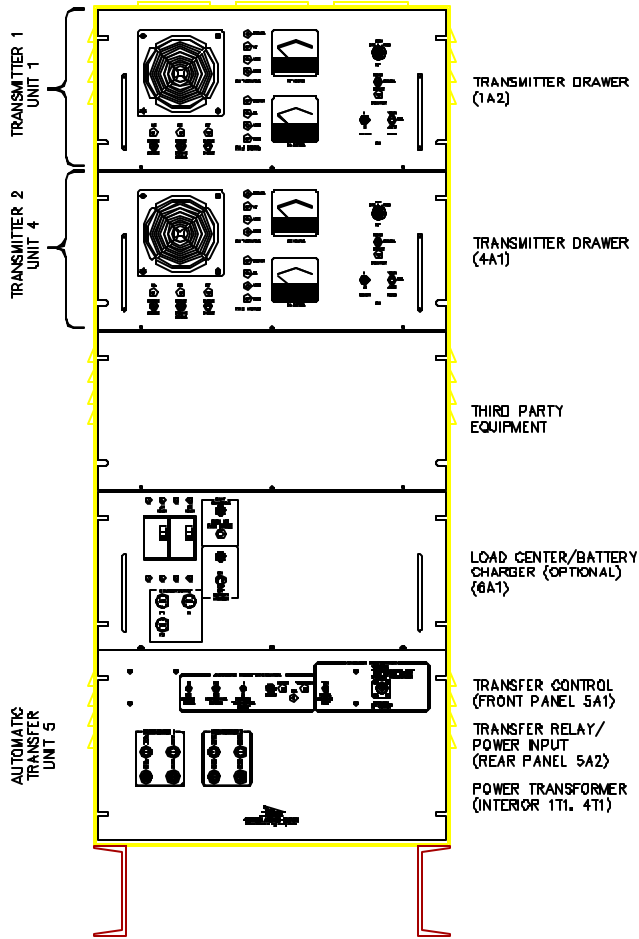
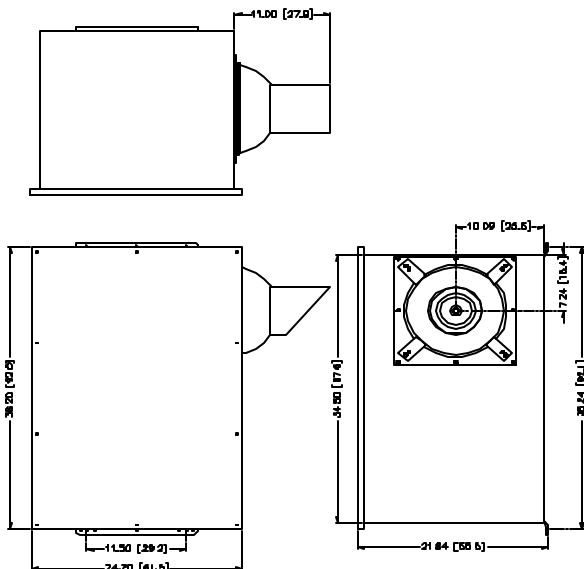




**Southern Avionics**  
**Company's Marine Band DGPS**  
**Reference Station Transmitter.**



SC1000 DGPS Single Transmitter  
(4A1, 5A1, 4T1 not used)



PC1KILO USCG DGPS Antenna Coupler

BOX 5345, BEAUMONT, TEXAS 77726-5345 USA; PHONE (409) 842-1717; IN USA 1-800-648-6158; FAX (409) 842-2987

**Model: SC1000**

**Qualifications:** Meets applicable requirements of FCC and USCG.

**Frequency Range:** 283.5 to 325 kHz.

**Power Output:** Carrier power into 50 ohms continuously adjustable from 50 to 1000 watts.

**Spurious Emission:** Better than 70dB below the 1000 watt carrier (measured at a dummy antenna).

**Radiated Harmonics:** Better than 60dB below the 1000 watt carrier (measured at a dummy antenna).

**Type of Emission:** NON, G1D.

**Noise and Hum Level:** Better than 40dB below the 1000 watt carrier.

**Input Power:** 115/230V  $\pm 10\%$ , single phase 50 - 60 Hz or 144VDC or both with switch over to batteries.

Nominal input power is 1250W at 1000W. Nominal DC input power is 1150W at 1000W carrier.

**Metering:** Forward power output, reflected power, PA voltage and PA current.

**Circuit Protection:** Individual fuses are used to protect the AC and DC circuits. A VSWR circuit shuts down the transmitter if VSWR exceeds an adjustable value.

**Working Conditions:** Continuous unattended operation,  $-40^{\circ}$  to  $+70^{\circ}$ C, 0-100% noncondensing humidity. **Dimensions:** 51"H, 20"W and 23"D.

**Monitoring:** Transmitter shuts down when power falls below an adjustable value, or when VSWR rises above an adjustable value.

**Model: PC1KILO USCG**

**INPUT IMPEDANCE:** 50 ohms.

**LOAD IMPEDANCE:** 2 to 25 ohms resistance, 500 to 3500 pF capacitance.

**FREQUENCY:** 283.5 - 325 KHz with a 500 to 3500 pF load.

**POWER INPUT:** 1000 watts average, 2000 watts peak.

**METERING:** Antenna current. Single meter with 4 position switch, OFF, TUNE, 0-20 amps, 0-10 amps.

**TUNING:** Large coil with coarse taps and fine taps and a rotatable tuning ring. The coarse tap is selected with a solder connection behind an access panel. The fine tap is selected with a 10 position switch. The autotune system drives the tuning ring for exact tuning. Inductance range is 25  $\mu$ H to 650  $\mu$ H.

**WORKING CONDITIONS:** Continuous unattended operation in the following environments: ambient temperature,  $-50^{\circ}$ C to  $+70^{\circ}$ C; humidity, up to 95% noncondensing; altitude, up to 4000 meters. The antenna coupler is designed for outdoor installation at the base of the antenna.

**POWER REQUIREMENTS:** 12 VDC, 500mA, supplied to coupler from Southern Avionics transmitters. Optional 110/220 VAC, 50 - 60 Hz supply for use with other transmitters.

**SIZE:** 24" (61 cm) wide, 22" (56 cm) deep, and 36" (91 cm) high.

**ACCESS:** Access to the tuning controls and meter is available behind the weathertight front access door. Access to the coarse taps on the loading coil is available behind a removable panel above the tuning controls panel.