Technical Specification for SeDTU300 (Multi-Serial Port)

VERSION:**V3.0**

XIAMEN KEY-IOT TECHNOLOGY CO., LTD

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Product Overview

The SeDTU300 series 4G industrial-grade DTU is a wireless data terminal designed for industrial applications, leveraging LTE 4G networks to provide a reliable wireless data transmission channel over TCP/IP. It enables seamless wireless communication between serial devices at remote control stations and central control systems, facilitating remote industrial field control.

Equipped with RS-232 and RS-485 interfaces and rich I/O ports, the SeDTU300 directly connects to serial devices to achieve transparent data transmission and I/O data acquisition. It supports local PC-based configuration tools, AT command configuration, and TCP/IP remote configuration, streamlining on-site installation and post-maintenance processes. This simplifies deployment, significantly improves efficiency, and reduces overall operational costs, delivering a seamless wireless communication experience to users.

Product Features

- Supports LTE 4G CAT4/CAT1
- Supports Flexible Installation Options：Din rail mounting and wall mounting
- Supports APN/VPDN
- Supports HJ212-2017 Protocol
- Supports Ntrip Protocol
- Supports TCP、UDP、MQTT、HTTP、TLS（Optional）
- Supports Modbus TCP/RTU protocol conversion，Supports converting Modbus data to JSON format for reporting
- Supports Dual data center backup transmission and multi-data center synchronization (up to 4 centers)

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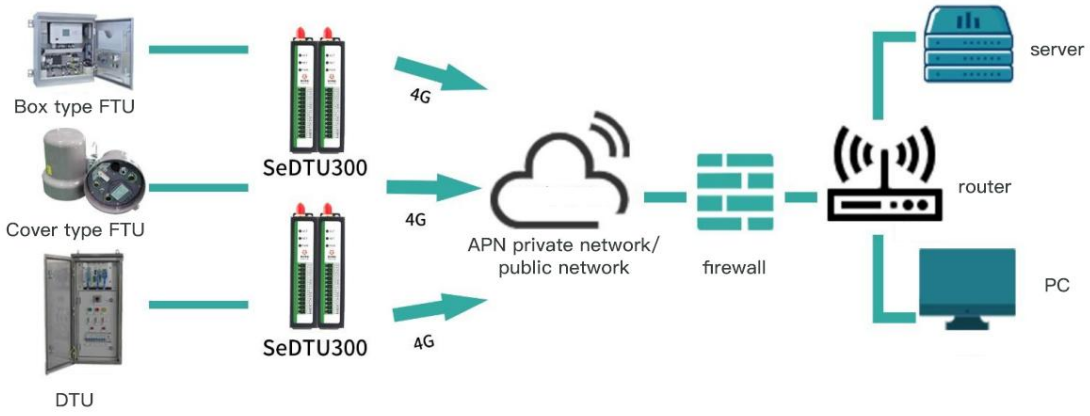
- Local serial port configuration/upgrade and cloud-based remote management
- Supports Standard RS-232 and RS-485 interfaces for direct device connection
- Supports Active data polling and reporting functionality
- Local data storage (optional)
- GPS positioning (optional)
- Supports 2 configurable DI/DO channels
- Supports 2 analog input (AI) channels (default: 0–20 mA current input, optional 0–3.3V voltage input)
- Supports Software and hardware watchdogs to ensure reliable operation

Topology Diagram



Technical Parameter

Hardware Performance	
FLASH	8MB SPI FLASH
SRAM	256KB
Network Support	Industrial-grade 4G module，Supports seven-mode full network，Supports NB module

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RTC	Time Synchronization: Uses NTP technology with an integrated RTC (Real-Time Clock)
Interface	
Serial Port	1*RS232 and 1*RS485 interface，with built-in 15KV ESD protection Serial port parameters as follows： Data bits：7, 8 bits Stop bits：1、2 bits Parity：None, Even, Odd parity Serial port baud rate：1200~115200bits/s
IO	2 configurable DI/DO channels 2 analog input (AI) channels (default: 0–20 mA current input, optional 0–3.3 V voltage input)
Indicators	1 PWR light, 1 ACT light, 1 Online light
SIM Card Interface	1 (drawer-type SIM card slot, supports 1.8V/3V SIM/UIM Cards)
Antenna Interface	1 (3G/4G antenna, impedance 50 ohms, SMA female antenna interface)
Power	Terminal power, with built-in power reverse protection and overvoltage protection
Power Characteristics	
Power Supply	External power adapter: 9V, 1A
Operating Voltage	Wide DC input range: 5–36V (expandable to 5–60V)
Communication Current	＜100mA·(12V)
Operating Conditions	
Operating Temperature	-35~+75℃ (-31~+167℉)
Storage Temperature	-40~+85℃ (-40~+185℉)
Operating Humidity	5%~95% (non-condensing)
Device Ventilation	Natural heat dissipation, no noise
Physical Features	
Casing material	Metal housing
Dimensions	Length*width*height 119*59*26mm (excluding antenna mounting components)
Installation Methods	Desktop placement, DIN rail mounting, wall-mounted
Weight	Net weight：0.20KG（excluding antenna and mounting components） Gross weight：0.40KG（with accessories and packaging box）
Device Safety and Reliability	
Safety and Reliability	Power reverse protection, overvoltage protection, overcurrent protection; RS232/RS485 interface with built-in 15KV ESD protection; SIM/UIM card interface with built-in 15KV ESD protection
Protection Level	IP30
Certification	Complies with CCC、Rohs
MTBF	≥100,000 hours

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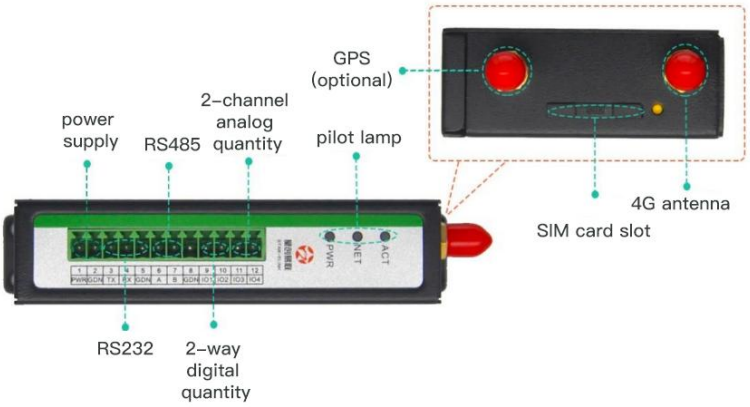
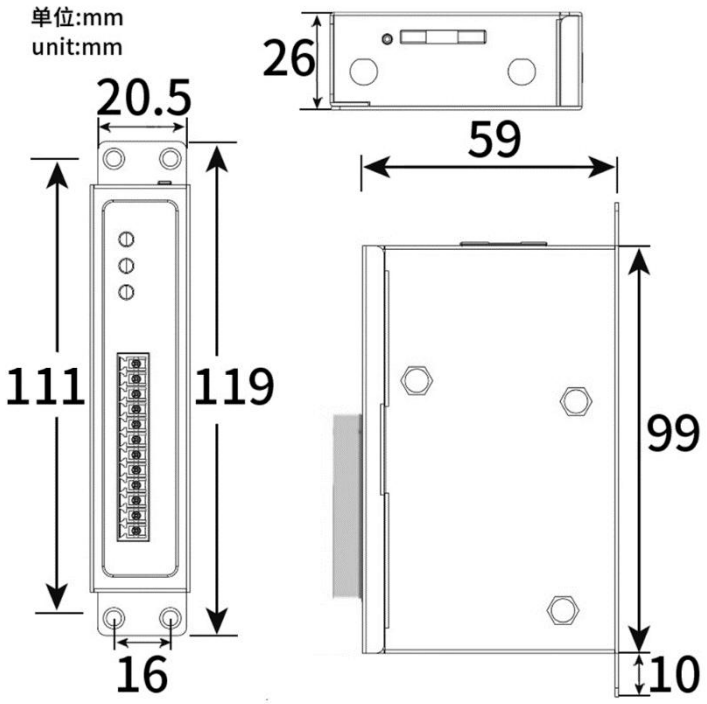
Product Interfaces



Product Dimensions



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