

SA25, 50 and 100 NDB Transmitter Series With Auto-tuning Coupler for:

Airports using Non-Directional Beacons for instrument approach.

Aviation Authorities such as FAA, CAA, Military, etc.

Offshore platforms requiring helicopter and/or crew boat navigation.

DGPS Reference Station Transmitter.

SAC Services:

- On-site or telephone Technical Support
- Installation Supervision
- Factory or on-site Training
- Site Planning Assistance
- Site Commissioning
- Site Acceptance Test



SA Series

25/50/100



Southern Avionics Company

P.O. Box 5345
Beaumont, TX 77726-5345 U.S.A.

Phone: (409) 842-1717 • Toll Free: 1-800-648-6158 • Fax: (409) 842-2987
Email: Royce.Everitt@SouthernAvionics.com

www.SouthernAvionics.com

Bringing your pilots in safely for more than forty-five years . . .

Why buy from Southern Avionics? . . . Because we've been recognized as the foremost manufacturer of NDBs in the world for more than 45 years of superior quality production and relentless commitment to long-term customer satisfaction.

SA 25, 50, 100 Specifications

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

Type of Emission	NON, A2A, A3E (Optional) or any combination. GID (with optional GPS beacon modulator)
Frequency	190-535 kHz, (optionally 190 to 1800 kHz in three system bands of 190 to 535 kHz, 520 to 1250 kHz, and 1500 to 1800 kHz). Synthesized (field programmable), no additional parts needed within the band.
Power Output	5 to 100 watts models
Radiated Harmonics	Radiated harmonics are better than 63 dB below carrier (100 watt model).
Modulation	Switching modulator / regulator, 0-95%, internal 400 or 1020 Hz, eight baud Keyer, 7 WPM.
Input Power	115/230V +/-15%, single phase 50 - 60 Hz. or optional 24VDC or both with switch over to batteries. Nominal input power is 180W at 100W carrier and keying at 95% modulation.
Load Center / Battery Charger	Optional item provides AC and DC mains circuit breaker, 10 Amp fast/float charge battery charger, and AC convenience outlet. Two (2) each 12VDC deep cycle marine type batteries will operate the SA100 at 85% power for 12 hours.
Metering	Power output, reflected power, PA voltage, PA current, percent modulation, audio input level.
Working Conditions	Continuous unattended operation, -50° to +70°C, 0-100% non-condensing humidity. Dimensions 32"H, 21"W and 15"D.
Monitoring	Automatic shutdown if tone, modulation, power 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	SA Dual: 31.75" H x 21" W x 15" D (80.6cm x 53.3cm x 38.1cm) SA Single: 24.12" H x 21.12" W x 16.5" D (61.1cm x 53.6cm x 41.9cm)

Technical Support Packages Available

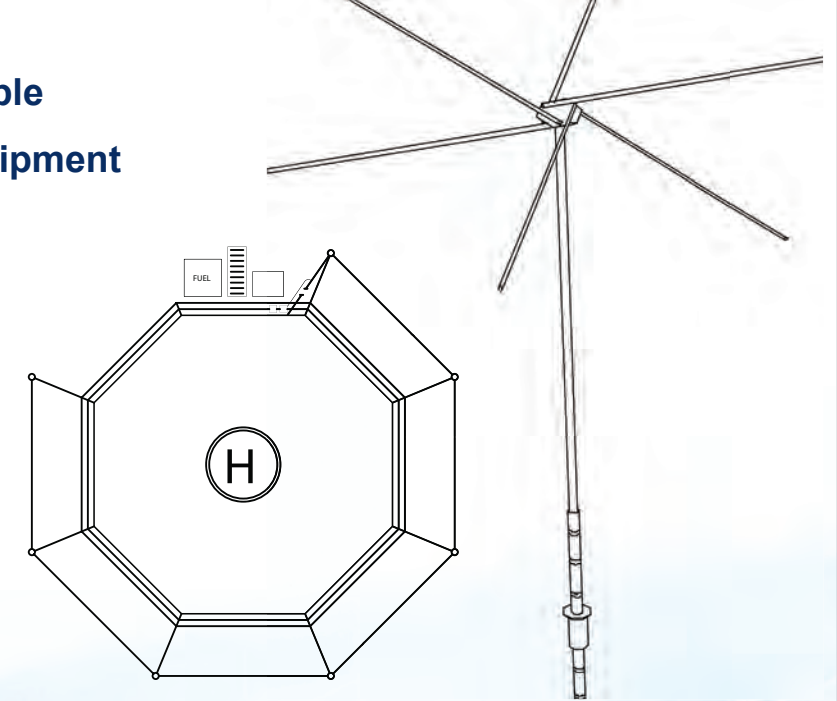
SA Series Antennas & Optional Equipment

Offshore Options:

- 34' / 10m Mast
- 34" / 10m Whip
- Helipad

Land Options:

- 34' / 10m Mast
- 50" / 15m, 60' / 18m, 90' / 27m Guyed Mast
- 60' / 18m, 90' / 27m Symmetrical T
- Anti-ice Insulators
- Obstruction Lights



SA Series Enhancement Options

- **Monitor Alarm Receivers** -provides off the air monitoring of the NDB signal from a remote location
- **24VDC Load Center/Battery Chargers** (see text on brochure)
- **DGPS MSK Interface PCB** -provides the interface between the NDB and the DGPS modulator. The MSK signal from the DGPS Beacon Modulator contains the main carrier and differential GPS correction data. The MSK signal is used to generate the RF signal in low frequency (283.5 - 325 kHz) Radio Beacons. The MSK signal has no effect on normal NDB operation (Morse code identifier, generated by amplitude modulating the carrier).
- **Serial Converter Kit** -converts the SA serial protocol to standard RS232 protocol and allows the user to connect the SA through other RS232 devices like modems or the SLF81014 Fiber extender
- **Multi-Mode fiber Optic Link** allows the extension of remote control capabilities up to 2.5 miles (3.25 km).

PC-10002 Auto-tuning Antenna Coupler



Input Impedance	50 ohms
Load Impedance	2 to 25 ohms resistance, 200 to 1500 pF capacitance
Frequency	190 to 625 kHz (up to 1800kHz 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)