



**F2 Labs**  
**16740 Peters Road**  
**Middlefield, Ohio 44062**  
**United States of America**  
[www.f2labs.com](http://www.f2labs.com)

## **CERTIFICATION TEST REPORT**

---

**Manufacturer:** PCTEL, Inc  
471 Brighton Drive  
Bloomington, Illinois 60108-3102 USA

**Applicant:** Same As Above

**Product Name:** Remote Access Point

**Product Description:** Rugged 802.11ac Access Point

**Operating Voltage/Freq.  
of EUT During Testing:** 120V/60 Hz; POE Supply 48VDC

**Model:** AP-WIFI-1200-US

**FCC ID:** NYPWIFIAP1200

**Testing Commenced:** 2020-10-09

**Testing Ended:** 2020-10-16

**Summary of Test Results:** In Compliance

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications and/or manufacturer's statement. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

**Standards:**

- **FCC Part 15 Subpart C, Section 15.247**
- **FCC15.207 - Conducted Limits**
- **FCC Part 15.31(e)**
- **ANSI C63.10:2013**



Order Number: F2P19923A

Applicant: PCTEL, Inc  
Model: AP-WIFI-1200-US

**Evaluation Conducted by:**

Julius Chiller, EMC/Wireless Engineer

**Report Reviewed by:**

Ken Littell, Vice President of EMC

F2 Labs  
26501 Ridge Road  
Damascus, MD 20872  
Ph 301.253.4500

F2 Labs  
16740 Peters Road  
Middlefield, OH 44062  
Ph 440.632.5541

F2 Labs  
8583 Zionsville Road  
Indianapolis, IN 46268  
Ph 317.610.0611

This test report may be reproduced in full; partial reproduction only may be made with the written consent of F2 Labs. The results in this report apply only to the equipment tested.



## TABLE OF CONTENTS

Section	Title	Page
1	ADMINISTRATIVE INFORMATION	4
2	SUMMARY OF TEST RESULTS/MODIFICATIONS	5
3	TABLE OF MEASURED RESULTS	6
4	ENGINEERING STATEMENT	7
5	EUT INFORMATION AND DATA	8
6	LIST OF MEASUREMENT INSTRUMENTATION	9
7	OCCUPIED BANDWIDTH	10
8	CONDUCTED OUTPUT POWER	14
9	VOLTAGE VARIATIONS	18
10	CONDUCTED SPURIOUS EMISSIONS	21
11	RADIATED SPURIOUS EMISSIONS	30
12	PEAK POWER SPECTRAL DENSITY (PSD)	40
13	CONDUCTED EMISSIONS	44
14	PHOTOGRAPHS	49



## 1 ADMINISTRATIVE INFORMATION

### 1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

### 1.2 Measurement Procedure:

All measurements were performed according to the 2013 version of ANSI C63.10 and recommended FCC procedure of measurement of DTS operating under Section 15.247 and in KDB558074. A list of the measurement equipment can be found in Section 6.

### 1.3 Uncertainty Budget:

The uncertainty in EMC measurements arises from several factors which affect the results, some associated with environmental conditions in the measurement room, the test equipment being used and the measurement techniques adopted.

The measurement uncertainty budgets detailed below are calculated from the test and calibration data, and are expressed with a 95% confidence factor. Note: Only measurements listed below which relate to tests included in this Test Report are applicable to it.

Measurement Range	Expanded Uncertainty	Combined Uncertainty
Radiated Emissions <1 GHz @ 3m	$\pm 5.07\text{dB}$	$\pm 2.54$
Radiated Emissions <1 GHz @10m	$\pm 5.09\text{dB}$	$\pm 2.55$
Radiated Emissions 1 GHz to 2.7 GHz	$\pm 3.62\text{dB}$	$\pm 1.81$
Radiated Emissions 2.7 GHz to 18 GHz	$\pm 3.10\text{dB}$	$\pm 1.55$
AC Power Line Conducted Emissions, 150kHz to 30 MHz	$\pm 2.76\text{dB}$	$\pm 1.38$

This Uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

### 1.4 Document History

Document Number	Description	Issue Date	Approved By
F2P19923A-02E	First Issue	2020-12-11	K. Littell

**2 SUMMARY OF TEST RESULTS**

Test Name	Standard(s)	Results
Occupied Bandwidth	CFR 47 Part 15.247(a)(2) / KDB558074	Complies
Conducted Output Power	CFR 47 Part 15.247(b)(3) / KDB558074	Complies
Voltage Variations	CFR 47 Part 15.31(e)	Complies
Conducted Spurious Emissions	CFR 47 Part 15.247(d) / Part 15.207 / KDB558074	Complies
Radiated Spurious Emission with 6dBi Omni Directional Antenna	CFR 47 Part 15.247(d) / Part 15.209 / KDB558074	Complies
Peak Power Spectral Density	CFR 47 Part 15.247(e) / KDB558074	Complies

Modifications Made to the Equipment
None



## 3 TABLE OF MEASURED RESULTS

Test		Low Channel 2402 MHz		Mid Channel 2440 MHz		High Channel 2480 MHz	
Conducted Output Power		mW	dBm	mW	dBm	mW	dBm
	GFSK 1Mbps	1.44	1.601	1.44	1.605	1.51	1.79
	GFSK 2Mbps	1.46	1.649	1.45	1.614	1.52	1.821
Conducted Output Power Limit		1 Watt	30dBm	1 Watt	30dBm	1 Watt	30dBm
E.I.R.P.		mW	dBm	mW	dBm	mW	dBm
	GFSK 1Mbps	5.755	7.601	5.756	7.605	6.01	7.79
	GFSK 2Mbps	5.819	7.649	5.772	7.614	6.055	7.821
E.I.R.P. Limit		4 Watts	36.02dBm	4 Watts	36.02dBm	4 Watts	36.02dBm
Power Spectral Density		dBm		dBm		dBm	
	GFSK 1Mbps	-9.655		-9.937		-9.438	
	GFSK 2Mbps	-11.6		-12.89		-12.36	
PSD Limit		8dBm		8dBm		8dBm	
-6dB Occupied Bandwidth		MHz		MHz		MHz	
	GFSK 1Mbps	0.751		0.754		0.764	
-6dB Occupied Bandwidth Limit		≥ 500kHz		≥ 500kHz		≥ 500kHz	
Voltage Variations (Nominal Voltage: 110VAC)		mW	dBm	mW	dBm	mW	dBm
	-15%	1.15	0.63	1.15	0.63	1.15	0.63
	+15%	1.15	0.63	1.15	0.63	1.15	0.63
Limit		1W	30dBm	1W	30dBm	1W	30dBm

*\*To meet the requirements of 15.31, voltage was varied by ±15% of the nominal voltage. All tests were then performed at the highest output power voltage setting.*



#### **4 ENGINEERING STATEMENT**

This report has been prepared on behalf of PCTEL, Inc to provide documentation for the testing described herein. This equipment has been tested and found to comply with Part 15.247 of the FCC Rules using ANSI C63.10:2013 and KDB558074 standards. The test results found in this test report relate only to the items tested.

**5 EUT INFORMATION AND DATA****5.1 Equipment Under Test:**Product: **Rugged 802.11ac Access Point**

Model: AP-WIFI-1200-US

Serial No.: Proto 2

Software Version: Procomm Plus v4.8, TI Smart Studio 7 v2.12.0

FCC ID: **NYPWIFIAP1200****5.2 Trade Name:**

PCTEL, Inc

**5.3 Power Supply:**

PoE Supply: PhiHong POE29U-1AT(PL)

**5.4 Applicable Rules:**

CFR 47, Part 15.247, subpart C

**5.5 Equipment Category:**

Radio Transmitter-DTS

**5.6 Antenna:**

6dBi External Omni-Directional

**5.7 Accessories:**

Device	Manufacturer	Model Number	Serial Number
PoE Supply	PhiHong	POE29U-1AT(PL)	None Specified
TI Uart Interface	PCTEL, Inc	None Specified	None Specified
Antenna	PCTEL, Inc	BOA24006NM	None Specified
Laptop	Dell	Latitude E6430s	3ZQ24X1

**5.8 Test Item Condition:**

The equipment to be tested was received in good condition.

**5.9 Testing Algorithm:**

The EUT was configured to permit frequency changes from low-mid-upper transmission channel using digital modulation (required for digital transmission systems). For RF antenna conducted tests, the EUT was equipped with an Type N connector for connection to the measuring equipment. For radiated emissions tests, in a semi-anechoic chamber, the EUT was equipped with an external 6dBi gain antenna.



**6 LIST OF MEASUREMENT INSTRUMENTATION**

Equipment Type	Asset Number	Manufacturer	Model	Serial Number	Calibration Due Date
Shielded Chamber 2014	CL166-E	AlbatrossProjects	B83117-DF435-T261	US140023	2021-01-03
Temp/Hum. Recorder	CL261	Extech	445814	04	2021-02-12
Spectrum Analyzer	CL138	Agilent Technologies	E4407B	US41192779	2021-09-16
Receiver	CL151	Rohde & Schwarz	ESU40	100319	2021-10-06
Antenna, JB3 Combination	CL175	Sunol Sciences	JB3	A030315	2021-11-05
Horn Antenna	CL098	Emco	3115	9809-5580	2021-01-31
Horn Antenna	CL114	AH Systems, Inc.	SAS-572	237	2021-02-04
Pre-Amplifier	CL189	Com-Power	PAM-840A	461303	2021-07-31
Pre-Amplifier	CL153	Agilent	83006-69007	MY39500791	2020-12-31
Pre-Amplifier	CL250	Com-Power	PAM-118A	18040011	2021-06-21
Amplifier w/Monopole & 18" Loop	CL163-Mono	A.H. Systems, Inc.	EHA-52B	100	2021-10-12
Software:	Tile Version 3.4.B.3.		Software Verified: 2020-10-12 to 2020-10-16		
Software:	EMC 32, Version 8.53.0		Software Verified: 2020-10-12 to 2020-10-16		
Low Loss Cable Set	--	Pasternack	PE3C0666-252 / PE3C066-50CM	None Spec.	2023-10-12
Temp/Hum. Recorder	CL263	Extech	445814	06	2021-02-12
Transient Limiter	CL102	Hewlett Packard	11947A	3107A03325	2021-02-17
Software:	Tile Version 3.4.B.3.		Software Verified: 2020-10-09		
Spectrum	CL147	Agilent	E7402A	MY45101241	2021-01-06
LISN	CL181	Com-Power	LI-125A	191226	2020-10-31
LISN	CL182	Com-Power	LI-125A	191225	2020-10-31



## **7 FCC PART 15.247(a)(2) – OCCUPIED BANDWIDTH**

### **7.1 Requirements:**

The 6dB bandwidth shall be greater than 500 kHz.

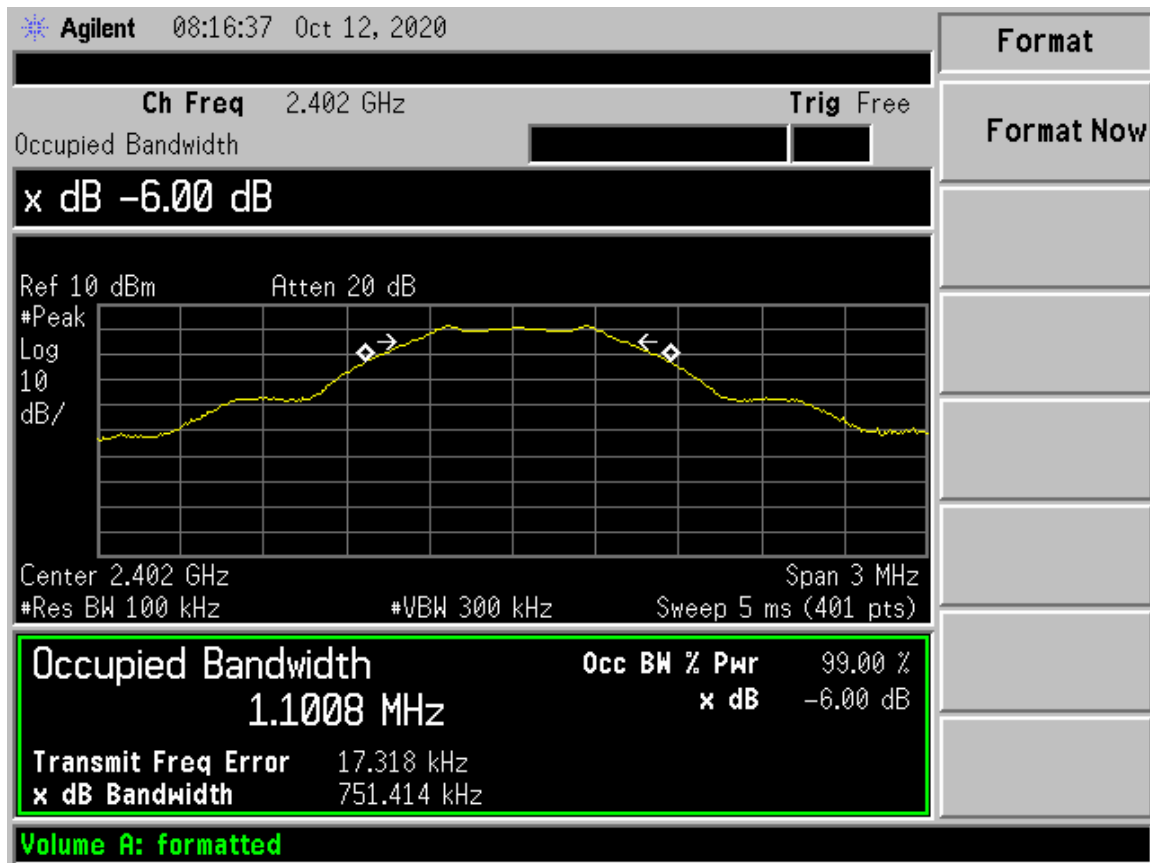
Bandwidth measurements were made at the low (2.402 GHz), mid (2.440 GHz) and upper (2.480 GHz) frequencies with the resolution Bandwidth set at 100 kHz (video bandwidth set at 300 kHz) while the span was set at 3MHz. The bandwidth was measured using the analyzer's bandwidth function.



## 7.2 Occupied Bandwidth Test Data

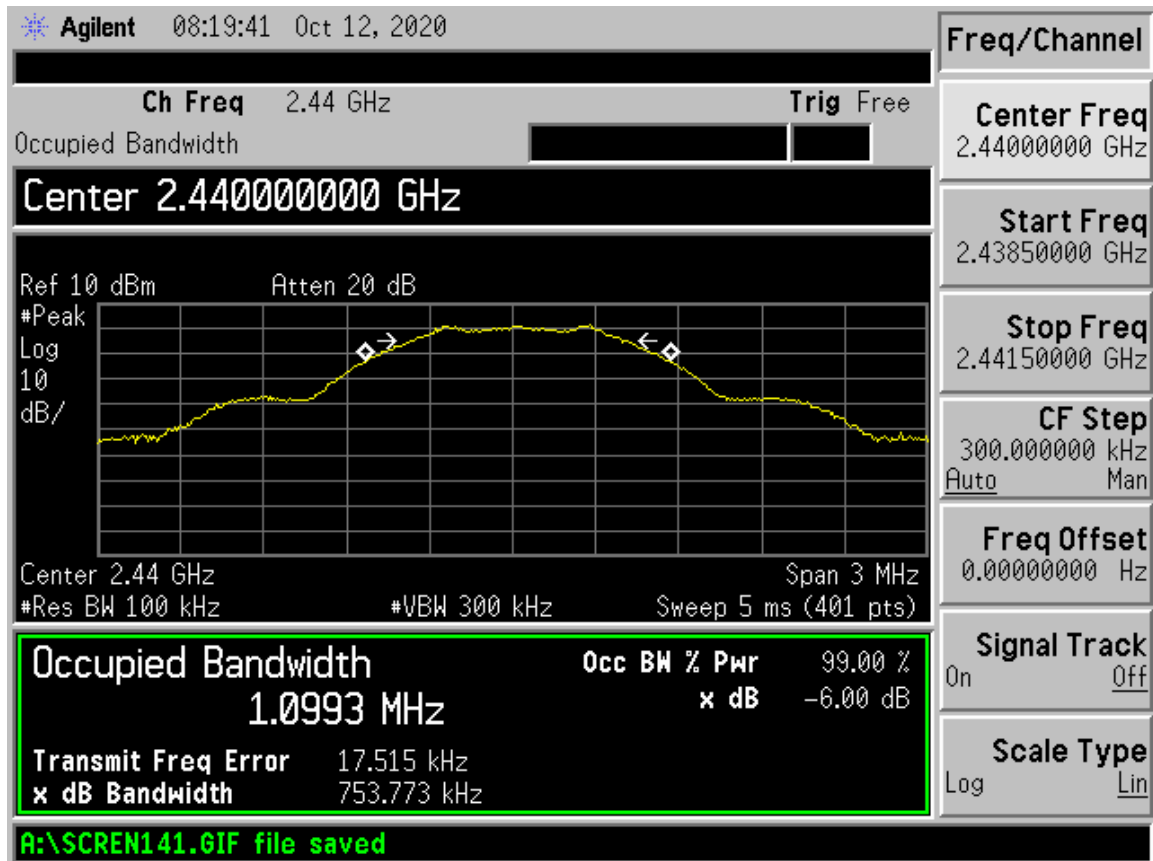
Test Date:	2020-10-12	Test Engineer:	J. Chiller
Standards:	CFR 47 Part 15.247(a)(2); KDB558074	Air Temperature:	23.1°C
		Relative Humidity:	45%

## Low Channel



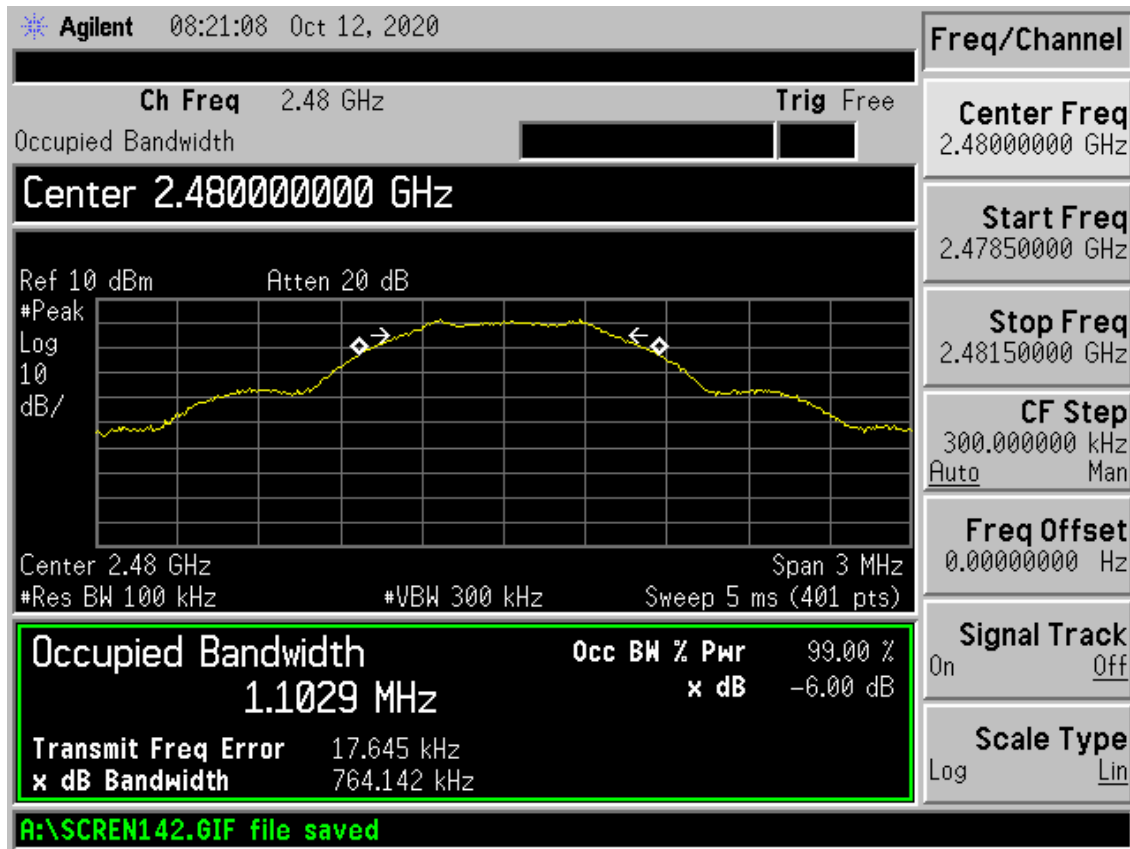


## Mid Channel





## High Channel





## **8 FCC PART 15.247(b)(3) – CONDUCTED OUTPUT POWER**

The EUT antenna port was fitted with an Type N connector and directly connected to the input of the receiver. The peak power output was measured.

### **8.1 Requirements:**

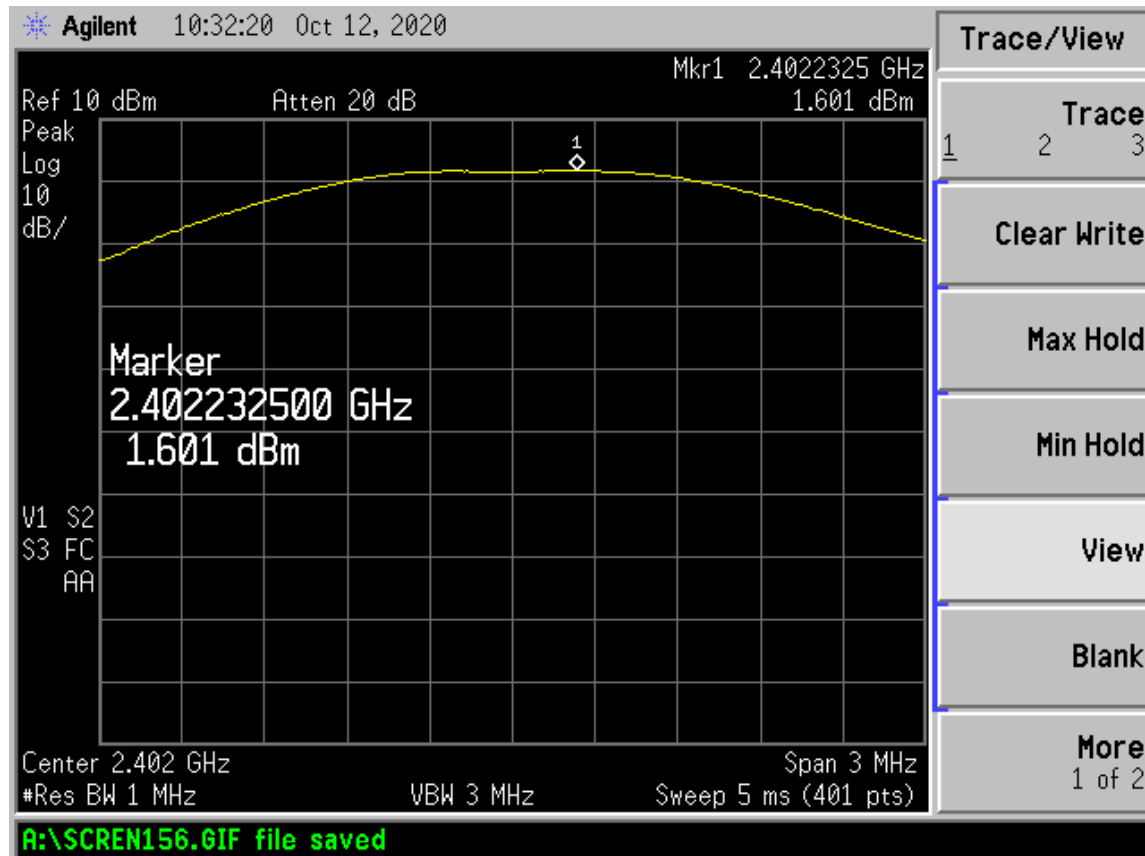
The peak power output shall be 1 watt (30 dBm) or less when using an antenna with a gain of less than 6dBi. For antennas having a gain of more than 6dBi, the limit is reduced by 1dB for every dB the antenna gain is over 6dBi.



## 8.2 Conducted Output Power Test Data

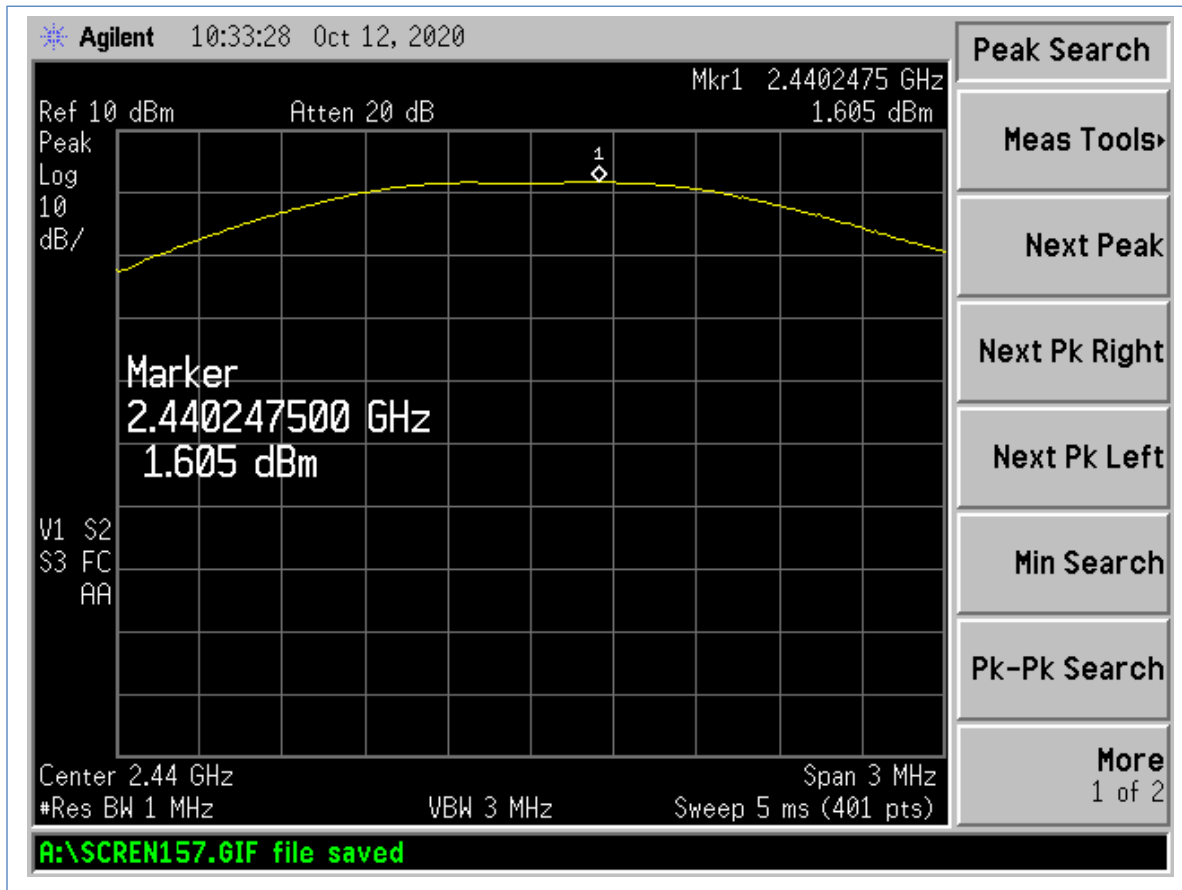
Test Date:	2020-10-12	Test Engineer:	J. Chiller
Standards:	CFR 47 Part 15.247(b)(3); KDB558074	Air Temperature:	23.7°C
		Relative Humidity:	42%

## Low Channel





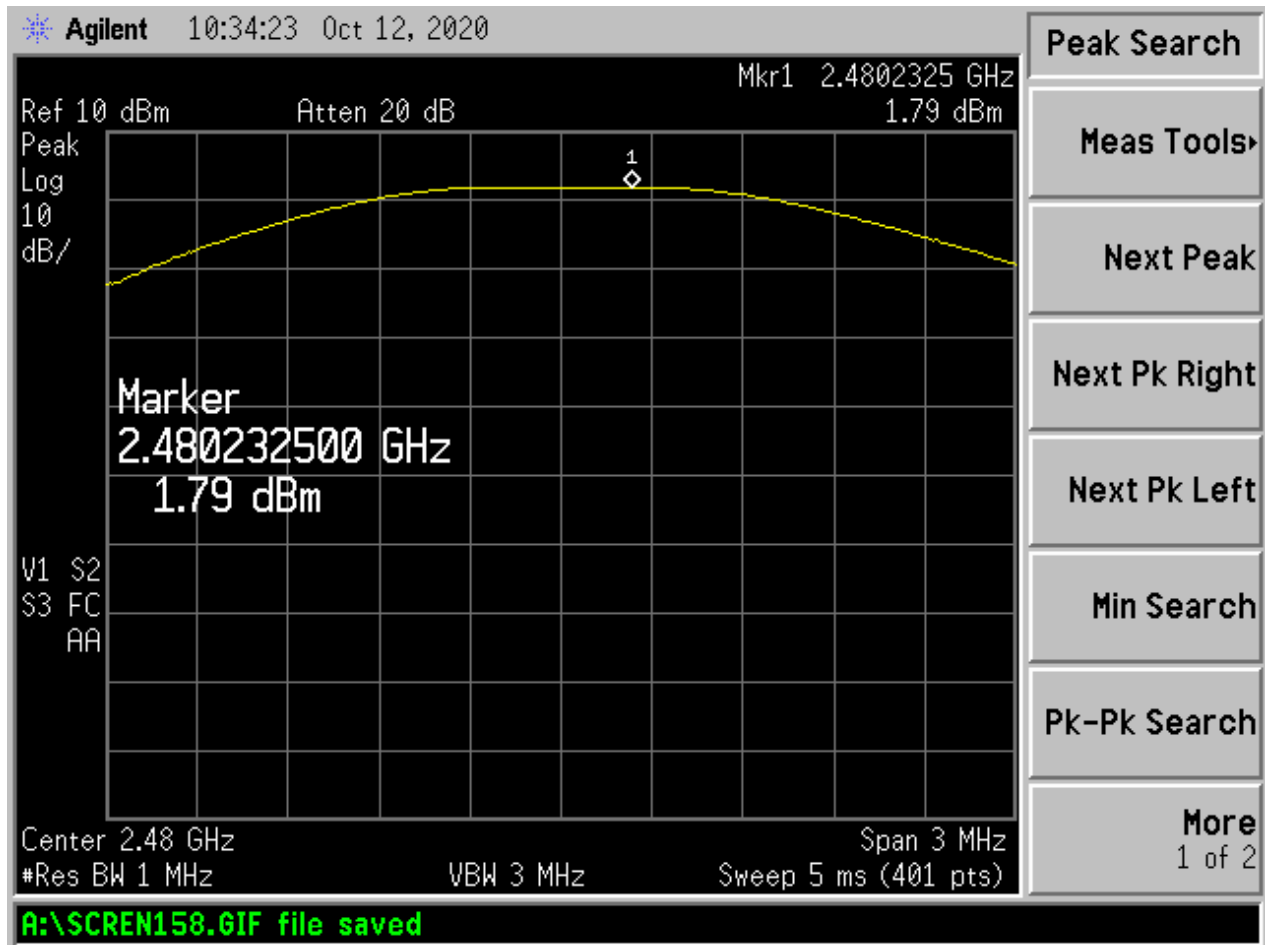
Mid Channel







### High Channel





## **9 FCC PART 15.31(e) – VOLTAGE VARIATIONS**

### **9.1 Requirements**

For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery-operated equipment, the equipment tests shall be performed using a new battery.

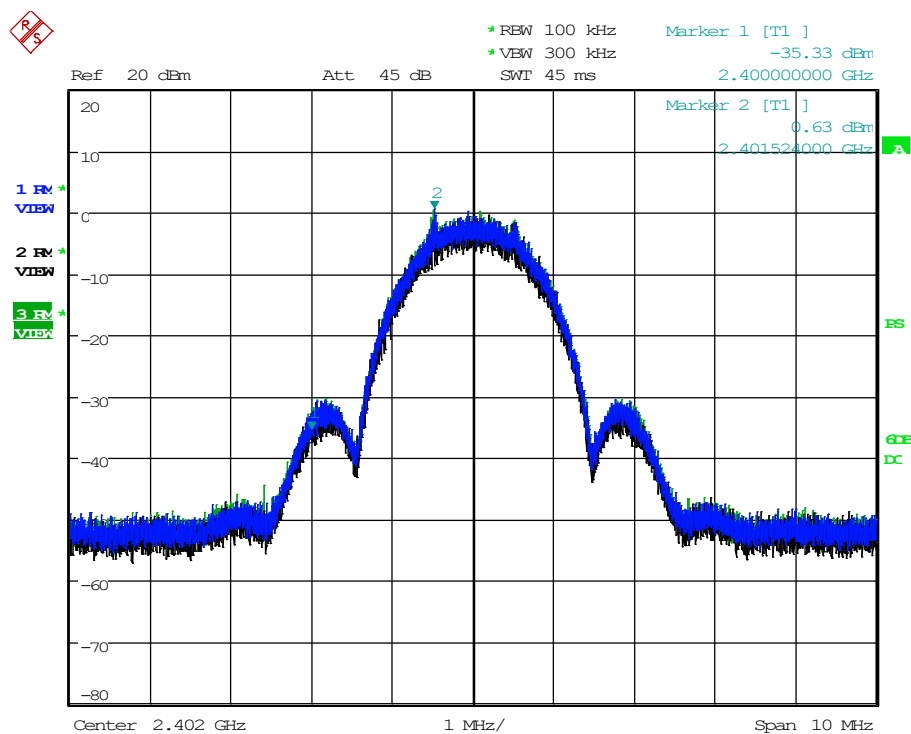
Note: Trace 1 is nominal, trace 2 is -15% and trace 3 is +15% voltage.



## 9.2 Voltage Variations Test Data

Test Date(s):	2020-10-16	Test Engineer:	J. Chiller
Rule:	15.31(e)	Air Temperature:	23.1° C
Test Results:	Complies	Relative Humidity:	45%

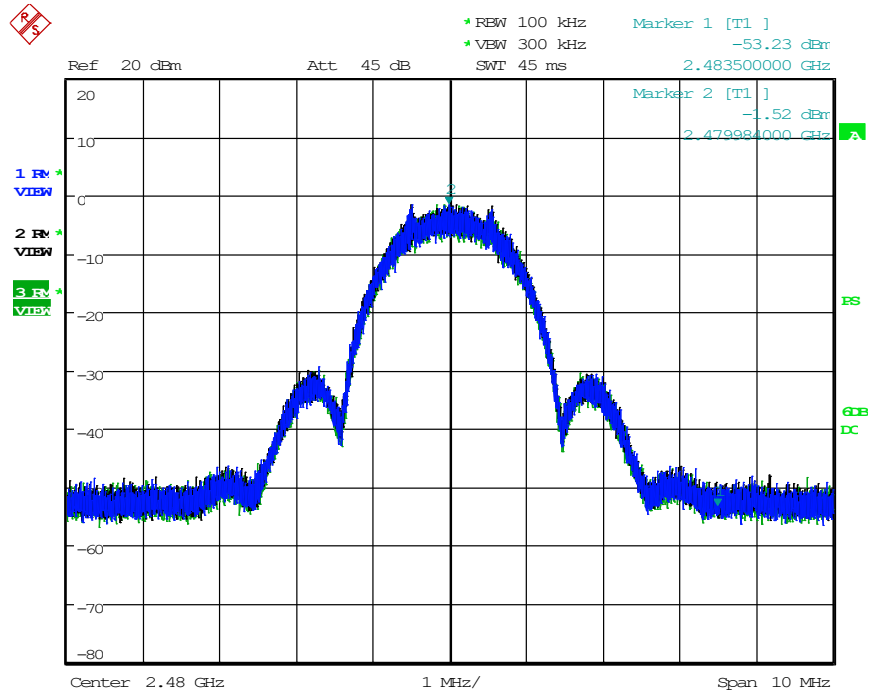
## Low Channel



Date: 16.OCT.2020 15:01:12



### High Channel



Date: 16.OCT.2020 15:06:39



**10 FCC Part 15.247(d) – CONDUCTED SPURIOUS EMISSIONS**

The following tests were performed to demonstrate compliance.

**RF Antenna Conducted Test**

The EUT antenna port was fitted with a Type N connector and directly connected to the input of the spectrum analyzer.

**10.1 Requirements:**

All Spurious Emissions must be at least 20dB down from the highest emission level measured within the authorized band up through the tenth harmonic.

Spurious emissions measurements were made at the low, mid, and upper channels with the appropriate spectrum analyzer impulse bandwidth. Additionally, 20dB down points were measured for the low and high channels to verify band edge compliance.

High channel was determined to be worst case and is presented in the following pages.



## 10.2 Conducted Spurious Emissions Test Data

Test Date:	2020-10-16	Test Engineer:	J. Chiller
Standards:	CFR 47 Part 15.247(d) / Part 15.207 KDB558074	Air Temperature:	23.1°C
		Relative Humidity:	35%

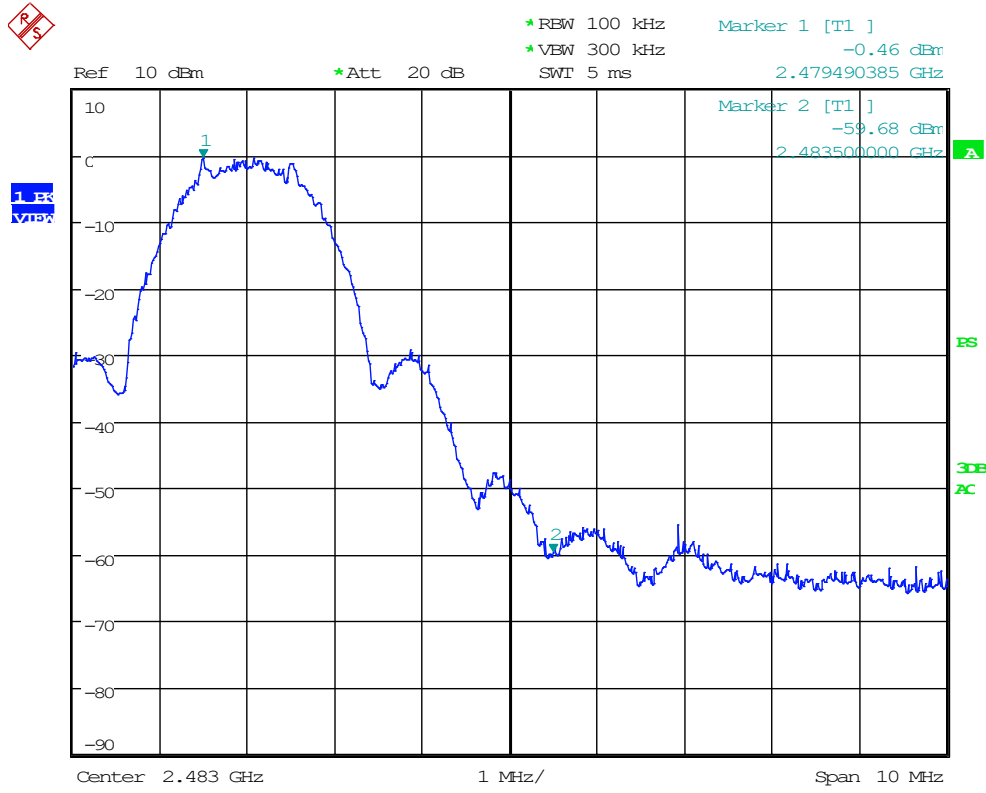
## Low Channel: Band Edge



Date: 16.OCT.2020 11:31:33



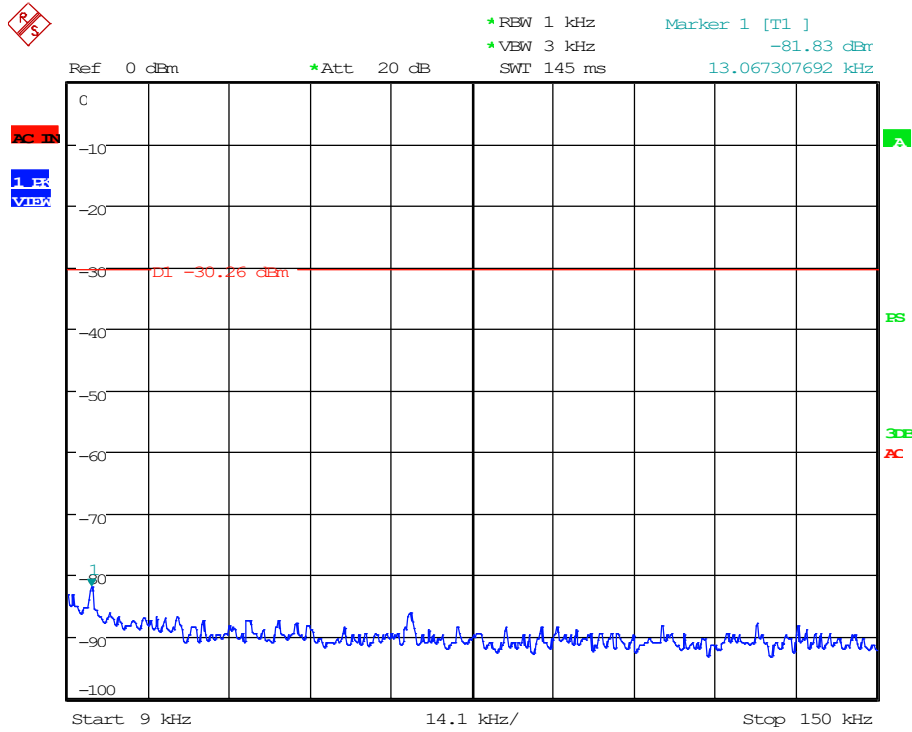
### High Channel: Band Edge



Date: 16.OCT.2020 11:35:22



High Channel: 0.009 MHz to 0.15 MHz

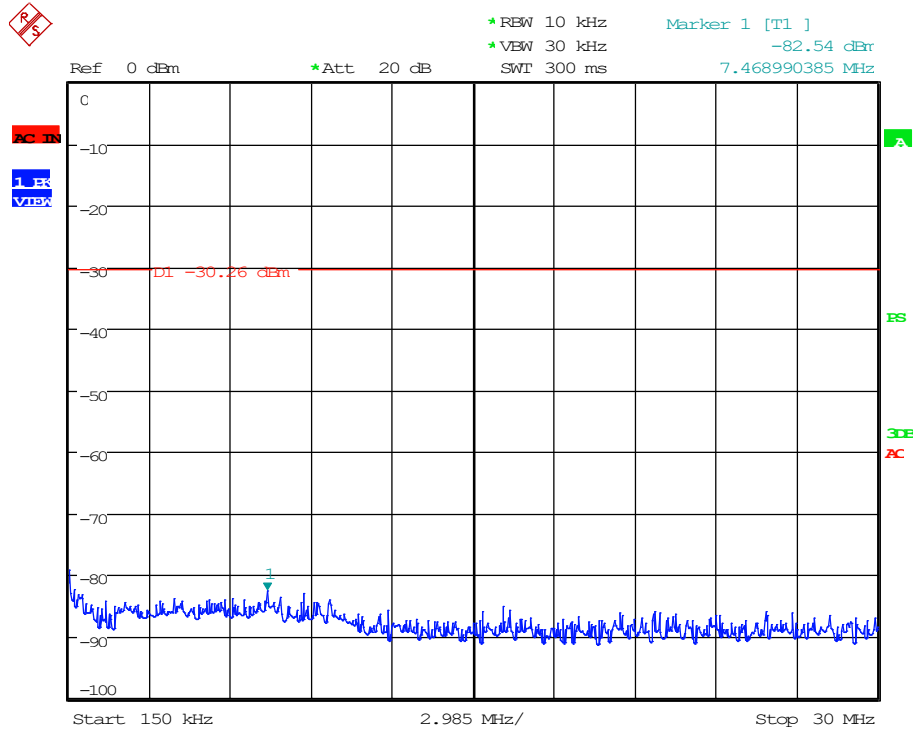


Date: 16.OCT.2020 11:43:48





High Channel: 0.15 MHz to 30 MHz



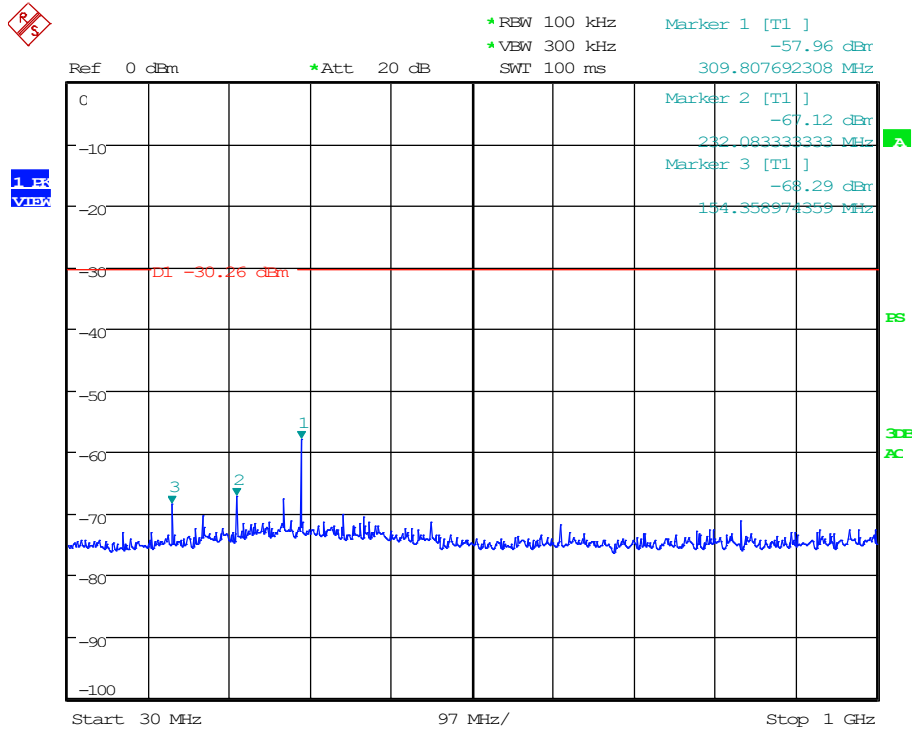
Date: 16.OCT.2020 11:44:50



Order Number: F2P19923A

Applicant: PCTEL, Inc  
Model: AP-WIFI-1200-US

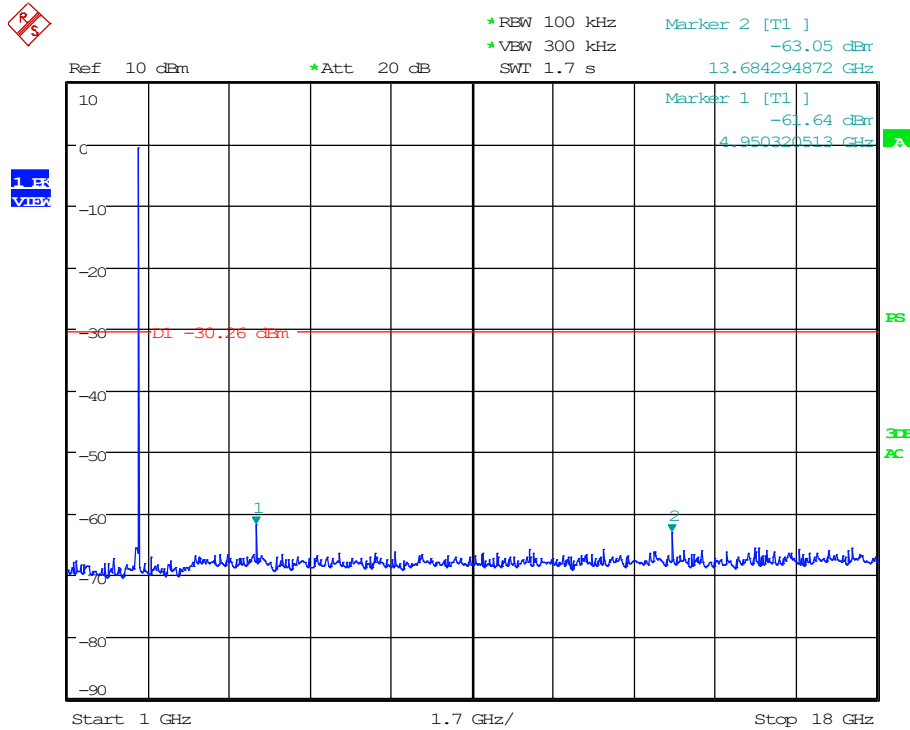
### High Channel, 30 MHz to 1000 MHz



Date: 16.OCT.2020 11:48:51



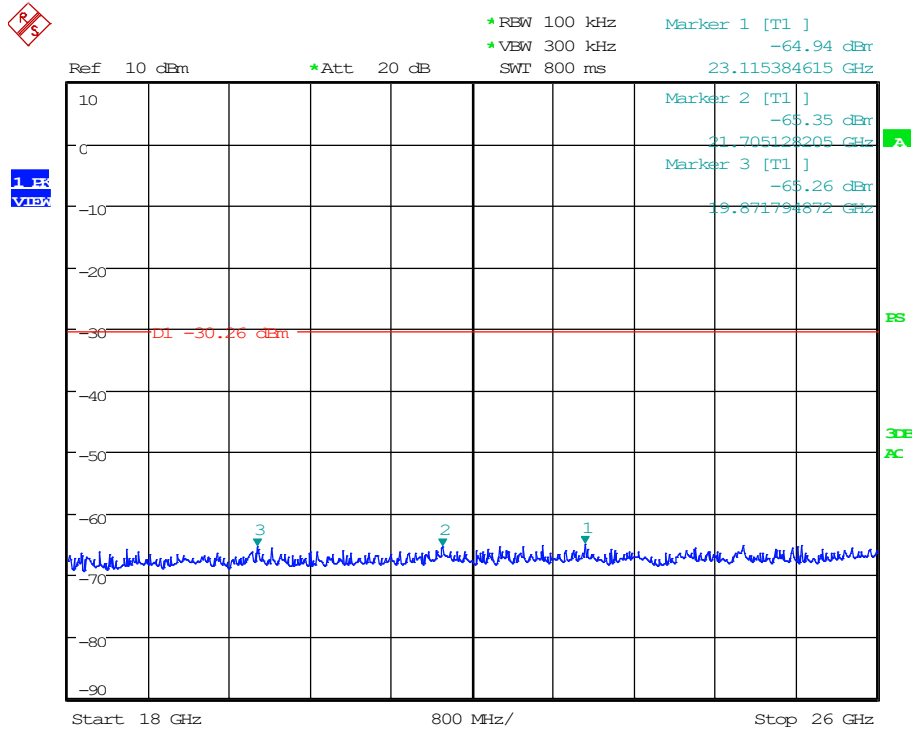
### High Channel, 1 GHz to 18 GHz



Date: 16.OCT.2020 11:50:38



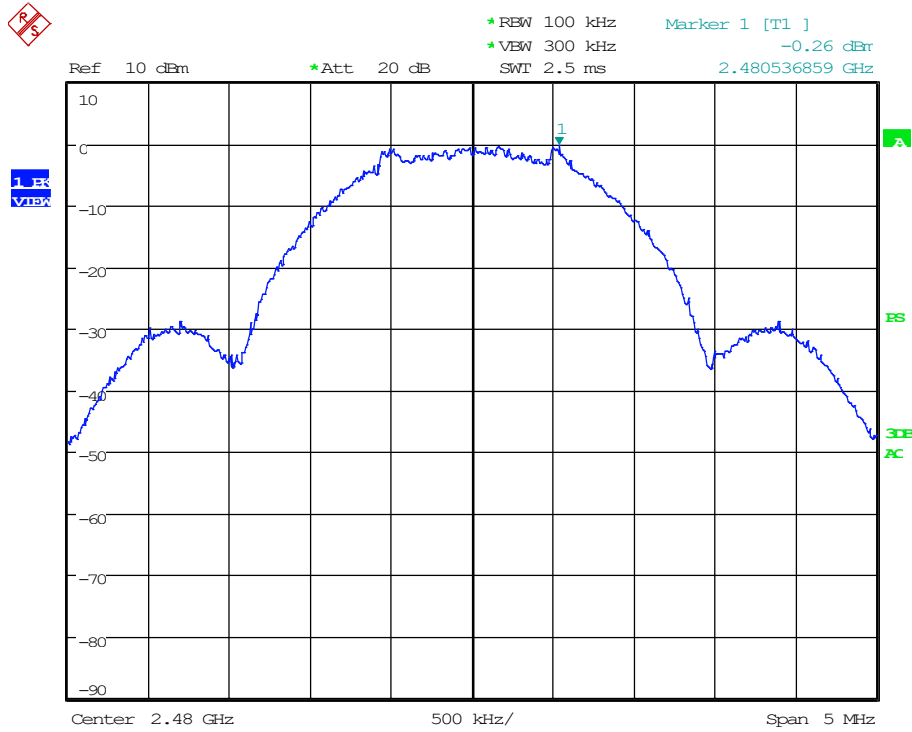
### High Channel, 18 GHz to 26 GHz



Date: 16.OCT.2020 11:52:43



### Spur Reference



Date: 16.OCT.2020 11:41:34



## 11 RADIATED SPURIOUS EMISSION

The EUT antenna port was fitted with its external 6dBi omni directional antenna. Radiated emissions were measured in a Semi-Anechoic Chamber. All emissions generated that fall in the restricted bands per FCC Part 15.205 were examined.

### 11.1 Requirements:

All emissions that fall in the restricted bands defined in FCC Part 15.205 shall not exceed the maximum field strength listed in FCC Part 15.209(a).



## 11.2 Radiated Spurious Emission Test Data

<b>Test Date(s):</b>	2020-10-16	<b>Test Engineer:</b>	J. Chiller
<b>Standards:</b>	CFR 47 Part 15.247(d); Part 15.209 / KDB558074	<b>Air Temperature:</b>	23.6°C
		<b>Relative Humidity:</b>	34%

Notes: Plots are peak, max hold prescan data included only to determine what frequencies to investigate and measure. The EUT was initially placed in a semi-anechoic chamber, and rotated in all three orthogonal positions to maximize the emissions. Characterization measurements were then performed to determine at which frequencies significant emissions occurred. These graphs are shown below.

The equipment was fully exercised with all cabling attached to the EUT and was positioned in the chamber for maximum emissions. While the equipment was energized, the receiving antenna was scanned from 1.0 meter to 4.0 meters in both vertical and horizontal polarities while the turntable was adjusted 360 degrees to determine the maximum field strength. The tables of measured results can be found below.

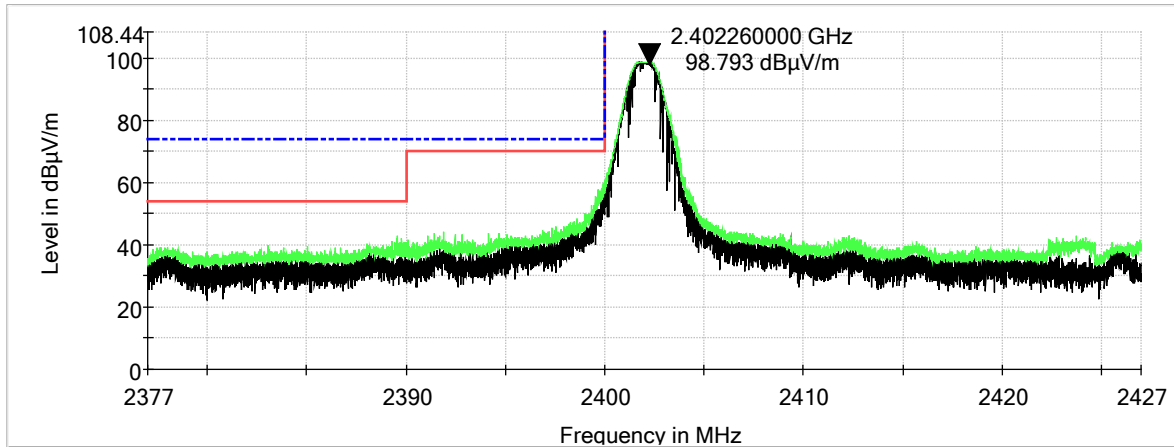
In the following plots, the black line indicates active scan and the green indicates Max Peak. Emissions to be found by the EUT were measured and listed in tables. The plots are for reference only and the limit lines are not actual limit lines but merely a guide.

The following graphs are from the Low Channel which was found to be the worst-case.

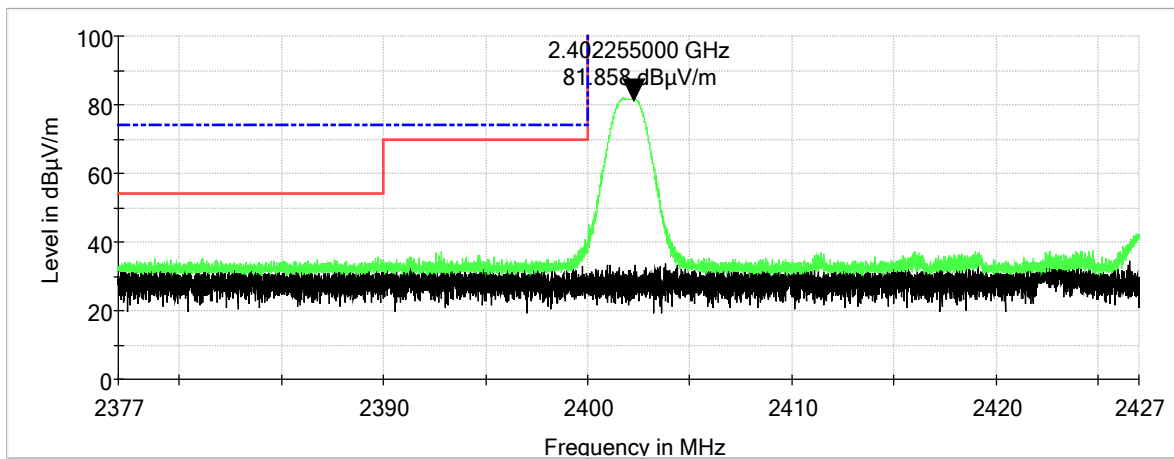
Data presented in the table reflects results from all channels



### Band Edge: Low Channel, Vertical



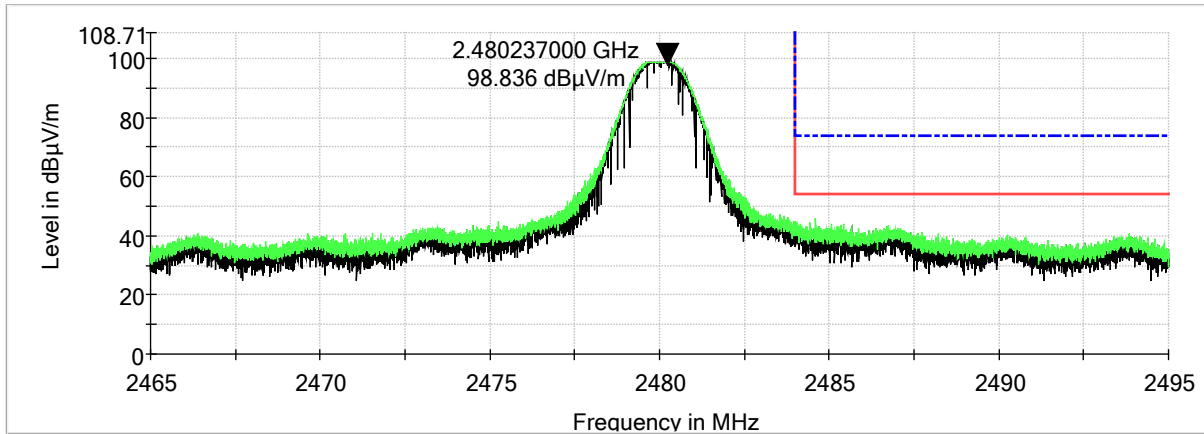
### Band Edge: Low Channel, Horizontal



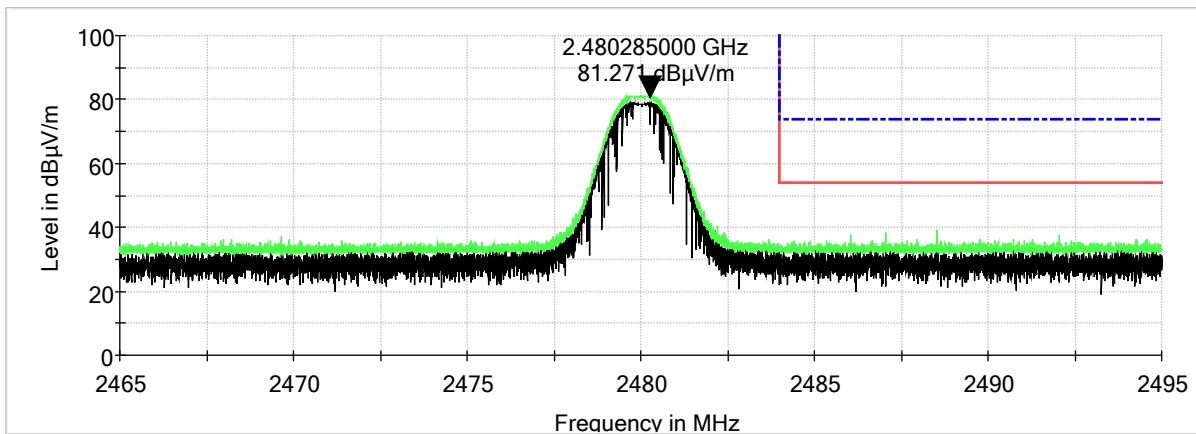




### Band Edge: High Channel, Vertical



### Band Edge: High Channel, Horizontal





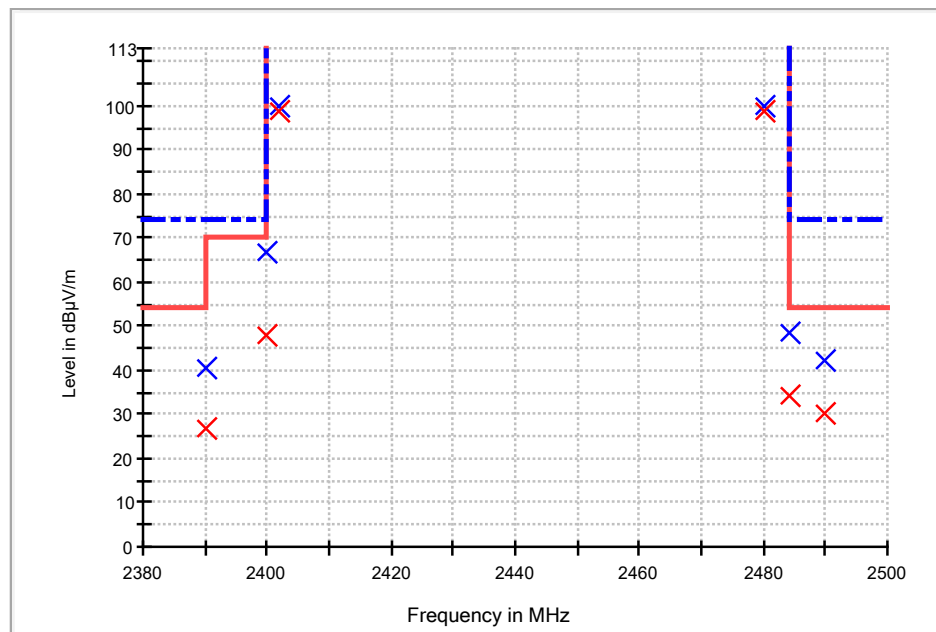
## Band Edge: Measurements

## High Channel - MaxPeak

Frequency (MHz)	Antenna Polarization	Antenna Height (cm)	Azimuth (deg)	Reading (dBμV)	Cable Loss & Antenna Factor (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2390.000000	V	150.00	0.00	46.4	-5.7	40.70	74.0	-33.3
2400.000000	V	150.00	0.00	72.2	-5.7	66.50	74.0	-7.5
2402.000000	V	150.00	0.00	105.5	-5.7	99.80	--	--
2480.000000	V	150.00	0.00	105.0	-5.3	99.70	--	--
2483.500000	V	150.00	0.00	53.6	-5.2	48.40	74.0	-25.6
2490.000000	V	150.00	0.00	47.5	-5.2	42.30	74.0	-31.7

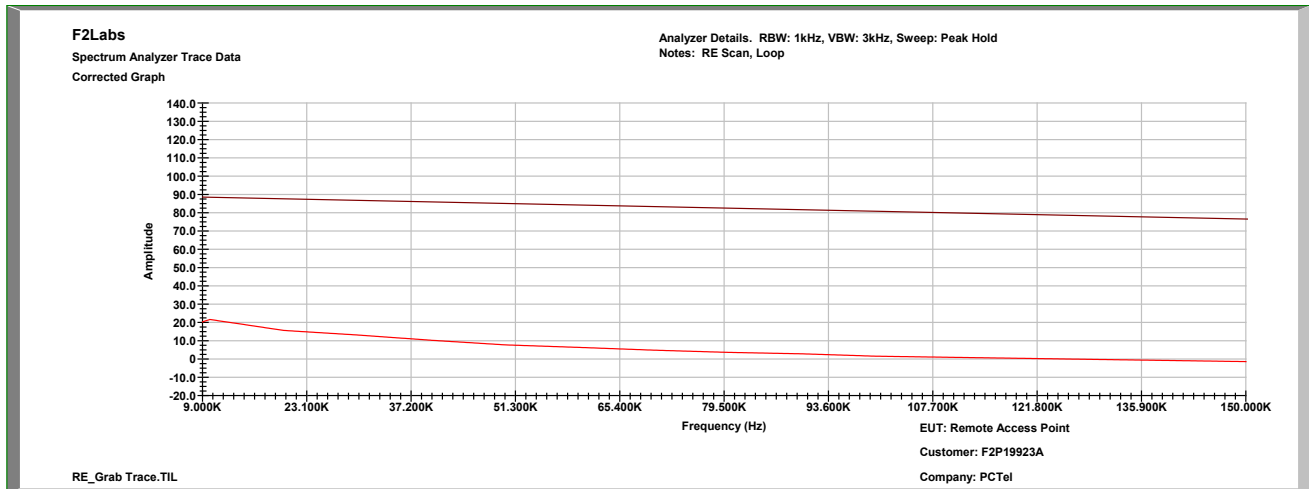
## High Channel - Average

Frequency (MHz)	Antenna Polarization	Antenna Height (cm)	Azimuth (deg)	Reading (dBμV)	Cable Loss & Antenna Factor (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2390.000000	V	150.00	0.00	32.8	-5.7	27.10	54.0	-26.9
2400.000000	V	150.00	0.00	53.7	-5.7	48.00	54.0	-6.0
2402.000000	V	150.00	0.00	104.6	-5.7	98.90	--	--
2480.000000	V	150.00	0.00	104.1	-5.3	98.80	--	--
2483.500000	V	150.00	0.00	39.7	-5.2	34.50	54.0	-19.5
2490.000000	V	150.00	0.00	35.3	-5.2	30.10	54.0	-23.9

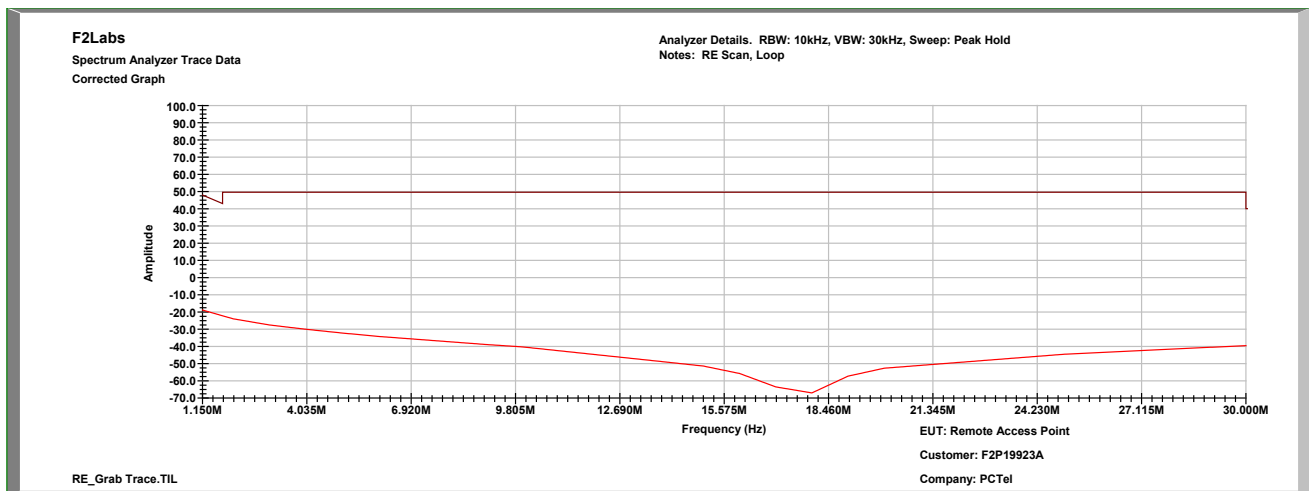




### Characterization Scan, 0.009 MHz to 0.15 MHz

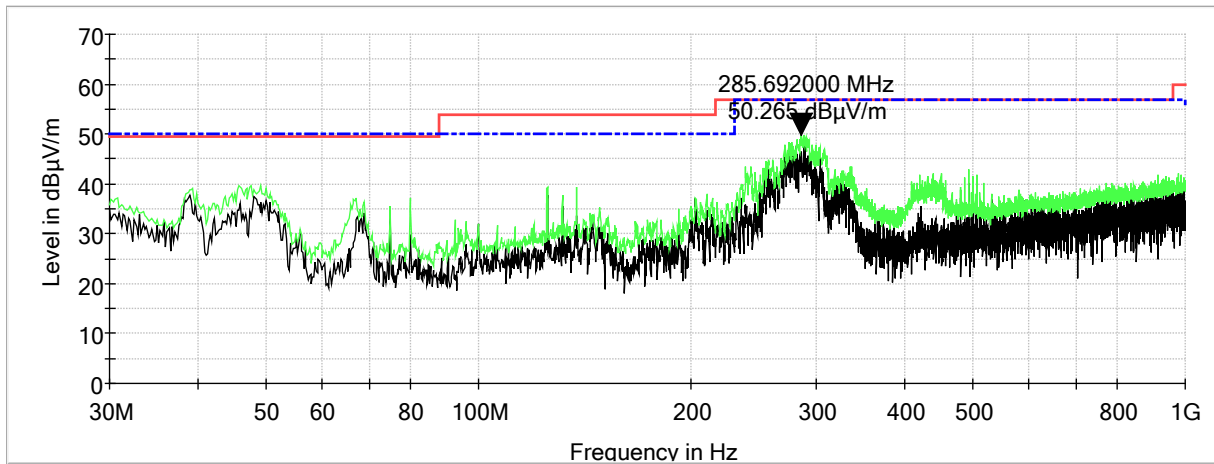


### Characterization Scan, 0.15 MHz to 30 MHz

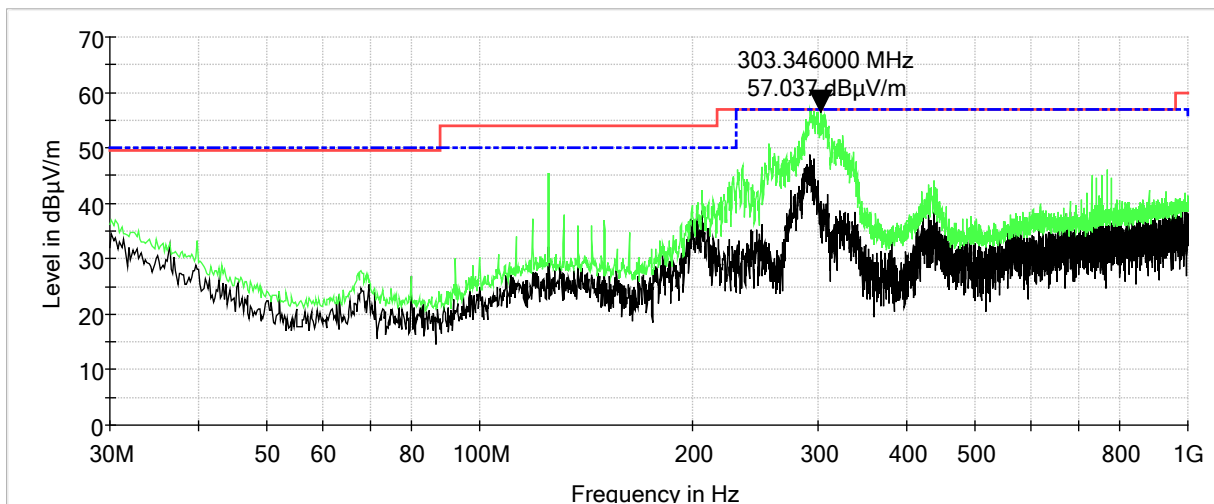




### Characterization Scan, 30 MHz to 1000 MHz - Vertical

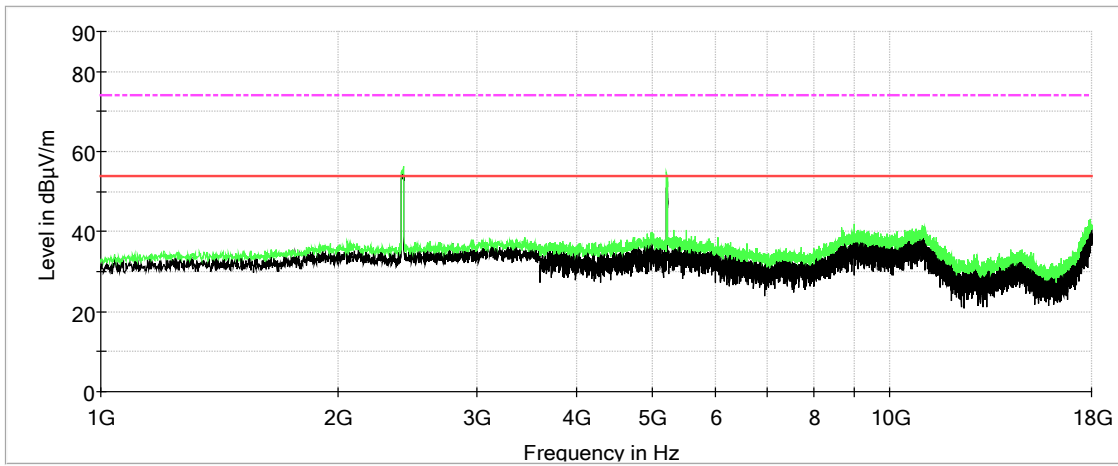


### Characterization Scan, 30 MHz to 1000 MHz - Horizontal

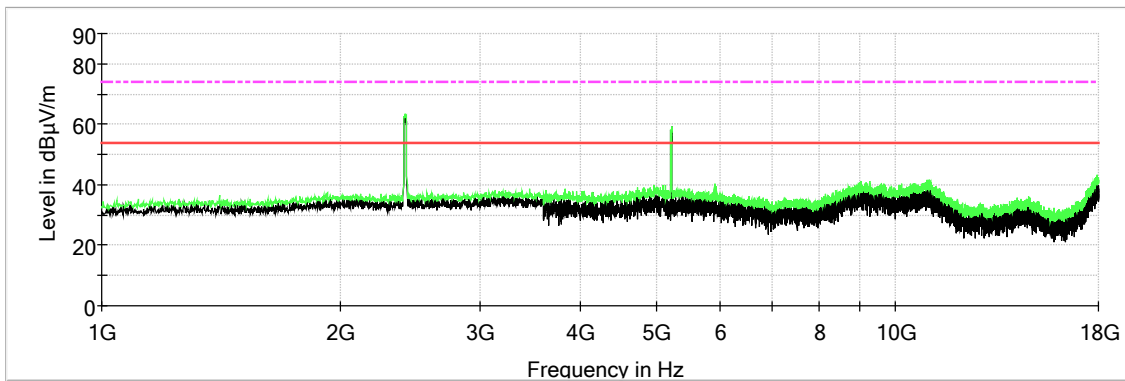




### Characterization Scan, 1 GHz to 18 GHz - Vertical

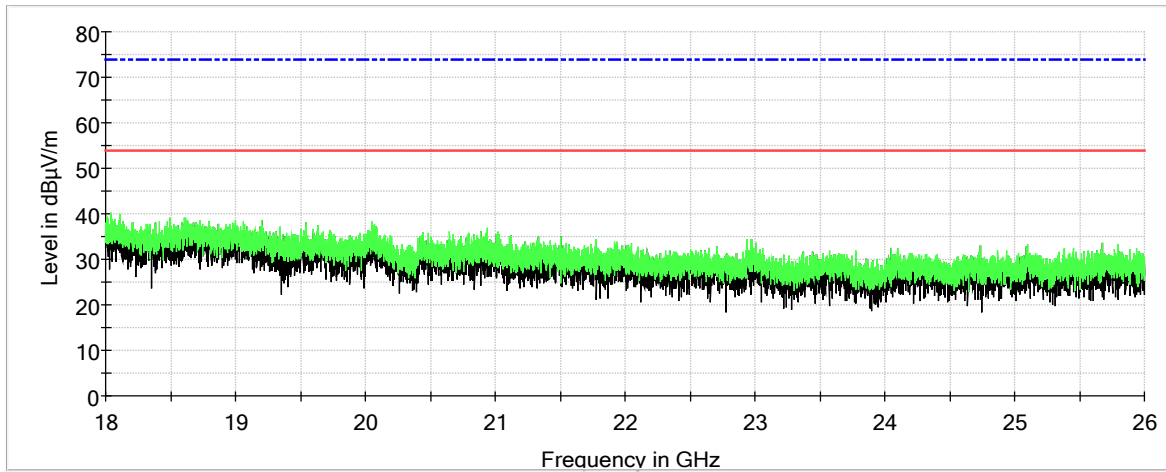


### Characterization Scan, 1 GHz to 18 GHz - Horizontal

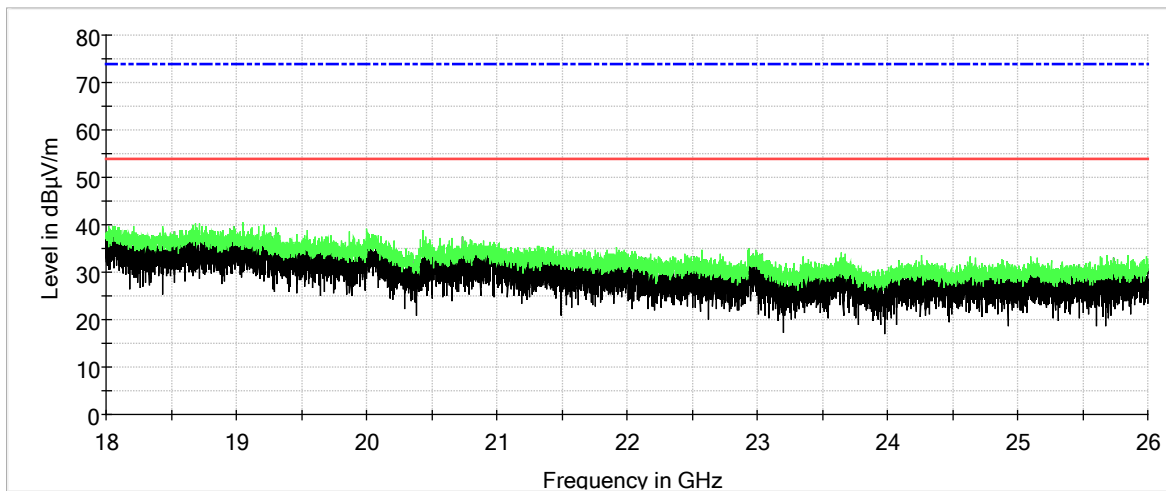




### Characterization Scan, 18 GHz to 26 GHz - Vertical



### Characterization Scan, 18 GHz to 26 GHz - Horizontal

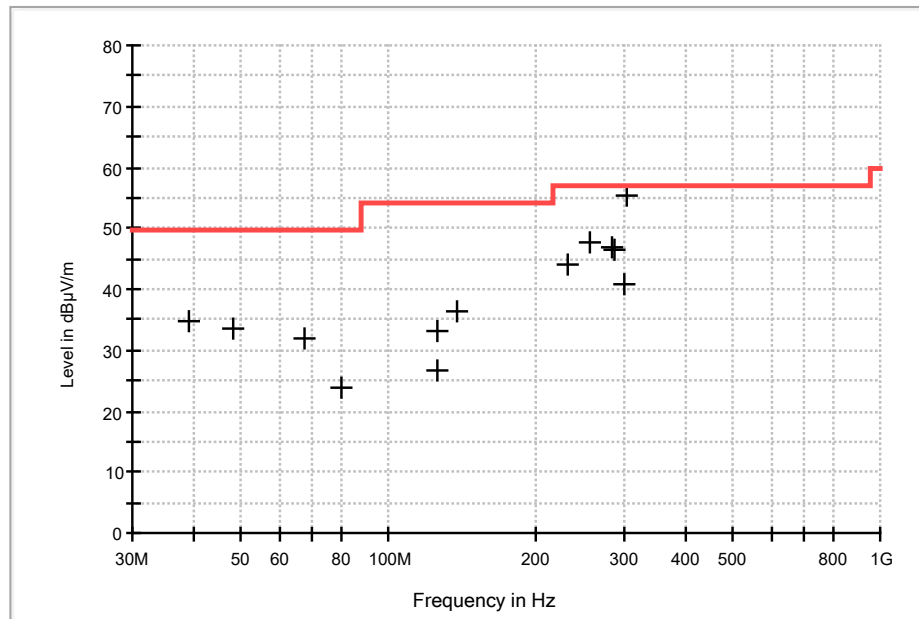




## Measurements

## High Channel - QuasiPeak

Frequency (MHz)	Antenna Polarization	Reading (dBμV)	Cable Loss & Antenna Factor (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
38.920000	V	36.3	-1.6	34.70	49.6	-14.9
48.040000	V	41.1	-7.4	33.70	49.6	-15.9
67.050000	V	40.2	-8.3	31.90	49.6	-17.7
79.860000	V	32.5	-8.5	24.00	49.6	-25.6
124.870000	H	28.1	-1.6	26.50	54.0	-27.5
125.060000	V	34.6	-1.6	33.00	54.0	-21.0
137.480000	V	38.2	-1.9	36.30	54.0	-17.7
231.370000	H	47.2	-3.0	44.20	56.9	-12.7
256.200000	H	50.1	-2.3	47.80	56.9	-9.1
285.690000	V	47.2	-0.5	46.70	56.9	-10.2
288.800000	V	46.9	-0.5	46.40	56.9	-10.5
299.850000	V	41.4	-0.4	41.00	56.9	-15.9
303.350000	H	55.6	-0.2	55.40	56.9	-1.5





## 12 FCC PART 15.247(e) – PEAK POWER SPECTRAL DENSITY (PSD)

Peak power spectral density measurements were performed.

### 12.1 Requirements:

The peak power spectral density shall not exceed +8dBm in any 3 kHz band during any time interval of continuous transmission.

Power spectral density measurements were performed at a resolution bandwidth of 3 kHz (video bandwidth set at 10 KHz). The peak spectral densities were measured at the low, mid, and upper channels.

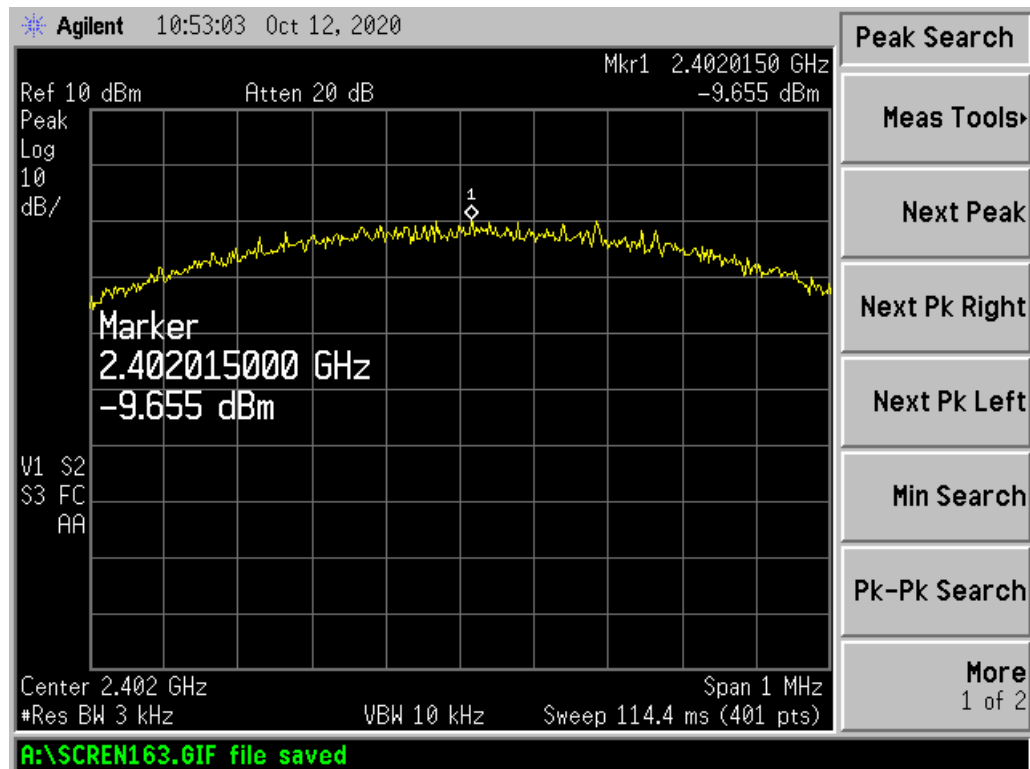




## 12.2 Peak Power Spectral Density Test Data

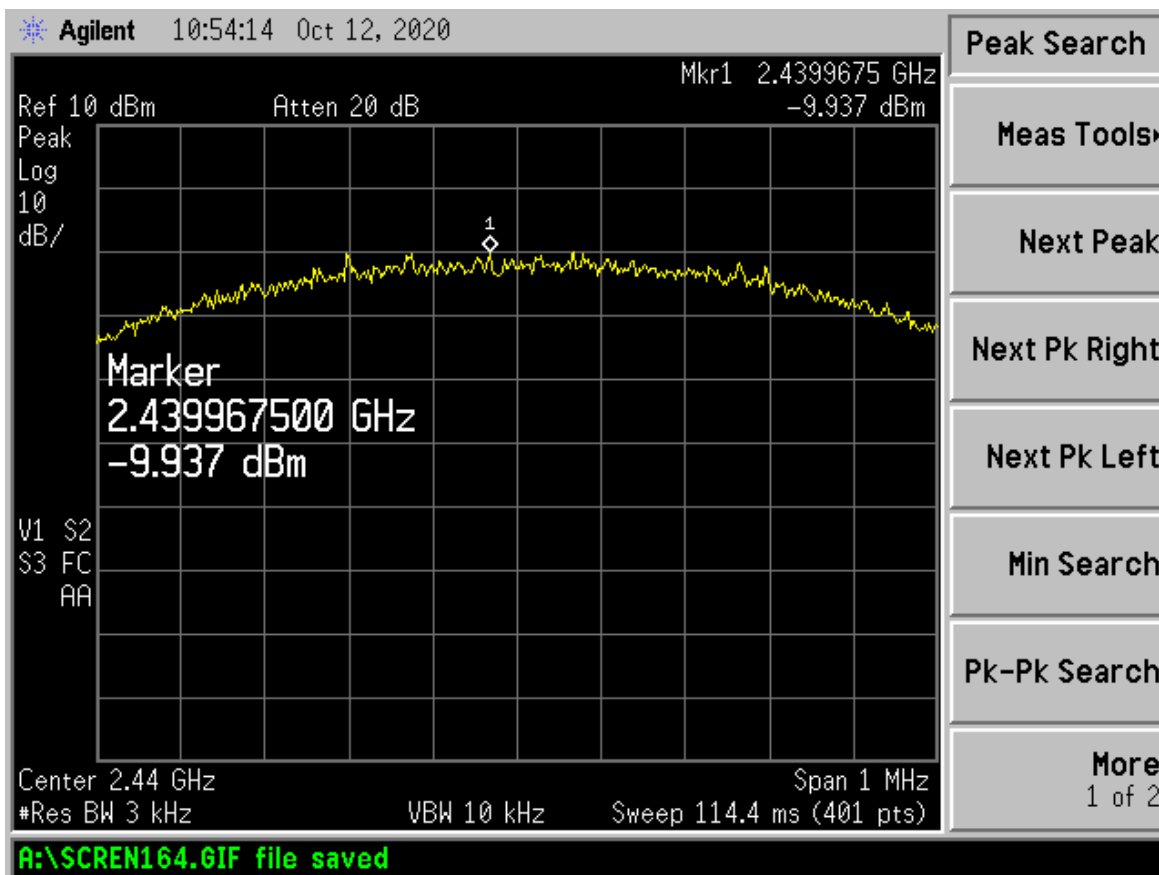
Test Date(s):	2020-10-12	Test Engineer:	J. Chiller
Standards:	CFR 47 Part 15.247(e); KDB558074	Air Temperature:	23.8°C
		Relative Humidity:	42%

## Low Channel



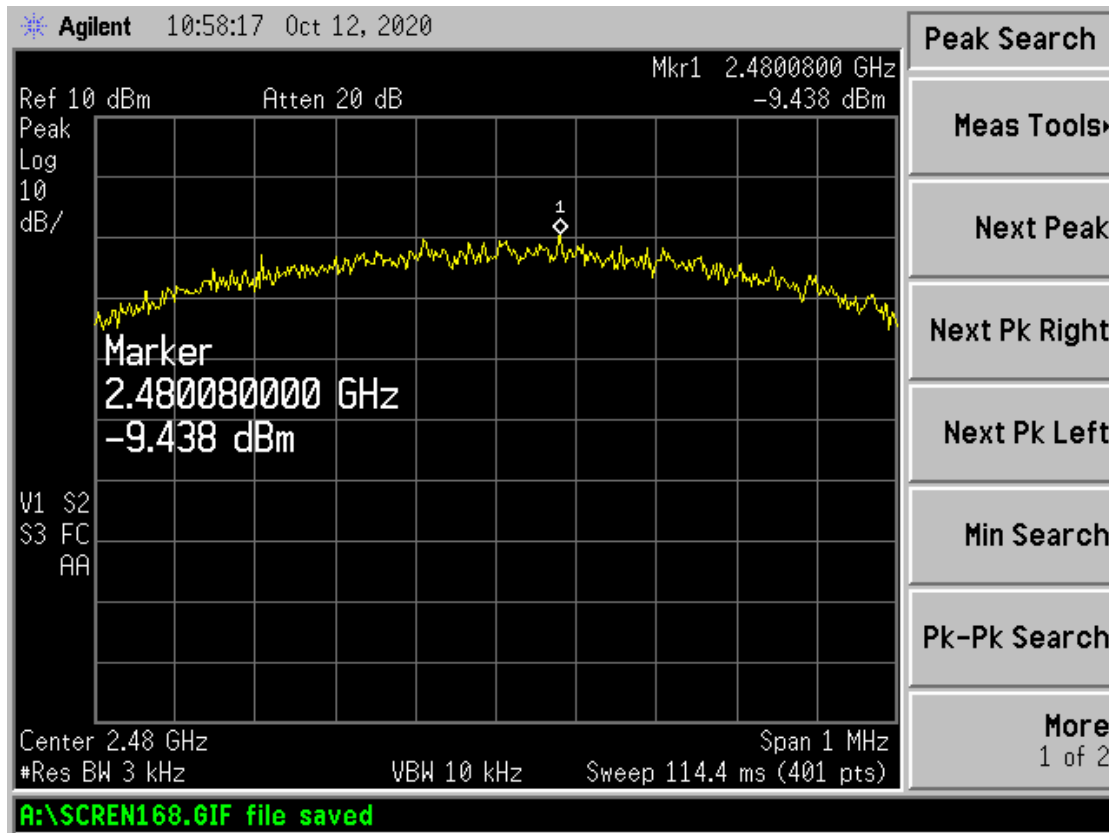


Mid Channel





### High Channel





## 16 CONDUCTED EMISSIONS

### 16.1 Requirements

In accordance with FCC CFR 47 Part 15.207(a), "Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

### 16.2 Procedure

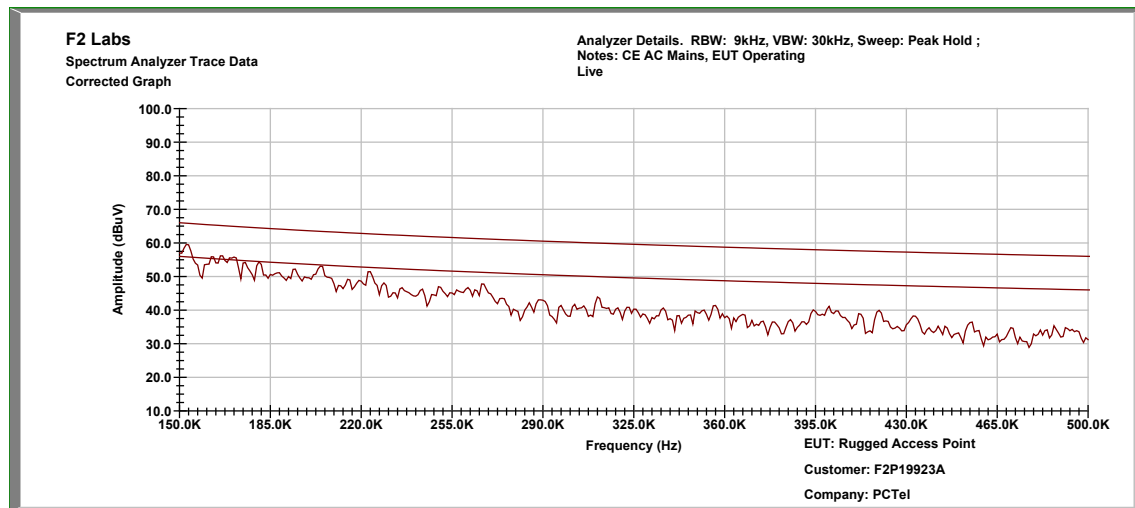
The EUT was placed on a 1.0 x 1.5 meter non-conductive table, 0.8 meter above a horizontal ground plane and 0.4 meter from a vertical ground plane. Power was provided to the EUT through a LISN bonded to a 3 x 2 meter ground plane. The LISN and peripherals were supplied power through a filtered AC power source. The output of the LISN was connected to the input of the receiver via a transient limiter, and emissions in the range 150 kHz to 30 MHz were measured. The measurements were recorded using the quasi-peak and average detectors as directed by the standard, and the resolution bandwidth during testing was 9 kHz. The raw measurements were corrected to allow for attenuation from the LISN, transient limiter and cables.



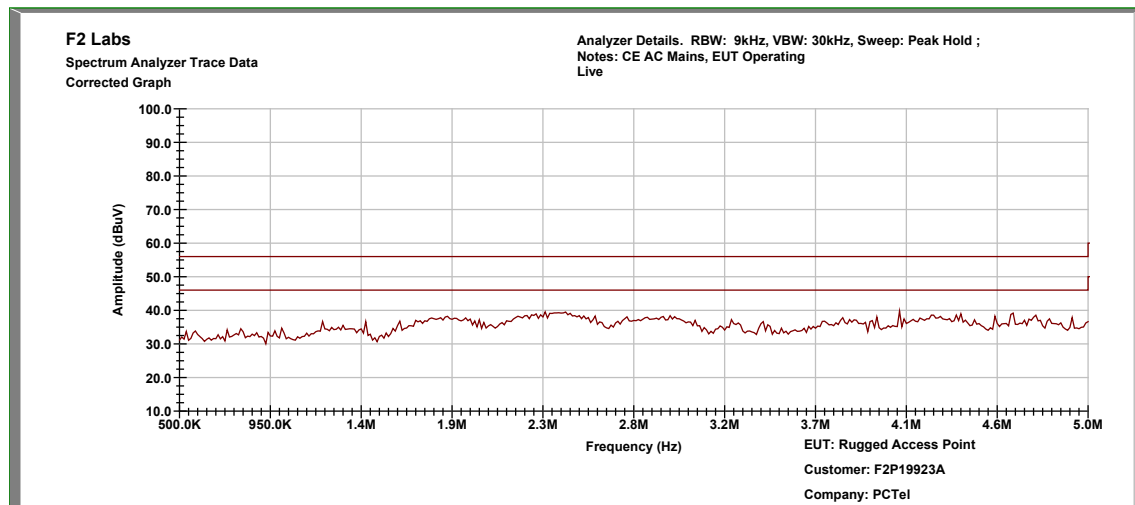
## 16.3 Conducted Emissions Test Data

Test Date:	2020-10-09	Test Engineer:	M. Toth
Rule:	15.207	Air Temperature:	21.9° C
Test Results:	Pass	Relative Humidity:	35%

## Conducted Test – Line 1: 0.15 MHz to 0.5 MHz

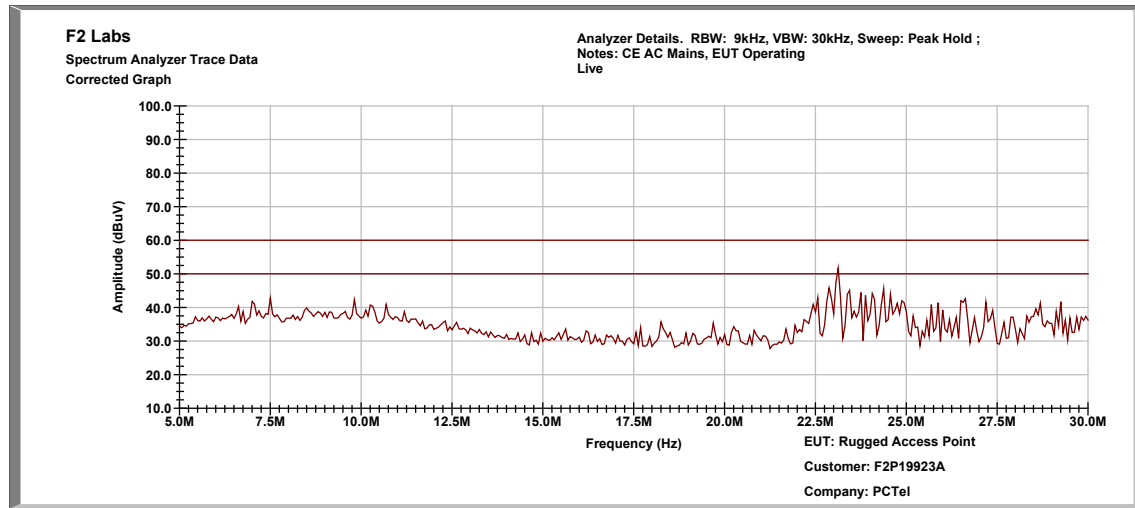


## Conducted Test – Line 1: 0.5 MHz to 5.0 MHz





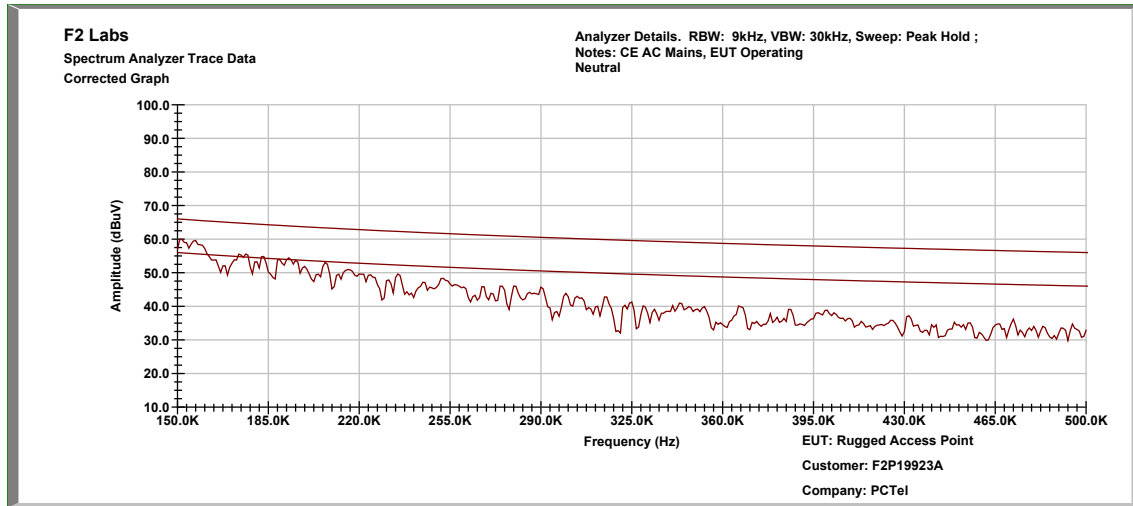
## Conducted Test – Line 1: 5.0 MHz to 30.0 MHz



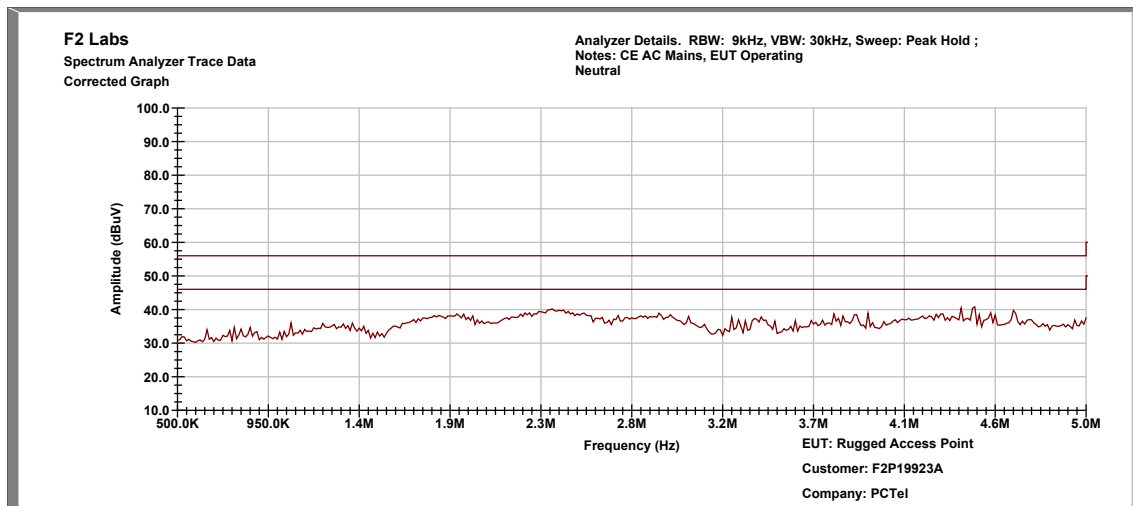
Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Line 1	0.154375	Quasi-Peak	38.50	11.0	49.50	65.72	-16.2
			Average	20.94	11.0	31.94	55.72	-23.8
2	Line 1	0.166625	Quasi-Peak	33.28	11.0	44.28	65.13	-20.9
			Average	13.72	11.0	24.72	55.13	-30.4
3	Line 1	0.180625	Quasi-Peak	35.85	11.0	46.85	64.46	-17.6
			Average	14.05	11.0	25.05	54.64	-29.6
4	Line 1	0.205	Quasi-Peak	32.71	11.0	43.71	63.41	-19.7
			Average	12.96	11.0	23.96	53.41	-29.5
5	Line 1	2.4125	Quasi-Peak	25.6	11.0	36.60	56.0	-19.4
			Average	18.99	11.0	29.99	46.0	-16.0
6	Line 1	23.125	Quasi-Peak	37.42	11.0	48.42	60.0	-11.6
			Average	36.64	11.0	47.64	50.0	-2.4



### Conducted Test – Line 2: 0.15 MHz to 0.5 MHz

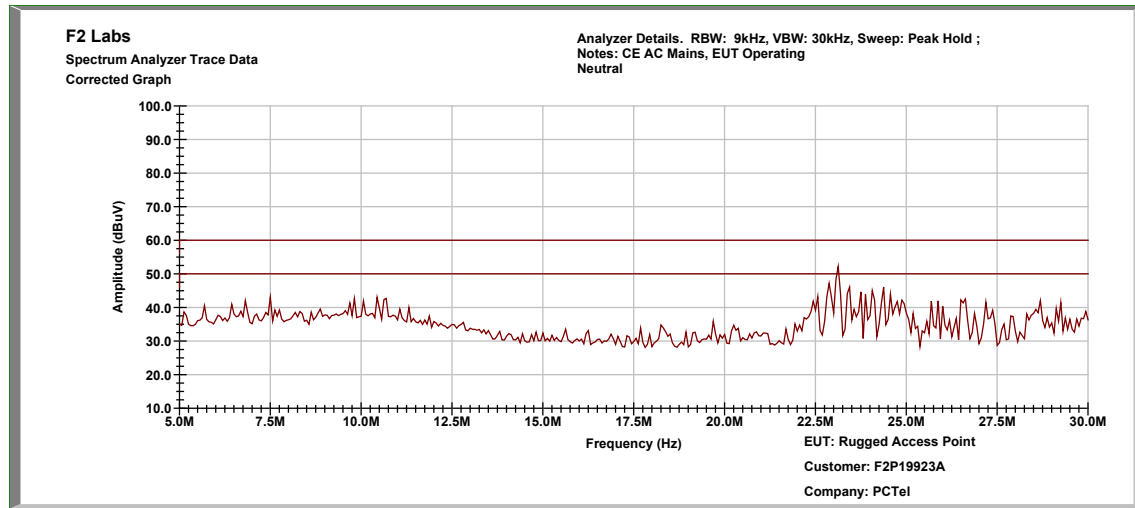


### Conducted Test – Line 2: 0.5 MHz to 5.0 MHz





## Conducted Test – Line 2: 5.0 MHz to 30.0 MHz

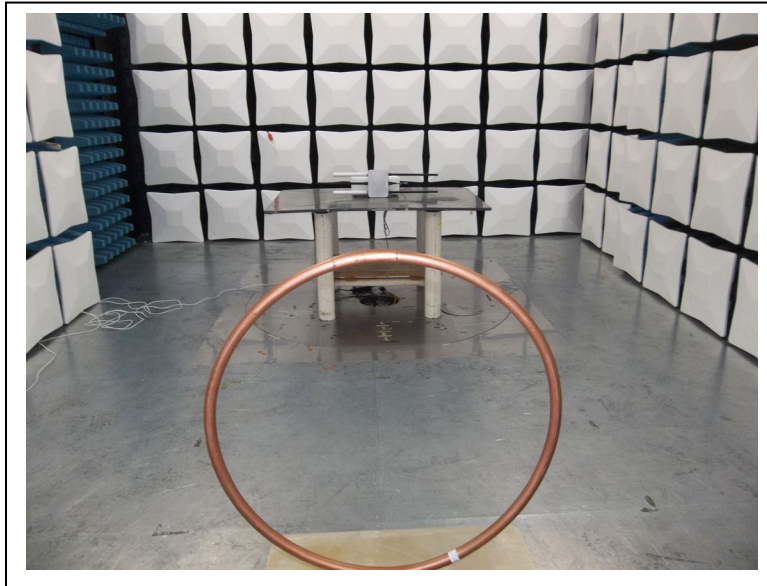


Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dB $\mu$ V)	Adjustment (dB)	Results (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)
1	Line 2	0.157	Quasi-Peak	39.81	11.0	50.81	65.62	-14.8
			Average	22.85	11.0	33.85	55.62	-21.8
2	Line 2	153.5	Quasi-Peak	38.16	11.0	49.16	65.81	-16.7
			Average	19.76	11.0	30.76	55.81	-25.1
3	Line 2	176.25	Quasi-Peak	35.56	11.0	46.56	64.66	-18.1
			Average	14.74	11.0	25.74	54.66	-28.9
4	Line 2	193.75	Quasi-Peak	33.36	11.0	44.36	63.88	-19.5
			Average	13.93	11.0	24.93	53.88	-29.0
5	Line 2	4.145	Quasi-Peak	22.92	11.0	33.92	56.0	-22.1
			Average	16.00	11.0	27.00	46.0	-19.0
6	Line 2	10.8125	Quasi-Peak	21.31	11.0	32.31	60.0	-27.7
			Average	15.09	11.0	26.09	50.0	-23.9

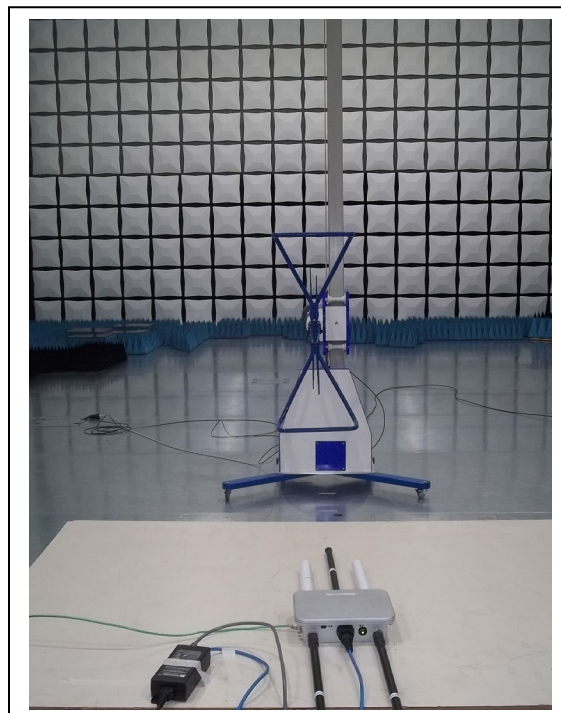


## 14 PHOTOGRAPHS

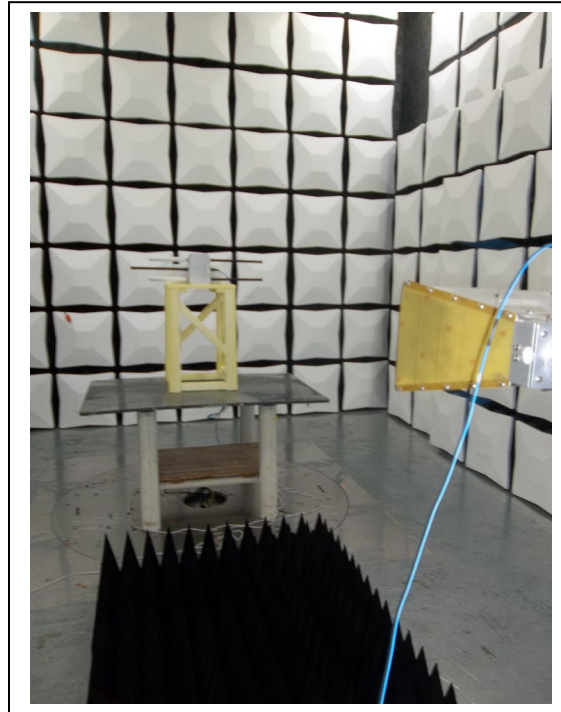
### Radiated Spurious Emissions: Loop Antenna



### Radiated Spurious Emissions: 30 MHz to 1000 MHz



**Radiated Spurious Emissions: Greater Than 1 GHz**



**Conducted Output Power, Peak Power Spectral Density,  
Occupied Bandwidth, and Conducted Spurious Emissions**





Order Number: F2P19923A

Applicant: PCTEL, Inc  
Model: AP-WIFI-1200-US

### Conducted Emissions

