TD210 Series

Industrial Cellular Modems

Bivocom

Product Overview

TD210 Series Modem is a type of industrial cellular Modem (also called DTU, IP Modem), which adopts high-powered industrial 32-bits CPU, with multi-layer software detection and hardware protection mechanism to ensure reliability and stability of the device. It supports worldwide carrier 4G/3G/2G cellular network, including FDD-LTE, TDD-LTE, and WCDMA, EVDO, TD-SCDMA, EDGE, CDMA 1X and GPRS. It has serial port RS232 and RS485.

TD210 Series Cellular Modem helps users to quickly access the Internet, to ensure secure and reliable data transmission. It's ideal for IoT (Internet of Things) and M2M (Machine to Machine) applications, and has been widely used in many applications, such as Intelligent Transportation, Oil and Gas, Smart Grid, Vending Machine, Agricultural Irrigation, Environmental Protection, Industrial Automation, Energy Saving, Smart Home, etc.

Key Features

1. Rich Industrial interfaces, 1x RS232, 1x RS485.
2. Modbus RTU, MQTT*, TCP/UDP protocol supported
3. Transparent data transfer, with built in standard TCP/IP stack.
4. Multi data centers (up to 5) and TCP server, able to access center with domain name and IP address.
5. SMS backup, data will be transferred by SMS when TCP/UDP disconnects
6. TCP heartbeat link detection, keep device always online.
7. Hardware and software auto inspection technology, enable operation fault auto repairing.
8. AT Command, CSD*
9. Can be configured as an SMS Modem

Application Diagram
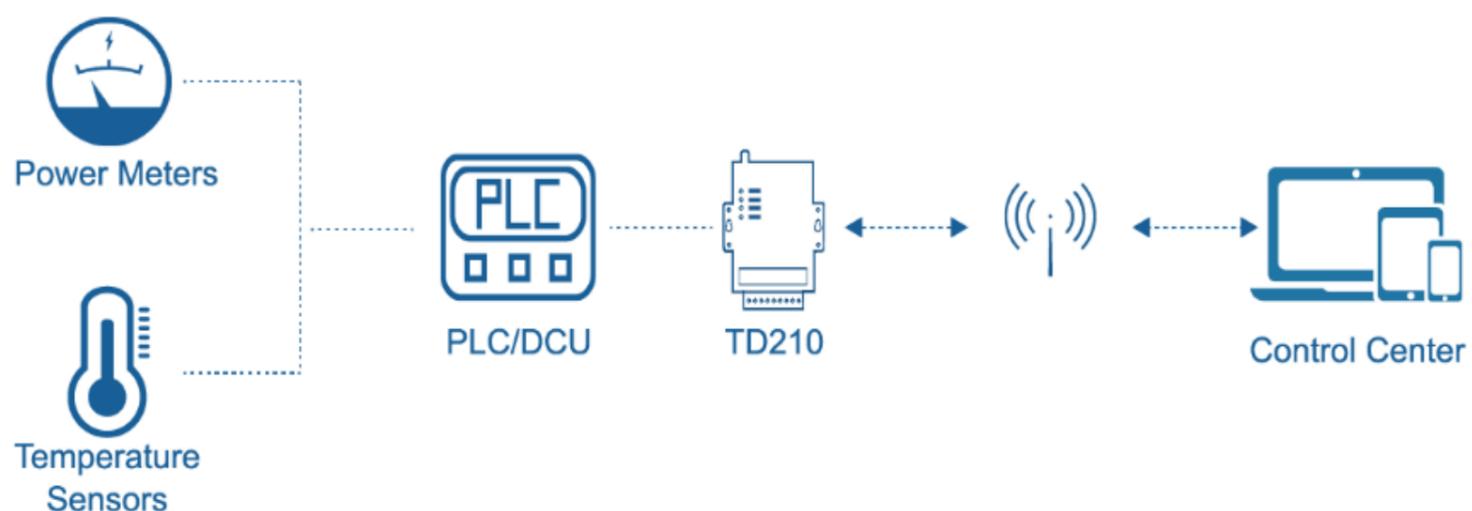
Specifications

Cellular Interfaces

Antenna Connector	1 × 50 Ω SMA Female
SIM Slot	1
ESD Protection	15KV

Serial Interface

Connector	Terminal block, 3.5 mm female socket with lock
Ports	1-RS232, 1-RS485
Baud Rate	300bps to 230400bps
ESD protection	8KV for RS232, 15KV for RS485

Power Supply and Consumption

Connector	Terminal block, 3.5mm female socket with lock
Standard Power	DC 12V/0.5A
Input Voltage	5-35 VDC
Power Consumption	< 1W (85mA@12VDC, 155mA@5VDC)
Idle Consumption	< 0.4W (30mA@12VDC, 55mA@5VDC)

Software

Network Protocols	MQTT, Transparent (TCP Client/Server, UDP Client/Server), Modbus Gateway (Modbus RTU to Modbus TCP), SMS Alarm, DNS, etc.
Management	Config Tool, SMS, Cloud DMP (Device Management Platform)[1]

Dimenions(mm)
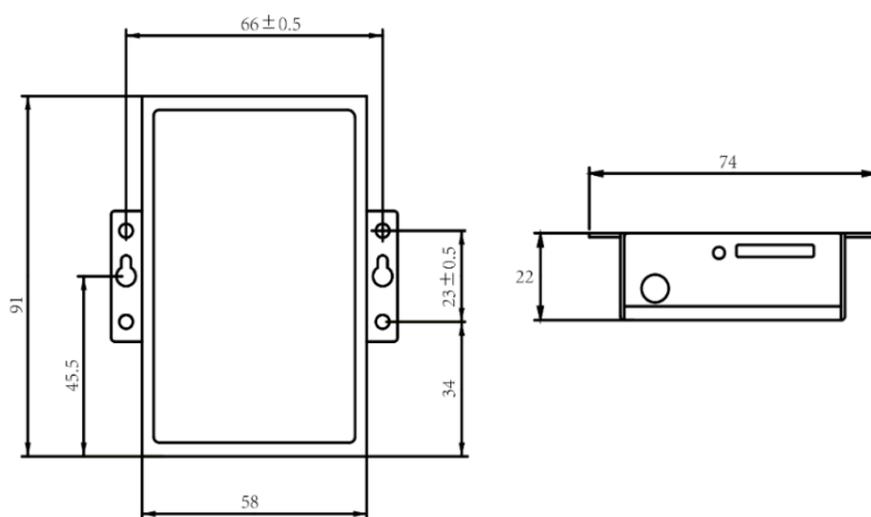
Physical Characteristics

Ingress Protection	IP30
Housing & Weight	Metal
	218 g (0.48 lbs, without accessories)
Dimensions	91 x 58 x 22 mm (3.58 x 2.28 x 0.87 in)
Mounting	Desktop, Wall mounting

Environmental

Operating Temperature	-35°C to +75°C (-31℉ to +167℉)
Storage Temperature	-40°C to +80°C (-40℉ to +176℉)
Relative Humidity	0% to 93% (non-condensing) at 25°C/77℉
Ethernet Isolation	1.5 kV RMS

Others

LED Indicators	Online, Act, Power, System
Built-in	Watchdog, RTC, Timer
Approvals	CE, RCM*, FCC*, NBTC*
Warranty Period	Standard: 12 Months
	Extended: 2-5 Years [3]

Standard Package Content

TD210 Modem
Power Adapter(DC 12V/0.5A, EU/US/UK/AU plug optional)
Mag-mount Cellular Antenna (SMA Male, 1 meter, 5dBi)
RS232 Cable (DB9 Female, 1 meter)
12-Pin Terminal Block
Quick Start Guide(Printed)

Order Information

Model	Frequency Band[3]
TD210-LF	4G LTE CAT 4
	EMEA: B1/B3/B5/B7/B8/B20/B38/B40/B41
	ANZ/LATAM: B1/B3/B5/B7/B8/B28
	NA: B2/B4/B5/B12/B13/B14
TD210-W	HSPA/UMTS/WCDMA
	900/2100MHz, or 850/1900/2100MHz
	Global: 800/850/900/1900/2100
TD210-G	GSM/GPRS
	850/900/1800/1900MHz

Note:
1. There is license fee for DMP.
2. Price of extended warranty will be different.
3. If you couldn't find the frequency band for your regions or have any questions, please contact Bivocom sales representives for more information.
4. From Sep 1, 2019, I/O on TD210 modem is not available for customization, if you need I/O, please refer to TG501, which has more I/O ports.
5. * Customized firmware or hardware may be required