Trimble AV33 Antenna

HIGH ACCURACY AERIAL, LAND AND MARINE APPLICATIONS

The Trimble AV33 GNSS Antenna has been designed to support high accuracy aerial, land and marine applications in one compact design. The rugged 4 hole bulkhead mounting allows the antenna to be used in the most rugged of environments.

COMPREHENSIVE GNSS SUPPORT

The Trimble AV33 GNSS antenna offers support for present and future L1 GNSS signals including GPS, GLONASS, Galileo and BeiDou. This ensures that the antenna will operate with your present and most likely future GNSS receivers.

ROBUST, LOW-MULTIPATH GPS ANTENNA

The antenna resists unwanted signal interference or multipath, which can cause inaccurate measurements. Multipath is caused by signals being reflected from surfaces such as the ground, surrounding trees, or buildings.

FLEXIBILITY

The antenna is an aviation type of design. The bulkhead mounting ensures only the rugged radome is exposed to the elements. This is an ideal design for customers building machine control systems. The antenna can be mounted flush with the vehicle surface or on the top of a pole mount. The TNC connector is located on the underside of the unit ensuring the attached cable is also protected from the environment.

Key Features

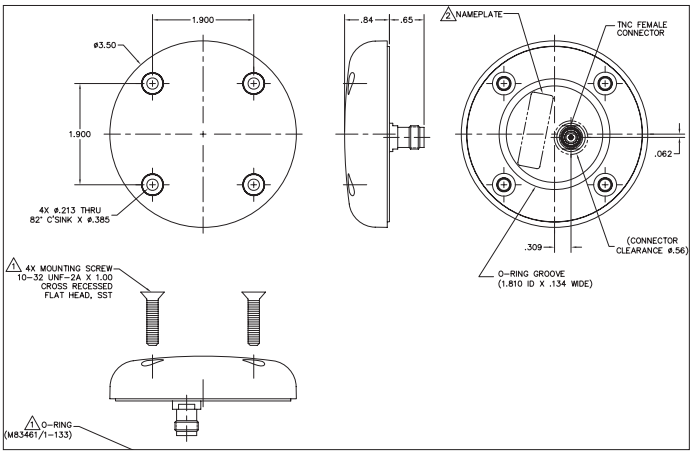
- Support for GPS L1, GLONASS L1, Galileo E1 and BeiDou B1
- Low-profile Fuselage/Bulkhead Mounting
- Sub-centimeter phase center repeatability
- Small rugged package ideal for vehicle or man portable applications

DATASHEET

Trimble AV33 GNSS Antenna

TECHNICAL SPECIFICATIONS

- Comprehensive GNSS Tracking:
  - GPS: L1
  - GLONASS: L1
  - Galileo: E1
  - BeiDou: B1
  - SBAS: WAAS, EGNOS, QZSS, GAGAN, and MSAS
- Quality signal tracking
- TNCF female signal connector
- Small cross-sectional area to reduce wind loading
- Low voltage, low power consumption
- Integral low noise amplifier
- Powered by GNSS receiver via coaxial cable
- High gain for reliable tracking in difficult environments
- 4 recessed bulkhead mounting holes
- Rugged radome designed for machine environments



ENVIRONMENTAL QUALIFICATIONS

Conditions	DO-160D Section	String Category	Description
Temperature Variation	5	A	-55 °C to +85 °C (-67 °F to +185 °F)
Humidity	-	Method 507.4	MIL-STD-810-F
Shock	-	Method 516.5	MIL-STD-818-F Procedure II
Vibration	-	516.5C.3	MIL-STD-810-F, Section 514.5 CVII

PHYSICAL AND ELECTRICAL SPECIFICATIONS

Dimensions . . . . . 8.9 cm diameter, 2.1 cm height (3.5" diameter, 0.84" height)
Weight . . . . . 0.200 Kg (0.44 lb)
Operating Temperature. . . . –55 °C to +85 °C (–67 °F to +185 °F)
Altitude . . . . . ≤ 16,764 m (55,000 ft)
Finish . . . . . UV resistant, high impact thermoplastic white aluminum base
Compliance . . . . . .ROHS
Frequencies . . . . . 1551-1615 MHz
Signal gain . . . . . .43 dB
Voltage. . . . . .4.5 V DC to 18 V DC
Polarization . . . . . .Right Hand Circular
Axial Ratio. . . . . .3 dB Max @ boresight
Amplifier Noise Figure. . . . . .2.5 dB Max
Impedance . . . . . .50 Ohms
VSWR: ≤ 2.0:1

PART NUMBER

83553 . . . . . Trimble AV33 Antenna

Antenna shown with optional bracket.
Bracket allows for mounting on single center 5/8 bolt or four perimeter bolts.

Specifications subject to change without notice.

Contact your local dealer today

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