

DuraMAR 1000

Rugged Cisco 3200 IP Router w/ 5 Ethernet & 4 Serial on MIL-38999

- Based on Cisco 3200 Mobile Router
- Designed to MIL-STD-810F
- 5x 10/100 Ethernet Ports
- 4x Multi-Protocol Serial Ports
- Weight: 7.5lbs
- IPv4 and IPv6 support



FEATURES

BEST IN-CLASS MOBILE IP ROUTING:

Integrated Cisco 3230 Mobile Integrated Services Router (MARC, FESMIC, SMIC); Robust Cisco IOS Software Security, Management, QoS, VLAN, & Routing Protocol Support, including IPv6 and IP Mobility (IETF Mobile IP Standard RFC 2002)

DESIGNED FOR MILITARY COMPLIANCE:

- Environmental: MIL-STD-810F
- Power: MIL-STD-704E, MIL-STD-1275B*
- EMC: MIL-STD-461E

ROBUST POWER SUPPLY:

- 150W Power Supply with Surge Protection
- Intelligent Power Management Circuit & Power Reset
- Power-Over-Ethernet (POE) on 3 Ethernet Ports (MAR-1001-03 only)
- Power-with-Serial (PwS) on 3 Serial Ports (MAR-1001-03 only)

PORTS:

- 5x 10/100 Ethernet Ports (1 Router, 4 Switched)
- 4x Multi-Protocol Serial Ports (RS232/422/530/485/others)
- 1x DB-9 Console Port (for IOS config)
- 1x Auxiliary Serial Port

RUGGED CHASSIS:

- Compact Size (approx. 8"x4"x6" L-W-H)
- Conduction-Cooled Chassis (No Moving Parts)
- Wide Oper. Temp Range:-40° to +71°C
- Fully Immersible Aluminum Enclosure
- MIL-C-38999 Sealed Circular Connectors
- Flange Mounting Bracket

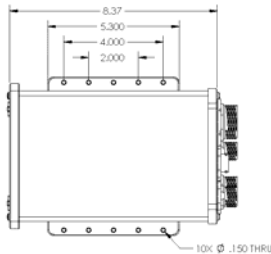
The DuraMAR® 1000 is a rugged Mobile IP (Internet Protocol) router designed for netcentric operations in harsh mobile environments. Leveraging Cisco Systems' industry standard IOS® software and 3200 series mobile access routing (MAR) technology, the DuraMAR router enables prime contractors and civil/military agencies to achieve mobile communications-on-the-move (COTM) and a wide range of new in-vehicle networking applications, from wireless Internet access to Voice over IP (VoIP) to streaming video surveillance and smart vehicle diagnostics/maintenance.

This model is particularly well suited for Commercial-Off the Shelf (COTS) military programs, as this rugged router is designed to meet shock, vibration, humidity, crash safety, and water immersion standards of MIL-STD-810, as well as EMC levels of MIL-STD-461E. Five 10/100 Ethernet ports and 4 multi-protocol serial ports are brought out through sealed MIL-C-38999 connectors.

The unit's military-grade power supply supports aircraft (MIL-STD-704E) and ground/marine (MIL-STD-1275B*) vehicle voltage inputs, spikes, and transient levels. LED status indicators for power, network and serial connections, as well as a console port and manual reset switch are located on the front panel. Three Ethernet ports support PowerOverEthernet (POE) and three serial ports supports PowerWithSerial (PwS) so that clean isolated power and signal are carried over a single standard Ethernet or serial cable. This eliminates the need for separate power cables or power supplies, while bringing new communications capabilities to legacy serial or Ethernet devices. Its conductively cooled chassis eliminates all moving parts and incorporates a flange mount baseplate for simple.

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Specifications



IOS SOFTWARE

- Advanced Enterprise Cisco IOS

ROUTING AND BRIDGING

- IPv4 and IPv6 support
- Up to 32 VLANs per system
- Point-To-Point Protocol (PPP), Frame Relay, X.25, XOT, High-Level Data Link Control (HDLC), Telnet, Asynchronous Tunneling, Dial-On-Demand Routing (DDR), PPP Over Frame Relay

ROUTING PROTOCOLS

- Routing Information Protocol (RIP), RIPv2, Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP)-IP, Cisco Discovery Protocol, IP Policy Routing, IP Multicast Protocol Independent Multicast (PIM) Versions 1 and 2, Protocol Independent Multicast - Sparse Mode (PIM-SM), Internet Group Management Protocol (IGMP) Versions 1 And 2, IP Multicast Load Splitting, Cisco Group Management Protocol (GMP)

MOBILITY FEATURES

- Mobile IP, Mobile Networks in Cisco IOS Software
- Cisco Mobile Networks Network Address Translation (NAT) Traversal over Mobile IP
- Home Agent And Mobile Router Redundancy, Mobile Router Preferred Interfaces, Mobile Router Reverse Tunneling, Mobile Router Asymmetric Links, Mobile Router Static and Dynamic Networks, Static Co-Located Care of Address, Authentication, Authorization, and Accounting (AAA) Server and Mobile IP
- MobileIP tunnel templates support, allowing configuration of IP Multicast and IPsec on MobileIP tunnels
- MobileIP foreign agent local routing optimization

SECURITY

- Route and Router Authentication, Password Authentication Protocol (PAP), Challenge Handshake Authentication Protocol (CHAP), Microsoft CHAP (MS-CHAP) Local Password, IP Basic and Extended Access Lists, and Time-Based Access Control Lists
- Stateful Inspection Firewall
- Firewall Intrusion Detection System
- Port-To-Application Mapping
- Generic Routing Encapsulation (GRE)
- IP Security (IPSec)
- Easy VPN Version 4.1 for client and server
- Tunnel Endpoint Discovery
- Secure Shell (SSH) Protocol Client And Server Version 1.5
- Fast Switching, Cisco Express Forwarding, Process Switching, STAC Compression, Routing Table Protocol (RTP) Header Compression
- Cisco 3200 is Compliant with Common Criteria Evaluation and Validation Scheme (CCEVS) EAL 3 (see <http://www.niap-ccevs.org/cc-scheme/st/vid6013>)

MANAGEMENT

- SNMP Versions 2 and 3, Telnet, Console Port, RADIUS, TACACS+, Cisco Service Assurance Agent, Syslog, Response Time Reporter, Network Time Protocol (NTP) Client, Trivial File Transfer Protocol (TFTP) Client and Server, Dynamic Host Configuration Protocol (DHCP) Client and Server, DHCP Relay, Hot Standby Router Protocol (HSRP)

ADDRESS CONSERVATION

- Network Address Translation (NAT) Many to One (Port Address Translation [PAT]), NAT Many to Many (Multi-NAT), DHCP Client Address Negotiation, and Easy IP Phase I

QoS

- Generic Traffic Shaping, Class-Based Ethernet Matching and Mobile Access Routing (802.1p CoS), Committed Access Rate, Flow-Based Weighted Random Early Detection (WRED), Low-Latency Queuing, Priority Queuing, Weighted Fair Queuing, Link Fragmentation and Interleaving (LFI), Dial Backup, Dialer Profiles, Dialer Idle Timeout, Dial on Demand
- Class-Based Weighted Fair Queuing, Traffic Policing Resource Reservation Protocol (RSVP)
- 802.1q VLAN Trunking Support

MULTI-PROTOCOL SERIAL

- 4x Multi-Protocol Serial Ports
- Support for X.21, V.35, EIA/TIA-232, EIA/TIA-449, EIA-530, EIA-530A
- DTE and DCE Modes
- Synchronous or Asynchronous Modes

STATUS INDICATORS

- Front panel LEDs for Power and status of all Ethernet ports and Multiprotocol Serial Ports.

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Specifications

POWER	<ul style="list-style-type: none">• Voltage Input Range: 9-36VDC• Input Voltage Compliance: MIL-STD-704E and MIL-STD-1275B* (*Limited to Accepting Only Fault Free Condition Surge)• Power Consumption: 18 Watts (typical) for DuraMAR• 75W Output Available for External Devices (MAR-1001-03 only; No Power Injectors on MAR-1001-08); 45W Max Total Output for -48V POE Ports / 15W per Port (Derated to 36W Total Output above 60°C); 30W Max Output for +12V Auxiliary Power (PwS ports)• Surge Protection: 40J; Galvanic Isolation: 1.5KV
PHYSICAL	<ul style="list-style-type: none">• Dimensions: 8.37"x5.90"x4.18" L-W-H , Excluding Connectors/Mounting Bracket• Weight: approx. 7.5lbs. (3.4kg)• Installation: Flange Mounting Baseplate• Cooling: Passive Conductive. No Moving Parts
EMI/EMC	Qualified to Meet MIL-STD-461E: <ul style="list-style-type: none">• Conducted Susceptibility, CS101, Power Leads, 30 Hz to 150 KHz, Curve 2 (28V and below)• Radiated Emissions, RE102, Electric Field, 10 KHz to 18 GHz, Figure RE102-3 for fixed Wing External• Radiated Susceptibility, RS103, Electric Field, 2MHz to 18 GHz, Aircraft External, 200 Volts per Meter
ENVIROMENTAL	Designed to Meet MIL-STD-810: <ul style="list-style-type: none">• Operating Temp: -40°C to +71°C (-40°F to +160°F)• Non-Operating Temp: -40°C to +85°C (-40°F to +185°F)• Immersion: 1 Meter, 30 Minutes• Operating Shock: 15g, 11ms, ½ Sine Wave, 3 Pos/Neg per Axis, 18 pulses total• Random Vibration: 0.022-G²/10-Hz to 0.0026-G²/2000-Hz• Crash Safety Shock: 40g, 12ms, 2 Pluses per Axis• Humidity: up to 95%, Non-Condensing
MTBF	Calculated per MIL-HDBK-217F @ 25°C: <ul style="list-style-type: none">• 159,279 Hours (Ground Benign, Controlled GB, GC)• 21,635 Hours (Airborne Inhabit Cargo)• 19,215 Hours (Ground Mobile)
OPTIONS	<ul style="list-style-type: none">- Version with PowerOverEthernet and PowerWithSerial (MAR-1001-03)- Version without POE/PwS (MAR-1001-08)- Rugged RJ-45 version (MAR-1001-01, MAR-1001-02)- Starter Cable Set (MIL-38999 to RJ-45/DB/Power Connectors) - CBL-1497-03- Extended Service Contracts
WARRANTY	90-Day Warranty (Extended Service Contracts Available)

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