DFI-ACP
○ Revision Control ○ Long Life Cycle

RoHS

G7V100 Series
Intel® 915GV LGA775 Mini-ITX System Board

PROCESSOR
- LGA 775 socket for:
  - Intel® Pentium® 4 or Intel® Celeron, Intel® Celeron D
- Supports Intel Enhanced Memory 64 Technology (EMT64T)
- Supports Enhanced Intel SpeedStep Technology (EIST)
- Supports Intel Hyper-Threading Technology
- Supports 800/533MHz FSB

CHIPSET
- Intel® chipset
  - Intel® 915GV Graphics Memory Controller Hub (GMCH)
  - Intel® 82801FB I/O Controller Hub (ICH6)

SYSTEM MEMORY
- Two 240-pin DDR2 SDRAM DIMM sockets
- Supports dual channel (128-bit wide) memory interface
- 1.8V unbuffered non-ECC DDR2 533/667MHz SDRAM DIMM
- Supports maximum of 4GB system memory using 256Mbit, 512Mbit or 1Gbit technology for x8 and x16 devices

BIOS
- Award BIOS, 4Mbit flash memory

ENERGY EFFICIENT DESIGN
- Supports ACPI specification and OS Directed Power Management
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
  - Wake-On-PS/2 Keyboard/Mouse
  - Wake-On-USB Keyboard/Mouse
  - Wake-On-LAN and Wake-On-Ring
  - RTC timer to power-on the system
- System power management supported
- CPU stopped clock control
- Hardware supports SMI green mode
- Microsoft®/Intel® APM 1.2 compliant
- Soft Power supported - ACPI v1.0a specification
- AC power failure recovery

DAMAGE FREE INTELLIGENCE
- Monitors CPU/system temperature and overheat alarm
- Monitors 3VSB(V)/VBAT(V)/1.5V/3.3V/5V/12V/CPU(V)/1.8V 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

ONBOARD GRAPHICS FEATURES
- Built-in Intel Graphics Media Accelerator 900
- Graphics memory
  - Shares 1MB/8MB of the system memory in DOS mode
  - Uses Dynamic Video Memory Technology (DVMT) in Windows mode
- Graphics controller
  - Core frequency of 333MHz
  - 400MHz integrated 24-bit RAMDAC
  - Analog display up to 2048x1536 @ 85Hz refresh
  - High quality 3D setup and render engine - Discrete, Triangles, Strips and fans
  - Hardware Pixel Shader 2.0
  - Supports D3D and OGL pixelization rules
  - Per pixel perspective corrected texture mapping
  - 533 MegaTexel/sec performance, 266 Mpixels/sec fill rate up to two bilinear textures
- 2D graphics features
  - Optimized 256-bit BLT engine, 32-bit alpha blended cursor
  - Programmable 3-color transparent cursor
- 3D graphics features
  - Supports maximum 3D resolution: 1600x1200x32 @ 85Hz
  - Flat and Gouraud shading
  - 16- and 24-bit Z-buffering and 8-bit Stencil buffering
  - Vertex and programmable pixel fog and atmospheric effects
  - Supports Double and triple render buffer

ONBOARD AUDIO FEATURES
- Realtek ALC655, 5.1-channel audio output
- 18-bit stereo full-duplex codec with independent variable sampling rate
- High quality differential CD input
- True stereo line level outputs, S/PDIF-in/out interface

ONBOARD LAN FEATURES
- G7V100-N/NC
  - Two Marvell 88E8053 PCI Express Gigabit ethernet controllers
  G7V100-B/BC
  - One Marvell 88E8053 PCI Express Gigabit ethernet controller
- Integrated power management functions
- Full duplex support at 10 Mbps, 100 Mbps and 1Gbps
- Supports IEEE 802.3u auto-negotiation
- Supports wire for management

SERIAL ATA INTERFACE
- Supports two SATA (Serial ATA) interfaces which are compliant with SATA 1.0 specification (1.5Gbps interface)

IDE INTERFACE
- Supports up to UltraDMA 100Mbps hard drives
- PIO Mode 4 Enhanced IDE (data transfer rate up to 14MB/sec.)

DIGITAL I/O FEATURES
- Supports 8 in or 8 out; or independent 4 in or 4 out

REAR PANEL I/O PORTS
- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 DB-9 serial port
- 1 DB-15 VGA port
- 2 RJ45 LAN ports (G7V100-N/NC)
  1 RJ45 LAN port (G7V100-B/BC)
- 4 USB 2.0/1.1 ports
- Line-out, line-in and mic-in

I/O CONNECTORS
- 1 CompactFlash socket (G7V100-NC and G7V100-BC)
- 2 connectors for 4 additional external USB 2.0/1.1 ports
- 1 connector for an external serial port
- 1 Digital I/O connector
- 1 Digital I/O power connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF-in/out connector
- 1 connector for IrDA interface
- 2 Serial ATA connectors
- 1 40-pin IDE connector
- 1 floppy connector (FPC connector type)
- 1 20-pin ATX power connector
- 1 4-pin ATX 12V power connector
- 2 fan connectors

EXPANSION SLOTS
- 1 PCI slot for PCI expansion card or customized riser card for 1, 2 or 3 PCI slots expansion (for low profile PCI card only)

TEMPERATURE
- Operating: 0°C to 60°C
- Non-operating: -40°C to 85°C
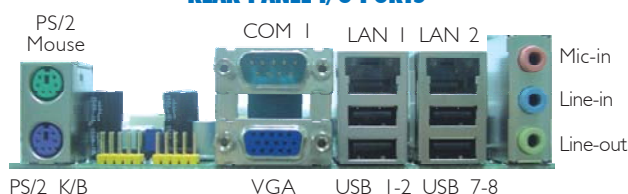
HUMIDITY
- Operating: 10% to 90%

COMPATIBILITY
- PCI 2.2 and AC '97 compliant

PCB
- 6 layers, Mini-ITX form factor
- 17cm (6.7") x 17cm (6.7")

REAR PANEL I/O PORTS

PS/2 Mouse | COM 1 | LAN 1 | LAN 2 | Mic-in | Line-in | Line-out
PS/2 K/B | VGA | USB 1-2 | USB 7-8

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