

*Due to our 47 years of
experience, superior quality
products, and commitment
to long-term customer
satisfaction,
Southern Avionics
is recognized as one of the
foremost manufacturers of NDB
equipment in the world.*

SE Indoor Rack Cabinet

SE 125 Specifications
(Meets applicable requirements of ICAO, FCC and FAA.)

Type of Emission	NON, A2A, A3E (Optional) or any narrow band GID (with optional GPS beacon modulator)
Frequency	190-650 kHz Synthesized (field programmable) Additional parts needed within the band. (optionally 190 to 1800 kHz in three system bands: 190-650, 650 to 1250, and 1500 to 1800 kHz).
Power Output	5 to 125 Watts
Radiated Harmonics	Radiated harmonics are better than 63 dB below carrier.
Modulation	Switching modulator / regulator, 0-95%, internal 400 or 1020 Hz, eight baud Keyer, 5-15 WPM.
Input Power	85-264 VAC, single phase 47-63 Hz. or optional 48 VDC or both with switch over to batteries. Nominal input power is 180 Watts at 125 Watts carrier and keying at 95% modulation.
Load Center / Battery Charger	Optional item provides AC and DC circuit breaker, 10 Amp fast/float charge battery charger, and AC convenience outlet. Four (4) each 12VDC deep cycle marine type batteries will operate the SE125 at 85% power for 12 hours.
Metering	Power output, reflected power, PA voltage, PA current, percent modulation.
Working Conditions	Continuous unattended operation, -40° to +70°C, 0-100% non-condensing humidity in standard IP66 certified enclosure. SE125 is also supplied in 19 inch rack for indoor installation, or may be installed in customer's 19 inch rack.
Monitoring	Automatic shutdown if tone, modulation or VSWR drift beyond a user adjustable level. With a dual system, a shutdown signal initiates a transfer from the primary transmitter to the secondary transmitter.
Dimensions	SE IP66 Outdoor: 33" H x 21" W x 19" D (84cm x 54cm x 48cm) SE Cabinet Indoor: 30" H x 21" W x 17.5" D (76cm x 54cm x 44.5cm)

SE Series Land Antenna Options

- Guyed Mast 50 ft (15.2m), 60 ft (18.3m), 80 ft (27.4m), 100 ft (30.5m), 120 ft (36.6m), 140 ft (42.7m)
- Symmetrical T Antenna 60 ft (18.3m), 120 ft (36.6m)
- Galvanized Steel T Antenna supports

SE Series Upgrade Options

- **Ethernet** – Provides an intelligent interface powered by a Freescale Coldfire processor. The interface provides an RJ45 jack to connect to a Local Area Network (LAN). Since the Ethernet option contains a web server, there is no software for the customer to load on their computer. Using a no webbrowser, simply enter the IP address of the SE transmitter and use the mouse to navigate to the various options of the SE transmitter.
- **Ethernet Copper Extender** – Allows the user to extend Ethernet remote up to 1.6 miles (2.6 km) away using a conventional copper Ethernet converters are required at each end.
- **Ethernet Fiber Extension Option** - Allows user to extend Ethernet capability up to 1.2 miles (1.9 km) in multi Mode Fiber or up to 12.4 miles (20 km) in Single mode fiber. Fiber Interface is required at both ends.
- **Serial Fiber Extender** – Extends the RS232 / RS485 port on the SE up to 2.5 miles (4 km)
- **Monitor Alarm Receivers** -Provides off the air monitoring of the NDB signal from remote location
- **48 VDC Load Center/Battery Chargers** (see text on brochure)
- **DGPS MSK Interface** -Provides the interface between the NDB and the DGPS modulator. The MSK signal from the DGPS Beacon Modulator is the main carrier and differential GPS correction data. The MSK signal is used to generate the signal in low frequency (283.5 kHz) Radiobeacons.

PC-1000C3 Auto-tuning Antenna Coupler

Input Impedence	50 Ohms
Load Impedence	2 to 25 Ohms resistance, 200 to 1500 pF capacitance.
Frequency	190 to 625 kHz (up to 1800 kHz depending on model), with a 200 to 1500 pF load.
Power Input	Up to 500 Watts peak, 100 Watts carrier
Metering	Antenna current and tuning. Single meter with four position switch for OFF, TUNE, HIGH and LOW tuning.
Tuning	Large coil with coarse taps, fine taps and a rotating shorted ring controlled by the autotune system.
Lightning Protection	Lightning gap at the antenna terminal. Special passive circuit that protects the transmitter final amplifier from lightning transients.
Working Conditions	Continuous unattended operation, -50° to +70°C, 0 to 100% humidity. Designed for outdoor mounting.
Dimensions	24.37" H x 21" W x 17.5" D (61.9cm x 53.3cm x 44.4cm)