

# VIASAT VDC-550

## Are You Getting the Picture? (Over Your Combat Net Radio)

The Viasat VDC-550 delivers IP networking and the Common Operating Picture over your existing combat net radio.



The Viasat Data Controller 550 (Viasat VDC-550) enables secure data networking using any combat net radio, linking warfighters on the tactical edge to the Common Operating Picture. Run net-centric web applications, send error-free data, and employ TCP/IP services over existing radios, even over severely degraded radio channels.

Acting as an IP network interface, the Viasat VDC-550 overcomes half-duplex issues and is field-proven to handle IP connectivity on a variety of challenging radio channels including UHF SATCOM, UHF line-of-sight, VHF, HF and wireline channels. Additionally, it bundles IP packets for more efficient (less bursty) transmissions. With two Viasat VDC-550s you can route IP traffic over a radio subnet, forming a bridge over the radio link between two LANs.

This data controller also uses native MIL-STD-188-184 for fast and reliable data transfer across existing radio links. It supports networks of up to 64 users per channel with point-to-point, multicast, and broadcast messages. Using powerful error correction techniques, it sends data over poor quality channels\*.

The Viasat VDC-550 can act as a gateway between TCP/IP networks and MIL-STD-188-184 networks. It works together with existing LAN-based mail and file servers to provide mail and FTP services to a network of VDC end point users who are using the Viasat eMail® application software. The Viasat VDC-550 is fully interoperable with current and legacy Viasat Data Controllers.

## VIASAT VDC-550 AT-A-GLANCE

### Gateway for Edge Users

- » Routes IP traffic over a radio subnet
- » Acts as a gateway between TCP/IP and MIL-STD-188-184 networks
- » Works with existing LAN-based mail and file servers to share data with dismounted Viasat Data Controller users
- » Supports MIL-STD-188-184 radio networks of up to 64 users per channel
- » Fully interoperable with current and legacy Viasat Data Controllers

### Optimized for Noisy Channels

- » Efficient messaging and data sharing over native 184 with Viasat eMail® notes and files application
- » Powerful error correction
- » Automatic data compression before transmission
- » Channel sharing with built-in carrier sense multiple access protocol

### Combat Comms Enabled Over Radio

- » Situational awareness
- » Whiteboard collaboration
- » Chat
- » Messaging
- » Email
- » Cursor-on-Target Interoperable

# Viasat VDC-550 IP Router Data Controller

## SPECIFICATIONS

### GENERAL CHARACTERISTICS

<b>Operating Modes</b>	Half-duplex, full-duplex, simplex
<b>Channel Rate</b>	Up to 128 kbps (Call for details)
<b>Channel Types</b>	SATCOM, LOS, HF, VHF, wireline and others
<b>Management</b>	Command line via telnet or TTY console emulator and GUI

### INTERFACES

<b>Data Interface</b>	Ethernet RJ-45 or DB-15 AUI; Serial DB9; USB 2.0
<b>DCE Interface</b>	MIL-STD-188-114A or RS-232 compatible, DB-15 connector, 75 to 128,000 bps synchronous

### POWER

<b>DC Input Voltage</b>	18 to 38 V, DB9 connector
<b>Transient Protection</b>	MIL-STD-704, MIL-STD-1275B
<b>Consumption</b>	7.5 W operation

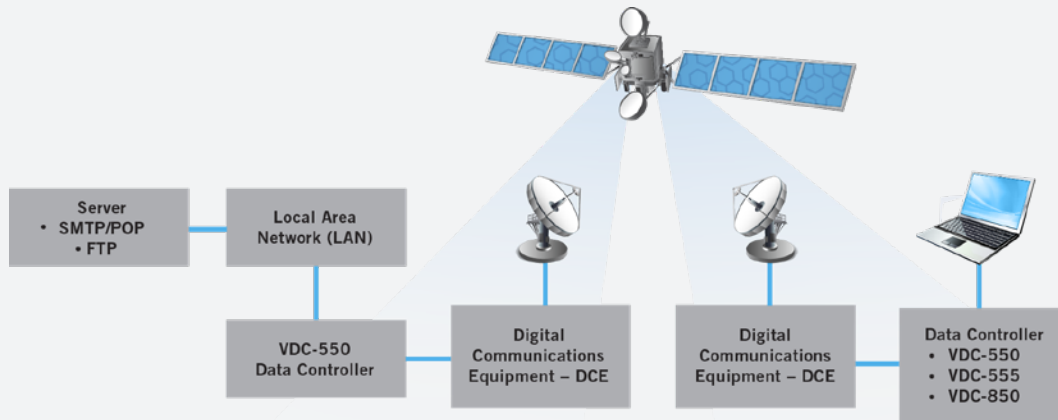
### ENVIRONMENTAL

<b>Operation Temperature</b>	-0° to 50° C
<b>Storage Temperature</b>	-30° to 50° C
<b>Humidity</b>	<90% non-condensing
<b>Altitude</b>	40,000 ft
<b>Vibration</b>	20 Hz to 2 kHz, 0.06 g <sup>2</sup> /Hz Aircraft, Shipboard, Vehicular
<b>Shock</b>	40 G, bench, basic, crash safety

### PHYSICAL CHARACTERISTICS

<b>Dimensions (W x H x D)</b>	5.73 x 3 x 8.5 in.; 146 x 77 x 216 mm (including front panel knob and rear connectors)
<b>Weight</b>	3.25 lb
<b>Volume</b>	109 in. <sup>3</sup>
<b>Mount</b>	Standard avionics DZUS rail

## COMMUNICATIONS FROM A VIASAT DATA CONTROLLER NETWORK TO A LAN



## BRIDGING TWO LANS OVER AN RFN

