

GES-BIOTH03

Motherboard

Intel® Whiskey Lake, Come Lake or Coffe Lake, 8th /10th Celeron or Pentium, Core® i3/i5/i7 CPUs

Features

- Intel® Whiskey Lake, Come Lake or Coffe Lake, 8th /10th Celeron or Pentium, Core® i3/i5/i7 CPUs
- 1x SO-DIMM Solt, Support Single-Channel 2400MHz DDR4 Memory, Up to 32GB
- Display Supports HDMI, LVDS, eDP
- 5x Intel WGI210AT Gigabit Network Ports, LAN2 S
- 1x mSATA
- 1x Mini-PCle
- 2x USB Ports
- 2x RS232 Serial Ports, Support up to RS485/RS422

Appearance





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Revision Table

Date	Revision	Content	By
2024/10/18	0.1	Mother Board Datasheet	Leon

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Specification

Mother Board	
CPU	Intel® Whiskey Lake, Come Lake or Coffe Lake, 8 th /10 th Celeron or Pentium, Core® i3/i5/i7 CPUs
Memory	1x SO-DIMM Slot, Supports Single-Channel 2400MHz DDR4 Memory, Maximum Supports Up to 32GB
Graphics	Integrated Intel® HD Graphics 620
Display	1x HDMI, Support 4096x2304@24Hz 1x LVDS or eDP (Default LVDS)
Ethernet	5x Intel WGI2101AT Gigabit Network, Supports Wake-On-LAN/PXE, LAN2~LAN5 Support PoE
Storage	1x SATA 3.0 1x mSATA3.0 Slot
Audio	ALC897 7.1 Channel High-Definition Audio Controller, Supports MIC In/Line-Out , Amplifier 4Ω/3W Dual-Channel
Expansion Slot	1x Mini-PCIe Slot, Supports WIFI/4G module
Back Panel I/O	1x HDMI 2x USB 3.0 5x RJ-45 Gigabit Network 1x 9~36V DC Power Input 1x 9~36V DC Power Input (Phoenix Connector)

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Internal I /O	1x 4 Pin Power Connector, Supports 9~36V DC Input/Output 1x eDP Interface 2*15Pin, Default LVDS 1x LVDS Interface 2*15Pin, Supports Dual-Channel 24bit 1x Backlight Power Interface 1*6Pin 4x USB 2.0 Pin Header Interfaces 2*5Pin 1x Amplifier Port 1*4Pin 2x RS232 Serial Ports, Support RS485/RS422 1x Front Audio Interface 2*5Pin 1x HDD Power Connector 1x Front Panel Switch and LED Indicator Interface 2*5Pin
Fan Connector	1x 4 Pin CPU Smart Fan Connector 1x 4 Pin System Smart Fan Connector
GPIO	Supports 4 GPIO Inputs/Outputs
BIOS	64Mb Flash ROM
Watchdog	Supports Hardware Reset Function (256 Levels, 0~255 Seconds)
Support OS	Windows 10/Linux
Power Supply	Supports DC 9~36V
Dimension	165* 115mm

Environment Compliance

Operating Temp.	-20°C ~ 60°C
Storage Temp.	-20°C ~ 60°C
Humidity	5% to 95%RH, Non-Condensing

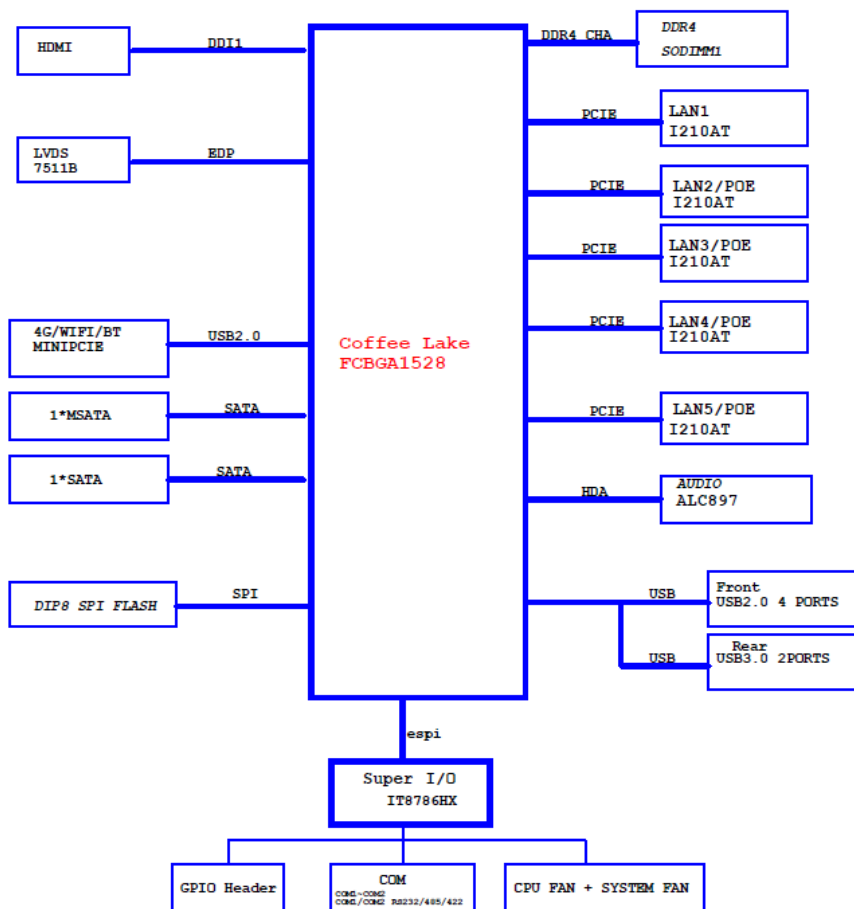
Environmental performance may vary according to the integration method or final integration scenario.

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Block Diagram



Interface Options

No.	Interface Options	CPU	Cores	Frequency	TDP	DDR	eDP	HDMI	LVDS	LAN	USB	COM/485	POWER
1	-	i3-10110U	2	2.10GHz	15W	DDR4	1	1	1	5	7	2/2	9~36V
2	-	i5-8260U	4	1.6GHz	15W	DDR4	1	1	1	5	7	2/2	9~36V
3	-	i7-10710U	6	1.10GHz	15W	DDR4	1	1	1	5	7	2/2	9~36V

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Deliverables

1	Motherboard Intel® Whiskey Lake, Come Lake or Coffe Lake, 8 th /10 th Celeron or Pentium, Core® i3/i5/i7 CPUs
Others	Optional Assemblies as per Ordering Details

Ordering Details

GES-BIOTH03 - P P P P P S M T C

Processor:

(0110U): i3-10110U
(8260U): i5-8260U
(0710U): i7-10710U

Storage

(N): None
(1): 8GB
(2): 16GB
(3): 32GB
(4): 64GB
(5): 120~128GB
(6): 240~256GB
(7): 480~512GB
(8): 960~1TB
(9): 2TB
(A): 4TB

Memory

(N): None
(1): 2GB
(2): 4GB
(3): 8GB
(4): 16GB
(5): 32GB

Telecommunication

(N): None
(F): 5G
(L): 4G/LTE
(S): 3G
(G): 2G

Connectivity (Wireless)

WIFI/GPS/BT
(N): None
(A): WIFI, BT, GPS
(B): BT
(C): WIFI, GPS
(D): BT, GPS
(E): WIFI, BT
(G): GPS
(W): WIFI

Example: GES-BIOTH03-8260U45NN

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; with i5-8260U CPU, 64GB Storage, 32GB RAM

Optional Interfaces listed in the datasheet could be set upon request.

Disclaimer

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