

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

Connector Interfaces

| | |
|------------------------------|--|
| CONSOLE-S (front) | • 1x RS232 Console |
| DC IN (front) | • 1x Power |
| G1/2-G1/5 LAN (front) | 4 connectors which each has: <ul style="list-style-type: none"> • 1x ETH 1000BASE-T |
| SERVICE (back) | • 1x RS232 Service |
| CONSOLE-U (front) | • 1x Serial Console |
| USB (front) | • 1x USB3.2 Gen 1 |
| G1/0-G1/1 WAN (front) | 2 connectors which each has: <ul style="list-style-type: none"> • 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 | AE0305-6603120 Axalta (RAL 6031) |
| 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 |
| 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 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 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