

GES-BIOTH

Motherboard

Sandy Bridge-U or Ivy Bridge-U Celeron, Pentium
Core® I3/I5/I7 CPUs

Features

- Sandy Bridge-U or Ivy Bridge-U Celeron, Pentium, Core® I3/I5/I7 CPUs
- Single-Channel 1600/1333MHz DDR3 SO-DIMM Memory, Up to 8GB
- Display Options Include VGA, HDMI, and LVDS Interfaces
- 2x Gigabit Ethernet Ports
- 1x Mini-PCIe (for WiFi/4G) 1x mSATA
- Supports Up to 8 USB Ports
- 6x Built-in RS232 Serial Ports, with Support for 2x RS485 Ports
- Supports XP, WIN7, WIN10, and Linux Operating Systems

Appearance



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Revision Table

Date	Revision	Content	By
2024/10/22	0.1	Mother Board Datasheet	Leon

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Specification

Mother board	
CPU	Sandy Bridge-U or Ivy Bridge-U Celeron, Pentium, Core® I3/I5/I7 CPUs
Chipset	Intel® HM76/HM77 High-Speed Chipsets
Memory	1x SO-DIMM Memory Slot, Supports Single-Channel 1600/1333MHz DDR3 Memory, Up to 8GB
Graphics	Intel HD Graphics 4000 1x VGA 1x HDMI 1x LVDS (Can Be Hardware Modified to eDP) Supports Sync/Asyn Dual Display with VGA, HDMI, and LVDS
Ethernet	2x Realtek RTL8111H Gigabit Network Cards, Supports Wake-on-LAN/PXE
Storage	1x SATA 2.0 1x mSATA 3.0 Slot (Long Card)
Audio	ALC897 7.1-channel high-definition audio controller Supports MIC/Line-out, amplifier (supports 2 ohms, 5W dual-channel)
Expansion slot	1x Mini-PCIe Slot, Supports WiFi/4G Modules
Back panel I/O	1x HDMI 1x VGA 2x USB 3.0 2x RJ-45 Gigabit 1x Line-Out (Green) 1x Hard Drive/Power Indicator Light 1x 12V DC Power Input

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Internal I /O	1x LVDS, 2* 15Pin, Supports Dual-Channel 24bit 1x Screen Backlight Power Interface, 1* 6Pin 6x USB 2.0, 2* 5Pin 1x Front Audio Interface (Supports Line-Out and MIC), 2* 5Pin 1x Amplifier, 1* 4Pin 6x COM (COM1 and COM2 Default to RS232, Can Support 2 RS485 Through Jumpers) 1x PS2 Interface, 1* 6Pin 1x Hard Drive Power Interface, 1* 4Pin 1x DC 12V Power Input, 1* 2Pin 1x Front Panel Switch and Indicator Light Interface, 2* 5Pin
Fan connector	1* 4Pin CPU Smart Fan Interface
GPIO	Supports 4 GPIO Inputs/Outputs
BIOS	64Mb Flash ROM
Watchdog	Supports Hardware Reset Function (256 Levels, 0~255 Seconds)
Operating System	Windows XP/7/Windows 10/Linux
Power Supply Type	12 DC Power Supply

Environment Compliance

Operating Temp.	-10°C ~ 60°C
Storage Temp.	-20°C ~ 70°C
Humidity	5% to 95%RH, non-condensing
Dimension	146mm x 102mm

Environmental performance may vary according to the integration method or final integration scenario.

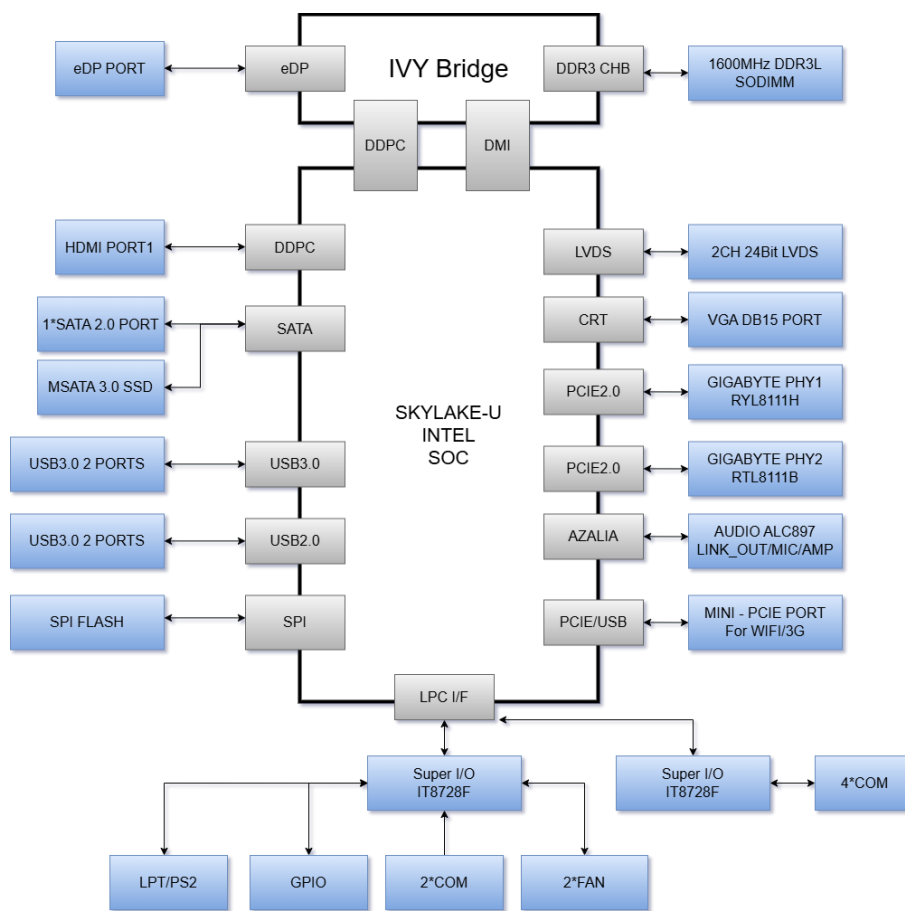
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Block Diagram



Ordering Information

No.	Model	CPU	Cores	Frequency	DDR	HDMI	VGA	LVDS	LAN	USB	PS2	COM/485	POWER
1	GES-BIOTH-3217	I3-3217U	2	1.8Ghz	DDR3	1	1	1	2	8	1	6/2	12v
2	GES-BIOTH-3317	I5-3317U	2	1.7Ghz	DDR3	1	1	1	2	8	1	6/2	12v

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Deliverables

1 Intel i3 Mother Board

2

Ordering Details

GES-BIOTH - 3 2 1 7

CPU/SOC:
Only take the digits
Example:
I3-3217U - 3217U
I5-3317U - 3317U

Example: GES-BIOTH-3217
Intel i3 Mother Board