

# Product Sheet

*-preliminary-*



## nanoRISC® Family

### Evaluation Board MB02

nanoRISC® is a module concept to bring the latest low power RISC controllers and embedded interfaces onto a small form factor COM (Computer On Module). Ideally suited for embedded applications a variety of easy to use interfaces are available.

nanoRISC® modules can be plugged onto an application specific baseboard. The nanoRISC® form factor has been created for applications requiring both small form factor together with lowest power consumption using the latest RISC processor and I/O technology.

#### Features

- Socket for nanoRISC® compatible modules
- LCD Panel interfaces with both LVDS and RGB support
- Backlight power 8..20VDC (depending of external power supply)
- Standard DVI connector
- ITU656 Video input interface
- 10/100 Base-TX Ethernet interface
- USB Host port (dual)
- USB OTG / Client port
- AC97 audio codec with standard audio connectors
- TouchScreen support (4-wire resistive)
- SD card slot
- Local bus on PIN header
- 2 x COM ports on 9 pin Sub-D male connectors
- CAN Interface
- Linux and WinCE support
- Battery charger support (lithium cell)
- 8..20VDC power supply input

The evaluation platform MSC nanoRISC® MB02 offers a variety of interfaces commonly used in embedded applications such as LAN, USB, Graphics with RGB 18/24 Bit and LVDS port and various serial interfaces such as UARTs, CAN, I<sup>2</sup>C and SPI.

In addition a camera interface and a SD Card socket are supported to extend the functions of the motherboard.

Board support packages for Linux and WinCE are available for download from the COM support web site at [www.msc-ge.com](http://www.msc-ge.com) or will be available soon.

Product description	Order numbers
MSC NANORISC-MB2 TTL / LVDS Display Interface	MSC NANORISC-MB2-001
MSC NANORISC-MB2 DVI Display Interface	MSC NANORISC-MB2-002

## Technical Data –Evaluation Board MB02

### Module Interface:

nanoRISC® connector

### Storage:

MMC/SD Card:  
Card slot with 4 bit interface

EEPROM:  
Serial EEPROM for EPI/DP extensions

### Standard Interfaces:

USB:  
1x USB Host on type A connector  
1x USB OTG on type mini connector

Serial:  
2x RS232C on 9 PIN DSUB male connectors

CAN:  
1x CAN on 9 PIN DSUB female connector

### Graphics:

LVDS display connection via Jili30 interface  
RGB display connection via FFC 40 interface  
Standard DVI connector  
Graphics feature port via 50 FFC interface

### Camera Interface:

Camera ITU656 connection via 18 PIN header interface

### Audio Interface :

AC97 codec : signals on standard audio connectors.

### Touch Controller

4-wire resistive touch interface

### LAN Interface

Ethernet: One RJ45 connector with LEDs for LAN

### Parallel Interfaces

Local bus interface, 8/16Bit, chip selects, controls on PIN header

### Miscellaneous:

Power button

Reset button

### Power Supply:

Power: 8..24VDC (also used for backlight supply)

### Power Consumption:

tbd W typ.

### Environment

Operating: commercial

Humidity : non-condensing

### Mechanical

Dimensions: 160mm x 100mm x 35mm

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