



Test Report No. 7512304419

Applicant: AMIAD Water Systems LTD.

Equipment Under Test: ADI-M

FCC ID: 2BOTL-ADI-M

Model: Rev1

Issued by:

***The Standards Institution of Israel
Electrical & Electronics Laboratory
EMC Branch***



Certificate Number: AT-1359

**Test Report No.:** 7512304419**Title:** Test on ADI-M, **Model:** Rev1**Page 2 of 36 Pages****FCC ID:** 2BOTL-ADI-M

Applicant:	AMIAD Water Systems LTD.
Address:	Kibbutz Amiad
Sample for test selected by:	The customer
The date of test:	April 2025

Description of Equipment

under Test (EUT):	ADI-M
Model:	Rev1
Software version:	TBD
Hardware version:	V1
Manufactured by:	AMIAD Water Systems LTD.

Reference Documents:

- ❖ CFR 47 FCC (2020) Rules and Regulations: Part 15. Radio frequency devices, Subpart C: Intentional radiators. Section 15.247: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz

Test Results

The EUT was found to be in compliance with the following standard:

CFR47 Part 15 Subpart C
sections: 15.203, 15.205, 15.207, 15.209 and 15.247.

This Test Report contains 36 pages and may be used only in its entirety.

This Test Report applies only to the specimen tested and may not be applied to other specimens of the same product.



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 3 of 36 Pages

FCC ID: 2B0TL-ADI-M

Table of Contents

1. Summary of Test Results	4
2. EUT Description	5
2.1. General description:	5
2.2. Transmitter description:	7
2.3. Test setup:	7
2.4. System test configuration:	9
3. Test specification, methods and procedures	10
4. Testing Facility:	10
5. Measurement uncertainty	10
6. Transmitter characteristics - test results	11
6.1. Duty Cycle	11
6.2. 6dB and Occupied Bandwidth	12
6.3. Maximum Peak Conducted Output Power	14
6.4. Power Spectral Density	16
6.5. Radiated Emissions in Restricted and non-Restricted bands	18
6.6. Band-edge measurements	28
6.7. AC power line conducted emission measurement	30
7. Antenna requirements	31
8. Appendix 1: Test equipment used	32
9. Appendix 2: Antenna Factor and Cable Loss	33
10. Appendix 3: Test illustrations	35



Test Report No.: 7512304419
Title: Test on ADI-M, **Model:** Rev1

Page 4 of 36 Pages
FCC ID: 2BOTL-ADI-M

1. Summary of Test Results

Transmitter characteristic	Ref. Section	Test Result
6dB and occupied bandwidth	15.247 (a) (2)	Complies
Maximum peak conducted output power	15.247 (b) (3)	Complies
Power spectral density	15.247 (e)	Complies
Radiated emission in restricted and non-restricted bands	15.247 (d), 15.209, 15.205	Complies
Band-edge compliance of RF conducted emission	15.247 (d)	Complies
AC power line conducted emission measurements	15.207	N/A
Antenna requirement	15. 203	Complies

Name: Eng. Yuri Rozenberg
Position: Head of Branch

Electrical & Electronics
Laboratory

31 July 2025

Tested by: Alexander Konkov
Position: Testing Engineer

2. EUT Description

Note: All information in this section was provided by the customer.

2.1. General description:

The EUT, is battery powered Bluetooth controlled, filter flush controller, for use on automatic water filter, outdoor Bluetooth controlled.

The modulation GFSK provided by Nordic NRF52832, The transmitter is a RADIO operating at 2402-2480MHz band. The transmitter is powered by 4*1.5 volt AA primary batteries and the transmitting frequency is crystal controlled. The operation is achieved by different combinations of form pulse modulating signal on the carrier frequency.

The test data contained in this report pertains only to the emissions due to the EUT's BLE transmitter.

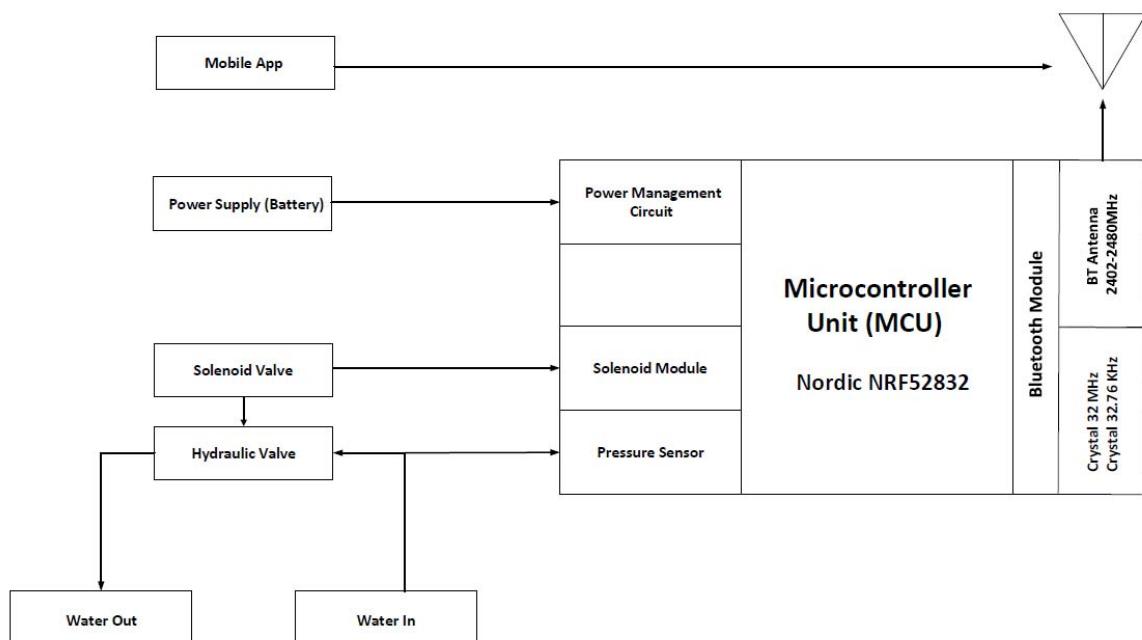


Figure 1. Block diagram



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 6 of 36 Pages
FCC ID: 2B0TL-ADI-M



Figure 2. ADI-M



Test Report No.: 7512304419
Title: Test on ADI-M, **Model:** Rev1

Page 7 of 36 Pages
FCC ID: 2B0TL-ADI-M

2.2. Transmitter description:

Type of equipment	
Combined equipment (Equipment where the radio part is fully integrated within another type of equipment)	

BLE standards	BLE 5
---------------	-------

Assigned frequency range	from 2400MHz to 2483.5MHz	
Operating frequency range	from 2402MHz to 2480MHz (BLE transceiver)	
RF channel spacing	1MHz	
Maximum rated output power	Effective radiated power (for equipment with no RF connector)	-0.34 dBm = 0.925 mW
Declare temperature range:	5°C - 60°C	

Antenna information	
Antenna MIFA PCB printed - without temporary RF connector	
Manufacturer: AMIAD	
Antenna gain = -1.25 dBi	

Transmitter 99% power bandwidth	
Type of modulation	GFSK
Modulating test signal (baseband)	GFSK

Transmitter power source	
Nominal rated voltage	6 VDC
Type of battery	AA, 4*1.5Volt

2.3. Test setup:

The EUT was tested per the guidance ANSI C63.10: 2020.

The test setup is shown in Figures 3 and 4. EUT gets 6 V DC power from battery.

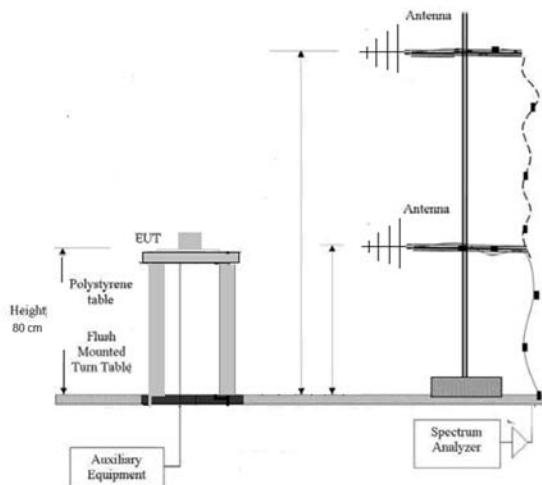


Figure 3. EUT test setup

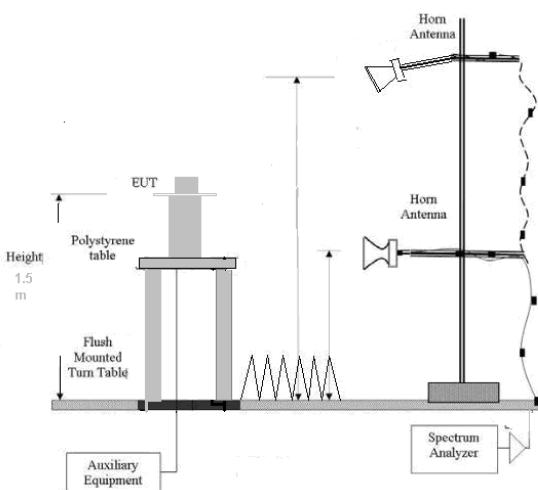


Figure 4. RE test setup above 1 GHz.



2.4. System test configuration:

Table 1. BLE channels / frequencies

Channel	Frequency MHz	Channel	Frequency MHz
37	2402	18	2442
0	2404	19	2444
1	2406	20	2446
2	2408	21	2448
2	2410	22	2450
4	2412	23	2452
5	2414	24	2454
6	2416	25	2456
7	2418	26	2458
8	2420	27	2460
9	2422	28	2462
10	2424	29	2464
38	2426	30	2466
11	2428	31	2468
12	2430	32	2470
13	2432	33	2472
14	2434	34	2474
15	2436	35	2476
16	2438	36	2478
17	2440	39	2480



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 10 of 36 Pages

FCC ID: 2BOTL-ADI-M

3. Test specification, methods and procedures

- ❖ CFR 47 FCC Rules and Regulations: Part 15. Radio frequency devices, Subpart C: Intentional radiators (2020)
- ❖ ANSI C63.4:2014 American National Standard for Method of Measurement of Radio Noise Emissions from Low Voltage Electrical and Electronic Equipment in the Range 9 kHz to 40 GHz.
- ❖ ANSI C63.10: 2020 American National Standard for Testing of Unlicensed Wireless Devices

4. Testing Facility:

Laboratory Name	Standards Institution of Israel (SII)
Test site location	42 Haim Levanon st., Tel-Aviv Israel
Laboratory Accreditations	<u>ANAB</u> :AT-1359
	<u>FCC Designator number</u> : IL1003
	<u>VCCI</u> : C-14675, T-12211, R-14189, G-10824, R-14190

5. Measurement uncertainty

The test equipment has been calibrated according to its recommended procedures and is within the manufacturer's published limit of error.

The laboratory calibrates its standards by a third party (traceable to NIST, USA) on a regular basis according to equipment manufacturer requirements.

Test description	Calculated uncertainty U_{LAB}
Conducted measurements	
Frequency error	37.6 Hz
Spurious emission	± 2.98 dB
Radiated measurements	
Electric field strength in a SAR at 3 m distance 30 MHz – 1.0 GHz	± 4.32 dB
Electric field strength in a FAR at 3 m distance 1.0 GHz – 18 GHz	± 4.47
Substitution measurements	
In a FAR at 3 m distance 1.0 GHz – 18 GHz	± 3.41 dB



6. Transmitter characteristics - test results

6.1. Duty Cycle

Limits & methods:

FCC requirements	15.247		
Test procedure	ANSI 63.10 --- 11.6 Duty cycle Radiated Measurement		
Operating mode	BLE, Hight Mid and Low		
Ambient Temperature	23°C	Relative Humidity 49%	Air Pressure 1003hPa

Results:

Table 2. Transmitter characteristics - result parameters

DT	100	%
----	-----	---

The results are presented in Plots 1 , Tx Low 2.402GHz and Tx High 2.48GHz



Plot 1



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 12 of 36 Pages

FCC ID: 2BOTL-ADI-M

6.2. 6dB and Occupied Bandwidth

Limits & methods:

FCC requirements	15.247(a)(2)		
Test procedure	ANSI 63.10 -- 11.8.2 Option 2 Radiated Measurement		
Operating mode	BLE, Hight Mid and Low		
Ambient Temperature	23 ⁰ C	Relative Humidity 49%	Air Pressure 1003hPa

Limit:

The minimum 6dB bandwidth shall be at least 500 kHz.

Test procedure

The measurements were performed in hopping transmission mode of operation for carrier (channel) frequency at bottom, middle and at the top of 2402MHz to 2480MHz frequency band and maximum transmitting data rate.

Results:

Table 3. 6dB Bandwidth & Occupied Bandwidth Results

Frequency MHz	6dB Bandwidth kHz	Limit (min) kHz	Verdict	Ref. Plot
2402	746.9	500	Pass	2
2440	746.7	500	Pass	3
2480	739.2	500	Pass	4

Note: Detector = peak
Trace mode = max-hold.



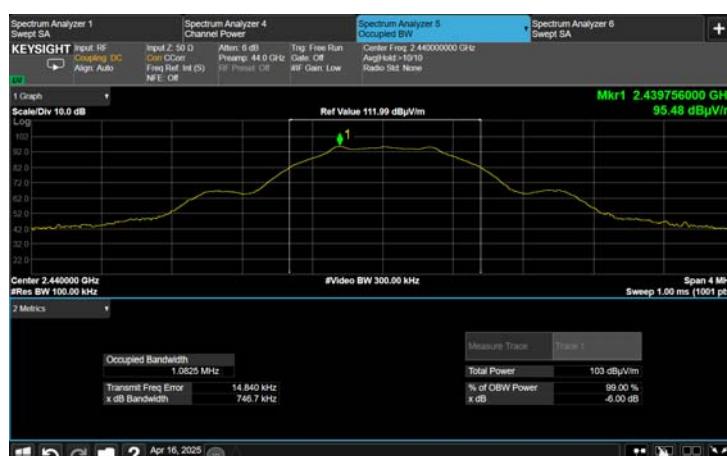
Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 13 of 36 Pages
FCC ID: 2BOTL-ADI-M

BLE



Plot 2



Plot 3



Plot 4



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 14 of 36 Pages

FCC ID: 2B0TL-ADI-M

6.3. Maximum Peak Conducted Output Power

Limits & methods:

FCC requirements	15.247(b)(3)		
Test procedure	ANSI 63.10 11.9.1.1 Method RBW \geq DTS bandwidth Radiated Measurement		
Operating mode	BLE, Hight Mid and Low		
Ambient Temperature 23°C	Relative Humidity 49%	Air Pressure 1003hPa	

Limit

The maximum peak conducted output power shall not exceed 1 watt.

Test procedure

The measurements were performed in hopping transmission mode of operation for carrier (channel) frequency at bottom, middle and at the top of 2402 MHz to 2480 MHz frequency band and maximum transmitting data rate.

Results:

Table 4. Maximum Peak Conducted Output Power Results

Freq. MHz	Measure dBm	Calculated mWatt	Limit Watt	Verdict	Plot
2402	-1.13	0.771	1	Pass	5
2440	-0.42	0.908	1	Pass	6
2480	-0.34	0.925	1	Pass	7

Note:

Total power(dBm) = P Measure(dBuV/m) – 95.2 – Antenna Gain(dBi)

In our case the Antenna Gain(dBi) = -1.25 (dBi)



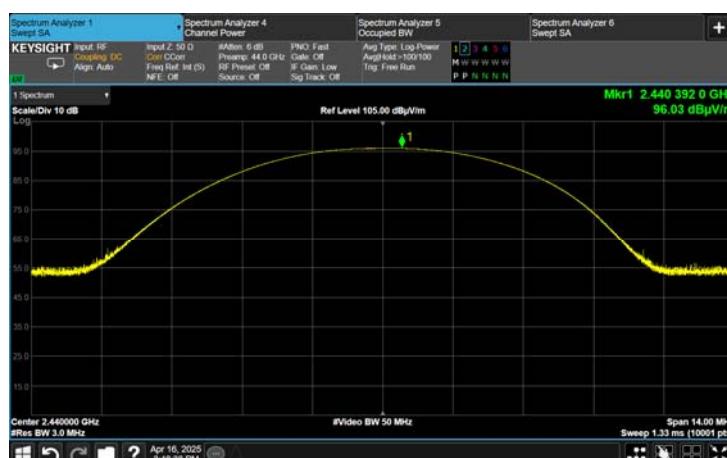
Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 15 of 36 Pages
FCC ID: 2B0TL-ADI-M

BLE



Plot 5



Plot 6



Plot 7



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 16 of 36 Pages

FCC ID: 2B0TL-ADI-M

6.4. Power Spectral Density

Limits & methods:

FCC requirements	15.247(e)		
Test procedure	ANSI 63.10 11.10.2 Method PKPSD (peak PSD) Radiated Measurement		
Operating mode	BLE, Hight Mid and Low		
Ambient Temperature 22°C	Relative Humidity 46%	Air Pressure 1006hPa	

Limit

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission

Test procedure

The measurements were performed in hopping transmission mode of operation for carrier (channel) frequency at bottom, middle and at the top of 2402MHz to 2480MHz frequency band and maximum transmitting data rate.

Results:

Table 5. Power Spectral Densiry Test Results

Freq. MHz	Measure dBm/3kHz	Limit dBm/3kHz	Verdict	Plot
2402	-1.70	8	Pass	8
2440	-1.00	8	Pass	9
2480	-0.62	8	Pass	10

Note:

PSD (dBm/3kHz) = PSD Mesure(dBuV/m) – 95.2 – Antenna Gain(dBi)

In our case the Antenna Gain(dBi) = -1.25 (dBi)

Worst case RBW=100 kHz maximum.



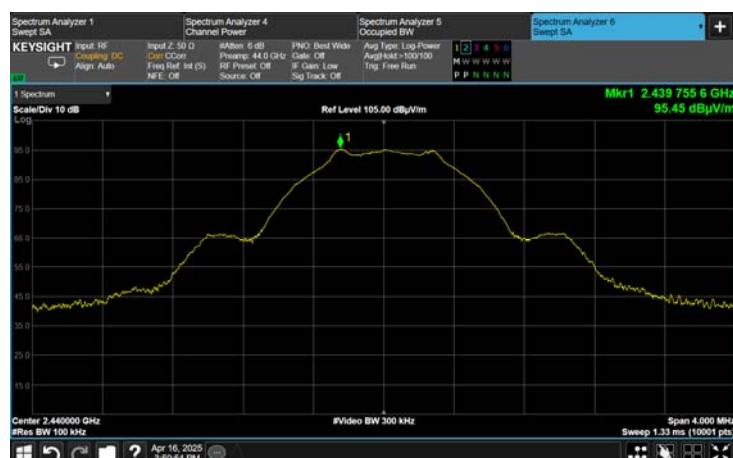
Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 17 of 36 Pages
FCC ID: 2BOTL-ADI-M

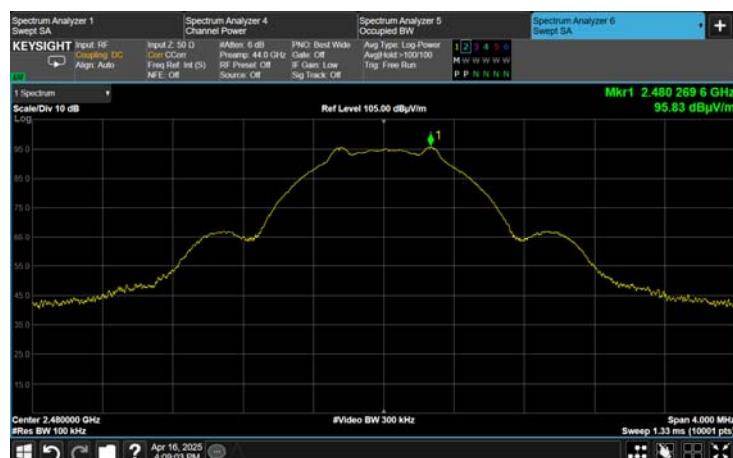
BLE



Plot 8



Plot 9



Plot 10



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 18 of 36 Pages

FCC ID: 2BOTL-ADI-M

6.5. Radiated Emissions in Restricted and non-Restricted bands

Limits & methods:

FCC requirements	15.247(d), 15.209, 15.205		
Test procedure	ANSI 63.10 Sections 6.5, 6.6, 11.11, 11.12 Radiated Measurement		
Operating mode	BLE, Hight, Mid and Low		
Ambient Temperature	23°C	Relative Humidity 49%	Air Pressure 1009hPa

Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see below)

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Test procedure

The frequency spectrum was investigated from the lowest radio frequency signal generated in the equipment and up to ten harmonics. The measurements were performed in hopping transmission mode of operation for carrier (channel) frequency at bottom, middle and at the top 2402MHz to 2480MHz frequency band and maximum transmitting data rate.



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 19 of 36 Pages

FCC ID: 2BOTL-ADI-M

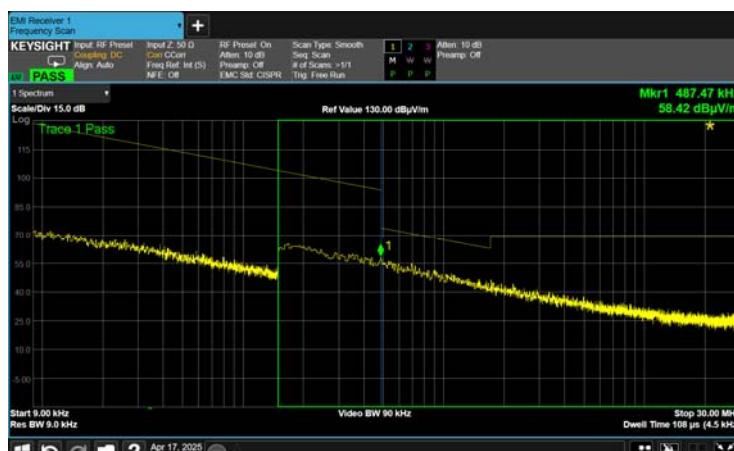
Results:**Range: 9 kHz-30 MHz**

All detected emissions in this range meet the -20dBc requirement. Plots 11, 20 and 29.

Range: 30 MHz – 40 GHz:**Table 6. CH37 2402 MHz – modulation PRBS - Results**

Frequency MHz	Meas Freq. MHz	Pk Det. dbuV/m	QPk Det. dbuV/m	Limit Pk dbuV/m	Limit QPk dbuV/m	Verdict	Ref. Plot
CH 37 2402	33.474	25.375	19.607	-	40	Pass	12
	619.96	38.116	32.031	-	46	Pass	12
	986.51*	41.897	35.556	-	54	Pass	12
			AVG Det. dbuV/m		Limit AVG Det. dbuV/m		
	2289.62*	52.03	30.335	74	54	Pass	13
	2400	54.09	39.923	74	54	Pass	13
	2497.6*	53.17	27.119	74	54	Pass	14
	2513.7	56.48	32.599	74	54	Pass	14
	2529.6	54.80	34.939	74	54	Pass	14
	7206	55.91	-	74	-	Pass	15,16
	7212	-	48.14	-	54	Pass	15
	13839	59.04	50.47	74	54	Pass	17
	17400	55.89	47.94	74	54	Pass	18
	25992	58.05	49.23	74	54	Pass	19

Note: The table shows the results of measurements made relative to the "Restricted bands" limit, as the worst case. The asterisk indicates the frequency in the "Restricted bands".

**Plot 11**

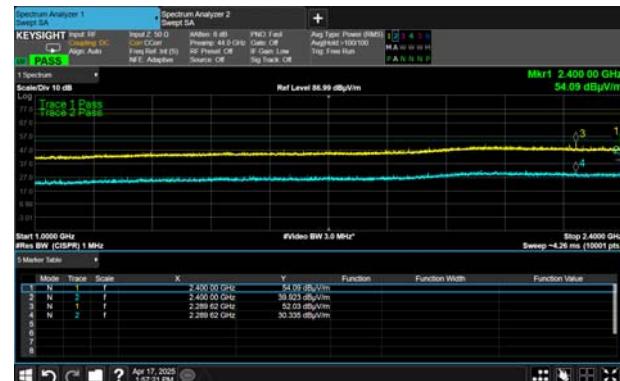


Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 20 of 36 Pages
FCC ID: 2B0TL-ADI-M



Plot 12



Plot 13



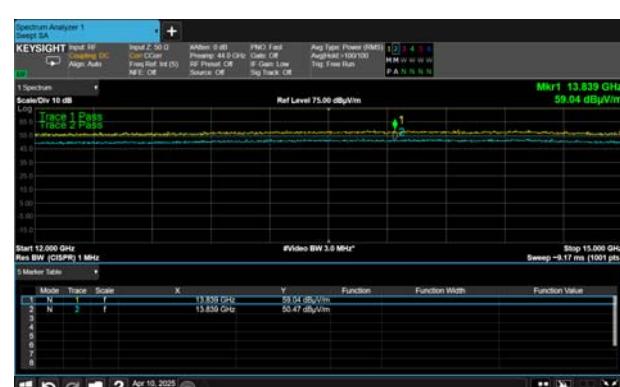
Plot 14



Plot 15



Plot 16



Plot 17



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 21 of 36 Pages
FCC ID: 2BOTL-ADI-M



Plot 18

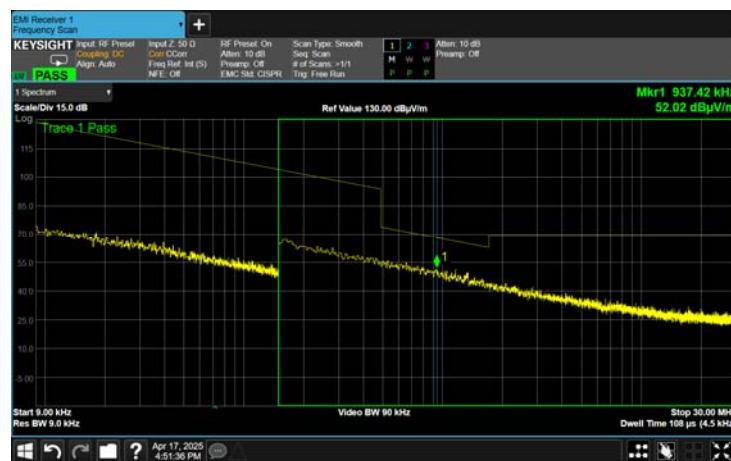


Plot 19

**Table 7. CH17 2440 MHz – modulation PRBS - Results**

Frequency MHz	Meas Freq. MHz	Pk Det. dbuV/m	QPk Det. dbuV/m	Limit Pk dbuV/m	Limit QPk dbuV/m	Verdict	Ref. Plot
CH 17 2440	30.060	27.762	21.234	-	40	Pass	21
	621.14	38.227	32.103	-	46	Pass	21
	998.20*	41.171	35.756		54	Pass	21
			AVG Det. dbuV/m		Limit AVG Det. dbuV/m		
	2043.0	50.52	28.558	74	54	Pass	22
	2135.71	50.39	30.387	74	54	Pass	22
	2328.18*	53.30	31.072	74	54	Pass	22
	2552.3	53.91	31.531	74	54	Pass	23
	4639.5	54.13	33.718	74	54	Pass	23
	5950.1	55.43	34.559	74	54	Pass	23
	7319.246*	52.10	-	74	-	Pass	25,24
	7320.781*	50.81	-	74	-	Pass	25.24
	14499*	58.62	50.92	74	54	Pass	26
	17787*	55.63	47.54	74	54	Pass	27
	25704	59.19	48.95	74	54	Pass	28

Note: The table shows the results of measurements made relative to the "Restricted bands" limit, as the worst case. The asterisk indicates the frequency in the "Restricted bands".

**Plot 20**



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 23 of 36 Pages
FCC ID: 2B0TL-ADI-M



Plot 21



Plot 22



Plot 23



Plot 24



Plot 25



Plot 26

Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 24 of 36 Pages
FCC ID: 2BOTL-ADI-M



Plot 27



Plot 28



Table 8. CH39 2480 MHz – modulation PRBS - Results

Frequency MHz	Meas Freq. MHz	Pk Det. dbuV/m	QPk Det. dbuV/m	Limit Pk dbuV/m	Limit QPk dbuV/m	Verdict	Ref. Plot
CH 39 2480	33.42	28.043	22.087	-	40	Pass	30
	622.11	37.936	32.119		46	Pass	30
	993.58*	41.876	35.820	-	54	Pass	30
			AVG Det. dbuV/m		Limit AVG Det. dbuV/m		
	2368.69*	53.47	28.129	74	54	Pass	31
	2352.40*	53.71	31.665	74	54	Pass	31
	2486.2*	53.88	30.510	74	54	Pass	32
	2487.9*	45.88	35.603	74	54	Pass	32
	4652.2	52.72	34.042	74	54	Pass	32
	7441.4	53.04	-	74	-	Pass	34,33
	7438.5	58.89	-	74	-	Pass	34,33
	13.899	58.77	50.86	74	54	Pass	35
	17928*	56.10	47.28	74	54	Pass	36
	25232	58.78	48.47	74	54	Pass	37

Note: The table shows the results of measurements made relative to the "Restricted bands" limit, as the worst case. The asterisk indicates the frequency in the "Restricted bands".



Plot 29

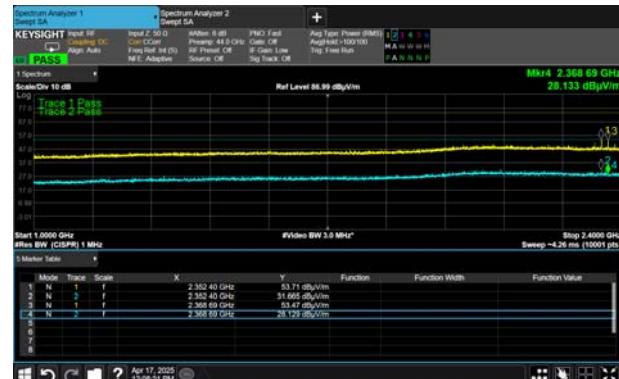


Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 26 of 36 Pages
FCC ID: 2B0TL-ADI-M



Plot 30



Plot 31



Plot 32



Plot 33



Plot 34



Plot 35



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 27 of 36 Pages
FCC ID: 2BOTL-ADI-M



Plot 36



Plot 37



6.6. Band-edge measurements

Limits & methods:

FCC requirements	15.247(d)		
Test procedure	ANSI 63.10 Section 11.13 Radiated Measurement		
Operating mode	BLE, Hight Mid and Low		
Ambient Temperature 22°C	Relative Humidity 46%	Air Pressure 1006hPa	

Limit

In any 100 kHz bandwidth outside the frequency band the radio frequency power shall be at least 20 dB below that in the 100 kHz bandwidth within the band

Results:

Table 9. Band-edge Results

Channel	Freq MHz	Peak, dB μ V/m	Limit Peak dB μ V/m	AVG, dB μ V/m	Limit AVG dB μ V/m	Verdict	Plot
CH 37 2402 MHz	2400.00	51.46	74	39.154	54	Pass	38
	2498.1289*	55.90	74	31.521	54	Pass	39
CH 17 2440 MHz	2328.29	52.96	74	30.737	54	Pass	40
	2487.8362*	53.21	74	29.285	54	Pass	41
CH 39 2480 MHz	2351.92	56.60	74	30.473	54	Pass	42
	2488.07875*	49.52	74	39.494	54	Pass	43

Note: The table shows the results of measurements made relative to the "Restricted bands" limit, as the worst case. The asterisk indicates the frequency in the "Restricted bands". Each channel has maximum measurements in the table.



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 29 of 36 Pages
FCC ID: 2B0TL-ADI-M



Plot 38



Plot 39



Plot 40



Plot 41



Plot 42



Plot 43



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 30 of 36 Pages

FCC ID: 2B0TL-ADI-M

6.7. AC power line conducted emission measurement

Limits & methods:

FCC requirements	15.207		
Test procedure	ANSI 63.10 Section 6.2		
Ambient Temperature	22°C	Relative Humidity	46% Air Pressure 1006hPa

Limit:

Frequency, MHz	Class B equipment, dB (μ V)	
	QP	AVRG
0.15 - 0.5	66 - 56*	56 - 46*
0.5 - 5	56	46
5 - 30	60	50

* Decreases linearly with the logarithm of the frequency.

Test Procedure:

EUT was connected to 120VAC main via auxiliary power supply.

The EUT was placed on a table in shielded room at a height 80 cm from floor and 40 cm from the vertical reference plane and at more than 80 cm from any other metal surfaces. The measurements were performed at mains terminals by means of LISN, connected to spectrum analyzer in the frequency range as referred to in the table above. The measurements were made with quasi-peak(CISPR) and average detectors. The position of the EUT cables was varied to determine maximum emission level.

Results:

Not applicable!



7. Antenna requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

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

The antenna of the device is - inside case box and non-detachable antenna.
There are no provisions for connection to an external antenna.

Conclusion: The unit complies with the requirement of §15.203.

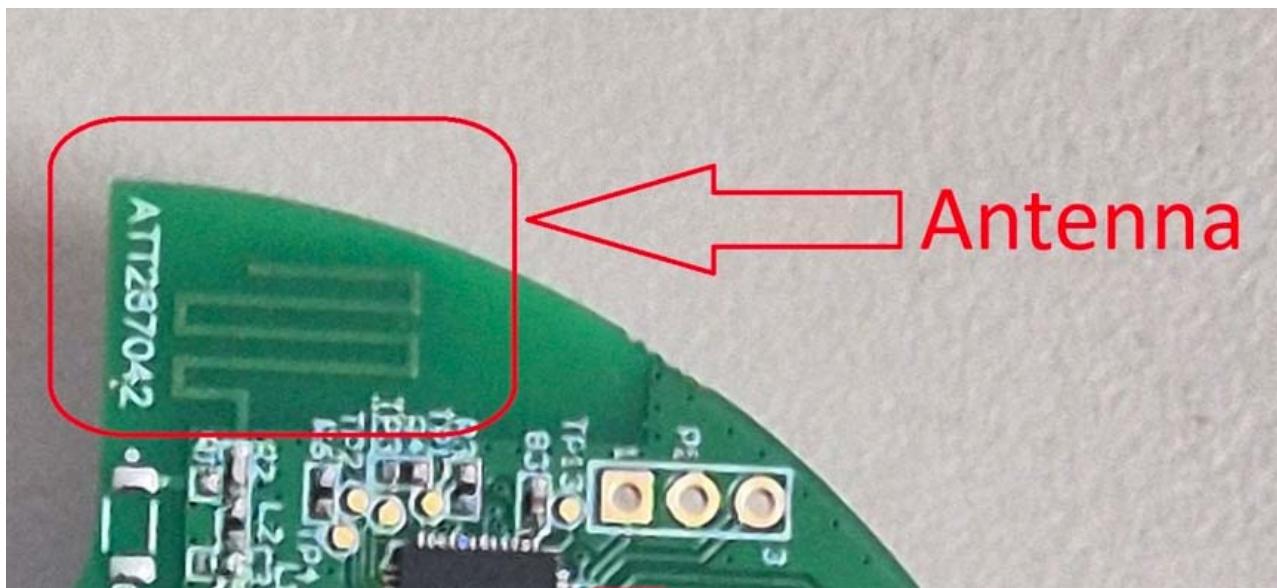


Figure 5. Antenna MIFA PCB printed



8. Appendix 1: Test equipment used

All measurements equipment is on SII calibration schedule with a recalibration interval not exceeding one year.

Instrument	Manufacturer	Model	SII No.	Last calibration date	Next calibration date
EMI Test Receiver 3 Hz - 44 GHz	Keysight	N9038B	6505208	11/24	11/25
LISN 9 kHz – 30 MHz	Schwarbeck Mess Elektronik	NSLK 8128	6505753	08/24	08/25
Biconilog Antenna 20 MHz - 6000 MHz	ETS LINDGREN	3142D	6503046	12/23	12/25
Double Ridged Waveguide horn Antenna 1-18 GHz	ETS Lindgren	3115	143138	07/23	07/25
Double Ridged Waveguide horn Antenna 10-40GHz	ETS Lindgren	3116	00143127	07/23	07.25
Cable RF 1 m	SUCOFLEX	104PE	21325	04/25	04/26
Cable RF 3 m	VPO 2930	K30K30-5003-300cm5VI	005	04/25	04/26
Attenuator 10dB 5W	-	5W	6502987	04/23	05/25
Attenuator 20dB 5W	-	5W	6502992	04/23	05/25
USB preamplifier 2 GHz – 50 GHz	Keysight	U7227F	MY 55380004	11/24	11/26
Cable Sets 9 kHz-18GHz	-	-	-	12/24	12/25
Cable Sets 9 kHz-1GHz RE Cbl Set	-	-	-	04/25	04/26
Semi Anechoic Chamber	ETS-Lindgren	RFSD-F/A-100	5002	N/A	N/A
Multi-Device Positioning Controller	ETS-Lindgren	2090	5002	N/A	N/A
Antenna Tower	ETS-Lindgren	2175	5002	N/A	N/A
Boresight Antenna Tower	ETS-Lindgren	2171B	5002	N/A	N/A
Turntable	ETS-Lindgren	2188	5002	N/A	N/A



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 33 of 36 Pages
FCC ID: 2BOTL-ADI-M

9. Appendix 2: Antenna Factor and Cable Loss

Cable Loss (SAC, frequency range: 30 MHz-1.0 GHz)

No.	Frequency (MHz)	Attenuation (dB)	Frequency (MHz)	Attenuation (dB)	Frequency (MHz)	Attenuation (dB)
1	28.71	0.4	97.21	1.0	329.17	1.7
2	30.14	0.4	102.07	1.0	345.63	1.8
3	31.65	0.5	107.17	1.0	362.91	1.8
4	33.23	0.5	112.53	1.0	381.06	1.8
5	34.89	0.5	118.15	1.0	400.11	1.9
6	36.64	0.5	124.06	1.1	420.12	2.0
7	38.47	0.5	130.27	1.1	441.12	2.0
8	40.39	0.6	136.78	1.1	463.18	2.1
9	42.41	0.6	143.62	1.1	486.34	2.1
10	44.53	0.6	150.80	1.1	510.66	2.2
11	46.76	0.6	158.34	1.1	536.19	2.2
12	49.10	0.6	166.26	1.1	563.00	2.4
13	51.55	0.6	174.57	1.2	591.15	2.4
14	54.13	0.7	183.30	1.2	620.70	2.5
15	56.83	0.7	192.46	1.3	651.74	2.6
16	59.68	0.7	202.08	1.3	684.33	2.6
17	62.66	0.7	212.19	1.3	718.54	2.8
18	65.79	0.8	222.80	1.4	754.47	2.9
19	69.08	0.8	233.94	1.4	792.19	2.9
20	72.54	0.8	245.63	1.4	831.80	3.0
21	76.16	0.8	257.92	1.5	873.39	3.2
22	79.97	0.9	270.81	1.5	917.06	3.2
23	83.97	0.9	284.35	1.5	962.92	3.3
24	88.17	0.9	298.57	1.6	1011.06	3.4
25	92.58	0.9	313.50	1.6	--	--



Test Report No.: 7512304419

Title: Test on ADI-M, Model: Rev1

Page 34 of 36 Pages

FCC ID: 2BOTL-ADI-M

Antenna Factor**Biconilog Antenna, Model Number: 3142D S/N: 6503046 3 m distance**

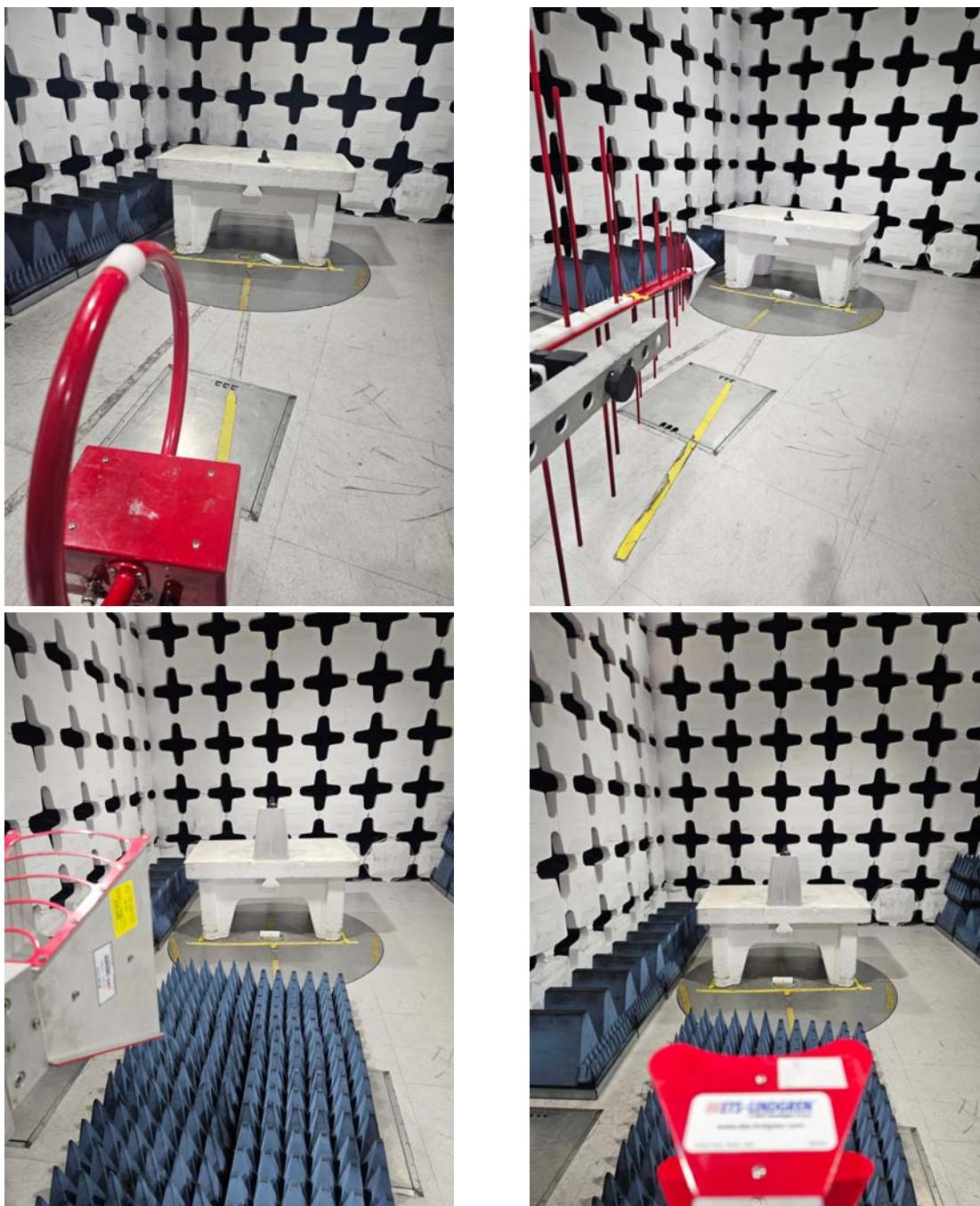
No.	f / MHz	ACF / dB/m	f / MHz	AF / dB/m
1	30	22.7	200	16.7
2	35	20.4	250	18.0
3	40	17.8	300	19.8
4	45	15.7	400	22.7
5	50	14.2	500	25.8
6	60	13.0	600	27.4
7	70	13.0	700	28.4
8	80	12.4	800	30.0
9	90	13.3	900	31.3
10	100	14.2	1000	32.8
11	120	13.3	1250	35.8
12	140	13.3	1500	42.9
13	160	14.6	1750	36.1
14	180	16.3	2000	34.6

Antenna Factor**Double Ridged Waveguide Antenna Model Number: 3115 S/N 0143138
3m distance**

No.	f / MHz	AF / dB/m	f / MHz	AF / dB/m	f / MHz	AF / dB/m
1	1000	23.6	7000	36.7	13000	39.7
2	1500	25.6	7500	37.3	13500	40.3
3	2000	28.2	8000	37.0	14000	41.0
4	2500	27.8	8500	37.6	14500	41.0
5	3000	29.3	9000	37.8	15000	39.6
6	3500	30.7	9500	38.0	15500	38.8
7	4000	31.8	10000	38.3	16000	39.1
8	4500	32.1	10500	38.6	16500	40.0
9	5000	32.9	11000	38.6	17000	40.9
10	5500	32.9	11500	38.9	17500	42.3
11	6000	34.0	12000	38.8	18000	42.5
12	6500	35.3	12500	38.9	--	--



10. Appendix 3: Test illustrations



Picture 1
Radiated emission test setup.



Test Report No.: 7512304419
Title: Test on ADI-M, Model: Rev1

Page 36 of 36 Pages
FCC ID: 2B0TL-ADI-M



Picture 2. Radiated emission test setup on table

END OF THE DOCUMENT