

19"/2® RM2101



Cisco Gigabit Router

The RM2101 is based on the Cisco ESR6300 router, offering high performance levels and a wide range of routing and switching capabilities, all fitted inside a 1U half rack unit.

Small form factor

The MilDef 19"/2® form factor is optimized for reduced size, weight, and power (SWaP) to meet industry and military requirements without sacrificing reliability, ruggedness or performance.

Flexible mounting

The 19"/2® standard enables flexible mounting options for a wide array of integration scenarios. The unit can be mounted in a standard 19" rack, half racks, or directly on to a surface and at any angle.

Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

Features

- Based on Cisco ESR6300
- Cisco IOS XE
- Comprehensive Layer 2/3 switching
- IPv4 and IPv6 unicast and multicast routing
- Unified Communications Manager Express support
- Firewall support

Connector Interfaces

SERVICE (back)	• 1x RS232 Service
X1 DC IN (front)	• 1x Power
X2 (front)	• 2x ETH WAN 1000BASE-T
X3, X4 (front)	2 connectors which each has: <ul style="list-style-type: none"> • 2x ETH LAN 1000BASE-T
X5 (front)	• 1x USB3
X6 (front)	• 1x Cisco serial console
X7 (front)	• 1x USB Console

Other Interfaces

1x System button (front)

Technical Specification

Blanking	Enable/disable all externally visible indicators from emitting light via the "blanking command"
Cisco IOS XE software	ESR6300 Network Essentials or Network Advantage Default (50 Mbps) Performance (250 Mbps) Boost (2 Gbps) Optional licenses for CME, Cisco DNA Center and HSEC
Factory reset	Factory reset by pressing the system button for 12 sec
Firewall	Zone-based policy firewall Stateful inspection Advanced application inspection and control HTTPS/FTP/Telnet Authentication Proxy Dynamic and static port security Firewall stateful failover VRF-aware firewall
LAN 1000BASE-T	1000BASE-T standard
Management	Web UI MIB SmartPort SNMP Syslog DHCP server SPAN session Full Flexible Netflow (FnF) RADIUS HSRP
Reference design	Based on the Cisco ESR6300

Router features

GRE and MGRE
802.1D STP
NAT
DDNS
IPv4 and IPv6 Multicast
OSPF, BGP, EIGRP, RIP v1-v2
L2TP
VPN for remote access
IPSec over IPv6
Cisco IOS Firewall
2 routed and 4 switched Gigabit Ethernet interfaces

Security

SSL VPN
NGE
PKI support
IPSEC
IPSEC stateful failover
VRF-aware IPSEC
Easy VPN
DMVPN
Flex VPN
SSHv2
MACsec
Port security
802.1x
DHCP snooping
Dynamic ARP inspection
IP source guard
Guest VLAN
MAC authentication bypass
802.1x multidomain authentication
Storm control
SCP
SNMPv3
TACACS+
RADIUS server/client
Integrated Threat Control (CoPP, etc)

Electronics ground to chassis

Isolated

MIL-STD-1275E

Fully compliant

Polarity protection

Protected against incorrect polarity connection on the power input within the normal operating voltage range

Power consumption

At 28 VDC:
Max 16 W
Typ 14 W
Idle 8 W

Power input

12-32 VDC

Power to chassis

Isolated

Power to electronics ground

Isolated

Chassis material

Aluminum

Coating and color

AE0305-6603120 Axalta (RAL 6031)

Cooling

Passively cooled

Dimensions width and height	220 x 43.4 mm (8.66 x 1.71 in) (WxH)
Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Unit depth	226 mm (8.9 in)
Weight	2 kg (4.5 lbs)
MTBF	> 300,000 h
CE	Compliant

Environmental Specification

Functional shock - Operating	MIL-STD-810H, Method 516.8, Procedure I - Functional shock. Table 516.8-IV, Terminal peak sawtooth pulse, Ground material 40 g 11 ms
High temperature - Operating	MIL-STD-810H, Method 501.7, Procedure II - Operation 65 °C (149 °F) (Optional 71 °C (160 °))
High temperature - Storage	MIL-STD-810H, Method 501.7, Procedure I - Storage 71 °C (160 °F)
Humidity	MIL-STD-810H, Method 507.6, Procedure II - Aggravated 95 ± 4% RH Ten 24-hour cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5
Low air pressure - Rapid decompression	MIL-STD-810H, Method 500.6, Procedure III - Rapid decompression 2,438 m (8,000 ft) 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810H, Method 500.6, Procedure II - Operation/air carriage 4,572 m (15,000 ft)
Low temperature - Operating	MIL-STD-810H, Method 502.7, Procedure II - Operation -40 °C (-40 °F)
Low temperature - Storage	MIL-STD-810H, Method 502.7, Procedure I - Storage -40 °C (-40 °F)
Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
Salt fog	MIL-STD-810H, Method 509.7 5 ± 1% (by weight) Two cycles, 24 h wet + 24 h dry / cycle

Temperature shock - Operating

MIL-STD 810H, Method 503.7, Procedure I-C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)

Vibration - Helicopter

MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter

Vibration - Loose cargo

MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo

Vibration - Tracked vehicle

MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle

Vibration - Wheeled vehicle

MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle

EMC Specification

EMI conducted CE102

MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz

EMI radiated RE102

MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz

EMS conducted CS101

MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz

EMS conducted CS114

MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz

EMS conducted CS115

MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation

EMS conducted CS116

MIL-STD-461F, Method CS116, Conducted susceptibility, damped sinusoidal transients, cables and power leads 10 kHz - 100 MHz

EMS radiated RS103

MIL-STD-461F, Method RS103, Radiated susceptibility, electric field Army 2 MHz - 1 GHz

ESD

EN61000-4-2:2009 Level 3
EN55024:1998 Performance
criteria B + A1:2001 + A2:2003