



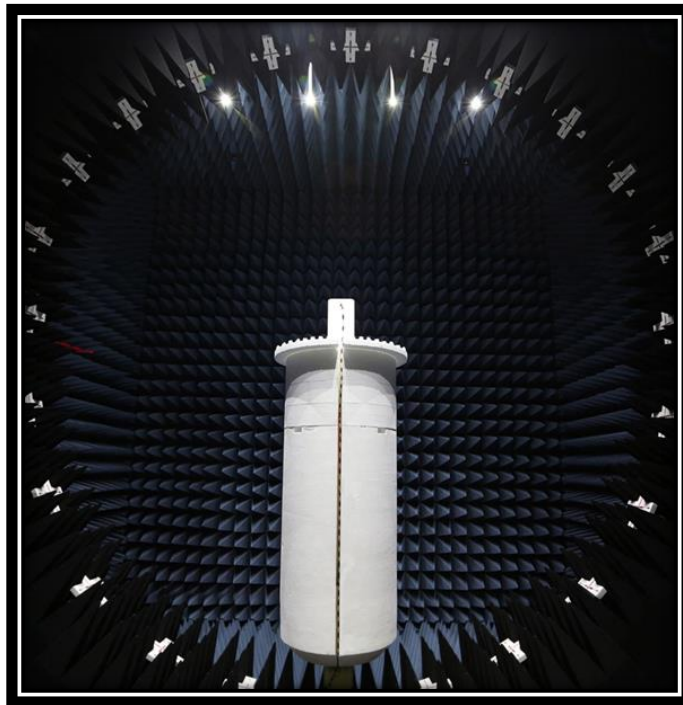
element

InfoBionic

MoMe ARC Sensor POD

Antenna Pattern Measurements

Report: ININ0007.0 Rev. 0, Issue Date: December 18, 2024



Approved by:

Johnny Candelas, Operations Manager

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REVISION HISTORY



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

ACCREDITATIONS AND AUTHORIZATIONS



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.

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.

European Union

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

United Kingdom

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

Australia/New Zealand

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

Korea

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

Japan

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

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.

Singapore

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

Israel

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

Hong Kong

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

Vietnam

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

SCOPE

For details on the Scopes of our Accreditations, please visit:

[California](#)

[Minnesota](#)

[Oregon](#)

[Texas](#)

[Washington](#)

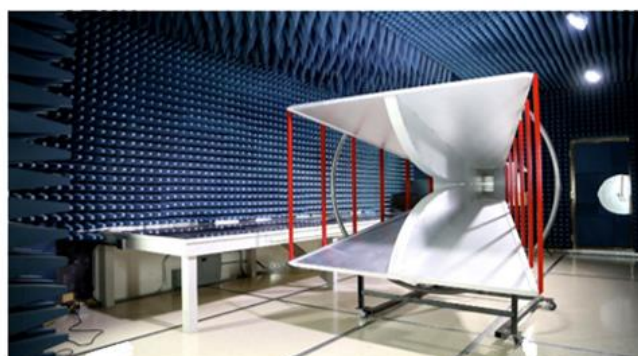
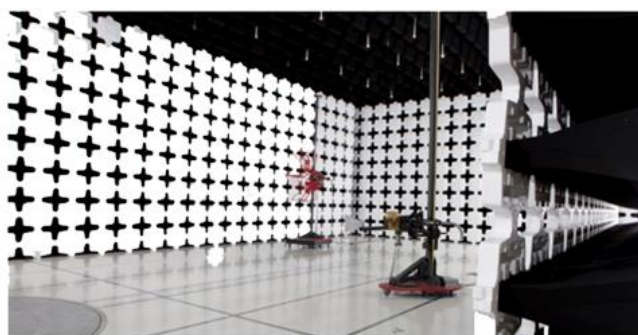
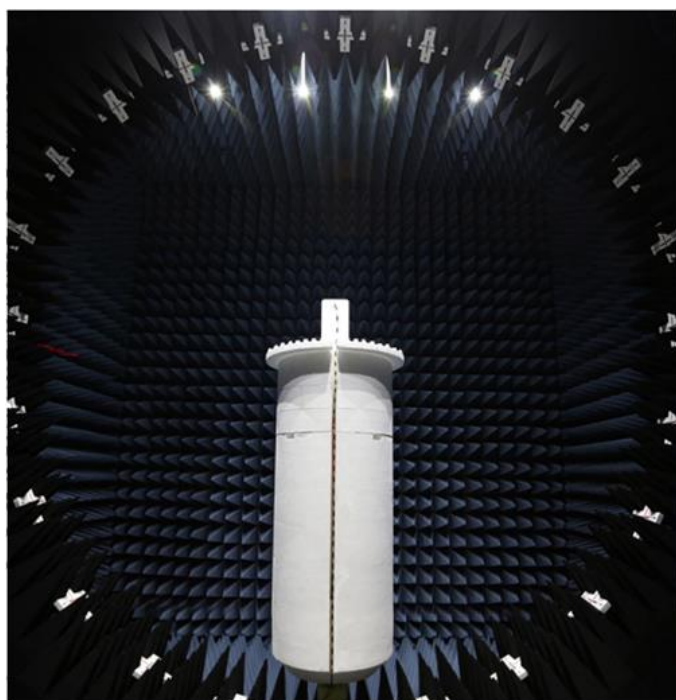
FACILITIES

Testing was performed at the following location(s)

	Location	Labs ⁽¹⁾	Address	A2LA ⁽²⁾	ISED ⁽³⁾	BSMI ⁽⁴⁾	VCCI ⁽⁵⁾	CAB ⁽⁶⁾	FDA ⁽⁷⁾
☒	California	OC01-17	41 Tesla Irvine, CA 92618 (949) 861-8918	3310.04	2834B	SL2-IN-E-1154R	A-0029	US0158	TL-55
☐	Minnesota	MN01-11	9349 W Broadway Ave. Brooklyn Park, MN 55445 (612) 638-5136	3310.05	2834E	SL2-IN-E-1152R	A-0109	US0175	TL-57
☐	Oregon	EV01-12	6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	3310.02	2834D	SL2-IN-E-1017	A-0108	US0017	TL-56
☐	Plano Texas	PT01-15	1701 E Plano Pkwy, Ste 150 Plano, TX 75074 (972) 509-2566	214.19	32637	SL2-IN-E-057R	N/A	US0054	N/A
☐	Texas	TX01-09	3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	3310.03	2834G	SL2-IN-E-1158R	N/A	US0191	TL-54
☐	Washington	NC01-05	19201 120th Ave NE Bothell, WA 98011 (425) 984-6600	3310.06	2834F	SL2-IN-E-1153R	A-0110	US0157	TL-67
☐	Offsite	N/A	See Product Description	N/A	N/A	N/A	N/A	N/A	N/A

See data sheets for specific labs

- (1) The lab designations denote individual rooms within each location. (OC01, OC02, OC03, etc.)
- (2) A2LA Certificate No.
- (3) ISED Company No.
- (4) BSMI No.
- (5) VCCI Site Filing No.
- (6) CAB Identifier. Recognized Phase I CAB for ISED, ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA
- (7) FDA ASCA No.



PRODUCT DESCRIPTION

Client and Equipment under Test (EUT) Information

Company Name:	InfoBionic
Address:	321 Billerica Road OfficeLink #5
City, State, Zip:	Chelmsford, CA 01824
Test Requested By:	Eric Baumann
EUT:	MoMe ARC Sensor POD
First Date of Test:	July 31, 2024
Last Date of Test:	July 31, 2024
Receipt Date of Samples:	July 31, 2024
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Remote cardiac monitor
Testing Objective:
To obtain 2D antenna pattern measurements and calculated antenna performance values (Peak gain, 3dB Beamwidth, etc)
EUT Photo:

**Photo moved to
photos only file for
confidentiality
purposes.**

CONFIGURATIONS



Configuration ININ0007-2

Software/Firmware Running During Test			
Description		Version	
MoMe ARC Pod Emissions		V00.2321	
EUT			
Description	Manufacturer	Model/Part Number	Serial Number
MoMe ARC Sensor POD	InfoBionic	30570 Rev A	PIA00041

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2024-07-31	2D Antenna Patterns	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

ABSOLUTE GAIN - ANTENNA PATTERNS



PSA-ESCI 2023.12.23.0

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

MODES OF OPERATION

Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz

Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz

Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz

POWER SETTINGS INVESTIGATED

3.7 VDC via Battery

CONFIGURATIONS INVESTIGATED

ININ0007 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency | 2402 MHz

Stop Frequency

2480 MHz

SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAV	2024-01-25	2025-01-25
Amplifier - Pre-Amplifier	Cernex	CBL01084020-xx	PAX	2024-05-08	2025-05-08
Cable	Northwest EMC	1-8GHz RE Cables	OCJ	2024-05-08	2025-05-08
Antenna - Double Ridge	EMCO	3115	AHB	2024-04-16	2026-04-16

TEST DESCRIPTION

Measurements were performed in a semi-anechoic chamber at a 3 m distance. To simulate free space, the ground plane was covered with RF absorbing cones. The reference antenna and EUT were placed on a block of approximately 1.8 m low permittivity foam.

A signal generator was connected to the reference antenna with a low loss RF cable. To minimize the influence of the RF cable in the radiating pattern, the cable was lined with snap on ferrites at a separating distance of 10 cm.

A CW tone was then provided to the calibrated reference antenna and reference scan was then collected at the frequencies noted in this test report.

Using the same test setup, the antenna under test (AUT) was placed into the chamber. If an RF patch cable was provided by the manufacturer an additional offset factored into the final value.

A polar plot was then collected at the antenna height of maximum field strength. This plot was then compared to the reference antenna scan. Using the antenna gain (dBi) of the reference antenna the absolute gain of the AUT was calculated.

ABSOLUTE GAIN



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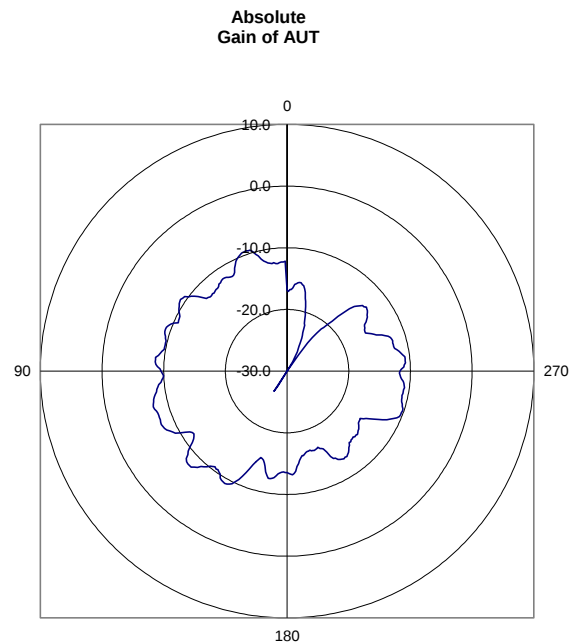
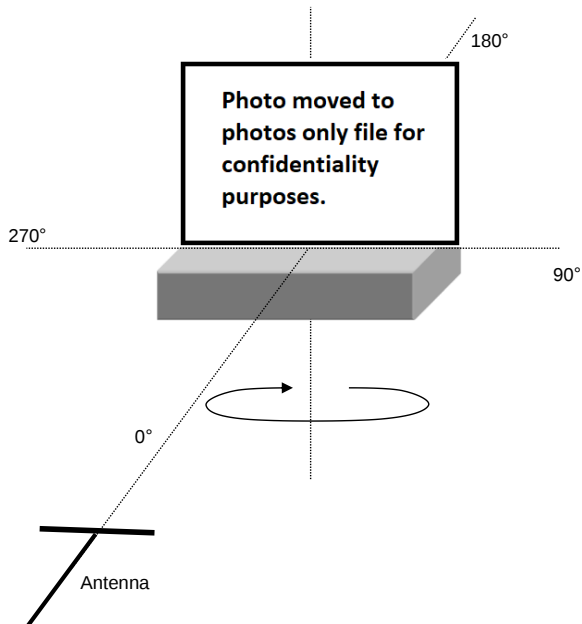
PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31		
Project:	None	Temperature:	23.6°C		
Job Site:	OC07	Humidity:	48%		
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	Tested by:	Mark Baytan
EUT:	MoMe ARC Sensor POD				
Configuration:	ININ0007-2				
Customer:	InfoBionic				
Attendees:	Konstantin Dubovenko				
EUT Power:	Battery				
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz				
Deviations:	None				
Comments:	Power Setting: 3 dBm				

Frequency **2402**
 Measurement Antenna Polarity **Horizontal**
 Antenna Under Test (AUT) Polarity **Horizontal**
 Maximum Absolute Gain of AUT (dBi) **-7.58**
 Average Absolute Gain of AUT (dBi) **-13.02**
 3 dB Beamwidth **55°**

Absolute Gain of Reference Antenna (dBi) 9.47
 Reference Antenna Relative Gain Max (dBuV/m) 85.92
 AUT Relative Gain Max (dBuV/m) 90.22
 Difference (Reference Antenna - AUT) (dB) -4.30
 AUT Setup Loss (dB) 0
 Correction Factor (Convert Relative to Absolute Gain) (dB) **97.79**
 Reference Antenna Measured Input Power (dBm) -17.50
 EUT Conducted Output Power (dBm) 3.85
 Power Delta (Antenna Power-Output Power) (dB) -21.35

Run #	Test Distance (m)	Antenna Height(s)	Results
			NA



ABSOLUTE GAIN



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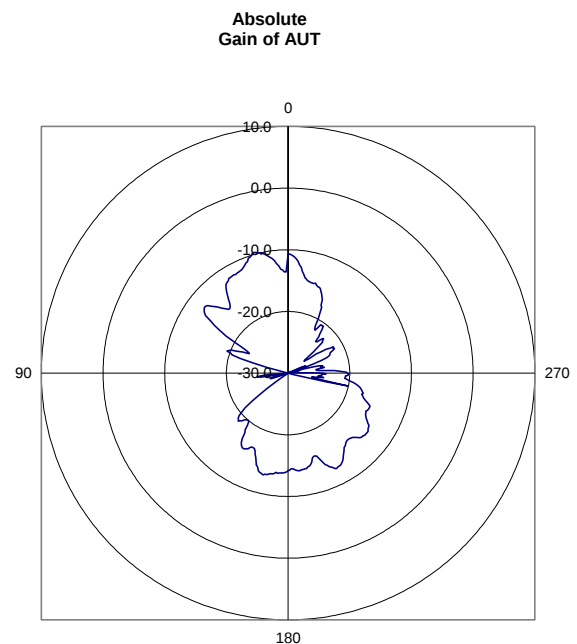
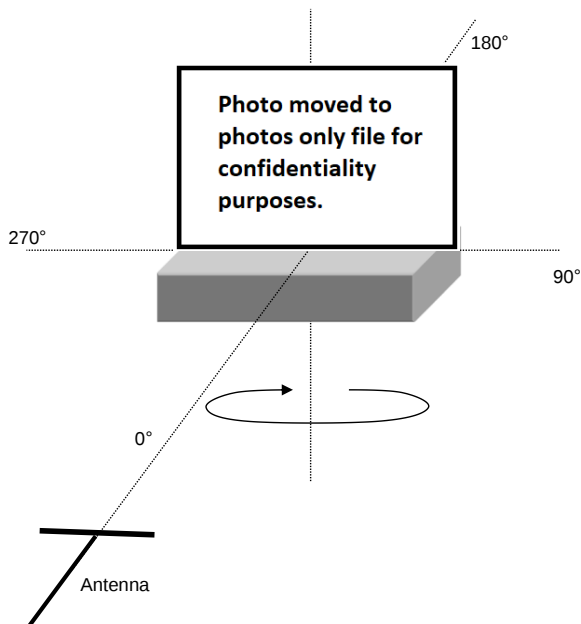
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Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency **2402**
 Measurement Antenna Polarity **Horizontal**
 Antenna Under Test (AUT) Polarity **Vertical**
 Maximum Absolute Gain of AUT (dBi) **-9.68**
 Average Absolute Gain of AUT (dBi) **-18.94**
 3 dB Beamwidth **32°**

Absolute Gain of Reference Antenna (dBi) 9.47
 Reference Antenna Relative Gain Max (dBuV/m) 85.92
 AUT Relative Gain Max (dBuV/m) 88.12
 Difference (Reference Antenna - AUT) (dB) -2.20
 AUT Setup Loss (dB) 0
 Correction Factor (Convert Relative to Absolute Gain) (dB) **97.79**
 Reference Antenna Measured Input Power (dBm) -17.50
 EUT Conducted Output Power (dBm) 3.85
 Power Delta (Antenna Power-Output Power) (dB) -21.35

Run #	Test Distance (m)	Antenna Height(s)	Results
			NA



ABSOLUTE GAIN



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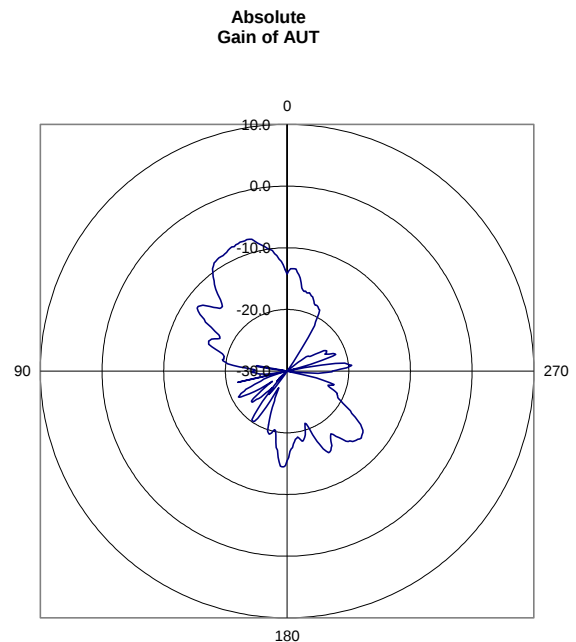
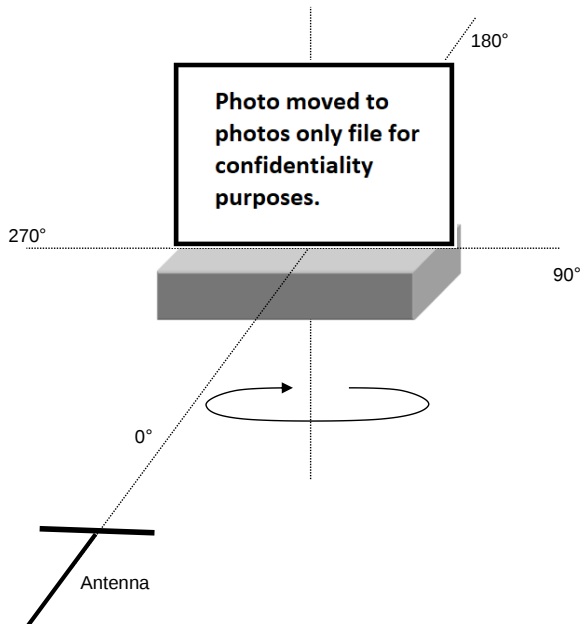
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Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency **2402**
 Measurement Antenna Polarity **Horizontal**
 Antenna Under Test (AUT) Polarity **on Side**
 Maximum Absolute Gain of AUT (dBi) **-7.68**
 Average Absolute Gain of AUT (dBi) **-19.84**
 3 dB Beamwidth **33°**

Absolute Gain of Reference Antenna (dBi) 9.47
 Reference Antenna Relative Gain Max (dBuV/m) 85.92
 AUT Relative Gain Max (dBuV/m) 90.12
 Difference (Reference Antenna - AUT) (dB) -4.20
 AUT Setup Loss (dB) 0
 Correction Factor (Convert Relative to Absolute Gain) (dB) **97.79**
 Reference Antenna Measured Input Power (dBm) -17.50
 EUT Conducted Output Power (dBm) 3.85
 Power Delta (Antenna Power-Output Power) (dB) -21.35

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



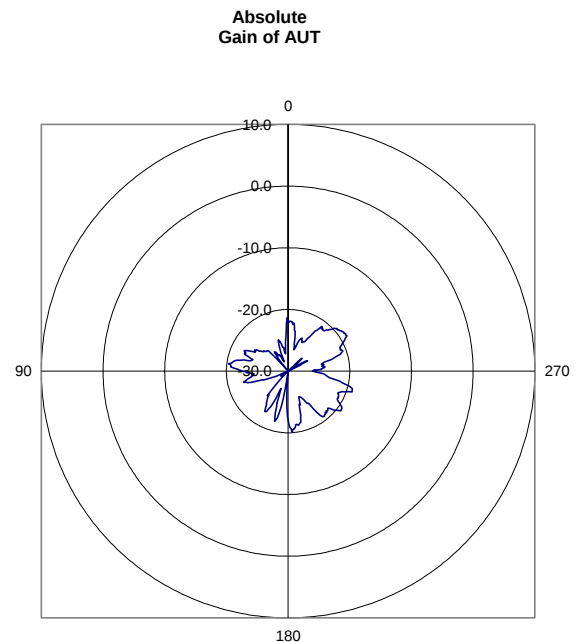
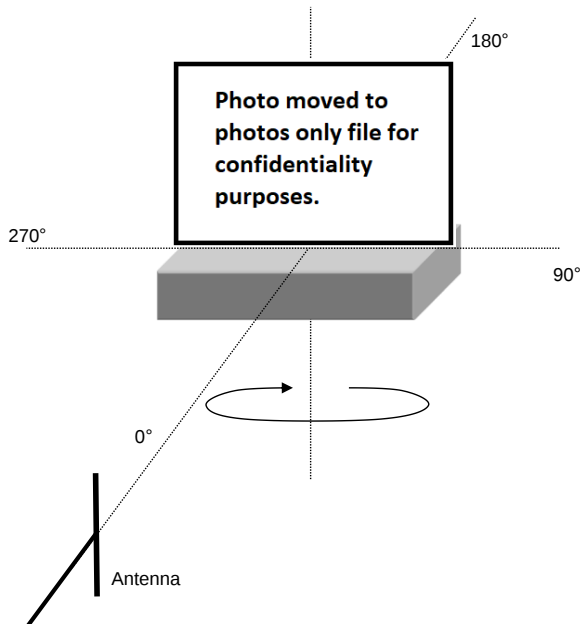
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PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2402	Absolute Gain of Reference Antenna (dBi)	9.47
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	85.92
Antenna Under Test (AUT) Polarity	Horizontal	AUT Relative Gain Max (dBuV/m)	78.92
Maximum Absolute Gain of AUT (dBi)	-18.88	Difference (Reference Antenna - AUT) (dB)	7.00
Average Absolute Gain of AUT (dBi)	-23.79	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.79
3 dB Beamwidth	39°		
		Reference Antenna Measured Input Power (dBm)	-17.50
		EUT Conducted Output Power (dBm)	3.85
		Power Delta (Antenna Power-Output Power) (dB)	-21.35

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



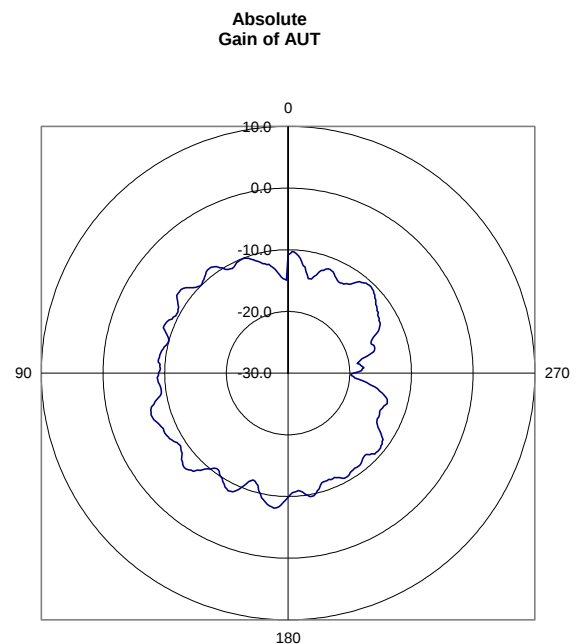
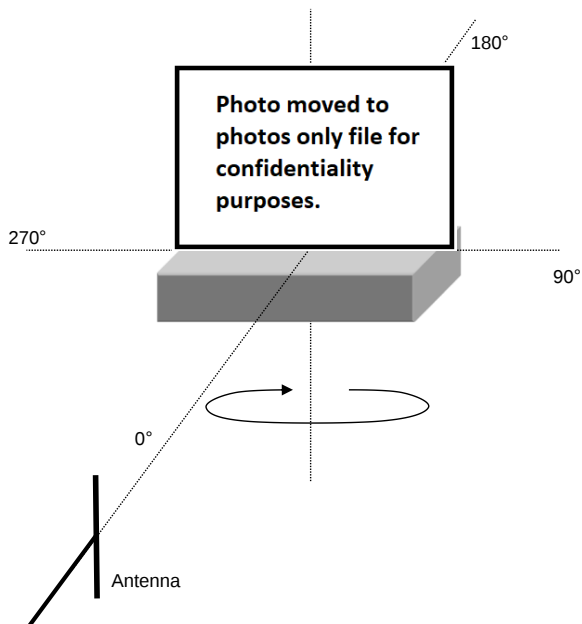
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Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2402	Absolute Gain of Reference Antenna (dBi)	9.47
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	85.92
Antenna Under Test (AUT) Polarity	Vertical	AUT Relative Gain Max (dBuV/m)	91.02
Maximum Absolute Gain of AUT (dBi)	-6.78	Difference (Reference Antenna - AUT) (dB)	-5.10
Average Absolute Gain of AUT (dBi)	-11.17	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.79
3 dB Beamwidth	63°	Reference Antenna Measured Input Power (dBm)	-17.50
		EUT Conducted Output Power (dBm)	3.85
		Power Delta (Antenna Power-Output Power) (dB)	-21.35

Run #	Test Distance (m)	Antenna Height(s)	Results
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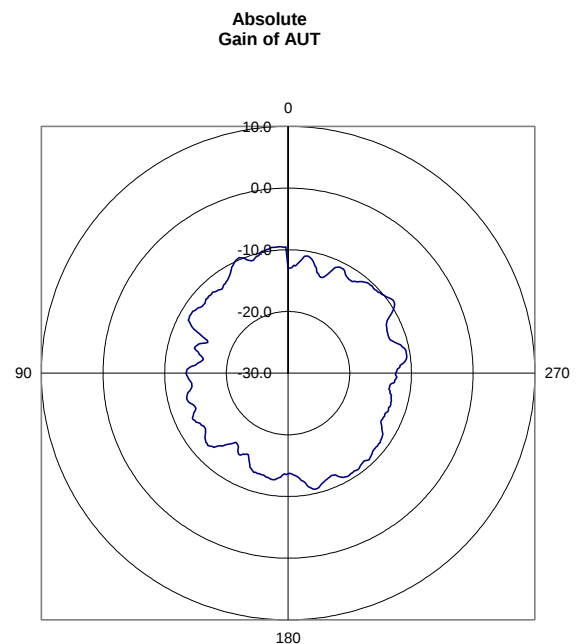
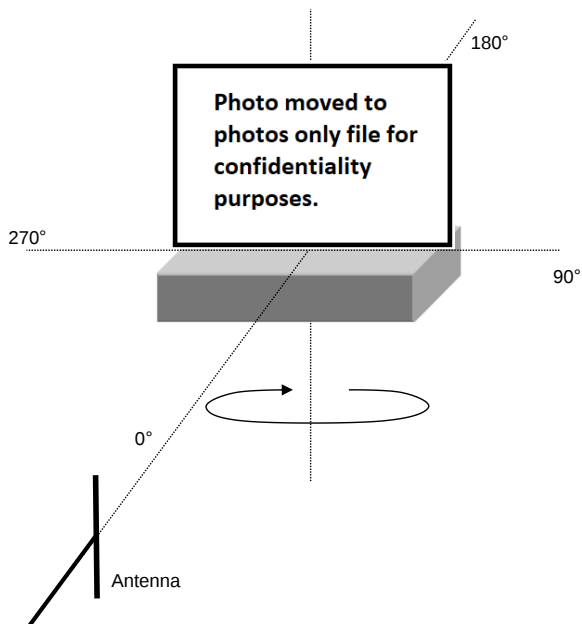
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PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Low Channel - 2402 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2402	Absolute Gain of Reference Antenna (dBi)	9.47
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	85.92
Antenna Under Test (AUT) Polarity	on Side	AUT Relative Gain Max (dBuV/m)	88.52
Maximum Absolute Gain of AUT (dBi)	-9.28	Difference (Reference Antenna - AUT) (dB)	-2.60
Average Absolute Gain of AUT (dBi)	-12.32	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.79
3 dB Beamwidth	42°	Reference Antenna Measured Input Power (dBm)	-17.50
		EUT Conducted Output Power (dBm)	3.85
		Power Delta (Antenna Power-Output Power) (dB)	-21.35

Run #	Test Distance (m)	Antenna Height(s)	Results
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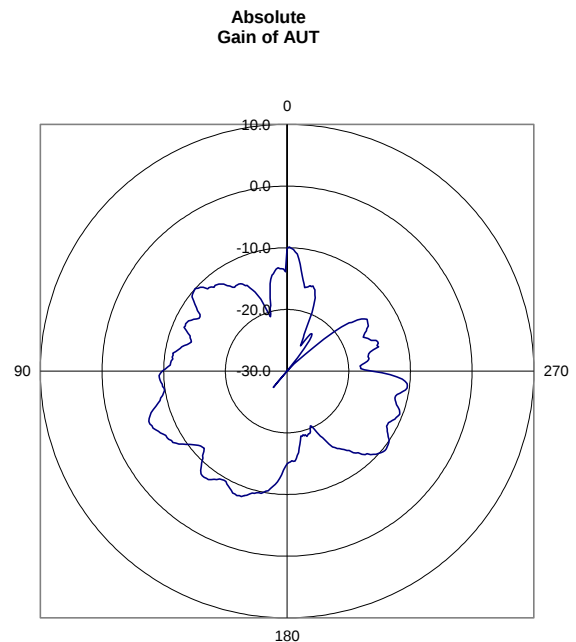
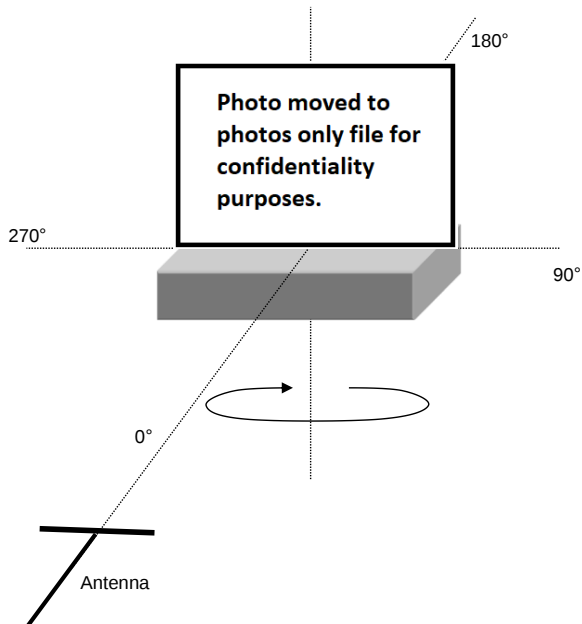
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Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency **2442**
 Measurement Antenna Polarity **Horizontal**
 Antenna Under Test (AUT) Polarity **Horizontal**
 Maximum Absolute Gain of AUT (dBi) **-6.16**
 Average Absolute Gain of AUT (dBi) **-13.70**
 3 dB Beamwidth **24°**

Absolute Gain of Reference Antenna (dBi) 9.59
 Reference Antenna Relative Gain Max (dBuV/m) 86.75
 AUT Relative Gain Max (dBuV/m) 91.45
 Difference (Reference Antenna - AUT) (dB) -4.70
 AUT Setup Loss (dB) 0
 Correction Factor (Convert Relative to Absolute Gain) (dB) **97.61**
 Reference Antenna Measured Input Power (dBm) -17.40
 EUT Conducted Output Power (dBm) 3.05
 Power Delta (Antenna Power-Output Power) (dB) -20.45

Run #	Test Distance (m)	Antenna Height(s)	Results
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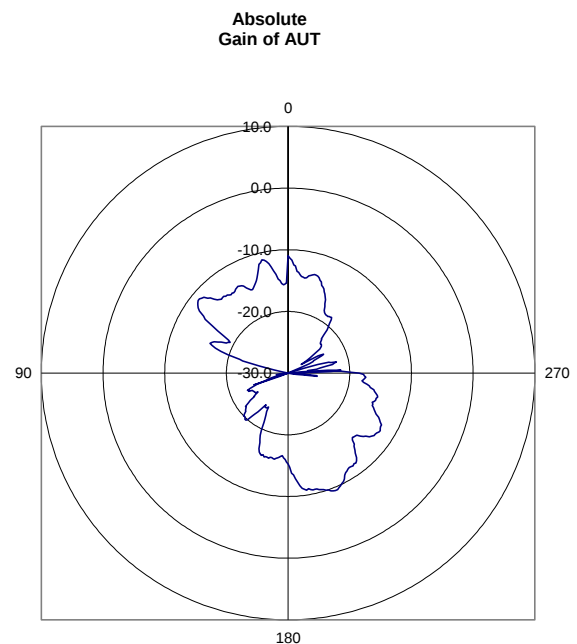
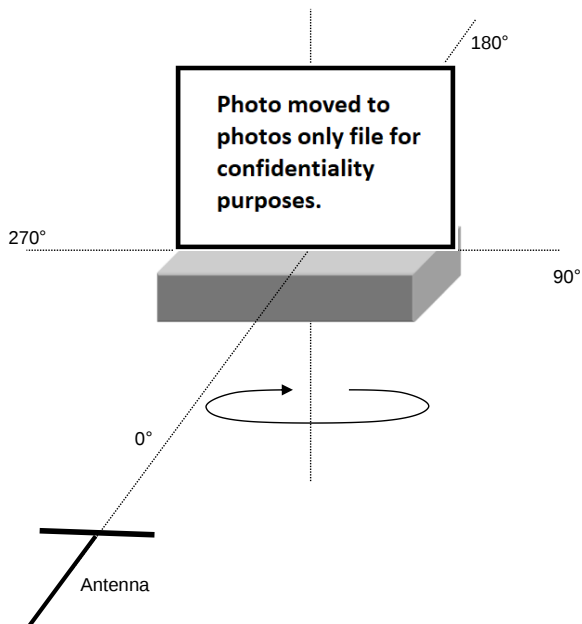
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PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2442	Absolute Gain of Reference Antenna (dBi)	9.59
Measurement Antenna Polarity	Horizontal	Reference Antenna Relative Gain Max (dBuV/m)	86.75
Antenna Under Test (AUT) Polarity	Vertical	AUT Relative Gain Max (dBuV/m)	88.15
Maximum Absolute Gain of AUT (dBi)	-9.46	Difference (Reference Antenna - AUT) (dB)	-1.40
Average Absolute Gain of AUT (dBi)	-18.38	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.61
3 dB Beamwidth	36°		
		Reference Antenna Measured Input Power (dBm)	-17.40
		EUT Conducted Output Power (dBm)	3.05
		Power Delta (Antenna Power-Output Power) (dB)	-20.45

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



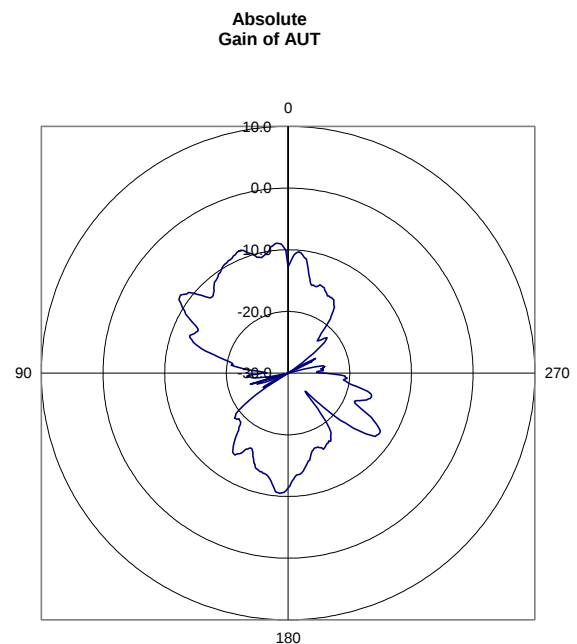
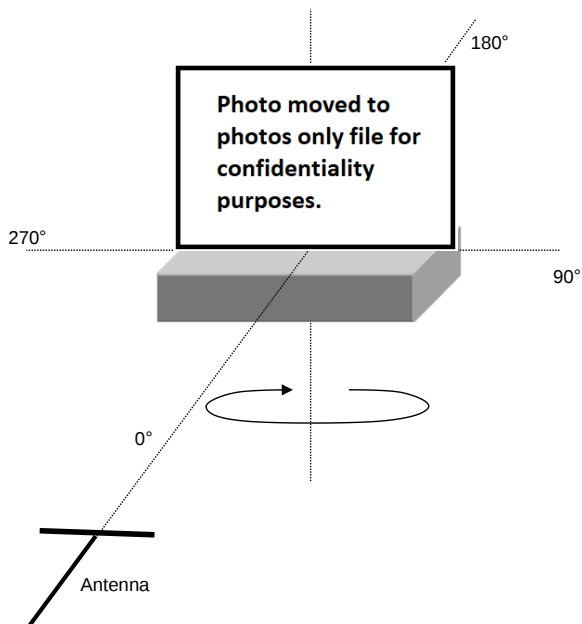
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2442	Absolute Gain of Reference Antenna (dBi)	9.59
Measurement Antenna Polarity	Horizontal	Reference Antenna Relative Gain Max (dBuV/m)	86.75
Antenna Under Test (AUT) Polarity	on Side	AUT Relative Gain Max (dBuV/m)	89.15
Maximum Absolute Gain of AUT (dBi)	-8.46	Difference (Reference Antenna - AUT) (dB)	-2.40
Average Absolute Gain of AUT (dBi)	-17.87	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.61
3 dB Beamwidth	14°	Reference Antenna Measured Input Power (dBm)	-17.40
		EUT Conducted Output Power (dBm)	3.05
		Power Delta (Antenna Power-Output Power) (dB)	-20.45

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



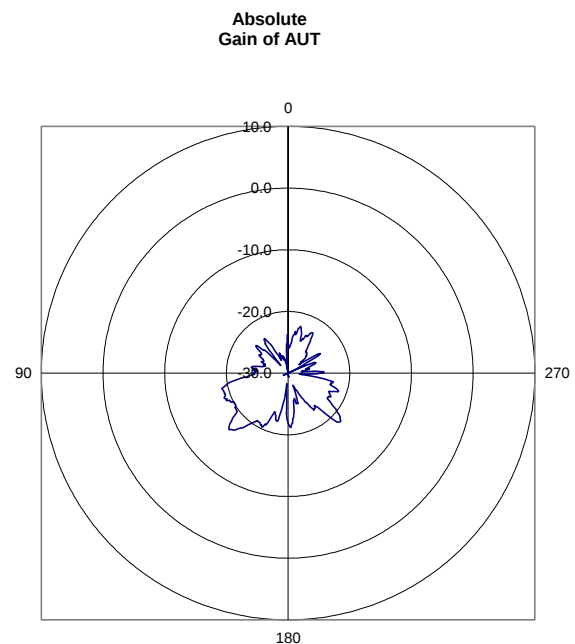
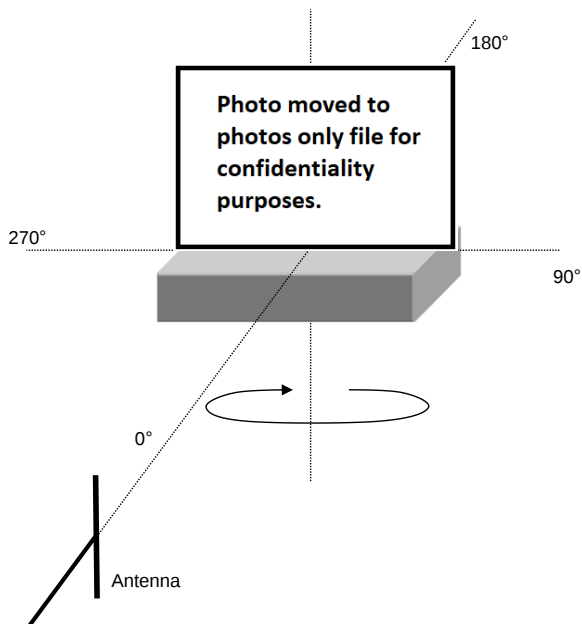
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31		
Project:	None	Temperature:	23.6°C		
Job Site:	OC07	Humidity:	48%		
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	Tested by:	Mark Baytan
EUT:	MoMe ARC Sensor POD				
Configuration:	ININ0007-2				
Customer:	InfoBionic				
Attendees:	Konstantin Dubovenko				
EUT Power:	Battery				
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz				
Deviations:	None				
Comments:	Power Setting: 3 dBm				

Frequency	2442	Absolute Gain of Reference Antenna (dBi)	9.59
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	86.75
Antenna Under Test (AUT) Polarity	Horizontal	AUT Relative Gain Max (dBuV/m)	80.85
Maximum Absolute Gain of AUT (dBi)	-16.76	Difference (Reference Antenna - AUT) (dB)	5.90
Average Absolute Gain of AUT (dBi)	-23.80	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.61
3 dB Beamwidth	19°	Reference Antenna Measured Input Power (dBm)	-17.40
		EUT Conducted Output Power (dBm)	3.05
		Power Delta (Antenna Power-Output Power) (dB)	-20.45

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



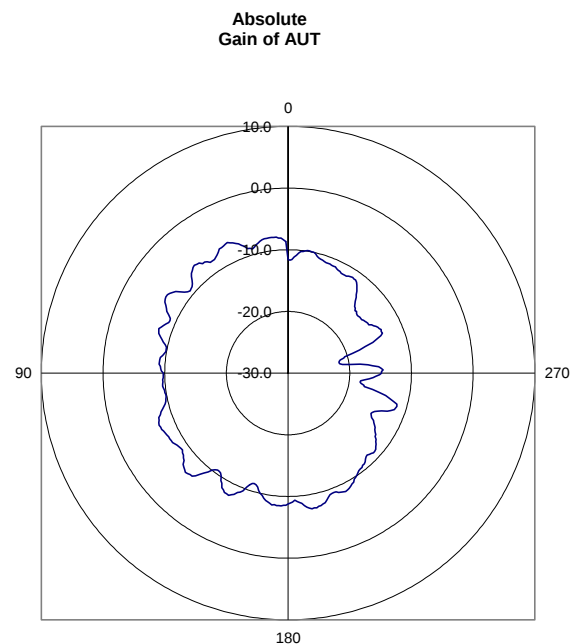
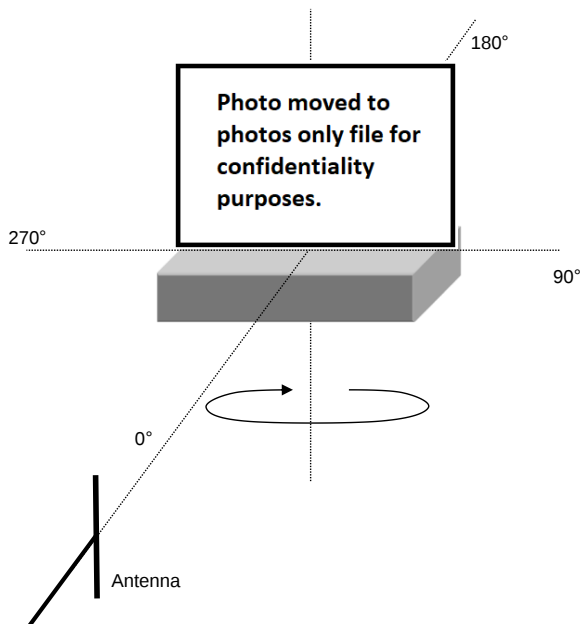
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2442	Absolute Gain of Reference Antenna (dBi)	9.59
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	86.75
Antenna Under Test (AUT) Polarity	Vertical	AUT Relative Gain Max (dBuV/m)	90.95
Maximum Absolute Gain of AUT (dBi)	-6.66	Difference (Reference Antenna - AUT) (dB)	-4.20
Average Absolute Gain of AUT (dBi)	-10.61	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.61
3 dB Beamwidth	78°	Reference Antenna Measured Input Power (dBm)	-17.40
		EUT Conducted Output Power (dBm)	3.05
		Power Delta (Antenna Power-Output Power) (dB)	-20.45

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



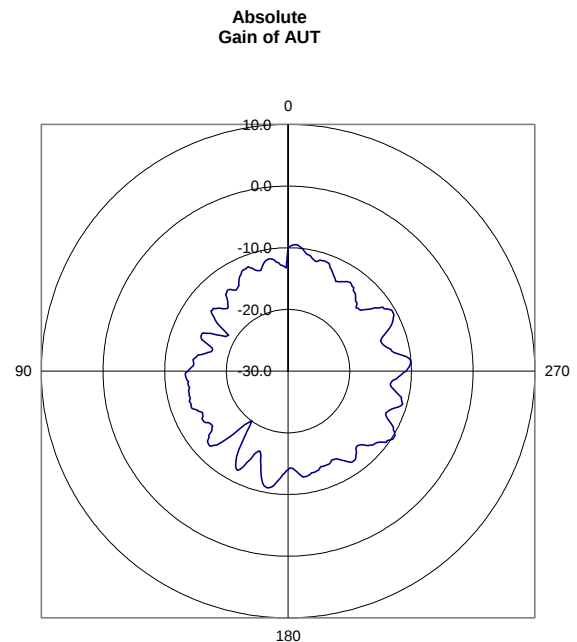
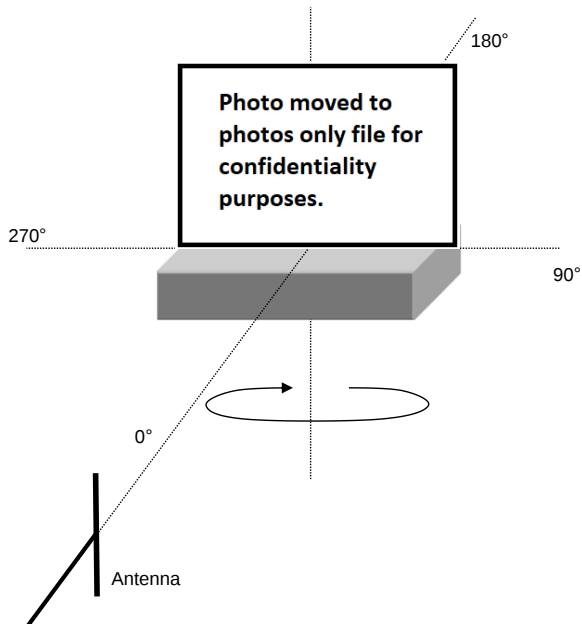
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31		
Project:	None	Temperature:	23.6°C		
Job Site:	OC07	Humidity:	48%		
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	Tested by:	Mark Baytan
EUT:	MoMe ARC Sensor POD				
Configuration:	ININ0007-2				
Customer:	InfoBionic				
Attendees:	Konstantin Dubovenko				
EUT Power:	Battery				
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : Mid Channel - 2440 MHz				
Deviations:	None				
Comments:	Power Setting: 3 dBm				

Frequency	2442	Absolute Gain of Reference Antenna (dBi)	9.59
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	86.75
Antenna Under Test (AUT) Polarity	on Side	AUT Relative Gain Max (dBuV/m)	88.15
Maximum Absolute Gain of AUT (dBi)	-9.46	Difference (Reference Antenna - AUT) (dB)	-1.40
Average Absolute Gain of AUT (dBi)	-13.23	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	97.61
3 dB Beamwidth	26°	Reference Antenna Measured Input Power (dBm)	-17.40
		EUT Conducted Output Power (dBm)	3.05
		Power Delta (Antenna Power-Output Power) (dB)	-20.45

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



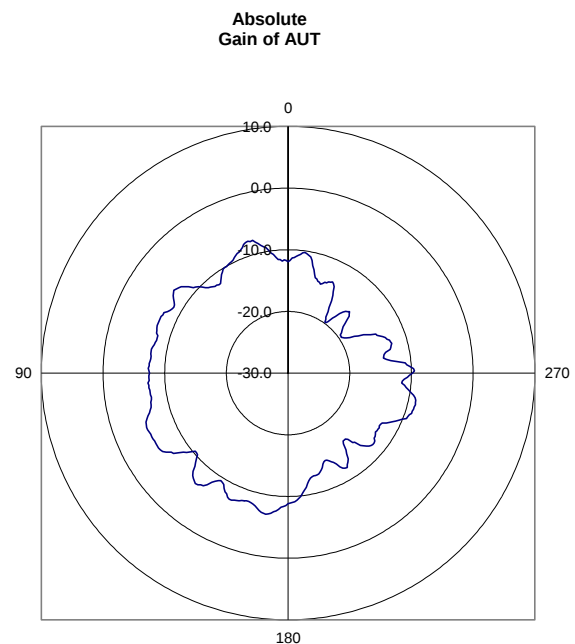
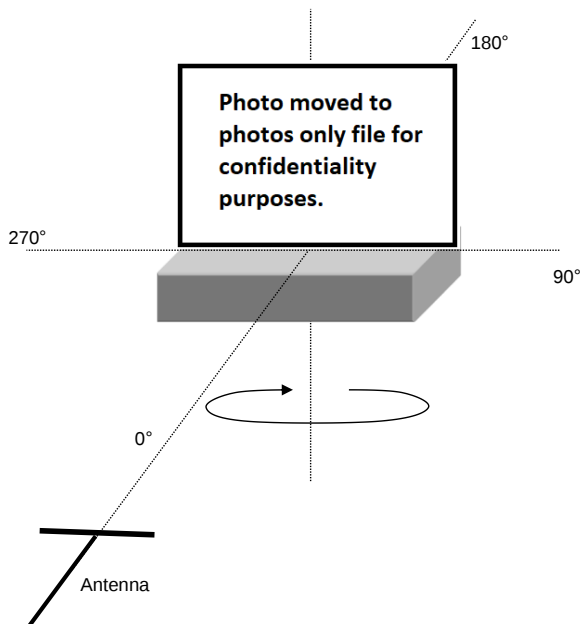
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2480	Absolute Gain of Reference Antenna (dBi)	9.7
Measurement Antenna Polarity	Horizontal	Reference Antenna Relative Gain Max (dBuV/m)	86.01
Antenna Under Test (AUT) Polarity	Horizontal	AUT Relative Gain Max (dBuV/m)	90.81
Maximum Absolute Gain of AUT (dBi)	-5.43	Difference (Reference Antenna - AUT) (dB)	-4.80
Average Absolute Gain of AUT (dBi)	-10.78	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	96.24
3 dB Beamwidth	66°	Reference Antenna Measured Input Power (dBm)	-17.35
		EUT Conducted Output Power (dBm)	2.58
		Power Delta (Antenna Power-Output Power) (dB)	-19.93

Run #	Test Distance (m)	Antenna Height(s)	Results
			NA



ABSOLUTE GAIN



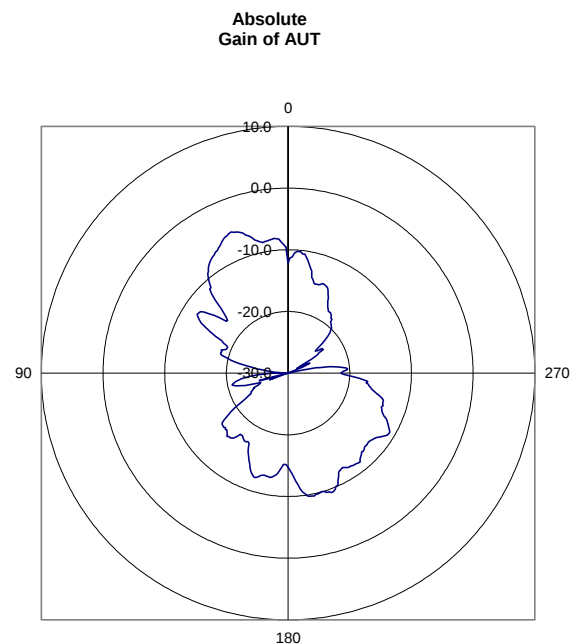
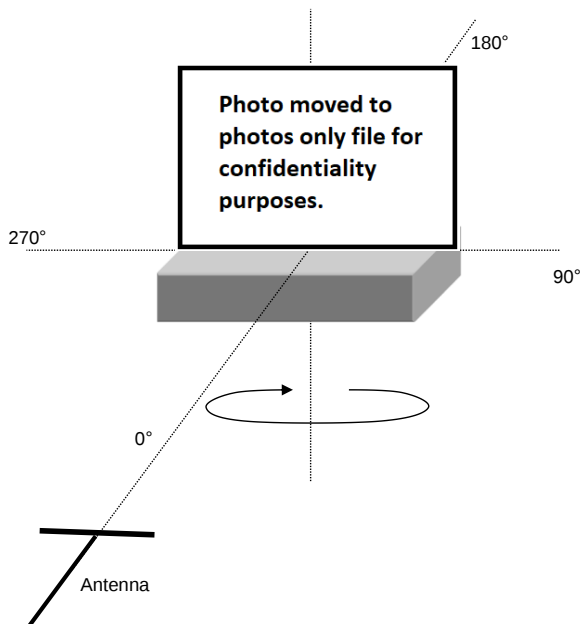
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2480	Absolute Gain of Reference Antenna (dBi)	9.7
Measurement Antenna Polarity	Horizontal	Reference Antenna Relative Gain Max (dBuV/m)	86.01
Antenna Under Test (AUT) Polarity	Vertical	AUT Relative Gain Max (dBuV/m)	90.91
Maximum Absolute Gain of AUT (dBi)	-5.33	Difference (Reference Antenna - AUT) (dB)	-4.90
Average Absolute Gain of AUT (dBi)	-16.21	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	96.24
3 dB Beamwidth	26°		
		Reference Antenna Measured Input Power (dBm)	-17.35
		EUT Conducted Output Power (dBm)	2.58
		Power Delta (Antenna Power-Output Power) (dB)	-19.93

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



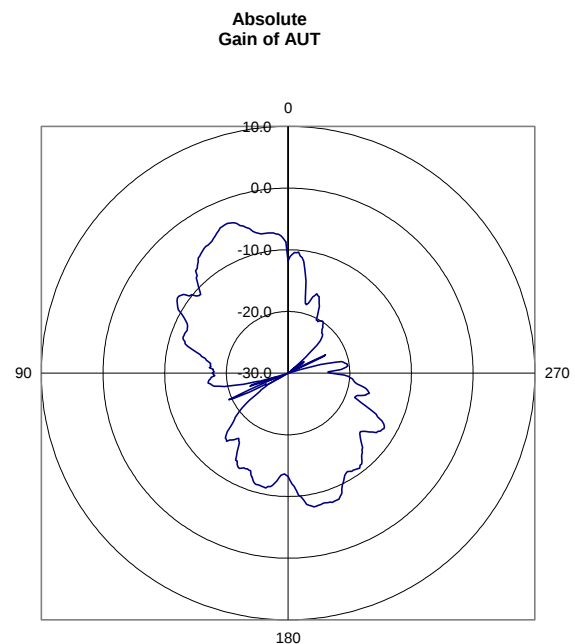
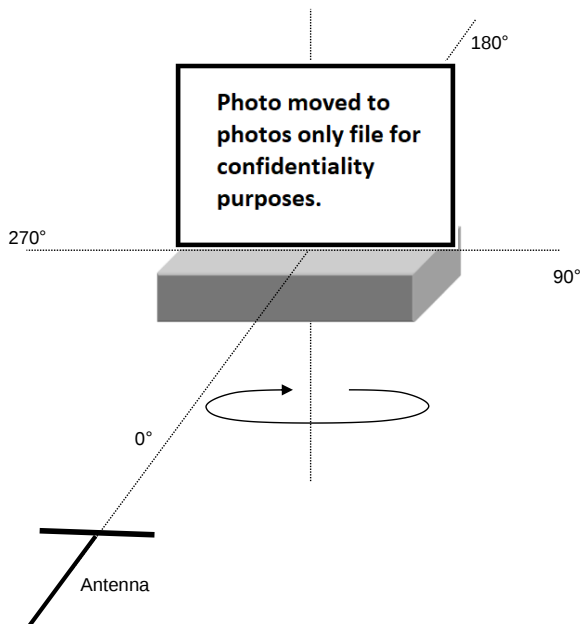
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31		
Project:	None	Temperature:	23.6°C		
Job Site:	OC07	Humidity:	48%		
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	Tested by:	Mark Baytan
EUT:	MoMe ARC Sensor POD				
Configuration:	ININ0007-2				
Customer:	InfoBionic				
Attendees:	Konstantin Dubovenko				
EUT Power:	Battery				
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz				
Deviations:	None				
Comments:	Power Setting: 3 dBm				

Frequency	2480	Absolute Gain of Reference Antenna (dBi)	9.7
Measurement Antenna Polarity	Horizontal	Reference Antenna Relative Gain Max (dBuV/m)	86.01
Antenna Under Test (AUT) Polarity	on Side	AUT Relative Gain Max (dBuV/m)	92.41
Maximum Absolute Gain of AUT (dBi)	-3.83	Difference (Reference Antenna - AUT) (dB)	-6.40
Average Absolute Gain of AUT (dBi)	-15.80	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	96.24
3 dB Beamwidth	27°	Reference Antenna Measured Input Power (dBm)	-17.35
		EUT Conducted Output Power (dBm)	2.58
		Power Delta (Antenna Power-Output Power) (dB)	-19.93

Run #	Test Distance (m)	Antenna Height(s)	Results
			NA



ABSOLUTE GAIN



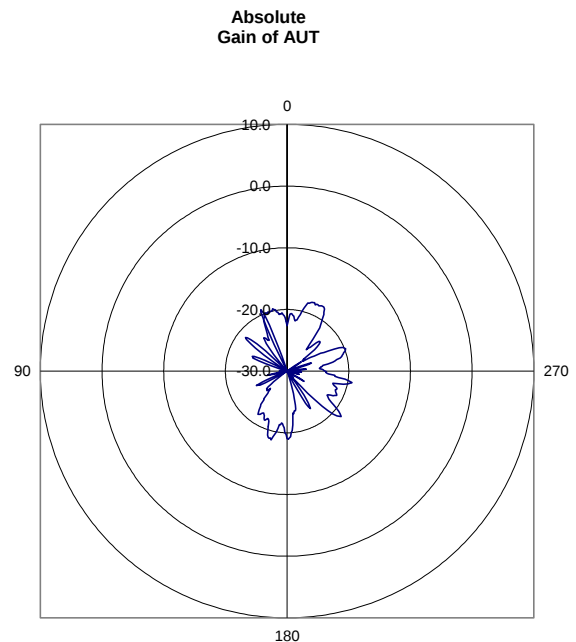
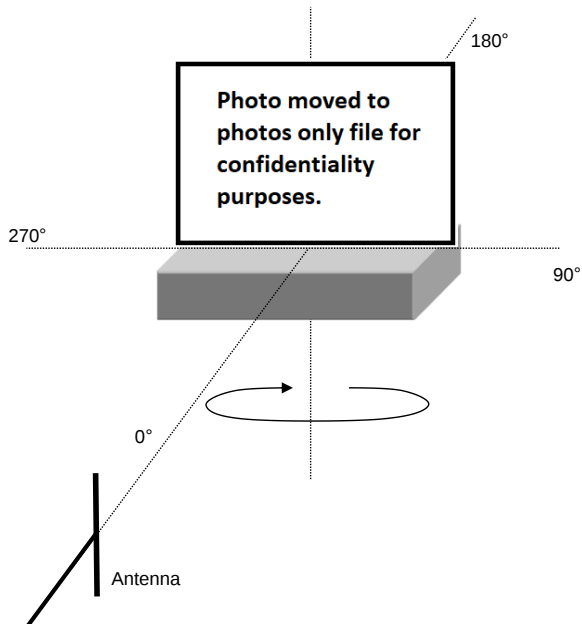
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2480	Absolute Gain of Reference Antenna (dBi)	9.7
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	86.01
Antenna Under Test (AUT) Polarity	Horizontal	AUT Relative Gain Max (dBuV/m)	78.21
Maximum Absolute Gain of AUT (dBi)	-18.03	Difference (Reference Antenna - AUT) (dB)	7.80
Average Absolute Gain of AUT (dBi)	-24.12	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	96.24
3 dB Beamwidth	25°	Reference Antenna Measured Input Power (dBm)	-17.35
		EUT Conducted Output Power (dBm)	2.58
		Power Delta (Antenna Power-Output Power) (dB)	-19.93

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



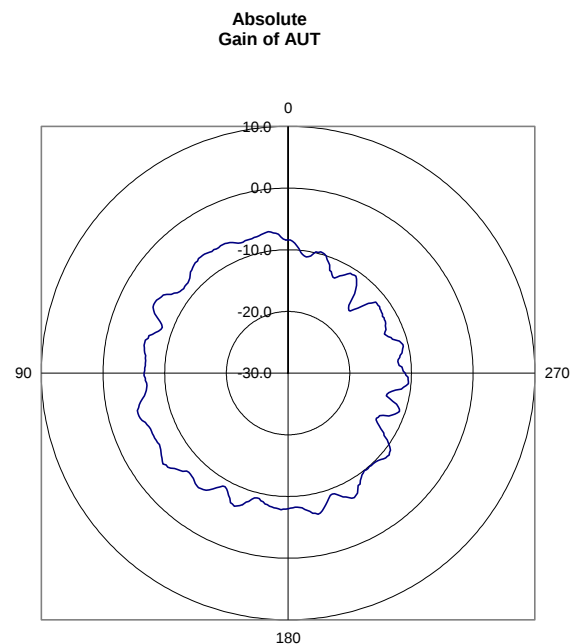
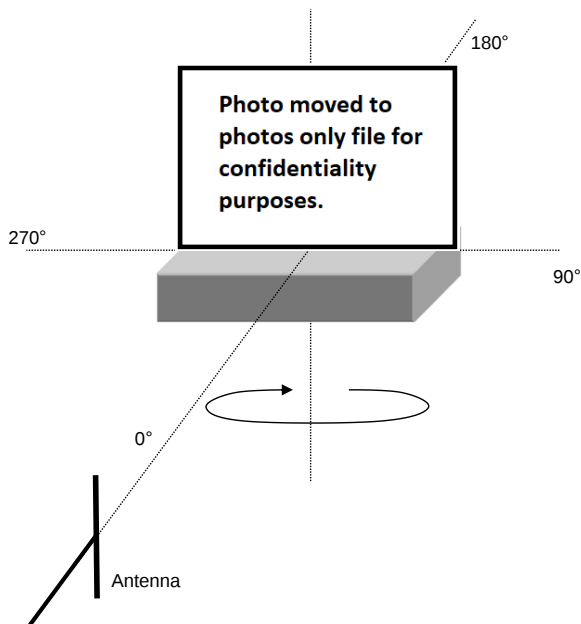
EmiR5 2023.06.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31	
Project:	None	Temperature:	23.6°C	
Job Site:	OC07	Humidity:	48%	
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	
EUT: MoMe ARC Sensor POD				Tested by: Mark Baytan
Configuration:	ININ0007-2			
Customer:	InfoBionic			
Attendees:	Konstantin Dubovenko			
EUT Power:	Battery			
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz			
Deviations:	None			
Comments:	Power Setting: 3 dBm			

Frequency	2480	Absolute Gain of Reference Antenna (dBi)	9.7
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	86.01
Antenna Under Test (AUT) Polarity	Vertical	AUT Relative Gain Max (dBuV/m)	91.41
Maximum Absolute Gain of AUT (dBi)	-4.83	Difference (Reference Antenna - AUT) (dB)	-5.40
Average Absolute Gain of AUT (dBi)	-8.87	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	96.24
3 dB Beamwidth	76°	Reference Antenna Measured Input Power (dBm)	-17.35
		EUT Conducted Output Power (dBm)	2.58
		Power Delta (Antenna Power-Output Power) (dB)	-19.93

Run #	Test Distance (m)	Antenna Height(s)	Results
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ABSOLUTE GAIN



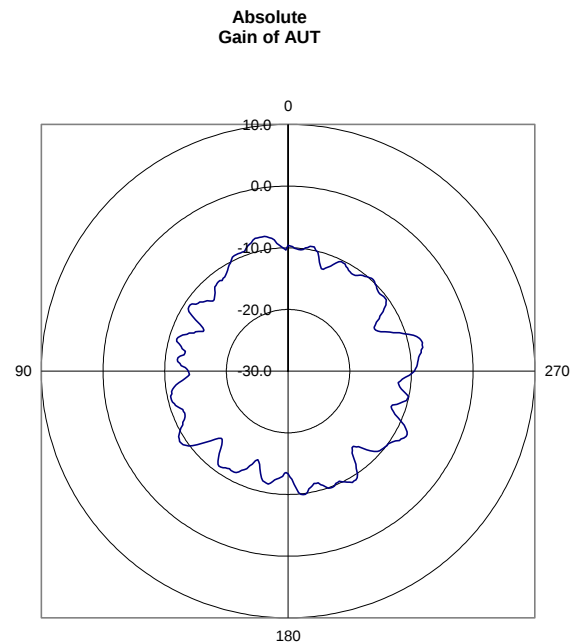
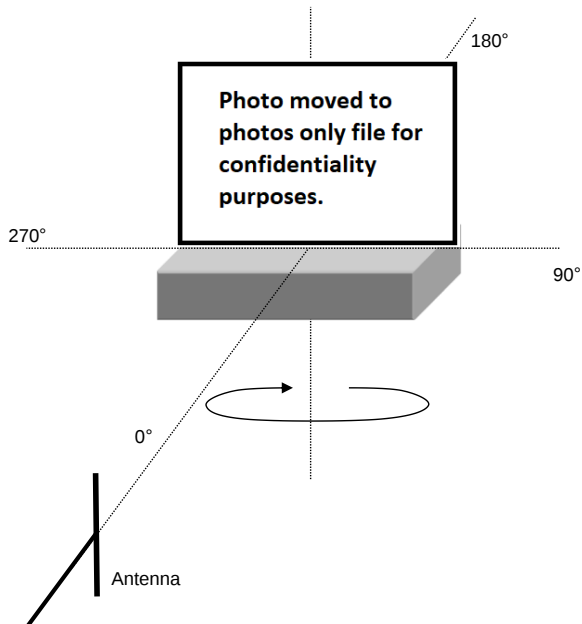
EmiR5 2023.08.29.0

PSA-ESCI 2023.12.23.0

Work Order:	ININ0007	Date:	2024-07-31		
Project:	None	Temperature:	23.6°C		
Job Site:	OC07	Humidity:	48%		
Serial Number:	PIA00041	Barometric Pres.:	1014 mbar	Tested by:	Mark Baytan
EUT:	MoMe ARC Sensor POD				
Configuration:	ININ0007-2				
Customer:	InfoBionic				
Attendees:	Konstantin Dubovenko				
EUT Power:	Battery				
Operating Mode:	Transmitting Bluetooth Low Energy (BLE) 1 Mbps : High Channel - 2480 MHz				
Deviations:	None				
Comments:	Power Setting: 3 dBm				

Frequency	2480	Absolute Gain of Reference Antenna (dBi)	9.7
Measurement Antenna Polarity	Vertical	Reference Antenna Relative Gain Max (dBuV/m)	86.01
Antenna Under Test (AUT) Polarity	on Side	AUT Relative Gain Max (dBuV/m)	88.51
Maximum Absolute Gain of AUT (dBi)	-7.73	Difference (Reference Antenna - AUT) (dB)	-2.50
Average Absolute Gain of AUT (dBi)	-11.10	AUT Setup Loss (dB)	0
		Correction Factor (Convert Relative to Absolute Gain) (dB)	96.24
3 dB Beamwidth	22°	Reference Antenna Measured Input Power (dBm)	-17.35
		EUT Conducted Output Power (dBm)	2.58
		Power Delta (Antenna Power-Output Power) (dB)	-19.93

Run #	Test Distance (m)	Antenna Height(s)	Results
			NA



End of Test Report