DTU For Eco-Protection

Synway SEDG100 environmental-protection DTU is a special data acquisition and transmission equipment to online monitor sewage, exhaust gas and other pollution sources. It adopts industrial-grade standard design, advanced architecture, and builds a bridge between legacy processing capability and wireless communication module. SEDG100 has diverse interfaces and can collect a range of digital, analog or switching data from monitors and instruments connected with environment. SEDG100 also supports wired networks or 4G wireless networks to connect to a variety of environmental protection platform.

Key Features and Benefits:

Industrial-grade architecture

- Multiple interfaces to support a wide range of environmental sensors
- 1G memory, 8G Flash storage
- MicroSD (TF) card expansion storage
- Power-off protection and data security in power-off condition
- Lightning protection, surge prevention, explosion prevention, etc.
- Power consumption less than 10W
- Chassis IP65 protection
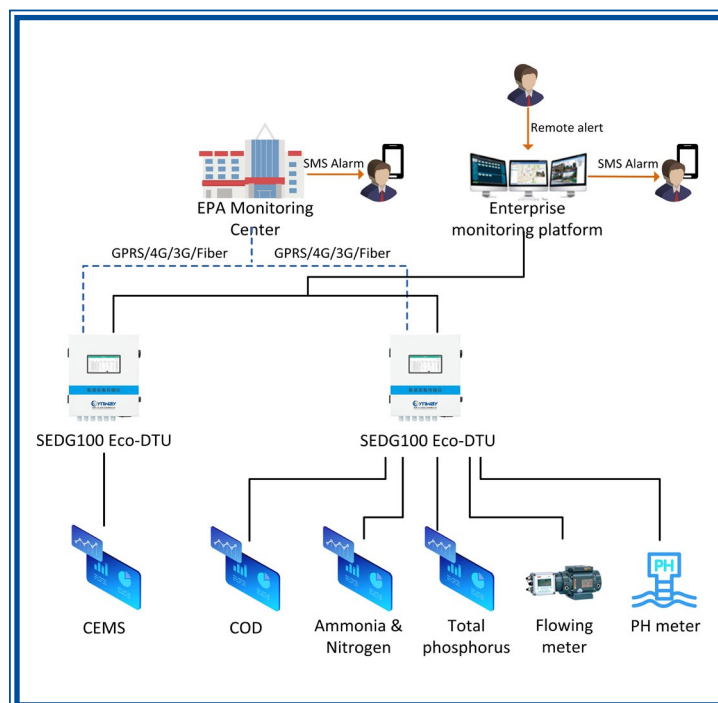
High reliability and versatility

- Embedded operating system with high scalability
- Re-transmit data while network recovers to ensure reliability
- Low power consumption, Anti-lightning, surge, IEC explosion-proof and more
- Support for IP65 protection

User-Friendly and Standard Compliance

- HJ 477-2009 Pollution Source Online Automatic Monitoring (Monitoring) Data Acquisition And Transmission Device Technical Requirements"
- Support standards such as "HJ 212-2017 On-line monitoring (monitoring) system data transmission standards"
- Support communication protocols of mainstream instrument manufacturers

More basic features

- Support web interfaced administration and management
- Support 4G wireless communication modules
- Support multi-platform data transfer
- Built-in high-capacity battery power

DTU For Eco-Protection

Application case:

Environmental protection DTU is widely used to online monitor sewage discharge, exhaust emissions and other pollution sources, as well as other environmental online monitoring scenarios, to meet control and other multi-level online monitoring and controlling requirements. It assures intelligent operation, intelligent early alert and the establishment of dynamic analysis model, reducing the operating and maintenance costs of sewage enterprises and government control budget.

Product Specifications:

Product models:

SEDG100: 1*SIM port, 2*WAN(LAN), 7*RS232 and 2*RS485

Wireless parameters

Adopt industrial-grade wireless modules

Support FDD-LTE 2600/2100/850/900MHz Band 1/3/5/8

Support TDD-LTE 2600/1900/2300/2496 MHz (Band 38/39/40/41)

Support DC-HSPA/HSPA/HSDPA/HSUPA/WCDMA/UMTS 2100/800MHz (Band 1/8)

Support TD-SCDMA 2010/1900MHz (A/F band, Band 34/39)

Support CDMA BC0

Support EDGE/GPRS/GSM:900/1800MHz

Hardware systems

CPU industrial 32-bit communication processor

FLASH 32MB (Expandable)

SDRAM 512MB

Interface type

WAN interface: 2*100M Ethernet port (RJ45 socket), adaptive MDI/MDIX, built-in 1.5KV electromagnetic isolation protection

7*RS232 serial port, MINI-USB, built-in 15KV ESD protection; serial parameters: stop bit: 1, 2 bits; Check: optional; Serial rate: 2400 to 115200bits/s

2*RS485 serial port, MINI-USB, built-in 15KV ESD protection; serial parameters: stop bit: 1, 2 bits; Check: optional; Serial rate: 2400 to 115200bits/s

Analog volume interface: 8 ports; Input current: 0~25mA; Input voltage: 0-5V

Switch volume input interface: 6 ports; Input voltage: 0-12V; switch threshold value: 0 below 1 volt, and 1 higher than 2.5volt

Relay Interface: 4 ports; Input range: 3A (0 to 30VDC), 3A (0 to 250VAC); Lithium battery: 7.4V,6000mAh capacity

USB interface: 2* USB, USB2.0 Host

Test interface: 1*Mini USB

Power requirement

Voltage: 110-240VAC, 50HZ

Power consumption less than 10W

Lightning protection, anti-surge, IEC explosion-proof level 3

Physical characteristics

Size: 320mm*380mm*80mm (L x W x H, without antennas and mountings)

Net weight: approx. 6.2kg

Other parameters

Operating temperature: -20 to 70ºC (-4 to 158 degrees F)

Storage temperature: -40 to 85ºC (-40 to 185 degrees F)

Relative humidity: 8 to 95% (no condensation)

Storage humidity: 8 to 95% (no condensation)