Email bundle:

TC4 & RC50
FOR ICOM IC–F8101
DATASHEET

GOV
DIVISION

FEATURES & BENEFITS:

o   Email over HF radio

o   Attach files to Email

o   Beyond Line of Sight (BLOS)

o   No satellite infrastructure required

o   Free to air (no data transfer cost)

o   Data compression improves throughput

o   Internal modem solution for radio

o   Desktop and mobile deployment

MIL–STD / STANAG COMPLIANCE:

o   **MIL-STD-188-110B Modem:** Up to 9600 bps

o   **MIL-STD-188-110A Modem:** Up to 2400 bps

o   **STANAG 4539:** Up to 9600 bps

o   **STANAG 4415:** Robust 75 bps

o   **STANAG 5066:** ARQ

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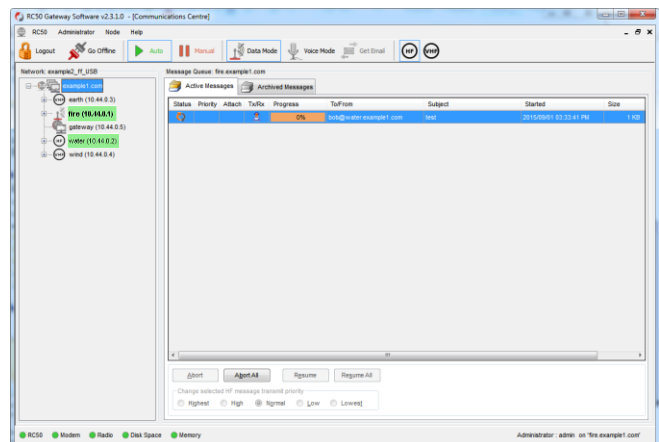
The *TC4* installed in the IC-F8101 is suitable for governmental, paramilitary and industrial users requiring Beyond Line of Sight (BLOS) email communication without fixed infrastructure.

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.
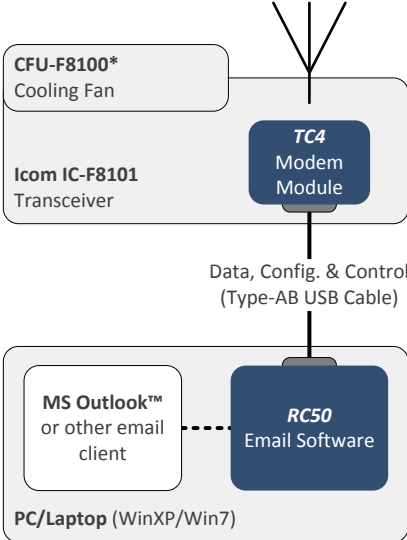
RC50 EMAIL SOFTWARE

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.

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 Oultook™)

MIL–STD HF DATA MODEM & EMAIL SOFTWARE

RapidM

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	
CAHRACTERISTICS	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
Note: Detailed instructions for installing the TC4 in the IC-F8101 are included with the bundle. **Figure 1:** IC-F8101 internal TC4 connector **Figure 2:** IC-F8101 with TC4 installed	

* 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.

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

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