



# element

## Abbott Laboratories

AAS Decapper

FCC 15.225:2022

13.56MHz Radio

Report: ABB00113.3 Rev. 1, Issue Date: August 6, 2023



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# CERTIFICATE OF TEST

**Last Date of Test: July 26, 2022**  
**Abbott Laboratories**  
**EUT: AAS Decapper**

## Radio Equipment Testing

### Standards

Specification	Method
FCC 15.207:2022	ANSI C63.10:2013
FCC 15.225:2022	

### Results

Test Description	Result	Specification Section(s)	Method Section(s)	Comments
Powerline Conducted Emissions	Pass	15.207	6.2	
Field Strength of Fundamental	Pass	15.225(a)-(c)	6.4	
Field Strength of Spurious Emissions (Less Than 30 MHz)	Pass	15.225(d), 15.209	6.4	
Field Strength of Spurious Emissions (Greater Than 30 MHz)	Pass	15.225(d), 15.209	6.5	
Frequency Stability	Pass	15.225(e), 2.1055	6.8	
Occupied Bandwidth	Pass	15.215(c)	6.9.2	

### Deviations From Test Standards

None

### Approved By:



Adam Bruno, 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



<b>Revision Number</b>	<b>Description</b>	<b>Date</b> (yyyy-mm-dd)	<b>Page Number</b>
01	Removed EAR statement from cover.	2023-08-06	1
	Corrected transcription error to 35mm.	2023-08-06	13

# 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** - Each laboratory is accredited by A2LA to ISO / IEC 17025, and as a product certifier to ISO / IEC 17065 which allows Element to certify transmitters to FCC and IC specifications.

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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:

[California](#)

[Minnesota](#)

[Oregon](#)

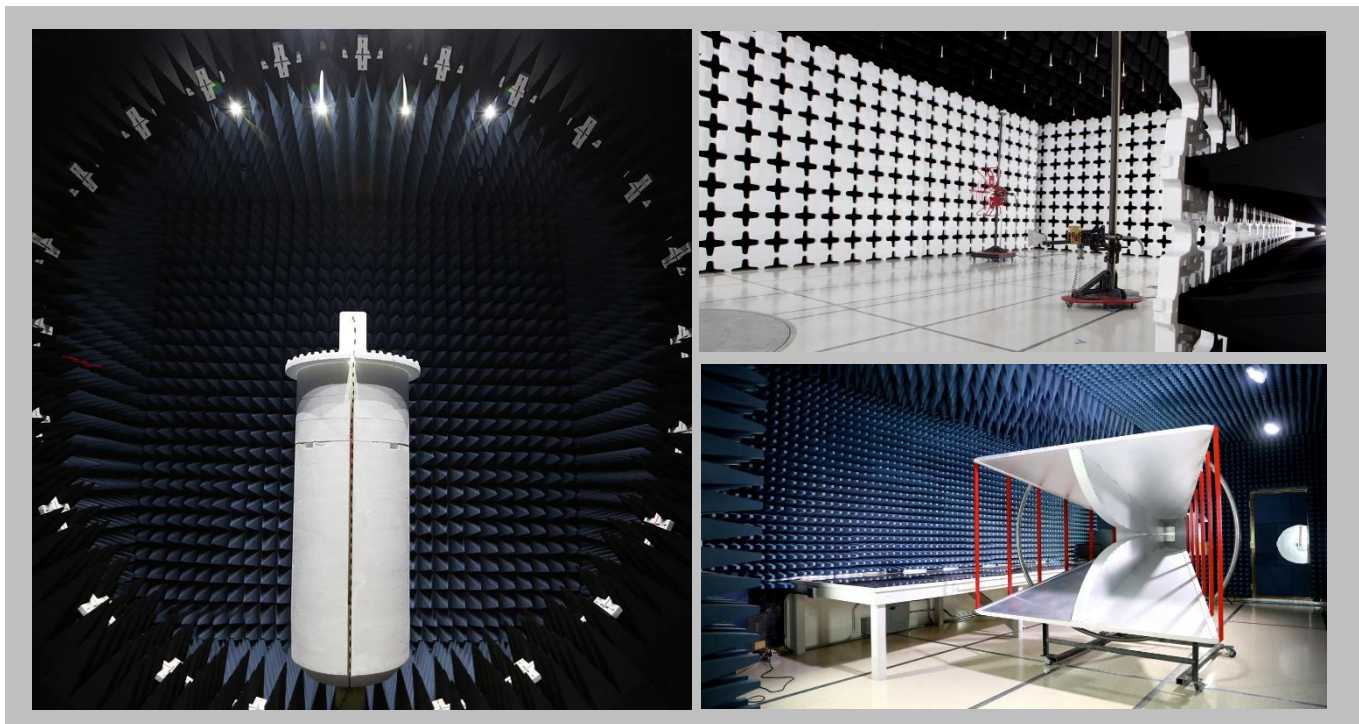
[Texas](#)

[Washington](#)

# 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>A2LA</b>				
Lab Code: 3310.04	Lab Code: 3310.05	Lab Code: 3310.02	Lab Code: 3310.03	Lab Code: 3310.06
<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)	3.1 dB	-3.1 dB

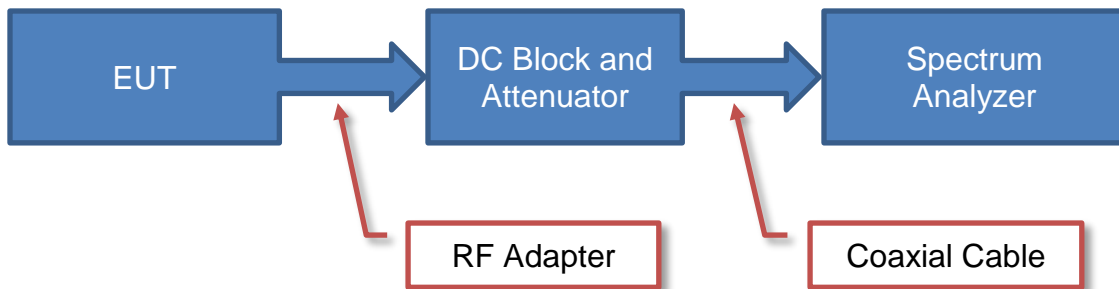
# TEST SETUP BLOCK DIAGRAMS

## Measurement Bandwidths

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Unless otherwise stated, measurements were made using the bandwidths and detectors specified. No video filter was used.

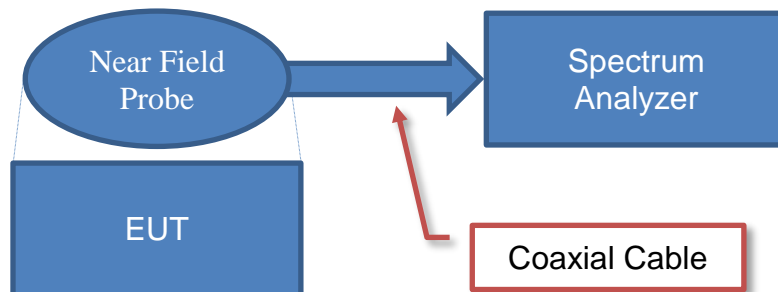
## Antenna Port Conducted Measurements



### Sample Calculation (logarithmic units)

$$\begin{array}{r}
 \text{Measured Value} \\
 71.2
 \end{array}
 =
 \begin{array}{r}
 \text{Measured Level} \\
 42.6
 \end{array}
 +
 \begin{array}{r}
 \text{Reference Level Offset} \\
 28.6
 \end{array}$$

## Near Field Test Fixture Measurements

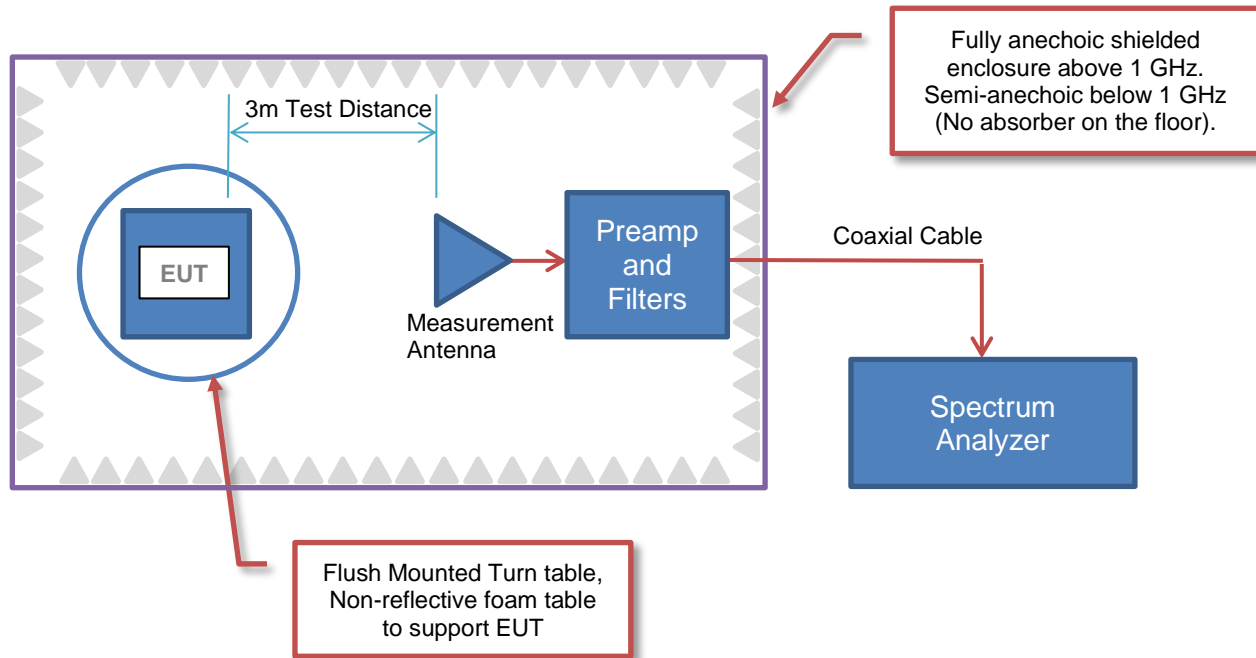


### Sample Calculation (logarithmic units)

$$\begin{array}{r}
 \text{Measured Value} \\
 71.2
 \end{array}
 =
 \begin{array}{r}
 \text{Measured Level} \\
 42.6
 \end{array}
 +
 \begin{array}{r}
 \text{Reference Level Offset} \\
 28.6
 \end{array}$$

# TEST SETUP BLOCK DIAGRAMS

## Emissions Measurements



## Sample Calculation (logarithmic units)

### Radiated Emissions:

Measured Level (Amplitude)	Factor			Distance Adjustment Factor	External Attenuation	Field Strength
	Antenna Factor	Cable Factor	Amplifier Gain			
42.6	28.6	3.1	40.8	0.0	0.0	33.5

42.6 + 28.6 + 3.1 - 40.8 + 0.0 + 0.0 = 33.5

### Conducted Emissions:

Measured Level (Amplitude)	Factor		External Attenuation	Adjusted Level
	Transducer Factor	Cable Factor		
26.7	0.3	0.1	20.0	47.1

26.7 + 0.3 + 0.1 + 20.0 = 47.1

### Radiated Power (ERP/EIRP) – Substitution Method:

Measured Level into Substitution Antenna (Amplitude dBm)	Substitution Antenna Factor (dBi)	EIRP to ERP (if applicable)	Measured power (dBm ERP/EIRP)
10.0	6.0	2.15	13.9/16.0

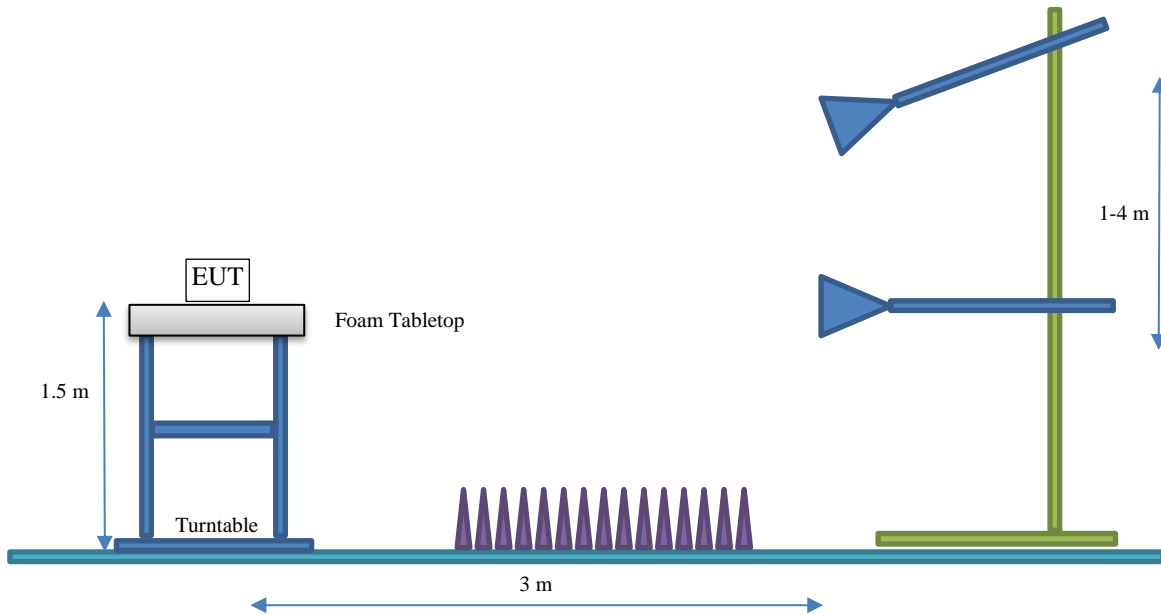
10.0 + 6.0 - 2.15 = 13.9/16.0



# TEST SETUP BLOCK DIAGRAMS

## Bore Sighting (>1GHz)

The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.



# PRODUCT DESCRIPTION



## Client and Equipment under Test (EUT) Information

<b>Company Name:</b>	Abbott Laboratories
<b>Address:</b>	1921 Hurd Drive
<b>City, State, Zip:</b>	Irving, TX 75038
<b>Test Requested By:</b>	Don Mendell
<b>EUT:</b>	AAS Decapper
<b>First Date of Test:</b>	July 6, 2022
<b>Last Date of Test:</b>	July 26, 2022
<b>Receipt Date of Samples:</b>	June 20, 2022
<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

### Functional Description of the EUT:

This sample preparation module utilizes an internal robotic mechanism to unscrew and remove the top cap of the sample container, after the sample carrying CAR travels from the track system into the module.

### Testing Objective:

To demonstrate compliance to FCC Part 15.225 specifications.

# POWER SETTINGS AND ANTENNAS



The power settings, antenna gain value(s) and cable loss (if applicable) used for the testing contained in this report were provided by the customer and will affect the validity of the results. Element assumes no responsibility for the accuracy of this information.

## ANTENNA INFORMATION

Type	Provided by:	Dimensions
Embedded Inductive Loop	GLP Systems	51mm x 35mm

## POWER SETTING

Radio	Modulation	Protocol	Data Rate	Frequency	Power Setting (mW)
RFID	OOK	ISO 13693	26.48 kbps	13.56 MHz	200

\*Power is set internally through product firmware at the default maximum.

\*Antenna information/power setting is identical for each 13.56 MHz radio.

# CONFIGURATIONS



## Configuration ABBO0113- 3

Software/Firmware Running During Test	
Description	Version
D000105502/A-AccessPoint RFID Test Firmware 02-47679 verification	A
D000105499/A-CrossSwitch RFID Test Firmware 02-47679 verification	A

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Decapper (EUT)	Abbott Laboratories	06Q07-61	M09B000200

Peripherals in Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
24V Track Power Supply	Abbott Laboratories	06U35-01	C06A001511
Track Filter Unit 3 (3 Phase)	Abbott Laboratories	06U35-04	001006
Segment Controller	Abbott Laboratories	06R05-01	C33A002277
Track Section 40	Abbott Laboratories	06Q43-11	None
Wieland Podis Powerbus Flat Cable 7G4 5m	Abbott Laboratories	06U28-01	None
Raspberry Pi	Raspberry Pi	3 Model B V1.2	KCEMC12010
Battery Pack	Anker	Power Core 26800	T47155A3

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Cable	Yes	1m	No	AC Mains	Track filter

# CONFIGURATIONS



## Configuration ABBO0113- 4

Software/Firmware Running During Test	
Description	Version
D000120464/A- Screwcapper Module (SCCM) + Decapper Module (DM) EMC Test Software Verification	A

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Decapper (EUT)	Abbott Laboratories	06Q07-61	M09B000200

Peripherals in Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
24V Track Power Supply	Abbott Laboratories	06U35-01	C06A002056
Track Filter Unit 3 (3 Phase)	Abbott Laboratories	06U35-04	001006
PCB Track Supply	Abbott Laboratories	20008483	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power Cable A	Yes	1m	No	AC Mains	Track filter
DC Power Cable A	No	0.7m	Yes	PCB Track Supply	EUT
DC Power Cable B	No	1.5m	No	Power Supply	PCB Track Supply
AC Power Cable B	Yes	1.6m	No	Track Filter	Power Strip
AC Power Cable C	Yes	2.3m	No	Power Strip	Power Supply

# MODIFICATIONS



## Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2022-07-06	Field Strength of Fundamental	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	2022-07-08	Field Strength of Spurious Emissions (Less Than 30 MHz)	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	2022-07-13	Field Strength of Spurious Emissions (Greater Than 30 MHz)	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	2022-07-19	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.
5	2022-07-20	Powerline 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.
6	2022-07-26	Frequency Stability	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

# POWERLINE CONDUCTED EMISSIONS



## TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of the device used to power the EUT.

The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.10.

In the event that the operating frequency of 13.56 MHz is causing the product to fail the FCC 15.207 limits, the following guidance can be used:

FCC KDB 174176 D01 AC Conducted FAQ v01r01, June 3, 2015 Section Q5:

For a device with a permanent or detachable antenna operating at or below 30 MHz, the FCC will accept measurements performed with a suitable dummy load in lieu of the antenna under the following conditions:

- (1) Perform the AC power-line conducted tests with the antenna connected to determine compliance with Section 15.207 limits outside the transmitter's fundamental emission band;
- (2) Retest with a dummy load in lieu of the antenna to determine compliance with Section 15.207 limits within the transmitter's fundamental emission band. For a detachable antenna, remove the antenna and connect a suitable dummy load to the antenna connector. For a permanent antenna, remove the antenna and terminate the RF output with a dummy load or network which simulates the antenna in the fundamental frequency band.

All measurements must be performed as specified in clause 6.2 of ANSI C63.10-2013.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
LISN	Solar Electronics	9252-50-R-24-BNC	LJK	2021-08-06	2022-08-06
Power Source/Analyzer	Hewlett Packard	6841A	THC	NCR	NCR
Receiver	Rohde & Schwarz	ESCI	ARF	2021-09-16	2022-09-16
Cable - Conducted Cable Assembly	Northwest EMC	TXA, HFC, TQU	TXAA	2022-01-24	2023-01-24

## MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	3.1 dB	-3.1 dB

## CONFIGURATIONS INVESTIGATED

ABBO0113-3
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## MODES INVESTIGATED

Transmitting 13.56 MHz RFID
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# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	59.2%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	30	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

Transmitting 13.56 MHz. AccessPoint 1 Radio ON.

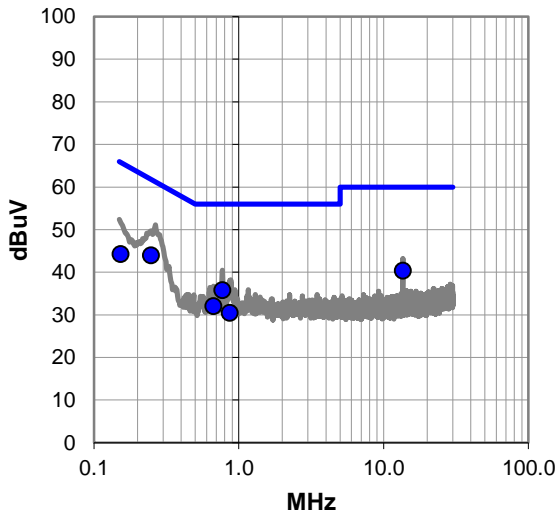
## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

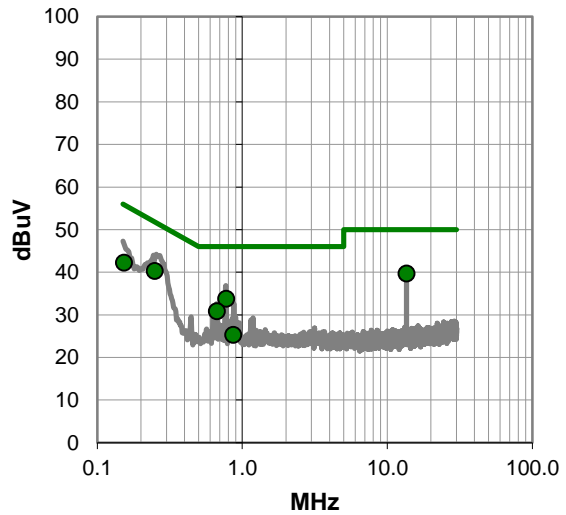
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit





# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #30

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.248	23.4	20.6	44.0	61.8	-17.8
13.560	19.5	20.9	40.4	60.0	-19.6
0.772	15.6	20.2	35.8	56.0	-20.2
0.153	23.7	20.6	44.3	65.9	-21.6
0.666	11.9	20.2	32.1	56.0	-23.9
0.865	10.4	20.1	30.5	56.0	-25.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	18.8	20.9	39.7	50.0	-10.3
0.248	19.7	20.6	40.3	51.8	-11.5
0.772	13.6	20.2	33.8	46.0	-12.2
0.153	21.7	20.6	42.3	55.9	-13.6
0.666	10.7	20.2	30.9	46.0	-15.1
0.865	5.2	20.1	25.3	46.0	-20.7

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	59.2%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	31	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

Transmitting 13.56 MHz. AccessPoint 1 Radio ON.

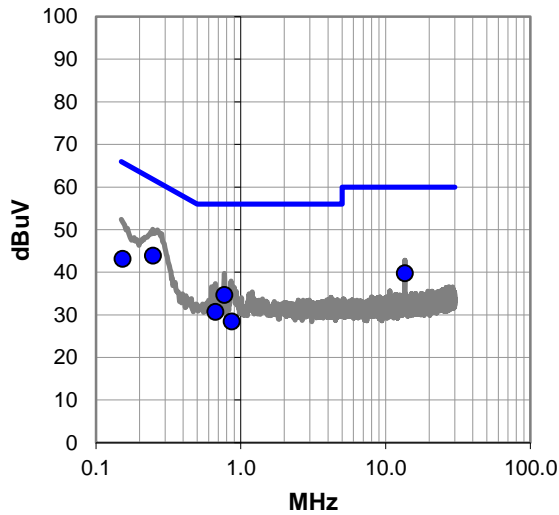
## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

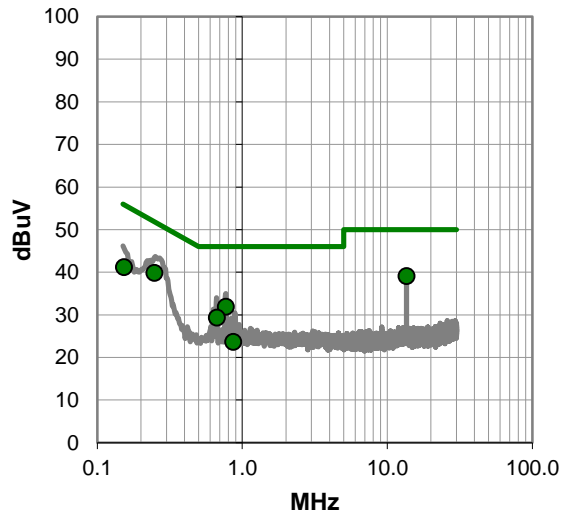
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #31

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.247	23.3	20.6	43.9	61.8	-17.9
13.560	18.9	20.9	39.8	60.0	-20.2
0.769	14.5	20.2	34.7	56.0	-21.3
0.153	22.6	20.6	43.2	65.9	-22.7
0.668	10.5	20.2	30.7	56.0	-25.3
0.865	8.4	20.1	28.5	56.0	-27.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	18.2	20.9	39.1	50.0	-10.9
0.247	19.3	20.6	39.9	51.8	-11.9
0.769	11.7	20.2	31.9	46.0	-14.1
0.153	20.6	20.6	41.2	55.9	-14.7
0.668	9.2	20.2	29.4	46.0	-16.6
0.865	3.6	20.1	23.7	46.0	-22.3

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	59.2%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	32	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

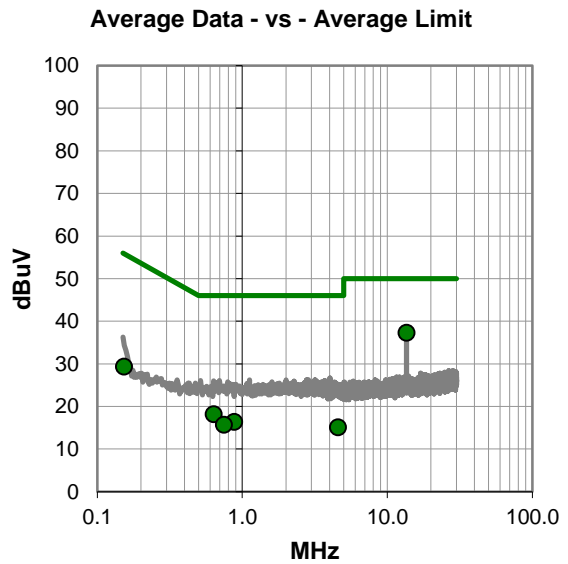
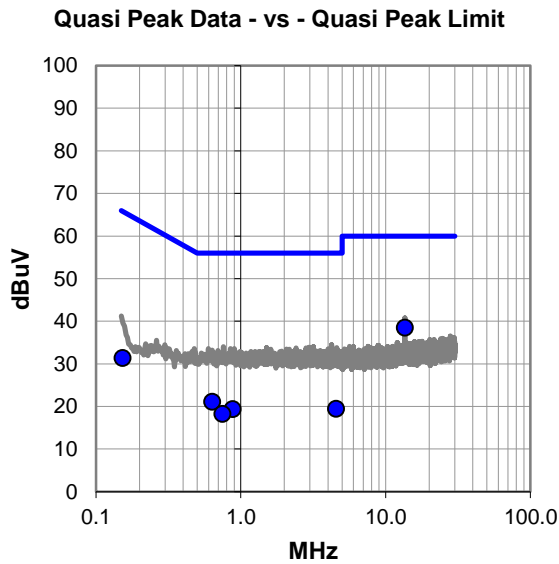
Transmitting 13.56 MHz. AccessPoint 2 Radio ON.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #32

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.561	17.6	20.9	38.5	60.0	-21.5
0.153	10.8	20.6	31.4	65.9	-34.5
0.634	0.9	20.2	21.1	56.0	-34.9
4.556	-0.7	20.2	19.5	56.0	-36.5
0.878	-0.8	20.2	19.4	56.0	-36.6
0.747	-1.9	20.2	18.3	56.0	-37.7

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.561	16.4	20.9	37.3	50.0	-12.7
0.153	8.8	20.6	29.4	55.9	-26.5
0.634	-2.0	20.2	18.2	46.0	-27.8
0.878	-3.8	20.2	16.4	46.0	-29.6
0.747	-4.5	20.2	15.7	46.0	-30.3
4.556	-5.1	20.2	15.1	46.0	-30.9

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	59.2%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	33	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

Transmitting 13.56 MHz. AccessPoint 2 Radio ON.

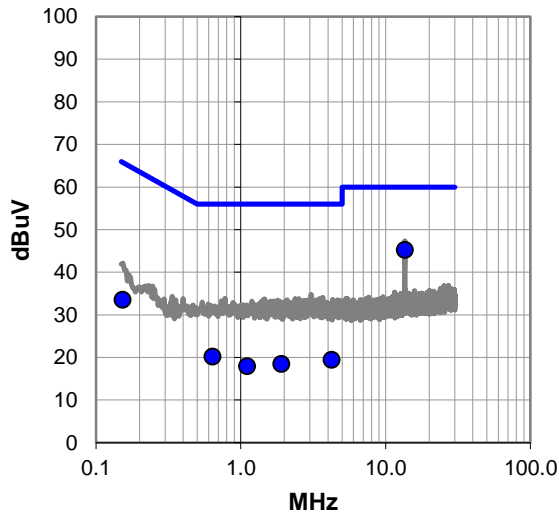
## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

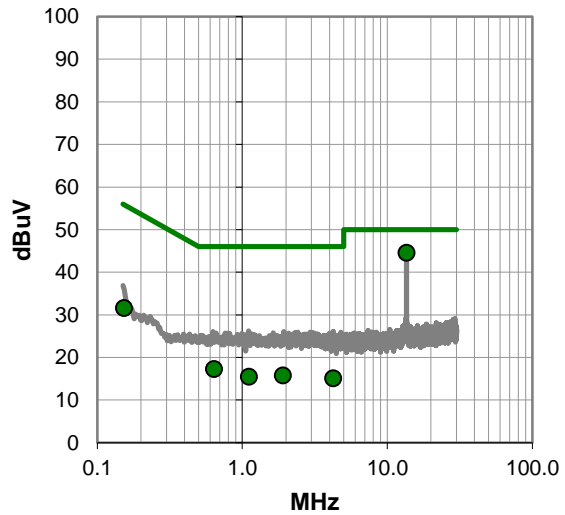
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #33

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	24.4	20.9	45.3	60.0	-14.7
0.153	13.0	20.6	33.6	65.9	-32.3
0.637	0.0	20.2	20.2	56.0	-35.8
4.239	-0.7	20.2	19.5	56.0	-36.5
1.905	-1.7	20.2	18.5	56.0	-37.5
1.107	-2.0	20.0	18.0	56.0	-38.0

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	23.7	20.9	44.6	50.0	-5.4
0.153	11.0	20.6	31.6	55.9	-24.3
0.637	-2.9	20.2	17.3	46.0	-28.7
1.905	-4.4	20.2	15.8	46.0	-30.2
1.107	-4.5	20.0	15.5	46.0	-30.5
4.239	-5.1	20.2	15.1	46.0	-30.9

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	60.4%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	35	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

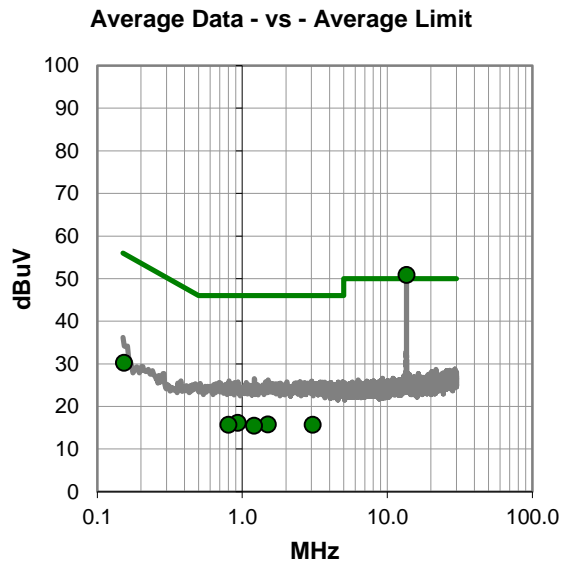
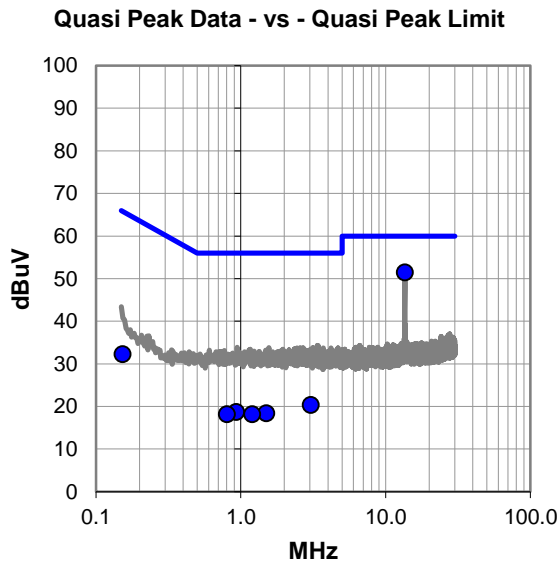
Transmitting 13.56 MHz. CrossSwitch Left Radio ON.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None





# POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #35

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	30.6	20.9	51.5	60.0	-8.5
0.153	11.7	20.6	32.3	65.8	-33.5
3.048	0.2	20.2	20.4	56.0	-35.6
0.930	-1.5	20.2	18.7	56.0	-37.3
1.497	-1.8	20.2	18.4	56.0	-37.6
1.202	-1.8	20.0	18.2	56.0	-37.8
0.801	-2.0	20.2	18.2	56.0	-37.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	30.0	20.9	50.9	50.0	0.9
0.153	9.7	20.6	30.3	55.8	-25.5
0.930	-4.0	20.2	16.2	46.0	-29.8
1.497	-4.4	20.2	15.8	46.0	-30.2
3.048	-4.5	20.2	15.7	46.0	-30.3
0.801	-4.5	20.2	15.7	46.0	-30.3
1.202	-4.5	20.0	15.5	46.0	-30.5

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	60.4%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	36	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

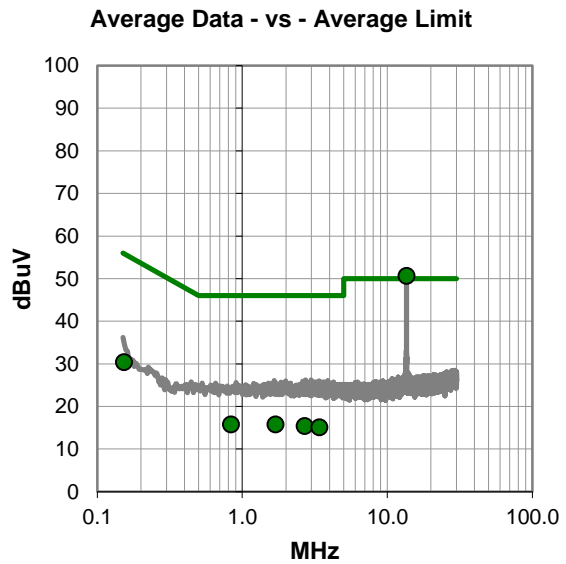
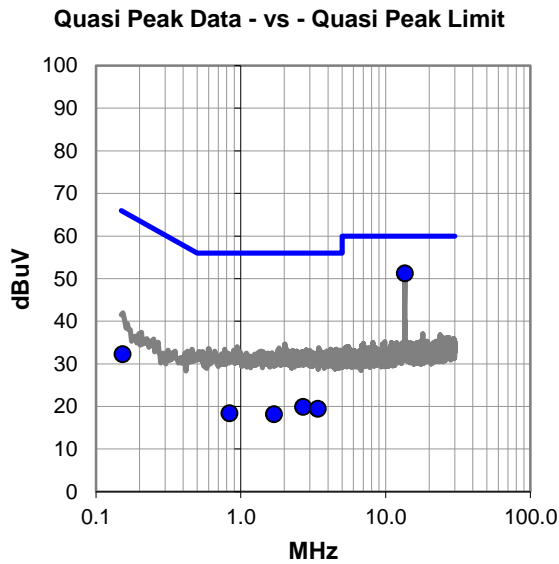
Transmitting 13.56 MHz. CrossSwitch Left Radio ON.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #36

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	30.4	20.9	51.3	60.0	-8.7
0.153	11.7	20.6	32.3	65.9	-33.6
2.696	-0.3	20.2	19.9	56.0	-36.1
3.396	-0.7	20.2	19.5	56.0	-36.5
0.834	-1.8	20.2	18.4	56.0	-37.6
1.694	-2.0	20.2	18.2	56.0	-37.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	29.8	20.9	50.7	50.0	0.7
0.153	9.8	20.6	30.4	55.9	-25.5
1.694	-4.4	20.2	15.8	46.0	-30.2
0.834	-4.4	20.2	15.8	46.0	-30.2
2.696	-4.8	20.2	15.4	46.0	-30.6
3.396	-5.1	20.2	15.1	46.0	-30.9

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	60.4%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	37	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

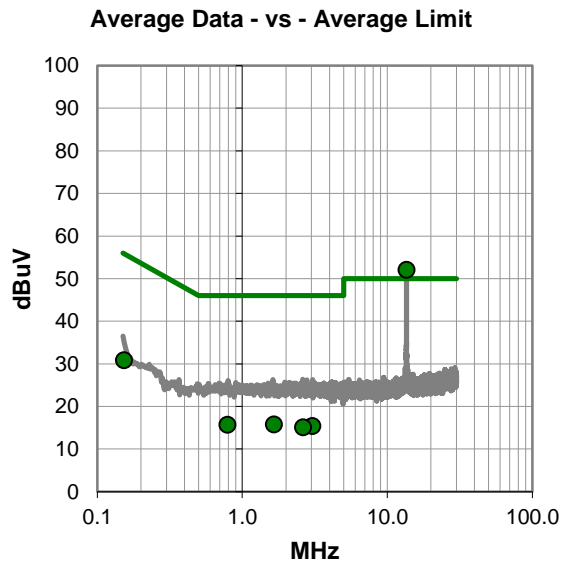
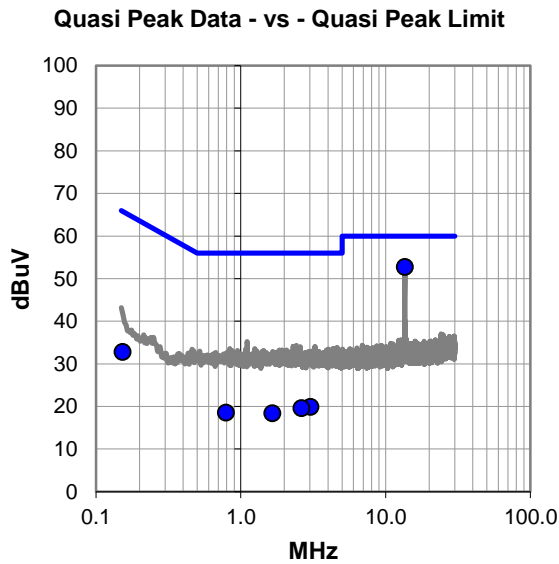
Transmitting 13.56 MHz. CrossSwitch Right Radio ON.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #37

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.561	31.9	20.9	52.8	60.0	-7.2
0.153	12.2	20.6	32.8	65.9	-33.1
3.032	-0.3	20.2	19.9	56.0	-36.1
2.624	-0.6	20.2	19.6	56.0	-36.4
0.790	-1.6	20.2	18.6	56.0	-37.4
1.650	-1.8	20.2	18.4	56.0	-37.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.561	31.2	20.9	52.1	50.0	2.1
0.153	10.3	20.6	30.9	55.9	-25.0
1.650	-4.4	20.2	15.8	46.0	-30.2
0.790	-4.5	20.2	15.7	46.0	-30.3
3.032	-4.8	20.2	15.4	46.0	-30.6
2.624	-5.1	20.2	15.1	46.0	-30.9

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-14
Customer:	Abbott Laboratories	Temperature:	20.1°C
Attendees:	Frank Sun	Relative Humidity:	60.4%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	38	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

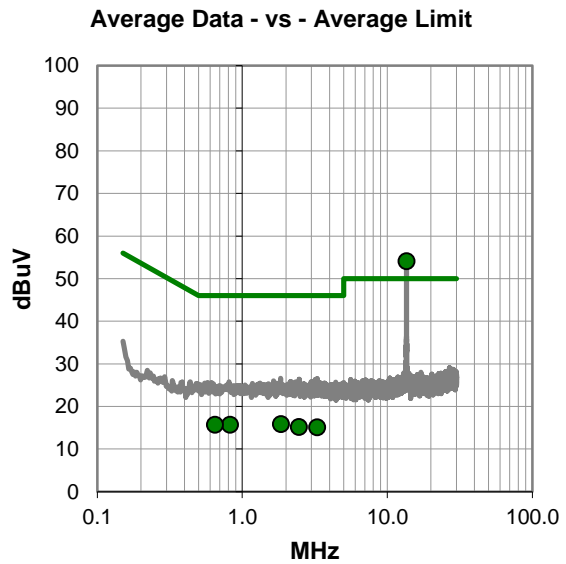
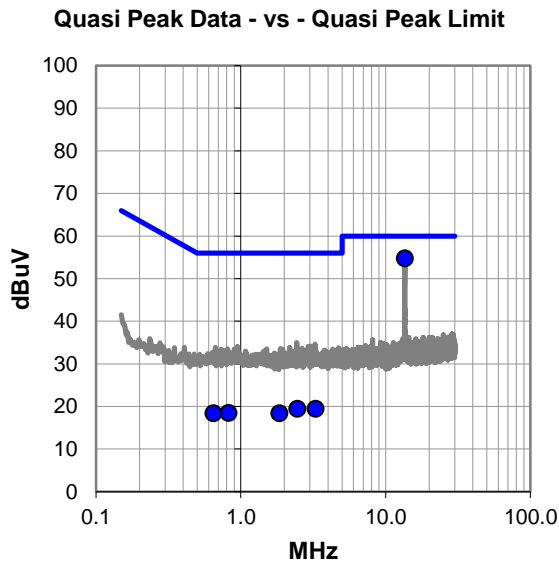
Transmitting 13.56 MHz. CrossSwitch Right Radio ON.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #38

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	33.9	20.9	54.8	60.0	-5.2
3.281	-0.7	20.2	19.5	56.0	-36.5
2.452	-0.7	20.2	19.5	56.0	-36.5
0.822	-1.7	20.2	18.5	56.0	-37.5
1.851	-1.8	20.2	18.4	56.0	-37.6
0.648	-1.8	20.2	18.4	56.0	-37.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.560	33.2	20.9	54.1	50.0	4.1
1.851	-4.3	20.2	15.9	46.0	-30.1
0.822	-4.5	20.2	15.7	46.0	-30.3
0.648	-4.5	20.2	15.7	46.0	-30.3
2.452	-5.0	20.2	15.2	46.0	-30.8
3.281	-5.1	20.2	15.1	46.0	-30.9

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-20
Customer:	Abbott Laboratories	Temperature:	21.4°C
Attendees:	Frank Sun	Relative Humidity:	55%
Customer Project:	None	Bar. Pressure (PMSL):	1013 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	42	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

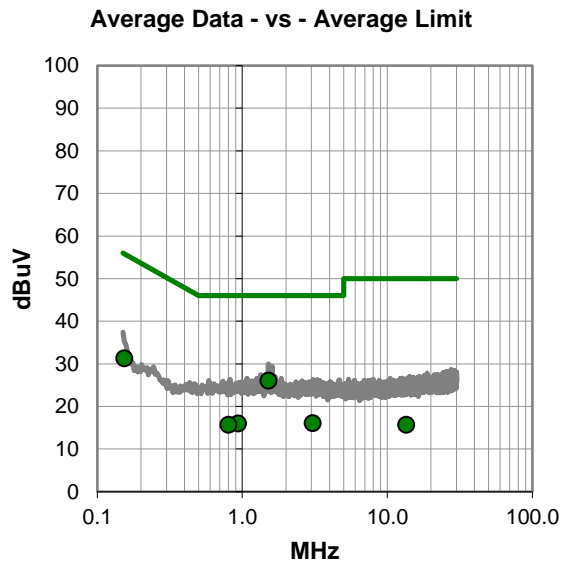
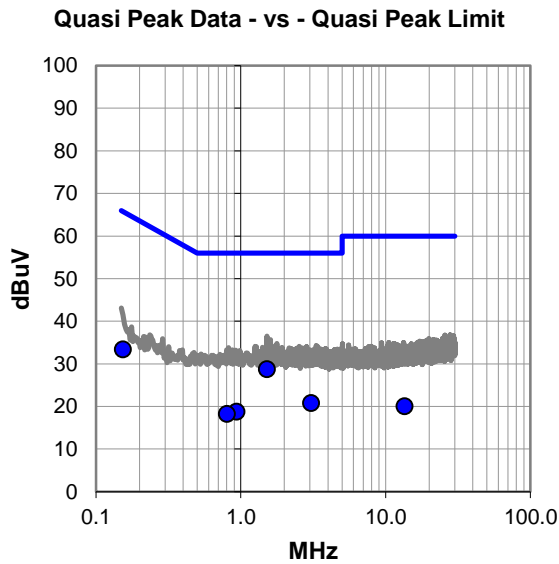
Transmitting 13.56 MHz. CrossSwitch Left Radio ON. Antenna terminated with load.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None





# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #42

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.512	8.6	20.2	28.8	56.0	-27.2
0.154	12.8	20.6	33.4	65.8	-32.4
3.061	0.6	20.2	20.8	56.0	-35.2
0.935	-1.4	20.2	18.8	56.0	-37.2
0.801	-1.9	20.2	18.3	56.0	-37.7
13.529	-0.8	20.9	20.1	60.0	-39.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.512	5.9	20.2	26.1	46.0	-19.9
0.154	10.7	20.6	31.3	55.8	-24.5
3.061	-4.1	20.2	16.1	46.0	-29.9
0.935	-4.2	20.2	16.0	46.0	-30.0
0.801	-4.5	20.2	15.7	46.0	-30.3
13.529	-5.2	20.9	15.7	50.0	-34.3

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-20
Customer:	Abbott Laboratories	Temperature:	21.4°C
Attendees:	Frank Sun	Relative Humidity:	55%
Customer Project:	None	Bar. Pressure (PMSL):	1013 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	43	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

Transmitting 13.56 MHz. CrossSwitch Left Radio ON. Antenna terminated with load.

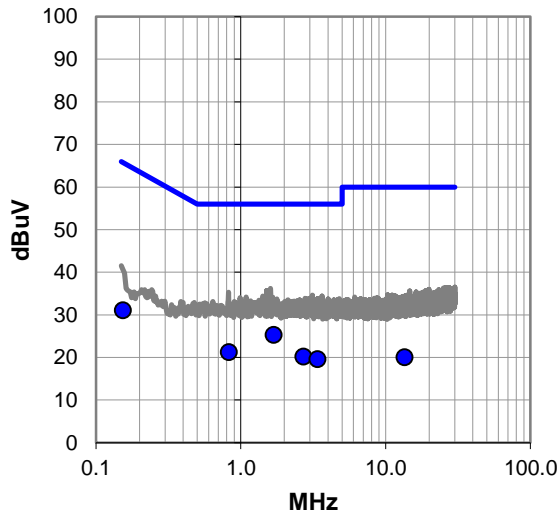
## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

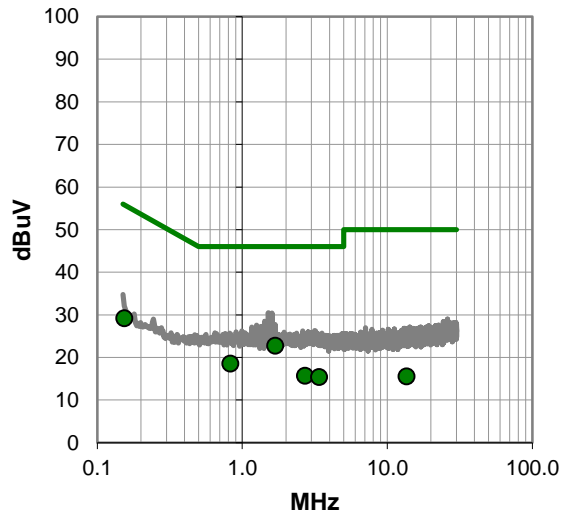
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #43

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.686	5.1	20.2	25.3	56.0	-30.7
0.153	10.5	20.6	31.1	65.8	-34.7
0.826	1.1	20.2	21.3	56.0	-34.7
2.705	0.0	20.2	20.2	56.0	-35.8
3.387	-0.6	20.2	19.6	56.0	-36.4
13.537	-0.8	20.9	20.1	60.0	-39.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.686	2.6	20.2	22.8	46.0	-23.2
0.153	8.6	20.6	29.2	55.8	-26.6
0.826	-1.6	20.2	18.6	46.0	-27.4
2.705	-4.5	20.2	15.7	46.0	-30.3
3.387	-4.8	20.2	15.4	46.0	-30.6
13.537	-5.3	20.9	15.6	50.0	-34.4

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-20
Customer:	Abbott Laboratories	Temperature:	21.4°C
Attendees:	Frank Sun	Relative Humidity:	55%
Customer Project:	None	Bar. Pressure (PMSL):	1013 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	44	Line:	High Line	Add. Ext. Attenuation (dB):	0
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## COMMENTS

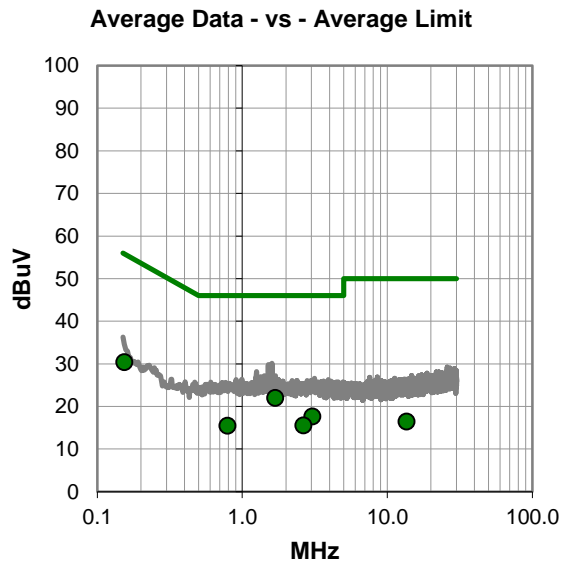
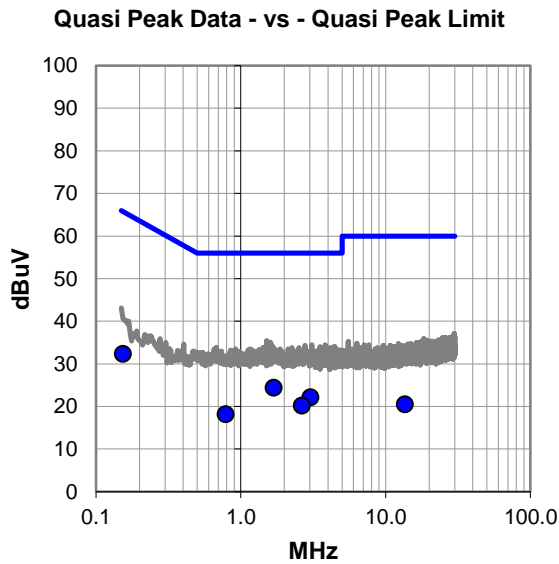
Transmitting 13.56 MHz. CrossSwitch Right Radio ON. Antenna terminated with load.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #44

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.687	4.2	20.2	24.4	56.0	-31.6
0.153	11.8	20.6	32.4	65.8	-33.4
3.035	2.0	20.2	22.2	56.0	-33.8
2.642	0.0	20.2	20.2	56.0	-35.8
0.788	-2.0	20.2	18.2	56.0	-37.8
13.561	-0.4	20.9	20.5	60.0	-39.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.687	1.8	20.2	22.0	46.0	-24.0
0.153	9.8	20.6	30.4	55.8	-25.4
3.035	-2.5	20.2	17.7	46.0	-28.3
2.642	-4.6	20.2	15.6	46.0	-30.4
0.788	-4.7	20.2	15.5	46.0	-30.5
13.561	-4.4	20.9	16.5	50.0	-33.5

## CONCLUSION

Pass

Tested By

# POWERLINE CONDUCTED EMISSIONS



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-20
Customer:	Abbott Laboratories	Temperature:	21.4°C
Attendees:	Frank Sun	Relative Humidity:	55%
Customer Project:	None	Bar. Pressure (PMSL):	1013 mb
Tested By:	Jarrod Brenden	Job Site:	TX01
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	45	Line:	Neutral	Add. Ext. Attenuation (dB):	0
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## COMMENTS

Transmitting 13.56 MHz. CrossSwitch Right Radio ON. Antenna terminated with load.

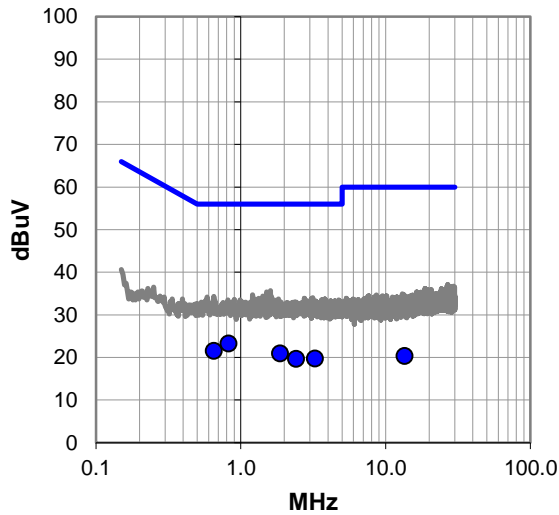
## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

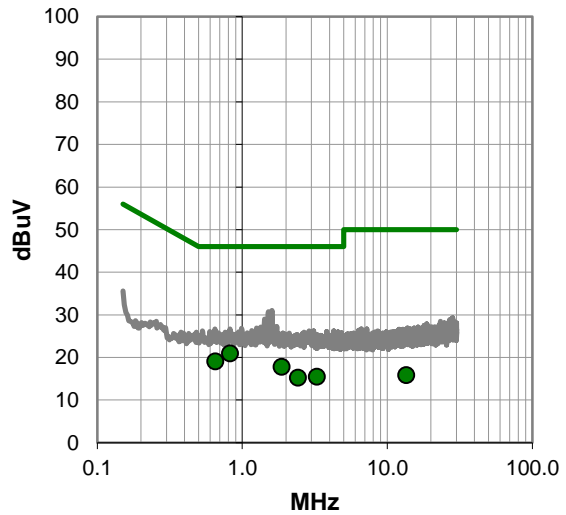
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# POWERLINE CONDUCTED EMISSIONS



## RESULTS - Run #45

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.822	3.1	20.2	23.3	56.0	-32.7
0.651	1.4	20.2	21.6	56.0	-34.4
1.864	0.8	20.2	21.0	56.0	-35.0
3.259	-0.4	20.2	19.8	56.0	-36.2
2.414	-0.5	20.2	19.7	56.0	-36.3
13.524	-0.5	20.9	20.4	60.0	-39.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.822	0.8	20.2	21.0	46.0	-25.0
0.651	-1.1	20.2	19.1	46.0	-26.9
1.864	-2.4	20.2	17.8	46.0	-28.2
3.259	-4.7	20.2	15.5	46.0	-30.5
2.414	-4.9	20.2	15.3	46.0	-30.7
13.524	-5.0	20.9	15.9	50.0	-34.1

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF FUNDAMENTAL



## TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was continuously transmitting while set to the channel specified.

The fundamental carrier of the EUT was maximized by rotating the EUT on a turntable and adjusting the measurement antenna polarization (per ANSI C63.10). A calibrated active loop antenna was used for this test in order to provide sufficient measurement sensitivity. The reference point of the loop antenna was maintained at 1m above the ground plane during the testing.

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

QP = Quasi-Peak Detector

As outlined in 15.209(e), 15.31(f)(2), and RSS-GEN, 6.5, measurements may be performed at a distance closer than what is specified with the limit. The limit at the specified distance is shown on the data sheet. Measurements are made at a closer distance and the data is adjusted using a distance correction factor of 40dB/decade for comparison to the limit.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2022-03-22	2023-03-22
Antenna - Loop	EMCO	6502	AZC	2021-08-23	2023-08-23
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	2022-06-10	2023-06-10

## MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	1.8 dB	-1.8 dB

## FREQUENCY RANGE INVESTIGATED

12.06 MHz TO 15.06 MHz

## POWER INVESTIGATED

220VAC/60Hz

## CONFIGURATIONS INVESTIGATED

ABBO0113-3

## MODES INVESTIGATED

Transmitting 13.56 MHz RFID



# FIELD STRENGTH OF FUNDAMENTAL



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-06
Customer:	Abbott Laboratories	Temperature:	20.9°C
Attendees:	Frank Sun	Relative Humidity:	52%
Customer Project:	None	Bar. Pressure (PMSL):	1019 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	23	Test Distance (m):	10	Ant. Height(s) (m):	1(m)
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## COMMENTS

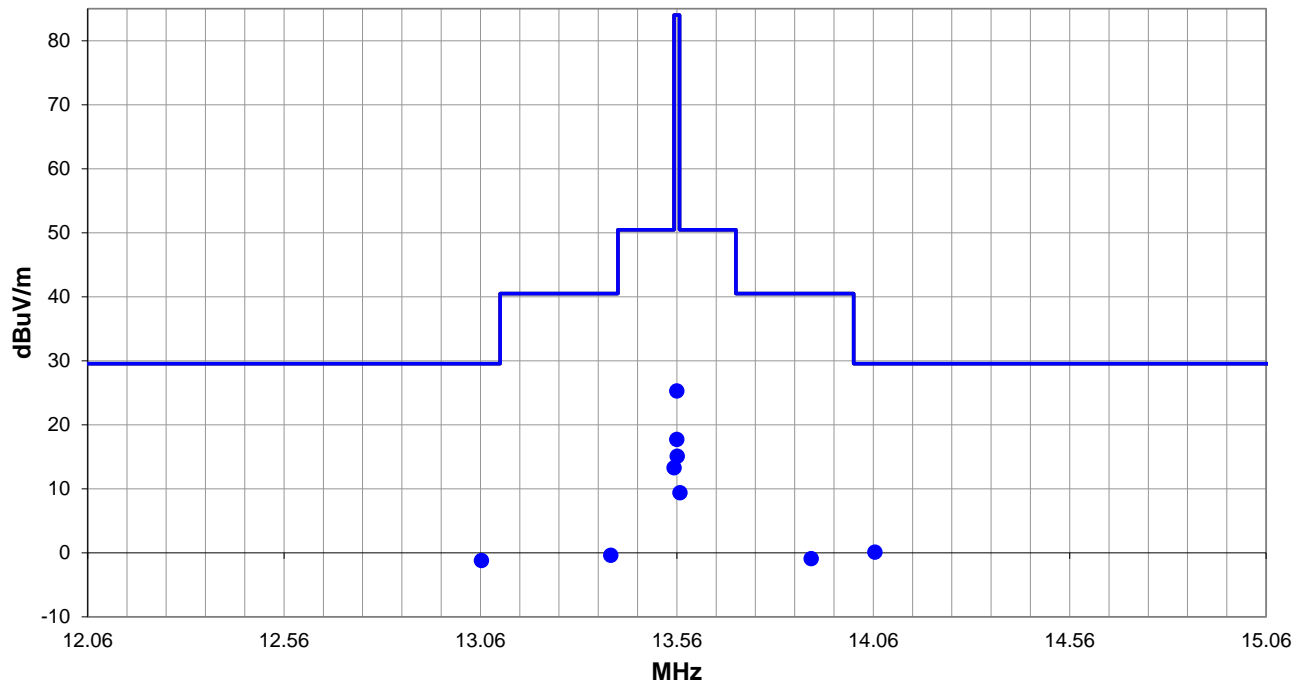
ALL Radios On

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 23

■ PK    ◆ AV    ● QP

# FIELD STRENGTH OF FUNDAMENTAL



## RESULTS - Run #23

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
14.064	7.7	11.5	1.0	129.0	10.0	0.0	Perp to EUT	QP	-19.1	0.1	29.5	-29.4	All Radios On
13.063	6.4	11.5	1.0	196.0	10.0	0.0	Perp to EUT	QP	-19.1	-1.2	29.5	-30.7	All Radios On
13.553	20.9	11.5	1.0	173.0	10.0	0.0	Perp to EUT	QP	-19.1	13.3	50.5	-37.2	All Radios On
13.392	7.2	11.5	1.0	21.0	10.0	0.0	Perp to EUT	QP	-19.1	-0.4	40.5	-40.9	All Radios On
13.568	17.0	11.5	1.0	188.0	10.0	0.0	Perp to EUT	QP	-19.1	9.4	50.5	-41.1	All Radios On
13.902	6.7	11.5	1.0	221.0	10.0	0.0	Perp to EUT	QP	-19.1	-0.9	40.5	-41.4	All Radios On
13.560	32.9	11.5	1.0	192.0	10.0	0.0	Perp to EUT	QP	-19.1	25.3	84.0	-58.7	All Radios On
13.560	25.3	11.5	1.0	208.0	10.0	0.0	Para to GND	QP	-19.1	17.7	84.0	-66.3	All Radios On
13.561	22.7	11.5	1.0	259.0	10.0	0.0	Para to EUT	QP	-19.1	15.1	84.0	-68.9	All Radios On

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF FUNDAMENTAL



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-08
Customer:	Abbott Laboratories	Temperature:	20.6°C
Attendees:	Frank Sun	Relative Humidity:	56.5%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	29	Test Distance (m):	3	Ant. Height(s) (m):	1(m)
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## COMMENTS

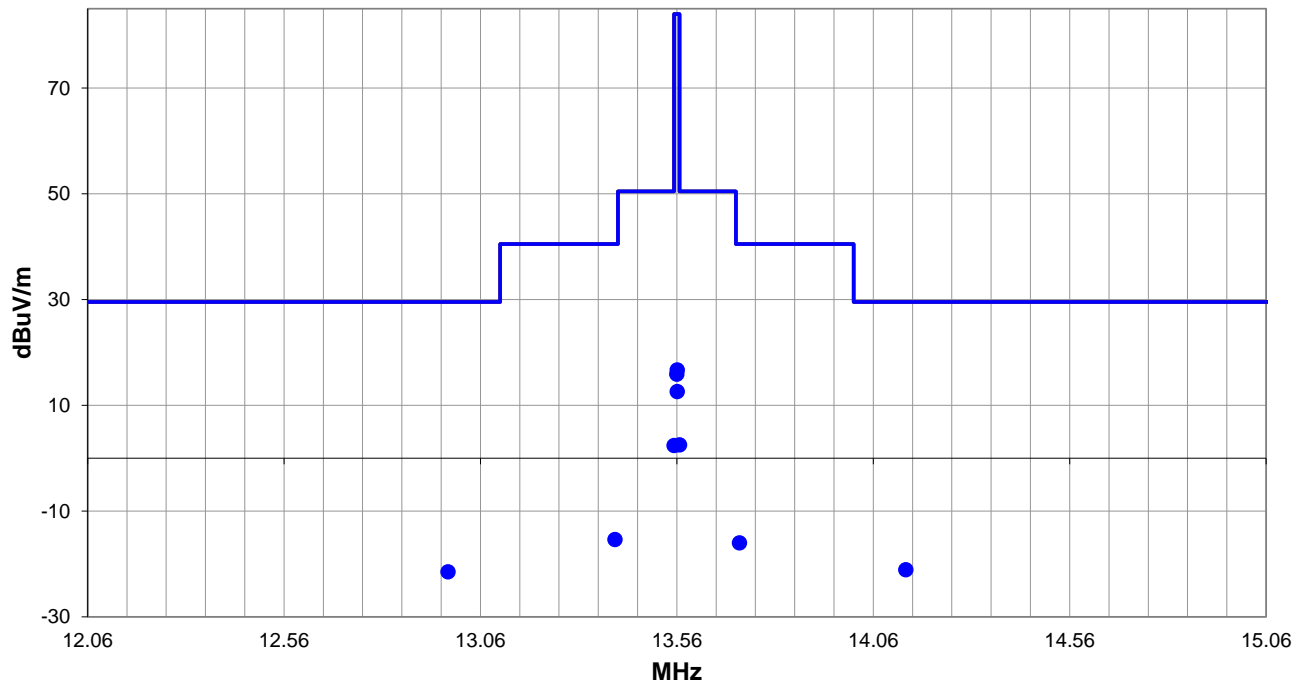
ALL Radios ON

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 29

PK AV QP

# FIELD STRENGTH OF FUNDAMENTAL



## RESULTS - Run #29

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)
13.567	31.0	11.5	1.0	262.0	3.0	0.0	Para to EUT	QP	-40.0	2.5	50.5	-48.0
13.553	30.9	11.5	1.0	258.0	3.0	0.0	Para to EUT	QP	-40.0	2.4	50.5	-48.1
14.143	7.4	11.5	1.0	239.0	3.0	0.0	Para to EUT	QP	-40.0	-21.1	29.5	-50.6
12.977	7.0	11.5	1.0	282.0	3.0	0.0	Para to EUT	QP	-40.0	-21.5	29.5	-51.0
13.402	13.1	11.5	1.0	245.0	3.0	0.0	Para to EUT	QP	-40.0	-15.4	40.5	-55.9
13.720	12.5	11.5	1.0	235.0	3.0	0.0	Para to EUT	QP	-40.0	-16.0	40.5	-56.5
13.561	45.2	11.5	1.0	239.0	3.0	0.0	Para to EUT	QP	-40.0	16.7	84.0	-67.3
13.560	44.4	11.5	1.0	198.0	3.0	0.0	Perp to EUT	QP	-40.0	15.9	84.0	-68.1
13.561	41.1	11.5	1.0	307.0	3.0	0.0	Para to GND	QP	-40.0	12.6	84.0	-71.4

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF FUNDAMENTAL



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-08
Customer:	Abbott Laboratories	Temperature:	20.6°C
Attendees:	Frank Sun	Relative Humidity:	56.5%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	30	Test Distance (m):	3	Ant. Height(s) (m):	1(m)
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## COMMENTS

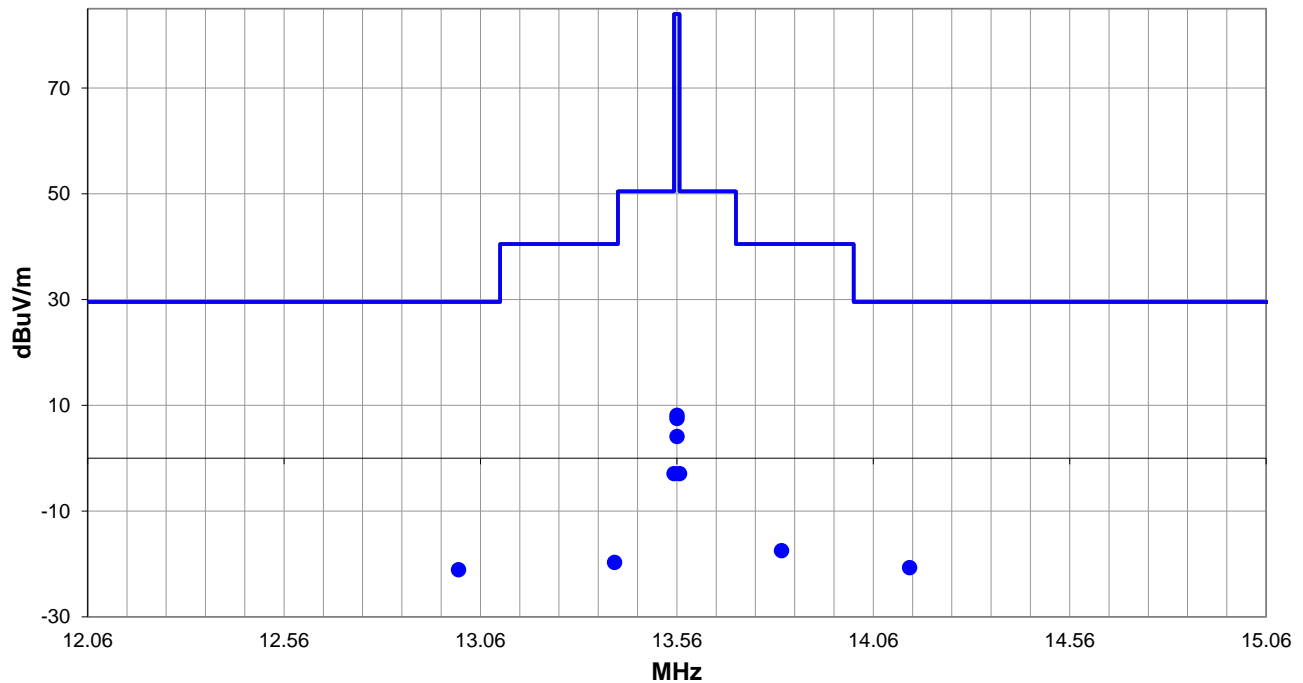
AccessPoint 1 Radio ON

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 30

PK AV QP

# FIELD STRENGTH OF FUNDAMENTAL



## RESULTS - Run #30

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)
14.152	7.8	11.5	1.0	144.0	3.0	0.0	Perp to EUT	QP	-40.0	-20.7	29.5	-50.2
13.004	7.4	11.5	1.0	254.0	3.0	0.0	Perp to EUT	QP	-40.0	-21.1	29.5	-50.6
13.553	25.6	11.5	1.0	163.0	3.0	0.0	Perp to EUT	QP	-40.0	-2.9	50.5	-53.4
13.567	25.6	11.5	1.0	160.0	3.0	0.0	Perp to EUT	QP	-40.0	-2.9	50.5	-53.4
13.827	11.0	11.5	1.0	163.0	3.0	0.0	Perp to EUT	QP	-40.0	-17.5	40.5	-58.0
13.401	8.8	11.5	1.0	221.0	3.0	0.0	Perp to EUT	QP	-40.0	-19.7	40.5	-60.2
13.560	36.6	11.5	1.0	171.0	3.0	0.0	Perp to EUT	QP	-40.0	8.1	84.0	-75.9
13.560	36.0	11.5	1.0	241.0	3.0	0.0	Para to EUT	QP	-40.0	7.5	84.0	-76.5
13.560	32.6	11.5	1.0	293.0	3.0	0.0	Para to GND	QP	-40.0	4.1	84.0	-79.9

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF FUNDAMENTAL



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-08
Customer:	Abbott Laboratories	Temperature:	20.6°C
Attendees:	Frank Sun	Relative Humidity:	56.5%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	31	Test Distance (m):	3	Ant. Height(s) (m):	1(m)
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## COMMENTS

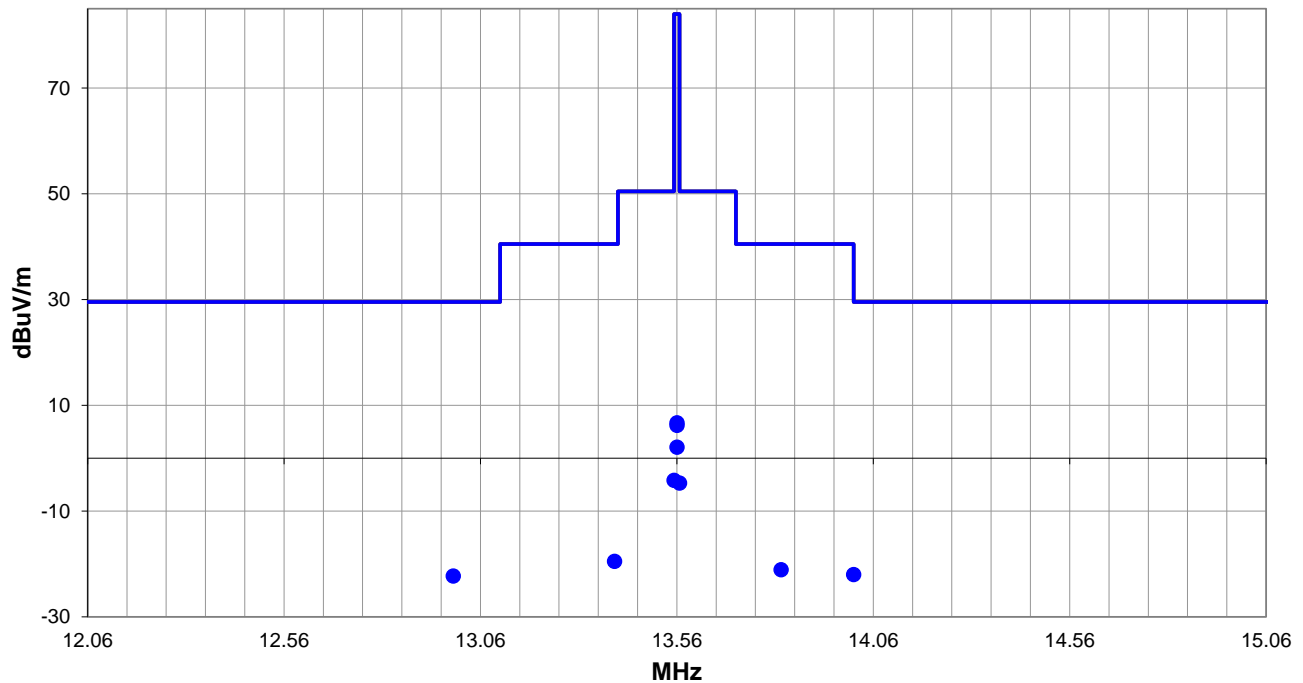
AccessPoint 2 Radio ON

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 31

■ PK    ◆ AV    ● QP

# FIELD STRENGTH OF FUNDAMENTAL



## RESULTS - Run #31

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)
14.010	6.5	11.5	1.0	139.0	3.0	0.0	Para to EUT	QP	-40.0	-22.0	29.5	-51.5
12.991	6.2	11.5	1.0	288.0	3.0	0.0	Para to EUT	QP	-40.0	-22.3	29.5	-51.8
13.553	24.3	11.5	1.0	247.0	3.0	0.0	Para to EUT	QP	-40.0	-4.2	50.5	-54.7
13.567	23.8	11.5	1.0	263.0	3.0	0.0	Para to EUT	QP	-40.0	-4.7	50.5	-55.2
13.401	9.0	11.5	1.0	220.0	3.0	0.0	Para to EUT	QP	-40.0	-19.5	40.5	-60.0
13.825	7.4	11.5	1.0	7.0	3.0	0.0	Para to EUT	QP	-40.0	-21.1	40.5	-61.6
13.560	35.2	11.5	1.0	243.0	3.0	0.0	Para to EUT	QP	-40.0	6.7	84.0	-77.3
13.560	34.7	11.5	1.0	170.0	3.0	0.0	Perp to EUT	QP	-40.0	6.2	84.0	-77.8
13.560	30.6	11.5	1.0	320.0	3.0	0.0	Para to GND	QP	-40.0	2.1	84.0	-81.9

## CONCLUSION

Pass

Tested By



# FIELD STRENGTH OF FUNDAMENTAL



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-08
Customer:	Abbott Laboratories	Temperature:	20.6°C
Attendees:	Frank Sun	Relative Humidity:	56.5%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	32	Test Distance (m):	3	Ant. Height(s) (m):	1(m)
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## COMMENTS

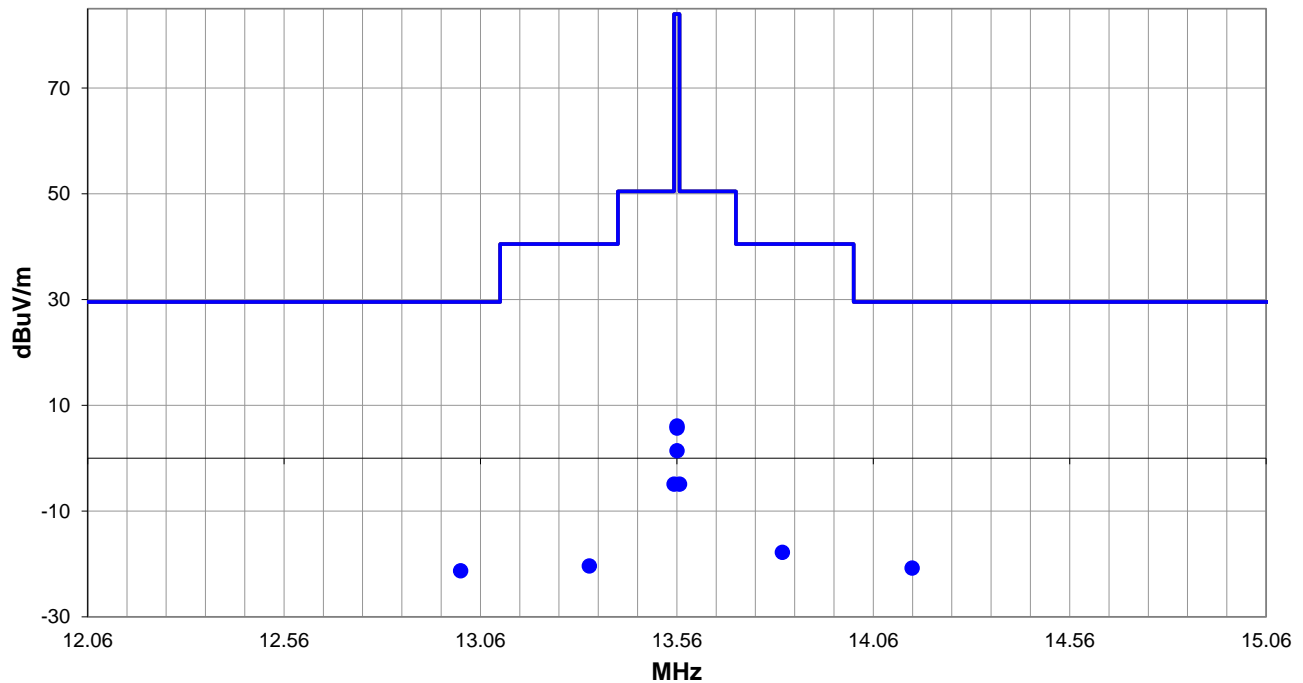
CrossSwitch Left Radio ON

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 32

■ PK    ◆ AV    ● QP

# FIELD STRENGTH OF FUNDAMENTAL



## RESULTS - Run #32

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)
14.159	7.7	11.5	1.0	0.0	3.0	0.0	Perp to EUT	QP	-40.0	-20.8	29.5	-50.3
13.009	7.2	11.5	1.0	45.0	3.0	0.0	Perp to EUT	QP	-40.0	-21.3	29.5	-50.8
13.553	23.6	11.5	1.0	168.0	3.0	0.0	Perp to EUT	QP	-40.0	-4.9	50.5	-55.4
13.567	23.6	11.5	1.0	162.0	3.0	0.0	Perp to EUT	QP	-40.0	-4.9	50.5	-55.4
13.829	10.7	11.5	1.0	172.0	3.0	0.0	Perp to EUT	QP	-40.0	-17.8	40.5	-58.3
13.337	8.1	11.5	1.0	322.0	3.0	0.0	Perp to EUT	QP	-40.0	-20.4	40.5	-60.9
13.560	34.6	11.5	1.0	164.0	3.0	0.0	Perp to EUT	QP	-40.0	6.1	84.0	-77.9
13.560	34.2	11.5	1.0	252.0	3.0	0.0	Para to EUT	QP	-40.0	5.7	84.0	-78.3
13.560	29.9	11.5	1.0	274.0	3.0	0.0	Para to GND	QP	-40.0	1.4	84.0	-82.6

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF FUNDAMENTAL



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-08
Customer:	Abbott Laboratories	Temperature:	20.6°C
Attendees:	Frank Sun	Relative Humidity:	56.5%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	33	Test Distance (m):	3	Ant. Height(s) (m):	1(m)
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## COMMENTS

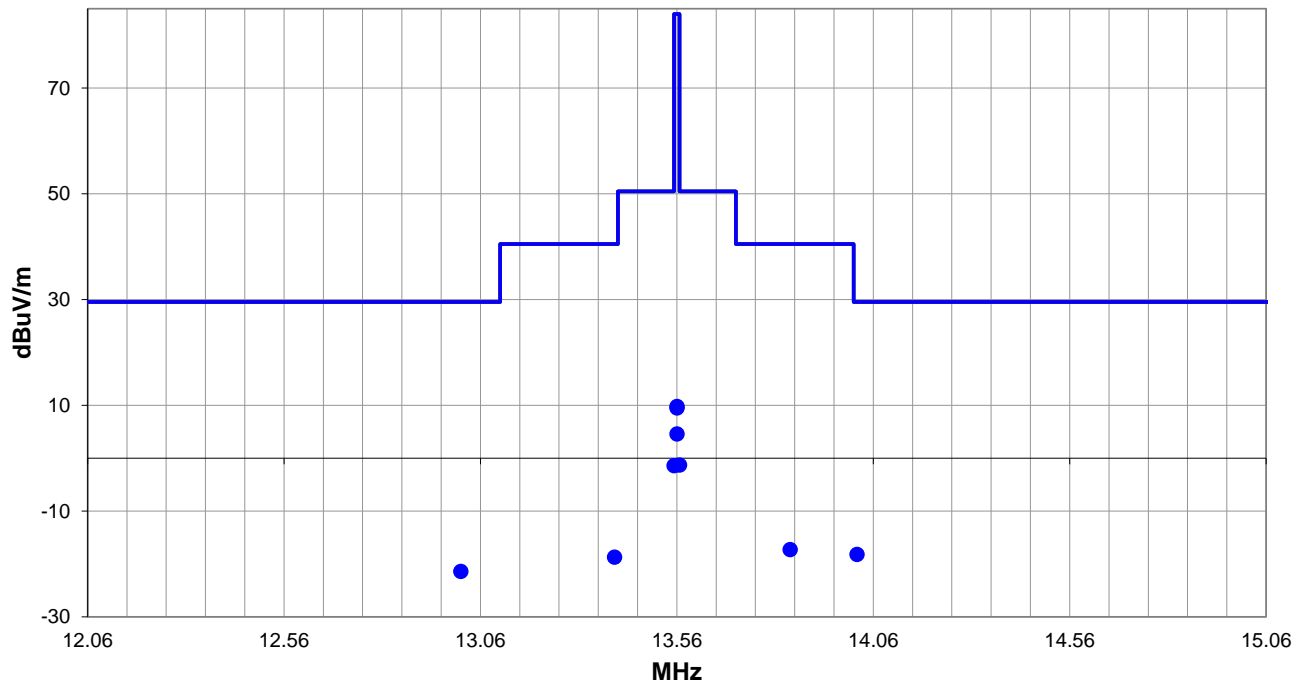
CrossSwitch Right Radio ON

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 33

PK AV QP

# FIELD STRENGTH OF FUNDAMENTAL



## RESULTS - Run #33

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)
14.019	10.3	11.5	1.0	253.0	3.0	0.0	Perp to EUT	QP	-40.0	-18.2	29.5	-47.7
13.010	7.1	11.5	1.0	100.0	3.0	0.0	Perp to EUT	QP	-40.0	-21.4	29.5	-50.9
13.567	27.2	11.5	1.0	159.0	3.0	0.0	Perp to EUT	QP	-40.0	-1.3	50.5	-51.8
13.553	27.1	11.5	1.0	173.0	3.0	0.0	Perp to EUT	QP	-40.0	-1.4	50.5	-51.9
13.849	11.2	11.5	1.0	147.0	3.0	0.0	Perp to EUT	QP	-40.0	-17.3	40.5	-57.8
13.401	9.8	11.5	1.0	113.0	3.0	0.0	Perp to EUT	QP	-40.0	-18.7	40.5	-59.2
13.560	38.3	11.5	1.0	169.0	3.0	0.0	Perp to EUT	QP	-40.0	9.8	84.0	-74.2
13.560	38.0	11.5	1.0	250.0	3.0	0.0	Para to EUT	QP	-40.0	9.5	84.0	-74.5
13.560	33.1	11.5	1.0	309.0	3.0	0.0	Para to GND	QP	-40.0	4.6	84.0	-79.4

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF SPURIOUS EMISSIONS (LESS THAN 30 MHz)



## TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was continuously transmitting while set to the channel specified.

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 and adjusting the measurement antenna polarization (per ANSI C63.10). An active loop antenna was 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

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

As outlined in 15.209(e), 15.31(f)(2), and RSS-GEN, 6.5, measurements may be performed at a distance closer than what is specified with the limit. The limit at the specified distance is shown on the data sheet. Measurements are made at a closer distance and the data is adjusted using a distance correction factor of 40dB/decade for comparison to the limit.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2022-03-22	2023-03-22
Antenna - Loop	EMCO	6502	AZC	2021-08-23	2023-08-23
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	2022-06-10	2023-06-10

## MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	1.8 dB	-1.8 dB

## FREQUENCY RANGE INVESTIGATED

9 kHz TO 30 MHz

## POWER INVESTIGATED

220VAC/60Hz

## CONFIGURATIONS INVESTIGATED

ABBO0113-3

## MODES INVESTIGATED

Transmitting 13.56 MHz RFID

# FIELD STRENGTH OF SPURIOUS EMISSIONS (LESS THAN 30 MHz)



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-08
Customer:	Abbott Laboratories	Temperature:	20.9°C
Attendees:	Frank Sun	Relative Humidity:	55.6%
Customer Project:	None	Bar. Pressure (PMSL):	1018 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	34	Test Distance (m):	3	Ant. Height(s) (m):	1(m)
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## COMMENTS

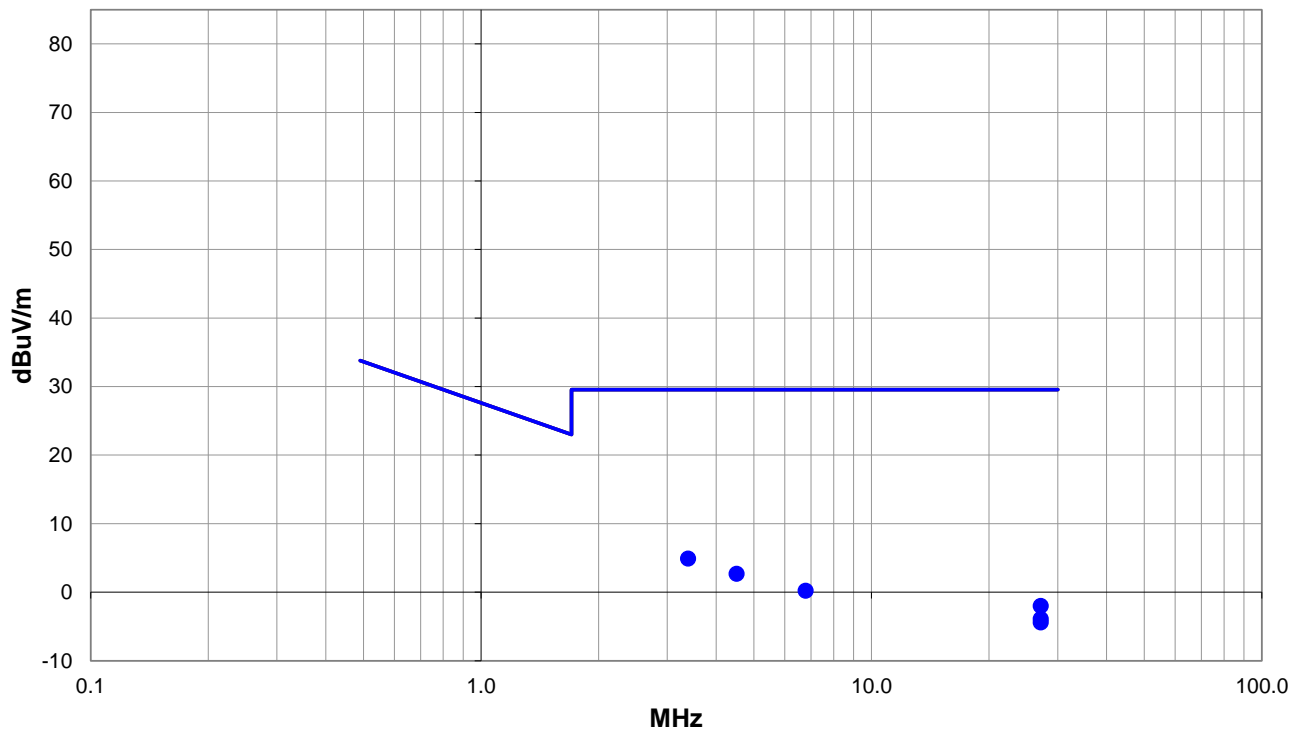
Transmitting 13.56 MHz. ALL Radios On

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 34

■ PK    ◆ AV    ● QP

# FIELD STRENGTH OF SPURIOUS EMISSIONS (LESS THAN 30 MHz)



## RESULTS - Run #34

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)
3.389	13.4	11.5	1.0	236.0	3.0	0.0	Perp to EUT	QP	-20.0	4.9	29.5	-24.6
4.516	11.2	11.5	1.0	170.0	3.0	0.0	Perp to EUT	QP	-20.0	2.7	29.5	-26.8
6.784	8.7	11.5	1.0	220.0	3.0	0.0	Perp to EUT	QP	-20.0	0.2	29.5	-29.3
27.120	8.1	9.9	1.0	354.0	3.0	0.0	Perp to EUT	QP	-20.0	-2.0	29.5	-31.5
27.121	6.2	9.9	1.0	47.0	3.0	0.0	Para to EUT	QP	-20.0	-3.9	29.5	-33.4
27.120	5.7	9.9	1.0	134.0	3.0	0.0	Para to GND	QP	-20.0	-4.4	29.5	-33.9

## CONCLUSION

Pass

Tested By

# FIELD STRENGTH OF SPURIOUS EMISSIONS (GREATER THAN 30 MHz)



## TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was transmitting while set at the operating channel.

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 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

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.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2022-03-22	2023-03-22
Antenna - Biconilog	Teseq	CBL 6141B	AYD	2022-03-01	2024-03-01
Filter - Low Pass	Micro-Tronics	LPM50004	HHV	2021-07-27	2022-07-27
Amplifier - Pre-Amplifier	Fairview Microwave	FMAM63001	PAS	2022-04-19	2023-04-19
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	2022-06-10	2023-06-10

## MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	4.6 dB	-4.6 dB

## FREQUENCY RANGE INVESTIGATED

30 MHz TO 1000 MHz

## POWER INVESTIGATED

220VAC/60Hz

## CONFIGURATIONS INVESTIGATED

ABBO0113-3

## MODES INVESTIGATED

Transmitting 13.56 MHz RFID



# FIELD STRENGTH OF SPURIOUS EMISSIONS (GREATER THAN 30 MHz)



EUT:	AAS Decapper	Work Order:	ABBO0113
Serial Number:	M09B000200	Date:	2022-07-13
Customer:	Abbott Laboratories	Temperature:	20.9°C
Attendees:	Frank Sun	Relative Humidity:	55.3%
Customer Project:	None	Bar. Pressure (PMSL):	1018 mb
Tested By:	Jarrod Brenden	Job Site:	TX02
Power:	220VAC/60Hz	Configuration:	ABBO0113-3

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.225:2022	ANSI C63.10:2013

## TEST PARAMETERS

Run #:	35	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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## COMMENTS

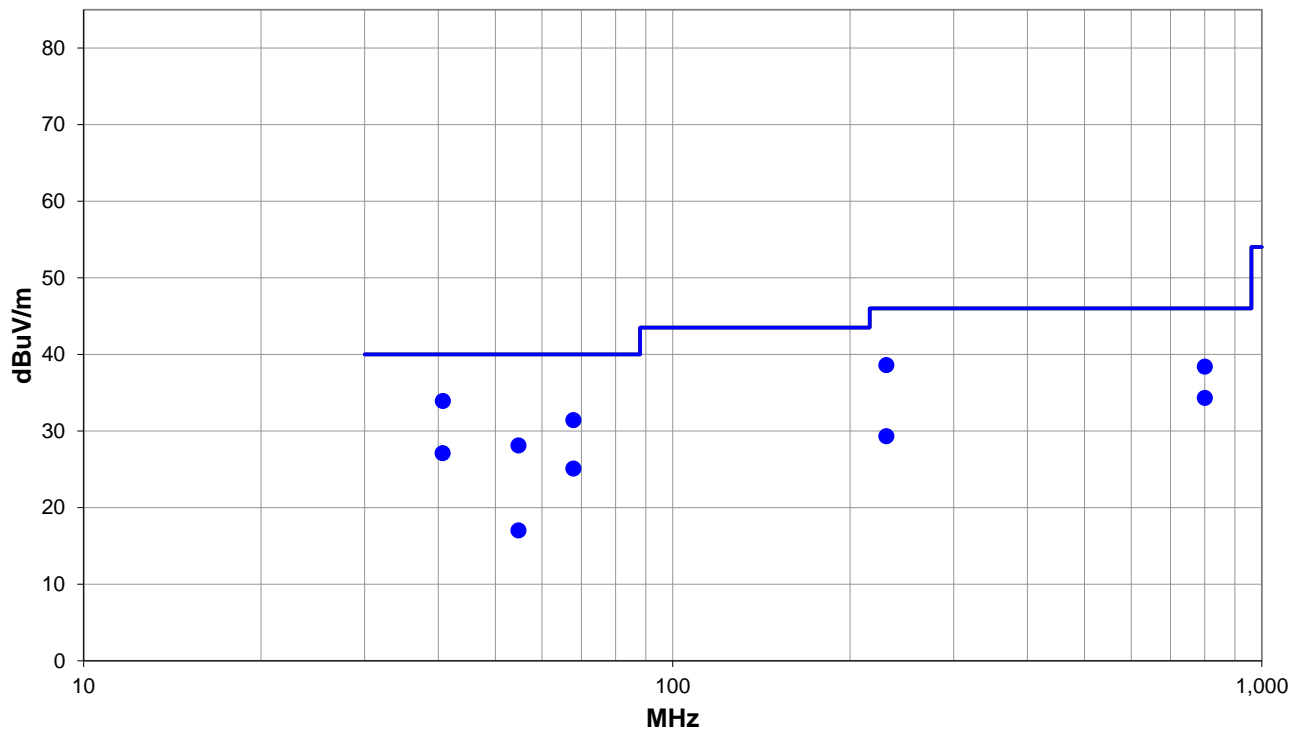
Transmitting 13.56 MHz. ALL Radios On.

## EUT OPERATING MODES

Transmitting 13.56 MHz RFID

## DEVIATIONS FROM TEST STANDARD

None



Run #: 35

■ PK    ◆ AV    ● QP

# FIELD STRENGTH OF SPURIOUS EMISSIONS (GREATER THAN 30 MHz)



## RESULTS - Run #35

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)
40.694	49.5	-15.6	1.0	336.0	3.0	0.0	Vert	QP	0.0	33.9	40.0	-6.1
230.524	58.3	-19.7	1.12	328.0	3.0	0.0	Horz	QP	0.0	38.6	46.0	-7.4
800.007	44.4	-6.0	1.76	283.0	3.0	0.0	Horz	QP	0.0	38.4	46.0	-7.6
67.805	56.7	-25.3	1.0	360.0	3.0	0.0	Vert	QP	0.0	31.4	40.0	-8.6
800.008	40.3	-6.0	1.0	318.0	3.0	0.0	Vert	QP	0.0	34.3	46.0	-11.7
54.712	49.7	-21.6	1.0	4.0	3.0	0.0	Vert	QP	0.0	28.1	40.0	-11.9
40.688	42.7	-15.6	2.42	293.0	3.0	0.0	Horz	QP	0.0	27.1	40.0	-12.9
67.804	50.4	-25.3	3.03	265.0	3.0	0.0	Horz	QP	0.0	25.1	40.0	-14.9
230.526	49.0	-19.7	1.0	283.0	3.0	0.0	Vert	QP	0.0	29.3	46.0	-16.7
54.722	38.6	-21.6	1.0	43.0	3.0	0.0	Horz	QP	0.0	17.0	40.0	-23.0

## CONCLUSION

Pass

Tested By



XMH 2022.02.07.0

# FREQUENCY STABILITY

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
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Block - DC	Fairview Microwave	SD3239	ANE	2022-03-02	2023-03-02
Attenuator	Fairview Microwave	SA4018-20	TYW	2022-03-01	2023-03-01
Cable	Micro-Coax	D150A-1-0720-200	TXG	2021-12-10	2022-12-10
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Power Source/Analyzer	Hewlett Packard	6841A	THC	NCR	NCR
Chamber - Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPH-8-2-SCT/AC	TBH	NCR	NCR
Thermometer	Omega Engineering, Inc.	HH311	DUI	2021-02-02	2024-02-02

## TEST DESCRIPTION

A near-field probe was placed near the transmitter. A low-loss coaxial cable was used to connect the near-field probe to the spectrum analyzer.

The spectrum analyzer is equipped with a precision frequency reference that exceeds the stability requirement of the EUT.

Measurements were made on the single transmit frequency as called out on the data sheets. Testing was done while the EUT was continuously polling.

The primary supply voltage was varied from 85 % to 115% of the nominal voltage while at ambient temperature. Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range of -20 ° to +50° C and at 10°C intervals.

The requirement of a frequency tolerance of ±0.01% is equivalent to 100 ppm  
The formula to check for compliance is:

$$\text{ppm} = (\text{Measured Frequency} / \text{Measured Nominal Frequency} - 1) * 1,000,000$$

# FREQUENCY STABILITY



TFT1 2022.06.03.0 XMI 2022.02.07.0

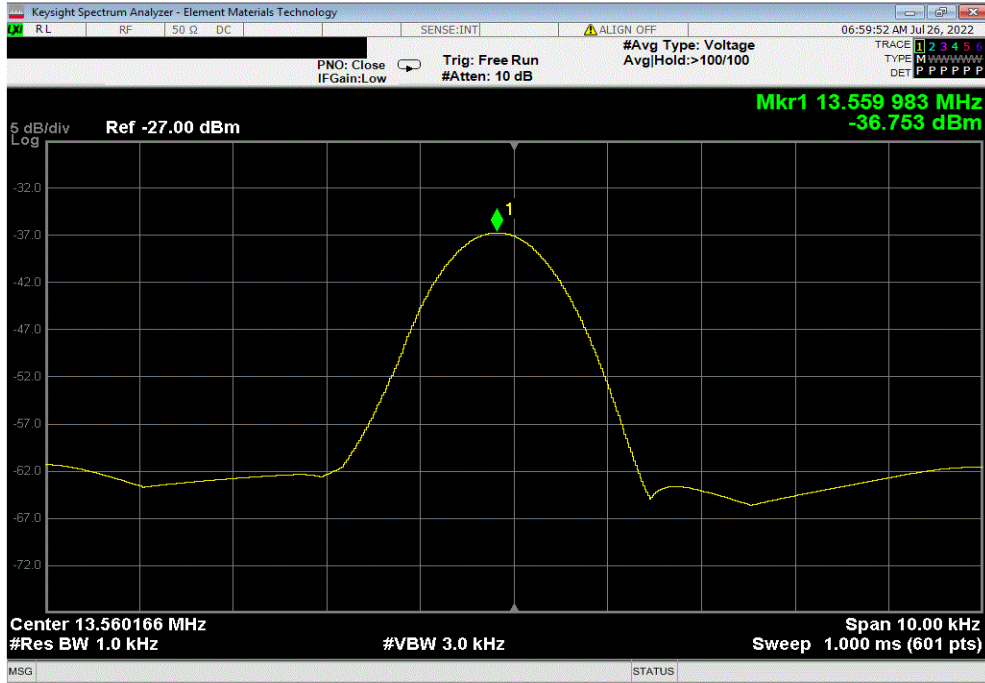
EUT: AAS Decapper		Work Order: ABB00113				
Serial Number: M09B000200		Date: 26-Jul-22				
Customer: Abbott Laboratories		Temperature: 20.8 °C				
Attendees: Frank Sun		Humidity: 52% RH				
Project: None		Barometric Pres.: 1019 mbar				
Tested by: Jarrod Brenden		Power: 220VAC/60Hz				
TEST SPECIFICATIONS		Job Site: TX07				
FCC 15.225:2022		Test Method: ANSI C63.10:2013				
COMMENTS						
Transmitting 13.56 MHz.						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	4	Signature				
		Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results
AccessPoint 1						
Voltage: 115%						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Voltage: 100%						
	13.56 MHz RFID	13.56005	13.56005	0.00	100	Pass
Voltage: 85%						
	13.56 MHz RFID	13.56002	13.56005	2.21	100	Pass
Temperature: +50°C						
	13.56 MHz RFID	13.55992	13.56005	9.59	100	Pass
Temperature: +40°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +30°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +20°C						
	13.56 MHz RFID	13.56005	13.56005	0.00	100	Pass
Temperature: +10°C						
	13.56 MHz RFID	13.56008	13.56005	2.21	100	Pass
Temperature: 0°C						
	13.56 MHz RFID	13.56013	13.56005	5.90	100	Pass
Temperature: -10°C						
	13.56 MHz RFID	13.56013	13.56005	5.90	100	Pass
Temperature: -20°C						
	13.56 MHz RFID	13.56013	13.56005	5.90	100	Pass
Temperature: -30°C						
	13.56 MHz RFID	13.56008	13.56005	2.21	100	Pass
AccessPoint 2						
Voltage: 115%						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Voltage: 100%						
	13.56 MHz RFID	13.56005	13.56005	0.00	100	Pass
Voltage: 85%						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +50°C						
	13.56 MHz RFID	13.55990	13.56005	11.06	100	Pass
Temperature: +40°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +30°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +20°C						
	13.56 MHz RFID	13.56005	13.56005	0.00	100	Pass
Temperature: +10°C						
	13.56 MHz RFID	13.56010	13.56005	3.69	100	Pass
Temperature: 0°C						
	13.56 MHz RFID	13.56013	13.56005	5.90	100	Pass
Temperature: -10°C						
	13.56 MHz RFID	13.56015	13.56005	7.37	100	Pass
Temperature: -20°C						
	13.56 MHz RFID	13.56010	13.56005	3.69	100	Pass
Temperature: -30°C						
	13.56 MHz RFID	13.56012	13.56005	5.16	100	Pass
CrossSwitch Left						
Voltage: 115%						
	13.56 MHz RFID	13.56003	13.56005	1.47	100	Pass
Voltage: 100%						
	13.56 MHz RFID	13.56008	13.56005	2.21	100	Pass
Voltage: 85%						
	13.56 MHz RFID	13.56003	13.56005	1.47	100	Pass
Temperature: +50°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +40°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +30°C						
	13.56 MHz RFID	13.56003	13.56005	1.47	100	Pass
Temperature: +20°C						
	13.56 MHz RFID	13.56008	13.56005	2.21	100	Pass
Temperature: +10°C						
	13.56 MHz RFID	13.56013	13.56005	5.90	100	Pass
Temperature: 0°C						
	13.56 MHz RFID	13.56015	13.56005	7.37	100	Pass
Temperature: -10°C						
	13.56 MHz RFID	13.56017	13.56005	8.85	100	Pass
Temperature: -20°C						
	13.56 MHz RFID	13.56015	13.56005	7.37	100	Pass
Temperature: -30°C						
	13.56 MHz RFID	13.56012	13.56005	5.16	100	Pass
CrossSwitch Right						
Voltage: 115%						
	13.56 MHz RFID	13.56003	13.56005	1.47	100	Pass
Voltage: 100%						
	13.56 MHz RFID	13.56005	13.56005	0.00	100	Pass
Voltage: 85%						
	13.56 MHz RFID	13.56002	13.56005	2.21	100	Pass
Temperature: +50°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +40°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +30°C						
	13.56 MHz RFID	13.56000	13.56005	3.69	100	Pass
Temperature: +20°C						
	13.56 MHz RFID	13.56002	13.56005	2.21	100	Pass
Temperature: +10°C						
	13.56 MHz RFID	13.56008	13.56005	2.21	100	Pass
Temperature: 0°C						
	13.56 MHz RFID	13.56012	13.56005	5.16	100	Pass
Temperature: -10°C						
	13.56 MHz RFID	13.56012	13.56005	5.16	100	Pass
Temperature: -20°C						
	13.56 MHz RFID	13.56008	13.56005	2.21	100	Pass
Temperature: -30°C						
	13.56 MHz RFID	13.56007	13.56005	1.47	100	Pass

# FREQUENCY STABILITY

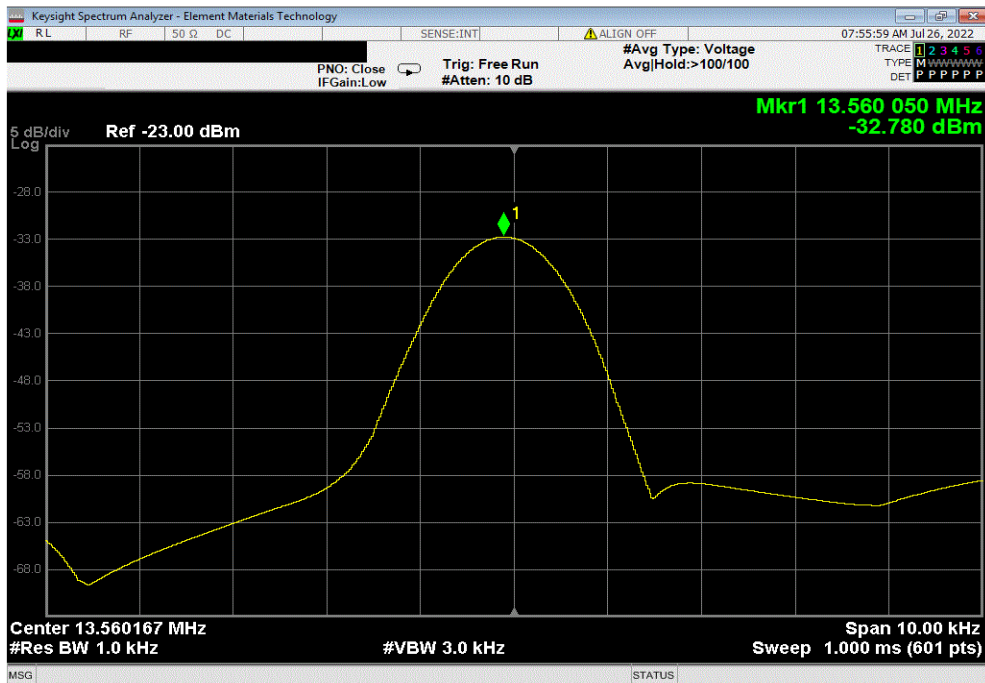


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 1, Voltage: 115%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56000	13.56005000	3.69	100	Pass		



AccessPoint 1, Voltage: 100%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56005	13.56005	0	100	Pass		

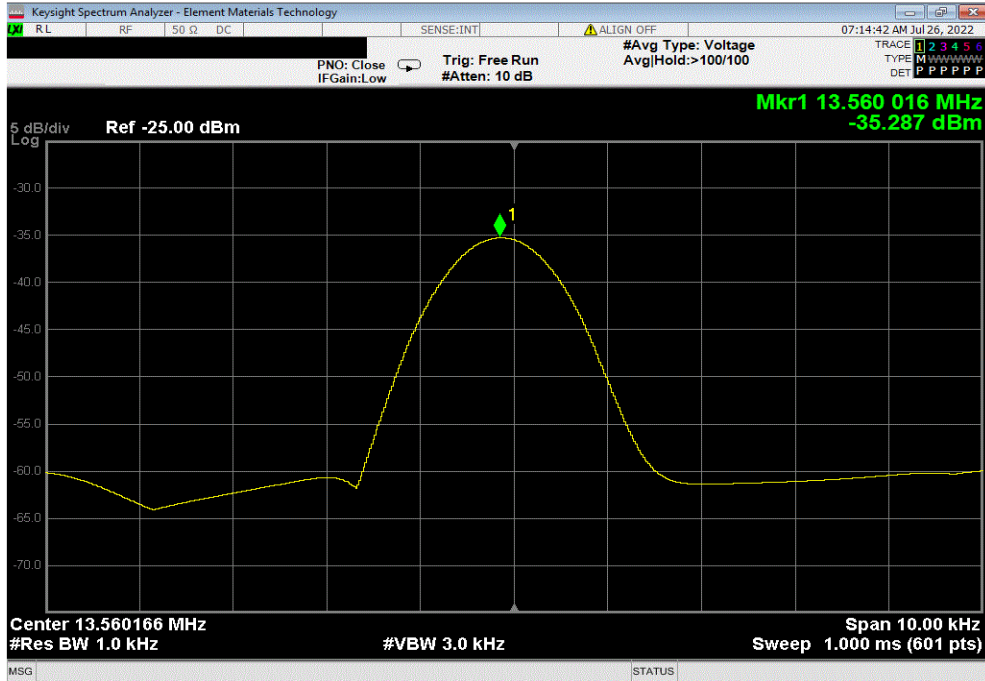


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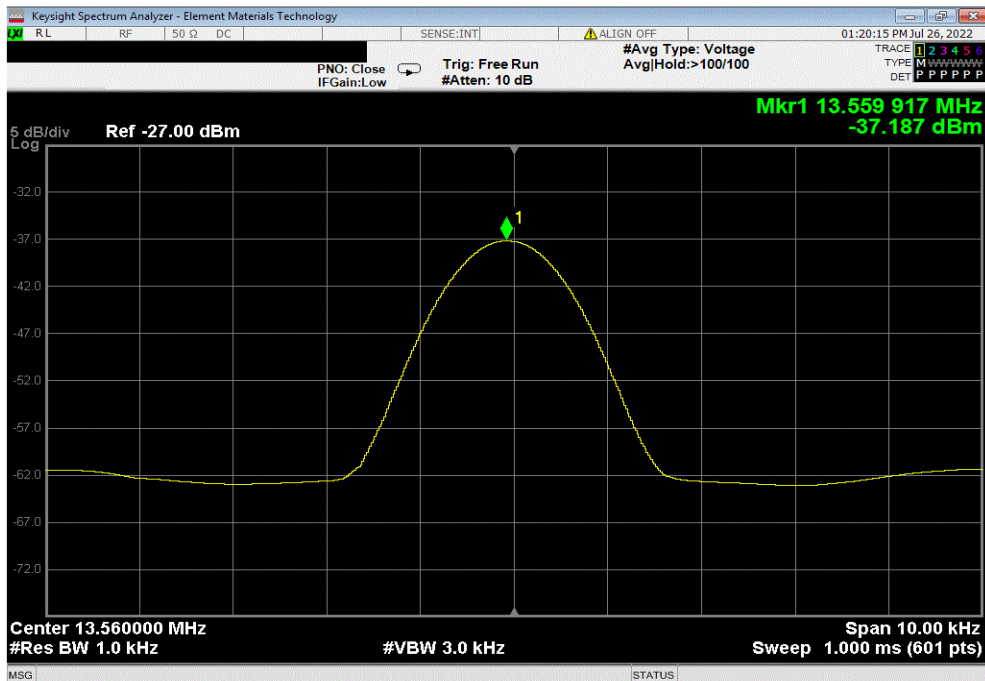


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 1, Voltage: 85%, 13.56 MHz RFID					
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
13.56002	13.56005000	2.21	100	Pass	



AccessPoint 1, Temperature: +50°C, 13.56 MHz RFID					
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
13.55992	13.56005000	9.59	100	Pass	

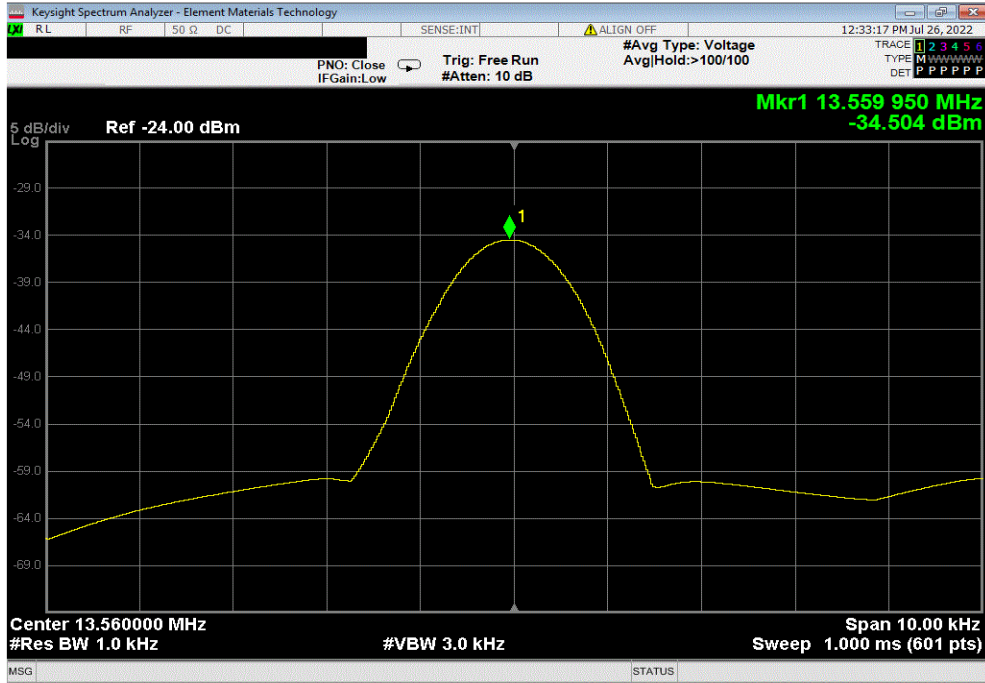


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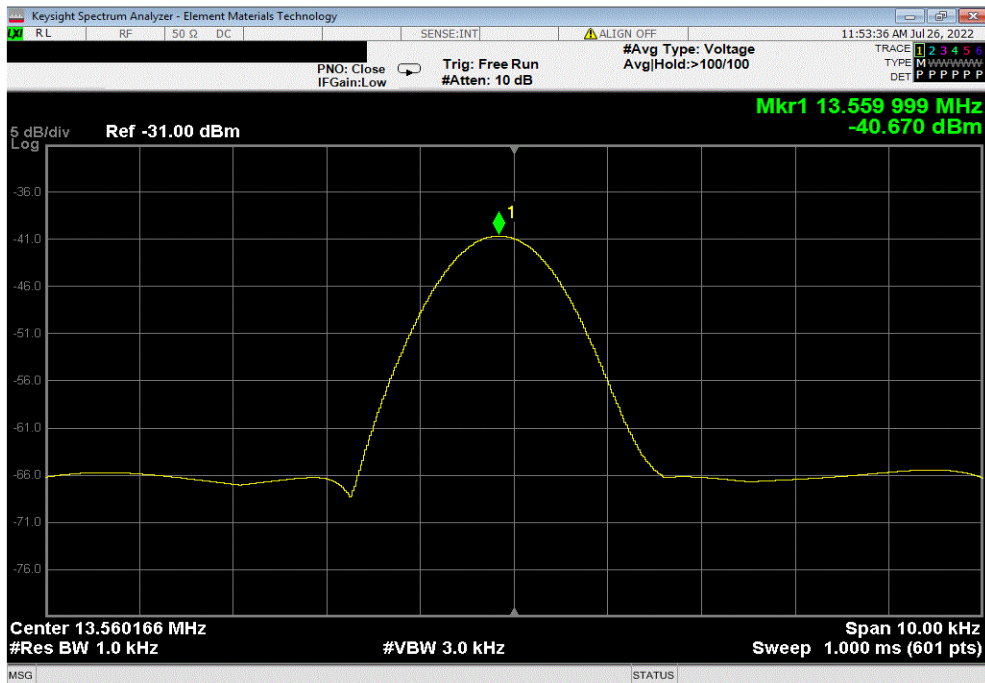


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 1, Temperature: +40°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005000	3.69	100	Pass	



AccessPoint 1, Temperature: +30°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005	3.69	100	Pass	

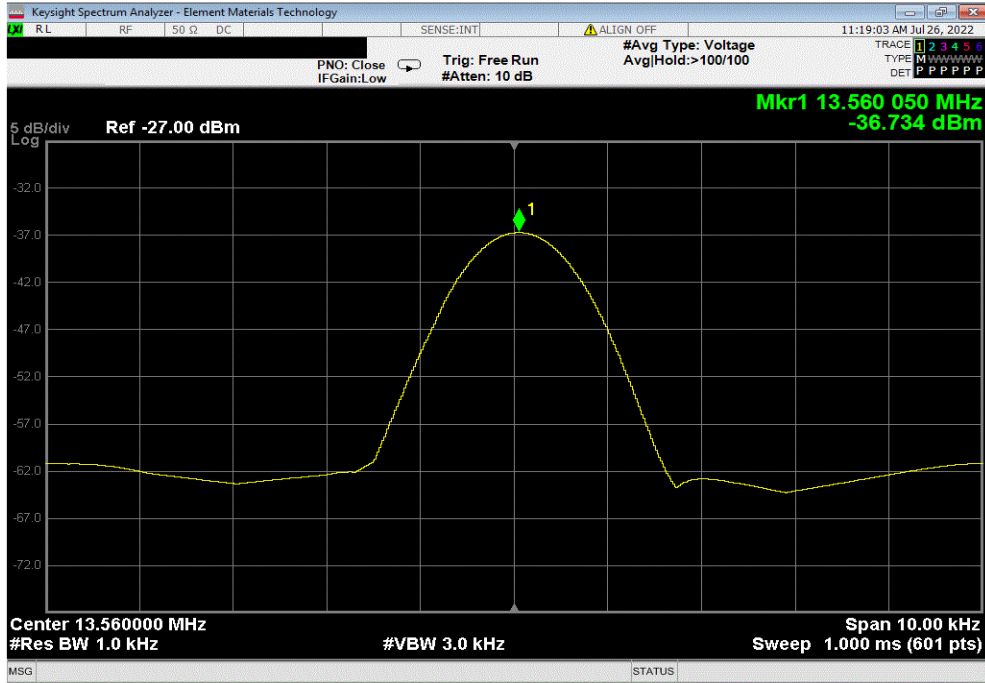


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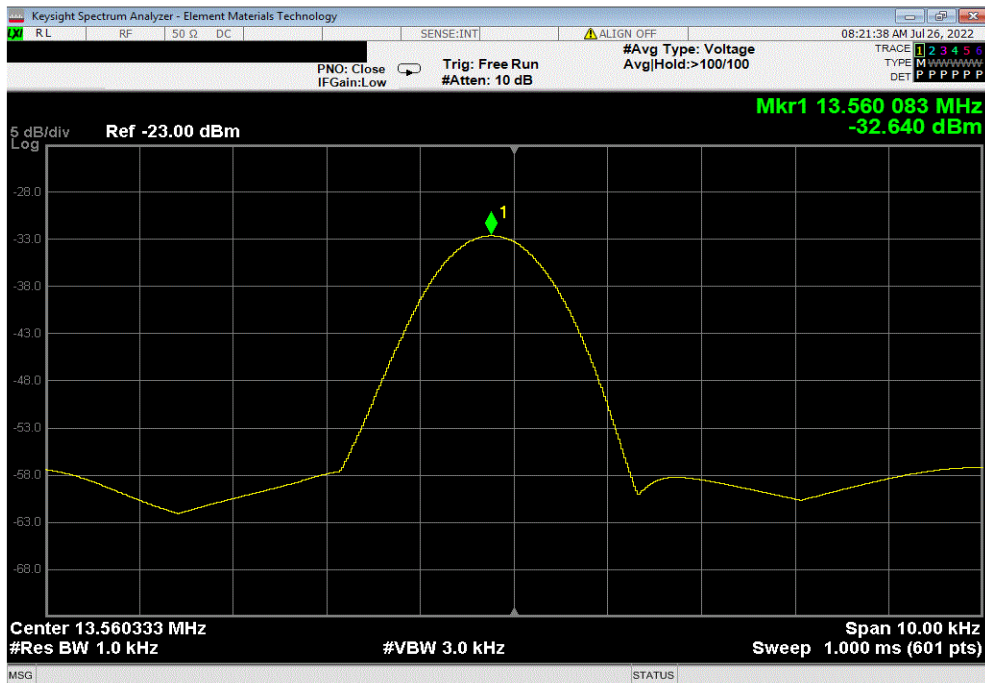


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 1, Temperature: +20°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56005	13.56005	0.00	100	Pass	



AccessPoint 1, Temperature: +10°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56008	13.56005	2.21	100	Pass	



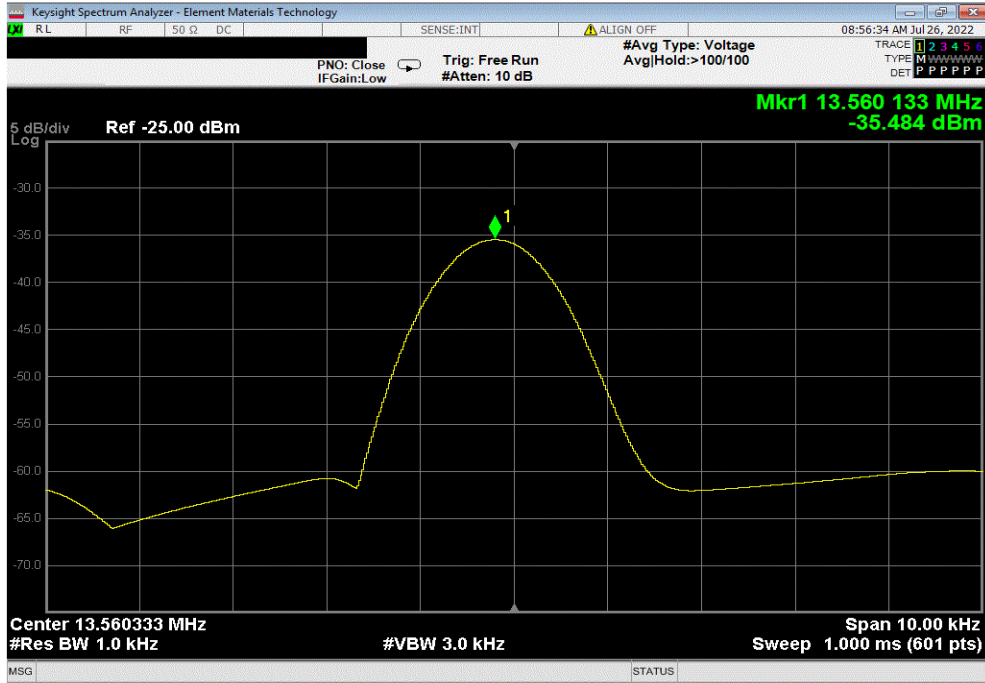


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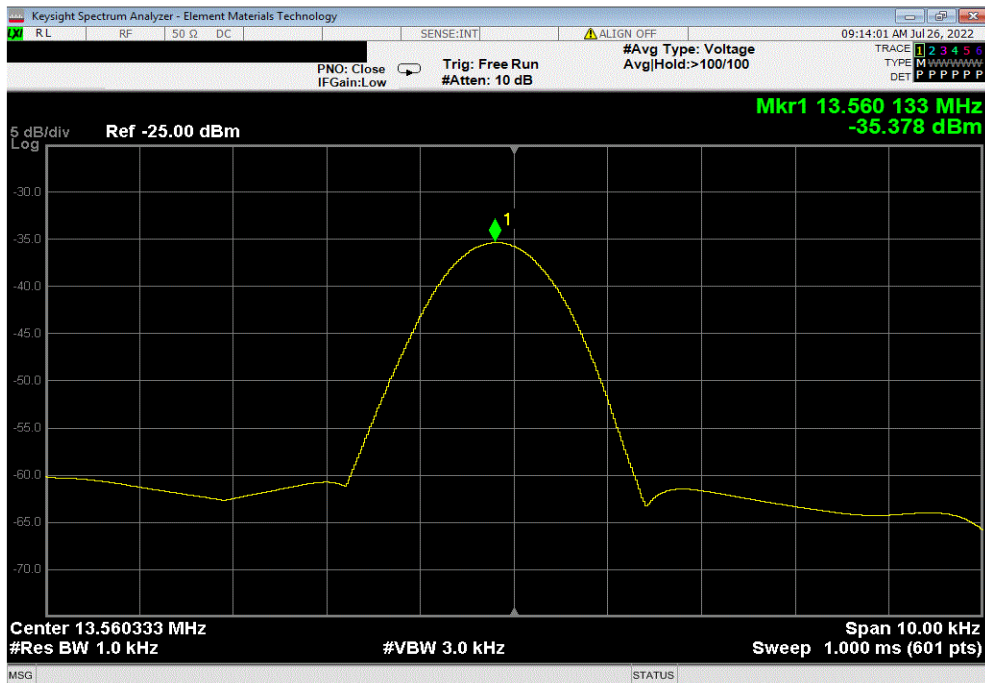


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 1, Temperature: 0°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56013	13.56005	5.90	100	Pass	



AccessPoint 1, Temperature: -10°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56013	13.56005	5.90	100	Pass	

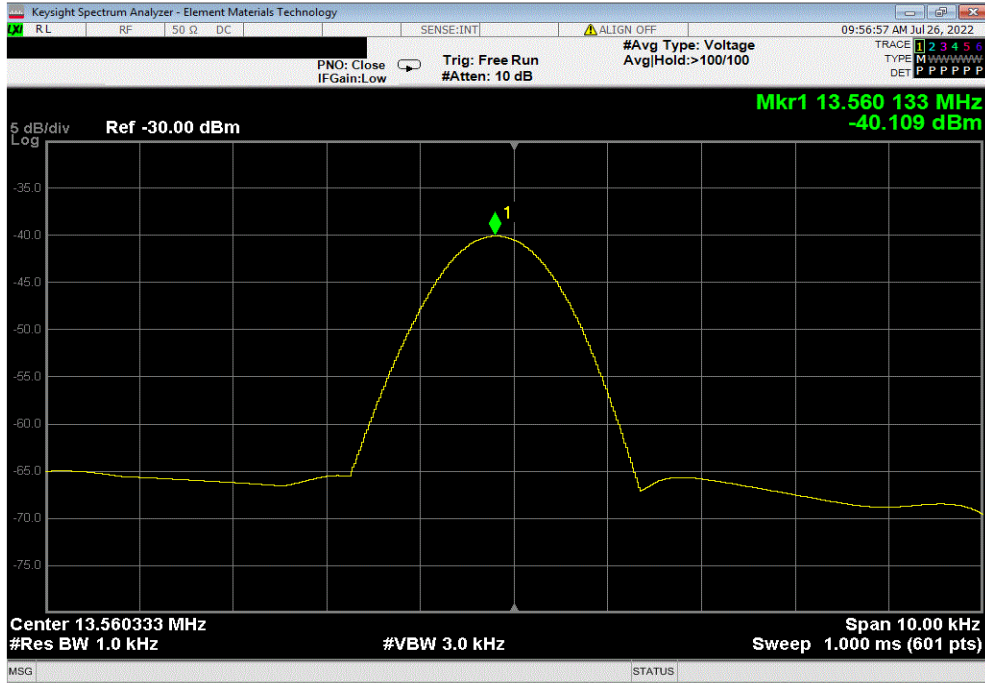


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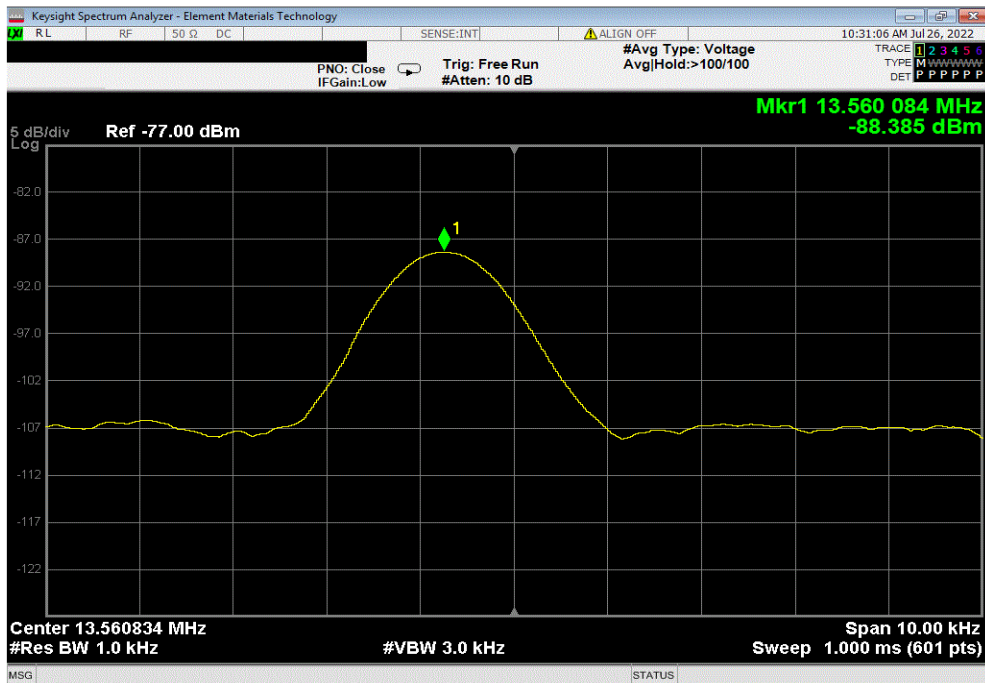


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 1, Temperature: -20°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56013	13.56005	5.90	100	Pass	



AccessPoint 1, Temperature: -30°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56008	13.56005	2.21	100	Pass	

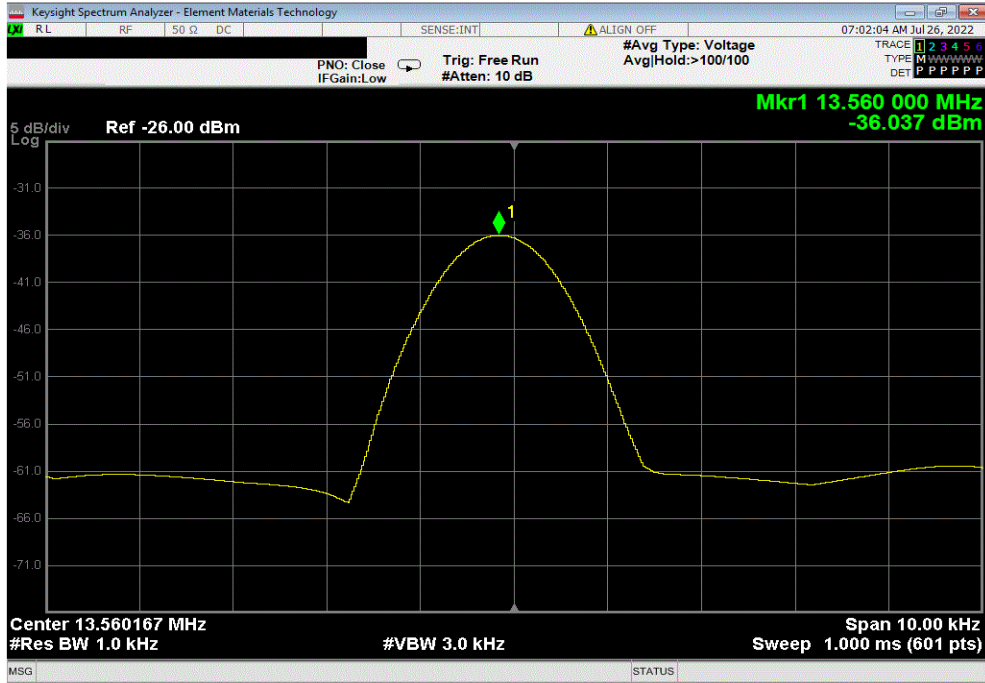


# FREQUENCY STABILITY

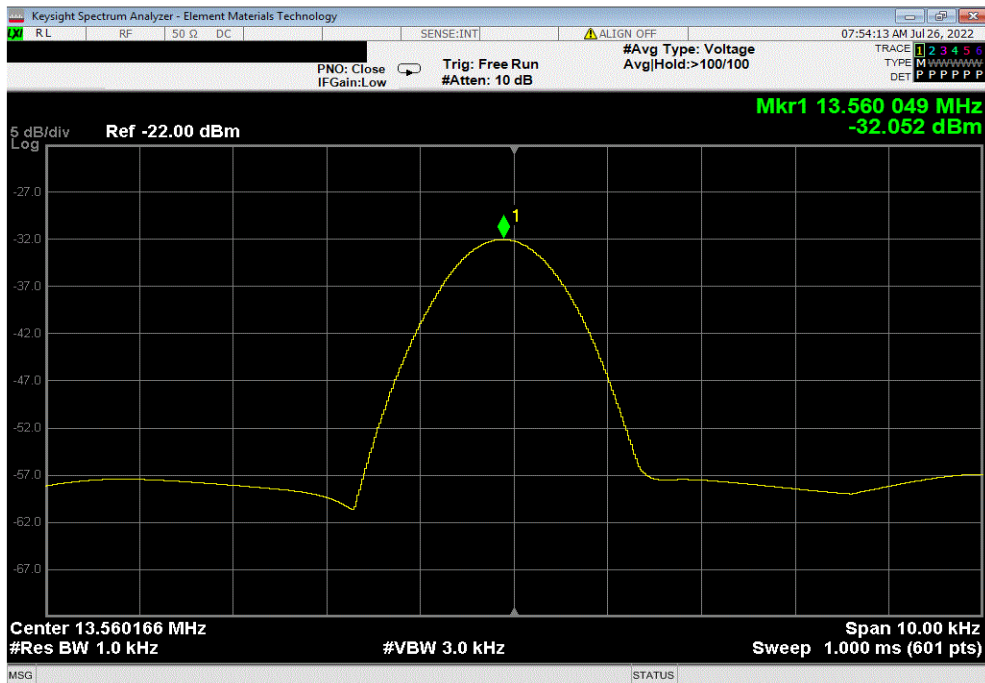


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 2, Voltage: 115%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56000	13.56005	3.69	100	Pass		



AccessPoint 2, Voltage: 100%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56005	13.56005	0	100	Pass		

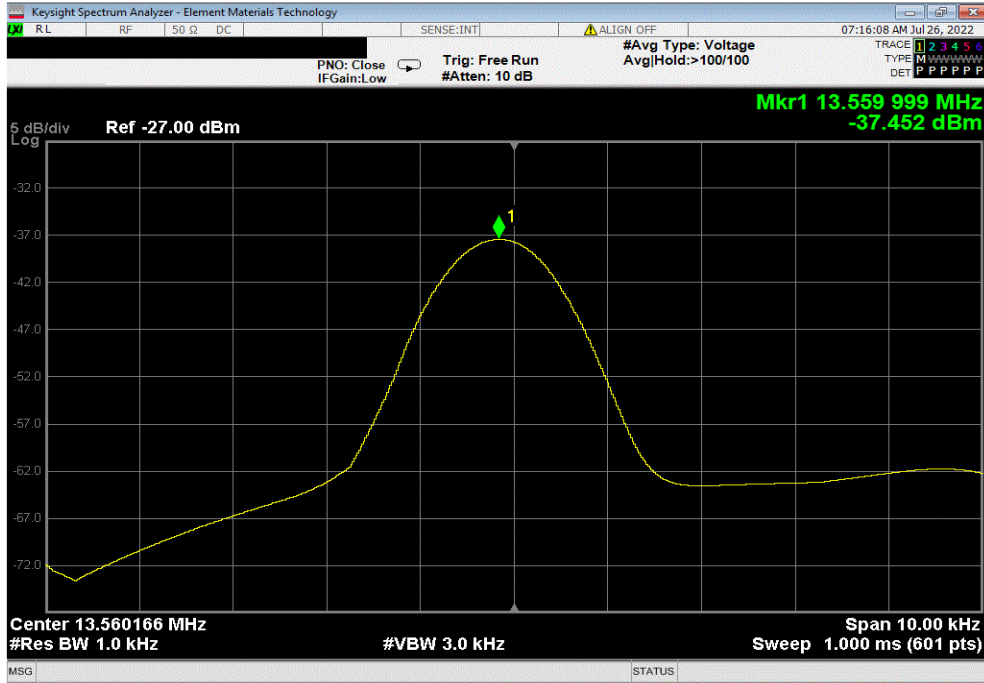


# FREQUENCY STABILITY

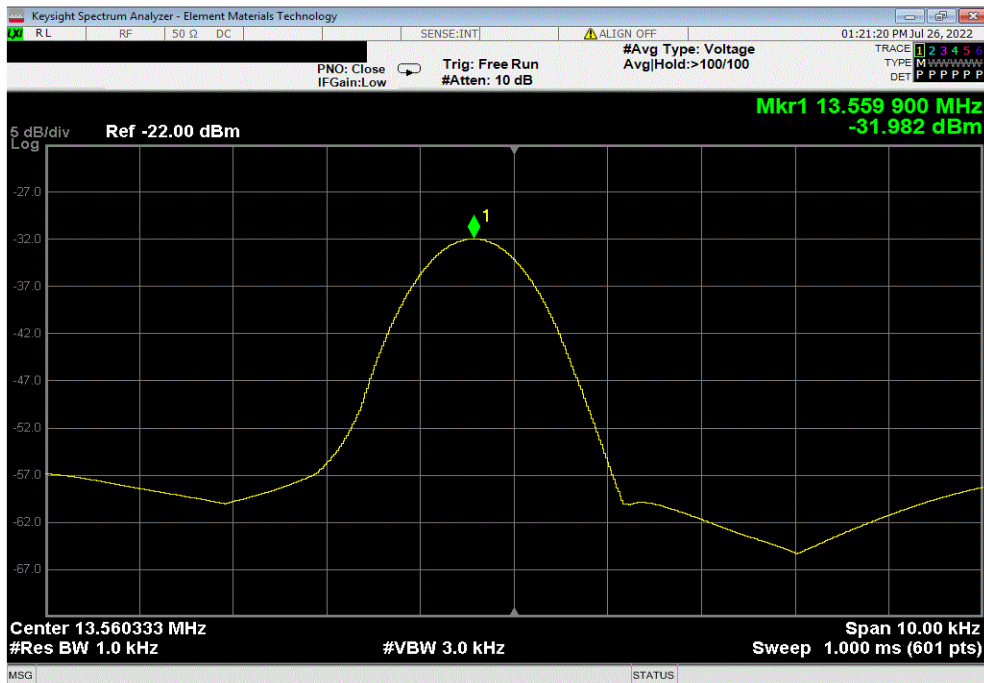


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 2, Voltage: 85%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56000	13.56005	3.69	100	Pass		



AccessPoint 2, Temperature: +50°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.55990	13.56005	11.06	100	Pass		

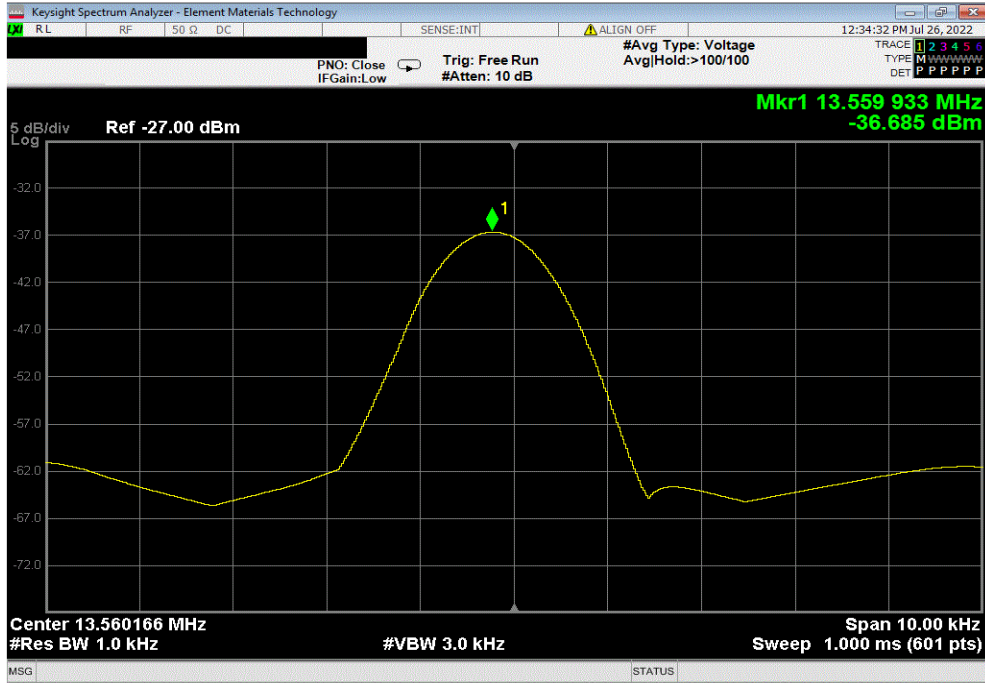


# FREQUENCY STABILITY

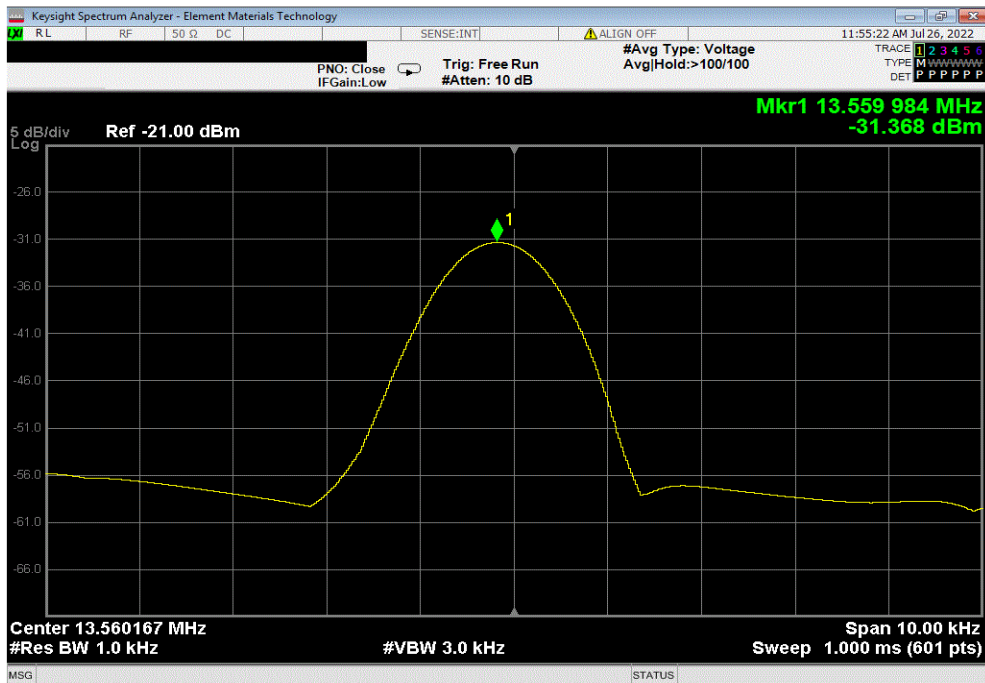


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 2, Temperature: +40°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005	3.69	100	Pass	



AccessPoint 2, Temperature: +30°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005	3.69	100	Pass	



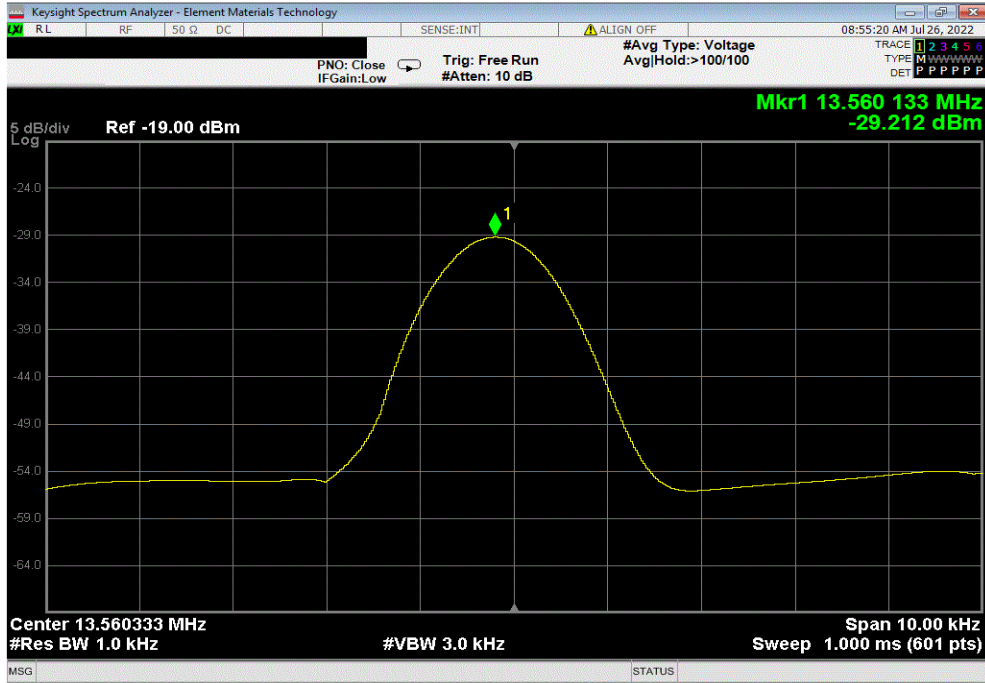


# FREQUENCY STABILITY

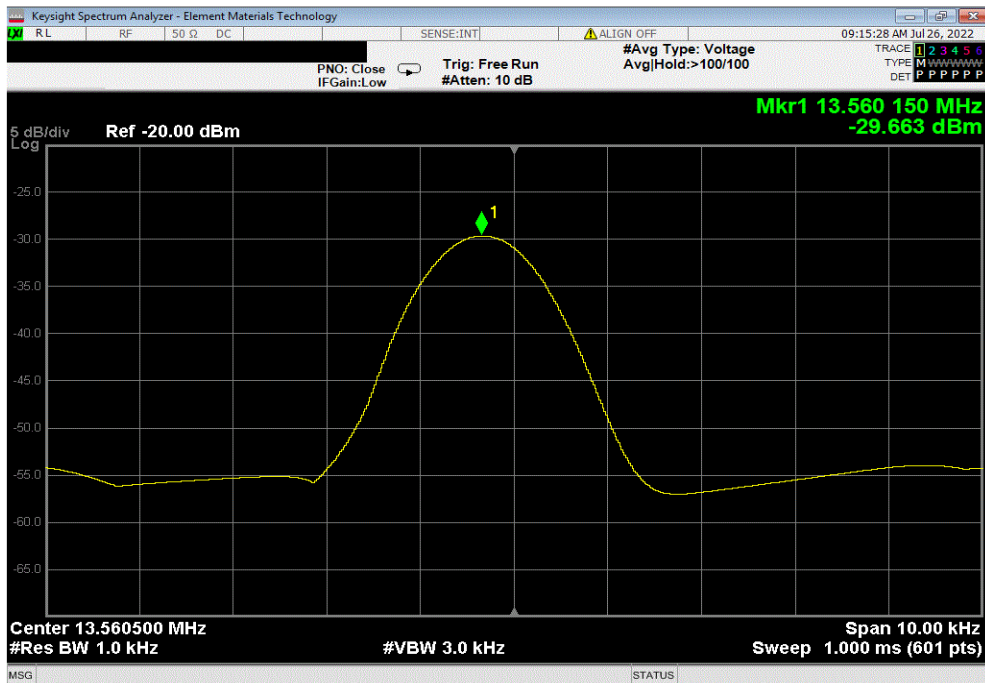


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 2, Temperature: 0°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56013	13.56005	5.90	100	Pass	



AccessPoint 2, Temperature: -10°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56015	13.56005	7.37	100	Pass	

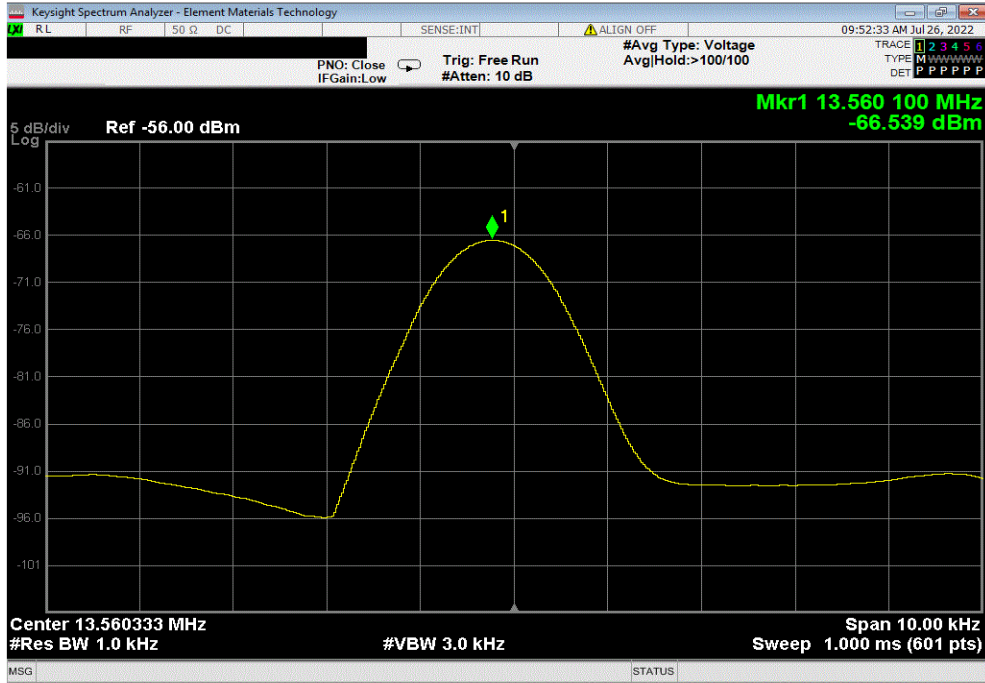


# FREQUENCY STABILITY

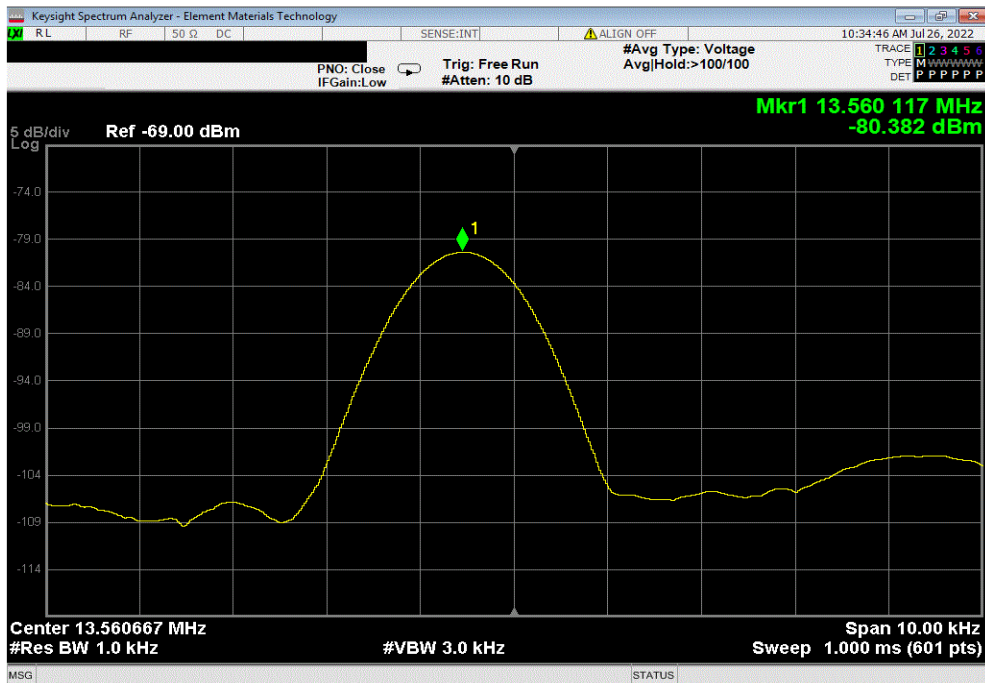


TbTx 2022.06.03.0 XMI 2022.02.07.0

AccessPoint 2, Temperature: -20°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56010	13.56005	3.69	100	Pass	



AccessPoint 2, Temperature: -30°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56012	13.56005	5.16	100	Pass	



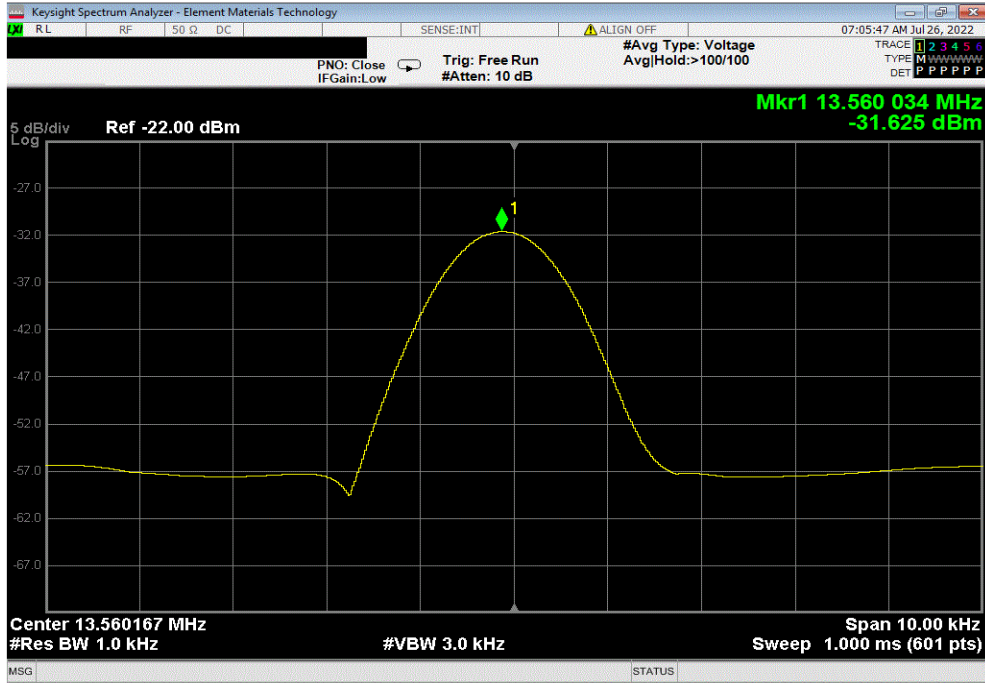


# FREQUENCY STABILITY

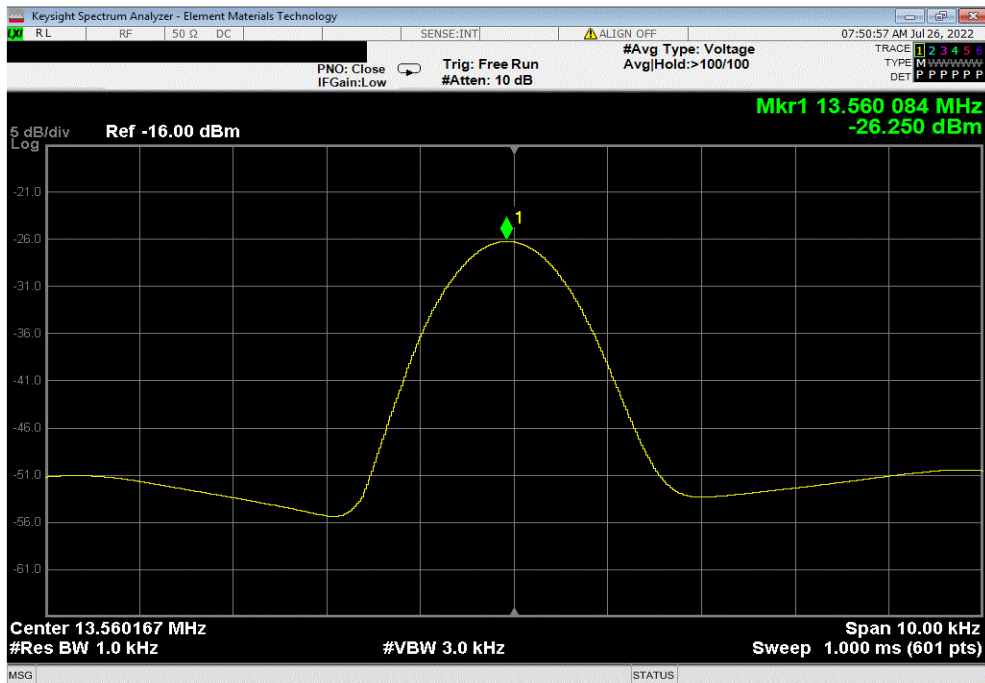


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Left, Voltage: 115%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56003	13.56005	1.47	100	Pass		



CrossSwitch Left, Voltage: 100%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56008	13.56005	2.21	100	Pass		

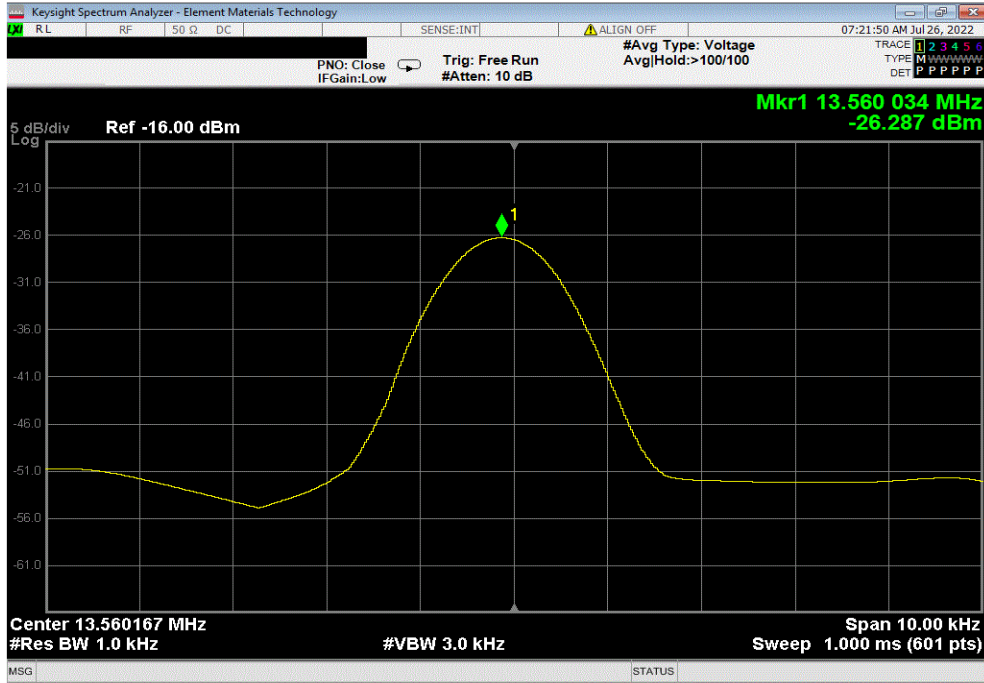


# FREQUENCY STABILITY

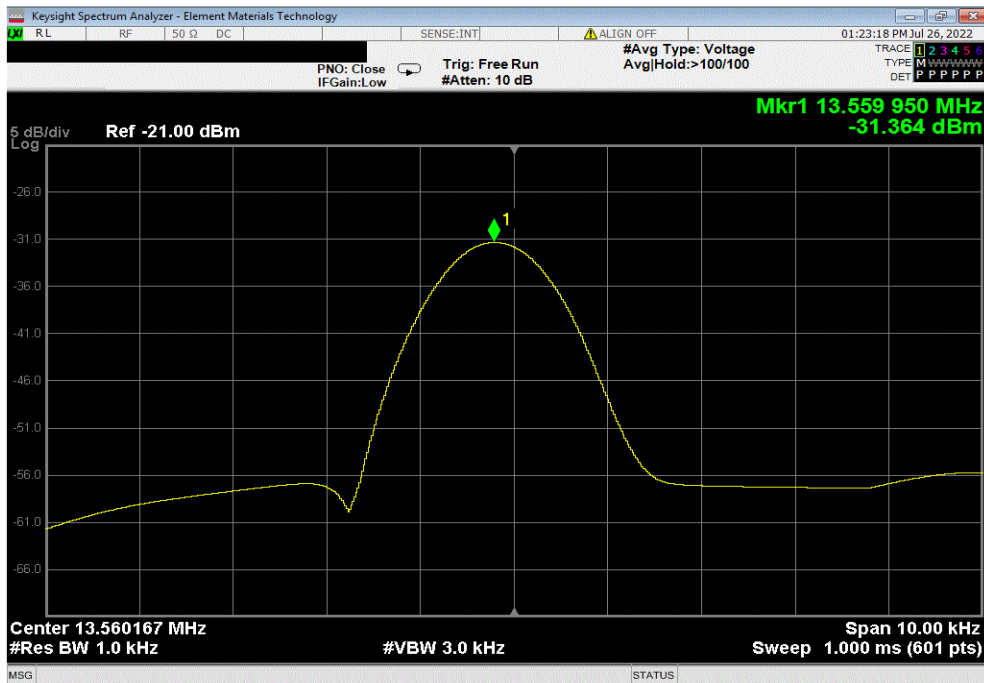


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Left, Voltage: 85%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56003	13.56005	1.47	100	Pass		



CrossSwitch Left, Temperature: +50°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56000	13.56005	3.69	100	Pass		

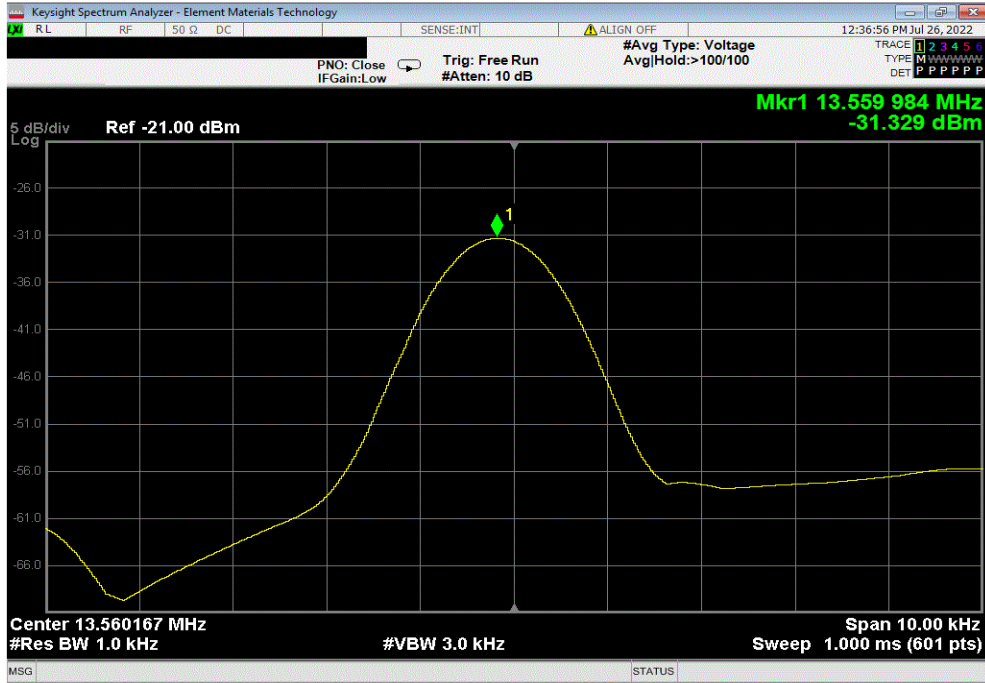


# FREQUENCY STABILITY

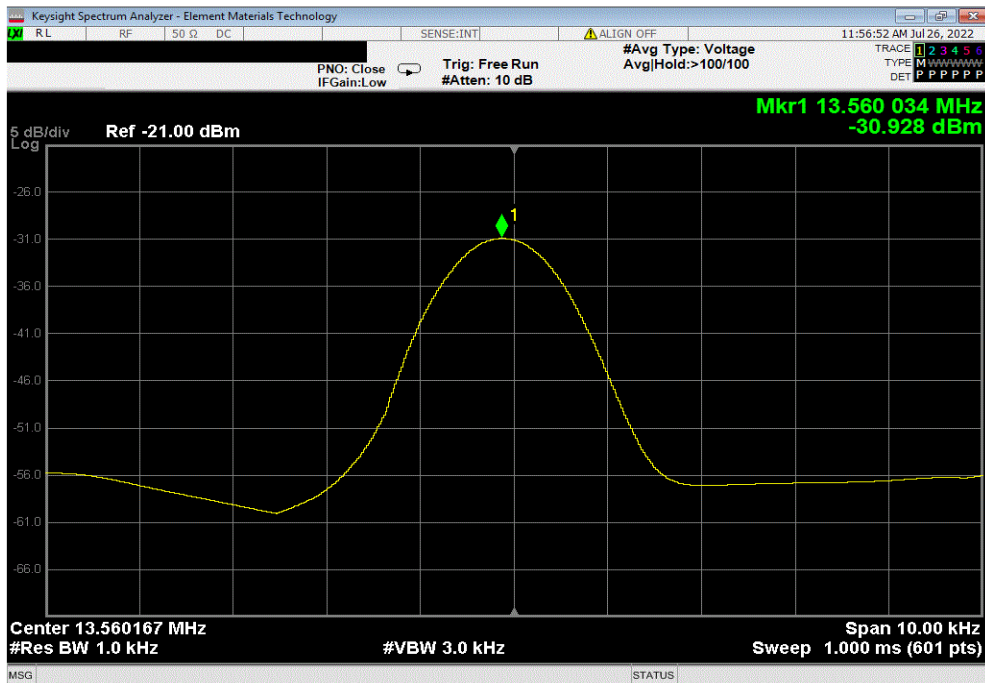


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Left, Temperature: +40°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56000	13.56005	3.69	100	Pass		



CrossSwitch Left, Temperature: +30°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56003	13.56005	1.47	100	Pass		



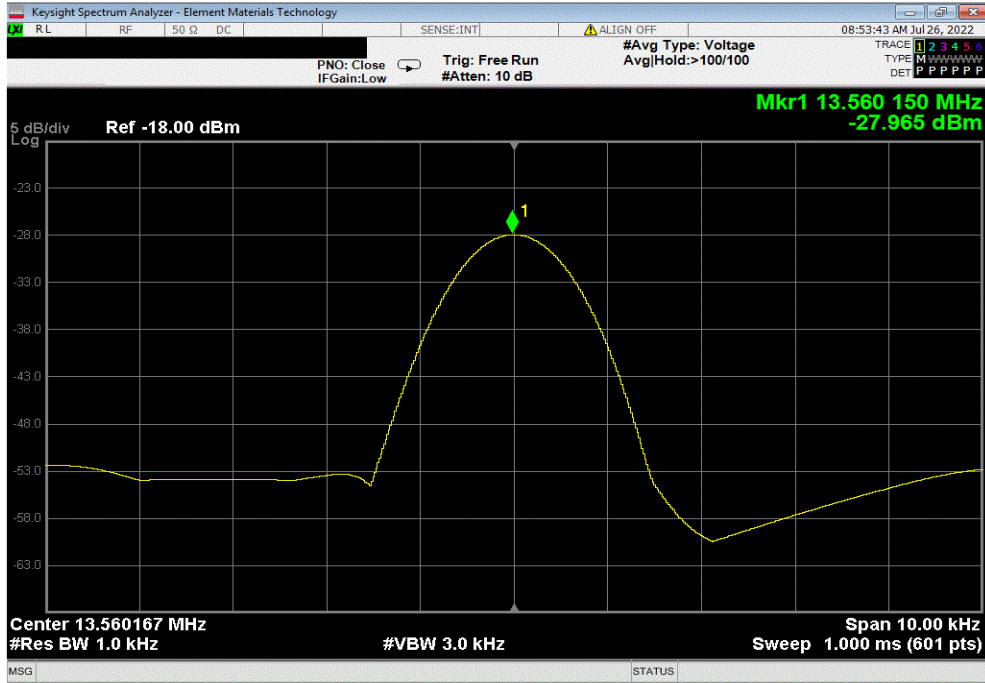


# FREQUENCY STABILITY

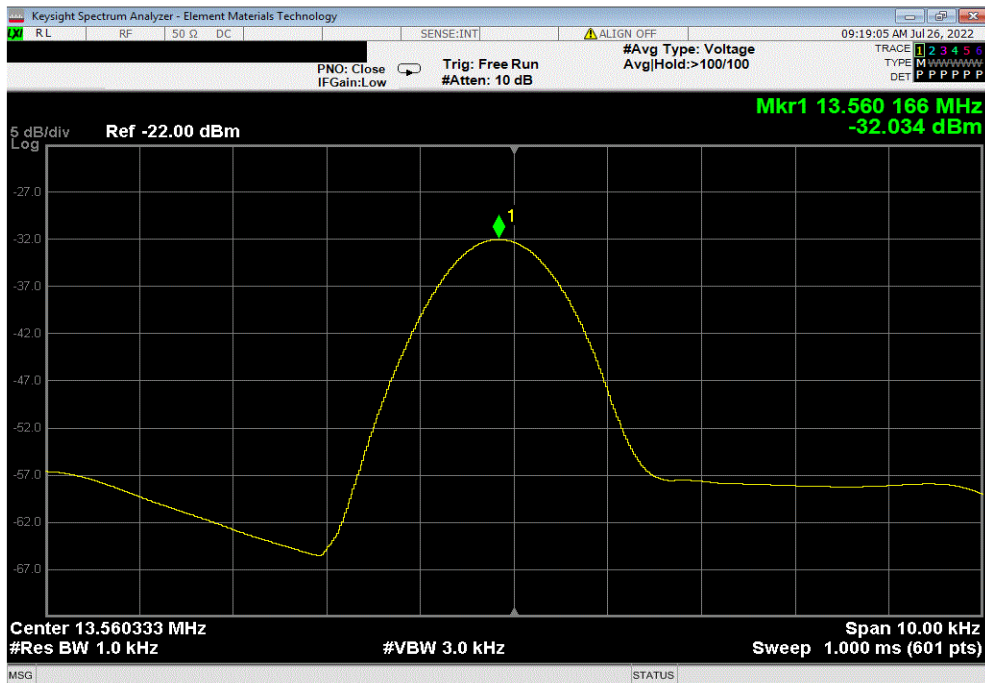


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Left, Temperature: 0°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56015	13.56005	7.37	100	Pass	



CrossSwitch Left, Temperature: -10°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56017	13.56005	8.85	100	Pass	

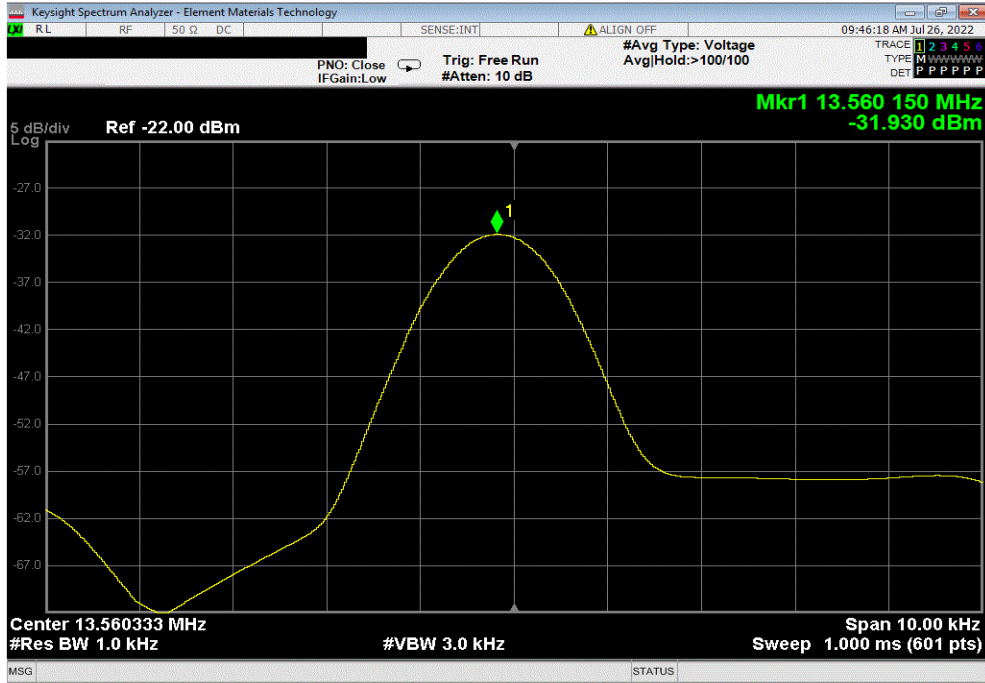


# FREQUENCY STABILITY

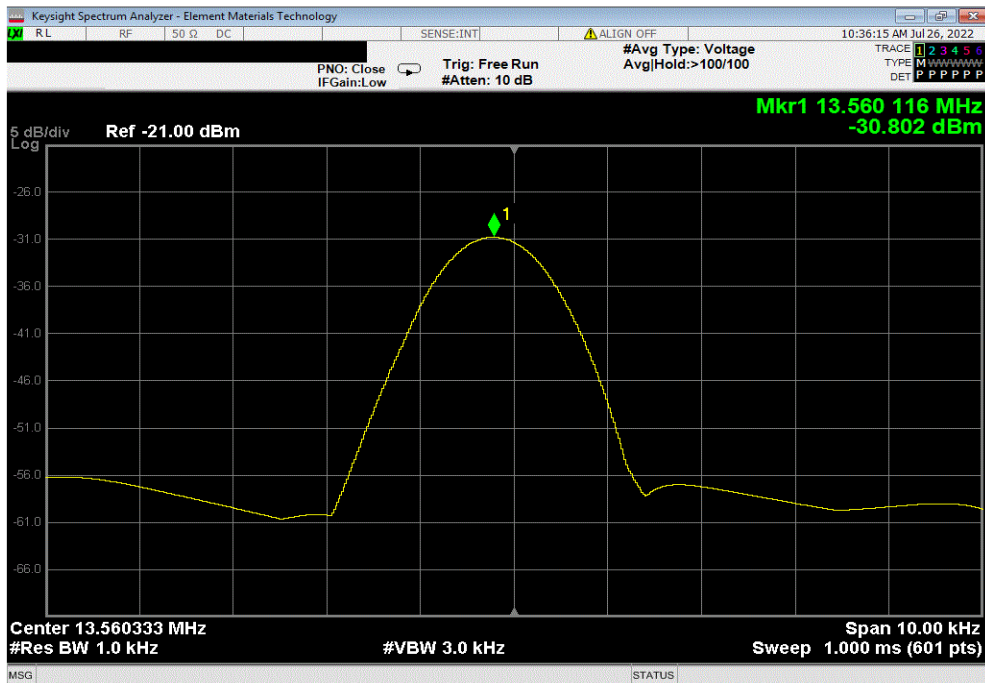


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Left, Temperature: -20°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56015	13.56005	7.37	100	Pass	



CrossSwitch Left, Temperature: -30°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56012	13.56005	5.16	100	Pass	

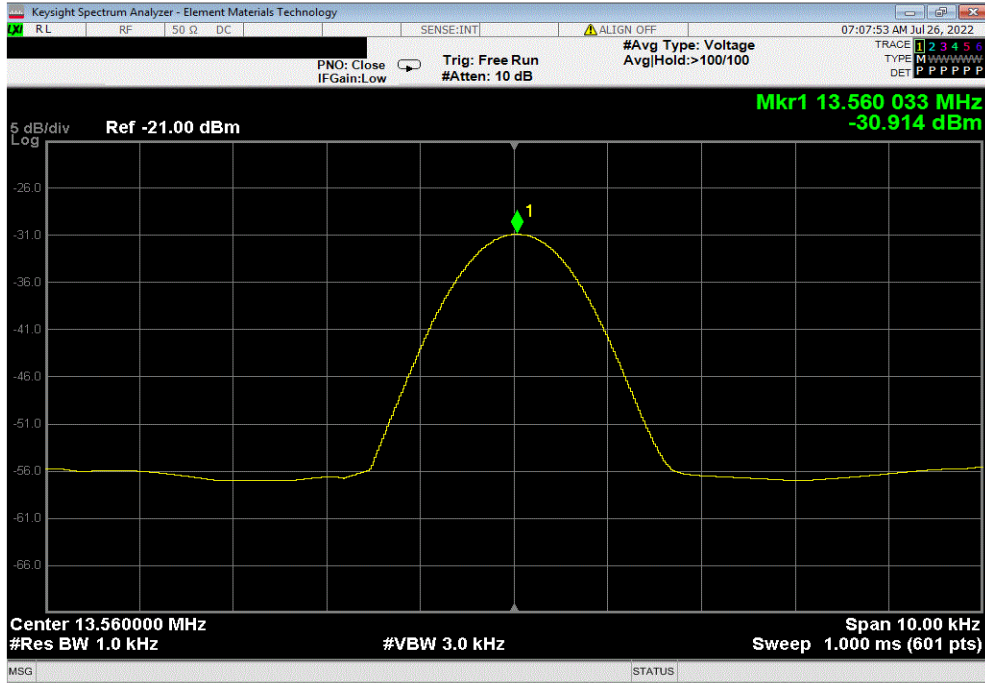


# FREQUENCY STABILITY

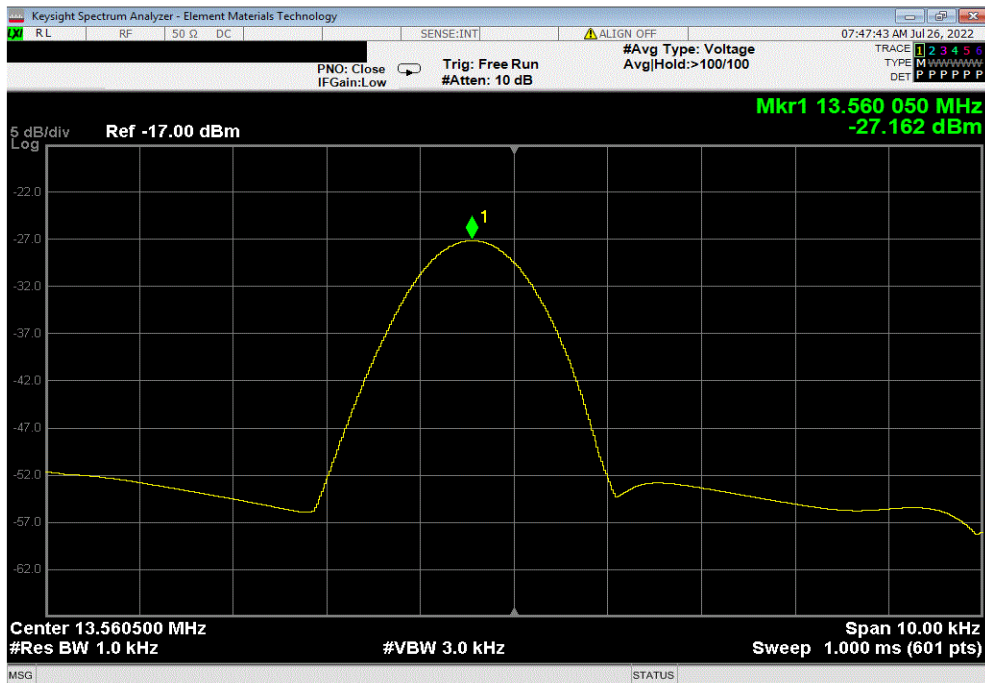


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Right, Voltage: 115%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56003	13.56005	1.47	100	Pass		



CrossSwitch Right, Voltage: 100%, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56005	13.56005	0	100	Pass		

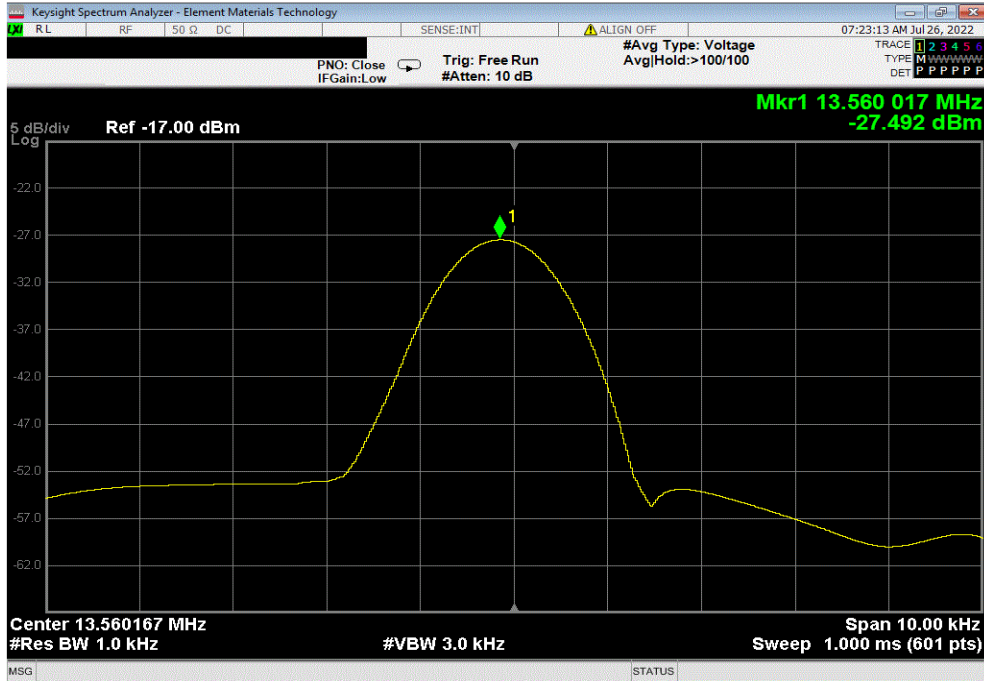


# FREQUENCY STABILITY

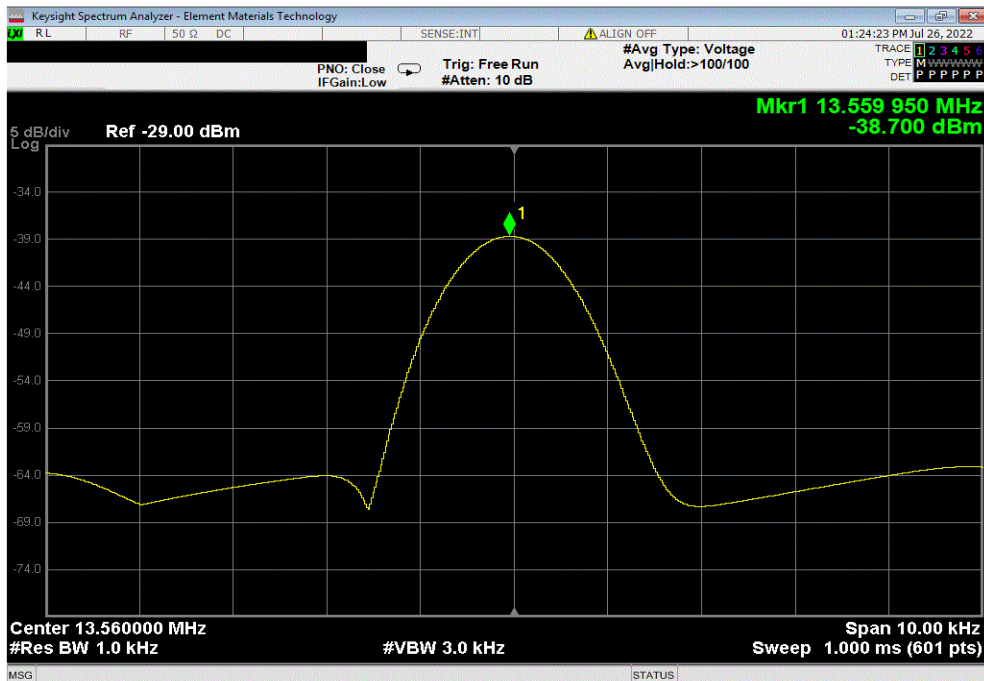


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Right, Voltage: 85%, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56002	13.56005	2.21	100	Pass	



CrossSwitch Right, Temperature: +50°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005	3.69	100	Pass	



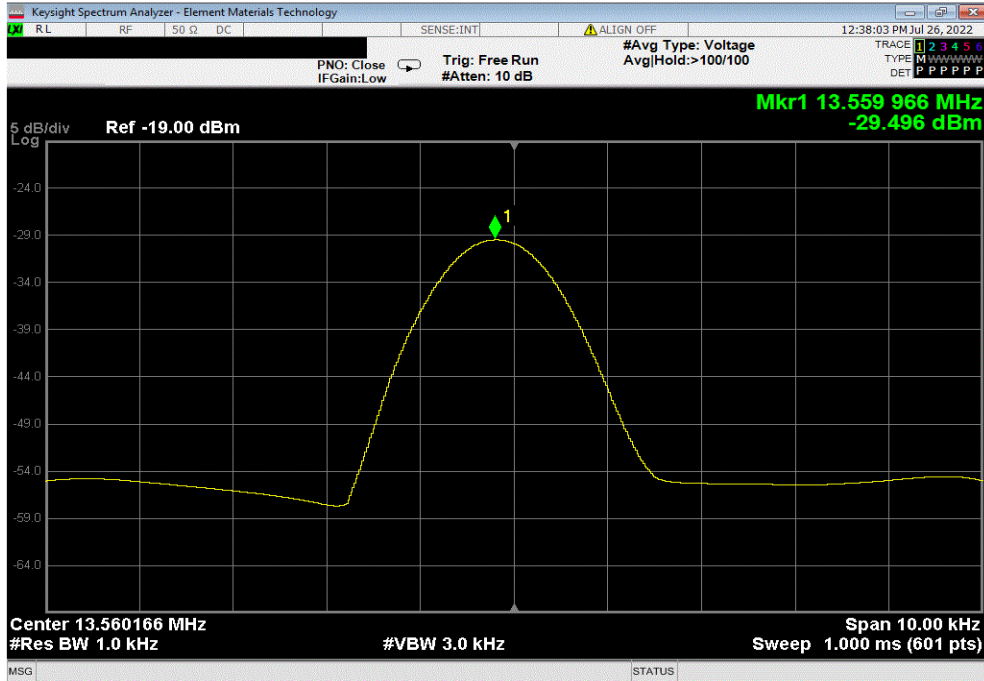


# FREQUENCY STABILITY

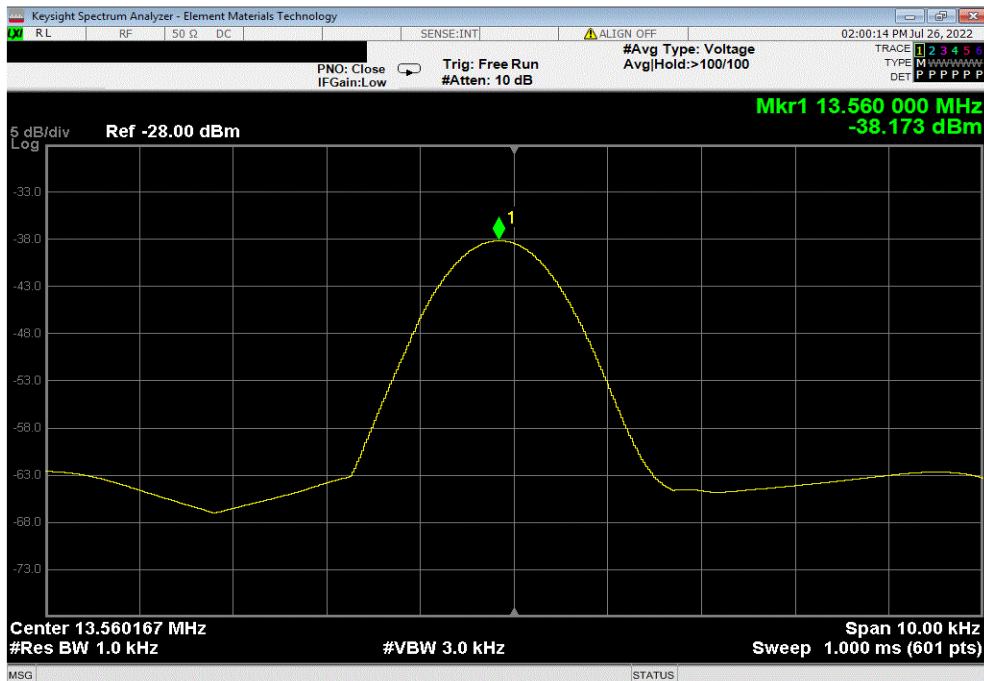


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Right, Temperature: +40°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005	3.69	100	Pass	



CrossSwitch Right, Temperature: +30°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56000	13.56005	3.69	100	Pass	

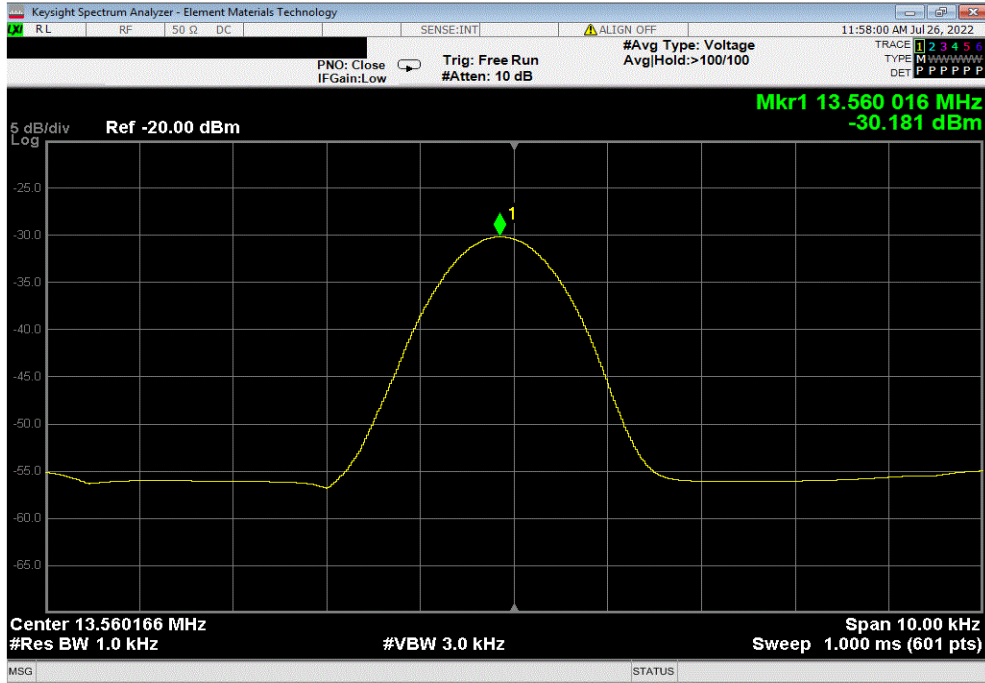


# FREQUENCY STABILITY

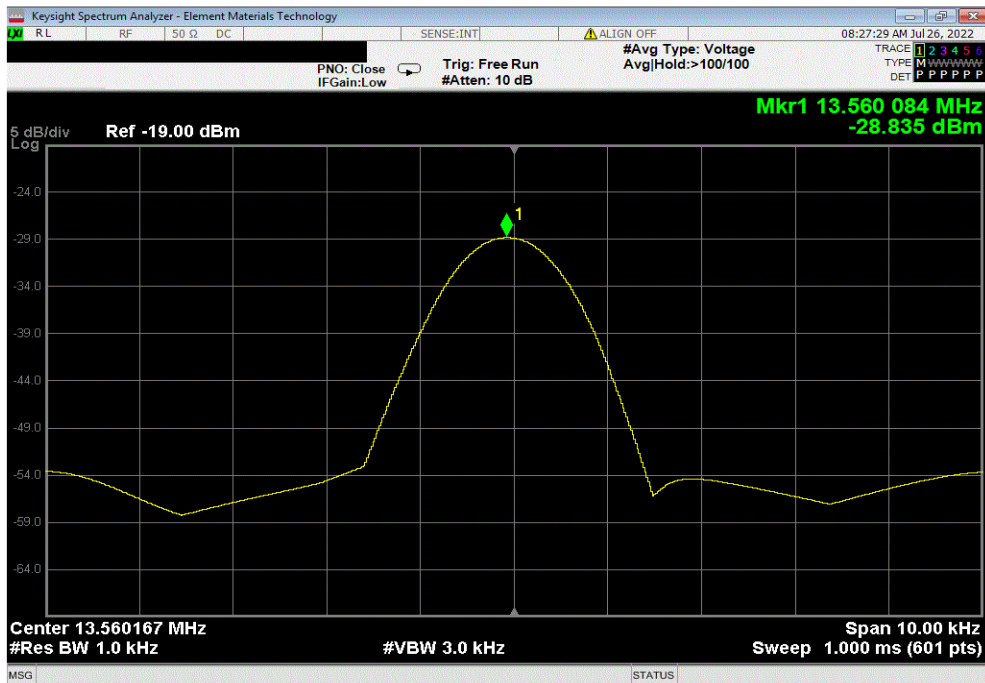


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Right, Temperature: +20°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56002	13.56005	2.21	100	Pass		



CrossSwitch Right, Temperature: +10°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56008	13.56005	2.21	100	Pass		

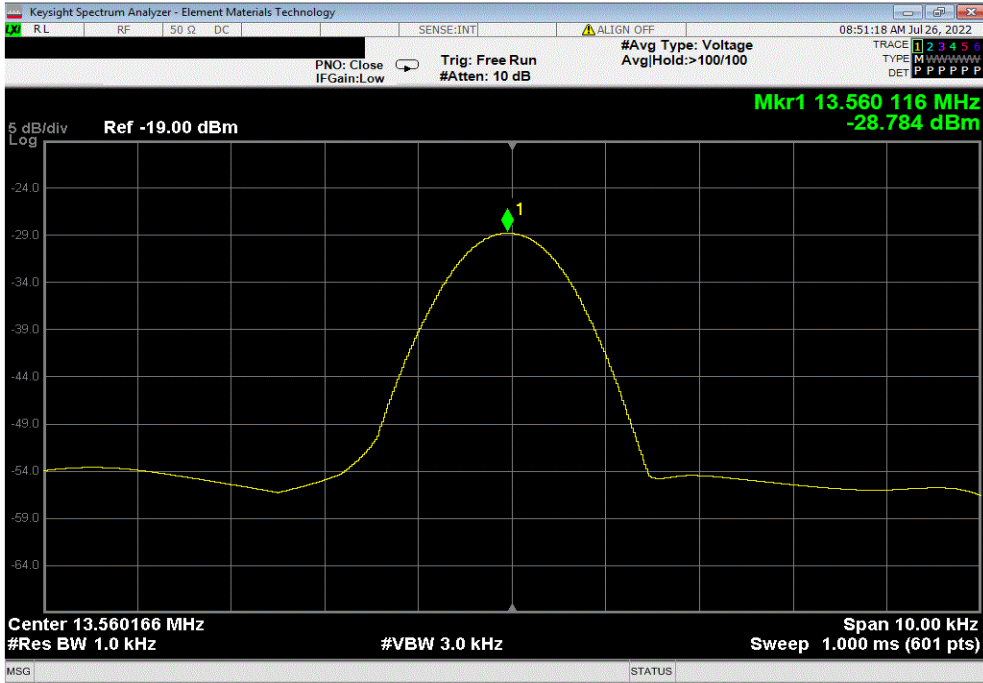


# FREQUENCY STABILITY

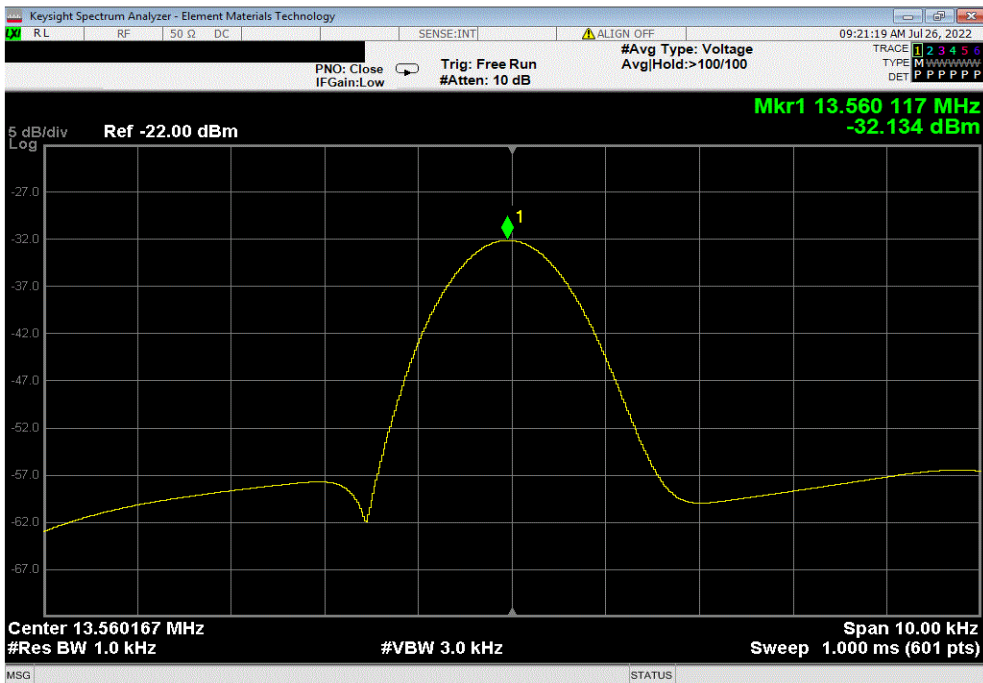


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Right, Temperature: 0°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56012	13.56005	5.16	100	Pass	



CrossSwitch Right, Temperature: -10°C, 13.56 MHz RFID						
	Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	13.56012	13.56005	5.16	100	Pass	

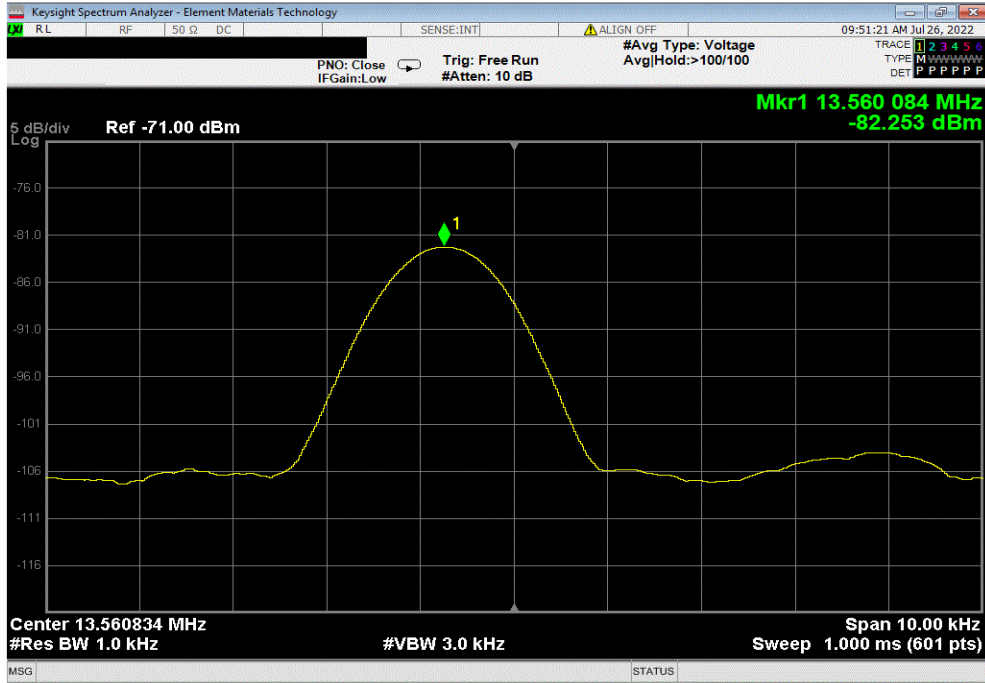


# FREQUENCY STABILITY

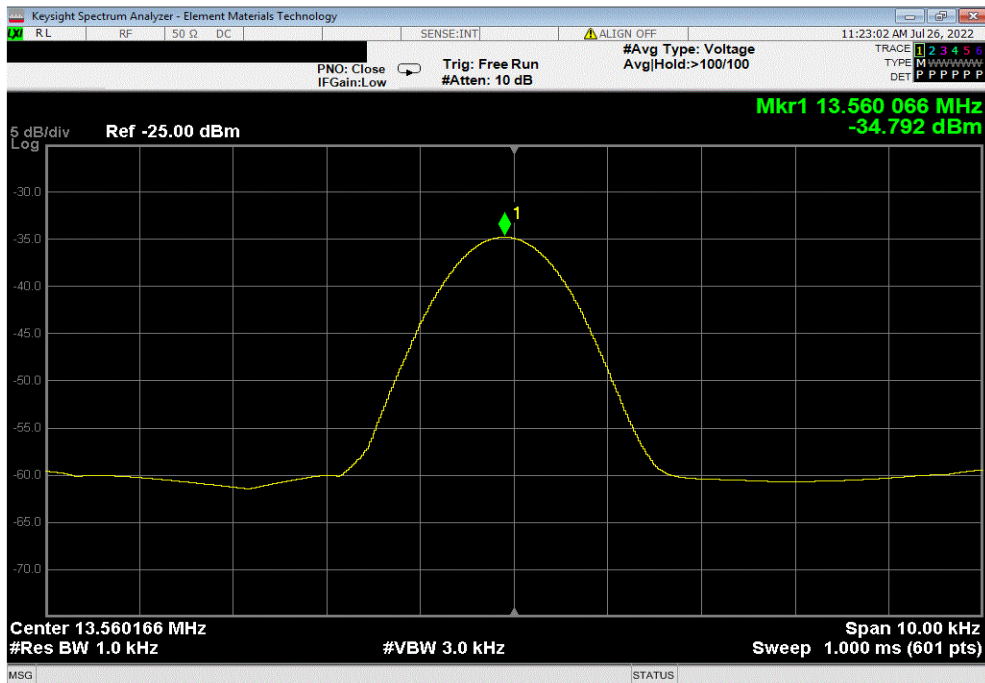


TbTx 2022.06.03.0 XMI 2022.02.07.0

CrossSwitch Right, Temperature: -20°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56008	13.56005	2.21	100	Pass		



CrossSwitch Right, Temperature: -30°C, 13.56 MHz RFID						
Measured Value (MHz)	Nominal Value (MHz)	Error (ppm)	Limit (ppm)	Results		
13.56007	13.56005	1.47	100	Pass		



# OCCUPIED BANDWIDTH



XMI 2022.02.07.0

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	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Attenuator	Fairview Microwave	SA4018-20	TYW	2022-03-01	2023-03-01
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2021-12-10	2022-12-10
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR

## TEST DESCRIPTION

A near-field probe was placed near the transmitter. A low-loss coaxial cable was used to connect the near-field probe to the spectrum analyzer.


The 99% occupied bandwidth was measured utilizing the analyzer's peak detector and measuring the carrier's 20 dB occupied bandwidth.

The antenna is integral to the EUT, so a radiated measurement was made in a radiated configuration with a near field probe. The resolution bandwidth was >1% of the 20dB bandwidth and the video bandwidth was greater than the resolution bandwidth.

# OCCUPIED BANDWIDTH



TelTx 2022.06.03.0 XMI 2022.02.07.0

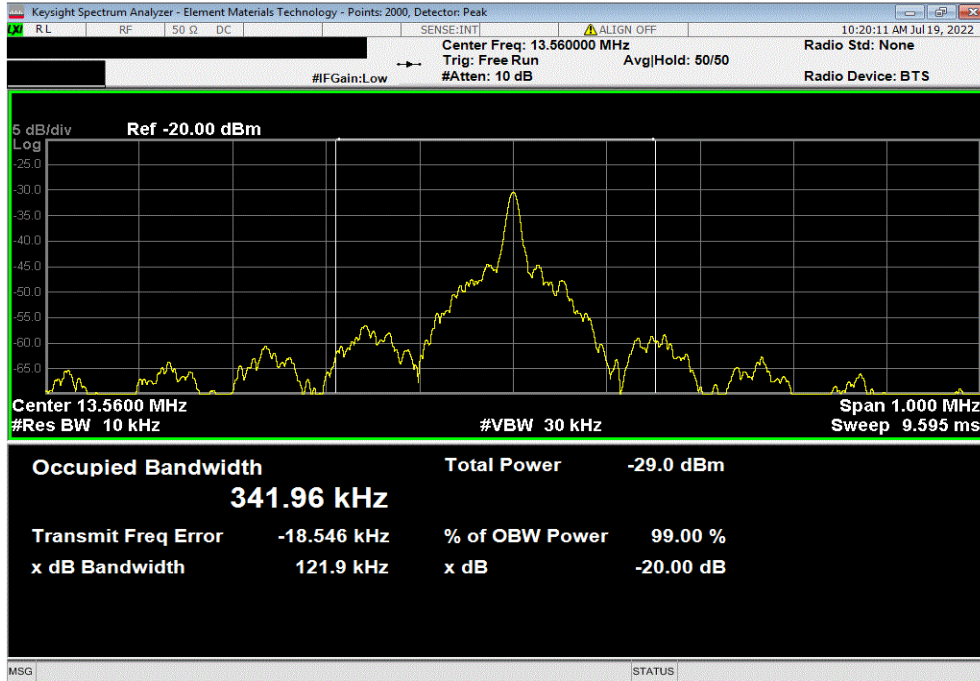
EUT: AAS Decapper		Work Order: ABBO0113	
Serial Number: M09B000200		Date: 18-Jul-22	
Customer: Abbott Laboratories		Temperature: 21.7 °C	
Attendees: Frank Sun		Humidity: 52.9% RH	
Project: None		Barometric Pres.: 1014 mbar	
Tested by: Jarrrod Brenden		Power: 220VAC/60Hz	Job Site: TX07
TEST SPECIFICATIONS			
FCC 15.225:2022		Test Method: ANSI C63.10:2013	
COMMENTS			
AccessPoint 1 Radio. Emissions Bandwidth (20 dB) taken with 99% Bandwidth. This is worst case as compared with 20 dB bandwidth called out in FCC 15.215.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	3	Signature 	
		Value	Limit
Nominal Voltage	Mid channel, 13.56 MHz	341.96 kHz	1 MHz ≤ BW ≤ 14.01
		Within	Result
			Pass

# OCCUPIED BANDWIDTH



TbTx 2022.06.03.0 XMI 2022.02.07.0


Nominal Voltage, Mid channel, 13.56 MHz				Limit	Value	Result
				MHz ≤ BW ≤ 14.0	341.96 kHz	Within Pass



# OCCUPIED BANDWIDTH



Tel: 2022.06.03.0 XMI: 2022.02.07.0

EUT: AAS Decapper		Work Order: ABBO0113	
Serial Number: M09B000200		Date: 19-Jul-22	
Customer: Abbott Laboratories		Temperature: 20.9 °C	
Attendees: Frank Sun		Humidity: 54.9% RH	
Project: None		Barometric Pres.: 1015 mbar	
Tested by: Jarrrod Brenden	Power: 220VAC/60Hz	Job Site: TX07	
TEST SPECIFICATIONS			
FCC 15.225:2022		Test Method: ANSI C63.10:2013	
COMMENTS			
AccessPoint 2 Radio. Emissions Bandwidth (20 dB) taken with 99% Bandwidth. This is worst case as compared with 20 dB bandwidth called out in FCC 15.215.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	3	Signature 	
		Value	Limit
Nominal Voltage	Mid channel, 13.56 MHz	344.17 kHz	1 MHz ≤ BW ≤ 14.01
		Within	Result
			Pass

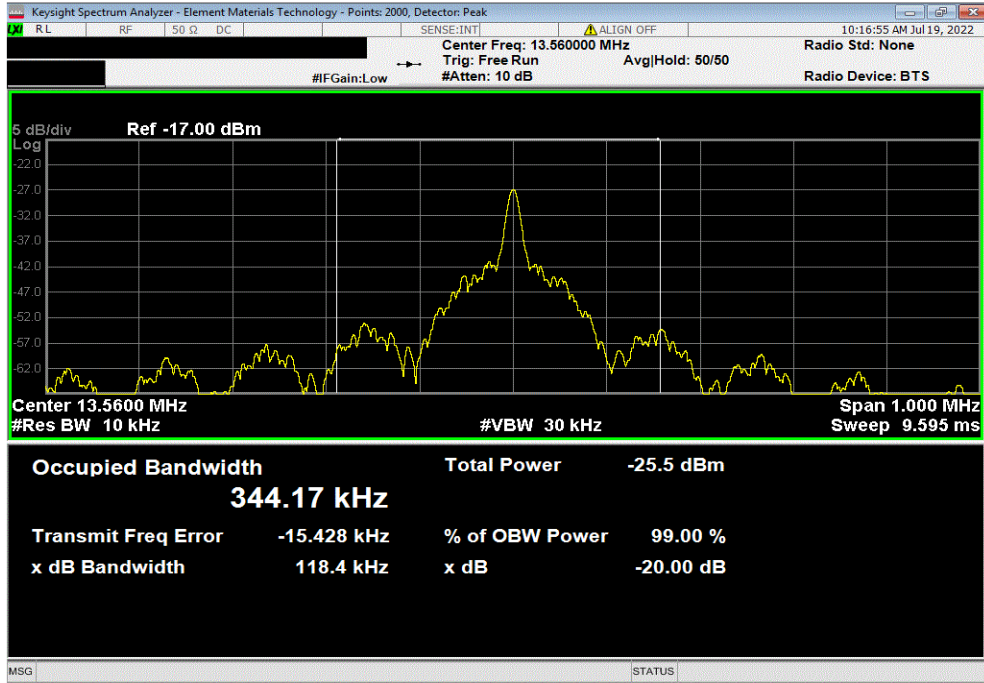


# OCCUPIED BANDWIDTH



TbTx 2022.06.03.0 XMi 2022.02.07.0


Nominal Voltage, Mid channel, 13.56 MHz				Limit	Result
Value	MHz ≤ BW ≤ 14.0				
344.17 kHz	Within				Pass



# OCCUPIED BANDWIDTH



Tel: 2022.06.03.0 XMI: 2022.02.07.0

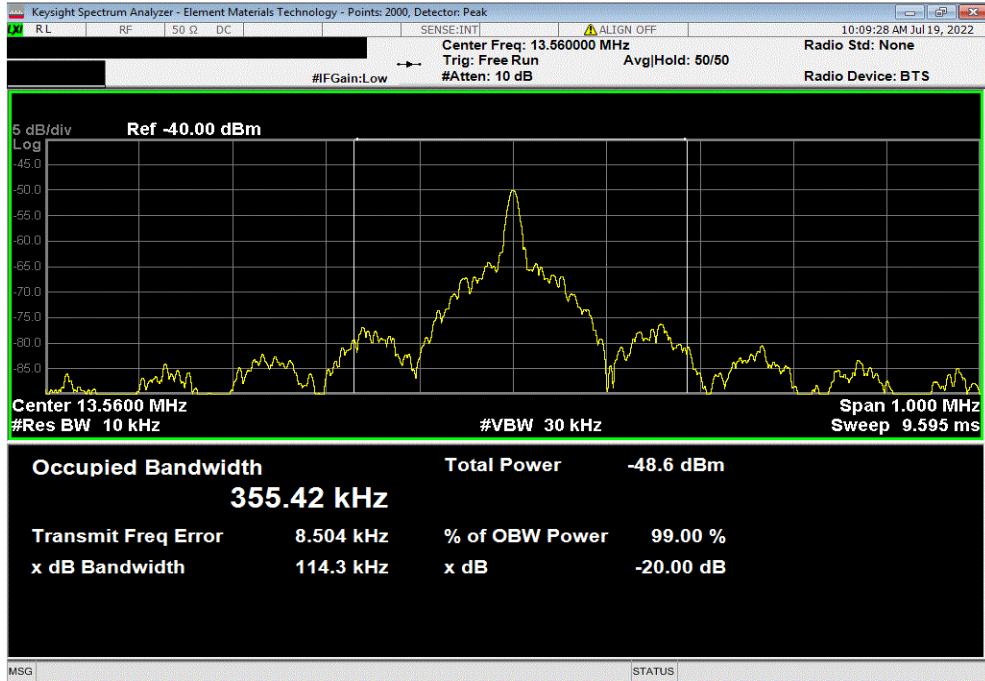
EUT: AAS Decapper		Work Order: ABBO0113	
Serial Number: M09B000200		Date: 19-Jul-22	
Customer: Abbott Laboratories		Temperature: 21.4 °C	
Attendees: Frank Sun		Humidity: 54.6% RH	
Project: None		Barometric Pres.: 1014 mbar	
Tested by: Jarrrod Brenden		Power: 220VAC/60Hz	Job Site: TX07
TEST SPECIFICATIONS			
FCC 15.225:2022		Test Method: ANSI C63.10:2013	
COMMENTS			
CrossSwitch Radio. Emissions Bandwidth (20 dB) taken with 99% Bandwidth. This is worst case as compared with 20 dB bandwidth called out in FCC 15.215.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	3	Signature 	
		Value	Limit 1 MHz ≤ BW ≤ 14.01
Antenna, Left	Nominal Voltage		
	Mid Channel, 13.56 MHz	355.42 kHz	Within Pass
Antenna, Right	Nominal Voltage		
	Mid Channel, 13.56 MHz	338.36 kHz	Within Pass

# OCCUPIED BANDWIDTH

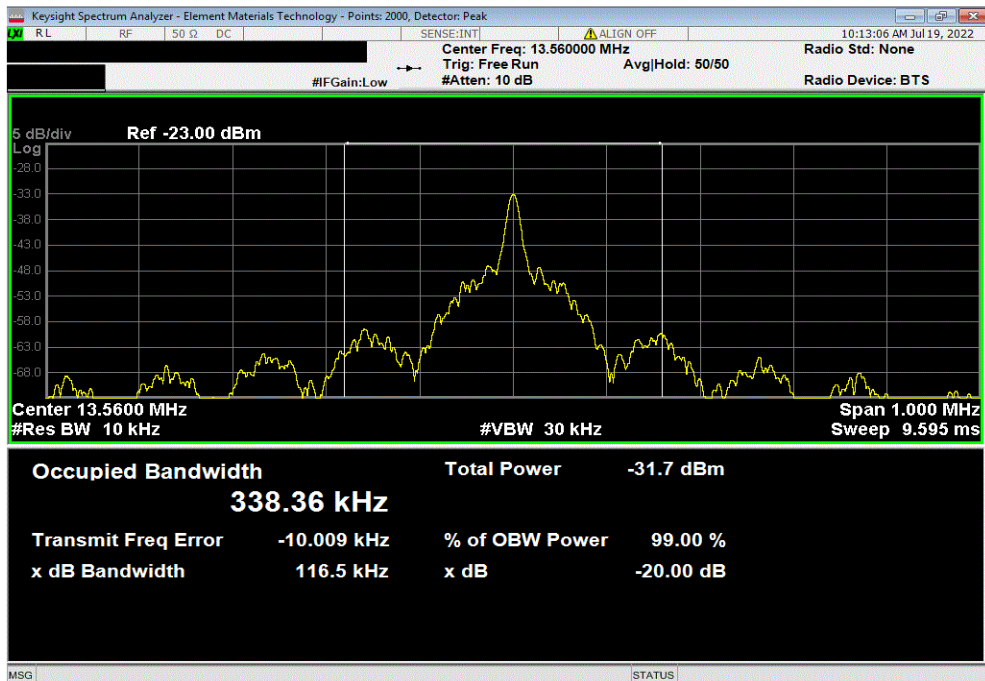


TbTx 2022.06.03.0 XMI 2022.02.07.0

Antenna, Left, Nominal Voltage, Mid Channel, 13.56 MHz				Limit	Value	MHz ≤ BW ≤ 14.0	Result
					355.42 kHz	Within	Pass



Antenna, Right, Nominal Voltage, Mid Channel, 13.56 MHz				Limit	Value	MHz ≤ BW ≤ 14.0	Result
					338.36 kHz	Within	Pass



End of Test Report