

STEALTH 9300

Automatic Tuning Whip Antenna

9300



TACTICAL FEATURES

- Continuous 1.5 to 30 MHz coverage
- 125W CW/DATA, 200W PEP SSB
- Highest-in-class radiation efficiency
- Integral broadband receiver amplifier
- 3G ALE and Frequency Hopping Compliant
- Compatible or adaptive to all HF transceivers
- Rugged and submersible construction
- Built to military standards



APPLICATIONS

Stealth 9300 Automatic Tuning Whip Antenna is designed for superior performance and reliability in the most demanding mobile military operations where communications failure is not an option. It is intended for installation on all type of on-the-move vehicular platforms equipped with multi-channel HF transceivers.

HIGH RADIATION EFFICIENCY

The 9300 is effectively a centre loaded monopole radiator that provides substantially greater radiation resistance compared to base loaded antenna-and-coupler combination typically used in mobile HF installations. The 9300 antenna consists of two collapsible sections. Serving as RF-insulated enclosure and robust mechanical support for the radiating whip section, the upper part of radiating column section incorporates high-Q stepper inductor driven by highly precise, fast and reliable micro controller operated belt drive. Electrically clean RF-path and optimal RF-current distribution reduces severity of operating conditions for all RF-components and materials. This assures significant increase of radiation efficiency and reliability of the 9300 antenna.

FULL HF BAND COVERAGE

Stealth 9300 antenna features ultra-fast (typically 250mS) automatic tuning to any frequency over the entire 1.5-30MHz HF frequency range permitting maximum utilization of HF transceiver spectrum capability. In Scan or Free Tune mode a wideband receiver amplifier is activated making 9300 antenna sensitive to even weakest signals over entire frequency range. This assures crystal clear reception and faster connection in ALE data modes. With an extremely low RF insertion loss, the 9300 is the best-in-class mobile antenna capable of a high duty cycle RF power handling required for intensive voice and data communication.

FLEXIBLE INTERFACE

With the supplied CPS9300 Antenna Configuration Software and USB cable the 9300 antenna can easily be programmed via a PC to operate with virtually any analogue or digital HF transceiver. Channel data from the transceiver is obtained via RF-cable using an internal frequency counter or received in digital format via control cable. This permits intelligent operation in 3G ALE and Frequency Hopping, as well as makes CMK (Channel Memory Kill) and other functions accessible via built-in UART and RS-485 lines.

ADAPTIVE MATCHING

The 9300 antenna operates under control of intelligent adaptive matching algorithm which continuously monitors any significant variations of standing wave ratio caused by weather conditions or proximity of other vehicles and automatically adjusts built-in matching circuit to VSWR 1.3:1 or less at every new tune. This ensures that HF-transceiver does not activate its protection circuit and utilizes full specified RF power during entire period of communication session.

INDESTRUCTIBLE DESIGN

Stealth 9300 antenna lower section is moulded from fiberglass reinforced nylon stabilized by artificial aging treatment. The aluminium die cast antenna base incorporates heavy duty anti-vibration rubber mounts, water tight air valve and military grade connectors. Rugged and impervious to dust and water ingress, the 9300 meets or exceeds requirements of MIL-STD-810 assuring long term reliable operation in all altitudes, terrains and climatic zones.

EASY FOR INSTALLATION & MAINTENANCE

Constructed in compact self-contained form factor, the 9300 is easy to mount on all type of vehicles. Installation is facilitated through wide selection of mounting brackets, installation kits and cable length options. Maintenance intervals and self-diagnostic reports can now be downloaded from the antenna using PC-aided CPS9300 Configuration & Diagnostic software or obtained via built-in self-test (BIST). With comprehensive technical support available from Stealth Telecom Help Desk the 9300 antenna sets new standards in customer service.

GENERAL SPECIFICATIONS

Frequency Range	1.5 to 30MHz Transmit, 100KHz-88MHz Receive
Power Rating	125W CW/DATA, 200W PEP SSB (Voice)
VSWR	Typical≤1.3:1, 50Ω Average
Tuning Speed	New CH: 0.13 sec (min.), 1.5 sec (max.) Memory CH: 0.25 sec average
Memory Channels	200 RAM, 200 EEPROM
Tune Power	External 3-30W PEP (3-200W in Smart Tune)
DC Operating Range	10-16V DC (10-32V opt 9300.B33.100) from transceiver or battery
Power Consumption	2.2 A tuning, 85-140 mA static
Integral Wide Band Amplifier	Gain 3 dB, IP ³ ≥26dBm
Interface	UHF socket MIL-DTL501, 8 pin/ USB / 3xTTL/UART/RS-485
Protection	Reverse polarity, short circuit, lightning, Induced RF Power over voltage, over temperature
Operating Temperature Range	-45°C to +70°C
Environmental	Meets MIL-STD-810G, Shock (516.6), Vibration(514.6), IP 68 Immersion 1.2m/1h
Wind Rating	58m/s=210km/h (130 M/h)
EMC/EMI	Meets MIL-STD-461, IEC/EN 61000
Mounting	M16x45mm stud
Weight and Dimensions	5.4 kg, 105x105x840(2490)mm
Color	Default Black (custom colors on request)

Note: Specifications may change without prior notice. Please verify updated specifications on order.

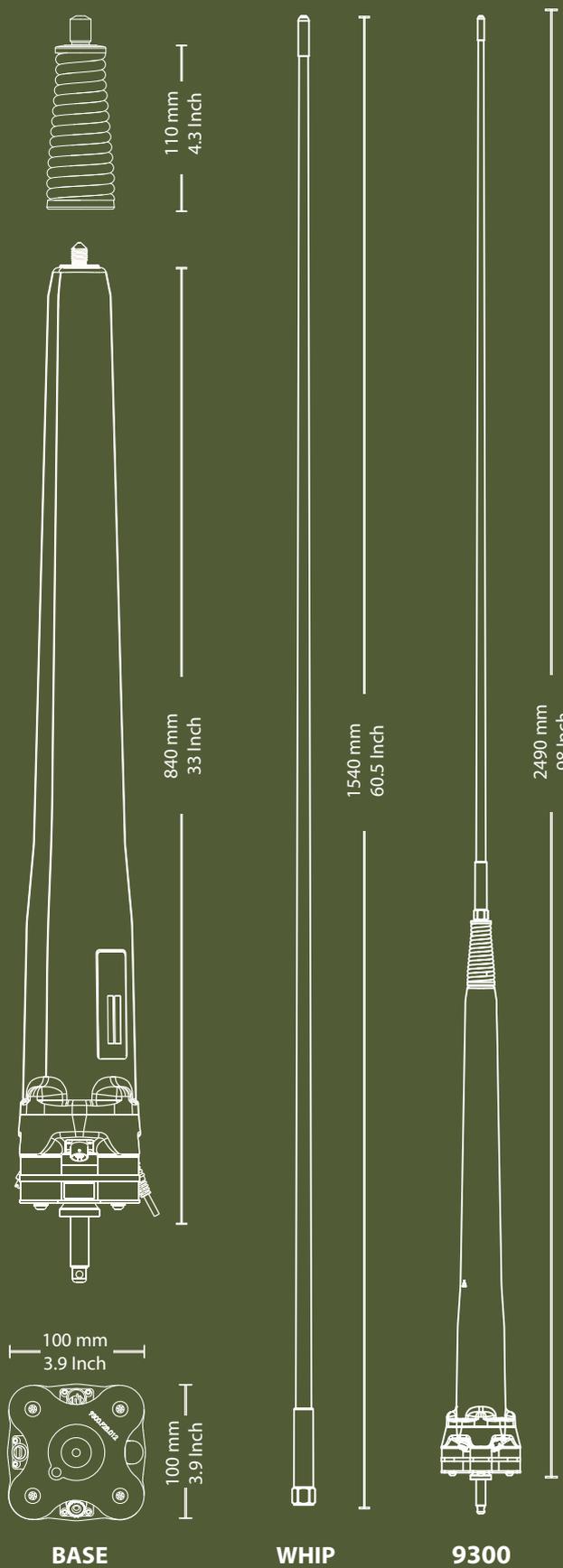
STANDARD PACKAGE (in military green finish)

- 9300.B36.000 Antenna Main Assembly
- 9300.B35.020 FG1540G Whip
- 9300.M28.015 GS110G Spring
- 9300.B17.060 Control Cable, 5.5m*
- 9300.B17.061 Coaxial Cable, 6m*
- 9300.B17.005 Default Adaptor Cable 0.5m*
- 9300.C48.001 Installation kit (Includes CPS9300 CD, USB Cable and Installation Guide)

OPTIONAL ACCESSORIES

- 9300.B35.020 SS1200E Emergency Whip
- 9300.B35.080 NVIS Kit
- 9300.B33.100 Interface Converter
- 9300.B28.003 NATO Base Adaptor

*. Control Cable length options and appropriate transceiver Adaptor Cable must be specified on order. Wide range of optional installation accessories is available in separate catalogue.



BASE

WHIP

9300

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