



Provides a scalable 4G LTE / 3G /2G solution for cellular communications over TCP/IP with router, gateway and VPN support functions

Real-time monitoring

Works in "secure connection" mode

Dual radio and dual SIM option

Compact, ergonomic, easy to install and use

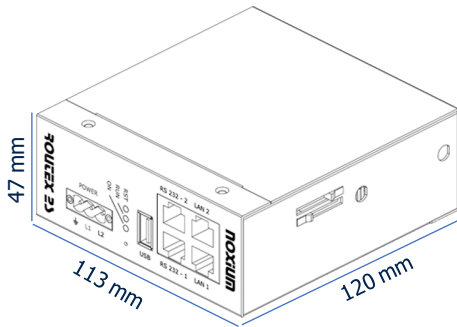
Industrial multidrop bus connection or serial with Intelligent encapsulation of specific protocol



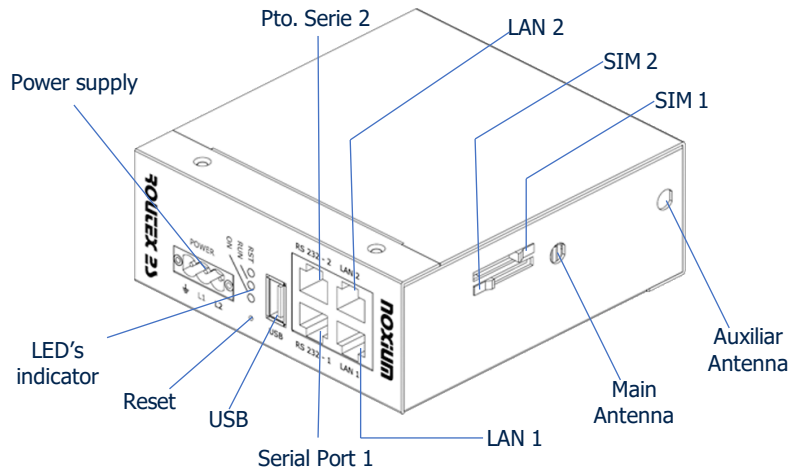
DATA SHEET

Product Images

Dimensions



Interfaces Hardware



Hardware Specifications and Interfaces



Connectivity
4G LTE / 3G / 2G



WiFi b/g/n
(opc. In USB port)



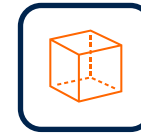
Metalic Mural
Enclosure



2 x Eth 10/100/1000 Mbps
1-2 x Ports RJ45



GPS
(opc. In USB port)



Without cable cover:
120x110x45 mm



RS232 / bus RS485
full/half dúplex



Optional USB:
GPS o Wifi b/g/n



Weight : 538 grs.



Universal AC/DC
Continuous DC 9-36Vdc
Continuous DC 18-72Vdc
Continous DC 9-72Vdc



1 x SMA F 3G
1 x SMA F 4G



IP 45



2 x DI o
4 x DI + 2 x DO o
DB9 + SFP



Single SIM Card o
Dual SIM Card



Working Temperature
- 40° to 85°C



3 x Status and
operation LEDs



Battery backup
(optional)



Mounting bracket:
Triangular wall
DIN rail

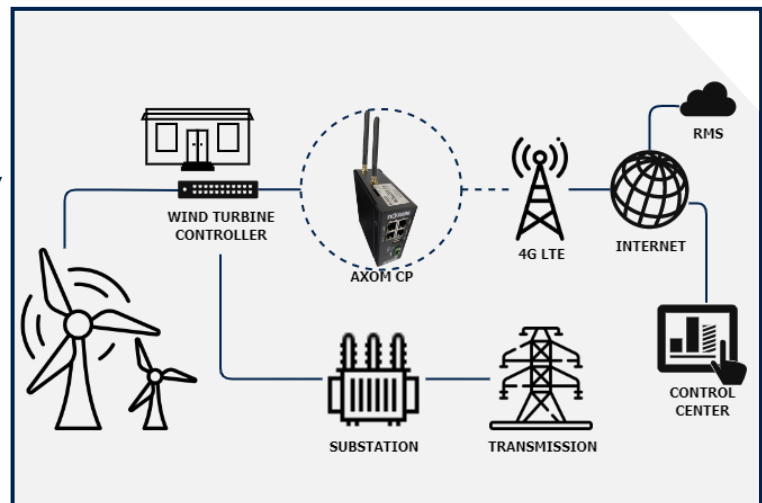
Main Features

- Two 10/100/1000 Mbps Base-T Ethernet ports on RJ45
- Two RS232 serial ports, one of them configurable to 485, Full/half duplex 2/4h, with 115 Kbps/1Mbps throughput and support for TXD, RXD, RTS and CTS signals
- GPRS Multislot Class 10, Class B, CS1 to CS4 (850/900/1800/1900 MHz)
- UMTS: 850/950/1800/1900 MHz
- HSPA: 850/950/1800/1900 MHz
- DC, AC and Battery Backup power supply options
- Option with 2 digital inputs for voltage-free contacts with 1,500V internal isolation
- Programmable Gateway functions with IEC-870-101, 102, 104 and Modbus protocol encapsulation

Software

- Protocols: ARP, DNS, FTP, ICMP, IP, IPCP, TCP, UDP, Telnet, PPP
- Static IP Routing, RIPv2 and OSPF
- Portforwarding and IP filters, NAT filters, NAT-T filters
- VRRP Redundancy, SSL security, SSHv2
- VPN IPsec with Multiple IKE/ISAKMP
- VPN GRE, IPIP with authentication
- DES, 3DES and AES encryption
- Ethernet port: bridge or standalone VLAN options per port

Application Example



Hardware

- Status, power and coverage indications
- SMA connection for 50 Ohm antenna
- One auto-configurable USB type A slave
- Metal encapsulation

Regulation & Certification

- Safety Certificate according to EN60950
- EMC certified according to EN61000-6-5
- EMC certified according to EN301 489-1 V1.4.1
- Mobile certifications according to EN301 511 V9.0.2

WWAN Specifications

| Band | Transmit (MHz) | Receiver (MHz) | Output Power |
|-------------|----------------|----------------|---|
| LTE FDD B1 | 1920~1980 | 2110~2170 | Max Output Power Class 3 (23dBm±2dB) |
| LTE-FDD B3 | 1710~1785 | 1805~1880 | |
| LTE-FDD B5 | 824~849 | 869~894 | |
| LTE-FDD B7 | 2500~2570 | 2620~2690 | |
| LTE-FDD B8 | 880~915 | 925~960 | |
| LTE-FDD B20 | 791~821 | 832~862 | |
| LTE-TDD B38 | 2570~2620 | 2570~2620 | Max Output Power Class 3 (23dBm±2dB) |
| LTE-TDD B40 | 2300~2400 | 2300~2400 | |
| LTE-TDD B41 | 2496~2690 | 2496~2690 | |
| WCDMA B1 | 1920~1980 | 2110~2170 | Max Output Power Class 3 (24dBm+1/-3dB) |
| WCDMA B5 | 824~849 | 869~894 | |
| WCDMA B8 | 880~915 | 925~960 | |
| GSM/EDGE B3 | 1710~1785 | 1805~1880 | Max Output Power Class 4 (33dBm±2dB) |
| GSM/EDGE B8 | 880~915 | 925~960 | |

Software Specifications

| Software | |
|----------------------------------|--|
| Protocols | <p>ARP, ICMP, TCP, UDP, PPP, IPv4, IPv6, NTP, DynDNS, (DHCP en versión ETH)</p> <p>HTTP, HTTPS, FTP, SFTP, SSH, (SNMP (v2c, v3) en versión ETH)</p> <p>Clock: includes NTP and time setting functionality</p> |
| Security, Authentication and VPN | <p>Watchdog external with voltage cut-off</p> <p>Authentication: (LDAP, RADIUS, TACACS+ in ETH version)</p> <p>Securization: SSL v3, TLS</p> <p>VPN: IPSec con IKEv2, (GRE, DMVPN redundancy in ETH version)</p> |
| Others Functionalities | <p>Configuration and notification of events by SMS (web services and SNMP option in ETH version).</p> <p>Battery or Supercap operation for notification of faults or digital events.</p> <p>Specific configuration via web interface (https) or remote or serial CLI interface (ssh) WAN high availability algorithms (dual SIM options)</p> <p>IEC-870-101, 102, protocol encapsulation functions (Gateway 104 ETH version)</p> <p>Firmware Upgrade: FOTA via SFTP or local console</p> |



Ordering information

Product code: ROUTEX M – aa* – bb – cc – dd – ee – ff – gg

| aa* | Wireless Connectivity |
|-----|-----------------------|
| S3 | 3G |
| Q4 | LTE-Cat1 |
| Q4+ | LTE-Cat4 |

| bb | Hardware |
|----|----------|
| HE | Standard |
| HL | Lite |

| cc | Serial Interfaz |
|-----|------------------------------|
| 2S | 2 Ethernet Ports 10/100BaseT |
| 4S | 4 Ethernet Ports 10/100BaseT |
| 2FS | 2 Fiber Ports |
| 4FS | 4 Fiber Ports |

| x* | Region |
|----|---------------|
| E | Europe |
| L | Latin America |
| A | North America |
| G | Global |

| dd | Serial Interface |
|-----|-------------------------|
| - | Whithout serial port |
| C1 | 1 RS232 |
| B1 | 1 RS485 |
| CB | 1 x RS232/485 |
| CB+ | 1x 232/485 + 1x 232/485 |
| CC | 1 x RS232 + 1 x RS485 |

| ee* | Power supply |
|-----|----------------------|
| IPS | Alterna AC 50-265Vac |
| CPS | Continue DC 9-36Vdc |
| XPS | Continue DC 18-72Vdc |
| EPS | Continue DC 9-72Vdc |

| ff | Duality |
|----|------------|
| SS | Simple SIM |
| DS | Dual SIM |

| gg | GPIOs |
|------|----------------------------|
| - | Sin GPIOs |
| 2I | 2 Digital input |
| 4I2O | 4 Digital input y 2 output |

| y* | Connectors |
|----|--------------|
| b | Bornas 5,08 |
| c | Microfit 3.0 |
| e | IEC C8 |

| hh | Accessories available |
|----|---|
| RC | With accesories |
| XR | Antennas. Specific antennas, check availability |
| XC | Serial cable |

Example Product Ordering Code:

ROUTEX M Q4E HE CB IPS SS Vx 2I 2S RC

Industrial Router Model Routex M - 4G LTE Cat1, 2 Ethernet Ports 10/100/1000 Mbps, 1 RS232 Serial Port, Universal AC/DC Power Supply (50-265Vac/9-63Vdc), Single SIM, Metal Enclosure, incorporates Telemetry/Telecontrol functions, 2 Digital Input, with accessories.

