The NETBOARD A10 Revision 2.0.1-CN is an embedded mainboard intended for demanding 24/7 applications. The board is designed with integrated programmable DC-DC power supply and automatic inrush current limiter. It has a wide range voltage input (7-24VDC) and can react to input voltage changes within milliseconds over its full range. The A10 is a fixed BOM solution using only components from respected manufacturers and a high quality bare board with controlled stack-up. The board has been designed and is produced in The Netherlands.
HARDWARE
DUTCH QUALITY - MADE IN THE NETHERLANDS

MODEL F, dual core CPU, 3x ethernet, 2x mSATA, 1x UDIMM

MODEL E & G, quad core CPU, 4x ethernet, 2x mSATA, 2x UDIMM (standard version)
**BIOS - COREBOOT / SEABIOS**

**INTENDED FOR EMBEDDED APPLICATIONS**

Coreboot is an Open Source project aimed at replacing the proprietary BIOS (firmware) found in most computers. Coreboot performs a little bit of hardware initialization and then executes additional boot logic, called a payload.

With the separation of hardware initialization and later boot logic, coreboot can scale from specialized applications that run directly from firmware, run operating systems in flash, load custom bootloaders, or implement firmware standards, like PC BIOS services or UEFI. This allows for systems to only include the features necessary in the target application, reducing the amount of code and flash space required.

SeaBIOS is an open-source legacy BIOS implementation which can be used as a coreboot payload. It implements the standard BIOS calling interfaces that a typical x86 proprietary BIOS implements.

### Features and Payloads

Deciso’s Coreboot version has been optimised for use on its Netboard A10 platform and includes SeaBIOS, Memtest86+, PXE boot, and Coreinfo as standard payload.

### Boot Options

Our optimised coreboot version can boot support operating systems from a diverse media including network boot.

- mSATA,
- SATA III,
- USB,
- microSD,
- PXE boot.
## Netboard A10 Revision 2.0.1-CN

### Hardware Specifications

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<th>CPU Model</th>
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<td>E</td>
<td>AMD Embedded GX-416RA G-Series SoC (4x 1.65GHz, L2 cache 2MB, 15W, No GPU)</td>
<td>UDIMM DDR3 (Model E &amp; G have 2 sockets), total memory capacity max. 32GB (Model F 16GB), ECC &amp; Non ECC supported</td>
<td>Integrated in SoC (single-chip)</td>
<td>Model E/G: 4x Intel® i210, Model F: 3x Intel® i210</td>
<td>SoC has integrated AESNI instructionset including support for GCM</td>
<td>uSD card socket</td>
<td>64 MBit serial SPI firmware flash with Coreboot &amp; SEABIOS</td>
<td>ACPI 3.0 (With 5V power rail always active / S3 Sleep state not support by current BIOS)</td>
<td>Linux, FreeBSD, Windows, others OS support upon request available</td>
<td>External 12V [wide range capable 7-24VDC]</td>
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<td>F</td>
<td>AMD Embedded GX-210UA G-Series SoC (2x 1.0GHz, L2 cache 1MB, 8.5W, No GPU)</td>
<td>UDIMM DDR3 (Model E &amp; G have 2 sockets), total memory capacity max. 32GB (Model F 16GB), ECC &amp; Non ECC supported</td>
<td>Integrated in SoC (single-chip)</td>
<td>Model E/G: 4x Intel® i210, Model F: 3x Intel® i210</td>
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<td>G</td>
<td>AMD Embedded GX-420MC G-Series SoC (4x 2.0GHz, L2 cache 2MB, 17.5W, No GPU)</td>
<td>UDIMM DDR3 (Model E &amp; G have 2 sockets), total memory capacity max. 32GB (Model F 16GB), ECC &amp; Non ECC supported</td>
<td>Integrated in SoC (single-chip)</td>
<td>Model E/G: 4x Intel® i210, Model F: 3x Intel® i210</td>
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### Power Requirements

- **Maximum Current (12VDC):** 3A
- **Power Consumption (Typical):** Model E: 20W, Model F: 15W, Model G: 25W
- **Heat Dissipation (Typical in BTU/hr):** Model E: 68.3, Model F: 51.2, Model G: 85.3
- **Operating Temperature:** 0 to +45°C (depends on applied cooling solution / value assumes default heasink + standard fan)
- **Storage Temperature:** 20 to +70°C
- **Humidity:** 10-90% non-condensing

### Regulatory Compliance

- FCC part 15 Class A, CE, RoHS