



KEY FEATURES:

Email over HF & V/UHF

- Error free data communication
- Compression
- Resumption
- Combining
- Prioritized

Internet email

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

ARQ Data Protocol

- Based upon STANAG 5066 V2
- Automatic Data Rate Change (DRC)
- Automatic Link Maintenance (ALM)

Simplified Administration

- Easy network configuration
- Frequency planning
- Configuration of email addresses

Platforms

- Windows 10
- Windows 8
- Windows 7

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HF & V/UHF EMAIL

The RC50 Email Software together with a RapidM modem offers users the ability to send and receive emails efficiently and reliably over HF and V/UHF radio links, utilizing existing radios.

The user access email using well known email clients such as Microsoft Outlook™ and Mozilla Thunderbird.

EFFECTIVE INTERFACE

The RC50 graphical user interface (GUI) allows for easy configuration of the RF Network. The GUI structures status information to allow the administrator to monitor system performance.

RC50 gives the user complete control to use the radio for data or voice transmission as required by the user.

The RapidM Data Modems have the ability to sense the PTT signal allowing the RC50 to automatically stop data transmission when the user uses the radio for voice transmission.

EFFECTIVE CHANNEL USAGE

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

RC50 continually maximizes data throughput by monitoring the signal quality and adjusting the data rate in accordance with the link quality (DRC).

If the 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).

Email prioritization results in high priority emails being sent first. Larger 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.

MULTI FREQUENCY SUPPORT

RC50 uses the Automatic Link Establishment (ALE) function of the modem (such as the RM2 Modems) to enable efficient multi-frequency operation. Radio network configuration is simplified using pre-configured network configurations.

The RapidM Data Modems provide a 2G ALE function. The 2G ALE setup is automatically done by the RC50 based on a pre-configured radio network.

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	36%	

Message Queue												
Active Messages				Archived Messages								
Stat	Prior	Attai	Tx/R	Progress	To / From	Message Subject	Start Date	Size	Elapsed Time	Remaining Time		
				2%	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	81%	

Message Queue												
Active Messages				Archived Messages								
Stat	Prior	Attai	Tx/R	Progress	To / From	Message Subject	Start Date	Size	Elapsed Time	Remaining Time		
				28%	tom@fire.example.com	Test 1	2008/02/08 03:1...	97 KB	00:01:35	~ 5 minutes		

Figure 1: RapidM RC50 Email Software 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 Radio 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)
HF RADIOS	See RM2 User Manual

ORDERING INFORMATION	STOCK NUMBER	DESCRIPTION
RC50 EMAIL SOFTWARE	RMS-PC-RC50-2.3	S/W: RC50 G/Sec Email Suite Win V2.3
RM2 HARDWARE	RME-2R-P1-M0HVM	SDM: RM2-HVM M0 (B/loader) Active V3.2
HF MODEM M4 SOFTWARE OPTION	RXH-SW-O-M4-5.1	SW MDL-M4 (HF MdM S4539 9600 bps) V5.1
V/UHF MODEM V1 (24 kHz) SOFTWARE OPTION	RXH-SW-O-V1-3.1	SW MDL-V1 (VHF B≤24kHz ≤96000 bps) V3.1
V/UHF MODEM V2 (12 kHz) SOFTWARE OPTION	RXH-SW-O-V2-3.1	SW MDL-V2 (VHF B≤12kHz ≤48000 bps) V3.1
2G ALE (MIL-STD-188-141B) SOFTWARE OPTION	RXH-SW-O-2G-1.8	SW MDL-2G ALE / MS 141B, App. A, B V1.8
INTERNAL GPS MODULE	RM2-AC-2004-SPC	GPS: Module Int Fitted with Ant, RM2 V01

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