Know your Device
Modular & Enterprise IoT Development Kit

Know Hi-Gate
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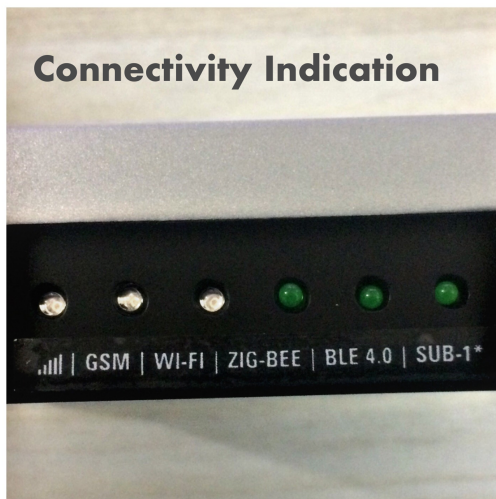
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Know Hi-Gate

About Hi-Gate

Hi-Gate is the brain of this kit which is fully Modular & Enterprise IoT gateway with TI MODCC3200 at its heart, it offers better computational power to run advance IoT algorithms & communications due to availability of multiple on board connectivity protocols such as Inbound Connectivity Protocols: Zig-Bee, BLE 4.0, SUB-1* & Outbound Connectivity Protocols: (Wi-Fi) 802.11 B/G/N Radio, GSM/GPRS (2G) [Note: Modular shield provision available for Ethernet & 3G, 4G modem].

Connectivity Indication

.ull | GSM | WI-FI | ZIG-BEE | BLE 4.0 | SUB-1*

POWER | RESET | ANTENA | SIM CARD

Set-up Indication

On-board GPIO Indication

GND A1 5V | GND D1 5V | 230V L1 | 230V L2

HI-GATE

Hi-Gate Indications

Connectivity Indicators	LED's	Status	State
Data communication	Signal	On	Only while data reception
		Off	Rest of the time
Out-Bound Connectivity	GSM	On	GSM mode
		Blink	During changing mode
		Off	No GSM mode
	WI-FI	On	Wi-Fi Mode
		Blink	Connecting to Wi-Fi
		Off	No Wi-Fi
In-Bound Connectivity	Zig-Bee	On	Local communication through zig-Bee
	BLe4.0	On	Local communication through zig-Bee
	Sub-1	On	Local communication through zig-Bee

Hi-Gate Specification

1) Microcontroller: TI-CC3200 ARM® Cortex®-M4 Core at 80 MHz
2) Operating voltage: 2.3V to 3.6V [*Analog Input Maximum 1.5V]
3) Input voltage: 5V (USB)
4) InBound Connectivity:
    a. Wired
        i. 2 Input channels
        ii. 2 Output channels [**Be careful! Do not manipulate the Hi-Gate while it**'s connected to the 110/23**0V AC lines**]
    b. Wireless
        i. On-Board: Zig-Bee, BLE4.0.
        ii. Modular extension: Sub-1
5) OutBound Connectivity:
    a. Wireless
        i. On-Board: Wi-Fi (802.11 b/g/n Radio), Cellular 2G (M66 Quectel).
        ii. Modular Extension: Cellular 3G (EC20 Quectel), 4G (EC25 Quectel)

6) Memory: 256KB RAM, 1MB serial flash memory with file system.
7) Other on-board peripherals: Buzzer, RTC, Relays, External EEPROM (128KB).
8) Ambient Temperature Range: –40°C to 85°C.
9) Humidity: 5% to 95% (non-condensing)
10) Dimensions: 130x115x36 (mm)

Know Hi-Node

About Hi-Node

Hi-Node is a wireless node consist of 3 individual units such as sensor, actuator & power which can be connected in two combinations according to application need.

Sensor + Power	Sensor + Actuator
Combination1: for IoT monitoring applications	Combination2: for rest all IoT applications

[Note: Use 6 pins female-2-female connector to connect your nodes guided by male headers on both side of individual units]

Hi-Node Indications

Individual Node Unit		On-Board Functionalities	Description
Sensor		Power Switch	Switch On/Off node
		Setup LED	On for 10 sec. once power on or reset
		Reset Button	Press reset button to execute node from start
		Input channels	Total channels 4 Analog: A1, A2 Digital: D1, D2
Actuator		Output Channels	Total Channels 4 L1, L2, L3, L4 [Be careful! Do not manipulate the Node while it's connected to the 110/230V AC lines]
Power		USB connector	5V power through USB
		LED	Battery charging status
		Push Button	Select the Node power source, for USB – Press the push button Battery - Don't press

Hi-Node Specifications

1) Controller: ATmega328P
2) Flash memory: 32 KB (ATmega328P) of which 0.5 KB used by bootloader
3) SRAM: 2 KB (ATmega328P)
4) EEPROM: 1 KB (ATmega328P)
5) Input Channels: 2 Analog, 2 Digital
6) Output Channels: L1, L2, L3, L4
7) Pluggable module:
   - On-board - Zig-Bee
   - Modular Extension – BLE4.0, SUB-1
8) Input Voltage: [5V via USB or 3.7V via Li-on18650 rechargeable battery (Note: Connect the battery properly by following the signs of positive & negative on power board otherwise wrong battery insertion will damage the board)]
9) Ambient Temperature Range: –40°C to 85°C.
10) Humidity: 5% to 95% (non-condensing)
11) Dimensions: 100x146x32.38 (mm)

Build your complete IoT solutions right from scratch to Production

Reach us

If you have further questions or require personal assistance, please contact hIOTron by sending on email

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