CNT351

1×RS232/485/422 to NB-IoT Industrial Serial-to-Cellular Wireless Modem



- 1 × RS232/485/422 serial port to NB-IoT network
- Support heartbeat and registration packets using ICCID, IMEI, or user-defined data
- Support transparent transmission, Alibaba MQTT, and China Mobile OneNET MQTT
- Support automatic reconnection after network disconnection
- Built with an independent external hardware watchdog to ensure system stability and prevent crashes
- Support PSM to meet low-power consumption requirements
- DC5~36V wide input voltage, IP40-rated housing protection, wall-mount design
- -40 ℃~+85 ℃ working temperature range

Product Description

CNT351, produced by COME-STAR Communication, is a serial-to-cellular modem designed to connect industrial serial devices to NB-IoT wireless networks. It provides an IP-based wireless data transmission channel, supporting fully transparent, bidirectional data communication between RS232/485/422 field devices and the central control system.

CNT351 supports a wide DC input range of 5~36 V and offers wall-mount installation. Built with industrial-grade components, the modem features IP40 protection, strong electromagnetic immunity, and reliable operation in harsh environments from -40℃ to +85℃. With its wide network coverage, flexible deployment, and low operating costs, it is suitable for various applications, including power systems, industrial monitoring, traffic management, meteorology, water treatment, environmental monitoring, finance, mining, and the petrochemical industries. It enables remote data acquisition, remote monitoring, and on-site control, making it an essential communication device for industrial IoT development.

Product Features

- High-performance industrial serial-to-NB-IoT modem compatible with RS232/485/422 interfaces
- Support RS232/485/422 standard bus
- Support configuration and parameter query via serial AT commands
- Support TCP Client and UDP Client
- Support 2 simultaneous socket connections
- Support heartbeat and registration packets using ICCID, IMEI, or user-defined data
- Support automatic reconnection after network disconnection
- Support reconnection when network data reception times out
- Support transparent transmission, Alibaba MQTT, and China Mobile OneNET MQTT
- Support serial data packing based on length and timeout

Technical Specifications

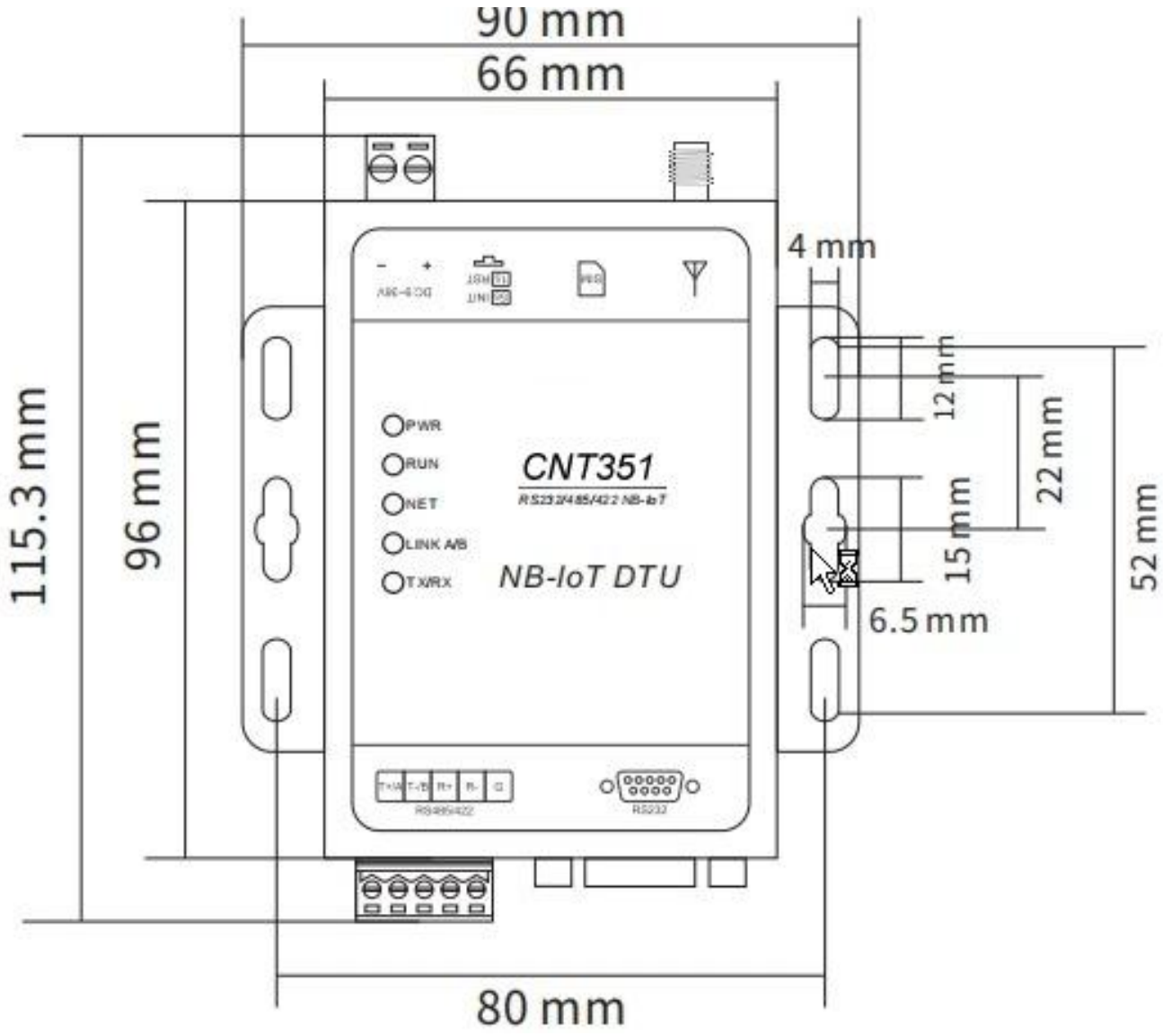
Software	
Network Protocol	IPv4
User Configuration	AT Commands
Operation Mode	Simple Transparent Transmission, Alibaba MQTT, OneNET MQTT
Transparent Transmission	TCP/UDP Server, TCP/UDP Client
MQTT	Alibaba MQTT / China Mobile OneNet MQTT
PSM	Support
Registration Package /Heartbeat Package	Types include ICCID, IMEI, user-defined data, etc. User-defined data types support hexadecimal and string formats
Serial Port Data Packaging	Time and length can be configured. Packaging length: 1~1000 bytes, packaging time: 10~60000ms (Different software versions may have variations in the packaging mechanism; you can inquire with our customer service for specific details.)
Network Buffer	Send: 1 Kbyte; Receive: 1 Kbyte
Serial Port Buffer	Send: 1 Kbyte; Receive: 1 Kbyte
Remote Configuration	Support
Supporting Software	Serial to cellular modem configuration tool
NB-IoT	
Working Frequency	B3@H-FDD: 1800MHz B8@H-FDD: 900MHz B5@H-FDD: 850MHz
Interface	

Antenna	1×SMA-F connector (outer-thread, inner-socket)
Serial Port	Serial Signal: 1×RS232/485/422 Connection Method: RS485/422: 5-pin 3.81mm pitch terminal blocks RS232: DB9M Baud Rate: 600~460800bps Data Bits: 7 bits, 8 bits Stop Bits: 1 bit, 2 bits Parity: None, Odd, Even
SIM Card Slot	1 × standard SIM card slot
Button	One-click restart or factory reset button
Status LED	Power indicator, Status indicator, NET indicator, LINK A/B indicators, Serial port transmit and receive data indicators
Power Supply	
Input Voltage	DC 5~36V, reverse polarity protection
Working Current	Average: 16 mA @ 12V DC, maximum: 143 mA @ 12V DC
Connection	2-pin 5.08 mm pitch terminal block
Physical Characteristics	
Dimensions	96×90×26 mm (including mounting brackets)
Installations	Wall mount
IP Code	IP40
Working Environment	
Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)

Industry Standard	
EMC	IEC 61000-4-2 (ESD): Contact Discharge ±6kV, Air Discharge ±15kV IEC 61000-4-5 (Surge): Power Port: Common Mode ±4kV, Differential Mode ±2kV; RS485/422: Common Mode ±4kV, Differential Mode ±2kV IEC 61000-4-4 (EFT): Power Port: ±4kV; Communication Ports: ±2kV
Certifications	CE, FCC, RoHS

Dimensions

Unit: mm



Ordering Information

Standard Model	RS232/485/422	NB-IoT Antenna	Input Voltage
CNT351	1	1	DC5~36V

Contact Us

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