



RUGGED CISCO MOBILE ROUTER/SWITCH

RCAT4948

KEY FEATURES

- Ultra-rugged 2U Form Factor, Datacenter Class Ethernet Switch
- Solid All Aluminum Billet Construction (22lbs Fully Loaded)
- 52 Port Rugged Cisco 4948E Ethernet Switch, IOS Managed
- Downlinks: 48x 10/100/1000 Gigabit Ethernet Ports
Uplinks: 2x 10Gig Ethernet; 1x 10Gig and 1x 1Gig Multi-Mode Fiber
Port Management: 1x RS-232 Serial Console, 1x 10/100 Management
- 28V Input Power for Ground Vehicle, Aircraft or Maritime Installations
- Kits available for MIL-STD-810G Vibration, MIL-STD-810F Humidity, MIL-STD-810G Shock, MIL-S-901D Shock, MIL-STD-167-1 Vibration, MIL-STD-461E/F EMC
- Configuration management is offered on all routers. All Rcat-4948 Ethernet Switches are designed for long life operation and support
- 2U 19" Rackmount form factor optimized for 4-Post Rack or mobile transit case installations

RUGGED SERIES STRUCTURAL FEATURES

All Aluminum Construction

6061T-651 strain hardened structural aircraft aluminum
0.25 to 0.50" thick milled aluminum chassis cross-sections
MIL-C-5541E Class 3 Chem Film protection

BUILT TO SURVIVE SHOCK AND VIBE

- The Rcat-4948 chassis is milled from solid blocks of aircraft aluminum to provide unmatched structural rigidity
- All components on the Cisco board are potted for vibration resistance
- All outer MIL-Spec circular connectors are sealed and water tight
- All boards are conformal coated for humidity and tin whiskering

SUPERIOR COOLING AND EMI PERFORMANCE

Cooling

Thermostatically controlled high CFM fans offer maximum system airflow and are designed for long life, low power and low dB operation

Rugged chassis design utilizes front to rear airflow and positive pressure cooling

Chassis uses proprietary heatsink and heatpipe technology for superior heat transfer

EMI/EMC

Passed EMC, MIL-STD-461F, CE102 and RE102 testing using the Core designed 461 kit that is available for all Rcat-4948 chassis

Chassis internal compartments are segregated to isolate EMI emissions

Finish applied to chassis maintains superior EMI/EMC characteristics throughout life of system

Superior chassis grounding paths are inherent to Core designs

EMI/EMC characteristics throughout life of system

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THE CISCO CATALYST 4948E PCB IS RUGGEDIZED AND INTEGRATED INTO THE RCAT-4948 2U CHASSIS

All functionality of the original Cisco Catalyst 4948E 1U COTS Chassis is retained





SPECIFICATIONS

DIMENSIONS

Height: 3.5" (2U)

Width: 17.4" (19" with rack ears)

Depth: 22" (can be mounted in racks up to 36" depth)

Weight: 22 lbs.

CISCO TECHNOLOGY

- Integrated Cisco Catalyst 4948E Ethernet Switch (refer to Cisco.com for a full list of specifications)
- Cisco IOS Software- Enterprise Services, IP Base or LAN Base Image (pre-loaded)
- Support for Layer 2 and 3 Forwarding, EEM, QoS, IPv6 Switching and Routing, Extended MAC address table to enable server virtualization

PORTS

Cisco Catalyst 4948E

- 48x 10/100/10000 Gigabit Ethernet (BASE-T) Downlinks (over Copper)
- 2x 10 Gigabit Ethernet (10GBASE-CX4) Uplinks, Compatible w/ Copper Twinax Media
- 1x 10 Gbps Multi-mode Fiber (10GBASE-LRM), Compatible w/ 62.5 micron / 500 modal Bandwidth
- 1x 1 Gbps Multi-mode Fiber (1000BASE-SX), Compatible w/ 50.0 micron / 500 modal Bandwidth
- 1x EIA/TIA-232 Serial Console (Out-of-band management)
- 1x 100BASE-T Management Ethernet (In-band management)

COOLING

- 80mm high speed, high volume fans (4 rear mount)
- Thermostatically controlled via a Core Systems HeatSense fan controller



Rugged
Construction

RELIABILITY

24 / 28VDC Voltage Input Range: 18-33 VDC

Power Consumption: <15W Max (Router),

<50W Max (Router + GigE Switch)

POWER

24 / 28VDC Voltage Input

Power Consumption: <320W Max

OPTIONS

Starter Cable Set (MIL-38999 to RJ-45/DB9)

Custom Cable Set (Customer Specified)

MILITARY STANDARDS

- MIL-STD-810F
- MIL-STD-810G
- MIL-STD-461F
- MIL-S-901D

* Core Systems designs each server to meet or exceed the military specifications listed in this document. If you require further reference material on our testing documents and procedures please ask your Core Systems Applications Engineer. Both the chassis and system configuration can be customized to meet your specific program requirements.

ENVIRONMENTAL STANDARDS

-15°C to +55°C, standard

-40°C with solid state drive

-55°C to 85°C, standard

48 Hour, 95% RH 40-65C— w/ humidity kit

15,000ft operation, 40,000ft transport

4.43 GRMS, 5-2000Hz, 60 min/axis— with

solid state drives + vibe kits

20g, 11msec—functional shock; 40g, 11msec

crash hazard shock

Passed using Core standard 461 kit