

IGT-20 / IGT-21

Industrial Grade ARM-based Smart Wireless IoT Gateway Device with ARM Cortex A8, Dual T-Flash (microSD), and Pre-installed Debian



CE FCC

Key Features

- Industrial grade ARM-based system with pre-installed Debian
- Certified to operate on Verizon network
- Operating temperature from -25°C to 70°C
- 8 to 25V wide-range DC input
- Rich local I/O, such as USIM slot, USB, 10/100M LAN, and RS-232/ 422/ 485

Introduction

IGT-20 is an industrial grade ARM-based gateway. Unlike System on Module (SoM) that's commonly provided as a barebone component, IGT-20 is based on AM3352 from Texas Instrument's Sitara AM335x family and will be shipped as a ready system pre-installed with Debian. The industrial nature of IGT-20 means it is in compliance with common industrial certifications such as CE/FCC, shock and vibration. Another distinction IGT-20 has over SoM is that it accepts a wider range of power inputs ranging from 8 to 25 VDC (SoM usually accepts 5 VDC).

IGT-20 has I/Os that are applicable to a range of industrial grade sensors. It features one USB2.0, one 10/100M LAN, two configurable COM ports (RS-232/422/485) and an optional CAN bus port (IGT-21 only). In addition to the ports mentioned, there are 4 built-in isolated digital input channels that accept discrete signals from various sensors or buttons/ switches. There are also four built-in isolated digital output channels to control actuators and indicators.

Communication wise, IGT-20 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 is an opening on top of IGT-20 for users to mount the SMA connector of the wireless module. In terms of storage, IGT-20 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. As a gateway, users can take advantage of six programmable status LED indicators and two control buttons to operate IGT-20 without using a keyboard/ mouse.

Specifications

System Core

Processor	TI Sitara AM3352 1GHz processor
Memory	1GB DDR3L SDRAM
DC Input Range	8-25V DC

Front-panel I/O Interface

Ethernet	1x 10/100M Ethernet
SD Card	1x external T-flash socket support SDHC
SIM Card	1x external SIM socket
USB	1x USB2.0
Isolated DIO	4-CH isolated DI and 4-CH isolated DO
Console	1x 3-wire RS-232 as Console Port
User LEDs	6x user programmable LEDs
User Buttons	2x user programmable buttons
CAN	1x CAN bus 2.0 A/B (IGT-21 only)

Top I/O Interface

DC-in	1x DC-input connector
Power Button	1x power button
Reset Button	1x reset button
Serial Port	2x software configurable RS-232/ 422/ 485
Antenna Hole	1x antenna hole for WiFi and 3G/LTE

Internal I/O Interface

mPCIe	1x Full size mPCIe with USB2.0 only
SD Card	1x internal T-flash socket support SDHC

Software

Operating System	Debian 8 pre-installed
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Mechanical

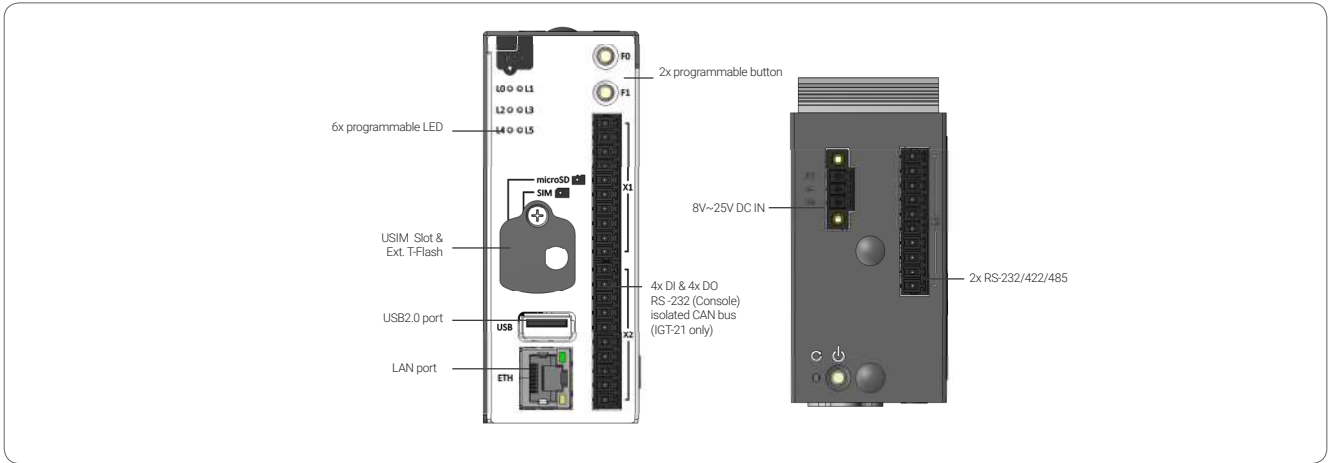
Dimension	41mm(W) x 77mm(D) x 104mm(H)
Weight	0.4 Kg
Mounting	DIN-rail mounting

Environmental

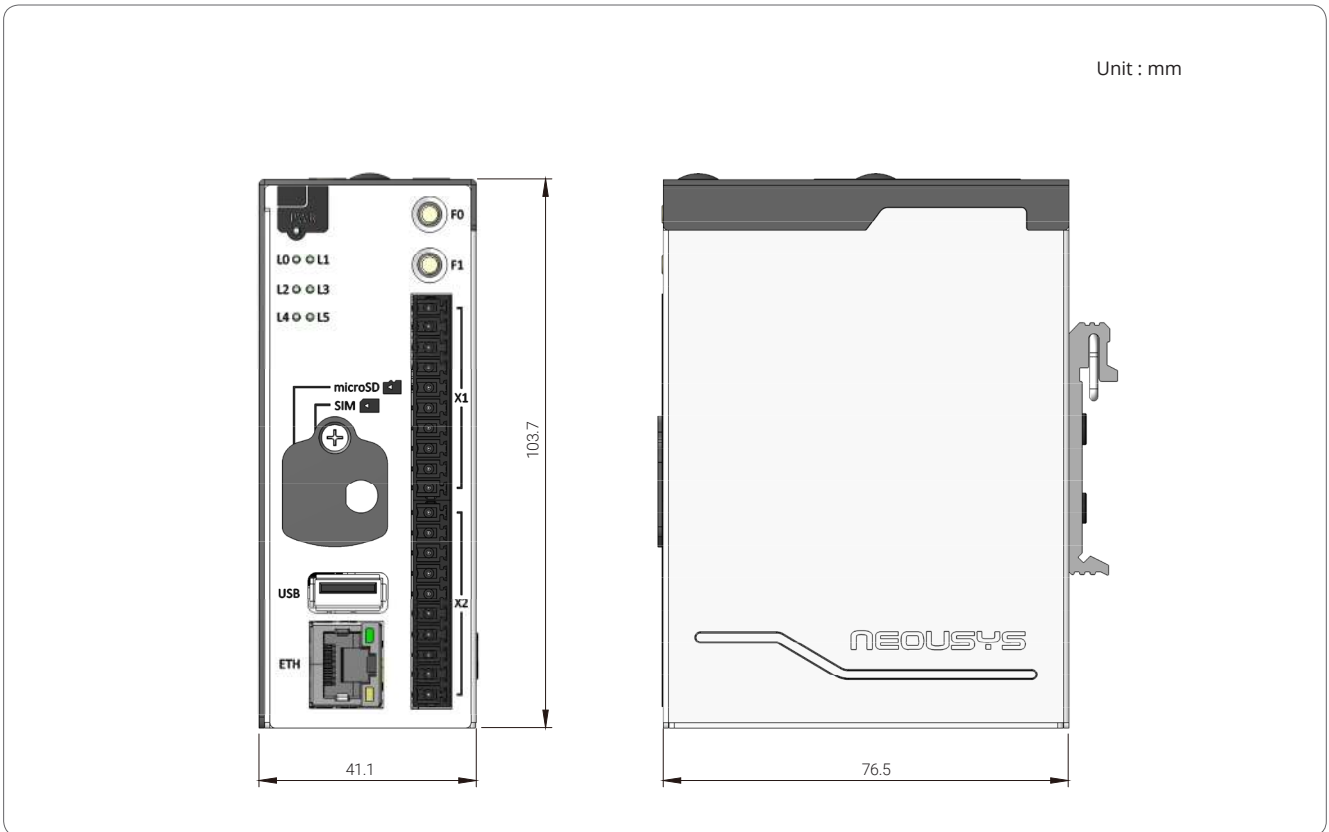
Operating Temperature	-25°C ~ 70°C *
Vibration	5Grms
Shock	50Grms
EMC	CE/FCC Class A, according to EN 55032

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

Appearance



Dimensions



Ordering Information

Model No.	Product Description
IGT-20	Industrial grade ARM-based IoT gateway
IGT-21	Industrial grade ARM-based IoT gateway with CAN bus