DONYX

# Router Donyx
# RS42 LTE CAT.4




Industrial single-module LTE CAT.4 router
with Wi-Fi, GPI/GPO,
support for PoE IN and PoE OUT

This compact industrial router is designed for reliable data transmission over cellular networks using LTE, HSPA+, UMTS, EDGE, and GPRS technologies.
Equipped with an LTE CAT.4 module, the router provides data transfer speeds of up to 150 Mbps (downlink) and 50 Mbps (uplink), making it suitable for bandwidth-intensive applications.

The device features industrial-grade interfaces, including GPI/GPO, PoE IN, and PoE OUT, to support a wide range of connectivity requirements in industrial environments. Additionally, it includes an integrated Wi-Fi access point supporting IEEE 802.11b/g/n standards, enabling wireless network deployment.
The hardware platform is built on a high-performance processor, ensuring reliable operation and efficient handling of networking tasks.

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.
Data transmission is secured with robust encryption protocols, ensuring the safety and integrity of transmitted information.

This adaptability allows the equipment to meet diverse application needs, from simple connectivity to advanced network configurations.
Designed for both wireless and wired connectivity, the router is ideal for use cases such as:

- Payment terminals and ATMs
- Industrial equipment nodes
- Mobile offices
- Security and video surveillance systems
- Monitoring and control systems
- Other applications requiring fast, reliable Internet access

DONYX




## Communication Standards

- LTE CAT.4, HSUPA, HSDPA, EDGE, GPRS, GSM, SMS

## Electrical Specifications

- Supported Power Supply Voltage: 9–54 V DC
- Current consumption, maximum:
  - At power supply voltage +12 V – 800 mA
  - At power supply voltage +24 V – 400 mA

## Physical Specifications

- Maximum dimensions (including connectors): 130 × 95 × 35 mm
- Maximum weight: 240 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
- Operating Humidity: from 10 to 80% noncondensing

## PoE Characteristics

When operating with Power over Ethernet (PoE), the supply voltage of the device must be at least 12V.

- Passive PoE-IN available on **Port 1**. Supported Passive PoE-IN voltage range : 9–54 V
- Passive PoE-OUT available on **Port 2**. Supported Passive PoE-OUT voltage range: 11–53 V
- Maximum load current for Passive PoE-OUT:
  - At supply voltage +12 V: 800 mA
  - At supply voltage +24 V: 500 mA

DONYX

## 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, VRRP, SSH, UPnP, SNMP, Telnet Client, SMTP |

## Tunneling

| | |
|---|---|
| OpenVPN | Ability to run one server and multiple clients simultaneously.<br><br>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.<br><br>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 |

DONYX

| | |
|---|---|
| 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) |

## Hardware Specifications

| | |
|---|---|
| Number of Cellular Modules | 1 x LTE CAT.4 |
| Processor | MIPS 24KEc 580 MHz |
| Dynamic RAM | 128 MB |
| Flash Memory Capacity | 32 MB |
| Wi-Fi | 2.4 GHz 802.11b/g/n |

## Ports and Connectors

| | |
|---|---|
| Microfit4 Connector | Power, GPI, GPO |
| Ethernet Connector | 2 x 10/100 Mbps |
| SIM Card Slots | 2 x Mini SIM |
| RST Button | Reset Button |

ⓘ Specifications may change without prior notice!