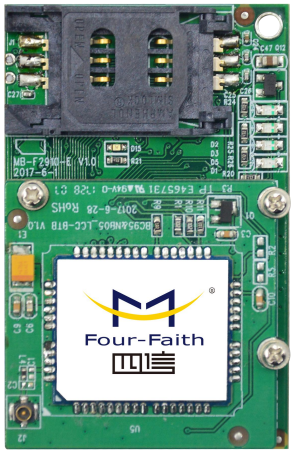
Document version	Confidential
V1.0.0	

F2910-E Embedded NB-IoT Technical Specification



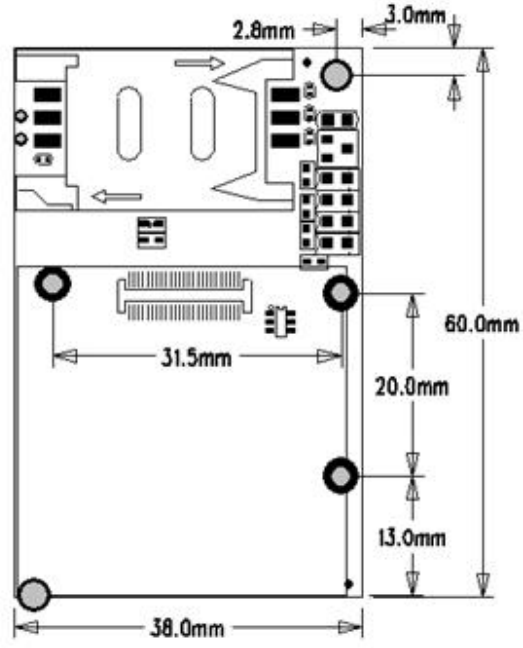
General

F2910 series NB-IoT Terminal is a kind of Internet of things device that provides data transfer by public NB-IoT network.

It adopts high-powered industrial 32 bits CPU and embedded real time operating system.3 way serial port design,support TTL interface,It can be directly embedded into the equipment to realize the transparent transmission of data and low power design.

It has been widely used on M2M fields, such as wireless meter reading, smart city, smart grid, intelligent transportation, fire protection, asset tracking, mobile terminal POS, logistics, industrial automation, digital medical, military, agriculture, forestry, water, coal, petrochemical and other fields of data transmission.

Dimension: (unit: mm)



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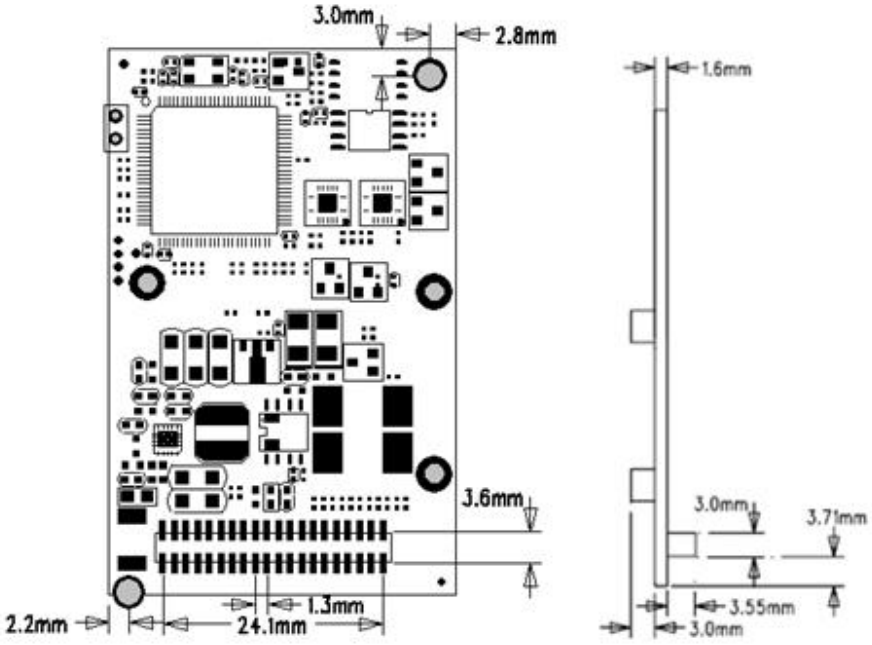

BOTTOM

Note:The components and position on the PCB board may be changed slightly with the version upgrade. Please take the object as the object.

Note: different parts and interfaces may be different.

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Product Feature

Design for Industrial Application

- High-powered industrial NB-IoT module
- High-powered industrial 32 bits CPU
- Low power consumption design, save the power consumption maximum.
- Power range: DC 3.6~9V
- Working temperature range:-40~+75℃

Stability and Reliability

- Support hardware and software WDT
- Support auto recovery mechanism, including online detect, auto redial when offline to make it always online
- SIM/UIM port: 15KV ESD protection
- Power port: reverse-voltage ,Overcurrent protection and overvoltage protection
- Fewer connectors and good seismic performance

Standard and Convenience

- Providing a standard TTL interface,Can be directly embedded into the device
- Support intellectual mode, enter into communication state automatically when powered
- Provide management software for remote management
- Support several work modes
- Convenient system configuration and maintenance interface
- Support serial port upgrade, remote maintenance, device log expor
- The embedded installation is convenient, fast and convenient fixation

High-performance

- Support multi data centers and it can support 5 data centers at the same time
- Design with standard UDP/COAP protocol stack,Support transparent data transmission
- A multi indicator light that can indicate a variety of system states
- The support of real-time serial read device, such as IMEI, SIM card, IP address, signal value etc

Product Specification

NB-IoT Specification

Item	Content
F2910 NB-IoT Terminal	
Standard and Band	B5：850MHz B8：900MHz B20：800MHz
Bandwidth	100bps~100Kbps
TX power	23±1dBm

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RX sensitivity	<-129dBm

Interface type

Serial data interface	Port number:3 uart uart1：TTL uart2：TTL uart3：TTL Serial port form:2×20PIN 1.27 interval Female Header Connector Stop bits：1、2 Parity: none, even, odd, space Baud rate: 110~230400 bps
Antenna interface	Standard PIEX interface, 50 ohm
SIM/UIM	Standard user card interface, support 3V SIM/UIM card
Indicator	“power”、“USIM card”、“run”、“Network status indication”

Power supply

Item	Content
Standard Power	DC 5V
Power range	DC 3.6~9V

Consumption

Working condition	Consumption	
Communication	25-30mA@5V	40-45mA@3.6V
Standby	7-9mA@5V	12-14mA@3.6V

Physical Characteristics

Item	Content
Installation	Embedded
Dimensions	60x38x12mm
Weight	8.0g

Environmental Limits

Item	Content
Operating Temperature	-35~+75ºC(-31~+167℉)
Storage Temperature	-40~+85ºC (-40~+185℉)
Operating Humidity	95% (unfreezing)

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Ordering Information

Model No.	Description
F2910-E-B5	850MHz, band5, Facing China and South Korea; Support the China Telecom.
F2910--E-B8	900MHz, band8, Facing China Europe and South Korea; Support the China Mobile and Unicom.
F2910-E-B20	800MHz, band20, Facing Europe.

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