Siretta
Enabling Industrial IoT

QUARTZ-GOLD-LTE4 (EU)
4G Dual LAN Small Footprint Gigabit Ethernet Industrial Router

QUARTZ-GOLD Router Series

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www.siretta.com

Key Features

- European 4G / LTE bands
- ARM Cortex A7 900MHz
- 2 x Gigabit Ethernet ports (2 x LAN, 1 x WAN / 1 x LAN)
- Serial Interface: 1 x RS-232 / 1 x RS-485
- Wi-Fi: 2.4GHz and 5GHz
- VPN: OpenVPN, PPTP, L2TP, GRE, IPSec
- Strong resistance to electromagnetic interference
- Built-in watch dog, multi-link detection
- WAN failover network redundancy
- Small footprint industrial design
- Shock and vibration resistance
- Excellent temperature endurance -30 to +75 deg C

Additional Features

- Supports DHCP server
- Supports DNS proxy and Dynamic DNS (DNSS)
- Supports timing operation
- Supports APN

- Local and remote management
- SNMP network management, NTP support
- WAN supports PPPoE
- Static DHCP

- Supports LED status indication
- Supports 802.11 a/b/g/n/ac Wi-Fi
- Optional GNSS
- Local and remote management

General Description

Siretta's QUARTZ-GOLD router is a high performance industrial router designed for transferring large amounts of data via the European LTE Cat 4 cellular network, with dual built in Gigabit Ethernet ports. The QUARTZ-GOLD's fast data transfer capability reaches up to 150Mbps download and up to 50Mbps upload speed. It also has fall-back to 3G/UMTS communication, should 4G/LTE be unavailable. It is well suited for IoT/mobile broadband applications, offering reliable, secure wireless connectivity.

The QUARTZ-GOLD router has a robust design, encased in a small sized, metal enclosure, making it ideal for deployment in industrial embedded applications. The QUARTZ-GOLD software supports VPN security allowing the router to be used in commercial as well as industrial applications. The QUARTZ-GOLD router meets many of the needs for management of remote communication and therefore has applications in renewable energy, security, digital signage, transport, street furniture, traffic control, parking systems, environmental monitoring, and many other IoT/mobile broadband applications.

The QUARTZ-GOLD router comes as standard with a single SIM slot, dual port gigabit ethernet capability and optional GNSS capability, which means the router is ideal for asset tracking or access management applications. Gigabit WAN failover is supported to provide network redundancy for your connected gigabit LAN using the fast LTE Cat 4 cellular network.

Cellular

- » 2G frequency bands:
  B3 (1800MHz), B8 (900MHz)
- » 3G frequency bands:
  B1 (2100MHz), B8 (900MHz)
- » 4G frequency bands:
  B1 (2100MHz), B3 (1800MHz)
  B7 (2600MHz), B8 (900MHz)
  B20 (800MHz), B28A (700MHz)
  B38 (2600MHz), B40 (2300MHz)
  B41 (2500MHz)

Interfaces

- » 2 x Gigabit Ethernet - configurable
  (1 x LAN, 1 x LAN/ 1 x WAN)
- » 2 x LTE SMA female antenna interface
- » 1 x standard SIM/R-UIM interface
- » 1 x standard DC power interface
- » 1 x 5 pin terminal block connector
- » 1 x DC power (anti reverse)
- » 1 x RS232 serial interface
- » 2 x RP SMA Wi-Fi interface

Optional Interfaces

- » 1 x GNSS antenna interface
- » 1 x RS485 serial interface

Environmental

- » Dimensions: 103mm x 73.5mm x 23.5mm
  (without antenna)
- » Weight: 320g
  (without accessories)
- » Operating Temperature Range: -30 to +75 deg C
- » Storage Temperature Range: -40 to +85 deg C
- » Relative Humidity: <95% Non-condensing

Approvals and Compliance

- » CE
- » RoHS
- » IEC EN61000-6-2

Power

- » Idle: 165mA @ +12VDC
- » Power supply: 7.5 - 32VDC
- » Online without Wi-Fi: 195mA @ +12VDC
- » Online with Wi-Fi: 235mA @ +12VDC

Network

Network Protocol

- » IPv4
- » PPPoE
- » UDP/TCP/ICMP/NTP/DHCP
- » HTTP/HTTPS
- » UPNP / NAT-PMP
- » SNMP

Network Features

- » LTE/LAN/WLAN failover
- » VLAN (Up to 16)
- » Bandwidth management
- » Static NAT/DMZ
- » IP passthrough/port redirection
- » Static/dynamic routing (OSPF / RIP)

Network Monitoring/Control

- » ICMP check
- » Traffic check
- » Traceroute
- » Packet capture compatible with Wireshark
- » Real-time bandwidth graph
- » Real-time data traffic graph
- » LinkCONNECT serial gateway
- » Syslog service
- » Remote web access

Router Settings

Device Management
» Local or remote GUI
» CLI/Telnet command
» M2M management platform (optional)
» SSH management

Firewall and Filter
» IP/URL filtering
» Domain/MAC filtering
» Keyword filtering
» Access filtering

LED Instruction
» Cellular
» LAN
» LAN/WAN
» WLAN

WLAN Mode
» Access Point
» Wireless Client
» Wireless Ethernet Bridge

VPN
» GRE (up to 8 tunnels)
» OpenVPN Client (up to 2 clients)
» PPTP/L2TP Client (up to 2 clients)
» IPSec (up to 2 clients)

Wi-Fi (Optional)
» Supports 802.11 a/b/g/n/ac Wi-Fi

GNSS Tracking (Optional)
» Sensitivity
  » Cold Start: - 146dBm
  » Reacquisition: -157dBm
  » Tracking: -157dBm
» Accurary: 2.5 CEP
» Update rate: 1Hz @ 5GHz

» Time to first fix: (with open skies)
  » Cold: 18secs (typ.)
  » Warm: 2.2 secs
  » Hot: 1.8 secs
» Protocol: NMEA-0183.2.3V
» Support: Beidou, GPS, GLONASS, Galileo, QZSS

WAN Failover Support
» 1 x Gigabit Ethernet WAN internet interface
» 1 x Gigabit Ethernet LAN network interface
» Configurable keep alive update rate
» Specify customer DNS server/IP address
» Specify WLAN/LTE fallback

Accessories

If the router is ordered with accessories, you will receive the following:
» Power supply with multi-region adapters
» Power interface cable
» LAN cable
» Cellular antennas
» Wi-Fi antennas
» GPS/GNSS antenna (only with GPS/GNSS router option)

Models Available

Dual Wi-Fi Industrial LTE Gigabit Ethernet Router
QUARTZ-GOLD-W21-LTE4 (EU) + Accessories - *Stock code 61132*
QUARTZ-GOLD-W21-LTE4 (EU) - *Stock code 61133*
QUARTZ-GOLD-W21 (485)-LTE4 (EU) + *Accessories Stock Code 62008*
QUARTZ-GOLD-W21 (485) -LTE4 (EU) - *Stock code 62131*

Dual Wi-Fi & GNSSS Industrial LTE Gigabit Ethernet Router
QUARTZ-GOLD-GW21-LTE4 (EU) + Accessories Stock Code 61134
QUARTZ-GOLD-GW21-LTE4 (EU) - Stock code 61162
QUARTZ-GOLD-GW21(485)-LTE4 (EU) + Accessories Stock Code 62133
QUARTZ-GOLD-GW21(485)-LTE4 (EU) - Stock code 62132