



F2 Labs
16740 Peters Road
Middlefield, Ohio 44062
United States of America
www.f2labs.com

CERTIFICATION TEST REPORT

Manufacturer: **Piearcings LLC**
dba EAR Micro LLC
4043 Broadway Boulevard
Kansas City, Missouri 64111 USA
United States of America

Applicant: **Same as Above**

Product Name: **T10**

Product Description: **Ear computer, Bluetooth connectivity**

Operating Voltage/Freq.
of EUT During Testing: **Internal Battery**

Model: **T10**

FCC ID: **2A7XIT10**

Testing Commenced: **2022-06-27**

Testing Ended: **2022-08-15**

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 15.249**
- ❖ **FCC Part 15 Subpart C, Section 15.215(c) – Additional provisions to the general radiated emission limitations**
- ❖ **FCC15.207 - Conducted Limits**
- ❖ **FCC Part 15 Subpart A, Section 15.31(e) – Measurement Standards**



Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

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

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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 ANSI C63.10 and recommended FCC procedure of measurement under Section 15.249. 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 using a coverage factor of $k=2$. The Uncertainty for a laboratory is referred to as U_{lab} . For Radiated and Conducted Emissions, the Expanded Uncertainty is compared to the U_{cispr} values to determine if a specific margin is required to deem compliance.

U_{lab}

Measurement Range	Combined Uncertainty	Expanded Uncertainty
Radiated Emissions <1 GHz @ 3m	2.54	5.07dB
Radiated Emissions <1 GHz @ 10m	2.55	5.09dB
Radiated Emissions 1 GHz to 2.7 GHz	1.81	3.62dB
Radiated Emissions 2.7 GHz to 18 GHz	1.55	3.10dB
AC Power Line Conducted Emissions, 150kHz to 30 MHz	1.38	2.76dB
AC Power Line Conducted Emissions, 9kHz to 150kHz	1.66	3.32dB

U_{cispr}

Measurement Range	Expanded Uncertainty
Radiated Emissions <1 GHz @ 3m	5.2dB
Radiated Emissions <1 GHz @ 10m	5.2dB
Radiated Emissions 1 GHz to 2.7 GHz	Under Consideration
Radiated Emissions 2.7 GHz to 18 GHz	Under Consideration
AC Power Line Conducted Emissions, 150kHz to 30 MHz	3.6dB
AC Power Line Conducted Emissions, 9kHz to 150kHz	4.0dB

If U_{lab} is less than or equal to U_{cispr} , then:

- compliance is deemed to occur if no measured disturbance exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance exceeds the disturbance limit.

If U_{lab} is greater than U_{cispr} in table 1, then:

- compliance is deemed to occur if no measured disturbance, increased by ($U_{lab} - U_{cispr}$), exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance, increased by ($U_{lab} - U_{cispr}$), exceeds the disturbance limit.

Note: Only measurements listed in the tables above that relate to tests included in this Test Report are applicable.



Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

1.4 Document History:

Document Number	Description	Issue Date	Approved By
F2P27364-01E	First Issue	2022-08-16	K. Littell

**2 SUMMARY OF TEST RESULTS**

Test Name	Standard(s)	Results
99% Occupied Bandwidth	CFR 47 Part 15.215(c)	Complies
-20dB Occupied Bandwidth	CFR 47 Part 15.215(c)	Complies
Field Strength of Emissions	CFR 47 Part 15.249(a)(d)	Complies
Variation of the Input Power	CFR 47 Part 15.31(e)	N/A*
Conducted Emissions	CFR 47 Part 15.207(a)	Complies

**Requirements of 15.31 were met by using a fully charged non-removable internal battery. Internal battery was charged by a Wireless Charger supplied by the client. EUT will not transmit/operate while charging. Connections to the EUT during test were for UART control only. No power was provided via these connections.*

Modifications Made to the Equipment
None

**3 TABLE OF MEASURED RESULTS**

Test		Low Channel 2402 MHz	Mid Channel 2440 MHz	High Channel 2480 MHz
Average Field Strength of Fundamental	1 Mbps	76.0dB μ V/m, 6.3mV/m	76.8dB μ V/m, 6.9mV/m	77.7dB μ V/m, 7.7mV/m
	2 Mbps	69.7 dB μ V/m, 3.1 mV/m	70.6 dB μ V/m, 3.4 mV/m	70.7 dB μ V/m, 3.4 mV/m
	BT Classic	79.8dB μ V/m, 9.8mV/m	81.3dB μ V/m, 11.6mV/m	81.9dB μ V/m, 12.5mV/m
Average Limit for Fundamental		(93.97 dB μ V/m) 50 millivolts/meter	(93.97 dB μ V/m) 50 millivolts/meter	(93.97 dB μ V/m) 50 millivolts/meter
Peak Field Strength of Fundamental	1 Mbps	82.0dB μ V/m, 12.5 mV/m	88.1dB μ V/m, 25.4 mV/m	83.6dB μ V/m, 15.1 mV/m
	2 Mbps	82.1 dB μ V/m, 12.7 mV/m	83.0 dB μ V/m, 14.1 mV/m	84.0 dB μ V/m, 15.8 mV/m
	BT Classic	91.2 dB μ V/m 36.3 mV/m	92.2 dB μ V/m 40.7 mV/m	95.9 dB μ V/m 62.37 mV/m
Peak Limit for Fundamental		113.97 dB μ V/m 500 mV/m	113.97 dB μ V/m 500 mV/m	113.97 dB μ V/m 500 mV/m
-20dB Occupied Bandwidth	1 Mbps	1.169 MHz	1.137 MHz	1.144 MHz
	2 Mbps	2.211 MHz	2.211 MHz	2.296 MHz
	BT Classic	0.947 MHz	0.942 MHz	0.937 MHz
99% Occupied Bandwidth (MHz)	1 Mbps	1.044 MHz	1.040 MHz	1.058 MHz
	2 Mbps	2.059 MHz	2.055 MHz	2.056 MHz
	BT Classic	0.882 MHz	0.882 MHz	0.906 MHz

The -20dB bandwidth of the emission shall be contained within the frequency band designated in the rule section under which the equipment is operated.



4 ENGINEERING STATEMENT

This report has been prepared on behalf of Piarcings, LLC, dba EAR Micro LLC, to provide documentation for the testing described herein. This equipment has been tested and found to comply with part 15.249 of the FCC Rules using ANSI C63.10 standard. 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: Ear computer, Bluetooth connectivity

Model: T10

Serial No.: 07273

Firmware: 4.9.0

Hardware: V4

FCC ID: 2A7XIT10

5.2 Trade Name:

EAR Micro LLC

5.3 Power Supply:

Internal Battery

5.4 Applicable Rules:

CFR 47, Part 15.249, subpart C

5.5 Antenna:

Integral Antenna

5.6 Accessories:

Device	Manufacturer	Model Number	Serial Number
Laptop	Hewlett Packard	14FQ0013DX	5CD030L0P2
Accessory Software Version:		AB1565_1568 AIROHA Tool Kit V2.3.13	

5.7 Test Item Condition:

The equipment to be tested was received in good condition.

5.8 Testing Algorithm:

EUT was set to transmit a continuous modulated signal in the 2.4 GHz Band.

BLE 1 Mbps and 2 Mbps and BT3.0 Classic rates were tested using GFSK modulation; and 2402, 2440, 2480 MHz BT.

**6 LIST OF MEASUREMENT INSTRUMENTATION**

Equipment Type	Asset Number	Manufacturer	Model	Serial Number	Calibration Due Date
Shielded Chamber	CL166-E	Albatross Projects	B83117-DF435-T261	US140023	2022-09-09
Receiver	CL151	Rohde & Schwarz	ESU40	100319	2023-03-31
Low Loss Cable Set	--	Pasternack	PE3C0666-252 / PE3C066-50CM	None Spec.	2023-10-12
Horn Antenna 18-26.5 GHz	CL114	A.H. Systems, Inc.	SAS-572	237	2023-07-30
Pre-Amplifier	CL153	Keysight Tech.	83006A	MY39500791	2022-10-12
Pre-Amplifier	CL285	Com-Power	PAM-0207	322	2023-03-30
Active 18" Loop Antenna	CL163-Loop	A.H. Systems, Inc.	EHA-52B	100	2022-09-14
Antenna, JB3 Combination	CL175	Sunol Sciences	JB3	A030315	2022-09-14
Horn Antenna	CL098	Emco	3115	9809-5580	2023-01-26
Software:	Tile Version 3.4.B.3		Software Verified: 2022-06-27 to 2022-06-28; 2022-08-15		
Software:	EMC 32, Version 8.53.0		Software Verified: 2022-06-27 to 2022-06-28; 2022-08-15		
Spectrum Analyzer	0204	Hewlett Packard	HP8591A	3149A02546	2023-03-29
Software:	EMC Analyzer 85712D Rev. A.00.01			Date Verified:	2022-06-28
Transient Limiter	0202	Hewlett Packard	11947A	3107A00729	2023-03-29
LISN	CL181	Com-Power	LI-125A	191226	2023-12-01
LISN	CL182	Com-Power	LI-125A	191225	2023-12-01
Temp/Hum. Recorder	CL232	Extech	445814	01	2023-05-19
Temp/Hum. Recorder	CL294	Thermpro	TP50	2	2023-04-15



7 FCC PART 15.215(e), OCCUPIED BANDWIDTH

7.1 Requirements:

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the -20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage.

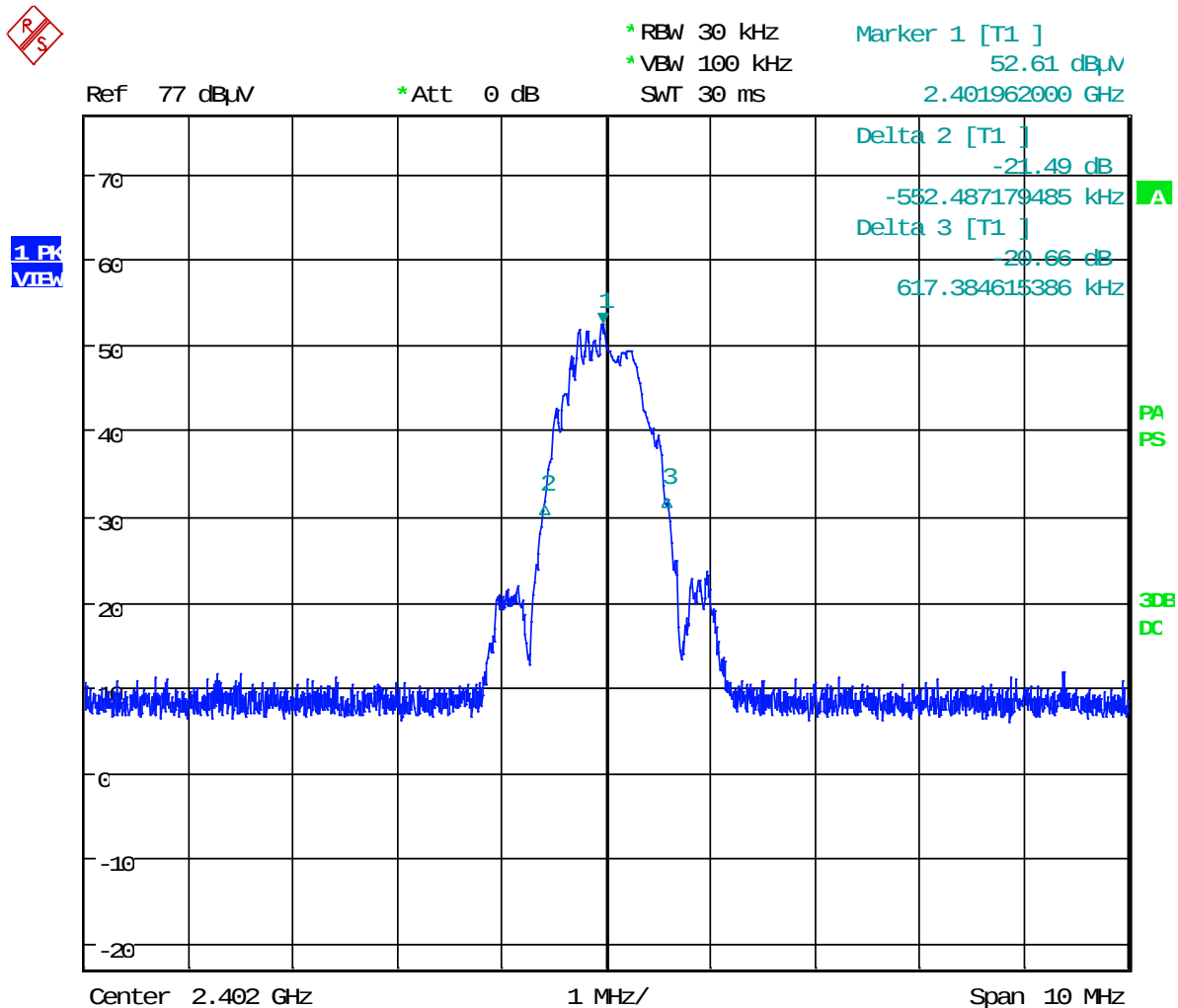
Bandwidth measurements were made at the low (2.402 GHz), mid (2.440 GHz) and upper (2.480 GHz) frequencies. The bandwidth was measured using the analyzer's marker function.



7.2 Occupied Bandwidth Test Data

Test Date(s):	2022-06-27	Test Engineer(s):	J. Chiller
Standards:	CFR 47 Part 15.215(c)	Air Temperature:	21.8°C
		Relative Humidity:	44%

1 Mbps: -20dB, Low Channel

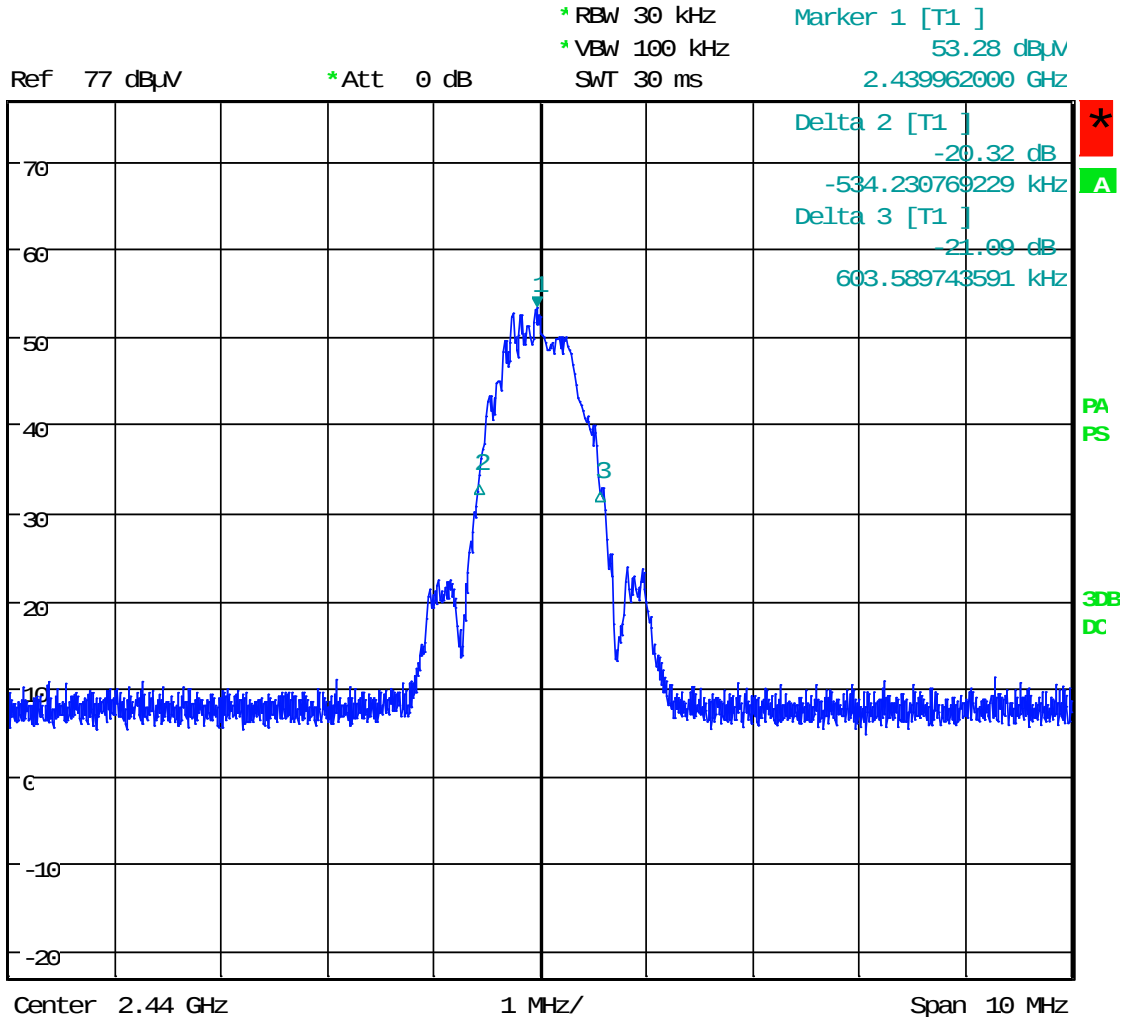




1 Mbps: -20dB, Mid Channel



1 PK
VIEW

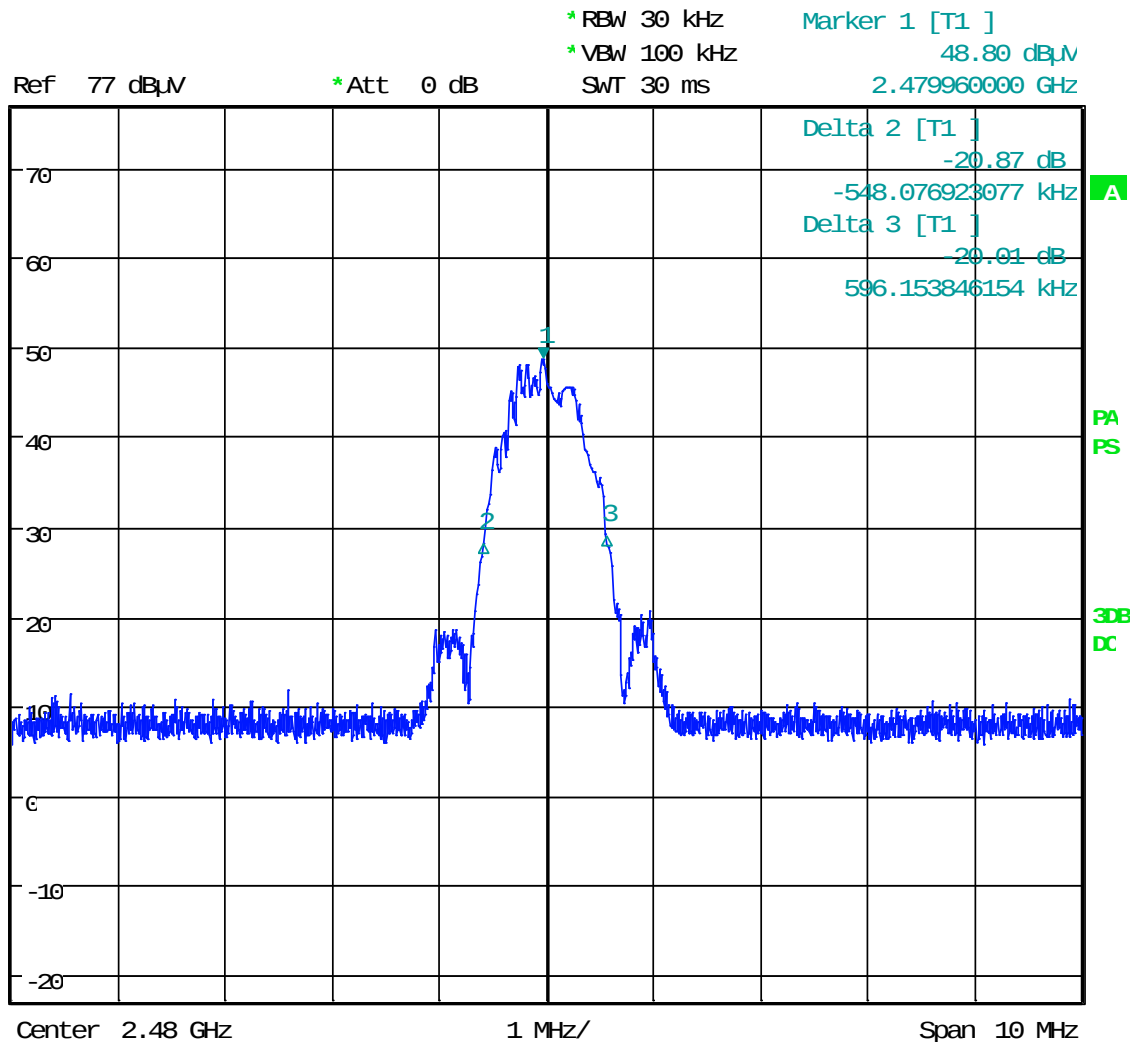




1 Mbps: -20dB, High Channel



1 PK
VIEW

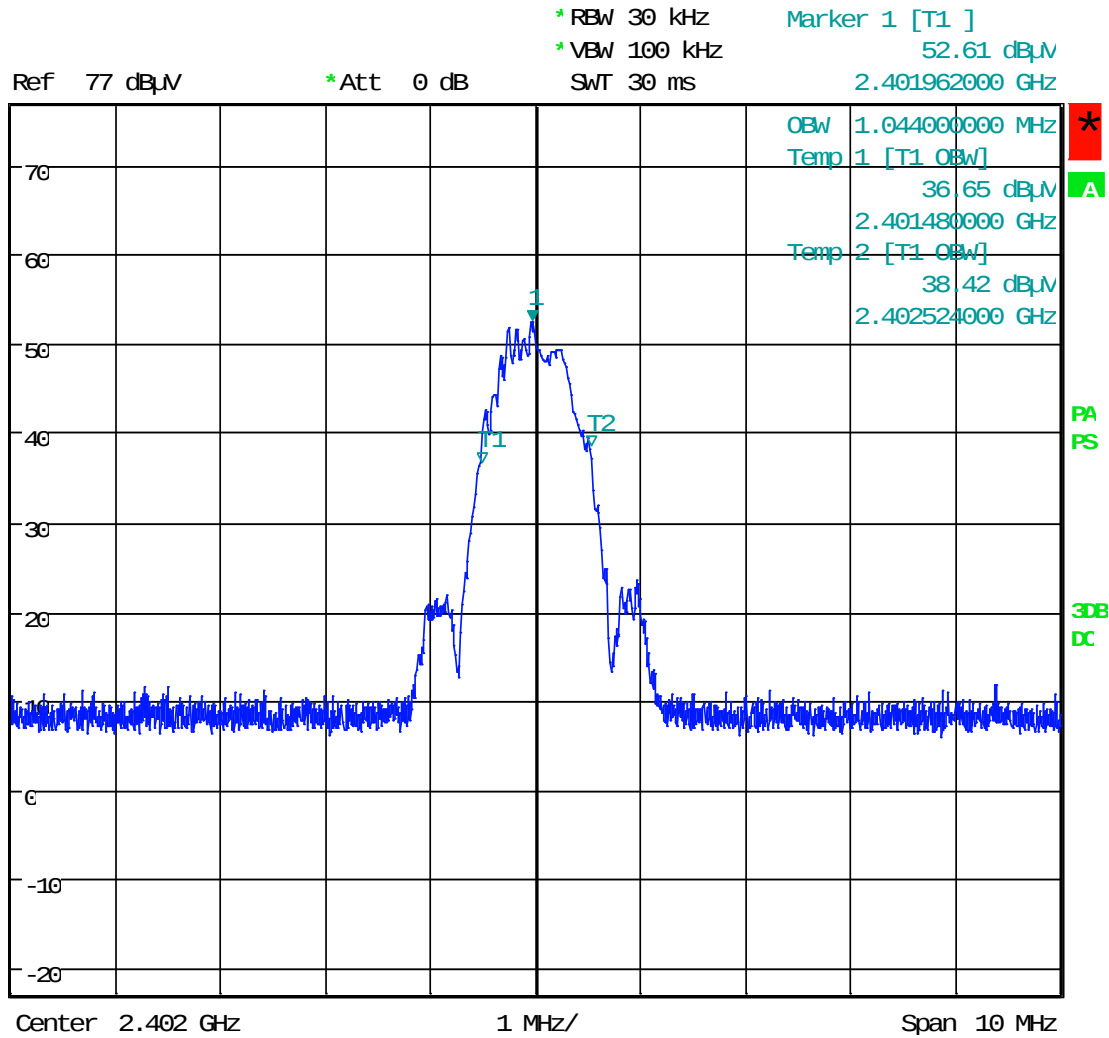




1 Mbps: 99%, Low Channel



1 PK
VTRM

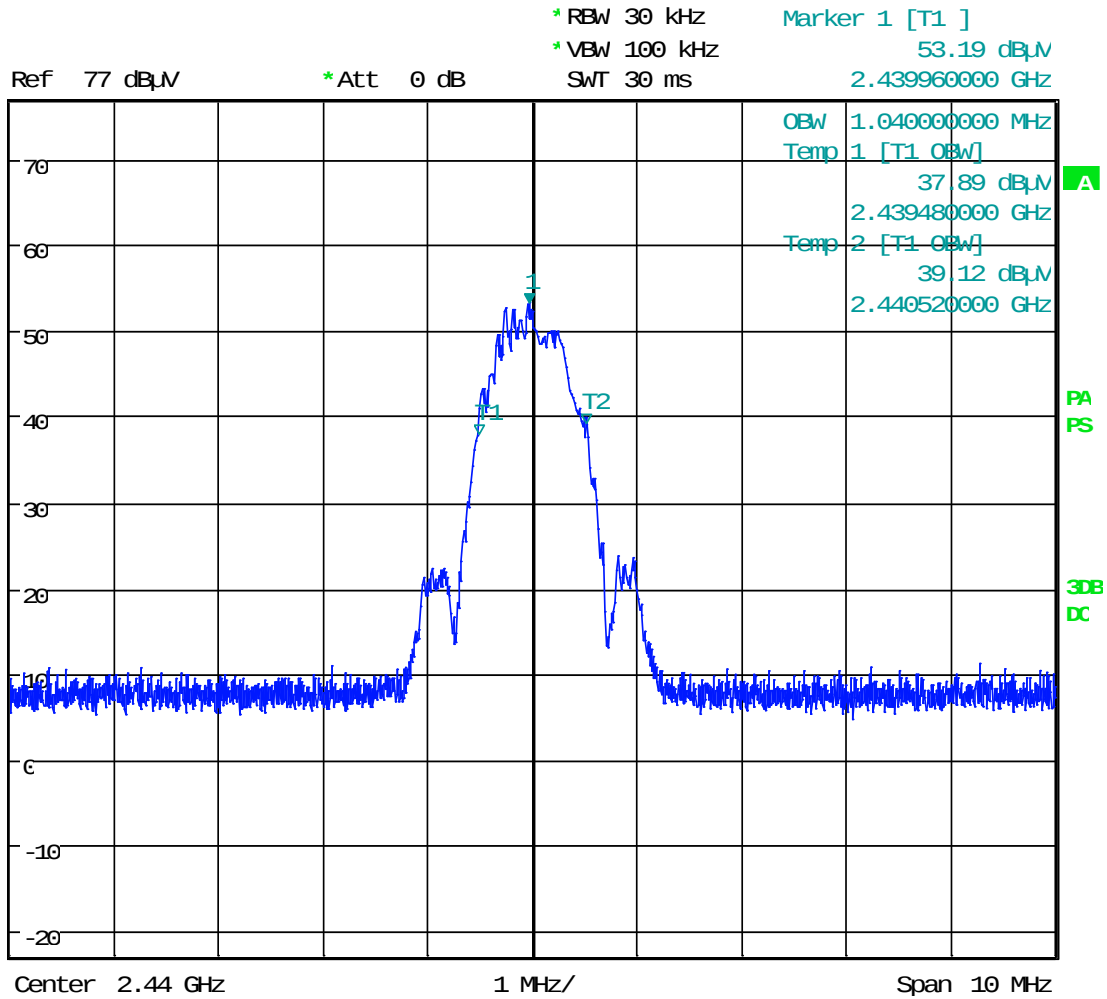




1 Mbps: 99%, Mid Channel



1 PK
VIEW

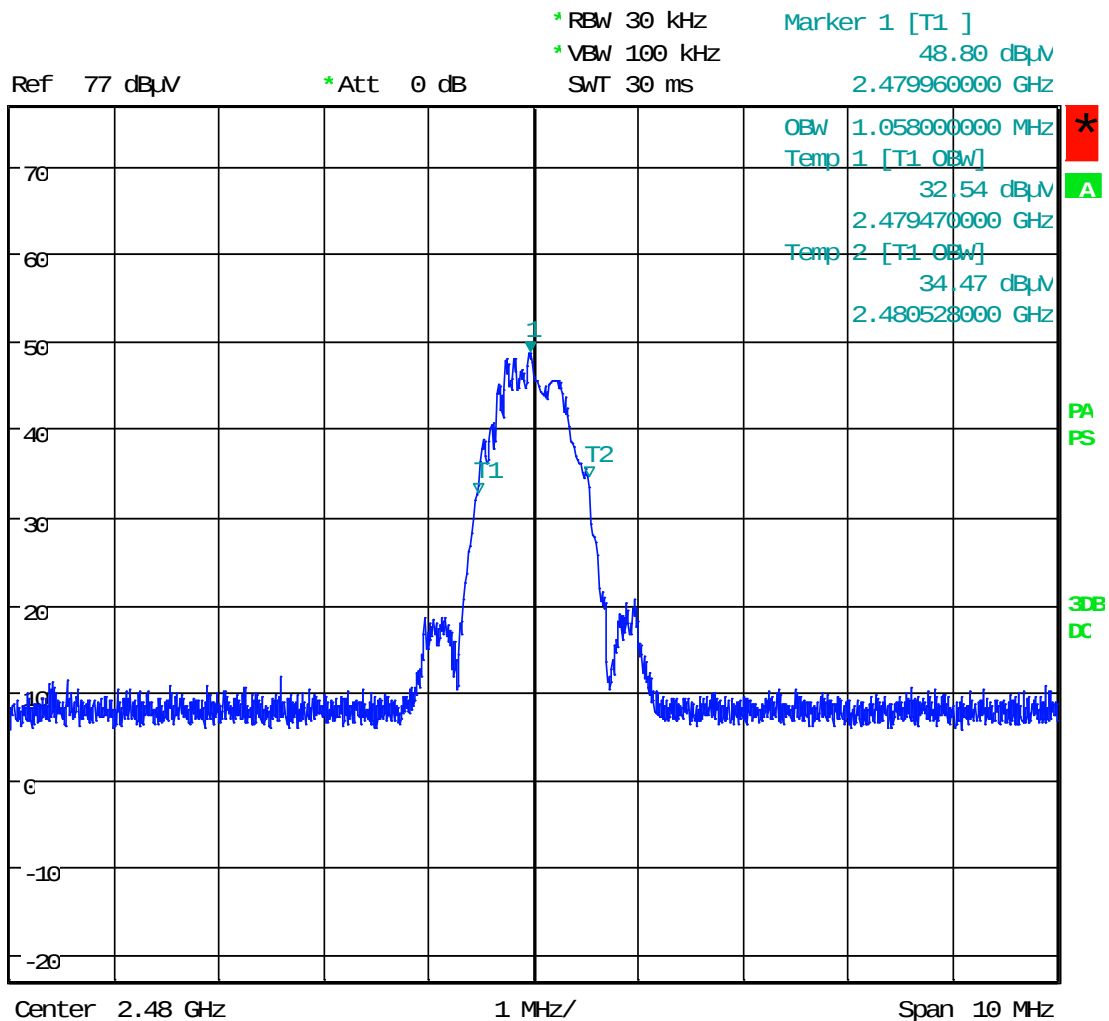




1 Mbps: 99%, High Channel



1 PK
VIEW

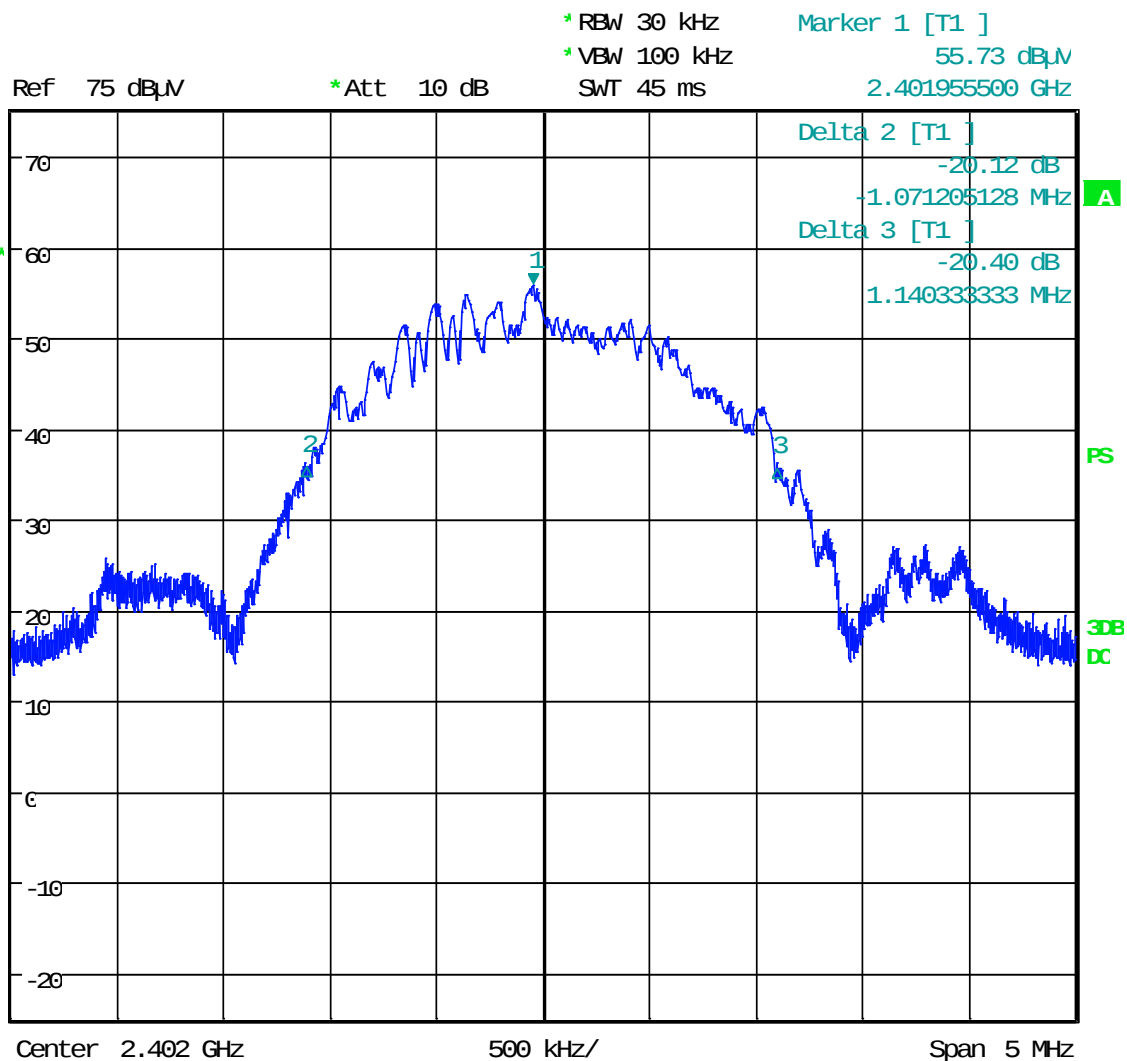




2 Mbps: -20dB, Low Channel

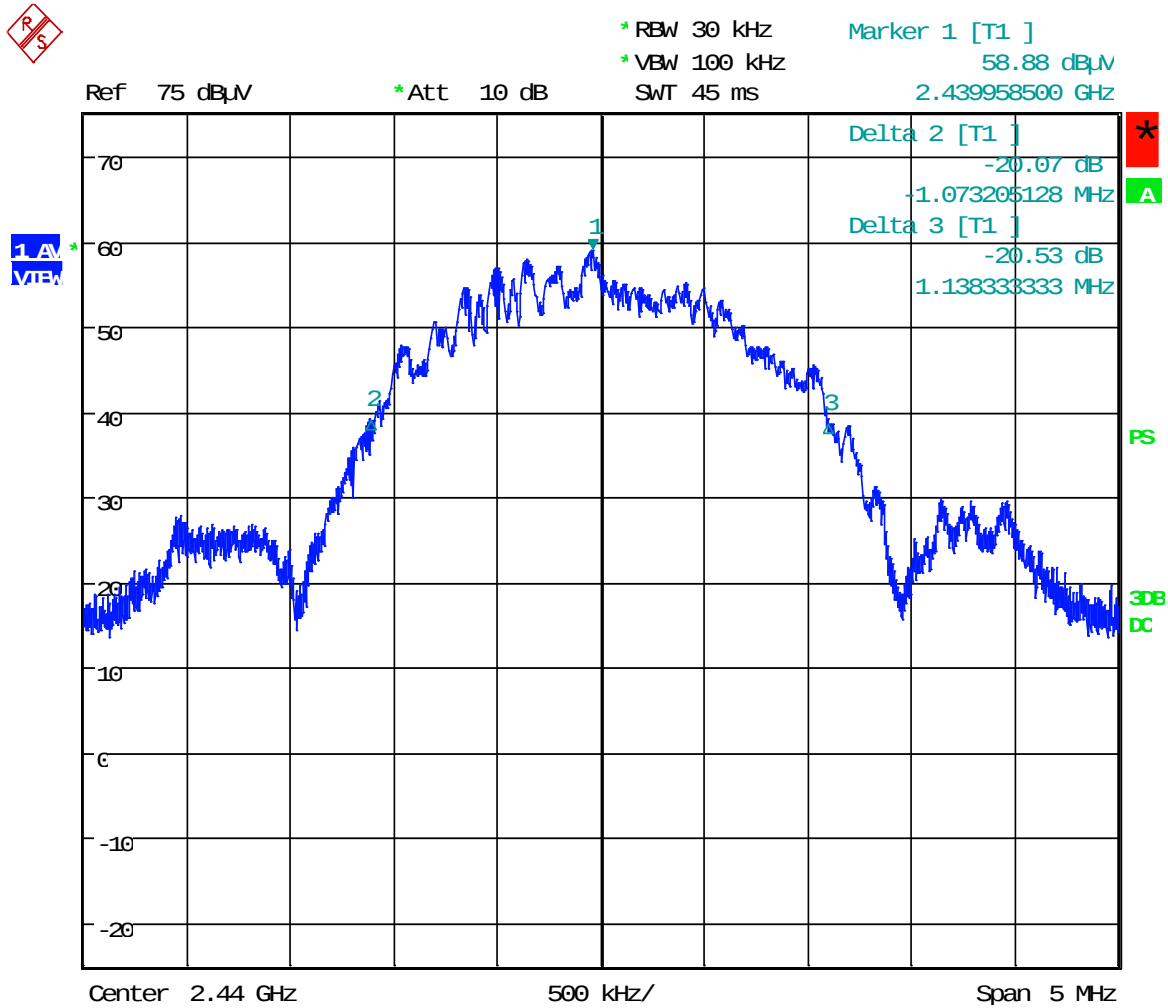


1 A
VIEW





2 Mbps: -20dB, Mid Channel

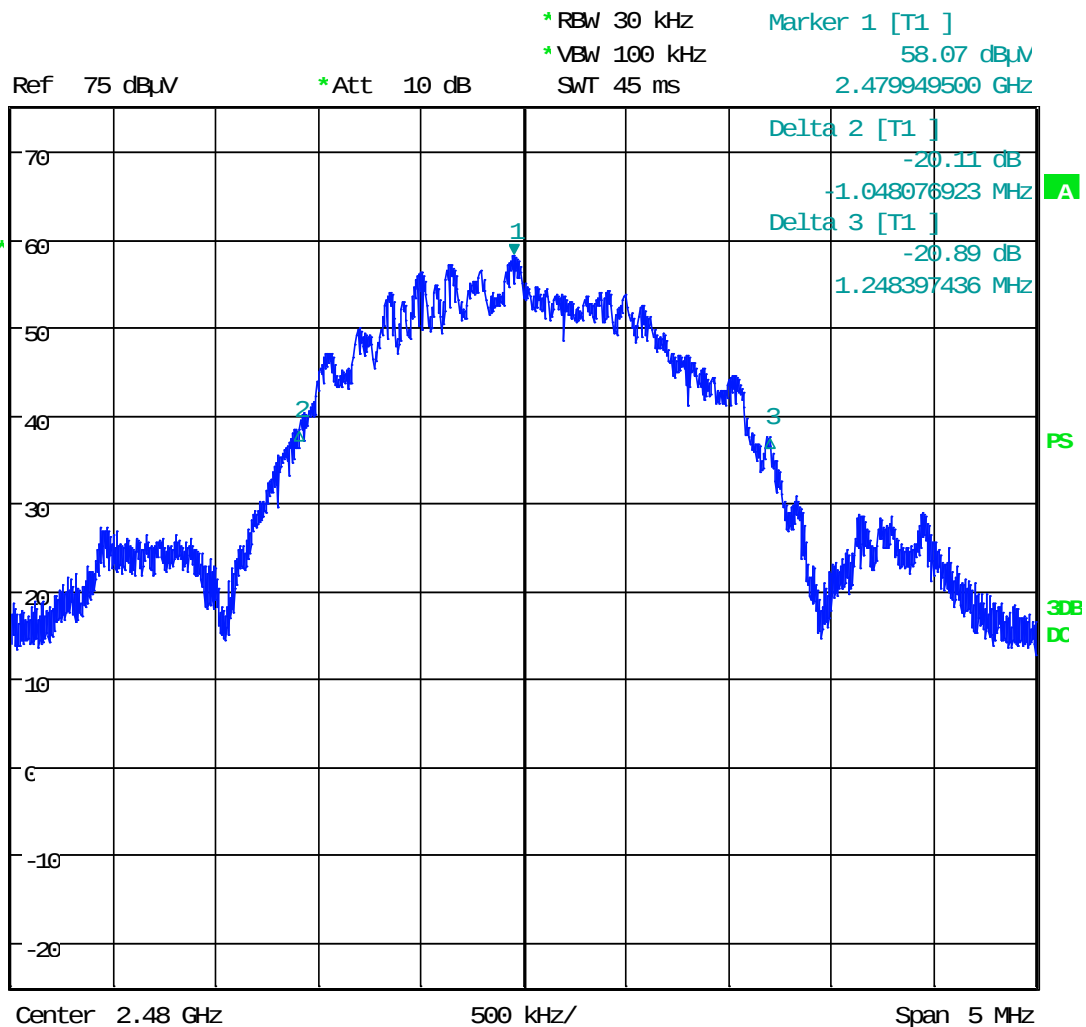




2 Mbps: -20dB, High Channel



1. A
VIEW





2 Mbps: 99%, Low Channel



* RBW 30 kHz

Marker 1 [T1]

* VBW 100 kHz

55.73 dBμV

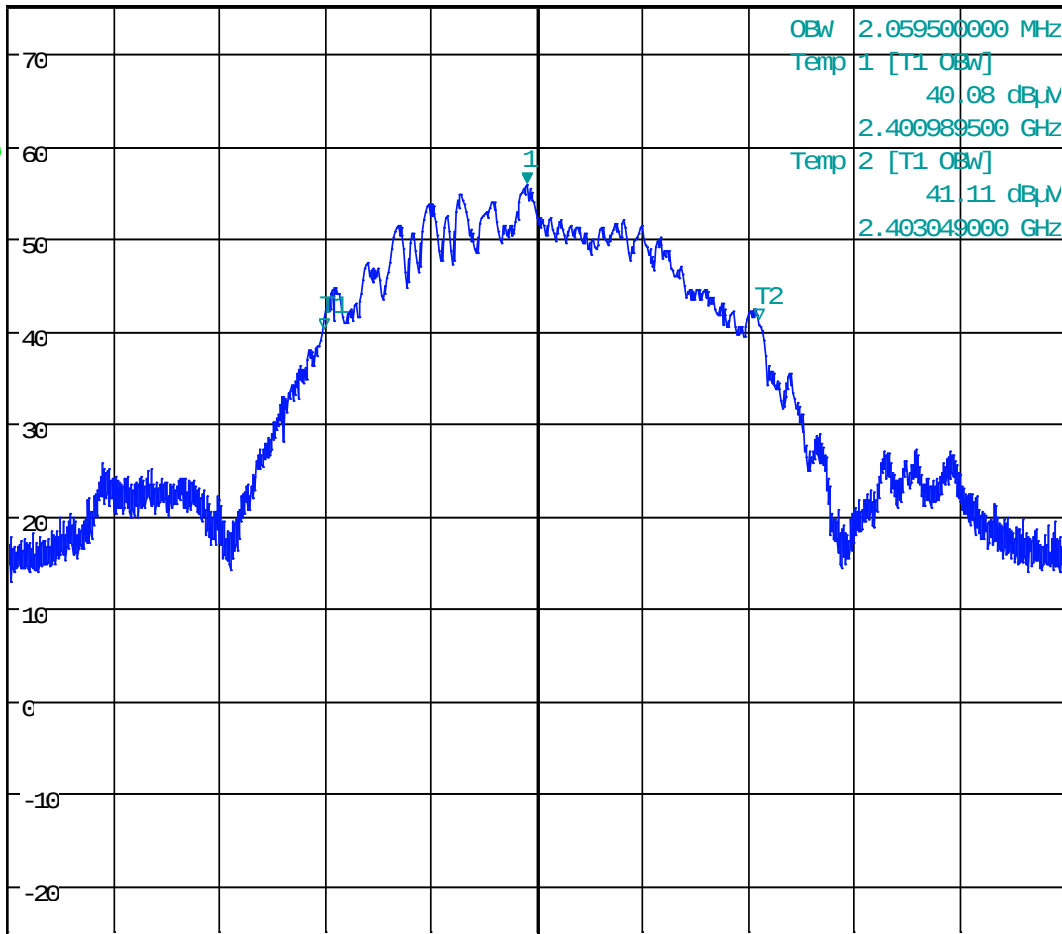
Ref 75 dBμV

* Att 10 dB

SWT 45 ms

2.401955500 GHz

1 AV
VIEW



Center 2.402 GHz

500 kHz/

Span 5 MHz

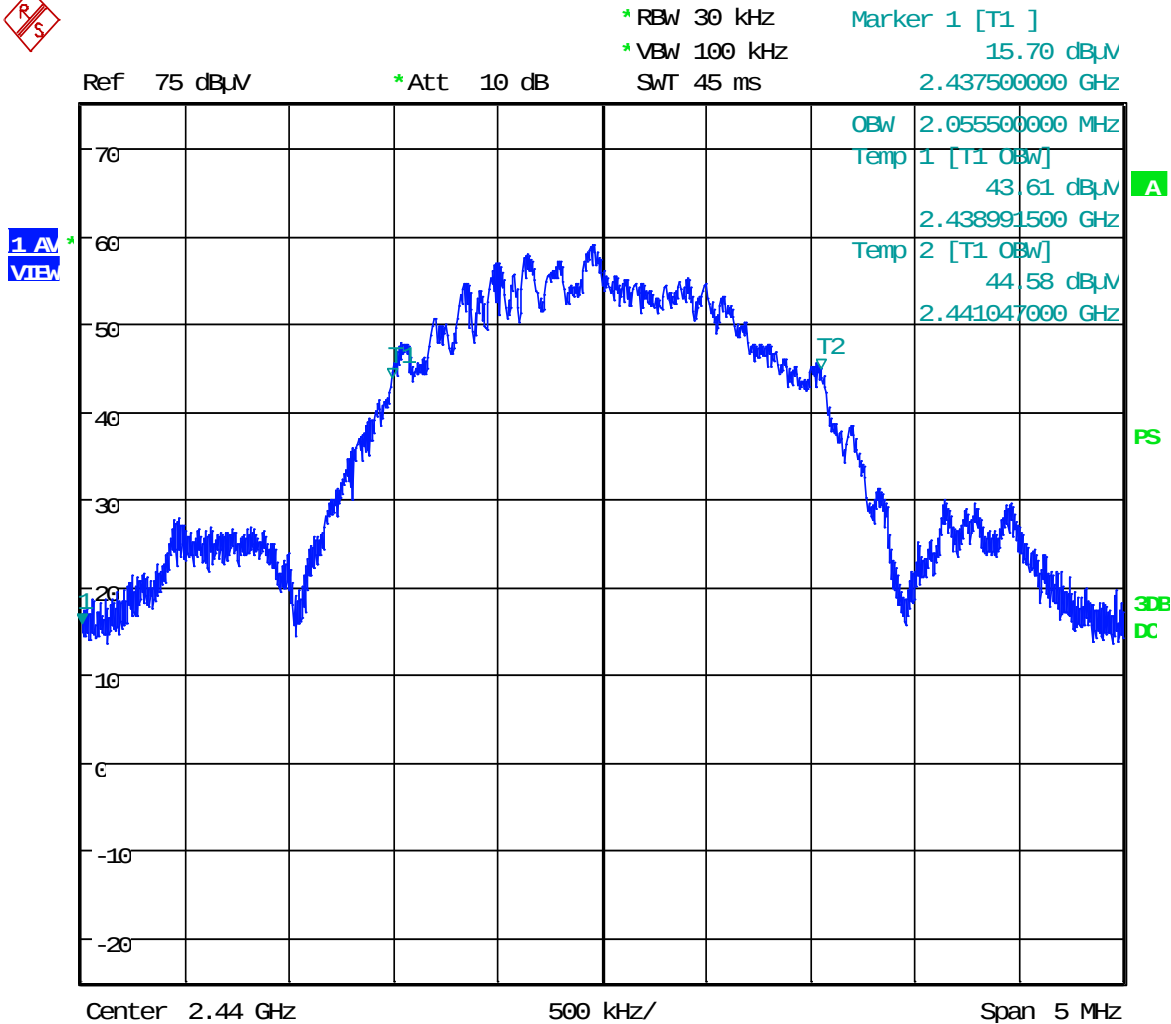


PS

30B
DC



2 Mbps: 99%, Mid Channel

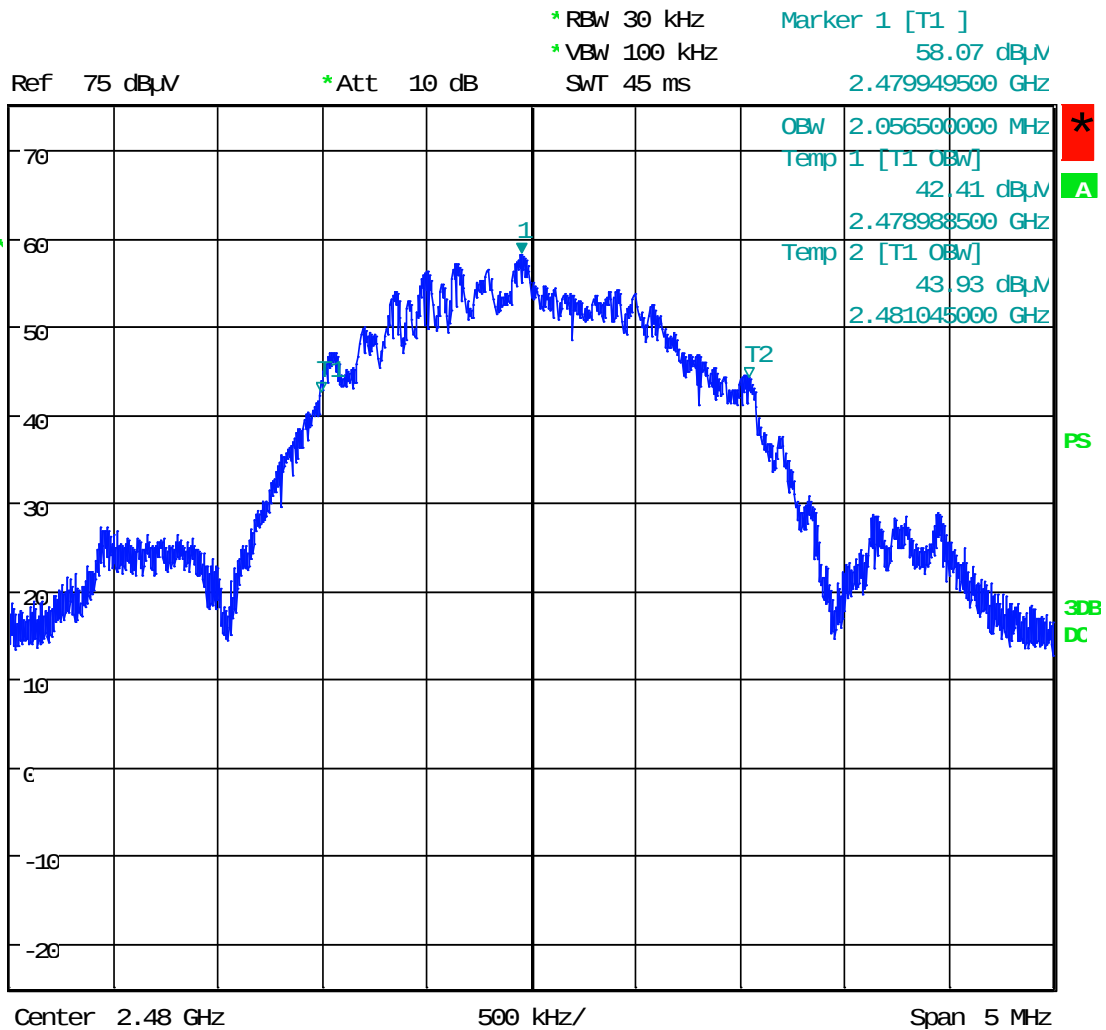




2 Mbps: 99%, High Channel



1 A
VIEW





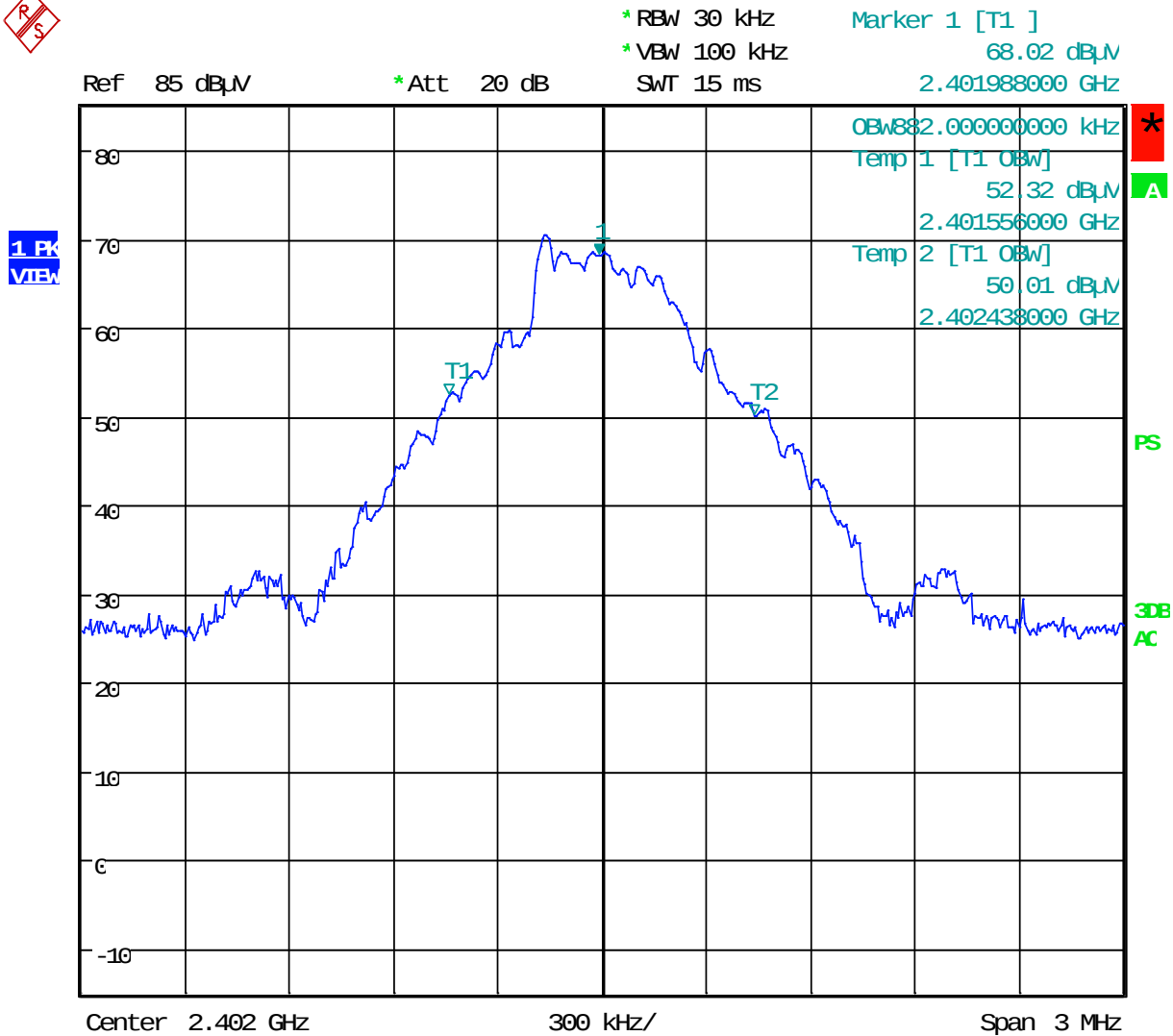
Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

Test Date(s):	2022-08-15	Test Engineer(s):	J. Chiller
Standards:	CFR 47 Part 15.215(c)	Air Temperature:	22.1°C
		Relative Humidity:	45%

BT Classic: 99%, Low Channel

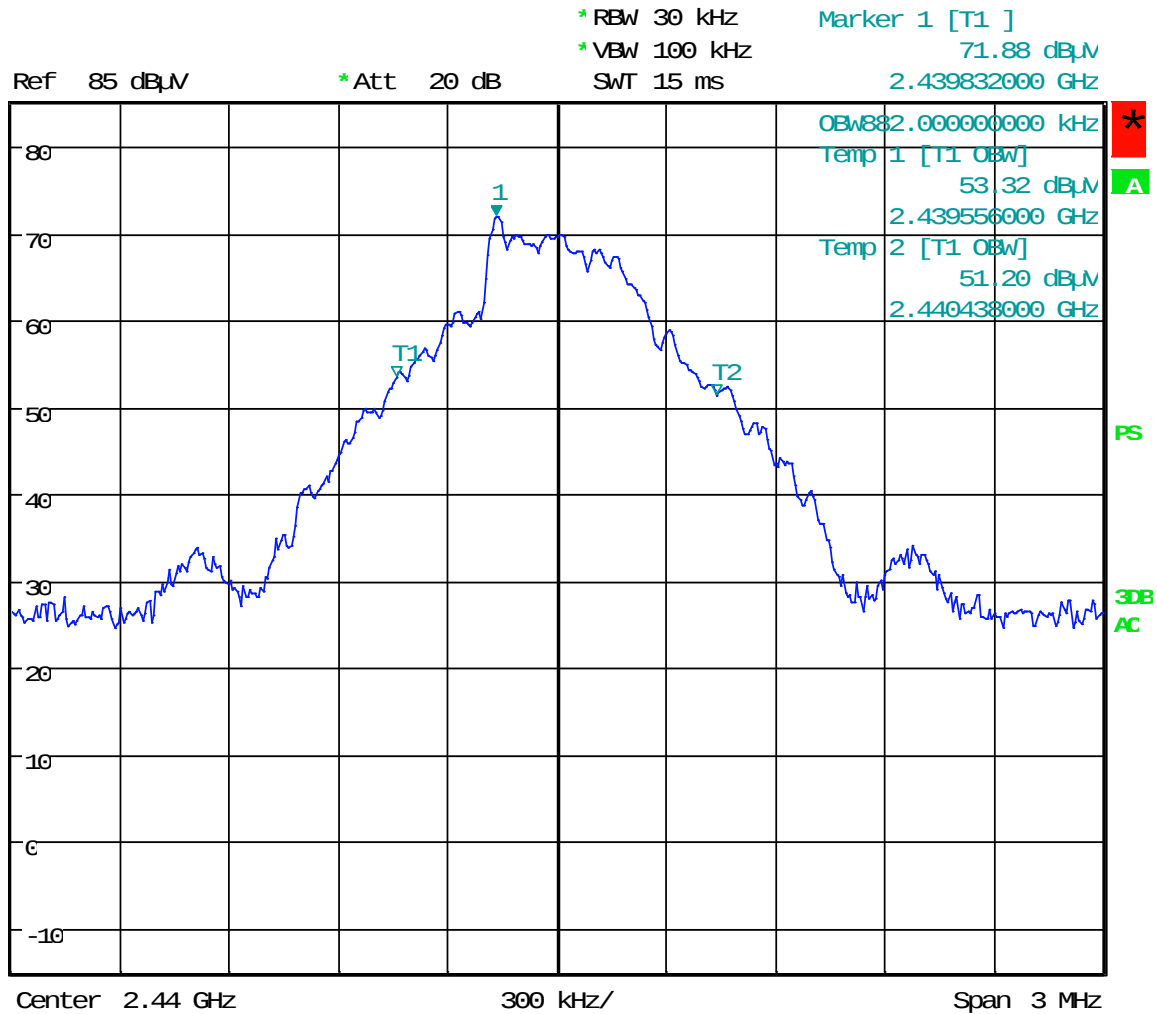




BT Classic: 99%, Mid Channel



1.6k
VIEW

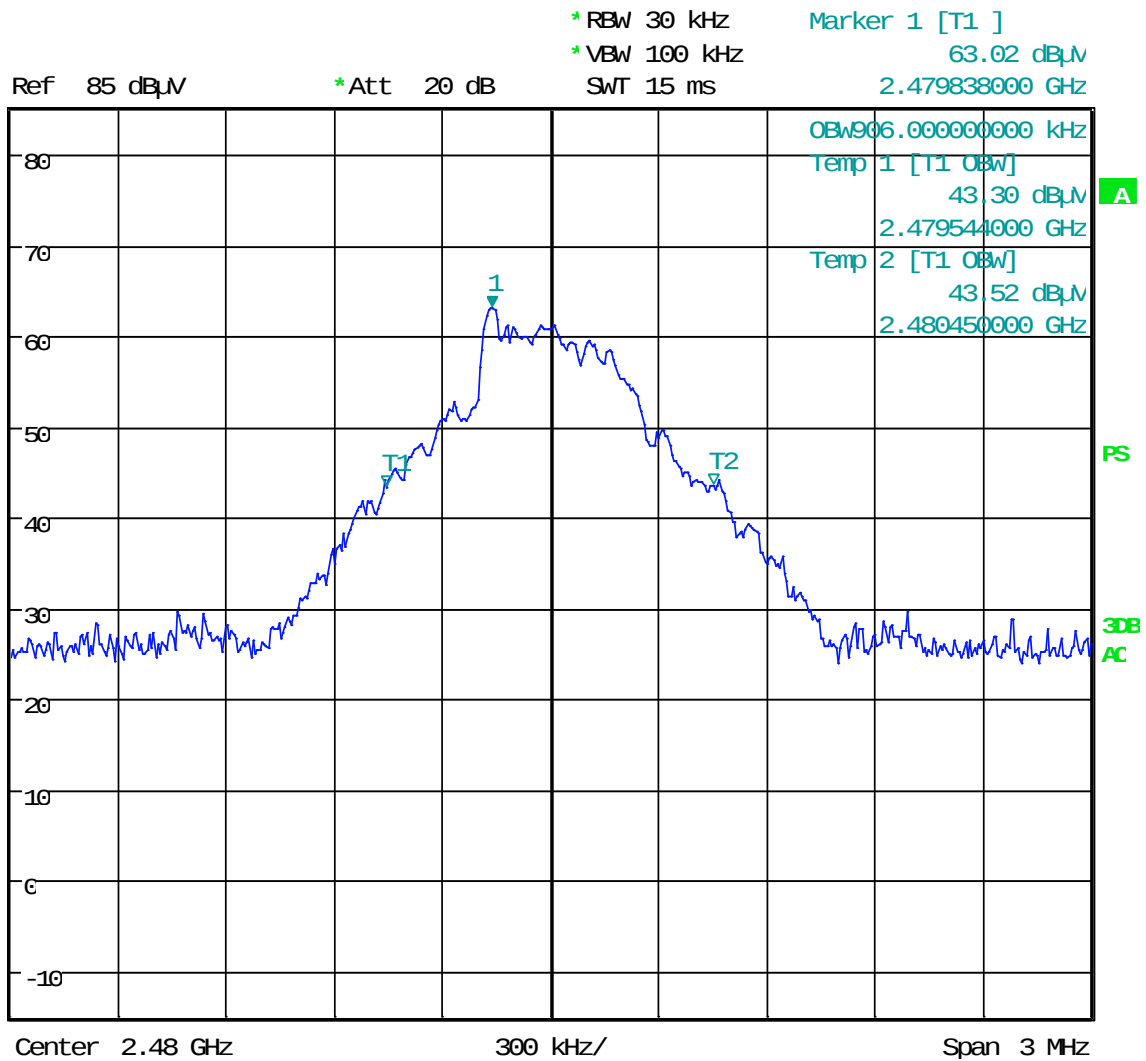




BT Classic: 99%, High Channel



1 PK
VIEW





BT Classic: -20dB, Low Channel



* RBW 30 kHz

Delta 3 [T1]

* VBW 100 kHz

-20.23 dB

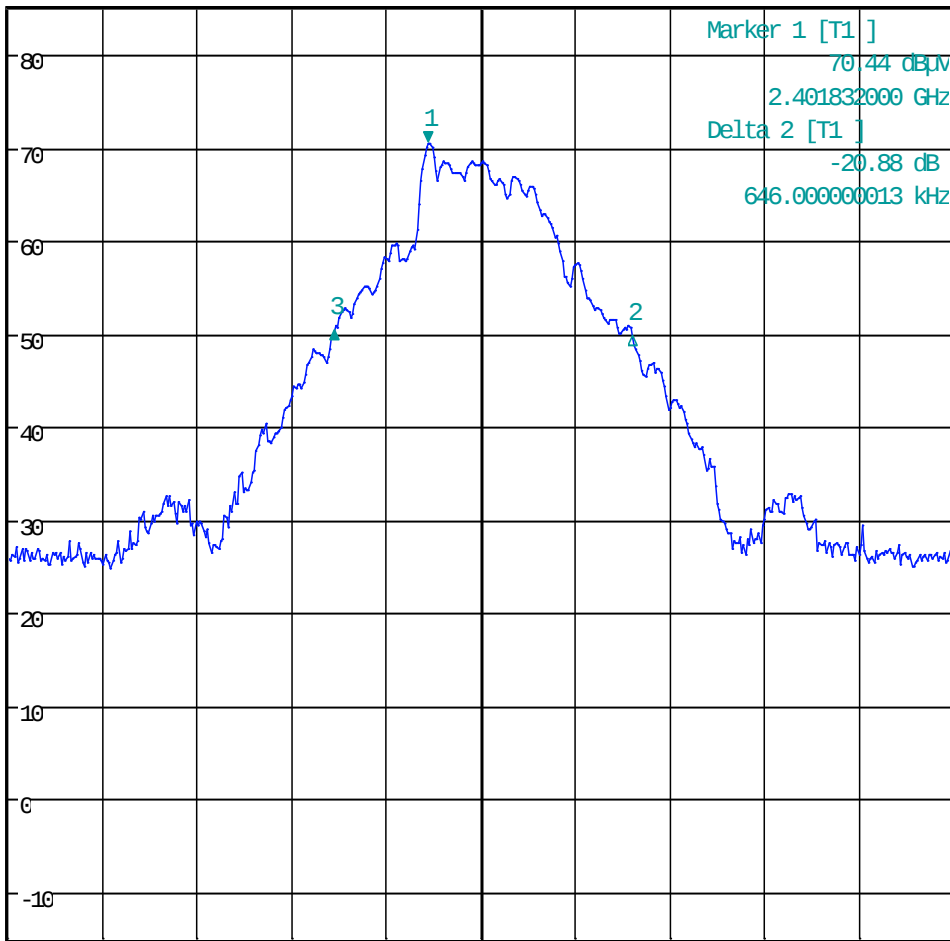
Ref 85 dBμV

* Att 20 dB

SWT 15 ms

-301.115384598 kHz

1 PK
VIEW



*
A

PS

3DB
AC

Center 2.402 GHz

300 kHz/

Span 3 MHz



BT Classic: -20dB, Mid Channel



*RBW 30 kHz

Marker 1 [T1]

*VBW 100 kHz

71.88 dBμV

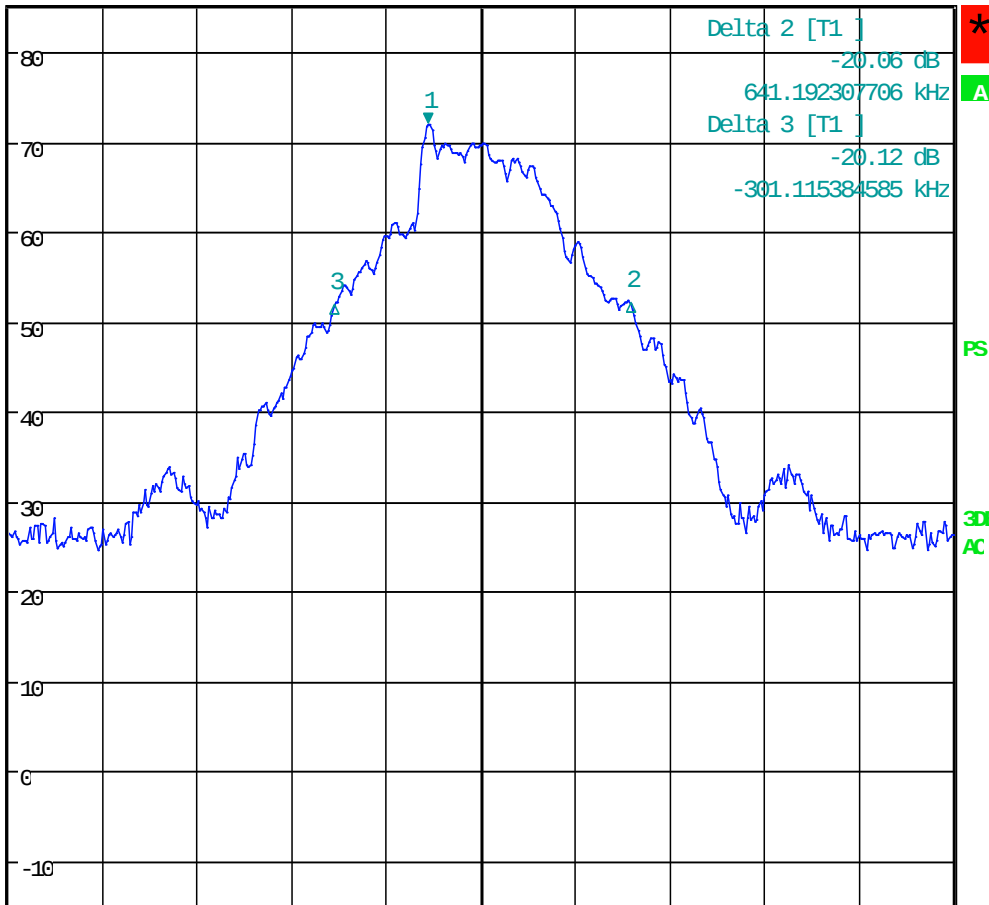
SWT 15 ms

2.439832000 GHz

Ref 85 dBμV

*Att 20 dB

1 PK
VIEW



Center 2.44 GHz

300 kHz/

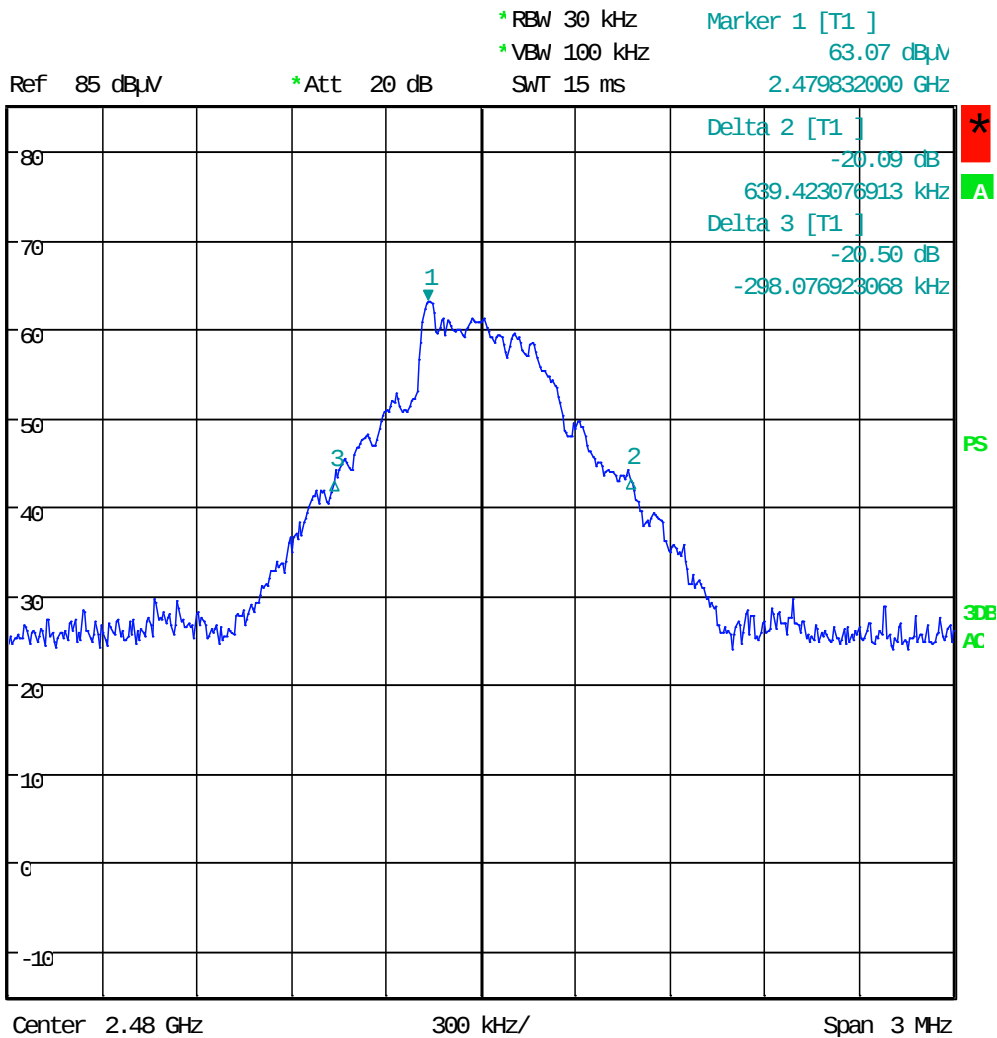
Span 3 MHz



BT Classic: -20dB, High Channel



1.8k
V/m





8 FIELD STRENGTH OF EMISSIONS FROM INTENTIONAL RADIATORS

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

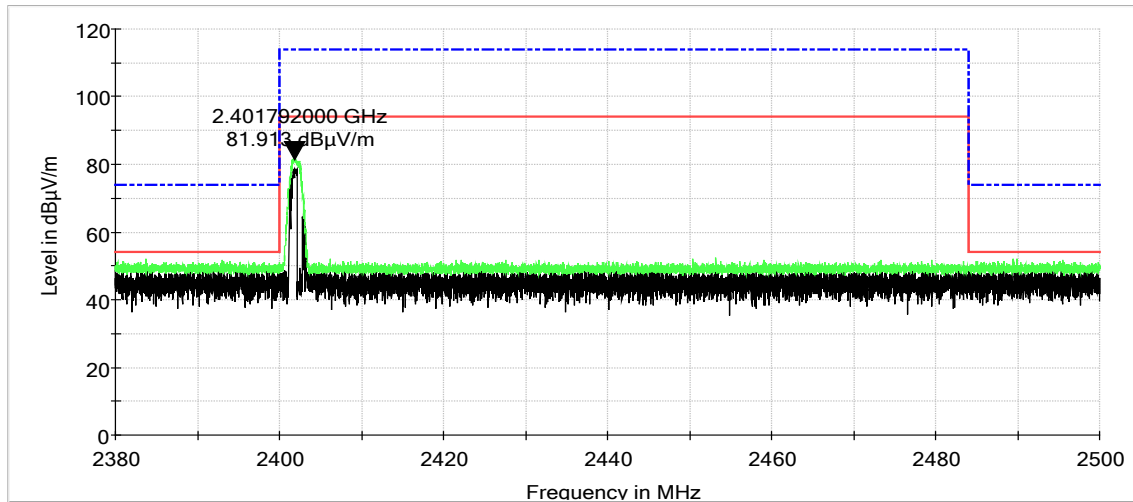
NOTE: During the pre-scan evaluation, the EUT was rotated in all possible directions to find the maximum emissions. The orthogonal position that showed the highest emissions was used. The antenna was raised between 1 and 4 meters and the turntable was rotated 360 degrees to maximize the emissions.



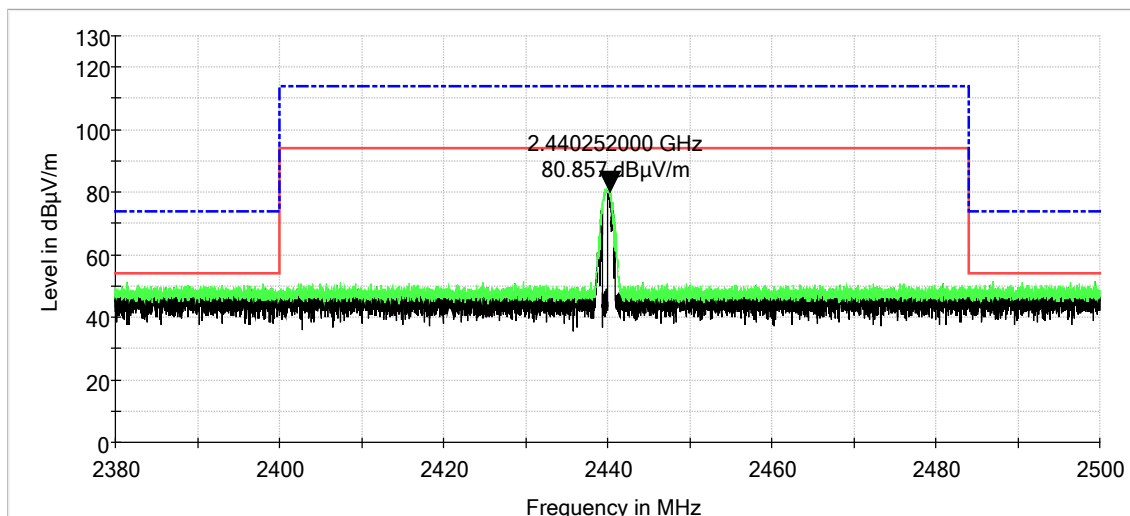
8.1 Test Data - Field Strength of Emissions from Intentional Radiators

Test Date(s):	2022-06-27	Test Engineer(s):	J. Chiller
Standards:	CFR 47 Part 15.249(a)	Air Temperature:	21.8°C
		Relative Humidity:	44%

1 Mbps, Band Edges: Low Channel, Vertical

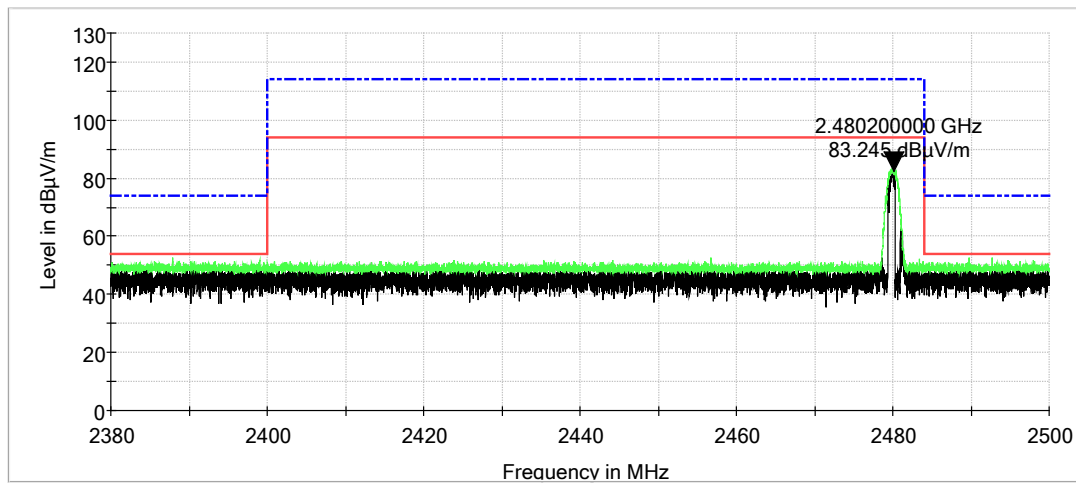


1 Mbps, Band Edges: Mid Channel, Vertical



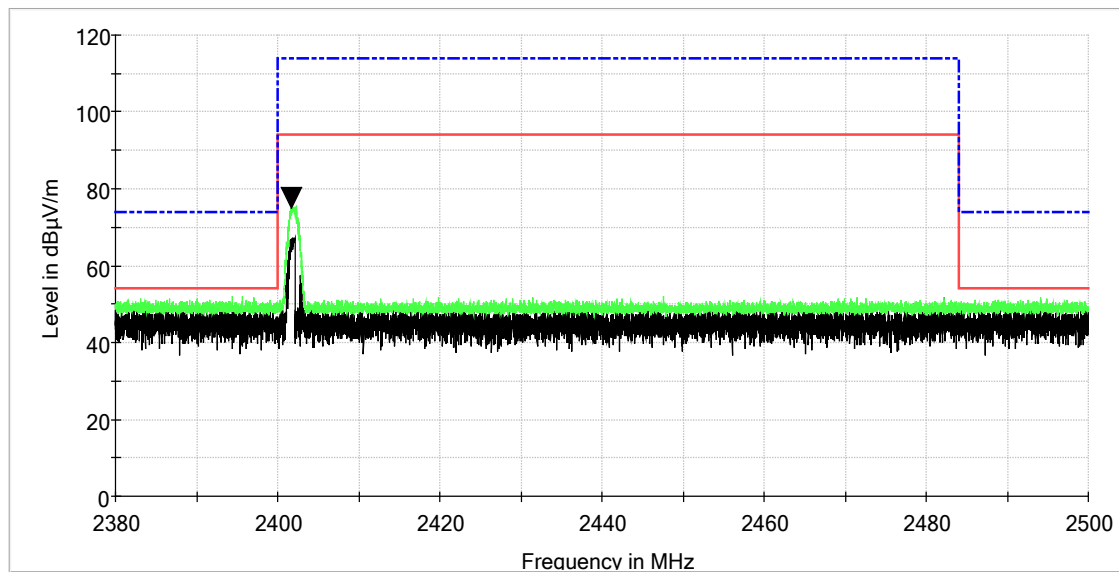


1 Mbps, Band Edges: High Channel, Vertical

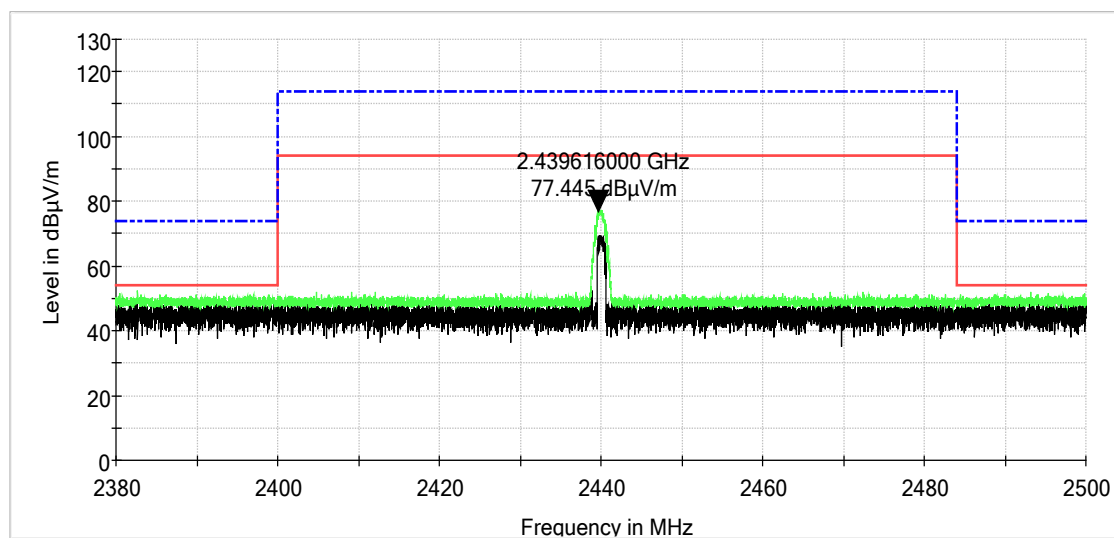




1 Mbps, Band Edges: Low Channel, Horizontal

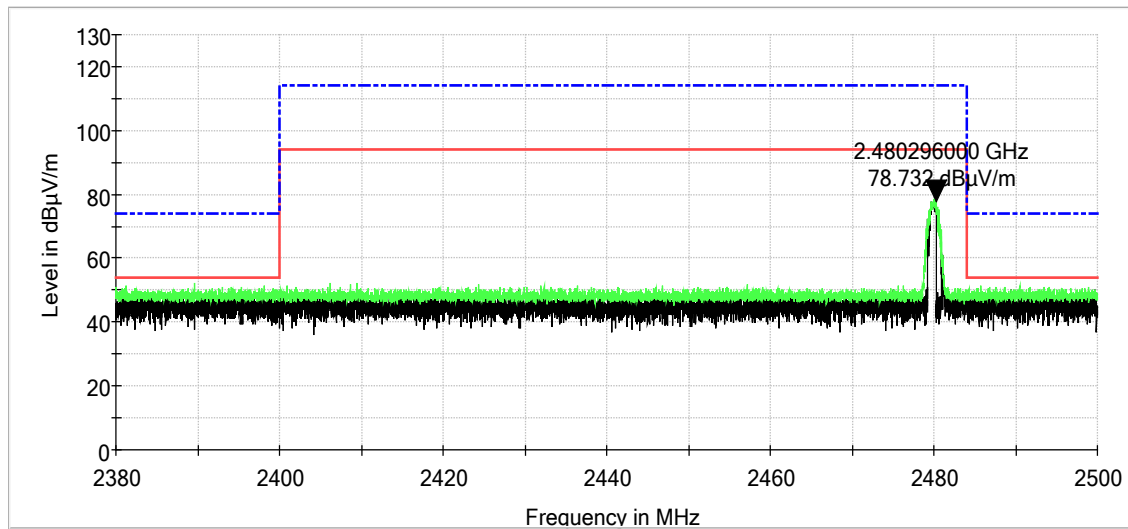


1 Mbps, Band Edges: Mid Channel, Horizontal



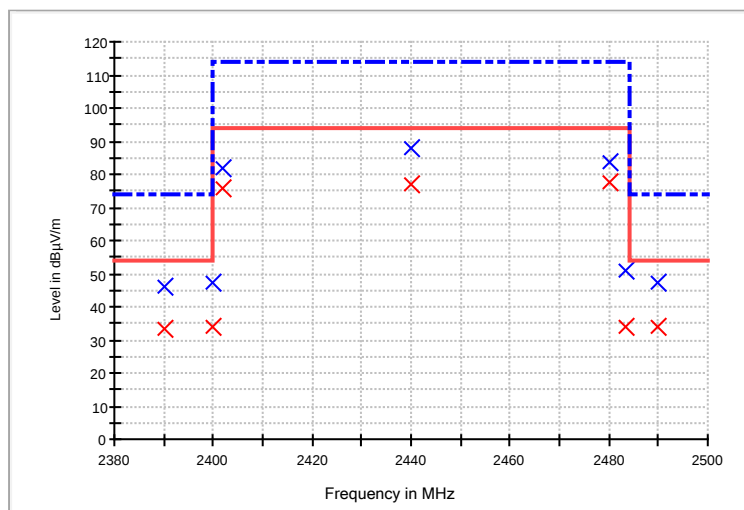


1 Mbps, Band Edges: High Channel, Horizontal



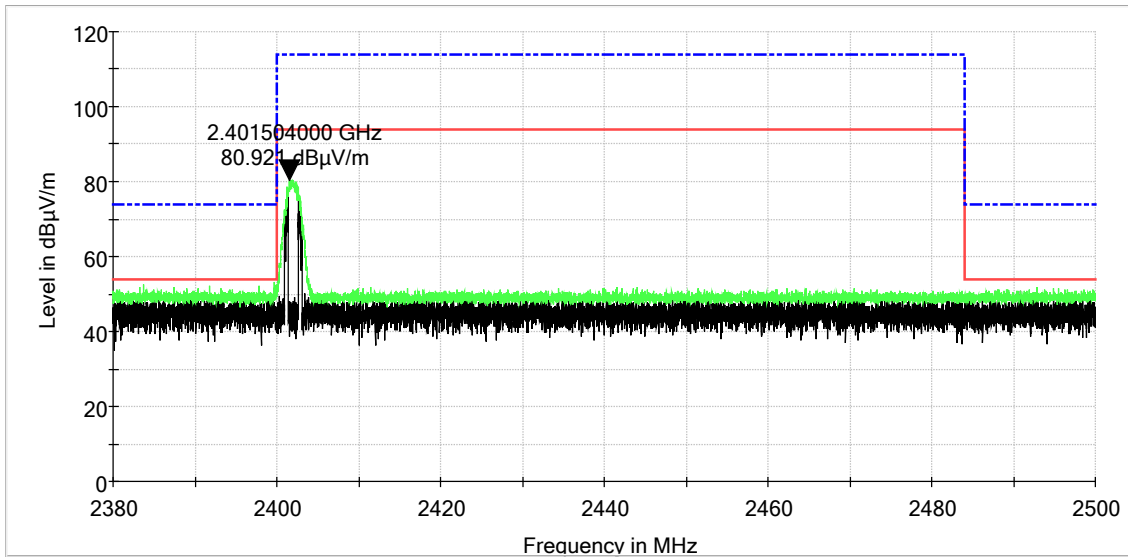
**1 Mbps: Band Edge and Field Strength of the Fundamentals**

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBμV/m)
2390.000000	46.3	33.4	1000.000	150.0	V	55.0	10.6	20.6	54.0
2400.000000	47.1	33.8	1000.000	150.0	V	55.0	10.5	20.2	54.0
2402.000000	82.0	76.0	1000.000	150.0	V	55.0	10.5	18.0	94.0
2440.000000	88.1	76.8	1000.000	150.0	V	63.0	10.5	17.2	94.0
2480.000000	83.6	77.7	1000.000	150.0	V	72.0	10.5	16.3	94.0
2483.500000	50.8	33.7	1000.000	150.0	V	72.0	10.5	20.3	54.0
2490.000000	47.3	33.7	1000.000	150.0	V	72.0	10.6	20.3	54.0

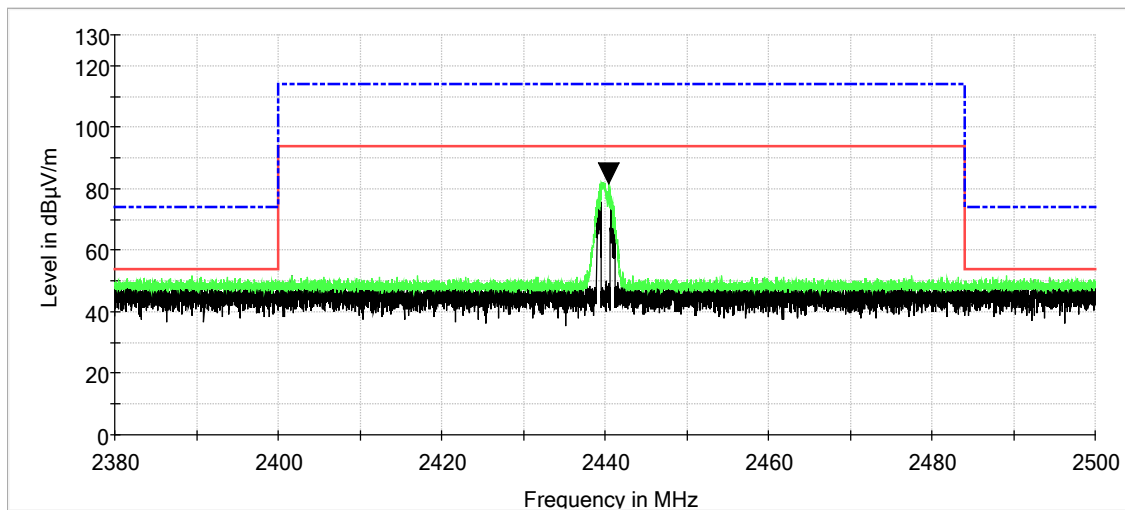




2 Mbps, Band Edges: Low Channel, Vertical

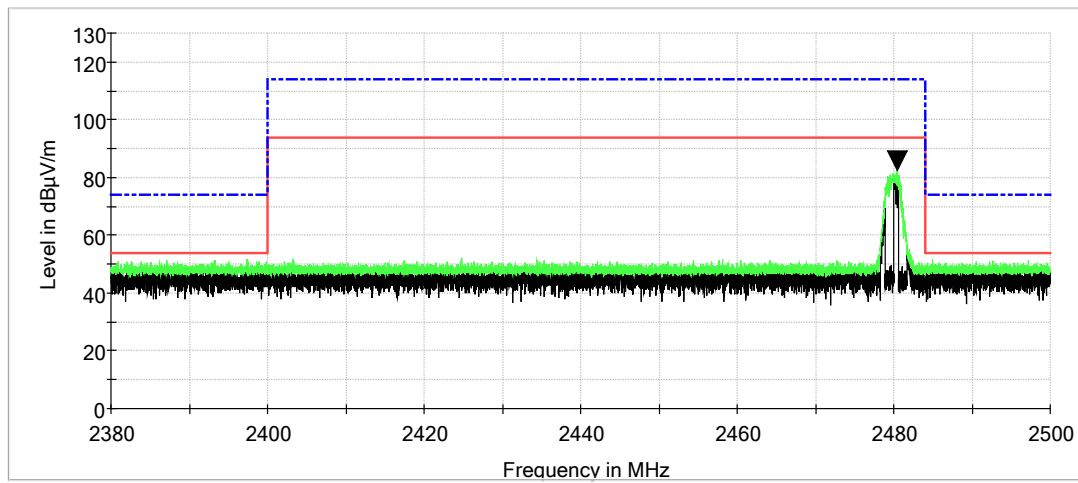


2 Mbps, Band Edges: Mid Channel, Vertical



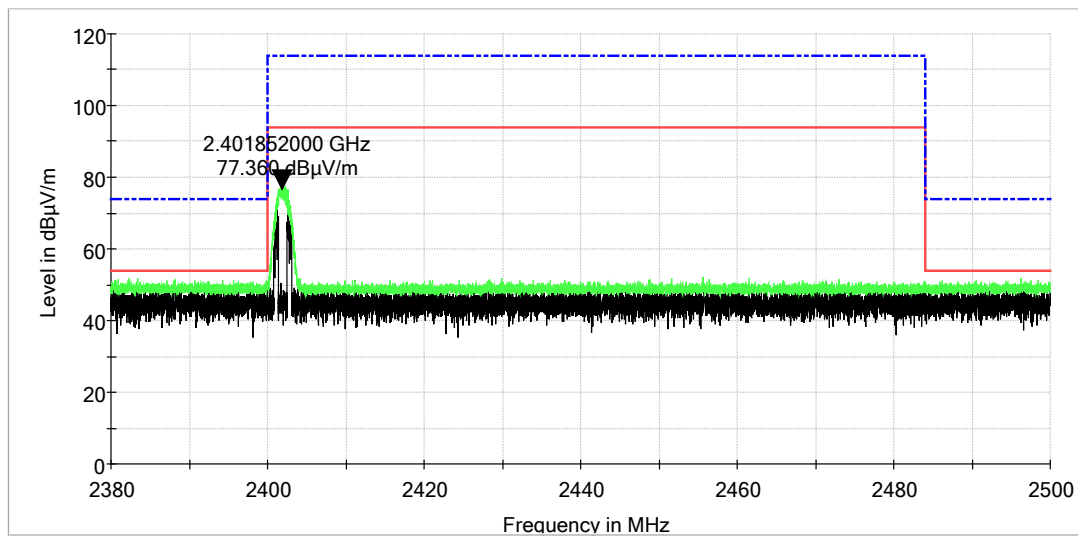


2 Mbps, Band Edges: High Channel, Vertical

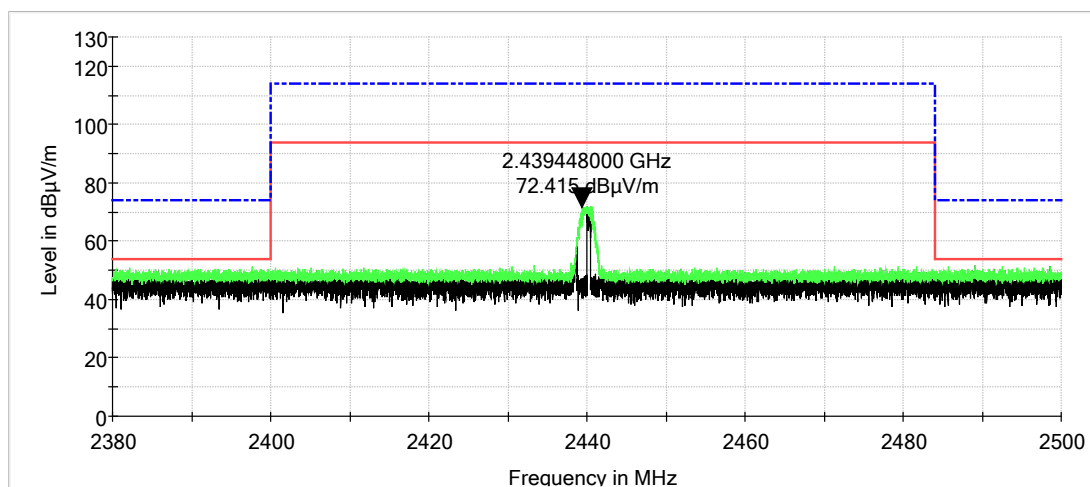




2 Mbps, Band Edges: Low Channel, Horizontal

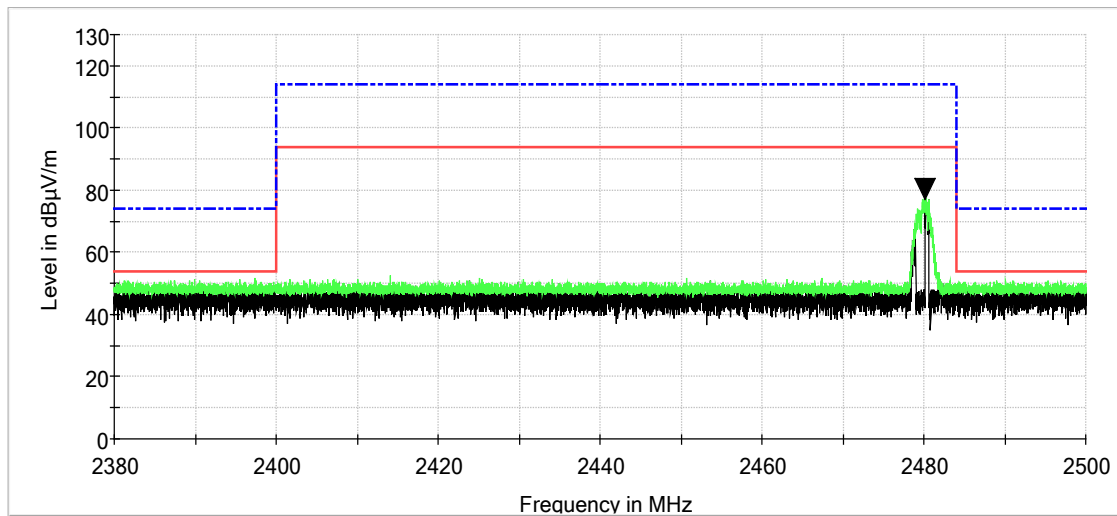


2 Mbps, Band Edges: Mid Channel, Horizontal



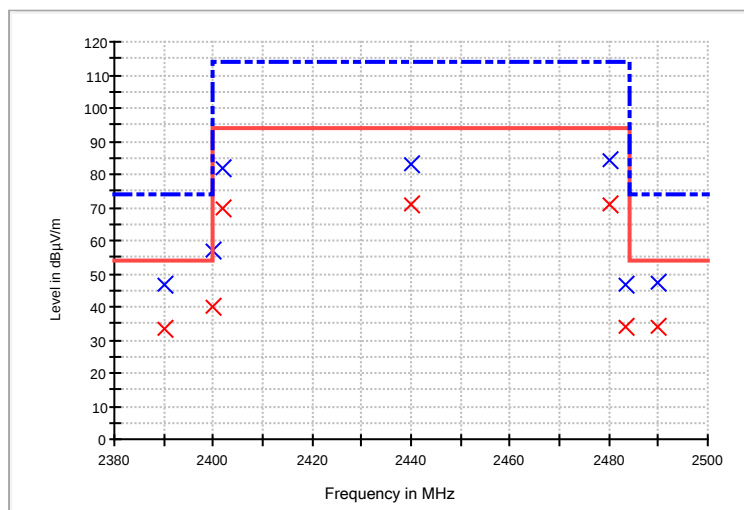


2 Mbps, Band Edges: High Channel, Horizontal



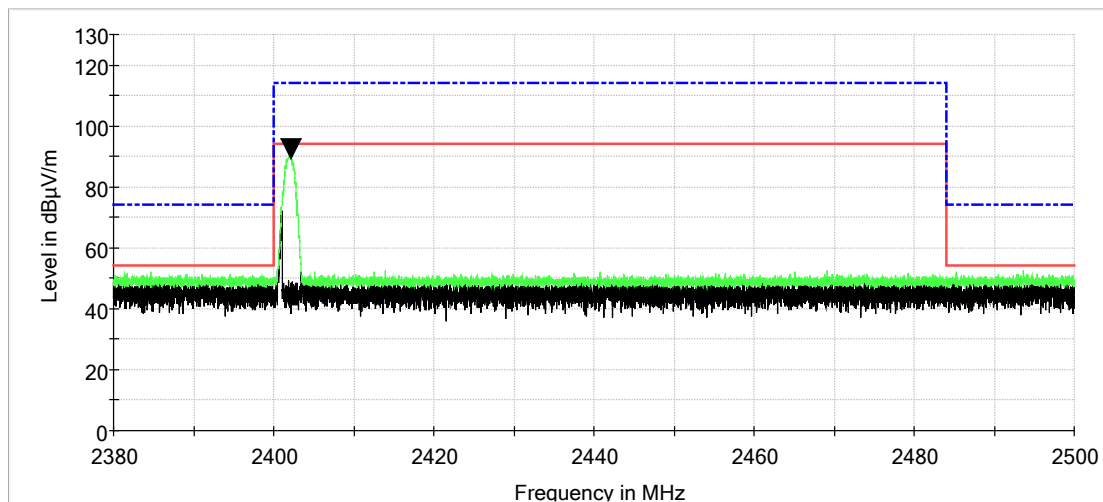
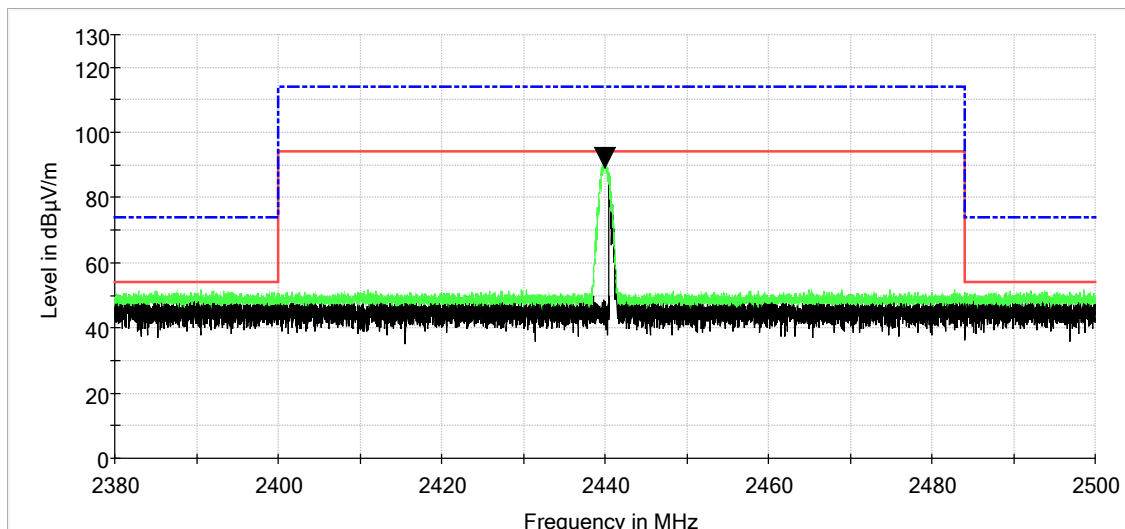
**2 Mbps: Band Edge and Field Strength of the Fundamentals**

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBμV/m)
2390.000000	46.7	33.5	1000.000	150.0	V	63.0	10.6	20.5	54.0
2400.000000	57.2	40.1	1000.000	150.0	V	63.0	10.5	13.9	54.0
2402.000000	82.1	69.7	1000.000	150.0	V	63.0	10.5	24.3	94.0
2440.000000	83.0	70.6	1000.000	150.0	V	57.0	10.5	23.4	94.0
2480.000000	84.0	70.7	1000.000	150.0	V	63.0	10.5	23.3	94.0
2483.500000	47.0	33.8	1000.000	150.0	V	63.0	10.5	20.2	54.0
2490.000000	47.0	33.7	1000.000	150.0	V	63.0	10.6	20.3	54.0



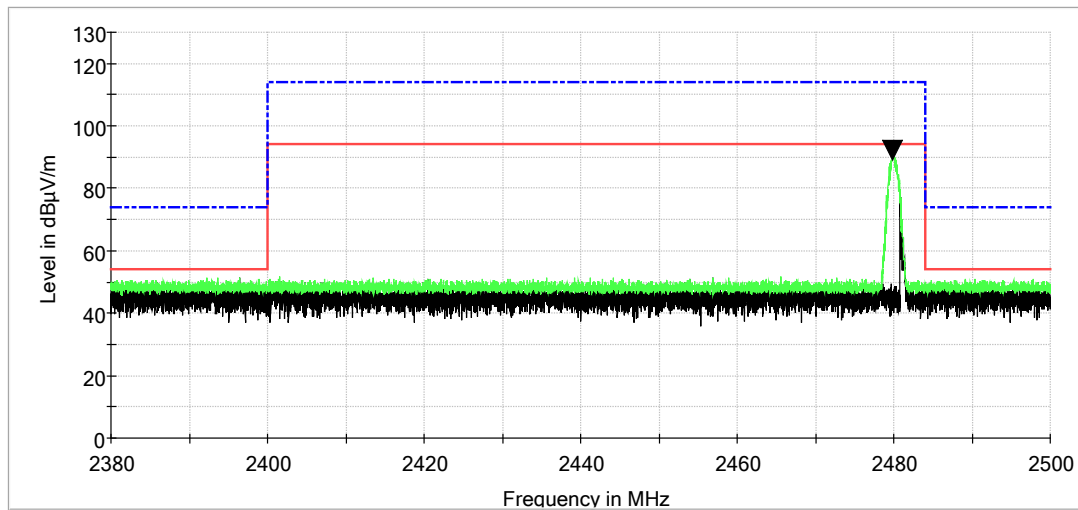


Test Date(s):	2022-08-15	Test Engineer(s):	J. Chiller
Standards:	CFR 47 Part 15.249(a)	Air Temperature:	22.1°C
Results:	Complies	Relative Humidity:	45%

BT Classic, Band Edge: Low, Vertical**BT Classic, Band Edge: Mid Channel, Vertical**

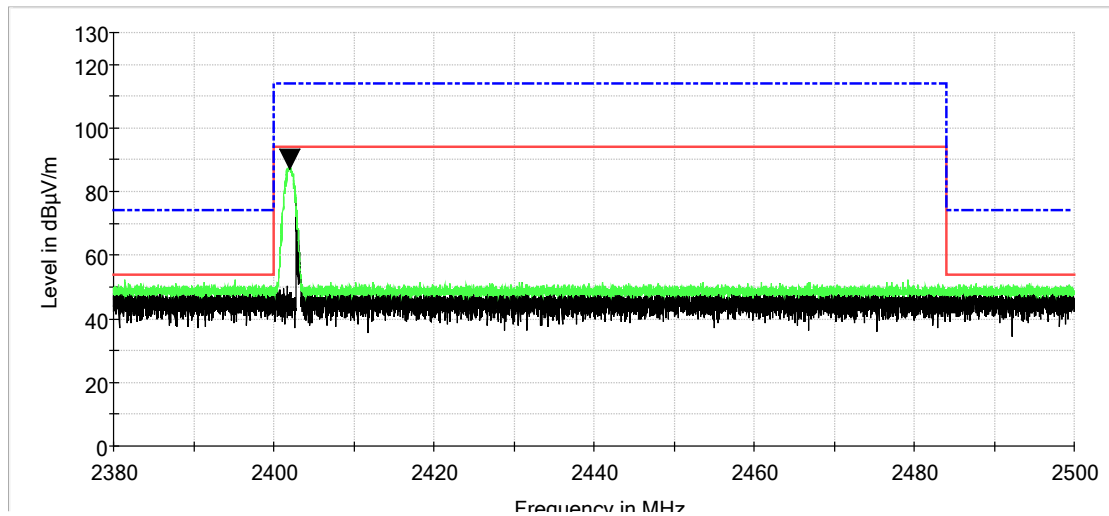


BT Classic, Band Edge: High Channel, Vertical

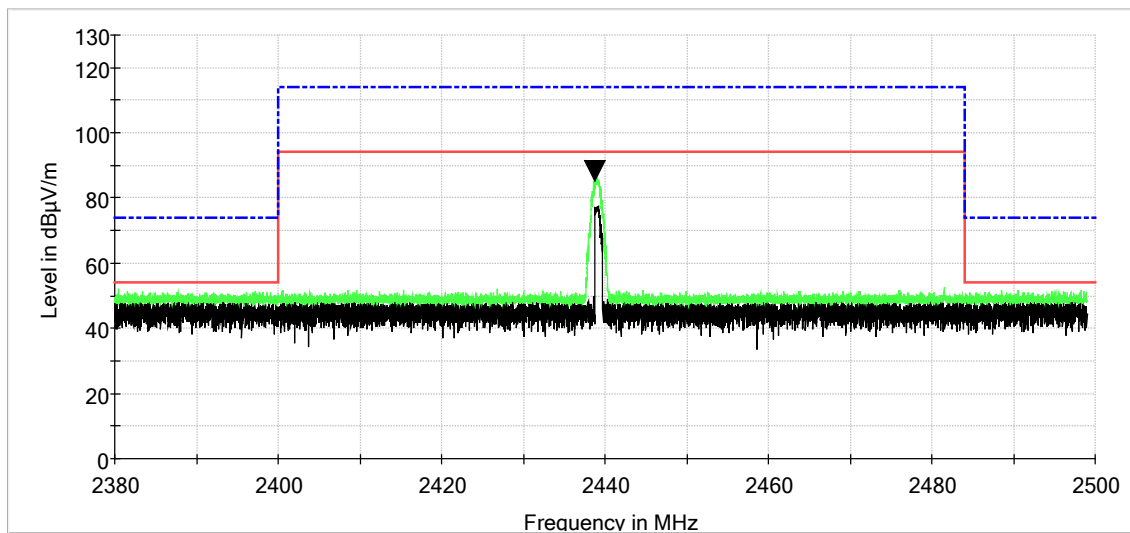




BT Classic, Band Edge: Low, Horizontal

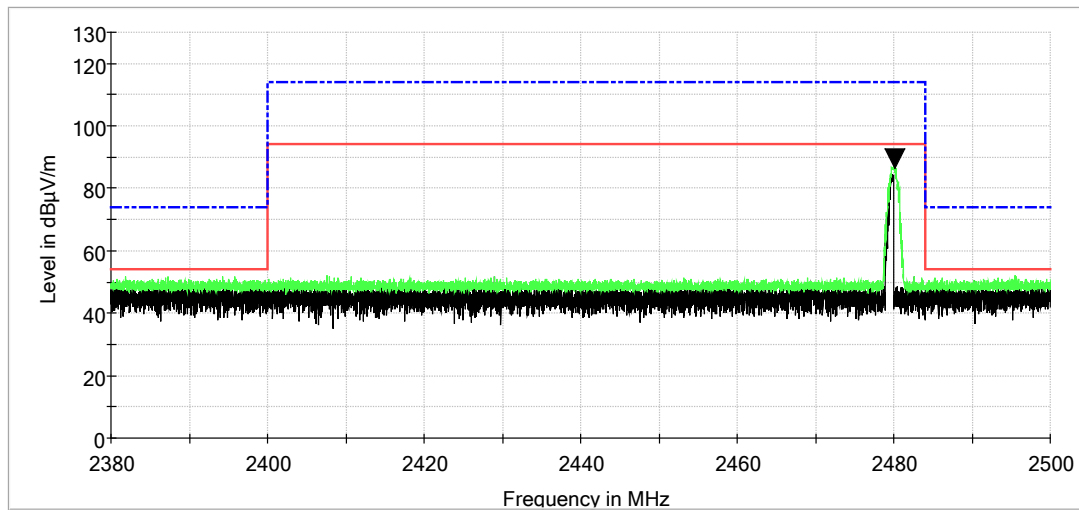


BT Classic, Band Edge: Mid Channel, Horizontal



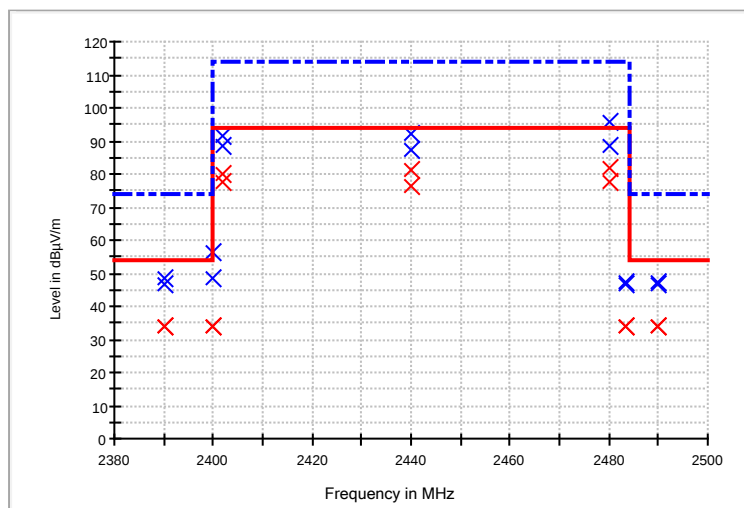


BT Classic, Band Edge: High Channel, Horizontal



**BT Classic: Band Edge and Field Strength of the Fundamentals**

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBμV/m)
2390.000000	48.4	33.8	1000.000	155.0	H	248.0	10.6	20.2	54.0
2390.000000	46.9	33.8	1000.000	155.0	V	16.0	10.6	20.2	54.0
2400.000000	56.2	34.1	1000.000	155.0	H	248.0	10.5	19.9	54.0
2400.000000	48.5	34.2	1000.000	155.0	V	16.0	10.5	19.8	54.0
2402.000000	88.3	77.4	1000.000	155.0	H	248.0	10.5	16.6	94.0
2402.000000	91.2	79.8	1000.000	155.0	V	16.0	10.5	14.2	94.0
2440.000000	87.5	76.4	1000.000	155.0	H	248.0	10.5	17.6	94.0
2440.000000	92.2	81.3	1000.000	155.0	V	354.0	10.5	12.7	94.0
2480.000000	88.5	77.5	1000.000	155.0	H	252.0	10.5	16.5	94.0
2480.000000	95.9	81.9	1000.000	150.0	V	8.0	10.5	12.1	94.0
2483.500000	47.4	33.8	1000.000	150.0	V	8.0	10.5	20.2	54.0
2483.500000	46.4	33.9	1000.000	155.0	H	252.0	10.5	20.1	54.0
2490.000000	46.6	33.9	1000.000	155.0	H	252.0	10.6	20.1	54.0
2490.000000	47.0	33.8	1000.000	150.0	V	8.0	10.6	20.2	54.0





8.2 Test Data – Spurious Emissions

Notes: Plots are peak, max hold pre-scan data included only to determine what frequencies to investigate and measure. During the pre-scan evaluation, the EUT was rotated in all possible directions to find the maximum emissions. The orthogonal position that showed the highest emissions was used. At some frequencies, no emissions from the EUT were measurable over the ambient noise floor. The readings did not change with EUT on and EUT off.

At least 6 of the highest frequencies were measured per ANSI 63.4 in a 3-meter anechoic chamber. Frequencies below 1 GHz were measured using a quasi-peak detector. The antenna was raised between 1 and 4 meters and the EUT turntable was rotated 360 degrees to maximize the emissions. Some of the frequencies did not change with the EUT on or off. At those frequencies, the test distance was shortened to 1 meter and still no emissions from the EUT were visible or over the ambient or limit. Frequencies were scanned from 9kHz to 26 GHz and the highest emissions are listed below. Both BLE and BT 3.0 were scanned on all channels, and the following plots are from worse case of all modes and channels.

Emissions to be found from the EUT were measured and listed in tables below. The data in the table is from all channels.



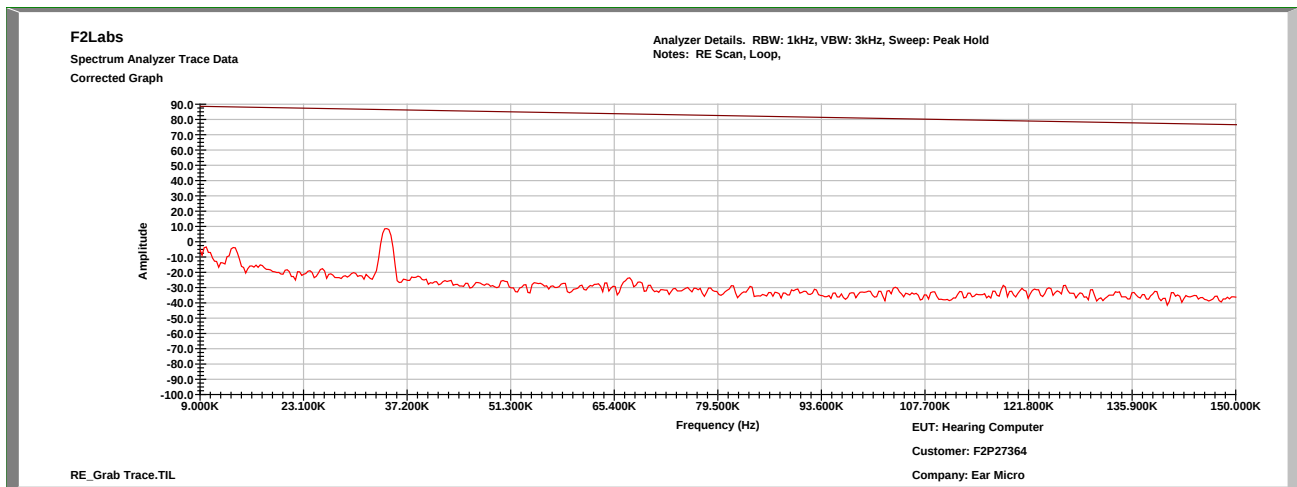
Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

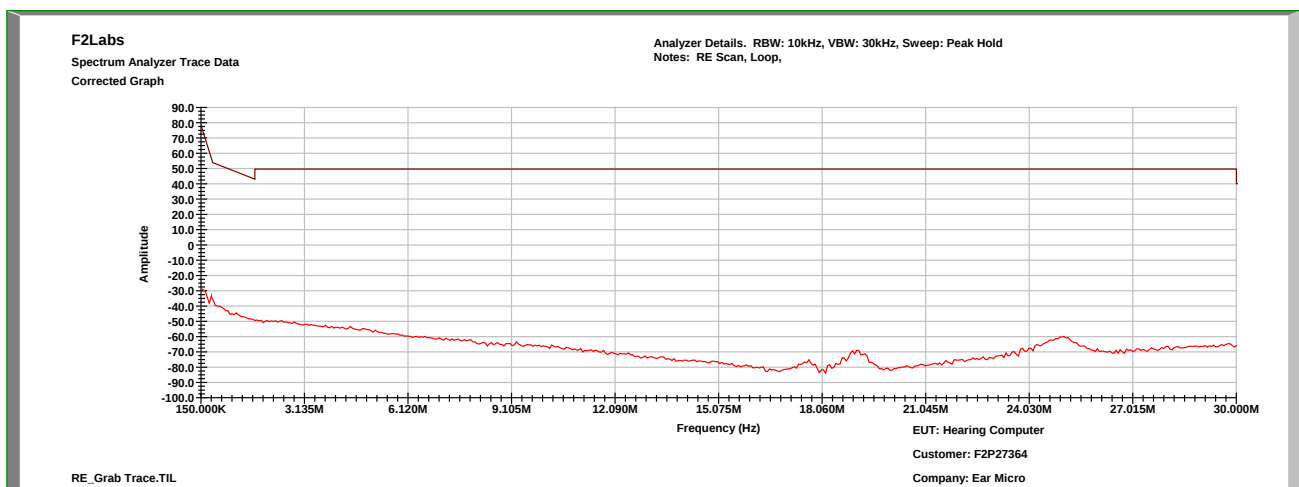
Model: T10

Test Date(s):	2022-06-27	Test Engineer(s):	J. Chiller
Standards:	CFR 47 Part 15.249(d) / Part 15.209	Air Temperature:	22.4°C
		Relative Humidity:	41%

Characterization Scan, 9 kHz to 150 kHz



Characterization Scan, 150 kHz to 30 MHz

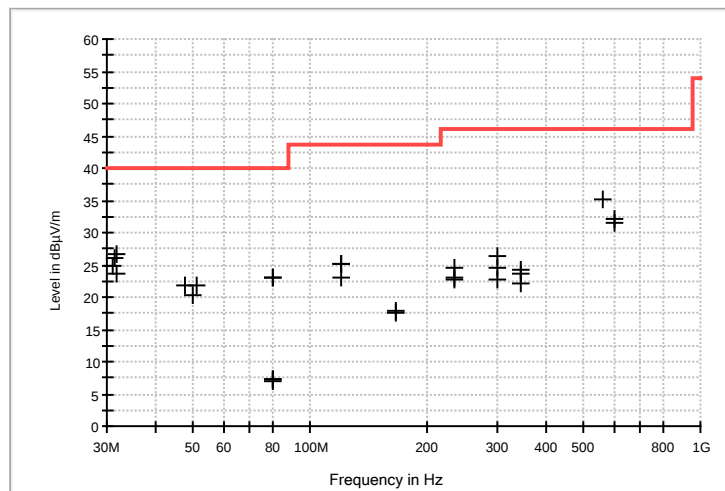




30 MHz to 1000 MHz

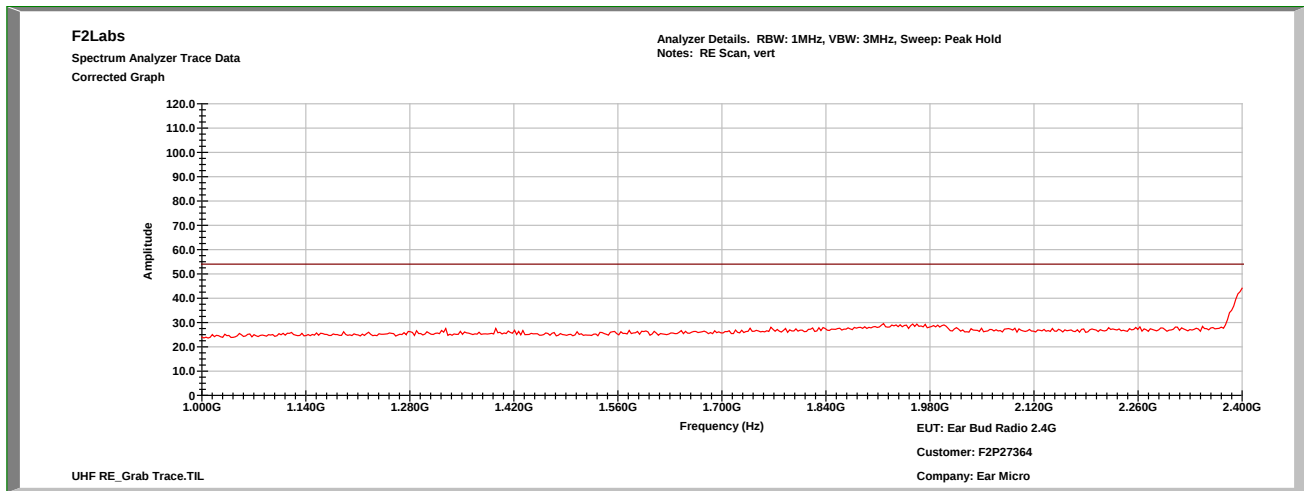
Note: Chart below includes data from all three channels.

Frequency (MHz)	Ant. Pol.	Antenna Height (cm)	Azimuth (degrees)	Reading (dBμV)	Correction Factors (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
31.160000	V	100.00	0.00	26.8	-2.0	24.80	40.0	-15.2
31.560000	V	100.00	12.00	28.5	-2.3	26.20	40.0	-13.8
31.760000	V	100.00	0.00	29.1	-2.4	26.70	40.0	-13.3
31.960000	H	100.00	0.00	26.3	-2.6	23.70	40.0	-16.3
47.840000	V	100.00	0.00	35.3	-13.5	21.80	40.0	-18.2
49.800000	V	100.00	0.00	34.4	-14.2	20.20	40.0	-19.8
50.760000	V	100.00	224.00	36.2	-14.4	21.80	40.0	-18.2
79.840000	V	100.00	0.00	21.7	-14.7	7.00	40.0	-33.0
79.840000	V	100.00	26.00	21.9	-14.7	7.20	40.0	-32.8
79.840000	H	100.00	213.00	22.0	-14.7	7.30	40.0	-32.7
80.000000	H	100.00	150.00	37.8	-14.8	23.00	40.0	-17.0
80.000000	H	100.00	258.00	37.8	-14.8	23.00	40.0	-17.0
119.640000	V	100.00	207.00	33.6	-8.5	25.10	43.5	-18.4
119.640000	V	100.00	0.00	31.6	-8.5	23.10	43.5	-20.4
120.000000	V	100.00	168.00	33.6	-8.5	25.10	43.5	-18.4
166.200000	H	100.00	165.00	27.4	-9.7	17.70	43.5	-25.8
166.200000	H	100.00	35.00	27.6	-9.7	17.90	43.5	-25.6
232.520000	V	100.00	24.00	32.9	-9.9	23.00	46.0	-23.0
232.520000	V	100.00	99.00	34.6	-9.9	24.70	46.0	-21.3
233.000000	V	100.00	84.00	32.6	-9.9	22.70	46.0	-23.3
299.840000	V	100.00	238.00	33.9	-7.4	26.50	46.0	-19.5
300.000000	V	100.00	199.00	31.9	-7.4	24.50	46.0	-21.5
300.000000	V	100.00	104.00	30.0	-7.4	22.60	46.0	-23.4
347.760000	H	100.00	50.00	30.1	-6.0	24.10	46.0	-21.9
347.760000	H	100.00	46.00	29.6	-6.0	23.60	46.0	-22.4
347.760000	H	100.00	3.00	28.2	-6.0	22.20	46.0	-23.8
564.680000	V	100.00	148.00	36.0	-0.8	35.20	46.0	-10.8
599.600000	V	100.00	231.00	32.2	-0.2	32.00	46.0	-14.0
599.600000	V	100.00	182.00	31.7	-0.2	31.50	46.0	-14.5

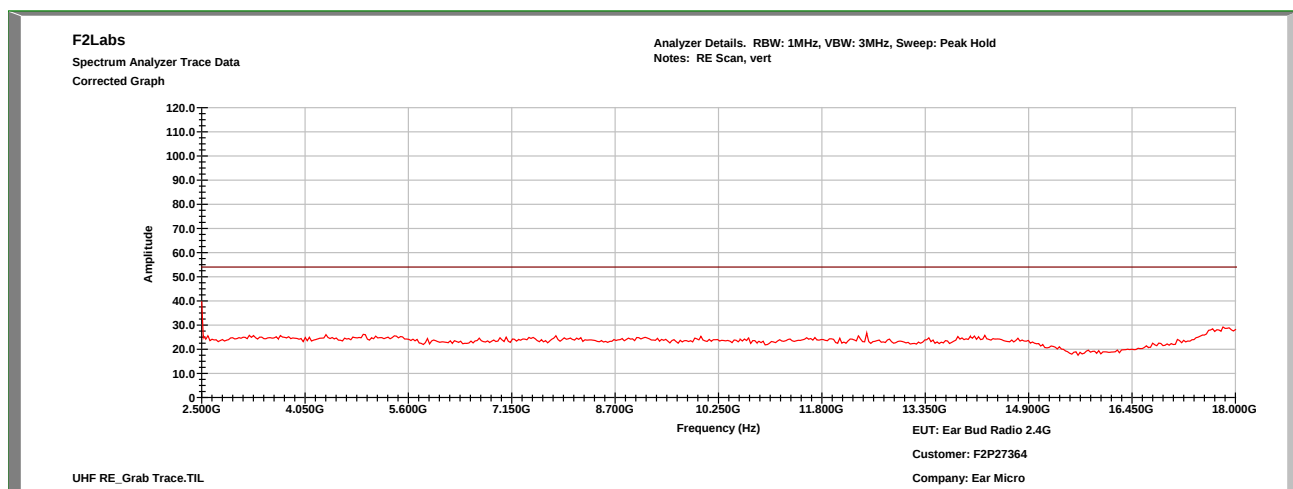




1 GHz to 2.4 GHz, Vertical



2.5 GHz to 18 GHz, Vertical



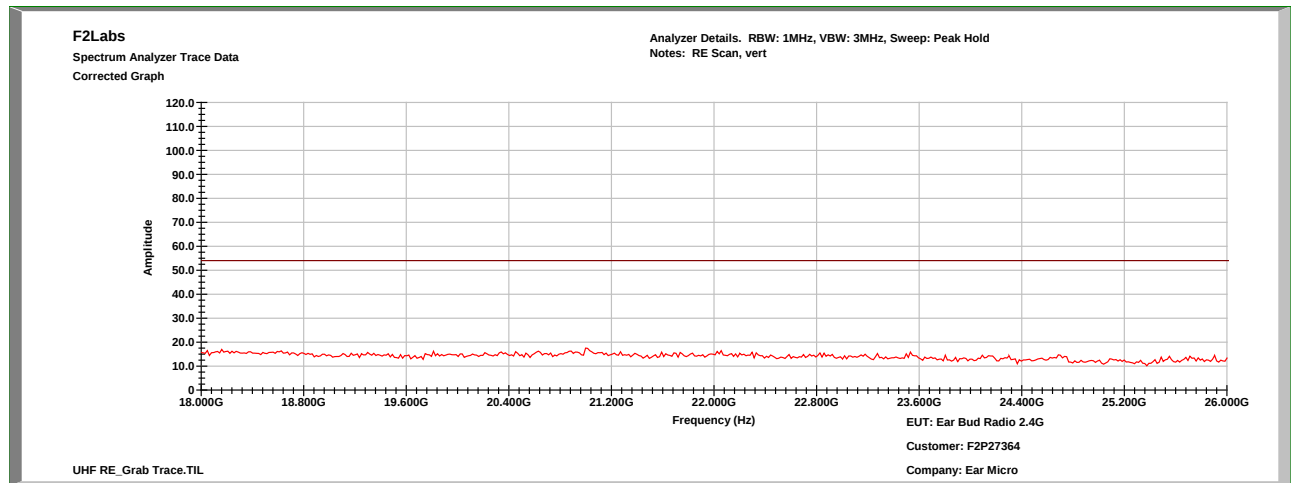


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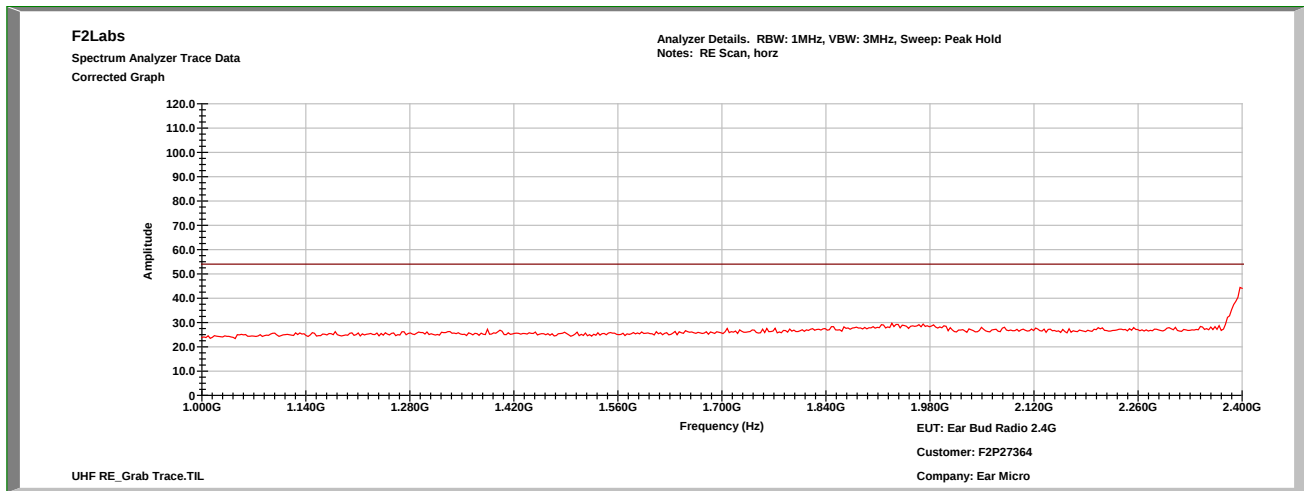
Model: T10

18 GHz to 26 GHz, Vertical

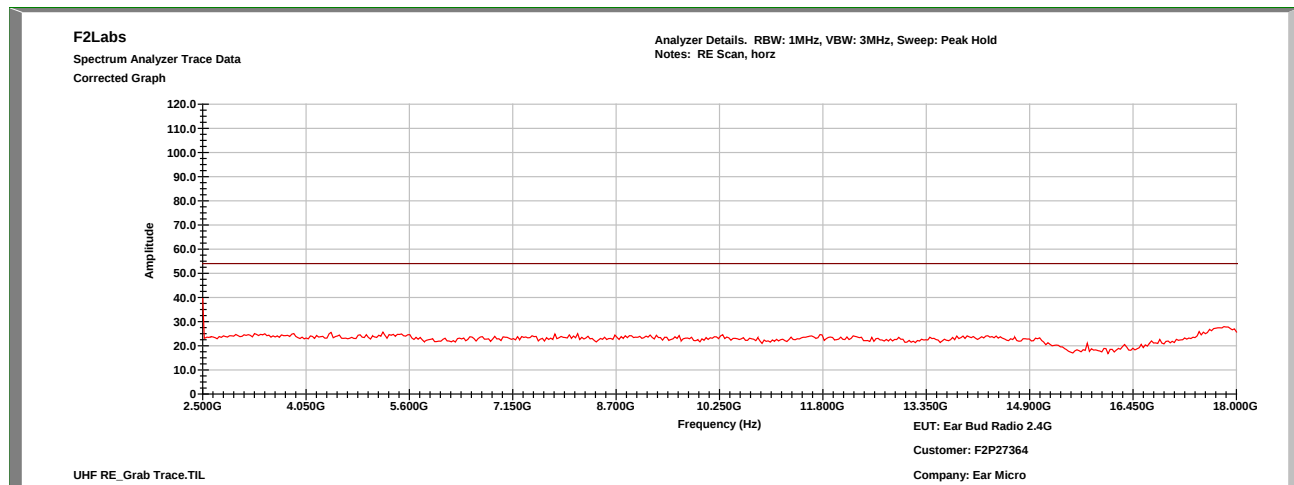




1 GHz to 2.4 GHz, Horizontal



2.5 GHz to 18 GHz, Horizontal



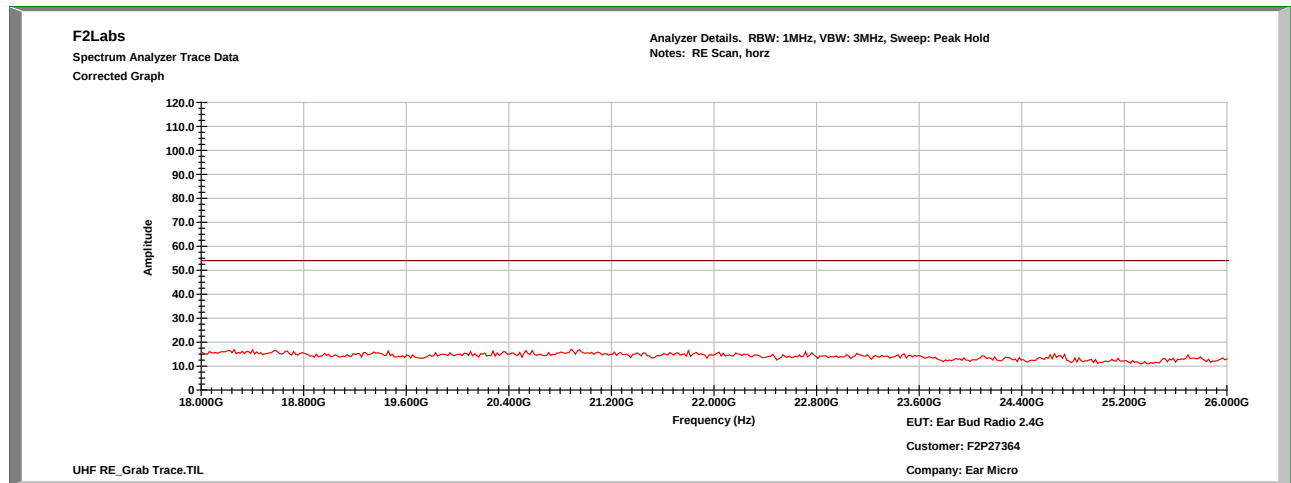


Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

18 GHz to 26 GHz, Horizontal





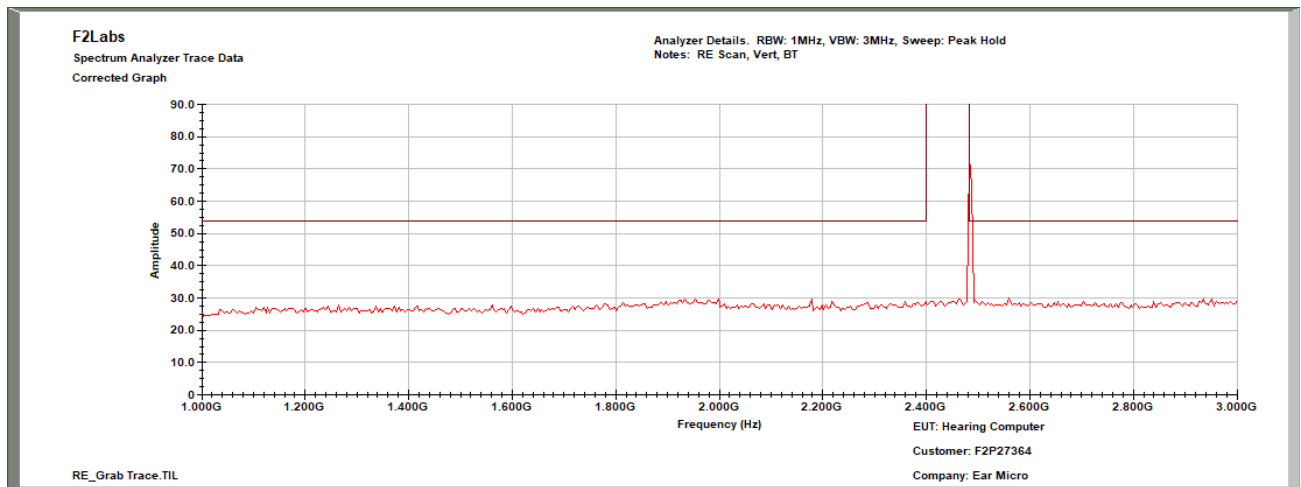
Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

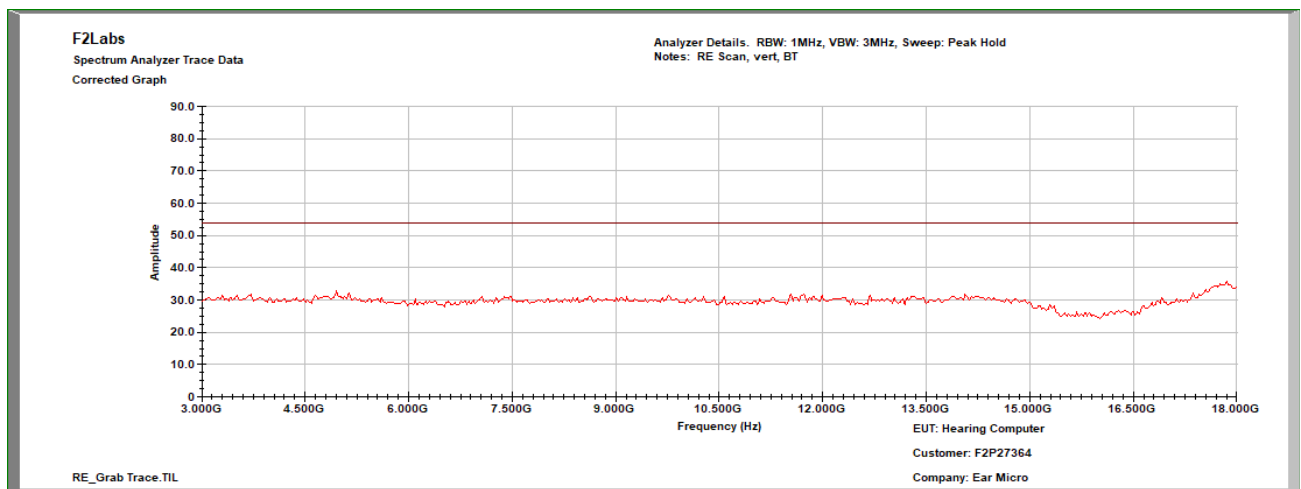
Model: T10

Test Date(s):	2022-08-15	Test Engineer(s):	J. Chiller
Standards:	CFR 47 Part 15.249(d) / Part 15.209	Air Temperature:	22.1°C
		Relative Humidity:	45%

BT Classic, 1 GHz to 3 GHz, Vertical



BT Classic, 3 GHz to 18 GHz, Vertical



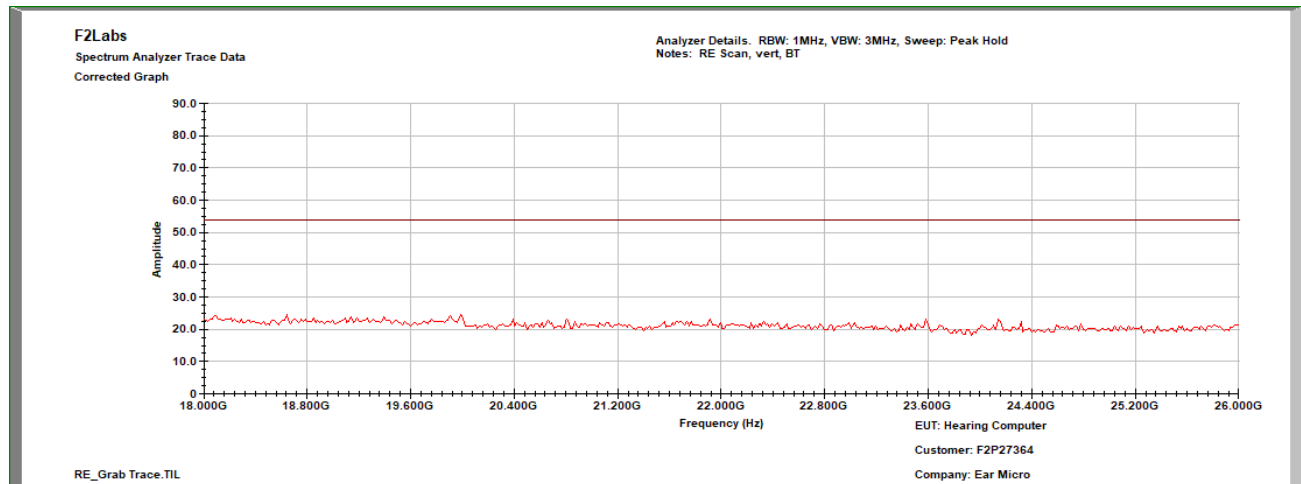


Order Number: F2P27364

Applicant: Plearcings, LLC, dba EAR Micro LLC

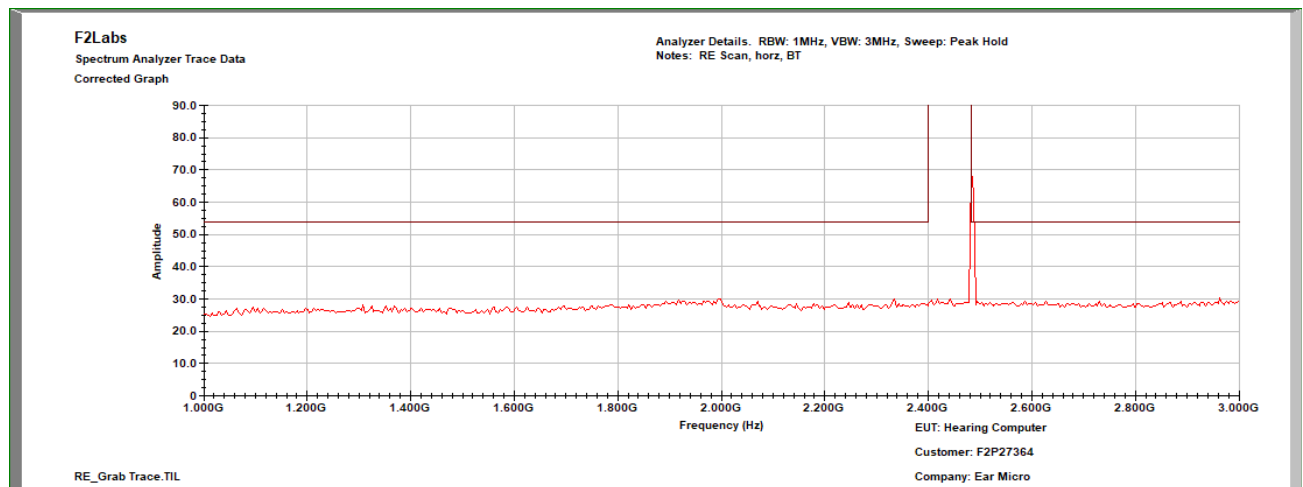
Model: T10

BT Classic, 18 GHz to 26 GHz, Vertical

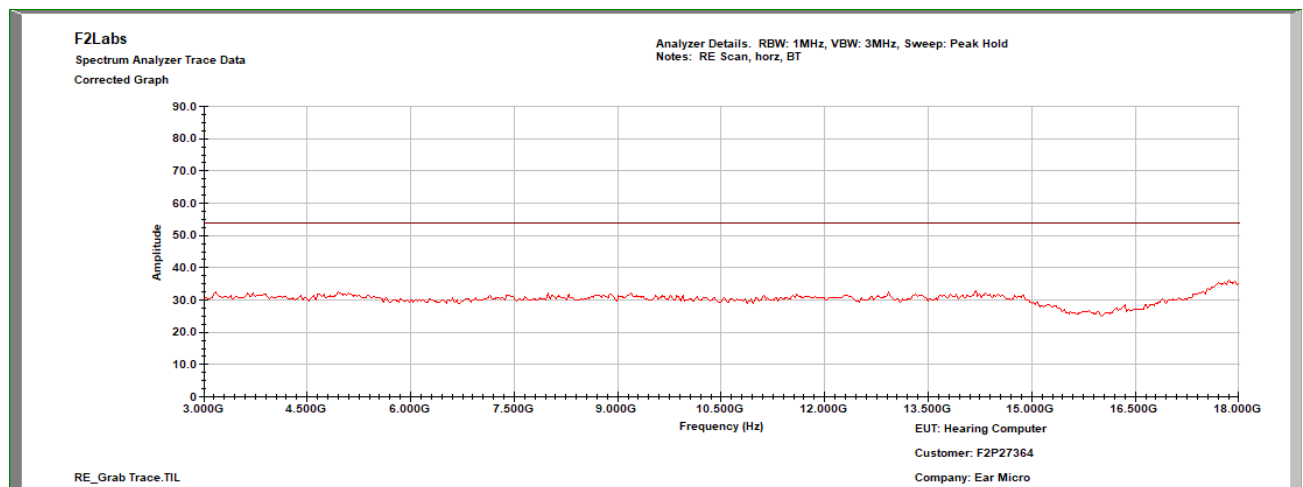




BT Classic, 1 GHz to 3 GHz, Horizontal



BT Classic, 3 GHz to 18 GHz, Horizontal



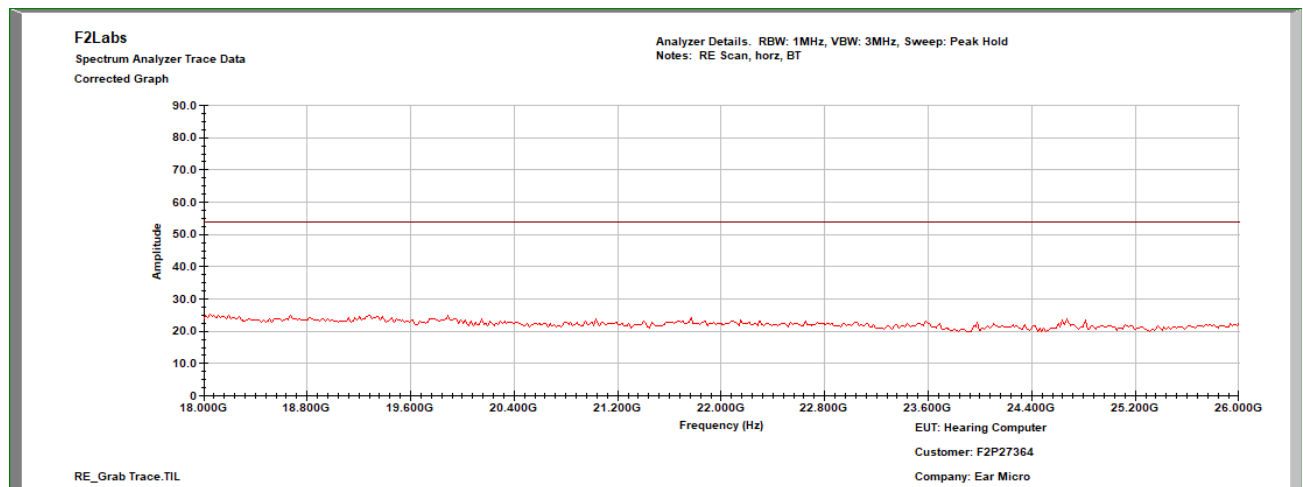


Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

BT Classic, 18 GHz to 26 GHz, Horizontal





9 CONDUCTED EMISSIONS

9.1 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 μ 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 μ 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.

9.2 Procedure

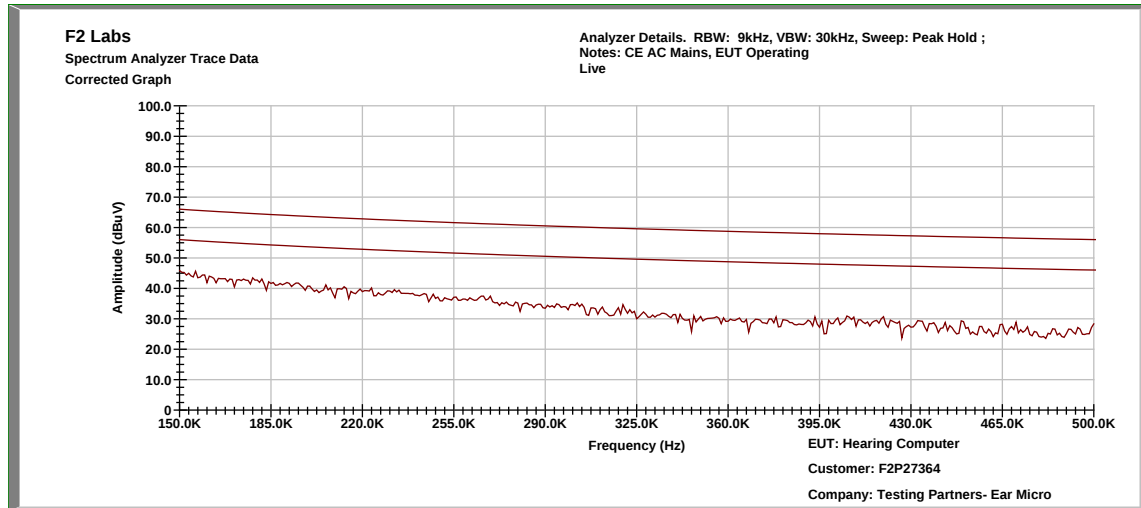
The EUT was placed on a 1.0 x 1.5 meter non-conductive table, 0.8 meter above a horizontal ground plane and 0.4 meter from a vertical ground plane. Power was provided to the EUT through a LISN bonded to a 3 x 2 meter ground plane. The LISN and peripherals were supplied power through a filtered AC power 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.



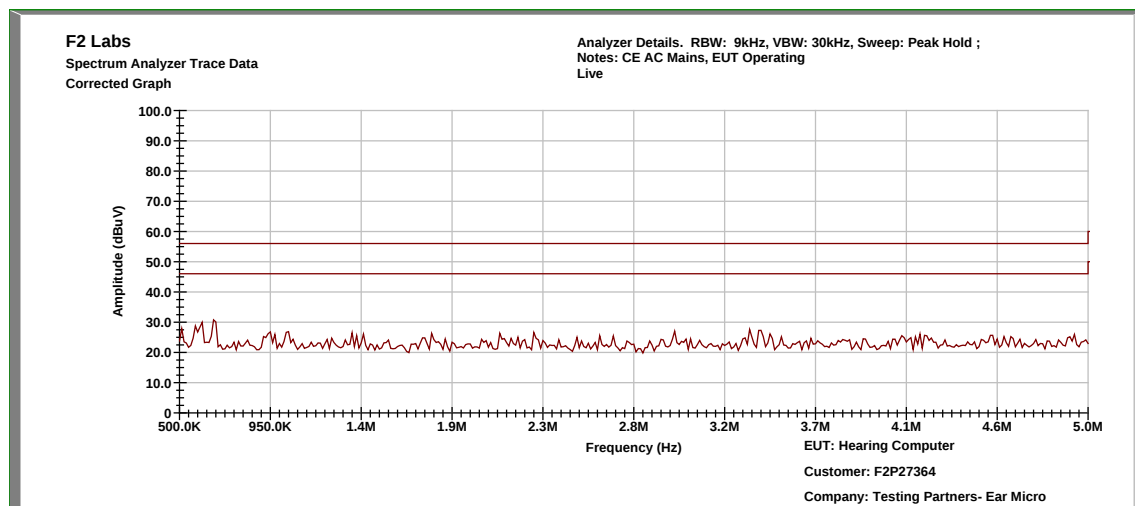
9.3 Conducted Emissions Test Data

Test Date(s):	2022-06-28	Test Engineer:	J. Chiller
Rule:	15.207	Air Temperature:	23.8° C
Test Results:	Complies	Relative Humidity:	37%

Conducted Test – Live: 0.15 MHz to 0.5 MHz



Conducted Test – Live: 0.5 MHz to 5.0 MHz



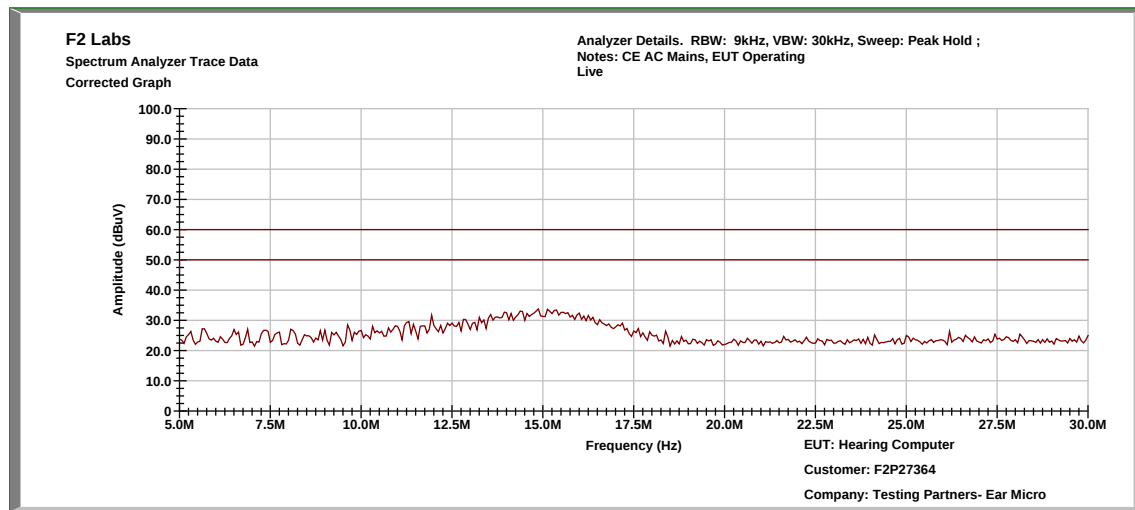


Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

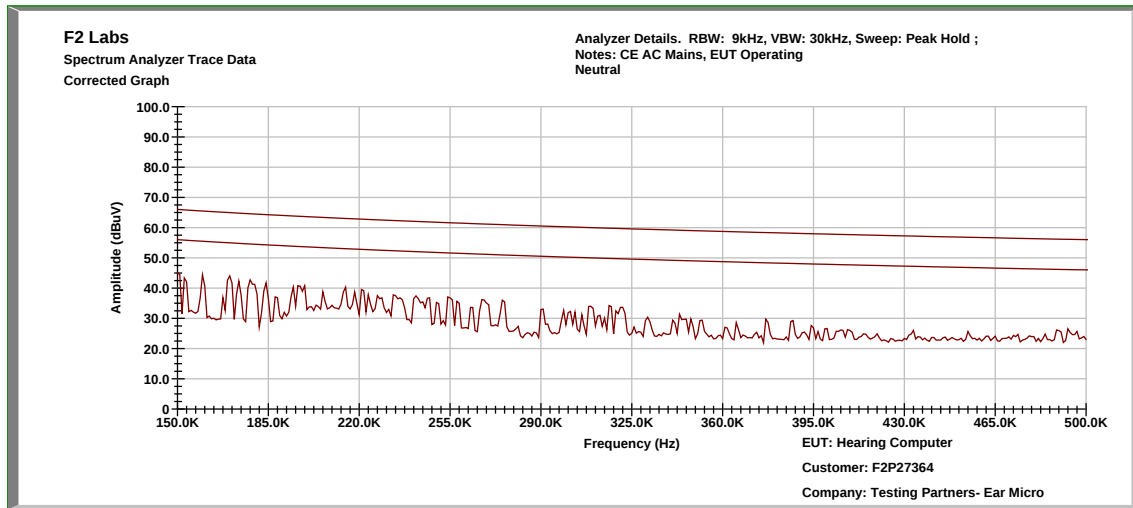
Conducted Test – Live: 5.0 MHz to 30.0 MHz



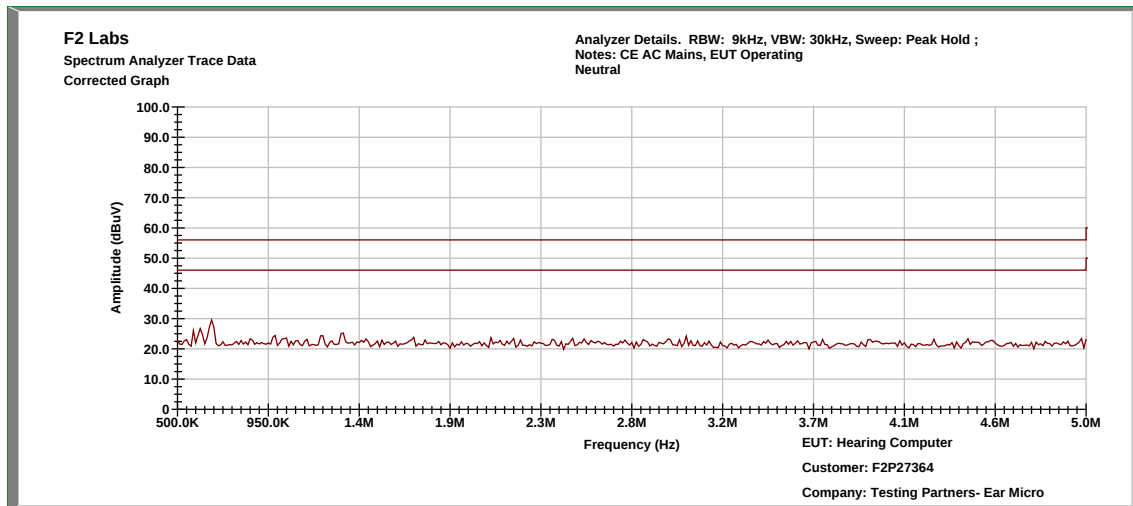
Note: Peak scans below AVG limit.



Conducted Test – Neutral: 0.15 MHz to 0.5 MHz



Conducted Test – Neutral: 0.5 MHz to 5.0 MHz



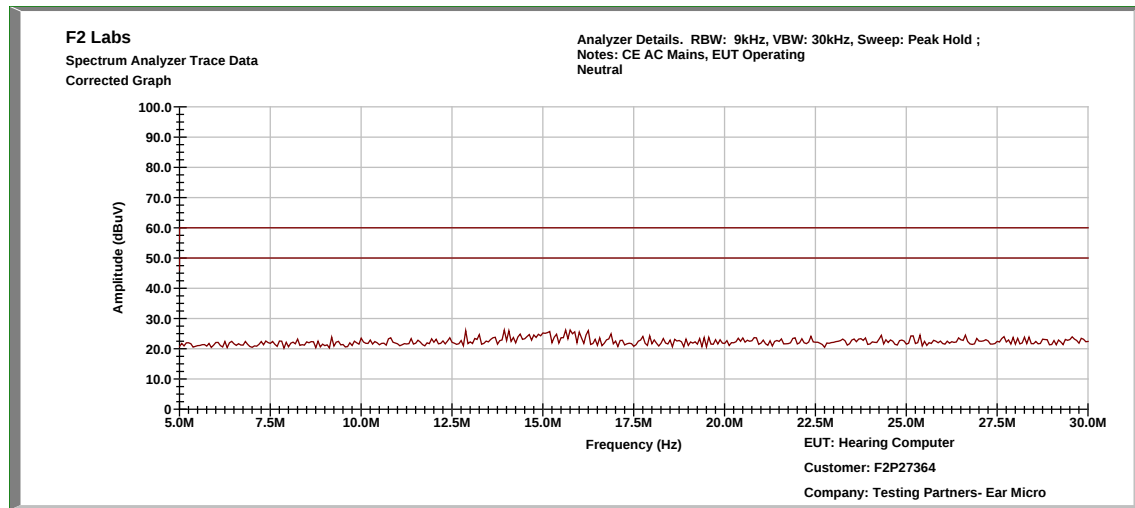


Order Number: F2P27364

Applicant: Piearcings, LLC, dba EAR Micro LLC

Model: T10

Conducted Test – Neutral: 5.0 MHz to 30.0 MHz

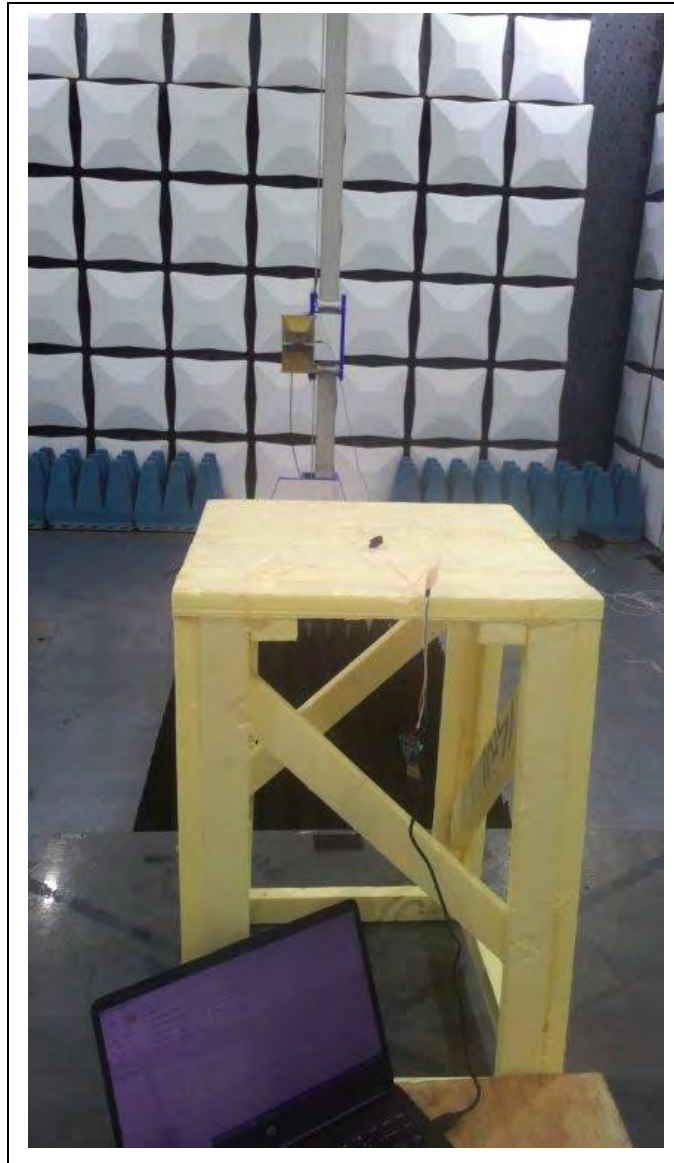


Note: Peak scans below AVG limit.



10 PHOTOGRAPHS - TEST SETUPS

**Field Strength, Band Edge, Occupied Bandwidth,
Radiated Spurious Emissions Greater than 1 GHz**





Radiated Spurious Emissions Less Than 30 MHz





Radiated Spurious Emissions 30 MHz to 1000 MHz





Conducted Emissions

