

19"/2[®] RM3121



Rugged Cisco-based router

The 19"/2 RM3121 offers a rugged Military-Off-The-Shelf (MOTS) gigabit router based on the Cisco ISR 1100 series. Designed for challenging military environments, the RM3121 brings intelligent routing and integrated services, such as QoS-managed VOIP and Intrusion Prevention, to the tactical network edge.

Small form factor

The MilDef 19"/2 is a small form factor of modular design that can be used either standalone or as part of an integrated solution. MilDef has engineered the 19"/2 product family from the inside out for harsh tactical environments and the customer can tailor the specification to its specific needs. A broad selection of servers, switches, routers and power modules together with the flexible mounting options enable the 19"/2 units to be used whether you need a rack-based solution or a highly customized mounting solution.

Guaranteed performance

Our products come with a lifetime support to ensure your equipment maintains peak performance for many missions to come. We also guarantee spare parts for 5 year after product end-of-life.

Features

- Based on Cisco ISR 1101-4P
- Cisco IOS XE Software
- 4x Gigabit LAN
- 1x Gigabit WAN
- Dynamic Routing
- QoS
- VPN (SEC SW option)
- Zone-based Firewall (SEC SW option)
- SD-WAN

19"/2® RM3121

Connector Interfaces

Power (front)	1x DC in 10-32V
Ethernet LAN (front)	4x ETH 1000Base-T
Ethernet WAN (front)	1x ETH 1000Base-T
USB (front)	1x USB 3.0
USB CONSOLE (front)	1x USB Console
Service (back)	MilDef Service Interface
System button (front)	1x System Button
Earth point (back)	1x M6 12mm

Technical Specification

Description	Integrated Service Router, based on Cisco ISR1101-4P
MTBF	193 652 h
Blanking	Yes
Power input	10-32 VDC
Power consumption	45 W
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation
Standards	CE, IP65, MIL-STD-810G, MIL-STD-461F and MIL-STD-1275D, REACH, RoHS
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Chassis	Aluminium
Cooling	Passively cooled
Dimensions (W x H x D)	220 x 44 x 360 mm (8.7 x 1.7 x 14.2 inch)
Mounting depth	400 mm (17.4 inch)
Weight	3 kg (6.7 lbs.)

Cisco Software options

IP Base	Default technology package
Application Experience (APP)	Data and application performance
Security (SEC)	Features for securing network infrastructure
IP security (IPSEC)	Improve IP security performance

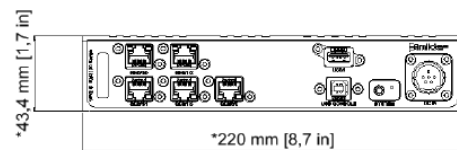
Picture Front



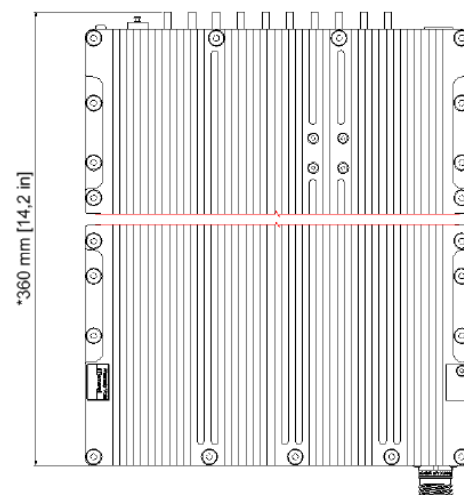
Picture Back



Drawing front



Drawing top



*Dimensions before coating. Coating tolerance +0.275, -0 mm from base surface.



Environmental Specification

Low Air pressure

Rapid Decompression - Storage MIL-STD-810G, Method 500.5, <i>Procedure III - Rapid Decompression</i>	2.438 m (8.000 ft) 12.192 m (40.000 ft)
Operation/Air Carriage - Operating MIL-STD-810G, Method 500.5, <i>Procedure II - Operation/Air Carriage</i>	4.572 m (15.000 ft)

IP Class

IP Class	IP65
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Noise Level

Noise level	Maximum noise level of 40 dB SPL A-weighting @ 1 m (3,3 ft) distance
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Shock

Functional Shock - Operating MIL-STD-810G, Method 516.6 <i>Procedure I - Functional Shock</i>	Table 516.6-II Terminal peak sawtooth pulse Ground equipment 40 g / 11 ms
Transit drop (in shipping package) - Storage MIL-STD-810G, Method 516.6, <i>Procedure IV - Transit Drop</i>	Table 516.6-VI, Transit drop test < 45.4 kg (100 lbs.), < 91 cm (36 inch) Man packed or man-portable

Salt Fog

Salt fog - Storage MIL-STD-810G, Method 509.5	5 % +- 1 % (by weight) Two cycles, 24 h wet + 24 h dry /cycle
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Temperature

Low temperature - Operating MIL-STD-810G, Method 502.5 <i>Procedure II - Operation</i>	-40 °C (-40 °F)
Low temperature - Storage MIL-STD-810G, Method 502. <i>Procedure I - Storage</i>	-40°C (-40°F)
High temperature - Operating MIL-STD-810G, Method 501.5 <i>Procedure II - Operation</i>	60 °C (140 °F)
High temperature - Storage MIL-STD-810G, Method 501.5 <i>Procedure I - Storage</i>	71 °C (160 °F)
Temperature Shock - Operating MIL-STD 810G, Method 503.5 <i>Procedures I - C</i>	Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) / - 40 °C (-40 °F)

Vibrations

Helicopter - Operating MIL-STD-810G, Method 514.6 <i>Procedure I - General vibration</i>	Category 14 - Rotary wing aircraft – helicopter
Loose Cargo - Storage MIL-STD-810G, Method 514.6 <i>Procedure II - Loose cargo transportation</i>	Category 5 - Truck/trailer - loose cargo
Tracked Vehicles - Operating MIL-STD-810G, Method 514.6 <i>Procedure 1 - General Vibration, ground mobile, wheeled vehicles</i>	Category 20 - Ground vehicles - ground mobile, tracked vehicles
Wheeled Vehicle - Operating MIL-STD-810G, Method 514.6 <i>Procedure 1 - General Vibration</i>	Category 20 - Ground vehicles

EMC Specification



CE

EMI	EN61000-6-3:2007
EMS	EN55032:2015

ESD

ESD	EN61000-4-2:2009 Level 3 EN50024:1998 Performance criteria B + A1:2001 + A2:2003
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Conducted

MIL-STD-461F, Method CE102	BASIC CURVE 10 kHz to 10 MHz
MIL-STD-461F, Method CS101	Conducted susceptibility, power leads Curve #1 30 Hz to 150 kHz
MIL-STD-461F, Method CS114	10 kHz – 200 MHz Army, Ground
MIL-STD-461F, Method CS115	Conducted susceptibility, bulk cable injection, impulse excitation
MIL-STD-461F, Method CS116	10 kHz to 100 MHz

Radiated

MIL-STD-461F, Method RE102	2 MHz – 18 GHz Navy Mobile & Army
MIL-STD-461F, Method RS103	2 MHz to 1 GHz Army