

RM50e HF DATA MODEM

FEATURES AT A GLANCE



- **Compatible with RM50 (2110M Manpack Internal Modem)**
- **MIL-STD Waveforms**
 - MIL-STD-188-110A
 - MIL-STD-188-110B (Inc. Appendix F)
 - STANAG 4285
 - STANAG 4529
 - STANAG 4415
 - STANAG 4539
- **ISB option**
- **Data Encryption**
 - AES-256 bit Algorithm
 - Up to 256 stored keys
 - Key fill via Codan Key Management Software (KMS)
- **MIL-STD-810F**
 - Immersion
 - Dust
 - Vibration

The RM50e is a high performance MIL-spec HF modem designed to connect to the NGT™ family of radios. Compatible with the RM50 in the 2110M Manpack, this modem provides legacy interoperability with systems running Fixed Frequency and ALE networks operating STANAG 5066 email.

MILITARY STANDARD WAVEFORMS

The RM50e operates using the most highly advanced Military Standard (MIL-STD) waveforms, including STANAG 4539 and MIL-STD-188-110A/B, providing adaptive rates from 75–9600 bps coded. When used in conjunction with an ISB capable NGT™, even higher rates of up to 19200 bps are available using MIL-STD-188-110B Appendix F waveforms.

STANAG 5066 EMAIL CLIENT

To ensure compatibility with other Military Standards, Codan offers the RC50-C STANAG 5066 email client.

RC50-C is compatible with industry standard SMTP/POP email clients such as Microsoft Outlook™. RC50-C provides compression and adaptive data rate control to optimise performance over HF.

DATA ENCRYPTION

The RM50e provides optional AES-256 bit data encryption, which is controlled from the attached transceiver. Up to 256 encryption keys can be stored internally. Encryption key management is easily facilitated through Codan's Key Management Software (KMS) and Key Fill Software (KFS).



SPECIFICATIONS

SUPPORTED WAVEFORMS

MIL-STD-188-110A

Modulation

Coded PSK
Uncoded PSK

Data Rates

75, 150, 300, 600, 1200, 2400
4800

MIL-STD-188-110B (serial tone)

Coded PSK/QAM

3200, 4800, 6400, 8000, 9600

MIL-STD-188-110B (Appendix F) *

Coded PSK/QAM

ISB: 9600, 12800, 16000, 19200

STANAG 4539

Coded PSK/QAM

75, 150, 300, 600, 1200, 2400
3200, 4800, 6400, 8000, 9600

Uncoded PSK/QAM

12800

STANAG 4285

Coded PSK
Uncoded PSK

75, 150, 300, 600, 1200, 2400
1200, 2400, 3600

STANAG 4415

Coded PSK

75

STANAG 4529

Coded PSK
Uncoded PSK

75, 150, 300, 600, 1200
600, 1200, 1800

DATA ENCRYPTION

Algorithm

AES-256 bits (block cypher), 256 user-programmable keys

Key fill

Via the front panel of CODAN™ Transceivers, Key Management Software (KMS) & Key Fill Software (KFS)

GENERAL

LED indication

Green — Data Modem Active (modem is ready to transmit or receive data)
Orange — Data Modem Standby (modem is in power saving mode)

Supply voltage

9 to 16 V DC (13.8 V DC nominal)

Supply current

100 mA typical at 13.8 V DC (data modem active Tx or Rx), <3 mA (standby)

Temperature

-30°C to +60°C

MECHANICAL

PC interface

19-way MS bayonet

Transceiver interface

14-way MS bayonet

MIL-STD-810F

Immersion (1 m), Dust, Vibration

Dimensions

185 mm W x 41 mm H x 92 mm D (excluding connector protrusions)

Weight

0.7 kg

SYSTEM

08-06978-001

RM50e Data Modem

15-04167-EN

RM50e Data Modem Operator Guide

15-04161-CD

RC50-C STANAG 5066 Email Client

08-06901-001

RM50e USB Data Cable

08-07167-00x

RM50e to NGT™ Transceiver Interface Cable (x = cable length, 1 or 6 m)

REQUIRED OPTIONS FOR NGT™

15-10469-000

Opt NGT™ Fan (Factory fit)

15-10514-000

Opt 2.7 kHz Filter (for SSB MIL-STD waveforms)

15-10556-000

Opt Independent Sideband (for SSB and ISB MIL-STD waveforms)

* Requires ISB capable NGT™

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Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

RADIO COMMUNICATIONS

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