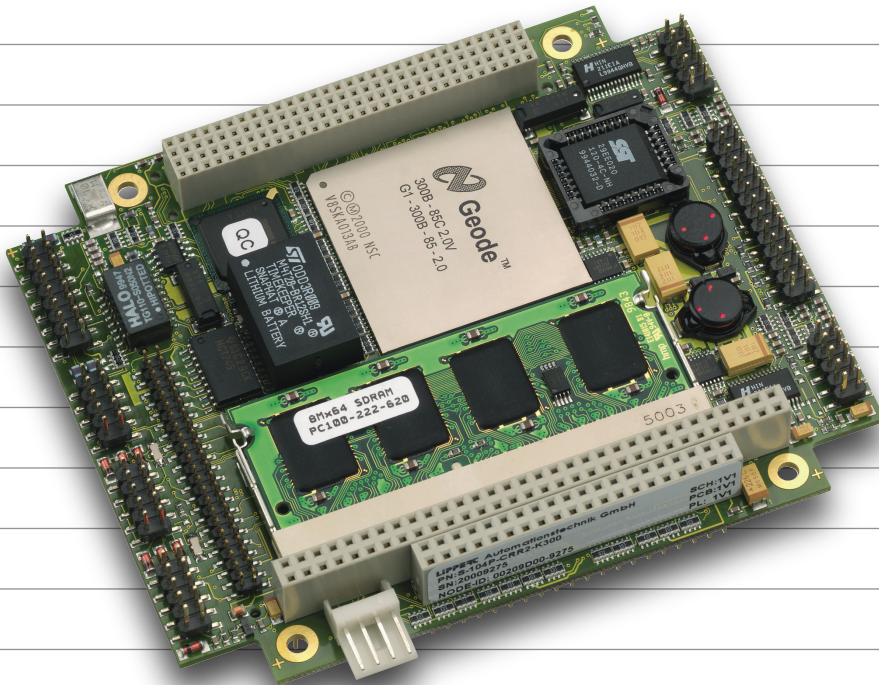


Cool RoadRunner II

PC/104-Plus SBC

Geode™ GX1, 200 MHz/300 MHz



Features

- 200 MHz or 300 MHz Pentium class CPU
- 40 °C to +85 °C operation (optional)
- Up to 512 Mbyte SDRAM
- CompactFlash™ Socket
- SXGA: 1280 x 1024
- TFT: 1024 x 768
- 10/100 BaseT Ethernet
- 2 x USB
- Only 6 watts power consumption
- No active cooling

This HighRel design brings Pentium class CPU power to Embedded PC applications, where compactness, low power consumption and fan-less operation are key requirements. As PCI bus, Fast Ethernet and Flat Panel support becomes more and more important for embedded system design engineers, the Cool Roadrunner II module is the first real All-In-One single board computer in his class. The module was especially designed to support internet appliances like Thin Clients, WEB-TVs, Car-PCs and Embedded Servers.

Generally, in most embedded PC applications the Cool Roadrunner II single board computer is the first choice. A wide range of peripheral functions are supported: COM1/2, LPT with EPP/EPC, EIDE, FDD, PS/2 Mouse, PS/2 Keyboard, IrDA, 2 x USB, Sound-I/O, Fast Ethernet 10/100 BaseT. VGA, TV-Out and extensive Flat Panel support with resolutions up to 1280 x 1024 at 8 bpp allow connection of all kinds of display devices. The size of SDRAM and the size of the Solid State Disk can be chosen according to the application's needs. The on board watchdog and voltage supervisory circuit prevents system malfunctions. A CompactFlash™ socket (type 2, IDE compatible) can be used for all CompactFlash™ Cards as well as for IBM's MicroDrive™ hard disks. The 44-pin EIDE port can be used for additional CompactFlash™ devices, hard disks and CD-ROM drives in master/slave configuration.

Although the Cool Roadrunner II has all peripherals that constitute a PC on board, the module can be easily extended with the ISA and the PCI bus by addition of extension boards in the PC/104-Plus standard. For example, an external PCI bus based frame grabber module or a PCI bus based SCSI module or an ISA bus based Fieldbus controller can be added by simply plugging the boards together.

An FDD power connector can be used to power the complete system, when the PC/104-Plus bus connectors are not available. The Cool Roadrunner II board is designed for a single supply voltage of 5 VDC. All necessary voltages are generated onboard.

LiPPERT is an independent design house and manufacturer that develops and builds special customer specific solutions. Please ask for a specific quotation.

More Features

- TV-Out
- Sound I/O AC97 compatible
- 2 independent watchdogs
- Flash BIOS
- Battery on board
- Expandable via PC/104 bus

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Technical Specifications

Board Format	PC/104-Plus	LPT	Multi-Mode™ bi-directional Parallel-Port IEEE 1284 compliant with EPP/EPC modes
Processor	Geode™ GX1	IDE	1 primary EIDE port according to ATA4 with 33 Mbyte/s
Speed	200 MHz / 300 MHz	Sound I/O	AC97 (Line-in, Line-out, Mic-in)
Core logic	CS5530A Super I/O: SMSC FDC37B727	Compact Flash	Header type 2
RAM (max.)	512 Mbyte SODIMM	RTC Backup	Replaceable battery
RAM clock	75 MHz	Watchdog	yes
Graphics	CT69000, 2 MB, up to 1280 x 1024 x 8 bpp	Power Consumption	~6 W at 300 MHz
CRT	Analog VGA	Operating temperature	-20 °C ...+60 °C (standard) -40 °C ...+85 °C (optional)
LCD Display	TFT, STN, DSTN, EL, Plasma	Cooling	passive
TV-Out	PAL & NTSC	ISA Bus	Standard ISA Bus
Floppy	up to 2.88 Mbyte	PCI Bus	3.3 V compliant. Peripherals need their own 3.3 V supply
Serial	2 x RS232C with hardware handshake	Power Supply	+5 V only. All necessary voltages are generated on-board.
Infrared	IrDA (SIR) with TTL level to connect an external infrared transmitter	BIOS	Award BIOS parameters are also saved in EEPROM
USB	2 x USB 1.0 compliant	Supported OS	Windows, Linux
10/100 BaseT Ethernet	1 x Intel 82559ER		
Keyboard, Mouse	PS/2		

Ordering Information

Ordering Number	Description
†104P-CRR2-K300	PC/104-Plus board with 300 MHz Geode™ GX1, LCD+VGA-CRT, max. 256 MB SDRAM, 2xUSB, IrDA, RTC, battery, FDC, EIDE, LPT, 2xCOM,PS/2 keyboard and mouse, watchdog, CompactFlash™ socket, bitparallel interface, Ethernet, AC97 sound, TV-Out
†104P-CRR2-K200	Like t-104P-CRR2-K300 but with 200 MHz Geode™ GX1
†104-CRR2-VE300	PC/104 board like t-104P-CRR2-K300, but without sound and TV-Out
†104-CRR2-VE200	Like t-104-CRR2-VE300 but with 200 MHz Geode™ GX1

Note: † denotes the temperature range. Substitute with S for standard and E for extended temperature range