

Email bundle:

TC4 & RC50
FOR ICOM IC-F8101
DATASHEET



FEATURES & BENEFITS:

- Email over HF 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
- Internal modem solution for 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:

TC4 Modem Module
RC50 Email Software
TC4 Installation Guide
Type-AB USB Cable

Not Included:

Icom IC-F8101 HF Transceiver
CFU-F8100 Cooling Fan Unit
Windows PC
Email client (such as MS Outlook™)

HIGH PERFORMANCE DATA MODEM

The **TC4** is a HF data modem module with exceptional performance and reliability. The **TC4** plugs into the Icom IC-F8101 Transceiver's internal provisioned connector.

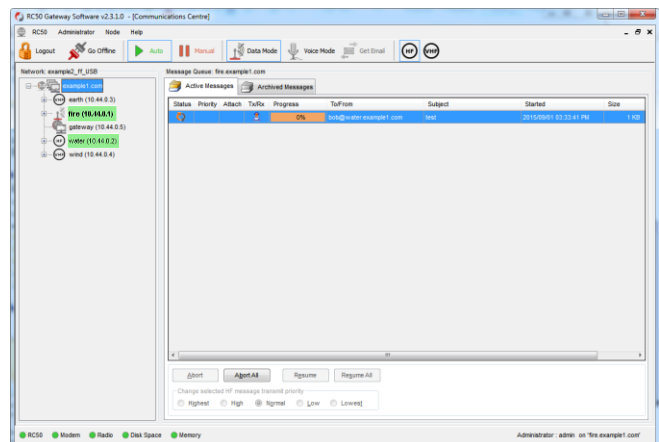
The **TC4** installed in the IC-F8101 is suitable for governmental, paramilitary and industrial users requiring Beyond Line of Sight (BLOS) email communication without fixed infrastructure.

SUPERIOR MODEM PERFORMANCE

Long-range communication is especially prone to interference. The **TC4** 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.

RC50 EMAIL SOFTWARE



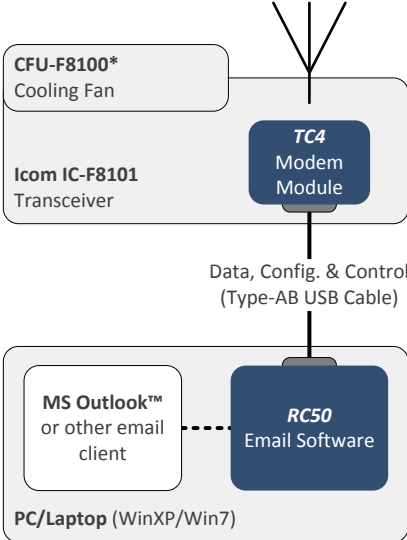
RC50 Email Software brings HF Email capability to a connected PC or Laptop. **RC50** uses trusted STANAG 5066 ARQ to facilitate error free data delivery.



WAVEFORMS	MODULATION	DATA RATES & CHARACTERISTICS	SOFTWARE OPTION
			M4
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, 9600 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)	✓

MODEM INFORMATION	
CHARACTERISTICS	Receiver autobaud Sync-on-data capability Carrier capture range ±200 Hz. Frequency tracking of up to 75 Hz changing at 3.5 Hz per second (triangular sweep) Narrowband Interference cancellation of up to 4 signals

TC4 HARDWARE	
SIZE	33 x 55 x 8mm (w x d x h)
WEIGHT	14.1 g
POWER	3.3 V (DC), ≤ 1 W (typ.)
TEMPERATURE	-40°C to +85°C (operating); -40°C to +90°C (storage)
CONNECTOR	Single 100-way fine pitch connector (Samtec YFT-20-xx-H-05-SB)

INSTALLATION	SETUP
<p>Note: Detailed instructions for installing the TC4 in the IC-F8101 are included with the bundle.</p>  <p>Figure 1: IC-F8101 internal TC4 connector</p>  <p>Figure 2: IC-F8101 with TC4 installed</p>	 <p>The diagram illustrates the system setup. At the top, an antenna is connected to the TC4 Modem Module. This module is housed within the Icom IC-F8101 Transceiver, which also contains a CFU-F8100* Cooling Fan. The TC4 Modem Module is connected via a Type-AB USB Cable to the RC50 Email Software on a PC/Laptop (WinXP/Win7). The RC50 Email Software is also connected to an MS Outlook™ or other email client.</p>
<p>* Note on Cooling: It is recommended that the Icom CFU-F8101 Cooling Fan Unit is installed on the IC-F8101 Transceiver for data operation. The CFU-F8101 Cooling Fan Unit can be obtained from your Icom dealer.</p>	

ORDERING INFORMATION	STOCK NUMBER	DESCRIPTION
TC4 HF EMAIL BUNDLE	TC4-BU-0001-SPC	Bundle: TC4 Email (M4, RC50)

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Revision: TC4_F8101_EN_02B