

Cellular 4G LTE FPC Antenna



AANI-FB-0174

Request Samples



Check Inventory



30 x 20 x 0.2 mm
RoHS/RoHS II Compliant
MSL Level = N/A

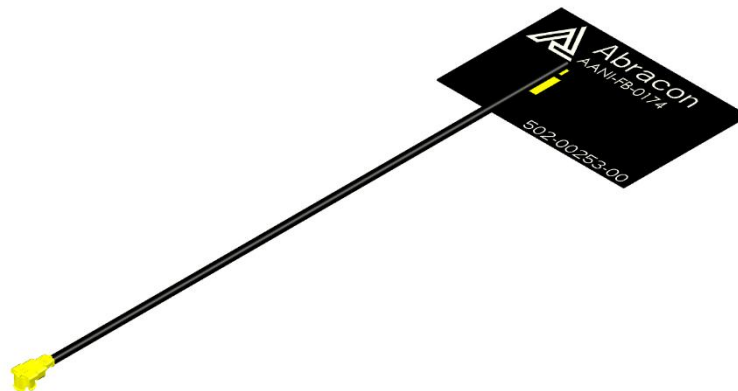
Features

- Frequency Range: LTE 698-960/1710-2690 MHz
- LTE Peak Gain: 0.37 / 2.7 dBi
- LTE Efficiency: 37 / 59 %
- Ground Plane Independent
- Flexible to Fit Inside Plastic Enclosures
- Fully Customizable Cable Length and Connector Options

Applications

- Internet of Things (IoT) Devices
- LTE-M, Cat M, Cat M1, NB-IoT
- LTE CAT 1 up to CAT 20 Supported
- CBRS and 5G bands Supported
- Smart Home Networking
- Networking & Telecommunication

Product Image

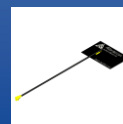


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Electrical Specification

Parameter	Specification		Unit
Operating Frequency	698-960	1710-2690	MHz
VSWR	< 3.2	< 2.3	:1
Peak Gain	0.37	2.7	dBi
Maximum Efficiency	37	59	%
Average Efficiency	25	43	
Impedance	50		Ω
Polarization	Linear		-
Radiation Pattern (Azimuth)	Omni-directional		-
Maximum Input Power	5		W

Mechanical Specification

Parameter	Specification
Antenna Dimensions	30 x 20 x 0.2 mm
Antenna Type	Flexible PCB
Mounting Type	Adhesive Mount
RF Connector ⁽¹⁾	u.FL/IPEX-1/MHF1
RF Cable Type ⁽¹⁾	Ø1.13 mm
Cable Length ⁽¹⁾	75 mm

(1): Fully customizable RF Cable & Connector

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
RoHS Compliance	Yes



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Ordering Information

Part Number	Description	Connector Option
AANI-FB-0174-1	Cellular 4G LTE FPC Antenna with IPEX-1 connector and 75 mm cable length	u.FL/IPEX-1/MHF1
AANI-FB-0174-2	Cellular 4G LTE FPC Antenna with IPEX-4 connector and 75 mm cable length	w.FL/IPEX-4/MHF4
AANI-FB-0174-3	Cellular 4G LTE FPC Antenna with IPEX-1 connector and 150 mm cable length	u.FL/IPEX-1/MHF1
AANI-FB-0174-4	Cellular 4G LTE FPC Antenna with IPEX-4 connector and 150 mm cable length	w.FL/IPEX-4/MHF4
AANI-FB-0174-5	Cellular 4G LTE FPC Antenna with IPEX-1 connector and 200 mm cable length	u.FL/IPEX-1/MHF1
AANI-FB-0174-6	Cellular 4G LTE FPC Antenna with IPEX-4 connector and 200 mm cable length	w.FL/IPEX-4/MHF4

Note: Different cable and connector configurations that are not listed may be available upon request via [Abracon online support](#)



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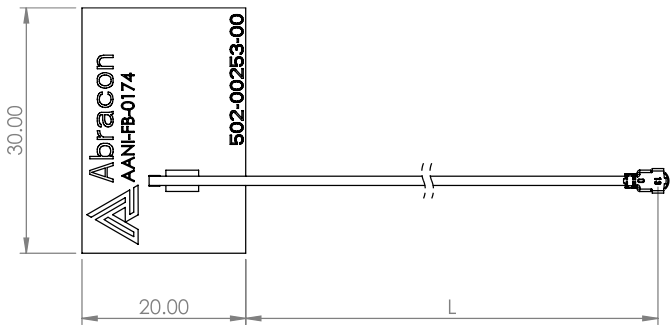


Check Inventory

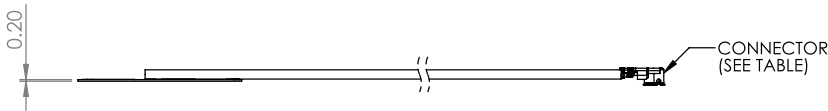


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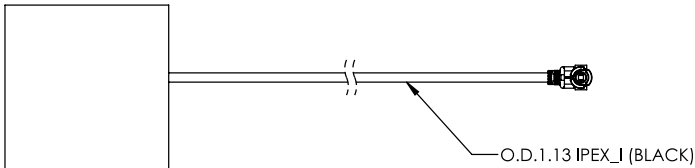
Product Dimensions



TOP VIEW

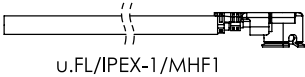


FRONT VIEW

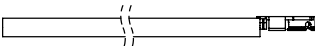


BOTTOM VIEW

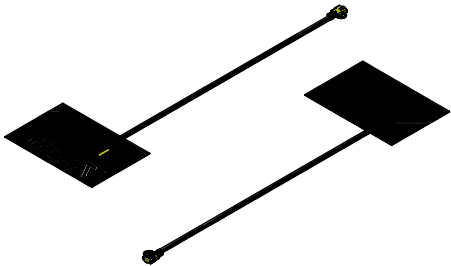
CONNECTOR



U.FL/IPEX-1/MHF1



W.FL/IPEX-4/MHF4



PART NUMBER	CABLE LENGTH (L)	CONNECTOR
AANI-FB-0174-1	75	U.FL/IPEX-1/MHF1
AANI-FB-0174-2	75	W.FL/IPEX-4/MHF4
AANI-FB-0174-3	150	U.FL/IPEX-1/MHF1
AANI-FB-0174-4	150	W.FL/IPEX-4/MHF4
AANI-FB-0174-5	200	U.FL/IPEX-1/MHF1
AANI-FB-0174-6	200	W.FL/IPEX-4/MHF4

Unit: mm

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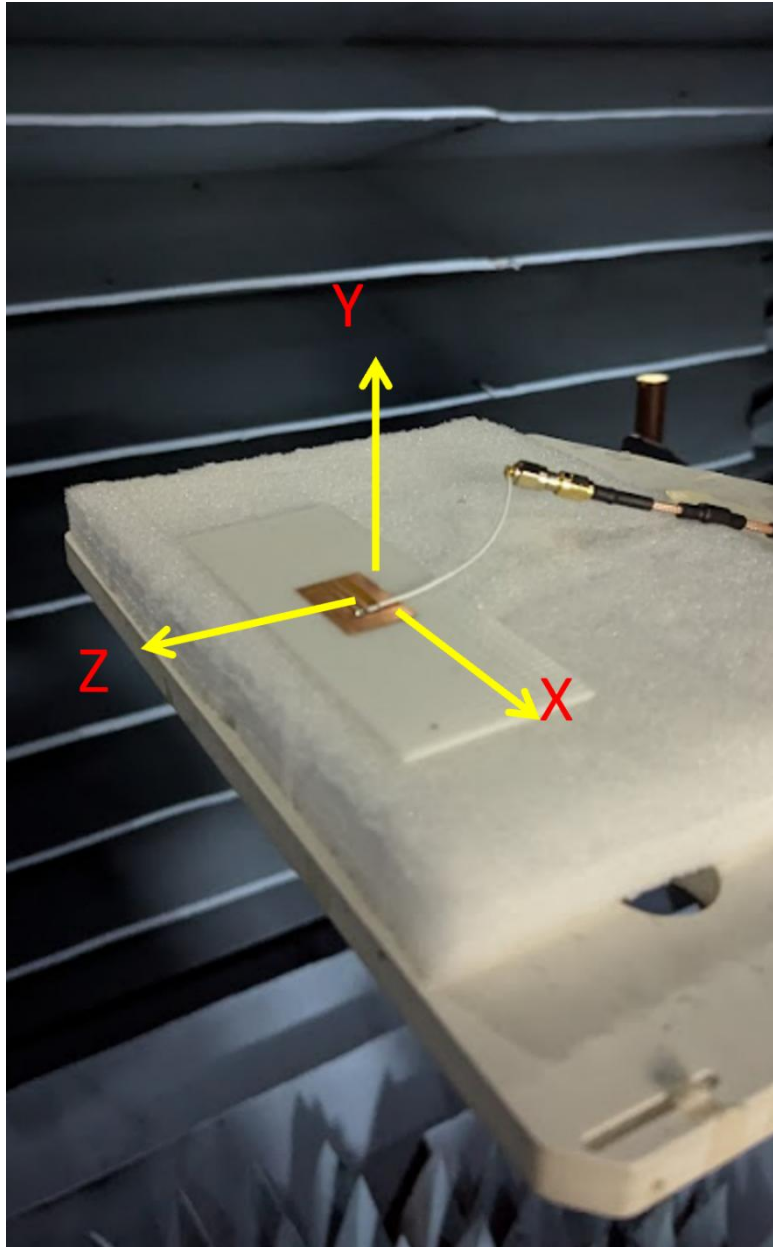


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Measurement Setup photo





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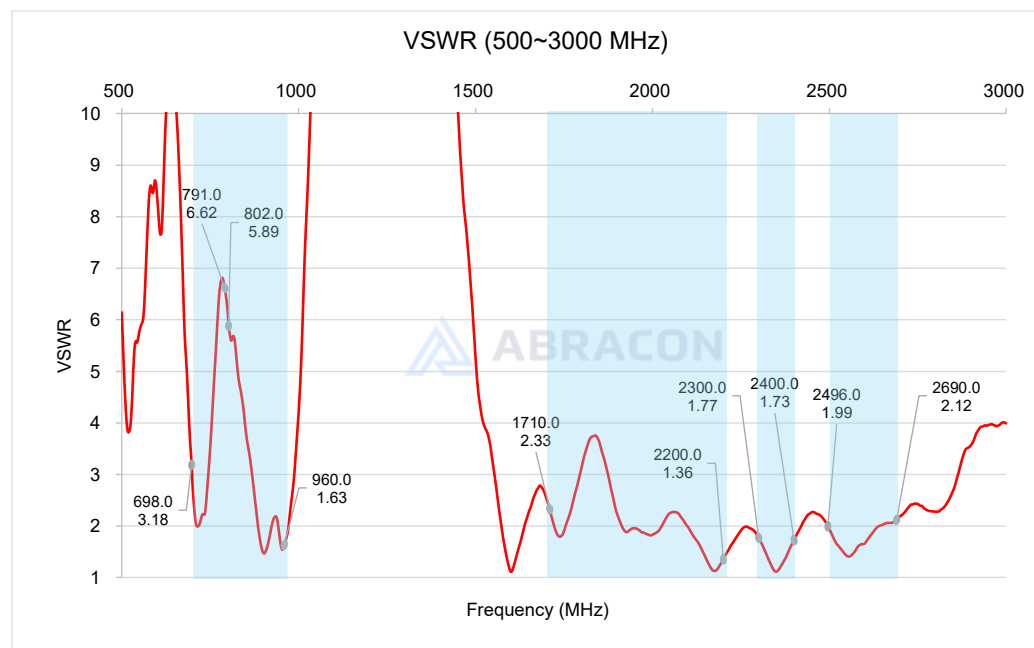
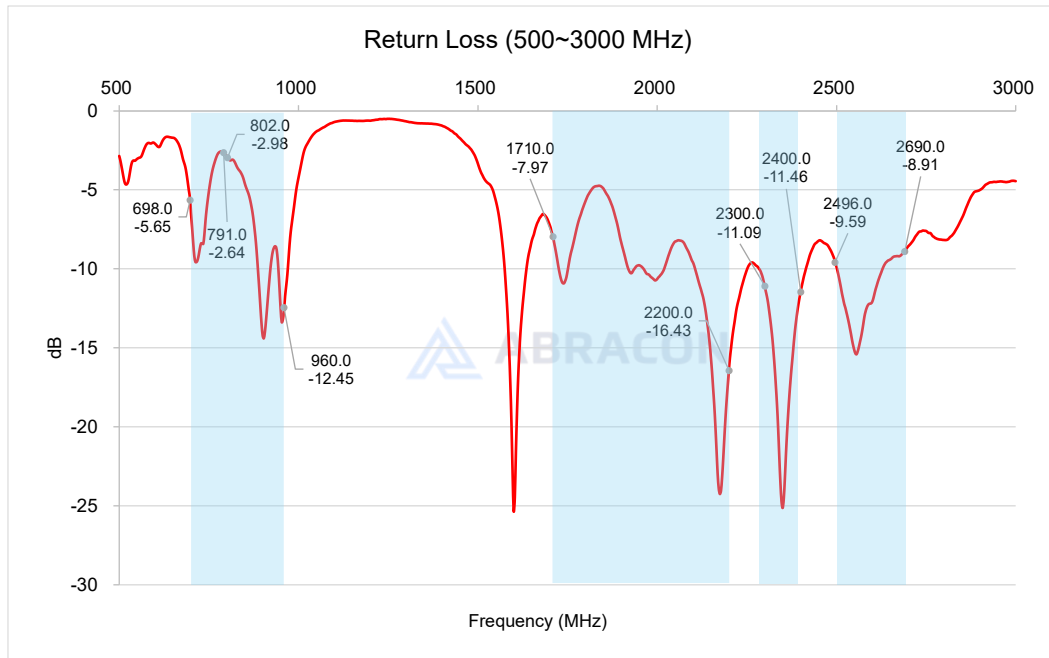


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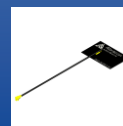


30 x 20 x 0.2 mm
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MSL Level = N/A

Reflection Characteristics – Return Loss & VSWR



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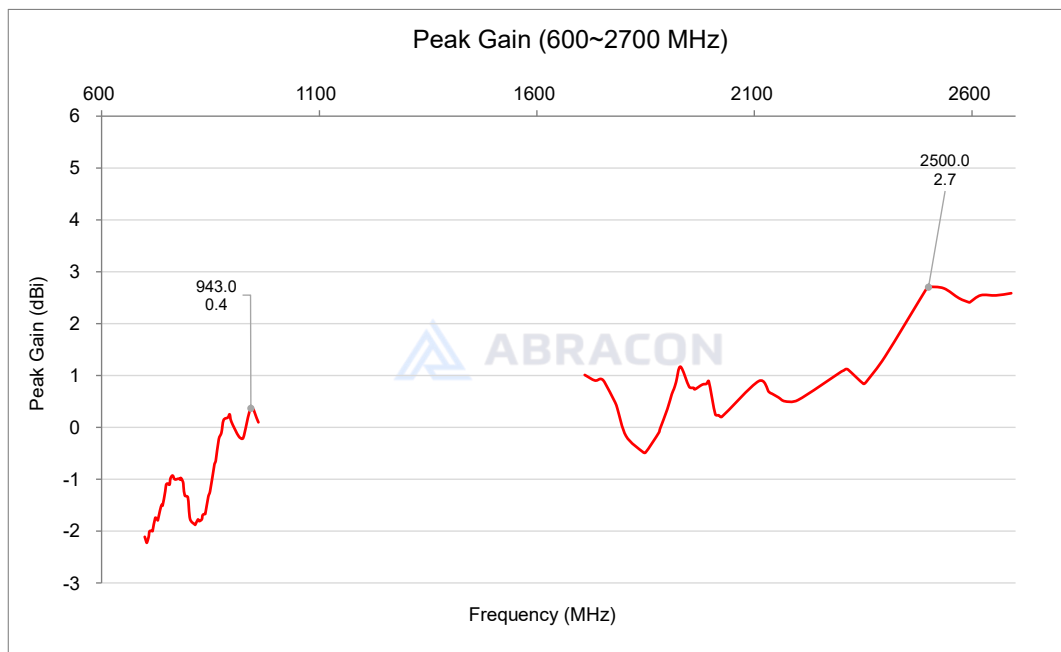


30 x 20 x 0.2 mm

RoHS/RoHS II Compliant

MSL Level = N/A

Radiation Characteristics – Peak Gain

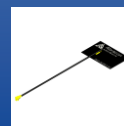


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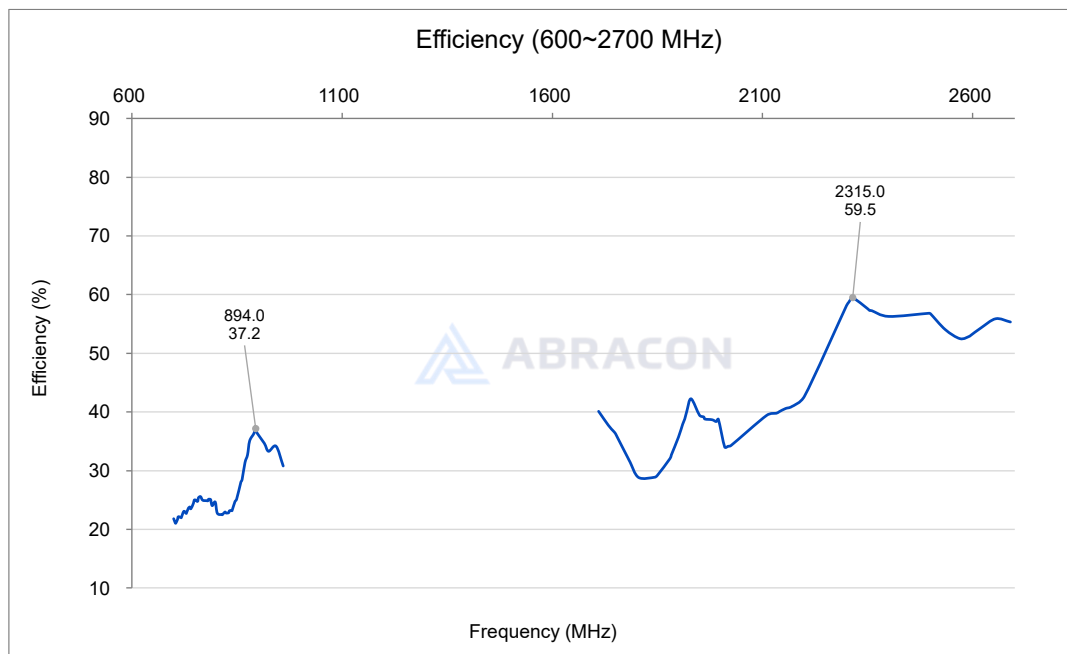


30 x 20 x 0.2 mm

RoHS/RoHS II Compliant

MSL Level = N/A

Radiation Characteristics – Total Efficiency (%)

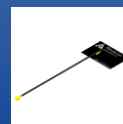


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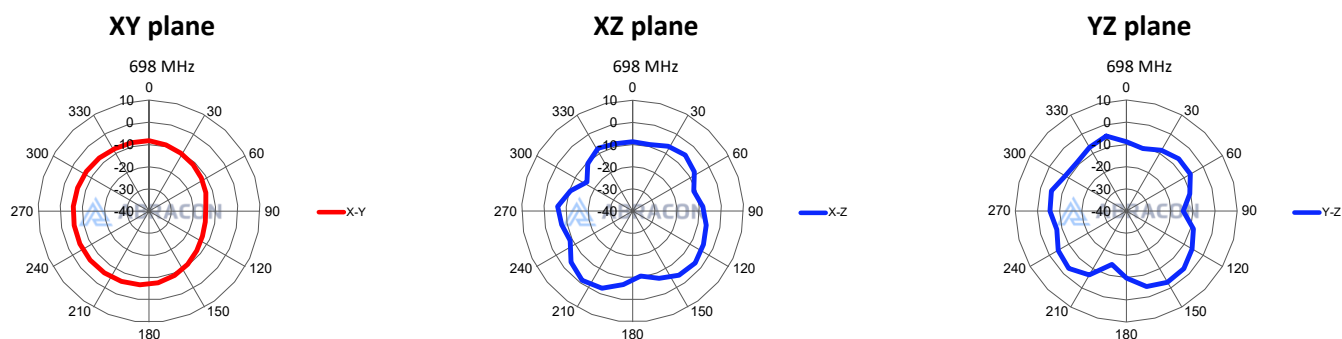
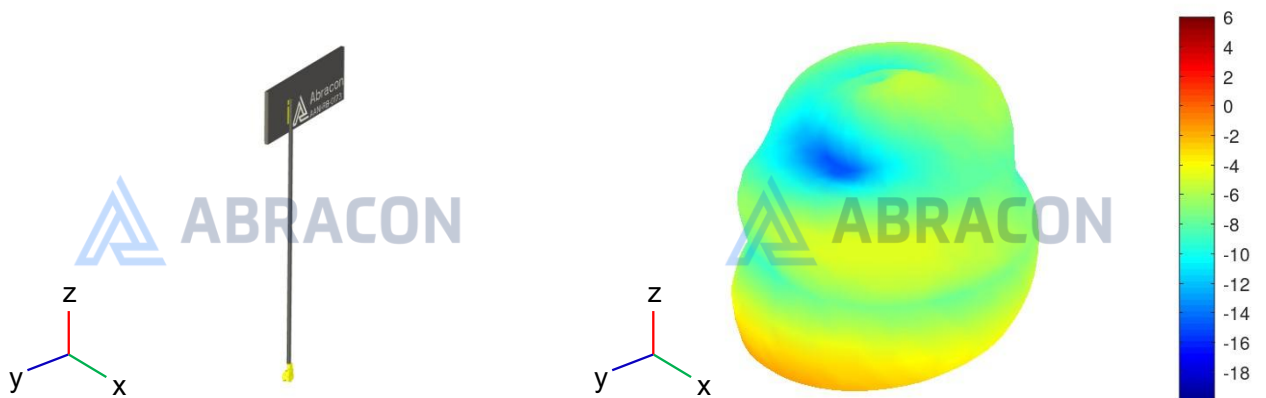
30 x 20 x 0.2 mm

RoHS/RoHS II Compliant

MSL Level = N/A

Radiation Characteristics – 3D & 2D pattern

3D & 2D Pattern @ 698 MHz

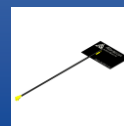


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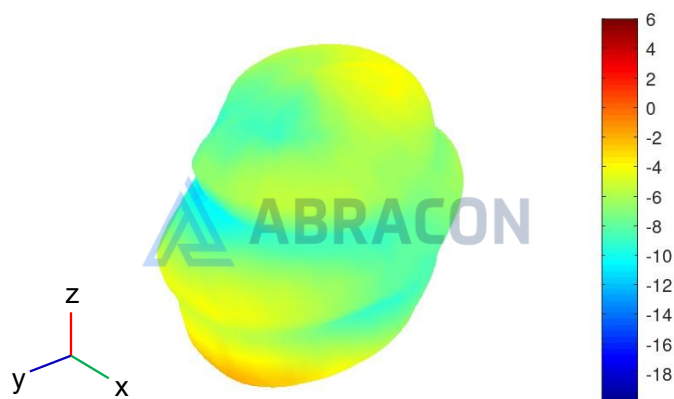
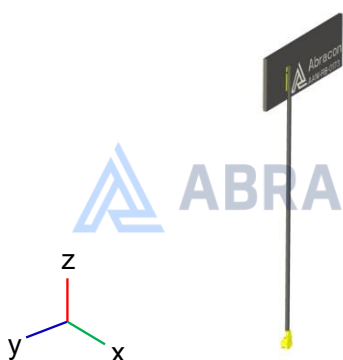


30 x 20 x 0.2 mm

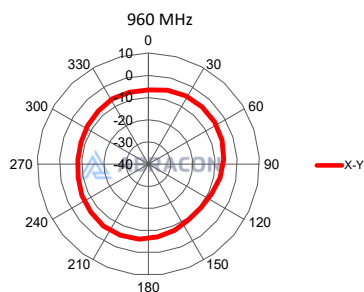
RoHS/RoHS II Compliant

MSL Level = N/A

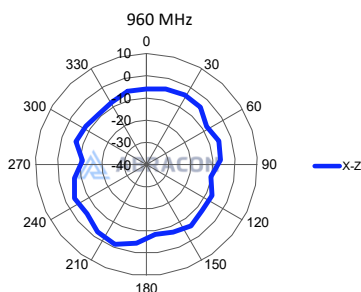
3D & 2D Pattern @ 960 MHz



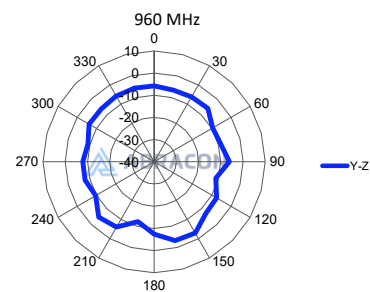
XY plane



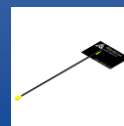
XZ plane



YZ plane



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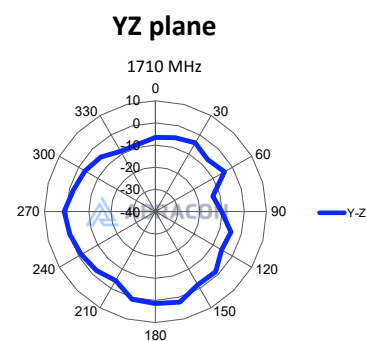
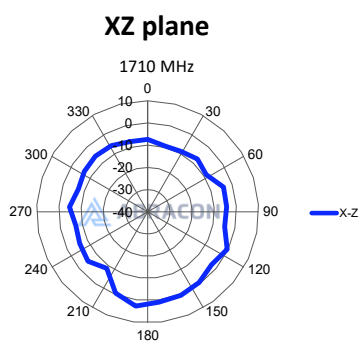
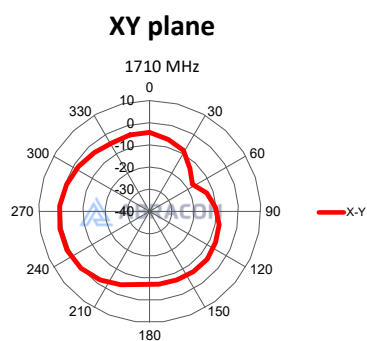
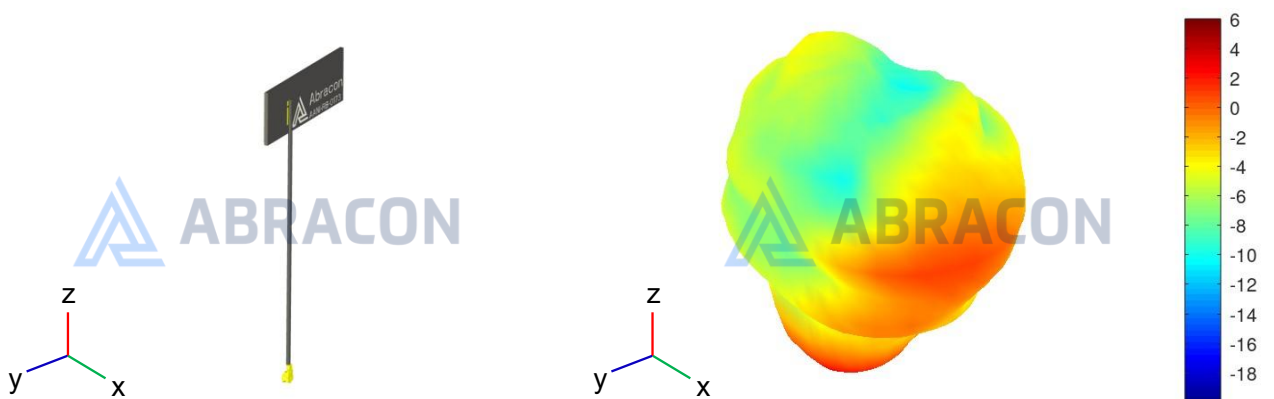


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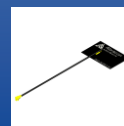
RoHS/RoHS II Compliant

MSL Level = N/A

3D & 2D Pattern @ 1710 MHz



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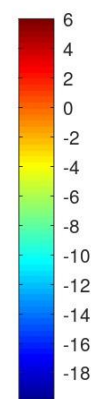
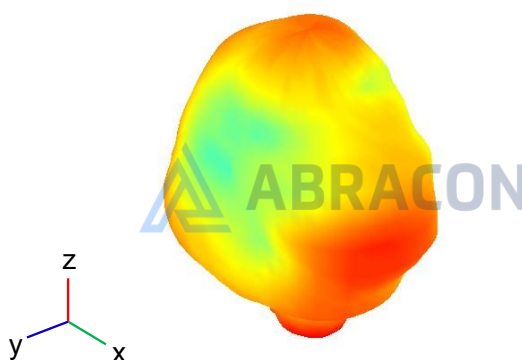
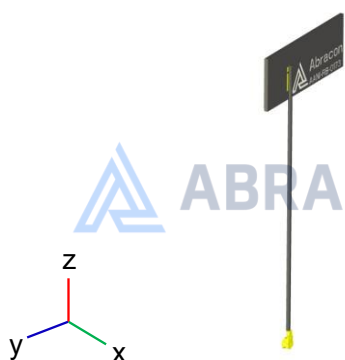


30 x 20 x 0.2 mm

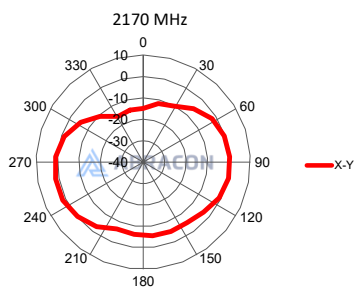
RoHS/RoHS II Compliant

MSL Level = N/A

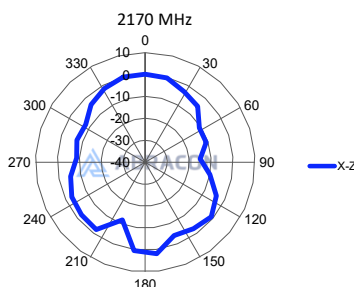
3D & 2D Pattern @ 2170 MHz



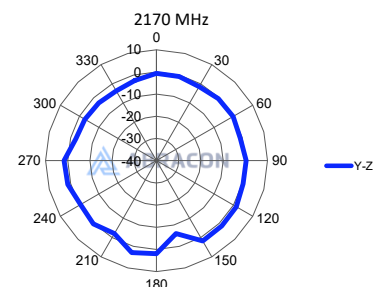
XY plane



XZ plane



YZ plane

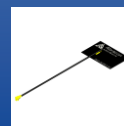


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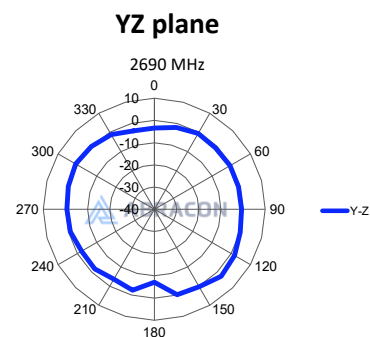
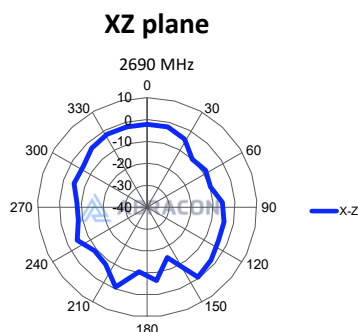
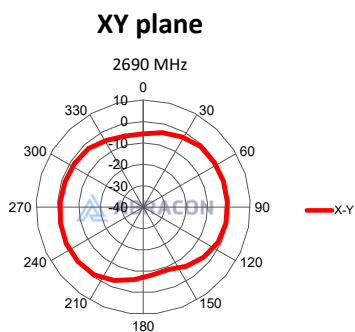
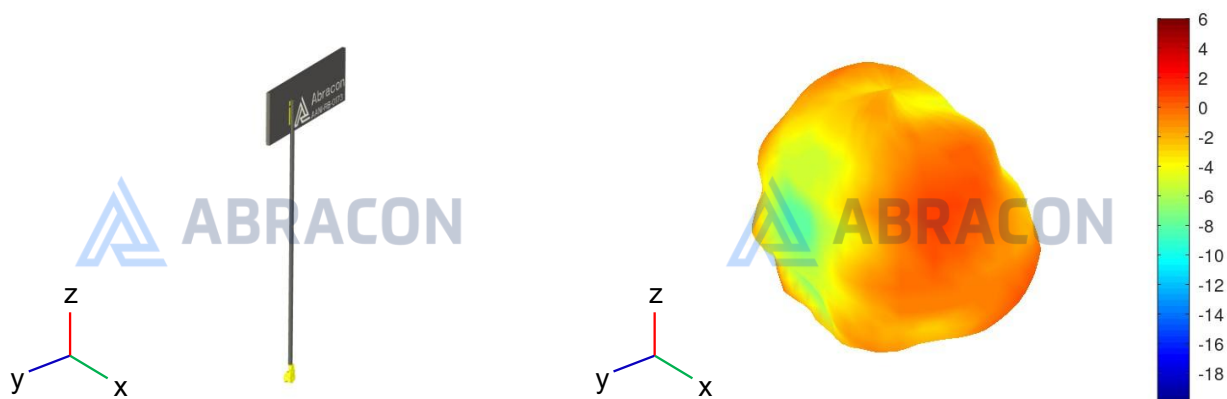


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3D & 2D Pattern @ 2690 MHz



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Packaging

4 sets x 25 pcs / per set = 100 pcs in one bag

10 bags x 100 pcs / per bag

Total: 1000 pcs in one package

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