General information

Download technical specification	Technical Specification

The AG-1629 is a quad-core, highly effective ARM-based compact-size multipurpose industrial computer with IoT gateway functionality. It is designed for edge computing. It supports of Linux Debian. The computer has a built-in independent whatchdog and a USB interface for debugging.
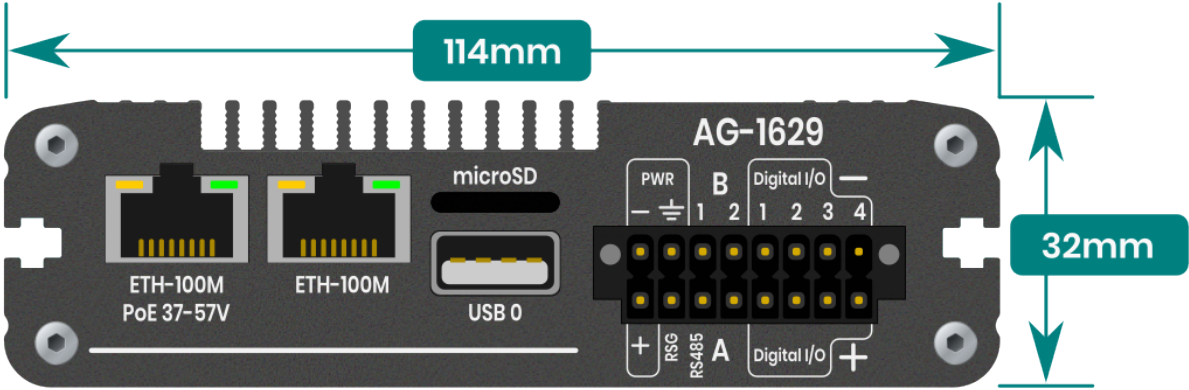
Model Selection

Atreyo manufactures several versions of the AG-1629 with respect to components and modules used in it.

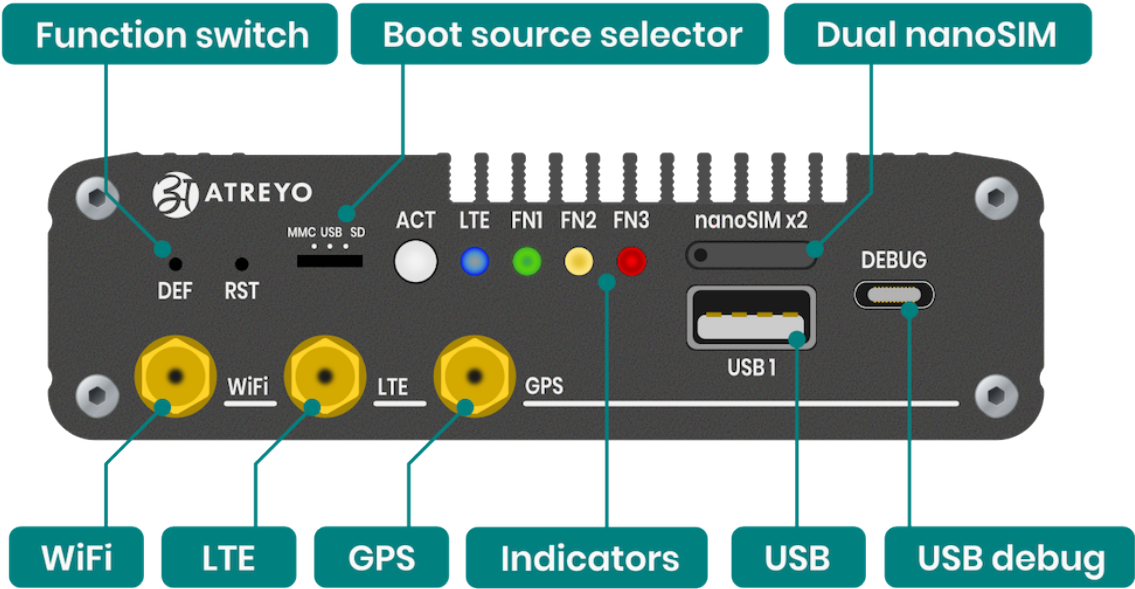| AG-1629	Memory		Hardware Options								More information
	eMMC	RAM	Cellular Network			GNSS	WiFi	Digital In	Digital Out	Supply	
	GB	GB	GPRS	3G	4G LTE					V	
AG-1629	8	512						4	4	7-48	Without cellular
AG-1629-LT-EU	8	512	√		√	√		4	4	7-48	For India and EU
AG-1629-LT-EU-WL3	8	512	√		√	√	√	4	4	7-48	For India and EU
AG-1629-LT-GL	8	512	√	√	√	√		4	4	7-48	Global model
AG-1629-LT-GL-WL3	8	512	√	√	√	√	√	4	4	7-48	Global model

Hardware

The gateway housing is made of anodized aluminum. There are heat sink fins on top. The gate heats up during operation and this is normal.
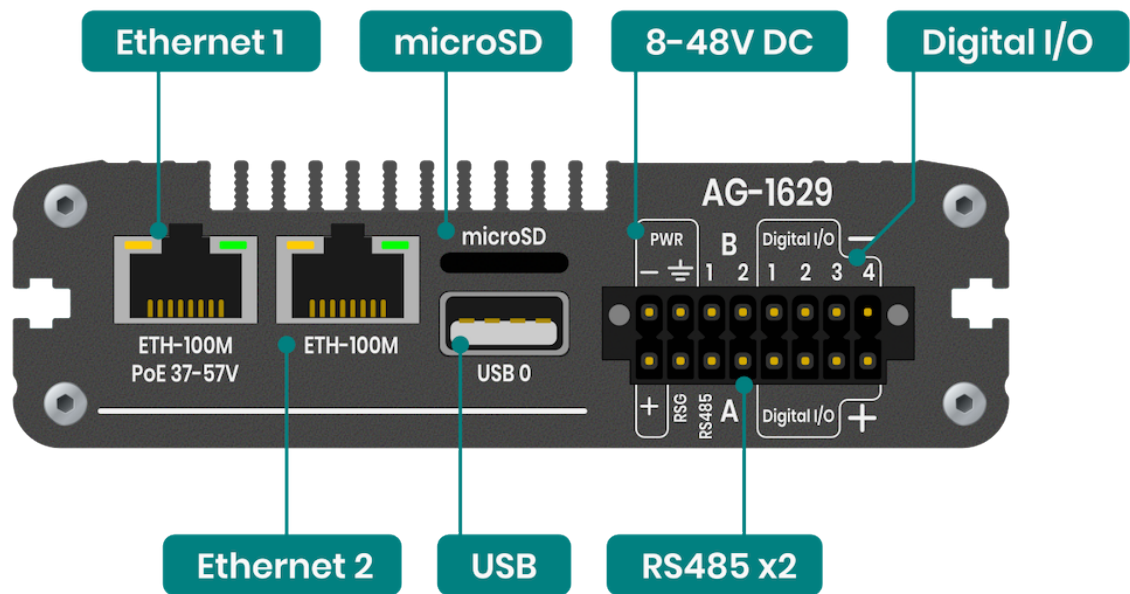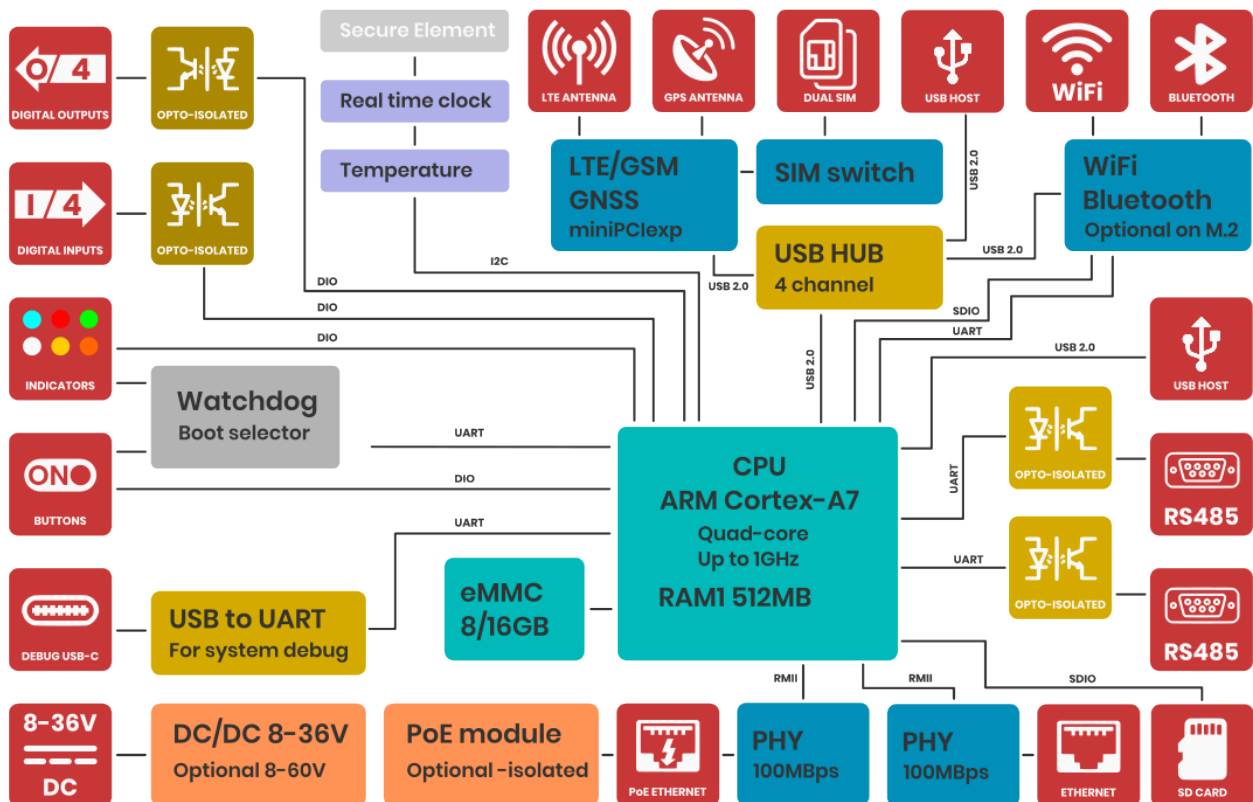
Side dimensions

Panel view

Below is a view of the top and bottom panels with the interfaces described.

Ethernet 1

microSD

8-48V DC

Digital I/O

AG-1629

microSD

PWR   B   Digital I/O
1 2   1 2 3 4

ETH-100M
PoE 37-57V

ETH-100M

USB 0

+ RSG A Digital I/O +
   RS485

Ethernet 2

USB

RS485 x2

Block diagram

For a better understanding of how the computer works, we present a block diagram.

DIGITAL OUTPUTS   OPTO-ISOLATED   Secure Element   Real time clock   Temperature

LTE ANTENNA   GPS ANTENNA   DUAL SIM   USB HOST   WiFi   BLUETOOTH

DIGITAL INPUTS   OPTO-ISOLATED

LTE/GSM GNSS miniPCIexp   SIM switch   WiFi Bluetooth Optional on M.2

USB HUB 4 channel

USB 2.0

USB 2.0

I2C

INDICATORS

DIO
DIO
DIO

SDIO
UART

USB 2.0

USB HOST

Watchdog Boot selector

UART

DIO

UART

USB 2.0

OPTO-ISOLATED

RS485

BUTTONS

UART

UART

OPTO-ISOLATED

RS485

DEBUG USB-C   USB to UART For system debug   eMMC 8/16GB

CPU
ARM Cortex-A7
Quad-core
Up to 1GHz
RAM1 512MB

8-36V DC   DC/DC 8-36V Optional 8-60V   PoE module Optional -isolated   PoE ETHERNET   PHY 100MBps   PHY 100MBps   ETHERNET   SD CARD

RMII   RMII   SDIO