EMT **ELECTRO MAGNETIC TEST, INC.**
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

FCC PART 15.407, SUBPART E
IC RSS-247
TEST REPORT

for

the

Beacon

Model: SBEC1V1

Prepared for

Skydio, Inc.
114 Hazel Ave. Redwood City, CA 94061

Prepared by: _____
Andreas Davidsson

Approved by: _____
Kevin Bothmann

Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, California 94043
(650) 965-4000

Date: November 15, 2019

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NVLAP TESTING NVLAP LAB CODE 200147-0

Electro Magnetic Test, Inc. (EMT) is accredited by NVLAP, Lab Code 200147-0 to perform the tests listed in this report, except where noted otherwise. This report and the information contained herein represent the test results related only to the sample tested. This report should not be relied upon as an endorsement or certification by EMT or NVLAP for the sample tested, nor does it represent any statement whatsoever as to its marketing status or fitness of the equipment for a particular purpose.

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REVISION HISTORY

VERSION	DATE	COMMENTS	MODIFIED BY
1.0	November 15, 2019	Original Document	AD
2.0	December 17, 2019	Updated following comments from TCB reviewer.	AD
2.1	December 18, 2019	Updated following comments from TCB reviewer.	AD
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Electro Magnetic Test, Inc., which is an independent testing and consulting firm. The test report is based on testing performed Electro Magnetic Test, Inc. personnel according to the measurement procedure described in the test specification 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 in any form unless done so in full.

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Federal Government.

The measurement data and conclusions contained in this test report are deemed satisfactory evidence of compliance with Industry Canada Interference-Causing Equipment Standard ICES-003, Issue 6, January 2016.

Electro Magnetic Test, Inc. is recognized by the following agencies for performing EMI/EMC testing:

COUNTRY	AGENCY	IDENTIFYING #
USA	Federal Communications Commission (FCC) (EMT's test site is recognized by the FCC)	Registration Number: 90576
USA, Canada, Taiwan, Australia/New Zealand, European Community	National Voluntary Lab Accreditation Program (NVLAP) (EMT is accredited by NVLAP. A copy of the NVLAP Scope Of Accreditation is available upon request.)	Lab Code: 200147-0
Canada	Industry Canada	File No.: IC 2804
Japan	Voluntary Control Council For Interference (VCCI)	A-0118
	Open Field Test Site "A"	-
	Mains Conducted Emissions Test Site "D"	-
	Telecom Conducted Emissions Test Site "D"	-
	3 Meter Semi-Anechoic Chamber Site "E"	-
	3 Meter Semi-Anechoic Chamber Site "E" (1GHz – 6GHz)	-
	Mains Conducted Emissions Test Site "E"	-
	Telecom Conducted Emissions Test Site "E"	-
Korea	Ministry of Information and Communication's Radio Research Laboratory (RRL) under the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement (A copy of the Scope Of Accreditation is available upon request)	US0036
Taiwan	Bureau Of Standards, Metrology and Inspection (BSMI)	Reference Number: SL2-IN-E-1024
Australia / New Zealand	Australian Communications Authority (AUSTEL)	*

*These agencies do not issue an identifying number to test labs.

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GENERAL REPORT SUMMARY (CONTINUED)

Device Tested: Beacon
Model: SBEC1V1
S/N: N/A

Product Description: An accessory for Skydio drone that serves as range extender and positional accuracy with basic control and functionality. The device can connect to an Android or iOS phone for video streaming live content.

Modifications: The EUT was not modified during the testing.

Manufacturer: Skydio, Inc.
114 Hazel Ave.
Redwood City, CA 94061

Test Date(s): November 1, 4, 5, 6, 7, 8, 10, 2019

Test Specifications: EMI requirements
Limits: CISPR 22: 1997 plus A1:2000 & A2:2002 Class B
FCC Title 47, Part 15 Subpart B, Class B
FCC Title 47, Part 15 Subpart C
FCC Title 47, Part 15 Subpart E
Test Procedure: ANSI C63.8: 2013

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

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	FCC STANDARD	IC STANDARD	RESULTS
7.1	Emissions in Restricted and Non-Restricted Bands	15.209	RSS-GEN Issue 4, [8.9] RSS 247 Issue 2, [5.5]:	**PASS**
7.2	Conducted Emissions	15.207(a)	RSS-GEN Issue 4 [8.8]	**PASS**
7.3	Occupied Bandwidth	15.407(e)	RSS 247 Issue 2, [5.2.1, 6.2.4.1]	**PASS**
7.4	Maximum Peak Output Power	15.407(a)(1)(iv), 15.407(a)(3)	RSS 247 Issue 2, [5.4.4]	**PASS**
7.5	Maximum Peak Power Spectral Density	15.407(a)(1)(iv), 15.407(a)(3)	RSS 247 Issue 2, [5.2.2]	**PASS**
7.6	Antenna Requirement	15.203, 15.407(a)(1)(iv), 15.407(a)(2)	N/A	**PASS**
7.7	Safety Requirements	15.407(c), 15.407(h), 15.407(a)(1)(iv)	N/A	**PASS**

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TECHNICAL DESCRIPTION OF THE EUT

Manufacturer:	Skydio, Inc.
Manufacturer Address:	114 Hazel Ave. Redwood City, CA 94061
EUT Name:	Beacon
Model No:	Model: SBEC1V1
Operation frequency:	5180MHz to 5240MHz, and 5725MHz to 5850MHz
Channel Number:	7 / 8
Modulation Technology:	DSSS
Antenna Type:	PCB Antenna
Antenna Gain:	4.0 dBi / 4.5 dBi
Maximum Output Power:	21.74 dBm / 15.95 dBm

Description of Channel:

U-NII-1 (High & Low Power, @ 20MHz)

Bandwidth (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20	36	5180	40	5200	44	5220
	48	5240				

U-NII-3 (High & Low Power, @ 20MHz)

20	149	5745	153	5765	157	5785
	161	5805	165	5825		

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1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Beacon Model: SBEC1V1. The EMI measurements were performed according to the measurement procedure described in ANSI C63.8 2013. 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 specification limits defined in FCC Title 47, Part 15, Subpart C and Subpart E.

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2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Electro Magnetic Test, Inc., 1547 Plymouth Street, Mountain View, California, 94043.

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 measurement results in this report and the calibration of the test equipment are traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Skydio, Inc.

Joe Marcinkowski	Engineering Program Manager

Electro Magnetic Test, Inc.

Andreas Davidsson	Test Technician
Chinmay Shendurnikar	Test Technician
David Vivanco	Test Technician
Simeet Gandhi	Test Technician
Manan Modi	Test Technician
Kevin Bothmann	Lab Manager

2.4 Date Test Sample was Received

The test sample was received on November 1, 2019.

2.5 Disposition of the Test Sample

The test sample has not yet been returned to Skydio, Inc.

2.6 Abbreviations and Acronyms

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

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
CISPR	International Special Committee On Radio Interference
FCC	Federal Communications Commission

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3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
FCC Title 47, Part 15, Subpart E	FCC Rules - Unlicensed National Information Infrastructure Devices
ANSI C63.10-2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.
RSS-Gen Issue 5, April 2018	General Requirements for Compliance of Radio Apparatus
RSS 247, Issue 2, February 2017	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

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4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

The Beacon was connected to the remote laptop through its USB-C Port. During testing the wireless radio was continuously transmitting and the Beacon was testing in its worst case orientation

The EUT uses two wireless radios for operation, one high powered radio and one low powered radio. The radios were tested together for all radiated tests and individually for all conducted tests.

The EUT was tested in three physical configurations across all modes, flat, vertical with antenna facing upwards, and vertical with antenna facing downwards. The vertical with antenna facing upwards orientation in was found to have the highest intentional and unintentional emissions.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The cables were moved to maximize the emissions. The final conducted as well as radiated data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously.

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4.1.1 Cable Construction and Termination

Cable #1

This is a 10 ft. unshielded USB cable connecting the EUT to the remote laptop. It has a USB Type C connected on the EUT end and a USB Type A connector on the remote laptop end.

Cable #2

This is a 6 ft. unshielded power cable connecting the fan to the AC outlet. It is hardwired on the EUT end and has a NEMA 1-15P connector on the AC Outlet end.

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5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
Beacon (EUT)	Skydio, Inc.	SBEC1V1	N/A	N/A
Fan				
THE FOLLOWING WERE LOCATED OUTSIDE THE TEST SITE:				
Laptop	Dell	Precision 5510	7W0GNH2	DOC
Laptop AC Adapter	Dell	HA130PM130	CN-0RN7NW-75661-343-20SJ-A00	DOC

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5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESU40	100295	February 15, 2019	1 Year
Radiated EMI Software	Sector Design	N/A	Ver.1.4.6	N/A	N/A
EMI Receiver (Conducted EMI)	Rohde & Schwarz	ESU40	100295	February 15, 2019	1 Year
Conducted EMI Software	ETS-Lindgren	Tile!	Rev. 7.0.12.697	N/A	N/A
Preamplifier	Hewlett Packard	8447D	1937A02579	March 5, 2019	1 Year
RF Attenuator	Com-Power	LIT-153A	531175	December 15, 2018	1 Year
LISN	Solar Electronics	Type 21107-50-TS-50-N	21107150701	January 2, 2019	1 Year
LISN	Solar Electronics	Type 21107-50-TS-50-N	21107150702	January 2, 2019	1 Year
LISN	Solar Electronics	Type 21107-50-TS-50-N	21107150703	January 2, 2019	1 Year
LISN	Solar Electronics	Type 21107-50-TS-50-N	21107150704	January 2, 2019	1 Year
Biconical Antenna	Com Power	AB-100	01557	July 20, 2019	1 Year
Log Periodic Antenna	Com Power	AL-100	16001	August 9, 2019	1 Year
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Dell, Inc.	DHS	DNSV641	N/A	N/A
Printer	Hewlett Packard	C8124A	CN39A220ZD	N/A	N/A

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5.2 EMI Test Equipment (Continued)

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESU40	100127	February 16, 2019	1 Year
EMI Test Software	Rohde & Schwarz	EMC32	V8.54.0	N/A	N/A
BiConiLog Antenna	ETS-Lindgren	3143B	00206757	August 28, 2019	1 Year
Horn Antenna	ETS-Lindgren	3117	00109294	September 18, 2019	1 Year
Preamplifier	Rohde & Schwarz	TS-PR18	100056	December 12, 2018	1 Year
Antenna Mast	ETS-Lindgren	2171B	00150364	N/A	N/A
Turntable	ETS-Lindgren	2187-3.0	00118231	N/A	N/A
Computer	Dell, Inc.	Precision Tower 3620	GPQCDH2	N/A	N/A
Multi-Function Controller	ETS-Lindgren	2090	00102270	N/A	N/A

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6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to the table below and section 7.1 of this report for the details of which sites were used for testing. All sites are located at 1547 Plymouth Street, Mountain View, California 94043.

Site Used For Test	Site Description
	Open Field Test Site "A"
	Mains Conducted Emissions Test Site "D"
	Telecom Conducted Emissions Test Site "D"
X	3 Meter Semi-Anechoic Chamber Site "E"
	Mains Conducted Emissions Test Site "E"
	Telecom Conducted Emissions Test Site "E"

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane for all tests not including radiated measurements above 1GHz.

For radiated measurements above 1GHz the EUT was mounted on a 0.7 meter non-conductive hollow cube that was placed on a 1.0 by 1.5 meter table 0.8 meters above the ground plane with a total height of 1.5 meters.

The EUT was grounded through the cable connected through the USB Port.

6.3 Facility Environmental Characteristics

All tests were performed in a climate controlled building. The temperature was 24° C, humidity 45%, and barometric pressure 101.6 kPa.

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7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests.

7.1 Emissions in Restricted and Non-Restricted Bands

7.1.1 General Requirements Limit (FCC PART 15 Section 15.209(a)(1), IC-RSS-GEN Issue 4, [8.9])

Frequency of Emission (MHz)	Field Strength		Measurement Distance (Meters)
	µV/m	dBµV/m	
0.009-0.49	2400/F(kHz)		300
0.49-1.705	24000/F(kHz)		30
1.705-30	30		30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

7.1.2 Emissions in Restricted and Non-Restricted Bands Limit (FCC PART 15 Section 15.407, IC-RSS-GEN Issue 4, [8.10], IC-RSS 247 Issue 1, [5.5])

Emissions in Restricted and Non-Restricted Bands FCC PART 15 Section 15.407(b(1)):

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

Emissions in Restricted and Non-Restricted Bands FCC PART 15 Section 15.407(b(4(i))):

All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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7.1.2 Emissions in Restricted and Non-Restricted Bands Limit (FCC PART 15 Section 15.407, IC-RSS-GEN Issue 4, [8.10], IC-RSS 247 Issue 1, [5.5]) (Continued)

Emissions in Restricted Bands IC-RSS-GEN Issue 4, [8.10]:

Restricted bands, identified in Table 6, are designated primarily for safety-of-life services (distress calling and certain aeronautical bands), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following restrictions apply:

(a) Fundamental components of modulation of licence-exempt radio apparatus shall not fall within the restricted bands of Table 6 except for apparatus complying under RSS-287
(b) Unwanted emissions that fall into restricted bands of Table 6 shall comply with the limits specified in RSS-Gen; and
(c) Unwanted emissions that do not fall within the restricted frequency bands of Table 6 shall comply either with the limits specified in the applicable RSS or with those specified in this RSS-Gen.

Limit (For Restricted Bands)
See General Limits Requirement In Above Chart (Section 7.1.1)

7.1.3 Test Procedure (Radiated)

The Rohde & Schwarz ESU40 EMI receiver was used as a measuring meter while under software control by the Rohde & Schwarz EMC32 software. To increase the sensitivity of the instrument, the built in preamplifier was used from 9 KHz to 1 GHz and an external preamplifier was used from 1 GHz to 26.5 GHz. The EMI receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI receiver records the highest measured reading over all the sweeps. The built in quasi-peak or average detector was used only for those readings which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was 100 kHz from 9 kHz to to 26.5 GHz.

The Loop Antenna, Broadband BiConiLog and horn antennas were used as transducers during the measurement. The Loop antenna was used from 9 KHz to 30 MHz, the BiConiLog antenna was used from 30 MHz to 1000 MHz and horn antennas were used from 1GHz – 26.5 GHz. The frequency spans were wide (9 kHz to 150 kHz, 150 kHz to 30 MHz, 30 MHz to 88 MHz, 88 MHz to 216 MHz, 216 to 300 MHz, 300 MHz to 1 GHz, 1 GHz to 18 GHz and 18 GHz to 26.5 GHz) during preliminary investigations. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

The 5 meter semi-anechoic chamber of Electro Magnetic Test, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.8: 2013. 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. The EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength).

The presence of non EUT signals was verified by turning the EUT off. In case a non EUT signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the other signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 9 kHz to 26.5 GHz. to obtain final test data.

The test was run through fully three times with the EUT having its output set to low, middle, and high channels on each test respectively. The data was then combined to provide the worst case of all three tests. This was tested against all applicable modes and bandwidths with the worst case being plotted in each measurement range.

Calculation Of Radiated Emission Test Data:

Amplitude - Gain + Antenna Factor + Cable Loss = Corrected Amplitude

Corrected Amplitude - Limit = Margin

Associated with the radiated emission test data in this report is a ±5.1dB measurement uncertainty.

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7.1.4 Test Procedure (Conducted)

The Rohde & Schwarz ESU40 EMI receiver was used as a measuring meter. The data was collected with the EMI receiver in the peak detect mode with the "Max Hold" feature activated. The quasi-peak and average detectors were used only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the EMI receiver input stage, and the EMI receiver offset was adjusted accordingly to read the actual data measured. The LISN output was read by the Rohde & Schwarz ESU40 EMI receiver. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions 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 C63.8: 2013. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 0.15 MHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable and peripheral placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

The final data was collected under program control by the ETS-Lindgren Tile! software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave.

Calculation Of Conducted Emission Test Data:

Amplitudes shown on the test data are already corrected and include the following equation:

Raw Amplitude + LISN Insertion Loss + Attenuator + Cable Loss = Corrected Amplitude

Corrected Amplitude - Limit = Margin

Associated with the conducted emission test data in this report is a ±3.4dB measurement uncertainty.

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7.2 Conducted Emissions Test – Mains Ports

7.2.1 Limit (FCC PART 15 Section 15.207(a), IC RSS-GEN Issue 4 [8.8])

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

*Note: Decreases with the logarithm of the frequency

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7.3 Occupied Bandwidth

7.3.1 Limits

FCC PART 15 Section 15.407(e)
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Limit
6 dB Bandwidth ≥ 500 kHz

7.3.2 Test Procedure

Follow the radiated test procedure but set the Spectrum Analyzer as below:

RBW: 100 kHz
VBW: ≥ 3 X RBW
Detector: Peak
Trace Mode: Max Hold

(1) Set analyzer center frequency to center of signal

(2) Turn on occupied bandwidth measurement mode

(3) Set measurement to 6db bandwidth

Associated with the Occupied Bandwidth test data in this report is a ±2.5% measurement uncertainty.

7.3.3 Test Result

The EUT meets the requirements. Please see the datasheets in Appendix A for the measurement results.

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7.4 Maximum Peak Output Power

7.4.1 Limits

FCC PART 15 Section 15.407(a)(1)(iv)
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

FCC PART 15 Section 15.407(a)(3)
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

Limit
5.15-5.25 GHz: Peak Output Power (Digital Modulation) ≤ 250 milliwatt or 23 dBm
5.725-5.85 GHz: Peak Output Power (Digital Modulation) ≤ 1Watt or 30 dBm

7.4.2 Test Procedure

RBW > DTS Bandwidth
VBW ≥ 3 x RBW
Span ≥ 3 x RBW
Detector: Peak
Trace Mode: Max Hold
Amplitude Offset: Cable Loss

1. When the trace is completed, mark the peak value
2. Calculate the Peak Output Power by using the following equation:
    a. Peak Power = Conducted Output Power

Cable Loss = 3.9 dBm

Associated with the Maximum Peak Output Power test data in this report is a ±5.1dB measurement uncertainty.

7.4.3 Test Result

The EUT meets the requirements. Please see the datasheets in Appendix A for the measurement results.

7.5 Maximum Peak Power Spectral Density

7.5.1 Limits

FCC PART 15 Section 15.407(a)(1)(iv)
For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

FCC PART 15 Section 15.407(a)(3)
For the band 5.725-5.85 GHz the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

Limit
5150-5250MHz: 11 dBm /1 MHz
5725-5850MHz: 30 dBm / 500 kHz

7.5.2 Test Procedure

Follow the conducted test procedure but set the Spectrum Analyzer as below:

RBW = 100KHz
VBW ≥ 3 x RBW
Span ≥ 1.5 x DTS Bandwidth
Detector: Peak
Amplitude Offset: Cable Loss

1.) Connect EUT to Spectrum Analyzer
2.) Record data values and calculate Power Spectral Density by using the following equation:
    a. Power Spectral Density = Conducted Output Power
Cable Loss = 3.9 dBm

Associated with the Maximum Peak Power Spectral Density test data in this report is a ±5.1dB measurement uncertainty.

7.5.3 Test Result

The EUT meets the requirements. Please see the datasheets in Appendix A for the measurement results.

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

7.6 Antenna Requirement

7.6.1 Requirement (FCC PART 15 SECTION 15.203, 15.407(a)(1)(i), 15.407(a)(2)

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

(iv) For client devices in the 5.15-5.25 GHz band, if transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

7.6.2 Test Result

The antenna is integrated on the main PCB with no consideration for replacement on the Beacon.

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

7.7 Security Requirements

7.7.1 Transmission Detection

7.7.1.1 Limits 15.407(c)

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

7.7.1.2 Test Result

The client has been informed of this requirement and has included in the theory of operations how this requirement is meet on the EUT.

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

7.7.2 Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS).

7.7.2.1 Limits 15.407(h)

(1)Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

(2)Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. Operators shall only use equipment with a DFS mechanism that is turned on when operating in these bands. The device must sense for radar signals at 100 percent of its emission bandwidth. The minimum DFS detection threshold for devices with a maximum e.i.r.p. of 200 mW to 1 W is −64 dBm. For devices that operate with less than 200 mW e.i.r.p. and a power spectral density of less than 10 dBm in a 1 MHz band, the minimum detection threshold is −62 dBm. The detection threshold is the received power averaged over 1 microsecond referenced to a 0 dBi antenna. For the initial channel setting, the manufacturers shall be permitted to provide for either random channel selection or manual channel selection.

7.7.2.2 Test Result

This test is not applicable due to the EUT not operating within the 5.25-5.35GHz and 5.47-5.725GHz bands.

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

7.7.3 Device Security

7.7.3.1 Limits 15.407(i)

All U-NII devices must contain security features to protect against modification of software by unauthorized parties.

(1) Manufacturers must implement security features in any digitally modulated devices capable of operating in any of the U-NII bands, so that third parties are not able to reprogram the device to operate outside the parameters for which the device was certified. The software must prevent the user from operating the transmitter with operating frequencies, output power, modulation types or other radio frequency parameters outside those that were approved for the device. Manufacturers may use means including, but not limited to the use of a private network that allows only authenticated users to download software, electronic signatures in software or coding in hardware that is decoded by software to verify that new software can be legally loaded into a device to meet these requirements and must describe the methods in their application for equipment authorization.

(2) Manufacturers must take steps to ensure that DFS functionality cannot be disabled by the operator of the U-NII device.

7.7.3.2 Test Result

The client has been informed of this requirement.

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

8. CONCLUSIONS / COMPLIANCE STATEMENT

Based upon the results contained in this report, Electro Magnetic Test, Inc. has determined that the Beacon, Model: SBEC1V1 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C and Subpart E.

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

APPENDIX A

RADIATED AND CONDUCTED EMISSIONS DATA SHEETS

Radiated Emission Test Report

Tested At:
Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, CA 94043
Tel. 650-965-4000
Fax. 650-965-3000

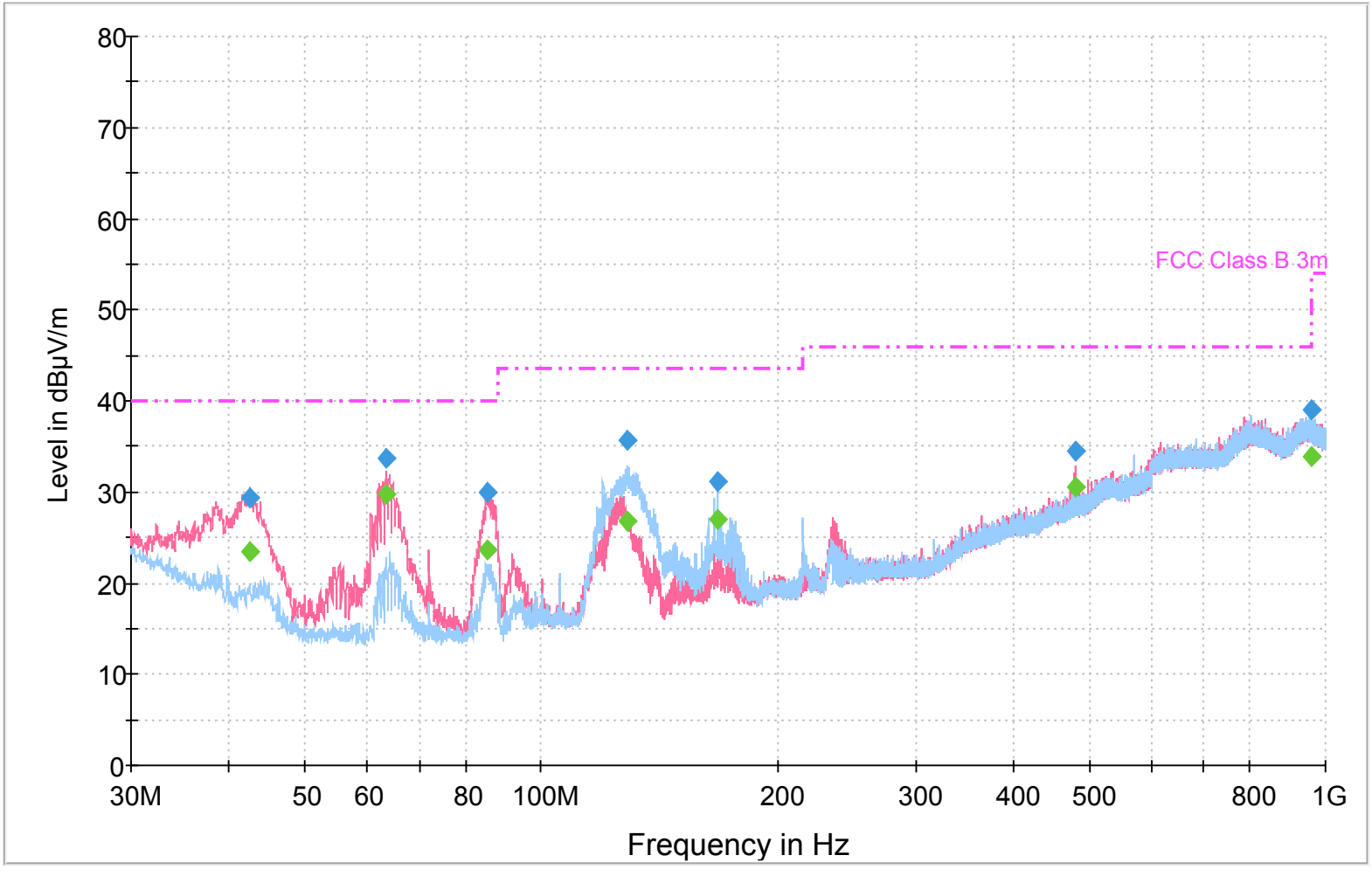
Common Information

Test Description:	FCC Class B Radiated Emissions
Operating Conditions:	Normal
Test Engineer:	David Vivanco

EUT Information

Company Name:	Skydio
EUT Name	Beacon
Model Number:	SBEC1V1
Serial Number:	N/A
Comment:	Omni-Directional Antenna, Vertical, Facing Up, 20MHz, 20dB, 5180

FCC Class B Radiated Scan 3m PK QP



FCC Class B 3m
Final Result 1-PK+
Preview Result 1V-PK+
Final Result 2-QPK
Preview Result 1H-PK+

Final Result 1 - 5180MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
42.450000	29.4	100.0	V	338.0	14.6	10.60	40.00	
63.360000	33.7	100.0	V	359.0	12.1	6.30	40.00	
85.350000	30.0	159.0	V	168.0	12.3	10.00	40.00	
129.060000	35.6	205.0	H	283.0	13.3	7.90	43.50	
168.000000	31.1	194.0	H	92.0	15.4	12.40	43.50	
479.970000	34.4	100.0	V	94.0	24.9	11.60	46.00	
959.970000	39.1	221.0	V	50.0	31.8	6.90	46.00	

Final Result 2 - 5180MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
42.450000	23.4	100.0	V	338.0	14.6	16.60	40.00	
63.360000	29.8	100.0	V	359.0	12.1	10.20	40.00	
85.350000	23.7	159.0	V	168.0	12.3	16.30	40.00	
129.060000	26.7	205.0	H	283.0	13.3	16.80	43.50	
168.000000	27.0	194.0	H	92.0	15.4	16.50	43.50	
479.970000	30.5	100.0	V	94.0	24.9	15.50	46.00	
959.970000	33.9	221.0	V	50.0	31.8	12.10	46.00	

Final Result 1 - 5220MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
43.020000	30.2	100.0	V	0.0	14.4	9.80	40.00	
63.450000	34.9	131.0	V	325.0	12.1	5.10	40.00	
85.590000	29.7	126.0	V	100.0	12.3	10.30	40.00	
131.910000	34.4	194.0	H	267.0	13.3	9.10	43.50	
166.380000	31.3	183.0	H	99.0	15.5	12.20	43.50	
477.270000	33.3	100.0	V	92.0	24.9	12.70	46.00	
933.240000	37.8	210.0	V	147.0	32.0	8.20	46.00	

Final Result 2 - 5220MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
43.020000	24.5	100.0	V	0.0	14.4	15.50	40.00	
63.450000	29.5	131.0	V	325.0	12.1	10.50	40.00	
85.590000	24.8	126.0	V	100.0	12.3	15.20	40.00	
131.910000	25.5	194.0	H	267.0	13.3	18.00	43.50	
166.380000	26.5	183.0	H	99.0	15.5	17.00	43.50	
477.270000	27.6	100.0	V	92.0	24.9	18.40	46.00	
933.240000	31.4	210.0	V	147.0	32.0	14.60	46.00	

Final Result 1 - 5240MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
42.210000	31.0	100.0	V	1.0	14.7	9.00	40.00	
64.080000	34.3	100.0	V	359.0	12.1	5.70	40.00	
86.310000	28.9	126.0	V	176.0	12.3	11.10	40.00	
129.630000	36.0	260.0	H	294.0	13.3	7.50	43.50	
168.000000	32.5	188.0	H	79.0	15.4	11.00	43.50	
477.120000	35.5	100.0	V	98.0	24.9	10.50	46.00	
951.330000	38.4	241.0	V	86.0	32.1	7.60	46.00	

Final Result 2 - 5240MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
42.210000	25.7	100.0	V	1.0	14.7	14.30	40.00	
64.080000	30.5	100.0	V	359.0	12.1	9.50	40.00	
86.310000	24.6	126.0	V	176.0	12.3	15.40	40.00	
129.630000	27.0	260.0	H	294.0	13.3	16.50	43.50	
168.000000	28.6	188.0	H	79.0	15.4	14.90	43.50	
477.120000	30.0	100.0	V	98.0	24.9	16.00	46.00	
951.330000	31.8	241.0	V	86.0	32.1	14.20	46.00	

Final Result 1 - 5745MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
41.760000	29.7	100.0	V	169.0	14.9	10.30	40.00	
63.360000	33.4	114.0	V	308.0	12.1	6.60	40.00	
85.470000	29.6	119.0	V	168.0	12.3	10.40	40.00	
129.030000	35.7	184.0	H	290.0	13.3	7.80	43.50	
168.000000	31.9	177.0	H	86.0	15.4	11.60	43.50	
571.200000	35.7	100.0	V	359.0	27.0	10.30	46.00	
959.970000	41.1	100.0	V	269.0	31.8	4.90	46.00	

Final Result 2 - 5745MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
41.760000	24.1	100.0	V	169.0	14.9	15.90	40.00	
63.360000	29.0	114.0	V	308.0	12.1	11.00	40.00	
85.470000	24.3	119.0	V	168.0	12.3	15.70	40.00	
129.030000	26.3	184.0	H	290.0	13.3	17.20	43.50	
168.000000	28.0	177.0	H	86.0	15.4	15.50	43.50	
571.200000	31.5	100.0	V	359.0	27.0	14.50	46.00	
959.970000	36.3	100.0	V	269.0	31.8	9.70	46.00	

Final Result 1 - 5785MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
42.600000	30.2	114.0	V	71.0	14.6	9.80	40.00	
63.390000	33.5	114.0	V	337.0	12.1	6.50	40.00	
84.690000	28.9	118.0	V	191.0	12.3	11.10	40.00	
126.900000	35.7	175.0	H	276.0	13.2	7.80	43.50	
168.000000	30.0	199.0	H	93.0	15.4	13.50	43.50	
959.970000	37.3	329.0	V	79.0	31.8	8.70	46.00	

Final Result 2 - 5785MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
42.600000	23.0	114.0	V	71.0	14.6	17.00	40.00	
63.390000	30.1	114.0	V	337.0	12.1	9.90	40.00	
84.690000	24.3	118.0	V	191.0	12.3	15.70	40.00	
126.900000	26.3	175.0	H	276.0	13.2	17.20	43.50	
168.000000	25.5	199.0	H	93.0	15.4	18.00	43.50	
959.970000	31.5	329.0	V	79.0	31.8	14.50	46.00	

Final Result 1 - 5825MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
30.960000	25.5	159.0	V	81.0	20.3	14.50	40.00	
54.480000	25.6	100.0	V	79.0	12.1	14.40	40.00	
83.790000	29.0	100.0	V	106.0	12.3	11.00	40.00	
120.000000	34.7	287.0	H	100.0	13.0	8.80	43.50	
147.330000	31.6	286.0	V	352.0	14.7	11.90	43.50	
147.480000	38.0	142.0	H	260.0	14.7	5.50	43.50	
821.040000	36.8	393.0	V	359.0	31.4	9.20	46.00	

Final Result 2 - 5825MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
30.960000	18.9	159.0	V	81.0	20.3	21.10	40.00	
54.480000	19.7	100.0	V	79.0	12.1	20.30	40.00	
83.790000	24.0	100.0	V	106.0	12.3	16.00	40.00	
120.000000	29.4	287.0	H	100.0	13.0	14.10	43.50	
147.330000	22.1	286.0	V	352.0	14.7	21.40	43.50	
147.480000	28.7	142.0	H	260.0	14.7	14.80	43.50	
821.040000	31.1	393.0	V	359.0	31.4	14.90	46.00	

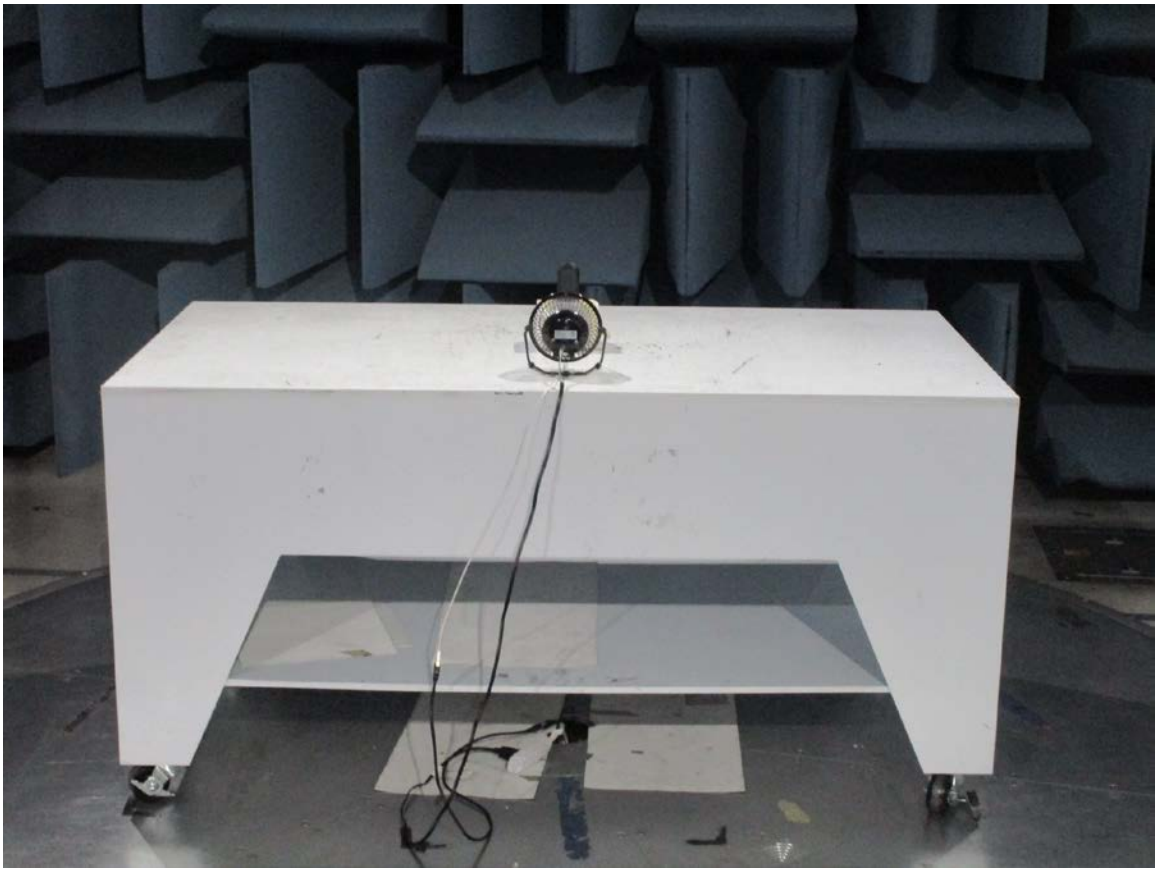
EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

FRONT VIEW

Skydio, Inc.
Beacon
Model: SBEC1V1
CISPR 22/FCC Class B – Radiated Emissions

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000



REAR VIEW

Skydio, Inc.
Beacon
Model: SBEC1V1
CISPR 22/FCC Class B – Radiated Emissions

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

Radiated Emission Test Report

Tested At:
Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, CA 94043
Tel. 650-965-4000
Fax. 650-965-3000

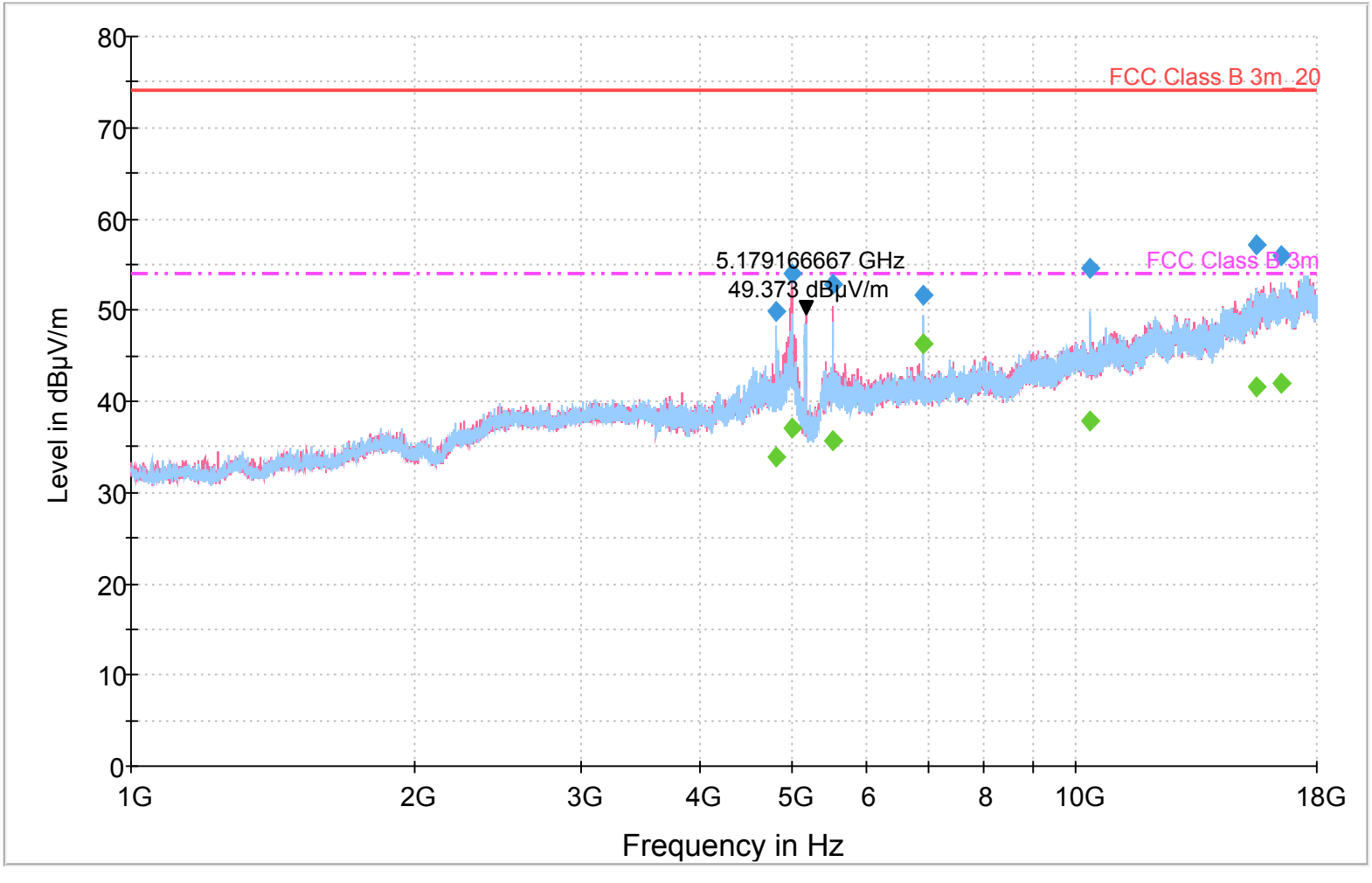
Common Information

Test Description:	EMC32 Standard Report Setup
Operating Conditions:	
Test Engineer:	

EUT Information

Company Name:	Skydio
EUT Name	Beacon
Model Number:	SBEC1V1
Serial Number:	N/A
Comment:	Omni-Directional Antenna, Vertical, Facing Up, 20MHz, 20dB, 5180

FCC Class B Radiated Sweep 1GHz-18GHz 3m PK AVG



FCC Class B 3m_20
Preview Result 1H-PK+
FCC Class B 3m
Final Result 1-PK+
Preview Result 1V-PK+
Final Result 2-AVG

Final Result 1 - 5180MHZ

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4827.266667	49.9	292.0	H	21.0	5.6	24.10	74.00	
5000.100000	54.1	250.0	V	43.0	5.9	19.90	74.00	
5533.900000	52.9	400.0	V	15.0	7.1	21.10	74.00	
6906.366667	51.7	400.0	H	283.0	9.4	22.30	74.00	
10355.100000	54.6	332.0	H	278.0	14.5	19.40	74.00	
15549.733333	57.1	400.0	V	95.0	21.1	16.90	74.00	
16483.033333	55.9	284.0	H	62.0	22.9	18.10	74.00	

Final Result 2 - 5180MHZ

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4827.266667	34.0	292.0	H	21.0	5.6	20.00	54.00	
5000.100000	37.1	250.0	V	43.0	5.9	16.90	54.00	
5533.900000	35.6	400.0	V	15.0	7.1	18.40	54.00	
6906.366667	46.4	400.0	H	283.0	9.4	7.60	54.00	
10355.100000	37.8	332.0	H	278.0	14.5	16.20	54.00	
15549.733333	41.5	400.0	V	95.0	21.1	12.50	54.00	
16483.033333	42.0	284.0	H	62.0	22.9	12.00	54.00	

Final Result 1 - 5220MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4868.066667	54.3	236.0	V	359.0	5.7	19.70	74.00	
5042.600000	53.0	261.0	V	30.0	5.9	21.00	74.00	
5576.966667	53.7	368.0	V	72.0	7.2	20.30	74.00	
6960.200000	50.7	397.0	H	82.0	9.3	23.30	74.00	
10439.533333	53.3	400.0	H	338.0	14.5	20.70	74.00	
15657.966667	66.1	400.0	V	95.0	21.5	7.90	74.00	
15661.933333	58.9	391.0	H	104.0	21.5	15.10	74.00	
17714.400000	55.4	264.0	H	274.0	23.2	18.60	74.00	

Final Result 2 - 5220MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4868.066667	37.5	236.0	V	359.0	5.7	16.50	54.00	
5042.600000	36.3	261.0	V	30.0	5.9	17.70	54.00	
5576.966667	36.7	368.0	V	72.0	7.2	17.30	54.00	
6960.200000	45.6	397.0	H	82.0	9.3	8.40	54.00	
10439.533333	37.2	400.0	H	338.0	14.5	16.80	54.00	
15657.966667	47.1	400.0	V	95.0	21.5	6.90	54.00	
15661.933333	43.1	391.0	H	104.0	21.5	10.90	54.00	
17714.400000	42.3	264.0	H	274.0	23.2	11.70	54.00	

Final Result 1 - 5240MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4887.333333	52.0	232.0	V	359.0	5.7	22.00	74.00	
5064.133333	52.2	230.0	V	62.0	5.9	21.80	74.00	
5417.733333	54.0	366.0	V	95.0	6.8	20.00	74.00	
5595.666667	51.2	400.0	V	72.0	7.2	22.80	74.00	
6986.266667	49.3	388.0	H	288.0	9.3	24.70	74.00	
10480.900000	55.2	360.0	H	207.0	14.5	18.80	74.00	
15723.700000	62.5	400.0	H	135.0	21.6	11.50	74.00	
17577.266667	55.4	250.0	H	10.0	23.0	18.60	74.00	

Final Result 2 - 5240MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4887.333333	34.6	232.0	V	359.0	5.7	19.40	54.00	
5064.133333	35.6	230.0	V	62.0	5.9	18.40	54.00	
5417.733333	36.9	366.0	V	95.0	6.8	17.10	54.00	
5595.666667	35.6	400.0	V	72.0	7.2	18.40	54.00	
6986.266667	41.9	388.0	H	288.0	9.3	12.10	54.00	
10480.900000	38.1	360.0	H	207.0	14.5	15.90	54.00	
15723.700000	44.6	400.0	H	135.0	21.6	9.40	54.00	
17577.266667	42.1	250.0	H	10.0	23.0	11.90	54.00	

Final Result 1 - 5745MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
5040.900000	54.8	266.0	H	66.0	5.9	19.20	74.00	
5392.800000	60.7	260.0	H	39.0	6.7	13.30	74.00	
5565.633333	57.8	302.0	H	48.0	7.2	16.20	74.00	
5569.033333	60.0	392.0	V	343.0	7.2	14.00	74.00	
6097.166667	54.4	370.0	V	1.0	8.1	19.60	74.00	
7660.033333	55.4	400.0	H	62.0	10.1	18.60	74.00	
16817.366667	55.1	100.0	H	291.0	22.7	18.90	74.00	
17671.333333	55.9	205.0	H	15.0	23.2	18.10	74.00	

Final Result 2 - 5745MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
5040.900000	40.3	266.0	H	66.0	5.9	13.70	54.00	
5392.800000	42.1	260.0	H	39.0	6.7	11.90	54.00	
5565.633333	39.3	302.0	H	48.0	7.2	14.70	54.00	
5569.033333	42.7	392.0	V	343.0	7.2	11.30	54.00	
6097.166667	36.6	370.0	V	1.0	8.1	17.40	54.00	
7660.033333	52.2	400.0	H	62.0	10.1	1.80	54.00	
16817.366667	41.9	100.0	H	291.0	22.7	12.10	54.00	
17671.333333	42.4	205.0	H	15.0	23.2	11.60	54.00	

Final Result 1 - 5785MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
5080.566667	56.9	283.0	H	39.0	5.8	17.10	74.00	
5437.566667	58.3	266.0	H	53.0	6.9	15.70	74.00	
5565.066667	53.7	286.0	V	25.0	7.2	20.30	74.00	
5784.366667	53.0	386.0	V	356.0	7.2	21.00	74.00	
6139.666667	55.8	400.0	V	1.0	8.3	18.20	74.00	
16602.600000	54.9	220.0	H	203.0	22.9	19.10	74.00	
17351.733333	67.1	118.0	V	105.0	23.2	6.90	74.00	
17355.133333	66.6	125.0	H	119.0	23.2	7.40	74.00	

Final Result 2 - 5785MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
5080.566667	41.9	283.0	H	39.0	5.8	12.10	54.00	
5437.566667	40.4	266.0	H	53.0	6.9	13.60	54.00	
5565.066667	36.6	286.0	V	25.0	7.2	17.40	54.00	
5784.366667	36.3	386.0	V	356.0	7.2	17.70	54.00	
6139.666667	39.0	400.0	V	1.0	8.3	15.00	54.00	
16602.600000	42.1	220.0	H	203.0	22.9	11.90	54.00	
17351.733333	47.9	118.0	V	105.0	23.2	6.10	54.00	
17355.133333	47.6	125.0	H	119.0	23.2	6.40	54.00	

Final Result 1 - 5825MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
5120.800000	56.0	302.0	H	57.0	5.9	18.00	74.00	
5472.133333	59.1	400.0	V	96.0	7.0	14.90	74.00	
5559.400000	51.9	364.0	V	0.0	7.1	22.10	74.00	
6003.666667	56.9	400.0	V	345.0	7.8	17.10	74.00	
7766.566667	53.4	387.0	H	29.0	10.3	20.60	74.00	
16114.133333	55.2	145.0	V	34.0	23.1	18.80	74.00	
17471.300000	62.4	150.0	H	77.0	22.8	11.60	74.00	
17474.700000	62.3	130.0	V	108.0	22.8	11.70	74.00	

Final Result 2 - 5825MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
5120.800000	42.1	302.0	H	57.0	5.9	11.90	54.00	
5472.133333	42.7	400.0	V	96.0	7.0	11.30	54.00	
5559.400000	35.0	364.0	V	0.0	7.1	19.00	54.00	
6003.666667	39.4	400.0	V	345.0	7.8	14.60	54.00	
7766.566667	49.4	387.0	H	29.0	10.3	4.60	54.00	
16114.133333	41.9	145.0	V	34.0	23.1	12.10	54.00	
17471.300000	45.2	150.0	H	77.0	22.8	8.80	54.00	
17474.700000	45.6	130.0	V	108.0	22.8	8.40	54.00	

Radiated Emission Test Report

Tested At:
Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, CA 94043
Tel. 650-965-4000
Fax. 650-965-3000

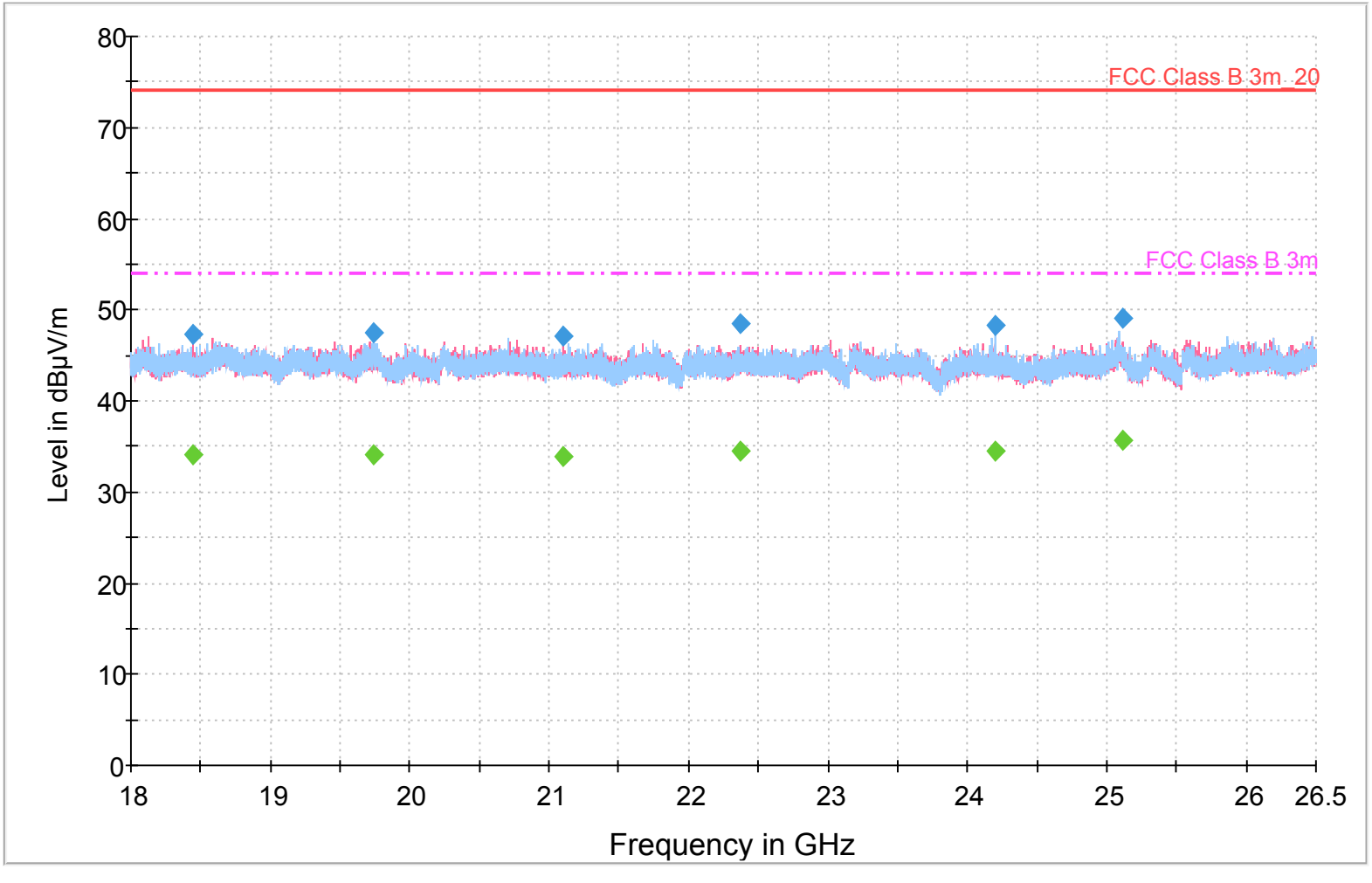
Common Information

Test Description:	FCC Class B Radiated Emissions
Operating Conditions:	Normal
Test Engineer:	David Vivanco

EUT Information

Company Name:	Skydio
EUT Name	Beacon
Model Number:	SBEC1V1
Serial Number:	N/A
Comment:	Omni-Directional Antenna, Vertical, Facing Up, 20MHz, 21dB, 5180

FCC Class B Radiated Sweep 18GHz-26.5GHz 3m PK AVG



FCC Class B 3m_20
FCC Class B 3m
Preview Result 1V-PK+
Preview Result 1H-PK+
Final Result 1-PK+
Final Result 2-AVG

Final Result 1 - 5180MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18442.850000	47.4	212.0	V	175.0	10.4	26.60	74.00	
19735.700000	47.6	133.0	H	44.0	10.8	26.40	74.00	
21103.775000	47.1	100.0	V	339.0	11.0	26.90	74.00	
22369.850000	48.4	130.0	V	201.0	11.6	25.60	74.00	
24204.575000	48.2	291.0	H	108.0	11.5	25.80	74.00	
25116.200000	49.0	153.0	V	351.0	11.8	25.00	74.00	

Final Result 2 - 5180MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18442.850000	34.1	212.0	V	175.0	10.4	19.90	54.00	
19735.700000	34.2	133.0	H	44.0	10.8	19.80	54.00	
21103.775000	34.0	100.0	V	339.0	11.0	20.00	54.00	
22369.850000	34.6	130.0	V	201.0	11.6	19.40	54.00	
24204.575000	34.5	291.0	H	108.0	11.5	19.50	54.00	
25116.200000	35.6	153.0	V	351.0	11.8	18.40	54.00	

Final Result 1 - 5220MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
19170.450000	47.5	138.0	H	94.0	10.5	26.50	74.00	
19699.150000	48.4	232.0	H	103.0	10.8	25.60	74.00	
20879.800000	53.7	237.0	H	207.0	11.1	20.30	74.00	
22306.100000	47.7	126.0	V	221.0	11.5	26.30	74.00	
23202.850000	48.4	236.0	V	230.0	11.7	25.60	74.00	
25086.450000	48.7	230.0	V	201.0	11.8	25.30	74.00	
26126.000000	48.8	133.0	V	39.0	12.1	25.20	74.00	

Final Result 2 - 5220MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
19170.450000	33.8	138.0	H	94.0	10.5	20.20	54.00	
19699.150000	34.1	232.0	H	103.0	10.8	19.90	54.00	
20879.800000	48.4	237.0	H	207.0	11.1	5.60	54.00	
22306.100000	34.4	126.0	V	221.0	11.5	19.60	54.00	
23202.850000	34.9	236.0	V	230.0	11.7	19.10	54.00	
25086.450000	35.6	230.0	V	201.0	11.8	18.40	54.00	
26126.000000	35.4	133.0	V	39.0	12.1	18.60	54.00	

Final Result 1 - 5240MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18697.425000	46.9	129.0	H	274.0	10.4	27.10	74.00	
19700.425000	48.1	110.0	V	359.0	10.8	25.90	74.00	
20959.700000	52.9	250.0	H	224.0	11.0	21.10	74.00	
22017.100000	47.1	149.0	V	187.0	11.3	26.90	74.00	
23117.850000	47.6	283.0	V	141.0	11.6	26.40	74.00	
25018.450000	48.7	300.0	V	349.0	11.8	25.30	74.00	
26094.975000	49.0	296.0	H	6.0	11.9	25.00	74.00	

Final Result 2 - 5240MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18697.425000	33.8	129.0	H	274.0	10.4	20.20	54.00	
19700.425000	34.0	110.0	V	359.0	10.8	20.00	54.00	
20959.700000	46.0	250.0	H	224.0	11.0	8.00	54.00	
22017.100000	34.4	149.0	V	187.0	11.3	19.60	54.00	
23117.850000	34.3	283.0	V	141.0	11.6	19.70	54.00	
25018.450000	35.1	300.0	V	349.0	11.8	18.90	54.00	
26094.975000	35.1	296.0	H	6.0	11.9	18.90	54.00	

Final Result 1 - 5745MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18648.550000	47.5	114.0	V	90.0	10.4	26.50	74.00	
19710.625000	47.8	289.0	H	182.0	10.8	26.20	74.00	
22073.200000	47.6	300.0	V	6.0	11.3	26.40	74.00	
22980.150000	53.5	300.0	H	149.0	11.6	20.50	74.00	
24659.325000	48.2	206.0	H	324.0	11.6	25.80	74.00	
25083.900000	48.6	164.0	H	283.0	11.8	25.40	74.00	
26026.550000	48.3	122.0	V	175.0	11.6	25.70	74.00	

Final Result 2 - 5745MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18648.550000	34.1	114.0	V	90.0	10.4	19.90	54.00	
19710.625000	34.2	289.0	H	182.0	10.8	19.80	54.00	
22073.200000	34.4	300.0	V	6.0	11.3	19.60	54.00	
22980.150000	47.4	300.0	H	149.0	11.6	6.60	54.00	
24659.325000	34.9	206.0	H	324.0	11.6	19.10	54.00	
25083.900000	35.6	164.0	H	283.0	11.8	18.40	54.00	
26026.550000	34.9	122.0	V	175.0	11.6	19.10	54.00	

Final Result 1 - 5785MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18681.700000	47.7	235.0	V	330.0	10.4	26.30	74.00	
19706.375000	48.0	252.0	H	276.0	10.8	26.00	74.00	
20720.000000	55.4	157.0	H	137.0	11.1	18.60	74.00	
23193.925000	48.7	158.0	V	13.0	11.7	25.30	74.00	
25082.625000	49.0	293.0	H	224.0	11.8	25.00	74.00	
26118.775000	48.7	263.0	V	110.0	12.0	25.30	74.00	

Final Result 2 - 5785MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18681.700000	34.2	235.0	V	330.0	10.4	19.80	54.00	
19706.375000	34.1	252.0	H	276.0	10.8	19.90	54.00	
20720.000000	50.0	157.0	H	137.0	11.1	4.00	54.00	
23193.925000	34.7	158.0	V	13.0	11.7	19.30	54.00	
25082.625000	35.4	293.0	H	224.0	11.8	18.60	54.00	
26118.775000	35.3	263.0	V	110.0	12.0	18.70	54.00	

Final Result 1 - 5825MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18887.825000	47.0	162.0	V	256.0	10.5	27.00	74.00	
20301.375000	47.4	289.0	V	151.0	10.9	26.60	74.00	
21446.325000	47.9	185.0	V	178.0	11.0	26.10	74.00	
23299.750000	53.5	161.0	H	155.0	11.8	20.50	74.00	
25103.875000	49.0	207.0	V	160.0	11.8	25.00	74.00	
25882.900000	48.8	286.0	H	166.0	11.7	25.20	74.00	

Final Result 2 - 5825MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18887.825000	33.7	162.0	V	256.0	10.5	20.30	54.00	
20301.375000	34.2	289.0	V	151.0	10.9	19.80	54.00	
21446.325000	34.0	185.0	V	178.0	11.0	20.00	54.00	
23299.750000	47.1	161.0	H	155.0	11.8	6.90	54.00	
25103.875000	35.7	207.0	V	160.0	11.8	18.30	54.00	
25882.900000	35.1	286.0	H	166.0	11.7	18.90	54.00	

Radiated Emission Test Report

Tested At:
Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, CA 94043
Tel. 650-965-4000
Fax. 650-965-3000

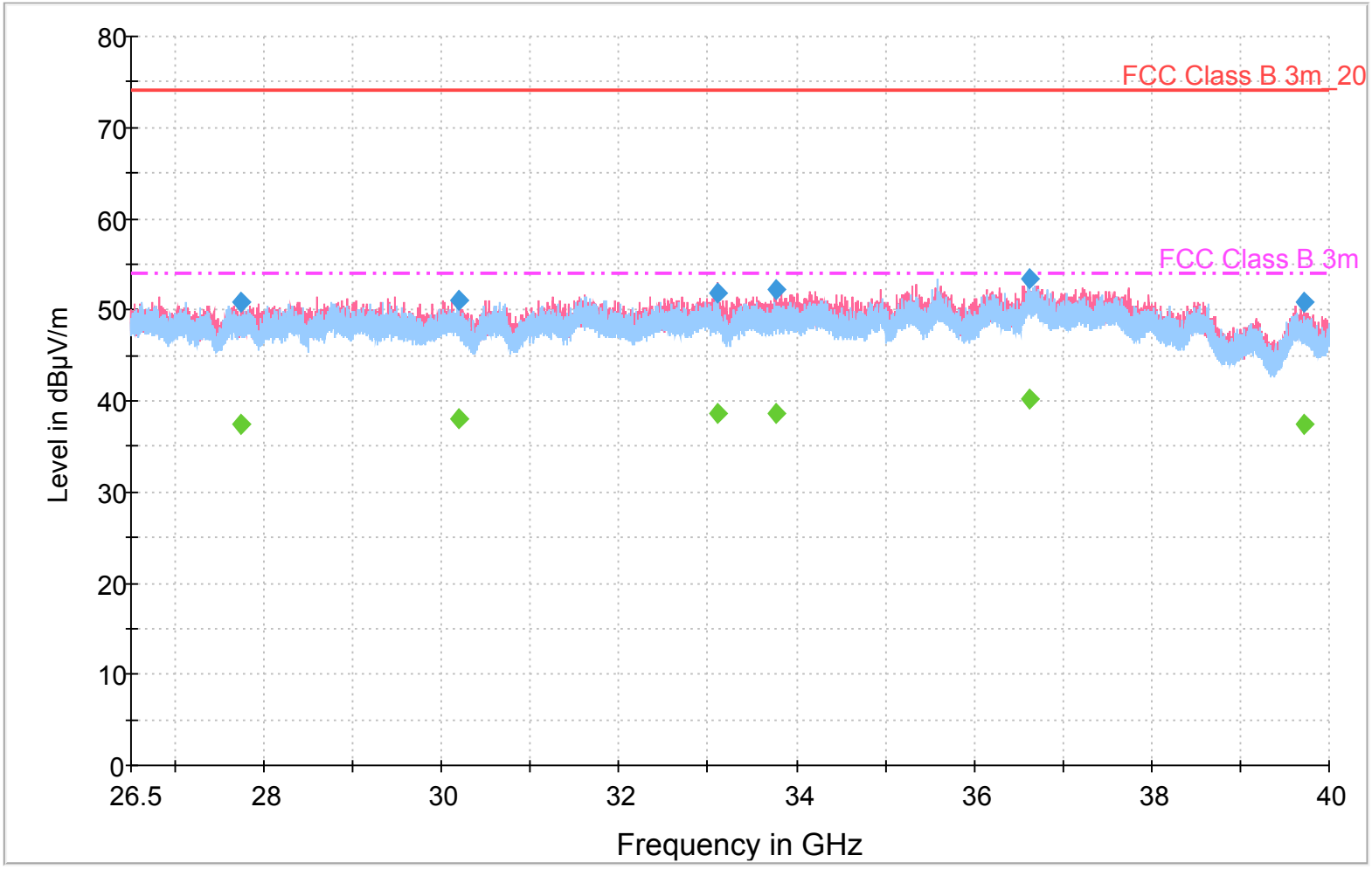
Common Information

Test Description:	FCC Class B Radiated Emissions
Operating Conditions:	Normal
Test Engineer:	David Vivanco

EUT Information

Company Name:	Skydio
EUT Name	Beacon
Model Number:	SBEC1V1
Serial Number:	N/A
Comment:	Omni-Directional Antenna, Vertical, Facing Up, 20MHz, 20dB, 5180

FCC Class B Radiated Sweep 26.5GHz-40GHz 3m PK AVG



FCC Class B 3m_20
Preview Result 1H-PK+
FCC Class B 3m
Final Result 1-PK+
Preview Result 1V-PK+
Final Result 2-AVG

Final Result 1 - 5180MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
27729.400000	50.9	261.0	V	15.0	-0.1	23.10	74.00	
30196.750000	51.0	253.0	V	38.0	1.4	23.00	74.00	
33104.650000	51.8	251.0	V	6.0	-0.2	22.20	74.00	
33776.500000	52.1	196.0	V	49.0	-0.2	21.90	74.00	
36629.050000	53.3	121.0	H	29.0	-0.5	20.70	74.00	
39728.200000	50.8	273.0	V	104.0	1.8	23.20	74.00	

Final Result 2 - 5180MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
27729.400000	37.5	261.0	V	15.0	-0.1	16.50	54.00	
30196.750000	38.0	253.0	V	38.0	1.4	16.00	54.00	
33104.650000	38.6	251.0	V	6.0	-0.2	15.40	54.00	
33776.500000	38.6	196.0	V	49.0	-0.2	15.40	54.00	
36629.050000	40.2	121.0	H	29.0	-0.5	13.80	54.00	
39728.200000	37.4	273.0	V	104.0	1.8	16.60	54.00	

Final Result 1 - 5220MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
27810.850000	50.4	129.0	V	251.0	0.1	23.60	74.00	
30190.450000	50.9	258.0	H	294.0	1.4	23.10	74.00	
31540.000000	51.8	220.0	V	225.0	0.4	22.20	74.00	
34329.550000	51.7	221.0	V	34.0	-1.2	22.30	74.00	
36627.250000	53.2	110.0	H	227.0	-0.4	20.80	74.00	
38542.900000	51.3	152.0	V	1.0	-0.7	22.70	74.00	

Final Result 2 - 5220MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
27810.850000	36.9	129.0	V	251.0	0.1	17.10	54.00	
30190.450000	37.8	258.0	H	294.0	1.4	16.20	54.00	
31540.000000	38.7	220.0	V	225.0	0.4	15.30	54.00	
34329.550000	38.5	221.0	V	34.0	-1.2	15.50	54.00	
36627.250000	40.0	110.0	H	227.0	-0.4	14.00	54.00	
38542.900000	37.8	152.0	V	1.0	-0.7	16.20	54.00	

Final Result 1 - 5240MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
26696.650000	51.6	180.0	V	328.0	-0.2	22.40	74.00	
28030.450000	50.7	134.0	V	54.0	0.6	23.30	74.00	
31142.650000	51.0	219.0	V	39.0	0.8	23.00	74.00	
33115.900000	52.0	113.0	V	348.0	-0.2	22.00	74.00	
35593.150000	53.0	234.0	V	63.0	-1.9	21.00	74.00	
37442.650000	52.4	157.0	V	199.0	-1.6	21.60	74.00	

Final Result 2 - 5240MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
26696.650000	37.5	180.0	V	328.0	-0.2	16.50	54.00	
28030.450000	37.1	134.0	V	54.0	0.6	16.90	54.00	
31142.650000	37.7	219.0	V	39.0	0.8	16.30	54.00	
33115.900000	38.5	113.0	V	348.0	-0.2	15.50	54.00	
35593.150000	39.4	234.0	V	63.0	-1.9	14.60	54.00	
37442.650000	38.8	157.0	V	199.0	-1.6	15.20	54.00	

Final Result 1 - 5745MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
26714.650000	50.6	230.0	V	226.0	-0.3	23.40	74.00	
29250.400000	50.3	244.0	H	277.0	0.8	23.70	74.00	
31602.550000	52.0	226.0	V	310.0	0.1	22.00	74.00	
33063.250000	51.9	137.0	V	2.0	-0.2	22.10	74.00	
36230.800000	52.4	275.0	H	207.0	-1.2	21.60	74.00	
36661.000000	53.2	172.0	H	1.0	-0.7	20.80	74.00	
37604.200000	52.3	182.0	V	345.0	-1.0	21.70	74.00	

Final Result 2 - 5745MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
26714.650000	37.4	230.0	V	226.0	-0.3	16.60	54.00	
29250.400000	36.9	244.0	H	277.0	0.8	17.10	54.00	
31602.550000	38.7	226.0	V	310.0	0.1	15.30	54.00	
33063.250000	38.6	137.0	V	2.0	-0.2	15.40	54.00	
36230.800000	39.0	275.0	H	207.0	-1.2	15.00	54.00	
36661.000000	39.8	172.0	H	1.0	-0.7	14.20	54.00	
37604.200000	39.2	182.0	V	345.0	-1.0	14.80	54.00	

Final Result 1 - 5785MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
26702.500000	50.6	273.0	H	6.0	-0.3	23.40	74.00	
28720.750000	50.7	218.0	V	15.0	0.8	23.30	74.00	
31543.150000	52.3	208.0	H	202.0	0.3	21.70	74.00	
33423.250000	51.8	100.0	H	43.0	0.0	22.20	74.00	
35569.750000	52.4	181.0	V	100.0	-2.0	21.60	74.00	
36680.800000	52.9	149.0	V	6.0	-0.8	21.10	74.00	

Final Result 2 - 5785MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
26702.500000	37.4	273.0	H	6.0	-0.3	16.60	54.00	
28720.750000	37.6	218.0	V	15.0	0.8	16.40	54.00	
31543.150000	38.7	208.0	H	202.0	0.3	15.30	54.00	
33423.250000	38.5	100.0	H	43.0	0.0	15.50	54.00	
35569.750000	39.3	181.0	V	100.0	-2.0	14.70	54.00	
36680.800000	39.8	149.0	V	6.0	-0.8	14.20	54.00	

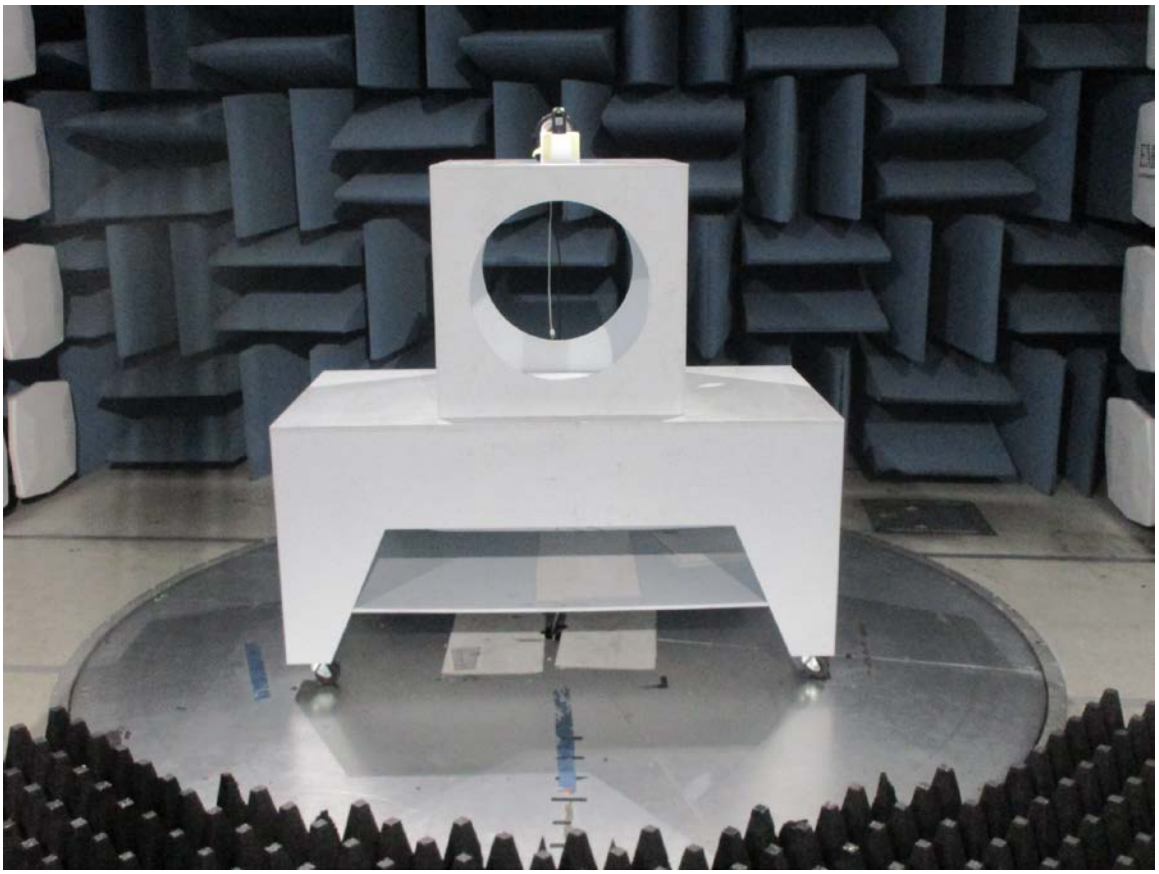
Final Result 1 - 5825MHz

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
27192.550000	50.4	289.0	V	359.0	-0.8	23.60	74.00	
28812.100000	51.0	129.0	V	85.0	0.9	23.00	74.00	
31539.100000	52.2	114.0	V	161.0	0.4	21.80	74.00	
33467.800000	51.7	206.0	V	15.0	0.0	22.30	74.00	
36640.750000	52.7	220.0	H	155.0	-0.5	21.30	74.00	
38481.250000	51.1	100.0	V	113.0	-1.0	22.90	74.00	

Final Result 2 - 5825MHz

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
27192.550000	36.7	289.0	V	359.0	-0.8	17.30	54.00	
28812.100000	37.6	129.0	V	85.0	0.9	16.40	54.00	
31539.100000	38.7	114.0	V	161.0	0.4	15.30	54.00	
33467.800000	38.4	206.0	V	15.0	0.0	15.60	54.00	
36640.750000	39.8	220.0	H	155.0	-0.5	14.20	54.00	
38481.250000	37.6	100.0	V	113.0	-1.0	16.40	54.00	

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

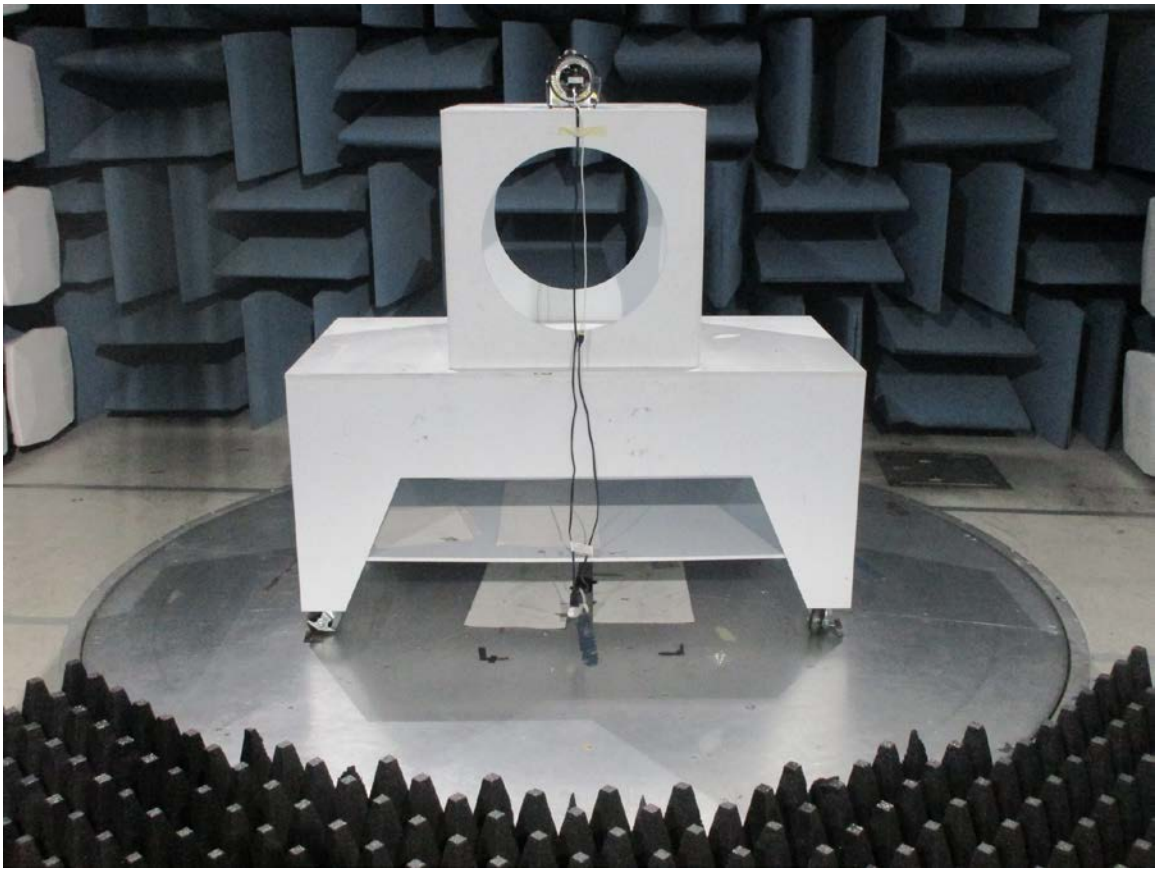


FRONT VIEW

Skydio, Inc.
Beacon
Model: SBEC1V1
CISPR 22/FCC Class B – Radiated Emissions (>1GHz)

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000



REAR VIEW

Skydio, Inc.
Beacon
Model: SBEC1V1
CISPR 22/FCC Class B – Radiated Emissions (>1GHz)

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

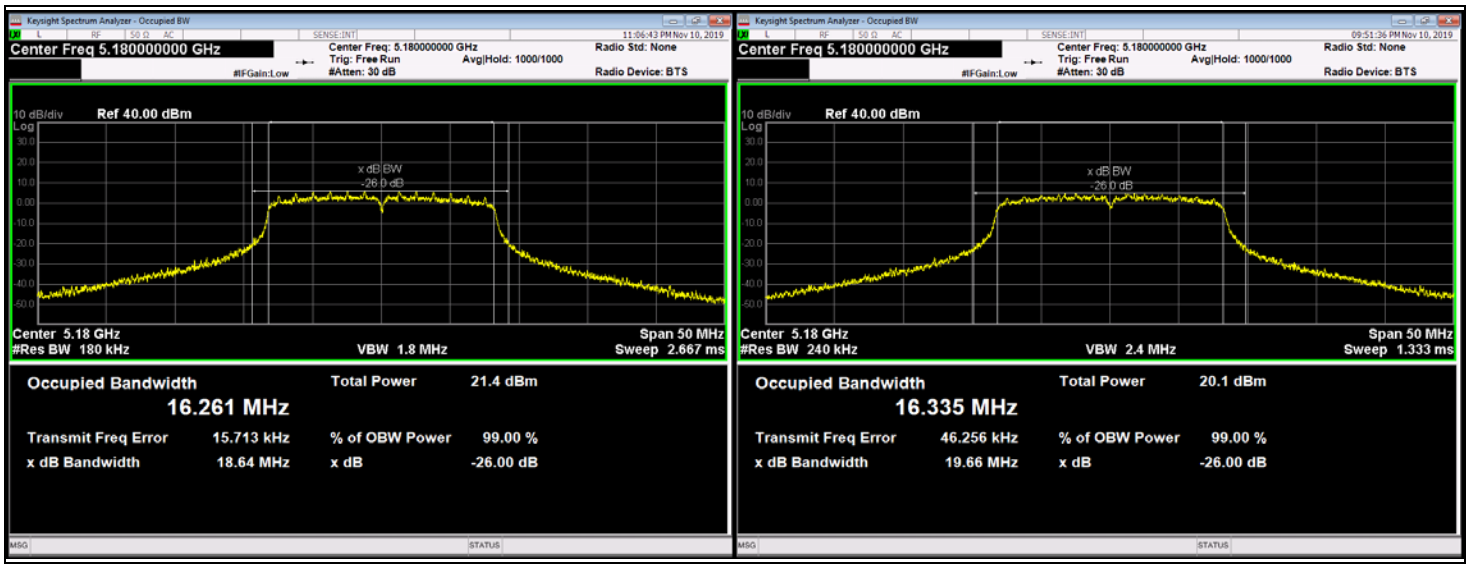
6/26 dB Bandwidth and Occupied Bandwidth Test

Company:	Skydio, Inc.	**Test Date:**	11/10/2019
EUT Name:	Beacon	**Test Engineer:**	Andreas Davidsson
Model:	SBEC1V1	**Test Result:**	PASS
Operating Mode:	TX Mode		

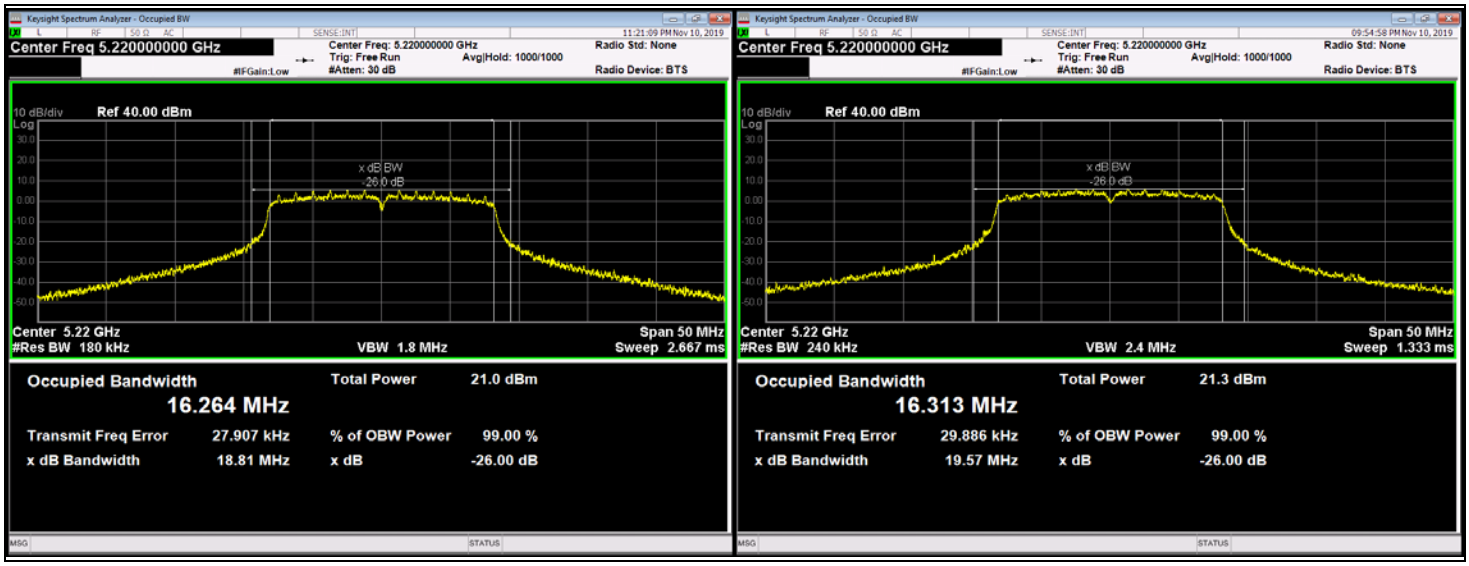
Mode	Antenna	Test CH	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	6/26 dB Bandwidth Limit (MHz)	Conclusion
U-NII-1 (20MHz High Power)	1	36	5180	18.64	16.261	≥ 0.5	PASS
	2	36	5180	19.66	16.335	≥ 0.5	PASS
	1	44	5220	18.81	16.264	≥ 0.5	PASS
	2	44	5220	19.57	16.313	≥ 0.5	PASS
	1	48	5240	18.73	16.252	≥ 0.5	PASS
	2	48	5240	19.37	16.301	≥ 0.5	PASS
U-NII-3 (20MHz High Power)	1	149	5745	15.13	16.233	≥ 0.5	PASS
	2	149	5745	15.13	16.277	≥ 0.5	PASS
	1	157	5785	15.13	16.252	≥ 0.5	PASS
	2	157	5785	15.13	16.267	≥ 0.5	PASS
	1	165	5825	15.13	16.261	≥ 0.5	PASS
	2	165	5825	15.13	16.247	≥ 0.5	PASS
U-NII-1 (20MHz Low Power)	1	36	5180	34.29	17.565	≥ 0.5	PASS
	1	44	5220	29.09	18.047	≥ 0.5	PASS
	1	48	5240	30.86	17.727	≥ 0.5	PASS
U-NII-3 (20MHz Low Power)	1	149	5745	16.35	18.923	≥ 0.5	PASS
	1	157	5785	16.37	19.025	≥ 0.5	PASS
	1	165	5825	16.37	18.052	≥ 0.5	PASS

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 (20MHz High Power)
Channel 36 (5180 MHz)

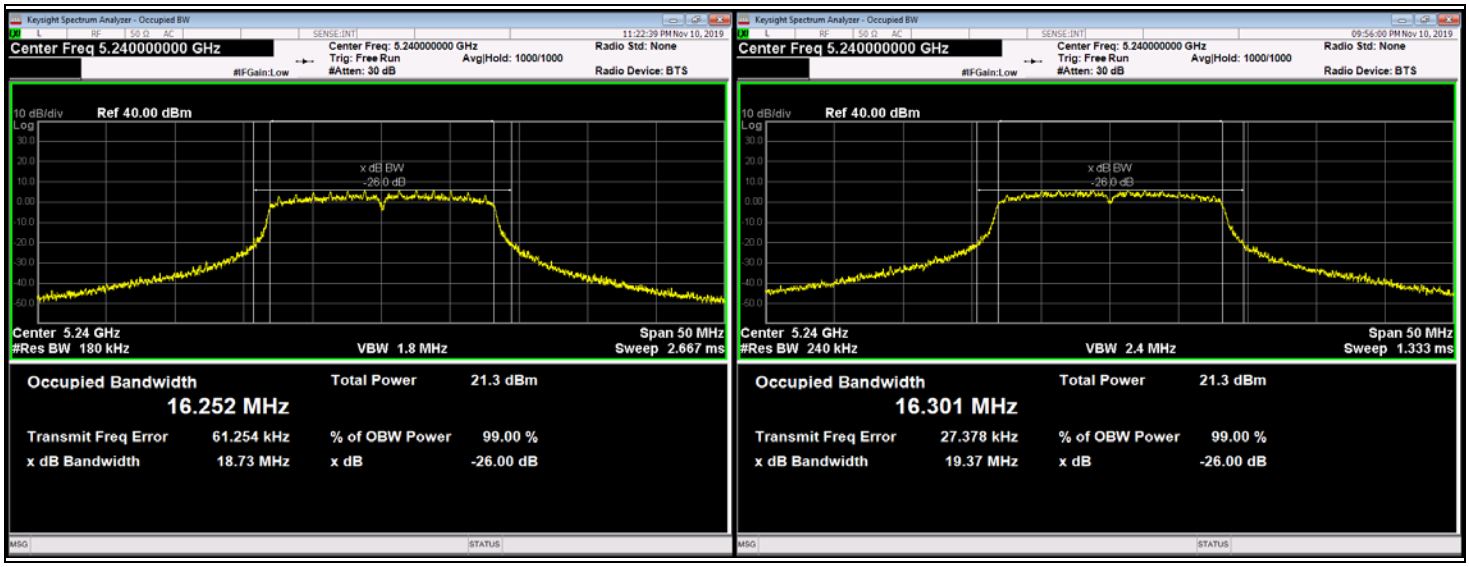


Antenna 1 + 2 (20MHz High Power)
Channel 44 (5220 MHz)

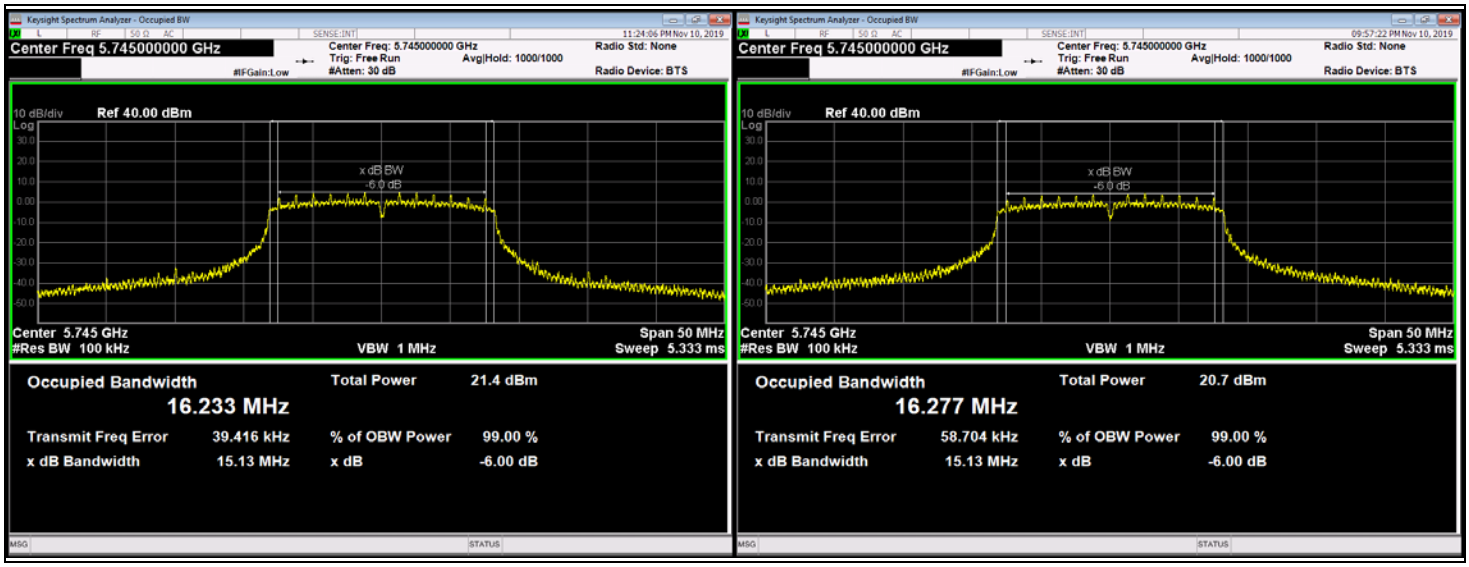


EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 (20MHz High Power)
Channel 48 (5240 MHz)

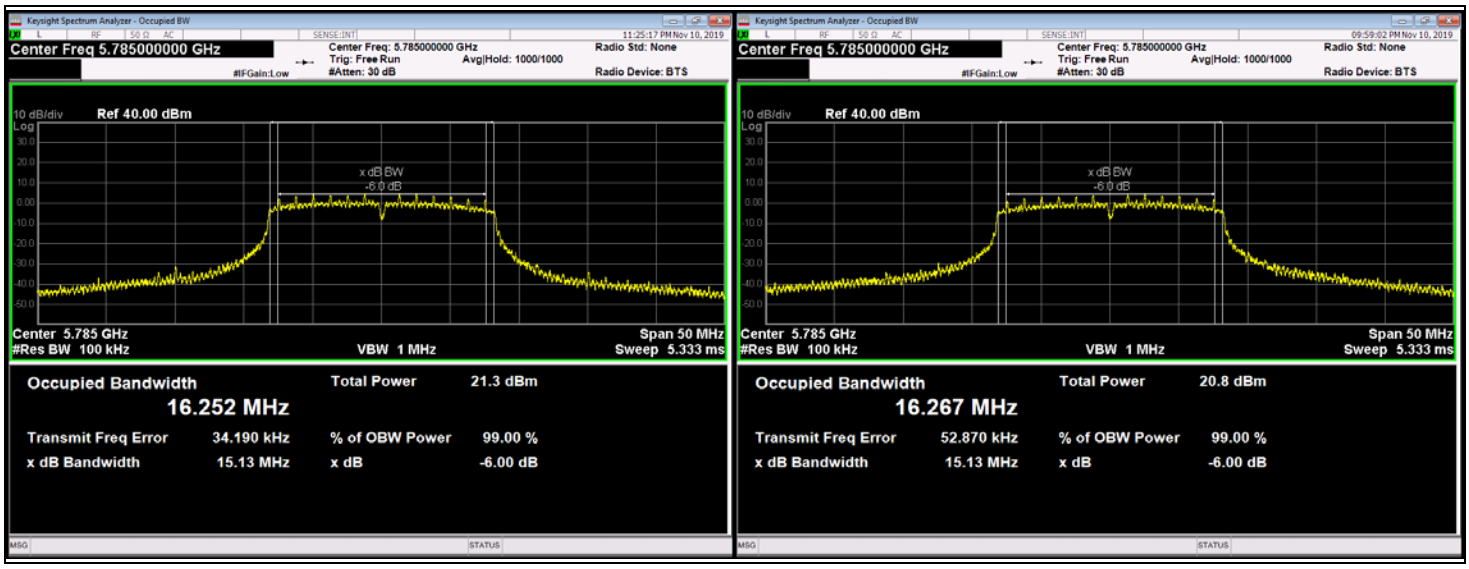


Antenna 1 + 2 (20MHz High Power)
Channel 149 (5745 MHz)

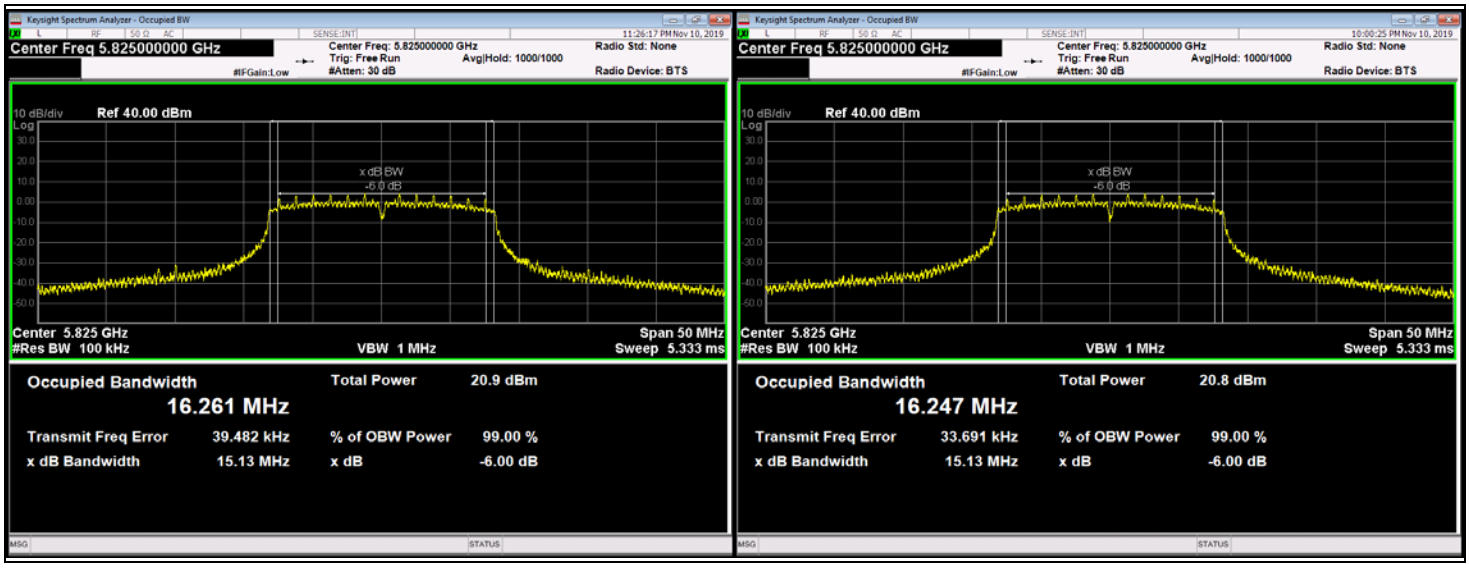


EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 (20MHz High Power)
Channel 157 (5785 MHz)

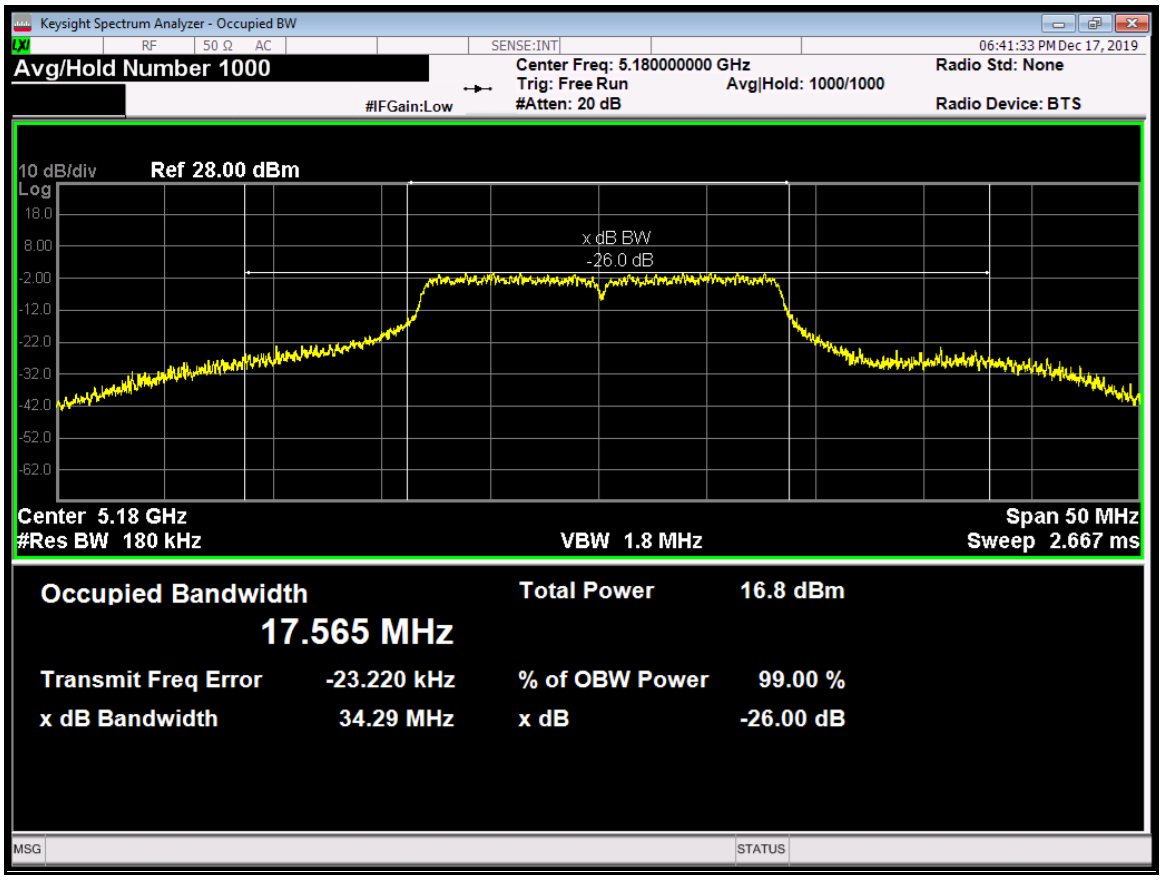


Antenna 1 + 2 (20MHz High Power)
Channel 165 (5825 MHz)



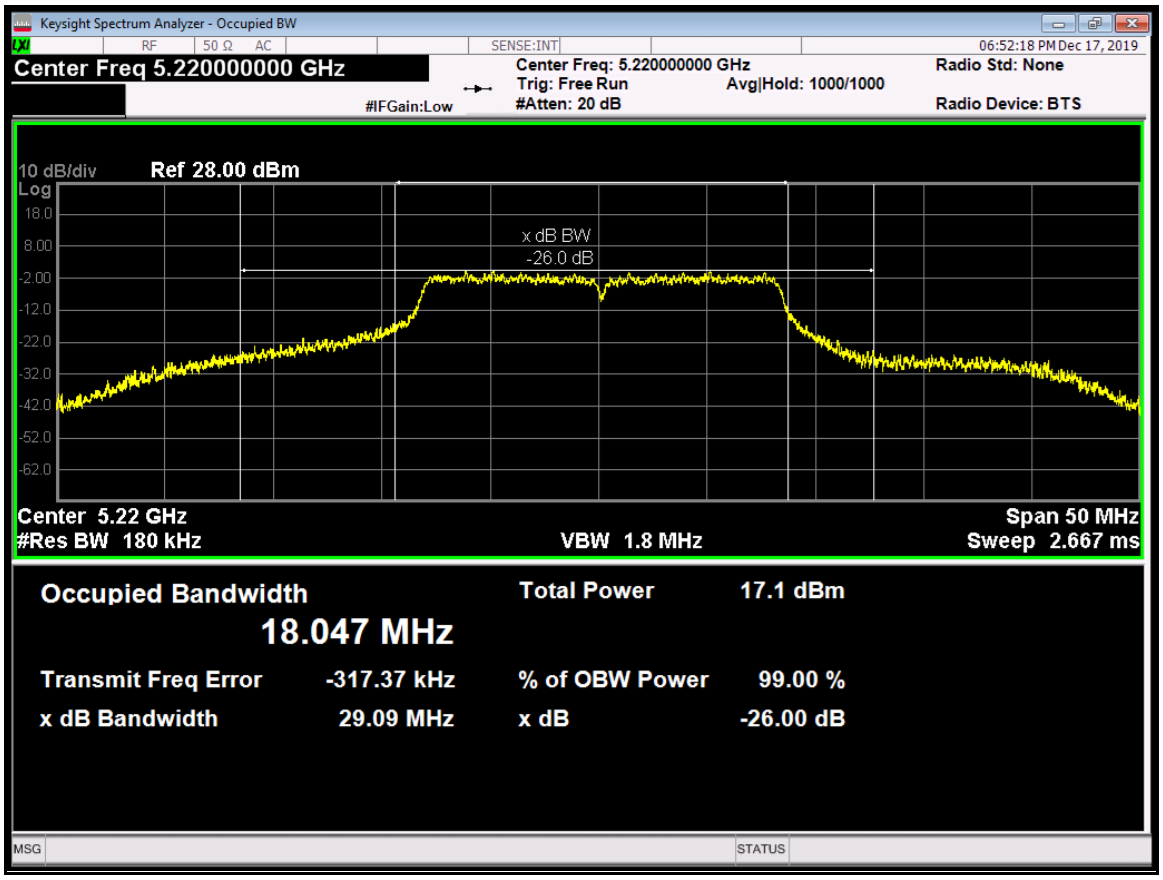
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (20MHz Low Power)
Channel 36 (5180 MHz)



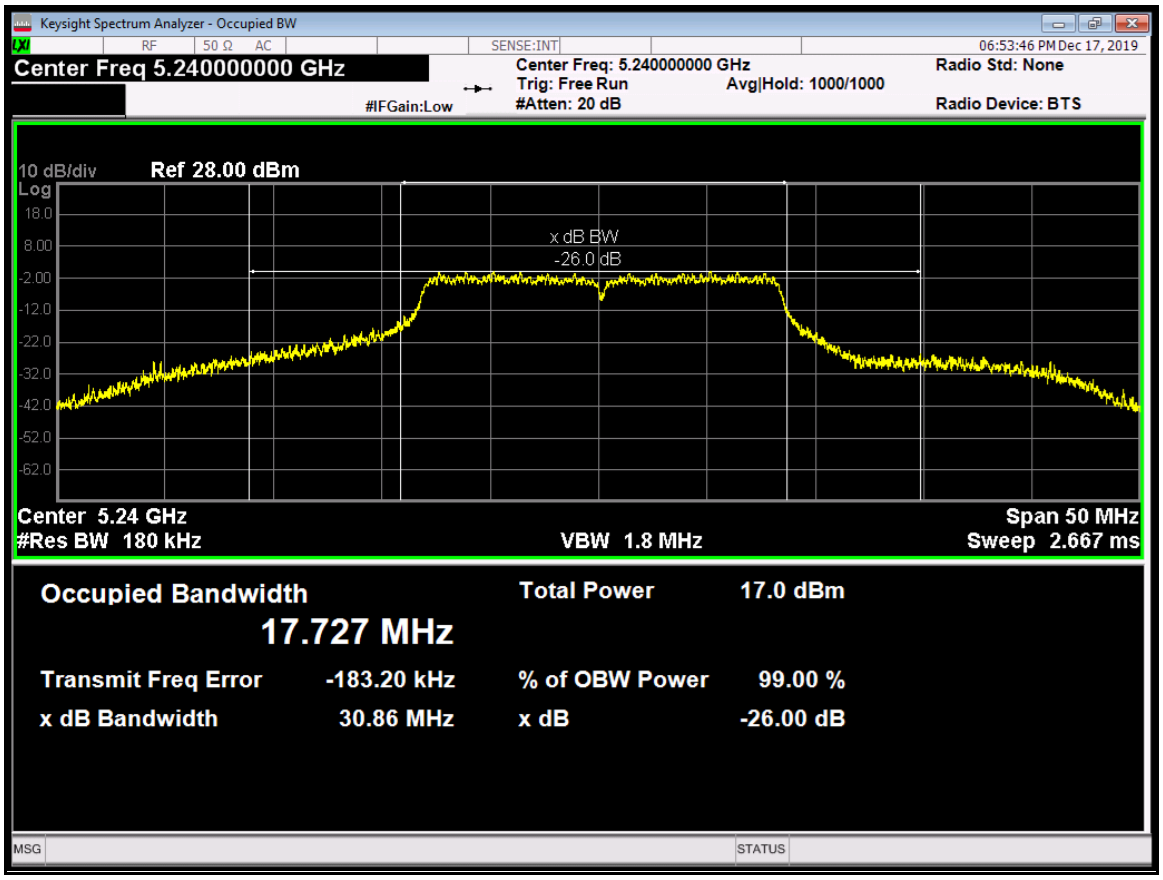
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (20MHz Low Power)
Channel 44 (5220 MHz)



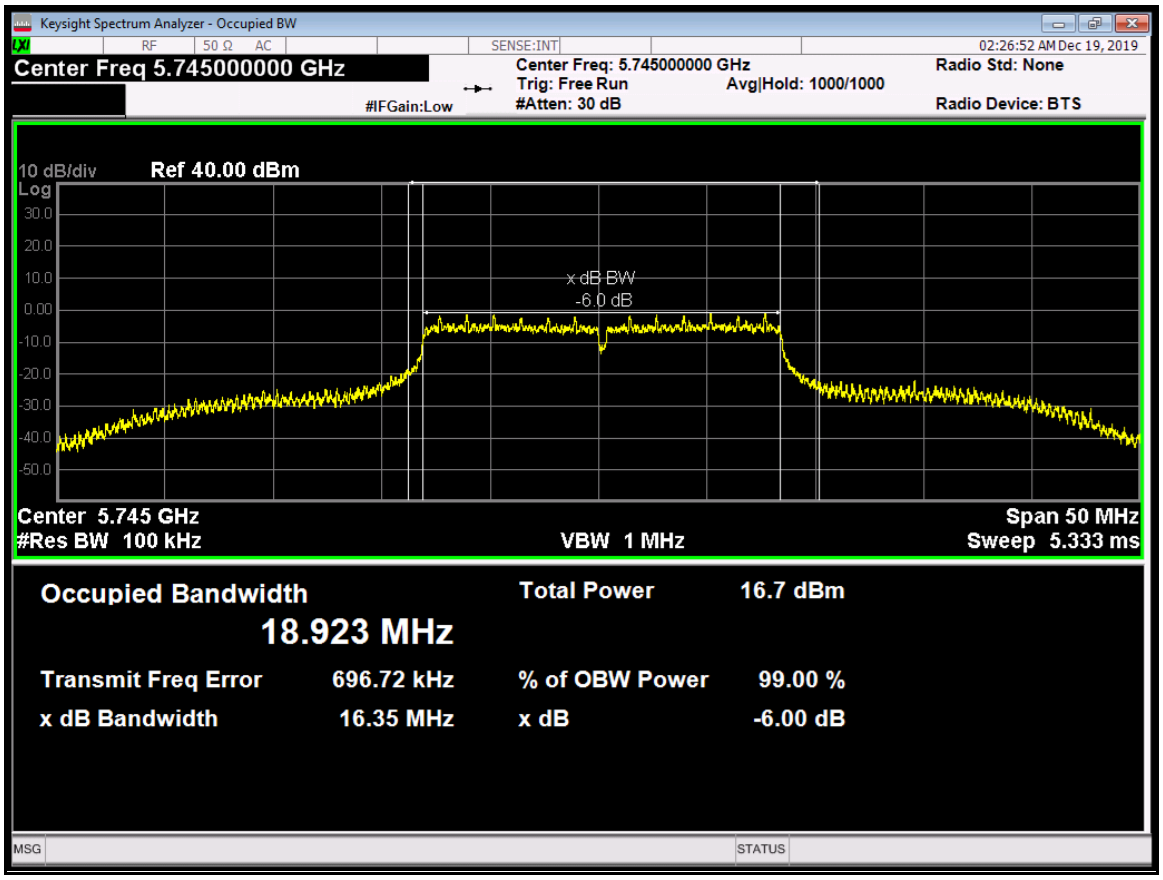
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (20MHz Low Power)
Channel 48 (5240 MHz)



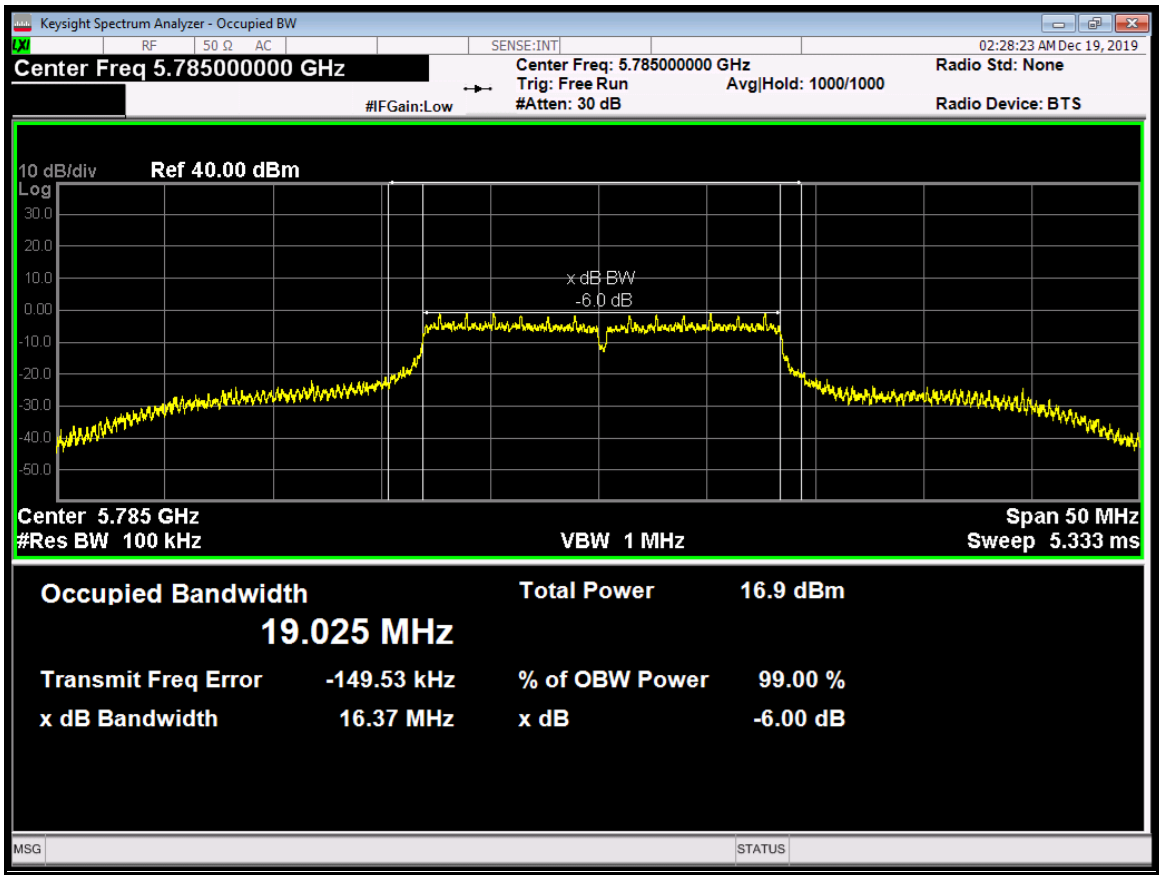
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (20MHz Low Power)
Channel 149 (5745 MHz)



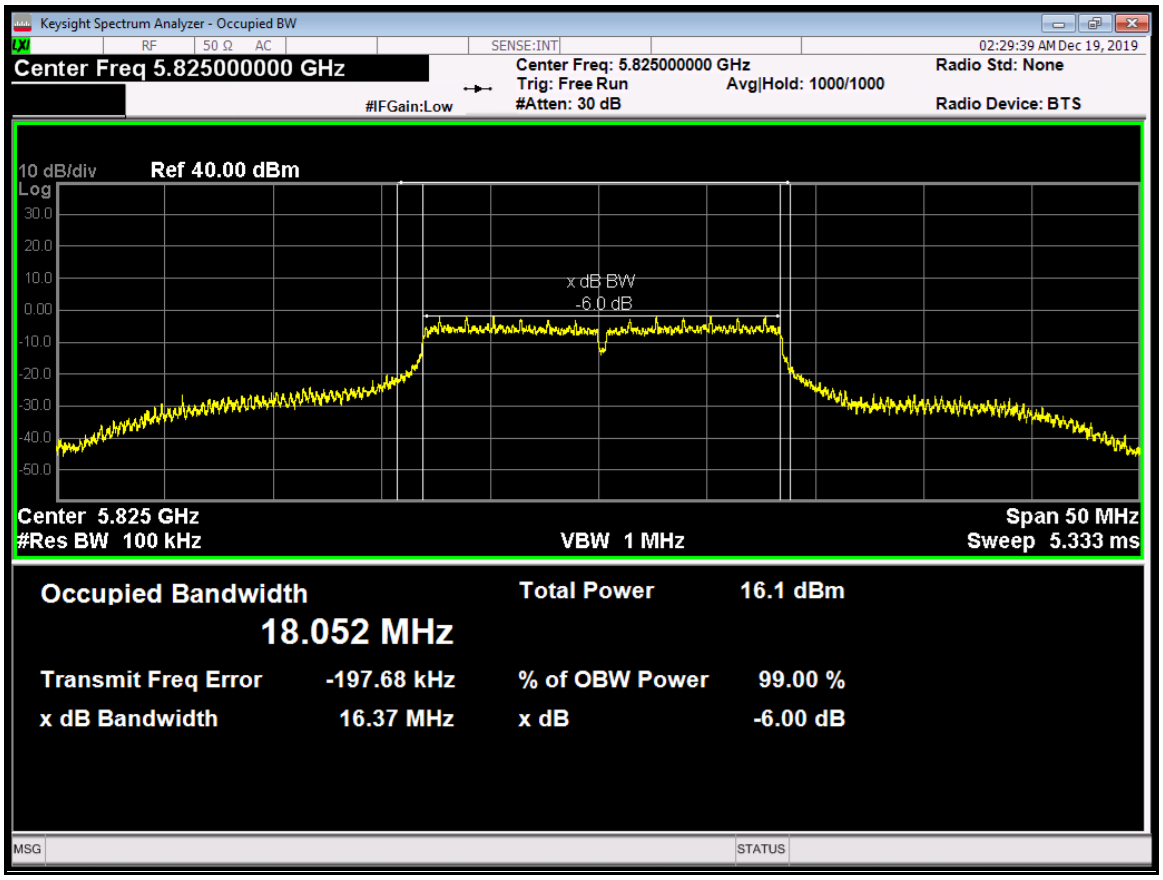
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (20MHz Low Power)
Channel 157 (5785 MHz)



ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (20MHz Low Power)
Channel 165 (5825 MHz)



EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Maximum Peak Output Power Test Data

Company:	Skydio, Inc.	Test Date	11/10/2019
EUT Name	Beacon	Test Engineer	Andreas Davidsson
Model:	SBEC1V1	Test Result	PASS
Operating Mode	TX Mode		

Mode	Antenna	Test CH	Frequency (MHz)	Raw Power (dBm)	Peak Output Power (dBm)	Limit (dBm)	Conclusion
U-NII-1 (20MHz High Power)	1	36	5180	16.76	19.45	≤ 30	Pass
	2	36	5180	16.10			
	1	44	5220	16.20	19.13	≤ 30	Pass
	2	44	5220	16.03			
	1	48	5240	16.69	19.40	≤ 30	Pass
	2	48	5240	16.07			
U-NII-3 (20MHz High Power)	1	149	5745	14.74	17.46	≤ 30	Pass
	2	149	5745	14.14			
	1	157	5785	14.44	17.28	≤ 30	Pass
	2	157	5785	14.09			
	1	165	5825	14.05	17.11	≤ 30	Pass
	2	165	5825	14.14			
U-NII-1 (20MHz Low Power)	1	36	5180	12.73	12.730	≤ 30	Pass
	1	44	5220	12.47	12.470	≤ 30	Pass
	1	48	5240	12.56	12.560	≤ 30	Pass
U-NII-3 (20MHz Low Power)	1	149	5745	12.75	12.750	≤ 30	Pass
	1	157	5785	12.44	12.440	≤ 30	Pass
	1	165	5825	12.73	12.220	≤ 30	Pass

EMT ELECTRO MAGNETIC TEST, INC.
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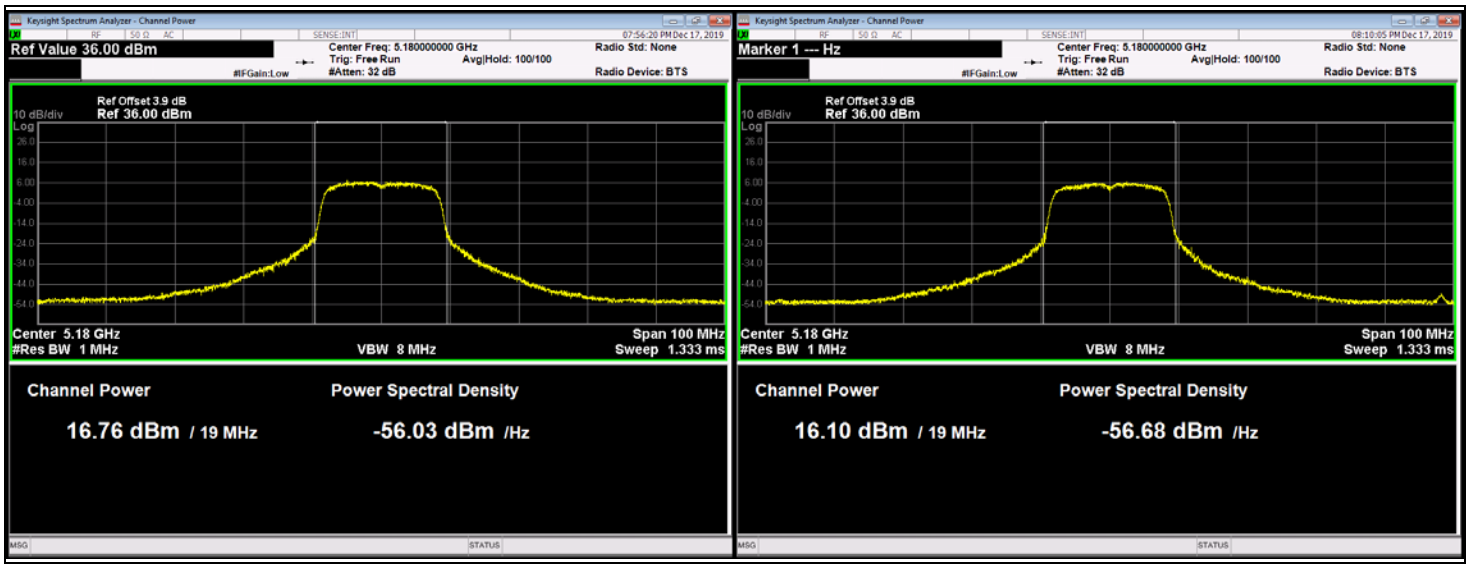
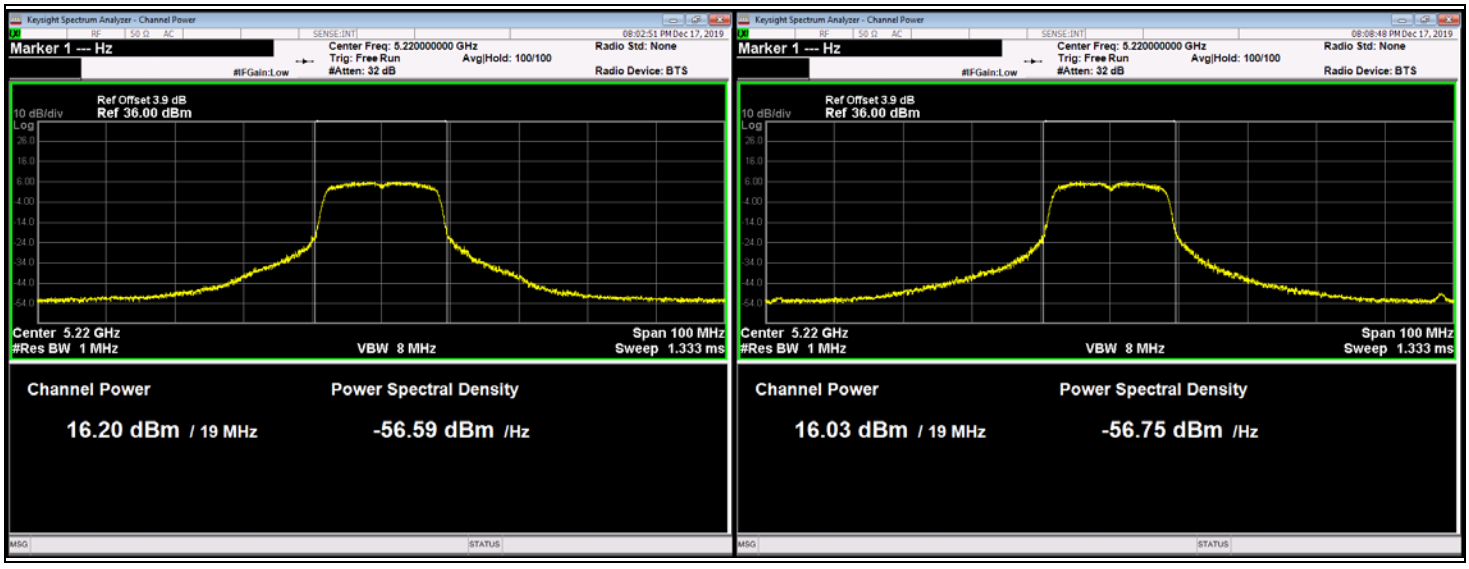
Antenna 1 + 2 (High Power)
Channel 36 (5180 MHz)



Antenna 1 + 2 (High Power)
Channel 44 (5220 MHz)



EMT ELECTRO MAGNETIC TEST, INC.
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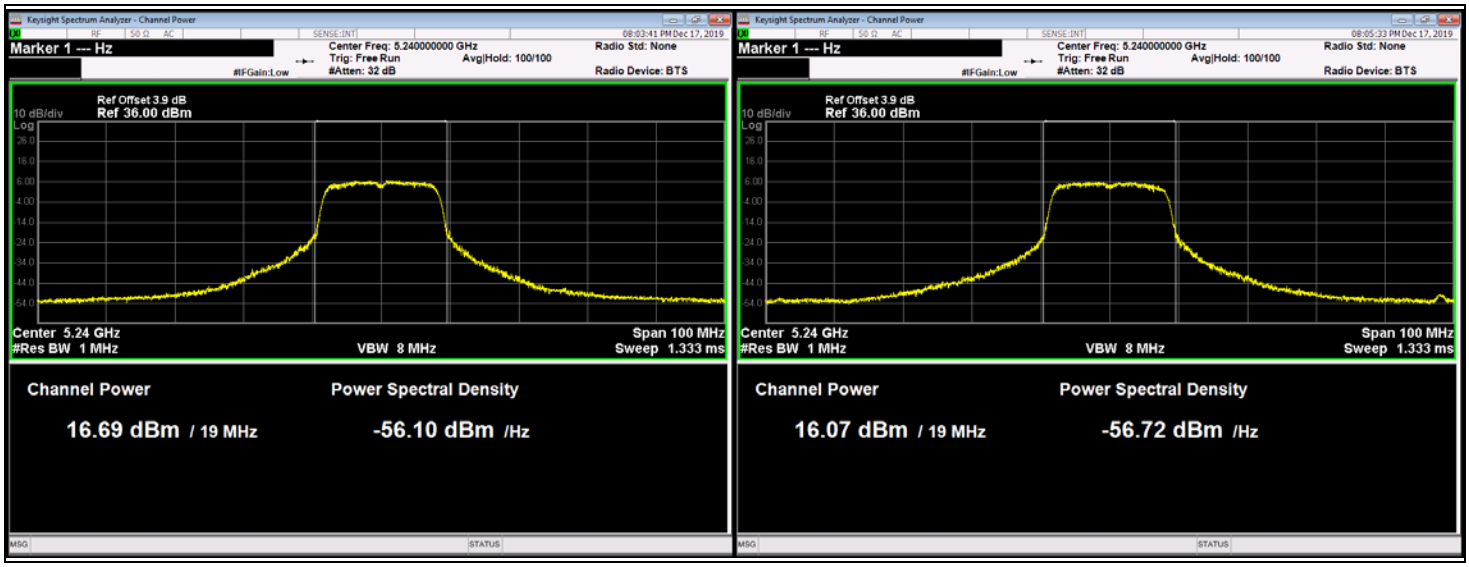
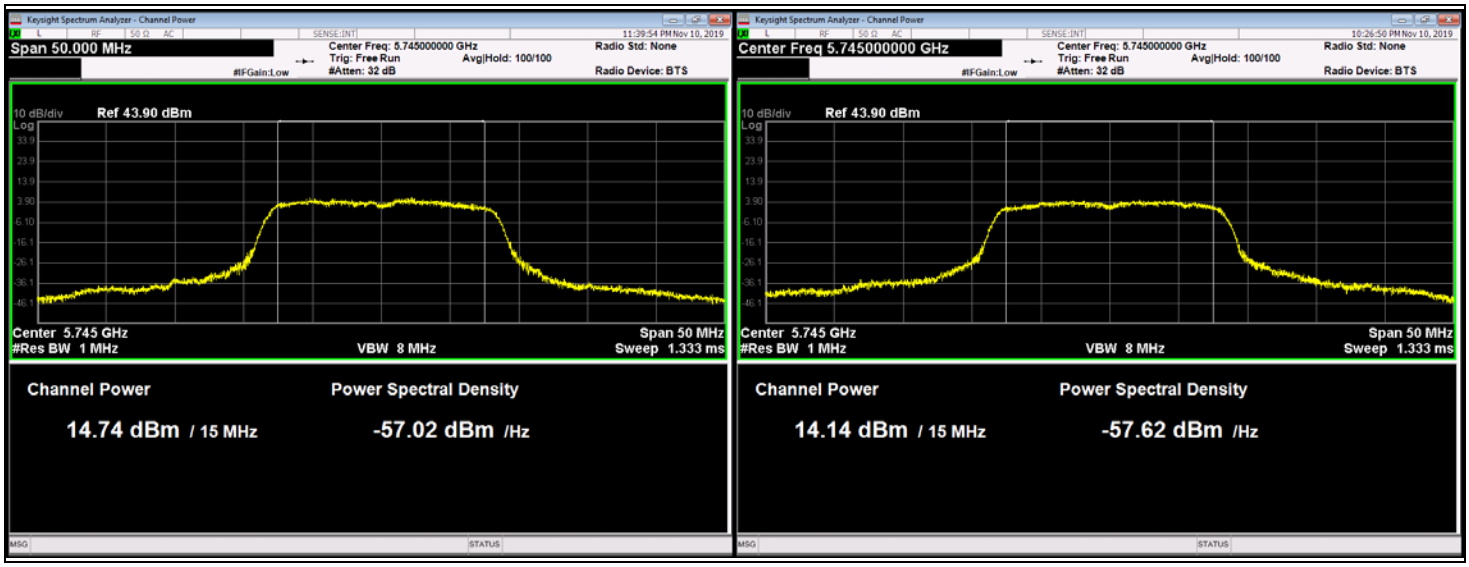
Antenna 1 + 2 (High Power)
Channel 48 (5240 MHz)

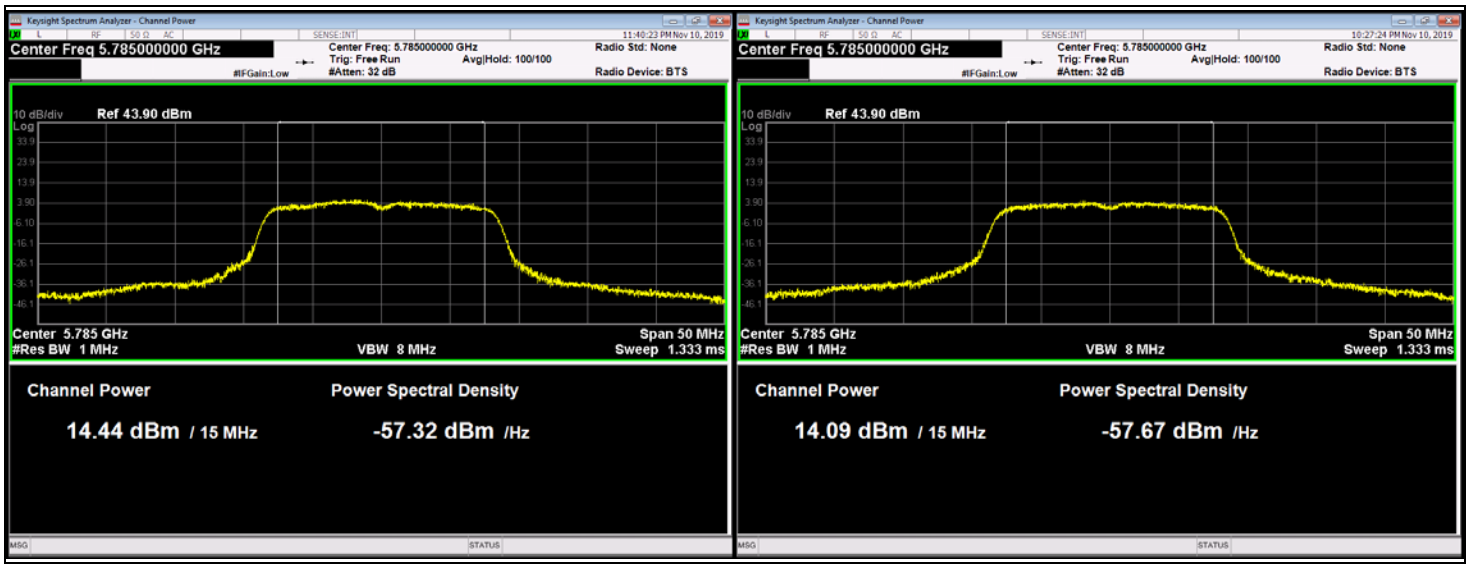


Antenna 1 + 2 (High Power)
Channel 149 (5745 MHz)

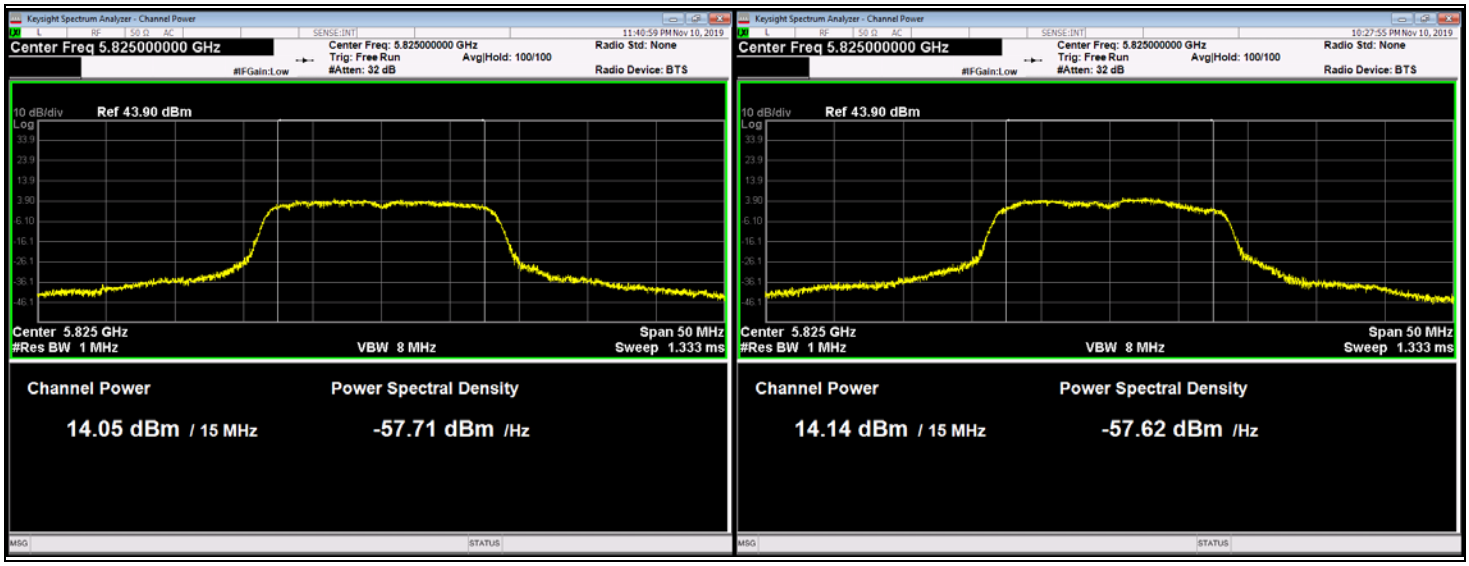


EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 (High Power)
Channel 157 (5785 MHz)

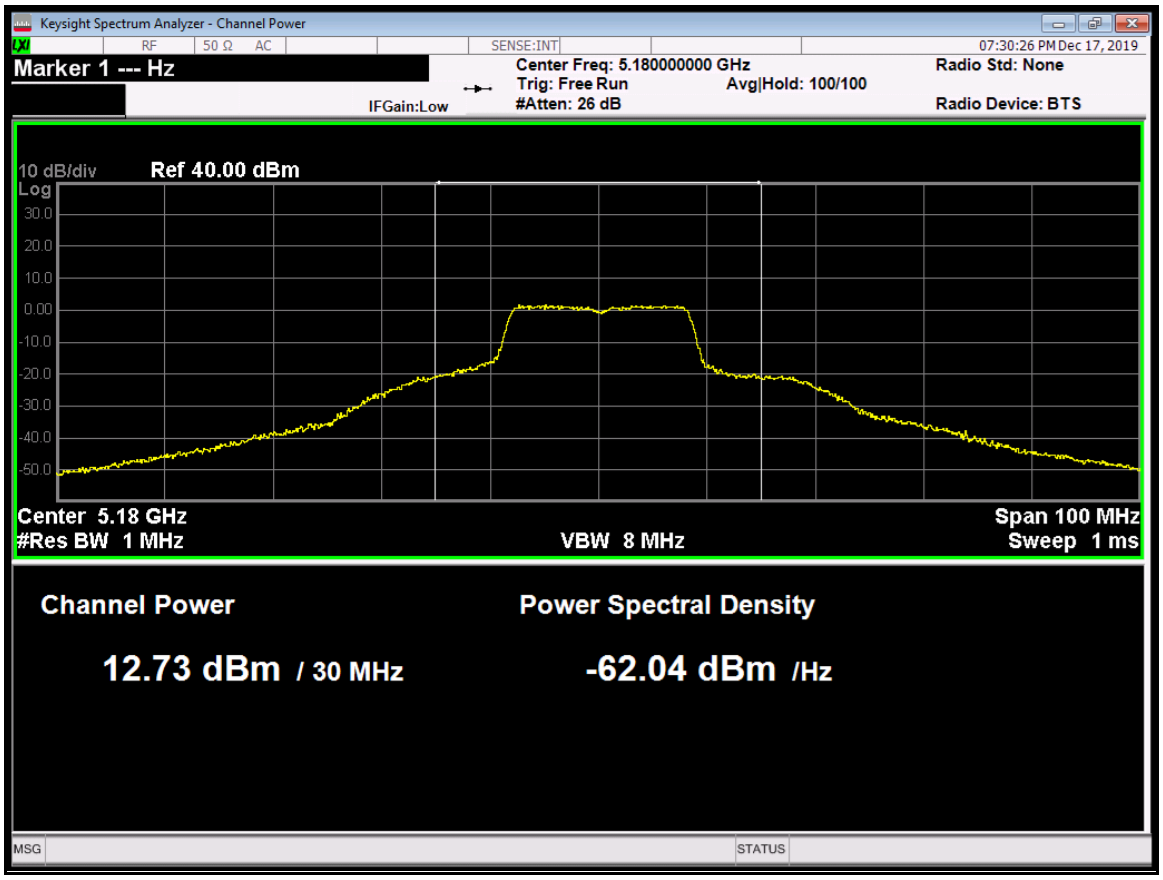


Antenna 1 + 2 (High Power)
Channel 165 (5825 MHz)



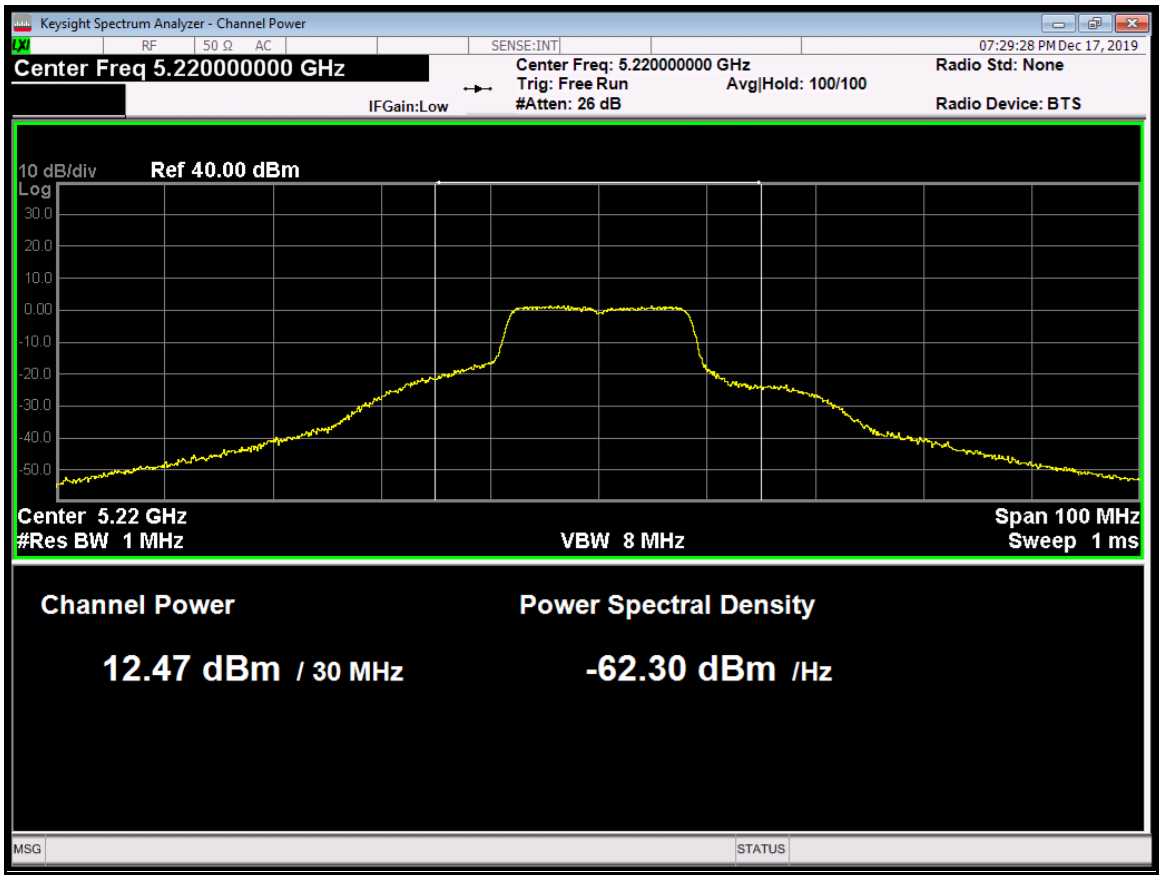
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 36 (5180 MHz)



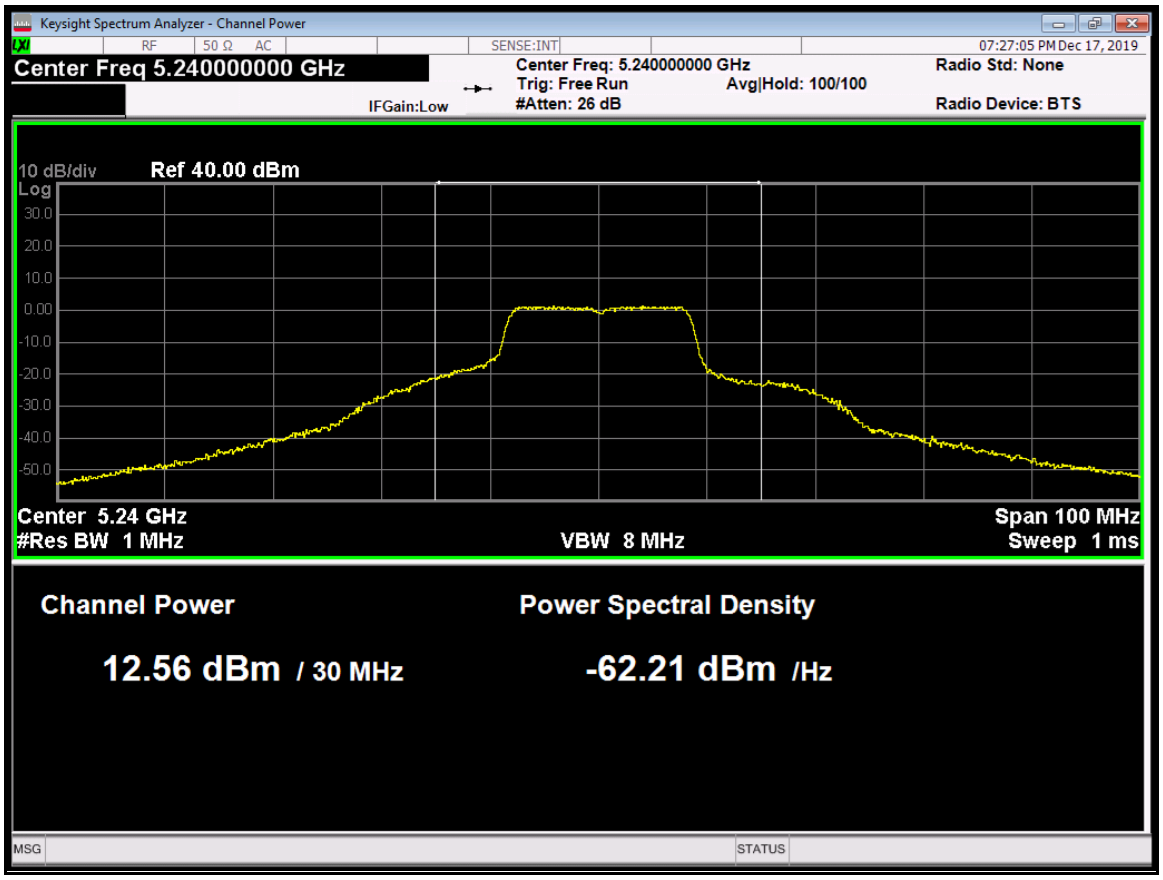
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 44 (5220 MHz)



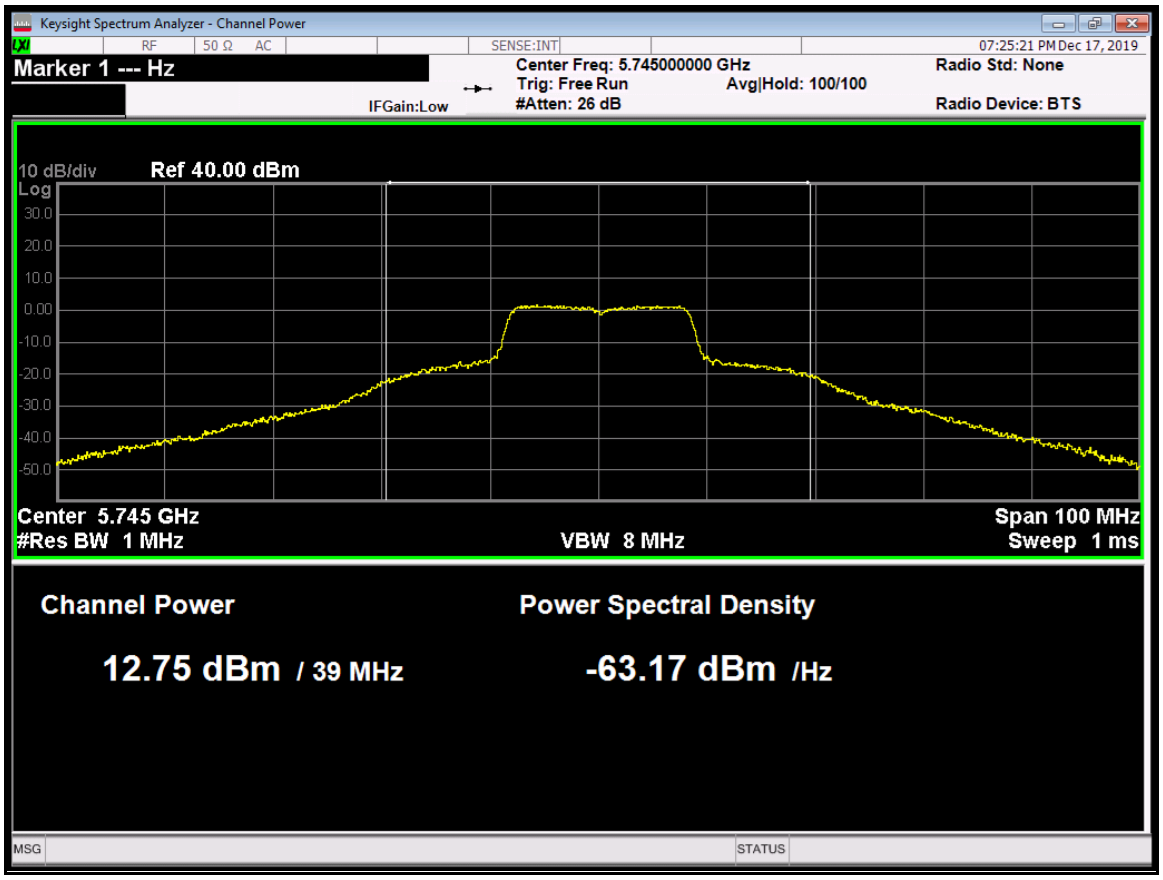
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 48 (5240 MHz)



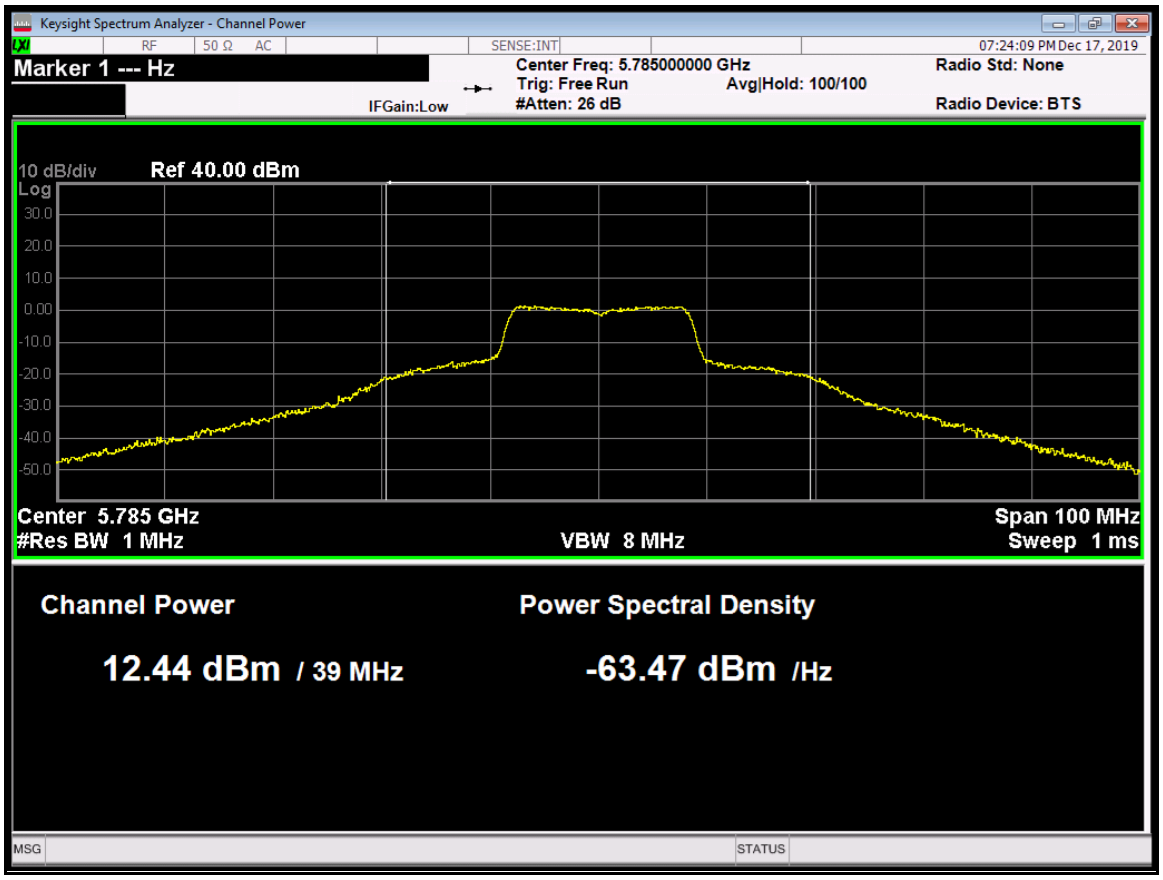
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 149 (5745 MHz)



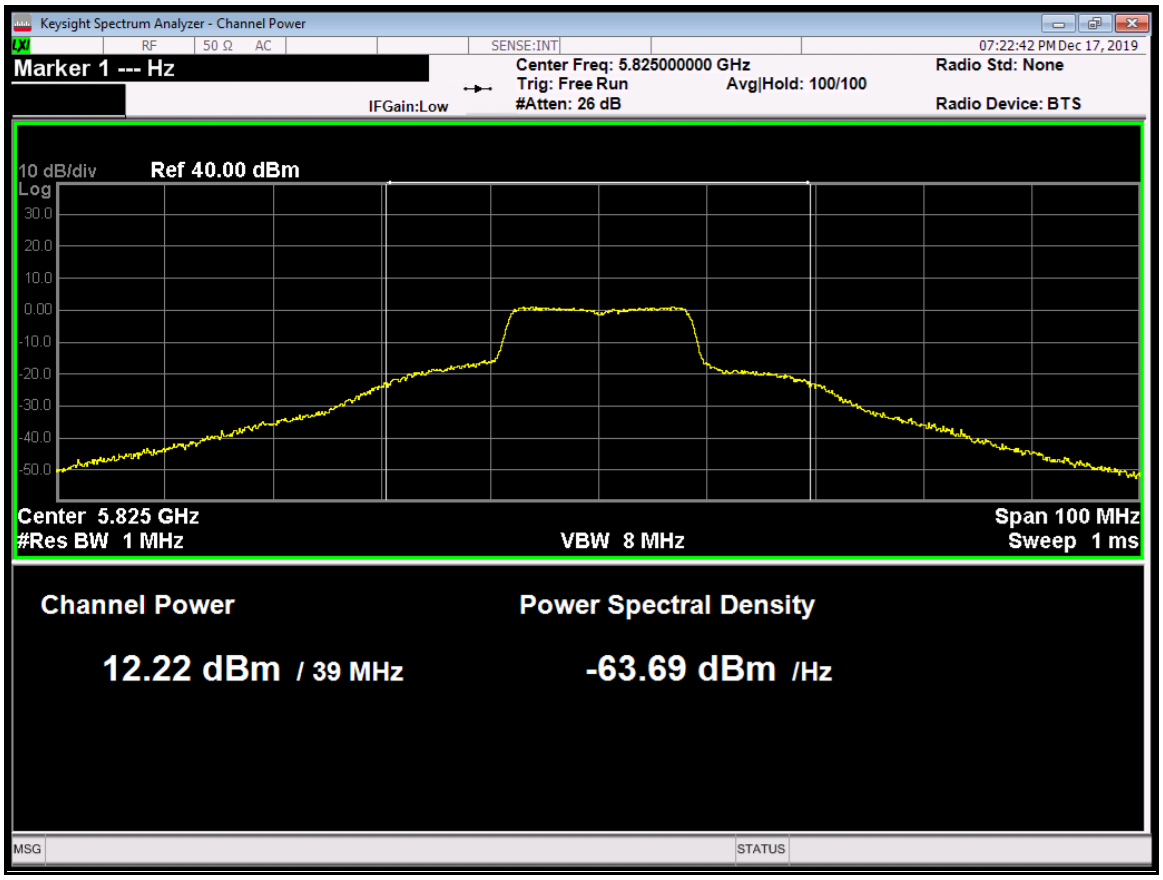
ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 157 (5785 MHz)



ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 165 (5825 MHz)



EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Maximum Power Spectral Density Test Data

Company:	Skydio, Inc.	Test Date	11/10/2019
EUT Name	Beacon	Test Engineer	Andreas Davidsson
Model:	SBEC1V1	Test Result	PASS
Operating Mode	TX Mode		

Mode	Antenna	Test CH	Frequency (MHz)	Raw Peak (dBm)	Maximum PSD (dBm)	Limit (dBm)	Conclusion
U-NII-1 (20MHz High Power)	1	36	5180	6.9477	9.8201	≤ 17	Pass
	2	36	5180	6.6673			
	1	44	5220	6.1661	9.2849	≤ 17	Pass
	2	44	5220	6.3804			
	1	48	5240	6.8032	9.5000	≤ 17	Pass
	2	48	5240	6.1518			
U-NII-3 (20MHz High Power)	1	149	5745	6.2018	9.0498	≤ 30	Pass
	2	149	5745	5.8709			
	1	157	5785	5.9654	9.2513	≤ 30	Pass
	2	157	5785	6.5001			
	1	165	5825	5.6816	8.5981	≤ 30	Pass
	2	165	5825	5.4920			
U-NII-1 (20MHz Low Power)	1	36	5180	1.5465	1.5465	≤ 17	Pass
	1	44	5220	1.2669	1.2669	≤ 17	Pass
	1	48	5240	1.3545	1.3545	≤ 17	Pass
U-NII-3 (20MHz Low Power)	1	149	5745	1.6327	1.6327	≤ 30	Pass
	1	157	5785	1.2900	1.2900	≤ 30	Pass
	1	165	5825	0.9562	0.9562	≤ 30	Pass

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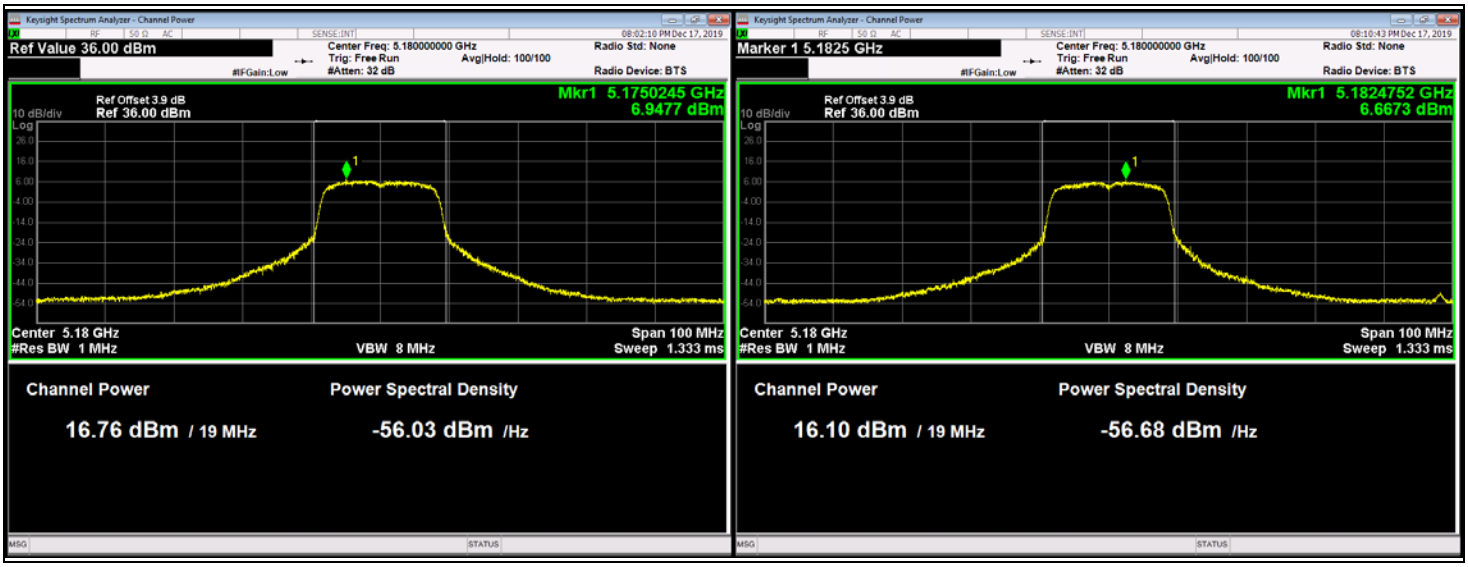
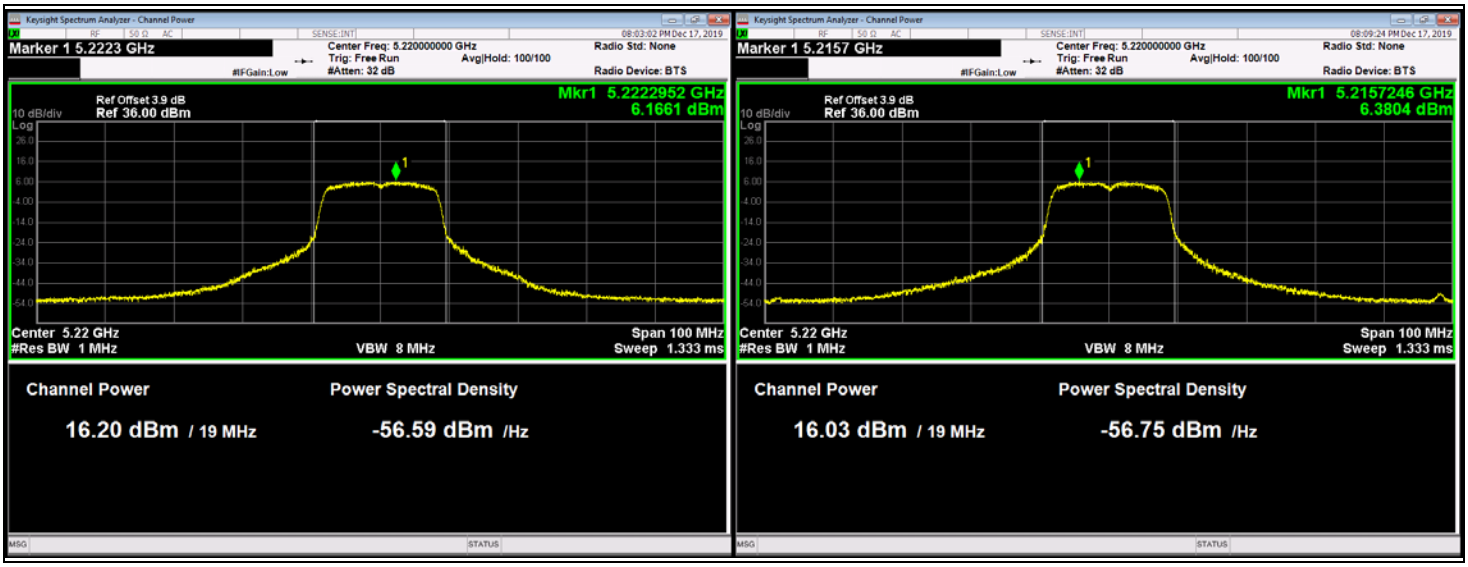
Antenna 1 + 2 (High Power)
Channel 36 (5180 MHz)



Antenna 1 + 2 (High Power)
Channel 44 (5220 MHz)



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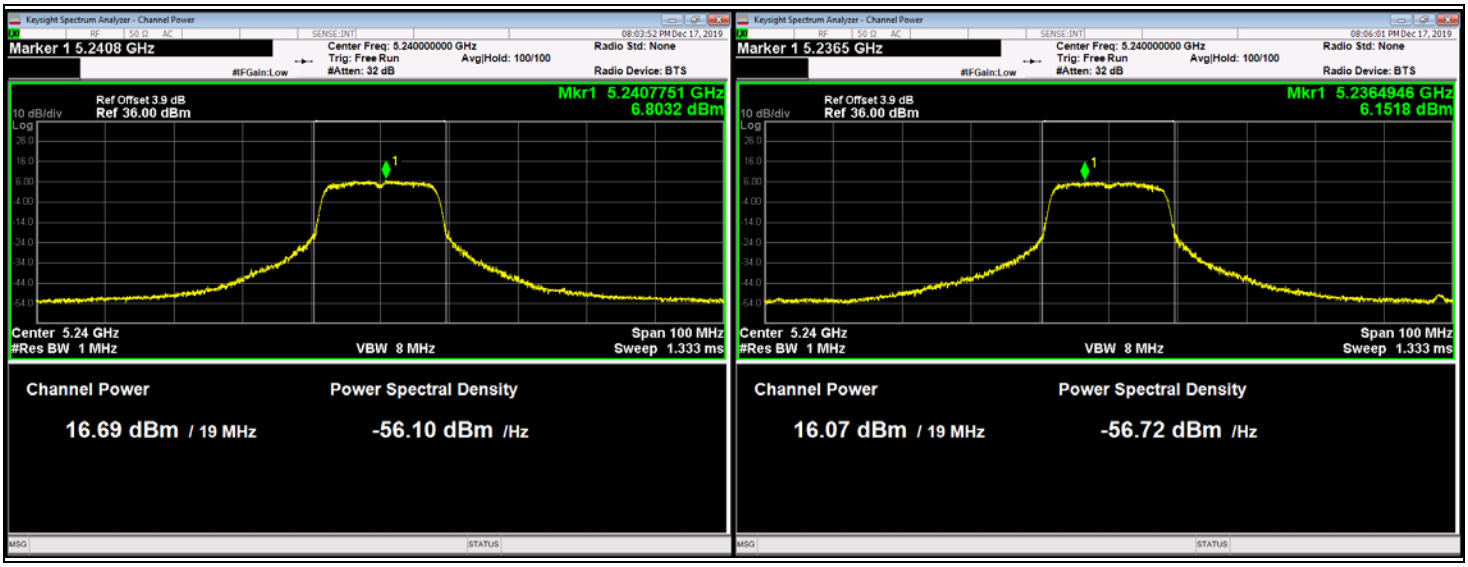
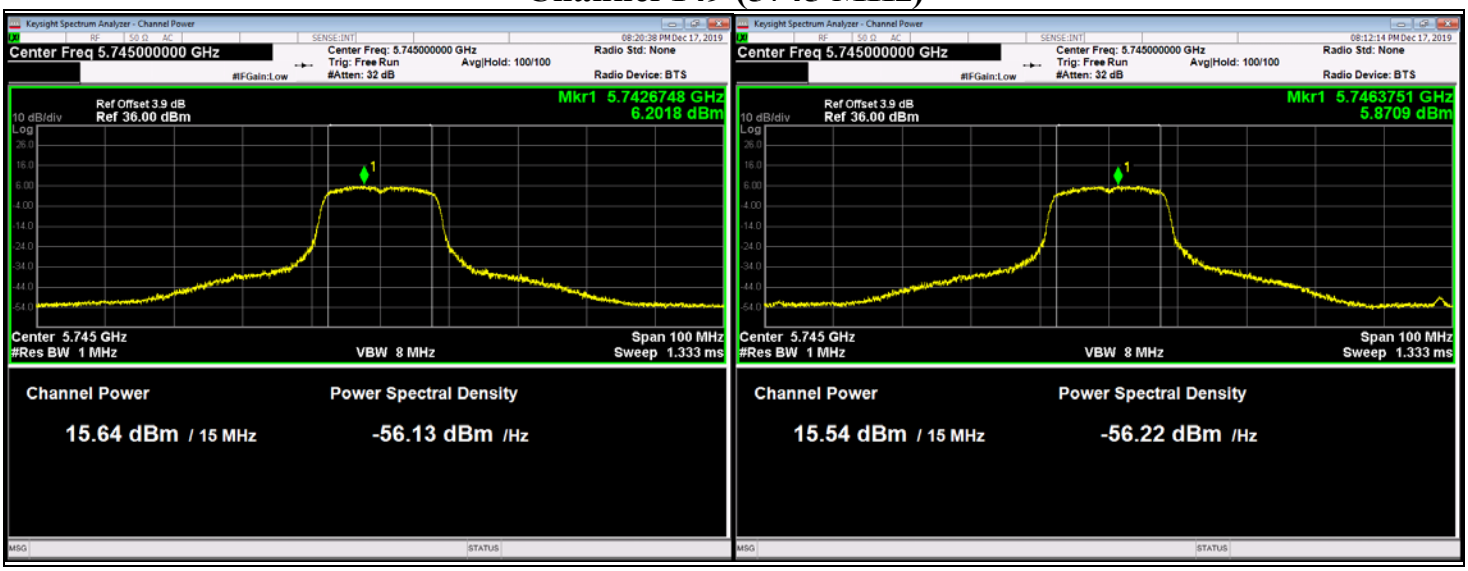
Antenna 1 + 2 (High Power)
Channel 48 (5240 MHz)



Antenna 1 + 2 (High Power)
Channel 149 (5745 MHz)



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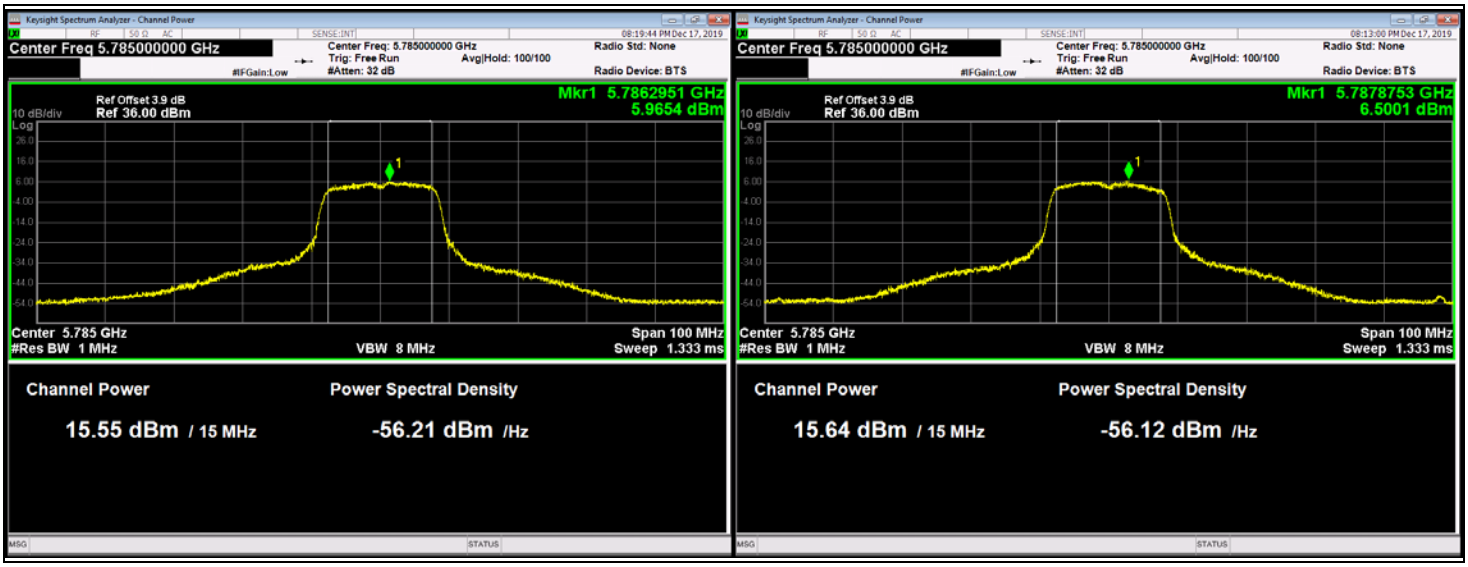
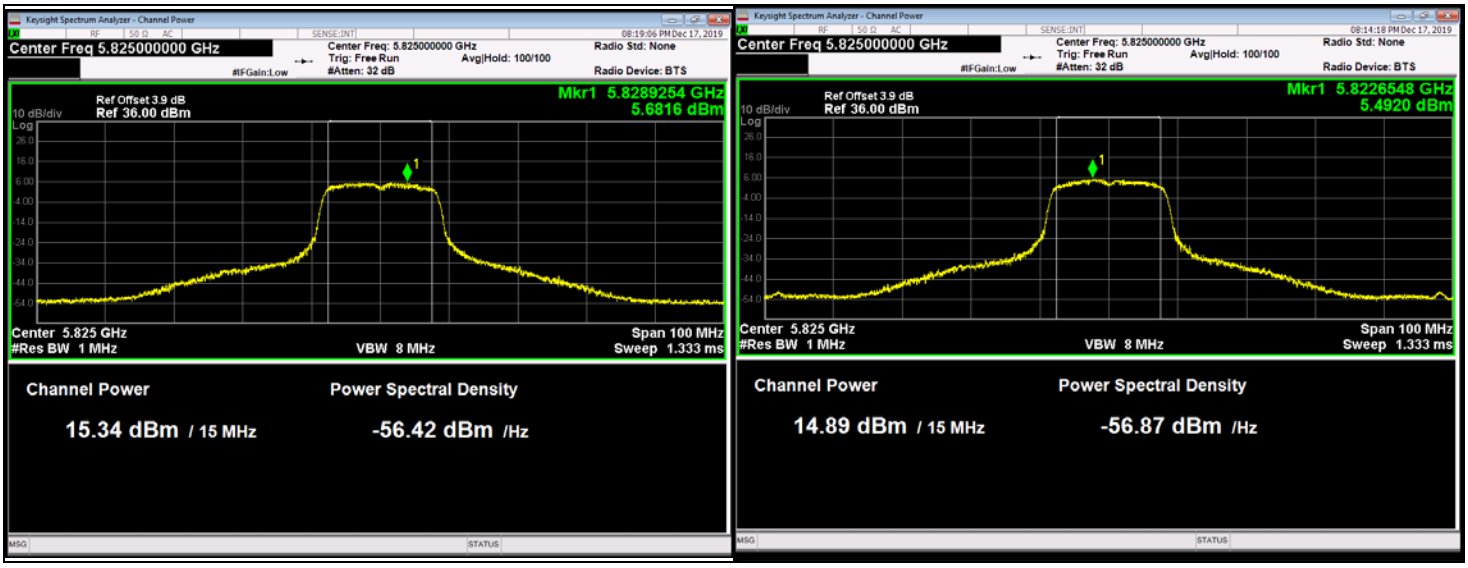
Antenna 1 + 2 (High Power)
Channel 157 (5785 MHz)



Antenna 1 + 2 (High Power)
Channel 165 (5825 MHz)



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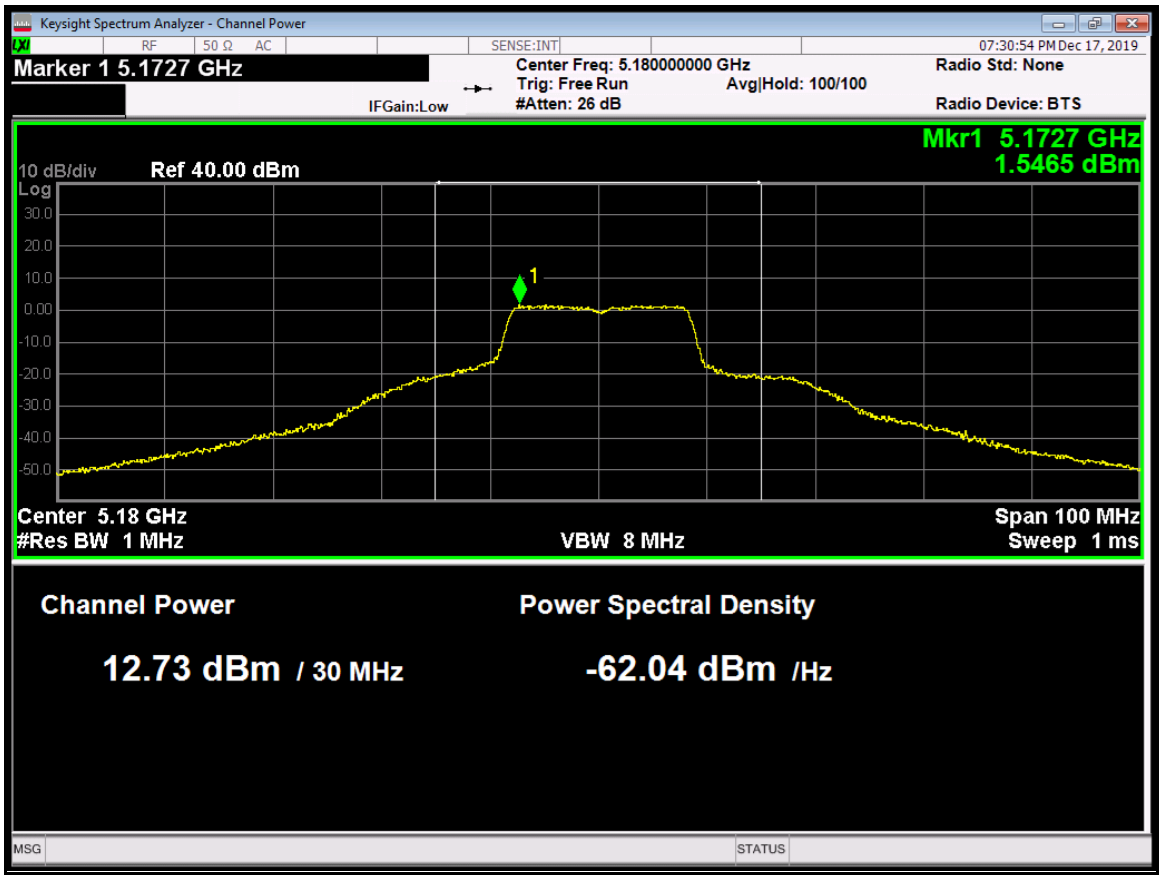
Antenna 1 (Low Power)
Channel 36 (5180 MHz)



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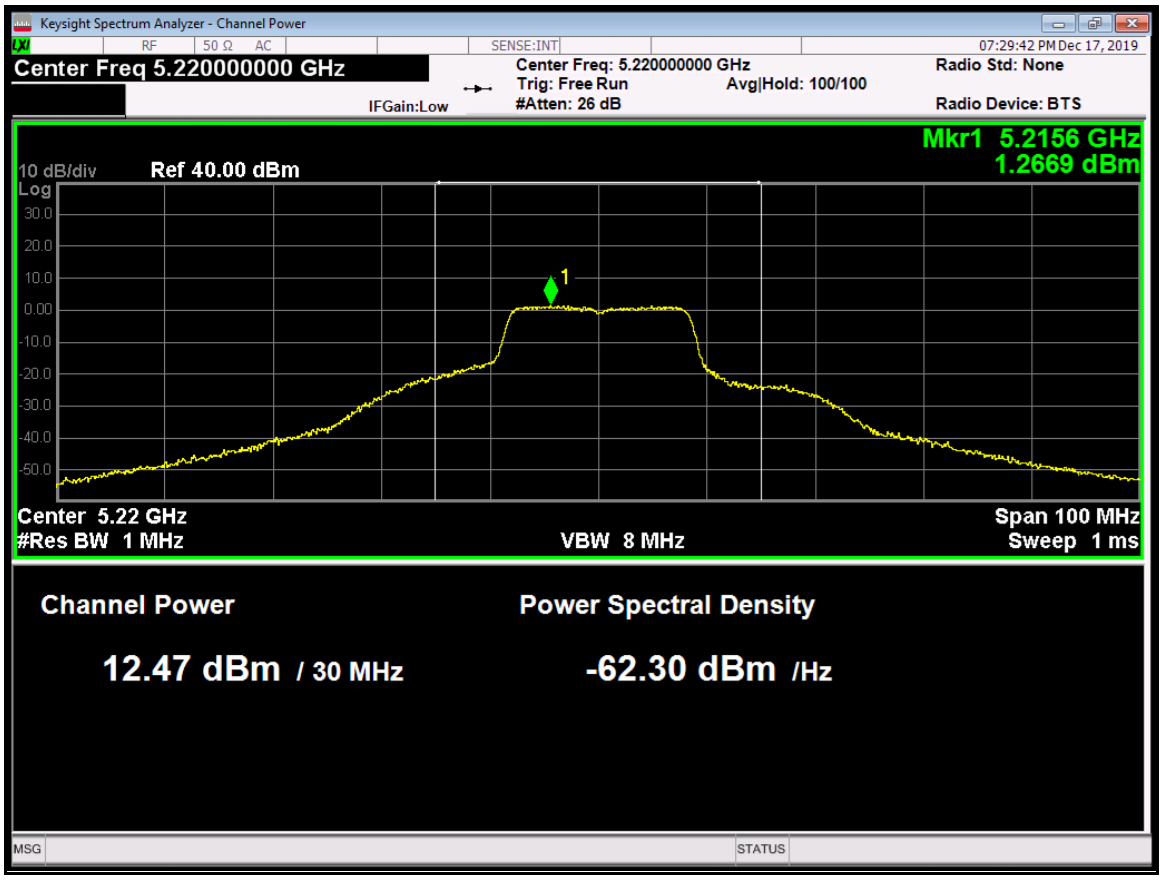
Antenna 1 (Low Power)
Channel 44 (5220 MHz)



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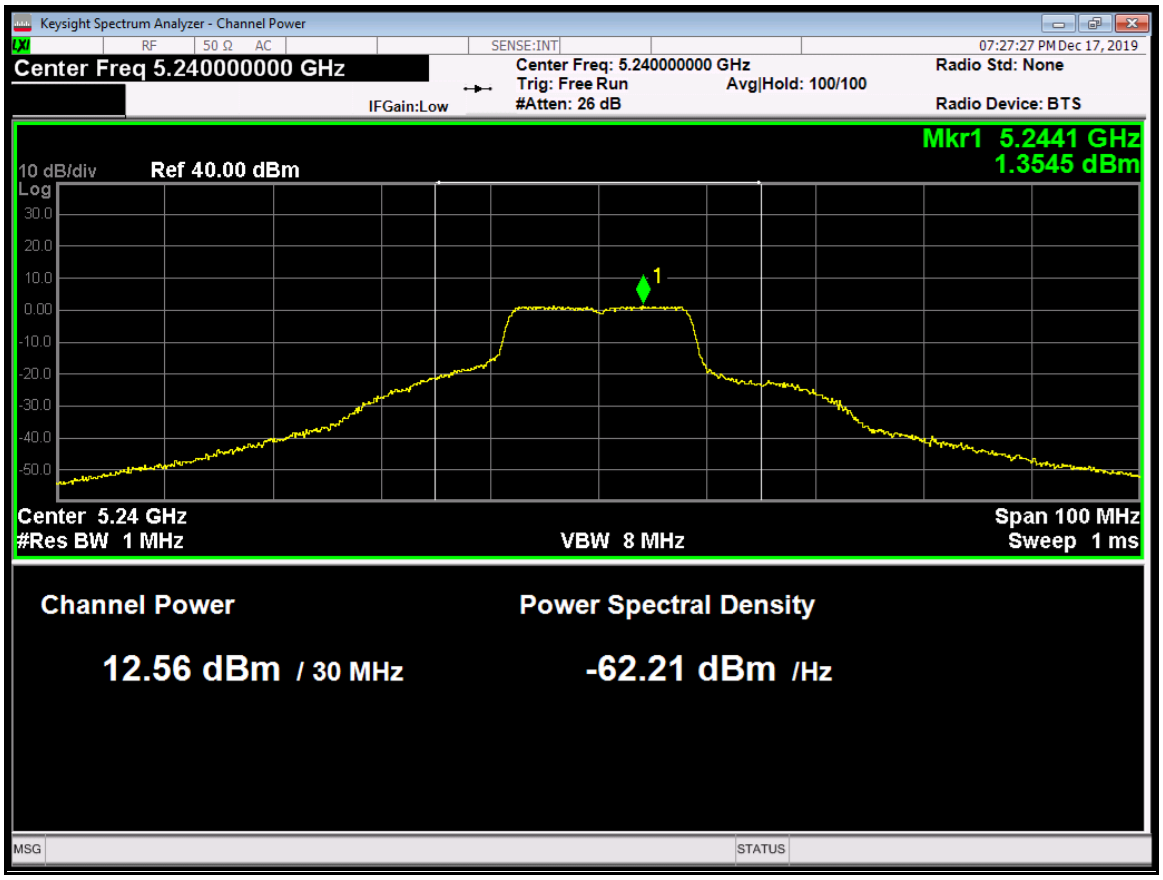
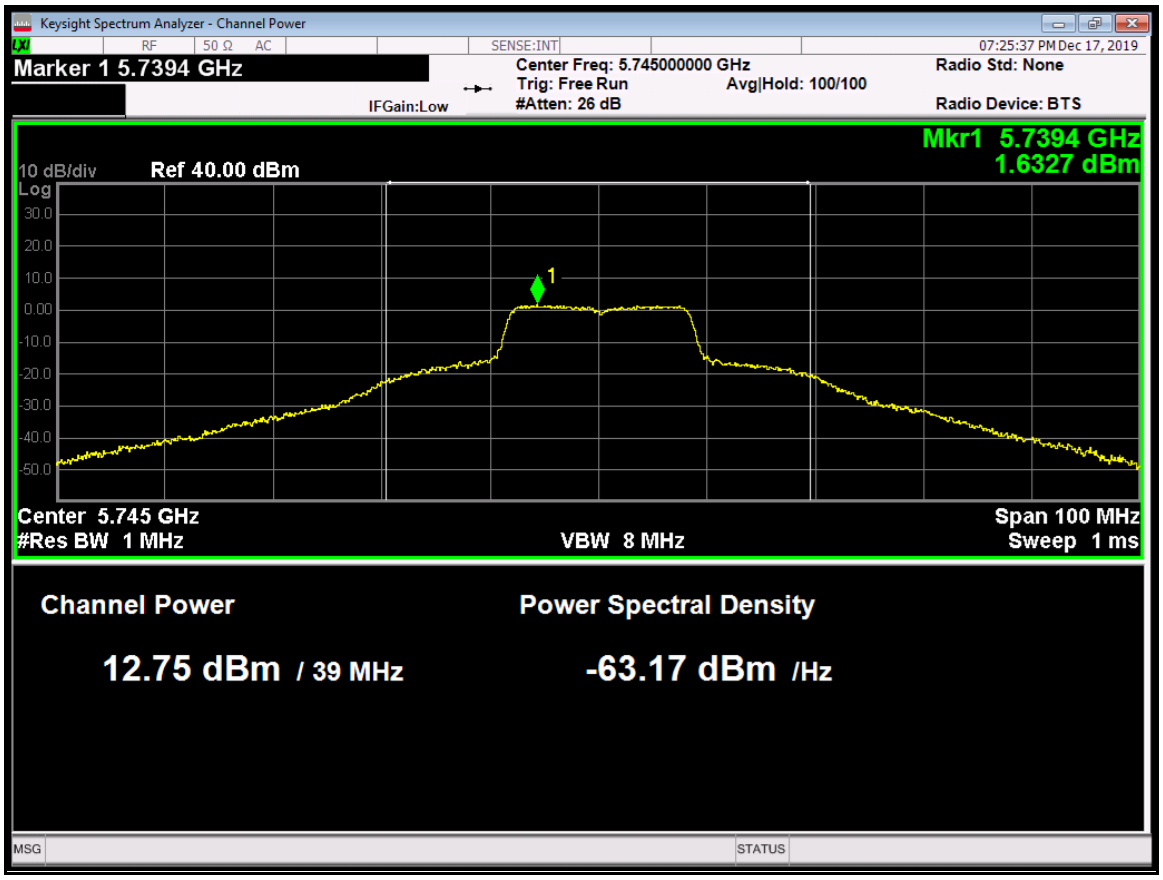
Antenna 1 (Low Power)
Channel 48 (5240 MHz)



ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 149 (5745 MHz)



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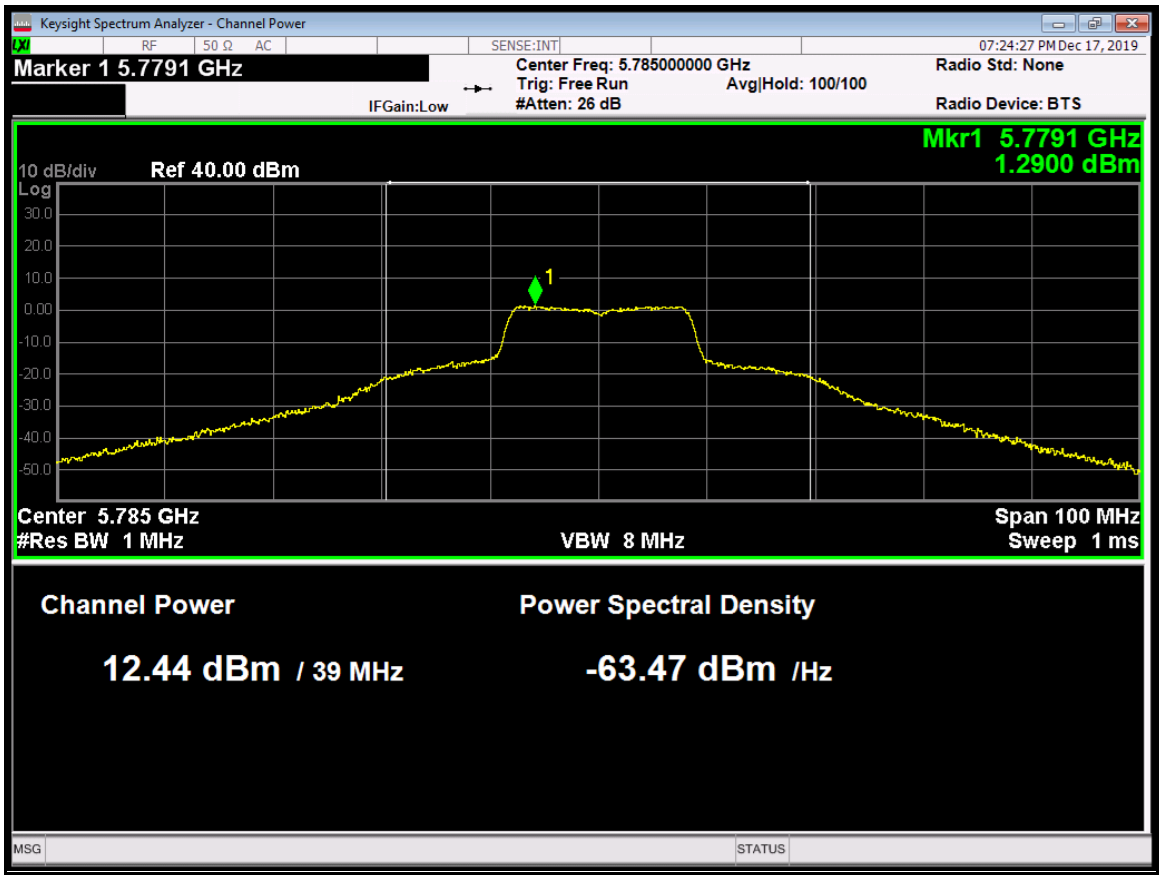
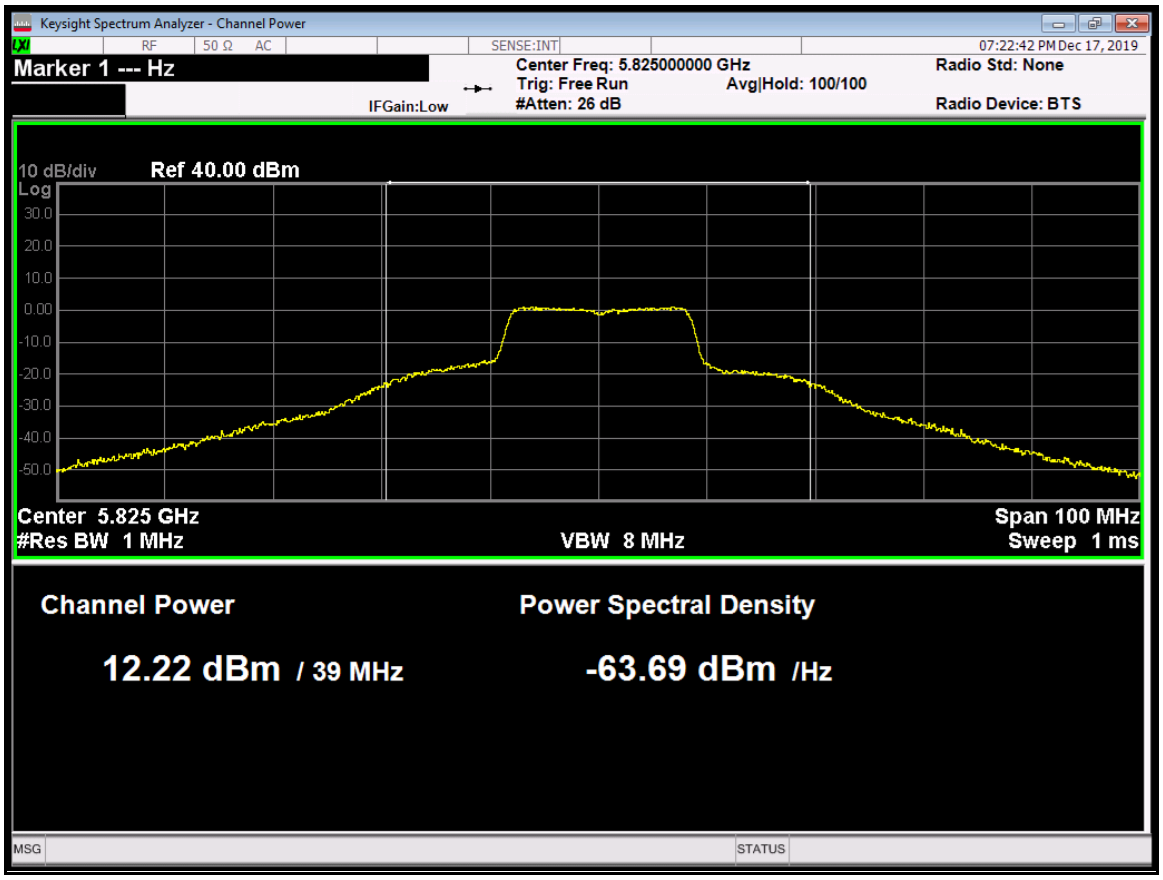
Antenna 1 (Low Power)
Channel 157 (5785 MHz)



ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 (Low Power)
Channel 165 (5825 MHz)



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APPENDIX B

TEST SETUP DIAGRAMS

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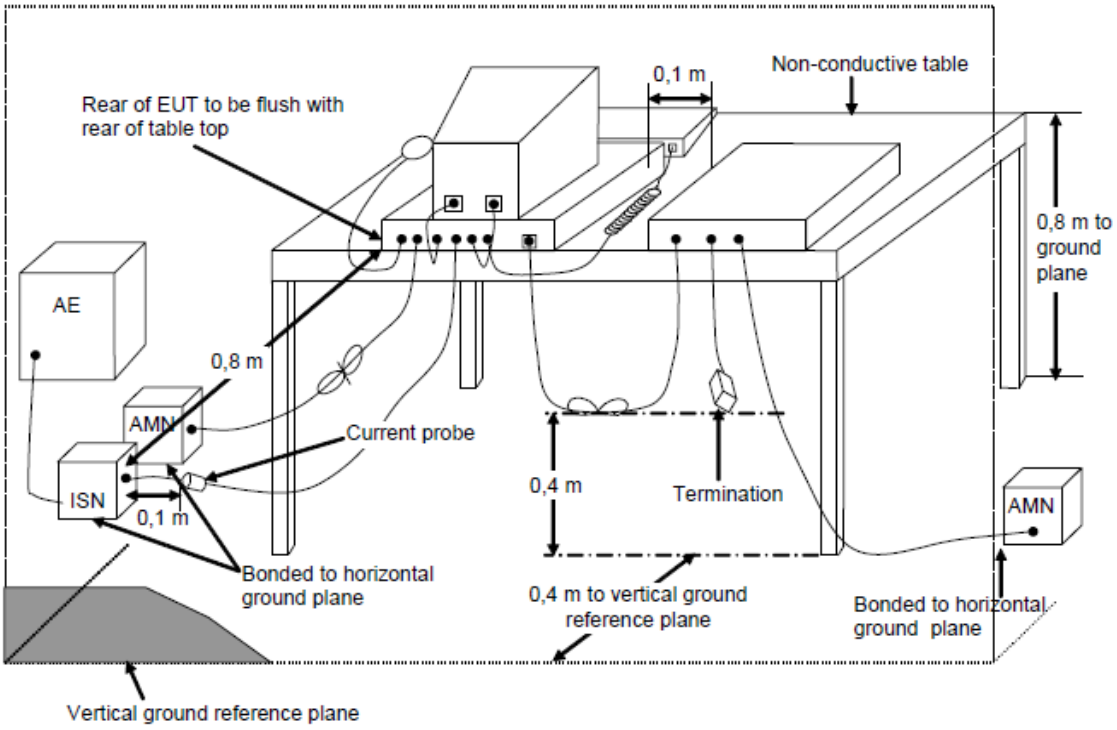

FIGURE 1 – TABLETOP CONDUCTED EMISSIONS TEST SETUP – SITE "D"

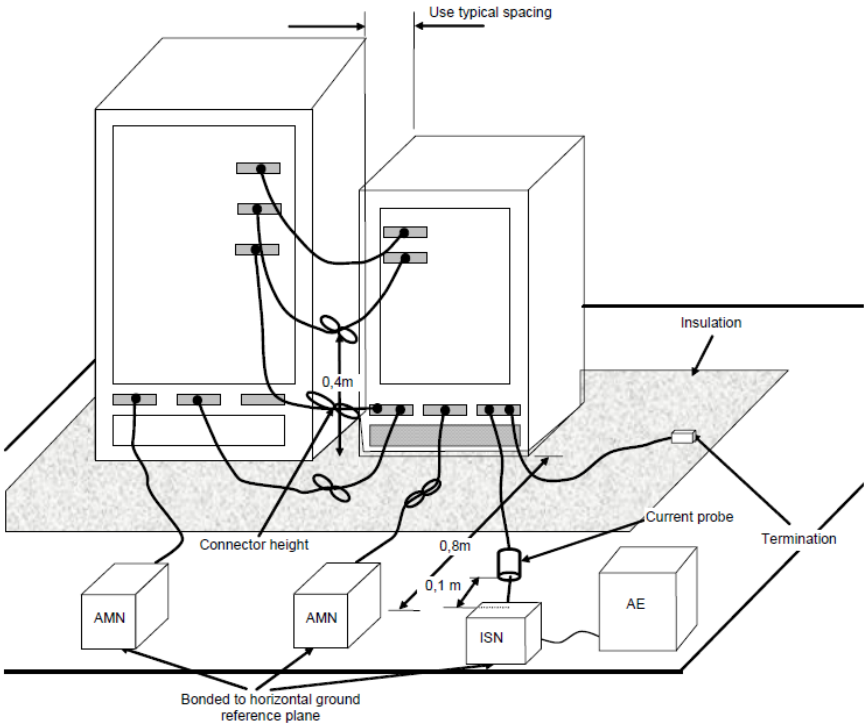

FIGURE 1a – FLOORSTANDING CONDUCTED EMISSIONS TEST SETUP – SITE "D"

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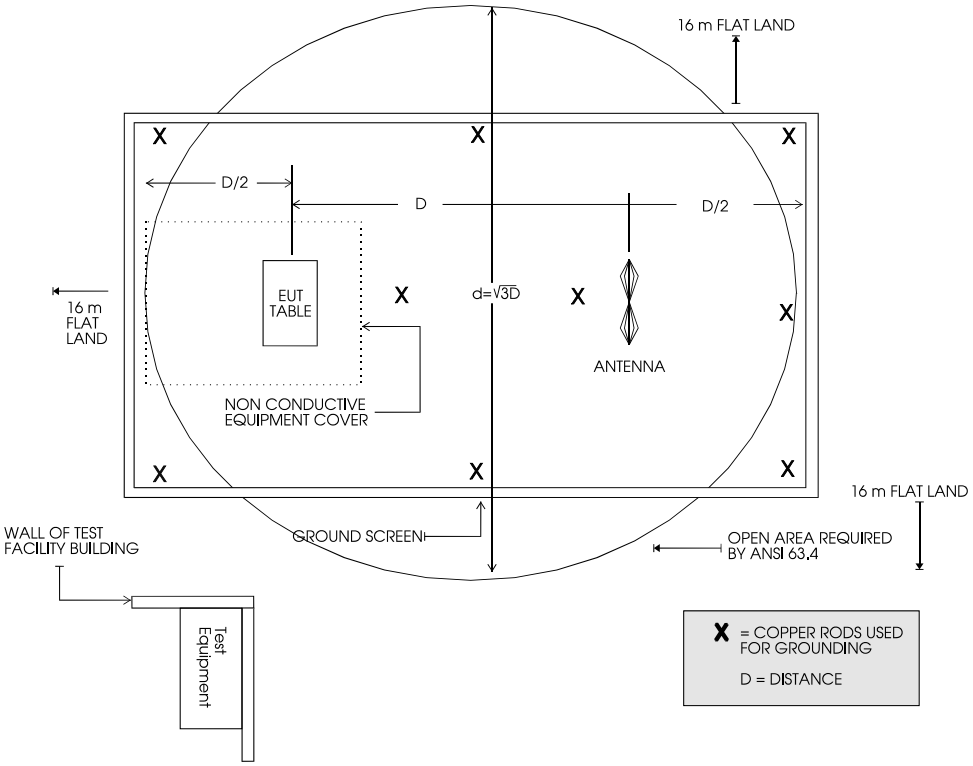

FIGURE 2 - PLOT MAP AND LAYOUT OF TEST SITE "A"

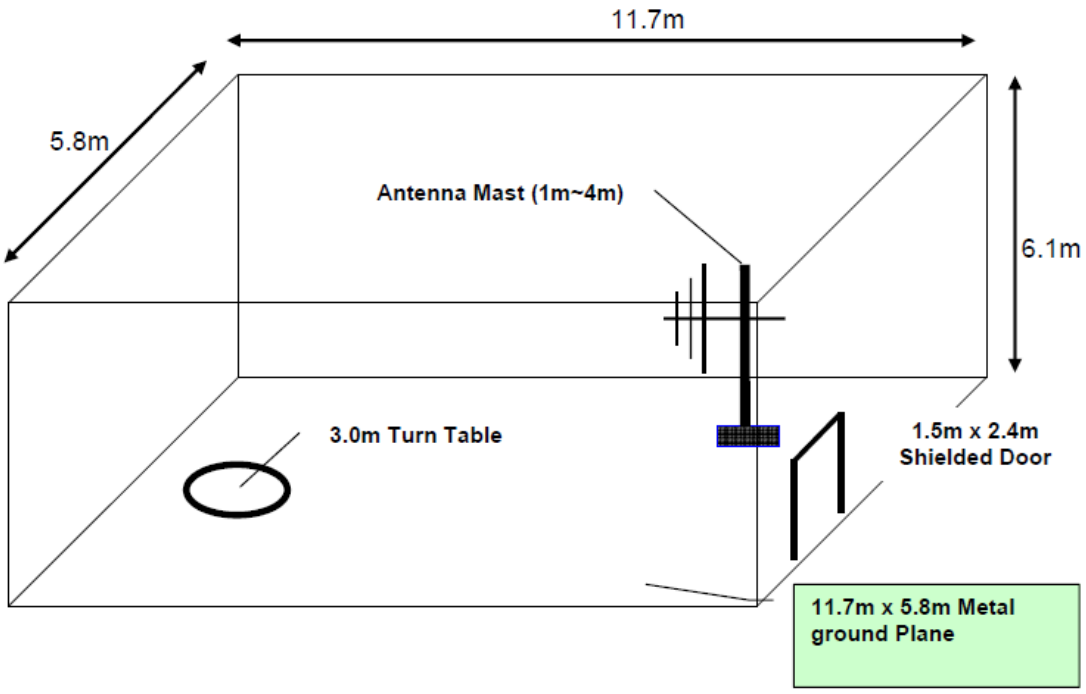

FIGURE 3 - LAYOUT OF 5 METER SEMI-ANECHOIC CHAMBER

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APPENDIX C

MODIFICATIONS TO THE EUT

EMT ELECTRO MAGNETIC TEST, INC.
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MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC + IC Class B radiated emission 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.

Modifications:

1) Added a ferrite bead (Fair-Rite Products Corporation P/N: 0431164281) with one turn to the Ethernet cable at the EUT end.

OR

No modifications were made to the EUT by Electro Magnetic Test, Inc. personnel during the testing.

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APPENDIX D

ADDITIONAL MODELS COVERED UNDER THIS REPORT

EMT ELECTRO MAGNETIC TEST, INC.
1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Equip. Beacon
Model: SBEC1V1
S/N: FROOTLOOPS

ALSO APPROVED UNDER THIS REPORT:

Model: Xx02

The only difference between the two model numbers is that the antenna orientation on the PCB is different.

OR

There are no additional models to be covered under this report.

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End of Report

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