

UNO-1251G

**TI Cortex A8 Micro DIN-Rail Gateway w/
2 x LAN, 1 x USB, 1 x CAN, 3 x COM,
2 x microSD, 1 x micro SIM**



Introduction

The UNO-1251G is an Industrial IoT DIN-rail gateway. This gateway features dual LAN ports & expansible Wi-Fi/3G connectivity. There are also some user friendly design elements such as: a programmable OLED display to indicate the system status; and a front accessible microSD card/micro SIM slot. With WebAccess/HMI support, it is compatible with 450 types of PLC, controllers & I/O devices. User can easily access UNO-1251G through mobile devices by VNC. It is the ideal solution for automation control as a cloud enabled HMI platform.

Specifications

General

- Certification** CE, FCC, CCC, BSMI, UL
- Dimensions (W x D x H)** 50 x 90 x 100 mm (1.97" x 3.54" x 3.94")
- Form Factor** Micro Size
- Enclosure** Aluminum Housing
- Mounting** DIN-rail
- Weight (Net)** 0.4 kg (0.88 lbs)
- Power Requirements** 10~36 V_{DC}
- Power Consumption** 5.3W(Typical), 20W(Maximum)
- OS Support** Windows Embedded Compact7 (WEC7)/Embedded Linux (kernel v2.6.37)

System Hardware

- Processor** RISC 32 bit, 600 MHz (ARM® Cortex™-A8)
- Backup Memory** FRAM 128KB
- Memory** Onboard DDR2 256MB 166MHz (Optional 512MB)
- LED Indicators** LEDs for Power(PWR), COM1~3(Tx/Rx) and CAN(Tx/Rx)
- Storage** Bootloader and image:
 - 1 x microSD 1G (Built-in) (SDHC)
 - External storage:
 - 1 x microSD card slot (SDHC)
 - 1 x Full-size mPCIe slot (USB2.0 signal only)
- Expansion**

I/O Interfaces

- Isolated Serial Ports**
 - 1 x RS485, terminal block, auto direction control, 300~115.2k bps
 - 1 x RS422/485, terminal block, auto direction control (RS-485), 300~115.2k bps
 - 1 x RS232, DB9, auto flow control 300~115.2k bps
 - CANbus, version 2.0A/B compliant (terminal block, 10k~500k bps)
- CAN**
- LAN Ports** 2 x RJ45, 10/100 Mbps
- USB Ports** 1 x USB 2.0
- Power Connector** 1 x 4 Pin, Terminal Block, supports dual power input
- Grounding Protection** Chassis Grounding
- SIM** 1 x Micro SIM card slot

Environment

- Operating Temperature** -20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH
- Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- Vibration Protection** Operating, IEC 60068-2-64, 3 Grms, random, 5 ~ 500Hz, 1 hr/axis

Features

- RISC 32 bit TI ARM® Cortex™-A8 processor
- Programmable OLED display for status & error indication
- 1 x CAN, 3 x COM, 2 x LAN, 1 x USB ports
- Backup Memory FRAM in 128KB for retaining critical data
- Easily accessible Micro SD slot & Micro SIM slot
- Expansible with Wi-Fi/3G connectivity
- Supports WEC7 & Linux operating systems
- Supports WebAccess/HMI software for compatibility with 450 types of PLC, controllers & I/O devices protocols

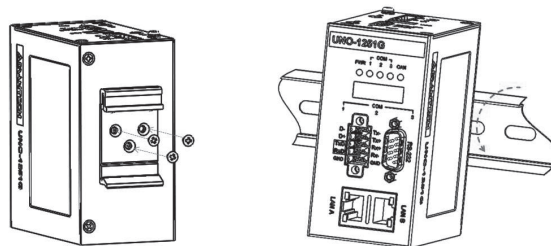
Application Software /SDK

- Modbus TCP Client/Server API
- Modbus RTU Master/Slave API
- CAN SDK
- Advantech CANopen protocol library
- FRAM API
- Watchdog SDK
- OLED programmable display API
- Supports WebAccess/HMI

Software Features

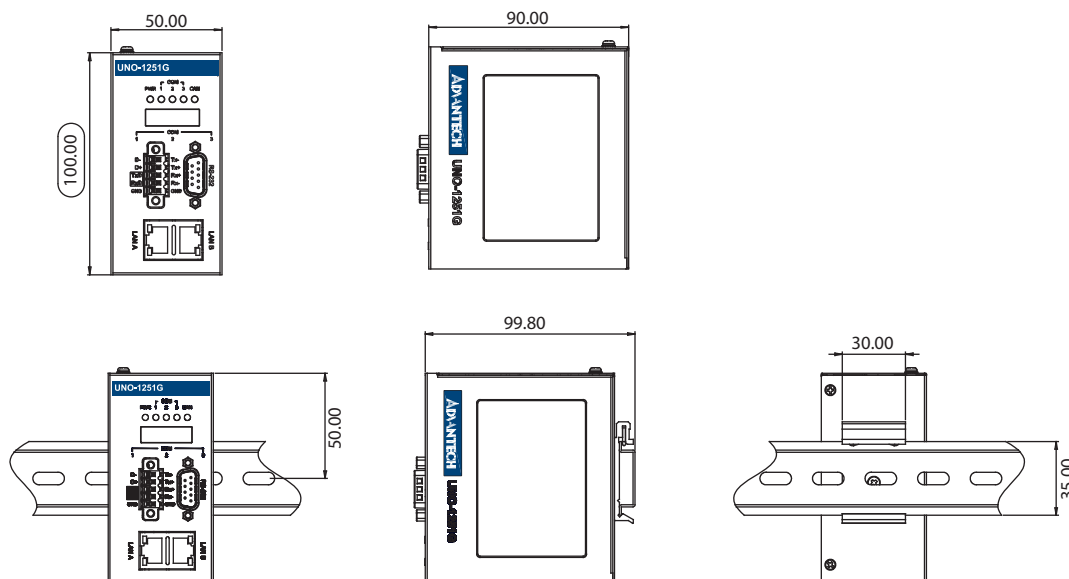
- FTP/Telnet service
- Remote display technology
- VPN
- OpenGL
- Remote Access: DigAnywhere & VNC

Installation Scenario

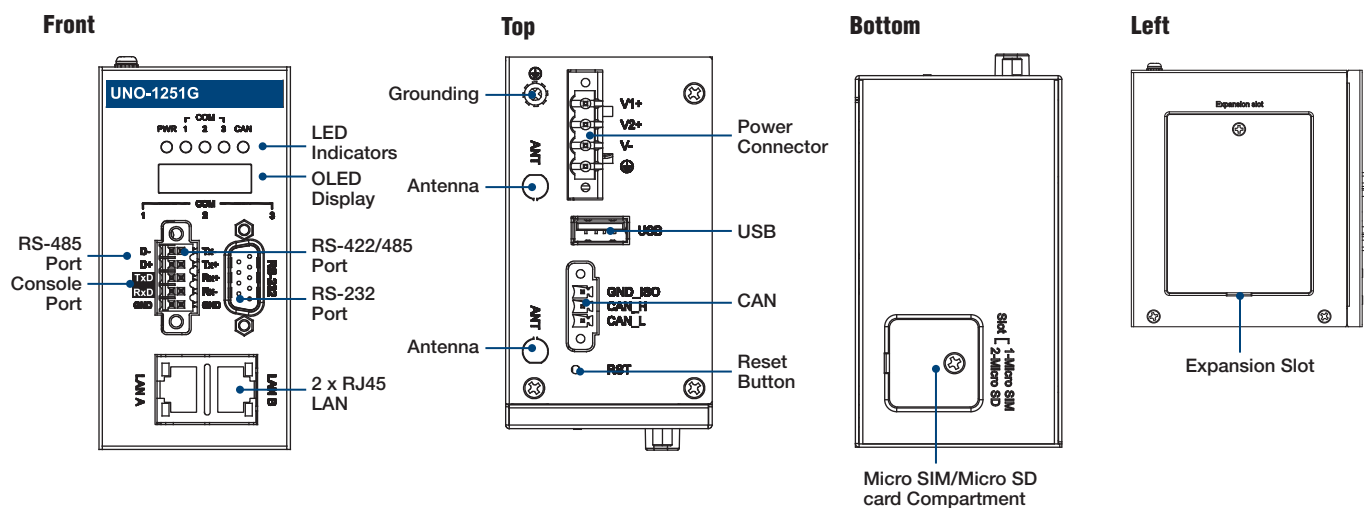


Dimensions

Unit: mm



I/O Views



Ordering Information

- **UNO-1251G-A0AE** ARM Cortex A8, built-in 256MB Memory, 1G SLC MicroSD, WEC7
- **UNO-1251G-WA0AE** UNO-1251G-A0AE with WebAccess/HMI 1500 tags

Optional Accessories

Adapters & Power cords:

- **PWR-247-CE** ADP A/D 100-240V 60W
- **1702002600** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
- **1700000596** Power Cable China/Australia Plug 1.8 M

Micro SD card:

- **96FMMSDI-2G-ET-AT** ATP 2G MICRO SD CARD I-GRD SLC(G)

3G module & antenna:

- **EWM-C109F601E** Wide-Temp 3.75G HSPA, Mini PCIe Card
- **1750006264** Coaxial cable for antenna
- **1750005865** Antenna L=10.9 cm 50 Ohm

Wi-Fi module & antenna:

- **EWM-W150H02E** 802.11bgn / RT5390 1T1R
- **9656EWMG00E** Half-size miniPCIe to Full-size miniPCIe bracket set
- **1750006043** 150 mm Coaxial cable for antenna
- **1750000318** Antenna