

RC50 Email Communications Suite

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Efficient and reliable HF & V/UHF Email



Using well known and standard applications such as Microsoft Outlook™ and Lotus Notes™ to write and read emails, the RC50 Email Communications Suite together with a AT Comms modem, offers the ability to send and receive emails efficiently and reliably over HF and V/UHF radio link utilizing existing radios.

Higher Throughput

RC50 compresses all emails, translating to higher throughput and shorter time on air.

A feature called, *Email prioritization*, results in high priority emails being sent first. Longer lower priority emails can be preempted by shorter higher priority emails. Should the transmission of an email be interrupted or preempted, the interrupted email will be automatically resumed.

More Effective Channel Usage

By monitoring the signal quality and adjusting the data rate in accordance with the link quality (DRC), the RC50 continually maximizes data throughput. When a radio channel is no longer viable for communication the modem's ALE function is used to select a different channel for continued communication (ALM channel change).

The RC50 graphical user interface (GUI) allows for easy configuration of the HF Network. The GUI structures status information to allow the administrator to pinpoint faults, failures and inefficiencies in network.

Radio operators have complete control whether they use the RC50 for data or voice transmission. The data modem senses the PTT signal allowing the RC50 to automatically stop data transmission when the user switches to voice transmission.

Multi frequency support

Using the Automatic Link Establishment (ALE) function of the modem to enable efficient multi-frequency operation, the RC50 simplifies the radio network configuration by providing pre- configured network configurations.

[AT Communication ©](#)

AT Comms Data Modems 2G ALE function provides MIL-STD-188-141B Automatic Link Establishment (ALE). The 2G ALE setup is automatically done by the RC50 based upon a pre-configured HF network.

Features:

Email over HF and VHF/UHF error free data communications

- Compression
- Resumption
- Combining
- Prioritized

Internet email

- Microsoft Outlook™ Compatible
- Supports attachments
- SMTP, RFC 2821
- POP3, RFC 1939

ARQ data Protocol

- Based upon STANAG 5066 v1.2
- Automatic Data Rate Change (DRC)
- Automatic Link Maintenance (ALM)

Simplified Administration

- Easy network configuration
- Frequency Planning

- ✓ Configuration of email addresses

Platforms

- ✓ Windows 7
- ✓ Windows 2000
- ✓ Windows XP
- ✓ Windows Vista

Sending email

Link Status

Tx/Rx	Remote Address	Type	State	Throughput	Rx SNR	BER	DS	SWR	Channel	Frequency	Efficiency	Info
	10.44.0.2	SOFTLINK	ESTABLISHED	1168 bps	26	7	0.7 Hz	0	0	Hz		

Message Queue

Active Messages Archived Messages

Stat	Prior	Atta	Tx/R	Progress	To / From	Message Subject	Start Date	Size	Elapsed Time	Remaining Time
					bob@water.example.com	Test 1	2008/02/08 03:1...	97 KB	00:01:29	~ 11 minutes

Receiving email

Link Status

Tx/Rx	Remote Address	Type	State	Throughput	Rx SNR	BER	DS	SWR	Channel	Frequency	Efficiency	Info
	10.44.0.1	SOFTLINK	ESTABLISHED	2619 bps	54	7	1.7 Hz	0	0	Hz		

Message Queue

Active Messages Archived Messages

Stat	Prior	Atta	Tx/R	Progress	To / From	Message Subject	Start Date	Size	Elapsed Time	Remaining Time
					tom@fire.example.com	Test 1	2008/02/08 03:1...	97 KB	00:01:35	~ 5 minutes

RC50 Email Communications Suite GUI

CATEGORY	CAPABILITY
Data Link Protocols	STANAG 5066 based data-link protocol
STANAG 5066 Stack	ALE (Automatic Link Establishment) ALM (Automatic Link Maintenance) DRC (Automatic Data Rate Change) ARQ Data (Automatic Repeat on Request) Collision Avoidance and Recovery
Network Planning & Configuration	Network wide 5066/ALE Addressing HF frequency planning & selection
HF Messaging Clients	Compressed Email Client (based upon CFTP)
Email Client Interfaces	POP3 (RFC 1939, excluding APOP) SMTP (RFC 2821, excluding authentication)
HF Message Management	Message resumption Message grouping to destination Priority-based message queuing Message delivery failure notification Pull-messaging functionality
Modem Interfaces	Remote Control (RS-232, Data + Modem Control) Ethernet (Data + Modem Control)

RC50 Email Communications Suite - HF - Data - Modem - Governmental - ARQ