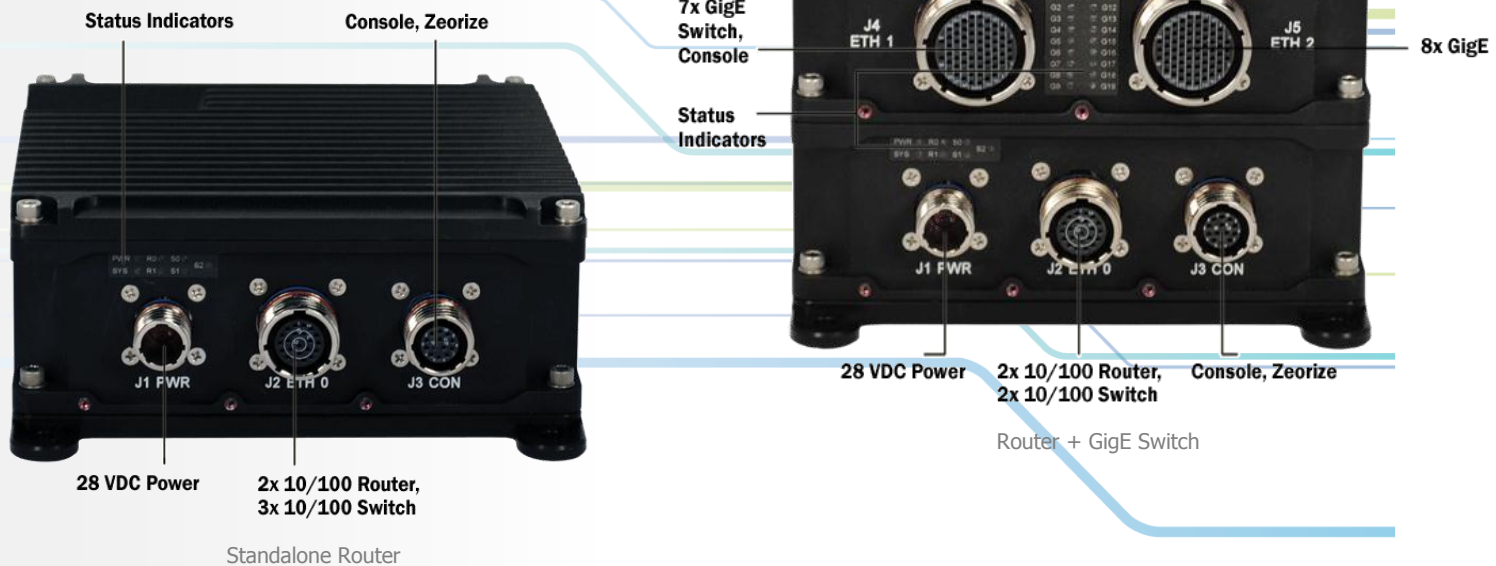


Rugged Cisco 5915 Mobile IP Router Subsystem w/ Integrated Gigabit Ethernet Switch



DuraMAR 5915

- Rugged Cisco IOS Mobile Router
- Integrated Gigabit Ethernet Switch
- Qual Certified to MIL-STD-810G, 461F
- Size, Weight & Power (SWaP) Optimized



FEATURES

CISCO TECHNOLOGY

- Ruggedized Cisco 5915 Router with Enterprise IOS Software for Robust Security, Management, QoS, VLAN, IPv4 / IPv6 Routing, IP Mobility, Interoperability
- Integrated Services Router (ISR) Features Support Concurrent Data, Video, and Voice Services, as well as Firewall and Hardware AES Encryption Acceleration
- Modular, Open Architecture Rugged COTS PC104 Hardware Design
- Integrated Parvus Gigabit Ethernet Switch Option to Scale Port Density to 19 Ethernet Ports for Higher Port Density Application Requirements

SCALABILITY

- Standalone Router: 5 Ethernet Ports (3x 10/100 Switched, 2x 10/100 Routed)
- Router+Switch: 19 Ethernet Ports (15 GigE Switched, 2x 10/100 Switched, 2x 10/100 Routed)

RUGGEDIZATION

- Fully Qualified to MIL-810G Shock, Vibration, Thermal, Altitude, Humidity
- -40 to +71C Fanless Extended Temp Operation with No Moving Parts
- Corrosion-Resistant, Aluminum Chassis Sealed Against Water, Dust, EMI
- Circular MIL-DTL-38999 Connectors for Reliable Network Connections
- Filtered, Transient-Protected Power Supply for Aircraft and Vehicle Use
- Qual Tested for MIL-461F Conducted/Radiated Emissions & Susceptibility
- Data Zeroization Support to Erase Sensitive Information
- Conformal Coating for Humidity/Tin-Whisker Mitigation
- Flexible / Robust Mounting – Base Flange Mount or Side Boss Mount

- Civil and Military Tactical In-Vehicle Switching / WAN Routing
- 24V / 28V Ground Vehicle / Aircraft / Maritime Installations
- C4ISR Situational Awareness / Technology Refresh / Retrofit / LRU

The DuraMAR® 5915 is a rugged Commercial-Off the Shelf (COTS) Cisco IOS-managed mobile router integrated with Cisco's 5915 Embedded Services Router (ESR) card in an ultra-rugged chassis optimized for harsh military and civil vehicle / aircraft installations. An ideal solution for IP networking technology refresh and situational awareness applications, including those seeking a migration path for legacy Cisco 3200 (3230 / 3250 / 3270)-based router subsystems, the DuraMAR 5915 features dual WAN uplinks and is available as either a standalone 5-port network router or with an integrated Gigabit Ethernet switch for a total of 19 Ethernet ports.

Optimized for Size, Weight and Power (SWaP) sensitivity as well as mechanical robustness under extreme environmental conditions and fully certified to MIL-STD-810G (thermal, shock, vibration, humidity, exposure to dust, water), the DuraMAR 5915 enables prime contractors and civilian agencies to deploy Cisco Mobile Ready Net capabilities, including data, video, and voice services virtually anywhere LAN or WAN connectivity may be required, especially in mobile, airborne, ground, manned or unmanned vehicle applications. Leveraging stackable PC104 subassemblies and a modular enclosure design, the unit is completely sealed, requires no active cooling, provides interfaces over MIL-C-38999 style connectors, and features a military-grade power supply supporting aircraft (MIL-STD-704F) and ground/marine (MIL-STD-1275D) vehicle voltage inputs, spikes, and transient levels, as well as MIL-STD-461F EMI/EMC filtering.

With software built upon the Cisco 3270 IOS architecture, the DuraMAR 5915 delivers the performance, security, advanced Quality of Service (QoS), high availability, and manageability that customers expect from Enterprise IOS-based routing technology. The unit supports extensive IPv4 and IPv6 routing protocols, IP multicasting, Radio Aware Routing (RAR), Dynamic Link Exchange Protocol (DLEP) and Mobile IP routing for transparent connectivity to a roaming vehicle network in Comms on the Move (COTM) applications. An onboard AES hardware encryption engine offloads encryption processing from the router to provide highly secure yet scalable data, video, and voice services.

Specifications



Low-Profile Standalone Router



Router + GigE Switch Combo



Side Boss Mounts Enable Optional Vertical Orientation Mounting



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CISCO TECHNOLOGY	<ul style="list-style-type: none"> Integrated Cisco 5915 Embedded Services Router (ESR) PCI-104 Card Cisco Enterprise IOS - Base Image or Advanced Services Image Support for IPv6 Routing, VoIP / CME, VPN / Firewall / IPS, Mobile IP, IPSec Exclusive to Advanced IOS only (see Cisco 5915 datasheet / Cisco Feature Navigator for complete software feature comparison)
PORTS	<p>Standalone Router:</p> <ul style="list-style-type: none"> 2x 10/100Mbps Fast Ethernet WAN Router Ports, IEEE 802.3 Compliant 3x 10/100Mbps Fast Ethernet Switched LAN Ports, IEEE 802.3u Compliant 1x Console Port, RS-232 <p>Router + Integrated GigE Switch:</p> <ul style="list-style-type: none"> 2x 10/100Mbps Fast Ethernet WAN Router Ports, IEEE 802.3 Compliant 2x 10/100Mbps Fast Ethernet Switched LAN Ports, IEEE 802.3u Compliant 15x 10/100/1000Mbps GigE Switched LAN Ports, IEEE 802.3ab Compliant (2x PC104+ COM-1268 cards) 2x Console Ports, RS-232 (1x for Router, 1x for GigE Switch)
MANAGEMENT & MONITORING	<ul style="list-style-type: none"> Base/Advanced Enterprise Cisco IOS Software with Command Line Interface (CLI) Configuration Management via Serial Console or Ethernet Port Through Terminal Emulation Application SNMPv2/v3, Telnet, RADIUS, TACACS+, Cisco Service Assurance Agent, Syslog, Response Time Reporter, NTP Client, TFTP Client and Server, DHCP Client and Server, DHCP Relay, HSRP Network Address Translation; Address Conservation; DHCP Client Address Negotiation, Easy IP Phase I
VOICE SUPPORT	<ul style="list-style-type: none"> Cisco Unified Communications Manager Express for Remote IP Telephony/Command & Control Comms, 5 / 25-User License Support (Advanced IOS Add-On Option), Capable of Supporting up to 48 Phones
ROUTING / BRIDGING	<ul style="list-style-type: none"> IPv4 and IPv6 Routing (IPv6 Features Available in Advanced Enterprise IOS Image only) Routing Protocols: RIPv1v2; OSPF; EIGRP-IP; Cisco Discovery Protocol, Cisco GMP; IP Multicast PIM v1 / v2; PIM -Sparse Mode (PIM-SM); IGMPv1v2; IP Policy Routing, IP Multicast Load Splitting; Point-To-Point Protocol (PPP), Frame Relay, X.25, XOT, High-Level Data Link Control (HDLC), Telnet, Dial-On-Demand Routing (DDR), UDP Telnet VLAN: Virtual Local Area Network Logical Segmentation of Network for Optimal use of Bandwidth Radio Aware Routing (RAR) RFC 5578 - OSPFv3/EIGRP w/ Mobile Ad-Hoc Networks (MANET) Extensions (PPPoE) Mobile IP Routing and Cisco Mobile Network Support (Advanced Enterprise IOS Only)
SECURITY	<ul style="list-style-type: none"> Authentication: Route, PAP, CHAP, MS-CHAP Local Password, IP Access Lists, Time-Based ACLs Generic Routing Encapsulation; Fast Switching, Cisco Express Forwarding, Process Switching, STAC/RTP Compression Advanced Enterprise IOS Only: Stateful Inspection Firewall; Intrusion Detection System; Easy VPN for Client/Server/Remote; MPLS VPN; Hardware Accelerated Crypto: IPSec, 3DES, AES, IKE Protocols; Port-To-Application Mapping; Tunnel Endpoint Discovery; Secure Shell (SSH) Protocol Client and Server
INFORMATION ASSURANCE	<ul style="list-style-type: none"> Data Zeroization Support (Initiated by Offboard Signal Trigger) - Advanced IOS only Common Criteria Evaluation and Validation Scheme (CCEVS) EAL and Federal Information Processing Standard (FIPS) 140-2 Cert Pending on Cisco 5915 Router Card (Building on Cisco 3200 EAL3 Cert) NSA Suite-B support in Cisco IOS Software cryptography, including Suite-B-GCM-128, Suite-BGCM-256, Suite-B-GMAC-128, and Suite-B-GMAC-256 as described in RFC-4869
QoS	<p>Quality of Service (QoS) Classification / Prioritization of Data, Guaranteeing Determinism for Mission-Critical Data: Generic Traffic Shaping, Class-Based Ethernet Matching, Mobile Access Routing (802.1p Class of Service), Committed Access Rate, Flow-Based WRED, Low-Latency/Priority/Weighted Fair Queuing, Dial Backup, Dialer Profiles, Dialer Idle Timeout, Dial on Demand, Class-Based Weighted Fair Queuing, Traffic Policing RSVP; 802.1Q VLAN) Trunking and Encapsulation support</p>
POWER	<ul style="list-style-type: none"> 24 / 28 VDC Voltage Input Range: 18-33 VDC Power Consumption: <15W Max (Standalone Router) / <50 W Max (Router w/GigE Switch) MIL-STD-704F & MIL-STD-1275D Compliant: Steady State Voltage, Ripple, Surges, Spikes; Galvanic Isolation: 1500 V
STATUS INDICATION	<ul style="list-style-type: none"> LED Indicators for PWR and LNK
PHYSICAL	<ul style="list-style-type: none"> Dimensions (Approx): Standalone Router - 2.66" H x 6.75" D x 6.25" W (~6.76 cm H x ~17.15 cm D x ~15.88 cm W); Router/Switch Combo - 4.66" H x 6.75" D x 6.25" W (~11.84 cm H x ~17.15 cm D x ~15.88 cm W), Excluding Connectors/Mounts Weight: <5.0 lbs. (<2.27 kg) Standalone Router; <10 lbs (<4.54 kg) Router w/ Integrated Switch Installation: Base Flange Mount or Side Boss Mount (90° Rotated Orientation) Connectors: MIL-DTL-38999 Series III Cooling: Passive Conductive. No Moving Parts Enclosure/Finish: Corrosion Resistant, Aluminium Alloy w/ Black Anodize Finish per MIL-A-8625.
ENVIRONMENTAL	<p>Qualification Tested / Certified to MIL-STD-810G:</p> <ul style="list-style-type: none"> Operating Temperature: -40° to +71°C / -40° to +160°F (MIL-810G, Methods 501,502) Storage Temperature: -40° to +85°C / -40° to 185°F (MIL-810G, Methods 501,502) Operating Shock: 40g, 11ms, 3 pos/neg per axis, 18 terminal peak sawtooth pulses (MIL-810G, Meth 516) Crash Hazard Shock: 75g, 11ms, 2 pos/neg per axis, 12 terminal peak sawtooth pulses (MIL-810G, Meth 516) Random Vibration: 10Hz to 2000Hz, 3 Axes, 1 Hour/Axis (MIL-STD-810G, Method 514) Humidity: Up to 95% RH @ 40C, Non-Condensing (Conformal Coated PWBs - Qual by Analysis) Water Immersion: 1 Meter, 30 Minutes (MIL-STD-810G, Method 512) Blowing Sand and Dust per MIL-STD-810G, Method 501.5 (Sealed Enclosure; Qual by analysis) Operational Altitude: Up to 15,000 feet (4,572 meters) - MIL-STD-810G, Method 500 Storage Altitude: Up to 40,000 feet (12,192 meters) - MIL-STD-810G, Method 500
EMI / EMC	<p>Qualification Tested / Certified to MIL-STD-461F:</p> <ul style="list-style-type: none"> Conducted Emissions, CE102, Power Leads, 10 KHz to 10MHz, basic curve 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 Radiated Susceptibility, RS103, Electric Field, 2MHz to 18 GHz, Aircraft External, 200 Volts per Meter
RELIABILITY	<ul style="list-style-type: none"> MTBF: TBD Calculated per MIL-HDBK-217F Industrial-Grade Components; No Moving Parts; Passive Cooling; Conformal Coated Boards
WARRANTY	<p>Standard 90-Day Return to Depot Warranty; Multi-Year Extended Service Agreements Bundling Cisco SmartNET Available (for Access to IOS Software Upgrades/Updates)</p>
OPTIONS	<ul style="list-style-type: none"> Starter Breakout Cable Sets from MIL-38999 to RJ-45/DB-9 for Lab Use Integrated PC/104 Single Board Computer / Other I/O Cards: Contact Sales@parvus.com for Further Information