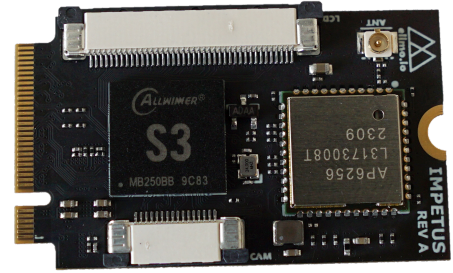


Product Brief

Impetus System-on-Module



Overview

The Elimo Impetus is an M.2 form factor, high performance System-on-Module designed for quick and easy system integration.

The module integrates a 32-bit ARM Cortex™-A7 CPU operating at up to 1.2GHz, 1Gbit (128MB) of DDR3 SDRAM, and a multiprotocol wireless chipset supporting dual-band WiFi and Bluetooth 5.0/BLE.

A wealth of peripherals provides flexible interfacing options, and the powerful Linux-capable processor allows for the realisation of complex user interfaces and edge computing applications.

Only a single supply of 4.0-5.5V is needed to power the module, and with the on-board MicroSD slot, there is very little reliance on external hardware for initial board bring-up, reducing risk on first-time designs.

The module's miniscule footprint and overall mated height of less than 4.5 millimetres allows the Impetus to fit even tight physically constrained designs.

The Impetus SoM is supported out-of-the-box by recent mainline Linux kernels, and Elimo Engineering freely provides software guides and OS image downloads to support the use of the module.

An evaluation platform for the Impetus SoM is available, including a carrier board with all I/O broken out, and 5 Inch touch display - together known as the Elimo Initium Platform.

Visit <https://elimo.io/impetus> for more information.

Applications

Human Machine Interface - Control Panel
 IoT Gateways
 Edge Computing
 Audiovisual Presentation
 Machine Vision
 Home and Building Automation

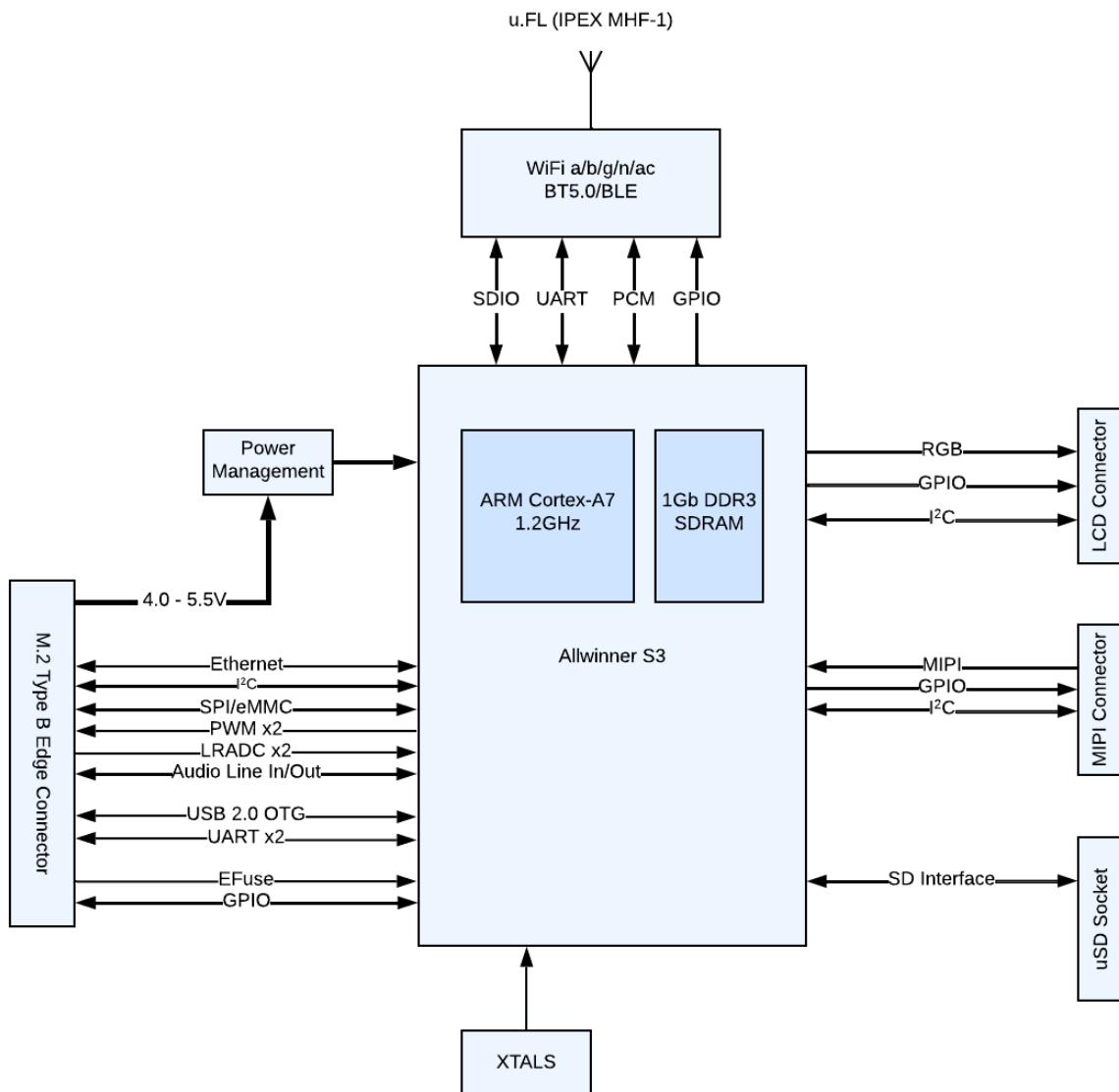
Features

Processor
Allwinner S3 ARM Cortex™-A7 1.2GHz
1Gbit (128MB) DDR3 SDRAM (SIP)
Connectivity
WiFi a/b/g/n/ac 2.4/5GHz
Bluetooth 5.0/BLE
Ethernet 10/100Mbps
USB2.0 Host/Device/OTG
Peripherals ¹
UART (x3)
I ² C (x2)
SPI (x1)
eMMC (x1)
Audio Line In/Out (x1)
ADC (x2)
PWM (x2)
Parallel RGB LCD Interface (x1) ²
MIPI-CSI2 Camera Interface (x1) ²
GPIO
MicroSD (x1) ²
Misc
Power Input: 4.0V - 5.5V DC, 150mA
Form Factor: M.2 B-Key (25x42mm)
Operating Temperature Range: -20°C / +70°C

¹ Some peripherals are reserved and/or share pins; peripheral availability may vary according to actual implementation.

² Available via connectors directly on-module.

Block Diagram



Ordering Information

Description	Part Identifier
Impetus SoM (Module Only)	IMPETUS
Initium Evaluation Platform	INITIUM

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