

Wideband 5G/4G Cellular Flexible PCB Antenna



ABB1102L-0100I

Request Samples



Check Inventory



115 x 21.75 x 0.16 mm
RoHS/RoHS II Compliant
MSL Level = N/A

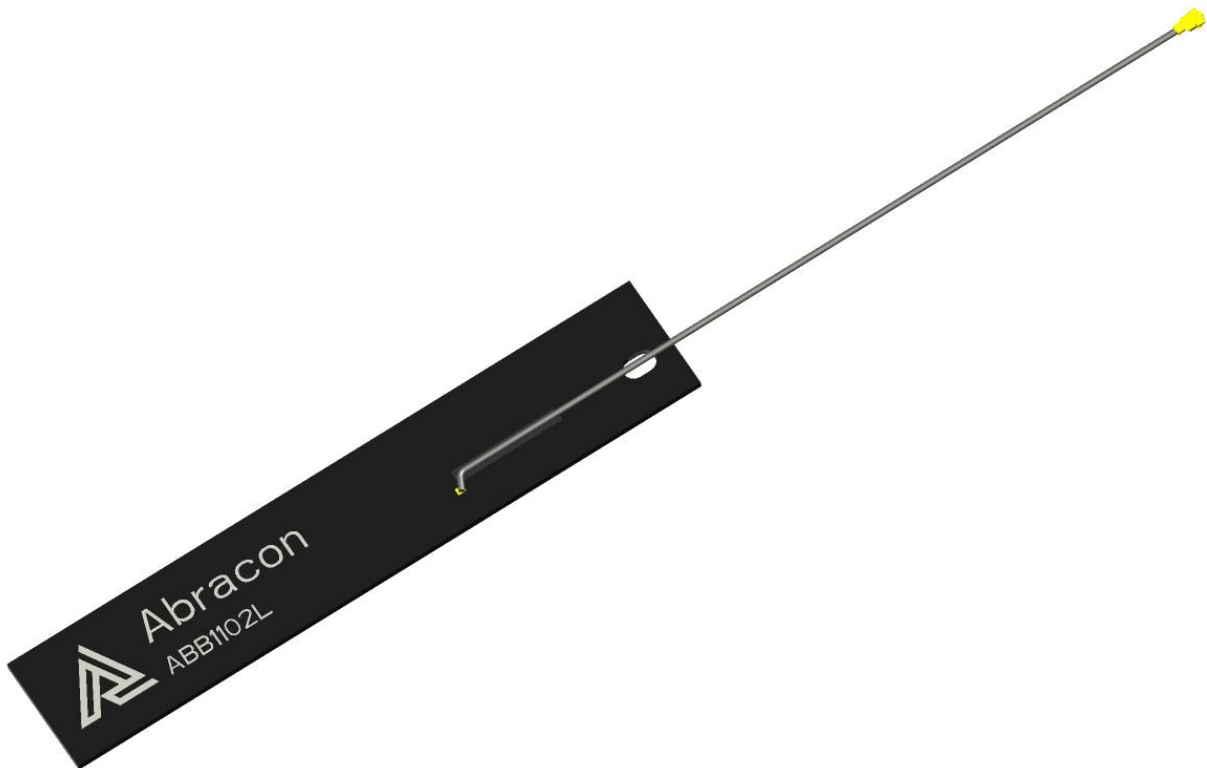
Features

- LTE 600 – 6000MHz
- Optimized performance for all 5G/4G bands
- Efficiency > 50% for all 4G & CBRS bands
- Ground Plane Independent
- Flexible to fit inside plastic enclosures

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 & Telecommunicati

Product Image



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Electrical Specification

Parameter	Specification			Unit
	Min	Typ	Max	
Operating Frequency	600		6000	MHz
VSWR	(600-698 MHz)	2.0	3	
	(698-960 MHz)	2.0	2.8	
	(1710-2690 MHz)	1.6	2.0	
	(2690-6000 MHz)	1.6	2.0	
Peak Gain	(600-698 MHz)	-2.0	-1.0	dBi
	(698-960 MHz)	0.7	2.0	
	(1710-2700 MHz)	3.0	3.7	
	(2690-6000 MHz)	4.0	4.9	
Efficiency	(600-698 MHz)	35.0	41.2	%
	(698-960 MHz)	60.2	67.1	
	(1710-2700 MHz)	71.0	80.5	
	(2690-6000 MHz)	60.0	68.1	
Polarization	Linear			-
Impedance	50			Ω

Mechanical Specification

Parameter	Specification
Dimension	115 x 21.75 x 0.16 mm
Material	Flexible PCB
Mounting Type	Adhesive Mount
RF Connector	u.FL/IPEX-1/MHF1
RF Cable Type	\varnothing 1.13 mm
RF Cable Length	100 mm

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
ABB1102L-0100I	Wideband 5G/4G Cellular Flexible PCB Antenna with IPEX-1 connector with 100mm cable length	u.FL/IPEX-1/MHF1
ABB1102L -0100W	Wideband 5G/4G Cellular Flexible PCB Antenna with IPEX-4 connector with 100mm cable length	w.FL/IPEX-4/MHF4



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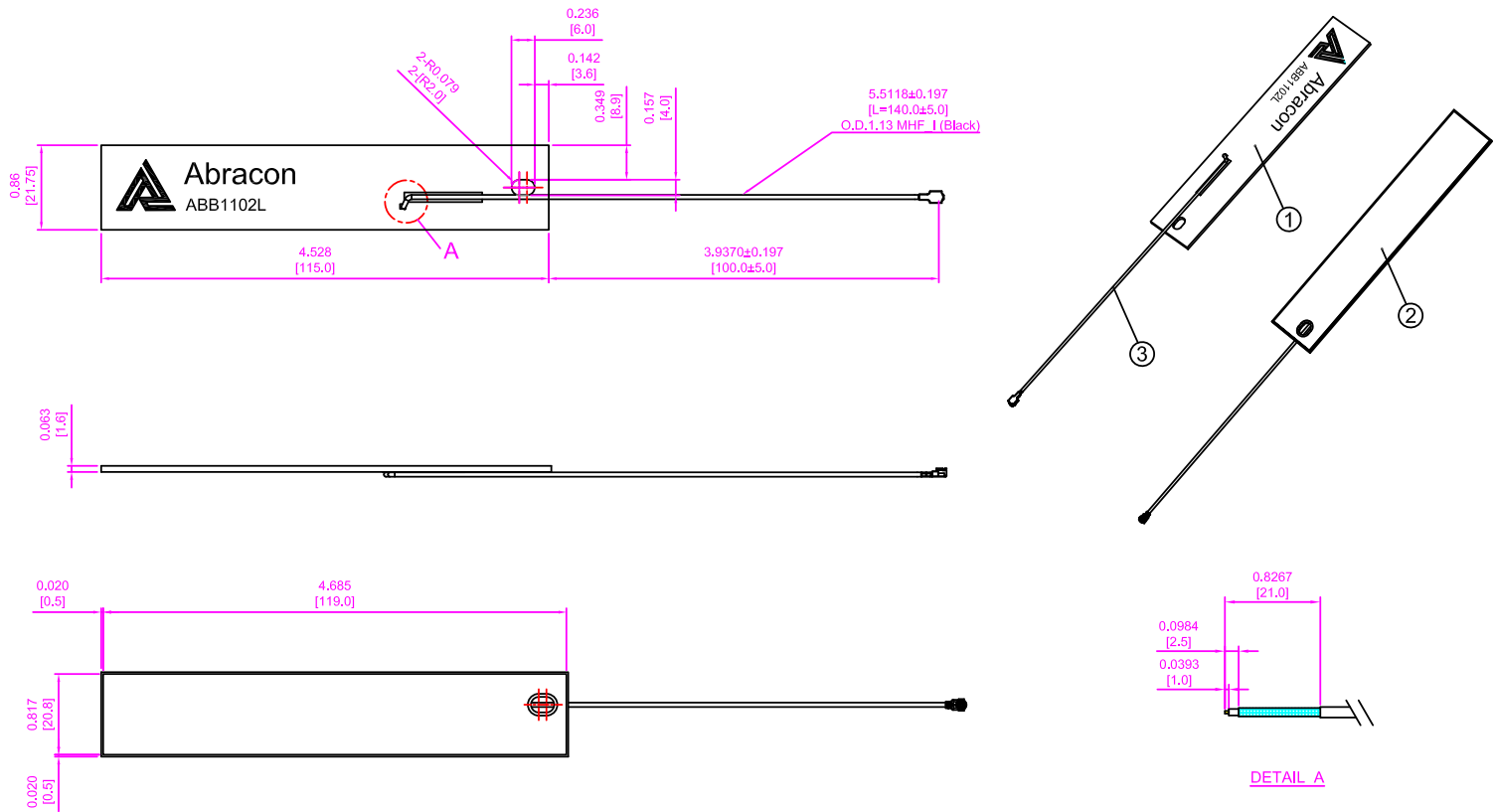


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Product Dimensions



Unit: mm

No.	Description
1	PCB 115 x 21.75 x 1.6 mm
2	119 x 20.8 mm Adhesive (3M467)
3	O.D. 1.13 mm MHF1; Length = 100 mm (Black)



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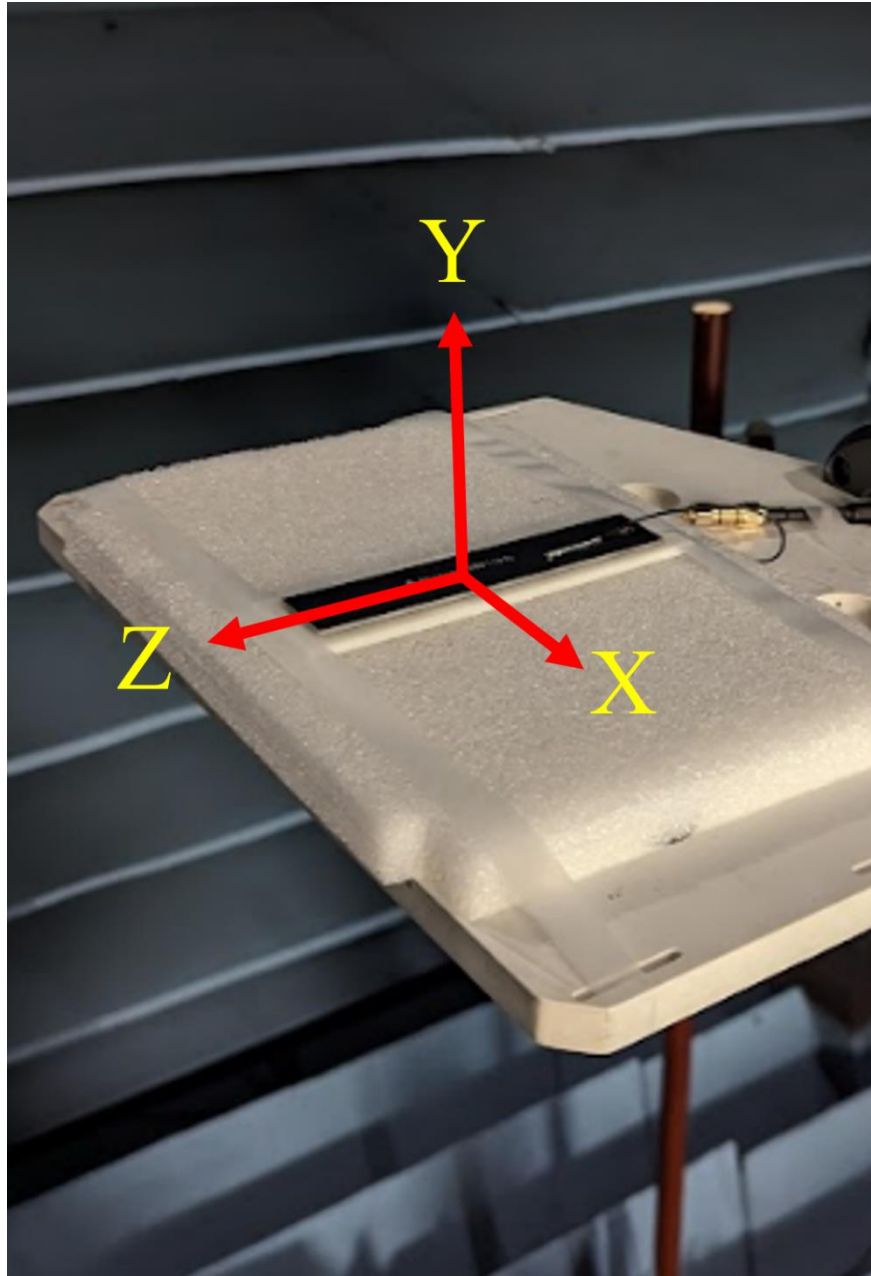


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Measurement Setup photo



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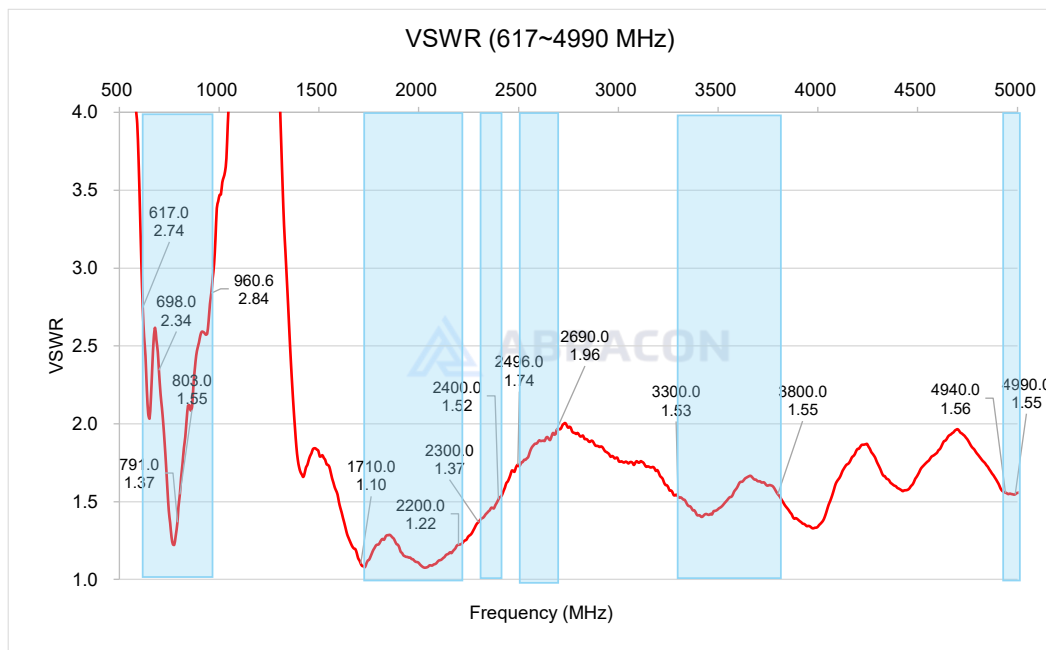
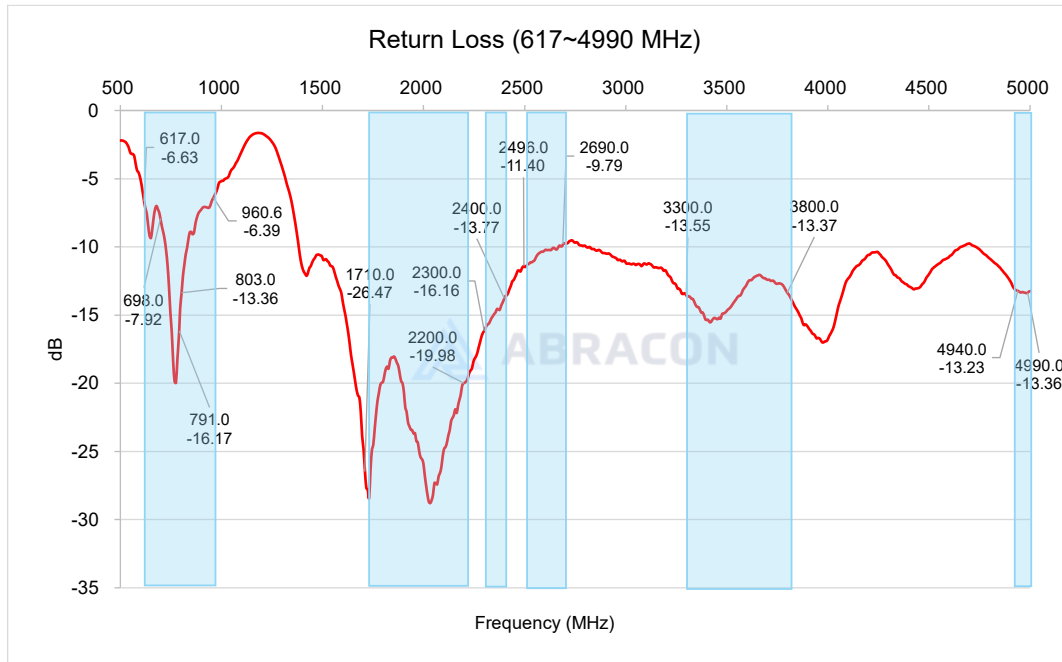


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Reflection Characteristics – Return Loss & VSWR



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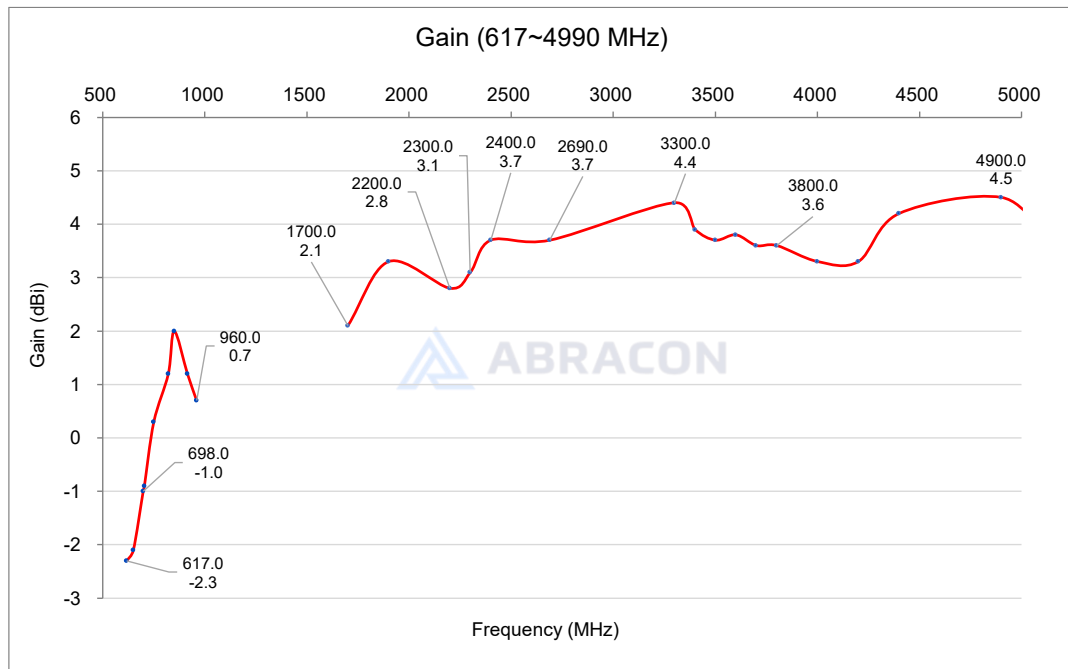


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Radiation Characteristics – Peak Gain



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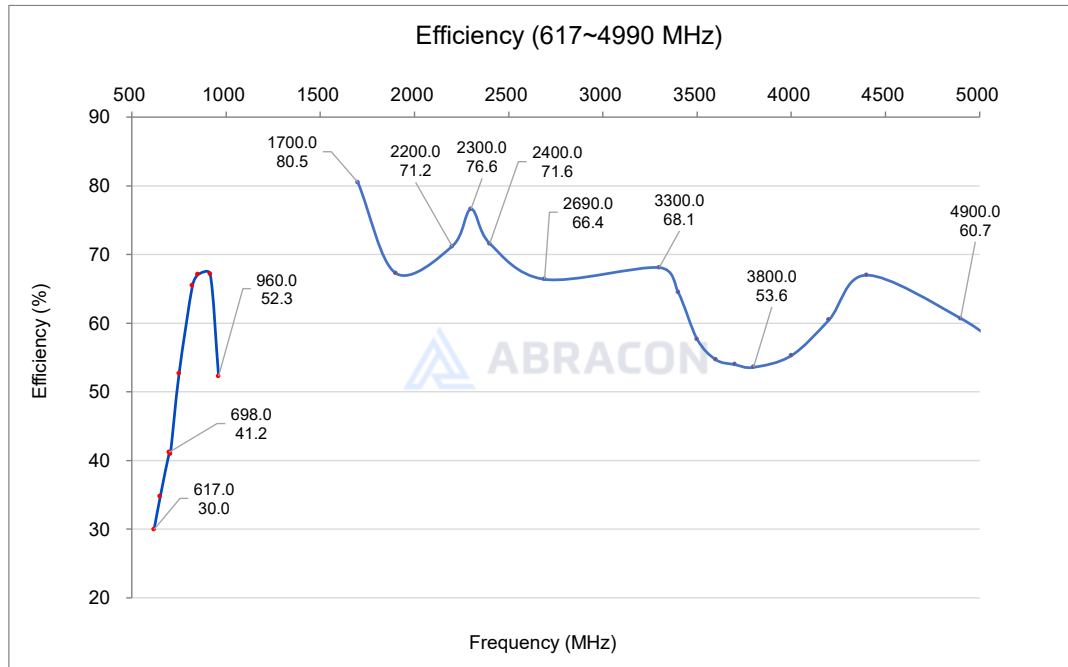


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Radiation Characteristics – Total Efficiency (%)



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Frequency (MHz)	Gain (dBi)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)
617	-2.3	2.9	-5.2	30.0
650	-2.1	2.4	-4.6	34.8
698	-1.0	2.8	-3.9	41.2
704	-0.9	3.0	-3.9	41.0
750	0.3	3.1	-2.8	52.7
821	1.2	3.0	-1.8	65.5
850	2.0	3.7	-1.7	67.1
915	1.2	2.9	-1.7	67.2
960	0.7	3.5	-2.8	52.3
1700	2.1	3.1	-0.9	80.5
1900	3.3	5.0	-1.7	67.3
2100	2.8	4.3	-1.5	71.2
2300	3.1	4.3	-1.2	76.6
2500	3.7	5.1	-1.5	71.6
2700	3.7	5.5	-1.8	66.4
3300	4.4	6.1	-1.7	68.1
3400	3.9	5.8	-1.9	64.5
3500	3.7	6.1	-2.4	57.7
3600	3.8	6.4	-2.6	54.7
3700	3.6	6.3	-2.7	54.0
3800	3.6	6.3	-2.7	53.6
4000	3.3	5.9	-2.6	55.3
4200	3.3	5.5	-2.2	60.5
4400	4.2	5.9	-1.7	67.0
4900	4.5	6.7	-2.2	60.7
5200	3.7	6.3	-2.6	54.9
5500	4.9	7.9	-3.0	50.2
5925	4.1	6.9	-2.8	52.6



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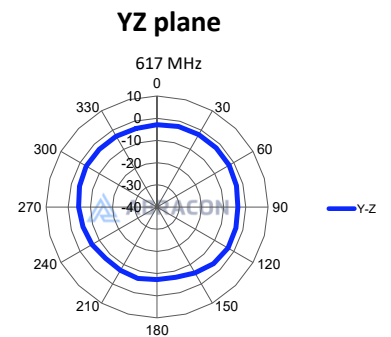
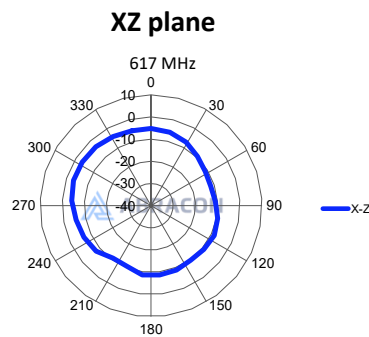
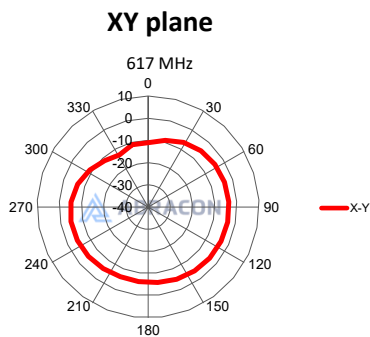
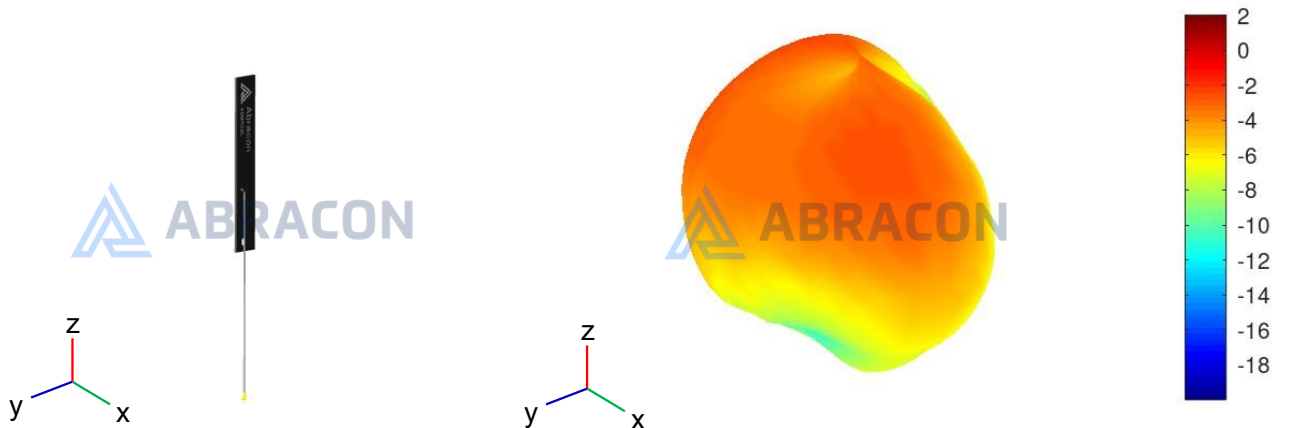
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115 x 21.75 x 0.16 mm
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Radiation Characteristics – 3D & 2D pattern

3D & 2D Pattern @ 617 MHz



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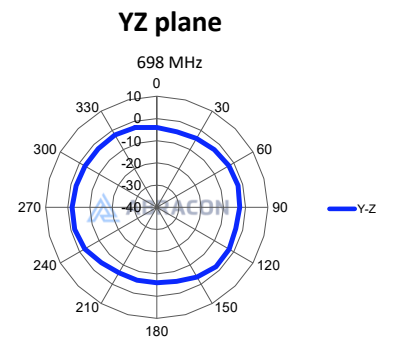
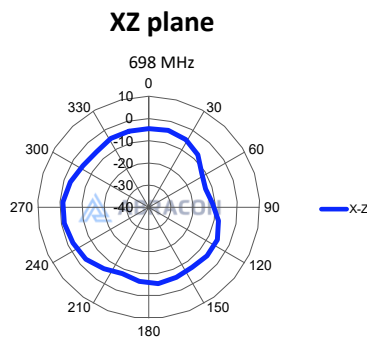
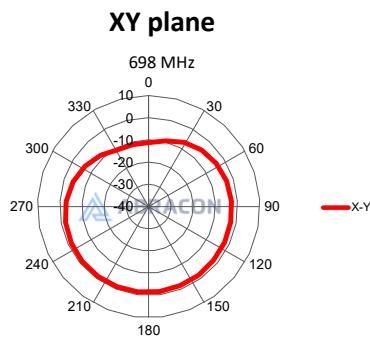
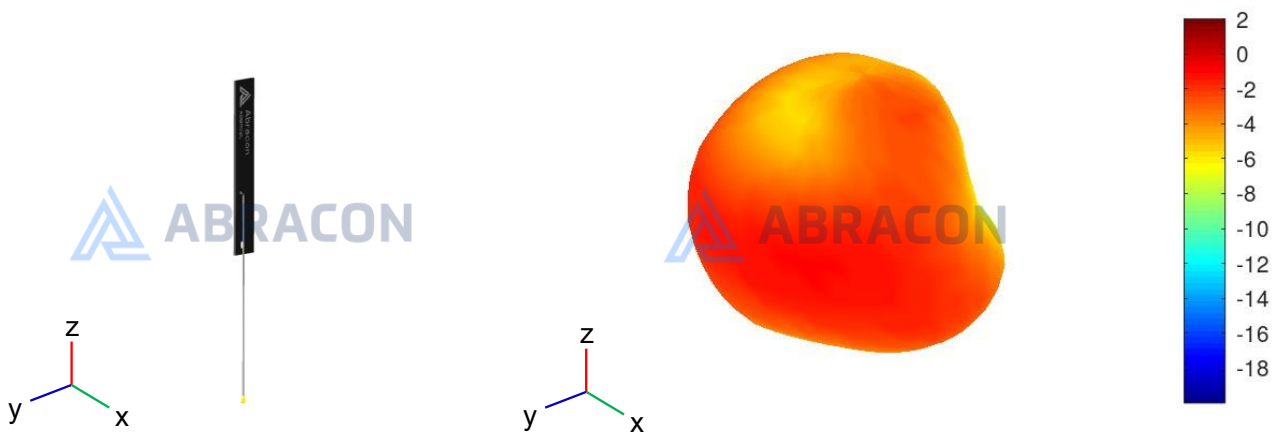


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115 x 21.75 x 0.16 mm
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3D & 2D Pattern @ 698 MHz



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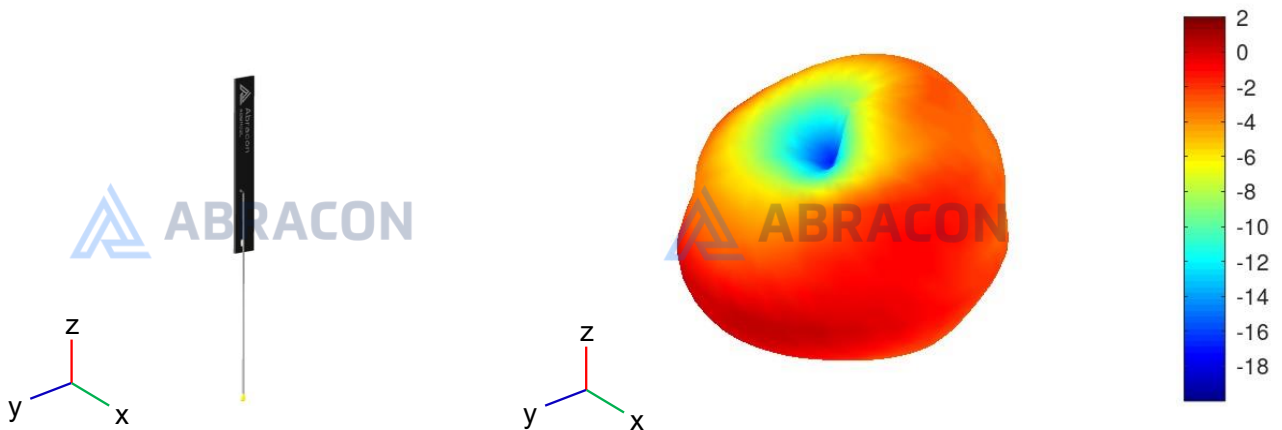


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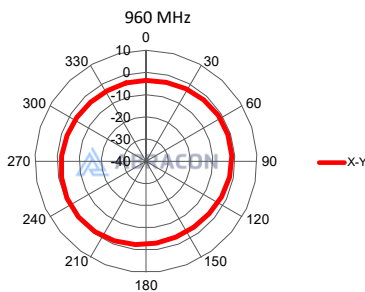


115 x 21.75 x 0.16 mm
RoHS/RoHS II Compliant
MSL Level = N/A

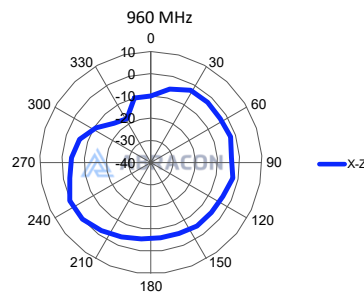
3D & 2D Pattern @ 960 MHz



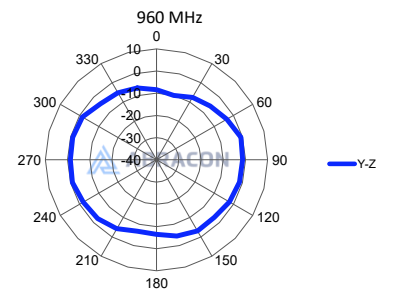
XY plane



XZ plane



YZ plane



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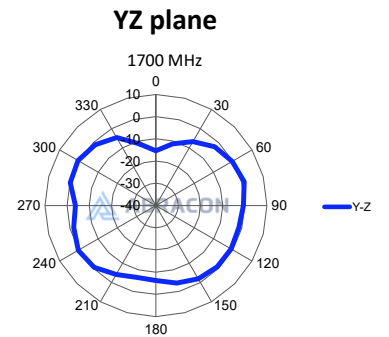
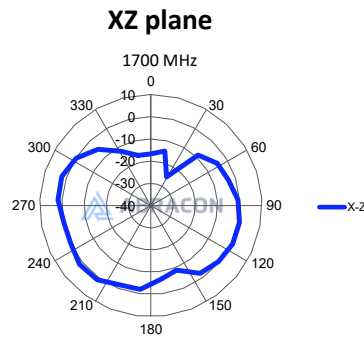
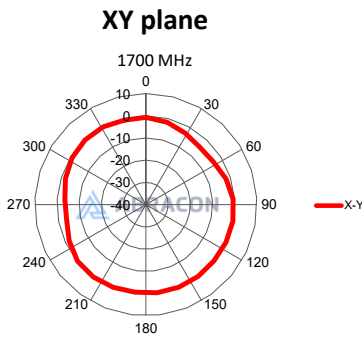
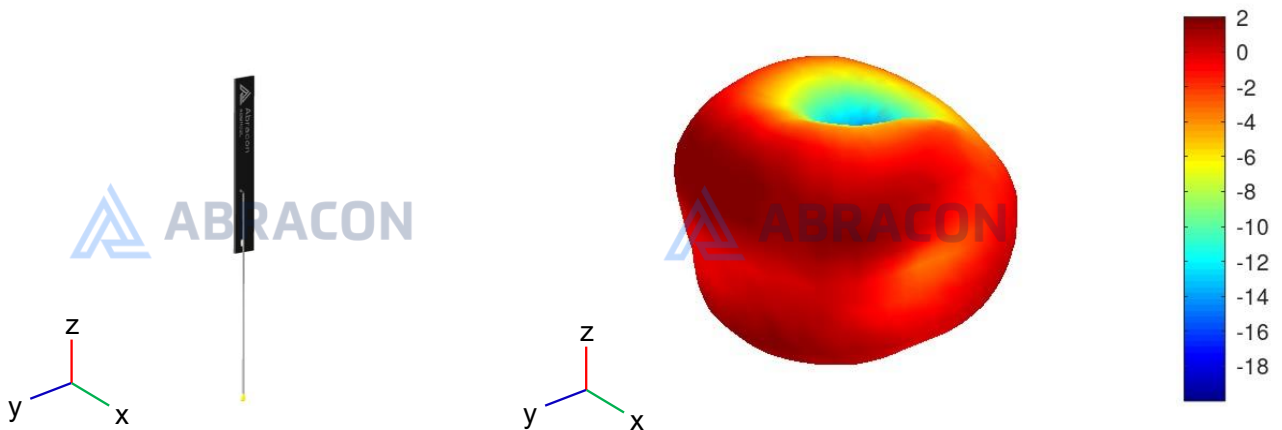


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3D & 2D Pattern @ 1700 MHz



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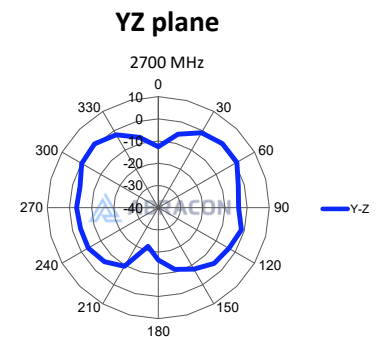
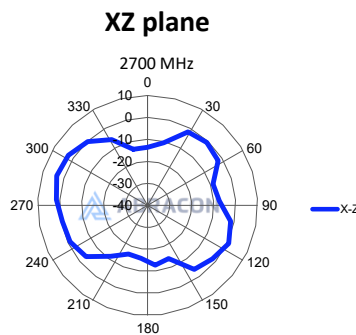
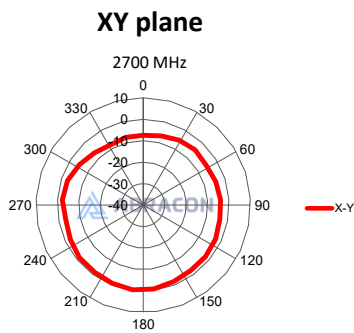
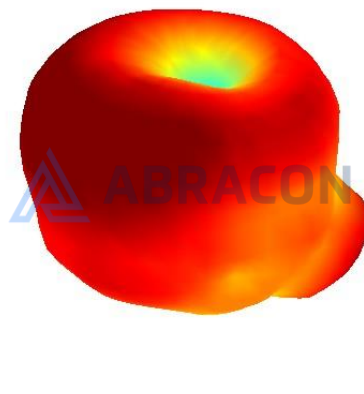


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115 x 21.75 x 0.16 mm
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MSL Level = N/A

3D & 2D Pattern @ 2700 MHz



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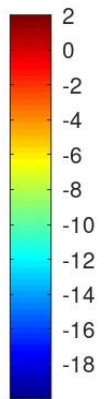
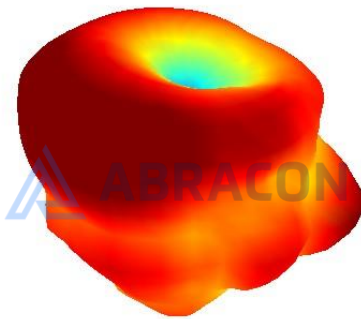
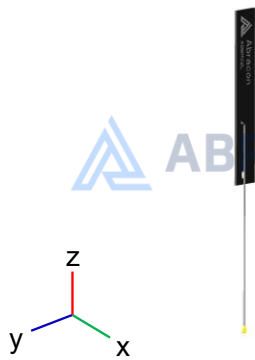


Check Inventory

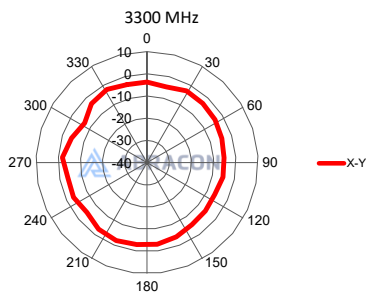


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RoHS/RoHS II Compliant
MSL Level = N/A

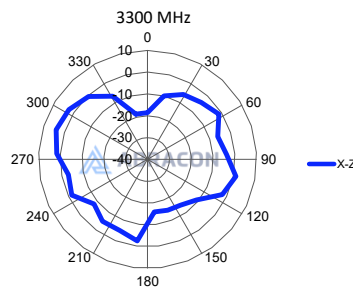
3D & 2D Pattern @ 3300 MHz



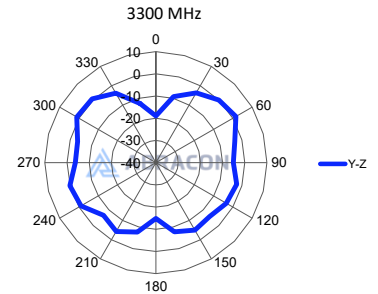
XY plane



XZ plane



YZ plane



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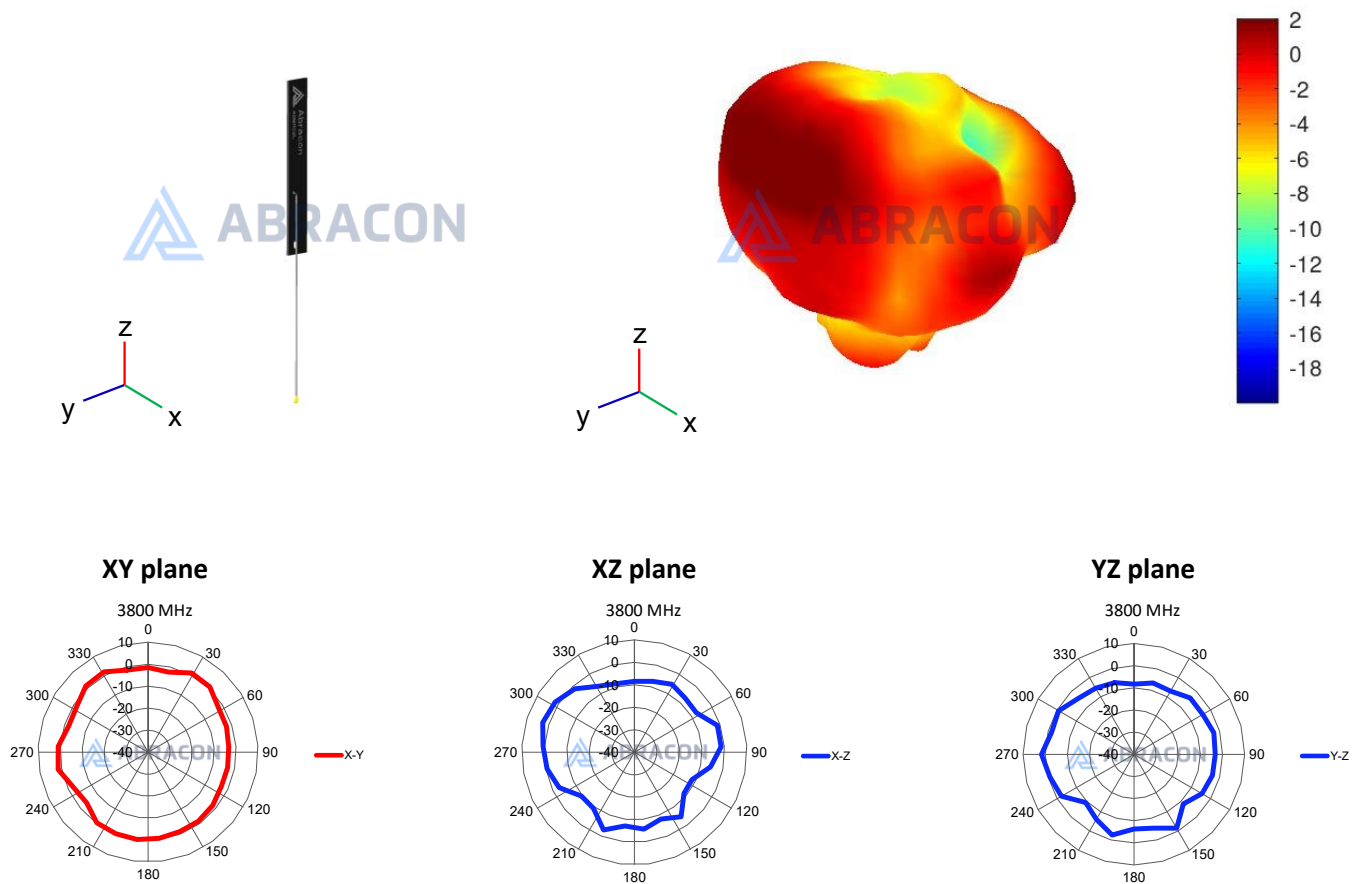


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115 x 21.75 x 0.16 mm
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3D & 2D Pattern @ 3800 MHz



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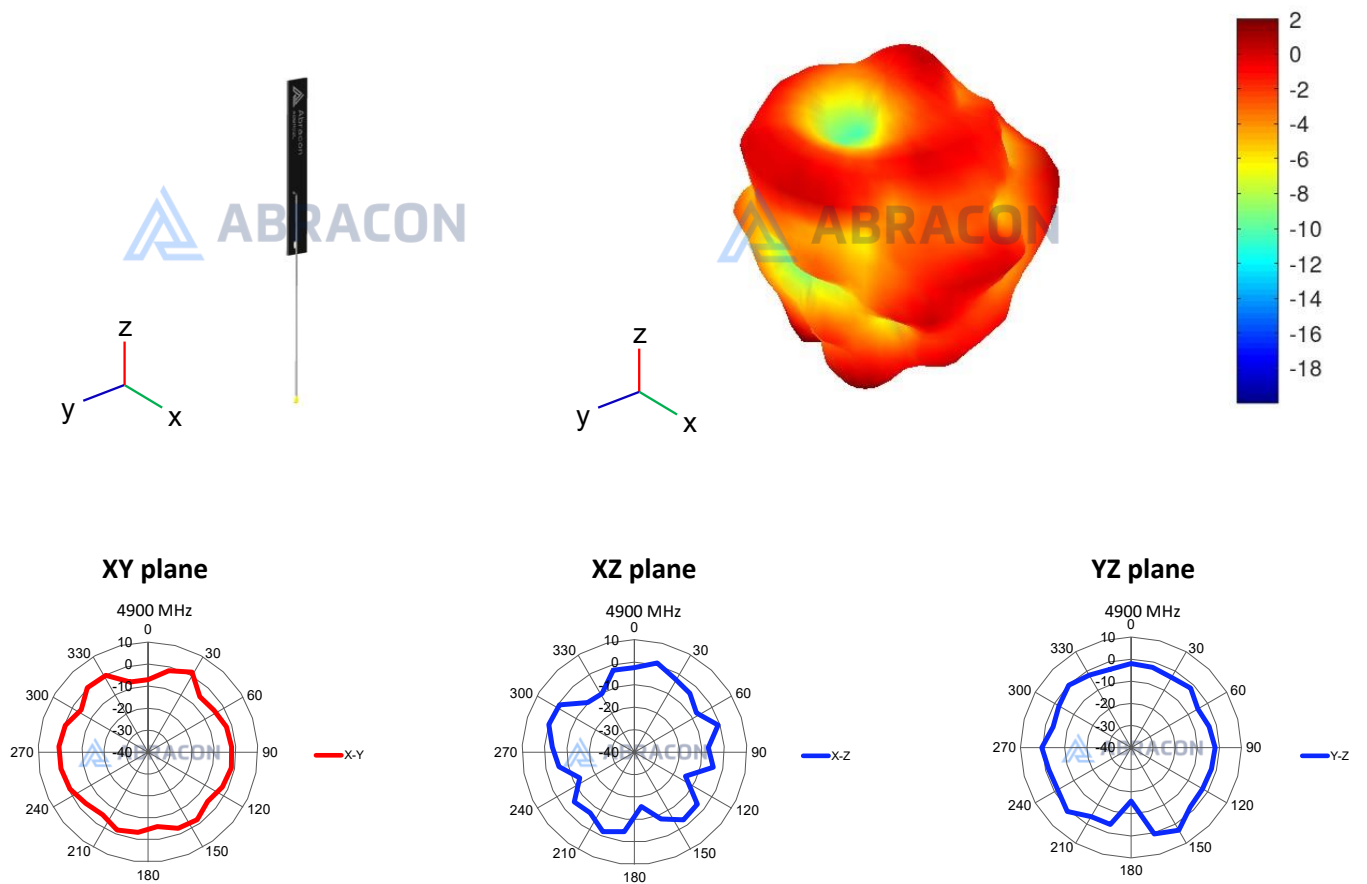


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3D & 2D Pattern @ 4900 MHz



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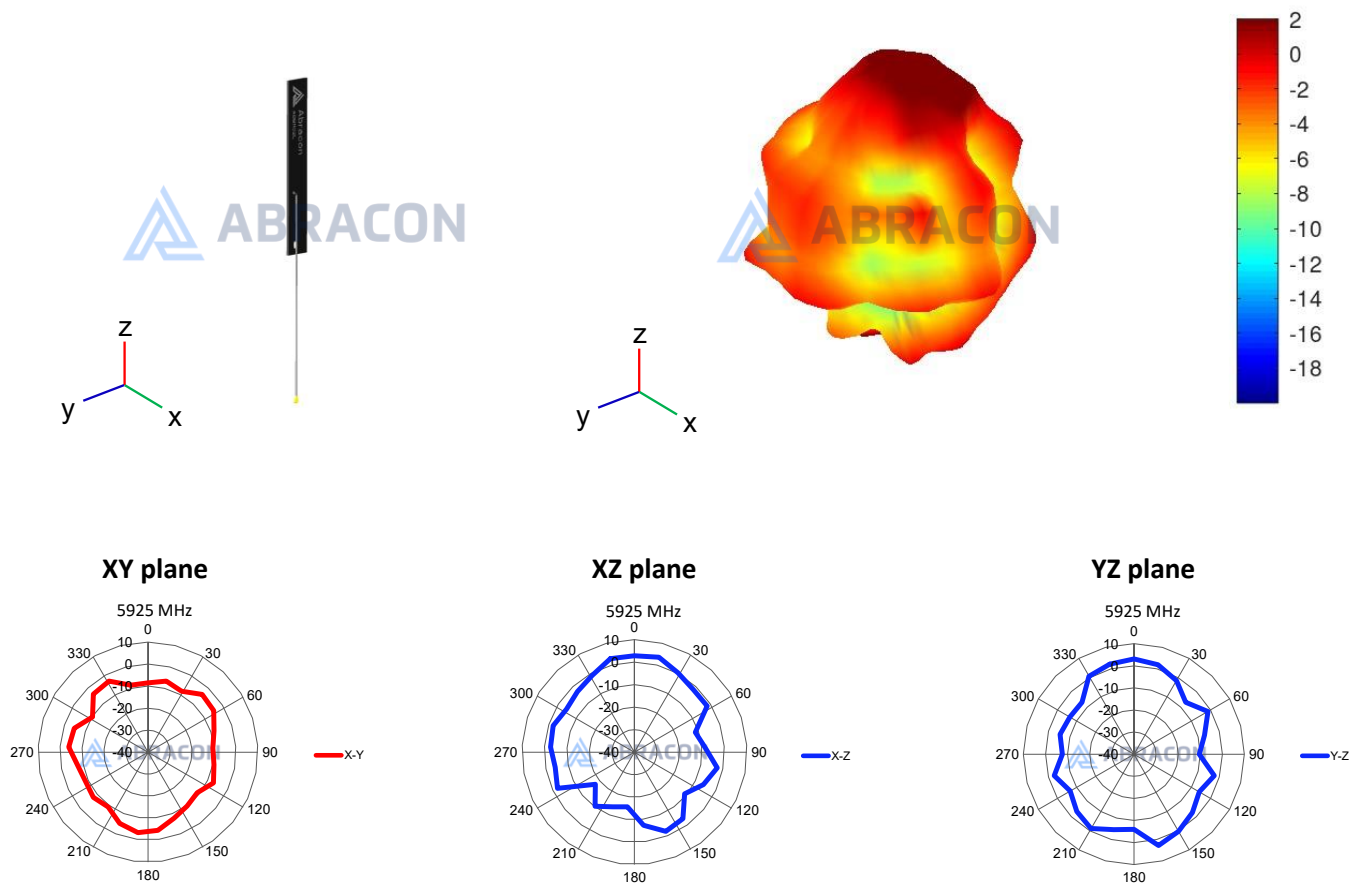


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3D & 2D Pattern @ 5925 MHz



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Packaging

1. 4 sets x 25 pcs / per set = 100 pcs in one bag
2. 20 bags x 100 pcs / per bag
3. Total: 2000 pcs in one package

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