

GIGABYTE™

Your Best B2B Solutions

Server / Workstation
Embedded / IoT Motherboard
BRIX Mini-PC System

GIGABYTE™

www.gigabyte.com

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GIGABYTE

Upgrade Your Life™

A global leader in the PC industry, GIGABYTE offers a comprehensive product lineup that aims to "Upgrade Your Life." With expertise encompassing consumer, business, gaming, and cloud systems, GIGABYTE uses research and innovation to consistently meet user needs. GIGABYTE is renowned for award-winning products including motherboards, graphics cards, laptops, mini PCs, and other PC components and accessories, and has revolutionized the PC industry with patented DualBIOS™ and Ultra Durable™ technologies. As an expert in PC technology, GIGABYTE is poised to extend our scope in business servers and cloud systems with hardware and software solutions that integrate AI and AIoT applications to develop the ideal infrastructure for future prospects in 5G.

Creating Brand Value

GIGABYTE's continuous innovation and research development have been recognized by prestigious worldwide organizations. These awards acknowledge GIGABYTE for its world-class technological capabilities, innovation and commitment to providing excellent customer experiences.



GIGABYTE's Global Network

North America	Europe	Middle East & Africa	Asia & Oceania	China	Taiwan
USA	Germany	Algeria	Australia	Anhui	Taipei
Mexico	UK	Egypt	Bangladesh	Nanning	Hsinlien
Canada	Italy	South Africa	Hong Kong	Beijing	★Taoyuan
South America	Portugal		India	Qingdao	Taichung
Brazil	Spain		Indonesia	Quanzhou	Tainan
Peru	Turkey		Japan	Chengdu	Kaoshiung
Argentina	Romania		Korea	Shanghai	
	Serbia		Malaysia	Chongqing	
	Greece		Philippines	Dalian	
	Czech		Singapore	Shantou	
	France		Sri Lanka	Shenzhen	
	Russia/CIS		Thailand	Guangzhou	
	Ukraine		Vietnam	Shenzhen	
	Poland			Shijiazhuang	
	Israel			Guangzhou	
	Nordics			Haikou	
	Benelux			Taiyuan	
				Hangzhou	
				Wenzhou	
				Harbin	
				Jinan	
				Wulumuqi	
				Jinhua	
				Kunming	
				Lanzhou	
				Xiamen	
				Nanchang	
				Xian	
				Nanjing	

★Factory

Manufacturing Capacity

Product Type	Ningbo	Dongguan	Taoyuan	Total / Monthly
Motherboard	500K	600K	200K	1,300K
Graphics Card	-	250K	200K	450K
Desktop PC & Peripherals	40K	50K	10K	100K
Laptop	-	-	10K	10K
Server	40K	10K	20K	70K
Embedded & IoT Motherboard	-	-	20K	20K
Floor Space	60,000 M²	38,000 M²	45,000 M²	

Commitment to Quality

Dedication and process improvement have led GIGABYTE to receive numerous industry certifications. We conduct Total Quality Management (TQM) for continual improvement from customer satisfaction to environment protection.





GIGABYTE's Core Competencies

Customization

GIGABYTE provides a variety of BIOS customization options, supports our customers' particular requirements, and optimizes the compatibility and functional performance of devices.

Ultra Durable Quality

GIGABYTE Ultra Durable™ ensures a high standard of product quality; each component is carefully selected for efficient operation and a longer lifespan.

One-Stop Global Services

Research and development center in Taiwan and a dedicated regional service center facilitate the flow of communication, responding to customers' needs in a timely manner.

Competitive Advantages

With leverage from the GIGABYTE group, GIGABYTE B2B products are beneficial with the advantageous cost structure and therefore offer competitive prices for our customers.

Corporate Social Responsibility

GIGABYTE strives to live up to our core values that underpin our corporate vision "Upgrade Your Life" by bringing more convenient and new technologies and products to consumers, caring for our planet, society, and culture, and building a sustainable enterprise in every sense of the word.

2019 GVM's CSR Survey

- Top 5 of Electronics and Technology Industry

2018 Taiwan Corporate Sustainability Award

- Climate Leadership Award

- TOP 50 Taiwan Corporate Sustainability Award

2017 SGS Taiwan ISO 14001 Plus Award

- Environmental Performance Management Model Award



Virtualization

GPU Computing

Web Hosting

Design & Manufacturing

Multi-display

Database Processing &
Storage



Server / Workstation



Intel® Xeon® Scalable Family Processors Supported

Intel® Xeon® Scalable processors are designed for the performance demands of complex, data-demanding workloads such as in-memory databases, and real-time business analytics.

NVIDIA® QUADRO® Professional Graphics Supports

NVIDIA® QUADRO® 3D Workstation Professional Graphics Solutions are designed and built specifically for artists, designers, and engineers, NVIDIA Quadro GPUs power more than 100 professional applications across a broad range of industries. Professionals trust them to enable their best work using applications such as Adobe® Creative Cloud, Avid Media Composer, Autodesk Suites, Dassault Systemes, CATIA and SOLIDWORKS, Siemens NX, PTC Creo, and many more.



4-Way SLI™ / 4-Way CrossFire™ Multi-Graphics

Multi-graphics configurations offer better graphics performance for applications which demand the highest frame rates without compromising on resolution.



TRANSFORM CONTENT RENDERING WITH NVIDIA RTX SERVER

NVIDIA RTX Server brings GPU-accelerated power and performance to deliver the most efficient, comprehensive rendering solution, from interactive sessions in the desktop to final batch rendering in the data center.



OFFLINE RENDERING



VIRTUAL WORKSTATIONS



ACCELERATED DESKTOP RENDERING

Drastically reduce the time required for offline rendering with the power of GPU acceleration with the NVIDIA RTX Server.

Provision multiple, easy-to-manage virtual workstations or a combination of virtual workstations and render nodes from a single NVIDIA RTX Server with Quadro vDWS.

Boost local workstation rendering performance and interactivity by connecting to NVIDIA RTX Server and tapping into the power of up to 4 GPUs.

Dual Intel® Server GbE LAN with cFosSpeed Internet Accelerator Software

- cFosSpeed helps to improve network latency and maintain low ping times.
- Support Windows Server O/S
- Support Intel® vPro™ Technology
- Teaming Features
 - Fault Tolerance
 - Link Aggregation
 - Load Balancing

**NO LAG.
JUST FRAG!**



cFos Internet Accelerator Software

GIGABYTE Remote Management

With ASPEED AST2500 BMC, Gigabyte server boards can provide an IPMI 2.0 compliant solution for IT managers to do remote management through the web interface.



Key Features include:

- IPMI 2.0 implementation
- Full configuration via web interface
- Hardware status monitor
- Remote power control
- Remote firmware update
- Remote KVM with image redirection
- Event log and reporting
- Easy and convenient user management

GIGABYTE Ultra Durable™ Design

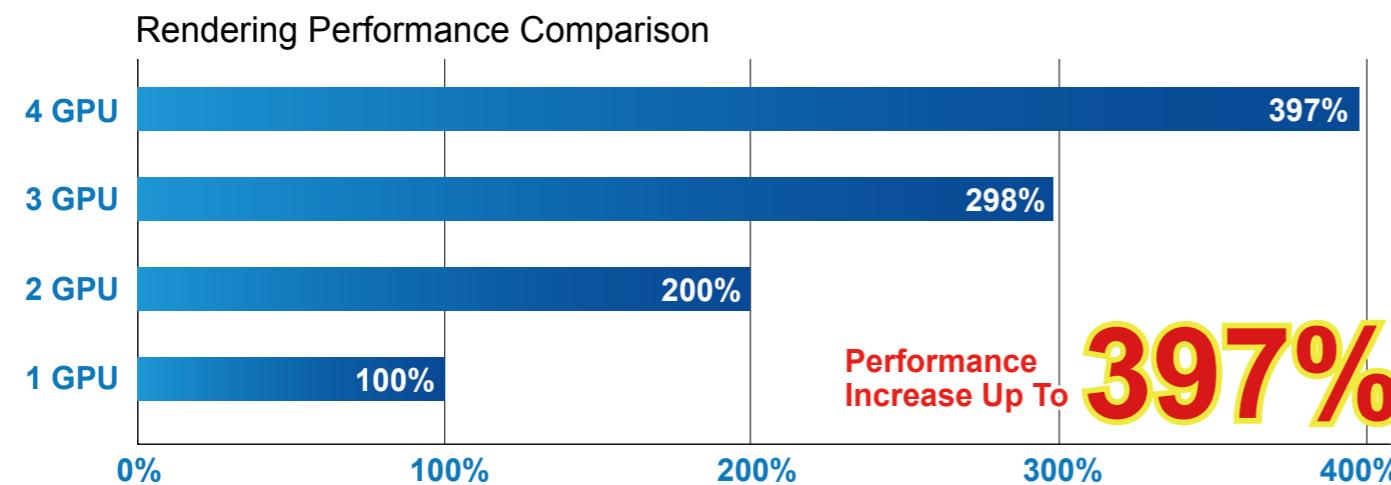


- Carefully Selected Components
- GIGABYTE Patented Double Locking Bracket
- Ultra Durable™ PCIe Armor
- Ultra Durable™ Memory Armor

	C621-SD8	C621-SU8	C621-WD12	C621-WD12-IPMI	X299-WU8	C246-WU4	C246M-WU4	C246N-WU2
Intel® Xeon® Family	V	V	V	V	V	V	V	V
Multi-Graphics		3-way SLI	4-way SLI	4-way SLI	4-way SLI	4-way	2-way	
NVIDIA QUADRO Support	V	V	V	V	V	V	V	V
Dual Intel GbE LAN	V	V	V	V	V	V (vPro)	V (vPro)	V (vPro)
BMC	V	V		V				
Dual M.2		V			V	V	V	

High Performance Multi-GPU Solutions

Delivered by Dual Intel® Xeon Scalable CPUs and 7 x PCIe x16 Slots



C621-WD12



- 1st and 2nd Gen. Intel® Xeon™ Scalable Processors, Dual LGA 3647 Socket P
- 6-Channel 12 x DDR4 RDIMMs / LRDIMMs up to 2933 MHz, ECC supported, up to 1.5TB
- 7 PCIe x16 Slots design, 4-way SLI / CrossFireX support
- Dual Intel i210AT GbE LAN

X299-WU8



- Intel® Core™ X-Series Processors, LGA 2066 Socket R4
- 4-Channel 8 x DDR4 UDIMMs up to 4000 MHz(O.C.)
- 7 PCIe x16 Slots design, 4-way SLI / CrossFireX support
- Dual Intel Server GbE LAN

C246-WU4



- Intel® Xeon™ E Processors/ Intel® 9th and 8th Core i /Pentium /Celeron Processors, LGA 1151 Socket H4
- 2-Channel 4 x DDR4 UDIMMs up to 2666 MHz, ECC / non-ECC supported
- 4 PCIe x16 Slots for multi cards, 4-way CrossFireX support
- Dual Intel Server GbE LAN, Intel® vPRO support

Server / Workstation



Model Name	S12-P04S
Form Factor	660 x 438.5 x 43.5(mm)
CPU	1st and 2nd Gen. Intel® Xeon Scalable up to 28-cores,
	Dual LGA 3647 Socket P,TDP: 165W
Memory	8 x DIMM Slots support 4 channel
	Up to DDR4 2933 MHz, ECC RDIMM/LRDIMM memory
LAN	Dual Intel i210AT + 1 x Management LAN
	4 x 3.5" SATA(hot-swappable),
Storage	2 x 2.5" SATA(fixed),
	1 x M.2 PCIe x4 2280/2260
Expansion Slots	1 x PCIe x8 FH/HL
	1 x VGA, 2 x RJ45, 1 x MLAN,
Rear I/O	2 x USB3.0, 1 x ID button
	1 x TPM header
Power Supply	650W single PSU
Remote Management	ASPEED® AST2500 BMC



Model Name	S12-P10R
Form Factor	660 x 438.5 x 43.5 (mm)
CPU	1st and 2nd Gen. Intel® Xeon Scalable up to 28-cores,
	Dual LGA 3647 Socket P,TDP: 165W
Memory	8 x DIMM Slots support 4 channel
	Up to DDR4 2933 MHz, ECC RDIMM/LRDIMM memory
LAN	Dual Intel i210AT + 1 x Management LAN
	10 x 2.5" SATA(hot-swappable),
Storage	1 x M.2 PCIe x4 2280/2260
	1 x PCIe x8 FH/HL
Expansion Slots	1 x VGA, 2 x RJ45, 1 x MLAN,
	2 x USB3.0, 1 x ID button
Rear I/O	1 x TPM header
TPM	650W 1+1 redundant PSU
Power Supply	ASPEED® AST2500 BMC



Model Name	S12-P04R
Form Factor	660 x 438.5 x 43.5 (mm)
CPU	1st and 2nd Gen. Intel® Xeon Scalable up to 28-cores,
	Dual LGA 3647 Socket P,TDP: 165W
Memory	8 x DIMM Slots support 4 channel
	Up to DDR4 2933 MHz, ECC RDIMM/LRDIMM memory
LAN	Dual Intel i210AT + 1 x Management LAN
	4 x 3.5" SATA(hot-swappable),
Storage	2 x 2.5" SATA(fixed),
	1 x M.2 PCIe x4 2280/2260
Expansion Slots	1 x PCIe x8 FH/HL
	1 x VGA, 2 x RJ45, 1 x MLAN,
Rear I/O	2 x USB3.0, 1 x ID button
	1 x TPM header
Power Supply	650W 1+1 redundant PSU
Remote Management	ASPEED® AST2500 BMC



Model Name	W42G-P08R
Form Factor	448.5 x 687.24 x 177 (mm)
CPU	1st and 2nd Gen. Intel® Xeon Scalable up to 28-cores,
	Dual LGA 3647 Socket P,TDP: 205W
Memory	12 x DIMM Slots support 6 channel
	Up to DDR4 2933 MHz, ECC RDIMM/LRDIMM memory
LAN	Dual Intel i210AT
	8 x 3.5" hot-swappable drive bays (8 x SATA or 6 x SATA + 2 x U.2),
Storage	1 x M.2 PCIe x4 / SATA Mode 22110/2280/2260
	4 x PCIe x16 FH/FL, 3 x PCIe x16 FH/FL (run as x8)
Expansion Slots	2 x RJ45, 2 x USB3.1 (1x Type-C),
	4 x USB3.0, 2 x USB2.0, 1 x P/S2, 5 audio jacks + S/PDIF-out
Rear I/O	1 x TPM header
TPM	2000W 1+1 redundant PSU
Power Supply	ASPEED® AST2500 BMC

Server / Workstation



Model Name	C621-SD8	C621-SU8
Form Factor	CEB (305mm x 267mm)	ATX (305mm x 244mm)
CPU	1 st and 2 nd Gen. Intel® Xeon Scalable Processors	1 st and 2 nd Gen. Intel® Xeon Scalable Processors
	Dual LGA 3647 Socket P	LGA 3647 Socket P
Memory	8 x DIMM Slots support 4 channel	8 x DIMM Slots support 6 channel
	Up to DDR4 2933 MHz	Up to DDR4 2933 MHz
	ECC RDIMM/LRDIMM memory	ECC RDIMM/LRDIMM memory
LAN	Dual Intel i210AT	Dual Intel i210AT
Storage	10 x SATAIII 6Gb/s,	8 x SATAIII 6Gb/s, 1 x M.2 PCIe x4,
	1 x M.2 PCIe x4	1 x M.2 PCIe x2/SATA Mode
Expansion Slots	3 PCIe x16 Slots and 3 PCIe x8 Slots	3 PCIe x16 Slots and 3 PCIe x8 Slots
Rear I/O	1 x VGA, 2 x RJ45, 1 x MLAN, 2 x USB3.0 1 x ID button	1 x COM, 1 x VGA, 2 x RJ45, 1 x MLAN, 2 x USB3.1, 2 x USB3.0, 1 x ID button,
	-	5 audio jacks + S/PDIF-out
TPM	1 x TPM header	1 x TPM header
Remote Management	ASPEED® AST2500 BMC	ASPEED® AST2500 BMC



Model Name	X299-WU8	C246-WU4
Form Factor	CEB (305mm x 267mm)	ATX (305mm x 244mm)
CPU	Intel® Core™ X-Series Processors	Intel® Xeon E Processors, Intel® 9th/8th Core i /
	LGA 2066 Socket R4	Pentium / Celeron Processors LGA 1151 Socket
Memory	8 x DIMM Slots support 4 Channel	4 x DIMM slots support 2 channel
	Up to DDR 4000 MHz(O.C.)	Up to DDR4 2666 MHz
	Un-buffered DIMM memory	ECC & Non-ECC Un-buffered DIMM memory
LAN	Intel i219LM + i210AT with 25KV Surge Protection	Intel i210AT, i219LM (supports Intel vPRO)
Storage	8 x SATAIII 6Gb/s	10 x SATAIII 6Gb/s, 1 x M.2 PCIe x4,
	1 x M.2 PCIe x4/SATA Mode	1 x M.2 PCIe x2/SATA Mode
Expansion Slots	7 PCIe x16 Slots	4 PCIe x16 Slots and 1 PCI Slot
	4-way SLI/CrossFireX support	4-way CrossFireX support
Rear I/O	2 x USB3.1 Gen 2 (1x Type-C), 6 x USB3.0, 2 x USB2.0, 5 x Audio Jacks + SPDIF-Out, PS/2	2 x DP, 2 x RJ45, 2 x USB3.1(1x TYPE-C) 4 x USB3.0, 2 x USB2.0 5 x Audio Jacks + SPDIF-Out
TPM	1 x TPM header	1 x TPM header



Model Name	C621-WD12	C621-WD12-IPMI
Form Factor	EEB (305mm x 330mm)	EEB (305mm x 330mm)
CPU	1 st and 2 nd Gen. Intel® Xeon Scalable Processors	1 st and 2 nd Gen. Intel® Xeon Scalable Processors
	Dual LGA 3647 Socket P	Dual LGA 3647 Socket P
Memory	12 x DIMM Slots support 6 channel	12 x DIMM Slots support 6 channel
	Up to DDR4 2933 MHz	Up to DDR4 2933 MHz
	ECC RDIMM/LRDIMM memory	ECC RDIMM/LRDIMM memory
LAN	Dual Intel i210AT	Dual Intel i210AT
Storage	10 x SATAIII 6Gb/s,	10 x SATAIII 6Gb/s,
	1 x M.2 PCIe x4/SATA Mode, 2 x U.2	1 x M.2 PCIe x4/SATA Mode, 2 x U.2
Expansion Slots	7 PCIe x16 Slots	7 PCIe x16 Slots
	4-way SLI/CrossFireX support	4-way SLI/CrossFireX support
Rear I/O	2 x RJ45, 2 x USB3.1 (1x Type-C), 4 x USB3.0, 2 x USB2.0, 1 x P/S2, 5 audio jacks + S/PDIF-out	2 x RJ45, 2 x USB3.1 (1x Type-C), 4 x USB3.0, 2 x USB2.0, 1 x P/S2, 5 audio jacks + S/PDIF-out
	-	1 x VGA (Bracket) / 1 x COM (Bracket)
TPM	1 x TPM header	1 x TPM header
Remote Management	-	ASPEED® AST2500 BMC



Model Name	C246M-WU4	C246N-WU2
Form Factor	mATX (244mm x 244mm)	Mini-ITX (170mm x 170mm)
CPU	Intel® Xeon E Processors, Intel® 9th/8th Core i /	Intel® Xeon E Processors, Intel® 9th/8th Core i /
	Pentium / Celeron Processors LGA 1151 Socket	Pentium / Celeron Processors LGA 1151 Socket
Memory	4 x DIMM slots support 2 channel	2 x DIMM slots support 2 channel
	Up to DDR4 2666 MHz	Up to DDR4 2666 MHz
	ECC & Non-ECC Un-buffered DIMM memory	ECC & Non-ECC Un-buffered DIMM memory
LAN	Intel i210AT, i219LM (supports Intel vPRO)	Intel i210AT, i219LM (supports Intel vPRO)
Storage	8 x SATAIII 6Gb/s, 1 x M.2 PCIe x4,	4 x SATAIII 6Gb/s, 1 x M.2 PCIe x4/SATA,
	1 x M.2 PCIe x4/SATA Mode	1 x PCIe x4 miniSAS HD for 1 U.2 or 4 SATAII
Expansion Slots	2 PCIe x16 Slots and 2 PCIe x1 Slots	1 PCIe x16 Slot
	2-way CrossFireX support	-
Rear I/O	DP/DVI-D/D-Sub, 2 x RJ45, 1 x USB3.1 5 x USB3.0, 6 x Audio Jacks	DP/HDMI/D-Sub, 2 x RJ45, 2 x USB3.1(1x TYPE-C), 4 x USB3.0, 2 x Audio Jacks
TPM	1 x TPM header	1 x TPM header

Transportation

Vision

Education

Smart City

Industrial

Retail

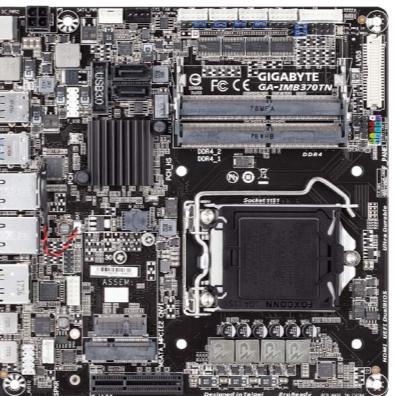
Medical



IoT Products

Small but Powerful

GA-IMB370TN



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor

Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
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Processor System

CPU	Socket LGA1151 for Intel Core 65W i9/i7/i5/i3/ Pentium / Celeron (Coffee lake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	Q370
BIOS	UEFI

Expansion Slot

PCI	0
PCIe	1 x full size mini-Pcie slot co-lay with mSATA, 1 x M.2 CNVI, 1 x M.2 2260/80 SATA/PCIe slot Slot for Storage, 1 x PCIe x 4 slot
mSATA	1
SIM	1

Memory

Technology	Dual Channel DDR4 2133/2400 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM

Graphics

Controller	Intel® Gen 10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200 Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
LVDS	Supports HDMI 2.0, max resolution 3840 x 2160
HDMI	No
DVI	Yes
Display Port	Yes
Multi Display	Yes(Triple Display)

Ethernet

Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT 1 x i219LM
Connector	2 x RJ-45

SATA

Max Data Transfer	SATA3 (6.0Gb/s)
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Rear I/O

VGA	0
HDMI	1 (2.0)
DVI-I/D	0
Display Port	1
Ethernet	2
USB	2 x USB 3.0, 2 x USB2.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0

Internal Connector

USB	2 x USB 3.0 compliant, 2 x USB2.0
LVDS/Inverter	1/1
VGA	1
Serial	4 RS-232 (Two serial port support RS-232/422/485)
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	1
Mini-Pcie	1
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	1/1
SATA PWR Output Con	1
Speaker Header	1

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min

Power Requirements

Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phenix connector)
Power On	AT/ATX Supported AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready

Environment

Operating Temperature	0°C ~ 60°C
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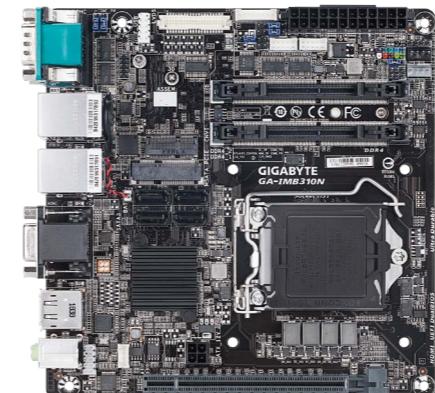
GA-IMB310TN



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core 65W i9/i7/i5/i3/ Pentium / Celeron (Coffee lake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H310
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1 x full size mini-Pcie slot co-lay with mSATA, 1 x M.2 CNVI, 1 x M.2 2260/80 SATA/PCIe slot Slot for Storage, 1 x PCIe x 4 slot
mSATA	1
SIM	1
Memory	
Technology	Dual Channel DDR4 2133/2400 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 2.0, max resolution 3840 x 2160
DVI	No
Display Port	Yes
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT 1 x i219V
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-IMB310N

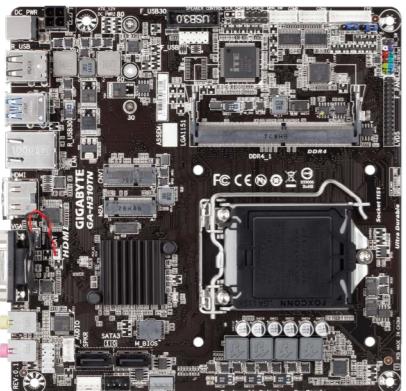


Rear I/O	
VGA	0
HDMI	1 (2.0)
DVI-I/D	0
Display Port	1
Ethernet	2
USB	2 x USB 3.0, 2 x USB2.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	2 x USB 3.0 compliant, 2 x USB2.0
LVDS/Inverter	1/1
VGA	1
Serial	4 RS-232 (Two serial port support RS-232/422/485)
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	1
Mini-Pcie	1
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	1/1
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min
Power Requirements	
Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phoenix connector)
Power On	AT/ATX Supported AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core 65W i9/i7/i5/i3/ Pentium / Celeron (Coffee lake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H310
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1 x full size mini-Pcie slot co-lay with mSATA, 1 x M.2 CNVI, 1 x M.2 2260/80 SATA/PCIe slot Slot for Storage, 1 x PCIe x 16 slot
mSATA	1
SIM	1
Memory	
Technology	Dual Channel DDR4 2133/2400 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 2.0, max resolution 3840 x 2160
DVI	No
Display Port	Yes
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT 1 x i219V
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Rear I/O	
VGA	1
HDMI	1 (2.0)
DVI-I/D	0
Display Port	1
Ethernet	2
USB	4 x USB 3.0
Audio	2 (Mic-in, Line-out)
Serial	2 (RS-232/422/485)
e-SATA	0
PS/2	0
Internal Connector	
USB	2 x USB2.0
LVDS/Inverter	1/1
VGA	1
Serial	2 RS-232
SATA	4 x SATA3 (6.0Gb/s)
m-SATA	1
Mini-Pcie	1
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	1/1
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min
Power Requirements	
Input PWR	ATX Power connector
	AT/ATX Supported
Power On	AT: Directly PWR on as Power input ready
	ATX: Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-H310TN



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core i9/i7/i5/i3/ Pentium/Celeron (Coffee lake)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H310
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1 x M.2 CNVI wifi slot, 1 x M.2 SATA 2242 / 60 / 80 Slot
mSATA	0
SIM	0
Memory	
Technology	Single Channel DDR4 2133/2400 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max.resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Realtek RTL8111H
Connector	1 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-H310TN-R2

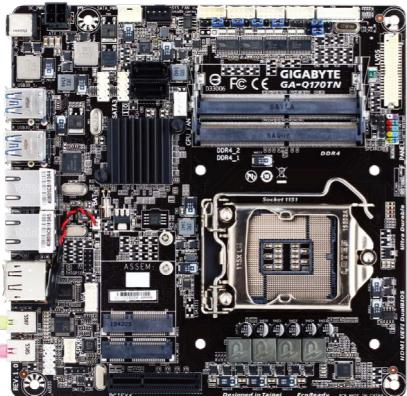


Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Rear I/O	
VGA	0
HDMI	1 (1.4a)
DVI-I/D	0
Display Port	1
Ethernet	1
USB	2 x USB 3.0 ,2 x USB 2.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	2 x USB 3.0 compliant, 2 x USB2.0
LVDS/Inverter	1/1
VGA	0
Serial	2 x RS232
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	0
Mini-PCIe	0
Parallel	0
IrDA	0
Digital I/O	0
I2C/SMBUS	0
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments,0,1,2...255sec/min
Power Requirements	
Input PWR	19 V DC-In (4-pin ATX PWR connector)
Power On	AT/ATX Supported
	AT : Directly PWR on as Power input ready
	ATX : Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 50°C

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core i7/i5/i3/ Pentium/Celeron (Coffee lake)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H310
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1 x M.2 CNVI wifi slot, 1 x M.2 2242 / 60 / 80 SATA / PCIe Slot
mSATA	0
SIM	0
Memory	
Technology	Dual Channel DDR4 2133/2400 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max.resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	No
Display Port	Yes
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Realtek RTL8111H
Connector	1 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-Q170TN-T20-GSM Plus



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core i7/i5/i3/ Pentium / Celeron (Skylake-S/Kaby lake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	Q170
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x half/Half size mini PCIe slot, PCIE +USB1 x Full size mini PCIe slot co-lay with mSATA, 1x PCIe x4 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR4 2133 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen9 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 3840x2160
DVI	No
Display Port	Yes
Multi Display	Yes(Triple Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT 1 x i217LM
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-H110TN

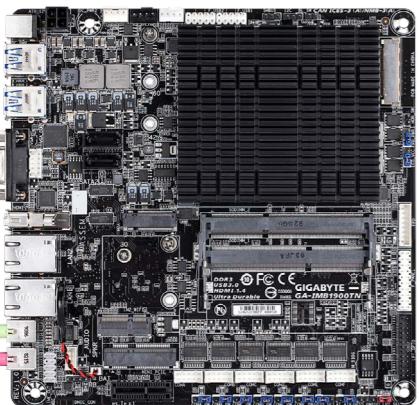


Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Rear I/O	
VGA	0
HDMI	1
DVI-I/D	0
Display Port	1
Ethernet	2
USB	4 x USB 3.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	1
Serial	4 RS-232 (Two serial port support RS-232/422/485)
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	1
Mini-PCIe	1
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	0
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min
Power Requirements	
Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phenix connector)
Power On	AT/ATX Supported AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core 65W i7/i5/i3/ Pentium / Celeron (Skylake-S/Kaby lake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H110
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x half/Half size mini PCIe slot, PCIE +USB1 x Full size mini PCIe slot co-lay with mSATA, 1x PCIe x4 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR4 2133 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen9 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 3840x2160
DVI	No
Display Port	Yes
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT 1 x i217LM
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

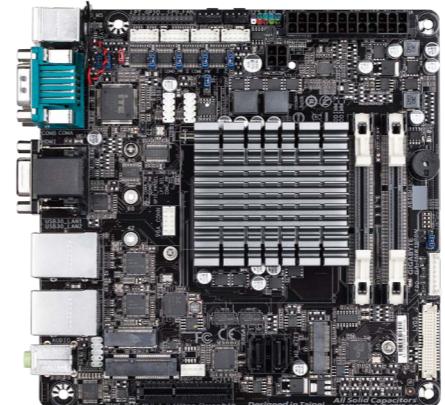
GA-IMB1900TN



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Intel® Celeron Baytrail SoC
	Supports Hyper-Threading Technology
	Default J1900 Quad core 10W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x Full size mini-PCIe slot, PCIE +USB 1 x M.2 2242/60 SATA / PCIe slot, 1 x M.2 slot for Wifi 1x PCIe x1 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR3L 1066/1600 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen7 Intel Graphics DX 10
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes (Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Intel i211AT
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-IMB1900N

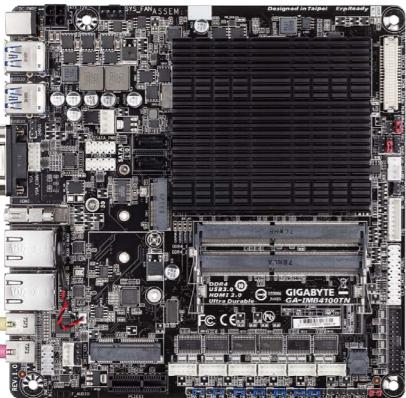


Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	4 x USB 3.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	6 RS-232 (COM1/COM2 support RS-232/RS-422/485)
SATA	2 x SATA3 (6.0Gb/s), 1 share with M.2 SSD SATA Mode
m-SATA	0
Mini-PCIe	1
Parallel	1
IrDA	0
Digital I/O	8 in/8 out
I2C/SMBUS	1
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min
Power Requirements	
Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phenomix connector)
Power On	AT/ATX Supported AT: Directly PWR on as Power input ready ATX: Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Intel® Celeron Baytrail SoC
	Supports Hyper-Threading Technology
	Default J1900 Quad core 10W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x Full size mini-PCIe slot, PCIE +USB 1 x M.2 2242/60 SATA / PCIe slot, 1 x M.2 slot for Wifi 1x PCIe x1 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR3L 1066/1600 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen7 Intel Graphics DX 10
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes (Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Intel i211AT
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	2 x USB 3.0 ,2 x USB2.0
Audio	2 (Mic-in, Line-out)
Serial	2(support RS-232/RS-422/485)
e-SATA	0
PS/2	0
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	4 RS-232
SATA	2 x SATA3 (6.0Gb/s), 1 share with M.2 SSD SATA Mode
m-SATA	0
Mini-PCIe	1
Parallel	1
IrDA	0
Digital I/O	8 in/8 out
I2C/SMBUS	0
SATA PWR Output Con	0
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min
Power Requirements	
Input PWR	ATX Power require
Power On	AT/ATX supported AT: Directly PWR on as Power input ready ATX: Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

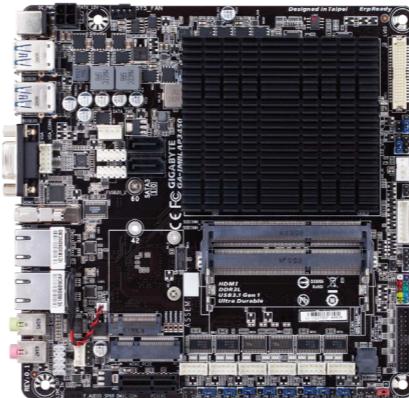
GA-IMB4100TN



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Intel® Celeron Gemini Lake SoC Supports Hyper-Threading Technology Default N4100 Quad core 6W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x half / Half size mini-PCIe slot, co-lay with mSATA 1 x M.2 2242/60/80 2slot, SATA/PCIe slot 1 x M.2 CNVI Wifi slot, 1x PCIe x1 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR4 2133 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 10 Intel Graphics DX 11*, OGL3.2
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 2.0, max resolution 3840 x 2160
DVI	No
Display Port	No
Multi Display	Yes(Triple Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111H
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-IMBLAP3350/3450



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Rear I/O	
VGA	1
HDMI	1 (2.0)
DVI-I/D	0
Display Port	0
Ethernet	2
USB	4 x USB 3.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	6 RS-232 (Two serial port support RS-232/422/485)
SATA	2 x SATA3 (6.0Gb/s), 1 SATA share with mSATA
m-SATA	1
Mini-PCIe	1
Parallel	1 (Co-lay with 8in/8out DIO)
IrDA	0
Digital I/O	8 in/8 out
I2C/SMBUS	1/1
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1...255sec/min
Power Requirements	
Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phoenix connector)
Power On	AT/ATX Supported AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Intel® Celeron Apollo Lake SoC Supports Hyper-Threading Technology Default N3350/N3450, Dual/Quad Core 6W Processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x half / Half size mini-PCIe slot, co-lay with mSATA 1 x M.2 2242/60 slot SATA/PCIe slot 1x PCIe x1 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR3L 1600/1866 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 9 Intel Graphics DX 11*, OGL3.2
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a,max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes(Triple Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111H
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	4 x USB 3.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	6 RS-232 (Two serial port support RS-232/422/485)
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	1
Mini-PCIe	1
Parallel	1 (Co-lay with 8in/8out DIO)
IrDA	0
Digital I/O	8 in/8 out
I2C/SMBUS	1
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1...255sec/min
Power Requirements	
Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phoenix connector)
Power On	AT/ATX supported AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

GA-N3160TN



Compatible with GIGABYTE Thin Mini ITX Chassis (Size:204.6 x 205 x 45 mm)

Form Factor	
Dimensions	Thin Mini-ITX (6.7-in x 6.7-in) / (170 mm x 170 mm)
Processor System	
CPU	Intel® Celeron Braswell SoC
	Supports Hyper-Threading Technology
	Default N3160 Quad core 6W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x half/Half size mini-Pcie slot,
	1 x Full size mini-Pcie slot co-lay
	with mSATA, 1x PCIe x1 slot
mSATA	1
SIM	0
Memory	
Technology	Dual Channel DDR3L 1333 / 1600 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen 8 Intel Graphics DX 11*, OGL3.2
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP,
	max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes(Triple Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111H
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-SBC7300



Rear I/O	
VGA	1
HDMI	1 (1.4a)
DVI-I/D	0
Display Port	0
Ethernet	2
USB	2 x USB 3.0
Audio	2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0

Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	6 RS-232 (Two serial port support RS-232/422/485)
SATA	2 x SATA3 (6.0Gb/s), 1 SATA share with mSATA
m-SATA	1
Mini-Pcie	2
Parallel	1 (Co-lay with 8in/8out DIO)
IrDA	0
Digital I/O	8 in/8 out
I2C/SMBUS	0
SATA PWR Output Con	1
Speaker Header	1

Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min

Power Requirements	
Input PWR	12/19-24V DC-In (4-pin ATX PWR connector co-lay with Phenix connector)
	AT/ATX Supported
Power On	AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready

Environment	
Operating Temperature	0°C ~ 60°C

Form Factor	
Dimensions	3.5 inch SBC (5.74-in x 4.0-in) / (146 mm x 102 mm)
Processor System	
CPU	Intel® Core i series Kaby lake U MCP i3-7100U/i5-7300U/i7-7600
	Supports Hyper-Threading Technology
	default i5-7300U Quad Core 15W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI

Expansion Slot	
PCI	0
PCIe	1x full size mini-Pcie slot co-lay with mSATA
	1 x M.2 2280 SSD slot
	1x M.2 CNVI Wifi slot
mSATA	1
SIM	0

Memory	
Technology	Two Channel DDR4 2133 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM

Graphics	
Controller	Intel® Gen10 Intel Graphics DX 12*, OGL4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI1.4 max resolution 3840 x 2160
DVI	No
Display Port	Yes
Multi Display	Yes (Dual Display)

Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT
Connector	1 x I219LM co-lay with i219V

SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Rear I/O	
VGA	0
HDMI	HDMI 1.4a
DVI-I/D	0
Display Port	1
Ethernet	2
USB	4 x USB 3.0
Audio	0
Serial	0
e-SATA	0
PS/2	0

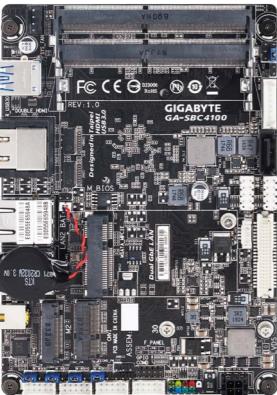
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	4 RS-232 (COM1/COM2 support RS-232/RS-422/485)
SATA	2 x SATA3 (6.0Gb/s), 1 SATA share with mSATA
m-SATA	1(Co-lay with Mini PCIe)
Mini-Pcie	1
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	1
SATA PWR Output Con	1
Speaker Header	1

Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min

Power Requirements	
Input PWR	9~36V DC-In 4-pin ATX PWR connector
Power On	AT/ATX Supported AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready

Environment	
Operating Temperature	0°C ~ 60°C

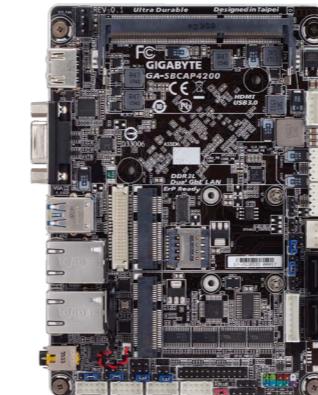
GA-SBC4100



Compatible with GIGABYTE SBC Fanless Chassis (Size:193 x 153 x 67 mm)

Form Factor	
Dimensions	3.5 inch SBC (5.74-in x 4.0-in) / (146 mm x 102 mm)
Processor System	
CPU	Intel® Celeron Gemini Lake SoC Supports Hyper-Threading Technology Default N4100 Quad core 6W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x full size mini PCIe slot co-lay with mSATA 1 x M.2 PCIe 2280 slot, 1x M.2 CNVI WiFi slot
mSATA	1
SIM	0
Memory	
Technology	Two Channel DDR4 2133 MHz SDRAM
Max	16G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen10 Intel Graphics DX 12*, OGL4.4
VRAM	Shared Memory
VGA	Supports max.resolution 1920 x 1200
LVDS	Dual channel 24-bit max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI2.0 max resolution 3840 x 2160
DVI	No
Display Port	No
Multi Display	Yes(Triple Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111H
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-SBCAP4200/3450/3350



Compatible with GIGABYTE SBC Fanless Chassis (Size:193 x 153 x 67 mm)

Rear I/O	
VGA	0
HDMI	HDMI 2.0(2)
DVI-I/D	0
Display Port	0
Ethernet	2
USB	2x USB 3.0
Audio	1 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	4 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	4 RS-232(COM1/COM2 support RS-232/422/485)
SATA	1 x SATA3(6.0Gb/s), 1 SATA share with mSATA
m-SATA	1(Co-lay with Mini PCIe)
Mini PCIe	1
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	1
SATA PWR Output Con	1
Speaker Header	1
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min
Power Requirements	
Input PWR	9~36V DC-In 4-pin ATX PWR connector
	AT/ATX Supported
Power On	AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

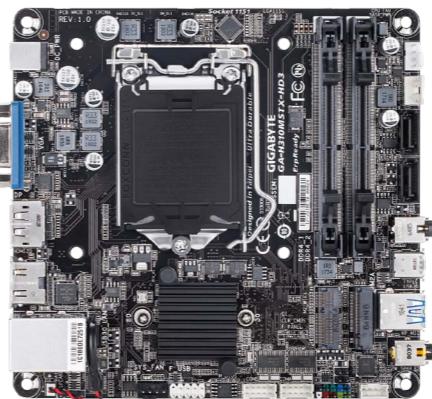
Form Factor	
Dimensions	3.5 inch SBC (5.74-in x 4.0-in) / (146 mm x 102 mm)
Processor System	
CPU	Intel® Celeron Apollo Lake SoC Supports Hyper-Threading Technology Default N4200/3450/3350 Quad/Dual core 6W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x half/Half size mini PCIe slot, PCIE +USB 1 x half/Half size mini PCIe slot co-lay with mSATA
mSATA	1
SIM	1
Memory	
Technology	One Channel DDR3L 1600/1866 MHz SDRAM
Max	8G
Socket	1 x SO-DIMM
Graphics	
Controller	Intel® Gen 9 Intel Graphics DX 11*, OGL3.2
VRAM	Shared Memory
VGA	Supports max.resolution 1920 x 1200
LVDS	Dual channel 24-bit max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 3840x2160
DVI	No
Display Port	No
Multi Display	Yes(Triple Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111H
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-PICO3350/3455



Form Factor	
Dimensions	2.5 inch PICO-ITX (3.94-in x 2.83-in)
Processor System	
CPU	Intel® Celeron Apollo Lake SoC
	Supports Hyper-Threading Technology
	Default N3350 Dual core 6W processor /
	Default J3455 Quad core 10W processor
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	(By CPU)
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1x Full size mini-PCIe slot, co-lay with mSATA
mSATA	1
SIM	0
Memory	
Technology	One Channel DDR3L 1600/1866 MHz SDRAM
Max	8G
Socket	1 x SO-DIMM
Graphics	
Controller	Intel® Gen8 Intel Graphics DX 11*, OGL3.2
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit co-lay with eDP, max resolution 1920 x 1200@60Hz
HDMI	Supports HDMI 1.4a, max resolution 1920x1200(Optional)
DVI	No
Display Port	No
Multi Display	Yes (Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Realtek RTL8111H
Connector	2 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

GA-H310MSTX-HD3

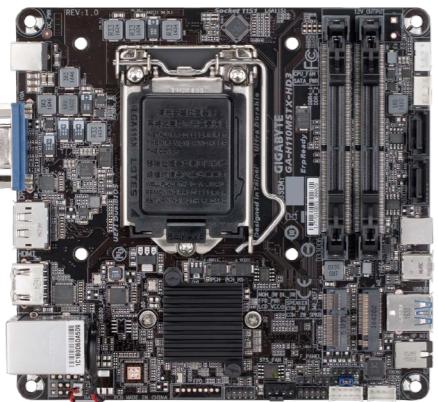


Compatible with GIGABYTE Mini STX Chassis (Size:193 x 153 x 67 mm)

Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	2 x USB 3.0
Audio	0
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	2 x USB 2.0 compliant
LVDS/Inverter	1/1
VGA	0
Serial	2 RS-232 (COM1 support RS-232/RS-422/485)
SATA	1 x SATA3 (6.0Gb/s)
m-SATA	1
Mini-PCIe	1(1 x co-lay with mSATA SSD)
Parallel	0
IrDA	0
Digital I/O	4 in/4 out
I2C/SMBUS	0/1
SATA PWR Output Con	1
Speaker Header	0
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min
Power Requirements	
Input PWR	9~36V DC-In 4-pin ATX PWR connector
Power On	AT/ATX supported
	AT:Directly PWR on as Power input ready
	ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 60°C

Form Factor	
Dimensions	Mini-STX (5.51-in x 5.78-in) / (140 mm x 147 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core i9/i7/i5/Celeron (Coffee lake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H310
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1 x M.2 CNVI wifi slot, 1 x M.2 2260/80 Slot for Storage (SATA/PCIe)
mSATA	0
SIM	0
Memory	
Technology	Dual Channel DDR4 2133/2400 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	N/A
HDMI	Supports HDMI 1.4,max resolution 3840 x 2160
DVI	No
Display Port	Yes
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT
Connector	1 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Rear I/O	
VGA	1
HDMI	HDMI1.4
DVI-I/D	0
Display Port	1
Ethernet	1
USB	Front 1 x USB3.0,1 x USB3.0 Type-C, 2 x USB3.0
Audio	Front 2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	2 x USB2.0
LVDS/Inverter	0/0
VGA	1
Serial	2 RS-232
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	0
Mini-PCIe	0
Parallel	0
IrDA	0
Digital I/O	0
I2C/SMBUS	0
SATA PWR Output Con	1
Speaker Header	0
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min
Power Requirements	
Input PWR	19V DC-In
Power On	AT/ATX Supported
	AT:Directly PWR on as Power input ready
	ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 50°C

GA-H110MSTX-HD3

Compatible with GIGABYTE Mini STX Chassis (Size:193 x 153 x 67 mm)

Form Factor	
Dimensions	Mini-STX (5.5-in x 5.78-in) / (140 mm x 147 mm)
Processor System	
CPU	Socket LGA1151 for Intel Core i7/i5/i3/Celeron/Skylake/Kaby lake
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	H110
BIOS	UEFI
Expansion Slot	
PCI	0
PCIe	1 x M.2 CNVI wifi slot, 1 x M.2 2260/80 Slot for Storage (SATA)
mSATA	0
SIM	0
Memory	
Technology	Dual Channel DDR4 2133 MHz SDRAM
Max	32G
Socket	2 x SO-DIMM
Graphics	
Controller	Intel® Gen10 Intel Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	N/A
HDMI	Supports HDMI 1.4, max resolution 3840 x 2160
DVI	No
Display Port	Yes
Multi Display	Yes(Dual Display)
Ethernet	
Interface	10/100/1000 Mbps
Controller	1 x Intel i211AT
Connector	1 x RJ-45
SATA	
Max Data Transfer	SATA3 (6.0Gb/s)

Rear I/O	
VGA	1
HDMI	HDMI1.4
DVI-I/D	0
Display Port	1
Ethernet	1
USB	Front 1 x USB 3.0, 1 x USB 3.0 Type-C, 2 x USB3.0
Audio	Front 2 (Mic-in, Line-out)
Serial	0
e-SATA	0
PS/2	0
Internal Connector	
USB	2 x USB 3.0 compliant, 2 x USB2.0
LVDS/Inverter	0/0
VGA	1
Serial	1 RS-232
SATA	2 x SATA3 (6.0Gb/s)
m-SATA	0
Mini PCIe	0
Parallel	0
IrDA	0
Digital I/O	0
I2C/SMBUS	0
SATA PWR Output Con	1
Speaker Header	0
Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,...255sec/min
Power Requirements	
Input PWR	19V DC-In AT/ATX Supported
Power On	AT:Directly PWR on as Power input ready ATX:Press Button to PWR on after Power input ready
Environment	
Operating Temperature	0°C ~ 50°C

Chassis Bundle Kit

Specifications	GP-TN135	GP-TN90
Mounting	VESA 75 Mounting hole	
Power adapter	19V/7.1A 135W Power adapter	19V/4.73A 90W Power adapter
Dimensions	205(L) x 204.6(W) x 45(H) mm	
Compatible Models	GA-IMB370TN GA-IMB310TN GA-H310TN GA-H310TN-R2 GA-Q170TN-T20-GSM-PLUS GA-H110TN GA-IMB1900TN GA-IMB4100TN GA-IMBLAP350/3450 GA-N3160TN	



Specifications	GP-STX90
Mounting	VESA 75 Mounting hole
Power adapter	19V/4.73A 90W Power adapter
Dimensions	193(L) x 153(W) x 67(H) mm
Compatible Models	GA-H310MSTX-HD3 GA-H110MSTX-HD3

**GIGABYTE Exclusive Features****Watchdog**

Watchdog Timer (WDT) is a device that performs a specific operation after a certain period of time if something goes wrong and the system does not recover on its own. The interface provides uniform access to services of the underlying watchdog drivers.

**Hardware Monitor**

Hardware Monitor displays the major readings of your system. The main readings include Clock, Fan & Temperature, and Voltage. In Clock, there are CPU speeds and CPU ratios. In Fan & Temperature, there are CPU temperatures and CPU fan speeds. You will be alerted if your system's temperatures are abnormal. In Voltage, respective system voltages are shown.

**Wide Voltage Support**

Support for wide voltage ranges provides increased stability and reliability — perfect for industrial use. GIGABYTE embedded motherboards have Over Voltage and Over Current protection.

**Digital I/O**

Digital I/O is a flexible parallel interface that allows a variety of custom connections. Each digital I/O port can be individually configured through software as either an input or output. It allows users to monitor the level of signal input or set the output status to switch on/off a device.

**Product Longevity**

Our embedded motherboards have a long product life cycle of 3~5 years. Long lifecycle meets industry needs.

**2x Copper PCB Design**

GIGABYTE's exclusive 2x Copper PCB design provides sufficient power trace paths between components to handle greater than normal power loads and to remove heat from the critical CPU power delivery area. This is essential to ensure the motherboard is able to handle the increased power loading that is necessary when overclocking.

BRIX Series



The Perfect Fit for Any Space

Challenging the essence of how we define a desktop PC, GIGABYTE engineers have developed an ultra compact. Ideal for a broad range of computing applications at home or in the office, the BRIX expounds sheer simplicity and convenience.

The Power Behind Life

BRIX is a powerful system for any commercial applications. From Digital Signage, Vending machines to Security System, Industrial control, BRIX can be anywhere powering the systems behind everyday life.



BRIX Series

BRIX Big Core, 10th Generation

NEW!



Coming soon

Model Name	BRi7-10710	BRi7-10510	BRi5-10210	BRi3-10110
Dimension	34.7 mm x 119.5 mm x 119.5 mm (1.36" x 4.7" x 4.7")			
Motherboard Size	105 x 110 mm			
CPU Family				
CPU	Intel® Core™ Six Core i7-10710U	Intel® Core™ Quad Core i7-10510U	Intel® Core™ Quad Core i5-10210U	Intel® Core™ Dual Core i3-10110U
	4.7GHz / 1.1GHz	4.9GHz / 1.8GHz	4.2GHz / 1.6GHz	4.1GHz / 2.1GHz
2.5" Storage Support	N/A			
Memory	2 x SO-DIMM DDR4 slots 2666MHz Max. 64GB			
LAN	Gigabit LAN (Intel i219V)			
Wifi Card	Intel® Dual Band Wireless-AC 3168			
Graphics	Intel® UHD Graphics 620			
Audio	Realtek ALC255			
VGA Resolution (Max.)	N/A			
Dual HDMI Resolution (Max.)	HDMI2.0a ws HDCP 2.2 4096 x 2304 @ 60Hz HDMI2.0a ws HDCP 2.2 4096 x 2304 @ 60Hz			
Expansion Slots	1 x M.2 slot (2280_storage) PCIe X4 /SATA Support Optane memory 1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card			
Front I/O	1x Power Button 1 x USB 3.2 Gen2 Type-C™ Support 3 x USB 3.2 Gen2 1 x head phone jack with MIC			
Rear I/O	2 x HDMI(2.0a) 2 x USB 3.2 Gen2 1 x RJ45 1 x DC-In 1 x Kensington lock slot			
Side I/O	N/A			
Expansion board	N/A			
Power Supply	Input: AC 100-240V Output: DC 19V Core i3 : 90W PSU (19V/4.3A); i5 and i7: 135W PSU (19V/7.1A)			
VESA	Bracket included Supports 75 x 75 and 100 x 100 mm			
Support OS	WIN10 64bit			
Environment	System Environment Operating Temperature: 0°C to +50°C (Core i3), +35°C (Core i5/i7) System Storage Temperature: -20°C to +60°C			

BRIX Big Core, 10th Generation

NEW!



Model Name	BRi7H-10710	BRi7H-10510	BRi5H-10210	BRi3H-10110
Dimension	46.8 mm x 119.5 mm x 119.5 mm (1.84" x 4.7" x 4.7")			
Motherboard Size	105 x 110 mm			
CPU Family				
CPU	Intel® Core™ Six Core i7-10710U	Intel® Core™ Quad Core i7-10510U	Intel® Core™ Quad Core i5-10210U	Intel® Core™ Dual Core i3-10110U
	4.7GHz / 1.1GHz	4.9GHz / 1.8GHz	4.2GHz / 1.6GHz	4.1GHz / 2.1GHz
2.5" Storage Support	Supports 2.5" HDD/SSD, 7.0/9.5 mm thick (1 x 6 Gbps SATA 3)			
Memory	2 x SO-DIMM DDR4 slots 2666MHz Max. 64GB			
LAN	Gigabit LAN (Intel i219V)			
Wifi Card	Intel® Dual Band Wireless-AC 3168			
Graphics	Intel® UHD Graphics 620			
Audio	Realtek ALC255			
VGA Resolution (Max.)	N/A			
Dual HDMI Resolution (Max.)	HDMI2.0a ws HDCP 2.2 4096 x 2304 @ 60Hz HDMI2.0a ws HDCP 2.2 4096 x 2304 @ 60Hz			
Expansion Slots	1 x M.2 slot (2280_storage) PCIe X4 /SATA Support Optane memory 1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card			
Front I/O	1x Power Button 1 x USB 3.2 Gen2 Type-C™ Support 3 x USB 3.2 Gen2 1 x head phone jack with MIC			
Rear I/O	2 x HDMI(2.0a) 2 x USB 3.2 Gen2 1 x RJ45 1 x DC-In 1 x Kensington lock slot			
Side I/O	RS 232 Port			
Expansion board	Optional add-on card available (2nd LAN + 2nd COM)			
Power Supply	Input: AC 100-240V Output: DC 19V Core i3 : 90W PSU (19V/4.3A); i5 and i7: 135W PSU (19V/7.1A)			
VESA	Bracket included Supports 75 x 75 and 100 x 100 mm			
Support OS	WIN10 64bit			
Environment	System Environment Operating Temperature: 0°C to +50°C (Core i3), +35°C (Core i5/i7) System Storage Temperature: -20°C to +60°C			

BRIX Series

BRIX Big Core, 8th Generation



Model Name	GB-BRi7-8550	GB-BRi5-8250	GB-BRi3-8130	GB-BRi7H-8550	GB-BRi5H-8250	GB-BRi3H-8130
Dimension	34.4 mm x 112.6 mm x 119.4 mm (1.35" x 4.43" x 4.7")			46.8 mm x 112.6 mm x 119.4 mm (1.84" x 4.43" x 4.7")		
Motherboard Size			105 x 110 mm			
CPU Family			Kaby Lake Refresh			
CPU	Intel® Core™ Quad Core i7-8550U	Intel® Core™ Quad Core i5-8250U	Intel® Core™ Dual Core i3-8130U	Intel® Core™ Quad Core i7-8550U	Intel® Core™ Quad Core i5-8250U	Intel® Core™ Dual Core i3-8130U
	4.0GHz / 1.8GHz	3.4GHz / 1.6GHz	3.4GHz / 2.2GHz	4.0GHz / 1.8GHz	3.4GHz / 1.6GHz	3.4GHz / 2.2GHz
2.5" Storage Support	N/A			Supports 2.5" HDD/SSD, 7.0/9.5 mm thick (1 x 6 Gbps SATA 3)		
Memory				2x SO-DIMM DDR4 slots		
				2400MHz		
				Max.32GB		
LAN				Gigabit LAN (Intel i219V)		
Wifi Card				Intel® Dual Band Wireless-AC 3168		
Graphics				Intel® UHD Graphics 620		
Audio				Realtek ALC255		
VGA Resolution (Max.)				N/A		
HDMI Resolution (Max.)				HDMI2.0a ws HDCP 2.2		
				4096 x 2304 @ 60Hz		
Mini DP Resolution (Max.)				DP1.2a ws HDCP 2.2		
				4096 x 2304 @ 60Hz		
Expansion Slots				1 x M.2 slot (2280_storage) PCIe X4 /SATA		
				1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card		
				1 x USB 3.1 type C		
Front I/O				1 x USB3.1		
				1 x head phone jack with MIC		
				1 x Dual array Microphone		
Rear I/O				1 x HDMI(2.0a)		
				1 x Mini DisplayPort (1.2)		
				2 x USB 3.0		
				1 x RJ45		
				1 x DC-In		
Side I/O				1 x Kensington lock slot		
USB3.1				N/A		
				Asmedia 3142		
Power Supply				Input: AC 100-240V		
				Output: DC 19V		
				3.42A		
VESA				Bracket included		
				Supports 75 x 75 and 100 x 100 mm		
Support OS				WIN10 64bit		
Environment				System Environment Operating Temperature: 0°C to +35°C		
				System Storage Temperature: -20°C to +60°C		

BRIX Big Core, 7th Generation



Model Name	GB-BKi7A-7500	GB-BKi5A-7200	GB-BKi3A-7100	GB-BKi7HA-7500	GB-BKi5HA-7200	GB-BKi3HA-7100
Dimension	34.4 mm x 112.6 mm x 119.4 mm (1.35" x 4.43" x 4.7")			46.8 mm x 112.6 mm x 119.4 mm (1.84" x 4.43" x 4.7")		
Motherboard Size			105 x 110 mm			
CPU Family			Kaby Lake			
CPU	Intel® Core™ i7-7500U	Intel® Core™ i5-7200U	Intel® Core™ i3-7100U	Intel® Core™ i7-7500U	Intel® Core™ i5-7200U	Intel® Core™ i3-7100U
	2.7GHz / 3.5GHz	2.5GHz / 3.1GHz	2.4GHz	2.7GHz / 3.5GHz	2.5GHz / 3.1GHz	2.4GHz
2.5" Storage Support	N/A			Supports 2.5" HDD/SSD, 7.0/9.5 mm thick (1 x 6 Gbps SATA 3)		
Memory				2x SO-DIMM DDR4 slots		
				2133MHz		
				Max. 32GB		
LAN				Gigabit LAN (Intel i219V)		
Wifi Card				Intel® Dual Band Wireless-AC 3168		
Graphics				Intel® HD Graphics 620		
Audio				Realtek ALC255		
VGA Resolution (Max.)				N/A		
HDMI Resolution (Max.)				4096 x 2160 @ 60Hz (HDMI 2.0 and HDCP 2.2)		
Mini DP Resolution (Max.)				3840 x 2160@60Hz		
Expansion Slots				1 x M.2 slot (2280_storage) PCIe /SATA		
				1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card		
Front I/O				1 x USB 3.1 type C		
				1 x USB3.1		
				1 x head phone jack with MIC		
Rear I/O				1 x HDMI (2.0)		
				1 x Mini DisplayPort (1.2)		
				2 x USB 3.0		
				1 x RJ45		
				1 x DC-In		
				1 x Kensington lock slot		
USB3.1				Asmedia		
				Input: AC 100-240V		
Power Supply				Output: DC 19V		
				3.42A		
VESA				Bracket included		
				Supports 75 x 75 and 100 x 100 mm		
Support OS				WIN10 64bit		
Environment				System Environment Operating Temperature: 0°C to +35°C		
				System Storage Temperature: -20°C to +60°C		

BRIX Series

BRIX Small Core



	mDP	HDMI	mDP	HDMI	mDP	HDMI	VGA	HDMI	VGA	HDMI
Model Name	GB-BLPD-5005		GB-BLCE-4105		GB-BPCE-3455		GB-BPCE-3350		GB-BPCE-3350C	
Dimension	46.8 mm x 112.6 mm x 119.4 mm (1.84" x 4.43" x 4.7")				56.1 mm x 107.6 mm x 114.4 mm (2.21" x 4.24" x 4.5")					
Motherboard Size	105 x 110 mm				100 x 105 mm					
CPU Family	Gemini Lake				Apollo Lake					
CPU	Intel® Pentium® Quad Core Processor J5005	Intel® Celeron® Quad Core Processor J4105	Intel® Celeron® Quad Core Processor J3455	Intel® Celeron® Processor N3350						
	2.8GHz, 4 core (TDP 10W)	2.5GHz, 4 core (TDP 10W)	2.3GHz, 4 core (TDP 10W)	2.4GHz, 2 core (TDP 6W)						
2.5" Storage Support	Supports 2.5" HDD/SSD, 7.0/9.5 mm thick (1 x 6 Gbps SATA 3)									
Memory	2 x SO-DIMM DDR4 slots		2 x SO-DIMM DDR3L slots (DDR3 1.35V)		1 x SO-DIMM DDR3L slots (DDR3 1.35V)					
	2400MHz		1333/ 1600/ 1866 MHz		1333/ 1600/ 1866 MHz					
	Max. 8GB									
LAN	Gigabit LAN (Realtek RTL8111HS)									
Wifi Card	Intel® Dual Band Wireless-AC 3168									
Graphics	Intel® UHD Graphics 605	Intel® UHD Graphics 600	Intel® HD Graphics 500							
Audio	Realtek ALC255									
VGA Resolution (Max.)	N/A		1920 x 1200 @60 Hz							
HDMI Resolution (Max.)	HDMI2.0a 4096 x 2160 @ 60 Hz									
Mini DP Resolution (Max.)	DP1.2a		N/A							
	4096 x 2160 @ 60Hz		N/A							
Expansion Slots	1 x M.2 slot (2280_storage) PCIe X2/SATA		1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card							
	1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card		-							
Front I/O	1 x USB3.0		1 x Micro SD card slot		N/A					
	1 x USB3.0 type C		-		-					
	1 x headphone jack with MIC		-		-					
Rear I/O	1 x HDMI(2.0a)		1 x HDMI (2.0)		1 x HDMI (1.4)					
	1 x mini DisplayPort (1.2a)		2 x USB 3.0		2 x USB 3.0					
	2 x USB 3.0		1 x RJ45		1 x RJ45					
	1 x RJ45		1 x DC-In		1 x DC-In					
	1 x DC-In		1 x Kensington lock slot		1 x Kensington lock slot					
	1 x Kensington lock slot		-		-					
Side I/O	N/A		1 x VGA							
	N/A		1 x Headphone							
	N/A		2 x USB3.0							
Power Supply	Input: AC 100-240V									
	Output: DC 19V									
	2.1A									
VESA	Bracket included									
	Supports 75 x 75 and 100 x 100 mm									
Support OS	WIN10 64bit									
Environment	System Environment Operating Temperature: 0°C to +35°C									
	System Storage Temperature: -20°C to +60°C									

BRIX Small Core



	VGA	HDMI	VGA	HDMI	2xHDMI	2xHDMI	2xHDMI
Model Name	GB-BLCE-4105C		GB-BLCE-4000C		GB-BLCE-5005R		GB-BLCE-4105R
Dimension	56.22 mm x 103 mm x 116.52 mm (2.21" x 4.06" x 4.59")						
Motherboard Size	104 x 103 mm						
CPU Family	Gemini Lake						
CPU	Intel® Celeron® Quad Core Processor J4105	Intel® Celeron® Processor N4000	Intel® Pentium® Quad Core Silver Processor J5005	Intel® Celeron® Quad Core Processor J4105	Intel® Celeron® Processor N4000		
	2.5GHz, 4 core (TDP 10W)	2.6GHz, 2 core (TDP 6W)	2.8GHz, 4 core (TDP 10W)	2.6GHz, 4 core (TDP 10W)	2.6GHz, 2 core (TDP 6W)		
2.5" Storage Support	Supports 2.5" HDD/SSD, 7.0/9.5 mm thick (1 x 6 Gbps SATA 3)						
Memory	1 x SO-DIMM DDR4 slot						
	2400MHz						
	Max. 8GB						
LAN	Gigabit LAN (Realtek RTL8111HS)						
Wifi Card	Intel® Dual Band Wireless-AC 3168						
Graphics	Intel® UHD Graphics 600						
Audio	Realtek ALC891						
VGA Resolution (Max.)	1920 x 1200 @60 Hz						
HDMI Resolution (Max.)	HDMI1.4b 1920 x 1080 @ 60 Hz						
Mini DP Resolution (Max.)	HDMI 2.0 4K (3840 x 2160) @60Hz						
Expansion Slots	N/A						
	1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card						
Front I/O	1 x USB3.0		1 x Micro SD card slot		N/A		
	1 x USB3.0 type C		-		-		
	1 x headphone jack with MIC		-		-		
Rear I/O	1 x HDMI(1.4b)		1 x HDMI (2.0)		1 x HDMI (1.4b)		
	2 x USB 3.0		2 x USB 3.0		2 x USB 3.0		
	1 x RJ45		1 x RJ45		1 x RJ45		
	1 x VGA		1 x DC-In		1 x DC-In		
	-		-		-		
	-		-		-		
Side I/O	1 x Kensington lock slot						
	Input: AC 100-240V						
	Output: DC 19V						
	2.1A						
Power Supply	Bracket included						
VESA	Supports 75 x 75 and 100 x 100 mm						
Support OS	WIN10 64bit						
Environment	System Environment Operating Temperature: 0°C to +35°C						
	System Storage Temperature: -20°C to +60°C						

BRIX Series

BRIX Small Core



	VGA	HDMI	VGA	HDMI	VGA	HDMI	VGA	HDMI	VGA	HDMI
Model Name	GB-BACE-3160		GB-BACE-3150		GB-BACE-3000		GB-BXBT-2807		GB-BXBT-1900	
Dimension					56.1 mm x 107.6 mm x 114.4 mm (2.21" x 4.24" x 4.5")					
Motherboard Size					100 x 105 mm					
CPU Family		Braswell			Bay Trail					
CPU	Intel® Celeron® Quad Core Processor J3160		Intel® Celeron® Processor N3150		Intel® Celeron® Processor N3000		Intel® Celeron® Processor N2807		Intel® Celeron® Processor J1900	
	2M Cache, up to 2.24 GHz		up to 2.08GHz		up to 2.08GHz		up to 2.17GHz		up to 2.42GHz	
2.5" Storage Support		Supports 2.5" thickness 7.0/9.5mm Hard Drives (1 x 6Gbps SATA3)			Supports 2.5" thickness 7.0/9.5mm Hard Drives (1 x 3Gbps SATA2)					
Memory		1x SO-DIMM DDR3L 1.35V slot			1x SO-DIMM DDR3L 1.35V slot					
		1066/1600 MHz			1333MHz					
		Max. 8GB			Max. 8GB					
LAN		Gigabit LAN (Realtek RTL8111H)			Gigabit LAN (Realtek RTL8111G)					
Wifi Card		Intel® Dual Band Wireless-AC 3160			AW-NB159H					
Graphics	Intel® HD Graphics 400			Intel® HD Graphics						
Audio		Realtek ALC255			Realtek ALC283					
VGA Resolution (Max.)		1920 x 1200 @60 Hz			2048 x 1152 @ 60Hz					
HDMI Resolution (Max.)		3840x2160 @ 30 Hz (HDMI 1.4b)			1920 x 1080 @ 60Hz (HDMI 1.4a)					
Mini DP Resolution (Max.)		N/A								
Expansion Slots		1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card			1 x Half-size mini-Pcie slot occupied by the WiFi+BT card					
Front I/O		2x USB 3.0			1 x USB 3.0					
		1 x Micro SD card slot			-					
Rear I/O		1 x HDMI			1 x HDMI					
		2 x USB 3.0			2 x USB 2.0					
		1 x RJ45			1 x RJ45					
		1 x DC-In			1 x DC-In					
		1 x Kensington lock slot			1 x Kensington lock slot					
Side I/O		1 x VGA D-Sub			1 x VGA D-Sub					
		1 x headset phone jack			1 x Audio-out / Mic-In					
		1 x Mic phone jack			-					
USB3.1		N/A			N/A					
		Input: AC 100-240V			Input: AC 100-240V					
Power Supply		Output: DC 19V			Output: DC 12V					
		2.1A			2.5A					
VESA		Bracket included								
		Supports 75 x 75 and 100 x 100 mm								
Support OS		WIN7 64bit			WIN7 64bit					
		WIN8.1 64bit			WIN8.3 2/64bit					
		WIN10 64bit			WIN8.1 32/64bit					
		-			WIN10 64bit					
Environment		System Environment Operating Temperature: 0°C to +35°C								
		System Storage Temperature: -20°C to +60°C								

BRIX IOT



Model Name	GB-BNI7G4-1050Ti	GB-EAPD-4200	GB-EACE-3450	GB-EKI3M-7100	GB-EKI3A-7100
Dimension	2.0L (300 mm x 230 mm x 30 mm)		27 mm x 105 mm x 165 mm (1.06" x 4.13" x 6.5")		36 mm x 117 mm x 180 mm (1.42" x 4.61" x 7.09")
Motherboard Size		100 x 150 mm		158 x 114 mm	105 x 110 mm
CPU	Intel® Core™ i7-7700HQ Quad Core 2.8GHz / 3.8GHz (45W)	Intel® Pentium® Processor N4200 up to 2.5GHz, Quad core (TDP 6W)	Intel® Celeron® Processor N3450 up to 2.2GHz, Quad core (TDP 6W)	Intel® Core™ i3-7100U Processor up to 2.40GHz, Dual core (TDP 15W)	N/A
2.5" Storage Support				N/A	N/A
Memory	2 x SO-DIMM DDR4 slots	2 x SO-DIMM DDR3L slots (DDR3L 1.35V)		2 x SO-DIMM DDR4 slots (DDR4 1.2V)	
	2133 MHz	1333/1600/1866 MHz		2133 MHz	
	Max. 64GB	Max. 8GB		Max. 32GB	
LAN	Gigabit LAN (Intel i219LM)	Dual Gigabit LAN (Realtek RTL8111HS)		Dual Gigabit LAN	Gigabit LAN (Intel i219LM)
	-	-		(Intel i219LM and Intel i210AT)	-
Wifi Card	Intel® Dual Band Wireless-AC Intel 8260	Intel® Dual Band Wireless-AC 3165		Intel® Dual Band Wireless-AC 3165	
Graphics	GeForce® GTX 1050 Ti	Intel® HD Graphics 505	Intel® HD Graphics 500	Intel® HD Graphics 620	
	DDR5 4GB	-	-	-	
Audio		Realtek ALC255			
VGA Resolution (Max.)			N/A		
HDMI Resolution (Max.)	N/A		3840 x 2160 @ 30 Hz		4096 x 2160 @ 60Hz (HDMI 2.0 and HDCP 2.2)
Mini DP Resolution (Max.)	4 x 5120x3200 @ 60 Hz			N/A	4096x2304 Hz
Expansion Slots	1 x M.2 slot (2280_storage) PCIe / SATA (Intel Optane memory support)	1 x M.2 slot (2280_storage) SATA	1 x M.2 slot (2280_storage) PCIe / SATA, 1 x M.2 NGFF 2230 A-E key slot	SATA, 1 x M.2 NGFF 2230 A-E key slot	1 x M.2 slot (2280_storage) PCIe / SATA 1 x M.2 NGFF 2230
	1 x M.2 slot (2280_storage)	1 x Half-size mini-Pcie slot for 3G module	occupied by WiFi+	occupied by WiFi+	A-E key slot occupied
	PCIe (CPU directly)	1 x Micro SIM card connector	BT card, 1 x Half-size mini-PCIE slot	for 3G module, 1 x Micro SIM card	by WiFi+BT card
	1 x PCIe M.2 NGFF 2230 A-E key slot occupied by the WiFi+BT card	-	-	connector	-
Front I/O	2 x USB 3.1 (1 x USB type C)	1 x COM Port (RS232/422/485) via RJ45 connector	1 x Power Button, 1 x COM		1 x Power Button
	3 x USB 3.0, 1 x RJ45, 1 x DC-In	2 x USB 3.0	(support RS232/422/485 via BIOS setting)	1 x Headphone / Microphone jack	
	1 x Kensington lock slot	1 x Micro SD card slot (support SD 3.0 compliance devices)	1 x USB 3.1 type C	1 x USB 3.1 type C	
	1 x Head phone Jack	1 x Power Button	1 x USB 3.1 type A, 2 x USB 3.0	1 x USB 3.1 type A	
	1 x Microphone Jack	-	1 x Micro SD card slot	1 x COM (RS232)	
	-	-	(support SD 3.0 compliance devices)	-	
Rear I/O	4 x Mini DisplayPort	1 x Headphone/ Microphone jack, 2 x RJ45, 2 x USB3.0	1 x Headphone / Microphone jack	2 x USB3.0, 1 x RJ45	
	-	2 x HDMI 1.4b 3840 x 2160@30Hz	2 x HDMI 2.0 (one with HDCP 2.2)	1 x HDMI (2.0)	
	-	1 x DC-In	2 x RJ45, 2 x USB 3.0	1 x Mini DisplayPort (1.2)	
	-	-	1 x DC-In	1 x DC-In	
Side I/O	N/A	1 x Kensington lock slot	1 x Kensington lock slot	1 x Kensington lock slot	
	-	3 x Antenna SMA connector (2 for WiFi, 1 for 3G)	3 x Antenna SMA connector	2 x Antenna SMA connector (for WiFi)	
	-	-	(2 for WiFi, 1 for 3G)	-	
USB3.1	Asmedia		N/A		
Power Supply	Input: AC 100-240V	DC 19/12 volt power adapter (Shipment 19V/65W)	DC 19/12 volt power adapter	DC 19/12 volt power adapter	
	Output: DC 19.5V 9.23A	-	(Shipment 19V/90W)	(Shipment 19V/65W)	
VESA		Bracket included	Supports 75 x 75 and 100 x 100 mm		
Support OS			WIN10 64bit		
	System Environment Operating Temperature: 0°C to +35°C	0°C to +50°C		0°C to +40°C	
	System Storage Temperature: -20°C to +60°C	-20°C to +60°C		-20°C to +60°C	