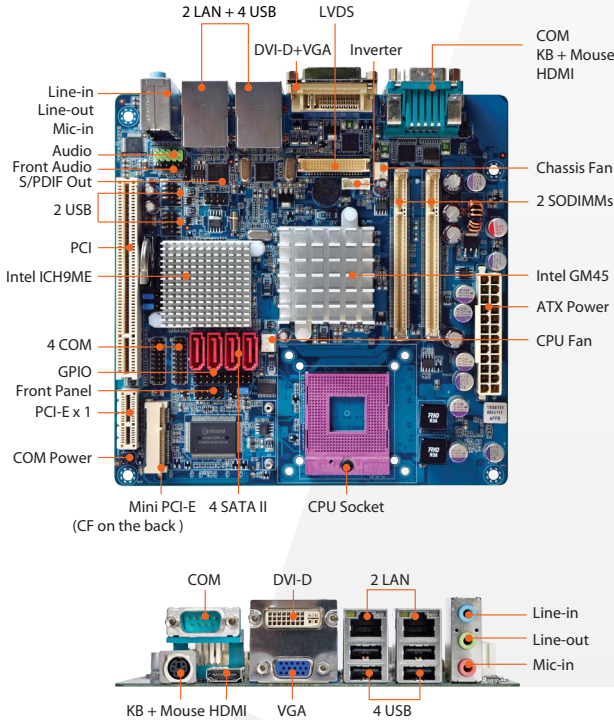


LM3681-GM45

Intel® GM45 Socket P Core™2 Quad Mini-ITX Motherboard



Features

- Supports Intel Socket P Core 2 Quad/ Core 2 Duo/ Celeron® M 45nm CPU
- Intel GM45 + ICH9ME Chipset
- Two 200-pin SODIMMs up to 4GB dual channel DDR2 800MHz SDRAM
- Intel Integrated Graphics 4500MHD supports 1080p High Definition Video Applications
- Multiple Display I/O supports versatile Dual Display Functions : VGA, DVI, HDMI and LVDS
- Realtek ALC888 supports 5.1 + 2 Channel with 2 independent HD Streaming Audio
- Intel 82567LM GbE LAN, Intel 82574L PCI-E GbE LAN for 2nd LAN
- 1 Mini PCI-E, 1 PCI-E x 1, 1 CF Socket, 1 PCI 2.3
- 5 COM, 8 USB, 4 SATA II
- TPM 1.2, AMT 4.0 and GPIO functions embedded

Specifications

System	
CPU	Intel Socket P supports Core 2 Quad/ Core 2 Duo/ Celeron M with 45nm process technology
FSB	1066/ 800/ 667MHz
BIOS	AMI 32Mb SPI BIOS
System Chipset	Intel GM45 + ICH9ME Chipset
I/O Chip	Winbond W83627DHG-A
System Memory	Two 200-pin SODIMM sockets support up to 4GB dual channel DDR2 800 SDRAM
Watchdog Timer	Reset : 1 to 255 sec/min per step
H/W Status Monitor	Monitoring temperature, voltage and cooling fan status. Auto throttling control when CPU overheats.
Expansion	1 Mini PCI-E, 1 PCI-E x 1, 1 PCI 2.3, 1 Compact Flash Type I/II Socket (optional)
TPM	Intel Integrated TPM 1.2
Power State	S1, S3, S4, S5
Wake up on LAN or Ring	LAN (PXE)
Smart Fan Control	Yes
I/O	
MIO	4 SATA II, 5 COM RS-232, 1 VGA, 1 LVDS, 1 DVI, 1 HDMI, 2 LAN, 1 PS/2 Keyboard + Mouse
USB	8 USB 2.0 (4 Rear, 4 Internal)
GPIO	16-bit General Purpose I/O for 8-bit DI and 8-bit DO

Display

Chipset	Intel GM45 Integrated Graphics 4500MHD
Display Memory	Intel DVMT 5.0 supports up to 512MB Video Memory
Max Resolution	2048 x 1536 (@75Hz)
Dual Display	VGA+HDMI, LVDS+HDMI, VGA+DVI, LVDS+DVI
VGA	Onboard
LVDS	Onboard, dual channel 24-bit LVDS
LVDS Backlight	Yes
DVI	Onboard, TI SN75DP139 supports DVI-D
HDMI	Onboard, ASMedia AS1442T supports HDMI

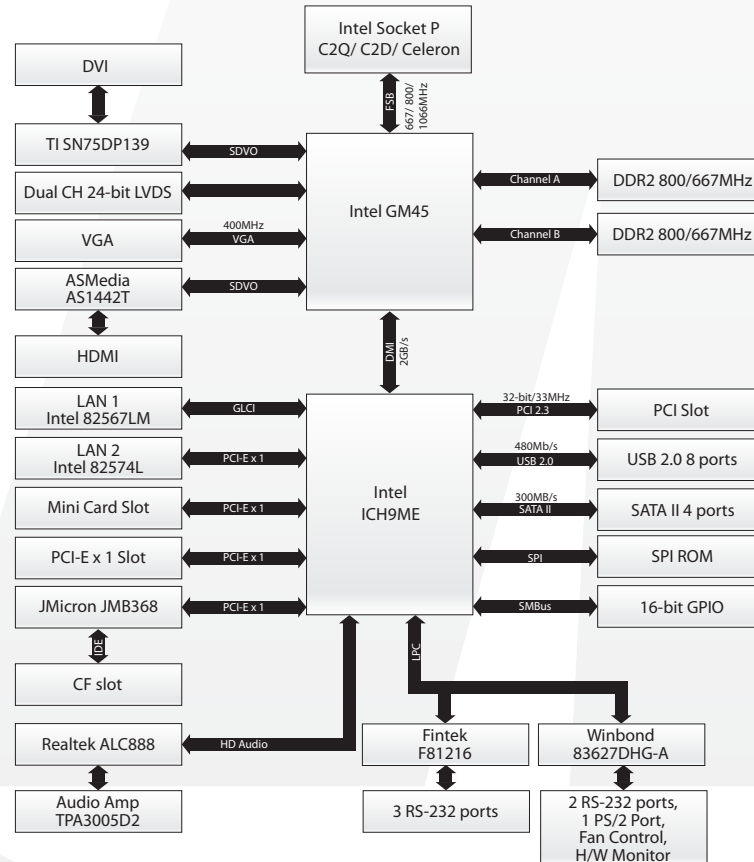
Audio

Audio Codec	Realtek ALC888, 5.1 + 2 Channel HD Audio
Audio Interface	Line-in, Line-out, Mic-in
Audio Amplifier (W)	3W + 3W, TPA3005D2 Stereo

Ethernet

LAN 1	Intel 82567LM Gigabit LAN
LAN 2	Intel 82574L PCI-E Gigabit LAN for 2nd LAN (optional)

Block Diagram



Back Panel I/O Port

- 1 PS/2 Keyboard + Mouse (Through Y-Cable)
- 1 COM RS-232 with 5V/12V Power
- 1 VGA Port
- 1 DVI Port
- 1 HDMI Port
- 4 USB 2.0 Ports
- 2 LAN RJ45 Ports
- Audio I/O (3 Jacks)

Internal I/O Connector

- 2 USB Connectors support 4 USB Ports
- 4 COM Port Connectors (no box), 1 with 5V/ 12V Power
- 4 SATA Connectors
- 1 CF Connector
- 1 Audio Amplifier Connector
- 1 Front Audio Connector
- 1 Front Panel Connector
- 1 S/PDIF Out Connector
- 1 LVDS Connector
- 1 Inverter Power Connector
- 1 CPU Fan Connector
- 1 System Fan Connector
- 1 GPIO Connector

Power

Power Requirement	+12V	+5V	+3.3V	5VSB
	4.17A	2.42A	0.76A	1.4A

Power Type ATX

Power Connector 1 24-pin ATX Power Connector

Mechanical & Environmental

Operating Temperature	0°C to 60°C (32°F to 140°F)
Operating Humidity	0% to 90% relative humidity, non-condensing
Size (L x W)	6.69" x 6.69" (170 x 170 mm)
Weight	0.88 lbs (0.4 Kg)