

VEHICULAR ANTENNA

9300 AUTOMATIC TUNING WHIP

DTC
A CODAN COMPANY

The Codan 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 types of vehicular platforms equipped with Codan HF transceivers.

KEY FEATURES

- Continuous 1.6 to 30 MHz coverage
- 150W RF power rating
- Excellent radiation efficiency
- Fast memory tuning
- Integral broadband receiver amplifier
- 2G and 3G ALE and Frequency Hopping Compliant
- Rugged MIL-STD 810G certified design
- Up to 200 memory channels
- Available with NVIS kit

ADAPTIVE MATCHING

The 9300 antenna operates under control of intelligent adaptive matching algorithm which continuously monitors any significant variations of standing wave ratio that may be caused by weather conditions or proximity of other vehicles and automatically adjusts built-in matching circuit to VSWR 1.6:1 or less at every new transmission. This ensures that the HF transceiver is able to maximise RF output power at all times, ensuring optimum communication quality and range at all times.

RUGGED DESIGN

The 9300 antenna housing is moulded from fiberglass reinforced nylon, stabilised 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.

NVIS KIT

The 9300 Antenna can be supplied with an optional Near Vertical Incident Skywave (NVIS) kit. This kit increases the signal take-off angle and enhances short range communications coverage.



HIGH RADIATION EFFICIENCY

The 9300 antenna is a closer-to-centre loaded monopole radiator that provides substantially greater radiation resistance compared to base loaded antenna-and-coupler combination typically used in mobile HF installations. This smart and elegant design allows the Codan 9300 antenna to increase radiation efficiency and provide exceptional reliability compared to competitor products.

FULL HF BAND COVERAGE

The 9300 antenna features ultra-fast automatic tuning to any frequency over the entire 1.6–30 MHz HF frequency range permitting maximum utilization of HF transceiver spectrum capability. A wideband receiver amplifier is activated in Scan mode making the 9300 antenna sensitive to even the weakest signals over the supported frequencies. 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 analogue/digital voice and data communication.

EASE OF INSTALLATION

Packaged in a compact self-contained form factor, the 9300 is easy to install on all types of vehicles. Installation is facilitated through wide selection of mounting brackets, installation kits, and cable length options.

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GENERAL SPECIFICATIONS	
Transmit frequency range	1.6MHz to 30MHz
Receive frequency range	250KHz to 30MHz
RF power rating	150W PEP voice/data
MAX VSWR	1.6:1
Input impedance	50 Ω
Tuning speed specifications	725 ms average for new frequency 350 ms average for memory tune
Memory channels	200
DC operating range	10 - 30V DC
Current draw - tuning	3.2A
Current draw - static	60 - 110mA
Operating temperature	-40°C to +70°C
Protection	Reverse Polarity, Short Circuit, Over Voltage
RF connector style	RG58 UHF
Control connector style	8-PIN
MIL-STD-810	MIL-STD-810G Salt Fog, Immersion, Sand, Dust, Shock, Vibration
Ingress protection	IP67
Weight	5.4 kg
Dimensions	100 x 100 x 2490 mm
Mounting method	Single stud M16
Vehicle mount footprint	100 x 100 mm
Colour	Black
Compliance	MIL-STD-461, IEC/EN 61000

Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

Continuous transmission for periods greater than 10 minutes using digital modes may result in reduced radiation efficiency.

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