RTDI-402

4G INDUSTRIAL ROUTER

Introduction

RTDI-402 is an industrial-grade router featuring a high-performance processor and wireless module, running on an embedded real-time operating system. It offers versatile connectivity with 1 x RS232, 1 x RS485, 1 x Ethernet LAN, 1 x Ethernet WAN, DI/DO, and Wi-Fi. This router enables seamless data transmission between serial, Ethernet, and Wi-Fi devices. It supports dual SIM cards with intelligent switching for backup, making it perfect for industrial IoT and M2M applications, ensuring reliable and continuous connectivity.

Industrial-grade Design

- High-performance industrial-grade CPU

- High-performance industrial-grade wireless communication module

- Metal casing, IP30 protection level, suitable for most industrial control applications.

- Wide range power input (DC 5~36V)

Stability & Reliability

- EMC Level 3 and above, with strong anti-interference capability

- Dual SIM card design with complete dropout prevention mechanisms, ensuring the data terminal is always online

- Ethernet interface with 1.5KV electromagnetic isolation protection

- RS232/RS485 interfaces with 1.5KV ESD protection

- SIM card interface with 15KV ESD protection

Standard & Convenience

- Provides standard RS232 and RS485 ports for direct connection to serial devices
- 2 x 100M Ethernet ports for direct connection to Ethernet devices
- Support standard network protocols, ensuring strong compatibility
- Support remote management, simplifying operations
- Support rail and wall-mounted installation for flexible deployment

High Performance

- Support multiple VPN protocols including IPsec, OpenVPN, and WireGuard
- Built-in MQTT gateway, supporting data transparent transmission to HTTP/ MQTT/Azure cloud
- Support remote management platform and PC client applications
- Support SPI firewall
- Wi-Fi support multiple encryption methods including WEP, WPA, WPA2 and etc.
- Support multiple network protocols including TCP, UDP, IPv4, DNSS, Telnet
- Support mounting remote file systems via SSH protocol
- Equipped with DDoS protection (SYN flood protection, SSH attack protection, Telnet attack protection)
- Flexible access control for SSH, Web interface, CLI, and Telnet
- Support MODBUS TCP and Modbus RTU status/control
- Support MQTT subscription and MQTT publishing
- Support bridging and transparent transmission functions

Product Specifications

Cellular Specifications

Standard and Band
- Support FDD-LTE B1/B3/B5/B7/B8/B20/B28/B32
- Support TDD-LTE B38/B40/B41 (120M)
- Support WCDMA: B1/3/5/8

Bandwidth
- LTE: 300Mbps DL, 50Mbps UL
- TD-LTE:42Mbps DL, 5.7Mbps UL

WIFI Specifications

Standard and Band
- IEEE 802.11b/g/n 2.4G

Bandwidth
- IEEE802.11b/g: 54Mbps (Maximum)
- IEEE802.11n: 144Mbps (Maximum)

Security
- Support WEP, WPA, WPA2 and other encrypt methods

Transmit Power
- 15 ± 2dBm

Sensitivity
- < -72dBm @ 54Mbps

Hardware System

CPU
- Industrial Grade CPU

Flash
- 32MB

DDR3
- 128MB

Interfaces

WAN Interface
- 1 x 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD

LAN Interface
- 1 x 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD

Serial
- 1 x RS23, 1 x RS485 serial interface with built-in 15KV ESD

I/O
- 1xDI, 1xDO

LED Indicators
- "PWR", "Online", "LAN", "WAN", "WIFI", "SYS

Antenna Interface
- Cellular: 2 x Standard SMA female antenna interface, characteristic impedance: 50 Ω
- WIFI: 1 x Standard SMA male antenna interface, characteristic impedance: 50 Ω

SIM/UIM Slot
- 2 x Standard 2FF SIM card slot

Power Interface
- Standard 4 pin termianl block interface, with built-in phase-reversal and over-voltage protection

Reset Button
- Can reset router's configuration to default factory setting by this button

Power

Input Voltage
- DC 12V/1.5A

Accepted Range
- DC 59~36V

Operating Current
- <1.2A (12V)

Physical Properties

Casing
- Metal casing, IP30 protection level, suitable for most indutrial control applications

Dimensions
- 91.4*92.4*31mm (excluding antennas and mountings.

Weight
- 200g

Others

Operating Temperature
- -40°C~+75°C

Storage Temperature
- -40°C~+85°C

Relative Humidity
- 95% non-condensing

Dimensions

Ordering Information

Ordering Code	Description
RTDI-402	Router 4G LTE 3G ,1 WAN 10/100BT, 1 LAN 10/100BT. IP30. IPv4/v6, WIFI 2.4G, VPN, Power 9-36VDC. 2 Antennas SMA, 1 com RS232, 1 com RS485, 1 DI/DO, 2 standard SIM; 6 leds. Power consumption 15W. Housing Metal shell, shock proof design, Operating Temp –40°C ~ +75°C . Dimensions 92*93*31mm mm
RTDI-402-CAT4	Router 4G LTE-CAT4 ,1 WAN 10/100BT, 1 LAN 10/100BT. IP30. IPv4/v6, WIFI 2.4G, VPN, Cat 4 offers up to 150 Mbps downlink/50M UL. Power 9-36VDC. 2 Antennas SMA, 1 com RS232, 1 com RS485, 1 DI/DO, 2 standard SIM; 6 leds. Power consumption 15W. Housing Metal shell, shock proof design, Operating Temp –40°C ~ +75°C . Dimensions 92*93*31mm mm
RTDI-402-CAT6	Router 4G LTE-CAT6 ,1 WAN 10/100BT, 1 LAN 10/100BT. IP30. IPv4/v6, WIFI 2.4G, VPN, Cat 4 offers up to300 Mbps downlink/50M UL. Power 9-36VDC. 2 Antennas SMA, 1 com RS232, 1 com RS485, 1 DI/DO, 2 standard SIM; 6 leds. Power consumption 15W. Housing Metal shell, shock proof design, Operating Temp –40°C ~ +75°C . Dimensions 92*93*31mm mm
RTDI-402-5R	Router 5G RedCap ,1 WAN 10/100BT, 1 LAN 10/100BT. IP30. IPv4/v6, WIFI 2.4G, VPN, Cat 4 offers up to 150 Mbps downlink/50M UL. Power 9-36VDC. 2 Antennas SMA, 1 com RS232, 1 com RS485, 1 DI/DO, 2 standard SIM; 6 leds. Power consumption 15W. Housing Metal shell, shock proof design, Operating Temp –40°C ~ +75°C . Dimensions 92*93*31mm mm

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