

**Product Name:** AM-1 Series\_ Active GPS/GLONASS/BeiDou Antenna Module

**Part Number:** AM-1-A-B07

**Features:**

- 25.0\*25.0\*7.8mm Compact Form Factor
- GPS & GLONASS & BeiDou L1 Bands Supporting
- 27dB LNA Gain, Exceptionally Low Noise Figure
- Up to 50dB Out-of-Band Suppression
- RoHS & REACH Compliant

**Applications:**

- GNSS Navigation or Tracking Device

# Active GPS/GLONASS/BeiDou Antenna Module

## MODEL: AM-1-A-B07

WI-RD-D-304 V1.1

### I. Specifications:

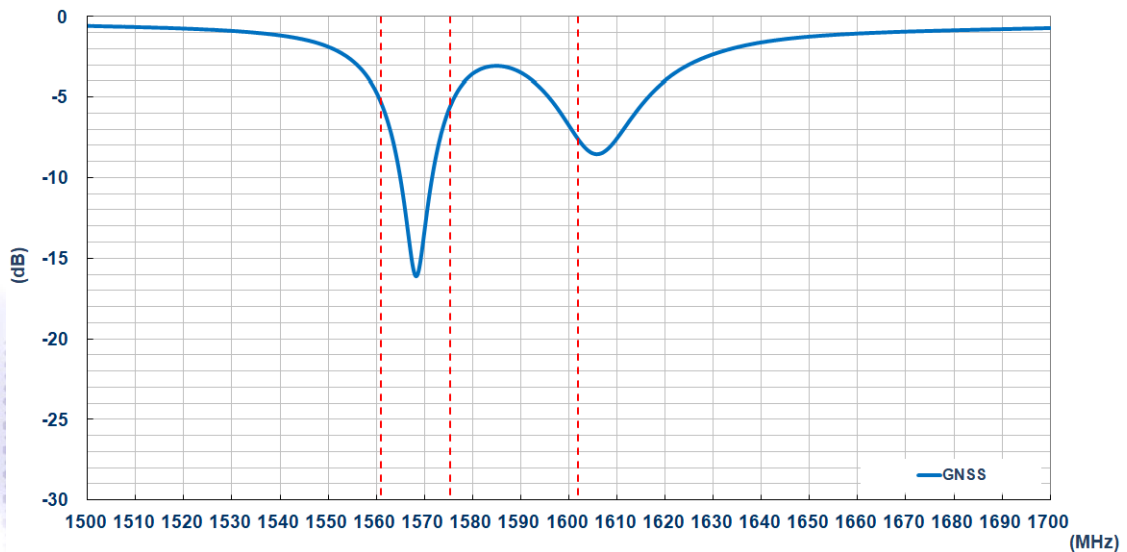
Category	Specifications		
<b>Passive Antenna Performance</b>			
<b>Application Band</b>	BeiDou	GPS	GLONASS
<b>Frequency (MHz)</b>	1561	1575.42	1602
<b>Efficiency (%)</b>	49.89	42.76	58.61
<b>Average Gain (dBi)</b>	-3.02	-3.69	-2.32
<b>Peak Gain (dBi)</b>	1.21	1.21	1.44
<b>VSWR</b>	< 3		
<b>Return loss (dB)</b>	< -6		
<b>Impedance (Ω)</b>	50		
<b>Polarization</b>	R.H.C.P. (Right Handed Circular Polarization)		
<b>Active Antenna Performance</b>			
<b>Application band</b>	BeiDou	GPS	GLONASS
<b>Frequency (MHz)</b>	1561 ± 2.046	1575.42 ± 1.023	1602 ± 5
<b>Gain (dB)</b>	27	27	27
<b>Noise Figure (dB)</b>	0.98	0.98	0.92
<b>Operation Voltage (V)</b>	3.3 ~ 5		
<b>Current Consumption (mA)(Typical)</b>	9.0		
<b>Output Impedance (Ω)</b>	50		
<b>GNSS_ Out of Band Rejection</b>			
<b>Frequency (MHz)</b>	600~1300	1300~1530	1650~3000
<b>Rejection (dB)</b>	55	30	30
<b>ESD Protection</b>			
<b>Contact (KV)</b>	± 8		
<b>Air (KV)</b>	± 15		

© Unictron Technologies Corp.  
All specifications subject to change without notice.

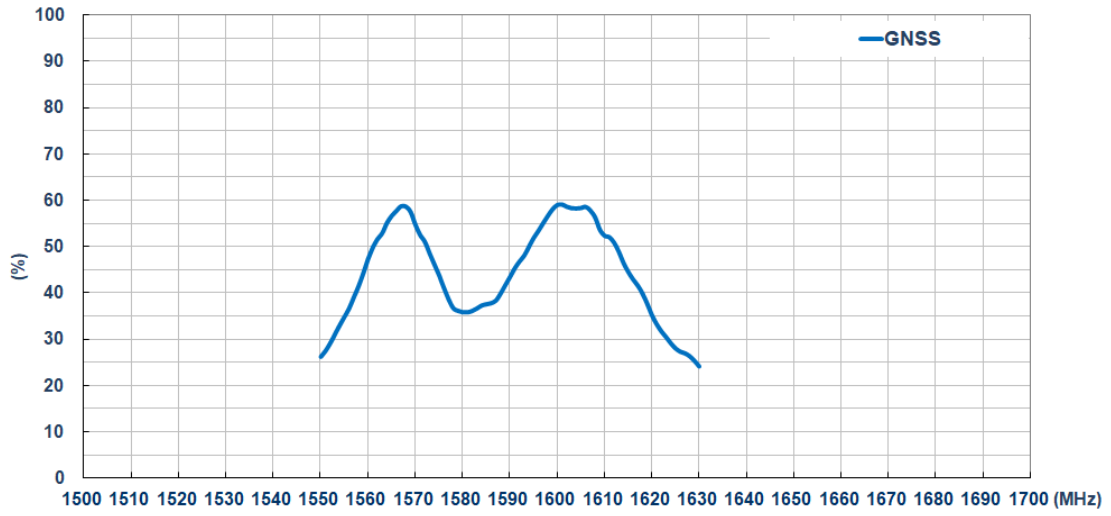
Mechanical	
<b>Dimension (mm)</b>	25.0 x 25.0 x 7.8
<b>Connector</b>	IPEX MHF4L
<b>Cable</b>	1.37mm Mini-Coax
<b>Length (mm)</b>	200
Environmental Conditions	
<b>Operation Temperature (°C)</b>	-40 ~ +85
<b>Storage Temperature (°C)</b>	-40 ~ +85
<b>Relative Humidity</b>	95% non-condensing

## II. Analysis Antenna Performance:

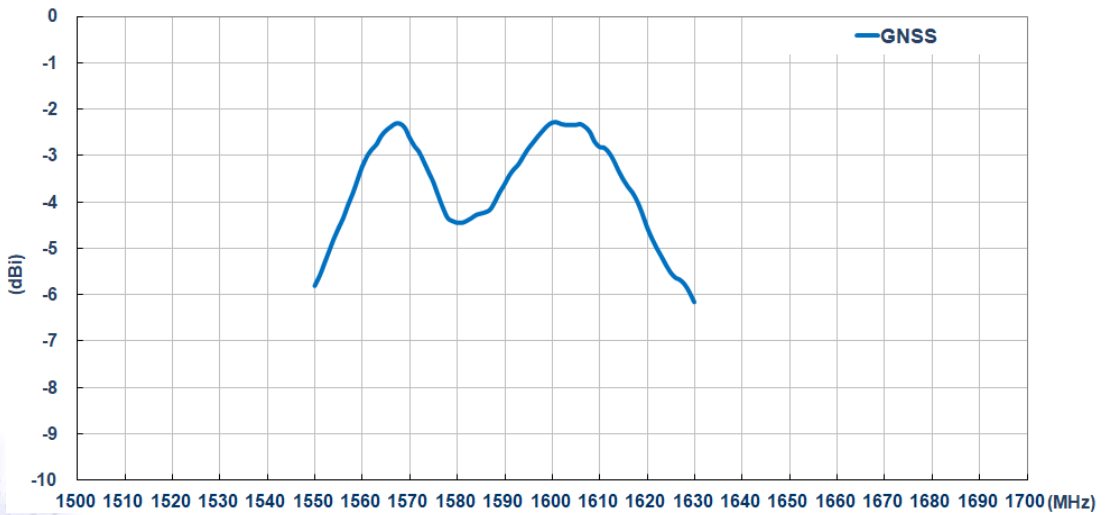
S-parameters:



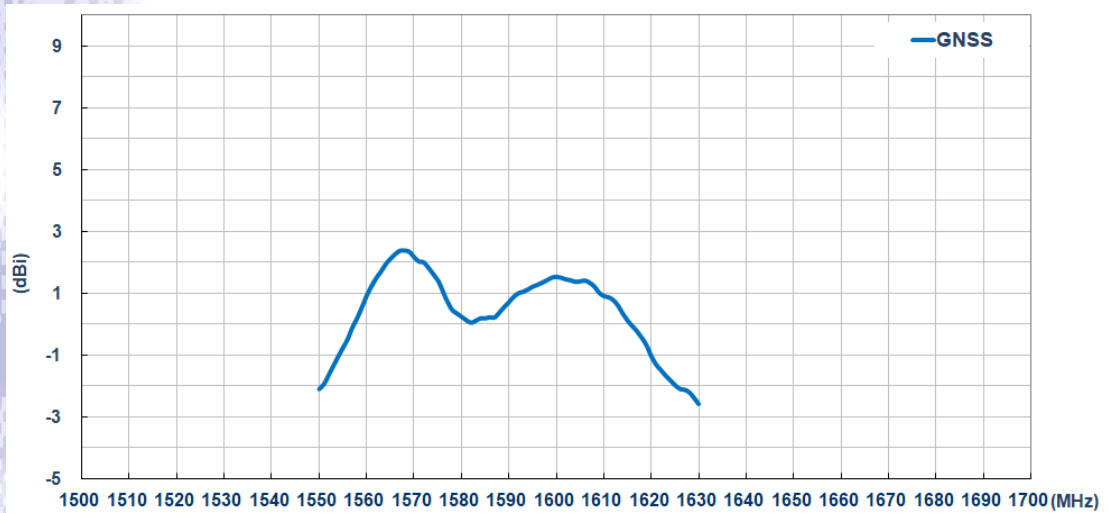
Efficiency:



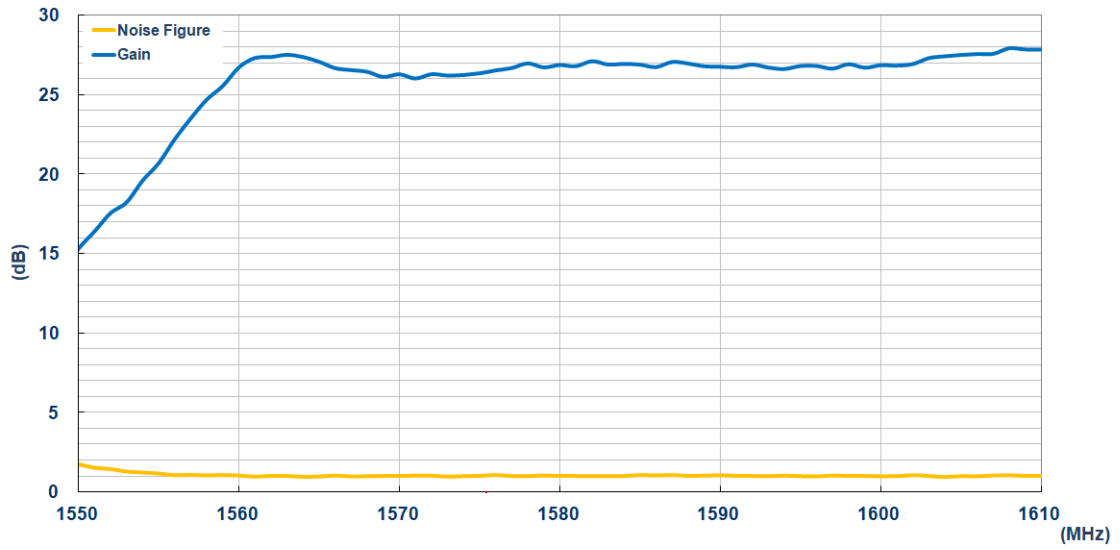
Average Gain:



Peak Gain :

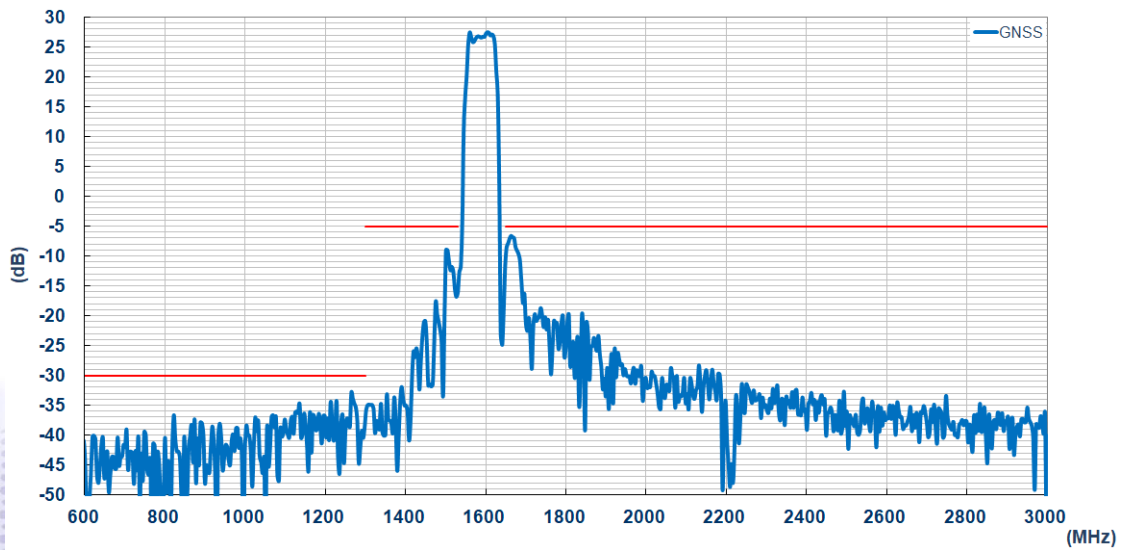


GNSS\_ LNA Noise Figure & Gain:

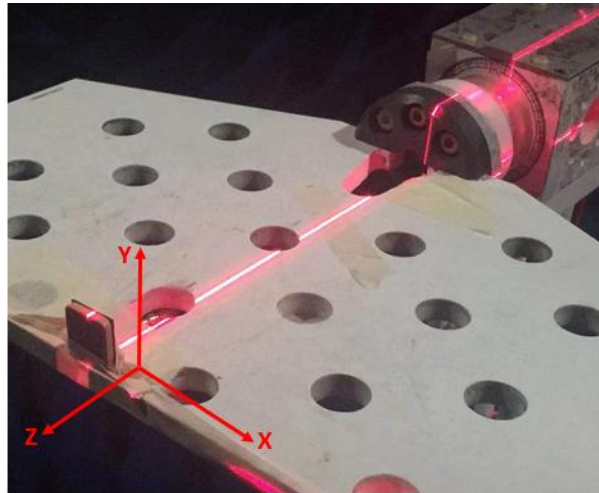


© Unictron Technologies Corp.  
All specifications subject to change without notice.

GNSS\_ Out of band Rejection:

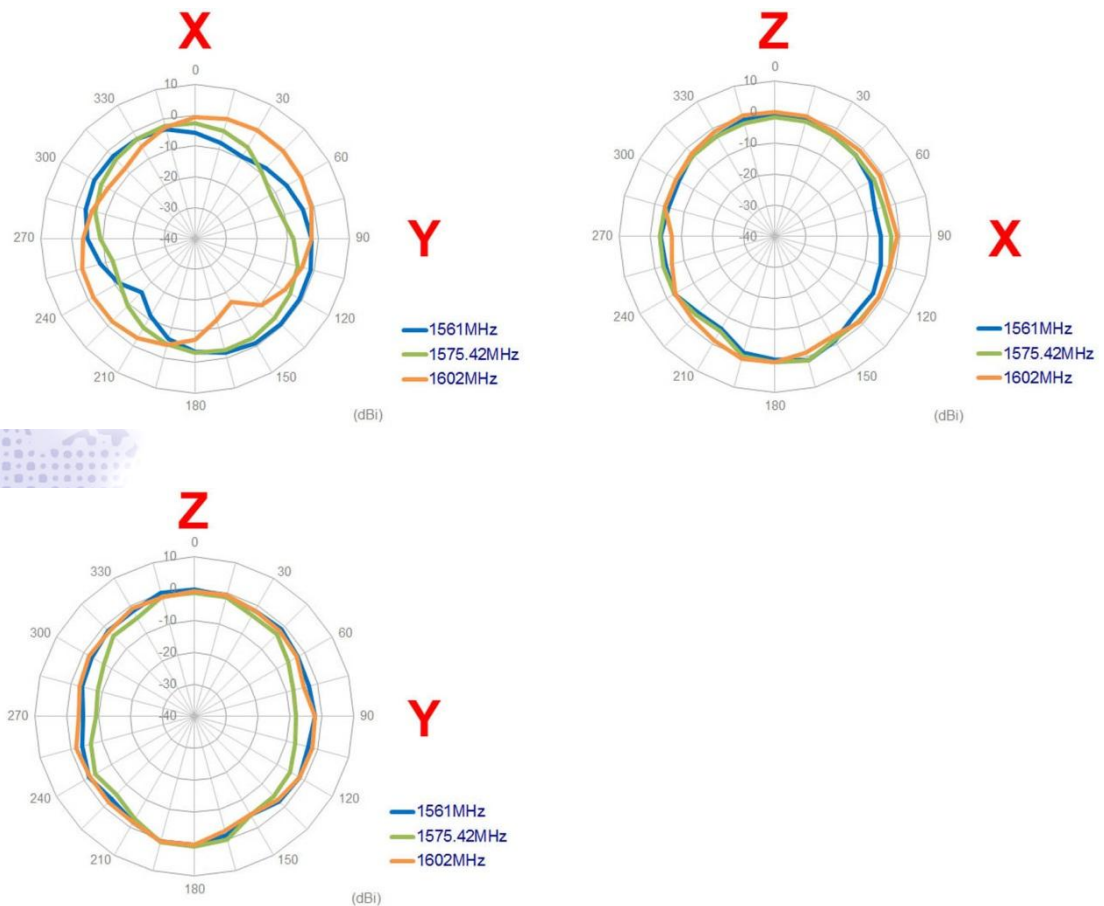


### III. Antenna Radiation Pattern Measurement:

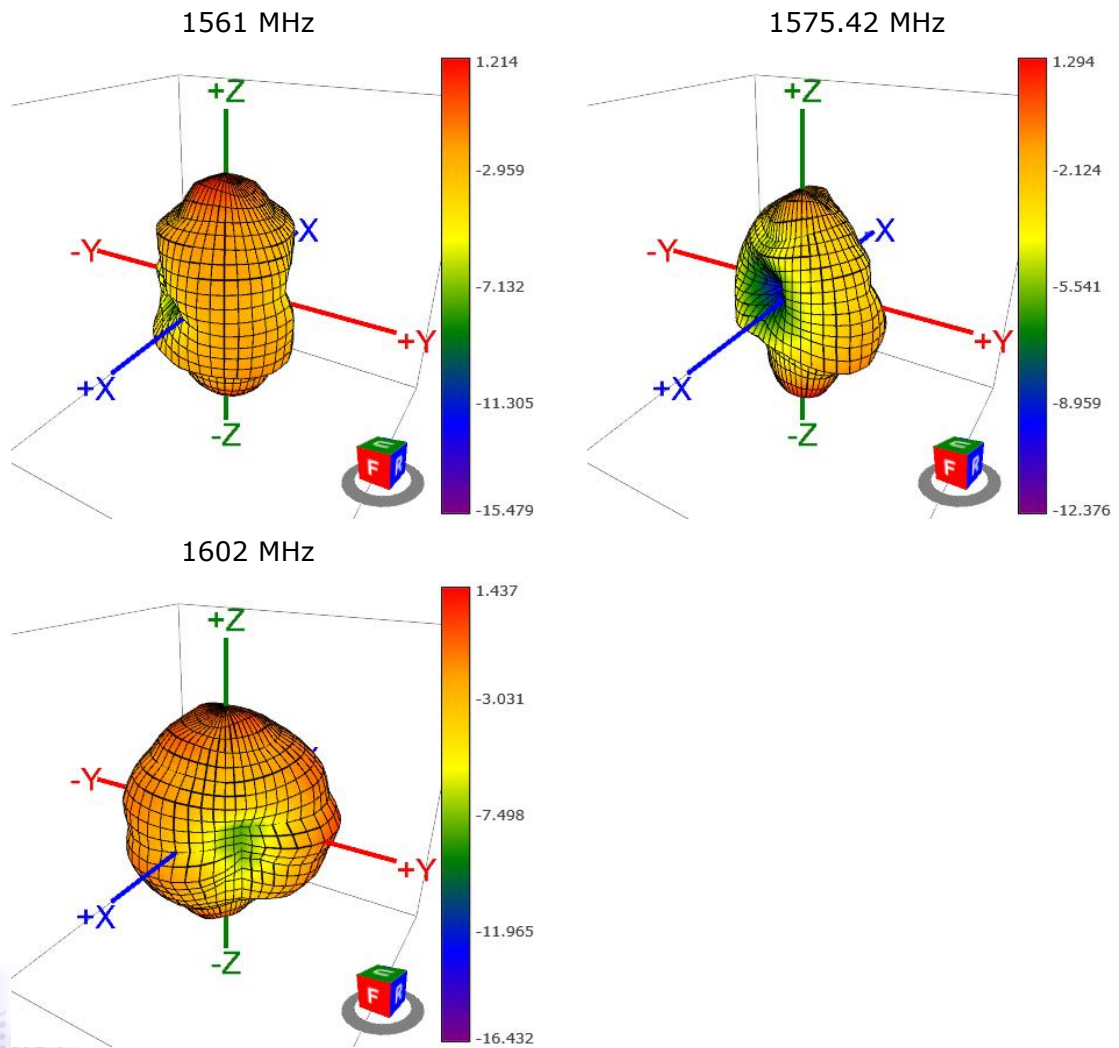


© Unictron Technologies Corp.  
All specifications subject to change without notice.

### IV. 2D Radiation Pattern

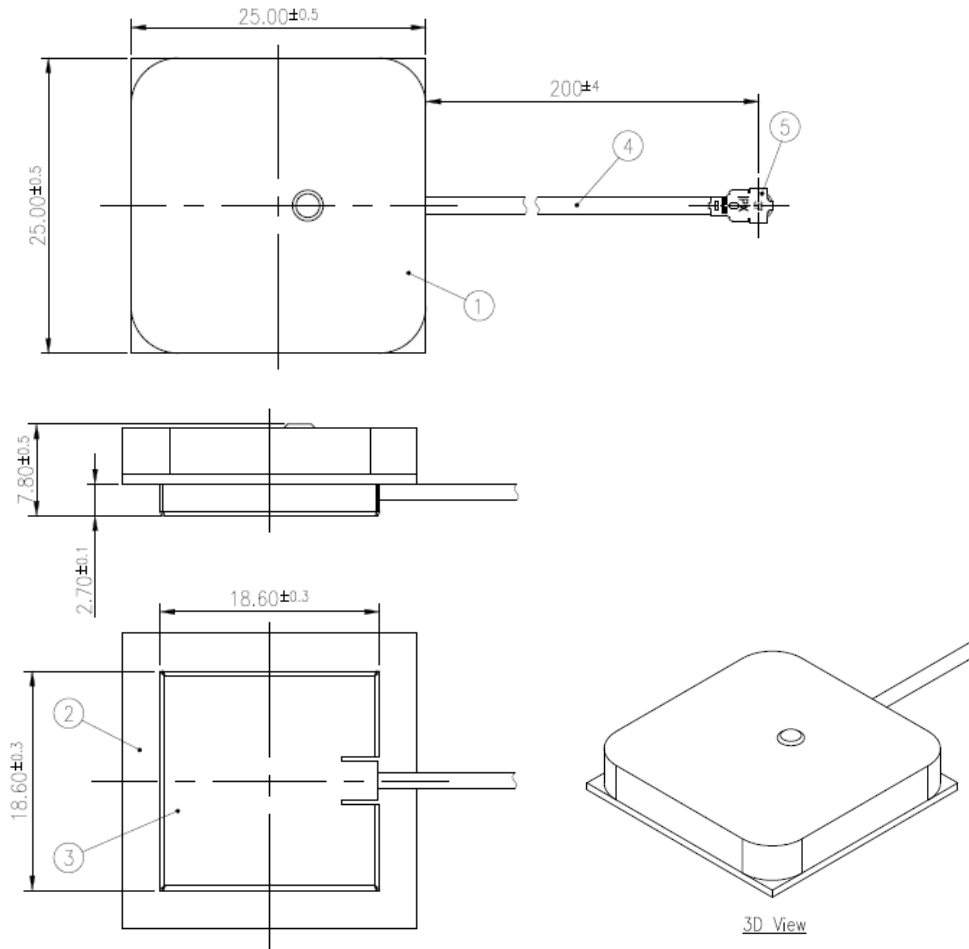


## V. 3D Radiation Pattern



© Unictron Technologies Corp.  
All specifications subject to change without notice.

## VI. Mechanical Drawing (Unit:mm):



5	IPEX4L MHF (20632-001R-37)	Brass	Ni Plated	1
4	OD1.37 Coaxial Cable	FEP	Black	1
3	Shielding Case	SPTE	Natural	1
2	25x25 PCB t=0.8mm	FR-4	Green	1
1	25x25x4 Patch	Ceramic	Clear	1
No	NAME	MATERIAL	FINISH	Q'TY

© Unictron Technologies Corp.  
All specifications subject to change without notice.