FC-02 Intelligent RTU

Overview

FC-R02 intelligent RTU is a high-performance measuring and control device which integrates many functions in one, such as analog signal selecting, on-off input, on-off output, counting and wireless data communication. It can directly access all kinds of sensors, standard transmitter signal, analog signal from instrument, level signal, contact points, impulse signal, and so on, so it is the best choice for wireless transmission.

RTU adopts high-performance industrial grade 32-bite communication processor and industrial grade wireless module, it uses embedded real-time operating system as software support platform and provides RS232 and RS485 interfaces, it can realize analog signal acquisition, values converting, analog and digital signal selecting, and so on, the storage cycle and reporting cycle can be adjusted according to user's request for environment. The product is used widely in M2M industry of IOT (internet of things) industry chain, such as petrochemical, intelligent power grids, intelligent transportation, intelligent home, finance, and so on.

Product Features

Industrial Grade Practical Design

- Adopts high-performance industrial grade wireless module.
- Adopts high-performance industrial grade 32-bite communication processor.
- With low-power dissipation design, supports multistage sleep and wakeup mode, reduces power dissipation to the most extent.
- Internally installs real-time clock (RTC), supports the function of timing switch
- Adopts metal shell, the protection level is IP30.
- The system is isolated safely which is suitable for application in industrial control field especially.
- Wide power output (DC 5~35V)

Stable and Reliable

- WDT watchdog design ensures stability of the system.

- Adopts perfect off-line prevention mechanism which can ensure the data terminal keeping online all the time.
- RS232/RS485 interface adopts optoelectronic isolation design and has built-in 15KV ESD protection.
- SIM/UIM interface has built-in 15KV ESD protection.
- Power interface has built-in reverse-phase protection, overvoltage and overcurrent protection.
- Antenna interface has lightening protection (optional)

Standard and Easy to Use

- Adopts industrial terminal interface which is especially suitable for industrial field application.
- Provides standard RS232 and RS485 interfaces which can be connected directly.
- Can customize TTL electrical level serial port.
- As soon as computer was powered, intelligent data terminal will enter data transmission state.
- Provides powerful central management software which is convenient for equipment management. (optional)
- Easy and flexible to use, has many work patterns for selecting.
- The system configuration and interface maintenance are easy.
- Supports software upgrading of serial port and remote maintenance.

Technical Parameters

Wireless Parameters	
Wireless Module	Industrial grade wireless module
Standard and Frequency Band	Supports EGSM900/GSM1800MHz dual-band, and GSM850/900/1800/1900MHz quad-band can be chosen. Supports GSM phase 2/2+ Supports GPRS class 10, and class 12 can be choosed
Theoretical Bandwidth	85.6Kbps
Transmitting Power	GSM850/900: <33dBm GSM1800/1900: <30dBm
Receive sensitivity	<-107dBm
Hardware System	
CPU	Industrial grade 32-bite communication processor
FLASH	2MB (can be expanded to 8MB)
SRAM	512KB (can be expanded to 1MB)
Serial Port	
Serial Port	One RS232 interface and one RS485 interface, optoelectronic isolation, built-in 15KV ESD protection, serial port parameters:

	Data bits: 5, 6, 7, 8
	Stop bits: 1, 1.5, 2
	Verification: no verification, even verification, odd verification, SPACE and MARK verification
	Serial port speed: 110~230400bits/s
Indicator light	Has power supply indicator light, communication indicator light and online indicator light.
Antenna Interface	Standard SMA internal antenna interface, characteristic impedance 50Ω.
SIM/UIM Interface	Standard drawer type user card interface, supports 1.8V/3V SIM/UIM card, has built-in 15KV ESD protection.
Power Interface	Industrial terminal interface, built-in power supply reverse protection and overcurrent protection.
Power Supply	
Standard Power Supply	DC 12V/0.5A
Power Supply Range	DC 5~35V
Work Environment	
Operating Temperature	-35~+75ºC
Storage Temperature	-40~+85ºC
Relative Humidity	95% (no condensation)

Dimension Figure

Fixed orifice

Dismountable stator