



MoNi-NoMo

Mini Module Cellular Smart Controller, NB-IoT

Features

- Support UART / SPI / I2C and GPIO interface
- Support NB-IOT and CAT-M1
- Reduced hardware complexity with 2 antennas required
- Small and compact size
- Extremely low power consumption for battery life of 10+ years

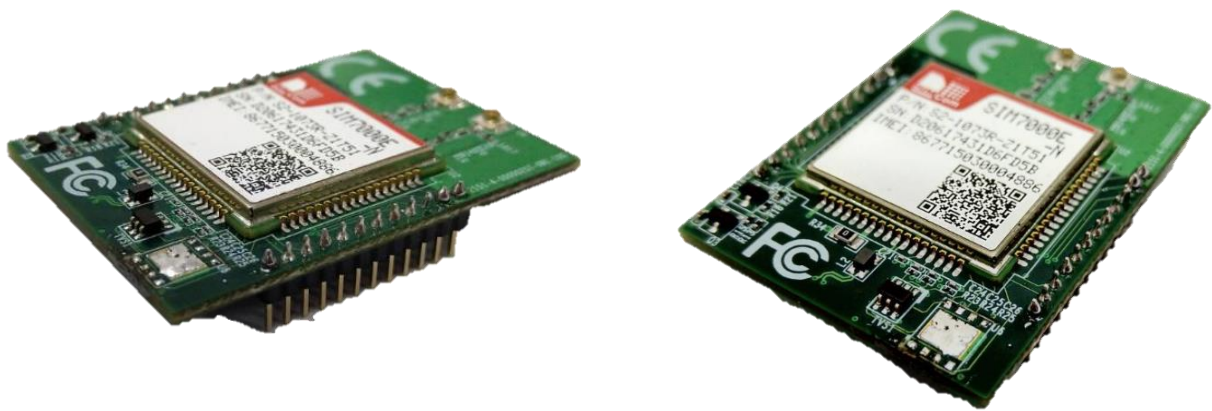
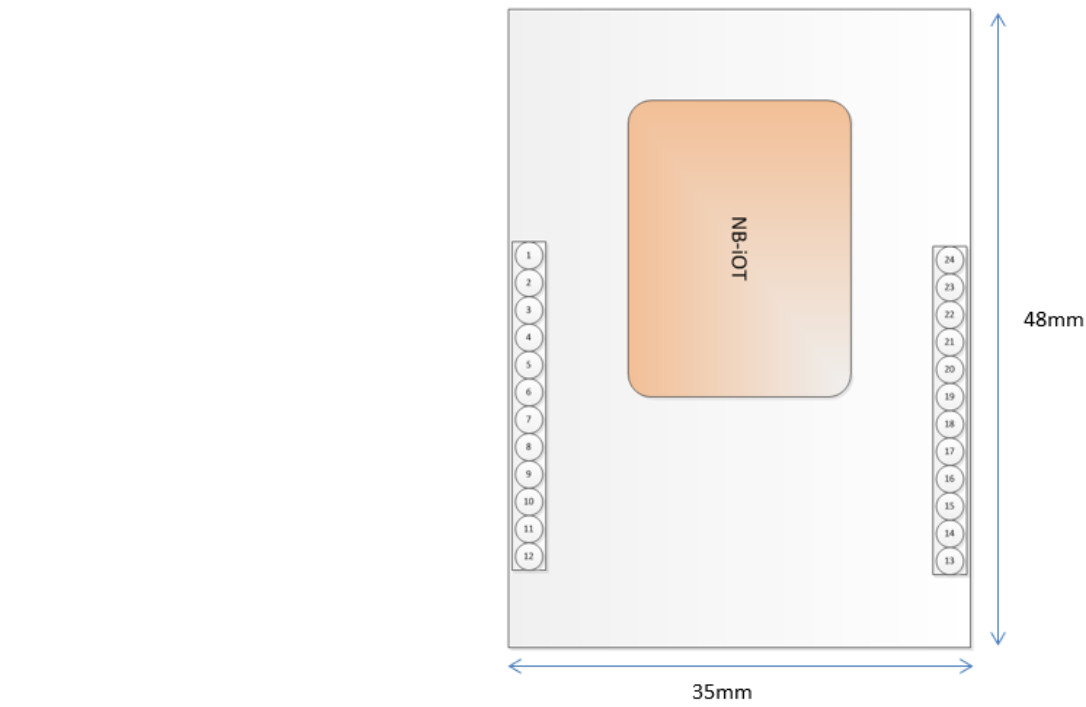


Introduction

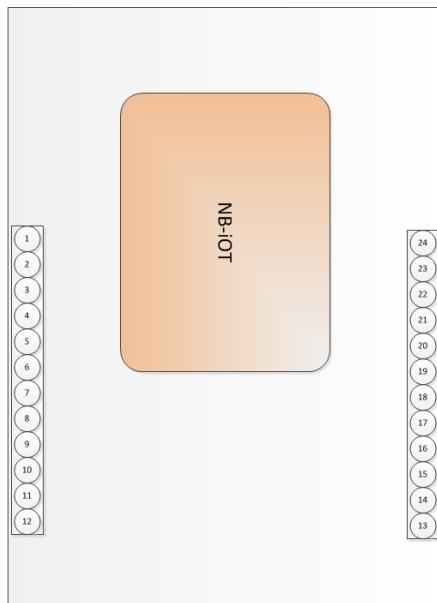
ORing MoNi-NoMo modules accelerate time to market for designers, OEMs and solution providers by quickly enabling wireless connectivity and easy-to-add functionality. Building on industry-leading technology, provide wireless protocols as needed. MoNi-NoMo Cellular LTE-M/NB-IoT modules feature a power saving mode which extends sleep time and battery life. MoNi-NoMo modules can be easily configured and controlled from a simple, central platform.

ORing MoNi-70113D4-NB modules support UART/ SPI / GPIO / I2C and 3.3VDC Power input.

Dimension



Pin Definition



Pin #	Function	Pin #	Function
1	3.3V input	13	GND
2	GND	14	ADC/DI
3	RESET, Low active	15	ADC/DI
4	I2C1_SDA/DI/DO	16	ADC/DI
5	I2C1_SCL	17	SPI1_MOSI
6	PWM/DO	18	SPI1_MISO
7	PWM/DO	19	SPI1_CLK/PWM
8	PWM/DO	20	SPI1_NSS/DO
9	WAKE/DI	21	LPUART_RST1/DO
10	UART1_DE	22	LPUART_CTS1/DO
11	UART1_RX	23	LPUART_RX1
12	UART1_TX	24	LPUART_TX

Specification

ORing Model	MoNi-NoMo
Form Factor	
Type	24 pin through-hole (pitch 2mm)
Dimension (mm)	48x35mm
Weight (g)	TBD
SIM Card Size	4FF Nano ESIM(5x6mm) optional
Wireless	
NB-IOT	Frequency Band: B1/B2/B3/B4/B5/B8/B12/B13/B20/B28
	AT Command: 3GPP Rel-13 and enhanced AT commands
CAT M1	Frequency Band: B1/B2/B3/B4/B5/B8/B12/B13/B20/B28
	AT Command: 3GPP TS27.007, 27.005 and other enhanced AT Commands
Interface and I/O	
Data Interface	UART, SPI, I2C
Operating Modes	Transparent, API, TCP/UDP
I/O	2 ADC lines, PWM*2 DO/DI *2
Protocol	
IOT protocol	MQTT, COAP, LWM2M
serial protocol	Modbus RTU/ASCII
Power Consumption	
Input Voltage	3.3 VDC
Current Consumption	TBD
Certification	
Certification	CE, FCC
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-20 to 70°C (-4 to 158°F)
Operating Humidity	5% to 95% Non-condensing
Warranty	2 years

Ordering Information

Model Name	Description
MoNi-N0M0-0002	Mini Module, NB-IoT, UART / 1SPI / 1I2C / 6GPIO
Moni-70116D4-NB*	Mini Module, NB-IoT, UART / 1SPI / 1I2C / 6GPIO

*: RF Band	
NB-IoT	
AS	Band 1 、 3 、 5 、 8
EU	Band 3 、 8 、 20 、 28
NA	Band 2 、 4 、 12 、 13

Packing List

MoNi-N0M0-0002 x1 / Moni-70116D4-NB x1

User Guide x1

Quick Guide Installation x1