M28 System on Module

The M28 module is the fast, flexible and reliable System-on-Module (SoM) solution based on the i.MX287 processor by NXP Semiconductor.

The i.MX287 is the most feature rich device in the i.MX28 family. Optimized for performance and power consumption, the i.MX287 boasts of a premium feature set that includes: dual CAN, dual Ethernet and LCD touch screen. The i.MX287 is an ideal fit for portable devices that require rich user interfaces with high color displays for presenting information and user interaction.



M28 featureset:

- i.MX287, up to 454MHz speed
- 128 MB DDR2 DRAM, 256MB optionally available
- 256 MB NAND Flash
- 230 Pins edge connector
- LCD Controller 800x480 with Touchscreen support
- up to 2 x 10/100MBit Ethernet with IEEE1588 support
- up to 2 x CAN
- up to 2 x USB2.0 (1 x OTG/Device)
- up to 4x UART
- 2 x I2C
- up to 4 x SPI
- up to 2 x SDIO
- I2S
- Security features:
 - Read-only unique ID for Digital Rights Management (DRM) algorithms
 - Secure boot using 128-bit AES hardware decryption
 - SHA-1 and SHA256 hashing hardware
 - High assurance boot (HAB4)
- Size: 70mm x 35mm

OS Support:

- U-Boot
- Linux



ARIES Embedded GmbH Schöngeisinger Str. 84 D-82256 Fürstenfeldbruck Germany

Fon: +49 (0)8141.36 367-0 Fax: +49 (0)8141.36 367-67

www.aries-embedded.de info@aries-embedded.de

M28EVK Evaluation Kit

The M28EVK is available as a flexible evaluation platform which enables user to setup a running system in a very short time.



M28EVK featureset:

- i.MX287, up to 454MHz speed
- MXM socket for M28
- SD-card socket
- USB 2.0 OTG connector
- USB 2.0 Host connector
- LCD flat cable header/pin header
- 2 x RS232 on DSUB9
- 2 x Ethernet 10/100MBit on RJ45
- 2 x CAN on DSUB9
- DIP switch for boot modi
- SGTL5000 for audio inter facing

 line in/mic in
 - headphone out/speaker out
- JTAG inter face
- CPLD for I2C or SPI expansion
- Operating Voltage: 5VDC
- Power Supply by USB or screw header.
- EVK schematics

M28EVK kit contents:

- M28 featuring:
 - i.MX287,
 - 128MB DDR2 RAM,
 - 256MB NAND Flash
- M28EVK
- 17,7cm (7") LCD with touchscreen
- power supply



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