



FEATURES & BENEFITS:

- Email over HF and V/UHF radio
- Attach files to Email
- Beyond Line of Sight (BLOS)
- No satellite infrastructure required
- Free to air (no data transfer cost)
- Data compression improves throughput
- Works with any HF or V/UHF radio
- Desktop and mobile deployment

MIL-STD / STANAG COMPLIANCE:

- **MIL-STD-188-110B Modem:** Up to 9600 bps
- **MIL-STD-188-110A Modem:** Up to 2400 bps
- **STANAG 4539:** Up to 9600 bps
- **STANAG 4415:** Robust 75 bps
- **STANAG 5066:** ARQ

Package Contents:

RM2 Modem
RC50 Email Software
Serial Remote Control Cable
Wire-ended Power Connector

Not Included:

HF Transceiver
Power Supply (supply from transceiver)
Windows PC with Serial Port
Email client (such as MS Outlook™)
Radio interface cable (ordered separate)

MODEM AND EMAIL SOFTWARE

The **RM2** HF & V/UHF Email Solution is a bundle consisting of the RapidM **RM2** HF and V/UHF data modem as well as the RapidM **RC50** Email Software. The bundle is suitable for governmental and NGO users requiring long distance data communication links. The **RM2** modem is designed for desktop, vehicular and marine installations.

SUPERIOR MODEM PERFORMANCE

Long-range communication is especially prone to interference. The **RM2** benefits from RapidM's superior technology and experience in HF modem design. The modem features adaptive equalization and is able to deal with in-band distortion. The result is extended range and increased data throughput.

2G ALE OPTION

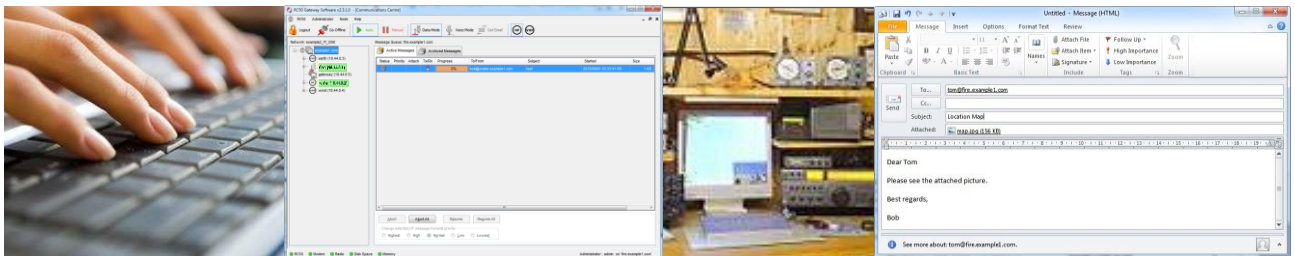
The optional 2G ALE function is built-in and can be activated with the appropriate RapidM license key. For more information on these functions, please see the **RM2** 2G ALE product datasheet.

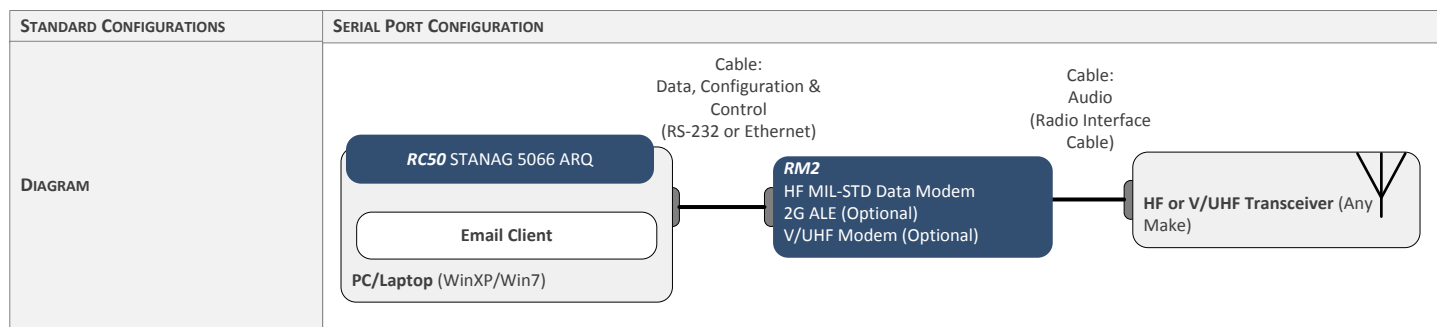
RC50 EMAIL SOFTWARE

RC50 Email Software brings HF Email capability to a connected PC or Laptop. **RC50** uses trusted STANAG 5066 ARQ to facilitate error free data delivery.

COMPATIBLE WITH WELL-KNOW EMAIL CLIENTS

Users access email using well know email clients such as Microsoft Outlook™ or similar.





REAR PANEL INTERFACES		
GPS ANTENNA (MCX)	Int. GPS (optional):	High performance internal GPS module
ETHERNET (RJ45)	Data, Config & Control:	10/100 Base T (IEEE 802.3U compatible), full duplex Protocol: RapidM Control Protocol (RAP1/ RIPC) over TCP/IP
REM / GPS (DE9M)	Remote Control:	RS-232, 115200 bps, 1 stop bit, 8 bit character lengths Protocol: Control Protocol (RAP1 + RIPC)
	GPS:	External GPS Control Pins: RS-232 (nominally input) Data Rate: 300 to 115200 bps (nominally 4800 bps), 1/2 stop bits, 7/8 bit data. PPS line: RS 232 (NMEA) or TTL
RADIO / DATA (DE25M)	Radio Control:	Selectable RS-232, TTL and 1-wire modes (1-wire allows direct connection to Icom CT-17/CI-V) 75 to 230400 bps, 1 or 2 stop bits, 7/8 bit data (no Hardware flow control)
	Radio Audio:	Input Audio: 600 Ohm balanced, -35 to +3 dBm without adjustment Output Audio: Balanced, -40 to +3 dBm adjustable into 600 ohm load Keyline: Open Collector (<36 V, 200 mA) PTT Sense Input: Pull to ground to indicate external PTT
	Raw Data:	75 to 230400 bps, RS-232 unbalanced, Rx, TX, RTS, CTS, DCD Full Duplex, 5/6/7/8 bit data, 1/2 stop bits, Hardware (RTS/CTS)/Software (XON/XOFF) Flow ctrl Half & Full Duplex operation, Standard Async and High-speed Async mode supported



HF MODEM WAVEFORMS	MODULATION	DATA RATES & CHARACTERISTICS
MIL-STD-188-110B APP C	PSK/QAM	[3200, 4800, 6400, 8000, 9600 bps] (Coded)
STANAG 4539	PSK/QAM	[75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, 9600 bps] (Coded)
MIL-STD-188-110B	PSK/QAM	[75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, bps] (Coded)
MIL-STD-188-110A § 5.3	PSK	[75, 150, 300, 600, 1200, 2400 bps] (Coded), 4800 bps
STANAG 4415	PSK	NATO robust: 75 bps (Coded)

AUTOMATIC LINK ESTABLISHMENT (OPTIONAL)		V/UHF WIDEBAND MODEM WAVEFORMS (OPTIONAL)	
2G ALE	MIL-STD-188-141B Appendix A, B & FED-STD 1045, FED-STD 1049 Automatic Link Establishment 2nd Generation (2G ALE) Occupancy Detection: MS 110A/B, S 4539, S 4285, S 4415, S 4529, S 4481, FSK, 8-FSK, SSB Voice Protocol: Calling, AMD, DTM, Excluding: DBM, AQC-ALE	RAPIDM V/UHF MODEM (V4)	24 kHz bandwidth: 2400 to 128000 bps 18 kHz bandwidth: 1200 to 96000 bps 12 kHz bandwidth: 1200 to 64000 bps 9 kHz bandwidth: 600 to 48000 bps 6 kHz bandwidth: 600 to 32000 bps 6 kHz bandwidth: 300 to 16000 bps

HARDWARE		ENVIRONMENTAL	
WEIGHT	0.7 kg	SAFETY	IEC/EN 60950
SIZE	35 x 111 x 180 x mm (h x w x d)	FCC	Title 47 CFR, Part 15 Subpart B Class A Digital Device.
COLOUR	Black, powder coat	SHOCK	40G, 6-9 ms, 3 shocks in x, y & z direction
MOUNTING	Desktop/vehicle (mounting bracket included)	VIBRATION	Composite wheeled vehicle 10Hz – 2000Hz, @2.5g.
POWER INPUT	6-36 V DC, XLR3 plug and fused cable supplied or via radio interface. Vehicle surge protected.	TEMPERATURE	-30°C to +70°C (operating), -40°C to +85°C (storage)
GND SCREW	M6 screw used for system grounding. Strap provided.	HUMIDITY	0 to 90%, non-condensing.

ORDERING INFORMATION	STOCK NUMBER	DESCRIPTION
RM2 HF EMAIL BUNDLE: FIXED FREQUENCY	RM2-BU-2001-SPC	Bundle: RM2 HF Email Fixed Freq V1.0
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
V/UHF MODEM V4 (24 kHz) SOFTWARE OPTION	RXH-SW-O-V4-6.4	SW MDL-V4 (VHF B≤24kHz ≤128kbps) V6.4

RADIO INTERFACE CABLES	STOCK NUMBER	DESCRIPTION
WIRE-ENDED (FIT OWN RADIO CONNECTOR)	RM2-CB-0881-V01	Cable: RCTRL/AUD, Unterminated V01
BARRETT 950/2050	RM2-CB-0884-V01	Cable: RCTRL/AUD Barrett 950/2050 V01
CODAN 2110	RM2-CB-0883-V01	Cable: RCTRL/AUD Codan 2110 V01
ICOM IC-78	RM2-CB-0885-V01	Cable: RCTRL/AUD Icom CI-V V01
ICOM IC-F8101	RM2-CB-0886-V01	Cable: RCTRL/AUD Icom IC-F8101 V01
ICOM IC-M802/IC-F700	RM2-CB-0882-V02	Cable: RCTRL/AUD Icom NMEA Unbal. V02

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