

GNSS L1 Ceramic Patch Antenna



AANI-PP-0055

Request Samples



Check Inventory



25.0 x 25.0 x 4.0mm

RoHS Compliant

MSL Level = N/A

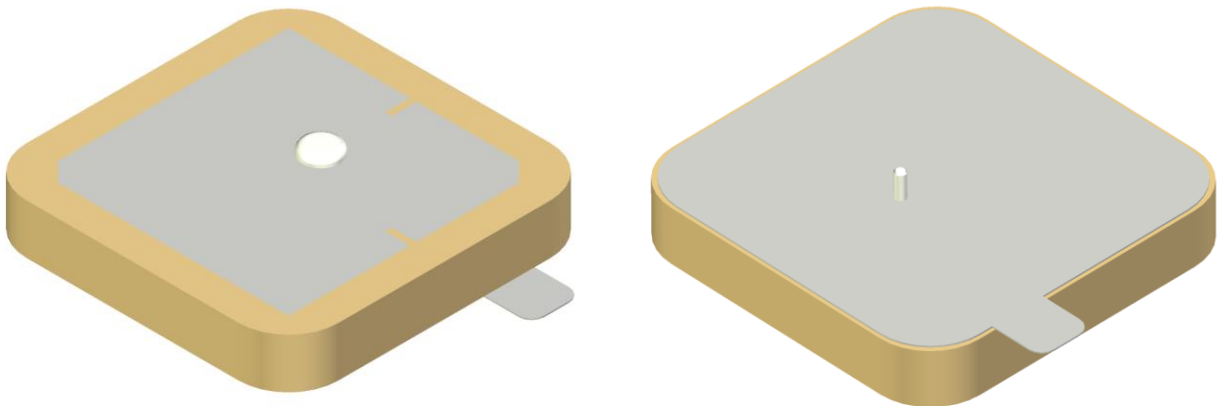
Features

- Multiband Active GNSS
 - 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

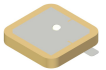
Applications

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

Product Image



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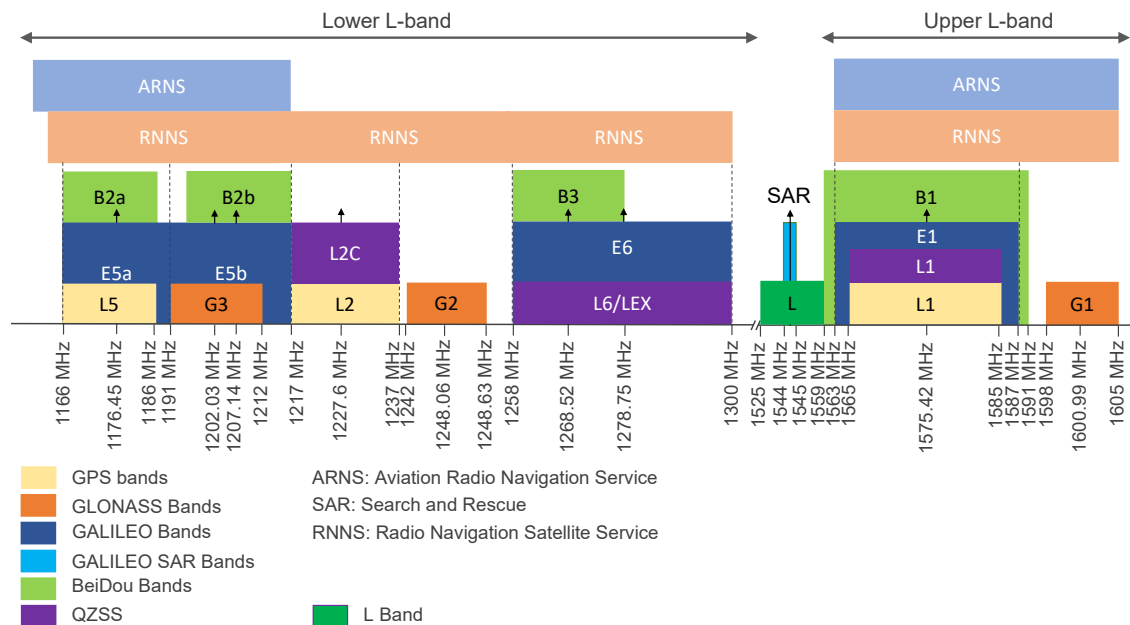
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RoHS Compliant

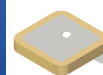
MSL Level = N/A

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	



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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 × 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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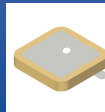


25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

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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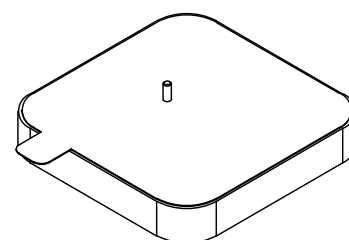
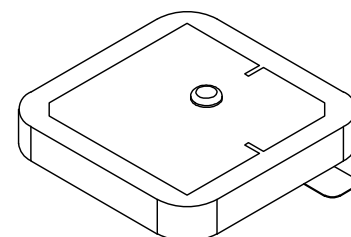
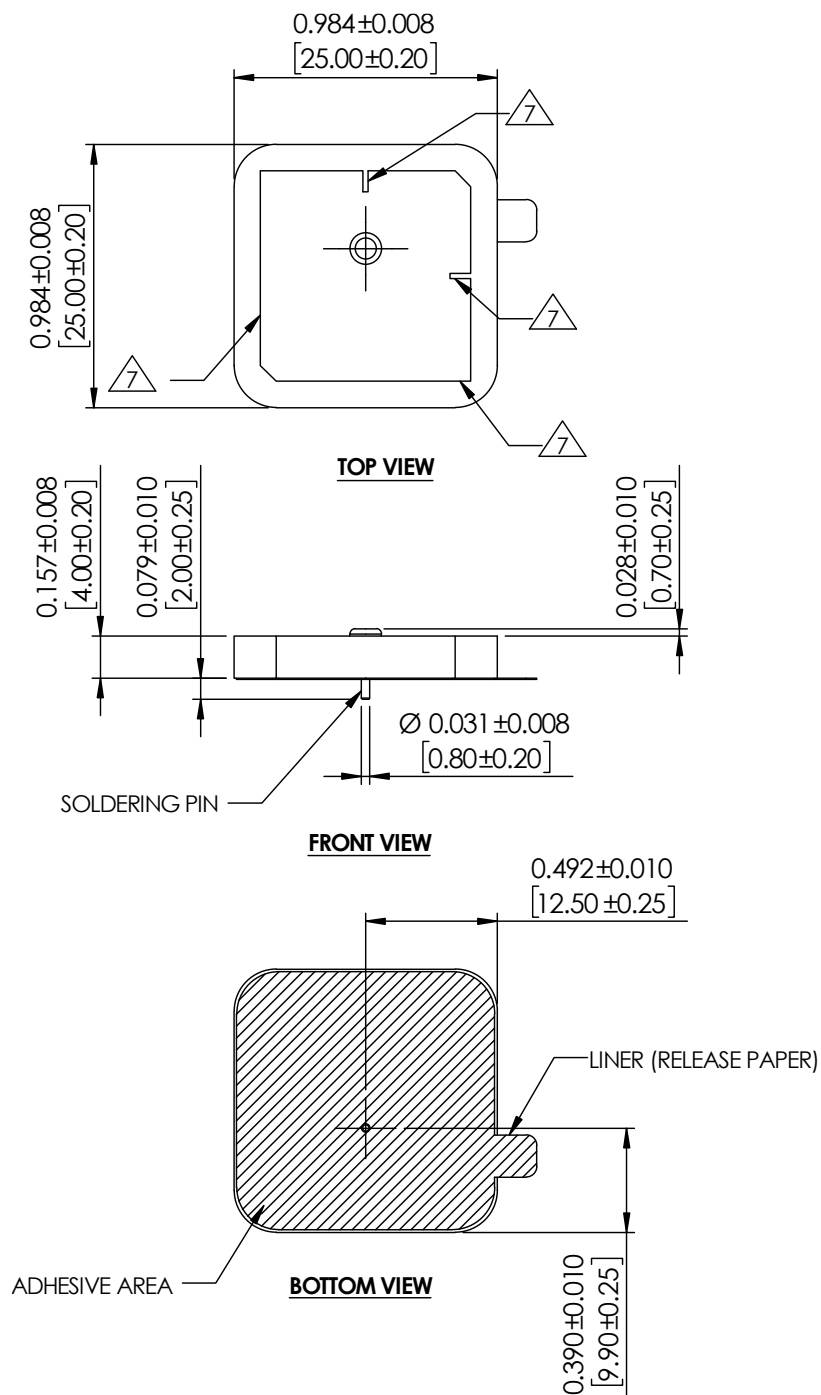


25.0 x 25.0 x 4.0mm

RoHS Compliant

MSL Level = N/A

Product Dimensions



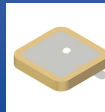
Unit: inches [mm]



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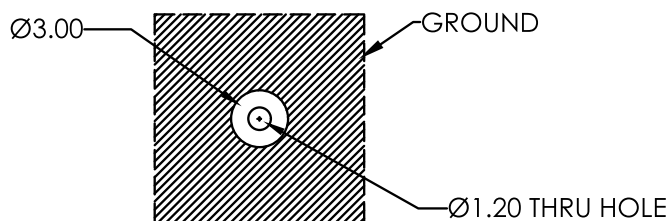
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RoHS Compliant

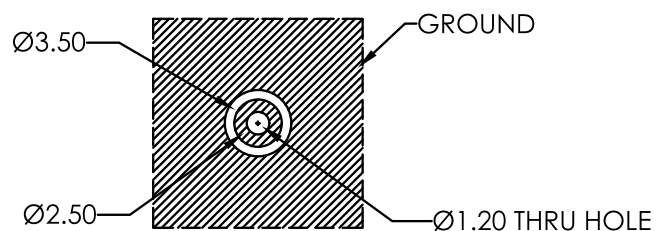
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PCB Footprint

TOP VIEW

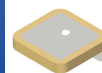


BOTTOM VIEW



Tolerance : ± 0.20
Unit : mm

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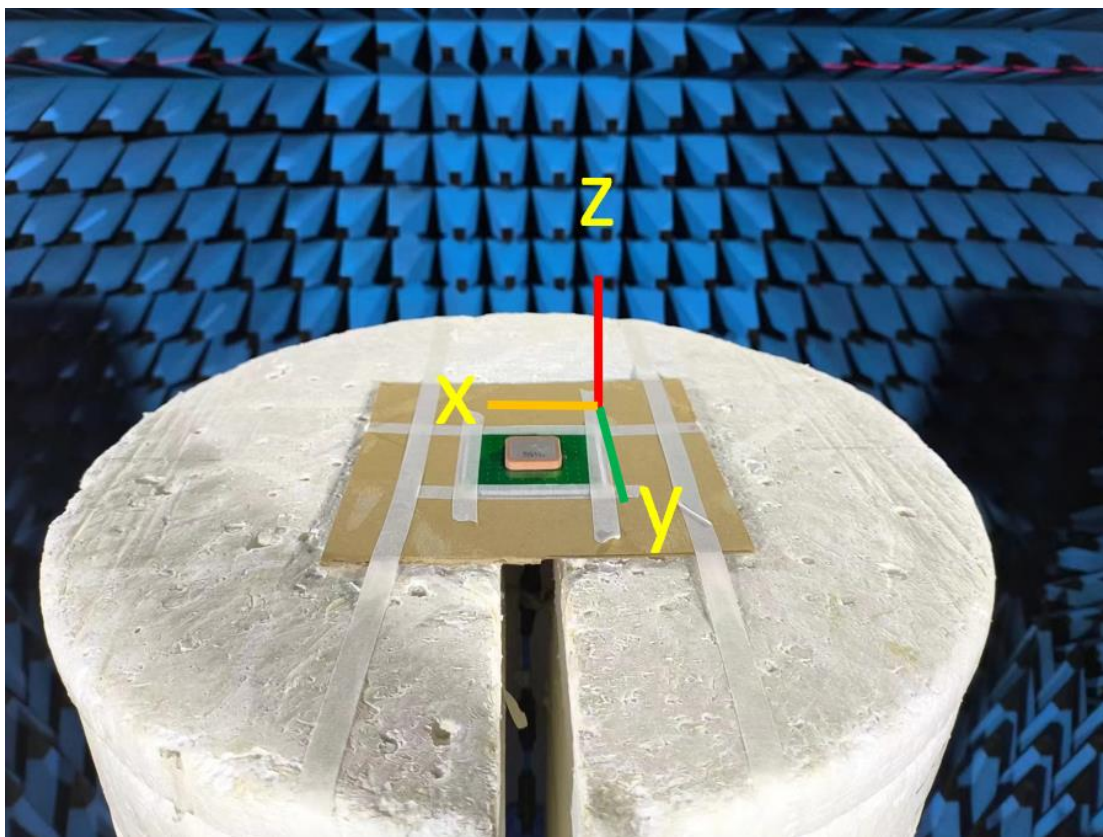


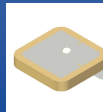
25.0 x 25.0 x 4.0mm

RoHS Compliant

MSL Level = N/A

Measurement Setup





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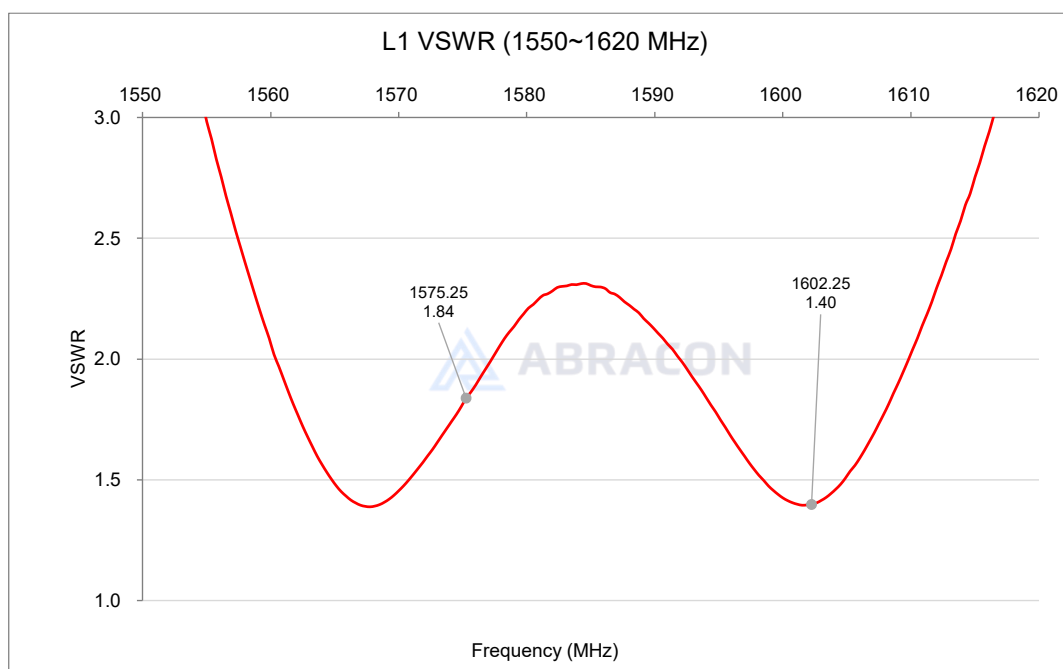
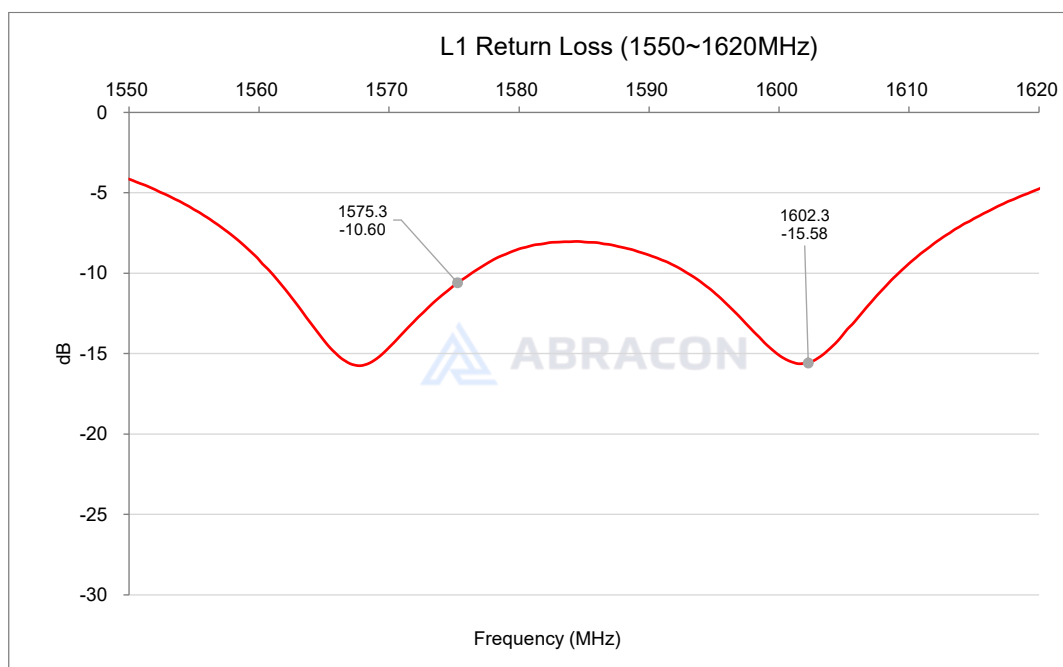


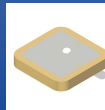
25.0 x 25.0 x 4.0mm

RoHS Compliant

MSL Level = N/A

Reflection Characteristics – Return Loss & VSWR





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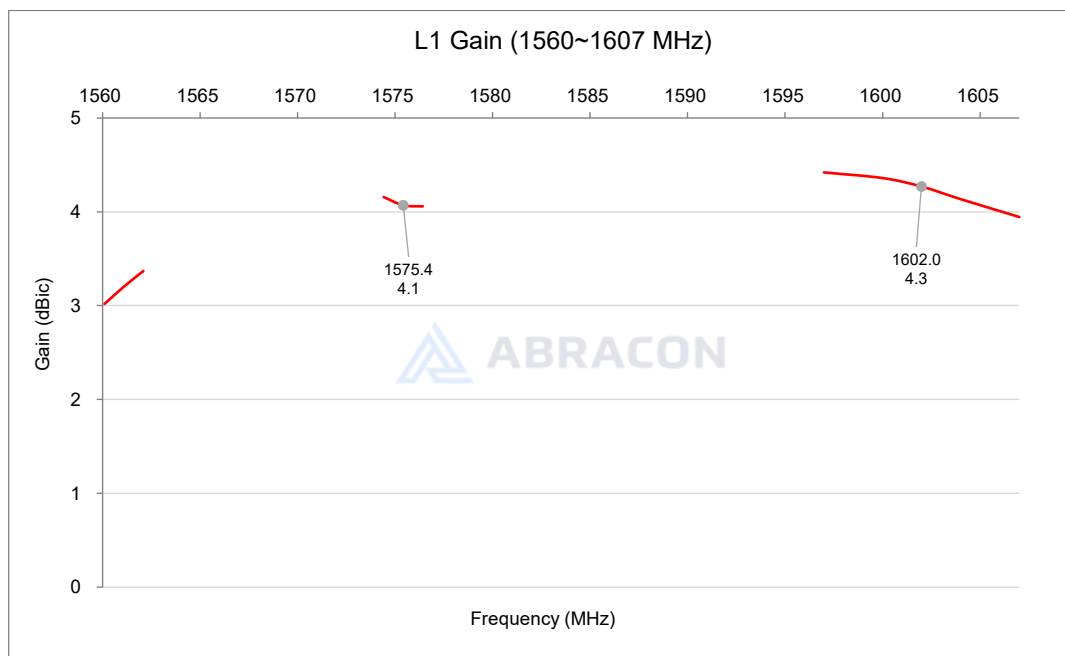


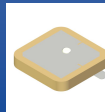
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RoHS Compliant

MSL Level = N/A

Radiation Characteristics – Peak Gain





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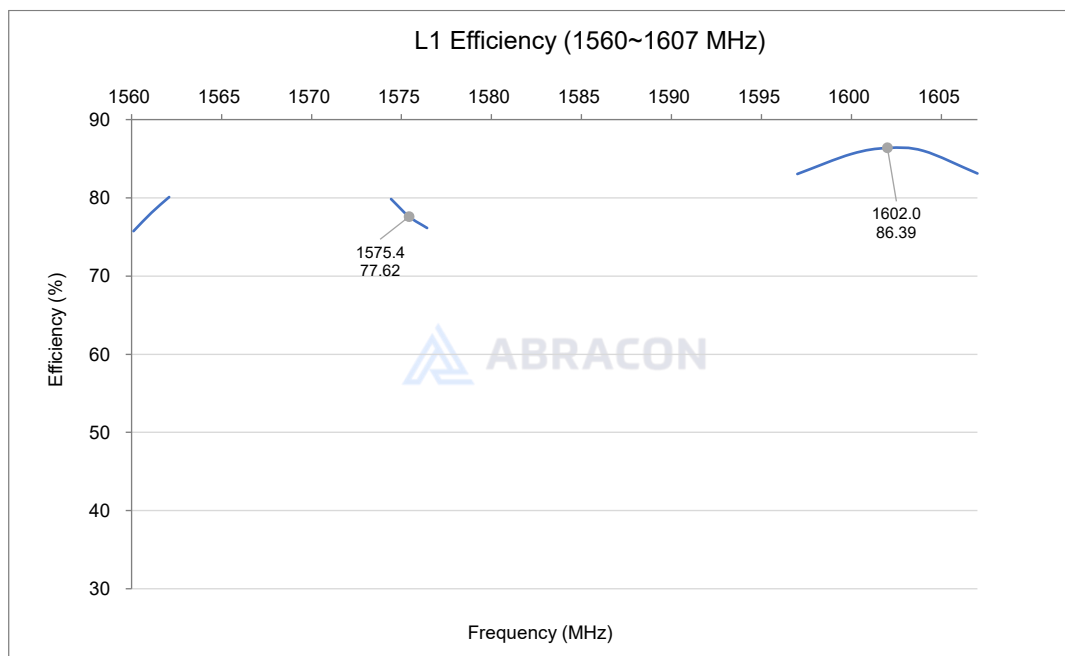


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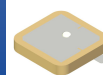
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Radiation Characteristics – Total Efficiency (%)



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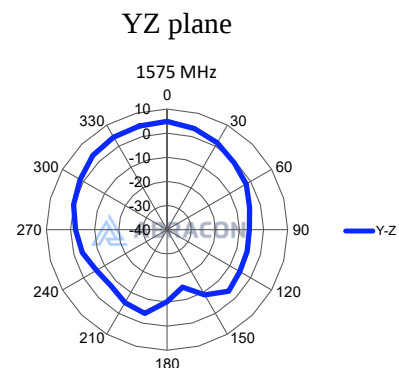
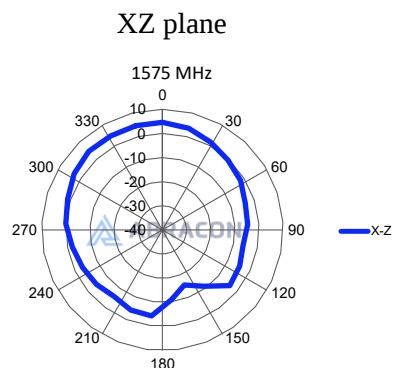
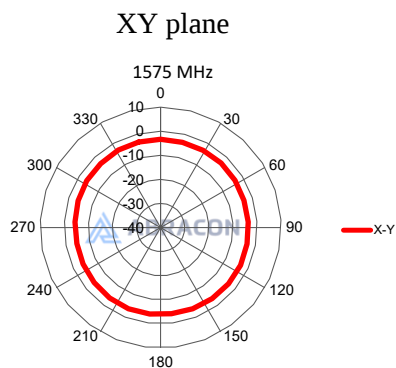
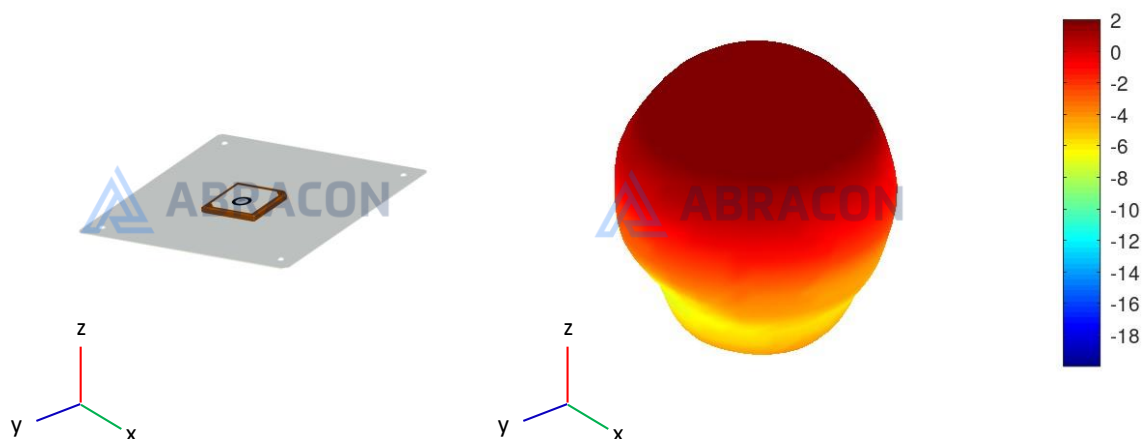
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Radiation Characteristics – 3D & 2D Pattern

1575MHz

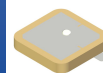


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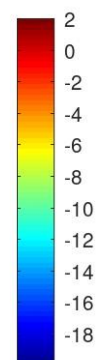
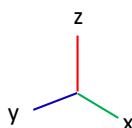
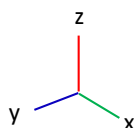
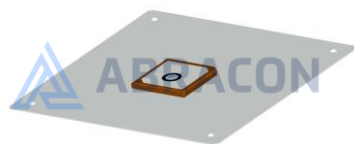


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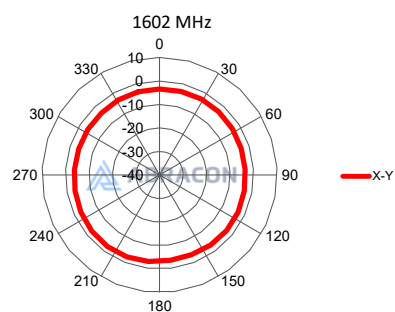
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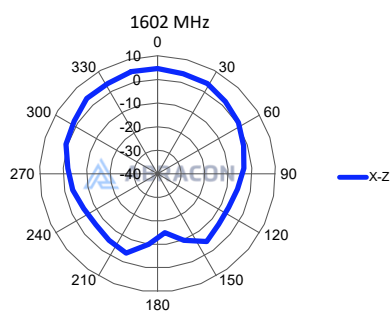
1602MHz



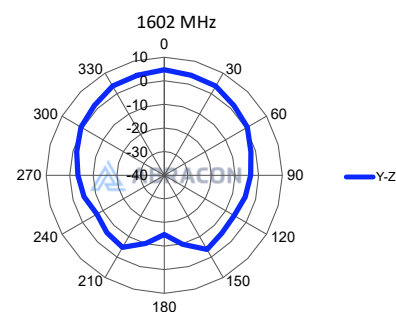
XY plane



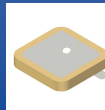
XZ plane



YZ plane



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Packaging

1. 50 pcs per tray
2. 300 pcs per inner box
3. 1200 pcs per carton

Dimension of the carton: 390 x 388 x 206 mm

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