DONYX

Router Donyx
RM55x4 5G RedCap

Industrial 5G Router
Support for Four NR5 (RedCap) Modules,
Wi-Fi 5, GPS

This industrial-grade 5G router features quad-module 5G RedCap, each capable of delivering download speeds of up to 220 Mbps and upload speeds of up to 120 Mbps. This multi-module configuration provides enhanced connection resilience through automatic failover and load balancing, ensuring seamless operation and minimizing downtime.

Integrated redundancy features maintain connection stability. In the event of a primary network failure, the router automatically switches to a secondary cellular connection. Should all cellular connections become unavailable, the router seamlessly fails over to Ethernet or Wi-Fi, guaranteeing uninterrupted internet access in any environment. Supporting up to four SIM cards, the router offers redundancy at both the module and carrier levels. Scheduled SIM management and failover capabilities mitigate the impact of physical SIM card failures and optimize network utilization.

Key features include five Gigabit Ethernet ports and dual-band Wi-Fi, offering fast and reliable connectivity for multiple devices. The router includes discrete GPI inputs for industrial system integration and a hardware-integrated GPS module for precise location tracking, ideal for asset tracking, fleet management, and remote monitoring.

Built for demanding conditions, the router operates within a wide temperature range, from -40°C to +65°C, and is housed in a rugged metal enclosure designed to withstand harsh industrial environments.
The router runs on an dnxOS operating system, supporting modern encryption, tunneling protocols like OpenVPN and IPsec to ensure secure data transmission. It provides advanced features such as custom VPN configurations, diagnostics tools, and flexible scripting capabilities, tailored for industrial and enterprise use.

This combination of powerful hardware and dedicated firmware delivers superior performance, security, and reliability, making the router an ideal solution for critical industrial and business applications.

Communication Standards

- 5G NR (New Radio) and LTE technologies, Wi-Fi 4, Wi-Fi 5, GNSS

Electrical Specifications

- Power supply voltage from 10 to 30 V (DC)
- Current consumption, maximum:
    - At power supply voltage +12 V – 1500 mA;
    - At power supply voltage +24 V – 750 mA;

Physical Specifications

- Maximum dimensions (including connectors): 180 × 180 × 50 mm
- Maximum weight: 770 g
- Enclosure Material: Aluminum
- Enclosure Protection Rating: IP30
- Operating Temperature Range: from -40°C to +65°C
- Storage Temperature Range: from -40 to 50°C

Network Functions

Routing	Static
Network protocols	PPP, PPPoE, DHCP, TCP, UDP, ARP, IPv4, ICMP, HTTP, HTTPS, TLS, SSL
Connection monitoring	Ping Reboot, Periodic Reboot, LCP and ICMP for link tracking
Firewall	Port forwarding, ZONE-based rules, pre-configured firewall rules, custom rules, NAT
DHCP	Static and dynamic IP address allocation
Network backup	VRRP; Wired, Mobile, or WiFi WAN. Supports automatic failover to an alternative connection (Automatic Failover)
Network Services	DHCP Server, NTP, DNS, SSH, SNMP

Tunneling

OpenVPN	Ability to run one server and multiple clients simultaneously.
	Encryption: Client - AES-128-CBC, AES-192-CBC, AES-256-CBC; Server - AES-128-CBC, AES-128-GCM, AES-192-CBC, AES-192-GCM, AES-256-CBC, AES-256-GCM
IPsec	IKEv1, IKEv2.
	Encryption: Client - AES-128, AES-192, AES-256; Server - AES-128, AES-128, AES-192, AES-192, AES-256, AES-256
GRE	GRE TUN (Layer 3)
EoIP	MikroTik RouterOS protocol based on GRE RFC 1701
PPTP, L2TP	Server and Client mode support for L2TPv2, L2TPv3
DMVPN	Client mode operation, additional IP Security encryption
Wireguard	WireGuard tunnels and peers

Security Features

Authentication	Pre-shared key, digital certificates, X.509 certificates
Attack prevention	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VLAN	Port and tag based VLAN separation
Access control	WiFi access control (MAC address filter)

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Hardware Specifications

Number of Cellular Modules	4 x NR5 (RedCap)
Processor	Quad-core ARM Cortex A7 717MHz
Dynamic RAM	512 MB
NAND Flash Memory Capacity	256 MB
Wi-Fi	2.4 GHz (802.11b/g/n), 5 GHz (802.11ac)

Ports and Connectors

Ethernet Connector	5x LAN 10/100/1000 Mbps
SIM Card Slots	Mini SIM
CONSOLE Connector	RJ45 Console Port
Microfit4 Connector	Power
Terminal Block	RS485, 3 x GPI
RST Button	Reset Button

ⓘ Specifications may change without prior notice!