

LoRaWAN® Module

F8L10C



Introduction

F8L10C LoRa data transfer module is an embedded wireless data transfer module based on LoRa technology. It uses the LoRa network to provide users with wireless data transfer functions. F8L10C adopts a high-performance and low-power consumption LoRa SOC embedded solution, MCU uses ARM Cortex M4, module support LoRaWAN, private, CLAA, LinkWAN, and other protocols. The ultra-small size design of the product can be widely used in the M2M industry in the IoT industry chain, such as smart power grid, smart transportation, water meter reading, and other industries.



Industrial-grade Design

- ▶ High-performance industrial-grade CPU and wireless module
- ▶ Low power consumption
- ▶ High receive sensitivity
- ▶ DC: 1.7 ~ 3.7V
- ▶ Using miniature four sides 1.27mm*10 stamp hole encapsulation



High Performance

- ▶ Support LoRa modulation
- ▶ LoRaWAN® 1.0.2, LinkWAN, CLAA protocols
- ▶ Reception sensitivity up to -139dBm@125KHz,SF12, CR1
- ▶ Support software upgrade by serial port
- ▶ Support all ISM bands from 150MHz to 960MHz
- ▶ Flexible transmit power up to 22 dBm

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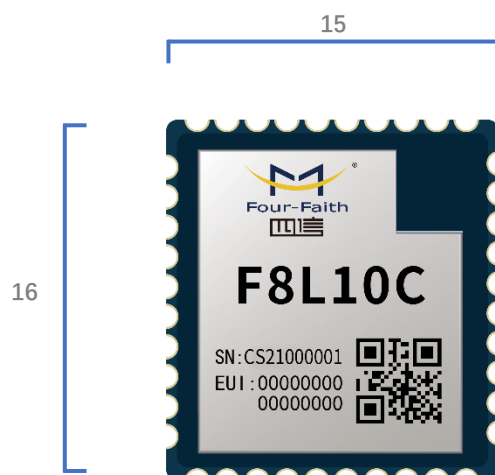
Product Specification

Characteristics	
Items	Contents
Band	150MHz to 960MHz all ISM bands
Theoretical Maximum Transmitting Power	22dBm
Sensitivity	125kHz Bandwidth, -126dBm@125KHz,SF7, CR1 125kHz Bandwidth, -133dBm@125KHz,SF10, CR1 125kHz Bandwidth, -139dBm@125KHz,SF12, CR1 -140dBm@(SF=12, BW=125kHz) -135dBm@(SF=10, BW=125kHz) -126dBm@(SF=7, BW=125kHz)
Power Supply	
Items	Contents
Standard	DC3.3V > 300mA
Power Consumption	
Items	Contents
RXD	<10mA@3.3V DC
TXD	Pout=+22dBm <120mA@3.3V Pout=+20dBm <113mA@3.3V
Timely Wake-up	<2uA@3.3V DC
Deep Sleep	<2uA@3.3V DC
Physical Properties	
Items	Contents
Dimensions	15x16x2.5mm
Weight	2g
Others	
Items	Contents
Operating Temperature	-40~+85°C (-40~+185°F)
Storage Temperature	-40~+125°C (-40~+257°F)
Relative Humidity	95% (non-condensing)

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Dimension (mm)



Order Information

Products	Frequency	Description
F8L10C-00LU	410-510 MHz	Non PA, U.FL Port, stamp hole encapsulation
F8L10C-00LN	410-510 MHz	Non PA, Output Pin, stamp hole encapsulation
F8L10C-00HU	863-928 MHz	Non PA, U.FL Port, stamp hole encapsulation
F8L10C-00HN	863-928 MHz	Non PA, Output Pin, stamp hole encapsulation