

AANI-AP-0035

Request Samples



Check Inventory



Ø60.0 x 16.7 mm
RoHS Compliant
MSL Level = N/A

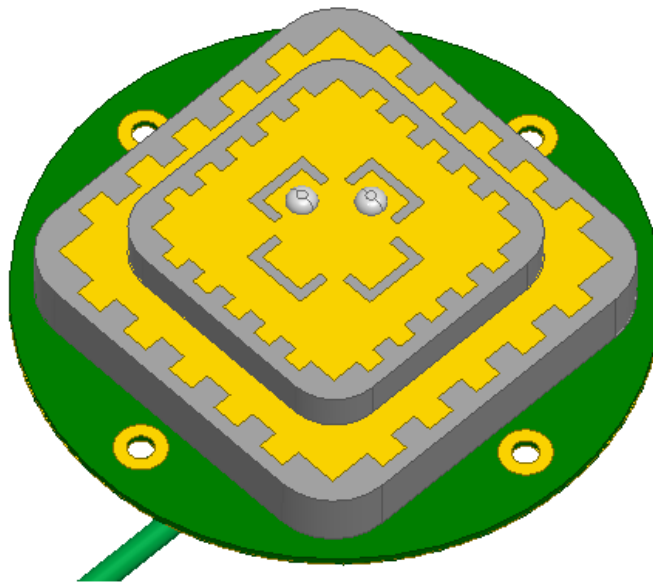
Features

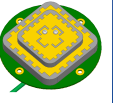
- Multiband Active GNSS
 - GPS : L1/L2
 - GLONASS : G1/G2
 - Galileo : E1
 - BeiDou : B1/B2/B3
 - QZSS : L1/L2
 - SBAS : L1
- Active GNSS patch with LNA max gain of 36±2 dB
- RHCP polarization
- Small size of Ø60.0 x 16.7 mm
- Light weight
- Fully customizable RF cable and connector options

Applications

- GPS/GLONASS/Galileo/BeiDou applications
- IoT
- M2M
- Remote technology monitoring
- Geofencing
- Surveying and mapping systems
- Logistics
- UAV applications

Product Image





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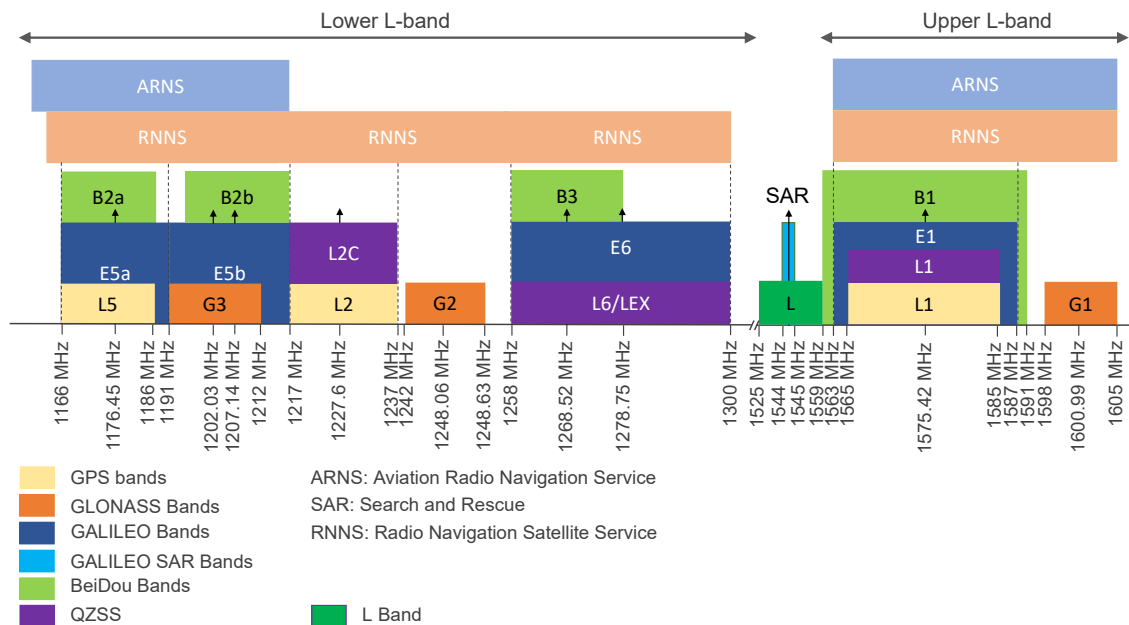
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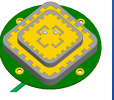
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GNSS Frequency Bands Covered

System	Band	Frequency Range	Frequency	Symbol
GPS	L1	1575.42MHz	1575.42MHz	■
	L2	1227.6MHz	1227.6MHz	■
GLONASS	G1	1598.06-1609.31MHz	1598.06-1609.31MHz	■
	G2	1242.93-1251.68MHz	1242.93-1251.68MHz	■
Galileo	E1	1575.42MHz	1575.42MHz	■
	E5a	1176.45MHz	1176.45MHz	□
BeiDou	B1	1561MHz	1561MHz	■
	B2	1207.14MHz	1207.14MHz	■
QZSS	L1	1575.42MHz	1575.42MHz	■
	L2	1227.6MHz	1227.6MHz	■
IRNSS/NAVIC	L5	1176.45MHz	1176.45MHz	□
	L6	1278.75MHz	1278.75MHz	□
SBAS	L1/E1/B1	1575.42MHz	1575.42MHz	■
	L5/B2a/E5a	1176.45MHz	1176.45MHz	□



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



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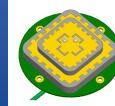


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Electrical Specification

Parameters	Typ.	Units	Note
Antenna			
Frequency	GPS: L1/L2 GLONASS: G1/G2 Galileo: E1 Beidou: B1/B2/B3 QZSS: L1/L2 SBAS: L1/E1/B1	-	
VSWR	≤ 2	-	
Polarization	RHCP	-	(Right Hand Circular Polarization)
Nominal Impedance	50	Ω	
Peak Gain	4.8	dBic	1565–1585 MHz (L1)
	5.0		1212-1242 MHz (L2)
Differential Propagation Delay	≤ 5	ns	
Axial Ratio	≤ 3	dB	
LNA			
Noise Figure	≤ 2	dB	
Gain	36 ± 2	dB	
Passband Ripple	± 2	dB	
Nominal Impedance	50	Ω	
VSWR	≤ 2.0	-	Max
Operating Voltage	+3.3 to 12	V	
Current Consumption	≤ 45	mA	

* With Diameter 120 mm GND Plane



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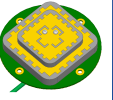
Mechanical Specifications

Parameter	Specification
Antenna Dimension	Ø60.0 x 16.7 mm
Mounting Type	4x M2.5 Through hole screws
RF Connector	MMCX (M)

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +85°C
RoHS Compliance	Yes
ESD Sensitive	Yes
Pb free	Yes
MSL	N/A
Relative Humidity	Up to 95%

GNSS L1/L2 Active Patch Antenna



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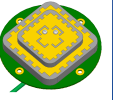
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Ordering Information

Part Number	Description	Connector Option
AANI-AP-0035	GNSS L1/L2 Active Patch Antenna with MMCX (M) connector with 120mm cable length	MMCX (M)



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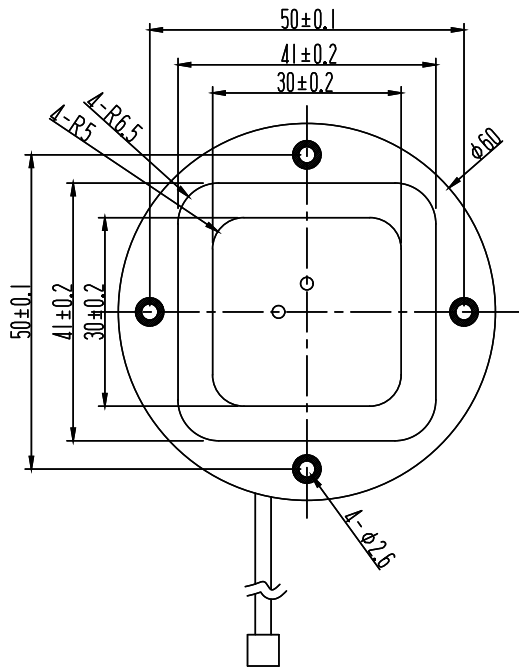


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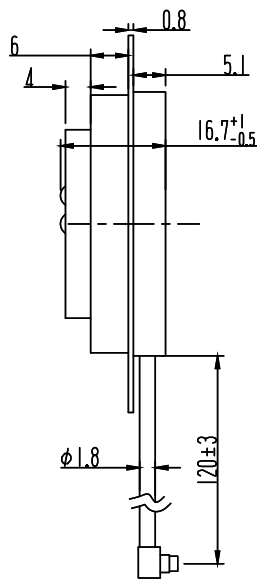


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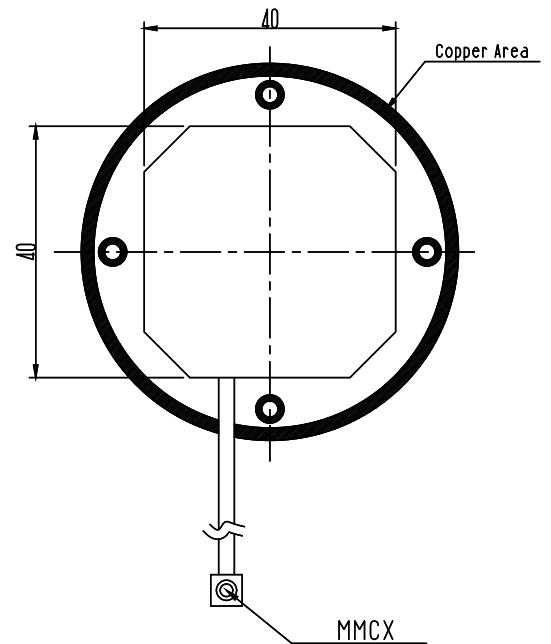
Product Dimensions



TOP VIEW



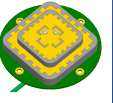
SIDE VIEW



BOTTOM VIEW

Unit: mm

Unspecified tolerance: ± 0.3 mm



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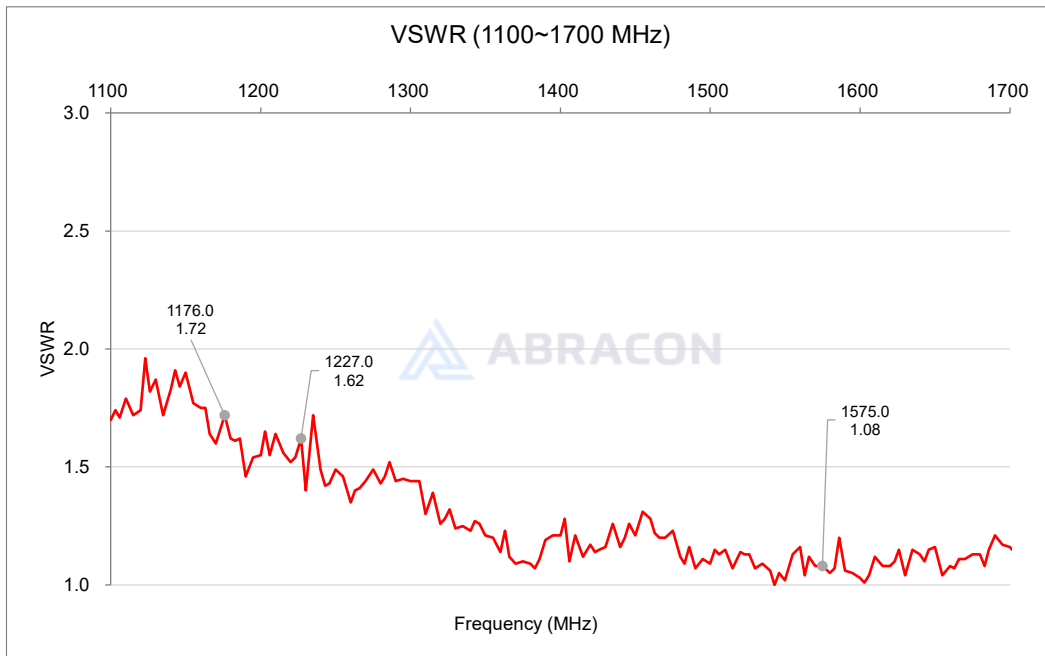
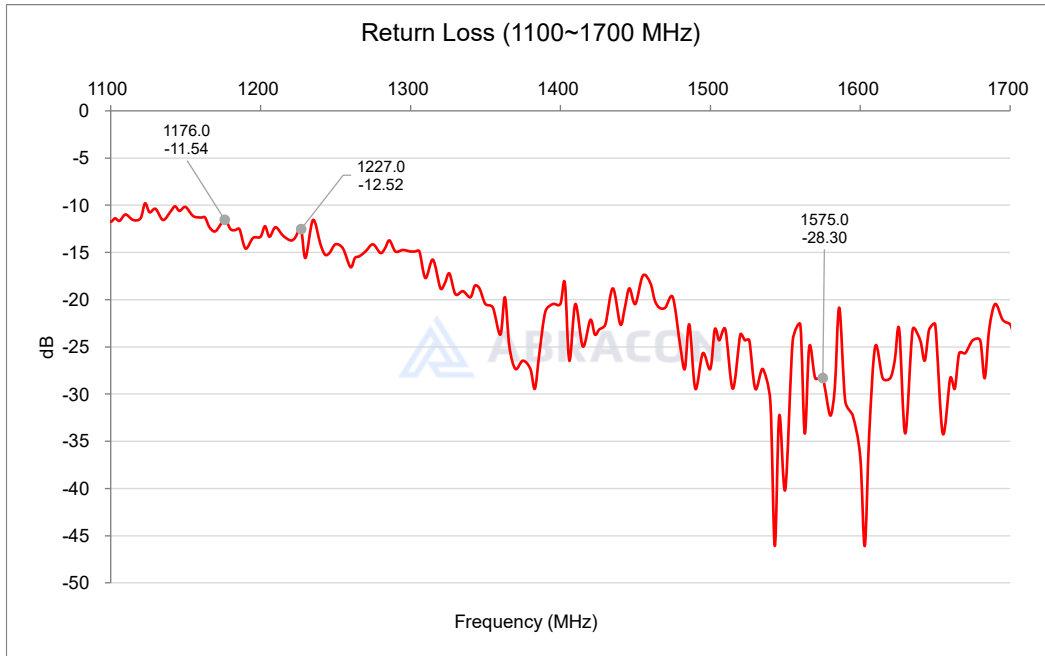


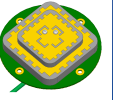
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Reflection Characteristics – Return Loss & VSWR





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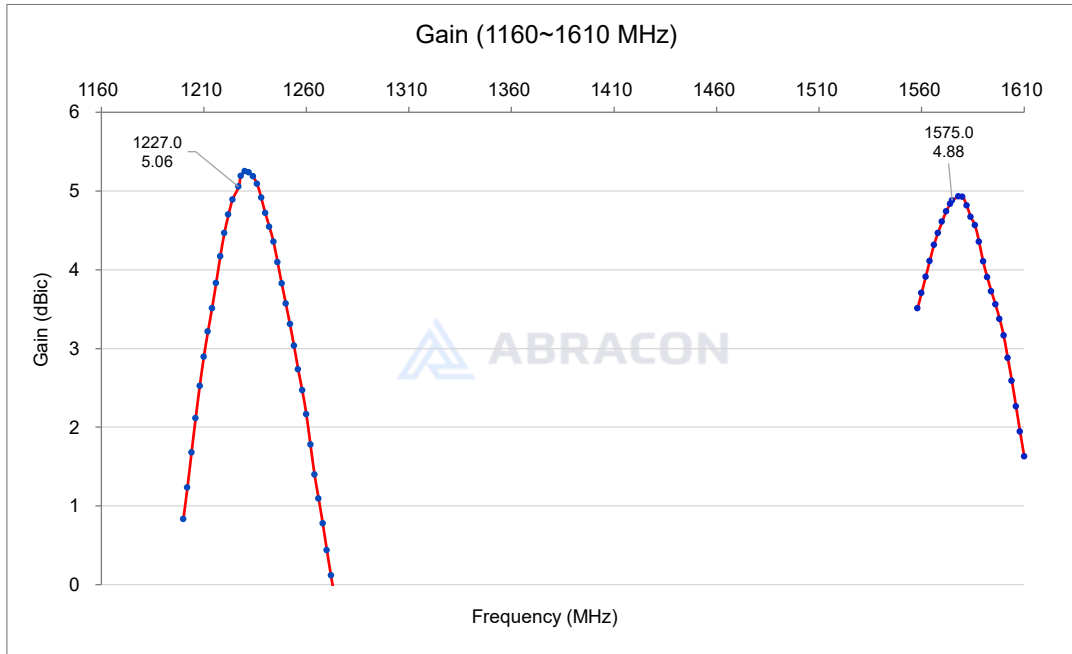
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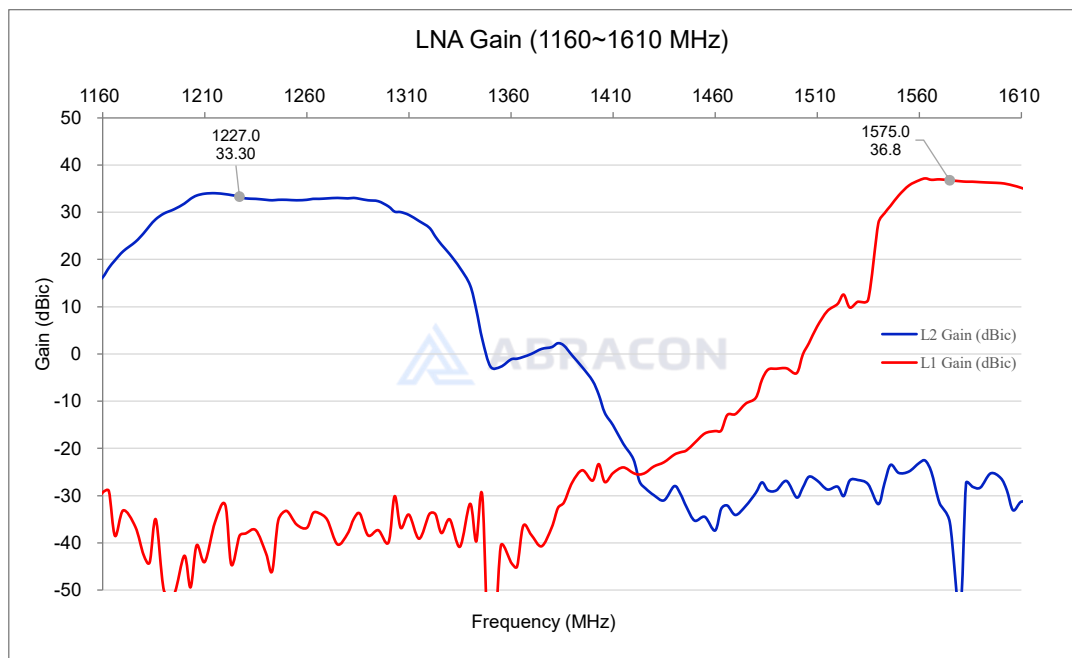
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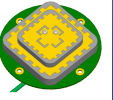
Radiation Characteristics –Passive Peak Gain

Passive Peak Gain



LNA Gain





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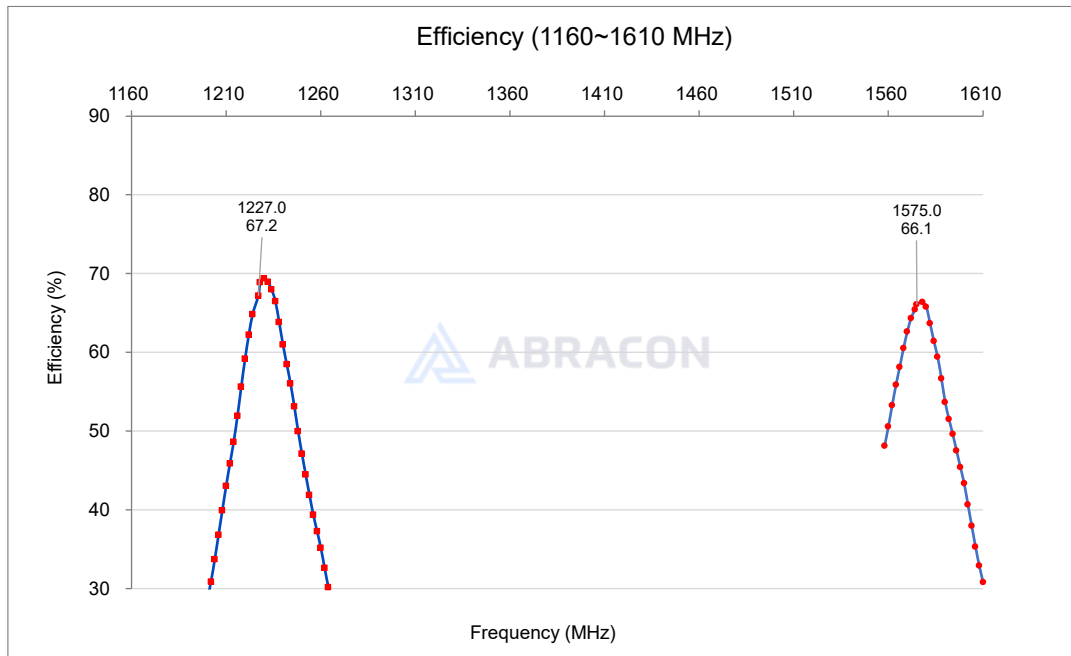


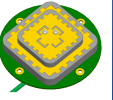
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Radiation Characteristics –Efficiency





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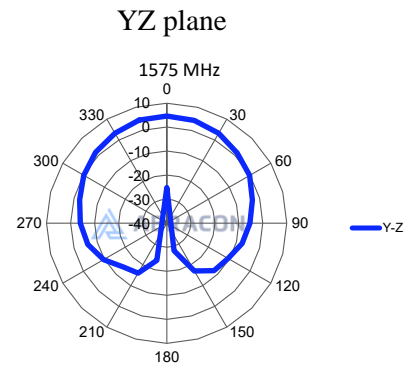
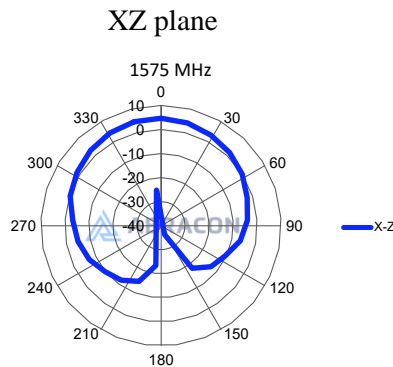
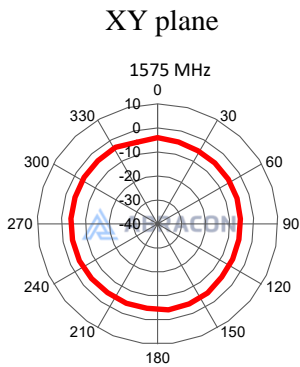
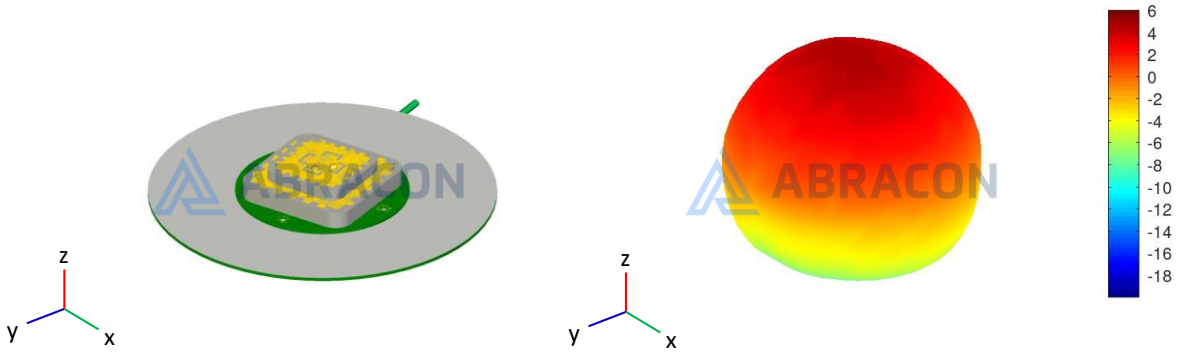
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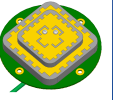
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Radiation Characteristics – 3D & 2D Pattern

1575MHz (L1 Band)



GNSS L1/L2 Active Patch Antenna



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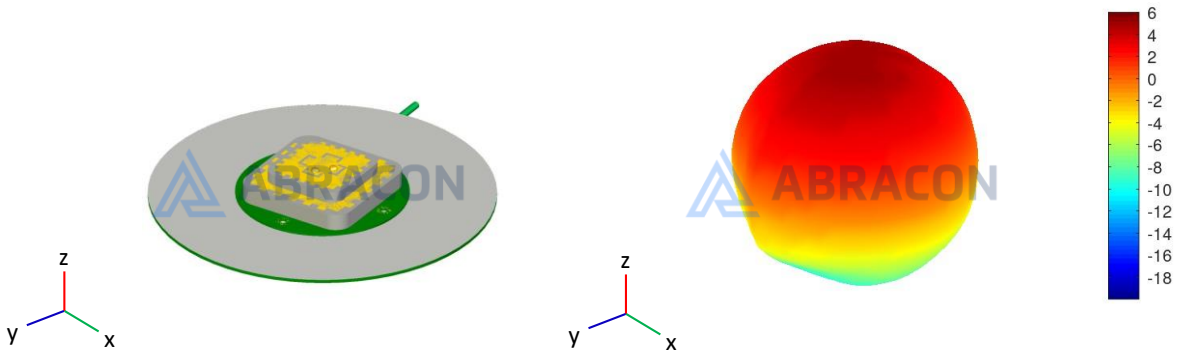


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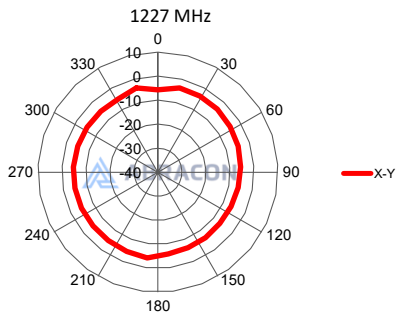


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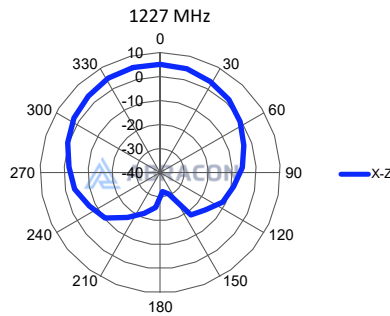
1227MHz (L2 Band)



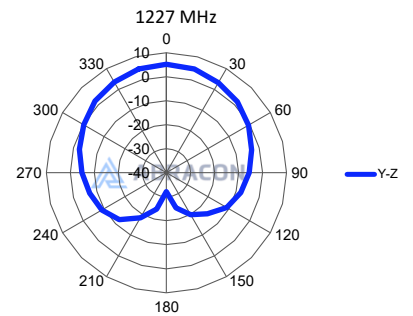
XY plane



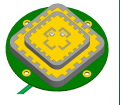
XZ plane



YZ plane



GNSS L1/L2 Active Patch Antenna



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Packaging

60 pcs per carton

Dimension of the carton: 455 x 330 x 220 mm

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