



# element

## Finalmouse

Starlight-12 Small, Starlight-12 Medium

FCC 15.247:2021

2400 - 2483.5 MHz DTS Transceiver

Report: FINA0001.8, Issue Date: July 28, 2021



NVLAP LAB CODE: 200676-0



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# CERTIFICATE OF TEST

**Last Date of Test: July 22, 2021**  
**Finalmouse**  
**EUT: Starlight-12 Small, Starlight-12 Medium**

## Radio Equipment Testing

### Standards

Specification	Method
FCC 15.207:2021	ANSI C63.10:2013, KDB 558074
FCC 15.247:2021	

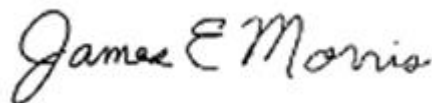
### Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6, 11.12.1, 11.13.2	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	No	N/A	Operating at 100% Duty Cycle
11.8.2	Occupied Bandwidth	Yes	Pass	
11.9.1.1	Output Power	Yes	Pass	
11.9.1.1	Equivalent Isotropic Radiated Power	Yes	Pass	
11.10.2	Power Spectral Density	Yes	Pass	
11.11	Band Edge Compliance	Yes	Pass	
11.11	Spurious Conducted Emissions	Yes	Pass	

### Deviations From Test Standards

None

### Approved By:



James Morris, Operations Manager

*Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing.*

# REVISION HISTORY



Revision Number	Description	Date (yyyy-mm-dd)	Page Number
00	None		

# ACCREDITATIONS AND AUTHORIZATIONS



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## United States

**FCC** - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

**A2LA** - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

**NVLAP** - Each laboratory is accredited by NVLAP to ISO 17025

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## Canada

**ISED** - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB) and as a CAB for the acceptance of test data.

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## European Union

**European Commission** – Recognized as an EU Notified Body validated for the EMCD and RED Directives.

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## United Kingdom

**BEIS** – Recognized by the UK as an Approved Body under the UK Radio Equipment and UK EMC Regulations.

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## Australia/New Zealand

**ACMA** - Recognized by ACMA as a CAB for the acceptance of test data.

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## Korea

**MSIT / RRA** - Recognized by KCC's RRA as a CAB for the acceptance of test data.

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## Japan

**VCCI** - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

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## Taiwan

**BSMI** – Recognized by BSMI as a CAB for the acceptance of test data.

**NCC** - Recognized by NCC as a CAB for the acceptance of test data.

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## Singapore

**IDA** – Recognized by IDA as a CAB for the acceptance of test data.

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## Israel

**MOC** – Recognized by MOC as a CAB for the acceptance of test data.

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## Hong Kong

**OFCA** – Recognized by OFCA as a CAB for the acceptance of test data.

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## Vietnam

**MIC** – Recognized by MIC as a CAB for the acceptance of test data.

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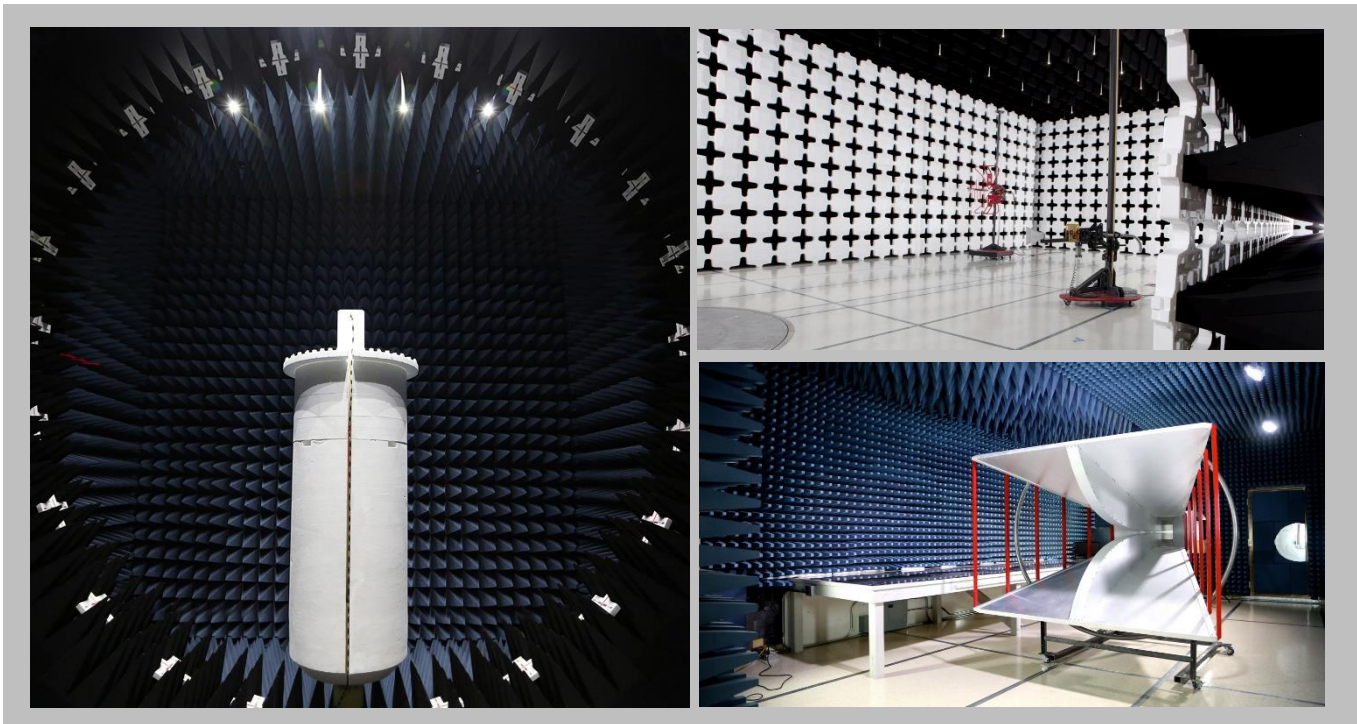
## SCOPE

For details on the Scopes of our Accreditations, please visit:  
<https://www.nwemc.com/emc-testing-accreditations>

# FACILITIES



<b>California</b> Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	<b>Minnesota</b> Labs MN01-11 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	<b>Oregon</b> Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	<b>Texas</b> Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	<b>Washington</b> Labs NC01-05 19201 120 <sup>th</sup> Ave NE Bothell, WA 98011 (425)984-6600
<b>NVLAP</b>				
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
<b>Innovation, Science and Economic Development Canada</b>				
2834B-1, 2834B-3	2834E-1, 2834E-3	2834D-1	2834G-1	2834F-1
<b>BSMI</b>				
SL2-IN-E-1154R	SL2-IN-E-1152R	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
<b>VCCI</b>				
A-0029	A-0109	A-0108	A-0201	A-0110
<b>Recognized Phase I CAB for ISED, ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA</b>				
US0158	US0175	US0017	US0191	US0157



# MEASUREMENT UNCERTAINTY



## Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

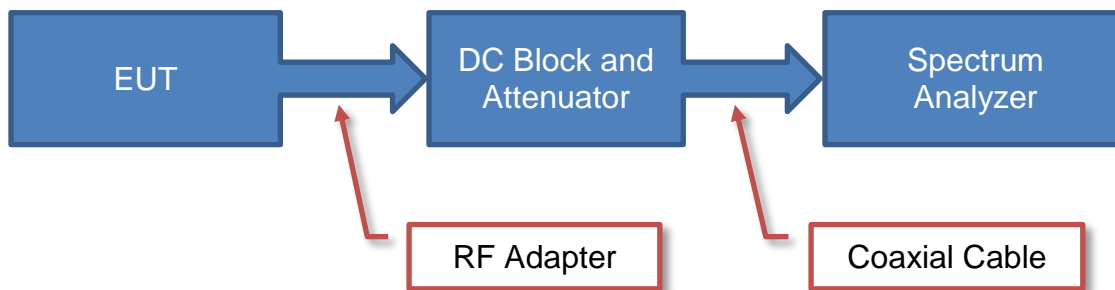
A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found in the table below. A lab specific value may also be found in the applicable test description section. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

<b>Test</b>	<b>+ MU</b>	<b>- MU</b>
Frequency Accuracy	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	1.2 dB	-1.2 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.1 dB	-5.1 dB
AC Powerline Conducted Emissions (dB)	3.2 dB	-3.2 dB

# TEST SETUP BLOCK DIAGRAMS

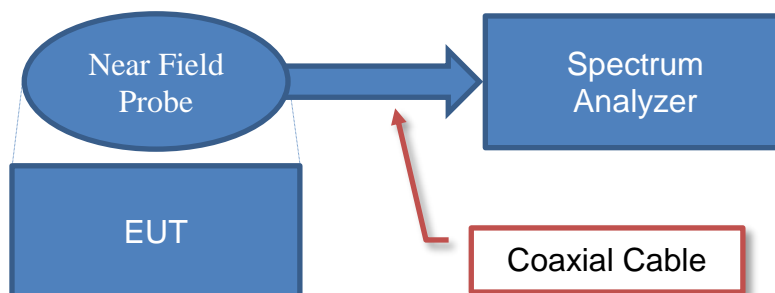
## Antenna Port Conducted Measurements



### Sample Calculation

Measured Value	=	Measured Level	+	Reference Level Offset
71.2		42.6		28.6

## Near Field Test Fixture Measurements

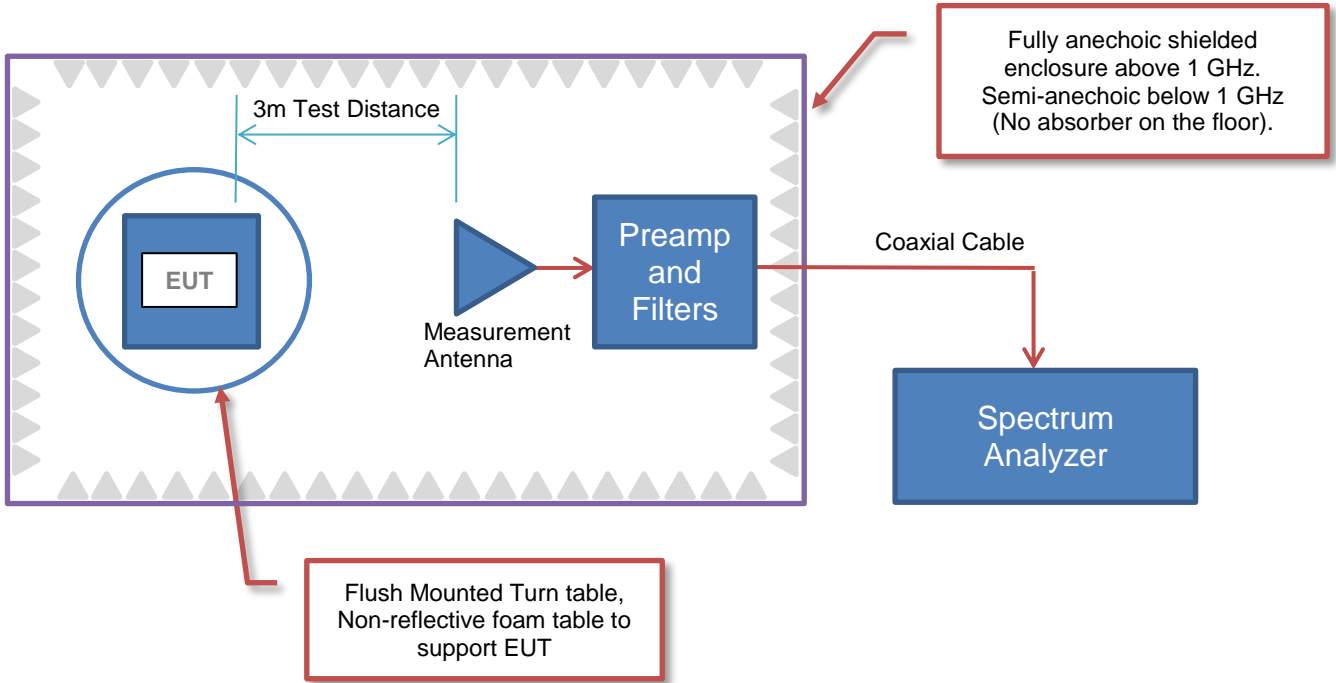


### Sample Calculation

Measured Value	=	Measured Level	+	Reference Level Offset
71.2		42.6		28.6

# TEST SETUP BLOCK DIAGRAMS

## Spurious Radiated Emissions





# PRODUCT DESCRIPTION



## Client and Equipment Under Test (EUT) Information

<b>Company Name:</b>	Finalmouse
<b>Address:</b>	505 San Juan Ave 4
<b>City, State, Zip:</b>	Venice, CA 90291
<b>Test Requested By:</b>	Kevin Hung
<b>EUT:</b>	Starlight-12 Small, Starlight-12 Medium
<b>First Date of Test:</b>	March 16, 2021
<b>Last Date of Test:</b>	July 22, 2021
<b>Receipt Date of Samples:</b>	March 16, 2021
<b>Equipment Design Stage:</b>	Production
<b>Equipment Condition:</b>	No Damage
<b>Purchase Authorization:</b>	Verified

## Information Provided by the Party Requesting the Test

<b>Functional Description of the EUT:</b>
Wired and Wireless Mouse
<b>Testing Objective:</b>
Seeking to demonstrate compliance under FCC 15.247:2021 for operation in the 2400 - 2483.5 MHz Band.

# CONFIGURATIONS



## Configuration FINA0001- 4

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Starlight-12 Small	Finalmouse	Starlight-12 Small	E

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
HP Laptop	HP	14-dq0005cl	5CD05KR68
Laptop PS	HP	TPN-LA15	L25296-001

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Cable	No	1m	No	Laptop PS	AC Mains
DC Cable	Yes	1.5m	No	Laptop PS	HP Laptop
USB cable	Yes	.5m	No	Starlight-12	HP Laptop

## Configuration FINA0001- 14

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Starlight-12 Small	Finalmouse	Starlight-12 Small	G

## Configuration FINA0001- 15

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Starlight-12 Medium	Finalmouse	Starlight-12 Medium	M

## Configuration FINA0001- 16

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Starlight-12 Small	Finalmouse	Starlight-12 Small	I

## Configuration FINA0001- 17

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Starlight-12 Medium	Finalmouse	Starlight-12 Medium	A

# MODIFICATIONS



## Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2021-03-16	Powerline Conducted Emissions (Transmitter)	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	2021-04-06	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
3	2021-04-13	Duty Cycle	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
4	2021-04-13	Equivalent Isotropic Radiated Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
5	2021-04-13	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.
6	2021-07-22	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
7	2021-07-22	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
8	2021-07-22	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
9	2021-07-22	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

# POWER SETTINGS AND ANTENNA GAIN



The EUT was tested using the power settings provided by the manufacturer:

## SETTINGS FOR ALL TESTS IN THIS REPORT

Type	Frequency (MHz)	Power Setting
Other Wideband (DTS)	2402	-4 dBm
	2442	-4 dBm
	2480	-4 dBm

## ANTENNA GAIN (dBi)

Type	Provided by:	Frequency (MHz)	Gain (dBi)
Inverted-F Monopole	Manufacturer	2402	3.17
		2442	3.29
		2480	3.86

# POWERLINE CONDUCTED EMISSIONS



WTD.2020.12.03.1  
EmiRS 2021.01.08.0, PSA-ESCI  
2021.01.22.0

## TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Per the standard, an insulating material was also added to ground plane between the EUT's power and remote I/O cables. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50ohm measuring port is terminated by a 50ohm EMI meter or a 50ohm resistive load. All 50ohm measuring ports of the LISN are terminated by 50ohm. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Receiver	Rohde & Schwarz	ESCI	ARG	2020-08-07	2021-08-07
LISN	Solar Electronics	9252-50-24-BNC	LIA	2020-12-28	2021-12-28
Cable - Conducted Cable Assembly	Northwest EMC	OCP, HFP, AWC	OCPA	2020-08-26	2021-08-26
Power Supply	Pacific Power	AFX 12KVA	SMT	NCR	NCR

## MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.6 dB	-2.6 dB

## CONFIGURATIONS INVESTIGATED

FINA0001-4

## MODES INVESTIGATED

Wired Mouse (USB Power), connected to host laptop.

# POWERLINE CONDUCTED EMISSIONS



WTD.2020.12.03.1  
EmiR5 2021.01.08.0, PSA-ESCI  
2021.01.22.0

EUT:	Starlight-12 Small	Work Order:	FINA0001
Serial Number:	E	Date:	2021-03-16
Customer:	Finalmouse	Temperature:	21.6°C
Attendees:	None	Relative Humidity:	42.4%
Customer Project:	None	Bar. Pressure:	1020 mb
Tested By:	Carlos Perez	Job Site:	OC06
Power:	5VDC USB via host laptop 110VAC/60Hz	Configuration:	FINA0001-4

## TEST SPECIFICATIONS

Specification: Equipment Class B FCC 15.207:2021	Method: ANSI C63.10:2013
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## TEST PARAMETERS

Run #:	5	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

None

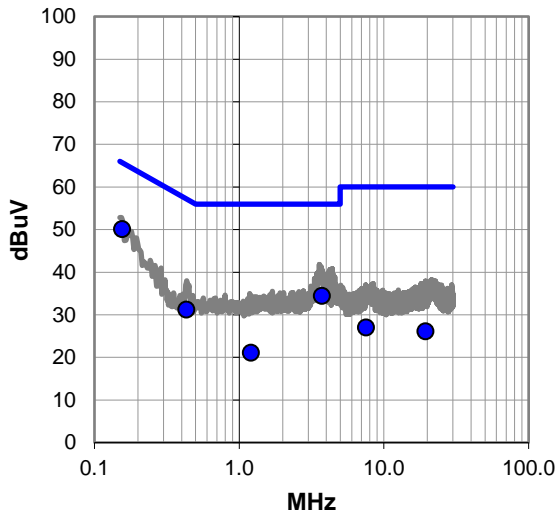
## EUT OPERATING MODES

Connected to host laptop, performing square pattern constantly transmitting.

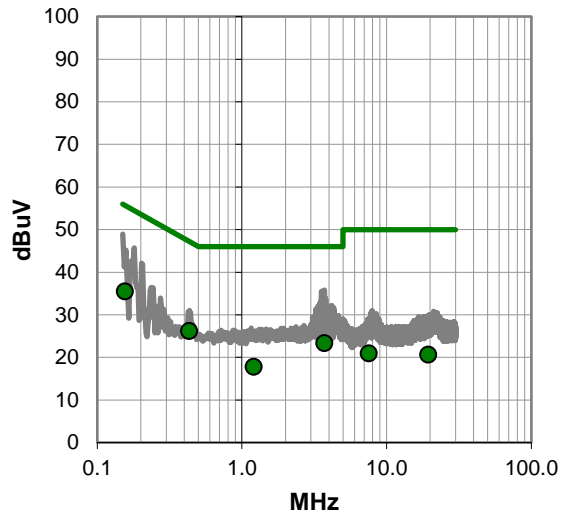
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# POWERLINE CONDUCTED EMISSIONS



WTD.2020.12.03.1  
EmiR5 2021.01.08.0, PSA-ESCI  
2021.01.22.0

## RESULTS - Run #5

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.155	29.9	20.2	50.1	65.7	-15.6
3.715	14.3	20.1	34.4	56.0	-21.6
0.432	11.1	20.1	31.2	57.2	-26.0
7.511	6.7	20.3	27.0	60.0	-33.0
19.398	5.1	21.0	26.1	60.0	-33.9
1.205	1.1	20.0	21.1	56.0	-34.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.155	15.3	20.2	35.5	55.7	-20.2
0.432	6.1	20.1	26.2	47.2	-21.0
3.715	3.2	20.1	23.3	46.0	-22.7
1.205	-2.2	20.0	17.8	46.0	-28.2
7.511	0.6	20.3	20.9	50.0	-29.1
19.398	-0.4	21.0	20.6	50.0	-29.4

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



WTD.2020.12.03.1  
EmiR5 2021.01.08.0, PSA-ESCI  
2021.01.22.0

EUT:	Starlight-12 Small	Work Order:	FINA0001
Serial Number:	E	Date:	2021-03-16
Customer:	Finalmouse	Temperature:	21.6°C
Attendees:	None	Relative Humidity:	42.4%
Customer Project:	None	Bar. Pressure:	1020 mb
Tested By:	Carlos Perez	Job Site:	OC06
Power:	5VDC USB via host laptop 110VAC/60Hz	Configuration:	FINA0001-4

## TEST SPECIFICATIONS

Specification: Equipment Class B FCC 15.207:2021	Method: ANSI C63.10:2013
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## TEST PARAMETERS

Run #:	6	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

None

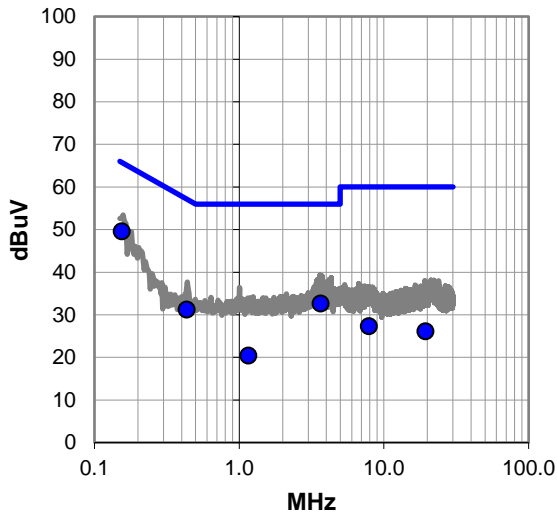
## EUT OPERATING MODES

Connected to host laptop, performing square pattern constantly transmitting.

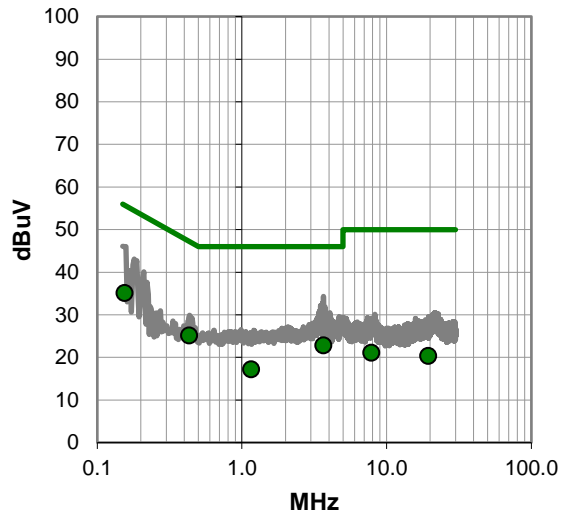
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit





# POWERLINE CONDUCTED EMISSIONS



WTD.2020.12.03.1  
EmiR5 2021.01.08.0, PSA-ESCI  
2021.01.22.0

## RESULTS - Run #6

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.154	29.4	20.2	49.6	65.8	-16.2
3.656	12.5	20.1	32.6	56.0	-23.4
0.432	11.1	20.1	31.2	57.2	-26.0
7.850	6.9	20.4	27.3	60.0	-32.7
19.374	5.1	21.0	26.1	60.0	-33.9
1.154	0.4	20.0	20.4	56.0	-35.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.154	14.9	20.2	35.1	55.8	-20.7
0.432	5.0	20.1	25.1	47.2	-22.1
3.656	2.7	20.1	22.8	46.0	-23.2
1.154	-2.8	20.0	17.2	46.0	-28.8
7.850	0.7	20.4	21.1	50.0	-28.9
19.374	-0.7	21.0	20.3	50.0	-29.7

## CONCLUSION

Pass

Tested By

# SPURIOUS RADIATED EMISSIONS



PSA-ESCI 2021.03.17.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

## MODES OF OPERATION

Transmitting on Low Channel 2402 MHz, Mid Channel 2442 MHz and High Channel 2480 MHz

Transmitting on Low Channel 2402 MHz and High Channel 2480 MHz

## POWER SETTINGS INVESTIGATED

Battery

## CONFIGURATIONS INVESTIGATED

FINA0001 - 14

FINA0001 - 15

## FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz

Stop Frequency

26500 MHz

## SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	S.M. Electronics	SA6-20	REO	2021-01-18	2022-01-18
Filter - Low Pass	Micro-Tronics	LPM50004	HGK	2021-01-15	2022-01-15
Filter - High Pass	Micro-Tronics	HPM50111	HGQ	2021-01-15	2022-01-15
Cable	D-Coax	None	OC4	2020-12-18	2021-12-18
Cable	ESM Cable Corp.	30-1GHz cables	OCW	2020-05-01	2021-05-01
Cable	ESM Cable Corp.	1-8GHz cables	OCX	2021-03-23	2022-03-23
Cable	ESM Cable Corp.	8-18GHz cables	OCY	2021-02-26	2022-02-26
Amplifier - Pre-Amplifier	Miteq	JSDWK42-18004000-60-5P	PAN	2020-12-18	2021-12-18
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	PAD	2020-07-01	2021-07-01
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVP	2021-02-26	2022-02-26
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVL	2021-02-26	2022-02-26
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVJ	2021-03-23	2022-03-23
Antenna - Double Ridge	ETS Lindgren	3115	AIR	2020-07-07	2022-07-07
Antenna - Standard Gain	ETS Lindgren	3160-07	AHX	NCR	NCR
Antenna - Standard Gain	EMCO	3160-08	AHK	NCR	NCR
Antenna - Double Ridge	AH Systems, Inc.	SAS-574	AXV	2020-06-03	2022-06-03
Antenna - Biconolog	EMCO	3142	AXB	2020-04-15	2022-04-15
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2021-01-06	2022-01-06

## TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector  
PK = Peak Detector  
AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements within 2 MHz of the allowable band may have been taken using the integration method from ANSI C63.10 clause 11.13.3. This procedure uses the channel power feature of the spectrum analyzer to integrate the power of the emission within a 1 MHz bandwidth.

Where the radio test software does not provide for a duty cycle at continuous transmit conditions (> 98%) and the RMS (power average) measurements were made across the on and off times of the EUT transmissions, a duty cycle correction is added to the measurements using the formula of  $10 \cdot \log(1/dc)$ .

# SPURIOUS RADIATED EMISSIONS

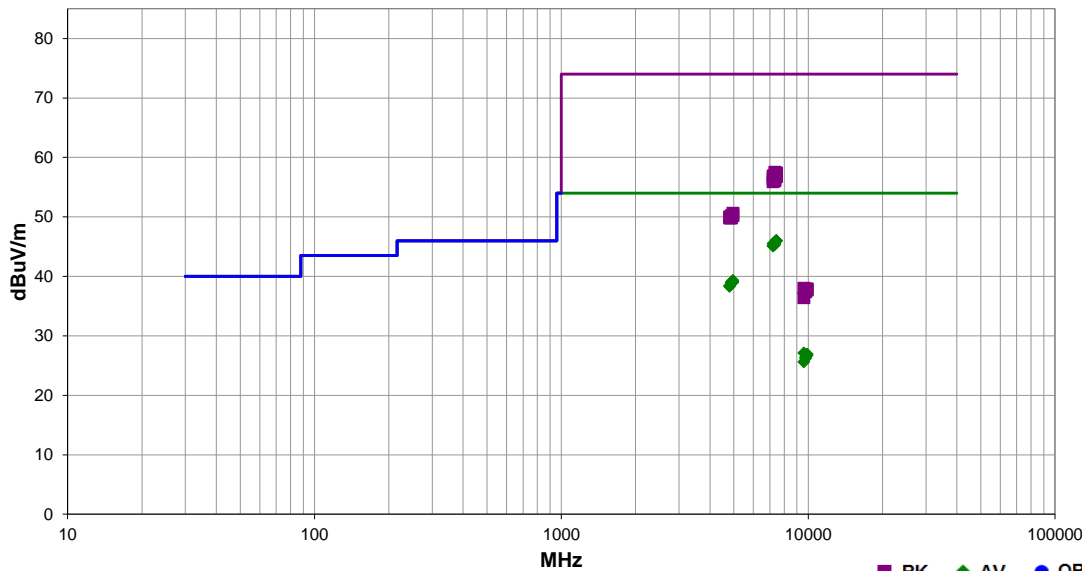


EmiRS 2021.01.08.0 PSA-ESCI 2021.03.17.0

<b>Work Order:</b>	FINA0001	<b>Date:</b>	2021-04-06	
<b>Project:</b>	None	<b>Temperature:</b>	21 °C	
<b>Job Site:</b>	OC07	<b>Humidity:</b>	47.2% RH	
<b>Serial Number:</b>	See Configurations	<b>Barometric Pres.:</b>	1018 mbar	
<b>EUT:</b>	Starlight-12 Small, Starlight-12 Medium			
<b>Configuration:</b>	14,15			
<b>Customer:</b>	Finalmouse			
<b>Attendees:</b>	Kevin Hung			
<b>EUT Power:</b>	Battery			
<b>Operating Mode:</b>	Transmitting on Low Channel 2402 MHz, Mid Channel 2442 MHz and High Channel 2480 MHz			
<b>Deviations:</b>	None			
<b>Comments:</b>	None			

<b>Test Specifications</b>	<b>Test Method</b>
FCC 15.247:2021	ANSI C63.10:2013

<b>Run #</b>	139	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1 to 4(m)	<b>Results</b>	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7437.592	31.1	14.9	1.5	73.0	3.0	0.0	Horz	AV	0.0	46.0	54.0	-8.0	EUT Horz, High Ch. 2480 MHz
7437.775	31.1	14.9	1.5	86.0	3.0	0.0	Vert	AV	0.0	46.0	54.0	-8.0	EUT Horz, High Ch. 2480 MHz
7440.458	31.1	14.9	2.1	250.0	3.0	0.0	Horz	AV	0.0	46.0	54.0	-8.0	Medium EUT Horz, High Ch. 2480 MHz
7441.200	31.1	14.9	1.5	323.0	3.0	0.0	Vert	AV	0.0	46.0	54.0	-8.0	Medium EUT Horz, High Ch. 2480 MHz
7327.275	31.4	14.2	1.3	229.0	3.0	0.0	Horz	AV	0.0	45.6	54.0	-8.4	Medium EUT Horz, Mid Ch. 2442 MHz
7323.917	31.3	14.2	1.5	200.0	3.0	0.0	Horz	AV	0.0	45.5	54.0	-8.5	EUT Horz, Mid Ch. 2442 MHz
7205.442	32.0	13.5	1.5	172.0	3.0	0.0	Vert	AV	0.0	45.5	54.0	-8.5	EUT Horz, Low Ch. 2402 MHz
7323.717	31.3	14.2	1.2	172.0	3.0	0.0	Vert	AV	0.0	45.5	54.0	-8.5	Medium EUT Horz, Mid Ch. 2442 MHz
7323.500	31.3	14.2	1.5	277.0	3.0	0.0	Horz	AV	0.0	45.5	54.0	-8.5	Medium EUT on Side, Mid Ch. 2442 MHz
7325.175	31.2	14.2	1.3	289.0	3.0	0.0	Vert	AV	0.0	45.4	54.0	-8.6	EUT Horz, Mid Ch. 2442 MHz
7325.217	31.2	14.2	1.5	332.0	3.0	0.0	Horz	AV	0.0	45.4	54.0	-8.6	EUT on Side, Mid Ch. 2442 MHz
7324.583	31.2	14.2	1.5	185.0	3.0	0.0	Vert	AV	0.0	45.4	54.0	-8.6	EUT on Side, Mid Ch. 2442 MHz
7323.567	31.2	14.2	1.5	130.0	3.0	0.0	Horz	AV	0.0	45.4	54.0	-8.6	EUT Vert, Mid Ch. 2442 MHz
7324.733	31.2	14.2	1.7	29.0	3.0	0.0	Vert	AV	0.0	45.4	54.0	-8.6	EUT Vert, Mid Ch. 2442 MHz
7205.567	31.6	13.5	1.5	148.0	3.0	0.0	Horz	AV	0.0	45.1	54.0	-8.9	EUT Horz, Low Ch. 2402 MHz
7206.042	31.6	13.5	2.6	235.0	3.0	0.0	Vert	AV	0.0	45.1	54.0	-8.9	Medium EUT Horz, Low Ch. 2402 MHz
4958.433	32.2	7.1	1.5	349.0	3.0	0.0	Vert	AV	0.0	39.3	54.0	-14.7	EUT Horz, High Ch. 2480 MHz
4885.100	32.0	7.0	1.5	295.0	3.0	0.0	Horz	AV	0.0	39.0	54.0	-15.0	EUT Horz, Mid Ch. 2442 MHz
4958.833	31.9	7.1	1.5	103.0	3.0	0.0	Horz	AV	0.0	39.0	54.0	-15.0	EUT Horz, High Ch. 2480 MHz
4881.850	31.9	7.0	1.5	309.0	3.0	0.0	Vert	AV	0.0	38.9	54.0	-15.1	EUT Horz, Mid Ch. 2442 MHz
4806.183	31.7	6.7	1.5	184.0	3.0	0.0	Vert	AV	0.0	38.4	54.0	-15.6	EUT Horz, Low Ch. 2402 MHz
4806.483	31.6	6.7	1.3	13.0	3.0	0.0	Horz	AV	0.0	38.3	54.0	-15.7	EUT Horz, Low Ch. 2402 MHz
7326.800	43.3	14.2	1.7	29.0	3.0	0.0	Vert	PK	0.0	57.5	74.0	-16.5	EUT Vert, Mid Ch. 2442 MHz
7439.692	42.5	14.9	1.5	73.0	3.0	0.0	Horz	PK	0.0	57.4	74.0	-16.6	EUT Horz, High Ch. 2480 MHz
7441.133	42.4	14.9	1.5	323.0	3.0	0.0	Vert	PK	0.0	57.3	74.0	-16.7	Medium EUT Horz, High Ch. 2480 MHz
7323.558	42.8	14.2	1.5	130.0	3.0	0.0	Horz	PK	0.0	57.0	74.0	-17.0	EUT Vert, Mid Ch. 2442 MHz
7440.808	42.0	14.9	1.5	86.0	3.0	0.0	Vert	PK	0.0	56.9	74.0	-17.1	EUT Horz, High Ch. 2480 MHz

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7324.792	42.7	14.2	1.5	277.0	3.0	0.0	Horz	PK	0.0	56.9	74.0	-17.1	Medium EUT on Side, Mid Ch. 2442 MHz
7206.875	43.4	13.5	2.6	235.0	3.0	0.0	Vert	PK	0.0	56.9	74.0	-17.1	Medium EUT Horz, Low Ch. 2402 MHz
7325.842	42.6	14.2	1.3	229.0	3.0	0.0	Horz	PK	0.0	56.8	74.0	-17.2	Medium EUT Horz, Mid Ch. 2442 MHz
7438.450	41.9	14.9	2.1	250.0	3.0	0.0	Horz	PK	0.0	56.8	74.0	-17.2	Medium EUT Horz, High Ch. 2480 MHz
7327.975	42.4	14.3	1.5	185.0	3.0	0.0	Vert	PK	0.0	56.7	74.0	-17.3	EUT on Side, Mid Ch. 2442 MHz
7327.808	42.3	14.3	1.5	200.0	3.0	0.0	Horz	PK	0.0	56.6	74.0	-17.4	EUT Horz, Mid Ch. 2442 MHz
7326.767	42.3	14.2	1.3	289.0	3.0	0.0	Vert	PK	0.0	56.5	74.0	-17.5	EUT Horz, Mid Ch. 2442 MHz
7205.917	42.9	13.5	1.5	172.0	3.0	0.0	Vert	PK	0.0	56.4	74.0	-17.6	EUT Horz, Low Ch. 2402 MHz
7325.042	42.1	14.2	1.5	332.0	3.0	0.0	Horz	PK	0.0	56.3	74.0	-17.7	EUT on Side, Mid Ch. 2442 MHz
7327.292	41.9	14.2	1.2	172.0	3.0	0.0	Vert	PK	0.0	56.1	74.0	-17.9	Medium EUT Horz, Mid Ch. 2442 MHz
7205.642	42.4	13.5	1.5	148.0	3.0	0.0	Horz	PK	0.0	55.9	74.0	-18.1	EUT Horz, Low Ch. 2402 MHz
4957.558	43.5	7.1	1.5	103.0	3.0	0.0	Horz	PK	0.0	50.6	74.0	-23.4	EUT Horz, High Ch. 2480 MHz
4884.517	43.2	7.0	1.5	309.0	3.0	0.0	Vert	PK	0.0	50.2	74.0	-23.8	EUT Horz, Mid Ch. 2442 MHz
4962.375	43.1	7.1	1.5	349.0	3.0	0.0	Vert	PK	0.0	50.2	74.0	-23.8	EUT Horz, High Ch. 2480 MHz
4803.342	43.3	6.7	1.5	184.0	3.0	0.0	Vert	PK	0.0	50.0	74.0	-24.0	EUT Horz, Low Ch. 2402 MHz
4884.075	42.8	7.0	1.5	295.0	3.0	0.0	Horz	PK	0.0	49.8	74.0	-24.2	EUT Horz, Mid Ch. 2442 MHz
4803.708	43.1	6.7	1.3	13.0	3.0	0.0	Horz	PK	0.0	49.8	74.0	-24.2	EUT Horz, Low Ch. 2402 MHz
9609.042	33.7	-6.6	1.3	338.0	3.0	0.0	Horz	AV	0.0	27.1	54.0	-26.9	EUT Horz, Low Ch. 2402 MHz
9919.767	33.9	-7.0	3.3	303.0	3.0	0.0	Horz	AV	0.0	26.9	54.0	-27.1	EUT Horz, High Ch. 2480 MHz
9917.667	33.7	-7.0	1.0	192.0	3.0	0.0	Vert	AV	0.0	26.7	54.0	-27.3	EUT Horz, High Ch. 2480 MHz
9770.350	33.2	-6.8	1.2	291.0	3.0	0.0	Horz	AV	0.0	26.4	54.0	-27.6	EUT Horz, Mid Ch. 2442 MHz
9766.858	33.0	-6.8	1.7	322.0	3.0	0.0	Vert	AV	0.0	26.2	54.0	-27.8	EUT Horz, Mid Ch. 2442 MHz
9610.433	32.2	-6.6	1.5	360.0	3.0	0.0	Vert	AV	0.0	25.6	54.0	-28.4	EUT Horz, Low Ch. 2402 MHz
9608.967	44.6	-6.6	1.3	338.0	3.0	0.0	Horz	PK	0.0	38.0	74.0	-36.0	EUT Horz, Low Ch. 2402 MHz
9768.517	44.7	-6.8	1.7	322.0	3.0	0.0	Vert	PK	0.0	37.9	74.0	-36.1	EUT Horz, Mid Ch. 2442 MHz
9919.942	44.9	-7.0	3.3	303.0	3.0	0.0	Horz	PK	0.0	37.9	74.0	-36.1	EUT Horz, High Ch. 2480 MHz
9920.475	44.7	-7.0	1.0	192.0	3.0	0.0	Vert	PK	0.0	37.7	74.0	-36.3	EUT Horz, High Ch. 2480 MHz
9769.842	44.2	-6.8	1.2	291.0	3.0	0.0	Horz	PK	0.0	37.4	74.0	-36.6	EUT Horz, Mid Ch. 2442 MHz
9606.300	43.0	-6.6	1.5	360.0	3.0	0.0	Vert	PK	0.0	36.4	74.0	-37.6	EUT Horz, Low Ch. 2402 MHz

# SPURIOUS RADIATED EMISSIONS

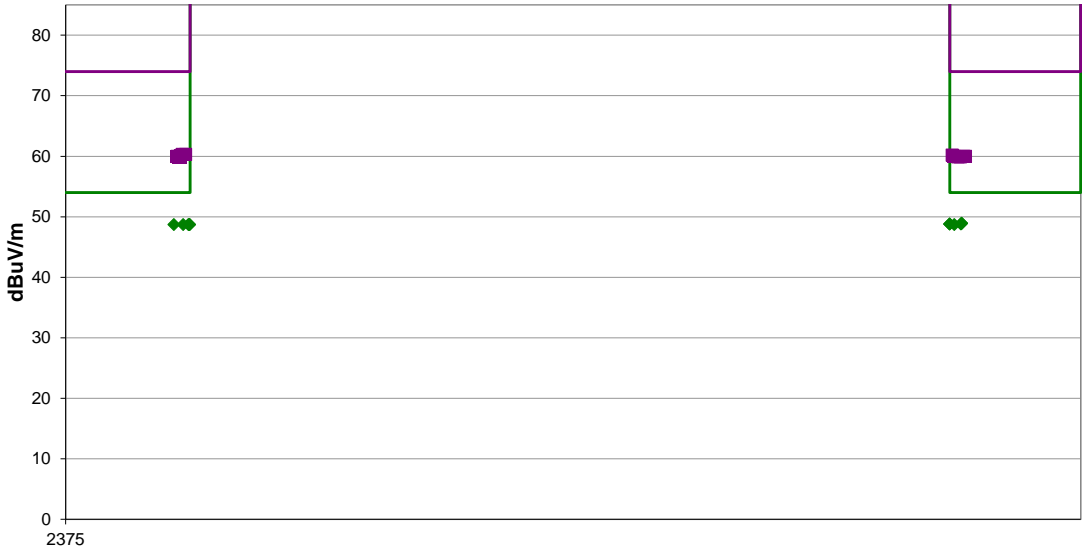


EmiRS 2021.01.08.0 PSA-ESCI 2021.03.17.0

<b>Work Order:</b>	FINA0001	<b>Date:</b>	2021-04-06	
<b>Project:</b>	None	<b>Temperature:</b>	21 °C	
<b>Job Site:</b>	OC07	<b>Humidity:</b>	47.2% RH	
<b>Serial Number:</b>	See Configurations	<b>Barometric Pres.:</b>	1018 mbar	
<b>EUT:</b>	Starlight-12 Small, Starlight-12 Medium			
<b>Configuration:</b>	14,15			
<b>Customer:</b>	Finalmouse			
<b>Attendees:</b>	Kevin Hung			
<b>EUT Power:</b>	Battery			
<b>Operating Mode:</b>	Transmitting on Low Channel 2402 MHz and High Channel 2480 MHz			
<b>Deviations:</b>	None			
<b>Comments:</b>	Band Edge			

<b>Test Specifications</b>	<b>Test Method</b>
FCC 15.247:2021	ANSI C63.10:2013

<b>Run #</b>	143	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1 to 4(m)	<b>Results</b>	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2485.007	32.6	-3.7	1.5	334.0	3.0	20.0	Vert	AV	0.0	48.9	54.0	-5.1	EUT Horz, High Ch. 2480 MHz
2485.000	32.6	-3.7	2.3	293.0	3.0	20.0	Horz	AV	0.0	48.9	54.0	-5.1	EUT Vert, High Ch. 2480 MHz
2483.503	32.6	-3.8	1.5	22.0	3.0	20.0	Horz	AV	0.0	48.8	54.0	-5.2	EUT Horz, High Ch. 2480 MHz
2484.917	32.6	-3.8	1.5	99.0	3.0	20.0	Horz	AV	0.0	48.8	54.0	-5.2	EUT on Side, High Ch. 2480 MHz
2483.500	32.6	-3.8	2.3	162.0	3.0	20.0	Vert	AV	0.0	48.8	54.0	-5.2	EUT on Side, High Ch. 2480 MHz
2484.070	32.5	-3.8	2.5	34.0	3.0	20.0	Vert	AV	0.0	48.7	54.0	-5.3	EUT Vert, High Ch. 2480 MHz
2388.020	32.8	-4.1	1.5	317.0	3.0	20.0	Vert	AV	0.0	48.7	54.0	-5.3	EUT Horz, Low Ch. 2402 MHz
2389.887	32.8	-4.1	1.5	14.0	3.0	20.0	Horz	AV	0.0	48.7	54.0	-5.3	EUT Vert, Low Ch. 2402 MHz
2389.940	32.8	-4.1	1.5	281.0	3.0	20.0	Horz	AV	0.0	48.7	54.0	-5.3	Medium EUT Vert, Low Ch. 2402 MHz
2389.157	32.8	-4.1	1.7	79.0	3.0	20.0	Vert	AV	0.0	48.7	54.0	-5.3	Medium EUT Horz, Low Ch. 2402 MHz
2389.770	32.8	-4.1	1.5	118.0	3.0	20.0	Horz	AV	0.0	48.7	54.0	-5.3	Medium EUT Vert, High Ch. 2480 MHz
2389.907	32.8	-4.1	1.5	156.0	3.0	20.0	Vert	AV	0.0	48.7	54.0	-5.3	Medium EUT Horz, High Ch. 2480 MHz
2389.437	44.4	-4.1	1.5	281.0	3.0	20.0	Horz	PK	0.0	60.3	74.0	-13.7	Medium EUT Vert, Low Ch. 2402 MHz
2389.027	44.4	-4.1	1.5	156.0	3.0	20.0	Vert	PK	0.0	60.3	74.0	-13.7	Medium EUT Horz, High Ch. 2480 MHz
2483.820	44.0	-3.8	1.5	334.0	3.0	20.0	Vert	PK	0.0	60.2	74.0	-13.8	EUT Horz, High Ch. 2480 MHz
2388.817	44.2	-4.1	1.5	118.0	3.0	20.0	Horz	PK	0.0	60.1	74.0	-13.9	Medium EUT Vert, High Ch. 2480 MHz
2485.473	43.7	-3.7	1.5	22.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	EUT Horz, High Ch. 2480 MHz
2484.033	43.8	-3.8	1.5	99.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	EUT on Side, High Ch. 2480 MHz
2485.243	43.7	-3.7	2.3	293.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	EUT Vert, High Ch. 2480 MHz
2388.400	44.1	-4.1	1.5	14.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	EUT Vert, Low Ch. 2402 MHz
2484.843	43.7	-3.8	2.3	162.0	3.0	20.0	Vert	PK	0.0	59.9	74.0	-14.1	EUT on Side, High Ch. 2480 MHz
2484.560	43.7	-3.8	2.5	34.0	3.0	20.0	Vert	PK	0.0	59.9	74.0	-14.1	EUT Vert, High Ch. 2480 MHz
2388.803	43.9	-4.1	1.5	317.0	3.0	20.0	Vert	PK	0.0	59.8	74.0	-14.2	EUT Horz, Low Ch. 2402 MHz
2388.633	43.9	-4.1	1.7	79.0	3.0	20.0	Vert	PK	0.0	59.8	74.0	-14.2	Medium EUT Horz, Low Ch. 2402 MHz

# DUTY CYCLE



XMit 2020.12.30.0

## TEST DESCRIPTION

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The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

There is no compliance requirement to be met by this test, so therefore no Pass / Fail criteria.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum.

The test software provided for operation in a fixed, single channel mode allows the EUT to operate continuously at 100% Duty Cycle.

# OCCUPIED BANDWIDTH



XMH 2020.12.30.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Agilent	E8257D	TGU	2020-11-03	2023-11-03
Attenuator	Fairview Microwave	SA18H-20	TKR	2020-12-18	2021-12-18
Block - DC	Fairview Microwave	SD3379	AMV	2020-12-18	2021-12-18
Cable	Micro-Coax	D150A-1-0720-200	OCA	2021-04-27	2022-04-27
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2021-01-06	2022-01-06

## TEST DESCRIPTION

The EUT was set to the channels and modes listed in the datasheet.


The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.0% occupied bandwidth was also measured at the same time which can be needed during Output Power depending on the applicable method.



# OCCUPIED BANDWIDTH



TelTx 2021.03.19.1 XMI 2020.12.30.0

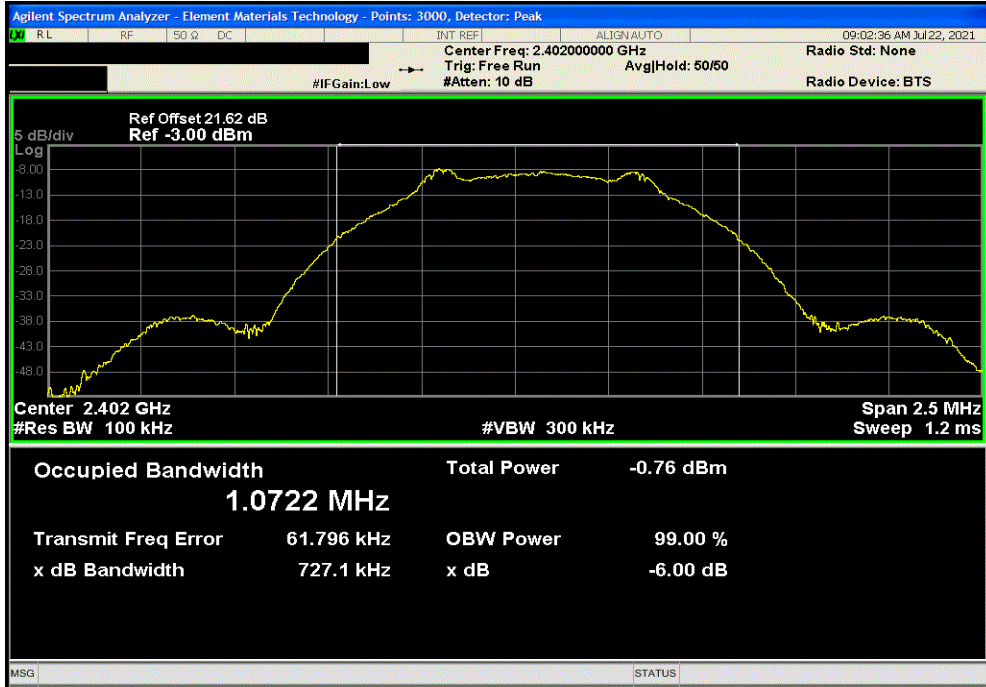
EUT: Starlight-12 Small, Starlight-12 Medium		Work Order: FINA0001	
Serial Number: See Configurations		Date: 22-Jul-21	
Customer: Finalmouse		Temperature: 23.8 °C	
Attendees: None		Humidity: 48.6% RH	
Project: None		Barometric Pres.: 1017 mbar	
Tested by: Nolan De Ramos		Power: Battery	
Job Site: OC13			
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2021		ANSI C63.10:2013	
COMMENTS			
DC Block + 20 dB attenuator + Patch Cable + Test Cable = 21.62 dB Ref Level Offset			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	16, 17	Signature 	
		Value	Limit (±)
Small Mouse			Result
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	727.078 kHz	500 kHz Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	741.414 kHz	500 kHz Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	723.702 kHz	500 kHz Pass
Medium Mouse			
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	718.357 kHz	500 kHz Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	757.814 kHz	500 kHz Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	722.386 kHz	500 kHz Pass

# OCCUPIED BANDWIDTH

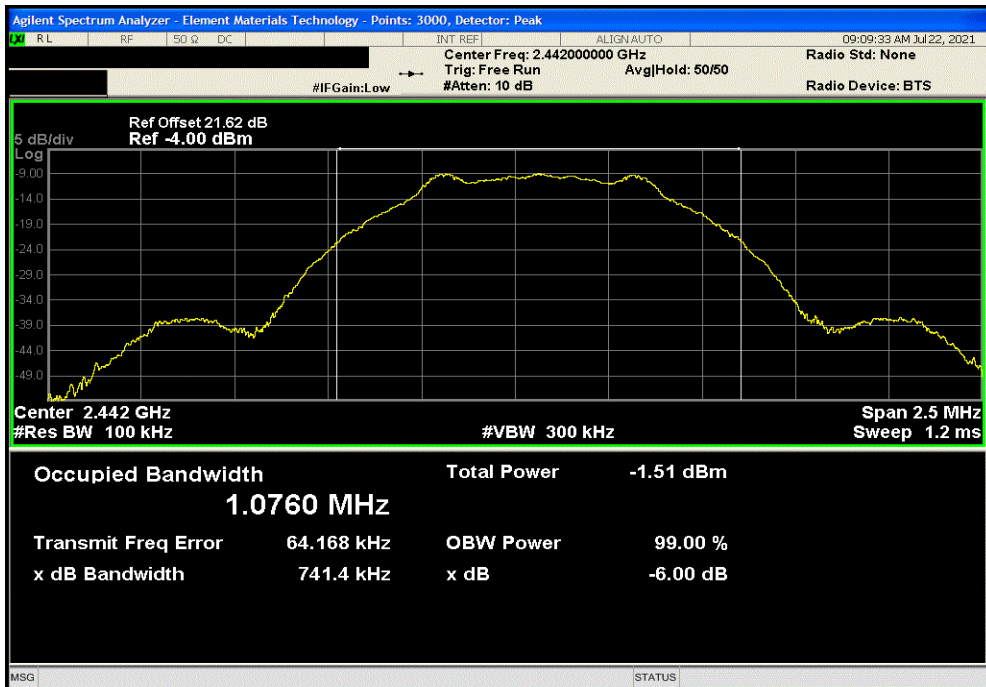


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz				Value	Limit	Result
					(≥)	
				727.078 kHz	500 kHz	Pass



Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz				Value	Limit	Result
					(≥)	
				741.414 kHz	500 kHz	Pass

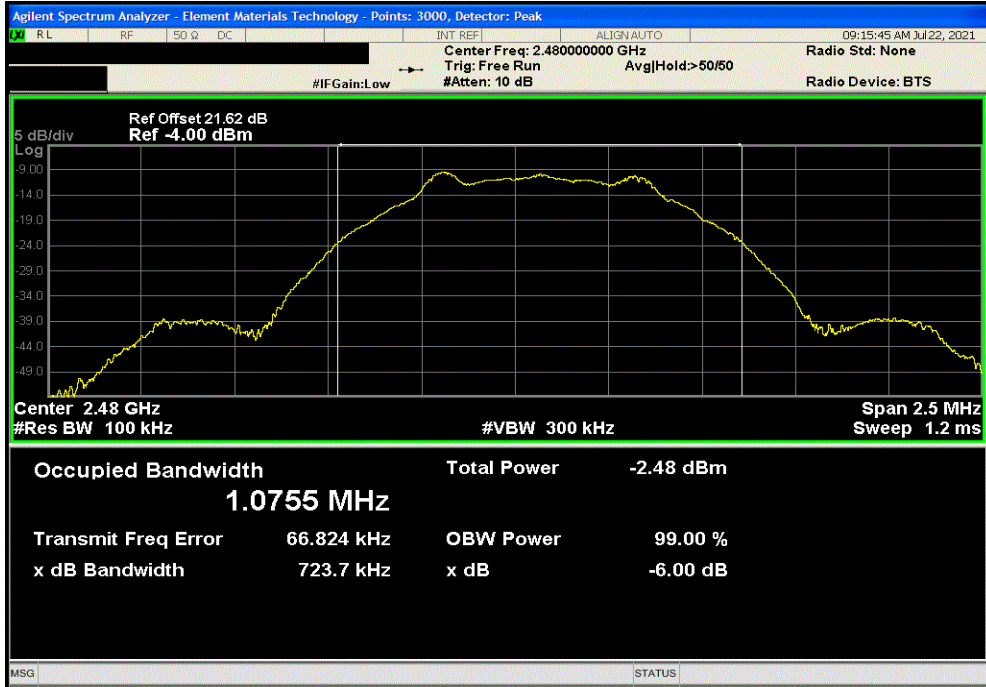


# OCCUPIED BANDWIDTH

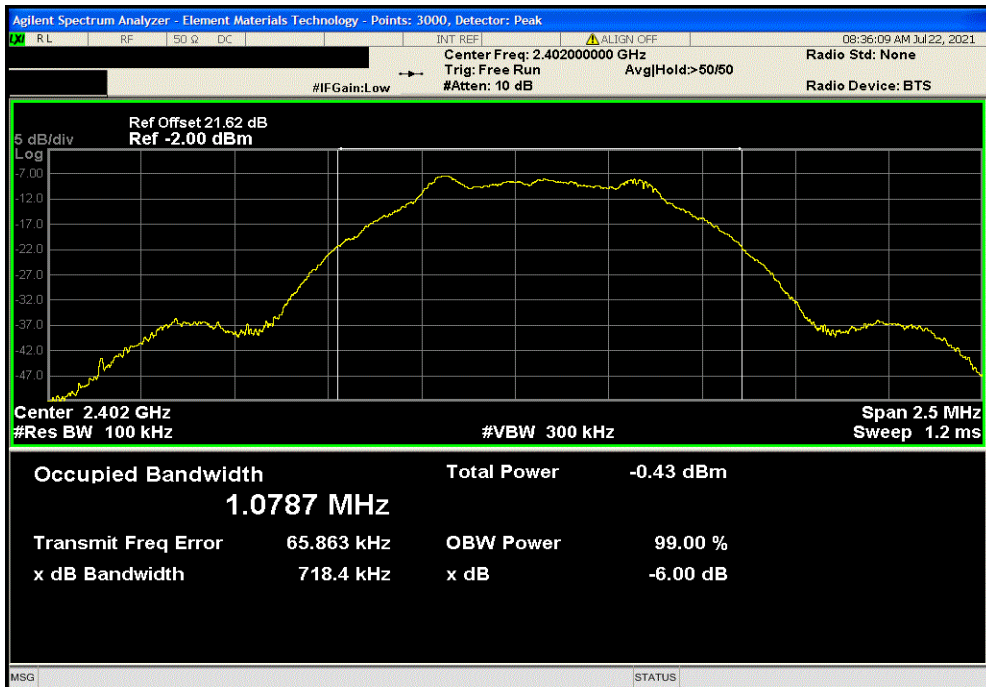


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz				Value	Limit	Result
					(≥)	
				723.702 kHz	500 kHz	Pass



Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz				Value	Limit	Result
					(≥)	
				718.357 kHz	500 kHz	Pass

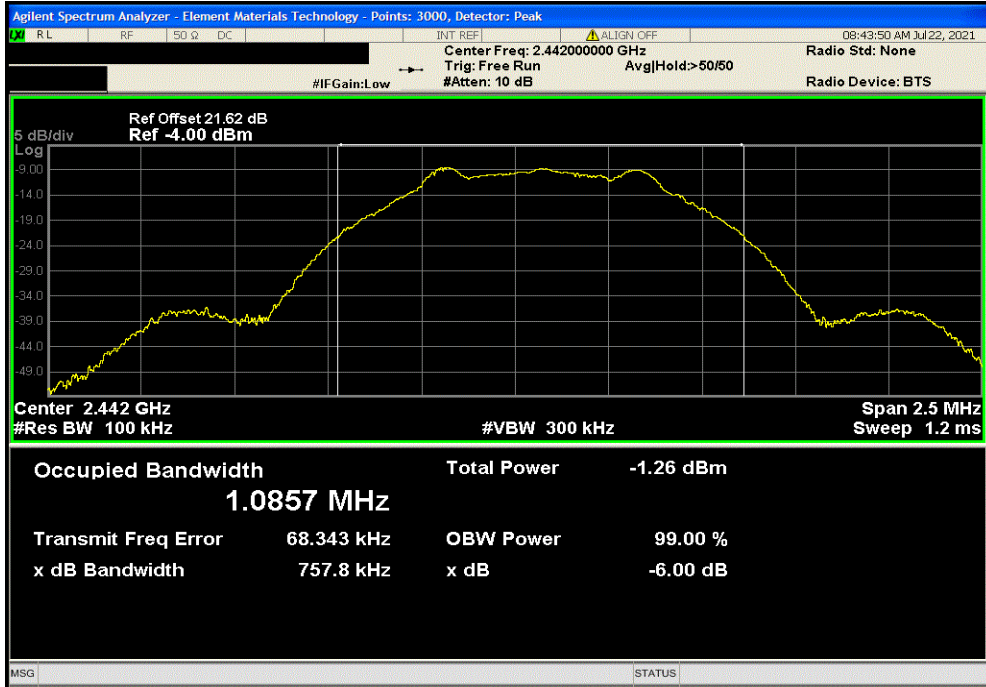


# OCCUPIED BANDWIDTH

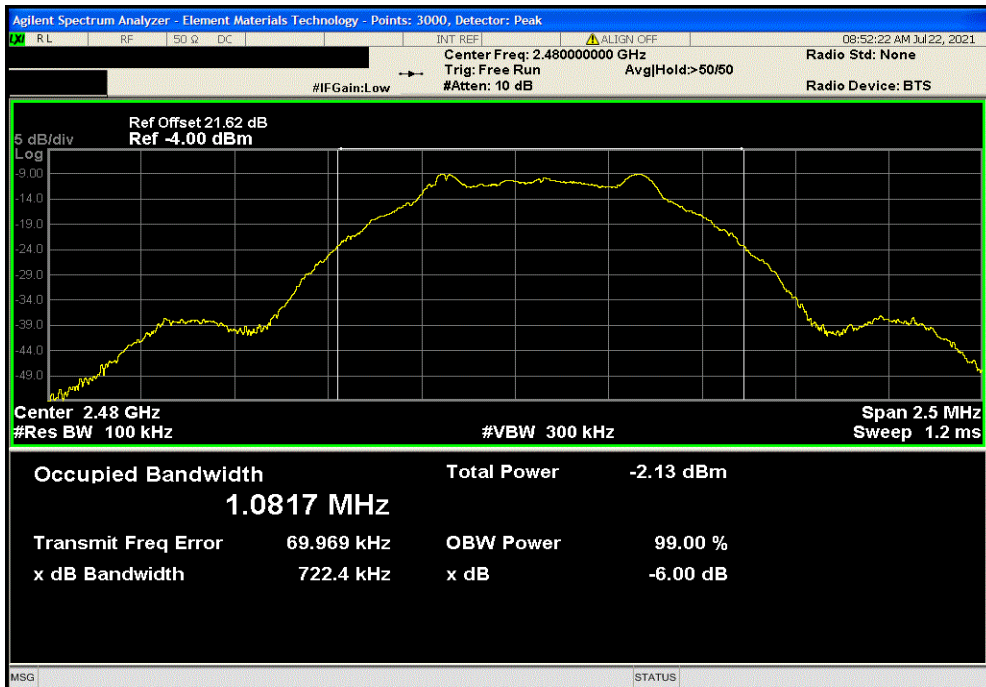


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz				Value	Limit	Result
					(≥)	
				757.814 kHz	500 kHz	Pass



Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz				Value	Limit	Result
					(≥)	
				722.386 kHz	500 kHz	Pass



# OUTPUT POWER



XMIT 2020.12.30.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Block - DC	Fairview Microwave	SD3379	AMV	2020-12-18	2021-12-18
Attenuator	Fairview Microwave	SA18H-20	TKR	2020-12-18	2021-12-18
Generator - Signal	Agilent	E8257D	TGU	2020-11-03	2023-11-03
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2020-05-04	2021-05-04
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2020-07-09	2021-07-09

## TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set according to the power settings table.


Prior to measuring peak transmit power the DTS bandwidth (B) was measured.

The method found in ANSI C63.10:2013 Section 11.9.1.1 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio.

# OUTPUT POWER



TelTx 2019.08.30.0 XMI 2020.12.30.0

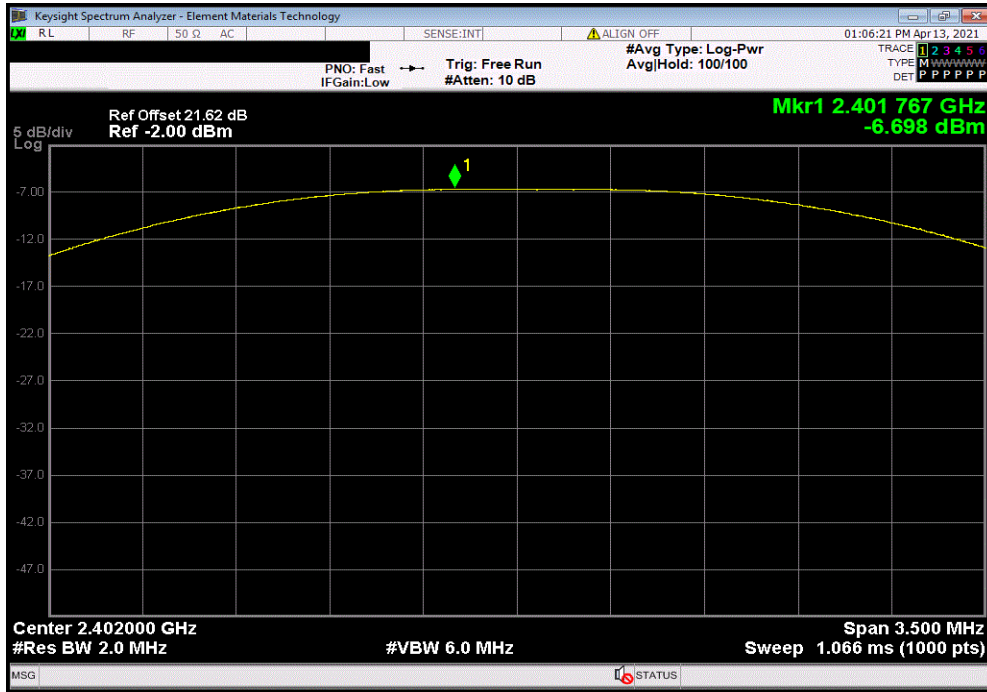
EUT: Starlight-12 Small, Starlight-12 Medium		Work Order: FINA0001	
Serial Number: See Configurations		Date: 13-Apr-21	
Customer: Finalmouse		Temperature: 21.2 °C	
Attendees: None		Humidity: 49.4% RH	
Project: None		Barometric Pres.: 1016 mbar	
Tested by: Salvador Solorzano		Power: Battery	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2021		ANSI C63.10:2013	
COMMENTS			
DC Block + 20 dB attenuator + Patch Cable + Test Cable = 21.62 dB Offset.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	16,17	Signature 	
		Out Pwr (dBm)	Limit (dBm) Result
Small Mouse			
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-6.698	30 Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	-7.468	30 Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-8.049	30 Pass
Medium Mouse			
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-6.558	30 Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	-7.250	30 Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-7.762	30 Pass

# OUTPUT POWER

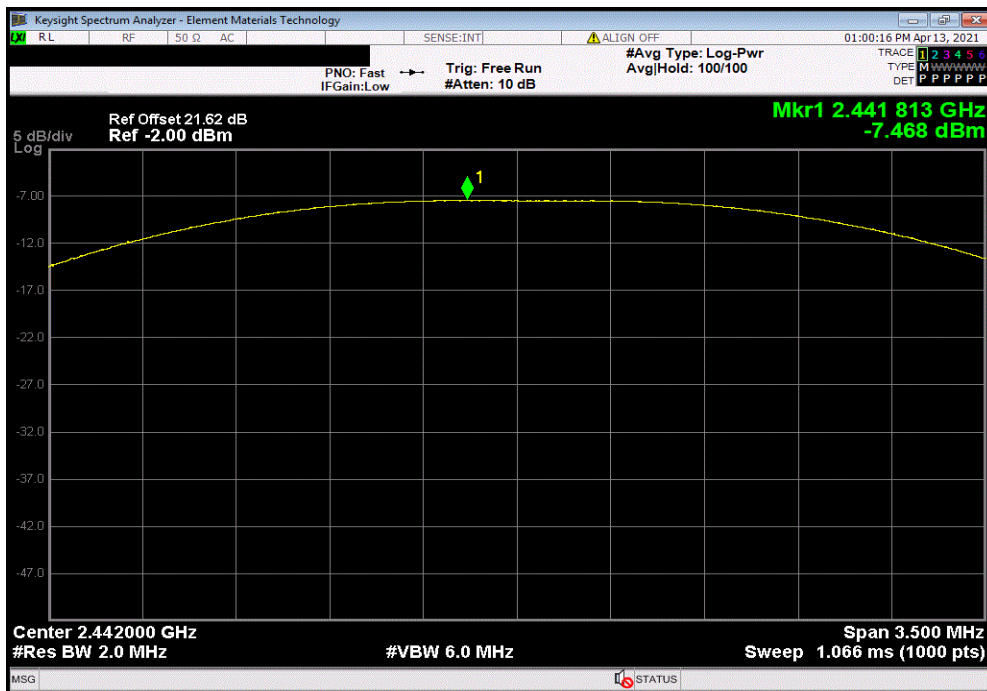


TbTx 2019.08.30.0 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
				Out Pwr (dBm)	Limit (dBm)	Result
				-6.698	30	Pass



Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
				Out Pwr (dBm)	Limit (dBm)	Result
				-7.468	30	Pass

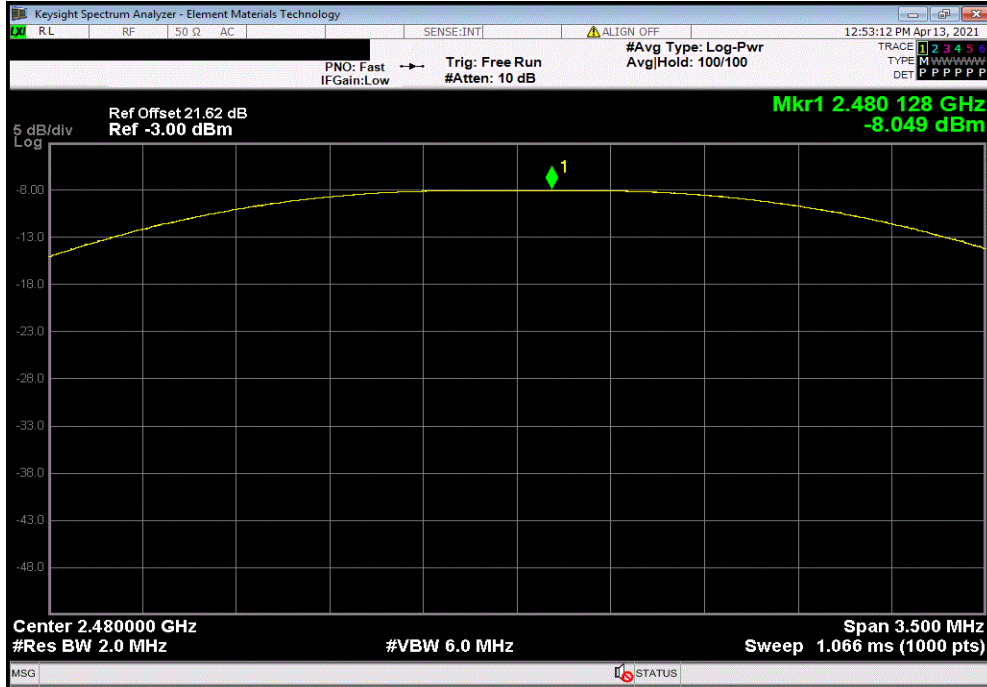


# OUTPUT POWER

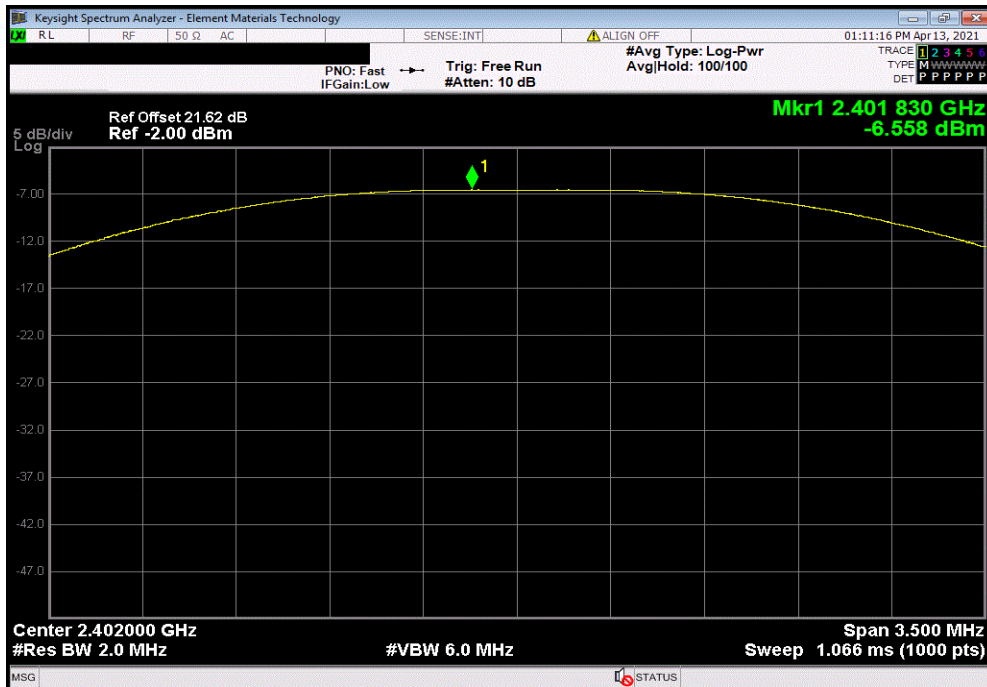


TbTx 2019.08.30.0 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
				Out Pwr (dBm)	Limit (dBm)	Result
				-8.049	30	Pass



Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
				Out Pwr (dBm)	Limit (dBm)	Result
				-6.558	30	Pass



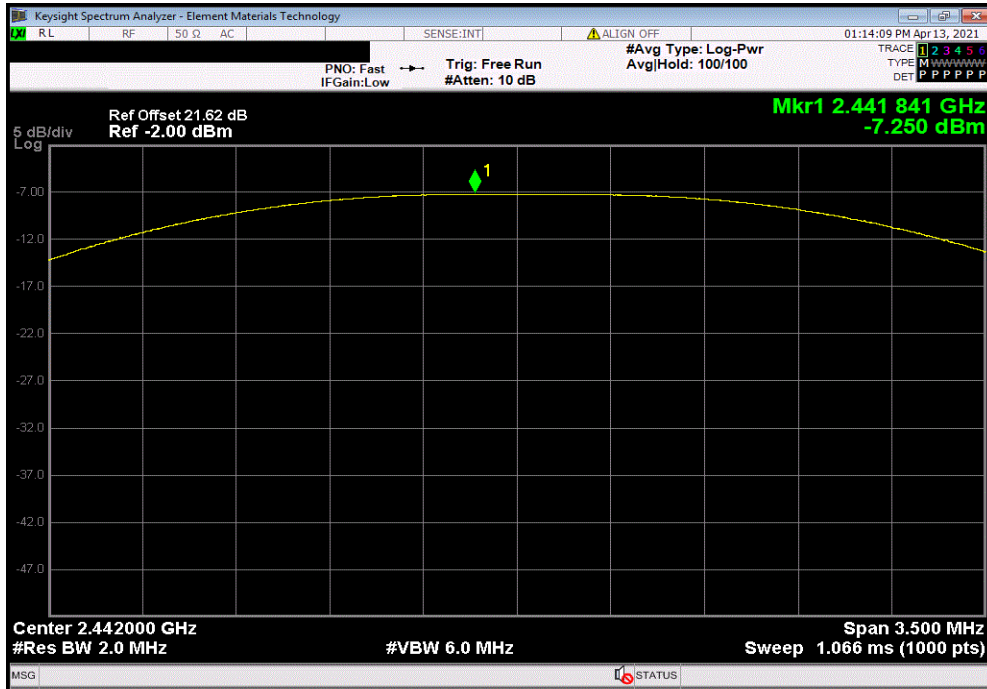


# OUTPUT POWER

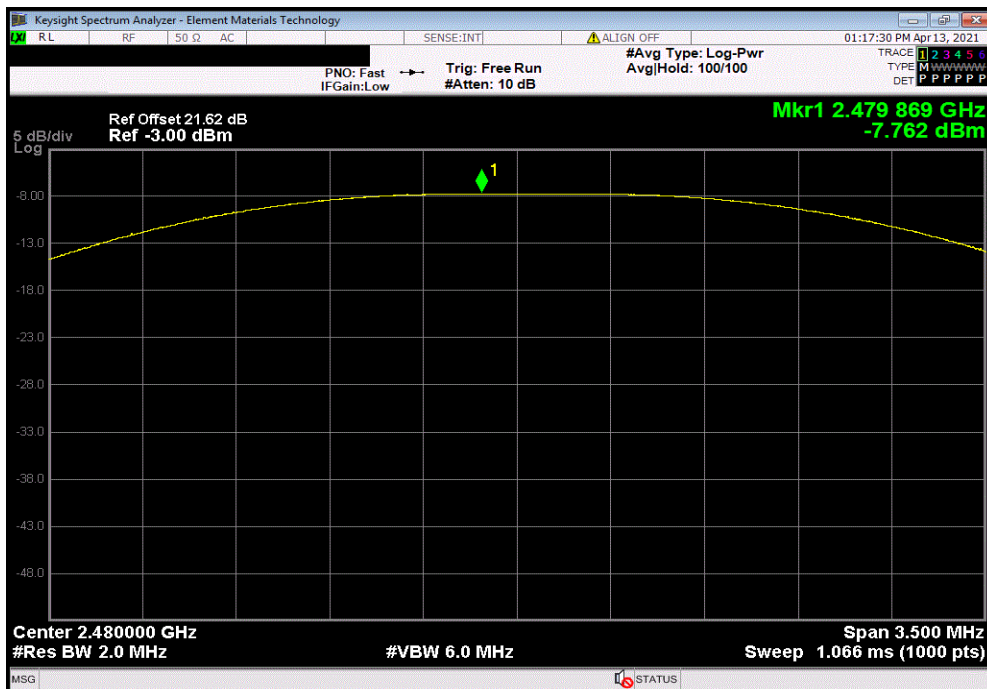


TbTx 2019.08.30.0 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
				Out Pwr (dBm)	Limit (dBm)	Result
				-7.25	30	Pass



Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
				Out Pwr (dBm)	Limit (dBm)	Result
				-7.762	30	Pass



# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



element

XMit 2020.12.30.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Block - DC	Fairview Microwave	SD3379	AMV	2020-12-18	2021-12-18
Attenuator	Fairview Microwave	SA18H-20	TKR	2020-12-18	2021-12-18
Generator - Signal	Agilent	E8257D	TGU	2020-11-03	2023-11-03
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2020-05-04	2021-05-04
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFP	2020-07-09	2021-07-09

## TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set based on power settings table.

Prior to measuring peak transmit power the DTS bandwidth (B) was measured.


The method found in ANSI C63.10:2013 Section 11.9.1.1 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio.

Equivalent Isotropic Radiated Power (EIRP) = Max Measured Power + Antenna gain (dBi)

# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



TelTx 2019.08.30.0 XMI 2020.12.30.0

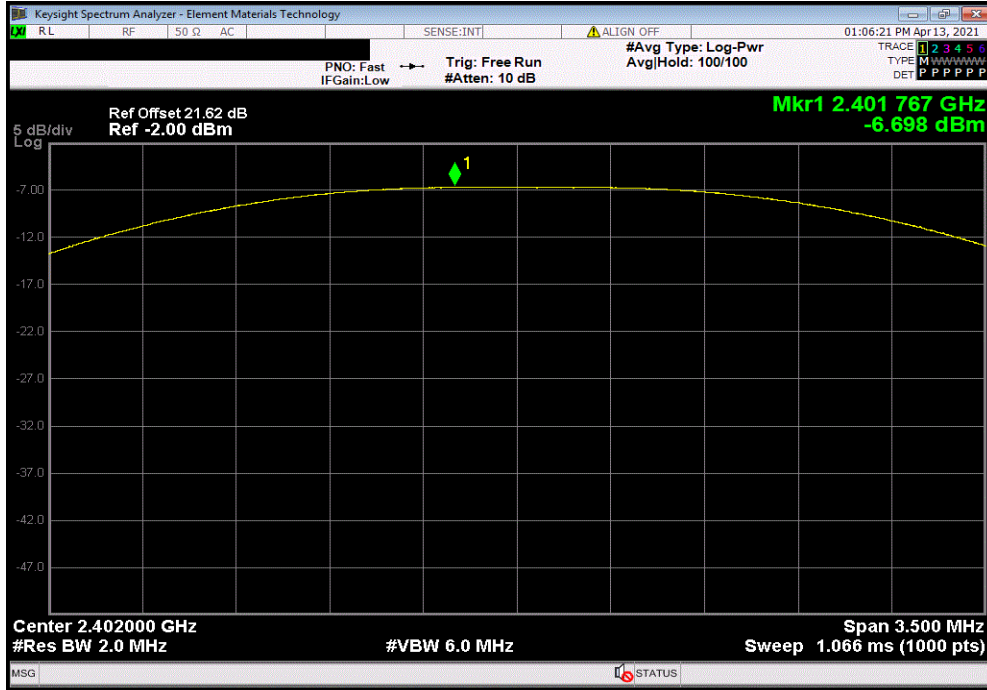
EUT: Starlight-12 Small, Starlight-12 Medium		Work Order: FINA0001				
Serial Number: See Configurations		Date: 13-Apr-21				
Customer: Finalmouse		Temperature: 21.2 °C				
Attendees: None		Humidity: 49.4% RH				
Project: None		Barometric Pres.: 1016 mbar				
Tested by: Salvador Solorzano		Power: Battery				
		Job Site: OC13				
TEST SPECIFICATIONS		Test Method				
FCC 15.247:2021		ANSI C63.10:2013				
COMMENTS						
DC Block + 20 dB attenuator + Patch Cable + Test Cable = 21.62 dB Offset.						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	16, 17	Signature 				
		Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
Small Mouse						
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-6.698	3.17	-3.528	36	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	-7.468	3.29	-4.178	36	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-8.049	3.86	-4.189	36	Pass
Medium Mouse						
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-6.558	3.17	-3.388	36	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	-7.250	3.29	-3.960	36	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-7.762	3.86	-3.902	36	Pass

# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

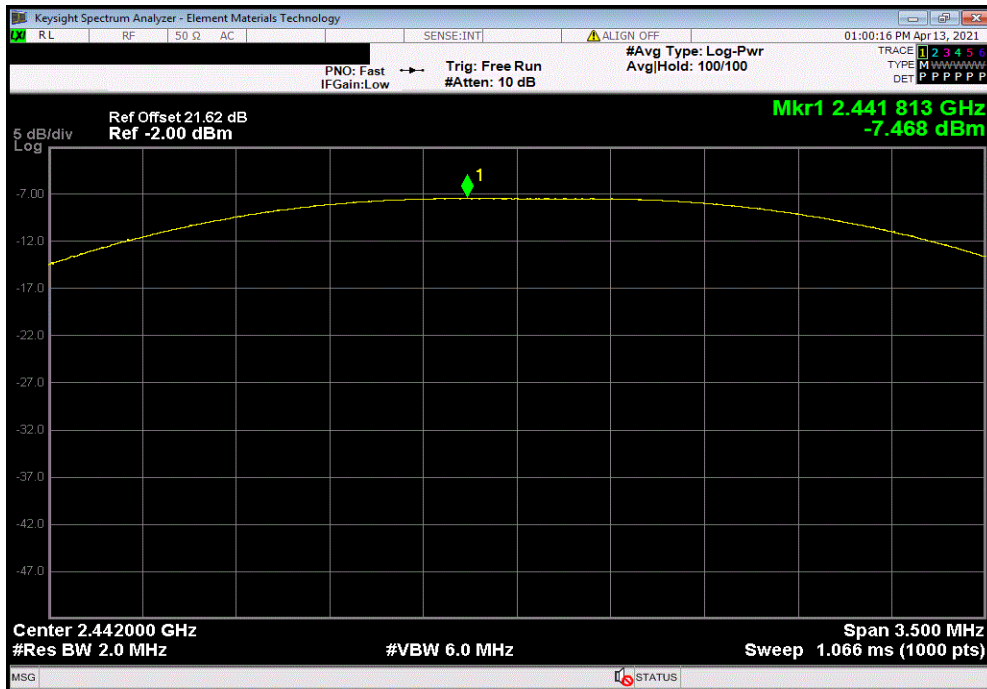


TbTx 2019.08.30.0 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result		
-6.698	3.17	-3.528	36	Pass		



Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result		
-7.468	3.29	-4.178	36	Pass		

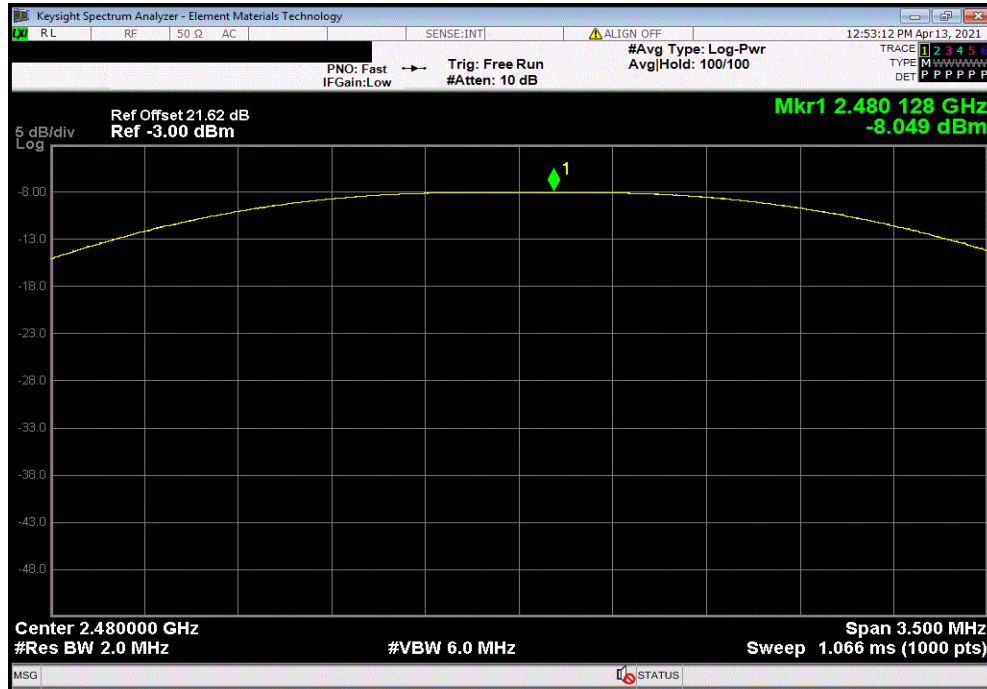


# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

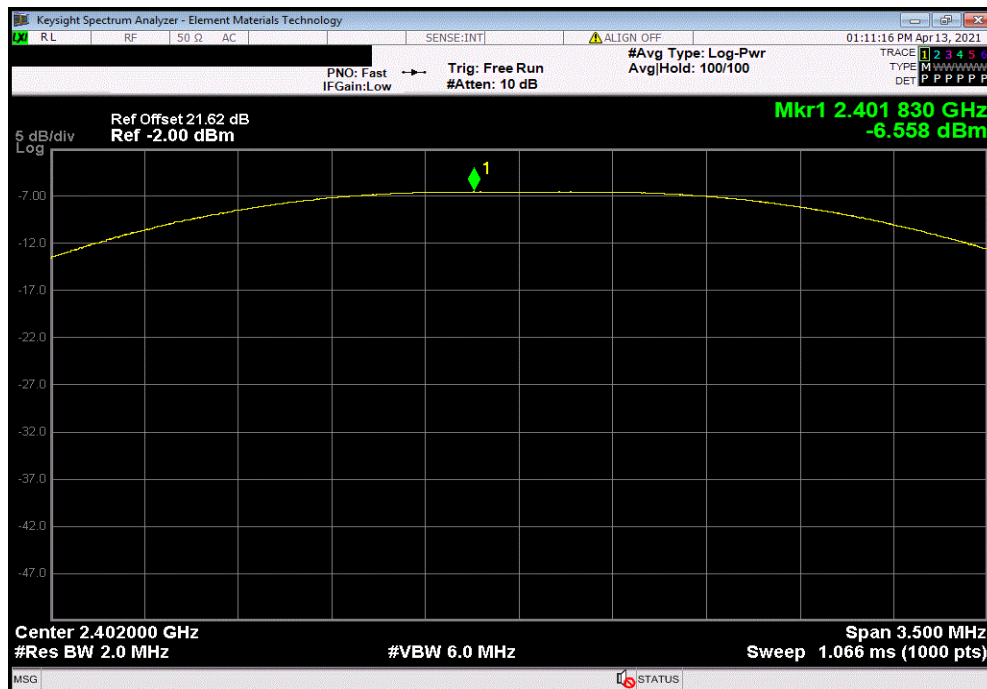


TbTx 2019.08.30.0 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result		
-8.049	3.86	-4.189	36	Pass		



Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result		
-6.558	3.17	-3.388	36	Pass		





# POWER SPECTRAL DENSITY



XMit.2020.12.30.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Agilent	E8257D	TGU	2020-11-03	2023-11-03
Attenuator	Fairview Microwave	SA18H-20	TKR	2020-12-18	2021-12-18
Block - DC	Fairview Microwave	SD3379	AMV	2020-12-18	2021-12-18
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2021-04-27	2022-04-27
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2021-01-06	2022-01-06

## TEST DESCRIPTION


The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.

# POWER SPECTRAL DENSITY



Tel: 2021.03.19.1 XMI: 2020.12.30.0

EUT: Starlight-12 Small, Starlight-12 Medium		Work Order: FINA0001		
Serial Number: See Configurations		Date: 22-Jul-21		
Customer: Finalmouse		Temperature: 23.8 °C		
Attendees: None		Humidity: 48.6% RH		
Project: None		Barometric Pres.: 1017 mbar		
Tested by: Nolan De Ramos		Power: Battery		
		Job Site: OC13		
TEST SPECIFICATIONS				
FCC 15.247:2021		Test Method		
		ANSI C63.10:2013		
COMMENTS				
DC Block + 20 dB attenuator + Patch Cable + Test Cable = 21.62 dB Ref Level Offset				
DEVIATIONS FROM TEST STANDARD				
None				
Configuration #	16, 17	Signature 		
		Value	Limit	
		dBm/3kHz	< dBm/3kHz	
Small Mouse			Results	
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-19.8	8	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	-21.631	8	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-22.88	8	Pass
Medium Mouse				
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-19.157	8	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	-19.693	8	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-21.103	8	Pass

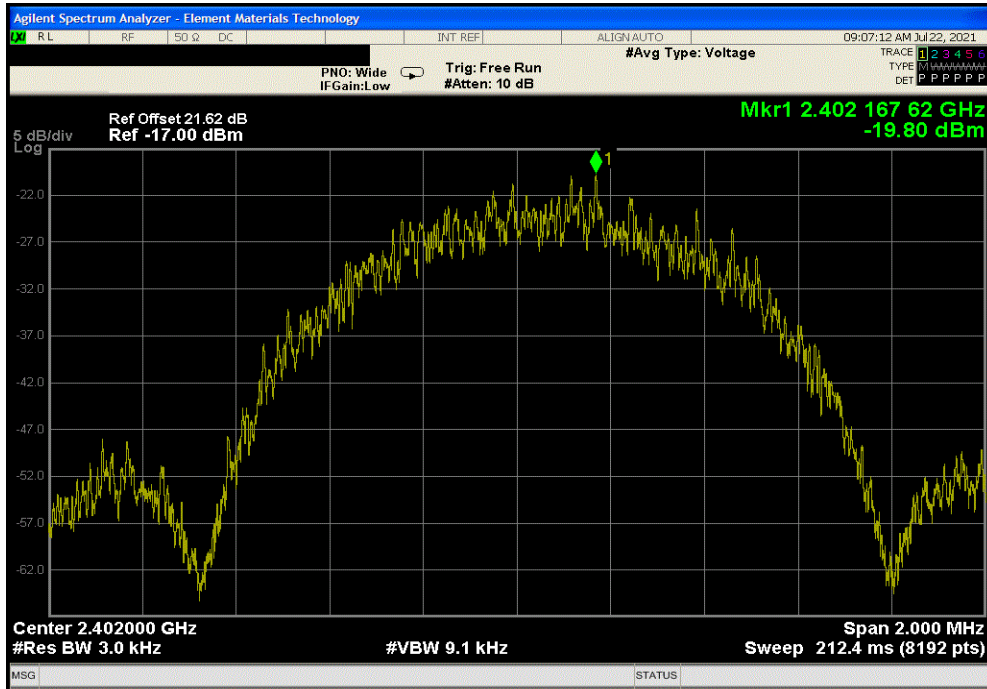


# POWER SPECTRAL DENSITY

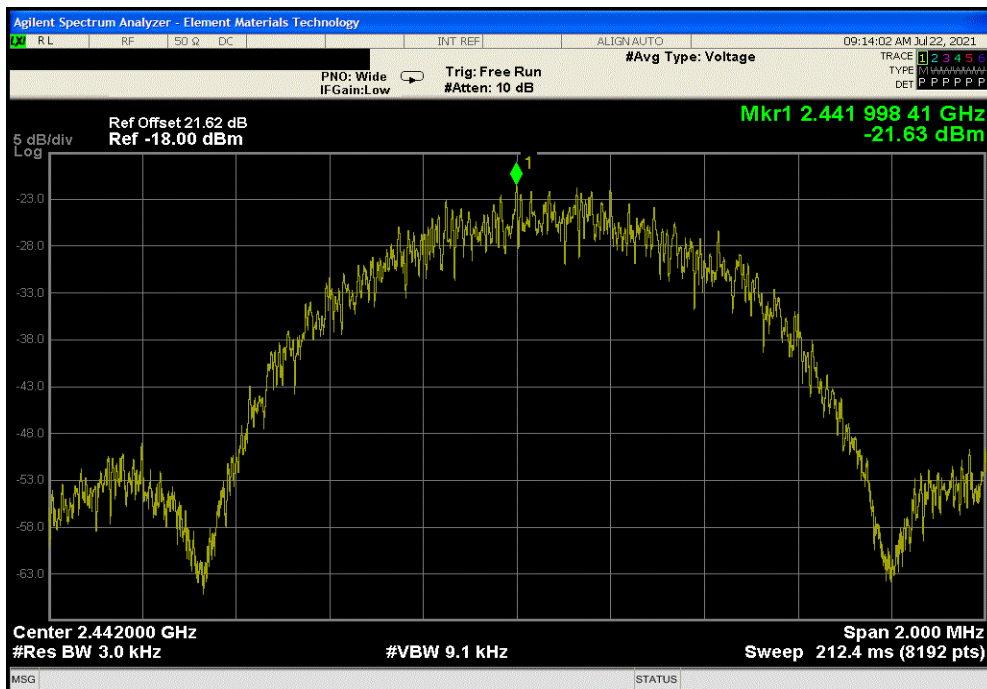


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-19.8	8	Pass			



Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-21.631	8	Pass			

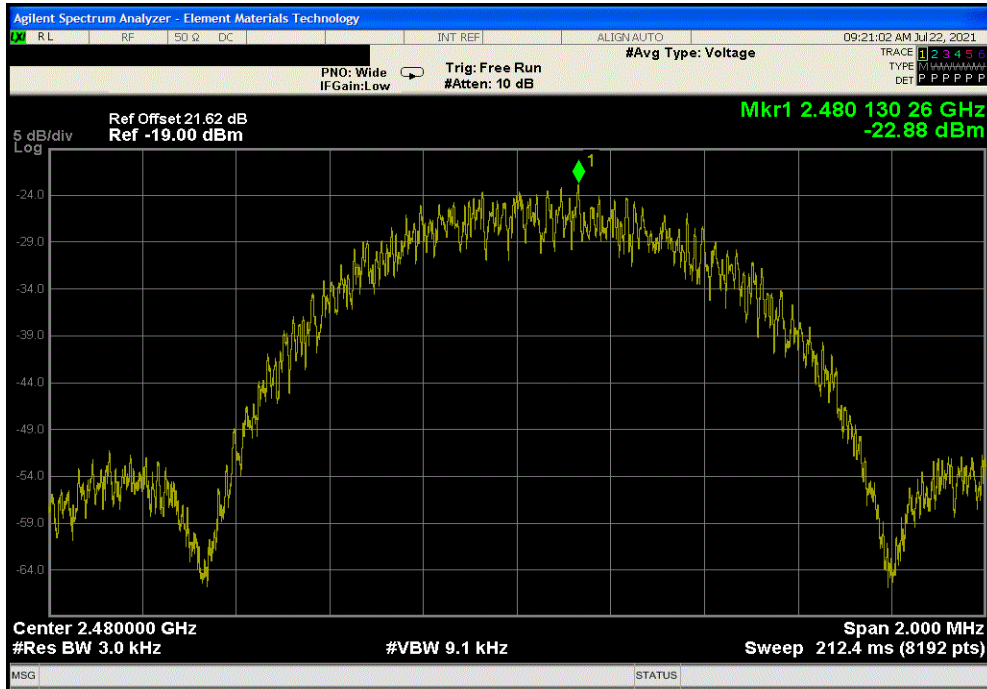


# POWER SPECTRAL DENSITY

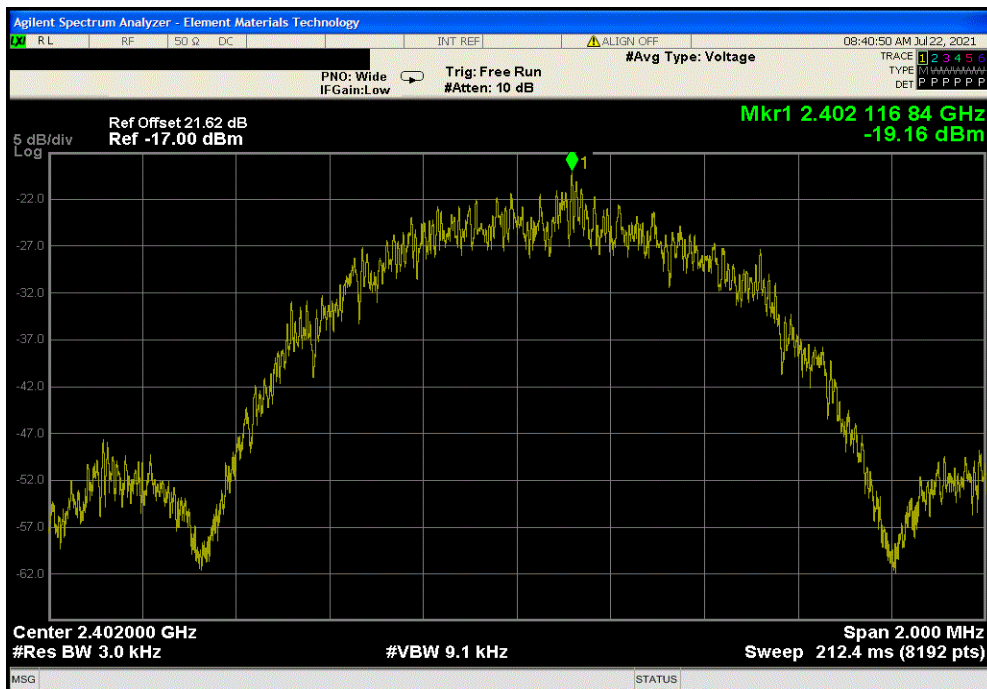


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-22.88	8	Pass			



Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-19.157	8	Pass			

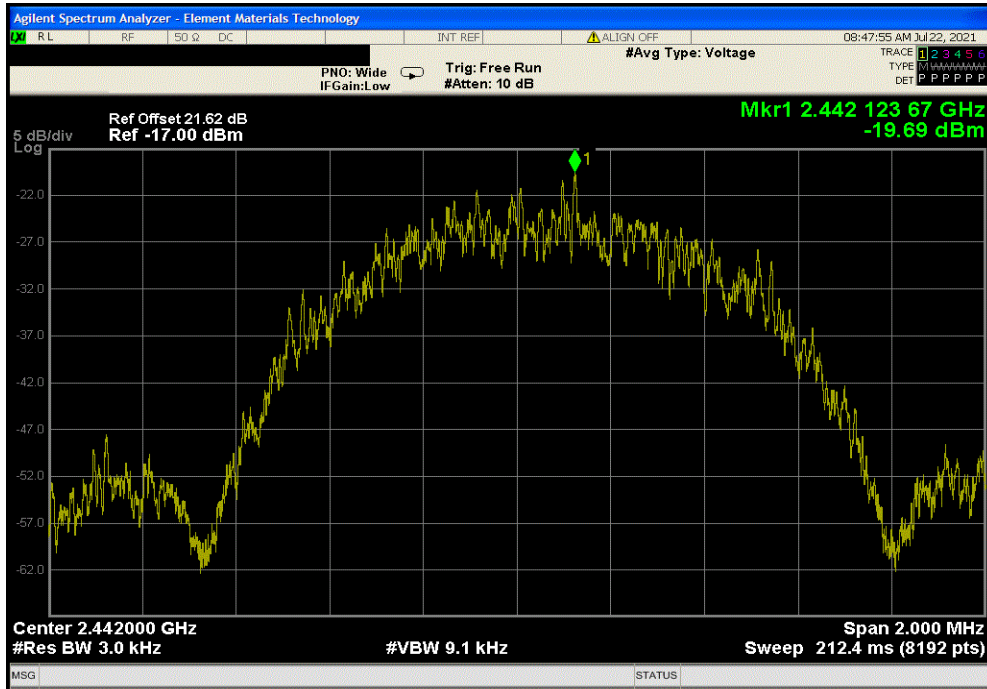


# POWER SPECTRAL DENSITY

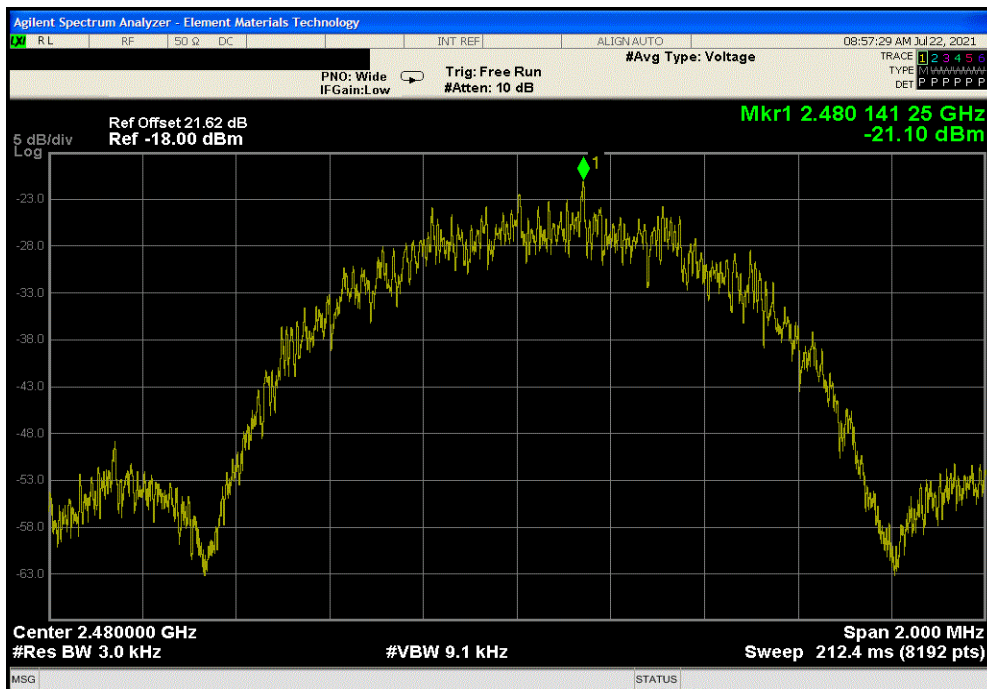


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-19.693	8	Pass			



Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-21.103	8	Pass			





XMI 2020.12.30.0

# BAND EDGE COMPLIANCE

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Agilent	E8257D	TGU	2020-11-03	2023-11-03
Block - DC	Fairview Microwave	SD3379	AMV	2020-12-18	2021-12-18
Attenuator	Fairview Microwave	SA18H-20	TKR	2020-12-18	2021-12-18
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2021-04-27	2022-04-27
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2021-01-06	2022-01-06

## TEST DESCRIPTION


The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

# BAND EDGE COMPLIANCE



TelTx 2021.03.19.1 XMI 2020.12.30.0

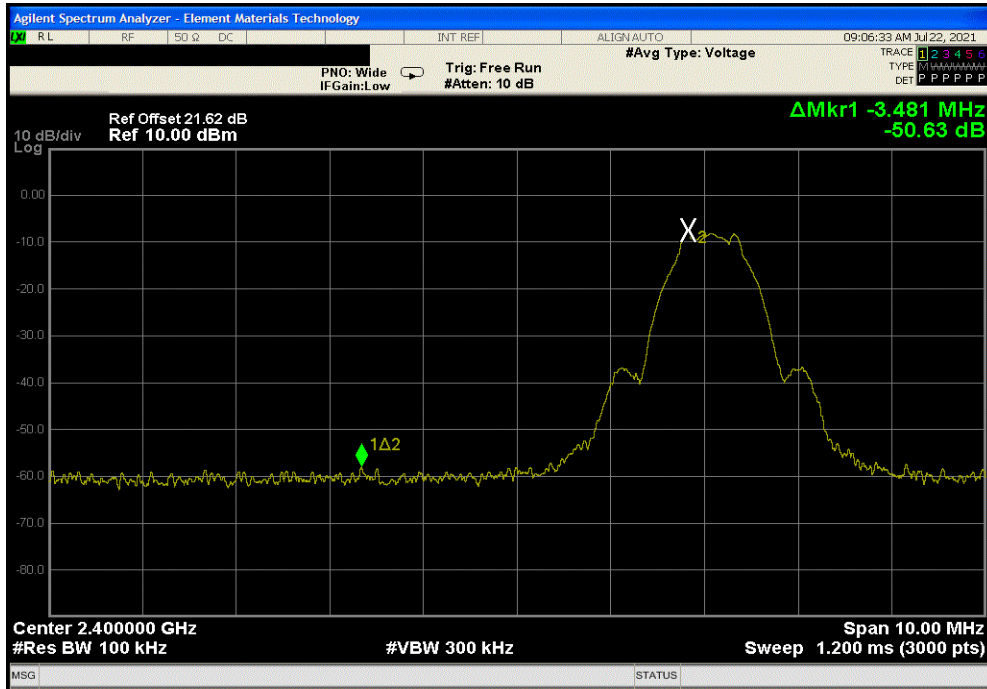
EUT: Starlight-12 Small, Starlight-12 Medium		Work Order: FINA0001	
Serial Number: See Configurations		Date: 22-Jul-21	
Customer: Finalmouse		Temperature: 23.8 °C	
Attendees: None		Humidity: 48.6% RH	
Project: None		Barometric Pres.: 1017 mbar	
Tested by: Nolan De Ramos		Power: Battery	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2021		ANSI C63.10:2013	
COMMENTS			
DC Block + 20 dB attenuator + Patch Cable + Test Cable = 21.62 dB Ref Level Offset			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	16, 17	Signature 	
		Value (dBc)	Limit ≤ (dBc) Result
Small Mouse			
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-50.63	-20 Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-48.56	-20 Pass
Medium Mouse			
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	-49.94	-20 Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	-48.64	-20 Pass

# BAND EDGE COMPLIANCE

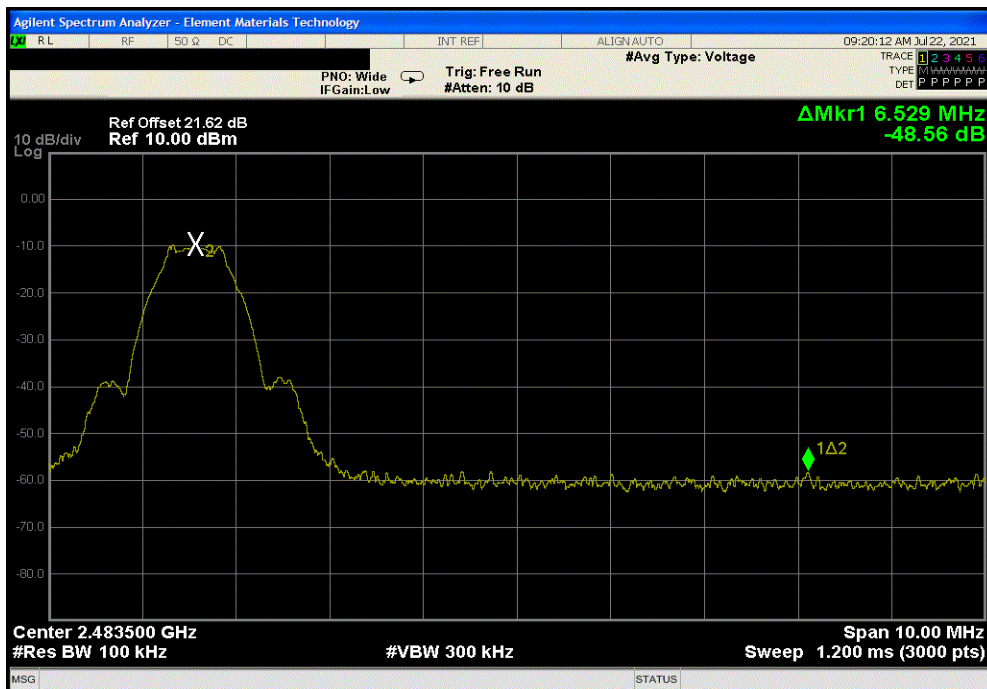


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-50.63	-20	Pass



Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-48.56	-20	Pass

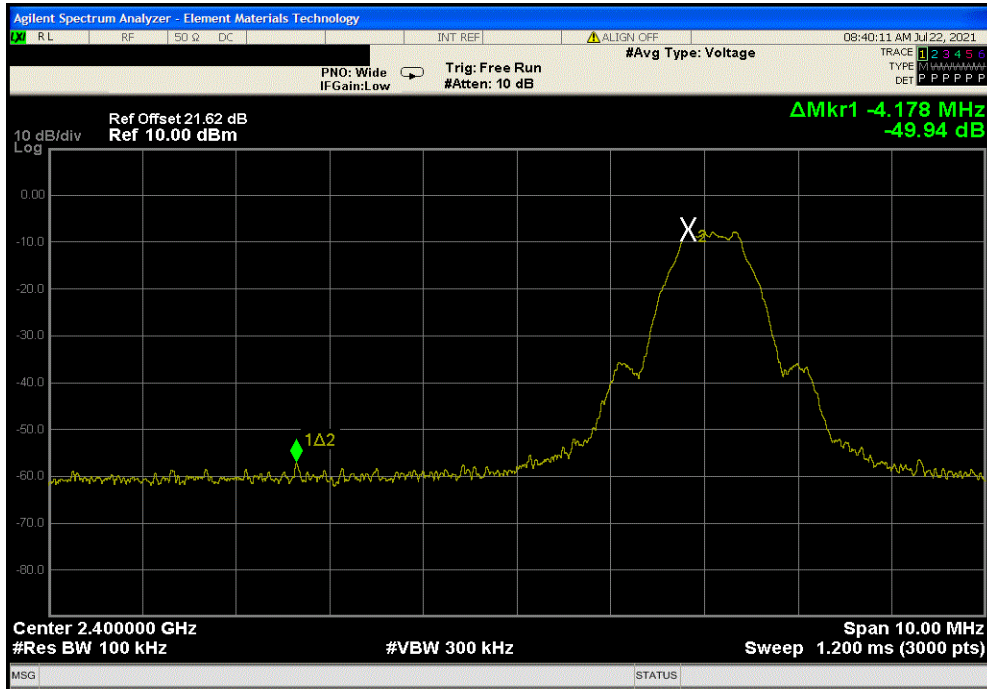


# BAND EDGE COMPLIANCE

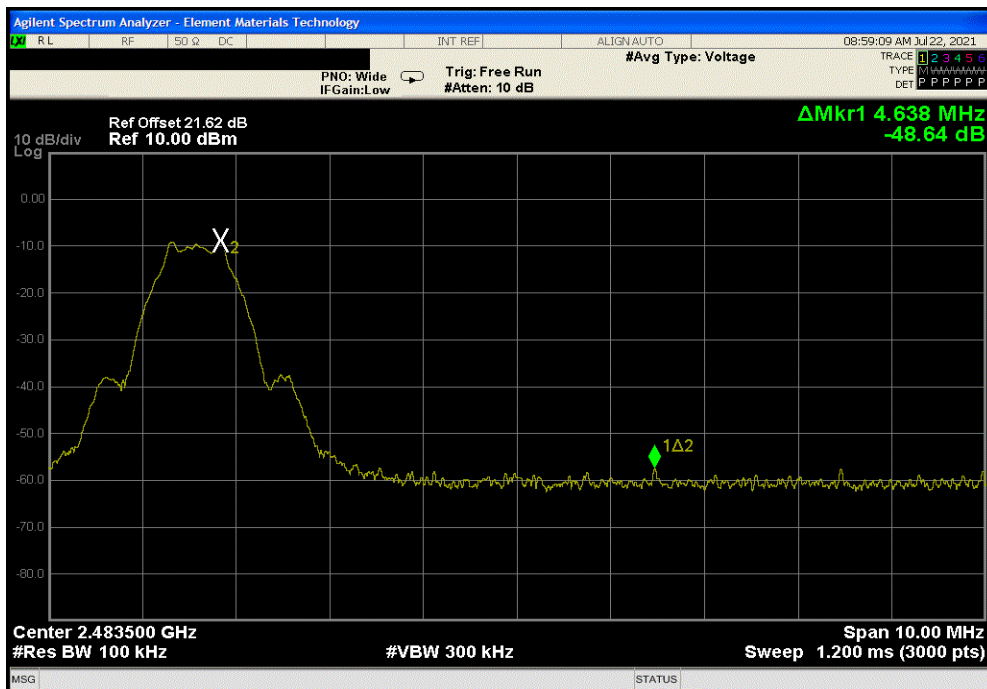


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
	Value (dBc)	Limit ≤ (dBc)	Result			
	-49.94	-20	Pass			



Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
	Value (dBc)	Limit ≤ (dBc)	Result			
	-48.64	-20	Pass			



# SPURIOUS CONDUCTED EMISSIONS



XMit 2020.12.30.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Agilent	E8257D	TGU	2020-11-03	2023-11-03
Attenuator	Fairview Microwave	SA18H-20	TKR	2020-12-18	2021-12-18
Block - DC	Fairview Microwave	SD3379	AMV	2020-12-18	2021-12-18
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2021-04-27	2022-04-27
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2021-01-06	2022-01-06

## TEST DESCRIPTION


The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the fundamental was measured with a 100 kHz resolution bandwidth and the highest value was recorded. The rest of the spectrum was then measured with a 100 kHz resolution bandwidth and the highest value was found. The difference between the value found on the fundamental and the rest of the spectrum was compared against the limit to determine compliance.



# SPURIOUS CONDUCTED EMISSIONS



TelTx 2021.03.19.1 XMt 2020.12.30.0

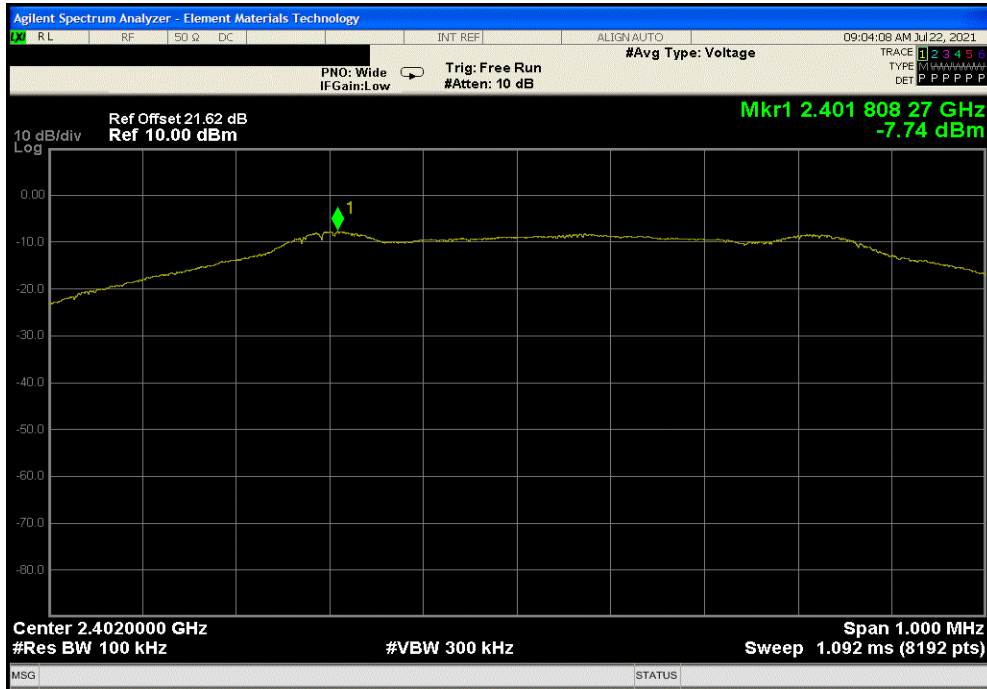
EUT: Starlight-12 Small, Starlight-12 Medium		Work Order: FINA0001				
Serial Number: See Configurations		Date: 22-Jul-21				
Customer: Finalmouse		Temperature: 23.8 °C				
Attendees: None		Humidity: 48.6% RH				
Project: None		Barometric Pres.: 1017 mbar				
Tested by: Nolan De Ramos		Power: Battery				
Job Site: OC13						
<b>TEST SPECIFICATIONS</b>						
FCC 15.247:2021		Test Method: ANSI C63.10:2013				
<b>COMMENTS</b>						
DC Block + 20 dB attenuator + Patch Cable + Test Cable = 21.62 dB Ref Level Offset						
<b>DEVIATIONS FROM TEST STANDARD</b>						
None						
Configuration #	16, 17	Signature 				
	Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
<b>Small Mouse</b>						
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	Fundamental	2401.81	N/A	N/A	N/A
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	30 MHz - 12.5 GHz	3782.72	-43.60	-20	Pass
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	12.5 GHz - 25 GHz	24877.91	-41.10	-20	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	Fundamental	2442.07	N/A	N/A	N/A
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	30 MHz - 12.5 GHz	4935.18	-42.32	-20	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	12.5 GHz - 25 GHz	24902.33	-40.09	-20	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	Fundamental	2479.81	N/A	N/A	N/A
	2.4 GHz 2 Mbps High Channel, 2480 MHz	30 MHz - 12.5 GHz	3825.35	-41.44	-20	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	12.5 GHz - 25 GHz	23930.23	-40.15	-20	Pass
<b>Medium Mouse</b>						
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	Fundamental	2401.81	N/A	N/A	N/A
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	30 MHz - 12.5 GHz	4954.97	-43.84	-20	Pass
	2.4 GHz 2 Mbps Low Channel, 2402 MHz	12.5 GHz - 25 GHz	24085.89	-41.75	-20	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	Fundamental	2441.81	N/A	N/A	N/A
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	30 MHz - 12.5 GHz	5002.17	-41.60	-20	Pass
	2.4 GHz 2 Mbps Mid Channel, 2442 MHz	12.5 GHz - 25 GHz	24934.38	-41.10	-20	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	Fundamental	2480.32	N/A	N/A	N/A
	2.4 GHz 2 Mbps High Channel, 2480 MHz	30 MHz - 12.5 GHz	4919.96	-42.18	-20	Pass
	2.4 GHz 2 Mbps High Channel, 2480 MHz	12.5 GHz - 25 GHz	23940.91	-40.38	-20	Pass

# SPURIOUS CONDUCTED EMISSIONS

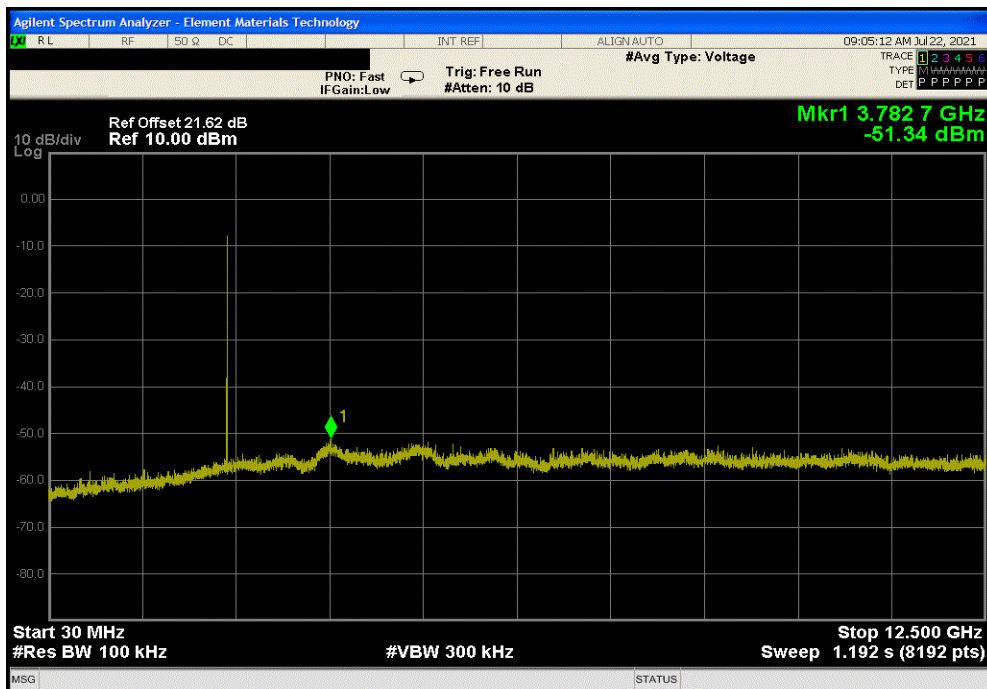


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result		
Fundamental	2401.81	N/A	N/A	N/A		



Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz						
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz	3782.72	-43.6	-20	Pass		

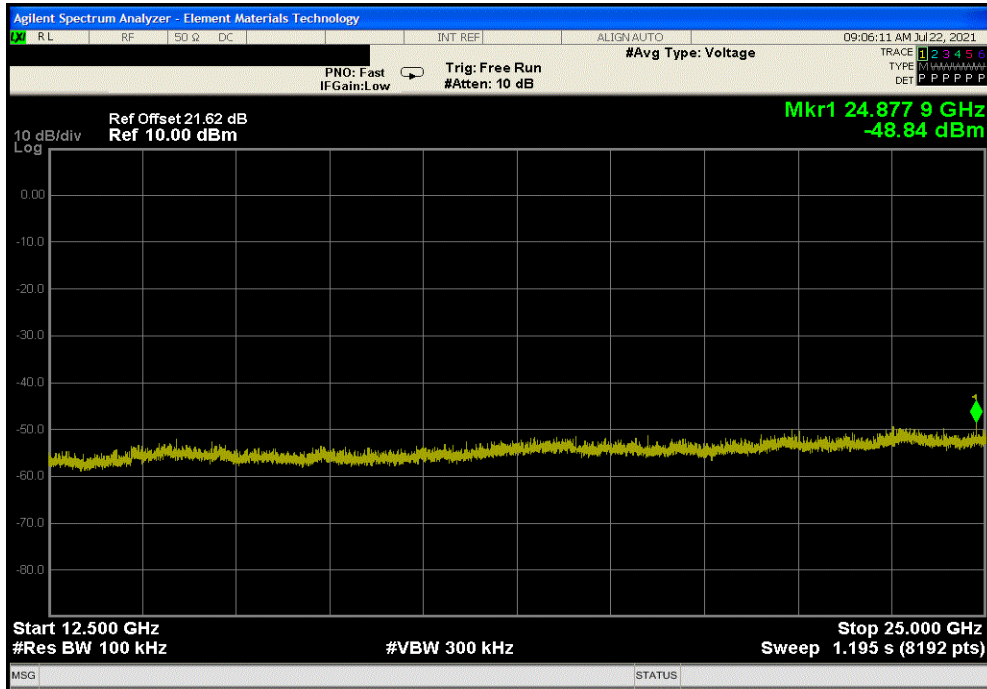


# SPURIOUS CONDUCTED EMISSIONS

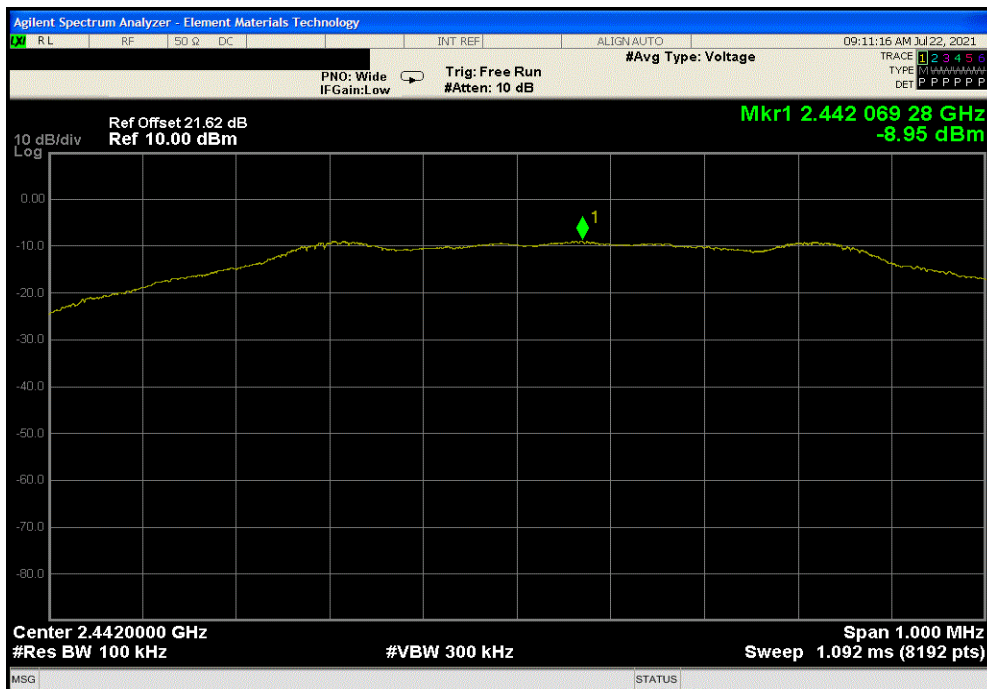


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	24877.91	-41.1	-20	Pass	



Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	2442.07	N/A	N/A	N/A	

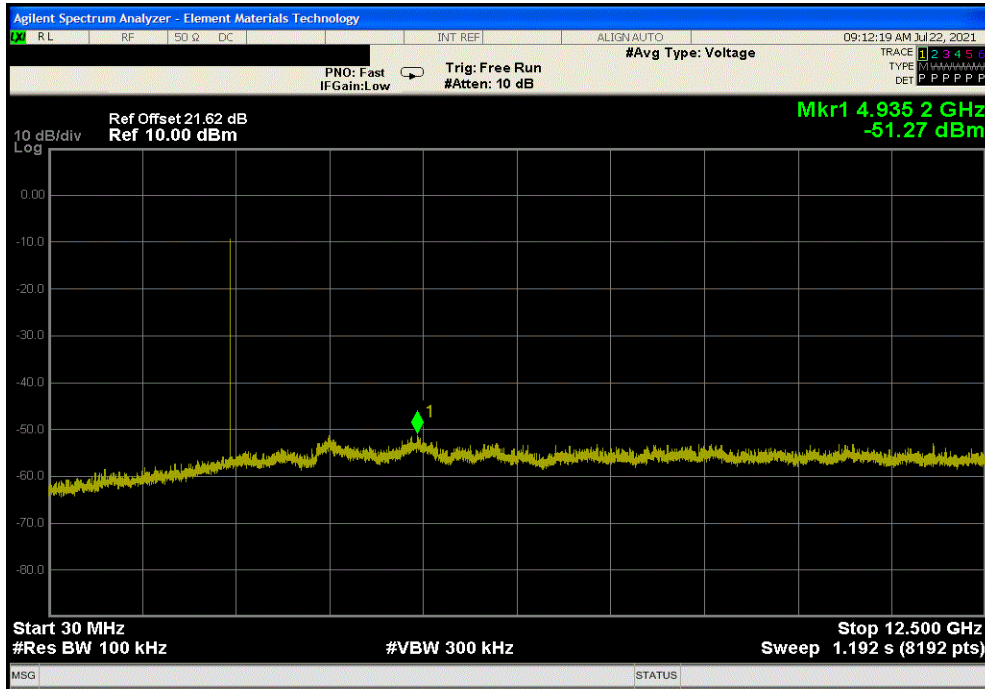


# SPURIOUS CONDUCTED EMISSIONS

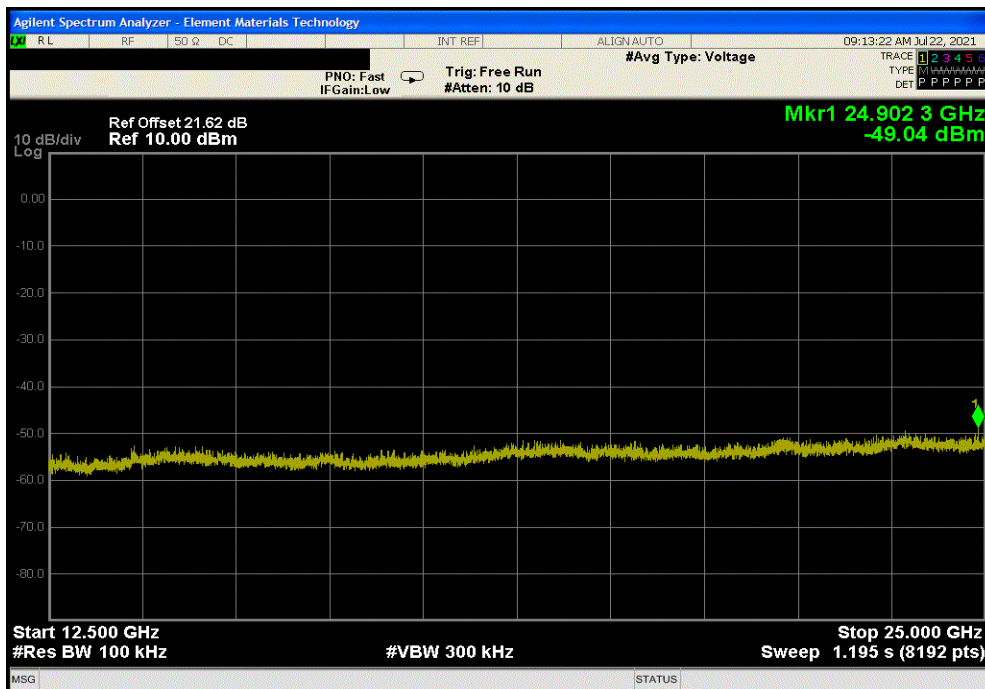


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	4935.18	-42.32	-20	Pass	



Small Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	24902.33	-40.09	-20	Pass	

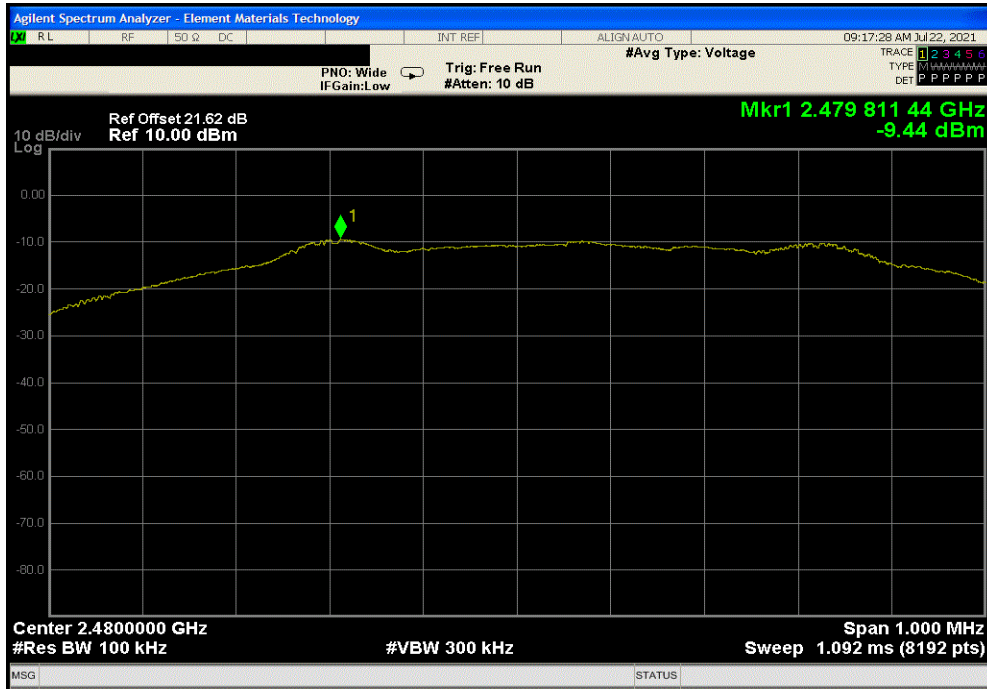


# SPURIOUS CONDUCTED EMISSIONS

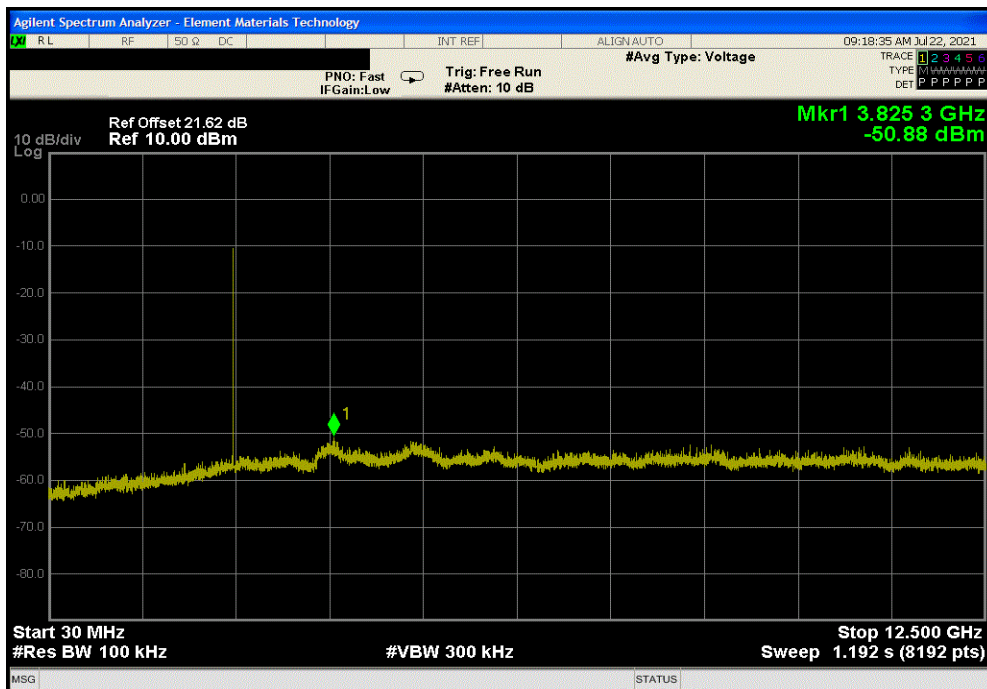


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result		
Fundamental	2479.81	N/A	N/A	N/A		



Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz						
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz	3825.35	-41.44	-20	Pass		

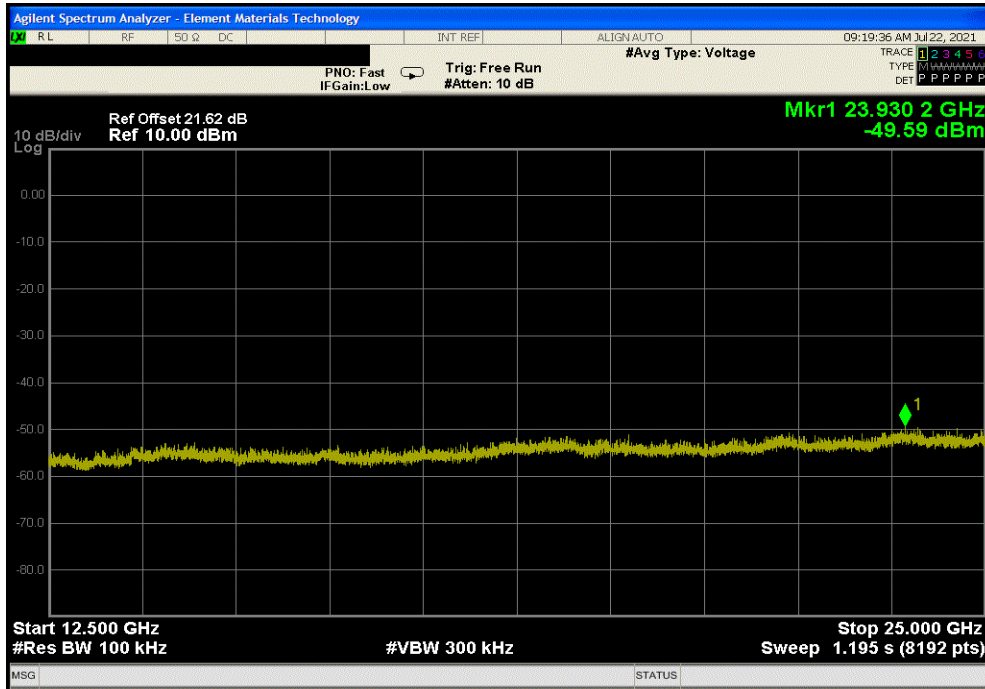


# SPURIOUS CONDUCTED EMISSIONS

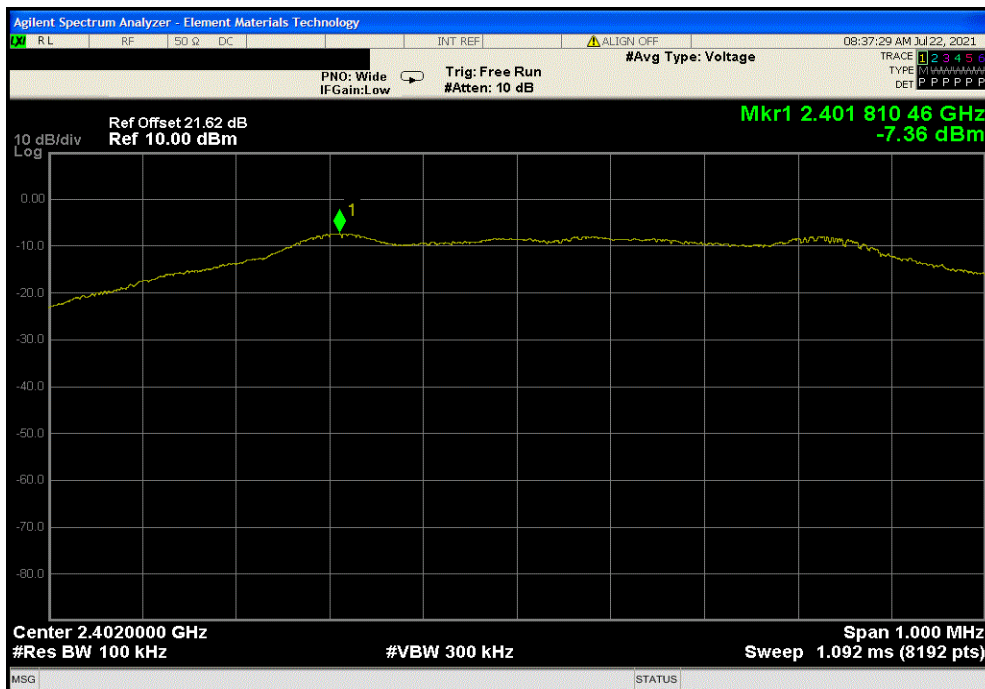


TbTx 2021.03.19.1 XMI 2020.12.30.0

Small Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	23930.23	-40.15	-20	Pass	



Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	2401.81	N/A	N/A	N/A	

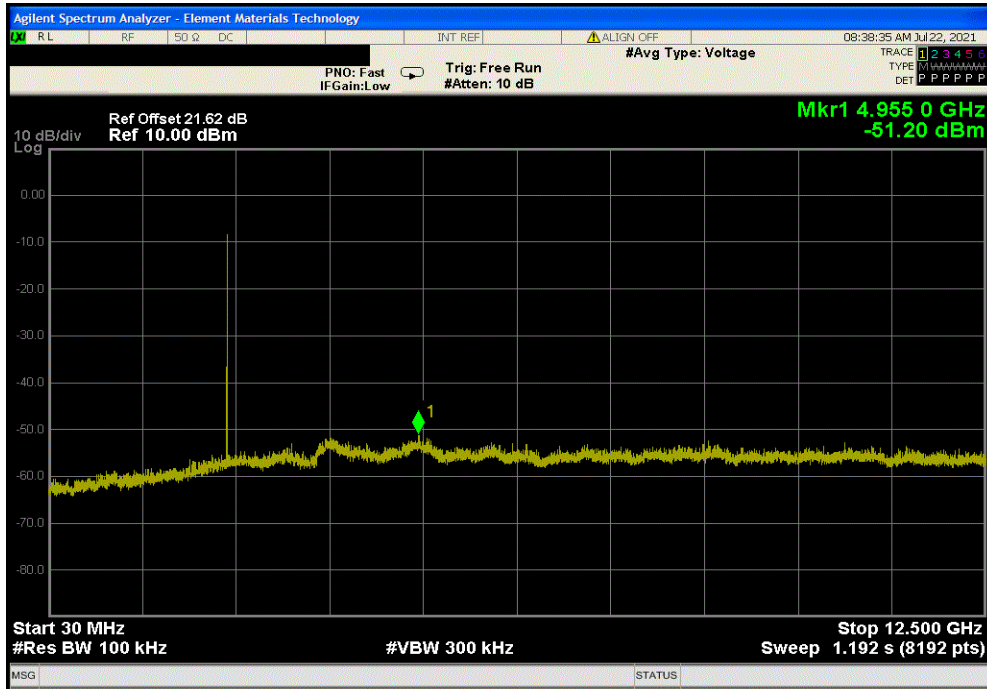


# SPURIOUS CONDUCTED EMISSIONS

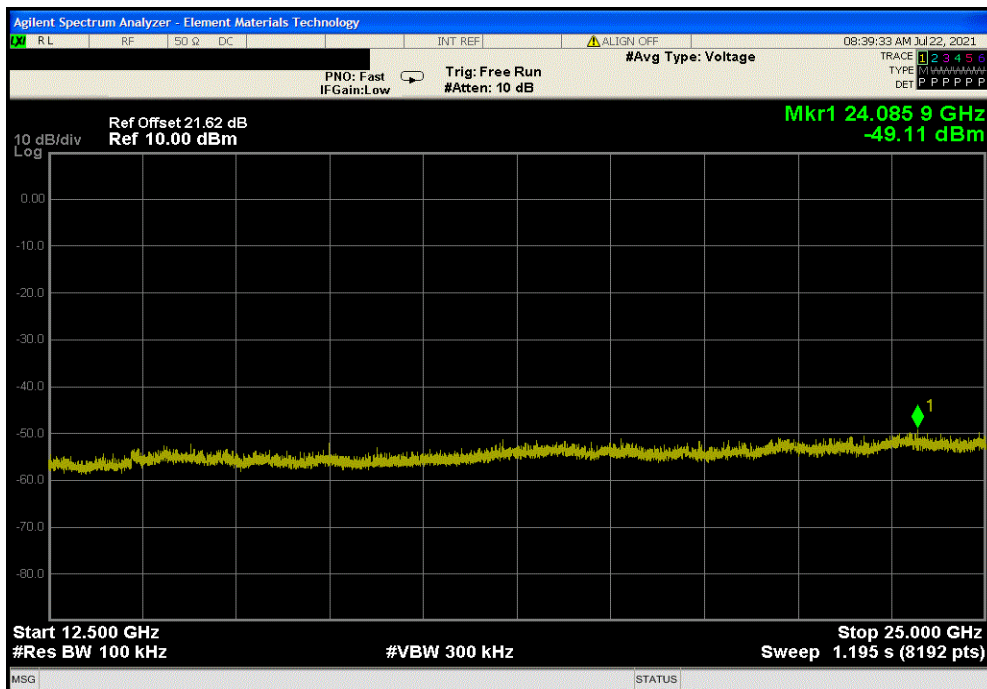


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	4954.97	-43.84	-20	Pass	



Medium Mouse, 2.4 GHz 2 Mbps Low Channel, 2402 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	24085.89	-41.75	-20	Pass	

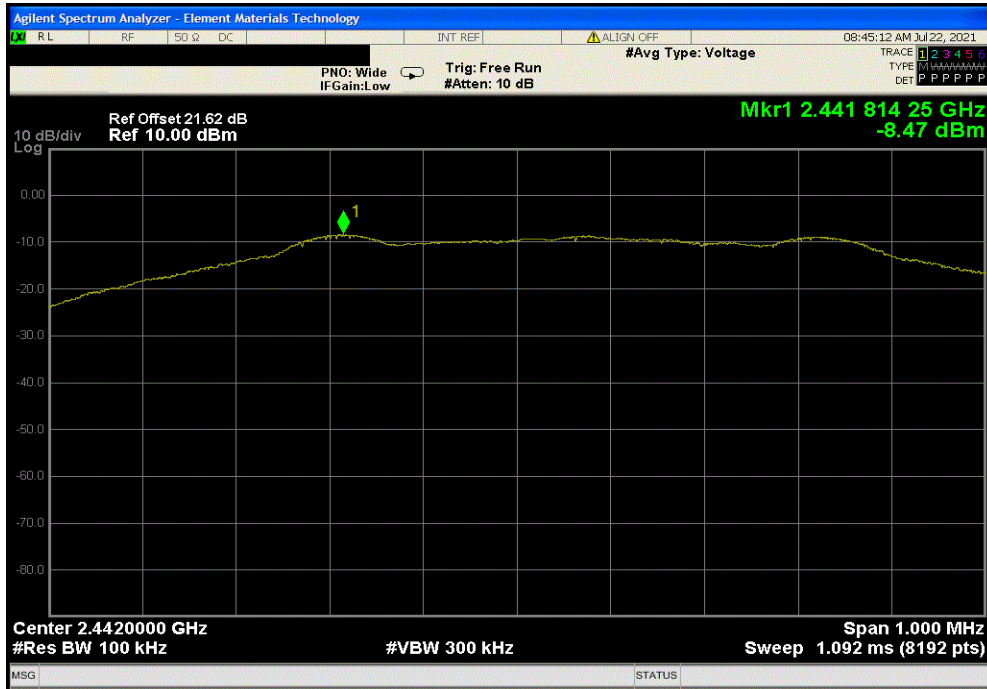


# SPURIOUS CONDUCTED EMISSIONS

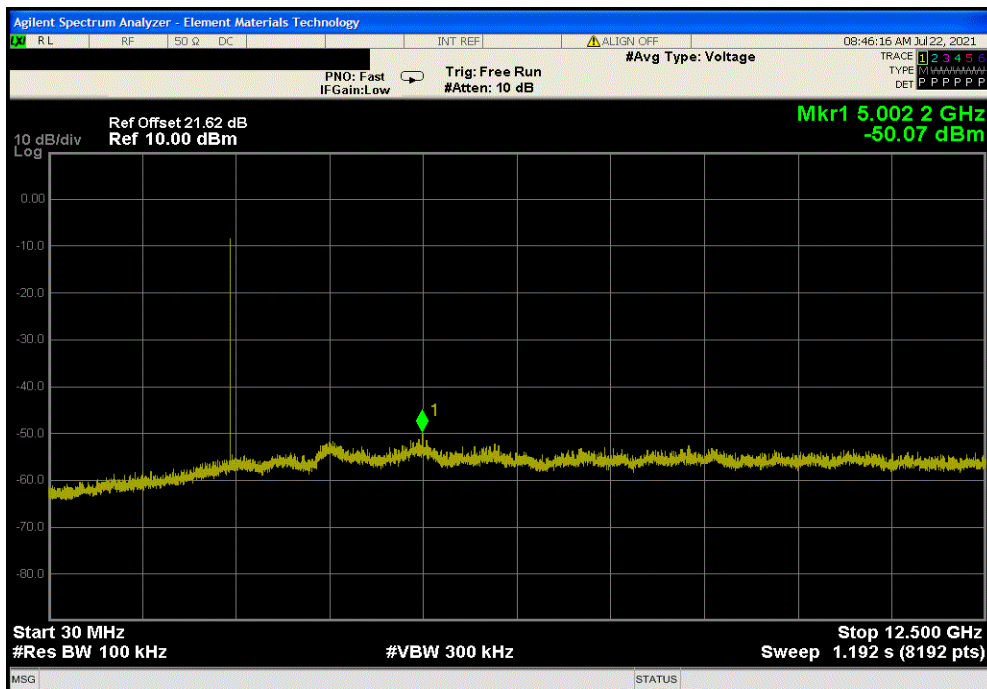


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result		
Fundamental	2441.81	N/A	N/A	N/A		



Medium Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz						
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz	5002.17	-41.6	-20	Pass		



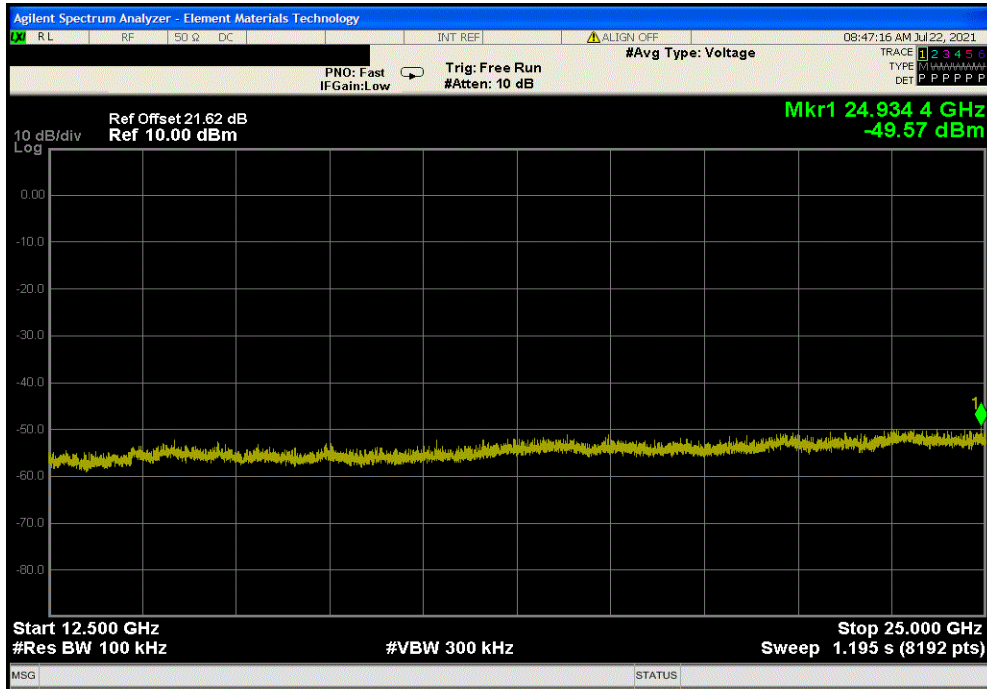


# SPURIOUS CONDUCTED EMISSIONS

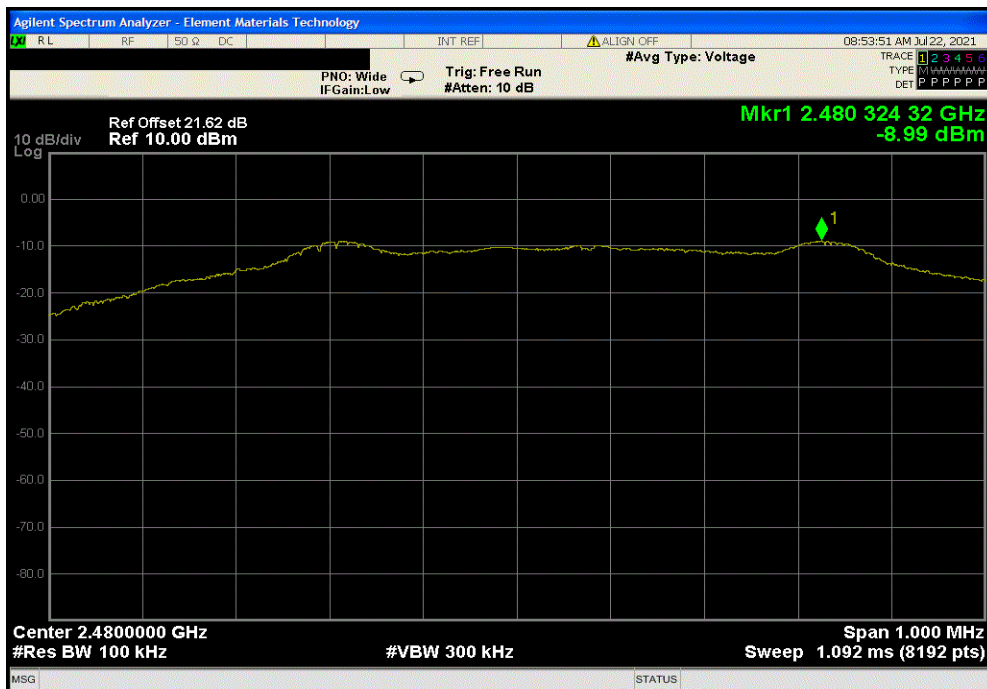


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps Mid Channel, 2442 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	24934.38	-41.1	-20	Pass	



Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz					
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	2480.32	N/A	N/A	N/A	

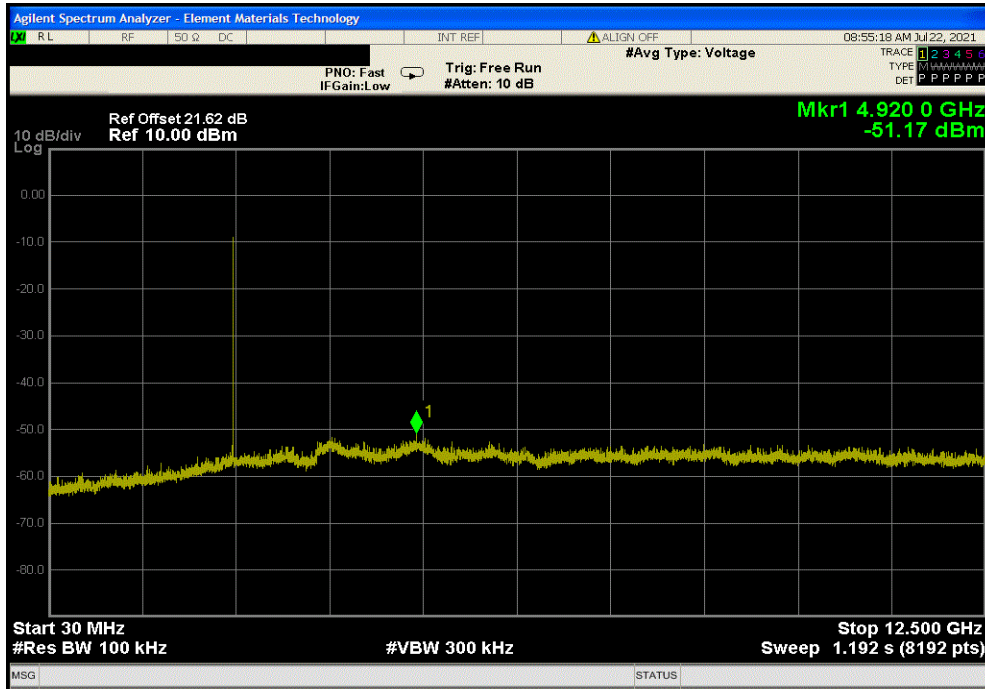


# SPURIOUS CONDUCTED EMISSIONS

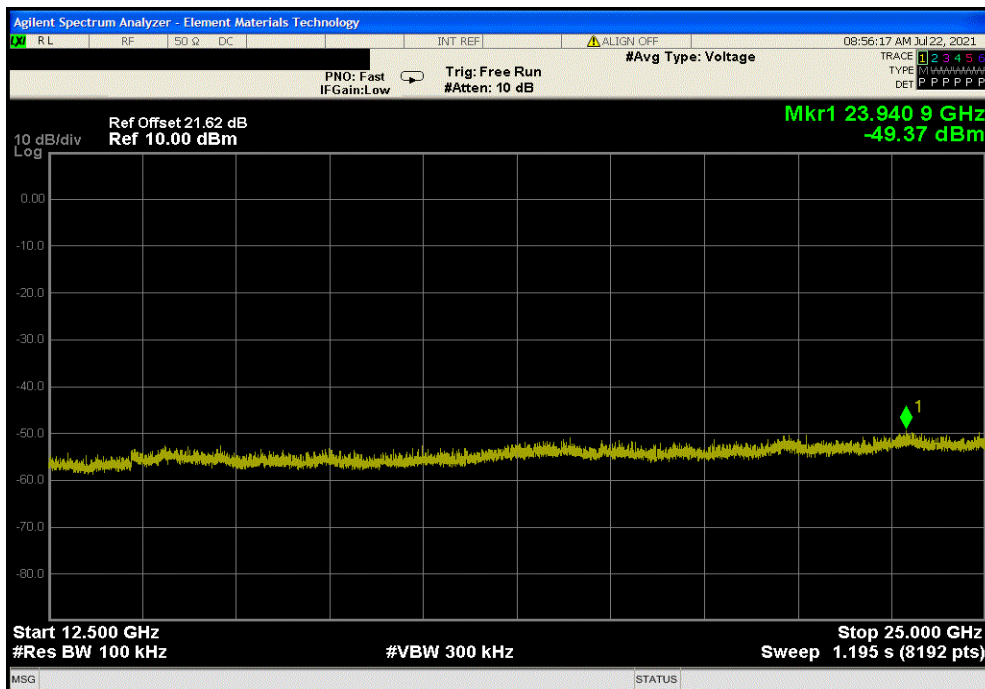


TbTx 2021.03.19.1 XMI 2020.12.30.0

Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz				
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	4919.96	-42.18	-20	Pass



Medium Mouse, 2.4 GHz 2 Mbps High Channel, 2480 MHz				
Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	23940.91	-40.38	-20	Pass



End of Test Report