

# INTEL GALILEO BOARDS

## Introduction

- Intel Galileo is an Arduino-certified single-board computer (SBC) developed by Intel.
- It is designed for makers, students, and IoT developers.
- Runs on Linux and supports Arduino shields & software.
- Discontinued in 2017 but still useful for learning embedded systems.

## Versions & Release Dates

- **Galileo Gen 1:** Released on October 17, 2013
- **Galileo Gen 2:** Released on July 10, 2014
- **Discontinued:** June 16, 2017

## Technical Specifications

Feature	Galileo Gen 1	Galileo Gen 2
Processor	Intel Quark X1000 (32-bit, 400 MHz)	Intel Quark X1000 (32-bit, 400 MHz)

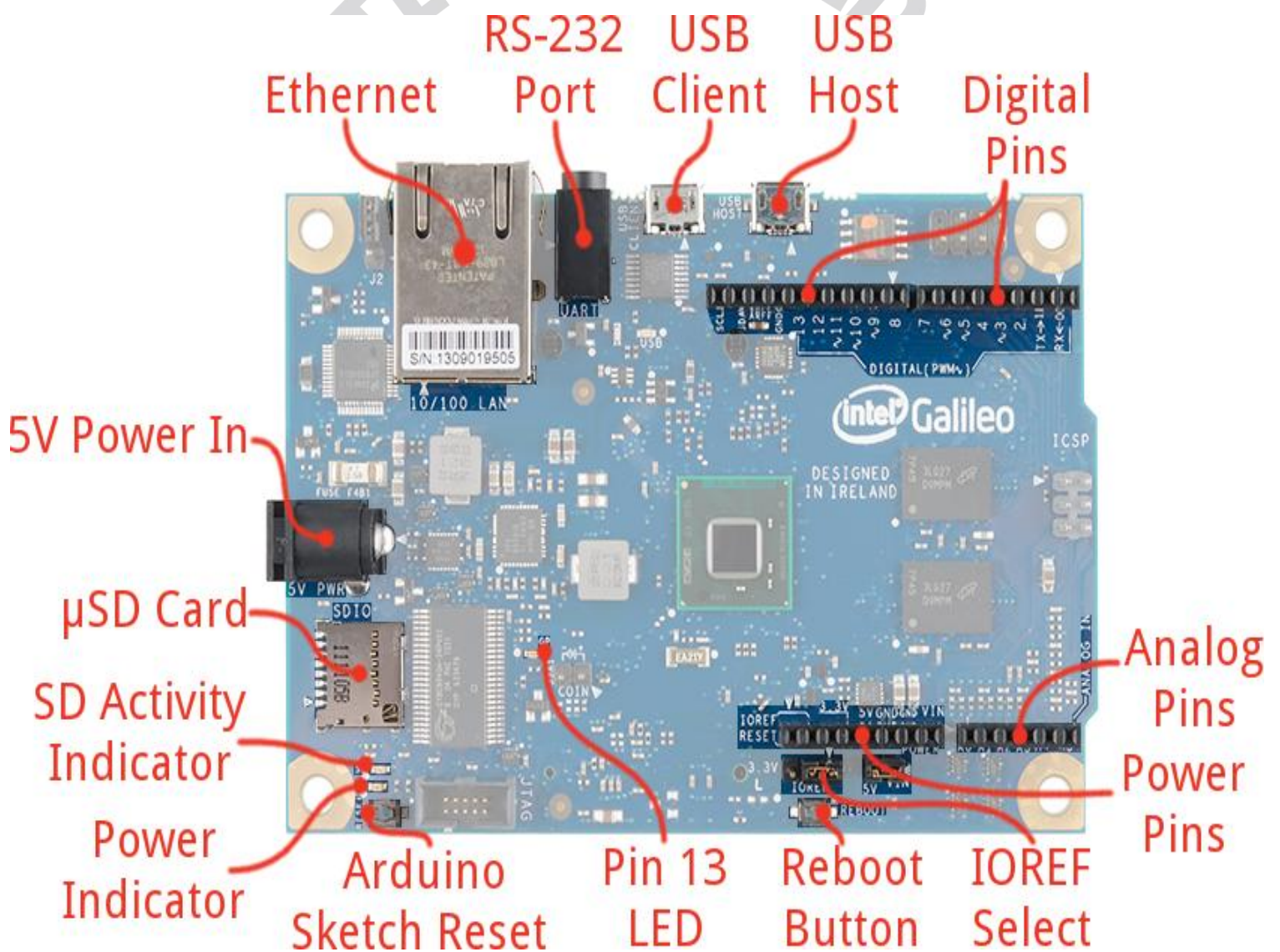
<b>RAM</b>	256 MB DDR3	256 MB DDR3
<b>Storage</b>	Micro SD up to 32 GB	Micro SD up to 32 GB + 8 MB Flash
<b>Power Input</b>	5V	7V - 15V (Better Power System)
<b>Ethernet</b>	Yes (10/100 Mbps)	Yes (10/100 Mbps)
<b>USB Ports</b>	USB 2.0 host & device	USB 2.0 host & device
<b>PWM (for motor control)</b>	8-bit	12-bit (More precise)
<b>PoE (Power over Ethernet)</b>	No	Yes (With extra module)

## Key Features & Benefits

- Runs Linux (Yocto Project based) – Powerful OS support.
- Compatible with Arduino IDE – Easy to program.
- Supports Arduino Shields – Works with existing Arduino accessories.

- Has Built-in Real-Time Clock (RTC) – Can track time even without power.
- Supports PCIe, Ethernet, and USB – Expandable with Wi-Fi, Bluetooth, and storage.
- Ideal for IoT & Robotics – Good for learning embedded systems.

PHOTOS CREATED



## Main Differences Between Gen 1 & Gen 2

- Gen 2 has better PWM (12-bit) for precise motor control.
- Gen 2 supports Power over Ethernet (PoE).
- Gen 2 has an improved power system (7V-15V input).

## Comparison with Raspberry Pi

Feature	Intel Galileo Gen 2	Raspberry Pi 3
CPU	Intel Quark (400 MHz)	ARM Cortex-A53 (1.2 GHz)
RAM	256 MB DDR3	1 GB LPDDR2
Storage	Micro SD (up to 32GB)	Micro SD
OS	Linux (Yocto, Arduino)	Linux (Raspberry Pi OS)
Arduino Support	Yes	No

## Conclusion

Intel Galileo was a powerful development board for students, but it was discontinued in 2017. It is still useful for learning Arduino, Linux, and IoT development. However, Raspberry Pi is a better choice for general computing projects.

### Best for:

1. Embedded Systems Learning
2. IoT & Robotics Projects
3. ★ Arduino Programming

