Military Tactical Data Terminal RT5

Military Tactical Terminal for HF, VHF, UHF Tactical Radios

FEATURES & BENEFITS:

- Ultra-rugged PDA incl. HF / VHF / UHF Modem
- Compatible with any HF, VHF, UHF Radio
- Ultra-rugged watertight enclosure and rugged connectors
- Lightweight, small and convenient
- Built-In AES Encryption for all over-the-air and data-at-rest information
- Secure Messaging: Chat, QuickText, SMS/MMS, and Email
- GPS, Compass, Navigation/Position Tracking, and polar map situational awareness display
- Sunlight-display and automatic ‘night-mode’ (dim to black)
- QWERTY keyboard with emergency and address book buttons
- Embedded JTC-certified STANAG 5066 ARQ for NATO interoperability as well as:
  - STANAG 4538 (3G ALE), 4539, 5066
  - MIL-STD 188-141B (App.A), 810F, 461

THE RT5 TACTICAL TERMINAL FOR MOBILE MILITARY COMMUNICATIONS

With its small size, the ultra-rugged, lightweight RT5 Tactical Terminal provides instant, secure messaging for any radio network with minimal training or set up time. Combined with the DT Mil System, the RT5 provides the secure messaging applications needed for digital command and control and extends those capabilities from the brigade level to the front line.

HIGH-PERFORMANCE MODEM

Using its high performance modem, the DT RTS interfaces via an audio cable to HF, VHF, or UHF transceivers to provide a gateway to secure intranets for email, and attachments, and via an external GSM modem for SMS/MMS, Chat, and QuickText features.

SIMPLE TO USE AND QUICK TO DEPLOY

Offering an intuitive user interface, the RT5 is simple to use and allows for rapid deployment of secure messaging applications, regardless of command levels or previous training. Predefined forms help structure information and drastically reduce the amount of data transmitted. Messages may be addressed to individuals or multiple
Enabling efficient and accurate point-to-point and broadcast data communications, the RT5 keeps command centers in contact with the mobile force; even when voice communications are not possible.

**SITUATIONAL AWARENESS**

For situational awareness, the RT5 provides a built in GPS receiver and antenna so that position and time information can be sent securely over the radio network as needed. Pictures and files can be uploaded to the RT5 and attached to emails, providing visual and critical information from the battlefield.

**SECURE DIGITAL VOICE**

The robust voice solution is designed for BLOS secure digital voice communication with superior performance in adverse channels. Vocoder rate is adapted dynamically to allow optimal quality in all channels. Broadcast and Private-Line (point-to-point) modes are supported, as well as late entry.

**SECURE MESSAGING AND POSITION**

CHAT and QuickCodes - provide flexibility and robustness, point-to-point or broadcast. Predefined Forms help structure information for ease-of-use and drastic data compression.

All over-the-air communications, locally stored messages and positions are encrypted. Access to the unit is restricted by means of a Personal Identification Number (PIN). A Zeroize function is provided from the keypad which erases all used data and key...
The RT5 can provide a "modem mode" in which it connects with the DT GATEWAY Software on a PC via the Ethernet port providing end-to-end Email connectivity.

**RT5 REQUIRED ACCESSORIES**

- **USB Cable**: For file transfer, camera access, printing, Network Configuration key-fill and field software upgrades.
- **Radio Cable**: Use Generic Cable or contact AT Communication International AG for appropriate cable to support specific radio models.
- **Additional Accessories**: Please contact AT Communication International AG

### Hardware

<table>
<thead>
<tr>
<th><strong>Hardware</strong></th>
<th><strong>Environmental</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size &amp; Weight</strong></td>
<td><strong>Temperature</strong></td>
</tr>
<tr>
<td>148x82x28mm (WxDxH), 490g including batteries</td>
<td>-40°C to +60°C (operating), -55°C to +85°C (storage)</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td><strong>Immersion</strong></td>
</tr>
<tr>
<td>Black (RAL 9002)</td>
<td>MIL-STD-810F Method 512.4 Proc 1 (1 hour at 1m)</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td><strong>Environmental</strong></td>
</tr>
<tr>
<td>Battery: 2 x Standard AA-size cells, or 2 x NiMH AA-size, internal charger</td>
<td>MIL-STD-810F Humidity, Shock, Vibration</td>
</tr>
<tr>
<td>External: 5 – 36 V DC (vehicle surge protected)</td>
<td><strong>EMC / EMI</strong></td>
</tr>
<tr>
<td><strong>Battery Life</strong></td>
<td><strong>Safety</strong></td>
</tr>
<tr>
<td>&gt; 12 hrs (Operational profile dependant)</td>
<td>IEC/EN 60950</td>
</tr>
</tbody>
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### Software & Modem

**Messaging**

Chat, Text, QuickCodes, File Transfer, Template-based Forms, Position Transfer, Email and SMS via DT Gateway

**Security**

AES 256-bit (for ITAR non-restricted countries only, EUC required) with 1024 keys, Zeroize function, Tamper detection
Modem
High performance serial tone BLOS modem (V/UHF compatible) featuring adaptive
equalization. The modem is able to deal with in-band interference and multipath/fading (up to 10
ms, 30 Hz). MIL-STD 110B also available (MARS)

S 5066 Email
Over-the-air interoperability with embedded STANAG 5066 ARQ & CFTP email client,
Interoperates with DT Gateway for WIndows

S 4536 Packet
STANAG 4538 LDL, HDL Packet Mode ARQ Configured by RC50-T Robust & efficient support for
all the Messaging Services

ALE 2G
Protection, Occupancy Detection

ALE 3G
STANAG 4538 Fast Link Set-up (FLSU), Linking Protection, Occupancy Detection

OS & BIT
Operating System: Linux. Comprehensive BIT (Built-In-Test), Continuous error detection

Storage
4 GB secure FLASH

Vocoder
600, 1200 & 2400bps Low-rate Vocoder

<table>
<thead>
<tr>
<th>Digital Voice Performance</th>
<th>Vocoder Rate (bps)</th>
<th>Latency (s)</th>
<th>Understandability Limit SNR [dB]</th>
<th>PESQ (Voice Quality)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>CCIR Poor</td>
<td>AWGN</td>
</tr>
<tr>
<td>2400</td>
<td>1.6</td>
<td>6.5</td>
<td>0.5</td>
<td>3.2</td>
</tr>
<tr>
<td>1200</td>
<td>2.2</td>
<td>4.0</td>
<td>-0.5</td>
<td>3.0</td>
</tr>
<tr>
<td>600</td>
<td>2.2</td>
<td>0.5</td>
<td>-3.0</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Interfaces

Keyboard
key sequence

Display
2.4” Colour OLED, QVGA resolution (320 x 240), 18-bit colour depth. Status LED for ‘message
waiting’ and charge indication

GPS
16-Channel receiver, -160 dBm sensitivity, LNA, Embedded active patch antenna

Red Accessory Port

USB Host
USB Host Port 5V (100mA) output

Ethernet Port
10/100 Base T (IEEE 802.3U compatible), embedded TCP/IP Stack, Auto cross-over detection

Headset
MIC input line, PTT input line, EAR or SPEAKER output line

Black Audio Port

Audio Port
Input: 10k Ohm unbalanced 5 Vp-p max. Output: Unbalanced, −40 to +0 dBm adjustable into 600 ohm
load. PTT Output, Audio return

Serial Port
Control and Data port: RS-232 levels. RxD, TxD, CTS, RTS, DCD and CLK lines

Power
5 – 36 V DC input for operation and battery charging, 0.3 – 2.2 Watt

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