



# RD-103

Rugged DIN Rail / Wall Mount PC



RD-103 Rugged Industrial PC

## Fanless Industrial PC

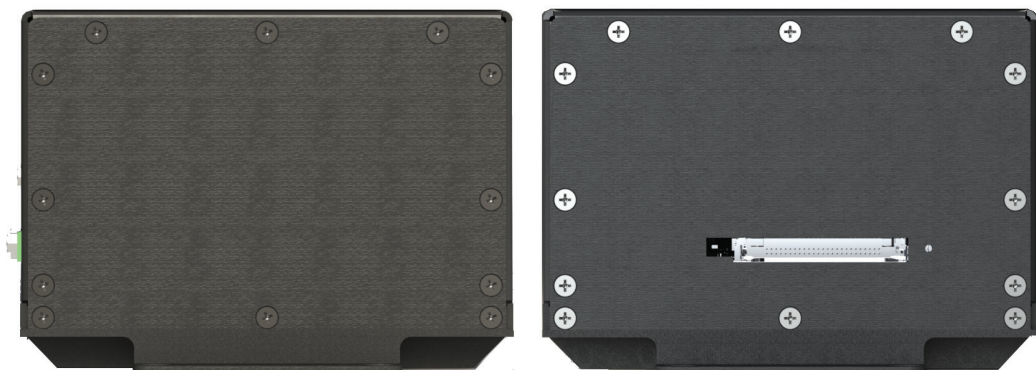
- Wide range of CPU - low cost 500 MHz to fast dual core 1.6 GHz
- Up to 4GB DDR3 memory, 256 GB SSD
- 10/100 LAN, up to 4x RS-232/485, 3x USB2.0, LPT port
- Expansion for three PC/104 / PC/104+ cards
- Wide range of pre-installed operating systems available
- Long term availability
- Customised artwork option



The RD-103 provides the user with a state of the art embedded computer suitable for many different applications. Supporting a range of embedded processors, the RD-103 can provide a low cost 500MHz AMD Geode™ or up to a 1.5GHz Intel® Core™2 Duo for maximum performance but with very low power consumption. Supporting up to 4GB of DDR3, memory bandwidth is no longer an issue. There are various options for storage including a Compact Flash and an internal mount for a 2.5" drive. The system is available with a range of solid state drives, from 1GB to 256GB as standard with even larger capacities available to special order or with a standard 120/320GB rotating disk. External USB ports allow easy in the field updates.

Communications are fully covered with up to four serial ports either all RS-232 or with the option of two as RS-422 three USB 2.0, and one 10/100 Base-T Ethernet port. An onboard VGA controller offers resolutions of up to 2560 x 1600 pixel with 2D and 3D acceleration.

Power consumption can be as low as 10 watts providing ideal platform for a range of mobile applications.



# Specifications

## Processor

- AMD Geode™ LX800 500MHz, no L2
- Intel® Atom™ N270, 2x 1.6GHz, 512kB L2
- Intel® Core™ Duo L2400 (2x 1.66GHz, 2MB L2
- AMD G-Series T56N, 2x 1.65 GHz, 2x 512 kB L2 Cache
- AMD G-Series T40E, 2x 1.0 GHz, 2x 512 kB L2 Cache
- AMD G-Series T52R, 1.5 GHz, 2x 512 kB L2 Cache
- AMD G-Series T40R, 1.0 GHz, 2x 512 kB L2 Cache

## Chipsets

- AMD CS5536 (Geode™)
- Intel 945GM, 667MHz FSB (Core™ Duo/Celeron)
- Intel® 945GSE (Atom™)
- AMD Fusion Controller Hub A55E (G-Series)

## DRAM

- 1GB max. DDR (Geode™)
- 2GB max. DDR2 (Core™2 Duo / Atom™ / Celeron™)
- 4GB max. DDR3 (AMD G-Series)

## Video controller

- CRT output
- Up to 32 MB UMA Video RAM
- Geode: Up to WUXGA (1920 x 1440), CS5536 controller
- Core™ Duo/Celeron: Up to QXGA (2048x1536), GMA950 controller
- Intel® Atom™: Up to QXGA (2048x1536), GMA950 controller
- AMD G-Series: Up to WQXGA (2560x1600), Radeon HD6310 / HD6250 controller

## I/O Interfaces

- 2x RS-232 (standard), additional 2x RS-232 or RS-422 (option)
- Enhanced Parallel Port
- 10/100Base-T Ethernet
- 3x USB 2.0 OHCI ports

## Expansion

- Space for three PC/104 cards, PC/104+ support option

## Storage

- Onboard Compact Flash socket (connected to IDE controller)
- Support for 2.5" IDE drive)

## Power Consumption

- AMD Geode™ LX800 500MHz - approx 10W
- Intel® Atom™ N270 1.6GHz - approx 13W
- AMD G-Series T40R - approx 15W
- AMD G-Series T40E - approx 15W
- AMD G-Series T52R/ T56N - approx 25W
- Intel® Core™2 Duo 1.5GHz - approx 40W

## Temperature

- Operation: 0° to 60°C
- Storage: -30° to 85°C

## Humidity

- Operation: 10% to 90%
- Storage: 5% to 95% (non condensing)

## Mounting

- DIN rail mountable, wall mountable or bench top

## Power Supply

- 10 to 30V DC inout range
- 40W capacity

## Mechanical

- Width: 231mm, Height 95mm, Depth 130mm
- Weight: 1.0kg

## Other

- CE compliant, RoHS Compliant

## Warranty

- One year

# Ordering Information

Standard Features include VGA, PS/2 port, 2x RS232, 1 10/100 Ethernet, PC/104 expansion, 3 x USB, 10V - 30V DC power Input, Compact Flash socket, CE Enclosure.

| RD103- |   |  |  |  |  |   |   |   |  | Description  |
|--------|---|--|--|--|--|---|---|---|--|--|
|        | 0 |  |  |  |  |   |   |   |  | AMD Geode™ LX800 (1x 500MHz)                                       |
|        | 6 |  |  |  |  |   |   |   |  | Intel® Core™ Duo L2400 (2x 1.66GHz)                                |
|        | 7 |  |  |  |  |   |   |   |  | Intel® Atom™ N270 (2x 1.6GHz)                                      |
|        | 8 |  |  |  |  |   |   |   |  | Intel® Celeron™ M440 (1x 1.86GHz)                                  |
|        | 9 |  |  |  |  |   |   |   |  | AMD G-Series T40R (1x 1.0 GHz)                                     |
|        | A |  |  |  |  |   |   |   |  | AMD G-Series T40E (2x 1.0 GHz)                                     |
|        | B |  |  |  |  |   |   |   |  | AMD G-Series T52R (1x 1.5 GHz)                                     |
|        | C |  |  |  |  |   |   |   |  | AMD G-Series T56N (2x 1.65 GHz)                                    |
|        | 1 |  |  |  |  |   |   |   |  | 256 MB DRAM (AMD Geode only)                                       |
|        | 2 |  |  |  |  |   |   |   |  | 512 MB DRAM  |
|        | 3 |  |  |  |  |   |   |   |  | 1 GB DRAM  |
|        | 4 |  |  |  |  |   |   |   |  | 2 GB DRAM (All apart from AMD Geode)                               |
|        | 5 |  |  |  |  |   |   |   |  | 4 GB DRAM (AMD G-Series only)                                      |
|        | 1 |  |  |  |  |   |   |   |  | 2x RS-232  |
|        | 2 |  |  |  |  |   |   |   |  | 4x RS-232  |
|        | 3 |  |  |  |  |   |   |   |  | 2x RS-232, 2x RS-422   |
|        | 0 |  |  |  |  |   |   |   |  | No GPS / No Timing   |
|        | 1 |  |  |  |  |   |   |   |  | GPS (Trimble Lassen iQ)  |
|        | 2 |  |  |  |  |   |   |   |  | Timing (Trimble Resolution T)                                      |
|        | 0 |  |  |  |  |   |   |   |  | No Cmos Battery  |
|        | 1 |  |  |  |  |   |   |   |  | Cmos Battery   |
|        | 0 |  |  |  |  |   |   |   |  | No Storage Media   |
|        | 1 |  |  |  |  |   |   |   |  | 2GB Industrial Compact Flash                                       |
|        | 2 |  |  |  |  |   |   |   |  | 4GB Industrial Compact Flash                                       |
|        | 3 |  |  |  |  |   |   |   |  | 1GB 2.5" Industrial IDE SSD  |
|        | 4 |  |  |  |  |   |   |   |  | 2GB 2.5" Industrial IDE SSD  |
|        | 5 |  |  |  |  |   |   |   |  | 4GB 2.5" Industrial IDE SSD  |
|        | 6 |  |  |  |  |   |   |   |  | 8GB 2.5" Industrial IDE SSD  |
|        | 7 |  |  |  |  |   |   |   |  | 32GB 2.5" Industrial IDE SSD                                       |
|        | 8 |  |  |  |  |   |   |   |  | 64GB 2.5" Industrial IDE SSD                                       |
|        | 9 |  |  |  |  |   |   |   |  | 120GB 2.5" IDE Hard Drive (5400 RPM)                               |
|        | A |  |  |  |  |   |   |   |  | 320GB 2.5" IDE Hard Drive (5400 RPM)                               |
|        | B |  |  |  |  |   |   |   |  | 128GB 2.5" Industrial IDE SSD                                      |
|        | C |  |  |  |  |   |   |   |  | 256GB 2.5" Industrial IDE SSD                                      |
|        | 0 |  |  |  |  |   |   |   |  | No Chassis   |
|        | 1 |  |  |  |  |   |   |   |  | Standard Chassis (Ventilated)                                      |
|        | 2 |  |  |  |  |   |   |   |  | Standard Chassis (Unventilated)                                    |
|        | 0 |  |  |  |  |   |   |   |  | No brackets  |
|        | 1 |  |  |  |  |   |   |   |  | DIN Rail brackets  |
|        | 2 |  |  |  |  |   |   |   |  | Side brackets  |
|        |   |  |  |  |  | 0 | 0 | 0 |  | Unused options   |
|        | 0 |  |  |  |  |   |   |   |  | No OS installed  |
|        | 1 |  |  |  |  |   |   |   |  | Microsoft Windows XP Pro (with SP3), req. 4GB+ disk                |
|        | 2 |  |  |  |  |   |   |   |  | Linux  |
|        | 5 |  |  |  |  |   |   |   |  | Microsoft Windows Server 2008 R2 64bit, req. 10GB+ disk. 2GB DRAM  |
|        | 6 |  |  |  |  |   |   |   |  | Microsoft Windows 7 Professional 32bit (with SP1), req. 20GB+ disk |

Red boxes indicate off-the-shelf configurations.

## Example Configuration

RD103-031015110001

RD103, AMD Geode CPU, 1GB memory, 2x RS-232, no GPS, CMOS battery, 4GB SSD, ventilated chassis, DIN rail brackets, Windows XP Pro pre-installed

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