

AANI-PP-0055

Request Samples



Check Inventory



25.0 x 25.0 x 4.0mm

RoHS Compliant

MSL Level = N/A

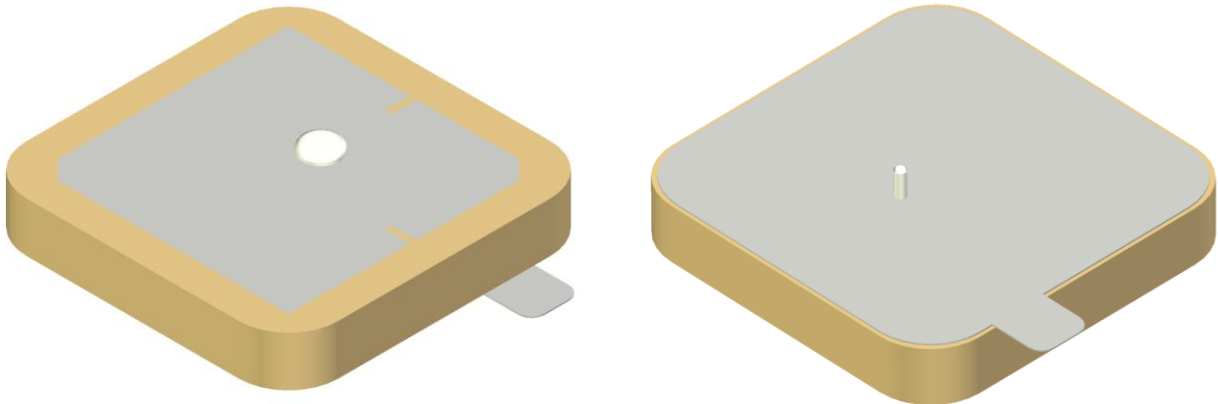
Features

- Multi-Constellation Passive GNSS Antenna
 - GPS: L1
 - GLONASS: G1
 - BeiDou: B1
 - Galileo: E1
 - QZSS: L1
 - SBAS: L1
- RHCP Polarization
- Small Size of 25.0 x 25.0 x 4.0 mm
- Light Weight

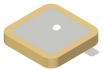
Applications

- IoT / M2M
- Unmanned Aerial Vehicle (UAV)
- Fleet Management and Asset Tracking
- Transportation
- Precision Agriculture
- Geolocation and Tracking

Product Image



GNSS L1 Ceramic Patch Antenna



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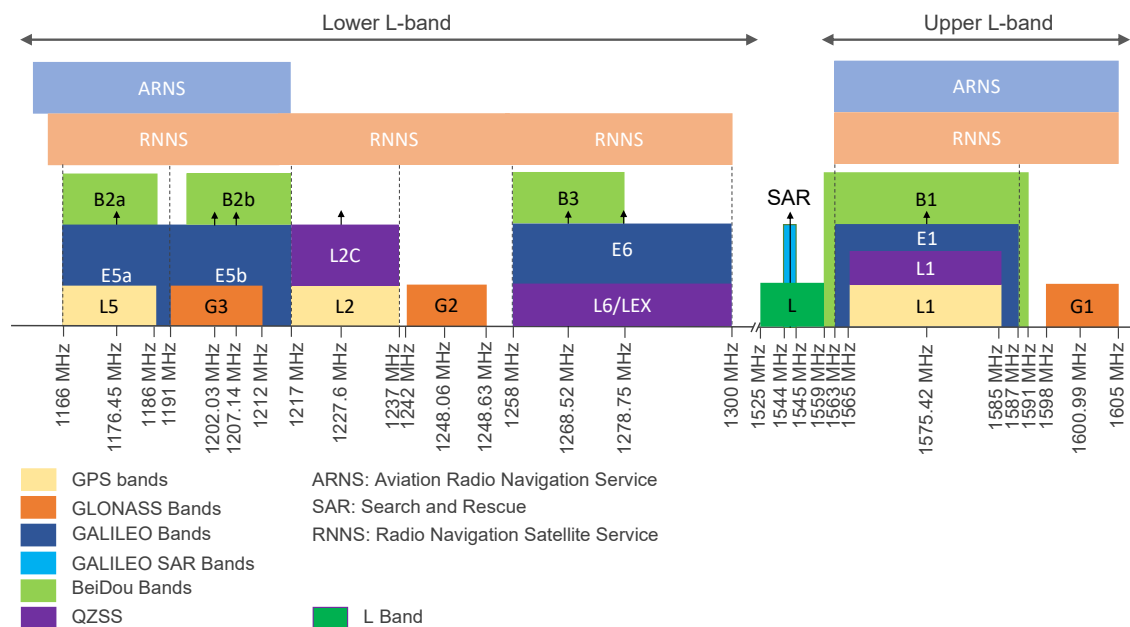
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GNSS Frequency Bands Covered

GPS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	
	■	□	□	
GLONASS	G1 1598.06-1609.31MHz	G2 1242.93-1251.68MHz	G3 1202.025MHz	
	■	□	□	
Galileo	E1 1575.42MHz	E5a 1176.45MHz	E5b 1201.5MHz	E6 1278.75MHz
	■	□	□	□
BeiDou	B1 1561MHz	B2 1207.14MHz	B3 1268.52MHz	
	■	□	□	
QZSS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	L6 1278.75MHz
	■	□	□	□
IRNSS/NAVIC			L5 1176.45MHz	
			□	
SBAS	L1/E1/B1 1575.42MHz		L5/B2a/E5a 1176.45MHz	
	■		□	



Frequency allocation: GNSS systems, upper L bands and lower L bands

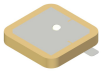


5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
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GNSS L1 Ceramic Patch Antenna



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Electrical Specification

Parameters	Typ.	Units	Note
Antenna			
Frequency	GPS: L1 GLONASS: G1 Beidou: B1 Galileo: E1 QZSS: L1 SBAS: L1/E1/B1	-	
VSWR	< 2.0	-	
Polarization	RHCP	-	(Right Hand Circular Polarization)
Nominal Impedance	50	Ω	
Peak Gain	> 4.0	dBic	L1 (1575.42 MHz)/G1 (1602MHz)
Efficiency	> 75	%	L1 (1575.42 MHz)/G1 (1602MHz)
Axial Ratio	< 5.0		L1 (1575.42 MHz)/G1 (1602MHz)

Note: With 60 x 60 mm Ground Plate

Mechanical Specification

Parameter	Specification
Antenna Dimension	25.0 x 25.0 x 4.0mm
Mounting Type	Through hole

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +110°C
RoHS Compliance	Yes



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Ordering Information

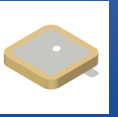
Part Number	Description
AANI-PP-0055	GNSS L1 Ceramic Patch Antenna
AANI-PP-0055-EVB	GNSS L1 Ceramic Patch Antenna EVB



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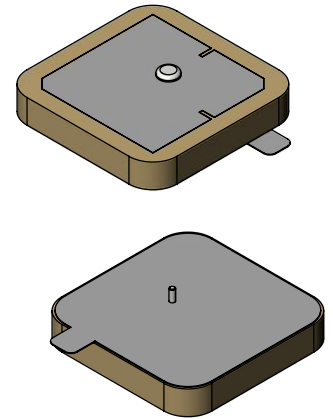
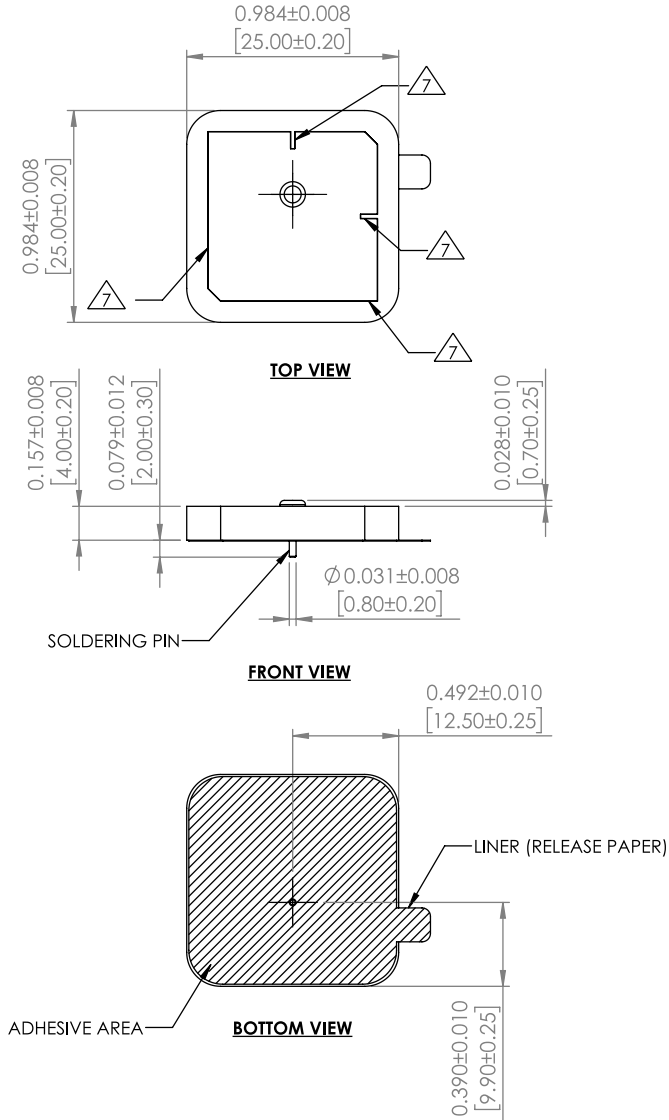


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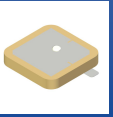


25.0 x 25.0 x 4.0mm
RoHS Compliant
 MSL Level = N/A

Product Dimensions



Unit: inches [mm]



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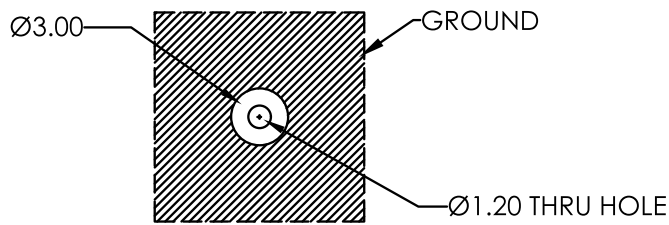
25.0 x 25.0 x 4.0mm

RoHS Compliant

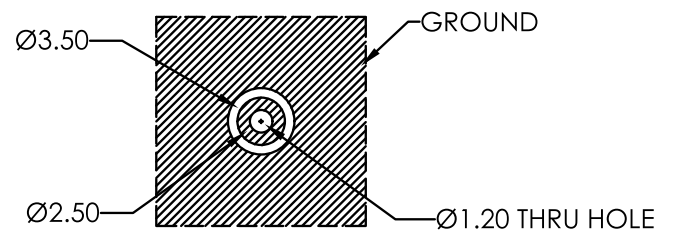
MSL Level = N/A

PCB Footprint

TOP VIEW

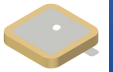


BOTTOM VIEW



Tolerance : ± 0.20

Unit : mm



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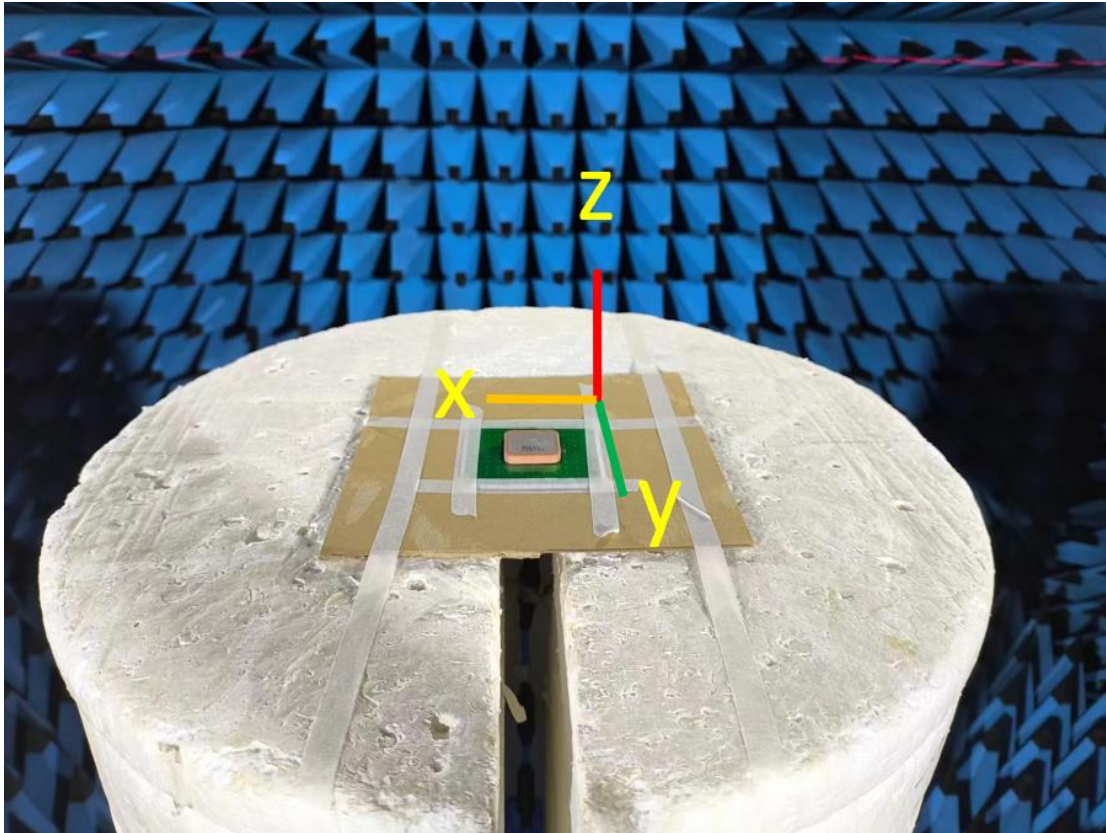


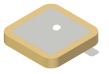
Check Inventory



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Measurement Setup





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Request Samples

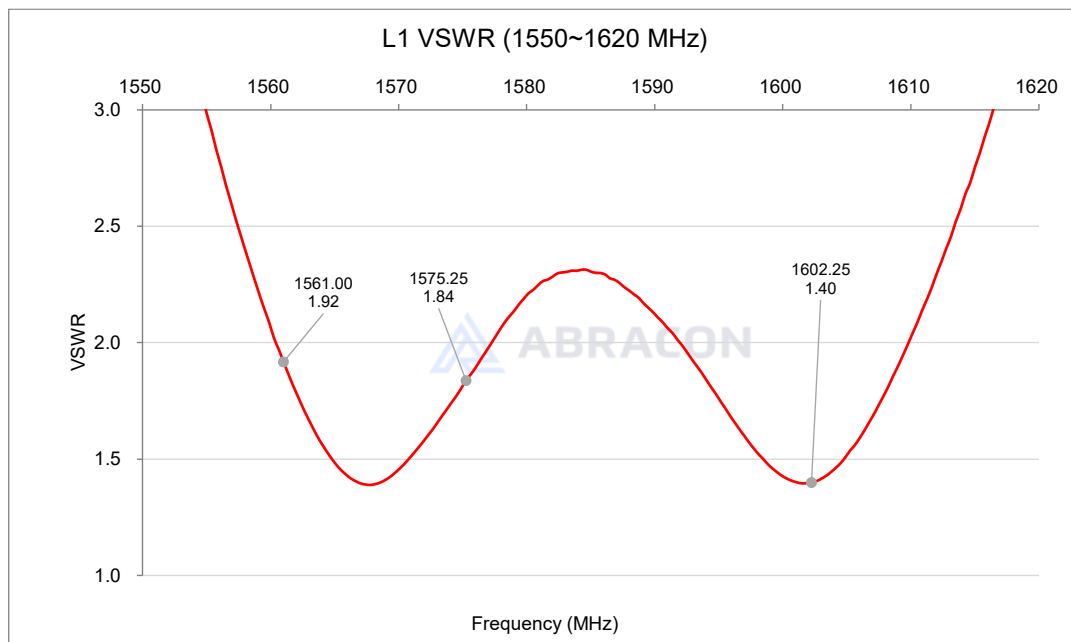
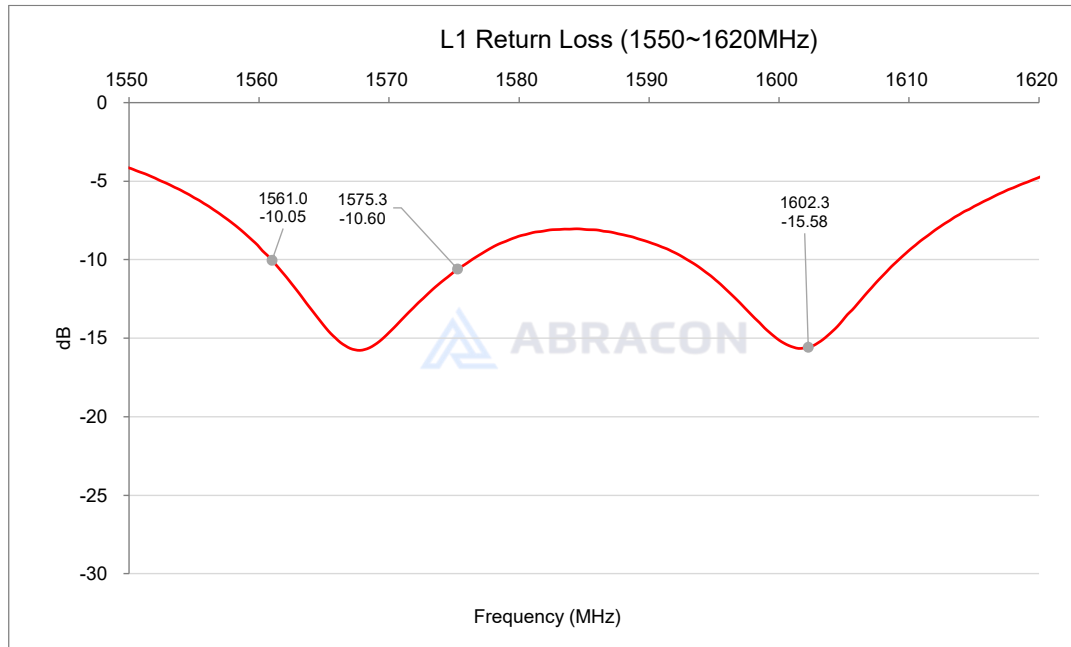


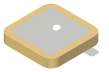
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25.0 x 25.0 x 4.0mm
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MSL Level = N/A

Reflection Characteristics – Return Loss & VSWR





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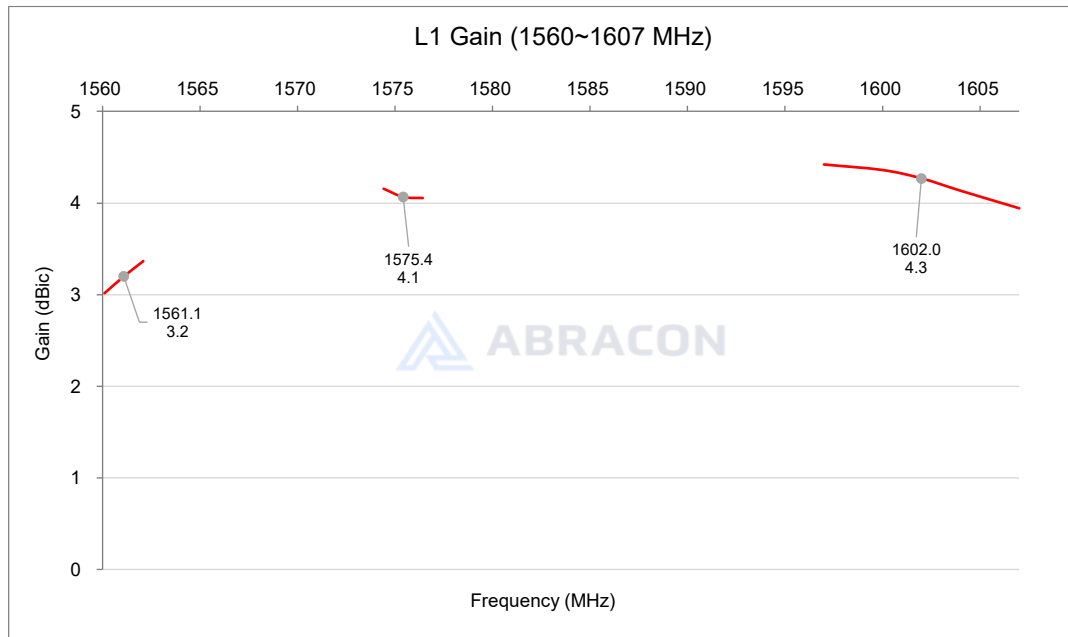


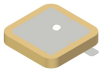
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25.0 x 25.0 x 4.0mm
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MSL Level = N/A

Radiation Characteristics – Peak Gain





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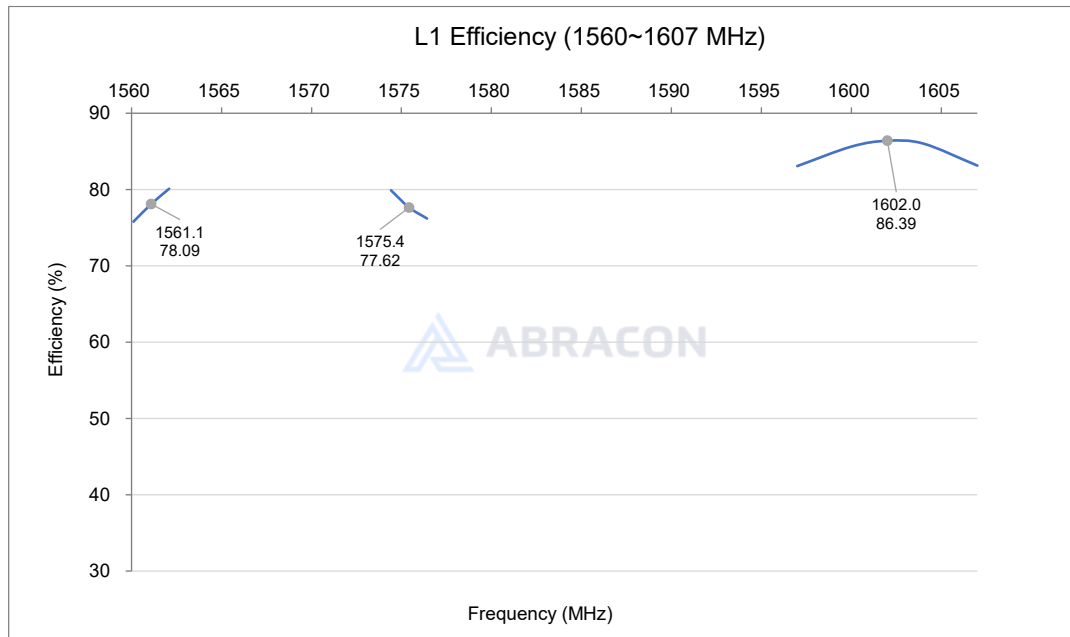


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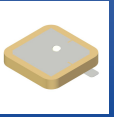


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Radiation Characteristics – Total Efficiency (%)



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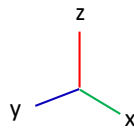
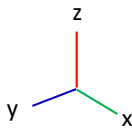
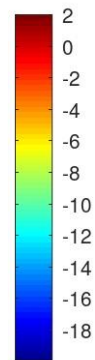
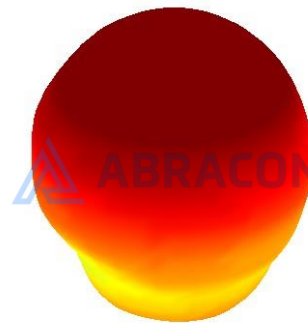
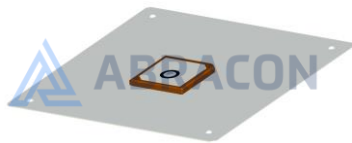
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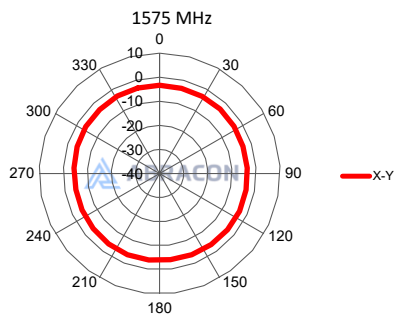
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Radiation Characteristics – 3D & 2D Pattern

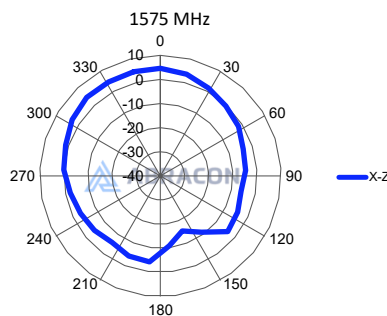
1575MHz



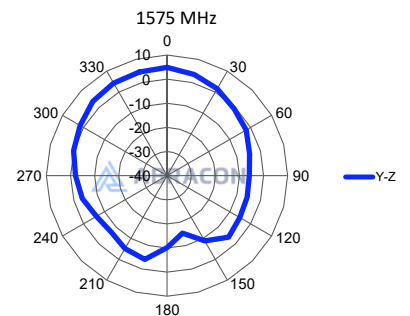
XY plane



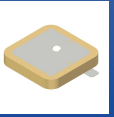
XZ plane



YZ plane



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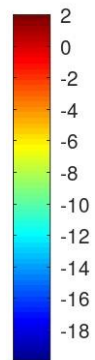
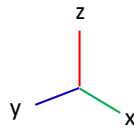
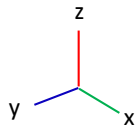
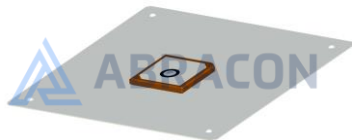


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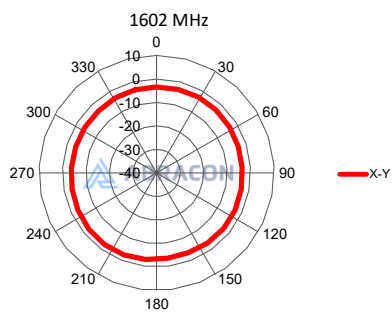


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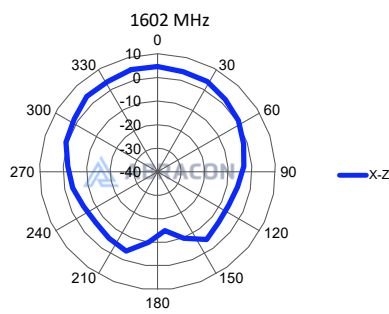
1602MHz



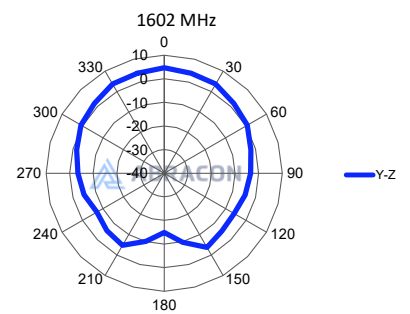
XY plane



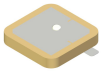
XZ plane



YZ plane



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Packaging

1. 50 pcs per tray
2. 500 pcs per inner box
3. 1000 pcs per carton

Dimension of the carton: 345 x 210 x 255 mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf ('COTS'), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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