

AU-300

- High gain, low noise single-band antenna (L1)
- Supports GPS, GLONASS, Galileo, BeiDou, QZSS, SBAS
- Ideal for time synchronization applications
- Superior out of band filtering
- Built-in lightning protection – compliant to IEC 61000-4-5
- IP67, CE, FCC & RoHS 2 compliant

The AU-300 is a single-band, multi-constellation GNSS antenna ideal for time synchronization applications. It is designed to enable GNSS receivers to perform to their full potential even in harsh weather, hostile RF environments and challenging installation conditions, providing safety and security for critical infrastructure applications such as 5G mobile base stations, timing systems and communications systems where service outages are not permitted.

The underside of the main unit doubles as a ground plane, which improves reception sensitivity whilst at the same time reducing interference and multipath effects. Its high-quality polymer radome is waterproof and dustproof in accordance with IP67 and has been quality tested for operation in harsh environments, verifying the antenna's long-term protection against rain, snow, sea water, ultraviolet rays, chemicals and gases.

A built-in noise filter also effectively removes radio waves (LTE, broadcasting, satellite communications, etc.) that can adversely affect GNSS reception.

Built-in lightning protection in accordance with IEC 61000-4-5 protects the antenna against lightning surges.

AU-300 provides the best performance when combined with Furuno GNSS receivers GT-90, GT-9001, GT-88 and GF-88 series. These receivers feature multipath mitigation (DSS*) anti-jamming and anti-spoofing functions to deliver the time accuracy and robustness required by critical infrastructure. Their performance is further enhanced when combined with Furuno's high-performance antennas.

*DSS (Dynamic Satellite Selection™): an algorithm-based multipath mitigation technology devised by NTT.



AU-300

Application		
Time Synchronization	●	
GNSS Constellations		
GPS / SBAS	●	
GLONASS	●	
Galileo	●	
BeiDou	●	
QZSS	●	
Frequency Band		
L1	●	
Additional Features		
Noise Filter	●	
Water & Dustproof (IP67)	●	
Lightning protection (IEC61000-4-5)	●	
Power Supply		
Operating Voltage	2.5 - 12VDC	

Model	AU-300
Constellations Supported	GPS L1C/A, GLONASS L1OF, Galileo E1B/E1C, BeiDou B1I/B1C, QZSS L1C/A, SBAS L1C/A
Frequency Band	1558 to 1606 MHz
Polarization	Right-Handed Circular Polarization (RHCP)
Antenna Gain	$\geq 4\text{dBi}$ (Peak gain) $\geq 2\text{dBi}$ (In-band)
Impedance	50 Ω
LNA Gain	40dB \pm 2dB
Noise figure	$\leq 2.5\text{dB}$
Out of Band Rejection	fo = 1582MHz fo \pm 50 MHz: $\leq -50\text{dB}$, fo \pm 100MHz: $\leq -70\text{dB}$
VSWR	≤ 2.0 (@LNA output)
Operating Voltage	DC 2.5 – 12V
Current Consumption	$\leq 20\text{mA}$
Operating Temperature	-40°C to +85°C
Humidity	20 to 90% RH
IP Rating	IP67
ESD resistance	$\pm 15\text{kV}$ (air discharge), IEC 61000-4-2
Shock resistance (lightning)	$\pm 4\text{kV}$, IEC 61000-4-5
Dimensions	Diameter 110mm x Height 104mm (4.3"x4.09")
Weight	220 \pm 10g
Connector	TNC (J)

GNSS receiver module for time synchronization

Lightning surge protection

Model GT-90



Features

- World's highest level of time accuracy <math><4.5\text{ns}</math> (1 σ) in open sky.
- Equipped with DSS to minimise accuracy degradation in harsh urban environments.
- Single-band system with excellent cost performance.

Model GT-9001



Model TVA-03C / TVA-03V



Features

- Protects GNSS receivers from lightning surges.
- Covers GPS (L1), GLONASS (L1) and Galileo (E1)
- Compatible not only with GPS receivers but also with multi-GNSS receivers.

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