

F8L10ST

LoRaWAN Terminal



V1.0.0

Four-Faith F8L10ST is an industrial LoRa terminal which provides long range communication, compatible with many kinds of sensors that are designed for many M2M/IoT applications.

F8L10ST adopts high-performance and low-power consumption industrial LoRa solution with embedded software platform, and provides many interfaces makes it easily connect with serial devices. It also compatible with analog & digital input or output.

F8L10ST has been widely used in the typical M2M industry application of the IoT industrial chain, such as smart grid, intelligent transportation, smart home, finance, mobile POS gateways, supply chain automation, industrial automation, intelligent building, fire protection, public safety, environmental protection, meteorology, digital medical, telemetry, agriculture, forestry, water, coal, petrochemical and other related fields.

HIGHLIGHT

INDUSTRIAL-GRADE DESIGN

- ◆ High-performance industrial-grade CPU and wireless module
- ◆ Low power consumption
- ◆ High receive sensitivity
- ◆ Lithium battery and solar charging
- ◆ IP68 protection

POWERFUL FUNCTIONS

- ◆ Support wake up over air and deep sleep
- ◆ Support remote configuration
- ◆ Support 1*solar 18V/10W interface, 1*RS232, 1*RS485, 2*GPIO, 2*AI, 1*DO
- ◆ Baudrate and data rate can be configured
- ◆ 5~20dBm output power can be configured



Web: en.four-faith.com



Email: sales@four-faith.com



Tel: +86-592-5907276



11th Floor, A-06 Area, No.370, Chengyi Street, Jimei, Xiamen, Fujian, China

STABLE & RELIABLE

- ◆ RS232/RS485 interface with built-in 15KV ESD protection
- ◆ Power supply interface with built-in phase-reversal and over-voltage protection
- ◆ Multiple data automatically divide package transmission, ensure data package completely

STANDARD INTERFACE & EASY-TO-USE

- ◆ Industrial block terminal interface
- ◆ Standard RS232 and RS485 interface
- ◆ Intelligent data terminal
- ◆ Convenient system configuration and maintenance interface
- ◆ Support firmware upgrade, remote upgrade and maintenance by serial port

SPECIFICATIONS

CHARACTERISTICS

| | |
|-------------------------------------|--|
| Band | EU433, CN470-510, CN779-787, EU863-870, US902-928, AU915-928, AS923, KR920-923 |
| LoRa Protocol | Private LoRa, LoRaWAN, CLAA, LinkWAN, LoRoit, TTN |
| Communication Protocol | Modbus RTU, Transparent transmission |
| Urban Communication Distance | 1~3.5km |
| Output Power | 18±1dBm |
| Sensitivity | < -140dBm |
| Data Rate | 0.3, 0.5, 1.0, 1.8, 3.1, 5.5 kbps |

HARDWARE

| | |
|--------------|------------------------------------|
| CPU | Industrial-grade 32 bits processor |
| FLASH | 128KB |
| SRAM | 32KB |

INTERFACE

| | |
|--------------------------|---|
| UART | <ul style="list-style-type: none">• Data bits: 8• Stop bits: 1, 2• Checksum: none, odd, even• Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps |
| Indicate LEDs | Power down, led status: off Power on and communicating, led status: on Adding network, led status: flash |
| Antenna Connector | 50Ω SMA female interface |
| Application | 1*solar charge input interface (only F8L10ST-B support) 2*analog input interface (1*0~5V voltage input, 1*0~20mA current input) 2*GPIO 1*Voltage output, 12V/300mA |



POWER SUPPLY

| | |
|------------------|--|
| F8L10ST-A | 3.6V/5200mA lithium battery |
| F8L10ST-B | 18V/10W solar charging with embedded lithium battery |

POWER CONSUMPTION

| | |
|------------------|--|
| F8L10ST-A | TXD: 127mA@3.3V RXD: 15mA@3.3V Deep Sleep: 4uA@3.3V |
| F8L10ST-B | TXD: 127mA@3.3V RXD: 15mA@3.3V Deep Sleep: 15uA@3.3V |

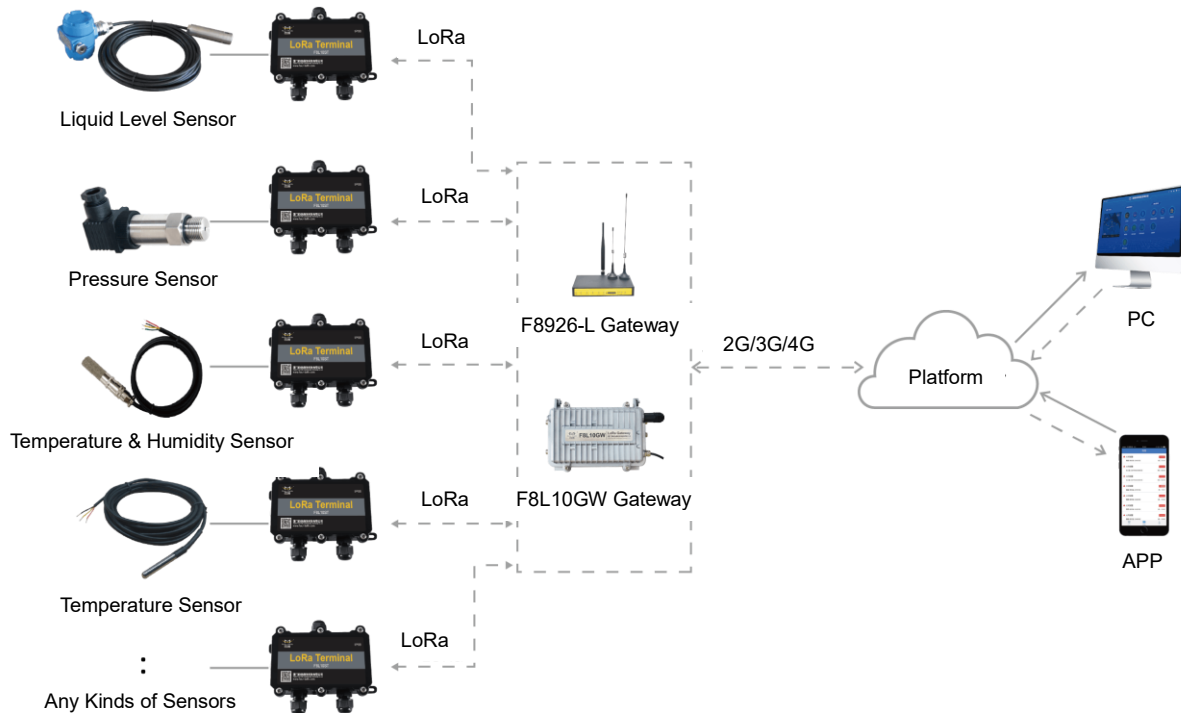
PHYSICAL PROPERTIES

| | |
|-------------------|------------------------------------|
| Shell | PC material shell, IP68 protection |
| Dimensions | 120.0x70.0x48.0mm |
| Weight | 1.5g |

OTHERS

| | |
|------------------------------|------------------------|
| Operating Temperature | -20~+60°C (-40~+185°F) |
| Storage Temperature | -20~+60°C (-40~+257°F) |
| Relative Humidity | 95% (non-condensing) |

TOPOLOGY



ORDERING

| Model | Band | Remark |
|--------------------|-------------|--|
| F8L10ST-A-L | 410-510 MHz | Only support lithium battery, compatible with many kinds of sensors, such as temperature and humidity sensor |
| F8L10ST-A-H | 863-928MHZ | |
| F8L10ST-B-L | 410-510 MHz | Support solar or DC power supply and the battery can charge, support 1*12V output, compatible with many kinds of sensors |
| F8L10ST-B-H | 863-928MHZ | |