Intel Galileo Development Board

Description: The Intel® Galileo board is a microcontroller board based on the Intel® Quark SoC X1000 application processor, a 32-bit Intel® Pentium® brand system on a chip (SoC). It is the first board based on Intel® architecture designed to be hardware and software pin-compatible with shields designed for the Arduino Uno* R3.

This platform provides the ease of Intel architecture development through support for the Microsoft Windows*, Mac OS*, and Linux* host operating systems. It also brings the simplicity of the Arduino integrated development environment (IDE) software.

The Intel Galileo board is also software-compatible with the Arduino software development environment, which makes usability and introduction a snap. In addition to Arduino hardware and software compatibility, the Intel Galileo board has several PC industry standard I/O ports and features to expand native usage and capabilities beyond the Arduino shield ecosystem. A full-sized mini-PCI Express* slot, 100 Mb Ethernet port, Micro-SD slot, RS-232 serial port, USB host port, USB client port, and 8 Mbyte NOR Flash* come standard on the board.

The genuine Intel® processor and surrounding native I/O capabilities of the SoC provides for a fully featured offering for both the maker community and students alike. It will also be useful to professional developers who are looking for a simple and cost effective development environment to the more complex Intel® Atom™ processor and Intel® Core™ processor-based designs.

Processor Features:

- Instruction set architecture (ISA)–compatible 32-bit Intel® Pentium® processor
- 16 Kbytes L1 cache
- 512 Kbytes of on-die embedded SRAM
- Simple to program: single thread, single core, constant speed
- ACPI-compatible CPU sleep states supported
- Integrated real-time clock (RTC) with optional 3V “coin cell” battery for operation between turn on cycles
- 400 MHz clock speed

Storage Options:

- 8 Mbyte Legacy SPI Flash to store firmware (bootloader) and the latest sketch
- Between 256 Kbytes and 512 Kbytes dedicated for sketch storage
- 512 Kbytes embedded SRAM
- 256 Mbytes DRAM
- Optional micro SD card offers up to 32 Gbytes of storage
- USB storage works with any USB 2.0 compatible drive
- 11 Kbytes EEPROM programmed via the EEPROM library