

# Go-IoT

Take control of the past, the present  
and the future!

Modular hardware and software solutions for  
the Horizontal IoT Industry -

**Specializing in Building Automation**

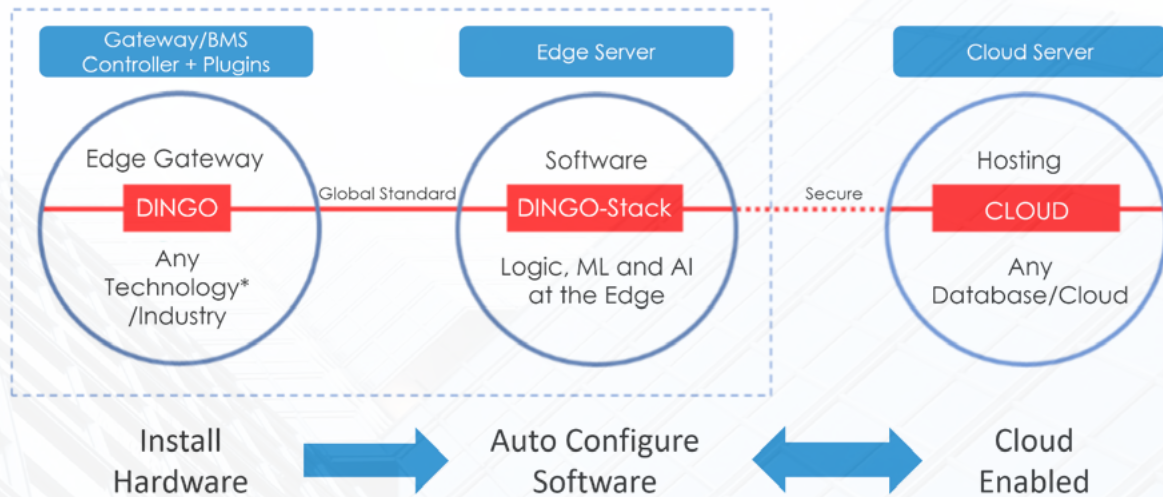
ONE Open, modular and secure  
solution from sensor to Cloud

Create your own apps in whatever language  
you want and have them communicate with all  
devices and sensors in one modular solution.



# Go-IoT Sensor to Cloud

Enabling access and control to ALL data from the edge to the cloud remotely, securely in an open and modular way.



## Ensuring lifetime Building Performance

- None-BACnet protocols gatewayed to BACnet in one device by software. After that all devices seen as BACnet-devices. Any vendor that supports BACnet, is also 100% supported by the solution
- Cloud security with encryption and OAuth 2.0 authentication, equivalent to VPN
- Scalable from few sensors/actuators in-building to thousands by the Edge Server, using small footprint hardware to any database of choice, combining the old with the new!
- BACnet/WS and/or BACnet/IT enables moving software components from the Cloud to Edge and vice versa

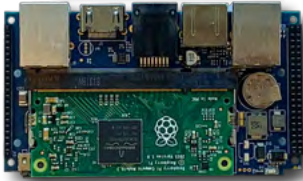


Figure 1. Dashboard enabled by Node-RED. Simple drag and drop with any software application on the market, from sensor to cloud!



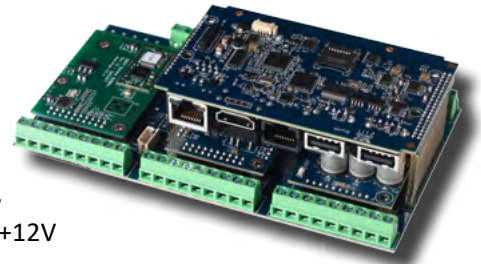
# Go-IoT Dingo CORE PCBs

## Raspberry PI



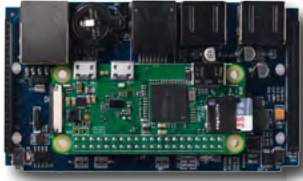
### CB-PI Compute

Raspberry PI Compute 1 or 3 compatible Ethernet 10/100, HDMI, SD Holder, 4 USB Ports, I2C Root of Trust, RS232, RS485, 3 x TTL Serial Ports, RTC with Battery Backup, EEPROM, 1 wire, I2C, SPI, 21 x GPIO Expansion, DC Input +12V



### CB-PI Zero

Can be used with Raspberry PI Zero or PI ZeroW, Ethernet 10MB, 2 USB Ports, Root of Trust, RS232, RS485, 2 x TTL Serial Ports, RTC with Battery Backup, EEPROM, 1 wire, I2C, SPI. 21 x GPIO Expansion, DC Input +12V



## i.MX6 ULL



### CB-IMX6UL/ULL

NXP iMX6UL / ULL - Speed up to 900MHz  
RAM upto 512Mbyte , NAND up to 512Mbyte , eMMC up to 8GByte  
2 Ethernet 10/100, POE, SD Holder , 4 USB Ports , RS232 , RS485 , I2C Root of Trust  
2 x TTL Serial Ports, RTC with Battery Backup, EEPROM, 1 wire, 2 x I2C, SPI  
24 x GPIO Expansion, DC Input +12V

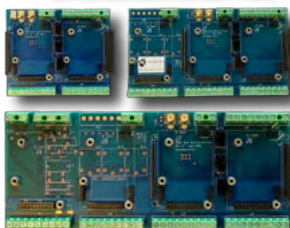
## ATxmega



### CB-ATXMEGA

Atmel ATXMEGA256A3U/ATXMEGA256C3 @32MIPs, RAM 16KByte, FLASH 256KByte, EEPROM 4KByte, RS232, RS485, 3 x TTL, Serial Ports, RTC with Battery Backup 1 wire, 1 x I2C, SPI,  
21 x GPIO Expansion, DC Input +12V

## BaseBoards



### BaseBoard 2 - 3- or 4 Position

Up to 4 Plug In positions, 3 x USB, 2 x Serial, 1 I2C, SPI. 8 Opto Isolated Inputs, up to 5 Relays, Battery Backup Charger -3.3Ah. 3 N Channel FET Outputs, DC Input up to +48V  
4 Station – Integrated 110V/220V AC PSU



## Expansion



### CD-PI3-EXPANSION

HAT for PI 3+, 3, 2+, 2  
USB, Serial TTL, RTC with Battery Backup, EEPROM 4K x 8, I2C Port, SPI, Intelligent UPS, DC Supply Monitoring, Battery Charger, DC Input +12V to +42V

## Display Boards



### UB-LED\_LCD

17 Dual Read / Green LEDs controlled by I2C TLC59116 LED Controller 128 x 64 OLED 1.3" Graphic LCD 1.8" Colour LCD 160 x 128 with 4 Keys also available upon request

# Go-IoT Plugins



## PG-PINGO

Transmits data over Power Lines using CENELEC B 95KHz to 125KHz Baud Rate 50 - 3200 BPS LED for Comms Status, DC Input +12V



## PG-PINGO 2

Powerline communication based on HomePlug Green PHY Data Transmitted as TCP/IP Ethernet packets. Protocols CSMA, Modulation OFDM-1155 & QPSK ROBUST modov Range up to 300 Meters, Power Line 95-265VAC



## PG-PINGO 3

Fully compatible with HomePlug Green PHY and AV Standards. Protocols CSMA, Modulation OFDM-1155 & QPSK ROBUST mod Security 128bit AES data encryption, Range up to 300 Meters. Power Line 95-265VAC, 45-65Hz, 4 Serial Ports, i2C, ADC, DAC, SSP



## PG-RS485

USB or Serial Input 4 wire Full Duplex, 2 wire Half Duplex LEDs for TX and RX Isolation Voltage 2.5KV DC Input +5V



## PG-MBUS80

USB or Serial Input Interfaces upto 80 MBus Meters MBUS Voltage 36V LEDs for TXD and RXD Isolation Voltage 2.5KV DC Input +5V



## PG-MBUS05

USB or Serial Input Interfaces upto 5 MBus Meters MBUS Voltage 36V, LEDs for TXD & RXD Isolation Voltage 2.5KV, DC Input +5V



## PG-ENOCEAN

USB or Serial Input, EnOcean Transceiver TCM310, Frequency 868 / 902,928MHz Data Rate 125Kbps DC Input +5V



## PG-AI4

4 Channel Opto Isolated Analog Input Module 0-2V, 0-5V, 0-10V, 4-20mA Single Ended Inputs Differential Inputs DC Input +5V



## PG-NEMEUS

USB or Serial Input, LoRa Sigfox Transceiver MM002, Frequency Band 434 / 868MHz Data Rate up to 300kbps or 10937bps LoRa, DC Input +5V



## PG-HART-4-20ma

HART Modem – Maxim DS8500 Half-Duplex Modem Overlays 1200bps FSK USB, Serial TTL, DC Input +5V



## LumenRadio



## RADIOCRAFT



## PG-PSU

90V AC to 240V AC Input, Isolation Voltage 2.5KV RMS +12V @ 1A output



## PG-GSM-3G

USB or Serial Input, Quectel UG96 GSM Module, 5 Band, Data Rate up to 5.76Mbps, LED Indicators DC Input +5V



## PG-XBEE

USB or Serial Input, XBEE Transceiver EM357, Frequency Band 2.4GHz, Range upto 90m, Data Rate up to 250Kbps, LED Indicators DC Input +5V



## PG-NB-IOT

USB or Serial Input, Quectel BG96 GSM Module, 4 Band, Data Rate up to 375Kbps, LED Indicators DC Input +5V



## PG-LORA

USB or Serial Input, Lora Transceiver RN2483A, Frequency Band 434 / 868MHz, Data Rate up to 300Kbps or 10937bps LoRa, DC Input +5V



## PG-WMBUS

USB or Serial Input, wMBUS Transceiver AMB8x46, Frequency 868MHz, Data Rate upto 100Kbps. Range up to 14000m LED Indicators, DC Input + 5V



## PG-DALI

DALI MASTER – 64 Slaves (ballasts) – 2 wire Differential Output. Isolation Voltage 2.5kV, 4 LED Indicators – TXD, RXD, Status, Error, Serial TTL, USB, DC Input + 5V



## PG-CLICK

Expansion PCB for CLICK Module (up to double size) Serial TTL, USB, i2C, SPI, 2 LED Indicators – TXD, RXD DC Input +5V, +3.3V



## PG-MiniPCI

Expansion PCB for miniPCI Modem or LoRa Basestation. USB, LED Indicator DC Input +5V



## PG-NB-HART

HART Transceiver Module – RM1100S HART Regulation HCF\_SPEC-155 V2.0, HART Field Strength HCF\_SPEC-13 V7.4 Frequency 2.405GHz – 2.475GHz, DC Input +5V



## CASCODA