

Data Communication Products section 6

July 2014

Data Communication Products section 6

Features

High-Speed HF Modem	Fax, Image and E-mail System
Embedded & Standalone Systems	Automatic Message Relay
Network Management Software Packages	Adaptive, ARQ Protocols
Point-to-Point and Complex Network Configurations	

Introduction

Data communication is rapidly becoming a major user requirement in a significant number of world markets. Datron addresses customer data communication needs with a proactive systems approach that offers cost-effective, easy to implement, and technically responsive solutions. DatronLINK-2 HF Email and Network Management Software provides a complete data communications package with data rates up to 19.2kbps (with the RT7700 radio operating in ISB mode). DatronLINK-2 provides email, file transfer and keyboard chat features for HF radio and allows the user to create and manage complex radio data networks. Datron's E110A MIL-STD-188-110B modem is specifically designed for use with the 7000-series radios and with DatronLINK-2 provides speeds up to 9600 bps. The E110A can be installed in any standard desktop PC and is included in Datron's DT310A rugged notebook computer. The equipment can be located on a desktop, rack-mounted or shock mounted in a vehicle.

MIL-STD-188-110B Modem

E110A

High-speed HF modem utilizing MIL-STD-188-110B compliant waveforms to provide reliable, fast, and accurate data transmission up to 9600 bps. The E110A, in conjunction with DatronLINK-2 software, incorporates ARQ (Automatic Repeat Request) and FEC (Forward Error Correction) protocols to ensure error free data communications. It also incorporates an adaptive data rate protocol and will throttle up and down in speed based upon the conditions of the channel to ensure the message will get through when the channel conditions are degraded. The modem consists of a ¾ size PCI card for use in a desktop computer.

The E110A modem can be used with the basic software that is provided with the modem or with Datron's proprietary DatronLINK-2 HF Email and Network Management Software. The basic software application provides the ability to exchange messages and transfer files. DatronLINK-2 provides email, fax, file transfer and chat messaging along with radio programming and network management capability. See the DatronLINK-2 section below for more information.

For the RT7000, order cable C992369 (RT7000 to modem) and cable C992370 (computer to modem). For the TW7000, order cable C992370 and cable C992377 (TW7000 to modem). Additionally, the radio must have the 7000WB1 wideband filter option. DatronLINK-2 can be used with or without ALE (Automatic Link Establishment). If ALE is required, then order 7000ALE or 7000ALE-141B. The desktop computer requires a serial port and ¾ size PCI slot.

Rugged Tactical Notebook Computer

DT9500

Ultra rugged, lightweight, Panasonic Toughbook notebook computer designed for applications that require superior performance, quality and durability. The DT9500 offers the processing power, video display, and necessary accessories to meet the demanding requirements encountered in the field. The terminal can operate from either ac or dc input primary power or its internal battery pack. It is constructed of a strong magnesium alloy and is able to meet the stringent environmental requirements of MIL-STD-810G for operation in harsh environments. The DT9500 offers the following standard minimum features*:

- Intel Core i5-2520M vPro 2.5 GHz Processor
- 13.1" XGA sunlight-viewable touchscreen LED Display
- 4GB SDRAM (DDR3-1333MHz), upgradeable to 8GB
- 320GB (7200 RPM) shock resistant hard drive
- DVD Super MULTI drive
- Windows 7 Pro 32-bit Operating System
- 3MB Intel Smart Cache Memory



- Sealed magnesium alloy case
- Internal 10/100/1000 Base-T Ethernet LAN card
- 802.11 a/b/g/n wireless LAN
- Bluetooth v2.1 + EDR (Class 1)
- One PC card type II
- One SD card (SDXC)
- One ExpressCard/54
- One serial RS232 port
- Four high speed USB 2.0 ports
- One HDMI port, Type A
- One VGA port
- One docking port
- One audio MIC-in and Line-out port
- External antenna connector
- 100-204 VAC auto-sensing adapter

The DT9500 can be employed as a rugged terminal for a variety of uses in the field and can be bundled with Datron's DatronLINK-2 HF Email and Network Management software for use with the RT7700 or PRC7700H transceivers to provide HF Email, File Transfer and Chat capability. For use with the RT7700, order cable 701697. For ALE operation, the radio must have the 7700R-ALE2 or 7700R-ALE3 option installed. DatronLINK-2 can also be operated in a fixed frequency mode without ALE. For mobile applications, order 701671 docking station and 701804 DC-DC adapter.

*Specifications subject to change without notice. In most cases, capabilities will increase in conjunction with technology.

Rugged Tactical Notebook Computer with 110B Modem

1. DT310A

DT310A

Rugged Getac notebook computer with MIL-STD-188-110B E110A modem housed in an integrated expansion chassis and Next Generation DatronLINK-2 HF Email and Network Management Software to provide HF Email, File Transfer and Chat capability. The DT310A offers the following standard minimum features*:

- Intel I5-520M 2.4 GHz processor
- 3MB cache
- 15.6" widescreen full high-definition sunlight readable LED display
- 4GB DDR3 1333MHZ SDRAM upgradeable to 8GB
- SATA 320GB hard drive
- SuperMulti DVDRW Drive

- Windows 7, 32-bit operating system with multiuser interface
- Sealed magnesium alloy case
- Internal 10/100/1000 Base-T Ethernet LAN card
- Two PCMCIA type 2 slots
- One Express card slot
- One Smart card slot
- 802.11 a/b/g/n wireless
- Bluetooth
- Two serial RS232 ports
- Three high speed USB 2.0 ports (Additional 4 provided in expansion chassis)
- Two RJ45 network ports
- One VGA port
- One docking port, 120 pin
- One HDMI port
- One audio output
- One microphone input
- 100-240 VAC 50/60 Hz auto-sensing AC power adapter
- Internal rechargeable Li-Ion smart battery (8700mAh)

Additional options are available for the DT310A including GPS, touchscreen display, shock mount, battery charger, etc. Please contact your Datron Sales Representative for more information regarding the numerous configuration options.

The DT310A is designed for a variety of military and tactical uses as a complete HF message terminal in harsh environments. See the E110A and DatronLINK-2 sections for more information.

The DT310A offers the processing power, video display, and durability required of a field-deployable computer terminal. The terminal can operate from either AC and DC input primary power or its internal battery pack. It is constructed of a strong magnesium alloy that is NEMA rated and is able to meet the environmental requirements of MIL-STD-810 for operation in harsh environments.

For use with the RT7000, order cables C992369 (RT7000 to modem) and C992370 (computer to modem) separately. For use with the TW7000, order cables C992370 (computer to modem) and C9923777 (TW7000 to modem) separately. Additionally, the 7000-series radio must have the 7000WB1 wideband filter option. DatronLINK-2 can be used with or without ALE (Automatic Link Establishment). If ALE is required, then order 7000ALE or 7000ALE-141B.

*Specifications subject to change without notice. In most cases, capabilities will increase in conjunction with technology.

Software Applications for Data Communication

A line of software applications for point-to-point data transfer, network configuration and control, and transceiver setup and control are offered.

1. DatronLINK-2

2. RC2-NG

DatronLINK-2

DatronLINK-2 is the successor to Datron's highly popular DatronLINK HF Email and Network Management software. It includes all of the functionality of DatronLINK with additional features. The application provides the ability to exchange E-mail, faxes, files and keyboard chat messages, and allows the user to configure and manage the radio network. Automatic message relaying and alternate path selection, transparent to the user, help ensure that messages get through reliably.

Additional features include ARQ chat, which is significantly faster than AMD chat, fixed frequency operation, and a tactical mode of operation. Fixed frequency operation provides the ability to transfer files and exchange ARQ chat messages without ALE on a pre-assigned channel. The tactical mode of operation allows the user to stop a file transfer in mid-stream and switch to voice operation. When the voice operation is completed, the file transfer resumes from the point it left off.

DatronLINK-2 is the central control point of a radio-messaging network. It provides a fast and easy way to program the radio with ALE parameters (frequencies, call signs, scan groups, sounding, etc.) and works in conjunction with ALE to selectively and automatically link with another station using the best available channel. Additionally, it incorporates ARQ (Automatic Repeat Request) and FEC (Forward Error Correction) protocols to ensure error-free data communications up to 9600 bps with the E110A modem and up to 19,200 bps in 2-ISB mode with the RT7700's MIL-STD-188-110B internal modem.

DatronLINK-2 can be used with Microsoft Outlook, Outlook Express and other POP/SMTP email clients. It runs on Microsoft Windows XP, Service Pack 3 or higher, and is supplied with a USB HASP security key. It can be used with or without ALE (fixed frequency operation only). A LAN port is required on the computer. Order cable 701697 separately. If ALE is required, then order 7700R-ALE2 or 7700R-ALE3 separately. Order part number DatronLINK-2.

When used with a 7000-series radio and E110A modem, the 7000WB1 option is required. If ALE is required, then order 7000ALE or 7000ALE-141B separately. A serial port and ¾ sized PCI slot is required on the computer. For the RT7000, order cables C992369 and C992370 separately. For the TW7000, order cables C992370 and C992377 separately.

For compatibility with an existing DatronLINK station, the existing station must have its operating system upgraded to Microsoft Windows XP, Service Pack 3 or higher, and DatronLINK must be replaced by DatronLINK-2.

RC2-NG

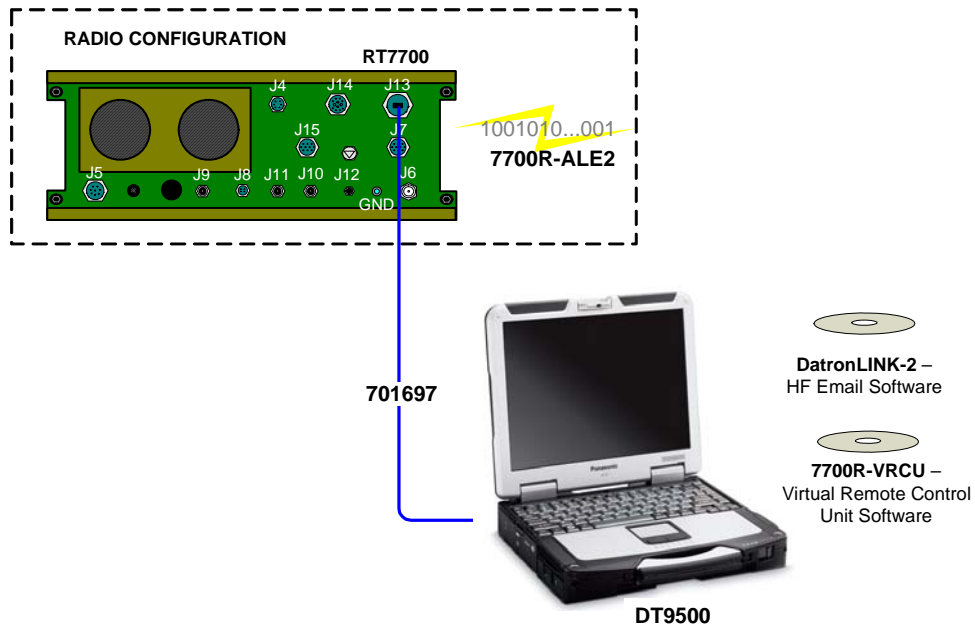
RC2-NG radio control software provides a fast and easy way to set radio operating parameters (mode, power, squelch, etc.) and ALE (Automatic Link Establishment) settings (frequencies, call signs, scan groups, sounding, etc.) with Datron radios (7000-series, PRC1099A). RC2-NG is user-friendly and provides the ability to initiate ALE Voice and Chat links. For the 7000-series radio, the 7000ALE or 7000ALE-141B option is required. For the PRC1099A radio the 1099ALE option is required. It runs on a standard desktop or notebook computer. Order the required computer-to-radio interface cable separately as listed in the table below.

- Pentium-class processor with at least 128 MB of RAM
- Microsoft Windows 98SE, Windows 2000, Windows XP and Windows 7.

Radio	Connector	Interface Cable
TW7000	Accessory 1	C991964
	Accessory 2	C991963
RT7000	Accessory 1	C991974
	Accessory 2	C992132
PRC1099A	Accessory	C992326

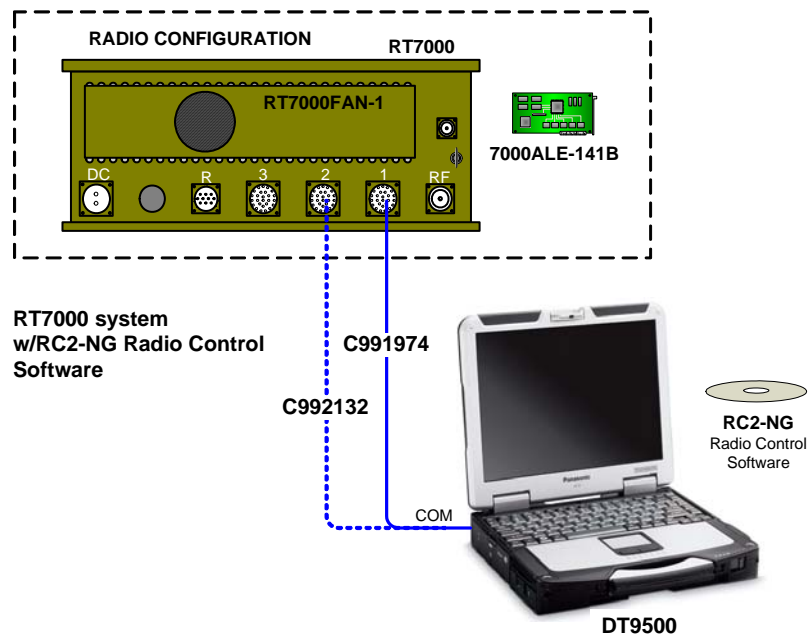
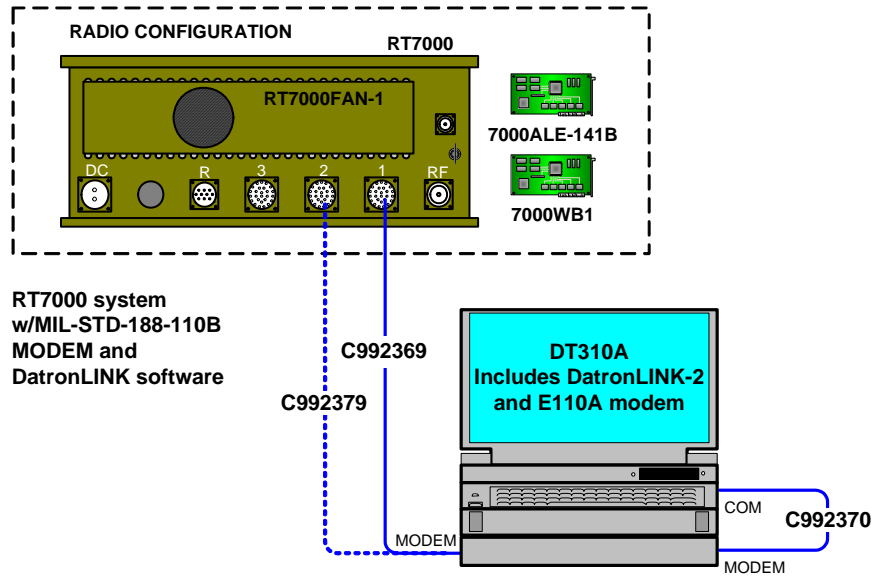
Typical 7700-series Data Configuration

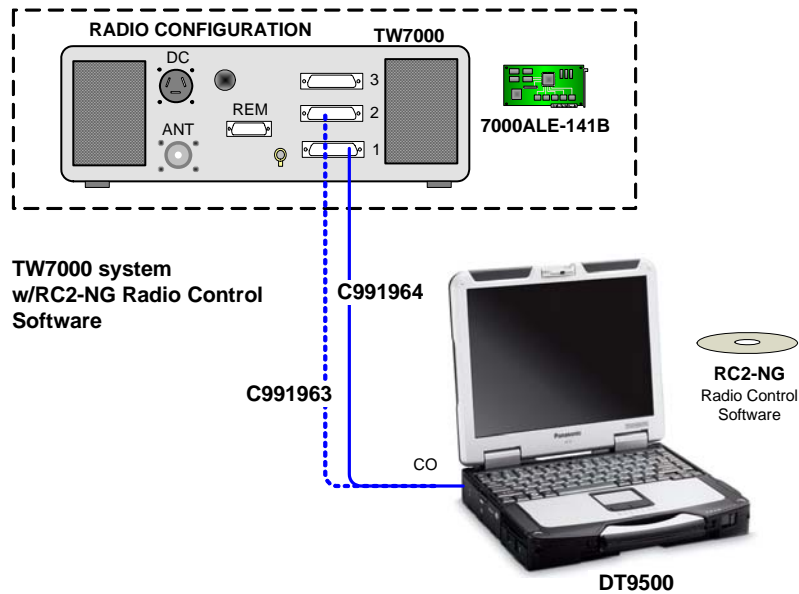
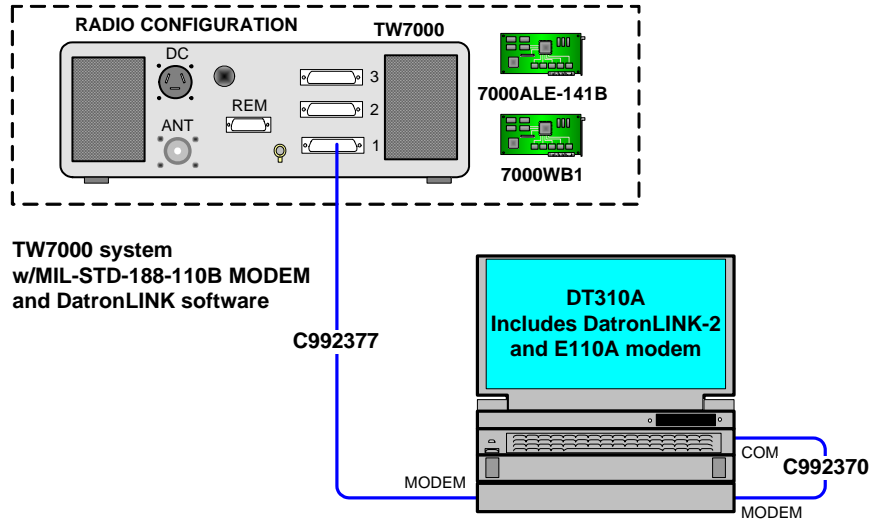
Data Systems require custom configuration. Please contact your Datron Sales Representative for assistance. The following is provided as a sample.



Typical 7000-series Data Configurations

Data Systems require custom configuration. Please contact your Datron Sales Representative for assistance. The following are provided as samples.





This page is intentionally blank.