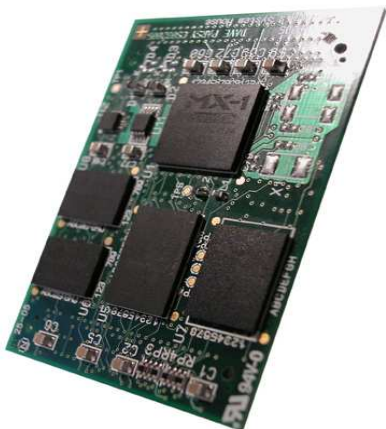


## **"PARSY"®**

### Freescale ARM9 Dragonball MXL CPU Module



- CPU module based on ARM9 "Dragonball" MC9328MXL
- Expansion Bus fully available
- Windows CE 5.0 ready
- Ready for Linux 2.6.13 + native component drivers
- Evaluation Board available with exhaustive development kit
- Extremely compact form factor, inexpensive connector
- Development Kit available in GNU environment
- 100% ARM7TDMI user code binary compatible
- EMI pre-compliance



**PARSY** is a ready-to-use CPU module based on Freescale ARM920T "Dragonball" microprocessor characterized by its reliability, compactness as well as low power consumption.

**PARSY** is suitable for palm-based solutions both in Linux and Windows CE environments. Due to 3.0V supply voltage, the intrinsic low consumption and the set of IC devoted to mobility, it is the right solution for battery supported applications.

**PARSY** Evaluation Board is a flexible and complete system where users can test their own applications or add their own expansion boards:

- 5V direct PSU
- Connectors for PARSY Module
- 10/100 Ethernet
- NAND + CPLD bus adaptation
- JTAG interfaces
- Bootstrapping circuitry
- MMC/MS
- Expansion Bus connector
- RTC with back-up battery
- Touch Screen controller
- 4wire RS232 + full RS232
- glueless interface with colour TFT 240x320





**CPU** Freescale MC9328MXL "Dragonball" @150/200 MHz, ARM920T core v4 w/ MMU  
Multimedia Accelerator

**CPU supervisor** Core and I/O power supply separate supervision

### **Memory**

Cache 16K cache for instructions +16K cache for data  
SDRAM 64MBytes low-power  
Flash NOR up to 32Mbytes

### **Interfaces (to the connector)**

UART 1 (8 Wire) + 1 (4 Wire, IrDa compatible)  
SPI 2 channels  
USB device 1.1 (12 Mbit) with on-board transceiver  
I<sup>2</sup>C multimaster 400kHz  
Timers up to 32  
External Bus 8/16-bit byte - 29 Address Bits -4 direct Chip Select  
RTC volatile on-board  
I/O Controller yes, number tbd  
Debug JTAG IEEE 1149.1 Test Access Port  
Interrupts 7 external and 19 internal interrupts  
Memory support Multimedia Card/Secure Digital

### **LCD controller**

Resolution up to 640 x 480, flexible also for other formats  
Type monochrome, CSTN, TFT  
Bit per pel up to 16  
Graylevel/color up to 64k  
Direct interface to NEC and Sharp, signals for HR-TFT Sharp

### **Mechanical**

Connectors 2 x 100 pin 0.6mm pitch  
Physical 67,50 x 50,80 x 1,00 mm<sup>3</sup> (2,7"x 2,0"), fixing hole  
Compatibility Hirose  
PCB 8 layers  
Material FR4  
Technology double-sided SMT  
Contacts gold-plated  
Temperature @200MHz 0 ÷ 70 °C (@200MHz -30 ÷ 70 °C)  
@150MHz -40 ÷ 85 °C operational temperature

### **PSU**

3.0V Through connector, regulation on-board.  
Consumption 180 mA ave. (without LCD)

### **Software**

RTOS eCos  
Multitasking OS Linux 2.6.13  
Windows WindowsCE 5.0

### **Agency approvals**

Pre-compliance EN 55022, EN 55024