

# 19"/2<sup>®</sup> RM2114



## Cisco router in a 19"/2<sup>®</sup> form factor

The 19"/2<sup>®</sup> RM2114 Series is a high-performance router based on the Cisco ESR6300 router card running Cisco IOS<sup>®</sup> XE. It comes with onboard hardware encryption, which enables highly secure video, voice and data services. The router offers four 1G copper LAN, one copper WAN and one fiber WAN.

### Small form factor

The MilDef 19"/2<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> XE
- IPv4 and IPv6 unicast and multicast routing
- Unified Communications Manager Express support
- Firewall support

**Connector Interfaces**

<b>SERVICE</b> (back)	• 1x RS232 Service
<b>X1 DC IN</b> (front)	• 1x Power
<b>X2</b> (front)	• 1x ETH 1000BASE-T LAN1 • 1x ETH 1000BASE-T LAN2
<b>X3</b> (front)	• 1x ETH 1000BASE-T LAN4
<b>X4</b> (front)	• 1x ETH 1000BASE-T LAN3
<b>X5</b> (front)	• 1x Cisco Serial Console
<b>X6</b> (front)	• 1x 1000BASE-LX WAN1
<b>X7</b> (back)	• 1x ETH 1000BASE-T WAN2

**Other Interfaces**

1x System button (front)

**Technical Specification**

<b>Blanking</b>	Enable/disable all externally visible indicators from emitting light via the "blinking command"
<b>Cisco IOS XE software</b>	ESR6300 Network Essentials or Network Advantage Default (50 Mbps) Performance (250 Mbps) Boost (2 Gbps) Optional licenses for CME, Cisco DNA Center and HSEC
<b>Factory reset</b>	Factory reset by service command
<b>Firewall</b>	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
<b>Management</b>	Web UI MIB SmartPort SNMP Syslog DHCP server SPAN session Full Flexible Netflow (FnF) RADIUS HSRP
<b>Reference design</b>	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

<b>Security</b>	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)
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<b>Electronics ground to chassis</b>	Isolated
<b>MIL-STD-1275E</b>	Fully compliant
<b>Polarity protection</b>	Protected against incorrect polarity connection on the power input within the normal operating voltage range
<b>Power consumption</b>	Max: 11 W Idle: 8.5 W
<b>Power input</b>	12-32 VDC
<b>Power to chassis</b>	Isolated
<b>Power to electronics ground</b>	Isolated
<b>Chassis material</b>	Aluminum
<b>Coating and color</b>	Dupont AE0305-6603120 (RAL6031)
<b>Cooling</b>	Passively cooled
<b>Depth</b>	279 mm (11 in)
<b>Dimensions width and height</b>	220 x 43.4 mm (8.66 x 1.71 in) (WxH)

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Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Weight	2.5 kg (5.6 lbs)
MTBF	125,000 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 materiel 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
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Vibration - Loose cargo	MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
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Vibration - Tracked vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle
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Vibration - Wheeled vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle
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## EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz
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EMI radiated RE102	MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz
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EMS conducted CS101	MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz
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EMS conducted CS114	MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz
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EMS conducted CS115	MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation
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EMS conducted CS116	MIL-STD-461F, Method CS116, Conducted susceptibility, damped sinusoidal transients, cables and power leads 10 kHz - 100 MHz
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EMS radiated RS103	MIL-STD-461F, Method RS103, Radiated susceptibility, electric field Army 2 MHz - 1 GHz
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