

NGT™ VR TRANSCEIVER

➤ FEATURES AT A GLANCE



- **Innovative handset**
- **Easy installation**
- ***Easitalk*™**
- **Emergency Selcall**
- **Smart monitoring**
- **Free Tune Receiver**
- **High dynamic receive range**
- **Voice encryption**
- **Remote diagnostics**
- **Automatic Link Establishment (ALE)**
- **Built-In Test Equipment (BITE)**
- **Calling facilities**

Codan's NGT™ VR provides comprehensive solutions to suit your communication needs. The NGT™ VR Transceiver is suitable for base station and vehicle applications. The Transceiver incorporates all the usual features of Codan's leading-edge High Frequency (HF) radio technology, and also features an innovative handset and *Easitalk*™ as standard. Codan Automated Link Establishment (ALE) capabilities, voice encryption, phone calling features, and remote diagnostics/configuration are optional.

INNOVATIVE HANDSET

The handset can access all programming procedures and provides an advanced interface, efficient operation and easier network management.

The handset supports varied requirements ranging from traditional manual voice operation, to sophisticated ALE-reliant calling procedures.

Users can program channels, functions and addresses into the handset to meet their own requirements. An address book with up to 100 addresses can be easily retrieved via the menu.

EASY INSTALLATION

Every aspect of the NGT™ VR has been developed for easy installation and use in both fixed and mobile environments. The unit is small and convenient to mount in any position that makes viewing easier.

EASITALK™

The NGT™ VR uses Digital Signal Processing techniques to process received audio signals to minimise the effect of interference and reduce noise. *Easitalk* is simple to operate and extensive testing has shown that its performance is not affected by the language of the user.

EMERGENCY SELCALL

As Codan Transceivers are often used in places where safety of life is at risk, the NGT™ VR has a unique emergency calling facility. A distress signal can be sent automatically to selected stations.

SMART MONITORING

A variety of channels can be monitored while the radio is muted, and calls can be received on any of the channels being scanned.

FREE TUNE RECEIVER

Free tune receiver mode enables you to tune into any frequency and store it as a channel with your own label. Also, users can listen to AM stations, short-wave broadcasts and more.

HIGH DYNAMIC RECEIVE RANGE

The high dynamic range of the NGT™ receiver provides better reception in difficult conditions.

VOICE ENCRYPTION

The optional *Voice Encryptor* provides communication security (COMSEC) and enables users to communicate sensitive information in confidence, without complicated setup procedures. It also provides visual confirmation that the conversation is secure.

REMOTE DIAGNOSTICS

With Remote Diagnostics your radio installation can be tested remotely by another station to measure parameters such as signal strength, battery voltage levels and power. It is also possible to reconfigure most Transceiver parameters and disable the Transceiver.

AUTOMATIC LINK ESTABLISHMENT (ALE)

To automatically select the most suitable channel, ALE is available as an option. CODAN™ ALE provides full interoperability with other equipment compliant with FED-STD-1045 ALE.

In addition, CODAN™ Transceivers outperform many conventional ALE systems through the use of Codan Automated Link Management (CALM™).

CALM™ provides the following additional capabilities:

- Multiple networks can be scanned simultaneously at a scan rate of 8 channels per second. This enables up to 3 times more channels to be scanned in the same time as other ALE systems.

SPECIFICATIONS

Frequency range	Transmit: 1.6 to 30 MHz Receive: 250 kHz to 30 MHz
Channel capacity	20 channels
Operating mode	Single sideband (J3E, USB, LSB, AM)
Frequency stability	±0.3 ppm (–30 to +60°C)
Primary voltage	12 V DC nominal, negative earth
Primary power	Receive (no signal): 0.7 A Transmit: J3E voice: 6 A, J3E two-tone: 10–14 A
Receiver sensitivity	–125 dBm (10 dB SINAD)
Transmitting power	125 watts PEP
Spurious & harmonic emissions	Better than 65 dB below PEP
Temperature	–30 to +60°C
Size & weight	2011 RF Unit: 210 mm W x 270 mm D x 65 mm H; 3.3 kg 2020 Handset: 65 mm W x 35 mm D x 130 mm H; 0.3 kg
ALE link quality data	24 hours of up to 100 stations and 100 channels using a total of 72675 discrete sets of LQA data
ALE link quality data resolution	Local: 8 bits SINAD, 8 bits BER Remote: 5 bits SINAD, 5 bits BER
Dust, Vibration, Shock	MIL-STD-810F method 510.4, method 514.5, method 516.5

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

- A profile of channel characteristics is developed over time using a 24 hour based Link Quality Analysis (LQA) database, which has over 7 times more storage capacity and uses a higher data resolution than conventional ALE systems. This significantly reduces sounding activities and enables the Transceiver to select a suitable channel at any time of the day from the moment it is switched on.
- The Listen-Before-Transmit capability detects both voice and ALE activities on the channel before initiating ALE. This avoids interfering on channels that are engaged.

BITE

Built-In Test Equipment (BITE) is a process that can be initiated by the user to test and report on certain aspects of the system's performance.

CALLING FACILITIES

The NGT™ VR comes standard with Selective calling and optionally supports Phone calling, and Remote Diagnostics and Configuration. All incoming calls are time-stamped to identify precisely when each call arrived.

Selcall: Enables an operator can call a single Transceiver and only that unit will respond—no more listening to noise while waiting for a call. The called Transceiver will also signal that the call or message has been received.

Phone call: Enables the Transceiver to make telephone calls via suitable bases equipped with a telephone interconnect.

OPTIONS / ACCESSORIES

Option	Purpose
CALM™	FED-STD-1045 ALE / CALM™
D	Remote Diagnostics
P	Phone call
COMSEC	<i>Voice Encryptor</i>
CONSOLE	NGT™ Desk Console for base station use

RADIO COMMUNICATIONS

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