



- 4G / 3G / 2G
- 2x ETH, Switch or Router
- 1x COM, 1x USB
- 2x Digital Output
- 2x Digital Input
- Failover for fixed line
- Redundant power inputs
- -25 to +70 °C
- 10.2 - 57.6 VDC
- SDK
- SCADA protocols

## General

**M!DGE** wireless routers have been designed for **SCADA and Telemetry**, and are also well suited to many different wireless applications. M!DGE HW and SW is ready to maintain reliable and secure connections from an unlimited number of remote locations to a central server. Standard Ethernet/IP and serial interfaces are both available. Moreover, two digital inputs and two digital outputs can be used for direct monitoring and control of application devices.

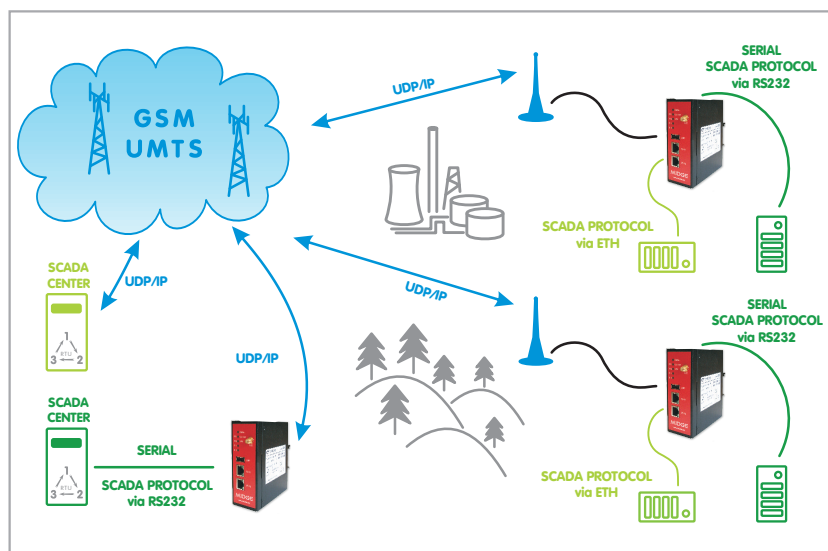
**M!DGE** versatility is further enhanced by two independent **Ethernet** ports. These can be configured to either support two independent LANs (working as Router), or simply connect two devices within one LAN (working as Switch). M!DGE is based on well proven components, including an embedded Linux operating system and standard IP communication protocols.

**M!DGE** provides a unique feature for serial SCADA protocols when SCADA addresses are mapped to M!DGE IP addresses thus making remote-to-remote communication possible. Thanks to their compact size and versatility, M!DGE wireless routers prove indispensable in many SCADA and Telemetry, as well as POS, ATM, Lottery and Security/Surveillance applications.

**M!DGE** together with the RACOM RipEX radio router offers an unrivalled solution for combining **Cellular** and **UHF/VHF** licensed radio in a single network.

## Applications

- SCADA & Telemetry
- Points of Sale, ATMs
- Security and Surveillance
- Land line backup



## OpenVPN Tunnel 1 Configuration

Operation mode:  disabled

Server port:

Type:

Protocol:

Network mode:

Cipher:

Authentication:

Options:

Apply Erase Download

## Protocol Server

Protocol: IEC101

## Parameters

Mode of Connected device

Broadcast

## Advanced parameters

Address mode: IEC101

## Address translation

Address translation: Mask

Base IP: 10.0.0.1

Mask: 255.255.255.0

UDP port (Interface): COM(8882)

Apply

## Technical parameters

### Mobile Interface Parameters

UMTS - 3G - WCDMA, HSDPA, HSUPA, HSPA+: B1(2100), B2(1900), B5(850), B8(900)

2G - GPRS, EDGE, GSM: 850, 900, 1800, 1900

Data rates: max. 14.4 Mbps downlink / 5.76 Mbps uplink

LTE - 4G - LTE: B1(2100), B2(1900), B3(1800), B5(850), B7(2600), B8(900), B20(800), all bands with diversity

3G - WCDMA, HSPA, HSPA+: B1(2100), B2(1900), B5(850), B8(900), all bands with diversity

2G - GPRS, EDGE, GSM: 850, 900, 1800, 1900

Data rates up to 100 Mbps downlink / 50 Mbps uplink

LTE450 - 4G - LTE: B3(1800), B7(2600), B20(800), B31(450) all bands with diversity

3G - WCDMA, HSPA, HSPA+: B1(2100), B8(900) all bands with diversity

2G - GPRS, EDGE, GSM: 900, 1800

Data rates up to 100 Mbps downlink / 50 Mbps uplink

### Power supply

Input voltage 10.2 - 57.6 VDC (12 - 48 VDC -15%/+20%)

Max. power consumption 5 W

Dual power connector

### Services / Networking

Fallback Management

Connection supervision, Automatic connection recovery

Quality of Service (QoS)

OpenVPN, IPsec, PPTP, GRE, Dial-In

VRRP

DHCP server, DNS proxy server, DNS update agent

Telnet server, SSH server, Web server

NTP

Device server, Protocol server, SDK

Port Forwarding (NAPT)

Firewall, Access Control Lists

### Interfaces

2x Ethernet 10/100 Base-T, Auto MDX, 2x RJ45 bridged or routed

RS232 interface 3 wired

2x Digital Input, 2x Digital Output

USB Host – USB type A

GSM Antenna 50 Ω, SMA connector (LTE: 2x SMA)

### Environmental

Temperature range: -25 to +70°C (-13 to +158°F) – M!DGE UMTS

-25 to +60°C (-13 to +140°F) – M!DGE LTE

Humidity: 0 to 95 % non condensing

IP 40

### Mechanical

Casing: Metal

Dimensions: 45 W × 110 D × 125 H mm (1.77 × 4.33 × 4.92 in)

Weight: 450 g (0.99 lbs)

DIN rail mounting kit included

### Diagnostics and Management

Web interface, CLI available

File configuration

OTA SW update

Advanced troubleshooting

SMS remote control, SMS and E-mail notification

SNMPv1/v2c/v3

### Approvals

CE, FCC

