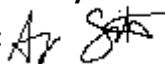


Test Report TR3959D

Equipment Under Test:	802.11ac Professional Wi-Fi + BT5.0 Module
Requirement(s):	FCC 1.1307, 1.1310 ISED: RSS-102
Test Date(s):	2/20/2026 – 2/27/2026
Prepared for:	Ezurio LLC Attn: Brian Petted W66 N220 Commerce Ct. Cedarburg, WI 53012

Report Issued by: Anthony Smith, EMC Engineering Specialist Signature: 	Date: 04/30/2026
Report Reviewed by: Adam Alger, Sr. Manager, EMC Laboratory Signature: 	Date: 03/24/2026
Report Constructed by: Anthony Smith, EMC Engineering Specialist Signature: 	Date: 03/24/2026

This test report may not be reproduced, except in full, without approval of Ezurio

Company: Ezurio LLC	Page 1 of 16	Name: 802.11ac Professional Wi-Fi + BT5.0 Module
Report: TR3959D		Model: SU60-SOMC (453-00003)
Job: C-3959		Serial: 5302203735, 5302203734

CONTENTS

Ezurio Test Services in Review	3
1 Test Report Summary	4
2 Client Information	5
2.1 Equipment Under Test (EUT) Information	5
2.2 Product Description	5
2.3 Modifications Incorporated for Compliance	5
2.4 Deviations and Exclusions from Test Specifications	5
2.5 Test Channels	6
2.6 Additional Information	8
3 References	9
4 Uncertainty Summary	10
5 Test Data	11
5.1 Antenna Port Conducted Emissions	11
5.1.1 Output Power	12
5.1.2 MPE Evaluation of Mobile Device – FCC	14
5.1.3 MPE Evaluation of Mobile Device – IC	15
6 Revision History	16

Ezurio Test Services in Review

The Ezurio laboratory located at W66 N220 Commerce Court Cedarburg, Wisconsin, 53012 USA is recognized through the following organizations:



A2LA – American Association for Laboratory Accreditation

Accreditation based on ISO/IEC 17025:2017 with Electrical (EMC) Scope

A2LA Certificate Number: 1255.01

Scope of accreditation includes all test methods listed herein unless otherwise noted



Federal Communications Commission (FCC) – USA

Accredited Test Firm Registration Number: 953492

Recognition of two 3 meter Semi-Anechoic Chambers



Innovation, Science and Economic Development Canada

Accredited U.S. Identification Number: US0218

Recognition of two 3 meter Semi-Anechoic Chambers

Company: Ezurio LLC	Page 3 of 16	Name: 802.11ac Professional Wi-Fi + BT5.0 Module
Report: TR3959D		Model: SU60-SOMC (453-00003)
Job: C-3959		Serial: 5302203735, 5302203734

1 TEST REPORT SUMMARY

During **February 20th, 2026 to February 27th, 2026** the Equipment Under Test (EUT), **802.11ac Professional Wi-Fi + BT5.0 Module**, as provided by **Ezurio LLC** was tested to the following requirements:

Class 2 Permissive Change

Requirements	Description	Method	Compliant
FCC Part 1.1310, 2.1091	Radiofrequency radiation exposure evaluation: mobile devices	ANSI C63.10	Yes
ISED RSS-102	Radio Frequency Exposure Compliance of Radiocommunication Apparatus	RSS-102	Yes

Note: Class 2 permissive change testing to add an antenna.

Notice:

The results relate only to the item tested as configured and described in this report. Any additional configurations, modes of operation, or modifications made to the equipment under test after the specified test date(s) are at the decision of the client and may not apply to the data seen in this test report.

The decision rule for Pass / Fail assessment to the specification or standard listed in this test report has been agreed upon by the client and laboratory to be as follows:

Measurement Type	Rule
Emissions – Amplitude	1 dB below specified limit
Emissions – Frequency	1% less than the specification
Immunity	Tested at specified level

2 CLIENT INFORMATION

Company Name	Ezurio LLC
Contact Person	Brian Petted
Address	W66 N220 Commerce Ct. Cedarburg, WI 53012

2.1 Equipment Under Test (EUT) Information

The following information has been supplied by the client

Product Name	802.11ac Professional Wi-Fi + BT5.0 Module
Model Number	SU60-SOMC (453-00003)
Serial Number	5302203735 (Conducted Testing) 5302203734 (Radiated Testing)
Date of Receipt	2/12/2026
Condition	New
FCC ID	SQG-SU60SOMC
IC ID	3147A-SU60SOMC

2.2 Product Description

Device is a combo WLAN 2.4/5G and Bluetooth radio.

2.3 Modifications Incorporated for Compliance

None noted at time of test

2.4 Deviations and Exclusions from Test Specifications

None noted at time of test

2.5 Test Channels

Highest output power channels selected for MPE evaluation.

Bluetooth

Modulation	Channel	Frequency (MHz)	Data Rate	Power Setting
GFSK	0	2402	DH5	Default
	38	2440		
	78	2480		
$\pi/4$ -DQPSK	0	2402	EDR2	
	38	2440		
	78	2480		
8-DPSK	0	2402	EDR3	
	38	2440		
	78	2480		
BLE	37	2402	1M	
	17	2440		
	39	2480		
	37	2402	2M	
	17	2440		
	39	2480		

WLAN 2.4

Modulation	Channel	Data Rate	Power Setting
802.11b	1	1 Mbps	16
802.11b	6	1 Mbps	18
802.11b	11	1 Mbps	17
802.11g	1	6 Mbps	14
802.11g	6	6 Mbps	18
802.11g	11	6 Mbps	14
802.11n HT20	1	MCS0	13
802.11n HT20	6	MCS0	18
802.11n HT20	11	MCS0	12
802.11n HT40	3	MCS0	11
802.11n HT40	9	MCS0	11

WLAN 5

Mode	Data Rate	Channel	Power Setting
802.11a	6Mbps	36	14
802.11a	6Mbps	48	18
802.11a	6Mbps	60	16
802.11a	6Mbps	100	13
802.11a	6Mbps	116	18
802.11a	6Mbps	157	18
802.11a	6Mbps	165	18
802.11n	MCS0	36	14
802.11n	MCS0	100	14
802.11n	MCS0	165	18
802.11ac	MCS0	36	14
802.11ac	MCS0	40	18
802.11ac	MCS0	48	18
802.11ac	MCS0	64	14
802.11ac	MCS0	100	14
802.11ac	MCS0	116	18
802.11ac	MCS0	149	18
802.11ac	MCS0	165	18
802.11n	MCS0	38	13
802.11n	MCS0	102	13
802.11n	MCS0	159	16
802.11ac	MCS0	38	13
802.11ac	MCS0	46	16
802.11ac	MCS0	54	15
802.11ac	MCS0	62	12
802.11ac	MCS0	102	13
802.11ac	MCS0	118	16
802.11ac	MCS0	142	10
802.11ac	MCS0	151	16
802.11ac	MCS0	159	16
802.11ac	MCS0	42	10
802.11ac	MCS0	58	11
802.11ac	MCS0	106	11
802.11ac	MCS0	122	14
802.11ac	MCS0	138	14
802.11ac	MCS0	155	14

2.6 Additional Information

Device programmed via USB to RS232 utilizing a Laptop PC. “BTLRU” and “LRU” version 13.24.0.20 utilized to program radio test modes on device (Bluetooth and WLAN, respectively).

During conducted testing non measured port was terminated with 50Ω. During radiated testing main port connected to antenna 1001735 and aux port connected to antenna 1001733.

Antenna 1001733 has peak gain of 1.5 dBi in 2.4 GHz band, 3.8 dBi in 5 GHz band.

Antenna 1001735 has peak gain of 0.5 dBi in 2.4 GHz band, 4.2 dBi in 5 GHz band.

Bluetooth radio utilizes Aux port only. WLAN utilizes Aux and Main ports.

Company: Ezurio LLC	Page 8 of 16	Name: 802.11ac Professional Wi-Fi + BT5.0 Module
Report: TR3959D		Model: SU60-SOMC (453-00003)
Job: C-3959		Serial: 5302203735, 5302203734

3 REFERENCES

Publication	Edition	Date	AMD 1	AMD 2
ANSI C63.10		2020		
RSS-247	4	2025	-	-
RSS-Gen	5	2018	2019	2021
FCC eCFR 47 Part 15	-	2026	-	-

4 UNCERTAINTY SUMMARY

Using the guidance of the following publications the calculated measurement uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level, using a coverage factor of $k = 2$.

References
CISPR 16-4-1
CISPR 16-4-2
CISPR 32
ANSI C63.23
A2LA P103
A2LA P103c
ETSI TR 100-028

Measurement Type	Configuration	Uncertainty $\pm$
Radiated Emissions	Biconical Antenna	5.0 dB
Radiated Emissions	Log Periodic Antenna	5.3 dB
Radiated Emissions	Horn Antenna	4.7 dB
AC Line Conducted Emissions	Artificial Mains Network	3.4 dB
Telecom Conducted Emissions	Asymmetric Artificial Network	4.9 dB
Disturbance Power Emissions	Absorbing Clamp	4.1 dB
Radiated Immunity	3 Volts/meter	2.2 dB
Conducted Immunity	CDN/EM/BCI	2.4/3.5/3.4 dB
EFT Burst/Surge	Peak pulse voltage	164 volts
ESD Immunity	15 kV level	1377 Volts

Parameter	ETSI U.C. $\pm$	U.C. $\pm$
Radio Frequency, from F0	1×10^{-7}	0.55×10^{-7}
Occupied Channel Bandwidth	5 %	2 %
RF conducted Power (Power Meter)	1.5 dB	1.2 dB
RF conducted emissions (Spectrum Analyzer)	3.0 dB	1.7 dB
All emissions, radiated	6.0 dB	5.3 dB
Temperature	1° C	0.65° C
Humidity	5 %	2.9 %
Supply voltages	3 %	1 %

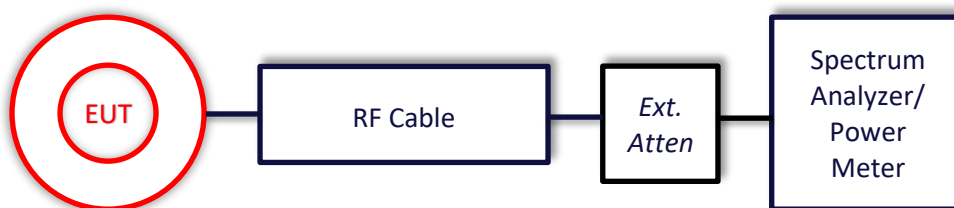
Company: Ezurio LLC	Page 10 of 16	Name: 802.11ac Professional Wi-Fi + BT5.0 Module
Report: TR3959D		Model: SU60-SOMC (453-00003)
Job: C-3959		Serial: 5302203735, 5302203734

5 TEST DATA

5.1 Antenna Port Conducted Emissions

Description of Measurement	The direct measurement of emissions at the antenna port of the EUT is achieved by use of a RF connection to a spectrum analyzer or power meter. The cable and attenuator factors are loaded into the analyzer or power meter allowing for direct measurement readings without the need for further corrections.
Example Calculations	Measurement (dBm) + Cable factor (dB) + External Attenuator (dB) = Corrected Reading (dBm) Margin (dB) = Limit (dBm) – Corrected Reading (dBm)

Block Diagram



Instrumentation

Asset #	Description	Manufacturer	Model #	Serial #	Date	Due Date	Status
AA 960173	Cable	A.H. Systems, Inc.	SAC-26G-1	388	2/12/2026	2/12/2027	Active Verification
EE 960087	Analyzer - Spectrum	Agilent	N9010A	MY53400296	6/1/2025	6/1/2026	Active Calibration

5.1.1 Output Power

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.5, 20.9°C	R.H. %	33.1, 21.0%
Test Date	2/20/2023-2/23/2023	Location	Conducted RF Bench
Requirement	FCC 15.247 (b)(1), (b)(3) RSS-247 § 6.2.3.2, 6.3.2	Method	ANSI C63.10

Table

Highest output power highlighted for each radio mode

Bluetooth

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Measured Output Power (dBm)
1	0	GFSK	DH5	2402	10.8
1	38	GFSK	DH5	2440	10.6
1	78	GFSK	DH5	2480	10.1

WLAN 2.4

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Measured Output Power (dBm) - Main Port	Measured Output Power (dBm) - Aux Port	Combined Output Power (dBm)	Limit (dBm)
20	1	802.11n	HT20	2412	12.3	13.2	15.8	30.0
20	6	802.11n	HT20	2437	17.2	17.9	20.6	30.0
20	11	802.11n	HT20	2462	11.3	12.0	14.7	30.0

WLAN 5

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Measured Output Power (dBm) Aux	Measured Output Power (dBm) Main	Combined Output Value (dBm)
20	36	802.11ac	MCS0	5180	11.9	12.5	15.2
20	40	802.11ac	MCS0	5200	16.3	16.7	19.5
20	48	802.11ac	MCS0	5240	16.5	17.0	19.8
20	100	802.11ac	MCS0	5500	13.5	13.4	16.5
20	116	802.11ac	MCS0	5580	17.6	17.7	20.7
20	149	802.11ac	MCS0	5745	16.8	17.7	20.3
20	165	802.11ac	MCS0	5825	16.8	17.5	20.2

Company: Ezurio LLC	Page 12 of 16	Name: 802.11ac Professional Wi-Fi + BT5.0 Module
Report: TR3959D		Model: SU60-SOMC (453-00003)
Job: C-3959		Serial: 5302203735, 5302203734

Worst Case Results

Bluetooth: 10.8 dBm

WLAN 2.4 Aux: 17.9 dBm

WLAN 2.4 Main: 17.2 dBm

WLAN 5 Aux: 17.6 dBm

WLAN 5 Main: 17.7 dBm

5.1.2 MPE Evaluation of Mobile Device – FCC

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Power Density (mW/cm ²)	Averaging Time (minutes)
300-1500	f(MHz)/1500	30
1500-100000	1.0	30

MPE Evaluation Formula

$$P_d = \frac{P_t}{4 * \pi * R^2}$$

P_d = Power Density in mW/cm²

P_t = EIRP in mW

R = Measurement distance

MPE Evaluation Results

Aux						
Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN						
2412-2462	17.9	1.5	19.4	20	0.017	1
5180-5825	17.6	3.8	21.4	20	0.027	1
Bluetooth						
2402-2480 BTC	10.8	1.5	12.3	20	0.003	1

Main						
Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN						
2412-2462	17.2	0.5	17.7	20	0.012	1
5180-5825	17.7	4.2	21.9	20	0.031	1

5.1.3 MPE Evaluation of Mobile Device – IC

Limits for device used by the general public

Frequency Range (MHz)	Power Density (W/m ²)	Averaging Time (minutes)
300-6000	$0.02619f^{0.6834}$	6
6000-15000	10	6

MPE Evaluation Formula

$$P_d = \frac{P_t}{4 * \pi * R^2}$$

P_d = Power Density in W/m²

P_t = EIRP in mW

R = Measurement distance

MPE Evaluation Results

Aux						
Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance (m)	Power Density (W/m ²)	Limit (W/m ²)
WLAN						
2412-2462	17.9	1.5	19.4	0.2	0.1733	5.37
5180-5825	17.6	3.8	21.4	0.2	0.2746	9.05
Bluetooth						
2402-2480 BTC	10.8	1.5	12.3	0.2	0.0338	5.35

Main						
Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance (m)	Power Density (W/m ²)	Limit (W/m ²)
WLAN						
2412-2462	17.2	0.5	17.7	0.2	0.1171	5.37
5180-5825	17.7	4.2	21.9	0.2	0.3081	9.05

6 REVISION HISTORY

Version	Date	Notes	Person
0.0	3/18/2026	Initial Draft	Anthony Smith
0.1	3/19/2026	Comments addressed/revisions made	Anthony Smith
1.0	3/24/2026	Finalized Draft	Anthony Smith
1.1	4/30/2026	Model Information Updated	Anthony Smith

END OF REPORT