

# RIZE Microcomputer Model RMS102

Single Board Computer with 200MHz ARM9 CPU



## OVERVIEW

Revely's RIZE Microcomputer Model RMS102 is a complete computer in a small format – providing a unique platform for developing powerful embedded applications. In addition to a range of external interfaces, the RMS102 has features similar to a personal computer.

RMS102 will soon be available with a built-in BASIC interpreter. Just connect a keyboard and a VGA monitor and start programming in NetBASIC from Rowley Associates. NetBASIC programs and data file can be saved to internal memory or to removable Flash media.

NetBASIC has advanced networking capabilities, simple syntax and high-speed execution.

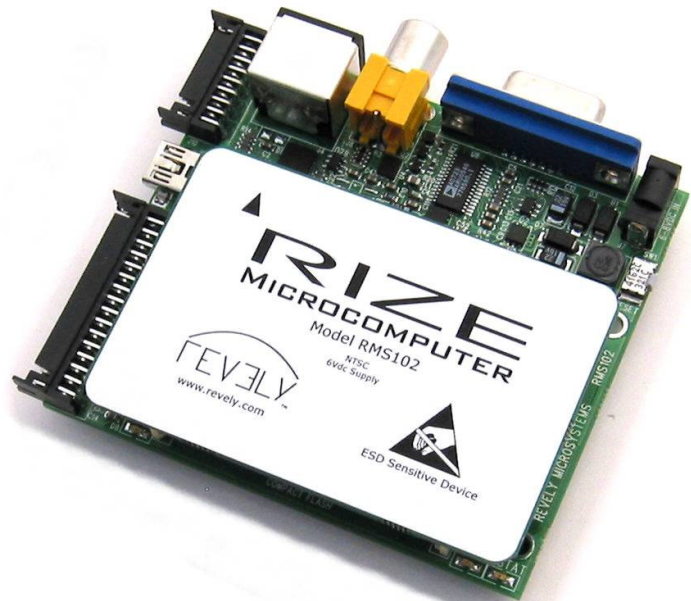
More advanced users can use RMS102 as a development platform for ARM9 applications. Write code using GNU or commercial cross-development tools and download and debug on the RMS102.

RMS102 offers powerful hardware expansion options. Application notes show how to access Compact Flash devices, SD Cards as well as your own I/O circuits. Use RMS102's I/O interface to quickly connect SPI, I2C and UART devices.

Applications include i.MX evaluation, retro-computing, embedded control, video gaming and video kiosks.

## RMS102 SPECIFICATIONS

- Freescale i.MXL CPU
  - 200MHz CPU / 100MHz Bus
  - ARM920T with 32KB cache
  - 32.768kHz Real-time clock
- 16MB SDRAM
  - 100Mhz clock speed
  - Configured as 8MB x 32
- 2MB Flash Memory
  - Stores Boot code
  - Space for User Files
- VGA Video Output
  - 640x480 resolution
  - 4096 colors
- PS/2 Interface
  - Connects to standard PS/2 keyboard
  - Use Y-cable to connect keyboard and mouse
- SD Flash slot
  - Supports SD and Multimedia flash cards
- Compact Flash slot
  - Compact flash memory and peripheral devices
  - High-speed bus interface
- Expansion Connectors
  - 32way with SPI, I2C, etc for quick I/O interfacing
  - 18way System Port for external JTAG debug
- Debugging
  - Integrated Rowley USB CrossConnect
  - Download at 100KB/sec using CrossStudio for ARM
  - JTAG signals available for 3<sup>rd</sup> party debuggers
- Audio
  - Internal sounder
  - PWM Wave-synthesis output
- TV Out
  - NTSC and PAL Composite Video Output
- Other
  - Size : 80x75x17mm overall
  - Three status LEDs
  - Power Supply 5-8Vdc at 250mA typ



To order or for more information,  
visit Revely Microsystems on the web

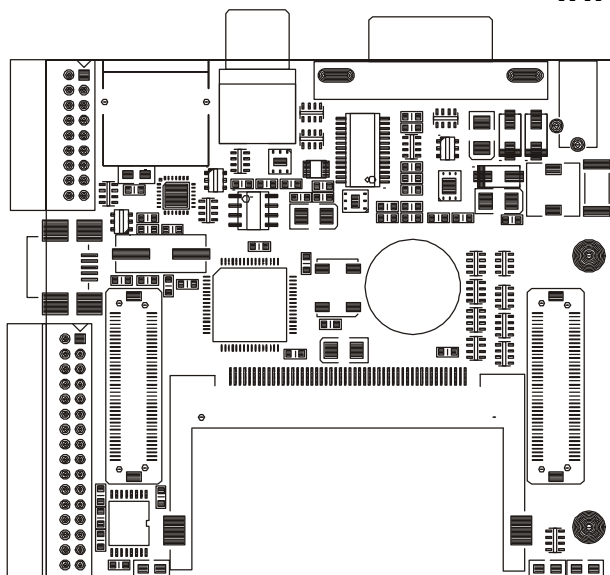


Figure 1 - RMS102 - Shown Actual Size

### I/O Expansion Interface

The I/O Expansion connector is a quick and simple way to interface RMS102 to the world. Connect using I<sup>2</sup>C, SPI, RS232 or digital GPIO lines. Revely's IW102 Wiring Kit has twenty 6" color-coded wires to connect directly to your circuit. Signals are 3V logic.

### Orderable Part Numbers

#### RMS102 (-PAL or -NTSC)

- RMS102 board
- Pre-loaded Demo Application
- On-board USB ARM debugger
- **\$215 USD**

#### AC102 – Accessory Pack

- Source-code CD
- USB cable
- RS232 Serial cable
- Battery-pack (requires 4 x AA cells)
- 6V AC Adaptor (USA only)
- Bootloader Jumper
- PS/2 splitter cable
- **\$59 USD Save over 30%**

See [www.revely.com](http://www.revely.com) for other accessories

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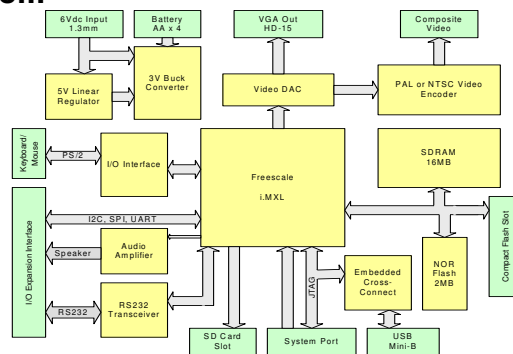
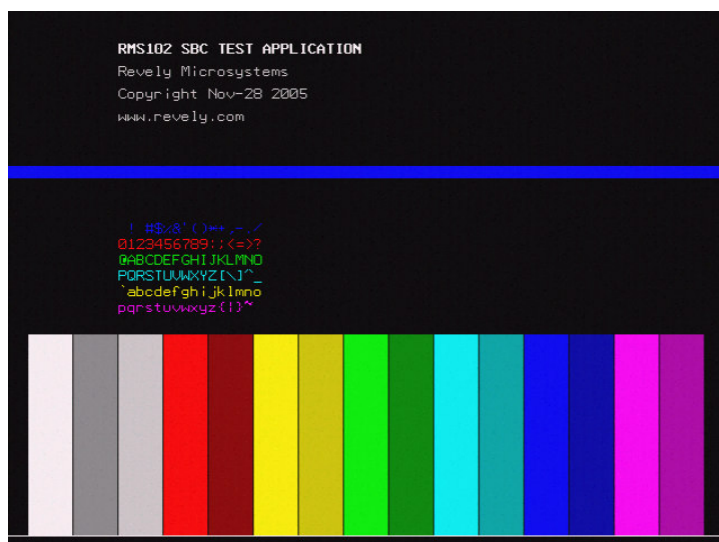


Figure 2 – i.MXL Processor Board



Captured VGA Video Image

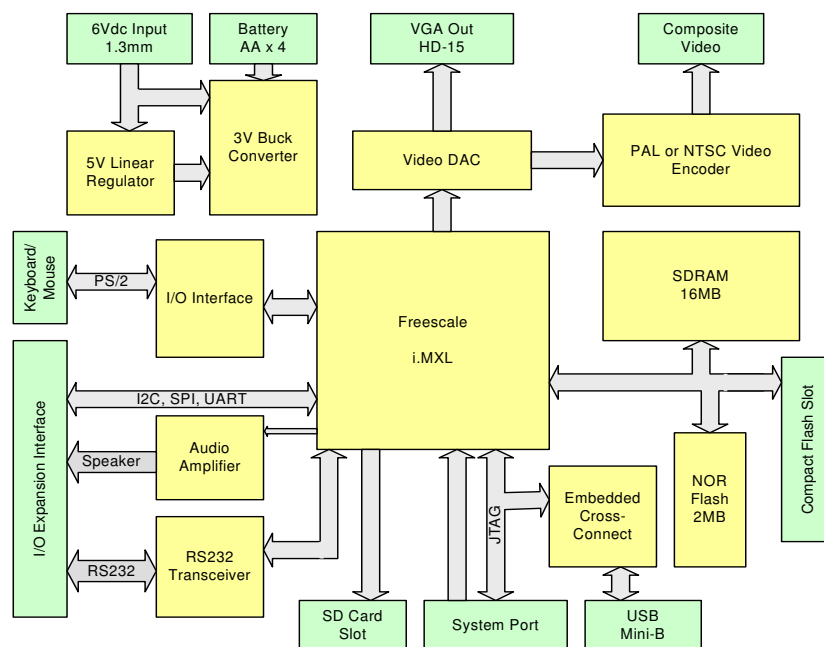


Figure 3 - RMS102 – Block Diagram