

iG100

General Purpose IoT Gateway

OVERVIEW

The iG100 is an entry level general purpose IoT gateway to connect fusions of sensors, collects signals and internally process those signal and transmit to aggregators or cloud based platform. It connects any analogue or digital sensors, relay outputs, PWM outputs and connect other sensors by using CAN BUS or MODBUS protocol using high speed Serial and CAN BUS adapter. The gateway connects a maximum of 32 sensors using the entry level iG100E model and connect a maximum of 128 Sensors by using the professional iG100P model.



Cost effective iG100 product connects 4 analogue and 12 digital sensors with 4 PWM output and 4 relay output. It provides on board CAN BUS and MODBUS protocol support with Ethernet and Wi-Fi capability. The system is loaded with on-chip MQTT server which can stream data to the cloud such as AWS (Amazon Web Service) or you can host your own IoT event processing and decision support system. CAN Bus port enables the device to interface directly with any vehicle and can transmit sensor information by using 3G/ LTE connection.

FEATURES

Input	Output	Power
» 12 Digital Ports	» 4 PWM	» Supply Voltage: 12V DC, Max 2A
» 4 Analog Ports Output	» 4 Relay	» Support for PoE (Powered device)
		» Digital I/O Voltage: 5V DC

COMMUNICATION

- » CAN bus (RJ45)
- » Modbus (RJ45) / RS485
- » 3G Modem (USB 2.0 host)
- » Flash Drive (USB 2.0 host)
- » LAN 10/100 BASE-TX (POE Optional)
- » Wi-Fi 150M 802.11b/g/n
- » 433 MHz Supported (Optional)
- » Optional support of Bluetooth BLE -4

MODEL COMPARISON

iG100 E	iG100 P
» Processor: ATHEROS AR9331 chipset, 400MHz	» Processor: AM335x 1GHz ARM® Cortex-A8
» RAM: 64MB	» Co-Processor: FPGA Spartan 6
» ROM: 16MB	» Memory: 512MB DDR3 RAM (800Mb/s DDR3 with integrated memory controller)
» MicroSD: 32 GB (Optional)	» Flash Storage: 4GB 8-bit eMMC onboard Flash
» OS: NSOS	» Storage (to store FPGA configuration file)
» MQTT Server	» 3D Graphics Accelerator
» On-board Real Time Clock	» NEON floating-point accelerator
» Dimensions: 230 x 175 x 45 mm	» 2x PRU 32-bit Microcontrollers
» Enclosure Material: MS Sheet/Plastic	» RTC
» Weight: 749 g	» On board voltage regulation that can handle 4.8V – 12V.
» Operating Temperature : 0 to 70 degree	» Up to 8 low power 3.2Gb/s serial transceivers

USE CASES

- » House automation System
- » Intrusion prevention system
- » Fire prevention system
- » Access control system
- » Time & Attendance system
- » Facility monitoring system
- » Passenger vehicle management system
- » Parking guidance system
- » Environment Monitoring System

MECHANICAL SPECIFICATIONS

Item	Description
Housing	Plastic
Dimensions (LxWxH)	• 5 x 7 x 2.14 inch • 127 x 178 x 54.6 mm
Weight	Without Plugs and Brackets
	With Plugs With Brackets With Plugs and Brackets
	1.65 lb. (749g) 1.8 lb. (817g) 1.81 lb (823g) 1.97 lb (891g)
Certifications	• FCC • UL • CE
Operating Temperature	• Indoors only • 32 to 122°F (0 to 50°C)
Humidity	5 to 95% relative, non-condensing
Power	There are two options to power the device: 1. 12 to 24 VDC (+/- 10%) through an external power supply 2. 802.3AF-compliant Power over Ethernet (PoE) connected to the Ethernet 0 connector (Optional)

ORDERING INFORMATION

Item	Description
iG100-GW-E10	Internet of Things (IoT) Gateway, Express Model
iG100-GW-P10	Internet of Things (IoT) Gateway, Professional Model

FOR MORE INFORMATION

For more information about iG100 products, please contact us at sales@nybsys.com