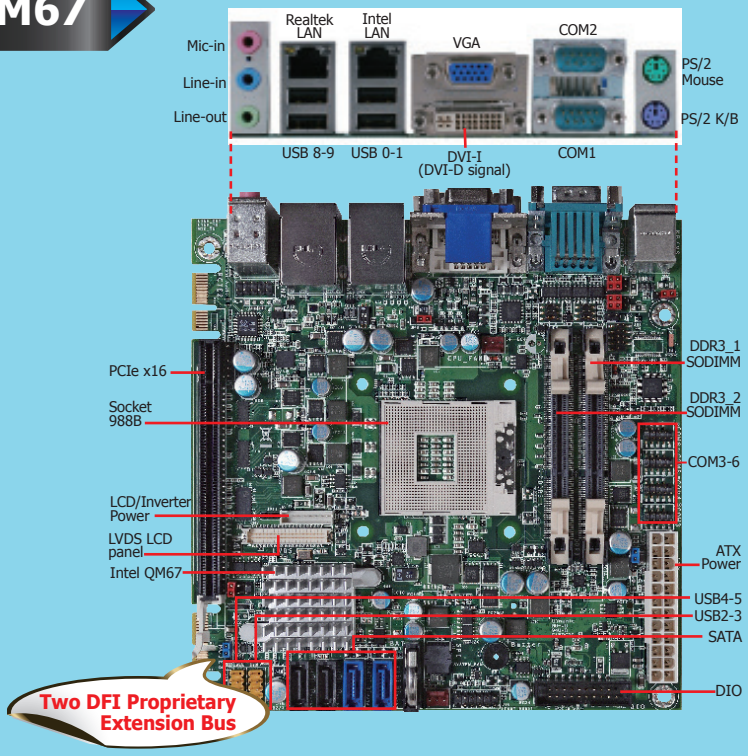
HR100-CRM

Mobile

QM67



Features

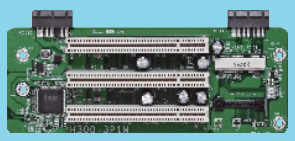
MEMORY	2 DDR3 SODIMM up to 16GB
EXPANSION	1 PCIe x16
	2 DFI Proprietary Extension bus
DISPLAY OUTPUTS	1 DVI-I (DVI-D signal), 1 VGA, 1 LVDS
LAN	2 LAN
COM	6 COM
USB	8 USB 2.0
STORAGE	4 SATA: 2 SATA 3.0, 2 SATA 2.0
	1 CF (optional)
DIO	8-bit DIO

2 Displays | 8 DIO | 8 USB | 6 COM | 2 GbE LAN

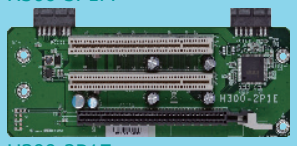
6 Riser Cards for DFI Proprietary Extension Bus

DFI's Proprietary Technology

H Series:



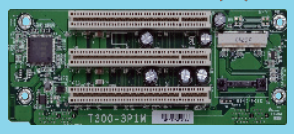
H300-3P1M



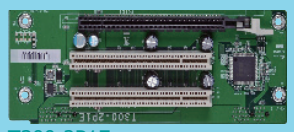
H300-2P1E

H300-2E

T Series:



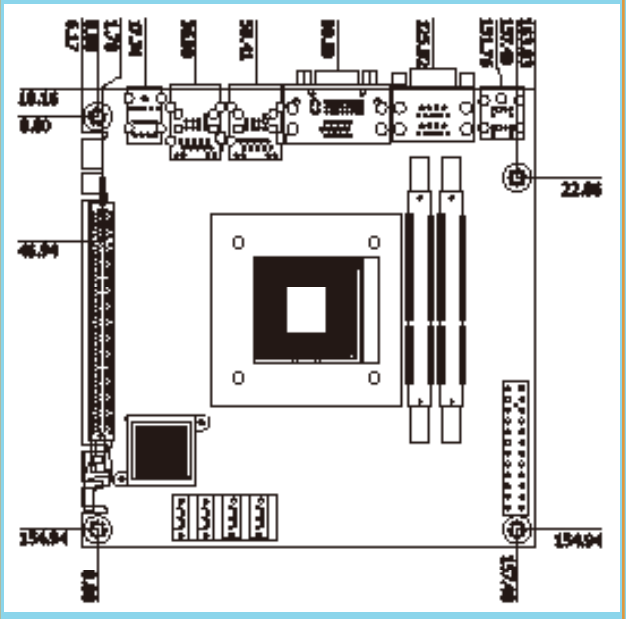
T300-3P1M



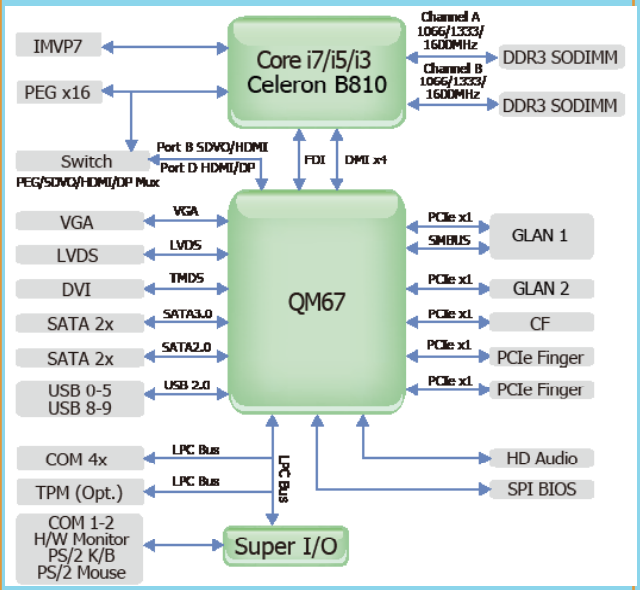
T300-2P1E

T300-2E

Mechanical Drawing



Block Diagram



3rd/2nd Gen Intel® Core™
Mini-ITX

HR100-CRM

Specifications

PROCESSOR
• Socket G2 988B for:
  - 3rd Generation Intel® Core™ processors (22nm process technology) (Rev. AG0 or later)
    : Intel® Core™ i7-3610QE (6M Cache, up to 3.3 GHz); 45W
    : Intel® Core™ i5-3610ME (3M Cache, up to 3.3 GHz); 35W
    : Intel® Core™ i3-3120ME (3M Cache, 2.4 GHz); 35W
  - 2nd Generation Intel® Core™ processors (32nm process technology)
    : Intel® Core™ i7-2710QE (6M Cache, up to 3.0 GHz); 45W
    : Intel® Core™ i5-2510E (3M Cache, up to 3.1 GHz); 35W
    : Intel® Core™ i3-2330E (3M Cache, 2.2 GHz); 35W
    : Intel® Celeron® B810 (2M Cache, 1.6 GHz); 35W
• Intel® Advanced Vector Extensions (Intel® AVX) Instructions
• Intel® Turbo Boost Technology

CHIPSET
• Intel® QM67 Express chipset

SYSTEM MEMORY
• Two 204-pin DDR3 SODIMM sockets
• Supports DDR3 1333/1600MHz (3rd generation processors)
  Supports DDR3 1066/1333MHz (2nd generation processors)
• Supports dual channel memory interface
• Supports up to 16GB system memory
• DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

EXPANSION SLOTS
• 1 PCIe x16 slot
  - Supports Gen 3.0 (3rd generation processors)
  - Supports Gen 2.0 (2nd generation processors)
  - Switchable with SDVO/HDMI/DP
  - Configurations (supported only via a riser card):
    : One x8 (GFX) and two x4 (I/O)
    : Two x8 (GFX, I/O)
    : One x16 (GFX, I/O)
• 2 DFI Proprietary Extension bus for PCIe/PCI expansion
• 1 CompactFlash socket (optional)

ONBOARD GRAPHICS FEATURES
• Intel® HD Graphics
• Display ports: DVI-D (ASMedia 1442), LVDS and VGA
• DVI: resolution up to 1920x1200 @ 60Hz
• LVDS: Single Channel - 18/24-bit; Dual Channel: 36/48-bit, resolution up to 1920x1200 @ 60Hz
• VGA: resolution up 2048x1536 @ 75Hz
• Supports 6 Graphics Execution Units (EUs)
• Intel® Clear Video Technology
• DirectX Video Acceleration (DXVA) support for accelerating video processing

ONBOARD AUDIO FEATURES
• Realtek ALC262 2-channel High Definition Audio
• High performance DACs with 100dB SNR
• ADCs with 90dB SNR
• Two stereo DACs support 24-bit PCM format for stereo audio playback
• Three stereo ADCs support 20-bit PCM format for multiple input streaming
• S/PDIF audio interface

ONBOARD LAN FEATURES
• Intel® 82579LM with iAMT7.0 Gigabit Ethernet Phy
• Realtek RTL8111DL PCI Express Gigabit Ethernet controller
• Integrated 10/100/1000 transceiver
• Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

SERIAL ATA (SATA) INTERFACE
• 4 Serial ATA ports
  - 2 SATA 2.0 ports with data transfer rate up to 3Gb/s
  - 2 SATA 3.0 ports with data transfer rate up to 6Gb/s
• Integrated Advanced Host Controller Interface (AHCI) controller
• Supports RAID 0/1/5/10

COMPACTFLASH INTERFACE
• JMicron JMB368 PCI Express to PATA host controller
• DMA mode: Ultra ATA up to 100MB/s
• PIO mode: up to 16MB/sa

INTEL ACTIVE MANAGEMENT TECHNOLOGY (AMT)
• Supports iAMT7.0
• Out-of-band system access
• Remote troubleshooting and recovery
• Hardware-based agent presence checking
• Proactive alerting
• Remote hardware and software asset tracking

REAR PANEL I/O PORTS
• 1 mini-DIN-6 PS/2 mouse port
• 1 mini-DIN-6 PS/2 keyboard port
• 2 DB-9 serial ports
  - Supports RS232/422/485
  - Pins 1 and 9 of RS232 functions as RS232 signal or power (selectable via jumper)
• 1 DB-15 VGA port
• 1 DVI-I port (DVI-D signal)
• 2 RJ45 LAN ports
• 4 USB 2.0/1.1 ports
• Mic-in, line-in and line out jacks

I/O CONNECTORS
• 2 connectors for 4 external USB 2.0/1.1 ports
• 4 connectors for 4 external RS232 serial ports
• 1 LVDS LCD panel connector
• 1 LCD/inverter power connector
• 1 8-bit Digital I/O connector
• 1 front audio connector for line-out and mic-in jacks
• 1 S/PDIF connector
• 4 Serial ATA ports
• 1 24-pin ATX power connector
• 1 chassis intrusion connector
• 1 front panel connector
• 2 fan connectors

TRUSTED PLATFORM MODULE (TPM) - optional
• Provides a Trusted PC for secure transactions
• Provides software license protection, enforcement and password protection

BIOS
• AMI BIOS
  - 64Mbit SPI BIOS

ENERGY EFFICIENT DESIGN
• Supports ErP Lot6 power saving (optional)
• Supports ACPI
• System Power Management
• Wake-On-Events include:
  - Wake-On-PS/2 KB/Mouse
  - Wake-On-USB KB/Mouse
  - Wake-On-LAN
  - RTC timer to power-on the system
• CPU stopped clock control
• AC power failure recovery

DAMAGE FREE INTELLIGENCE
• Monitors CPU/system temperature and overheat alarm
• Monitors VCORE/5V/1.05V/1.5V/12V/3.3V/VBAT voltages and failure alarm
• Monitors CPU/system fan speed and failure alarm
• Read back capability that displays temperature, voltage and fan speed
• Watchdog timer function

POWER CONSUMPTION
• 64.68 W with i7-2710QE at 2.1GHz and 2x 4GB DDR3 SODIMM

OS SUPPORT
• Windows XP Professional x86 & SP3 (32-bit)
• Windows XP Professional x64 & SP2 (64-bit)
• Windows 7 Ultimate x86 & SP1 (32-bit)
• Windows 7 Ultimate x64 & SP1 (64-bit)
• Windows 8 Enterprise x86 (32-bit)
• Windows 8 Enterprise x64 (64-bit)

TEMPERATURE
• 0°C to 60°C

HUMIDITY
• 10% to 90%

DIMENSIONS
• Mini-ITX form factor
• 170mm (6.7") x 170mm (6.7")

CERTIFICATION
• CE, FCC Class B, UL, RoHS

Packing List

• 1 HR100-CRM motherboard
• 2 Serial ATA data cables
• 2 Serial ATA power cables
• 2 USB cables
• 1 Bracket mounted with a COM port cable
• 1 I/O shield
• 1 QR (Quick Reference)
• 1 DVD

Optional Items

• USB port cable
• Serial ATA data cable
• Serial ATA power cable
• COM port cable
• I/O shield