

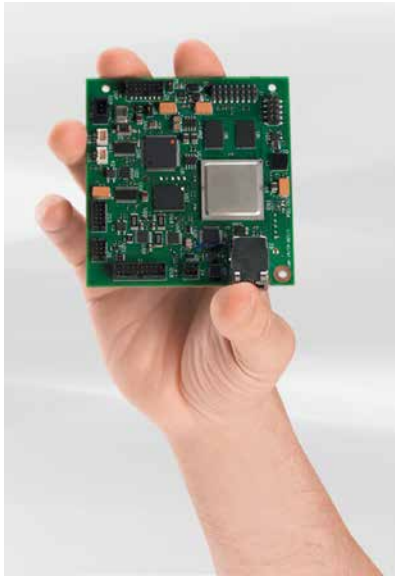
VDC-555

Embeddable Data Controller for Networking Tactical Radios

Data Controllers: Viasat



The embeddable Viasat VDC-555 delivers IP networking and the Common Operating Picture over your existing combat net radio



With the embeddable Viasat Data Controller 555 (VDC555) your combat net radio can link warfighters on the tactical edge to the Common Operating Picture with secure data networking. Run net-centric web applications, send error-free data, and employ TCP/IP services, even over severely degraded radio channels.

Acting as an IP network interface, the Viasat VDC-555 can be easily embedded into existing combat net radios or radio support equipment to overcome half-duplex issues, providing 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.

This embeddable data controller 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, the Viasat VDC-555 sends data over poor quality channels*.

With the Viasat VDC-555, your radio 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-555 is fully interoperable with current and legacy Viasat Data Controllers.

Embeddable VDC-555 At-A-Glance

Turnkey Embeddment

- Easy-to-access pins; power, EIA-232, and USB console inputs
- Synchronous and asynchronous DCE interface support
- Compatible with PC/104 stack

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

Optimised 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

General Specifications

Operating Modes	Half-duplex Full-duplex Simplex
Channel Rate	Up to 128 kbps
Channel Types	SATCOM LOS HF VHF wireline others
Management	Command line via telnet or TTY console emulator and GUI

Power

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

Interfaces

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

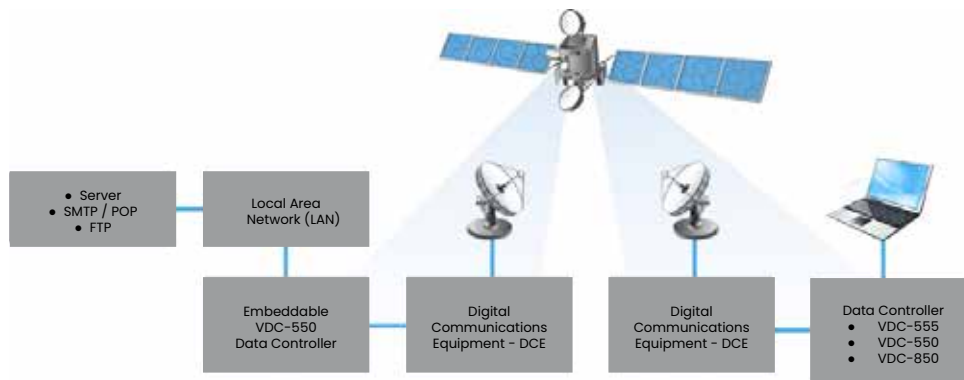
Environmental Specifications

Operational Temperature	- 40°C to + 70°C
Storage Temperature	- 40°C to + 70°C
Humidity	< 90% non-condensing
Altitude	40,000 ft
Vibration	20 Hz - 2 kHz, 0.06 g ² /Hz Aircraft, Shipboard, Vehicular
Shock	40 G, bench, basic, crash safety

Physical Characteristics

Dimensions	7.62 x 7.62 cm; PC/104 stack compatible
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Communications from a Viasat Data Controller Network to a LAN



Bridging two LANs over an RFN



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All specifications are subject to change without notice
The information contained herein is for reference only and does not constitute a warranty of performance

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sales@eylex.com.au
www.eylex.com.au

