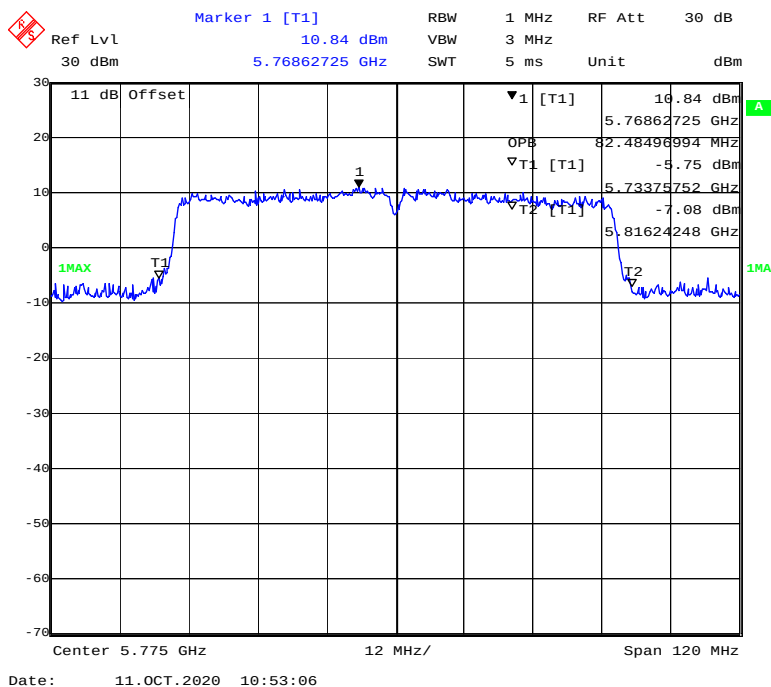
802.11n-HT20 mode, 5825MHz**802.11ac40 mode, 5755MHz**

802.11ac40 mode, 5795MHz



802.11n-HT40 mode, 5755MHz



802.11n-HT40 mode, 5795MHz**802.11n-ac80 mode, 5775MHz**

FCC §15.407(a) (1) (3) – CONDUCTED TRANSMITTER OUTPUT POWER**Applicable Standard**

According to §15.407(a)(1)

(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

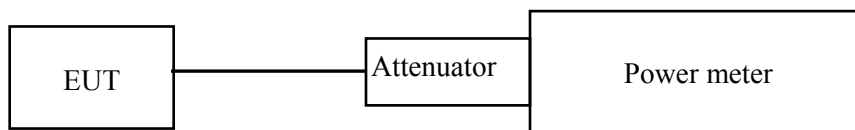
dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to §15.407(a) (3)

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

Test 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 one test equipment.
3. Add a correction factor to the display.

**Test Data****Environmental Conditions**

Temperature:	24.8 °C
Relative Humidity:	50 %
ATM Pressure:	101.5 kPa

The testing was performed by CK Huang on 2020-10-11.

Test Mode: Transmitting

Test mode	Band	Channel	Frequency (MHz)	Average Conducted Output Power (dBm)			Limit (dBm)	Result
				Chain0	Chain1	Total		
802.11a	5150-5250 MHz	Low	5180	18.21	17.94	/	24	PASS
		Middle	5200	18.12	17.35	/	24	PASS
		High	5240	18.42	18.32	/	24	PASS
	5725-5850 MHz	Low	5745	18.76	20.51	/	30	PASS
		Middle	5785	17.88	19.66	/	30	PASS
		High	5825	18.03	20.10	/	30	PASS
802.11n-HT20	5150-5250 MHz	Low	5180	17.27	17.38	20.34	24	PASS
		Middle	5200	17.31	17.42	20.38	24	PASS
		High	5240	17.30	17.30	20.31	24	PASS
	5725-5850 MHz	Low	5745	18.93	20.48	22.78	30	PASS
		Middle	5785	17.89	19.34	21.69	30	PASS
		High	5825	18.15	19.99	22.18	30	PASS
802.11n-HT40	5150-5250 MHz	Low	5190	12.75	11.86	15.34	24	PASS
		High	5230	12.97	12.52	15.76	24	PASS
	5725-5850 MHz	Low	5755	18.49	20.14	22.40	30	PASS
		High	5795	17.70	19.39	21.64	30	PASS
802.11ac20	5150-5250 MHz	Low	5180	17.35	17.36	20.37	24	PASS
		Middle	5200	17.13	17.36	20.26	24	PASS
		High	5240	17.48	17.29	20.40	24	PASS
	5725-5850 MHz	Low	5745	18.98	20.49	22.81	30	PASS
		Middle	5785	17.84	19.45	21.73	30	PASS
		High	5825	18.14	20.01	22.19	30	PASS
802.11ac40	5150-5250 MHz	Low	5190	12.63	12.02	15.35	24	PASS
		High	5230	12.78	12.57	15.69	24	PASS
	5725-5850 MHz	Low	5755	18.58	20.15	22.45	30	PASS
		High	5795	17.91	19.35	21.70	30	PASS
802.11ac80	5150-5250 MHz	/	5210	7.47	7.00	10.25	24	PASS
	5725-5850 MHz	/	5775	18.93	20.25	22.65	30	PASS

Note 1: The total output power= $10\log_{10}(10^{(\text{Chain0}/10)}+10^{(\text{Chain1}/10)})$

Note 2: The maximum antenna gain is 1.57 dBi, the device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO

transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11

devices:

Array Gain = 0 dB (i.e., no array gain) for $N_{\text{ANT}} \leq 4$;

So:

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 1.57\text{dBi} < 6\text{dBi}$

FCC §15.407(a) (1) (3) - POWER SPECTRAL DENSITY

Applicable Standard

According to §15.407(a)(1)

(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.

According to §15.407(a) (3)

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

Test Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01: Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section F: Maximum power spectral density (PPSD)

Test Data

Environmental Conditions

Temperature:	24.8 °C
Relative Humidity:	54 %
ATM Pressure:	101.5 kPa

The testing was performed by CK Huang on 2020-10-11.

Test Mode: Transmitting

5150MHz-5250MHz:

Mode	Channel	Frequency (MHz)	PSD (dBm/MHz)			Limit (dBm/MHz)	Result
			Chain0	Chain1	Total		
802.11a	Low	5180	8.47	7.70	/	11	PASS
	Middle	5200	8.25	7.50	/	11	PASS
	High	5240	8.94	8.37	/	11	PASS
802.11ac20	Low	5180	7.36	7.43	10.41	11	PASS
	Middle	5200	7.32	7.42	10.38	11	PASS
	High	5240	7.59	7.56	10.59	11	PASS
802.11n20	Low	5180	6.92	7.47	10.21	11	PASS
	Middle	5200	6.91	7.18	10.06	11	PASS
	High	5240	7.77	7.45	10.62	11	PASS
802.11ac40	Low	5190	-0.68	-1.54	1.92	11	PASS
	High	5230	-0.74	-1.25	2.02	11	PASS
802.11n40	Low	5190	-0.80	-1.53	1.86	11	PASS
	High	5230	-0.68	-0.69	2.33	11	PASS
802.11ac80	/	5210	-8.90	-9.51	-6.18	11	PASS

5725MHz-5850MHz:

Mode	Channel	Frequency MHz	PSD (dBm/500kHz)			Limit (dBm/500kHz)	Result
			Chain0	Chain1	Total		
802.11a	Low	5745	8.46	9.40	/	30	PASS
	Middle	5785	6.57	8.55	/	30	PASS
	High	5825	7.54	8.25	/	30	PASS
802.11ac20	Low	5745	7.92	9.40	11.73	30	PASS
	Middle	5785	6.72	8.52	10.72	30	PASS
	High	5825	6.36	8.64	10.66	30	PASS
802.11n20	Low	5745	7.59	8.93	11.32	30	PASS
	Middle	5785	6.31	8.14	10.33	30	PASS
	High	5825	7.31	8.72	11.08	30	PASS
802.11ac40	Low	5755	5.08	5.74	8.43	30	PASS
	High	5795	3.28	5.14	7.32	30	PASS
802.11n40	Low	5755	4.05	5.94	8.11	30	PASS
	High	5795	3.41	5.63	7.67	30	PASS
802.11ac80	/	5775	2.63	3.97	6.36	30	PASS

Note1: The total PSD=10Log10(10^(Chain0/10)+10^(Chain1/10))

Note2: The maximum antenna gain is 1.57 dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

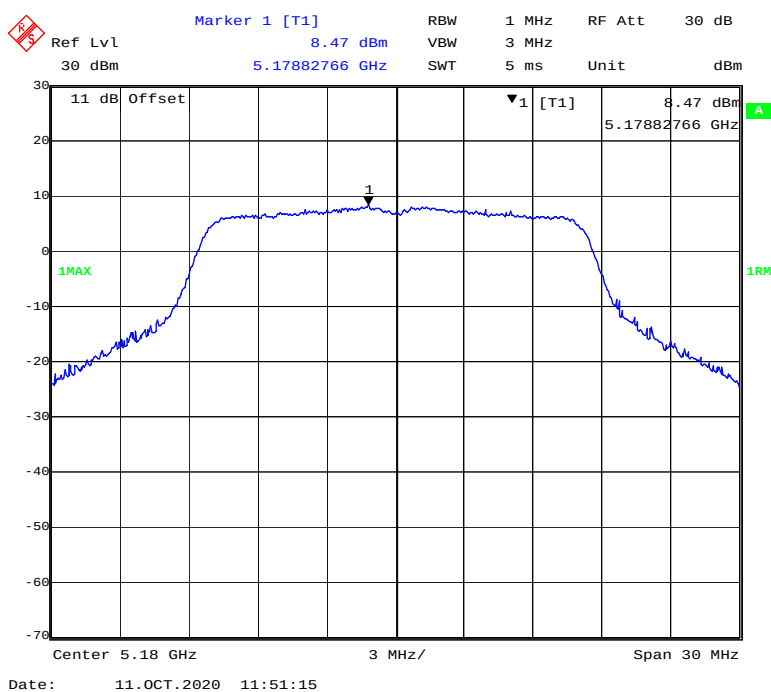
Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

So:

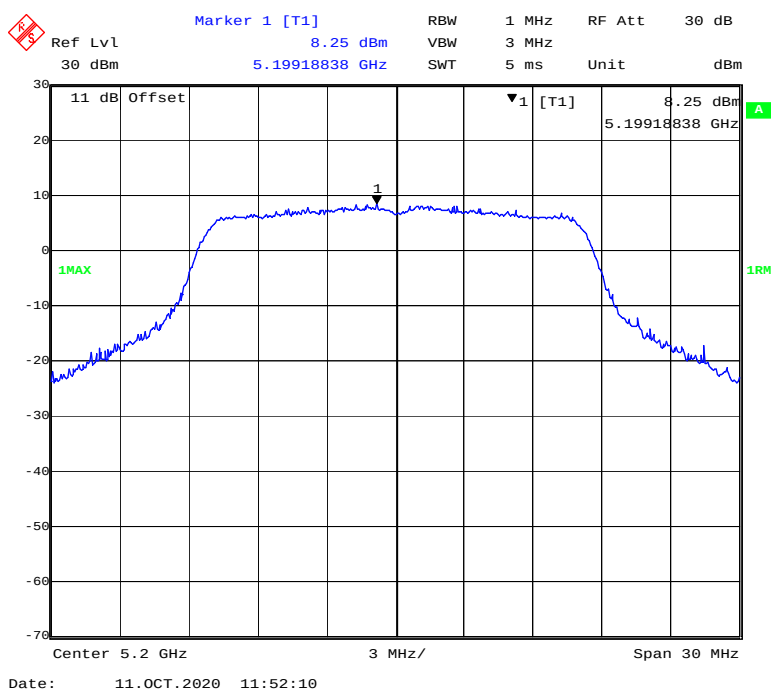
Directional gain = $G_{ANT} + \text{Array Gain} = 1.57 + 10 \cdot \log(2/1) = 4.57$ dBi

5150MHz-5250MHz Band-Chain0:

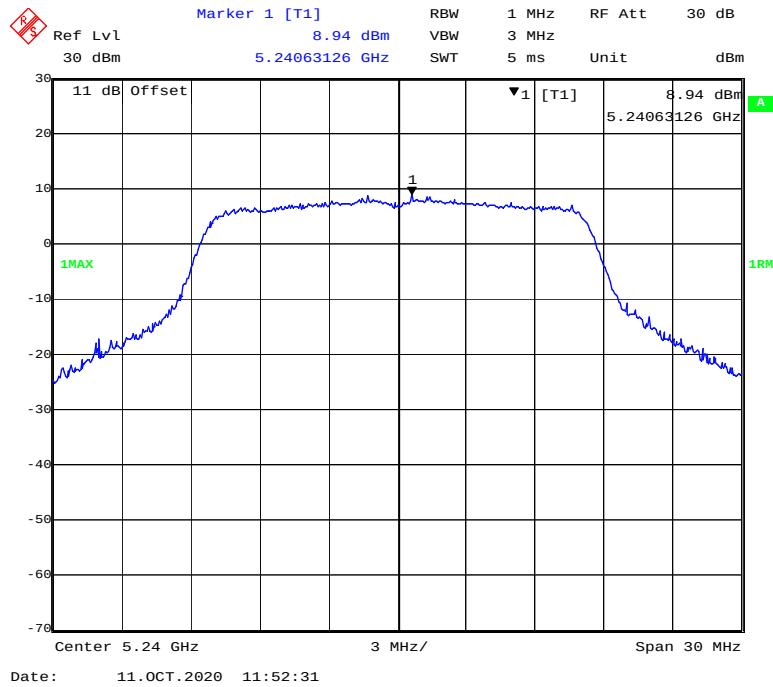
802.11a mode, Power spectral density-5180MHz



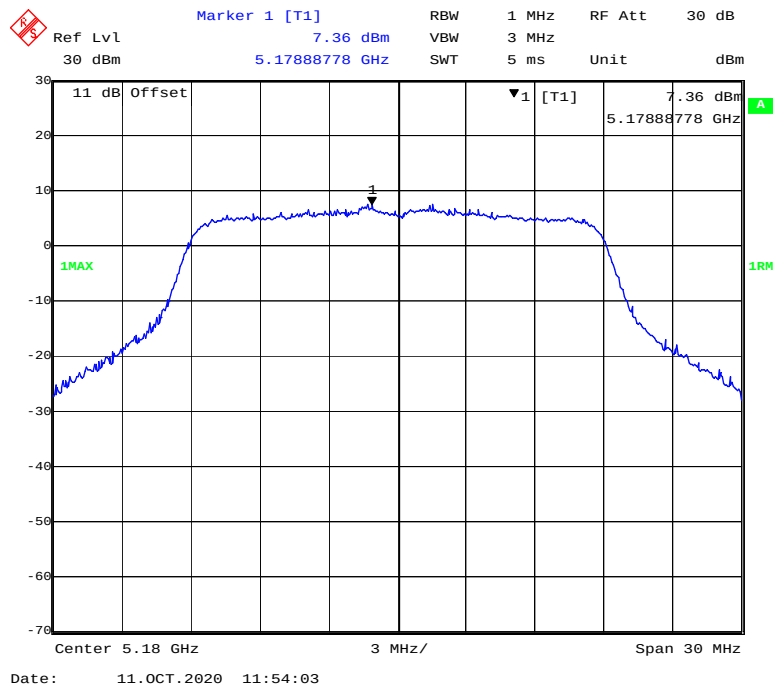
802.11a mode, Power spectral density-5200MHz



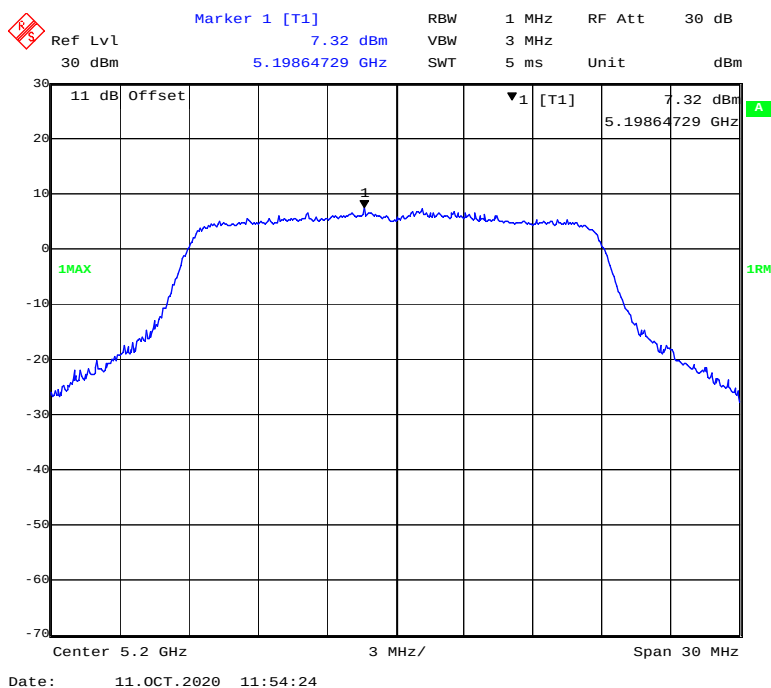
802.11a mode, Power spectral density-5240MHz



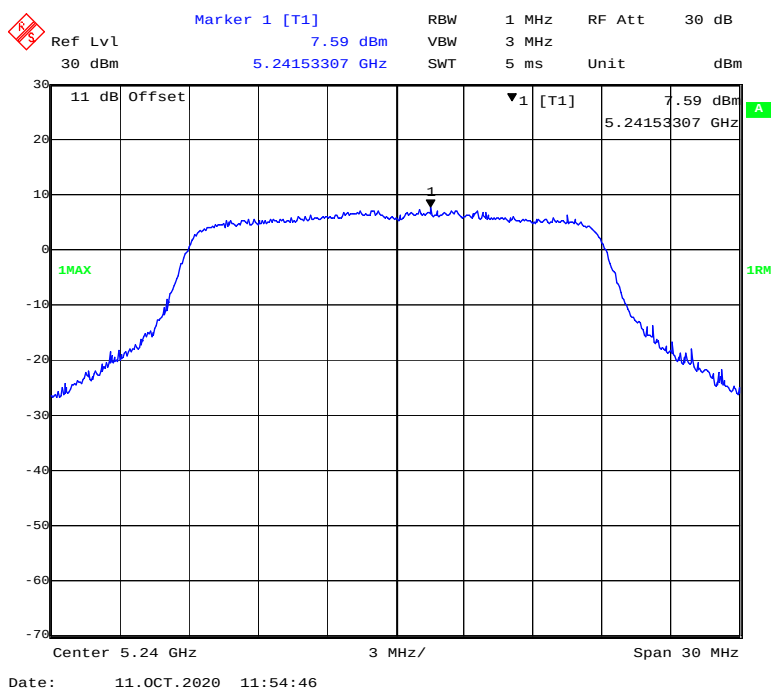
802.11ac20 mode, Power spectral density-5180MHz



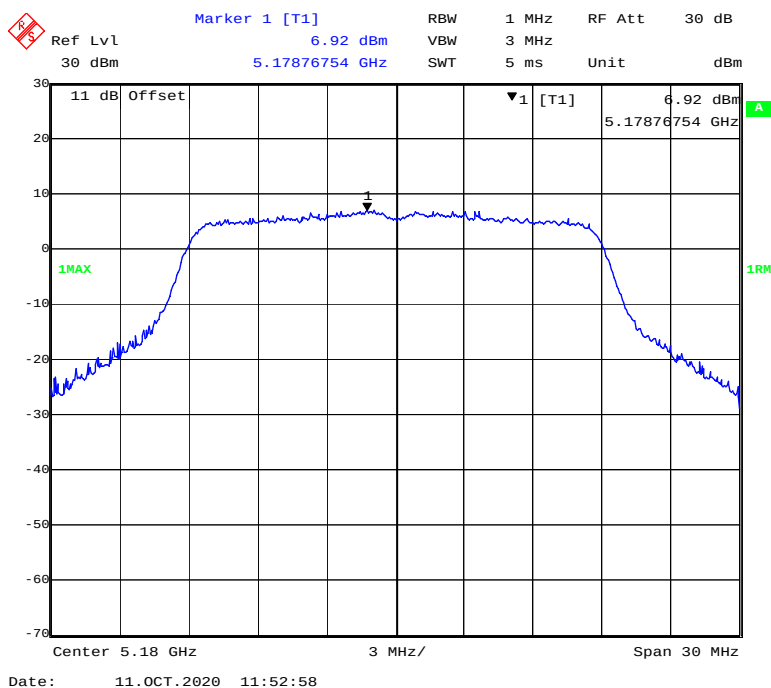
802.11ac20 mode, Power spectral density-5200MHz



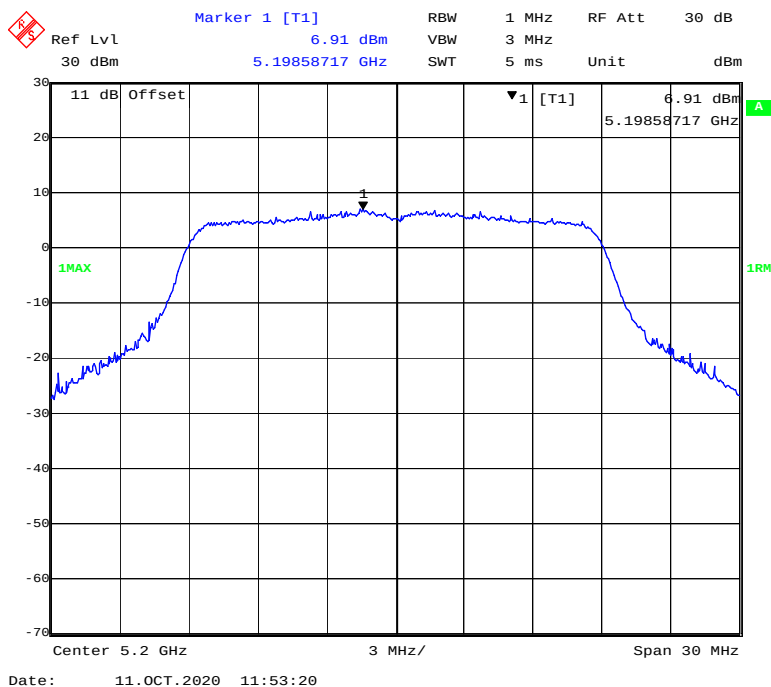
802.11ac20 mode, Power spectral density-5240MHz

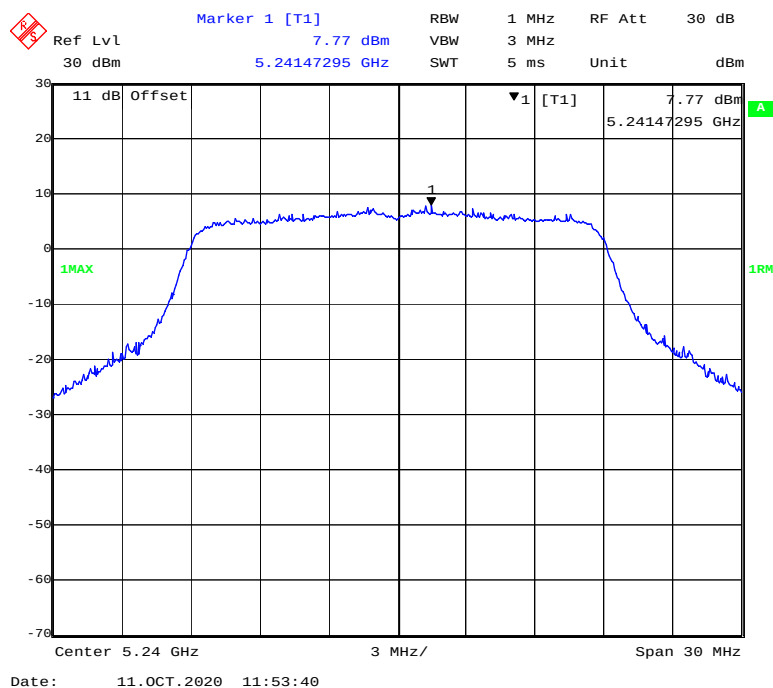
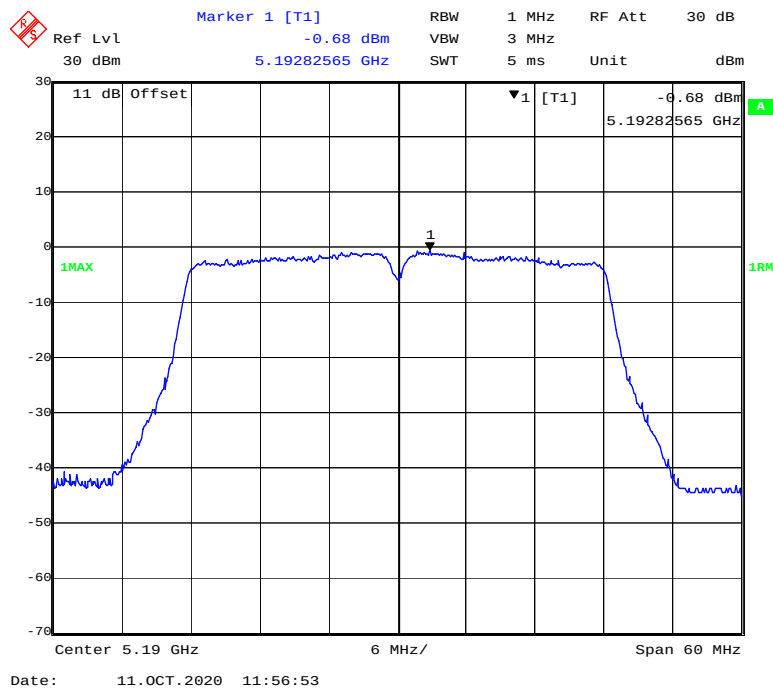


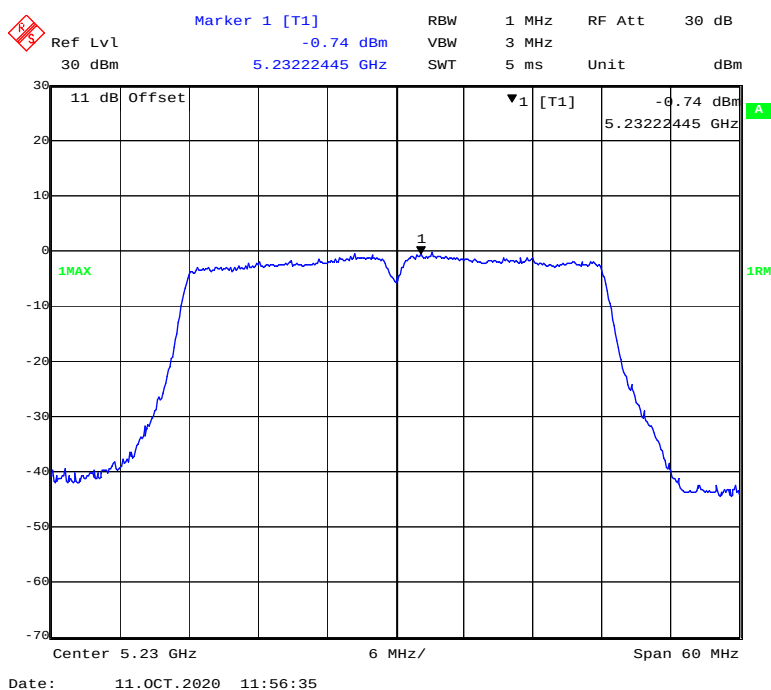
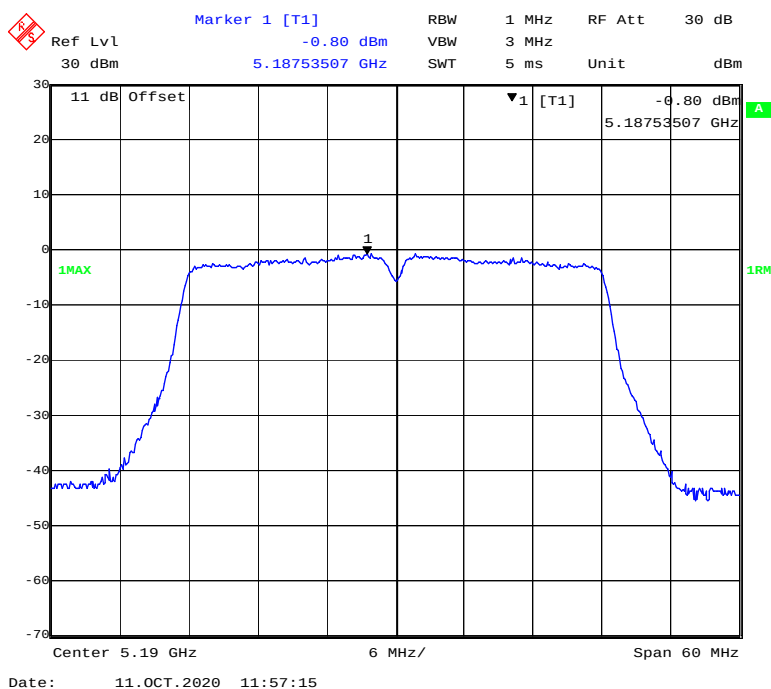
802.11n-HT20 mode, Power spectral density-5180MHz

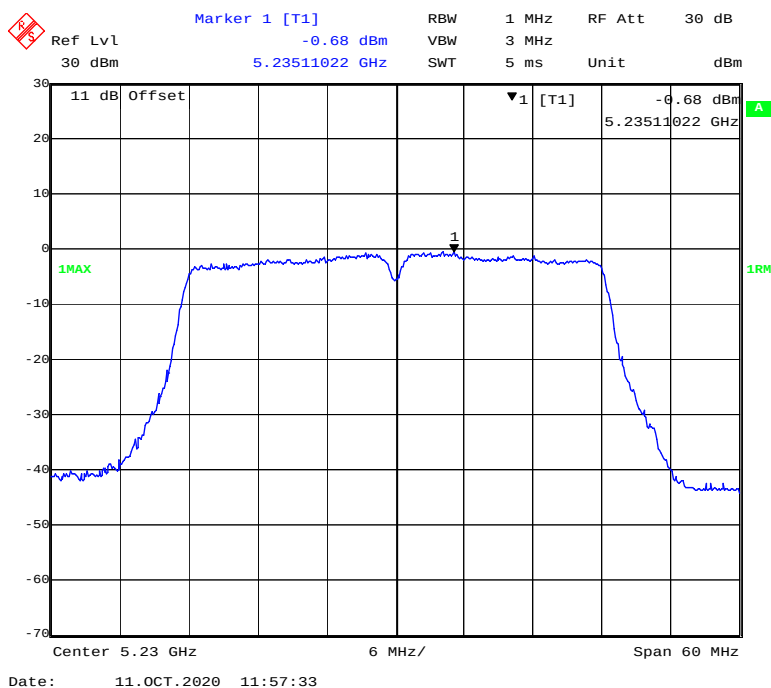
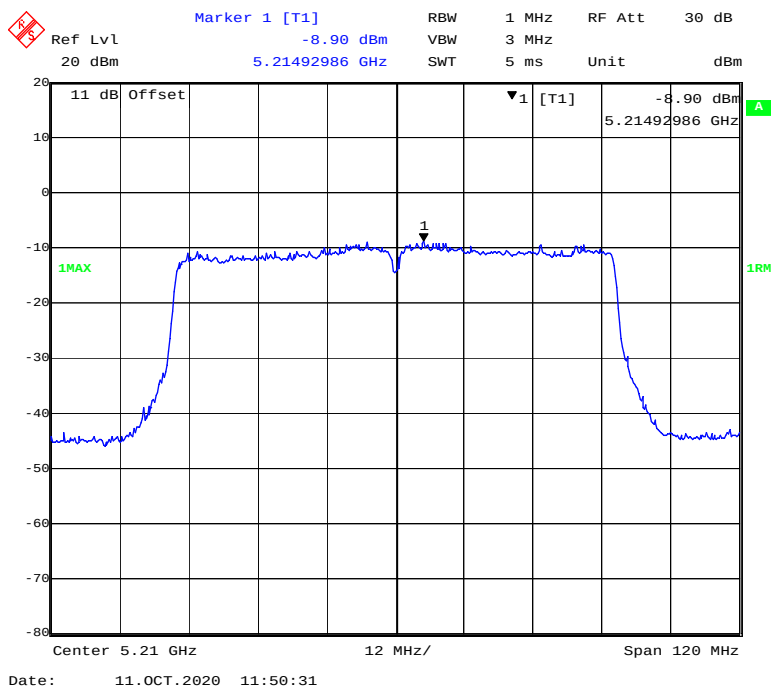


802.11n-HT20 mode, Power spectral density-5200MHz



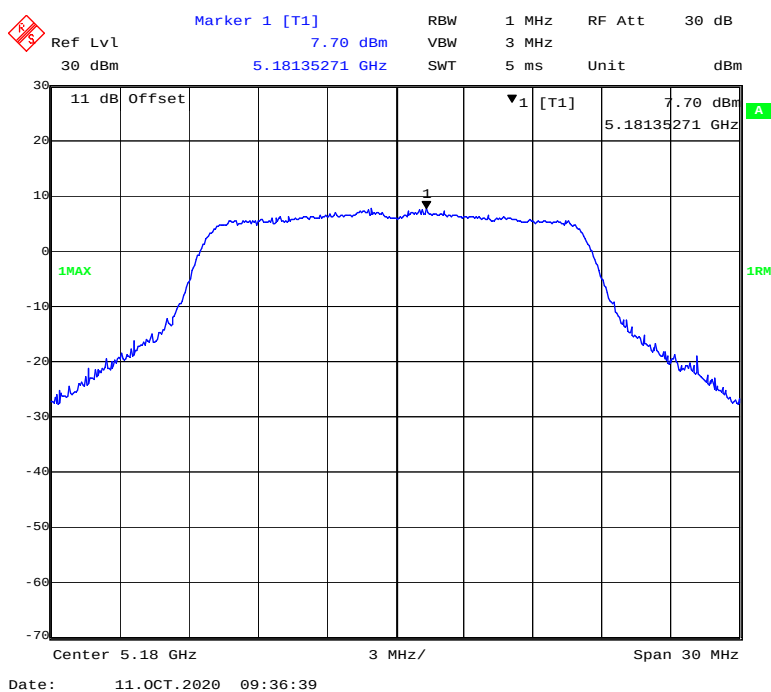
802.11n-HT20 mode, Power spectral density-5240MHz**802.11ac40 mode, Power spectral density-5190MHz**

802.11ac40 mode, Power spectral density-5230MHz**802.11n-HT40 mode, Power spectral density-5190MHz**

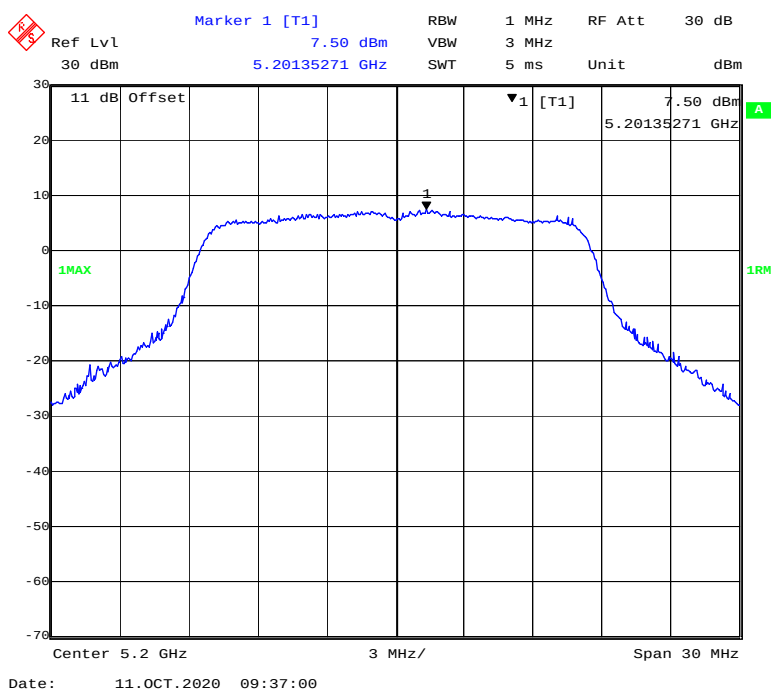
802.11n-HT40 mode, Power spectral density-5230MHz**802.11ac80 mode, Power spectral density-5210MHz**

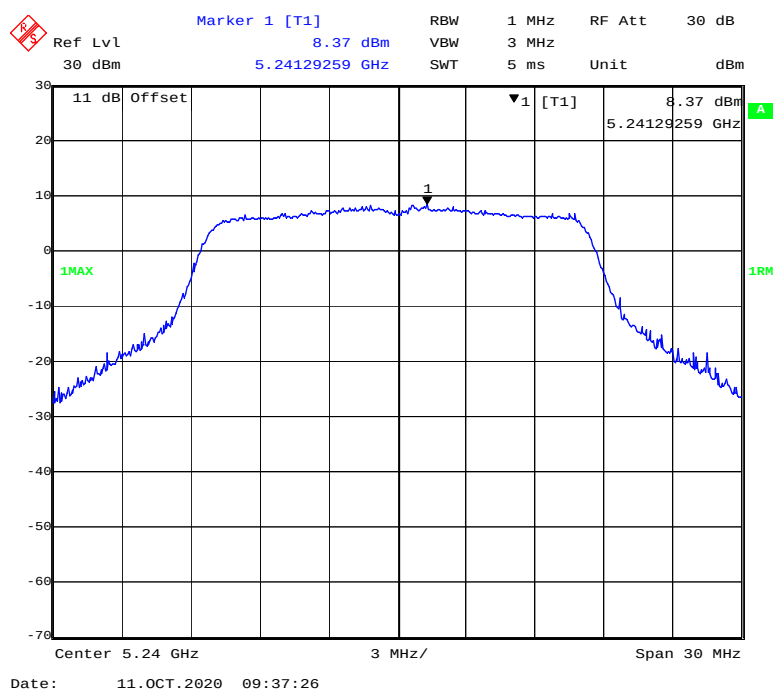
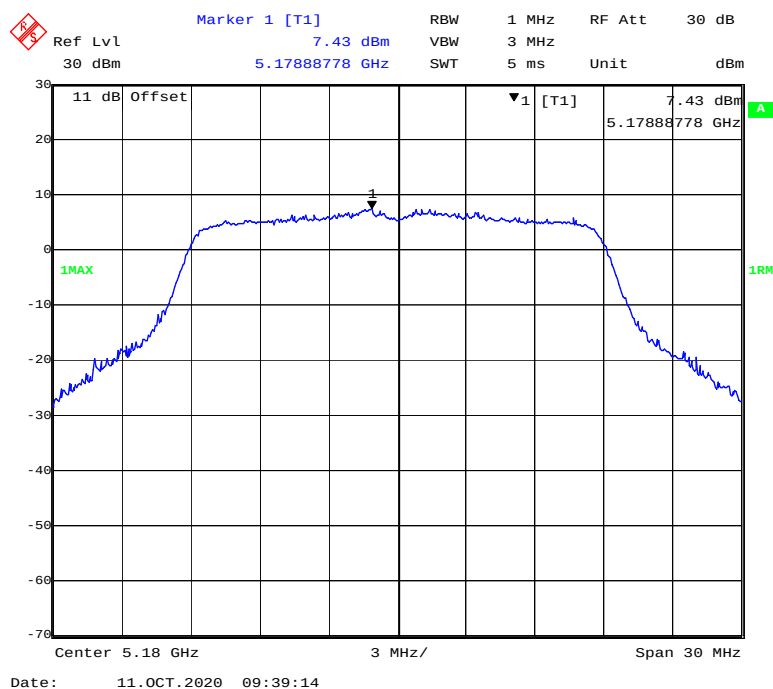
5150MHz-5250MHz Band-Chain1:

802.11a mode, Power spectral density-5180MHz

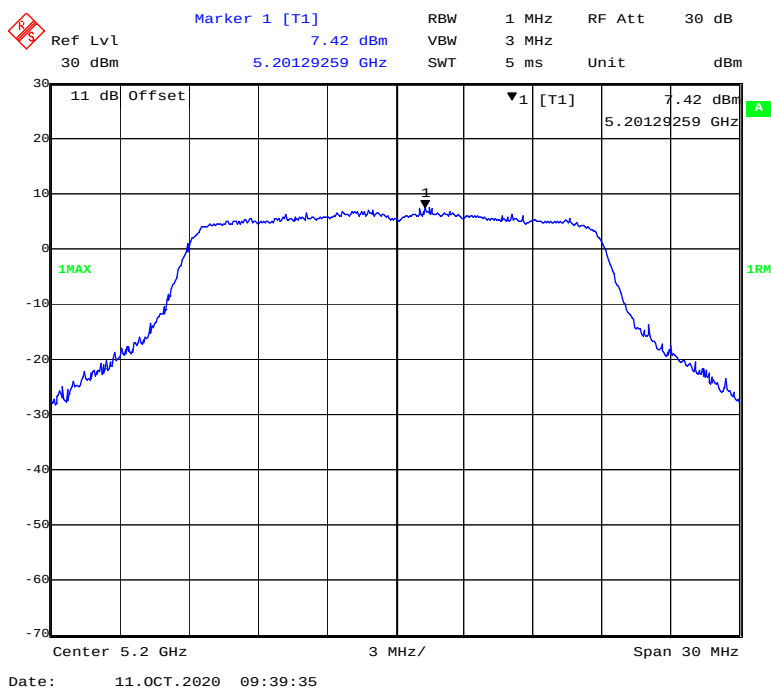


802.11a mode, Power spectral density-5200MHz

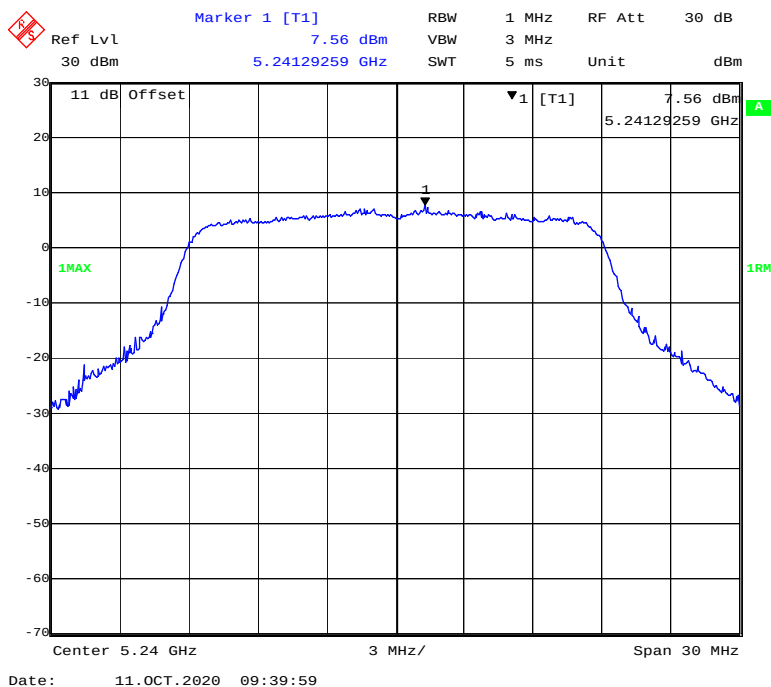


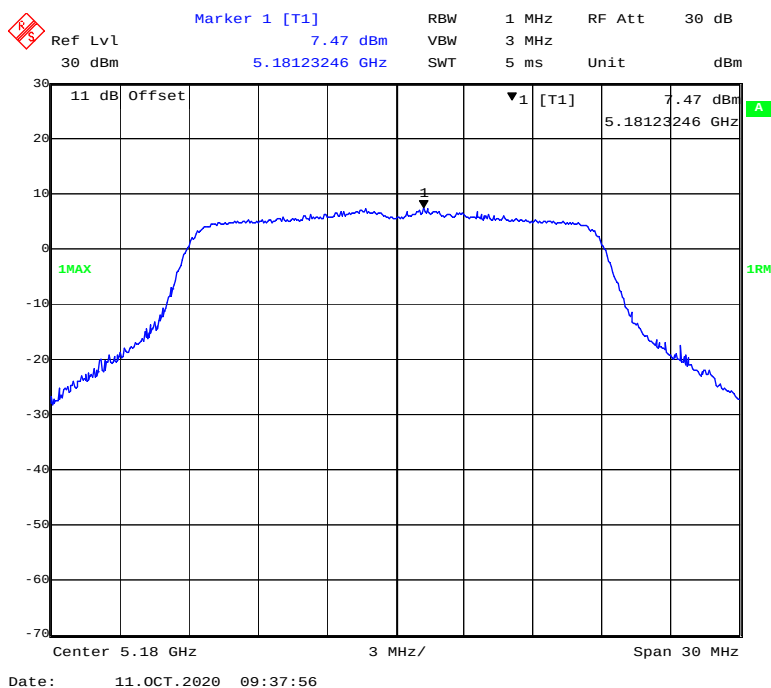
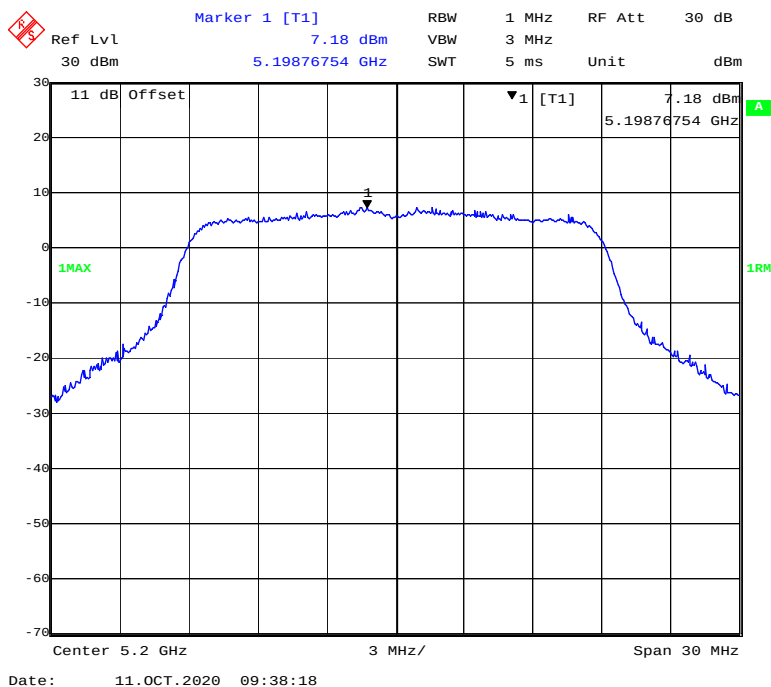
802.11a mode, Power spectral density-5240MHz**802.11ac20 mode, Power spectral density-5180MHz**

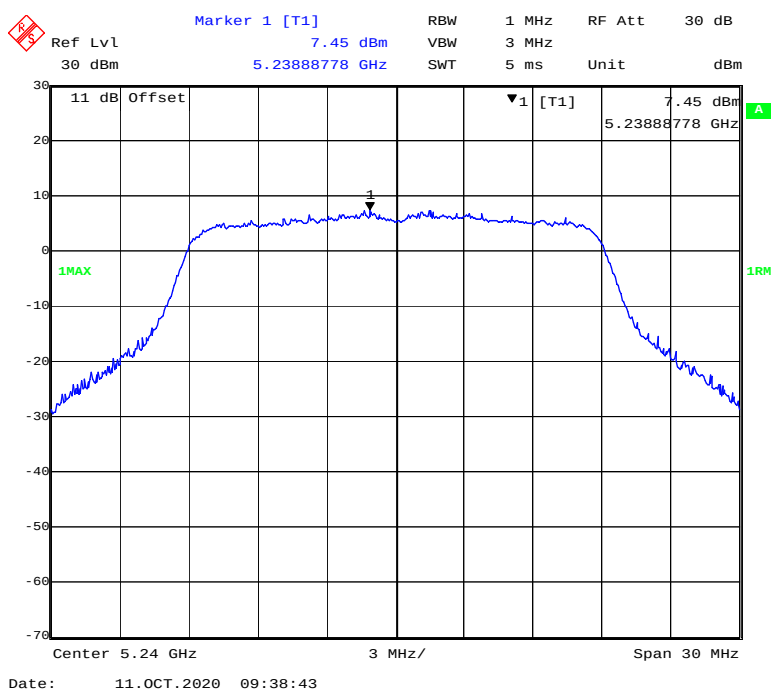
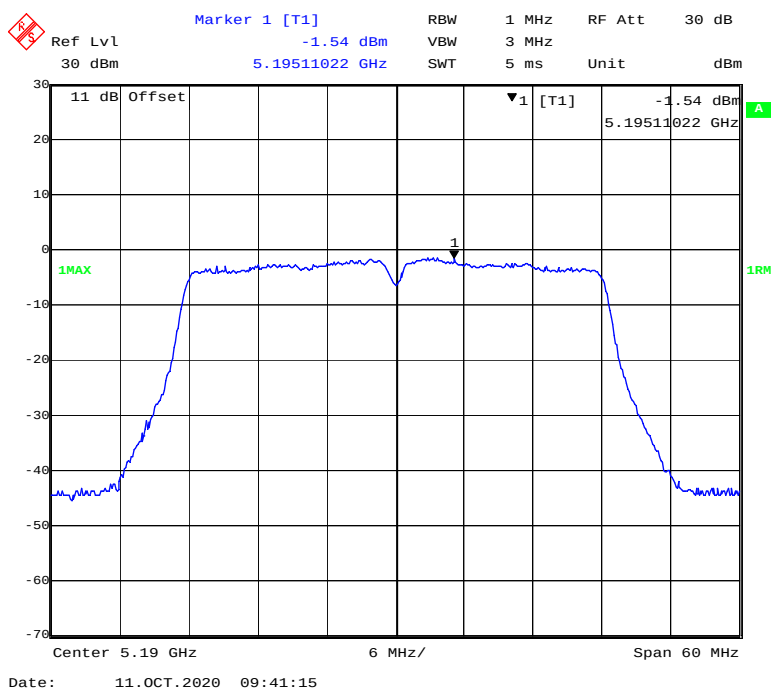
802.11ac20 mode, Power spectral density-5200MHz

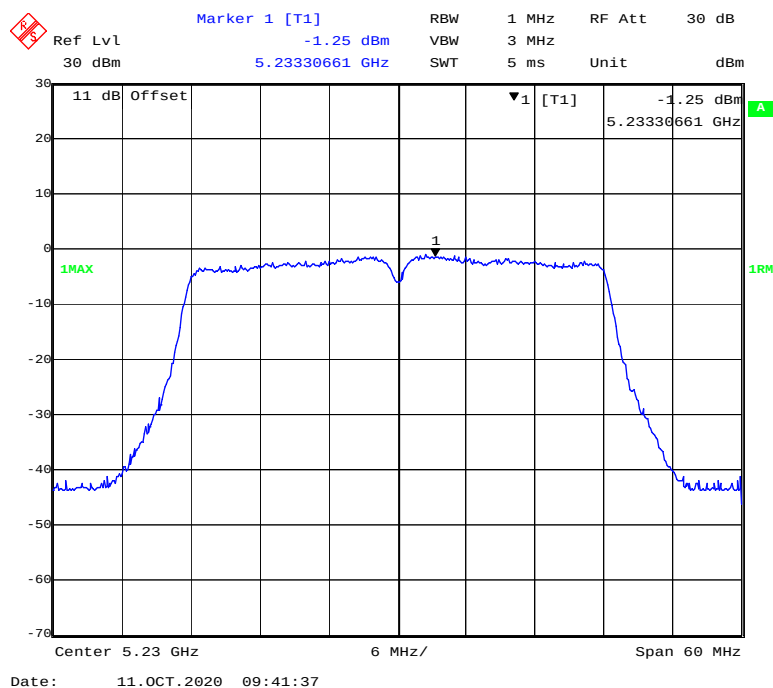
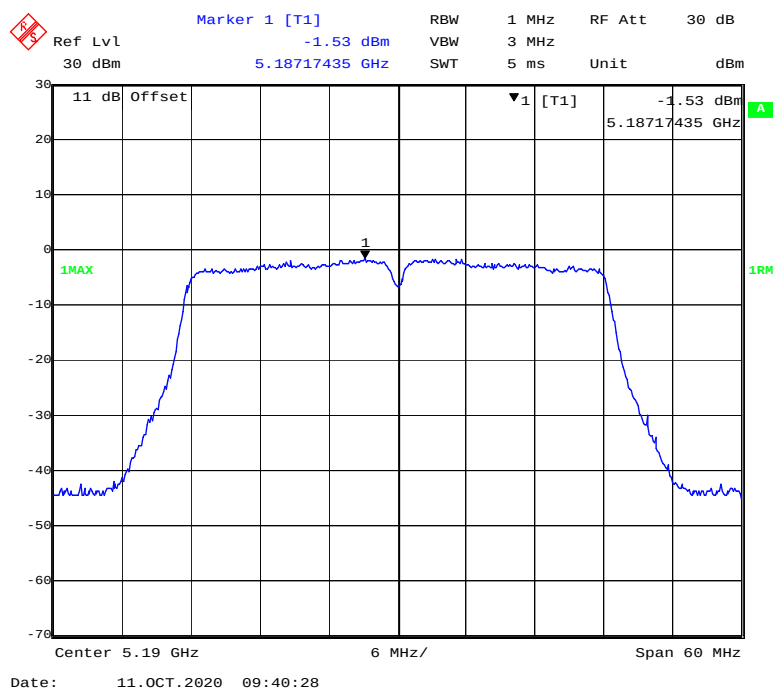


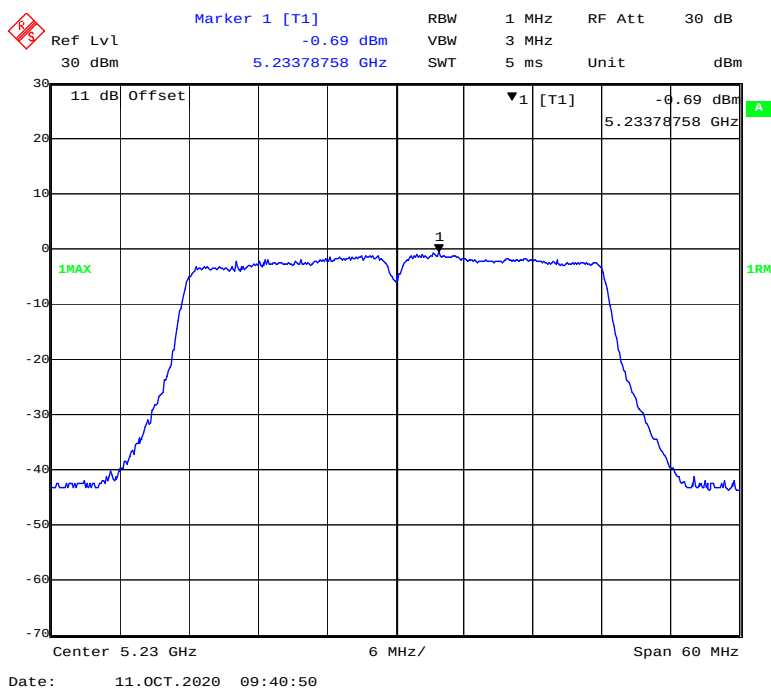
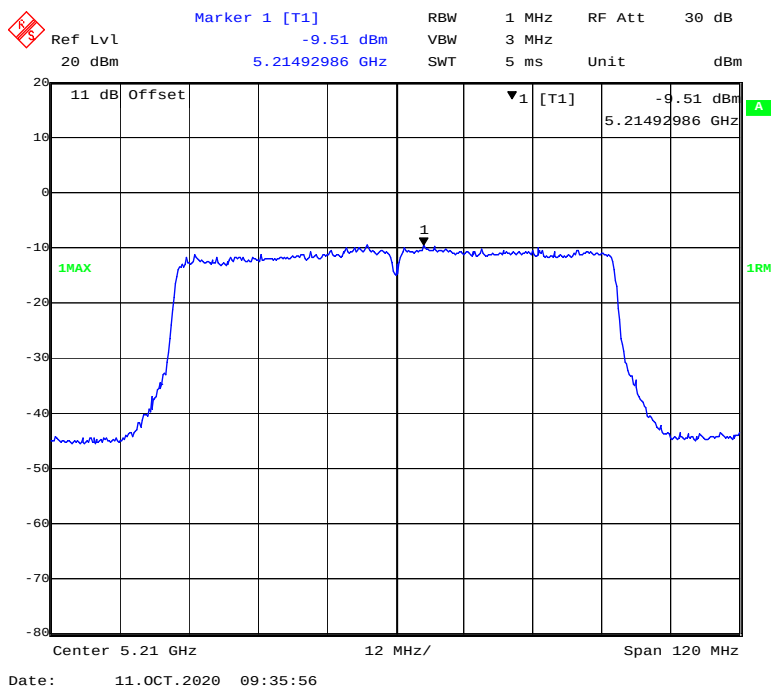
802.11ac20 mode, Power spectral density-5240MHz

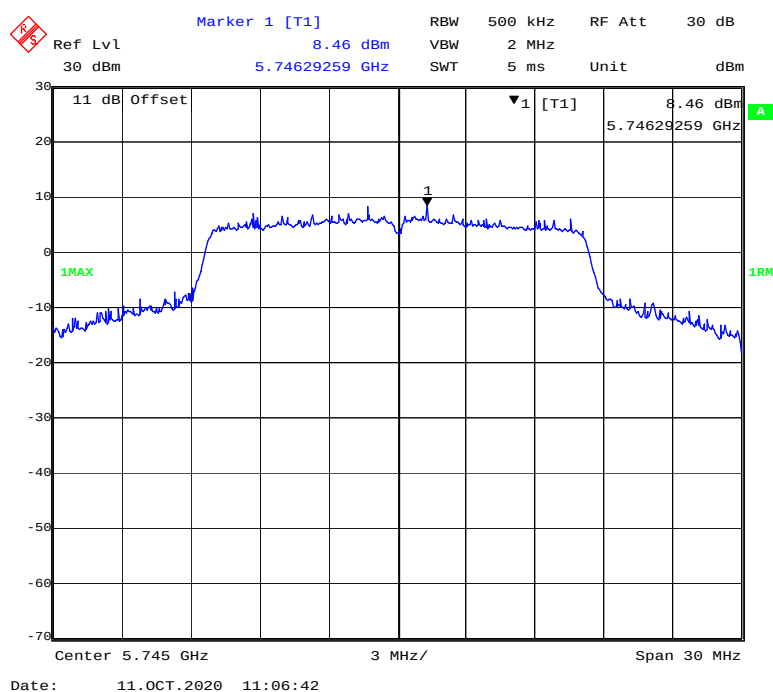
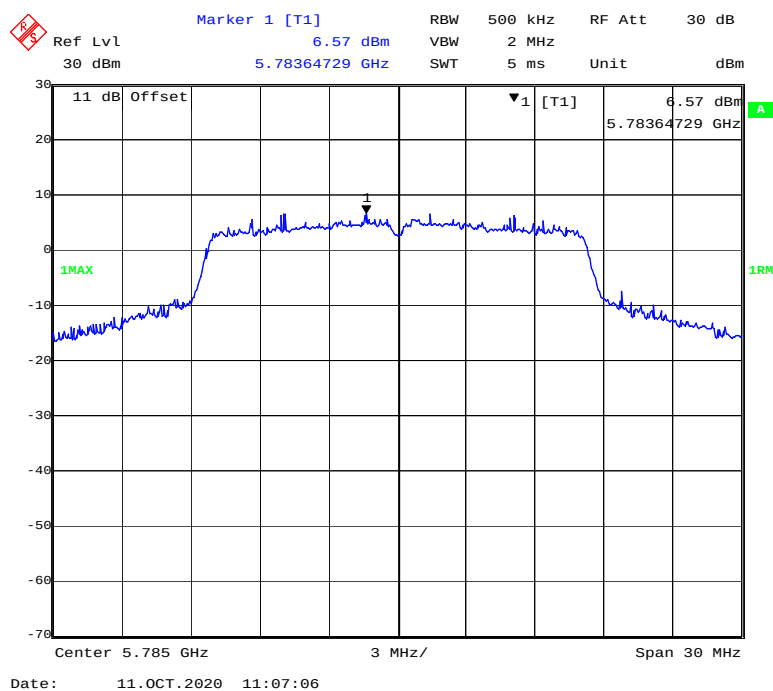


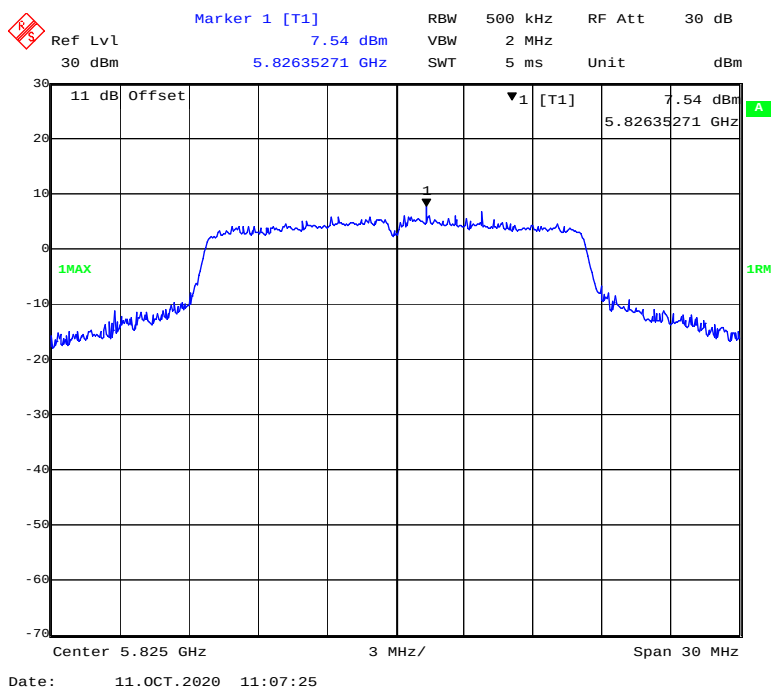
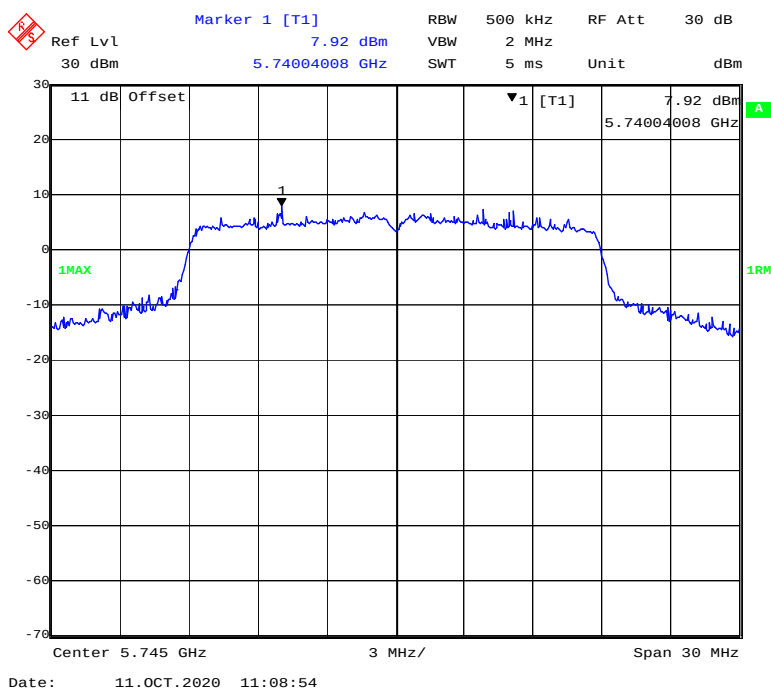
802.11n-HT20 mode, Power spectral density-5180MHz**802.11n-HT20 mode, Power spectral density-5200MHz**

802.11n-HT20 mode, Power spectral density-5240MHz**802.11ac40 mode, Power spectral density-5190MHz**

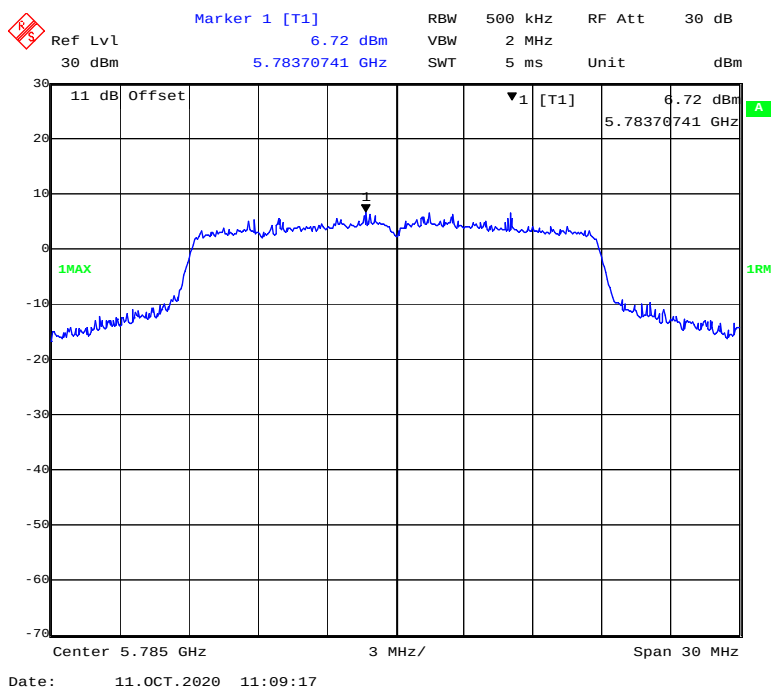
802.11ac40 mode, Power spectral density-5230MHz**802.11n-HT40 mode, Power spectral density-5190MHz**

802.11n-HT40 mode, Power spectral density-5230MHz**802.11ac80 mode, Power spectral density-5210MHz**

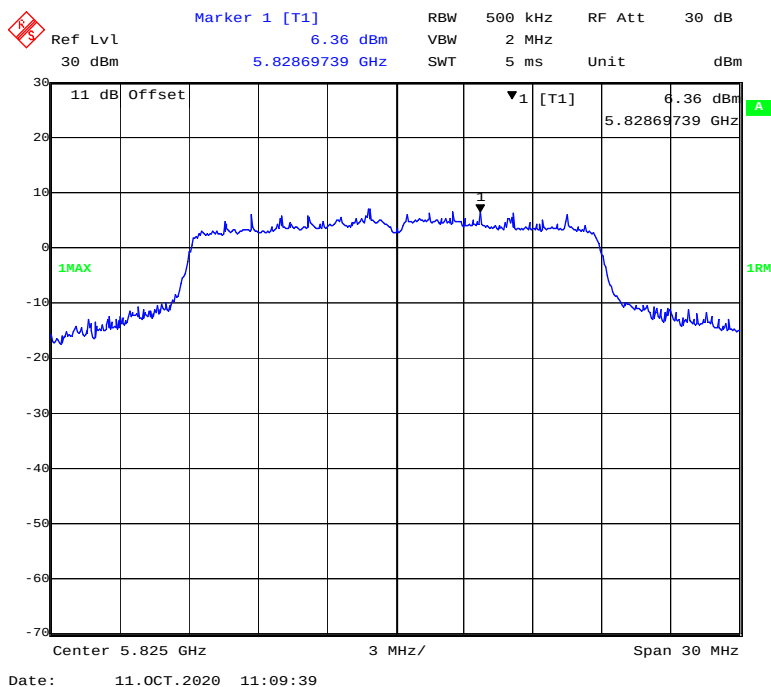
5725MHz-5850 MHz Band-Chain0:**802.11a mode, Power spectral density-5745MHz****802.11a mode, Power spectral density-5785MHz**

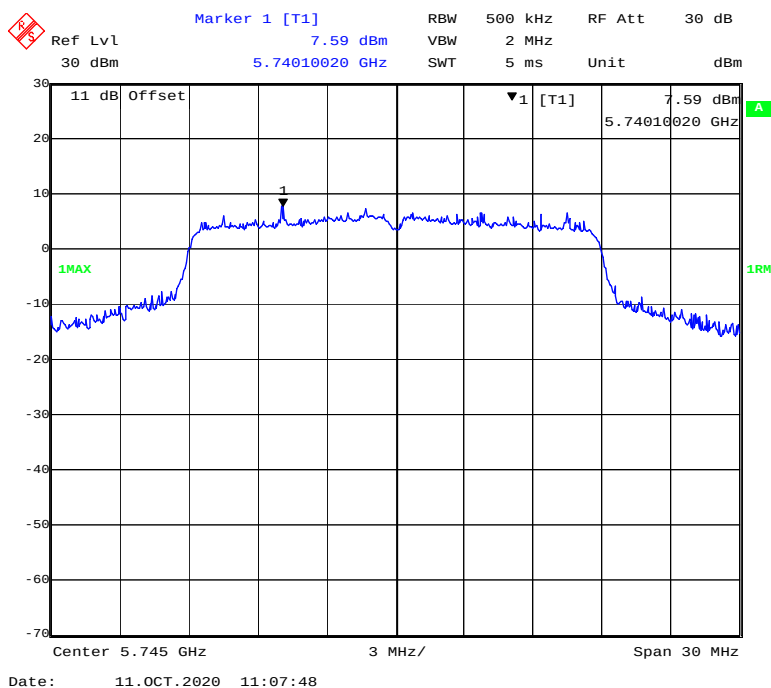
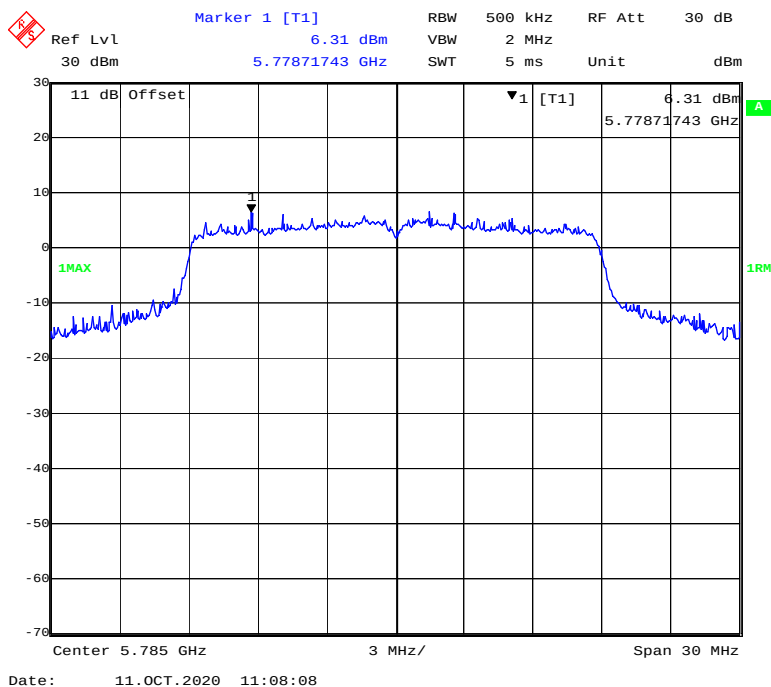
802.11a mode, Power spectral density-5825MHz**802.11ac20 mode, Power spectral density-5745MHz**

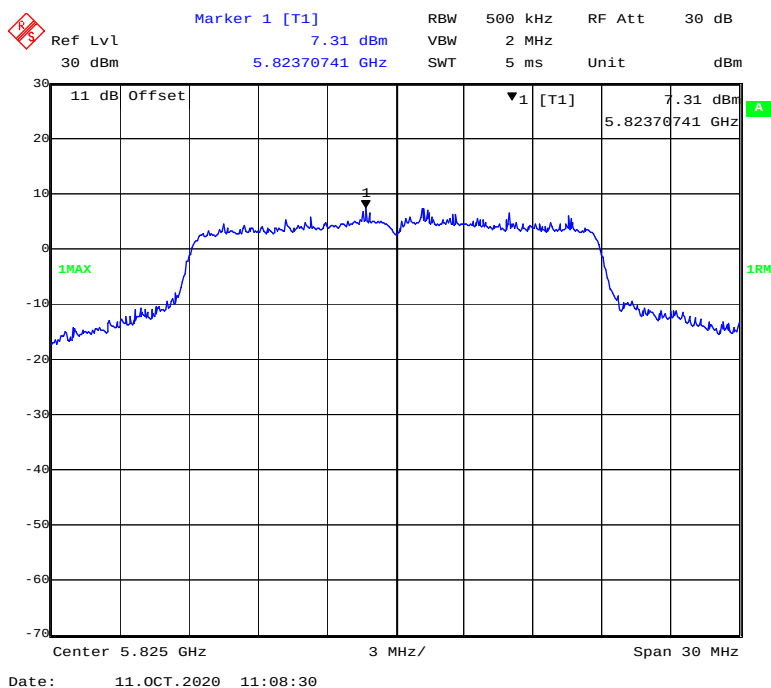
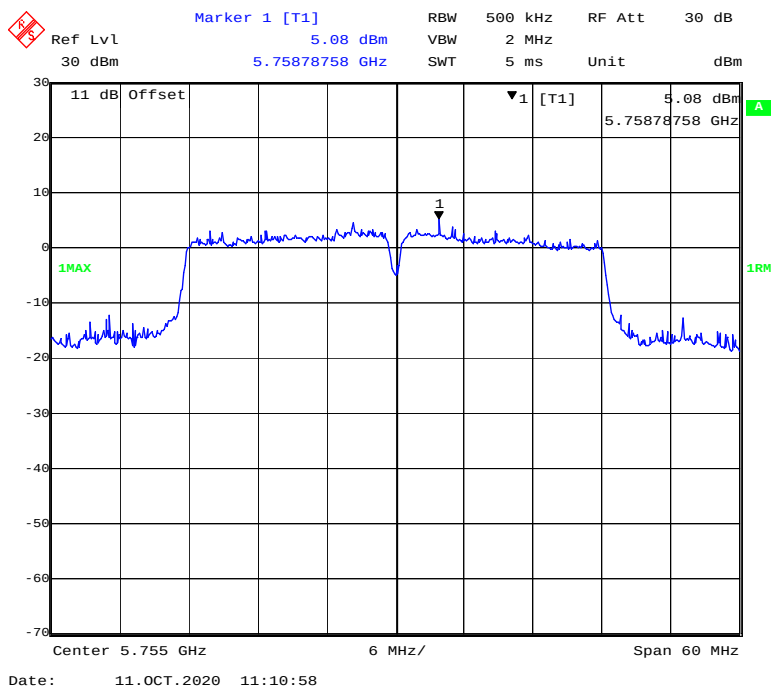
802.11ac20 mode, Power spectral density-5785MHz

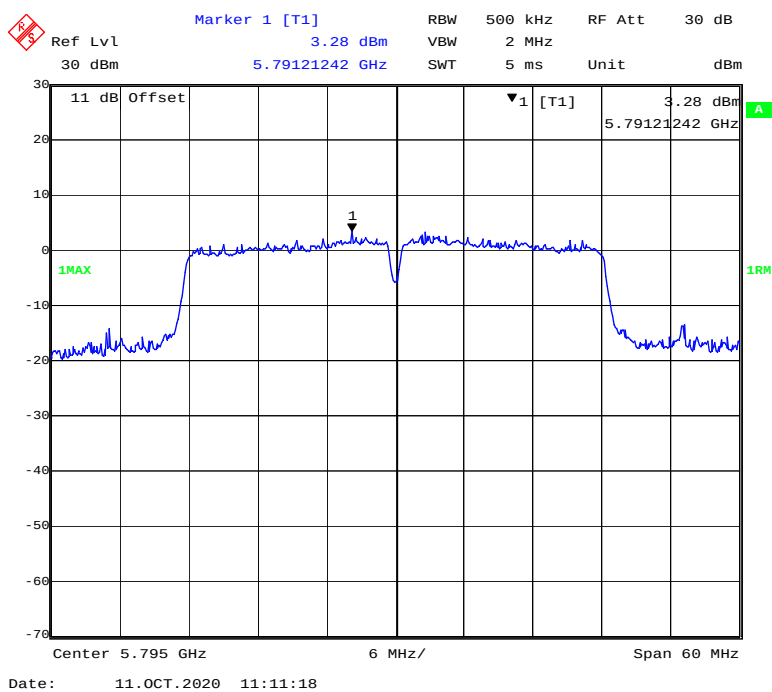
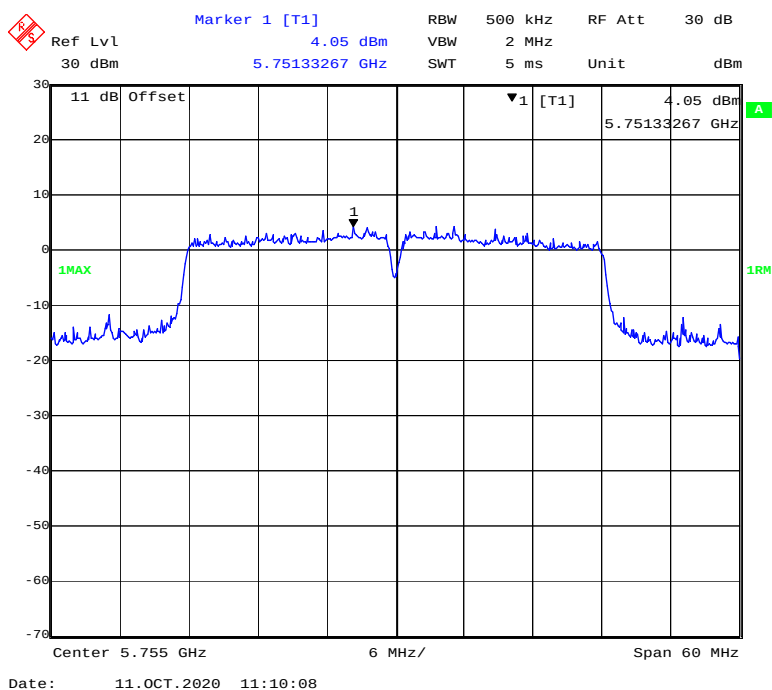


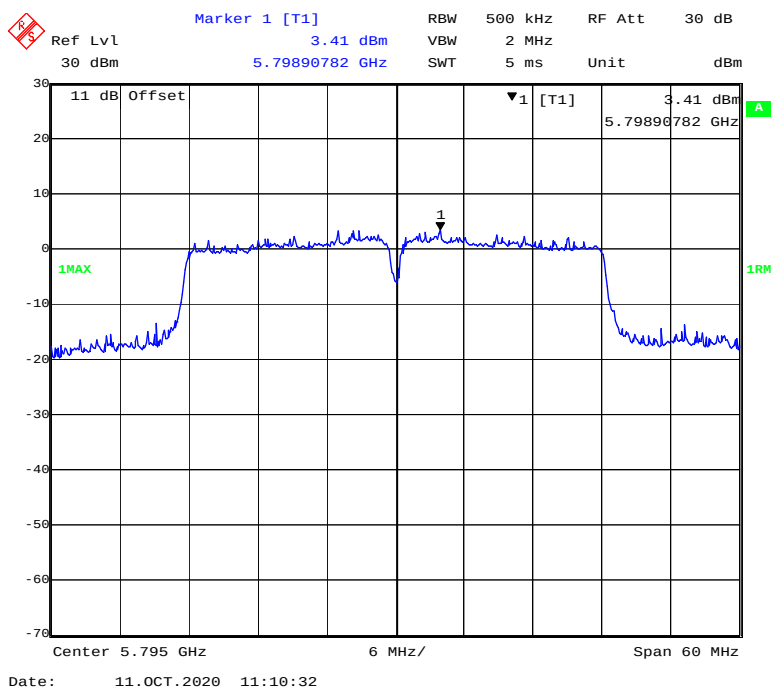
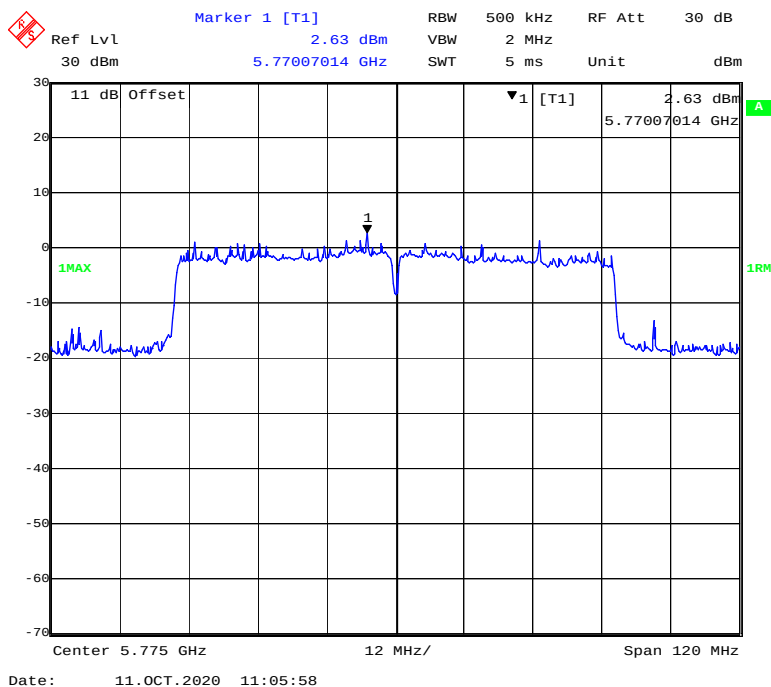
802.11ac20 mode, Power spectral density-5825MHz

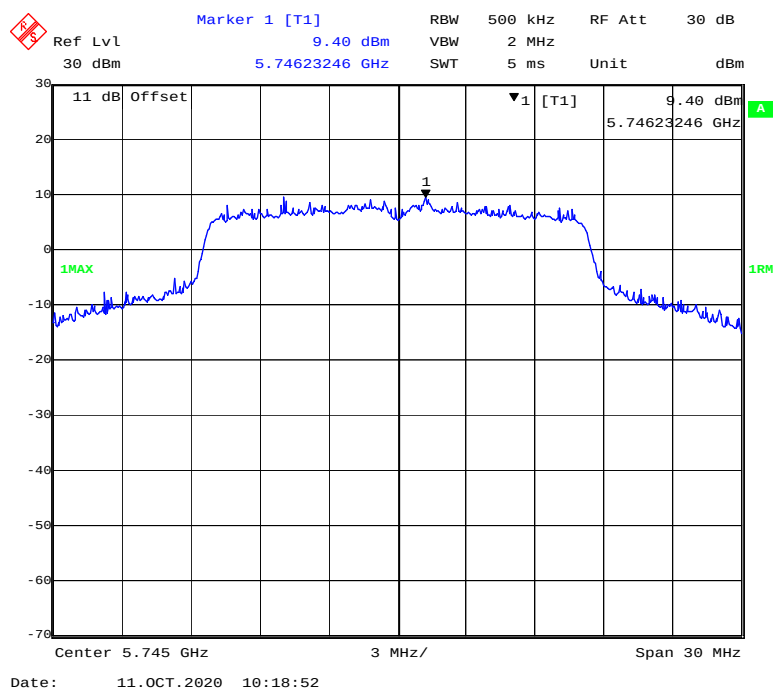
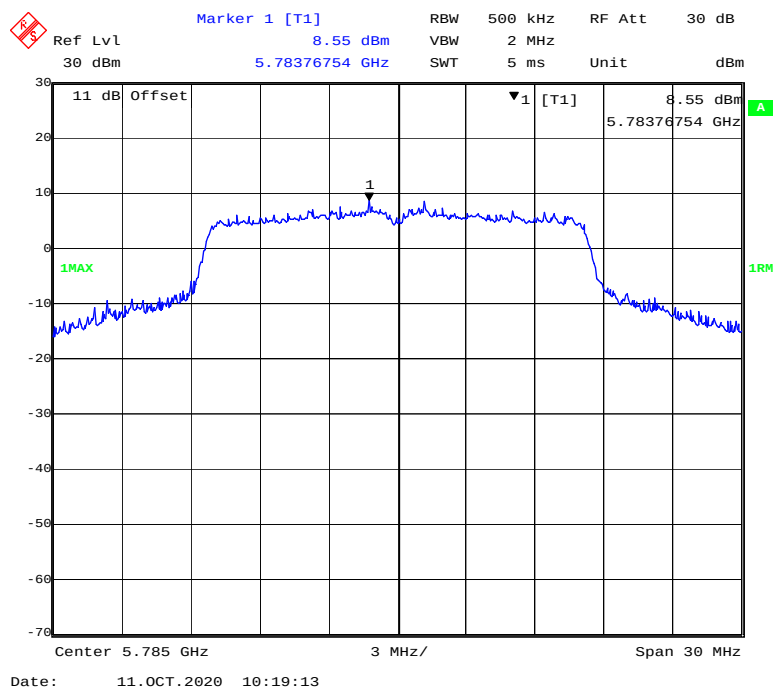


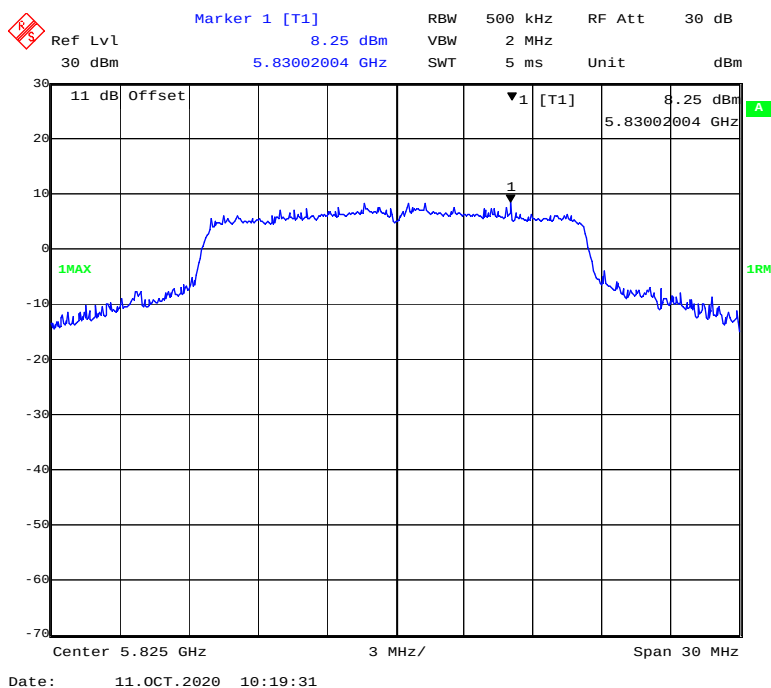
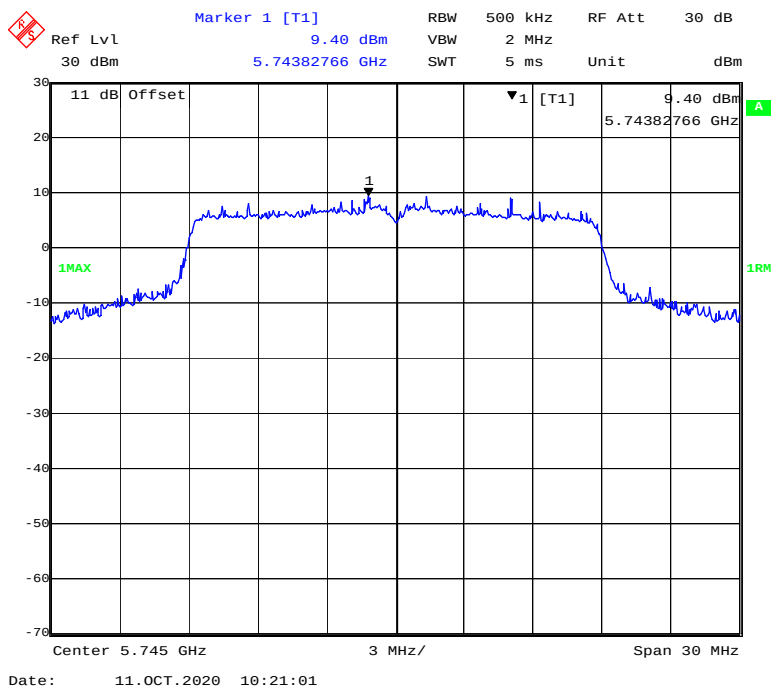
802.11n-HT20 mode, Power spectral density-5745MHz**802.11n-HT20 mode, Power spectral density-5785MHz**

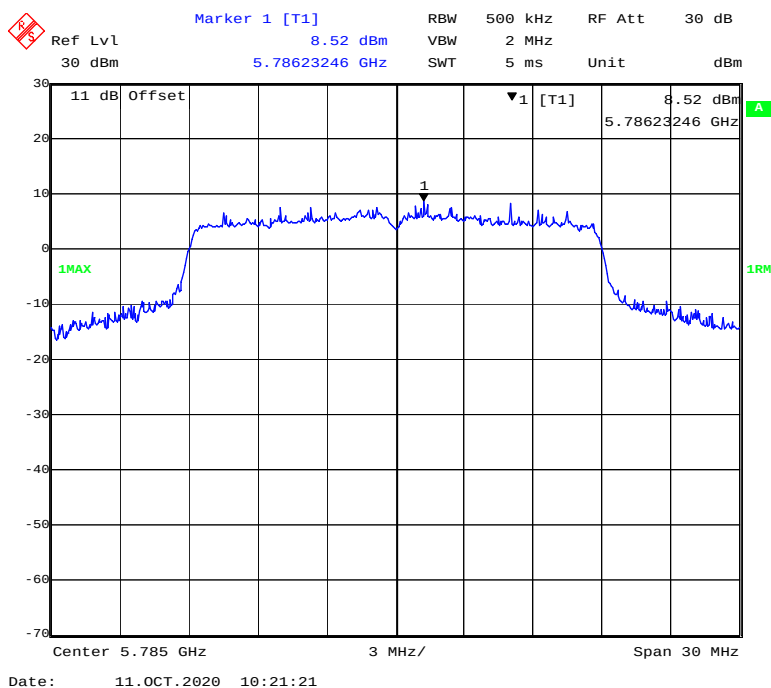
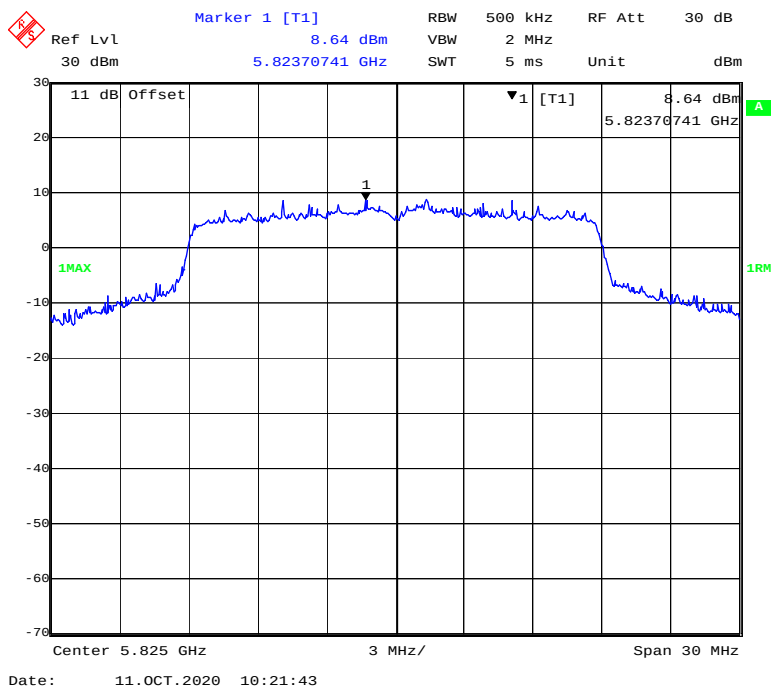
802.11n-HT20 mode, Power spectral density-5825MHz**802.11ac40 mode, Power spectral density-5755MHz**

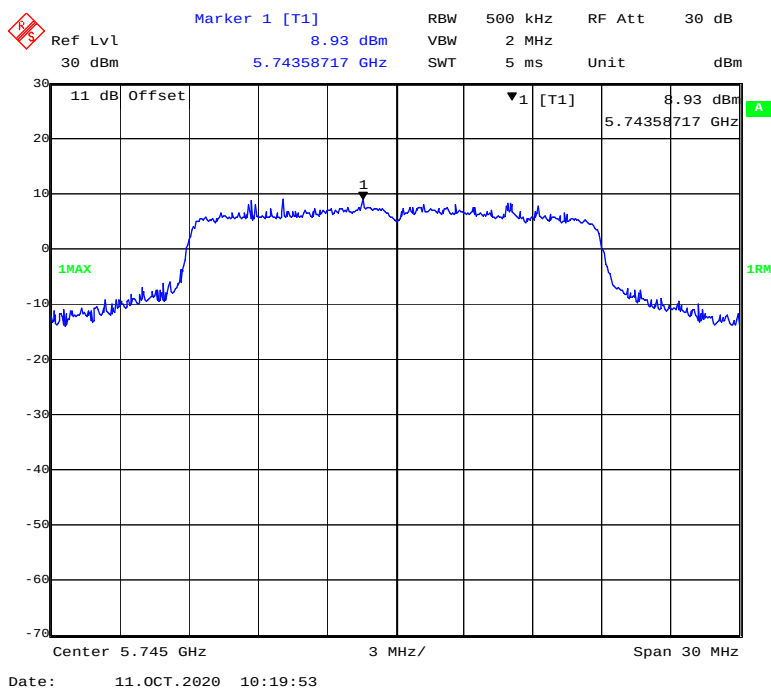
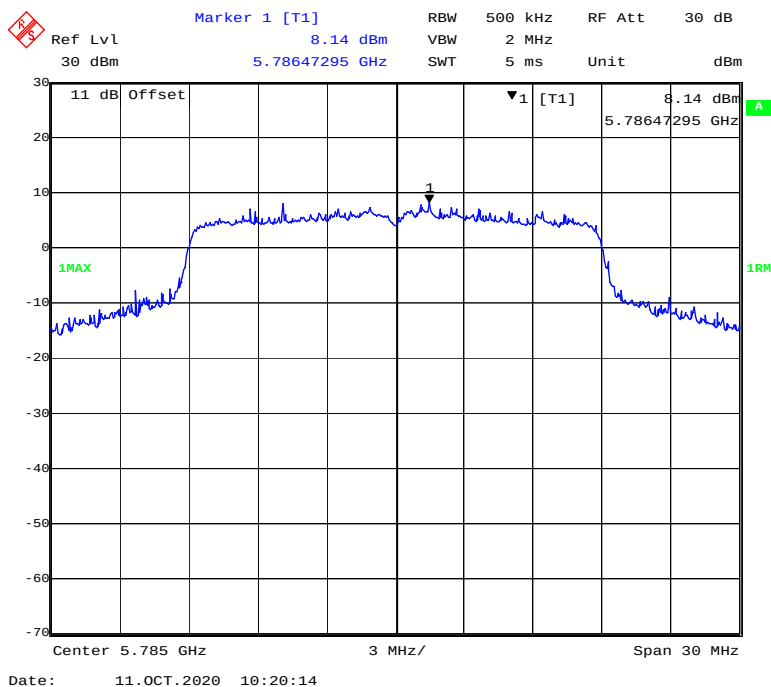
802.11ac40 mode, Power spectral density-5795MHz**802.11n-HT40 mode, Power spectral density-5755MHz**

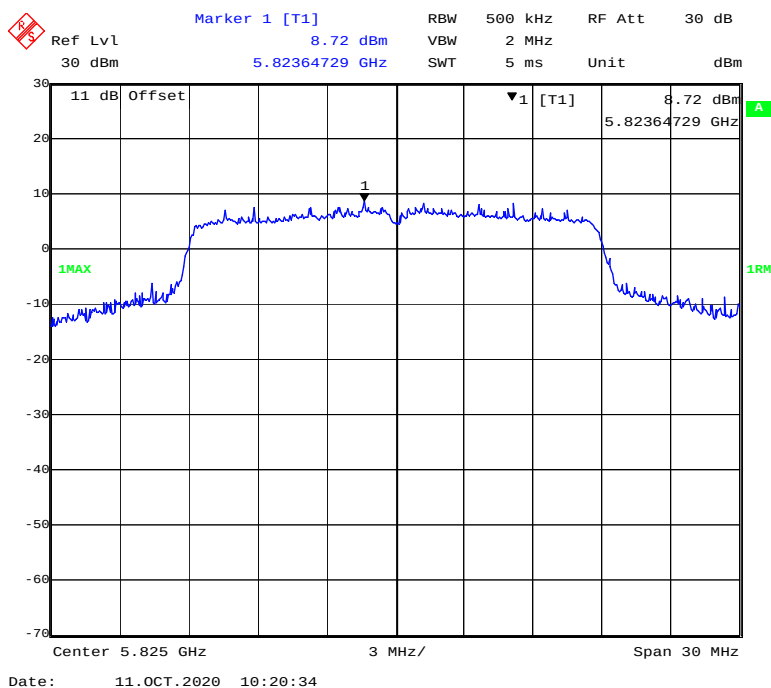
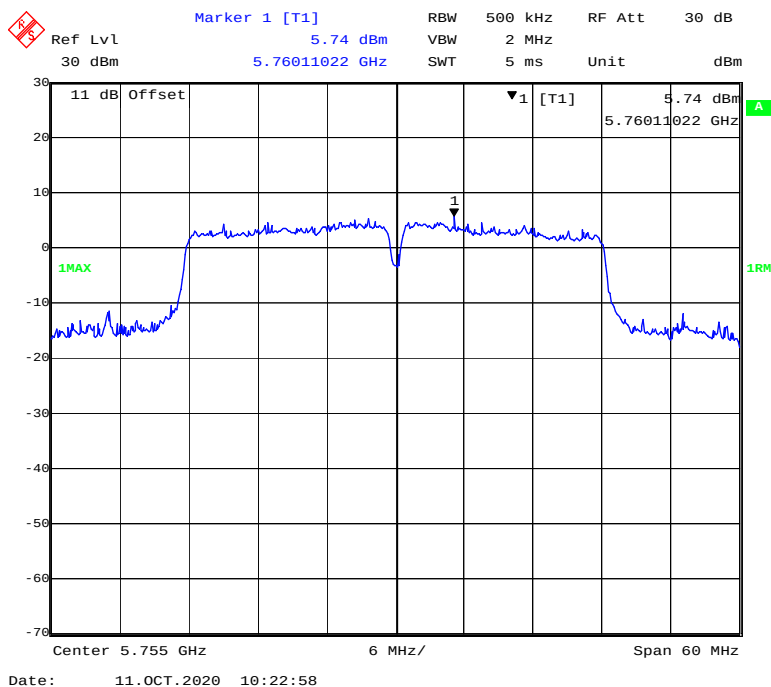
802.11n-HT40 mode, Power spectral density-5795MHz**802.11ac80 mode, Power spectral density-5775MHz**

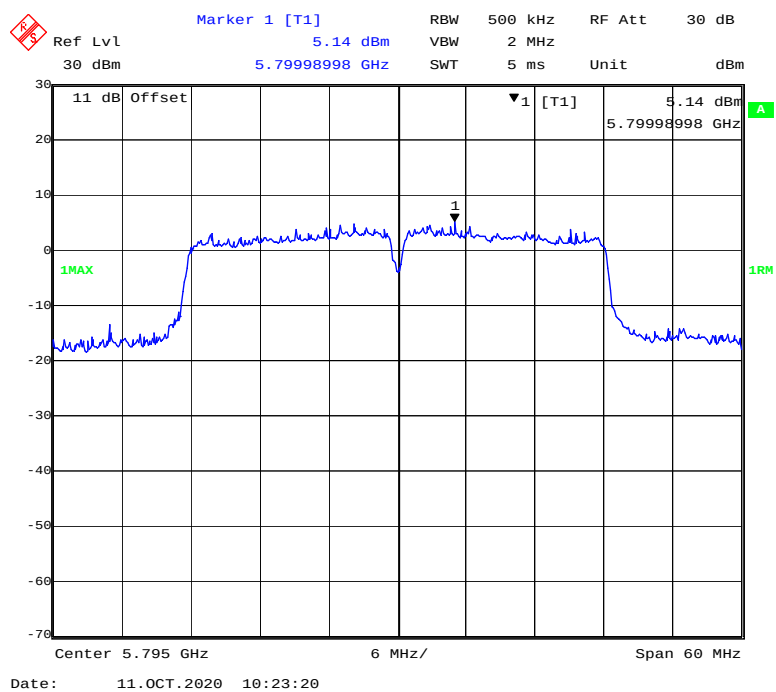
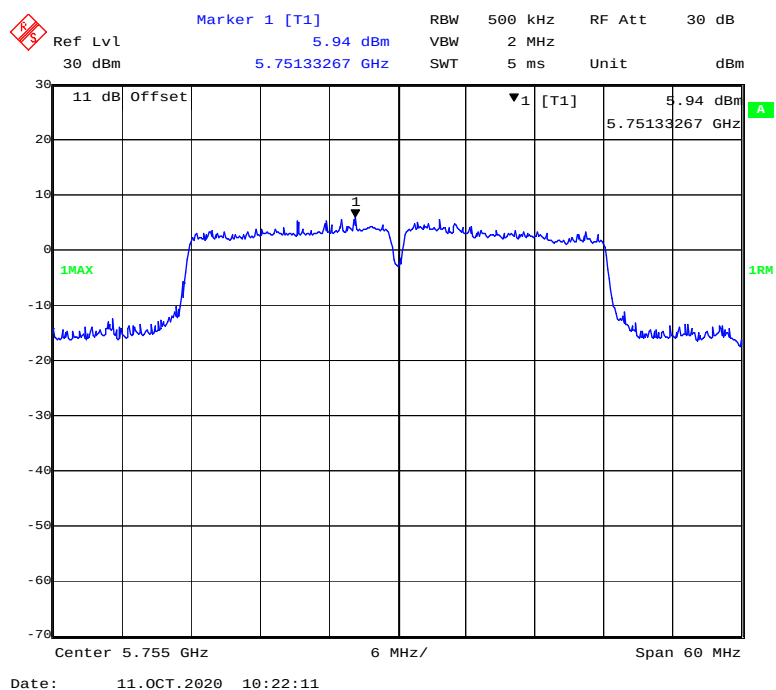
5725MHz-5850 MHz Band-Chain1:**802.11a mode, Power spectral density-5745MHz****802.11a mode, Power spectral density-5785MHz**

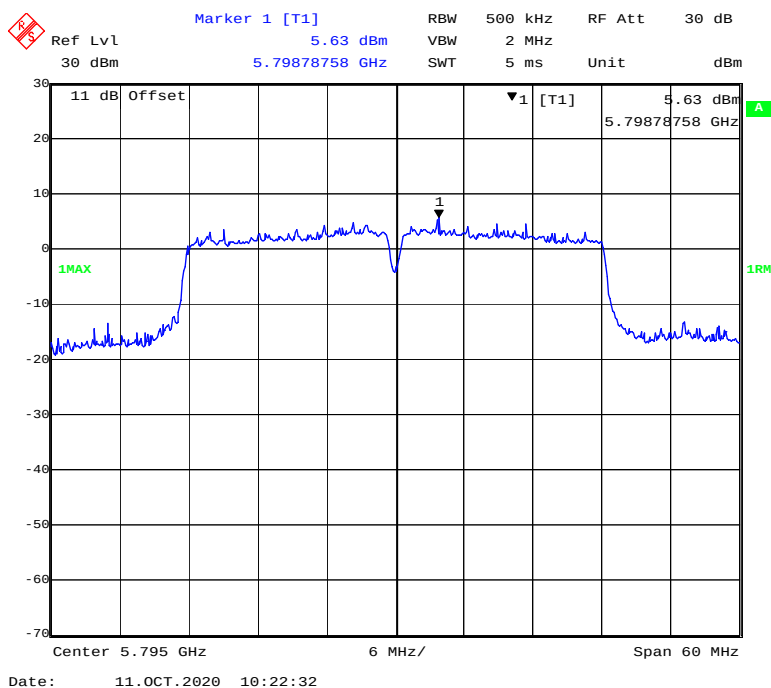
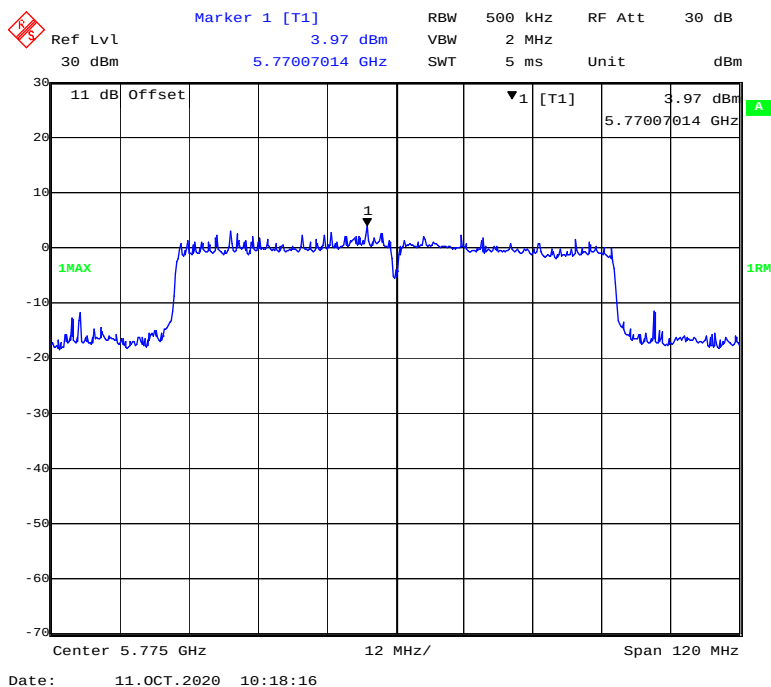
802.11a mode, Power spectral density-5825MHz**802.11ac20 mode, Power spectral density-5745MHz**

802.11ac20 mode, Power spectral density-5785MHz**802.11ac20 mode, Power spectral density-5825MHz**

802.11n-HT20 mode, Power spectral density-5745MHz**802.11n-HT20 mode, Power spectral density-5785MHz**

802.11n-HT20 mode, Power spectral density-5825MHz**802.11ac40 mode, Power spectral density-5755MHz**

802.11ac40 mode, Power spectral density-5795MHz**802.11n-HT40 mode, Power spectral density-5755MHz**

802.11n-HT40 mode, Power spectral density-5795MHz**802.11ac80 mode, Power spectral density-5775MHz**

Declarations

- 1: BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.
- 2: Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
- 3: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
- 4: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.
- 5: This report cannot be reproduced except in full, without prior written approval of the Company.
- 6: This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

******* END OF REPORT *******