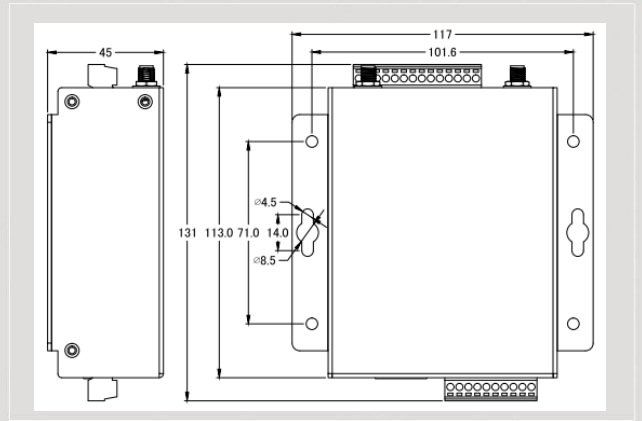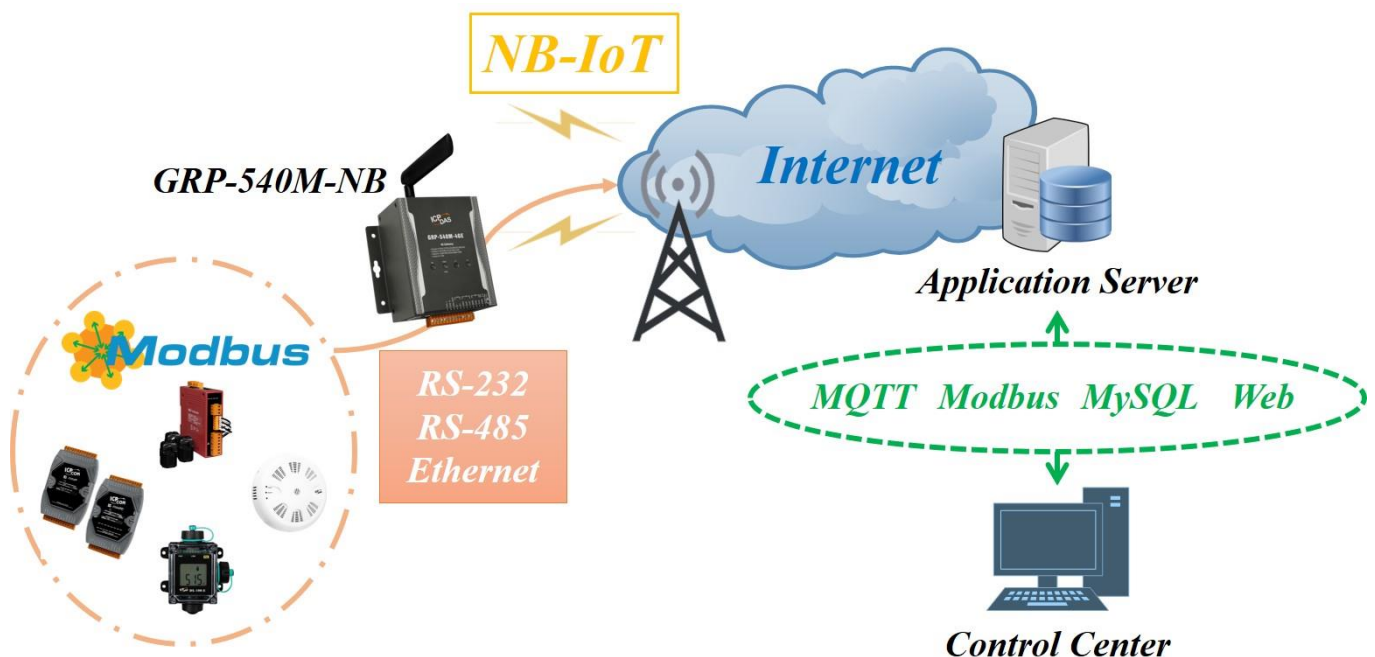# M2M Series Products

NB-IoT Gateway

GRP-540M-NB

Dimensions

The GRP-540M-NB provided by ICP DAS is a NB-IoT gateway for Ethernet and serial port. It can be used in M2M application fields to transfer the remote I/O or Modbus data via NB-IoT. Within the high performance CPU, the GRP-540M-NB can handle a large of data and are suited for the hard industrial environment. When connecting with NB-DA Server or MQTT Broker, the user can also control the devices which connected to GRP-540M-NB from the remote control center.

Features

- Support NB-IoT
- 10/100 Base-TX compatible Ethernet controller
- GPS: 32 channels with All-In-View tracking
- Support Micro SD card

- Support Modbus RTU/TCP
- Support MQTT
- High reliability in harsh environments
- DIN-Rail mountable

Application

Hardware Specifications

Item	GRP-540M-NB
Software	
Gateway Function	Ethernet and Serial port (RS-232 x1, RS-485 x1) to NB-IoT
Embedded service	Web Server, NB-IoT Gateway
System	
CPU	ARM CPU
EEPROM	16 KB (Data Retention: 40 years; 1,000,000 erase/write cycles)
Expansion Flash Memory	SD Card (Max. 32GB SDHC)
RTC(Real Time Clock)	Provide seconds, minutes, hours, day of week/month, month and year
64-bit Hardware Serial Number	Yes
Watchdog Timer	Yes
LED Indicator	4 LEDs (RUN/PWR, NB-IoT, L1, L2)
Rotary Switch	Yes (0~9)
NB-IoT System	
Frequency Band	LTE NB-IoT B1, B3, B5, B8, B20, B28
GPS System	
Support Channels	32
Protocol Support	NMEA 0183
Comm. Interface	
Ethernet	RJ-45, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)
COM1	RS-232 (RxD, TxD and GND); Non-isolated(Console, Debug)
COM2	RS-232 (RxD, TxD and GND); Non-isolated
COM3	RS-485 (D2+, D2-); 3000 VDC isolated
CAN	CAN Bus (CAN_H, CAN_L)
Mechanism	
Casing	Metal
Dimensions(W x L x H)	117 mm x 126 mm x 58 mm (W x L x H)
Installation	DIN-Rail / Screw
Power	
Protection	Power reverse polarity protection
Frame Ground Protection	ESD, Surge, EFT, Hi-Pot
Required Supply Voltage	+10 V_{DC} ~ +48 V_{DC}
Power Consumption	4.8W (200 mA @ 24 V_{DC})
Environment	
Operation Temp	-25℃ to 75℃
Storage Temp	-30℃ to 80℃
Humidity	5~95% non-condensing

Ordering Information

GRP-540M-NB CR	LTE NB-IoT Gateway (RoHS)