19"/2 RM5121



VoIP Router in a 19"/2 form factor

The 19"/2 VoIP Router allows up to 8 analogue telephones and/or fax devices to be integrated into a VoIP network.

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.

Customizable

Are you looking for additional features and functions? MilDef specializes in customized solutions, to include change of connectors, chassis modifications, mounting solutions, etc. Contact your nearest MilDef Sales Office and we will help you tailor a solution to meet your exact requirements.

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 the Innovaphone IP29
- 11-32 VDC
- Passively cooled



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Connector Interfaces	
DC IN (front)	• 1x Power
5V (front)	• 2x USB Power 5V
LAN/POE-IN (front)	1x ETH 100BASE-TX
SERVICE (back)	• 1x RS232 Service
1-8 (front)	8 connectors which each has:
	1x FXS

Other Interfaces

1x Reset Button (front)

Technical Specification	
Codec	G.711 A-law / μ-law G.722 G.723.1 (5.3) G.729A Opus-NB incl. VAD (Voice Activity Detection) and CNG (Comfort Noise Generation) Dynamic Jitter Buffering Echo cancellation according to G.168 Modem support
Factory reset	Factory reset by pressing the system button for 12 sec
LAN 100BASE-TX	100BASE-TX standard
LAN PoE powered	Power over Ethernet (802.3af, Class3, Mode A)
Reference design	Based on the Innovaphone IP29
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation
Power USB port(s)	1 A/port
Power consumption	25 W
Power input	11-32 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions	220 x 44 x 360 mm (8.7 x 1.8 x 14.2 inch) (WxHxD)
Earth point	M6 12 mm
Rack mounting depth	400 mm (17.4 in)
Surface treatment chassis	Chromit-Al
Weight	3.5 kg (7.8 lbs)
MTBF	102,094 h

CE	Compliant	
Environmental Specification		
Dust	MIL-STD 810G, method 510.5 Procedure I - Blowing dust	
Functional shock - Operating	MIL-STD-810G, Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment 40 g 11 ms	
High temperature - Operating	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)	
High temperature - Storage	MIL-STD-810G, Method 501.5, Procedure I - Storage 71 °C (160 °F)	
Humidity	MIL-STD-810G, Method 507.5, Procedure II - Aggravated 95 ± 4 % RH Ten 24 h cycles	
IP Class (Solid Particle Protection)	IP Class 6X	
IP Class (Water)	IP Class X5	
Low air pressure - Rapid decompression	MIL-STD-810G, Method 500.5, Procedure III - Rapid decompression 75.2 kPa, corresponding to 2,438 m (8,000 ft) 17 kPa, corresponding to 12,192 m (40,000 ft)	
Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4,572 m (15,000 ft)	
Low temperature - Operating	MIL-STD-810G, method 502.5, Procedure II - Operation -40 °C (-40 °F)	
Low temperature - Storage	MIL-STD-810G, method 502.5, 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-810G Method: 509.5 $5\% \pm 1\%$ (by weight) Two cycles, 24 h wet + 24 h dry / cycle	
Sand	MIL-STD 810G, Method 510.5, Procedure II - Blowing sand.	
Temperature shock - Operating	MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)	



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Transit drop, in shipping package	MIL-STD-810G, method 516.6, Procedure IV - Transit Drop. Table 516.6-VI, Transit drop test, < 45.4 kg (100 lbs), < 91 cm (36 inch), Manpacked or man-portable
Vibration - Helicopter	MIL-STD-810G. Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
Vibration - Loose Cargo	MIL-STD-810G. Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/ trailer - loose cargo
Vibration - Tracked Vehicles	MIL-STD-810G. Method: 514.6, Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles
Vibration - Wheeled Vehicle	MIL-STD-810G. Method: 514.6, Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

EMC Specification	
EMI conducted CE102	MIL-STD-461F, Method CE102 BASIC CURVE 10 kHz to 10 MHz
EMI radiated RE102	MIL-STD-461F Navy Mobile & Army 2 MHz - 18 GHz
EMS conducted CS101	MIL-STD-461F, Method CS101, conducted suceptibility, power leads. CURVE #1 30 Hz to 150 kHz
EMS conducted CS114	MIL-STD-461F Army, Ground 10 kHz - 200 MHz
EMS conducted CS115	MIL-STD-461F Conducted susceptibility, bulk cable injection, impulse excitation
EMS conducted CS116	MIL-STD-461F 10 kHz - 100 MHz
EMS radiated RS103	MIL-STD-461F 2MHz to 40GHz Army

