Intel Galileo Gen 2 Board

Produktkode: 173aa
Tilgjengelighet: Opp til 1 mnd leveringstid

Pris: kr. 650,00

Short Description
Bestillingsvare. 32-bit, single-core, single-thread, IntelÂ® PentiumÂ® processor utfører programskisser for Arduino UNO med en større datakraft

Beskrivelse
The IntelÂ® Galileo Gen 2 board is the first in a family of Arduino*-certified development and prototyping boards based on IntelÂ® architecture and specifically designed for makers, students, educators, and DIY electronics enthusiasts.

Providing users with a fully open source hardware and software development environment, the Intel Galileo Gen 2 board complements and extends the Arduino line of products to deliver more advanced compute functionality to those already familiar with Arduino prototyping tools. The Intel Galileo Gen 2 development board is designed to be hardware-, software-, and pin-compatible with a wide range of Arduino Uno* R3 shields and additionally allows users to incorporate Linux* firmware calls in their Arduino sketch programming.

Features:

- IntelÂ® Quarkâ„¢ SoC X1000 application processor, a 32-bit, single-core, single-thread, IntelÂ® PentiumÂ® processor instruction set architecture

(ISA)-compatible, operating at speeds up to 400 MHz.

- Support for a wide range of industry standard I/O interfaces, including a full-sized mini-PCI Express* slot, 100 Mb Ethernet port, microSD* slot, USB host port, and USB client port.
- 256 MB DDR3, 512 kb embedded SRAM, 8 MB NOR Flash, and 8 kb EEPROM standard on the board, plus support for microSD card up to 32 GB.
- Hardware and pin compatibility with a wide range of Arduino Uno R3 shields.
- Programmable through the Arduino integrated development environment (IDE) that is supported on Microsoft Windows*, Mac OS*, and Linux host operating systems.
- Support for Yocto 1.4 Poky* Linux release.
- 6-pin 3.3V USB TTL UART header replaces 3.5 mm jack RS-232 console port for Linux debug. New 6-pin connector mates with standard FTDI* USB serial cable (TTL-232R-3V3) and popular USB-to-Serial breakout boards. 12 GPIOs now fully native for greater speed and improved drive strength.
- 12-bit pulse-width modulation (PWM) for more precise control of servos and smoother response.
- Console UART1 can be redirected to Arduino headers in sketches, eliminating the need for soft-serial in many cases.
- 12V power-over-Ethernet (PoE) capable (PoE module installation required).
- Power regulation system changed to accept power supplies from 7V to 15V.
- The IntelÂ® IoT Developer Kit for Intel Galileo Gen 2 adds C, C++, Python, and Node.js/Javascript support for developing connected sensor Internet-of-Things applications.
- Intel Galileo also supports the Wyliodrin platform that provides C, Python, Node.js and Visual Programming environments from a remotely-connected browser.
- In addition to open source Yocto Linux, Intel Galileo Gen 2 supports VxWorks (RTOS), and now Microsoft Windows is supported directly from Microsoft.

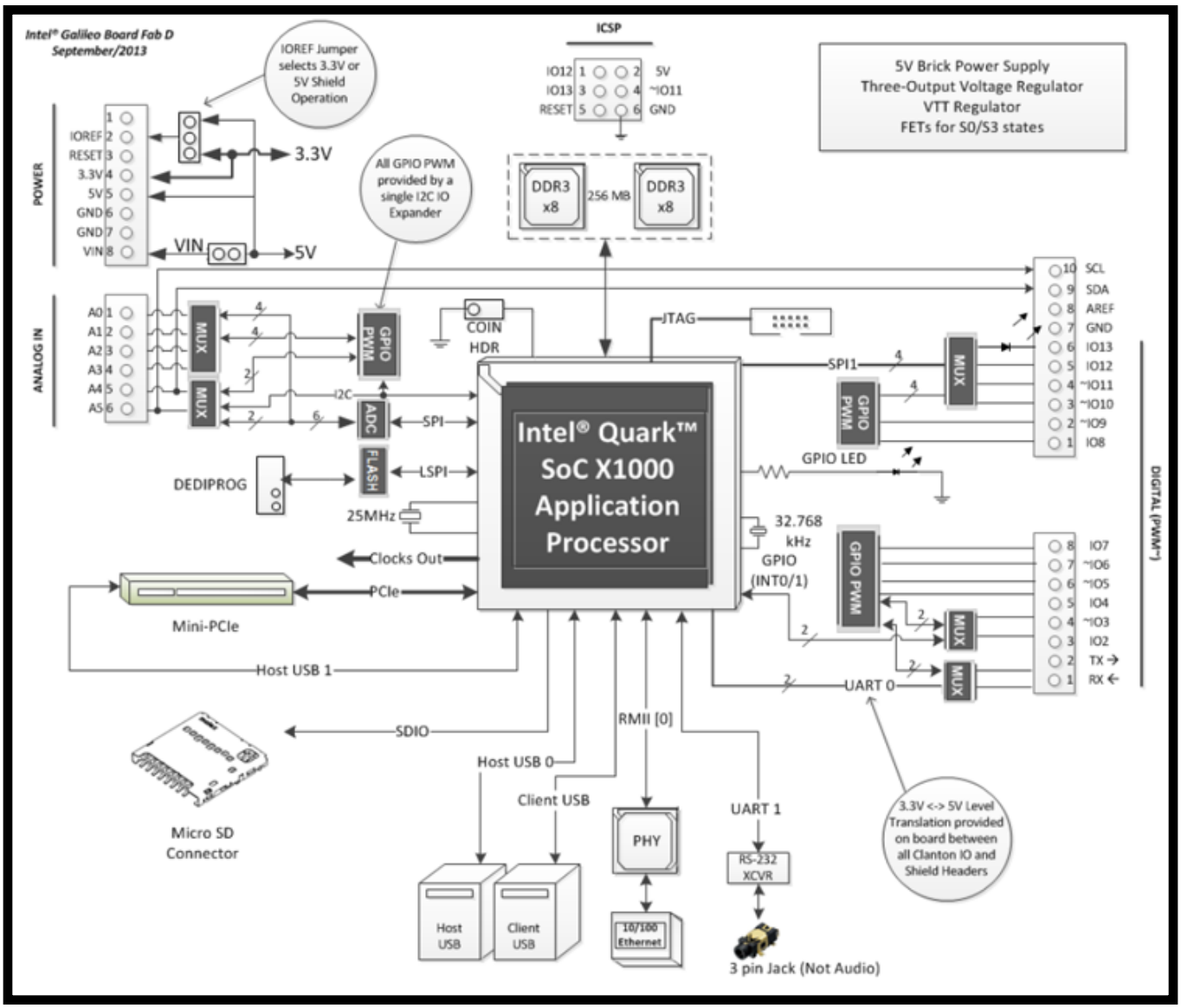
Mer info

Click to Enlarge Click to Enlarge Click to Enlarge

Intel Galileo is an Arduino-compatible development board based on a 32-bit Intel Pentium class System on a Chip. Intel Galileo is designed for the Maker community which includes Do-It-Yourself crafters, engineers, artists, and hobbyists. Intel Galileo provides ease of development through support for the x86 and Linux software environments.

Besides, Galileo is the first board based on Intel architecture designed to be hardware and software pin-compatible with Arduino shields designed for the Uno R3. Of course, the Galileo board is also software compatible with the Arduino Software Development Environment (IDE) (For now, the version 1.5.3 of Arduino IDE supports Galileo board).

Intel Quark SoC Overview:



Features:

x86 CPU
Arduino Uno Rev3 Shield pin compatible
USB host
Mini PCI-express port
Micro SD card supported
Many Arduino Shields are compatible without migrate

Specification:

Intel Quark SoC X1000 Application Processor. 400MHz, 32-bit Pentium class
16 KBytes on-die L1 cache
512 KBytes of on-die embedded SRAM
Simple to program: Single thread, single core, constant speed
ACPI compatible CPU sleep states supported
An integrated Real Time Clock (RTC), with an optional 3V “coin cell” battery for operation between turn on cycles.
256MB DDR3 DRAM
PSoC (programmable system on chip) from Cypress, I2C-controlled I/O expander chip
10/100 mbit/s Ethernet connector
USB 2.0 Host connector
USB 2.0 Client connector
8MB Flash
10-pin Standard JTAG header for debugging
I2C, SPI, UART, ICSP be supported
There are two buttons:
Reboot button to reboot the processor
Reset button to reset the sketch and any attached shields

Includes:

Intel Galileo main board x1
Power plug, has 5 adapters for different standards. x1

Documents:

Galileo Getting Started (pdf)
Galileo Datasheet (pdf)
Galileo FAQ
Galileo Supported Shield list (pdf, update 2013/10/10)
Galileo I/O Mapping (pdf)
Galileo Schematic (pdf)
Details of Galileo board

Software:

Linux IMAGE
Board Support Package(BSP) sources for Intel Quark
Arduino IDE for Galileo