AIC-1708

The AIC-1708 is a multipurpose Industrial Computer with inbuilt M.2 SSD storage for data. It is based on a *quad-core ARM Cortex-A53 64-bit* processor. The computer is richly equipped with wireless interfaces. With robust features, customizable options, and compliance with industry standards, our AIC series computers come with Ubuntu Linux pre-installed to ensure seamless integration into your industrial setup.

Please read carefully before starting. Also read the product safety information.

This computer, apart from its industrial applications, is powered by an automotive-grade processor and features audio output capabilities, making it versatile for use as a media controller in vehicles or communication stations.

- General information
- Configuration manual
- Firmware / OS list
- Safety information

General information

Download technical specification	Technical Specification

Model Selection

Atreyo roduces different versions of the AIC-1708. Below is a table of model selection. If there is no interface listed in the table, it means that it slips in all versions.

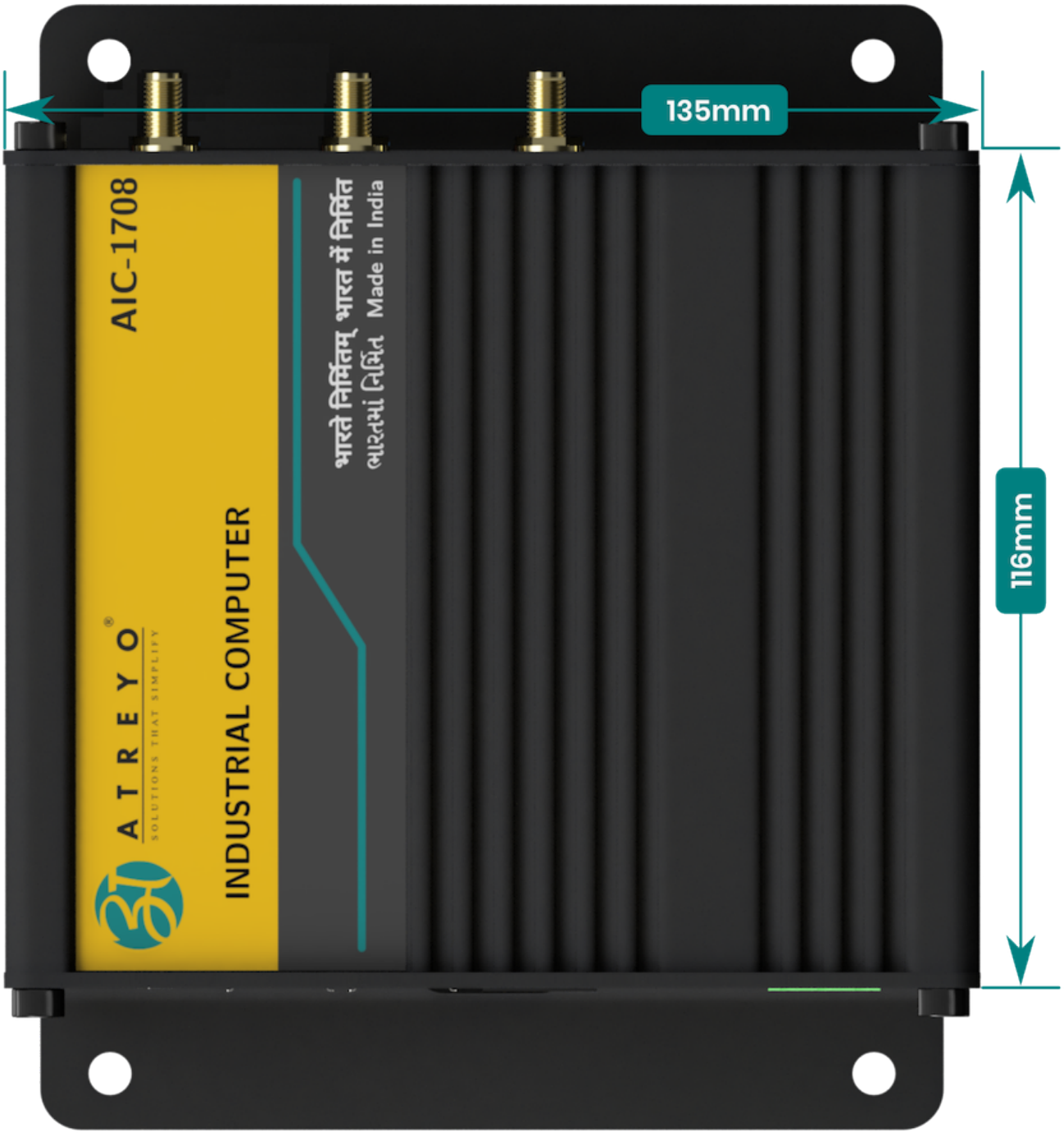
Variant	Internal storage			RAM		SSD		Cellular Network	
	16B	32GB	64GB	2GB	4GB	128GB	480GB	GPRS	LTE
AIC-1708-16G-2G	√			√					
AIC-1708-16G-2G-IS128G	√			√		√			
AIC-1708-16G-2G-IS128G-LT-EU	√			√		√		√	√
AIC-1708-16G-2G-LT-EU	√			√				√	√
AIC-1708-64G-4G			√		√				
AIC-1708-64G-4G-IS480G			√		√		√		
AIC-1708-64G-4G-IS480G-LT-EU			√		√		√	√	√
AIC-1708-64G-4G-LT-EU			√		√			√	√

Hardware

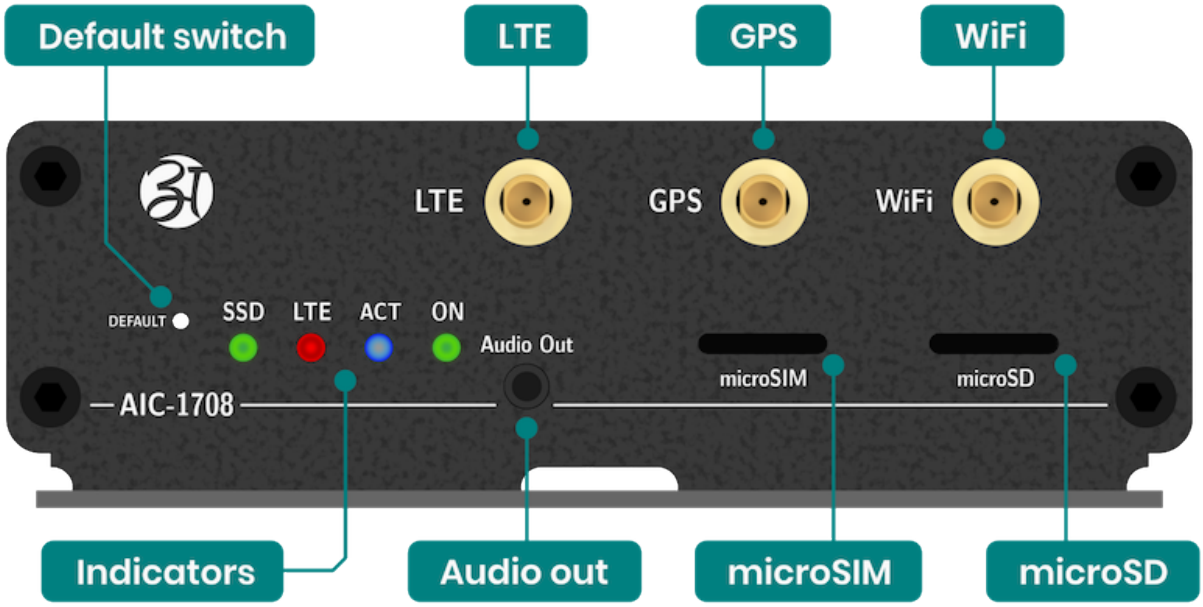
The Computer is made on one PCB, which is fitted to the aluminum housing. The housing is made of a thick, strong aluminum profile with two end plates also made from aluminum. The surface of the housing is finished by anodizing.

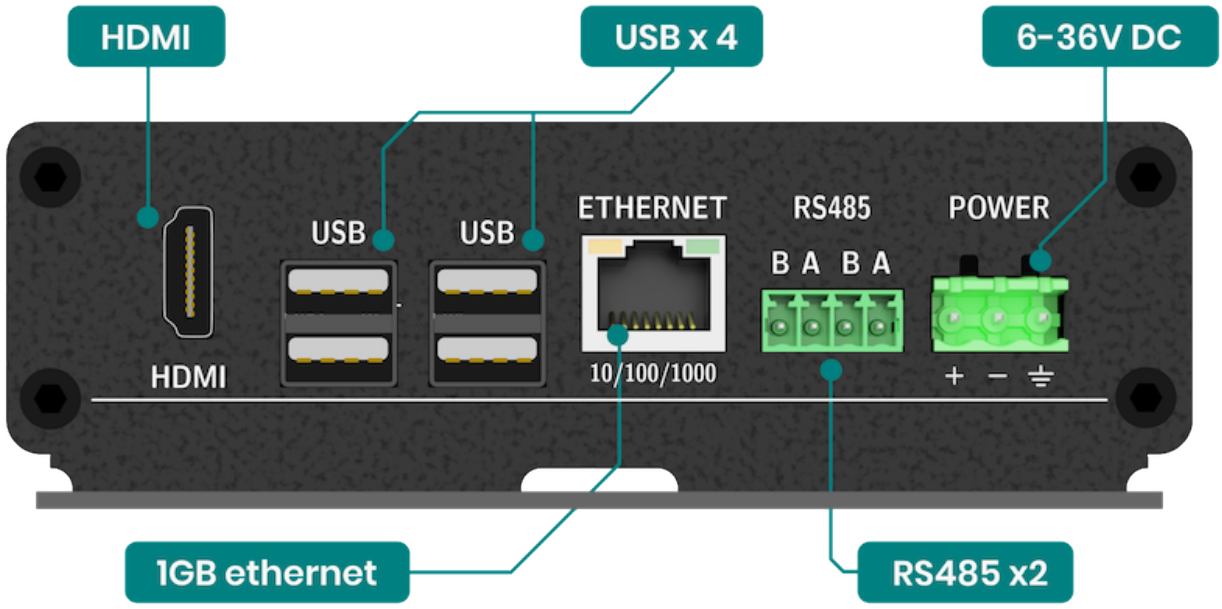
At the side of the housing there are slots through which DIN rail clamp or any other clamp can be mounted by t-nuts.

Top view



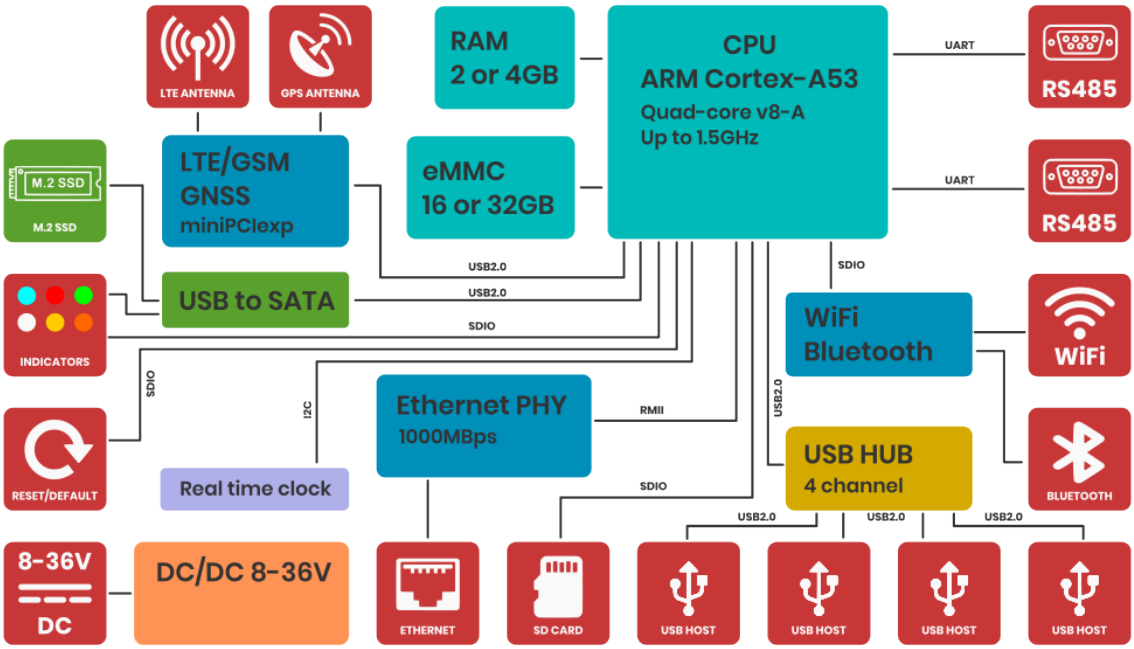
Side view





Block Diagram

For a better understanding of the operation of the computer, refer to the posted block diagram. Non-essential components have been omitted. Developers who program peripherals such as GPIOs, serial etc. will find information about them in the sections dedicated to such peripherals.


LTE ANTENNA
GPS ANTENNA
RAM
2 or 4GB
CPU
ARM Cortex-A53
Quad-core v8-A
Up to 1.5GHz
UART
RS485
UART
RS485
M.2 SSD
M.2 SSD
LTE/GSM
GNSS
miniPCIexp
eMMC
16 or 32GB
USB2.0
USB2.0
SDIO
INDICATORS
USB to SATA
SDIO
WiFi
Bluetooth
WiFi
SDIO
I2C
Ethernet PHY
1000MBps
RMII
USB2.0
RESET/DEFAULT
Real time clock
USB HUB
4 channel
BLUETOOTH
SDIO
USB2.0
USB2.0
USB2.0
8-36V
DC
DC/DC 8-36V
ETHERNET
SD CARD
USB HOST
USB HOST
USB HOST
USB HOST

Configuration manual

The computer comes with Linux preloaded and configured.

Firmware / OS list

Firmware list

Information about future releases of Ubuntu for this computer.

OS Version	File name	Kernel	Ubuntu	Date

Safety information

Operating environment

- The device is designed to be installed in clean, dust-free and insect-free places
- Operating temperature: -25 ~ 65°C (-13 ~ 149°F).
- Humidity range is 10% to 95% (non-condensing). Use the device in a dry environment.
- Away from heat sources and direct sunlight.
- It must not be exposed to acid fumes, salts and other chemicals.
- The device must not be used in places where there is a risk of gas explosion.

> Use in inappropriate conditions may damage the device or shorten its life.

Electrical and power supply safety

- The device is powered with a voltage in the range of 8-36V. Voltage up to 24V is considered safe. Be especially careful when supplying them with higher voltages.
- Use only approved accessories
- Use the supplied power adapter or a good quality certified power adapter with the correct supply voltage range and sufficient power.
- Only use approved accessories like antenna etc.

> Only a person with qualification and appropriate knowledge should install the device.

Malfunctioning and damaged device

- Do not disassemble the device.
- Only qualified personnel must service or repair the device or its accessories.
- If water or other liquid has got into the device, or if it looks mechanically damaged, do not connect the device, but take it to an authorized service center.

Radio frequency exposure

This device has been designed and manufactured not to exceed radio frequency energy emission limits set by regulatory agencies. To comply with RF exposure guidelines, the device must be used at least 20 cm away from a person's body. Failure to follow these instructions may result in exceeding the applicable RF exposure limits. This only applies to models with a built-in LTE modem.

What to do and what not to do

- You are solely responsible for the use of the device and any consequences of its use.
- Do not store or use the device in harsh environments such as dust, gases, oils, chemical vapors and damp places.
- Do not throw the device and its accessories. Handle with care.
- The device heats up during operation. Ensure proper ventilation.
- If you need to dispose of your device, check your local regulations for recycling and disposal of electronics.
- Route power, Ethernet, and antenna cables properly so that they cannot be accidentally pulled out.
- The device should be used and kept away from small children.