IGT-30D/ IGT-31D

TI Sitara™ AM3352 ARM-based Industrial IoT Gateway with Dual LAN and Pre-installed Debian

Key Features

· **Industrial grade ARM-based system with pre-installed Debian**
· **Field-ready Isolated DI/O and RS-232/422/485**
· **12 to 25V wide-range DC input and 802.3at PoE+ PD**
· **-25°C to 70°C wide temperature operation**

CE FC

Introduction

Neousys IGT-30 series, equipped with AM3352 from Texas Instrument's Sitara AM335x family, is an ARM-based Box PC aimed at Industrial Internet of Things (IIoT) Gateway and Industry 4.0 applications. As required by any industrial applications, IGT-30 series is shipped as a ready system pre-installed with Debian and in compliance with common industrial certifications such as CE/FCC, shock and vibration. It has a power input range of 12 to 25 VDC and a wide operating temperature from -25°C to 70°C to ensure IGT-30 continues to function under harsh industrial conditions.

IGT-30 series supports PoE Powered Device (PD) mode meaning it can be powered by a LAN cable from a PoE Power Sourcing Equipment (PSE), and at the same time transfer data via this cable as well. IGT-30 series has I/Os that are applicable to a range of industrial grade sensors. It features one USB2.0 port, two 10/100M LAN ports, one configurable COM port (RS-232/422/485) and an optional CAN bus port(IGT-31D only). In addition to the ports mentioned in common on IGT-30D/31D, there are 8 built-in isolated digital input channels that accept discrete signals from various sensors or buttons/ switches. There are also 2 built-in isolated digital output channels to control actuators and indicators.

Communication wise, IGT-30 series has a mini PCIe slot and a USIM holder allowing it to transmit acquired data and system status via 3G, 4G or WiFi (mini PCIe WiFi module). There are two openings on top of IGT-30 series for users to mount the SMA connector of the wireless module. In terms of storage, IGT-30 series has dual microSDHC slots, one internal and one external. This design allows users to separate system/ user data and can expedite in OS deployment for mass production. Inherited from IGT-20, IGT-30 series provides six LED indicators and two function buttons that can be programmed by users. The function buttons can act as controls for IGT-30 series and exclude the need for external input devices, such as keyboard/ mouse.

Specifications

System Core

Processor	TI Sitara AM3352 1GHz processor
Memory	1GB DDR3L SDRAM

Front-panel I/O Interface

Ethernet	2x 10/100 LAN
SD Card	1x external T-flash socket support SDHC
USB	1x USB2.0
Isolated DIO	8-CH isolated DI and 2-CH isolated DO
Serial Port	1x software configurable RS-232/422/485
User LEDs	6x user programmable LEDs
Function Buttons	2x user programmable buttons
CAN	1x isolated CAN bus 2.0 A/B (IGT-31D only)

Top I/O Interface

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DC-in	1x DC-input connector
Power Button	1x power button
Reset Button	1x reset button
Console	1x 3-wire RS-232 as console port
Antenna Hole	2x antenna hole for WiFi and 3G/LTE

Internal I/O Interface

mPCIe	1x full size mPCIe (USB signal only) with an USIM holder
SD Card	1x internal T-flash socket support SDHC

Software

Operating System	Pre-installed Debian 9

Power Supply

DC input range	10~25V DC
PoE+ PD	Support IEEE 802.3at PoE+ PD

Mechanical

Dimension	43mm(W) x 77mm(D) x 104mm(H)
Weight	0.5 Kg
Mounting	DIN-rail

Environmental

Operating Temperature	-25°C ~ 70°C *
Storage temperature	-40°C ~ 80°C *
Humidity	10%~90%, non-condensing
Vibration	5Grms
Shock	50Grms
EMC	CE/FCC Class A, according to EN55032 & EN55024

* For sub-zero operating temperature, a wide temperature microSD module is required.

Appearance

- 6x Programmable LED
- Ext. mirco SD
- USB2.0 port
- LAN with PoE PD
- LAN
- 2x Programmable button
- 8xDI & 2x DO Isolated CAN bus (IGT-31D only)
- 12V~25V DC IN
- 1x RS-232/422/485 and console (RS-232)

Dimensions

Unit : mm

104
43
77
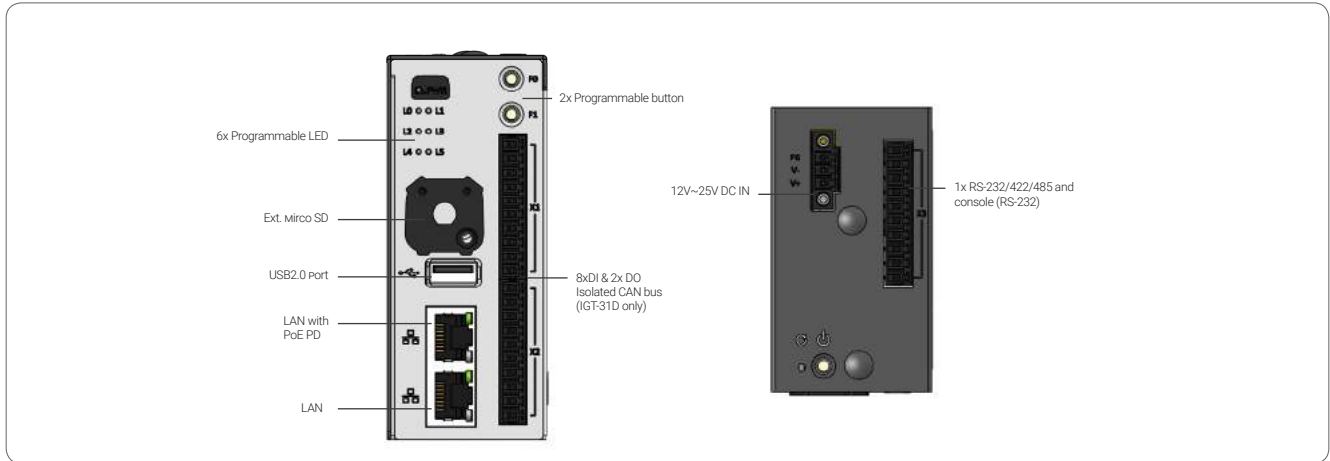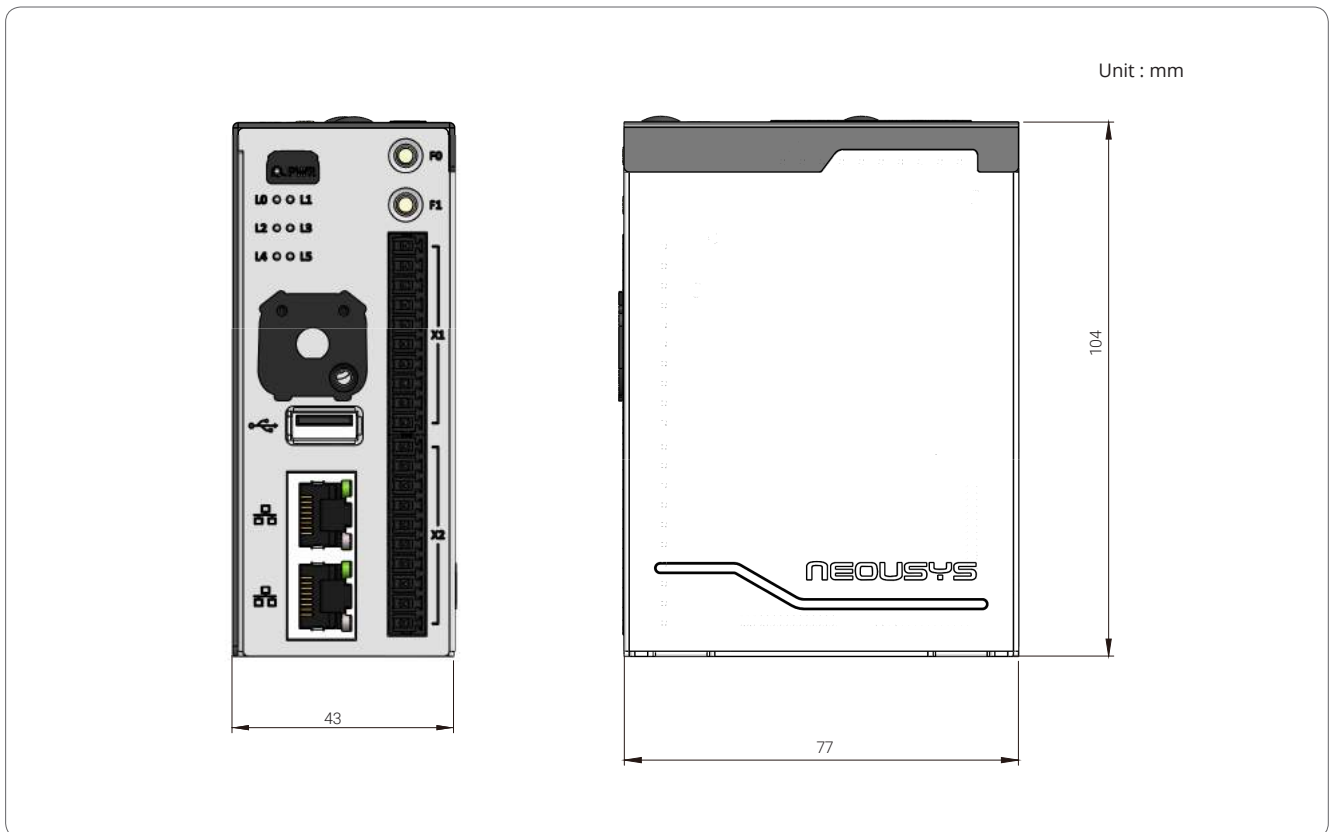
Ordering Information

Model No.	Product Description
IGT-30D	Industrial grade ARM-based IoT gateway with dual LAN and PoE PD enabled
IGT-31D	Industrial grade ARM-based IoT gateway with dual LAN, CAN bus and PoE PD enabled

Optional Cellular Module

NSIO-LTE-7455	Cat. 6 LTE embedded socket modem