The RT7 is a 19" rack-mount Strategic Terminal. The RT7 is part of the AT MIL family and works with any HF or V/UHF radio to provide secure voice, data and position services.

Services include: Robust Secure Voice, Text, Forms, File Transfer, QuickCodes, Navigation, Situational Awareness, SMS*, Email* (* via Gateway or CommandPoint Software).

Function and Applications:
Voice Encryptor: Secure Digital Voice for Radio
Position Transfer: Asset tracking over vast areas
Secure Data Modem: Used by external laptop or PC

Features & Benefits:
Robust Modem: STANAG 4538, 3G ALE & ARQ
Vocoder Options: TWELP* / MELPE**
Security: AES-256 Encryption
Address Book: Selective and Broadcast calls
Position Transfer: Built-in GPS Module
Connects to: Any HF or V/UHF radio
Interoperates with: AT RT3 & RT5
PC Software: Extends capability
19" Rack Mount: Strategic
Front Panel: Full operator interface
Rear Panel: Intercom and Data interface
Extended Range: 300, 600, 1200 & 2400 bps Vocoder

**RT7 SECURE DIGITAL VOICE**

The Vocoder rate is adapted dynamically to allow optimal quality in all channels. Broadcast and Private-Lines selective call modes are supported, as well as automatic Late Entry.

**USAGE MODES**

Local User: The operator uses a handset connected to the RT7 front panel. The RT7 provides an Address Book to initiate Private Line calls or to send locally entered Messages or files.
Remote User: The operator is situated away from the device. Audio input is via the Intercom connector. The RT7 can then be operated via RAPTAWC CommandPoint or MessagePoint.

**RT7 SECURITY**

All over-the-air communications, locally stored messages and positions are encrypted. Access to the unit is restricted by means of an Access Code. A Zeroize function is provided from the keypad and CommandPoint which erases all data and keys.

**VOICE/DATA MODE**

Any time when PTT is pressed or a Voice call is initiated, the RT7 will automatically
go into ‘Voice Mode’. Once voice communications is inactive for a time, the RT7 will start or resume sending Data. The Voice/Data mode is indicated by an icon on the user interface.

RT7 MODEM
The RT7 has a built-in high performance data modem that connects to HF or V/UHF transceivers via the audio interface. This combined with a low-rate vocoder and built-in cryptography creates a robust secure digital voice (SDV) solution.

JOINT OPERATIONS INTEROPERABILITY
The RT7 interoperability with the AT RT5 for manpack or vehicle use, providing seamless interoperability between various forces. The same Key Management System is used on both devices.

EMAIL - GATEWAY & COMMANDPOINT
The RT7 can connect with Gateway, MessagePoint or CommandPoint Software via the Local Ethernet port to provide end-to-end Email (with attachments) and GSM SMS connectivity (via Gateway) or Situational Awareness capability.

RT7 HARDWARE
Size & Weight 212 x 178 x 89 mm (w x d x h), 2U, 19”/2, 3.4 kg
Temperature Operating:-20°C to +60°C, Storage: -55°C to +85°C
Colour Saddlewood Black (RAL9004)
Environmental MIL-STD-810F Humidity, Shock, Vibration, Dust-IP67
Power AC&DC: 90 – 264 VAC, 27 – 440 Hz, 100 – 370VDC
DC: 9 – 36 VDC (MIL-STD-1275B)
Safety IEC/EN 60950

RT7 ENVIRONMENTAL

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>Operating:-20°C to +60°C, Storage: -55°C to +85°C</td>
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</tr>
</tbody>
</table>

RT7 SOFTWARE & MODEM
Messaging Chat, Text, QuickCodes, File Transfer, Template-based Forms, Position Transfer. Email and SMS via CommandPoint
Cryptography AES 256-bit (FIPS PUB 197). 256x different COMSEC and LINKSEC keys.
Modem STANAG 4538 (3G), MIL-STD-188-141 App C, LDL, HDL, HDL+ Packet Mode, ARQ, Robust data extensions. (HDL+ not available in USA or via USA resellers)
ALE STANAG 4538 (3G) Fast Link Set-up (FLSU), Linking Protection and Occupancy Detection
Digital Voice Purpose-built Robust Digital Voice Waveform RM-SDV2. Automatic Rate Adjustment DRC. Automatic Late Entry resynchronization
Vocoder 300, 600, 1200 & 2400bps Low-rate Vocoder

RT7 ACCESSORIES
Accessories - Included: H-250 Handset
Accessories – Required one per unit: Radio Cab - Contact AT Comms AG for list of radio specific cables.
Accessories - Required one per network: Configuration Bundle.
Accessories - Optional: 19” Mounting Tray, Handset Clip, GPS Active Patch Antenna (TNC), Connector interface kit, FILL Device.

RT7 INTERFACES
Link Audio: 600Ω balanced TX & RX, PTT return (contact closure)

OS and BIT Operating System: Linux. Comprehensive BIT (Built-In-Test), Continuous error detection
Storage 4 GB secure FLASH. Encrypted User Data Partition for Data-at-Rest secure storage

AT Communication ©

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<th>Details</th>
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<td>Serial Interface: Control and Data port: RS-232 levels. RxD, TxD.</td>
<td></td>
</tr>
<tr>
<td>Ethernet (RJ-45)</td>
<td>Ethernet: 10/100 Base-T (IEEE 802.3U compatible), embedded TCP/IP Stack, Auto cross-over detection.</td>
</tr>
<tr>
<td>Intercom (U-183)</td>
<td>Intercom Audio: 600Ω balanced</td>
</tr>
<tr>
<td>Handset</td>
<td>Front Panel, Mic (150 Ohm), Phone (300 - 1,000 Ohm), PTT, GND</td>
</tr>
<tr>
<td>USB Fill</td>
<td>USB 2.0 Full Speed Host Port: 5 VDC (100 mA) output</td>
</tr>
<tr>
<td>GPS Ant.</td>
<td>Connection for external active GPS Antenna. 3.0 VDC, 35 mA supply provided on connector</td>
</tr>
<tr>
<td>Keyboard</td>
<td>QWERTY layout with backlighting. Dedicated backlight control. Built-in ambient light sensor. Zeroize key sequence. Dim to black</td>
</tr>
<tr>
<td>Display</td>
<td>2.4” Colour OLED, QVGA resolution (320 x 240), 15-bit colour depth. Status LED shows new message and charge. Auto night mode</td>
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RT7 - Encrypted Voice - Data Modem