DATASHEET

M2MAX®

Up to 5-in-1 High Performance IP67 Antenna

KEY FEATURES

- Powerful MIMO technology
- Up to 2 x Wideband Cellular LTE elements
- Up to 2 x Wi-Fi 6 (2.4 & 5-6 GHz) elements
- Optional GNSS element
- IP67 ingress protection
- Available in black or white

A rugged outdoor antenna, M2MAX is designed to provide high performance connectivity for wireless machine-to-machine applications. This antenna mounts to virtually any M2M or IoT enabled asset and requires no servicing through its lifetime.

ADVANTAGES

- Omni-directional radiation pattern provides uniform coverage
- Compatible with EZConnect™ Cable Harness
- 5-year limited warranty included[1]
- Covered by one or more patents and pending applications[2]

[1]See terms and conditions at https://www.airgain.com/product-support/antenna-plus-product-support/

[2]For a list of the patents covering this product please visit https://www.airgain.com/patents/

For more Information:
www.airgain.com sales@airgain.com + 1-855-AIRGAIN

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COMMON PART NUMBERS (inquire to Airgain for other configurations)

Configuration	Cellular Elements	Wi-Fi Elements	GNSS	Part Number	Description
5-in-1	2	2	Yes	AP-M2M2-CCWWG-[x]-S22222-RP34-BL-6	MIMO Cell/LTE x 2, Wi-Fi x 2 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 6 feet coax
4-in-1	2	1	Yes	AP-M2M2-CCWG-[x]-S2222-RP3-BL-6	MIMO Cell/LTE x 2, Wi-Fi x 1 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 6 feet coax
3-in-1	2	0	Yes	AP-M2M2-CCG-[x]-S222-BL-6	MIMO Cell/LTE x 2 & GNSS, SMA on Cell/ LTE & GNSS, Black, 6 feet coax
	2	1	No	AP-M2M2-CCW-[x]-S222-RP3-BL-6	MIMO Cell/LTE x 2 & Wi-Fi x 1, SMA on Cell/ LTE, RP-SMA on Wi-Fi, Black, 6 feet coax
	1	1	Yes	AP-M2M2-CWG-[x]-S222-RP2-BL-6	Cell/LTE x 1, Wi-Fi x 1 & GNSS, SMA on Cell/LTE & GNSS, RP-SMA on Wi-Fi, Black, 6 feet coax
2-in-1	2	0	No	AP-M2M2-CC-[x]-S22-BL-6	MIMO Cell/LTE x 2, SMA on Cell/LTE, Black, 6 feet coax
	1	0	Yes	AP-M2M2-CG-[x]-S22-BL-6	Cell/LTE x 1 & GNSS, SMA on Cell/LTE & GNSS, Black, 6 feet coax
	0	2	No	AP-M2M2-WW-[x]-S22-RP-BL-6	Wi-Fi x 2, RP-SMA on Wi-Fi, Black, 6 feet coax
Single Wi-Fi	0	1	No	AP-M2M2-W-[x]-S2-RP-BL-6	Wi-Fi x 1, RP-SMA on Wi-Fi, Black, 6 feet coax

Mounting Options [x] (Must be mounted on metal)	**Description**
Q	Threaded Bolt Mount
A	Adhesive Mount
M	Magnetic Mount

Also available in white. For mounting instructions please visit https://www.airgain.com/installation-and-removal-guides/.

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TECHNICAL SPECIFICATIONS

Performance results are measured in a test chamber with 1' cables and over a 2'x2' ground plane, results are more reliable than data from software simulations.

ELECTRICAL

Frequency Range	Elements 1 up to 2	689-960/1700-2700 MHz
	Elements 3 up to 4	2.4/4.9-6.0 GHz
	Element 5 (optional)	1550~1610 MHz
Operational Bands	Elements 1 up to 2	LTE/Cellular
	Elements 3 up to 4	Wi-Fi
	Element 5 (optional)	GPS L1/GALILEO E1/GLONASS G1/BeiDou B1/QZSS L1
Peak Gain: Isotropic	Elements 1 up to 2	698-960 MHz, 6.7 dBi
		1710-2700 MHz, 5.6 dBi
	Elements 3 up to 4	2.4 GHz, 7.0 dBi
		5.5 GHz, 6.9 dBi
	Element 5 (optional)	30.50 dBi
Isolation	Elements 1 up to 2	>6 dB
	Elements 3 up to 4	>8 dB
Correlation Co-efficient	Elements 1 up to 2	<0.4

ENVIRONMENTAL

Category	Details
Hazardous Substances	RoHS Compliant
Temperature	-40°C to 65°C (-40°F to + 149°F) Operating and Storage
Humidity (Non-Condensing)	95% RH at 60°C Operating and Storage
Water Ingress	IP67
Shock and Vibration	Conformance to MIL-STD 810G

MECHANICAL

Dimensions	Height	2.19" (55.5mm)
	Width	2.56" (65mm)
	Length	4.84" (122.9mm)
Color	Black (BL) or White (WH)	

GNSS

Ceramic Patch Antenna Specification	Bandwidth	1561-1602 MHz
	Gain@Zenith	2.5 dBi
	Polarization	R.H.C.P.
	Axial Ratio	3.0 dB Typ.
	Noise Figure	1.2 dB
LNA Specification	Gain	28 dBi
	VSWR	<2:1
	Voltage	3.3V~5.6V
	Current	9.6±1mA@3.3V

Guidance for interpreting the data sheet is available on our website:

https://www.airgain.com/resources/datasheet-term-guide/

For more Information:
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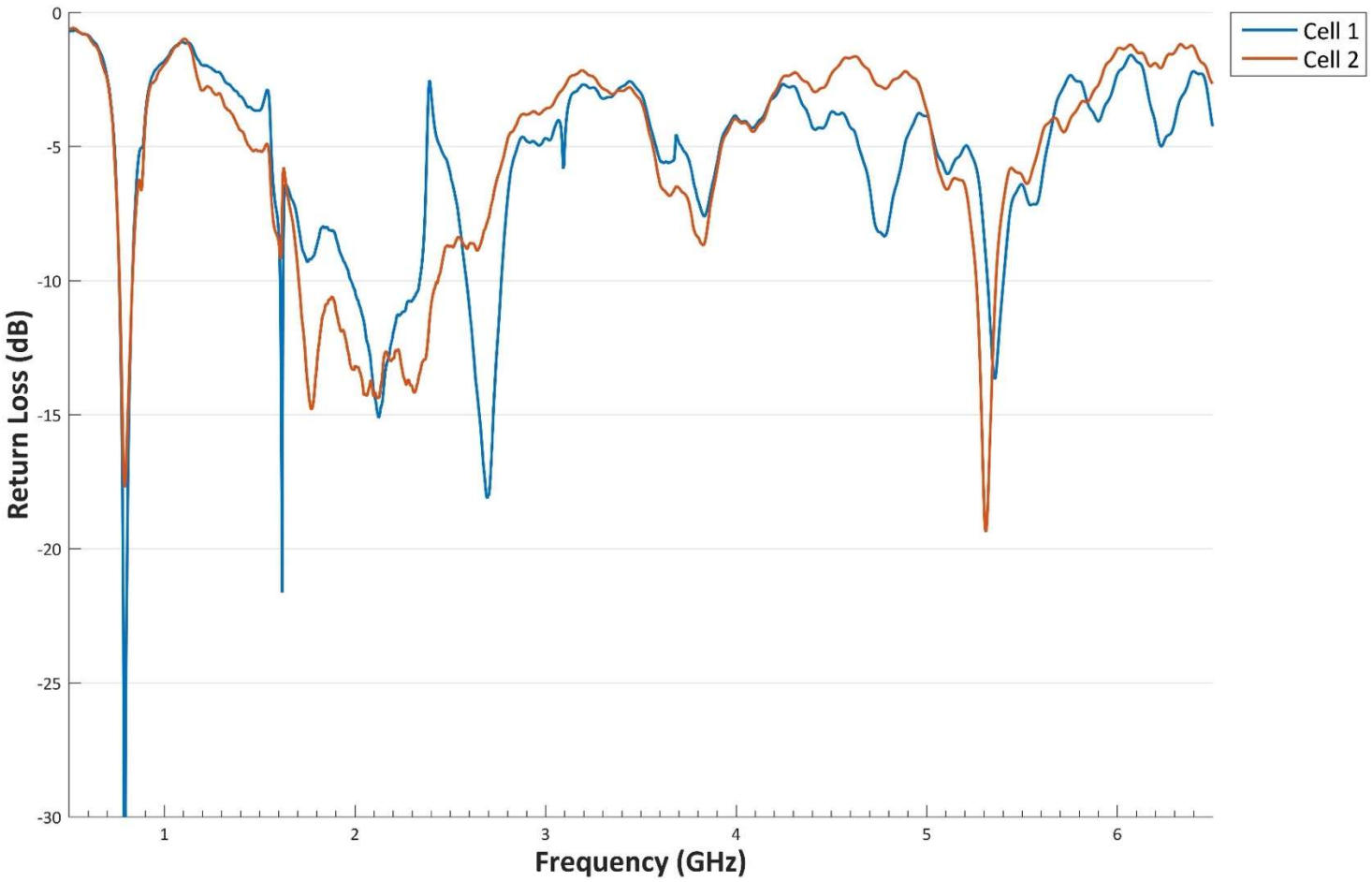
RETURN LOSS OF CELL ANTENNAS



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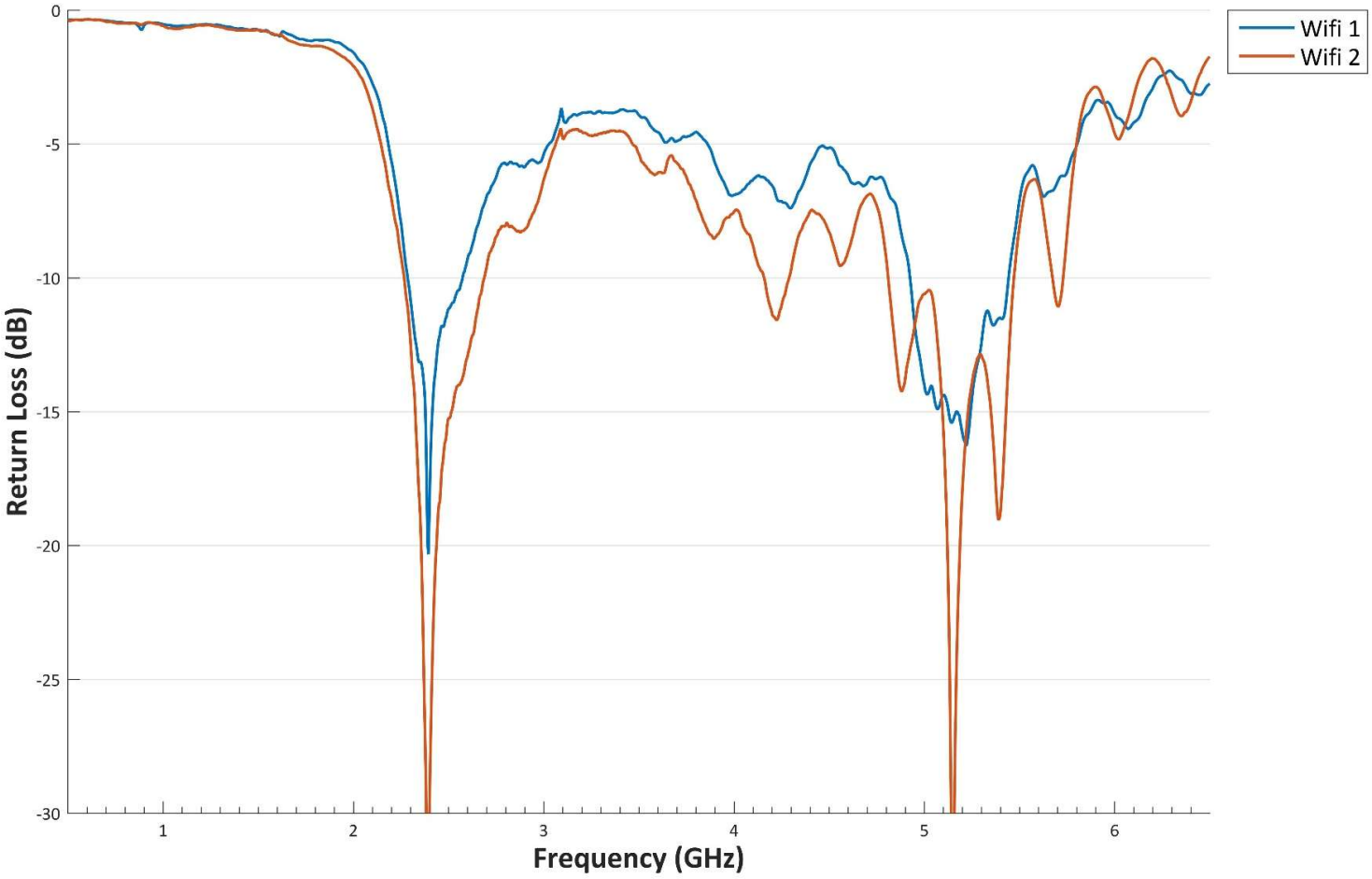
RETURN LOSS OF WIFI ANTENNAS



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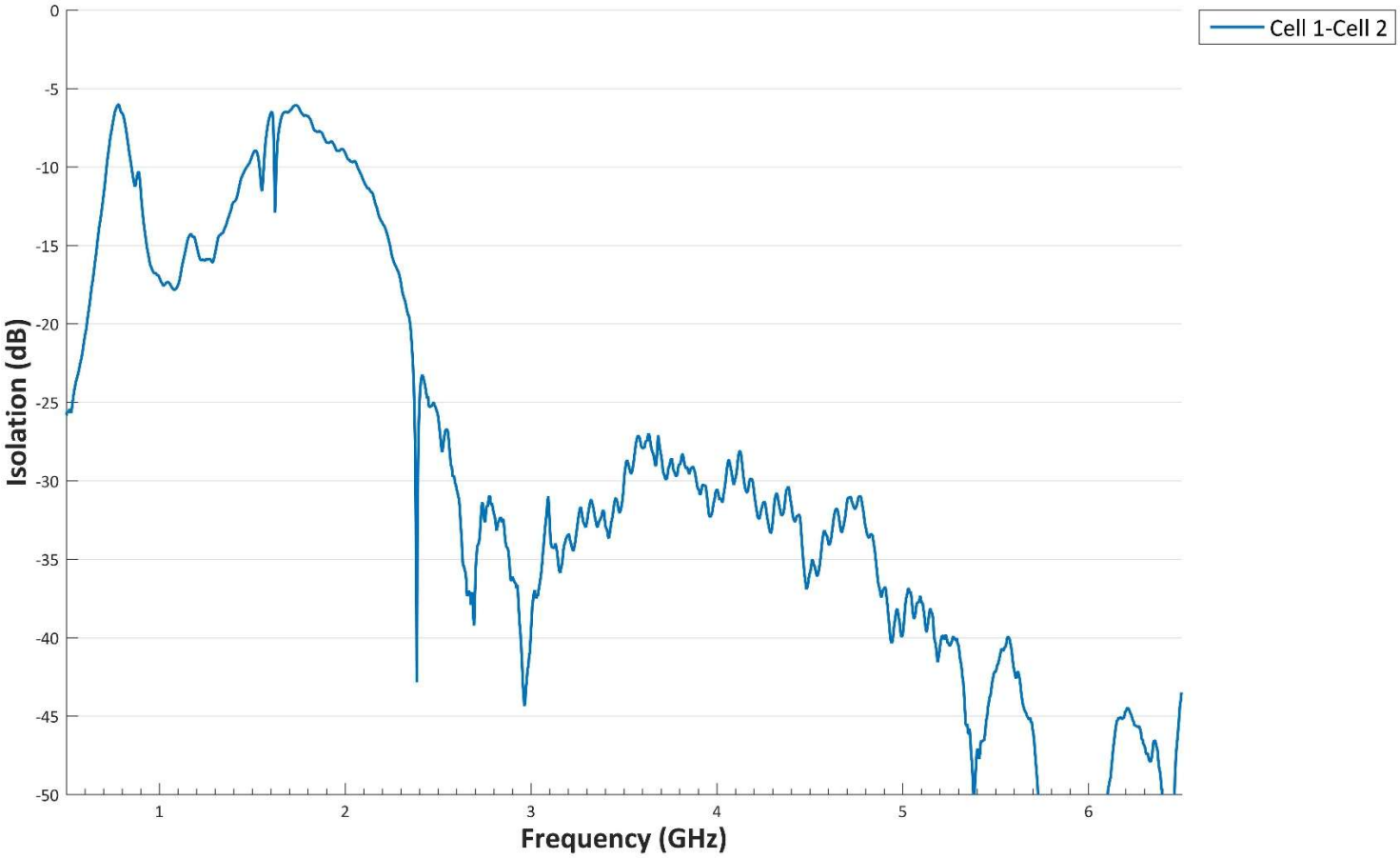
ISOLATION OF LTE ANTENNAS



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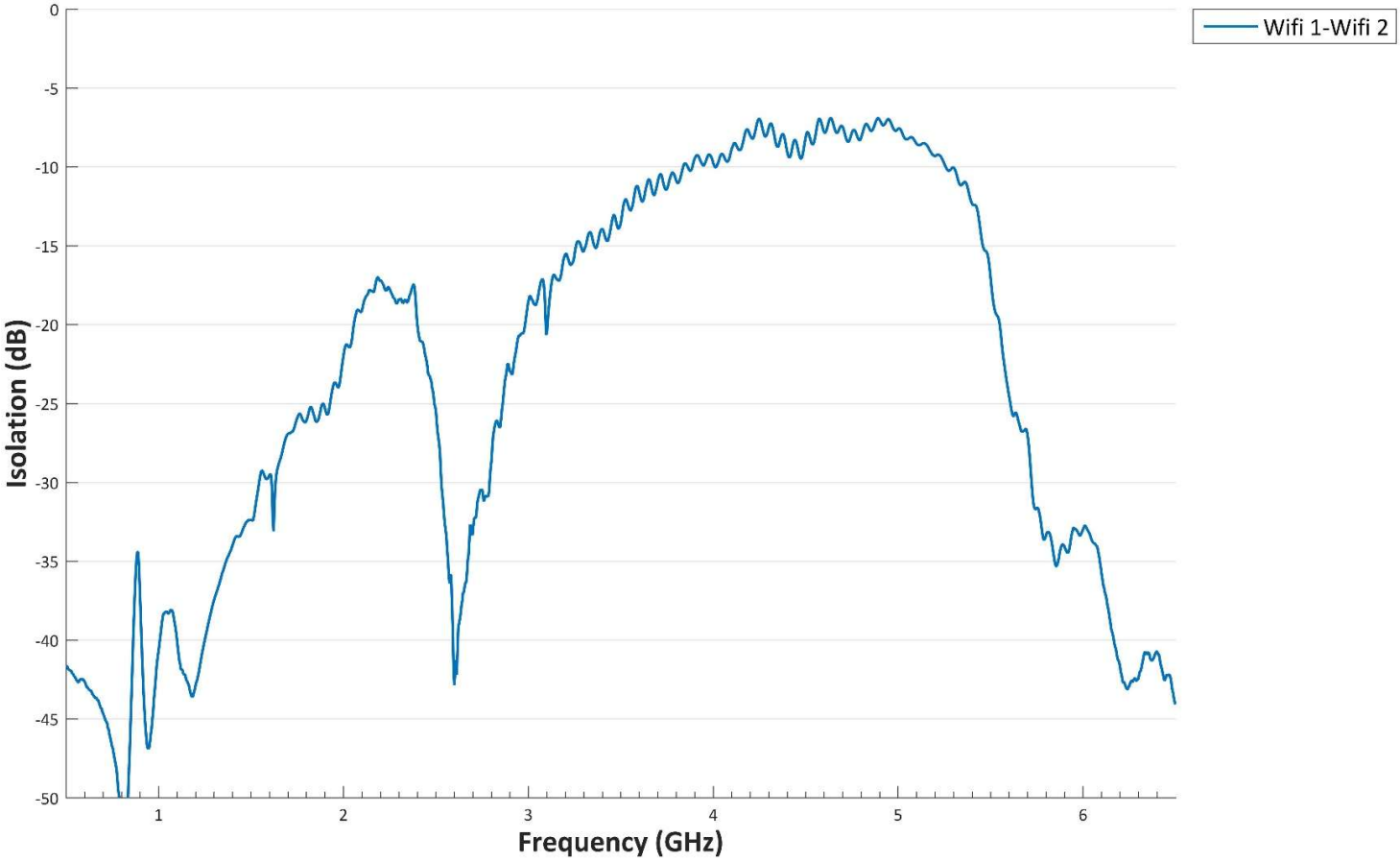
ISOLATION OF WI-FI ANTENNA



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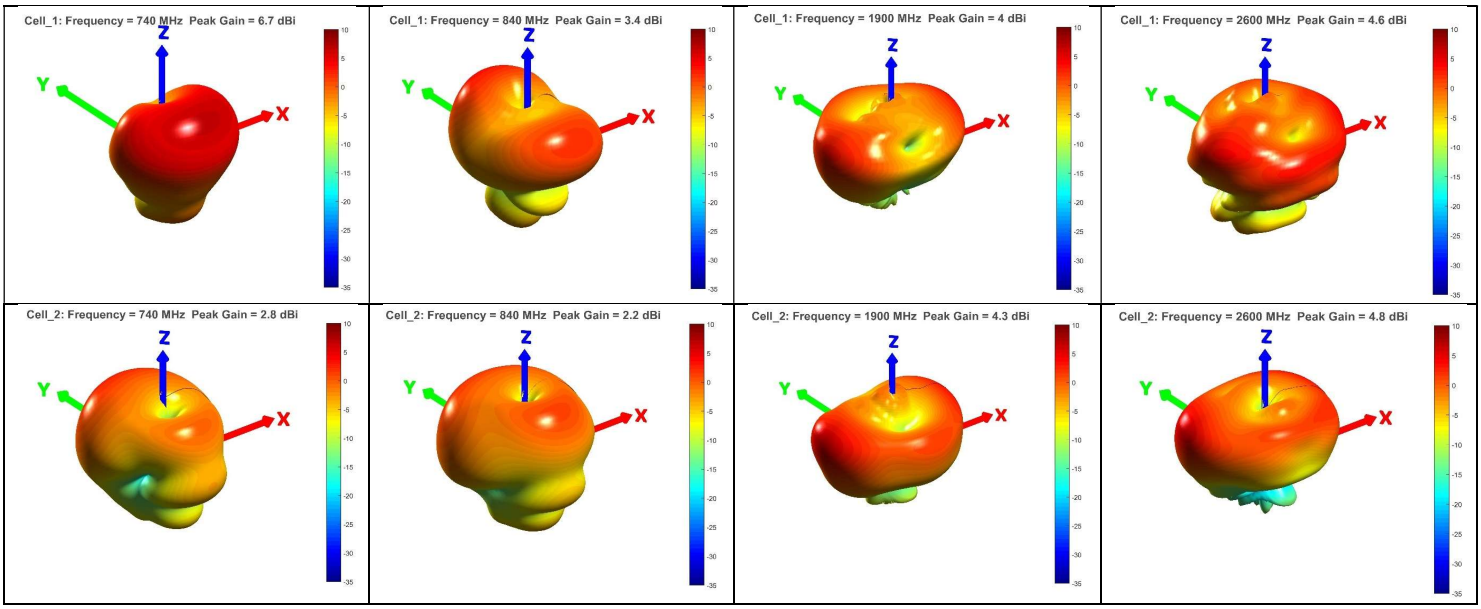
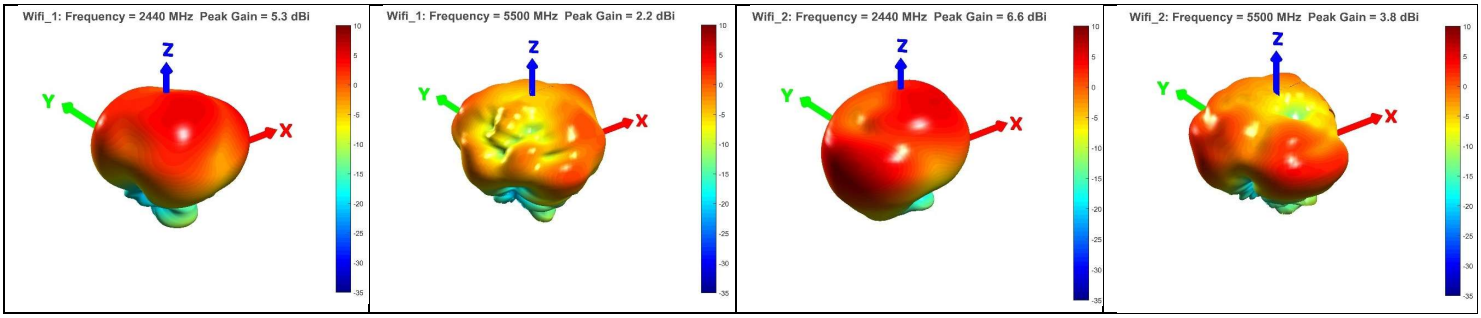
3D RADIATION PATTERNS – CELL



3D RADIATION PATTERNS – WIFI



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