HF Transceiver Codan NGT ASR

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Supplies of the equipment stopped

A small, smart & simple HF Radio solution

- ☑ **Internationally acclaimed**
- ☑ **Complies with industry standards for dependability & durability**
- ☑ **The ideal solution for disaster relief & homeland security**
- ☑ **JITC certified interoperability with other systems**
- ☑ **High performance, affordable communications**
- ☑ **Wide range of solutions including voice, data, telephone, remote control, GPS tracking & voice security (including VP116)**
- ☑ **Fixed and mobile installations with 9350 automatic tuning whip antenna & high performance base antennas**

Robust fixed or mobile configurations

- The NGT ASR is specifically designed for fixed or mobile stations with innovative mounting equipment and connectors for easy installation.

- All CODAN transceivers undergo rigorous testing and comply with the highest industry standards including MIL-STD-810F, US FCC and NTIA requirements.

- Unique in-built protection that makes it virtually impossible for the transceiver to sustain damage from unexpected antenna disconnection, over voltage and reverse polarity, which can destroy other transceivers.

- Excellent sensitivity from the high dynamic range of the NGT receiver ensures better reception in the most difficult conditions. Frequency stability is better than 0.3 ppm.

- Exceptionally high Mean Time Before Failure (MTBF) of 200,000 hours (22 years) provides reliab and continuous communications in challenging conditions.

- A three-year warranty is available for all CODAN manufactured products as a guarantee of produ quality. This is backed by a worldwide service and support network, and 24x7 in-house customer service support.

AT Communication ©

Advanced Automatic Link Establishment (ALE)

- JITC certified interoperability with MIL-STD-188-141B and FED-STD-1045 ALE systems.

- Advanced capabilities such as maintenance of channel quality information (LQA) on a 24 hour basis. This enables the transceiver to select a suitable channel at any time of the day, from the moment it is switched on.

- Faster performance than conventional ALE systems and much greater reduction in sounding activity.

- Virtual service addressing that supports multiple services such as voice, data and email.

- In-link and Automatic Message Display (AMD) messaging from the handset or computer to enable a multi-station chat mode.

- Automated response of AMD messaging, including Phone calls, GPS polling and sending, Emergency calls, and Remote Diagnostics. The user requires no action as the transceiver automatically interprets the received AMD message and responds accordingly.

- Listen-Before-Transmit capability that detects voice and data traffi c on the channel before initiatin ALE. This prevents calling on channels that are engaged.

- Selective ALL Call capability, in addition to global ALL call, that allows users to call specifi c stations based on the address characteristics they wish to fi lter.

- Multiple network scanning capability enables multiple networks to be scanned at the same time.

- Last heard stations log displays a time stamped list of last heard stations.

Advanced calling facilities

In addition to ALE selective calling, the NGT ASR provides fully automated Phone calls, Message calls, calls with GPS position information, and calls with remote capabilities. All incoming calls are time stamped to identify precisely when each call arrived.

Phone call

☑ Telephone calls can be made seamlessly via bases equipped with a telephone interconnect. This is done without the need of the operator's involvement to control the telephone interconnect.

Message call

☑ Text messages of up to 90 characters can be sent or received without the need for an external computer or device. Messages can be entered or preset via a handset or computer terminal, and an encryption option is available.

☑ AMD messages can be included at link establishment or sent after a link is established.

GPS call (with a GPS receiver)

☑ Displays a live GPS position on the handset by latitude and longitude, and enables users to send their position to another CODAN HF SSB transceiver or interrogate another transceiver for its position.

Get Status call

☑ Delivers remote capability where another station can test parameters such as signal strength, battery voltage levels and RF power output. This allows a technician to remotely diagnose a station and determine if servicing or support is needed.

Over-The-Air (OTA) remote capabilities

☑ Configure and manage an NGT ASR HF transceiver or network from a central location by sending text messages from the control transceiver. The ability to configure other HF SSB transceivers, such as adding new channels and changing the scan table, is convenient when distance is a factor.

☑ Remotely disable an NGT ASR by sending a command message from the base transceiver to the remote transceiver. In the event of theft, this prevents users from transmitting or receiving. Even after the transceiver is disabled, it remains on-air. This means the transceiver, if attached to a GP receiver, can be interrogated for its position using a base transceiver.

Clear communications with DSP noise reduction - Easitalk

- ☑ Uses Digital Signal Processing (DSP) to minimize the effect of interference and reduce noise when listening to a channel.
- ☑ Operates at the press of a button and the result is a loud and clear signal at all times.

Innovative handset and user-friendly interface

- ☑ Compact design, modelled on a mobile phone.
- ☑ A smart address book stores up to 100 addresses, including names, call locations and even pre-programmed text messages. These can be easily retrieved via the user-friendly menu.
- ☑ Menu driven access enables efficient configuration and management of equipment and networks.
- ☑ Configurable hot keys provide easy access to one-touch calling and pre-programmed sequences.
- ☑ Direct calling at the press of a button, from simple voice operation to sophisticated ALE-reliant calling procedures.

Smart monitoring and scanning

- ☑ When an operator is absent, the NGT ASR generates an automatic log containing the caller's identity, time and channel number that can be displayed upon their return.
- ☑ With multiple net adaptive scanning, the NGT ASR automatically adjusts scan times for multiple networks according to the channels' preset scan times. This feature provides the most efficient scanning time possible.
- ☑ With voice mute, the NGT ASR effectively detects voice patterns even in high noise environments. This ensures mute is only opened after it detects speech on any scanned or monitored channels.
- ☑ When selective calling is used, users are able to scan multiple channels or networks. The Selcall mute is only opened when the transceiver receives a selective call, and the operator is notified by a tone.

Multiple control interfaces

- ☑ Up to three addressable handsets or desk consoles can be used with one NGT ASR RF unit. This enables mobile station operators to access a transceiver from the front and back of the vehicle, or allows base station operators to access the same transceiver from different locations in a workplace environment.

Multilevel access and security

- ☑ Lock and hide sensitive information by configuring different access levels for users and administrators. This ensures information or radio configurations are protected and cannot be changed or displayed without permission.

Computer control and programming

- ☑ The transceiver can be controlled from a basic ASCII terminal via an RS232 port. This capability can be used for messaging, GPS tracking and logging, and other automated applications.

- ☑ The transceiver can be configured using NGT System Programmer (NSP) – user-friendly PC based software designed specifically for the CODAN HF transceivers.

Innovative design for easy installation and serviceability

- ☑ The handset can be mounted in any position for easy access and viewing; especially important in vehicle where space is limited.

- ☑ The small RF unit can be mounted in a convenient location, like under a seat of a vehicle or in the trunk. The junction box can be placed at a distance from the RF unit and provides convenient access to connections such as a GPS receiver, handset and data modem.

- ☑ Extensive Built-In-Test Equipment (BITE) capability makes it easy for users or network administrators to test and report on their transceiver's performance.

- ☑ Easily replaceable modules ensure fast and cost-effective maintenance.

- ☑ The NGT ASR makes it easy to upgrade to future technology. Updated software can be downloaded from a computer via a programming port on the handset, without taking the transceiver out of service.

CODAN comprehensive communications solutions

CODAN provides a range of communication solutions to cover all modern needs.

Data, email and internet

- ☑ Designed for use with high-speed modems that comply with MIL-STD-188-110B to provide reliabl data, email and internet access over HF.

- ☑ Provides seamless operation for POP3 email applications when used with optional 3012 HF Data Modem and UUPlus Email for HF software.

Remote control

☑ The system provides clear and reliable communication for users whose control location is affected by electrical interference or is limited by building constraints.

☑ CODAN optional remote control interfaces allow operation of the HF SSB transceiver via a leased line or digital radio link.

GPS location and tracking

☑ CODAN modern and cost-effective GPS solution can be used for managing OH&S, security, fleet management and field coordination.

☑ When used with a GPS receiver, emergency calls sent to other transceivers or base stations automatically include the current GPS positioning.

☑ When used with tracking software, a computer equipped base station can track hundreds of mobi units on a single map. This provides affordable fleet management and coordination. Warning messages can be issued if a mobile enters a no-go area for added fl eet security.

☑ For extra protection, GPS data can be encrypted so positions are only seen by authorized users

Telephone Interconnect

☑ Telephone interconnect solution, users have a seamless ability to make and receive telephone calls on an HF transceiver. When an unattended HF transceiver is called, the telephone caller can lodge their phone number in the transceiver's memory.

☑ With optional MS Windows® software, users can create and configure profiles such as pre-programmed numbers, access control rules and call logging.

Accessories

* GPS receiver
* Mains HF transceiver supply
* High power HF systems (500 W & 1 kW)
* HF Data modem
* Split-site & remote control
* HF Telephone interconnect
* Mobile automatic tuning whip HF antenna
* Fixed station HF antennas, antenna tuner and grounding unit
* Installation hardware, mobile mounting cradles and rack units
* Morse key

Options

* Fan for data transmission

* GPS interface
* Additional handsets
* Internal Voice Encryptor
* Amateur mode
* VP116 interface

Technical specifications

Frequency range	Transmit: 1.6 to 30 MHz Receive: 250 kHz to 30 MHz
Channel capacity	600 channels
Operating mode	Single sideband (J3E, USB, LSB, AM, H3E)
Frequency stability	±0.3 ppm (–30 to +60°C)
Power output	Selectable 125 W PEP/12 W PEP
Primary voltage	12 V DC nominal, negative earth
Primary power	Receive: (no signal) 1 A Transmit: J3E voice: 6 A average 　　　　　J3E two-tone: 10 to 14 A
Transceiver sensitivity	–125 dBm (10 dB SINAD)
Spurious and harmonic emissions	Better than 65 dB below PEP
Audio bandwidth	Voice: 300 to 2700 kHz Data: 300 to 3300 kHz
Temperature	–30 to +60°C
Size and weight	2010 RF Unit: 8.3 inches W x 10.6 inches D x 2.6 inches H; 7.3 pounds 2020 Handset: 2.6 inches W x 1.4 inches D x 5.1 inches H; 0.7 pounds 2030 Junction Box: 5.3 inches W x 4.6 inches D x 1.5 inches H; 0.9 pounds
Dust	MIL-STD-810F method 510.4
Shock	MIL-STD-810F method 514.5
Vibration	MIL-STD-810F method 516.5
ALE	MIL-STD-188-141B, FED-STD-1045
Computer interface	RS232, 300 to 38400 baud
GPS interface	NMEA-0183 (4800 baud, RS232)
Compliance	CE, FCC, NTIA

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