

**FCC PART 15, SUBPART B and C; and FCC 15.247
TEST REPORT**

For

iWEAR GLASSES**Model: IW100**

Prepared for

PERCEPT CORPORATION
10080 W. ALTA DRIVE
LAS VEGAS, NEVADA 89145

Prepared by: _____

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DATE: DECEMBER 12, 2022

	REPORT BODY	APPENDICES					TOTAL
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

The client must not use this report to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the U.S. government.

Device Tested: iWear Glasses
Models: IW100
S/N: N/A

Product Description: The equipment under test is a BLE device that attaches directly to a pair of wearable glasses and communicates with a user's smartphone. The glasses can be controlled via the smartphone to change the optical opacity from dark to light by the user. The IW100 contained a 32 MHz crystal for the MCU. The highest frequency generated is: 2.4 GHz. The IW100 dimensions in millimeters are: 165 (L) x 147 (W) x 48 (H).

Modifications: The EUT was not modified to meet the specifications.

Customer: Percept Corporation
10080 W. Alta Drive
Las Vegas, Nevada 89145

Test Dates: November 21 and 22, 2022

Test Specifications covered by accreditation:

Test Specifications: Emissions requirements
CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.247



Test Procedures: ANSI C63.4 and ANSI C63.10

Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B See section 6.3 for Measurement Uncertainty
2	Radiated RF Emissions, 9 kHz –25000 MHz	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, and Part 15 Subpart C See section 6.3 for Measurement Uncertainty
3	DTS Bandwidth	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (a)(2)
4	Peak Output Power	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(3)
5	RF Band Edges	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (d)
6	Spectral Density	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (e)

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the iWear Glasses, Model: IW100. The emissions measurements were performed according to the measurement procedure described in ANSI C 63.4 and ANSI C 63.10. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.247.

1.1 Decision Rule & Risk

If a measured value exceeds a specification limit it implies non-compliance. If the value is below a specification limit it implies compliance. Measurement uncertainty of the laboratory is reported with all measurement results but generally not taken into consideration unless a standard, rule or law requires it to be considered.

Qualification test reports are only produced for products that are in compliance with the test requirements, therefore results are always in conformity. Otherwise, an engineering report or just the data is provided to the customer.

When performing a measurement and making a statement of conformity, in or out-of-specification to manufacturer's specifications or Pass/Fail against a requirement, there are two possible outcomes:

- The result is reported as conforming with the specification
- The result is reported as not conforming with the specification

The decision rule is defined below.

When the test result is found to be below the limit but within our measurement uncertainty of the limit, it is our policy that the final acceptance decision is left to the customer, after discussing the implications and potential risks of the decision.

When the test result is found to be exactly on the specification, it is our policy, in the case of unwanted emissions measurements to consider the result non-compliant, however, the final decision is left to the customer, after discussing the implications and potential risks of the decision.

When the test result is found to be over the specification limit under any condition, it is our policy to consider the result non-compliant.

In terms of uncertainty of measurement, the laboratory is a calibrated and tightly controlled environment and generally exceptionally stable, the measurement uncertainties are evaluated without the considering of the test sample. When it comes to the test sample however, as most testing is performed on a single sample rather than a sample population, and that sample is often a pre-production representation of the final product that test sample represents a significantly higher source of measurement uncertainty. We advise our customers of this and that when in doubt (small test to limit margins), they may wish to perform statistical sampling on a population to gain a higher confidence in the results. All lab reported results are that of a single sample in any event.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The emissions tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Percept Corporation

Daniel Krones	Sr. Mgr. Systems Engineering
Ron Stieger	Director Embedded & System Engineering

Compatible Electronics Inc.

James Ross	Senior Test Engineer
Kyle Fujimoto	Senior Test Engineer

2.4 Date Test Sample was Received

The test sample was received prior to the initial date of testing.

2.5 Disposition of the Test Sample

The test sample has not been returned to Percept Corporation as of the date of this test report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
RMS	Root-Mean-Square
N/A	Not Applicable
RF	Radio Frequency
LISN	Line Impedance Stabilization Network
Tx	Transmit
Rx	Receive
Sr.	Senior
Mgr.	Manager
DTS	Digital Transmission System
BLE	Bluetooth Low Energy
Inc.	Incorporated
MCU	Microcontroller Unit

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this emission Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules – Radio frequency devices (including digital devices) – Intentional Radiators
FCC Title 47, Part 15 Subpart B	FCC Rules – Radio frequency devices (including digital devices) – Unintentional Radiators
KDB 558074 D01 v05r02	Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 of the FCC Rules
EN 50147-2: 1997	Anechoic chambers. Alternative test site suitability with respect to site attenuation
ANSI C63.4: 2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10: 2013	American National Standard of procedure for compliance testing of unlicensed wireless devices

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

Normal Mode: The iWear Glasses, Model: IW100 (EUT) was attached directly to a pair of glasses. A fresh lithium battery was installed within the EUT. Lastly, the EUT was continuously transmitting BLE.

In this mode, the EUT was tested operating in two signal bandwidth modes, respectively:

- PHY 1, operates at a 1 Mbps bandwidth
- PHY 2, operates at a 2 Mbps bandwidth

Charging Mode: The iWear Glasses, Model: IW100 (EUT) was attached to a 5-pin magnetic connector to USB-C charger. The charger was also connected to the AC Adapter. In this mode, the 3.7 volt lithium battery is being charged on a continuous basis. The EUT cannot transmit in this mode.

The EUT was tested for emissions while in the X, Y, and Z axis. The X orientation is when the EUT is parallel to the ground mounted horizontally. The Y orientation is when the EUT is perpendicular to the ground mounted vertically. The Z orientation is when the EUT is perpendicular to the ground mounted horizontally.

The firmware inside the EUT allowed the EUT to continuously transmit at the low, middle, and high during the intentional radiator tests. The EUT was programed using a laptop via a terra term program.

The firmware is stored on the company's servers.

The cables were moved to maximize the emissions in charging mode. The final conducted and radiated data was taken in the modes of operation mentioned above. All initial investigations were performed with the EMI Receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix D.



4.1.1 Cable Construction and Termination

Cable 1

Charging Mode

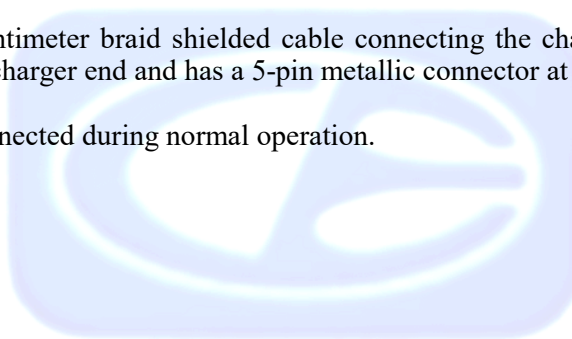
This is a 1-meter braid shielded cable connecting the charger to the AC Adapter. The cable has a USB-C connector at the charger end and a USB Type 'A' connector at the AC adapter end.

Cable 2

Charging Mode

This was a 10-centimeter braid shielded cable connecting the charger to the EUT. The cable was hard wired at the charger end and has a 5-pin metallic connector at the EUT end.

Note: No external cables were connected during normal operation.



5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID:
IWEAR GLASSES (EUT)	PERCEPT CORPORATION	IW100	NA	2A8GW-IW100
CHARGER	PERCEPT CORPORATION	10147	N/A	N/A
AC ADAPTER	LVSUN	LS-PW05-U0510E	N/A	N/A
FIRMWARE	PERCEPT CORPORATION	1.0.5	N/A	N/A
LAPTOP*	HEWLETT PACKARD	HSTNN-C82C	N/A	DoC
AC ADAPTER FOR LAPTOP*	HEWLETT PACKARD	HSTNN-DA40	N/A	N/A

*Used only to program the EUT and then was removed during the testing.

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
RF RADIATED AND CONDUCTED EMISSIONS TEST EQUIPMENT					
TDK TestLab	TDK RF Solutions, Inc.	9.22	700145	N/A	N/A
EMI Receiver, 3 Hz – 44 GHz	Keysight Technologies, Inc.	N9038A	MY59050117	November 9, 2022	November 9, 2024
System Controller	Sunol Sciences Corporation	SC110V	112213-1	N/A	N/A
Turntable	Sunol Sciences Corporation	2011VS	N/A	N/A	N/A
Antenna-Mast	Sunol Sciences Corporation	TWR95-4	112213-3	N/A	N/A
Loop Antenna	Com-Power	AL-130R	121090	February 10 2022	February 10 2025
CombiLog Antenna	Com-Power	AC-220	61093	December 14, 2021	December 14, 2023
Horn Antenna	Com-Power	AH-118	10050113	December 16, 2021	December 16, 2023
Horn Antenna	Com-Power	AH-826	71957	N/A	N/A
Preamplifier	Com-Power	PAM-118	181653	March 7, 2022	March 7, 2023
Preamplifier	Com-Power	PA-840	711013	April 8, 2022	April 9, 2024
LISN (EUT)	Com-Power	LI-215A	191951	August 16, 2022	August 16, 2023
Attenuator 10 dB	SureCall	SC-ATT-10	17100025	December 7, 2021	December 7, 2022
Computer	Hewlett Packard	p6716f	MXX1030PX0	N/A	N/A
LCD Monitor	Hewlett Packard	52031a	3CQ046N3MG	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 of this report for emissions test location.

6.2 EUT Mounting, Bonding and Grounding

For frequencies 1 GHz and below: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

For frequencies above 1 GHz: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 1.5 meters above the ground plane.

For conducted AC emissions (charging mode only): The EUT was mounted on a 0.6 by 1.2 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded during testing.

6.3 Measurement Uncertainty

Compatible Electronics' U_{lab} value is less than U_{cispr} , thus based on this – compliance is deemed to occur if no measured disturbance exceeds the disturbance limit

$$u_c(y) = \sqrt{\sum_i c_i^2 u^2(x_i)}$$

Measurement		U_{cispr}	$U_{lab} = 2 u_c(y)$
Conducted disturbance (mains port)	(150 kHz – 30 MHz)	3.4 dB	2.72 dB
Radiated disturbance (electric field strength on an open area test site or alternative test site)	(30 MHz – 1 000 MHz)	6.3 dB	3.32 dB (Vertical) 3.30 dB (Horizontal)
Radiated disturbance (electric field strength on an open area test site or alternative test site)	(1 GHz - 6 GHz)	5.2 dB	4.06 dB
Radiated disturbance (electric field strength on an open area test site or alternative test site)	(6 GHz – 18 GHz)	5.5 dB	4.06 dB
Radiated disturbance (electric field strength on an open area test site or alternative test site)	(18 GHz – 26.5 GHz)	N/A	4.43 dB
Radiated disturbance (electric field strength on an open area test site or alternative test site)	(26.5 GHz – 40 GHz)	N/A	4.57 dB

7. CHARACTERISTICS OF THE TRANSMITTER

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 Channel Description and Frequencies

The EUT uses a total of 40 channels (every 2 MHz).

The low channel is 2402 MHz
The middle channel is 2440 MHz
The high channel is 2480 MHz

7.2 Antenna Gain

The EUT utilizes a ceramic antenna that has a peak gain of 1.88 dBi.



8. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

8.1 RF Emissions

8.1.1 Conducted Emissions Test

The EMI Receiver was used as a measuring meter. A quasi-peak and/or average reading was taken only where indicated in the data sheets. A 10 dB attenuator was used for the protection of the EMI Receiver input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the EMI Receiver. The output of the second LISN was terminated by a 50-ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding, and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI 63:4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by computer software. The final qualification data is located in Appendix E.

The six highest emissions are listed in Table 1.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B. Please see Appendix E for the data sheets.

8.1.2 Radiated Emissions Test

The EMI Receiver was used as the measuring meter. Above 1000 MHz, preamplifiers were used to increase the sensitivity of the instrument. The EMI Receiver was initially used with the Analyzer mode feature activated. In this mode, the EMI receiver can then record the actual frequency to be measured. This final reading is then taken accurately in the EMI Receiver mode, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit. The effective measurement bandwidth used for the radiated emissions test was according to the frequency measured.

The frequencies below 1 GHz were quasi-peaked using the quasi-peak detector of the EMI Receiver.

The frequencies above 1 GHz were averaged using the RMS average detector of the EMI Receiver.

The EMI test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is in full compliance with ANSI C63.4 and ANSI C63.10. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The EUT was tested at a 3-meter test distance. The six highest emissions are listed in Table 2.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Loop Antenna
150 kHz to 30 MHz	9 kHz	Loop Antenna
30 MHz to 1 GHz	120 kHz	CombiLog Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C sections 15.205, 15.209 and 15.247 (d). Please see Appendix E for the data sheets.



8.1.3 RF Emissions Test Results

Table 1 CONDUCTED EMISSION RESULTS
iWear Glasses
Model: IW100

Frequency (MHz)	Average Corrected Reading* (dBμV)	Average Specification Limit (dBμV)	Delta (Cor. Reading – Spec. Limit) (dB)
0.158 (BL) (CM)	35.00	55.24	-20.24
0.174 (BL) (CM)	33.94	54.20	-20.25
0.210 (BL) (CM)	32.70	53.12	-20.42
0.218 (BL) (CM)	32.20	52.63	-20.43
0.182 (BL) (CM)	33.60	54.06	-20.45
0.166 (BL) (CM)	33.58	54.11	-20.52

Table 2 RADIATED EMISSION RESULTS
iWear Glasses
Model: IW100

Frequency MHz	Quasi-Peak EMI Reading* (dBuV)	Specification Limit (dBuV)	Delta (Cor. Reading – Spec. Limit) (dB)
2483.50 (V) (Tx) (Z-axis) (BE)	42.43	53.97	-11.54
2390.00 (H) (Tx) (X-axis) (BE)	42.39	53.97	-11.58
2483.50 (H) (Tx) (X-axis) (BE)	42.21	53.97	-11.76
2390.00 (V) (Tx) (Z-axis) (BE)	41.83	53.97	-12.14
2483.50 (V) (Tx) (Z-axis) (BE)	41.57	53.97	-12.40
2483.50 (H) (Tx) (x-axis) (BE)	40.50	53.97	-13.47

Notes:

* The complete emissions data is given in Appendix E of this report.

(Tx) Transmit

(V) Vertical

(H) Horizontal

(BE) Band Edge

(CM) AC Charging Mode

8.1.4 Sample Calculations

A correction factor for the antenna, cable and a distance factor (if any) must be applied to the meter reading before a true field strength reading can be obtained. This Corrected Meter Reading is then compared to the specification limit in order to determine compliance with the limits.

Conversion to logarithmic terms: Specification limit ($\mu\text{V/m}$) $\log \times 20$ = Specification Limit in dBuV/m

To correct for distance when measuring at a distance other than the specification

For measurements below 30 MHz: (Specification distance / test distance) $\log \times 40$ = distance factor

For measurements above 30 MHz: (Specification distance / test distance) $\log \times 20$ = distance factor

Note: When using an Active Antenna, the Antenna factor shall be subtracted due to the combination of the internal amplification and antenna loss.

Corrected Meter Reading = meter reading + F – A + C

where: F = antenna factor

A = amplifier gain

C = cable loss

The correction factors for the antenna and the amplifier gain are attached in Appendix D of this report. The data sheets are attached in Appendix E.

The distance factor D is 0 when the test is performed at the required specification distance.

8.2 DTS Bandwidth

The DTS Bandwidth was measured using the EMI Receiver. The following steps were performed for measuring the DTS Bandwidth.

1. Set RBW = 100 kHz
2. Set the video bandwidth (VBW) to equal or greater than 3 times the RBW
3. Detector = Peak
4. Trace Mode = Max Hold
5. Sweep = Auto Couple
6. Allow the trace to stabilize
7. 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 Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(2).

8.3 Maximum Peak Conducted Output Power

The Maximum Peak Conducted Output Power was measured using the EMI Receiver. The Maximum Peak Conducted Output Power was measured using the procedure described in section 11.9.1.1 of ANSI C63.10. The Maximum Peak Conducted Output Power was then taken. The following steps were performed for measuring the Maximum Peak Conducted Output Power.

1. Set the RBW $\geq$ DTS bandwidth
2. Set VBW $\geq$ [3 x RBW]
3. Set span $\geq$ [3 x RBW]
4. Sweep time = auto couple
5. Detector = peak
6. Trace mode = max hold
7. Allow trace to fully stabilize
8. Use peak marker function to determine the peak amplitude level

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (b)(3).

8.4 Emissions in Non-restricted Frequency Bands

The emissions in the non-restricted frequency bands measurements were performed using the EMI receiver directly connected to the EUT. The reference level was established by setting the instrument center frequency to the DTS channel center frequency. The span was set to ≥ 1.5 times the DTS bandwidth. The RBW was set to 100 kHz and the VBW was set to 300 kHz. A peak detector was used with sweep set to auto. A max hold trace was used and allowed to fully stabilize. The peak marker function was used to determine the reference level. For emission level measurement, the center frequency and span were set to encompass the frequency range to be measured. The RBW was set to 100 kHz and the VBW was set to 300 kHz. A peak detector was used with a sweep time set to auto. The number of measurement points were greater than the span/RBW. A max hold trace was used and allowed to fully stabilize. The peak marker function was used to determine the maximum amplitude level. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d).

8.5 RF Band Edges

The RF band edges were taken at 2390 MHz when the EUT was on the low channel and 2483.5 MHz when the EUT was on the high channel using the EMI Receiver. A preamplifier was used to boost the signal level, with the plots being taken at a 3 meter test distance. The radiated emissions test procedure as describe in section 8.1.2 of this test report was used to maximize the emission.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d). The RF power at the restricted bands closest to the band edges at 2390 MHz and 2483.5 MHz also meet the limits of section 15.209. Please see the data sheets located in Appendix E.

8.6 Spectral Density Test

The spectrum density output was measured using the EMI Receiver. The spectral density output was measured using a direct connection from the RF out on the EUT into the input of the EMI Receiver. The following steps were performed for measuring the spectral density.

1. Set analyzer center frequency to DTS channel center frequency
2. Set the span to 1.5 times the OBW.
3. Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
4. Set the VBW $\geq [3 \times \text{RBW}]$
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow the trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (e).

8.7 Variation of the Input Power

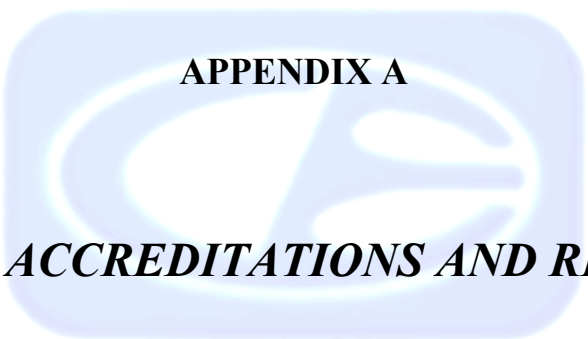
The variation of the input power test was performed using the EMI Receiver. The EUT input power was varied between 85 % and 115 % of the nominal rated supply voltage. The carrier frequency was monitored for any change in amplitude.

Test Results:

This test was not performed because the EUT only transmits while being powered by an internal lithium battery.

9. CONCLUSIONS

The iWear Glasses, Model: IW100 (EUT), as tested, meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.247.



APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

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LABORATORY ACCREDITATIONS AND RECOGNITIONS



For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025.

For the most up-to-date version of our scopes and certificates please visit

<http://celectronics.com/quality/scope/>

Quote from ISO-ILAC-IAF Communiqué on the Management Systems Requirements of ISO/IEC 17025, General Requirements for the competence of testing and calibration laboratories:

"A laboratory's fulfilment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001"

ISED Test Site Registration Number: 2154A

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and C, and FCC 15.247 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during the testing.



APPENDIX C

***MODELS COVERED
UNDER THIS REPORT***

MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

iWear Glasses
Model: IW100
Serial Number: N/A

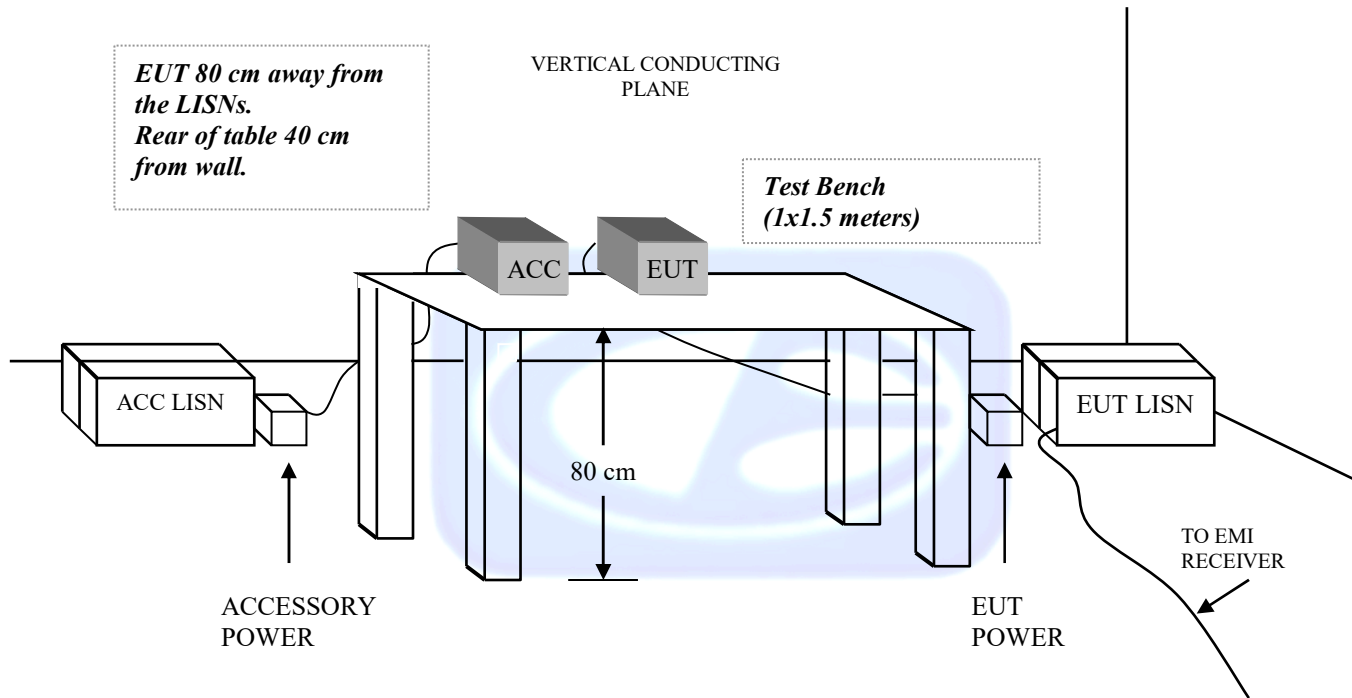
There are no additional models covered under this report.



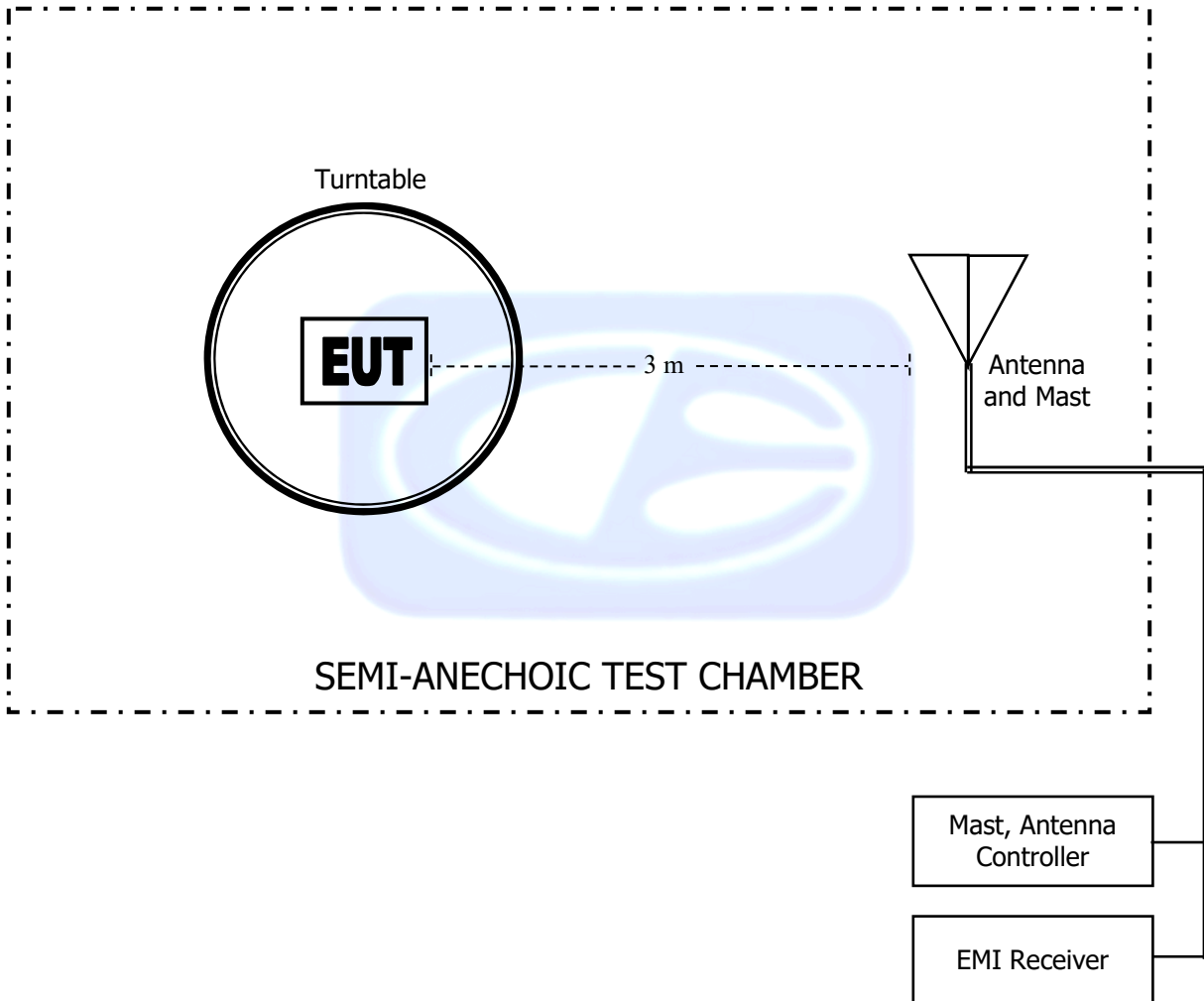
APPENDIX D

DIAGRAMS AND CHARTS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP



***FIGURE 2: LAYOUT OF THE
SEMI-ANECHOIC TEST CHAMBER***



COM-POWER AL-130R**LOOP ANTENNA****S/N: 121090****CALIBRATION DATE: FEBRUARY 10, 2022**

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	15.6	-35.8
0.01	15.8	-35.6
0.02	14.8	-36.6
0.03	15.6	-35.9
0.04	15.0	-36.5
0.05	14.4	-37.1
0.06	14.6	-36.9
0.07	14.3	-37.2
0.08	14.3	-37.2
0.09	14.4	-37.0
0.10	14.1	-37.4
0.20	14.1	-37.4
0.30	14.0	-37.5
0.40	13.9	-37.6
0.50	14.1	-37.3
0.60	14.1	-37.3
0.70	14.2	-37.3
0.80	14.2	-37.3
0.90	14.2	-37.2
1.00	14.4	-37.0
2.00	14.6	-36.9
3.00	14.6	-36.8
4.00	14.9	-36.6
5.00	14.9	-36.7
6.00	14.8	-36.7
7.00	14.6	-36.8
8.00	14.5	-37.0
9.00	14.3	-37.2
10.00	14.5	-37.0
11.00	14.6	-36.9
12.00	14.7	-36.7
13.00	14.9	-36.6
14.00	15.0	-36.5
15.00	14.9	-36.6
16.00	14.9	-36.6
17.00	14.6	-36.8
18.00	14.4	-37.1
19.00	14.5	-37.0
20.00	14.5	-37.0
21.00	14.2	-37.3
22.00	13.9	-37.5
23.00	13.9	-37.5
24.00	13.8	-37.7
25.00	13.4	-38.0
26.00	13.2	-38.2
27.00	13.2	-38.3
28.00	12.7	-38.7
29.00	12.7	-38.8
30.00	12.4	-39.0

COM-POWER AC-220**COMBILOG ANTENNA****S/N: 61093****CALIBRATION DATE: DECEMBER 14, 2021**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	22.50	200	16.00
35	21.40	250	17.40
40	21.00	300	19.70
45	20.60	350	20.00
50	19.70	400	22.20
60	16.10	450	22.40
70	12.80	500	23.10
80	12.50	550	23.40
90	14.20	600	24.90
100	15.40	650	25.30
120	16.50	700	25.40
125	16.80	750	26.40
140	15.90	800	26.70
150	16.60	850	27.10
160	18.50	900	27.90
175	15.90	950	28.00
180	15.50	1000	28.00

COM POWER AH-118**HORN ANTENNA****S/N: 10050113****CALIBRATION DATE: DECEMBER 16, 2021**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	23.86	10.0	38.91
1.5	25.67	10.5	39.94
2.0	28.25	11.0	39.10
2.5	29.17	11.5	39.70
3.0	29.78	12.0	40.29
3.5	30.88	12.5	41.93
4.0	31.21	13.0	41.34
4.5	32.96	13.5	40.57
5.0	33.30	14.0	40.23
5.5	34.24	14.5	42.25
6.0	34.57	15.0	43.63
6.5	35.61	15.5	39.96
7.0	36.60	16.0	40.38
7.5	37.49	16.5	40.56
8.0	37.44	17.0	40.93
8.5	37.98	17.5	42.27
9.0	38.01	18.0	43.77
9.5	38.53		

COM-POWER AH-826**HORN ANTENNA****S/N: 71957**

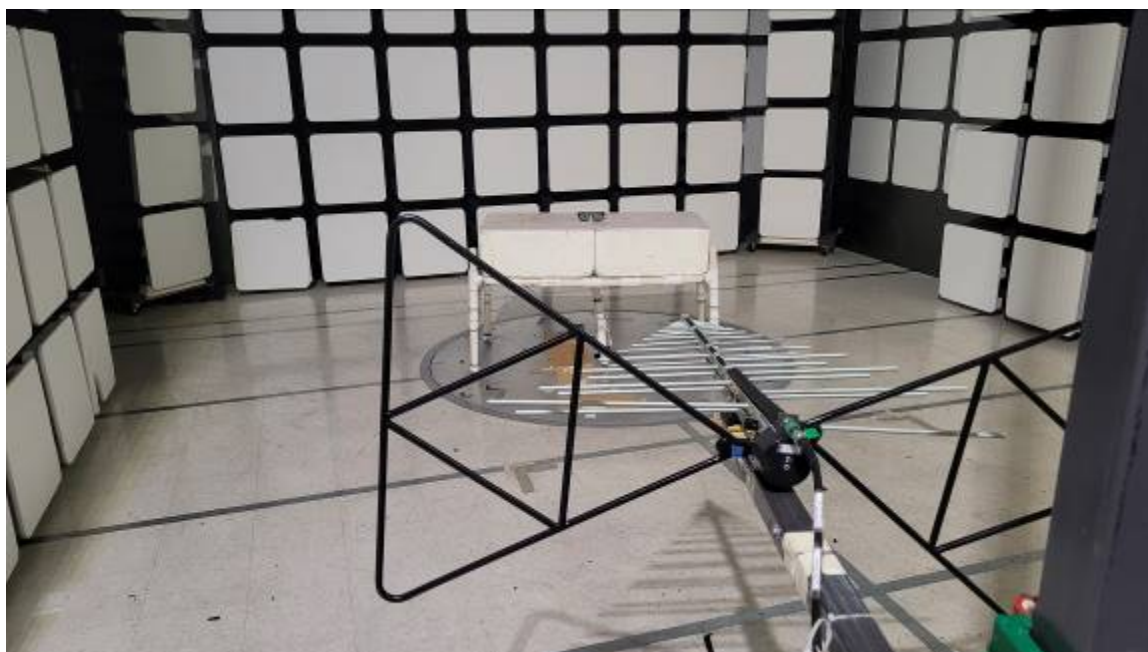
FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	33.5	22.5	35.5
18.5	33.5	23.0	35.9
19.0	34.0	23.5	35.7
19.5	34.0	24.0	35.6
20.0	34.3	24.5	36.0
20.5	34.9	25.0	36.2
21.0	34.7	25.5	36.1
21.5	35.0	26.0	36.2
22.0	35.0	26.5	35.7

COM-POWER PAM-118**PREAMPLIFIER****S/N: 181653****CALIBRATION DATE: MARCH 7, 2022**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	40.02	6.0	38.84
1.1	39.72	6.5	39.20
1.2	39.93	7.0	39.46
1.3	39.98	7.5	39.67
1.4	39.99	8.0	39.28
1.5	40.20	8.5	38.63
1.6	40.05	9.0	38.96
1.7	40.15	9.5	39.33
1.8	40.20	10.0	39.58
1.9	40.33	11.0	38.25
2.0	40.33	12.0	40.03
2.5	40.60	13.0	40.55
3.0	40.76	14.0	40.36
3.5	40.87	15.0	39.34
4.0	40.39	16.0	37.34
4.5	39.55	17.0	42.14
5.0	40.34	18.0	42.54
5.5	39.45		

COM-POWER PA-840**MICROWAVE PREAMPLIFIER****S/N: 711013****CALIBRATION DATE: APRIL 8, 2022**

FREQUENCY (GHz)	FACTOR (dB)
18.0	24.85
19.0	24.25
20.0	22.69
21.0	22.17
22.0	22.78
23.0	23.23
24.0	23.72
25.0	24.13
26.0	24.28
26.5	25.06



FRONT VIEW

TRANSMIT MODE

PERCEPT CORPORATION

iWEAR GLASSES

MODEL: IW100

FCC SUBPART B AND C– RADIATED EMISSIONS – BELOW 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

TRANSMIT MODE

PERCEPT CORPORATION

iWEAR GLASSES

MODEL: IW100

FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

AC CHARGING MODE

PERCEPT CORPORATION
iWEAR GLASSES
MODEL: IW100

FCC SUBPART B – RADIATED EMISSIONS – BELOW 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

AC CHARGING MODE

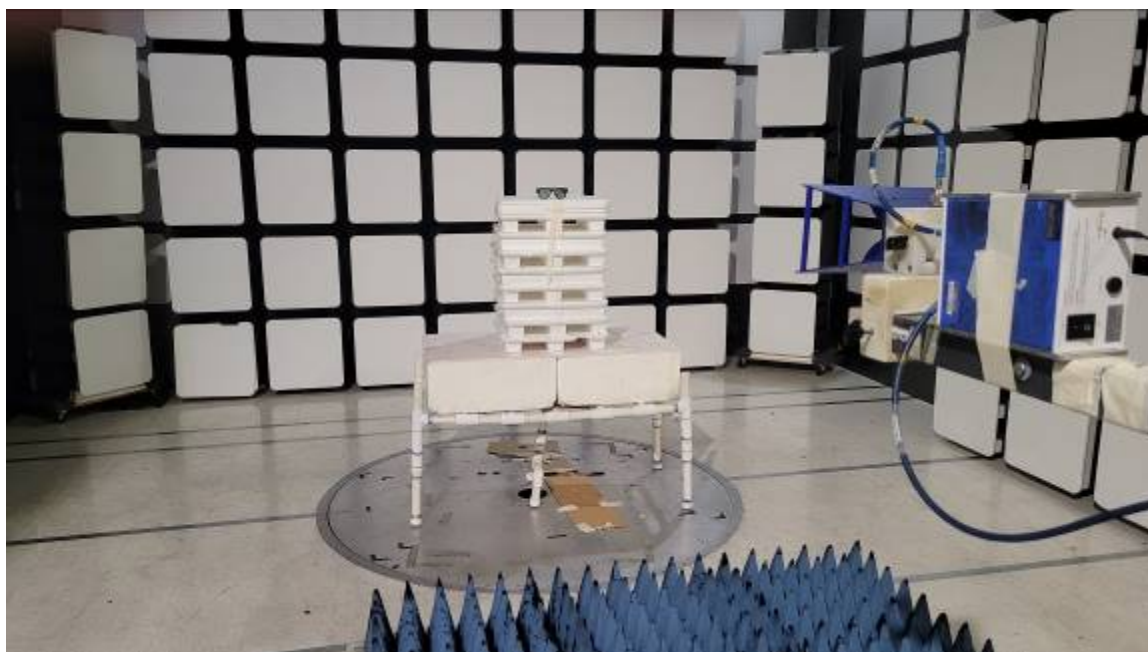
PERCEPT CORPORATION

iWEAR GLASSES

MODEL: IW100

FCC SUBPART B – RADIATED EMISSIONS – BELOW 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



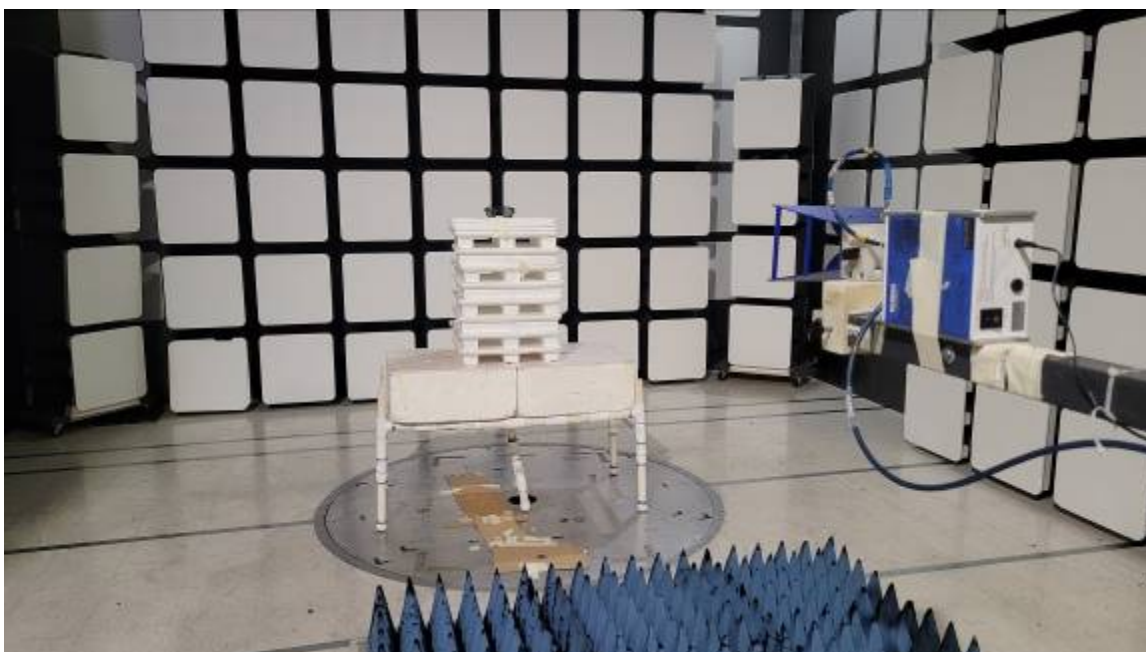
FRONT VIEW

TRANSMIT MODE

PERCEPT CORPORATION
iWEAR GLASSES
MODEL: IW100

FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



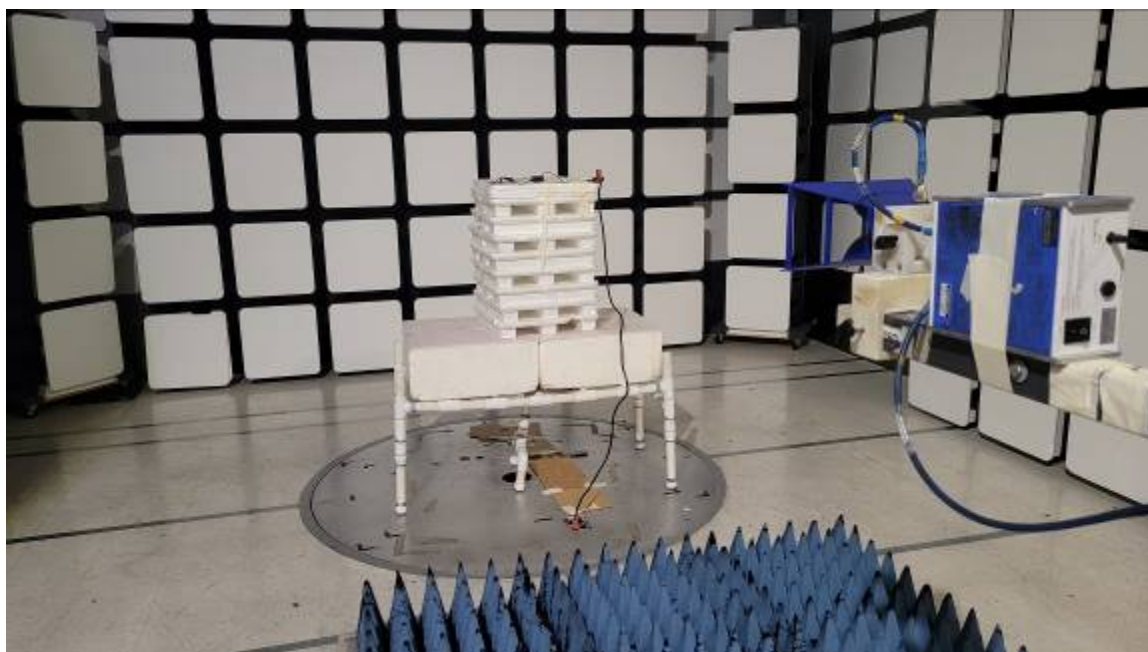
REAR VIEW

TRANSMIT MODE

PERCEPT CORPORATION
iWEAR GLASSES
MODEL: IW100

FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

AC CHARGING MODE

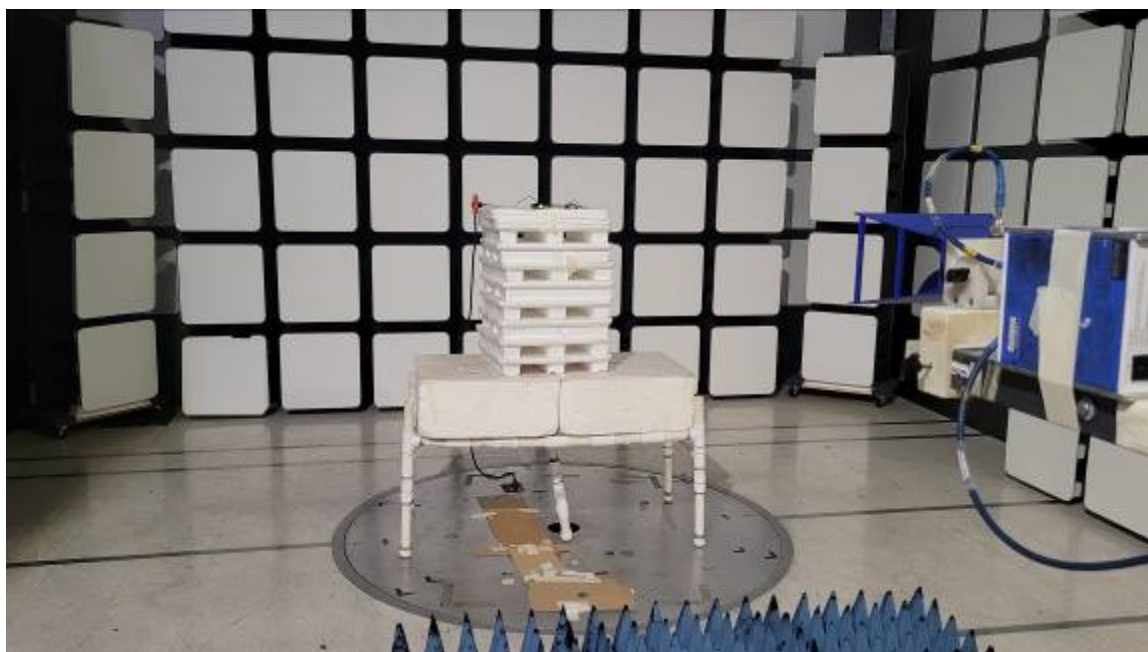
PERCEPT CORPORATION

iWEAR GLASSES

MODEL: IW100

FCC SUBPART B – RADIATED EMISSIONS – ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

AC CHARGING MODE

PERCEPT CORPORATION

iWEAR GLASSES

MODEL: IW100

FCC SUBPART B – RADIATED EMISSIONS – ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

AC CHARGING MODE

PERCEPT CORPORATION

iWEAR GLASSES

MODEL: IW100

FCC SUBPART B – CONDUCTED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

AC CHARGING MODE

PERCEPT CORPORATION

iWEAR GLASSES

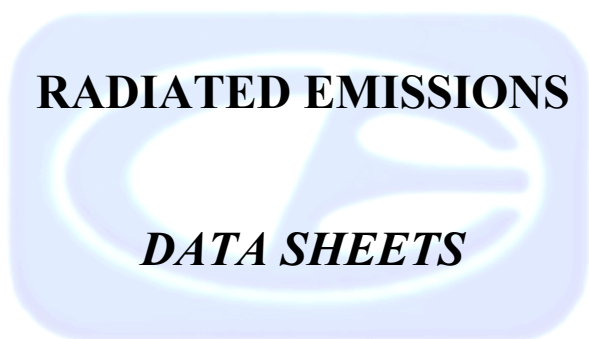
MODEL: IW100

FCC SUBPART B – CONDUCTED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

APPENDIX E

DATA SHEETS



RADIATED EMISSIONS

DATA SHEETS

TRANSMIT HARMONICS
PHY 1 BW MODE (1 Mbps)

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - X-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.68	V	73.97	-34.29	Peak	320.75	175.22	
4804.00	27.52	V	53.97	-26.45	Avg	320.75	175.22	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	48.39	V	73.97	-25.58	Peak	216.75	126.74	
12010.00	36.38	V	53.97	-17.59	Avg	216.75	126.74	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

**Harmonics - Low Channel
Transmit Mode - Y-Axis - 1 Mbps**

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	38.80	V	73.97	-35.17	Peak	306.75	191.28	
4804.00	27.24	V	53.97	-26.73	Avg	306.70	191.28	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.81	V	73.97	-26.16	Peak	57.50	111.46	
12010.00	36.21	V	53.97	-17.76	Avg	57.50	111.46	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Z-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.33	V	73.97	-34.64	Peak	332.25	143.40	
4804.00	27.36	V	53.97	-26.61	Avg	332.25	143.40	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	48.11	V	73.97	-25.86	Peak	100.50	159.28	
12010.00	36.31	V	53.97	-17.66	Avg	100.50	159.28	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - X-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.23	H	73.97	-34.74	Peak	288.00	239.16	
4804.00	27.19	H	53.97	-26.78	Avg	288.00	239.16	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.94	H	73.97	-26.03	Peak	247.75	249.02	
12010.00	36.03	H	53.97	-17.94	Avg	247.75	249.02	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Y-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	38.84	H	73.97	-35.13	Peak	46.25	239.10	
4804.00	27.25	H	53.97	-26.72	Avg	46.25	239.10	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.98	H	73.97	-25.99	Peak	84.50	143.34	
12010.00	36.12	H	53.97	-17.85	Avg	84.50	143.34	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Z-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	40.40	H	73.97	-33.57	Peak	335.75	159.34	
4804.00	28.75	H	53.97	-25.22	Avg	335.75	159.34	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	50.14	H	73.97	-23.83	Peak	43.25	127.34	
12010.00	36.65	H	53.97	-17.32	Avg	43.25	127.34	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - X-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	37.58	V	73.97	-36.39	Peak	65.25	191.04	
4880.00	25.81	V	53.97	-28.16	Avg	65.25	191.04	
7320.00	43.26	V	73.97	-30.71	Peak	58.75	159.16	
7320.00	31.35	V	53.97	-22.62	Avg	58.75	159.16	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.97	V	73.97	-26.00	Peak	201.25	207.28	
12200.00	36.26	V	53.97	-17.71	Avg	201.25	207.28	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - Y-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	38.09	V	73.97	-35.88	Peak	197.50	175.82	
4880.00	25.76	V	53.97	-28.21	Avg	197.50	175.82	
7320.00	42.95	V	73.97	-31.02	Peak	71.25	191.16	
7320.00	31.22	V	53.97	-22.75	Avg	71.25	191.16	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.87	V	73.97	-26.10	Peak	62.75	175.52	
12200.00	36.21	V	53.97	-17.76	Avg	62.75	175.52	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

**Harmonics - Middle Channel
Transmit Mode - Z-Axis - 1 Mbps**

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	37.65	V	73.97	-36.32	Peak	247.00	207.94	
4880.00	25.72	V	53.97	-28.25	Avg	247.00	207.94	
7320.00	43.01	V	73.97	-30.96	Peak	91.00	223.22	
7320.00	31.22	V	53.97	-22.75	Avg	91.00	223.22	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.90	V	73.97	-26.07	Peak	287.50	249.92	
12200.00	36.25	V	53.97	-17.72	Avg	287.50	249.92	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - X-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	38.38	H	73.97	-35.59	Peak	316.00	239.22	
4880.00	25.73	H	53.97	-28.24	Avg	316.00	239.22	
7320.00	42.97	H	73.97	-31.00	Peak	190.25	192.00	
7320.00	31.23	H	53.97	-22.74	Avg	190.25	192.00	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	48.01	H	73.97	-25.96	Peak	233.00	143.52	
12200.00	36.33	H	53.97	-17.64	Avg	233.00	143.52	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

**Harmonics - Middle Channel
Transmit Mode - Y-Axis - 1 Mbps**

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	37.58	H	73.97	-36.39	Peak	27.00	127.34	
4880.00	25.81	H	53.97	-28.16	Avg	27.00	127.34	
7320.00	42.99	H	73.97	-30.98	Peak	60.75	238.98	
7320.00	31.23	H	53.97	-22.74	Avg	60.75	238.98	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	48.06	H	73.97	-25.91	Peak	276.00	223.28	
12200.00	36.18	H	53.97	-17.79	Avg	276.00	223.28	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

**Harmonics - Middle Channel
Transmit Mode - Z-Axis - 1 Mbps**

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	38.67	H	73.97	-35.30	Peak	108.75	223.10	
4880.00	25.65	H	53.97	-28.32	Avg	108.75	223.10	
7320.00	43.94	H	73.97	-30.03	Peak	34.75	207.04	
7320.00	31.21	H	53.97	-22.76	Avg	34.75	207.04	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.95	H	73.97	-26.02	Peak	309.50	221.85	
12200.00	36.13	H	53.97	-17.84	Avg	309.50	221.85	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - X-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.75	V	73.97	-36.22	Peak	359.75	191.16	
4960.00	25.81	V	53.97	-28.16	Avg	359.75	191.16	
7440.00	43.93	V	73.97	-30.04	Peak	274.75	249.02	
7440.00	31.72	V	53.97	-22.25	Avg	274.75	249.02	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	48.84	V	73.97	-25.13	Peak	108.00	127.28	
12400.00	37.35	V	53.97	-16.62	Avg	108.00	127.28	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Y-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.54	V	73.97	-36.43	Peak	225.50	175.16	
4960.00	25.84	V	53.97	-28.13	Avg	225.50	175.16	
7440.00	43.68	V	73.97	-30.29	Peak	322.00	111.52	
7440.00	31.76	V	53.97	-22.21	Avg	322.00	111.52	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.34	V	73.97	-24.63	Peak	172.25	239.22	
12400.00	37.17	V	53.97	-16.80	Avg	172.25	239.22	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Z-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.83	V	73.97	-36.14	Peak	268.75	176.35	
4960.00	25.93	V	53.97	-28.04	Avg	268.75	176.35	
7440.00	44.07	V	73.97	-29.90	Peak	138.00	207.22	
7440.00	31.74	V	53.97	-22.23	Avg	138.00	207.22	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.12	V	73.97	-24.85	Peak	168.75	158.98	
12400.00	37.22	V	53.97	-16.75	Avg	168.75	158.98	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - X-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.36	H	73.97	-36.61	Peak	159.25	207.16	
4960.00	25.68	H	53.97	-28.29	Avg	159.25	207.16	
7440.00	43.41	H	73.97	-30.56	Peak	34.75	175.46	
7440.00	31.55	H	53.97	-22.42	Avg	34.75	175.46	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.09	H	73.97	-24.88	Peak	310.25	143.22	
12400.00	37.20	H	53.97	-16.77	Avg	310.25	143.22	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Y-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.45	H	73.97	-36.52	Peak	151.25	159.22	
4960.00	25.64	H	53.97	-28.33	Avg	151.25	159.22	
7440.00	43.21	H	73.97	-30.76	Peak	124.50	159.94	
7440.00	31.61	H	53.97	-22.36	Avg	24.50	159.94	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	48.98	H	73.97	-24.99	Peak	40.25	222.92	
12400.00	37.07	H	53.97	-16.90	Avg	40.25	222.92	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Z-Axis - 1 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.71	H	73.97	-36.26	Peak	306.50	127.40	
4960.00	25.87	H	53.97	-28.10	Avg	306.50	127.40	
7440.00	43.30	H	73.97	-30.67	Peak	225.25	111.46	
7440.00	31.76	H	53.97	-22.21	Avg	225.25	111.46	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.01	H	73.97	-24.96	Peak	288.25	159.22	
12400.00	37.26	H	53.97	-16.71	Avg	288.25	159.22	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept
Corporation
iWear Glasses
Model: IW100

Date: 11/22/2022
Lab: D
Tested By: Kyle Fujimoto

Non Harmonic Emissions from the Tx and Digital Portion - 9 kHz to 30 MHz

Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25 GHz

1

Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
								No Emissions Detected from 9 kHz to 30 MHz for the digital portion of the EUT
								No Emissions Detected from 9 kHz to 30 MHz for the Non-Harmonic Emissions of the Transmitter for the EUT
								No Emissions Detected from 1 GHz to 25 GHz for the digital portion of the EUT
								No Emissions Detected from 1 GHz to 25 GHz for the Non-Harmonic Emissions of the Transmitter for the EUT
								Investigated in the X-Axis, Y-Axis, and Z-Axis

TRANSMIT HARMONICS
PHY 2 BW MODE (2 Mbps)

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - X-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.21	V	73.97	-34.76	Peak	136.50	191.46	
4804.00	27.16	V	53.97	-26.81	Avg	136.50	191.46	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.76	V	73.97	-26.21	Peak	16.50	239.40	
12010.00	35.85	V	53.97	-18.12	Avg	16.50	239.40	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Y-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.22	V	73.97	-34.75	Peak	144.00	239.28	
4804.00	27.09	V	53.97	-26.88	Avg	144.00	239.28	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.51	V	73.97	-26.46	Peak	223.25	207.22	
12010.00	35.96	V	53.97	-18.01	Avg	223.25	207.22	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Z-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.49	V	73.97	-34.48	Peak	57.75	191.10	
4804.00	27.31	V	53.97	-26.66	Avg	57.75	191.10	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.82	V	73.97	-26.15	Peak	301.75	127.58	
12010.00	36.13	V	53.97	-17.84	Avg	301.75	127.58	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - X-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.11	H	73.97	-34.86	Peak	22.25	159.22	
4804.00	27.13	H	53.97	-26.84	Avg	22.25	159.22	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.46	H	73.97	-26.51	Peak	90.50	143.40	
12010.00	35.89	H	53.97	-18.08	Avg	90.50	143.40	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Y-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	39.21	H	73.97	-34.76	Peak	263.00	111.34	
4804.00	27.18	H	53.97	-26.79	Avg	263.00	111.34	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.62	H	73.97	-26.35	Peak	297.50	249.08	
12010.00	35.89	H	53.97	-18.08	Avg	297.50	249.08	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Low Channel
Transmit Mode - Z-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4804.00	38.83	H	73.97	-35.14	Peak	191.75	175.28	
4804.00	27.10	H	53.97	-26.87	Avg	191.75	175.28	
7206.00								Not in Restricted Band
7206.00								Done via Conducted
9608.00								Not in Restricted Band
9608.00								Done via Conducted
12010.00	47.89	H	73.97	-26.08	Peak	29.75	159.16	
12010.00	35.93	H	53.97	-18.04	Avg	29.75	159.16	
14412.00								No Emission
14412.00								Detected
16814.00								No Emission
16814.00								Detected
19216.00								No Emission
19216.00								Detected
21618.00								No Emission
21618.00								Detected
24020.00								No Emission
24020.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - X-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	39.20	V	73.97	-34.77	Peak	207.50	112.59	
4880.00	26.33	V	53.97	-27.64	Avg	207.50	112.59	
7320.00	46.39	V	73.97	-27.58	Peak	199.50	127.52	
7320.00	33.21	V	53.97	-20.76	Avg	199.50	127.52	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.67	V	73.97	-26.30	Peak	119.00	127.34	
12200.00	36.11	V	53.97	-17.86	Avg	119.00	127.34	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - Y-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	37.88	V	73.97	-36.09	Peak	287.00	239.28	
4880.00	25.88	V	53.97	-28.09	Avg	287.00	239.28	
7320.00	45.59	V	73.97	-28.38	Peak	56.50	111.46	
7320.00	33.28	V	53.97	-20.69	Avg	56.50	111.46	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	48.16	V	73.97	-25.81	Peak	296.50	191.22	
12200.00	36.12	V	53.97	-17.85	Avg	296.50	191.22	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - Z-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	37.93	V	73.97	-36.04	Peak	265.50	239.28	
4880.00	26.28	V	53.97	-27.69	Avg	265.50	239.28	
7320.00	44.42	V	73.97	-29.55	Peak	58.75	127.34	
7320.00	32.29	V	53.97	-21.68	Avg	58.75	127.34	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.90	V	73.97	-26.07	Peak	125.50	111.46	
12200.00	36.08	V	53.97	-17.89	Avg	125.50	111.46	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - X-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	38.32	H	73.97	-35.65	Peak	219.00	111.76	
4880.00	26.58	H	53.97	-27.39	Avg	219.00	111.76	
7320.00	47.33	H	73.97	-26.64	Peak	181.50	143.34	
7320.00	34.01	H	53.97	-19.96	Avg	181.50	143.34	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	48.61	H	73.97	-25.36	Peak	17.25	191.28	
12200.00	36.03	H	53.97	-17.94	Avg	17.25	191.28	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Middle Channel
Transmit Mode - Y-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	38.06	H	73.97	-35.91	Peak	319.25	159.16	
4880.00	26.07	H	53.97	-27.90	Avg	319.25	159.16	
7320.00	45.44	H	73.97	-28.53	Peak	166.00	111.46	
7320.00	32.64	H	53.97	-21.33	Avg	166.00	111.46	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.78	H	73.97	-26.19	Peak	69.50	111.64	
12200.00	36.20	H	53.97	-17.77	Avg	69.50	111.64	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

**Harmonics - Middle Channel
Transmit Mode - Z-Axis - 2 Mbps**

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	37.66	H	73.97	-36.31	Peak	249.50	111.58	
4880.00	26.14	H	53.97	-27.83	Avg	249.50	111.58	
7320.00	47.57	H	73.97	-26.40	Peak	212.00	111.58	
7320.00	33.60	H	53.97	-20.37	Avg	212.00	111.58	
9760.00								Not in Restricted Band
9760.00								Done via Conducted
12200.00	47.59	H	73.97	-26.38	Peak	258.00	207.64	
12200.00	36.00	H	53.97	-17.97	Avg	258.00	207.64	
14640.00								No Emission
14640.00								Detected
17080.00								No Emission
17080.00								Detected
19520.00								No Emission
19520.00								Detected
21960.00								No Emission
21960.00								Detected
24400.00								No Emission
24400.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - X-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	38.55	V	73.97	-35.42	Peak	260.75	127.34	
4960.00	25.89	V	53.97	-28.08	Avg	260.75	127.34	
7440.00	48.96	V	73.97	-25.01	Peak	195.50	111.40	
7440.00	36.03	V	53.97	-17.94	Avg	195.50	111.40	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.33	V	73.97	-24.64	Peak	215.25	143.40	
12400.00	37.38	V	53.97	-16.59	Avg	215.25	143.40	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Y-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.79	V	73.97	-36.18	Peak	186.50	190.86	
4960.00	25.83	V	53.97	-28.14	Avg	186.50	190.86	
7440.00	48.70	V	73.97	-25.27	Peak	302.00	110.62	
7440.00	36.27	V	53.97	-17.70	Avg	302.00	110.62	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.74	V	73.97	-24.23	Peak	66.00	175.34	
12400.00	37.34	V	53.97	-16.63	Avg	66.00	175.34	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Z-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	38.16	V	73.97	-35.81	Peak	333.75	143.34	
4960.00	26.12	V	53.97	-27.85	Avg	333.75	143.34	
7440.00	50.13	V	73.97	-23.84	Peak	311.50	111.46	
7440.00	35.73	V	53.97	-18.24	Avg	311.50	111.46	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.26	V	73.97	-24.71	Peak	213.50	159.16	
12400.00	37.53	V	53.97	-16.44	Avg	213.50	159.16	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - X-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	38.11	H	73.97	-35.86	Peak	321.50	239.28	
4960.00	25.86	H	53.97	-28.11	Avg	321.50	239.28	
7440.00	49.08	H	73.97	-24.89	Peak	261.50	111.46	
7440.00	35.93	H	53.97	-18.04	Avg	261.50	111.46	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.22	H	73.97	-24.75	Peak	100.00	175.40	
12400.00	37.06	H	53.97	-16.91	Avg	100.00	175.40	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Y-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	37.73	H	73.97	-36.24	Peak	29.50	249.97	
4960.00	25.90	H	53.97	-28.07	Avg	29.50	249.97	
7440.00	46.10	H	73.97	-27.87	Peak	39.00	111.34	
7440.00	33.36	H	53.97	-20.61	Avg	39.00	111.34	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	49.31	H	73.97	-24.66	Peak	118.25	207.46	
12400.00	37.13	H	53.97	-16.84	Avg	118.25	207.46	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Harmonics - High Channel
Transmit Mode - Z-Axis - 2 Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	38.05	H	73.97	-35.92	Peak	35.00	143.28	
4960.00	26.07	H	53.97	-27.90	Avg	35.00	143.28	
7440.00	45.62	H	73.97	-28.35	Peak	153.25	127.40	
7440.00	32.23	H	53.97	-21.74	Avg	153.25	127.40	
9920.00								Not in Restricted Band
9920.00								Done via Conducted
12400.00	48.93	H	73.97	-25.04	Peak	217.00	239.10	
12400.00	37.28	H	53.97	-16.69	Avg	217.00	239.10	
14880.00								No Emission
14880.00								Detected
17360.00								No Emission
17360.00								Detected
19840.00								No Emission
19840.00								Detected
22320.00								No Emission
22320.00								Detected
24800.00								No Emission
24800.00								Detected

FCC 15.247

Percept
Corporation
iWear Glasses
Model: IW100

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

Non Harmonic Emissions from the Tx and Digital Portion - 9 kHz to 30 MHz

Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25 GHz

2

Mbps

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
								No Emissions Detected from 9 kHz to 30 MHz for the digital portion of the EUT
								No Emissions Detected from 9 kHz to 30 MHz for the Non-Harmonic Emissions of the Transmitter for the EUT
								No Emissions Detected from 1 GHz to 25 GHz for the digital portion of the EUT
								No Emissions Detected from 1 GHz to 25 GHz for the Non-Harmonic Emissions of the Transmitter for the EUT
								Investigated in the X-Axis, Y-Axis, and Z-Axis

SPURIOUS EMISSIONS

30 MHz – 1000 MHz

Title: Radiated Pre-Scan - FCC Class B
File: 1 - Keysight - Pre-Scan - FCC Class B - With PA-103 - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously transmitting at 2402 MHz
Company: Percept Corporation
Model: IW100
S/N: N//A
X-Axis Worst Case

11/22/2022 12:36:15 PM
Sequence: Preliminary Scan



Title: Radiated Final - FCC Class B
File: 1 - Keysight - Final Scan - FCC Class B - Normal Mode - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously transmitting at 2402 MHz
Company: Percept Corporation
Model: IW100
S/N: N/A

11/22/2022 1:58:40 PM
Sequence: Final Measurements

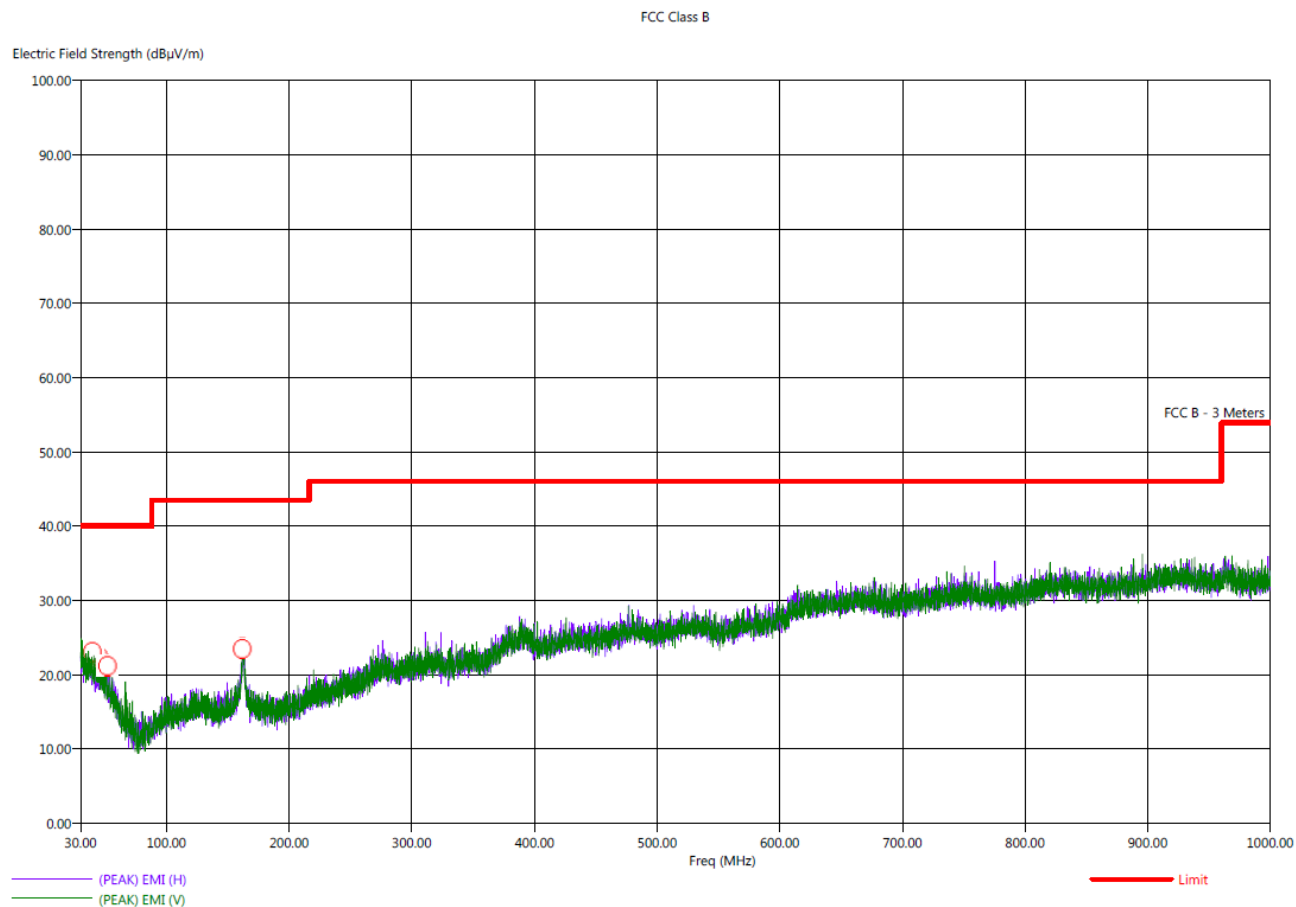
FCC Class B

Freq (MHz)	Pol	(PEAK) EMI (dB μ V/m)	(QP) EMI (dB μ V/m)	Limit (dB μ V/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Cable (dB)	Transducer (dB)	Ttbl Agl (deg)	Twr Ht (cm)
40.00	V	20.90	16.36	40.00	-19.10	-23.64	0.42	20.99	97.25	200.00
42.70	V	22.23	16.14	40.00	-17.77	-23.86	0.43	20.82	262.00	300.00
49.00	H	21.31	15.11	40.00	-18.69	-24.89	0.46	19.86	350.50	200.00
52.50	V	19.53	14.30	40.00	-20.47	-25.70	0.48	18.99	309.25	400.00
162.20	V	24.73	18.75	43.50	-18.77	-24.75	0.94	22.94	232.50	399.94
282.00	H	22.13	16.80	46.00	-23.87	-29.20	1.29	19.10	269.75	399.94



Title: Radiated Pre-Scan - FCC Class B
File: 1 - Keysight - Pre-Scan - FCC Class B - Charging Mode - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously charging the internal battery
Company: Percept Corporation
Model: IW100
S/N: N/A

11/22/2022 1:28:07 PM
Sequence: Preliminary Scan



Title: Radiated Final - FCC Class B
File: 1 - Keysight - Final Scan - FCC Class B - Charging Mode - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously charging the internal battery
Company: Percept Corporation
Model: IW100
S/N: N/A

11/22/2022 1:36:55 PM
Sequence: Final Measurements

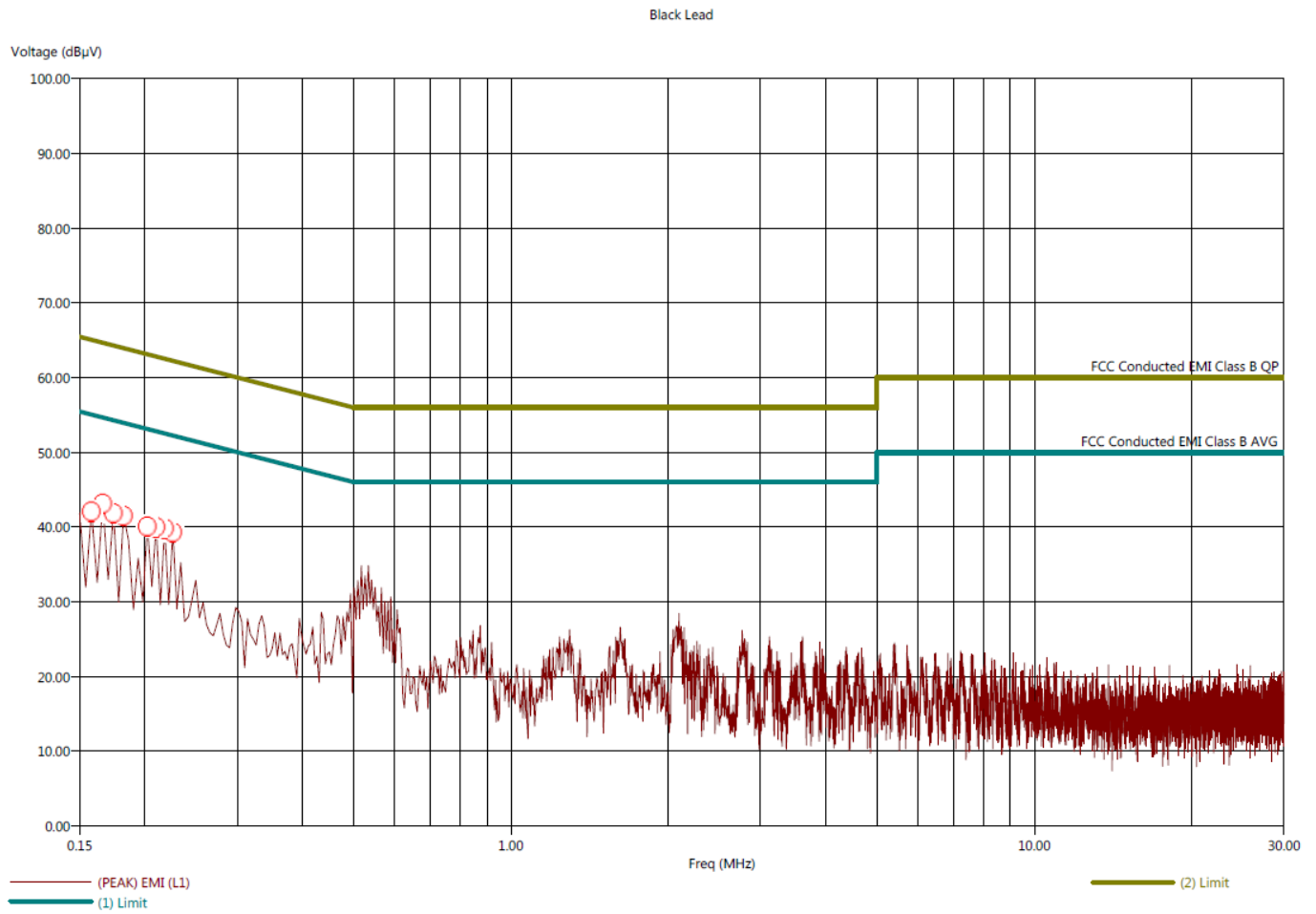
FCC Class B										
Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Cable (dB)	Transducer (dB)	Ttbl Agl (deg)	Twr Ht (cm)
39.50	H	23.51	18.71	40.00	-16.49	-21.29	0.42	21.00	252.00	400.05
44.90	H	22.96	18.29	40.00	-17.04	-21.71	0.44	20.62	170.75	300.00
48.30	H	22.95	17.72	40.00	-17.05	-22.28	0.45	20.07	239.50	100.00
51.80	V	21.66	16.85	40.00	-18.34	-23.15	0.47	19.26	77.00	300.05
161.80	V	25.05	20.40	43.50	-18.45	-23.10	0.93	22.65	150.25	399.94
162.00	H	25.77	20.13	43.50	-17.73	-23.37	0.93	22.43	58.75	200.05



CONDUCTED EMISSIONS
CHARGING MODE
DATA SHEETS

Title: FCC Class B - Black Lead
File: 2 - BL - Pre-Scan - Charging Mode - 11-22-2022.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously charging the internal battery
Company: Percept Corporation
Model: IW100
S/N: N/A

11/22/2022 2:47:50 PM
Sequence: Preliminary Scan



Title: FCC Class B - Black Lead
File: 2 - BL - Final Scan - Charging Mode - 11-22-2022.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously charging the internal battery
Company: Percept Corporation
Model: IW100
S/N: N/A

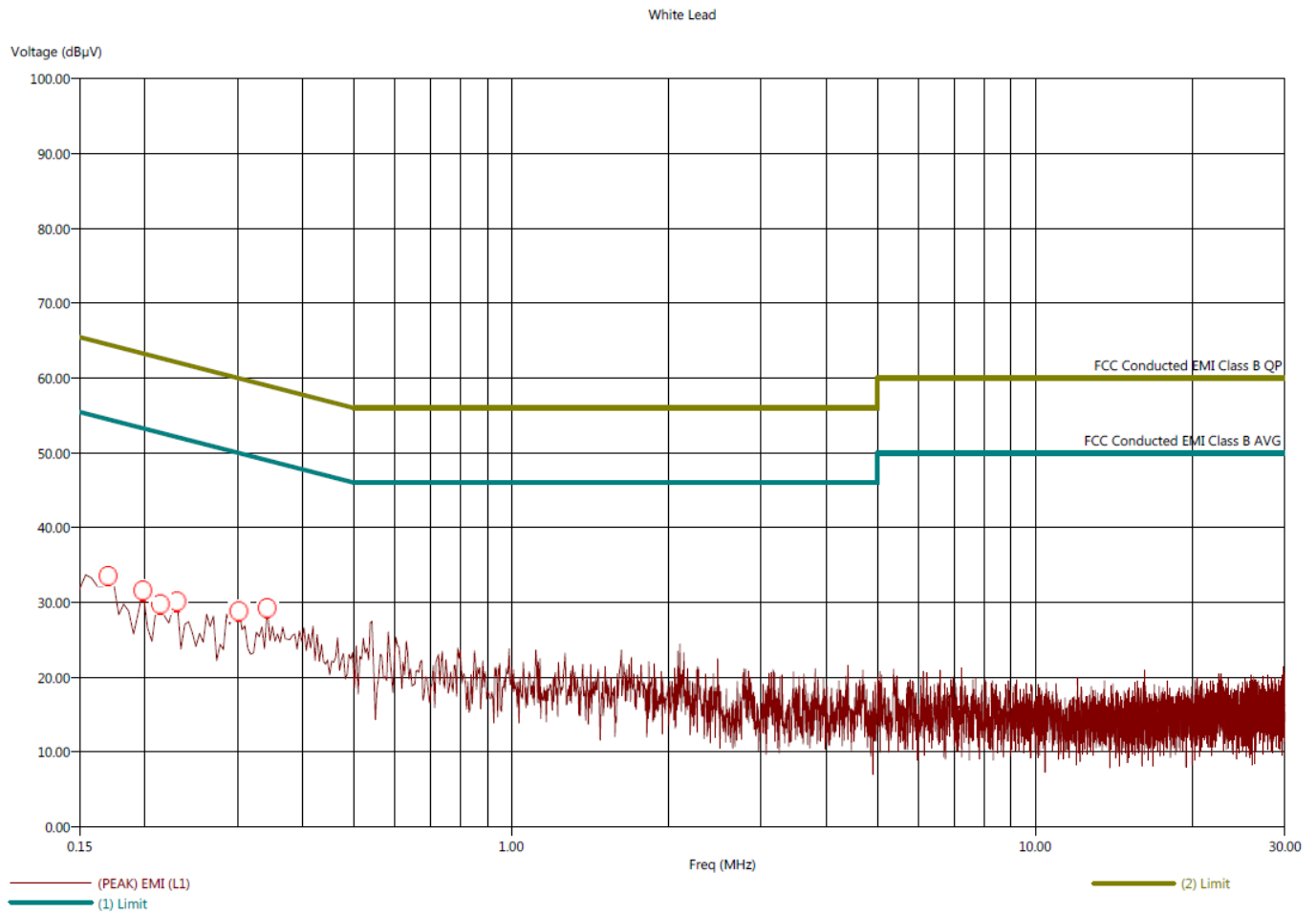
11/22/2022 2:51:42 PM
Sequence: Final Measurements

Black Lead - Average									
Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)	
0.158	47.95	35.00	-7.29	-20.24	55.24	0.01	0.19	10.00	
0.166	45.92	33.58	-8.18	-20.52	54.11	0.01	0.17	10.00	
0.174	47.50	33.94	-6.69	-20.25	54.20	0.01	0.17	10.00	
0.182	46.22	33.60	-7.83	-20.45	54.06	0.01	0.17	10.00	
0.202	45.33	32.09	-7.44	-20.68	52.77	0.01	0.16	10.00	
0.210	46.07	32.70	-7.05	-20.42	53.12	0.01	0.16	10.00	
0.218	46.22	32.20	-6.41	-20.43	52.63	0.01	0.16	10.00	
0.226	46.08	31.70	-6.19	-20.57	52.28	0.01	0.15	10.00	



Title: FCC Class B - White Lead
 File: 3 - WL - Pre-Scan - Charging Mode - 11-22-2022.set
 Operator: Kyle Fujimoto
 EUT Type: iWear Glasses
 EUT Condition: The EUT is continuously charging the internal battery
 Company: Percept Corporation
 Model: IW100
 S/N: N/A

11/22/2022 3:05:54 PM
 Sequence: Preliminary Scan



Title: FCC Class B - White Lead
File: 3 - WL - Final Scan - Charging Mode - 11-22-2022.set
Operator: Kyle Fujimoto
EUT Type: iWear Glasses
EUT Condition: The EUT is continuously charging the internal battery
Company: Percept Corporation
Model: IW100
S/N: N/A

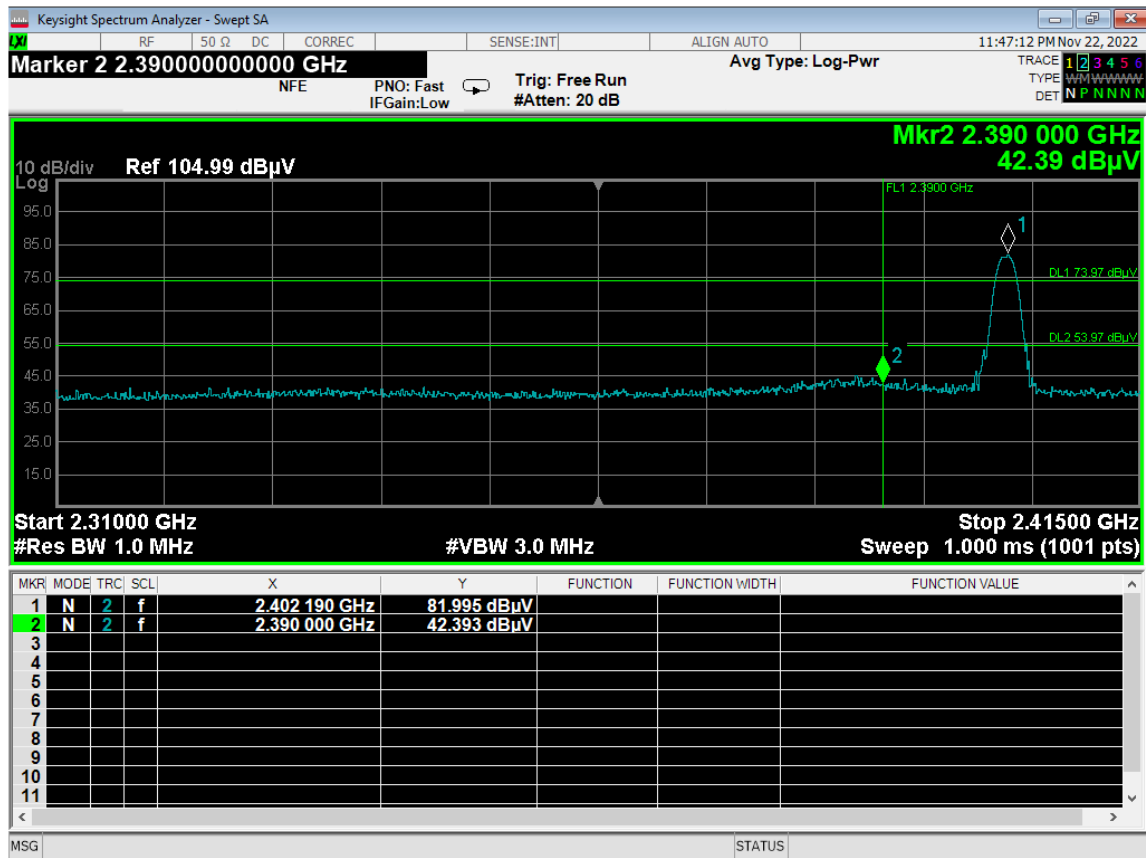
11/22/2022 3:07:41 PM
Sequence: Final Measurements

White Lead - Average

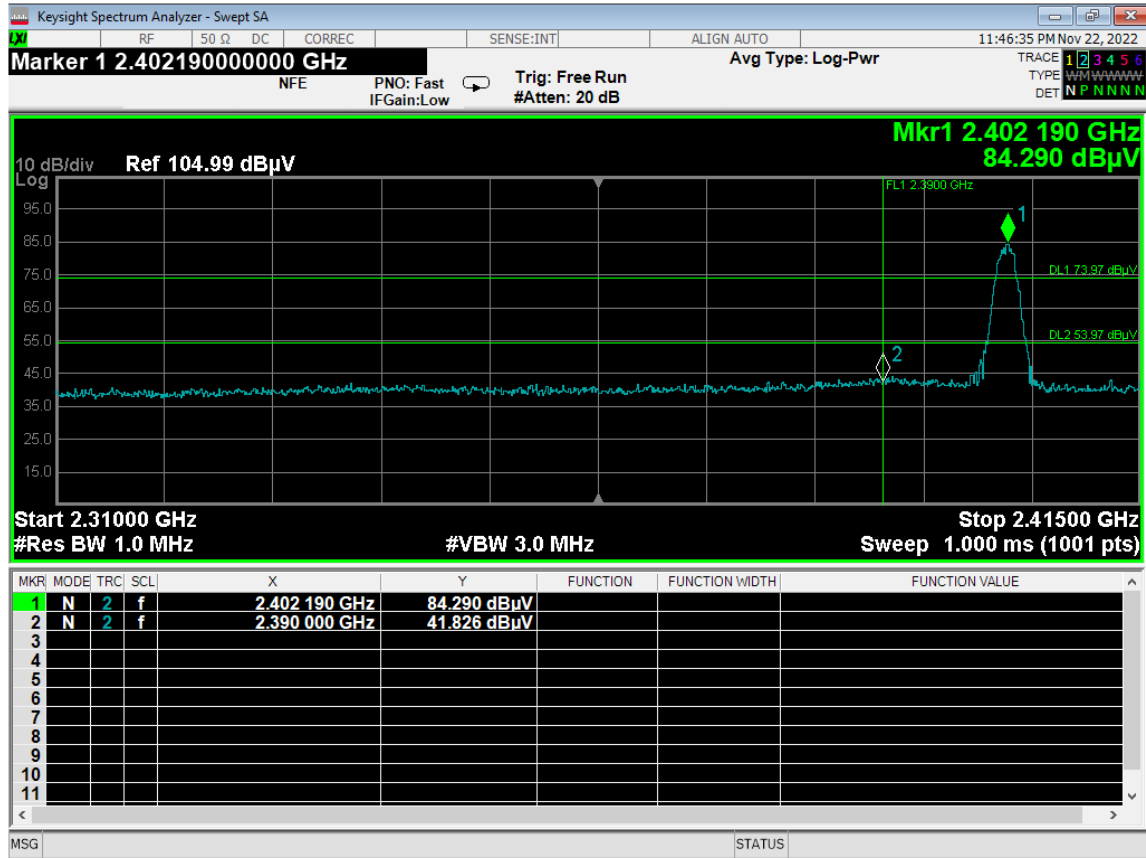
Freq (MHz)	(PEAK) EMI (dBμV)	(AVG) EMI (dBμV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBμV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.170	41.49	25.69	-12.44	-28.24	53.94	0.01	0.16	10.00
0.198	40.84	25.35	-12.75	-28.24	53.59	0.01	0.16	10.00
0.214	39.11	23.83	-13.56	-28.84	52.67	0.01	0.15	10.00
0.230	37.91	22.95	-14.12	-29.08	52.03	0.01	0.14	10.00
0.302	33.55	21.81	-16.24	-27.98	49.79	0.01	0.13	10.00
0.342	34.25	23.94	-14.94	-25.25	49.19	0.01	0.13	10.00



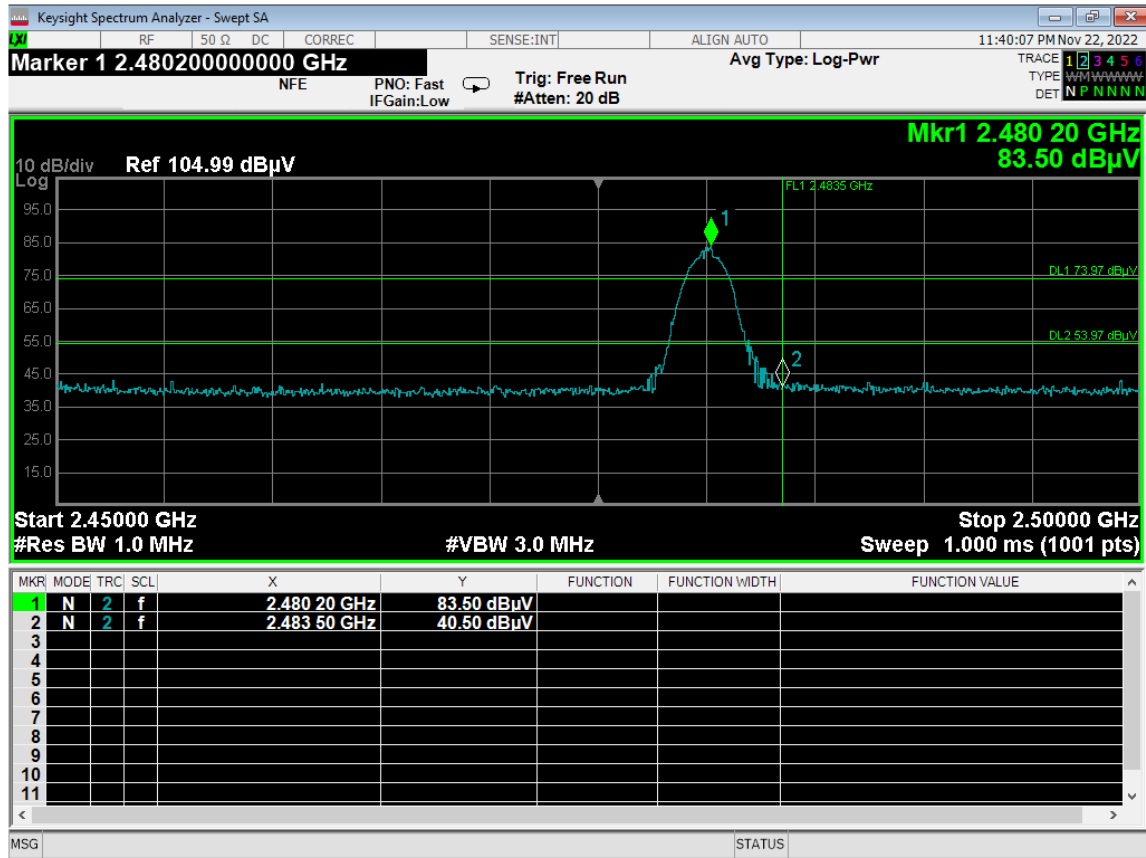
BAND EDGES
DATA SHEETS
PHY 1 MODE (1 Mbps)



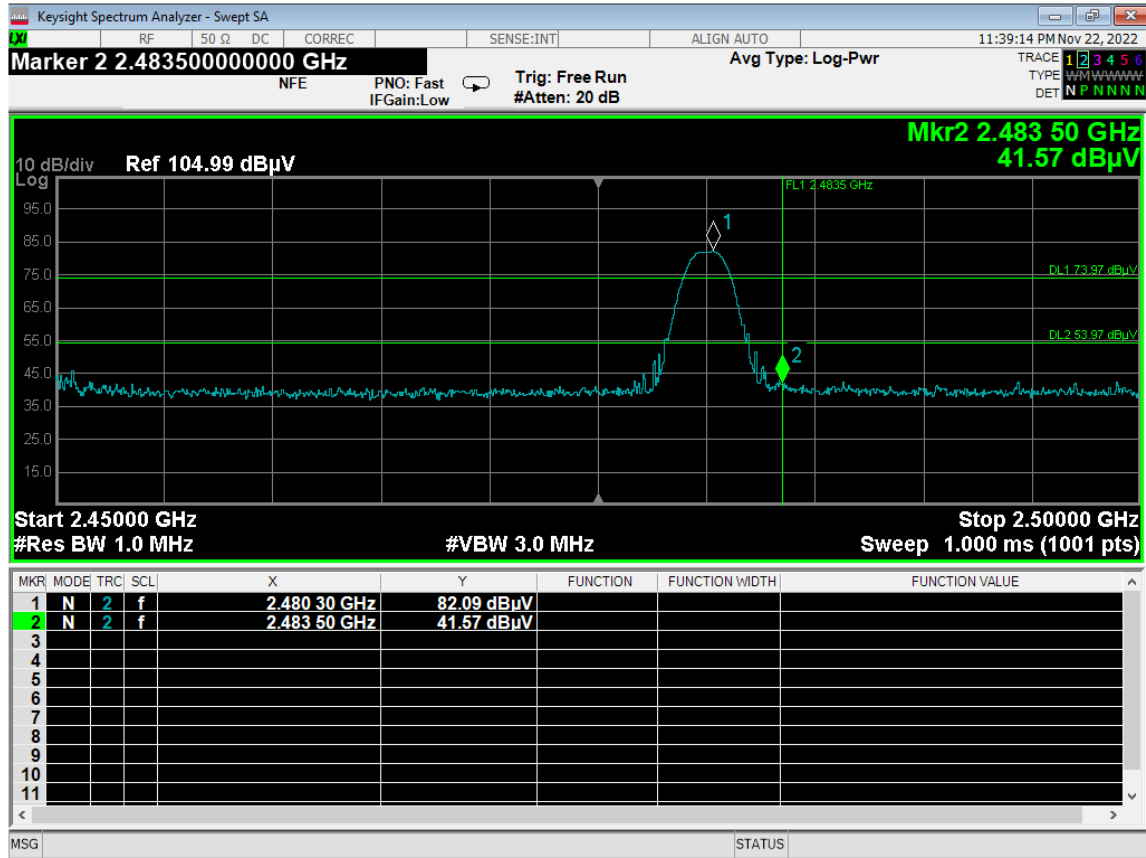
Band Edge - Low Channel - 2402 MHz - Horizontal - X-Axis - PHY 1



Band Edge - Low Channel - 2402 MHz - Vertical - Z-Axis - PHY 1



Band Edge - High Channel - 2480 MHz - Horizontal - X-Axis - PHY 1

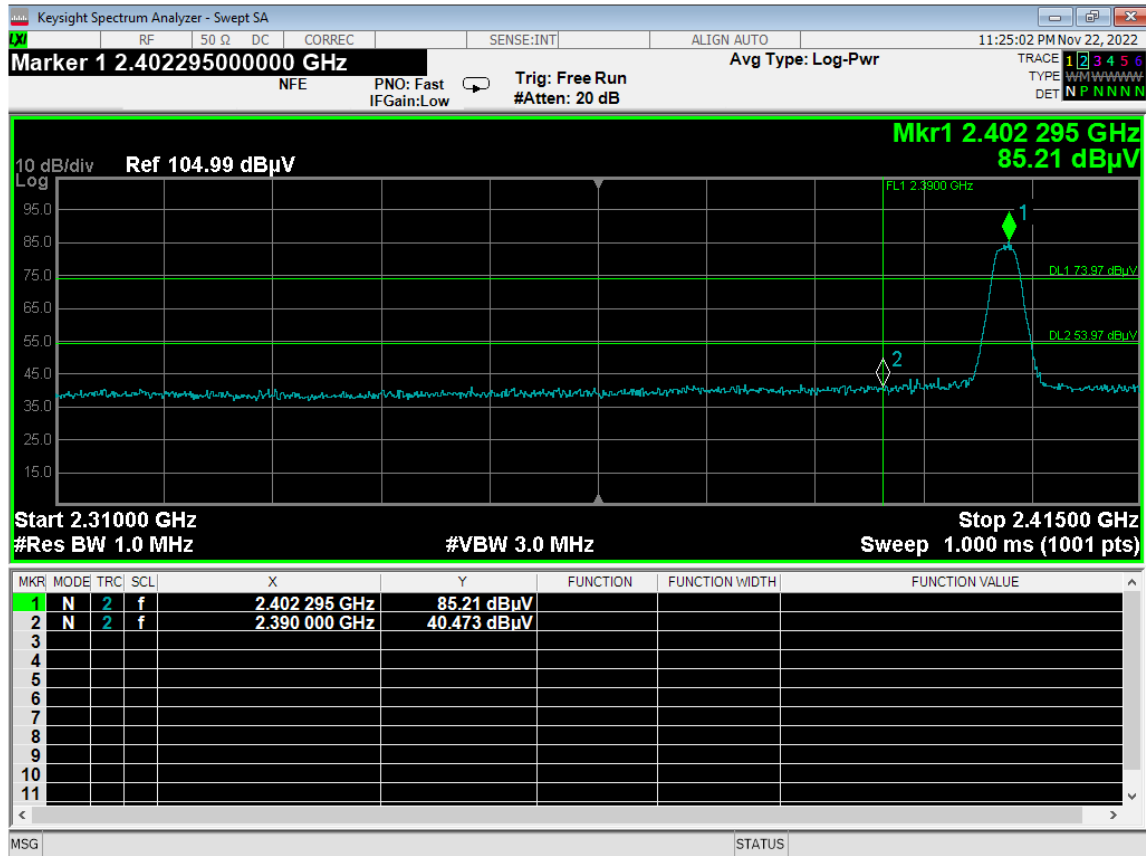


Band Edge - High Channel - 2480 MHz - Vertical - Z-Axis - PHY 1

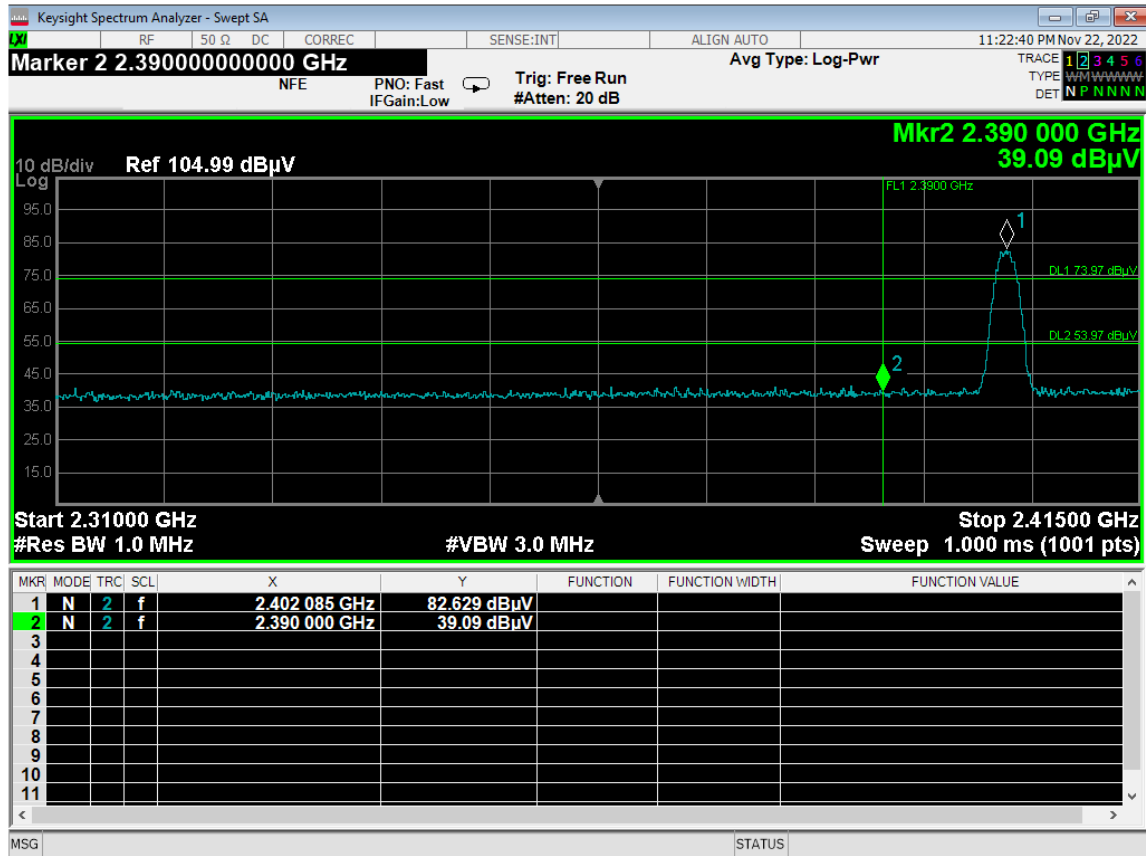
BAND EDGES
DATA SHEETS
PHY 2 MODE (2 Mbps)

Date: 11/21/2022
Lab: D
Tested By: Kyle Fujimoto

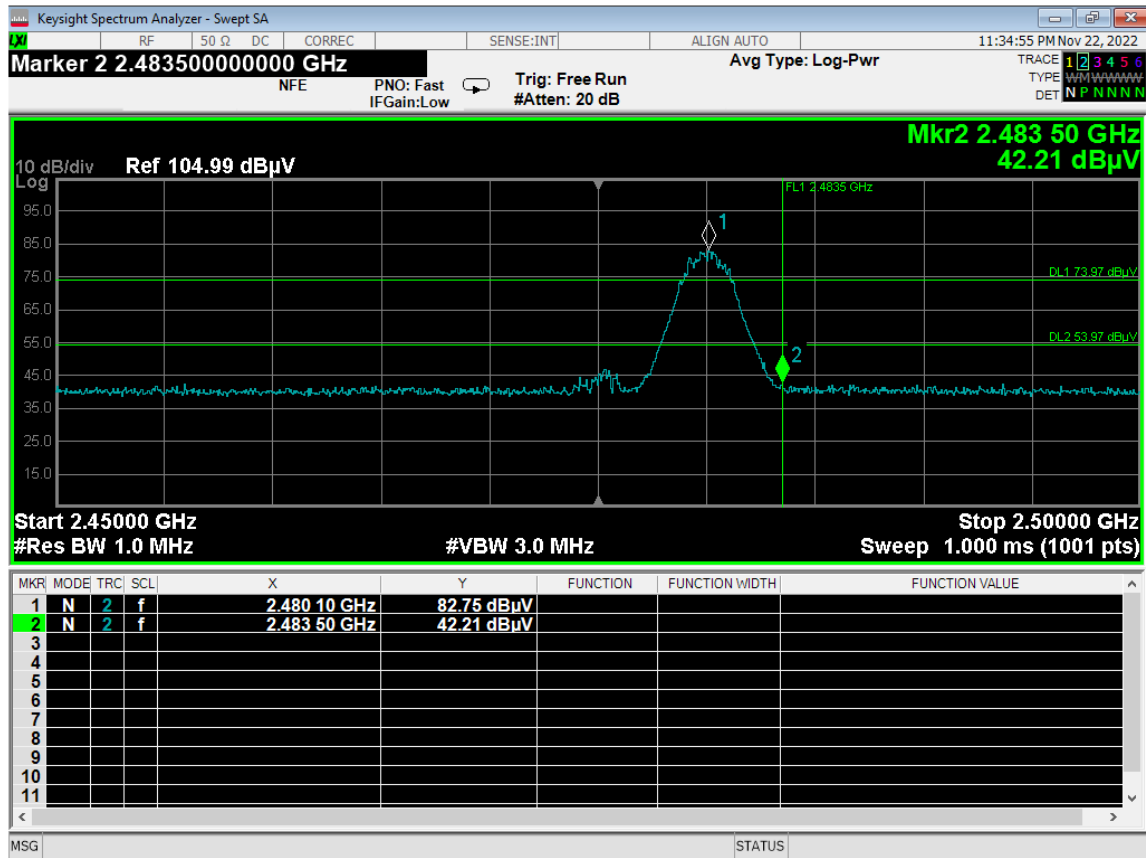
[illegible]



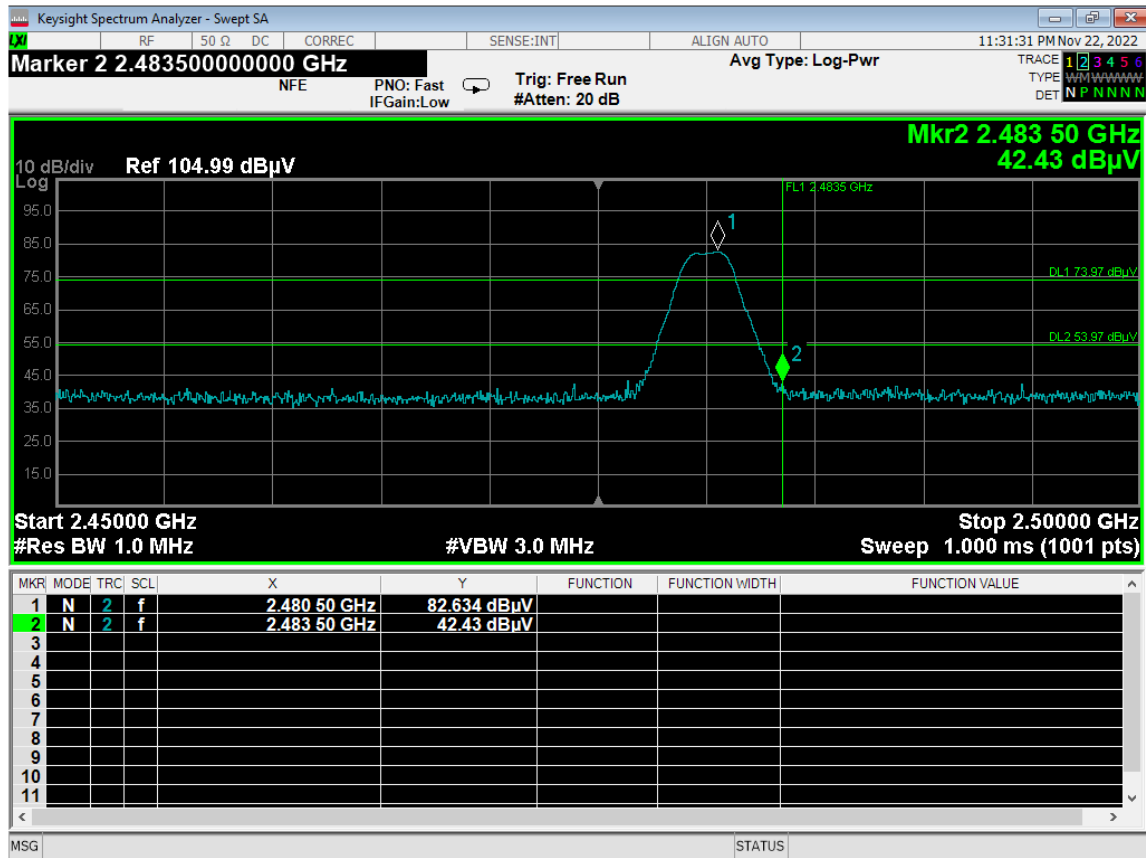
Band Edge – Low Channel - 2402 MHz - Horizontal - X-Axis - PHY 2



Band Edge – Low Channel - 2402 MHz - Vertical - Z-Axis - PHY 2

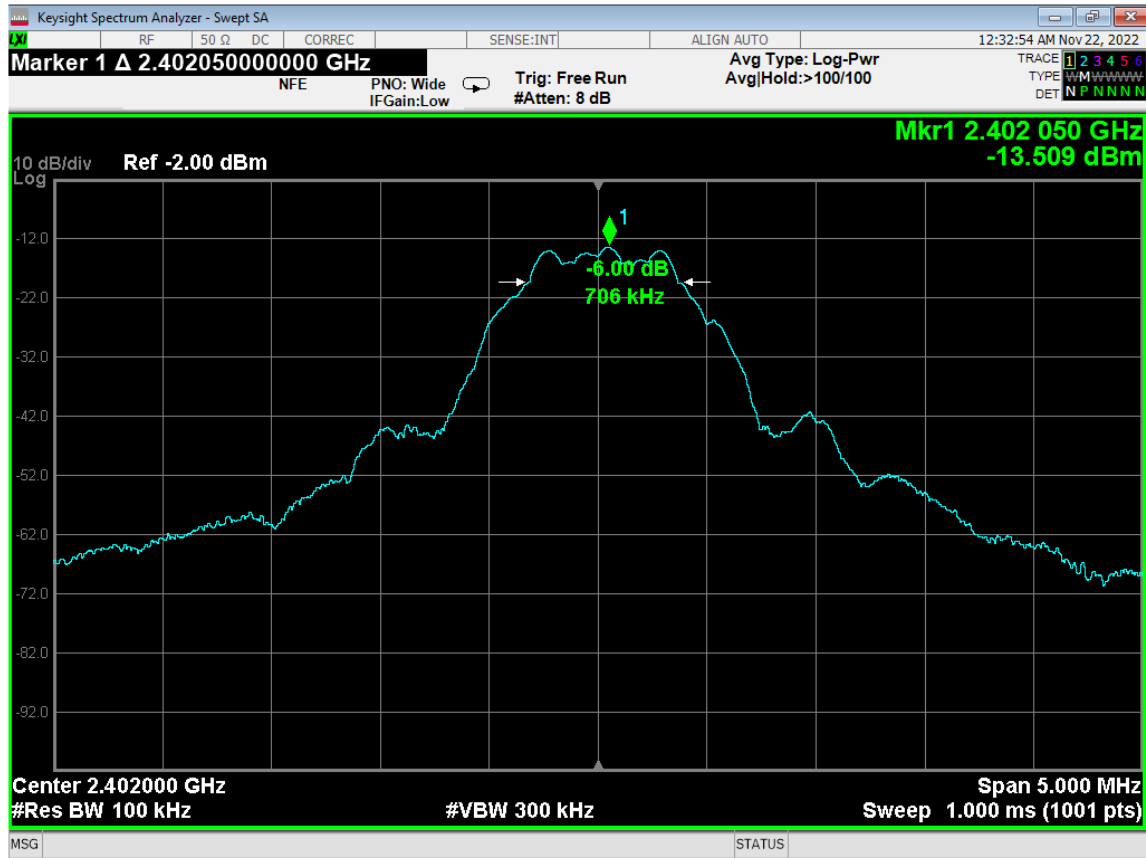


Band Edge – High Channel - 2480 MHz - Horizontal - X-Axis - PHY 2

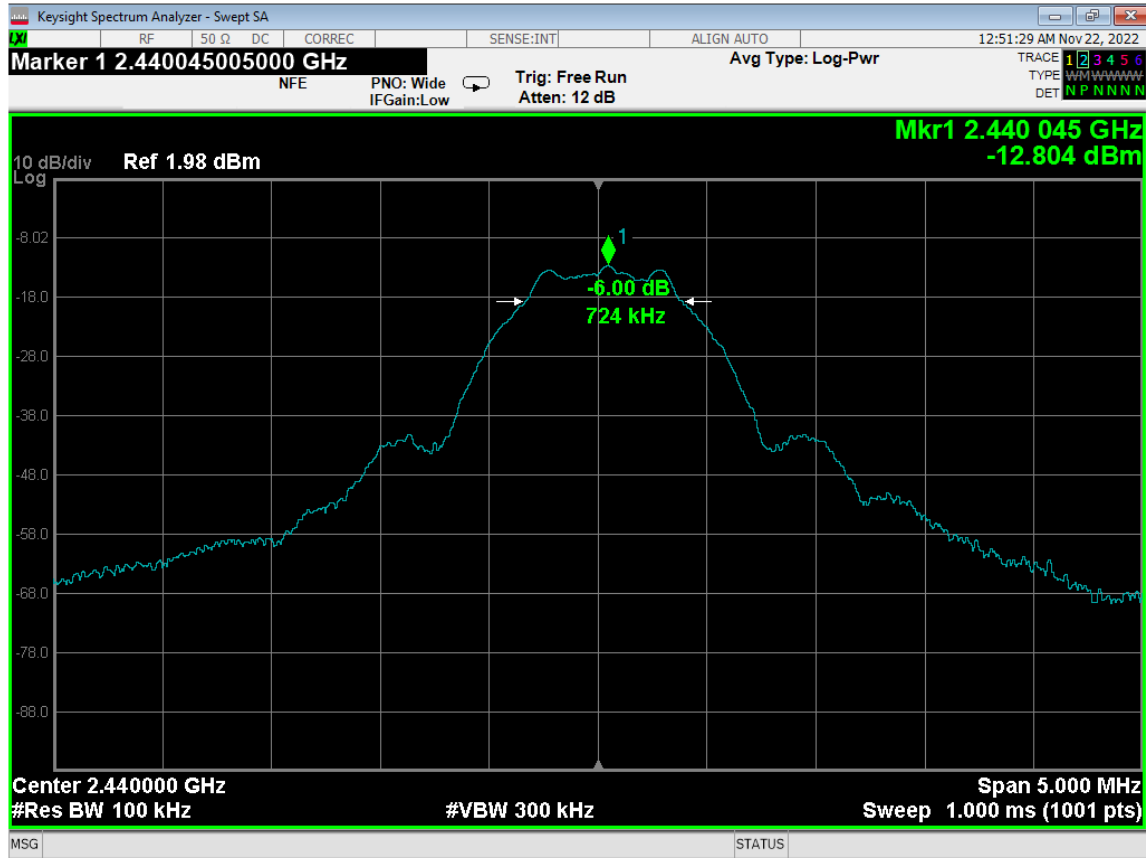


Band Edge – High Channel - 2480 MHz - Vertical - Z-Axis - PHY 2

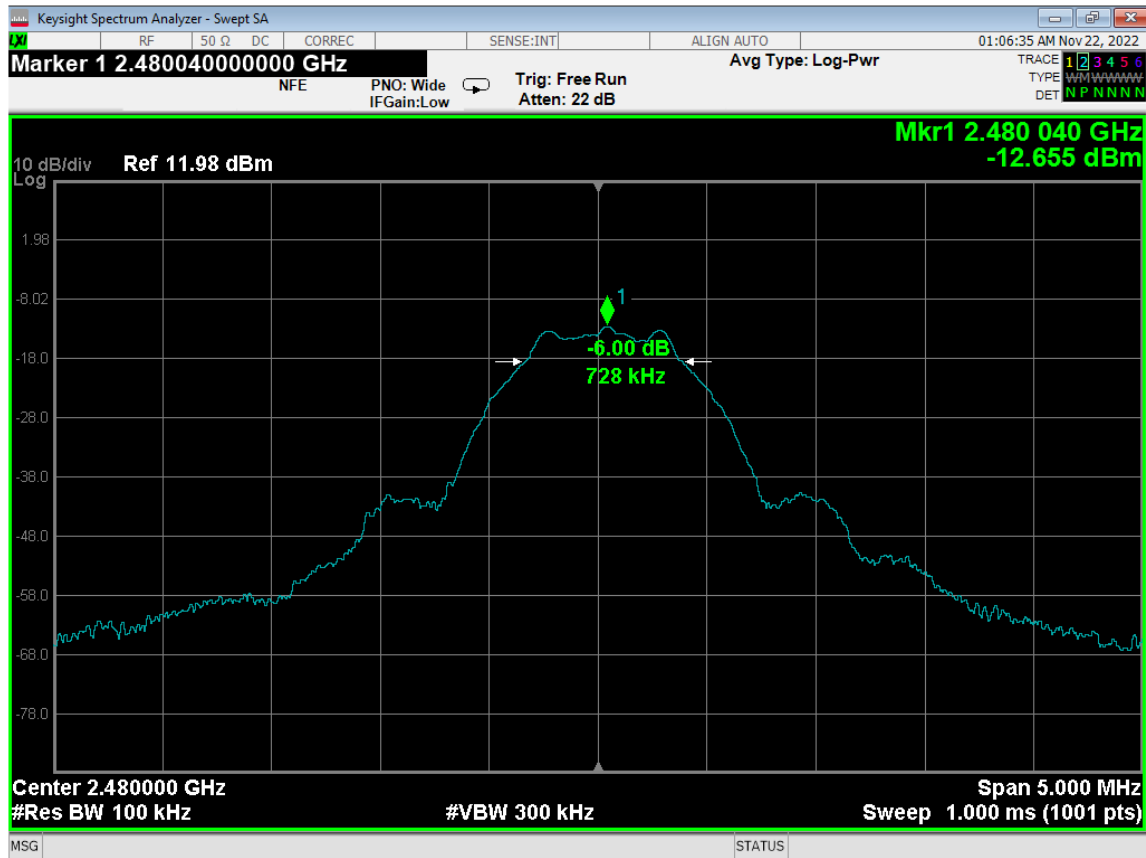
***DTS BANDWIDTH
DATA SHEETS
PHY 1 (1 Mbps)***



Bandwidth 6 dB - 2402 MHz - PHY 1



Bandwidth 6 dB - 2440 MHz - PHY 1



Bandwidth 6 dB - 2480 MHz - PHY 1

***DTS BANDWIDTH
DATA SHEETS
PHY 2 (2 Mbps)***



Bandwidth 6 dB - 2402 MHz - PHY 2

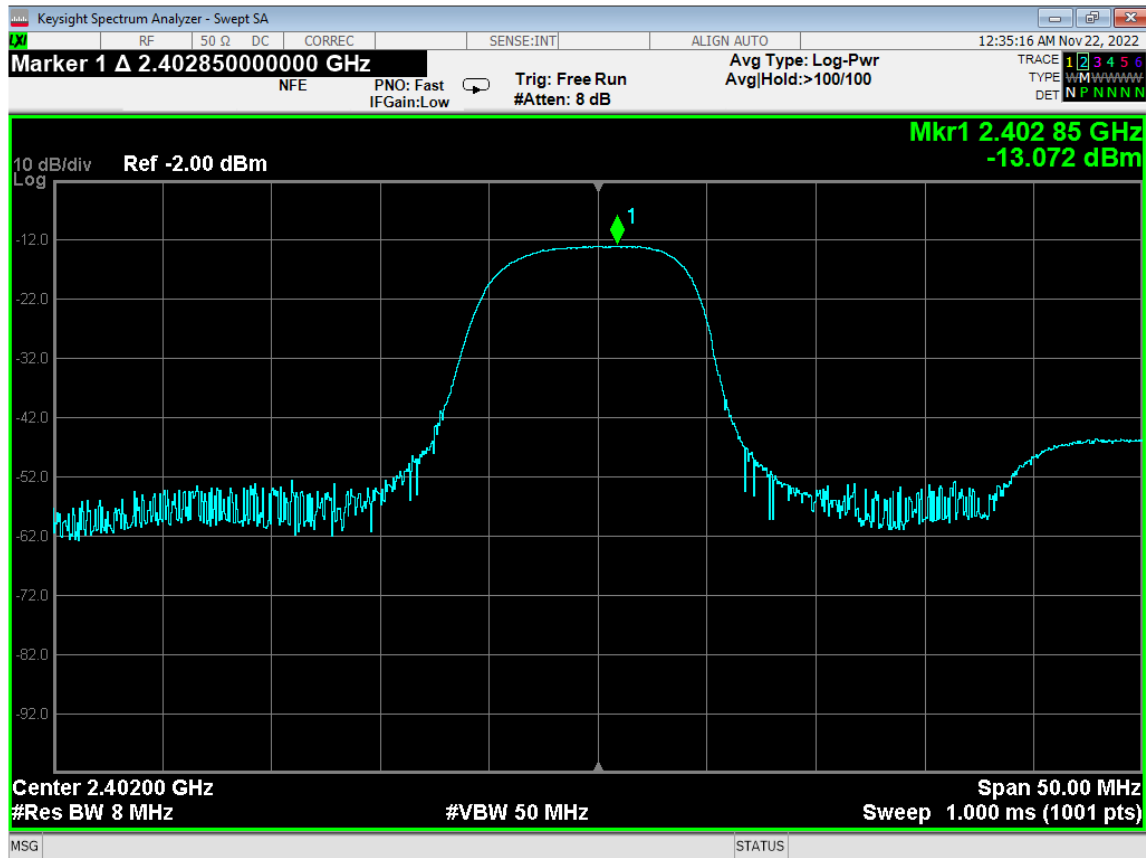


Bandwidth 6 dB - 2440 MHz - PHY 2

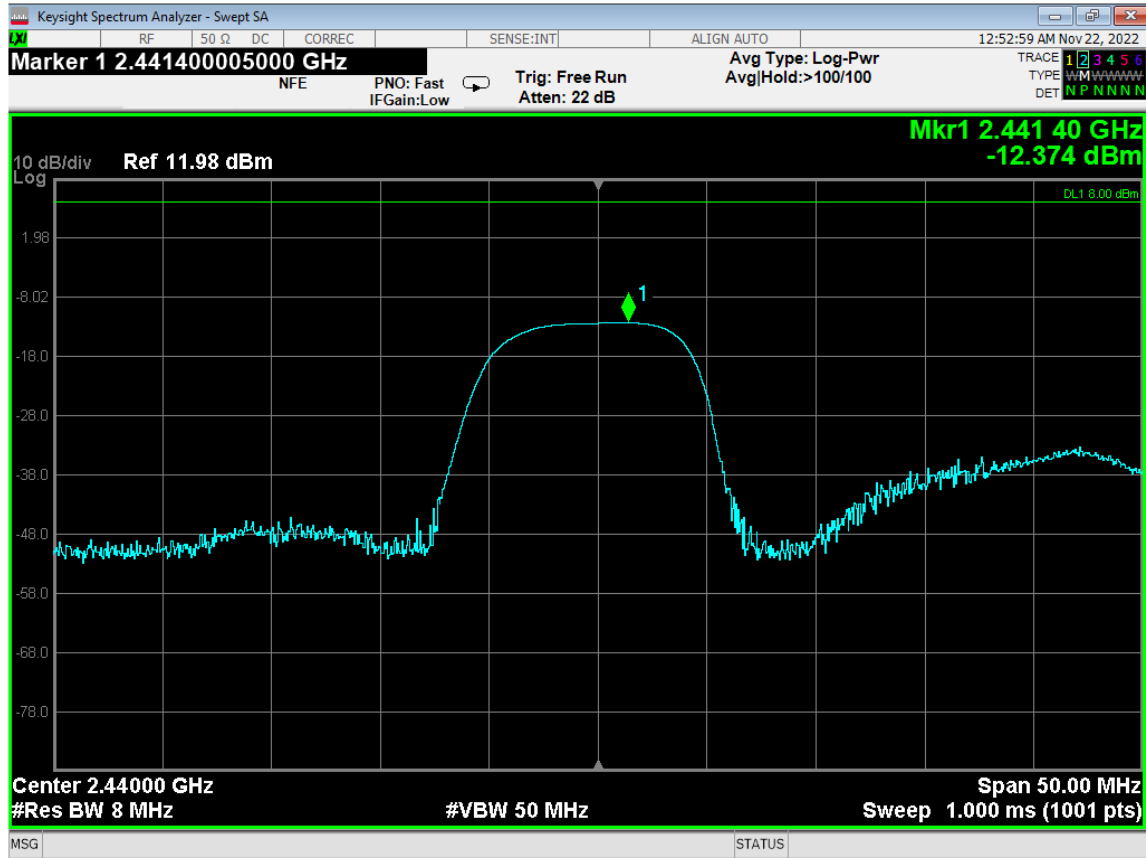


Bandwidth 6 dB - 2480 MHz - PHY 2

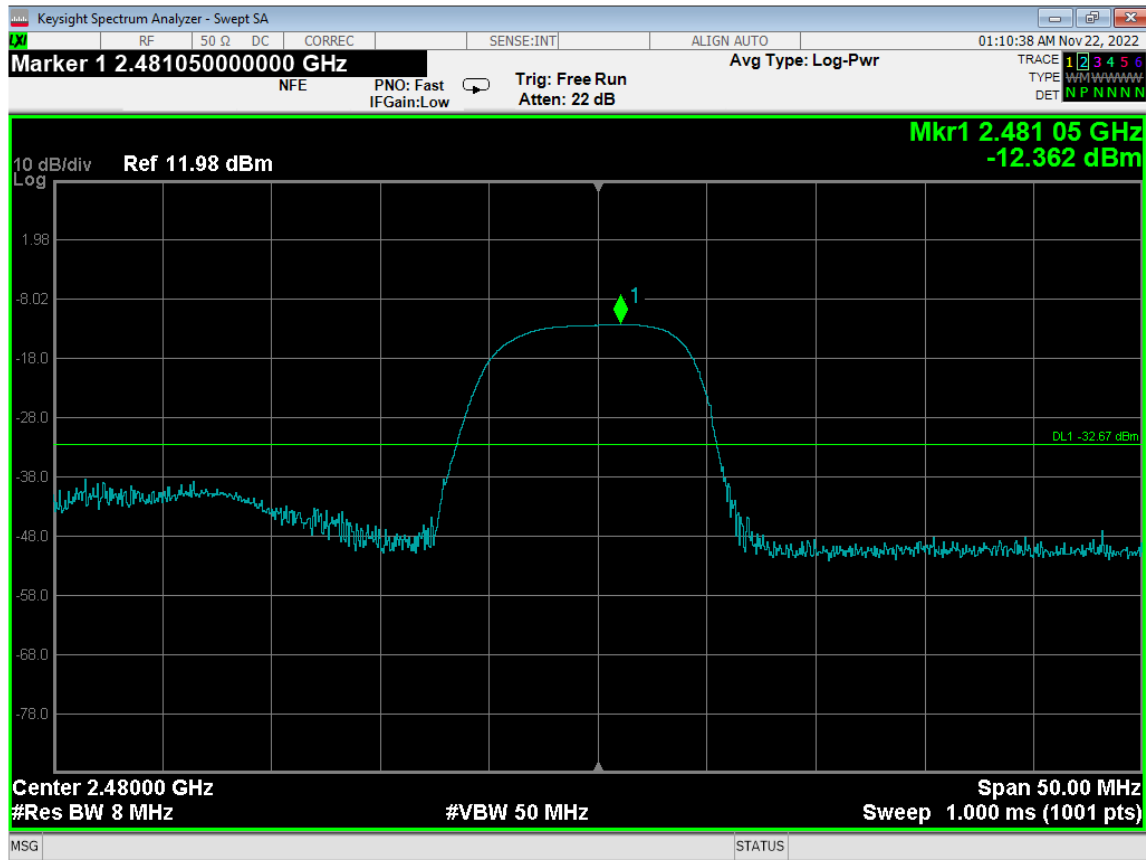
***PEAK OUTPUT POWER
DATA SHEETS
PHY 1 (1 Mbps)***



Peak Power Output - 2402 MHz - PHY 1

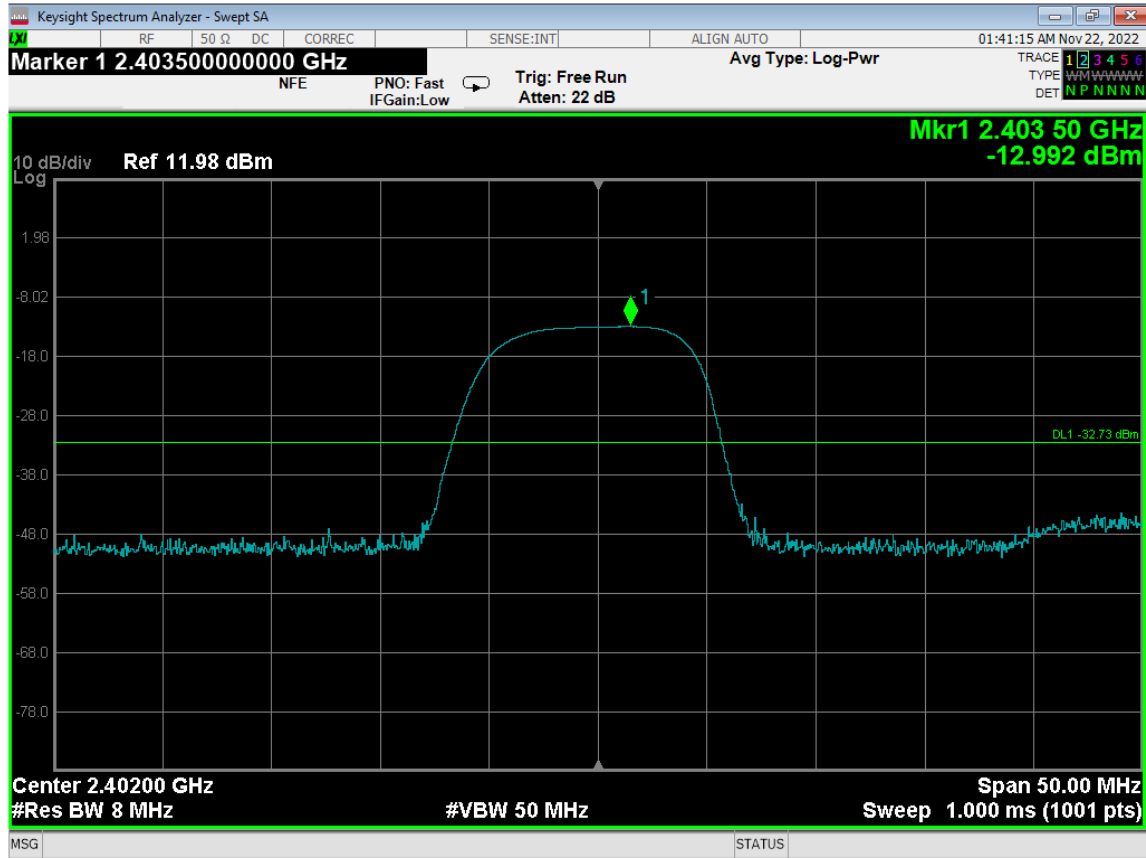


Peak Power Output - 2440 MHz - PHY 1

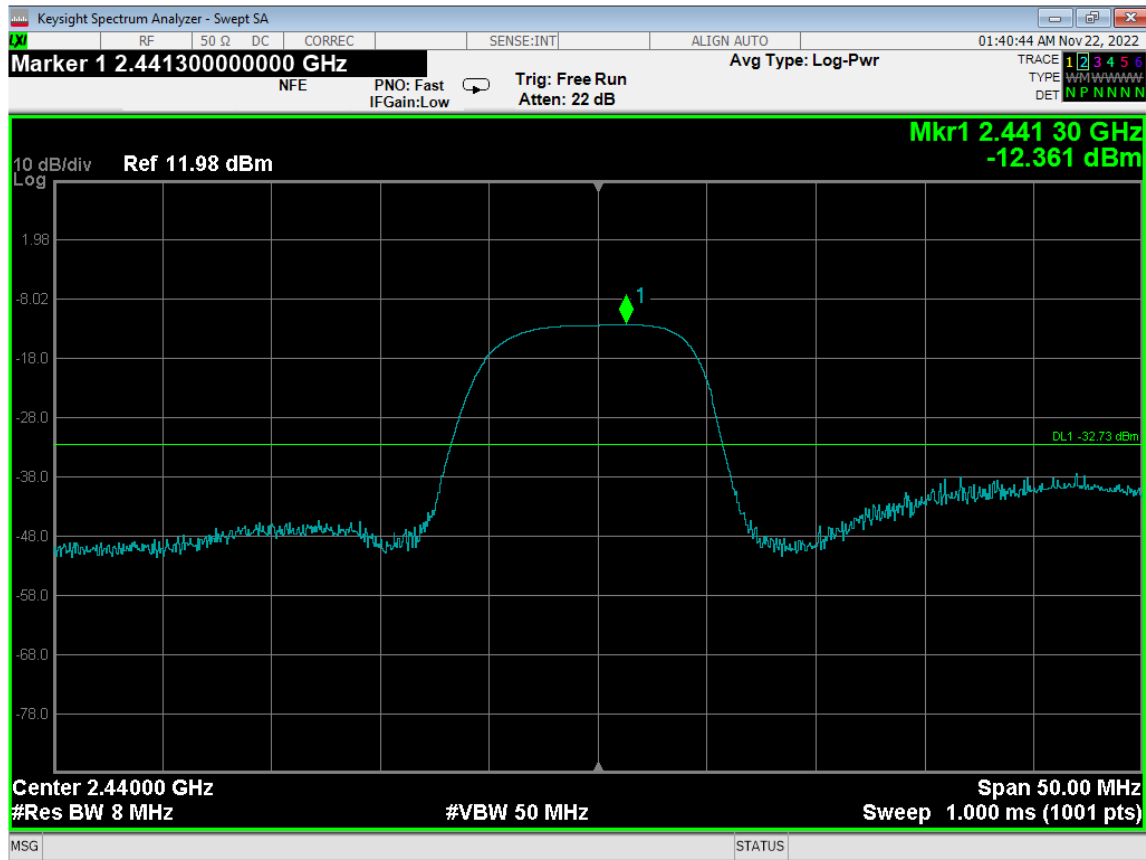


Peak Power Output - 2480 MHz - PHY 1

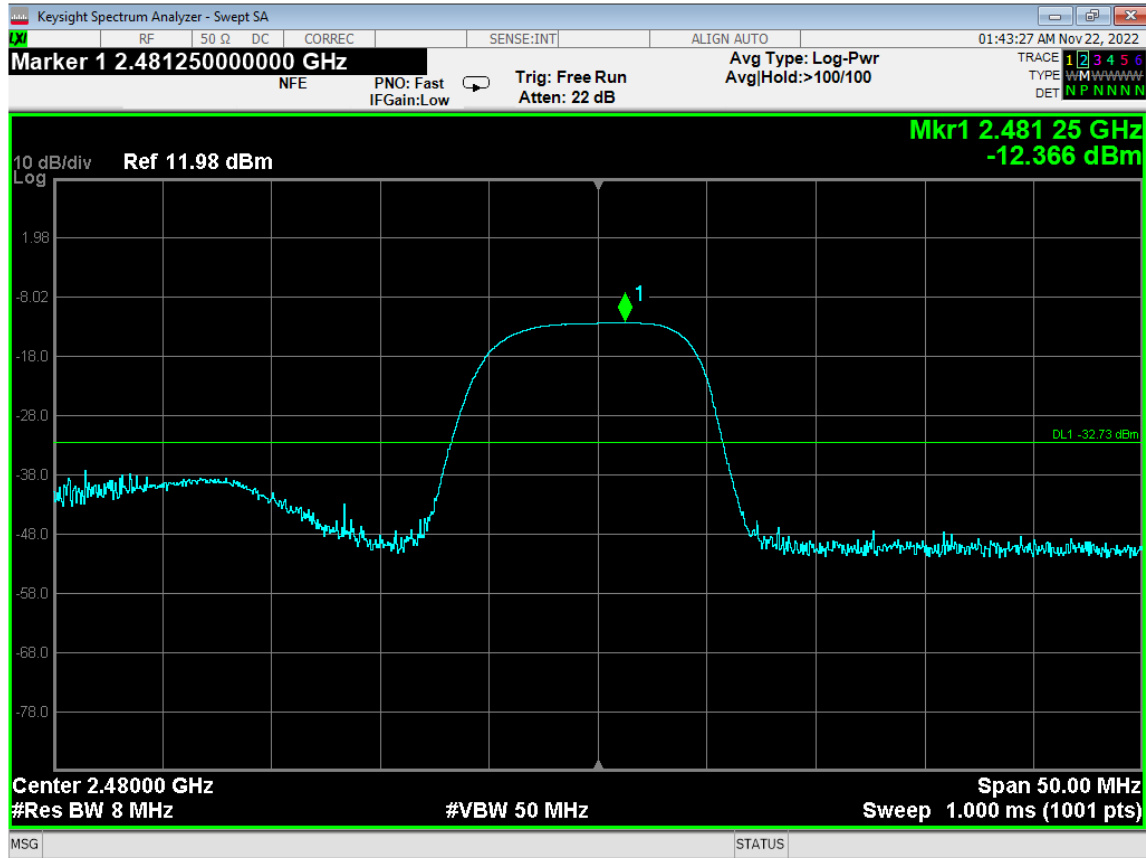
***PEAK OUTPUT POWER
DATA SHEETS
PHY 2 (2 Mbps)***



Peak Power Output - 2402 MHz - PHY 2

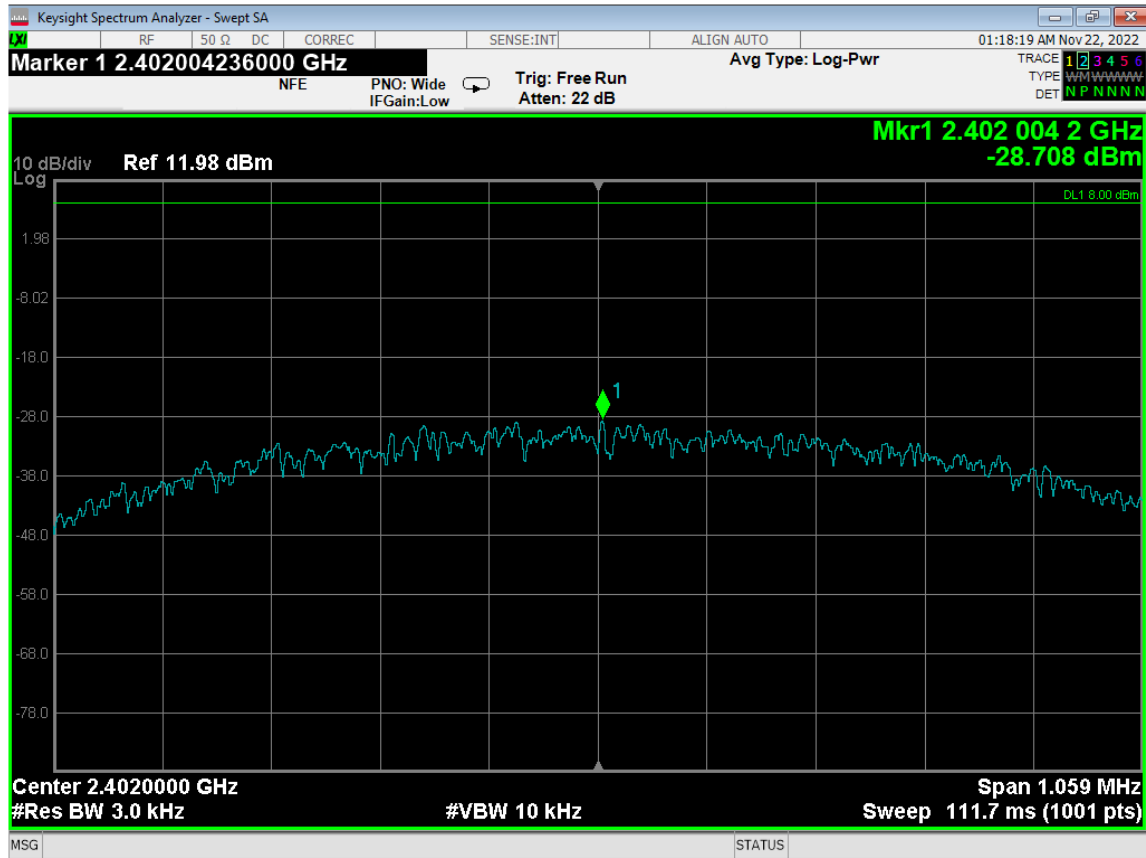


Peak Power Output - 2440 MHz - PHY 2

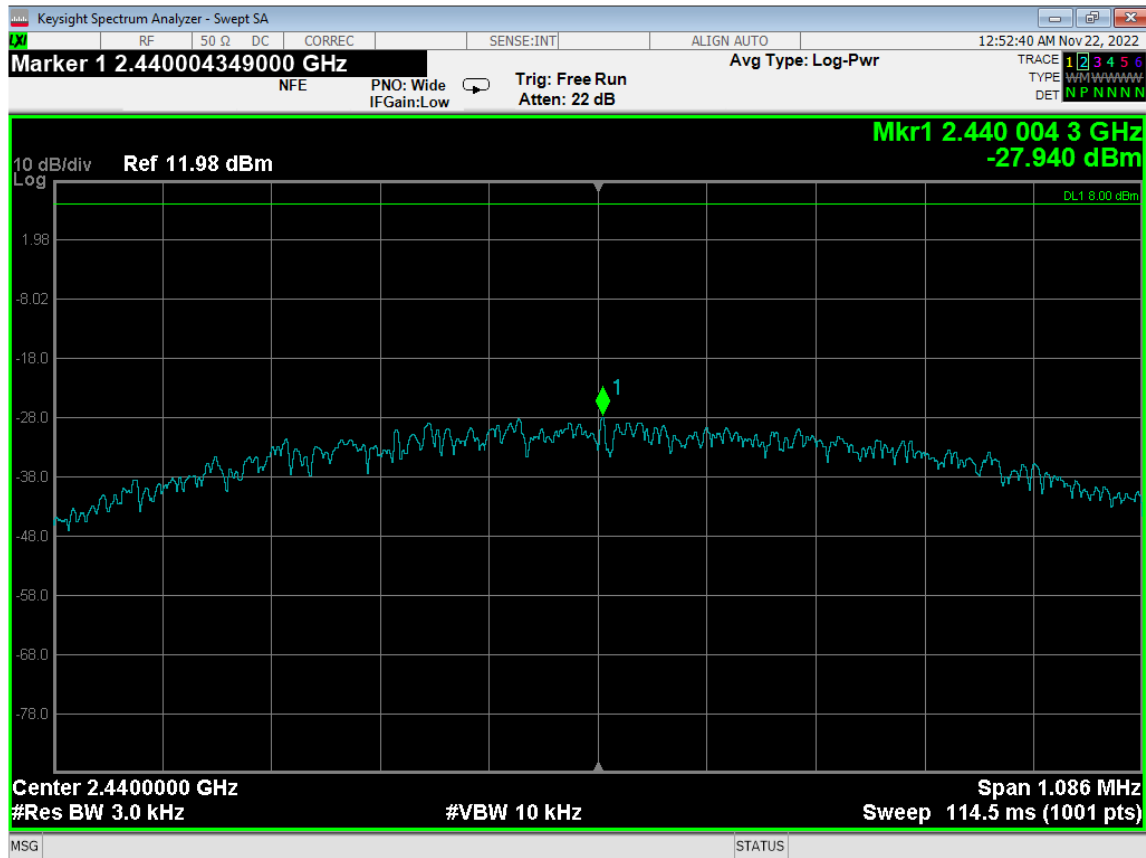


Peak Power Output - 2480 MHz - PHY 2

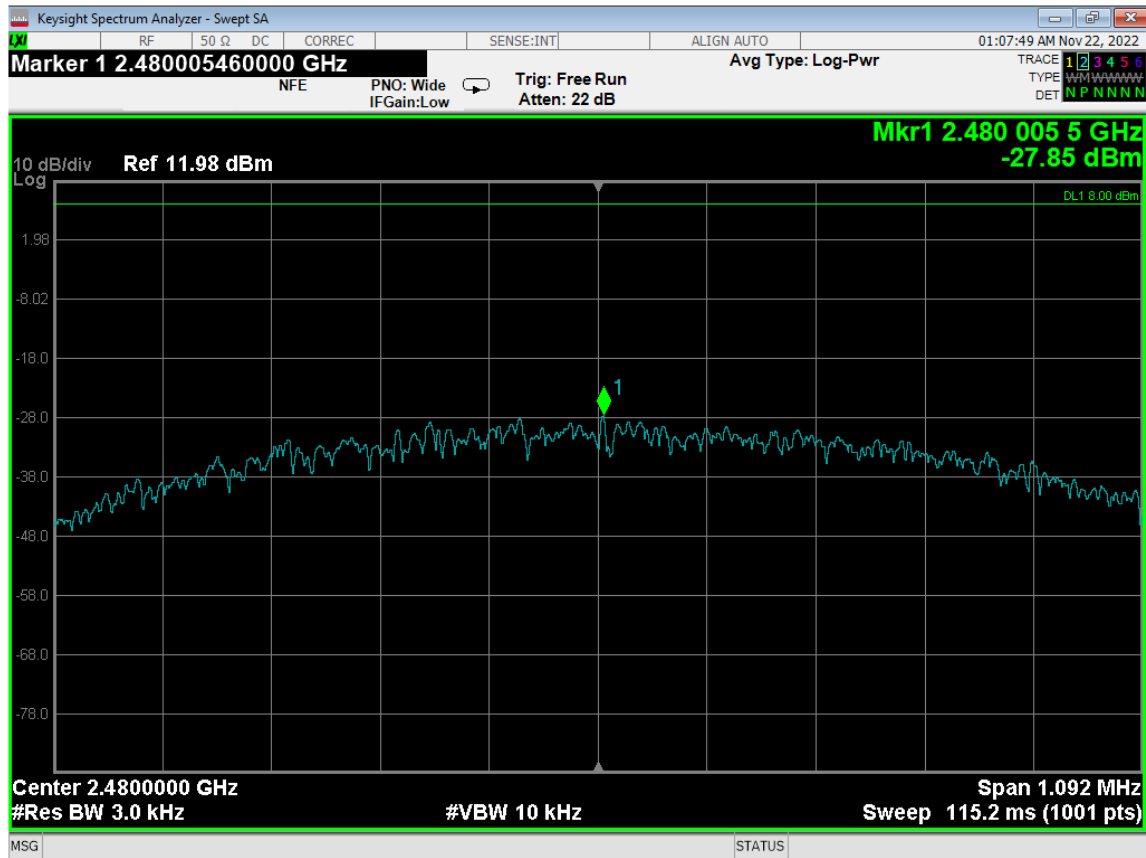
SPECTRAL DENSITY OUTPUT
DATA SHEETS
PHY 1 (1 Mbps)



Spectral Density Output - 2402 MHz - PHY 1



Spectral Density Output - 2440 MHz - PHY 1

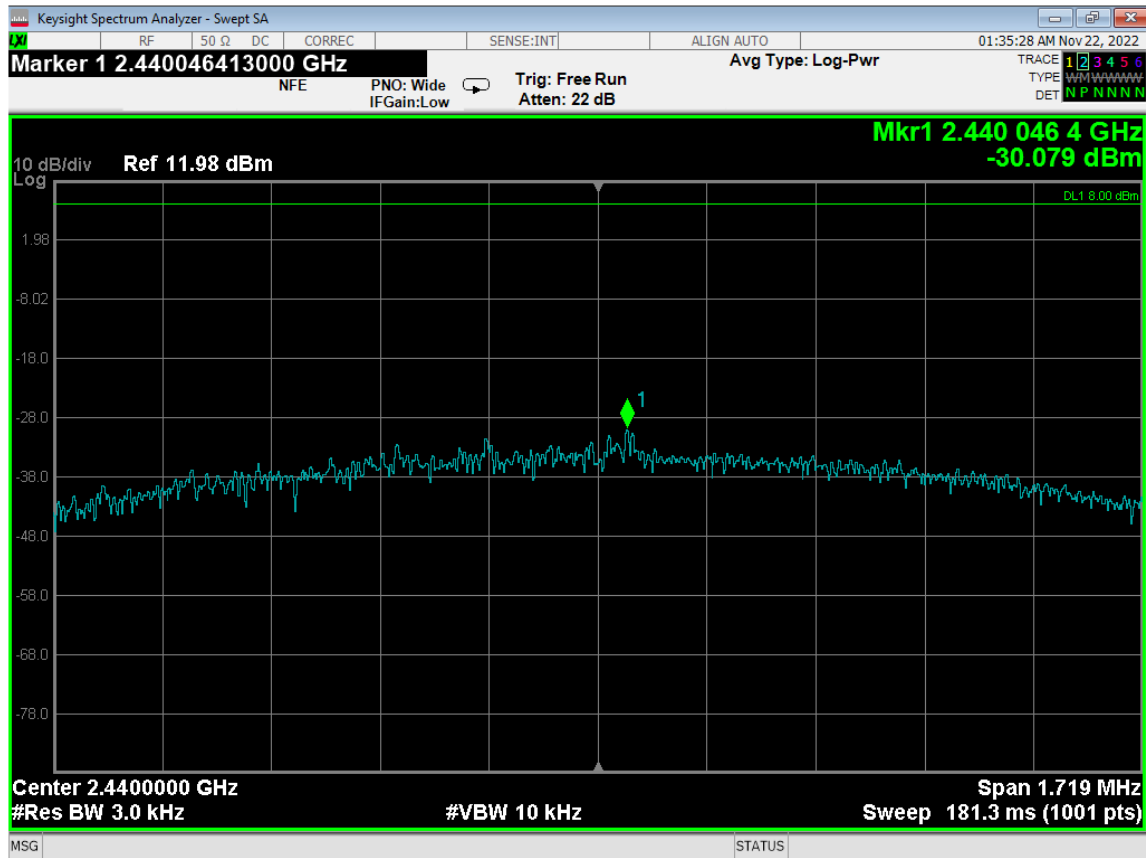


Spectral Density Output - 2480 MHz - PHY 1

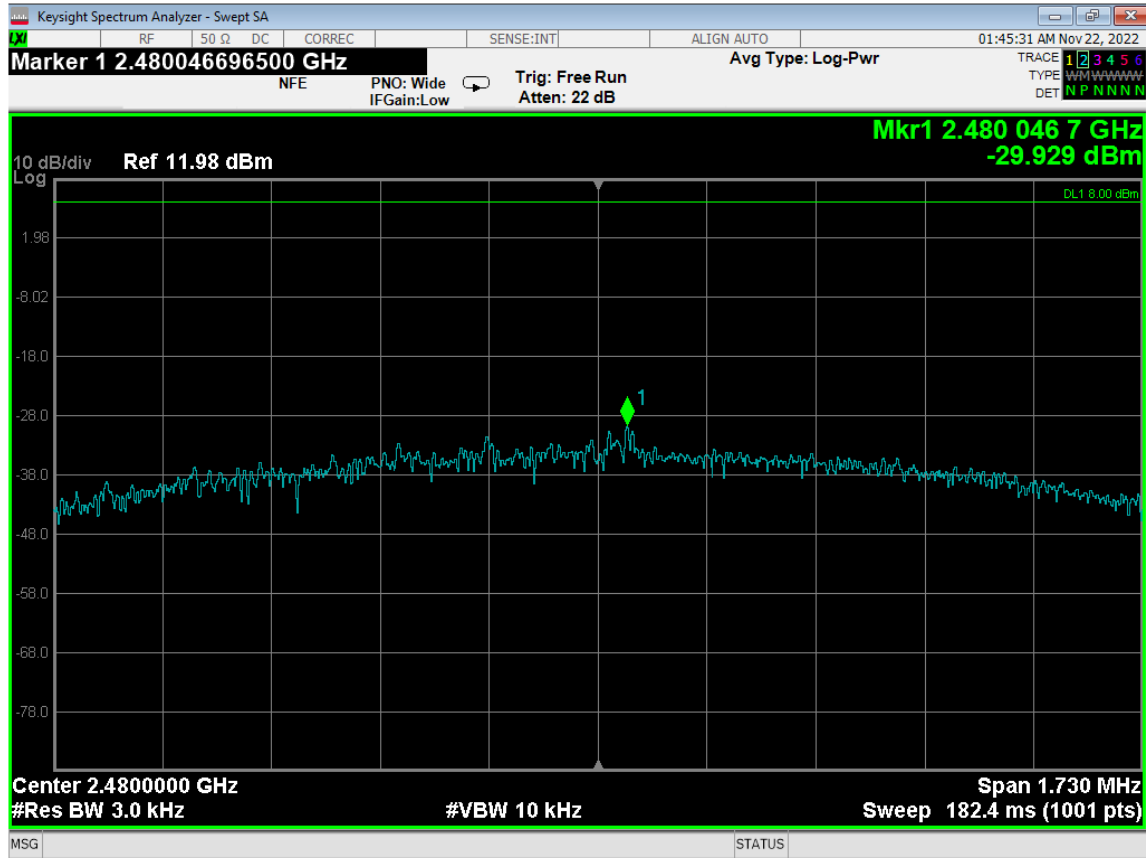
SPECTRAL DENSITY OUTPUT
DATA SHEETS
PHY 2 (2 Mbps)



Spectral Density Output - 2402 MHz - PHY 2



Spectral Density Output - 2440 MHz - PHY 2

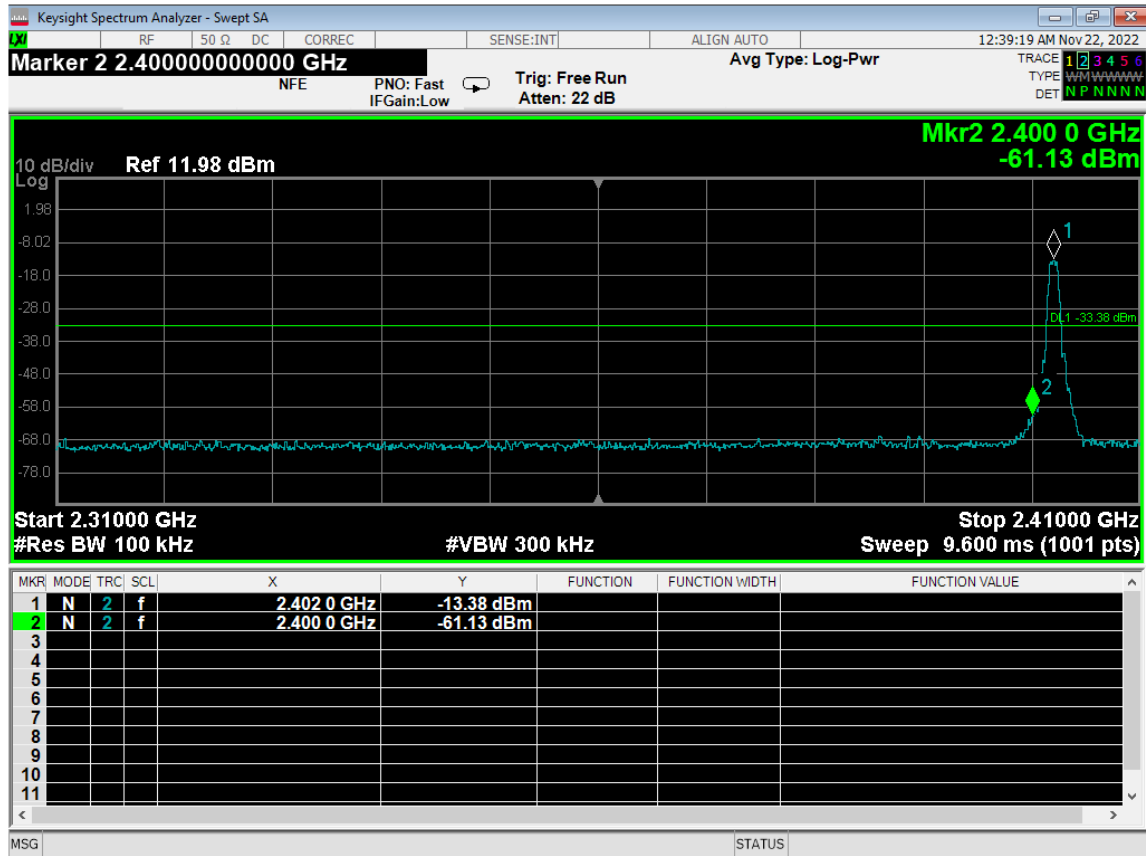


Spectral Density Output - 2480 MHz - PHY 2

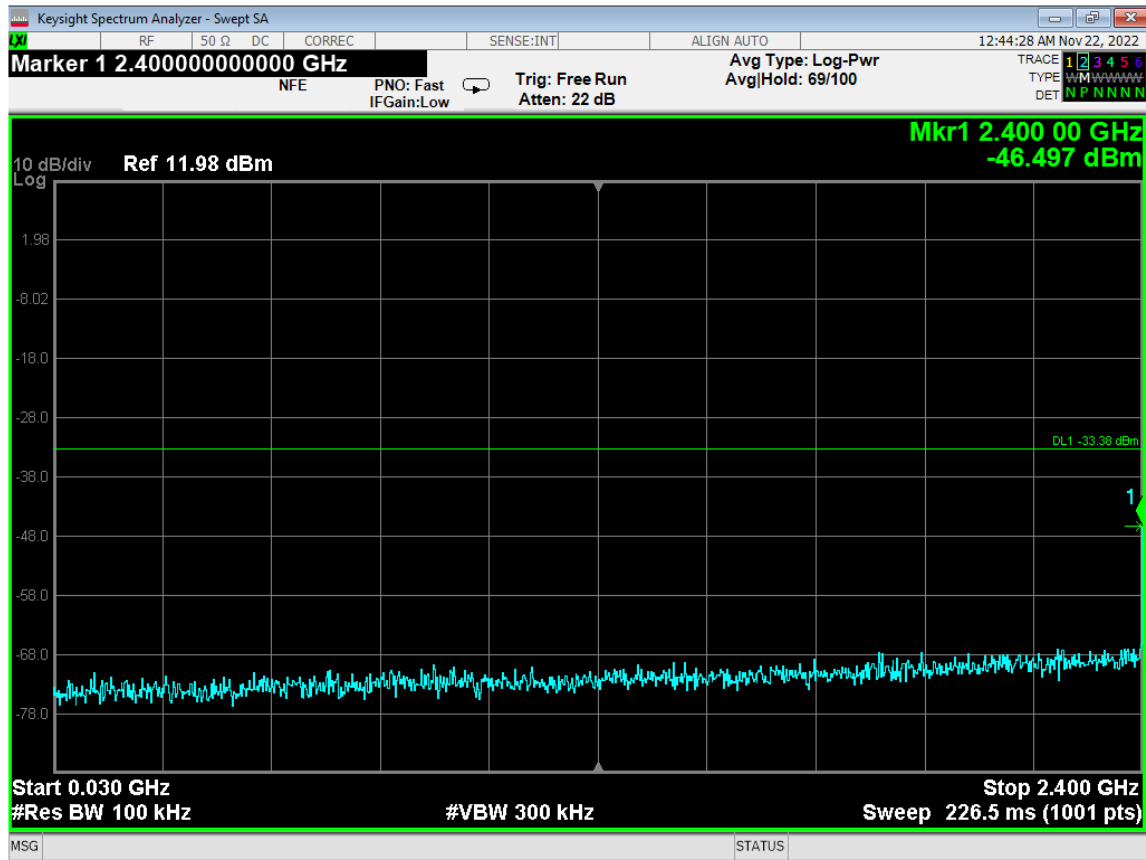
RF ANTENNA CONDUCTED
DATA SHEETS
PHY 1 (1 Mbps)



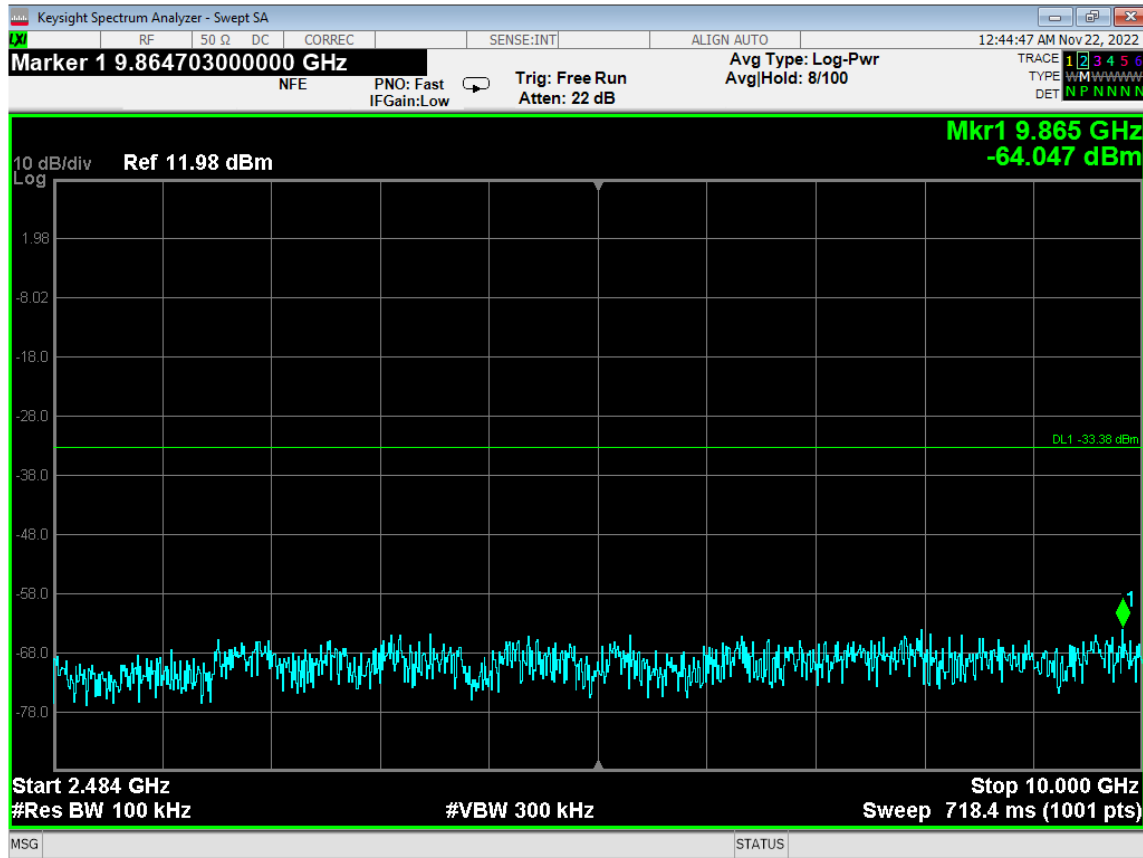
RF Antenna Conducted - 2402 MHz - Reference Level - PHY 1



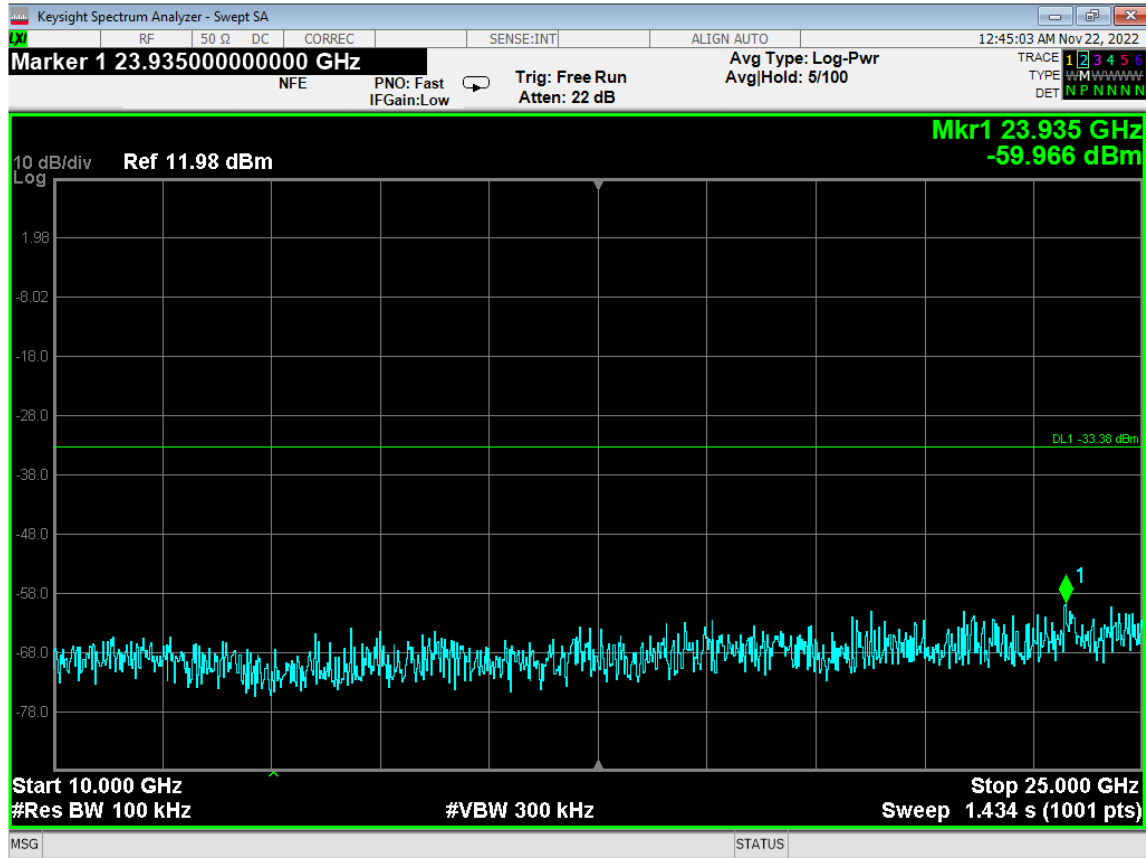
Band Edge - at 2400 MHz - via Conducted - 2402 MHz - PHY 1



RF Antenna Conducted - 2402 MHz - 30 MHz to 2.4 GHz - PHY 1



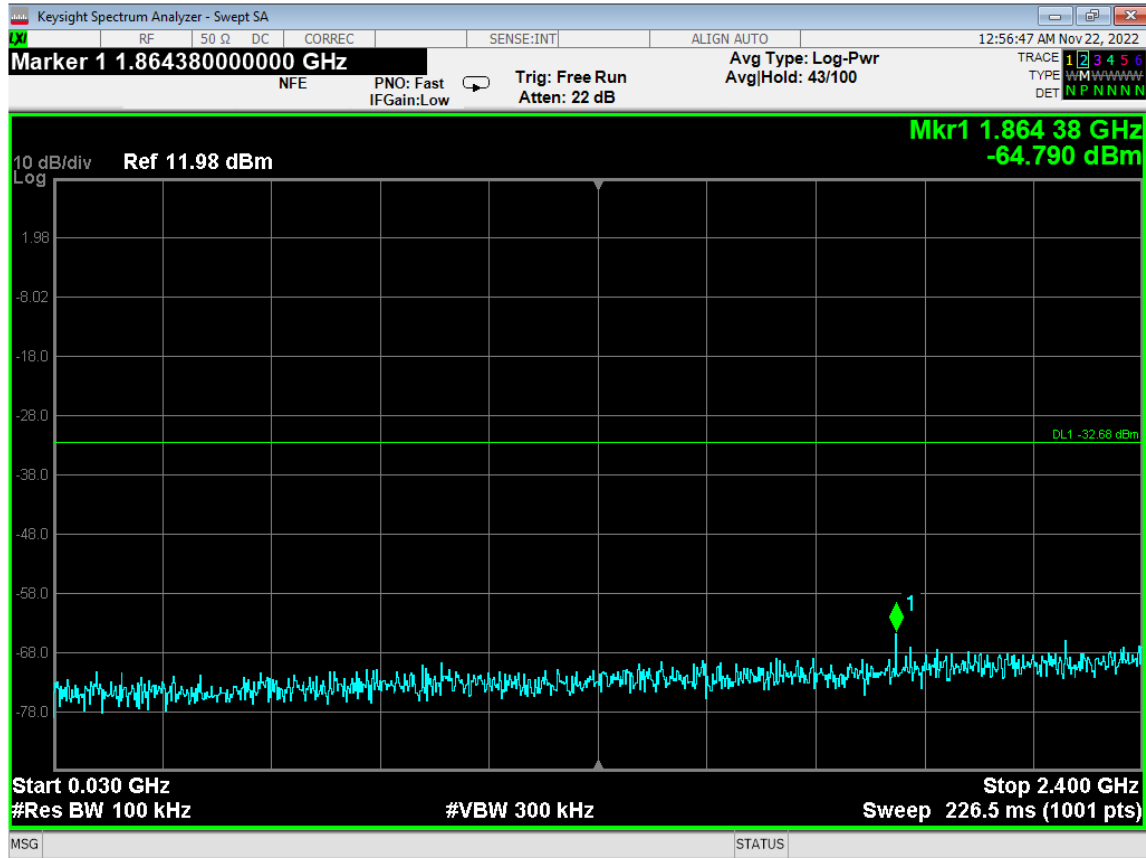
RF Antenna Conducted - 2402 MHz - 2483.5 MHz to 10 GHz - PHY 1



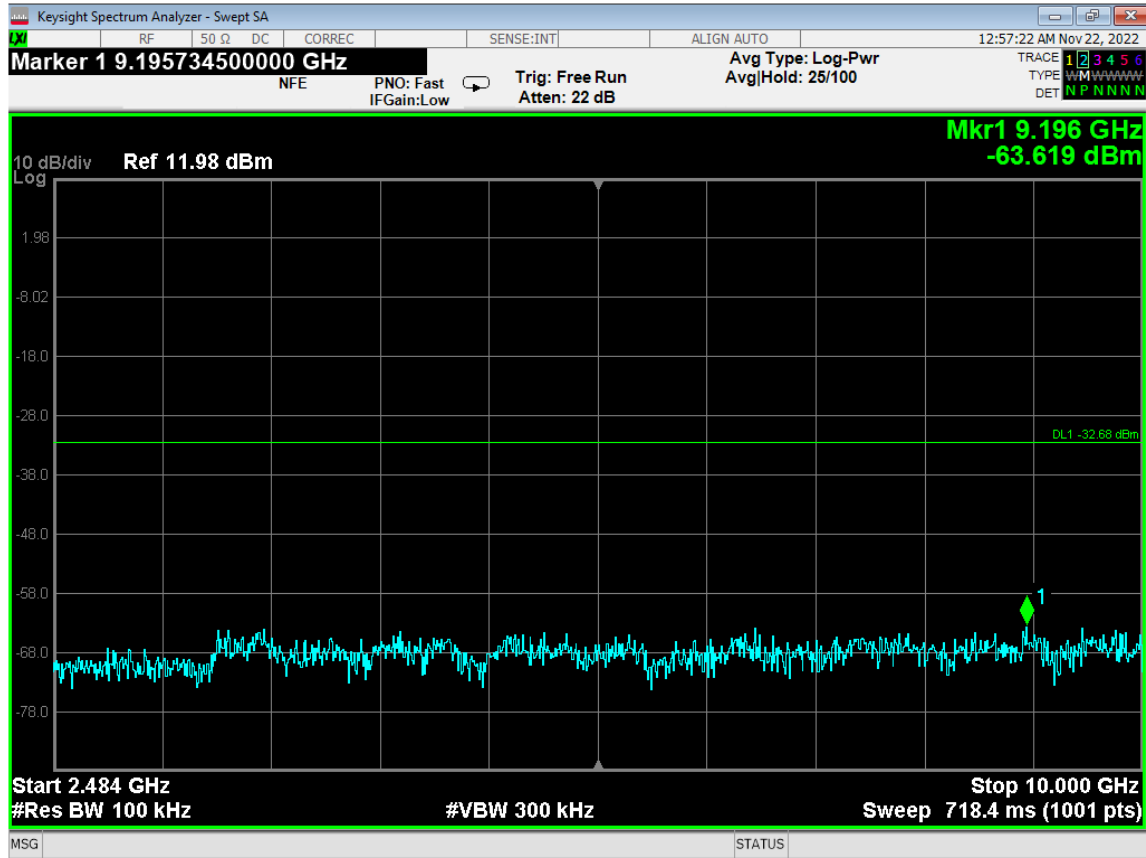
RF Antenna Conducted - 2402 MHz - 10 GHz to 25 GHz - PHY 1



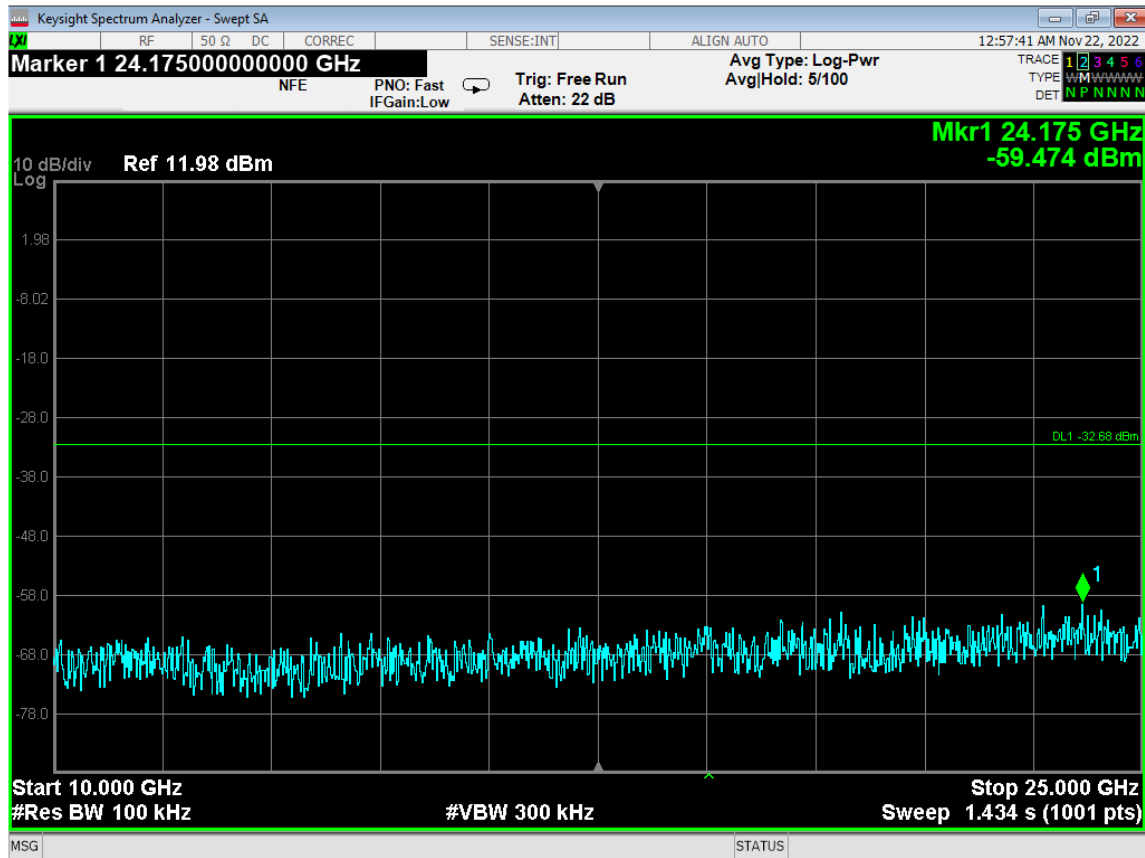
RF Antenna Conducted - 2440 MHz - Reference Level - PHY 1



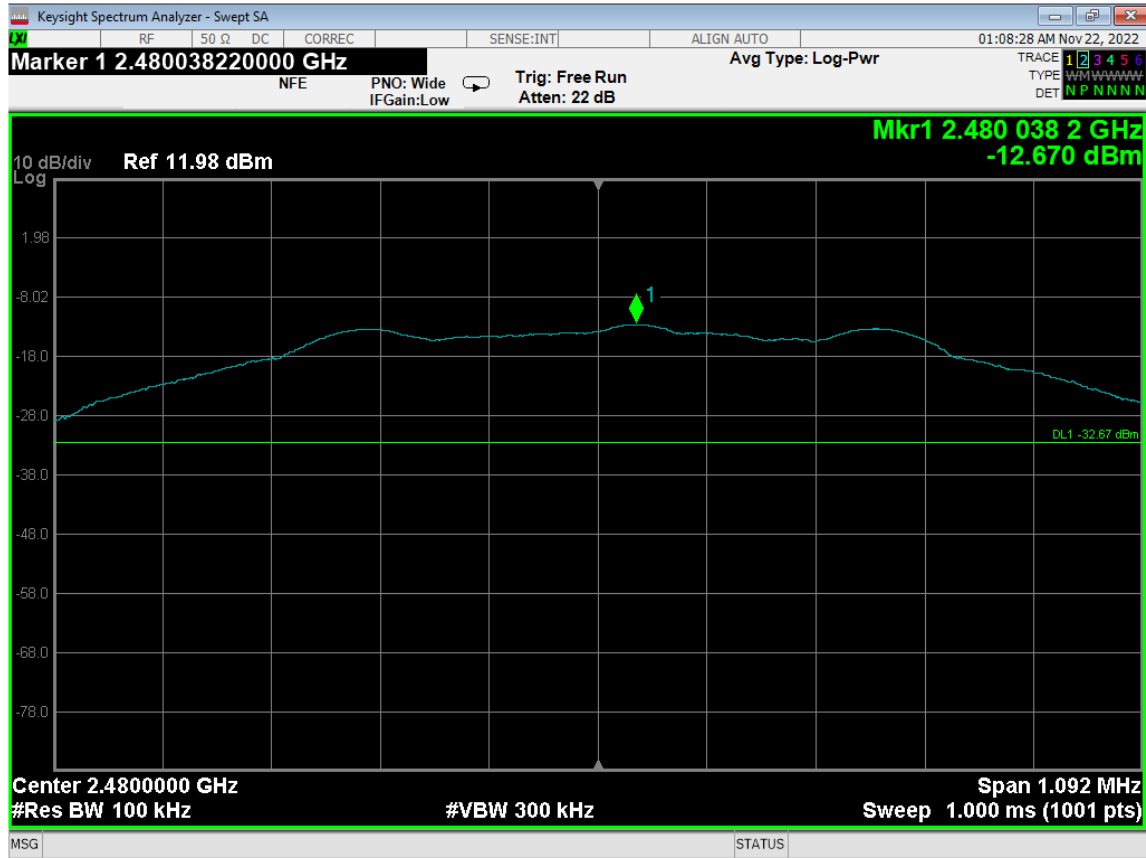
RF Antenna Conducted - 2440 MHz - 30 MHz to 2.4 GHz - PHY 1



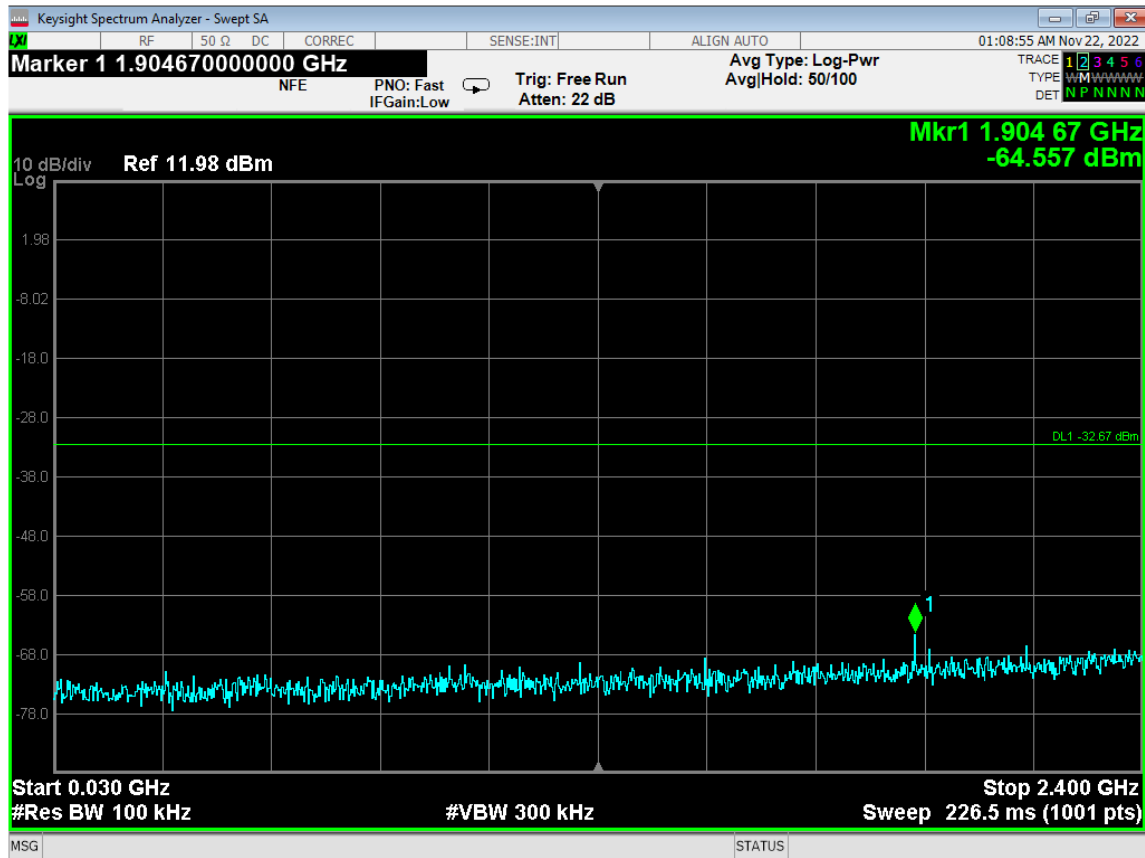
RF Antenna Conducted - 2440 MHz - 2483.5 MHz to 10 GHz - PHY 1



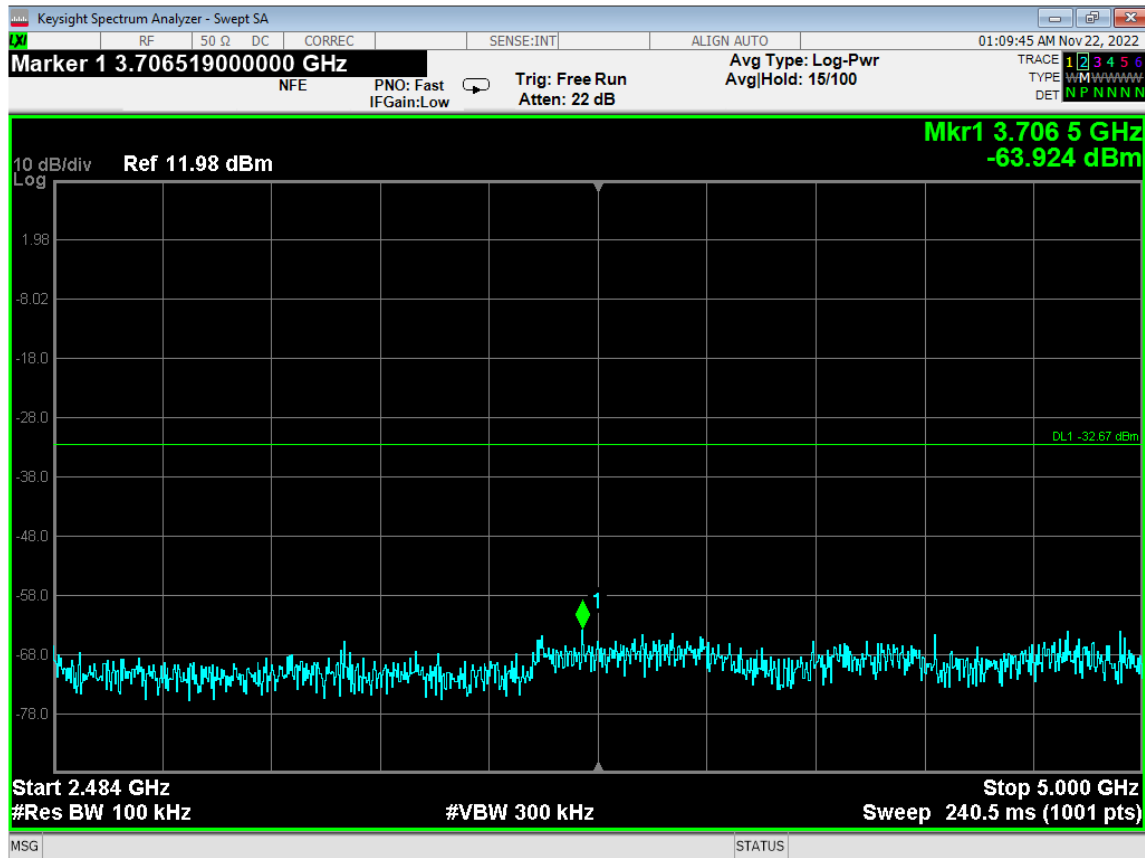
RF Antenna Conducted - 2440 MHz - 10 GHz to 25 GHz - PHY 1



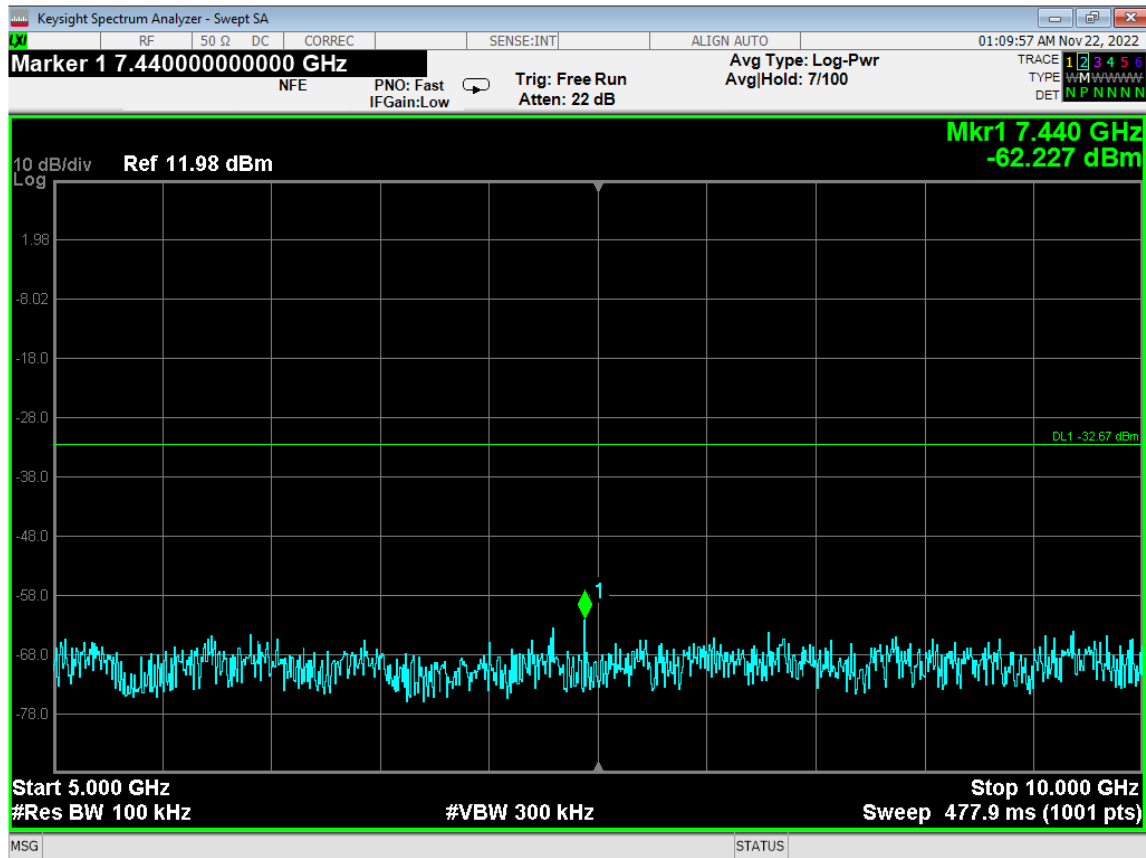
RF Antenna Conducted - 2480 MHz - Reference Level - PHY 1



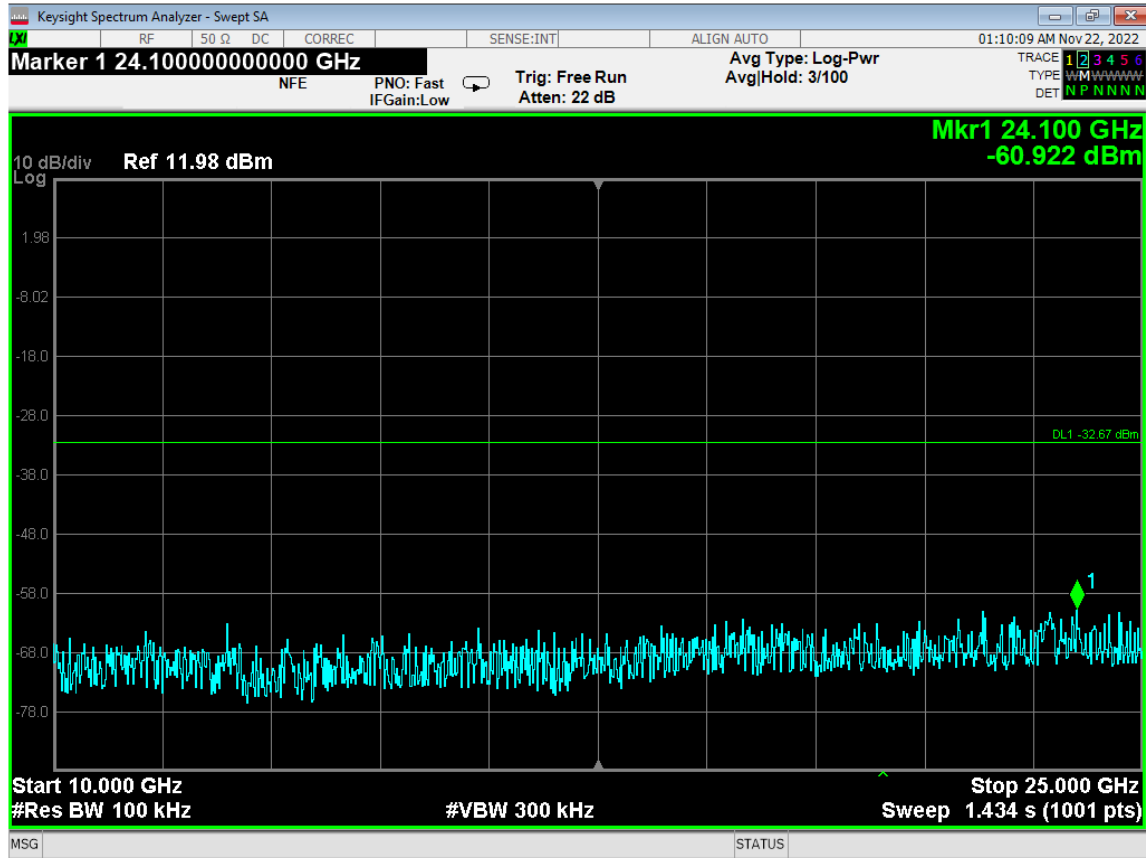
RF Antenna Conducted - 2480 MHz - 30 MHz to 2.4 GHz - PHY 1



RF Antenna Conducted - 2480 MHz - 2483.5 MHz to 5 GHz - PHY 1

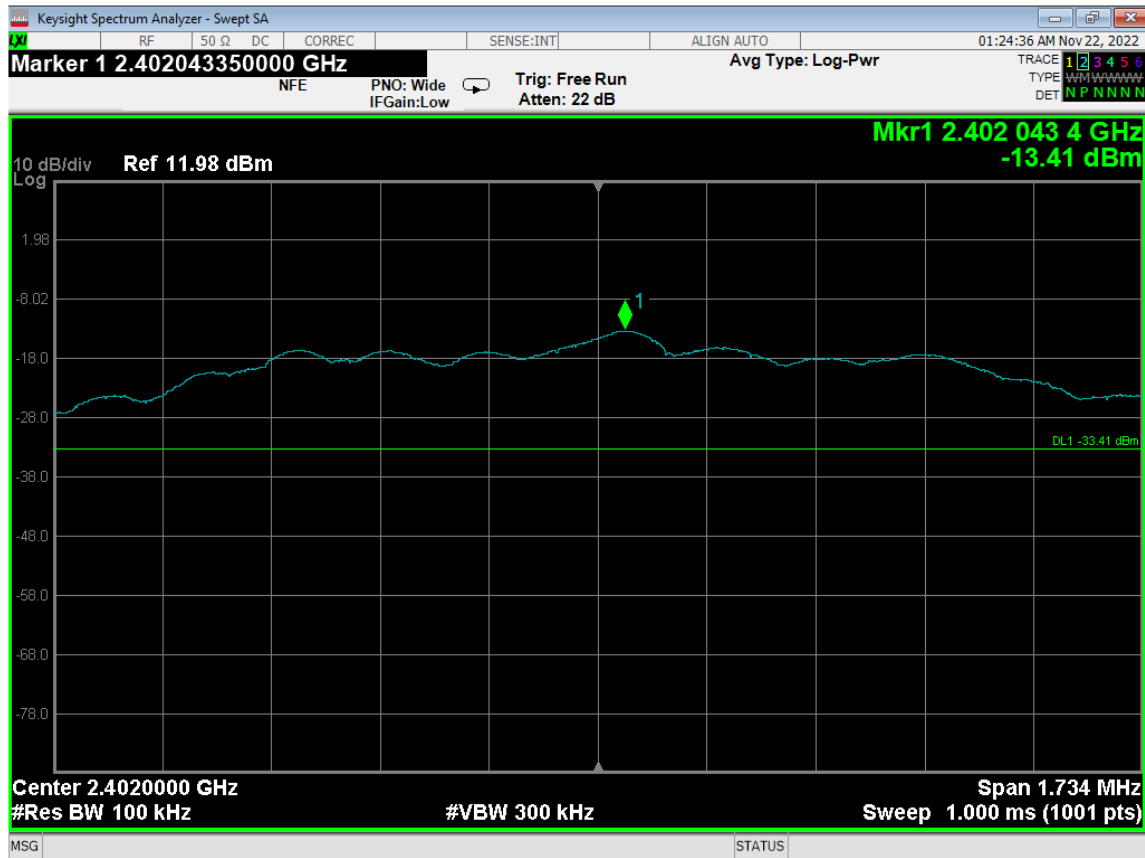


RF Antenna Conducted - 2480 MHz - 5 GHz to 10 GHz - PHY 1

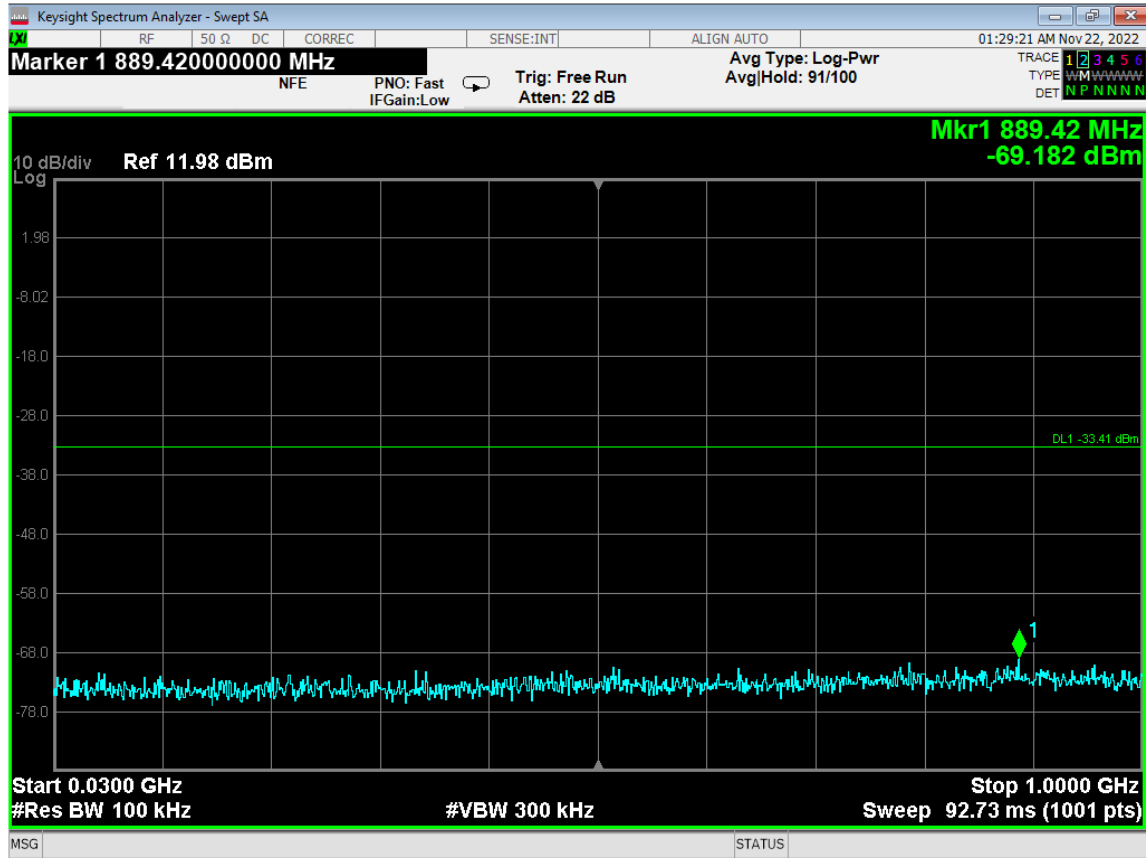


RF Antenna Conducted - 2480 MHz - 10 GHz to 25 GHz - PHY 1

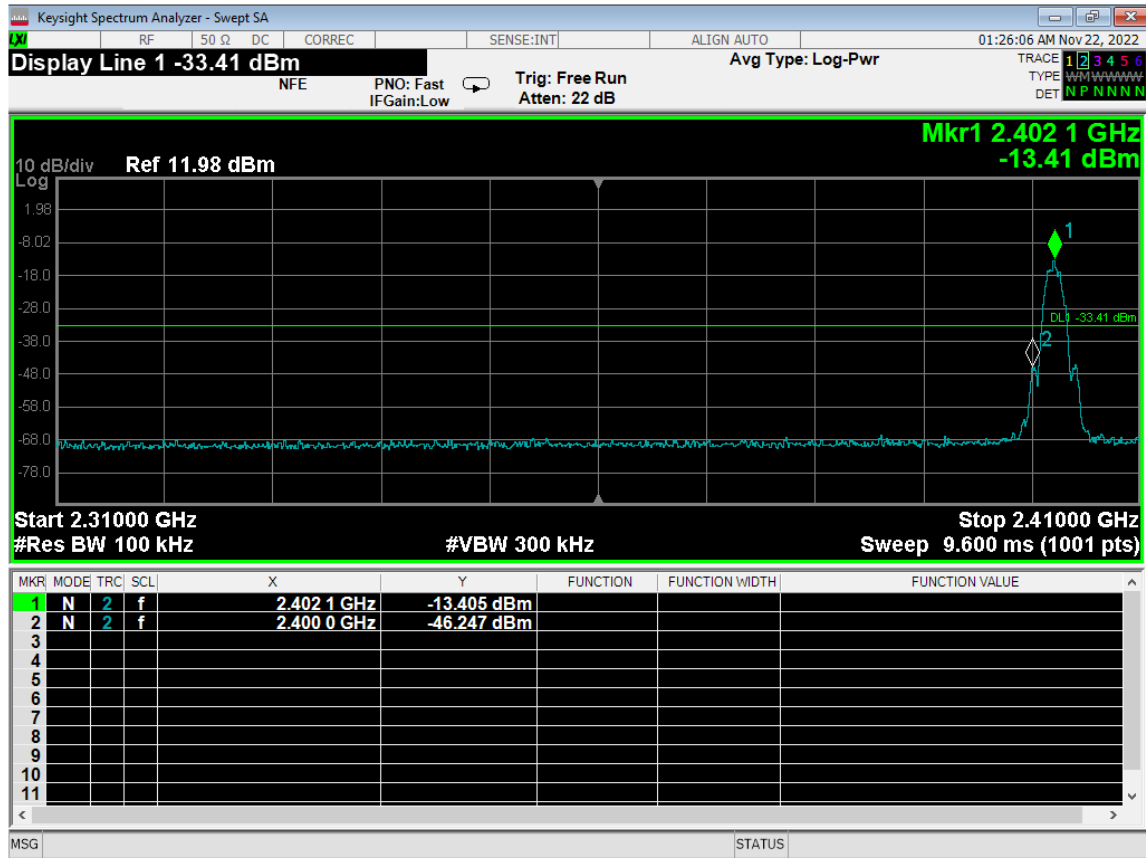
RF ANTENNA CONDUCTED
DATA SHEETS
PHY 2 (2 Mbps)



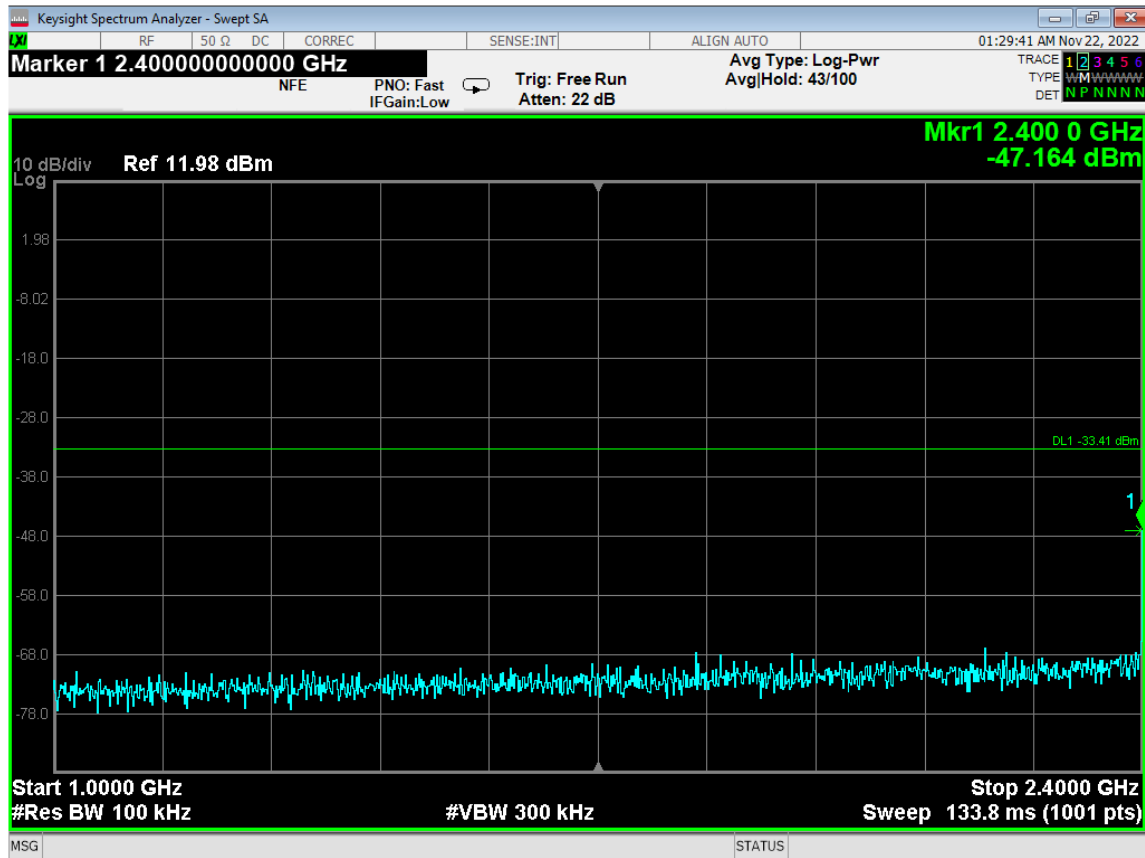
RF Antenna Conducted - 2402 MHz - Reference Level - PHY 2



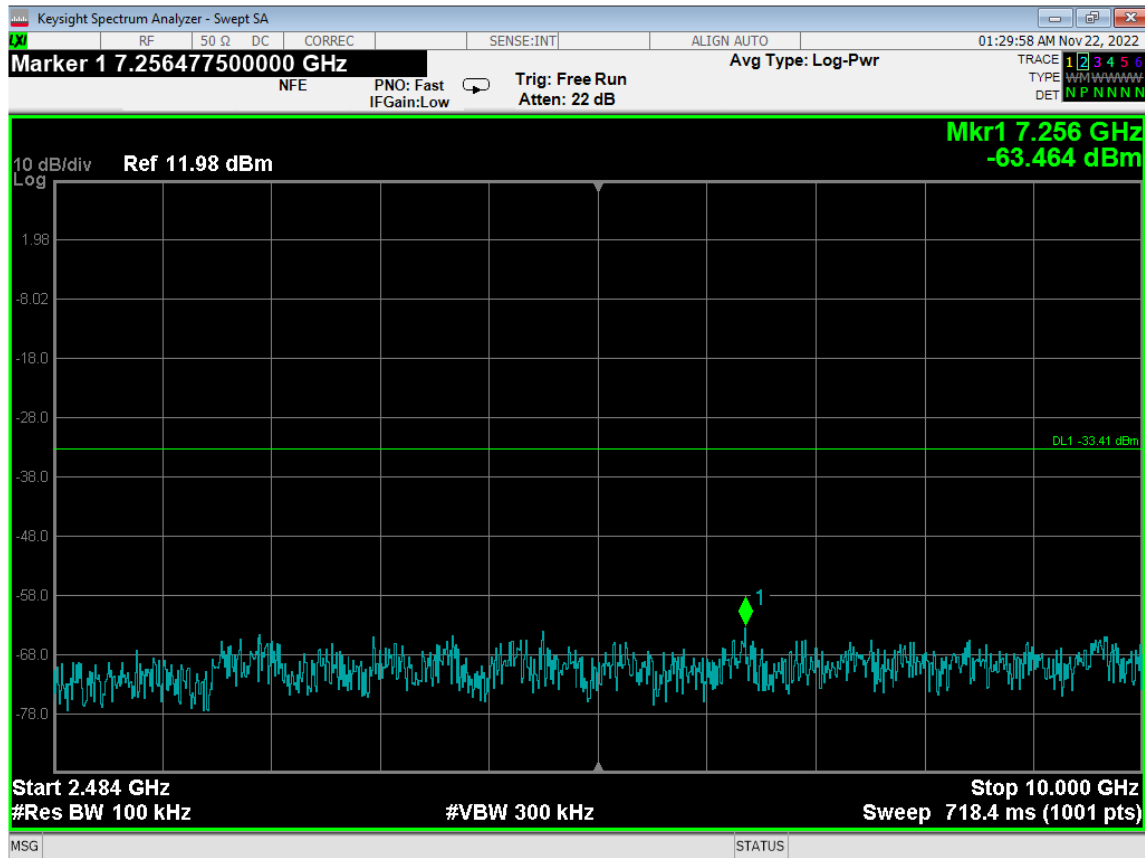
RF Antenna Conducted - 2402 MHz - 30 MHz to 1 GHz - PHY 2



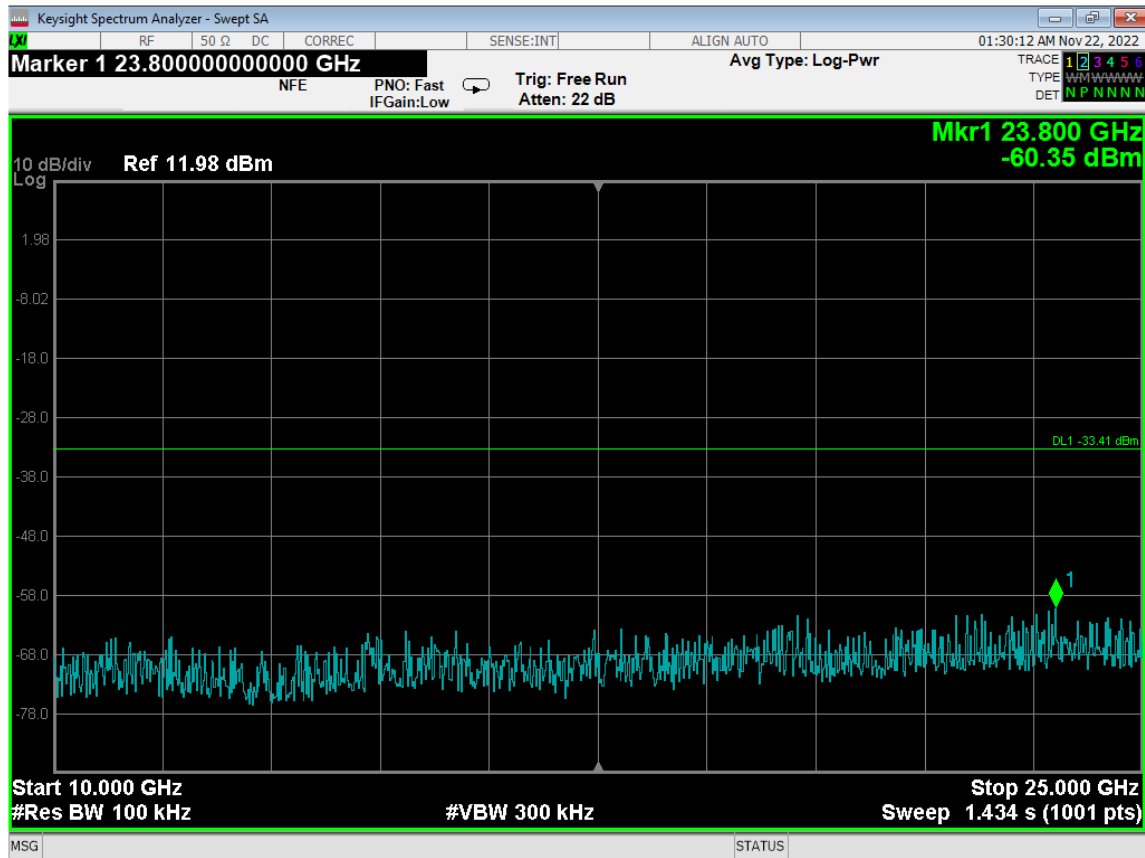
Band Edge - at 2400 MHz - via Conducted - 2402 MHz - PHY 2



RF Antenna Conducted - 2402 MHz - 1 GHz to 2.4 GHz - PHY 2



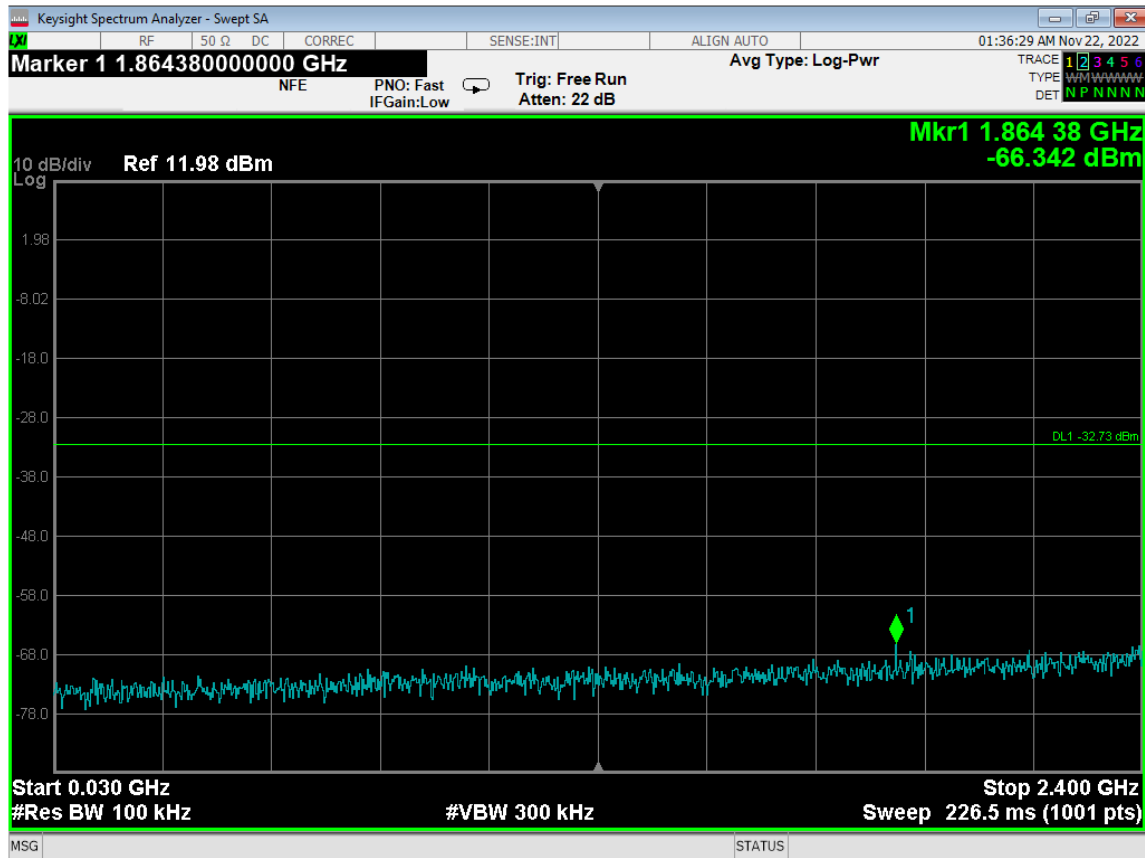
RF Antenna Conducted - 2402 MHz - 2483.5 MHz to 10 GHz - PHY 2



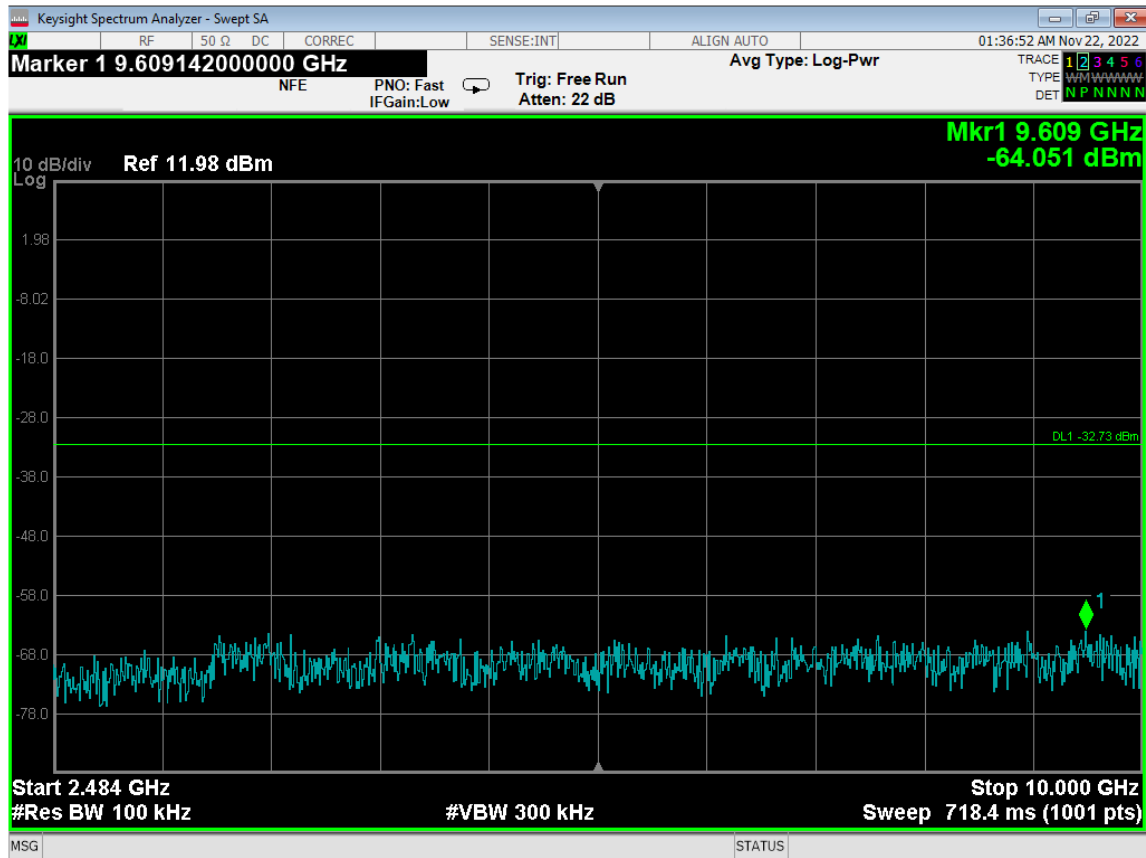
RF Antenna Conducted - 2402 MHz - 10 GHz to 25 GHz- PHY 2



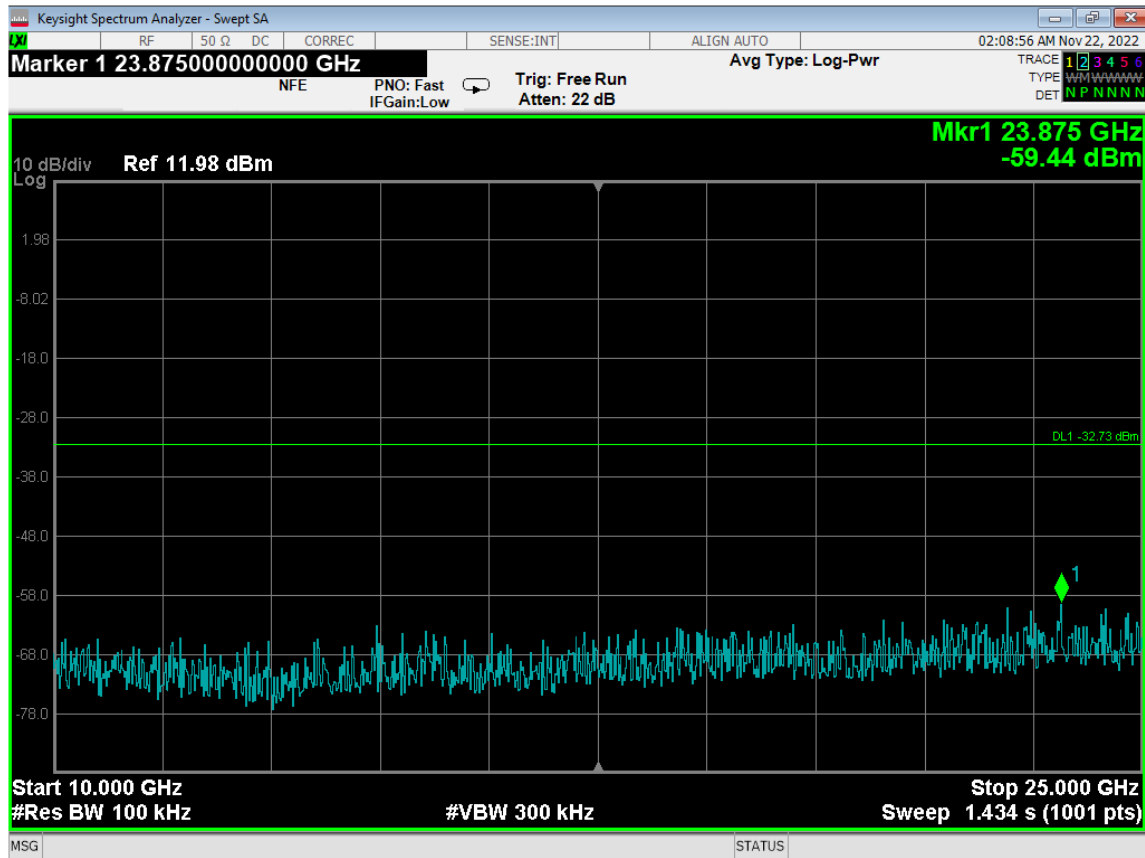
RF Antenna Conducted - 2440 MHz - Reference Level - PHY 2



RF Antenna Conducted - 2440 MHz - 30 MHz to 2.4 GHz - PHY 2

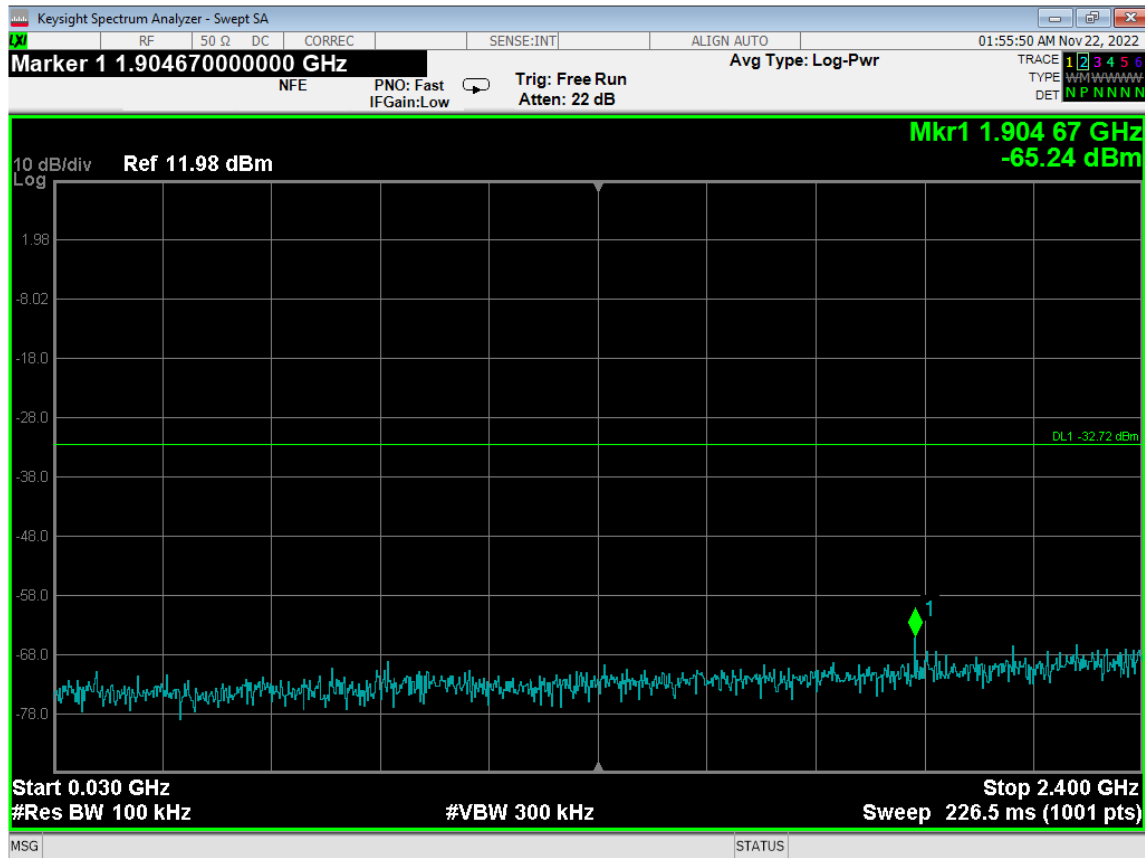


RF Antenna Conducted - 2440 MHz - 2483.5 MHz to 10 GHz - PHY 2

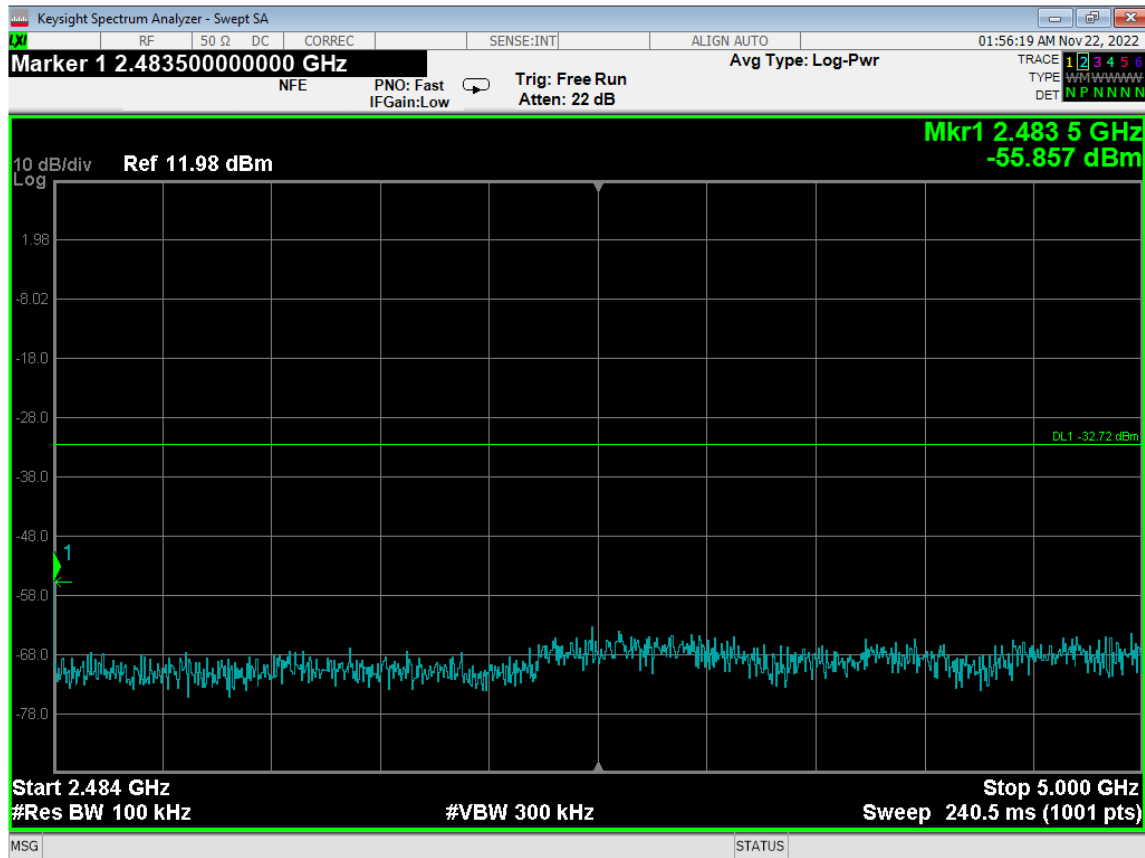


RF Antenna Conducted - 2440 MHz - 10 GHz to 25 GHz - PHY 2

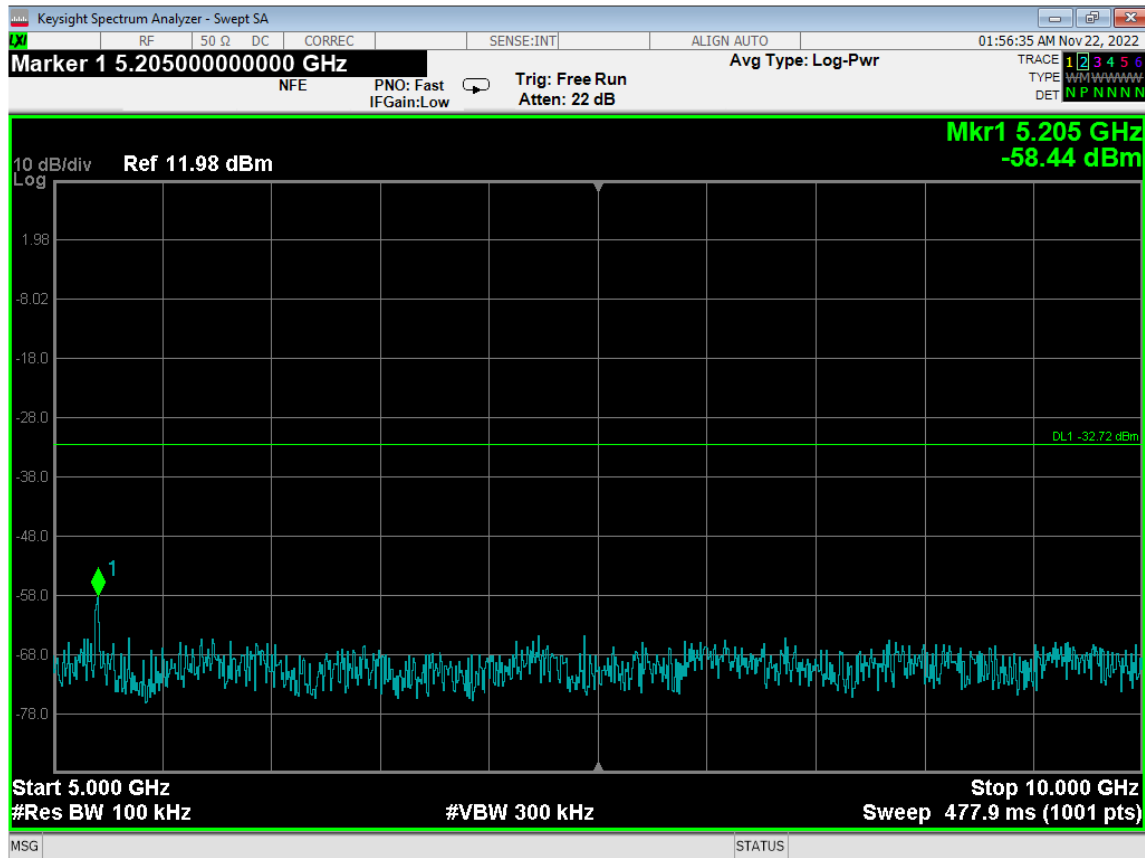




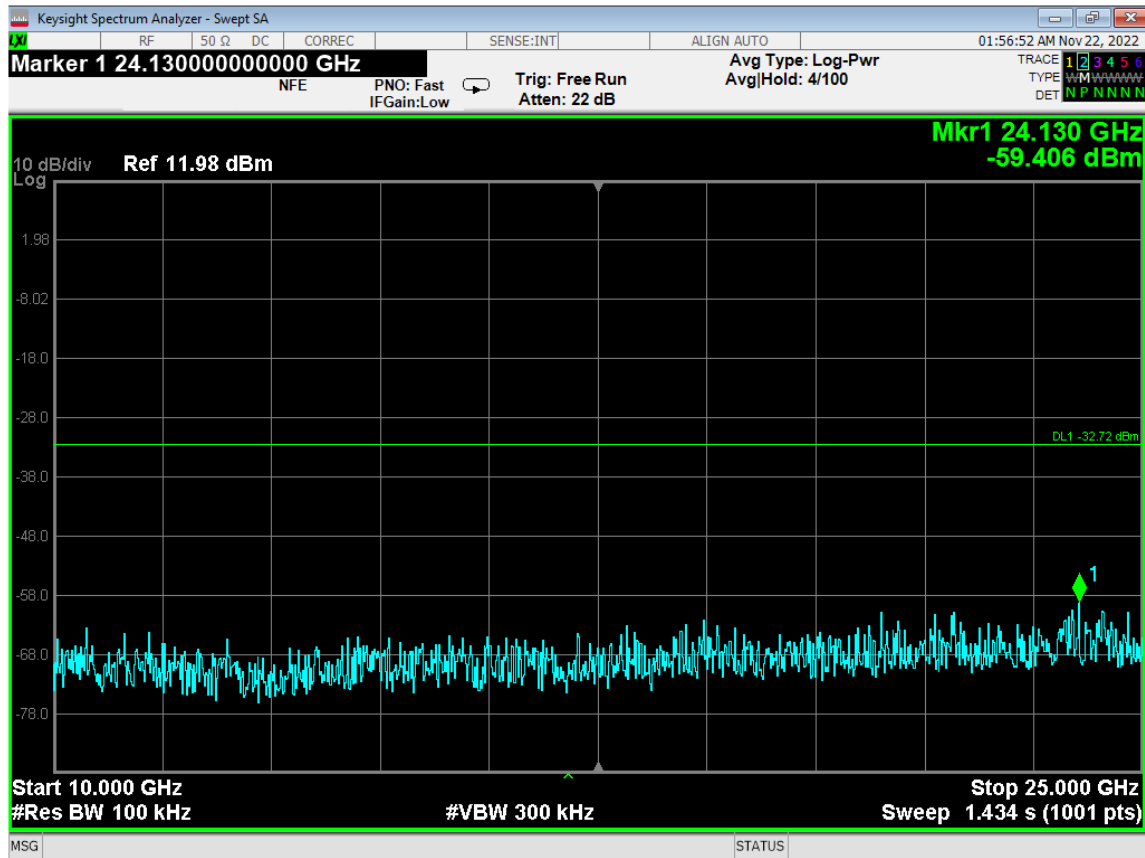
RF Antenna Conducted - 2480 MHz - 30 MHz to 2.4 GHz - PHY 2



RF Antenna Conducted - 2480 MHz - 2483.5 MHz to 5 GHz - PHY 2



RF Antenna Conducted - 2480 MHz - 5 GHz to 10 GHz - PHY 2



RF Antenna Conducted - 2480 MHz - 10 GHz to 25 GHz - PHY 2

PERCEPT CORPORATION**iWEAR GLASSES****MODEL: IW100****EMISSIONS IN NON-RESTRICTED BANDS****PHY 1 (1 Mbps) –AND– PHY 2 (2 Mbps)**

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
2400.00	-46.247	-33.41	-13.754
5205.00	-58.440	-32.72	-25.720
24130.00	-59.406	-32.72	-26.686

Note: The three highest non-restricted emissions are reported.

*The Limit is based on 20 dB below the highest reference level obtained on the previous pages.