### FEATURES AT A GLANCE

- High speed waveforms
- Reliable email over HF
- ALE compatibility
- Ethernet & RS232 interfaces
- Built to last

Codan’s 3212 HF Data Modem ensures you get connected anywhere by providing reliable, cost-effective, high speed mobile data communications in remote areas where little or no telecommunications infrastructure exists.

The 3212 is based on the latest modem technology with an error-free data rate of up to 7200 bit/s uncompressed, typically four times faster than comparable competitors’ modems.

### HIGH SPEED WAVEFORMS

The 3212 HF Data Modem uses waveforms derived from Military Standard (MIL-STD) Waveforms, which are based on STANAG 4539 and modified to provide optimal performance over commercial 2.4 kHz HF channels.

### RELIABLE EMAIL OVER HF

With Codan’s UUPlus™ Email for HF software, the 3212 provides an easy and reliable means to send email over HF from remote areas.

### ADVANCED AUTOMATIC LINK ESTABLISHMENT (ALE) COMPATIBILITY

When used with FED-STD-188-141B ALE, the 3212 HF Data Modem and Transceiver establish the link by automatically selecting the best channel, link quality and data rate.

### ETHERNET & RS232 INTERFACES

Modem control is provided through a configurable Ethernet port using either a fixed IP or DHCP addressing, or an RS232 port. All ports are optically isolated for maximum protection.

### BUILT TO LAST

CODAN™ radios are well-known for their ruggedness and reliability, with the 3212 HF Data Modem no exception. Using a robust aluminium chassis it is proven to withstand the rigours of mobile, base station and manpack use.
### SPECIFICATIONS

#### SUPPORTED WAVEFORMS

<table>
<thead>
<tr>
<th>Standard</th>
<th>Modulation</th>
<th>Data rates (bit/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANAG 4539 (modified)</td>
<td>Coded PSK / QAM</td>
<td>75, 150, 300, 600, 1200, 2400, 3600, 4800, 6000, 7200</td>
</tr>
<tr>
<td>Codan 9001 / 9002 / 3012</td>
<td>Proprietary CHIRP (Link Est)</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>16-Ch QPSK</td>
<td>2400</td>
</tr>
</tbody>
</table>

#### GENERAL

- **Built-In-Test**: Power-on self test, selectable internal audio and digital loop-back
- **Data interfaces**: RS232 Asynchronous autobanding, Full opto-isolation of all signals, Ethernet 10/100 Base-T, selectable IP address or DHCP, selectable port number
- **Receive audio**: 600 Ω balanced, –30 to +3 dBm, Automatic Gain Control
- **Transmit audio**: 600 Ω Balanced, –30 to +10 dBm selectable
- **Keyline (PTT)**: Open Collector, active low
- **Power source**: 13.5 V DC nominal (250 mA typical supply current), 10.5 to 15 V DC operational, reverse polarity and overvoltage protected to ±50 V
- **Cooling**: Passive convection
- **Temperature**: 0 to +55°C operating (~40 to +60°C storage), 32 to 131°F operating (~40 to +140°F storage)
- **Size**: 210 mm W x 240 mm D x 65 mm H (8.3” W x 9.4” D x 2.6” H)
- **Weight**: 1.95 kg

#### ACCESSORIES

- Cables to suit NGT™ or 2110 series Transceivers
- Vehicle mounting cradle
- UUPlus™ email software

#### RECOMMENDED TRANSCEIVERS

CODAN™ data capable Envoy™ / NGT™ / 2110 series Transceivers fitted with the following options:

- Option High Speed Data (NGT™ / 2110 only)
- Option Fan (NGT™ / Envoy™ only)