

Temperature Stabilized Antenna System – TSA-100

Can track GPS, GLONASS, WAAS & GALILEO signals, using the standard Dorne-Margolin antenna element

System Configuration



Antenna/pre-amp/choke ring package

Antenna Unit

L1/L2 GPS/GLONASS/WAAS & GALILEO E1 and E5

- Standard Dorne-Margolin antenna element
- Choke ring
- Temperature controlled pre-amp
- Waterproof enclosure



Remote temperature control unit

Temperature Control Unit

- Independent control and display of Antenna Unit temperatures
- Percent cooling display

Temperature Control Power

- 110/220 VAC operation, transformer isolated
- 110 – 130 VAC, or 200 – 250 VAC operation, switch selectable
- 1 Amp max. at 110 VAC

Features

- L1/L2 GPS/GLONASS/WAAS & GALILEO E1 and E5 antenna.
- Two thermal control zones with fully independent heating and cooling capability.
- Weather-proof enclosure.

Accuracy

- <2ns group delay variation over -20°C to +50°C ambient temperature range.

Electrical

- Frequency: L1/L2 GPS/GLONASS/WAAS E1/E5 GALILEO
- Signal Gain: 50 dB +/-3 dB
- Noise Figure: 2 dB nominal
- Output Impedance: 50 Ohm
- VSWR: 2.0 : 1
- Polarization: RHCP
- Pattern: Hemispherical
- DC Voltage: 5 VDC / 300 mA
15 VDC / 140 mA

Thermal Operating Range

- Ambient temperature: -20°C to +50°C.
- Primary zone: +35°C to +50°C, user selected.
- Secondary zone: +20°C to +30°C, user selected.
- Pre-amp temperature maintained within $\pm 0.5^\circ\text{C}$ of set point.

Mechanical

Connector: TNC-type

Dimensions:

- Antenna Unit: 21 in x 15.5 in x 12 in (53.3 cm x 39.4 cm x 30.5 cm)
- Temperature Control Unit: 20 in x 19 in x 5.5 in (50.8 cm x 48.3 cm x 14 cm)

Weight:

- Antenna Unit: 55 lbs (25 kg)
- Temperature Control Unit: 16 lbs (7.3 kg)

Availability

- Systems configured to your specific requirements are available 30 to 90 days ARO.

Specifications are subject to change without notice

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