



Features:

- Ethernet (TCP/IP) to LoRa

LoRa is a long-range wireless communication solution. Compared with GPRS and 4G schemes, LoRa has no monthly subscription fee, and has a longer distance compared with Wifi and Zigbee. So LoRa is becoming more and more widely used in small data long-distance communication. The LoRa products of Ittelecom adopts SX1287 chip and SEMTECH's LoRa™ proprietary modulation technology to achieve -140DBm reception sensitivity and +20dBm output power. The outdoor line of sight communication distance is 8km, with the characteristics of long distance, low power consumption and anti-interference. At present, LoRa products are divided into two categories, one is serial port to LoRa, model ITT-SR5401, which contains three serial port forms, namely RS232/485/422; The other is Ethernet (TCP/IP) to LoRa, model ITT-SR5401, which can connect LoRa to the Internet.

Application



- Building
- E-guard System
- Security System



- Power
- Electronic
- Intelligent Instrument



- Bank
- Medical Auto-mation System



- Stock Trading System



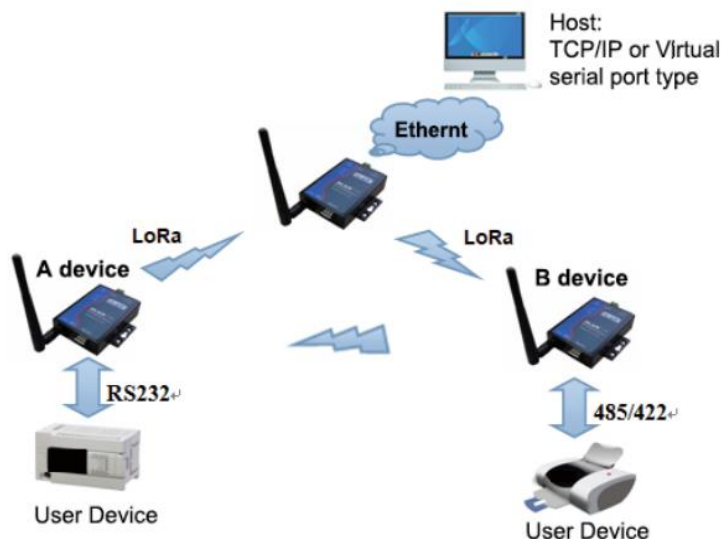
- Industrial Auto-mation System



- Point of Sells (POS) System



- Information Appliances



When the two ITT-SR5401 (device A and Device B in the figure) are respectively connected to the serial port of the two serial devices for wireless transmission and communication, the serial port data of the two devices can be forwarded to each other through LoRa network. When collecting device data through upper computer (host) TCP/IP, connect the Ethernet port of ITT-SR5401 to Ethernet network, Multiple ITT-SR5401 can be connected to the device side to collect data. The data is transferred to ITT-SR5401 through LoRa and then transferred to the computer through Ethernet. Computers and the ITT-SR5401 can use Modbus TCP, virtual serial port, JSON, TCP/IP protocol and other modes.

Features

- Long communication distance. The measured distance is:

Test environment	Test distance
Unshielded communication	about 8Km
Urban roads propagate in straight lines	about 6Km
City environment with building shielding	about 1Km
Within the building	perforated by five floors

- ZLAN9743 has multi-functional LoRa to Ethernet function to realize LoRa to TCP/IP.
 - 1) It can be configured as TCP server, TCP client, UDP, and so on.
 - 2) Equipped with Windows virtual serial port & device management tool ZLVircom, supporting virtual serial port.
 - 3) Support Modbus TCP to Modbus RTU mode data acquisition.
 - 4) Supports Modbus RTU and 645 protocol devices to automatically collect data and send it to the server in JSON format +MQTT protocol.
- LED indicators respectively indicate the direction of data flow, LoRa communication status and equipment operation status, and directly reflect the equipment status.

Technical Parameters

Specification parameter	Work voltage	DC9~24V
	Work current	9700: 30mA@12V 9743: 160mA@12V
	Environment temp	-40℃~85℃
	Environment humidity	< 95%RH
	Response speed	The default wireless configuration of 9600bps takes 70 milliseconds to send and receive one byte of data.
Wireless communication	Transmission distance	The outdoor area is 6km~8km without shielding, and the indoor area crosses about 5 floors.
	Frequency range	410 MHz to 525 MHz
	Wireless channel	115
	Receiving sensitivity	-140 dbm
	Transmission power	20 dbm
	Modulation method	LoRa™ proprietary modulation technology
	Antenna connection	External SMA male antenna, sucker antenna 1 meter; Operating frequency: 490MHz
The cable communication	Serial port setup	Baud rate: 1200~115200bps; Check bits: None, Even, Odd; Data bit 8; Stop bit 1.
	Ethernet protocol	(only the 9743 support TCP/IP protocol) ETHERNET, IP, TCP, UDP, HTTP, ARP, ICMP, DHCP, DNS
Appearance	Interface	485/422: Terminals; 232: the DB9; Ethernet: RJ45
	Power supply	Inside positive outside negative, standard power socket; Two lines terminal
	Size	L x W x H =9.4cm×6.5cm×2.5cm