19"/2® RM2121

Rugged Cisco Router

The 19"/2® RM2121 is a high-performance router based on the Cisco ESR6300 router card. It comes with onboard hardware encryption, which enables highly secure video, voice and data services. The router offers six gigabit ethernet ports (two routed and four switched), and Cisco IOS® XE.

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

- Cisco IOS® XE
- Hardware encryption
- Gigabit interfaces
- Onboard Trust Anchor module (TAm)
- Cisco unified Communications Manager Express support
- Various throughput licenses

RM2121 Issue 05, 2023-10-30.

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Connector Interfaces

CONSOLE-S (front)	• 1x RS232 Console
DC IN (front)	• 1x Power
G1/2-G1/5 LAN (front)	4 connectors which each has: • 1x ETH 1000BASE-T
SERVICE (back)	• 1x RS232 Service
CONSOLE-U (front)	• 1x Serial Console
USB (front)	• 1x USB 3.0
G1/0-G1/1 WAN (front)	2 connectors which each has: • 1x ETH 1000BASE-T

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	16 W
Power input	12-32 VDC
Power to chassis	Isolated
Power to electronics ground	Isolated
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions width and height	220 x 43.4 mm (8.66 x 1.71 in) (WxH)
Dust caps	Dust caps on all interfaces
Earth point	M6 12 mm

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Surface treatment chassis	Chromit-Al
Unit depth	226 mm (8.9 in)
Weight	2 kg (4.5 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 X7
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